
PeopleTools 8.52 Installation for Oracle

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Contents

Preface

About This Documentation.....	xix
Understanding This Documentation.....	xix
Audience.....	xix
Typographical Conventions.....	xx
Products.....	xxi
Related Information.....	xxii
Comments and Suggestions.....	xxii

Part 1: Mandatory Installation

Chapter 1

Preparing for Installation.....	1
Understanding the PeopleSoft Installation.....	1
Using Oracle E-Delivery to Obtain Installation Files.....	2
Considering Project Planning.....	3
Planning Your Initial Configuration.....	3
Understanding Workstations.....	4
Understanding PeopleSoft Servers and Clients.....	4
Defining the PeopleSoft Client.....	5
Defining the File Server.....	5
Defining the Database Server.....	6
Defining the Application Server.....	6
Defining the Batch Server.....	7
Defining Installation Locations.....	7
Defining the Web Server.....	8
Defining Server Domain Configurations.....	8
Defining the PeopleSoft Pure Internet Architecture Installation Location.....	9
Using Oracle Configuration Manager.....	10
Using Laser Printers.....	10
Planning Database Creation.....	10
Understanding Database Creation.....	10
Determining Databases and Database Names.....	11
Defining Oracle and PeopleSoft Databases.....	11
Planning Multilingual Strategy.....	13
Understanding Multilingual Issues.....	13

Choosing a Base Language.....	14
Selecting Additional Languages.....	15
Selecting a Database Character Set.....	15
Reviewing Updates and Fixes Required at Installation.....	17
Installing Supporting Applications.....	18
Installing the Database Engine.....	19
Understanding the Database Engine.....	20
Creating a Seed Database.....	20
Installing Oracle Net on the Server.....	20
Installing Oracle Net on Your Workstation.....	21
Testing Oracle Net Connectivity.....	22
Performing Backups.....	22
Using PeopleSoft Change Assistant and PeopleSoft Change Impact Analyzer.....	22

Chapter 2

Installing Web Server Products.....	25
Installing Oracle WebLogic Server.....	25
Understanding the Oracle WebLogic Installation.....	25
Reviewing Troubleshooting Tips.....	26
Obtaining Oracle WebLogic Installation Files from E-Delivery.....	27
Installing JDK for Oracle WebLogic.....	28
Installing Oracle WebLogic on Microsoft Windows.....	31
Installing Oracle WebLogic on Linux or UNIX.....	40
Installing Oracle WebLogic on Linux or UNIX in Silent Mode.....	47
Configuring JDK for Daylight Savings Time Change.....	49
Removing the Oracle WebLogic Installation on Microsoft Windows.....	50
Removing the Oracle WebLogic Installation in Console Mode.....	53
Installing IBM WebSphere Application Server.....	54
Understanding IBM WebSphere Installation.....	55
Prerequisites.....	55
Obtaining IBM WebSphere Installation Files.....	56
Installing IBM WebSphere 7.0.0.15 ND.....	59
Installing IBM HTTP Server 7.0.0.15 on HP-UX Itanium and Oracle Solaris.....	60
Installing IBM HTTP Server 7.0.0.15 on AIX, Linux, and Microsoft Windows.....	60
Installing IBM WebSphere Plug-ins 7.0.0.15.....	60

Chapter 3

Installing Additional Components.....	61
--	-----------

Reviewing Additional Components.....	61
Installing Oracle Tuxedo.....	62
Understanding Oracle Tuxedo.....	62
Prerequisites.....	63
Obtaining the Oracle Tuxedo Installation Files from Oracle E-Delivery.....	64
Obtaining the Oracle Tuxedo Patches from My Oracle Support.....	64
Removing Existing Oracle Tuxedo Installations from Microsoft Windows (Optional).....	65
Designating the Application Server Administrator on Microsoft Windows.....	67
Installing Oracle Tuxedo on Microsoft Windows.....	68
Installing the Oracle Tuxedo Patch on Microsoft Windows.....	79
Uninstalling Oracle Tuxedo 10gR3_VS2008 and Patch on Microsoft Windows.....	82
Checking the Windows Service Account.....	82
Restricting Domain Process Privileges.....	83
Setting Up the Windows Services for Oracle Tuxedo.....	84
Verifying the Server Installation on Microsoft Windows.....	86
Removing Existing Oracle Tuxedo Installations from UNIX (Optional).....	87
Completing the Preinstallation Checklist on UNIX.....	87
Designating the Oracle Tuxedo Owner on UNIX.....	88
Installing Oracle Tuxedo on UNIX.....	88
Installing the Oracle Tuxedo Patch on UNIX.....	91
Uninstalling Oracle Tuxedo 10gR3 and Patch on UNIX.....	92
Verifying the Server Installation on UNIX.....	92
Ensuring that Oracle Tuxedo Coexists with Earlier Versions.....	93

Chapter 4

Using the PeopleSoft Installer.....	95
Understanding the PeopleSoft Installer.....	95
Defining the PeopleSoft Installer.....	95
Defining Supported Server Combinations.....	96
Obtaining License Codes.....	97
Prerequisites.....	97
Obtaining the PeopleSoft Installation Files from Oracle E-Delivery.....	98
Running the PeopleSoft Installer.....	99
Understanding the PeopleSoft Installer.....	99
Starting the PeopleSoft Installer.....	100
Installing PeopleSoft PeopleTools in GUI Mode.....	101
Installing PeopleSoft PeopleTools in Console Mode.....	116
Verifying Necessary Files for Installation on Windows.....	119
Installing the Verity Integration Kit.....	120

Understanding the Verity Installation.....	120
Installing the Verity Integration Kit in GUI Mode.....	120
Installing the Verity Integration Kit in Console Mode.....	124
Installing PeopleSoft Application Software.....	125
Installing the Multilanguage Files.....	126
Installing the PeopleSoft Client Files.....	126
Mapping a Drive on the Install Workstation.....	127

Chapter 5

Setting Up the Install Workstation.....129

Understanding the Install Workstation.....	129
Prerequisites.....	129
Starting Configuration Manager.....	130
Setting Startup Options.....	130
Editing the Default Profile.....	131
Running Client Setup.....	133
Installing PeopleSoft ODBC Driver and Configuring the Crystal 2008 .NET Runtime.....	134

Chapter 6A

Creating a Database Manually on Windows.....137

Understanding Database Creation.....	137
Preparing for the PeopleSoft Database Installation.....	138
Installing the PeopleSoft Database Server Components on the Database Server.....	138
Installing the Oracle RDBMS Software.....	139
Obtaining Windows Administrator Authority.....	139
Creating an INIT<SID>.ORA File.....	139
Creating Target Directory Paths.....	140
Setting the ORACLE_SID Environment Variable.....	142
Creating the Windows Service for the Database Instance.....	142
Editing Database Scripts.....	143
Understanding Database Scripts.....	143
Modifying Database Scripts.....	143
Using SQL Tools.....	144
Creating an Oracle Instance.....	145
Creating Catalog Views and Utility Tablespaces.....	145
Creating PS.PSDBOWNER Table.....	145
Creating Application-Specific Dbspaces and Tablespaces.....	145
Creating PeopleSoft Database Roles.....	146

Creating the PeopleSoft Database Owner ID.....	146
Setting Up Connect ID.....	146
Understanding Connect ID.....	147
Defining the Connect ID.....	147
Creating the Connect ID.....	147
Updating Connection Information.....	148
Setting NLS_LANG in the Windows Registry.....	148
Creating Data Mover Import Scripts.....	149
Running Data Mover Import Scripts.....	154
Understanding Data Mover Import Scripts.....	155
Populating Tables in the PeopleSoft Database.....	155
Validating Files.....	155
Troubleshooting.....	156
Improving Performance.....	157
Changing the Base Language.....	158

Chapter 6B

Creating a Database on UNIX.....	159
Understanding the Database Configuration Wizard.....	159
Fulfilling PeopleSoft Database Configuration Wizard Prerequisites.....	160
Installing the PeopleSoft Database Server Components on the Database Server.....	160
Installing the Oracle RDBMS Software.....	161
Creating an INIT<SID>.ORA File.....	161
Creating Target Directory Paths.....	162
Setting Up Target Database Connectivity.....	164
Running the Shell Script psconfig.sh.....	164
Running the Database Configuration Wizard.....	165
Checking the Log Files and Troubleshooting.....	180
Checking the Log Files.....	180
Troubleshooting.....	180
Optimizing for Performance.....	184

Chapter 7

Completing the Database Setup.....	185
Selecting the Necessary Tasks to Complete the Database Setup.....	185
Updating Database to Latest PeopleTools Release.....	185
Understanding Database Updates.....	186
Cleaning Up Data.....	186

Updating PeopleTools System Tables.....	187
Updating PeopleTools Database Objects.....	189
Updating PeopleTools Multilingual Objects.....	191
Deleting Obsolete PeopleTools Database Objects.....	193
Applying Patched PeopleTools Database Objects.....	195
Altering PeopleTools Tables.....	196
Migrating Records to New Tablespaces.....	199
Updating PeopleTools System Data.....	202
Running PeopleTools Conversions.....	203
Converting Integration Broker.....	207
Running Additional PeopleTools Conversions.....	209
Running Additional Data Mover Scripts.....	209
Installing a Multilingual PeopleTools System Database.....	210
Understanding the Multilingual Database Project.....	210
Applying the Multilingual Database Project.....	210
Populating the Translated System Data.....	211
Running VERSION Application Engine Program.....	211
Running SQR Reports.....	211
Running SQRs on the Client Workstation.....	211
Creating a Shortcut to Run SQRs.....	213
Checking the Database.....	214
Running SETSPACE.SQR.....	215
Running Alter Audit.....	216

Chapter 8A

Configuring the Application Server on Windows.....	221
Understanding the Application Server.....	221
Prerequisites.....	222
Preparing the Application Server File System for a PeopleTools-Only Upgrade.....	223
Setting Up COBOL for Remote Call.....	223
Verifying Database Connectivity.....	223
Creating, Configuring, and Starting an Initial Application Server Domain.....	223
Creating, Configuring, and Starting the Application Server Domain.....	224
Testing the Three-Tier Connection.....	226
Importing an Existing Application Server Domain Configuration.....	228
Setting Up a Custom Application Server Domain Configuration.....	230
Troubleshooting Common Errors.....	232
Configuring Asian Language Fonts.....	233

Chapter 8B

Configuring the Application Server on UNIX.....	235
Understanding the Application Server.....	235
Understanding the Application Server Domain Processes.....	236
Prerequisites.....	236
Preparing the Application Server File System for a PeopleTools-Only Upgrade.....	237
Setting Environment Variables.....	237
Setting Up COBOL for Remote Call.....	238
Verifying Database Connectivity.....	239
Creating, Configuring, and Starting an Initial Application Server Domain.....	239
Creating, Configuring, and Starting the Application Server Domain.....	239
Testing the Three-Tier Connection.....	242
Importing an Existing Application Server Domain Configuration.....	243
Setting Up a Custom Application Server Domain Configuration.....	245
Troubleshooting Common Errors.....	247
Configuring Asian Language Fonts.....	248

Chapter 9A

Setting Up the PeopleSoft Pure Internet Architecture in GUI Mode.....	251
Understanding PeopleSoft Pure Internet Architecture.....	251
Using Authentication Domains in the PeopleSoft Pure Internet Architecture Installation.....	253
Preparing the PeopleSoft Pure Internet Architecture File System for a PeopleTools-Only Upgrade.	254
Installing the PeopleSoft Pure Internet Architecture on Oracle WebLogic in GUI Mode.....	255
Prerequisites.....	255
Installing the PeopleSoft Pure Internet Architecture on Oracle WebLogic.....	255
Uninstalling the PeopleSoft Pure Internet Architecture on Oracle WebLogic.....	269
Installing the PeopleSoft Pure Internet Architecture on IBM WebSphere in GUI Mode.....	269
Prerequisites.....	269
Installing the PeopleSoft Pure Internet Architecture on IBM WebSphere.....	270
Uninstalling the PeopleSoft Pure Internet Architecture from IBM WebSphere.....	281
Testing and Administering the PeopleSoft Pure Internet Architecture Installation.....	282
Verifying the PeopleSoft Pure Internet Architecture Installation.....	282
Starting and Stopping Oracle WebLogic.....	282
Starting and Stopping IBM WebSphere Application Servers.....	284
Using PSADMIN to Start and Stop Web Servers.....	287
Accessing the PeopleSoft Signon.....	289
Completing Post-Installation Steps.....	291
Updating the Installation Table.....	291
Updating PeopleTools Options.....	291

Updating Database Information.....	292
------------------------------------	-----

Chapter 9B

Setting Up the PeopleSoft Pure Internet Architecture in Console Mode.....293

Understanding PeopleSoft Pure Internet Architecture.....	293
Using Authentication Domains in the PeopleSoft Pure Internet Architecture Installation.....	295
Preparing the PeopleSoft Pure Internet Architecture File System for a PeopleTools-Only Upgrade.	296
Installing the PeopleSoft Pure Internet Architecture on Oracle WebLogic in Console Mode.....	297
Prerequisites.....	297
Installing the PeopleSoft Pure Internet Architecture on Oracle WebLogic.....	297
Uninstalling the PeopleSoft Pure Internet Architecture from Oracle WebLogic.....	302
Installing the PeopleSoft Pure Internet Architecture on IBM WebSphere in Console Mode.....	302
Prerequisites.....	302
Installing the PeopleSoft Pure Internet Architecture on IBM WebSphere Application Server ND.....	303
Uninstalling the PeopleSoft Pure Internet Architecture from IBM WebSphere	307
Installing the PeopleSoft Pure Internet Architecture in Silent Mode.....	307
Understanding the Silent Installation and the Response File.....	308
Editing the Response File.....	308
Running the Silent Mode Installation.....	310
Testing and Administering the PeopleSoft Pure Internet Architecture Installation.....	310
Verifying the PeopleSoft Pure Internet Architecture Installation.....	310
Starting and Stopping Oracle WebLogic.....	310
Starting and Stopping IBM WebSphere Application Servers.....	311
Using PSADMIN to Start and Stop Web Servers.....	314
Accessing the PeopleSoft Signon.....	316
Completing Post-Installation Steps.....	317
Updating the Installation Table.....	318
Updating PeopleTools Options.....	318
Updating Database Information.....	319

Chapter 10A

Setting Up Process Scheduler on Windows.....321

Prerequisites.....	321
Preparing the Process Scheduler File System for a PeopleTools-Only Upgrade.....	322
Setting Up Process Scheduler Security.....	322
Understanding Process Scheduler Security.....	322
Changing User Account to Start ORACLE ProcMGR V10gR3 with VS2008.....	323
Granting Process Scheduler Administrative Rights.....	325

Setting Up Process Scheduler to Transfer Reports and Logs to the Report Repository.....	326
Understanding Report Distribution.....	327
Setting Up Single Signon to Navigate from PIA to Report Repository.....	328
Determining the Transfer Protocol.....	329
Starting the Distribution Agent.....	329
Setting Up the Report Repository.....	329
Setting Up the Distribution for Your Process Scheduler Server.....	335
Setting Up Sending and Receiving of Report Folders in the Report Manager.....	336
Setting Environment Variables.....	337
Setting Up Process Scheduler Server Agent.....	337
Understanding Process Scheduler Server Agent.....	337
Creating and Configuring a Process Scheduler Server.....	338
Reconfiguring a Process Scheduler Server.....	342
Verifying the Process Scheduler Server Status.....	343
Starting Process Scheduler as a Windows Service (Optional).....	345
Configuring the Process Scheduler for Word for Windows (Optional).....	347
Configuring Setup Manager.....	348
Installing Products for PS/nVision.....	349
Understanding the PS/nVision Setup.....	349
Installing Products for PS/nVision in Excel Automation Mode.....	350
Installing Products for PS/nVision in Open XML Mode.....	350

Chapter 10B

Setting Up Process Scheduler on UNIX.....	359
Prerequisites.....	359
Preparing the Process Scheduler File System for a PeopleTools-Only Upgrade.	360
Setting Up Process Scheduler Security.....	360
Understanding Process Scheduler Security.....	360
Granting Process Scheduler Administrative Rights.....	361
Setting Up Process Scheduler to Transfer Reports and Logs to the Report Repository.....	362
Understanding Report Distribution.....	362
Setting Up Single Signon to Navigate from PIA to Report Repository.....	363
Determining the Transfer Protocol.....	364
Starting the Distribution Agent.....	365
Setting Up the Report Repository.....	365
Setting Up the Distribution for Your Process Scheduler Server.....	369
Setting Up Sending and Receiving of Report Folders in the Report Manager.....	370
Setting Up Process Scheduler Server Agent.....	371
Understanding Process Scheduler Server Agent.....	371

Changing the Default Operating System.....	371
Setting Up Your Environment.....	372
Creating and Configuring a Process Scheduler Server.....	373
Reconfiguring a Process Scheduler Server.....	377
Verifying the Process Scheduler Server Status.....	378

Part 2: Discretionary Installation

Chapter 11

Configuring Integration Between PeopleSoft PeopleTools and Oracle SES.....	381
Understanding PeopleSoft PeopleTools and SES Integration.....	381
Setting Up the Search Framework Prerequisites.....	381
Configuring SES for the Search Framework.....	382
Understanding SES Configuration.....	382
Creating a Federated Trusted Entity.....	383
Activating the Identity Plug-in.....	383
Configuring SES Authentication Timeout Settings.....	384
Setting Up the PeopleSoft Application Server for the Search Framework.....	384
Setting Up Search Framework User IDs.....	384
Setting Up Integration Broker for the Search Framework.....	385
Understanding the PeopleSoft Integration Broker Configuration for SES.....	386
Specifying the Integration Gateway.....	386
Setting Up the Node.....	386
Verifying the Service Configuration.....	387
Defining a Search Instance in the PeopleSoft System.....	387
Verifying PeopleSoft PeopleTools and SES Connectivity.....	389

Chapter 12A

Installing and Compiling COBOL on Windows.....	393
Understanding COBOL.....	393
Prerequisites.....	393
Installing Micro Focus Net Express for Windows.....	394
Prerequisites.....	394
Obtaining Installation Files for Micro Focus Net Express from Oracle E-Delivery.....	394
Installing Micro Focus Net Express.....	395
Installing Micro Focus Net Express 5.1 Wrap Pack 4.....	402
Using the Micro Focus COBOL Compiler on Microsoft Windows.....	405
Understanding COBOL Compilation.....	405
Compiling with CBLBLD.BAT When PS_APP_HOME is the Same as PS_HOME.....	406
Compiling with CBLMAKE.BAT When PS_APP_HOME is the Same as PS_HOME.....	407

Compiling with CBLBLD.BAT When PS_APP_HOME is Different from PS_HOME.....	409
Compiling with CBLMAKE.BAT When PS_APP_HOME is Different from PS_HOME.....	411
Defining the GNT and INT Files.....	413
Distributing COBOL Binaries.....	414
Installing IBM COBOL for Microsoft Windows.....	414
Understanding the IBM Rational Developer for System Z Installation.....	414
Prerequisites.....	415
Installing IBM Rational Developer for System z on Microsoft Windows.....	416
Using the IBM COBOL Compiler on Microsoft Windows.....	418
Using the Make System to Compile the COBOL Sources.....	418
Compiling COBOL When PS_APP_HOME is the Same as PS_HOME.....	421
Compiling COBOL When PS_APP_HOME is Different from PS_HOME.....	421
Cleaning the Build System and Troubleshooting.....	422
Distributing the Compiled Files.....	424
Setting Up the Environment for COBOL Runtimes.....	425

Chapter 12B

Installing and Compiling COBOL on UNIX.....	433
Understanding COBOL.....	433
Prerequisites.....	433
Installing Micro Focus Server Express for UNIX and Linux.....	434
Understanding Micro Focus Server Express.....	434
Prerequisites.....	434
Obtaining the Installation Files for Micro Focus Server Express from Oracle E-Delivery.....	435
Installing Micro Focus Server Express.....	435
Using the Micro Focus COBOL Compiler on UNIX.....	440
Understanding COBOL Compilation.....	441
Setting Environment Variables.....	442
Modifying the Liblist (IBM AIX 5.3 and HP-UX Only).....	442
Modifying the Cobopt File (SuSE Linux Enterprise Server Only).....	443
Compiling COBOL on UNIX When PS_APP_HOME is the Same as PS_HOME.....	444
Compiling COBOL on UNIX When PS_APP_HOME is Different from PS_HOME.....	445
Linking COBOL.....	446
Recompiling COBOL on UNIX.....	447
Installing IBM COBOL on IBM AIX.....	447
Understanding the IBM COBOL for AIX Installation.....	448
Prerequisites.....	448
Installing IBM COBOL for AIX v3.1.....	448
Using the IBM COBOL Compiler on IBM AIX.....	450

Setting Environment Variables for IBM COBOL.....	450
Compiling COBOL on AIX When PS_APP_HOME is the Same as PS_HOME.....	451
Compiling COBOL on AIX When PS_APP_HOME is Different from PS_HOME.....	452
Troubleshooting the IBM COBOL Compiler.....	453
Setting Up the IBM COBOL Runtime.....	457
Removing the IBM COBOL Installation.....	461

Chapter 13

Installing PeopleSoft Change Assistant.....	465
Understanding PeopleSoft Change Assistant.....	465
Installing and Configuring PeopleSoft Change Assistant.....	465
Installing PeopleSoft Change Assistant.....	466
Setting Up Security for PeopleSoft Change Assistant.....	471
Verifying the Path Variable.....	471
Scanning the Workstation.....	471
Specifying Options.....	472
Specifying Change Assistant Options.....	472
Setting Test Framework Options.....	474
Setting Email Options.....	474
Setting Web Services Options.....	475
Setting Environment Management Options.....	476
Exporting Jobs to XML, HTML, or Microsoft Excel Format.....	477
Validating Change Assistant Settings.....	477

Chapter 14

Installing PeopleSoft Change Impact Analyzer.....	481
Prerequisites.....	481
Installing PeopleSoft Change Impact Analyzer.....	481

Chapter 15

Installing and Configuring Software for Crystal Reports.....	487
Understanding Crystal Reports Software Installation and Configuration.....	487
Determining the Crystal Reports Runtime Environment.....	488
Obtaining SAP BusinessObjects Enterprise and Crystal Reports Software.....	489
Understanding the SAP BusinessObjects Enterprise and Crystal Reports Software Distribution.....	490
Obtaining the Software from Oracle Global Customer Care.....	490

Obtaining the Software from SAP BusinessObjects.....	490
Installing Crystal Reports 2008.....	491
Understanding the Crystal Reports 2008 Installation.....	492
Installing Crystal Reports 2008.....	492
Installing Crystal Reports 2008 .NET Runtime.....	498
Installing SAP BusinessObjects Enterprise XI 3.1.....	501
Understanding the SAP BusinessObjects Enterprise XI 3.1 Installation.....	502
Understanding Integration Between SAP BusinessObjects Enterprise XI 3.1 and PeopleSoft Enterprise.....	504
Understanding Query Access Services.....	506
Reviewing Key SAP BusinessObjects Enterprise XI 3.1 Components.....	508
Planning your SAP BusinessObjects Enterprise XI 3.1 Integration.....	508
Installing the PeopleSoft Application Environment.....	512
Creating a Web Server for SAP BusinessObjects Enterprise XI 3.1 on Windows.....	512
Installing SAP BusinessObjects Enterprise XI 3.1 on Windows.....	526
Installing BusinessObjects Integration Kit for PeopleSoft on Windows.....	542
Installing Fix Packs or Service Packs on Windows.....	552
Creating the BusinessObjects Enterprise Archive and Installing Files on Windows.....	553
Extracting the Archive on Windows.....	558
Installing TrueType Fonts on Windows.....	564
Creating a Web Server for SAP BusinessObjects Enterprise XI 3.1 on UNIX or Linux.....	565
Installing SAP BusinessObjects Enterprise XI 3.1 on UNIX or Linux.....	571
Installing BusinessObjects Integration Kit for PeopleSoft on UNIX or Linux.....	574
Installing Fix Packs or Service Packs on UNIX or Linux.....	576
Creating the BusinessObjects Enterprise Archive and Installing Files on UNIX or Linux.....	577
Extracting the Archive on UNIX or Linux.....	578
Installing TrueType Fonts in UNIX or Linux.....	579
Confirming Access to the SAP BusinessObjects Enterprise XI 3.1 Administration and Central Management Console.....	580
Configuring the PeopleSoft Application for BusinessObjects Enterprise XI 3.1 Integration.....	581
Importing the Security Certificate to the Oracle WebLogic Server.....	594
Importing Security Certificate to the IBM WebSphere Server.....	597
Configuring the SAP BusinessObjects Enterprise XI 3.1 Server.....	602
Configuring Crystal Reports 2008 for SAP BusinessObjects Enterprise XI 3.1.....	609
Modifying the SAP BusinessObjects Enterprise XI 3.1 Chunk Size.....	613
Verifying the PeopleSoft to SAP BusinessObjects Enterprise XI 3.1 Integration.....	614
Migrating your SAP BusinessObjects Enterprise XI 3.1 Installation to a New Version of PeopleTools.....	614
Administering and Using SAP BusinessObjects Enterprise XI 3.1.....	615
Understanding PeopleSoft Permission Lists, Roles, and Users Involved in PeopleSoft Integration with SAP BusinessObjects Enterprise XI 3.1.....	616

Changing the Data Source of the SAP BusinessObjects Enterprise XI 3.1 Report Repository	617
Returning to Crystal 2008 from SAP BusinessObjects Enterprise XI 3.1.....	619
Enabling Logging in SAP BusinessObjects Enterprise XI 3.1.....	620
Deploying Manually with Wdeploy Tool.....	622
Deploying Manually Through IBM WebSphere Console.....	623
Deploying Manually on Oracle WebLogic 10.3.....	626
Configuring Microsoft Office 2010 to Read Crystal Reports.....	630
Removing the Integrated SAP BusinessObjects Enterprise XI 3.1 Installation.....	632
Uninstalling PeopleSoft for BusinessObjects Enterprise XI 3.1 on Windows.....	632
Uninstalling SAP BusinessObjects Enterprise XI 3.1 on Windows.....	632
Uninstalling PeopleSoft for BusinessObjects Enterprise XI 3.1 on UNIX or Linux.....	633
Uninstalling SAP BusinessObjects Enterprise XI 3.1 on UNIX or Linux.....	633
Converting Crystal Reports.....	634
Selecting the Crystal Reports Conversion Method.....	634
Converting Existing Crystal Reports to Crystal Reports 2008 Format.....	634
Converting Existing Crystal Reports to Run with SAP BusinessObjects Enterprise XI 3.1.....	636

Appendix A

Adding New Product Modules.....	659
Adding New Modules to PeopleSoft 8.4 Installations.....	659

Appendix B

Creating a Database Manually on UNIX.....	661
Understanding Database Creation.....	661
Editing Database Scripts.....	662
Understanding Database Scripts.....	662
Modifying Database Scripts.....	662
Creating an Oracle Instance.....	663
Using SQL Tools.....	666
Setting NLS_LANG in the Windows Registry.....	666
Creating an Oracle Database.....	667
Creating Catalog Views and Utility Tablespaces.....	668
Creating PS.PSDBOWNER Table.....	668
Creating Application-Specific Dbspaces and Tablespaces.....	668
Creating PeopleSoft Database Roles.....	669
Creating the PeopleSoft Database Owner ID.....	669
Setting Up Connect ID.....	669
Understanding Connect ID.....	670

Defining the Connect ID.....	670
Creating the Connect ID.....	670
Updating Connection Information.....	671
Creating Data Mover Import Scripts.....	671
Running Data Mover Import Scripts.....	675
Understanding Data Mover Import Scripts.....	676
Populating Tables in the PeopleSoft Database.....	676
Validating Files.....	676
Troubleshooting.....	677
Improving Performance.....	678
Changing the Base Language.....	679

Appendix C

Installing PeopleBooks.....	681
Understanding PeopleBooks.....	681
Installing and Accessing PeopleBooks.....	682
Prerequisites.....	682
Accessing Oracle PeopleSoft Enterprise Hosted PeopleBooks.....	682
Obtaining PeopleBooks and Installation Files from Oracle E-Delivery.....	684
Installing the PeopleBooks Installation Software.....	684
Configuring Context-Sensitive Help.....	685
Enabling the Help Link from the Application Pages.....	685
Enabling F1 Help.....	686
Using Oracle Secure Enterprise Search for Full-Text Searches.....	686
Understanding Oracle Secure Enterprise Search and PeopleBooks.....	687
Prerequisites.....	687
Crawling a Source to Generate Full-Text Search.....	687
Installing PeopleSoft Application PeopleBooks.....	693
Understanding Installing PeopleSoft Application PeopleBooks.....	693
Merging PeopleSoft Application PeopleBooks with PeopleSoft PeopleTools PeopleBooks.....	693
Installing the PeopleSoft Application PeopleBooks to its Own Folder.....	702
Creating Full-Text Searches for Custom Documentation.....	702
Migrating Previous Versions of PeopleBooks.....	703
Understanding PeopleBook Migration.....	703
Generating Lists of HTML Files Using HTMLListGenerator.jar (Optional).....	703
Copying HTML Content Files into the Target Web Site.....	705
Merging Entries from booklist.js and helptlist.js.....	705
Generating a Full-Text Search Index Using SES (Optional).....	706

Appendix D

Installing Software for PS/nVision Drilldowns.....	707
Understanding PS/nVision DrillDown Add-ins.....	707
Installing the DrillToPIA Add-In.....	708
Understanding Drilldown with DrillToPIA Add-in.....	708
Installing the DrillToPIA Add-in on the Microsoft Excel Environment.....	708
Installing the nVisionDrill Add-In.....	709
Understanding PS/nVision DrillDown using Web Services.....	709
Understanding Security for DrillDown Using nVisionDrill VSTO Add-in.....	709
Installing the nVisionDrill Add-in for Microsoft Excel 2007.....	710
Installing the nVisionDrill Add-Ins for Multi-Language Installations.....	710
Setting Up PeopleSoft Integration Broker for Using Web Service Capability with nVisionDrill Add-in.....	710

Appendix E

Installing Web Application Deployment Tools.....	715
Prerequisites.....	715
Installing the Web Application Deployment Tools on WebLogic in GUI Mode.....	716
Installing the Web Application Deployment Tools on WebSphere in GUI Mode.....	723
Installing the Web Application Deployment Tools on WebLogic in Console Mode.....	730
Installing the Web Application Deployment Tools on IBM WebSphere in Console Mode.....	733
Testing and Troubleshooting the Web Application Deployment.....	736

Appendix F

Relinking SQR on UNIX.....	737
Understanding SQR Relinking.....	737
Relinking SQR on UNIX.....	737
Relinking SQR on Oracle Solaris.....	738

Index	743
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About This Documentation

This preface discusses:

- Understanding This Documentation
- Audience
- Typographical Conventions
- Products
- Related Information
- Comments and Suggestions

Understanding This Documentation

This documentation is designed to direct you through a basic PeopleSoft installation. It is not a substitute for the database administration documentation provided by your relational database management system (RDBMS) vendor, the network administration documentation provided by your network vendor, or the installation and configuration documentation for additional software components that are used with PeopleSoft products.

This documentation is divided into two parts. The chapters in Part 1 include the information that is required to complete a basic PeopleSoft installation. The chapters and appendices in Part 2 include information for less common or optional tasks.

Required updates to this installation documentation are provided in the form of “Required for Install” incidents, which are available on My Oracle Support. In addition, addenda to the recent PeopleTools installation guides are periodically posted in My Oracle Support on the same page as the initial posting.

Instructions for installing Oracle’s PeopleSoft PeopleTools are provided in PeopleSoft PeopleTools installation guides. Application-specific installation instructions are provided in a separate document for the PeopleSoft application. For instance, if you are installing Oracle’s PeopleSoft Customer Relationship Management (CRM), you need both the PeopleSoft PeopleTools installation guide and the additional instructions provided for installing PeopleSoft CRM.

To find the installation documentation for PeopleSoft PeopleTools or for your PeopleSoft application, go to My Oracle Support and search for the installation guide for your product and release.

Note. Before proceeding with your installation, check My Oracle Support to ensure that you have the latest version of this installation guide for the correct release of the PeopleSoft product that you are installing.

Audience

This documentation is written for the individuals responsible for installing and administering the PeopleSoft environment. This documentation assumes that you have a basic understanding of the PeopleSoft system. One of the most important components in the installation and maintenance of your PeopleSoft system is your on-site expertise.

You should be familiar with your operating environment and RDBMS and have the necessary skills to support that environment. You should also have a working knowledge of:

- SQL and SQL command syntax.
- PeopleSoft system navigation.
- PeopleSoft windows, menus, and pages, and how to modify them.
- Microsoft Windows.

Oracle recommends that you complete training, particularly a PeopleSoft Server Administration and Installation course, before performing an installation.

See Oracle University, <http://education.oracle.com>

Typographical Conventions

To help you locate and understand information easily, the following conventions are used in this documentation:

Convention	Description
Monospace	Indicates a PeopleCode program or other code, such as scripts that you run during the install. Monospace is also used for messages that you may receive during the install process.
<i>Italics</i>	Indicates field values, emphasis, and book-length publication titles. Italics is also used to refer to words as words or letters as letters, as in the following example: Enter the letter <i>O</i> . Italics are also used to indicate user-supplied information. For example, the term <i>domain</i> is used as a placeholder for the actual domain name in the user's environment. When two such placeholders are used together, they may be set apart with angle brackets. For example, the path <code><PS_CFG_HOME>/appserv/<domain></code> includes two placeholders that require user-supplied information.
Initial Caps	Field names, commands, and processes are represented as they appear on the window, menu, or page.
lower case	File or directory names are represented in lower case, unless they appear otherwise on the interface.
Menu, Page	A comma (,) between menu and page references indicates that the page exists on the menu. For example, "Select Use, Process Definitions" indicates that you can select the Process Definitions page from the Use menu.

Convention	Description
Cross-references	<p>Cross-references that begin with <i>See</i> refer you to additional documentation that will help you implement the task at hand. We highly recommend that you reference this documentation.</p> <p>Cross-references under the heading <i>See Also</i> refer you to additional documentation that has more information regarding the subject.</p>
“ ” (quotation marks)	Indicate chapter titles in cross-references and words that are used differently from their intended meaning.
Note. Note text.	Text that begins with <i>Note.</i> indicates information that you should pay particular attention to as you work with your PeopleSoft system.
Important! Important note text.	A note that begins with <i>Important!</i> is crucial and includes information about what you need to do for the system to function properly.
Warning! Warning text.	A note that begins with <i>Warning!</i> contains critical configuration information or implementation considerations; for example, if there is a chance of losing or corrupting data. Pay close attention to warning messages.

Products

This documentation may refer to these products and product families:

- Oracle® BPEL Process Manager
- Oracle® Enterprise Manager
- Oracle® Tuxedo
- Oracle® WebLogic Server
- Oracle's PeopleSoft Application Designer
- Oracle's PeopleSoft Change Assistant
- Oracle's PeopleSoft Change Impact Analyzer
- Oracle's PeopleSoft Data Mover
- Oracle's PeopleSoft Process Scheduler
- Oracle's PeopleSoft Pure Internet Architecture
- Oracle's PeopleSoft Customer Relationship Management
- Oracle's PeopleSoft Financial Management
- Oracle's PeopleSoft Human Resources Management Systems
- Oracle's PeopleSoft Enterprise Learning Management
- Oracle's PeopleSoft Pay/Bill Management
- Oracle's PeopleSoft PeopleTools
- Oracle's PeopleSoft Enterprise Performance Management

- Oracle's PeopleSoft Portal Solutions
- Oracle's PeopleSoft Staffing Front Office
- Oracle's PeopleSoft Supply Chain Management

Note. This documentation refers to both Oracle's PeopleSoft Portal Solutions and to PeopleSoft PeopleTools portal or portal technologies. PeopleSoft Portal Solutions is a separate application product. The PeopleSoft PeopleTools portal technologies consist of PeopleSoft Pure Internet Architecture and the PeopleSoft PeopleTools portal technology used for creating and managing portals.

See <http://www.oracle.com/applications/peoplesoft-enterprise.html> for a list of PeopleSoft Enterprise products.

Related Information

Oracle provides reference information about PeopleSoft PeopleTools and your particular PeopleSoft application. The following documentation is available on My Oracle Support:

- PeopleTools PeopleBook: Getting Started with PeopleTools for your release. This documentation provides a high-level introduction to PeopleTools technology and usage.
- PeopleSoft Application Fundamentals PeopleBook for your PeopleSoft application and release. This documentation provides essential information about the setup, design, and implementation of your PeopleSoft application.

To access PeopleSoft PeopleBooks, go to My Oracle Support and search for the PeopleSoft PeopleBooks for your application and release.

To install additional component software products for use with PeopleSoft products, including those products that are packaged with your PeopleSoft products, you should refer to the documentation provided with those products, as well as this documentation.

Comments and Suggestions

Your comments are important to us. We encourage you to tell us what you like, or what you would like changed about our documentation, PeopleSoft PeopleBooks, and other Oracle reference and training materials. Please send your suggestions to:

PSOFT-Infodev_US@oracle.com

While we cannot guarantee to answer every email message, we will pay careful attention to your comments and suggestions. We are always improving our product communications for you.

PART 1

Mandatory Installation

The chapters in the first part of this installation guide cover only those tasks that are required for a basic PeopleSoft installation. Everyone carrying out an installation should use the tasks in Part 1. After setting up the Application Server, PeopleSoft Pure Internet Architecture, and Process Scheduler Server, you verify that you can sign into the PeopleSoft installation in a browser.

CHAPTER 1

Preparing for Installation

This chapter discusses:

- Understanding the PeopleSoft Installation
- Using Oracle E-Delivery to Obtain Installation Files
- Considering Project Planning
- Planning Your Initial Configuration
- Planning Database Creation
- Planning Multilingual Strategy
- Reviewing Updates and Fixes Required at Installation
- Installing Supporting Applications
- Installing the Database Engine
- Installing Oracle Net on the Server
- Installing Oracle Net on Your Workstation
- Testing Oracle Net Connectivity
- Performing Backups
- Using PeopleSoft Change Assistant and PeopleSoft Change Impact Analyzer

Understanding the PeopleSoft Installation

This chapter will help you plan and prepare for a basic PeopleSoft installation. Before you begin the installation, please note:

- See *Getting Started on the PeopleSoft Installation*, for an overview of the installation and for information on obtaining the necessary documentation and software.

You can find *Getting Started on the PeopleSoft Installation* on the same My Oracle Support page as this installation guide.

- Before you begin your PeopleSoft installation, use the hardware and software requirements documentation and My Oracle Support Certifications area to verify that you have the correct hardware and software in place to support a successful installation.

See *PeopleTools 8.52 Hardware and Software Requirements*, My Oracle Support, (search for name and release number).

See Hardware and software requirements for your PeopleSoft Application on My Oracle Support.

See My Oracle Support, Certifications.

Warning! If you are unable to meet any of the criteria outlined in the hardware and software requirements and the certification information on My Oracle Support, contact Oracle before going forward with the installation. Attempting to complete an installation on an unsupported configuration can be a very costly decision, and Oracle will not provide support for such PeopleSoft installations.

- If you will be upgrading your current release after you perform this installation, you also need to install Change Assistant. The page on My Oracle Support containing your upgrade documentation and files includes information on which tool you need.
- For critical issues related to the installation process, see the My Oracle Support web site. Be sure to read the “Required for Installation or Upgrade” incidents on the Patches and Updates page for the PeopleSoft PeopleTools version that you are installing.
- For online technical support information, use the My Oracle Support web site. My Oracle Support includes tools for self-directed searches of information including reference documents and problem resolutions, as well as service request management tools.

See My Oracle Support, <https://support.oracle.com>

- To download software and documentation, use the Oracle E-Delivery web site, and the Oracle Technology Network.

See Oracle E-Delivery, <http://edelivery.oracle.com>

See Oracle Technology Network, <http://www.oracle.com/technetwork/index.html>

- Be aware that not all application releases are certified and supported to run on all PeopleSoft PeopleTools releases. Please check the PeopleSoft policy information in article ID 1348959.1 on My Oracle Support for further details on the support policy for your particular application. If you are planning to do a PeopleTools-Only upgrade, do not continue until you have verified that your application is supported on the target PeopleSoft PeopleTools release.
- This installation guide may refer you to PeopleBooks for more information or instructions. If you install PeopleBooks, you can easily refer to the documentation during the installation process. You can also access Hosted PeopleBooks online.

See Also

"Installing PeopleBooks"

Hosted PeopleBooks, <http://www.oracle.com/pls/psft/homepage>

"Installing PeopleSoft Change Assistant"

Task 1-1: Using Oracle E-Delivery to Obtain Installation Files

Before beginning the installation, you should have obtained the PeopleSoft installation software by downloading the necessary zip files from the Oracle E-Delivery web site. Use the documentation available on E-Delivery to be sure that you obtain all the zip files required for your environment.

See Oracle E-Delivery, <http://edelivery.oracle.com>

In case you have not yet obtained the necessary files, this documentation includes sections on obtaining the files at appropriate points during the installation process.

Task 1-2: Considering Project Planning

Identify the maintenance schedule for upcoming PeopleSoft PeopleTools and PeopleSoft Application releases. These releases are typically on a regular schedule (for example, quarterly, biannually) and should be included in your project planning and budgeting processes. Maintenance schedules are posted on My Oracle Support. It is important to plan regular maintenance in your overall project plans. For example, for a year-long enterprise upgrade, development, and conversion project, make sure to set aside time for applying the PeopleSoft PeopleTools minor releases that ship during that time frame. Otherwise, if you fall behind, you may find that you need a fix shipped with one of the minor releases that cannot be backported as a patch.

Search for the term “maintenance schedules” on My Oracle Support. You can find schedules by year and quarter for PeopleSoft PeopleTools and PeopleSoft Applications. The schedules include of a list of bundles and maintenance packs for individual products.

Task 1-3: Planning Your Initial Configuration

This section discusses:

- Understanding Workstations
- Understanding PeopleSoft Servers and Clients
- Defining the PeopleSoft Client
- Defining the File Server
- Defining the Database Server
- Defining the Application Server
- Defining the Batch Server
- Defining Installation Locations
- Defining the Web Server
- Defining Server Domain Configurations
- Defining the PeopleSoft Pure Internet Architecture Installation Location
- Using Oracle Configuration Manager
- Using Laser Printers

Note. Oracle supports a number of versions of UNIX and Linux in addition to Microsoft Windows for the PeopleSoft installation. Throughout this book, there are references to operating systems. Where necessary, this book refers to specific operating systems by name (for example, Solaris, HP-UX, or Linux); however, for simplicity the word UNIX is often used to refer to all UNIX-like operating systems, including Linux.

Understanding Workstations

This section discusses:

- Using the PeopleTools Development Environment (Windows-Based Clients)
- Using Workstations Equipped with Supported Web Browsers

Note. With the PeopleSoft Pure Internet Architecture, Windows-based clients are primarily used as a development environment. End users can use any machine equipped with a supported web browser.

Using the PeopleTools Development Environment (Windows-Based Clients)

Windows-based clients are referred to as the PeopleTools Development Environment. These clients—which run on supported Microsoft Windows platforms—can connect to the PeopleSoft database directly using client connectivity software (a two-tier connection) or through a PeopleSoft application server (a three-tier connection).

Three-tier connectivity offers great performance advantages over two-tier (especially over a WAN), reduces network traffic, and generally does not require that you install database connectivity on the client. However, any Windows-based clients that will be running Data Mover scripts against the database, or running COBOL or Structured Query Report (SQR) batch processes on the client, must have database connectivity installed.

Note. COBOL is not needed for PeopleTools or for applications that contain no COBOL programs. Check My Oracle Support for details about whether your application requires COBOL.

See Installing Supporting Applications.

You need to have the PeopleTools Development Environment set up to create your database. For more information on setting up the PeopleTools Development Environment, refer to the following PeopleBook.

See *PeopleTools 8.52: System and Server Administration PeopleBook*, "Using PeopleSoft Configuration Manager."

For installation purposes, you must set up at least one Windows-based client for sign-on using a two-tier connection to the database, so that it can create and populate the PeopleSoft database. This documentation refers to this client as the install workstation. Depending on your installation plan, you may want to set up more than one install workstation so that you can perform asynchronous installation tasks in parallel.

Note. The Microsoft Windows machine that you use to perform your PeopleSoft PeopleTools installation must be running in 256-color mode or higher when running the PeopleSoft installation and database configuration on Microsoft Windows. This is not necessary for UNIX or console mode.

Using Workstations Equipped with Supported Web Browsers

To run the PeopleSoft Pure Internet Architecture, the client workstation only needs a web browser that is HTML 4.0 compliant. You may need an additional workstation for demonstration and testing purposes if you plan to use a browser running on a platform other than Microsoft Windows—such as Macintosh or UNIX.

See *PeopleTools 8.52: PeopleTools Portal Technologies PeopleBook*.

Understanding PeopleSoft Servers and Clients

You use the PeopleSoft Installer to install PeopleSoft servers and the PeopleSoft Client. Here is a summary of the functionality included in each server or client installation:

- *File Server*

All Client executables (such as PeopleSoft Application Designer and Configuration Manager), PS/nVision, Change Assistant, files and directories necessary to perform upgrade, and Client SQR.

See Defining the File Server

- *PeopleSoft Client*

All Client executables (such as PeopleSoft Application Designer and Configuration Manager), PS/nVision, Change Assistant, Change Impact Analyzer, PeopleSoft Test Framework, PSEM Agent, and Client SQR.

See Defining the PeopleSoft Client.

- *Application Server*

PSADMIN, COBOL for remote call, Verity

Note. There is a separate procedure for installing Verity.

- *Database Server*

Scripts and data directories, files necessary to run Data Mover.

- *Process Scheduler Server*

PSADMIN, COBOL, SQR, Verity.

- *Web Server* Windows PeopleSoft Pure Internet Architecture (PIA) installation, UNIX web files and shell scripts, Portal Search data files, and Verity.

Task 1-3-1: Defining the PeopleSoft Client

The PeopleSoft Enterprise media pack for PeopleSoft PeopleTools 8.52 includes a separate zip file to enable you to install only the components needed for the PeopleSoft Client. Keep in mind that the PeopleSoft Client can be installed *only* on Microsoft Windows.

The PeopleSoft Client is the environment repository for the PeopleSoft PeopleTools Development environment.

Task 1-3-2: Defining the File Server

The file server is the environment (or file) repository for the PeopleTools Development Environment, which is needed for the Database Configuration Wizard. The file server is also the repository for the files necessary to perform an upgrade. This includes Change Assistant and all of the executables and scripts that are necessary to perform an upgrade. You will apply patches and updates from My Oracle Support directly to the file server and then copy the updated files to your other servers. In addition, the file server is a source repository for COBOL and SQR.

Important! Remember, a COBOL compiler is not needed for PeopleSoft PeopleTools unless your application contains COBOL programs. If your application requires COBOL and you are running on Microsoft Windows, we require that you maintain a central repository of your COBOL source code on the Windows file server. See the task Installing Supporting Applications later in this chapter for details on where you should install your COBOL compiler.

If you follow the default procedures recommended in this documentation, the install workstations, Windows batch servers, and Windows report servers will access the PeopleSoft files on the file server by pointing to a directory referred to in this documentation as *PS_HOME* on a shared network drive. You can install SQR and Crystal Reports on the file server, or install them locally on Windows batch servers and on Windows-based clients that will be running these processes locally.

Setting up a file server applies to installations on both UNIX and Microsoft Windows. If you are doing an installation only for UNIX computers, you need a Microsoft Windows file server. If you are working only on Microsoft Windows, and you install the file server along with the other servers, you do not need to repeat the file server setup.

If you need to set up the file server on a separate Microsoft Windows machine, you should install PeopleSoft PeopleTools, any PeopleSoft applications, and the Multilanguage files.

In some cases you may choose to set up local copies of the PeopleSoft executables on the PeopleTools Development Environment and Windows batch servers, rather than mapping to a shared directory on the file server. You can use the instructions in the chapter “Using the PeopleSoft Installer” to perform such local installations.

Note. If you have used the PeopleSoft Server Transfer program in the past, it is no longer needed, because the PeopleSoft Installer lets you install files directly to the designated server.

Task 1-3-3: Defining the Database Server

The servers that host your PeopleSoft databases need sufficient processing, storage, and networking resources to process the database requests, store the data and transaction logs, and communicate freely to the clients of this data. These databases will include your own PeopleSoft database prototypes as well as any system and demonstration databases delivered directly from Oracle with the PeopleSoft installation media.

See Planning Database Creation.

Database sizes vary depending on the applications that you install. The size of your prototype PeopleSoft database will also depend on the amount of data to be converted from your legacy system. A good rule of thumb for estimating the size of your prototype PeopleSoft database is to estimate the amount of disk space needed for the data to be converted from your legacy system, add to this the size required for the PeopleSoft System database, and then add an additional 50 percent of this combined figure to allow for growth.

Task 1-3-4: Defining the Application Server

The application server is the centerpiece of the PeopleSoft Pure Internet Architecture. It connects to the PeopleSoft database and handles almost all SQL-intensive interactions with the database server required during online transaction processing. Windows-based clients, in three-tier, communicate with the application server using Oracle Tuxedo messages. In the PeopleSoft Pure Internet Architecture, the application server interacts with user workstations through a web server.

The application server also provides functionality required for application messaging and for implementing the PeopleSoft Pure Internet Architecture. An application server is required in all PeopleSoft installations.

If you are installing on an Oracle for UNIX RDBMS, you can install the application server on the same machine as the database server, a configuration called *logical three-tier*. You can also install application servers on one or more separate UNIX or Microsoft Windows machines. This configuration is called *physical three-tier*.

If you are installing on an Oracle for Windows RDBMS, you may use a Microsoft Windows application server. This application server can be installed on the same machine as the Oracle database server, but for Windows installations you will most likely get better results by installing one or more dedicated application servers (that is, a physical three-tier configuration).

All application servers require database connectivity to the database server. Before beginning your installation, make sure that you can connect from the application server to the database server using a SQL client tool. This topic will be addressed later in this chapter.

See Also

PeopleTools 8.52: PeopleTools Portal Technologies PeopleBook

Task 1-3-5: Defining the Batch Server

The term *batch server* is equivalent to the term *Process Scheduler server*. PeopleSoft batch processes, such as COBOL and SQR, are scheduled and invoked by a Process Scheduler server. In almost all configurations, batch server SQR and COBOL files are located and executed on the same computer as the database server.

With Oracle Windows databases, a Process Scheduler server running on the batch server may point to and invoke files that are physically located on the file server. With an Oracle UNIX database, the SQR and COBOL files must be installed to the batch server through the PeopleSoft Installer; and COBOL source files must be compiled.

Oracle supports setting up the batch environments on a dedicated server, an application server, or even on the database server.

For Windows-specific batch processes—such as Crystal Reports, nVision reports, Cube Builder, or Microsoft Word—you need to set up a Windows batch environment on a Microsoft Windows application server or on a dedicated Microsoft Windows workstation.

Any computer operating as a batch server must have database connectivity installed so that it can make a two-tier connection to the PeopleSoft database.

See Also

PeopleTools 8.52: PeopleSoft Process Scheduler PeopleBook

Task 1-3-6: Defining Installation Locations

As you proceed through the PeopleSoft PeopleTools installation, you are asked to specify several installation locations. This documentation uses the following terms to describe the installation locations used during the PeopleSoft PeopleTools installation:

- *PS_HOME*: Holds the PeopleSoft PeopleTools and PeopleSoft application files.

Note. For information on setting up *PS_HOME* as a read-only environment, see *PeopleTools 8.52: System and Server Administration PeopleBook*, “Securing *PS_HOME* and *PS_CFG_HOME*.”

See "Using the PeopleSoft Installer."

- *PS_APP_HOME*:

Holds the PeopleSoft application files. Depending upon the PeopleSoft Application that you are installing, for PeopleTools 8.52 and later, the directory where you install the PeopleSoft application files does not have to be the same as the location where you install PeopleSoft PeopleTools, *PS_HOME*. You can select any writeable location on the file system.

For details about whether this functionality is supported for your PeopleSoft Application, see the application-specific installation guide.

If *PS_APP_HOME* is not the same as *PS_HOME*, there are extra configuration procedures required to associate the Application Server, Process Scheduler Server, and Search server domains with *PS_HOME*. For information on configuring Application Server, Process Scheduler, and Search domains for a *PS_APP_HOME* that is separate from *PS_HOME*, see *PeopleTools 8.52: System and Server Administration PeopleBook*.

- *PS_CFG_HOME*: Holds the configuration files for the application server, batch server and search server domains.

It also holds the configuration files for web server domains if *PIA_HOME*, defined below, is equal to *PS_CFG_HOME*.

See Defining Server Domain Configurations.

- *PIA_HOME*: Holds the webserv directory, and the files for the PeopleSoft Pure Internet Architecture installation. The directory where you install PeopleSoft Pure Internet Architecture, *PIA_HOME*, does not have to be the same as the location where you install PeopleSoft PeopleTools and the application software, *PS_HOME*.

See "Setting Up the PeopleSoft Pure Internet Architecture (in GUI Mode and in Console Mode)."

See Defining the PeopleSoft Pure Internet Architecture Installation Location.

In addition to these installation locations, there are home directories for the various supporting software, such as Oracle WebLogic, which are described in the appropriate chapters.

Task 1-3-7: Defining the Web Server

A web server is required to run the PeopleSoft Pure Internet Architecture. The PeopleSoft Pure Internet Architecture is certified to work with either of the following two J2EE web application servers (also commonly referred to as web servers):

- Oracle WebLogic Server
- IBM WebSphere Server

You can refer to the *PeopleTools 8.52 Hardware and Software Requirements* guide or the Certifications page on My Oracle Support for supported web server combinations.

In conjunction with Oracle WebLogic and IBM WebSphere, Oracle has also certified the use of the following HTTP servers as reverse proxy servers (RPS):

- With Oracle WebLogic, the certified HTTP servers are Microsoft IIS, Sun Java System web server, Apache HTTP server, and Oracle HTTP Server.
- With IBM WebSphere the certified HTTP servers is IBM HTTP Server (IHS).

Oracle WebLogic, IBM WebSphere, and the supported reverse proxy servers will provide out-of-the-box SSL support across all supported operating systems. Oracle WebLogic and IBM WebSphere provide demo digital certificates, but for production grade SSL you must purchase digital certificates from a Certificate Authority supported by the web server that you are using (for example, Verisign, Baltimore, Entrust, and so on).

Task 1-3-8: Defining Server Domain Configurations

When you install PeopleSoft PeopleTools 8.52 and the PeopleSoft application software, the PeopleSoft installer places the required files into the specified *PS_HOME* directory. When you create an application server, batch server, or search server domain, the configuration files associated with that domain are installed into a directory referred to as *PS_CFG_HOME*.

By default, the system separates the binary files (executables and libraries) stored in *PS_HOME* from the ASCII files (configuration and log files) associated with a domain stored in *PS_CFG_HOME*. This separation applies only to these servers:

- PeopleSoft Application Server
- PeopleSoft Process Scheduler Server
- PeopleSoft Search Server

When you use the PSADMIN utility, the system creates the *PS_CFG_HOME* directory based upon environment variables associated with the current user. This table lists the user environment variable and default directory by operating system:

Operating System	User Environment Variable	PS_CFG_HOME Default Location
UNIX	HOME	\$HOME/psft/pt/<peopletools_version>
Microsoft Windows	USERPROFILE	%USERPROFILE%\psft\pt<peopletools_version>

For example, if USERPROFILE is C:\Documents and Settings\asmith and the PeopleTools version is 8.52, by default *PS_CFG_HOME* would be C:\Documents and Settings\asmith\psft\pt\8.52. The configuration and log files for the application server, process scheduler server, and search server are installed below this directory.

Note. The *PS_CFG_HOME* directory is associated with the *PS_HOME* from which it was originally generated.

This server domain configuration allows for a more flexible installation. You also have the opportunity to place different security restrictions on the binary and configuration files. To take advantage of this flexibility, you have the option to specify a different location by setting a *PS_CFG_HOME* environment variable. Before doing so, however, consult the following reference for a more complete explanation of this feature.

See *PeopleTools 8.52: System and Server Administration PeopleBook*, "Working with Server Domain Configuration."

Task 1-3-9: Defining the PeopleSoft Pure Internet Architecture Installation Location

When you install the PeopleSoft Pure Internet Architecture, the files are installed in the *PIA_HOME* directory. The *PIA_HOME* directory does not have to be the same as the location where you install PeopleSoft PeopleTools, *PS_HOME*. You have the option to specify the installation location for the PeopleSoft Pure Internet Architecture by setting the environment variable *PS_CFG_HOME*.

The *PS_CFG_HOME* directory is created the first time that the PSADMIN utility starts. PSADMIN recognizes that *PS_CFG_HOME* is not present and creates it when necessary. This is done before any domains are created. When you invoke PeopleSoft Pure Internet Architecture, the installer checks your environment to determine the *PS_CFG_HOME*. If the environment variable *PS_CFG_HOME* is defined, the *PS_CFG_HOME* location is seen as the directory to which that environment variable points. If *PS_CFG_HOME* is not defined the default value is used.

See *PeopleTools 8.52: System and Server Administration PeopleBook*, "Working with Server Domain Configurations," Using the %V Meta Variable.

Task 1-3-10: Using Oracle Configuration Manager

When you install PeopleSoft PeopleTools 8.52, you can configure the Oracle Configuration Manager. Oracle Configuration Manager enables you to connect to My Oracle Support to upload your environment information to an Oracle repository. When you enter your configuration information for the Oracle Configuration Manager during the PeopleSoft PeopleTools installation, the installer checks the Internet connection and associates the current environment data with your My Oracle Support account. Oracle Configuration Manager offers the following advantages:

- Facilitates communication with Oracle Global Customer Support
- Improves access to the Oracle knowledge base
- Enables pro-active problem avoidance.

If you choose not to configure the Oracle Configuration Manager during the PeopleSoft PeopleTools installation, you can complete the configuration at a later date. If your system is already configured to use Oracle Configuration Manager, the PeopleSoft installer does not display the screens for the configuration.

See Also

Oracle Configuration Manager Documentation, <http://www.oracle.com/technetwork/indexes/documentation/index.html>

PeopleTools 8.52: Change Assistant PeopleBook, "Configuring and Running Environment Management Components," Integrating with Oracle Configuration Manager

Task 1-3-11: Using Laser Printers

Along with the printer you will need a Windows printer driver to print the online reports that produce 180-character-wide reports using the HP LinePrinter font. Your printer must be configured with sufficient memory (typically 1.5 MB) to produce graphics images for page printouts.

See Also

Verifying Hardware and Software Requirements

PeopleTools 8.52 Hardware and Software Requirements

My Oracle Support, Certifications

Task 1-4: Planning Database Creation

This section discusses:

- Understanding Database Creation
- Determining Databases and Database Names
- Defining Oracle and PeopleSoft Databases

Understanding Database Creation

When performing a PeopleSoft installation, you will create these types of PeopleSoft databases:

- System (also called SYS) databases, which contain the PeopleSoft PeopleTools and product-specific metadata required for development of a production database.
- Demo (DMO) databases, which are populated with sample data for study, demonstration, or training purposes.

Note. When using the PeopleSoft installer to install PeopleSoft application software, one of the steps includes an option to select the System Database and the Demo Database. To properly install a Demo database, you must select *both* the System Database and the Demo Database options.

See “Using the PeopleSoft Installer.”

It is important to note the distinction between an Oracle database and a PeopleSoft database, which is a set of SQL objects that reside within a single Oracle database and share the same owner ID. Oracle recommends that you install only one PeopleSoft database per Oracle instance. For details, see the section “Defining Oracle and PeopleSoft Databases” later in this task.

If you are installing PeopleSoft software on an Oracle Real Application Cluster (RAC) database, you must use the manual procedure for database setup, and complete other configuration procedures.

See “Creating a Database Manually (on UNIX or Windows).”

See *PeopleTools 8.52: Data Management PeopleBook*, “Administering PeopleSoft Databases on Oracle,” Setting Up the PeopleSoft Installation with Oracle RAC.

Note. Before installing PeopleSoft software, you should install the Oracle RDBMS software. This documentation does not cover installation of Oracle software. Please refer to the Oracle RDBMS installation documentation that accompanied your Oracle software for information.

Task 1-4-1: Determining Databases and Database Names

Before you begin the installation process, you should determine how many PeopleSoft databases (System or Demo) of which type you need and how you intend to use them. You should also determine the names of the databases at this point, using database names that:

- Are limited to eight characters, all UPPERCASE.
- Capture information about the PeopleSoft product line and the type of database.

For example, you may want to create two databases with the names PSHRDMO and PSHRSYS, using the two characters HR (for Human Resources) to indicate the product line.

Task 1-4-2: Defining Oracle and PeopleSoft Databases

An Oracle database is a set of SQL objects defined by one system catalog in the SYSTEM tablespace and one SID (system identifier), using one instance of the Oracle server executables and associated files. Within Oracle shops, the Oracle database is commonly referred to as the *Oracle SID*.

A PeopleSoft database is a set of SQL objects defined as having the same owner ID. These tables are always contained within a single Oracle database. A PeopleSoft database includes the PeopleSoft objects and application data for one or more products in a PeopleSoft product line.

This owner ID (an Oracle user ID) may also be referred to as an Oracle schema or Oracle logical database. Each PeopleSoft database needs its own owner. We refer to this as the *PeopleSoft owner ID*, which is also the PeopleSoft access ID.

Note. You must limit the owner ID (access ID) and owner password (access password) to eight characters or less.

We recommend that you install no more than one PeopleSoft database per Oracle instance. When each PeopleSoft database has its own instance, the system is more robust for the following reasons:

- Your developers can bring down their instance of the Oracle server executables, but the others will remain running.
- You have added security with one PeopleSoft database per Oracle instance.
- It is more efficient to tune each instance to the requirements of its corresponding PeopleSoft application database.

If you are unable to run extra Oracle database instances because of resource limitations, such as memory and system semaphores, you can install multiple PeopleSoft databases in the same Oracle instance. Keep the following points in mind if installing multiple PeopleSoft databases within one Oracle database instance:

- When supporting multiple databases in one Oracle instance, increase maxdatafiles from the default of 32 when you create the database.

Check the limits of maxdatafiles for your operating system and increase the value accordingly.

- You need to increase the size of the tablespaces if you use the same ones for each PeopleSoft database schema.

Sharing tablespaces is not recommended.

- Each PeopleSoft database should have different operator IDs (also known as user IDs) to avoid problems with passwords.
- Each PeopleSoft database needs its own PeopleSoft database name.

This is the database name users enter during the PeopleSoft logon process. It appears in the following locations:

Location	Reference
PeopleSoft logon screen	Database Name
TNSNAMES.ORA	The service name defined in TNSNAMES.ORA must be the same as that in PS.PSDBOWNER.
PS.PSDBOWNER table	<p>DBNAME column</p> <p>A single table, PS.PSDBOWNER, is created in the Oracle SID as part of the database creation procedures. PS.PSDBOWNER is maintained and acts as directory during the sign-on process to all of the PeopleSoft databases in the Oracle database/SID. There is a single row in the PS.PSDBOWNER for each PeopleSoft DB contained in the SID.</p>

This table includes an example of four PeopleSoft databases, uses, and IDs, in one Oracle database:

Database Use	PeopleSoft Database Name	Owner ID and Access ID (Oracle Schema)	Owner/Access Password	SID
Testing	HRTST	sysadm	sysadm	hrdm
Development	HRDVLP	sysadm2	sysadm2	hrdm
Training	HRTRAIN1	sysadm3	sysadm3	hrdm
Training	HRTRAIN2	sysadm4	sysadm4	hrdm

Note. With Oracle 11gR1 the database user ID is case-sensitive. So, when running the installation, system administrators need to make sure the database user ID, such as SYSADM, with all upper-case letters, is represented consistently, wherever it needs to be supplied in the configuration tools and scripts as well as on any signon screen.

Task 1-5: Planning Multilingual Strategy

This section discusses:

- Understanding Multilingual Issues
- Choosing a Base Language
- Selecting Additional Languages
- Selecting a Database Character Set

Understanding Multilingual Issues

Before beginning your installation, you should determine which languages your PeopleSoft system will need to support. If multiple languages are required, determine which language will be used most often. These decisions will affect tasks at various stages of the installation, including file server setup, database creation, and the ability to change the base language of the PeopleSoft database after it is created. Even if you do not plan on running your system in more than one language, you should decide the following information before completing this task:

- Database base language
- Additional languages (if any)
- Database character set

The current languages provided by Oracle and their language codes are listed in the following table, as well as the corresponding database character sets for that language. These are the languages for which Oracle provides pretranslated products. If you plan to provide users access to your applications in these languages, Oracle recommends that you install the translations during your initial installation. This approach will keep you from having to perform an upgrade if you decide to add the Oracle-provided translations at a later date. After installation, you also have the option of performing your own translations, and adding additional languages.

In considering which languages to include, whether for pretranslated objects or for your own application development, keep in mind that certain languages require a Unicode database.

See Selecting a Database Character Set.

Language Code	Language	Database Character Set
ARA	Arabic	Unicode
CFR	Canadian French	Unicode or non-Unicode
CZE	Czech	Unicode
DAN	Danish	Unicode or non-Unicode
DUT	Dutch	Unicode or non-Unicode
ENG	US English	Unicode or non-Unicode
FIN	Finnish	Unicode or non-Unicode
ESP	Spanish	Unicode or non-Unicode
FRA	French	Unicode or non-Unicode
GER	German	Unicode or non-Unicode
HUN	Hungarian	Unicode
ITA	Italian	Unicode or non-Unicode
JPN	Japanese	Unicode or non-Unicode
KOR	Korean	Unicode
NOR	Norwegian	Unicode or non-Unicode
POL	Polish	Unicode
POR	Portuguese	Unicode or non-Unicode
RUS	Russian	Unicode
SVE	Swedish	Unicode or non-Unicode
THA	Thai	Unicode
UKE	United Kingdom English	Unicode or non-Unicode
ZHS	Simplified Chinese	Unicode
ZHT	Traditional Chinese	Unicode

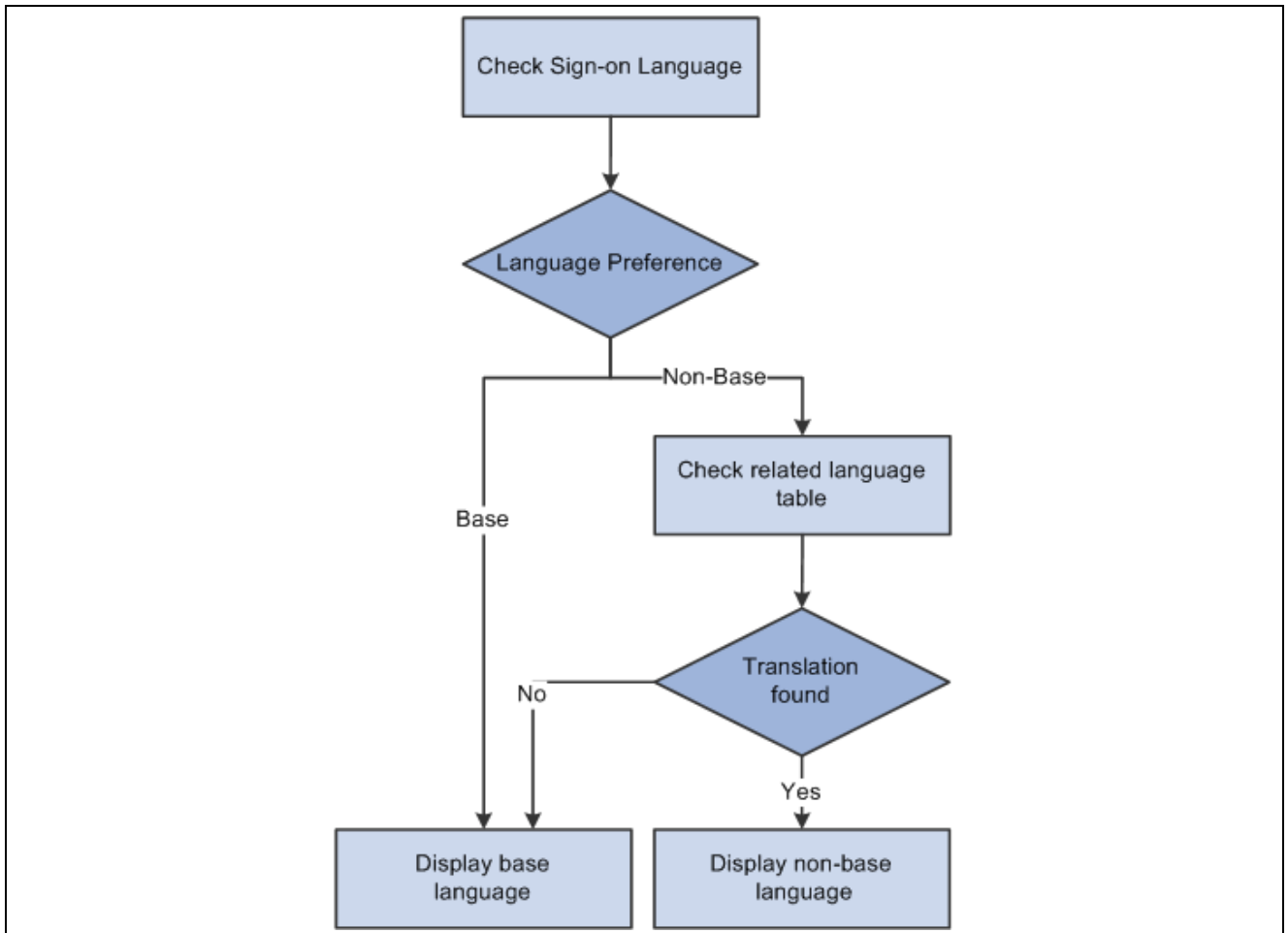
See Also

PeopleTools 8.52: Global Technology PeopleBook

Task 1-5-1: Choosing a Base Language

Each PeopleSoft database can have only one base language. PeopleSoft databases ship with English as the default base language. Typically, the base language of your database should match the language most commonly used by your organization, as it affects the performance of PeopleSoft applications.

When PeopleSoft PeopleTools attempts to open language-sensitive objects (such as pages and menus), it first compares the operator's preferred language to the base language of the database. If the preferred language matches the base language, PeopleSoft PeopleTools immediately loads the required definition from the base language PeopleSoft PeopleTools tables. However, if the user's preferred language differs from the database's base language, PeopleSoft PeopleTools must first query the related language tables for the object. Should a translation of the object not be found in the operator's preferred language, a query is then performed on the base language tables. The following process flow illustrates the selection of the language used for language-sensitive objects, beginning with the language selected when the user signs in to the PeopleSoft application:



Language selection process using the base language and the preferred language

While these queries typically occur very quickly, they still take up valuable processing time. To optimize performance you can set the base language of your database as the language that is used most often by your users. Another consideration is that because PeopleSoft databases are shipped with a base language of English, maintenance is simpler if English remains the base language. Both configurations are supported by Oracle.

Task 1-5-2: Selecting Additional Languages

Because more than one language can coexist in a single PeopleSoft database, you should decide which languages to install. Oracle provides translations of all end-user objects with the Global Multi-Language installation files. It is much easier to install additional languages upon initial database creation than to add them later in your implementation process, so we recommend that you choose which additional languages may be required now. There is no limit to the number of languages that can coexist in a single PeopleSoft database; however, remember that each language will require additional storage space, primarily for PeopleSoft PeopleTools objects.

Task 1-5-3: Selecting a Database Character Set

This section discusses:

- Understanding Character Sets
- Using Unicode Databases

- Using Non-Unicode Databases

Understanding Character Sets

Depending on the languages that you have selected for installation, you need to determine which character set can represent these languages. There are two main steps in selecting a character set. First, if your database supports Unicode, you should decide whether to use it. Second, if you choose not to or cannot yet use Unicode, you should decide which legacy character set is appropriate for the language combination that you've selected.

The following table gives the supported character set with a description and the supported languages. On Oracle databases, the PeopleSoft software supports the following Oracle character sets:

Character Set	Description	Languages Supported
WE8ISO8859P1	Western European ISO 8859-1	All Western European (English, French, Spanish, Portuguese, German, Dutch, and so on)
WE8ISO8859P15	Western European ISO 8859-15	All Western European (English, French, Spanish, Portuguese, German, Dutch, and so on), and includes the euro symbol
WE8MSWIN1252	Western European MS Windows CP1252	All Western European (English, French, Spanish, Portuguese, German, Dutch and so on), and includes the euro symbol
US7ASCII	US 7-bit ASCII	English
JA16SJIS Note. The Shift-JIS character set JA16SJISTILDE is also supported.	Japanese Shift-JIS 16-bit The JA16SJIS and JA16SJISTILDE character sets are essentially the same, except for the way that the wave dash and the tilde are mapped to and from Unicode.	Japanese, English

See *PeopleTools 8.52: Global Technology PeopleBook*, "Selecting and Configuring Character Sets and Language Input and Output."

Using Unicode Databases

In addition to supporting several legacy character sets, the PeopleSoft software supports creating Oracle databases using Unicode. Unicode enables you to maintain data in virtually any modern language in a single database. Prior to Unicode, many languages could not coexist in one database, as they did not share a common character set.

To create an Oracle Unicode database, you must specify the character set as either AL32UTF8 or UTF-8 in the CREATE DATABASE statement. The default value for an Oracle Unicode database is AL32UTF8. although UTF-8 is also supported. The difference between the two is that the newer AL32UTF8 supports Unicode supplementary characters. These supplementary characters are not used currently by PeopleSoft applications.

In addition, for certain installation configurations (described in the sections cited below), you must specify the following init.ora parameter: NLS_LENGTH_SEMANTICS=CHAR.

See Creating an INIT<SID>.ORA File in "Creating a Database Manually on Windows" or "Creating a Database on UNIX."

See "Creating a Database Manually on UNIX," Creating an Oracle Instance.

Unicode databases are required if the languages that you selected do not share the same character set. Typically, a single character set can encode all languages written in a single script. For example, English, French, and Spanish all share the same script (Latin), so they can coexist in a non-Unicode database. However, Japanese does not share the same script as French, so if you need to have Japanese and French coexist in a single system, you need a Unicode database.

Note. The characters required for the English language exist in all Unicode and non-Unicode character sets. For example, Japanese and English can coexist in a single Unicode or non-Unicode database.

If you plan on installing or supporting a combination of languages that do not share the same character set, you should use a Unicode database.

If you decide to use Unicode for your database, you do not need to select a character set.

See Understanding Multilingual Issues.

See Understanding Character Sets.

Using Non-Unicode Databases

You can safely use a non-Unicode character set only if your selected languages share the same character set. In this case, you need to decide in which character set your database should be created.

See the section Understanding Multilingual Issues to determine whether a language is supported on Unicode or non-Unicode databases. See the section Understanding Character Sets for supported character sets.

Task 1-6: Reviewing Updates and Fixes Required at Installation

Before beginning the installation, check the Patches and Downloads page on My Oracle Support to identify any updates and fixes required at installation that you will need to apply, based on the products, product version, and PeopleTools version that you are installing. Specific instructions for applying the updates and fixes are included in each listed incident.

Make note of all the updates and fixes, and plan to apply them at appropriate stages during the installation procedure. For example, a replacement for a PeopleTools executable would be applied after installing the media pack to the appropriate server, and so on.

The following procedure describes how to access the Updates and Fixes database. Contact Oracle if you don't have a user ID and password for My Oracle Support.

To review updates and fixes required at installation:

1. Go to My Oracle Support at <https://support.oracle.com>.
2. Enter your user name and password to log in.

Note. Be sure to log on, or you will not see all of the menu options.

3. Select Patches & Updates.
4. Select PeopleSoft Products.
5. Select Required for Install or Upgrade.

6. Select PeopleTools as the product line, PeopleTools as the product, and select the appropriate PeopleTools release.

Make sure that the Required for Install option is selected and click the search button (the arrow).

7. Note any PeopleTools updates and fixes that apply to your installation.
8. Return to the Updates and Fixes search page and search for any application-related incidents by selecting the appropriate product line, product, and release.

Make sure the Required for Install option is selected and click the search button (the arrow).

9. Note any application-specific updates and fixes that apply to your installation.

Note. Keep in mind that your installation may require additional software components. In this case you will also need to check for updates and patches for the additional component software. Later chapters cover this topic in detail.

After this installation, you can upgrade your Java Runtime Engine (JRE) to a newer version without upgrading PeopleTools, as long as the new JRE is certified.

See Also

"Installing Web Server Products"

"Installing Additional Components"

"Operating System, RDBMS, and Additional Component Patches Required for Installation PeopleTools," My Oracle Support (search for the article title)

Task 1-7: Installing Supporting Applications

Oracle requires that a number of supporting applications be installed for the PeopleSoft installation on batch servers and on any Windows-based client on which batch processes will be run locally. (Throughout the rest of this section we refer to these Windows-based clients as *two-tier clients*.) Be sure to check My Oracle Support, Certifications to ensure that you are installing software versions that are certified by Oracle.

COBOL

- Consult the PeopleSoft information on My Oracle Support to verify whether your application requires COBOL. Remember that COBOL is not needed for PeopleSoft PeopleTools or for applications that do not contain COBOL programs.

See "PeopleSoft Enterprise Frequently Asked Questions about PeopleSoft and Micro Focus COBOL Compiler," My Oracle Support, (search for the article name).

See "PeopleSoft Enterprise Frequently Asked Questions about PeopleSoft and the IBM COBOL Compiler," My Oracle Support, (search for the article name).

- For PeopleSoft applications written in COBOL, install the appropriate version of the COBOL compiler on the server where you will compile.

See "Installing and Compiling COBOL on Windows."

See "Installing and Compiling COBOL on UNIX."

- For UNIX servers, install Micro Focus Server Express or IBM Compiler for IBM AIX.
- For Microsoft Windows servers, install the appropriate version of Micro Focus Net Express or IBM Rational Developer for System Z.
- If all your servers are on Microsoft Windows operating systems, Oracle recommends that you install a COBOL compiler on the file server.

You can install PeopleSoft PeopleTools plus any patches on the file server, compile your COBOL there, and then copy the COBOL binaries to your application and batch servers.

- If your application and batch servers are on UNIX or Linux, we recommend that you designate a single server as the compile server, so that you can compile COBOL from this central location and then distribute it to the rest of your application and batch servers.

If you use this approach, you only need to copy patches or customizations over to the compile server. In this case, you would install a COBOL compiler on the master (or compile) server and either the COBOL compiler or runtime on the rest. You can also copy patches or customizations from the file server to all of your UNIX servers and compile the COBOL on each machine.

Note that the compile server must have the same operating system as any destination application or batch servers. For example, if your compile server is an HP-UX machine, you can only copy COBOL compiled there to other HP-UX application and batch servers. Oracle recommends this approach. It will help you keep your COBOL source code in sync and only requires that you install COBOL in a single location.

- The format of COBOL source file names of patches or customizations on the file server should always be UPPERCASE.cbl to ensure compatibility with your UNIX servers.
- The PeopleSoft Installer installs COBOL source code from the installation directory to your Microsoft Windows file server and to all UNIX servers, but not to the rest of your Microsoft Windows servers.

SQR

- You must install SQR on any non-Windows batch server.
- On Microsoft Windows batch servers and two-tier clients, you have the option of installing SQR locally, or mapping to a copy installed on the file server.
- Because SQR does not require any local registry settings, you can execute SQR from any Microsoft Windows batch server or two-tier client once SQR has been installed to a shared directory. Installing SQR locally will result in improved performance; over a slow network connection the improvement will be significant.

Microsoft Office

Install Microsoft Office (Excel and Word) on any Windows batch server or two-tier client that will be running PS/nVision or Microsoft Word batch processes.

Microsoft Office must be installed locally, because it requires registry settings.

See Also

PeopleTools 8.52 Hardware and Software Requirements

Task 1-8: Installing the Database Engine

This section discusses:

- Understanding the Database Engine
- Creating a Seed Database

Understanding the Database Engine

If you have not already done so, install the Oracle database engine on your database server.

When installing the Oracle RDBMS, installation option selection influences the resulting generated Oracle Shared Library. The PeopleSoft product calls the Oracle Shared library when making calls to the Oracle RDBMS.

Task 1-8-1: Creating a Seed Database

Create the seed database during the installation of your Oracle database engine. This will not be your PeopleSoft database, so keep it small and give it a name that is not related to your application. After successfully installing your Oracle database engine, use the seed database to test Oracle Net connectivity from your application servers, batch servers, and workstations.

Task 1-9: Installing Oracle Net on the Server

You need to carry out this step for the database server, batch server, and application server. You need to load the Oracle Net listener and the communication protocol adapter you are using, such as TCP/IP, IPX, or NetBIOS.

Additionally you should do the following:

- Configure the listener to start automatically upon booting.
Refer to your Oracle documentation for details on setting up the listener.
- Verify that Oracle Net is loaded on the database server by connecting to a database using SQL*PLUS.
Issue the complete connect string including the TCP/IP address or some other node identifier. For example, if you are on TCP/IP, your logon might resemble the following example:

```
oracleid/password@TNS:service_name
```

Note. If you have someone outside your company install Oracle Net, make sure that they install the workstation end as well. Also, make sure they demonstrate connectivity between the workstations and the database server.

- Set required Oracle network configuration file parameters.

Note. PeopleTools 8.44 introduced a new feature called Query Kill. For Query Kill to work successfully, your application server must be using a remote network connection (for example, Oracle Net). In addition, you need to set the SQLNET.EXPIRE_TIME = nn parameter in the SQLNET.ORA network configuration file, as discussed below. If you are using a local connection, Query Kill will not work. However, the BEQUEATH_DETACH=YES parameter in the SQLNET.ORA network configuration file should also be set to keep UNIX defunct processes from being created on aborted batch server processes.

PeopleSoft requires its customers to use one of the following two Oracle SQLNET.ORA parameters to force the Oracle database server to terminate “dead” or “defunct” threads: SQLNET.EXPIRE_TIME or BEQUEATH_DETACH.

- The Dead Connection Detection parameter, SQLNET.EXPIRE_TIME = nn, applies only to connections being done through Oracle Net (for example, through tnsnames.ora).

This parameter sets a dead connection time-out value. Oracle Net sends a probe periodically to verify that a client-server connection is still active. (Oracle recommends a value of 10. The time increment is in seconds.) This ensures that connections are not left open indefinitely, due to an abnormal client termination. (Client in this context can be an application server thread.) If the probe finds a dead connection or a connection that is no longer in use, it returns an error, causing the server process to exit.

Note. This parameter works with all the supported versions of Oracle with PeopleTools 8.51 and higher.

Limitations on using the dead connection detection feature are:

- Dead connection detection is not allowed on bequeathed connections.
- Though very small, a probe packet generates additional traffic that may downgrade network performance.
- The server may need to perform additional processing to distinguish the connection probing event from other events that occur, depending on which operating system is in use.

This may also downgrade network performance.

- The parameter Turn Off Unix Signal Handling, BEQUEATH_DETACH=YES, applies only to local connections using the BEQ protocol.

Because the client application spawns a server process internally through the Bequeath protocol as a child process, the client application becomes responsible for cleaning up the child process when it completes. When the server process completes its connection responsibilities, it becomes a defunct process. Signal handlers are responsible for cleaning up these defunct processes. Setting this parameter configures the client profile to pass this process to the UNIX init process by disabling signal handlers.

Task 1-10: Installing Oracle Net on Your Workstation

You must install Oracle Net on each workstation that will connect to the PeopleSoft database server in a two-tier connection. Workstations making a three-tier connection normally do not need connectivity software. However, bear in mind that batch processes (such as COBOL and SQR) that are executed on the client workstation require that database connectivity software be installed on the client workstation. This is necessary because these batch processes must maintain their own SQL connection to the database server.

Note. You must also install Oracle Net on each application server and batch server that will connect to the PeopleSoft database server.

Oracle Net works with many communication protocols, so ensure that the listener on your database server is using the same protocol as the workstation. Also, keep in mind that the client workstations need simultaneous access to the database server (through Oracle Net) and to the PeopleSoft PeopleTools software on the file server.

You must use the same version of Oracle Net (version 10g or 11g) on your workstations, applications servers, batch servers, and database servers. PeopleTools 8.52 requires at a minimum the NET 10g (version 10.2.x) functionality. Note as well that you must install the necessary protocol driver for your environment, such as the Oracle TCP/IP Adapter.

Note. Ensure that Oracle Net client connectivity is installed prior to performing a PeopleSoft workstation installation. Failure to do so will result in problems with the Crystal Reports product. Always check the most recent version of supported platforms on My Oracle Support for the currently supported Oracle Net versions.

See My Oracle Support, Certifications.

Task 1-11: Testing Oracle Net Connectivity

Once you have installed Oracle Net on the database server, application server, or workstation, test that the connection works using the SQL*PLUS utility provided with Oracle Net.

Connect to a database on your database server as the SYSTEM user, and issue the following SQL statement:

```
SQL> select * from all_users;
```

Note. Pinging or using Telnet does not test the Oracle Net connection.

Oracle, or your Oracle vendor, is best equipped to assist you if you have any problems installing any Oracle products or connecting to your Oracle database.

Task 1-12: Performing Backups

Before proceeding, you should back up all servers and workstations that are set up for installation so you can recover to this point if necessary. Do the following:

- Back up any changes you made to the database server in setting up your PeopleSoft system.
- Back up any changes you made to your file server while setting aside space for your PeopleSoft system and setting up access privileges.
- Once you set up your install workstations to access the file server and database server simultaneously, back up the workstations.

Task 1-13: Using PeopleSoft Change Assistant and PeopleSoft Change Impact Analyzer

After you have completed the tasks in this book to install PeopleSoft PeopleTools, including installing any necessary patches and fixes, you need to install PeopleSoft Change Assistant. PeopleSoft Change Assistant is a standalone application that enables you to assemble and organize all of the steps necessary to apply patches and fixes for maintenance updates.

PeopleSoft Change Assistant gathers all the necessary information for a maintenance update from the Environment Management Hub and uploads it to My Oracle Support. With the environment data available, My Oracle Support can determine what updates are applicable to your environment. PeopleSoft Change Assistant carries out the following tasks:

- Uploads environment
- Finds required updates
- Downloads updates
- Applies all change packages

You can also install PeopleSoft Change Impact Analyzer, either as part of the PeopleSoft Change Assistant installation, or separately from the installation executable provided with PeopleSoft PeopleTools. PeopleSoft Change Impact Analyzer is a Microsoft Windows-based tool that you can use to evaluate the effect of changes you make on your installation.

See Also

"Installing PeopleSoft Change Assistant"

"Installing PeopleSoft Change Impact Analyzer"

PeopleTools 8.52: PeopleSoft Change Assistant PeopleBook

PeopleTools 8.52: Change Impact Analyzer PeopleBook

CHAPTER 2

Installing Web Server Products

This chapter discusses:

- Installing Oracle WebLogic Server
- Installing IBM WebSphere Application Server

Task 2-1: Installing Oracle WebLogic Server

This section discusses:

- Understanding the Oracle WebLogic Installation
- Reviewing Troubleshooting Tips
- Obtaining Oracle WebLogic Installation Files from E-Delivery
- Installing JDK for Oracle WebLogic
- Installing Oracle WebLogic on Microsoft Windows
- Installing Oracle WebLogic on Linux or UNIX
- Installing Oracle WebLogic on Linux or UNIX in Silent Mode
- Configuring JDK for Daylight Savings Time Change
- Removing the Oracle WebLogic Installation on Microsoft Windows
- Removing the Oracle WebLogic Installation in Console Mode

Understanding the Oracle WebLogic Installation

PeopleSoft PeopleTools 8.52 supports 64-bit Oracle WebLogic Server 10.3.4. Oracle provides installation files for Oracle WebLogic on the Oracle E-Delivery site.

See Obtaining Oracle WebLogic Installation Files from E-Delivery.

To familiarize yourself with the most current support information and information about any required Oracle WebLogic service packs based on operating system platform or PeopleSoft PeopleTools versions, consult My Oracle Support or the hardware and software requirements guide.

You must install an operating-system specific Java Developers Kit (JDK) before beginning the Oracle WebLogic installation.

See Installing JDK for Oracle WebLogic.

See Also

Oracle E-Delivery, <http://edelivery.oracle.com>

PeopleTools 8.52 Hardware and Software Requirements

My Oracle Support, Certifications

"Clustering and High Availability for Enterprise Tools 8.5x," My Oracle Support, (search for the article title)

"Operating System, RDBMS, and Additional Component Patches Required for Installation PeopleTools," My Oracle Support, (search for the article title and release number)

Reviewing Troubleshooting Tips

If you have trouble with the installation, review these tips:

- It can require up to 800 MB space to install Oracle WebLogic. If there is not enough space, the installer displays an error with information about the space limitation. You will need to exit the installation and create some space under your home directory before starting over.
- The Oracle WebLogic installer makes use of the default system temporary space. It will stop and display an error message if the temporary space is not sufficient. Clean up the default system temp space and try again. If you don't have the privilege to clean up that directory and need to proceed, the workaround is to set aside a directory under your Home directory and use it as the temporary space. This can be achieved by setting `-Djava.io.tmpdir` in the command for launching the installer. For example, the following command will use the "temp" directory under your Home directory to launch the installer in console mode:

```
${JAVA_HOME}/bin/java -jar ./wls1034_generic.jar -mode=console -Djava.io.tmpdir=>
~/temp -log=./logs/Wls1034Install.log
```

Note. This workaround may not be applicable on all platforms. If you tried and the installer still errors out due to temp space, contact your system administrator to clean up the system temp space before proceeding.

- If the installation fails, and the directory that you specify for the Oracle WebLogic 10.3.4 installation is one in which other BEA products have been installed, *BEA_HOME* in previous releases, (for example `c:\bea` folder in Microsoft Windows), it may indicate corruption in the `registry.xml` file inside your existing *BEA_HOME*. Pick a different location for the Oracle WebLogic 10.3.4 installation directory and try the installation again.
- If you are installing onto Microsoft Windows operating system using GUI mode and the installation fails without any message, run the installer from the command prompt using console mode. It will show you more detailed error messages indicating the problem area.

The command to run on Microsoft Windows in console mode is:

```
%JAVA_HOME%\bin\java -jar wls1034_generic.jar -mode=console -log=logs=>
\Wls1034Install.log
```

- If you are installing onto an UNIX or Linux environment, refer to the log file `Wls1034Install.log` under the installation logs directory to see what events happened if your installation failed.
- If you encounter the following error message while running in console mode on a Microsoft Windows operating system, it means an environment variable `_JAVA_OPTIONS` has been set in your system. It causes the Java process initiated by the Oracle WebLogic installer to fail.

```
ERROR: JVMPI, an experimental interface, is no longer supported.
Please use the supported interface: the JVM Tool Interface (JVM TI).
```

To resolve the problem, remove the environment variable `_JAVA_OPTIONS` from your system and rerun the installation.

- If you encounter the following error message while installing on an Oracle Solaris operating system, it means there is a problem with access to the temporary directory:

```
*sys-package-mgr*: can't write cache file
```

This message appears because the Oracle WebLogic installer creates a temporary directory (for example, on Oracle Solaris it is `/var/tmp/wlstTemp`) that is shared by all users, and it is unable to differentiate between users. As a result, access to the directory is blocked when the user accessing the directory is not the one who originally created the directory. The workaround for this problem is to remove the installation and install it again after manually adjusting the temporary directory permissions. A user with superuser privileges can use the following command to adjust the permissions:

```
chmod -R 777 /var/tmp/wlstTemp
```

For more information, search the Oracle's BEA documentation for Oracle WebLogic.

- If you see the following message while installing in console mode, this is because some existing Oracle WebLogic Server 10.3.x had been installed into the same box. You can safely ignore the message, input the new location where you want to install WebLogic Server 10.3.4, and continue.

```
<-----Oracle Installer - WebLogic 10.3.4.0----->
```

```
Choose Middleware Home Directory:
```

```
-----
```

```
"Middleware Home" = [Enter new value or use default
```

```
"/home/ms23546/Oracle/Middleware"]
```

```
** The product maintenance level of the current installer (WebLogic
** Server:10.3.4.0) is not compatible with the maintenance level of
** the product installed on your system (WebLogic Server:10.3.1.0).
** Please obtain a compatible installer or perform maintenance on your
** current system to achieve the desired level.
```

```
Enter new Middleware Home OR [Exit] [Previous] [Next] > /home/ms23546/32Bit⇒
```

```
Wls1034GA_Onrnora12
```

Task 2-1-1: Obtaining Oracle WebLogic Installation Files from E-Delivery

The initial portion of the procedure to log in to Oracle E-Delivery was described earlier. At this point you should have already downloaded the necessary files. This section includes additional information on finding and using the files for Oracle WebLogic if necessary.

Note. Only the Oracle WebLogic installation files provided as part of the PeopleTools 8.52 media pack on Oracle E-Delivery are certified for use with PeopleSoft PeopleTools 8.52.

See "Preparing for Installation," Using Oracle E-Delivery to Obtain Installation Files.

To obtain the files for Oracle WebLogic installation:

1. After logging in to Oracle E-Delivery, on the Media Search Pack page, select *Oracle Fusion Middleware* from the Select a Product Pack drop-down list.

2. Select the operating system you are running on from the Platform drop-down list, and click Go.

The following operating systems are supported:

- AIX
- HP-UX Itanium
- Linux
- Microsoft Windows
- Oracle Solaris on SPARC
- Oracle Solaris on x86-64

3. Select the radio button for the Oracle Fusion Middleware 11g media pack for your platform and click Continue.

Note. The part numbers vary by platform.

4. Select Oracle WebLogic Server 11gR1 (10.3.4) Generic and Coherence for your platform, and click Download. Save the zip file to a temporary directory on your local system.

The directory where you save the zip file is referred to in this documentation as *WLS_INSTALL*. You must extract (unzip) the file on the platform for which it is intended. For example, if you download the zip file for Oracle Solaris, you must unzip it on Oracle Solaris to avoid problems. If you unzip the file to a staging directory on a Microsoft Windows computer and copy the staging directory to an Oracle Solaris, the stage area files may be corrupt.

Note. The part numbers are not the same as those for the media packs in the previous step.

5. Extract the files into *WLS_INSTALL*.

The Oracle WebLogic installer file is `wls1034_generic.jar`.

Note. If you need to ftp the downloaded file, make sure to FTP it in Binary mode.

Task 2-1-2: Installing JDK for Oracle WebLogic

This section discusses:

- Understanding the JDK Requirement for Oracle WebLogic
- Installing JDK for AIX
- Installing JDK for HP-UX IPF
- Installing JRockit for Microsoft Windows or Linux
- Installing JDK for Oracle Solaris on SPARC
- Installing JDK for Oracle Solaris on x86-64

Understanding the JDK Requirement for Oracle WebLogic

Before beginning the Oracle WebLogic installation you must install the 64-bit Java 1.6 JDK. The specific JDK or JRockit required depends upon the operating system and vendor, as described in this table:

Operating System Platforms	JDK or JRockit	64-bit or Mixed Mode*	Comments
AIX	IBM JDK	64-bit	none
HP-UX	Hewlett-Packard JDK	Mixed mode	Use “-d64” to turn on 64-bit mode
Linux	Oracle JRockit	64-bit	none
Microsoft Windows	Oracle JRockit	64-bit	none
Oracle Solaris on SPARC	Oracle’s Sun JDK	Mixed mode	Requires two installers. Use “-d64” to turn on 64-bit mode.
Oracle Solaris on x86-64	Oracle’s Sun JDK	Mixed mode	Install the X86 JDK installer first and then the one for X64. Use “-d64” to turn on 64 bit mode.

* The mixed mode installers run in 32-bit by default. The parameter *-d64* is required to run them in 64-bit mode.

Installing JDK for AIX

To install 64-bit IBM JDK for AIX:

1. Go to the IBM JDK download site:

<http://www.ibm.com/developerworks/java/jdk/aix/service.html>

Note. You need a user name and password for downloading IBM JDK. If you don’t have the required credentials, your AIX support personnel should be able to help.

2. In the table under Java 6, 5.0, and 1.4.2: User guides and download links, select the Fix Info link under the Java 6 64-bit column.
3. Register and log in to download.
4. Download 64-bit IBM JDK SR9 or higher.
5. Install the JDK on the AIX computer where you will install the Oracle WebLogic server.

The directory where you install the JDK is referred to in this documentation as *JAVA_HOME*.

Installing JDK for HP-UX IPF

To install Hewlett-Packard JDK for an Oracle WebLogic installation on HP-UX IPF:

1. Go to the Hewlett-Packard download web site:
<http://h20392.www2.hp.com/portal/swdepot/displayProductInfo.do?productNumber=HPUXJDKJRE60>
2. Select the link for Version 6.0.09 – December 2010 or later.
3. Provide the login credentials.
4. In the Product Specification combo box, select Itanium(R) JDK 6.0.09 - Dec 2010.
5. Provide the required information.
6. Click Next and download JDK.

7. Install the JDK on the computer where you will install the Oracle WebLogic server.

The directory where you install the JDK is referred to in this documentation as *JAVA_HOME*.

Installing JRockit for Microsoft Windows or Linux

To install 64-bit JRockit for an Oracle WebLogic installation on Microsoft Windows or Linux:

1. Go to the My Oracle Support web site:
<https://support.oracle.com>
2. Log in with your Oracle support account ID and password.
3. Select the Patches & Updates tab.
4. Select Product or Family (Advanced Search) in the Patch Search area.
5. On the Advanced Search page, specify the following search criteria:
 - Product:
Oracle JRockit
 - Release:
Oracle JRockit 28.1.1 or higher.
 - Platform:
For Microsoft Windows, select Microsoft Windows X64 (64-bit).
For Linux, select Linux x86-64.
 - Click Search.
 - On the search results page, download the JDK160 file locally.
 - If the JRockit release you pick is password protected, it might indicate the file is too old. Choose a later release.
6. Unzip the downloaded file, and install the JRockit on the computer where you will install the Oracle WebLogic server.

The directory where you install the JRockit is referred to in this documentation as *JAVA_HOME*.

Note. When choosing the location to install, select a directory with no spaces in the name.

If you do not yet have access to My Oracle Support, you can download JRockit from the Oracle software download site:

1. Go to the Oracle Technology Network (OTN):
<http://www.oracle.com/technetwork/software/products/jrockit/index.html>
2. Download Oracle JRockit JDK 28.1 or higher release for Java 6, for the 64-bit operating systems. For example:
 - For Linux, download the product for Linux x86-64.
 - For Microsoft Windows, download the product for Microsoft Windows x86-64
3. Install the JRockit on the computer where you will install the Oracle WebLogic server. The directory where you install the JRockit is referred to in this documentation as *JAVA_HOME*.

Installing JDK for Oracle Solaris on SPARC

To install JDK for an Oracle WebLogic installation on Oracle Solaris on SPARC:

1. Go to the Oracle's Sun JDK download site:
<http://java.sun.com/javase/downloads/index.jsp>
2. Download the Sun Java 6 update 23 or higher 64 Bit JDK for Solaris SPARC.
Be sure to get both files needed for 64-bit JDK for Solaris. The JDK is mixed mode, and the second installer enables the JDK to be run in 64-bit mode, which is triggered by the “-d64” parameter.
3. Install the JDK on the computer where you will install the Oracle WebLogic server.
The directory where you install the JDK is referred to in this documentation as *JAVA_HOME*.

Installing JDK for Oracle Solaris on x86-64

To install JDK for an Oracle WebLogic installation on Oracle Solaris on x86-64:

1. Go to the Oracle's Sun JDK download site:
<http://java.sun.com/javase/downloads/index.jsp>
2. Download the Sun Java 6 update 23 or higher 64 Bit JDK for both Oracle Solaris x86 and Oracle Solaris x64.
Oracle Solaris x64 requires users to first install the JDK for Oracle Solaris x86 and then run the JDK installer for Oracle Solaris x64. The JDK is mixed mode, and the second installer enables the JDK to be run in 64-bit mode, which is triggered by the “-d64” parameter.
3. Install the JDK on the computer where you will install the Oracle WebLogic server.
The directory where you install the JDK is referred to in this documentation as *JAVA_HOME*.

Task 2-1-3: Installing Oracle WebLogic on Microsoft Windows

The following procedure assumes that you saved the installation file `wls1034_generic.jar` from Oracle E-Delivery in the directory *WLS_INSTALL*. Installation in GUI mode is normally used for Microsoft Windows operating systems. You should have installed the appropriate JRockit to *JAVA_HOME* before beginning this installation.

See Installing JDK for Oracle WebLogic.

Note. Previous releases of Oracle WebLogic Server, such as 9.2 MPX, 10.3.2, and 10.3.3, can coexist with 10.3.4 on a single machine. The best practice is to install Oracle WebLogic 10.3.4 for PeopleSoft PeopleTools 8.52 into an empty directory, or at least one that does not contain other Oracle WebLogic (previously BEA) products.

If you choose, however, to install this version of Oracle WebLogic in an existing *WLS_HOME* directory (for example, `c:\bea`), you must shut down all instances of Oracle WebLogic Server running in that *WLS_HOME* before performing this installation.

To install Oracle WebLogic Server 10.3.4:

1. Open a command prompt and go to *WLS_INSTALL*.
2. Set the environment variable *JAVA_HOME* to be the location where you installed the JRockit. For example, if you installed JRockit to `C:\jrockit-jdk1.6.0_22`, use this command:

```
set JAVA_HOME=C:\jrockit-jdk1.6.0_22
```

3. Use the following command to launch the installer:

```
%JAVA_HOME%\bin\java -jar wls1034_generic.jar -mode=GUI -log=logs⇒  
\Wls1034Install.log
```

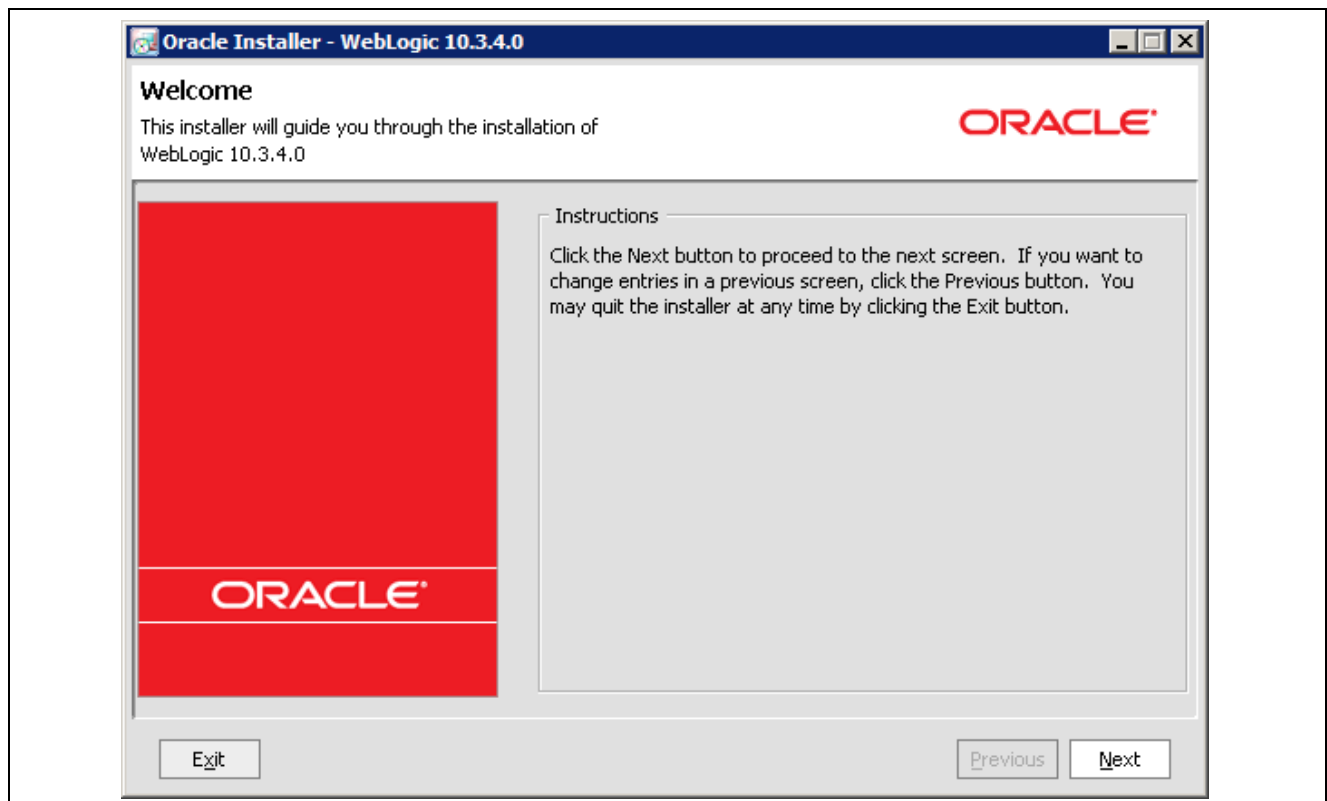
If your *JAVA_HOME* has spaces in the name, you can use double quotes around the name in the command line. For example:

```
set JAVA_HOME=C:\Program Files\jrockit-jdk1.6.0_22  
"%JAVA_HOME%\bin\java" -jar wls1034_generic.jar -mode=GUI -log=logs⇒  
\wls1034Install.log
```

Note. It may take up to five minutes to extract the installer. The Welcome window appears when the extraction is complete.

4. Click Next on the Welcome window.

The window includes the informational text: “Click the Next button to proceed to the next screen. If you want to change entries in a previous screen, click the Previous button. You may quit the installer at any time by clicking the Exit button.”



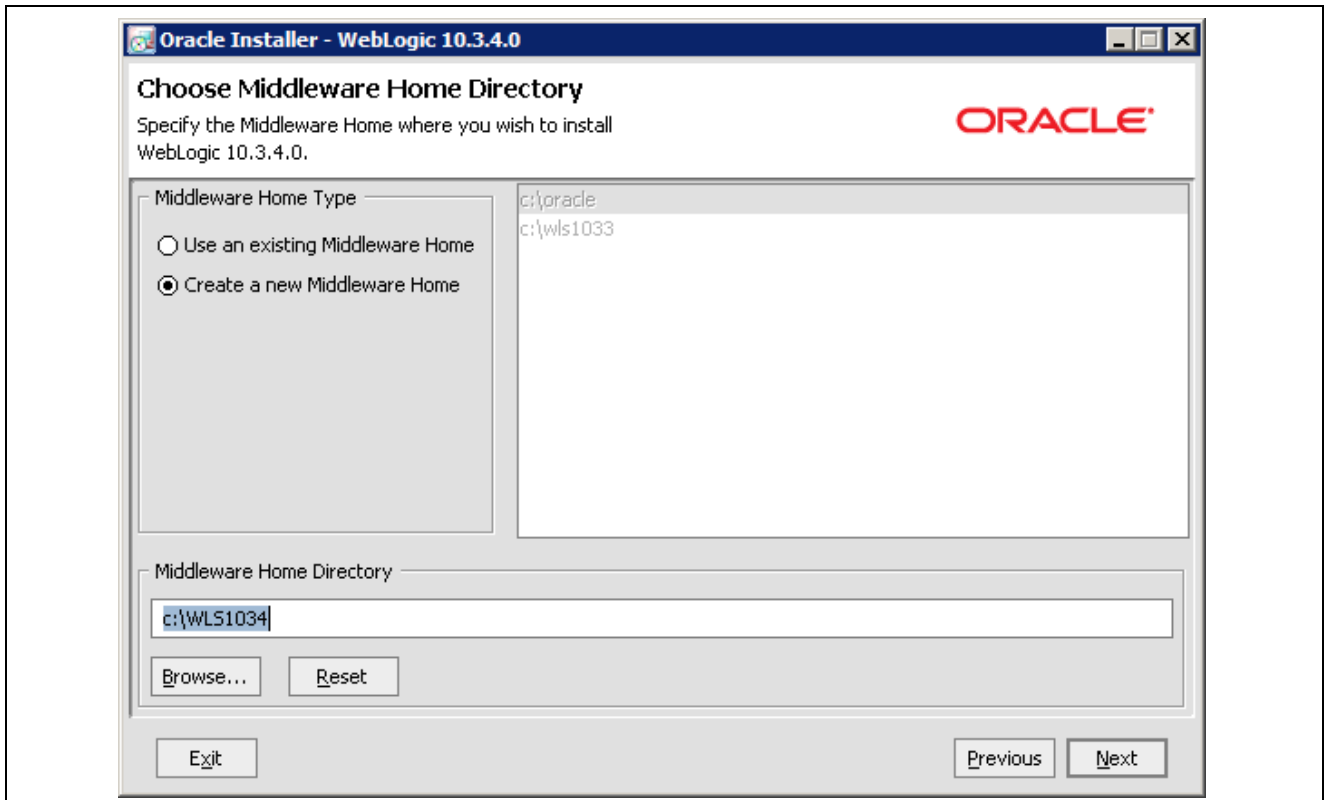
Welcome window for Oracle WebLogic 10.3.4.0 installer

5. Select the option to Create a new Middleware Home, and enter a name or browse to an existing directory.

Do not choose a directory that contains an existing installation of Oracle Web Logic.

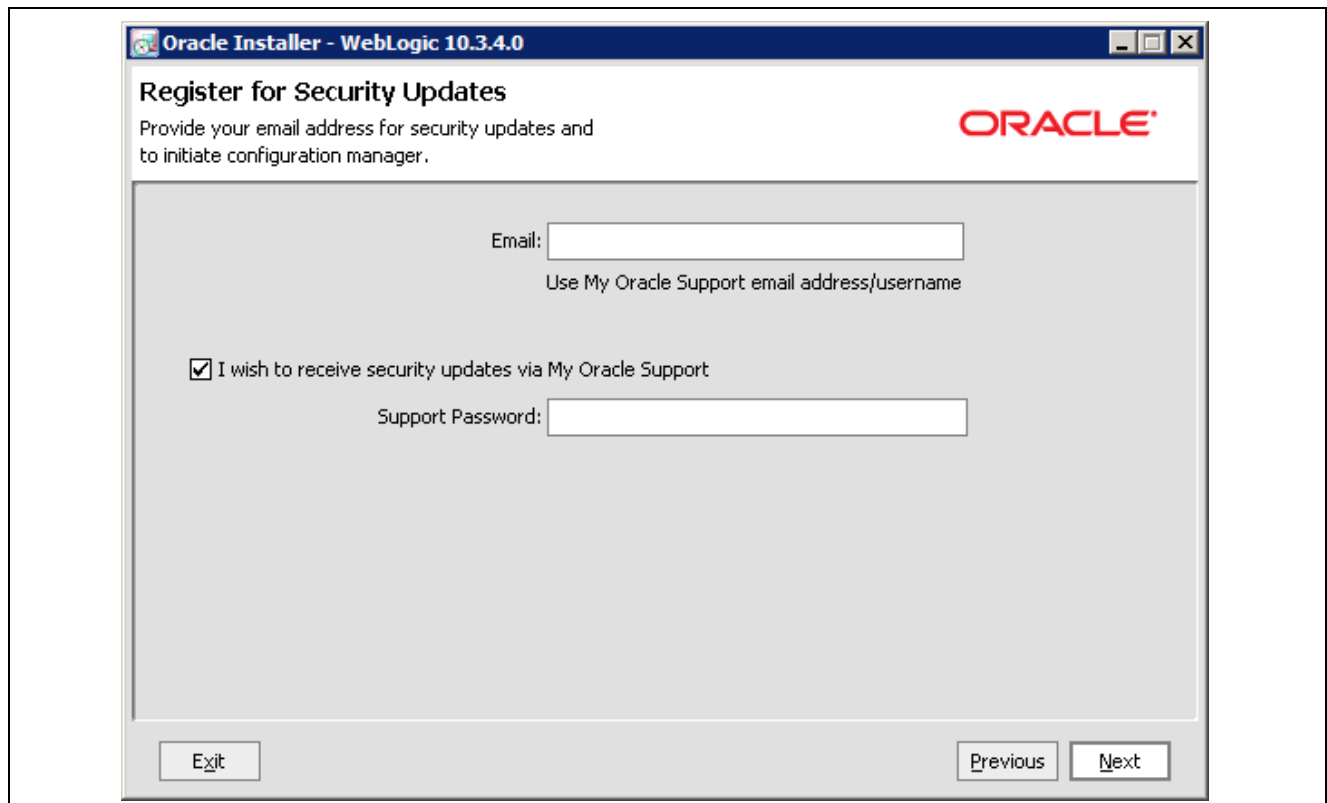
If the directory does not exist, the Oracle WebLogic installer creates it. The directory where you install Oracle WebLogic is referred to as *WLS_HOME* in this documentation. In this example *WLS_HOME* is C:\WLS1034.

Click Next to continue.



Choose Middleware Home Directory window

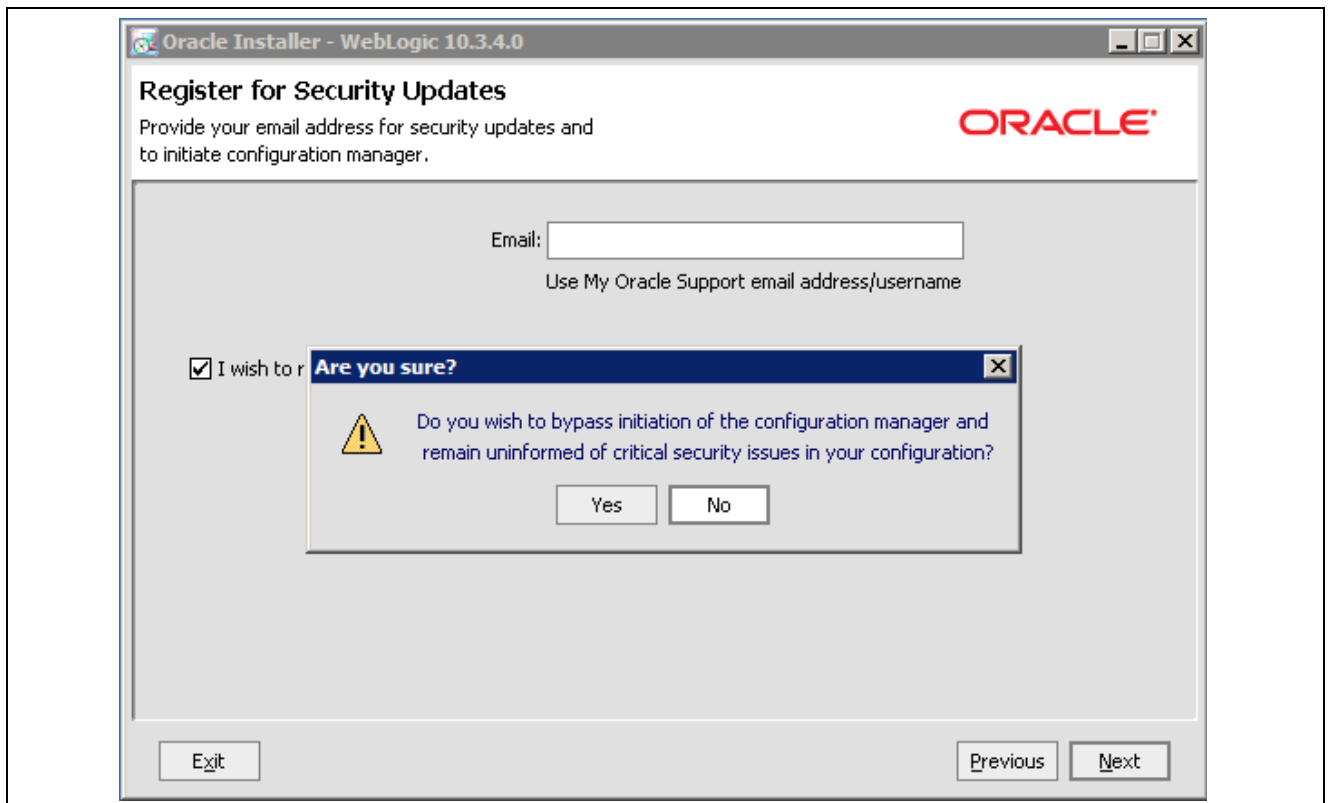
6. Clear the option I wish to receive security updates via My Oracle Support on the Register for Security Updates window.



Register for Security Updates window

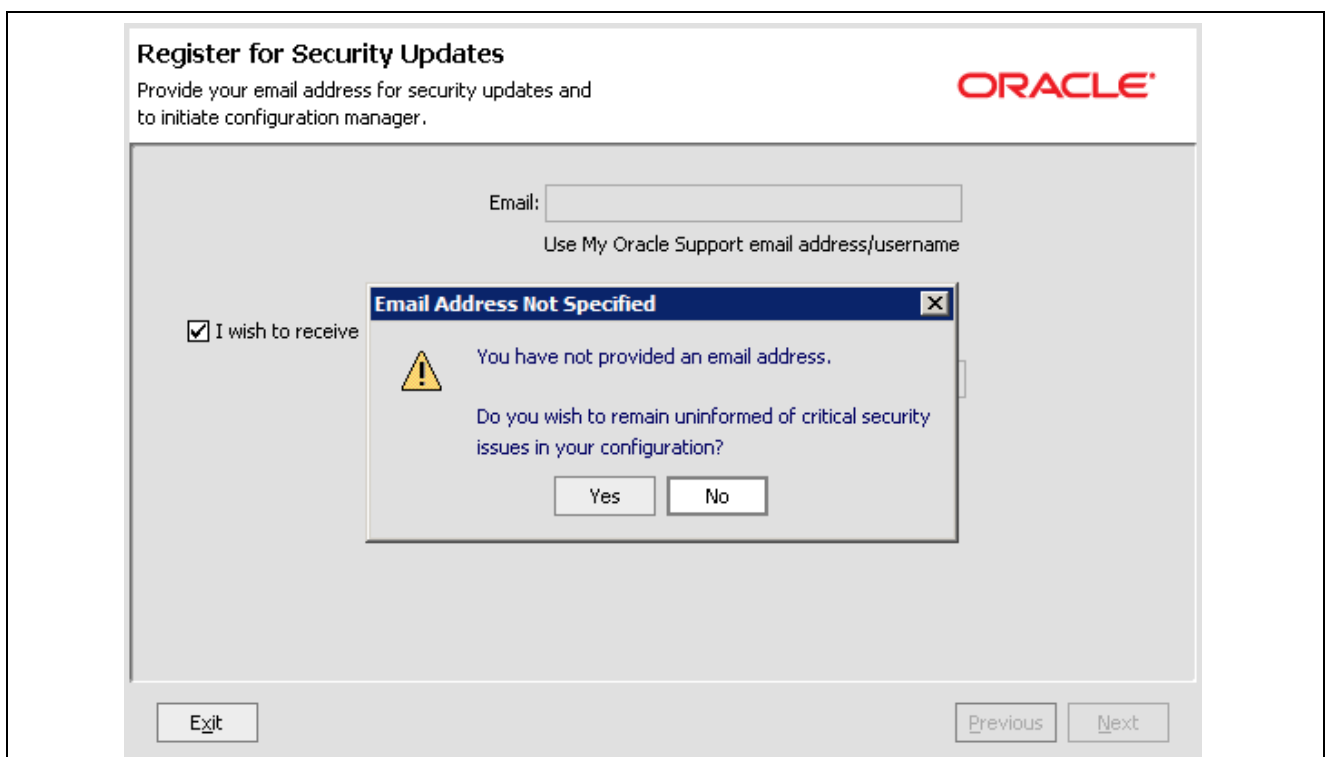
A dialog box labelled “Are you sure?” appears, as shown below, asking for confirmation with this query: “Do you wish to bypass initiation of the configuration manager and remain uninformed of critical security issues in your configuration?”

Click Yes in the "Are you sure?" dialog box.



Confirming that you wish to bypass security update registration

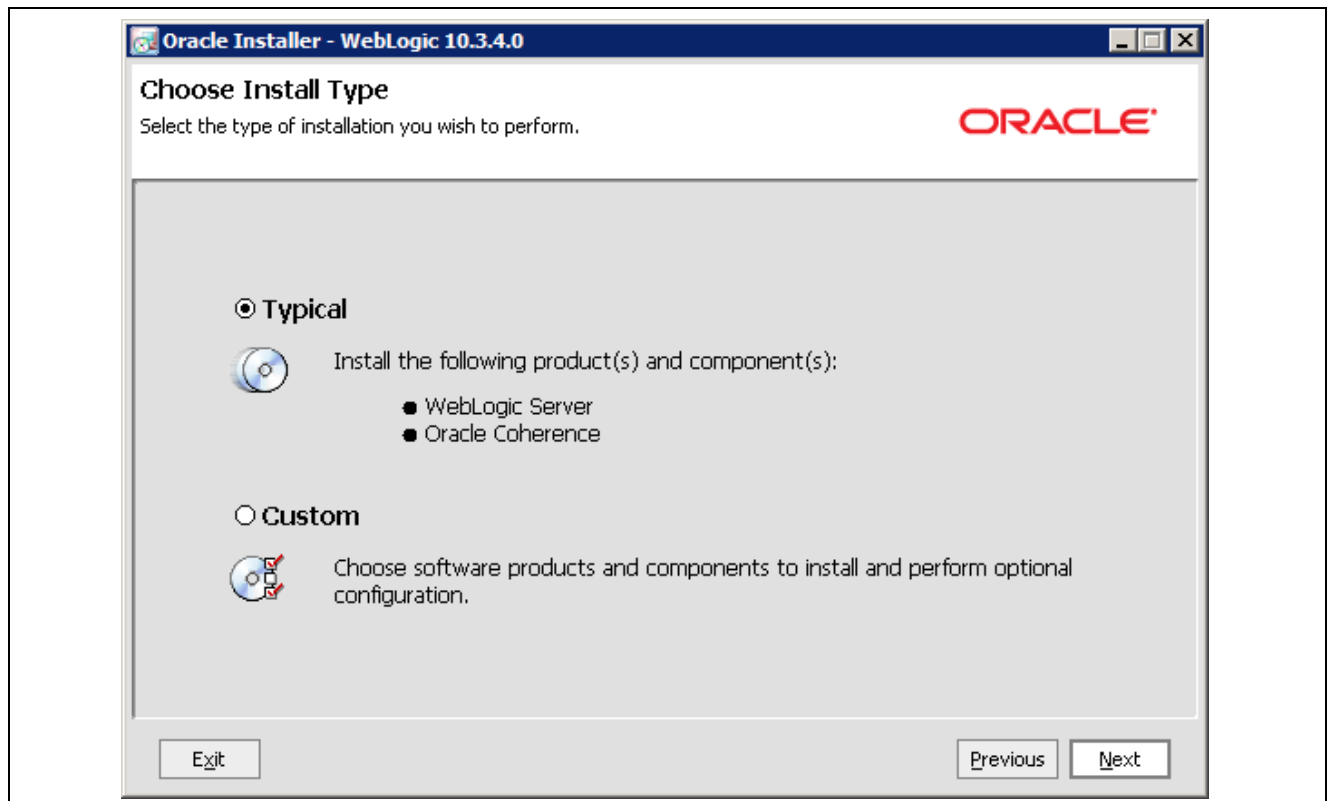
A dialog box labelled “Email Address Not Specified” appears; click Yes to confirm that you wish to remain uninformed of critical security issues:



Email Address Not Specified dialog box

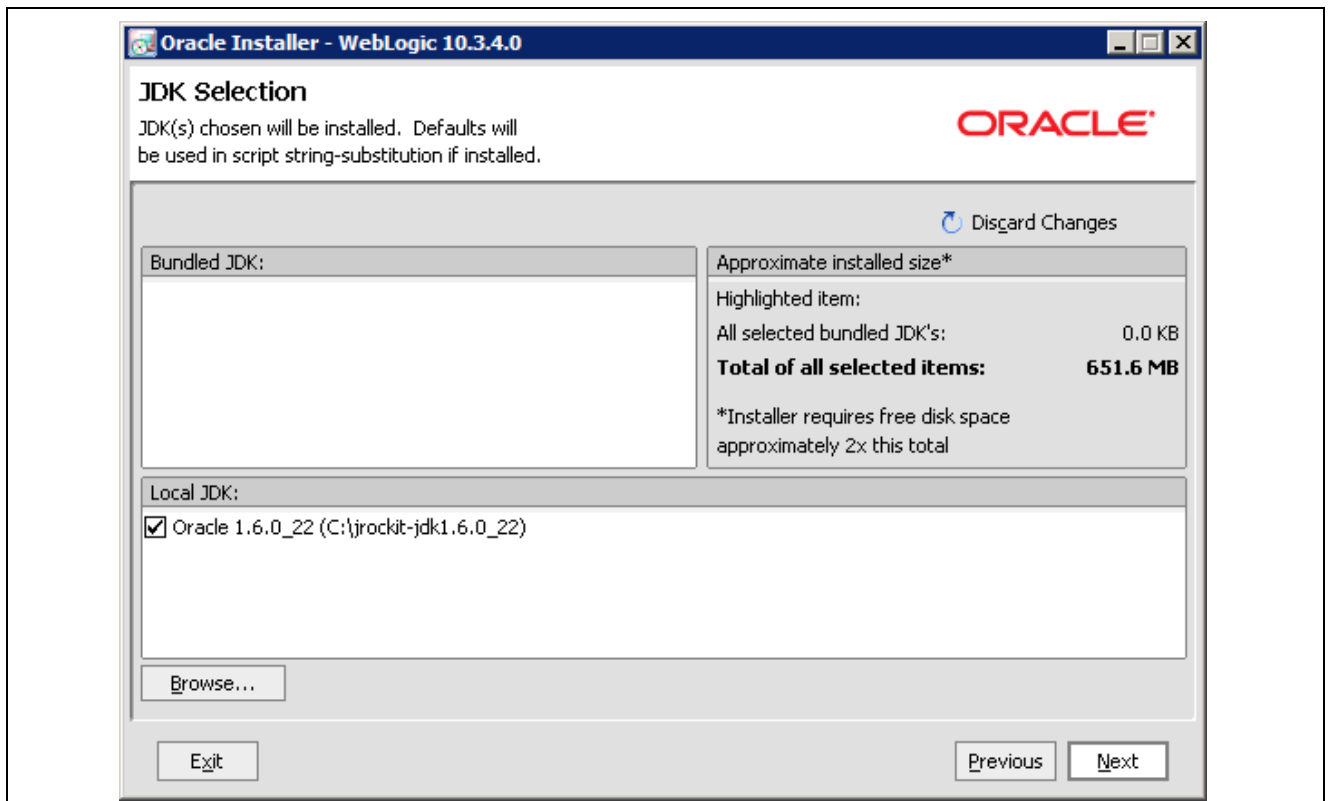
The “Are you sure?” dialog box appears again; click Yes, and then click Next on the Register for Security Updates window to continue.

7. Verify that the default option Typical is selected and click Next.



Choose Install Type window

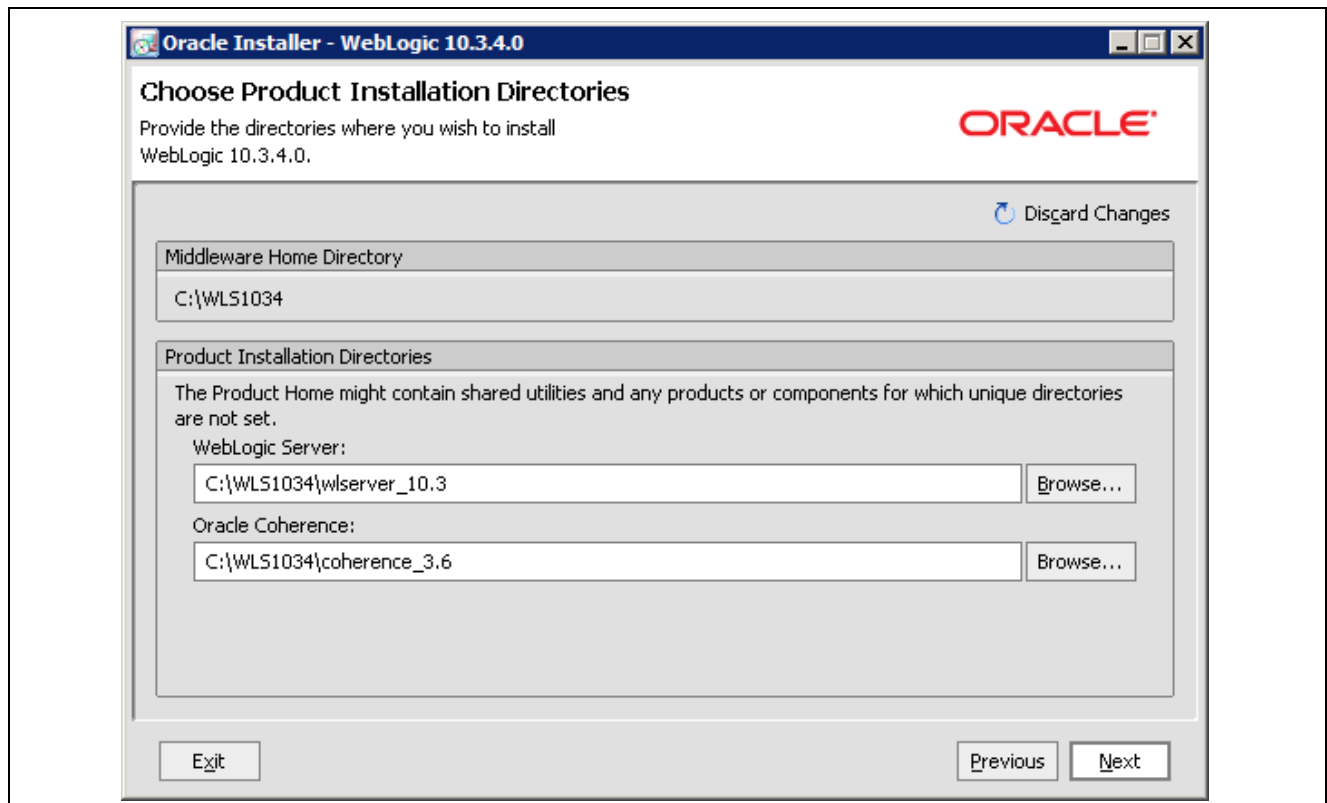
8. Accept the location where you installed the JRockit, and then click Next on the JDK Selection window.
In this example the JDK selected under Local JDK is Oracle 1.6.0_22 (C:\jrockit-jdk1.6.0_22).



JDK Selection window

9. Accept the default selection in the Choose Product Installation Directories window, and click Next.

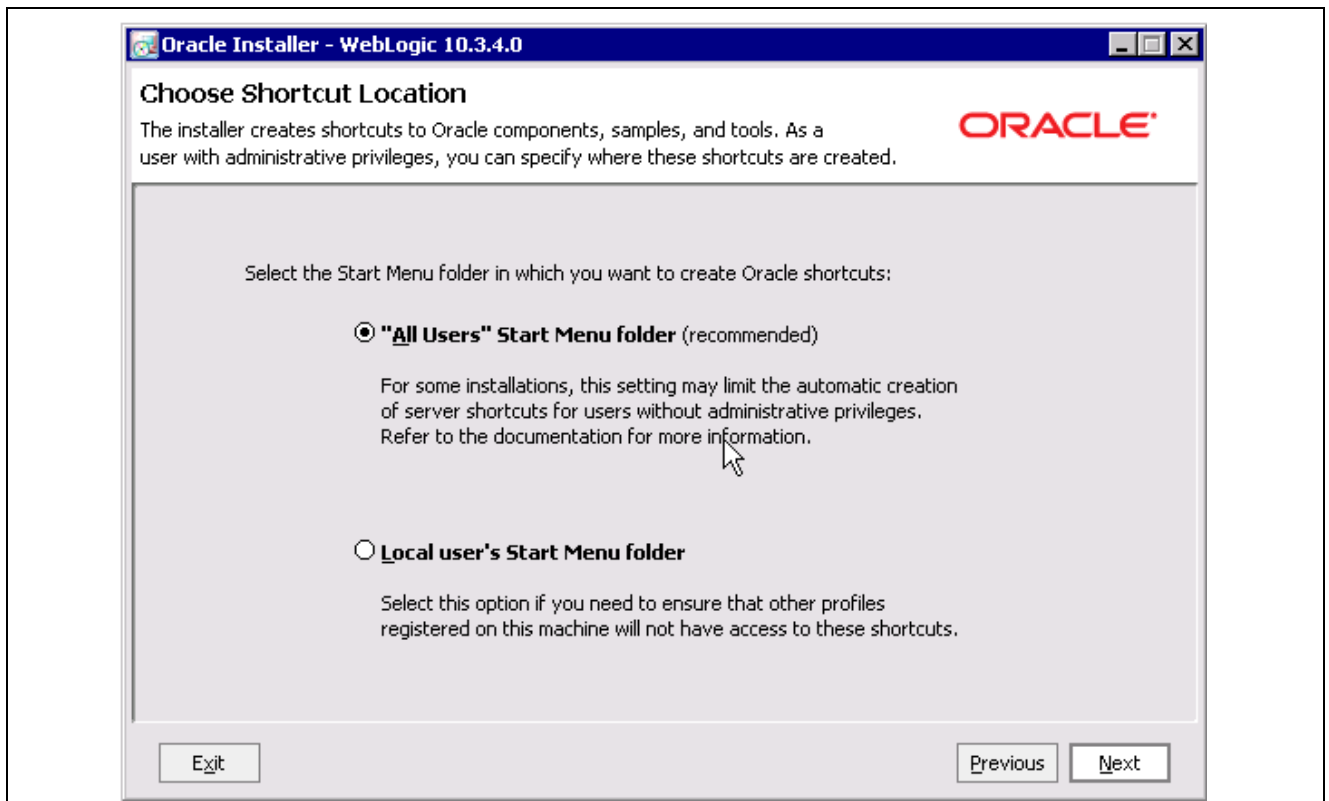
Note. Be sure to accept the default directory. This is important for interaction with Oracle support. In this example, the Middleware Home Directory is C:\WLS1034, and the default product installation directory is C:\WLS1034\wlserver_10.3.



Choose Product Installation Directories window

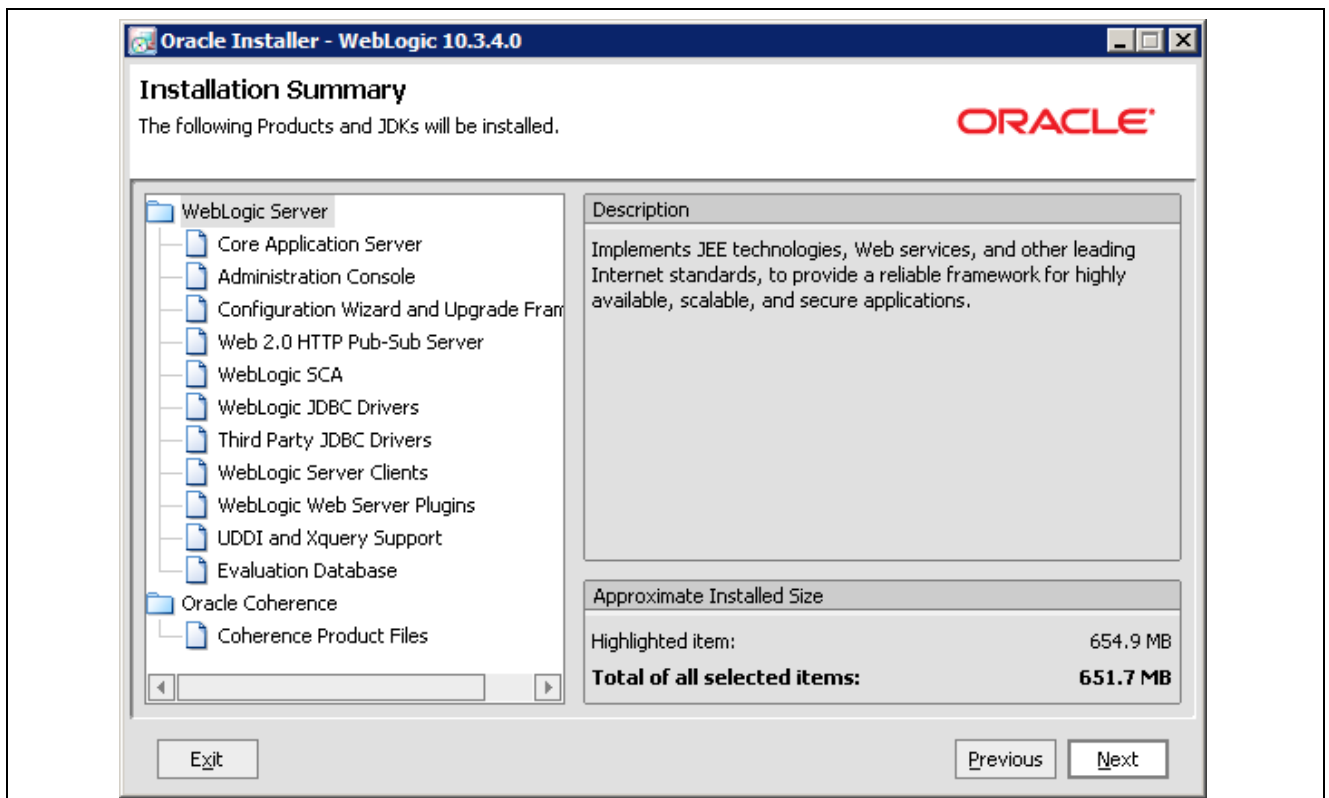
10. Accept the default selection, “All Users” Start Menu folder (recommended), on the Choose Shortcut Location window, and click Next.

Note. This window may not appear, depending upon your environment.



Choose Shortcut Location window

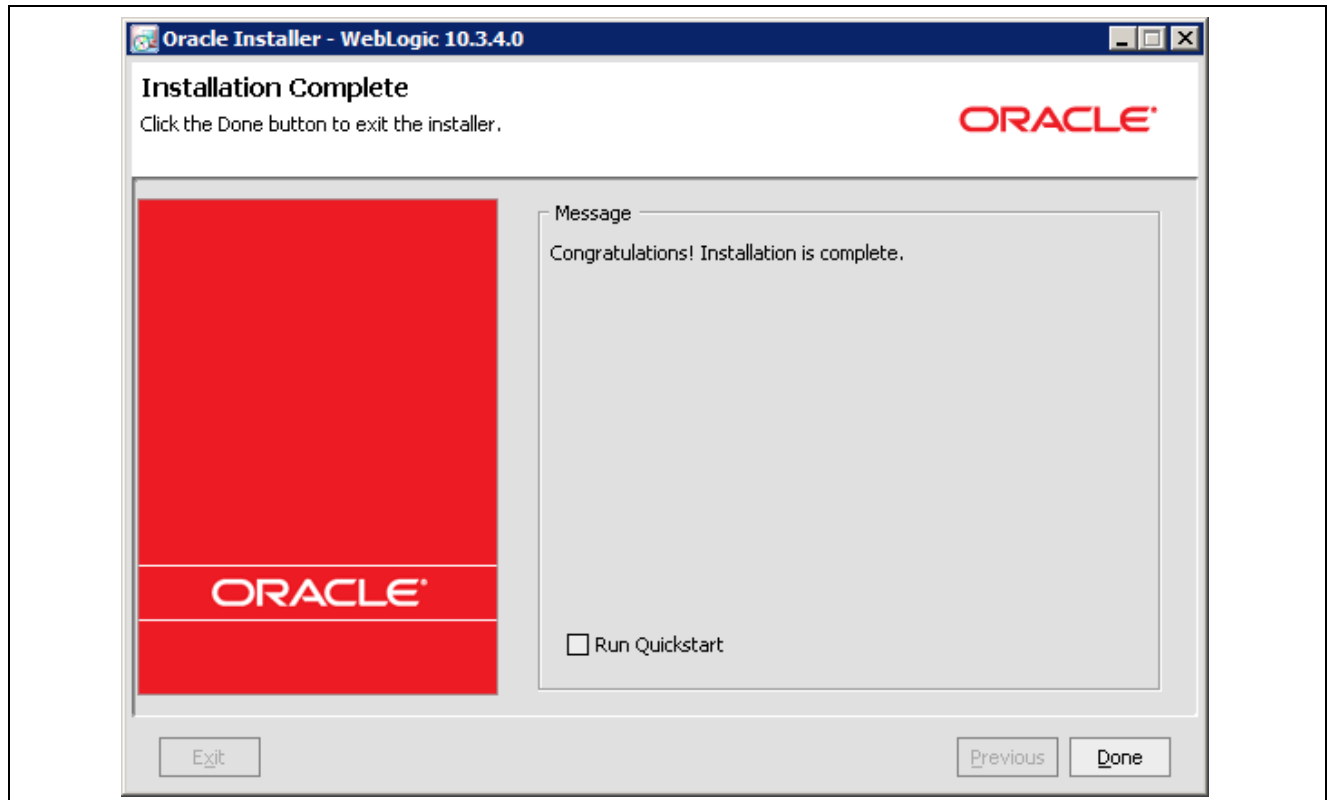
11. Verify your choices in the installation summary, and click Next to begin the installation.



Installation Summary window

A window appears tracking the progress of the installation.

12. When the installation has completed successfully, clear the Run Quickstart option, and click Done.



Installation Complete window

Task 2-1-4: Installing Oracle WebLogic on Linux or UNIX

The following procedure assumes that you saved the installation file `wls1034_generic.jar` from Oracle E-Delivery in the directory `WLS_INSTALL`. Installation in console mode is normally used for Linux and UNIX operating systems. You should have installed the appropriate JDK to `JAVA_HOME` before beginning this installation.

See Installing JDK for Oracle WebLogic.

To install Oracle WebLogic in console mode:

1. Change directory to `WLS_INSTALL` and make the installer file executable using the following command:

```
chmod a+x wls1034_generic.jar
```

If you downloaded the zip file for the Oracle WebLogic installation from Oracle E-Delivery to a Microsoft Windows computer, FTP the zip file in binary mode to your Linux or Oracle Solaris computer before unzipping it into `WLS_INSTALL`.

2. In a shell window, change directory to the location where you saved the installer:

```
cd WLS_INSTALL
```

3. Set the environment variable `JAVA_HOME` to be the location where you installed the JDK.

For example, if you installed the JDK to `"/usr/java6_64"` use these commands:

```
JAVA_HOME=/usr/java6_64
export JAVA_HOME
```

4. Use the following command to launch the installer and specify a log file:

Note. The installer creates a log file named `wls1034Install.log` in the directory `WLS_INSTALL/logs`. Be sure you have write permission to the `WLS_INSTALL` directory.

- For AIX or Linux:

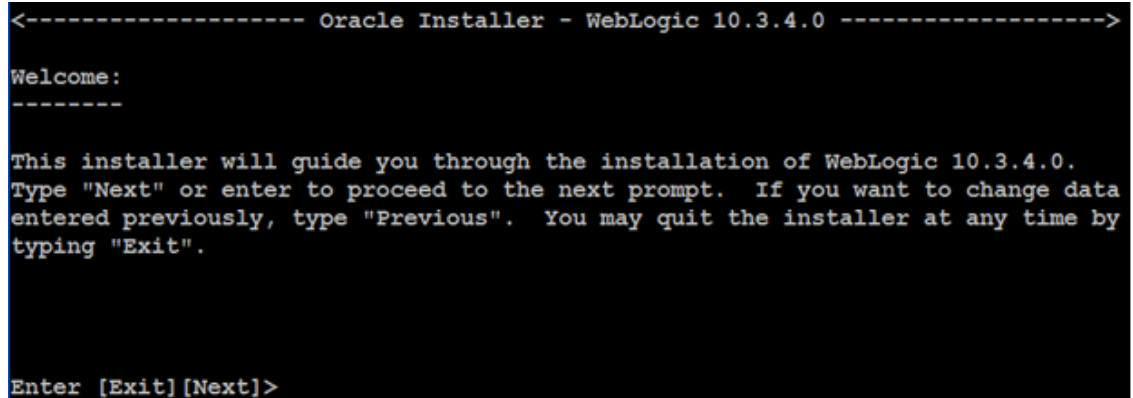
```
${JAVA_HOME}/bin/java -jar ./wls1034_generic.jar -mode=console -log=./logs⇒
/Wls1034Install.log
```

- For HP-UX or Oracle Solaris:

```
${JAVA_HOME}/bin/java -d64 -jar ./wls1034_generic.jar -mode=console -log=⇒
/logs/Wls1034Install.log
```

Note. The JVM parameter `-d64` is required for Oracle Solaris and HP-UX platforms.

5. Type `Next` and press `ENTER` after the welcome message shown in this example:



```
<----- Oracle Installer - WebLogic 10.3.4.0 ----->

Welcome:
-----

This installer will guide you through the installation of WebLogic 10.3.4.0.
Type "Next" or enter to proceed to the next prompt.  If you want to change data
entered previously, type "Previous".  You may quit the installer at any time by
typing "Exit".

Enter [Exit] [Next]>
```

Oracle WebLogic Welcome prompt

The prompt includes the following information:

```
This installer will guide you through the installation of WebLogic 10.3.4.0.
Type "Next" or enter to proceed to the next prompt.  If you want to change data⇒
entered previously, type "Previous".  You may quit the installer at any time⇒
by typing "Exit".
```

6. Accept the option to Create a new Middleware Home at the next prompt.

You see this prompt only if there are existing Oracle WebLogic installations on your computer. If the installer does not find an existing Middleware Home on your computer, it skips this step.

The installer lists the existing Oracle WebLogic installations on your computer. The selection arrow should point to *Create a new Middleware Home*. Type `Next` to accept this default option.

Note. Do not type a number; simply type `Next`.

```

<----- Oracle Installer - WebLogic 10.3.4.0 ----->

Choose Middleware Home Directory:
-----

->1|* Create a new Middleware Home
   2|/home/ms23546/64BitWls1034OnJRT40160007

Enter index number to select OR [Exit][Previous][Next]> 1

```

Choose Middleware Home Directory prompt

7. Enter the full path where you want to install Oracle WebLogic, and press ENTER.

Install Oracle WebLogic Server 10.3.4 into a new location, different from where you installed your previous versions of Oracle WebLogic Server including Oracle WebLogic Server 10.3.3. In this example, *WLS_HOME* is */home/ms23546/64bitWls1034GA_Console104*. The default in the prompt is */home/ms23546/Oracle/Middleware*.

The directory where you install Oracle WebLogic is referred to as *WLS_HOME* in this documentation. If the directory does not exist, the installer creates it for you.

```

<----- Oracle Installer - WebLogic 10.3.4.0 ----->

Choose Middleware Home Directory:
-----

"Middleware Home" = [Enter new value or use default
"/home/ms23546/Oracle/Middleware"]

Enter new Middleware Home OR [Exit][Previous][Next]> /home/ms23546/64BitWls1034GA
A_Console104

```

Entering the Middleware Home Directory

8. Type Next at the confirmation prompt displaying the Middleware Home directory, and press ENTER.

```

<----- Oracle Installer - WebLogic 10.3.4.0 ----->

Choose Middleware Home Directory:
-----

"Middleware Home" = [/home/ms23546/64BitWls1034GA_Console104]

Use above value or select another option:
  1 - Enter new Middleware Home
  2 - Change to default [/home/ms23546/Oracle/Middleware]

Enter option number to select OR [Exit][Previous][Next]> Next

```

Middleware Home Directory confirmation prompt

9. At the prompt to register for security updates, type 3 for Receive Security Update, and press ENTER.

Note. In the next few steps, you will bypass the security updates registration.

```
<----- Oracle Installer - WebLogic 10.3.4.0 ----->

Register for Security Updates:
-----

Provide your email address for security updates and to initiate configuration m
anager.

1|Email:[]
2|Support Password:[]
3|Receive Security Update:[Yes]

Enter index number to select OR [Exit][Previous][Next]> 3
```

Register for Security Updates prompt

10. Type *No* when asked to provide your email address and press ENTER at the following prompt, “Receive Security Update”:

```
<----- Oracle Installer - WebLogic 10.3.4.0 ----->

Register for Security Updates:
-----

Provide your email address for security updates and to initiate configuration m
anager.

"Receive Security Update:" = [Enter new value or use default "Yes"]

Enter [Yes][No]? No
```

Provide email address for security updates prompt

11. Type *Yes* and press ENTER to confirm your choice to bypass the registration at the prompt with this question: “Do you wish to bypass initiation of the configuration manager and remain uninformed of critical security issues in your configuration?”

```
<----- Oracle Installer - WebLogic 10.3.4.0 ----->

Register for Security Updates:
-----

Provide your email address for security updates and to initiate configuration m
anager.

    "Receive Security Update:" = [Enter new value or use default "Yes"]

    ** Do you wish to bypass initiation of the configuration manager and
    ** remain uninformed of critical security issues in your configuration?

Enter [Yes][No]? Yes
```

Confirming the choice to bypass registration for security updates

12. Type *Next* at the following prompt and press ENTER.

Note that the value *No* is now populated for item 3, “Receive Security Update”.

```
<----- Oracle Installer - WebLogic 10.3.4.0 ----->

Register for Security Updates:
-----

Provide your email address for security updates and to initiate configuration m
anager.

    1|Email:[]
    2|Support Password:[]
    3|Receive Security Update:[No]

Enter index number to select OR [Exit][Previous][Next]> Next
```

Verifying the choice to bypass the security updates

13. Enter *1* to select a Typical installation at the Choose Install Type prompt:


```

<----- Oracle Installer - WebLogic 10.3.4.0 ----->

Choose Install Type:
-----

Select the type of installation you wish to perform.

->1|Typical
   |  Install the following product(s) and component(s):
   |  - WebLogic Server
   |  - Oracle Coherence

   2|Custom
   |  Choose software products and components to install and perform optional
   |  configuration.

Enter index number to select OR [Exit][Previous][Next]> Next

```

Choose Install Type prompt

14. Type Next and press ENTER to confirm the JDK location at the JDK Selection prompt.

The location in this example is /usr/java6_64.

```

<----- Oracle Installer - WebLogic 10.3.4.0 ----->

JDK Selection (Any * indicates Oracle Supplied VM):
-----

JDK(s) chosen will be installed. Defaults will be used in script string-substitution if installed.

   1|Add Local Jdk
   2|/usr/java6_64[x]

*Estimated size of installation: 721.0 MB

Enter 1 to add or >= 2 to toggle selection OR [Exit][Previous][Next]> Next

```

JDK Selection prompt

15. Accept the default selection at the Choose Product Installation Directories prompt, and type Next.

Note. Be sure to accept the default directory. This is important for interaction with Oracle support.

The Middleware Home Directory in this example is /home/ms23546/64BitWls1034GA_Console104, and the product installation directory is /home/ms23546/64BitWls1034GA_Console104/wlserver_10.3.

```

<----- Oracle Installer - WebLogic 10.3.4.0 ----->

Choose Product Installation Directories:
-----

Middleware Home Directory: [/home/ms23546/64BitWls1034GA_Console104]

Product Installation Directories:

  1|WebLogic Server:
  [/home/ms23546/64BitWls1034GA_Console104/wlserver_10.3]   2|Oracle
Coherence:
  |[/home/ms23546/64BitWls1034GA_Console104/coherence_3.6]

Enter index number to select OR [Exit][Previous][Next]> Next

```

Choose Product Installation Directories prompt

16. Verify your choices in the installation summary, and type Next to begin the installation.

```

<----- Oracle Installer - WebLogic 10.3.4.0 ----->

The following Products and JDKs will be installed:
-----

WebLogic Platform 10.3.4.0
|   WebLogic Server
|   |   Core Application Server
|   |   Administration Console
|   |   Configuration Wizard and Upgrade Framework
|   |   Web 2.0 HTTP Pub-Sub Server
|   |   WebLogic SCA
|   |   WebLogic JDBC Drivers
|   |   Third Party JDBC Drivers
|   |   WebLogic Server Clients
|   |   WebLogic Web Server Plugins
|   |   UDDI and Xquery Support
|   |   Evaluation Database
|   Oracle Coherence
|   |   Coherence Product Files

*Estimated size of installation: 721.1 MB

Enter [Exit][Previous][Next]> Next

```

Installation summary prompt

A progress indicator appears.

17. Type Exit when the installation is complete.

```

<----- Oracle Installer - WebLogic 10.3.4.0 ----->

Configuring OCM...

0%          25%          50%          75%          100%
[-----|-----|-----|-----]
[*****]

Creating Domains...

<----- Oracle Installer - WebLogic 10.3.4.0 ----->

Installation Complete

Congratulations! Installation is complete.

Press [Enter] to continue or type [Exit]> █

```

Installation Complete prompt

If the installation fails, review the events in the log file *WLS_INSTALL/logs/Wls1034Install.log*.

Task 2-1-5: Installing Oracle WebLogic on Linux or UNIX in Silent Mode

Installation in console mode is normally used for Linux and UNIX operating systems, but you also may use the silent mode installation. The following procedure assumes that you saved the installation file *wls1034_generic.jar* from Oracle E-Delivery in the directory *WLS_INSTALL*. You should have installed the appropriate JDK to *JAVA_HOME* before beginning this installation.

To run the Oracle WebLogic installation in silent mode:

1. Download the Oracle WebLogic installation file and save it in a local directory, referred to here as *WLS_INSTALL*.

If you downloaded the zip file for the Oracle WebLogic installation from Oracle E-Delivery to a Microsoft Windows computer, FTP the zip file in binary mode to your Linux or Oracle Solaris computer before unzipping it into *WLS_INSTALL*.

2. Change directory to *WLS_INSTALL* and make the installer file executable using the following command:

```
chmod a+x wls1034_generic.jar
```

3. In a shell window, change directory to *WLS_INSTALL*:

```
cd WLS_INSTALL
```

4. Set *JAVA_HOME* to be the location where you installed the JDK.

For example, if the JDK had been installed under “/opt/java6”, use the following commands:

```
JAVA_HOME=/opt/java6
export JAVA_HOME
```

5. Copy the following content into a text editor and save it in XML format as *installer.xml*:

Note. Review the text and remove the line-continuation arrows, (⇒) before saving. The name “installer.xml” will later be used in the command to launch the Oracle WebLogic installer.

```
<?xml version="1.0" encoding="UTF-8"?>
<!-- Silent installer option: -mode=silent -silent_xml=/home/me/silent.xml -->
<domain-template-descriptor>
<input-fields>
  <data-value name="BEAHOME" value="ToBeReplacedWithWL1034HOME" />
  <data-value name="WLS_INSTALL_DIR" value="ToBeReplacedWithWL1034HOME/wlserver_⇒
10.3" />
  <data-value name="COMPONENT_PATHS" value="WebLogic Server/Core Application⇒
Server|WebLogic Server/Administration Console|WebLogic Server/Configuration⇒
Wizard and Upgrade Framework|WebLogic Server/Web 2.0 HTTP Pub-Sub Server|Web⇒
Logic Server/WebLogic JDBC Drivers|WebLogic Server/Third Party JDBC Drivers|Web⇒
Logic Server/WebLogic Server Clients|WebLogic Server/WebLogic Web Server⇒
Plugins|WebLogic Server/UDDI and Xquery Support|WebLogic Server/Workshop Code⇒
Completion Support|WebLogic Server/WebLogic SCA|WebLogic Server/Evaluation⇒
Database|Oracle Coherence/Coherence Product Files" />
  <data-value name="INSTALL_NODE_MANAGER_SERVICE" value="no" />
</input-fields>
</domain-template-descriptor>
```

6. Create a local directory to install Oracle WebLogic, referred to here as *WLS_HOME*.
7. Using the text replacement utility in your text editor, replace all occurrences of the string: “ToBeReplacedWithWL1034HOME” with the actual directory path you created for the Oracle WebLogic 10.3.4 installation.

Note. Install Oracle WebLogic 10.3.4 to a location different from the location where you installed previous versions of Oracle WebLogic, including version 10.3.3.

In this example, *WLS_HOME* is /home/ms23546/64BitWls1034GASilent:

```
<?xml version="1.0" encoding="UTF-8"?>
<!-- Silent installer option: -mode=silent -silent_xml=/home/me/silent.xml -->
<domain-template-descriptor>
<input-fields>
  <data-value name="BEAHOME" value="/home/ms23546/64BitWls1034GASilent" />
  <data-value name="WLS_INSTALL_DIR" value="/home/ms23546/64BitWls1034GASilent⇒
/wlserver_10.3" />
  <data-value name="COMPONENT_PATHS" value="WebLogic Server/Core Application⇒
Server|WebLogic Server/Administration Console|WebLogic Server/Configuration⇒
Wizard and Upgrade Framework|WebLogic Server/Web 2.0 HTTP Pub-Sub Server|Web⇒
Logic Server/WebLogic JDBC Drivers|WebLogic Server/Third Party JDBC Drivers|Web⇒
Logic Server/WebLogic Server Clients|WebLogic Server/WebLogic Web Server⇒
Plugins|WebLogic Server/UDDI and Xquery Support|WebLogic Server/Workshop Code⇒
Completion Support" />
  <data-value name="INSTALL_NODE_MANAGER_SERVICE" value="no" />
```

```
</input-fields>
</domain-template-descriptor>
```

8. Save the installer.xml file in ASCII mode in *WLS_INSTALL*.

If it is necessary, FTP it in ASCII mode into the *WLS_INSTALL* directory.

9. Run the following command in the *WLS_INSTALL* directory to launch the installer:

For AIX or Linux:

```
${JAVA_HOME}/bin/java -jar ./wls1034_generic.jar -mode=silent -silent_xml=>
/installer.xml -log=./logs/Wls1034Install.log
```

For HP-UX or Oracle Solaris:

```
${JAVA_HOME}/bin/java -d64 -jar ./wls1034_generic.jar -mode=silent -silent_xml=>
./installer.xml -log=./logs/wls1034Install.log
```

Note. The JVM parameter “-d64” is required for HP-UX or Oracle Solaris.

A progress indicator tracks the installation.

10. When the installation is complete, open the *WLS_INSTALL/logs/wls1034Install.log* file with a text editor to confirm that the installation was successful.

At the end of the log file, you should see the message “The installation was successful!”

Task 2-1-6: Configuring JDK for Daylight Savings Time Change

The version of JDK mentioned in the previous section Installing JDK for Oracle WebLogic includes the Daylight Saving Time (DST) rules available at the time of packaging. If new rules are implemented after this time, you should use the instructions in this section to update the time zone definition files.

You can skip this section unless a change to the DST rules has happened near or after the general availability date of Oracle WebLogic or PeopleSoft PeopleTools. Consult the information on configuring PeopleSoft timezone definitions in the Global Technology PeopleBook.

See *PeopleTools 8.52: Global Technology PeopleBook*

This section provides an example of how the time zone updater utility (TZUPDATER), supplied by each of the four JDK vendors can be used to update the time zone definition files contained in the JDK used by Oracle WebLogic server.

1. Identify and shut down any JVM processes that are using the JDK that you will be updating.
2. For future reference or restoration, back up the location where the targeted JDK is located.

The JDK being used for different operating systems is different. For Oracle WebLogic 10.3.4, refer to the *commEnv.cmd* (for Windows), or *commEnv.sh* (for UNIX) file under *WLS_HOME\wlserver_10.3\common\bin* to determine the setting for *JAVA_HOME* and the exact name and location for the JDK being used by your Oracle WebLogic server. *WLS_HOME* is the directory where Oracle WebLogic is installed.

3. Download the appropriate updater utility for your operating system from the JDK vendor, as listed in this table:

Operating System	Vendor	Time Zone Updater URL
HP-UX	Hewlett Packard	http://www.hp.com/go/java (Select the “DST” link.)
IBM AIX 5L	IBM	http://www-128.ibm.com/developerworks/java/jdk/dst/index.html
Linux	Oracle	http://www.oracle.com/technology/software/products/jrockit/index.html
Microsoft Windows	Oracle	http://www.oracle.com/technology/software/products/jrockit/index.html
Oracle Solaris (on SPARC and x86-64)	Oracle	http://java.sun.com/javase/tzupdater_README.html

Each tzupdater provided by the vendor comes with instructions (typically in a readme file) describing how to:

- Locate the correct JDK.
- Apply classes using the tzupdater or provided scripts.
- Check tzupdater versions.

Read the instructions carefully as the steps and instructions are vendor-specific. Keep in mind that these instructions and versions may be updated when the vendor finds it necessary.

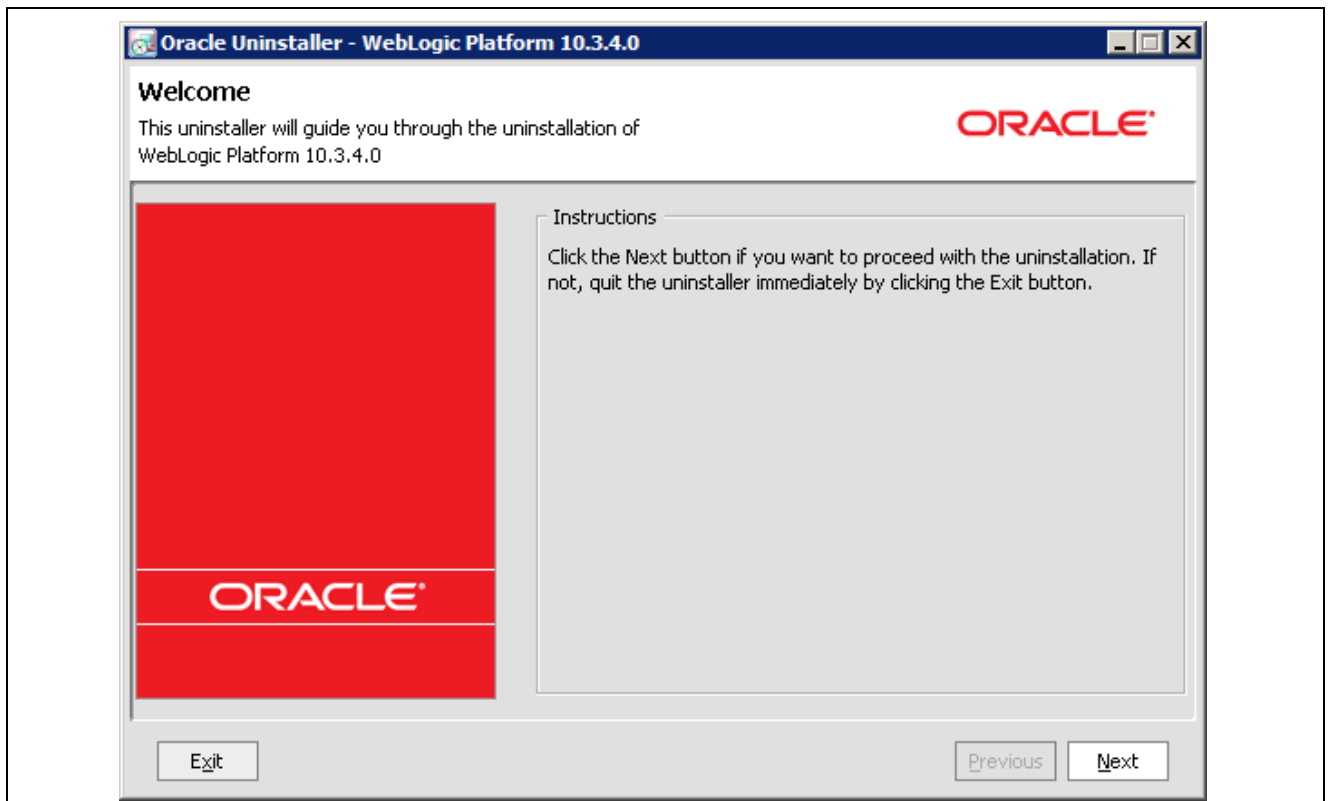
Note. After successfully running the TZUPDATER to update a JDK location, the changes will take effect only for newly started Java processes from that location. In the event that you did not identify and stop all Java processes running from this location, it will be necessary to stop and restart these for the changes to take effect.

Task 2-1-7: Removing the Oracle WebLogic Installation on Microsoft Windows

To remove the Oracle WebLogic installation on Microsoft Windows (GUI mode):

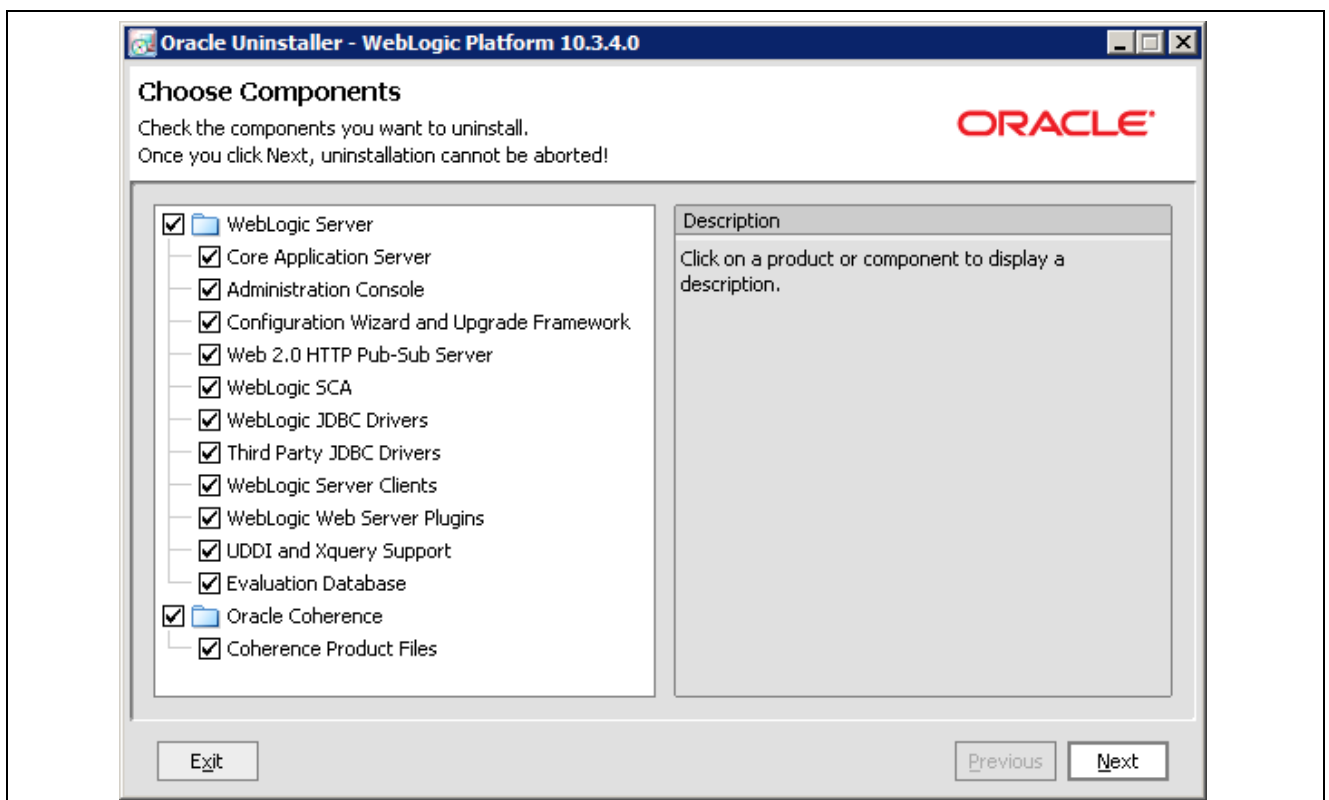
1. Select Start, Programs, Oracle WebLogic, Uninstall Oracle WebLogic.

The welcome window includes the informational text: “Click the Next button if you want to proceed with the uninstallation. If not, quit the uninstaller immediately by clicking the Exit button.”

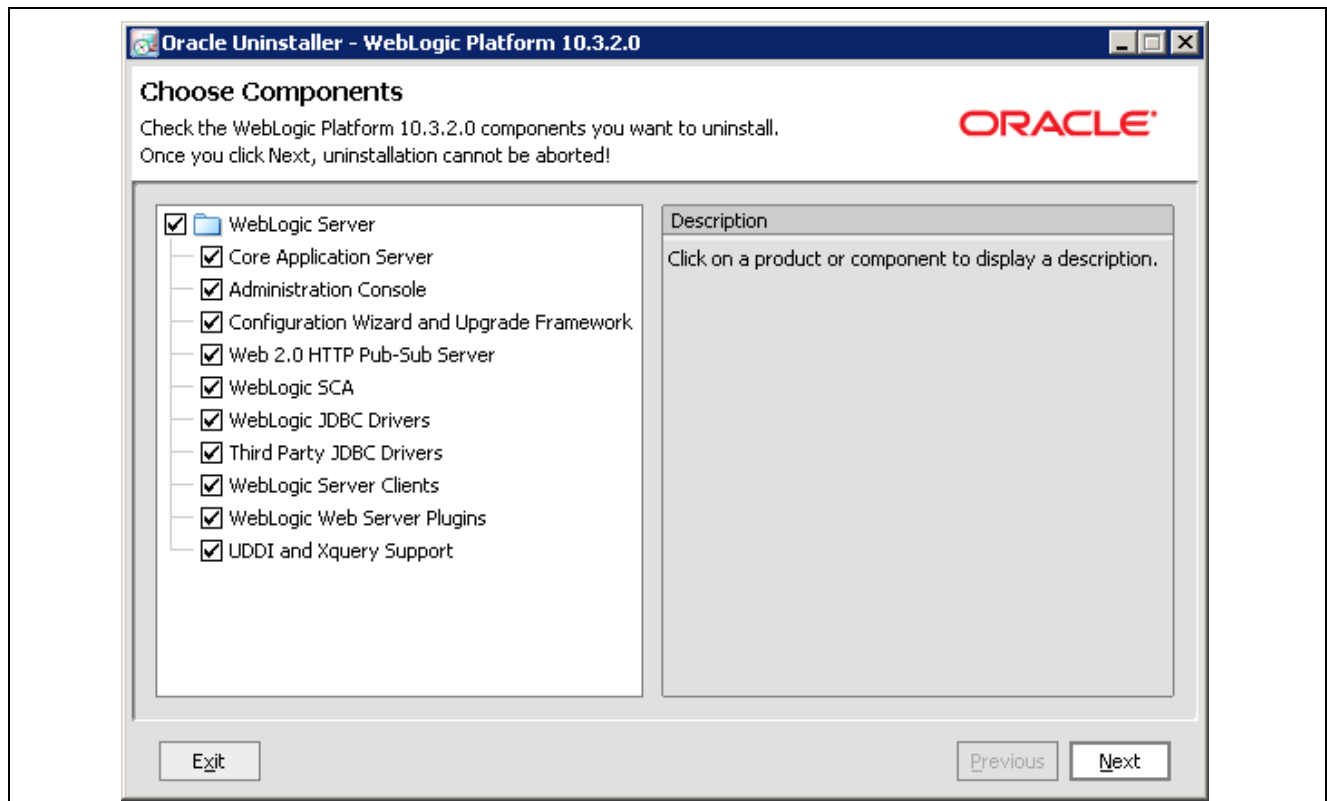


Oracle WebLogic Uninstaller: Welcome window

2. Select the components that you want to uninstall (by default all components are selected) and click Next.



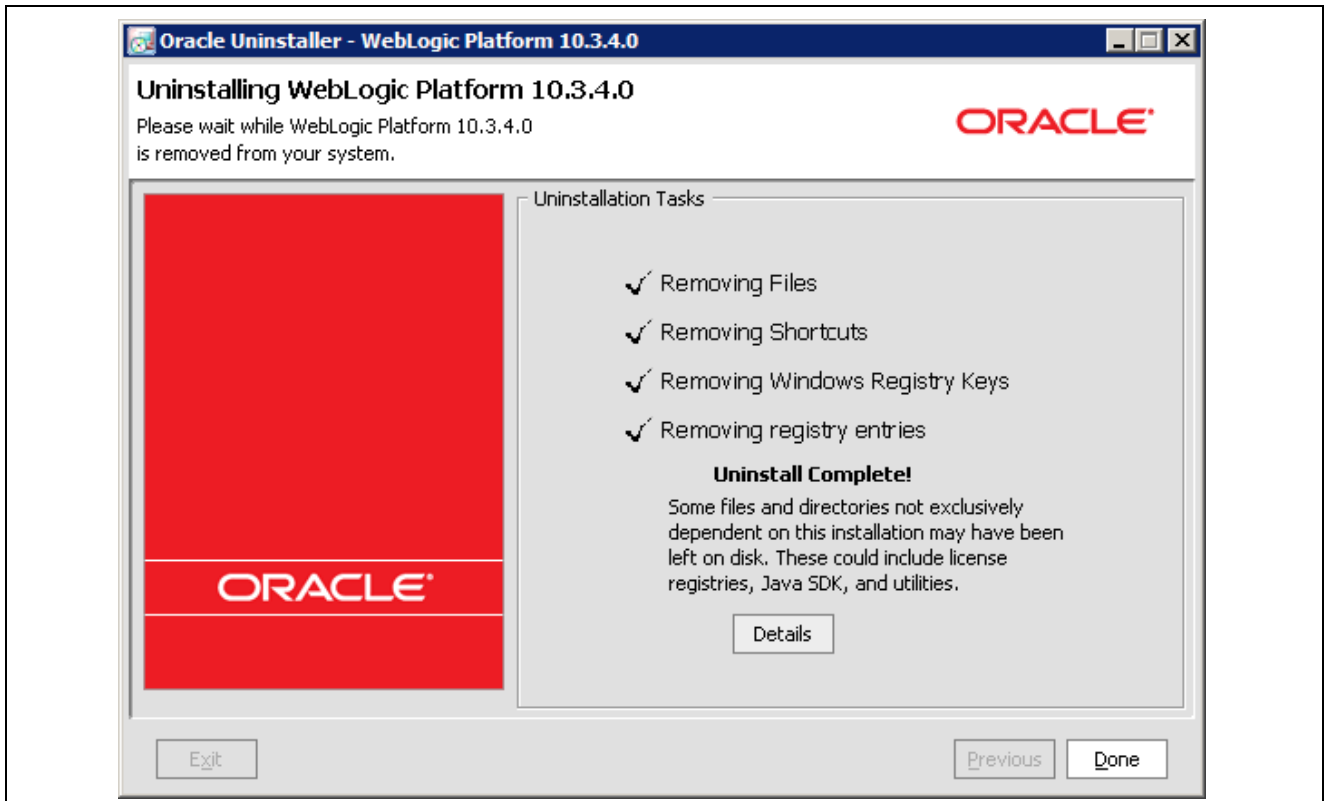
Oracle WebLogic Uninstaller: Choose Components window



Oracle WebLogic Uninstaller: Choose Components window

A progress indicator tracks the components being removed.

3. After all the components are uninstalled, click Done.



Oracle WebLogic Uninstaller: Uninstall Complete window

4. Remove the *WLS_HOME* directory after the uninstallation.

Task 2-1-8: Removing the Oracle WebLogic Installation in Console Mode

To remove the Oracle WebLogic installation on UNIX or Linux in console mode:

1. Change directory to *WLS_HOME/weblogic_10.3/uninstall*.
2. Run the following command to launch the uninstaller:

```
uninstall.sh
```

Note. To run the uninstaller on Microsoft Windows in console mode, use the command `uninstall.cmd`.

3. Type Next at the Welcome prompt:

```
<-----Oracle Uninstaller - WebLogic Platform 10.3.4.0----->
Welcome:
```

```
Welcome to the WebLogic Platform 10.3.4.0 uninstaller. If
you wish to proceed with the uninstallation type Next,
otherwise, please type Exit to cancel.
```

```
Enter [Exit] [Next] > Next
```

4. Type Next to accept a full uninstallation.

The screen lists all of the products and components that will be removed. The following example shows the product list for Linux:

```
<-----Oracle Uninstaller - WebLogic Platform 10.3.4.0----->
Choose Products and Components to uninstall:
-----
Check the WebLogic Platform components you want to uninstall.

WebLogic Platform 10.3.4.0
|____WebLogic Server [1] x
|____Core Application Server [1.1] x
|____Administration Console [1.2] x
|____Configuration Wizard and Upgrade Framework [1.3] x
|____Web 2.0 HTTP Pub-Sub Server [1.4] x
|____WebLogic SCA [1.5] x
|____WebLogic JDBC Drivers [1.6] x
|____Third Party JDBC Drivers [1.7] x
|____WebLogic Server Clients [1.8] x
|____WebLogic Web Server Plugins [1.9] x
|____UDDI and Xquery Support [1.10] x

|____Oracle Coherence [2] x
|____Coherence Product Files [2.1] x

Enter number exactly as it appears in brackets to toggle selection OR [Exit]>=>
Next
```

5. An indicator shows the progress of the uninstallation process, followed by a completion message.

```
<-----Oracle Uninstaller - WebLogic Platform 10.3.4.0----->
Uninstallation Complete
Uninstallation of selected components has completed successfully.

Press [Enter] to continue
```

6. Manually remove *WLS_HOME* to complete the uninstallation.

Task 2-2: Installing IBM WebSphere Application Server

This section discusses:

- Understanding IBM WebSphere Installation
- Prerequisites
- Obtaining IBM WebSphere Installation Files
- Installing IBM WebSphere 7.0.0.15 ND
- Installing IBM HTTP Server 7.0.0.15 on HP-UX Itanium and Oracle Solaris
- Installing IBM HTTP Server 7.0.0.15 on AIX, Linux, and Microsoft Windows

- Installing IBM WebSphere Plug-ins 7.0.0.15

Understanding IBM WebSphere Installation

Oracle supports 64-bit IBM® WebSphere® Application Server Network Deployment 7.0.0.15 (referred to as IBM WebSphere ND in this documentation) for PeopleSoft PeopleTools 8.52. The IBM WebSphere ND requires Java Runtime Environment (JRE) 1.6 SR6.

IBM WebSphere Application Server supports IBM HTTP server (IHS) as a HTTP Reverse Proxy servers. IBM WebSphere Application Server alone cannot act as a proxy server for PeopleSoft PeopleTools REN Server. You must also install PeopleSoft Pure Internet Architecture, as well as installing the IBM HTTP server. Consult My Oracle Support for information on the versions of IHS certified for use with PeopleSoft PeopleTools.

This section includes guidelines for installing IBM WebSphere ND, the Web server plug-ins for IBM WebSphere Application Server, and IHS. For detailed installation instructions, see the IBM documentation.

See Also

Enterprise PeopleTools 8.52 Hardware and Software Requirements

My Oracle Support, Certifications

"Clustering and High Availability for Enterprise Tools 8.5x," My Oracle Support, (search for the article name and select the release)

IBM WebSphere Application Server Information Center, http://publib.boulder.ibm.com/infocenter/wasinfo/v7r0/index.jsp?topic=/com.ibm.websphere.nd.doc/info/welcome_nd.html

Prerequisites

IBM WebSphere ND is certified for PeopleSoft PeopleTools 8.52 on the following operating systems:

- AIX
- HP-UX
- Linux
- Microsoft Windows
- Solaris

The full lists of prerequisites for IBM WebSphere Application Server Network Deployment 7.0.0.15 are available on the IBM website:

See <http://www-01.ibm.com/support/docview.wss?rs=180&uid=swg27012369>

In addition, review the following prerequisites before beginning your installation:

- Both IBM WebSphere ND and PeopleSoft Pure Internet Application (PIA) need to be installed and deployed using the same user id. This restriction has been put forth in order to avoid any security and manage profile creation issues.

IBM WebSphere ND can be installed either with root (Admin on Microsoft Windows) or non-root user ids. However, a non-root user is not capable of setting up Secure Socket Layer (SSL) on IBM WebSphere ND. A root user id is required to configure SSL on IBM WebSphere ND even though the install is done using non-root user id. It is important to remember that root user id is required only for configuration of SSL. For more information on the limitations of non-root user id, see the following information.

See http://publib.boulder.ibm.com/infocenter/wasinfo/v7r0/topic/com.ibm.websphere.installation.nd.doc/info/ae/ae/cins_nonroot.html

- On Microsoft Windows 2008 R2 operating systems, if you are not using the built-in administrator account to run the commands, you will need stronger user account privileges to carry out the installation of IBM WebSphere and its components.

To set the appropriate privileges, right-click the installer and select Run as administrator. Do the same thing for the installation of IBM WebSphere, IBM HTTP Server, IBM Web server Plug-ins, and the update installers.

- On UNIX platforms, the /var file system is used to store all the security logging information for the system; therefore it is critical that you maintain free space in /var for these operations.
- When you carry out the GUI mode installation on UNIX, executing the installation wizard launches a GUI window. You must run this command from an X-Windows client window (for example, Reflection-X).
- PeopleSoft PeopleTools 8.52 supports the IBM HTTP Server (IHS) 7.0.0.15 that is bundled with the IBM WebSphere 7.0.0.15 installation. Use of an external remote proxy server (RPS) is optional.

The bundled versions of IHS are 64-bit for Solaris and HP-UX Itanium operating systems. For other operating systems, the bundled versions of IHS are 32-bit. For more information, see the IBM web site.

See "Fast facts: Should you install a 32-bit or 64-bit fix pack on IBM HTTP Server V7.0?" IBM support web site, http://www-01.ibm.com/support/docview.wss?rs=177&context=SSEQTJ&q1=IHS+v7+64-bit&uid=swg21397054&loc=en_US&cs=utf-8&lang=en

See "Details concerning whether IBM HTTP Server V7.0 is 32-bit or 64-bit, and whether it should be updated with a 32-bit or 64-bit fix pack" IBM support web site, <http://www-01.ibm.com/support/docview.wss?rs=180&uid=swg21396916>

Task 2-2-1: Obtaining IBM WebSphere Installation Files

For PeopleSoft PeopleTools 8.52, the installation files for IBM WebSphere are not bundled with PeopleSoft PeopleTools on Oracle E-Delivery. To download the necessary files for the IBM WebSphere installation, contact IBM. The installation of IBM WebSphere 7.0.0.15 requires the download of the following components:

- WebSphere Application Server Network deployment v7 64-bit
- IBM HTTPServer V7.0 64-bit
- Plug-ins V7.0 64-bit
- UpdateInstaller V7.0.0.15 32-bit
- UpdateInstaller V7.0.0.15 64-bit
- Fix Packs 7.0.0.15 for WebSphere, IHS, Plugins, and SDK

The distribution is provided as operating-system-specific zip files. The base binaries of IBM WebSphere 7.0, IHS 7.0 and Plug-in 7.0 have to be downloaded by providing an IBM partner ID and password. The fix packs and the Update Installer download do not require the partner ID and can be downloaded directly from the public IBM site.

Download and extract the appropriate zip files for your operating system, listed in the following tables.

AIX

File or Folder Name	Description
C1G2QML.tar.gz	IBM WebSphere Application Server Network Deployment V7 for AIX on Power PC 64-bit
C1G2RML.tar.gz	Supplements, such as Application Client, IBM HTTP Server, Web Server Plug-ins and Update Installer
UpdateInstaller-7.0.0.15/7.0.0.15-WS-UPDI-AixPPC64.zip	Binaries for installation and uninstallation of 64-bit UpdateInstaller 7.0.0.15
32-bit_UpdateInstaller-7.0.0.15/7.0.0.15-WS-UPDI-AixPPC32.zip	Binaries for installation and uninstallation of 32-bit UpdateInstaller 7.0.0.15
FixPacks7.0.0.15: <ul style="list-style-type: none"> • 7.0.0-WS-IHS-AixPPC64-FP0000015.pak • 7.0.0-WS-PLG-AixPPC64-FP0000015.pak • 7.0.0-WS-WAS-AixPPC64-FP0000015.pak • 7.0.0-WS-WASSDK-AixPPC32-FP0000015.pak • 7.0.0-WS-WASSDK-AixPPC64-FP0000015.pak 	Fix Packs required for upgrading IBM WebSphere ND, IHS and Plug-in to 7.0.0.15

HP-UX Itanium

File or Folder Name	Description
C1G2WML.tar.gz	IBM WebSphere Application Server Network Deployment V7 for HP-UX on Integrity 64-bit
C1G2XML.tar.gz	Supplements, such as Application Client, IBM HTTP Server, Web Server Plug-ins and Update Installer
UpdateInstaller-7.0.0.15/7.0.0.15-WS-UPDI-HpuxIA64.zip	Binaries for installation and uninstallation of UpdateInstaller 7.0.0.15
FixPacks7.0.0.15: <ul style="list-style-type: none"> • 7.0.0-WS-IHS-HpuxIA64-FP0000015.pak • 7.0.0-WS-PLG-HpuxIA64-FP0000015.pak • 7.0.0-WS-WAS-HpuxIA64-FP0000015.pak • 7.0.0-WS-WASSDK-HpuxIA64-FP0000015.pak 	Fix Packs required for upgrading IBM WebSphere ND, IHS and Plug-in to 7.0.0.15

Linux

File or Folder Name	Description
C1G35ML.tar.gz	IBM WebSphere Application Server Network Deployment V7 for Linux on x86-64 bit
C1G36ML.tar.gz	Supplements, such as Application Client, IBM HTTP Server, Web Server Plug-ins and Update Installer
UpdateInstaller-7.0.0.15/7.0.0.15-WS-UPDI-LinuxAMD64.zip	Binaries for installation and uninstallation of 64-bit UpdateInstaller 7.0.0.15

File or Folder Name	Description
32-bit_UpdateInstaller-7.0.0.15/7.0.0.15-WS-UPDI-LinuxIA32.zip	Binaries for installation and uninstallation of 32-bit UpdateInstaller 7.0.0.15
FixPacks7.0.0.15: <ul style="list-style-type: none"> 7.0.0-WS-IHS-LinuxX64-FP0000015.pak 7.0.0-WS-PLG-LinuxX64-FP0000015.pak 7.0.0-WS-WAS-LinuxX64-FP0000015.pak 7.0.0-WS-WASSDK-LinuxX32-FP0000015.pak 7.0.0-WS-WASSDK-LinuxX64-FP0000015.pak 	Fix Packs required for upgrading IBM WebSphere ND, IHS and Plug-in to 7.0.0.15

Microsoft Windows

File or Folder Name	Description
C1G2JML.zip	IBM WebSphere Application Server Network Deployment V7 for Windows x86-64 bit
C1G2KML.zip	Supplements, such as Application Client, IBM HTTP Server, Web Server Plug-ins and Update Installer
UpdateInstaller-7.0.0.15/7.0.0.15-WS-UPDI-WinAMD64.zip	Binaries for installation and uninstallation of UpdateInstaller 7.0.0.15
32-bit_UpdateInstaller-7.0.0.15/7.0.0.15-WS-UPDI-WinIA32.zip	Binaries for installation and uninstallation of 32-bit UpdateInstaller 7.0.0.15
FixPacks7.0.0.15: <ul style="list-style-type: none"> 7.0.0-WS-IHS-WinX64-FP0000015.pak 7.0.0-WS-PLG-WinX64-FP0000015.pak 7.0.0-WS-WASSDK-WinX32-FP0000015.pak 7.0.0-WS-WASSDK-WinX64-FP0000015.pak 7.0.0-WS-WAS-WinX64-FP0000015.pak 	Fix Packs required for upgrading IBM WebSphere ND, IHS and Plug-in to 7.0.0.15

Oracle Solaris on SPARC

File or Folder Name	Description
C1G3HML.tar.gz	IBM WebSphere Application Server Network Deployment V7 for Solaris Sparc PC 64-bit
C1G3IML.tar.gz	Supplements, such as Application Client, IBM HTTP Server, Web Server Plug-ins and Update Installer

File or Folder Name	Description
UpdateInstaller-7.0.0.15/7.0.0.15-WS-UPDI-SolarisSparc64.zip	Binaries for installation and uninstallation of UpdateInstaller 7.0.0.15
FixPacks7.0.0.15: <ul style="list-style-type: none"> 7.0.0-WS-IHS-SolarisSparc64-FP0000015.pak 7.0.0-WS-PLG-SolarisSparc64-FP0000015.pak 7.0.0-WS-WASSDK-SolarisSparc64-FP0000015.pak 7.0.0-WS-WAS-SolarisSparc64-FP0000015.pak 	Fix Packs required for upgrading IBM WebSphere ND, IHS and Plug-in to 7.0.0.15

Oracle Solaris on x86_64

File or Folder Name	Description
C1G3KML.tar.gz	IBM WebSphere Application Server Network Deployment V7 for Solaris
C1G3LML.tar.gz	Supplements, such as Application Client, IBM HTTP Server, Web Server Plug-ins and Update Installer
UpdateInstaller-7.0.0.15/7.0.0.15-WS-UPDI-SolarisX64.zip	Binaries for installation and uninstallation of UpdateInstaller 7.0.0.15
FixPacks7.0.0.15: <ul style="list-style-type: none"> 7.0.0-WS-IHS-SolarisX64-FP0000015.pak 7.0.0-WS-PLG-SolarisX64-FP0000015.pak 7.0.0-WS-WASSDK-SolarisX64-FP0000015.pak 7.0.0-WS-WAS-SolarisX64-FP0000015.pak 	Fix Packs required for upgrading IBM WebSphere ND, IHS and Plug-in to 7.0.0.15

Note. See the Prerequisites section for information on 32-bit and 64-bit IHS.

Task 2-2-2: Installing IBM WebSphere 7.0.0.15 ND

For detailed information on installing IBM WebSphere 7.0.0.15 ND, see the documentation on the IBM web site. See the previous section, Obtaining IBM WebSphere Installation Files, for the installation file names for your operating system. The installation of IBM WebSphere Application Server Network includes the following steps:

1. Install IBM WebSphere 7.0 64-bit.
2. Install the Update Installer 7.0.0.15
3. Upgrade IBM WebSphere 7.0 to IBM WebSphere 7.0.0.15 selecting the appropriate fix packs.

See Also

"Readme for IBM Websphere Application Server V7.0.0.15, Steps for Installing Fix Pack 15 (7.0.0.15)" IBM Support website, <http://www-01.ibm.com/support/docview.wss?rs=180&uid=swg27020681#steps>

Task 2-2-3: Installing IBM HTTP Server 7.0.0.15 on HP-UX Itanium and Oracle Solaris

For detailed information on installing IHS 7.0.0.15, see the documentation on the IBM web site. See the previous section, Obtaining IBM WebSphere Installation Files, for the installation file names for your operating system. The installation of IHS 7.0.0.15 includes the following steps:

1. Install IHS 7.0 64-bit.
2. Install the Update Installer 7.0.0.15 64-bit.
3. Upgrade IHS 7.0 to IHS 7.0.0.15 selecting the appropriate fix packs.

Task 2-2-4: Installing IBM HTTP Server 7.0.0.15 on AIX, Linux, and Microsoft Windows

For detailed information on installing IBM HTTP Server 7.0.0.15, see the documentation on the IBM web site. See the previous section, Obtaining IBM WebSphere Installation Files, for the installation file names for your operating system. To install IHS 7.0.0.15 on AIX, Linux, and Microsoft Windows operating systems, you must use the 32-bit update installer as well as the 64-bit update installer. The installation includes the following steps:

1. Install IHS 7.0 64-bit
2. Install the Update Installer 7.0.0.15 64-bit
3. Upgrade IHS 7.0 to IHS 7.0.0.15 using the 64-bit Update Installer by selecting the appropriate fix packs.
4. Install the Update Installer 7.0.0.15 32-bit.
5. Upgrade the SDK to 7.0.0.15 using the 32-bit Update Installer by selecting the appropriate fix packs.

Task 2-2-5: Installing IBM WebSphere Plug-ins 7.0.0.15

For detailed information on installing the Web server plug-ins for IBM WebSphere Application Servers, see the documentation on the IBM web site. See the earlier section, Obtaining IBM WebSphere Installation Files, for the installation file names for your operating system. The installation of the Web server Plug-ins for IBM WebSphere Application Servers includes the following steps:

1. Install IBM Plug-ins 7.0 64-bit
2. Install the Update Installer 7.0.0.15
3. Upgrade IBM Plug-ins 7.0 to IBM Plug-ins 7.0.0.15 selecting the appropriate fix packs.

CHAPTER 3

Installing Additional Components

This chapter discusses:

- Reviewing Additional Components
- Installing Oracle Tuxedo

Reviewing Additional Components

Depending upon your PeopleSoft installation environment, you may need to install and configure software components that are not included with the PeopleSoft PeopleTools installation files, or which you acquire from vendors other than Oracle. Some of the components that are discussed in this installation guide include:

- Oracle Tuxedo

The installation of Oracle Tuxedo is required for a basic PeopleSoft PeopleTools installation, and is covered in this chapter.

- COBOL

COBOL is not needed for PeopleSoft PeopleTools or for PeopleSoft Applications that contain no COBOL programs. Check My Oracle Support for details about whether your application requires COBOL.

See “PeopleSoft Enterprise Frequently Asked Questions About PeopleSoft and the Micro Focus COBOL Compiler,” My Oracle Support (search for article title).

See “PeopleSoft Enterprise Frequently Asked Questions About PeopleSoft and the IBM COBOL Compiler,” My Oracle Support (search for article title).

The installation and configuration of Micro Focus and IBM COBOL compilers are covered in a later chapter.

See "Installing and Configuring COBOL"

- SAP Crystal Reports and BusinessObjects Enterprise

The installation of SAP Crystal Reports or BusinessObjects Enterprise XI 3.1 is optional for PeopleSoft PeopleTools 8.52.

See "Installing and Configuring Software for Crystal Reports."

- Oracle Secure Enterprise Search

Oracle Secure Enterprise Search (SES) is the search engine for the PeopleSoft Search Framework. The integration of Oracle SES with PeopleSoft PeopleTools is covered in a later chapter.

See "Configuring Integration Between PeopleSoft PeopleTools and Oracle SES."

Task 3-1: Installing Oracle Tuxedo

This section discusses:

- Understanding Oracle Tuxedo
- Prerequisites
- Obtaining the Oracle Tuxedo Installation Files from Oracle E-Delivery
- Obtaining the Oracle Tuxedo Patches from My Oracle Support
- Removing Existing Oracle Tuxedo Installations from Microsoft Windows (Optional)
- Designating the Application Server Administrator on Microsoft Windows
- Installing Oracle Tuxedo on Microsoft Windows
- Installing the Oracle Tuxedo Patch on Microsoft Windows
- Uninstalling Oracle Tuxedo 10gR3_VS2008 and Patch on Microsoft Windows
- Checking the Windows Service Account
- Restricting Domain Process Privileges
- Setting Up the Windows Services for Oracle Tuxedo
- Verifying the Server Installation on Microsoft Windows
- Removing Existing Oracle Tuxedo Installations from UNIX (Optional)
- Completing the Preinstallation Checklist on UNIX
- Designating the Oracle Tuxedo Owner on UNIX
- Installing Oracle Tuxedo on UNIX
- Installing the Oracle Tuxedo Patch on UNIX
- Uninstalling Oracle Tuxedo 10gR3 and Patch on UNIX
- Verifying the Server Installation on UNIX
- Ensuring that Oracle Tuxedo Coexists with Earlier Versions

Understanding Oracle Tuxedo

The PeopleSoft application server uses the Oracle® Fusion Middleware product, Oracle Tuxedo, to perform transaction management, messaging, and administration. This task guides you through the installation of Oracle Tuxedo on your server. It is essential that you install Oracle Tuxedo version 10gR3, which is available on Oracle E-Delivery. You need to install Oracle Tuxedo before you go any further in setting up your application server and your PeopleSoft Pure Internet Architecture. After you perform the installation described here, you will configure the application server environment to incorporate Oracle Tuxedo with the PeopleSoft components.

Note. Oracle supports Oracle Tuxedo 10gR3 for Linux or UNIX, and Oracle Tuxedo 10gR3_VS2008 for Microsoft Windows, with PeopleSoft PeopleTools 8.52. If you have a previous version of Oracle Tuxedo installed, you need to install the new version of Oracle Tuxedo, and re-create your application server domains. (You must create your domains using PSADMIN; you cannot migrate existing domains.) You can also use PSADMIN's domain import utility.

For the sake of brevity, this documentation sometimes uses “Oracle Tuxedo 10gR3” to refer to both Oracle Tuxedo 10gR3 for Linux or UNIX, and Oracle Tuxedo 10gR3_VS2008 for Microsoft Windows, unless specifically mentioned.

The minimum patch level certified for running Oracle Tuxedo 10gR3 with PeopleSoft PeopleTools 8.52 is RP043. These installation instructions include the installation of the base Oracle Tuxedo 10gR3, followed by the patch installation.

You can install Oracle Tuxedo once for each release on a machine, regardless of the number of PeopleSoft applications or databases the server supports. For example, if you are a PeopleSoft 9.1 customer and have Oracle Tuxedo 6.5 installed, you may install Oracle Tuxedo 6.5 and Oracle Tuxedo 10gR3 on the same machine in separate directories. For example:

On Windows, you may install into C:\oracle\tuxedo10gR3_VS2008 and C:\tux65.

On UNIX, you may install into /home/oracle/tuxedo10gR3 and /prod/tuxedo/6.5.

If more than one PeopleSoft application uses the same Oracle Tuxedo version (that is, the same patch level), then it is recommended that you have a single installation of Oracle Tuxedo to serve all the supported PeopleSoft applications. A single Oracle Tuxedo installation simplifies future maintenance (such as applying patches). However, if you choose to have more than one Oracle Tuxedo installation (this scenario is possible only on UNIX systems, as Oracle Tuxedo does not allow multiple installations of the same version of Oracle Tuxedo on Microsoft Windows), you must install and maintain the same Oracle Tuxedo version more than once in different directories.

See Also

PeopleTools 8.52: PeopleTools Portal Technologies PeopleBook

PeopleTools 8.52: System and Server Administration PeopleBook.

Operating System, RDBMS, and Additional Component Patches Required for Installation PeopleTools, My Oracle Support (search for article name and select the release)

"Clustering and High Availability for Enterprise Tools 8.5x," My Oracle Support (search for title)

Prerequisites

Before you begin to install Oracle Tuxedo, make sure that you have the following resources in place:

- TCP/IP connectivity (required for PeopleSoft PeopleTools 8.50 or higher) between the client machine and the application server
- Approximately 235 MB of free disk space on the application server
- For UNIX, you must have root access.

Task 3-1-1: Obtaining the Oracle Tuxedo Installation Files from Oracle E-Delivery

You can obtain the files needed to install Oracle Tuxedo 10gR3 or 10gR3_VS2008 from the Oracle E-Delivery site. At this point you should have already downloaded the necessary files. This section includes additional information on finding and using the files for Oracle Tuxedo if necessary.

Note. Only the Oracle Tuxedo installation files provided as part of the PeopleTools 8.52 media pack on Oracle E-Delivery are certified for use with PeopleSoft PeopleTools 8.52.

See <http://edelivery.oracle.com>.

See "Preparing for Installation," Using Oracle E-Delivery to Obtain Installation Files.

1. After logging in to Oracle E-Delivery, on the Media Search Pack page, select *PeopleSoft Enterprise* from the Select a Product Pack drop-down list.
Select the operating system you are running on from the Platform drop-down list, and click Go.
2. Select the radio button for the PeopleSoft Enterprise - PeopleTools 8.52 Media Pack for your platform, and click Continue.
3. Select Oracle Tuxedo 10gR3 or 10gR3_VS2008 for your operating system, and click Download.
Save the zip file to a temporary directory on your local system, referred to in this documentation as *TUX_INSTALL*.
4. After you download the installation files from Oracle E-Delivery, if it is necessary, transfer the files to a UNIX computer using FTP. Unzip the file and change the permissions of the unzipped file to make it an executable, for example using the `chmod +x` command.
5. Extract the files into *TUX_INSTALL*.

The Oracle Tuxedo installation files are platform-specific. The following table lists the installation files for the PeopleSoft-supported platforms:

Supported Platform	Oracle Tuxedo Installer Name
IBM AIX	tuxedo10gR3_64_aix_53_ppc.bin
HP-UX Itanium	tuxedo10gR3_64_hpux_1123_ia.bin
Linux	tuxedo10gR3_64_Linux_01_x86.bin
Microsoft Windows	tuxedo10gR3_32_win_2k8_x86_VS2008.exe
Oracle Solaris on SPARC	tuxedo10gR3_64_sol_9_sp.bin
Oracle Solaris on x86-64	tuxedo10gR3_64_sol_10_x86.bin

Task 3-1-2: Obtaining the Oracle Tuxedo Patches from My Oracle Support

You can download the latest patch for Oracle Tuxedo 10gR3_VS2008 for Microsoft Windows or Oracle Tuxedo 10gR3 for Linux or UNIX from My Oracle Support. The patch level certified at the general availability date for PeopleSoft PeopleTools 8.52 is RP043. Patches released for Oracle Tuxedo 10gR3 and 10gR3_VS2008 after RP043 will also be supported.

Note. To obtain older Oracle Tuxedo patches, raise a service request through My Oracle Support.

To obtain the latest Oracle Tuxedo patch:

1. Sign in to My Oracle Support with your account name and password:
<https://support.oracle.com>
2. Select the Patches & Updates tab.
3. Under Patch Search, select Product or Family (Advanced Search).
4. Select *Oracle Tuxedo* from the product drop-down list.
5. Select *Oracle Tuxedo 10.3.0.0* from the release drop-down list.
6. Select your platform.

Note. For detailed supported platform information, see the certifications area on My Oracle Support.

Note. If you are running on a Microsoft Windows operating system, you should select 32-bit Microsoft Windows. You need 32-bit Oracle Tuxedo to run with PeopleSoft PeopleTools 8.52 on 64-bit Microsoft Windows operating systems.

The supported platforms are:

- AIX
 - HP-UX Itanium
 - Linux
 - Microsoft Windows
 - Oracle Solaris on SPARC
 - Oracle Solaris on x86-64
7. Click Search.

Download the necessary files from the list of results. For installation on Microsoft Windows operating systems, make sure your rolling patch (RP) description has “VS2008” or “Visual Studio 2008” in the description.

Note. To begin a new search, select Edit Search in the top right of the results page.

8. Download the patch file for your operating system platform to a convenient directory, referred to here as *TUX_INSTALL*.

Task 3-1-3: Removing Existing Oracle Tuxedo Installations from Microsoft Windows (Optional)

You may already have prior versions of Oracle Tuxedo installed on your system from an earlier version of PeopleSoft PeopleTools. If you are completely upgrading to PeopleSoft PeopleTools 8.52 from an earlier version of PeopleSoft PeopleTools, then, you may uninstall the existing version and patches.

Note. It is not mandatory to uninstall the existing version of PeopleSoft PeopleTools, as Oracle Tuxedo 10gR3_VS2008 can coexist with prior versions on the same machine.

If you wish to use two versions of PeopleSoft PeopleTools that depend on different versions of Oracle Tuxedo, you should read the section “Ensuring that Oracle Tuxedo Coexists with Earlier Versions” before continuing.

You may have to uninstall Oracle Tuxedo for these reasons:

- You are having problems starting Oracle Tuxedo and decide to reinstall.
- You no longer need Oracle Tuxedo on a machine.

To uninstall Oracle Tuxedo from Microsoft Windows:

1. Using PSADMIN, shut down any application server, Process Scheduler, and Search server domains that may be running on the machine.
2. Stop the processes for the Tuxedo Monitor and the Tuxedo Administrative Web Server (wlisten and tuxwsvr), if applicable.
 - a. Right-click on the task bar and select Task Manager.
 - b. Highlight wlisten, and click the End Task button.
 - c. Highlight tuxwsvr and click the End Task button.
 - d. Exit Task Manager.

3. Stop and set the TListen *VERSION* service to manual, if applicable.

Replace *VERSION* with the current version number. For example, this would be TListen 8.1 or TListen 9.1.

- a. Select Start, Settings, Control Panel. Double-click Administrative Tools, and double-click the Services icon.
 - b. Select TListen *VERSION* and click the Stop button.
 - c. Choose the Startup Type and set to Manual.
4. Stop and set the ORACLE ProcMGR *VERSION* (or BEA ProcMGR *VERSION* for earlier releases) service to manual.
 - a. Select Start, Settings, Control Panel. Double-click Administrative Tools, and double-click the Services icon.
 - b. Select ORACLE ProcMGR *VERSION* and click the Stop button.
 - c. Choose the Startup Type and set to Manual.
5. Reboot your machine.
6. Uninstall Oracle Tuxedo in one of the following ways:
 - Using the Oracle Tuxedo *VERSION* installation CD provided by Oracle for PeopleSoft installations, open a Command Window, navigate to the root of the CD, and enter `pstuxinstall rmall`. This will remove Oracle Tuxedo *VERSION* plus any delivered Oracle Tuxedo patches from your system.
 - Using the Add/Remove Programs dialog, in sequence remove: Oracle Tuxedo *VERSION* RP and then Oracle Tuxedo *VERSION*.
7. Go to the Control Panel, double-click on the System icon, and then perform the following:
 - a. Make sure `TUXDIR\bin` is deleted from PATH.
TUXDIR refers to the Oracle Tuxedo installation directory.

- b. Delete the environment variable TUXDIR.
 - c. Make sure you click on Apply and OK to save your changes.
8. Using Explorer, delete the Tuxedo home directory, such as C:\bea\tuxedo8.1.
- If you are unable to delete any files, reboot your machine and retry.

The instructions for installing and removing the Oracle Tuxedo 10gR3_VS2008 patch are given later in this section.

See Uninstalling Oracle Tuxedo 10gR3_VS2008 and Patch on Microsoft Windows.

Task 3-1-4: Designating the Application Server Administrator on Microsoft Windows

First you need to designate an existing user—or create a new user such as TUXADM or some other account—to be the Application Server Administrator. The Application Server Administrator, not the Windows Administrator, will install Oracle Tuxedo.

The designated user must be a local Microsoft Windows administrator and must have full system privileges. The PeopleSoft PeopleTools 8.52 program for the Oracle Tuxedo installation creates a new service for Microsoft Windows—called ORACLE ProcMGR V10gR3 with VS2008—for which you need administrator privileges. This service was developed to port Oracle Tuxedo from UNIX to Microsoft Windows. Administrator rights are required since system registry settings are updated. Once this new service is created, you must reboot to start it.

When you configure your application server domain in a read-only *PS_HOME* environment, the user ID designated to be the Application Server Administrator must have read-only access to *PS_HOME*, read and write access to *PS_CFG_HOME*, and read-only access to the Oracle Tuxedo installation directory, *TUXDIR*, (for example, C:\oracle\tuxedo10gR3_VS2008). Otherwise, in a scenario where *<PS_CFG_HOME> = <PS_HOME>*, the Application Server Administrator must have read and write access to *PS_HOME* and read-only access to *TUXDIR*.

See "Configuring the Application Server on Windows."

See "Preparing for Installation," Defining Server Domain Configurations.

To designate the Application Server Administrator:

1. To add the user, add the user ID by choosing Start, Settings, Control Panel, Administrative Tools, Computer Management, Local Users and Groups.

Keep in mind that you can also use an existing account if you don't care to create a new one. You can set this to the system account or an account that is a domain administrator (if there is a need to access files on the domain).
2. Expand Local Users and Groups.
3. If the user ID does not yet exist, highlight the Users folder, and select Action, New User.
4. On the New User dialog box, specify the information for the new account.

Make sure to deselect the User must change password at next logon check box.
5. Expand the Groups folder.
6. Right-click the Administrators group, and select All Tasks, Add to Group, Add.
7. Click Locations to select the local machine or the network domain in which you created the new user.
8. Enter the new user name you created in the object names box.

9. Click OK, and click Apply and OK again to accept the changes.

Task 3-1-5: Installing Oracle Tuxedo on Microsoft Windows

The following procedure assumes that you saved the installation files from Oracle E-Delivery in the directory *TUX_INSTALL*. Installation in GUI mode is normally used for Microsoft Windows operating systems, so this procedure uses the installer for Microsoft Windows, *tuxedo10gR3_32_win_2k8_x86_VS2008.exe*.

Note. Oracle Tuxedo 10gR3_VS2008 can coexist on a machine with other versions of Oracle Tuxedo.

To install Oracle Tuxedo on Microsoft Windows:

1. Double-click *TUX_INSTALL\tuxedo10gR3_32_win_2k8_x86_VS2008.exe* to begin the installation process.

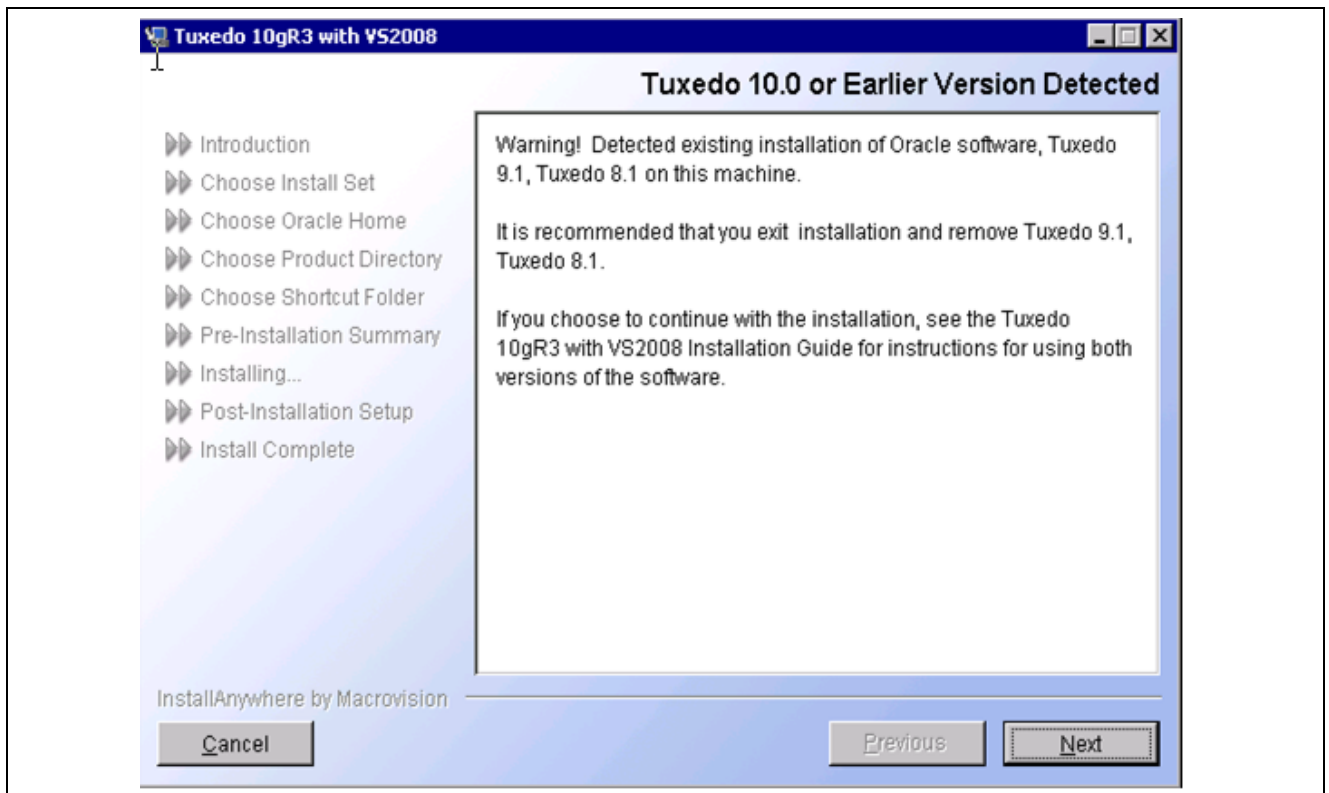
Click OK on the initial window.



Oracle Tuxedo 10gR3 initial installation window

2. If you have other versions of Oracle Tuxedo on your system, you may get a warning that earlier versions were detected, and recommending that you exit and remove the earlier versions.

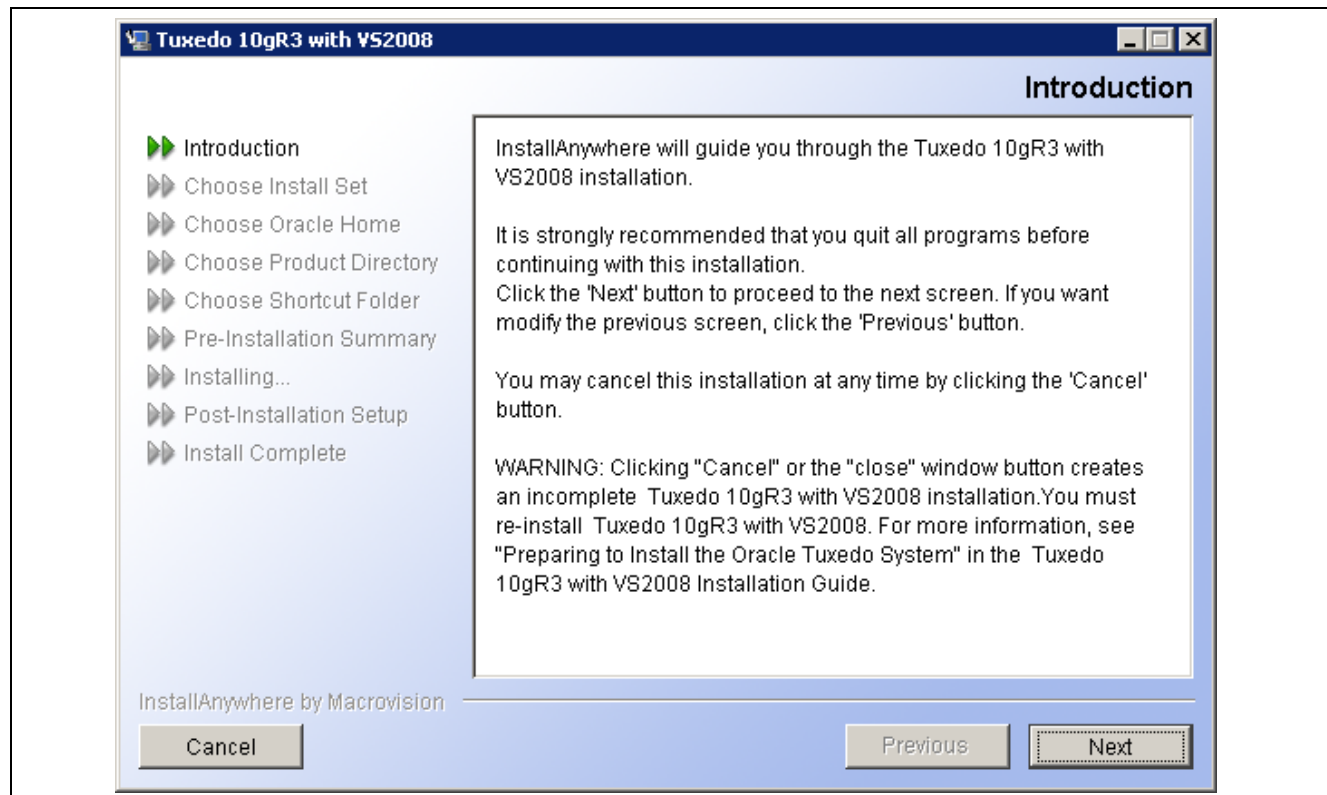
The message directs you to the Tuxedo 10gR3 with VS2008 Installation Guide for instructions for using more than one version of the software, as shown in this example:



Tuxedo 10.0 or Earlier Version Detected window

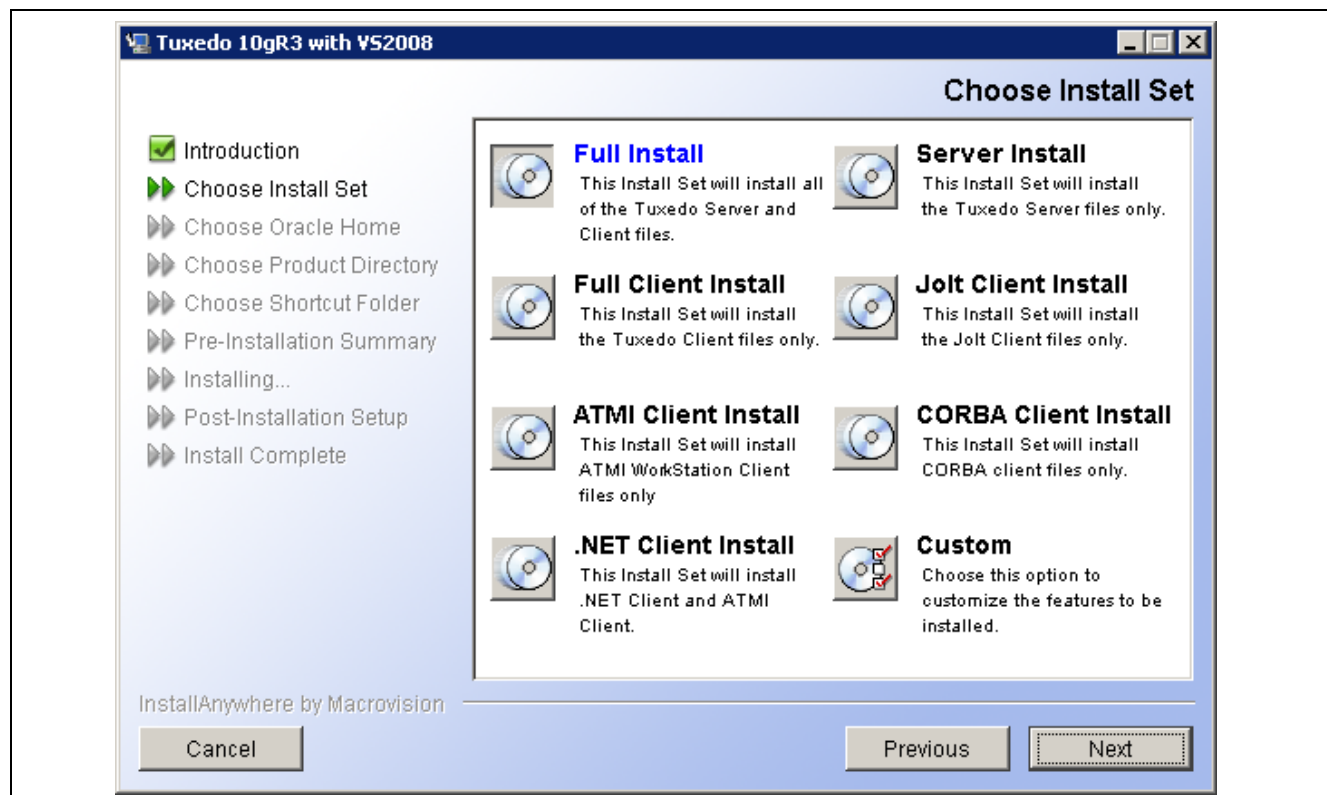
3. Click Next.

The Introduction window shown in this example includes the following text: "You may cancel this installation at any time by clicking the 'Cancel' button. WARNING: Clicking "Cancel" or the "close" window button creates an incomplete Tuxedo 10gR3 with VS2008 installation. You must re-install Tuxedo 10gR3 with VS2008. For more information, see "Preparing to Install the Oracle Tuxedo System" in the Tuxedo 10gR3 with VS2008 Installation Guide."



Oracle Tuxedo installation introduction window

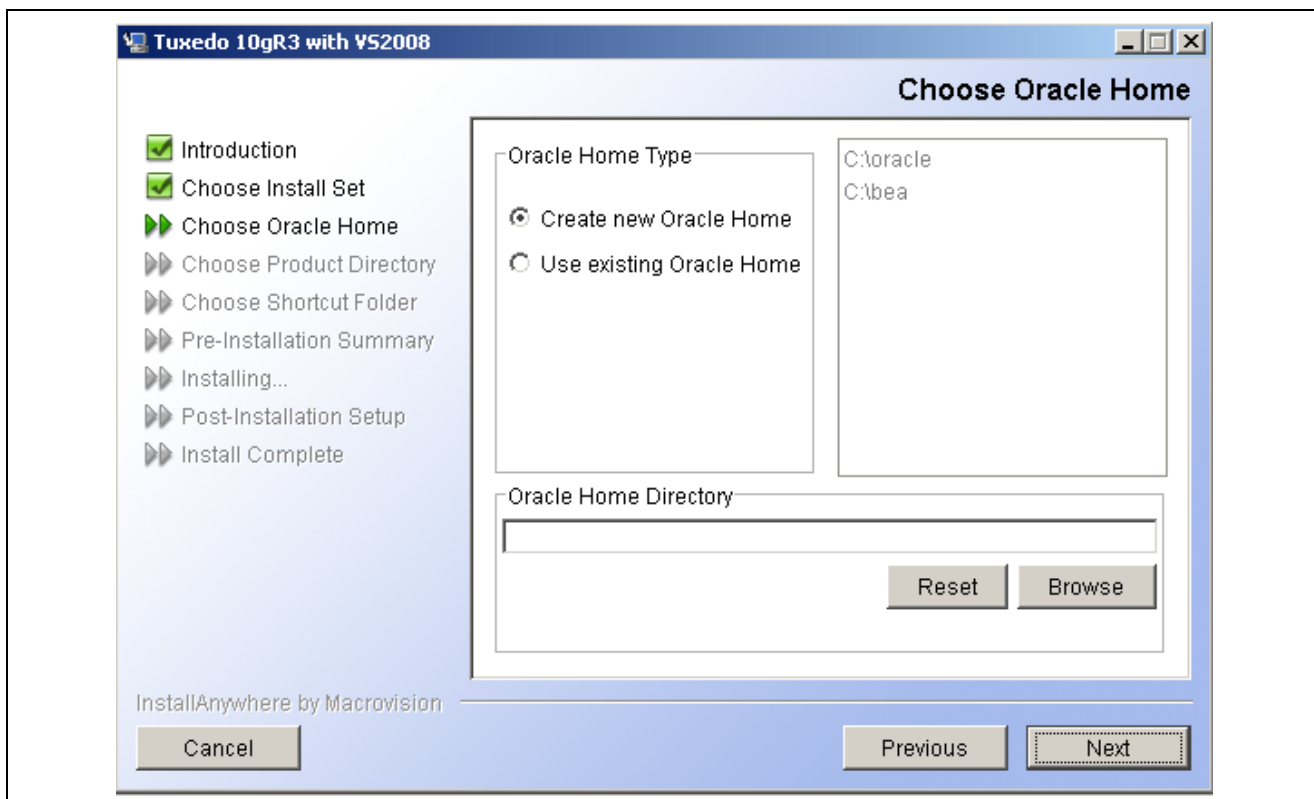
4. Accept the default installation set option, Full Install, and click Next.



Oracle Tuxedo Choose Install Set window

- Specify an Oracle home directory, referred to here as *ORACLE_HOME*.

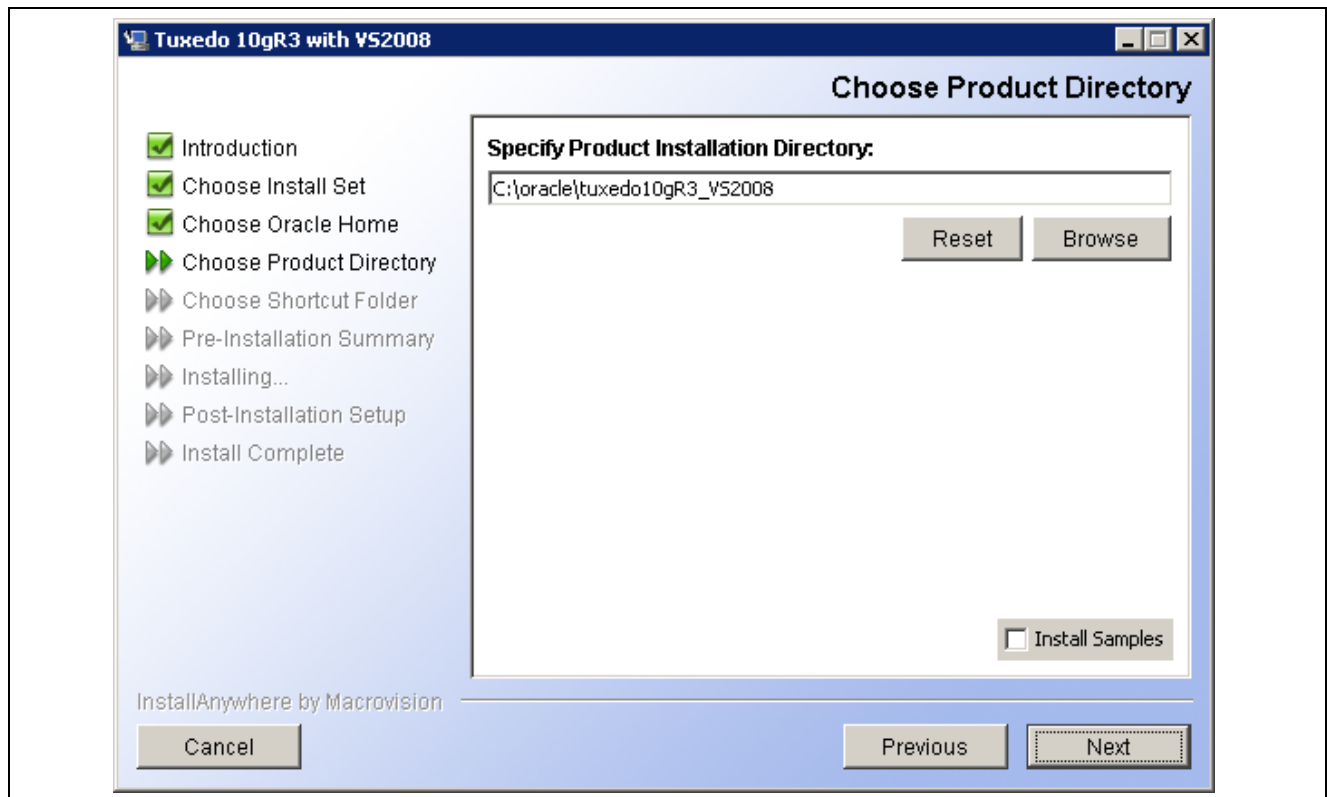
Note. In previous Oracle Tuxedo and PeopleSoft PeopleTools releases, the installation directory was referred to as *BEA_HOME*, and the default was C:\bea. You may see installation directories from previous releases displayed here, and if so, you can select one.



Oracle Tuxedo Choose Oracle Home window

- If you want to use an existing *ORACLE_HOME*, select Use existing Oracle Home and choose one of the listed directories.
 - If you want to create a new *ORACLE_HOME*, select Create new Oracle Home, and enter a name in the Oracle Home Directory box.
- Specify the Oracle Tuxedo installation directory, referred to here as *TUXDIR*.

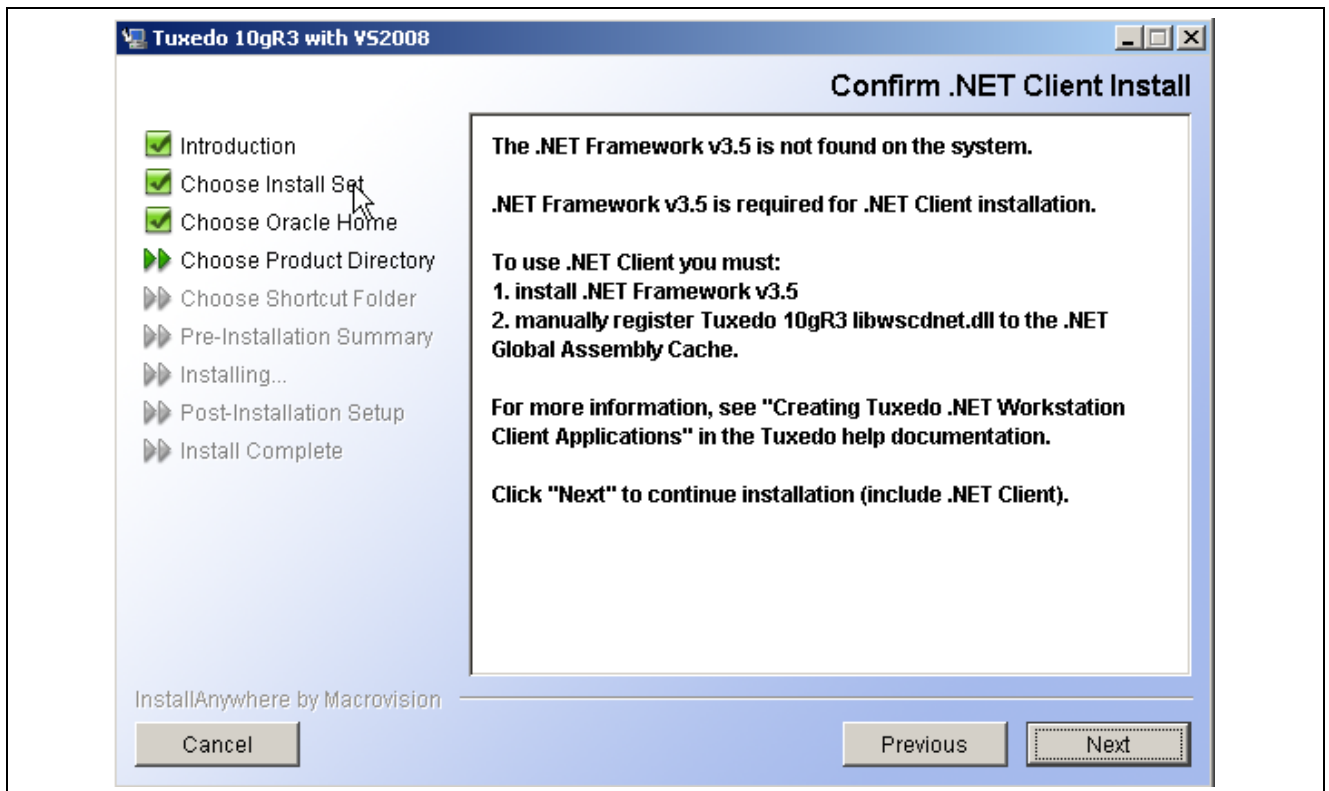
The default is *ORACLE_HOME\tuxedo10gR3_VS2008*. Accept the default or specify a new location. In this example the installation directory is C:\oracle\tuxedo10gR3_VS2008.



Oracle Tuxedo Choose Product Directory window

7. If you see the following window, click Next to continue.

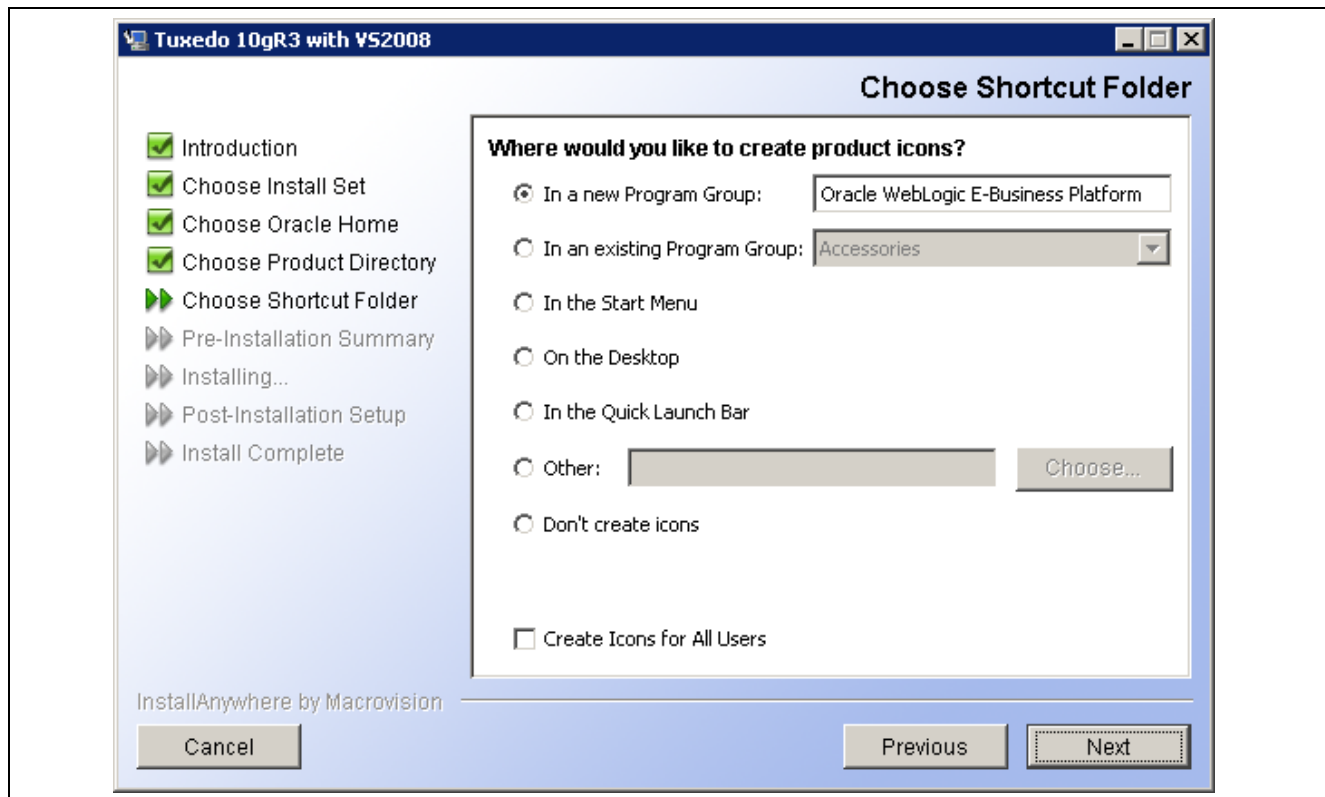
The window appears for some .NET installations. It displays a message warning that .NET Framework is not found on the system, and referring to the Tuxedo help documentation for further information.



Oracle Tuxedo Confirm .NET Client Install window

8. Specify the location for the shortcut folder.

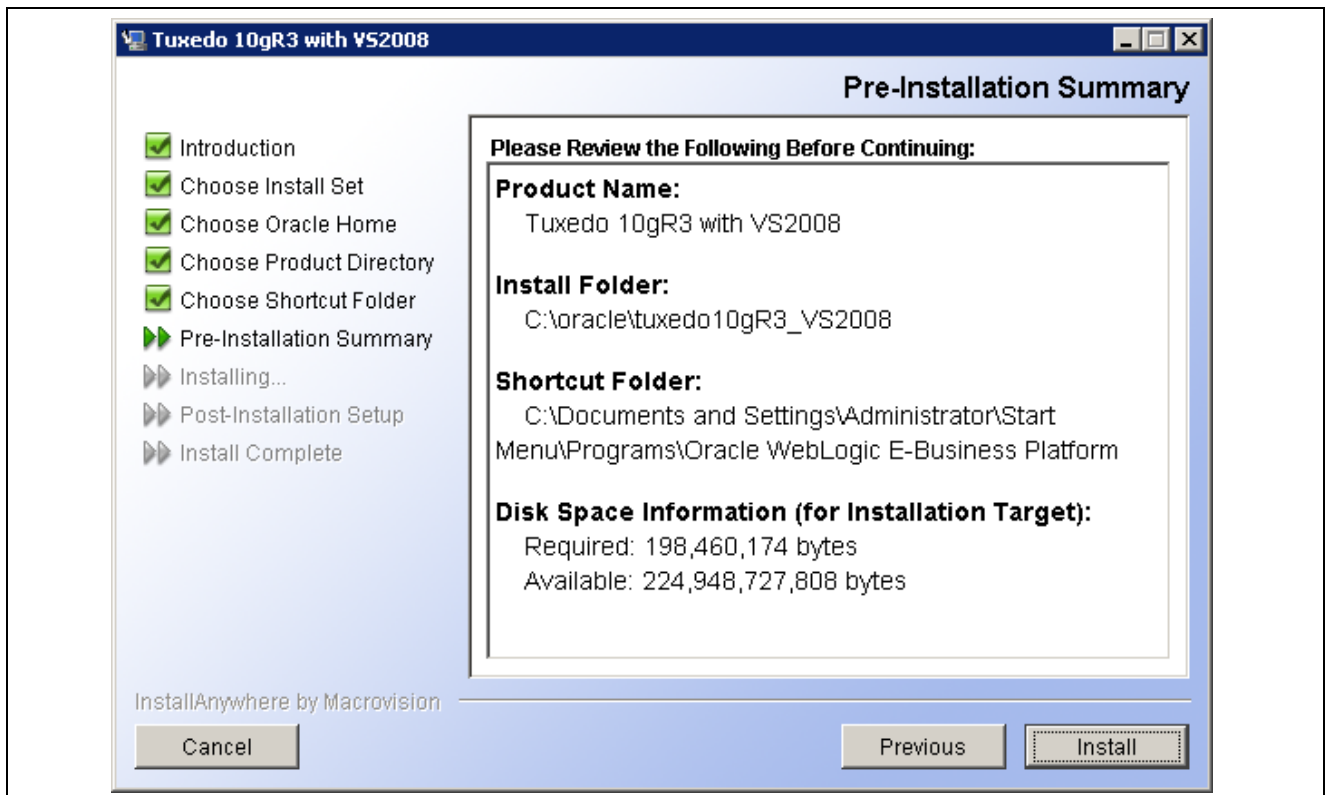
The following example accepts the default, to create product icons in a new program group named Oracle WebLogic E-Business Platform:



Oracle Tuxedo Choose Shortcut Folder window

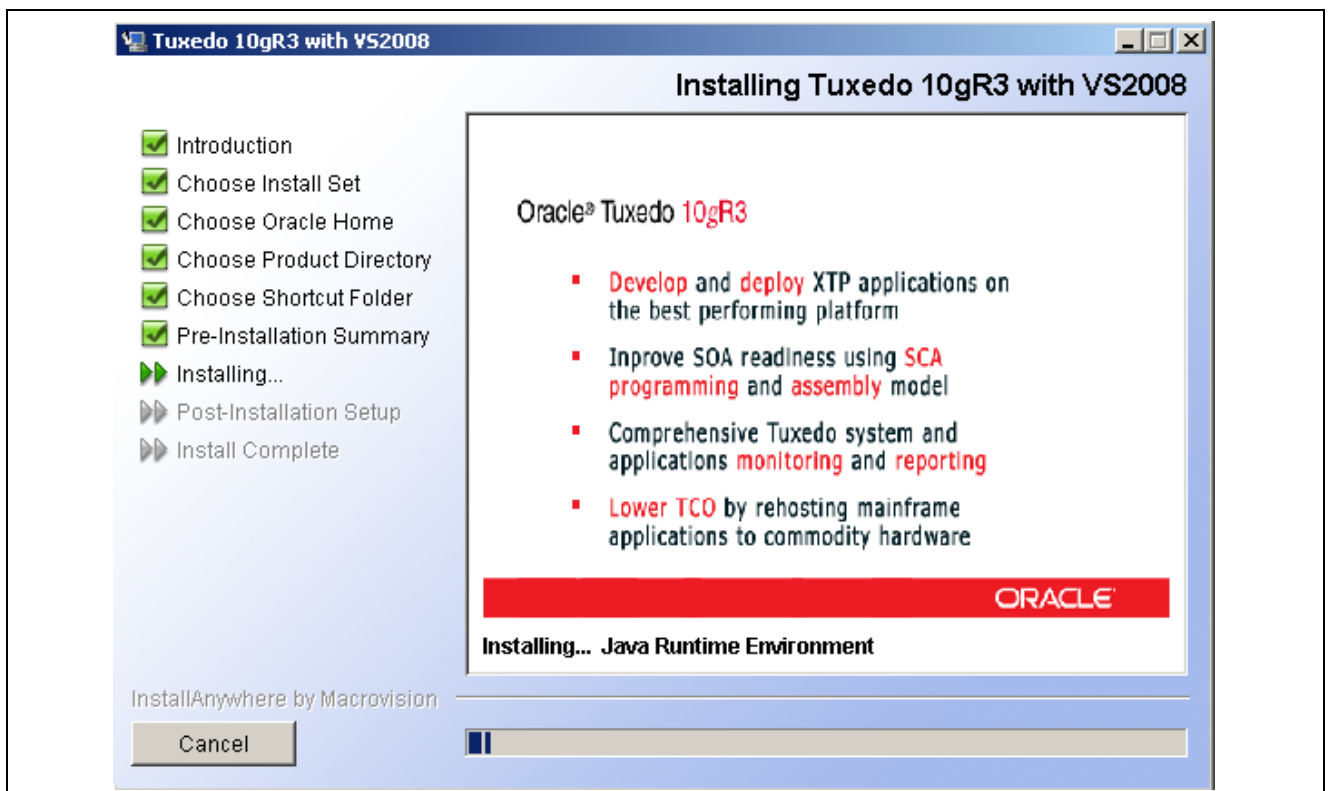
9. Review the summary information, and click Install to continue.

The summary information includes the product name, install folder, shortcut folder, and disk space information. If you want to change any of your choices, click Previous.



Oracle Tuxedo Pre-Installation Summary window

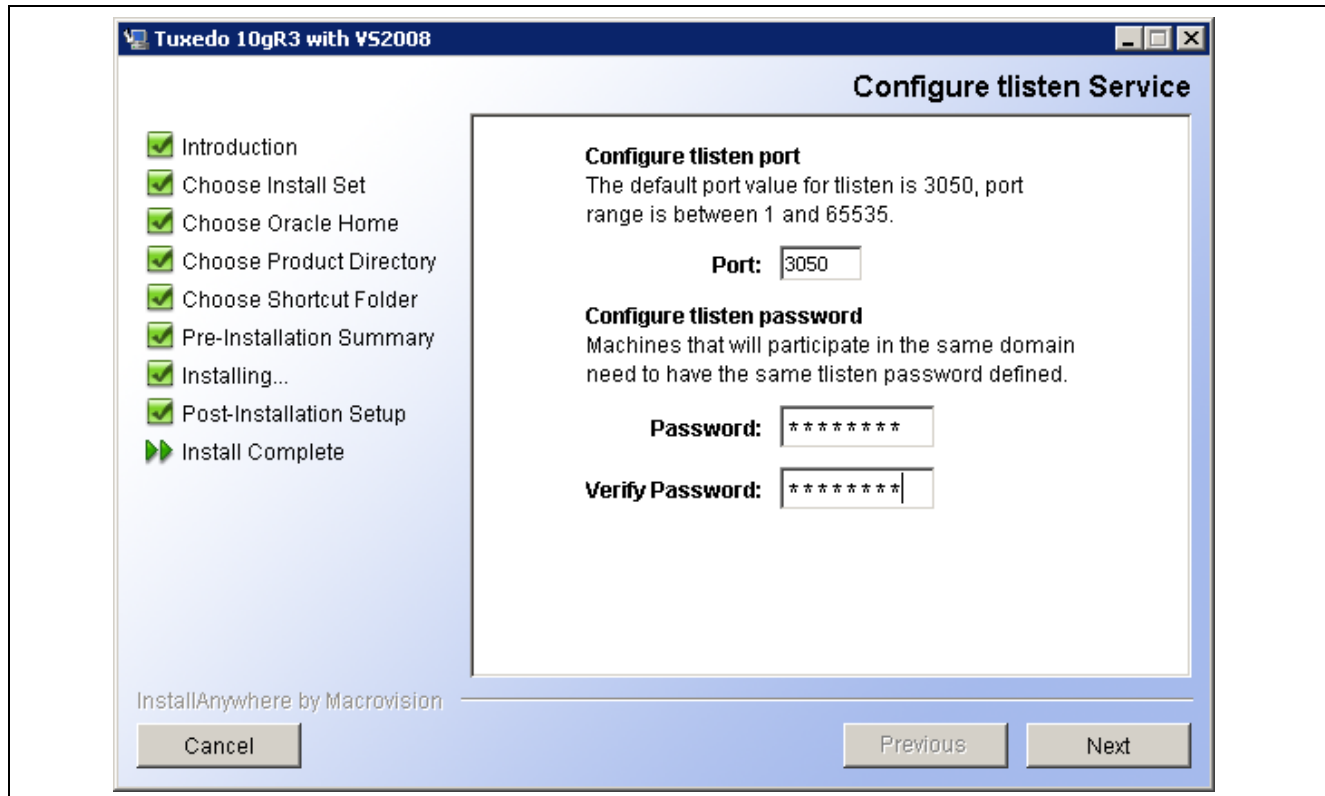
A progress indicator appears during the installation.



Oracle Tuxedo Progress indicator

10. Specify the tlisten port and tlisten password, using the following descriptions.

Click Next to continue after specifying these values.



Oracle Tuxedo Configure tlisten Service window

- *Configure tlisten port*

The Tlisten service is not used by PeopleSoft application servers so you can accept the default unless you intend to use the Tuxedo Web Monitor. Unless you use the Tuxedo Web Monitor, you should disable the TListen service following the installation.

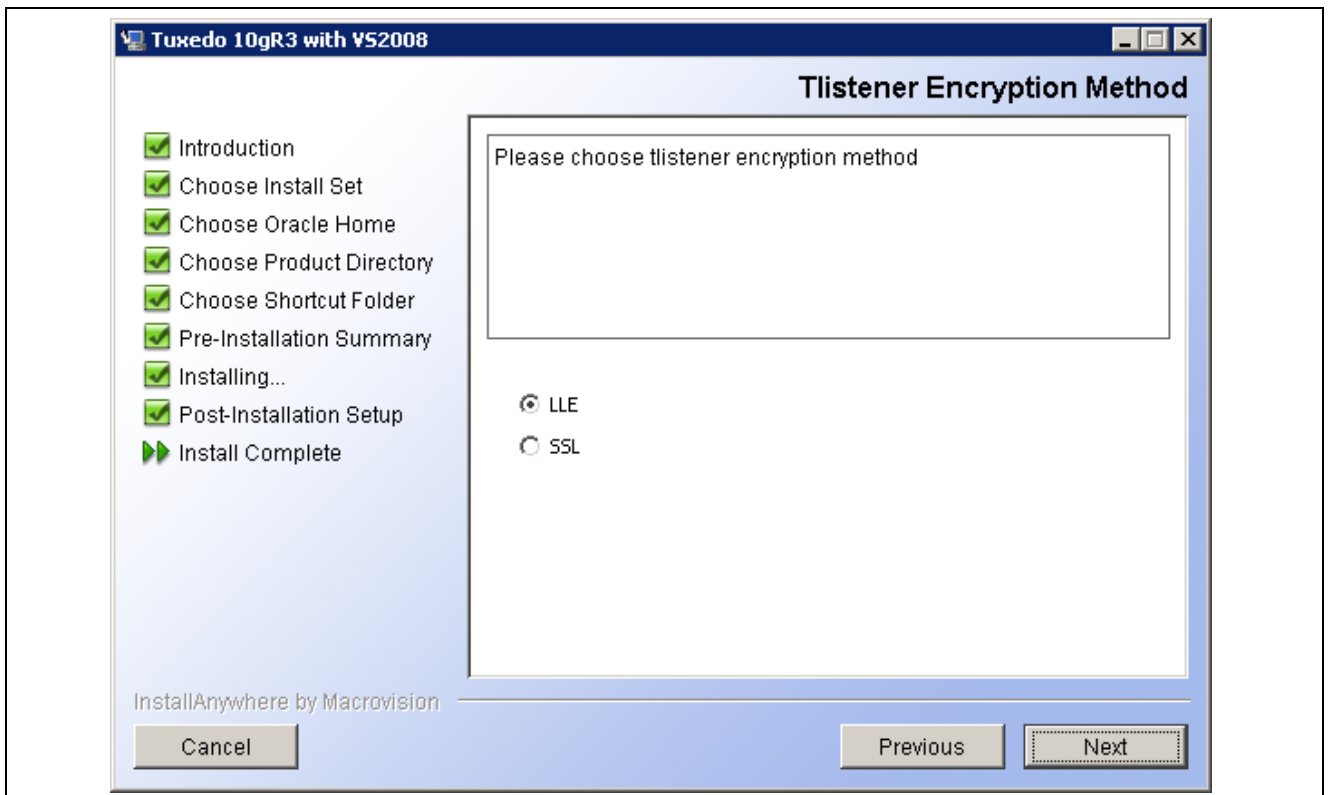
If you intend to maintain multiple versions of Oracle Tuxedo on the same physical machine, it is wise to choose a port other than the default 3050 because the default port may clash with an existing TListen entry for an earlier version of Oracle Tuxedo.

See Ensuring that Oracle Tuxedo Coexists with Earlier Versions.

- *Configure tlisten password*

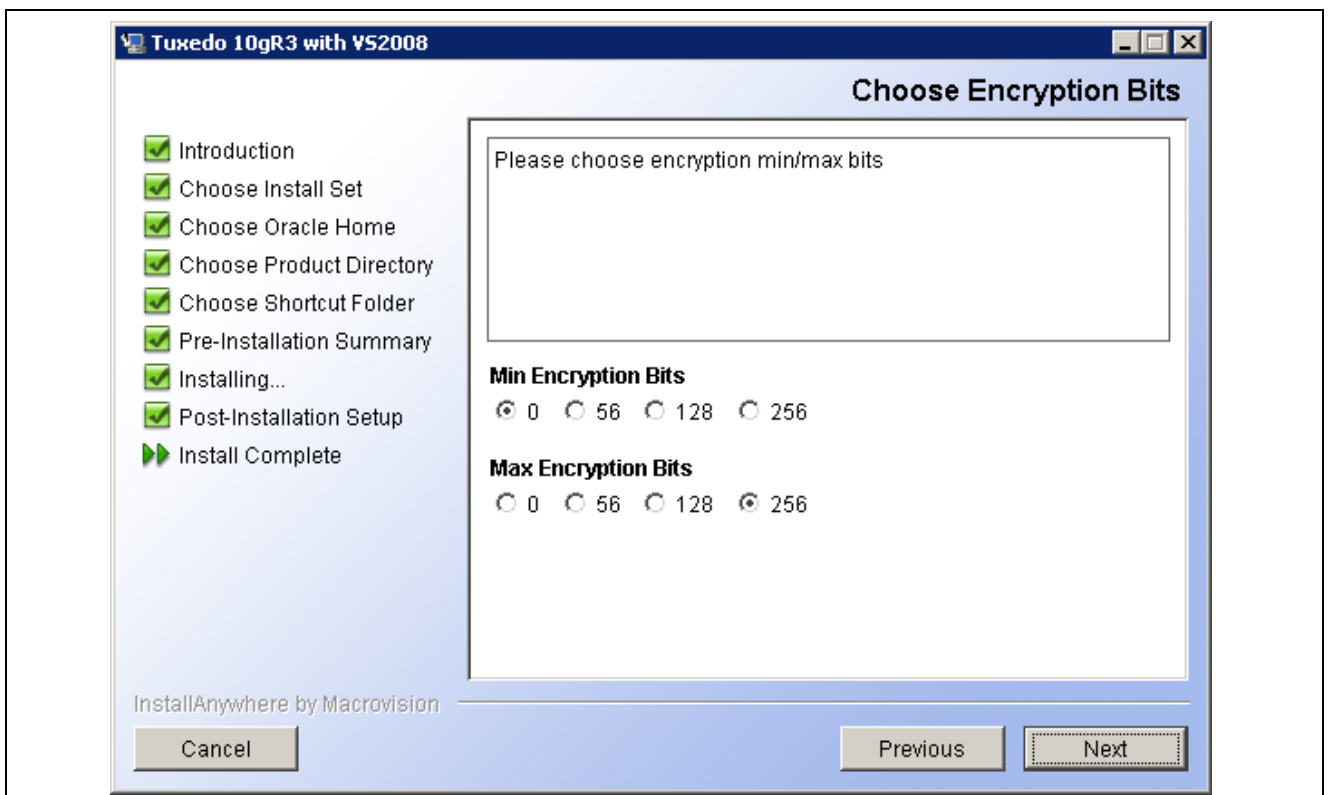
Enter the tlisten passwords.

11. Select the option LLE for the encryption method and click Next.



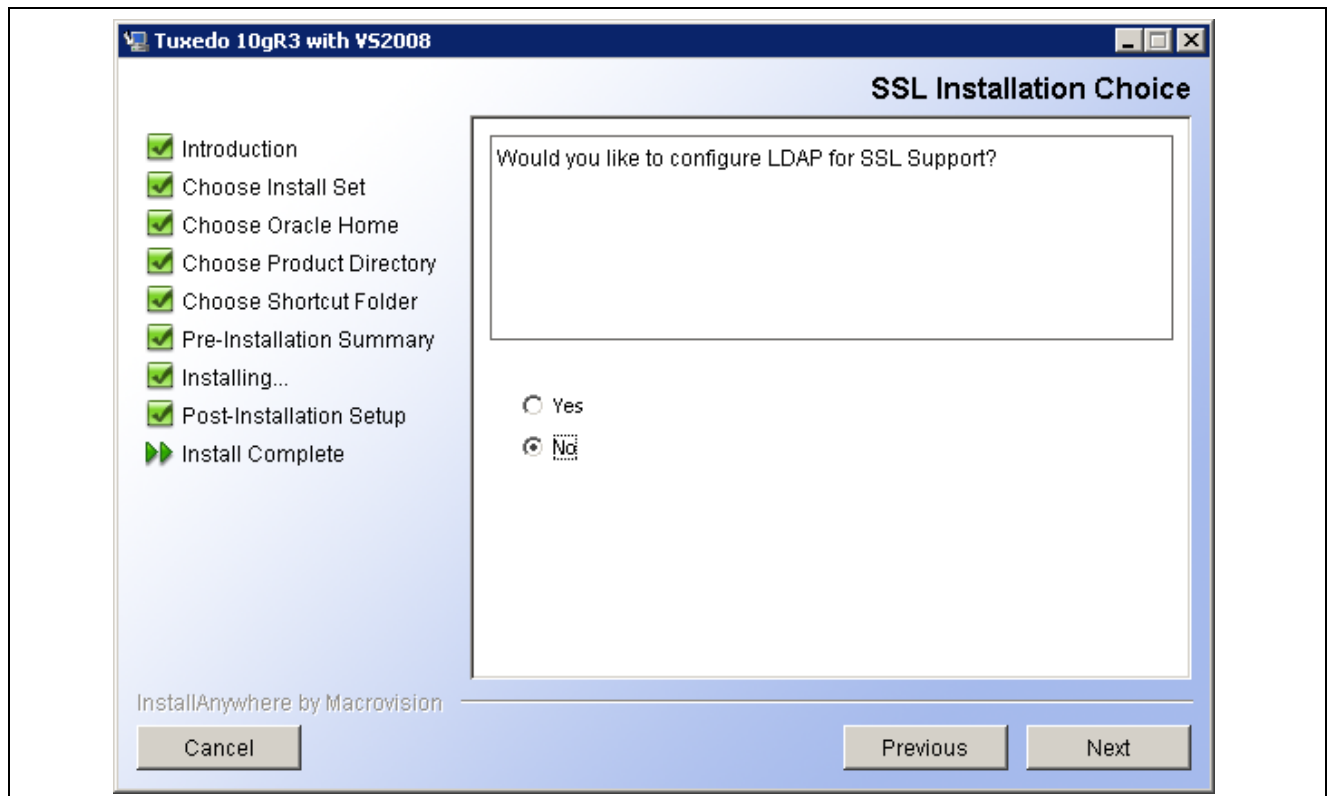
Oracle Tuxedo Tlistener Encryption Method window

12. Choose Min Encryption Bits as 0 and Max Encryption Bits as 256. Click Next to continue.



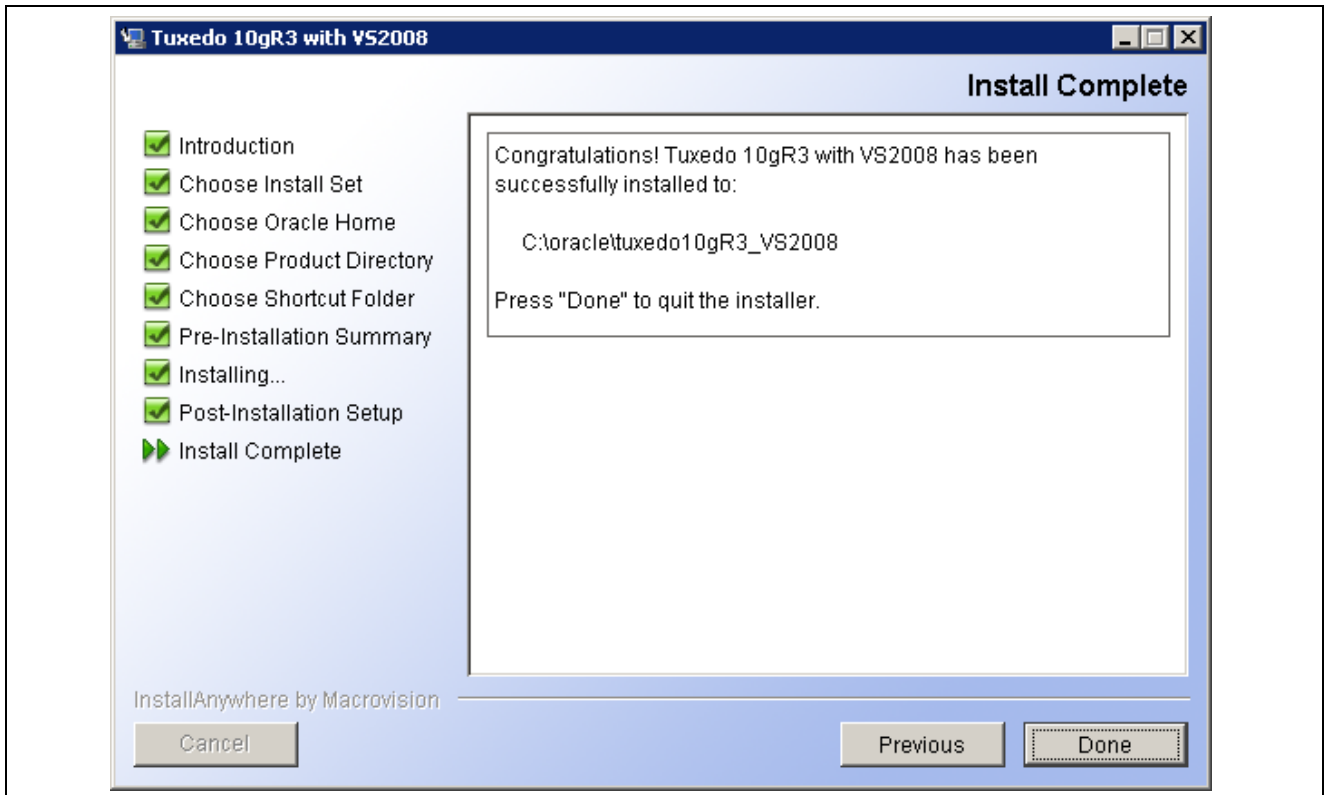
Oracle Tuxedo Choose Encryption Bits window

13. Select No for the option “Would you like to configure LDAP for SSL support?”



Oracle Tuxedo SSL Installation Choice

14. Click Done to complete the installation.



Oracle Tuxedo Install Complete window

Task 3-1-6: Installing the Oracle Tuxedo Patch on Microsoft Windows

These instructions assume that you have installed the base Oracle Tuxedo 10gR3_VS2008, and have downloaded the platform-specific version of the rolling patch.

To install the patch:

1. Stop all the PeopleSoft PeopleTools domains that are running and using your Oracle Tuxedo 10gR3_VS2008 installation.
2. Select Start, Programs, Administrative Tools, Service.
3. Select each of the following services, right-click and select Stop:
 - ORACLE ProcMGR V10gR3 with VS2008
 - TListen 10gR3 with VS2008 (Port: 3050)

Note. The port number is variable.

4. Uninstall any existing patches.

To check for installed patches, review the file patchlev in the Oracle Tuxedo installation directory, *TUXDIR\udataobj*. The last line of the patchlev file indicates the rolling patch (RP) level that is installed. For example:

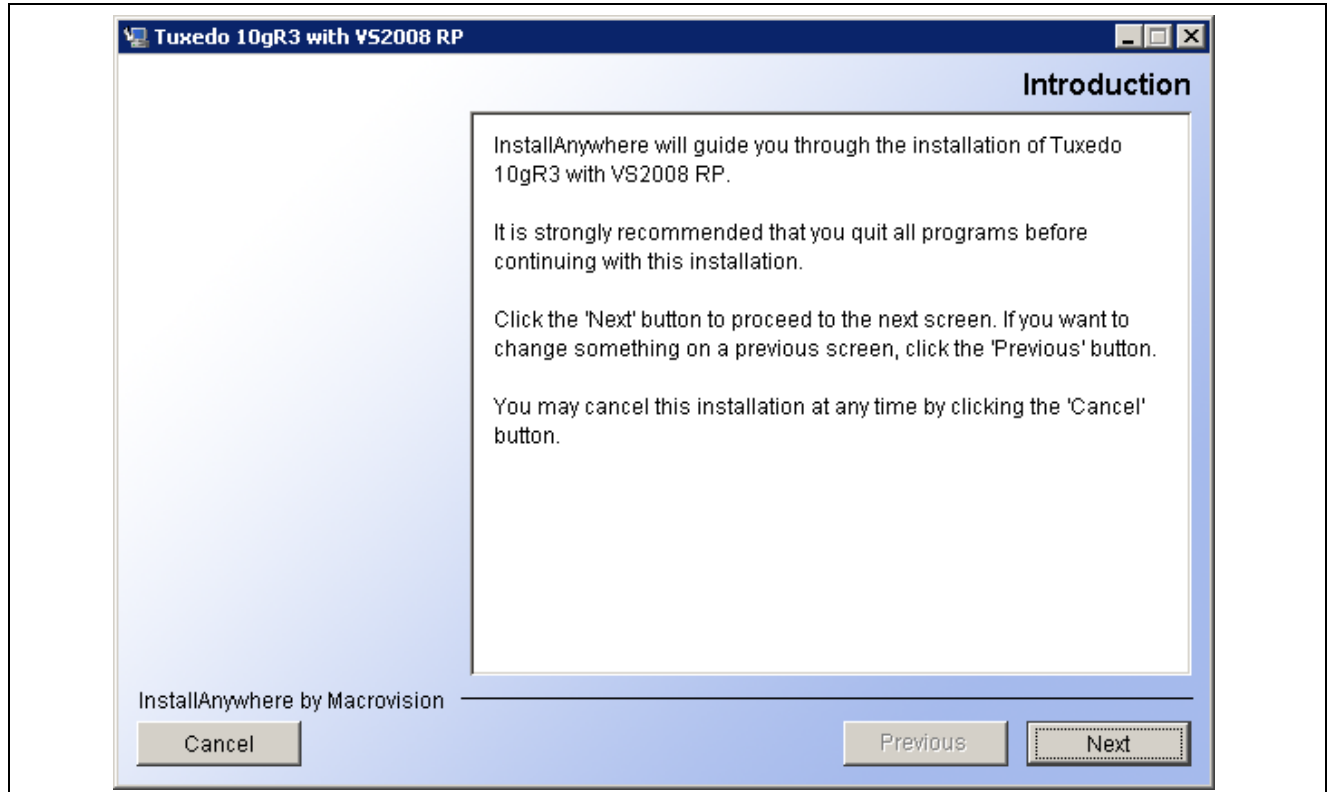
```
031. BUG9656822 TUX10.3: CAN'T INSTALL PATCHES ON WINDOWS 2003 X86-64 VS2005
```

The number “031” indicates that rolling patch 31 has been installed. If there is an existing patch, remove it before installing the new rolling patch.

5. Go to the directory where you downloaded the patch file, *TUX_INSTALL*, and unzip the file.

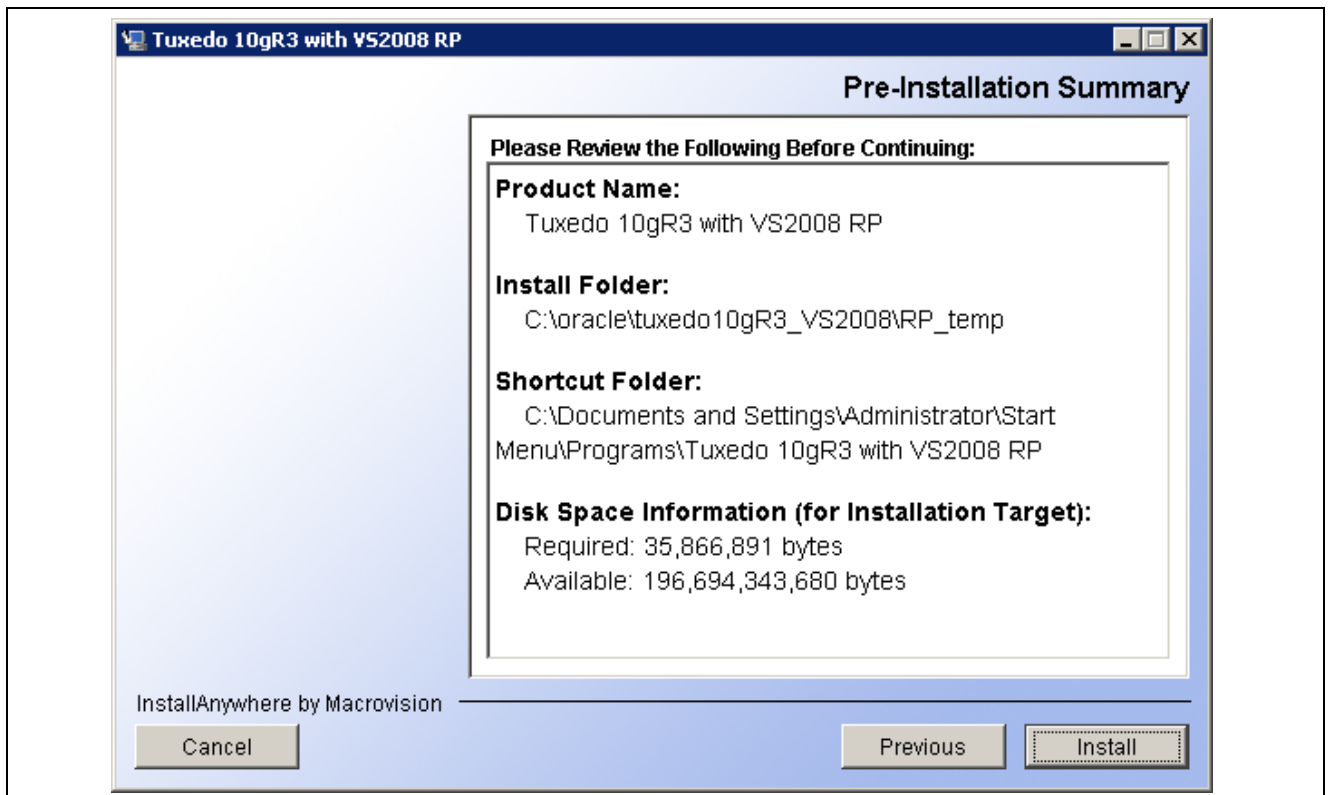
This creates a directory *RP<Version Number>* with the installation files. For example, for patch *RP043*, upon unzipping the file you see a directory named *RP043*.

6. Go to *TUX_INSTALL\RP<Version Number>*, and double click *RP<Version Number>.exe* (for example, *RP043*).
7. Click Next on the Introduction window to proceed.



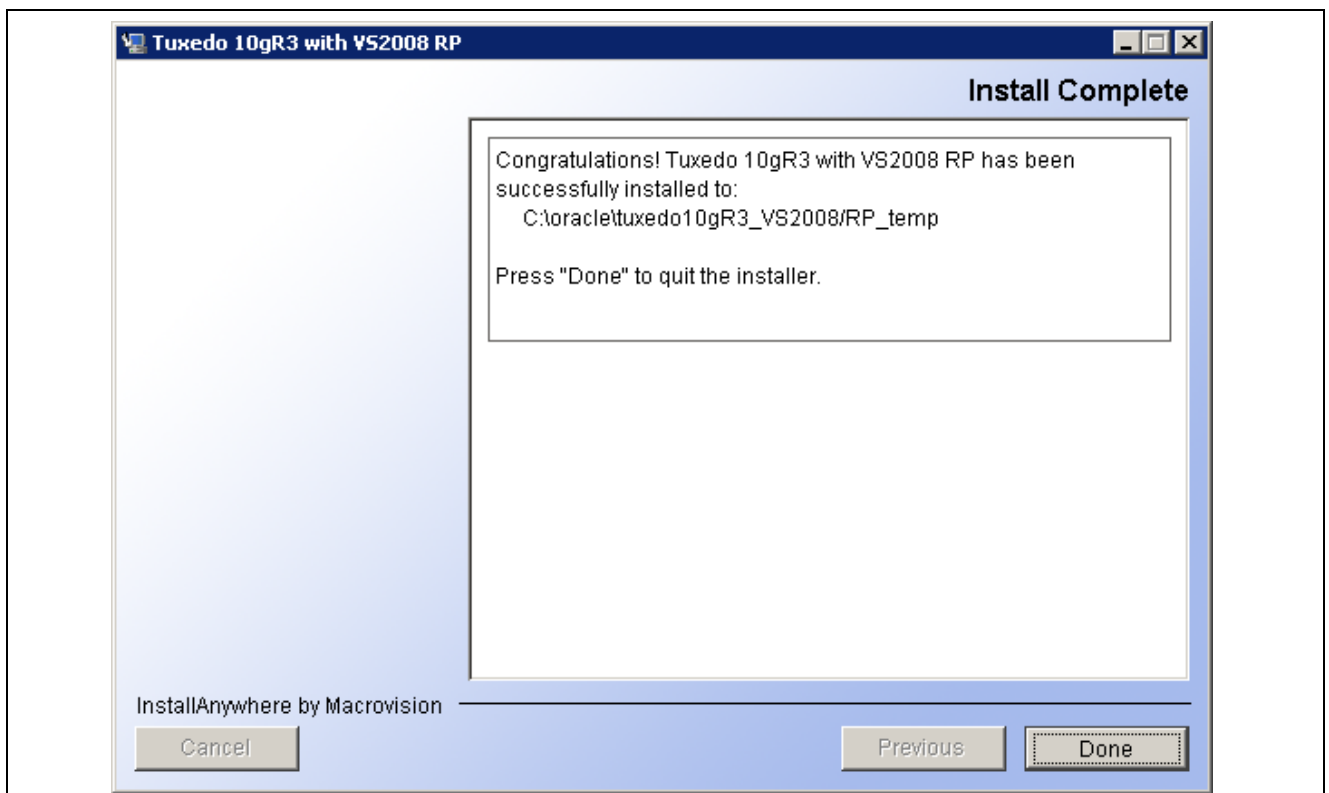
Tuxedo 10gR3 with VS2008 RP Introduction window

8. Review the pre-installation summary, which includes the product name, install folder, shortcut folder, and disk space information, and then click Next.



Tuxedo 10gR3 with VS2008 RP Pre-Installation Summary window

9. Click Done when the installation is complete.



Tuxedo 10gR3 with VS2008 RP Install Complete window

10. Verify the installation.

See Verifying the Server Installation on Microsoft Windows.

Task 3-1-7: Uninstalling Oracle Tuxedo 10gR3_VS2008 and Patch on Microsoft Windows

Remove any Oracle Tuxedo patches followed by the base Oracle Tuxedo 10gR3_VS2008.

To remove the Oracle Tuxedo RP<*Version Number*> patch on Microsoft Windows:

1. Using PSADMIN, shut down any application server, Process Scheduler, and Search server domains that may be running on the machine.
2. Go to the RP_uninstaller folder under the Oracle Tuxedo installation directory:

```
cd TUXDIR\RP_installer
```

3. Double-click Tux10gR3RP_uninstallMain.exe.
4. Click Uninstall, and click Done when the process is complete.

You can confirm that the uninstallation process is complete by checking the directory *TUXDIR/udataobj*. If the patch was successfully removed, the patchlev file will be absent.

To uninstall the base Oracle Tuxedo 10gR3_VS2008:

1. Go to *TUXDIR\uninstaller*.
2. Double-click Uninstall Tuxedo 10gR3 with VS2008.exe.
3. Click Uninstall, and click Done when the process is complete.

Note. You may need to delete the *TUXDIR* directory manually after this uninstallation process is complete.

Task 3-1-8: Checking the Windows Service Account

Use the information in this section to ensure that the Windows services are properly configured. Oracle recommends installing the application server binaries locally on your C drive, for best performance. The procedure to set up the ORACLE ProcMGR V10gR3 with VS2008 service in the next section includes options for the account type. Use the following guidelines to choose between the Local System account option and the This Account option. (For the option This Account, you must specify a user ID and password.)

- If you plan to install the PeopleSoft application server binaries (as in, psappsrv.exe and so on) on a remote file server, you must select the This Account radio button.
- If the PeopleSoft application server binaries are *local*, that is, they exist on your local hard drive, you can use either the Local System account or This Account radio button.
- If you intend to use this Windows service to start Process Scheduler, you must *always* select the This Account radio button. Enter the name of your Domain/Windows user name—not the machine name—and your password.

Note. When using Oracle Tuxedo with Process Scheduler, you must use the Windows user name that starts the Process Scheduler server agent. This is necessary because the installation of the PeopleSoft ODBC driver sets up the registry settings to be accessible only by this user name. If you do not use the correct Windows user name, processes that require the ODBC registry information (such as Crystal Reports) will fail.

- If you are running on Windows and are configuring a search index that resides on a mapped network drive, you must ensure that the User ID of the ORACLE ProcMGR V10gR3 with VS2008 service has access to network drives accessed by the search engine. The search engine stores the search indexes at *PS_HOME/data/search*. However, this path can be changed in the application or the Process Scheduler's configuration. If this path is changed in these configurations and it points to a network drive, you must ensure that the user ID that starts the ORACLE ProcMGR V10gR3 with VS2008 service has access to these network drives. The application server and the process scheduler are started by the ORACLE ProcMGR V10gR3 with VS2008 service and therefore inherit the same permissions as the ORACLE ProcMGR V10gR3 with VS2008 service.

Task 3-1-9: Restricting Domain Process Privileges

This section discusses:

- Understanding Domain Process Privileges
- Setting TM_CPAU Environment Variable

Understanding Domain Process Privileges

For PeopleSoft systems, the Oracle ProcMGR service (tuxipc.exe) is responsible for starting Oracle Tuxedo domain processes on Microsoft Windows. By default, domain processes run as the same user ID that the service is running as. In a default installation, the service is configured to log on to Microsoft Windows as the Local System user. Microsoft does not support assigning network privileges to the Local System user for security reasons, but the Local System user otherwise has full administrative access to the local system.

In this configuration, PeopleSoft PeopleTools domain processes also run as the Local System user, which presents several potential issues, including:

- PeopleSoft PeopleTools domain processes are unable to access network resources.
- PeopleSoft PeopleTools domain processes run with more privileges than are necessary. A compromised PeopleSoft PeopleTools process will have full access to the local system and could potentially be used to gain unauthorized access to the local system.
- All PeopleSoft PeopleTools domain processes on the system run as the same user ID.

These problems are not present on UNIX systems where domain processes are always started as the user that runs tmadmin (by way of PSADMIN for PeopleSoft installations) to boot the domain. UNIX systems therefore support multiple domains, each running under different user IDs, with only the desired local privileges, and with no undesirable restrictions to network resources.

For Microsoft Windows platforms, you can use the Oracle Tuxedo TM_CPAU environment variable to achieve behavior similar to UNIX systems. If TM_CPAU is set to *YES* before tuxipc is started, tuxipc creates an Oracle Tuxedo process that belongs to the user who initiated tmboot. If the Oracle ProcMGR service (tuxipc.exe) is started with the TM_CPAU=YES environment variable set, then domain processes will run as the user ID used to run tmadmin (PSADMIN) to boot the domain.

Using the TM_CPAU environment variable enables a variety of configuration options, including:

- The Oracle ProcMGR service can be run as the Local System user, but domain processes can be run using a minimally privileged user. This reduces the chance of a compromised PeopleSoft PeopleTools process being used to gain unauthorized access to the system. Note that the option “Allow services to interact with Desktop” should *not* be selected.
- The Oracle ProcMGR service can be configured to log on to Microsoft Windows using a minimally privileged user ID and PeopleSoft PeopleTools processes can run as a user with more privileges than the Oracle Tuxedo user ID. For example, the Oracle Tuxedo user ID could have read-only access to

PS_CFG_HOME, but the PeopleSoft PeopleTools user could have read-write access. The Oracle Tuxedo user ID does not actually require read access to *PS_HOME*. When `CreateProcessAsUser` runs, access to the executable to start is evaluated using the user ID that the process will run as.

- A single Microsoft Windows system can be used to host multiple PeopleSoft PeopleTools installations that are each administered by a different user. A non-administrative user ID used to boot one domain will have no privileges to processes started with a different user ID.
- Domain processes can be identified and managed in Windows Task Manager by a non-administrative user.

See "File Formats, Data Descriptions, MIBs, and System Processes Reference," Oracle Tuxedo Reference Topics, http://download.oracle.com/docs/cd/E15261_01/tuxedo/docs11gr1/rf5/rf5.html

Setting TM_CPAU Environment Variable

To set the TM_CPAU environment variable:

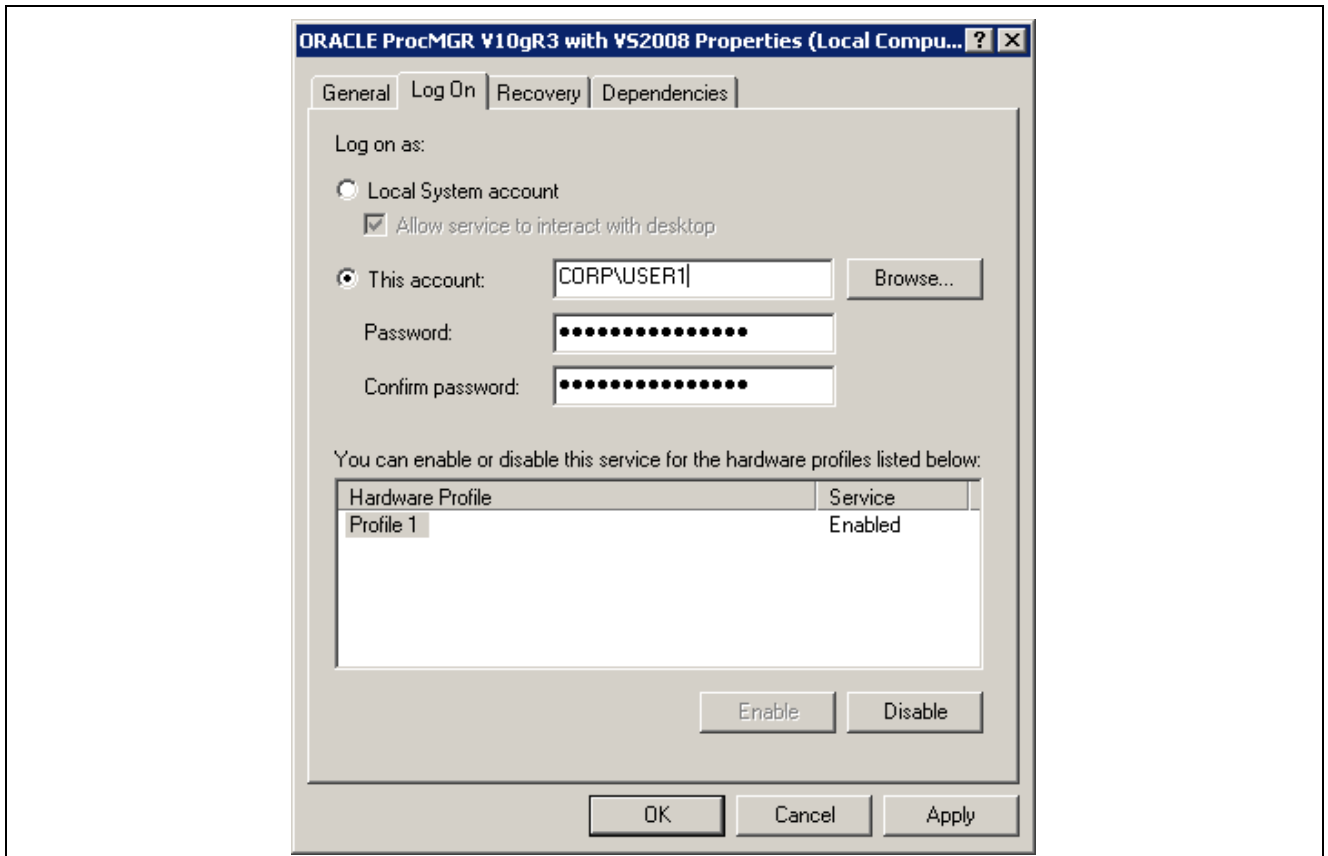
Note. This is a recommended step. Perform this step only if Local System account is used in the task Setting Up the Windows Services for Oracle Tuxedo.

1. Right-click the My Computer icon and select Properties from the menu.
2. Select the Advanced tab.
3. Click Environment Variables.
4. In the System variables area, click New to add a new environment variable.
5. Enter TM_CPAU as the variable name, YES as the value, and click OK three times to close the dialog box.
6. Restart your machine.

Task 3-1-10: Setting Up the Windows Services for Oracle Tuxedo

To set up the Windows services for Oracle Tuxedo:

1. Log on again as the Application Server Administrator, TUXADM, or a designated user ID.
2. Open the Control Panel and double-click Administrative Tools.
3. Select Computer Management and expand Services and Applications.
4. Select Services and locate the service labeled *ORACLE ProcMGR V10gR3 with VS2008*.
Double-click ORACLE ProcMGR V10gR3 with VS2008 to open the properties dialog box.
5. On the General tab, if the Stop button is enabled, click on it to stop the current ORACLE ProcMGR V10gR3 with VS2008 process.
6. Select Log On.



Oracle ProcMGR V10gR3 with VS2008 Properties Dialog Box: Log on Tab

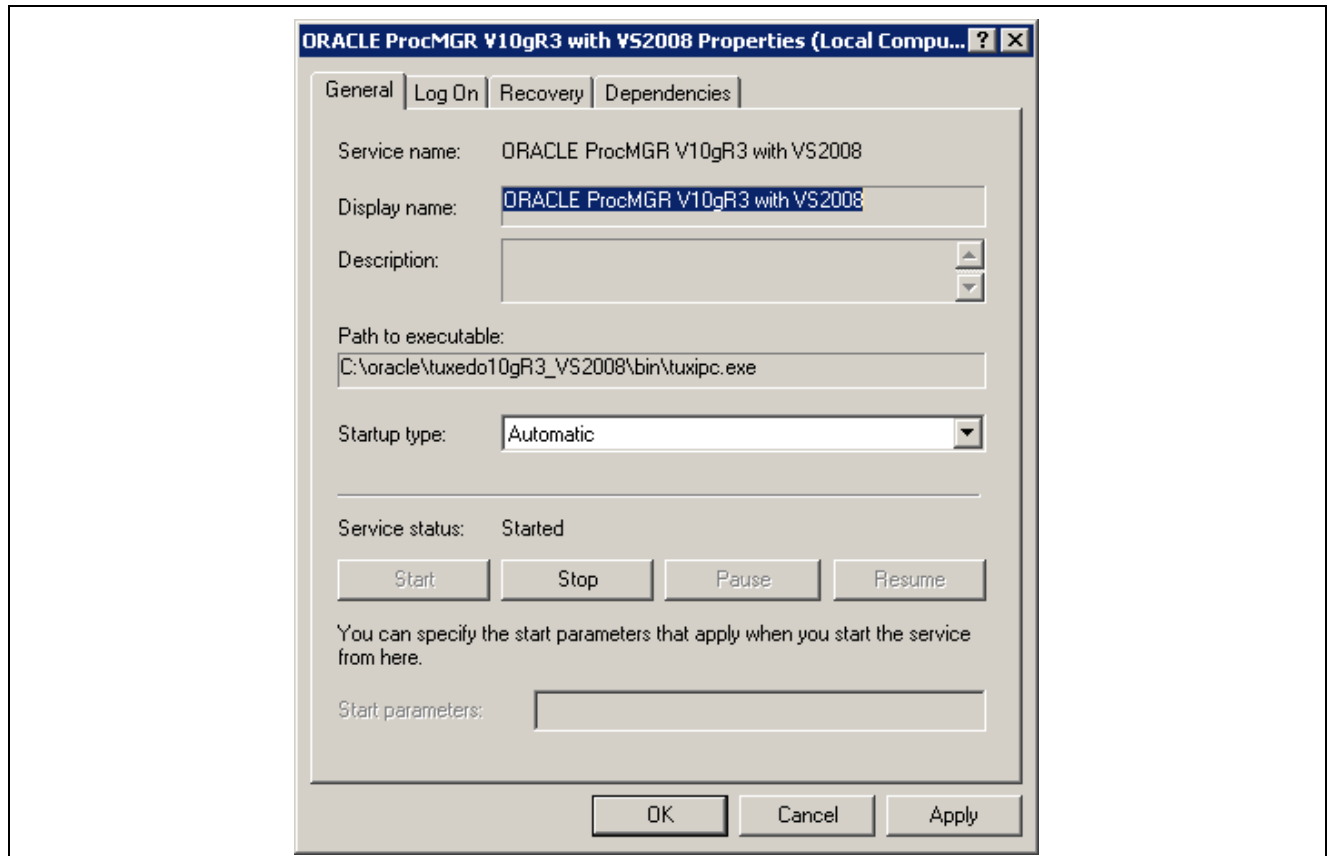
7. Choose either Local System account or This account.

If you select This account, be sure to specify a user with the appropriate permissions, and then enter and confirm the password.

See Checking the Windows Service Account.

8. Select General.

Make sure that Startup Type is set to *Automatic*.



Oracle ProcMGR V10gR3 with VS2008 Properties Dialog Box: General Tab

9. Select Start.

A message in the Services dialog box will indicate the Started status. Close the dialog box to return to the Control Panel.

10. As mentioned, unless you intend to use the Tuxedo Web Monitor, you should disable the TListen 10gR3 VS2008 (Port: *PORT*) service, where *PORT* is the port number you entered during the installation. The default is 3050.

Task 3-1-11: Verifying the Server Installation on Microsoft Windows

At this point, you should verify that the server installation was successful.

Verify your installation by opening the file *TUXDIR\udataobj\patchlev* in a text editor and checking the last line. For example, the following line indicates that rolling patch RP043 was installed:

```
043. BUG9656822 TUX10.3: CAN'T INSTALL PATCHES ON WINDOWS 2003 X86-64 VS2006
```

If you cannot find a patchlev file in the *TUXDIR\udataobj* directory, it means that only the base is installed; there is no rolling patch installed.

If you do not see the desired output, review your steps and reinstall Oracle Tuxedo 10gR3_VS2008.

Task 3-1-12: Removing Existing Oracle Tuxedo Installations from UNIX (Optional)

You may have older versions of Oracle Tuxedo installed on your system from an earlier version of PeopleSoft PeopleTools. If you are completely upgrading to PeopleSoft PeopleTools 8.52 from an earlier version of PeopleSoft PeopleTools and you do not require the older Oracle Tuxedo anymore, then, you may uninstall it.

Note. It is not mandatory to uninstall older Oracle Tuxedo versions from the machine where you are installing Oracle Tuxedo 10gR3, as older Oracle Tuxedo versions and Oracle Tuxedo 10gR3 can exist on the same machine.

You may have to remove your Oracle Tuxedo installation on UNIX for the following reasons:

- You are having problems starting Oracle Tuxedo and decide to reinstall.
- You no longer need Oracle Tuxedo on a machine.

To remove Oracle Tuxedo from UNIX:

1. Using PSADMIN, shut down any application server, Process Scheduler, and Search server domains that may be running on the machine.
2. Use the UNIX `rm` command to directly remove the Oracle Tuxedo installation.
Be sure to remove the directory containing Oracle Tuxedo, referred to here as *TUXDIR*.
3. Remove the TUXDIR environment variable and any entries containing your platform-specific LIBRARY PATH and PATH environment variables.

The instructions for installing and removing the patch are given later in this section.

See Uninstalling Oracle Tuxedo 10gR3 and Patch on UNIX.

Task 3-1-13: Completing the Preinstallation Checklist on UNIX

We recommend that you complete the following preinstallation checklist before you begin the Oracle Tuxedo installation. The checklist includes various parameters with descriptions and example values. Specify your values in the Real Value column. Completing this information first should save you time during your installation.

Item	Description	Example Value	Real Value
ORACLE_HOME	The high level directory where you converge the installation for all Oracle products.	[/oracle]	<enter value>
TUXDIR	The directory where Oracle Tuxedo system software will be installed.	[/oracle/tuxedo10gR3]	<enter value>
Username	The UNIX user name of the Application Server Administrator (Oracle Tuxedo owner).	[tuxedo]	<enter value>
Groupname	Specify the UNIX group name of the Oracle Tuxedo owner.	[tuxedo]	<enter value>

Note. You can select any user name and group name you want; however, you might want to use the “tuxedo” convention for simplicity.

Task 3-1-14: Designating the Oracle Tuxedo Owner on UNIX

A new or existing user must be designated as the Oracle Tuxedo owner.

To designate the Oracle Tuxedo owner:

1. Log in as root.
2. Create the UNIX group and the user name of the individual who will be the owner of Oracle Tuxedo.
Using the values from the preinstallation checklist, create the group and specify the group name. Then create the user who will be the Oracle Tuxedo owner, specifying the user name, group name, and home directory, denoted by TUXDIR from the checklist.

Note. Depending on your operating system, the utility you use to create the user and group is different. For example, HP-UX uses the "sam" utility, AIX uses the "smit" utility, and so on. For the exact utility, refer to your operating system documentation.

Task 3-1-15: Installing Oracle Tuxedo on UNIX

The following procedure assumes that you saved the installation files from Oracle E-Delivery in the directory *TUX_INSTALL*. This procedure uses installation on Linux as an example.

To install Oracle Tuxedo on UNIX or Linux:

1. Make the installer an executable with the following command
2. Start the installation in console mode with the following command:

```
chmod +x tuxedo10gR3_64_Linux_01_x86.bin
```

```
./tuxedo10gR3_64_Linux_01_x86.bin -i console
```

3. Select English as the installation language:

```
Choose Locale...
-----
->1- English

CHOOSE LOCALE BY NUMBER: 1
```

4. Press ENTER after reading the introduction.
5. Select Full Install as the installation set:

```
Choose Install Set
-----

Please choose the Install Set to be installed by this installer.

->1- Full Install
  2- Server Install
  3- Full Client Install
```

- 4- Jolt Client Install
- 5- ATMI Client Install
- 6- CORBA Client Install

- 7- Customize...

ENTER THE NUMBER FOR THE INSTALL SET, OR PRESS <ENTER> TO ACCEPT THE DEFAULT: 1

6. Enter a full path for the top-level installation directory.

The following example creates a new *ORACLE_HOME* directory. If you want to use an existing directory, enter 2 and select one of the existing directories.

Note. In previous Oracle Tuxedo and PeopleSoft PeopleTools releases, the installation directory was referred to as *BEA_HOME*. You may see installation directories from previous releases displayed at this prompt, and if so, you can select one.

Choose Oracle Home

- >1- Create new Oracle Home
- 2- Use existing Oracle Home

Enter a number: 1

Specify a new Oracle Home directory: **/home/user/Oracle**

7. Enter 2 to accept the default product directory, which is *ORACLE_HOME/tuxedo10gR3*, or enter 1 to specify another location. This directory is referred to as *TUXDIR*.

Choose Product Directory

- >1- Modify Current Selection (/home/user/Oracle/tuxedo10gR3)
- 2- Use Current Selection (/home/user/Oracle/tuxedo10gR3)

Enter a number: 2

8. Enter *Y* to continue:

Install Samples (Y/N): **Y**

9. Review the installation summary and press ENTER to continue.

Pre-Installation Summary

Please Review the Following Before Continuing:

Product Name:

Tuxedo 10gR3

Install Folder:

/home/user/Oracle/tuxedo10gR3

```
Link Folder:
/home/user
```

```
Disk Space Information (for Installation Target):
Required: 195,549,595 bytes
Available: 13,555,073,024 bytes
```

```
PRESS <ENTER> TO CONTINUE:
```

10. Press ENTER to begin the installation.

```
Ready To Install
-----
```

```
InstallAnywhere is now ready to install Tuxedo 10gR3 onto your system at the⇒
following location:
```

```
/home/user/Oracle/tuxedo10gR3
```

```
PRESS <ENTER> TO INSTALL:
```

11. Enter and confirm a password for tlisten.

```
Configure tlisten Service
-----
```

```
Password:
Verify Password:
Password accepted! Press "Enter" to continue.
```

12. Select 2 for No when asked whether to install SSL support.

```
SSL Installation Choice
-----
```

```
Would you like to install SSL Support?
```

```
->1- Yes
    2- No
```

```
ENTER THE NUMBER FOR YOUR CHOICE, OR PRESS <ENTER> TO ACCEPT THE DEFAULT:
2
```

13. Press ENTER to exit the installer.

```
Installation Complete
-----
```

```
Congratulations. Tuxedo 10gR3 has been successfully installed to:
```

```
/home/user/Oracle/tuxedo10gR3
```

PRESS <ENTER> TO EXIT THE INSTALLER

Task 3-1-16: Installing the Oracle Tuxedo Patch on UNIX

These instructions assume that you have installed the base Oracle Tuxedo 10gR3, and have downloaded and extracted the platform-specific version of the rolling patch.

To install the patch:

1. Stop all the PeopleSoft PeopleTools domains that are running and using your Oracle Tuxedo 10gR3 installation.
2. Uninstall any existing patches.

To check for installed patches, review the file `patchlev` in the Oracle Tuxedo installation directory, `TUXDIR/udataobj`. The last line of the `patchlev` file indicates the rolling patch (RP) level that is installed. For example:

```
031. BUG9656822 TUX10.3: CAN'T INSTALL PATCHES ON WINDOWS 2003 X86-64 VS2005
```

The number “031” indicates that rolling patch 31 has been installed. If there is an existing patch, remove it before installing the new rolling patch.

3. Set the `TUXDIR` environment variable to indicate the absolute path to the directory where you installed the base Oracle Tuxedo 10gR3, `TUX_HOME`:

```
export TUXDIR=TUX_HOME
```

4. Source `tux.env` to set the environment variables:

```
. $TUXDIR/tux.env
```

5. Go to the directory where you downloaded the patch file, `TUX_INSTALL`, and unzip the file.

This creates a directory `RP<Version Number>` with a TAR file containing the installation executable. (For example for patch `RP043`, the directory would be named `RP043`.)

6. Change directory to `TUX_INSTALL/RP<Version Number>`, uncompress, and extract the TAR file

Note. Use the appropriate commands to uncompress and untar the file on your UNIX operating system.

For example:

```
cd RP043
tar -zxf RP043.tar.Z
```

7. Run the following command to begin the installation:

```
./install
```

8. Enter the Oracle Tuxedo owner:

See Completing the Preinstallation Checklist on UNIX.

```
Installing server and client files...
Enter owner for patch files:
```

9. Enter the Oracle Tuxedo group name:

```
Enter group for patch files:
```

10. When the installation is complete, you see the following message:

```
The patch installation finished successfully.
```

11. Verify your installation.

See Verifying the Installation on UNIX.

Task 3-1-17: Uninstalling Oracle Tuxedo 10gR3 and Patch on UNIX

Remove any Oracle Tuxedo 10gR3 patches first, followed by the base installation.

This section uses the uninstaller provided with the Oracle Tuxedo patch. You must use the uninstaller that is the same version of the patch as is currently installed. The uninstaller is provided with the zip file that you downloaded from Oracle E-Delivery.

This section assumes that you downloaded and extracted the files, and set the environment variables as described in the previous section.

To uninstall the patch from Oracle Tuxedo 10gR3:

1. Set the environment variable `TUXDIR` to indicate the absolute path to the directory where the patch is installed.
2. Using `PSADMIN`, shut down any application server, Process Scheduler, and Search server domains that may be running on the machine.
3. Go to the directory where you downloaded, unzipped, and extracted the TAR file:

```
cd TUX_INSTALL/RP<Version Number>
```

4. Enter the following command:

```
./uninstall  
The uninstallation finished successfully.
```

You can confirm that the uninstallation process is complete by checking the directory `TUXDIR/udataobj`. If the patch was successfully removed, the `patchlev` file will be absent.

To uninstall Oracle Tuxedo 10gR3:

1. Go to `TUXDIR/uninstaller`.
2. Enter the following command:

```
./Uninstall_Tuxedo_10gR3
```

3. Follow the instructions on the uninstaller.

Note. You may need to delete the `TUXDIR` directory manually after this uninstallation process is complete.

Task 3-1-18: Verifying the Server Installation on UNIX

At this point, you should verify that the server installation was successful.

Verify your installation by opening the file `TUXDIR/udataobj/patchlev` in a text editor and checking the last line. For example, the following line indicates that RP043 was installed:

043. BUG9656822 TUX10.3: CAN'T INSTALL PATCHES ON WINDOWS 2003 X86-64 VS2005

If you cannot find a patchlev file in the *TUXDIR*/udataobj directory, it indicates that only the base is installed, and there is no rolling patch installed.

If you do not see the desired output, review your steps and reinstall Oracle Tuxedo 10gR3.

Task 3-1-19: Ensuring that Oracle Tuxedo Coexists with Earlier Versions

This section discusses:

- Understanding the Use of Multiple Oracle Tuxedo Versions
- Checking Your Environment Variables
- Changing the TListen Port

Understanding the Use of Multiple Oracle Tuxedo Versions

PeopleSoft PeopleTools 8.49 uses Oracle Tuxedo 9.1; releases 8.44 to 8.48 use Oracle Tuxedo 8.1. Earlier versions of PeopleSoft PeopleTools rely on earlier versions of Oracle Tuxedo—for example, PeopleSoft PeopleTools 8.41 uses Oracle Tuxedo 6.5. If you are installing only PeopleSoft PeopleTools 8.52, you can safely skip this section. If you need to run application servers on PeopleSoft PeopleTools 8.52 and earlier PeopleSoft PeopleTools versions on the same machine, read this section to learn about coexistence issues. Although Oracle Tuxedo 10gR3 coexists with earlier Oracle Tuxedo versions on the same machine, you may need to take a number of manual steps to ensure that these products share the same environment gracefully.

Checking Your Environment Variables

Installing Oracle Tuxedo changes your *TUXDIR* and *PATH* environment variables. Although you do not need to change these environment variables to successfully run PeopleSoft PeopleTools 8.52 with Oracle Tuxedo 10gR3, earlier versions of PeopleSoft PeopleTools rely on these environment variables being set.

To change your environment variables:

1. Set your *TUXDIR* environment variable to reflect the installation directory of your earlier Oracle Tuxedo release.

For example, Oracle Tuxedo 8.1 may be installed to C:\tux8.1. This means that *TUXDIR*=C:\tux8.1 is the correct setting. Oracle Tuxedo 6.5 may be installed to C:\tux65. This means that *TUXDIR*=C:\tux65 is the correct setting.

2. Your *PATH* environment variable must contain *TUXDIR*\bin for the earlier Oracle Tuxedo version before any entries for Oracle Tuxedo 10gR3 *TUXDIR*\bin.

For example the setting *PATH*=C:\winnt;C:\oracle\tuxedo10gR3_VS2008\bin;C:\tux65\bin will cause your pre-8.51 domains to no longer work. You would need to change this to *PATH*=C:\winnt;C:\tux65\bin;C:\oracle\tuxedo10gR3_VS2008\bin to work with pre-PeopleSoft PeopleTools 8.44 domains.

Note. PeopleSoft PeopleTools 8.44 and later do not use environment variables to discover the installation location of Oracle Tuxedo 8.1 and later. The PSADMIN tool retrieves these values from the Microsoft Windows registry.

3. Your library path on UNIX (the environment variable *LD_LIBRARY_PATH*, *LIBPATH*, or *SHLIB_PATH*; whichever is appropriate for your platform) must contain *TUXDIR*/lib for the earlier Oracle Tuxedo version before any entries for Oracle Tuxedo 10gR3.

For example the setting `LD_LIBRARY_PATH=/lib:/usr/lib:/home/user/Oracle/tuxedo10gR3/lib:/prod/tuxedo/6.5/lib`, will cause your pre-8.50 domains to no longer work. You would need to change this to `LD_LIBRARY_PATH=/lib:/usr/lib:/prod/tuxedo/6.5/lib:/home/user/Oracle/tuxedo10gR3/lib` for your pre-8.50 domains to work.

Changing the TListen Port

Installing Oracle Tuxedo 10gR3 and earlier creates a new service known as TListen. In most cases, you can disable this service as it is not required to run PeopleSoft PeopleTools application server domains. However, if you intend to use the Tuxedo Web Monitor you may wish to ensure that there is no port clash with earlier versions. This port is determined at installation and should be changed to a port other than the default 3050 if you intend on using the TListen service for Oracle Tuxedo 10gR3 and earlier Oracle Tuxedo versions concurrently.

CHAPTER 4

Using the PeopleSoft Installer

This chapter discusses:

- Understanding the PeopleSoft Installer
- Prerequisites
- Obtaining the PeopleSoft Installation Files from Oracle E-Delivery
- Running the PeopleSoft Installer
- Verifying Necessary Files for Installation on Windows
- Installing the Verity Integration Kit
- Installing PeopleSoft Application Software
- Installing the Multilanguage Files
- Installing the PeopleSoft Client Files
- Mapping a Drive on the Install Workstation

Understanding the PeopleSoft Installer

This section discusses:

- Defining the PeopleSoft Installer
- Defining Supported Server Combinations
- Obtaining License Codes

Defining the PeopleSoft Installer

The PeopleSoft Installer is a Java-based tool that delivers software to your servers and to the PeopleSoft Client. You can install the whole range of PeopleSoft servers and client with the PeopleSoft installer. You can install the server and client software separately or together.

Note. You must install the necessary web server products and any additional component software as described in the previous chapters before you run the PeopleSoft Installer.

The PeopleSoft Installer enables you to transfer files directly to various PeopleSoft servers—including application servers, batch servers, web servers, and database servers—without first copying all files to a file server. You can also use the PeopleSoft Installer to install the files for the PeopleSoft Client.

You run the PeopleSoft installer to install the necessary products on the target machines. Which files are installed depends on the operating system on the target machine, the database platform, and the selected server option. The PeopleSoft Installer installs files directly to Microsoft Windows, UNIX, and Linux machines. PeopleSoft PeopleTools and PeopleSoft Applications use the same PeopleSoft installation template. This chapter discusses the installation of PeopleSoft PeopleTools, followed by the installation of PeopleSoft application software and the application-specific Multilanguage files.

All licensed components of the PeopleSoft Architecture must be installed on each server. If you are not able to download and extract the PeopleSoft installation files directly on a UNIX machine, for example, you can download to the Windows file server and then FTP the files to your UNIX system.

You can install multiple logical servers to the same machine. For example, you can have the application server and the batch server on the same machine. But, if you want to install different servers to different machines, you have to run the PeopleSoft Installer once for each server.

Before beginning the installation, be sure to review the information about the various PeopleSoft servers and clients in the chapter “Preparing for Installation.”

See Also

"Preparing for Installation," Planning Your Initial Configuration

Defining Supported Server Combinations

The following table lists the supported operating systems for the various PeopleSoft servers for your database platform. For more detailed information, consult the PeopleSoft product certifications area of My Oracle Support.

Supported operating systems for database servers	Supported operating systems for application servers and batch servers	Supported operating systems for file servers	Supported operating systems for web servers
<ul style="list-style-type: none"> • HP-UX Itanium • IBM AIX on POWER Systems (64-bit) • IBM: Linux on System z • Linux x86-64 • Microsoft Windows x64 (64-bit) • Oracle Solaris on SPARC (64-bit) • Oracle Solaris x86_64 	<ul style="list-style-type: none"> • HP-UX Itanium • IBM AIX on POWER Systems (64-bit) • IBM: Linux on System z (batch server only; no application server) • Linux x86-64 • Microsoft Windows x64 (64-bit) • Oracle Solaris on SPARC (64-bit) • Oracle Solaris x86_64 	<ul style="list-style-type: none"> • Microsoft Windows x64 (64-bit) 	<ul style="list-style-type: none"> • IBM AIX on POWER Systems (64-bit) • HP-UX Itanium (64-bit) • Linux x86-64 • Microsoft Windows x64 (64-bit) • Oracle Solaris on SPARC (64-bit) • Oracle Solaris x86_64

See Also

PeopleTools 8.52 Hardware and Software Requirements.

My Oracle Support, Certifications

Obtaining License Codes

Refer to the following URL for license codes for Oracle's PeopleSoft line of products:
http://licensecodes.oracle.com/ent_keys_by_prod.html.

See Also

My Oracle Support, (search for Licensing Notes for the current release)

"Setting Up the PeopleSoft Pure Internet Architecture (in GUI or Console Mode)," Completing Post-Installation Steps

Prerequisites

Verify that you fulfill the following requirements before beginning the installation:

- The PeopleSoft Installer requires Java Virtual Machine (JVM), which is bundled for all OS platforms. The PeopleSoft Installer searches for the JVMs in the directories in which users would typically install JVM. If the search fails, the bundled JVM will be used. For the PeopleSoft Installer to run successfully, you must have JRE/JDK version 1.6.0 or higher. See My Oracle Support for information on the correct JRE version for your system.

See My Oracle Support, Certifications.

- Before running the PeopleSoft installer, you must verify that you have the correct patches for your JVM level.

Check My Oracle Support and your vendor for required patches.

See "Operating System, RDBMS, & Additional Component Patches Required for Installation PeopleTools," My Oracle Support, (search for the article title).

- Make sure you have at least 4.5 GB of free space to perform your installation.

See Running the PeopleSoft Installer.

- The installation process also requires at least 2.0 GB of free temporary disk space, which is needed only for the duration of the process. The process uses the directory defined by the TEMP environment variable on your installation computer or the directory specified by the -tempdir option when using setup.sh to install.

Oracle strongly recommends that you use the -tempdir option to install, using the following guidelines:

- Do not use /tmp as the temporary directory.
- Do not specify /tmp as the explicit temporary directory for the -tempdir option.
- Do not specify a directory that is on a shared drive.
- Do not specify a directory that is inside the location where PeopleSoft PeopleTools is being installed; for example, *PS_HOME*/temp.
- The user who installs PeopleSoft PeopleTools must be root or the owner of *PS_HOME*.
PS_HOME is used throughout this installation guide to refer to the high-level directory where your PeopleSoft PeopleTools and application software are installed. The documentation may also use the notation \$PS_HOME or %PS_HOME% to refer to the PS_HOME environment variable in a code sample.
- You must have admin privileges to install the PeopleSoft web server.

- You can install the PeopleSoft web server to *PS_HOME*, or to another directory outside *PS_HOME*. This documentation refers to the directory where you install the PeopleSoft web server as *PIA_HOME*.

See "Preparing for Installation," Defining Installation Locations.

- If your installation requires any PeopleSoft PeopleTools patches, you can apply the code (that is, the contents of the zip file you downloaded from My Oracle Support) after running the PeopleSoft Installer. Do not apply the database instructions at this time; the database objects will be applied later during the install. Be sure to read and follow the instructions provided with the PeopleSoft PeopleTools patches.

See Also

PeopleTools 8.52 Hardware and Software Requirements, Additional Requirements, Describing JRE Requirements

My Oracle Support, Certifications

Task 4-1: Obtaining the PeopleSoft Installation Files from Oracle E-Delivery

You obtain the PeopleSoft PeopleTools, PeopleSoft application, and multi-language software by downloading them as zip files from Oracle E-Delivery. At this point you should have already downloaded the necessary files. However, if you have not yet downloaded the files, this section includes information on finding and using the installation files.

See "Preparing for Installation," Using Oracle E-Delivery to Obtain Installation Files.

To obtain the installation files for PeopleSoft PeopleTools from Oracle E-Delivery:

1. After logging in to Oracle E-Delivery, on the Media Search Pack page, select *PeopleSoft Enterprise* from the Select a Product Pack drop-down list on the Media Pack Search page.

Select the operating system you are running on from the Platform drop-down list, and click Go.

Note that you must unzip the media pack zip files on the platform for which they are intended. For example, if you download the file for the Oracle Solaris platform, you must unzip the file on an Oracle Solaris operating system. If you unzip the file on a Microsoft Windows machine into a staging directory, and then move the directory to an Oracle Solaris machine, the staging area files may be corrupted.

2. Select the radio button for PeopleSoft Enterprise - PeopleTools 8.52 Media Pack, and click Continue.
3. Download the 3 zip files for the PeopleSoft PeopleTools 8.52 installation, and the following:
 - For the PeopleSoft application and multi-language installations, download the appropriate zip files.
 - For a separate installation of the PeopleSoft Client, download the PeopleSoft PeopleTools 8.52 Client Only zip file.
 - For Verity, download PeopleSoft PeopleTools 8.52 Verity.
4. For the PeopleSoft PeopleTools installation, when you unzip the files, extract them into a temporary directory, referred to here as *PS_INSTALL*. The extracted files are loaded into directories Disk1, Disk2, Disk3, and so on.

For the PeopleSoft application, multi-language files, Verity, and PeopleSoft PeopleTools Client Only installation file, extract the zip files into a convenient local directory, referred to as *PS_INSTALL*.

For UNIX only:

After you download the installation files from Oracle E-Delivery, if it is necessary to transfer the files to a UNIX computer using FTP, you must change the permissions to make them executable, for example using the `chmod +x` command. Change the mode to executable for the following files:

- `PS_INSTALL\Disk1\setup.sh`
- Files in `PS_INSTALL\Disk1\InstData`:
 - `setup.aix`
 - `setup.hp-ia64`
 - `setup.linux`
 - `setup.solaris`
 - `setup.solaris-x86_64`
 - `setup.zlinux`

See Also

"Setting Up the PeopleSoft Pure Internet Architecture," Completing Post-Installation Steps

Application-specific installation instructions, My Oracle Support (search for the PeopleSoft application)

Obtaining License Codes

Task 4-2: Running the PeopleSoft Installer

This section discusses:

- Understanding the PeopleSoft Installer
- Starting the PeopleSoft Installer
- Installing PeopleSoft PeopleTools in GUI Mode
- Installing PeopleSoft PeopleTools in Console Mode

Understanding the PeopleSoft Installer

The PeopleSoft Installer guides you through the process of installing files to your various servers. You must run the PeopleSoft Installer on each machine that you use for one or more PeopleSoft server. The specific options that you see during the installation procedure depend upon the operating system platform, database platform and so on.

Use the PeopleSoft Installer for:

- PeopleSoft PeopleTools
- PeopleSoft Applications
- Multilanguage files
- PeopleSoft Client files

The files will be installed into a high-level PeopleSoft directory. This directory, which is referred to in this documentation as *PS_HOME*, is the location for PeopleSoft PeopleTools, PeopleSoft application, and multilanguage files. It is a good idea to use a directory name that indicates the application you are installing and the version number, such as HRMS910 for the 9.1 version of Human Resources Management System.

You can run the installer in GUI mode, on Microsoft Windows operating systems, or in console (text) mode, on UNIX or Linux.

Note. The machine that you use to perform your PeopleSoft PeopleTools installation must be running in *256-color mode* or higher when running the PeopleSoft PeopleTools, PeopleSoft Application, Multilanguage, or PeopleSoft Pure Internet Architecture installation, and database configuration in Microsoft Windows. This is not necessary for UNIX or console mode.

The PeopleSoft Installer asks whether you want to install supporting features such as Unicode support or Environment Management Hub. Before you run the PeopleSoft Installer, you may want to consult supporting documentation to help you in choosing these options.

See Also

PeopleTools 8.52: Global Technology PeopleBook

PeopleTools 8.52: PeopleSoft Change Assistant PeopleBook

PeopleTools 8.52: System and Server Administration PeopleBook

PeopleTools 8.52 Hardware and Software Requirements, "Server Requirements"

Task 4-2-1: Starting the PeopleSoft Installer

After you download and extract the PeopleSoft PeopleTools installation files you can find the installer in *PS_INSTALL/disk1*.

To start the PeopleSoft Installer on Microsoft Windows, type:

```
PS_INSTALL\disk1\setup.bat [additional flags]
```

To start the PeopleSoft Installer on a supported UNIX or Linux operating system, type:

```
PS_INSTALL/disk1/setup.sh [additional flags]
```

Use setup.sh to start the PeopleSoft Installer on the following platforms:

- AIX
- HP-UX
- Linux
- Solaris
- zLinux

This table lists the options that you can use with setup.sh, their allowed values, and descriptions:

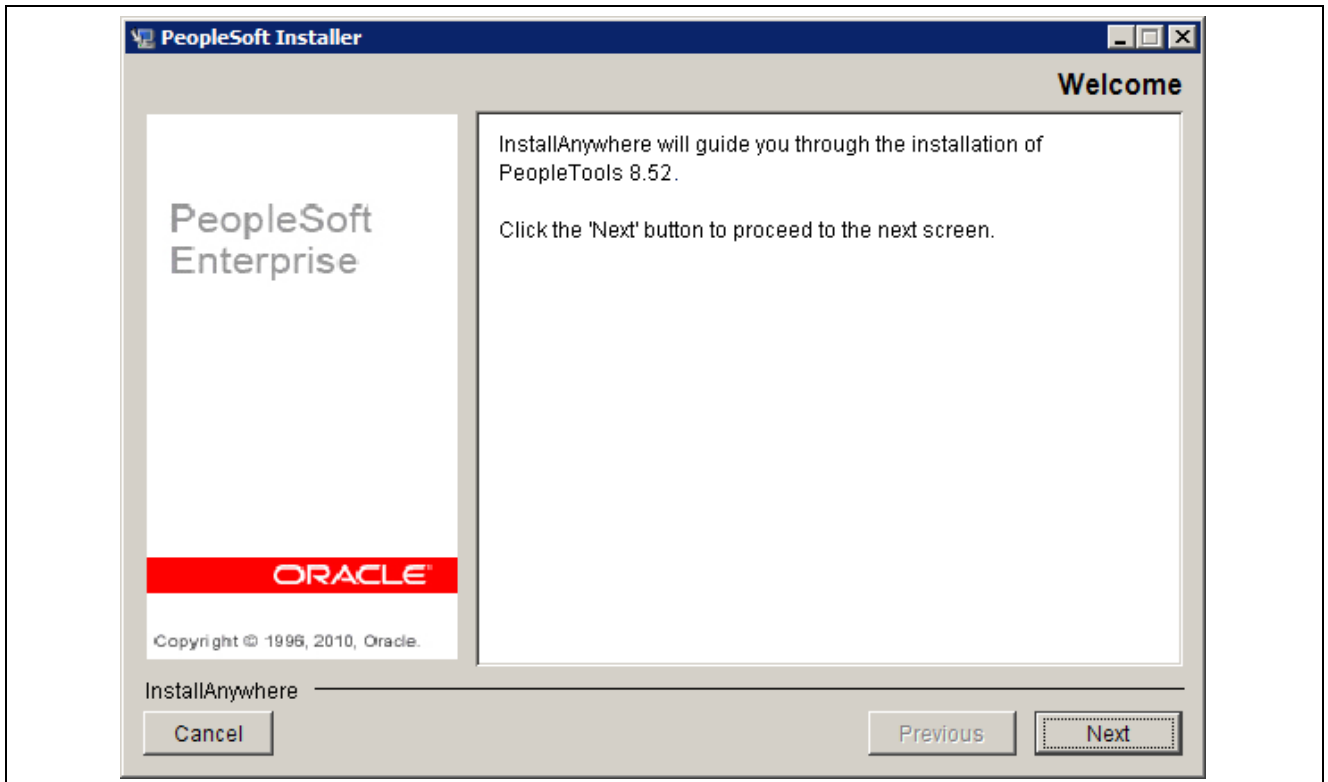
Command Line Option	Allowed Values	Description
-debug	NA	Use this flag to enable debugging mode.
-DDEBUG=true	NA	Use this variable for debugging.

Command Line Option	Allowed Values	Description
-javahome	Path to Java home directory. For example: <code>setup.sh -javahome /prod/jre</code>	Use this flag to specify where you installed the Java home directory, if your installation is different than the vendor-defined JRE Search Path.
-tempdir	Path to temporary directory	Use this flag to specify the temporary directory to extract temporary files. This is recommended if you have less than 2 GB of space in your temporary directory. See the Prerequisites section for information on specifying the temporary directory.

Task 4-2-2: Installing PeopleSoft PeopleTools in GUI Mode

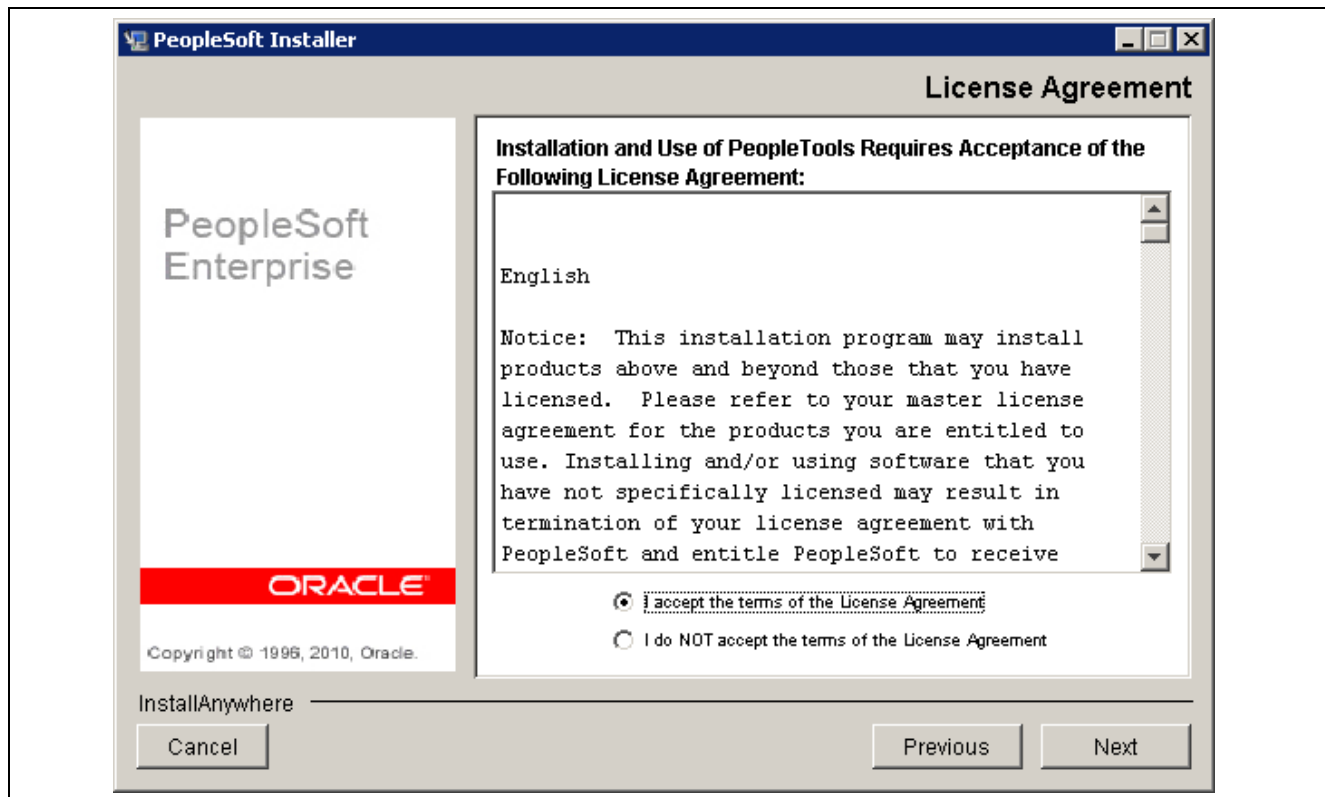
To install PeopleSoft PeopleTools with the PeopleSoft Installer in GUI mode:

1. Launch the installer. Click Next when you see the Welcome screen for PeopleTools 8.52.



PeopleSoft Installer Welcome window

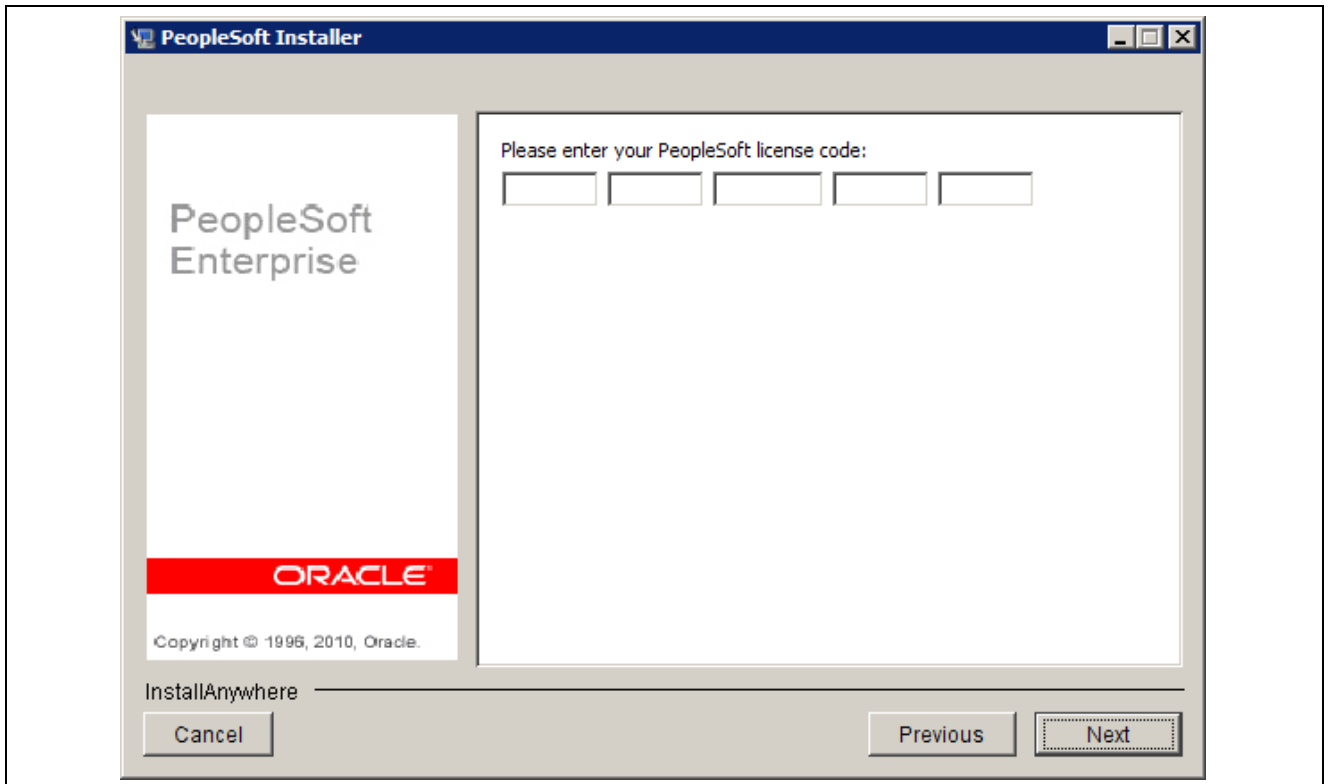
2. Click the radio button to accept the license agreement and click Next.
The License Agreement window includes the terms in several languages.



PeopleSoft Installer License Agreement window

3. Enter your license code and click Next.

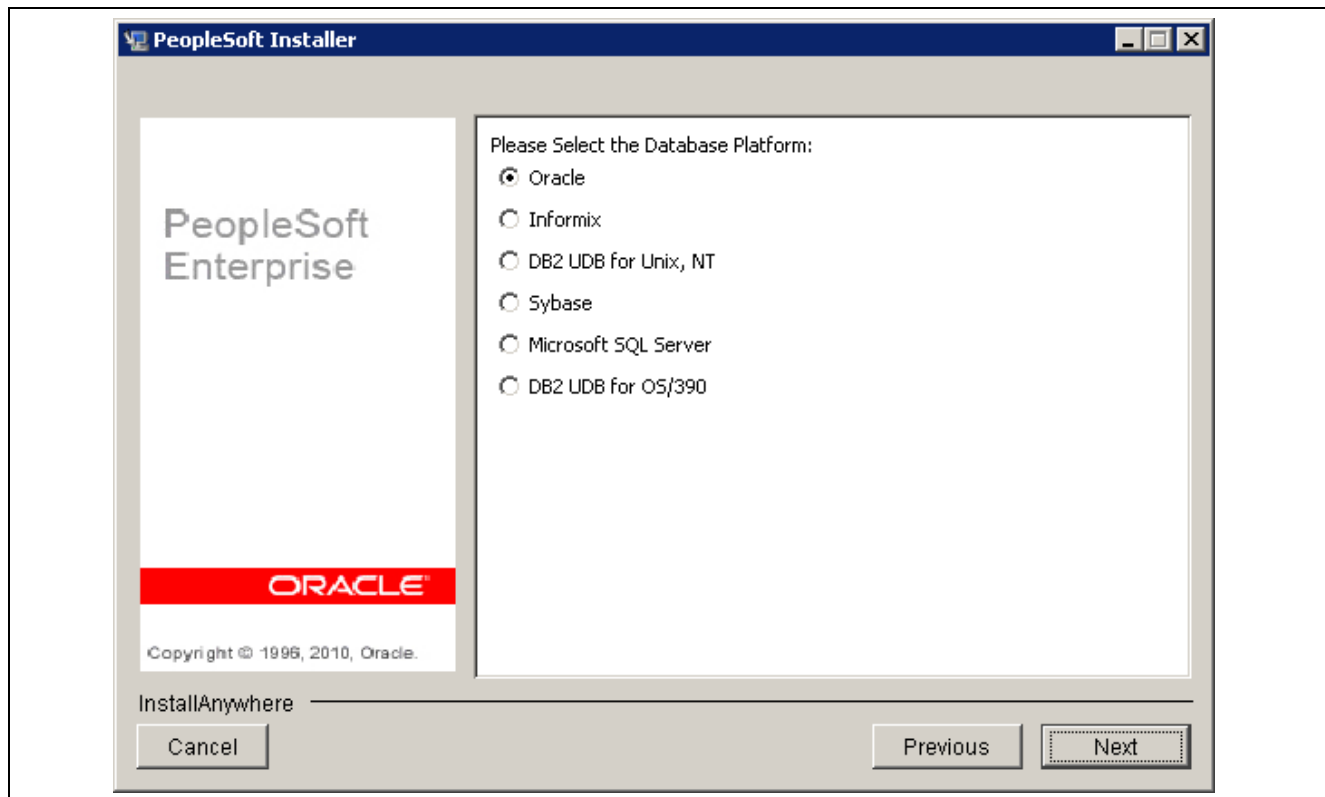
See Understanding the PeopleSoft Installer, Obtaining License Codes.



PeopleSoft Installer License code entry window

4. Select the database platform you are installing on and click next.

In the following example, an Oracle database platform is selected. The other options are Informix, DB2 UDB for Unix, NT (DB2/LUW), Sybase, Microsoft SQL Server, and DB2 UDB for OS/390 (DB2 z/OS).



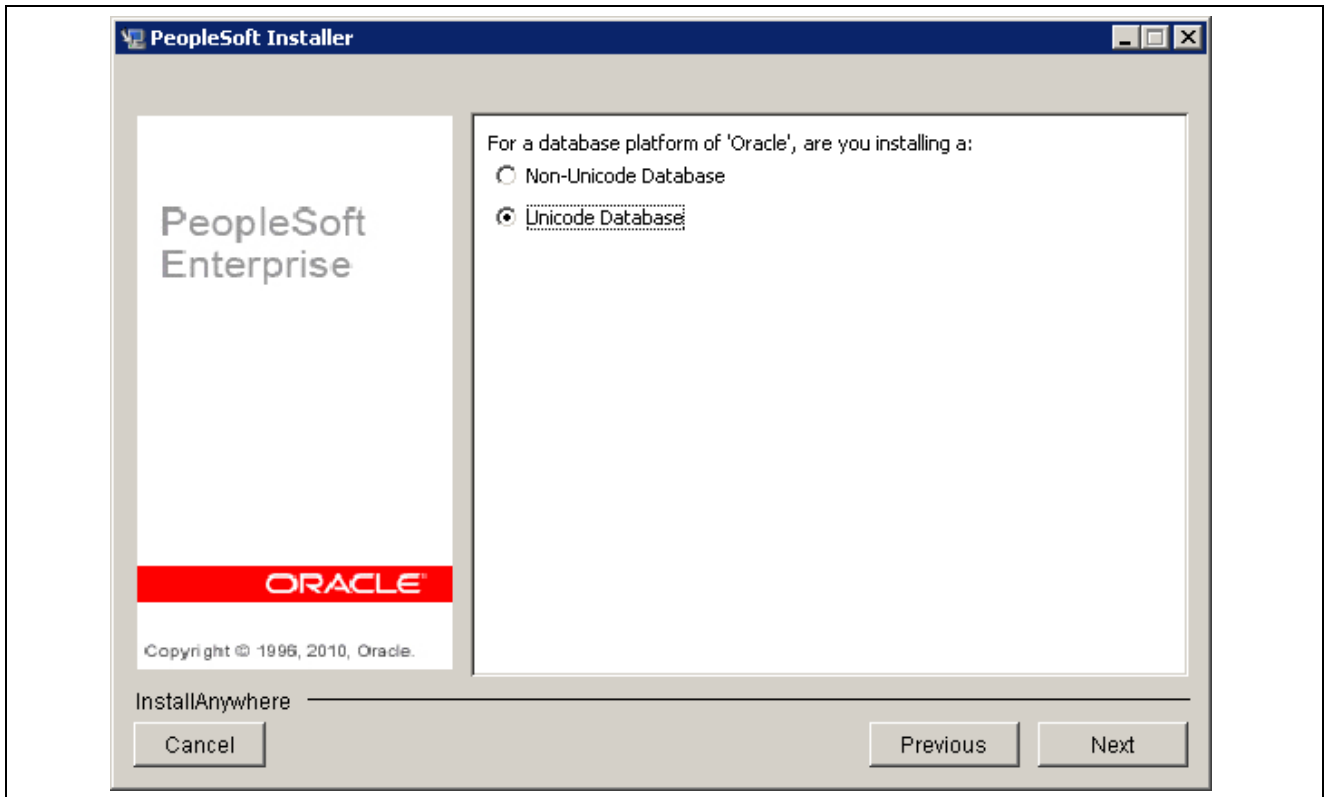
Selecting an Oracle database platform for the PeopleSoft PeopleTools installation

5. Choose a Unicode or non-Unicode database and click Next.

Note. Unicode databases are beneficial if you intend to deploy your applications globally and would otherwise have to implement multiple databases to handle different languages. However, Unicode databases require much more disk space than non-Unicode databases.

See *PeopleTools 8.52: Global Technology PeopleBook*.

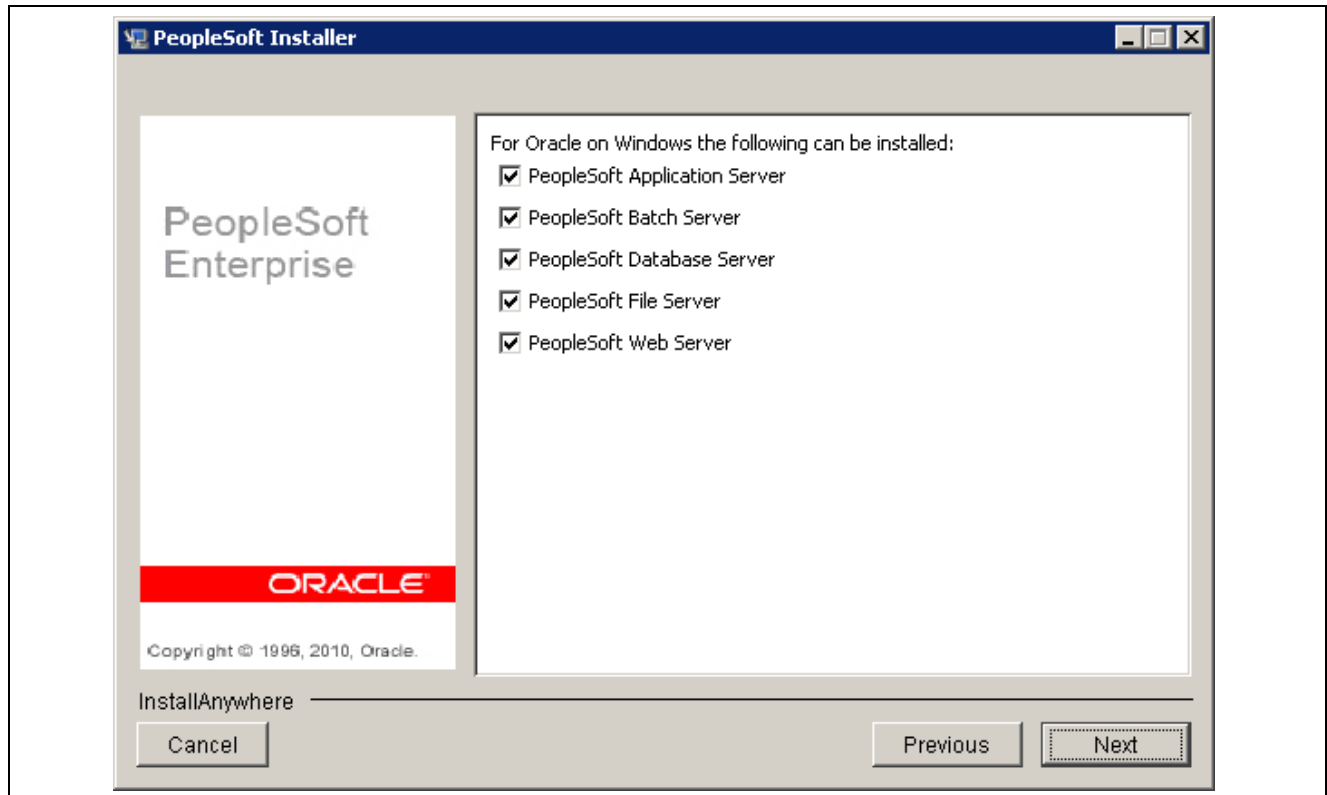
This example shows the Unicode Database option selected.



Selecting Unicode Database for the PeopleSoft PeopleTools installation

6. Select the servers you want to install and click *Next*.

In this example the PeopleSoft Application Server, PeopleSoft Batch Server, PeopleSoft Database Server, PeopleSoft File Server, and PeopleSoft Web Server are selected.



Selecting servers for the PeopleSoft PeopleTools installation

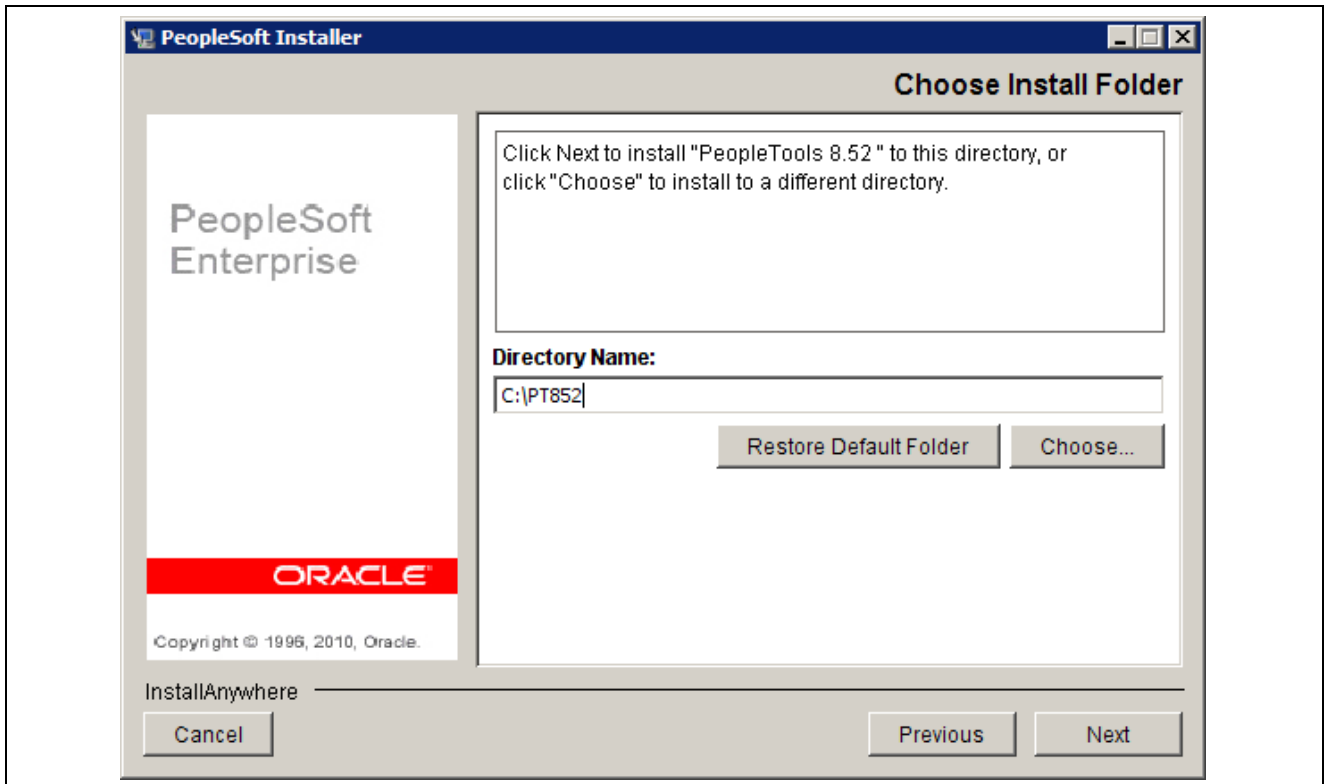
Use the following information to help you make your selection:

- You can install multiple servers at the same time, but they will all be installed on the same machine. If you want to install servers on separate machines, you need to run the PeopleSoft Installer on each server machine.
 - If you do not have admin privileges, you will not be able to install PeopleSoft web server. You will have to either acquire admin privileges or deselect the Web Server option to continue.
 - You *must* install the PeopleSoft software on your database server in order to run the PeopleSoft Database Configuration Wizard. (Running the Database Configuration Wizard is discussed in the chapter “Creating a Database”.)
7. Specify the directory where you want to install PeopleSoft PeopleTools, referred to in this documentation as *PS_HOME*, in the Directory Name field, and click *Next*.

In this example, *PS_HOME* is C:\PT852.

Note. Substitute your network drive and the directory name of your choice for the default selection. The installation directory name cannot contain a space. Note that directory names containing periods or non-US-ASCII characters may not work with some additional component software.

Note. If you are installing on UNIX, do not use symbolic links. Use the actual directory.

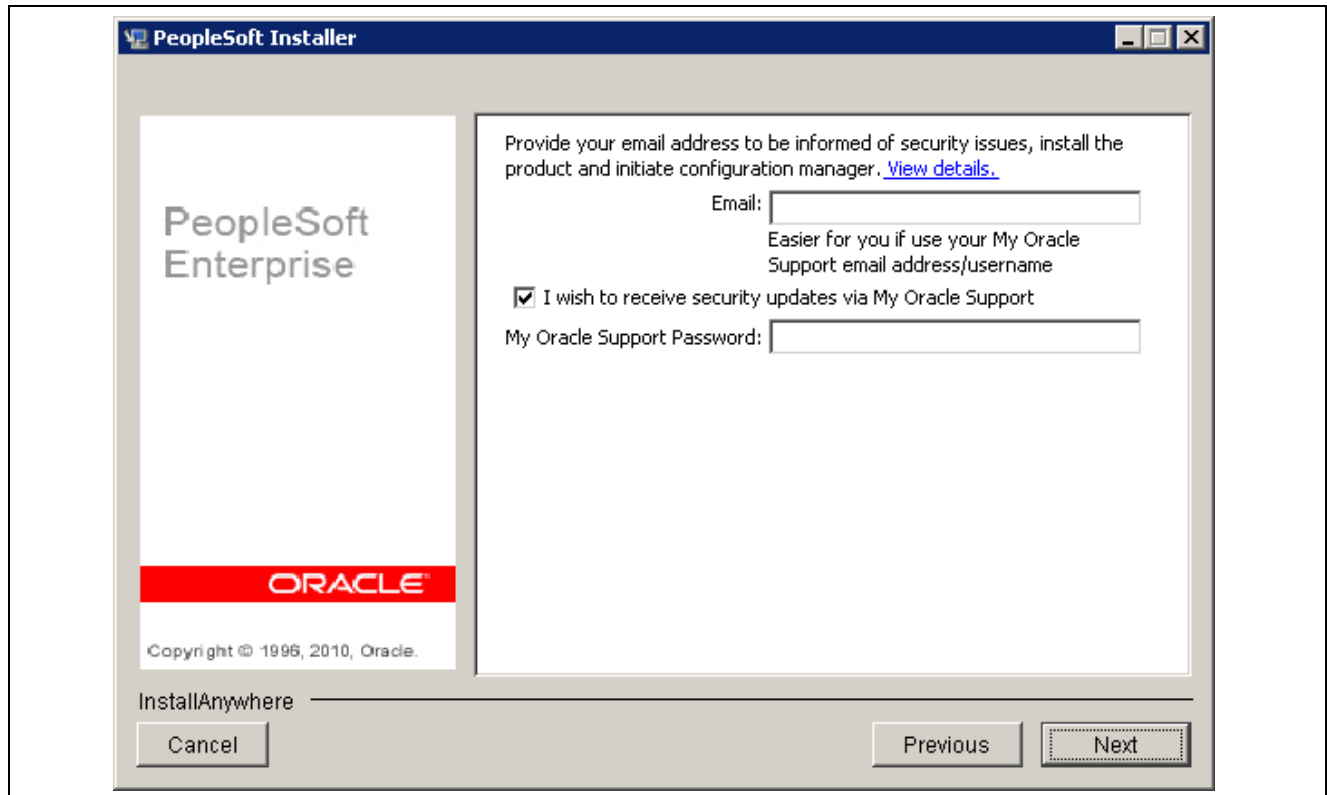


PeopleSoft Installer Choose Install Folder window

8. If you selected the PeopleSoft Application Server, PeopleSoft Web Server, or PeopleSoft Batch Server option above, the Oracle Configuration Manager Setup window appears.

This window does not appear if the Oracle Configuration Manager is already configured for your environment.

See "Preparing for Installation," Using the Oracle Configuration Manager.



Oracle Configuration Manager Setup window

9. If you would prefer not to continue with the setup of Oracle Configuration Manager, do not enter either an email address or a password.

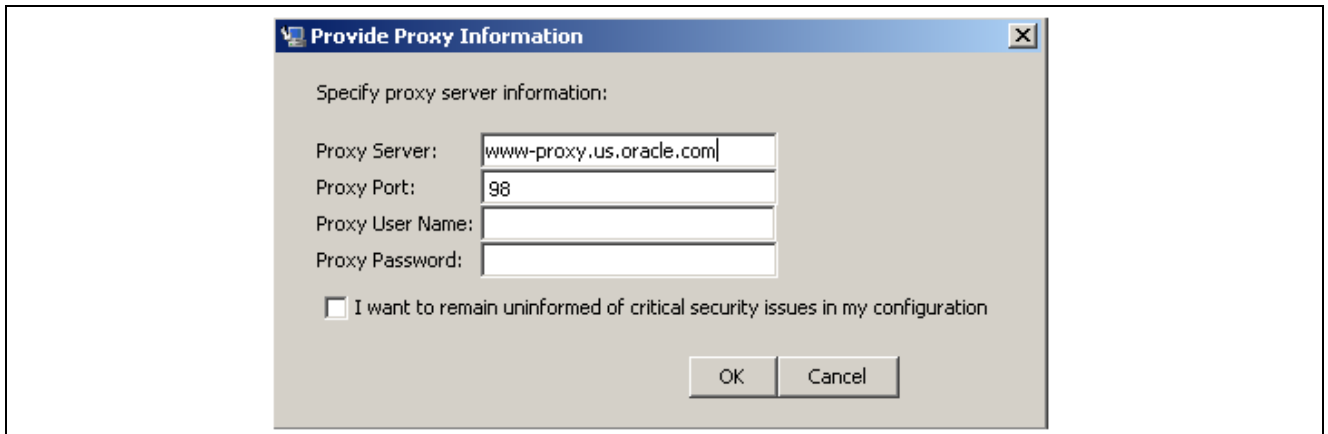
When you click Next, a confirmation dialog box appears asking if you really do not want to receive security updates. If you click Yes, the PeopleSoft PeopleTools installation continues and Oracle Configuration Manager is not configured. You can configure Oracle Configuration Manager later from *PS_HOME/ccr* using the instructions available at My Oracle Support.

See My Oracle Support, <https://support.oracle.com>

10. If you want to configure Oracle Configuration Manager in anonymous mode, clear the check box I wish to receive security updates via My Oracle Support, enter an email address, and click Next.
11. To configure Oracle Configuration Manager now, enter the email address and password associated with your My Oracle Support account.

Select or clear the option I wish to receive security updates via My Oracle Support, and click Next.

Oracle Configuration Manager checks for Internet connectivity, and verifies the credentials specified. If there is no direct connectivity to the Internet, the Provide Proxy Information dialog box appears to enable you to define a proxy server.



Provide Proxy Information dialog box

Enter the following information:

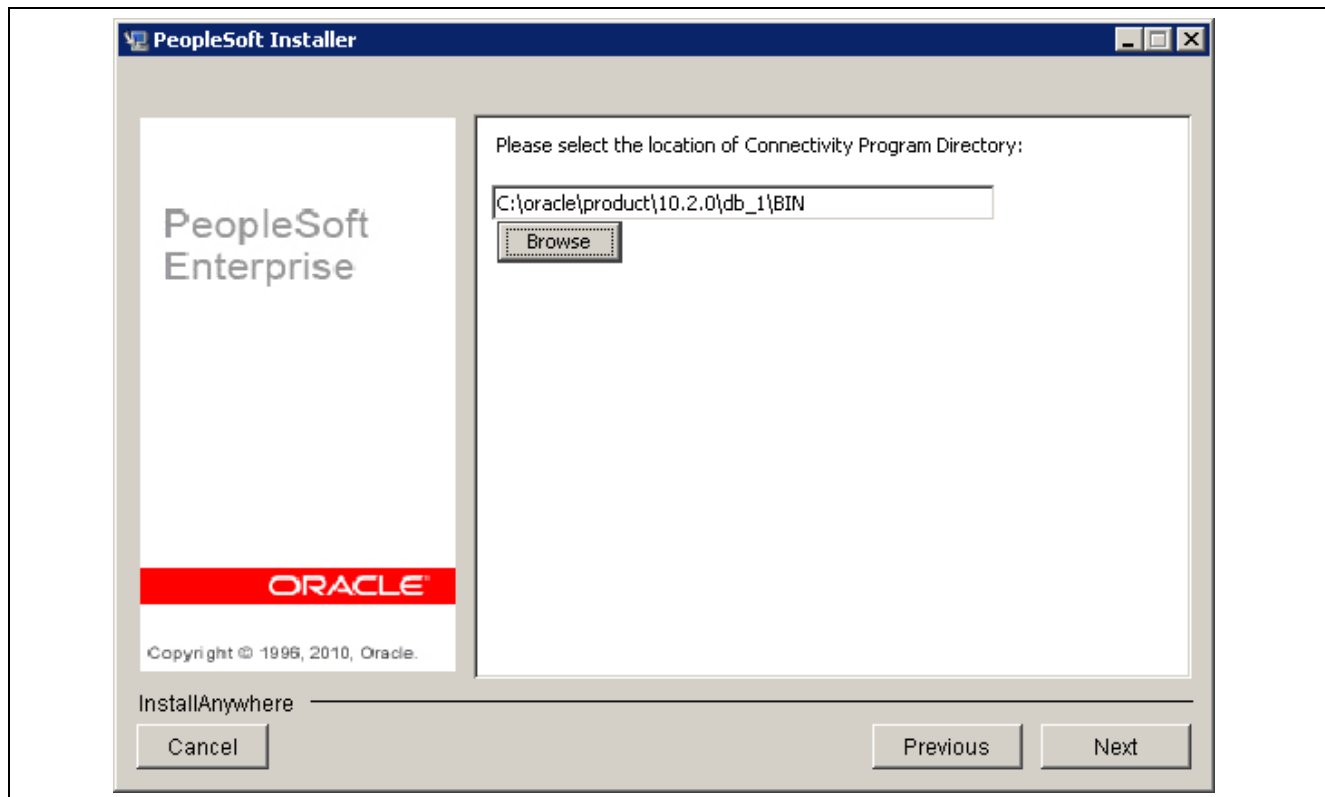
- Proxy Server — The host name of the proxy server, for example `www-proxy.us.oracle.com`.
- Proxy Port — The port for the proxy server, for example, 98.
- Proxy User Name — If the proxy server requires authentication, enter the user name.
- Proxy Password — If the proxy server requires authentication, enter the password.
- Select the option ☐ I want to remain uninformed of critical security issues in my configuration check box if you want Oracle Configuration Manager to be installed in disconnected mode.

12. Click OK to confirm connectivity.

If Oracle Configuration Manager cannot validate the entered My Oracle Support account and the proxy information, the Provide Proxy Information dialog box appears. If you attempt the validation three times, an error message appears, and your account is registered as anonymous.

13. Specify the location of your Connectivity Program Directory and click *Next*.

This example shows the directory for an Oracle database platform:

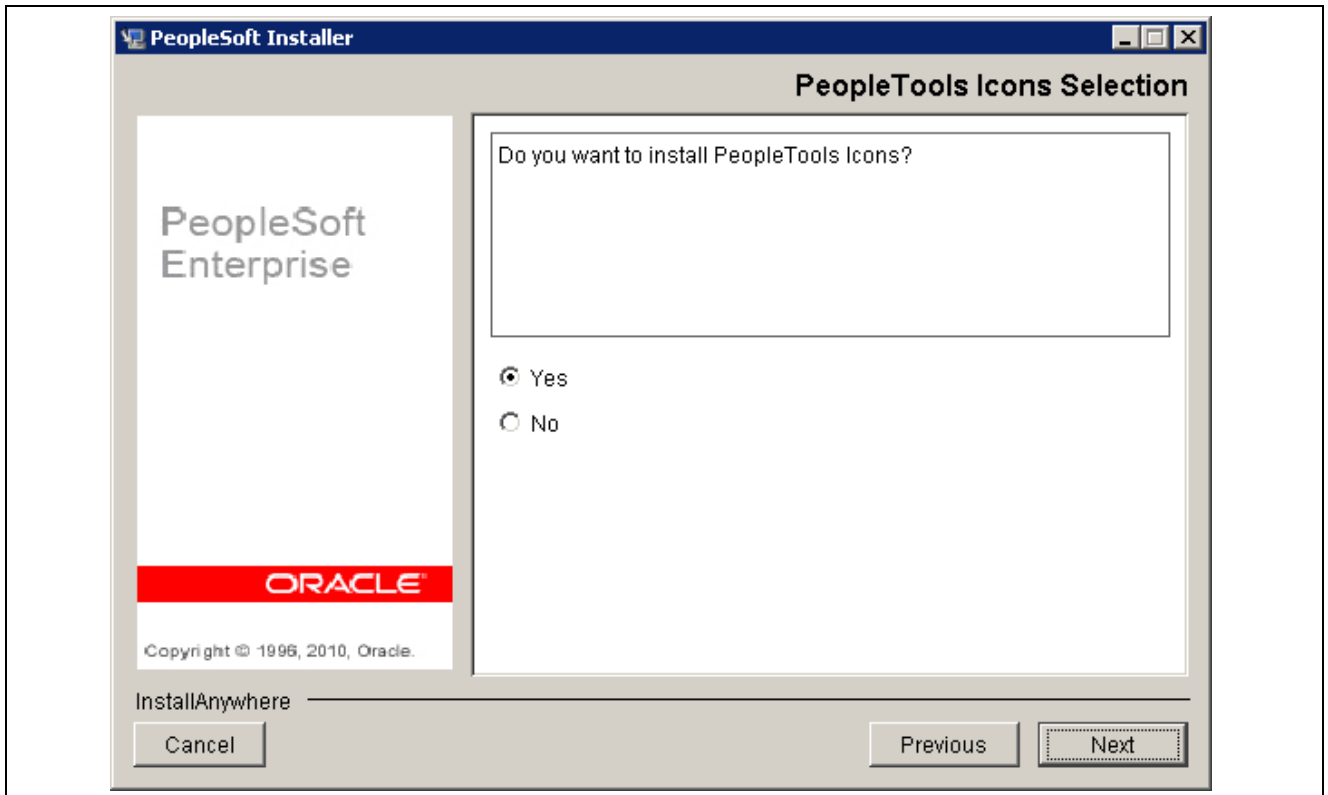


Specifying the Connectivity Program Directory for the PeopleSoft PeopleTools installation

The default location for the connectivity software for Oracle (by version, as set by the vendor) is listed in the following table. If the database connectivity software was installed to a different directory, enter that path instead.

Oracle Release	Default Location of Database Connectivity Libraries
Oracle 10g	C:\oracle\product\10.2.0\db_1\BIN
Oracle 11g	C:\oracle\product\11.1.0\client_1\BIN

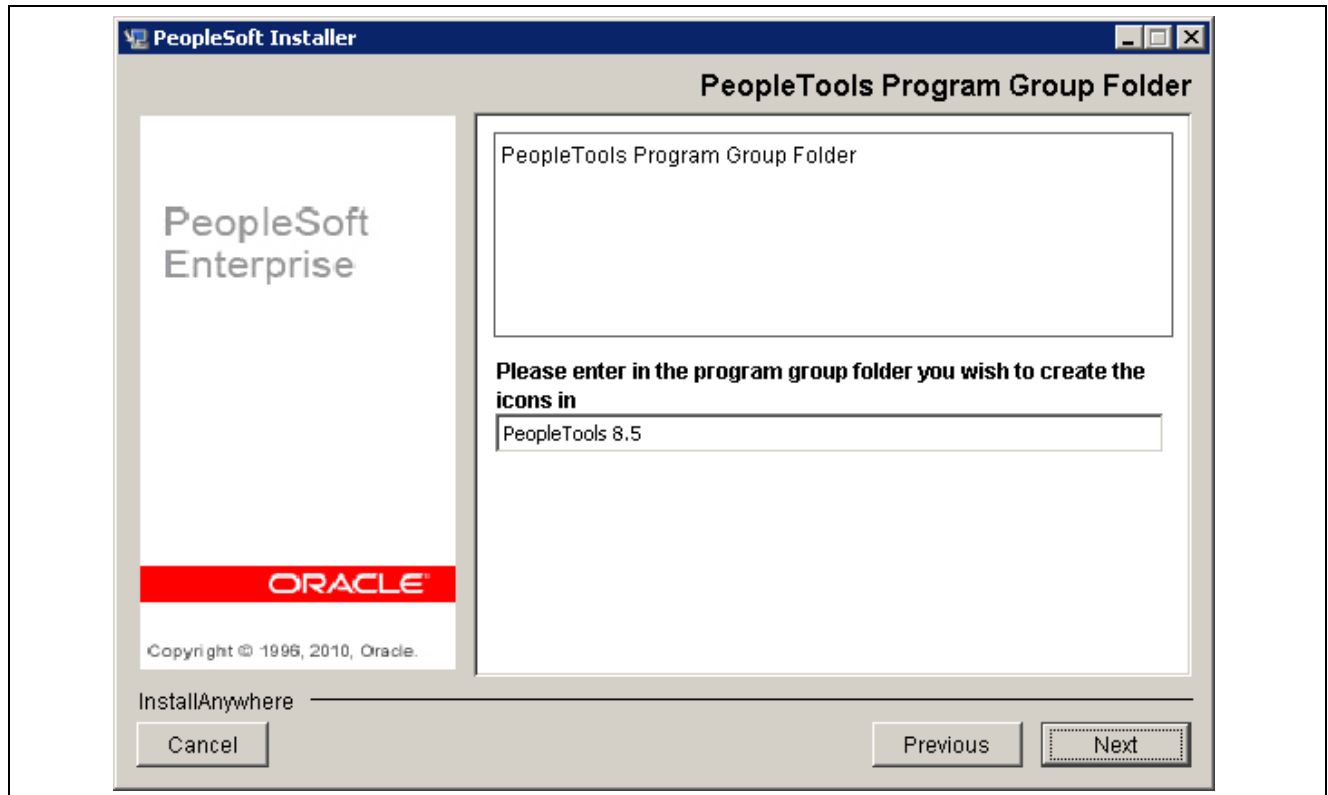
14. Depending on the PeopleSoft servers you selected, choose whether to install the PeopleSoft PeopleTools icons and click Next.



PeopleSoft PeopleTools Installer Icons Selection window

15. If you elected to install PeopleSoft PeopleTools icons, choose a valid group folder in which to create them and click Next.

This example shows the default group folder, PeopleTools 8.5.

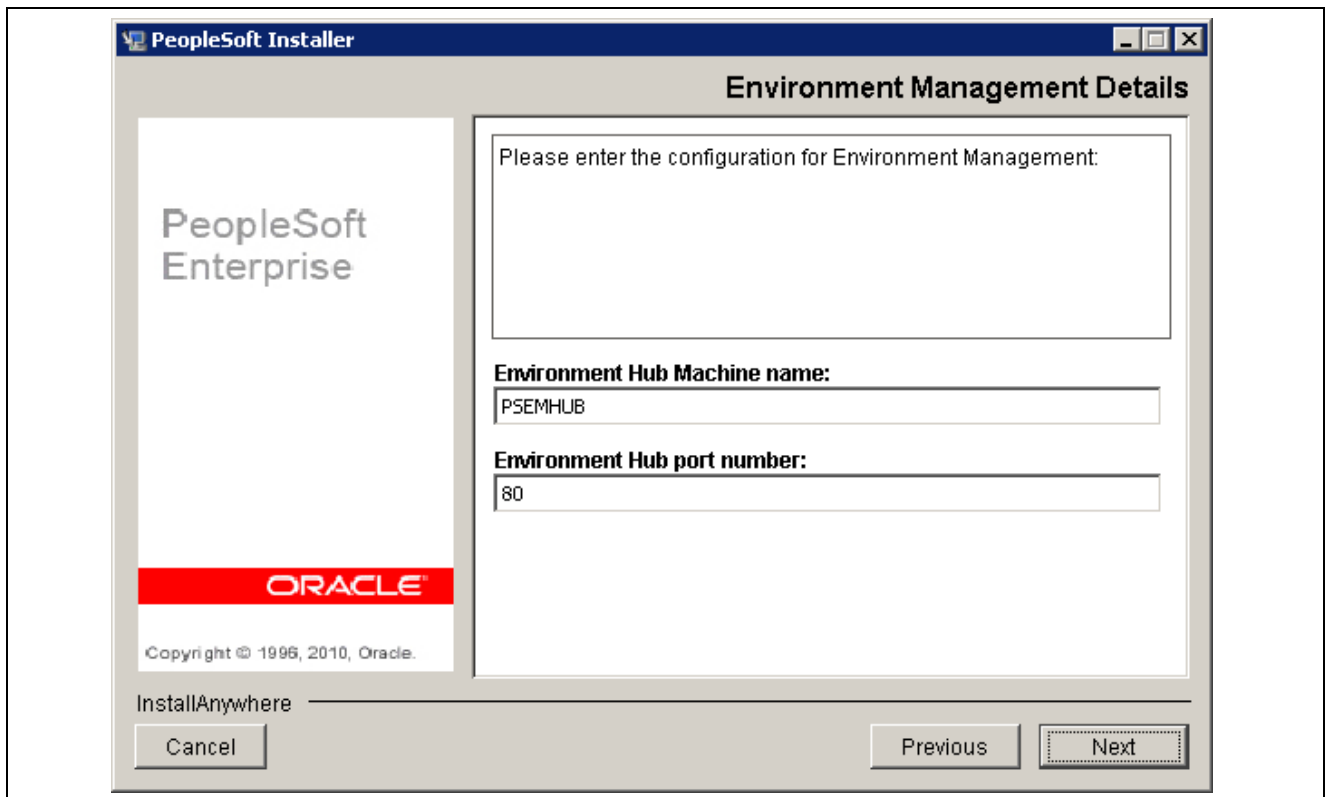


PeopleSoft PeopleTools Program Group Folder window

16. Enter the configuration information for Environment Management.

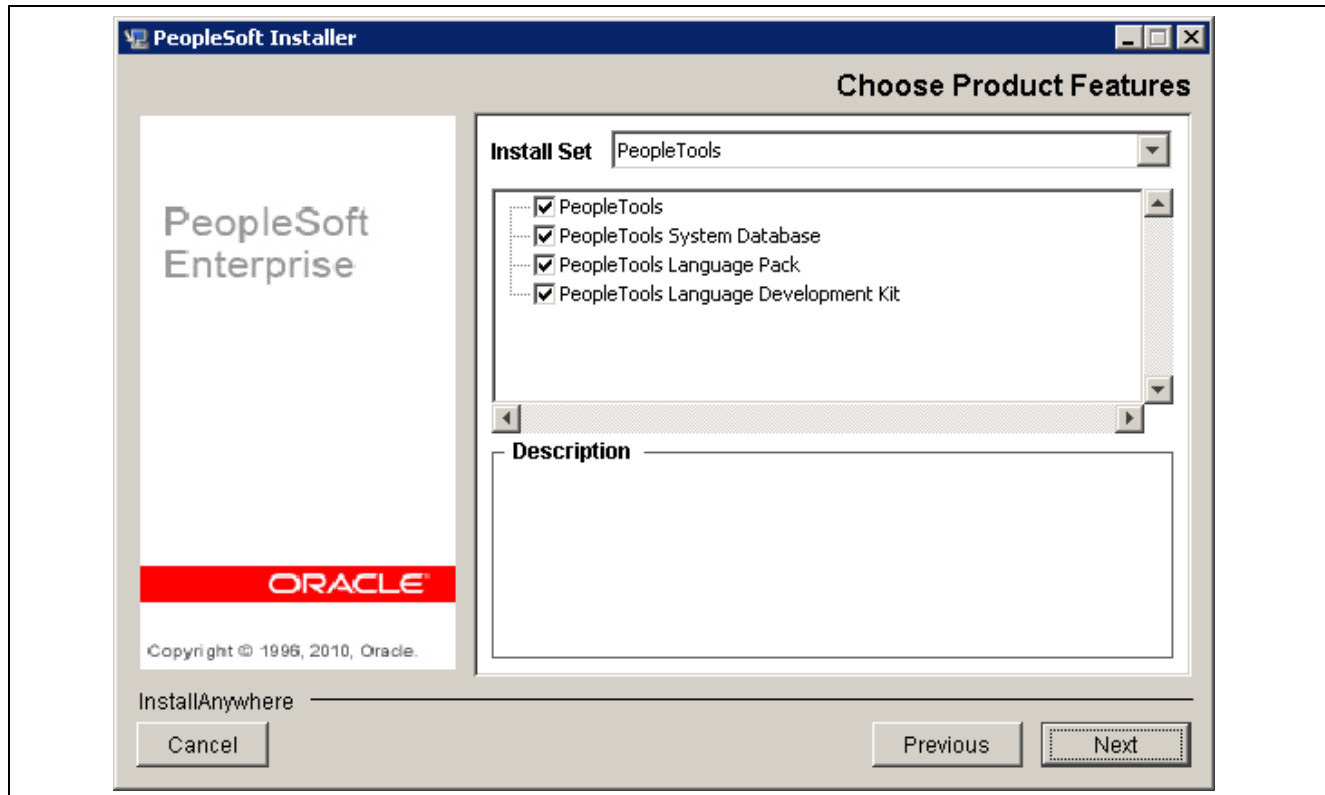
Select the machine name of the web server running the Environment Manager Hub. (This will very likely be the machine on which you run the PeopleSoft Pure Internet Architecture). Select the hub port number (the default is 80, as shown in the example). This needs to match the PeopleSoft Pure Internet Architecture port. If you change the port number for the PeopleSoft Pure Internet Architecture configuration, you must also change the web server listener port number for all the agents in the configuration.properties file.

See *PeopleTools 8.52: PeopleSoft Change Assistant PeopleBook*, "Configuring and Running Environment Management Components."



PeopleSoft PeopleTools Installer Environment Management Details window

17. The next screen lists the PeopleSoft PeopleTools components (features). Accept the defaults for the PeopleSoft PeopleTools features and click Next.



PeopleSoft PeopleTools Installer Choose Product Features window

- Select *PeopleTools* to install PeopleSoft PeopleTools and the PeopleSoft Pure Internet Architecture. This component contains the core PeopleTools files and is required for the proper operation of the PeopleSoft system and the PeopleSoft Pure Internet Architecture.
- Select *PeopleTools System Database* to allow your developers to create custom PeopleSoft PeopleTools applications outside of the delivered PeopleSoft Application.
- The *PeopleTools Language Pack* and *PeopleTools Language Development Kit* contain the translated PeopleSoft PeopleTools DLLs and the resource files and headers needed to build them.

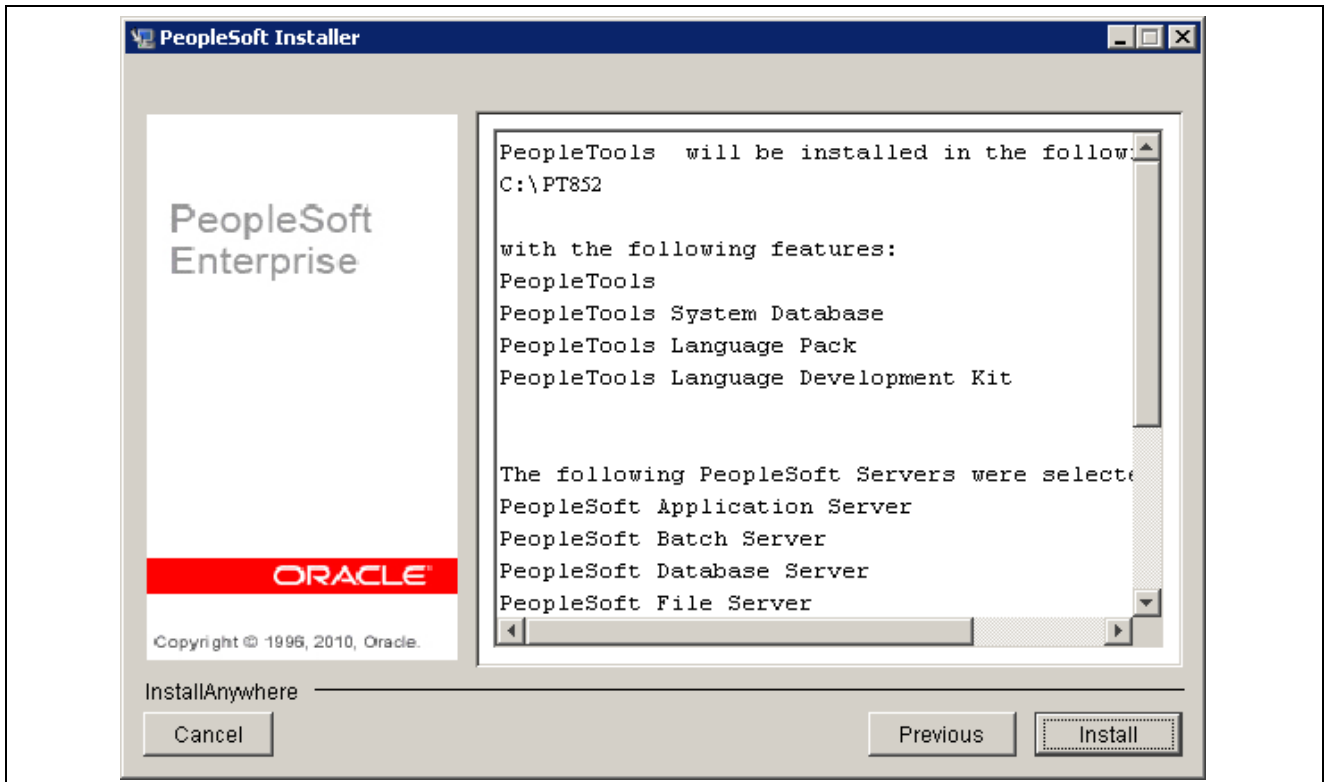
Note. These options are available only for installations on Windows.

Select *PeopleTools Language Pack* if you plan on running the Windows components of the installation in languages other than English. This component contains the compiled PeopleSoft translations for the Windows client. If you are not using multiple languages throughout your implementation, you do not need this component.

Select *PeopleTools Language Development Kit* if you plan on modifying or creating your own new translations for the PeopleSoft PeopleTools Windows client components. It contains the source and header files required to modify and compile new versions of these translations. Again, you do not need this component if you are not using multiple languages.

18. You will see an installation confirmation window. If the information is correct, choose Next. If you need to modify any of the information, choose the Back button and make your changes.

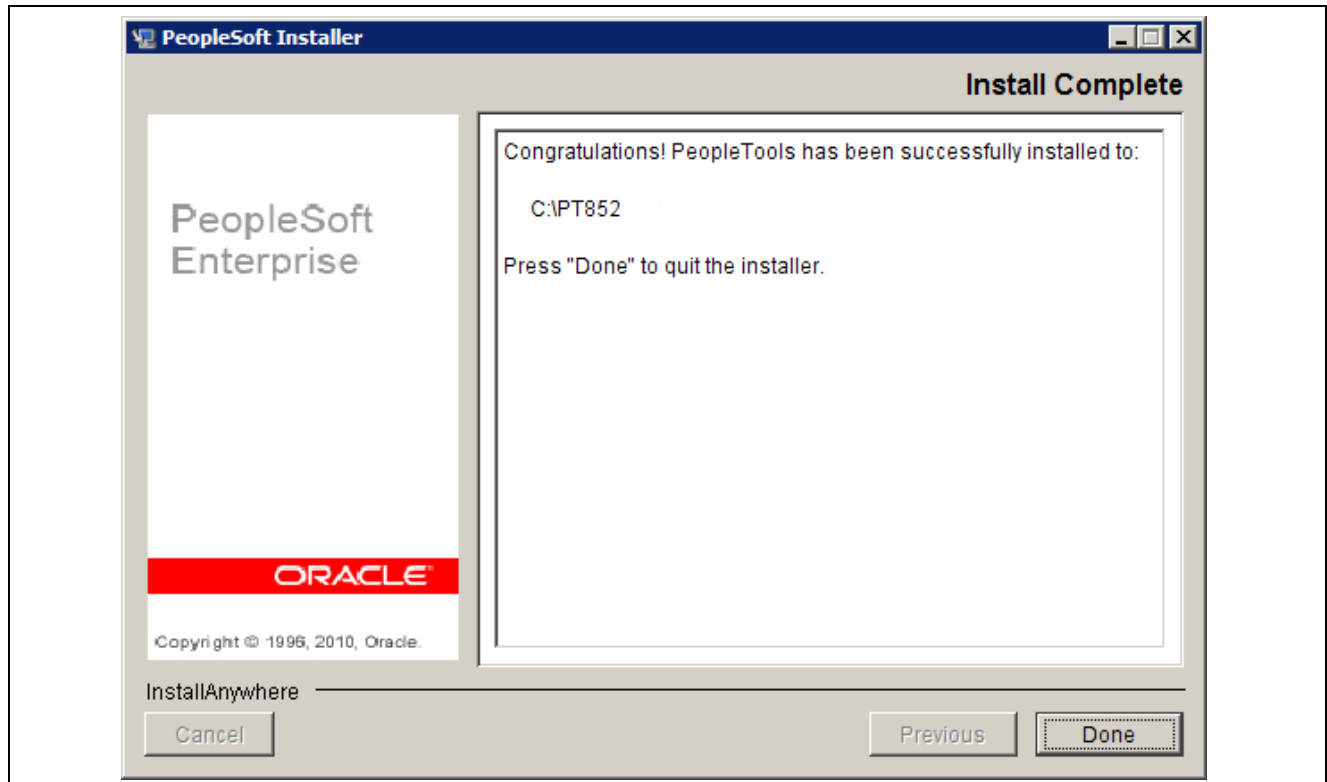
The summary information includes the installation directory, the features, and the PeopleSoft servers:



PeopleSoft Installer Summary information window

19. After the files have been installed, click *Finish* to complete the setup.

The window displays the installation directory.



PeopleSoft Installer Install Complete window

Task 4-2-3: Installing PeopleSoft PeopleTools in Console Mode

To install PeopleSoft PeopleTools with the PeopleSoft Installer in console mode:

Note. The console mode installation is typically used on UNIX and Linux platforms.

1. Launch the PeopleSoft Installer in console mode. For example:

```
PS_INSTALL/disk1/setup.sh -tempdir /tmp
```

See Starting the PeopleSoft Installer.

2. At the Welcome prompt, press ENTER to continue.
3. *Windows only:* Accept the license agreement by selecting 1. Select 0 when you are finished.
4. Enter your license code, and press ENTER to continue.

See Understanding the PeopleSoft Installer, Obtaining License Codes.

5. Choose a non-Unicode or Unicode database by selecting the appropriate number, and then 0 to continue.

Note. You will probably choose to create a non-Unicode database. Unicode databases are beneficial if you intend to deploy your applications globally and would otherwise have to implement multiple databases to handle different languages. However, Unicode databases require much more disk space than non-Unicode databases.

See *PeopleTools 8.52: Global Technology PeopleBook*

6. Select the PeopleSoft servers you want to install.

By default, all of the servers supported for your database platform are selected.

Note. If you are installing on UNIX, do not use Symbolic Links. Use the actual directory.

After your selection, press ENTER; you will be prompted for the destination (for example, *PS_HOME*). Specify the directory and press ENTER to continue.

Note. In console mode, the browse option for specifying a different install directory is unavailable.

7. If you selected the PeopleSoft Application Server, PeopleSoft Web Server, or PeopleSoft Batch Server option above, the Oracle Configuration Manager Setup prompt appears.

This prompt does not appear if the Oracle Configuration Manager is already configured for your environment.

See "Preparing for Installation," Using the Oracle Configuration Manager.

Email address / User Name [DEFAULT]:

Provide your My Oracle Support password to receive security updates via your My⇒
Oracle Support account.

Password (optional):

8. If you would prefer not to continue with the setup of Oracle Configuration Manager, do not enter either an email address or a password.

When you enter Next, a confirmation prompt asks if you really do not want to receive security updates. If you enter Y (Yes), the PeopleSoft PeopleTools installation continues and Oracle Configuration Manager is not configured. You can configure Oracle Configuration Manager later from *PS_HOME/ccr* using the instructions available at My Oracle Support site (<http://metalink.oracle.com>).

You have not provided an email address.

Do you wish to remain uninformed of critical security issues in your⇒
configuration? (Y/N): Y

9. If you want to configure Oracle Configuration Manager in anonymous mode, enter an email address but no password.
10. To configure Oracle Configuration Manager now, enter the email address and password associated with your My Oracle Support account, and press ENTER to continue.

Oracle Configuration Manager checks for Internet connectivity, and verifies the credentials specified. If there is no direct connectivity to the Internet, the next prompt asks you to define a proxy server. Provide the information for the proxy server in the following format:

[<proxy-user>@] <proxy-host>[:<proxy-port>]

Enter the following information:

- Proxy User Name — If the proxy server requires authentication, enter the user name.

Note. If you do not specify the proxy-user, (that is, you enter <proxy-host>:<proxy-port>), a proxy server will be used for the connection, but will not be authenticated.

- Proxy Server — The host name of the proxy server, for example www-proxy.us.oracle.com.
- Proxy Port — The port for the proxy server, for example, 98.

11. If you specify Proxy User Name, a prompt appears asking for a Proxy Password.

12. Enter NONE if you do not want to receive security updates through your My Oracle Support account.

If you want to remain uninformed of critical security issues in your⇒
configuration, enter NONE
Proxy specification (DEFAULT: NONE)

13. Enter Next to confirm connectivity.

If Oracle Configuration Manager cannot validate the entered My Oracle Support account and the proxy information, the Provide Proxy Information prompt appears again. If you attempt the validation three times, an error message appears, and your account is registered as anonymous.

14. Enter the configuration for Environment Management. Select the machine name and port number.

Select the machine name of the web server running the Environment Manager Hub. (This will very likely be the machine on which you run the PeopleSoft Pure Internet Architecture). Select the hub port number (the default is 80). This needs to match the PeopleSoft Pure Internet Architecture port. If you change the port number for the PeopleSoft Pure Internet Architecture configuration, you must also change the web server listener port number for all the agents in the configuration.properties file.

See *PeopleTools 8.52: PeopleSoft Change Assistant PeopleBook*, "Configuring and Running Environment Management Components."

15. *Windows only:* Specify the database connectivity directory.

The default location for the connectivity software for Oracle (by version, as set by the vendor) is listed in the following table. If the database connectivity software was installed to a different directory, enter that path instead.

Oracle Release	Default Location of Database Connectivity Libraries
Oracle 10g	C:\oracle\product\10.2.0\db_1\BIN
Oracle 11g	C:\oracle\product\11.1.0\client_1\BIN

16. *Windows only:* Indicate whether you want icons to be created.

17. Choose the features that you wish to install:

To select/deselect a feature or to view its children, type its number

```
-> 1- PeopleTools
    2- PeopleTools System Database
```

18. At this point, you can toggle the install status of each product. Press 0 and then ENTER to continue and the PeopleSoft Installer will give you a summary of your selection. This summary will depend on your earlier selections.

PeopleTools 8.52 will be installed in the following location:
/home/PT851/ptest
with the following features:
PeopleTools
PeopleTools System Database

The following PeopleSoft Servers were selected by you:
PeopleSoft Application Server
PeopleSoft Batch Server

```
PeopleSoft Database Server
PeopleSoft File Server
PeopleSoft Web Server
```

```
Database Type:
<Database Name>
```

```
Environment Hub Configuration:
Hub machine name: PSEMHUB
Hub port number: 80
```

```
Press 1 for Next, 2 for Previous, 3 to Cancel, or 5 to Redisplay [1]
```

19. Press ENTER to start the installation.
20. The PeopleSoft Installer will create a text-based progress bar to indicate the progress of the install.
21. Press ENTER to exit.

Note. For UNIX platforms, if you chose PeopleSoft servers that require a JRE, you see the “Unpacking JRE” message after the progress bar.

22. If you are installing on AIX, go to the *PS_HOME/jre* directory and ensure that the directory has executable permissions. If not, set the permission using a command such as `chmod +x`.

Task 4-3: Verifying Necessary Files for Installation on Windows

PeopleSoft PeopleTools 8.50 and higher releases are developed using Microsoft Visual C++ 2005. Microsoft, as part of VC++ 2005, changed the way applications use and ship the required C Run Time (CRT) files (these files are installed as shared assemblies). PeopleSoft PeopleTools 8.50 and higher programs require these files to be present or the programs will not run.

During your PeopleSoft PeopleTools installation, the install programs will automatically update the Microsoft Windows machine performing the installation.

The required CRT files are installed by all of the PeopleSoft installers, including:

- PeopleSoft PeopleTools
- PeopleSoft Client
- Database
- PeopleSoft Pure Internet Architecture
- Change Assistant
- Change Impact Analyzer
- Webapp Deploy

In some cases it may be necessary for you to carry out a separate installation of the CRT files. For example:

- If the update does not take place during the installation program run, you may not be able to launch PeopleSoft PeopleTools client or server executables on that machine and may receive error messages.
- If you are accessing PeopleSoft PeopleTools executables from a machine on which the PeopleSoft installer did not run, the executables may not work and you may receive error messages.

If you encounter these errors, you can update the Microsoft Windows machine's CRT files by running `psvcrt_retail.msi` manually.

1. Go to `PS_HOME\setup\psvcrt`.
2. Run `psvcrt_retail.msi`.

The installation is completed automatically.

Task 4-4: Installing the Verity Integration Kit

This section discusses:

- Understanding the Verity Installation
- Installing the Verity Integration Kit in GUI Mode
- Installing the Verity Integration Kit in Console Mode

Understanding the Verity Installation

PeopleSoft PeopleTools uses Verity software to carry out searches. You must install the Verity for PeopleSoft Enterprise Integration kit for PeopleSoft PeopleTools 8.50 and higher. Install Verity after you install PeopleSoft PeopleTools, and before you create the database. Install Verity on the machines on which you set up the application server, batch server, and the web server.

The installation files for Verity are part of the PeopleSoft PeopleTools installation files that you downloaded from Oracle E-Delivery. This section assumes that you have already downloaded and extracted the files into a directory referred to as `PS_INSTALL`.

See Also

Obtaining the PeopleSoft Installation Files from Oracle E-Delivery

PeopleTools 8.52: System and Server Administration PeopleBook, "Configuring Search and Building Search Indexes"

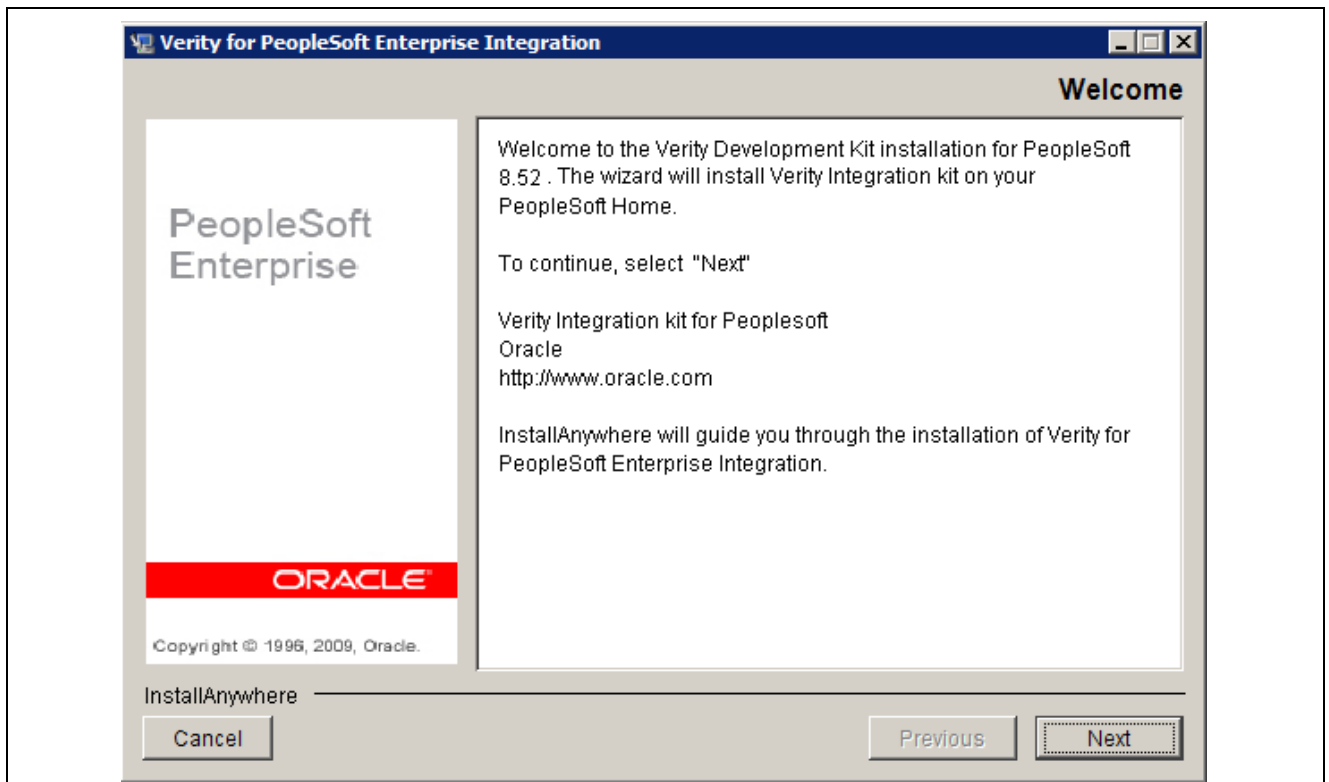
Task 4-4-1: Installing the Verity Integration Kit in GUI Mode

GUI mode is typically used for installation on Microsoft Windows.

To install the Verity Integration Kit in GUI mode:

1. Go to `PS_INSTALL\Verity\Disk1`.
2. Double-click `setup.bat`.

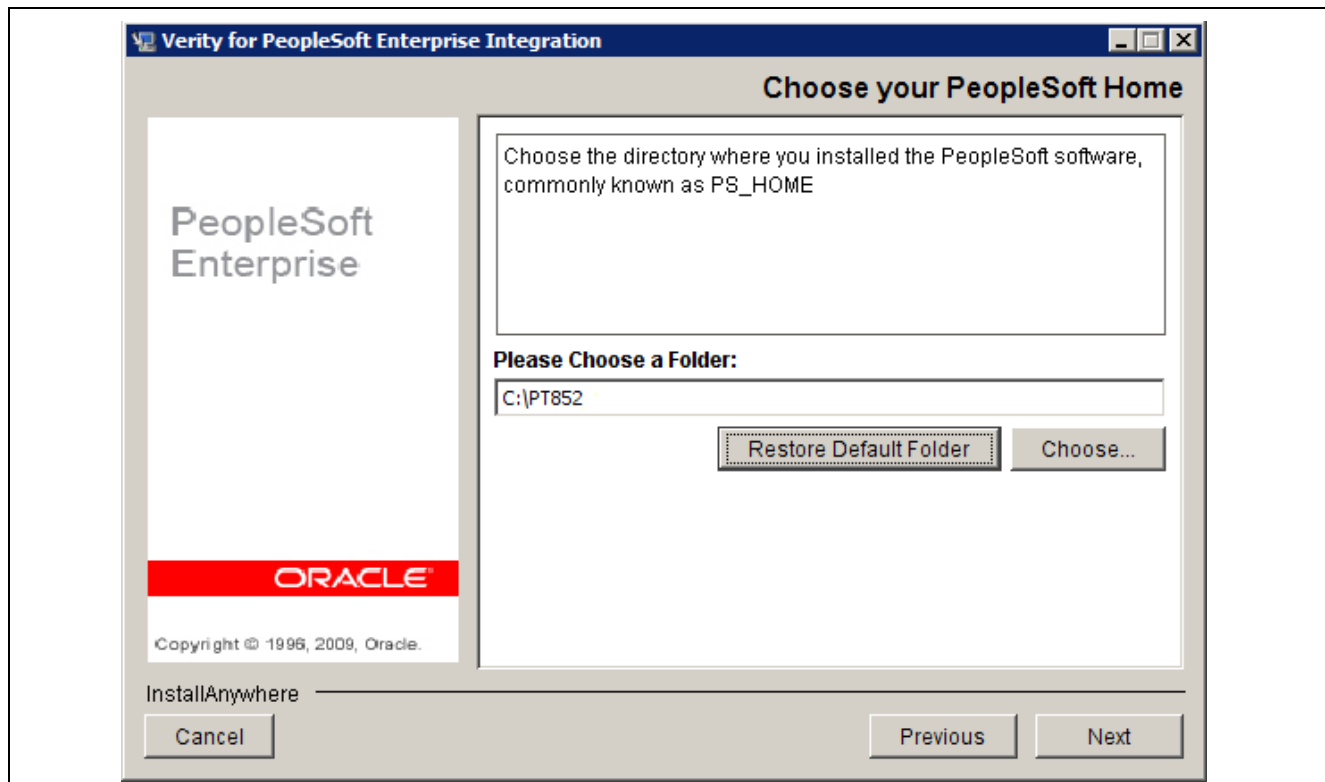
The Welcome window appears. Click Next.



Verity for PeopleSoft Enterprise Integration Welcome window

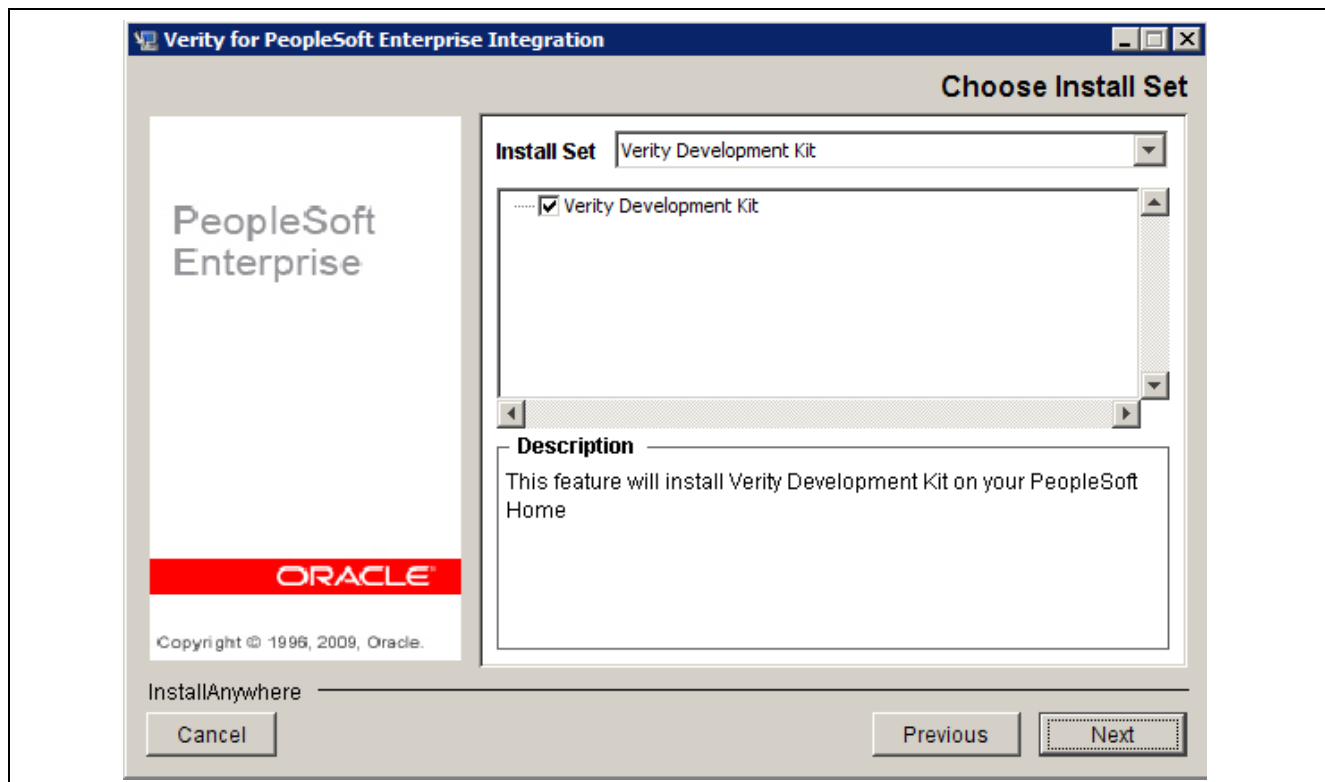
3. Specify the directory where you installed PeopleSoft PeopleTools, referred to as *PS_HOME*, and then click Next.

In the following example, *PS_HOME* is C:\PT852.



Verity for PeopleSoft Enterprise Integration Choose your PeopleSoft Home window

4. Accept the default option to install the Verity Development Kit, and click Next.

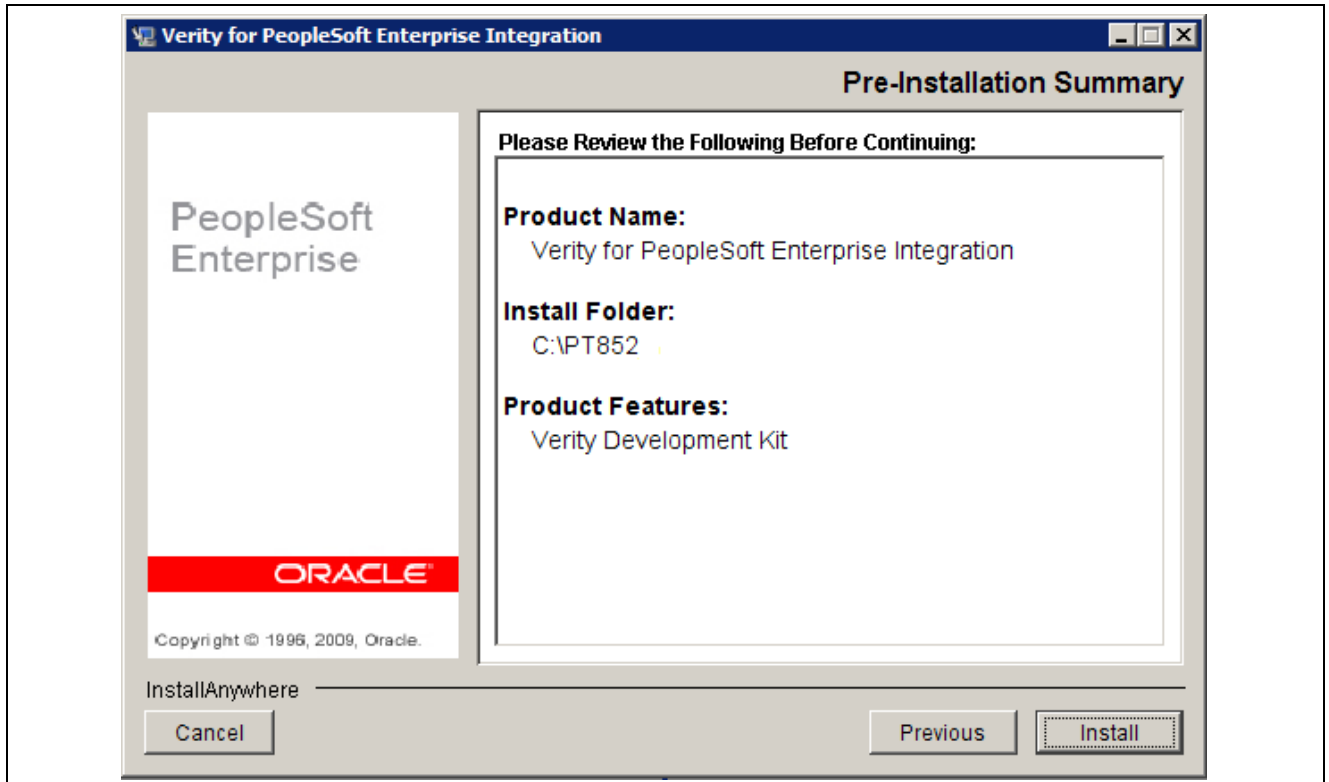


Verity for PeopleSoft Enterprise Integration Choose Install Set window

5. Review the pre-installation summary and click Install.

If you want to change any options, click Previous to return to an earlier window. The summary includes the product name, installation location, and product features.

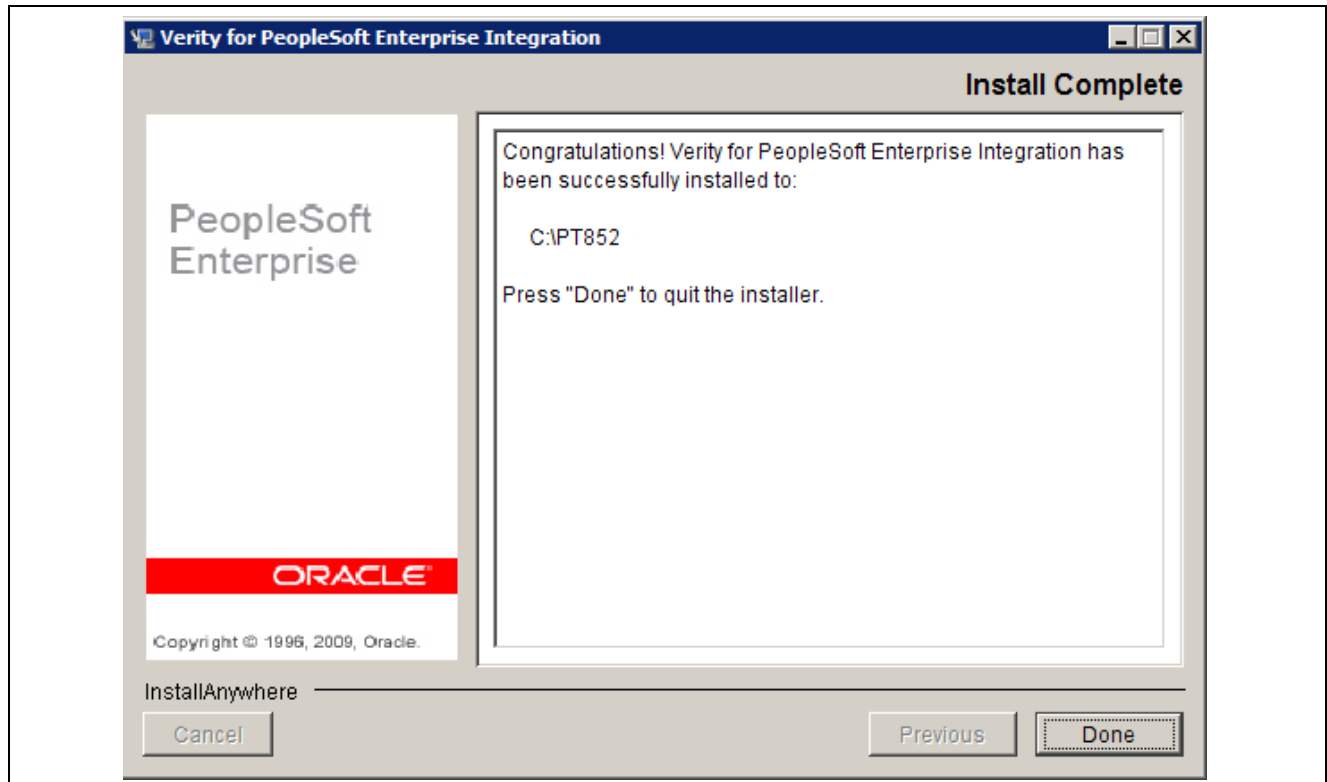
The installation requires a few minutes.



Verity for PeopleSoft Enterprise Integration Pre-Installation Summary window

6. Click Done to exit the installer.

The window displays a message indicating that the installation is complete, and including the installation location.



Verity for PeopleSoft Enterprise Integration Install Complete window

Task 4-4-2: Installing the Verity Integration Kit in Console Mode

Console mode is typically used for installation on UNIX and Linux.

To install the Verity Integration Kit in console mode:

1. Go to *PS_HOME* and source *psconfig.sh*:

```
../psconfig.sh
```

2. Go to *PS_INSTALL/Verity/Disk1*.

3. Run *setup.sh* with the *tempdir* option:

```
./setup.sh -tempdir temporary_directory
```

4. Press ENTER after reading the welcome statement:

```
Preparing to install...
Extracting the installation resources from the installer archive...
Configuring the installer for this system's environment...
Launching installer...
Preparing CONSOLE Mode Installation...
=====
Verity for PeopleSoft Enterprise Integration(created with InstallAnywhere by=>
Macrovision)
-----
=====
Welcome
```



```

-----
Welcome to the Verity Development Kit installation for PeopleSoft 8.52.
The wizard will install Verity Integration kit on your Peoplesoft Home.
Respond to each prompt to proceed to the next step in the installation.
Oracle (http://www.oracle.com)
PRESS <ENTER> TO CONTINUE:
=====

```

5. Specify the full path to the directory where you installed PeopleSoft PeopleTools, referred to as *PS_HOME*:

```

Select your PeopleSoft Home
Enter an absolute path, or press <ENTER> to accept the default (DEFAULT:
/home/user1/PT8.52):
Press 1 for Next, 2 for Previous, 3 to Cancel or 5 to Redisplay [1] :

```

6. Enter 0 (zero) to install the Verity Development Kit, and 1 for Next:

```

Select the verity features for PeopleTools 8.52 you would like to
install:
->1- Verity Development Kit
To select an item enter its number, or 0 when you are finished [0] :
Press 1 for Next, 2 for Previous, 3 to Cancel or 5 to Redisplay [1] :

```

7. Review the installation summary.

```

Enter 2 if you want to go back to a previous prompt to make changes:

PeopleTools Verity Installer 8.52 will be installed in the following
location:
/home/user1/PT8.52 with the following features:
Verity
Press 1 for Next, 2 for Previous, 3 to Cancel or 5 to Redisplay [1] :

```

8. Press ENTER to exit the installer:

```

Installation Complete
-----
Congratulations. Verity for PeopleSoft Enterprise Integration has been
successfully installed to:
/home/user1/PT8.52
PRESS <ENTER> TO EXIT THE INSTALLER:

```

Task 4-5: Installing PeopleSoft Application Software

After installing PeopleSoft PeopleTools, install the PeopleSoft Application to the same *PS_HOME* directory. The installation windows may look slightly different depending upon which application you install.

To install the PeopleSoft application, launch the PeopleSoft Installer from *PS_HOME/disk1* and follow the procedure in Running the PeopleSoft Installer.

Use the following guidelines when installing:

- If supported by the PeopleSoft Application that you are installing, you can install the PeopleSoft Application software to a *PS_APP_HOME* location that is not the same as the *PS_HOME* location where you installed PeopleSoft PeopleTools. Be sure to review the installation guide for your PeopleSoft Application to determine whether this functionality is supported.
- If you are installing more than one application, it is a good idea to create an application-specific *PS_HOME* or *PS_APP_HOME* and carry out an installation of PeopleSoft PeopleTools for each application. This helps you to maintain your applications more efficiently, since you can easily match each application version to the correct version of PeopleSoft PeopleTools.
- To properly install a Demo database, you must select both the System Database and the Demo Database when asked to choose product features during the installation of your PeopleSoft applications. The chapter on creating a database discusses the installation of the application database component to the database server.

See Also

"Setting Up the PeopleSoft Pure Internet Architecture," Completing Post-Installation Steps

Task 4-6: Installing the Multilanguage Files

If you have licensed and selected to install languages other than English, you need to load the application-specific PeopleSoft Multilanguage files. Each PeopleSoft application installation has a corresponding Multilanguage installation that contains all the non-English translations. This procedure assumes that you unzipped the PeopleSoft application installation files from Oracle E-Delivery into a directory referred to as *PS_INSTALL*.

Load the Multilanguage files after you install PeopleSoft PeopleTools and the PeopleSoft application software. Install the Multilanguage files to the same *PS_HOME* as you used for PeopleSoft PeopleTools and the PeopleSoft Application.

Warning! The release numbers for the application media pack and the Multilanguage media pack must be in sync. For example, if you are installing HRMS 9.1, you can only use the Multilanguage HRMS 9.1 ML; you cannot use HRMS 8.8 SP1.

To install the Multilanguage files, launch the PeopleSoft Installer from *PS_INSTALL/disk1* and follow the procedure in Running the PeopleSoft Installer.

Task 4-7: Installing the PeopleSoft Client Files

To install the files needed for the PeopleSoft Client, launch the PeopleSoft Installer from *PS_INSTALL\Client\disk1* and follow the procedure in Running the PeopleSoft Installer.

Task 4-8: Mapping a Drive on the Install Workstation

If you need to install to the file server or PeopleSoft Client from a networked install workstation, map a drive letter to the top-level PeopleSoft directory (*PS_HOME*) from the install workstation. The *PS_HOME* directory must be shared, and you must have write permission from the install workstation to the file server or PeopleSoft Client.

From the install workstation, create a logical drive that points to the *PS_HOME* directory.

On a Windows network, use Windows Explorer to map to the drive on the file server or PeopleSoft Client to which you are installing; or use the NET USE command, for example:

```
NET USE N: \\SERVER1\PS_HOME
```

On a Novell network, use the MAP command:

```
MAP ROOT N:=SERVER1/SYS:PS_HOME
```

In this example, *SERVER1* is the name of the file server or PeopleSoft Client.

See Also

"Setting Up the Install Workstation"

CHAPTER 5

Setting Up the Install Workstation

This chapter discusses:

- Understanding the Install Workstation
- Prerequisites
- Starting Configuration Manager
- Setting Startup Options
- Editing the Default Profile
- Running Client Setup
- Installing PeopleSoft ODBC Driver and Configuring the Crystal 2008 .NET Runtime

Understanding the Install Workstation

This chapter describes how to set up a PeopleSoft Windows-based client for connecting to the database server in two-tier mode, specifically for the purpose of performing install-related tasks from the workstation. You must configure at least one two-tier Windows-based client for running the Server Transfer, Data Mover and SQR processes required for setting up the batch server and for creating the PeopleSoft database. For some installations you may wish to set up multiple install workstations, so that you can perform asynchronous tasks at the same time; for example, you could create and populate multiple databases simultaneously. You can quickly configure multiple workstations by exporting a configuration file from one workstation and importing it to another workstation.

See Also

PeopleTools 8.52: System and Server Administration PeopleBook

Prerequisites

The following tasks are prerequisites for setting up the install workstation:

- The workstation must have database connectivity software installed.
- You must have planned your database creation strategy. You should know the precise names of the databases that you intend to create.
- Make sure that you have created your connect strategy. You must use a Connect ID. You should know both the Connect ID and Connect password.

For information on PeopleSoft password, consult PeopleBooks.

See *PeopleTools 8.52: System and Server Administration PeopleBook*, "Setting Application Server Domain Parameters."

- The workstation must have a logical drive mapped to *PS_HOME* on the file server (or, if the file server and install workstation are one and the same, *PS_HOME* can be installed on a local drive).
- The person performing the installation must have read access to the *PS_HOME* directory.

If this is the same workstation on which the PeopleSoft PeopleTools installation was performed, it should have a PeopleTools 8.5 installation program group, which was created when you loaded the PeopleTools software. This isn't a requirement, but it does make it more convenient to run the PeopleTools install applications.

See Also

"Preparing for Installation"

"Using the PeopleSoft Installer"

Task 5-1: Starting Configuration Manager

Configuration Manager is a utility for configuring workstations being used as the PeopleTools Development Environment. These are its principal functions:

- Sets up and make changes to PeopleSoft configuration settings.
- Creates a program group containing Windows shortcuts to PeopleSoft applications.
- Installs local DLLs.

The first time you run Configuration Manager on the client, it will populate certain fields with default values specified in a configuration file stored on the file server, specifically: *PS_HOME\setup\pstools.cfg*. This configuration file was set up when you ran the installation. Once you set up and run Configuration Manager, it will populate fields using values that are stored in the Windows system registry.

To start Configuration Manager, do one of the following:

- Select *Start, Programs, PeopleTools 8.52, Configuration Manager*. (This program group will be available if you installed PeopleSoft PeopleTools on this workstation.)
- If the *PeopleTools 8.52* program group was not installed on this workstation, run *pscfcfg.exe* directly from the *PS_HOME\bin\client\winx86* directory on the file server.

Task 5-2: Setting Startup Options

The Startup tab of Configuration Manager sets the default options for the PeopleSoft sign-on screen that is used for connecting to a PeopleSoft database. It also contains a setting that specifies the local directory for storing cached PeopleSoft data.

To set Startup options:

1. Make sure you are viewing the Configuration Manager Startup tab (this tab is what you see if you started Configuration Manager as described in the previous task).

Set the following options:

- *Database type* — Verify the type of RDBMS. This should already be set to Oracle.
- *Application Server Name* — This option appears if you select a database type of Application Server. It is where you enter your application server name if you are setting up a three-tier connection.
- *Database name* — The name of the default database to connect to. Enter the name of one of the databases that you intend to create.
- *User ID* — The name of the default user that will appear in the sign-on screen. This can be any valid user name, although for installation setup it normally matches the name of one of the built-in PeopleSoft users (typically PS or VP1) that will be installed in the database.
- *Connect ID and Connect Password* — Type your connect ID and password into these fields. Connect ID is required for this PeopleSoft release.

2. If you are using SAP Crystal Reports, select the Crystal/Bus. Interlink/JDeveloper tab and set the following options:

- *Crystal EXEs Path* — Set this to the location of your SAP Crystal Reports executables.
- *Default Crystal Reports* — Set this to the path on the file server where the Crystal reports reside. Note that the specified path should not contain reports run in production. This option is used when running from PSQuery to Crystal.
- *Use trace during execution* — This option is used when running SAP Crystal Reports from Process Scheduler on the client.
- *Business Interlink Directory* — You can leave this option blank. If you do so, the system uses its default directory *PS_HOME\bin\<client>|<server>\winx86\interfacedrivers*.
- *JDeveloper Home Directory* — See the Integration Broker PeopleBook for information on specifying the JDeveloper directory for use with the Oracle XSL Mapper.

See *PeopleTools 8.52: Integration Broker PeopleBook*, "Applying Filtering, Transformation and Translation."

Note. You can leave the options here blank. If you do so, a message appears indicating that the option is not set, but you can ignore this message and continue.

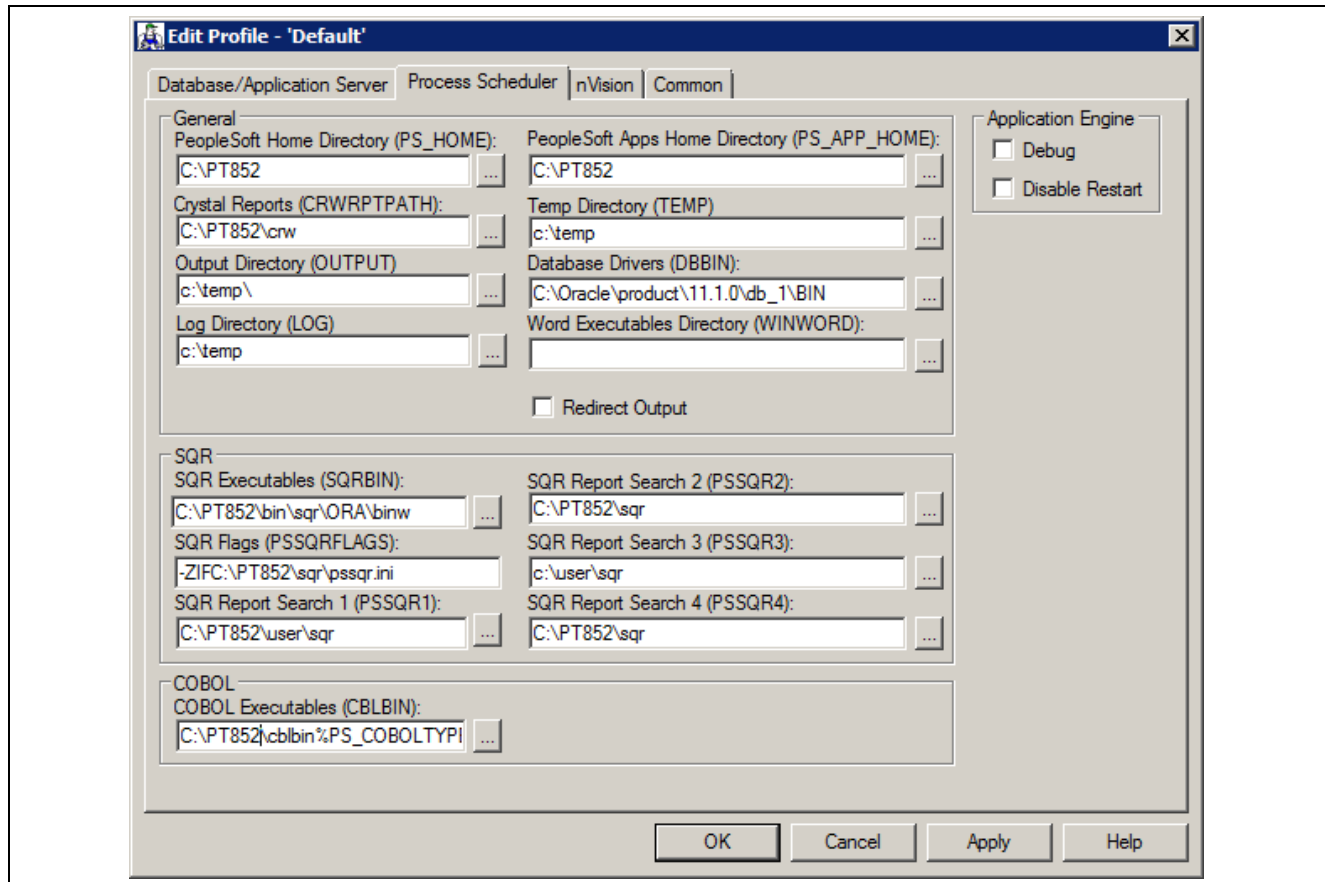
Task 5-3: Editing the Default Profile

Begin by editing the default profile for the workstation. Among other things, this will verify that the paths to *PS_HOME* and its subdirectories are correctly set, which is required for subsequent tasks.

To edit the default profile:

1. Select the Profile tab in Configuration Manager.
Only one profile, the Default Profile, has been defined.
2. Select Edit to display the Edit Profile dialog box, and then select the Process Scheduler tab.
3. In the Process Scheduler tab, shown in this example, verify the following options:

These should have been set correctly by the PeopleSoft installation program.



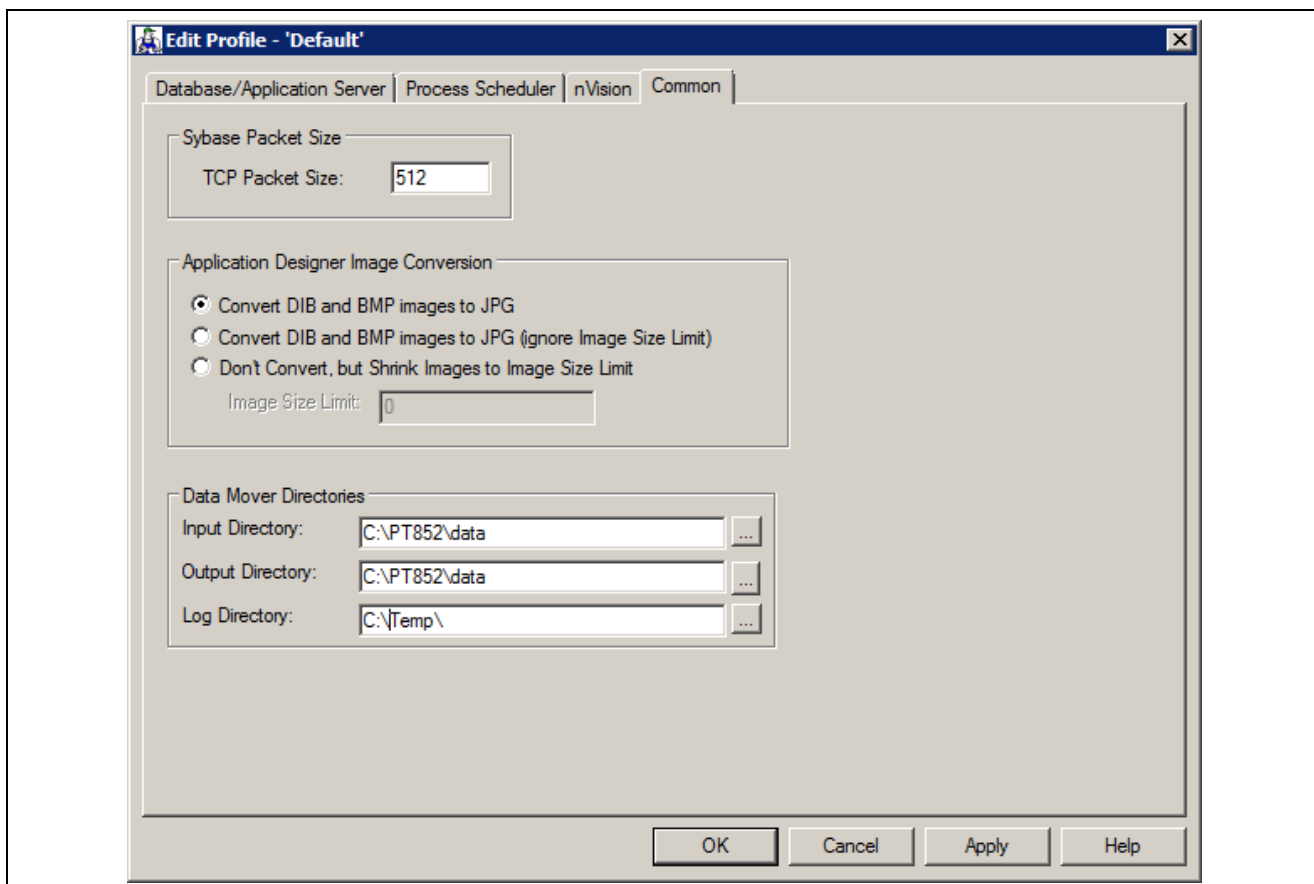
Edit Profile dialog box: Process Scheduler tab

- Verify that the PeopleSoft Home Directory (PS_HOME) field is set to the path to *PS_HOME* on the file server.
- Verify that the PeopleSoft Apps Home Directory (PS_APP_HOME) field is set to the path to *PS_APP_HOME* on the file server.

The default value is the same as *PS_HOME*.

- Set the SQR Executables (SQRBIN) field to the file server directory where SQR for Windows was installed when you ran the PeopleSoft Installer.
- Set the SQR Flags (PSSQRFLAGS) field to *-ZIF<PS_HOME>\sqr\pssqr.ini*.
- Set the SQR Report Search 1 (PSSQR1) field to *PS_HOME\sqr*. The remaining SQR Report Search fields can be left blank, because no additional SQR report directories have been created yet.

4. Select the Common tab of the Edit Profile dialog box, shown in this example:



Edit Profile dialog box: Common tab

The following fields on the Common tab are used to set Data Mover default input, output, and log directories.

- Verify that the Input Directory and Output Directory fields are set to *PS_HOME\data*. This directory will store the Data Mover scripts required to populate the PeopleSoft database.
- Set the Log Directory to a local workstation directory to store the Data Mover log files. The default is C:\TEMP.

5. Select OK to close the Edit Profile dialog box.

See Also

PeopleTools 8.52: System and Server Administration PeopleBook, "Using PeopleSoft Configuration Manager"

Task 5-4: Running Client Setup

The Client Setup tab does the following:

- Installs a PeopleSoft program group on the workstation.
- Installs system DLLs on the workstation.

These Client Setup functions are performed when you click OK or Apply from Configuration Manager only if the Install Workstation option on the Client Setup tab is selected.

Note. Any files installed by Client Setup on the workstation from the file server use the paths specified in the default profile.

To run Client Setup:

1. Select the Client Setup tab in Configuration Manager.
2. In the Group Title text box enter the name of the program group for the icons you want on the client workstation. (A program group name cannot contain any of the following characters: \ / : * ? " < > |)

You can call the program group anything you want, but this documentation uses the default name, *PeopleTools 8.52*.

3. If you do not have a PeopleTools 8.52 program group set up on the workstation, be sure to check the following two options for installing shortcuts to applications essential for installation:

Note. When you run Client Setup, it will uninstall any existing shortcuts in the PeopleTools 8.52 program group, and install shortcuts for the applications you have selected. If you subsequently want to install or uninstall shortcuts, you can always re-run Client Setup.

- *Data Mover*
- *Configuration Manager*

4. Select the option Install Workstation.

This check box determines whether Client Setup runs when you click Apply or OK in Configuration Manager. If this option is not selected, Client Setup will create or update settings in the registry, but it won't set up the PeopleTools 8.52 program group or install local DLLs.

5. Click OK to run Client Setup and close Configuration Manager.

Task 5-5: Installing PeopleSoft ODBC Driver and Configuring the Crystal 2008 .NET Runtime

This section applies to those installations which use SAP Crystal Reports. Running `psodbccrinst.exe` installs the PeopleSoft ODBC driver and configures the Crystal Runtime for use within the PeopleSoft environment. This is required in order to successfully design and run Crystal Reports from the SAP Crystal Reports 2008 application. This would also be required for any other client activities requiring access to the PeopleSoft OpenQuery API.

If you use SAP Crystal Reports for your installation, you must run `psodbccrinst.exe` directly from the `PS_HOME\bin\client\winx86` directory on the file server. The user who runs this installation must have administrative privileges.

The installation performs the following tasks:

- Installs PeopleSoft ODBC driver
- Creates PeopleSoft PeopleTools ODBC Data Source Name
- Integrates the Crystal 2008 .NET Runtime with the PeopleSoft environment.

Note. The psodbccrinst.exe install script generates a log file named psodbccrinst.log under the user's TEMP directory. If the user environment variable TEMP is undefined, the log file is written under c:\temp directory by default.

The psodbccrinst.exe install script detects whether or not the Crystal Runtime is installed prior to configuration, and exits with an error if it is not found.

See Also

PeopleTools 8.52: PeopleSoft Query PeopleBook

PeopleTools 8.52: Crystal Reports for PeopleSoft PeopleBook

"Installing and Configuring Software for Crystal Reports"

CHAPTER 6A

Creating a Database Manually on Windows

This chapter discusses:

- Understanding Database Creation
- Preparing for the PeopleSoft Database Installation
- Creating the Windows Service for the Database Instance
- Editing Database Scripts
- Using SQL Tools
- Creating an Oracle Instance
- Creating Catalog Views and Utility Tablespaces
- Creating PS.PSDBOWNER Table
- Creating Application-Specific Dbspaces and Tablespaces
- Creating PeopleSoft Database Roles
- Creating the PeopleSoft Database Owner ID
- Setting Up Connect ID
- Updating Connection Information
- Setting NLS_LANG in the Windows Registry
- Creating Data Mover Import Scripts
- Running Data Mover Import Scripts
- Changing the Base Language

Understanding Database Creation

This section describes the tasks required to create a PeopleSoft product database. During a standard PeopleSoft installation you will execute these tasks to create two distinct types of databases.

- *System*: The System database has no company specific data, and can be used to load your data and begin development of your production database.
- *Demo*: The Demo database contains data for a sample company, and can be used immediately for demonstration, for testing, and as a development reference.

The requirements for these databases vary, so not all of this section's tasks apply to each database. The instructions will note any distinctions between creating a Demo and a System database.

Remember, you need to have the PeopleTools Development Environment set up to create your database.

Important! Do not forget that application-specific installation steps are provided in a separate document specific to the application. For instance, if you are performing PeopleSoft CRM installation, you need both this PeopleSoft PeopleTools installation guide and any additional instructions provided by CRM. To find the installation documentation specific to your application, search My Oracle Support.

Important! If you are carrying out the PeopleSoft installation on an Oracle RAC database, there are additional configuration procedures that you must follow.

See *PeopleTools 8.52: Data Management PeopleBook*, “Administering PeopleSoft Databases on Oracle,” Setting Up the PeopleSoft Installation with Oracle RAC.

Note. The Database Configuration Wizard cannot be used on a Microsoft Windows operating system. You must use the manual method of creating a database for this configuration.

To run Data Mover on a 64-bit Microsoft Windows system, you must install a 32-bit Oracle client.

After you complete the tasks in this chapter, read the chapter “Completing the Database Setup.” Depending upon your environment, you may not need to carry out every task in that chapter. However it is important that you evaluate the requirements and perform the necessary tasks.

Task 6A-1: Preparing for the PeopleSoft Database Installation

This section discusses:

- Installing the PeopleSoft Database Server Components on the Database Server
- Installing the Oracle RDBMS Software
- Obtaining Windows Administrator Authority
- Creating an INIT<SID>.ORA File
- Creating Target Directory Paths
- Setting the ORACLE_SID Environment Variable

Task 6A-1-1: Installing the PeopleSoft Database Server Components on the Database Server

To create a PeopleSoft Database you *must have installed* the PeopleSoft software on your database server by running the PeopleSoft Installer and choosing the Database Server option, as described in a previous chapter. In addition, you need to install your application software to your database server before loading the database.

See "Using the PeopleSoft Installer."

Note. Remember, you need to have the PeopleTools Development Environment set up to create your database.

See *PeopleTools 8.52: System and Server Administration PeopleBook*, "Using PeopleSoft Configuration Manager."

Task 6A-1-2: Installing the Oracle RDBMS Software

The rest of this chapter assumes that the Oracle RDBMS software is installed on your database server. If you have not already done so, install the Oracle RDBMS software now. During the database creation process, we refer to an existing Oracle RDBMS installation. Specifically:

ORACLE_HOME and *ORACLE_HOME\bin*

Task 6A-1-3: Obtaining Windows Administrator Authority

To create a database instance on Microsoft Windows, you must be a Windows administrator of the target server. This is necessary because creating an instance on Microsoft Windows requires creating a SERVICE using the Oracle ORADIM command to add a Windows service. On UNIX, an Oracle SID is comprised of many different processes. On Microsoft Windows, an Oracle SID is run as a single Windows service and you need to be an administrator to create that service.

Note. You must also be part of the *ORA_DBA* group.

Task 6A-1-4: Creating an INIT<SID>.ORA File

You must create an init.ora with the naming convention of init<SID>.ora in the *ORACLE_HOME*\database directory of the Oracle installation. The init.ora file is referenced in the following two places during the database creation process:

- Using the ORADIM command to create the Windows Service
- Executing the CREATEDB10.SQL script

Note. PeopleSoft PeopleTools supports Oracle 10g and Oracle 11g on Microsoft Windows. The PeopleSoft scripts are delivered to work across all versions of the Oracle RDBMS that Oracle supports for this release of PeopleSoft PeopleTools. To support these versions the PeopleSoft installation is delivered with the CREATEDB10.SQL script for Oracle 10g or later installations.

Review the following init.ora parameters and if necessary modify them for your environment:

- *DB_NAME* = <SID>
- *DB_FILES*
Specify the maximum allowed for your operating system, typically 1021
- *OPEN_CURSORS* = 1000
This is a minimum value. You may choose to set this higher.
- *db_block_size* = 8192
The default *DB_BLOCK_SIZE* in the init.ora file is 8192 or 8K. For PeopleSoft ANSI databases this is more than adequate. For PeopleSoft Unicode databases (for example, *CHARACTER_SET* AL32UTF8), a *DB_BLOCK_SIZE* value of 8K is required.

PeopleSoft PeopleTools 8.48 and later introduced the ability to utilize an Oracle feature called CHARACTER LENGTH SEMANTICS for Unicode databases. When CHARACTER LENGTH SEMANTICS is utilized, PeopleSoft no longer needs to triple the VARCHAR2 datatype columns in our schema definitions. You can only take advantage of this new behavior for Unicode database character columns if you upgrade to PeopleSoft Application 9.0 and upgrade to at least PeopleSoft PeopleTools 8.48. A database conversion is necessary for utilizing CHARACTER LENGTH SEMANTICS and this conversion process is tied to the PeopleSoft Application 9.0 or higher upgrades.

You are required to set the `NLS_LENGTH_SEMANTICS=CHAR` init.ora parameter for any PeopleSoft installation only if the following conditions are met:

You are installing a Unicode database, *and* the installation is PeopleSoft Applications 9.0 or higher releases on PeopleTools 8.48 or higher. If necessary, verify the PeopleTools release for your PeopleSoft Application using this SQL script:

```
select TOOLSREL from PSSTATUS
```

It is very important that you set this parameter at the correct point during database creation. Database creation consists of running several scripts before loading the database with Data Mover, as follows:

```
CREATEDB10.SQL
UTLSPACE.SQL
XXDDL.SQL
DBOWNER.SQL
PSROLES.SQL
PSADMIN.SQL
CONNECT.SQL
```

If you are running with Oracle database version lower than 11g, set the `NLS_LENGTH_SEMANTICS=CHAR` after the database instance has been created running these scripts, or right before the Data Mover load.

To do this, modify the init<SID>.ora to add the `NLS_LENGTH_SEMANTICS=CHAR` parameter, and then shut down and restart the database instance.

If you are running with Oracle 11g or higher, you can set the parameter `NLS_LENGTH_SEMANTICS=CHAR` at the beginning of database creation or right before the Data Mover load.

In addition to considering the parameters listed above, review the documentation on patches required for installation on My Oracle Support for more parameters that may be required for the init<SID>.ora file.

See "Operating System, RDBMS & Additional Component Patches Required for Installation PeopleTools," My Oracle Support (search for the title and select your release).

Task 6A-1-5: Creating Target Directory Paths

You must create the directory path structure for the target directories referenced in the scripts that are executed by the database creation process. The referenced directories are not created on the fly, so they need to exist when referenced.

Note. If you want to use something other than the delivered directory paths, you need to modify the `CREATEDB10.SQL`, `UTLSPACE.SQL`, and `XXDDL.SQL` scripts in the `PS_HOME\scripts` directory, replacing the delivered paths with paths that are appropriate for your site installation prior to creating the database.

Here are some examples of directory path structure references.

- The delivered `CREATEDB10.SQL` script makes the following directory path structure references:

```
startup nomount pfile=%ORACLE_HOME%\database\init<SID>.ora

DATAFILE      ' <drive>:\oradata\<SID>\system01.dbf'      SIZE  400M
LOGFILE       ' <drive>:\oradata\<SID>\log01.dbf'        SIZE  70M,
              ' <drive>:\oradata\<SID>\log02.dbf'        SIZE  70M;
```

Note. Portions of the script have been omitted for clarity.

- The init<SID>.ora parameter file that is referenced in the CREATEDB10.SQL script makes the following directory path structure references:

Note. Portions of the init<SID>.ora parameter file have been omitted for clarity. These paths are hardcoded by the user creating the init<SID>.ora parameter file.

Control file references:

```
control_files = ('c:\apps\db\Oracle10g\oradata\ORC1\control01.ctl", "c:\apps\db⇒
\Oracle10g\oradata\ORC1\control02.ctl", "c:\apps\db\Oracle10g\oradata\ORC1⇒
\control03.ctl")
```

Trace and Alert Log file references:

```
background_dump_dest = c:\apps\db\Oracle10g\admin\ORC1\bump
core_dump_dest = c:\apps\db\Oracle10g\admin\ORC1\cdump
user_dump_dest = c:\apps\db\Oracle10g\admin\ORC1\udump
```

- The delivered UTLSPACE.SQL script makes the following directory path structure references:

Note. Portions of the script have been omitted for clarity.

```
CREATE TEMPORARY TABLESPACE PSTEMP
TEMPFILE ' <drive>:\oradata\<SID>\pstemp01.dbf' SIZE 300M
EXTENT MANAGEMENT LOCAL UNIFORM SIZE 128K;

CREATE TABLESPACE PSDEFAULT
DATAFILE ' <drive>:\oradata\<SID>\psdefault.dbf' SIZE 10M
EXTENT MANAGEMENT LOCAL AUTOALLOCATE;
```

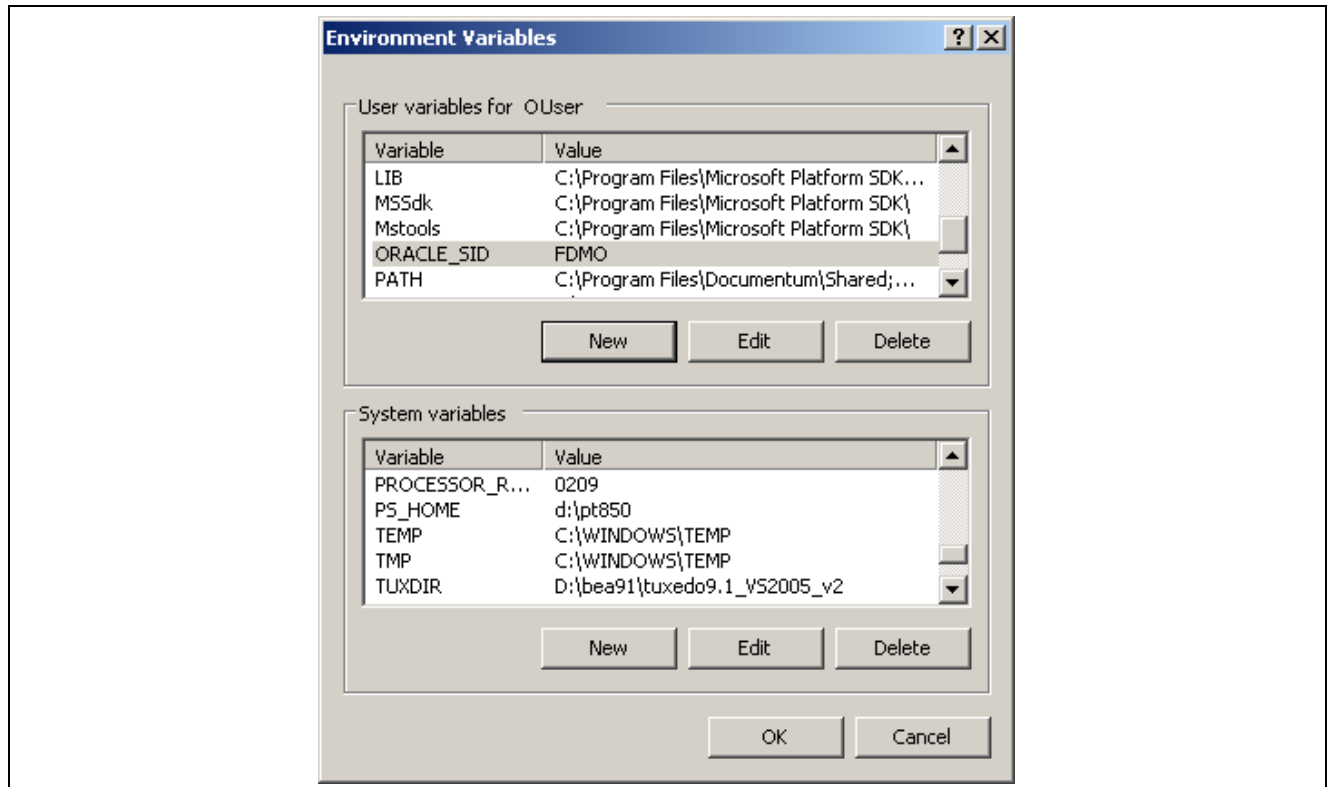
- The delivered XXDDL.SQL scripts make the following directory path structure references:

Note. This is a sample of the first several Create Tablespace SQL statements in the XXDDL.SQL script. The rest of the script has been omitted here for clarity.

```
CREATE TABLESPACE PSIMAGE DATAFILE ' <drive>:\oradata\<SID>\psimage.dbf' SIZE 8M
EXTENT MANAGEMENT LOCAL AUTOALLOCATE
/
CREATE TABLESPACE PSINDEX DATAFILE ' <drive>:\oradata\<SID>\psindex.dbf' SIZE 64M
EXTENT MANAGEMENT LOCAL AUTOALLOCATE
/
CREATE TABLESPACE PTAPP DATAFILE ' <drive>:\oradata\<SID>\ptapp.dbf' SIZE 4M
EXTENT MANAGEMENT LOCAL AUTOALLOCATE
/
```

Task 6A-1-6: Setting the ORACLE_SID Environment Variable

Make sure that you have the ORACLE_SID parameter set in your user or system environment variables. This example shows the Environment Variables dialog box with the variable ORACLE_SID and value FDMO.



Setting the ORACLE_SID environment variable

Task 6A-2: Creating the Windows Service for the Database Instance

Before running the CREATEDB10.SQL script and all other scripts needed to create a database, you must first create a Windows service. This is necessary because creating an instance on Windows requires creating a SERVICE using the Oracle ORADIM command to add a Windows service. On UNIX, an Oracle SID is comprised of many different processes. On Windows, an Oracle SID is run as a single Windows service and you need to be an administrator to create that service. You must also be part of the ORA_DBA group.

To create a Windows service:

1. Log on to your database server using an ID that is both a Server Administrator and part of the ORA_DBA administrative group.
2. To create the Windows service, open up a command prompt window.
3. Set the ORACLE_SID value to the Oracle database SID you are going to create, <SID> in this example:

```
Set ORACLE_SID=<SID>
```

4. If you choose to use an Oracle Password file, you need to create one using the ORAPWD utility, as illustrated in this example:

```
Set ORACLE_SID=<SID>
orapwd file=%ORACLE_HOME%\database\pwdtemp2.ora password=manager entries=5
```

Note. If you choose not to use an Oracle Password file, don't forget to comment out or remove the following parameter in the init.ora file:

```
remote_login_passwordfile=EXCLUSIVE
```

5. Use the ORADIM utility as directed in the following example to create the Windows Oracle Service associated with the SID you are creating:

```
oradim -new -sid <SID> -intpwd manager -startmode
auto -pfile %ORACLE_HOME%\database\init<SID>.ora
```

Task 6A-3: Editing Database Scripts

This section discusses:

- Understanding Database Scripts
- Modifying Database Scripts

Understanding Database Scripts

The scripts required for creating the database scripts reside in the *PS_HOME*\scripts\nt directory on the file server. You need to edit a few of these scripts for your environment before you execute them and go on with the following procedures.

Typically, you need to modify the file system locations and the Oracle SID name.

Task 6A-3-1: Modifying Database Scripts

To edit required database scripts:

1. Go to the *PS_HOME*\scripts\nt directory on the file server.
2. Edit the scripts to conform to your environment.

The following list presents the necessary scripts:

- CREATEDB10.SQL

Edit CREATEDB10.SQL to remove the REMARK from the following line:

```
REMARK startup nomount pfile=%ORACLE_HOME%\dbs\init<SID>.ora
```

Note. When editing CREATEDB10.SQL, if you are creating a Unicode database, you need to choose an Oracle character set supported by the PeopleSoft software. Ensure that the CHARACTER SET parameter in the CREATE DATABASE statement is set to either AL32UTF8 or UTF8.

- CONNECT.SQL.

Edit CONNECT.SQL only if you do not wish to use the default CONNECT_ID.

- UTLSPACE.SQL.

- `XXDDL.SQL`, where `XX` is a two-letter code for your product line or PeopleSoft PeopleTools, as listed in the table below

Code	Description
CR	PeopleSoft Customer Relationship Management
LM	PeopleSoft Enterprise Learning Management
PF	PeopleSoft Enterprise Performance Management
EP	PeopleSoft Financials / Supply Chain Management
EA	PeopleSoft Financials / Supply Chain Management Argentina
EB	PeopleSoft Financials / Supply Chain Management Brazil
HC	PeopleSoft Human Capital Management
PA	PeopleSoft Portal Solutions
PT	PeopleSoft PeopleTools

Note. This is a complete list of available product lines for PeopleSoft PeopleTools 8.52. Note that not all products go out on all PeopleSoft PeopleTools releases, so you may not see a script corresponding to every product line. In addition, some bolt-on products reference their own scripts within their application installation documentation. Search My Oracle Support to confirm that the product is supported for a specific release and database platform.

See My Oracle Support, Certifications.

Note. Compare the sizes of the PeopleTools tablespaces in `XXDDL.SQL` with the tablespaces in `PTDDL.SQL`. If the tablespace sizes in `PTDDL.SQL` are larger, increase the PeopleTools tablespace sizes in `XXDDL.SQL` to be at least as large as those in `PTDDL.SQL`.

Note. For multilanguage installs, you need to increase the size of the `PTTBL`, `PSIMAGE`, and `PSINDEX` tablespaces. Refer to the comments in the DDL scripts for further details regarding the incremental increase for each additional language.

See Also

"Using the PeopleSoft Installer"

PeopleTools 8.52 Hardware and Software Requirements

Task 6A-4: Using SQL Tools

When you execute PeopleSoft SQL scripts, use the appropriate tool included with your version of the RDBMS. You should use SQL*Plus, which is available with each version of the Oracle RDBMS that is supported by Oracle for PeopleSoft installations.

There are various ways to connect to the database with SQL*Plus. For information on using SQL*Plus, see the Oracle database documentation.

Task 6A-5: Creating an Oracle Instance

Run the CREATEDB10.SQL script from SQL*Plus to create an Oracle database.

To create an Oracle database:

1. Invoke SQL*PLUS (sqlplus), connecting as sysdba.

```
sqlplus / as sysdba
```

2. Run the CREATEDB10.SQL script, using the following example as a guide:

```
sqlplus>@<PS_HOME>\scripts\nt\createdb10.sql
```

Note. When editing CREATEDB10.SQL, if you are creating a Unicode database, you need to choose an Oracle character set that is supported by Oracle. Insure that the CHARACTER SET parameter in the CREATE DATABASE statement is set to AL32UTF8 or UTF8.

Task 6A-6: Creating Catalog Views and Utility Tablespaces

Run the UTLSPACE.SQL script from SQL*Plus to create catalog views and utility tablespaces.

To create catalog views and utility tablespaces:

1. Invoke SQL*Plus (sqlplus), connecting as sysdba.
2. Run the UTLSPACE.SQL script:

```
sqlplus>@<PS_HOME>\scripts\nt\utlspace.sql
```

Task 6A-7: Creating PS.PSDBOWNER Table

Run the DBOWNER.SQL script from SQL*Plus to create the PS.PSDBOWNER table.

To create the PS.PSDBOWNER table:

1. Invoke SQL*Plus (sqlplus), connecting as sysdba.
2. Run the DBOWNER.SQL script, using the following example as a guide:

```
sqlplus>@<PS_HOME>\scripts\nt\dbowner.sql
```

Task 6A-8: Creating Application-Specific Dbspaces and Tablespaces

To create tablespaces for the product you are installing, run the appropriate XXDDL.SQL scripts, logged on as the system user, where XX stands for your product line or PeopleSoft PeopleTools, as listed in the table in the section Editing Database Scripts.

To create application-specific tablespaces:

1. Invoke SQL*Plus (sqlplus), connecting as sysdba.
2. Run the appropriate DDL scripts.

For example:

```
sqlplus>@<PS_HOME>\scripts\nt\epddl.sql
```

Task 6A-9: Creating PeopleSoft Database Roles

Run the PSROLES.SQL script from SQL*Plus to create the PeopleSoft database roles.

To create the roles for your PeopleSoft database:

1. Log on to SQL*Plus, connecting as the System user.

```
sqlplus system/manager
```

2. Run the PSROLES.SQL script:

```
SQLPLUS>@<PS_HOME>\scripts\nt\psroles.sql
```

Task 6A-10: Creating the PeopleSoft Database Owner ID

This task creates the PeopleSoft database owner ID that will be referenced in future tasks. It grants the roles, created in the previous step, to this owner ID.

Note. You must run the PSADMIN.SQL script for each PeopleSoft database that you are going to create. When prompted for a default tablespace name, select PSDEFAULT if you are using PeopleSoft naming conventions, or your site equivalent if you are not using PeopleSoft naming conventions.

To create the PeopleSoft database owner ID:

1. Log on to SQL*Plus, connecting as the System user.

```
sqlplus system/manager
```

2. Run the PSADMIN.SQL script.

```
SQLPLUS>@<PS_HOME>\scripts\nt\psadmin.sql
```

Task 6A-11: Setting Up Connect ID

This section discusses:

- Understanding Connect ID

- Defining the Connect ID
- Creating the Connect ID

Understanding Connect ID

With PeopleSoft PeopleTools 8.52, you establish connections to a database simply by using the connect ID, which allows you to associate multiple PeopleSoft operators to the same connect ID. The connect ID has the minimum privileges required to connect to the database—that is, it has only SELECT privileges on specific PeopleTools tables. After connection, PeopleSoft Security uses the operator ID to control access to objects in the database. The PeopleSoft sign-on process validates the connect ID on the server, rather than the operator ID. Connect ID simplifies database security maintenance. You don't have to maintain access for all PeopleSoft users, just for the connect ID.

The connect ID is granted access using the following script:

Connect.sql: Creates the connect ID and grants CREATE SESSION privilege to the connect ID. Access to the PeopleSoft database is then granted to the connect ID explicitly via the initial Data Mover load script generated by DBSETUP to include the following grants.

```
grant select on PSSTATUS to <CONNECT_ID>;
grant select on PSOPRDEFN to <CONNECT_ID>;
grant select on PSACCESSPRFL to <CONNECT_ID>;
```

In order to work, the connect ID and connect password must be specified at the client Configuration Manager or the configuration file of any two-tier client accessing the application.

Task 6A-11-1: Defining the Connect ID

When logging into a PeopleSoft database in two-tier mode, the user enters a Database Name, User ID, and Password in the PeopleSoft Signon dialog box. This table lists the steps and related database SQL operations associated with logging in.

Log-in Processing Steps	Related Database SQL Operations
The access to the PeopleSoft Database is established with the Connect ID not the User ID.	Connect=PT84/people/people
Check PSSTATUS	SELECT OWNERID, TOOLSREL, LASTREFRESHDTM, LASTCHANGEDTTM FROM PSSTATUS
Validate the User ID and Password	SELECT VERSION, OPERPSWD, ENCRYPTED, SYMBOLICID, ACCTLOCK FROM PSOPRDEFN WHERE OPRID=:1
Get the Access ID and Password	SELECT ACCESSID, ACCESSPSWD, ENCRYPTED FROM PSACCESSPRFL WHERE SYMBOLICID=:1
Disconnect Connect ID	Disconnect
Login using the Access ID	Connect=PT84/ACCESSID/ACCESSPWD

At this point, access is governed by PeopleSoft security, which determines what applications a specific user ID has access to.

Task 6A-11-2: Creating the Connect ID

To create connect ID:

1. Log on to SQL*Plus as the System user.
2. Run the connect.sql script.

```
SQLPLUS>@<PS_HOME>\scripts\nt\connect.sql
```

3. The script will then create the connect ID and grant it CREATE Session privileges only.

Task 6A-12: Updating Connection Information

You must update connection information on the client. To do this, update the connection information in TNSNAMES.ORA on your client to reflect your Database Name, Oracle SID, and Server Name.

Task 6A-13: Setting NLS_LANG in the Windows Registry

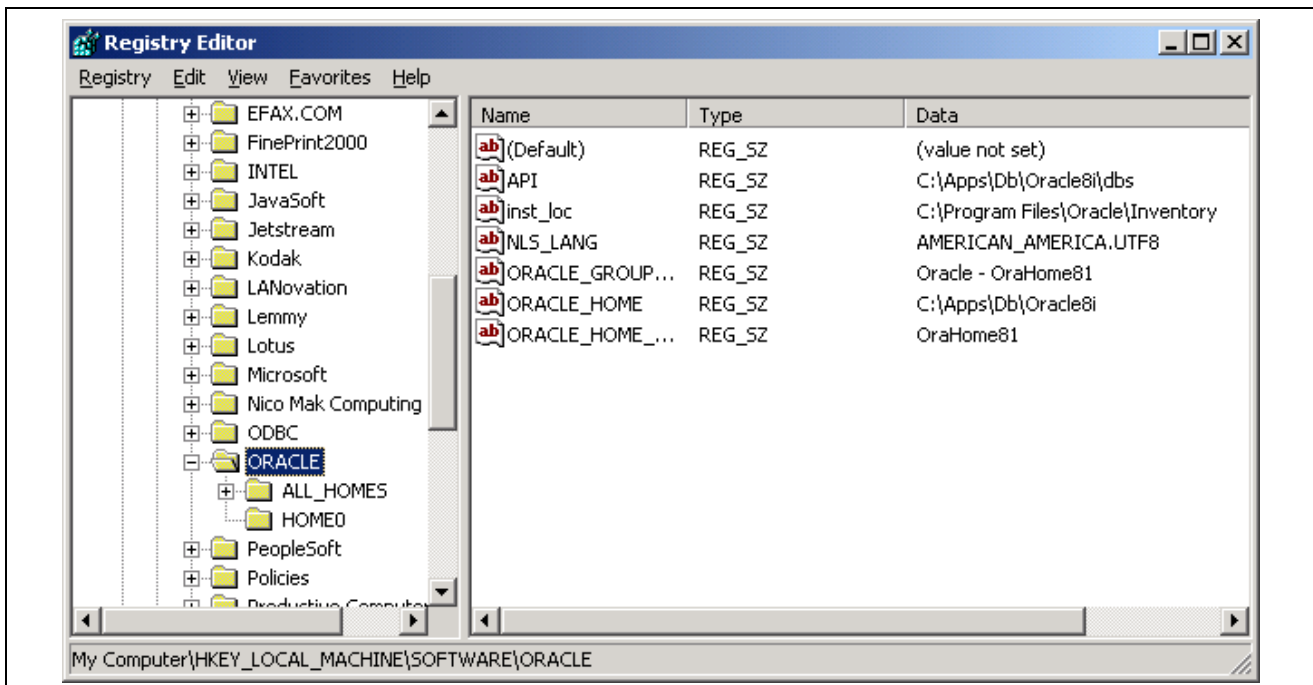
You must set the NLS_LANG Oracle registry key to indicate the Oracle language and character set. The PeopleSoft Internet Application Server and reporting tools run in Unicode regardless of the database character set or the NLS_LANG character set component. However, the NLS_LANG character set component does affect the transmission of data in non-PeopleTools connections, such as SQLPlus and direct COBOL. NLS_LANG has three components, a language, a territory, and a character set in the form LANGUAGE_TERRITORY.CHARACTERSET. For example, for American English, the correct NLS_LANG setting for a PeopleSoft installation would be AMERICAN_AMERICA.AL32UTF8. See the Oracle National Language Support guide for full details.

The NLS_LANG parameter should be set on *each* workstation you use to access the PeopleSoft application in two-tier mode, and on your application server machine.

Note. When using SQL*Plus to query data, set NLS_LANG on the client side to match the OS character set rather than the database character set.

To set NLS_LANG in the Windows registry:

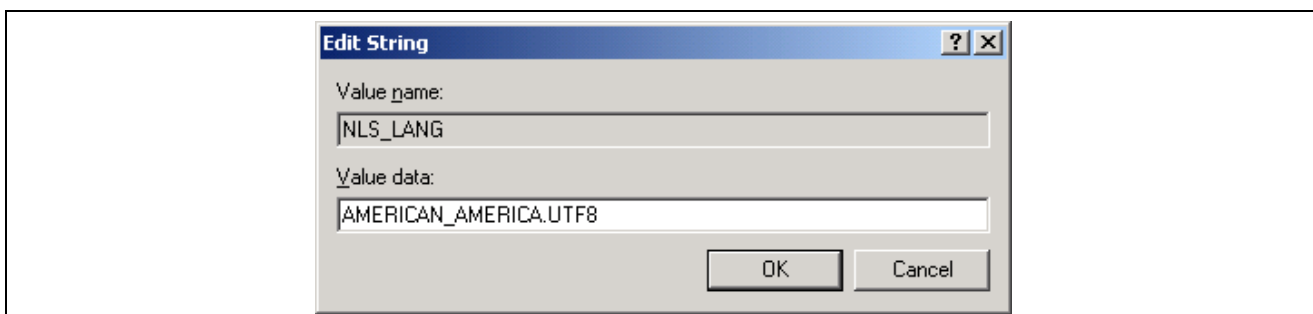
1. Open the Windows Registry Editor by selecting *Run* from the Windows Start menu.
2. Type REGEDIT in the Run dialog.
3. Navigate to the key HKEY_LOCAL_MACHINE\Software\Oracle.



Navigating to NLS_LANG

- Double-click on the NLS_LANG key in the right hand side of the window.

The Edit String dialog box appears as in this example.



Entering the Value data

- Enter `<language>_<territory>.AL32UTF8` in the Value Data field, substituting `<language>` and `<territory>` for your preferred language and territory settings.

If unsure, use `AMERICAN_AMERICA.AL32UTF8`.

- Click *OK* and close the Registry Editor.

Task 6A-14: Creating Data Mover Import Scripts

This task explains how to create the Data Mover Import script, which is used to populate the PeopleSoft database with data. The following procedure describes how to run Database Setup Wizard from Data Mover to generate the import scripts.

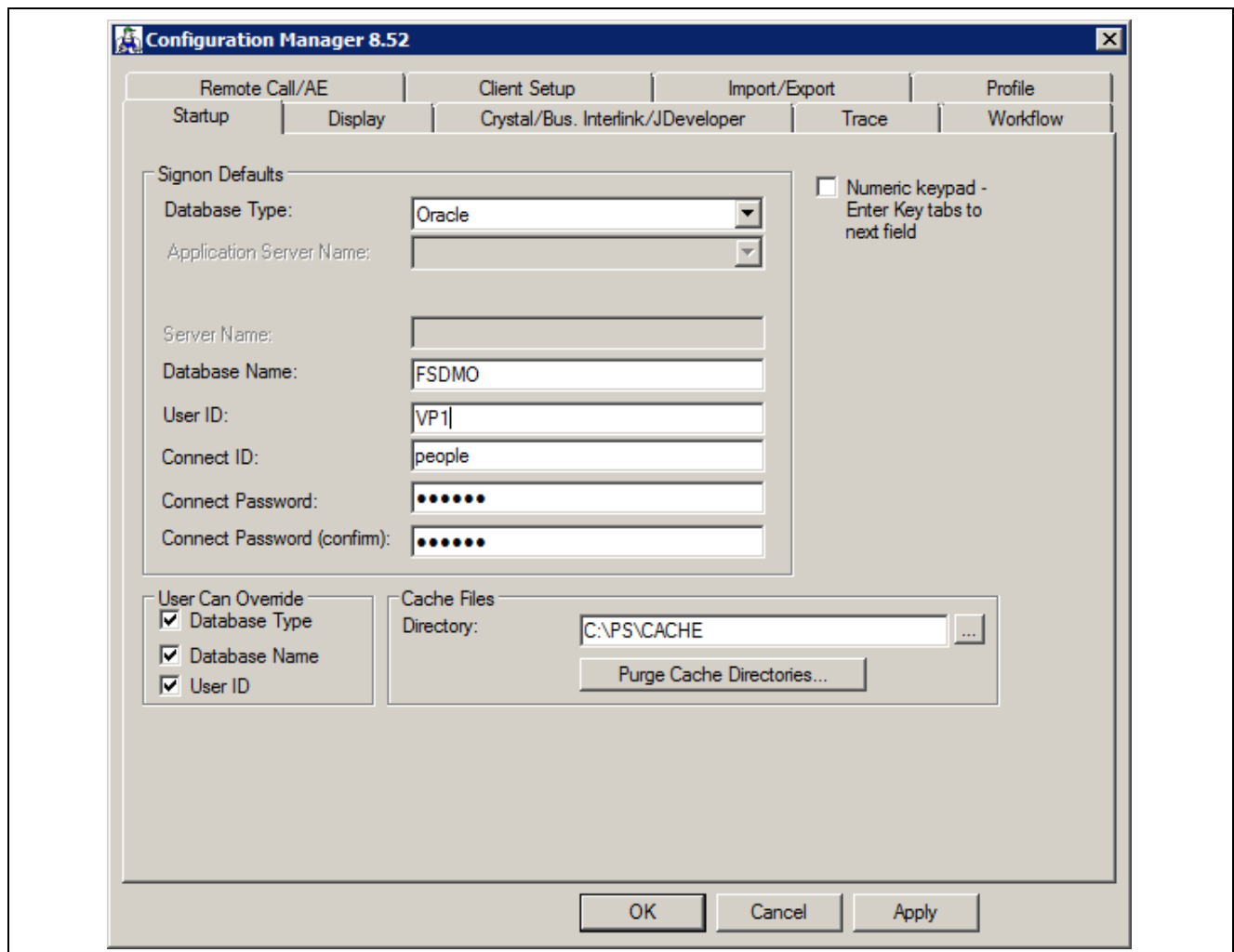
Note. This task and the next one (Running Data Mover Import Scripts) should be executed from a Windows client machine. Before you can load PeopleSoft data from a Windows client machine, you need to install PeopleSoft PeopleTools and your PeopleSoft Application to the Windows client machine and be sure to select File Server and Database Server.

See *PeopleTools 8.52: Data Management PeopleBook*.

To create the Data Mover import script using Data Mover:

1. Verify that the same connect ID was used in the Database Setup and Configuration Manager panel displayed below.

If you accepted all defaults, the connect ID/password is: people/people (password contains the number “1”).



Startup tab on the Configuration Manager dialog box

2. If the *PS_APP_HOME* location is not the same as *PS_HOME*, make sure it is set in Configuration Manager, as follows:
 - a. In Configuration Manager, select Profile.
 - b. Highlight the Default Profile and select Edit.

- c. On the Edit Profile dialog box, select the Process Scheduler tab.
- d. Verify that the *PS_APP_HOME* value is correct.

See "Setting Up the Install Workstation," Editing the Default Profile.

3. Run Data Mover in bootstrap mode, using the access ID as the user id; this should be the user that creates the database.

When connecting to Data Mover using your access ID, you automatically sign on in bootstrap mode.

4. To invoke the Database Setup wizard, choose File, Database Setup.
5. Select your database platform.

Note. Choose the Database Type—Unicode or Non-Unicode—that you selected in the section on multilingual strategy. If you choose Non-Unicode, select the character set you decided upon in that section.

See "Preparing for Installation," Planning Multilingual Strategy.

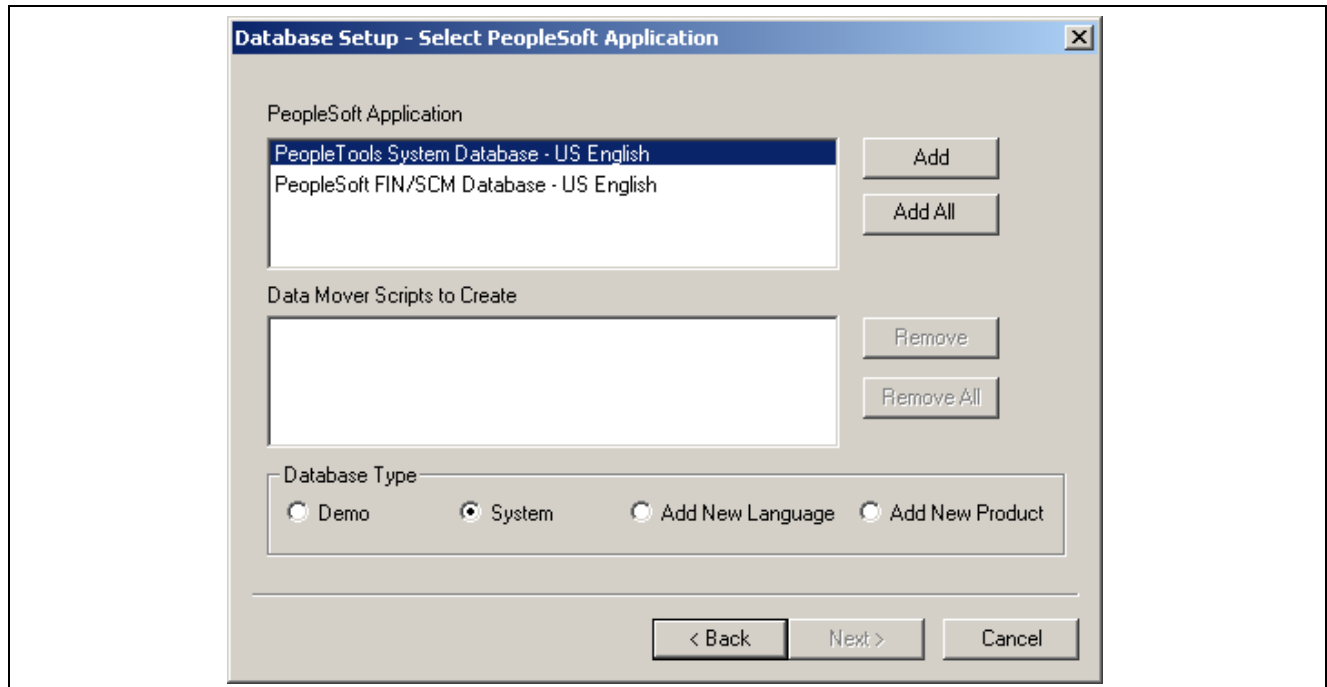
Note. The character set you select here must match the character set you used to create your database in the task Creating an Oracle Database. If you choose to create a Unicode database, you must have created your instance using the AL32UTF8 or UTF8 character set in the step Creating an Oracle Instance.

6. Select your character set and click Next.

Note. DB Setup does not actually modify the character set of your database. That is done by your DBA during database creation. DB Setup will create customized scripts based on your selections.

Note. When you select a non-Unicode character set, only the characters within that character set can be stored in your database. If you require characters from multiple character sets or scripts to be stored in a single database, Oracle recommends that you create your database using Unicode.

7. Select your PeopleSoft Application and click Next.



Selecting a PeopleSoft application in the Database Setup dialog box

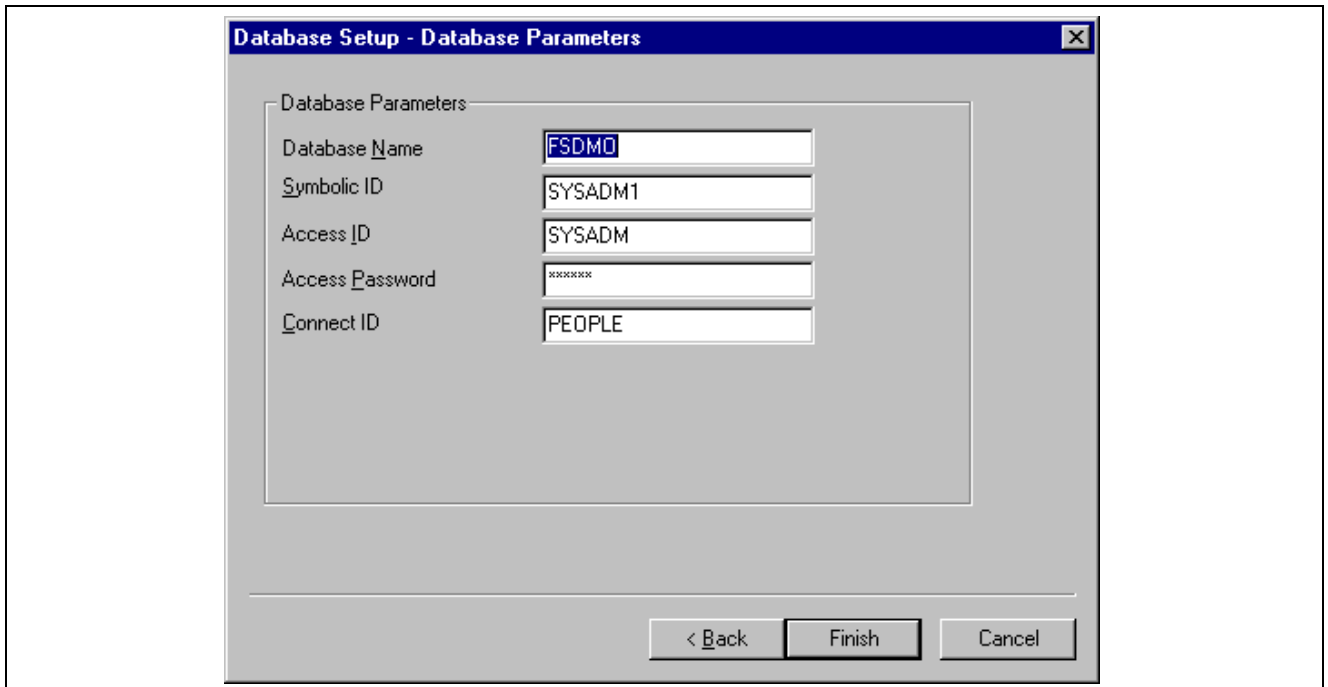
8. Select the Demo or System radio button, depending on which type of PeopleSoft database you are installing.
9. Select the Products for which you want to create a Data Mover script from the PeopleSoft Application list box, and move the items you have selected into the Data Mover Scripts to Create list box by clicking on the Add or Add All button.

If you installed the Multilanguage CD, each application will be listed several times, once for each language. If you are installing languages other than English, make sure to select the appropriate language data files for each application you select in English. This will load the translated database objects.

See "Preparing for Installation," Planning Multilingual Strategy.

If you are installing an application in any language other than English, you must also select the English component of the application. For example, if you select PeopleSoft Fin/SCM - French, you must also select PeopleSoft Fin/SCM Database - US English. This ensures that you install the necessary base-language components.

10. Set the database parameters and click Next.



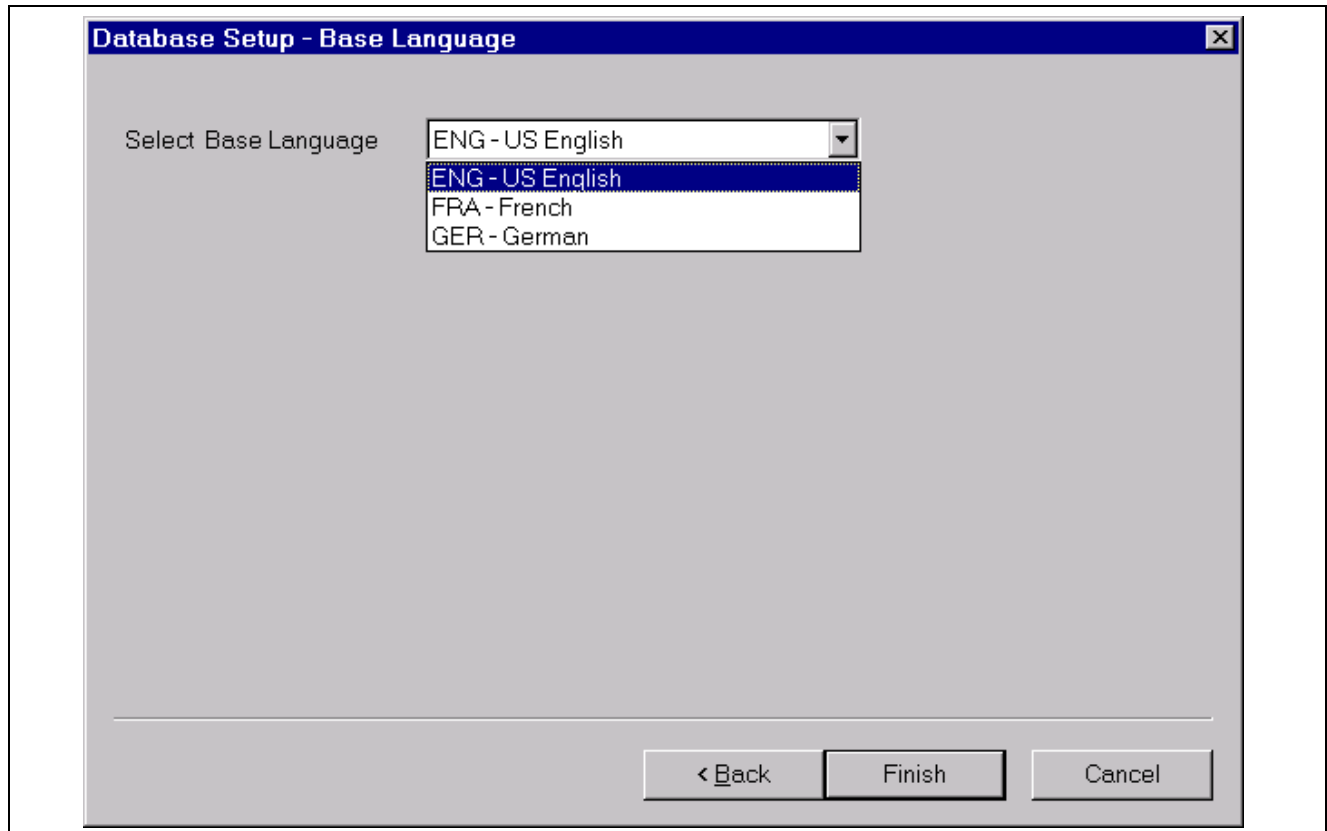
Selecting the database parameters in the Database Setup dialog box

- *Database Name:* The database name that users will enter on the PeopleSoft signon screen. This corresponds to the owner ID. It can be up to eight characters long and must be entered in uppercase.
- *Symbolic ID:* This is used as the key to retrieve ACCESSID and ACCESSPSWD from PSACCESSPRFL. For initial installation set it equal to the Database Name. The symbolic ID cannot be longer than eight characters.
- *Access ID:* This is the user you used to create the database. Limit this to eight characters or less. This value is case sensitive. You will use the access ID every time you want to sign on to Data Mover in bootstrap mode. Limit this to eight characters or less.
- *Access ID Password:* This is the PeopleSoft access ID password defined in chapter 1. Limit this to eight characters or less.
- *Connect ID:* For Oracle, this is the connect ID that is used for the initial connection to Oracle. This ID is used for connecting to the database. Limit this to eight characters or less.

11. Select your database's base language and click *Finish*.

Note. This screen appears only if you selected a database for a language other than English. If you see this screen it is critical to select the correct base language. When you select a base language other than ENG, DBSETUP generates the Data Mover import script with the SWAP_BASE_LANGUAGE command to swap the base language.

At this point you are in Data Mover, with the DMS script you just created ready to run.



Selecting a base language in the Database Setup dialog box

Use the following information in making your selection:

- If you have not already done so, read the first chapter before determining whether to install multiple languages and whether to change your base language.

See "Preparing for Installation," Planning Multilingual Strategy

- If you are creating a database and want to load Oracle-provided translations for non-English languages, you must load English (ENG) in addition to the foreign language components.
- All PeopleSoft releases are shipped with English as the database's base language. Therefore when selecting components for the Data Mover Import script, you must select the English components in addition to any other languages you have licensed. During the Database Setup wizard, you need to select the database's base language that you plan to use most frequently. If your database's base language is different than the Database Setup wizard generate the `SWAP_BASE_LANGUAGE` command in the Data Mover Import script to swap the language.
- If you are creating a non-Unicode database, you must ensure that the languages you select are all supported by the character set you used to create your database.

Task 6A-15: Running Data Mover Import Scripts

This section discusses:

- Understanding Data Mover Import Scripts

- Populating Tables in the PeopleSoft Database
- Validating Files
- Troubleshooting
- Improving Performance

Understanding Data Mover Import Scripts

Now you will run the Data Mover scripts (DMS) that you created in the preceding task to import the data for your PeopleSoft database. The Data Mover script creates either a system (SYS) or a demo (DMO) database.

When you initially logged onto Data Mover to create the DMS scripts, you logged in using bootstrap mode. *Bootstrap mode* means starting Data Mover with the database Access ID and password, rather than with a PeopleSoft user ID. You need to use bootstrap mode to run the Data Mover import script, because there are not yet any PeopleSoft security tables in the database.

When you start Data Mover in bootstrap mode, the word “BootStrap” appears in the Data Mover status bar.

See *PeopleTools 8.52: Data Management PeopleBook*.

Task 6A-15-1: Populating Tables in the PeopleSoft Database

To populate tables in the PeopleSoft database:

1. The DMS import script for your application will contain hard-coded file names for log files and data files.
Modify the DMS script if you have moved any files from the delivered directories or want to write log files to another location than that specified in the script.
2. Select File, Run to execute the script.

When you run the script, Data Mover typically does the following:

- **IMPORT ***
Create all the PeopleTools and application tables with their indexes.
- **ENCRYPT_PASSWORD ***
Encrypt security information for the database.
- **CREATE_TRIGGER ***
Create application required triggers.
- **REPLACE_VIEW ***
Create PeopleSoft views.
- **CREATE_TEMP_TABLE ***
Create PeopleSoft temporary tables.

Task 6A-15-2: Validating Files

Each script will produce .LOG files. The log files are located in the directory you specified in the Data Mover Script.

Examine these files after each run to make sure that all the commands were executed successfully.

Task 6A-15-3: Troubleshooting

If your script has stopped midway (this can happen for a number of reasons) you need to edit the script and start again.

To edit and restart the DMS script:

1. Determine the record that was being imported (that is, which IMPORT command was running) when the script stopped. (See the note below for additional information on determining where the script stopped.)

Note. When building a DMO database or a multilingual database, adding the SET START statement can be tricky because the Data Mover script used to load the database will include more than one IMPORT statement. The key is to view the LOG files and determine which IMPORT section of the script Data Mover failed on. If the failure occurred during the first IMPORT, add the SET START statement before the first IMPORT *; statement (no problem with this one). If the failure occurred during a subsequent IMPORT, comment out all preceding IMPORT *; statements and add the SET START statement before the IMPORT *; statement of the section in which the failure occurred. This is very important. If you see any 'unique index constraint' error messages in the 'Create Indexes' step (found later in the chapter), your IMPORT script failed during a subsequent IMPORT but the SET START statement was added to the first IMPORT. In this situation, you can run the Data Mover script in its originally generated form, with only one modification. In the first IMPORT section, change the statement IMPORT *; to REPLACE_DATA *;. This will delete all the data in the tables, and re-import it. This process will take some time to run, and you will need to separately create each of the indexes that failed.

2. Add the following line before the offending IMPORT command (the one being executed when the failure occurred):

```
Set start <RECORD NAME>;
```

where <RECORD NAME> is the name of the record that failed. Make sure to review the Data Mover log file to see where the script failed and locate the last record that imported successfully. The 'SET START' will begin the Data Mover import at the <RECORD NAME> specified.

Note. It is a good idea to change the name of the log file in the script before each attempt at running it. This ensures that you have a separate log file for each attempt, if you run the import more than once.

Example:

If the script stops and the table is partially inserted with a message similar to this one:

```
Importing PSPNLFIELD
Rows inserted into PSPNLFIELD

3000
```

First drop the partially inserted table (for example, record) by using the DROP TABLE command, and then restart Data Mover at the record that failed using the SET START command and continue the Data Mover import. With PeopleSoft PeopleTools 8.4x, this can be done in a single pass.

Add the following lines before the offending IMPORT command (the one being executed when the failure occurred):

```
SET START <RECORD NAME>;

DROP TABLE <RECORD NAME>;
```


where <RECORD NAME> is the name of the record that failed. Make sure to review the Data Mover log file to see where the script failed and locate the last record that imported successfully. The SET START will begin the Data Mover import at the <RECORD NAME> specified. For example:

Before

```
REM - PeopleTools System Database - US English
/
SET LOG ptengs.log;
SET INPUT ptengs.db;

SET COMMIT 30000;

SET NO VIEW;
SET NO SPACE;
SET NO TRACE;
SET UNICODE OFF;
IMPORT *;
```

After

```
REM - PeopleTools System Database - US English
/
SET LOG ptengs.log;
SET INPUT ptengs.db;

SET COMMIT 30000;

SET NO VIEW;
SET NO SPACE;
SET NO TRACE;
SET UNICODE OFF;
SET START PSPNLFIELD;

DROP TABLE PSPNLFIELD;

IMPORT *;
```

For the DROP Statement, for records with a rename without a leading PS, add PS_ to the beginning of the rename; otherwise the table will not be found.

Example:

```
PS_<RENAME>
```

3. Re-start the script (File, Run Script).

Task 6A-15-4: Improving Performance

The following tips can help you save time when running the Data Mover scripts:

- Run Data Mover on the database server.
- Run only a single instance of Data Mover, and do not have any other applications running during the import.

- In the PeopleSoft Configuration Manager, turn off all Trace options. Tracing during a DMS load will add considerable time to the process.
- Run Data Mover on the database server with the .db or .dat file located locally.

If you are comfortable changing the options available for an Oracle instance, you might consider tuning the instance used for the import. Some of these options are appropriate only during the import, so you may not want to keep them in effect after the import is complete.

For best performance during a Data Mover import, set these options as follows:

- Increase the number of database blocks.
- Use an 8K Oracle block size.
- Use very large rollback segments.
- Increase the size of the UNDO tablespace or the number of UNDO Segments.
- Use asynchronous read and write.
- Use multiple db_writers.

Task 6A-16: Changing the Base Language

The information in chapter 1, “Preparing for Installation,” will help you determine whether you should change your base language, and lists the currently supported languages.

See "Preparing for Installation," Planning Multilingual Strategy.

This task applies only if your users will be operating PeopleSoft applications *primarily* in one particular language other than English. It gives a performance boost to the language you designate as the base language, but requires more administrative overhead than leaving English as the base language. The details are spelled out in the following PeopleBook:

See *PeopleTools 8.52: Global Technology PeopleBook*.

CHAPTER 6B

Creating a Database on UNIX

This chapter discusses:

- Understanding the Database Configuration Wizard
- Fulfilling PeopleSoft Database Configuration Wizard Prerequisites
- Running the Database Configuration Wizard
- Checking the Log Files and Troubleshooting

Understanding the Database Configuration Wizard

The Database Configuration Wizard is a tool designed to simplify your PeopleSoft database installation. When you run the Database Configuration Wizard, Data Mover is also running silently.

See *PeopleTools 8.52: Data Management PeopleBook*.

Important! Do not forget that application-specific installation steps are provided in a separate document specific to the application. For instance, if you are performing PeopleSoft CRM installation, you need both this PeopleSoft PeopleTools installation guide and you also need any additional instructions provided by CRM. My Oracle Support provides installation guides that are specific to your application.

See My Oracle Support, (search for “installation,” the application name, and release).

You also have the option of using a manual process for creating a PeopleSoft database, instead of using the Database Configuration Wizard. The manual process is mandatory for some configurations.

Important! The Database Configuration Wizard cannot be used for z/Linux. To create a database on that operating system platform, you must use the manual method of creating a database.

Important! The Database Configuration Wizard cannot be used with Oracle RAC. To create a database with this database platform, you must use the manual method of creating a database.

See *PeopleTools 8.52: Data Management PeopleBook*, “Administering PeopleSoft Databases on Oracle,” Setting Up the PeopleSoft Installation with Oracle RAC.

Important! The Database Configuration Wizard cannot be used for an Unicode database on an Oracle database version lower than 11g. You must use the manual method of creating a database for this configuration.

See "Creating a Database Manually on UNIX."

After you complete the tasks in this chapter, read the chapter “Completing the Database Setup.” Depending upon your environment, you may not need to carry out every task in that chapter. However it is important that you evaluate the requirements and perform the necessary tasks.

Task 6B-1: Fulfilling PeopleSoft Database Configuration Wizard Prerequisites

This section discusses:

- Installing the PeopleSoft Database Server Components on the Database Server
- Installing the Oracle RDBMS Software
- Creating an INIT<SID>.ORA File
- Creating Target Directory Paths
- Setting Up Target Database Connectivity
- Running the Shell Script psconfig.sh

Task 6B-1-1: Installing the PeopleSoft Database Server Components on the Database Server

To run the PeopleSoft Database Configuration Wizard, your setup *must* fulfill these requirements:

- You must have installed the PeopleSoft PeopleTools software on your database server by running the PeopleSoft Installer.
- You must have chosen the Database Server option during the PeopleTools software installation.
- You must have installed the Database component of your application installation software to your database server.
- You must have the PeopleTools Development Environment set up to create your database.
- You must have the Oracle Tuxedo software installed before you run the Database Configuration Wizard.

The Database Configuration Wizard invokes the PeopleSoft Data Mover utility. Data Mover on the UNIX platform has a dependency on the Oracle Tuxedo software.

- You must run the Database Configuration Wizard at the database server.

Be sure the UNIX login ID executing the Database Configuration Wizard has sufficient read and write permissions on this server. Ideally the UNIX login ID executing the Database Configuration Wizard is part of the same UNIX group that the Oracle RDBMS owner is part of, usually the DBA group.

See Also

"Using the PeopleSoft Installer"

PeopleTools 8.52: System and Server Administration PeopleBook, "Using PeopleSoft Configuration Manager"

Task 6B-1-2: Installing the Oracle RDBMS Software

The Oracle RDBMS software must be installed before you run the Database Configuration Wizard. The following discussion assumes that you are familiar with Oracle administration tasks. During the execution of the Wizard, references are made to an existing Oracle RDBMS installation:

\$ORACLE_HOME and \$ORACLE_HOME/bin

Note. The PeopleSoft Database Configuration Wizard supports either Oracle 10g (non-Unicode configuration only) or Oracle 11g.

Task 6B-1-3: Creating an INIT<SID>.ORA File

You must create an init.ora with the naming convention of init<SID>.ora in the *ORACLE_HOME*/db directory of your Oracle installation.

Add or modify the following init.ora parameters:

```
DB_NAME = <SID>

DB_FILES = specify max allowed per your OS, typically 1021

CONTROL_FILES = (/filesystem1/cntrl1<SID>, /filesystem2/cntrl2<SID>)

OPEN_CURSORS = 1000 <This is a minimum value. You may choose to set this higher>

db_block_size = 8192
```

Note. For UNIX the default DB_BLOCK_SIZE in the init<SID>.ora file is operating system dependent. On most operating systems the default is 8192 or 8K. For PeopleSoft ANSI databases this is more than adequate. For PeopleSoft Unicode databases (for example, CHARACTER_SET AL32UTF8), a DB_BLOCK_SIZE value of 8K is required.

PeopleSoft PeopleTools 8.48 and later introduced the ability to utilize an Oracle feature called CHARACTER LENGTH SEMANTICS for Unicode databases. When CHARACTER LENGTH SEMANTICS is utilized, PeopleSoft no longer needs to triple the VARCHAR2 datatype columns in our schema definitions. You can only take advantage of this new behavior for Unicode database character columns if you upgrade to PeopleSoft Application 9.0 and upgrade to at least PeopleSoft PeopleTools 8.48. A database conversion is necessary for utilizing CHARACTER LENGTH SEMANTICS and this conversion process is tied to the PeopleSoft Application 9.0 or higher upgrades.

You are required to set the NLS_LENGTH_SEMANTICS=CHAR init.ora parameter for any PeopleSoft installation only if the following conditions are met:

You are installing a Unicode database, *and* the installation is PeopleSoft Applications 9.0 or higher releases on PeopleTools 8.48 or higher. If necessary, verify the PeopleTools release for your PeopleSoft Application using this SQL script:

```
select TOOLSREL from PSSTATUS
```

It is very important that you set this parameter at the correct point during database creation. Database creation consists of running several scripts before loading the database with Data Mover, as follows:

```
CREATEDB10.SQL
UTLSPACE.SQL
XXDDL.SQL
```

```

DBOWNER.SQL
PSROLES.SQL
PSADMIN.SQL
CONNECT.SQL

```

If you are running with Oracle database version lower than 11g, set the `NLS_LENGTH_SEMANTICS=CHAR` after the database instance has been created running these scripts or right before the Data Mover load.

To do this, modify the `init<SID>.ora` to add the `NLS_LENGTH_SEMANTICS=CHAR` parameter, and then shut down and restart the database instance.

If you are running with Oracle 11g or higher, you can set the parameter `NLS_LENGTH_SEMANTICS=CHAR` at the beginning of database creation or right before the Data Mover load.

PeopleSoft PeopleTools supports Oracle 10g and Oracle 11g. The PeopleSoft scripts are delivered to work across all versions of the Oracle RDBMS that Oracle will support for this release of PeopleSoft PeopleTools.

The Database Configuration Wizard will prompt you for a SID name. This `init<SID>.ora` will be referenced in the `CREATEDB10.SQL` script, which is executed by the Database Configuration Wizard.

If you choose to use an Oracle Password file, you must create one using the `ORAPWD` utility, as illustrated in this example:

```

Set ORACLE_SID=FDMO
orapwd file=$ORACLE_HOME/dbs/pwdtemp2.ora password=manager entries=5

```

If you choose not to use an Oracle Password file, make one of the following changes to the `init.ora` file. This must be done *before* running the `CREATEDB10.SQL` script.

- Comment out or remove this line:

```
#remote_login_passwordfile=EXCLUSIVE
```

- Set the parameter to *NONE*:

```
remote_login_passwordfile=NONE
```

Note. The `init<SID>.ora` will reference “target” directories to write control files, log files, and system files, as well as target locations for Oracle Logs, User Trace Files, and so on. These “target” directory paths must exist or the Database Configuration Wizard will fail. See the following section, [Creating Target Directory Paths](#), for details.

In addition to considering the parameters listed above, review the documentation on patches required for installation on My Oracle Support for more parameters that may be required for the `init<SID>.ora` file.

See Also

"Operating System, RDBMS & Additional Component Patches Required for Installation PeopleTools," My Oracle Support, (search for the article name and your release)

Task 6B-1-4: Creating Target Directory Paths

As mentioned, you must create the directory path structure for the target directories referenced in the scripts executed by the Database Configuration Wizard. The Database Configuration Wizard will not create directories on the fly; it expects the directories to exist.

The <SID> variable for which the Database Configuration Wizard prompts you is automatically prepended to the directory path structure referenced in the various database creation scripts executed by the Database Configuration Wizard.

Note. If you want to use something other than the delivered directory paths, you need to modify the CREATEDB10.SQL, UTLSPACE.SQL, and xxDDL.SQL scripts in the scripts directory under *PS_HOME*, replacing the delivered paths with paths appropriate for your site installation prior to running the Database Configuration Wizard.

Note. Cross check xxDDL.SQL with PTDDL.SQL and if PTDDL.sql has bigger tablespace sizes than xxDDL.SQL, increase the size of the tablespaces to at least as much in PTDDL.SQL

You are also asked for several mount points. On UNIX you just specify the File System mount point. An example is *data1*. (Note that no preceding slash is required.)

Here are some examples of directory path structure references:

- The delivered CREATEDB10.SQL script makes the following directory path structure references:

Note. Portions of the script have been omitted for clarity.

```
startup nomount pfile=$ORACLE_HOME/dbs/init<SID>.ora
datafile
  '/u01/oradata/<SID>/system01.dbf'          size 400M
logfile
  '/u01/oradata/<SID>/log01.dbf'             size 70M,
  '/u01/oradata/<SID>/log02.dbf'             size 70M,
  '/u01/oradata/<SID>/log03.dbf'             size 70M;
```

- The init<SID>.ora parameter file that is referenced in the CREATEDB10.SQL script makes the following directory path structure references:

Note. Portions of the init<SID>.ora parameter file have been omitted for clarity. These paths are hardcoded by the user creating the init<SID>.ora parameter file. The Data Configuration Wizard will not make any substitutions for mount point, target directory path, or <SID> in the init<SID>.ora file.

Control file references:

```
control_files = ('/u01/oradata/test92/control01.ctl', '/u01/oradata/test92⇒
/control02.ctl', '/u01/oradata/test92/control03.ctl')
```

Trace and Alert Log file references:

```
# define directories to store trace and alert files
background_dump_dest = /products/oracle/admin/test92/bdump
core_dump_dest = /products/oracle/admin/test92/cdump
user_dump_dest = /products/oracle/admin/test92/udump
```

- The delivered UTLSPACE.SQL script makes the following directory path structure references:

Note. Portions of the script have been omitted for clarity.

```
CREATE TEMPORARY TABLESPACE          PSTEMP
```

```

TEMPFILE          'u03/oradata/<SID>/pstemp01.dbf'      SIZE 300M
EXTENT MANAGEMENT LOCAL UNIFORM SIZE 128K;

CREATE TABLESPACE PSDEFAULT
DATAFILE          'u03/oradata/<SID>/psdefault.dbf'      SIZE 10M

EXTENT MANAGEMENT LOCAL AUTOALLOCATE;
    INITIAL        100K
    NEXT           100K
    PCTINCREASE    0 );

```

- The delivered XXDDL.SQL scripts make the following directory path structure references:

Note. This is a sample of the first several Create Tablespace SQL statements in the xxDDL.SQL script. The rest of the script has been omitted here for clarity.

```

CREATE TABLESPACE PSIMAGE DATAFILE '/u01/oradata/<SID>/psimage.dbf' SIZE 8M
EXTENT MANAGEMENT LOCAL AUTOALLOCATE
/
CREATE TABLESPACE PSINDEX DATAFILE '/u01/oradata/<SID>/psindex.dbf' SIZE 64M
EXTENT MANAGEMENT LOCAL AUTOALLOCATE
/
CREATE TABLESPACE PTAPP DATAFILE '/u01/oradata/<SID>/ptapp.dbf' SIZE 4M
EXTENT MANAGEMENT LOCAL AUTOALLOCATE
/

```

Task 6B-1-5: Setting Up Target Database Connectivity

You must add a TNS entry to \$ORACLE_HOME/network/admin/tnsnames.ora, because during the Data Mover Load phase, the Database Configuration Wizard will try to connect to the newly created SID by means of a remote connection string—for example:

```
ACCESSID/ACCESSPWD@TNS_ALIAS
```

Update the connection information in TNSNAMES.ORA on your server to reflect your Database Name, Oracle SID, and Server Name.

Note. Make sure that you stop and start (or reload) the Oracle Net listener.

Task 6B-1-6: Running the Shell Script psconfig.sh

The shell script psconfig.sh sets up the environment for Data Mover to run. The PeopleSoft Data Mover utility is used to load the database.

To run psconfig.sh:

1. Change the directory to *PS_HOME*.
2. Run psconfig.sh (. ./psconfig.sh)

Note. The PeopleSoft UNIX user ID executing the Database Configuration Wizard has to be part of the Oracle DBA group or the PeopleSoft UNIX user ID must grant the UNIX Oracle Administration ID write permission to the following directories in *PS_HOME*: log, modifiedscripts, and scripts.

Task 6B-2: Running the Database Configuration Wizard

When you run the Database Configuration Wizard, Data Mover typically does the following:

1. **IMPORT ***
Create all the PeopleTools and application tables with their indexes.
2. **ENCRYPT_PASSWORD ***
Encrypt security information for the database.
3. **CREATE_TRIGGER ***
Create application-required triggers.
4. **REPLACE_VIEW ***
Create PeopleSoft views.
5. **CREATE_TEMP_TABLE ***
Create PeopleSoft temporary tables.

If Data Mover fails at any of the above steps, it will complete the rest of the steps but will not start the next step—instead the Database Configuration Wizard aborts and tells the user what file to review for the detailed error message. If Data Mover fails at step 1 or 2, it is fatal. If Data Mover fails at step 3 or 4, it is not necessarily fatal. You may continue the next step(s) manually.

Note. During UNIX console mode installation, you can go back to the previous steps whenever you see the instruction: Press 1 for Next, 2 for Previous, 3 to Cancel or 5 to Redisplay [1] . Choose 2 for Previous.

To run the Database Configuration Wizard:

1. Go to *PS_HOME/setup/PsMpDbInstall*.
2. Launch the installation using the command `setup.sh`:
See the chapter “Using the PeopleSoft Installer” for additional flags, or for details about running in GUI mode.
See "Using the PeopleSoft Installer," Running the PeopleSoft Installer.
3. You see the following prompt:


```
Welcome to the PeopleSoft Database Configuration Wizard 8.52
```



```
This Wizard will assist you in configuring and loading a PeopleSoft database.
```



```
PRESS <ENTER> TO CONTINUE:
```
4. Press ENTER to continue.

5. Specify the location of *PS_HOME*—the high-level directory where the PeopleSoft PeopleTools software is installed—and press ENTER.

Please enter an installation location or press <ENTER> to accept the default
(DEFAULT: [/ds1/ora/PT852]) **/ds1/certora/PT852**

Press 1 for Next, 2 for Previous, 3 to Cancel or 5 to Redisplay [1]

6. Press ENTER to continue
7. Specify the location of *PS_APP_HOME*—the high-level directory where the PeopleSoft Application software is installed—and press ENTER.

Note: If you have installed PeopleSoft Applications outside PeopleTools *PS_HOME* then choose the PeopleSoft Applications home *PS_APP_HOME*, else leave the⇒ default *PS_HOME*.

Choose the directory where you previously installed PeopleSoft Applications, commonly known as *PS_APP_HOME*. or press <ENTER> to accept the default
(DEFAULT: /ds1/ora/PT852): **/ds1/ora/CRM91-slc00caz**

Press 1 for Next, 2 for Previous, 3 to Cancel or 5 to Redisplay [1] :

Note. If the *PS_APP_HOME* is different from the *PS_HOME* then all the modified scripts will be created under *PS_APP_HOME*modifiedscripts, and all the DCW logs will be created under *PS_APP_HOME*logs.

8. Select whether you want to create a Unicode or non-Unicode database, and press ENTER.

For a database platform of Oracle, are you installing:

Database Create Type:

- 1 - Unicode
- >2 - Non-Unicode

To select an item enter its number, or 0 when you are finished [0]: 0

9. Select the desired character set and press ENTER.

This character set selection is substituted and used in the CREATEDB10.SQL script.

Select Character Set:

- 1 - Western European ISO 8859-1
- >2 - Western European ISO 8859-15 (with Euro sign)
- 3 - Microsoft Windows Latin-1 CP1252
- 4 - US 7-bit ASCII
- 5 - Japanese Shift-JIS

To select an item enter its number, or 0 when you are finished [0]: 0

10. The Database Configuration Wizard detects which database files are available for loading. Select the appropriate PeopleSoft database type to load and press ENTER to continue.

You will only see the database types that are valid based on the PeopleSoft Application Modules that you have installed.

Database Create Type:

```
->1 - Demo
    2 - System
    3 - PeopleTools System
```

To select a choice enter its number, or 0 when you are finished [0]: 2

Press 1 for Next, 2 for Previous, 3 to Cancel or 5 to Redisplay [1]

Note. See the manual database creation appendix for further details about PeopleSoft database types.

11. Select the PeopleSoft application database you want to load, pressing ENTER when you are done. (The available selections will depend upon which application software you have installed.)

Select PeopleSoft Application:

```
1 - PeopleSoft Fin/SCM Database Objects - US English
```

To select a choice enter its number, or 0 when you are finished [0]: 0

Press 1 for Next, 2 for Previous, 3 to Cancel or 5 to Redisplay [1]

If you installed the Multilanguage software, each application will be listed several times, once for each language. If you are installing languages other than English, make sure to select the appropriate language data files for each application you select in English. This will load the translated database objects.

See "Preparing for Installation," Planning Multilingual Strategy.

If you are installing an application in any language other than English, you must also select the English component of the application. For example, for HRMS if you select HR-French, you must also select HR-English. This ensures that you install the necessary base-language components.

12. When prompted for the location of \$ORACLE_HOME/bin and \$ORACLE_HOME, modify the locations as necessary.

Specify the directory path for 'sqlplus'

Please specify a directory name or press Enter

```
[/products/oracle/10.2.0-64bit/bin] /products/oracle/10.2.0-64bit/bin
```

Specify the location for ORACLE_HOME

Please specify a directory name or press Enter

```
[/products/oracle/10.2.0-64bit] /products/oracle/10.2.0-64bit
```

13. You see the following informational prompt:

Note. The modifiedscripts directory is populated based on the *PS_APP_HOME* path that you entered in an earlier step.

Location of modified scripts:

```
/ds1/certora/PT852/modifiedscripts
```

Please press Enter to Continue

14. At this point, indicate your Oracle version. In addition, choose to either create an Oracle SID and load a PeopleSoft database, or use an existing Oracle SID to load the PeopleSoft database. For a new installation you must create a new Oracle SID.

Note. The available options depend upon the operating system you are running on.

Do you want to create a new SID or use the existing one?

1 - Use existing SID
->2 - Create new SID

To select a choice enter its number, or 0 when you are finished [0]: 1

Please press Enter to Continue

The PeopleSoft Database Configuration Wizard supports Oracle 10g and Oracle 11g. Select the appropriate Oracle version. Then either create an Oracle SID and load a PeopleSoft database or use an existing Oracle SID to load the PeopleSoft database. These instructions assume you use an existing SID.

15. The following dialog requests Oracle server and SID information. Whichever option you chose in the previous step, the following prompts will remain the same. The Database Configuration Wizard will use just the information it needs to complete the tasks necessary based on whether you chose to create a new SID or use an existing one.

Note. You must use all uppercase text for the Oracle SID and the database name.

Note. No preceding slash is required for the mount points.

Please enter oracle server information

Oracle SID [PTSYS] **TEST920**

Database Name [PTSYS] **PT852**

Mount Point 1 (for SYSTEM and REDO LOGS file in createdb10.sql, ex: NT 'C', =>
UNIX =>
'u01') [c] **ds1**

Mount Point 2 (for PSTEMP and PSDEFAULT file in utlspace.sql, ex: NT 'C' , =>
UNIX 'u01') [c] =>
ds1

Mount Point 3 (for all files in xxddl.sql, ex: NT 'C' , UNIX 'u01') [c] **ds2**

Enable AutoExtend for Peoplesoft Tablespaces?

->1 - Yes
2 - No

To select a choice enter its number, or 0 when you are finished [0]: 0

Please press Enter to Continue

16. Next you are asked for additional Oracle server information.

Please enter oracle server information

Peoplesoft owner ID (ex: 'sysadm')

[sysadm] **PT852**

Peoplesoft owner password (ex: 'sysadm')

(Type in your password here.)

[] **PT852**

Note. Whatever you type as your password will not be displayed. This is true for the connect ID password.

Note. You must limit the owner ID (access ID), owner password (access password), and connect ID to eight characters or less.

Peoplesoft connect ID

[people]

Peoplesoft connect password

(Type in your password here.)

[]

Peoplesoft default tablespace (ex: 'PSDEFAULT')

[PSDEFAULT]

Note. The PSADMIN.SQL script is run by the Database Configuration Wizard for every PeopleSoft database that you are going to create. When prompted for a default tablespace name, select PSDEFAULT if you are using PeopleSoft naming conventions, or your site equivalent if you are not using PeopleSoft naming conventions.

Location of init.ora file complete path

[/ds29/products2/oracle/10.2.0/dbs/inittest920.ora] **/products/oracle/10.2.0=>
64bit/dbs/inittest920.ora**

Please press Enter to Continue

Note. The path in the preceding prompt for init<SID>.ora must match the path of the init<SID>.ora file you created under the task "Fulfilling PeopleSoft Database Configuration Wizard Prerequisites" earlier in this chapter.

17. Select the base language (the default is US English) and press ENTER.

```
Select Base Language:
->1 - ENG - US English
```

```
To select an item enter its number, or 0 when you are finished [0]: 0
```

```
Press 1 for Next, 2 for Previous, 3 to Cancel or 5 to Redisplay [1]
```

The Select base language selection is used to determine what primary base language the customer wants to run their PeopleSoft application on. If you choose a language other than English, the base language will be swapped during the database creation script.

See "Planning for Installation," Planning Multilingual Strategy.

This step applies only if your users will be operating PeopleSoft applications primarily in one particular language other than English. This step gives a performance boost to the language you designate as the base language, but would require more administrative overhead than leaving English as the base language does.

See *PeopleTools 8.52: Global Technology PeopleBook*.

18. You see a confirmation dialog indicating the selected database configuration.

```
Peoplesoft Database Configuration will be installed in the following location:
```

```
Install Folder:
  /ds1/certora/pt852
```

```
PeopleToolsOraUnixFeature
```

```
Apps Install Home:
  /ds1/certora/CRM91
```

```
Database Platform:
```

```
  Oracle - Non-Unicode
```

```
Oracle SID:
  CR
```

```
Application:
  PeopleTools System Database - US English
```

```
Database Name:
```

```
  CR
```

```
Please type 'back' to go to previous panels
```

```
PRESS <ENTER> TO CONTINUE:
```

19. Press ENTER. You see a number of messages indicating the progress of the processes being run.

```
Installing Peoplesoft Database Configuration... Please wait.
The ORACLE_SID Environment Variable has been updated to "test920"
```

Up to this point the message(s) indicating progress will be identical.
 Beyond this point they will differ based on which option you chose above,⇒
 Create a New Sid or Use an Existing SID.

Note. It is always a good idea to let the installation run through even if you encounter a problem. If for any reason you manually abort the installation, you will need to delete the file vpd.properties in order for the Database Configuration Wizard to successfully update SID when you run again. The file vpd.properties is located under your home directory.

20. If you chose to use an existing SID, you see Database Configuration Wizard messages like this:

Note. The messages are displayed on the console to indicate real time progress of the Database Configuration Wizard. All messages are also written to log files contained in the *PS_HOME*/log directory.

You see a message for every SQL script the Database Configuration Wizard executes, regardless of which option you have chosen.

```
Installing Peoplesoft Database Configuration... Please wait.
The ORACLE_SID Environment Variable has been updated to 'test920'
```

```
Executing psadmin.sql for oracle(UNIX)...
```

```
Executing connect.sql for oracle(UNIX).....
```

Note. At this step, DBSetup is invoked via Data Mover to generate the input Data Mover script. This script can be found in the *PS_HOME*/scripts directory.

```
Initializing Data Mover ... please wait

PeopleTools 8.52 - Data Mover
Copyright (c) 2009 PeopleSoft, Inc.
All Rights Reserved
Started: Thu Jan 3 19:39:02 2009
Data Mover Release: 8.52
Database: PT852
Creating Database setup script /PT852/scripts/PT852.dms
Ended: Thu Jan 3 19:39:02 2009
Successful completion
Initializing Data Mover ... please wait
```

Note. At this step, Data Mover is invoked to execute the input Data Mover script.

If Data Mover attempts to run and fails, you can edit and rerun the script and restart Data Mover. This procedure is covered in the next section. If the process fails before Data Mover begins, run the script DBSetup.dms.

See Checking the Log Files and Troubleshooting.

PeopleTools 8.52 - Data Mover

```

Copyright (c) 2009 PeopleSoft, Inc.
All Rights Reserved
Started: Thu Jan 3 19:39:40 2009
Data Mover Release: 8.52
Database: PT852
Importing ACCESS_GRP_LANG
Creating Table ACCESS_GRP_LANG
Import ACCESS_GRP_LANG 0
Building required indexes for ACCESS_GRP_LANG
Updating statistics for ACCESS_GRP_LANG
Records remaining: 1098
Importing ACCESS_GRP_TBL
Creating Table ACCESS_GRP_TBL
Import ACCESS_GRP_TBL 47
Building required indexes for ACCESS_GRP_TBL
Updating statistics for ACCESS_GRP_TBL
Records remaining: 1097

```

Note. A portion of the messages generated at this step have been omitted for clarity.

```

Importing XMLSERVICEINFO
Creating Table XMLSERVICEINFO
Import XMLSERVICEINFO 0
Building required indexes for XMLSERVICEINFO
Updating statistics for XMLSERVICEINFO
Records remaining: 1
Importing PSSTATUS
Creating Table PSSTATUS
Import PSSTATUS 1
Building required indexes for PSSTATUS
Updating statistics for PSSTATUS
SQL Spaces: 0 Tables: 1099 Triggers: 0 Indexes: 1399 Views: 0
SQL Successful - INSERT INTO PS.PSDBOWNER VALUES('PT852', 'PT852')
SQL Successful - UPDATE PSSTATUS SET OWNERID = 'PT852'
SQL Successful - UPDATE PSOPRDEFN SET SYMBOLICID = 'test920', OPERPSWD =>
OPRID, ENCRYPTED = 0
SQL Successful - UPDATE PSACCESSPRFL SET ACCESSID = 'PT852', SYMBOLICID =>
'test920', ACCESSPSWD = 'PT852', VERSION = 0, ENCRYPTED = 0
SQL Successful - UPDATE PSOPTIONS SET LICENSE_CODE = 'fffffffffffffffffff=>
fffffffffffff2', LICENSE_GROUP = '06'
SQL Successful - GRANT SELECT ON PSSTATUS TO people
SQL Successful - GRANT SELECT ON PSOPRDEFN TO people
SQL Successful - GRANT SELECT ON PSACCESSPRFL TO people
SQL Successful - CREATE VIEW SYSKEYS (IXCREATOR, IXNAME, COLNAME, COLNO,>
COLSEQ, ORDERING, FUNCTION) AS SELECT A.OWNERID, B.INDEX_
NAME, B.COLUMN_NAME, B.COLUMN_POSITION, B.COLUMN_POSITION, 'a', ' ' FROM P=>
SSTATUS A, USER_IND_COLUMNS B
SQL Successful - CREATE VIEW SYSINDEXES (TBCREATOR, NAME, TBNAME, CREATO R,>
UNIQUERULE, COLCOUNT, IXTYPE, CLUSTERRULE, IXSIZE, PERC

```



```

ENTFREE) AS SELECT TABLE_OWNER, INDEX_NAME, TABLE_NAME, TABLE_OWNER, SUBST R⇒
(UNIQUENESS,1,1), 1, 'b', 'n', 1, PCT_FREE FROM USER_INDEXES
Ended:  Thu Jan  3 20:00:32 2009
Successful completion

```

Note. At this step, the Data Mover import is complete and additional Data Mover commands and scripts are being executed. The first of these commands is ENCRYPT PASSWORD*.

```

Started:  Thu Jan  3 20:00:32 2009
Data Mover Release: 8.52
Database: PT852
Password encrypted for APPENV
Password encrypted for PSADMIN
Password encrypted for PT8
Password encrypted for PTADMIN
Password encrypted for PTAE
Password encrypted for PTAPPMMSG
Password encrypted for PTDMO
Password encrypted for PTEMPL
Password encrypted for PTEND
Password encrypted for PTGBL
Password encrypted for PTHVAP
Password encrypted for PTIDE
Password encrypted for PTOLAP
Password encrypted for PTOPT
Password encrypted for PTPORTAL
Password encrypted for PTRPD
Password encrypted for PTQETST
Password encrypted for PTRPT
Password encrypted for PTSECADM
Password encrypted for PTSVR
Password encrypted for PTTOOLS
Password encrypted for PTUPG
Password encrypted for PTWEB
Access Profiles successfully encrypted.
Ended:  Thu Jan  3 20:00:35 2009
Successful completion

```

Note. At this step, Data Mover is executing the CREATE_TRIGGER * command.

```

Started:  Thu Jan  3 20:00:35 2009
Data Mover Release: 8.52
Database: PT852
Creating Trigger for CURRENCY_CD_TBL
Records remaining: 2
Creating Trigger for PSMPRTMPREF
Records remaining: 1
Creating Trigger for PSWORKLIST

```

```
SQL Triggers: 3
Ended: Thu Jan 3 20:00:41 2009
Successful completion
```

Note. At this step, Data Mover is executing the REPLACE_VIEW command.

```
Started: Thu Jan 3 20:00:41 2009
Data Mover Release: 8.52
Database: PT852
View PRCSOUTTYPE_VW
Views remaining: 666
View PRCSSRVROPSLANG
Views remaining: 665
View PRCSSRVROPSYS
Views remaining: 664
```

Note. A portion of the messages generated at this step have been omitted for clarity.

```
View PSTREEFLDDTLVW
Views remaining: 3
View PSTREEFLDNODVW
Views remaining: 2
View PSTREESTRCTDFVW
Views remaining: 1
View PSTREESTRCTNFVW
SQL Views: 667
Ended: Thu Jan 3 20:02:52 2009
Successful completion
```

Note. At this step, Data Mover is executing the CREATE_TEMP_TABLE * command.

```
Started: Thu Jan 3 20:02:52 2009
Data Mover Release: 8.52
Database: PT852
Creating Table MENU_LANG_TMP
Building required indexes for MENU_LANG_TMP
SQL Tables: 1 Indexes: 1
Ended: Thu Jan 3 20:02:57 2009
Successful completion
```

Note. At this step, the Data Mover steps are complete. If the Database Configuration Wizard executed successfully, you see the message below.

```
Creating Table GPFR_DASR_TMP

Creating temp table instances (5)
```

```

Building required indexes for GPFR_DASR_TMP

Records remaining: 1

Creating Table  GPFR_DASS_TMP

Creating temp table instances (5)

Building required indexes for GPFR_DASS_TMP

SQL Tables: 832  Temp Tables: 7805 Indexes: 8266

Ended: Thu Oct 16 16:35:16 2009

Successful completion

ExitCode: 0

Error: false
=====
Installation Complete
-----

Congratulations. Peoplesoft Database Configuration has been successfully⇒
installed to:

    /dsl/certora/pt852

```

Note. If the Database Configuration Wizard detected an error, you get a message similar to the one below, depending on the error encountered:

```

Checking Data Mover log ... please wait

Checking ... ptengs.log

Error Information
The installation failed to load PeopleSoft data with the following error: Error
in ptengs.log Please look into the log file(s) located under log directory for
details.

Click next to exit the installation.

    Please press Enter to Exit

```

21. If you chose to create a new SID, you see Database Configuration Wizard messages like this:

```

Installing Peoplesoft Database Configuration... Please wait.

```

The ORACLE_SID Environment Variable has been updated to 'test920'

Note. You see a message for every SQL script the Database Configuration Wizard executes, regardless of which option you have chosen.

```
Executing createdb10.sql for Oracle(UNIX).....
Executing utlspace.sql for Oracle(UNIX).....
Executing ptddl.sql for Oracle(UNIX).....
Executing dbowner.sql for Oracle(UNIX).....
Executing psroles.sql for Oracle(UNIX).....
Executing psadmin.sql for Oracle(UNIX).....
Executing connect.sql for Oracle(UNIX).....
```

Note. At this step, DBSetup is invoked from Data Mover to generate the input Data Mover script. This script can be found in the *PS_HOME/scripts* directory.

```
Initializing Data Mover ... please wait

PeopleTools 8.52 - Data Mover
Copyright (c) 2009 PeopleSoft, Inc.
All Rights Reserved
Started:  Fri Jan  4 06:24:55 2009
Data Mover Release: 8.52
Database: PT852
Creating Database setup script /dsl/home/certora/PT852/scripts/PT852ora.dms
Ended:  Fri Jan  4 06:24:55 2009
Successful completion
```

Note. At this step, Data Mover is invoked to execute the input Data Mover script.

```
Initializing Data Mover ... please wait

Started:  Fri Jan  4 06:25:27 2009
Data Mover Release: 8.52
Database: PT852
Importing  ACCESS_GRP_LANG
Creating Table  ACCESS_GRP_LANG
Import  ACCESS_GRP_LANG  0
Building required indexes for ACCESS_GRP_LANG
Updating statistics for ACCESS_GRP_LANG
Records remaining: 1098
Importing  ACCESS_GRP_TBL
```

Note. A portion of the messages generated at this step have been omitted for clarity.

```
Records remaining: 2
Importing  XMLSERVICEINFO
```

```

Creating Table XMLSERVICEINFO
Import XMLSERVICEINFO 0
Building required indexes for XMLSERVICEINFO
Updating statistics for XMLSERVICEINFO
Records remaining: 1
Importing PSSTATUS
Creating Table PSSTATUS
Import PSSTATUS 1
Building required indexes for PSSTATUS
Updating statistics for PSSTATUS
SQL Spaces: 0 Tables: 1099 Triggers: 0 Indexes: 1399 Views: 0
SQL Successful - INSERT INTO PS.PSDBOWNER VALUES('PT852', 'PT852')
SQL Successful - UPDATE PSSTATUS SET OWNERID = 'PT852'
SQL Successful - UPDATE PSOPRDEFN SET SYMBOLICID = 'prod817', OPERPSWD = OPRI0
SQL Successful - UPDATE PSACCESSPRFL SET ACCESSID = 'PT852', SYMBOLICID = 0
SQL Successful - UPDATE PSOPTIONS SET LICENSE_CODE = 'ffffffffffffffffffffffff'
SQL Successful - GRANT SELECT ON PSSTATUS TO people
SQL Successful - GRANT SELECT ON PSOPRDEFN TO people
SQL Successful - GRANT SELECT ON PSACCESSPRFL TO people
SQL Successful - CREATE VIEW SYSKEYS (IXCREATOR, IXNAME, COLNAME, COLNO, COLSB
SQL Successful - CREATE VIEW SYSINDEXES (TBCreator, NAME, TBNAME, CREATOR, UNS
Ended: Fri Jan 4 06:38:10 2009
Successful completion

```

Note. At this step, The Data Mover import is complete and additional Data Mover commands and scripts are being executed. The first of these commands is ENCRYPT PASSWORD*.

```

Started: Fri Jan 4 06:38:11 2009
Data Mover Release: 8.52
Database: PT852
Password encrypted for APPENV
Password encrypted for PSADMIN
Password encrypted for PT8
Password encrypted for PTADMIN
Password encrypted for PTAE
Password encrypted for PTAPPMMSG
Password encrypted for PTDMO
Password encrypted for PTEMPL
Password encrypted for PTEND
Password encrypted for PTGBL
Password encrypted for PTHVAP
Password encrypted for PTIDE
Password encrypted for PTOLAP
Password encrypted for PTOPT
Password encrypted for PTPORTAL
Password encrypted for PTPRD
Password encrypted for PTQETST
Password encrypted for PTRPT
Password encrypted for PTSECADM

```

```
Password encrypted for PTSVR
Password encrypted for PTTOOLS
Password encrypted for PTUPG
Password encrypted for PTWEB
Access Profiles successfully encrypted.
Ended:  Fri Jan  4 06:38:13 2009
Successful completion
```

Note. At this step, Data Mover is executing the CREATE_TRIGGER * command.

```
Started:  Fri Jan  4 06:38:13 2009
Data Mover Release: 8.52
Database: PT852
Creating Trigger for CURRENCY_CD_TBL
Records remaining: 2
Creating Trigger for PSMPRTPREF
Records remaining: 1
Creating Trigger for PSWORKLIST
SQL Triggers: 3
Ended:  Fri Jan  4 06:38:18 2009
Successful completion
```

Note. At this step, Data Mover is executing the REPLACE_VIEWS * command.

```
Started:  Fri Jan  4 06:38:18 2009
Data Mover Release: 8.52
Database: PT852
View  PRCSOUTTYPE_VW
Views remaining: 666
View  PRCSSRVROPSLANG
Views remaining: 665
View  PRCSSRVROPSYS
```

Note. A portion of the messages generated at this step have been omitted for clarity.

```
Views remaining: 3
View  PSTREEFLDNODVW
Views remaining: 2
View  PSTREESTRCTDFVW
Views remaining: 1
View  PSTREESTRCTNFVW
SQL Views: 667
Ended:  Fri Jan  4 06:40:19 2009
Successful completion
```

Note. At this step, Data Mover is executing the `CREATE_TEMP_TABLE *` command.

```

Started:  Fri Jan  4 06:40:19 2009
Data Mover Release: 8.52
Database: PT852
Creating Table  MENU_LANG_TMP
Building required indexes for MENU_LANG_TMP

SQL Tables: 1  Indexes: 1
Ended:  Fri Jan  4 06:40:20 2009
Successful completion

```

Note. At this point, Data Mover is complete.

```

Creating Table  GPFR_DASR_TMP

Creating temp table instances (5)

Building required indexes for GPFR_DASR_TMP

Records remaining: 1

Creating Table  GPFR_DASS_TMP

Creating temp table instances (5)

Building required indexes for GPFR_DASS_TMP

SQL Tables: 832  Temp Tables: 7805 Indexes: 8266

Ended:  Thu Oct 16 16:35:16 2009

Successful completion

ExitCode: 0

Error: false

```

22. If the Database Configuration Wizard executed successfully, you see the following message, and you can press ENTER to exit.

```

=====
Installation Complete
-----

Congratulations. Peoplesoft Database Configuration has been successfully⇒
installed to:
/ds1/certora/pt852

```

23. If the Database Configuration Wizard detected an error, you get a message similar to the one below, depending on the error encountered:

```

Checking Data Mover log ... please wait
Checking ... /ds1/home/certora/pt852/log/ptengs.log          Error
Information
The installation failed to load PeopleSoft data with the following error: Error
in /ds1/home/certora/pt852/log/ptengs.log Please look into the log file(s)
located under log directory for details.
Execute a Unix tail command on the log will show you the last record you were⇒
processing when the error occurred.

Example:
pt-sun20:$ tail ptengs.log
Updating statistics for CURRCD_TBL_LANG
Records remaining: 982
Importing CURRENCY_CD_TBL
Creating Table CURRENCY_CD_TBL
SQL Error. Error Position: 230 Return: 1722 - ORA-01722: invalid number
INSERT INTO PS_CURRENCY_CD_TBL (CURRENCY_CD, EFFDT, EFF_STATUS, DESCR, DESCRSH)
Error: SQL execute error for CURRENCY_CD_TBL
SQL Spaces: 0 Tables: 118 Triggers: 0 Indexes: 122 Views: 0
Ended: Mon Jan 28 15:59:43 2009
Unsuccessful completion

```

Task 6B-3: Checking the Log Files and Troubleshooting

This section discusses:

- Checking the Log Files
- Troubleshooting
- Optimizing for Performance

Task 6B-3-1: Checking the Log Files

After the Database Configuration Wizard finishes its execution, look for all log output in the *PS_HOME/log* directory. Open all the log files. There is a log file for each of the steps that the Database Configuration Wizard carries out—importing, encrypting passwords, creating triggers, replacing views, and creating temp tables. *None should contain error messages.*

Task 6B-3-2: Troubleshooting

If the Database Configuration Wizard did not complete successfully, please read this troubleshooting information. If your script has stopped midway (this can happen for a number of reasons) you need to edit the Data Mover script generated automatically by the Database Configuration Wizard and restart Data Mover manually. The Data Mover script files have the extension *.dms* and are sometimes referred to as “DMS scripts.”

If the Database Configuration Wizard fails while creating views, clear the cache folder, for example, `USER_HOME/PS_CACHE`, and repeat the database creation.

See *PeopleTools 8.52: System and Server Administration PeopleBook*, "Using PeopleSoft Configuration Manager."

The generated Data Mover import script is saved in the `PS_HOME/scripts` directory. The script conforms to the following naming convention:

`<dbname>ora.dms`

To edit and restart the DMS script:

1. Determine the record that was being imported (that is, which IMPORT command was running) when the script stopped.

(See the note below for additional information on determining where the script stopped.)

Note. When building a DMO database or a multilingual database, adding the 'SET START' statement can be tricky because the Data Mover script used to load the database will include more than one IMPORT statement. The key is to view the LOG files and determine which IMPORT section of the script Data Mover failed on. If the failure occurred during the first IMPORT, add the 'SET START' statement before the first 'IMPORT *;' statement. If the failure occurred during a subsequent IMPORT, comment out all statements preceding the 'IMPORT *;' statement where the failure occurred and add the 'SET START' statement before the 'IMPORT *;' statement of the section in which the failure occurred. *This is very important.* If you see any 'unique index constraint' error messages in the 'building required indexes' section, your IMPORT script failed during a subsequent IMPORT but the 'SET START' statement was added to the first IMPORT. In this situation, you can run the Data Mover script in its originally generated form, with only one modification. In the first IMPORT section, change the statement 'IMPORT *;' to 'REPLACE_DATA *;'. This will delete all the data in the tables, and re-import it. This process will take some time to run, and you will need to separately create each of the indexes that failed.

2. Log on using the ACCESSID you specified when you created your Data Mover scripts with the Database Setup program.

This starts Data Mover in *bootstrap mode*.

The input window should display the DMS import script for the database. The script has the format `<dbname>ora.dms`.

3. If necessary, select File, Open, and browse to the `PS_HOME/scripts` directory to find the appropriate DMS script.
4. Add the following line before the offending IMPORT command (the one being executed when the failure occurred):

```
SET START <RECORD NAME>;
```

where `<RECORD NAME>` is the name of the record that failed. Make sure to review the Data Mover log file to see where the script failed and locate the last record that imported successfully. The 'SET START' will begin the Data Mover import at the specified record name.

Note. It is a good idea to change the name of the log file in the script before each attempt at running it. This ensures that you have a separate log file for each attempt, if you run the import more than once.

Example:

If the script stops and the table is partially inserted with a message similar to this one:

```
Importing  PSPNLFIELD
Rows inserted into PSPNLFIELD
3000
```

First drop the partially inserted table (for example, record) by using the DROP TABLE command, and then restart Data Mover at the record that failed using the SET START command and continue the Data Mover import. With PeopleSoft PeopleTools 8.51 and higher, this can be done in a single pass.

Add the following lines before the offending 'IMPORT *;' command (the one being executed when the failure occurred):

```
SET START <RECORD NAME>;
DROP TABLE <RECORD NAME>;
```

where <RECORD NAME> is the name of the record that failed. Make sure to review the Data Mover log file to see where the script failed and locate the last record that imported successfully. The 'SET START' will begin the Data Mover import at the specified record name.

Example of the original script:

```
REM - PeopleTools System Database - US English
/
SET LOG ptengs.log;
SET INPUT ptengs.db;
SET COMMIT 30000;
SET NO VIEW;
SET NO SPACE;
SET NO TRACE;
SET UNICODE OFF;
IMPORT *;
```

Example of script after modification, with changes in bold font:

```
REM - PeopleTools System Database - US English
/
SET LOG ptengs2.log;
SET INPUT ptengs.db;
SET COMMIT 30000;
SET NO VIEW;
SET NO SPACE;
SET NO TRACE;
SET UNICODE OFF;
SET START PSPNLFIELD;
DROP TABLE PSPNLFIELD;
IMPORT *;
```

For the DROP Statement, for records with a non-leading PS recname, add PS_ to the beginning of the recname; otherwise the table will not be found.

5. To restart the script, use the psdmtx command to execute Data Mover on the command line. First, change the directory.

```
cd $PS_HOME/bin
```

Note. You can run `psdmtx` by supplying arguments on the command line, or by passing the arguments from a text file. You will use a text file in this procedure.

6. Use the following command to view the help for `psdmtx`:

```
pt-sun20:$ psdmtx /help
Usage:  psdmtx  [-CT DB2|DB2ODBC|DB2UNIX|INFORMIX|MICROSFT|ORACLE|SYBASE]
           [-CS server name]
           [-CD database name]
           [-CO user id]
           [-CP user pswd]
           [-CI connect id]
           [-CW connect id pswd]
           [-I  process instance]
           [-FP filename]

           or
psdmtx  [parmfile]
```

To capture the output in a file, use a “pipe” symbol (`>`) followed by a filename. For example:

```
psdmtx [arguments] > filename.txt
```

Use the following list of commands and descriptions for the `psdmtx` arguments:

Command Argument	Description
-CT <DB type>	The type of database to connect to: ORACLE.
-CD <DBNAME>	Your selected Database Name.
-CO <ACCESSID>	Use the <DBNAME> Access ID to run Data Mover in bootstrap mode.
-CP <ACCESSPWD>	The password for <DBNAME> Access ID.
-CI <CONN ID>	The ID used to connect to the database server.
-CW <CONN PSWD>	The password for the specified connection ID.
-FP <filename>	The filename for the Data Mover import script (DMS) to run.

7. To set up Data Mover to rerun the Data Mover import script in bootstrap mode, do the following:
- Change directory to `PS_HOME/setup`.
 - Copy `parmfile` to `parm<DBNAME>`. For example, `parmPT852`.
 - Edit `parm<DBNAME>`.

Use the information in the table above to edit the file for your configuration.

Use ORACLE for <DB type>.

For example:

Before

```
-CT <DB type> -CD <DBNAME> -CO <ACCESSID> -CP <ACCESSPWD> -CI <CONN ID> -CW=>
<CONN PSWD> -FP <filename>
```

After

```
-CT ORACLE -CD HRDMO -CO HRDMO -CP HRDMO -CI people -CW people -FP $PS_HOME⇒  
/scripts/pt852ora.dms
```

8. To launch Data Mover to rerun the Data Mover import script in bootstrap mode, do the following:

- Change directory (cd) to *PS_HOME/bin*
- Run the `psdmtx` command with the edited `parm<DBNAME>` file.

```
pt-sun20:$ psdmtx ../setup/parmPT852
```

At this point you see Data Mover log messages tracking Data Mover progress.

Task 6B-3-3: Optimizing for Performance

The following tips can help you save time when running the Data Mover scripts:

- Run Data Mover from the fastest workstation available.
- Run Data Mover on the database server.
- Run only a single instance of Data Mover, and do not have any other applications running during the import.
- In the PeopleSoft Configuration Manager, turn off all trace options.

Tracing during a DMS load will add considerable time to the process.

- Copy the database file over to the workstation so that Data Mover can access it locally instead of over the network.
- Run Data Mover on the database server with the `.db` or `.dat` file located locally.

If you are comfortable changing the options available for an Oracle instance, you might consider “tuning” the instance used for the import. Some of these options are appropriate only during the import, so you may not want to keep them in effect after the import is complete.

For best performance during a Data Mover import, set these options as follows:

- Increase the number of database blocks.
- Use an 8K Oracle block size.
- Use very large rollback segments.
- Increase the size of the UNDO tablespace or the number of UNDO Segments.
- Use asynchronous read and write.
- Use multiple `db_writers`.

CHAPTER 7

Completing the Database Setup

This chapter discusses:

- Selecting the Necessary Tasks to Complete the Database Setup
- Updating Database to Latest PeopleTools Release
- Running Additional Data Mover Scripts
- Installing a Multilingual PeopleTools System Database
- Running VERSION Application Engine Program
- Running SQR Reports
- Checking the Database
- Running SETSPACE.SQR
- Running Alter Audit

Selecting the Necessary Tasks to Complete the Database Setup

Review each of the tasks in this chapter to determine which are required for your database setup. Depending upon the details of your installation you may not need to complete every task. However, it is important to evaluate the tasks with respect to your specific situation.

Task 7-1: Updating Database to Latest PeopleTools Release

This section discusses:

- Understanding Database Updates
- Cleaning Up Data
- Updating PeopleTools System Tables
- Updating PeopleTools Database Objects
- Updating PeopleTools Multilingual Objects
- Deleting Obsolete PeopleTools Database Objects
- Applying Patched PeopleTools Database Objects

- Altering PeopleTools Tables
- Migrating Records to New Tablespaces
- Updating PeopleTools System Data
- Running PeopleTools Conversions
- Converting Integration Broker
- Running Additional PeopleTools Conversions

Understanding Database Updates

Your PeopleSoft application database may be on a PeopleSoft PeopleTools release prior to the version that you are currently running. For you to be able to sign on to your database after running the Data Mover script to load your database, the PeopleSoft PeopleTools versions for your database and your file server must match. The steps in this task ensure that your PeopleSoft database is in sync with the PeopleSoft PeopleTools version that you are running.

Note. You will use Application Designer for several steps in this portion of the installation. Consult the Application Designer documentation if you have questions.

See *PeopleTools 8.52: PeopleSoft Application Designer Developer's Guide PeopleBook*

Note. If you are installing either a PeopleSoft PeopleTools System Database or a database delivered on PeopleSoft PeopleTools 8.52, and you are applying a required for install PeopleSoft PeopleTools patch, skip the steps in this task. Instead, follow the directions in the patch user doc to apply the database changes, and then continue with the install at the task Running Additional Data Mover Scripts. If you are installing an application SYS or DMO database that is not delivered on PeopleSoft PeopleTools 8.52, please proceed with this task.

This task must be run for any applications where the PeopleSoft PeopleTools version of the database that was shipped is different than the version of PeopleSoft PeopleTools that you are running. To verify the PeopleSoft PeopleTools release for your application database, run this SQL script:

```
select TOOLSREL from PSSTATUS
```

If the PeopleTools version is not 8.52, you must run this task. Otherwise, continue to the task Running Additional Data Mover Scripts.

Task 7-1-1: Cleaning Up Data

If your database is delivered on PeopleSoft PeopleTools 8.48 or higher, do *not* run this step, and instead, proceed to Updating PeopleTools System Tables. If your database is delivered on PeopleSoft PeopleTools 8.47 or earlier, perform this step to clean out obsolete message data.

Warning! Performing this task when updating from PeopleSoft PeopleTools 8.48 or later will wipe out current valid data that is needed for your system to function properly.

Message functionality and structure changed as of PeopleSoft PeopleTools 8.48 and the old data is obsolete. Edit `PS_HOME\scripts\ptupgibdel.sql` to delete data from the tables that only exist in the old PeopleSoft PeopleTools release. Open the script and make the following modifications, and then run the modified script using your SQL query tool:

1. Search for the string “--- End of PT8.<xx> ---” where <xx> represents the last two digits of the PeopleSoft PeopleTools release you are upgrading from.
2. Delete the entire portion of the script below this string.
3. Save the script as <PS_HOME>\scripts\ptupgibdel8<xx>.sql where <xx> represents the last two digits of the PeopleSoft PeopleTools release you are upgrading from, as determined in Step 1.

Note. Save the script using the naming convention shown above! This will preserve the original script for use in updating other databases at different PeopleSoft PeopleTools releases.

4. Using a SQL query tool, run the ptupgibdel8<xx>.sql script against your PeopleSoft database.

Task 7-1-2: Updating PeopleTools System Tables

Run SQL scripts to update your PeopleSoft PeopleTools system tables to the latest PeopleSoft PeopleTools release (currently 8.52).

Use a query tool, such as Query SQL*Plus, to run SQL scripts while in the PeopleSoft database.

1. Run the appropriate SQL scripts for your application version.

The following scripts are found in the *PS_HOME*\scripts directory.

Use the scripts in the following table for non-Unicode databases:

Application Database Version	Required Scripts for Non-Unicode Databases
8.40	rel841, rel842, rel843, rel844, rel845, rel846, rel847, rel848, rel849, rel850, rel851, and rel852
8.41	rel842, rel843, rel844, rel845, rel846, rel847, rel848, rel849, rel850, rel851, and rel852
8.42	rel843, rel844, rel845, rel846, rel847, rel848, rel849, rel850, rel851, and rel852
8.43	rel844, rel845, rel846, rel847, rel848, rel849, rel850, rel851, and rel852
8.44	rel845, rel846, rel847, rel848, rel849, rel850, rel851, and rel852
8.45	rel846, rel847, rel848, rel849, rel850, rel851, and rel852
8.46	rel847, rel848, rel849, rel850, rel851, and rel852
8.47	rel848, rel849, rel850, rel851, and rel852 Note. If you are installing ELM 9.0, run rel848n, rel849n, rel850n, rel851n, and rel852n instead.
8.48	rel849, rel850, rel851, and rel852 Note. If you are installing a 9.0 or higher application, run rel849n, rel850n, rel851n, and rel852n instead.
8.49	rel850, rel851, and rel852 Note. If you are installing a 9.0 or higher application, run rel850n, rel851n, and rel852n instead.

Application Database Version	Required Scripts for Non-Unicode Databases
8.50	rel851 and rel852 Note. If you are installing a 9.0 or higher application, run rel851n and rel852n instead.
8.51	rel852 Note. If you are installing a 9.0 or higher application, run rel852n instead.
8.52	None

Use the scripts in the following table for Unicode databases:

Application Database Version	Required Scripts for Unicode Databases
8.40	rel841u, rel842u, rel843u, rel844u, rel845u, rel846u, rel847u, rel848u, rel849u, rel850u, rel851u, and rel852u
8.41	rel842u, rel843u, rel844u, rel845u, rel846u, rel847u, rel848u, rel849u, rel850u, rel851u, and rel852u
8.42	rel843u, rel844u, rel845u, rel846u, rel847u, rel848u, rel849u, rel850u, rel851u, and rel852u
8.43	rel844u, rel845u, rel846u, rel847u, rel848u, rel849u, rel850u, rel851u, and rel852u
8.44	rel845u, rel846u, rel847u, rel848u, rel849u, rel850u, rel851u, and rel852u
8.45	rel846u, rel847u, rel848u, rel849u, rel850u, rel851u, and rel852u
8.46	rel847u, rel848u, rel849u, rel850u, rel851u, and rel852u
8.47	rel848u, rel849u, rel850u, rel851u, and rel852u Note. If you are installing ELM 9.0, run rel848un, rel849un, rel850un, rel851un, and rel852un instead.
8.48	rel849u, rel850u, rel851u, and rel852u Note. If you are installing a 9.0 or higher application, run rel849un, rel850un, rel851un, and rel852un instead.
8.49	rel850u, rel851u, and rel852u Note. If you are installing a 9.0 or higher application, run rel850un, rel851un, and rel852un instead.
8.50	rel851u and rel852u Note. If you are installing a 9.0 or higher application, run rel851un and rel852un instead.
8.51	rel852u Note. If you are installing a 9.0 or higher application, run rel852un instead.
8.52	None

2. If the application database version you are installing is either 8.42 or 8.43, run the following SQL command:

```
DROP TABLE PS_PSMCFQUEUEESLANG
```

Note. PS_PSMCFQUEUEESLANG may not exist in some 8.43 application databases. Do *not* drop the table PSMCFQUEUEESLANG.

3. If the application database you are installing is 8.45 or lower, run the following SQL command:

```
DROP TABLE PSOPTSTATUS
```

4. Edit and run the grant.sql script in the *PS_HOME*\scripts directory. This will grant permissions to the Connect ID.
5. If your database is delivered on PeopleSoft PeopleTools 8.49 or earlier, run the UPGDBOPTIONS_ENABLETIMESTAMPS.sql script in the *PS_HOME*\scripts directory. This enables the usage of the TIMESTAMP data type.
6. Invoke Data Mover by running *PS_HOME*\bin\client\winx86\psdmt.exe.
The PeopleSoft Logon window appears.
Log on using a valid PeopleSoft Operator ID, such as PS for HRMS or VP1 for FDM.
7. If you are applying a required for install PeopleSoft PeopleTools patch, run *PS_HOME*\scripts\PTPATCH.DMS.
8. Run the storeddl.dms Data Mover script in the *PS_HOME*\scripts directory.

Note. Comment out the other platform-specific scripts according to your platform.

This will update your platform-specific DDL model statements.

Log out of Data Mover for the next step.

9. Invoke Data Mover by running *PS_HOME*\bin\client\winx86\psdmt.exe.
The PeopleSoft Logon window appears.
Log on using the access ID you specified when you created your Data Mover scripts with the Database Setup program.
This will start Data Mover in bootstrap mode.
10. Run the msgtlsupg.dms Data Mover script in the *PS_HOME*\scripts directory.
This will update the PeopleSoft PeopleTools messages in your database.

Task 7-1-3: Updating PeopleTools Database Objects

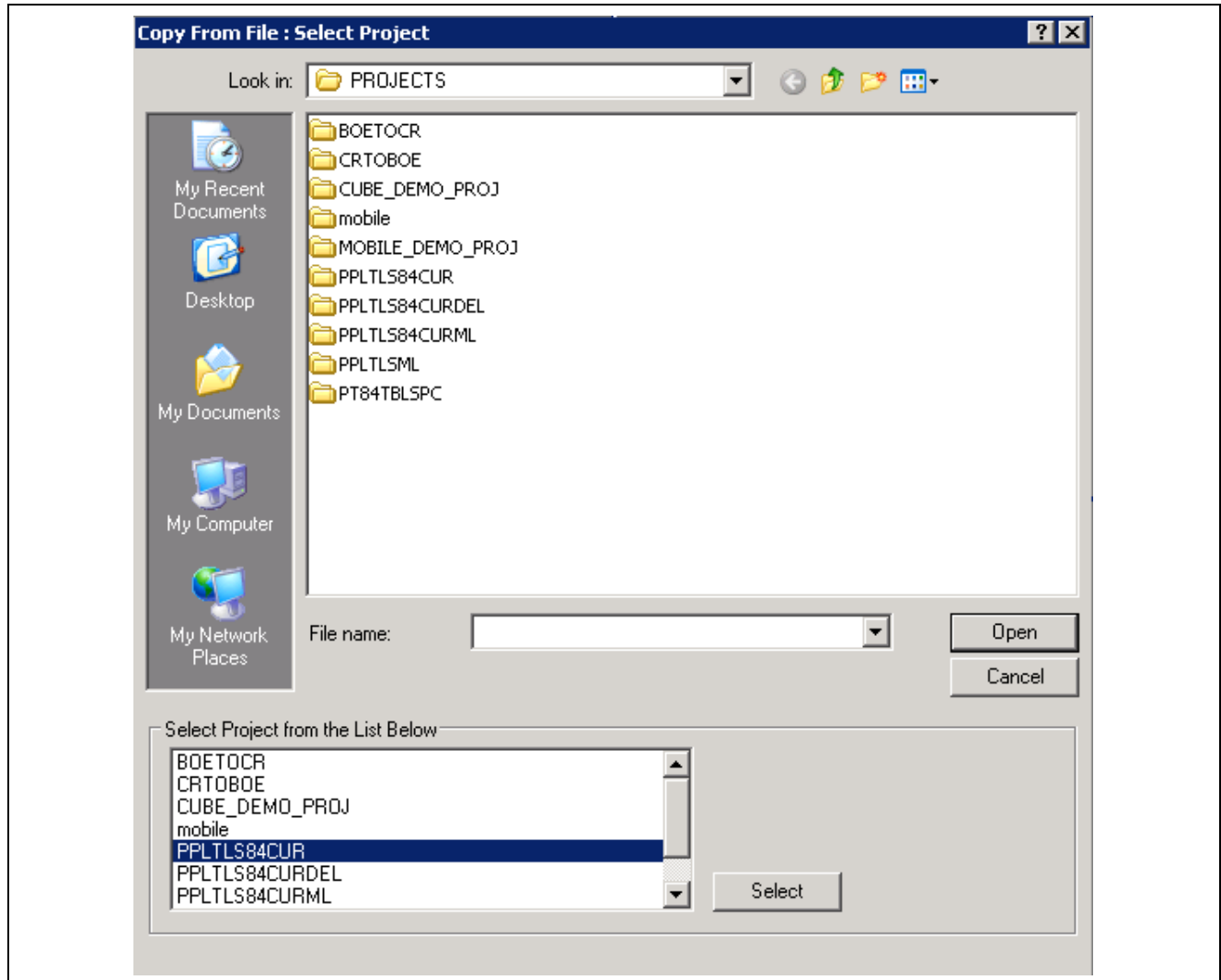
To update PeopleSoft PeopleTools database objects to the current release you must be in Application Designer. The Copy from File functionality lets you update your PeopleSoft PeopleTools database objects from a file. You must perform this step to bring the database objects in sync with the PeopleSoft PeopleTools release. Failure to run this step will introduce problems to your environment.

To update PeopleSoft PeopleTools database objects:

1. Launch Application Designer and sign on to your database with a valid PeopleSoft user ID.
2. Select Tools, Copy Project, From File.

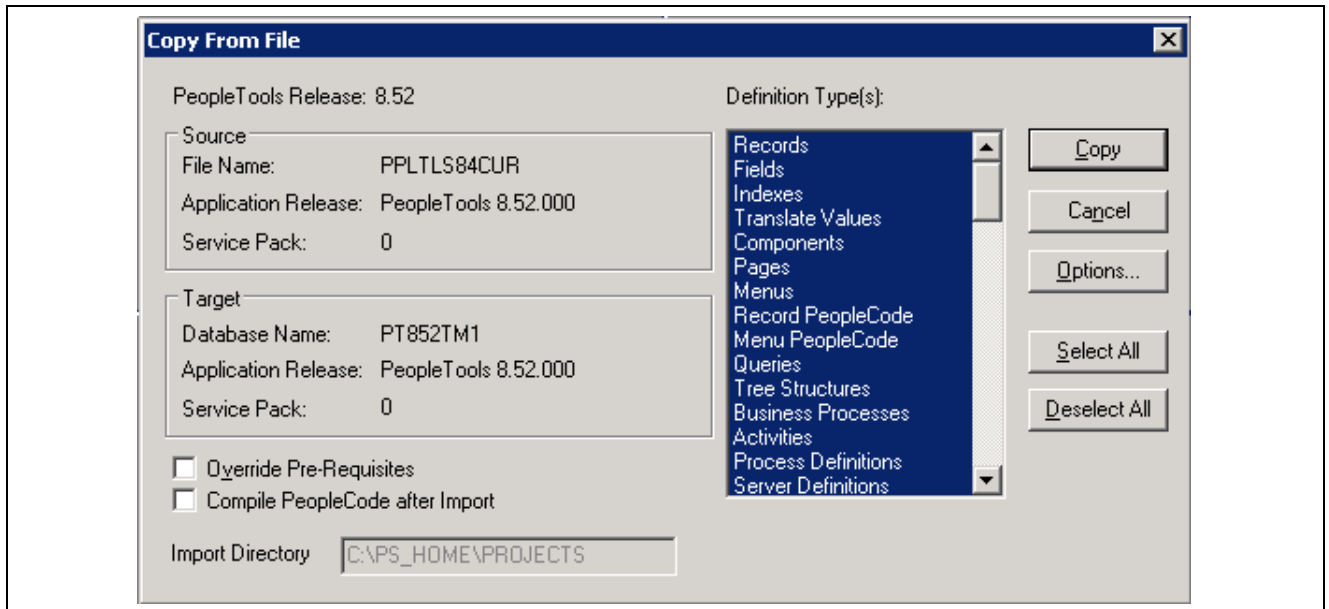
3. In the resulting dialog box, change the import directory to *PS_HOME*\projects, select PPLTLS84CUR from the list of projects and click the Select button.

Note. If the project already exists on the database, a confirmation dialog box appears asking if you want to overwrite the existing project. Select the File radio button and click OK to overwrite the existing project.



Selecting Project PPLTLS84CUR in the Copy From File dialog box

4. The Copy From File dialog box appears.
Select all object types and then click the Copy button. When the progress window disappears, the project has been copied.



The Copy From File dialog box showing that PPLTLS84CUR will be copied

If you see the following types of messages in the output window do not worry; they are acceptable because the field label properties were copied with the object definition:

- Definition Name: OPERPSWD.OPERPSWD not copied, entire definition already copied (62,32).
- Definition Name: OPRID.NEW not copied, entire definition already copied (62,32).

Task 7-1-4: Updating PeopleTools Multilingual Objects

If you are currently updating a PeopleSoft Multilingual Database, you must also apply the project PPLTLS84CURML, which contains the translations of the PeopleSoft PeopleTools Objects.

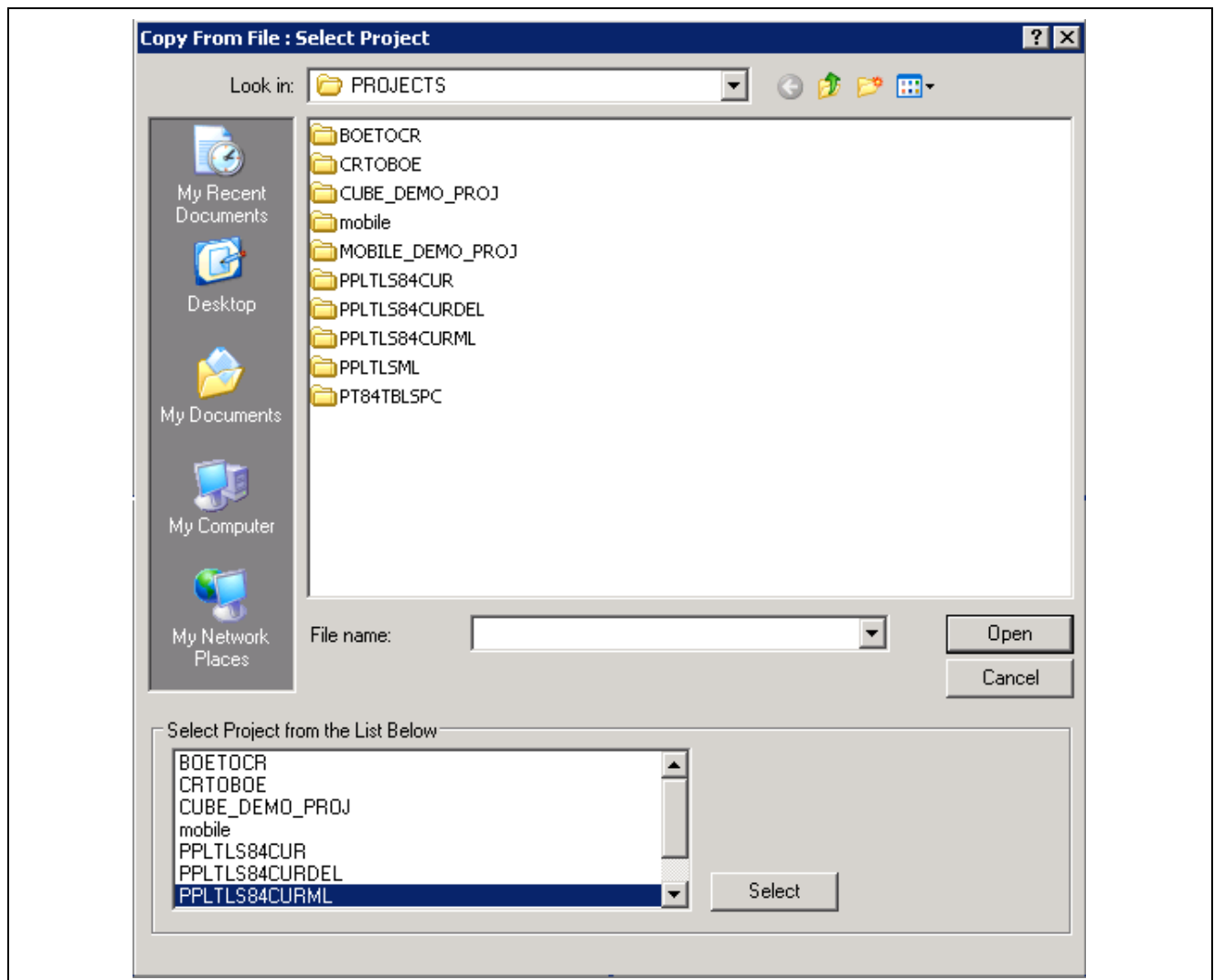
Note. If you have licensed and installed French into this database, copy the PPLTLSML project instead of the PPLTLS84CURML project for French *only*. Substitute the project name PPLTLSML instead of PPLTLS84CURML in the instructions below. Copy the PPLTLS84CURML project to update any non-French languages that are installed in the database.

To update PeopleSoft PeopleTools database objects to the current release you must be in Application Designer. The Copy from File functionality lets you update your PeopleSoft PeopleTools database objects from a file.

To apply the translation project for PeopleSoft PeopleTools 8.52:

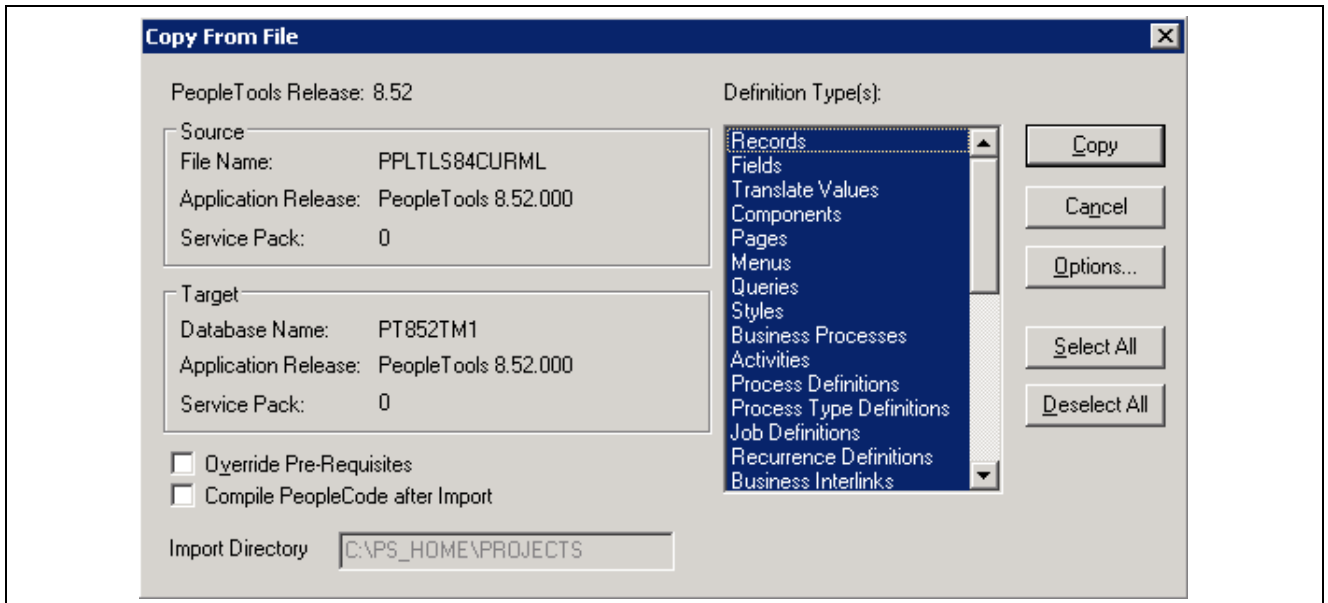
1. Bring up the Configuration Manager and select the Display tab.
Ensure that the language matches the base language of your database. Always run upgrade copy as a base language user.
2. Launch Application Designer and sign on to your database with a valid PeopleSoft user ID.
3. Select Tools, Copy Project, From File.
4. In the resulting dialog box, change the import directory to *PS_HOME*\projects.
5. Select PPLTLS84CURML from the list of projects and click the Select button.

Note. If the project already exists on the database, a confirmation dialog box appears asking if you want to overwrite the existing project. Select the File radio button and click OK to overwrite the existing project.



Selecting Project PPLTLS84CURML in the Copy From File dialog box

6. The Upgrade Copy dialog box appears.
Make sure that all object types are selected.
7. Click the Options button, select the Copy Options tab, and ensure that only the non-English languages you have installed are selected.
Please note that English and Common should *not* be selected.
8. Select the languages that you are currently installing from the Copy Options dialog box.
9. Click the Copy button.



The Copy From File dialog box showing that PPLTLS84CURML will be copied

When the progress dialog box disappears, the project has been copied.

Task 7-1-5: Deleting Obsolete PeopleTools Database Objects

This process removes obsolete PeopleSoft PeopleTools objects from your database. To update PeopleSoft PeopleTools database objects to the current release you must be in Application Designer. You will use the Copy from File functionality to delete the obsolete objects from the database.

The copy process detects whether any deleted fields are in use on other objects, such as records. You may see the following kind of warning during the copy:

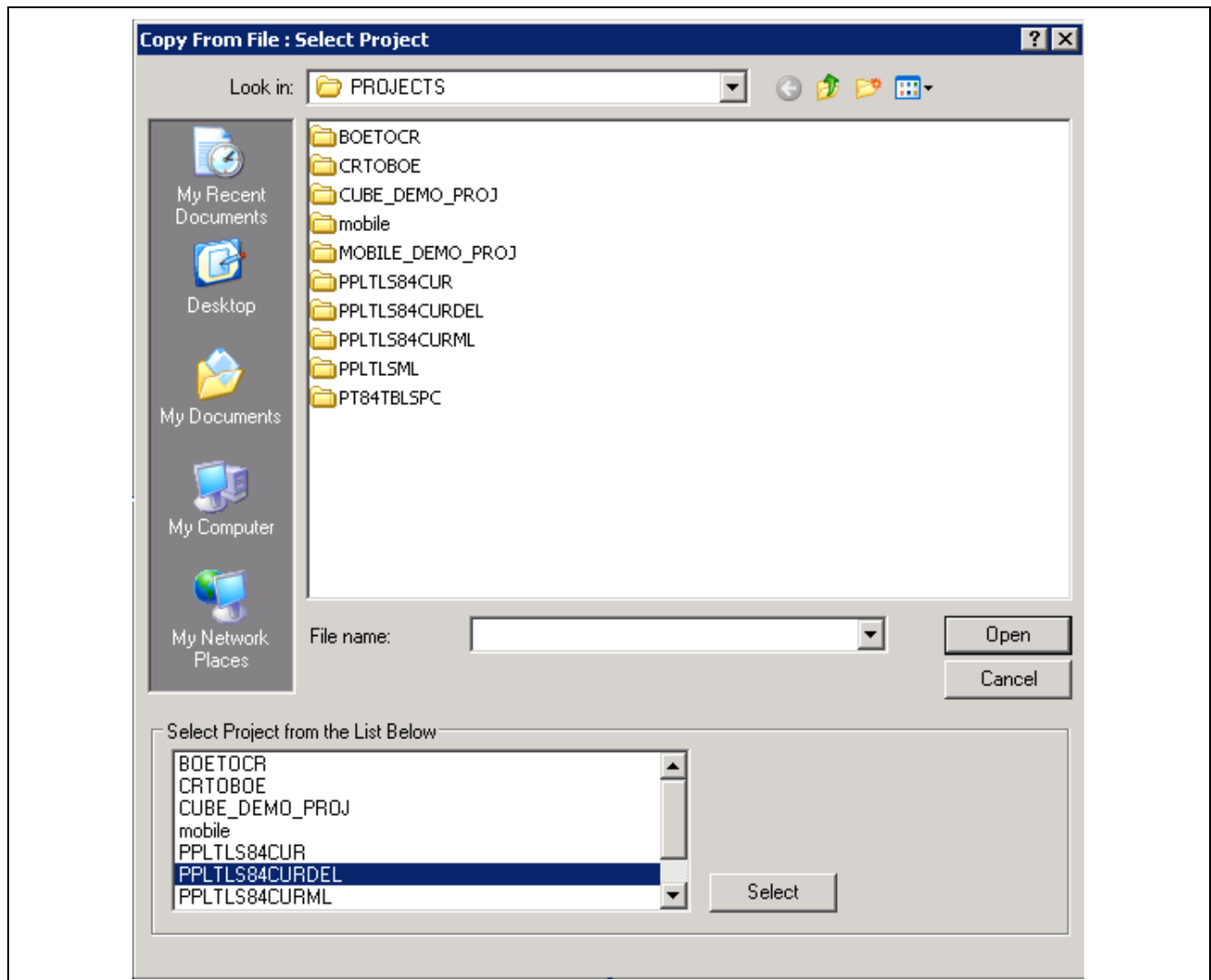
Field <FIELDNAME> is in use on at least one record.

You must clean up any objects that reference the deleted field(s) after the upgrade. While PeopleTools has deleted the field as part of the new release, you may still have objects that reference this deleted field. After fixing any objects that reference this field, delete the field from your system.

To delete obsolete PeopleSoft PeopleTools database objects:

1. Launch Application Designer and sign on to your database with a valid PeopleSoft user ID.
2. Select Tools, Copy Project, From File.
3. In the resulting dialog box, change the import directory to *PS_HOME\projects*, select PPLTLS84CURDEL from the list of projects and click Select.

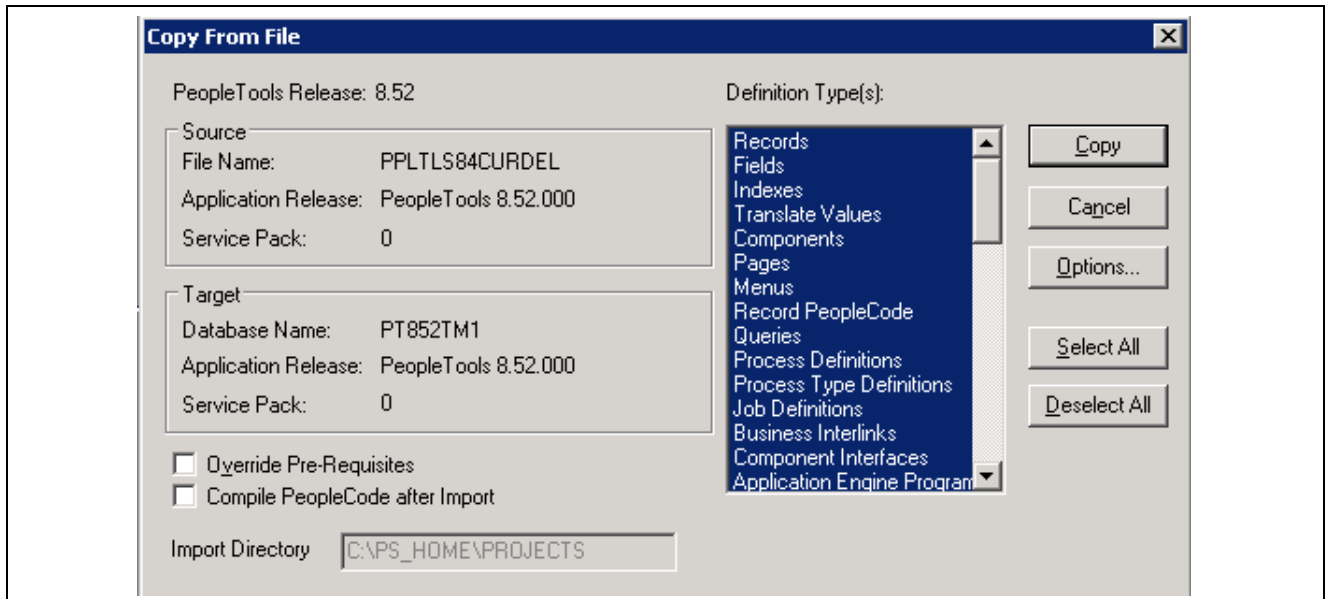
Note. If the project already exists on the database, a confirmation dialog box appears asking if you want to overwrite the existing project. Select the File radio button and click OK to overwrite the existing project.



Selecting Project PPLTLS84CURDEL in the Copy From File dialog box

4. The Copy From File dialog box appears.

Select all object types and click the Copy button. When the progress dialog box disappears, the project has been copied.



The Copy From File dialog box showing that PPLTLS84CURDEL will be copied

Note. If you have a multilingual database, do not change the languages that are selected by default.

Task 7-1-6: Applying Patched PeopleTools Database Objects

If you are applying a required for install PeopleSoft PeopleTools patch and *if a database project is included as part of the patch*, apply the database project(s) now. Make sure you apply all projects that are appropriate for your environment, including multilingual (ML) projects, if necessary. Make sure to read the patch release notes to find out if database changes are in the patch.

To update patched PeopleSoft PeopleTools database objects to the current release you must be in Application Designer. The Copy from File functionality lets you update your PeopleSoft PeopleTools database objects from a file. You must perform this step to bring the database objects in sync with the PeopleSoft PeopleTools patch release. Failure to run this step will introduce problems to your environment.

To apply patched PeopleSoft PeopleTools database objects:

1. Launch Application Designer and sign on to your database with a valid PeopleSoft user ID.
2. Select Tools, Copy Project, From File.
3. In the resulting dialog box, change the import directory to *PS_HOME\projects*, select the patch project from the list of projects and click the Select button.
4. Follow the patch instructions to select the correct copy options. Select all object types and then click the Copy button.

When the progress window disappears, the project has been copied.

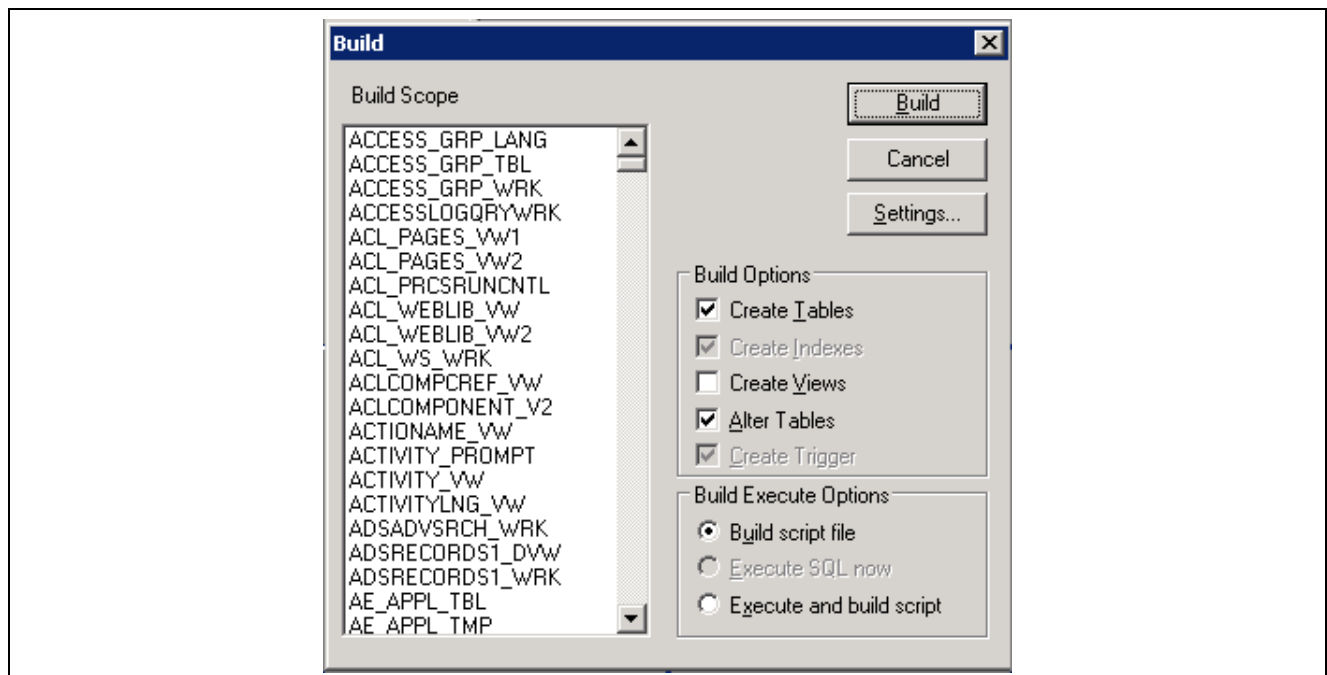
Task 7-1-7: Altering PeopleTools Tables

Use the ALTER AUDIT process in this step to check whether the PeopleSoft PeopleTools tables are synchronized with the underlying SQL data tables in your database. This step uses a delivered project to compare the data structures of your database tables with the PeopleSoft PeopleTools tables to uncover inconsistencies. The ALTER AUDIT process then reports its findings. At this point in the installation, we expect to see differences between the database structure and the PeopleSoft PeopleTools tables. You will generate and run a SQL script to synchronize the PeopleSoft PeopleTools table definitions with the underlying tables in your database.

To alter PeopleSoft PeopleTools tables:

1. Launch Application Designer with a valid PeopleSoft user ID and sign on to the installed database.
2. Select File, Open.
3. Select *Project*, enter *PPLTLS84CUR* in the name dialog box, and click OK.
4. Select Build, Project.

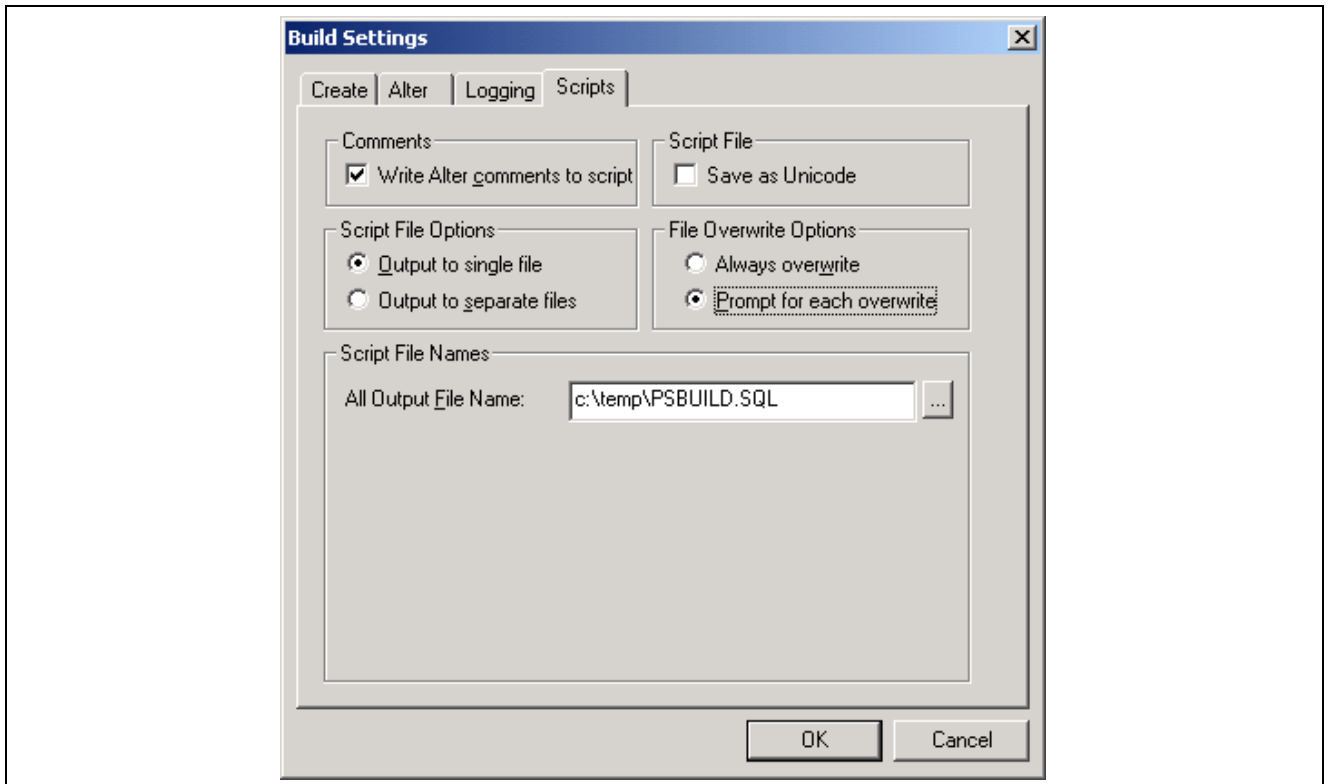
The Build dialog box appears:



The Build dialog box with selections for altering tables

5. Select Create Tables and Alter Tables in the Build Options region as shown in the example above (Create Indexes and Create Trigger will automatically be selected).
6. Select Build script file in the Build Execute Options region.
7. Click Settings.

The Build Settings dialog box appears:

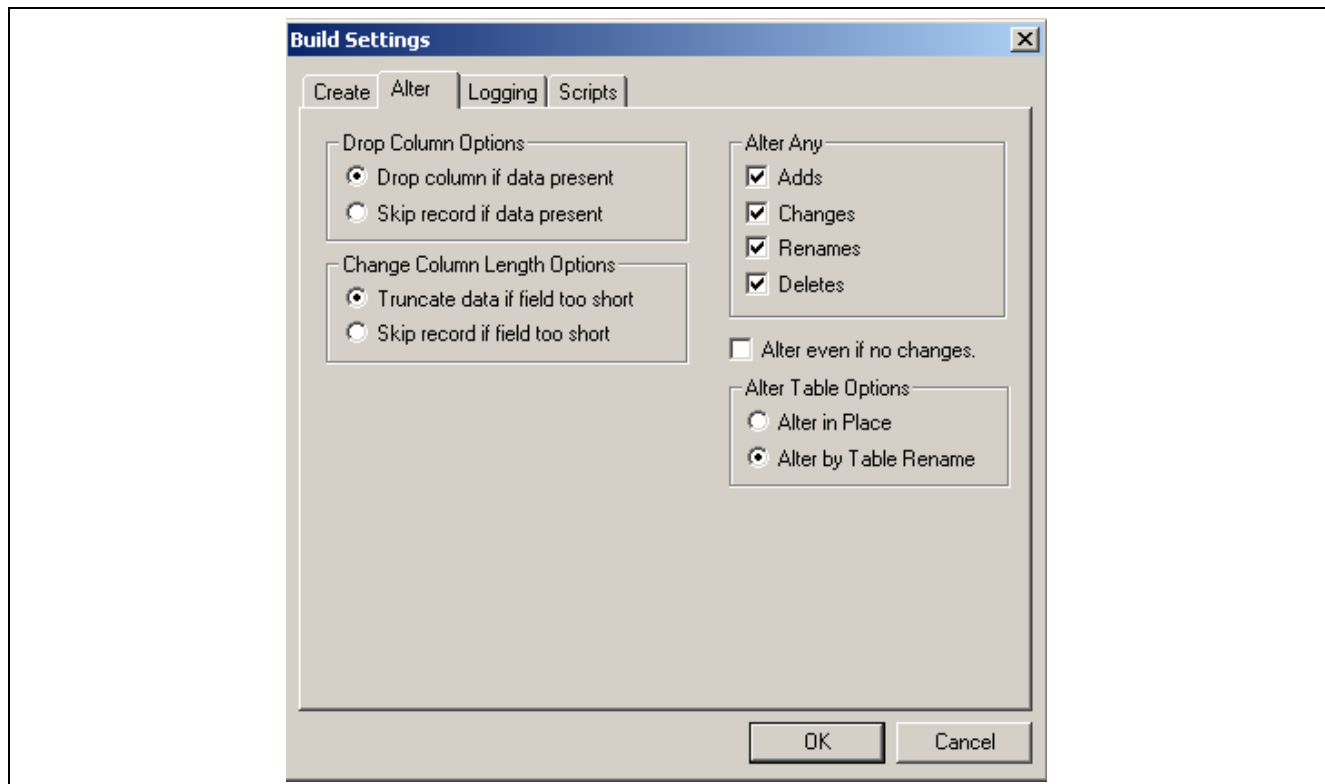


Build Settings dialog box: Scripts tab

8. Select the Scripts tab.
9. Select Write Alter comments to script.
10. Select the Alter tab and ensure that the Adds, Changes, Renames, and Deletes check boxes are selected in the Alter Any region.

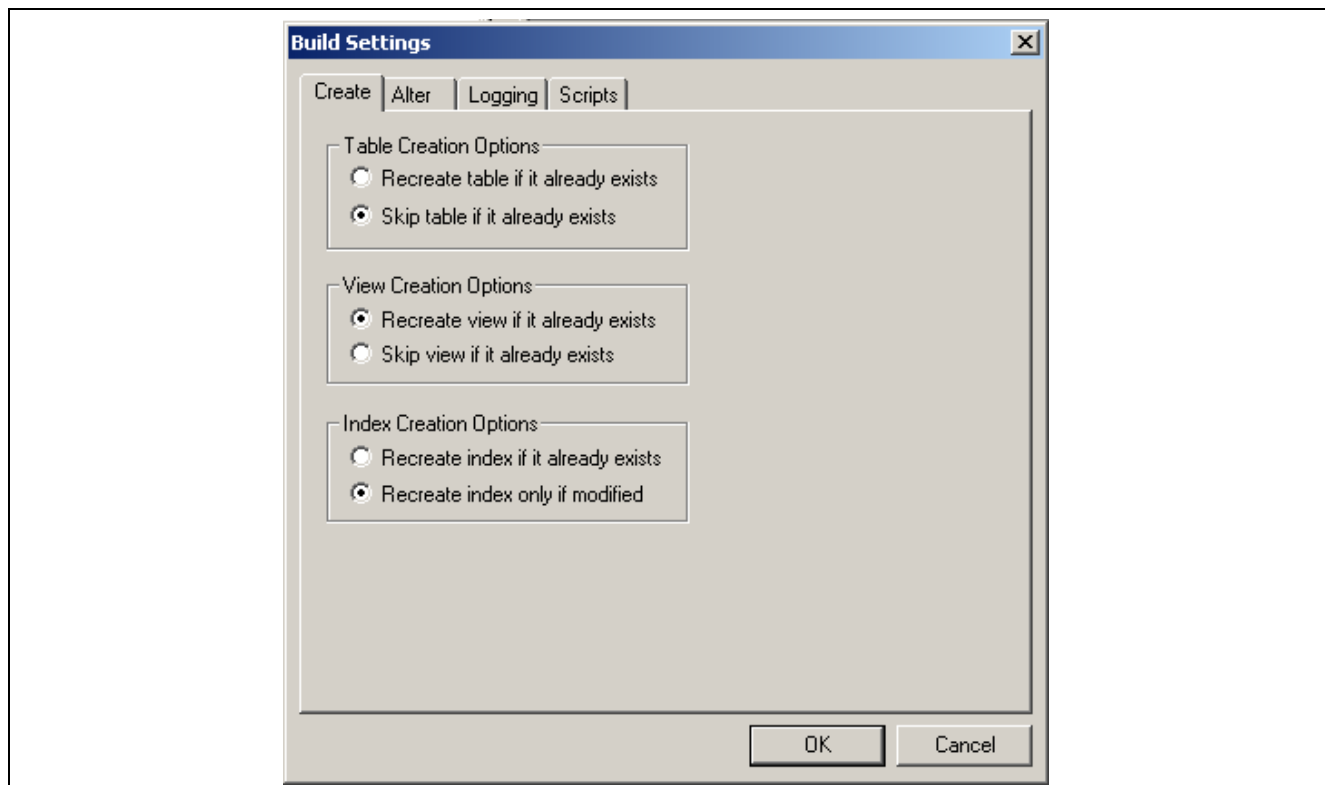
Drop column if data present should be selected in the Drop Column Options region, and Truncate data if field too short should be selected in the Change Column Length Options region.

Make sure that the option Alter by Table Rename is selected in the Alter Table Options region.



Build Settings dialog box: Alter tab

11. Select the Create tab and ensure that the Skip table if it already exists, Recreate view if it already exists, and Recreate index only if modified options are selected.



Build Settings dialog box: Create tab

12. Click OK.

The Build dialog box reappears.

13. Click Build.

14. Click Close when the process is completed.

15. Edit the generated SQL script for the correct tablespace names and sizing parameters if you are not using delivered PeopleSoft Tablespace names.

16. Run the generated SQL script in your platform-specific query tool to bring your database structure in sync with the PeopleSoft PeopleTools tables.

Task 7-1-8: Migrating Records to New Tablespaces

This section discusses:

- Copying the Tablespace Record Project
- Reviewing Tables in the PT84TBLSPC Project

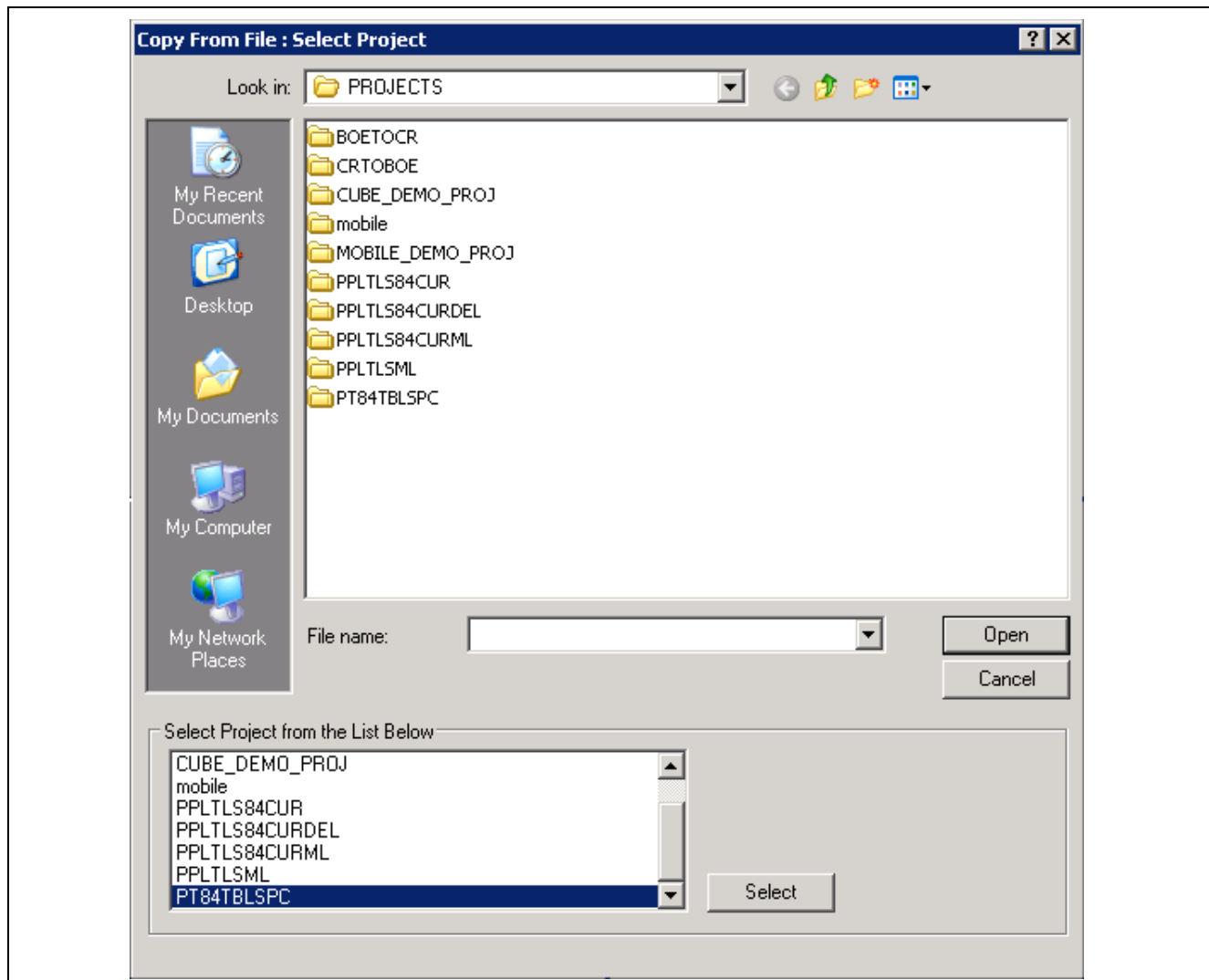
Copying the Tablespace Record Project

Oracle moved some delivered tables to different Tablespaces for PeopleSoft releases 8.44 and above. You must run this step to move the tables.

To copy the Tablespace Record project:

1. Launch Application Designer and sign on to your database with a valid PeopleSoft user ID.
2. Select Tools, Copy Project, From File.
3. In the resulting dialog box, change the import directory to *PS_HOME\projects*, select PT84TBLSPC from the list of projects, and click Select.

Note. If the project already exists on the database, a confirmation dialog box appears asking if you want to overwrite the existing project. Select the File radio button and click OK to overwrite the existing project.

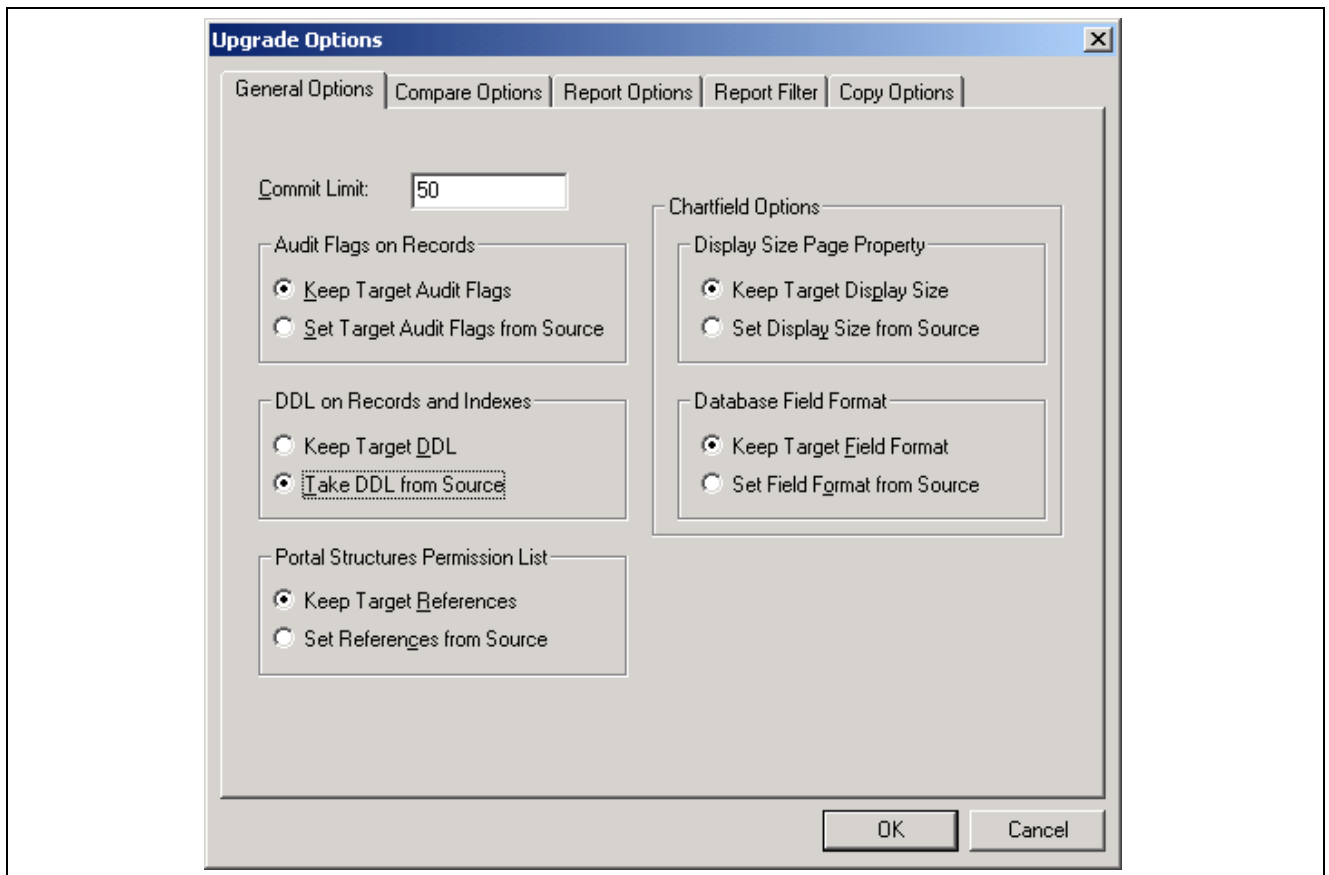


Selecting Project PT84TBLSPC in the Copy From File dialog box

4. The Copy From File dialog box appears.

Select all object types and click the Options button. Navigate to General Options and make sure that the Take DDL from Source option is selected.

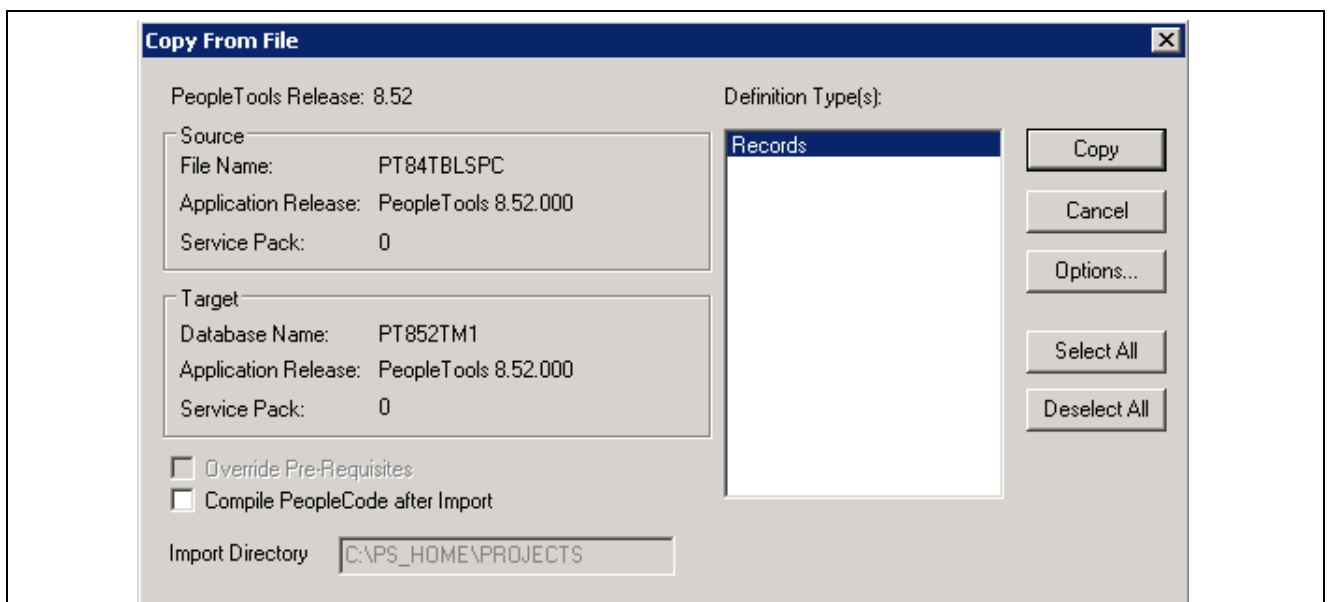
Click OK.



Upgrade Options dialog box: General Options tab

5. Click the Copy button.

When the progress dialog box disappears, the project has been copied.



The Copy From File dialog box showing that PT84TBLSPC will be copied

Reviewing Tables in the PT84TBLSPC Project

Review each table listed in the PT84TBLSPC project. If the table is now in a different Tablespace, contact your database administrator to manually migrate any such tables into the different Tablespace.

Task 7-1-9: Updating PeopleTools System Data

Data Mover scripts that update PeopleSoft PeopleTools system data are run to enable new features and load new messages for the PeopleSoft PeopleTools 8.52 release. Several of the scripts that you need to run are dependent upon the version of the application you are running.

See Understanding Database Updates.

To update PeopleSoft PeopleTools system data:

1. Invoke Data Mover by running *PS_HOME\bin\client\winx86\psdmt.exe*.

The PeopleSoft Logon window appears.

2. Log on using the access ID you specified when you created your Data Mover scripts with the Database Setup program.

This will start Data Mover in bootstrap mode.

3. Run the appropriate Data Mover scripts for your application database version.

The application database version refers to the version before you started this step. Be sure to run the scripts in the order listed. The scripts are found in the *PS_HOME\scripts* directory:

Application Database Version	Scripts to Run
8.40	pt841tls, pt842tls, pt843tls, pt844tls, pt845tls, pt846tls, pt847tls, pt848tls, pt849tls, pt850tls, pt851tls, and pt852tls
8.41	pt842tls, pt843tls, pt844tls, pt845tls, pt846tls, pt847tls, pt848tls, pt849tls, pt850tls, pt851tls, and pt852tls
8.42	pt843tls, pt844tls, pt845tls, pt846tls, pt847tls, pt848tls, pt849tls, pt850tls, pt851tls, and pt852tls
8.43	pt844tls, pt845tls, pt846tls, pt847tls, pt848tls, pt849tls, pt850tls, pt851tls, and pt852tls
8.44	pt845tls, pt846tls, pt847tls, pt848tls, pt849tls, pt850tls, pt851tls, and pt852tls
8.45	pt846tls, pt847tls, pt848tls, pt849tls, pt850tls, pt851tls, and pt852tls
8.46	pt847tls, pt848tls, pt849tls, pt850tls, pt851tls, and pt852tls
8.47	pt848tls, pt849tls, pt850tls, pt851tls, and pt852tls
8.48	pt849tls, pt850tls, pt851tls, and pt852tls
8.49	pt850tls, pt851tls, and pt852tls
8.50	pt851tls and pt852tls
8.51	pt852tls
8.52	None

4. Run the pslanguages.dms Data Mover script in the *PS_HOME*\scripts directory.
This script loads language-specific seed data.
5. Run the tlsupgnoncomp.dms Data Mover script in the *PS_HOME*\scripts directory.
This will import the updated PeopleSoft PeopleTools Trees, Roles, and Access Groups into your database.
6. If you are a Multilingual customer, from the Data Mover script that was created for your PeopleSoft database installation, find the UPDATE to PSLANGUAGES.
The statement should look similar to the following, where xxx is one of the PeopleSoft three-letter language code identifiers, as described earlier:

```
UPDATE PSLANGUAGES SET INSTALLED=1 WHERE LANGUAGE_CD = 'xxx';
```

See "Preparing for Installation," Planning Multilingual Strategy.

Run the SQL command identified above using your SQL tool.

7. Open Data Mover using a valid PeopleSoft Operator ID, such as PS for HRMS or VP1 for FDM.
8. If you are a Multilingual customer and have licensed non-English languages, run the pt852lsxxx.dms scripts in the *PS_HOME*\scripts directory.

This will update the language-specific PeopleSoft PeopleTools system data in your database.

Note. The portion of the script name xxx is equivalent to the language code (that is, FRA, CFR, GER, JPN, and so on) of the non-English languages you have installed. There will be a Data Mover script for each non-English language.

9. Run the msgtleng.dms Data Mover Script in the *PS_HOME*\scripts directory.
Non-English message data was loaded in the pt852lsxxx.dms scripts. This will update the messages in your database.
10. Run the ptstreng.dms Data Mover script in the *PS_HOME*\scripts directory.
Non-English system data was loaded in the pt852lsxxx.dms scripts. This will update the SQR strings in your database.
11. Run the storept.dms Data Mover script in the *PS_HOME*\src\cbl\base directory.
This will update your PeopleSoft PeopleTools COBOL stored statements.
12. Run the ptdefnsec.dms Data Mover script in the *PS_HOME*\scripts directory.
This will update the PeopleSoft PeopleTools Definition Security group.
13. Run the createvw.dms Data Mover script in the *PS_HOME*\scripts directory.
This will recreate all the views in your database.

Task 7-1-10: Running PeopleTools Conversions

This section discusses:

- Understanding Usage of Application Engine Programs
- Converting Portal Objects
- Converting Query Headings
- Converting Setup Manager

- Converting Navigation Collection and Pagelet Wizard Data
- Converting Additional Pagelet Wizard Data
- Populating the Feed Options Table
- Updating Feeds for Active Data Guard
- Populating the Hash Values

Understanding Usage of Application Engine Programs

You run several Application Engine programs in this section. For information on Application Engine, including how to use and restart Application Engine programs, consult the Application Engine documentation.

See *PeopleTools 8.52: PeopleSoft Application Engine PeopleBook*, "Managing Application Engine Programs."

Converting Portal Objects

Perform this step if the application database you are installing is PeopleSoft PeopleTools 8.43 or earlier. The Application Engine program UPG844PORTAL splits PSPRSMDEFN.PORTAL_URLTEXT into segments. This is performed for PeopleSoft Components URLs to extract Menu, Component, and Market information. Record, Field, Event, and Function Names are extracted from Iscript URLs. This program must be run by a PeopleSoft user with the Portal Administrator or PeopleSoft Administrator role. The following SQL will identify which users have the PeopleSoft Administrator or Portal Administrator roles:

```
select ROLEUSER, ROLENAME from PSROLEUSER where ROLENAME in ('PeopleSoft⇒
Administrator','Portal Administrator')
```

Run the UPG844PORTAL Application Engine program on your database. From the DOS command line, the syntax is:

```
<PS_HOME>\bin\client\winx86\psae -CD <dbname> -CT ORACLE -CO <oprid> -CP <pswd> -R⇒
INSTALL -AI UPG844PORTAL
```

Use the values for the database name and user ID that you entered on the startup tab of the Configuration Manager for <dbname> and <oprid>, respectively. However, be aware that <pswd> is not the same as the connect password that you entered on the Configuration Manager startup tab. Enter a value for <pswd> that is the password you want to be associated with the <oprid>.

See "Setting Up the Install Workstation."

You may see some of the following errors when running this Application Engine program:

- Not authorized CRef: <Portal Object Name> (95,5032).
This means that you do not have proper privileges to run this conversion. The user ID that you are using to run this conversion needs to have Portal Administrator permissions.
- Security synchronization failed for Portal Object: <Portal Object Name> (96,61).
This is not a fatal error. It may be caused by a content reference that contains invalid URL text and indicates that there was an internal error writing to the security table. The invalid URL text may be pointing to a component or script that does not exist in the database. If you receive this error, search the Patches and Downloads section of My Oracle Support for Required at Install patches for your application and apply the patches after installing your database.
- Cref <Portal Object Name> points to Menu: <Menu Name>, Component <Component Name> which doesn't exist. (96,80).

The content reference is pointing to an invalid Menu/Component combination. If you receive this error, search the Patches and Downloads section of My Oracle Support for Required at Install patches for your application and apply the patches after installing your database.

See *PeopleTools 8.52: PeopleTools Portal Technologies PeopleBook*.

Converting Query Headings

Perform this step if the application database you are installing is PeopleSoft PeopleTools 8.43 or earlier. Crystal Reports when run through Process Scheduler will not handle queries with two or more prompts that have the same heading. These duplicates are also not legal in Query. Any old queries that have this condition need to be altered to work with Crystal. This Application Engine program searches for duplicate prompt headings in the table PSQRYBIND and appends numbers onto the text. For example "Item ID" would become "Item ID 2".

Run the UPGQRYDUPHED Application Engine program on your database. From the DOS command line, the syntax is:

```
<PS_HOME>\bin\client\winx86\psae -CD <dbname> -CT ORACLE -CO <oprid> -CP <pswd> -R=>
INSTALL -AI UPGQRYDUPHED
```

Note. If a duplicate heading is found that will exceed the length of the field HEADING, the heading will need to be manually changed. The following error will be written to the log file in these cases :

The prompt heading <HEADING> for Query <QUERY> is duplicated.
Please manually correct. (108, 1108)

See *PeopleTools 8.52: PeopleSoft Query PeopleBook*.

Converting Setup Manager

Perform this step if the application database you are installing is PeopleSoft PeopleTools 8.45 or earlier. The application engine program UPGPTSMDAT upgrades Setup Manager Version 1 (shipped with Fin SCM 8.8, CRM 8.9, and with HCM 8.9) to Setup Manager Version 2 (shipped with PeopleSoft PeopleTools 8.46 and above). The program moves all data from Setup Manager Version 1 tables to Version 2 tables.

The application engine program was designed so that it can be run in any database, and can be rerun in the same database. In either case, it will determine if there is data to convert and run as appropriate. For detailed information, see comments attached to the Steps and Actions in this Application Engine Program within Application Designer. This program must be run by a PeopleSoft user with PeopleSoft Administrator role.

Run the UPGPTSMDAT Application Engine program on your database. From the DOS command line, the syntax is:

```
<PS_HOME>\bin\client\winx86\psae -CD <dbname> -CT ORACLE -CO <oprid> -CP <pswd> -R=>
INSTALL -AI UPGPTSMDAT
```

Converting Navigation Collection and Pagelet Wizard Data

Perform this step if the application database you are installing is PeopleSoft PeopleTools 8.45 or earlier. The application engine program UPGPT846PP adds Navigation Collection and Pagelet Wizard data from the Common Components and PeopleSoft Applications Portal storage tables into PeopleSoft PeopleTools tables.

The application engine program performs the following conversions:

1. Moves data from Common Components tables to PeopleSoft PeopleTools tables.
2. Moves data from PeopleSoft Applications Portal tables to PeopleSoft PeopleTools tables.

3. Updates the registry definitions to enable displaying Navigation pages.
4. Adds, updates, and deletes the Navigation Collections folders and content references in the portal registry to the new structures.
5. Converts Pagelet Wizard definitions to the PeopleSoft PeopleTools Pagelet Wizard version.
6. Renames Navigation Collection and Pagelet Wizard portal registry attributes to the PeopleSoft PeopleTools attribute names.

This program must be run by a PeopleSoft user with the Portal Administrator or PeopleSoft Administrator role.

Run the UPGPT846PP Application Engine program on your database. From the DOS command line, the syntax is:

```
<PS_HOME>\bin\client\winx86\psae -CD <dbname> -CT ORACLE -CO <oprid> -CP <pswd> -R=>
R INSTALL -AI UPGPT846PP
```

You may see the following error when running this Application Engine program:

```
You are not authorized for the <objecttype>...
```

This means that you do not have proper privileges to run this conversion. The user ID that you are using to run this conversion needs to have Portal Administrator permissions.

You can ignore any other errors encountered on Oracle-delivered objects at this time. Check the Patches and Downloads section of My Oracle Support for Required at Install patches for your application and apply the patches after installing your database. You can safely rerun UPGPT846PP to check for any remaining errors after applying patches.

Converting Additional Pagelet Wizard Data

Perform this step if the application database you are installing is PeopleSoft PeopleTools 8.47 or earlier. The application engine program UPGPT848PP adds the following Pagelet Wizard data sources from PeopleSoft Applications Portal to PeopleSoft PeopleTools: IB Connector, Integration Broker, SOAP, and URL. In addition, the application program transforms the WSRP Portlets created in PeopleSoft PeopleTools 8.46 or 8.47 versions of Pagelet Wizard. The process includes the following:

- Move data from PeopleSoft Applications Portal tables to PeopleSoft PeopleTools tables.
- Convert WSRP Portlets created by Pagelet Wizard to the new version.

This program must be run by a PeopleSoft user with the Portal Administrator or PeopleSoft Administrator role.

Run the UPGPT848PP Application Engine program on your database. From the DOS command line, the syntax is:

```
<PS_HOME>\bin\client\winx86\psae -CD <dbname> -CT ORACLE -CO <oprid> -CP <pswd> -R=>
INSTALL -AI UPGPT848PP
```

You may see the following error when running this Application Engine program:

```
You are not authorized for the <objecttype>...
```

This means that you do not have proper privileges to run this conversion. The user ID that you are using to run this conversion needs to have Portal Administrator permissions.

You can ignore any other errors encountered on Oracle-delivered objects at this time. Check the Patches and Downloads section of My Oracle Support for Required at Install patches for your application and apply the patches after installing your database. You can safely rerun UPGPT848PP to check for any remaining errors after applying patches.

Populating the Feed Options Table

The Application Engine program UPGPT850PTFP populates the feed options table PS_PTFP_OPTIONS if it is empty.

Run the UPGPT850PTFP Application Engine program on your database. From the DOS command line, the syntax is:

```
<PS_HOME>\bin\client\winx86\psae -CD <dbname> -CT ORACLE -CO <oprid> -CP <pswd> -R⇒  
INSTALL -AI UPGPT850PTFP
```

Updating Feeds for Active Data Guard

The Application Engine program UPGPT852PTFP updates Service Operations used by Feeds for Active Data Guard support.

Run the UPGPT852PTFP Application Engine program on your database. From the DOS command line, the syntax is:

```
<PS_HOME>\bin\client\winx86\psae -CD <dbname> -CT ORACLE -CO <oprid> -CP <pswd> -R⇒  
INSTALL -AI UPGPT852PTFP
```

Populating the Hash Values

The Application Engine program UPGPTHASH populates the hash columns on PSPCMTEXT and PSSQLHASH if they are empty.

Run the UPGPTHASH Application Engine program on your database. From the DOS command line, the syntax is:

```
<PS_HOME>\bin\client\winx86\psae -CD <dbname> -CT ORACLE -CO <oprid> -CP <pswd> -R⇒  
INSTALL -AI UPGPTHASH
```

Task 7-1-11: Converting Integration Broker

This section discusses:

- Updating Integration Broker Defaults
- Creating Integration Broker Objects
- Saving Application Messaging Objects
- Exporting Node Transactions
- Deleting Application Messaging Objects
- Deleting Node Transactions

If your database is delivered with PeopleSoft PeopleTools 8.48 or higher, do *not* run this task since the database is already delivered with the new Integration Broker objects as of PeopleSoft PeopleTools 8.48. Instead, proceed to Running Additional PeopleTools Conversions.

Updating Integration Broker Defaults

User-level node security and transactional security have been added as of PeopleSoft PeopleTools 8.48. Service namespace information, a low-level user on the node, and a low-level permission list for service operations, need to be specified. Edit *PS_HOME*\scripts\ptibupgrade.dms and make the necessary modifications as documented in the script. Consult with your Integration Broker specialist for assistance.

Open Data Mover using a valid PeopleSoft Operator ID and run this script.

Creating Integration Broker Objects

The application engine program UPGPT848IBUG converts Application Package metadata into Integration Broker metadata. It also creates the projects PTUPGIBCLONE and PTUPGIBDELETE, and the script ptupg_trx.dms.

Note. Conversion errors in the Application Engine log file will be resolved by applying application-specific Required for Install patches.

Run the UPGPT848IBUG Application Engine program on your database. From the DOS command line, the syntax is:

```
<PS_HOME>\bin\client\winx86\psae -CD <dbname> -CT ORACLE -CO <oprid> -CP <pswd> -R⇒  
INSTALL -AI UPGPT848IBUG
```

Saving Application Messaging Objects

The PTUPGIBCLONE project was created by the UPGPT848IBUG Application Engine program and contains objects that were successfully converted. Copy this project to a directory of your choice where it will not be overwritten. The objects are copied to file as a precautionary measure since you will delete them from the database in a subsequent step.

To save Application Messaging Objects:

1. Launch Application Designer and sign on to your database with a valid PeopleSoft user ID.
2. From the Application Designer, select File, Open.
3. Select Project, enter *PTUPGIBCLONE* in the name dialog box, and click OK.
4. Select Tools, Copy Project, To File.
5. In the resulting dialog box, change the export directory to one of your choice, and click Copy.

When the progress dialog box disappears, the project has been copied to the specified location.

Exporting Node Transactions

Open Data Mover using a valid PeopleSoft Operator ID and run the script *PS_HOME\scripts\ptupg_trx_export.dms* to save the old pre-conversion node transaction data.

Deleting Application Messaging Objects

Delete the obsolete pre-conversion object definitions from the database by first copying the PTUPGIBDELETE project to file, and then copying the same project from file. This project was created by the UPGPT848IBUG Application Engine program and contains the same objects as PTUPGIBCLONE.

To delete Application Messaging Objects:

1. Launch Application Designer and sign on to your database with a valid PeopleSoft user ID.
2. From the Application Designer, select File, Open.
3. Select Project, enter *PTUPGIBDELETE* in the name dialog box, and click OK.
4. Select Tools, Copy Project, To File.
5. In the resulting dialog box, change the export directory to the same one you used for PTUPGIBCLONE, and click Copy.

When the progress dialog box disappears, the project has been copied to the specified location.

6. Select Tools, Copy Project, From File.
7. In the resulting dialog box, change the import directory to the previously specified directory, select PTUPGIBDELETE from the list of projects, and click Select.

Note. Because the project already exists on the database, a confirmation dialog box appears asking if you want to overwrite the existing project. Select the File radio button and click OK to overwrite the existing project.

8. Select all object types and click the Copy button.

When the progress dialog box disappears, the project has been copied. The actions in the project are set to Delete, so this will delete the obsolete pre-conversion object definitions from the database.

Deleting Node Transactions

The script ptupg_trx.dms is generated by the UPGPT848IBUG Application Engine program. This script can be found in the location specified in the OUTPUT variable set in Configuration Manager.

To view the OUTPUT variable:

1. Open Configuration Manager.
2. Select the Profile tab.
3. Click Edit to open the Default profile.
4. Select the Process Scheduler tab.
5. Examine the Output Directory value.

Open Data Mover using a valid PeopleSoft Operator ID and run this script to remove obsolete node transaction data associated with the obsolete objects in the PTUPGIBDELETE project.

Task 7-1-12: Running Additional PeopleTools Conversions

The Application Engine program UPGPTSERVOPR converts WSDL and Schema data.

Run the UPGPTSERVOPR Application Engine program on your database. From the DOS command line, the syntax is:

```
<PS_HOME>\bin\client\winx86\psae -CD <dbname> -CT ORACLE -CO <oprid> -CP <pswd> -R=>
INSTALL -AI UPGPTSERVOPR
```

Task 7-2: Running Additional Data Mover Scripts

To import additional data for your specific PeopleSoft database, or to make other required changes, you may need to run additional Data Mover scripts. These script files have the extension .dms and are sometimes referred to as “DMS scripts.” They are located in the *PS_HOME*\scripts directory of your file server, and need to be run from the file server by means of Data Mover.

For the details on which additional application-specific Data Mover scripts to run, consult your application-specific installation instructions.

If you have installed a language other than English, you may need additional instructions on language-specific Data Mover scripts.

See Installing a Multilingual PeopleTools System Database.

Task 7-3: Installing a Multilingual PeopleTools System Database

This section discusses:

- Understanding the Multilingual Database Project
- Applying the Multilingual Database Project
- Populating the Translated System Data

Understanding the Multilingual Database Project

The information in this section applies if you are installing a multilingual PeopleSoft PeopleTools System database. If not, skip this task and go on to the task “Running VERSION Application Engine Program.” If you are installing an application database (for example, HRMS, FSCM, EPM, and so on), you do not need to run this task.

If you are adding a new (Oracle-delivered) language to the PTSYS database, you must execute this step for that language. For example, if you want to add Polish to your current multilingual database, you should install Polish from PPLTLSML so you will get all objects. If you only “upgrade” your database to have Polish using PPLTLS84CURML, you will only get the objects that changed between 8.40 and the current release.

If you are installing a PeopleSoft PeopleTools System database and you want it to be multilingual, you need to perform the steps in the following section after the database has been loaded with Data Mover.

See Applying the Multilingual Database Project.

Note. When you log onto the multilingual database, be sure to select the base language of the database.

Task 7-3-1: Applying the Multilingual Database Project

This procedure describes how to apply the multilingual database project that contains translations of the PeopleSoft PeopleTools objects.

To apply the multilingual database project:

1. Launch Application Designer.
2. Select Tools, Copy Project, From File.
3. In the resulting dialog box, change the import directory to *PS_HOME*\projects.
4. Select *PPLTLSML* from the list of projects and click the Open button.
5. In the Upgrade Copy dialog box, make sure that all object types are selected.
6. Click the Options button, select the Copy Options tab, and ensure that only the non-English languages you have installed are selected.

Please note that English and Common should *not be selected*.

7. Select the languages that you are currently installing from the Copy Options dialog box.
8. Click the Copy button.

(The Reset Done Flags check box will be selected; accept this default.)

Task 7-3-2: Populating the Translated System Data

To populate the translated system data:

Note. You need to run the following script in User mode.

1. Launch Data Mover.
2. Open the pt852tlsx.dms script using File, Open.
3. Select File, Run

Note. The portion of the script name *xxx* is equivalent to the language code (that is, FRA, CFR, GER, JPN, and so on) of the languages you have installed. There will be a Data Mover script for each language.

Task 7-4: Running VERSION Application Engine Program

Run the VERSION Application Engine program on your database. From the DOS command line, the syntax is:

```
<PS_HOME>\bin\client\winx86\psae -CD <dbname> -CT ORACLE -CO <userid> -CP=>
<userpswd> -R INSTALL -AI VERSION
```

Use the values for the database name and user ID that you entered on the startup tab of the Configuration Manager for <dbname> and <userid> respectively. However, be aware that <userpswd> is not the same as the connect password you entered on the Configuration Manager startup tab. Enter a value for <userpswd> that is the password you want to be associated with the <userid>.

See "Setting Up the Install Workstation."

Task 7-5: Running SQR Reports

This section discusses:

- Running SQRs on the Client Workstation
- Creating a Shortcut to Run SQRs

Note. The following instructions describe how to run SQR reports from the client workstation. On the Windows client, you may prefer to create a shortcut to allow you to run the reports repeatedly. You can use these instructions to run SQRs required in the upcoming task "Checking the Database." You can also choose to run SQR reports from the command line in console mode.

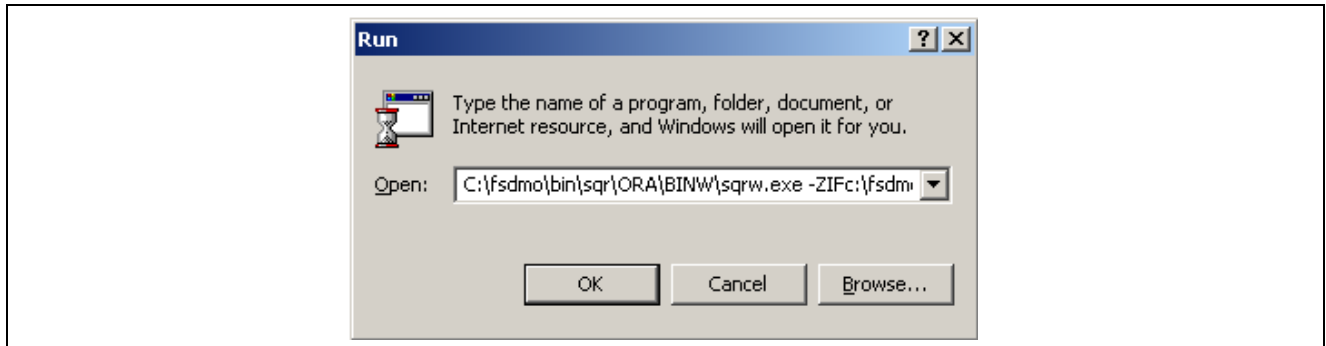
Task 7-5-1: Running SQRs on the Client Workstation

To run an SQR on the client workstation:

1. Select Start, Run, click Browse, and navigate to *PS_HOME*\bin\sqr\ORA\binw.
Select sqrw.exe and click Open.

2. Add any needed flags at the end of the command line.

Refer to the table that follows. For those flags that require attributes, append the attributes to the flags with no intervening spaces (for example, `-fd:\psbase\psenv\fsdm\`).



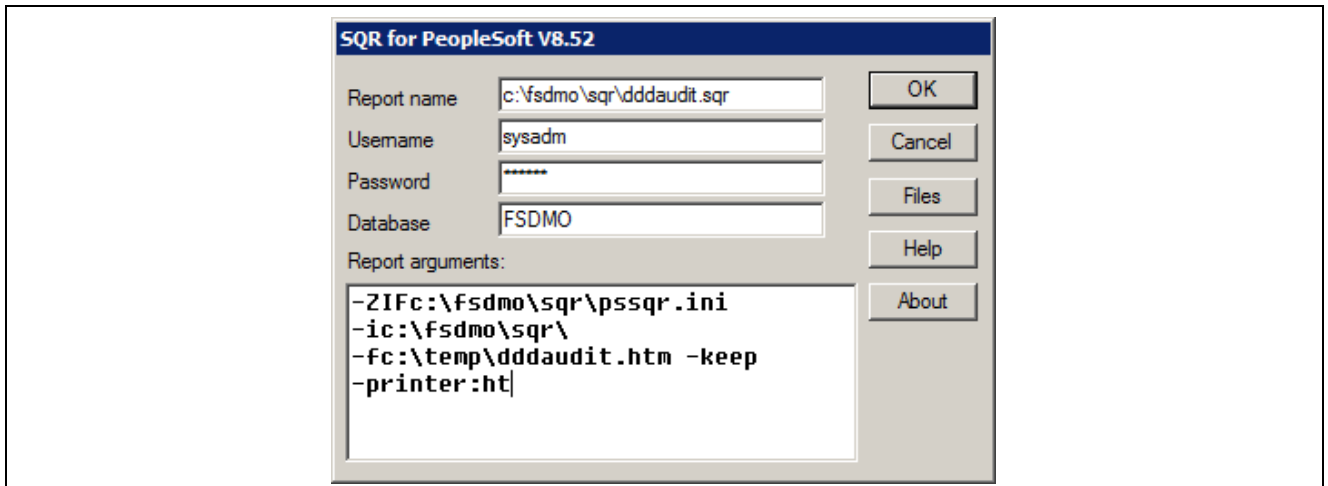
Running an SQR report on the client

The following table summarizes the SQR report arguments used by PeopleSoft software. (For a full listing of report arguments, press the Help button to view the SQR help topic for this dialog box.)

Flag	Description
-I	Specifies the directories that SQR will search for the #INCLUDE files. (A trailing slash is required.)
-f	Specifies the directory where the report output will be sent. If you use the <code>-keep</code> flag, specify a directory with an ending slash. If you use the <code>-printer</code> flag, specify a full pathname with a filename for the HTML file.
-ZIF	Sets the full path and name of the SQR initialization file. The <code>-ZIF</code> flag should point to your <i>PS_HOME</i> \sqr\pssqr.ini file.
-keep	Keeps the .SPF file after the program runs. This enables you to view the report with the SQR viewer.
-printer:ht	Generates the output file in HTML format. Specify the filename, with path location, with the <code>-f</code> flag.

3. Click OK.

The SQR for PeopleSoft v8.52 dialog box appears, with the fields mentioned in the next step:



SQR for PeopleSoft dialog box

4. Enter the following values:
 - Enter the report name.
You must specify the full path.
 - Enter the access ID in the Username field.
 - Enter the access password in the Password field.
 - Enter the database name.
5. Click OK to run the SQR report.

Note. In the Properties dialog box for your SQR icon, make sure that the Start in path points to your Oracle connectivity on the Shortcut tab. If you take the default, you may see a misleading error message about TNS packet writer failure.

Task 7-5-2: Creating a Shortcut to Run SQRs

If you think you may need to run the SQR reports more than once, you may want to create a shortcut on the Windows client workstation. To save the report arguments:

1. Open Windows Explorer on the machine on which you want to run SQR.
2. Navigate to *PS_HOME\bin\sqr\ORA\binw*.
3. Right-click *sqrw.exe* and click Create Shortcut.
4. Right-click the shortcut that you just created and select Properties.
5. On the Shortcut tab, add the same *sqr* flags that you used in the previous task after *sqrw.exe* in the Target entry box.
6. Click OK.
7. To run the report, double-click the shortcut and specify the following information in the dialog box:
 - Report Name: Enter the full path and the name.
 - Database name
 - Username: Enter the access ID.
 - Password: Enter the access password.

- Report arguments: Make any necessary modifications to the saved arguments.
8. Click OK.

Task 7-6: Checking the Database

Run and examine the SQR reports to verify that your database is complete.

See Preparing to Run SQR.

To verify that the database is complete, run the following SQR reports from the *PS_HOME\sqr* directory:

- dddaudit.sqr
- sysaudit.sqr
- sysaud01.sqr
- swpaudit.sqr, if you plan to swap your base language

For further information about these reports, consult PeopleBooks. This documentation includes specific information on how to interpret the reports and how to fix any errors found there.

It is good practice to run and read the audit reports, which include sysaudit, sysaud01, dddaudit, swpaudit, and alter audit, after making changes such as applying patches, bundles, and upgrades to the database, to make sure that the tables are internally and externally in synch. It is also a good idea to schedule regular maintenance, for example weekly, in which you run and review the reports.

See *PeopleTools 8.52: Data Management PeopleBook*, "Ensuring Data Integrity."

See *PeopleTools 8.52: Global Technology PeopleBook*, "Using Related Language Tables."

You can greatly improve the performance and run time of the sysaudit.sqr or sysaud01.sqr run by making the following configuration changes to the Oracle init.ora for your SID:

```
db_file_multiblock_read_count = 16
db_block_buffers = 2000 or greater
log_checkpoint_interval = 9999999
log_buffer = 102400
```

If you are using rollback segments, you may also want to increase the size of the RBSBIG rollback segment to 500 MB.

Note. If any records show up in the VIEWS-2 or TABLE-3 section of dddaudit and are contained within the PPLTLS84CURDEL project, you may safely drop these records using the SQL query tool for your platform.

See Also

PeopleTools 8.52: Data Management PeopleBook

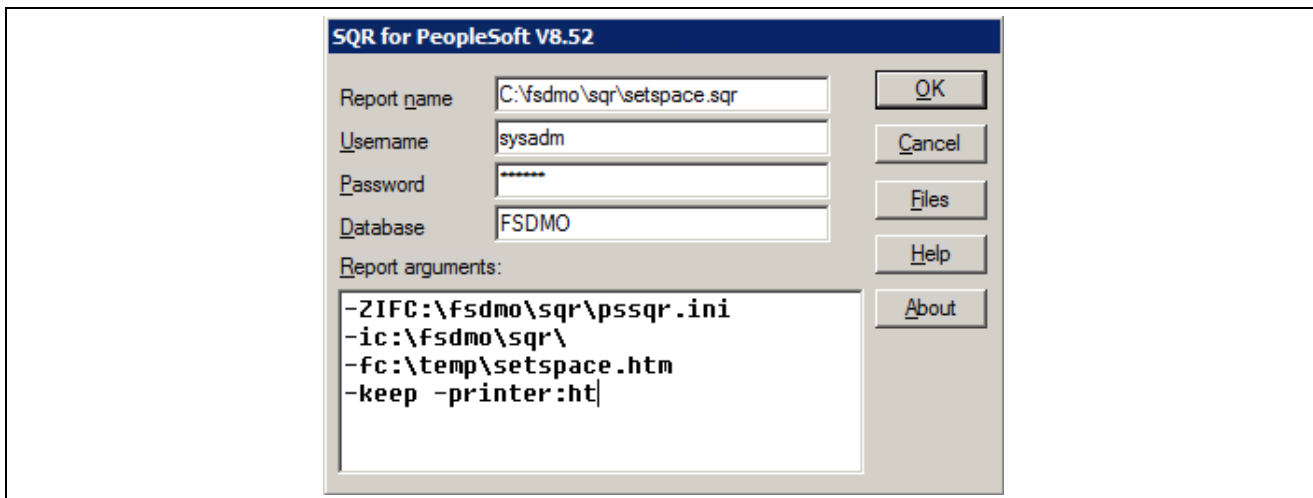
PeopleTools 8.52: System and Server Administration PeopleBook

Task 7-7: Running SETSPACE.SQR

Run the SETSPACE.SQR script to populate or synchronize Tablespace information with the system catalog. To run SETSPACE.SQR:

1. Using the instructions provided in the earlier task "Preparing to Run SQR," run SETSPACE.SQR from the *PS_HOME\SQR* directory.

Note. Your results will vary depending on the application you are loading. The dialog box example shown here is typical.



Running SETSPACE.SQR on the SQR for PeopleSoft dialog box

2. Click OK.
3. As SETSPACE.SQR runs you see a progress indicator similar to the following.

```
Set Table Space Name in PSRECTBLSPC
```

```
Table PSRECTBLSPC column DDLSPACENAME have been updated
with the tablespace found in the system catalog table.
The total number of records updated appears at the bottom of this report.
```

```
Recname           New DDLSpaceName   Old DDLSpaceName
-----
This phase of SETSPACE will sync up the PSRECTBLSPC and
PSTBLSPCCAT tables
```

```
PSRECTBLSPC Records Updated:      0
```

```
PSTBLSPCCAT Records Inserted:    0
```

```
Ending SQR.
```

Task 7-8: Running Alter Audit

Use the ALTER AUDIT process to check whether the PeopleSoft PeopleTools tables are synchronized with the underlying SQL data tables in your database. This process compares the data structures of your database tables with the PeopleSoft PeopleTools tables to uncover inconsistencies. The ALTER AUDIT process then reports its findings. At this point of time in the install, we do not expect to see differences between the database structure and the PeopleSoft PeopleTools tables.

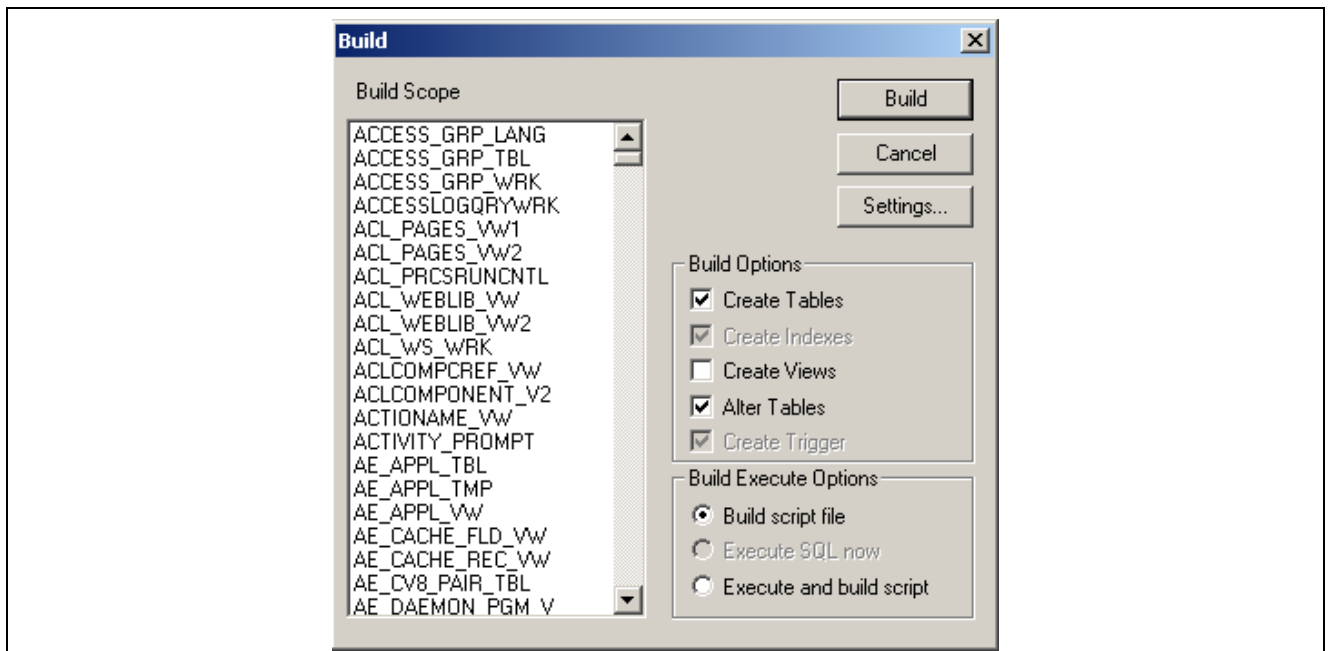
Note. If your application database was delivered on the PeopleSoft PeopleTools release you are installing, this task is optional.

Note. Triggers are always dropped and re-created during the alter process and will always show up in the generated Alter Audit script. You can ignore the generated script for triggers.

To alter PeopleSoft PeopleTools tables:

1. Launch Application Designer and sign on to the installed database with a valid PeopleSoft user ID.
2. Select File, New.
3. Select Project and click OK.
4. Select Insert, Definitions into Project.
5. Select *Records* from the Definition Type drop-down list box.
6. Select *Table* from the Type drop-down list box.
7. Click Insert, and then click Select All.
8. Click Insert, and then click Close.
9. Select Build, Project.

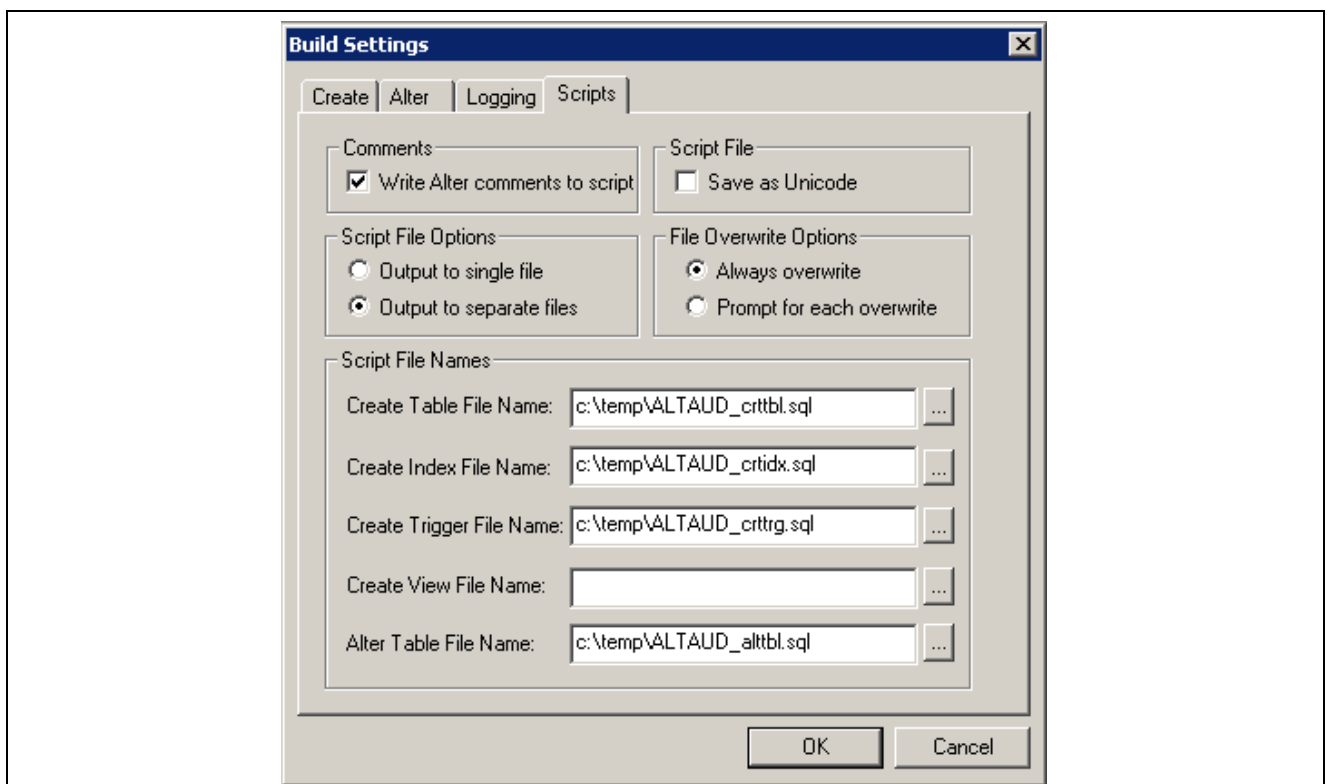
The Build dialog box appears:



The Build dialog box

10. Select Create Tables and Alter Tables in the Build Options region (Create Indexes and Create Trigger will automatically be selected).
11. Select Build script file in the Build Execute Options region.
12. Click Settings.

The Build Settings dialog box appears:

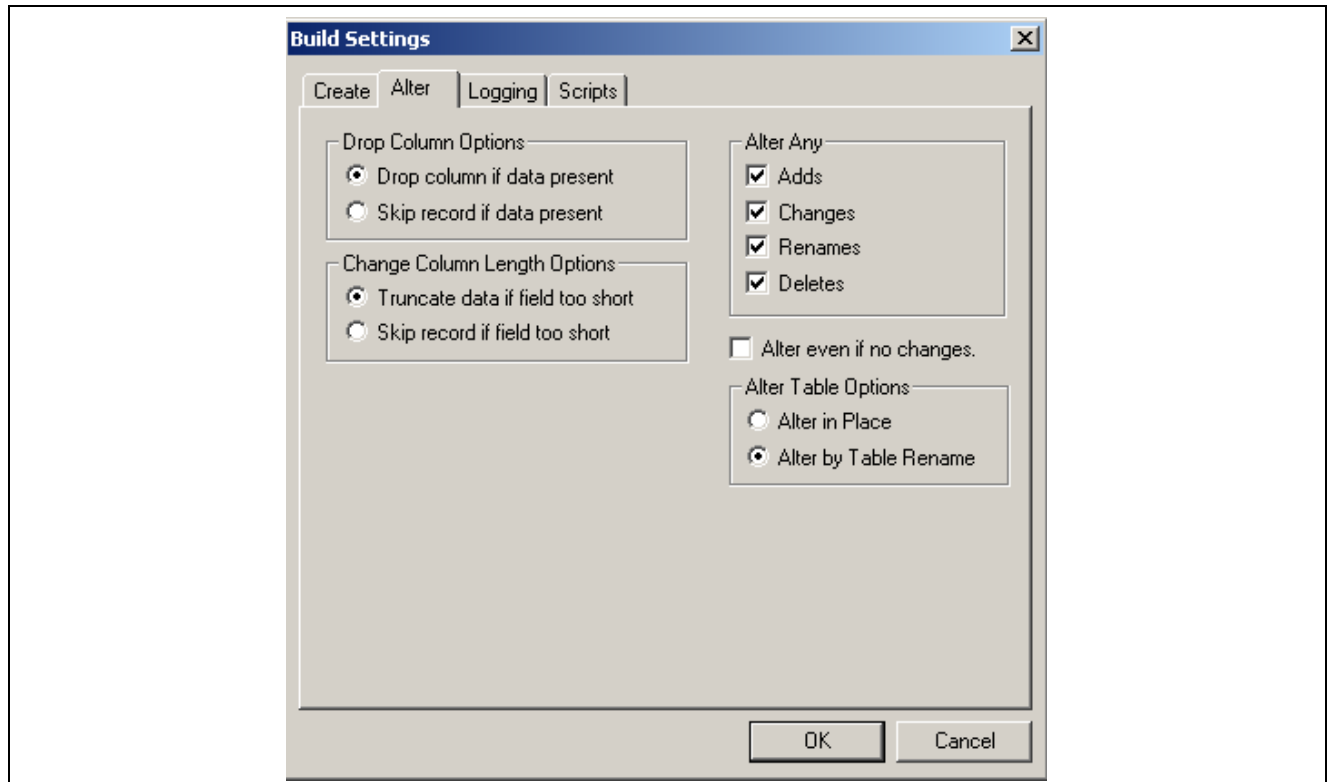


Build Settings dialog box: Scripts tab

13. Select the Scripts tab.
14. Select Write Alter comments to script.
15. Enter a unique output file name for each type.
16. Select the Alter tab and ensure that the Adds, Changes, Renames, and Deletes check boxes are selected in the Alter Any region.

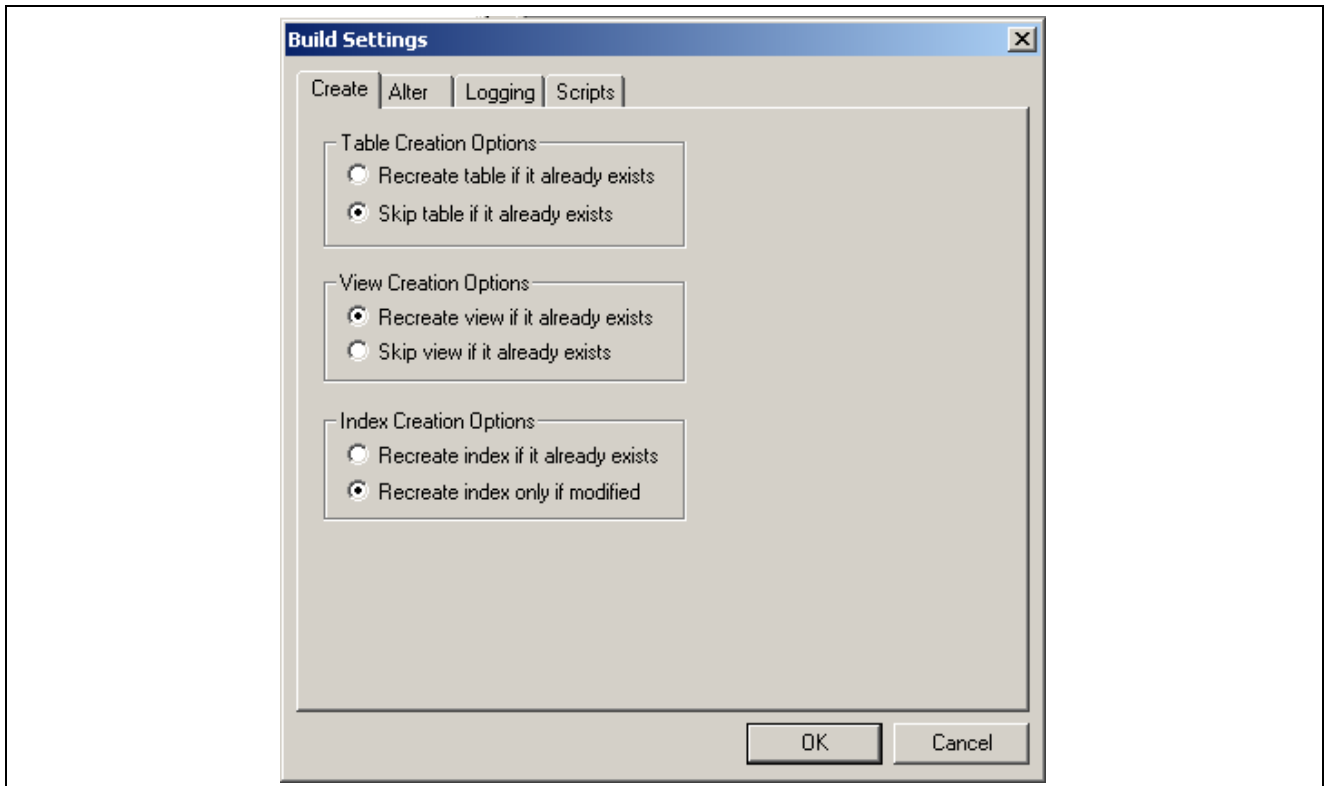
Drop column if data present should be selected in the Drop Column Options region, and Truncate data if field too short should be selected in the Change Column Length Options region.

Make sure that Alter by Table Rename is selected in the Alter Table Options region.



Build Settings dialog box: Alter tab

17. Select the Create tab, and ensure that the options Skip table if it already exists, Recreate view if it already exists, and Recreate index only if modified are selected.



Build Setting dialog box: Create tab

18. Click OK.

The Build dialog box reappears.

19. Click Build.

20. Click Close when the process is completed.

21. Edit the generated SQL script for the correct tablespace names and sizing parameters if you are not using delivered PeopleSoft tablespace names.

22. Run the generated SQL scripts in your platform-specific query tool to bring your database structure in sync with the PeopleTools tables.

CHAPTER 8A

Configuring the Application Server on Windows

This chapter discusses:

- Understanding the Application Server
- Prerequisites
- Preparing the Application Server File System for a PeopleTools-Only Upgrade
- Setting Up COBOL for Remote Call
- Verifying Database Connectivity
- Creating, Configuring, and Starting an Initial Application Server Domain
- Configuring Asian Language Fonts

Understanding the Application Server

The information in this chapter is provided to help you configure your PeopleSoft application server.

Note. COBOL is not needed for PeopleSoft PeopleTools or for applications that contain no COBOL programs. Check the information on My Oracle Support, and your application-specific documentation, for the details on whether your application requires COBOL.

Oracle supports a Microsoft Windows application server to use with any of our supported databases for the PeopleSoft installation. For detailed information, consult the certification information on My Oracle Support. The application server support can be found on the certification pages under "Other Products".

You can install the application server using either a "logical" or "physical" three-tier configuration.

- Installing the application server on the same machine as the database server is known as a logical three-tier configuration. For your initial PeopleSoft installation, Oracle suggests that you install a logical configuration to simplify setup.
- Installing the application server on a machine separate from the database server machine is known as a physical three-tier configuration.

In PeopleSoft PeopleTools 8.51 and higher, the configuration and log files for application server domains reside in *PS_CFG_HOME*. If you do not set a *PS_CFG_HOME* environment variable before beginning the application server configuration, the system installs it in a default location based on the current user's settings, as follows:

```
%USERPROFILE%\psft\pt\<peopletools_version>
```

See "Preparing for Installation," Defining Server Domain Configurations.

See *PeopleTools 8.52: System and Server Administration PeopleBook*, "Working with Server Domain Configurations."

Note. You can start application servers as a Windows service, which means that administrators no longer need to manually start each application server that runs on a Windows machine.

See Also

"Preparing for Installation," Understanding PeopleSoft Servers and Clients

"Setting Up Process Scheduler on Windows," Starting Process Scheduler as a Windows Service

PeopleTools 8.52: System and Server Administration PeopleBook, "Using PSADMIN Menus"

PeopleTools 8.52: Data Management PeopleBook

My Oracle Support, Certifications

"Setting Up the Install Workstation"

"Installing and Compiling COBOL on Windows"

Prerequisites

Before beginning this procedure, you should have completed the following tasks:

- Installed your application server.

See "Using the PeopleSoft Installer," Understanding PeopleSoft Servers.

- Installed Tuxedo 10gR3 RP043

See "Installing Additional Components."

- Granted authorization to a PeopleSoft user ID to start the application server.

User ID: VP1 for Enterprise Performance Management and Financials/Supply Chain Management, and PS for HRMS, should be delivered with authorization to start the application server.

- Run the following SQL statements on your database server to review and if needed, update the PSCLASSDEFN table:

```
SELECT CLASSID, STARTAPPSERVER FROM PSCLASSDEFN
WHERE CLASSID IN (SELECT OPRCLASS FROM PSOPRCLS WHERE OPRID='<OPRID>')
UPDATE PSCLASSDEFN SET STARTAPPSERVER=1 WHERE CLASSID='<CLASSID>'
```

Note. Installers typically use VP1 or PS to test the application server, and the password for these users is stored in a fairly accessible text file. If these users are deleted or their passwords are changed, the application server will no longer be available. To avoid this problem, you can set up a new operator (called PSADMIN or PSASID, for instance) with privileges to start the application server. If you do this, you can use the new operator for your application servers and you won't need to change the password each time VP1 or PS is changed.

Task 8A-1: Preparing the Application Server File System for a PeopleTools-Only Upgrade

If you are installing into an existing PS_HOME or PS_CFG_HOME in preparation for a PeopleTools-only upgrade, review your system for files that you may need to remove or back up.

Task 8A-2: Setting Up COBOL for Remote Call

Remote Call is a PeopleCode feature that launches a COBOL program from an application server, PeopleCode program or a batch Application Engine PeopleCode program and waits for it to complete execution before continuing. The execution of a COBOL program via Remote Call is completely independent of the Process Scheduler. You need to set up a COBOL runtime environment and COBOL executables on the application server to support Remote Call.

See "Installing and Compiling COBOL on Windows."

If your application does not contain COBOL programs, you do not need to purchase or compile COBOL.

See *PeopleTools 8.52 Hardware and Software Requirements*.

Task 8A-3: Verifying Database Connectivity

Before continuing, it is critical to verify connectivity to the database that the application server domain will use. To verify connectivity, connect to the database server from the application server using the native SQL tool on the application server.

For Oracle use SQL*Plus.

Task 8A-4: Creating, Configuring, and Starting an Initial Application Server Domain

This section discusses:

- Creating, Configuring, and Starting the Application Server Domain
- Testing the Three-Tier Connection
- Importing an Existing Application Server Domain Configuration
- Setting Up a Custom Application Server Domain Configuration
- Troubleshooting Common Errors

Task 8A-4-1: Creating, Configuring, and Starting the Application Server Domain

To create, configure, and start the application server domain:

1. To run psadmin, go to the *PS_HOME*\appserv directory and enter the following command:

```
psadmin
```

Note. Make sure you change the directory from the *PS_HOME* on the file server to the *PS_HOME*, or high-level directory, on the application server.

2. When the menu appears, specify *1* for Application Server and press ENTER.
3. Specify *2* to Create a domain and press ENTER.
4. Specify the domain name. For example:

```
Please enter name of domain to create :HR84
```

Domain names are case sensitive and must be eight US-ASCII characters or less. The domain name is used to create a directory name under the *PS_CFG_HOME*\appserv directory.

See *PeopleTools 8.52: System and Server Administration PeopleBook*, "Working with Server Domain Configurations."

5. Specify *4* for small if this is your initial domain installation, press ENTER.

See *PeopleTools 8.52: System and Server Administration PeopleBook*.

6. After the system creates the domain, this prompt appears:

```
Would you like to configure this domain now? (y/n) [y] :
```

Enter *y*. The PeopleSoft Application Server Administration menu appears with a Quick-configure menu similar to this:

```
-----
Quick-configure menu -- domain: HR84
-----
```

Features		Settings	
=====		=====	
1) Pub/Sub Servers	: No	15) DBNAME	: [HR84]
2) Quick Server	: No	16) DBTYPE	: [ORACLE]
3) Query Servers	: No	17) UserId	: [QEDMO]
4) Jolt	: Yes	18) UserPswd	: [QEDMO]
5) Jolt Relay	: No	19) DomainID	: [TESTSERV]
6) WSL	: No	20) AddToPATH	: [c:\oracle\product⇒
\11.1.1.0\db_1\bin]			
7) PC Debugger	: No	21) ConnectID	: [people]
8) Event Notification	: Yes	22) ConnectPswd	: [people]
9) MCF Servers	: No	23) ServerName	: []
10) Perf Collator	: No	24) WSL Port	: [7000]
11) Analytic Servers	: Yes	25) JSL Port	: [9000]
12) Domains Gateway	: No	26) JRAD Port	: [9100]

```

      Actions
      =====
13) Load config as shown
14) Custom configuration
   h) Help for this menu
   q) Return to previous menu

HINT: Enter 15 to edit DBNAME, then 13 to load

Enter selection (1-26, h, or q):

```

Note. If your installation includes more than one application server domain on a given machine, read the troubleshooting section for more information.

See Troubleshooting Common Errors.

7. If you need to modify any of the values for these settings, enter the number next to the parameter name, press ENTER, then type the new value, and press ENTER again.

If you need to change any of the features, type the number next to the feature name and press ENTER.

8. Configure the WSL to boot by changing option 6 to Yes.

Enter 6, and press ENTER.

9. If you intend to use the PeopleSoft Report Distribution system, you must select *Yes* for feature 8, Event Notification.

This enables the REN server, which is used by the “run to window” functionality of the Report Distribution system. *The Report Distribution system, MultiChannel Framework, and Optimization Framework use REN servers.* You must also remember to enter an Authentication Token Domain when installing the PeopleSoft Pure Internet Architecture (PIA).

10. If you are configuring an application server domain to support applications based on the PeopleSoft MultiChannel Framework (such as PeopleSoft CRM ERMS), select feature 9, MCF Servers.

See *PeopleTools 8.52: PeopleSoft MultiChannel Framework PeopleBook*, "Configuring REN Servers."

11. Enter 20 for the feature AddToPATH, and enter the path to *ORACLE_HOME*\bin, for example c:\oracle\product\11.1.0\db_1\bin.

This is typically the Oracle Client home location path.

12. If you are not installing a REN server, after you update the settings you can load the configuration by entering 13, for Load config as shown, from the Quick-configure menu.

13. If you are installing a REN server:

- a. Enter 14 for Custom configuration.

- b. Reply *y*, and press ENTER, at this prompt:

```
Do you want to change any config values <y/n> [n]?
```

- c. Reply *n*, and press ENTER, at this prompt:

```
Do you want to change any values <y/n> [n]?
```

Continue to enter *n*, for No, for all sections until you see the PSRENSRV section, and then answer *y*. (Be aware that there are several sections.)

- d. Leave the defaults for all settings except for `default_auth_token`, which you should set to the domain name for your web server.

Note. The `default_auth_token` setting should be identical to the Authentication Token Domain that you set during PIA installation.

See "Setting Up the PeopleSoft Pure Internet Architecture in GUI Mode."

- e. Accept the defaults for the next series of questions until asked if you want Event Notification configured. In this case, answer *y*.
 - f. Accept the default for the remaining questions; the configuration will load automatically.
14. To start the application server (whether you installed a REN server or not), select *1*, Boot this domain, from the PeopleSoft Domain administration menu.
 15. Select *1*, Boot (Serial Boot) or *2*, Parallel Boot, from the PeopleSoft Domain Boot Menu.

Note. The messages you see and the number of processes started will depend on the options you chose during configuration.

16. If you plan to continue with PIA installation and testing, do not shut down the application server at this time.
17. If you want to shut down your PeopleSoft application server domain later, follow these simple steps:
 - a. From the PeopleSoft Domain Administration menu, enter *2* for Domain shutdown menu.
 - b. From the PeopleTools Domain Shutdown Menu, enter *1* for Normal shutdown.

You see messages about the application server processes being shut down. The number of processes stopped will vary depending on the number of processes that started when you booted the domain.

- c. Enter *q* to quit the PeopleSoft Domain Administration Menu.

Task 8A-4-2: Testing the Three-Tier Connection

If you get an error message when you try to sign in to the Application Server in Application Designer (that is, three-tier mode), it may be due to an incorrect server name or port number, because the database server is not running, or because the application server was not booted. To test a three-tier connection from the PeopleTools Development Environment (the Windows-based client):

1. Select Start, Programs, PeopleTools 8.52, Configuration Manager to start Configuration Manager.
2. Select the Profile Tab. Highlight Default and select Edit.
3. On the Edit Profile dialog box, select *Application Server* as the Connection Type.
4. Enter values for these parameters:
 - Application Server Name
 - Machine Name or IP Address
 - Port Number (WSL)

- Domain Connection Password and Domain Connection Password (confirm)

Specify a value for the password, and repeat your entry for confirmation. The password must be 8 characters or less. If you do not enter a value, the default value PS is entered.

This password is required when you use three-tier mode in Application Designer to connect to the application server. If you do not set the Domain Connection Password in Configuration Manager or in the Application Server configuration file, the default value PS is used when you sign in to Application Designer in three-tier mode.

See *PeopleTools 8.52: System and Server Administration PeopleBook*, "Using PeopleSoft Configuration Manager."

5. Select Set to add the definition to the list and select OK to close the dialog box.
6. On the Configuration Manager dialog box, select the Startup tab.
7. Select *Application Server* from the Database Type list. Your application server name should be displayed.
8. Enter the values for User ID, Connect ID, and password.
9. Click OK.

Note. Confirm that the application server is running by booting it from psadmin. Select *I*, Boot this domain, from the PeopleSoft Domain administration menu. Select option *I*, Boot (Serial Boot) or *2*, Parallel Boot, from the PeopleSoft Domain Boot menu.

10. Select Start, Programs, PeopleTools 8.52, Application Designer.
11. In the PeopleSoft Signon dialog box:
 - Select *Application Server* as the Connection Type.
 - Confirm that the Application Server Name is correct.
 - Enter values for User ID and password.
12. Select OK to open Application Designer.

If you see the following error message when you try to sign in to the Application Server in Application Designer:

```
Network API: "Could not connect to application server 'Application Server Name'⇒
Make sure the PeopleTools authentication server (PSAUTH) is booted."
```

This may indicate a problem with the Domain Connection Password. For example, if the password set in the Application Server configuration file does not match the value in Configuration Manager (either the default value or one set by the user), you may get this error message when you sign in to Application Designer in three-tier mode. Check the Application Server logs for more information.

Task 8A-4-3: Importing an Existing Application Server Domain Configuration

If you have an existing application server configuration for a previous PeopleSoft PeopleTools release, you can import it to create a new domain. You can import an existing domain configuration by specifying a file or by specifying the path to an existing domain. To import from a file, you must use the `psappsrv.cfg` file found inside an existing application server domain folder (you must specify the full path to `psappsrv.cfg`). This file can be located anywhere in the file system, but must be named `psappsrv.cfg`. To import from an existing domain configuration that you created in PeopleSoft PeopleTools 8.52, you must specify `PS_CFG_HOME` and the name of an existing application server domain. (If you are importing a domain from a release before PeopleSoft PeopleTools 8.50, note that the domains were created in `PS_HOME`, and that is the path that you should provide.)

To import an existing application server domain configuration:

1. Go to the `PS_HOME\appsrv` directory and run `psadmin`.

Note. Make sure you change the directory from the `PS_HOME` on the file server to the `PS_HOME` on the application server.

2. Specify *1* for Application Server:

```
-----
PeopleSoft Server Administration
-----
Config Home:  C:\psft_AppServ

1) Application Server
2) Process Scheduler
3) Search Server
4) Web (PIA) Server
5) Switch Config Home
6) Service Setup
7) Replicate Config Home

q) Quit
```

Command to execute (1-7, q): 1

The Config Home location corresponds to the current working directory. For information on how Config Home is set, see the System and Server Administration PeopleBook.

See *PeopleTools 8.52: System and Server Administration PeopleBook*, "Working with Server Domain Configurations."

3. Specify *4* for *Import domain configuration*.

```
-----
PeopleSoft Application Server Administration
-----

1) Administer a domain
2) Create a domain
3) Delete a domain
4) Import domain configuration
```


q) Quit

Command to execute (1-4, q): 4

4. Specify 1 for *Import regular domain*.

```
-----
PeopleSoft Import Application Server Configuration
-----
```

```
1) Import regular domain
2) Import IB Master Configuration
q) Quit
```

Command to execute (1-2, q) : 1

5. Specify whether to import the domain configuration from a file (1) or from an existing application domain configuration (2).

```
-----
PeopleSoft Import Application Server Configuration
-----
```

```
1) Import from file
2) Import from application domain
q) Quit
```

Command to execute (1-2, q) :

6. If you selected 1, provide the full path to the file psappsrv.cfg, and then specify the name of the domain you want to create. If you selected 2, go to the next step.

```
Enter full path to configuration file
:C:\temp\oldconfig\psappsrv.cfg
```

```
Enter domain name to create
:HR84
```

7. If you selected 2, to *Import from application domain*, provide the full path to the *PS_CFG_HOME* of the existing domain.

If importing from PeopleTools 8.49 or earlier, provide PS_HOME for PS_CFG_HOME.

```
Enter PS_CFG_HOME of domain you wish to import: C:\Documents and Settings⇒
\JSMITH\psft\pt\8.52
```

If applicable, choose among the existing application server domains in the specified *PS_CFG_HOME*:

Tuxedo domain list:

```
1) HR84A
2) HR84B
```

Select domain number to import: 1

Enter a name for new domain: HR84

After you create the domain, continue to the next task to verify that the imported configuration parameters are appropriate for the newly created domain. You may need to change the following values:

- **DBName**
DBName can be the same or different, depending on which database the application server needs to point to.
- **DBType**
DBType depends on the database type of DBName.
- **UserId and UserPswd**
UserId and UserPswd are the user's choice.
- **Workstation Listener Port**
Workstation Listener Port will need to be modified if the old domain will be up and running in the same machine.
- **Jolt Listener Port**
Jolt Listener Port will also need a different number if the old domain will be up and running in the same machine.
- **Jolt Relay Adapter Listener Port**
Jolt Relay Adapter Listener Port will need a different number if the old domain will be up and running in the same machine, and will be using Jolt Relay Adapter.

Task 8A-4-4: Setting Up a Custom Application Server Domain Configuration

The Quick-configure menu is initially displayed when you choose to configure your domain. This menu is intended for the commonly adjusted parameters—those most likely to change from domain to domain. However, there are additional configuration parameters that are not available through the Quick-configure menu. For such configuration parameters, you must use the Custom Configuration option, which you can access from the Quick-configure menu. Feel free to skip this procedure if you have already created and configured your Application Server using the Quick-configure menu and want to move forward.

The following steps assume you will be using psadmin to specify parameter settings.

To reconfigure an application server domain:

1. Go to the *PS_HOME*\appserv directory and run psadmin.
2. Specify *1* for Application Server and press ENTER.
3. Specify *1* for Administer a domain and press ENTER.
4. Select the domain to administer and press ENTER.
5. Specify *4* for Configure this domain and press ENTER.

The option Configure this domain performs the following tasks:

- Shuts down the application server, if it is running. (Shutdown is required since the binary file PSTUXCFG must be deleted and re-created to enable new configuration values. If there are no processes running when shutdown is attempted, an error will be displayed but the script continues on. This is normal.)
- Initiates an interactive dialog, prompting for configuration parameters.

- Updates psappsrv.cfg, generates psappsrv.ubb, and internally invokes Tuxedo's tmlodcf executable to create binary file PSTUXCFG used during the domain boot process.
6. Specify *14* for Custom Configuration and press ENTER.
 7. Respond to this prompt:

Do you want to change any config values (y/n):

- Specify *y* to start an interactive dialog to change or examine parameter values, as described in the next step.

Oracle recommends this option for more experienced users.

- Specify *n* if you have already edited psappsrv.cfg, skip the next step, and continue with step 9.

8. Complete the interactive dialog to specify configuration parameters.

Configuration parameters are grouped into sections. For each section, you are asked whether you want to change any parameters in that section, as in the following example:

Values for config section - Startup

```
DBName=
DBType=
UserId=
UserPswd=
ConnectId=
ConnectPswd=
ServerName=
StandbyDBName=
StandbyDBType=
StandbyUserId=
StandbyUserPswd=
```

Do you want to change any values (y/n)? [n]: y

- Specify *y* to change any parameter values for the current configuration section displayed.

You are prompted for each parameter value. Either specify a new value, or press ENTER to accept the default if applicable. After pressing ENTER, you are positioned at the next parameter in that section. When you are done with that section, you are again asked whether you want to re-edit any of the values you changed.

- Enter the user ID and user password that has security to start the application server. All application databases are delivered with one or more application server security users, usually PS or VP1.
- The parameters StandbyDBName, StandbyDBType, StandbyUserId, and StandbyUserPswd, are used for a standby database in an Oracle environment.

See *PeopleTools 8.52: Data Management PeopleBook*, “Administering PeopleSoft Databases on Oracle,” Implementing Oracle Active Data Guard.

- The WSL, JSL, and JRAD port numbers, which are found in other sections of the configuration parameters, have default values of 7000, 9000, and 9100, respectively. These values must be unique for each application server domain. You may alter the port values if necessary to ensure that they are unique

- If you do not wish to change any values, specify *n* and you will be prompted for the next configuration section.

Note. When setting up your application server, make a note of the values you use for Database Name, Application Server Name (the machine name), and JSL Port. You will need to use these same values when installing the PeopleSoft Pure Internet Architecture.

See *PeopleTools 8.52: System and Server Administration PeopleBook*.

9. Select server process options.

At this point, you will be prompted to select server process options. If this is your initial installation, we suggest you accept the defaults. A message similar to this appears:

```
Setting Log Directory to the default... [PS_SERVDIR\LOGS]
Configuration file successfully created.
Loading new configuration...
```

“Loading new configuration” indicates that psadmin is generating a binary file named PSTUXCFG, which is used to boot the application server. At this point, your application server should be properly configured.

Task 8A-4-5: Troubleshooting Common Errors

For troubleshooting help, you can access a log file through the PeopleSoft Domain Administration menu. The following information is a list of possible errors you may encounter.

- Use psadmin menu option 6 for Edit configuration/log files menu to check for errors in `<PS_CFG_HOME>\appserv\<domain>\LOGS\APPSRV_mmdd.log` and `<PS_CFG_HOME>\appserv\<domain>\LOGS\TUXLOG.mmddyy`.
- If a PeopleSoft server such as PSAPPSRV fails, examine your configuration parameters. The failure of the PSAPPSRV process is often signalled by the message “Assume failed”—which means the process has failed to start. Check the SIGNON section for misspelled or invalid database name, an invalid or unauthorized OprId, or ConnectId or ServerName is missing or invalid. Finally, make sure the database connectivity is set correctly.
- If a WSL (or JSL) fails to start, try specifying another port number (it may be in use already by another application server domain process).
- If you are unable to start the BBL, check that your Tuxedo is installed fully and that the directory really exists.
- If the installation includes more than one application server domain on a single machine, before booting the second domain, adjust the REN server configuration to avoid conflict in one of these ways:
 - Use psadmin to disable Event Notification (option 8 on the Quick-configure menu) for the second and subsequent app server domains.
 - Change default_http_port to a value other than 7180.

See Also

PeopleTools 8.52: System and Server Administration PeopleBook

PeopleTools 8.52: PeopleSoft MultiChannel Framework PeopleBook

Task 8A-5: Configuring Asian Language Fonts

For text that is rendered by the Java Virtual Machine on the application server (for example, charting) the appropriate fonts must be available on the system. If characters are missing or fail to display after installation, additional configuration may be needed. Fonts are defined with a logical name (such as `psjvm.1`) in the database, and a system font name (such as `HGothic`) on the application server. Mappings between the logical name and the system font name are defined on the application server in `PS_HOME\class\PSOFTFonts.properties`. These mappings generally do not need to be specified for non-Asian languages.

Note. `psjvm.1` is used by default.

The information that follows is an example of the Japanese entries on Microsoft Windows:

```
ps.lang.1=JPN
JPN.psjvm.1=MS Mincho
JPN.psjvm.2=MS Gothic
```

In the example above, '`psjvm.1`' and '`psjvm.2`' can be used in charting style classes.

See Also

PeopleTools 8.52: PeopleCode API Reference PeopleBook, "Charting Class"

CHAPTER 8B

Configuring the Application Server on UNIX

This chapter discusses:

- Understanding the Application Server
- Understanding the Application Server Domain Processes
- Prerequisites
- Preparing the Application Server File System for a PeopleTools-Only Upgrade
- Setting Environment Variables
- Setting Up COBOL for Remote Call
- Verifying Database Connectivity
- Creating, Configuring, and Starting an Initial Application Server Domain
- Configuring Asian Language Fonts

Understanding the Application Server

The information in this chapter is provided to help you configure your PeopleSoft application server.

Note. COBOL is not needed for PeopleSoft PeopleTools or for applications that contain no COBOL programs. Check the information on My Oracle Support, and your application-specific documentation, for the details on whether your application requires COBOL.

Oracle supports application servers for the PeopleSoft installation on several UNIX and Linux operating system platforms. For detailed information, consult the certification information on My Oracle Support. The application server support can be found on the certification pages under "Other Products".

You can install the application server using either a "logical" or "physical" three-tier configuration.

- Installing the application server on the same machine as the database server is known as a logical three-tier configuration. For your initial PeopleSoft installation, Oracle suggests that you install a logical configuration to simplify setup.
- Installing the application server on a machine separate from the database server machine is known as a physical three-tier configuration.

In PeopleSoft PeopleTools 8.51 and higher, the configuration and log files for application server domains reside in *PS_CFG_HOME*. If you do not set a *PS_CFG_HOME* environment variable before beginning the application server configuration, the system installs it in a default location based on the current user's settings, as follows:

```
$HOME/psft/pt/<peopletools_version>
```

See "Preparing for Installation," Defining Server Domain Configurations.

See *PeopleTools 8.52: System and Server Administration PeopleBook*, "Working with Server Domain Configurations."

See Also

"Preparing for Installation," Understanding PeopleSoft Servers and Clients

PeopleTools 8.52: System and Server Administration PeopleBook, "Using PSADMIN Menus"

PeopleTools 8.52: Data Management PeopleBook

My Oracle Support, Certifications

"Setting Up the Install Workstation"

"Installing and Compiling COBOL on UNIX"

Understanding the Application Server Domain Processes

On most platforms (AIX, Solaris, Linux, and HP-UX) no changes are required from the system defaults, in order to allow the "small" and "development" domains that are shipped with PeopleSoft PeopleTools to boot successfully.

Refer to the performance documentation for guidance in configuring your system to run larger domains. That document describes the suggested minimum kernel settings for running PeopleSoft PeopleTools in a real-world environment.

See PeopleTools Performance Guidelines White Paper on My Oracle Support.

Permanently changing system-wide parameters generally requires root privileges, and any changes to the kernel configuration of your operating system should be done with care.

If you are installing PeopleSoft PeopleTools 8.50 or higher on HP-UX 11.31, be aware that hosts with machine names longer than 8 characters require the HP-UX kernel configuration `uname_overflow` to be set to 0 (zero).

Prerequisites

Before beginning this procedure, you should have completed the following tasks:

- Installed your application server.

See "Using the PeopleSoft Installer," Understanding PeopleSoft Servers.

- Installed Tuxedo 10gR3 RP043

See "Installing Additional Components."

- Granted authorization to a PeopleSoft user ID to start the application server.

User ID: VP1 for Enterprise Performance Management and Financials/Supply Chain Management, and PS for HRMS, should be delivered with authorization to start the application server.

- Run the following SQL statements on your database server to review and if needed, update the PSCLASSDEFN table:

```
SELECT CLASSID, STARTAPPSERVER FROM PSCLASSDEFN
WHERE CLASSID IN (SELECT OPRCLASS FROM PSOPRCLS WHERE OPRID='<OPRID>')
UPDATE PSCLASSDEFN SET STARTAPPSERVER=1 WHERE CLASSID='<CLASSID>'
```

Note. Installers typically use VP1 or PS to test the application server, and the password for these users is stored in a fairly accessible text file. If these users are deleted or their passwords are changed, the application server will no longer be available. To avoid this problem, you can set up a new operator (called PSADMIN or PSASID, for instance) with privileges to start the application server. If you do this, you can use the new operator for your application servers and you won't need to change the password each time VP1 or PS is changed.

Task 8B-1: Preparing the Application Server File System for a PeopleTools-Only Upgrade

If you are installing into an existing *PS_HOME* or *PS_CFG_HOME* in preparation for a PeopleTools-only upgrade, perform the following instructions to remove any obsolete files.

If you were using PeopleSoft PeopleTools 8.50 or earlier, remove *PS_HOME/appserv/PSADMIN* prior to installing the new release.

If you have any customized configuration files (such as *psappsrv.cfg*, *psconfig.sh*, *pspt*, *psdbl.mak*, *psrun.mak*, and so on), copy them to another directory so that they are not overwritten during the upgrade process. This enables you to preserve any tuned variables.

Configuration files are typically overwritten when you install the new release using the PeopleSoft Installer.

Task 8B-2: Setting Environment Variables

Telnet to your UNIX system. Log in and ensure the following environment variables are set appropriately.

Note. The environment variables for Tuxedo must be set explicitly; they are not set by running *psconfig.sh*. These can be also set using the *.profile* file in the user's home directory.

- \$TUXDIR must be set to the correct Oracle Tuxedo installation directory. For example:

```
TUXDIR=/home/user/Oracle/tuxedo10gR3; export TUXDIR
```

- \$TUXDIR/lib must be prepended to LD_LIBRARY_PATH, LIBPATH, or SHLIB_PATH, whichever is appropriate for your platform. For example:

```
LD_LIBRARY_PATH=$TUXDIR/lib:$LD_LIBRARY_PATH; export LD_LIBRARY_PATH
```

- \$TUXDIR/bin must be prepended to PATH. For example:

```
PATH=$TUXDIR/bin:$PATH; export PATH
```

One method to ensure that the following PeopleSoft environment variables are set is to source `psconfig.sh`. Go to the `PS_HOME` directory, and enter the following command:

```
. ./psconfig.sh
```

Note. After running `psconfig.sh`, you can invoke the `psadmin` utility from any location.

Alternatively you can make sure the following environment variables are set in the `.profile` file in the user's home directory:

- `$ORACLE_HOME` must point to the correct Oracle installation for example:

```
ORACLE_HOME=/products/oracle/10.2.0;export ORACLE_HOME
```

- `$ORACLE_HOME/bin` must be added to `PATH`; for example:

```
PATH=$PATH:$ORACLE_HOME/bin;export PATH
```

- `$ORACLE_HOME/lib` must be appended to `LD_LIBRARY_PATH`, `LIBPATH`, or `SHLIB_PATH`, whichever is appropriate for your platform.
- `$ORACLE_HOME/lib` must be ahead of `$ORACLE_HOME/lib32` in the library path.
- `$ORACLE_SID` must be set to the correct Oracle instance. For example:

```
ORACLE_SID=hdmo;export ORACLE_SID
```

- `$COBDIR` must be set to the Server Express installation directory. For example:

```
COBDIR=/cobol/prod/svrex-5.1_wp4;export COBDIR
```

- `$COBDIR/bin` must be appended to the `PATH`; for example:

```
PATH=$PATH:$COBDIR/bin;export PATH
```

- `$COBDIR/lib` must be appended to `LD_LIBRARY_PATH`, `LIBPATH`, or `SHLIB_PATH`, whichever is appropriate for your platform. For example:

```
LD_LIBRARY_PATH=$LD_LIBRARY_PATH:$COBDIR/lib;export LD_LIBRARY_PATH
```

```
LIBPATH=$LIBPATH:$COBDIR/lib;export LIBPATH
```

```
SHLIB_PATH=$SHLIB_PATH:$COBDIR/lib;export SHLIB_PATH
```

Task 8B-3: Setting Up COBOL for Remote Call

Remote Call is a PeopleCode feature that launches a COBOL program from an application server, PeopleCode program or a batch Application Engine PeopleCode program and waits for it to complete execution before continuing. The execution of a COBOL program via Remote Call is completely independent of the Process Scheduler. You need to set up a COBOL runtime environment and COBOL executables on the application server to support Remote Call.

See "Installing and Compiling COBOL on UNIX."

If your application does not contain COBOL programs, you do not need to purchase or compile COBOL.

See *PeopleTools 8.52 Hardware and Software Requirements*.

Task 8B-4: Verifying Database Connectivity

Before continuing, it is critical to verify connectivity to the database that the application server domain will use. To verify connectivity, connect to the database server from the application server using the native SQL tool on the application server.

For Oracle use SQL*Plus.

Task 8B-5: Creating, Configuring, and Starting an Initial Application Server Domain

This section discusses:

- Creating, Configuring, and Starting the Application Server Domain
- Testing the Three-Tier Connection
- Importing an Existing Application Server Domain Configuration
- Setting Up a Custom Application Server Domain Configuration
- Troubleshooting Common Errors

Task 8B-5-1: Creating, Configuring, and Starting the Application Server Domain

To create, configure, and start the application server domain:

1. To run psadmin, go to the *PS_HOME/appserv* directory and enter the following command:

```
psadmin
```

Note. Make sure you change the directory from the *PS_HOME* on the file server to the *PS_HOME*, or high-level directory, on the application server.

2. When the menu appears, specify *1* for Application Server and press ENTER.
3. Specify *2* to Create a domain and press ENTER.
4. Specify the domain name. For example:

```
Please enter name of domain to create :HR84
```

Domain names are case sensitive and must be eight characters or less. The domain name is used to create a directory name under the *PS_CFG_HOME/appserv* directory.

See *PeopleTools 8.52: System and Server Administration PeopleBook*, "Working with Server Domain Configurations."

- Specify 4 for small if this is your initial domain installation, press ENTER.

See *PeopleTools 8.52: System and Server Administration PeopleBook*.

- After the system creates the domain, this prompt appears:

```
Would you like to configure this domain now? (y/n) [y] :
```

Enter y. The PeopleSoft Application Server Administration menu appears with a Quick-configure menu similar to this:

```
-----
Quick-configure menu -- domain: HR84
-----

          Features                      Settings
          =====                      =====
1) Pub/Sub Servers      : No          15) DBNAME           : [HR84]
2) Quick Server         : No          16) DBTYPE           : [ORACLE]
3) Query Servers        : No          17) UserId           : [VP1]
4) Jolt                 : Yes         18) UserPswd         : [VP1]
5) Jolt Relay           : No          19) DomainID         : [TESTSERV]
6) WSL                  : No          20) AddToPATH         : [.]
7) PC Debugger          : No          21) ConnectID        : [people]
8) Event Notification   : Yes         22) ConnectPswd      : [people]
9) MCF Servers          : No          23) ServerName       : []
10) Perf Collator       : No          24) WSL Port         : [7000]
11) Analytic Servers    : Yes         25) JSL Port         : [9000]
12) Domains Gateway     : No          26) JRAD Port        : [9100]

          Actions
          =====
13) Load config as shown
14) Custom configuration
   h) Help for this menu
   q) Return to previous menu
```

HINT: Enter 15 to edit DBNAME, then 13 to load

Enter selection (1-26, h, or q):

Note. If your installation includes more than one application server domain on a given machine, read the troubleshooting section for more information.

See Troubleshooting Common Errors.

- If you need to modify any of the values for these settings, enter the number next to the parameter name, press ENTER, then type the new value, and press ENTER again.

If you need to change any of the features, type the number next to the feature name and press ENTER.

- Configure the WSL to boot by changing option 6 to Yes.

Enter 6, and press ENTER.

9. If you intend to use the PeopleSoft Report Distribution system, you must select *Yes* for feature 8, Event Notification.

This enables the REN server, which is used by the “run to window” functionality of the Report Distribution system. *The Report Distribution system, MultiChannel Framework, and Optimization Framework use REN servers.* You must also remember to enter an Authentication Token Domain when installing the PeopleSoft Pure Internet Architecture (PIA).

10. If you are configuring an application server domain to support applications based on the PeopleSoft MultiChannel Framework (such as PeopleSoft CRM ERMS), select feature 9, MCF Servers.

See *PeopleTools 8.52: PeopleSoft MultiChannel Framework PeopleBook*, “Configuring REN Servers.”

11. If you are not installing a REN server, after you update the settings you can load the configuration by entering *13*, for Load config as shown, from the Quick-configure menu.

12. If you are installing a REN server:

- a. Enter *14* for Custom configuration.
- b. Reply *y*, and press ENTER, at this prompt:

Do you want to change any config values <y/n> [n]?

- c. Reply *n*, and press ENTER, at this prompt:

Do you want to change any values <y/n> [n]?

Continue to enter *n*, for No, for all sections until you see the PSRENSRV section, and then answer *y*. (Be aware that there are several sections.)

- d. Leave the defaults for all settings except for default_auth_token, which you should set to the domain name for your web server.

Note. The default_auth_token setting should be identical to the Authentication Token Domain that you set during PIA installation.

See “Setting Up the PeopleSoft Pure Internet Architecture in GUI Mode.”

- e. Accept the defaults for the next series of questions until asked if you want Event Notification configured. In this case, answer *y*.
- f. Accept the default for the remaining questions; the configuration will load automatically.
13. To start the application server (whether you installed a REN server or not), select *1*, Boot this domain, from the PeopleSoft Domain administration menu.
14. Select *1*, Boot (Serial Boot) or *2*, Parallel Boot, from the PeopleSoft Domain Boot Menu.

Note. The messages you see and the number of processes started will depend on the options you chose during configuration.

15. If you plan to continue with PIA installation and testing, do not shut down the application server at this time.
16. If you want to shut down your PeopleSoft application server domain later, follow these simple steps:
 - a. From the PeopleSoft Domain Administration menu, enter *2* for Domain shutdown menu.
 - b. From the PeopleTools Domain Shutdown Menu, enter *1* for Normal shutdown.

You see messages about the application server processes being shut down. The number of processes stopped will vary depending on the number of processes that started when you booted the domain.

- c. Enter *q* to quit the PeopleSoft Domain Administration Menu.

Task 8B-5-2: Testing the Three-Tier Connection

If you get an error message when you try to sign in to the Application Server in Application Designer (that is, three-tier mode), it may be due to an incorrect server name or port number, because the database server is not running, or because the application server was not booted. To test a three-tier connection from the PeopleTools Development Environment (the Windows-based client):

1. Select Start, Programs, PeopleTools 8.52, Configuration Manager to start Configuration Manager.
2. Select the Profile Tab. Highlight Default and select Edit.
3. On the Edit Profile dialog box, select *Application Server* as the Connection Type.
4. Enter values for these parameters:

- Application Server Name
- Machine Name or IP Address
- Port Number (WSL)
- Domain Connection Password and Domain Connection Password (confirm)

Specify a value for the password, and repeat your entry for confirmation. The password must be 8 characters or less. If you do not enter a value, the default value PS is entered.

This password is required when you use three-tier mode in Application Designer to connect to the application server. If you do not set the Domain Connection Password in Configuration Manager or in the Application Server configuration file, the default value PS is used when you sign in to Application Designer in three-tier mode.

See *PeopleTools 8.52: System and Server Administration PeopleBook*, "Using PeopleSoft Configuration Manager."

5. Select Set to add the definition to the list and select OK to close the dialog box.
6. On the Configuration Manager dialog box, select the Startup tab.
7. Select *Application Server* from the Database Type list. Your application server name should be displayed.
8. Enter the values for User ID, Connect ID, and password.
9. Click OK.

Note. Confirm that the application server is running by booting it from psadmin. Select *1*, Boot this domain, from the PeopleSoft Domain administration menu. Select option *1*, Boot (Serial Boot) or *2*, Parallel Boot, from the PeopleSoft Domain Boot menu.

10. Select Start, Programs, PeopleTools 8.52, Application Designer.
11. In the PeopleSoft Signon dialog box:
 - Select *Application Server* as the Connection Type.
 - Confirm that the Application Server Name is correct.
 - Enter values for User ID and password.
12. Select OK to open Application Designer.

If you see the following error message when you try to sign in to the Application Server in Application Designer:

```
Network API: "Could not connect to application server 'Application Server Name'⇒
Make sure the PeopleTools authentication server (PSAUTH) is booted."
```

This may indicate a problem with the Domain Connection Password. For example, if the password set in the Application Server configuration file does not match the value in Configuration Manager (either the default value or one set by the user), you may get this error message when you sign in to Application Designer in three-tier mode. Check the Application Server logs for more information.

Task 8B-5-3: Importing an Existing Application Server Domain Configuration

If you have an existing application server configuration for a previous PeopleSoft PeopleTools release, you can import it to create a new domain. You can import an existing domain configuration by specifying a file or by specifying the path to an existing domain. To import from a file, you must use the `psappsrv.cfg` file found inside an existing application server domain folder (you must specify the full path to `psappsrv.cfg`). This file can be located anywhere in the file system, but must be named `psappsrv.cfg`. To import from an existing domain configuration that you created in PeopleSoft PeopleTools 8.52, you must specify `PS_CFG_HOME` and the name of an existing application server domain. (If you are importing a domain from a release before PeopleSoft PeopleTools 8.50, note that the domains were created in `PS_HOME`, and that is the path that you should provide.)

To import an existing application server domain configuration:

1. Go to the `PS_HOME/appserv` directory and run `psadmin`.

Note. Make sure you change the directory from the `PS_HOME` on the file server to the `PS_HOME` on the application server.

2. Specify `I` for Application Server:

```
-----
PeopleSoft Server Administration
-----
Config Home:  /home/psft_AppServ

1) Application Server
2) Process Scheduler
3) Search Server
4) Web (PIA) Server
5) Switch Config Home
6) Replicate Config Home
q) Quit
```

```
Command to execute (1-6, q): 1
```

The Config Home location corresponds to the current working directory. For information on how Config Home is set, see the System and Server Administration PeopleBook.

See *PeopleTools 8.52: System and Server Administration PeopleBook*, "Working with Server Domain Configurations."

3. Specify 4 for *Import domain configuration*.

```
-----
PeopleSoft Application Server Administration
-----

1) Administer a domain
2) Create a domain
3) Delete a domain
4) Import domain configuration
q) Quit

Command to execute (1-4, q): 4
```

4. Specify 1 for *Import regular domain*.

```
-----
PeopleSoft Import Application Server Configuration
-----

1) Import regular domain
2) Import IB Master Configuration
q) Quit

Command to execute (1-2, q) : 1
```

5. Specify whether to import the domain configuration from a file (1) or from an existing application domain configuration (2).

```
-----
PeopleSoft Import Application Server Configuration
-----

1) Import from file
2) Import from application domain
q) Quit

Command to execute (1-2, q) :
```

6. If you selected 1, provide the full path to the file `psappsrv.cfg`, and then specify the name of the domain you want to create. If you selected 2, go to the next step.

```
Enter full path to configuration file
:/home/oldconfig/psappsrv.cfg

Enter domain name to create
:HR84
```

7. If you selected 2, to *Import from application domain*, provide the full path to the `PS_CFG_HOME` of the existing domain.

If importing from PeopleTools 8.49 or earlier, provide `PS_HOME` for `PS_CFG_HOME`.

```
Enter PS_CFG_HOME of domain you wish to import: /home/JSMITH/pseopletools/8.52
```

If applicable, choose among the existing application server domains in the specified `PS_CFG_HOME`:


```
Tuxedo domain list:
  1)  HR84A
  2)  HR84B

Select domain number to import: 1

Enter a name for new domain:  HR84
```

After you create the domain, continue to the next task to verify that the imported configuration parameters are appropriate for the newly created domain. You may need to change the following values:

- **DBName**
DBName can be the same or different, depending on which database the application server needs to point to.
- **DBType**
DBType depends on the database type of DBName.
- **UserId and UserPswd**
UserId and UserPswd are the user's choice.
- **Workstation Listener Port**
Workstation Listener Port will need to be modified if the old domain will be up and running in the same machine.
- **Jolt Listener Port**
Jolt Listener Port will also need a different number if the old domain will be up and running in the same machine.
- **Jolt Relay Adapter Listener Port**
Jolt Relay Adapter Listener Port will need a different number if the old domain will be up and running in the same machine, and will be using Jolt Relay Adapter.

Task 8B-5-4: Setting Up a Custom Application Server Domain Configuration

The Quick-configure menu is initially displayed when you choose to configure your domain. This menu is intended for the commonly adjusted parameters—those most likely to change from domain to domain. However, there are additional configuration parameters that are not available through the Quick-configure menu. For such configuration parameters, you must use the Custom Configuration option, which you can access from the Quick-configure menu. Feel free to skip this procedure if you have already created and configured your Application Server using the Quick-configure menu and want to move forward.

The following steps assume you will be using `psadmin` to specify parameter settings.

To reconfigure an application server domain:

1. Go to the `PS_HOME/appserv` directory and run `psadmin`.
2. Specify `1` for Application Server and press ENTER.
3. Specify `1` for Administer a domain and press ENTER.
4. Select the domain to administer and press ENTER.

5. Specify *4* for Configure this domain and press ENTER.

The option Configure this domain performs the following tasks:

- Shuts down the application server, if it is running. (Shutdown is required since the binary file PSTUXCFG must be deleted and re-created to enable new configuration values. If there are no processes running when shutdown is attempted, an error will be displayed but the script continues on. This is normal.)
- Initiates an interactive dialog, prompting for configuration parameters.
- Updates psappsrv.cfg, generates psappsrv.ubb, and internally invokes Tuxedo's tmloadcf executable to create binary file PSTUXCFG used during the domain boot process.

6. Specify *14* for Custom Configuration and press ENTER.

7. Respond to this prompt:

Do you want to change any config values (y/n):

- Specify *y* to start an interactive dialog to change or examine parameter values, as described in the next step.

Oracle recommends this option for more experienced users.

- Specify *n* if you have already edited psappsrv.cfg, skip the next step, and continue with step 9.

8. Complete the interactive dialog to specify configuration parameters.

Configuration parameters are grouped into sections. For each section, you are asked whether you want to change any parameters in that section, as in the following example:

Values for config section - Startup

```
DBName=
DBType=
UserId=
UserPswd=
ConnectId=
ConnectPswd=
ServerName=
StandbyDBName=
StandbyDBType=
StandbyUserId=
StandbyUserPswd=
```

Do you want to change any values (y/n)? [n]: y

- Specify *y* to change any parameter values for the current configuration section displayed.

You are prompted for each parameter value. Either specify a new value, or press ENTER to accept the default if applicable. After pressing ENTER, you are positioned at the next parameter in that section. When you are done with that section, you are again asked whether you want to re-edit any of the values you changed.

- Enter the user ID and user password that has security to start the application server. All application databases are delivered with one or more application server security users, usually PS or VP1.
- The parameters StandbyDBName, StandbyDBType, StandbyUserId, and StandbyUserPswd, are used for a standby database in an Oracle environment.

See *PeopleTools 8.52: Data Management PeopleBook*, “Administering PeopleSoft Databases on Oracle,” Implementing Oracle Active Data Guard.

- The WSL, JSL, and JRAD port numbers, which are found in other sections of the configuration parameters, have default values of 7000, 9000, and 9100, respectively. These values must be unique for each application server domain. You may alter the port values if necessary to ensure that they are unique.
- If you do not wish to change any values, specify *n* and you will be prompted for the next configuration section.

Note. When setting up your application server, make a note of the values you use for Database Name, Application Server Name (the machine name), and JSL Port. You will need to use these same values when installing the PeopleSoft Pure Internet Architecture.

See *PeopleTools 8.52: System and Server Administration PeopleBook*.

9. Select server process options.

At this point, you will be prompted to select server process options. If this is your initial installation, we suggest you accept the defaults. A message similar to this appears:

```
Setting Log Directory to the default... [PS_SERVDIR/LOGS]
Configuration file successfully created.
Loading new configuration...
```

“Loading new configuration” indicates that psadmin is generating a binary file named PSTUXCFG, which is used to boot the application server. At this point, your application server should be properly configured.

Task 8B-5-5: Troubleshooting Common Errors

For troubleshooting help, you can access a log file through the PeopleSoft Domain Administration menu. The following information is a list of possible errors you may encounter.

- Use the psadmin PeopleSoft Domain Administration menu option 6 for Edit configuration/log files menu to check for errors in `<PS_CFG_HOME>/appserv/<domain>/LOGS/APPSPRV_mmdd.LOG` and `<PS_CFG_HOME>/appserv/<domain>/LOGS/TUXLOG.mmddyy`.
- If a PeopleSoft server such as PSAPPSRV fails, examine your configuration parameters. The failure of the PSAPPSRV process is often signalled by the message “Assume failed”—which means the process has failed to start. Check the SIGNON section for misspelled or invalid database name, an invalid or unauthorized OprId, or ConnectId or ServerName is missing or invalid. Finally, make sure the database connectivity is set correctly.
- If a WSL (or JSL) fails to start, try specifying another port number (it may be in use already by another application server domain process).
- If you are unable to start the BBL, check that your Tuxedo is installed fully and that the directory really exists.
- If the installation includes more than one application server domain on a single machine, before booting the second domain, adjust the REN server configuration to avoid conflict in one of these ways:
 - Use psadmin to disable Event Notification (option 8 on the Quick-configure menu) for the second and subsequent app server domains.
 - Change default_http_port to a value other than 7180.

Also check that you do not have older Tuxedo releases (such as Tuxedo 6.4) prepended in your PATH or runtime library (LIBPATH, SHLIB_PATH or LD_LIBRARY_PATH, depending on UNIX platform).

See Also

PeopleTools 8.52: System and Server Administration PeopleBook

PeopleTools 8.52: PeopleSoft MultiChannel Framework PeopleBook

Task 8B-6: Configuring Asian Language Fonts

For text that is rendered by the Java Virtual Machine on the application server (for example, charting) the appropriate fonts must be available on the system. If characters are missing or fail to display after installation, additional configuration may be needed. Fonts are defined with a logical name (such as `psjvm.1`) in the database, and a system font name (such as `HG Gothic`) on the application server. Mappings between the logical name and the system font name are defined on the application server in `PS_HOME/appserver/classes/PSOFTFonts.properties`. These mappings generally do not need to be specified for non-Asian languages.

For the correct display of Asian characters, the `JAVA_FONTS` environment variable must list the paths to the desired fonts. This environment variable is set in `PS_HOME/psconfig.sh`. Here is an example of an entry for HP-UX:

```
JAVA_FONTS=$PS_HOME/jre/lib/fonts:/usr/lib/X11/fonts/TrueType/japanese.st⇒
/typefaces:/usr/lib/X11/fonts/TrueType/chinese_t.st/typefaces:/usr/lib/X11/fonts⇒
/TrueType/korean.st/typefaces:/usr/lib/X11/fonts/TrueType/chinese_s.st/typefaces
```

Note. On UNIX, the X11 font packages must be installed.

Note. `psjvm.1` is used by default.

The information that follows is an example of the Japanese entries on HP-UX:

```
ps.lang.1=JPN
JPN.psjvm.1=HG GothicB
JPN.psjvm.2=HGMinchoL
```

In the example above, 'psjvm.1' and 'psjvm.2' can be used in charting style classes. Extra fonts and languages can be added if needed.

Note. On all UNIX platforms, the `PS_HOME/jre/lib/fonts.propertiesXXX` file (where XXX represents the locale that the machine is operating under) must contain the mappings for all the fonts that will be used by the application server to generate charts. On most platforms, the default `font.propertiesXXX` files contain mappings only for those fonts most commonly used by each locale. If you wish to generate charts using fonts that are not by default mapped into the `font.propertiesXXX` file for your locale, you must manually modify the default file to include this information. Find the `font.propertiesXXX` files containing the appropriate mapping information, and append that mapping information to the end of the `font.propertiesXXX` file that matches your machine's locale.

Note. On *HP-UX*, the path to the fonts must be entered in the JVM's `font.propertiesXXX` file (where `XXX` is the locale that the machine is operating under). Each full path must be separated by colons under the setting `hp.fontpath`. This file is located in *PS_HOME*/jre/lib. Following is an example:

```
hp.fontpath=/usr/lib/X11/fonts/ms.st/typenames:/usr/lib  
/X11/fonts/TrueType/japanese.st/typenames:
```

See Also

PeopleTools 8.52: PeopleCode API Reference PeopleBook, "Charting Class"

CHAPTER 9A

Setting Up the PeopleSoft Pure Internet Architecture in GUI Mode

This chapter discusses:

- Understanding PeopleSoft Pure Internet Architecture
- Using Authentication Domains in the PeopleSoft Pure Internet Architecture Installation
- Preparing the PeopleSoft Pure Internet Architecture File System for a PeopleTools-Only Upgrade
- Installing the PeopleSoft Pure Internet Architecture on Oracle WebLogic in GUI Mode
- Installing the PeopleSoft Pure Internet Architecture on IBM WebSphere in GUI Mode
- Testing and Administering the PeopleSoft Pure Internet Architecture Installation
- Completing Post-Installation Steps

Understanding PeopleSoft Pure Internet Architecture

This chapter explains how to install and configure the components of the PeopleSoft Pure Internet Architecture (PIA) in GUI mode. It includes instructions for installing the PeopleSoft files on Oracle WebLogic and IBM WebSphere. Only complete the instructions for the web server product that you installed.

Note. See the chapter “Setting Up the PeopleSoft Pure Internet Architecture in Console Mode” for instructions on installing in silent mode on Microsoft Windows.

See "Installing Web Server Products."

The setup program for the PeopleSoft Pure Internet Architecture is installed to the web server machine when you run the PeopleSoft Installer and select the PeopleSoft Web Server option.

See "Using the PeopleSoft Installer."

Oracle only supports customer installations that use the version of the web servers packaged with PeopleSoft PeopleTools. *You must install the web server before you install the PeopleSoft Pure Internet Architecture.* Before you install the PeopleSoft Pure Internet Architecture, you must also have configured an application server, as described in the previous chapter.

The location where you install the PeopleSoft Pure Internet Architecture is referred to in this documentation as *PIA_HOME*. You can specify different locations for *PS_HOME* and *PIA_HOME*. After you complete the PeopleSoft Pure Internet Architecture installation, you can locate the installation files in the directory *PIA_HOME/webserv*.

For PeopleSoft PeopleTools 8.51 and later, if you are setting up the PeopleSoft Pure Internet Architecture on a Microsoft Windows platform, the directory and path that you specify for *PIA_HOME* may include spaces. However, parentheses in the directory name (for example, "C:\Program Files (x86)") are *not* allowed for *PIA_HOME*.

See "Preparing for Installation," Defining Installation Locations.

If your web server is on a different machine than your application server, you need to make sure you have JRE installed on your web server to run the PeopleSoft Pure Internet Architecture installation.

The initial PeopleSoft Pure Internet Architecture setup automatically creates the default PeopleSoft site named *ps*. In subsequent PeopleSoft Pure Internet Architecture setups, change the site name from *ps* to a unique value. We recommend using the database name. This is handy for easy identification and ensures that the database web server files are installed in a unique web site.

The URL that you use to invoke the PeopleSoft Pure Internet Architecture must conform to ASN.1 specifications. That is, it may contain only alphanumeric characters, dots ("."), or dashes ("-"). The URL must not begin or end with a dot or dash, or contain consecutive dots (".."). If the URL includes more than one portion, separated by dots, do not use a number to begin a segment if the other segments contain letters. For example, "mycompany.second.country.com" is correct, but "mycompany.2nd.country.com" is wrong.

Warning! Do not use GUI mode to install the PeopleSoft Pure Internet Architecture if you want to install on a IBM WebSphere server *and* you are running on a UNIX platform. In this situation, use console mode to set up the PeopleSoft Pure Internet Architecture.

Review the following additional notes before beginning the PeopleSoft Pure Internet Architecture installation:

- If you want to connect between multiple application databases, you need to implement single signon.
- If the PeopleSoft Pure Internet Architecture installation encounters an error, it will indicate which log files to refer to.

See "Installing Web Server Products."

- The machine on which you run the PeopleSoft Pure Internet Architecture install must be running in *256 color mode*. This is not necessary for UNIX or console mode.
- When installing on Microsoft Windows Server 2008, change the font size to the default value.

If you use the installer with a non-default font size, some of the fields on the installer windows may appear with an incorrect length. To change the font size:

- a. Right-click the desktop and select Personalize.
- b. Click Adjust font size (DPI).
- c. Select the default, 96 DPI.

The PeopleSoft Pure Internet Architecture installation includes the following products:

- *PeopleSoft Pure Internet Architecture*. This product is the centerpiece of the PeopleSoft architecture that enables users to work on a machine with only a supported browser installed. This option installs the servlets required for deploying PeopleSoft Applications and for the PeopleSoft portal. The portal packs and PeopleSoft Portal Solutions have their own installation instructions, which are available on My Oracle Support. For an overview of the various types of portals, consult the following PeopleBook.

See *PeopleTools 8.52: PeopleTools Portal Technologies PeopleBook*.

- *PeopleSoft Report Repository*. This product works in conjunction with Process Scheduler to allow report distribution over the web.

- *PeopleSoft Integration Gateway.* This product is the entry and exit point for all messages to and from the Integration Broker. Its Java-based Connector architecture allows asynchronous and synchronous messages to be sent over a variety of standard protocols, many that are delivered at install, or through custom connectors.

Important! For PeopleSoft PeopleTools 8.50 and higher, review the section on security properties for Integration Gateway. When setting the properties in the `integrationGateways.properties` file, the property `secureFileKeystorePasswd` must be encrypted, and the `secureFileKeystorePath` must be set.

See *PeopleTools 8.52: Integration Broker Administration PeopleBook*, "Managing Integration Gateways."

- *PeopleSoft CTI Console.* This product works in conjunction with CTI vendor software to enable call center agents to take advantage of browser based teleset management and automatic population of application pages with relevant data associated with incoming calls, such as customer or case details.

See *PeopleTools 8.52: PeopleSoft MultiChannel Framework PeopleBook*.

- *Environment Management Hub.* The Environment Management hub is a web application that is installed with the PeopleSoft Pure Internet Architecture and portal. It is started along with the rest of the web applications when the user boots the web server. You cannot start the Environment Management Hub on a server that is configured to run HTTPS; in other words, if you plan to run Environment Management, your PIA server needs to be configured in HTTP mode.

See *PeopleTools 8.52: PeopleSoft Change Assistant PeopleBook*.

See Also

PeopleTools 8.52: Security Administration PeopleBook

PeopleTools 8.52: System and Server Administration PeopleBook

"Using the PeopleSoft Installer," Verifying Necessary Files for Installation on Windows

Using Authentication Domains in the PeopleSoft Pure Internet Architecture Installation

You have the option to specify an authentication domain when you install the PeopleSoft Pure Internet Architecture on Oracle WebLogic or WebSphere.

Note. The authentication domain was referred to as the Authentication Token Domain in previous releases, and that term is still seen in the software.

When an authentication domain is specified during the PeopleSoft Pure Internet Architecture install, that value gets used as the Cookie domain in the web server configuration. The main requirements when setting a cookie domain are:

- The host must have a fully qualified domain name (FQDN). The requirement that you must have a domain name does not imply that you must have a DNS, but you do need some type of naming service such as DNS or some managed `..etc\hosts` file that contains a list of the servers with their domain name.
- The cookie domain value being set must begin with a dot (`.ps.com` is valid, `ps.com` is NOT valid).

- The cookie domain value being set must contain at least 1 embedded dot (.ps.com is valid, .corp.ps.com is valid, .com is NOT valid).
- The cookie domain value can only be a single domain name. It cannot be a delimiter-separated list of domains.

By default, the browser only sends cookies back to the machine that set the cookie. So if web server `crm.yourdomain.com` sets a cookie, the browser will only send it back there. You can make the browser send the single signon cookie to all servers at `yourdomain.com` by typing your domain name in the Authentication Token Domain list box of web server `crm`.

Specifying the authentication domain may be necessary in certain cases. For example, if you plan to use the PeopleSoft portal technology, be sure to read the supporting documentation to determine whether setting the authentication domain is required for correct operation.

See *PeopleTools 8.52: PeopleTools Portal Technologies PeopleBook*, "Configuring the Portal Environment."

Specify an authentication domain if you plan to run a REN Server. REN Servers are required for PeopleSoft MultiChannel Framework, Reporting, and some PeopleSoft CRM applications supported by PeopleSoft MultiChannel Framework.

See *PeopleTools 8.52: PeopleSoft MultiChannel Framework PeopleBook*.

Specify an authentication domain if you plan to use Business Objects Enterprise.

See "Installing and Configuring Software for Crystal Reports," Installing SAP BusinessObjects Enterprise XI 3.1.

Task 9A-1: Preparing the PeopleSoft Pure Internet Architecture File System for a PeopleTools-Only Upgrade

If you are installing into an existing `PS_HOME` or `PS_CFG_HOME` in preparation for a PeopleTools-only upgrade, perform the following instructions to remove any obsolete files.

Stop the web server before performing the PeopleSoft Pure Internet Architecture installation or uninstallation.

Depending on your web server platform, complete the following steps to clean up previous PeopleSoft Pure Internet Architecture sites:

- Oracle WebLogic

Shut down Oracle WebLogic and follow the uninstallation instructions in the old release PeopleSoft PeopleTools installation guide for your database platform.

Alternatively, delete the contents of one of the following directories:

- For PeopleSoft PeopleTools 8.43.x or earlier: `<weblogic_home>\wlserver6.1\config\<domain_name>*`
- For PeopleSoft PeopleTools 8.44.x to 8.49.x: `<PS_HOME>\webserv\<domain_name>*`
- For PeopleSoft PeopleTools 8.50.x or later: `<PIA_HOME>\webserv\<domain_name>*`

- IBM WebSphere

Shut down IBM WebSphere and follow the uninstallation instructions in the old release PeopleSoft PeopleTools installation guide for your database platform.

Task 9A-2: Installing the PeopleSoft Pure Internet Architecture on Oracle WebLogic in GUI Mode

This section discusses:

- Prerequisites
- Installing the PeopleSoft Pure Internet Architecture on Oracle WebLogic
- Uninstalling the PeopleSoft Pure Internet Architecture on Oracle WebLogic

Prerequisites

This section describes how to install the PeopleSoft Pure Internet Architecture on Oracle WebLogic. Before installing the PeopleSoft Pure Internet Architecture (PIA) on Oracle WebLogic, you must have installed the Oracle WebLogic software. PeopleSoft PeopleTools 8.52 supports 64-bit Oracle WebLogic 10.3.4.

See "Installing Web Server Products," Installing Oracle WebLogic.

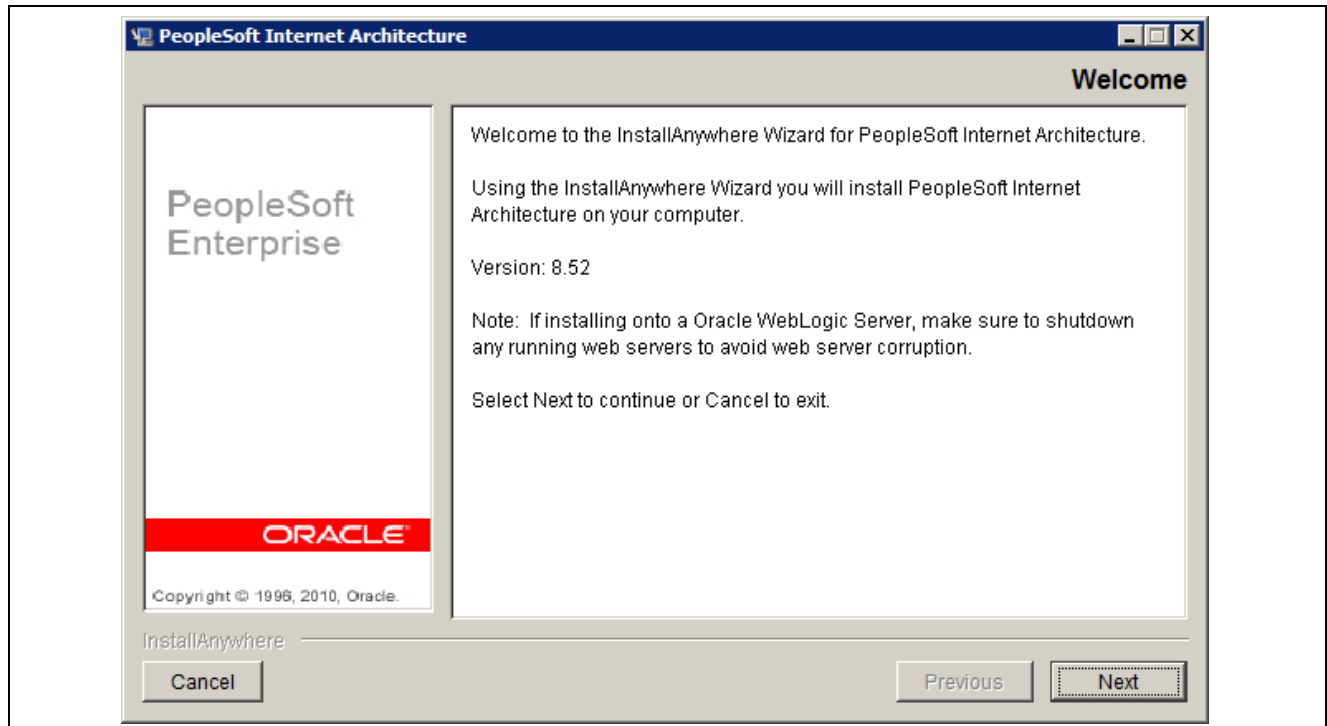
See *PeopleTools 8.52: System and Server Administration PeopleBook*, "Working with Oracle WebLogic."

Task 9A-2-1: Installing the PeopleSoft Pure Internet Architecture on Oracle WebLogic

To install the PeopleSoft Pure Internet Architecture on Oracle WebLogic:

1. Go to *PS_HOME*\setup\PsmPPIAInstall and run `setup.bat`.
2. Click Next on the Welcome to the InstallAnywhere Wizard for PeopleSoft Internet Architecture window.

The window displays the PeopleSoft PeopleTools version, 8.52 in this example, and includes this note: "If installing onto a Oracle WebLogic Server, make sure to shutdown any running web servers to avoid web server corruption."

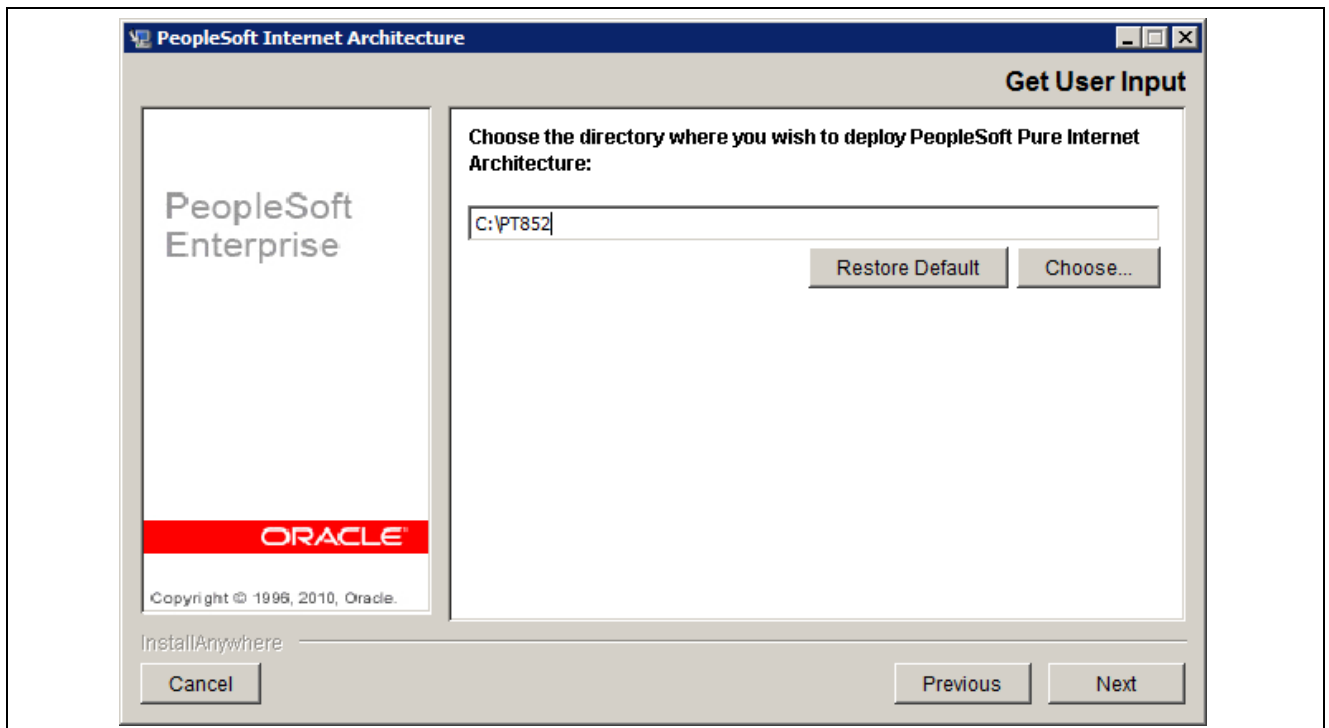


PeopleSoft Internet Architecture Welcome window

3. Enter the location where you want to install the PeopleSoft Pure Internet Architecture, referred to in this documentation as *PIA_HOME*.

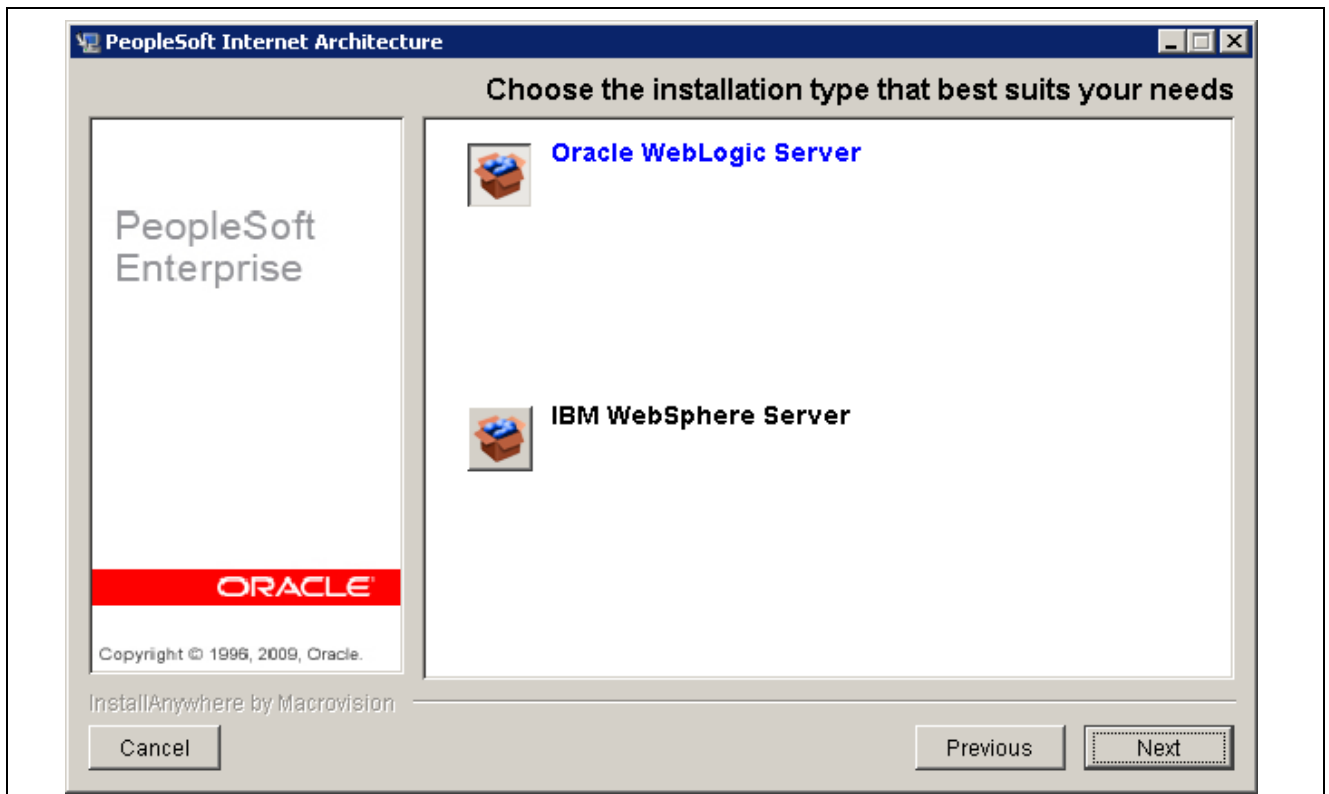
In this example, the directory is *C:\PT852*, which is the same as *PS_HOME*. The default location for *PIA_HOME* is the same as *PS_CFG_HOME*, for example *C:\Documents and Settings\ps_user\psft\pt\8.52*.

See "Preparing for Installation," Planning Your Initial Configuration.



Specifying the installation location for the PeopleSoft Internet Architecture

4. Select Oracle WebLogic Server and click Next.



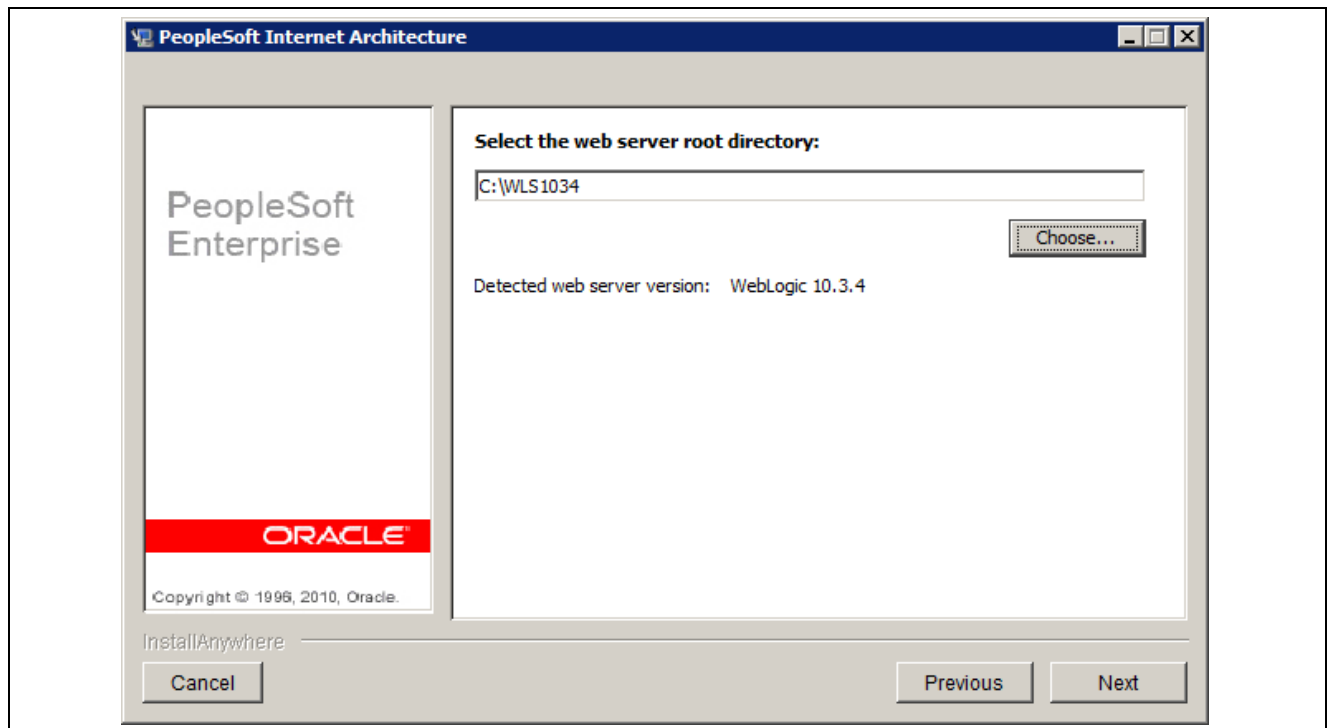
Selecting the installation type for PeopleSoft Pure Internet Architecture

5. Specify the root directory where Oracle WebLogic is installed, *WLS_HOME*, and click Next.

In this example, the root directory for Oracle WebLogic 10.3.4 is C:\WLS1034.

Note. If you enter an incorrect path for Oracle WebLogic, you receive an error message “Detected web server version: no choices available.” Check that you have Oracle WebLogic installed, and in the designated directory.

If you specify a 32-bit installation of Oracle WebLogic, a message appears asking you to confirm the decision. Keep in mind that PeopleSoft PeopleTools 8.51 and later releases require 64-bit Oracle WebLogic.



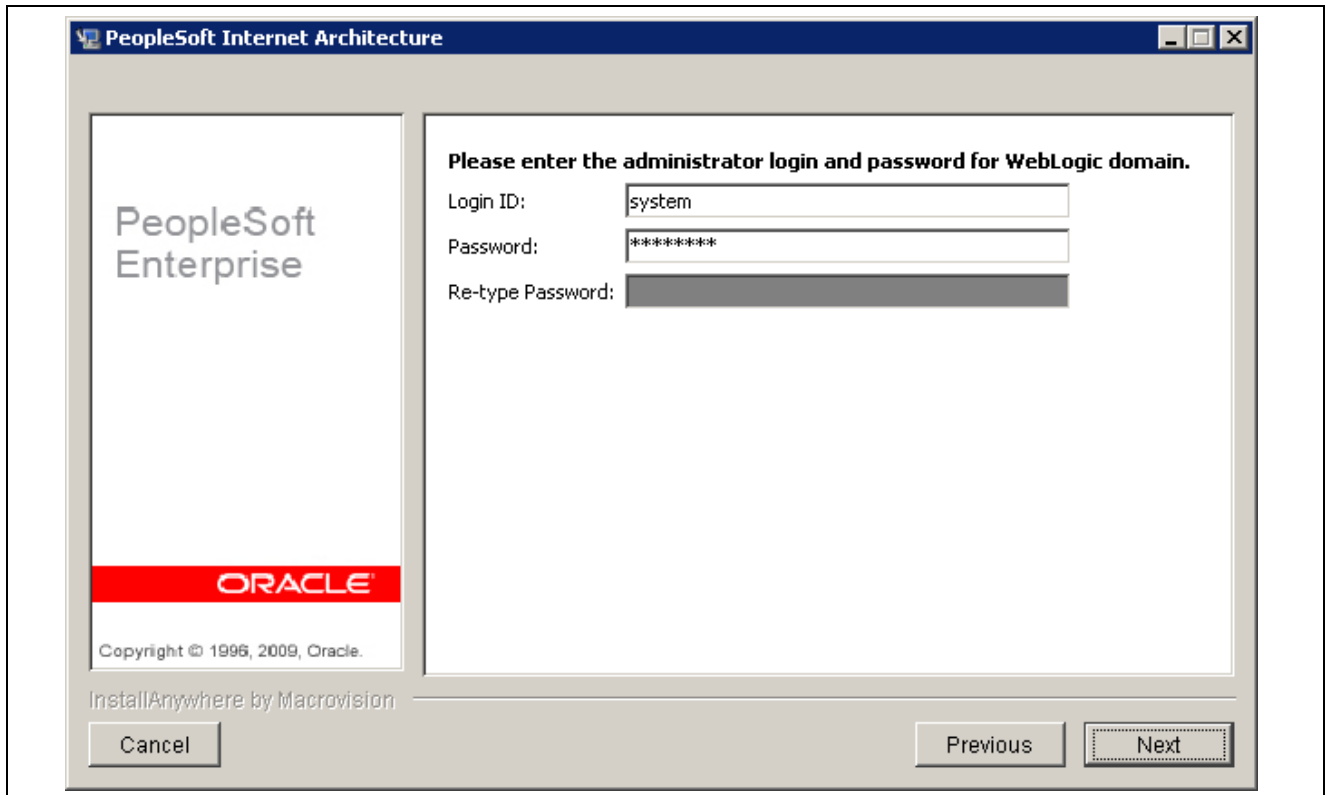
Selecting the web server root directory on the PeopleSoft Internet Architecture window

6. Enter the administrator login ID and password for the new domain to be created.

The password must be at least 8 alphanumeric characters with at least one number or special character.

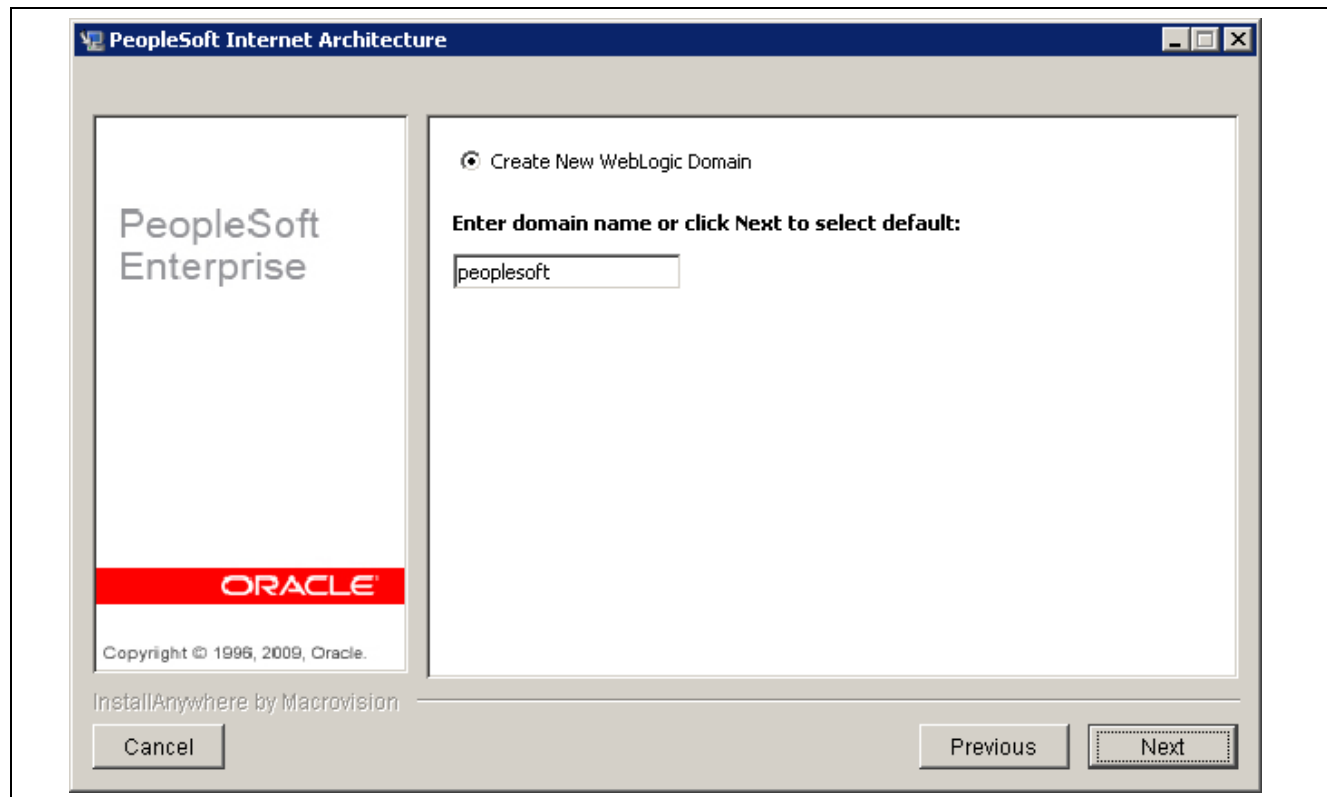
Note. The default login ID is system, and the default password is Passw0rd (with a capital “P” and zero rather than the letter “o”). It is good practice to change to a password other than the default.

Click Next to continue.



Specifying administrator login and password on the PeopleSoft Internet Architecture window

7. If the PIA installer cannot detect any existing Oracle WebLogic domains, only the option Create New WebLogic Domain is available.

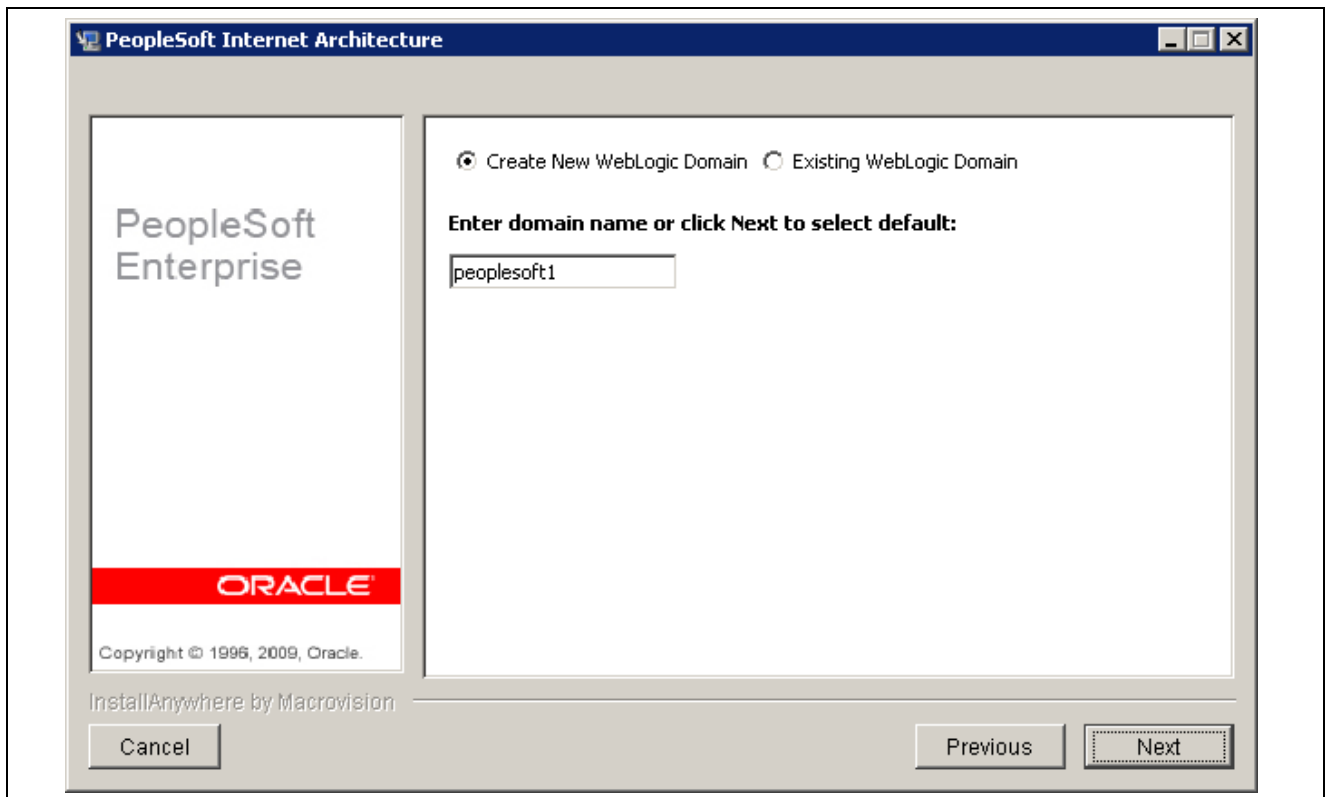


Entering new domain name on the PeopleSoft Internet Architecture window

8. If there are existing Oracle WebLogic domains on your system, select one of the options Create New WebLogic Domain or Existing WebLogic Domain.

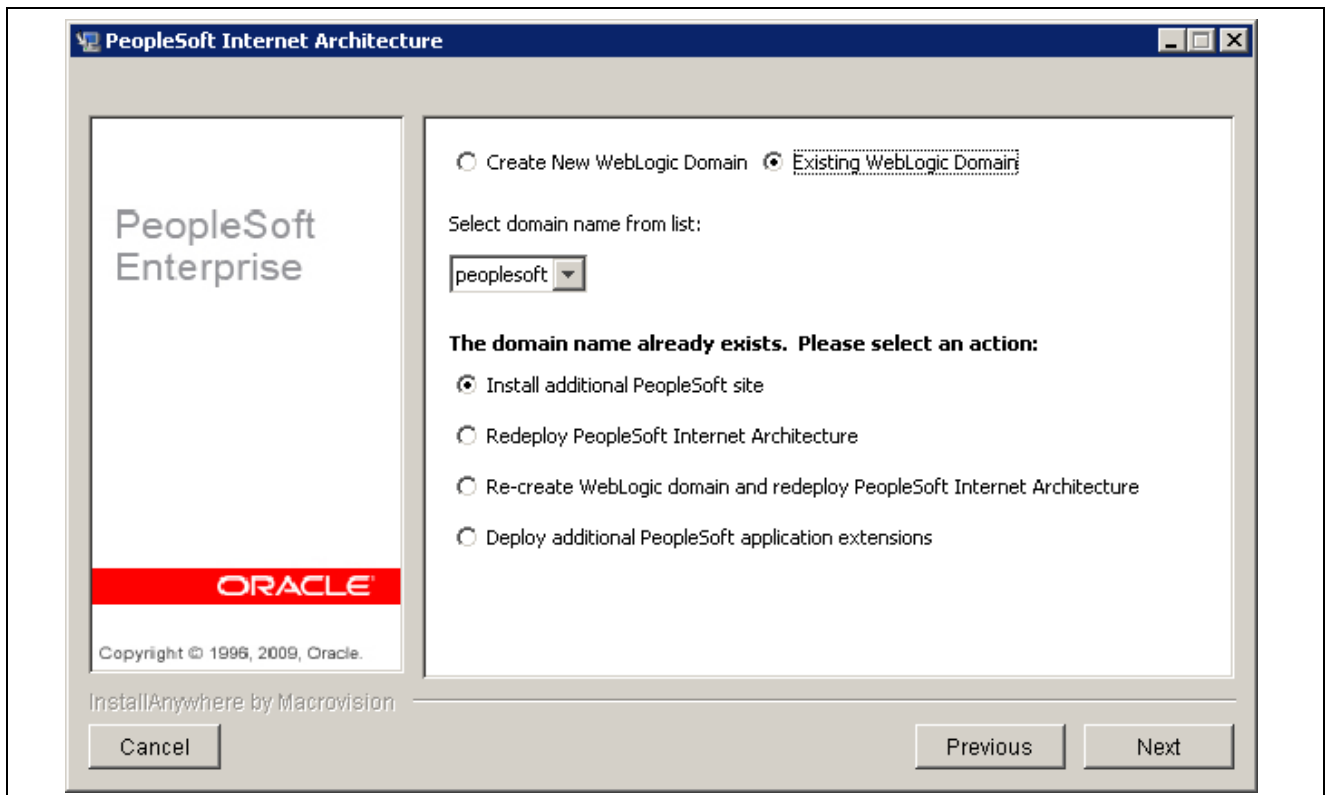
If you select Create New WebLogic Domain, the installation process automatically generates a valid domain name in the domain name field.

If you attempt to enter an invalid domain name, you see a prompt asking you to enter a new domain name or choose an existing domain.



Choosing a new or existing WebLogic domain

9. If you select Existing WebLogic Domain, specify the domain name and select one of the following options:



Selecting an existing WebLogic domain

- *Install additional PeopleSoft site*

This option is relevant only to the PeopleSoft PORTAL web application, and does not modify or revert any other configuration settings. Select this option to install only the necessary files for defining an additional PeopleSoft site onto an existing Oracle WebLogic configuration. The new site will be accessed using its name in the URL. A site named “CRM” would be accessed using a URL similar to `http://mywebserver_machine/CRM`. To reset or re-create an existing PeopleSoft site, simply enter that site's name as the site to create. On your web server, a PeopleSoft site is comprised of the following directories within the PORTAL web application:

```
<WEBLOGIC_DOMAIN>\applications\peoplesoft\PORTAL\<site>\*
```

```
<WEBLOGIC_DOMAIN>\applications\peoplesoft\PORTAL\WEB-INF\psftdocs\<site>\*
```

- *Redeploy PeopleSoft Internet Architecture*

This selection affects all of the PeopleSoft Pure Internet Architecture web applications installed to the local Oracle WebLogic domain. Select this option to redeploy all of the class files and jar files that comprise web components of PeopleSoft Pure Internet Architecture. Oracle WebLogic Server configuration files, scripts and any existing PeopleSoft (PORTAL) sites are not overwritten, unless you specify an existing PeopleSoft site during this setup.

- *Re-create WebLogic domain and redeploy PeopleSoft Internet Architecture*

This option affects Oracle WebLogic Server configuration and all of the PeopleSoft Pure Internet Architecture web applications installed to the local Oracle WebLogic domain. Select this option to completely remove an existing Oracle WebLogic domain and create the newly specified PeopleSoft site.

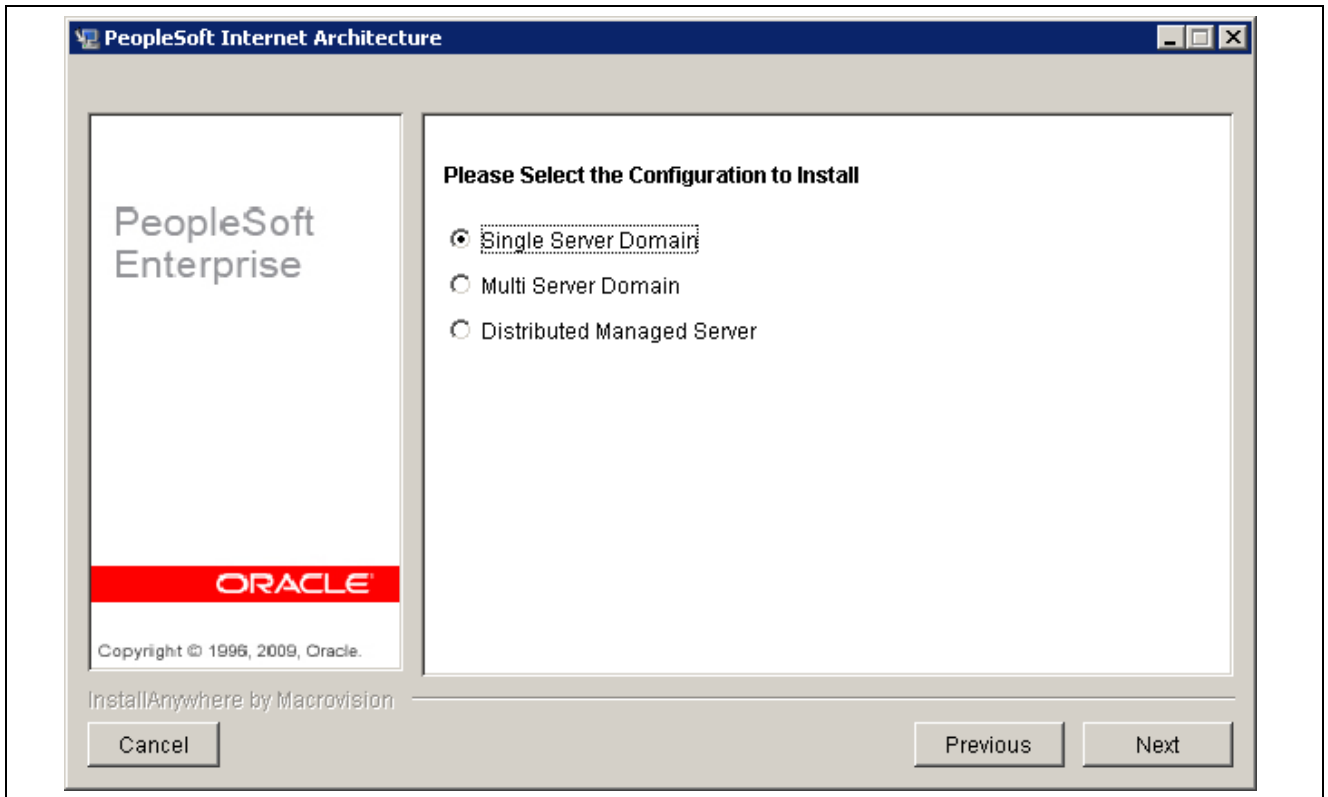
Warning! Re-creating an existing domain will delete everything previously installed into that domain.

See *PeopleTools 8.52: PeopleTools Portal Technologies PeopleBook*.

- *Deploy additional PeopleSoft application extensions*

This option is solely for use with PeopleSoft applications. PeopleSoft application extensions are provided with certain PeopleSoft applications, and this option allows you to deploy those extensions. Consult the installation documentation for your PeopleSoft application to see if this option is appropriate. PeopleSoft PeopleTools does not use application extensions.

10. If there are application packages in the archives directory, you'll be asked whether you want to deploy them. (If you are using an existing domain, you'll only be prompted if you selected Deploy additional PeopleSoft extensions.)
11. Select the type of domain to create—single server, multi server, or distributed managed server.



Choosing the domain type

There are three domain configuration options:

- *Single Server Domain*

This domain configuration contains one server named PIA, and the entire PeopleSoft application is deployed to it. This configuration is intended for single user or very small scale, nonproduction environments. This configuration is very similar to the Oracle WebLogic domain provided in PeopleSoft PeopleTools 8.40 through 8.44.

- *Multi Server Domain*

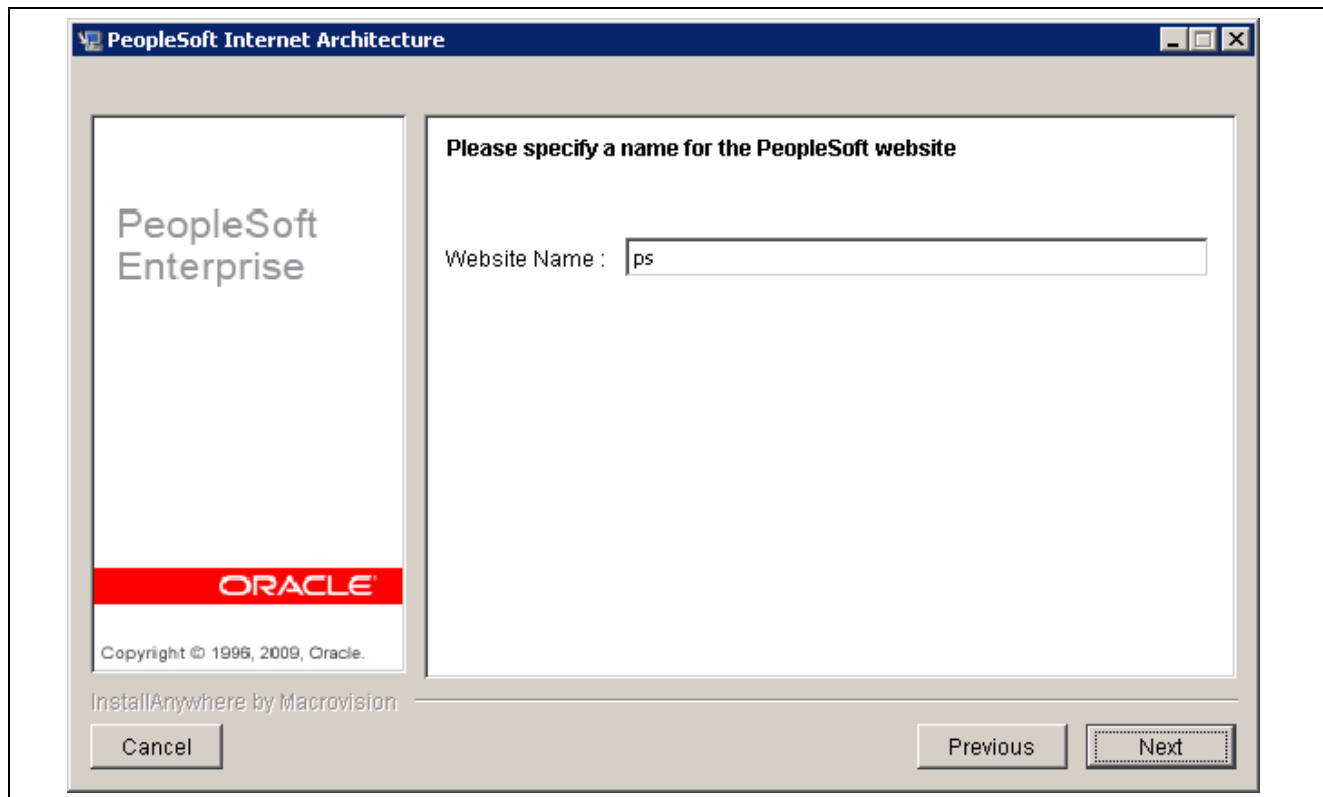
This domain configuration contains seven unique server definitions, an Oracle WebLogic cluster, and the PeopleSoft application split across multiple servers. This configuration is intended for a production environment.

- *Distributed Managed Server*

This option is an extension of the Multi Server Domain selection and installs the necessary files to boot a managed server. This option requires a Multi Server installation to be performed to some other location, which will contain the configuration for this managed server.

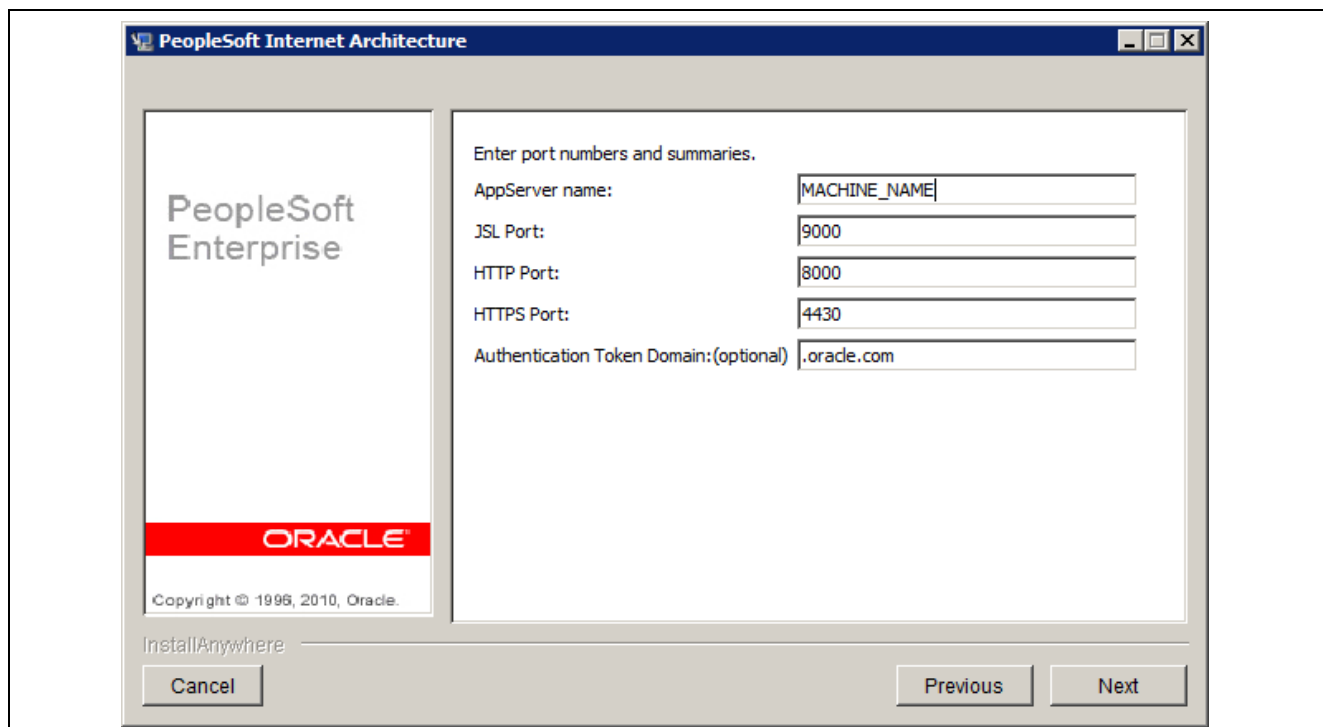
12. Enter a PeopleSoft web site name; the default is ps.

Warning! The site name can include underscores (_), but an underscore cannot be followed by a numeric character or the string “newwin” (for example, my_site_3 or my_newwin_site).



Specifying the PeopleSoft website name

13. Specify your application server name, its JSL (Jolt Station Listener) port number, its HTTP and HTTPS port numbers, the Authentication Token Domain (optional), and click Next.



Specifying application server name, port numbers, and authentication token domain

- *AppServer name*

For the AppServer name setting, enter the name of your application server.

- *JSL Port*

For the JSL port setting, enter the JSL port number you specified when setting up your application server. (The default value is 9000.)

See "Configuring the Application Server on <Windows or UNIX>."

- *Authentication Token Domain*

Note. The value you enter for Authentication Token Domain must match the value you specify when configuring your application server, as described earlier in this book. In addition, certain installation configurations require that you specify an authentication domain.

See Using Authentication Domains in the PeopleSoft Pure Internet Architecture Installation.

If you enter a value for Authentication Token Domain, the URL to invoke PeopleSoft Pure Internet Architecture must include the network domain name in the URL. For example, if you do not enter an authentication domain, the URL to invoke PeopleSoft Pure Internet Architecture is `http://MachineName/ps/signon.html`. If you do enter a value for the authentication domain (for example, `.myCompany.com`), the URL to invoke PeopleSoft Pure Internet Architecture is `http://MachineName.myCompany.com/ps/signon.html`. In addition, if the web server for the database is using an http port other than the default port of 80, the URL must include the port number, for example `http://MachineName:8080/ps/signon.html` if there is no authentication domain, or `http://MachineName.myCompany.com:8080/ps/signon.html` if there is an authentication domain. The URL must also comply with the naming rules given earlier in this chapter.

See Understanding the PeopleSoft Pure Internet Architecture.

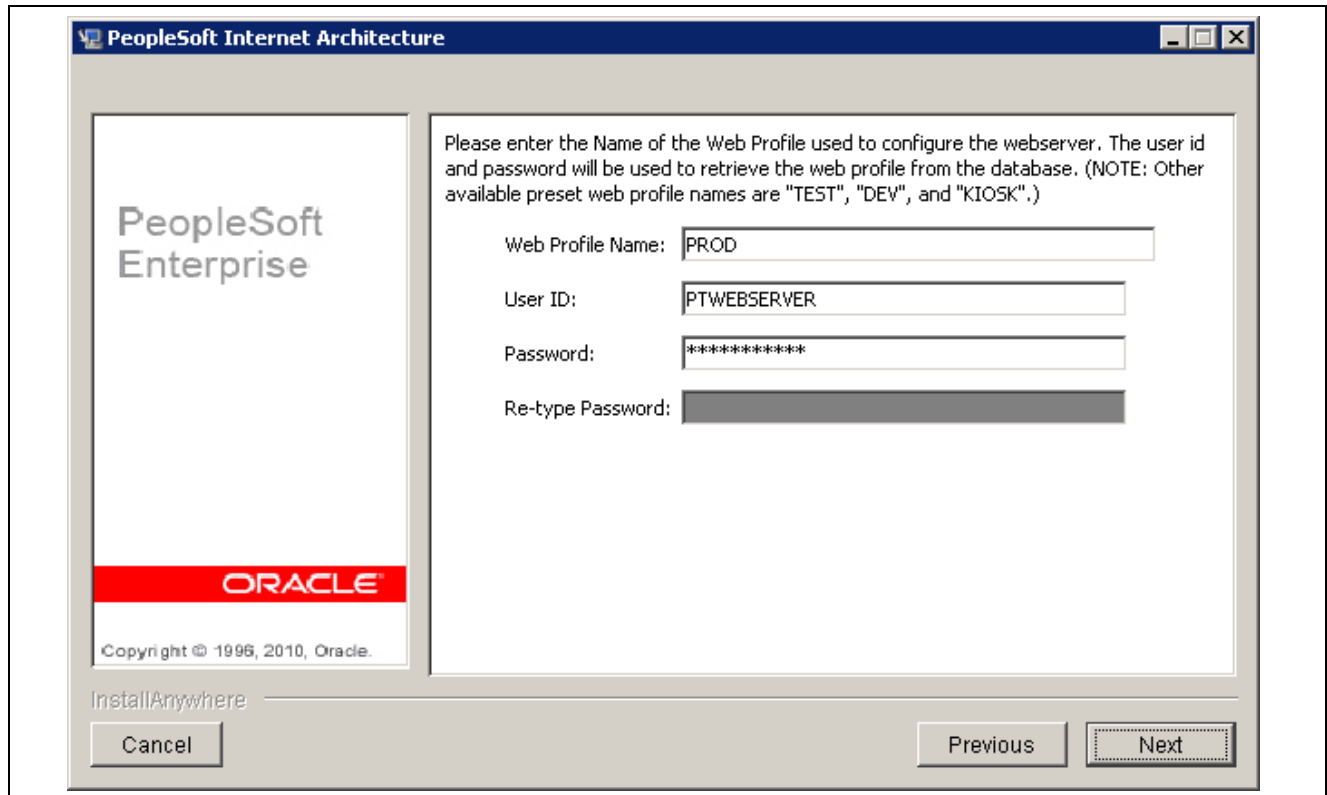
14. Accept the default for the web profile, PROD, or enter another name.

The example below shows the default web profile name, PROD, and user ID, PTWEBSEVER.

The web profile name will be used to configure this web site. You can specify one of the other predelivered web profiles, DEV, TEST, or KIOSK, or enter a different name. If you intend to use a Web Profile User ID other than the default, be sure to review the information on web profile configuration and security in the following PeopleBook.

See *PeopleTools 8.52: PeopleTools Portal Technologies PeopleBook*, "Configuring the Portal Environment."

Note. If the PeopleSoft PeopleTools version of your database is *below* 8.44, then you will need to add the PTWEBSEVER User Profile before you upgrade to the current PeopleSoft PeopleTools release. The User Profile must include the PeopleTools Web Server role, but do not grant any other roles. Enter the password that you set for the User Profile for the User ID password in this step, as shown in this example. See *PeopleTools 8.52: Security Administration PeopleBook* for the steps required to add a User Profile.



Specifying web profile information

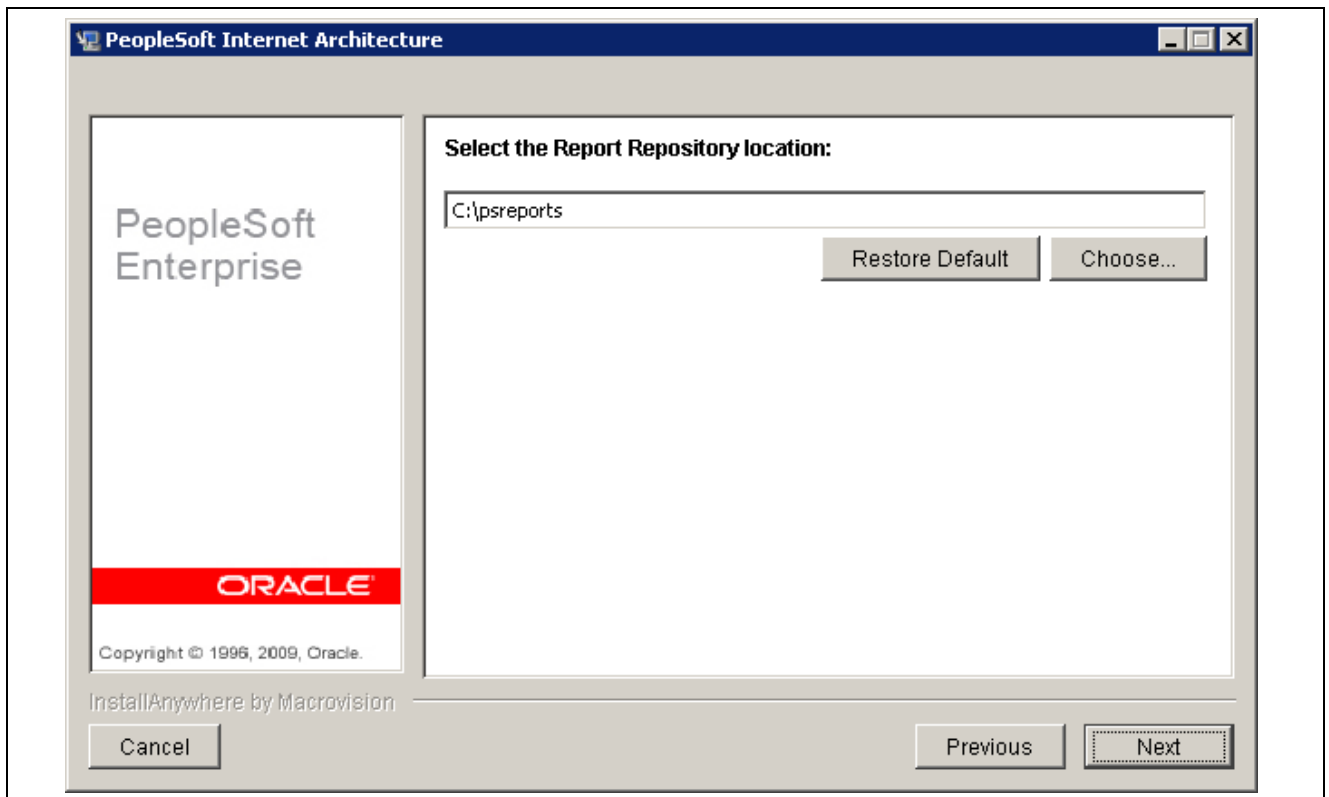
15. Specify the root directory for the Report Repository, and click Next.

Make sure that the report repository directory is shared. You must have write access to the Report Repository directory. The default is C:\psreports, as shown in the example below.

Note. In setting up the Process Scheduler to transfer reports, if you choose the FTP transfer protocol, use the same directory for the Home Directory as you use here for the report repository.

See *PeopleTools 8.52: PeopleTools Portal Technologies PeopleBook*.

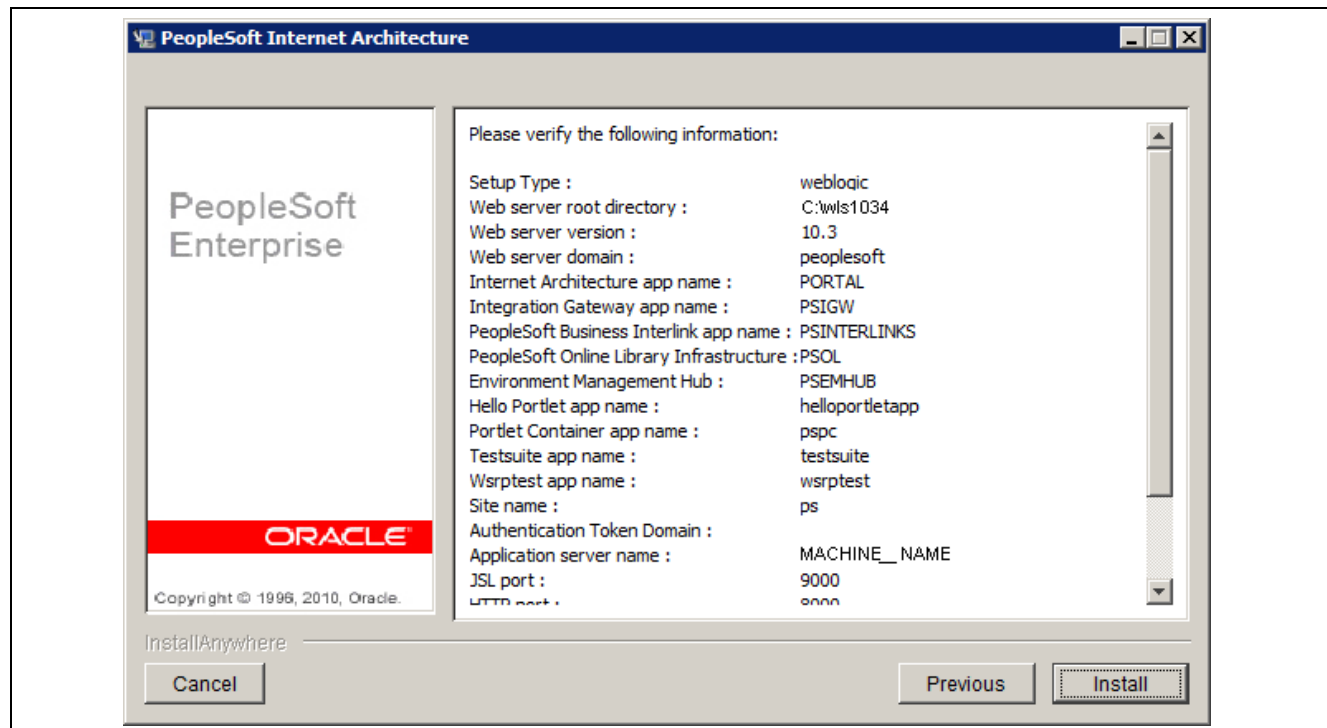
See "Setting Up Process Scheduler on Windows," Setting Up the Process Scheduler to Transfer Reports and Logs to Report Repository.



Specifying the Report Repository location

16. Verify all of your selections (click Back if you need to make any changes), and click Install to begin the installation.

The window summarizes the installation information, such as web server software, web server root directory, version, and so on.



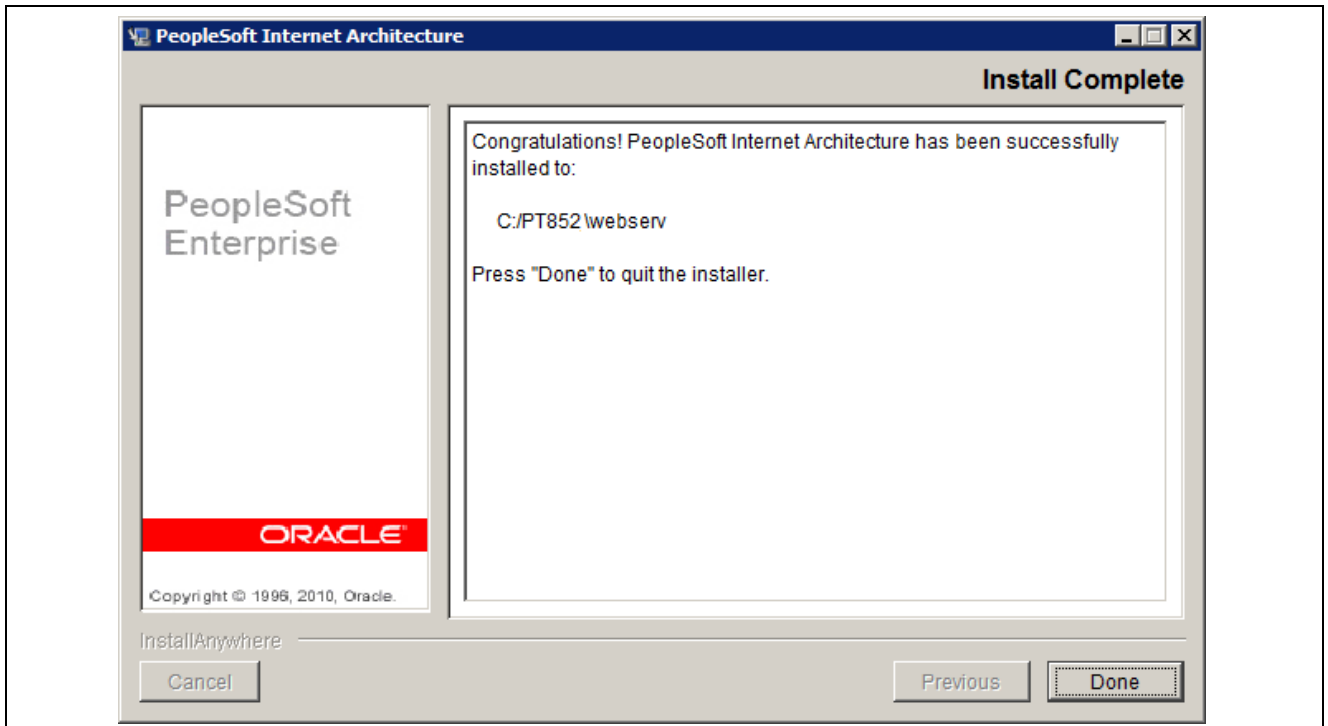
Summary information for the PeopleSoft Internet Architecture installation

An indicator appears showing the progress of your installation.

17. Click Finish to complete the installation.

The default installation directory, shown on the Install Complete window, is `<PIA_HOME>\webserv \<domain_name>`. In this example the installation directory is `C:\PT852\webserv`.

Note. If you are installing into an existing domain, you need to restart that domain.



PeopleSoft Internet Architecture Install Complete window

Task 9A-2-2: Uninstalling the PeopleSoft Pure Internet Architecture on Oracle WebLogic

To remove a PIA domain deployed on Oracle WebLogic, delete the folder `<PIA_HOME>\webserv\<domain_name>`. If there is more than one domain, delete the `domain_name` folder for every domain you want to uninstall.

Task 9A-3: Installing the PeopleSoft Pure Internet Architecture on IBM WebSphere in GUI Mode

This section discusses:

- Prerequisites
- Installing the PeopleSoft Pure Internet Architecture on IBM WebSphere
- Uninstalling the PeopleSoft Pure Internet Architecture from IBM WebSphere

Prerequisites

The information in this section applies to the installation of PeopleSoft Pure Internet Architecture (PIA) on an IBM WebSphere Application Server. PeopleSoft PeopleTools 8.52 requires a 64-bit IBM WebSphere ND installation. Review these points before beginning the installation:

- Before installing the PeopleSoft Pure Internet Architecture on IBM WebSphere Application Server Network Deployment, (referred to here as IBM WebSphere ND) you must have installed the IBM WebSphere ND software.
- Each IBM WebSphere Application Server runs one PeopleSoft Pure Internet Architecture application. If you need to install more than one PeopleSoft Pure Internet Architecture application on your IBM WebSphere Application Server, you must run the PIA installation again.
- When installing PIA on IBM WebSphere ND, you must work with a local copy of the PIA installation software; you cannot install remotely. If you are doing the installation on a machine other than the one on which you installed PeopleSoft PeopleTools, copy the *PS_HOME\setup\PsmPPIAInstall* directory to the local machine and keep the same directory structure.
- Both IBM WebSphere Application Server Network Deployment and PeopleSoft Pure Internet Architecture need to be installed and deployed using the same user ID. Following this requirement avoids any security and profile management issues.

See Also

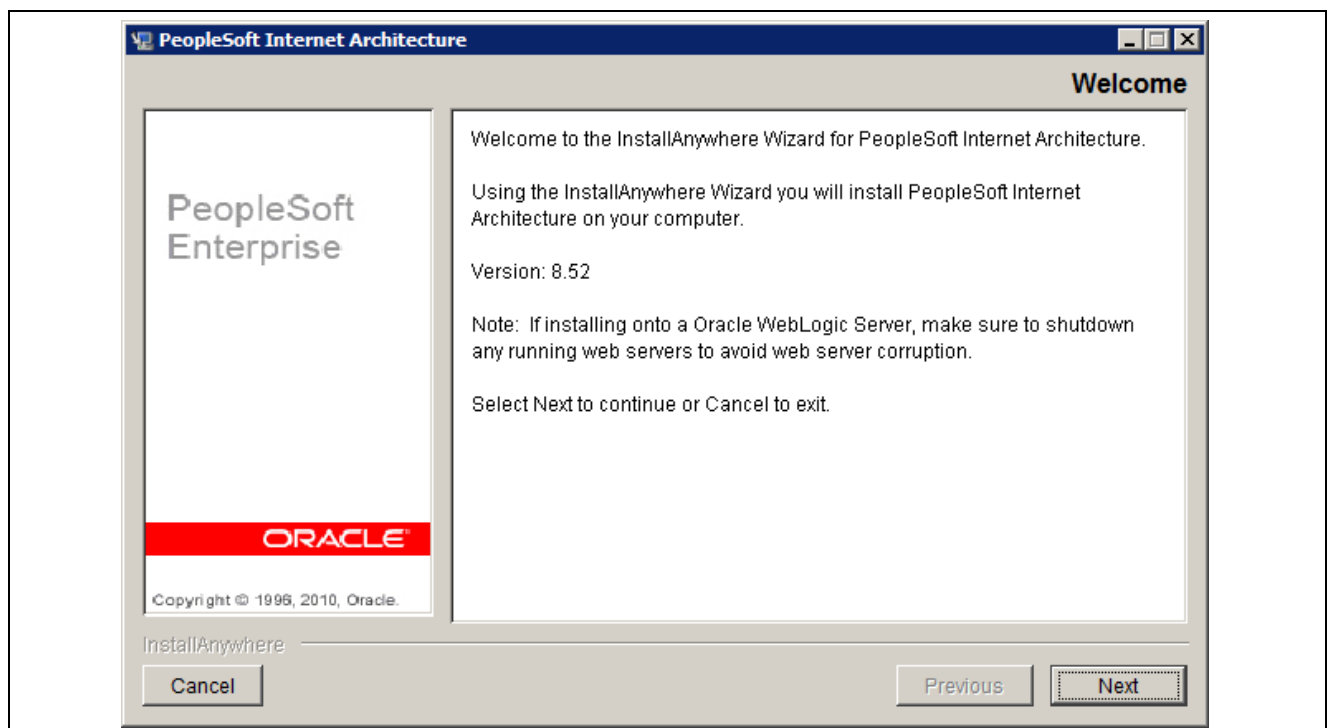
"Installing Web Server Products," Installing IBM WebSphere Application Server

Task 9A-3-1: Installing the PeopleSoft Pure Internet Architecture on IBM WebSphere

To install PIA on IBM WebSphere ND:

1. Go to *PS_HOME\setup\PsmPPIAInstall*.
2. Double-click on *setup.bat*.

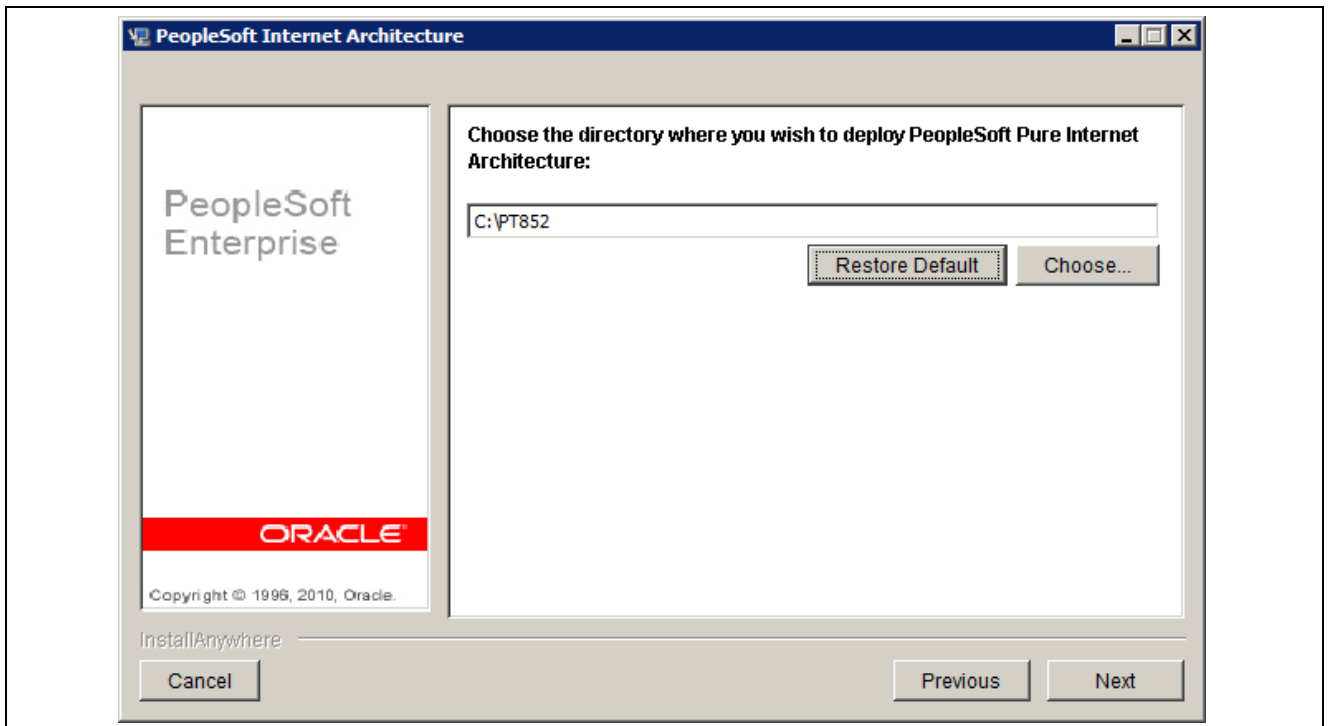
The Welcome window appears.



PeopleSoft Internet Architecture Installation Welcome window

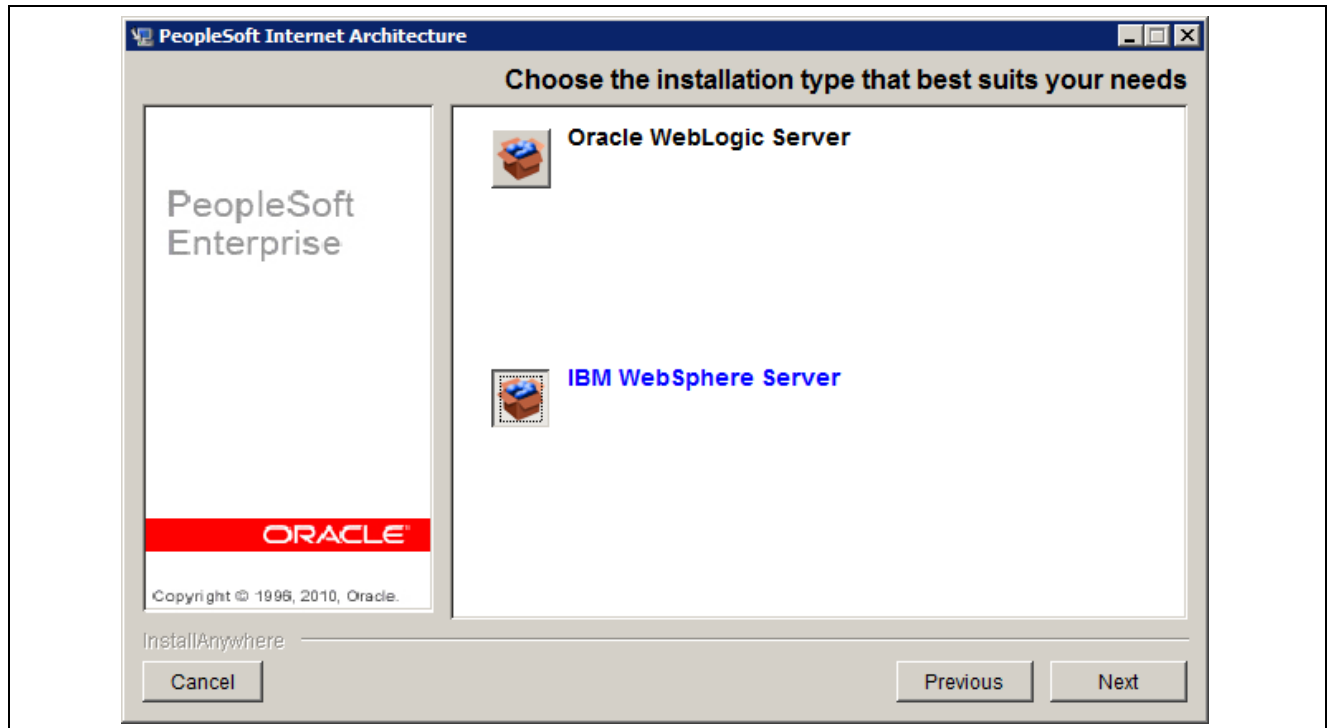
3. Click Next in the Welcome window, and specify the directory where you want to install the PeopleSoft Pure Internet Architecture, referred to here as *PIA_HOME*.

The default path for *PIA_HOME* is the *PS_CFG_HOME* path. In this example, the directory is the same as *PS_HOME*, C:\PT852.



Specifying the installation location for PeopleSoft Pure Internet Architecture

4. Select the option IBM WebSphere Server and click Next.

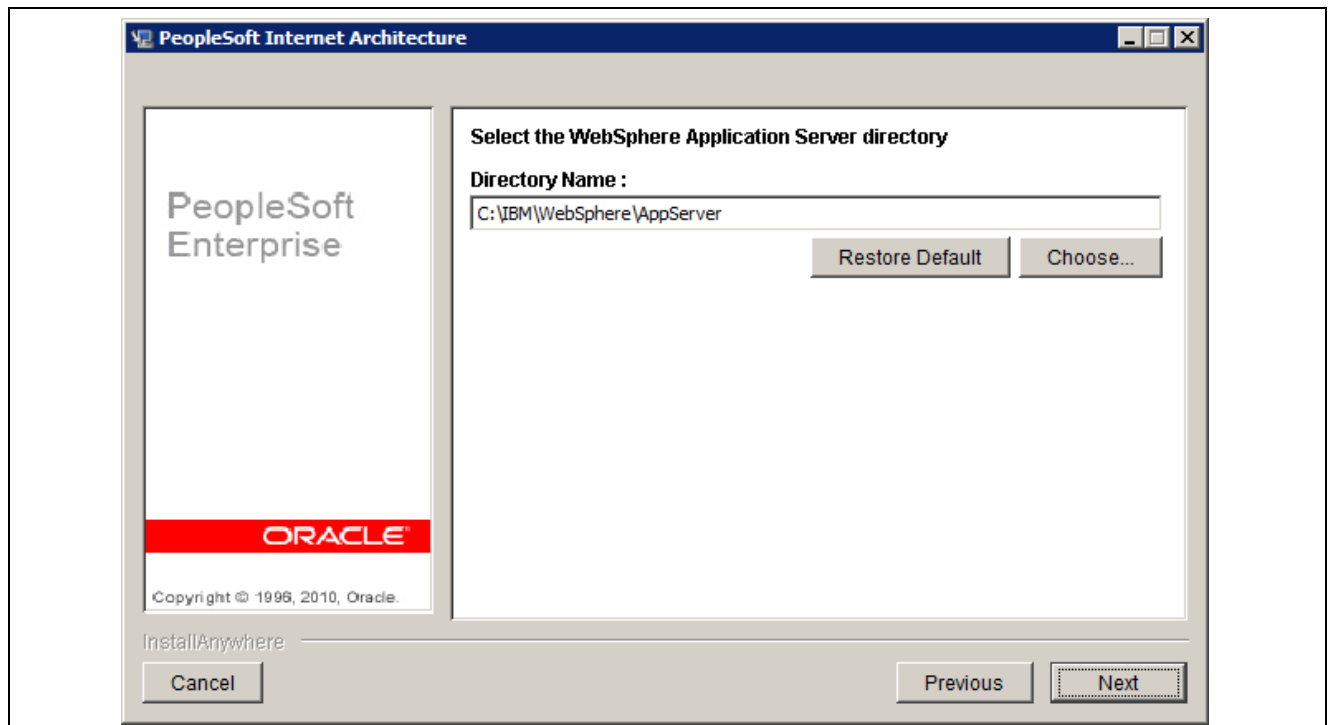


Selecting IBM WebSphere Server for PeopleSoft Pure Internet Architecture

5. Specify the directory where IBM WebSphere ND was installed, referred to as *WAS_HOME*.

The directory in this example is C:\IBM\WebSphere\AppServer. Click Next.

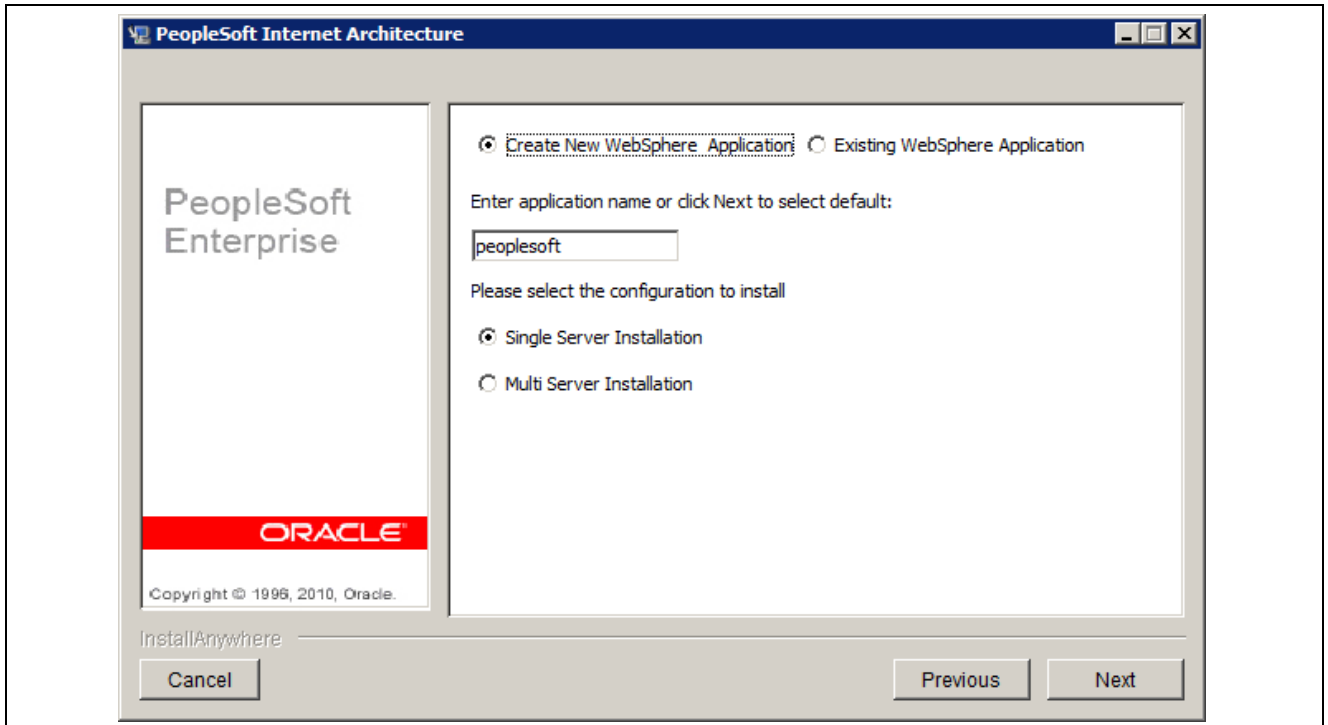
Note. If you specify a 32-bit installation of IBM WebSphere ND, a message appears asking you to confirm the decision. Keep in mind that PeopleSoft PeopleTools requires 64-bit IBM WebSphere ND.



Specifying the IBM WebSphere Application Server directory for the PeopleSoft Pure Internet Architecture

- Choose whether to create a new IBM WebSphere application (domain) or to use an existing application, and specify the name of the application (referred to as *application_name* below). Enter an application name for this web server (for example, peoplesoft) and select the type of server you want to install.

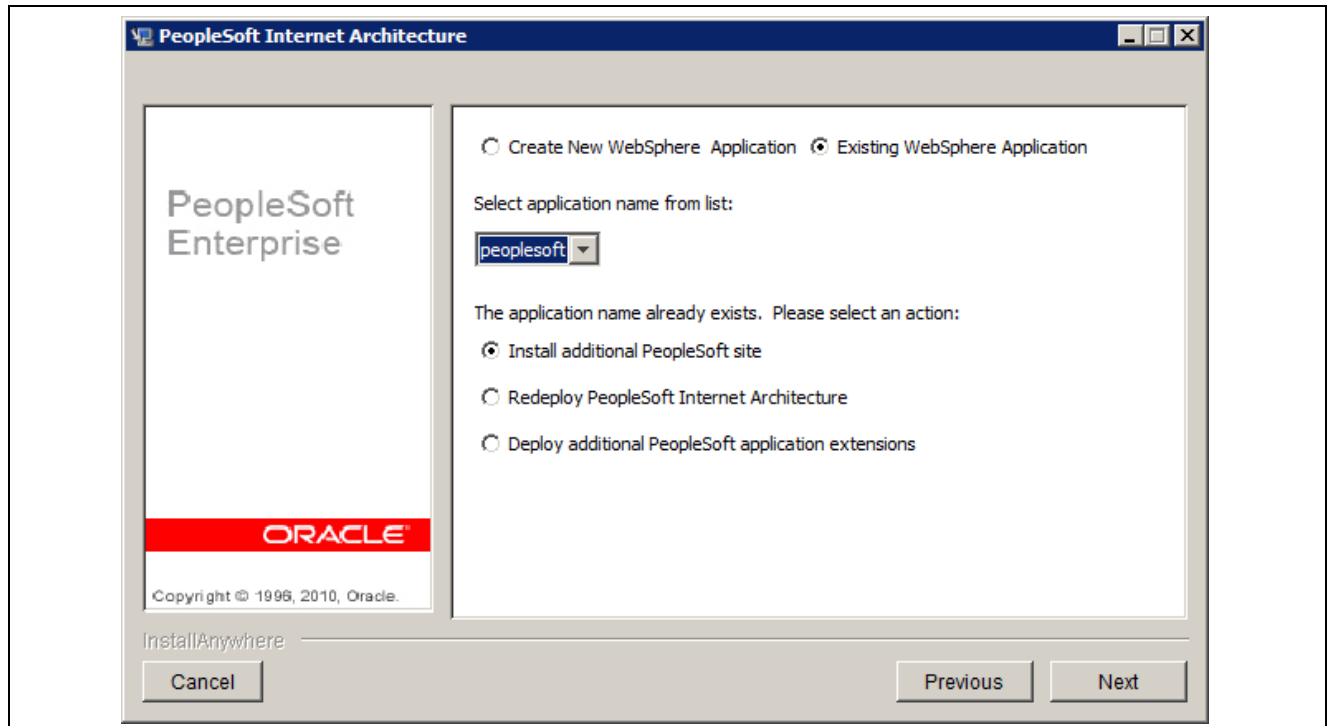
Note. The name you specify here for each application must be unique for each IBM WebSphere node.



Specifying a new IBM WebSphere domain in a single server installation

- If you select Create New WebSphere Application, the install automatically generates a valid application name in the application name field. If you attempt to enter an invalid application name, you'll be prompted to enter a new application name or choose an existing application.
 - If there is already a WebSphere application in *PIA_HOME*, the option Existing WebSphere Application is active, as described in the next step.
- If you select the Existing WebSphere Application option, you can choose from a drop-down list of existing applications, and can select whether to install an additional PeopleSoft site, redeploy PeopleSoft Pure Internet Architecture, or deploy additional PeopleSoft application extensions. You can also choose a single-server or multi-server installation.

Note. Make sure the server is up and running before installing an additional PeopleSoft site, redeploying PIA, or deploying additional PeopleSoft application extensions.



Specifying an existing IBM WebSphere application

Install additional PeopleSoft site

Select this option to install only the necessary files for defining an additional PeopleSoft site onto the existing IBM WebSphere ND web server configuration.

Redeploy PeopleSoft Internet Architecture

This selection affects all of the PIA web applications installed to the local WebSphere Application Server profile. Select this option to redeploy applications that comprise web components of PIA.

Deploy additional PeopleSoft application extensions

This option is solely for use with PeopleSoft product applications. PeopleSoft application extensions are provided with certain PeopleSoft applications, and this option allows you to deploy those extensions. Consult the installation documentation for your PeopleSoft application to see whether this option is appropriate. PeopleSoft PeopleTools does not use application extensions.

Single-server installation

The Single Server Installation option creates one WebSphere Application Server profile to hold all the PeopleSoft web applications. The installer uses the Application Name you enter for the new profile's name.

Multi-server installation

The Multi Server Installation option creates a single profile with the name you entered above, *application_name*. The *application_name* profile includes two servers, which deploy discrete functionality and are found on different ports, as specified in the following table:

Server Name	Purpose	HTTP or HTTPS Port Number
server1	PORTAL applications	X
psemhub	PeopleSoft Environment Management Framework applications (PSEMHUB)	X+1

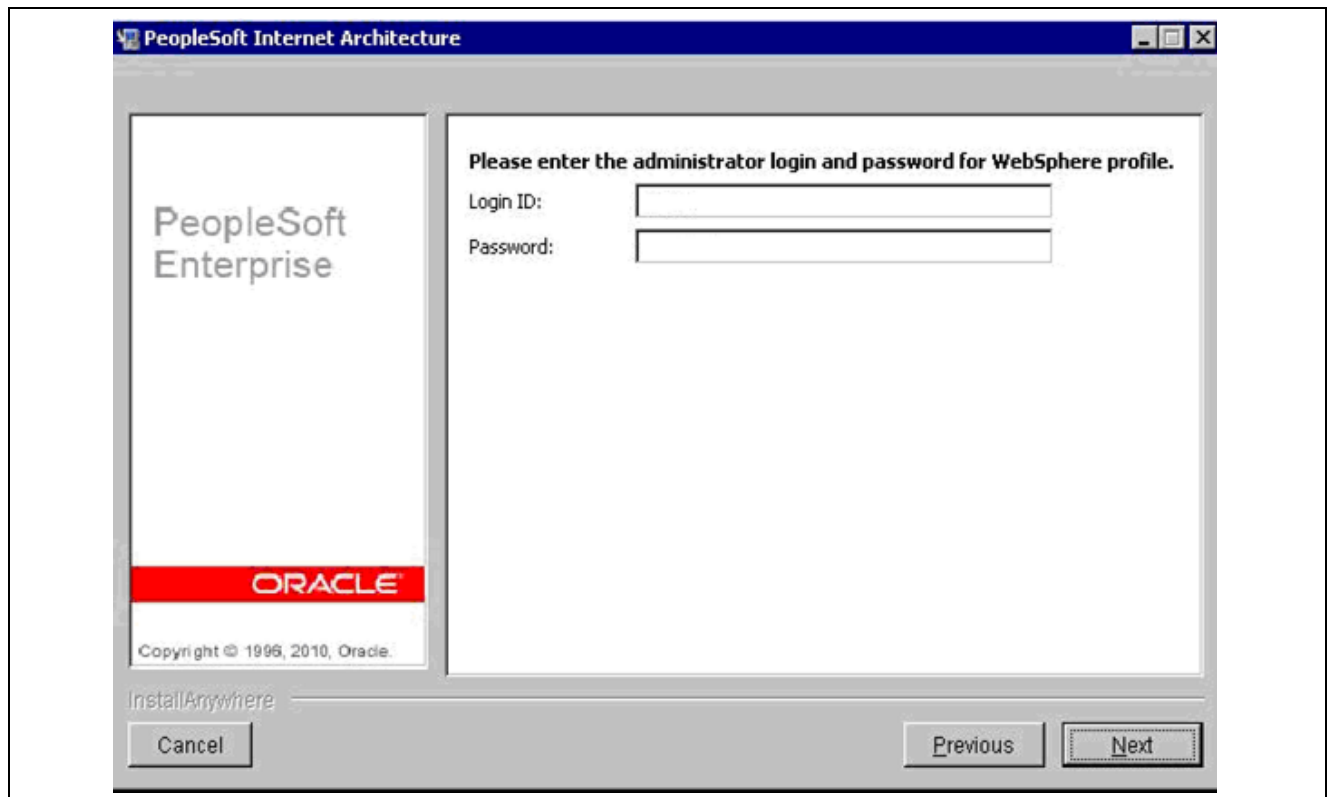
8. Enter the IBM WebSphere administrator Login ID and password.

Note. The default Login ID is system, and the default password is Passw0rd (with a capital “P” and zero rather than the letter “o”). Use these criteria to log into the IBM WebSphere administrative console.

If you selected Create New WebSphere Application in the previous step, the following window appears.

Entering the IBM WebSphere administrator login and password

If you selected the Existing WebSphere Application option, and either Install additional PeopleSoft site or Redeploy PeopleSoft Internet Architecture, the following window appears. Enter the same Login ID and password as you entered for the original IBM WebSphere Application creation. If the Login ID and password do not match the original values, you cannot continue with the PIA installation.



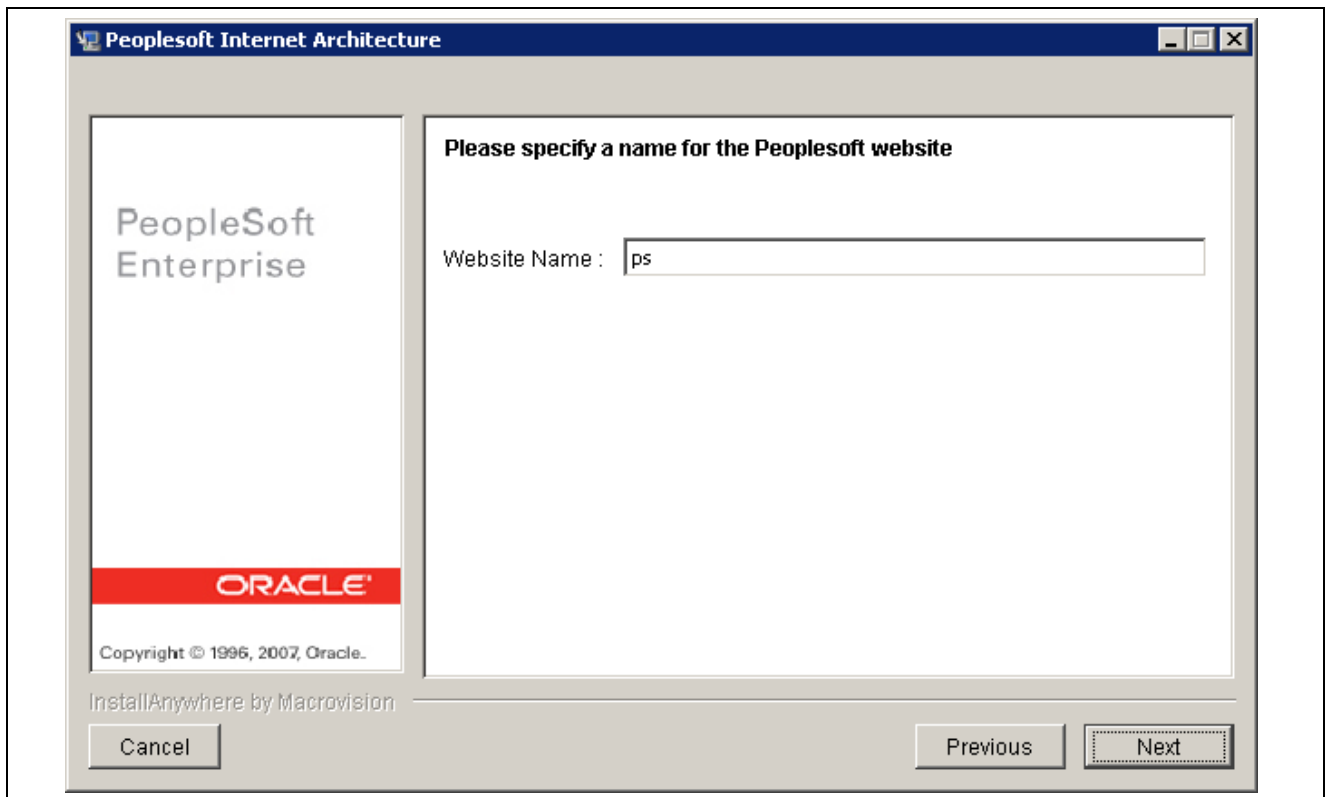
Entering the administrator login and password for an existing IBM WebSphere application

9. If there are PeopleSoft application packages in the archives directory, you'll be asked whether you want to deploy them.

If you are using an existing domain, you'll only be prompted if you selected Deploy additional PeopleSoft extensions.

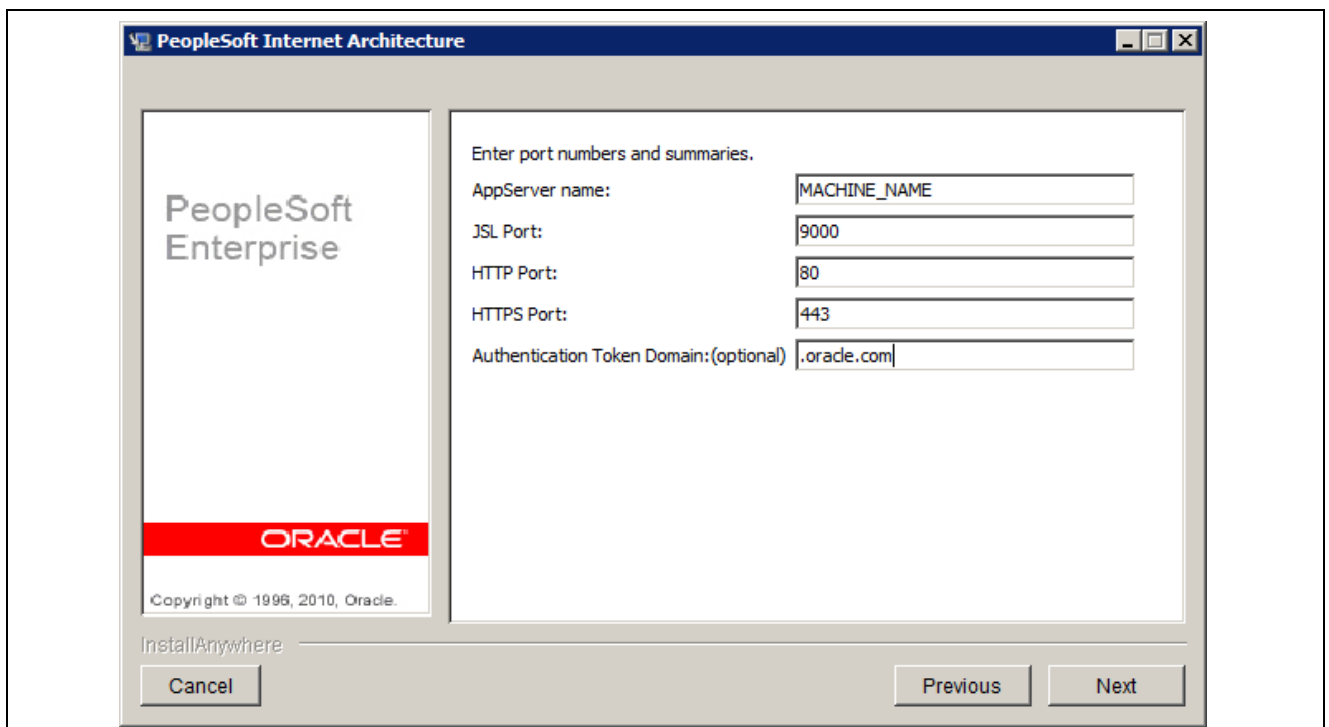
10. Enter a PeopleSoft web site name; the default is ps.

Warning! The site name can include underscores (_), but an underscore cannot be followed by a numeric character or the string "newwin" (for example, my_site_3 or my_newwin_site).



Entering the PeopleSoft web site name

11. Specify your application server name, its JSL (Jolt Station Listener) port number, its HTTP and HTTPS port numbers, the authentication token domain, and click Next.



Specifying the Application Server, port numbers, and authentication token domain for PeopleSoft Pure Internet Architecture

- *AppServer name*

For AppServer name, enter the name of your application server.

- *JSL port*

For the JSL port, enter the JSL port number you specified when setting up your application server. (The default value is 9000.)

See "Configuring the Application Server on Windows."

- *HTTP and HTTPS ports*

When you enter HTTP and HTTPS port numbers, they will not be recognized until you restart your WebSphere server.

In the case of Multi Server Installation type, HTTP and HTTPS ports *cannot* be consecutive numbers. The range for port number will be <Port#>-<Port#>+1 for the two application servers that the install creates. For example, if you select HTTP Port as 5555 and HTTPS port as 5560 then the ports are assigned as given below.

Server Name	HTTP Port Number	HTTPS Port Number
server1	5555	5560
psemhub	5556	5561

- *Authentication Token Domain*

The value you enter for Authentication Token Domain must match the value you specify for the authentication domain when configuring your application server, as described earlier in this book. In addition, certain installation configurations require that you specify an authentication domain.

See Using Authentication Domains in the PeopleSoft Pure Internet Architecture Installation.

If you enter a value for the Authentication Token Domain, the URL to invoke PIA must include the network domain name in the URL. For example, if you do not enter an authentication domain, the URL to invoke PIA is `http://MachineName:port/ps/signon.html`. If you do enter a value for the authentication domain (for example, `.myCompany.com`), the URL to invoke PIA is `http://MachineName.myCompany.com:port/ps/signon.html`. The URL must also comply with the naming rules given earlier in this chapter.

See "Understanding the PeopleSoft Pure Internet Architecture."

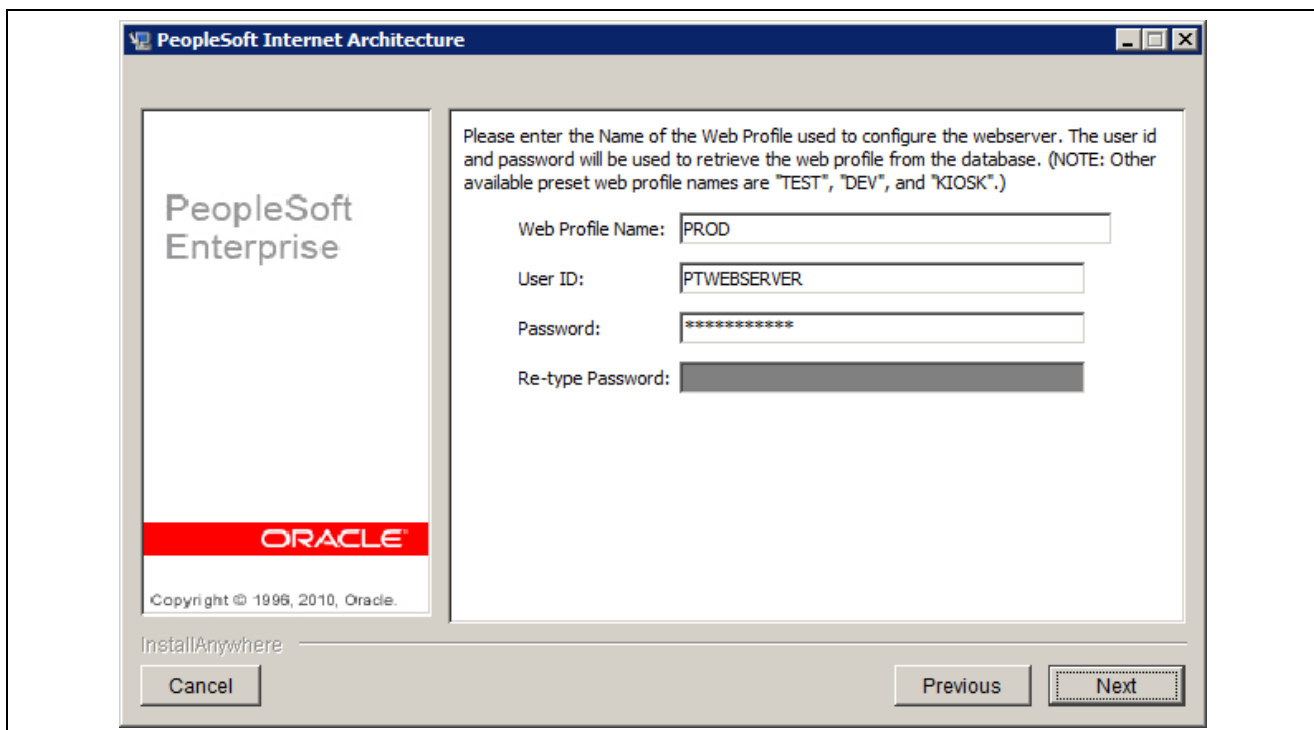
12. Accept the default for the web profile, PROD, or enter another name.

The following example shows the default web profile name, PROD, and user ID, PTWEBSEVER.

The web profile name will be used to configure this web site. You can specify one of the other predelivered web profiles, DEV, TEST, or KIOSK, or enter a different name. If you intend to use a Web Profile User ID other than the default, be sure to review the information on web profile configuration and security.

See *PeopleTools 8.52: PeopleTools Portal Technologies PeopleBook*, "Configuring the Portal Environment."

Note. If the PeopleSoft PeopleTools version of your database is *below* 8.44, then you will need to add the PTWEBSEVER User Profile before you upgrade to the current PeopleSoft PeopleTools release. The User Profile must include the PeopleTools Web Server role, but do not grant any other roles. Enter the password that you set for the User Profile for the User ID password in this step, as shown in this example. See *PeopleTools 8.52: Security Administration PeopleBook* for the steps required to add a User Profile.



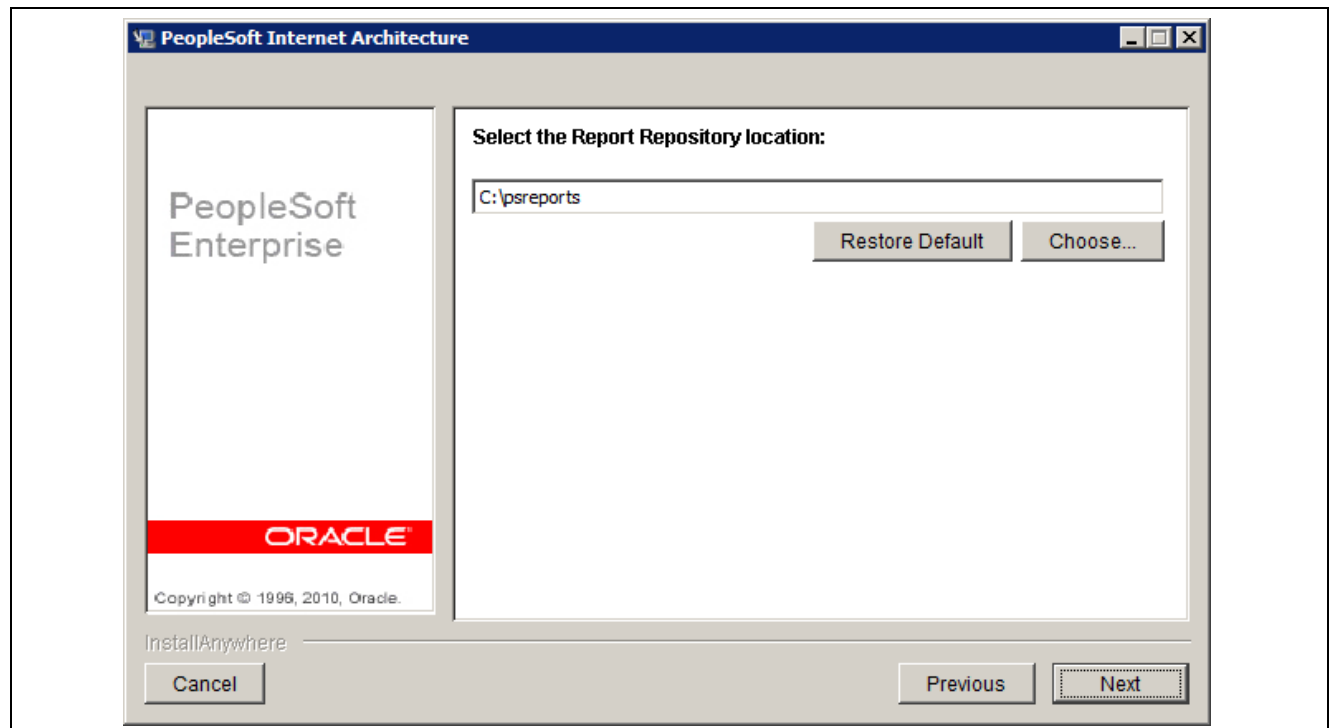
Specifying the Web Profile, User ID, and password

13. Specify the root directory for the Report Repository (c:\psreports by default), and click Next.

Make sure that the report repository directory is shared, and that you have write access.

Note. In setting up the Process Scheduler to transfer reports, if you choose the FTP protocol, use the same directory for the Home Directory as you use here for the report repository.

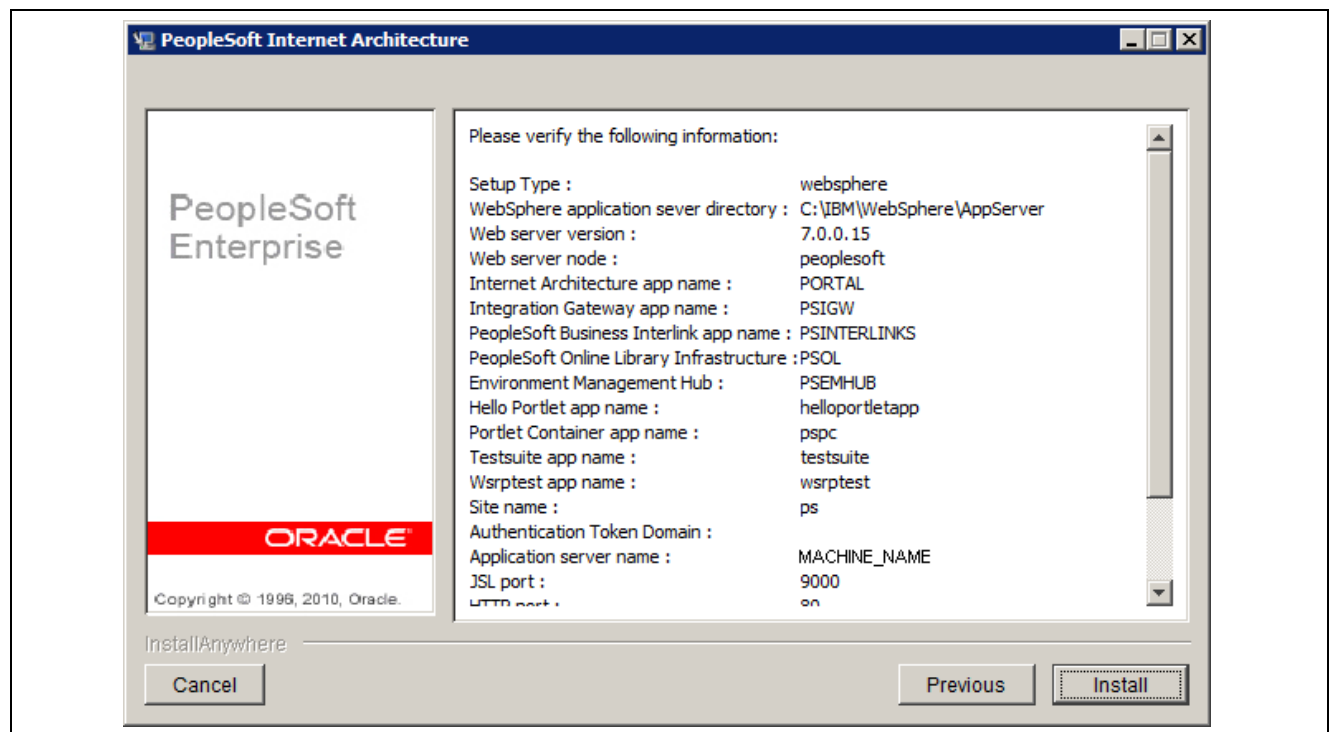
See "Setting Up Process Scheduler on Windows," Setting Up the Process Scheduler to Transfer Reports and Logs to Report Repository.



Specifying the Report Repository location for PeopleSoft Pure Internet Architecture

14. Verify all your selections.

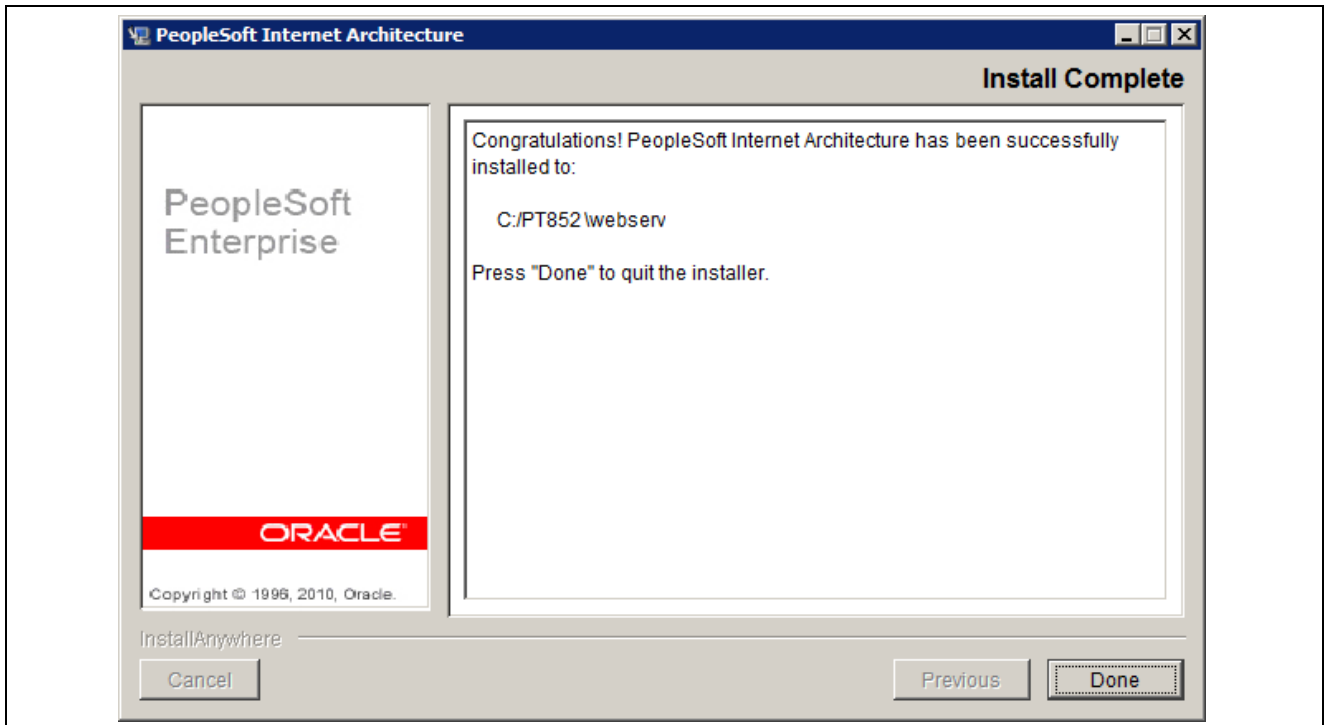
The window lists the installation information, such as the web server type, directory, version, and so on. Click Back if you need to make any changes and click Next to begin the installation. An indicator shows the progress of your installation.



Verifying the installation options for PeopleSoft Pure Internet Architecture

15. Click Done to complete the installation.

The window shows the installation directory, which is C:\PT852\webserv in this example. The default installation directory for a specific profile is `<PIA_HOME>\webserv\<profile_name>`.



PeopleSoft Pure Internet Architecture Install Complete window

Task 9A-3-2: Uninstalling the PeopleSoft Pure Internet Architecture from IBM WebSphere

You cannot uninstall PeopleSoft Pure Internet Architecture simply by deleting `<PIA_HOME>\webserv\<profile_name>`, without uninstalling it from IBM WebSphere Administration Console. If you do so, the IBM WebSphere registry becomes corrupt, and subsequent attempts to install PeopleSoft Pure Internet Architecture will fail. Instead, if necessary, you must uninstall PeopleSoft Pure Internet Architecture on IBM WebSphere as described here.

To uninstall PeopleSoft Pure Internet Architecture on IBM WebSphere:

1. Open IBM WebSphere Administration Console at `http://<machine-name>:9060/ibm/console`
2. Log in as any user.
3. Choose Applications, Enterprise Applications.
4. Select the check boxes for the PeopleSoft Pure Internet Architecture applications you want to uninstall, and click Stop.
5. Select the check boxes for the PeopleSoft Pure Internet Architecture applications you want to uninstall, and click Uninstall.
6. Save your configuration.
7. Stop WebSphere server using the following commands:

On Windows:

```
<PIA_HOME>\webserv\<profile_name>\bin\stopServer.bat server1
```

On UNIX or Linux:

```
<PIA_HOME>\webserv\<profile_name>\bin\stopServer.sh server1
```

8. In addition to uninstalling the application, you need to remove the WebSphere Application Server profile (that got created during PIA install) to complete the PIA uninstallation.

To uninstall profile run the following steps:

- a. Go to <PIA_HOME>\webserv\<profile_name>\bin
- b. Run the following command

On Windows:

```
manageprofiles.bat -delete -profileName <profile_name>
```

On UNIX

```
manageprofiles.sh -delete -profileName <profile_name>
```

where <profile_name> indicates the application name that you have selected during the PIA install.

- c. Delete the directory <PIA_HOME>\webserv\<profile_name>

Task 9A-4: Testing and Administering the PeopleSoft Pure Internet Architecture Installation

This section discusses:

- Verifying the PeopleSoft Pure Internet Architecture Installation
- Starting and Stopping Oracle WebLogic
- Starting and Stopping IBM WebSphere Application Servers
- Using PSADMIN to Start and Stop Web Servers
- Accessing the PeopleSoft Signon

Verifying the PeopleSoft Pure Internet Architecture Installation

After installing the PeopleSoft Pure Internet Architecture, you should make sure that your configuration is functional. You can test this by signing on to PeopleSoft, navigating within the menu structure, and accessing pages. (Make sure the application server is configured and booted.) This section includes procedures to start and stop the Oracle WebLogic or IBM WebSphere web servers whenever necessary.

Task 9A-4-1: Starting and Stopping Oracle WebLogic

If you are using the Oracle WebLogic web server, you need to sign on to Oracle WebLogic before using these commands. If you are using IBM WebSphere instead, go on to the next section. Use the following commands in the Oracle WebLogic domain directory.

Note. Starting from Oracle WebLogic 9.2 and later releases, all the Life-cycle management scripts and other batch scripts for the PIA server on Oracle WebLogic are located in `<PIA_HOME>\webserv\<domain_name>\bin` folder.

- To start Oracle WebLogic Server as a Windows service, use the following command:

Single Server:

```
installNTservicePIA.cmd
```

Multiple Servers or Distributed Servers:

```
installNTservice.cmd ServerName
```

The resulting Windows service name will be *WebLogicDomain-WebLogicServer*. For example, to install a server named *PIA* as a Windows service in a domain named *peoplesoft*, run `installNTservice.cmd PIA` and you will see "peoplesoft-PIA" as a service.

- To remove an Oracle WebLogic server Windows service, use the following command:

```
uninstallNTservicePIA.cmd Server Name
```

Note. If you modify `setenv.cmd`, then you must uninstall the service using `uninstallNTServicePIA.cmd ServerName`, and then re-run `installNTServicePIA.cmd ServerName`.

- To start Oracle WebLogic Server as a foreground process on a single server, use the following commands:

```
startPIA.cmd (on Windows)
startPIA.sh (on UNIX)
```

- To start Oracle WebLogic Server as a foreground process on multiple-servers or distributed servers, use the following commands:

a. Execute:

```
startWebLogicAdmin.cmd (on Windows)
startWebLogicAdmin.sh (on UNIX)
```

b. Then:

```
startManagedWebLogic.cmd ManagedServerName (on Windows)
startManagedWebLogic.sh ManagedServerName (on UNIX)
```

- To stop the server, use the following commands:

- Single Server:

```
stopPIA.cmd (on Windows)
stopPIA.sh (on UNIX)
```

- Multiple Servers or Distributed Servers:

```
stopWebLogic.cmd ManagedServerName (on Windows)
stopWebLogic.sh ManagedServerName (on UNIX)
```

See *PeopleTools 8.52: PeopleTools Portal Technologies PeopleBook*.

Note. For more information on working with Oracle WebLogic multiple or distributed servers, search My Oracle Support.

Task 9A-4-2: Starting and Stopping IBM WebSphere Application Servers

This section discusses:

- Starting and Stopping IBM WebSphere Application Servers on Windows
- Starting and Stopping IBM WebSphere Application Servers on UNIX or Linux
- Verifying the IBM WebSphere Installation

Starting and Stopping IBM WebSphere Application Servers on Windows

To start and stop the WebSphere Application Server Network Deployment 7.0 (WebSphere ND), use the WebSphere First Steps utility:

1. Select Start, Programs, IBM WebSphere, Application Server Network Deployment V7.0, Profiles,*profile_name*, First steps.

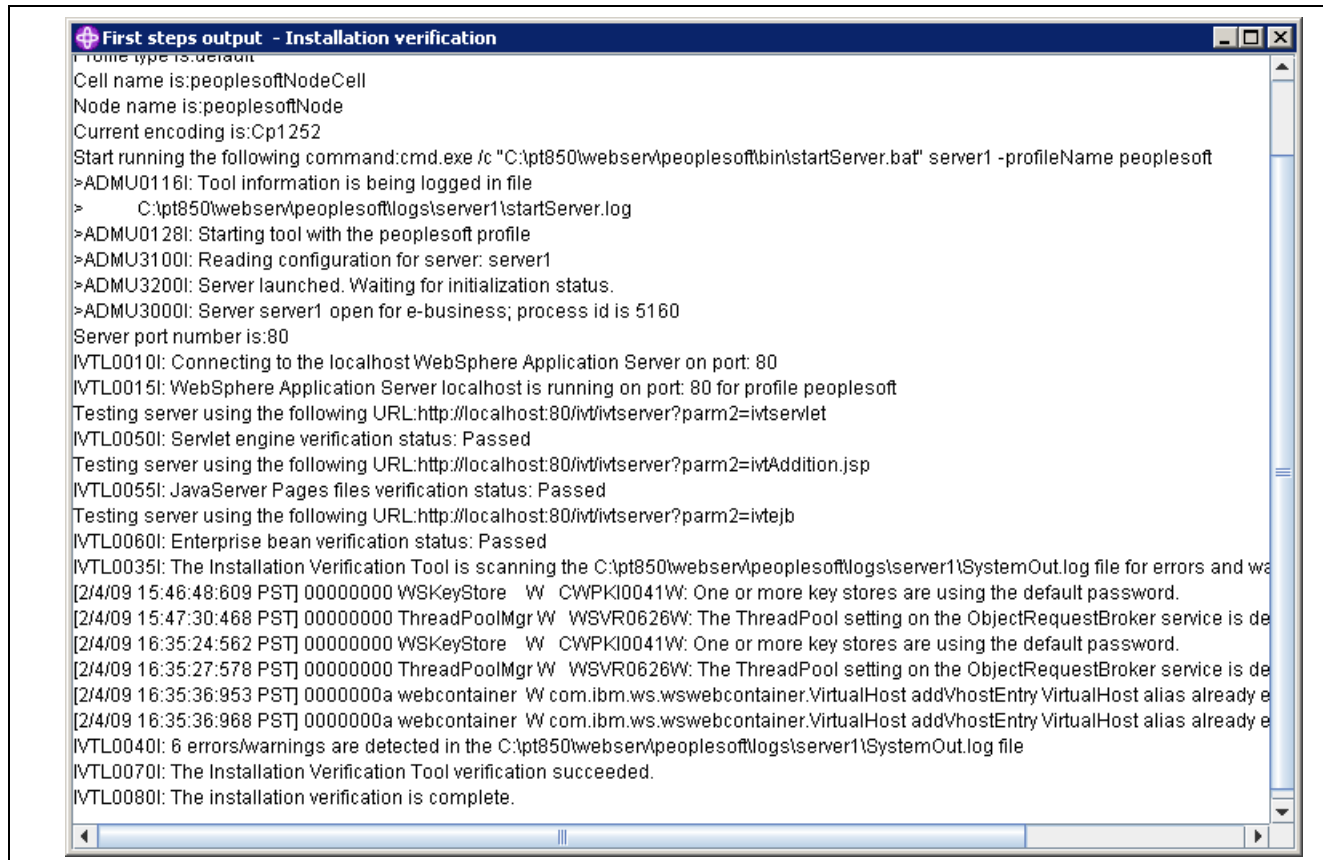
The following example shows the First steps window for the default profile *peoplesoft*:



WebSphere Application Server First Steps window

2. Select the link Start the server.

If the server starts properly, a verification window appears with several messages about the initialization process, as in this example:



First steps output - Installation verification window

3. To verify whether the server was installed and can start properly, click the link Installation Verification on the First Step window.

Starting and Stopping IBM WebSphere Application Servers on UNIX or Linux

To start WebSphere ND on UNIX or Linux, use the following command:

```
<PIA_HOME>/webserv/<profile_name>/bin/startServer.sh <server_name>
```

For example:

```
/home/pt852/webserver/peoplesoft/bin/startServer.sh server1
```

To stop WebSphere ND, use the following command:

```
<PIA_HOME>/webserv/<profile_name>/bin/stopServer.sh <server_name>
```

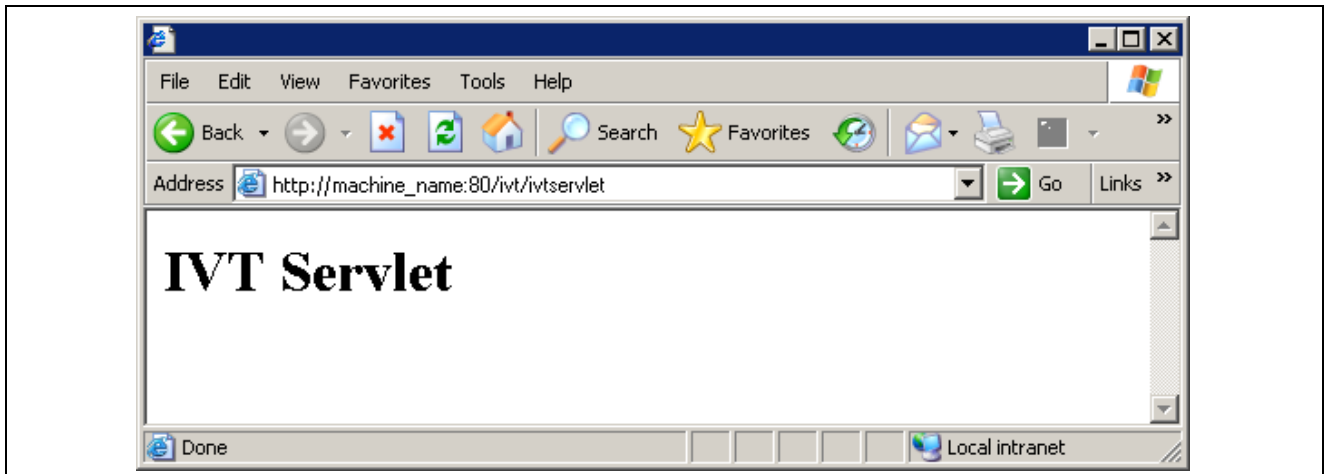
Verifying the IBM WebSphere Installation

Use this method to verify the WebSphere ND and PIA installation for both Windows and UNIX.

To verify the WebSphere ND and PIA installation, copy the following URL into a browser address bar, substituting your machine name and the http port number:

```
http://<machine_name>:<http_port>/ivt/ivtservlet
```

You should see the text “IVT Servlet” in the browser, as in this example:



IVT Servlet window

You should also sign into the PeopleSoft application, as described in a later section, to verify the installation. See *Accessing the PeopleSoft Signon*.

Task 9A-4-3: Using PSADMIN to Start and Stop Web Servers

In addition to the methods given in the previous sections for starting and stopping Oracle WebLogic and IBM WebSphere web servers, in PeopleSoft PeopleTools 8.52 you can use PSADMIN to administer a web server domain.

See *PeopleTools 8.52: System and Server Administration PeopleBook*

To start and stop web servers:

1. Go to the *PS_HOME/appserv* directory and run PSADMIN.
2. Specify 4 for Web (PIA) Server.

```
-----
PeopleSoft Server Administration
-----
```

```
Config Home: C:\psft_AppServ
```

- ```

1) Application Server
2) Process Scheduler
3) Search Server
4) Web (PIA) Server
5) Switch Config Home
6) Service Setup
7) Replicate Config Home
q) Quit
```

```
Command to execute (1-7, q): 4
```

The location of Config Home is the current working directory. The PSADMIN utility determines the Config Home directory by checking for the *PS\_CFG\_HOME* environment variable. If that is not set, it checks for the presence of domains in the default *PS\_CFG\_HOME* location. If none exists, it uses the *PS\_HOME* location from which it was launched.

See "Preparing for Installation," Defining Server Domain Configurations.

3. Select *1* for Administer a domain.

```

PeopleSoft PIA Administration

```

PIA Home: C:\psft\_WebServ

- 1) Administer a domain
- 2) Create a domain
- 3) Delete a domain

q) Quit

Command to execute: 1

The PSADMIN utility determines the PIA Home location displayed here by first checking for a PIA\_HOME environment variable. If none is set, it checks for the PS\_CFG\_HOME environment variable. If neither is set, it uses the default PS\_CFG\_HOME directory.

4. Select the domain you want to administer by entering the appropriate number.

```

PeopleSoft PIA Domain Administration - Choose a Domain

```

- 1) OnWls1034R607
- 2) peoplesoft

q) Quit

Command to execute: 2

5. To start a web server domain, enter *1*, Boot this domain.

```

PeopleSoft PIA Domain Administration

```

PIA Home: C:\psft\_WebServ  
PIA Domain: peoplesoft: stopped

- 1) Boot this domain
- 2) Shutdown this domain
- 3) Get the status of this domain
- 4) Configure this domain
- 5) Edit configuration files
- 6) View log files
- 7) Administer a site
- 8) Delete a site
- 9) Windows Service Setup

q) Quit

Command to execute: 1

The boot command invokes the startPIA.cmd script, and you see the progress and a status message on the console window.

```
Starting the domain.....
The domain has started.
```

6. To stop a web server domain, select 2, Shutdown this domain.

The shutdown command invokes the stopPIA.cmd script, and you see the progress and a status message on the console window.

```
Stopping the domain.....
Verifying domain status.....
The domain has stopped.
```

7. To set up a Windows service, select 9, Windows Service Setup.
8. Select 1 to install a service, or 2 to remove it.

This command invokes the installNTservice script, and creates a service named *WebLogicDomain-WebLogicServer*.

```

Windows Service Setup

```

```
PIA Home: C:\psft_websrv
PIA Domain: peoplesoft: started
```

- 1) Install Service
- 2) Uninstall Service

q) Quit

Command to execute:

## Task 9A-4-4: Accessing the PeopleSoft Signon

To access the PeopleSoft signon:

1. Open your web browser.
2. Enter the name of the site you want to access—for example (the default value for *<site\_name>* is ps):

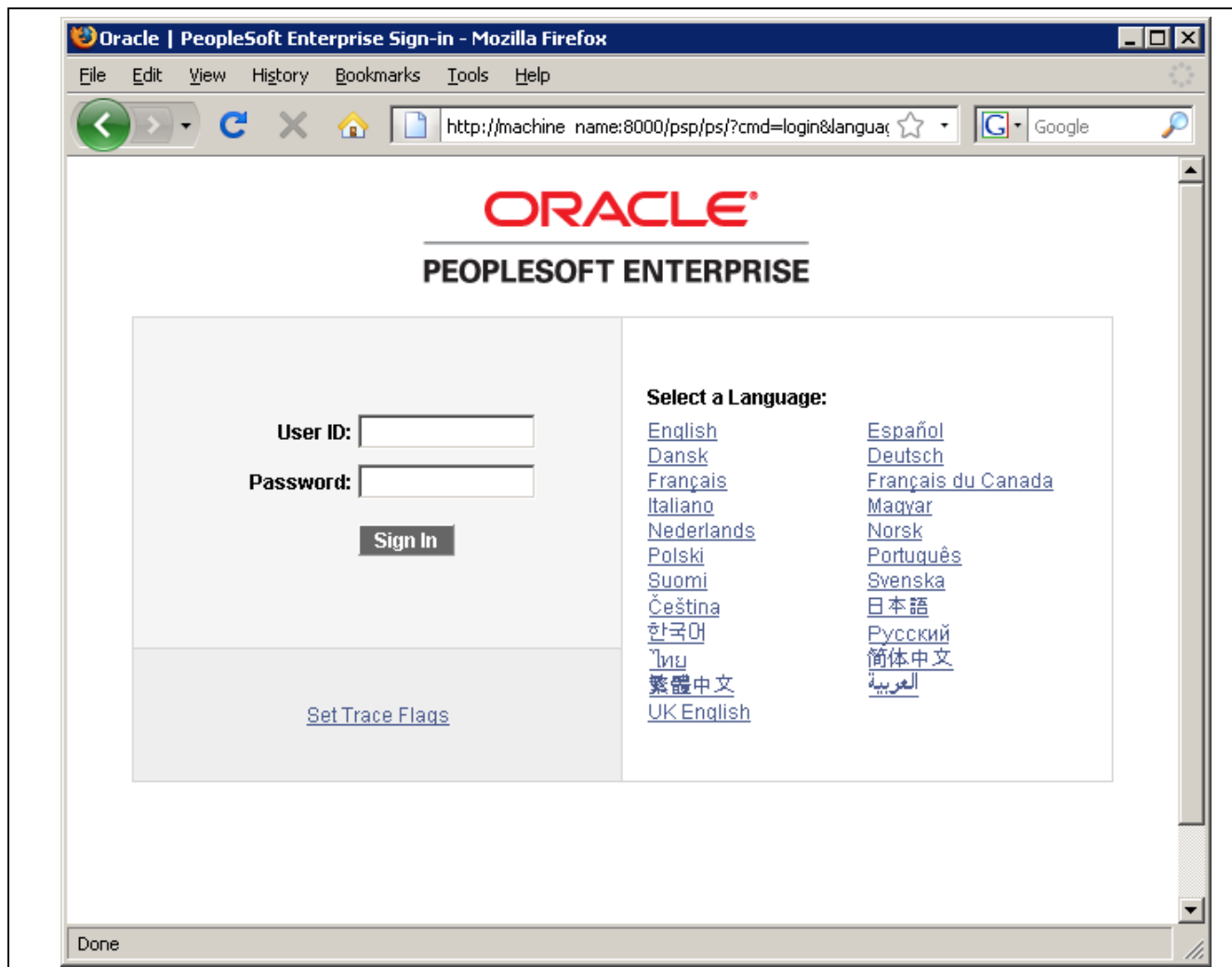
```
http://<machine_name>:<http_port>/<site_name>/signon.html
```

---

**Note.** PeopleSoft Pure Internet Architecture installed on IBM WebSphere server listens at the HTTP/HTTPS ports specified during the PeopleSoft Pure Internet Architecture install. Invoke PeopleSoft Pure Internet Architecture through a browser by using the specified HTTP or HTTPS ports—that is, `http://<WebSphere_machine_name>:<server_port>/<site_name>/signon.html` (if AuthTokenDomain is not specified ) or `http://<WebSphere_machine_name.mycompany.com>:<server_port>/<site_name>/signon.html` (if you specified .mycompany.com as the AuthTokenDomain).

---

This will take you to the sign-in window corresponding to your browser's language preference. This example shows the sign-in window in a Mozilla Firefox browser, before signing in.



Oracle PeopleSoft Enterprise Sign in window

**Note.** If you do not see the signon screen, check that you supplied all the correct variables and that your application server and the database server are running.

3. Sign in to the PeopleSoft system by entering a valid user ID and password.

**Note.** The user ID and password are case sensitive. You need to enter the user ID and password using UPPERCASE characters.

Different applications use different default user IDs and passwords. For instance, for HRMS applications you enter PS for the user ID and the password. For Financials applications, you enter VP1 for the user ID and the password. Your application-specific install instructions contain any custom, delivered user IDs that you should use for the demonstration environment.

---

## Task 9A-5: Completing Post-Installation Steps

This section discusses:

- Updating the Installation Table
- Updating PeopleTools Options
- Updating Database Information

### Task 9A-5-1: Updating the Installation Table

After you complete the installation process, creating the database, installing the Application Server, and installing the PeopleSoft Pure Internet Architecture, you must complete this additional step. The license codes from the Oracle license code site mentioned earlier install all products available in the installation package. This post-installation step ensures that only the products for which you are licensed are active in the installation. The location of the installation table in the PeopleSoft Pure Internet Architecture menu varies depending upon the application that you installed.

To update the installation table:

1. Sign on to the PeopleSoft Pure Internet Architecture in a browser.
2. Select Setup *Application\_name* (where *Application\_name* is the PeopleSoft application you installed), Install, Installation Table.

Select the Products tab.

3. Clear the check boxes for the products for which you have not obtained a license.

#### See Also

"Using the PeopleSoft Installer," Obtaining License Codes

Accessing the PeopleSoft Signon

### Task 9A-5-2: Updating PeopleTools Options

You can set the following options on the PeopleTools Options page:

- Multi-Currency — Select this check box if you plan to use currency conversion.

See *PeopleTools 8.52: Global Technology PeopleBook*, "Controlling Currency Display Format."

- Base Time Zone — Enter a value for the base time zone for your PeopleTools database.

See *PeopleTools 8.52: Global Technology PeopleBook* "Setting and Maintaining Time Zones."

- Data Field Length Checking — Select one of the following values:

- Others — If you are using a Unicode-encoded database or a non-Unicode SBCS database.
- MBCS — If you are running a non-Unicode Japanese database.

See *PeopleTools 8.52: Global Technology PeopleBook*, "Selecting and Configuring Character Sets and Language Input and Output."

- Sort Order Option — If you specified a non-binary sort order for your database, choose the Sort Order Option that most closely approximates your database sort order.

See *PeopleTools 8.52: Global Technology PeopleBook*, "Sorting in PeopleTools."

## Task 9A-5-3: Updating Database Information

The database information updated in this procedure is used by the PeopleSoft software update tools to identify your PeopleSoft database when searching for updates. These steps should be followed for all additional databases that you create to enable the accurate identification of your databases.

1. Sign on to your PeopleSoft database.
2. Navigate to PeopleTools, Utilities, Administration, PeopleTools Options.
3. Specify long and short names for your environment. For example:
  - Environment Long Name — Customer HR Demo Database
  - Environment Short Name — HR Demo DB
4. Select a system type from the drop-down list. For example, Demo Database.
5. Save your changes.



## CHAPTER 9B

# Setting Up the PeopleSoft Pure Internet Architecture in Console Mode

This chapter discusses:

- Understanding PeopleSoft Pure Internet Architecture
- Using Authentication Domains in the PeopleSoft Pure Internet Architecture Installation
- Preparing the PeopleSoft Pure Internet Architecture File System for a PeopleTools-Only Upgrade
- Installing the PeopleSoft Pure Internet Architecture on Oracle WebLogic in Console Mode
- Installing the PeopleSoft Pure Internet Architecture on IBM WebSphere in Console Mode
- Installing the PeopleSoft Pure Internet Architecture in Silent Mode
- Testing and Administering the PeopleSoft Pure Internet Architecture Installation
- Completing Post-Installation Steps

---

## Understanding PeopleSoft Pure Internet Architecture

This chapter explains how to install and configure the components of the PeopleSoft Pure Internet Architecture in console mode and in silent mode. It includes instructions for installing the PeopleSoft files on Oracle WebLogic and IBM WebSphere. Only complete the instructions for the web server product that you installed.

---

**Note.** The console mode installation is typically used on UNIX platforms.

---

See "Installing Web Server Products."

The setup program for the PeopleSoft Pure Internet Architecture is installed to the web server machine when you run the PeopleSoft Installer and select the PeopleSoft Web Server option.

See "Using the PeopleSoft Installer."

Oracle only supports customer installations that use the version of the web servers packaged with PeopleSoft PeopleTools. *You must install the web server before you install the PeopleSoft Pure Internet Architecture.* Before you install the PeopleSoft Pure Internet Architecture, you must also have configured an application server, as described in the previous chapter.

The location where you install the PeopleSoft Pure Internet Architecture is referred to in this documentation as *PIA\_HOME*. You can specify different locations for *PS\_HOME* and *PIA\_HOME*. After you complete the PeopleSoft Pure Internet Architecture installation, you can locate the installation files in the directory *PIA\_HOME/webserv*.

For PeopleSoft PeopleTools 8.51 and later, if you are setting up the PeopleSoft Pure Internet Architecture on a Microsoft Windows platform, the directory and path that you specify for *PIA\_HOME* may include spaces. However, parentheses in the directory name (for example, "C:\Program Files (x86)") are *not* allowed for *PIA\_HOME*.

See "Preparing for Installation," Defining Installation Locations.

Before performing the steps in this chapter, verify that Sun's international version of JRE version 6 or higher is properly installed on the system and its path is in the system's environment variable PATH.

If your web server is on a different machine than your application server, you need to make sure you have JRE installed on your web server to run the PeopleSoft Pure Internet Architecture installation.

---

**Note.** If you encounter the error message "No Matching JVM," you need to specify the location of the Java Runtime Environment (JRE) to the installer using the `-javahome` command line parameter; for example:  
`<PS_HOME>/setup/PsMpPIAInstall/setup.sh -tempdir <temporary_directory> -javahome <jredir>.`

---

The initial PeopleSoft Pure Internet Architecture setup automatically creates the default PeopleSoft site named *ps*. In subsequent PeopleSoft Pure Internet Architecture setups, change the site name from *ps* to a unique value. We recommend using the database name. This is handy for easy identification and ensures that the database web server files are installed in a unique web site.

The URL that you use to invoke the PeopleSoft Pure Internet Architecture must conform to ASN.1 specifications. That is, it may contain only alphanumeric characters, dots ("."), or dashes ("-"). The URL must not begin or end with a dot or dash, or contain consecutive dots (".."). If the URL includes more than one portion, separated by dots, do not use a number to begin a segment if the other segments contain letters. For example, "mycompany.second.country.com" is correct, but "mycompany.2nd.country.com" is wrong.

Review the following additional notes before beginning the PeopleSoft Pure Internet Architecture installation:

- If you want to connect between multiple application databases, you need to implement single signon.
- If the PeopleSoft Pure Internet Architecture installation encounters an error, it will indicate which log files to refer to.

See "Installing Web Server Products."

- The machine on which you run the PeopleSoft Pure Internet Architecture install must be running in *256 color mode*. This is not necessary for UNIX or console mode.

The PeopleSoft Pure Internet Architecture installation includes the following products:

- *PeopleSoft Pure Internet Architecture*. This product is the centerpiece of the PeopleSoft architecture that enables users to work on a machine with only a supported browser installed. This option installs the servlets required for deploying PeopleSoft Applications and for the PeopleSoft portal. The portal packs and PeopleSoft Portal Solutions have their own installation instructions, which are available on My Oracle Support. For an overview of the various types of portals, consult the following PeopleBook.

See *PeopleTools 8.52: PeopleTools Portal Technologies PeopleBook*.

- *PeopleSoft Report Repository*. This product works in conjunction with Process Scheduler to allow report distribution over the web.
- *PeopleSoft Integration Gateway*. This product is the entry and exit point for all messages to and from the Integration Broker. Its Java-based Connector architecture allows asynchronous and synchronous messages to be sent over a variety of standard protocols, many that are delivered at install, or through custom connectors.

---

**Important!** For PeopleSoft PeopleTools 8.50 and higher, review the section on security properties for Integration Gateway. When setting the properties in the `integrationGateways.properties` file, the property `secureFileKeystorePasswd` must be encrypted, and the `secureFileKeystorePath` must be set.

---

See *PeopleTools 8.52: Integration Broker Administration PeopleBook*, "Managing Integration Gateways."

- *PeopleSoft CTI Console*. This product works in conjunction with CTI vendor software to enable call center agents to take advantage of browser based teleset management and automatic population of application pages with relevant data associated with incoming calls, such as customer or case details.

See *PeopleTools 8.52: PeopleSoft MultiChannel Framework PeopleBook*.

- *Environment Management Hub*. The Environment Management hub is a web application that is installed with the PeopleSoft Pure Internet Architecture and portal. It is started along with the rest of the web applications when the user boots the web server. You cannot start the Environment Management Hub on a server that is configured to run HTTPS; in other words, if you plan to run Environment Management, your PIA server needs to be configured in HTTP mode.

See *PeopleTools 8.52: PeopleSoft Change Assistant PeopleBook*.

## See Also

*PeopleTools 8.52: Security Administration PeopleBook*

*PeopleTools 8.52: System and Server Administration PeopleBook*

---

## Using Authentication Domains in the PeopleSoft Pure Internet Architecture Installation

You have the option to specify an authentication domain when you install the PeopleSoft Pure Internet Architecture on Oracle WebLogic or WebSphere.

---

**Note.** The authentication domain was referred to as the Authentication Token Domain in previous releases, and that term is still seen in the software.

---

When an authentication domain is specified during the PeopleSoft Pure Internet Architecture install, that value gets used as the Cookie domain in the web server configuration. The main requirements when setting a cookie domain are:

- The host must have a fully qualified domain name (FQDN). The requirement that you must have a domain name does not imply that you must have a DNS, but you do need some type of naming service such as DNS or some managed `../etc/hosts` file that contains a list of the servers with their domain name.
- The cookie domain value being set must begin with a dot (`.ps.com` is valid, `ps.com` is NOT valid).
- The cookie domain value being set must contain at least 1 embedded dot (`.ps.com` is valid, `.corp.ps.com` is valid, `.com` is NOT valid).
- The cookie domain value can only be a single domain name. It cannot be a delimiter-separated list of domains.

By default, the browser only sends cookies back to the machine that set the cookie. So if web server `crm.yourdomain.com` sets a cookie, the browser will only send it back there. You can make the browser send the single signon cookie to all servers at `yourdomain.com` by typing your domain name in the Authentication Token Domain list box of web server `crm`.

Specifying the authentication domain may be necessary in certain cases. For example, if you plan to use the PeopleSoft portal technology, be sure to read the supporting documentation to determine whether setting the authentication domain is required for correct operation.

See *PeopleTools 8.52: PeopleTools Portal Technologies PeopleBook*, "Configuring the Portal Environment."

Specify an authentication domain if you plan to run a REN Server. REN Servers are required for PeopleSoft MultiChannel Framework, Reporting, and some PeopleSoft CRM applications supported by PeopleSoft MultiChannel Framework.

See *PeopleTools 8.52: PeopleSoft MultiChannel Framework PeopleBook*.

Specify an authentication domain if you plan to use Business Objects Enterprise.

See "Installing and Configuring Software for Crystal Reports," Installing SAP BusinessObjects Enterprise XI 3.1.

---

## Task 9B-1: Preparing the PeopleSoft Pure Internet Architecture File System for a PeopleTools-Only Upgrade

If you are installing into an existing `PS_HOME` or `PS_CFG_HOME` in preparation for a tools-only upgrade, perform the following instructions to remove any obsolete files.

Stop the web server before performing the PeopleSoft Pure Internet Architecture installation or uninstallation.

Depending on your web server platform, complete the following steps to clean up previous PeopleSoft Pure Internet Architecture sites:

- Oracle WebLogic

Shut down Oracle WebLogic and follow the uninstallation instructions in the old release PeopleSoft PeopleTools installation guide for your database platform. Alternatively, delete the contents of one of the following directories:

- For PeopleSoft PeopleTools 8.43.x or earlier: `<weblogic_home>\wlserver6.1\config\<domain_name>\*`
- For PeopleSoft PeopleTools 8.44.x to 8.49.x: `<PS_HOME>\webserv\<domain_name>\*`
- For PeopleSoft PeopleTools 8.50.x or later: `<PIA_HOME>\webserv\<domain_name>\*`

- IBM WebSphere

Shut down IBM WebSphere and follow the uninstallation instructions in the old release PeopleSoft PeopleTools installation guide for your database platform.

## Task 9B-2: Installing the PeopleSoft Pure Internet Architecture on Oracle WebLogic in Console Mode

This section discusses:

- Prerequisites
- Installing the PeopleSoft Pure Internet Architecture on Oracle WebLogic
- Uninstalling the PeopleSoft Pure Internet Architecture from Oracle WebLogic

### Task 9B-2-1: Prerequisites

This section describes how to install the PeopleSoft Pure Internet Architecture on Oracle WebLogic. Before you install the PeopleSoft Pure Internet Architecture (PIA) on Oracle WebLogic, you must have installed the Oracle WebLogic software. PeopleSoft PeopleTools 8.52 supports 64-bit Oracle WebLogic 10.3.4.

See "Installing Web Server Products," Installing Oracle WebLogic Server.

See *PeopleTools 8.52: System and Server Administration PeopleBook*, "Working with Oracle WebLogic."

### Task 9B-2-2: Installing the PeopleSoft Pure Internet Architecture on Oracle WebLogic

To install the PeopleSoft Pure Internet Architecture on Oracle WebLogic:

1. Change directory to `PS_HOME/setup/PsMpPIAInstall` and run one of these commands:

```
setup.sh -tempdir <temporary_directory>
```

See "Using the PeopleSoft Installer," Prerequisites.

A welcome message appears.

2. Press ENTER at the Welcome prompt to continue.

```
Welcome to the InstallShield Wizard for PeopleSoft Internet Architecture.
```

```
Using the InstallShield Wizard you will install PeopleSoft Internet⇒
```

```
Architecture on your computer.
```

```
Version: 8.52
```

```
If installing onto a BEA WebLogic Server, make sure to shutdown any running⇒
```

```
webservers to avoid web server configuration.
```

```
Press 1 for Next, 3 to Cancel, or 5 to Redisplay [1]/
```

3. Enter the directory where you want to install the PeopleSoft Pure Internet Architecture, referred to here as `PIA_HOME`.

```
Choose the directory where you wish to deploy the PeopleSoft Pure Internet⇒
```

```
Architecture:
```

```
Please specify a directory name or press Enter
```

```
[/home/PT852]:
```

4. Enter `1` to select the Oracle WebLogic Server.

Choose the installation type that best suits your needs

- >1- Oracle WebLogic Server
- 2- IBM WebSphere Server

To select an item enter its number, or 0 when you are finished [0]:

5. Enter the top-level directory where Oracle WebLogic is installed.

Select the web server root directory [/opt/bea]: /data4/WLS\_HOME

Detected web server version: WebLogic 10.3.4

---

**Note.** You will get an error message if you specify a directory that does not contain Oracle WebLogic, or that contains an incorrect Oracle WebLogic version, or a 32-bit Oracle WebLogic.

---

6. Enter the administrator login and password for your Oracle WebLogic domain, or accept the default values. Press ENTER to continue.

The password must be at least 8 alphanumeric characters with at least one number or special character.

---

**Note.** The default login ID is system, and the default password is Passw0rd (with a capital “P” and zero rather than the letter “o”). It is good practice to change to a password other than the default.

---

Please enter the administrator login and password for WebLogic domain.

Login ID [system]:

Password [Passw0rd]:

Re-type Password [Passw0rd]:

7. At this prompt you must choose whether to create a new Oracle WebLogic domain or to use an existing domain.

- >1- Create New WebLogic Domain
- 2- Existing WebLogic Domain

8. If you select Create New WebLogic domain, the installation process automatically generates a valid domain name in the domain name field.

If you attempt to enter an invalid domain name, you see a prompt asking you to enter a new domain name or choose an existing domain.

Enter domain name or click Next to select default [peoplesoft]:

9. If you select Existing WebLogic Domain, select the domain name from the list:

Select application name from list:

- >1- ptwls
- 2- ptwls2

10. If you select Existing WebLogic Domain, select one of these options:

---

**Note.** You only see the option Existing WebLogic Domain if there is already a domain in *PIA\_HOME*.

---

- *Install additional PeopleSoft site*

This option is relevant only to the PeopleSoft PORTAL web application, and does not modify or revert any other configuration settings. Select this option to install only the necessary files for defining an additional PeopleSoft site onto an existing Oracle WebLogic configuration. The new site will be accessed using its name in the URL. A site named “CRM” would be accessed using a URL similar to `http://<mywebserver_machine>/CRM`. To reset or re-create an existing PeopleSoft site, simply enter that site's name as the site to create. On your web server, a PeopleSoft site is comprised of the following directories within the PORTAL web application:

```
<WEBLOGIC_DOMAIN>/applications/peoplesoft/PORTAL/<site>/*
```

```
<WEBLOGIC_DOMAIN>/applications/peoplesoft/PORTAL/WEB-INF/psftdocs/<site>/*
```

- *Redeploy PeopleSoft Internet Architecture*

This selection affects all of the PeopleSoft Pure Internet Architecture web applications installed to the local Oracle WebLogic domain. Select this option to redeploy all of the class files and jar files that comprise web components of PeopleSoft Pure Internet Architecture. Oracle WebLogic Server configuration files, scripts and any existing PeopleSoft (PORTAL) sites are not overwritten, unless you specify an existing PeopleSoft site during this setup.

- *Re-create WebLogic domain and redeploy PeopleSoft Internet Architecture*

This option affects Oracle WebLogic Server configuration and all of the PeopleSoft Pure Internet Architecture web applications installed to the local Oracle WebLogic domain. Select this option to completely remove an existing Oracle WebLogic domain and create the newly specified PeopleSoft site.

---

**Warning!** Re-creating an existing domain will delete everything previously installed into that domain.

---

See *PeopleTools 8.52 PeopleBook: PeopleTools Portal Technologies*.

- *Deploy additional PeopleSoft application extensions*

This option is solely for use with PeopleSoft applications. PeopleSoft application extensions are provided with certain PeopleSoft applications, and this option allows you to deploy those extensions. Consult the installation documentation for your PeopleSoft application to see if this option is appropriate. PeopleSoft PeopleTools does not use application extensions.

11. Specify the name of the domain.
12. If there are application packages in the archives directory, select whether you want to deploy them. (If you are using an existing domain, you see a prompt for this only if you elected to Deploy Additional PeopleSoft Extensions.)
13. Select the type of domain to create—single server, multi server, or distributed managed server.

Please select the configuration to install.

```
->1- Single Server Domain
 2- Multi Server Domain
 3- Distributed Managed Server
```

There are three domain configuration options:

- *Single Server Domain*

This domain configuration contains one server, named PeopleSoft Pure Internet Architecture and the entire PeopleSoft application is deployed to it. This configuration is intended for single user or very small scale, nonproduction environments. This configuration is very similar to the Oracle WebLogic domain provided in PeopleSoft PeopleTools 8.40 through 8.44.

- *Multi Server Domain*

This domain configuration is contains seven unique server definitions, a Oracle WebLogic cluster, and the PeopleSoft Application split across multiple servers. This configuration is the intended for a production environment.

- *Distributed Managed Server*

This option is an extension of the Multi Server Domain selection and installs the necessary files to boot a managed server. This option requires a Multi Server installation to be performed to some other location, which will contain the configuration for this managed server.

14. Enter a PeopleSoft web site name; the default is ps.

---

**Warning!** The site name can include underscores ( \_ ), but an underscore cannot be followed by a numeric character or the string "newwin" (for example, my\_site\_3 or my\_newwin\_site).

---

```
Please specify a name for the PeopleSoft web site:
Website name [ps]:
```

15. Specify your application server name, its JSL (Jolt Station Listener) port number, its HTTP and HTTPS port numbers, the Authentication Token Domain (optional).

```
Enter port numbers and summaries.
```

```
AppServer name [APPSRVNAME]:
```

```
JSL Port [9000]:
```

```
HTTP Port [80]:
```

```
HTTPS Port [443]:
```

```
Authentication Token Domain (optional) []:
```

- *AppServer name*

For the AppServer name setting, enter the name of your application server.

See "Configuring the Application Server on <Windows or UNIX>."

See "Understanding the PeopleSoft Pure Internet Architecture."

- *JSL Port*

For the JSL port setting, enter the JSL port number you specified when setting up your application server. (The default value is 9000.)

- *HTTP and HTTPS Port*

The values for the HTTP and HTTPS ports should be greater than 1024. Any port number less than 1024 is reserved and only Root has access to it.



- *Authentication Token Domain*

The value you enter for the Authentication Token Domain must match the value you specify when configuring your application server, as described earlier in this book. In addition, certain installation configurations require that you specify an authentication domain.

See *Using Authentication Domains in the PeopleSoft Pure Internet Architecture Installation*.

If you enter a value for the Authentication Token Domain, the URL to invoke PeopleSoft Pure Internet Architecture must include the network domain name in the URL. For example, if you do not enter an authentication domain, the URL to invoke PeopleSoft Pure Internet Architecture is `http://MachineName/ps/signon.html`. If you do enter a value for authentication domain (for example, `.myCompany.com`), the URL to invoke PeopleSoft Pure Internet Architecture is `http://MachineName.myCompany.com/ps/signon.html`. In addition, if the web server for the database is using an http port other than the default port of 80, the URL must include the port number, for example `http://MachineName:8080/ps/signon.html` if there is no authentication domain, or `http://MachineName.myCompany.com:8080/ps/signon.html` if there is an authentication domain. The URL must also comply with the naming rules given earlier in this chapter.

16. Accept the default for the web profile, PROD, or enter another name.

The web profile name will be used to configure this web site. You can specify one of the other predelivered web profiles, DEV, TEST, or KIOSK, or enter a different name. If you intend to use a Web Profile User ID other than the default, be sure to review the information on web profile configuration and security in the following PeopleBook.

See *PeopleTools 8.52: PeopleTools Portal Technologies PeopleBook*, "Configuring the Portal Environment."

Please enter the Name of the Web Profile used to configure the web server. The⇒  
user id and password will be used to retrieve the web profile from the⇒  
database. (NOTE: Other available preset web profile names are "TEST", "DEV",⇒  
and "KIOSK".)

```
Web Profile Name [PROD]:
User ID [PTWEBSEVER]:
Password [PTWEBSEVER]:
Re-type Password [PTWEBSEVER]:
```

---

**Note.** If the PeopleSoft PeopleTools version of your database is *below* 8.44, then you will need to add the PTWEBSEVER User Profile before you upgrade to the current PeopleSoft PeopleTools release. The User Profile must include the PeopleTools Web Server role, but do not grant any other roles. Enter the password that you set for the User Profile for the User ID password in this step, as shown in this example. See *PeopleTools 8.52: Security Administration PeopleBook* for the steps required to add a User Profile.

---

17. Specify the root directory for the Report Repository.

The default directory is `<user_home>/PeopleSoft Internet Architecture/psreports`, where `<user_home>` is the home directory for the current user.

You must have write access to the specified directory.

---

**Note.** In setting up the Process Scheduler to transfer reports, if you choose the FTP protocol, use the same directory for the Home Directory as you use here for the report repository.

---

See "Setting Up Process Scheduler," Setting Up the Process Scheduler to Transfer Reports and Logs to Report Repository.

Select the Report Repository location:

Please specify a directory name or press Enter [/ds1/home/PeopleSoft Internet⇒  
Architecture/psreports]:

18. Verify all of your selections and press Enter to begin the installation.

You see a progress indicator showing the progress of your installation.

19. When the installation is complete, exit from the console window.

The default installation directory is `<PIA_HOME>/websrv/<domain_name>/`, where `<domain>` is the web server domain (peoplesoft by default).

## Task 9B-2-3: Uninstalling the PeopleSoft Pure Internet Architecture from Oracle WebLogic

To remove a PIA domain deployed on Oracle WebLogic, delete the `<PIA_HOME>/websrv/<domain_name>` directory. If there is more than one PIA domain, delete the `domain_name` directory for every domain you want to uninstall.

---

## Task 9B-3: Installing the PeopleSoft Pure Internet Architecture on IBM WebSphere in Console Mode

This section discusses:

- Prerequisites
- Installing the PeopleSoft Pure Internet Architecture on IBM WebSphere Application Server ND
- Uninstalling the PeopleSoft Pure Internet Architecture from IBM WebSphere

### Prerequisites

The information in this section applies to the installation of PeopleSoft Pure Internet Architecture (PIA) on an IBM WebSphere Application Server. PeopleSoft PeopleTools 8.52 requires a 64-bit IBM WebSphere installation. Review these points before you begin the installation:

- Before installing the PeopleSoft Pure Internet Architecture on IBM WebSphere Application Server, you must have installed the IBM WebSphere ND software.

See "Installing Web Server Products," Installing IBM WebSphere Application Server.

- Each IBM WebSphere Application Server runs one PeopleSoft Pure Internet Architecture application. If you need to install more than one PeopleSoft Pure Internet Architecture application on your WebSphere Application Server, you must run the PIA installation again.
- When installing PIA on IBM WebSphere ND, you must work with a local copy of the PIA installation software; you cannot install remotely. If you are doing the installation on a machine other than the one on which you installed PeopleSoft PeopleTools, copy the `PS_HOME/setup/PsMpPIAInstall` directory to the local machine.

- Both IBM WebSphere Application Server Network Deployment and PeopleSoft Pure Internet Architecture must be installed and deployed using the same user id. Following this restriction avoids any security and profile management issues.

## See Also

"Installing Web Server Products," Installing IBM WebSphere Application Server

## Task 9B-3-1: Installing the PeopleSoft Pure Internet Architecture on IBM WebSphere Application Server ND

To install the PeopleSoft Pure Internet Architecture on IBM WebSphere ND:

1. Change directory to *PS\_HOME/setup/PsMpPIAInstall* and run this command:

```
setup.sh
```

A welcome message appears.

2. Select Enter to continue.
3. Choose the directory where you want to install the PeopleSoft Pure Internet Architecture, referred to in this documentation as *PIA\_HOME*.
4. Enter 2, to select the IBM WebSphere Application Server:

```
->1- Oracle WebLogic Server
 2- IBM WebSphere Server
```

5. Enter the directory where you installed IBM WebSphere ND, or press ENTER to accept the default:

```
Select the WebSphere Application Server directory:
Directory Name: [/opt/IBM/WebSphere/AppServer]
```

---

**Note.** If you specify a 32-bit installation of IBM WebSphere ND, a message appears asking you to confirm the decision. Keep in mind that PeopleSoft PeopleTools 8.51 and later releases require 64-bit IBM WebSphere ND.

---

6. Choose whether to create a new application, or use an existing application:

```
->1- Create New WebSphere Application
 2- Existing WebSphere Application
```

7. If you specify 1, Create New WebSphere Application, enter an application name for this web server.
8. Select the type of server you want to install, and press ENTER to continue:

```
Select the server install type:
->1- Single Server Installation
 2- Multi Server Installation
```

The Single Server Installation option creates one IBM WebSphere Application Server profile to hold all the PeopleSoft web applications. The installer uses the Application Name you enter for the new profile's name.

The Multi Server Installation option creates a single profile with the name you entered above, *application\_name*. The *application\_name* profile includes two servers, which deploy discrete functionality and are found on different ports, as specified in the following table:

| Server Name | Purpose                                                            | HTTP or HTTPS Port Number |
|-------------|--------------------------------------------------------------------|---------------------------|
| server1     | PORTAL applications                                                | X                         |
| psemhub     | PeopleSoft Environment Management Framework applications (PSEMHUB) | X+1                       |

See *PeopleTools 8.52: System and Server Administration PeopleBook*, "Working with IBM WebSphere."

9. If you specify 2, Existing WebSphere Application, select a domain name from the list:

Select domain name from list

```
->1- AppSrv01
 2- ptwas
 3- peoplesoftA
 4- hcdmo
```

10. After specifying an existing domain, select one of the options below and press ENTER to continue.

The PeopleSoft application "peoplesoftA" already exists.

Select from the following:

```
->1- Install additional PeopleSoft site
 2- Redeploy PeopleSoft Internet Architecture
 3- Deploy additional PeopleSoft application extensions
```

---

**Note.** Make sure the server is up and running before choosing any of these options.

---

- *Install additional PeopleSoft site*

Select this option to install only the necessary files for defining an additional PeopleSoft site onto the existing IBM WebSphere web server configuration.

- *Redeploy PeopleSoft Internet Architecture*

This selection affects all of the PeopleSoft Pure Internet Architecture web applications installed to the local IBM WebSphere Application Server profile. Select this option to redeploy PeopleSoft Application that comprise web components of PeopleSoft Pure Internet Architecture.

- *Deploy additional PeopleSoft application extensions*

This option is solely for use with PeopleSoft product applications. PeopleSoft application extensions are provided with certain PeopleSoft applications, and this option allows you to deploy those extensions. Consult the installation documentation for your PeopleSoft application to see whether this option is appropriate. PeopleSoft PeopleTools does not use application extensions.

11. Enter the administrator login and password for the IBM WebSphere Application profile, or accept the default values.

The default login ID is system, and the default password is Passw0rd (with a capital "P" and zero rather than the letter "o").

Please enter the administrator login ID and password for WebSphere profile.

Login ID [system]:

Password [Passw0rd]:

Retype Password [Passw0rd]:

If you selected the option Existing WebSphere Application, enter the same Login ID and password as you entered for the original IBM WebSphere profile creation. If the Login ID and password do not match the original values, you will not be able to continue with the PIA installation.

12. If you select the option Deploy additional PeopleSoft application extension, select the application packages you want to deploy:

```
->1- EMP PeopleSoft Activity Based Mgmt
```

13. Enter a web site name; the default is ps.

---

**Warning!** The site name can include underscores ( \_ ), but an underscore cannot be followed by a numeric character or the string “newwin” (for example, my\_site\_3 or my\_newwin\_site).

---

14. Specify your application server name, its JSL (Jolt Station Listener) port number, its HTTP and HTTPS port numbers, the authentication token domain (optional).

Enter port numbers and summaries.

AppServer name:

[<App Server Machine Name>]

JSL Port:

[9000]

HTTP Port:

[8000]

HTTPS Port:

[4430]

Authentication Token Domain:(optional) []

---

**Note.** For the AppServer name setting, enter the name of your application server. For the JSL port setting, enter the JSL port number you specified when setting up your application server. (The default value is 9000.)

---

See "Configuring the Application Server on UNIX."

---

**Note.** The HTTP/HTTPS port numbers are reset to those that you just specified when you restart your IBM WebSphere server.

---



---

**Note.** The value you enter for the Authentication Token Domain must match the value you specify when configuring your application server, as described earlier in this book. In addition, certain installation configurations require that you specify an authentication domain. See Using Authentication Domains in the PeopleSoft Pure Internet Architecture Installation.

---

---

**Note.** If you enter a value for the Authentication Token Domain, the URL to invoke PeopleSoft Pure Internet Architecture must include the network domain name in the URL. For example, if you do not enter an authentication domain, the URL to invoke PeopleSoft Pure Internet Architecture is `http://MachineName/ps/signon.html`. If you do enter a value for the authentication domain (for example, `.myCompany.com`), the URL to invoke PeopleSoft Pure Internet Architecture is `http://MachineName.myCompany.com/ps/signon.html`. In addition, if the web server for the database is using an HTTP port other than the default port of 9080, the URL must include the port number, for example `http://MachineName:8080/ps/signon.html` if there is no authentication domain, or `http://MachineName.myCompany.com:8080/ps/signon.html` if there is an authentication domain. The URL must also comply with the naming rules given earlier in this chapter.

---

See "Understanding the PeopleSoft Pure Internet Architecture."

15. Accept the default for the web profile, PROD, or enter another name.

The web profile name will be used to configure this web site. You can specify one of the other predelivered web profiles, DEV, TEST, or KIOSK, or enter a different name. If you intend to use a Web Profile User ID other than the default, be sure to review the information on web profile configuration and security.

See *PeopleTools 8.52: PeopleTools Portal Technologies PeopleBook*, "Configuring the Portal Environment."

---

**Note.** If the PeopleSoft PeopleTools version of your database is *below* 8.44, then you will need to add the PTWEBSERVER User Profile before you upgrade to the current PeopleSoft PeopleTools release. The User Profile must include the PeopleTools Web Server role, but do not grant any other roles. Enter the password that you set for the User Profile for the User ID password in this step. See *PeopleTools 8.52: Security Administration PeopleBook* for the steps required to add a User Profile.

---

16. Specify the root directory for the Report Repository.

You can install to any location, but the directory must have write access. The default directory is `user_home/PeopleSoft Internet Architecture/psreports`, where `user_home` is the home directory for the current user.

---

**Note.** In setting up the Process Scheduler to transfer reports, if you choose the FTP protocol, use the same directory for the Home Directory as you use here for the report repository.

---

See "Setting Up Process Scheduler," Setting Up the Process Scheduler to Transfer Reports and Logs to Report Repository.

17. Verify your selections and press Enter to start the installation. You see an indicator showing the progress of your installation.
18. When the installation is complete, exit from the console window.

The default installation directory is `<PIA_HOME>\webserv\<profile_name>`.

## Task 9B-3-2: Uninstalling the PeopleSoft Pure Internet Architecture from IBM WebSphere

You cannot uninstall PeopleSoft Pure Internet Architecture simply by deleting `<PIA_HOME>/webserv/<profile_name>`, without uninstalling it from IBM WebSphere Administration Console. If you do so, the IBM WebSphere registry becomes corrupt, and subsequent attempts to install PeopleSoft Pure Internet Architecture will fail. Instead, if necessary, you must uninstall PeopleSoft Pure Internet Architecture on IBM WebSphere ND as described here:

To uninstall PeopleSoft Pure Internet Architecture on IBM WebSphere:

1. Open IBM WebSphere Administration Console at `http://machine-name:9060/ibm/console`
2. Log in as any user.
3. Choose Applications, Enterprise Applications.
4. Select the check boxes for the PeopleSoft Pure Internet Architecture applications you want to uninstall, and click Stop.
5. Select the check boxes for the PeopleSoft Pure Internet Architecture applications you want to uninstall, and click Uninstall.
6. Save your configuration.
7. Stop IBM WebSphere server using the following commands:

On Windows:

```
<PIA_HOME>\webserv\<profile_name>\bin\stopServer.bat server1
```

On UNIX:

```
<PIA_HOME>\webserv\<profile_name>\bin\stopServer.sh server1
```

8. In addition to uninstalling the application, you need to remove the IBM WebSphere Application Server profile (that was created during PIA install) to complete the PIA uninstallation.

To uninstall profile run the following steps:

- a. Go to `<PIA_HOME>/webserv/<profile_name>/bin`
- b. Run the following command:

On Windows:

```
manageprofiles.bat -delete -profileName profile_name
```

On UNIX:

```
manageprofiles.sh -delete -profileName profile_name
```

where `profile_name` indicates the application name that you have selected during the PIA install.

- c. Delete the directory `<PIA_HOME>/webserv/<profile_name>`

---

## Task 9B-4: Installing the PeopleSoft Pure Internet Architecture in Silent Mode

This section discusses:

- Understanding the Silent Installation and the Response File
- Editing the Response File
- Running the Silent Mode Installation

## Understanding the Silent Installation and the Response File

You can carry out a silent installation of the PeopleSoft Pure Internet Architecture by providing all the required settings in a response file. With silent installation there is no user interaction. Silent mode installation of PeopleSoft Pure Internet Architecture is supported for both Microsoft Windows and UNIX operating systems platforms, and for both IBM WebSphere and Oracle WebLogic web servers.

### Task 9B-4-1: Editing the Response File

You need a response file to start the installer in silent mode. The PeopleSoft Pure Internet Architecture installer comes with a response file template (resp\_file.txt) that can be found under *PS\_HOME\setup\PsmPPIAInstall\scripts*. Modify the values in the response file according to your installation requirements. The response file should contain all the input parameters that are needed for deploying PeopleSoft Pure Internet Architecture, such as PS\_CFG\_HOME, DOMAIN\_NAME, SERVER\_TYPE, and so on. For example:

- Specify SERVER\_TYPE=weblogic to deploy on Oracle WebLogic.
- Specify SERVER\_TYPE=websphere to deploy on IBM WebSphere.

*Sample Response file:*

```
#PIA home
PS_CFG_HOME=C:/PT8.52

Name of the PIA domain
DOMAIN_NAME=peoplesoft

Web server type. Possible values are "weblogic", "websphere"
SERVER_TYPE=weblogic

WebLogic home, the location where Oracle WebLogic is installed (for WebLogic⇒
 deployment only)
BEA_HOME=c:/bea

WebSphere Home, the location where IBM WebSphere is installed (for WebSphere⇒
 deployment only)
WS_HOME=C:/IBM/WebSphere/AppServer

admin console user id/password for securing WebLogic/WebSphere admin console⇒
 credential
values given below are default and will be straight away accepted.
If the value of USER_PWD is changed, UNCOMMENT the variable USER_PWD_RETYPE and⇒
 give it same value as USER_PWD
USER_ID=system
USER_PWD=Passw0rd
#USER_PWD_RETYPE=Passw0rd
```



```
Install action to specify the core task that installer should perform.
For creating new PIA domain - CREATE_NEW_DOMAIN.
For redeploying PIA - REDEPLOY_PSAPP.
For recreating PIA domain - REBUILD_DOMAIN.
For installing additional PSFT site - ADD_SITE
INSTALL_ACTION=CREATE_NEW_DOMAIN

Domain type to specify whether to create new domain or modify existing domain.⇒
#Possible values are "NEW_DOMAIN", "EXISTING_DOMAIN".
DOMAIN_TYPE=NEW_DOMAIN

Install type to specify whether the installation is a single server or multi⇒
server #deployment. Possible values are "SINGLE_SERVER_INSTALLATION", #"MULTI⇒
SERVER_INSTALLATION"
INSTALL_TYPE=SINGLE_SERVER_INSTALLATION

WebSite Name
WEBSITE_NAME=ps

AppServer Name
APPSERVER_NAME=

Appserver JSL Port
JSL_PORT=

HTTP Port
HTTP_PORT=80

HTTPS Port
HTTPS_PORT=443

Authentication Domain (optional)
AUTH_DOMAIN=

Web Profile Name Possible Values are "DEV","TEST","PROD","KIOSK"
WEB_PROF_NAME=DEV

Web Profile User ID
WEB_PROF_USERID=PTWEBSERVER

Web Profile Password
If the value of WEB_PROF_PWD is changed, UNCOMMENT the variable WEB_PROF_PWD ⇒
RETYPE and give it same value as WEB_PROF_PWD
WEB_PROF_PWD=PTWEBSERVER
#WEB_PROF_PWD_RETYPE=PTWEBSERVER

Directory path for reports
REPORTS_DIR=
```

## Task 9B-4-2: Running the Silent Mode Installation

Use the response file that you modified for your configuration. Substitute the location where you saved the response file for *<path\_to\_response\_file>* in the following procedures:

To install the PeopleSoft Pure Internet Architecture in silent mode on Microsoft Windows:

1. In a command prompt, go to *PS\_HOME\setup\PsmPPIAInstall*.
2. Run the following command:

```
setup.bat -i silent -DRES_FILE_PATH=<path_to_response_file>
```

To install the PeopleSoft Pure Internet Architecture in silent mode on UNIX or Linux:

1. Go to *PS\_HOME/setup/PsmPPIAInstall*.
2. Run the following command:

```
setup.sh -i silent -DRES_FILE_PATH=<path_to_response_file>
```

---

## Task 9B-5: Testing and Administering the PeopleSoft Pure Internet Architecture Installation

This section discusses:

- Verifying the PeopleSoft Pure Internet Architecture Installation
- Starting and Stopping Oracle WebLogic
- Starting and Stopping IBM WebSphere Application Servers
- Using PSADMIN to Start and Stop Web Servers
- Accessing the PeopleSoft Signon

### Verifying the PeopleSoft Pure Internet Architecture Installation

After installing the PeopleSoft Pure Internet Architecture, you should make sure that your configuration is functional. You can test this by signing on to PeopleSoft, navigating within the menu structure, and accessing pages. (Make sure the application server is configured and booted.) This section includes procedures to start and stop the Oracle WebLogic or IBM WebSphere web servers whenever necessary.

### Task 9B-5-1: Starting and Stopping Oracle WebLogic

If you are using the Oracle WebLogic web server, you need to sign on to Oracle WebLogic before using these commands. If you are using IBM WebSphere instead, go on to the next section. Use the following commands in the Oracle WebLogic domain directory.

---

**Note.** Starting from Oracle WebLogic 9.2 and later releases, all the Life-cycle management scripts and other batch scripts for the PIA server on Oracle WebLogic are located in *<PIA\_HOME>\webserv\<domain\_name>\bin* folder.

---

- To start Oracle WebLogic Server as a foreground process on a single server, use the following commands:

```
startPIA.cmd (on Windows)
startPIA.sh (on UNIX)
```

- To start Oracle WebLogic Server as a foreground process on multiple-servers or distributed servers, use the following commands:

a. Execute:

```
startWebLogicAdmin.cmd (on Windows)
startWebLogicAdmin.sh (on UNIX)
```

b. Then:

```
startManagedWebLogic.cmd ManagedServerName (on Windows)
startManagedWebLogic.sh ManagedServerName (on UNIX)
```

- To stop the server, use the following commands:

- Single Server:

```
stopPIA.cmd (on Windows)
stopPIA.sh (on UNIX)
```

- Multiple Servers or Distributed Servers:

```
stopWebLogic.cmd ManagedServerName (on Windows)
stopWebLogic.sh ManagedServerName (on UNIX)
```

See *PeopleTools 8.52: PeopleTools Portal Technologies PeopleBook*.

---

**Note.** For more information on working with Oracle WebLogic multiple or distributed servers, search My Oracle Support.

---

## Task 9B-5-2: Starting and Stopping IBM WebSphere Application Servers

This section discusses:

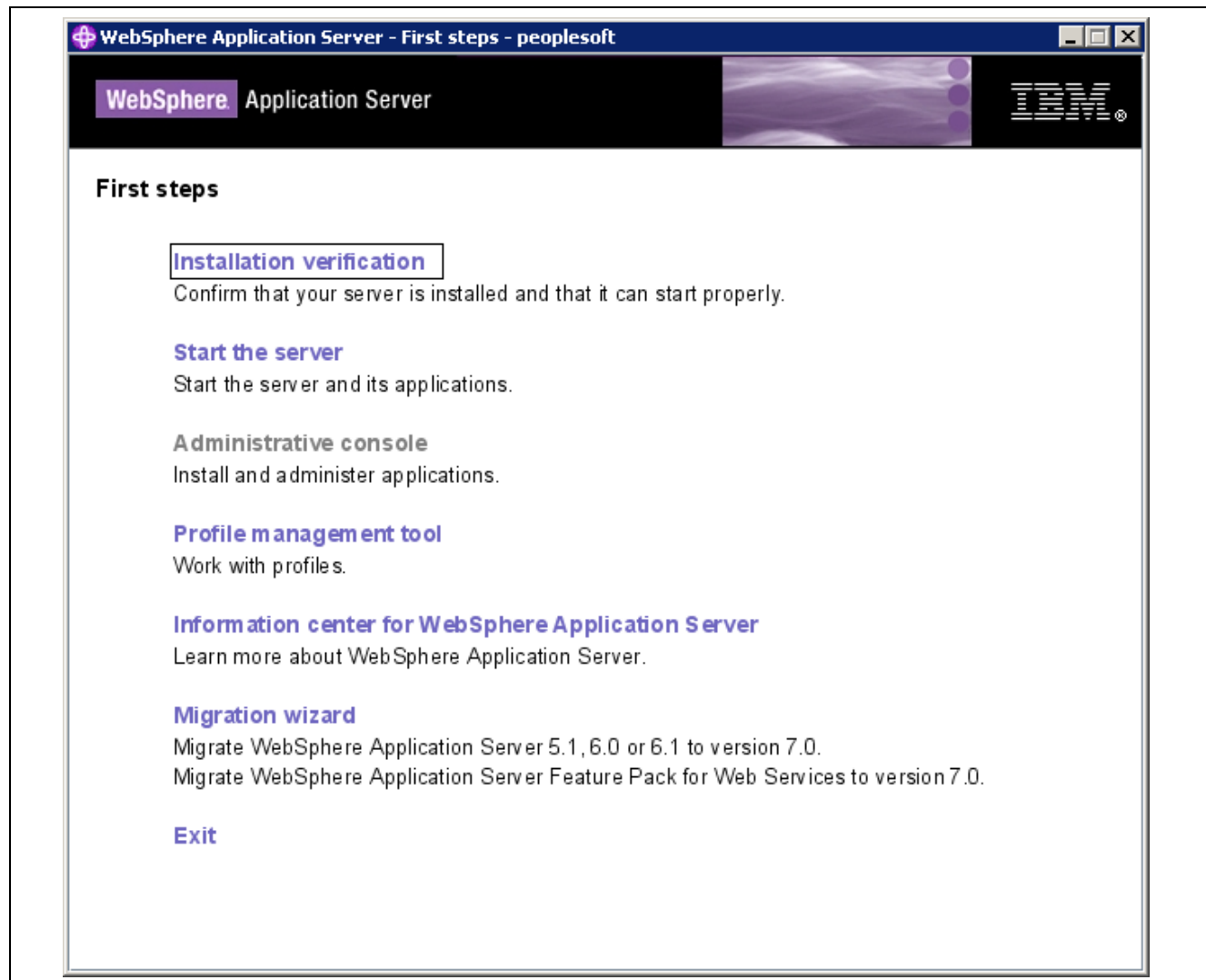
- Starting and Stopping IBM WebSphere Application Servers on Windows
- Starting and Stopping IBM WebSphere Application Servers on UNIX or Linux
- Verifying the IBM WebSphere Installation

### Starting and Stopping IBM WebSphere Application Servers on Windows

To start and stop the WebSphere Application Server Network Deployment 7.0 (WebSphere ND), use the WebSphere First Steps utility:

1. Select Start, Programs, IBM WebSphere, Application Server Network Deployment V7.0, Profiles, *profile\_name*, First steps.

The following example shows the First steps window for the default profile *peoplesoft*:



WebSphere Application Server First Steps window

2. Select the link Start the server.

If the server starts properly, a verification window appears with several messages about the initialization process, as in this example:

```

First steps output - Installation verification
Home type is: default
Cell name is: peoplesoftNodeCell
Node name is: peoplesoftNode
Current encoding is: Cp1252
Start running the following command: cmd.exe /c "C:\pt850\websrv\peoplesoft\bin\startServer.bat" server1 -profileName peoplesoft
>ADMU0116: Tool information is being logged in file
>C:\pt850\websrv\peoplesoft\logs\server1\startServer.log
>ADMU0128: Starting tool with the peoplesoft profile
>ADMU3100: Reading configuration for server: server1
>ADMU3200: Server launched. Waiting for initialization status.
>ADMU3000: Server server1 open for e-business; process id is 5160
Server port number is: 80
IVTL0010: Connecting to the localhost WebSphere Application Server on port: 80
IVTL0015: WebSphere Application Server localhost is running on port: 80 for profile peoplesoft
Testing server using the following URL: http://localhost:80/ivt/ivtserver?parm2=ivtservlet
IVTL0050: Servlet engine verification status: Passed
Testing server using the following URL: http://localhost:80/ivt/ivtserver?parm2=ivtAddition.jsp
IVTL0055: JavaServer Pages files verification status: Passed
Testing server using the following URL: http://localhost:80/ivt/ivtserver?parm2=ivtejb
IVTL0060: Enterprise bean verification status: Passed
IVTL0035: The Installation Verification Tool is scanning the C:\pt850\websrv\peoplesoft\logs\server1\SystemOut.log file for errors and wa
[2/4/09 15:46:48:609 PST] 00000000 WSKeyStore W CWPkI0041W: One or more key stores are using the default password.
[2/4/09 15:47:30:468 PST] 00000000 ThreadPoolMgr W WSVR0626W: The ThreadPool setting on the ObjectRequestBroker service is de
[2/4/09 16:35:24:562 PST] 00000000 WSKeyStore W CWPkI0041W: One or more key stores are using the default password.
[2/4/09 16:35:27:578 PST] 00000000 ThreadPoolMgr W WSVR0626W: The ThreadPool setting on the ObjectRequestBroker service is de
[2/4/09 16:35:36:953 PST] 0000000a webcontainer W com.ibm.ws.wswebcontainer.VirtualHost addVhostEntry VirtualHost alias already e
[2/4/09 16:35:36:968 PST] 0000000a webcontainer W com.ibm.ws.wswebcontainer.VirtualHost addVhostEntry VirtualHost alias already e
IVTL0040: 6 errors/warnings are detected in the C:\pt850\websrv\peoplesoft\logs\server1\SystemOut.log file
IVTL0070: The Installation Verification Tool verification succeeded.
IVTL0080: The installation verification is complete.

```

First steps output - Installation verification window

3. To verify whether the server was installed and can start properly, click the link Installation Verification on the First Step window.

## Starting and Stopping IBM WebSphere Application Servers on UNIX or Linux

To start WebSphere ND on UNIX or Linux, use the following command:

```
<PIA_HOME>/websrv/<profile_name>/bin/startServer.sh <server_name>
```

For example:

```
/home/pt852/webserver/peoplesoft/bin/startServer.sh server1
```

To stop WebSphere ND, use the following command:

```
<PIA_HOME>/websrv/<profile_name>/bin/stopServer.sh <server_name>
```

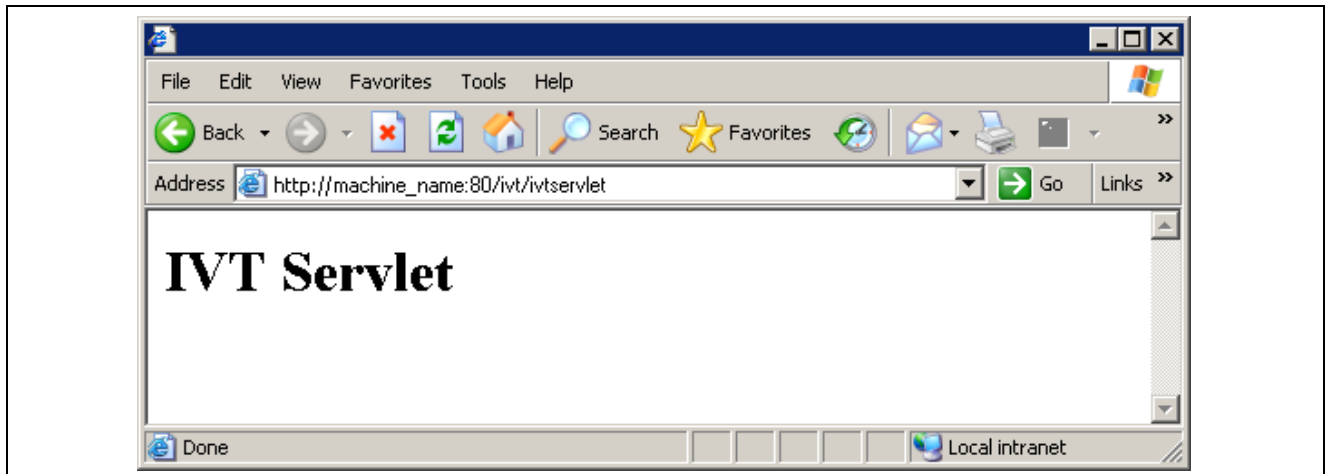
## Verifying the IBM WebSphere Installation

Use this method to verify the WebSphere ND and PIA installation for both Windows and UNIX.

To verify the WebSphere ND and PIA installation, copy the following URL into a browser address bar, substituting your machine name and the http port number:

```
http://<machine_name>:<http_port>/ivt/ivtservlet
```

You should see the text “IVT Servlet” in the browser, as in this example:



IVT Servlet window

You should also sign into the PeopleSoft application, as described in a later section, to verify the installation. See *Accessing the PeopleSoft Signon*.

## Task 9B-5-3: Using PSADMIN to Start and Stop Web Servers

In addition to the methods given in the previous sections for starting and stopping Oracle WebLogic and IBM WebSphere web servers, in PeopleSoft PeopleTools 8.52 you can use PSADMIN to administer a web server domain.

See *PeopleTools 8.52: System and Server Administration PeopleBook*

To start and stop web servers:

1. Go to the *PS\_HOME/appserv* directory and run PSADMIN.
2. Specify 4 for Web (PIA) Server.

```

PeopleSoft Server Administration

Config Home: /home/psft_AppServ

1) Application Server
2) Process Scheduler
3) Search Server
4) Web (PIA) Server
5) Switch Config Home
6) Replicate Config Home
q) Quit

Command to execute (1-6, q): 4
```

The location of Config Home is the current working directory. The PSADMIN utility determines the Config Home directory by checking for the *PS\_CFG\_HOME* environment variable. If that is not set, it checks for the presence of domains in the default *PS\_CFG\_HOME* location. If none exists, it uses the *PS\_HOME* location from which it was launched.

See "Preparing for Installation," Defining Server Domain Configurations.

3. Select *1* for Administer a domain.

```

PeopleSoft PIA Administration

PIA Home: /home/psft_WebServ

1) Administer a domain
2) Create a domain
3) Delete a domain

q) Quit
```

Command to execute: **1**

The PSADMIN utility determines the PIA Home location displayed here by first checking for a PIA\_HOME environment variable. If none is set, it checks for the PS\_CFG\_HOME environment variable. If neither is set, it uses the default PS\_CFG\_HOME directory.

4. Select the domain you want to administer by entering the appropriate number.

```

PeopleSoft PIA Domain Administration - Choose a Domain

1) OnWls1034R607
2) peoplesoft

q) Quit
```

Command to execute: **2**

5. To start a web server domain, enter *1*, Boot this domain.

```

PeopleSoft PIA Domain Administration

PIA Home: /home/psft_websrv
PIA Domain: peoplesoft

1) Boot this domain
2) Shutdown this domain
3) Get the status of this domain
4) Configure this domain
5) Edit configuration files
6) View log files
7) Administer a site
8) Delete a site

q) Quit
```

Command to execute: 1

The boot command invokes the startPIA.sh script, and you see the progress and a status message on the console window.

```
Starting the domain.....
The domain has started.
```

6. To stop a web server domain, select 2, Shutdown this domain.

The shutdown command invokes the stopPIA.sh script, and you see the progress and a status message on the console window.

```
Stopping the domain.....
Verifying domain status.....
The domain has stopped.
```

7. Select 1 to install a service, or 2 to remove it.

This command invokes the installNTservice script, and creates a service named *WebLogicDomain-WebLogicServer*.

```

Windows Service Setup

PIA Home: C:\psft_websrv
PIA Domain: peoplesoft: started

1) Install Service
2) Uninstall Service

q) Quit
```

Command to execute:

## Task 9B-5-4: Accessing the PeopleSoft Signon

To access the PeopleSoft signon:

1. Open your web browser.
2. Enter the name of the site you want to access—for example (the default value for *<site\_name>* is ps):

```
http://<machine_name>:<http_port>/<site_name>/signon.html
```

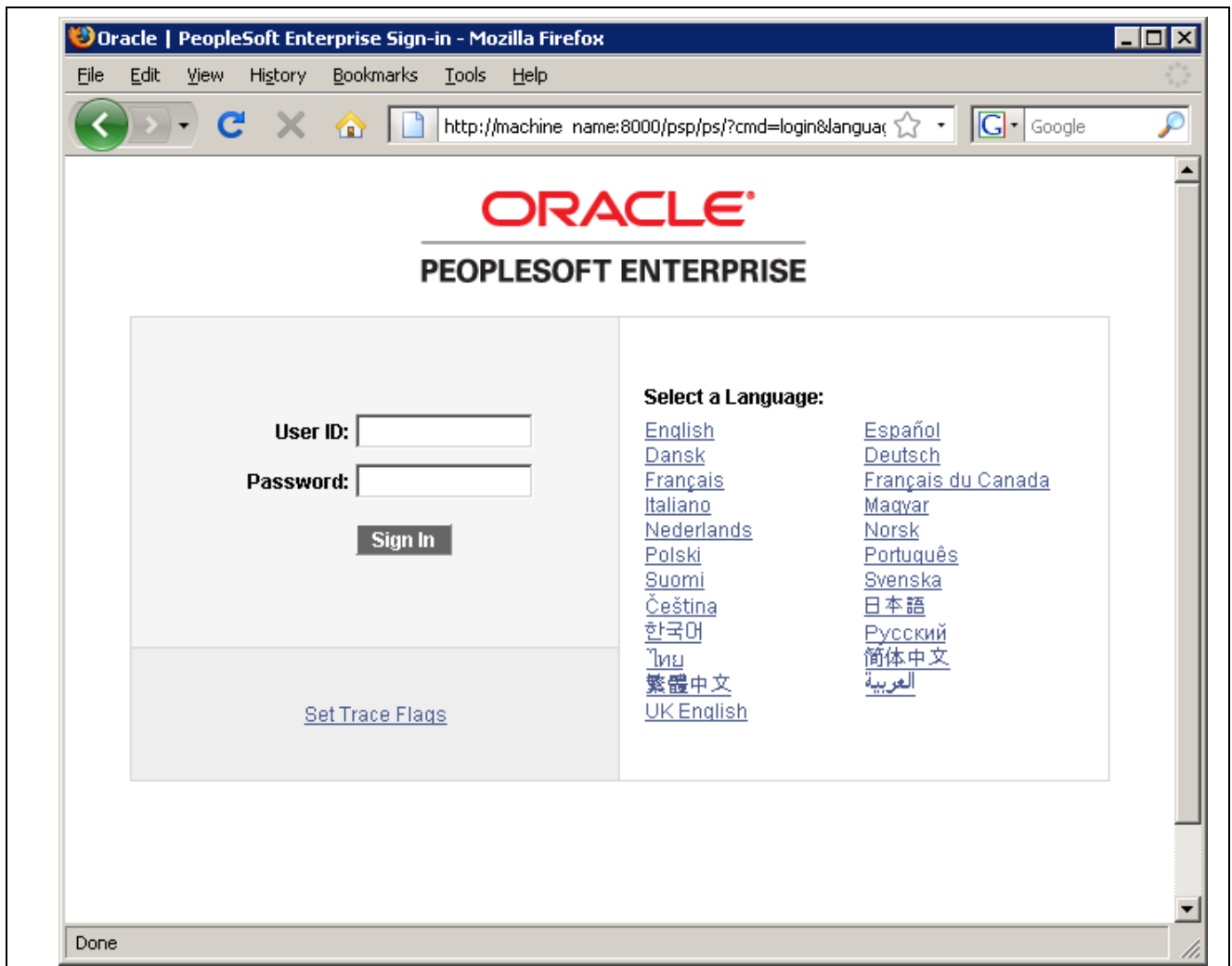
---

**Note.** PeopleSoft Pure Internet Architecture installed on IBM WebSphere server listens at the HTTP/HTTPS ports specified during the PeopleSoft Pure Internet Architecture install. Invoke PeopleSoft Pure Internet Architecture through a browser by using the specified HTTP or HTTPS ports—that is, `http://<WebSphere_machine_name>:<server_port>/<site_name>/signon.html` (if AuthTokenDomain is not specified ) or `http://<WebSphere_machine_name.mycompany.com>:<server_port>/<site_name>/signon.html` (if you specified .mycompany.com as the AuthTokenDomain).

---

This will take you to the sign-in window corresponding to your browser's language preference. This example shows the sign-in window in a Mozilla Firefox browser, before signing in.





Oracle PeopleSoft Enterprise Sign in window

**Note.** If you do not see the signon screen, check that you supplied all the correct variables and that your application server and the database server are running.

3. Sign in to the PeopleSoft system by entering a valid user ID and password.

**Note.** The user ID and password are case sensitive. You need to enter the user ID and password using UPPERCASE characters.

Different applications use different default user IDs and passwords. For instance, for HRMS applications you enter PS for the user ID and the password. For Financials applications, you enter VP1 for the user ID and the password. Your application-specific install instructions contain any custom, delivered user IDs that you should use for the demonstration environment.

## Task 9B-6: Completing Post-Installation Steps

This section discusses:

- Updating the Installation Table
- Updating PeopleTools Options
- Updating Database Information

## Task 9B-6-1: Updating the Installation Table

After you complete the installation process, creating the database, installing the Application Server, and installing the PeopleSoft Pure Internet Architecture, you must complete this additional step. The license codes from the Oracle license code site mentioned earlier install all products available in the installation package. This post-installation step ensures that only the products for which you are licensed are active in the installation. The location of the installation table in the PeopleSoft Pure Internet Architecture menu varies depending upon the application that you installed.

To update the installation table:

1. Sign on to the PeopleSoft Pure Internet Architecture in a browser.
2. Select Setup *Application\_name* (where *Application\_name* is the PeopleSoft application you installed), Install, Installation Table.  
Select the Products tab.
3. Clear the check boxes for the products for which you have not obtained a license.

### See Also

"Using the PeopleSoft Installer," Obtaining License Codes

Accessing the PeopleSoft Signon

## Task 9B-6-2: Updating PeopleTools Options

You can set the following options on the PeopleTools Options page:

- Multi-Currency — Select this check box if you plan to use currency conversion.  
See *PeopleTools 8.52: Global Technology PeopleBook*, "Controlling Currency Display Format."
- Base Time Zone — Enter a value for the base time zone for your PeopleTools database.  
See *PeopleTools 8.52: Global Technology PeopleBook* "Setting and Maintaining Time Zones."
- Data Field Length Checking — Select one of the following values:
  - Others — If you are using a Unicode-encoded database or a non-Unicode SBCS database.
  - MBCS — If you are running a non-Unicode Japanese database.  
See *PeopleTools 8.52: Global Technology PeopleBook*, "Selecting and Configuring Character Sets and Language Input and Output."
- Sort Order Option — If you specified a non-binary sort order for your database, choose the Sort Order Option that most closely approximates your database sort order.  
See *PeopleTools 8.52: Global Technology PeopleBook*, "Sorting in PeopleTools."

## Task 9B-6-3: Updating Database Information

The database information updated in this procedure is used by the PeopleSoft software update tools to identify your PeopleSoft database when searching for updates. These steps should be followed for all additional databases that you create to enable the accurate identification of your databases.

1. Sign on to your PeopleSoft database.
2. Navigate to PeopleTools, Utilities, Administration, PeopleTools Options.
3. Specify long and short names for your environment. For example:
  - Environment Long Name — Customer HR Demo Database
  - Environment Short Name — HR Demo DB
4. Select a system type from the drop-down list. For example, Demo Database.
5. Save your changes.



## CHAPTER 10A

# Setting Up Process Scheduler on Windows

This chapter discusses:

- Prerequisites
- Preparing the Process Scheduler File System for a PeopleTools-Only Upgrade
- Setting Up Process Scheduler Security
- Setting Up Process Scheduler to Transfer Reports and Logs to the Report Repository
- Setting Environment Variables
- Setting Up Process Scheduler Server Agent
- Starting Process Scheduler as a Windows Service (Optional)
- Configuring the Process Scheduler for Word for Windows (Optional)
- Configuring Setup Manager
- Installing Products for PS/nVision

---

## Prerequisites

Before setting up your Process Scheduler, you must:

- Install Tuxedo (except for z/Linux).  
See "Installing Additional Components."
- Install database connectivity to be able to communicate with your database server (Process Scheduler requires a direct connection to the database).  
See "Preparing for Installation."
- Set up the web server with the PeopleSoft Pure Internet Architecture, as described in the previous chapter. This is required to set up the Process Scheduler to transfer reports or log files to the Report Repository.
- Set up your COBOL batch environment if you need to run COBOL processes through Process Scheduler. COBOL is no longer required to start a Process Scheduler Server Agent because the program for Process Scheduler has been rewritten in C++. If the PeopleSoft modules purchased do not contain any COBOL modules, the COBOL run time libraries are not required. Also, COBOL is not required for applications that contain no COBOL programs. Consult My Oracle Support for the details on whether your application requires COBOL.  
See "Preparing for Installation," Planning Your Initial Configuration.
- Install the Microsoft Office products Microsoft Word and Microsoft Excel.

- Have both your application server and the PeopleSoft Pure Internet Architecture started. In this chapter, you must modify security options of the designated PeopleSoft user ID that will be used to boot up Process Scheduler. This requires that the user ID's profile be modified through the User Security component. Please refer to earlier chapters for the details on starting the application server and the PeopleSoft Pure Internet Architecture.

In PeopleSoft PeopleTools 8.50 and later, the configuration and log files for Process Scheduler server domains reside in *PS\_CFG\_HOME*. If you do not set a *PS\_CFG\_HOME* environment variable before beginning the application server configuration, the system installs it in a default location based on the current user's settings, as follows:

```
%USERPROFILE%\psft\pt\<peopletools_version>
```

See "Preparing for Installation," Defining Server Domain Configurations.

See *PeopleTools 8.52: System and Server Administration PeopleBook*, "Working with Server Domain Configurations."

### See Also

*PeopleTools 8.52 Hardware and Software Requirements*

*PeopleTools 8.52: PeopleSoft Process Scheduler PeopleBook*

My Oracle Support, Certifications

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## Task 10A-1: Preparing the Process Scheduler File System for a PeopleTools-Only Upgrade

If you are installing into an existing *PS\_HOME* or *PS\_CFG\_HOME* in preparation for a tools-only upgrade, review your system for files that you may need to remove or back up.

---

## Task 10A-2: Setting Up Process Scheduler Security

This section discusses:

- Understanding Process Scheduler Security
- Changing User Account to Start ORACLE ProcMGR V10gR3 with VS2008
- Granting Process Scheduler Administrative Rights

### Understanding Process Scheduler Security

This task—in which you set up the PeopleSoft User ID that will be used to boot Process Scheduler server so it has administrative rights to both Process Scheduler and Report Manager—guarantees that security is set up properly both in Windows and within your PeopleSoft database.

You must carry out this task to start Process Scheduler successfully.

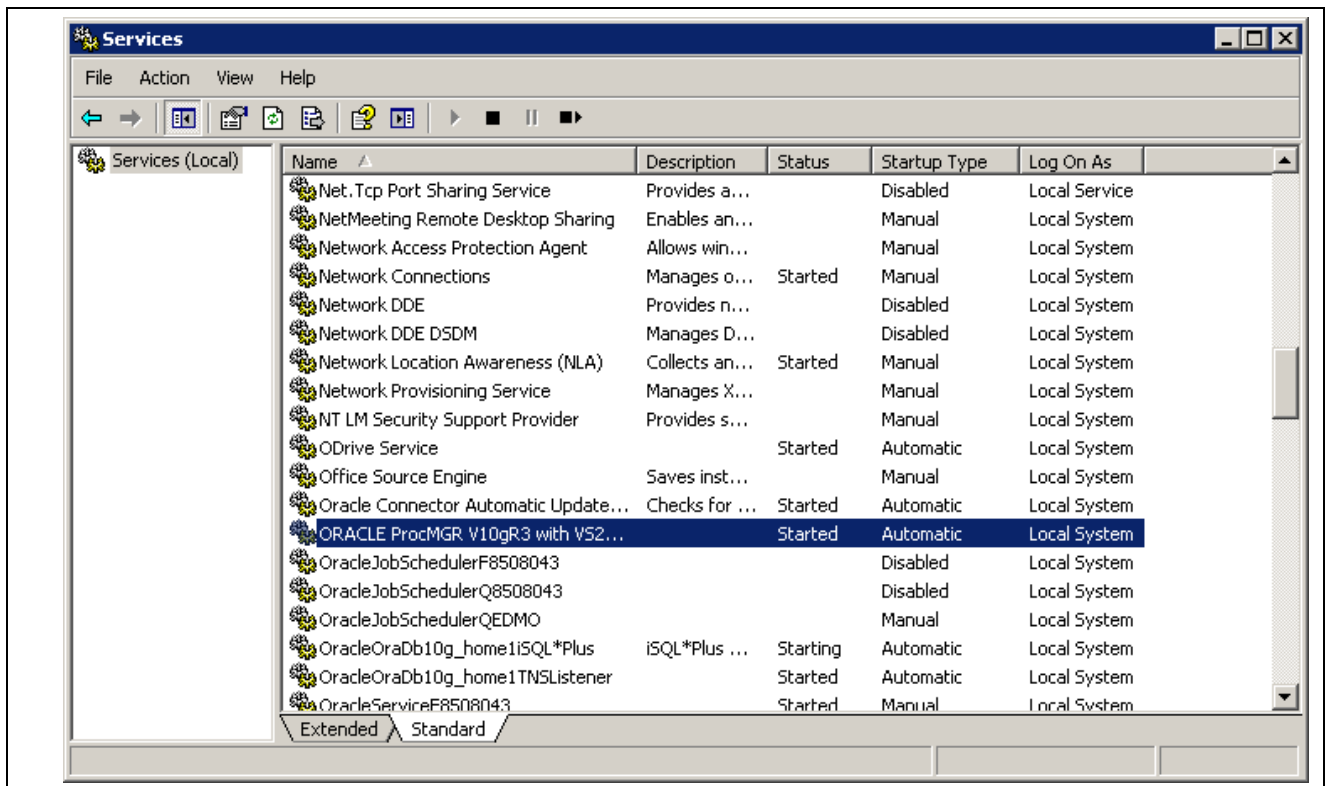
In the next section you set up ORACLE ProcMGR V10gR3 with VS2008 with a network user ID. When you install Oracle Tuxedo, the ORACLE ProcMGR V10gR3 with VS2008 service is set up by default to be started by local system account—a user account that does not have access to the Windows network. If the Process Scheduler server or processes initiated through Process Scheduler will be using a network printer, accessing files from a network drive, or using Windows utilities such as XCOPY that may access UNC paths, you need to change the user account used to start ORACLE ProcMGR V10gR3 with VS2008 with a network user account.

## Task 10A-2-1: Changing User Account to Start ORACLE ProcMGR V10gR3 with VS2008

To change User Account to start ORACLE ProcMGR V10gR3 with VS2008:

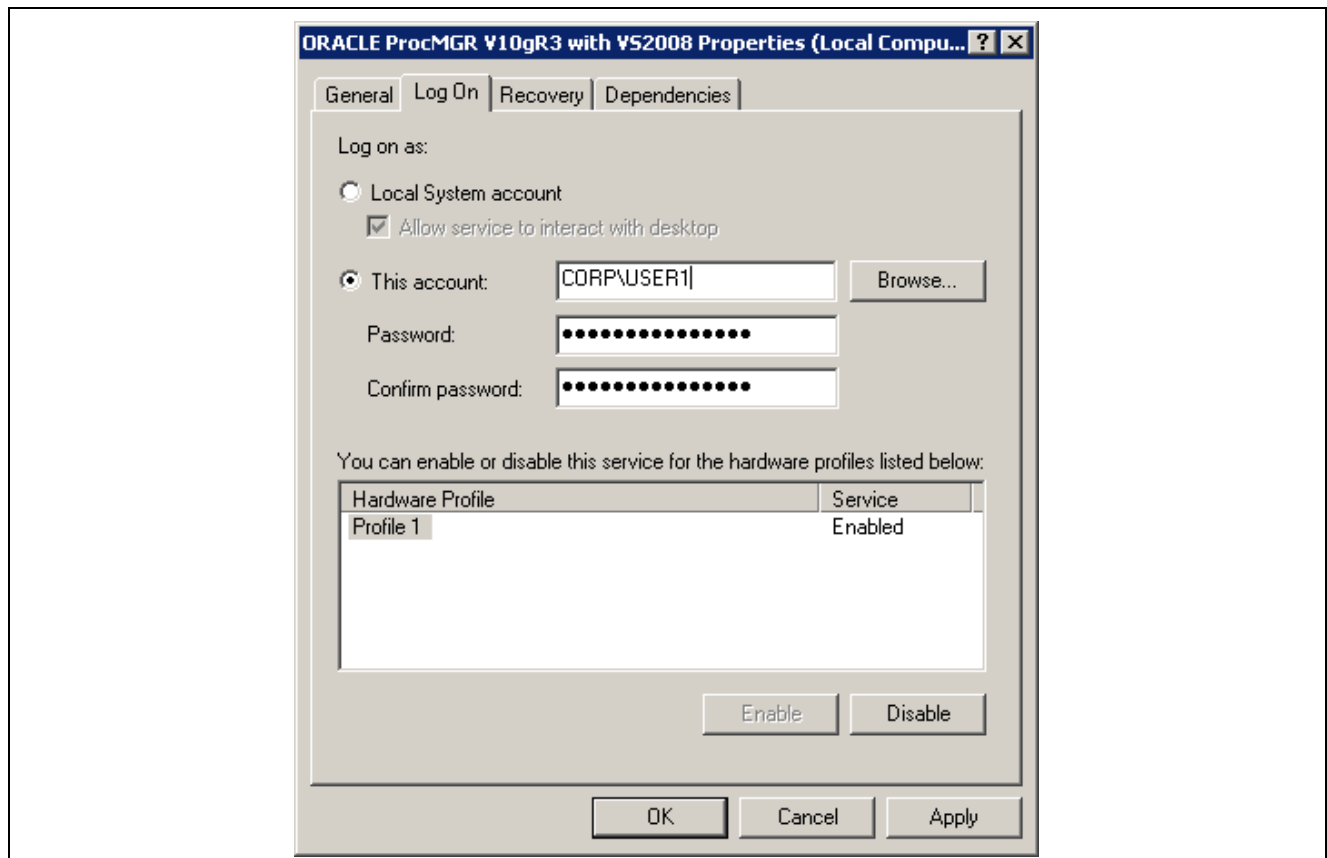
1. Select Start, Settings, Control Panel. Double-click Administrative Tools, and double-click the Services icon.

In the Services dialog box, find the service labeled *ORACLE ProcMGR V10gR3 with VS2008*. This service is installed automatically when you install Tuxedo.



Windows Services dialog box

2. If the Stop button is enabled, click on it to stop the current ORACLE ProcMGR V10gR3 with VS2008 process.
  - a. Click Yes when a message informs you of the status change.
  - b. Double-click ORACLE ProcMGR V10gR3 with VS2008.  
The Properties dialog box appears.
3. Select the option This account on the Log On tab.  
Enter an account name and password.



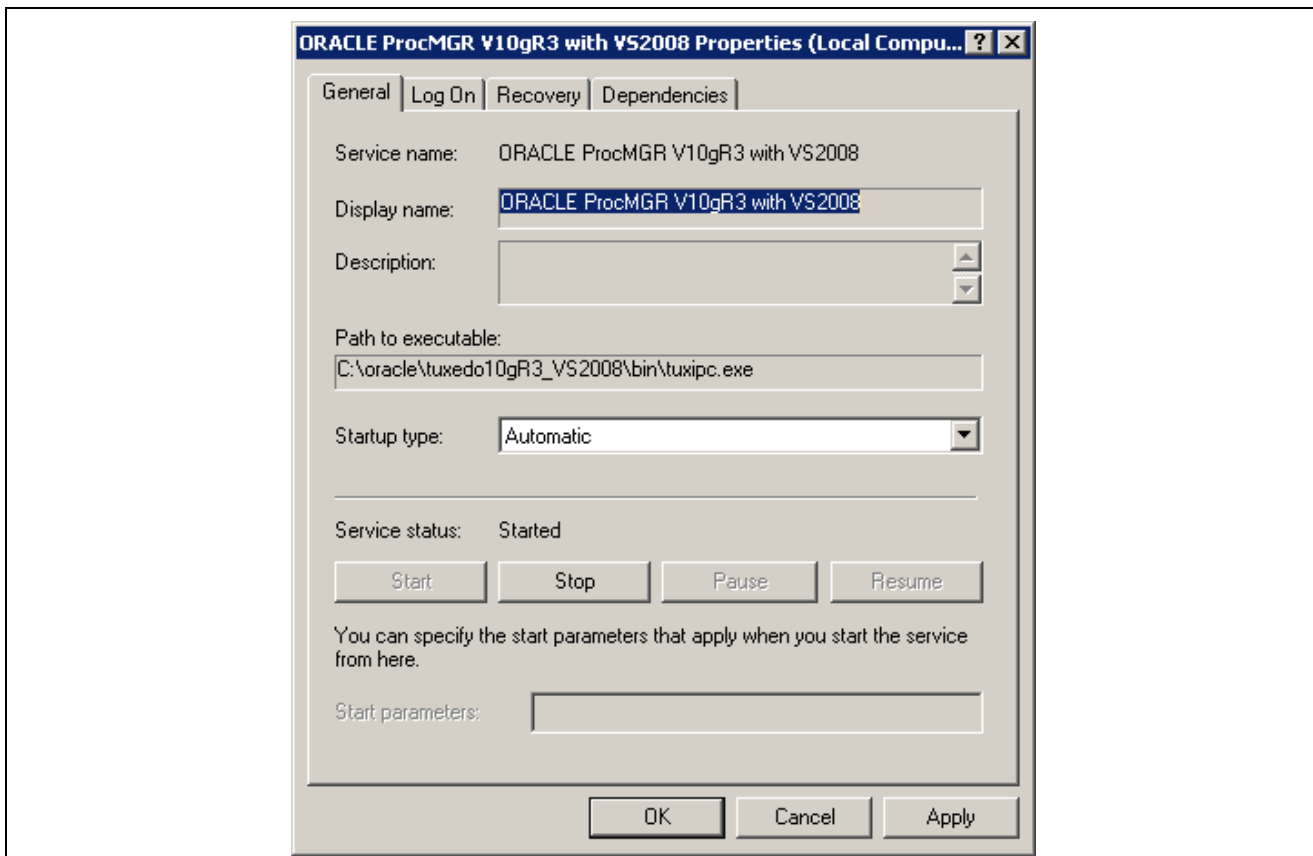
ORACLE ProcMGR V10gR3 with VS2008 Properties dialog box: Log On tab

**Note.** When you configure your Tuxedo server as outlined in the chapter, "Configuring the Application Server," the user ID designated to be the Application Server Administrator must have read/write permissions to the PeopleSoft file directory and read permission to the %TUXDIR% directory, such as C:\oracle\tuxedo10gR3\_vs2008.

4. Select the General tab.

Make sure that Startup Type is set to Automatic, and click OK.





ORACLE ProcMGR V10gR3 with VS2008 Properties dialog box: General tab

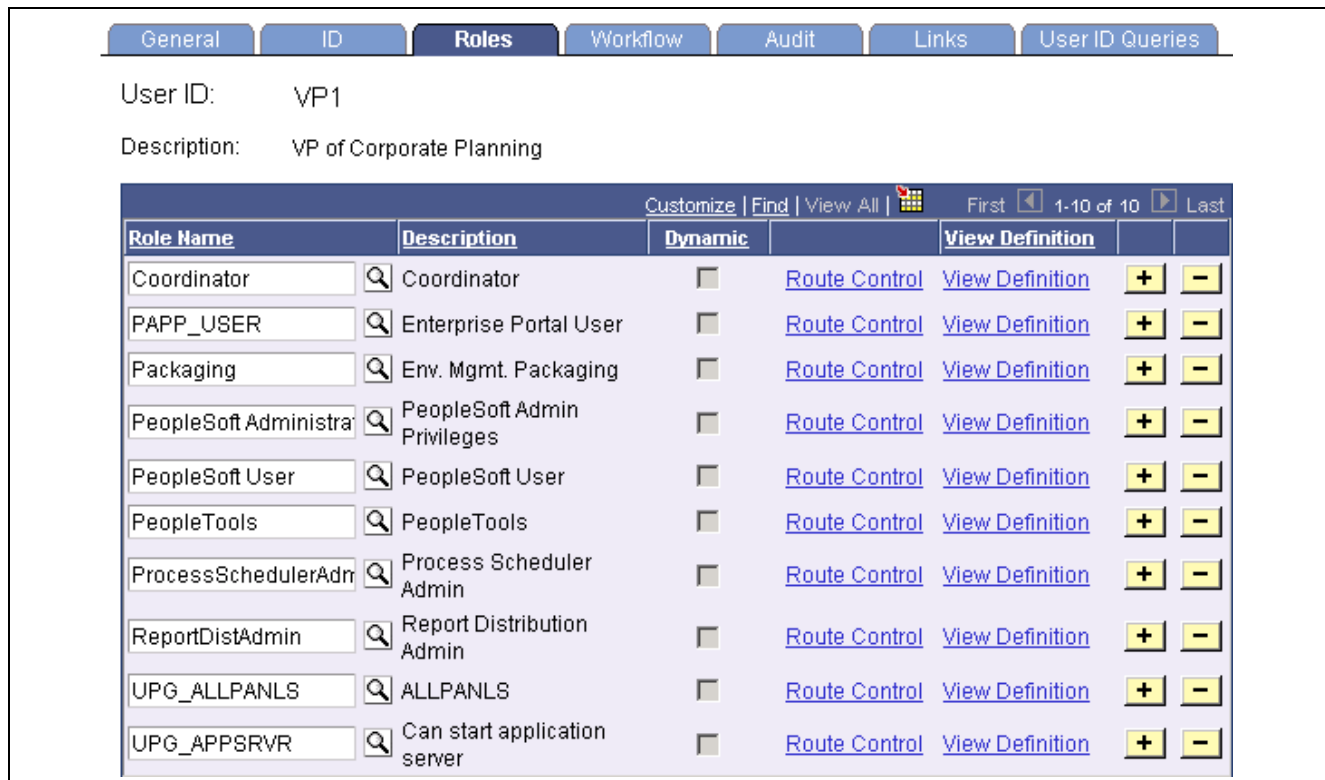
5. Click Start.

A message in the Properties dialog box will indicate the "Started" status. Click OK to close the dialog box.

## Task 10A-2-2: Granting Process Scheduler Administrative Rights

To grant Process Scheduler administrative rights:

1. Log onto your PeopleSoft database through the PeopleSoft Pure Internet Architecture.
2. Select PeopleTools, Security, User Profiles.
3. Select the User Profiles component. Use the Search dialog to select the PeopleSoft User ID you plan to use to boot the Process Scheduler server.
4. Click the Roles tab, click the plus icon to insert a new row, and there enter the *ProcessSchedulerAdmin* role to grant the user ID with administrative rights in the Process Scheduler components.



Process Scheduler window: Roles tab

- Repeat the instructions in step 4 to add the role *ReportDistAdmin*.

This will grant the user ID administrative rights to the Report Manager component. Carry out this step only if the same user is also responsible for maintaining the content of Report Manager.

- Click Save to save your changes.
- Select the General tab and jot down the Permission List name assigned to the Process Profile field.
- From the Portal menu, choose PeopleTools, Security, Permissions & Roles, Permission Lists.
- In the Search dialog, enter the Permission List you noted in step 7.
- Select the Can Start Application Server check box.
- Click Save to save your changes.

## Task 10A-3: Setting Up Process Scheduler to Transfer Reports and Logs to the Report Repository

This section discusses:

- Understanding Report Distribution
- Setting Up Single Signon to Navigate from PIA to Report Repository
- Determining the Transfer Protocol
- Starting the Distribution Agent

- Setting Up the Report Repository
- Setting Up the Distribution for Your Process Scheduler Server
- Setting Up Sending and Receiving of Report Folders in the Report Manager

## Understanding Report Distribution

The PeopleSoft PeopleTools Report Distribution lets you access reports and log files generated from process requests run by a Process Scheduler Server Agent. Using the PeopleSoft Pure Internet Architecture, you can view reports and log files from the web browser through the Report Manager or Process Monitor Detail page. Report Distribution enables you to restrict access to these reports to authorized users based either on user ID or role ID.

This product also includes the Distribution Agent component, which runs on the same server as the Process Scheduler Server Agent. The Distribution Agent, a process that runs concurrently with the Process Scheduler Server Agent, transfers to the Report Repository files generated by process requests initiated by the Process Scheduler Server Agent.

The Distribution Agent transfers files to the Report Repository when one of these criteria is true:

- The Process Scheduler Server Agent is set up in the *Server Definition* to transfer all log files to the Report Repository.
- The process request output destination type is *Web/Window*.

In either case, the Process Scheduler Server Agent inserts a row in the Report List table (PS\_CDM\_LIST). The server agent then updates the distribution status for a process request to *Posting* upon completion of the program associated with the process request. The distribution status of Posting signals that the files for the process request are ready for transfer to the Report Repository. The Distribution Agent is notified by Process Scheduler for any process requests that are ready for transferring. As part of the process to transfer files to the Report Repository, the Distribution Agent performs the following steps:

- *Transfer files to the Report Repository.* All the report and log files are transferred to the Report Repository. For each process request transferred, a directory is created in the Report Repository using the following format: \<database name>\<date yyyymmdd>\<report id>. All the files for a process request are stored in this directory.
- *Delete the directory from the Process Scheduler Agent's Log/Output directory.* When the output destination type specified for a process request is Web/Window, all the files and directory associated with the process request are deleted from the Process Scheduler Log/Output directory after the files are transferred to the Report Repository.

The following diagram illustrates the Process Scheduler and Report Repository architecture. The diagram includes the following items:

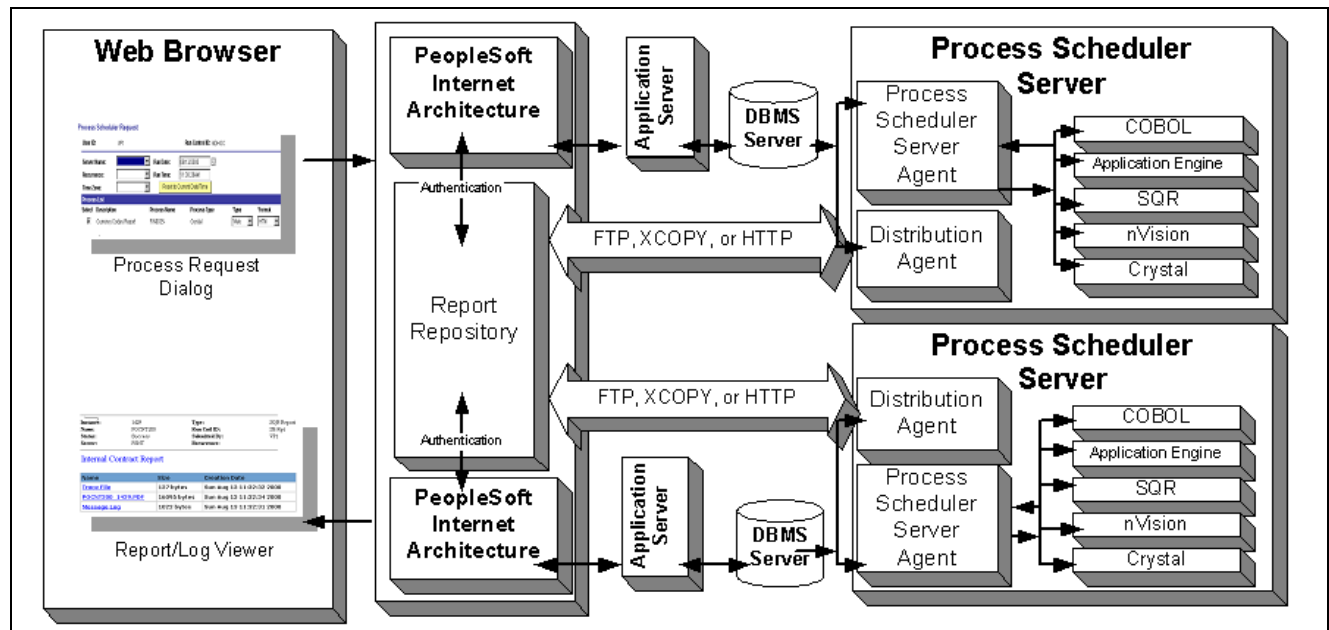
- The web browser gives access to the Process Request dialog and the Report or Log Viewer.
- The Report Repository is part of the PeopleSoft Pure Internet Architecture.

---

**Note.** The PeopleSoft Pure Internet Architecture must be installed for Process Scheduler to be able to transfer reports to the Repository.

---

- The Process Scheduler Server includes the Process Scheduler Server Agent and the Distribution Agent.
- The transfer protocol between Process Scheduler and the Report Repository may be FTP, XCOPY, or HTTP/HTTPS.



Process Scheduler and Report Repository Architecture

Before users can view a report, they are authenticated against the PeopleSoft database.

You should set up single signon if you do not want users to have to log on an additional time to view reports in the Report Repository. For the details on setting up single signon, consult the security PeopleBook.

See *PeopleTools 8.52: Security Administration PeopleBook*.

## Task 10A-3-1: Setting Up Single Signon to Navigate from PIA to Report Repository

To view reports (log files or system files) from Report Repository, you need to pass the authentication. Report Repository should be treated as a separate PeopleSoft application. To navigate from PeopleSoft Pure Internet Architecture (PIA) to Report Repository, you need to set up single signon to avoid getting a prompt for a second signon. This section includes some considerations for setting up single signon to navigate from PIA to Report Repository.

If Report Repository resides on the same web server as the PeopleSoft Pure Internet Architecture, make sure your Local Message Node is set up to be a "trusted" node for single signon for your system.

If Report Repository resides on a different web server than PeopleSoft Pure Internet Architecture, do the following:

- Make sure your Local Message Node is set up to be a "trusted" node for single signon for your system.
- Use a fully qualified domain name when addressing the web server for both PIA and Report Repository. For example, enter `http://<machineName>.peoplesoft.com/<site_name>/signon.html` instead of `http://<machineName>/<site_name>/signon.html`.
- Specify the Authentication Domain for your application during installation. If you have multiple applications, and you want them to employ single signon, it is important to specify the same Authentication Domain for all applications.

See *PeopleTools 8.52: Security Administration PeopleBook*, "Implementing Single Signon."

- Set up single signon with a password, like this:

- Choose PeopleTools, Integration Broker, Integration Setup, Nodes.
- Click Search and then select the node marked as Default Local Node.
- Select *Password* for the Authentication Option.
- Enter a password of your choice.
- Enter the password again in the Confirm Password field.
- Enter the user ID for which you are setting up single signon in the Default User ID field.
- Save the Node Definition.
- Sign off of PIA.
- Reboot your application server.

### See Also

*PeopleTools 8.52: Security Administration PeopleBook*

## Task 10A-3-2: Determining the Transfer Protocol

*We recommend using HTTP as your transfer protocol.*

Before transferring the files to the Report Repository, you need to determine which transfer protocol to use. If you have a Windows Process Scheduler and a Windows web server, you can use either an XCOPY, FTP, or HTTP/HTTPS. (If FTP information is not specified, Process Scheduler will perform an XCOPY.) If you have any other combination of servers (such as a Windows or z/OS Process Scheduler and a UNIX web server), you must use FTP or HTTP/HTTPS.

---

**Note.** If you are using FTP, the FTP service must be set up in your web server.

---

---

**Note.** JRE is installed automatically on your Process Scheduler server.

---

## Task 10A-3-3: Starting the Distribution Agent

The Distribution Agent is automatically started as another Oracle Tuxedo server when a Process Scheduler Server is booted. If a Process Scheduler Server was set up without specifying a Distribution Node in the *Server Definition* page, the Process Scheduler server will have a status in Process Monitor of “Running with No Report Node.” Once a node is defined for the Process Scheduler server and in the next cycle the Process Scheduler server checks the state of the system, the Distribution Agent dynamically sets up its environment.

## Task 10A-3-4: Setting Up the Report Repository

This section discusses:

- Defining ReportRepositoryPath
- Defining the Report Node to Use HTTP/HTTPS
- Defining the Report Node to Use XCOPY
- Defining the Report Node to Use FTP

## Defining ReportRepositoryPath

The ReportRepositoryPath specifies the location of a directory for the Report Repository. You can specify the location for the Report Repository Path on the General page of the Web Profile during installation. If you do not set the location in the Web Profile, the location given by ReportRepositoryPath in the configuration.properties file is used for the default location. Note that the value entered for Report Repository Path in the Web Profile overrides any entry in the configuration.properties file.

See *PeopleTools 8.52: PeopleTools Portal Technologies PeopleBook*, "Configuring the Portal Environment."

Use the following formats to enter the name for the directory that you want to use for the ReportRepositoryPath. The examples below give the default values. Note that you must use a forward slash (/) in both cases:

- *Windows*: ReportRepositoryPath=c:/psreports
- *UNIX*: ReportRepositoryPath=<user\_home>/PeopleSoft Internet Architecture/psreports

For <user\_home> substitute the home directory for the current user.

## Defining the Report Node to Use HTTP/HTTPS

To define the report node to use HTTP/HTTPS:

1. Select PeopleTools, Process Scheduler, Report Nodes.
2. Select the Add a New Value link and enter the Report node name.

The Report Node Definition page appears. You are on the Http Distribution Node page.

3. Verify that the Http Information option is selected.

The screenshot shows the 'Report Node Definition' page in a web browser. At the top, there are two tabs: 'Http Distribution Node' (selected) and 'FTP/XCopy Distribution Node'. Below the tabs is the title 'Report Node Definition'. The page is divided into several sections:

- Node Name:** HTTP
- Radio Buttons:** ☐ Ftp/XCopy and ☒ Http Information
- Distribution Node Details:**
  - URL:** http://<machine\_name>:<port\_number>/psreports/<site\_name>
  - Description:** (empty text box)
  - Operating System:** Windows (dropdown menu)
- Connection Information:**
  - Radio Buttons:** ☒ http and ☐ https
  - URI Host:** <machine\_name>
  - URI Port:** 80
  - URI Resource:** SchedulerTransfer/<site\_name>
  - Login ID:** (empty text box)
  - Password:** (empty text box)
  - Confirm Password:** (empty text box)

At the bottom of the page, there are four buttons: 'Save', 'Notify', 'Add', and 'Update/Display'. Below the buttons is a breadcrumb trail: 'Http Distribution Node | FTP/XCopy Distribution Node'.

Report Node Definition page for HTTP

4. Enter the *URL* of the web server using the following format:

`http://<machine_name>:<port_number>/psreports/<site_name>`

Replace *<machine\_name>* with the name of your machine. Use the fully qualified host name for your web server. If you are using an http port other than 80, you need to specify the port number.

---

**Note.** If you specify the Authentication Token Domain name during the PeopleSoft Pure Internet Architecture installation, you must include a fully qualified domain name for the URL instead of the IP address.

---

- *Description:* Enter a description of the server (optional).
- *Operating System:* Select the web server operating system.

5. Enter the following Connection Information:

- *http/https:* Select the http option if you are *not* using SSL (default). Select the https option if you are using SSL. Note that if you are using SSL you need to have Client Certificates installed on your web server.
- *URI Host:* Enter the machine name for the report repository.

---

**Note.** In a basic setup, the machine name for the report repository will match the machine name of the web server URL. However, under certain circumstances—for example, if you are using a reverse proxy server—the URL and URI Host may have different machine names.

---

- *URI Port:* Enter the port number, which must match the port number of your web server (defaults are http = 80, https = 443). If you change a port number you will lose the default values for both protocols.
- *URI Resource:* Enter SchedulerTransfer/<site name>.

---

**Note.** The setup of authentication is optional, but is recommended for security of the Report Repository when using the HTTP to transfer files. For information on setting up authentication on the web server where the Report Repository resides, refer to the *PeopleTools 8.52: Security Administration PeopleBook*.

---

- *Login ID:* Enter the Login ID. This is not required, unless basic authentication has been set up on the web server by the Web Administrator.
- *Password:* Enter the password for the user ID specified in the Login ID field. This is not required, unless basic authentication has been set up on the web server by the Web Administrator.
- *Confirm Password:* Enter the password a second time as a confirmation. This is not required, unless basic authentication has been set up on the web server by the Web Administrator.

6. Click Save to save your entries.
7. To add additional report nodes, select Add to return to the Search page.

The following fields are shared between the FTP/XCOPY Distribution Node page and the Http Distribution page:

- URL
- Description
- Operating System
- Login ID
- Password

- Confirm Password.

When you enter the information on one page, the information is also displayed on the shared fields of the other page but the fields are grayed out.

**Note.** If you complete the information for one protocol and then change your selection to another protocol, the shared fields will become active on the other page and grayed out on the original page. When you save, the system automatically clears the fields that are not shared.

## Defining the Report Node to Use XCOPY

If you use XCOPY the following parameters must be configured: URL, Operating System (must be Windows Server), Network Path (must be DOS or UNC paths and should be a shared directory with write permissions for the account running the Process Scheduler). Both the Process Scheduler machine and the Report Repository machine must be Windows for XCOPY to be used.

To define the report node to use XCOPY:

1. Select PeopleTools, Process Scheduler, Report Nodes.
2. Select Add a New Value, enter the Report node name, and click Add.
3. Select the FTP/XCopy option.

The FTP/XCopy Distribution page appears.

**Report Node Definition**

Node Name: XCOPY

☒ Ftp/XCopy ☐ Http Information

**Distribution Node Details**

URL:

Home Directory:

Description:

Operating System:

**Connection Information**

FTP Address:  Password:

FTP ID:  Confirm Password:

Network Path:

[Http Distribution Node](#) | [FTP/XCopy Distribution Node](#)

Report Node Definition page for XCOPY

4. Enter the URL of the web server using this format:

`http://<machine_name>:<port_number>/psreports/<site_name>`



Replace *<machine name>* with the name of your web server.

If you are using an http port other than 80, you need to specify the port number. In this case, *<site name>* refers to the directory where you installed the PIA files.

---

**Note.** If you installed the web server software with the default TCP port of 80, you do not need to specify the port number in the URL path. However, if you installed the web server to some other port, you must specify the port number in the URL path.

---

5. Under Network Path replace *<machine name>* with the name of your machine.

Make sure that this directory is shared with the login or logins accounts used to start Process Scheduler. Enter the path that points to your Report Repository share. Use UNC format instead of mapped drive format.

6. Select Windows as the operating system.
7. Select Save to save your entries.
8. To add additional report nodes, select Add to return to the Search page.

### Defining the Report Node to Use FTP

If you use FTP the following parameters must be configured: URL, Home Directory, Operating System, FTP Address, FTP ID, Password, Confirm Password. In addition, if your FTP server is a Windows server, you may have to set up the FTP service.

---

**Note.** The Distribution Agent will perform a validation after FTP has transferred files into the Report Repository by sending a query request to the web server. For this task to be accomplished, it is critical that the following setup is done:

The value entered in the URL must be accurate. Verify that the machine name, port number, and site number are correct.

If this setup is not completed, the process request will get a status of NOT POSTED in the Process Monitor Detail page and will log the message "Unable to verify files posted."

---

To define the report node to use FTP:

1. Select PeopleTools, Process Scheduler, Report Nodes.
2. Select Add a New Value, enter the Report node name, and click Add.
3. Select the FTP/XCopy option.

The FTP/XCopy Distribution node page appears.

Report Node Definition page for FTP

4. Enter the URL of the web server using this format:

```
http://<machine_name>:<port_number>/psreports/<site_name>
```

Replace *<machine name>* with the name of your web server. If you are using an http port other than 80, you need to specify the port number. The variable *<site name>* refers to the directory where you installed the PIA files; this will default to ps for the first installation.

---

**Note.** If you specify the Authentication Token Domain name during the PeopleSoft Pure Internet Architecture installation, you must include a fully qualified domain name for the URL instead of the IP address.

---



---

**Note.** If you installed the web server software with the default TCP port of 80, you do not need to specify the port number in the URL path. However, if you installed the web server to some other port, you must specify the port number in the URL path.

---

5. Enter the following additional parameters:

- *Home Directory*: Enter the directory specified during the installation of PeopleSoft Pure Internet Architecture as the Report Repository. The FTP user ID must have write access to this directory. Note that this is not a required field for HTTP transfer, as the system uses the Report Repository directory specified at install time or the current directory assigned to ReportRepositoryPath in configuration.properties. Note that the value you enter for the Report Repository Path in the Web Profile at install time overrides any entry for ReportRepositoryPath in configuration.properties.

For Windows, the directory needs to match the Report Repository path. Make sure that you do not include any drive information—as in c:\psreports\—because you are using the FTP protocol to interpret this parameter.

- *Description*: Enter a description of the server (optional).
  - *Operating System*: Select the operating system of the Report Repository.
  - *FTP Address*: Enter the machine name or the IP address of the Report Repository. If the name of the machine is used, it must be included on a DNS server.
  - *FTP ID*: FTP user ID.
  - *Password*: Enter the password for the user ID specified in the FTP ID field.
  - *Confirm Password*: Enter the password a second time as a confirmation.
6. Select Save to save your entries.
  7. To add additional report nodes, select Add to return to the Search page.

## Task 10A-3-5: Setting Up the Distribution for Your Process Scheduler Server

To set up the Distribution Settings for your Process Scheduler Server:

1. Choose PeopleTools, Process Scheduler, Servers.
2. Enter the Server Name (such as PSNT). The Server Definition page appears.
3. Select the Distribution tab.

Server Definition | **Distribution** | Operation | Notification | Daemon

Server Name: PSNT

**Server Distribution Details**

Distribution Node Name:

Maximum Transfer Retries:

Interval for Transfer Attempt:  seconds

Transfer System Files to Report Repository ☐

Save
 Return to Search
 Notify
 Add
 Update/Display

[Server Definition](#) | [Distribution](#) | [Operation](#) | [Notification](#) | [Daemon](#)

Server Definition page: Distribution tab

4. Click the lookup button for Distribution Node Name to display the report node names and select the name of the required report node.
5. Enter a number for the Maximum Transfer Retries. This is the maximum number of times the server can try to send a report before it errors out.
6. Enter the number of seconds for the Interval for Transfer Attempt field. This is the interval between attempts to send the report.
7. Select the check box Transfer Log Files to Report Repository if you want to transfer all log and trace files from processes that do not generate reports.
8. Click Save to save your entries.
9. If Process Scheduler is running, you must reboot for any new settings to take effect.

To view reports (log files or system files) from Report Repository, you need to pass the authentication. Report Repository should be treated as a separate PeopleSoft Application. To navigate from PIA to Report Repository, you need to setup single signon in order to avoid getting prompt for second signon.

## Task 10A-3-6: Setting Up Sending and Receiving of Report Folders in the Report Manager

To be able to view reports in the Report Manager Explorer and List pages, you need to set up the sending and receiving of report folders in the Report Manager by activating the domain on which a sending and receiving server resides. Consult the documentation covering the PeopleSoft Integration Broker to learn how to activate the sending and receiving server domain.

See *PeopleTools 8.52: PeopleSoft Integration Broker PeopleBook*.

See *PeopleTools 8.52: Integration Broker Service Operations Monitor PeopleBook*.

---

## Task 10A-4: Setting Environment Variables

To set the appropriate Tuxedo environment variables, carry out these steps. (If you have already set these variables on the machine you are using as your Process Scheduler Server, you can skip this task.)

See "Installing Additional Components," *Installing Oracle Tuxedo on Microsoft Windows*.

To set the variables:

1. Choose Start, Settings, Control Panel.
2. Double-click the System icon.
3. Make sure that the NLSPATH environment variable is set.

NLSPATH does not need to be explicitly set since Oracle Tuxedo sets NLSPATH in its own registry tree. This value can be displayed using Control Panel, Tuxedo, on the Environment tab. However, the installation of certain products, such as IBM DB2 connectivity (DB2 for z/OS and DB2 for Linux, UNIX, and Windows) sets NLSPATH to a value that causes Oracle Tuxedo to fail. The solution is to either set NLSPATH=c:\tuxedo\locale\c, or to delete it entirely and let Oracle Tuxedo pick up the value from its registry tree. If you are running DB2 for Linux, UNIX, and Windows, the solution instead is to append the c:\tuxedo\locale\c directory in the NLSPATH directory.

Search the Oracle Tuxedo documentation for additional information on NLSPATH.

---

## Task 10A-5: Setting Up Process Scheduler Server Agent

This section discusses:

- Understanding Process Scheduler Server Agent
- Creating and Configuring a Process Scheduler Server
- Reconfiguring a Process Scheduler Server
- Verifying the Process Scheduler Server Status

### Understanding Process Scheduler Server Agent

For installation purposes, you can use predefined server names and other definitions. The predefined name that you might use is as follows:

| Server Name | Operating System  |
|-------------|-------------------|
| PSNT        | Microsoft Windows |

To test this, use processes already defined in your PeopleSoft database. To set up a new server definition in your PeopleSoft database, refer to the Process Scheduler PeopleBook.

See *PeopleTools 8.52: PeopleSoft Process Scheduler PeopleBook*

---

**Note.** When creating multiple Process Scheduler Servers for the same database, each server must have a unique server name. For example, two Process Scheduler Servers, both named PSNT, cannot run against the same database.

---

## Task 10A-5-1: Creating and Configuring a Process Scheduler Server

This section describes how to create and configure a Process Scheduler server.

You can set Process Scheduler configuration parameters either by using PSADMIN, which provides an interactive dialog, or by editing the configuration file `psprcs.cfg` located in the `PS_CFG_HOME\appserv\prcs\database name` directory. The following steps assume you are using PSADMIN to specify parameter settings.

---

**Note.** For Cube Builder users, if Essbase Server is installed on a different machine than the Process Scheduler, you must install Essbase Client 11.1.2 on the process scheduler server machine. You must also ensure that the `%ESSBASEPATH%` and `%ARBORPATH%` environmental variables are properly set in the Process Scheduler.

If the Process Scheduler server is running on a machine with a 64-bit Microsoft Windows environment, configure it to use the 32-bit Essbase Runtime Client.

---



---

**Note.** If you use the configuration file `psprcs.cfg`, be aware that in the PeopleSoft PeopleTools 8.49 release and later, the section [Output Dest Exceptions] has been modified to trap metastring exceptions not only in the output destination but in other process parameters as well. In this section the entry `OUTDEST_EXCEPT01=%ANYMETASTRING%` has been changed to `PARAMETER_EXCEPT01=%ANYMETASTRING%`.

---

To create and configure a Process Scheduler Server:

1. From `PS_HOME\appserv` on the batch server, type `psadmin` and press ENTER to access the PeopleSoft Server Administration menu.
2. Select 2 to access the Process Scheduler submenus.

```

PeopleSoft Server Administration

Config Home: C:\psft_PrcsSchSrv

1) Application Server
2) Process Scheduler
3) Search Server
4) Web (PIA) Server
5) Switch Config Home
6) Replicate Config Home
q) Quit

Command to execute (1-6 q): 2
```

3. Select 2 from the PeopleSoft Process Scheduler Administration menu.

# PeopleSoft Process Scheduler Administration

-----

- 1) Administer a domain
- 2) Create a domain
- 3) Delete a domain
- 4) Import domain configuration
- q) Quit

Command to execute (1-4, q) : 1

4. When prompted for the name of the database that your server will access, enter the name of the database and press ENTER:

Please enter name of Database that server will access :

5. After the system creates the domain, you see the prompt

Would you like to configure this Process Scheduler Server now? (y/n) [y] :

Choose y; you'll see a Quick-configure menu something like this:

-----

Quick-configure menu -- Scheduler for Database: HRDMO

-----

| Features                   | Settings                                      |
|----------------------------|-----------------------------------------------|
| =====                      | =====                                         |
| 1) Master Schdlr : Yes     | 5) DBNAME : [HRDMO]                           |
| 2) App Eng Server : Yes    | 6) DBTYPE : [ORACLE]                          |
|                            | 7) PrcsServer : [PSNT]                        |
|                            | 8) UserId : [PS]                              |
|                            | 9) UserPswd : [PS]                            |
|                            | 10) ConnectID : [people]                      |
|                            | 11) ConnectPswd: [people]                     |
|                            | 12) ServerName : []                           |
|                            | 13) Log/Output Dir: [%PS_SERVDIR%\log_output] |
|                            | 14) SQRBIN : [%PS_HOME%\bin\sqr\ORA\binw]     |
|                            | 15) AddToPATH : [%WINDIR%;%WINDIR%\SYSTEM32]  |
|                            | 16) DBBIN : [C:\<connectivity directory>]     |
|                            | 17) Crystal Path: []                          |
| Actions                    |                                               |
| =====                      |                                               |
| 3) Load config as shown    |                                               |
| 4) Custom configuration    |                                               |
| h) Help for this menu      |                                               |
| q) Return to previous menu |                                               |

HINT: Enter 5 to edit DBNAME, then 3 to load

Enter selection (1-16, h, or q):

6. If you need to modify any of these settings, enter the number next to the parameter name, type the new value, and press ENTER. This table lists the parameters and gives brief descriptions.

| Parameter            | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Master Schdlr        | Flag to enable the Master Scheduler Server (PSMSTPRC). Default is to enable the server.<br><br>See PeopleTools 8.52: PeopleSoft Process Scheduler PeopleBook.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| App Eng Server       | Flag to initiate Application Engine programs through the AE Tuxedo Server (PSAESRV). Default is set to run AE using PSAESRV.<br><br>See PeopleTools 8.52: PeopleSoft Process Scheduler PeopleBook.                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Load config as shown | Load the selections you made in the Quick Configure menu.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Custom configuration | Make custom selections in PSADMIN, using options that are not available in the Quick Configure menu.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| DBNAME               | Specify the database name that is associated with a PeopleSoft Process Scheduler Server Agent, such as HRDMO, FSDMO, SADMO, and so on.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| DBTYPE               | Specify the database type: ORACLE.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| PrcsServer           | Specify the process server name. This must match the name defined in the Server Definition table, such as <i>PSNT</i> or <i>PSUNX</i> .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| UserId               | Enter the user ID. For Enterprise Resource Planning (ERP), this is typically <i>VPI</i> , and for Human Resources (HR) it's <i>PS</i> .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| UserPswd             | Enter the user password. For Enterprise Resource Planning, this is typically <i>VPI</i> , and for Human Resources it's <i>PS</i> .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| ConnectID            | Enter the connect ID. This value is required.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| ConnectPswd          | Enter the connect password. This value is required.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| ServerName           | Enter the server name                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Log/Output Dir       | Specify the directory in which files that are generated by the program are written. When PeopleSoft Process Scheduler initiates a process request, it creates a subdirectory in the format <Process Type ID>_<Program Name>_<Process Instance> that contains the generated files. For instance, the SQR program XRFWIN that ran with process instance 20 has all reports, trace, and log files in the subdirectory SQR_XRFWIN_20. It is also the optional directory used with the Output Destination field when scheduling a request. This variable (%%OutputDirectory%%) can be used in the File/Printer field of the Process Scheduler Request dialog box. |
| SQRBIN               | Enter the path to the SQR executables.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| AddToPATH            | (Optional for Tuxedo) Specify an additional directory that is appended to the PATH environment variable.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |



| Parameter    | Description                                                                                                                                                                |
|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DBBIN        | Enter the path to the database drivers; that is, your connectivity software.                                                                                               |
| Crystal Path | If you are using SAP Crystal Reports, enter the path to the Crystal executables (for example, C:\Program Files\Business Objects\BusinessObjects Enterprise 12.0\win32_x86) |

For descriptions of the PSADMIN options that do not appear in the Quick-configure menu, consult the following. For a basic install, in most cases you can accept the defaults.

See *PeopleTools 8.52: PeopleSoft Process Scheduler PeopleBook*.

7. When you have updated the settings as needed, choose *3, Load config as shown*, from the Quick-Configure menu to save your settings to the Process Scheduler configuration file, pstuxcfg.
8. To start Process Scheduler, choose *1*, for Administer Domain.

---

**Note.** The Crystal and ODBC libraries and components are automatically configured when Process Scheduler is configured. Successful configuration of the Crystal components requires Crystal 2008 .NET Runtime to be installed on the machine. You can download the Runtime redistributable from Oracle E-Delivery. Admin privileges are required for this task to complete successfully.

---

9. On the PeopleSoft Process Scheduler Administration menu, choose *1* for *Boot this domain*.

```

PeopleSoft Process Scheduler Administration

```

```
Domain Name: HRDMO
```

```
1) Boot this domain
2) Domain shutdown menu
3) Domain status menu
4) Configure this domain
5) TUXEDO command line (tmadmin)
6) Edit configuration/log files menu
7) Clean IPC resources of this domain
q) Quit
```

```
Command to execute (1-7, q) :
```

10. Choose *1*, Boot (Serial Boot), or *2*, Parallel Boot, from the PeopleSoft Domain Boot Menu.

---

**Note.** The messages you see and the number of processes started will depend on the options you chose during configuration.

---

11. If you want to stop Process Scheduler Server, from the PeopleSoft Domain Administration menu, choose *2, Domain Shutdown menu*, and then enter the number corresponding to the name of the appropriate database.

---

**Note.** If you see the following message, then the server is already down:

```
Command to execute (1-2, q) [q]: 1
Loading command line administration utility ...
tmadmin - Copyright (c) 2007-2008, Oracle.
Portions * Copyright 1986-1997 RSA Data Security, Inc.
All Rights Reserved.
Distributed under license by Oracle.
Tuxedo is a registered trademark.
No bulletin board exists. Entering boot mode.
> TMADMIN_CAT:111: ERROR: No such command.
```

---

## Task 10A-5-2: Reconfiguring a Process Scheduler Server

If you create and then immediately configure a Process Scheduler server, you can use the Quick-configure menu. Alternatively, you can use PSADMIN as described in this section. Feel free to skip this procedure if you have already created and configured your Process Scheduler Server using the Quick-configure menu and want to move forward with your installation.

---

**Note.** If you want to configure the Process Scheduler Server while it is running, you need to stop and restart the server to load the new settings.

---

To reconfigure a Process Scheduler Server:

1. Go to *PS\_HOME*\appserv and enter:

```
psadmin
```

2. Select 2 for Process Scheduler in the PeopleSoft Server Administration menu.
3. In the PeopleSoft Process Scheduler Administration menu, select 1 for Administer a domain.
4. Select the database for which the Process Scheduler needs to be configured.
5. At the prompt

```
Do you want to change any config values (y/n)? [n]:
```

Specify *y* to start an interactive dialog that lets you examine or change parameter values.

6. Now you specify configuration parameters one by one. Configuration parameters are grouped into sections. At each section, you are asked whether to change any parameters—for example:

```
Values for config section - Startup
DBName=
DBType=
UserId=
UserPswd=
ConnectId=
ConnectPswd=
ServerName=
StandbyDBName=
StandbyDBType=
StandbyUserId=
```

```
StandbyUserPswd=
Do you want to change any values (y/n)? [n]:
```

- Specify *y* to change any parameter values for the current section. You are prompted for each parameter value. Either specify a new value or press ENTER to accept the default. After you press ENTER, you are positioned at the next parameter in that section. When you are done with that section, you are again asked whether you want to re-edit any of the values you changed.
- The parameters StandbyDBName, StandbyDBType, StandbyUserID, and StandbyUserPswd are used for a standby database in an Oracle database environment.

See *PeopleTools 8.52: Data Management PeopleBook*, “Administering PeopleSoft Databases on Oracle,” Implementing Oracle Active Data Guard.

- If you do not want to change any values, specify *n* and you are prompted for the next configuration section.

7. Once you have selected all your parameters, you see this message

```
You will need to shut down and start up the server to read the new settings.
```

For descriptions of the Process Scheduler options in the PSADMIN, consult the following. In most cases you can accept the defaults.

See *PeopleTools 8.52: PeopleSoft Process Scheduler PeopleBook*.

## Task 10A-5-3: Verifying the Process Scheduler Server Status

At this stage it is a good idea to verify the Process Scheduler Server status.

To verify the Process Scheduler Server status:

1. From the PeopleSoft Process Scheduler Administration menu, choose option 3, for *Domain status menu*.

```

PeopleSoft Process Scheduler Administration

```

```
Domain Name: HRDMO
```

- ```

1) Boot this domain
2) Domain shutdown menu
3) Domain status menu
4) Configure this domain
5) TUXEDO command line (tmadmin)
6) Edit configuration/log files menu
7) Clean IPC resources of this domain
q) Quit
```

```
Command to execute (1-7, q) : 3
```

2. To verify the status of the Process Scheduler Server for a specific database, type the number corresponding to the appropriate database.

For example:

```
Database list:
```

1) HRDMO

```
Select item number to start: 1
Loading command line administration utility ...
tmadmin - Copyright (c) 2007-2008 Oracle.
Portions * Copyright 1986-1997 RSA Data Security, Inc.
All Rights Reserved.
Distributed under license by Oracle.
Tuxedo is a registered trademark.
```

```
> Prog Name      Queue Name  Grp Name      ID RqDone Load Done Current Service
-----
BBL.exe          46845      PSSERVER+     0      9      450 ( IDLE )
PSMONITORSRV.e  MONITOR    MONITOR       1      0      0 ( IDLE )
PSAESRV.exe      00101.00001 AESRV         1      0      0 ( IDLE )
PSAESRV.exe      00101.00002 AESRV         2      0      0 ( IDLE )
PSAESRV.exe      00101.00003 AESRV         3      0      0 ( IDLE )
PSPRCRV.exe      SCHEDQ     BASE          101     0      0 ( IDLE )
PSMSTPRC.exe     MSTRSCHQ   BASE          102     0      0 ( IDLE )
PSDSTSRV.exe     DSTQ       BASE          103     0      0 ( IDLE )
>
```

You can also verify the status of the Process Scheduler Server from Process Monitor in PeopleSoft Pure Internet Architecture. To verify the Process Scheduler Server status from the Process Monitor page, go to PeopleTools, Process Scheduler, Process Monitor, and select *Server List*.

If the user has the process security rights to update the server status, the *Refresh* button can be used to refresh the screen, too.

See Setting Up Process Scheduler Security.

This example of the Server List page shows two Process Scheduler servers with status Down, and one with status Running.

Process List

Server List

Refresh

Server	Hostname	Last Update	Date/Time	Dist	Node	Master	CPU (%)	Memory (%)	Active	Status	Details
PSNT	PTLAB95	10/28/2003	9:53:33AM	https		N	1	29	0	Down	Details
QEPSNT2	PTLAB95	10/28/2003	9:53:45AM	https		N	1	29	0	Down	Details
QE HPX1	pt-hp07	10/28/2003	10:05:47AM	https		Y	21	34	1	Running	Details

Task 10A-6: Starting Process Scheduler as a Windows Service (Optional)

You can start the Process Scheduler Server as a Windows service. This means that administrators do not need to manually boot each Process Scheduler Server that runs on a Windows machine. Instead, each time you boot the Microsoft Windows server where the Process Scheduler Server resides, the Process Scheduler Server will boot automatically. You can also still manually boot Process Scheduler Servers on your Microsoft Windows server.

Note. If you have set up TUXDIR and TEMP as new SYSTEM variables, you need to reboot your machine before any Windows services will pick up the value of these environment variables.

Note. You can also set up application servers and search servers as a Windows service using the instructions provided here.

The following directions assume that the Process Scheduler is already configured on the Microsoft Windows server.

To set up the Windows Service for a Process Scheduler Server:

1. Open the System utility within the Control Panel, and set the variables, listed with a brief explanation in the following table, in the System Variables section of the Environment tab.

Note. Even if the following variables are in the User Variables section, they must also be in the System Variables section because the Windows service will be started under the System Account.

Variable	Value
TEMP	Specify the location of the TEMP directory on the Windows server, as in C:\TEMP.
TUXDIR	Specify the location of the Tuxedo directory on the Windows server, as in C:\tuxedo.

2. Reboot the Windows computer if any changes or additions were made for the system variables.
3. Run the PeopleSoft PSADMIN utility (psadmin.exe in the *PS_HOME*\appserv directory).
4. Select 4 from the PeopleSoft Server Administration menu.

```

-----
PeopleSoft Server Administration
-----
  1) Application Server
  2) Process Scheduler
  3) Search Server
  4) Service Setup
  5) Replicate Config Home
  q) Quit

Command to execute (1-4, q): 4

```

5. Select 1 from the PeopleSoft Services Administration menu.

```
-----
PeopleSoft Services Administration
-----
```

- ```
1) Configure a Service
2) Install a Service
3) Delete a Service
4) Edit a Service Configuration File
q) Quit
```

```
Command to execute (1-4, q) : 1
```

When asked if you want to change configuration values, enter y.

6. Enter the name of the Process Scheduler databases that you intend to include as part of the Windows service.

```
Values for config section - NT Services
```

```
Service Start Delay=60
Application Server Domains=HRDMO
Process Scheduler Databases=HRDMO
Search Server Domains=HRDMO
```

```
Do you want to change any values (y/n)? [n]:
```

If you specify more than one Process Scheduler database, separate each entry with a comma.

---

**Note.** You can use PSADMIN to set up Process Scheduler Servers, application servers, or search servers as a Windows service. The Windows Service psntrsv.exe automatically starts application servers, Process Scheduler servers, and search servers that reside on the same Microsoft Windows machine. Occasionally, psntrsv.exe would attempt to initiate a connection between an application server, Process Scheduler server, or search server and a database on the same machine that was not ready to receive requests. As a result the connection would fail. When you set up these servers as a Windows Service, you can specify a Service Start Delay, in seconds, that elapses before a service attempts to start any application server domains, Process Scheduler servers, or search servers. This allows the RDBMS to boot and become available to accept requests. The default setting for the Service Start Delay parameter is 60 seconds.

---



---

**Note.** The NT Services section of the PSADMIN modifies the psntrsv.cfg file located in the *PS\_CFG\_HOME\appserv* directory. You can edit this file manually by selecting *4, Edit a Service Configuration File* from the PeopleSoft Services Administration menu. If you edit it, you need to delete and then install the service again.

---

7. Select option 2 from the PeopleSoft Services Administration menu.

```

PeopleSoft Services Administration

```

- ```
1) Configure a Service
2) Install a Service
3) Delete a Service
4) Edit a Service Configuration File
```

q) Quit

Command to execute (1-4, q) : 2

8. Return to the Control Panel, choose *Administrative Tools*, and launch the *Services* utility.
9. On the Services dialog, scroll to find the entry that adheres to the following naming convention, and select it:

PeopleSoft <PS_CFG_HOME>

For example:

PeopleSoft C:\Documents and Settings\asmith\psft\pt\8.52

Note. The default Startup mode is Manual.

10. Click *Startup*.
11. On the Service dialog in the Startup Type group, select *Automatic*, and in the Log On As group, select *System Account*. Then click OK.

Note. The *Log On As* setting needs to reflect that which you set for your ORACLE ProcMGR V10gR3 with VS2008 and Tlisten processes. Oracle recommends that you set these services to *System Account* when you install Tuxedo. The *Log On As* value only affects the application server because Process Scheduler runs independently from Tuxedo. See the chapter “Installing Additional Components” for more information on installing Tuxedo, and refer to the chapter “Configuring the Application Server” for the details on configuring the application server.

12. On the Services dialog, make sure the PeopleSoft service is selected, and click Start.
13. Use the Process Monitor to verify that the Process Scheduler Server is running. You can also use Task Manager to verify that the executables involved with the service are running.

For the Process Scheduler, make sure that the psprcsrv.exe is running. If you have customized the name of psprcsrv.exe, make sure the appropriate executable is running.

Task 10A-7: Configuring the Process Scheduler for Word for Windows (Optional)

Some applications process documents using Word for Windows. Here is how to configure Word to work with the Process Scheduler.

Note. Microsoft Word must already be installed on the server; it is not included with the PeopleSoft PeopleTools install.

To configure Process Scheduler for Word for Windows:

1. Locate the Process Scheduler configuration file psprcs.cfg in *PS_CFG_HOME\appserv\prcs\<database_name>* directory and open it for editing.
2. In the [Process Scheduler] section, edit the WINWORD entry so that it points to the directory where winword.exe is installed—for example, “WINWORD=C:\Program Files\Microsoft Office\OFFICE 11”.

3. If spaces exist in the WINWORD path in the Process Scheduler configuration file (psprcs.cfg), Word for Windows reports will fail. You will need to modify the Process Type Definition and add quotes around the entry in the Command Line field, for example " %%WINWORD%%\winword.exe".
4. Change the Microsoft Word macro security to allow macros to be run.
Start Microsoft Word and select Tools, Macro, Security. Select the *Low* security setting and click OK.
5. If you are running on Microsoft Windows 2008, modify your macros to include the following line:

```
Application.AutomationSecurity=msoAutomationSecurityLow
```

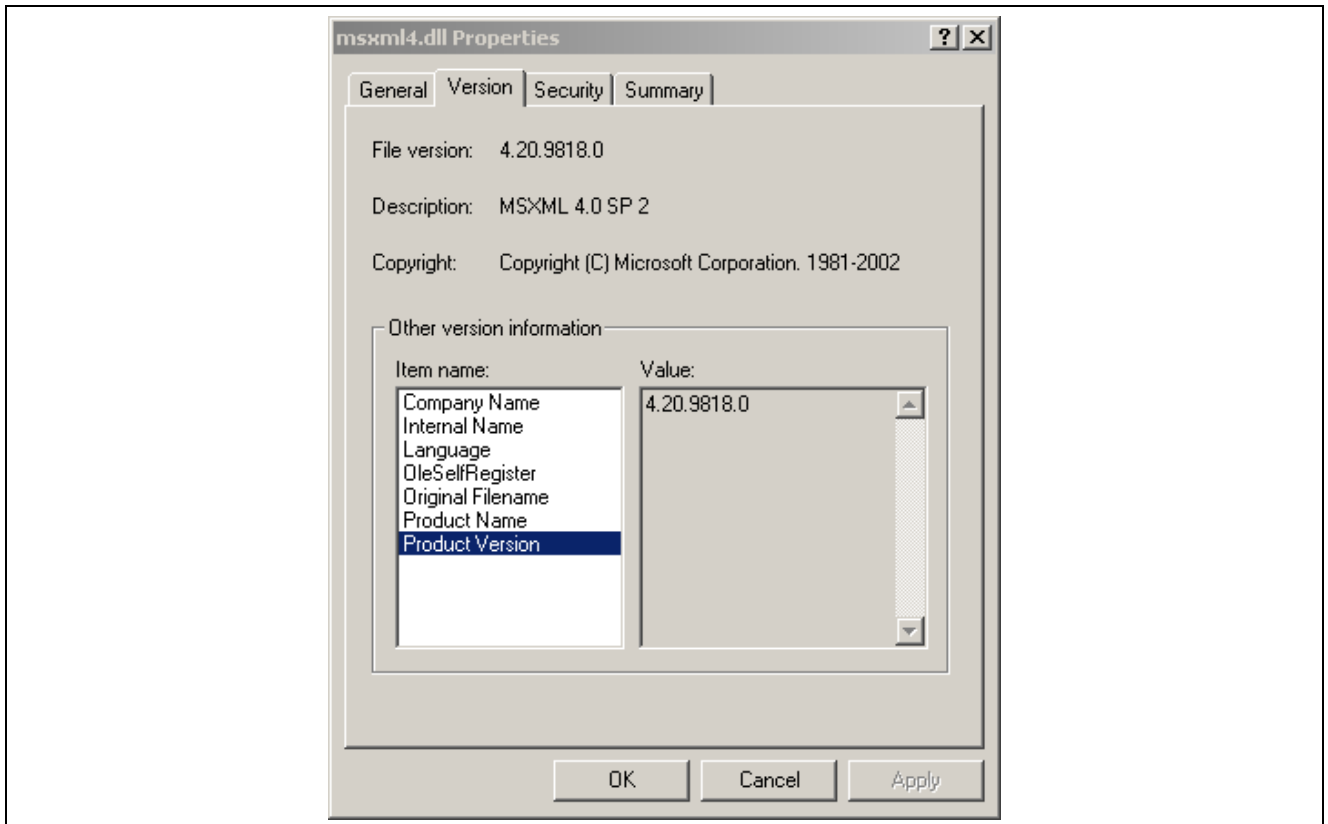
You can see an example by viewing the macros in *PS_HOME*\winword\Wordsamp.doc.

Task 10A-8: Configuring Setup Manager

Before you can use Setup Manager, you must fulfill these requirements:

- To use the Excel to CI template-generation feature of Setup manager, the Process Scheduler must be PSNT. That is, Process Scheduler must be installed on a Microsoft Windows machine.
- Process Scheduler must be running.
- Any Process Scheduler environment variables (especially %PS_FILEDIR%) must be specified.
- A supported version Microsoft Office must be present on the process scheduler server, and Microsoft Excel must be installed.
- The MSXML COM object for Microsoft Excel, msxml4.dll, must be present on the system.

For confirmation, navigate to %SystemRoot%\system32\msxml4.dll. Right-click and select Properties. On the msxml4.dll Properties dialog box, select the Version tab, and then Product Version. As shown on this example of the msxml4.dll Properties dialog box, the version number must be 4.20 or above.



msxml4.dll Properties dialog box: Version tab

See Also

PeopleTools 8.52: Setup Manager PeopleBook

Microsoft support, support.microsoft.com

Task 10A-9: Installing Products for PS/nVision

This section discusses:

- Understanding the PS/nVision Setup
- Installing Products for PS/nVision in Excel Automation Mode
- Installing Products for PS/nVision in Open XML Mode

Understanding the PS/nVision Setup

Beginning with the PeopleSoft PeopleTools 8.52 release, PS/nVision can operate in the following two modes on PeopleSoft Process Scheduler (batch server):

- Excel automation mode
- Open XML mode

See Also

PeopleTools 8.52: PS/nVision PeopleBook, "Getting Started with PS/nVision"

Task 10A-9-1: Installing Products for PS/nVision in Excel Automation Mode

Excel automation mode is the default mode for PS/nVision on the PeopleSoft Process Scheduler.

To set up PS/nVision in Excel automation mode:

- For all batch servers, install Microsoft Excel on the batch server. The minimum supported version is Microsoft Excel 2007.
- If the batch server is on a 64-bit Microsoft Windows 2008 machine, create an empty “Desktop” folder with this path:
C:\Windows\SysWOW64\config\systemprofile\Desktop
- If the batch server is on a 32-bit Microsoft Windows 2008 machine, create an empty “Desktop” folder with this path:
C:\Windows\System32\config\systemprofile\Desktop

Task 10A-9-2: Installing Products for PS/nVision in Open XML Mode

This section discusses:

- Installing Microsoft .NET Framework 3.5 SP1
- Verifying the Microsoft .NET Framework 3.5 SP1 Installation on Windows 2008 R2
- Installing Open XML SDK 2.0

Installing Microsoft .NET Framework 3.5 SP1

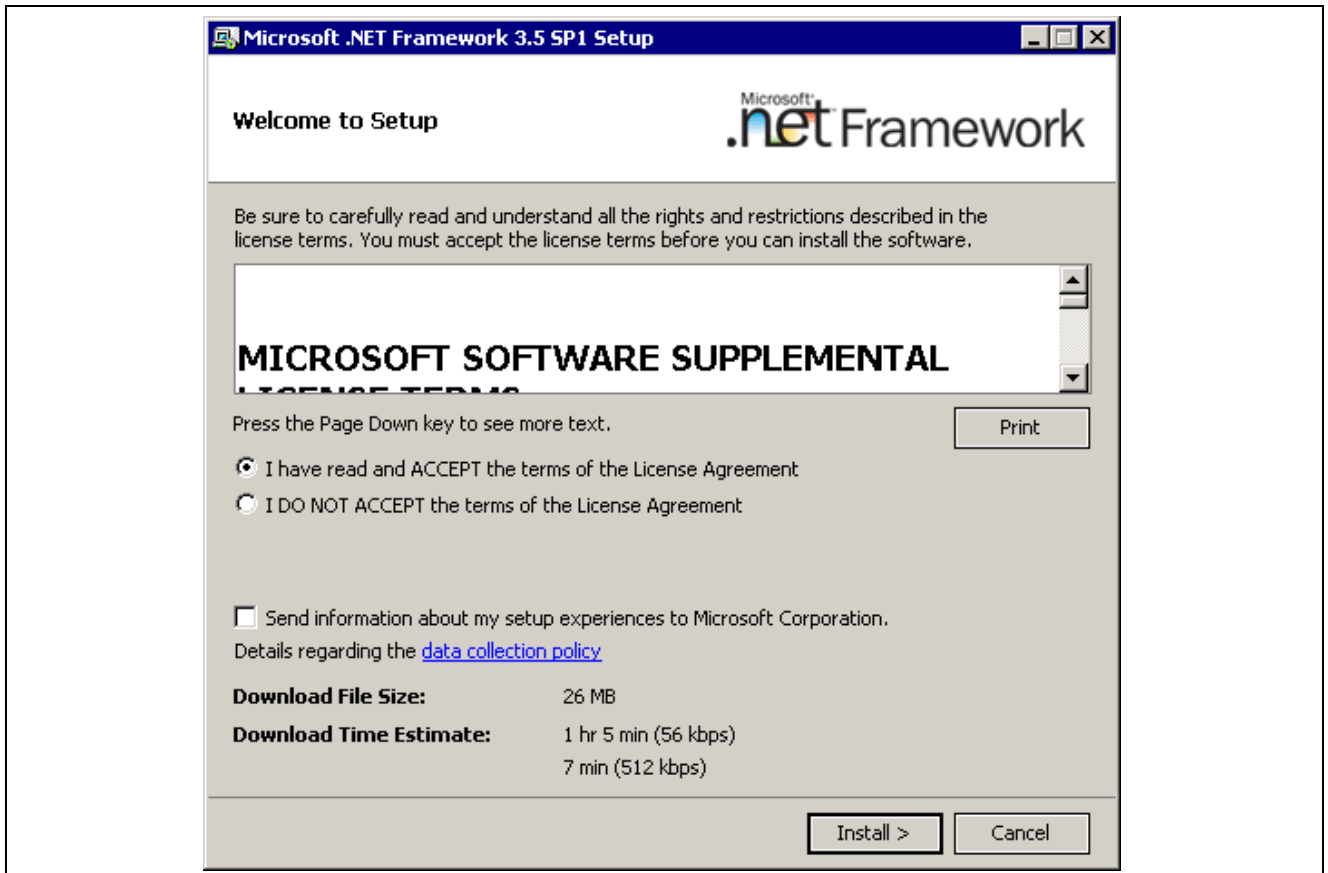
Use these instructions to set up PS/nVision in Open XML mode. Microsoft Open XML SDK 2.0 requires Microsoft .NET Framework 3.5 SP1. Use the information in this section to install Microsoft Open XML SDK, and to install Microsoft .NET Framework 3.5 SP1, if it is not already installed on the computer.

Use the steps in this section to install Microsoft .NET Framework 3.5 SP1.

Note. If your operating system is Microsoft Windows 2008 R2, see the following section.

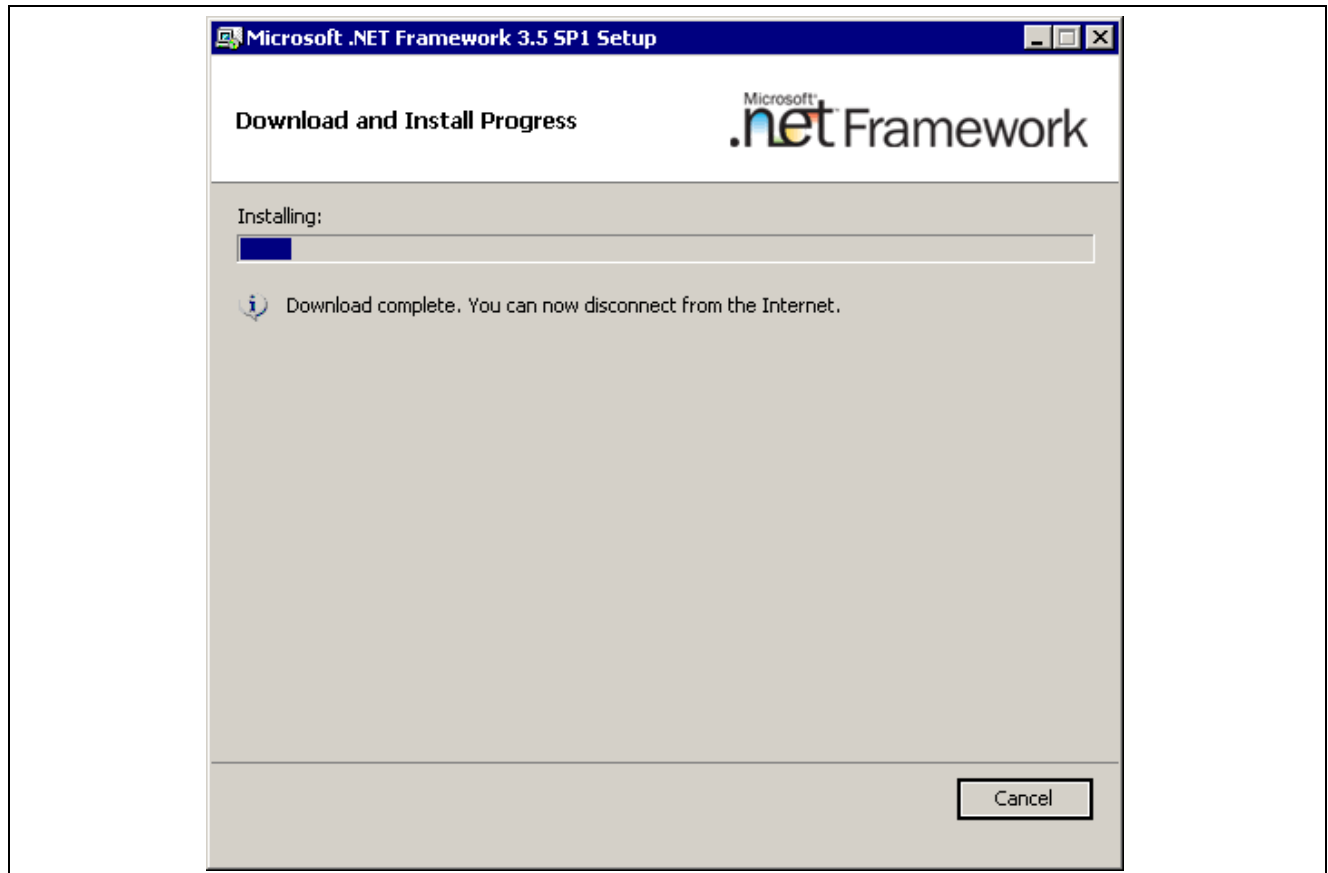
See Verifying the Microsoft .NET Framework 3.5 SP1 Installation on Windows 2008 R2.

1. If there are any versions of Microsoft .NET Framework installed on your computer:
 - a. Select Start, Programs, Control Panel, Add/Remove Programs
 - b. Locate the existing Microsoft .NET Framework installations and remove them.
2. Go to *PS_HOME\setup\dotnet35redist*.
3. Run the dotnetfx35.exe file.
4. Review the license agreement, select the option I have read and ACCEPT the terms of the License Agreement, and then click Install.



Microsoft .NET Framework 3.5 SP1 Setup Welcome to Setup window

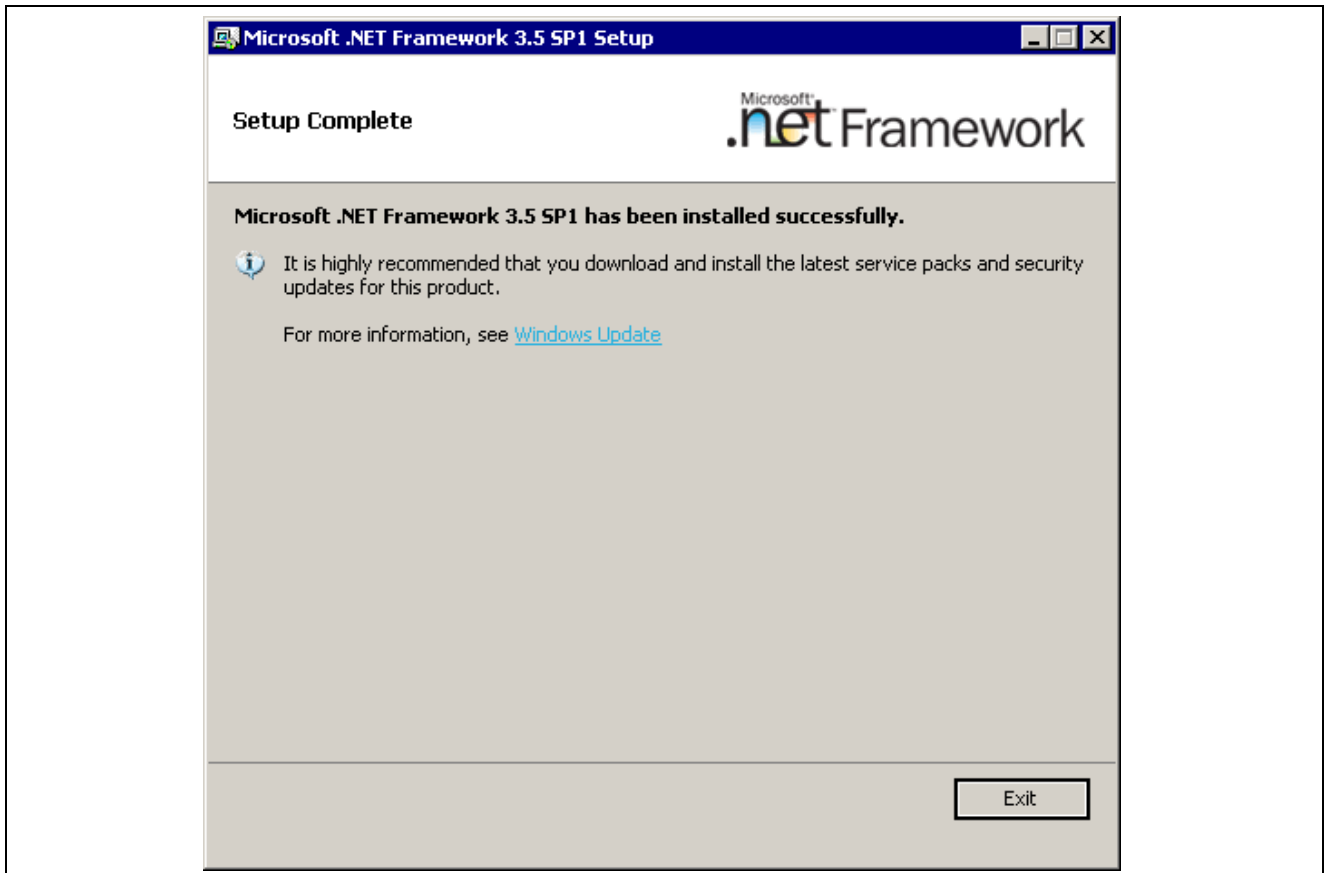
A progress window appears. Do *not* close the installer window when you see this message: “Download complete. You can now disconnect from the Internet,” as the installation continues after this point.



Microsoft .NET Framework 3.5 SP1 Setup Download and Install window

5. Click Exit when the installation is complete.

The Setup Complete window includes the message “Microsoft .NET Framework 3.5 SP1 has been installed successfully.”



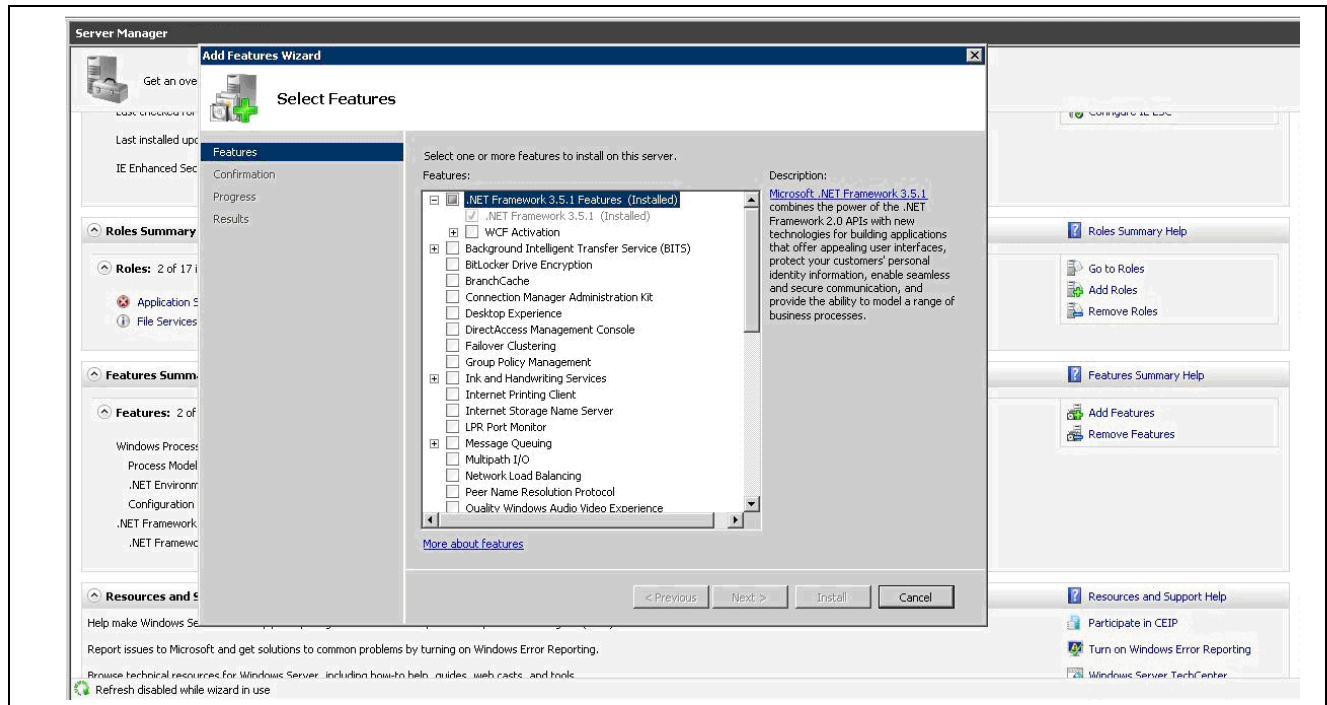
Microsoft .NET Framework 3.5 SP1 Setup Complete window

Verifying the Microsoft .NET Framework 3.5 SP1 Installation on Windows 2008 R2

If your operating system is Microsoft Windows 2008 R2, Microsoft .NET Framework 3.5 SP1 is included as a feature. To verify that Microsoft .NET Framework 3.5 SP1 is installed and enabled:

1. Open Server Manager.
2. Verify if Microsoft .NET Framework 3.5 SP1 is listed as a feature in the Feature Summary section.
If yes, then Microsoft .NET Framework 3.5 SP1 is already installed on this computer and it is enabled.
3. If Microsoft .NET Framework 3.5 SP1 is not listed in the feature summary, then click Add Features to open the Add Feature wizard.

In this example, Microsoft .NET Framework 3.5 SP1 is listed as .NET Framework 3.5.1 (Installed).



Add Features Wizard dialog box

4. If Microsoft .NET Framework 3.5 SP1 is listed in the list of features, it means it is installed on this computer, but not enabled.

To enable this feature, select the check box for Microsoft .NET Framework 3.5 SP1 and complete the Add Feature process. Consult the Microsoft Windows documentation for information on completing the process.

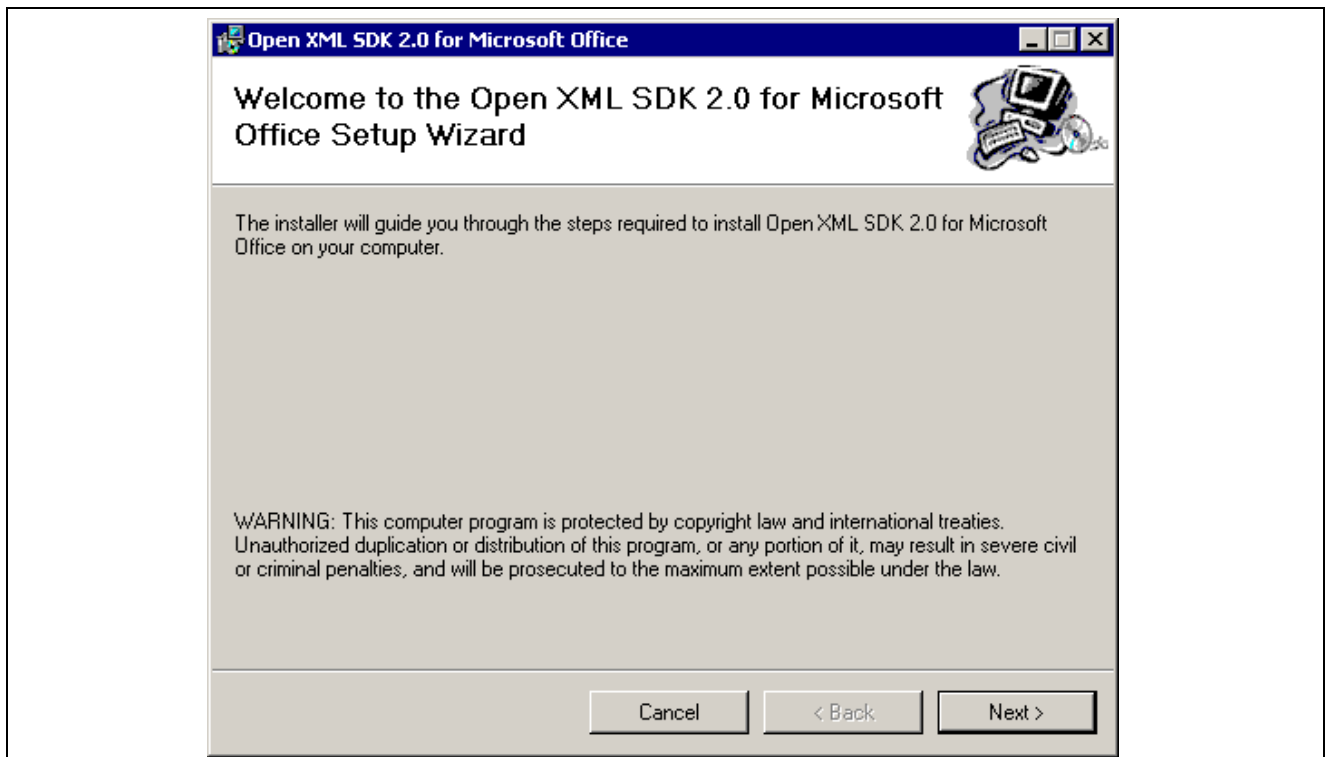
5. If Microsoft .NET Framework 3.5 SP1 is not listed in the list of features, then it is *not* installed on this box. Refer to the previous section to install Microsoft .NET Framework 3.5 SP1.

See Installing Microsoft .NET Framework 3.5 SP1.

Installing Open XML SDK 2.0

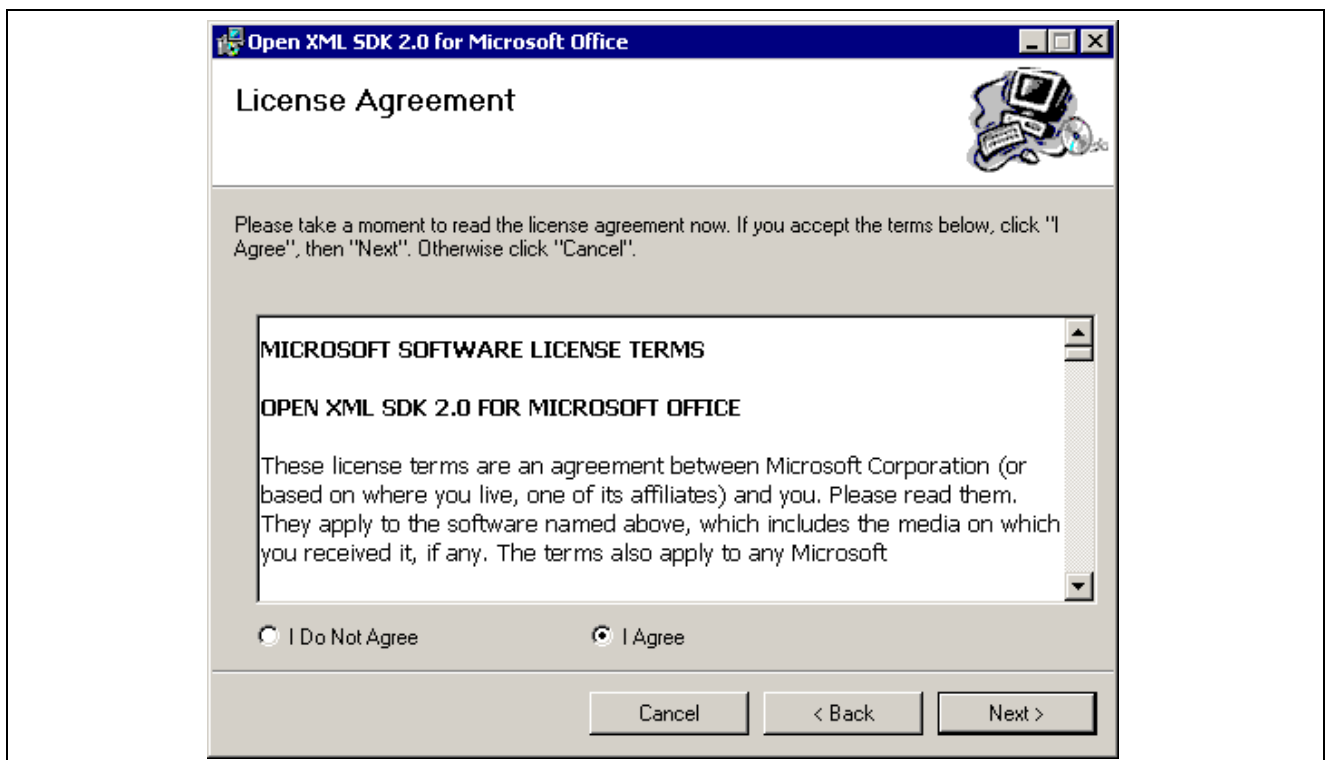
To install Microsoft Open XML SDK V2.0:

1. Go to *PS_HOME*\setup\OpenXmlSDK.
2. Run the OpenXMLSDKv2.msi file.
3. Click Next on the welcome window.



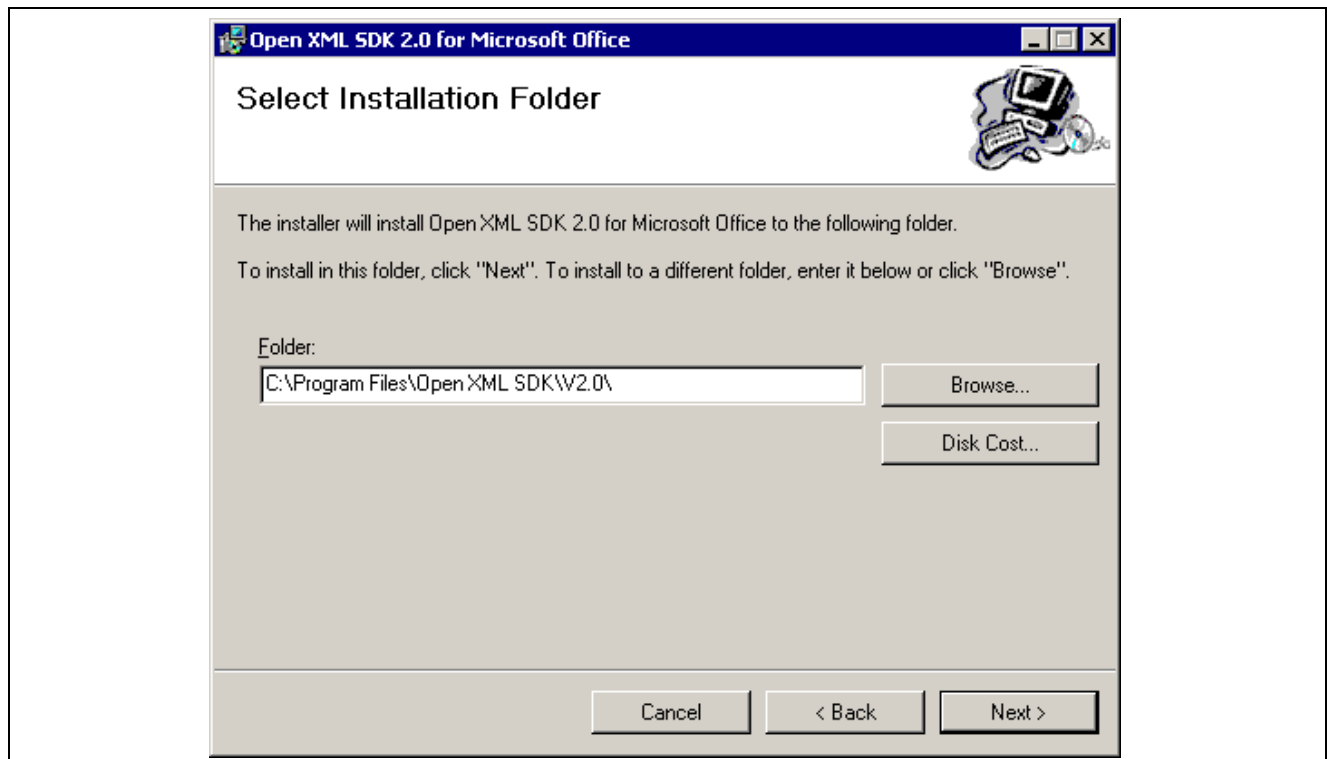
Microsoft Open XML SDK 2.0 welcome window

4. Review the license agreement, select the option I agree, and then click Next.



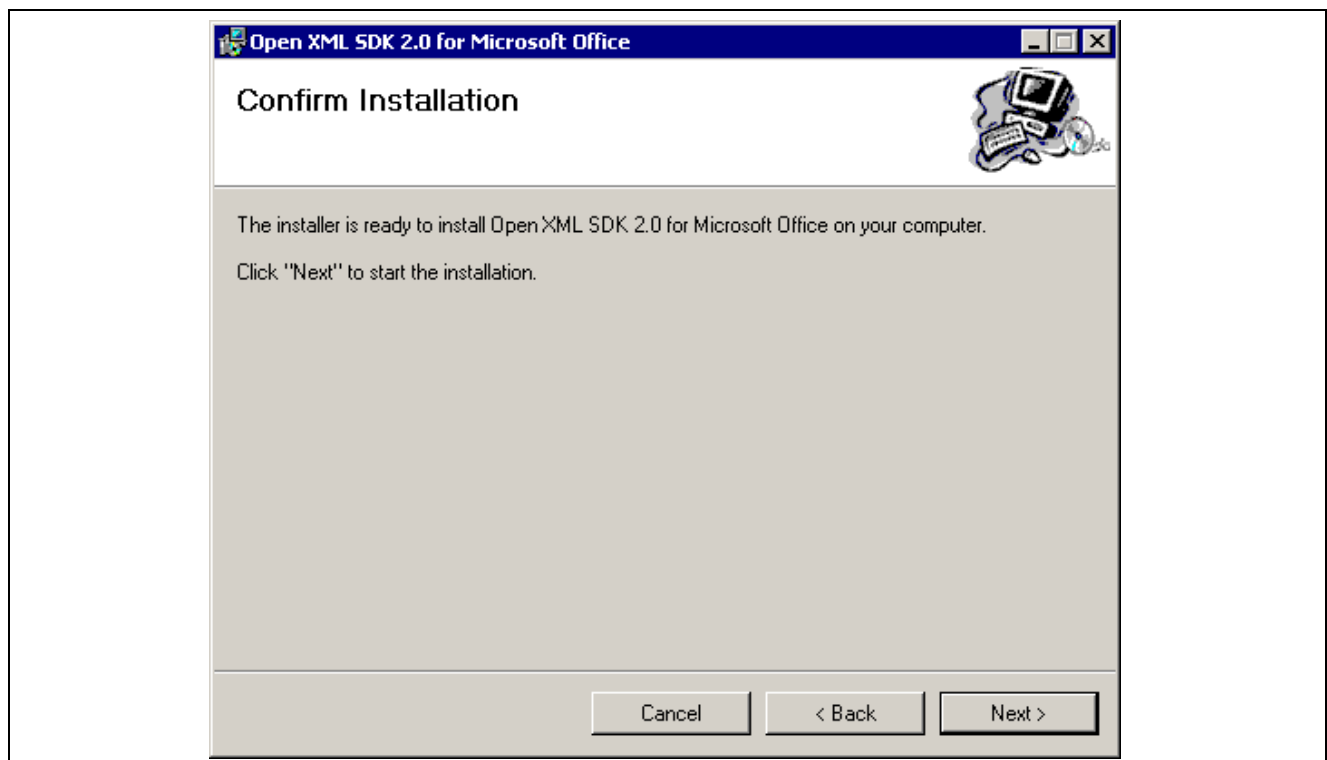
Microsoft Open XML SDK 2.0 License Agreement window

5. Accept the default location for the installation, C:\Program Files\Open XML SDK\V2.0, and then click Next.



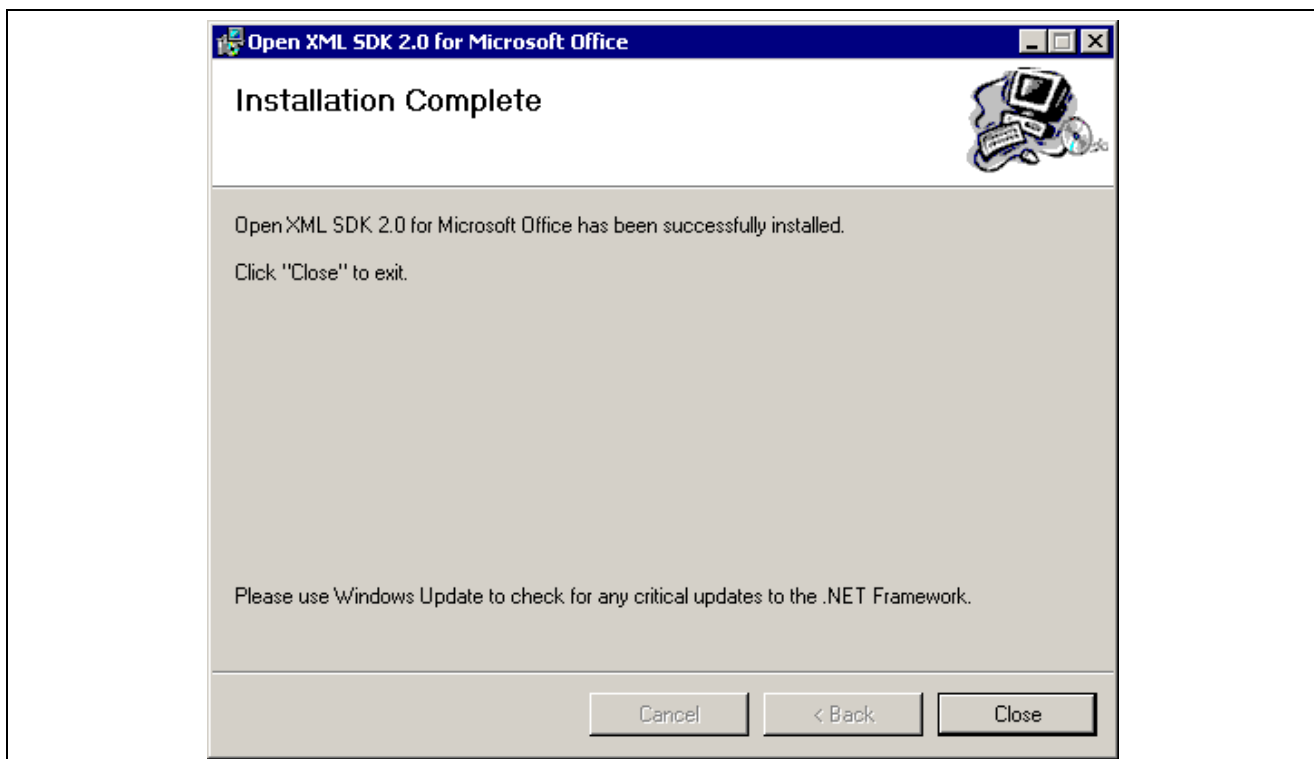
Microsoft Open XML SDK 2.0 Select Installation Folder window

6. Click Next on the Confirm Installation window to begin the installation.



Microsoft Open XML SDK 2.0 Confirm Installation window

7. Click Close when the installation is complete.



Microsoft Open XML SDK 2.0 Installation Complete window

CHAPTER 10B

Setting Up Process Scheduler on UNIX

This chapter discusses:

- Prerequisites
- Preparing the Process Scheduler File System for a PeopleTools-Only Upgrade.
- Setting Up Process Scheduler Security
- Setting Up Process Scheduler to Transfer Reports and Logs to the Report Repository
- Setting Up Process Scheduler Server Agent

Prerequisites

If your database runs on UNIX, you need to set up a Microsoft Windows batch environment on a Microsoft Windows application server or on a dedicated Microsoft Windows workstation for Microsoft Windows-specific batch processes, such as Crystal Reports, nVision reports, Cube Builder, or Microsoft Word. These processes are Microsoft Windows-specific applications that cannot be executed by the Process Scheduler on UNIX.

Before setting up your Process Scheduler, you must:

- Install Tuxedo (except for z/Linux).
See "Installing Additional Components."
- Install database connectivity to be able to communicate with your database server (Process Scheduler requires a direct connection to the database).
See "Preparing for Installation."
- Set up the web server with the PeopleSoft Pure Internet Architecture, as described in the previous chapter. This is required to set up the Process Scheduler to transfer reports or log files to the Report Repository.
- Set up your COBOL batch environment if you need to run COBOL processes through Process Scheduler. COBOL is no longer required to start a Process Scheduler Server Agent because the program for Process Scheduler has been rewritten in C++. If the PeopleSoft modules purchased do not contain any COBOL modules, the COBOL run time libraries are not required. Also, COBOL is not required for applications that contain no COBOL programs. Consult My Oracle Support for the details on whether your application requires COBOL.
See "Preparing for Installation," Planning Your Initial Configuration.
- Have both your application server and the PeopleSoft Pure Internet Architecture started. In this chapter, you must modify security options of the designated PeopleSoft user ID that will be used to boot up Process Scheduler. This requires that the user ID's profile be modified through the User Security component.

Please refer to earlier chapters for the details on starting the application server and the PeopleSoft Pure Internet Architecture.

In PeopleSoft PeopleTools 8.50 and later, the configuration and log files for Process Scheduler server domains reside in *PS_CFG_HOME*. If you do not set a *PS_CFG_HOME* environment variable before beginning the application server configuration, the system installs it in a default location based on the current user's settings, as follows:

```
$HOME/psft/pt/<peopletools_version>
```

See "Preparing for Installation," Defining Server Domain Configurations.

See *PeopleTools 8.52: System and Server Administration PeopleBook*, "Working with Server Domain Configurations."

See Also

PeopleTools 8.52 Hardware and Software Requirements

PeopleTools 8.52: PeopleSoft Process Scheduler PeopleBook

My Oracle Support, Certifications

Task 10B-1: Preparing the Process Scheduler File System for a PeopleTools-Only Upgrade.

If you are installing into an existing *PS_HOME* or *PS_CFG_HOME* in preparation for a PeopleTools-only upgrade, perform the following instructions to remove any obsolete files.

If you were using PeopleSoft PeopleTools 8.50 or earlier, remove *PS_HOME/appserv/PSADMIN* prior to installing the new release. If you have any customized configuration files (such as *psappsrv.cfg*, *psconfig.sh*, *pspt*, *psdbl.mak*, *psrun.mak*, *psprcs.cfg*, and so on), copy them to another directory so that they are not overwritten during the upgrade process. This enables you to preserve any tuned variables.

Configuration files are typically overwritten when you install the new release using the PeopleSoft Installer.

Task 10B-2: Setting Up Process Scheduler Security

This section discusses:

- Understanding Process Scheduler Security
- Granting Process Scheduler Administrative Rights

Understanding Process Scheduler Security

This task—in which you set up the PeopleSoft User ID that will be used to boot Process Scheduler server so it has administrative rights to both Process Scheduler and Report Manager—guarantees that security is set up properly within your PeopleSoft database.

You must carry out this task to start Process Scheduler successfully.

Task 10B-2-1: Granting Process Scheduler Administrative Rights

To grant Process Scheduler administrative rights:

1. Log onto your PeopleSoft database through the PeopleSoft Pure Internet Architecture.
2. Select PeopleTools, Security, User Profiles.
3. Select the User Profiles component. Use the Search dialog to select the PeopleSoft User ID you plan to use to boot the Process Scheduler server.
4. Click the Roles tab, click the plus icon to insert a new row, and there enter the *ProcessSchedulerAdmin* role to grant the user ID with administrative rights in the Process Scheduler components.

Role Name	Description	Dynamic	Route Control	View Definition		
Coordinator	Coordinator	<input type="checkbox"/>	Route Control	View Definition	+	-
PAPP_USER	Enterprise Portal User	<input type="checkbox"/>	Route Control	View Definition	+	-
Packaging	Env. Mgmt. Packaging	<input type="checkbox"/>	Route Control	View Definition	+	-
PeopleSoft Administra	PeopleSoft Admin Privileges	<input type="checkbox"/>	Route Control	View Definition	+	-
PeopleSoft User	PeopleSoft User	<input type="checkbox"/>	Route Control	View Definition	+	-
PeopleTools	PeopleTools	<input type="checkbox"/>	Route Control	View Definition	+	-
ProcessSchedulerAdm	Process Scheduler Admin	<input type="checkbox"/>	Route Control	View Definition	+	-
ReportDistAdmin	Report Distribution Admin	<input type="checkbox"/>	Route Control	View Definition	+	-
UPG_ALLPANLS	ALLPANLS	<input type="checkbox"/>	Route Control	View Definition	+	-
UPG_APPSRVR	Can start application server	<input type="checkbox"/>	Route Control	View Definition	+	-

Process Scheduler window: Roles tab

5. Repeat the instructions in step 4 to add the role *ReportDistAdmin*.
This will grant the user ID administrative rights to the Report Manager component. Carry out this step only if the same user is also responsible for maintaining the content of Report Manager.
6. Click Save to save your changes.
7. Select the General tab and jot down the Permission List name assigned to the Process Profile field.
8. From the Portal menu, choose PeopleTools, Security, Permissions & Roles, Permission Lists.
9. In the Search dialog, enter the Permission List you noted in step 7.
10. Select the Can Start Application Server check box.
11. Click Save to save your changes.

Task 10B-3: Setting Up Process Scheduler to Transfer Reports and Logs to the Report Repository

This section discusses:

- Understanding Report Distribution
- Setting Up Single Signon to Navigate from PIA to Report Repository
- Determining the Transfer Protocol
- Starting the Distribution Agent
- Setting Up the Report Repository
- Setting Up the Distribution for Your Process Scheduler Server
- Setting Up Sending and Receiving of Report Folders in the Report Manager

Understanding Report Distribution

The PeopleSoft PeopleTools Report Distribution lets you access reports and log files generated from process requests run by a Process Scheduler Server Agent. Using the PeopleSoft Pure Internet Architecture, you can view reports and log files from the web browser through the Report Manager or Process Monitor Detail page. Report Distribution enables you to restrict access to these reports to authorized users based either on user ID or role ID.

This product also includes the Distribution Agent component, which runs on the same server as the Process Scheduler Server Agent. The Distribution Agent, a process that runs concurrently with the Process Scheduler Server Agent, transfers to the Report Repository files generated by process requests initiated by the Process Scheduler Server Agent.

The Distribution Agent transfers files to the Report Repository when one of these criteria is true:

- The Process Scheduler Server Agent is set up in the *Server Definition* to transfer all log files to the Report Repository.
- The process request output destination type is *Web/Window*.

In either case, the Process Scheduler Server Agent inserts a row in the Report List table (PS_CDM_LIST). The server agent then updates the distribution status for a process request to *Posting* upon completion of the program associated with the process request. The distribution status of *Posting* signals that the files for the process request are ready for transfer to the Report Repository. The Distribution Agent is notified by Process Scheduler for any process requests that are ready for transferring. As part of the process to transfer files to the Report Repository, the Distribution Agent performs the following steps:

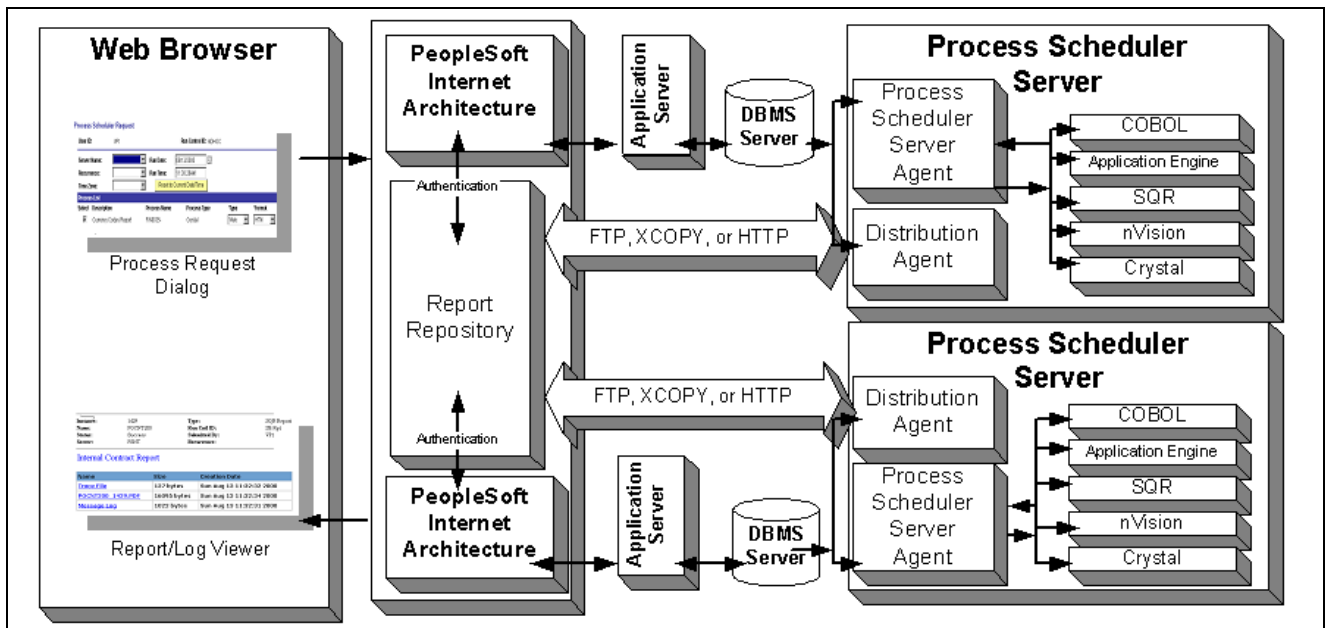
- *Transfer files to the Report Repository.* All the report and log files are transferred to the Report Repository. For each process request transferred, a directory is created in the Report Repository using the following format: \<database name>\<date yyymmdd>\<report id>. All the files for a process request are stored in this directory.
- *Delete the directory from the Process Scheduler Agent's Log/Output directory.* When the output destination type specified for a process request is *Web/Window*, all the files and directory associated with the process request are deleted from the Process Scheduler Log/Output directory after the files are transferred to the Report Repository.

The following diagram illustrates the Process Scheduler and Report Repository architecture. The diagram includes the following items:

- The web browser gives access to the Process Request dialog and the Report or Log Viewer.
- The Report Repository is part of the PeopleSoft Pure Internet Architecture.

Note. The PeopleSoft Pure Internet Architecture must be installed for Process Scheduler to be able to transfer reports to the Repository.

- The Process Scheduler Server includes the Process Scheduler Server Agent and the Distribution Agent.
- The transfer protocol between Process Scheduler and the Report Repository may be FTP, XCOPY, or HTTP.



Process Scheduler and Report Repository Architecture

Before users can view a report, they are authenticated against the PeopleSoft database.

You should set up single signon if you do not want users to have to log on an additional time to view reports in the Report Repository. For the details on setting up single signon, consult the security PeopleBook.

See *PeopleTools 8.52: Security Administration PeopleBook*.

Task 10B-3-1: Setting Up Single Signon to Navigate from PIA to Report Repository

To view reports (log files or system files) from Report Repository, you need to pass the authentication. Report Repository should be treated as a separate PeopleSoft application. To navigate from PeopleSoft Pure Internet Architecture (PIA) to Report Repository, you need to set up single signon to avoid getting a prompt for a second signon. This section includes some considerations for setting up single signon to navigate from PIA to Report Repository.

If Report Repository resides on the same web server as the PeopleSoft Pure Internet Architecture, make sure your Local Message Node is set up to be a "trusted" node for single signon for your system.

If Report Repository resides on a different web server than PeopleSoft Pure Internet Architecture, do the following:

- Make sure your Local Message Node is set up to be a "trusted" node for single signon for your system.
- Use a fully qualified domain name when addressing the web server for both PIA and Report Repository. For example, enter `http://<machineName>.peoplesoft.com/<site_name>/signon.html` instead of `http://<machineName>/<site_name>/signon.html`.
- Specify the Authentication Domain for your application during installation. If you have multiple applications, and you want them to employ single signon, it is important to specify the same Authentication Domain for all applications.

See *PeopleTools 8.52: Security Administration PeopleBook*, "Implementing Single Signon."

- Set up single signon with a password, like this:
 - Choose PeopleTools, Integration Broker, Integration Setup, Nodes.
 - Click Search and then select the node marked as Default Local Node.
 - Select *Password* for the Authentication Option.
 - Enter a password of your choice.
 - Enter the password again in the Confirm Password field.
 - Enter the user ID for which you are setting up single signon in the Default User ID field.
 - Save the Node Definition.
 - Sign off of PIA.
 - Reboot your application server.

See Also

PeopleTools 8.52: Security Administration PeopleBook

Task 10B-3-2: Determining the Transfer Protocol

We recommend using HTTP as your transfer protocol.

Before transferring the files to the Report Repository, you need to determine which transfer protocol to use. If you have a Windows Process Scheduler and a Windows web server, you can use either an XCOPY, FTP, or HTTP/HTTPS. (If FTP information is not specified, Process Scheduler will perform an XCOPY.) If you have any other combination of servers (such as a Windows or z/OS Process Scheduler and a UNIX web server), you must use FTP or HTTP/HTTPS.

Note. If you are using FTP, the FTP daemon must be set up in your web server.

Note. JRE is installed automatically on your Process Scheduler server.

Task 10B-3-3: Starting the Distribution Agent

The Distribution Agent is automatically started as another Oracle Tuxedo server when a Process Scheduler Server is booted. If a Process Scheduler Server was set up without specifying a Distribution Node in the *Server Definition* page, the Process Scheduler server will have a status in Process Monitor of “Running with No Report Node.” Once a node is defined for the Process Scheduler server and in the next cycle the Process Scheduler server checks the state of the system, the Distribution Agent dynamically sets up its environment.

Task 10B-3-4: Setting Up the Report Repository

This section discusses:

- Defining ReportRepositoryPath
- Defining the Report Node to Use HTTP/HTTPS
- Defining the Report Node to Use FTP

Defining ReportRepositoryPath

The ReportRepositoryPath specifies the location of a directory for the Report Repository. You can specify the location for the Report Repository Path on the General page of the Web Profile during installation. If you do not set the location in the Web Profile, the location given by ReportRepositoryPath in the configuration.properties file is used for the default location. Note that the value entered for Report Repository Path in the Web Profile overrides any entry in the configuration.properties file.

See *PeopleTools 8.52: PeopleTools Portal Technologies PeopleBook*, "Configuring the Portal Environment."

Use the following formats to enter the name for the directory that you want to use for the ReportRepositoryPath. The examples below give the default values. Note that you must use a forward slash (/) in both cases:

- *Windows*: ReportRepositoryPath=c:/psreports
 - *UNIX*: ReportRepositoryPath=<user_home>/PeopleSoft Internet Architecture/psreports
- For <user_home> substitute the home directory for the current user.

Defining the Report Node to Use HTTP/HTTPS

To define the report node to use HTTP/HTTPS:

1. Select PeopleTools, Process Scheduler, Report Nodes.
2. Select the Add a New Value link and enter the Report node name.

The Report Node Definition page appears. You are on the Http Distribution Node page.

3. Verify that the Http Information option is selected.

Report Node Definition page for HTTP

- Enter the *URL* of the web server using the following format:

```
http://<machine_name>:<port_number>/psreports/<site_name>
```

Replace *<machine_name>* with the name of your machine. Use the fully qualified host name for your web server. If you are using an http port other than 80, you need to specify the port number.

Note. If you specify the Authentication Token Domain name during the PeopleSoft Pure Internet Architecture installation, you must include a fully qualified domain name for the URL instead of the IP address.

- Description:* Enter a description of the server (optional).
 - Operating System:* Select the web server operating system.
- Enter the following Connection Information:
 - http/https:* Select the http option if you are *not* using SSL (default). Select the https option if you are using SSL. Note that if you are using SSL you need to have Client Certificates installed on your web server.
 - URI Host:* Enter the machine name for the report repository.

Note. In a basic setup, the machine name for the report repository will match the machine name of the web server URL. However, under certain circumstances—for example, if you are using a reverse proxy server—the URL and URI Host may have different machine names.

- *URI Port*: Enter the port number, which must match the port number of your web server (defaults are http = 80, https = 443). If you change a port number you will lose the default values for both protocols.
- *URI Resource*: Enter SchedulerTransfer/<site name>.

Note. The setup of authentication is optional, but is recommended for security of the Report Repository when using the HTTP to transfer files. For information on setting up authentication on the web server where the Report Repository resides, refer to the *PeopleTools 8.52: Security Administration PeopleBook*.

- *Login ID*: Enter the Login ID. This is not required, unless basic authentication has been set up on the web server by the Web Administrator.
 - *Password*: Enter the password for the user ID specified in the Login ID field. This is not required, unless basic authentication has been set up on the web server by the Web Administrator.
 - *Confirm Password*: Enter the password a second time as a confirmation. This is not required, unless basic authentication has been set up on the web server by the Web Administrator.
6. Click Save to save your entries.
 7. To add additional report nodes, select Add to return to the Search page.

The following fields are shared between the FTP/XCOPY Distribution Node page and the Http Distribution page:

- URL
- Description
- Operating System
- Login ID
- Password
- Confirm Password.

When you enter the information on one page, the information is also displayed on the shared fields of the other page but the fields are grayed out.

Note. If you complete the information for one protocol and then change your selection to another protocol, the shared fields will become active on the other page and grayed out on the original page. When you save, the system automatically clears the fields that are not shared.

Defining the Report Node to Use FTP

If you use FTP the following parameters must be configured: URL, Home Directory, Operating System, FTP Address, FTP ID, Password, Confirm Password. In addition, if your FTP server is a Windows server, you may have to set up the FTP service.

Note. The Distribution Agent will perform a validation after FTP has transferred files into the Report Repository by sending a query request to the web server. For this task to be accomplished, it is critical that the following setup is done:

The value entered in the URL must be accurate. Verify that the machine name, port number, and site number are correct.

If this setup is not completed, the process request will get a status of NOT POSTED in the Process Monitor Detail page and will log the message "Unable to verify files posted."

To define the report node to use FTP:

1. Select PeopleTools, Process Scheduler, Report Nodes.
2. Select Add a New Value, enter the Report node name, and click Add.
3. Select the FTP/XCopy option.

The FTP/XCopy Distribution node page appears.

Report Node Definition page for FTP

4. Enter the URL of the web server using this format:

```
http://<machine_name>:<port_number>/psreports/<site_name>
```

Replace *<machine name>* with the name of your web server. If you are using an http port other than 80, you need to specify the port number. The variable *<site name>* refers to the directory where you installed the PIA files; this will default to ps for the first installation.

Note. If you specify the Authentication Token Domain name during the PeopleSoft Pure Internet Architecture installation, you must include a fully qualified domain name for the URL instead of the IP address.

Note. If you installed the web server software with the default TCP port of 80, you do not need to specify the port number in the URL path. However, if you installed the web server to some other port, you must specify the port number in the URL path.

5. Enter the following additional parameters:

- *Home Directory*: Enter the directory specified during the installation of PeopleSoft Pure Internet Architecture as the Report Repository. The FTP user ID must have write access to this directory. Note that this is not a required field for HTTP transfer, as the system uses the Report Repository directory specified at install time or the current directory assigned to ReportRepositoryPath in configuration.properties. Note that the value you enter for the Report Repository Path in the Web Profile at install time overrides any entry for ReportRepositoryPath in configuration.properties.

For UNIX, the default directory is <user_home>/PeopleSoft Internet Architecture/psreports/.

- *Description*: Enter a description of the server (optional).
 - *Operating System*: Select the operating system of the Report Repository.
 - *FTP Address*: Enter the machine name or the IP address of the Report Repository. If the name of the machine is used, it must be included on a DNS server.
 - *FTP ID*: FTP user ID.
 - *Password*: Enter the password for the user ID specified in the FTP ID field.
 - *Confirm Password*: Enter the password a second time as a confirmation.
6. Select Save to save your entries.
 7. To add additional report nodes, select Add to return to the Search page.

Task 10B-3-5: Setting Up the Distribution for Your Process Scheduler Server

To set up the Distribution Settings for your Process Scheduler Server:

1. Choose PeopleTools, Process Scheduler, Servers.
2. Enter the Server Name (such as PSUNIX). The Server Definition page appears.
3. Select the Distribution tab.

Server Name: PSUNIX

Server Distribution Details

Distribution Node Name:

Maximum Transfer Retries:

Interval for Transfer Attempt: seconds

Transfer System Files to Report Repository ☐

Save
 Return to Search
 Notify
 Add
 Update/Display

[Server Definition](#) |
 [Distribution](#) |
 [Operation](#) |
 [Notification](#) |
 [Daemon](#)

Server Definition page: Distribution tab

4. Click the lookup button for Distribution Node Name to display the report node names and select the name of the required report node.
5. Enter a number for the Maximum Transfer Retries. This is the maximum number of times the server can try to send a report before it errors out.
6. Enter the number of seconds for the Interval for Transfer Attempt field. This is the interval between attempts to send the report.
7. Select the check box Transfer Log Files to Report Repository if you want to transfer all log and trace files from processes that do not generate reports.
8. Click Save to save your entries.
9. If Process Scheduler is running, you must reboot for any new settings to take effect.

To view reports (log files or system files) from Report Repository, you need to pass the authentication. Report Repository should be treated as a separate PeopleSoft Application. To navigate from PIA to Report Repository, you need to setup single signon in order to avoid getting prompt for second signon.

Task 10B-3-6: Setting Up Sending and Receiving of Report Folders in the Report Manager

To be able to view reports in the Report Manager Explorer and List pages, you need to set up the sending and receiving of report folders in the Report Manager by activating the domain on which a sending and receiving server resides. Consult the documentation covering the PeopleSoft Integration Broker to learn how to activate the sending and receiving server domain.

See *PeopleTools 8.52: PeopleSoft Integration Broker PeopleBook*.

See *PeopleTools 8.52: Integration Broker Service Operations Monitor PeopleBook*.

Task 10B-4: Setting Up Process Scheduler Server Agent

This section discusses:

- Understanding Process Scheduler Server Agent
- Changing the Default Operating System
- Setting Up Your Environment
- Creating and Configuring a Process Scheduler Server
- Reconfiguring a Process Scheduler Server
- Verifying the Process Scheduler Server Status

Understanding Process Scheduler Server Agent

For installation purposes, you can use predefined server names and other definitions. The predefined name that you might use is as follows:

Server Name	Operating System
PSUNIX	UNIX

To test this, use processes already defined in your PeopleSoft database. To set up a new server definition in your PeopleSoft database, refer to the Process Scheduler PeopleBook.

See *PeopleTools 8.52: PeopleSoft Process Scheduler PeopleBook*

Note. When creating multiple Process Scheduler Servers for the same database, each server must have a unique server name. For example, two Process Scheduler Servers, both named PSNT, cannot run against the same database.

Task 10B-4-1: Changing the Default Operating System

By default, Process Scheduler is set up to run a process request from a Process Scheduler Server Agent started in a Microsoft Windows server when the value of the *ServerName* field in the Process Request Dialog page is left blank. If you plan to run all processes other than Microsoft Windows-based programs (that is, nVision or Crystal Reports) from UNIX, you must change the default operating system.

Note. If you do not change the default operating system from Windows to UNIX and you do not plan to set up a Process Scheduler Server Agent in Microsoft Windows, process requests that are created will be directed to a Microsoft Windows-based operating system and will remain in the "Queued" status.

To change the default operating system for process requests that were not assigned a Process Scheduler Server Name:

1. Select PeopleTools, Process Scheduler, System Settings.
2. Under *Primary Operating System*, choose *UNIX* from the drop-down list.

3. Click on the *System Purge Options* tab. Enter the date for the next purge of process requests in the *Next Purge Date* field.
4. Enter the time for the next purge of process requests in the *Next Purge Time* field. The default time is 12:00:00AM.
5. Enter a *Recurrence* if you want to set a regular purging basis.
6. Choose *Save*.

Task 10B-4-2: Setting Up Your Environment

Telnet to your UNIX system. Log in and ensure the following environment variables are set appropriately:

Note. The environment variables for Tuxedo must be set explicitly; they are not set by running `psconfig.sh`. These can be also set using the `.profile` file in the user's home directory.

- \$TUXDIR must be set to the correct Oracle Tuxedo installation directory; for example:

```
TUXDIR=/home/user/Oracle/tuxedo10gR3; export TUXDIR
```
- \$TUXDIR/lib must be prepended to LD_LIBRARY_PATH, LIBPATH, or SHLIB_PATH, whichever is appropriate for your platform; for example:

```
LD_LIBRARY_PATH=$TUXDIR/lib:$LD_LIBRARY_PATH; export LD_LIBRARY_PATH
```
- \$TUXDIR/bin must be prepended to PATH; for example:

```
PATH=$TUXDIR/bin:$PATH; export PATH
```

Alternatively, make sure the following environment variables are set in the profile file in the user's home directory:

Remember, you only need COBOL if your application requires COBOL.

See *PeopleTools 8.52 Hardware and Software Requirements*.

- \$ORACLE_HOME must point to the correct Oracle installation; for example:

```
ORACLE_HOME=/products/oracle/10.2.0;export ORACLE_HOME
```
- \$ORACLE_HOME/bin must be added to PATH; for example:

```
PATH=$PATH:$ORACLE_HOME/bin;export PATH
```
- \$ORACLE_HOME/lib must be appended to LD_LIBRARY_PATH, LIBPATH, or SHLIB_PATH, whichever is appropriate for your platform.
- \$ORACLE_SID must be set to the correct Oracle instance; for example:

```
ORACLE_SID=hdmo;export ORACLE_SID
```
- \$COBDIR must be set to the Micro Focus Server Express installation; for example:

```
COBDIR=/cobol/prod/svrexpress-5.1_wp4;export COBDIR
```
- \$COBDIR/lib must be appended to LD_LIBRARY_PATH, LIBPATH, or SHLIB_PATH, whichever is appropriate for your platform.

```
LD_LIBRARY_PATH=$LD_LIBRARY_PATH:$COBDIR/lib;export LD_LIBRARY_PATH
```



```
LIBPATH=$LIBPATH:$COBDIR/lib;export LIBPATH
SHLIB_PATH=$SHLIB_PATH:$COBDIR/lib;export SHLIB_PATH
```

- \$COBDIR/bin must be appended to the PATH; for example:

```
PATH=$PATH:$COBDIR/bin;export PATH
```

To set the required PeopleSoft environment variables, run `psconfig.sh`. Go to the `PS_HOME` directory and enter the following command:

```
. ./psconfig.sh
```

Task 10B-4-3: Creating and Configuring a Process Scheduler Server

This section describes how to create and configure a Process Scheduler server.

You can set Process Scheduler configuration parameters either by using PSADMIN, which provides an interactive dialog, or by editing the configuration file `psprcs.cfg` located in the `PS_CFG_HOME/appserv/prcs/database name` directory. The following steps assume you are using PSADMIN to specify parameter settings.

Note. If you use the configuration file `psprcs.cfg`, be aware that in the PeopleSoft PeopleTools 8.49 release and later, the section [Output Dest Exceptions] has been modified to trap metastring exceptions not only in the output destination but in other process parameters as well. In this section the entry `OUTDEST_EXCEPT01=%ANYMETASTRING%` has been changed to `PARAMETER_EXCEPT01=%ANYMETASTRING%`.

To create and configure a Process Scheduler Server:

1. From `PS_HOME/appserv` on the batch server, type `psadmin` and press ENTER to access the PeopleSoft Server Administration menu.
2. Select 2 to access the Process Scheduler submenus.

```
-----
PeopleSoft Server Administration
-----
Config Home: /home/psft_PrcsSchSrv

1) Application Server
2) Process Scheduler
3) Search Server
4) Web (PIA) Server
5) Switch Config Home
6) Replicate Config Home
q) Quit
```

```
Command to execute (1-6 q): 2
```

3. Select 2 from the PeopleSoft Process Scheduler Administration menu.

```
-----
PeopleSoft Process Scheduler Administration
-----
```

- 1) Administer a domain
- 2) Create a domain
- 3) Delete a domain
- 4) Import domain configuration
- q) Quit

Command to execute (1-4, q) : 1

4. When prompted for the name of the database that your server will access, enter the name of the database and press ENTER:

Please enter name of Database that server will access :

5. After the system creates the domain, you see the prompt

Would you like to configure this Process Scheduler Server now? (y/n) [y] :

Choose y; you'll see a Quick-configure menu something like this:

```
-----
Quick-configure menu -- Scheduler for Database: HRDMO
-----
```

Features =====	Settings =====
1) Master Schdlr : Yes	5) DBNAME : [HRDMO]
2) App Eng Server : Yes	6) DBTYPE : [ORACLE]
	7) PrcsServer : [PSUNX]
	8) UserId : [QEDMO]
	9) UserPswd : [QEDMO]
	10) ConnectID : [people]
	11) ConnectPswd: [people]
	12) ServerName : []
	13) Log/Output Dir: [%PS_SERVDIR%/log_output]
	14) SQRBIN : [%PS_HOME%/bin/sqr/ORA/bin]
	15) AddToPATH : [%PS_HOME%/cblbin]
Actions =====	
3) Load config as shown	
4) Custom configuration	
h) Help for this menu	
q) Return to previous menu	

HINT: Enter 5 to edit DBNAME, then 3 to load

Enter selection (1-15, h, or q):

6. If you need to modify any of these settings, enter the number next to the parameter name, type the new value, and press ENTER. This table lists the parameters and gives brief descriptions.

Parameter	Description
Master Schdlr	Flag to enable the Master Scheduler Server (PSMSTPRC). Default is to enable the server. See PeopleTools 8.52: PeopleSoft Process Scheduler PeopleBook.
App Eng Server	Flag to initiate Application Engine programs through the AE Tuxedo Server (PSAESRV). Default is set to run AE using PSAESRV. See PeopleTools 8.52: PeopleSoft Process Scheduler PeopleBook.
Load config as shown	Load the selections you made in the Quick Configure menu.
Custom configuration	Make custom selections in PSADMIN, using options that are not available in the Quick Configure menu.
DBNAME	Specify the database name that is associated with a PeopleSoft Process Scheduler Server Agent, such as HRDMO, FSDMO, SADMO, and so on.
DBTYPE	Specify the database type: ORACLE.
PrsServer	Specify the process server name. This must match the name defined in the Server Definition table, such as <i>PSNT</i> or <i>PSUNIX</i> .
UserId	Enter the user ID. For Enterprise Resource Planning (ERP), this is typically <i>VPI</i> , and for Human Resources (HR) it's <i>PS</i> .
UserPswd	Enter the user password. For Enterprise Resource Planning, this is typically <i>VPI</i> , and for Human Resources it's <i>PS</i> .
ConnectID	Enter the connect ID. This value is required.
ConnectPswd	Enter the connect password. This value is required.
ServerName	Enter the server name
Log/Output Dir	Specify the directory in which files that are generated by the program are written. When PeopleSoft Process Scheduler initiates a process request, it creates a subdirectory in the format <Process Type ID>_<Program Name>_<Process Instance> that contains the generated files. For instance, the SQR program XRFWIN that ran with process instance 20 has all reports, trace, and log files in the subdirectory SQR_XRFWIN_20. It is also the optional directory used with the Output Destination field when scheduling a request. This variable (%%OutputDirectory%%) can be used in the File/Printer field of the Process Scheduler Request dialog box.
SQRBIN	Enter the path to the SQR executables.
AddToPATH	(Optional for Tuxedo) Specify an additional directory that is appended to the PATH environment variable.
DBBIN	Enter the path to the database drivers; that is, your connectivity software.

For descriptions of the PSADMIN options that do not appear in the Quick-configure menu, consult the following. For a basic install, in most cases you can accept the defaults.

See *PeopleTools 8.52: PeopleSoft Process Scheduler PeopleBook*.

7. When you have updated the settings as needed, choose 3, *Load config as shown*, from the Quick-Configure menu to save your settings to the Process Scheduler configuration file, `pstuxcfg`.
8. To start Process Scheduler, choose 1, for Administer Domain.
9. On the PeopleSoft Process Scheduler Administration menu, choose 1 for *Boot this domain*.

```
-----
PeopleSoft Process Scheduler Administration
-----
```

Domain Name: HRDMO

- 1) Boot this domain
- 2) Domain shutdown menu
- 3) Domain status menu
- 4) Configure this domain
- 5) TUXEDO command line (tmadmin)
- 6) Edit configuration/log files menu
- 7) Clean IPC resources of this domain
- q) Quit

Command to execute (1-7, q) :

10. Choose 1, Boot (Serial Boot), or 2, Parallel Boot, from the PeopleSoft Domain Boot Menu.

Note. The messages you see and the number of processes started will depend on the options you chose during configuration.

11. If you want to stop Process Scheduler Server, from the PeopleSoft Domain Administration menu, choose 2, *Domain Shutdown menu*, and then enter the number corresponding to the name of the appropriate database.

Note. If you see the following message, then the server is already down:

```
Command to execute (1-2, q) [q]: 1
Loading command line administration utility ...
tmadmin - Copyright (c) 2007-2008, Oracle.
Portions * Copyright 1986-1997 RSA Data Security, Inc.
All Rights Reserved.
Distributed under license by Oracle.
Tuxedo is a registered trademark.
No bulletin board exists. Entering boot mode.
> TMADMIN_CAT:111: ERROR: No such command.
```

Task 10B-4-4: Reconfiguring a Process Scheduler Server

If you create and then immediately configure a Process Scheduler server, you can use the Quick-configure menu. Alternatively, you can use PSADMIN as described in this section. Feel free to skip this procedure if you have already created and configured your Process Scheduler Server using the Quick-configure menu and want to move forward with your installation.

Note. If you want to configure the Process Scheduler Server while it is running, you need to stop and restart the server to load the new settings.

To reconfigure a Process Scheduler Server:

1. Go to `PS_HOME/appserv` and enter:

```
psadmin
```

2. Select 2 for Process Scheduler in the PeopleSoft Server Administration menu.
3. In the PeopleSoft Process Scheduler Administration menu, select 1 for Administer a domain.
4. Select the database for which the Process Scheduler needs to be configured.
5. At the prompt

```
Do you want to change any config values (y/n)? [n]:
```

Specify *y* to start an interactive dialog that lets you examine or change parameter values.

6. Now you specify configuration parameters one by one. Configuration parameters are grouped into sections. At each section, you are asked whether to change any parameters—for example:

```
Values for config section - Startup
```

```
DBName=
DBType=
UserId=
UserPswd=
ConnectId=
ConnectPswd=
ServerName=
StandbyDBName=
StandbyDBType=
StandbyUserId=
StandbyUserPswd=
```

```
Do you want to change any values (y/n)? [n]:
```

- Specify *y* to change any parameter values for the current section. You are prompted for each parameter value. Either specify a new value or press ENTER to accept the default. After you press ENTER, you are positioned at the next parameter in that section. When you are done with that section, you are again asked whether you want to re-edit any of the values you changed.
- The parameters StandbyDBName, StandbyDBType, StandbyUserID, and StandbyUserPswd are used for a standby database in an Oracle database environment.

See *PeopleTools 8.52: Data Management PeopleBook*, “Administering PeopleSoft Databases on Oracle,” Implementing Oracle Active Data Guard.

- If you do not want to change any values, specify *n* and you are prompted for the next configuration section.

7. Once you have selected all your parameters, you see this message

You will need to shut down and start up the server to read the new settings.

For descriptions of the Process Scheduler options in the PSADMIN, consult the following. In most cases you can accept the defaults.

See *PeopleTools 8.52: PeopleSoft Process Scheduler PeopleBook*.

Task 10B-4-5: Verifying the Process Scheduler Server Status

At this stage it is a good idea to verify the Process Scheduler Server status.

To verify the Process Scheduler Server status:

1. From the PeopleSoft Process Scheduler Administration menu, choose option 3, for *Domain status menu*.

```
-----
PeopleSoft Process Scheduler Administration
-----
```

Domain Name: HRDMO

- 1) Boot this domain
- 2) Domain shutdown menu
- 3) Domain status menu
- 4) Configure this domain
- 5) TUXEDO command line (tmadmin)
- 6) Edit configuration/log files menu
- 7) Clean IPC resources of this domain
- q) Quit

Command to execute (1-7, q) : 3

2. To verify the status of the Process Scheduler Server for a specific database, type the number corresponding to the appropriate database.

For example:

Database list:

- 1) HRDMO

Select item number to start: 1

Loading command line administration utility ...

tmadmin - Copyright (c) 2007-2008 Oracle.

Portions * Copyright 1986-1997 RSA Data Security, Inc.

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Distributed under license by Oracle.

Tuxedo is a registered trademark.

> Prog Name	Queue Name	Grp Name	ID RqDone	Load Done	Current	Service
-------------	------------	----------	-----------	-----------	---------	---------

```

-----
DDL          46845      pt-ibm20      0      9      450 ( IDLE )
PSMONITORSRV MONITOR    MONITOR      1      0      0  ( IDLE )
PSAESRV      00101.00001 AESRV        1      0      0  ( IDLE )
PSAESRV      00101.00002 AESRV        2      0      0  ( IDLE )
PSAESRV      00101.00003 AESRV        3      0      0  ( IDLE )
PSPRCSRV     SCHEDQ     BASE         101     0      0  ( IDLE )
PSMSTPRC     MSTRSCHQ    BASE         102     0      0  ( IDLE )
PSDSTSRV     DSTQ       BASE         103     0      0  ( IDLE )
>

```

Note. You can also do this using the following command line argument:

```
psadmin -p status -d <DBNAME>
```

Note. You can also verify the status of the Process Scheduler Server from Process Monitor in PeopleSoft Pure Internet Architecture. To verify the Process Scheduler Server status from the Process Monitor page, go to PeopleTools, Process Scheduler, Process Monitor, and select *Server List*.

PART 2

Discretionary Installation

The second part of the installation guide includes optional tasks, tasks that are only required by certain environments, and those that you may decide to defer until after the initial installation.

CHAPTER 11

Configuring Integration Between PeopleSoft PeopleTools and Oracle SES

This chapter discusses:

- Understanding PeopleSoft PeopleTools and SES Integration
- Setting Up the Search Framework Prerequisites
- Configuring SES for the Search Framework
- Setting Up the PeopleSoft Application Server for the Search Framework
- Setting Up Search Framework User IDs
- Setting Up Integration Broker for the Search Framework
- Defining a Search Instance in the PeopleSoft System
- Verifying PeopleSoft PeopleTools and SES Connectivity

Understanding PeopleSoft PeopleTools and SES Integration

The PeopleSoft Search Framework provides a standard, declarative method for creating, deploying, and maintaining search indexes for all of your PeopleSoft applications. Oracle Secure Enterprise Search (SES) is the search engine on which the PeopleSoft Search Framework relies.

Before you can set up integration between PeopleSoft PeopleTools and Oracle Secure Enterprise Search, you must first have SES installed and running successfully. Then you need to ensure that various elements on the PeopleSoft Application Server and PeopleSoft Integration Broker are set appropriately. Integration Broker is the vital link between PeopleSoft PeopleTools and SES. As such, it is essential to make sure that the gateway, domains, nodes, services, and WSDL elements are activated and configured properly.

See Also

PeopleTools 8.52: PeopleSoft Search Technology PeopleBook

Task 11-1: Setting Up the Search Framework Prerequisites

Prior to implementing the PeopleSoft Search Framework, the following items need to be installed, configured, and functional.

- Oracle Secure Enterprise Search (SES)

- PeopleSoft PeopleTools

You need to have installed PeopleSoft PeopleTools and have at least the following items configured, as described in the previous chapters of this installation documentation:

- PeopleSoft database
- Application server
- Process Scheduler server
- Integration Broker

See *PeopleTools 8.52: Integration Broker Administration PeopleBook*.

- PeopleSoft Application

Because the searching feature is intended primarily for your end users, having your PeopleSoft application database installed and available is recommended. This will allow you to define realistic search objects for your testing and production environments.

See your PeopleSoft application installation documentation.

When all of these items are in place, make sure to record the following information as it will be required when configuring integration between SES and PeopleSoft:

- SES server host name, and the port on which SES is listening.
For example: orases12.urcompany.com:7779
- SES administrator user ID and password, as in the credentials you use to sign on to the SES administration console.
- PeopleSoft Pure Internet Architecture signon URL.
For example: http://orapia08.urcompany.com:80/ps/signon.html

See Also

Oracle® Secure Enterprise Search Installation and Upgrade Guide 11g Release 1 (11.1.2.0.0) for <your operating system>

Task 11-2: Configuring SES for the Search Framework

This section discusses:

- Understanding SES Configuration
- Creating a Federated Trusted Entity
- Activating the Identity Plug-in
- Configuring SES Authentication Timeout Settings

Understanding SES Configuration

After you have SES installed and running, you need to carry out the post-installation procedures in this section to prepare the SES instance for integration with a PeopleSoft application system.

To complete these steps you will need access to the SES administration console, using the following URL syntax:

`http://<host>:<port>/search/admin/index.jsp`

Task 11-2-1: Creating a Federated Trusted Entity

To create a federated trusted entity:

1. Sign on to the SES administration console.
2. Select the Global Settings tab.
3. In the Search list, select the Federation Trusted Entities link.
4. In the Entity Name edit box, enter the entity you want to create.
5. For Entity Password enter a password to associate with the trusted entity.

Note. Make note of the entity name and password, as you will be required to submit these credentials when defining the SES instance in the PeopleSoft Search Framework administration interface.

Note. The Identity Plug-in check box does not need to be selected, nor does the Authentication Attribute edit box have to be populated.

6. (Recommended) In the Description edit box, add text to distinguish this entity.
7. Click Add.

Task 11-2-2: Activating the Identity Plug-in

To activate the identity plug-in:

1. Sign on to the SES administration console.
2. Select the Global Settings tab.
3. Under System, select the Identity Management Setup link.
4. Select PeopleSoft source type from Available Identity Plug-ins list and click the Activate button.
5. On the Identity Management Setup page, select the radio button for Peoplesoft Search framework Identity plug-in in the Available Identity Plug-ins grid, and click Activate.
 - HTTP endpoint for authentication: Enter the URL to your PeopleSoft listening connector using the following syntax: `http://<host>:<port>/PSIGW/PeopleSoftServiceListeningConnector`.

Note. If you need to specify an end point on a node other than the default node, then specify that node name in the URL. For example, for node name PS_HR:
`http://sesserver12:7779/PSIGW/PeopleSoftServiceListeningConnector/PS_HR`

- User ID: Enter the user ID that is the Search Framework administrator on the PeopleSoft side. That is, the user with Search Framework permission lists associated with it.
- Password: Enter the password associated with your Search Framework administrator user ID.

See Also

PeopleTools 8.52: Security Administration PeopleBook, "Setting Up Permission Lists"

PeopleTools 8.52: Security Administration PeopleBook, "Administering User Profiles"

Task 11-2-3: Configuring SES Authentication Timeout Settings

The default SES timeout settings may not be suitable for contacting the PeopleSoft system and retrieving authentication and authorization data. To ensure that the two systems interact successfully, it is recommended that you modify these settings to avoid authentication or authorization timeout scenarios. In general, the timeout setting should be high enough to allow for the SES instance to contact the PeopleSoft web service operation endpoint to retrieve the authentication data.

To configure SES authentication timeout settings:

1. Sign on to the SES administration console.
2. Select the Global Settings tab, and click the Query Configuration link under Search.
3. Scroll down to the Query-time Authorization Configuration section and set the Timeout Threshold setting to at least 120000 milliseconds.
4. In the Secure Search Configuration section under the Security Filter Configuration subsection, set these similar to the following:
 - Security Filter Lifespan: 60
 - Authentication Timeout: 1200000
 - Authorization Timeout: 180000
5. Click Apply.

Task 11-3: Setting Up the PeopleSoft Application Server for the Search Framework

Your application server domain may be set up as per your site's typical specifications, however, make sure your domain meets these Search Framework requirements:

- At least two PSAPPSRV server processes are set to start in the domain.
- The Pub\Sub Servers (Publish\Subscribe) feature is enabled for the domain.

See *PeopleTools 8.52: System and Server Administration PeopleBook*.

Task 11-4: Setting Up Search Framework User IDs

Depending on the user, you will need to set up different permissions for Search Framework tasks. PeopleSoft PeopleTools provides the permission lists described in this table for each identified user type:

Permission List	User or Authentication Type	Description
PTPT3100	Search Framework Developer	Provides access to the Search Framework development pages used for managing searchable objects within the PeopleSoft database.
PTPT3200	Search Framework Administrator	Provides access to the Search Framework administrative pages used for managing searchable objects on the search engine. Note. In addition, set up security such that the Search Framework Administrator has access to the records on which the queries are built. For more information, see your PeopleSoft Application installation documentation.
PTPT3300	Search Server	Used by the search engine for accessing the Search Framework web services on the PeopleSoft system. This permission list would be passed as the “call-back ID” specified on the Search Instance administration page. Note. In addition, set up security such that the Search Server user has access to the records on which the queries are built. For more information, see your PeopleSoft Application installation documentation.

See Also

PeopleTools 8.52: Security Administration PeopleBook

Task 11-5: Setting Up Integration Broker for the Search Framework

This section discusses:

- Understanding the PeopleSoft Integration Broker Configuration for SES
- Specifying the Integration Gateway
- Setting Up the Node
- Verifying the Service Configuration

Task 11-5-1: Understanding the PeopleSoft Integration Broker Configuration for SES

In order for the Search Framework to interact with the SES server, various elements of the PeopleSoft Integration Broker architecture need to be configured for your search environment. This section assumes you have a working knowledge of the PeopleSoft Integration Broker architecture and the associated administrative tasks.

See *PeopleTools 8.52: PeopleSoft Integration Broker PeopleBook*.

Task 11-5-2: Specifying the Integration Gateway

To set up the PeopleSoft Integration Broker for the Search Framework:

1. Select PeopleTools, Integration Broker, Service Operations Monitor, Administration, Domain Status and make sure your domain is active in the Domains grid.
2. Select PeopleTools, Integration Broker, Configuration, Gateways, and specify the Integration Gateway URL using the following syntax:

`http://<machine_name>:<port>/PSIGW/PeopleSoftListeningConnector`

3. Click Ping Gateway to make sure the gateway is active and available.

See *PeopleTools 8.52: Integration Broker Administration PeopleBook*, "Setting Up Gateways."

4. Click Save.
5. If prompted to load connectors, click Yes.

Task 11-5-3: Setting Up the Node

To set up the node:

1. Select PeopleTools, Integration Broker, Integration Setup, Nodes. Open the local node, and click the Connectors tab.
2. On the Connectors tab make sure Gateway ID = Local and Connector ID = PSFTTARGET.
3. Click the Gateways Setup Properties link.
4. On the PeopleSoft Node Configuration page, set the Gateway Default App. Server values and the PeopleSoft Nodes values for your local node.
5. Click the Advanced Properties Page, and in the Gateway Properties box, make sure that the `secureFileKeystorePasswd` value is encrypted. For example:

`secureFileKeystorePasswd={V1.1}7m4OtVwXFNyLc1j6pZG69Q==`

6. Click OK.
7. On the PeopleSoft Node Configuration dialog box, click Ping Node to confirm the node is accessible and active.
8. Click Save and OK.
9. Select the Portal tab, and make sure the following items are specified:
 - Default Portal
 - Tools Release

- Application Release
- Content URI Text
- Portal URI Text

10. Click Save.

See Also

PeopleTools 8.52: PeopleSoft Integration Broker Administration PeopleBook, "Adding and Configuring Nodes"

Task 11-5-4: Verifying the Service Configuration

Verify these key elements of the service configuration:

- The Service Operation should be set to the correct target location (end point URL).
- The Oracle SES search engine exposes administration and search APIs as web service operations. To make use of those web services you need to verify the appropriate counterpart PeopleSoft services exist on your system.

To verify the service configuration:

1. Select PeopleTools, Integration Broker, Configuration, Service Configuration.
2. On the Service Configuration tab, update the Target Location by clicking Setup Target Locations.
3. In the Web Services Target Location, update the Target Location setting to reflect your environment.
4. Click Save.
5. Select PeopleTools, Integration Broker, Integration Setup, Service Operations.
6. On the Service Operations - Search page, verify that the these Services exist:
 - ADMINSERVICE
 - ORACLESEARCHSERVICE

Task 11-6: Defining a Search Instance in the PeopleSoft System

To define a search instance:

1. On the Search Instance Properties page, provide search engine details.

The search engine values enable connectivity between the PeopleSoft system and SES.

Search Instance Properties

Search Engine Details

*SSL Option:

*Host Name:

*Port:

Search Engine Details area of Search Instance Properties page

- SSL Option

Select one of these options for SES:

DISABLE. Select if you do not have SSL configured between SES and your PeopleSoft system, as shown in the example.

ENABLE. Select if you do have SSL configured between SES and your PeopleSoft system.

- Host Name

Enter the server name of the host where SES is running, including the domain. For example, server1.mycompany.com. To specify the host, you may use the host name or an IP address.

- Port

Enter the port on which SES listens for request, for example, 7777.

- Ping

Click the Ping button to verify access to the SES system. If the test is successful, you see a message displaying the current version of the SES administrative service.

2. Specify the following SES administrative credentials so that your PeopleSoft system has the appropriate access to connect to the SES server and perform various administrative tasks, such as deploying search objects, building indexes, scheduling crawling, and so on.

Admin Service Credentials

*User Name:

*Password:

*Confirm Password:

Admin Server Credentials area of Search Instance Properties page

- User Name

Enter the user name for logging into the Secure Enterprise Search Administration GUI. The administrative user name is eqsys, as shown in the example.

- Password/Confirm Password

Enter and confirm the password associated with the administrative user name.

- Test Login

Click this button to confirm that the PeopleSoft system can access the SES server. You should see a login success message.

3. Enter the following values in the Query Service Credentials area:

Query Service Credentials	
*Proxy Name	people
*Password	*****
*Confirm Password	*****

Query Service Credentials area of Search Instance Properties page

- Proxy Name

Enter a trusted entity, people in this example, from the list on the Federation Trusted Entities page in the SES Administration interface. (Global Settings, Federation Trusted Entities)

- Password/Confirm Password

Enter and confirm the password associated with the trusted entity.

4. Enter the following values in the Call Back Properties area.

At times, SES will need to call back to the PeopleSoft system to access services, such as authentication services, so you need to provide the URL and password for access.

Call Back Properties	
*URL	http://10.222.222.100:5000/PSIGW/PeopleSoftServiceListeningConnector/QE_LOCAL
*User Name	QEDMO
*Password	*****
*Confirm Password	*****
Update deployed definitions	

Call Back Properties area of Search Instance Properties page

- URL

Enter the URL for the PeopleSoft system listening connector, using the following syntax:
http://<server>:<port>/PSIGW/PeopleSoftServiceListeningConnector/<node>

- User Name

Enter the PeopleSoft user name, QEDMO in this example.

- Password/Confirm Password

Enter and confirm the password associated with the PeopleSoft user name.

- Update deployed definitions

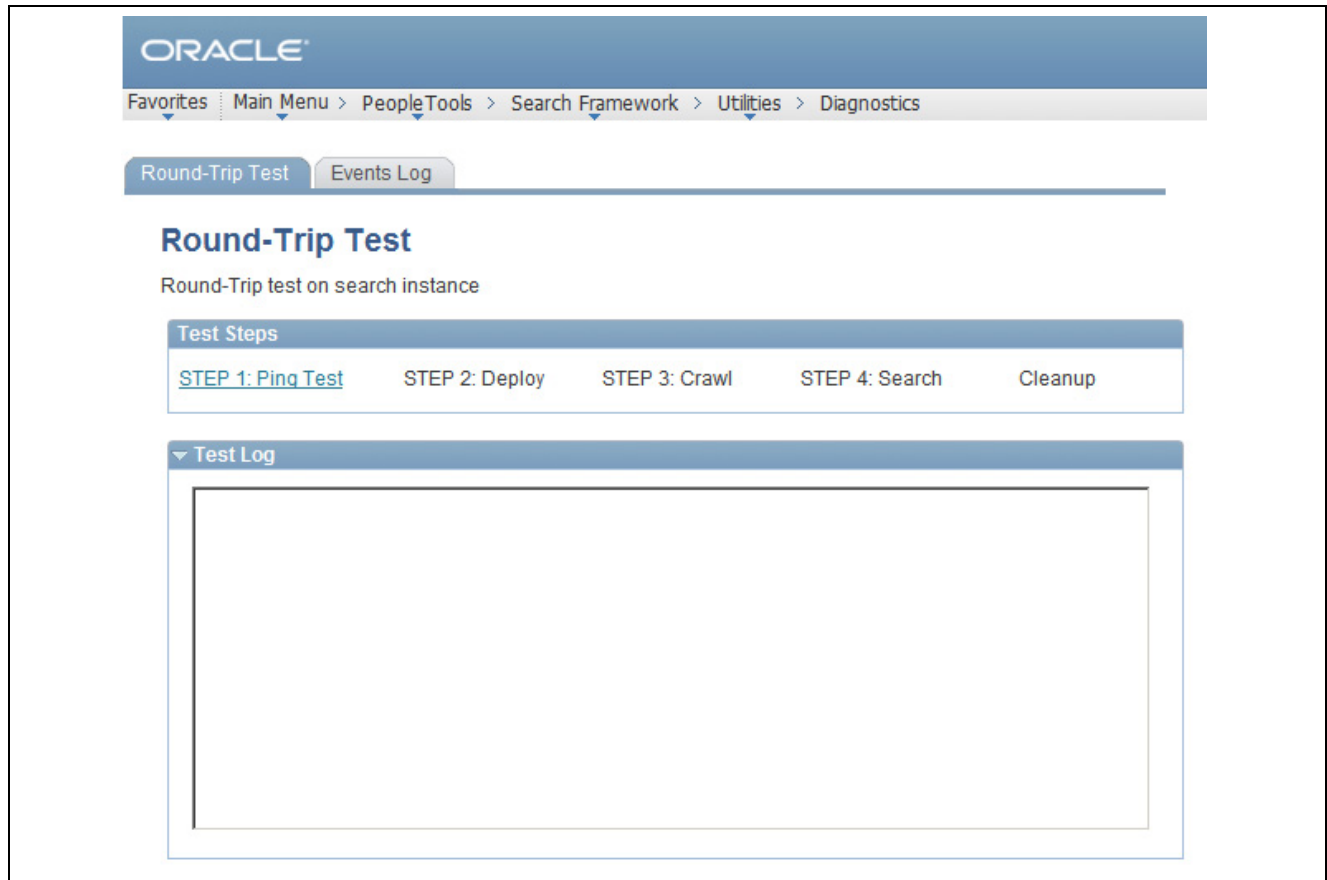
Select this link to use the information entered on this page to update the deployed definitions.

Task 11-7: Verifying PeopleSoft PeopleTools and SES Connectivity

To verify that the required elements are set up correctly on the PeopleTools side and that the PeopleTools system can connect to the SES instance, run a ping test against the SES server.

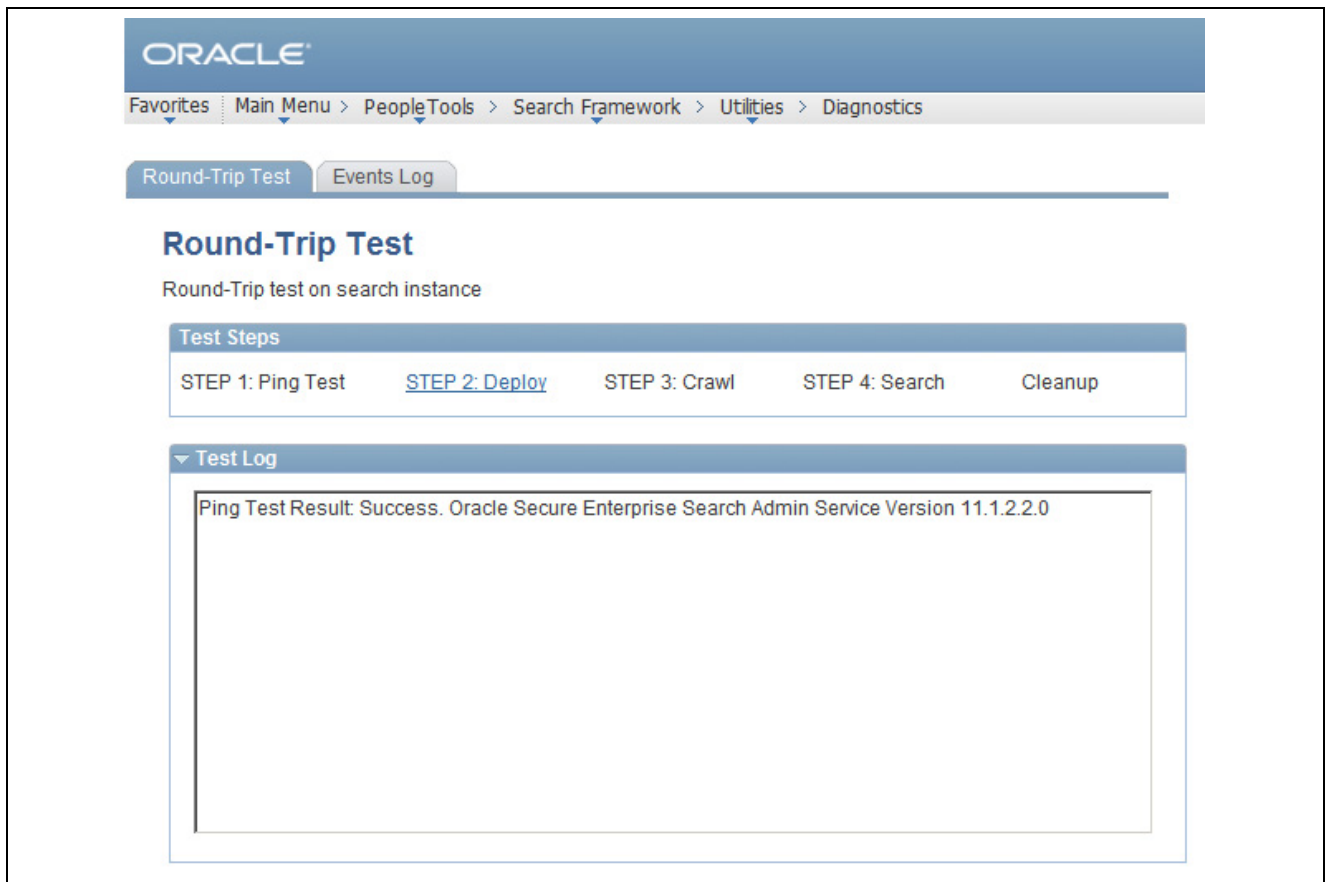
To run a ping test:

1. Select PeopleTools, Search Framework, Utilities, Diagnostics.



Round-Trip Test page

2. On the Round-Trip Test page, select STEP 1: Ping Test.
3. Ensure that the message received displays the current version of the SES admin service.
In this example, the version is Oracle Secure Enterprise Search Admin Service Version 11.1.2.2.0.



Round-Trip Test page showing successful ping test result

CHAPTER 12A

Installing and Compiling COBOL on Windows

This chapter discusses:

- Understanding COBOL
- Prerequisites
- Installing Micro Focus Net Express for Windows
- Using the Micro Focus COBOL Compiler on Microsoft Windows
- Installing IBM COBOL for Microsoft Windows
- Using the IBM COBOL Compiler on Microsoft Windows

Understanding COBOL

This chapter describes how to compile and link PeopleSoft COBOL batch programs, if necessary.

COBOL is not needed for PeopleSoft PeopleTools because the Process Scheduler is written in C++. In addition, COBOL is not required for applications that contain no COBOL programs. See My Oracle Support for the details on whether your application requires COBOL.

The chapter includes instructions for both Micro Focus Net Express COBOL compilers, referred to here as “Micro Focus COBOL”, and IBM Rational Developer for System z, referred to here as “IBM COBOL”.

See Also

"Preparing for Installation," Installing Supporting Applications

"PeopleSoft Enterprise Frequently Asked Questions About PeopleSoft and COBOL Compilers," My Oracle Support, (search for the article name)

"PeopleSoft Enterprise Frequently Asked Questions About PeopleSoft and the IBM COBOL Compiler," My Oracle Support, (search for the article name)

"COBOL: Installation, Versions, and Fixpacks" My Oracle Support, (search for the article name)

PeopleTools 8.52: Global Technology PeopleBook, "Running COBOL in a Unicode Environment"

Prerequisites

Before you attempt to run COBOL from the command line you should do the following:

- Make sure the variable PS_SERVER_CFG points to a valid pspres.cfg file.
- Make sure %PS_HOME%\bin\server\winx86 is in your path. It should appear before %PS_HOME%\bin\client\winx86 if that also appears in the path.

Task 12A-1: Installing Micro Focus Net Express for Windows

This section discusses:

- Prerequisites
- Obtaining Installation Files for Micro Focus Net Express from Oracle E-Delivery
- Installing Micro Focus Net Express
- Installing Micro Focus Net Express 5.1 Wrap Pack 4

Prerequisites

Micro Focus® Net Express™ 5.1 is the supported COBOL compiler on Microsoft Windows for PeopleSoft PeopleTools 8.52.

Check the certification information on My Oracle Support for the supported version for Microsoft Windows operating systems.

For PeopleSoft PeopleTools 8.52, Micro Focus Net Express 5.1 WrapPack 4 is supported on Microsoft Windows 2008 R2 and Microsoft Windows 7. On other supported Microsoft Windows operating systems, Micro Focus Net Express 5.1 is supported.

For Microsoft Windows 2008 R2 and Microsoft Windows 7: To install Micro Focus Net Express 5.1 WrapPack 4, you must first install Micro Focus Net Express 5.1 WrapPack 1 as the base, followed by Micro Focus Net Express 5.1 WrapPack 4.

For other supported Microsoft Windows operating systems: To install Micro Focus Net Express 5.1 WrapPack 4, you must first install Micro Focus Net Express 5.1 as the base, followed by Micro Focus Net Express 5.1 WrapPack 4.

To install and use Micro Focus Net Express you must have Microsoft Internet Explorer 6.0 or later installed.

See Also

Using the Micro Focus COBOL Compiler on Microsoft Windows

Task 12A-1-1: Obtaining Installation Files for Micro Focus Net Express from Oracle E-Delivery

The Micro Focus Net Express installation files are available on Oracle E-Delivery. At this point you may have already downloaded the necessary files. This section includes additional information on finding and using the files for Micro Focus Net Express if necessary.

See "Preparing for Installation," Using Oracle E-Delivery to Obtain Installation Files.

To obtain the files for the Micro Focus Net Express installation:

1. After logging in to Oracle E-Delivery, on the Media Search Pack page, select *PeopleSoft Enterprise* from the Select a Product Pack drop-down list.
Select the operating system you are running on from the Platform drop-down list, and click Go.
2. Select the radio button for Third Party - Micro Focus 5.1 for PeopleSoft Enterprise Media Pack and click Continue.
3. Download the software and documentation files for your Micro Focus Net Express 5.1 version as specified in the Prerequisites section, and save the zip files to a temporary directory on your local system.

The directory where you save the zip file is referred to in this documentation as *NE_INSTALL*. You must extract (unzip) the file on the platform for which it is intended. For example, if you download the zip file for Solaris, you must unzip it on Solaris to avoid problems. If you unzip the file to a staging directory on a Microsoft Windows computer and copy the staging directory to a Solaris, the stage area files may be corrupt.

Task 12A-1-2: Installing Micro Focus Net Express

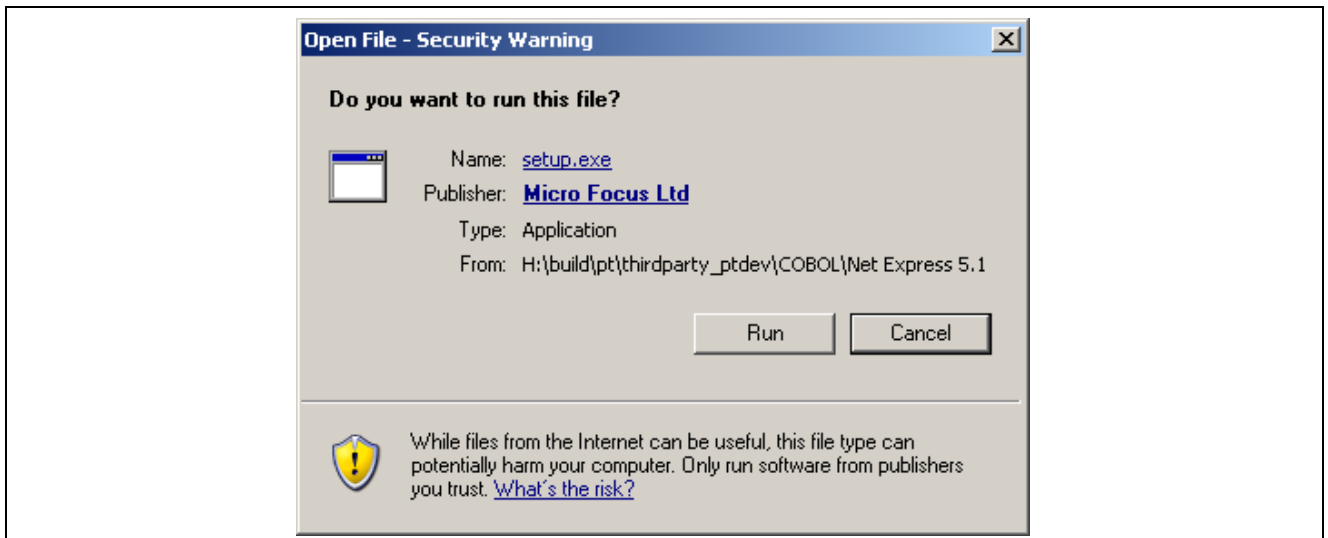
The following procedure assumes that you saved the installation files from Oracle E-Delivery in the directory *NE_INSTALL*.

Note. The installation of Micro Focus Net Express WrapPack 1 is similar to this procedure. The installation of Micro Focus Net Express WrapPack 4 is given in the next section.

To install Micro Focus Net Express:

1. Double-click *NE_INSTALL/setup.exe*.

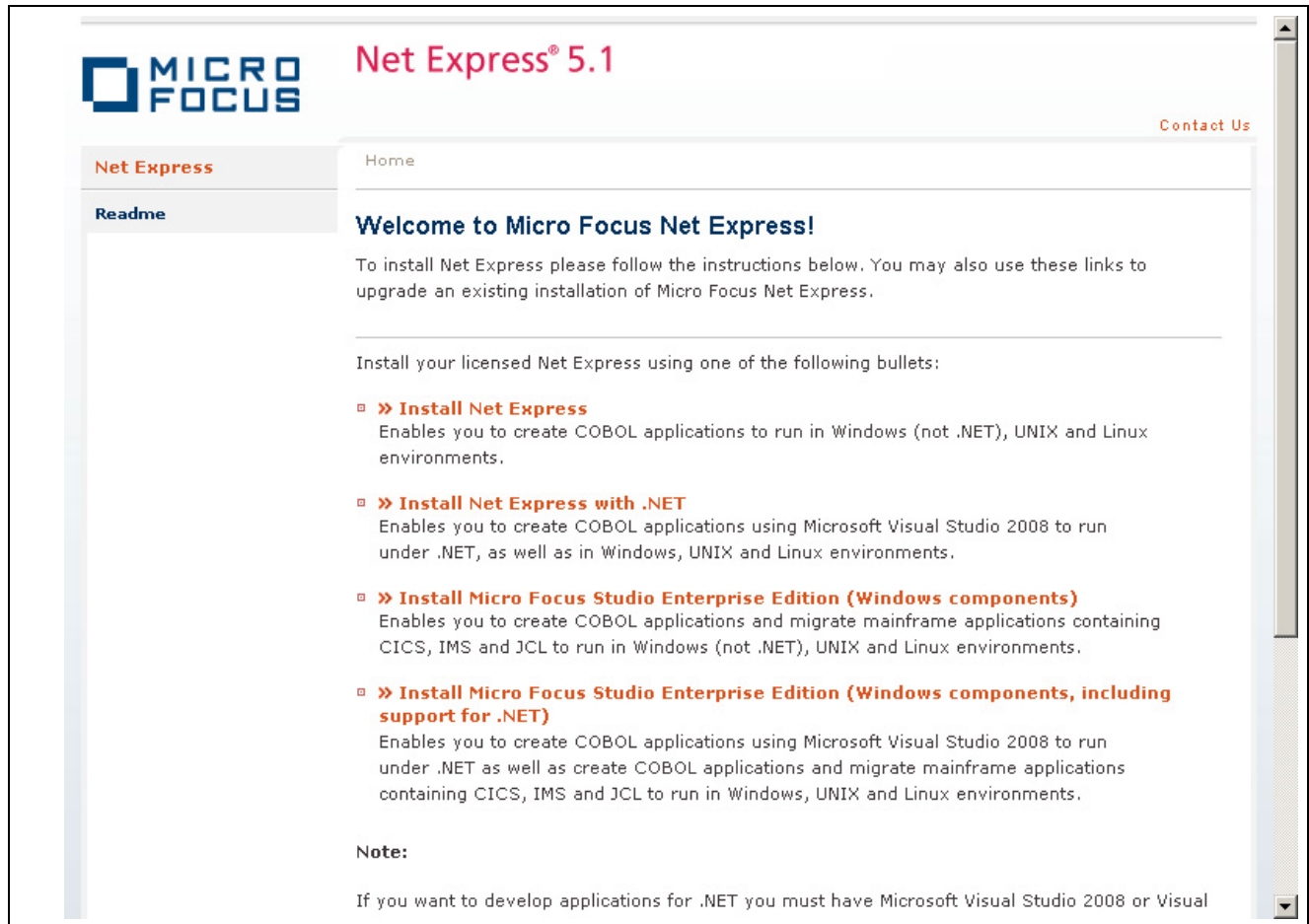
If a security screen appears, click Run to launch the installer.



Open File - Security Warning window

The installation opens a browser window.

2. Select the Install Net Express link in the Net Express 5.1 window.

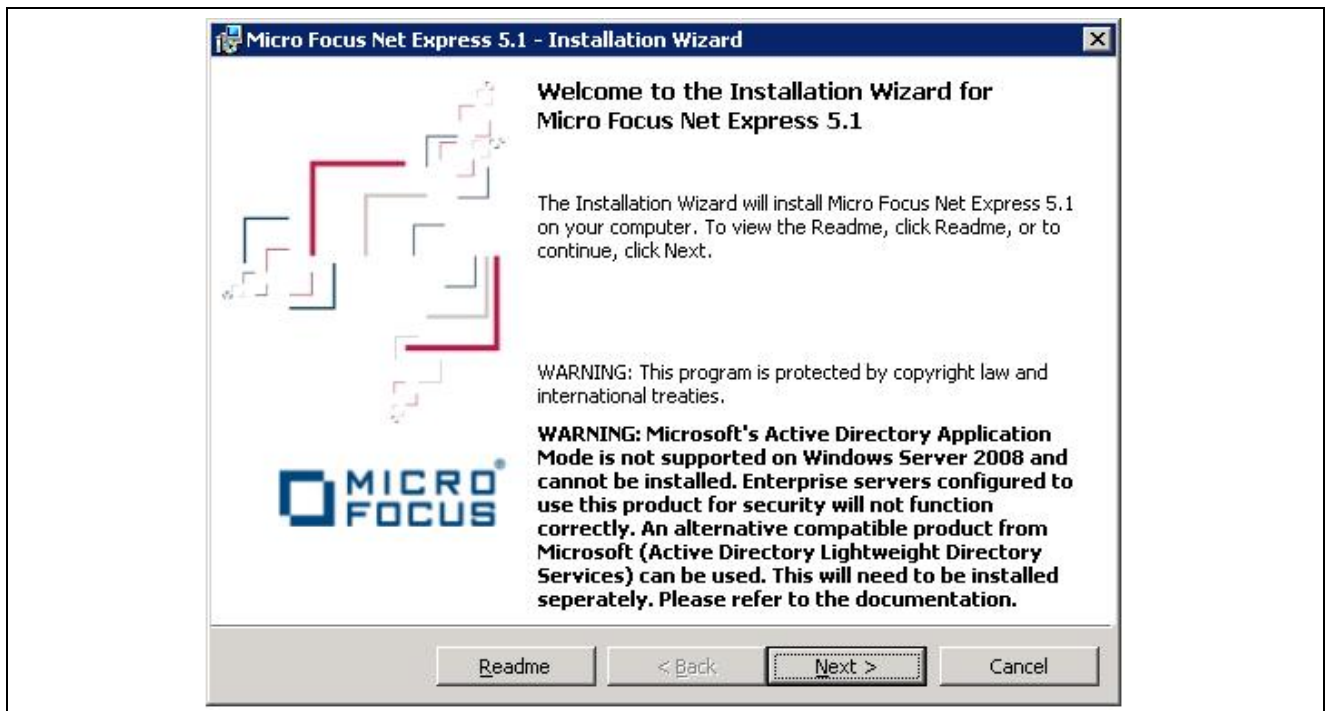


Micro Focus Net Express welcome window

The Install Shield Wizard starts extracting files. This may take a few minutes until the files are extracted, and then the Installation Wizard dialog box appears.

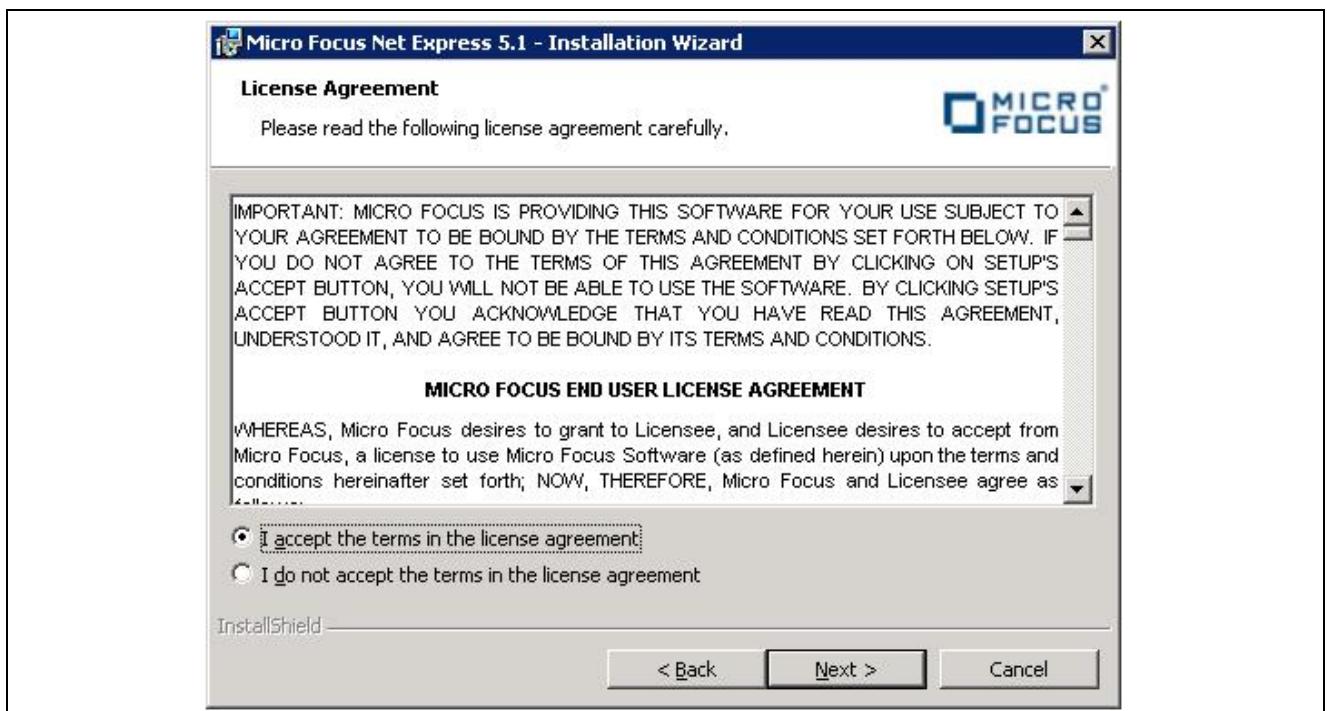
3. Click Next on the welcome screen.

The screen includes the text “To view the Readme, click Readme, or to continue, click Next.”



Micro Focus Net Express Installation Wizard Welcome window

4. Read the terms of the License Agreement, select the option to accept the terms, and click Next.

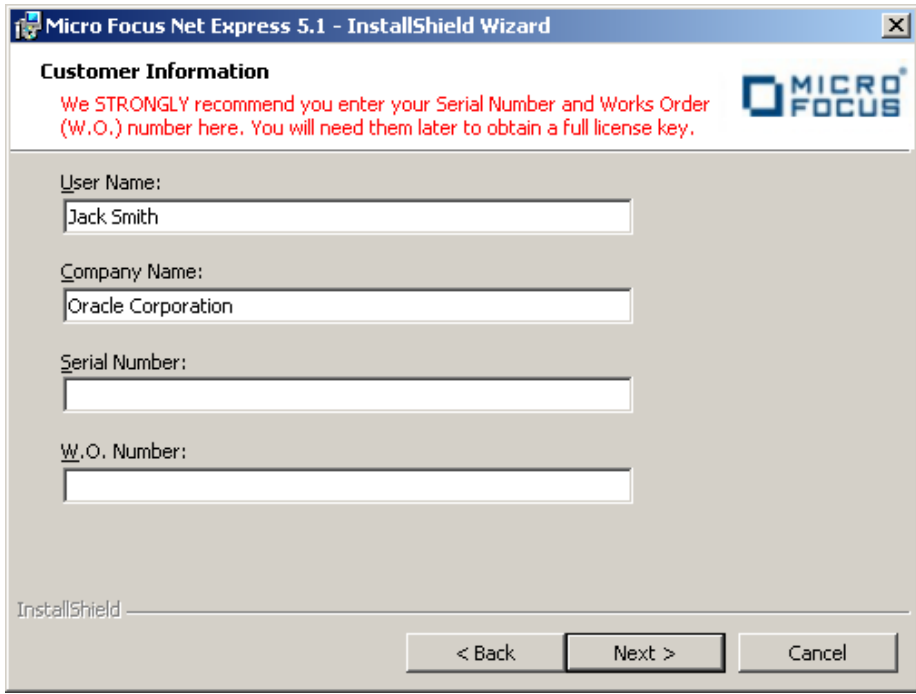


License Agreement window

5. Complete the Customer Information window:
 - a. Enter your name in the User Name field, and enter your Company Name.
 - b. Leave the Serial Number and W.O. Number fields blank. Oracle does not provide these numbers to you and they are not required.

Note. The message at the top of the window reads “We STRONGLY recommend you enter your Serial Number and Works Order (W.O.) number here. You will need them later to obtain a full license key.” The example below leaves these field blank.

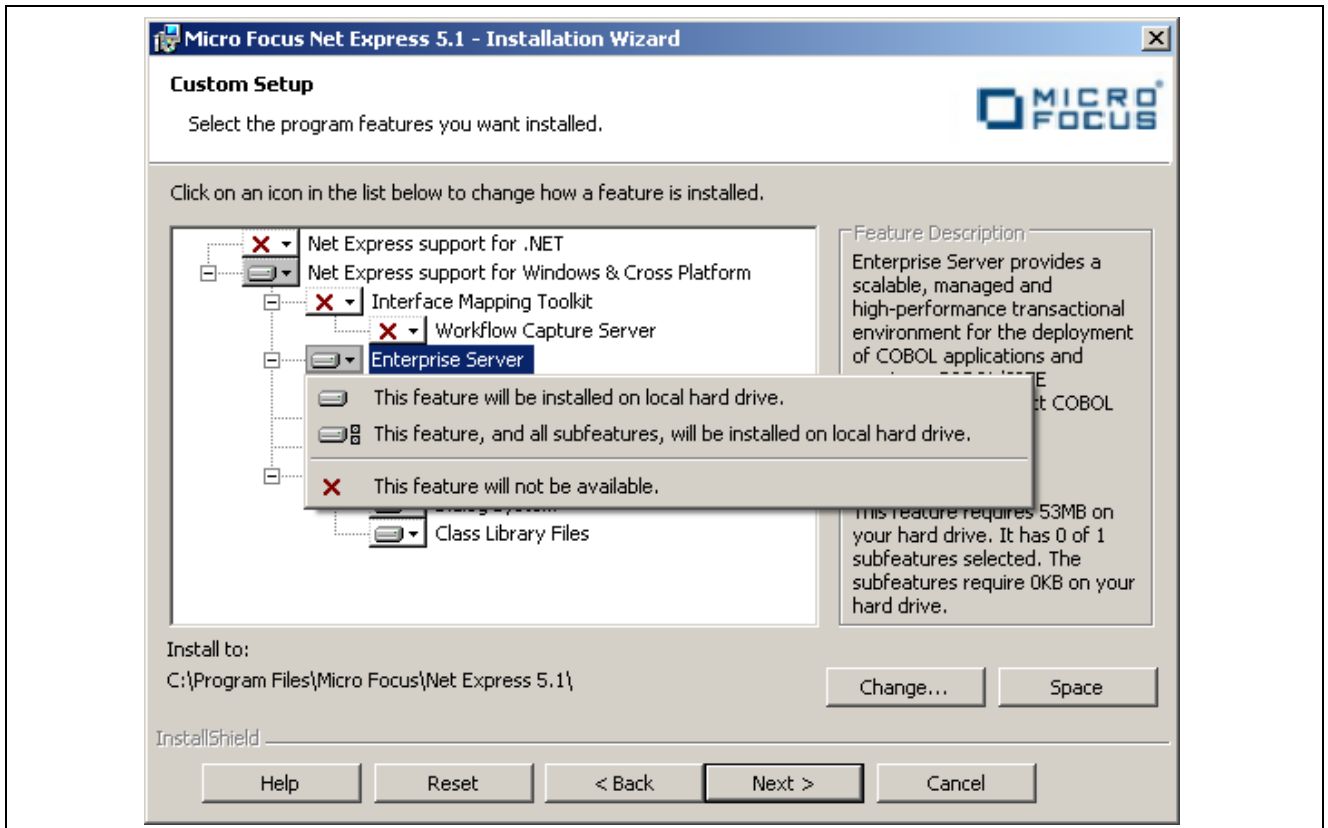
c. Click Next.

The screenshot shows a Windows-style dialog box titled "Micro Focus Net Express 5.1 - InstallShield Wizard". The window has a blue title bar with standard minimize, maximize, and close buttons. The main content area is titled "Customer Information" in bold. Below the title, a red message states: "We STRONGLY recommend you enter your Serial Number and Works Order (W.O.) number here. You will need them later to obtain a full license key." To the right of this message is the Micro Focus logo. The form contains four input fields: "User Name:" with the text "Jack Smith", "Company Name:" with the text "Oracle Corporation", "Serial Number:" which is empty, and "W.O. Number:" which is also empty. At the bottom of the window, there is a status bar that says "InstallShield" and three buttons: "< Back", "Next >", and "Cancel".

Customer Information window

6. You must clear several features on the Custom Setup window before proceeding.

You can turn off a feature by clicking on the drop-down button beside the feature and selecting the option X This feature will not be available, as shown in this example:



Custom Setup window

The Traditional Graphical User Interfaces feature is the only feature required for the PeopleSoft installation. Clear the following features:

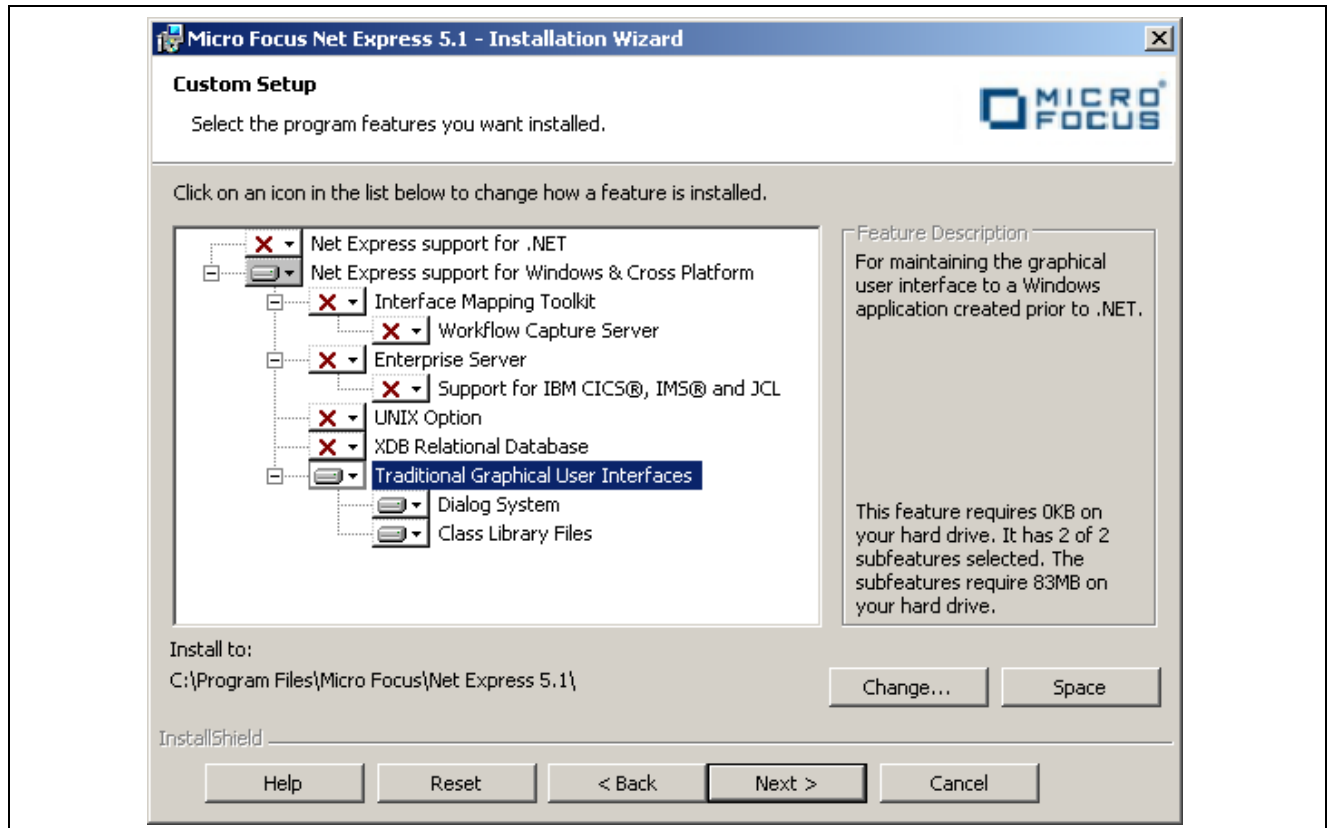
Note. Microsoft .NET framework is not required for compiling and running COBOL applications in PeopleSoft architecture. Neither is .NET required for successful installation of MicroFocus Net Express 5.1.

- Net Express support for .NET
- Interface Mapping Toolkit

When you clear this feature, the Workflow Capture Server option is automatically cleared also.

- Enterprise Server
- UNIX Option
- XDB Relational Database

7. Verify that your final selection matches this example:



Custom Setup window with options selected for PeopleSoft applications

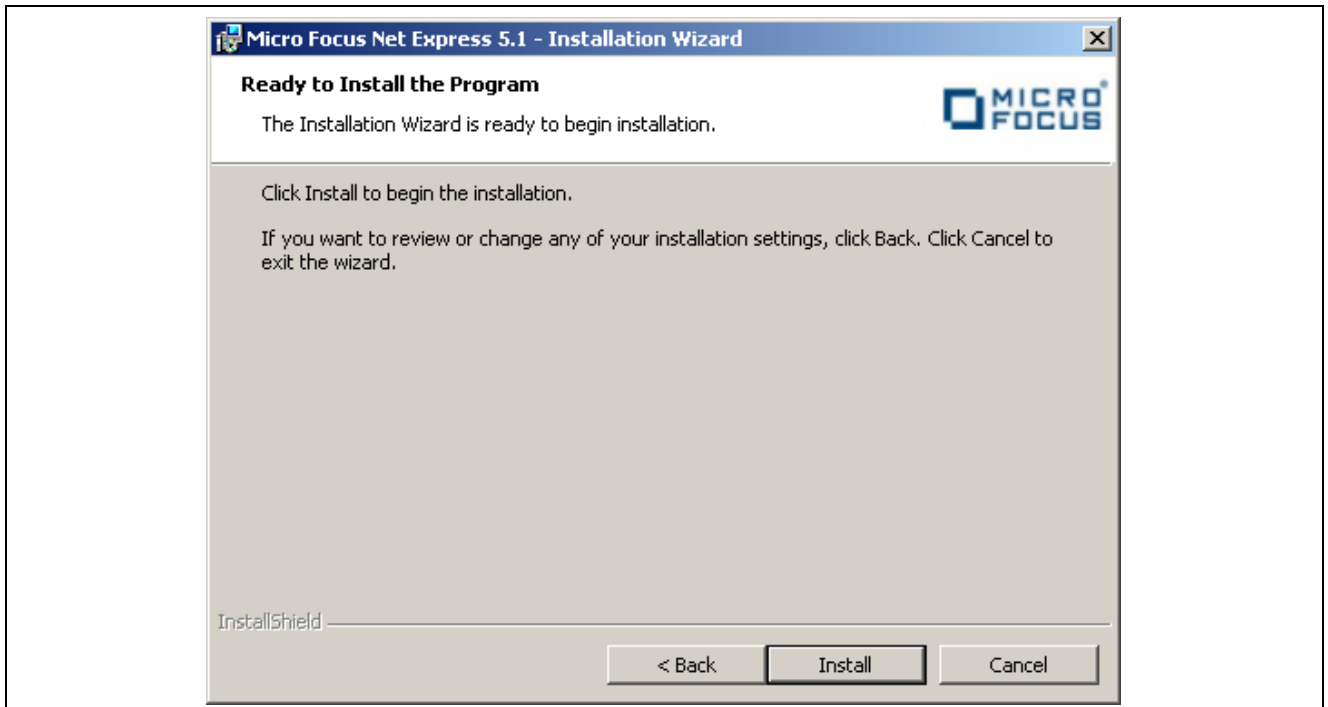
8. Highlight Traditional Graphical User Interfaces.

The default installation directory is displayed below the feature list. If you want to install to another location, click Change. If not, click Next.

The Micro Focus Net Express 5.1 default installation directory is:

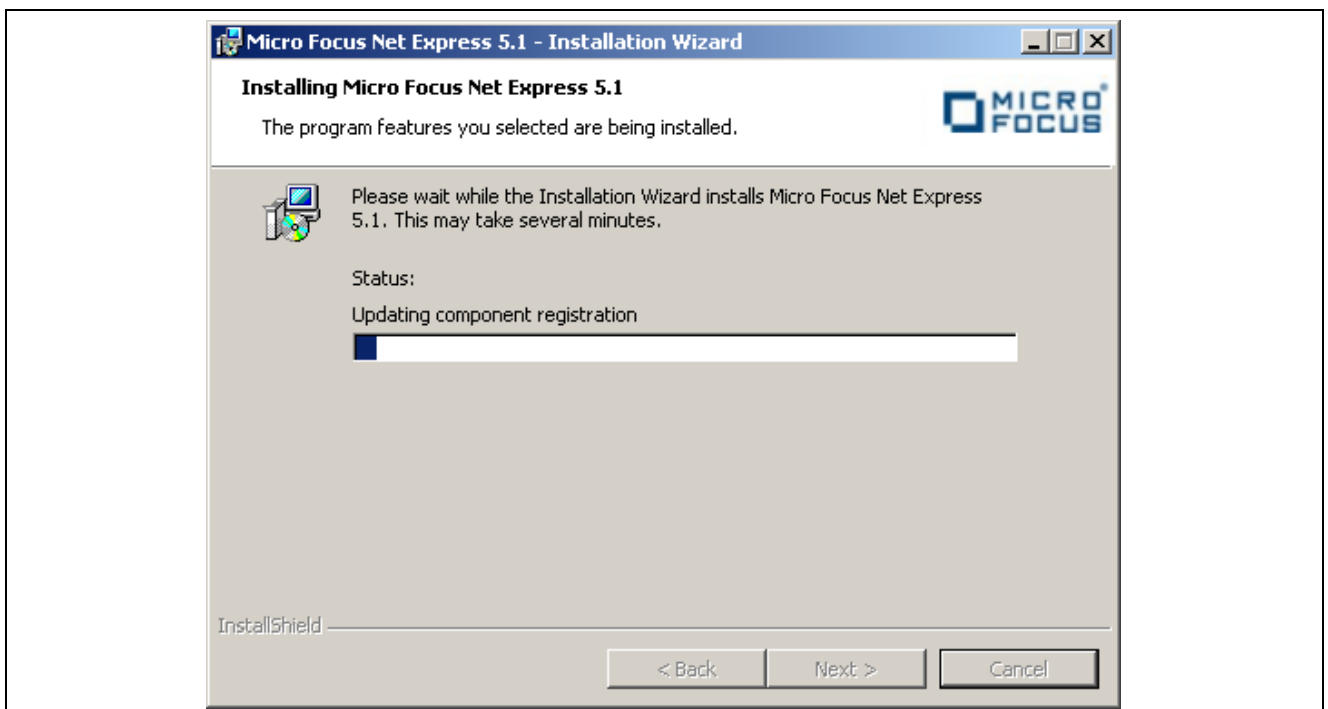
- For 32-bit systems:
C:\Program Files\Micro Focus\Net Express 5.1
- For 64-bit systems:
C:\Program Files (x86)\Micro Focus\Net Express 5.1

9. Click Install.



Ready to Install window

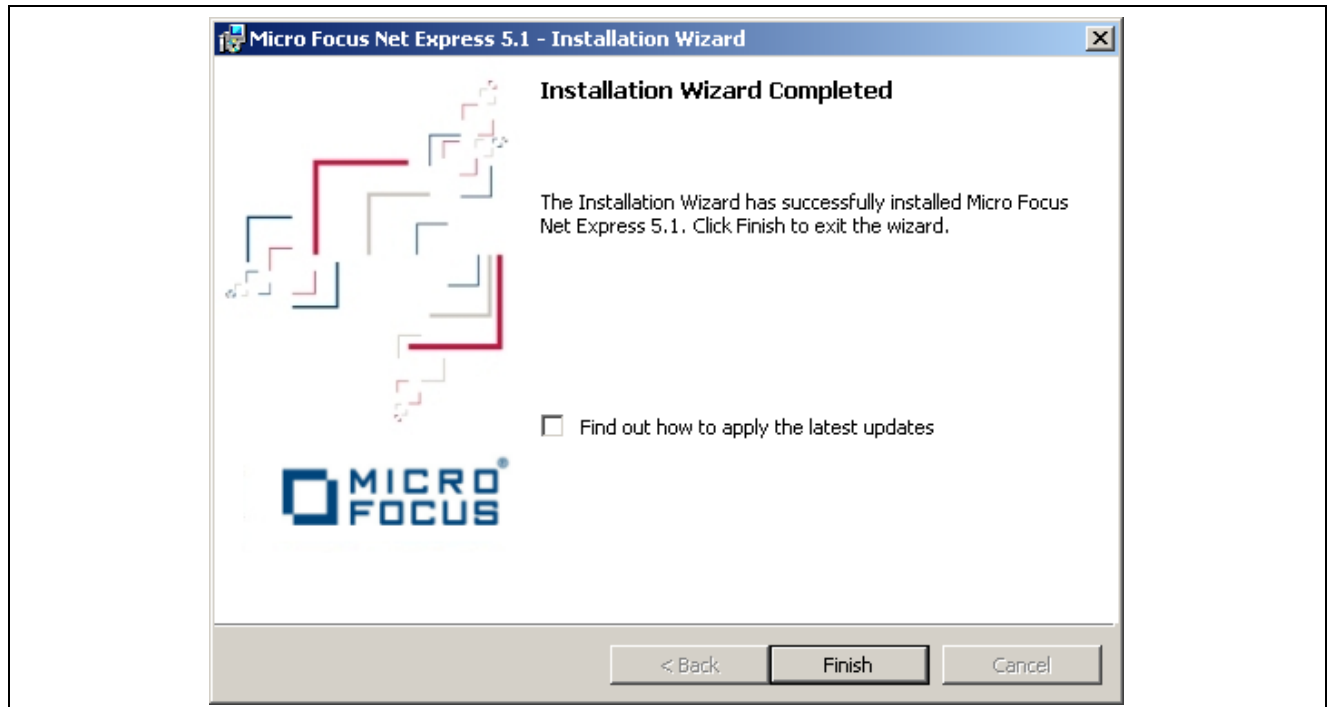
The installation status window appears tracking the installation progress.



Installation Status window

10. Click Finish.

Now you are ready to use Micro Focus Net Express 5.1 COBOL Compiler.



Installation Wizard Completed window

Task 12A-1-3: Installing Micro Focus Net Express 5.1 Wrap Pack 4

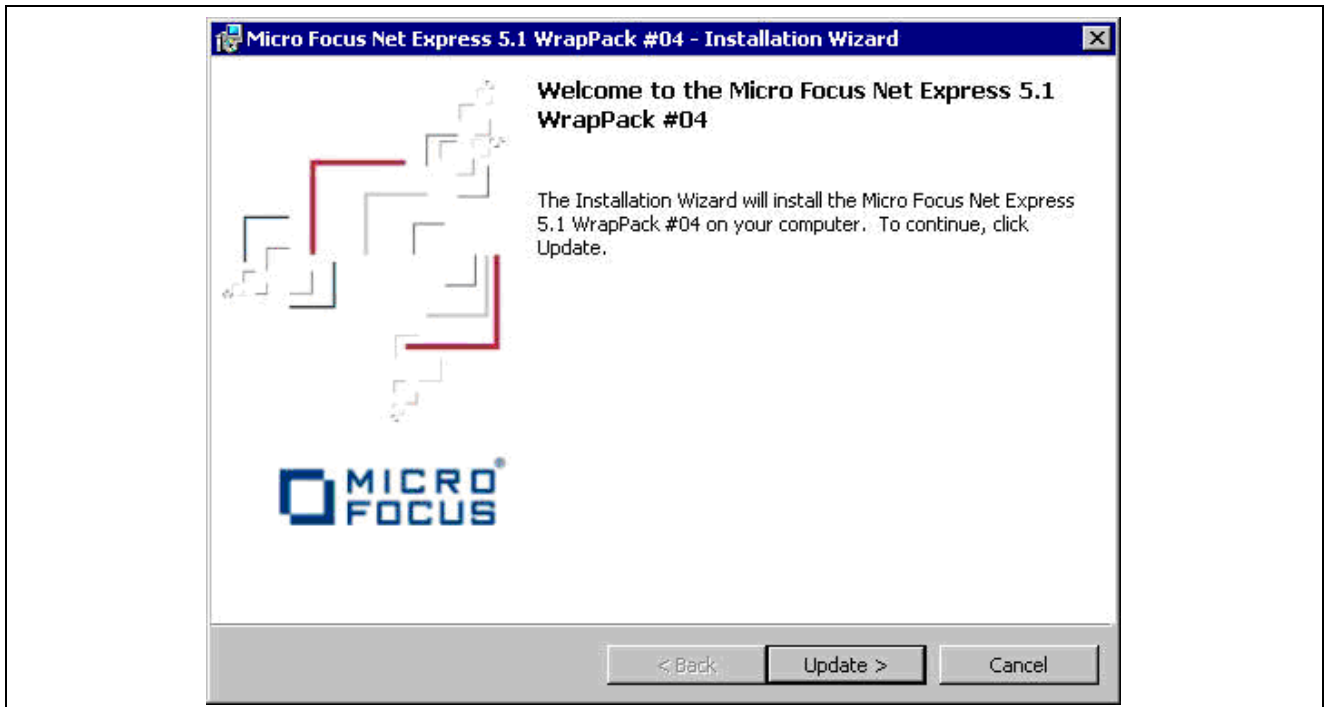
Before installing this wrap pack, make sure you meet the following requirements:

- You have downloaded and extracted the necessary files to a convenient directory referred to here as *NE_INSTALL*.
See Obtaining Installation Files for Micro Focus Net Express from Oracle E-Delivery.
- You have installed Micro Focus Net Express 5.1.
See Installing Micro Focus Net Express.
- You have verified that Micro Focus Security Pack is *not* installed on your system.
- You have verified that Net Express support for .NET Framework is *not* installed on your system.

Important! Micro Focus Security Pack and Net Express support for .NET supplied with Net Express 5.1 are *not* required by PeopleSoft installation of the Micro Focus Net Express COBOL compiler. If they have been installed on your system, be sure to remove the installation before proceeding with the Wrap Pack 4 installation.

To install Micro Focus Net Express 5.1 Wrap Pack 4:

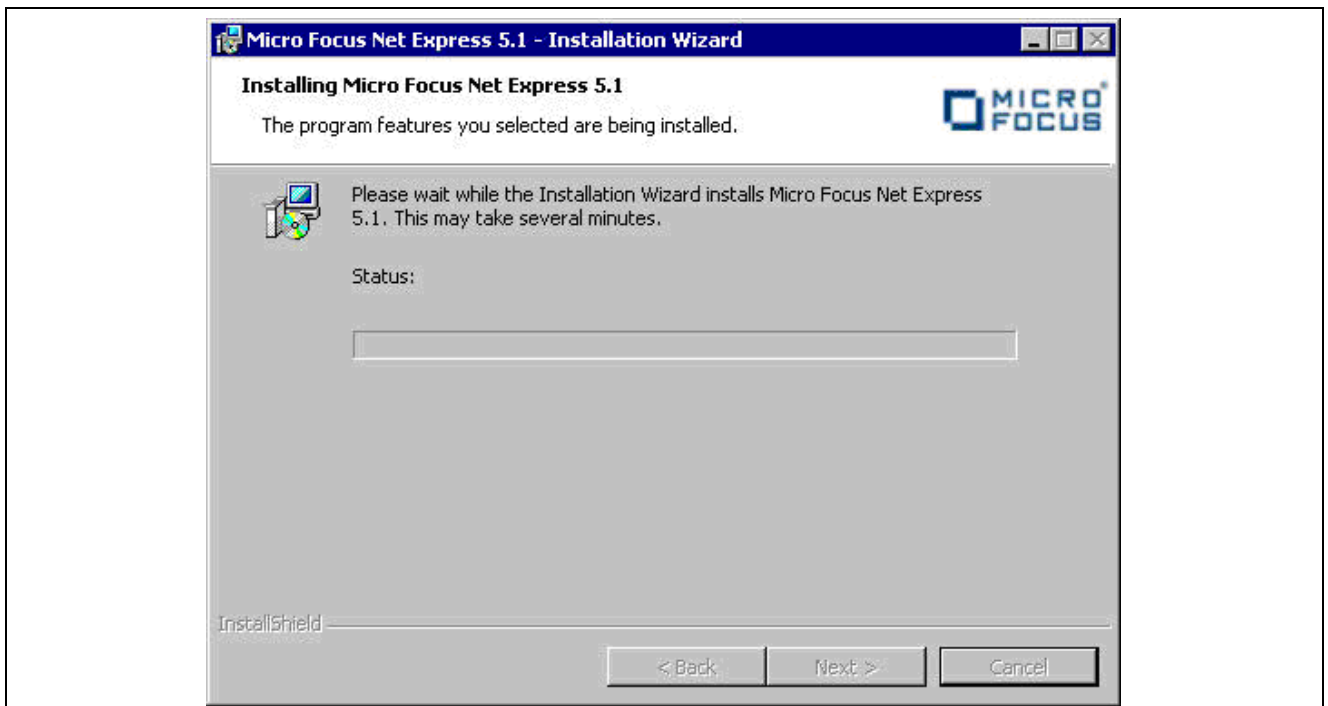
1. Go to *NE_INSTALL* and double-click the file *npx3251040083.msp*.
2. If a security screen appears, click Open to launch the installer.
3. Click Update on the welcome window.



Micro Focus Net Express 5.1 WrapPack 4 Installation Wizard welcome window

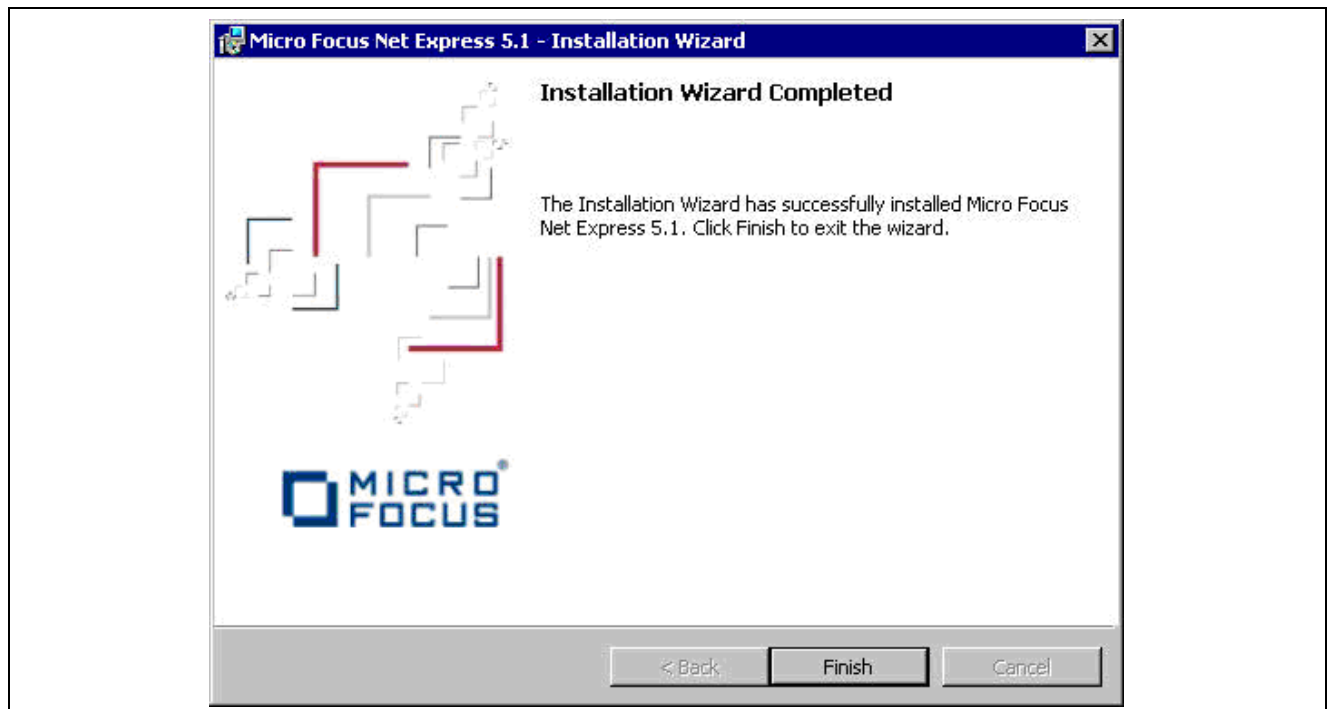
4. Wait while the installation proceeds.

Note. This may take several minutes.



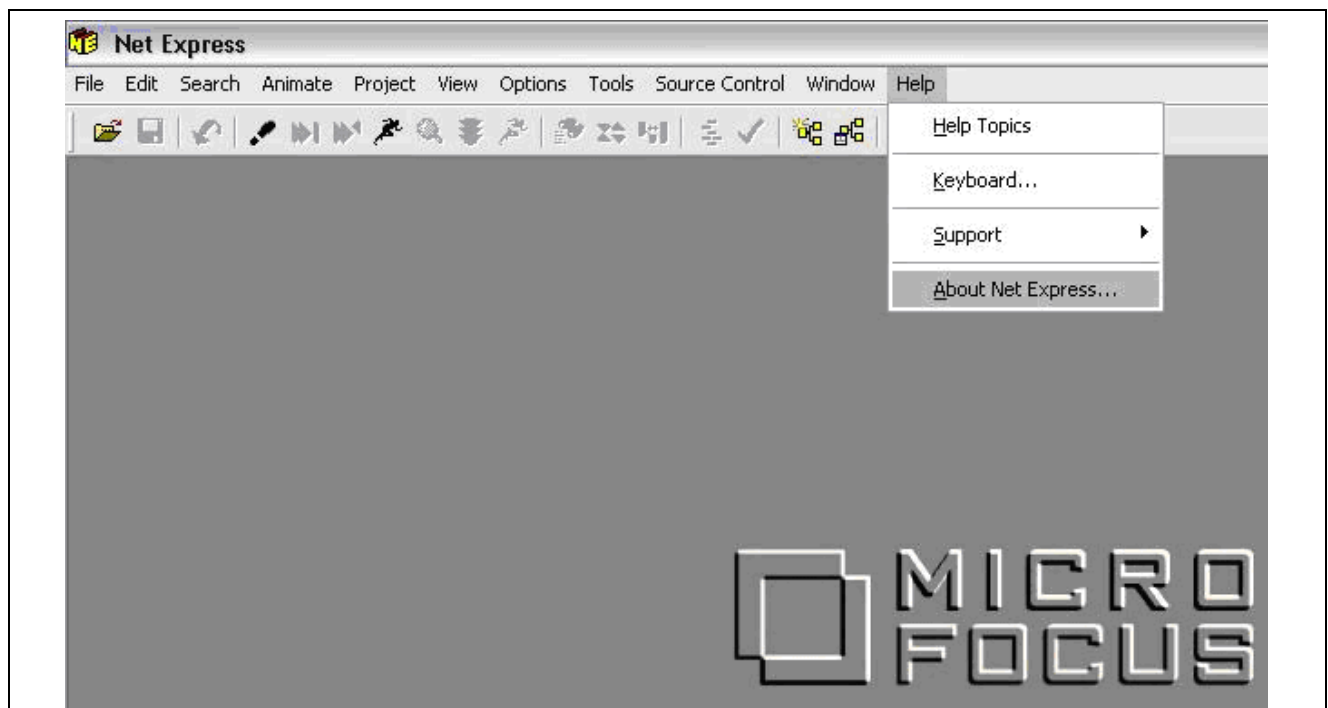
Micro Focus Net Express 5.1 WrapPack 4 Installation status window

5. Click Finish on the installation complete window.



Micro Focus Net Express 5.1 WrapPack 4 Installation Complete window

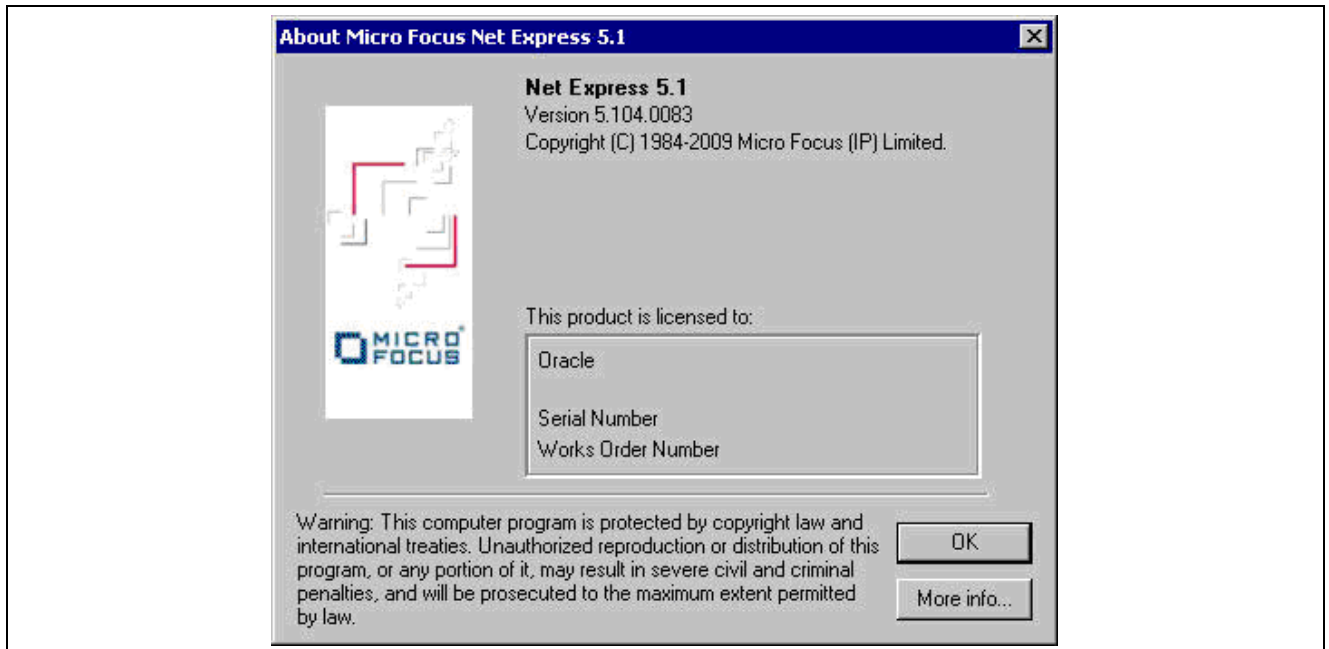
6. To confirm the installation, select Start, Programs, Micro Focus Net Express 5.1, Net Express.
The Net Express Integrated Development Environment appears.
7. Click Help, About Net Express.



Micro Focus Net Express Integrated Development Environment

8. Verify that the following information is included on the window that appears:
Net Express 5.1

Version: 5.104.0083



About Micro Focus Net Express 5.1 window

Task 12A-2: Using the Micro Focus COBOL Compiler on Microsoft Windows

This section discusses:

- Understanding COBOL Compilation
- Compiling with CBLBLD.BAT When PS_APP_HOME is the Same as PS_HOME
- Compiling with CBLMAKE.BAT When PS_APP_HOME is the Same as PS_HOME
- Compiling with CBLBLD.BAT When PS_APP_HOME is Different from PS_HOME
- Compiling with CBLMAKE.BAT When PS_APP_HOME is Different from PS_HOME
- Defining the GNT and INT Files
- Distributing COBOL Binaries

Understanding COBOL Compilation

With PeopleSoft PeopleTools 8.50 and higher, your COBOL always needs to be compiled on Microsoft Windows. (This is a change from previous versions of PeopleSoft PeopleTools, which delivered compiled COBOL for Microsoft Windows.) This chapter assumes that you are carrying out the compile process from your file server. (The COBOL compiler itself doesn't need to be on the file server, as long as the user can write to the file server and can link to the src and bin directories.) The recommended approach for the PeopleSoft installation is to use CBLBLD.BAT to compile all your COBOL source files at once. Another alternative is CBLMAKE.BAT, which you can use to compile selected COBOL files.

This section includes different procedures depending upon how you set up your installation environment.

See "Preparing for Installation," Defining Installation Locations.

If you installed the PeopleSoft Application software to a *PS_APP_HOME* location that is the same as the *PS_HOME* location where you installed PeopleSoft PeopleTools 8.52, follow the instructions in these sections:

- Compiling with CBLBLD.BAT When *PS_APP_HOME* is the Same as *PS_HOME*
- Compiling with CBLMAKE.BAT When *PS_APP_HOME* is the Same as *PS_HOME*
- Defining the GNT and INT Files

Note. The same task is used for both installation configurations.

If you installed the PeopleSoft Application software to a *PS_APP_HOME* location that is different from the *PS_HOME* location where you installed PeopleSoft PeopleTools 8.52, follow the instructions in these sections:

- Compiling with CBLBLD.BAT When *PS_APP_HOME* is Different from *PS_HOME*
- Compiling with CBLMAKE.BAT When *PS_APP_HOME* is Different from *PS_HOME*
- Defining the GNT and INT Files

Note. The same task is used for both installation configurations.

Make certain to check whether you need to apply any late-breaking patches.

See My Oracle Support, Patches & Updates.

Task 12A-2-1: Compiling with CBLBLD.BAT When *PS_APP_HOME* is the Same as *PS_HOME*

To compile COBOL with CBLBLD.BAT:

1. Set up two environment variables, *%PS_HOME%* and *%COBROOT%*, on the machine from which you'll compile COBOL. (This should be either your file server or a machine that has access to your file server.)

You can do this from a command prompt window. This table gives the environment variables and their purposes.

Environment Variable	Purpose
<i>PS_HOME</i>	PeopleSoft home directory—that is, the drive letter and high-level PeopleSoft directory where you installed PeopleTools and the application.
<i>COBROOT</i>	Drive letter and root directory of the COBOL compiler.

For example, you could enter the following at the DOS command prompt:

```
set PS_HOME=C:\hr840
set COBROOT="C:\Program Files\Micro Focus\Net Express 5.1\base"
```

2. Open a command prompt window if you do not have one open already, and change directories to *PS_HOME\setup*.
3. Execute CBLBLD.BAT as follows:

```
cblbld <compile drive> <compile directory>
```

In this command, <compile drive> is the drive where the compile takes place, <compile directory> is the temp directory where the compile takes place

The CBLBLD.BAT file will create the compile directory for you if it does not already exist.

Note. Make sure to include a space between the <compile drive> and <compile directory> parameters; they are treated as two different parameters within the CBLBLD.BAT batch program. Also ensure that you have write permission to <compile drive> and <compile directory> as the compile process will take place there.

For example, the following command will take the COBOL source from *PS_HOME*\src\cbl and do the compile process under c:\temp\compile:

```
cblbld c: \temp\compile
```

Make note of the information that is displayed on the screen while the process is running; it provides the locations of important files that you will need to examine.

4. After you have successfully compiled your source code, all of the executables should have been placed in your <PS_HOME>\CBLBIN<X> directory (this directory will be named CBLBINA, CBLBINU, or CBLBINE, depending on whether you are using ANSI, Unicode or EBCDIC). Make sure that all of the files were copied correctly to this directory.
5. If the files were copied correctly, you can delete the entire temporary compile directory to free space on your disk drive.

Note. You may want to keep the files in the compile directory for testing purposes. Make sure that you have enough space on the drive where <compile directory> is located. Estimate about three times the amount in the <PS_HOME>\CBLBIN<X> directory.

Note. If you chose the Unicode option while running the PeopleSoft Installer, the file UNICODE.CFG was created in the setup directory. UNICODE.CFG automatically triggers the batch file CBL2UNI.BAT when you run CBLBLD.BAT. Another batch file, CBLRTCPY.BAT, copies four DLLs (CBLINTS.DLL, CBLRTSS.DLL, CBLVIOS.DLL, COB32API.DLL) from the Microfocus compiler directory (identified by %COBROOT% setting) into the appropriate CBLBIN directory (CBLBINA, CBLBINU, or CBLBINE) when you run CBLBLD. These files are needed for COBOL to run; they can reside anywhere as long as they are in the path. You can run either of these BAT files independently from the command line (they reside in *PS_HOME*\setup). For CBLRTCPY.BAT you need to specify a target directory.

Task 12A-2-2: Compiling with CBLMAKE.BAT When PS_APP_HOME is the Same as PS_HOME

CBLBLD.BAT compiles all your COBOL source files at once, which can take a lot of time. CBLMAKE.BAT, in contrast, lets you employ one or more parameters to compile a specific COBOL file or a selected group of COBOL files. Unlike CBLBLD.BAT, however, CBLMAKE.BAT does not automatically trigger the batch file CBL2UNI.BAT or CBLRTCPY.BAT.

Here is the basic syntax for CBLMAKE.BAT:

```
CBLMAKE.BAT [] [ALL] [wildcard filename[ALL]] [wildcard filename | wildcard⇒
filename without extension[INT | GNT | EXE]] [EBCDIC] [LIST]
```

Note. The switches are well documented in the CBLMAKE.BAT file in the form of comments.

Note. If the change in the COBOL source is a copy member, you must compile all of the COBOL programs using CBLBLD.BAT. You know it is a copy member when the third letter in the file name is a C, as in PTCSQLRT.CBL.

The following table describes the various options for CBLMAKE.BAT.

Option	Purpose
Cblmake	Compiles all source
Cblmake all	Compiles all source
Cblmake EBCDIC	Compiles all source files for DB2 for z/OS
Cblmake PT*	Compiles all source files that start with PT
Cblmake PT* ALL	Compiles all source files that start with PT
Cblmake PT* INT	Generates INT files for all source files that start with PT
Cblmake PT* GNT	Generates GNT files for all source files that start with PT
Cblmake PT* EXE	Generates EXE files for all source files that start with PT
Cblmake PTPDBTST INT	Generates PTPDBTST.INT file
Cblmake PTPDBTST INT LIST	Generates PTPDBTST.INT and source listing file
Cblmake PTPDBTST GNT	Generates PTPDBTST.GNT file
Cblmake PTPDBTST EXE	Generates PTPDBTST.EXE file

The LIST option creates a source listing file under *<compile directory>\<filename>.lis*. The LIST option is useful when the compile fails during the debugging phase. The source listing files show exactly where an error occurred. This option is not recommended when the program compiles successfully because the .LIS files can grow to be quite large.

Note. By default, when the program fails to compile, the system will generate a .LIS file.

To compile with CBLMAKE.BAT:

1. Verify that the %PS_HOME% and %COBROOT% environment variables are set up correctly.
2. Open a command prompt window.
3. Make sure the compile directory exists; it may already if you've run CBLBLD.BAT. If it does exist, remove any files residing there—just as a safeguard. If it does not exist, you need to create it.

Note. Make sure you have write permission to *<compile directory>* as the compile process will take place there.

4. Change to the *PS_HOME\setup* directory.
5. If the installation is Unicode, run CBL2UNI (with no parameters).
6. Execute the following command to copy all the COBOL source files from the *PS_HOME* directory to the compile directory:

```
cblsrc <source directory> <compile directory>
```

where *<source directory>* is the drive and directory where the source resides (it should be the same as *PS_HOME*), and *<compile directory>* is the drive and directory to which the source files will be copied.

For example, the following command will take the COBOL source from *PS_HOME* and copy all the necessary files to the location where the compile process will take place.

```
cblsrc PS_HOME c:\temp\compile
```

If the COBOL source that will be compiled is different from the one under *PS_HOME*, copy that COBOL source to *<compile directory>*.

Note. The compile in the next step will generate a GNT file unless the exception file, CBLINT.XX already exists (the XX represents the Product ID). CBLINT.XX contains the list of files that need to be compiled to the INT file. Make sure the intended CBLINT.XX is located under *<compile directory>* before executing CBLMAKE.

7. After CBLSRC completes, change directories to the compile directory, and run CBLMAKE.BAT, using the basic syntax as well as the CBLMAKE table shown earlier as your guide.
8. After CBLMAKE.BAT completes, copy the EXE, GNT, or INT files to the appropriate *PS_HOME\CBLBINX* directory (CBLBINA, CBLBINU, or CBLBINE).

```
copy *.exe PS_HOME\cblbina
copy *.gnt PS_HOME\cblbina
copy *.int PS_HOME\cblbina
```

Note. You have to copy these files to the appropriate cblbin directory manually when you use CBLMAKE; they are not copied automatically, as when you use CBLBLD.

Task 12A-2-3: Compiling with CBLBLD.BAT When PS_APP_HOME is Different from PS_HOME

The usage for running CBLBLD.BAT is:

```
cblbld <compile drive> <compile directory> [BUILD_option] [BUILD_home]
```

Substitute the appropriate values as follows:

- *<compile drive>*
Enter the drive letter for the drive containing the directory where the compile takes place.
- *<compile directory>*
Enter the directory where the compile takes place. Be sure to include a space between *<compile drive>* and *<compile directory>*.
- BUILD_option
The allowed values are nothing (blank), ASCII, EBCDIC, or Unicode.
BUILD_option refers to the encoding scheme of your PeopleSoft installation. This parameter is optional.
- BUILD_home
The allowed values are nothing (blank), ps_home or ps_app_home. The values ps_home and ps_app_home are case-sensitive.

BUILD_home refers to the directory from which the COBOL source files will be compiled. If the option is `ps_home`, the COBOL source files placed under `%PS_HOME%\src\cbl` will be compiled. If the option is `ps_app_home`, the COBOL source files placed under `%PS_APP_HOME%\src\cbl` will be compiled. If the option is blank, the COBOL source files under `%PS_HOME%\src\cbl` and COBOL source files under `%PS_APP_HOME%\src\cbl` will be compiled one after the other.

This parameter is optional.

To compile COBOL sources on Microsoft Windows:

1. In a command prompt, set the environment variables described in this table:

Environment Variable	Purpose
PS_HOME	PeopleSoft PeopleTools home directory—that is, the drive letter and high-level directory where you installed PeopleSoft PeopleTools.
COBROOT	Drive letter and root directory of the COBOL compiler.
PS_APP_HOME	PeopleSoft Application home directory—that is, the drive letter and high-level directory where you installed the PeopleSoft Application.

For example:

```
set PS_HOME=C:\PTcompile
set COBROOT="C:\Program Files\Micro Focus\Net Express 5.1\base"
set PS_APP_HOME=C:\HRcompile
```

2. Change directory to `PS_HOME\setup`:

```
cd %PS_HOME%\setup
```

3. Run CBLBLD.BAT, using one of these methods:

- To compile all the COBOL source files under your PeopleSoft application, that is, all PeopleSoft PeopleTools source files and all PeopleSoft Application source files, run this command:

```
cblbld <compile drive> <compile directory>
```

For example:

```
cblbld c: \temp\PTcompile
```

- To compile only PeopleSoft PeopleTools COBOL source files, run this command:

```
cblbld <compile drive> <compile directory> ps_home
```

For example:

```
cblbld c: \temp\PTcompile ps_home
```

- To compile only PeopleSoft Application COBOL source files, run this command:

```
cblbld <compile drive> <compile directory> ps_app_home
```

For example:

```
cblbld c: \temp\HRcompile ps_app_home
```

PeopleSoft PeopleTools COBOL compiled executables will be placed under the `<PS_HOME>\CBLBIN<X>` directory. PeopleSoft Application COBOL compiled executables will be placed under the `<PS_APP_HOME>\CBLBIN<X>` directory. CBLBIN<X> will be one of the following:

- CBLBINA if you are using ANSI encoding scheme
- CBLBINU if you are using Unicode encoding scheme
- CBLBINE if you are using EBCDIC encoding scheme

Task 12A-2-4: Compiling with CBLMAKE.BAT When PS_APP_HOME is Different from PS_HOME

CBLBLD.BAT compiles all your COBOL at once, which can take a lot of time. CBLMAKE.BAT, in contrast, lets you employ one or more parameters to compile a specific COBOL file or a selected group of COBOL files. The procedure is slightly different depending upon whether the file that you want to compile is a PeopleSoft Application or PeopleSoft PeopleTools COBOL file. Both procedures are covered in this section.

Note. The options for CBLMAKE.BAT are defined in a table in the previous section Compiling with CBLMAKE.BAT When PS_APP_HOME is Different from PS_HOME.

To compile a PeopleSoft Application COBOL file with CBLMAKE.BAT:

1. Open a command prompt window.
2. Verify that the PS_HOME, COBROOT, and PS_APP_HOME environment variables are set, as previously defined.

See Compiling with CBLBLD.BAT When PS_APP_HOME is Different from PS_HOME.

3. Verify that the environment variable PS_compile_apps is set, as follows:

```
set PS_compile_apps=Y
```

Important! This variable setting is required for individual file compilation with CBLMAKE.BAT.

4. Make sure the compile directory, *<compile directory>*, exists, and that you have write permission to it.
This directory may already exist if you have run CBLBLD.BAT before. If it does exist, remove any files residing there—just as a safeguard. If it does not exist, you need to create it.
5. Change to the *PS_HOME\setup* directory.
6. If the installation is Unicode, run CBL2UNI (with no parameters).
7. Execute the following command to copy all the COBOL source files from the *PS_APP_HOME* directory to the compile directory:

```
cblsrc <source directory> <compile directory>
```

where *<source directory>* is the drive and directory where the source resides (it should be the same as *PS_APP_HOME*), and *<compile directory>* is the drive and directory to which the source files will be copied.

For example, the following command will take the COBOL source from *PS_APP_HOME* and copy all the necessary files to the location where the compile process will take place, *c:\temp\HRcompile* in this example:

```
cblsrc %PS_APP_HOME% c:\temp\HRcompile
```

Note. The compile in the next step will generate a GNT file unless the exception file, CBLINT.XX already exists (the XX represents the Product ID). CBLINT.XX contains the list of files that need to be compiled to the INT file. Make sure the intended CBLINT.XX is located under *<compile directory>* before executing CBLMAKE.

8. After CBLSRC completes, change directories to the compile directory, and run CBLMAKE.BAT, using the basic syntax as well as the CBLMAKE table shown earlier as your guide.

For example, to compile a file named GPPDPRUN, run this command:

```
cblmake GPPDPRUN
```

9. After CBLMAKE.BAT completes, copy the EXE, GNT, or INT files to the appropriate *<PS_APP_HOME>\CBLBIN<X>* directory (CBLBINA for ANSI, CBLBINU for Unicode, or CBLBINE for EBCDIC).

These examples use the ANSI encoding:

```
copy *.exe %PS_APP_HOME%\cblbina
copy *.gnt %PS_APP_HOME%\cblbina
copy *.int %PS_APP_HOME%\cblbina
```

Note. You have to copy these files to the appropriate cblbin directory manually when you use CBLMAKE; they are not copied automatically, as when you use CBLBLD.

10. Verify that the compiler runtime files (CBLINTS.DLL, CBLRTSM.DLL, CBLRTSS.DLL, CBLVIOM.DLL, CBLVIOS.DLL, COB32API.dll, MFLANGDF.lbr) are present in the *<PS_APP_HOME>\CBLBIN<X>* directory.

If they are not present, then you will have to run %PS_HOME%\setup\cblrtcpy.bat as follows:

```
cblrtcpy %PS_APP_HOME%\cblbina
```

The procedure to compile a PeopleSoft PeopleTools COBOL file with CBLMAKE.BAT is similar, but the environment variable PS_compile_apps must *not* be set.

1. Open a command prompt window.
2. Verify that the PS_HOME, COBROOT, and PS_APP_HOME environment variables are set, as previously defined.

See Compiling with CBLBLD.BAT When PS_APP_HOME is Different from PS_HOME.

3. Verify that the environment variable PS_compile_apps is *not* set, as follows:

```
set PS_compile_apps=
```

Important! Unsetting this environment variable is required for individual file compilation with CBLMAKE.BAT for PeopleSoft PeopleTools files.

4. Make sure the compile directory, *<compile directory>*, exists, and that you have write permission to it.
This directory may already exist if you have run CBLBLD.BAT before. If it does exist, remove any files residing there—just as a safeguard. If it does not exist, you need to create it.
5. Change to the *PS_HOME\setup* directory.

6. If the installation is Unicode, run CBL2UNI (with no parameters).
7. Execute the following command to copy all the COBOL source files from the *PS_HOME* directory to the compile directory:

```
cblsrc <source directory> <compile directory>
```

where *<source directory>* is the drive and directory where the source resides (it should be the same as *PS_HOME*), and *<compile directory>* is the drive and directory to which the source files will be copied.

For example, the following command will take the COBOL source from *PS_HOME* and copy all the necessary files to the location where the compile process will take place, *c:\temp\PTcompile* in this example:

```
cblsrc %PS_HOME% c:\temp\PTcompile
```

8. After CBLSRC completes, change directories to the compile directory, and run CBLMAKE.BAT, using the basic syntax as well as the CBLMAKE table shown earlier as your guide.

For example, to compile a file named PTPDBTST, run this command:

```
cblmake PTPDBTST
```

9. After CBLMAKE.BAT completes, copy the EXE, GNT, or INT files to the appropriate *<PS_HOME>\CBLBIN<X>* directory (CBLBINA for ANSI, CBLBINU for Unicode, or CBLBINE for EBCDIC).

These examples use the ANSI encoding:

```
copy *.exe %PS_HOME%\cblbina
copy *.gnt %PS_HOME%\cblbina
copy *.int %PS_HOME%\cblbina
```

Note. You have to copy these files to the appropriate cblbin directory manually when you use CBLMAKE; they are not copied automatically, as when you use CBLBLD.

10. Verify that the compiler runtime files (CBLINTS.DLL, CBLRTSM.DLL, CBLRTSS.DLL, CBLVIOM.DLL, CBLVIOS.DLL, COB32API.dll, MFLANGDF.lbr) are present in the *<PS_HOME>\CBLBIN<X>* directory.

If they are not present, then you will have to run *%PS_HOME%\setup\cblrtcpy.bat* as follows:

```
cblrtcpy %PS_HOME%\cblbina
```

Note. If you plan to use *cblmake.bat* to compile a single (or a set) of PeopleSoft PeopleTools or PeopleSoft Application COBOL program at the same time, it would be a good idea to use two different command prompts and two different compile directories—one for PeopleSoft PeopleTools COBOL programs and the other for the PeopleSoft Application COBOL programs. This avoids setting and unsetting the *PS_compile_apps* environment variable.

Task 12A-2-5: Defining the GNT and INT Files

By default, the compile generates a GNT file unless the exception file, *CBLINT.XX* already exists. *CBLINT.XX* contains the list of files that need to be compiled to the INT file.

Note. The INT exception file is sometimes needed to overcome Micro Focus execution error with GNT files.

For example, the exception file, CBLINT.PT, where *PT* represents PeopleTools, would contain the following information:

```
Call cblcrint <file name without file extension>
```

or:

```
Call cblcprint PTPDBTST
```

Task 12A-2-6: Distributing COBOL Binaries

After you have compiled your COBOL, you must transfer it to the needed locations. The required action depends upon how you set up *PS_HOME* and *PS_APP_HOME*.

- If the *PS_APP_HOME* location is the same as the *PS_HOME* location:
Copy the contents of <*PS_HOME*>\CBLBIN<*X*> (CBLBINA, CBLBINU, or CBLBINE) directory into <*PS_HOME*>\CBLBIN<*X*> (CBLBINA, CBLBINU, or CBLBINE) on your batch and application server machines.
- If the *PS_APP_HOME* location is different than the *PS_HOME* location:
 - a. Copy the contents of <*PS_HOME*>\CBLBIN<*X*> (CBLBINA, CBLBINU, or CBLBINE) directory into <*PS_HOME*>\CBLBIN<*X*> (CBLBINA, CBLBINU, or CBLBINE) on your batch and application server machines.
 - b. Copy the contents of <*PS_APP_HOME*>\CBLBIN<*X*> (CBLBINA, CBLBINU, or CBLBINE) directory into <*PS_APP_HOME*>\CBLBIN<*X*> (CBLBINA, CBLBINU, or CBLBINE) on your batch and application server machines.

Copy the contents of <*PS_HOME*>\CBLBIN<*X*> (CBLBINA, CBLBINU, or CBLBINE) directory into <*PS_HOME*>\CBLBIN<*X*> (CBLBINA, CBLBINU, or CBLBINE) on your batch and application server machines.

If it is a decoupled environment, both tools and application cobol binaries are required to be copied.

Task 12A-3: Installing IBM COBOL for Microsoft Windows

This section discusses:

- Understanding the IBM Rational Developer for System Z Installation
- Prerequisites
- Installing IBM Rational Developer for System z on Microsoft Windows

Understanding the IBM Rational Developer for System Z Installation

For PeopleSoft PeopleTools 8.52, you can use IBM® Rational® Developer for System z, in addition to Micro Focus Net Express, as a COBOL compiler on Microsoft Windows for PeopleSoft PeopleTools. The Prerequisites section includes information on obtaining IBM Rational Developer for System z.

Note. This section sometimes refers to IBM Rational Developer for System z simply as the “IBM compiler.”

The PeopleSoft COBOL sources have had minor changes to accommodate compiler requirements but are largely the same whether you are using the compiler from Micro Focus or IBM. The current Micro Focus processes have not been altered. If you have modified your COBOL sources, you can use a simple “diff” process to compare the Micro Focus version from previous releases with the new version. You will find that the changes are very slight, and do not affect functionality, but are more along the lines of compliance with initialization of variables and other minor details. Updating modified COBOL sources should be relatively straightforward.

The key area where the Micro Focus and IBM compilers differ is in how they manage the source objects. The IBM compiler behaves much more like a C compiler, and the use of the nmake system that comes with the IBM compiler is utilized. IBM Rational Developer for System z does require the linking of referenced objects, so objects are accounted for in the software development kit (SDK) make system Oracle provides for your PeopleSoft installation. The first thing that you will notice is that you will not be executing scripts in the compilation of the product. Instead, you will be using the SDK that we have provided. However, the sources being used will still be located in *PS_HOME\src\cbl* as before. The sources are common to both the Micro Focus and IBM compilers. Where there are differences, the alternative version is located in *PS_HOME\src\cbl\ibm*, and our SDK make process will copy in the required alternate objects at compile time.

The runtime behavior is the same between the two COBOL products. However, the IBM product runtime does not require licensing. The runtime component for the IBM product can also be obtained from the compiler. The SDK make system will copy the IBM runtime components in COBSHIP.zip from the compiler to your compiled output directory, to ensure that you are using the latest version of the runtime. The compiler does not need to be present on the target runtime server; it is only used to compile the COBOL programs.

See Using the IBM COBOL Compiler on Microsoft Windows, Distributing the Compiled Files.

You can compile with both IBM Rational Developer for System z and Micro Focus Net Express compilers within the same installation, and they can co-exist and be used against the same database instance. To do this you would need to set up different application server domains, setting up discrete environment variables and configuration files, as the two compilers cannot be invoked within the same domain.

See Using the IBM COBOL Compiler on Microsoft Windows, Setting Up the Environment for COBOL Runtime.

Prerequisites

To install and use IBM Rational Developer for System z, you must have the following:

- PeopleSoft PeopleTools 8.51 or higher
We recommend that you take the latest available PeopleSoft PeopleTools patch level. You should install PeopleSoft PeopleTools and your PeopleSoft application software before you compile the IBM Rational Developer for System z COBOL source files.
- The runtime configuration assumes that your Oracle Tuxedo inter process communication (IPC) service was set up to run with a System account.
- IBM Rational Developer for System z version 7.6.0 or later.

You must obtain IBM Rational Developer for System z compiler from your IBM vendor. Obtain the installation documentation and review the information on installation methods. The following installation instructions assume that you have the IBM installation files and installation documentation. Review the information on planning your installation, but use the instructions in this document to carry out the installation. Contact your IBM representative to obtain the software.

See <http://www-01.ibm.com/software/rational/products/developer/systemz/#>

See <http://www.elink.ibm.link.ibm.com/publications/servlet/pbi.wss?CTY=US&FNC=SRX&PBL=GI11-8297-02>

- Perl

Perl is used to perform conversions required on source files for the IBM COBOL compiler. For Microsoft Windows either Strawberry Perl or ActiveState's Active Perl can be used:

- Strawberry Perl can be downloaded from the following web site: <http://strawberryperl.com>.
- Active Perl can be downloaded from the following web site: <http://www.activestate.com/activeperl/downloads/>

- Zip utility

A zip utility is required to extract IBM Runtime Library components. You can use one of the following utilities:

- Corel Corporation's WinZip® can be downloaded from the following web site: <http://www.winzip.com/index.htm>
- PKWARE®'s PKZip can be downloaded from the following web site: <http://www.pkware.com>
- 7-Zip can be downloaded from the following web site: <http://www.7-zip.org>

Task 12A-3-1: Installing IBM Rational Developer for System z on Microsoft Windows

This procedure explains how to install IBM Rational Developer for System z in order to use it with your PeopleSoft PeopleTools installation. This procedure assumes that the installation media is available in a local drive called *RD_INSTALL*.

Note. There are two parts to this procedure. Be sure to continue after you see the first installation successful message.

To install IBM Rational Developer for System z:

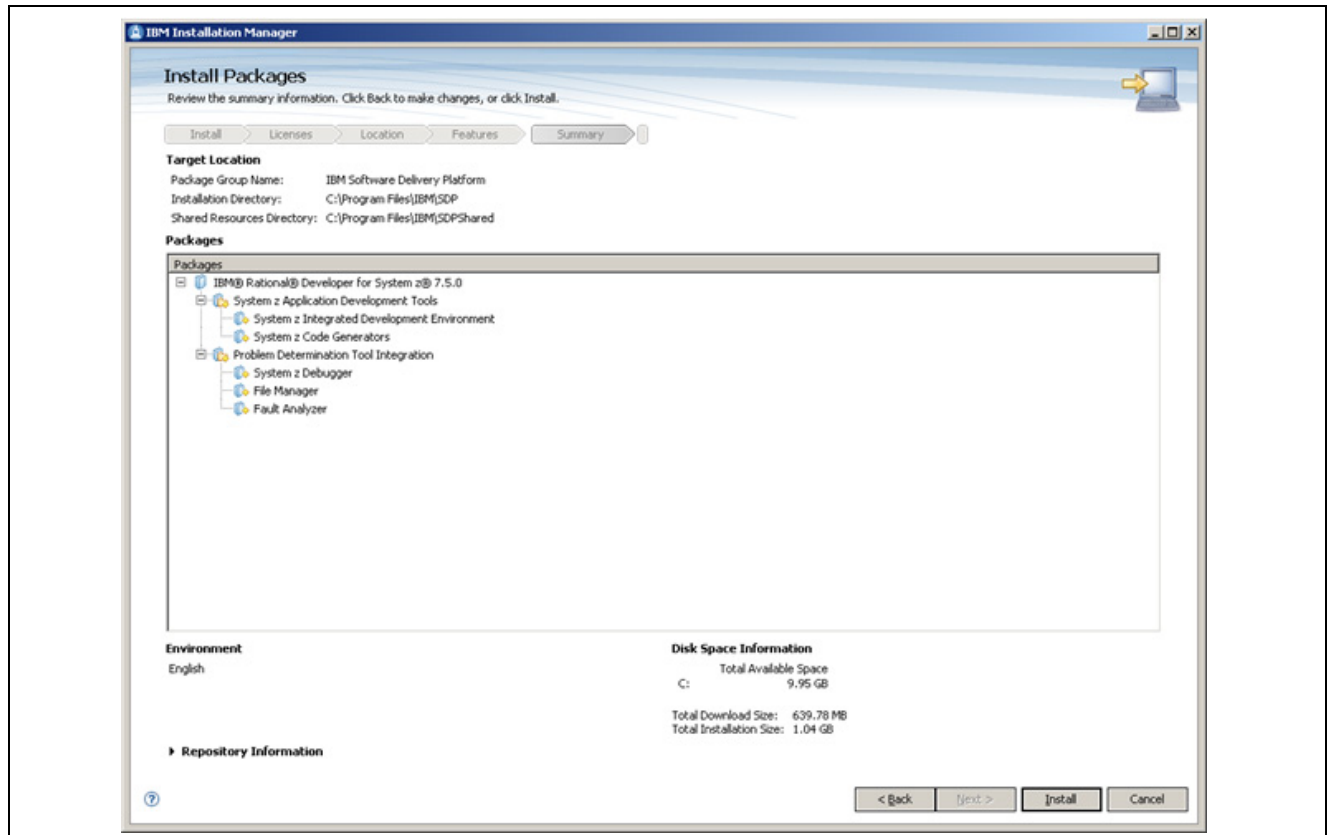
1. Double-click *RD_INSTALL/launchpad.exe*
2. Select Install Rational Developer for System Z on the left.
3. Select the Service Developer link as the type of installation.

Note. Do not select System z Traditional Developer.

The IBM Installation Manager opens.

4. Click Next on the Install Packages window.
5. Select the option I accept the terms in the license agreements on the Licenses window, and then click Next.
6. Accept the default value for the Installation Manager Directory and click the Next button.
7. Review the summary information on the next window, and then click Install.
8. Click Restart Installation Manager on the window with the message "Success! The installation was successful".
9. On the Install Packages window, verify that the check boxes for IBM® Rational® Developer for System z® and Version 7.X.0 are selected (X represents the point release you are installing) and click Next.
10. Accept the license agreement and click Next.

11. Accept the default value for the Shared Resource Directory and click Next.
12. Accept the option to Create a new package group, accept the default installation directory, and then click Next.
13. On the "...extend an existing version of Eclipse" window, do not select the Extend an existing Eclipse check box.
Click Next.
14. On the languages selection window, accept the default of English and click Next.
15. On the features selection window, all the check boxes are initially selected. Clear all of the options *except* for the following:
 - System z Application Development Tools
 - System z Integrated Development Environment
 - System z Code Generators
 - Problem Determination Tool Integration
 - System z Debugger
 - File Manager
 - Fault Analyzer
16. Click Next.
17. Verify your selections on the Review the summary information window and click Install.
In this example, the summary includes such information as the components to be installed, the installation directory, and the shared resources directory.



Summary information on the IBM Installation Manager window

18. Click Finish on the window with the message "Success! The installation was successful".

Task 12A-4: Using the IBM COBOL Compiler on Microsoft Windows

This section discusses:

- Using the Make System to Compile the COBOL Sources
- Compiling COBOL When PS_APP_HOME is the Same as PS_HOME
- Compiling COBOL When PS_APP_HOME is Different from PS_HOME
- Cleaning the Build System and Troubleshooting
- Distributing the Compiled Files
- Setting Up the Environment for COBOL Runtimes

Using the Make System to Compile the COBOL Sources

As mentioned, the PeopleSoft installation includes an SDK that you use to compile the IBM Rational Developer for System z COBOL sources. This section is only required for those who need to compile the COBOL sources, not for those who only need to run the compiled COBOL.

This section includes different procedures depending upon how you set up your installation environment.

See "Preparing for Installation," Defining Installation Locations.

To compile the IBM Rational Developer for System z COBOL sources, you invoke the `nmake` utility on the command line. The general syntax for `nmake` command line invocation is:

```
nmake [options] [macros] [targets]
```

The `nmake` command line arguments are as follows:

- Options

Currently the only option you can use with the PeopleSoft installation is the `/E` (slash E). The `/E` option instructs the `nmake` utility to override make file variables with environment variables.

- Macros

Macro definitions or Macros (as they are commonly referred to) are a mechanism for passing variables and their values into a make file. Macros are simply specified as name/value pairs on the command line.

For example, to pass the variable `DATA_BASE_TYPE` with a value of "Oracle" into a make file the following macro would be specified:

```
nmake DATA_BASE_TYPE=Oracle
```

Use the following macros to compile IBM Rational Developer for System z COBOL for the PeopleSoft installation:

- PS_HOME:** The location where you have installed the PeopleSoft installation. You can either enter the *PS_HOME* location in full, or you can use the switch `"/E"`, which will obtain the variable from the environment setting that you specify before beginning the compilation. This is step 2 in the procedure at the end of this section.
- ENCODING:** Select the character encoding type that your installation uses, ANSI or Unicode. If no encoding type is specified on the `nmake` command line, the default is Unicode. For ANSI you will need to override the encoding setting by using the argument `encoding=_ansi`. This table lists the available encoding macro definitions:

Encoding macro specifications	Description
<code>encoding=</code>	Unicode encoding (default)
<code>encoding=_ansi</code>	ANSI encoding. Note the initial <code>"_"</code> (underscore).

- DBTYPE:** Select the RDBMS platform that you are installing on. If you do not supply a database macro specification, the make utility by defaults sets `"db=ora"`. But you can also set it explicitly. The supported RDBMS platforms are listed in this table:

RDBMS Platform	DBTYPE Parameter
DB2 for Linux, UNIX, and Windows	<code>dbx</code>
DB2 for z/OS	<code>db2</code>
Informix	<code>inf</code>
Microsoft SQL Server	<code>mss</code>
Oracle	<code>ora</code> (default)
Sybase	<code>syb</code>

- Targets

A target name (or target) is associated with a makefile rule and instructs the nmake utility to compile and link COBOL programs specified by the target and its sub-targets.

There are nine targets defined for the make system, corresponding to PeopleSoft product families, as shown in this table. The fscm target compiles both the fin and scm targets. The hcm target compiles gp, hr, and py targets.

If *PS_APP_HOME* location is the same as *PS_HOME* location, the PeopleSoft PeopleTools (target pt) COBOL programs are compiled automatically when a product family target is specified for compilation (that is, campus, fin, fscm, and so on). So there is no need to invoke nmake separately to compile PeopleSoft PeopleTools COBOL programs.

If *PS_APP_HOME* location is different than *PS_HOME* location, compiling a PeopleSoft product family does *not* compile PeopleSoft PeopleTools (target pt) COBOL programs automatically. You will need to invoke nmake separately to compile PeopleSoft Application COBOL programs and PeopleSoft PeopleTools COBOL programs.

Target	Product Family
campus	Campus Solutions
fin	Financials
fscm	Financials and Supply Chain Management
gp	Global Payroll
hcm	Human Capital Management
hr	Human Resources
py	Payroll
scm	Supply Chain Management
pt	PeopleSoft PeopleTools

Here are examples of nmake invocations:

- nmake /E hcm
 - The /E switch indicates that PS_HOME will come from the environment variable.
 - The encoding option is the default value (Unicode).
 - The database option is the default value (Oracle).
 - Human Capital Management COBOL programs will be compiled.
- nmake PS_HOME=%PS_HOME% encoding= hcm
 - The PS_HOME macro is used to specify the *PS_HOME* value. Note that this specification means that the make file variable PS_HOME is being assigned the value of the PS_HOME environment variable.
 - The encoding is specified as Unicode, and the option is declared explicitly.
 - The database option is the default value (Oracle).
 - Human Capital Management COBOL programs will be compiled.
- nmake PS_HOME=C:\PTcompile encoding=_ansi db=ora hcm
 - The PS_HOME macro is used to specify the *PS_HOME* value directly.
 - The encoding is specified as ANSI, and the option is declared explicitly.

- The database is specified as Oracle, and the option is declared explicitly.
- Human Capital Management COBOL programs will be compiled.

Task 12A-4-1: Compiling COBOL When PS_APP_HOME is the Same as PS_HOME

If you have installed the PeopleSoft Application software in the same directory (*PS_APP_HOME*) where you installed your PeopleSoft PeopleTools software installation directory (*PS_HOME*), then you can follow these steps to do the COBOL compilation.

To compile the COBOL sources:

1. Select Start, Programs, IBM Software Delivery Platform, IBM Rational Developer for System z, Command Environment for Local Compilers.
A command prompt opens.
2. Set the environment variable for *PS_HOME*, the directory where you installed the PeopleSoft software; for example:

```
set PS_HOME = C:\PTcompile
```

3. Change the directory to *PS_HOME\sdk\cobol*; for example:

```
cd %PS_HOME%\sdk\cobol
```

4. Run the nmake command; for example:

```
nmake /E hcm
```

or

```
nmake PS_HOME=%PS_HOME% hcm encoding=_ansi db=ora
```

If you encounter any problems with the compilation, see the section Cleaning the Build System and Troubleshooting.

Task 12A-4-2: Compiling COBOL When PS_APP_HOME is Different from PS_HOME

If you have installed the PeopleSoft Application software in a directory (*PS_APP_HOME*) which is different than the PeopleSoft PeopleTools software installation directory (*PS_HOME*), then you can follow these steps to do the COBOL compilation.

To compile the COBOL sources:

1. Ensure that *sdk\cobol\pschl<apps>* is present under *PS_APP_HOME* for the application you are trying to compile.

For example if the PeopleSoft Application is Human Capital Management (that is, *<apps>* = *hcm*), then the following directory structure should be present and the user must have write access to it:

```
sdk\cobol\pschlhcm
```

2. Select Start, Programs, IBM Software Delivery Platform, IBM Rational Developer for System z, Command Environment for Local Compilers.

A command prompt opens.

3. Set the environment variable for *PS_HOME*, the directory where you installed the PeopleSoft software; for example:

```
set PS_HOME = C:\PTcompile
```

4. Set the environment variable for *PS_APP_HOME*, the directory where you installed the PeopleSoft Application software, such as Human Capital Management or Financials/Supply Chain Management; for example:

```
set PS_APP_HOME = C:\HRcompile
```

5. Change the directory to *PS_HOME*\sdk\cobol; for example:

```
cd %PS_HOME%\sdk\cobol
```

6. Run the nmake command; for example:

```
nmake /E hcm
```

or

```
nmake PS_HOME=%PS_HOME% PS_APP_HOME=%PS_APP_HOME% hcm encoding=_ansi db=ora
```

If you encounter any problems with the compilation, see the section *Cleaning the Build System and Troubleshooting*.

Task 12A-4-3: Cleaning the Build System and Troubleshooting

Cleaning the Build System When *PS_APP_HOME* is the Same as *PS_HOME*

If you encounter a failure when compiling, the first recommendation is to clean the directories and files, and rerun the build.

The first time a COBOL compilation build is run, for example with a product family target HCM, the following directories are created and populated:

- *PS_HOME*\sdk\cobol\psbhlhcm\bin
- *PS_HOME*\sdk\cobol\psbhlhcm\lib
- *PS_HOME*\sdk\cobol\psbhlhcm\src
- *PS_HOME*\sdk\cobol\psbhlhcm\psgp.win
- *PS_HOME*\sdk\cobol\psbhlhcm\pshr.win
- *PS_HOME*\sdk\cobol\psbhlhcm\pspy.win
- <*PS_HOME*>\CBLBIN_IBM<*X*>, where *X* is U for Unicode, A for ANSI, and E for EBCDIC character encoding types.

Similarly the target fscm compiles both fin and scm targets. The *PS_HOME*\sdk\cobol\psbhlfscm\bin, *PS_HOME*\sdk\cobol\psbhlfscm\lib, and *PS_HOME*\sdk\cobol\psbhlfscm\src directories are shared for fin and scm. So if you initially compiled the fin target (nmake /E fin) and then compiled the scm target (nmake /E scm), the source COBOL programs for both targets would reside in the *PS_HOME*\sdk\cobol\psbhlfscm\src directory and the resulting executables would reside in *PS_HOME*\sdk\cobol\psbhlfscm\bin and in the <*PS_HOME*>\CBLBIN_IBM<*X*> directories. There are two versions of the .win directories—*PS_HOME*\sdk\cobol\psbhlfscm\psfin.win and *PS_HOME*\sdk\cobol\psbhlfscm\psscm.win.

Cleaning the directories simply deletes all the files from the directories. And subsequently, when the build is rerun, fresh copies of the files are copied from *PS_HOME*\src\cbl\base and *PS_HOME*\src\cbl\ibm to the *PS_HOME*\sdk\cobol\psbhlfscm\src directory.

To use the nmake utility to clean the build directories, use the options listed in this table:

Option	Compilation Directories Cleaned
cleanpt	PeopleSoft PeopleTools
cleanhcm	Human Capital Management
cleanfscm	Financials and Supply Chain Management
cleancblbin_ibmu	<i>PS_HOME</i> \CBLBIN_IBMU
cleancblbin_ibma	<i>PS_HOME</i> \CBLBIN_IBMA

Note. Since these directories are shared across all product families, cleaning them will require recompiling for all of the product families that are installed on your system. You should clean the *<PS_HOME>\CBLBIN_IBM<X>* directories only in cases where COBOL programs are failing and it is suspected that an incorrect or outdated version of the executable is the cause. Or, in the case where you want to recompile the COBOL for all of your product families and ensure all the old versions of the programs are deleted prior to recompiling.

For example, if you want to clean FSCM directories, assuming the *PS_HOME* environment variable is set in your environment, use this command:

```
nmake /E cleanfscm
```

If you want to clean the CBLBIN_IBMU directory, use this command:

```
nmake /E cleancblbin_ibmu
```

Cleaning the Build System When *PS_APP_HOME* is Different from *PS_HOME*

If you encounter a failure when compiling, the first recommendation is to clean the directories and rerun the build. The previous section lists the directories that are created when a COBOL build is compiled.

To use the nmake utility to clean the build directories, use the options listed in this table:

Option	Compilation Directories Cleaned
cleanpt	PeopleSoft PeopleTools
cleanhcm	Human Capital Management
cleanfscm	Financials and Supply Chain Management
cleancblbin_ibmu	<i>PS_HOME</i> \CBLBIN_IBMU
cleancblbin_ibma	<i>PS_HOME</i> \CBLBIN_IBMA
cleanappcblbin_ibmu	<i>PS_APP_HOME</i> \CBLBIN_IBMU
cleanappcblbin_ibma	<i>PS_APP_HOME</i> \CBLBIN_IBMA

For example, if you want to clean FSCM directories, assuming the *PS_APP_HOME* environment variable is set in your environment, use this command:

```
nmake /E cleanfscm
```

If you want to clean the PeopleSoft PeopleTools CBLBIN_IBMU directory, use this command:

```
nmake /E cleancblbin_ibmu
```

If you want to clean the PeopleSoft Application CBLBIN_IBMU directory, use this command:

```
nmake /E cleanappcblbin_ibmu
```

Troubleshooting COBOL Compiler Issues

After running the compilation of the COBOL sources, examine the build targets for the presence of any issues during compilation or linking steps.

You can find the error and list files discussed in this section in the following locations, depending upon your compilation setup:

- If *PS_APP_HOME* is the same as *PS_HOME*, all error and list files mentioned here are placed in directories under *PS_HOME*.
- If *PS_APP_HOME* is different from *PS_HOME*, and you compile PeopleSoft PeopleTools COBOL source files, the error and list files mentioned here are placed in directories under *PS_HOME*.
- If *PS_APP_HOME* is different from *PS_HOME*, and you compile PeopleSoft Application COBOL source files, the error and list files mentioned here are placed in directories under *PS_APP_HOME*.

In the event of an error, the *<PS_HOME>\CBLBIN_IBM<X>* directory will not be populated with the binary files (*.exe, *.dll). If you decide that the failing compiled modules are *not* relevant to your project mission, you must manually copy the compiled binaries to your runtime target location. For example:

```
Copy <PS_HOME>\sdk\cobol\pscblhcm\bin\*. * <PS_HOME>\CBLBIN_IBM<X>
```

To review the cause of the errors, and perhaps fix the compile or linker issues, look in the *PS_HOME\sdk\cobol\pscblhcm\src* folder for the file LISTOUT.LIS. This file contains the report of the compiled objects and the status of the linker steps.

This table includes some common errors that you may see, and the action you should take to correct the error:

Error Location	Error Description	Corrective Action
LISTOUT.LIS report	Compiled sources with “Return code” > 4	Use the LineID and IGYxxxxx-E to correct the error in the code and recompile the module.
LISTOUT.LIS report	Linker issues such as error LNK2029: “_PTPNETRT” : unresolved external	Add to the link statement for the module the missing external reference, such as PTPNETRT.lib.
Command prompt	An error condition such as NMAKE : fatal error U1077: ‘perl’ : return code ‘1’ Stop.” ‘perl’ is not recognized as an internal or external command, operable program or batch file.	Read the requirement for Perl in the Prerequisites section of this chapter. Install the Perl to your machine, and recompile the COBOL sources.
<i><PS_HOME>\sdk\cobol\pscbl<apps>\src*.lst</i> (<i><app></i> is the designation for the PeopleSoft Application product family, such as hcm for Human Capital Management.)	<i><COBOL_PROGRAM>.lst</i>	Use the *.lst files to examine individual program errors and Line number diagnostic information, and use the information to correct the errors listed.

Task 12A-4-4: Distributing the Compiled Files

For the IBM Rational Developer for System z compiler, the default location for the compiled files is *<PS_HOME>\CBLBIN_IBM<X>*.

Note. The location for files compiled with Micro Focus COBOL is different.

This directory includes the following types of files:

- *.dll
- *.exe
- cobship_redistribution.readme
- COBSHIP.zip

We recommend that you replace the COBSHIP.zip file with the one that came with your compiler to ensure you are using the latest runtime executables.

You will need to unzip the COBSHIP.zip file directly into the directory where your COBOL binaries reside (*<PS_HOME>\CBLBIN_IBM<X>*).

If your installation setup is such that *PS_APP_HOME* is not the same as *PS_HOME*, you will also need to unzip the COBSHIP.zip file directly into the directory where your Application COBOL binaries reside (*<PS_APP_HOME>\CBLBIN_IBM<X>*).

This directory is a complete package that can either be executed directly or rebundled (zipped) and distributed for execution on another system. You can either point to the output directly, or you can copy this directory and send it to other systems to use. You do not need IBM COBOL runtime licensing to run COBOL after compiling.

Task 12A-4-5: Setting Up the Environment for COBOL Runtimes

This section discusses:

- Understanding the Runtime Setup for IBM COBOL
- Setting the Runtime Environment Variables
- Configuring the Application Server
- Configuring the Process Scheduler
- Running the Compiled COBOL from the Command Line

Understanding the Runtime Setup for IBM COBOL

To configure the COBOL runtime environment you must set several system environment variables and configure the PeopleSoft application server and Process Scheduler to use COBOL. You can set these environment variables from the command line, as System variables in the Microsoft Windows System Properties dialog box, or in a .cmd file.

Configure these environment variables after compiling the IBM Rational Developer for System z COBOL source files. If you distribute the compiled files for use on other systems as mentioned above, you must complete this environment setup on those systems before configuring the PeopleSoft application server and Process Scheduler.

Setting the Runtime Environment Variables

After you complete the IBM Rational Developer for System z installation, set the following system environment variables. You can set the environment variables in an MS-DOS command window, or using the Microsoft Windows System Properties dialog box. The steps for using the Microsoft Windows System Properties dialog box are given below the list of environment variables.

Note. These instructions assume that the directory CBLBIN_IBMU or CBLBIN_IBMA is installed in *PS_HOME*.

- PS_HOME

```
set PS_HOME=<drive><PeopleSoft install location>
```

For example:

```
set PS_HOME=C:\PTcompile
```

- If your <PeopleSoft install location> is on a network drive, ensure that TM_TUXIPC_MAPDRIVER is set appropriately.

See *PeopleTools 8.52 PeopleBook: System and Server Administration*, "Using the PSADMIN Utility"

- Even though psadmin sets PS_HOME for you, you must set it explicitly before running psadmin in order for the variables to resolve correctly and for the IBM Rational Developer for System z COBOLs to run properly.

- NLSPATH

```
set NLSPATH=%TUXDIR%\locale\C;%PS_HOME%\CBLBIN_IBMX\messages\%L\%N;%PS_HOME%\CBLBIN_IBMX\messages\en_US\%N
```

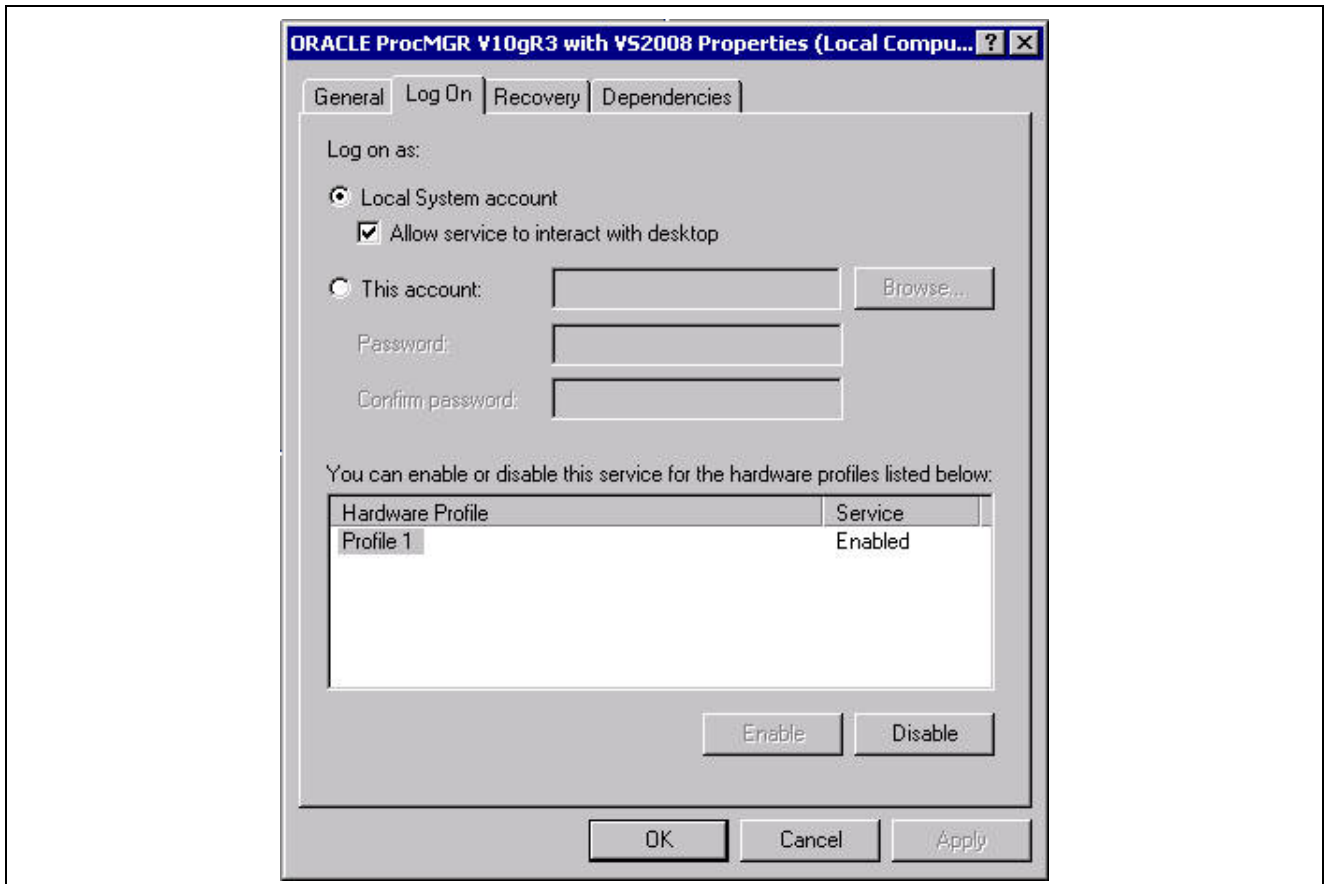
Note. The symbols %L and %N are IBM invocation constructs for Locale and National depictions. If you are setting these variables in a .cmd file and using the .cmd file to set these variables in your environment, you must use %%L and %%N in the NLSPATH definition rather than %L and %N. See the Oracle Tuxedo documentation for more information.

To set a new environment variable from the Microsoft Windows control panel:

1. Select Start, Control Panel, System.
2. Select the Advanced tab, and click Environment Variables.
3. In the System variables area of the Environment Variables dialog box, click New.
4. Enter the new variable name and variable value.
5. Click New and OK.

To set up the Tuxedo account:

1. Select Start, Settings, Control Panel, Administrative Tools.
2. Select Services.
3. Select Oracle ProcMGR V10gR3 VS2008 from the services list.
4. Select the Log On tab.
5. Confirm that the option for Local System account and the check box for Allow service to interact with desktop are selected, as shown in this example:



Oracle ProcMGR V10gR3 with VS2008 Properties (Local Computer) dialog box

Note. To set up ORACLE ProcMGR V10gR3 with VS2008 for an installation environment where PS_HOME and PS_CFG_HOME are different, see *PeopleTools 8.52: System and Server Administration PeopleBook*: “Securing PS_HOME and PS_CFG_HOME.”

Configuring the Application Server

After setting the system environment variables as described above, use this section to set up the compiled IBM Rational Developer for System z COBOL to use with your PeopleSoft application server.

See "Configuring the Application Server on Windows."

Before running psadmin, check your psadmin environment with the following command:

```
psadmin -env
```

Make sure all your variables are resolved. If not, go back and recheck your work and make any necessary changes. You do not want to see %VARIABLE% at this point as it will not be resolved by psadmin. If your NLSPATH is corrupted, you may need to ensure that you are running at a minimum release PeopleSoft PeopleTools 8.52.

You may either make these changes directly to the psappsrv.cfg file or make the changes while configuring the domain using psadmin. If you make the changes directly to psappsrv.cfg, you must still configure the domain using psadmin and make sure your variables are set appropriately as specified above. This is so that your changes to psappsrv.cfg are recognized by Oracle Tuxedo.

See *PeopleTools 8.52: System and Server Administration PeopleBook*, "Using the PSADMIN Utility."

To configure psappsrv.cfg:

1. Go to the *PS_HOME*/appserv directory and run psadmin.
2. When the menu appears, specify *1* for Application Server and press ENTER.
3. Enter *1* for Administer Domain, and select the appropriate domain.
4. Enter *4* for Configure this domain.
5. On the Quick-configure menu, select *21* to change AddToPATH value.
6. Modify the AddToPATH setting by appending this to the end of the current setting:

```
%PS_APP_HOME%\CBLBIN_IBM;%PS_HOME%\CBLBIN_IBM;%PS_HOME%\CBLBIN_IBM\bin
```

For example, change from:

```
AddToPATH=c:\apps\db\oracle11\bin
```

To:

```
AddToPATH=c:\apps\db\oracle11\bin;%PS_APP_HOME%\CBLBIN_IBM;%PS_HOME%\CBLBIN_IBM⇒
X;%PS_HOME%\CBLBIN_IBM\bin
```

7. On the Quick-configure menu, select *15*, Edit environment settings.
8. If your *PS_APP_HOME* is different from *PS_HOME*, carry out the following two steps:

Note. If *PS_APP_HOME* is the same as *PS_HOME*, skip these two steps and continue with step 9.

- a. On the PeopleSoft Domain Environment Settings, select *2* to add environment variable.
- b. Enter *PS_APP_HOME* as the name of the environment variable, and the installation directory where you installed the PeopleSoft Application software as the value of the environment variable.

For example:

```
Enter name of environment variable: PS_APP_HOME
Enter value: C:\HRMS92
```

9. Enter *1* for Edit environment variable.
10. Enter the number of the environment variable corresponding to COBPATh.
11. Modify the value as shown:

From:

```
{%PS_APP_HOME%\CBLBIN%PS_COBOLTYPE%;{%PS_HOME%\CBLBIN%PS_COBOLTYPE%
```

To:

```
{%PS_APP_HOME%\CBLBIN_IBM%PS_COBOLTYPE%;{%PS_HOME%\CBLBIN_IBM%PS_COBOLTYPE%
```

You will see an asterisk in front of *PS_APP_HOME* and *COBPATh* environment variables, indicating that these variables have not been saved.

12. Select *6* to save the environment variables.
13. Press ENTER to continue at the following message:

```
Your changes have been saved.
Please be aware these changes will not take effect until you complete the⇒
domain configuration process.
```

Press Enter to continue...

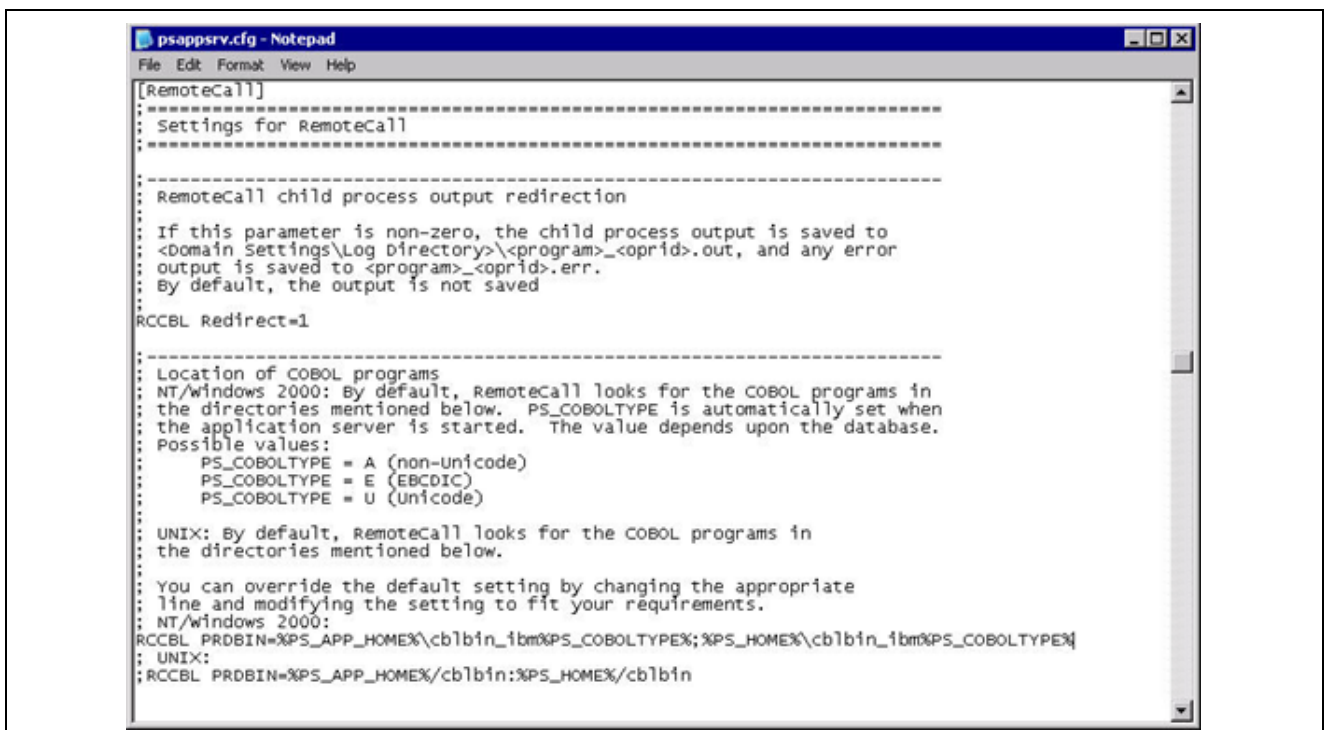
14. Enter *q* for Return to previous menu.
15. On the Quick-configure menu, enter *13*, to load the domain configuration.
16. Enter *6* for Edit configuration/log files menu.
17. Enter *1* for Edit domain configuration file.
18. In the domain configuration file, search for RCCBL PRDBIN.
19. Update the RCCBL PRDBIN as shown below, and remove the semicolon from the beginning of the line, as shown:

Change from:

```
; RCCBL PRDBIN=%PS_APP_HOME%\cblbin%PS_COBOLTYPE%;%PS_HOME%\cblbin%PS_COBOLTYPE%
```

To:

```
RCCBL PRDBIN=%PS_APP_HOME%\cblbin_ibm%PS_COBOLTYPE%;%PS_HOME%\cblbin_ibm%PS_⇒
COBOLTYPE%
```



Updating the RCCBL PRDBIN setting in the psappsrv.cfg file

20. Save the file, and close it.
21. Enter *q* to quit the PeopleSoft Edit/View Configuration/Log Files Menu.
22. Enter *4* for Configure this domain.
23. Enter *y* to continue at this prompt:

This option will shutdown the domain.
Do you want to continue? (y/n) [n]: **y**

24. On the Quick-configure menu, select *13* to load the configuration.

25. Enter *1* to boot the domain.
26. Enter *1* for Boot (Serial Boot), *2* for Parallel Boot.

Configuring the Process Scheduler

After setting the system environment variables as described above, use this section to set up the compiled IBM Rational Developer for System z COBOL to use with your PeopleSoft Process Scheduler.

See "Setting Up Process Scheduler on Windows."

Before running psadmin, check your psadmin environment as with the following command:

```
psadmin -env
```

Make sure all your variables are resolved. If not, go back and recheck your work and make any necessary changes. You do not want to see `%VARIABLE%` at this point as it will not be resolved by psadmin. If your NLSPATH is corrupted, you may need to ensure that you are running at a minimum release PeopleSoft PeopleTools 8.52.

You may either make these changes directly to the psprcs.cfg file or make the changes while configuring the domain using psadmin. If you make the changes directly to psprcs.cfg, you must still configure the domain using psadmin and make sure your variables are set appropriately as specified above. This is so that your changes to psprcs.cfg are recognized by Oracle Tuxedo.

See *PeopleTools 8.52: System and Server Administration PeopleBook*, "Using the PSADMIN Utility."

To configure psprcs.cfg:

1. Go to the `PS_HOME/appserv` directory and run psadmin.
2. When the menu appears, specify *2* for Process Scheduler and press ENTER.
3. Enter *1* for Administer Domain, and select the appropriate domain.
4. Enter *4* for Configure this domain.
5. On the Quick-configure menu, select *16* to change AddToPATH value.
6. Modify the AddToPATH setting by appending this to the end of the current setting:

```
%PS_APP_HOME%\CBLBIN_IBMX;%PS_HOME%\CBLBIN_IBMX;%PS_HOME%\CBLBIN_IBMX\bin
```

For example, change from:

```
AddToPATH=C:\WINDOWS;C:\WINDOWS\SYSTEM32
```

To:

```
AddToPATH=C:\WINDOWS;C:\WINDOWS\SYSTEM32;%PS_APP_HOME%\CBLBIN_IBMX;%PS_HOME%\CBLBIN_IBMX;%PS_HOME%\CBLBIN_IBMX\bin
```

7. On the Quick-configure menu, select *5*, Edit environment settings.
8. If your `PS_APP_HOME` is different from `PS_HOME`, carry out the following two steps:

Note. If `PS_APP_HOME` is the same as `PS_HOME`, skip these two steps and continue with step 9.

- a. On the PeopleSoft Domain Environment Settings, select *2* to add an environment variable.
- b. Enter `PS_APP_HOME` as the name of the environment variable, and the installation directory where you installed your PeopleSoft Application software as the value of the environment variable.

For example:

```
Enter name of environment variable: PS_APP_HOME
Enter value: C:\HRMS92
```

9. Enter *I* for Edit environment variable.
10. Enter the number of the environment variable corresponding to COBPATH.
11. Modify the value.

Change from:

```
{ $PS_APP_HOME } \CBLBIN%PS_COBOLTYPE%; { $PS_HOME } \CBLBIN%PS_COBOLTYPE%
```

To:

```
{ $PS_APP_HOME } \CBLBIN_IBM%PS_COBOLTYPE%; { $PS_HOME } \CBLBIN_IBM%PS_COBOLTYPE%
```

You will see an asterisk in front of the PS_APP_HOME and COBPATH environment variables, because these variables have not been saved.

12. Enter *6* to save the environment variables.
13. Press ENTER to continue at the following message:

```
Your changes have been saved.
Please be aware these changes will not take effect until you complete the=>
domain configuration process.
Press Enter to continue...
```

14. Enter *q* for Return to previous menu.
15. On the Quick-configure menu, enter 3, to load the domain configuration.
16. Enter *6* for Edit configuration/log files menu.
17. Enter *I* for Edit domain configuration file.
18. In the domain configuration file, search for CBLBIN.

Modify the CBLBIN setting to point to the location of compiled COBOL files; for example:

```
CBLBIN=%PS_APP_HOME%\CBLBIN_IBM%PS_COBOLTYPE%;%PS_HOME%\CBLBIN_IBM%PS_COBOLTYPE%
```

PS_COBOLTYPE is automatically set when the process scheduler is started. The value depends upon the database. Possible values are A (non-Unicode), E (EBCDIC) or U (Unicode).

Note. If using psadmin to configure this setting for your domain, it is in the Process Scheduler configuration section.

19. Enter *I* to boot the domain.

Running the Compiled COBOL from the Command Line

To run the compiled COBOL from the command line, you must first set the following environment variables. In this example, PS_APP_HOME is different from PS_HOME:

1. Set the environment variables for PS_HOME and PS_APP_HOME:

```
set PS_HOME=C:\PTcompile
set PS_APP_HOME=C:\HRcompile
```

2. Set the following path environment variables:

```
set PATH=%PATH%;%PS_HOME%\bin\server\winx86;%PS_APP_HOME%\CBLBIN_IBMX;%PS_HOME%=>
\CBLBIN_IBMX;%PS_HOME%\CBLBIN_IBMX\bin
set COBPATH=%PS_APP_HOME%\CBLBIN_IBMX;%PS_HOME%\CBLBIN_IBMX
set NLSPATH=%TUXDIR%\locale\C;%PS_HOME%\CBLBIN_IBMX\messages\%L\%N;%PS_HOME%=>
\CBLBIN_IBMX\messages\en_US\%N
```

3. Set PS_SERVER_CFG.

PS_CFG_HOME is the configuration home. By default on Microsoft Windows it points to %USERPROFILE%\psft\pt\<tools version>)

See "Preparing for Installation," Planning Your Initial Configuration.

```
set PS_SERVER_CFG=%PS_CFG_HOME%\appserv\prcs\<domain>\psprcs.cfg
```

4. Change to the directory with the compiled files; for example:

```
cd %PS_APP_HOME%\CBLBIN_IBMX
```

5. Use this command to run the program:

```
<COBOL_PROG>.exe <dbtype>/<dbname>/<userid>/<userpasswd>/<runcontrol>/<process_=>
instance>/<sqltrace>/<dbflags>
```

For example:

```
GPPDPRUN.exe ORACLE/Q8529033/QEDMO/QEDMO/1/1/191/0
```

CHAPTER 12B

Installing and Compiling COBOL on UNIX

This chapter discusses:

- Understanding COBOL
- Prerequisites
- Installing Micro Focus Server Express for UNIX and Linux
- Using the Micro Focus COBOL Compiler on UNIX
- Installing IBM COBOL on IBM AIX
- Using the IBM COBOL Compiler on IBM AIX

Understanding COBOL

This chapter describes how to compile and link PeopleSoft COBOL batch programs, if necessary.

COBOL is not needed for PeopleSoft PeopleTools because the Process Scheduler is written in C++. In addition, COBOL is not required for applications that contain no COBOL programs. See My Oracle Support for the details on whether your application requires COBOL.

The chapter includes instructions for both Micro Focus Net Express COBOL compilers, referred to here as “Micro Focus COBOL”, and IBM Rational Developer for System z, referred to here as “IBM COBOL”.

See Also

"Preparing for Installation," Installing Supporting Applications

"PeopleSoft Enterprise Frequently Asked Questions About PeopleSoft and COBOL Compilers," My Oracle Support, (search for the article name)

"PeopleSoft Enterprise Frequently Asked Questions About PeopleSoft and the IBM COBOL Compiler," My Oracle Support, (search for the article name)

"COBOL: Installation, Versions, and Fixpacks" My Oracle Support, (search for the article name)

PeopleTools 8.52: Global Technology PeopleBook, "Running COBOL in a Unicode Environment"

Prerequisites

Before you attempt to run COBOL from the command line you should make sure the variable PS_SERVER_CFG points to a valid pspres.cfg file.

Task 12B-1: Installing Micro Focus Server Express for UNIX and Linux

This section discusses:

- Understanding Micro Focus Server Express
- Prerequisites
- Obtaining the Installation Files for Micro Focus Server Express from Oracle E-Delivery
- Installing Micro Focus Server Express

Understanding Micro Focus Server Express

Micro Focus® Server Express™ 5.1 Wrap Pack 4 is the supported COBOL compiler on UNIX and Linux for PeopleSoft PeopleTools 8.52. This section provides installation instructions for Micro Focus® Server Express™ 5.1 Wrap Pack 4 COBOL compiler and the License Management Facility used to manage product licenses. These instructions are specifically for installing the Server Express COBOL compiler to use with PeopleSoft software. For more general installation instructions or other supporting documentation concerning Server Express, consult the documentation that comes with the installation software.

See Also

Micro Focus web site: <http://supportline.microfocus.com/>

Server Express Documentation

Using the Micro Focus COBOL Compiler on UNIX

Prerequisites

Each application created using a Server Express product that will be deployed in a UNIX environment must include a Micro Focus Application Server for Server Express license from Micro Focus or from your Micro Focus licensed supplier. Application Server must be installed on the machine on which the application is to run. Contact your Micro Focus Account Representative or your Micro Focus licensed supplier for details on purchasing Application Server licenses.

Note. Consult the Server Express Extras CD, included with the software on Oracle E-Delivery, for documentation on how to add licenses (development and ULP runtime).

If you have a previous Micro Focus COBOL product installed we recommend that you make a backup of any COBOL systems files that you have changed. Examples include cobkeymp, ADISCTRL, cobopt and cobconfig. After you have installed Server Express you might want to apply to the new COBOL product the changes previously applied to these files.

If you are installing a COBOL system over an existing COBOL system, you must first delete the existing system. Alternatively, you might prefer to move your existing COBOL system to another directory until you have verified the new installation.

If you have installed, or plan to install, Application Server or any other Micro Focus product on the same machine as this product, you must install them in different directories.

This Micro Focus product is managed by a License Management Facility (LMF). This facility helps you keep track of the number of licenses you have for the product. In order to use this product it is necessary for you to install the License Management Facility (which is provided with the Server Express software). This software should not be installed in the same directory as Server Express. The default directory depends upon the operating system; for example:

- /opt/lib/mflmf for HP-UX
- /usr/lib/mflmf for RS/6000 and PowerPC systems running AIX
- /opt/lib/mflmf on other systems

If /opt/lib does not exist, use /usr/lib/mflmf instead.

Task 12B-1-1: Obtaining the Installation Files for Micro Focus Server Express from Oracle E-Delivery

The Micro Focus Server Express installation files are available on Oracle E-Delivery. At this point you should have already downloaded the necessary files. This section includes additional information on finding and using the files for Micro Focus Server Express if necessary.

See "Preparing for Installation," Using Oracle E-Delivery to Obtain Installation Files.

To obtain the files for the Micro Focus Server Express installation:

1. After logging in to Oracle E-Delivery, on the Media Search Pack page, select *PeopleSoft Enterprise* from the Select a Product Pack drop-down list.
Select the operating system you are running on from the Platform drop-down list, and click Go.
2. Select the radio button for Third Party - Micro Focus 5.1 for PeopleSoft Enterprise Media Pack and click Continue.
3. Download the software and documentation files for Micro Focus Server Express 5.1 Wrap Pack 4, and save the zip files to a temporary directory on your local system.

You must extract (unzip) the file on the platform for which it is intended. For example, if you download the zip file for Solaris, you must unzip it on Solaris to avoid problems. If you unzip the file to a staging directory on a Microsoft Windows computer and copy the staging directory to a Solaris, the stage area files may be corrupt.

Task 12B-1-2: Installing Micro Focus Server Express

The following section is provided as an example installation and illustrates a typical Micro Focus Server Express 5.1 Wrap Pack 4 (WP4) installation for PeopleSoft application, as outlined in the overview section above.

The answers to the prompts provided in the following example are recommended by Oracle for PeopleSoft installations, with the exception of the installation directory named in step 12 below. For step 12, you can use the default directory names or choose directory names based on your site's naming conventions.

It is recommended by Micro Focus and Oracle to install LMF in its own directory, instead of in a sub-directory of the Server Express install.

Important! Make sure to select the *correct* bit mode for your UNIX platform:

With PeopleSoft PeopleTools 8.52, enter *64* for all UNIX platforms.

The following example was done on a RedHat Linux x86-64 operating system platform. Installation prompts will vary slightly with respect to specifics of the different UNIX platforms.

1. Log in as root.
2. Create a directory (if it does not exist) where you want to install the Micro Focus Server Express 5.1 WP4. For example:

```
$ mkdir /products/mf/svrexpress-51_wp4-64bit
```

3. Change directory to the newly-created directory.

```
$ cd /products/mf/svrexpress-51_wp4-64bit
```

4. Copy or ftp the Micro Focus Server Express 5.1 WP4 tar file that you obtained from Oracle E-Delivery to this directory.

In this example, the file name is `sx51_wp4_redhat_x86_64_dev.tar`.

Note. This tar file can be obtained from <http://edelivery.oracle.com>

5. List the items in the directory with the following commands:

```
$ ls -l /products/mf/svrexpress-51_wp4-64bit
total 409600
-rwxr-xr-x  1 root  root      209295360 Feb 03 19:23 sx51_wp4_redhat_x86_64_⇒
dev.tar
```

6. Extract the tar file:

```
$ tar -xvf sx51_wp4_redhat_x86_64_dev.tar
```

7. List the items in the directory with the following commands:

```
$ ls
ADISCTRL  cpylib  dialog  dynload64  etc      lang  snmp      ⇒
      terminfo
aslmf     demo    docs    es          include  lib    src      ⇒
      xdb
bin       deploy  dynload  eslmf-mess  install  lmf    sx51_wp4_redhat_x86_64_⇒
dev.tar
```

8. To begin the installation, type:

```
$ ./install
```

9. Read the text and follow the instructions to review the `readme.txt` file:

This script will install Micro Focus Server Express 5.1 on this computer.

The `readme.txt` file included in this delivery contains details of new features,⇒
enhancements and any restrictions of which you should be aware. This file is⇒
located in :

```
/products/mf/svrexpress-5.1_wp4-64bit/docs
```

We strongly recommend you read this file once the installation is complete.

Do you wish to continue (y/n): **y**

10. Read and type **y** to accept the license agreement:

Before installing and using this software product you must agree to be bound by the terms and conditions of the end user license agreement ("License Agreement") which accompanies this product. Please take this time to read the License Agreement. If you are not in agreement with the terms and conditions of the License Agreement, please return the product to your Account Representative and your money will be refunded. If you require a replacement copy of the License Agreement, please contact your Account Representative before proceeding with the install process.

Do you agree to the terms of the License Agreement? (y/n): **y**

11. If you are installing on an operating system platform that Micro Focus has not built the product on, you see the following message. Type **y** at the prompt:

Micro Focus Install

This product was not built or tested on this version of the Operating System.

This product was built on Operating System:

Linux 2.6.9-11.ELsmp x86_64
Red Hat Enterprise Linux AS release 4 (Nahant Update 1)
and you are installing it on Operating System:
Linux 2.6.18-53.1.14.el5

Any product issues you report will only be corrected if they can be reproduced on one of our systems running:

Linux 2.6.9-11.ELsmp x86_64
Red Hat Enterprise Linux AS release 4 (Nahant Update 1)
Linux 2.6.9-67.ELsmp i686
Red Hat Enterprise Linux ES release 4 (Nahant Update 6)
Linux 2.6.18-164.el5 x86_64
Red Hat Enterprise Linux Server release 5.4 (Tikanga)
Linux 2.6.18-164.el5 i686
Red Hat Enterprise Linux Server release 5.4 (Tikanga)

Please confirm that you want to continue with this installation (y/n): **y**

12. After reading the information below type **y** to continue:

This product is certified on the following reference environment. The command⇒
(s) used to gather the information is given following each entry:
Operating System

Linux 2.6.9-11.ELsmp x86_64
Red Hat Enterprise Linux AS release 4 (Nahant Update 1)

```

uname -s
uname -r
uname -m
cat /etc/redhat-release

C Compiler
-----
cc gcc version 3.4.6 20060404 (Red Hat 3.4.6-9)

gcc -v 2>&1 | tail -1

C++ Compiler
-----
/usr/bin/g++ gcc version 3.4.6 20060404 (Red Hat 3.4.6-9)

g++ -v 2>&1 | tail -1

Assembler
-----
as GNU assembler version 2.15.92.0.2 (x86_64-redhat-linux) using BFD version⇒
  2.15.92.0.2 20040927

as -v 2>&1 < /dev/null

Linker
-----
ld GNU ld version 2.15.92.0.2 20040927

ld -V 2>&1 | head -1

.....
.....

Please confirm your understanding of the above reference environment details (y⇒
/n): y

```

13. Answer *n* (no) to the following prompt:

```

Do you want to make use of COBOL and Java working together? (y/n): n
Skipping Java setup
Should you want to use Java with COBOL later on as super user, run the command ⇒
/products/mf/svexp-5.1_wp4-64bit/bin/java_setup to select the version of Java⇒
you want to use.
Peoplesoft COBOL implementations do not require COBOL and Java to work together.

```

14. Answer *y* (yes) to the following prompt concerning the License Management Facility:

```

This product is protected using the Micro Focus License Management Facility ⇒
(LMF). Please refer to the Development System Licensing Guide for information⇒
relating to the installation of the licensing system and licenses.

```

If you do not have LMF installed or want to upgrade to the latest version, we⇒
recommend that you install it now.

Would you like to install LMF now? (y/n): **y**

15. At the following prompt, enter the directory name where you wish to install License Manager.

Note. Micro Focus and Oracle recommend that you install LMF in its own directory, instead of a sub-directory of the Server Express install.

Enter the directory name where you wish to install License Manager.
(Press Enter for default directory /opt/microfocus/mflmf)

/products/mf/mflmf-svrex-51_wp4-64bit

/products/mf/mflmf-svrex-51_wp4-64bit does not exist
do you wish to create it ? (y/n) **y**

16. Enter **y** (yes) to restrict access to the License Admin System to the superuser account:

Empty database created ok. Do you want only superuser to be able to access the⇒
License Admin System? (y/n) **y**

17. Enter **y** (yes) to start license manager automatically at boot time:

It is recommended that you let license manager autostart at boot time. Do you⇒
want license manager to be automatically started at boot time? (y/n) **y**
LMF installation complete.

18. If you want to consult the documentation on how to install licenses, follow the instructions in this prompt:

Please consult the Development Licensing Guide for detailed information on how⇒
to install licenses.

This may be done by changing directory to where the LMF was installed, and⇒
typing:
./mflicense

To run your applications, you need a deployment license installed using⇒
Apptack. See your Deployment Licensing Guide for details. Installing⇒
Apptack...
Access permissions on directory /var/mfaslmf have changed on this release.⇒
Write access permission has been removed except for superuser use.
Apptack installation complete.

19. Enter **64** for the system default mode:

This product can be used in either 32-bit or 64-bit modes.
Please enter either 32 or 64 to set the system default mode: **64**
System default COBMODE has been set to 64.

Important! Specify 64 for AIX, HP-UX PA-RISC, HP-UX Itanium, Sun Solaris and SuSE on z/Linux.
Specify 64 for RedHat or SuSE Linux running in x86-64bit Intel Platforms

Important! For PeopleTools 8.52, enter *64*: for all UNIX platforms.

20. Enter *n* (no) to configure the Enterprise Server later:

```
Installing documentation. Please wait
Enterprise Server provides a scalable, managed, and high-performance⇒
transactional environment for the deployment of COBOL applications and⇒
services, COBOL/J2EE applications and direct COBOL Web Services.

Your Enterprise Server requires configuration. You can either do it now or⇒
later. To do it now, you need to know the alphanumeric user ID of the⇒
Enterprise Server System Administrator.
To do it later, enter the following commands while logged in as root:
```

```
/products/mf/svrex-5.1_wp4-64bit/bin/eslminstall
/products/mf/svrex-5.1_wp4-64bit/bin/casperm
```

```
Do you wish to configure Enterprise Server now? (y/n): n
```

21. Enter *n* (no) to the following prompt:

```
XDB is a fully-functional ANSI-compliant relational database management system,⇒
providing support for SQL data access for development purposes.
Do you want to install XDB? (y/n): n
Skipping XDB install. Should you want to install XDB later on, run the⇒
following command as the root user:
sh /products/mf/svrex-5.1_wp4-64bit/xdb/xdb_install
```

22. Review the information concerning setting the COBDIR, LD_LIBRARY_PATH, and PATH environment variables in the concluding prompt:

```
Remember to set COBDIR to /products/mf/svrex-5.1_wp4-64bit, include /products⇒
/mf/svrex-5.1_wp4-64bit/lib in LD_LIBRARY_PATH, and include /products/mf⇒
/svrex-5.1_wp4-64bit/bin on your PATH.
```

```
WARNING: Any executables (whether a Run-Time System or an application) must be⇒
relinked using this new release. Otherwise, the results of running the older⇒
executables with this new release are undefined.
Installation completed successfully.
The COBOL system is ready to use.
```

Task 12B-2: Using the Micro Focus COBOL Compiler on UNIX

This section discusses:

- Understanding COBOL Compilation
- Setting Environment Variables
- Modifying the Liblist (IBM AIX 5.3 and HP-UX Only)
- Modifying the Cobopt File (SuSE Linux Enterprise Server Only)
- Compiling COBOL on UNIX When `PS_APP_HOME` is the Same as `PS_HOME`
- Compiling COBOL on UNIX When `PS_APP_HOME` is Different from `PS_HOME`
- Linking COBOL
- Recompiling COBOL on UNIX

Understanding COBOL Compilation

On UNIX and Linux operating systems, you always need to compile your COBOL programs at installation time. After you run the PeopleSoft Installer to set up your application or batch server, carry out the following steps.

You have two options for compiling:

- You can treat one application or batch server as your compile server, compile all your COBOL programs there, and then distribute cblbin from there to all other relevant servers. In this case, only that one server would require a COBOL compiler, and you would copy any patches and customizations from your file server to this designated server before carrying out the compile.
- The second option is to compile on all servers. In this situation, all servers would need a COBOL compiler, and you would need to copy any patches and customizations from the file server to all of these servers before carrying out the compile.

Note. You should have read/write access to the directory `PS_HOME/cblbin` to be able to compile the COBOL programs.

Note. To copy a compiled COBOL program from one UNIX server to another, they must be on the same operating system that the compile took place on. For example, if you compile on Oracle Solaris for the Application Server, and the Process Scheduler is on AIX, you cannot copy the compiled program (you will also need to compile on the AIX machine).

This section includes different procedures depending upon how you set up your installation environment.

See "Preparing for Installation," Defining Installation Locations.

If you installed the PeopleSoft Application software to a `PS_APP_HOME` location that is the same as the `PS_HOME` location where you installed PeopleSoft PeopleTools 8.52, follow the instructions in the section Compiling COBOL on UNIX When `PS_APP_HOME` is the Same as `PS_HOME`.

If you installed the PeopleSoft Application software to a `PS_APP_HOME` location that is different from the `PS_HOME` location where you installed PeopleSoft PeopleTools 8.52, follow the instructions in the section Compiling COBOL on UNIX When `PS_APP_HOME` is Different from `PS_HOME`.

Task 12B-2-1: Setting Environment Variables

On your UNIX system, you need to log in and ensure the following environment variables are set appropriately. Alternatively, make sure the following environment variables are set in the *.profile* file in the user's home directory:

- \$ORACLE_HOME must point to the correct Oracle installation; for example:

```
ORACLE_HOME=/products/oracle/10.2.0;export ORACLE_HOME
```

- \$ORACLE_HOME/bin must be added to PATH; for example:

```
PATH=$PATH:$ORACLE_HOME/bin;export PATH
```

- \$ORACLE_HOME/lib must be appended to LD_LIBRARY_PATH, LIBPATH, or SHLIB_PATH, whichever is appropriate for your platform.
- \$ORACLE_SID must be set to the correct Oracle instance; for example:

```
ORACLE_SID=hdmo;export ORACLE_SID
```

- \$COBDIR must be set to the Micro Focus Server Express installation; for example:

```
COBDIR=/cobol/prod/svexp-5.1_wp4;export COBDIR
```

- \$COBDIR/lib must be appended to LD_LIBRARY_PATH, LIBPATH, or SHLIB_PATH, whichever is appropriate for your platform.

```
LD_LIBRARY_PATH=$LD_LIBRARY_PATH:$COBDIR/lib;export LD_LIBRARY_PATH
```

```
LIBPATH=$LIBPATH:$COBDIR/lib;export LIBPATH
```

```
SHLIB_PATH=$SHLIB_PATH:$COBDIR/lib;export SHLIB_PATH
```

- \$COBDIR/bin must be appended to the PATH; for example:

```
PATH=$PATH:$COBDIR/bin;export PATH
```

To set the required PeopleSoft environment variables, source the script psconfig.sh. Enter the following command from the *PS_HOME* directory:

```
. ./psconfig.sh
```

Task 12B-2-2: Modifying the Liblist (IBM AIX 5.3 and HP-UX Only)

Understanding Liblist Modifications

If you are compiling COBOL on AIX 5.3 or HP-UX, modify the liblist or liblist64 file as described here. See the COBOL documentation on My Oracle Support for additional information about modifications that need to be made in the liblist or liblist64 file.

See "COBOL: Installation, versions, fixpacks, etc. PT 8.52," My Oracle Support (search for the article name).

Modifying the Liblist64 File for AIX

To modify the liblist file for AIX 5.3:

1. cd to \$COBDIR/lib.
2. Add the following line to the liblist file:

```
x:*:s!t:-lC
```


The following listing shows where to make the changes:

```
# More emulation of cc (MUST be after MF/user libraries):
x*:sg:-lg
x*:sg:-bE:/usr/lib/libg.exp
x*:st:-L/usr/lib/threads
x*:st:-lpthreads
x*:s!t:-lc          <=== Add this line
x*:s:-lc
```

Modifying the Liblist64 File for HP-UX

You must modify \$COBDIR/lib/liblist64 if *both* of the following conditions exist:

Note. This modification is for the liblist64 (sixty-four) file, not the liblist file.

- You get this error message when running psrun.mak:

```
$ ./psrun.mak
./psrun.mak - linking PSRUN ...
./psrun.mak - Error(s) encountered creating PSRUN!
./psrun.mak - See psrun.err for messages
```

- The psrun.err error file contains the following error:

```
ld: Can't open /opt/langtools/lib/pa20_64/crt0.o
ld: No such file or directory
```

To modify the liblist64 file for HP-UX PA RISC:

- Login into the system as user root.
- cd to \$COBDIR/lib and find the liblist64 file.
- Edit \$COBDIR/lib/liblist64 with vi, emacs or your favorite editor, and change the crt0.o specification as depicted below.

From this:

```
x*:s:/opt/langtools/lib/pa20_64/crt0.o
```

To this:

```
x*:s:/usr/ccs/lib/pa20_64/crt0.o
```

Task 12B-2-3: Modifying the Cobopt File (SuSE Linux Enterprise Server Only)

If you are compiling COBOL on a SuSE Linux Enterprise Server operating system, you must update the \$COBDIR/etc/cobopt or \$COBDIR/etc/cobopt64 file to point to the correct GCC compiler object files. Without these changes the Server Express product cannot compile correctly.

Note. If you are installing Server Express 5.1 Wrap Pack 4, these changes may have already been incorporated in the files.

Change the following line in the \$COBDIR/etc/cobopt file:

From	To
-C nolist set GCC_LIB=/usr/lib64/gcc-lib/s390x-suse-linux/3.3.3/32	-C nolist set GCC_LIB=/usr/lib64/gcc/s390x-suse-linux/4.1.0/32

Change the following line in the \$COBDIR/etc/cobopt64 file:

From	To
-C nolist set GCC_LIB=/usr/lib64/gcc-lib/s390x-suse-linux/3.3.3/32	-C nolist set GCC_LIB=/usr/lib64/gcc/s390x-suse-linux/4.1.0

Task 12B-2-4: Compiling COBOL on UNIX When PS_APP_HOME is the Same as PS_HOME

To compile COBOL on UNIX:

1. If you haven't already done so, download all required patches to your file server, and from there to FTP the contents of src/cbl\base and src/cbl\unix over to src/cbl on the relevant application or batch server.

Note. When you bring patches up from the file server, the files need to have a lowercase cbl extension and an uppercase program name, as in PATCH.cbl.

2. Source the script psconfig.sh from *PS_HOME* to set up environment variables correctly on your application or batch server.

```
. ./psconfig.sh
```

3. Change to the *PS_HOME/setup* directory:

```
cd $PS_HOME/setup
```

4. To compile all the COBOL source dynamically, issue the command:

```
./pscbl.mak
```

The dynamic compile creates INT, LST, and GNT files, which are copied to these locations:

File	Location
INT	<i>PS_HOME</i> /src/cbl/int
LST	<i>PS_HOME</i> /src/cbl/lst
GNT	<i>PS_HOME</i> /cblbin

Warning! Proposed ISO 2000 COBOL features are enabled. Please refer to documentation for details, and do not rely on these features being supported in future products from Micro Focus due to changes in the proposed COBOL standard.

Note. For Server Express, PeopleSoft sets the COBOL directive INTLEVEL to 4. Setting this directive to this value enables you to raise the significant digits of numeric fields from 18 to 31. This is in accordance with the ISO 2000 COBOL standard. During the compilation of each program, the vendor of Server Express will display a warning. This should not be considered a compilation error.

Task 12B-2-5: Compiling COBOL on UNIX When PS_APP_HOME is Different from PS_HOME

Use the shell script pscbl.mak, found in *PS_HOME/setup*, to do the PeopleSoft COBOL compilation. This table describes the allowed arguments for pscbl.mak:

Command	Description
pscbl.mak	Use this command, with no argument, to compile all the COBOL programs.
pscbl.mak ps_home	Use this argument to compile only the PeopleSoft PeopleTools COBOL programs.
pscbl.mak ps_app_home	Use this argument to compile only the PeopleSoft Application COBOL programs.
pscbl.mak <COBOL_PROGRAM>	Enter the name for a valid Peoplesoft PeopleTools or PeopleSoft Application COBOL program to compile a specific program.

If you specify any argument other than the ones mentioned above, you will get the following usage display message:

```
echo Correct usage of the program is:
echo 1. pscbl.mak
echo 2. pscbl.mak ps_home
echo 3. pscbl.mak ps_app_home
echo 4. pscbl.mak PTPDBTST (or any tools/apps program, Note Peoplesoft COBOL⇒
programs are 6, 7 or 8 characters long)
```

To compile COBOL programs on UNIX:

1. Set PS_HOME environment variable in the UNIX shell prompt from which you want to run the COBOL compile.

You can run *PS_HOME/psconfig.sh* with the following command to set the PS_HOME environment variable in the shell.

```
cd <PS_HOME>
. ./psconfig.sh
```

Verify if PS_HOME is set with this command:

```
$ echo $PS_HOME
$ /home/<user>/PTcompile
```

2. Set the PS_APP_HOME environment variable (PS_APP_HOME refers to the location where you have installed the PeopleSoft Application software) with this command:

```
PS_APP_HOME=/home/<user>/HRcompile; export PS_APP_HOME
```

3. Run pscbl.mak, using one of these methods:

- To compile all PeopleSoft COBOL programs, that is, those for PeopleSoft PeopleTools and PeopleSoft Application, run this command:

```
pscb1.mak
```

This will compile the programs that are under *PS_HOME/src/cbl* and *PS_APP_HOME/src/cbl*.

- To compile only PeopleSoft PeopleTools COBOL programs, run this command:

```
pscb1.mak ps_home
```

- To compile only PeopleSoft Application COBOL programs, run this command:

```
pscb1.mak ps_app_home
```

- To compile a single COBOL program, run the command with the COBOL program name excluding the .cbl extension.

For example, for a PeopleSoft PeopleTools COBOL program PTPDBTST.CBL, or a PeopleSoft Application COBOL program GPPDPRUN.CBL, run:

```
pscb1.mak PTPDBTST
```

```
pscb1.mak GPPDPRUN
```

PeopleSoft PeopleTools compiled COBOL programs will be placed under the *PS_HOME\cblbin* directory. PeopleSoft Application compiled COBOL programs will be placed under the *PS_APP_HOME\cblbin* directory.

Task 12B-2-6: Linking COBOL

This section discusses:

- Understanding COBOL Linking
- Linking COBOL Components on UNIX

Understanding COBOL Linking

PSRUN is the PeopleSoft procedure that connects the COBOL batch programs with the RDBMS API. PSRUNRMT is the PeopleSoft procedure that connects the remote COBOL programs with the RDBMS API.

Both PSRUN and PSRUNRMT are compiled uniquely for each platform and consist of modules provided with PeopleSoft software, the RDBMS platform, and the operating system.

You need to create the PSRUN and PSRUNRMT programs in the following situations:

- You are installing PeopleSoft software for the first time.
- Any COBOL programs have changed.
- The version of the RDBMS running the PeopleSoft system has changed.
- The COBOL compiler has changed.
- One of the C programs supplied with the PeopleSoft system has changed.

Note. The PeopleSoft system only supports dynamic linking of COBOL. Static linking is not an option.

Linking COBOL Components on UNIX

To link COBOL components on UNIX:

1. Change to the *PS_HOME/setup* directory:

```
cd $PS_HOME/setup
```

2. For dynamic linking, run:

```
./psrun.mak
```

The PSRUN.MAK script should return the UNIX prompt when done. If the compile completes without errors, the file PSRUN and PSRUNRMT will now exist in the *PS_HOME/bin* directory. If you encounter errors, check *PS_HOME/setup/psrun.err* and *PS_HOME/setup/psrunrmt.err*

Task 12B-2-7: Recompiling COBOL on UNIX

You always need to compile at installation, so you will only need to recompile COBOL in the following situations:

- Any COBOL programs change
- The supported COBOL compiler changes
- You change the version of your RDBMS
- You change your version of your operating system
- You apply a patch or a fix

Note. Remember, you must always use your file server as the source repository for your COBOL. You should download any patches and apply any customizations to the file server, and disseminate them from there.

You can compile a *single* COBOL program dynamically by using this command syntax:

```
./pscb1.mak <PROGRAM NAME WITHOUT "cbl" EXTENSION>
```

For example, the following command compiles the lone file PTPDBTST.

```
./pscb1.mak PTPDBTST
```

Note. If you want to recompile all your COBOL, you can follow the procedure described earlier.

See Compiling COBOL on UNIX When PS_APP_HOME is the Same as PS_HOME or Compiling COBOL on UNIX When PS_APP_HOME is Different from PS_HOME.

The compile should run without errors until it completes. After the script is complete, check the destination directories for the newly created files in *PS_HOME/src/cbl/int*, *PS_HOME/src/cbl/lst*, and *PS_HOME/cblbin*. They should have a length greater than zero as well as a current date and time stamp.

Note. You can also use *pscb1.mak PTP* or *pscb1.mak PTP** to compile all source files that start with PTP.

Task 12B-3: Installing IBM COBOL on IBM AIX

This section discusses:

- Understanding the IBM COBOL for AIX Installation
- Prerequisites
- Installing IBM COBOL for AIX v3.1

Understanding the IBM COBOL for AIX Installation

The IBM COBOL for AIX compiler version 3.1 is supported for PeopleSoft PeopleTools 8.52. This section includes the installation of the IBM COBOL Compiler on IBM AIX.

Prerequisites

To install and use IBM COBOL for AIX V3.1, you must have the following:

- PeopleSoft PeopleTools

We recommend that you take the latest available PeopleSoft PeopleTools patch level. You should install PeopleSoft PeopleTools and your PeopleSoft application software before you compile the IBM COBOL for AIX source files.

- IBM COBOL for AIX version 3.1 or later.

You must obtain IBM COBOL for AIX compiler from your IBM vendor. Obtain the installation documentation and review the information on system prerequisites and installation methods. The following installation instructions assume that you have the IBM installation files and installation documentation. Review the information on planning your installation, but use the instructions in this document to carry out the installation. Contact your IBM representative to obtain the software.

See <http://www-01.ibm.com/software/awdtools/cobol/aix/>

See <http://www-01.ibm.com/software/awdtools/cobol/aix/library/>

- The IBM COBOL compiler uses the system temporary space for some steps. Be sure the space is not full before beginning the compilation.

See Using the IBM COBOL Compiler on IBM AIX, Troubleshooting the IBM COBOL Compiler.

- Documentation for IBM System Prerequisites

Refer to the “System Prerequisites” section in the IBM Installation guide for COBOL for AIX 3.1, before installing and running the software.

Task 12B-3-1: Installing IBM COBOL for AIX v3.1

This procedure assumes that you obtained the installation file from your IBM vendor and saved the compressed installation file in a local directory, referred to here as *CBL_INSTALL*. The compressed installation file includes several filesets. All of the filesets listed must be installed. This table lists the filesets for IBM COBOL for AIX compiler v3.1, and the locations where they will be installed:

Fileset Name	Fileset Description	Installation Locations*	Required Fileset Level
cobol.cmp	IBM COBOL for AIX compiler	/usr/lpp/cobol/ /usr/lpp/cobol/bin/ /usr/lpp/cobol/samples/ /usr/lpp/cobol/include/ /usr/bin/	3.1.0.4
cobol.dbg	IBM COBOL for AIX debugger	/usr/lpp/cobol/lib /usr/lib/	3.1.0.4

Fileset Name	Fileset Description	Installation Locations*	Required Fileset Level
cobol.license	IBM COBOL for AIX electronic license	/usr/swlag/cobol/31/ <i>LANG</i> /cobol.la <i>LANG</i> = [en_US, ja_JP, Ja_JP}	3.1.0.0
cobol.lic	IBM COBOL for AIX license files	/usr/lpp/cobol/lib/	3.1.0.0
cobol.man	IBM COBOL for AIX compiler manual pages	/usr/man/cat1/	3.1.0.4
cobol.msg. <i>LANG</i>	IBM COBOL for AIX compiler messages	/usr/lib/nls/msg/ <i>LANG</i> / <i>LANG</i> = [en_US, ja_JP, Ja_JP]	3.1.0.4
cobol.rte	IBM COBOL for AIX Runtime	/usr/lpp/cobol/ /usr/lpp/cobol/lib/ /usr/lib/ /etc/	3.1.0.4

*If more than one location is listed, the fileset is copied into all the locations.

To extract and install:

1. Go to the location where you saved the compressed installation file:

```
cd CBL_INSTALL
```

2. Uncompress the downloaded file with this command:

```
uncompress cobol.310_eval.tar.Z
```

3. Unpack the resulting tar file with this command:

```
tar -xvf cobol.310_eval.tar
```

4. Change directory to *CBL_INSTALL*/usr/sys/inst.images, and use the inutoc command to generate a list of the files in this directory:

```
cd usr/sys/inst.images
inutoc .
```

5. Use the AIX command *installp* to install.

For information on using the options for *installp*, see the IBM COBOL for AIX documentation. For example:

- To install all available filesets to the locations specified in the table at the beginning of this procedure, and write an installation log, use this command:

```
installp -aXYgd <CBL_INSTALL>/usr/sys/inst.images -e <LOG_DIR/logfile_name>=>
all
```

- To install a specific fileset, and write an installation log, use this command:

```
installp -aXYgd <CBL_INSTALL>/usr/sys/inst.images -e <LOG_DIR/logfile_name> =>
<fileset_name>
```

6. Download the required maintenance packs for IBM COBOL 3.1.0.4 from the IBM web site:
<http://www-933.ibm.com/support/fixcentral/>
7. Install the filesets included in the fix pack using the `installp` command as described above.
 - You must install all the available filesets for 3.1.0.4.
 - For the fileset `cobol.msg.LANG` (where `LANG` = [en_US, ja_JP, Ja_JP]), choose to install only the filesets relevant to your desired language and location.

Note. The `LANG` environment variable determines which message catalogs are used. The `en_US` (English) message catalogs are installed by default. If `LANG` is not defined or is assigned an unsupported locale, `en_US` message catalogs are used.

8. Use the `lsllp` command to check the status of the installed COBOL filesets:

```
lsllp -L cobol*
```

Task 12B-4: Using the IBM COBOL Compiler on IBM AIX

This section discusses:

- Setting Environment Variables for IBM COBOL
- Compiling COBOL on AIX When `PS_APP_HOME` is the Same as `PS_HOME`
- Compiling COBOL on AIX When `PS_APP_HOME` is Different from `PS_HOME`
- Troubleshooting the IBM COBOL Compiler
- Setting Up the IBM COBOL Runtime
- Removing the IBM COBOL Installation

Setting Environment Variables for IBM COBOL

Before compiling the IBM COBOL for AIX, or before installing the files on machines where the COBOL will be run, you must specify environment variables as described in this section. This procedure assumes that the installation directory for PeopleSoft PeopleTools 8.52 is `PS_HOME`.

To set the environment variables for IBM COBOL for AIX, go to the PeopleSoft PeopleTools installation directory and source the `psconfig.sh` script:

```
cd <PS_HOME>
. ./psconfig.sh
```

This section includes different procedures depending upon how you set up your installation environment.

See "Preparing for Installation," Defining Installation Locations.

If you installed the PeopleSoft Application software to a `PS_APP_HOME` location that is the same as the `PS_HOME` location where you installed PeopleSoft PeopleTools 8.52, follow the instructions in the section Compiling COBOL on AIX When `PS_APP_HOME` is the Same as `PS_HOME`.

If you installed the PeopleSoft Application software to a *PS_APP_HOME* location that is different from the *PS_HOME* location where you installed PeopleSoft PeopleTools 8.52, follow the instructions in the section Compiling COBOL on AIX When *PS_APP_HOME* is Different from *PS_HOME*.

Task 12B-4-1: Compiling COBOL on AIX When *PS_APP_HOME* is the Same as *PS_HOME*

If you have installed the PeopleSoft Application software in the same directory (*PS_APP_HOME*) where you installed your PeopleSoft PeopleTools software installation directory (*PS_HOME*), follow these steps to do the COBOL compilation.

This section is only required for those who need to compile the COBOL sources, not for those who only need to run the compiled COBOL. This procedure assumes that you have set the environment variables as described in the previous section.

To compile the COBOL source files:

1. Change the directory to *PS_HOME/setup*; for example:

```
cd $PS_HOME/setup
```

2. Depending on the character encoding type that your installation uses, set the environment variable *PS_ENCODING*, as specified in this table:

Encoding	Command
ANSI	export PS_ENCODING=ansi
EBCDIC	export PS_ENCODING=ebclic
Unicode	export PS_ENCODING=unicode

Make sure that you are giving the correct value of this environment variable. You will receive the errors if the wrong value of this environment variable is specified.

- If your setup includes the file *\$PS_HOME/setup/unicode.cfg*, indicating that the character encoding for your installation is Unicode, but you set the value of *PS_ENCODING* to *ansi* or *ebcdic* with the commands above, you will get the following error

```
psclibm.mak : ERROR : <PS_HOME>/unicode.cfg EXISTS, but INCOMPATIBLE⇒
encoding of $PS_ENCODING was specified, EXITING!!!
```

- If your setup does not have the file *\$PS_HOME/setup/unicode.cfg*, indicating that the character encoding for your installation is non-Unicode, but you set the value of *PS_ENCODING* to *unicode*, you will get the following error

```
psclibm.mak : ERROR : <PS_HOME>/setup/unicode.cfg does not EXIST, but⇒
INCOMPATIBLE encoding of $PS_ENCODING was specified, EXITING!!!
```

3. Use this command to compile:

```
./psclibm.mak apps
```

The optional parameter *apps* determines the location of the work area where the compilation takes place. The allowed values and compilation locations are listed in this table:

Product Line	Apps Parameter	Location
PeopleSoft PeopleTools	pt (default)	<i>PS_HOME</i> /sdk/cobol/pscbldpt/src
Human Capital Management	hcm	<i>PS_HOME</i> /sdk/cobol/pscbldhcms/src
Financials/Supply Chain Management	fscm	<i>PS_HOME</i> /sdk/cobol/pscbldfscm/src

The compiled COBOL programs will be placed under *<PS_HOME>/CBLBIN<X>*.

<X> is A for ANSI, E for EBCDIC, or U for Unicode.

Note. If you see the following output during the compilation, you can ignore it:

```
Preprocessing COBOL files
ls: 0653-341 The file *.cfg does not exist.
Preprocessing the file PSPBASCH.cbl
Can't open input file
```

Task 12B-4-2: Compiling COBOL on AIX When *PS_APP_HOME* is Different from *PS_HOME*

If you have installed the PeopleSoft Application software in a directory (*PS_APP_HOME*) which is different than the PeopleSoft PeopleTools software installation directory (*PS_HOME*), follow these steps to do the COBOL compilation.

This section is only required for those who need to compile the COBOL sources, not for those who only need to run the compiled COBOL.

This procedure assumes that you have set the environment variables as described earlier.

To compile the COBOL source files:

1. Ensure that the directory *sdk/cobol/pscbldapps* is present under *PS_APP_HOME* directory for the application you are trying to compile.

For example if the installed PeopleSoft Application is Human Capital Management (*apps* = *hcm*), then the following directory structure should be present and the user must have write access to it:

```
sdk/cobol/pscbldhcm
```

2. Set the environment variable for *PS_HOME*, the directory where you installed the PeopleSoft software; for example:

```
PS_HOME = ~/PTcompile; export PS_HOME
```

3. Set the environment variable for *PS_APP_HOME*, the directory where you installed the PeopleSoft Application software; for example:

```
PS_APP_HOME = ~/HRcompile; export PS_APP_HOME
```

4. Change the directory to *PS_HOME/setup*; for example:

```
cd $PS_HOME/setup.
```

5. Depending on the character encoding type that your installation uses, set the environment variable *PS_ENCODING*, as specified in this table:

Encoding	Command
ANSI	<code>export PS_ENCODING=ansi</code>
EBCDIC	<code>export PS_ENCODING=ebcdic</code>
Unicode	<code>export PS_ENCODING=unicode</code>

Make sure that you are giving the correct value of this environment variable. You will receive the errors if the wrong value of this environment variable is specified.

- If your setup includes the file `$PS_HOME/setup/unicode.cfg`, indicating that the character encoding for your installation is Unicode, but you set the value of `PS_ENCODING` to `ansi` or `ebcdic` with the commands above, you will get the following error:

```
psclibm.mak : ERROR : <PS_HOME>/unicode.cfg EXISTS, but INCOMPATIBLE⇒
encoding of $PS_ENCODING was specified, EXITING!!!
```

- If your setup does not have the file `$PS_HOME/setup/unicode.cfg`, indicating that the character encoding for your installation is non-Unicode, but you set the value of `PS_ENCODING` to `unicode`, you will get the following error:

```
psclibm.mak : ERROR : <PS_HOME>/setup/unicode.cfg does not EXIST, but⇒
INCOMPATIBLE encoding of $PS_ENCODING was specified, EXITING!!!
```

6. Use this command to compile:

```
./psclibm.mak apps
```

The optional parameter *apps* determines the location of the work area where the compilation takes place. The allowed values and compilation locations are listed in this table:

Product Line	Apps Parameter	Location
PeopleSoft PeopleTools	pt (default)	<code>PS_HOME/sdk/cobol/psclpt/src</code>
Human Capital Management	hcm	<code>PS_APP_HOME/sdk/cobol/psclhrms/src</code>
Financials/Supply Chain Management	fscm	<code>PS_APP_HOME/sdk/cobol/psclfscm/src</code>

The PeopleSoft PeopleTools compiled COBOL programs will be placed under `<PS_HOME>/CBLBIN<X>` and the PeopleSoft Application compiled COBOL programs will be placed under `<PS_APP_HOME>/CBLBIN<X>`.

`<X>` is A for ANSI, E for EBCDIC, or U for Unicode.

Task 12B-4-3: Troubleshooting the IBM COBOL Compiler

This section discusses:

- Understanding Troubleshooting for the IBM COBOL Compiler
- Reviewing Screen Output from `psclibm.mak`
- Reviewing `erroribm.lst`
- Reviewing the `LISTOUT.LST` file
- Reviewing `COBOL_PROGRAM.LST` files

- Reviewing temporary space errors

Understanding Troubleshooting for the IBM COBOL Compiler

You can find the error and list files discussed in this section in the following locations, depending upon your installation setup:

- If *PS_APP_HOME* is the same as *PS_HOME*, all error and list files mentioned here are placed in directories under *PS_HOME*.
- If *PS_APP_HOME* is different from *PS_HOME*, and you compile PeopleSoft PeopleTools COBOL source files, the error and list files mentioned here are placed in directories under *PS_HOME*.
- If *PS_APP_HOME* is different from *PS_HOME*, and you compile PeopleSoft Application COBOL source files, the error and list files mentioned here are placed in directories under *PS_APP_HOME*.

When compiling COBOL programs on AIX using the IBM COBOL compiler, compiler and linker informational messages are reported in the following locations:

- screen output from *psclibm.mak*
- *erroribm.lst*
`<PS_HOME>/setup/erroribm.lst`
- *LISTOUT.lst* file
`<PS_HOME>/sdk/cobol/pscl<APPS>/src/LISTOUT.lst`
`<APPS>` is the PeopleSoft product family, such as *hcm*.

See *Compiling COBOL on AIX When PS_APP_HOME is the Same as PS_HOME*

- *COBOL_PROGRAM.lst*
`<PS_HOME>/sdk/cobol/pscl<APPS>/lst/<COBOL_PROGRAM>.lst`

Initially, either review the screen output or the *erroribm.lst* file in *PS_HOME/setup*. The *erroribm.lst* file will contain the names of the programs that failed to compile. You can examine the file *LISTOUT.lst* to find the COBOL program names listed in *erroribm.lst* to review the cause of the failures. Then review the *COBOL_PROGRAM.lst* file to analyze the COBOL error in context of the COBOL source code. After you have corrected the compile or linker errors, you can simply start a complete re-compile.

Depending on the relevancy of the failing compiled modules to your project mission, you can decide to resolve all compile and linker errors or continue without the failed modules.

The programs *PTPPSRUN* and *PTPPSRMT* must be compiled correctly. If these programs do not compile correctly, none of the COBOL programs will run. These programs are located at *PS_HOME/src/cbl/ibm/unix*.

If these programs fail to compile, you will get the following errors:

```
./psclibm.mak : Error : Critical program PTPPSRUN did not compile
./psclibm.mak : Error : This error must be fixed prior to running any cobol⇒
programs...

./psclibm.mak : Error : Critical program PTPPSRMT did not compile
./psclibm.mak : Error : This error must be fixed prior to running any cobol⇒
programs via RemoteCall
```

Be sure to resolve the errors for these programs before proceeding.

Reviewing Screen Output from pscblibm.mak

The screen output is the first place you should look to determine if there is a compilation or linking error. Compilation/Linking errors will be displayed at the end of the screen output. For example:

```
./pscblibm.mak: Error : The list of file(s) failed to compile/link.
CEPCROLL fail to compile/link
ENPBTRNS fail to compile/link
ENPMMAIN fail to compile/link
GLPJEDT2 fail to compile/link
SFPCRELS fail to compile/link
SFPREVAL fail to compile/link
./pscblibm.mak : The list of file(s) that failed to compile/link can be found at =>
/data1/home/easa/pt852/setup/erroribm.lst
./pscblibm.mak : The compilation log is generated at /data1/home/easa/pt852/sdk=>
/cobol/pscblpt/src/LISTOUT.lst
./pscblibm.mak : The compile listing of the COBOL programs can be seen at /data1=>
/home/easa/pt852/sdk/cobol/pscblpt/lst
```

Reviewing erroribm.lst

The erroribm.lst file is located in the *PS_HOME*/setup directory, and contains a list of the programs that failed to compile. For example:

```
CEPCROLL fail to compile/link
ENPBTRNS fail to compile/link
ENPMMAIN fail to compile/link
GLPJEDT2 fail to compile/link
SFPCRELS fail to compile/link
SFPREVAL fail to compile/link
```

Reviewing the LISTOUT.LST file

The LISTOUT.lst file is located in the *<PS_HOME>/sdk/cobol/pscbl<APPS>/src* directory and contains compiler and linker informational, warning and error messages.

For example, the following error is related to program PTPDBTST:

```
exec: /usr/bin/ld -b64 -bpT:0x100000000 -bpD:0x110000000 -bhalt:5 /lib/crt0_64.o =>
lg -bexport:/usr/lib/libg.exp -o PTPCURND PTPCURND.o -brtl -bE:symlist.
exp -lpthreads -ldl -lnsl -L/home/sphilli2/852-803-I1-AIX-ORAU-DEBUG/bin =>
lpscompat_ansi -lpssqlapi_ansi -lpsuser_ansi -lpspetssl -lpsora_ansi -lpscobnet_>
ansi -L/usr/lpp/cobol/lib -L/usr/lpp/SdU/vsam/lib -L/usr/lpp/SdU/sfs/lib -lcob2s =>
lsmrtlite -lc128 -lc -lc
unlink: PTPCURND.o
exec: /usr/lpp/cobol/bin/IGYCCOB2 -qtest -qdynamic -qaddr(64),flag(w),trunc=>
(bin),arith(extend) -qADDR(64) PTPDBTST.cbl
PP 5724-V62 IBM COBOL for AIX 3.1.0 in progress ...
LineID Message code Library phase message text
          IGYLI0090-W    4 sequence errors were found in this program.
Messages      Total      Informational      Warning      Error      Severe      Terminating
Printed:         1                                1
LineID Message code Message text
```

```

      IGYSC0205-W   Warning message(s) were issued during library phase⇒
processing. Refer to the beginning of the listing.
      588  IGYPA3007-S   "ZZ000-SQL-ERROR-ROUTINE" was not defined as a
                        procedure-name. The statement was discarded.
Messages      Total      Informational      Warning      Error      Severe      Terminating
Printed:           2                               1              1
Suppressed:       6              6
End of compilation 1, program PTPDBTST, highest severity: Severe.
Return code 12
PTPDBTST fail to compile/link

```

Reviewing COBOL_PROGRAM.LST files

The COBOL_PROGRAM.lst files are located in <PS_HOME>/sdk/cobol/pscb<APPS>/lst directory and contain the compiler output for a specific program.

For example, a portion of the PTPDBTST.lst file contains this compilation error found for program PTPDBTST, where the ZZ000-SQL-ERROR-ROUTINE was not defined:

```

      588  IGYPA3007-S   "ZZ000-SQL-ERROR-ROUTINE" was not defined as a procedure⇒
name. The statement was discarded.
-Messages      Total      Informational      Warning      Error      Severe      Terminating
0Printed:           2                               1              1
0Suppressed:       6              6
-* Statistics for COBOL program PTPDBTST:
*   Source records = 805
*   Data Division statements = 213
*   Procedure Division statements = 52

```

Reviewing temporary space errors

IBM COBOL compiler uses the system temporary space to do some steps of the compilation. Like other UNIX processes, the compiler may give errors when the system temporary space is full.

To avoid or correct this problem, clean up the system temporary space on your machine.

Here is a sample of errors seen during compilation, when the system temporary space (/tmp) was full in a development AIX machine:

```

pscbllibm.mak : Compiling EGPPRCTL.cbl ...
IGYDS5247-U   An error occurred while attempting to write a compiler work file,⇒
"SYSUT7".
Compiler aborted with code 1247
IGYSI5258-U   Error removing WCode file.: A file or directory in the path name⇒
does not exist.
IGYSI5258-U   Error removing WCode file.: A file or directory in the path name⇒
does not exist.
IGYSI5259-U   Error closing WCode file.: A file descriptor does not refer to an⇒
open file.
IGYSI5258-U   Error removing WCode file.: A file or directory in the path name⇒
does not exist.
IGYSI5259-U   Error closing WCode file.: A file descriptor does not refer to an⇒
open file.

```

```

IGYSI5258-U   Error removing WCode file.: A file or directory in the path name⇒
              does not exist.
IGYSI5259-U   Error closing WCode file.: A file descriptor does not refer to an⇒
              open file.
IGYSI5258-U   Error removing WCode file.: A file or directory in the path name⇒
              does not exist.
IGYSI5259-U   Error closing WCode file.: A file descriptor does not refer to an⇒
              open file.

```

Task 12B-4-4: Setting Up the IBM COBOL Runtime

This section discusses:

- Installing the IBM COBOL for AIX Runtime Files
- Configuring the Application Server Domain
- Configuring the Process Scheduler Domain
- Setting Environment Variables When PS_APP_HOME is Different from PS_HOME

Installing the IBM COBOL for AIX Runtime Files

For those machines that only need to run the compiled COBOL files, you must install the runtime filesets for IBM COBOL for AIX. You do not need to install the compiler. You must also configure the PeopleSoft Application Server and Process Scheduler domains.

This procedure assumes that you have downloaded the runtime filesets to CBL_INSTALL, and have set the environment variables as described earlier.

See Setting Environment Variables.

The runtime filesets will be installed into the locations as specified in this table:

Fileset Name	Fileset Description	Installation Locations	Fileset Level Required
cobol.rte	IBM COBOL for AIX runtime libraries	/usr/lpp/cobol/ /usr/lpp/cobol/lib/ /usr/lib/ /etc/	3.1.0.4
cobol.msg.LANG	IBM COBOL for AIX runtime messages LANG = [en_US, ja_JP, Ja_JP]	/usr/lib/nls/msg/LANG	3.1.0.4

To install the runtime filesets:

1. Use the AIX command `installp` to install these filesets. For example:


```
installp -aYg -d CBL_INSTALL/usr/sys/inst.images cobol.rte cobol.msg.en_US
```
2. Download the required maintenance packs for IBM COBOL 3.1.0.4 from the IBM support web site.
<http://www-933.ibm.com/support/fixcentral/>
3. Install the filesets included in the maintenance packs using the `installp` command as described above.

Configuring the Application Server Domain

This section assumes that you have created an Application Server domain, as described in the chapter “Configuring the Application Server on UNIX.” In PeopleSoft PeopleTools 8.51 and later, the configuration and log files for application server domains reside in a directory referred to as *PS_CFG_HOME*.

See *PeopleTools 8.52: System and Server Administration PeopleBook*, "Working with Server Domain Configurations."

To configure the Application Server domain:

1. Go to the *PS_HOME/appserv* directory and run *psadmin*.
2. When the menu appears, specify *1* for Application Server and press ENTER.
3. Enter *1* for Administer Domain, and select the appropriate domain.
4. Enter *4* for Configure this domain.
5. On the Quick-configure menu, select *15*, Edit environment settings.
6. If *PS_APP_HOME* is different from *PS_HOME*, carry out steps a and b below.

Note. If *PS_APP_HOME* is the same as *PS_HOME*, skip these two steps and continue with step 7.

- a. On the PeopleSoft Domain Environment Settings, select 2 to add environment variable.
- b. Enter *PS_APP_HOME* as the name of the environment variable, and installation directory where you installed your PeopleSoft Application software as the value of the environment variable. For example:

```
Enter name of environment variable: PS_APP_HOME
Enter value: /home/psft/HRcompile
```

7. Enter *1* to Edit environment variable.
8. Enter the number of the environment variable corresponding to *COBPATH*.
9. Modify the value as shown.

Change from:

```
{ $PS_APP_HOME } /cblbin: { $PS_HOME } /cblbin
```

To:

```
{ $PS_APP_HOME } /CBLBIN_IBMX: { $PS_HOME } /CBLBIN_IBMX
```

X in CBLBIN_IBMX can be A for ANSI, E for EBCDIC or U for Unicode.

You will see an asterisk in front of the *PS_APP_HOME* and *COBPATH* environment variables, because these variables have not been saved.

10. Specify *6* to save the environment variables.
11. Press ENTER to continue at the following message:

```
Your changes have been saved.
Please be aware these changes will not take effect until you complete the⇒
domain configuration process.
Press Enter to continue...
```

12. Enter *q* for return to the previous menu.
13. On the Quick-configure menu, enter *13*, to load the domain configuration.

14. Enter *q* to return to the PeopleSoft Server Administration menu.
15. Enter *l* for Administer Domain.
16. Select the appropriate domain.
17. Enter *6* for Edit configuration/log files menu.
18. Enter *l* for Edit domain configuration file.
19. In the domain configuration file, search for RCCBL PRDBIN.
20. Update the RCCBL PRDBIN as shown below, and remove the semicolon from the beginning of the line.

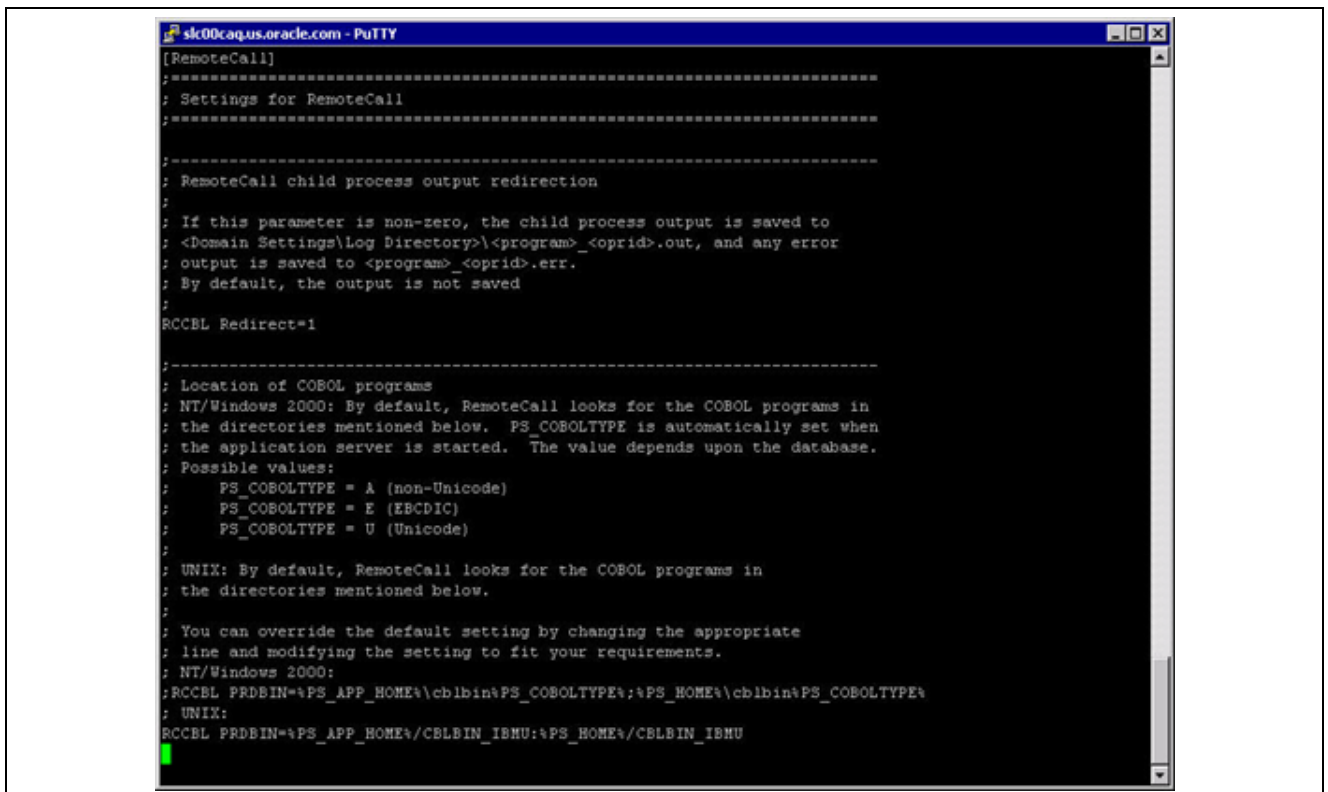
Change from:

```
;RCCBL PRDBIN=%PS_APP_HOME%/cblbin;%PS_HOME%/cblbin
```

To:

```
RCCBL PRDBIN=%PS_APP_HOME%/CBLBIN_IBMX;%PS_HOME%/CBLBIN_IBMX
```

X in CBLBIN_IBMX can be A for ANSI, E for EBCDIC or U for Unicode.



Editing RCCBL PRDBIN in the domain configuration file

21. Enter *:w* to save the file, and enter *:q* to quit.
22. Enter *q* to quit the PeopleSoft Edit/View Configuration/Log Files Menu.
23. Enter *4* for Configure this domain.
24. Enter *y* to continue at this prompt:

```

This option will shutdown the domain.
Do you want to continue? (y/n) [n]: y

```

25. On the Quick-configure menu, select *13* to load the configuration.
26. Enter *1* to boot the domain.
27. Enter *1* for Boot (Serial Boot), or *2* for Parallel Boot.

Configuring the Process Scheduler Domain

To configure the Process Scheduler domain:

1. Go to the `PS_HOME/appserv` directory and run `psadmin`.
2. When the menu appears, specify *2* for Process Scheduler and press ENTER.
3. Enter *1* for Administer Domain, and select the appropriate domain.
4. Enter *4* for Configure this domain.
5. On the Quick-configure menu, select *5*, Edit environment settings.
6. If `PS_APP_HOME` is different from `PS_HOME`, carry out steps a and b below.

Note. If `PS_APP_HOME` is the same as `PS_HOME`, skip these two steps and continue with step 7.

- a. On the PeopleSoft Domain Environment Settings, select *2* to add environment variable.
- b. Enter `PS_APP_HOME` as the name of the environment variable, and the installation directory where you installed your PeopleSoft Application software as the value of the environment variable.

For example:

```
Enter name of environment variable: PS_APP_HOME
Enter value: /home/psft/HRMS92
```

7. Enter *1* for Edit environment variable.
8. Enter the number of the environment variable corresponding to `COBPATH`.
9. Modify the value as shown.

Change from:

```
{ $PS_APP_HOME } /cblbin: { $PS_HOME } /cblbin
```

To:

```
{ $PS_APP_HOME } /CBLBIN_IBMX: { $PS_HOME } /CBLBIN_IBMX
```

X in `CBLBIN_IBMX` can be A for ANSI, E for EBCDIC or U for Unicode.

You will see an asterisk in front of the `PS_APP_HOME` and `COBPATH` environment variables, because these variables have not been saved.

10. Enter *6* to save the environment variables.
11. Press ENTER to continue at the following message:

```
Your changes have been saved.
Please be aware these changes will not take effect until you complete the⇒
domain configuration process.
Press Enter to continue...
```

12. Enter *q* to return to the previous menu.
13. On the Quick-configure menu, enter *3*, to load the domain configuration.

14. Enter *l* to boot the domain.

Setting Environment Variables When PS_APP_HOME is Different from PS_HOME

This section applies to those installations in which:

- *PS_APP_HOME* is different from *PS_HOME*.
- You have several Application Server or Process Scheduler domains.
- All of those domains are going to be associated with a particular *PS_APP_HOME* installation directory.

In this case it is a good idea to define `PS_APP_HOME` in `PS_HOME/psconfig.sh`. For example, edit `psconfig.sh` to add this line:

```
PS APP_HOME="/home/psft/hrms92"; export PS APP_HOME
```

After making this change, you must source the *PS HOME*/psconfig.sh file again.

This way you would not need to add the `PS_APP_HOME` environment variable through the “Edit environment variable” psadmin Application Server and Process Scheduler administration menus each time you create a new domain.

Task 12B-4-5: Removing the IBM COBOL Installation

Keep the following information in mind before removing the IBM COBOL compiler on IBM AIX:

- You must have root user access to uninstall this product.
- Some filesets may not be uninstalled if they are required by other installed products.
- As uninstalling dependent packages automatically may introduce problems, it is recommended that you preview uninstallation to ensure that all dependent filesets are no longer required.

See the IBM COBOL compiler documentation for more information.

To remove the IBM COBOL compiler:

1. Run the following command:

```
installp -u cobol*
```

Here are typical responses:

```
$ installp -u cobol*
```

Pre-deinstall Verification...

```
Verifying selections...done
```

Verifying requisites...done

Results...

WARNINGS

Problems described in this section are not likely to be the source of any immediate or serious failures, but further actions may be necessary or desired.

Not Installed

No software could be found on the system that could be deinstalled for the

```

following requests:
    cobol.msg.Ja_JP
    cobol.msg.ja_JP
(The fileset may not be currently installed, or you may have made a
typographical error.)
<< End of Warning Section >>
SUCCESES
-----
Filesets listed in this section passed pre-deinstall verification
and will be removed.
Selected Filesets
-----
cobol.cmp 3.1.0.0                # IBM COBOL for AIX Compiler
cobol.dbg 3.1.0.0                # IBM COBOL for AIX Debugger
cobol.lic 3.1.0.0                # COBOL for AIX Licence Files
cobol.license 3.1.0.0            # COBOL for AIX License Agreem...
cobol.man 3.1.0.0                # IBM COBOL Set for AIX Man Pages
cobol.msg.en_US 3.1.0.0          # IBM COBOL for AIX Runtime Me...
cobol.rte 3.1.0.0                # IBM COBOL for AIX Runtime
<< End of Success Section >>
FILESET STATISTICS
-----
    9  Selected to be deinstalled, of which:
        7  Passed pre-deinstall verification
        2  FAILED pre-deinstall verification
    ----
    7  Total to be deinstalled
+-----+
                        Deinstalling Software...
+-----+
installp: DEINSTALLING software for:
    cobol.lic 3.1.0.0
Filesets processed:  1 of 7  (Total time:  0 secs).
installp: DEINSTALLING software for:
    cobol.license 3.1.0.0
Filesets processed:  2 of 7  (Total time:  0 secs).
installp: DEINSTALLING software for:
    cobol.dbg 3.1.0.0
Filesets processed:  3 of 7  (Total time:  1 secs).
installp: DEINSTALLING software for:
    cobol.man 3.1.0.0
Filesets processed:
    4 of 7  (Total time:  1 secs).
installp: DEINSTALLING software for:
    cobol.msg.en_US 3.1.0.0
Filesets processed:  5 of 7  (Total time:  2 secs).
installp: DEINSTALLING software for:
    cobol.cmp 3.1.0.0
Filesets processed:  6 of 7  (Total time:  3 secs).
installp: DEINSTALLING software for:

```

```

cobol.rte 3.1.0.0
Finished processing all filesets.  (Total time:  5 secs).
+-----+
Summaries:
+-----+
Pre-installation Failure/Warning Summary
-----
Name                      Level                      Pre-installation Failure/Warning
-----
cobol.msg.Ja_JP           Nothing by this name to deinstall
cobol.msg.ja_JP           Nothing by this name to deinstall
Installation Summary
-----
Name                      Level                      Part      Event      Result
-----
cobol.lic                 3.1.0.0                   USR       DEINSTALL  SUCCESS
cobol.license             3.1.0.0                   USR       DEINSTALL  SUCCESS
cobol.dbg                 3.1.0.0                   USR       DEINSTALL  SUCCESS
cobol.man                 3.1.0.0                   USR       DEINSTALL  SUCCESS
cobol.msg.en_US           3.1.0.0                   USR       DEINSTALL  SUCCESS
cobol.cmp                 3.1.0.0                   ROOT      DEINSTALL  SUCCESS
cobol.cmp                 3.1.0.0                   USR       DEINSTALL  SUCCESS
cobol.rte                 3.1.0.0                   USR       DEINSTALL  SUCCESS

```

2. To remove any currently unused modules in kernel and library memory, enter the following on the command line:

slibclean

CHAPTER 13

Installing PeopleSoft Change Assistant

This chapter discusses:

- Understanding PeopleSoft Change Assistant
- Installing and Configuring PeopleSoft Change Assistant
- Specifying Options
- Exporting Jobs to XML, HTML, or Microsoft Excel Format
- Validating Change Assistant Settings

Understanding PeopleSoft Change Assistant

Oracle's PeopleSoft Change Assistant is a standalone application that enables you to assemble and organize the steps necessary to apply patches and fixes for maintenance updates. You also use PeopleSoft Change Assistant for software upgrades, that is, the process of moving from one PeopleSoft application release to another PeopleSoft application release. PeopleSoft Change Assistant runs only on Microsoft Windows platforms.

In order to perform reliable and accurate updates, PeopleSoft Change Assistant gathers all the necessary information including the change log from the Environment Management hub and uploads it to My Oracle Support. With the environment data available, My Oracle Support can determine what updates apply to your environment.

When you access My Oracle Support, you can obtain a list of all unapplied updates for a given application environment including all prerequisites. You can then download a set of change packages associated with the update IDs and install the patches and fixes with minimal effort.

See Also

"Using the PeopleSoft Installer," Verifying Necessary Files for Installation on Windows

PeopleTools 8.52: PeopleSoft Change Assistant PeopleBook

PeopleTools 8.52: Life Cycle Management Guide PeopleBook

Task 13-1: Installing and Configuring PeopleSoft Change Assistant

This section discusses:

- Installing PeopleSoft Change Assistant
- Setting Up Security for PeopleSoft Change Assistant
- Verifying the Path Variable
- Scanning the Workstation

Task 13-1-1: Installing PeopleSoft Change Assistant

At the end of the installation, you have the option of installing PeopleSoft Change Impact Analyzer. For more information on that installation, see the following chapter.

See "Installing PeopleSoft Change Impact Analyzer."

To install PeopleSoft Change Assistant:

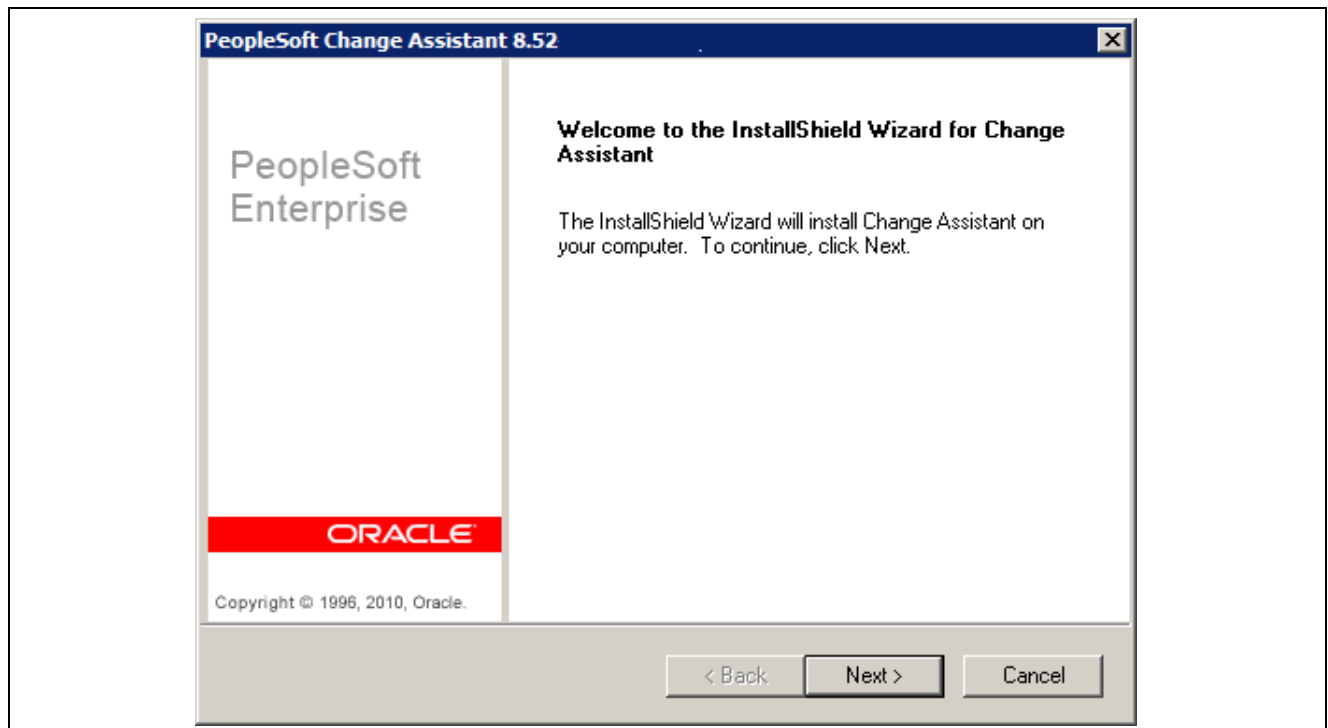
Note. A Microsoft Windows-based operating system is required to use PeopleSoft Change Assistant.

1. If there is a pre-8.52 version of PeopleSoft Change Assistant installed on your computer, remove it before beginning the installation. Otherwise, the installation process will terminate.

You can remove the previous version of PeopleSoft Change Assistant by using the Microsoft Windows Add or Remove Programs feature. Alternatively, launch the setup.exe of the previous version and select the option to remove the software.

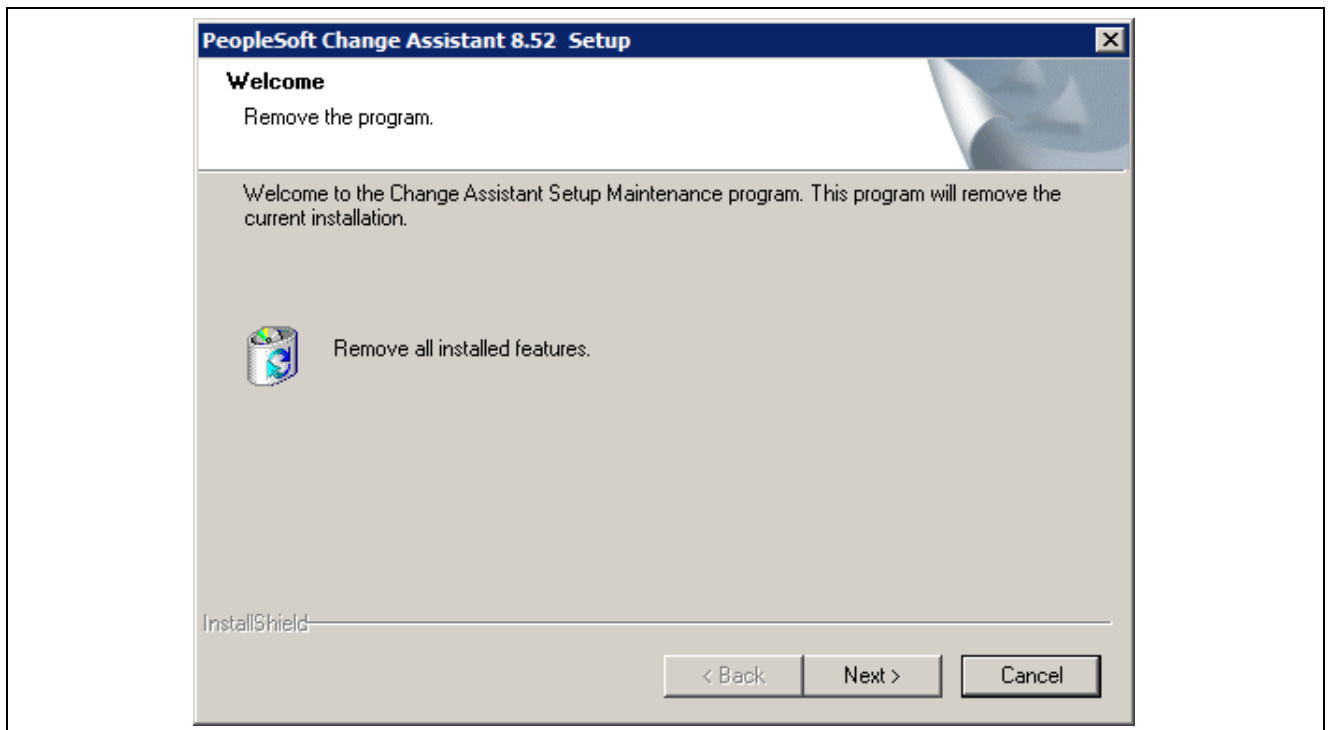
2. From the *PS_HOME*\setup\PsCA directory, run *setup.exe*.

Click Next on the Welcome to the InstallShield Wizard for Change Assistant window.



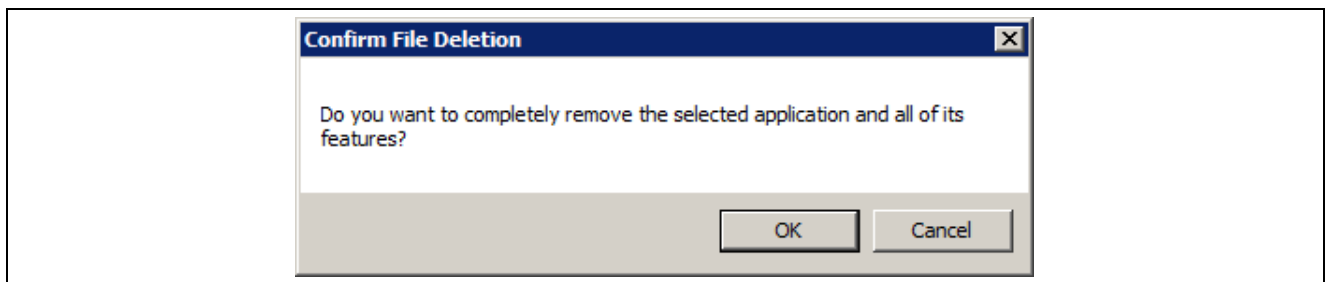
PeopleSoft Change Assistant Setup Welcome window

3. If there is an existing installation of PeopleSoft Change Assistant 8.52 a window appears that enables you to remove the existing installation.



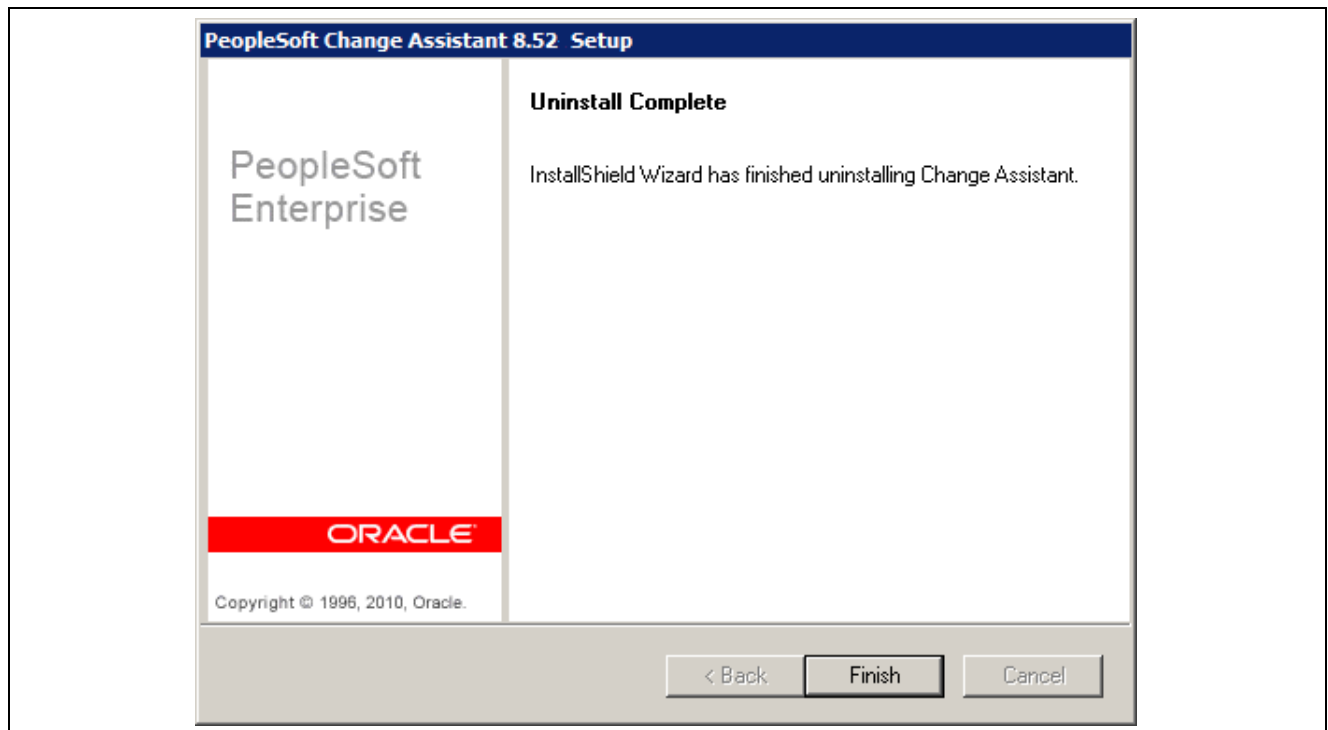
Window to remove the previous PeopleSoft Change Assistant installation

Click Next, and then click OK on the Confirm File Deletion dialog box. The question on the dialog box is “Do you want to completely remove the selected application and all of its features,” as seen in this example:



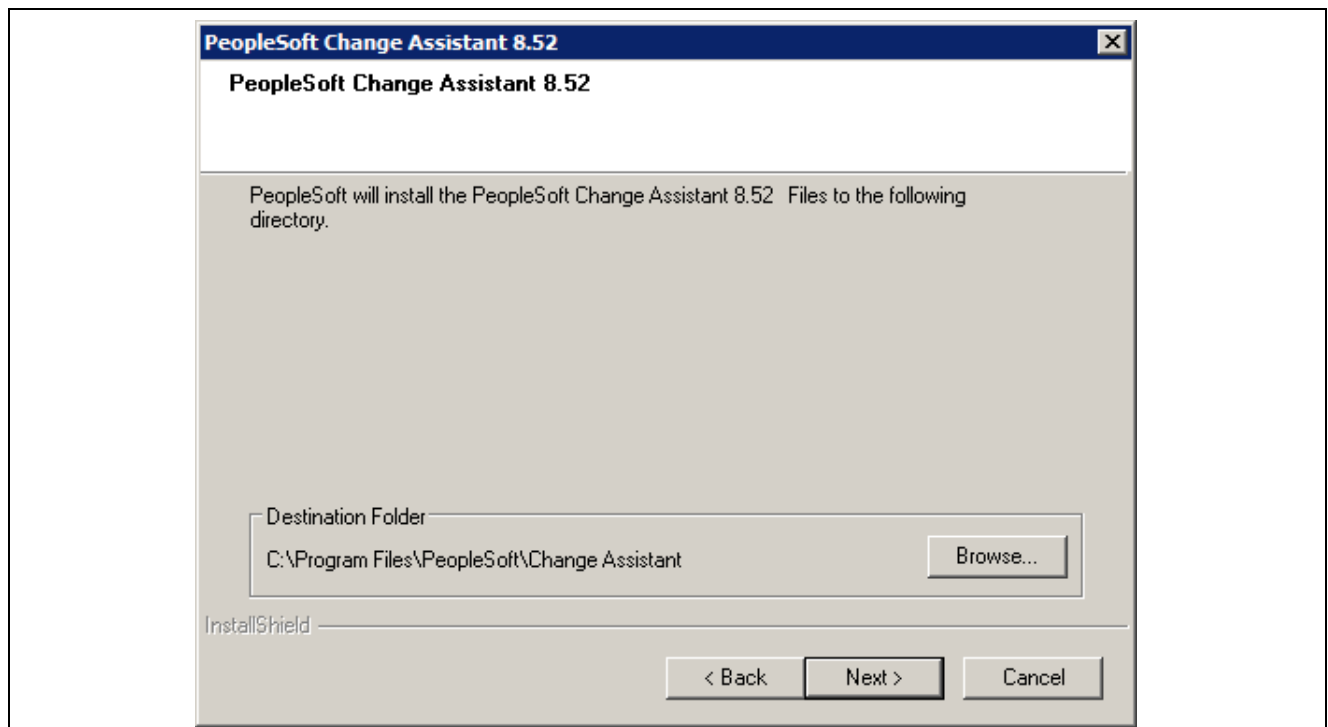
Confirm File Deletion dialog box

4. After the previous installation has been removed, click Finish on the window with the text “Uninstall Complete”.



PeopleSoft Change Assistant Uninstall Complete window

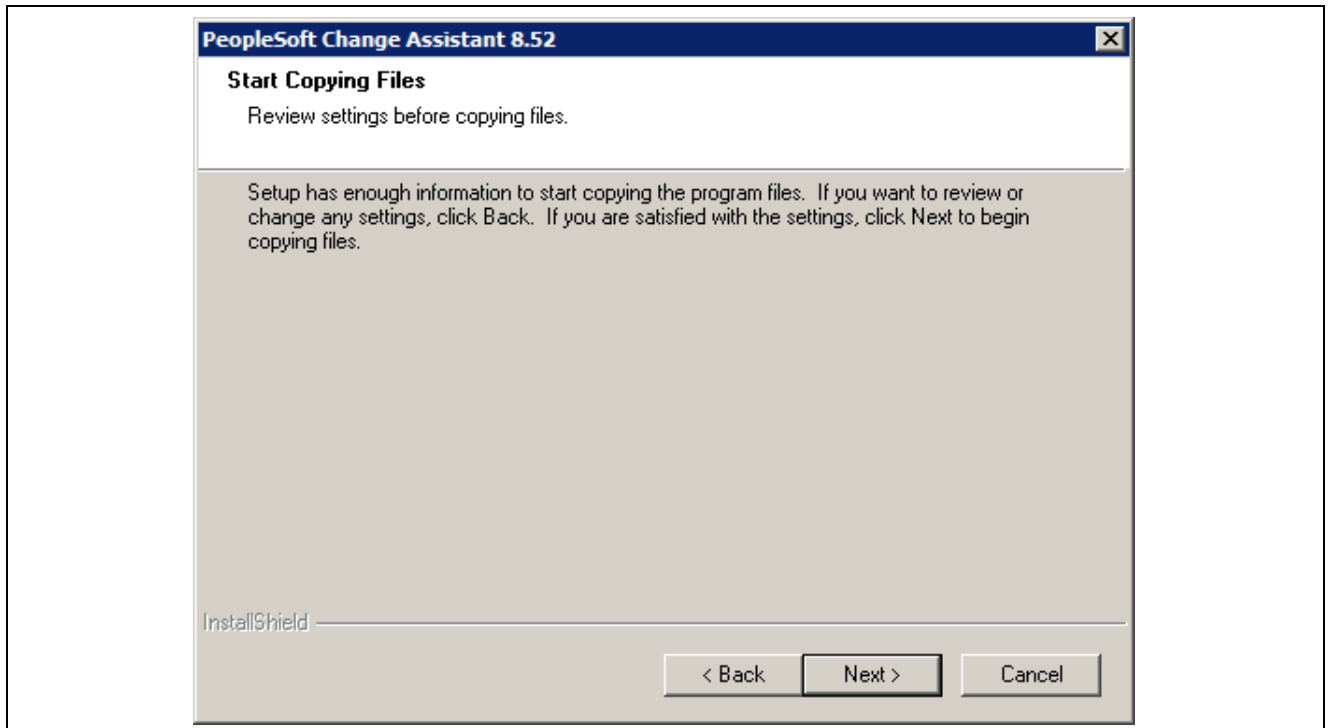
5. Go to *PS_HOME*\setup\PsCA directory again and run *setup.exe*.
The Welcome window seen in the first step appears. Click Next.
6. Accept the default Destination Folder or click the Browse button to specify another Destination Folder.
The default destination folder in this example is C:\Program Files\PeopleSoft\Change Assistant.



PeopleSoft Change Assistant Destination Folder window

7. Select Next.

The Start Copying Files screen appears.



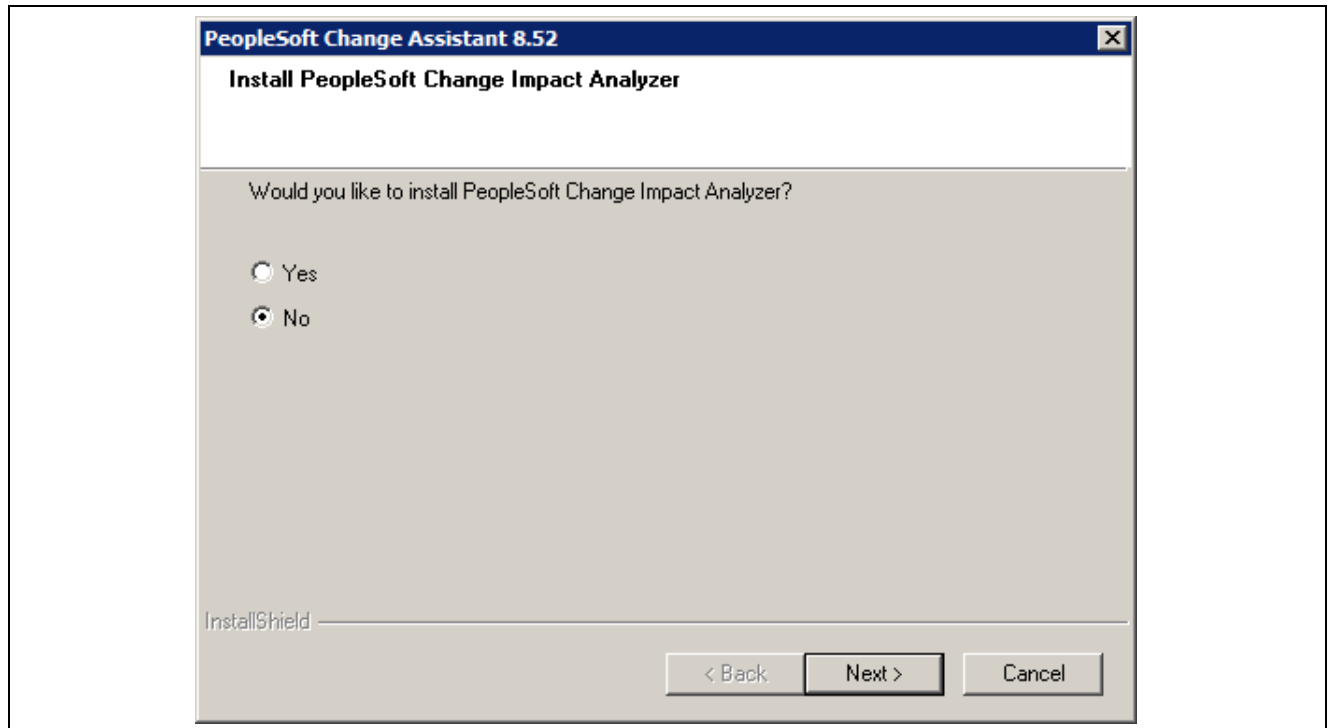
PeopleSoft Change Assistant Start Copying Files window

8. Click Back to review or change any settings.

If you are satisfied with your settings, click Next to begin copying files. PeopleSoft Change Assistant copies files to the designated directory.

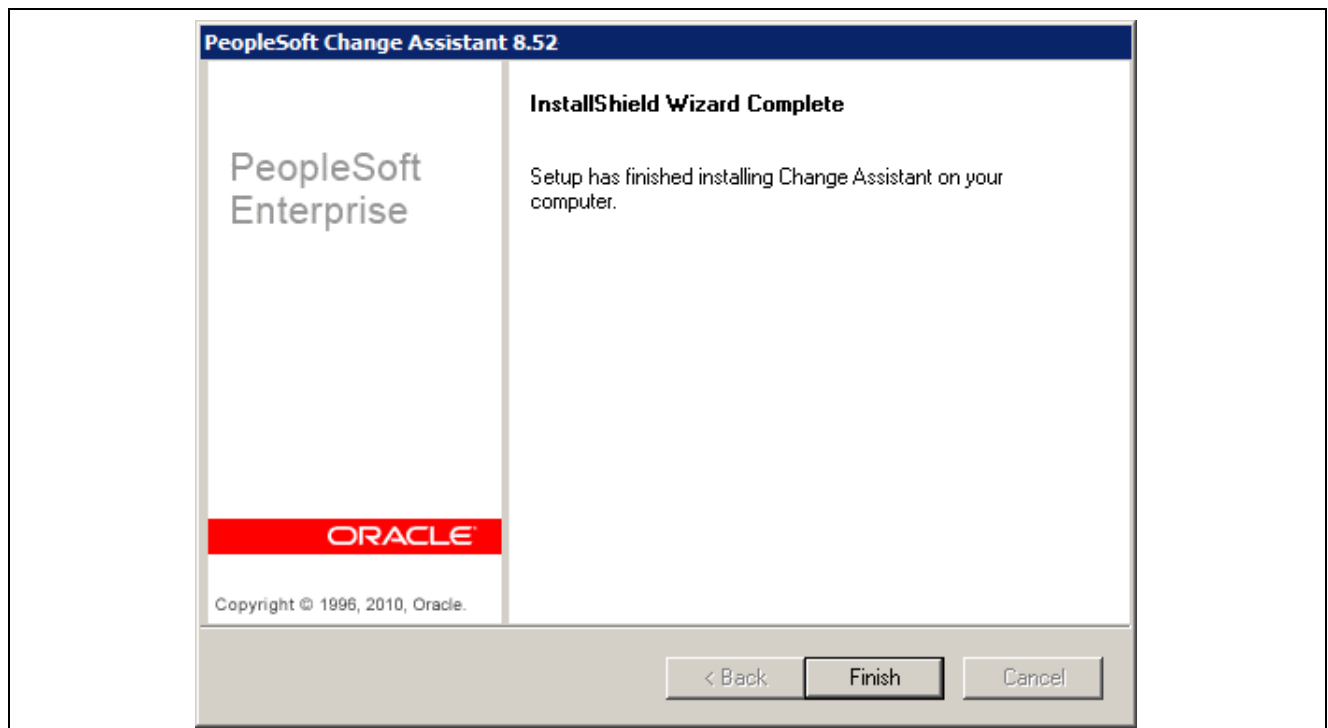
9. On the screen asking whether you want to install Change Impact Analyzer, select No, and click Next.

If you select Yes, the PeopleSoft Change Impact Analyzer installation begins. You will do this installation in the next chapter. Instead, continue with the tasks in this chapter to finish setting up PeopleSoft Change Assistant.



Choosing not to install PeopleSoft Change Impact Analyzer

10. Click Finish to complete the installation process at the window with the text "Setup has finished installing Change Assistant on your computer."



PeopleSoft Change Assistant installation complete window

11. Reboot your machine after the installation process is complete.

12. To start PeopleSoft Change Assistant, select Start, Programs, PeopleSoft Change Assistant 8.52, Change Assistant.

Note. If you are running on a Microsoft Windows operating system with User Account Control (UAC), such as Windows Server 2008, you must have administrative privileges to run Change Assistant. Right-click changeassistant.exe and select Run as administrator.

Task 13-1-2: Setting Up Security for PeopleSoft Change Assistant

To use PeopleSoft Change Assistant, you must configure your firewall settings so that the firewall does not filter PeopleSoft domain and IP names.

Note. When setting trust rules or bypass rules on your proxy server, or in browser security, it is easier to maintain rules by domain or IP subnet.

The following features must be set to allow access for PeopleSoft Change Assistant:

- *Domains*

We recommend that you set domain rules to allow access to *.oracle.com. In addition, allow access for the following domains:

- www.peoplesoft.com
- update.peoplesoft.com
- psft-updates.oracle.com
- www.oracle.com
- metalink3.oracle.com
- login.oracle.com

- *IP addresses*

Allow access for the IP address 141.146.8.119.

We recommend that you set IP rules at the subnet 141.146.54.0.

PeopleSoft Change Assistant uses SSL to connect at all times, but when you log in to My Oracle Support or Update Gateway through a browser only the login page is SSL.

Task 13-1-3: Verifying the Path Variable

After installing PeopleSoft Change Assistant, verify that the following values are the first entries in the PATH environment variable:

- *PS_HOME*\bin\client\winx86
- *PS_HOME*\jre\bin

See *PeopleTools 8.52: PeopleSoft Change Assistant PeopleBook*, "Configuring Change Assistant."

Task 13-1-4: Scanning the Workstation

The first time you use PeopleSoft Change Assistant, it automatically scans your workstation for applications that it will use in order to automate the steps. For example, it automatically finds the SQL Query tool and uses it to run SQL commands or scripts.

If you add a new application or update an existing application, PeopleSoft Change Assistant must perform a scan of the system in order to discover the changes. To perform this scan, select Tools, Scan Configuration.

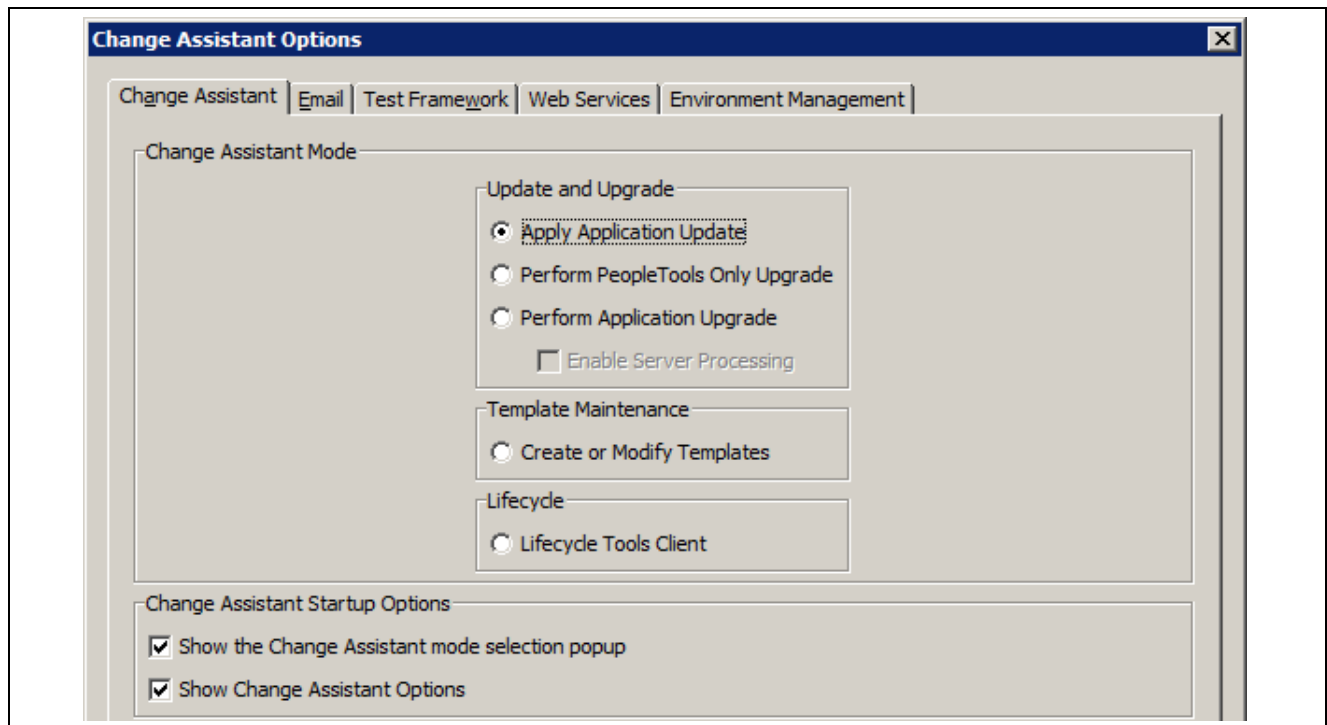
Task 13-2: Specifying Options

This section discusses:

- Specifying Change Assistant Options
- Setting Test Framework Options
- Setting Email Options
- Setting Web Services Options
- Setting Environment Management Options

Task 13-2-1: Specifying Change Assistant Options

This section describes options to set in Change Assistant. Select Tools, Options, Change Assistant.



Change Assistant page on the Change Assistant Options dialog box - Part 1

Update and Upgrade

Select one of the following modes; the window changes depending upon the mode you choose:

- Apply Application Update
- Perform PeopleTools Only Upgrade
- Perform Application Upgrade

- **Enable Server Processing**

Select this check box to enable Change Assistant to run Application Engine, Data Mover User, Data Mover Bootstrap, and SQL Scripts on Remote Agents as configured through Environment Management Framework as part of the Application upgrade.

Create or Modify Templates

Select this option to work with Change Assistant templates.

Lifecycle Tools Client

Select this option to enable the menus for the Universal Visual Compare and Three-Way Merge tools.

Change Assistant Startup Options

Use these options to control how Change Assistant opens:

- Show the Change Assistant mode selection popup
- Show the Change Assistant options

Change Assistant page on the Change Assistant Options dialog box - Part 2

Maximum Concurrent Processes

Specify the maximum number of processes that can be executed concurrently on the local machine. The default at installation time is one.

Download

Enter the full path of the directory to which you want to download your change packages.

*PS_HOME

Enter the full path of the directory in which you installed PeopleSoft PeopleTools.

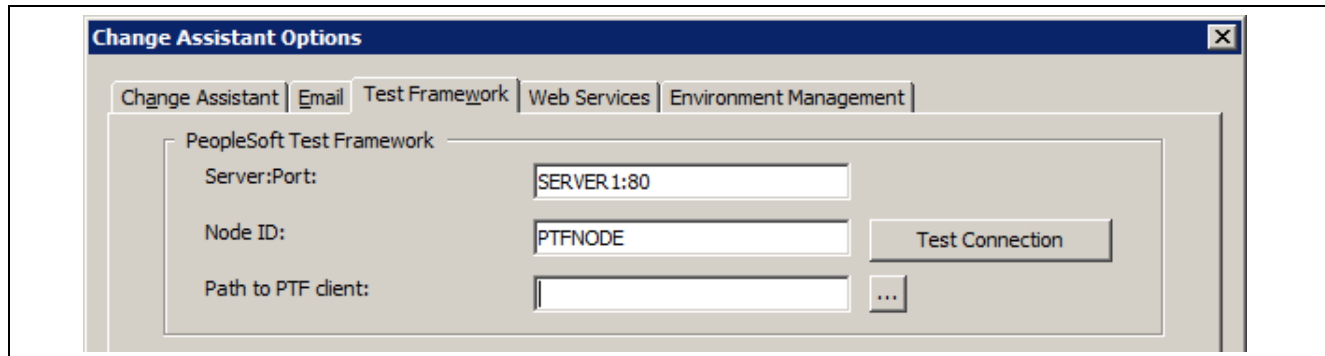
*Staging

Enter the directory in which you would like to stage all the Change Assistant update files. This is the location that Change Assistant will store files to be used during the apply update process.

***Output** Enter the directory in which you want the log files generated by the update process to reside.

Task 13-2-2: Setting Test Framework Options

Select Tools Options, Test Framework. Use these options to enable Change Assistant to run tests for the PeopleSoft Test Framework (PTF) step.



Test Framework page on the Change Assistant Options dialog box

Server:Port Enter the server name and port number for the environment.

Use the format <machine_name>:<https_port>

Node ID Enter the name of the PeopleSoft node with which the integration gateway is to communicate.

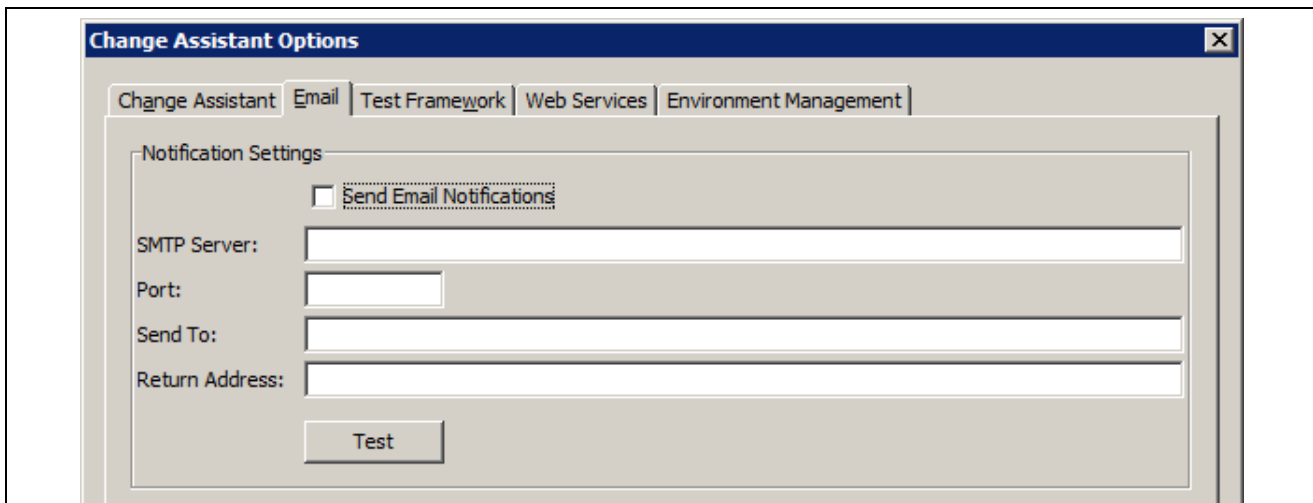
This field is required if more than one database is connected to the server. Contact your Integration Broker administrator or system administrator for the correct values.

Path to PTF client Enter or browse to select the path to the PeopleSoft Test Framework client installation.

See *PeopleTools 8.52: PeopleSoft Test Framework PeopleBook*

Task 13-2-3: Setting Email Options

Select Tools, Options, Email.

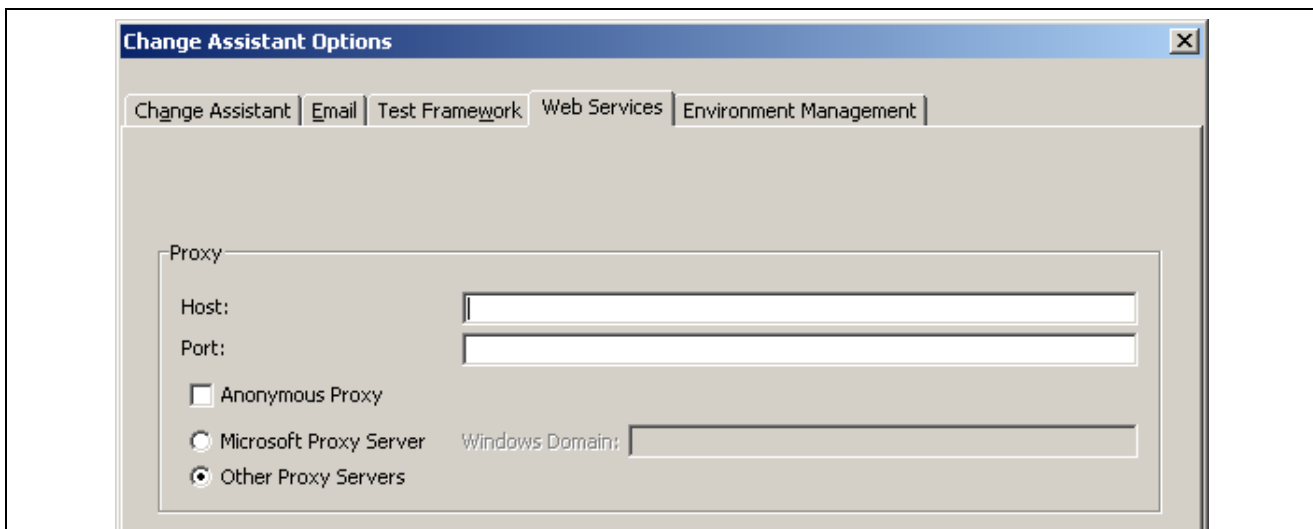


Email page on the Change Assistant Options dialog box

- | | |
|---------------------------------|--|
| Send Email Notifications | Select this check box to receive email notifications if there are errors in the update process. Change Assistant also sends you a completion message when it encounters a <i>Stop</i> in the update process. |
| SMTP Server | Enter the SMTP mail server from which you receive the error or completion messages. |
| Port | Enter the port from which you want to access the email. |
| Send To | Enter the address to which you want the email sent. |
| Return Address | Enter the email address of the sender. Use this to identify who sent the notification. |
| Test | Click this button to validate that email is sent to the designated recipients and is working correctly |

Task 13-2-4: Setting Web Services Options

Select Tools, Options, Web Services.



Web Services page on the Change Assistant Options dialog box

Host	(Optional) Enter the name of the proxy server if you want to run Change Assistant behind the firewall using a proxy server.
Port	(Optional) Enter the port number for the proxy server.
Anonymous Proxy	Indicates that you are using a proxy server that does not require authenticated connections.
Microsoft Proxy Server	Indicates that you are using a proxy server with Windows NT authentication.
Windows Domain	The domain to which you belong.
Other Proxy Servers	Indicates you are using non-Microsoft proxy servers.

Task 13-2-5: Setting Environment Management Options

Select Tools, Options, Environment Management.

The screenshot shows the 'Change Assistant Options' dialog box with the 'Environment Management' tab selected. The dialog has a title bar with a close button. Below the title bar are five tabs: 'Change Assistant', 'Email', 'Test Framework', 'Web Services', and 'Environment Management'. The 'Environment Management' tab is active, showing two sections: 'Server' and 'Settings'. The 'Server' section contains fields for '*Server Host:' and '*Server Port:', a 'Ping' button, and a 'View' button. The 'Settings' section contains fields for '*Chunk Size:' (set to 1048576), '*Ping Interval:' (set to 10000), and '*Drives To Crawl:' (set to c:|d:). At the bottom right are 'OK' and 'Cancel' buttons.

Environment Management page on the Change Assistant Options page

*Server Host	The host name of the server in which the Environment Management components reside.
*Server Port	Indicates the port in which to connect to the Environment Management hub.
Ping (button)	Click to verify a valid server URL. If you see “Service is off” to the right of this button, then you must correct the server URL and ping again until you see “Service is on.” This option is visible only if your display is set to Windows Classic style. To change the Windows display, select Programs, Control Panel, Display. Select the Appearance tab and choose Windows Classic style from the Windows and buttons drop-down list.
View (button)	Click to display the list of all PeopleSoft components discovered and registered in the Environment Management hub. <hr/> Note. This option is visible only if your display is set to Windows Classic style. <hr/>
*Chunk Size	Used for deploying files during a software update. Default is 1024 * 1024 bytes. Typically this does not need to be changed unless there are a significant number of files greater than 1024 KB in a software update.
*Ping Interval	Ping interval is in milliseconds for Change Assistant to contact the hub for new messages.
*Drives to Crawl	Setting of drives to crawl to identify the configuration of the Change Assistant machine. Windows directories need to use the forward slash (/) character. Include your local drive in this setting so that Change Assistant can locate the SQL Query tool used for automating steps. Also include the path of the SQL Query tool.

Task 13-3: Exporting Jobs to XML, HTML, or Microsoft Excel Format

Change Assistant allows users to export jobs to XML, HTML, or Microsoft Excel file formats. Do this by selecting File, Export Job in Change Assistant. Then, enter the desired exported filename and select the desired file type format.

Task 13-4: Validating Change Assistant Settings

After you have set up and configured PeopleSoft Change Assistant and the Environment Management components, you should validate your PeopleSoft Change Assistant and environment settings.

PeopleSoft Change Assistant validates settings by:

- Locating valid SQL query tools required to run SQL scripts.
- Testing the Environment Management hub and ensuring that PeopleSoft Change Assistant can communicate with it.

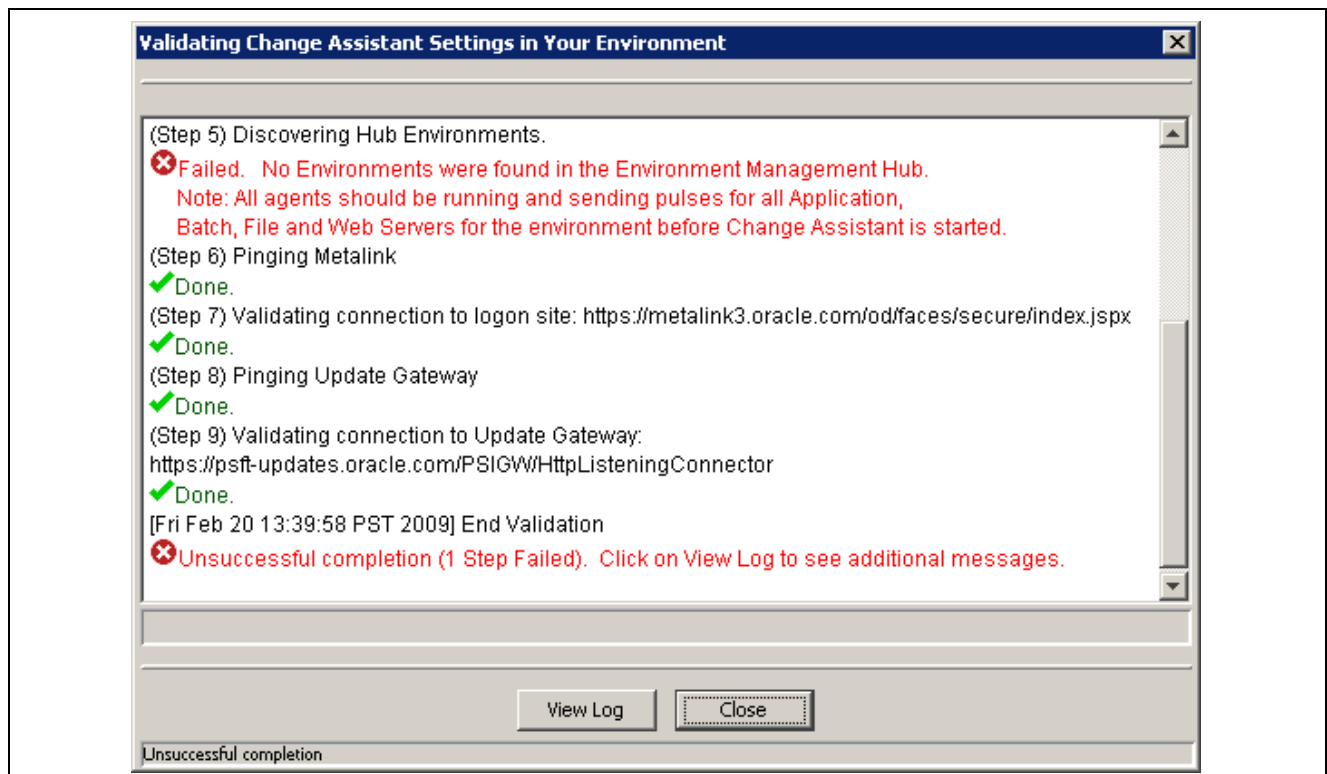
- Testing My Oracle Support and ensuring that PeopleSoft Change Assistant can communicate with it.

PeopleSoft Change Assistant sends a ping to My Oracle Support and then tests the connection. In order for the validation to succeed, the machine where you have PeopleSoft Change Assistant installed must have the ping feature enabled.

You can also print a summary of your environment, which can facilitate the diagnosis of problems by Oracle Global Customer Support.

To validate your environment, select Tools, Options, Validate. Click Start Validation.

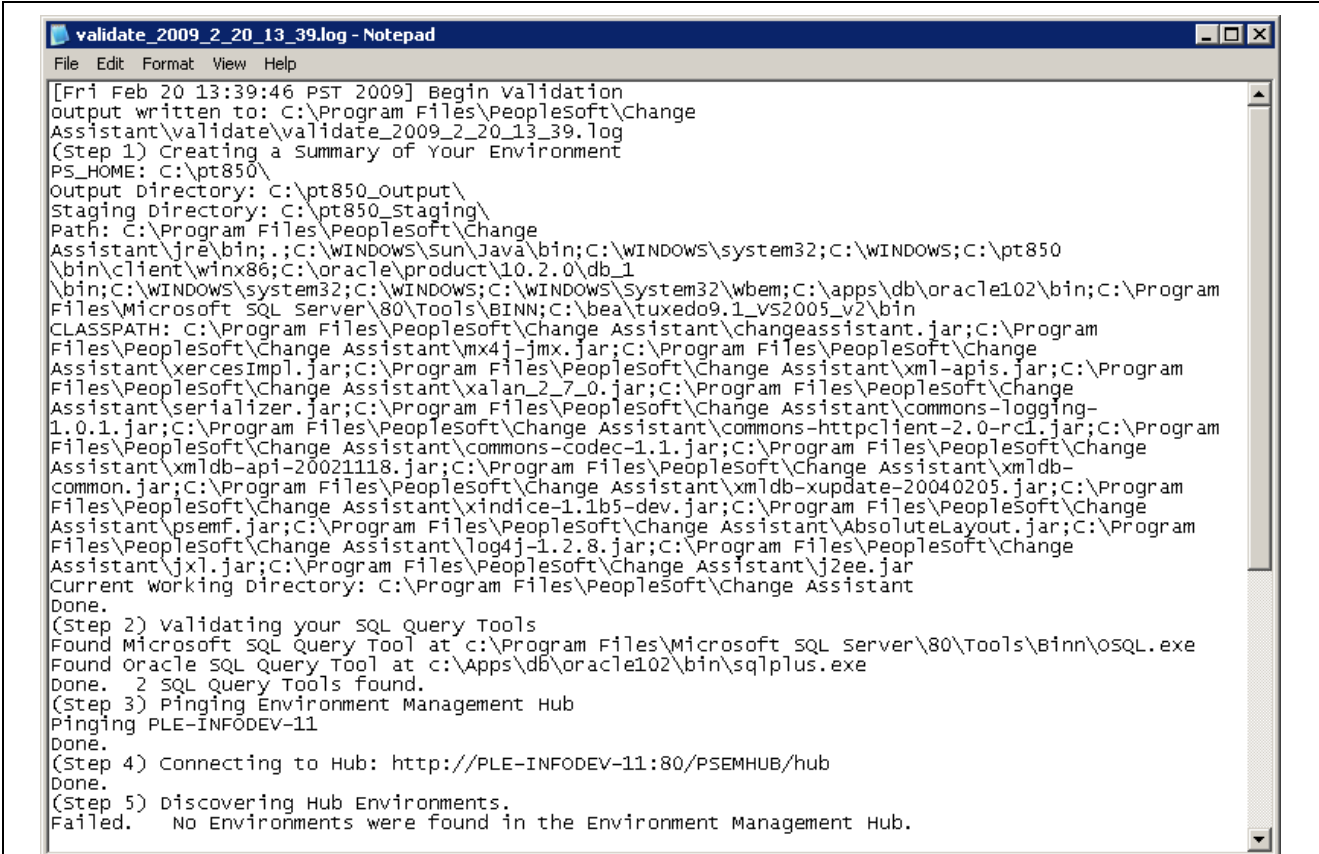
If any of the steps were unable to complete successfully, open the log file to determine the cause. This example shows a summary with both successful messages (“Done”) and unsuccessful (“Failed” or “Unsuccessful completion”):



Validating Change Assistant Settings in Your Environment

Note. If you use proxy servers, the system will ping those and prompt for proxy server user ID and password. In this case, the validation step numbers would be different from the example.

To review the log file, click the View Log button at the bottom of the screen. This example shows the first several lines of a log file:



```

validate_2009_2_20_13_39.log - Notepad
File Edit Format View Help
[Fri Feb 20 13:39:46 PST 2009] Begin validation
output written to: C:\Program Files\PeopleSoft\Change
Assistant\validate\validate_2009_2_20_13_39.log
(Step 1) Creating a Summary of Your Environment
PS_HOME: C:\pt850\
Output Directory: C:\pt850_output\
Staging Directory: C:\pt850_staging\
Path: C:\Program Files\PeopleSoft\Change
Assistant\jre\bin;.C:\WINDOWS\Sun\Java\bin;C:\WINDOWS\system32;C:\WINDOWS;C:\pt850
\bin\client\winx86;C:\oracle\product\10.2.0\db_1
\bin;C:\WINDOWS\system32;C:\WINDOWS;C:\WINDOWS\system32\wbem;C:\apps\db\oracle102\bin;C:\Program
Files\Microsoft SQL Server\80\Tools\BINN;C:\bea\tuxedo9.1_vs2005_v2\bin
CLASSPATH: C:\Program Files\PeopleSoft\Change Assistant\changeassistant.jar;C:\Program
Files\PeopleSoft\Change Assistant\mx4j-jmx.jar;C:\Program Files\PeopleSoft\Change
Assistant\xercesImpl.jar;C:\Program Files\PeopleSoft\Change Assistant\xml-apis.jar;C:\Program
Files\PeopleSoft\Change Assistant\xalan_2_7_0.jar;C:\Program Files\PeopleSoft\Change
Assistant\serializer.jar;C:\Program Files\PeopleSoft\Change Assistant\commons-logging-
1.0.1.jar;C:\Program Files\PeopleSoft\Change Assistant\commons-httpclient-2.0-rc1.jar;C:\Program
Files\PeopleSoft\Change Assistant\commons-codec-1.1.jar;C:\Program Files\PeopleSoft\Change
Assistant\xml-db-api-20021118.jar;C:\Program Files\PeopleSoft\Change Assistant\xml-db-
common.jar;C:\Program Files\PeopleSoft\Change Assistant\xml-db-xupdate-20040205.jar;C:\Program
Files\PeopleSoft\Change Assistant\xindice-1.1b5-dev.jar;C:\Program Files\PeopleSoft\Change
Assistant\psemf.jar;C:\Program Files\PeopleSoft\Change Assistant\AbsoluteLayout.jar;C:\Program
Files\PeopleSoft\Change Assistant\log4j-1.2.8.jar;C:\Program Files\PeopleSoft\Change
Assistant\jxl.jar;C:\Program Files\PeopleSoft\Change Assistant\j2ee.jar
Current working Directory: C:\Program Files\PeopleSoft\Change Assistant
Done.
(Step 2) validating your SQL Query Tools
Found Microsoft SQL Query Tool at c:\Program Files\Microsoft SQL Server\80\Tools\Binn\OSQL.exe
Found Oracle SQL Query Tool at c:\Apps\db\oracle102\bin\sqlplus.exe
Done. 2 SQL Query Tools found.
(Step 3) Pinging Environment Management Hub
Pinging PLE-INFODEV-11
Done.
(Step 4) Connecting to Hub: http://PLE-INFODEV-11:80/PSEMHUB/hub
Done.
(Step 5) Discovering Hub Environments.
Failed. No Environments were found in the Environment Management Hub.

```

Validation log

CHAPTER 14

Installing PeopleSoft Change Impact Analyzer

This chapter discusses:

- Prerequisites
- Installing PeopleSoft Change Impact Analyzer

Prerequisites

Oracle's PeopleSoft Change Impact Analyzer is a tool you can use to evaluate the effect of changes you make on your installation. PeopleSoft Change Impact Analyzer can help you monitor the impact a Change Package has on your system, as well as monitor the impact from other changes such as customizations.

Ensure that your system meets the following requirements before you begin this installation:

- PeopleSoft Change Impact Analyzer runs on Microsoft Windows platforms. For database platforms that do not run on Microsoft Windows, install PeopleSoft Change Impact Analyzer on the Windows client.
- You can install PeopleSoft Change Impact Analyzer from downloaded files as a standalone application, or as a part of your PeopleSoft PeopleTools installation. You can also install PeopleSoft Change Impact Analyzer as a part of the PeopleSoft Change Assistant installation, as mentioned in the previous chapter. These instructions assume you have installed PeopleSoft PeopleTools on the machine on which you want to run PeopleSoft Change Impact Analyzer, and have completed the PeopleSoft Change Assistant installation.
- PeopleSoft Change Impact Analyzer uses Type 4 JDBC drivers by default. These drivers are automatically installed for you.

See Also

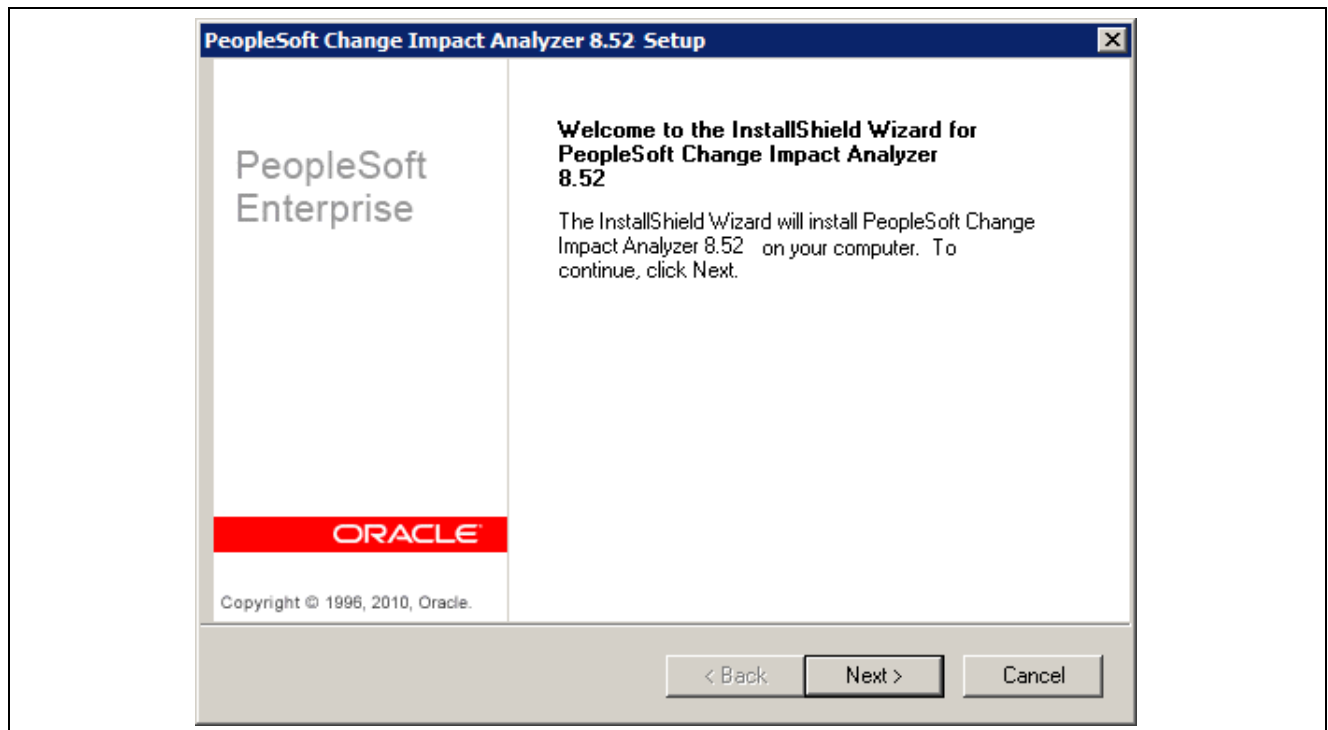
PeopleTools 8.52: Change Impact Analyzer PeopleBook

Task 14-1: Installing PeopleSoft Change Impact Analyzer

To install PeopleSoft Change Impact Analyzer and Rules Editor:

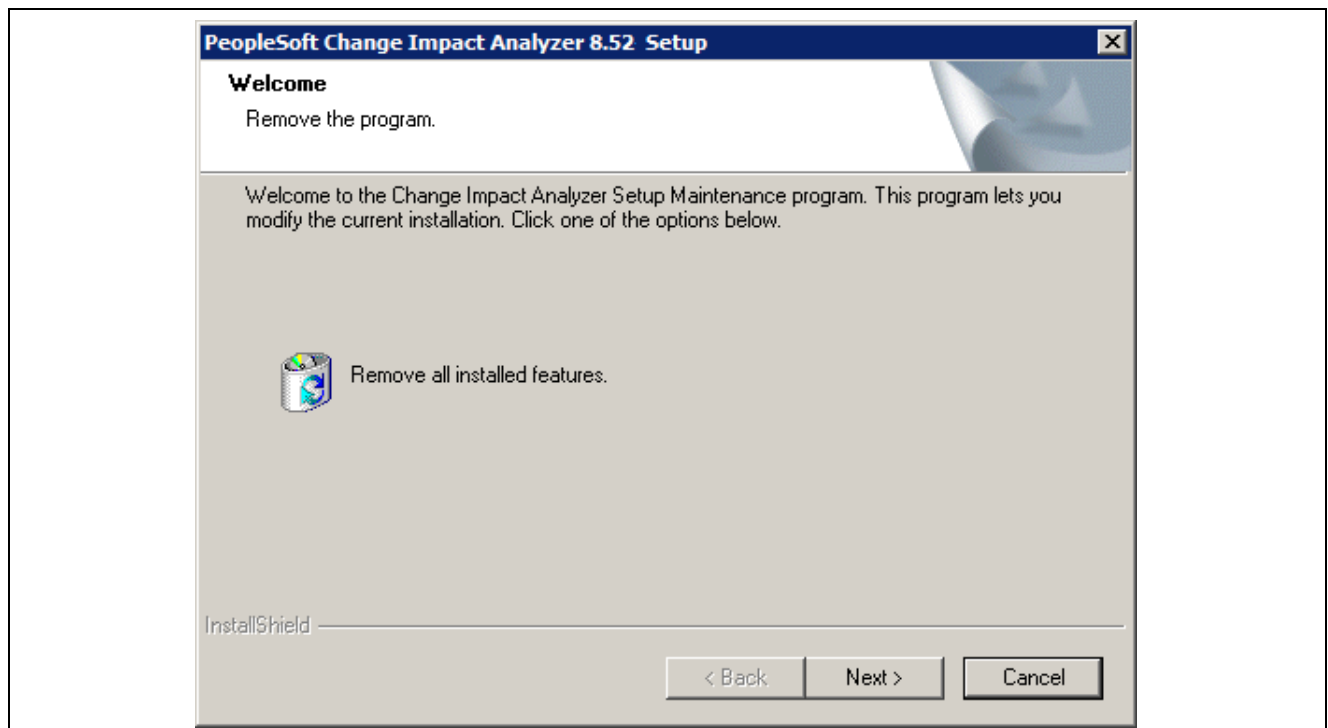
1. From the *PS_HOME\setup\PscIA* directory, run *setup.exe*.

A Welcome to the InstallShield Wizard for PeopleSoft Change Impact Analyzer 8.52 window appears.



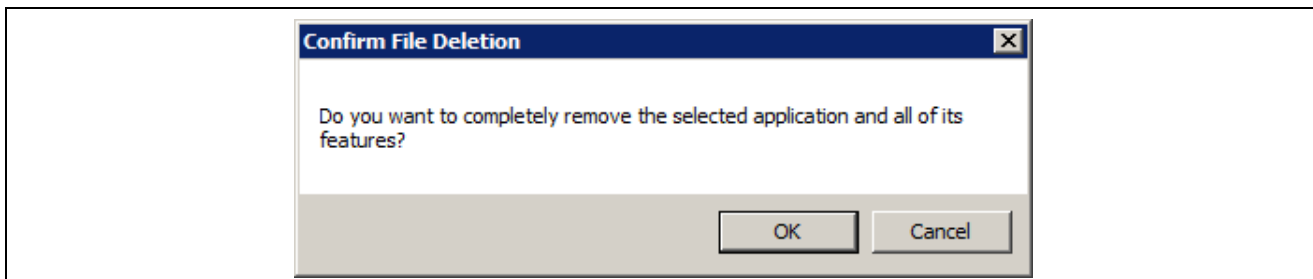
PeopleSoft Change Impact Analyzer Welcome window

2. If there is an existing installation of PeopleSoft Change Impact Analyzer on your machine, a screen appears telling you to remove it.



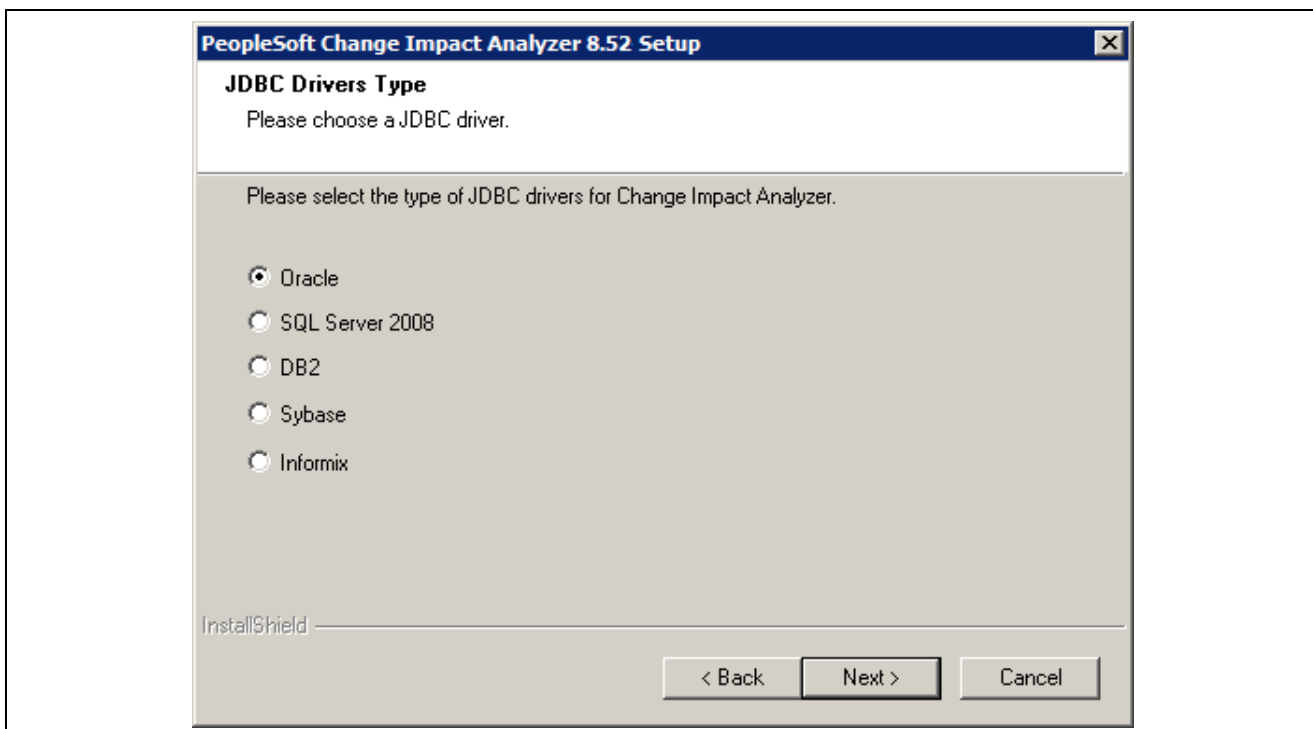
PeopleSoft Change Impact Analyzer Setup window to remove all installed features

Click Next, and then click OK on the Confirm File Deletion dialog box, with the question “Do you want to completely remove the selected application and all of its features?”



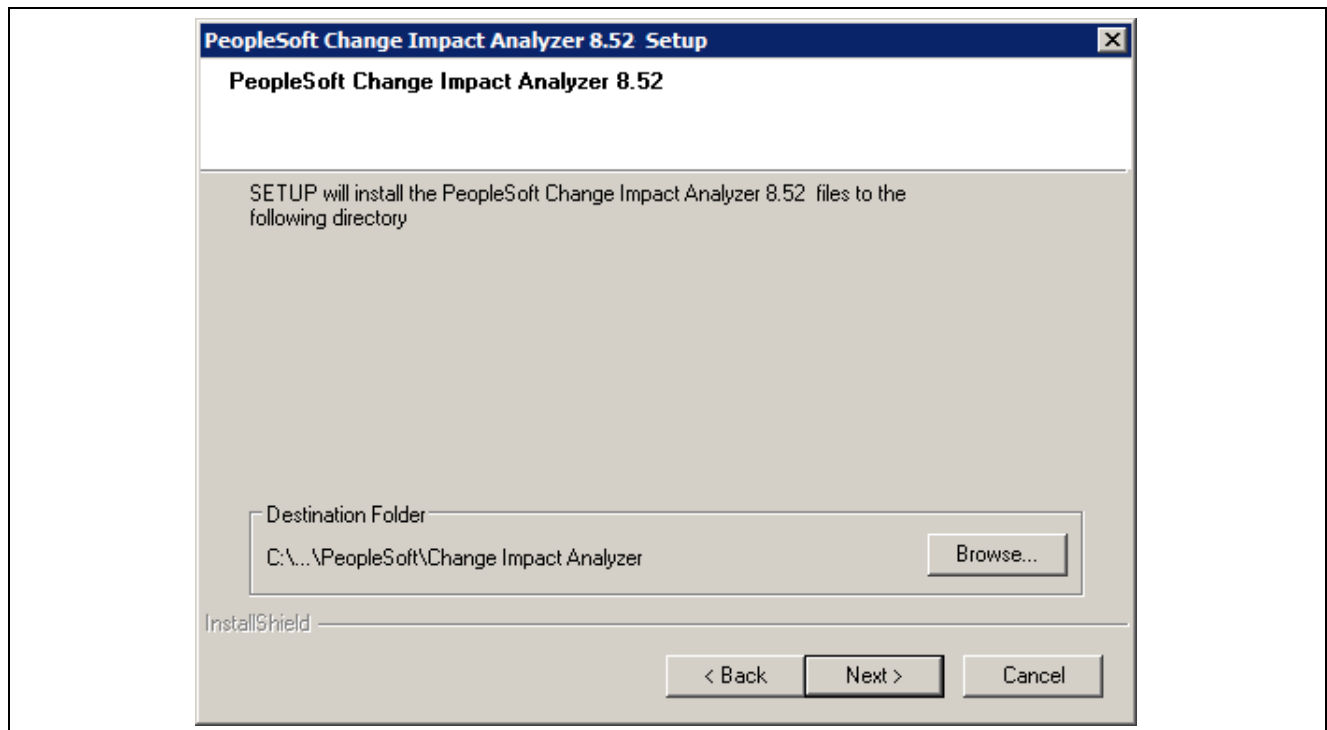
Confirm File Deletion dialog box for the PeopleSoft Change Impact Analyzer Installation

3. Run *PS_HOME\setup\PsCIA\setup.exe* again.
The Welcome window shown in step 1 appears.
4. Click Next on the Welcome window.
5. Select the JDBC drivers for your database platform.
In this example the option for Oracle is selected.



PeopleSoft Change Impact Analyzer JDBC Drivers Type window

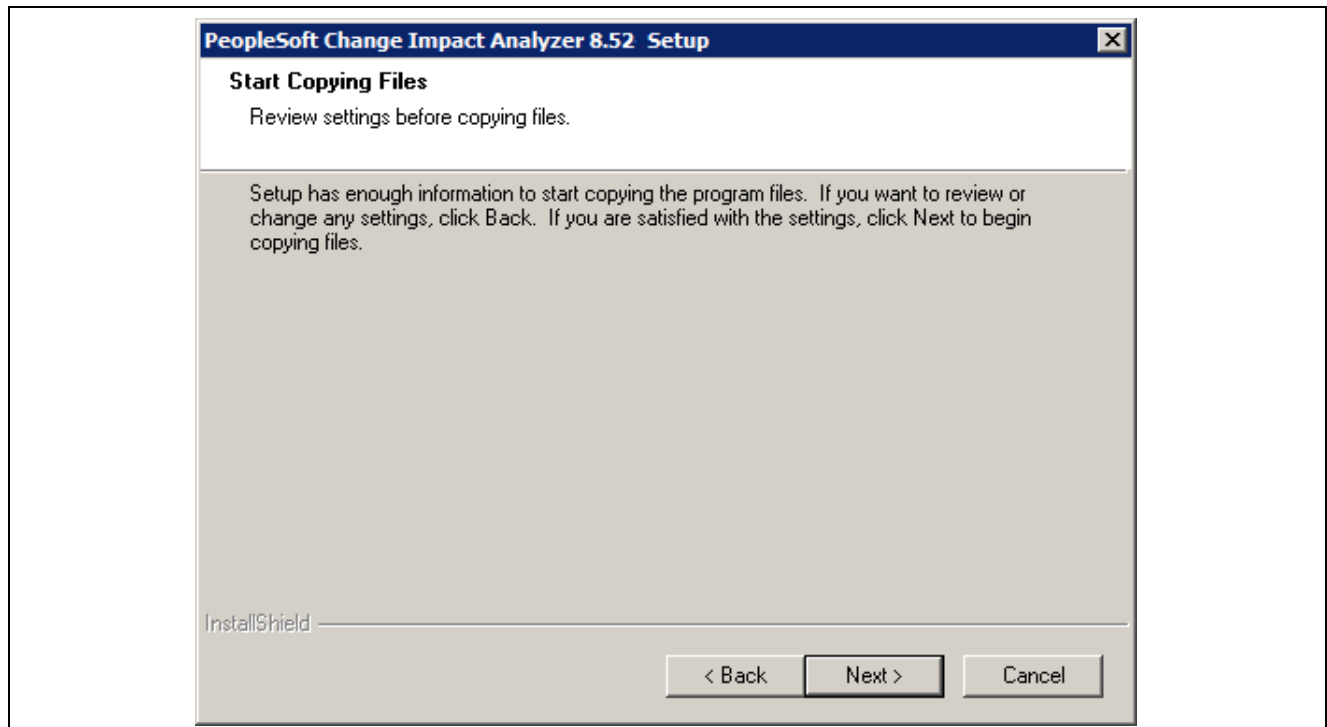
6. Browse to select the directory where PeopleSoft Change Impact Analyzer will be installed, or accept the default directory.
The default directory, which is truncated in this example, is *C:\Program Files\PeopleSoft\Change Impact Analyzer*.



Specifying the PeopleSoft Change Impact Analyzer destination folder

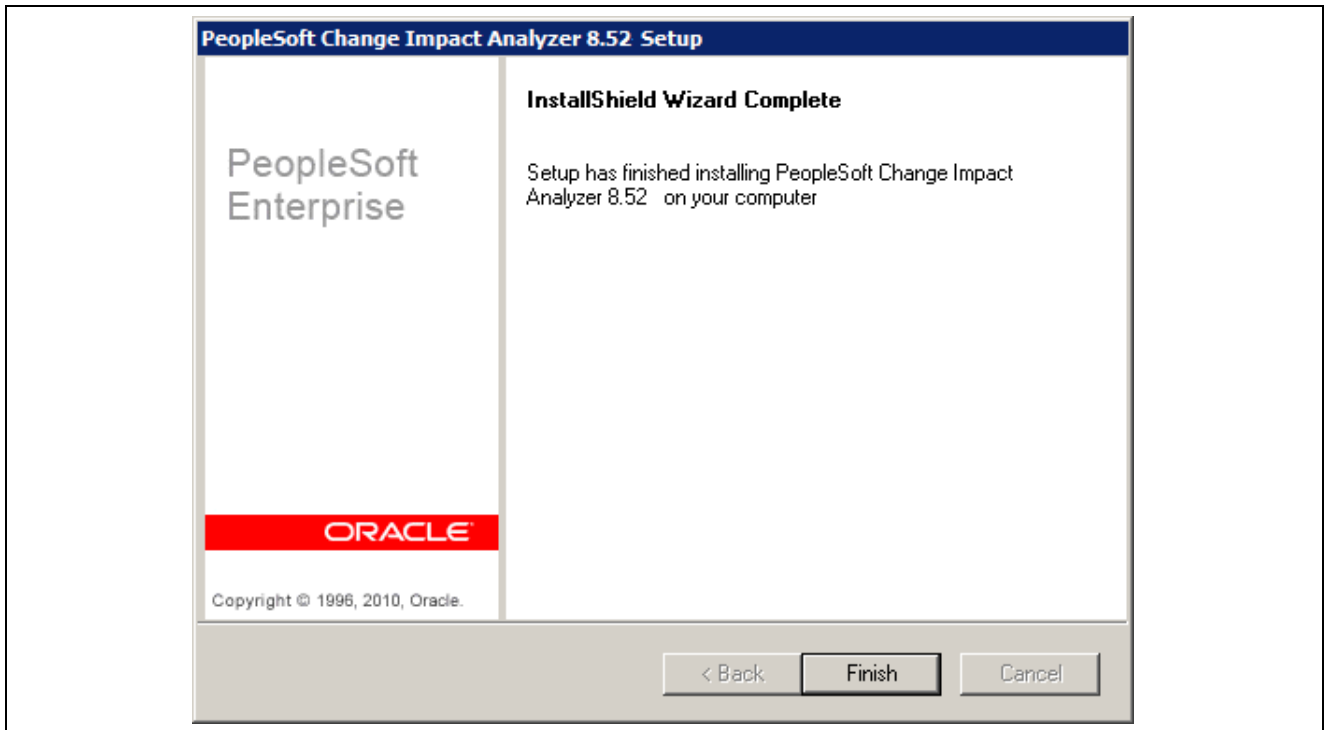
7. Click Back to review or change any settings.

If you are satisfied with your settings, click Next to begin copying files to the designated directory.



PeopleSoft Change Impact Analyzer Start Copying Files window

8. Click Finish to exit when the installation is complete, on the InstallShield Wizard Complete window.



PeopleSoft Change Impact Analyzer Setup Complete window

9. To start PeopleSoft Change Impact Analyzer, select Start, Programs, PeopleSoft 8.52, Change Impact Analyzer.

CHAPTER 15

Installing and Configuring Software for Crystal Reports

This chapter discusses:

- Understanding Crystal Reports Software Installation and Configuration
- Determining the Crystal Reports Runtime Environment
- Obtaining SAP BusinessObjects Enterprise and Crystal Reports Software
- Installing Crystal Reports 2008
- Installing SAP BusinessObjects Enterprise XI 3.1
- Migrating your SAP BusinessObjects Enterprise XI 3.1 Installation to a New Version of PeopleTools
- Administering and Using SAP BusinessObjects Enterprise XI 3.1
- Removing the Integrated SAP BusinessObjects Enterprise XI 3.1 Installation
- Converting Crystal Reports

Understanding Crystal Reports Software Installation and Configuration

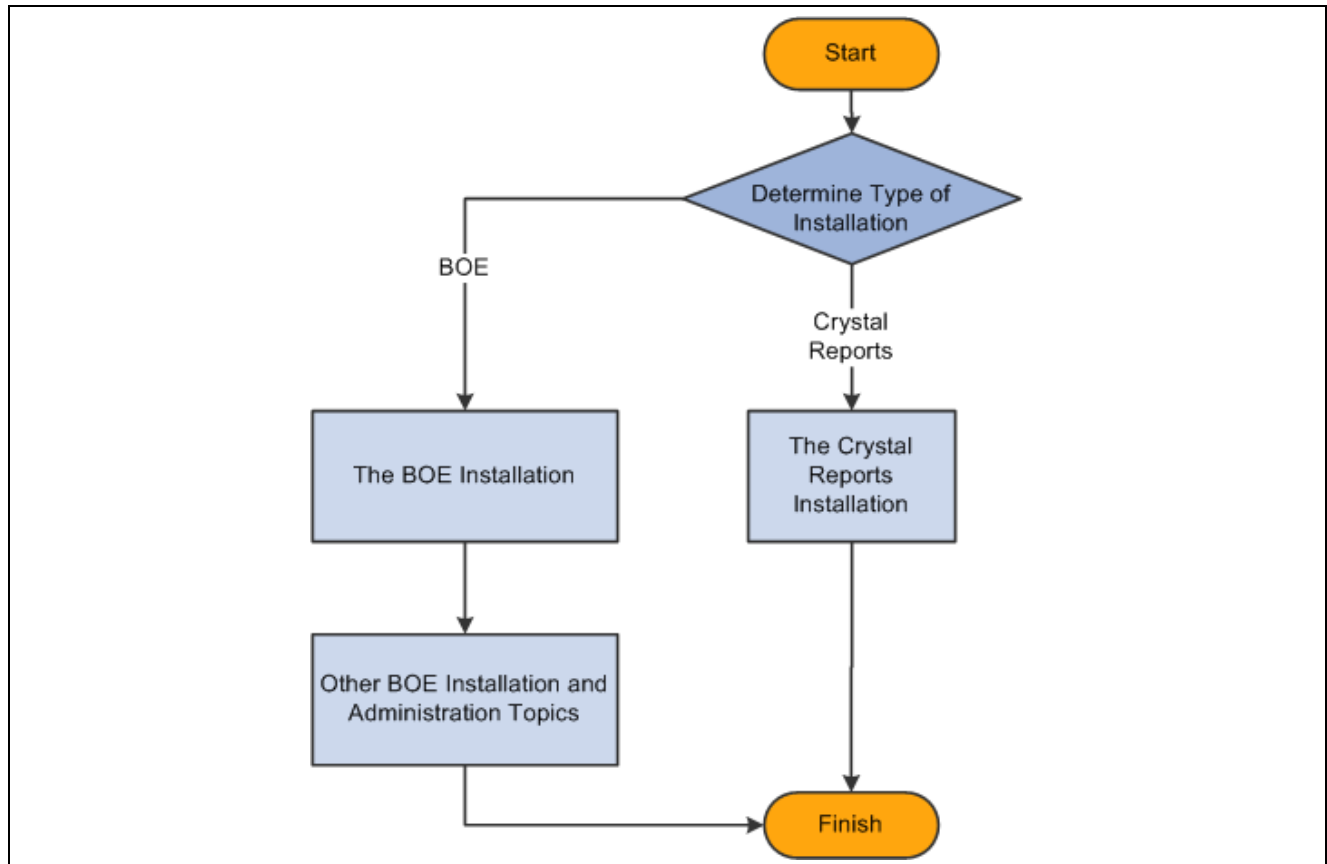
This chapter addresses the installation and administration of a Crystal Reports environment. Depending on the type of installation that you have, some parts of this chapter may not be relevant to you. The installation of SAP Crystal Reports or BusinessObjects Enterprise XI 3.1 is optional for PeopleSoft PeopleTools 8.52.

As of June 2011, Oracle no longer sells SAP Crystal Reports or SAP BusinessObjects Enterprise licenses for new customers. Customers who purchased PeopleSoft software prior to July 2011 will retain their license to SAP Crystal Reports and SAP BusinessObjects Enterprise products. For more information, consult Oracle Global Customer Care. Crystal Report definition files (.RPT files) will continue to be delivered to new and existing customers.

The chapter is divided into sections. Within each section are parts that provide informative background information or describe installation and administration tasks.

The following flowchart describes how to use the information in this chapter to install and configure the software that you need to run Crystal Reports on your PeopleSoft system:

Note. In this flowchart, “BOE” refers to SAP BusinessObjects Enterprise XI 3.1, and “Crystal Reports” refers to Crystal Reports 2008.



Using this chapter to install the software for Crystal Reports

See Also

PeopleTools 8.52: Crystal Reports for PeopleSoft PeopleBook

My Oracle Support, Certifications

Task 15-1: Determining the Crystal Reports Runtime Environment

You can use SAP Crystal Reports 2008 to create and edit report definitions for your PeopleSoft application. As delivered, PeopleSoft applications are configured to work with the Crystal Reports 2008 runtime environment.

If you are using PeopleSoft PeopleTools 8.50 or higher *and* are using PeopleSoft applications at Release 9 or higher, you can optionally use the SAP BusinessObjects Enterprise XI 3.1 runtime environment to run and view your reports. You use the Crystal Reports 2008 product to create and edit report definitions.

Note. For the exact version of Crystal Reports 2008 and SAP BusinessObjects Enterprise XI 3.1 supported for your environment, see the PeopleSoft Certification information on My Oracle Support.

For any particular PeopleSoft application you can use either Crystal Reports 2008 or SAP BusinessObjects Enterprise XI 3.1—you cannot run a “mixed” environment where some reports are run using SAP Crystal Reports 2008 and some reports are run using SAP BusinessObjects Enterprise XI 3.1.

If you decide to use SAP BusinessObjects Enterprise XI 3.1, you can run a PeopleSoft-supplied conversion program to convert report definitions from Crystal 9 format to Crystal Reports 2008 format.

The advantages of SAP BusinessObjects Enterprise XI 3.1 (compared to SAP Crystal Reports 2008) are:

- Runs on other operating systems (AIX, HP-UX, Linux, Solaris) besides Microsoft Windows
- Runs on a scalable server platform; that is, you can scale across machines
- Users can view interactive reports over the web (such as search, filter, or table of contents).

The restrictions of the PeopleSoft Integration with SAP BusinessObjects Enterprise XI 3.1 are:

- The PeopleSoft Process Scheduler that you use to run reports on the SAP BusinessObjects Enterprise XI 3.1 server can run only on one of the operating systems that SAP BusinessObjects Enterprise XI 3.1 runs on.
- You need to convert all your reports from Crystal 9 format to Crystal 2008 format to run them using SAP BusinessObjects Enterprise XI 3.1.
- The PeopleSoft Integration does not support some platforms that a standalone SAP BusinessObjects Enterprise XI 3.1 installation supports.

That is, not all platforms that SAP BusinessObjects Enterprise XI 3.1 runs on were tested in the integrated SAP BusinessObjects Enterprise XI 3.1/PeopleSoft solution. For example, while standalone SAP BusinessObjects Enterprise XI 3.1 supports Tomcat as a web server, the integrated SAP BusinessObjects Enterprise XI 3.1/PeopleSoft solution does not.

The advantages of using the Crystal Reports 2008 runtime are:

- Works the same as previous releases of PeopleSoft PeopleTools
- Requires little configuration and administration
- Run to Crystal Reports 2008 from Windows Query Designer is available
- Does not require a database management system for report management
- Report output is smaller in size compared to SAP BusinessObjects Enterprise XI 3.1, as the latter contains more internal information about the report.

The observed difference in tests indicates that report output generated from SAP BusinessObjects Enterprise XI 3.1 will be 30 to 40% larger. This may vary by report and by the amount of business data in the report.

One restriction on SAP Crystal Reports 2008 is that it runs only on Microsoft Windows.

Task 15-2: Obtaining SAP BusinessObjects Enterprise and Crystal Reports Software

This section discusses:

- Understanding the SAP BusinessObjects Enterprise and Crystal Reports Software Distribution
- Obtaining the Software from Oracle Global Customer Care
- Obtaining the Software from SAP BusinessObjects

Understanding the SAP BusinessObjects Enterprise and Crystal Reports Software Distribution

Oracle certifies specific versions of SAP Crystal Reports and BusinessObjects Enterprise XI 3.1 to work with specific versions of PeopleSoft PeopleTools. See the Certifications section of My Oracle Support for specific information about the correct releases for your situation.

See My Oracle Support, Certifications.

As mentioned, as of July 2011, Oracle no longer sells SAP Crystal Reports or SAP BusinessObjects Enterprise licenses for new customers. This section provides more information on how this affects new and existing customers.

Existing customers are those who licensed PeopleSoft software prior to July 1, 2011.

Existing customers can contact Oracle Global Customer Care to gain access at no charge to media pack that were previously available from Oracle, which contains the SAP BusinessObjects Enterprise and Crystal Reports software that you need (see the section Obtaining Software from Oracle Global Customer Care below).

New customers are those who license PeopleSoft software after July 1, 2011.

In order to obtain the versions certified by Oracle for a PeopleSoft PeopleTools release you must license and obtain the software directly from SAP/BusinessObjects (see the section Obtaining Software from SAP BusinessObjects below).

Task 15-2-1: Obtaining the Software from Oracle Global Customer Care

Oracle Global Customer Care will make available to you a media pack of zip files that contain the SAP Crystal Reports and BusinessObjects Enterprise XI 3.1 software that you will need, as follows:

- SAP Crystal Reports 2008 SP3
- SAP Crystal Reports 2008 SP3 .NET Redistributable Runtime
- SAP BusinessObjects Enterprise XI 3.1 SP3
- SAP BusinessObjects Enterprise XI 3.1 SP3 Integration Kit for PeopleSoft
- SAP BusinessObjects Enterprise XI 3.1 SP3 Report Migration Files

The directory where you save these files is referred to in this documentation as *BOE_INSTALL*.

1. Extract the files into *BOE_INSTALL*.
2. If it is necessary to transfer the files to a UNIX computer using FTP, you must change the permissions to make them executable (using the `chmod +x` command, for example).

Task 15-2-2: Obtaining the Software from SAP BusinessObjects

Design Software

In order to create Crystal report definitions (and modify delivered Crystal report definitions) you will need to license Crystal Reports 2008.

Be sure to obtain a Service Pack certified by Oracle for PeopleSoft PeopleTools.

Runtime Software

In order to run Crystal reports with PeopleTools Process Scheduler using the Crystal Print Engine you will need to download from SAP Crystal Reports 2008 .NET redistributable runtime.

Be sure to obtain a Service Pack certified by Oracle for PeopleSoft PeopleTools installations.

In order to run Crystal reports with PeopleTools Process Scheduler using BusinessObjects Enterprise XI 3.1 with PeopleSoft PeopleTools you will need to download:

- SAP BusinessObjects Enterprise XI 3.1
- SAP BusinessObjects Enterprise XI 3.1 Integration Kit for PeopleSoft

Be sure to obtain a Service Pack certified by Oracle for PeopleSoft installations.

In order to proceed with the installation and configuration tasks in this chapter, download the installation files that you get from SAP to a directory on your machine, referred to in this documentation as *BOE_INSTALL*. Be sure to obtain all the necessary files for your installation.

Use these guidelines to obtain the software from SAP. Be aware that the navigation on the SAP web site may change.

1. Go to the SAP Market Place web site:
<https://websmp105.sap-ag.de/~SAPIDP/002006825000000234912001E>
2. Select SAP Support Portal*.
3. Enter the user ID and password for your account.

Note. You may be prompted to enter the credentials more than once.

4. From the tabs at the top, select Software Downloads, Installation and Upgrades.
5. Select A - Z Index from the links on the left.
6. To download the base software:
 - a. Select “B”.
 - b. Select the links for SBOP BI platform (former SBOP Enterprise), BOBJ EnterpriseXI 3.1, Installation.
7. To download the integration kit:
 - a. Select “I”.
 - b. Select the links for SBOP INTGR. FOR PSFT, BOBJ INTGR. FOR PSFT XI 3.1, Installation.
8. Select the operating system platform on which you are installing.
9. Select the Downloads tab, and then select the options for the appropriate version to download.
10. Download all the required files.
11. Extract the files into *BOE_INSTALL*.
12. If it is necessary to transfer the files to a UNIX computer using FTP, you must change the permissions to make them executable (using the `chmod +x` command, for example).

Task 15-3: Installing Crystal Reports 2008

This section discusses:

- Understanding the Crystal Reports 2008 Installation
- Installing Crystal Reports 2008
- Installing Crystal Reports 2008 .NET Runtime

Understanding the Crystal Reports 2008 Installation

If you choose to use Crystal Reports to design reports on a Windows-based workstation (also known as the PeopleTools Development Environment), you must install the SAP Crystal Reports 2008 application. Process Scheduler servers that will be used to run Crystal Reports do not require the Crystal Reports 2008 Application to be installed, but do require that the Crystal Reports 2008 .NET Runtime be installed. Upon configuration of the Process Scheduler domain, the required PeopleSoft/Crystal Runtime integration will be configured in order to support the running of PeopleSoft Crystal Reports processes.

Note. Although some versions of Crystal Reports include web server applications such as Web Component Server, they are not tested, certified, or supported by Oracle for the PeopleSoft installation. Consult My Oracle Support for the current certification information for Crystal Reports 2008.

See Also

PeopleTools 8.52: Crystal Reports for PeopleSoft PeopleBook, "Using Crystal Reports 2008"

Task 15-3-1: Installing Crystal Reports 2008

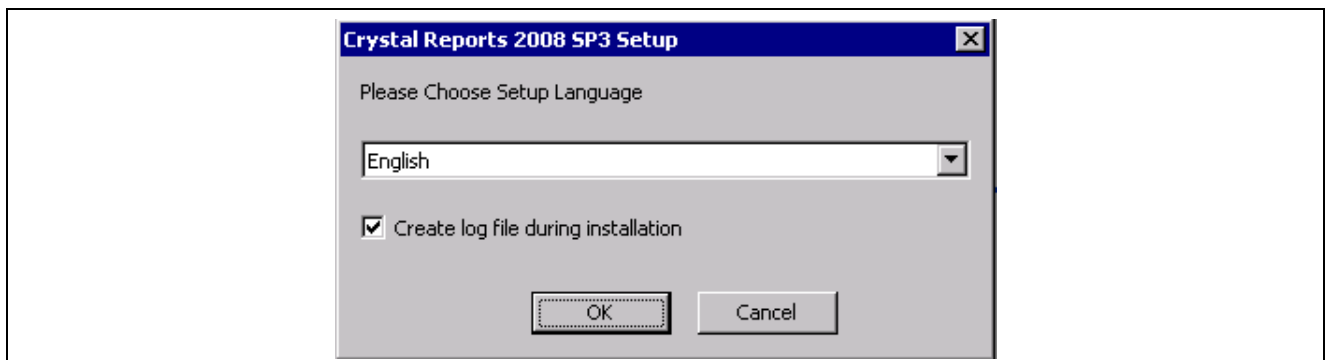
This section assumes that you downloaded the necessary files to a directory referred to here as *BOE_INSTALL*. You must log on to the Microsoft Windows machine as a user included in the Administrator group.

See Obtaining SAP BusinessObjects and Crystal Reports Software.

To install Crystal Reports 2008:

1. Change directory to *BOE_INSTALL* and run *setup.exe*.
2. Select the setup language.

Select the option to Create a log file during installation if desired, and then click OK.

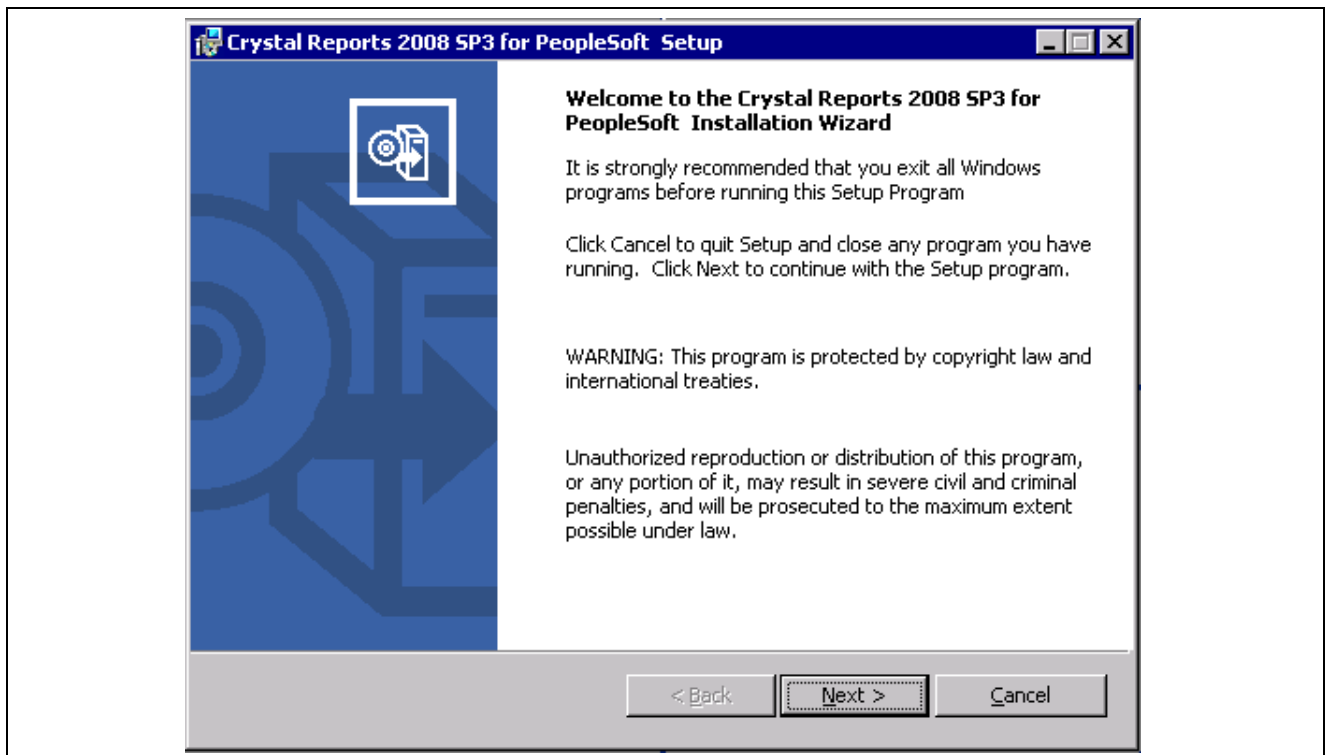


Crystal Reports 2008 Setup dialog box

The Welcome window appears.

3. Click Next.

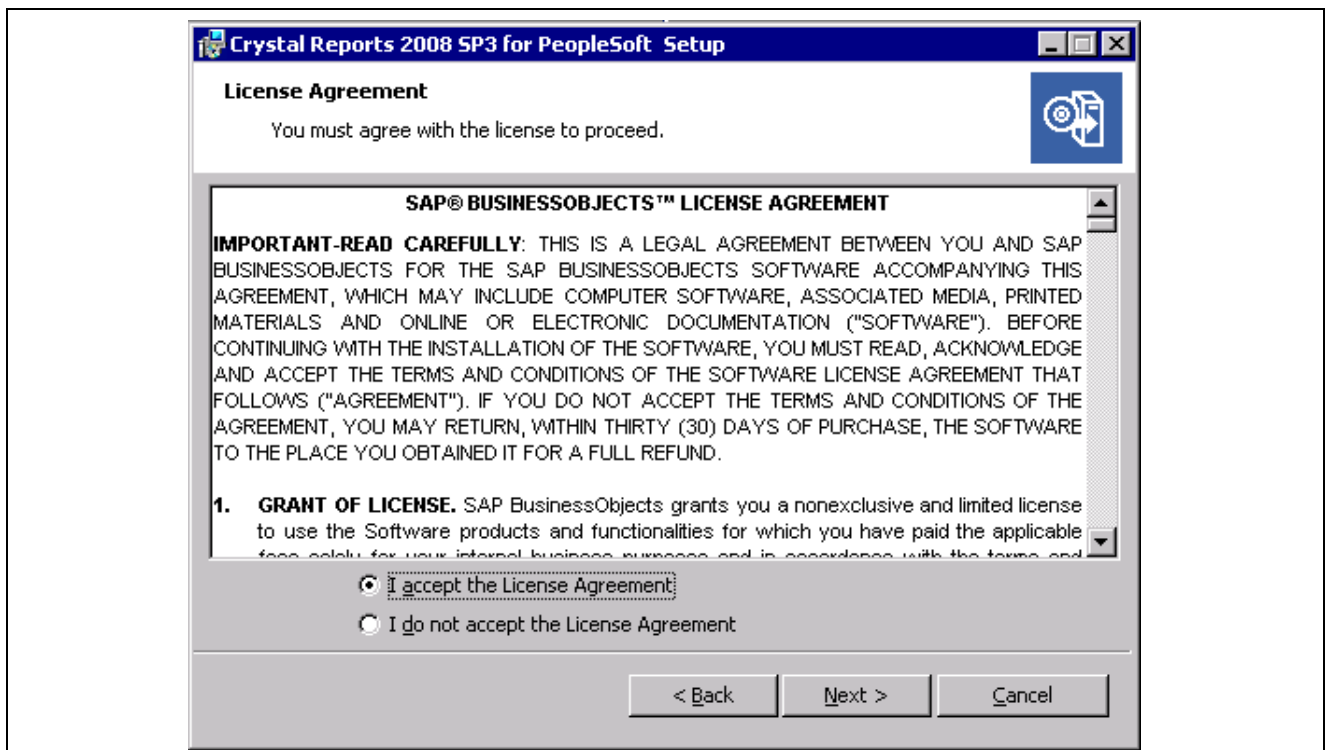
The window includes the recommendation to exit all Windows programs before running the setup.



Crystal Reports 2008 Setup Welcome window

4. Select the I accept the License Agreement radio button and click Next.

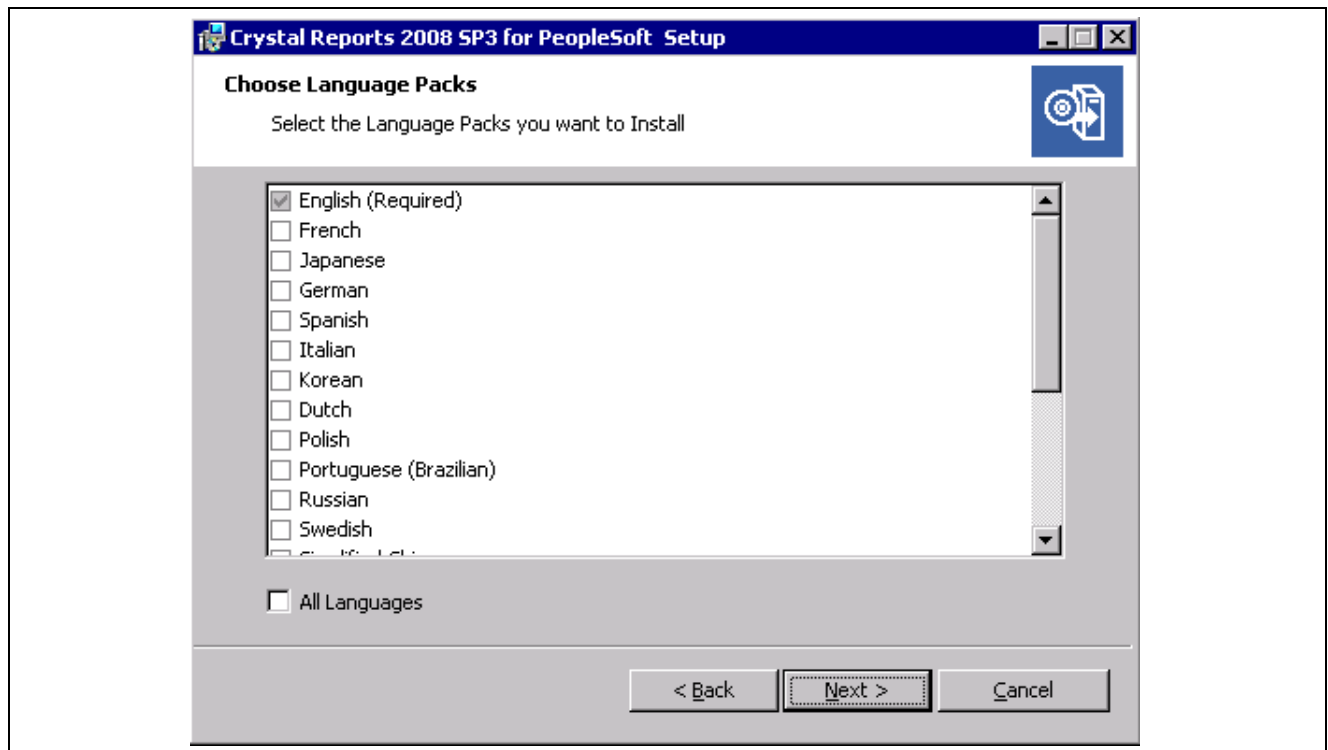
You must agree with the SAP BusinessObjects license agreement to proceed.



Crystal Reports 2008 Setup License Agreement window

5. Select the languages that you want to install and click Next.

English is required.

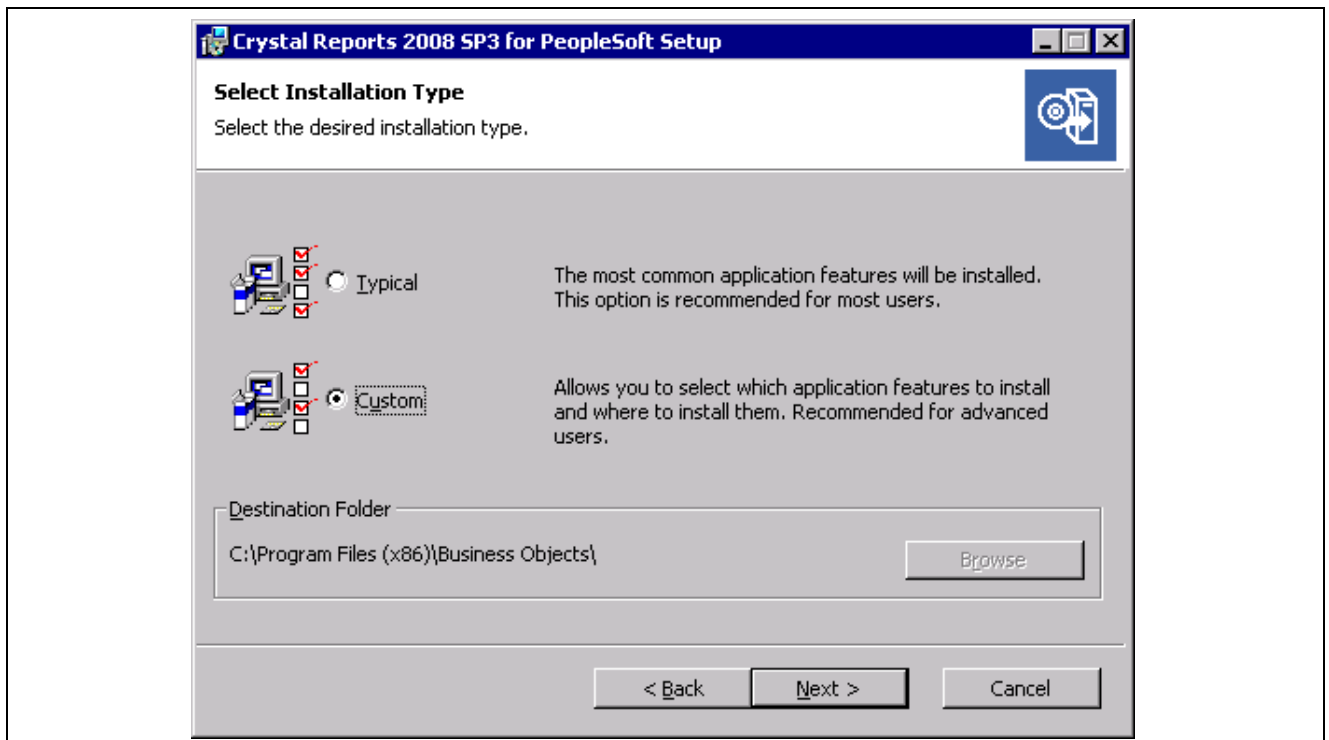


Crystal Reports 2008 Setup Choose Language Packs window

6. Select the Custom option and click Next.

If necessary, use the Browse button to set your destination folder.

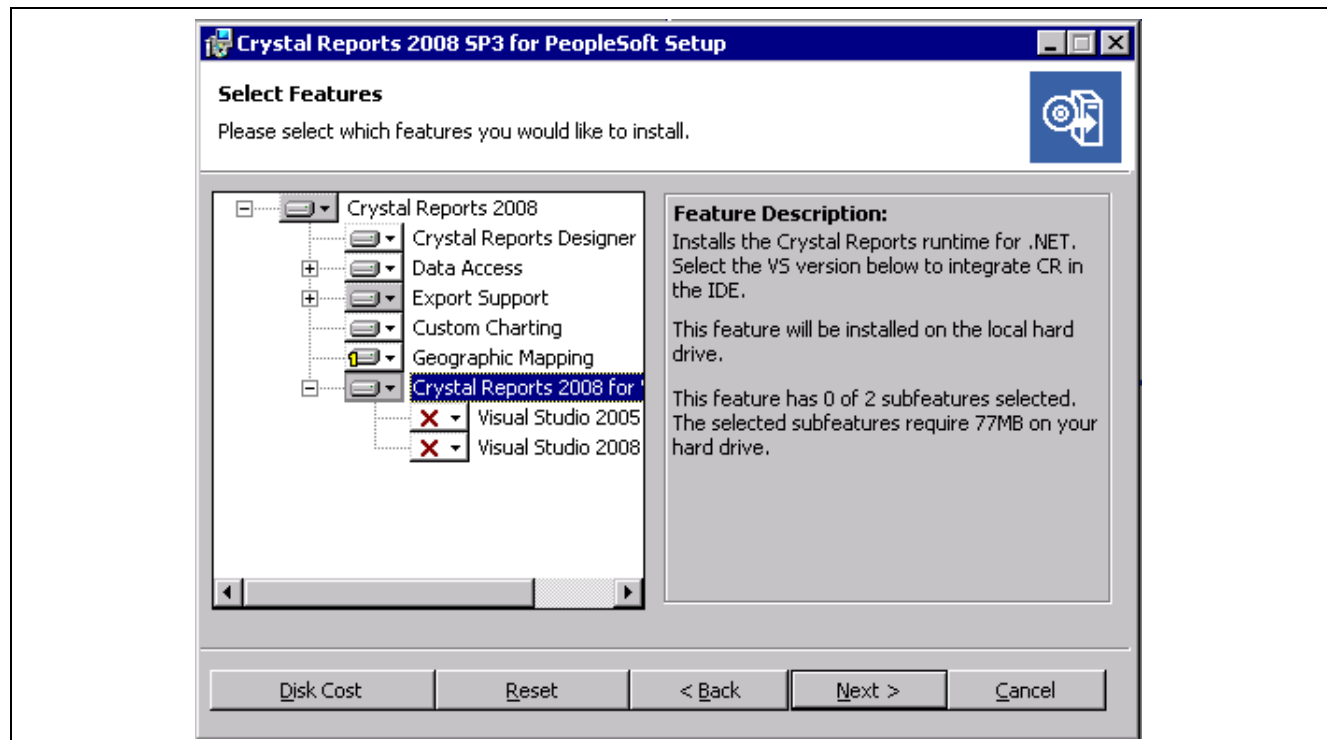
Note. If a Business Objects product is already installed, the destination folder will point to that and cannot be changed.



Crystal Reports 2008 Setup Select Installation Type window

7. On the Select Features window, under Crystal Reports 2008 for Visual Studio, clear all subfeatures under it, and then click Next.

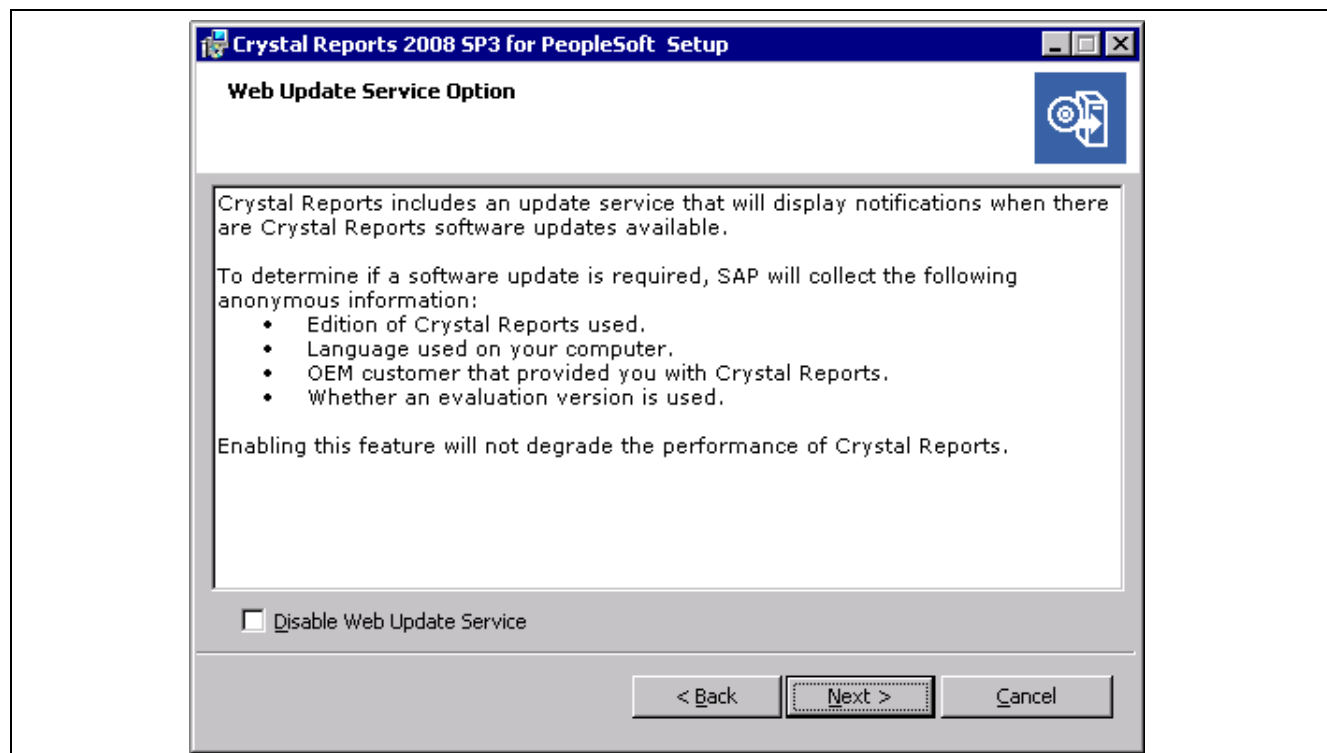
Note. Make sure that the feature “Crystal Reports 2008 for Visual Studio” is selected, only deselecting the subfeatures under it, as shown in the example.



Crystal Reports 2008 Setup Select Features window

8. Select the option to disable the Web Update Service if desired on the Web Update Service Option window, and then click Next.

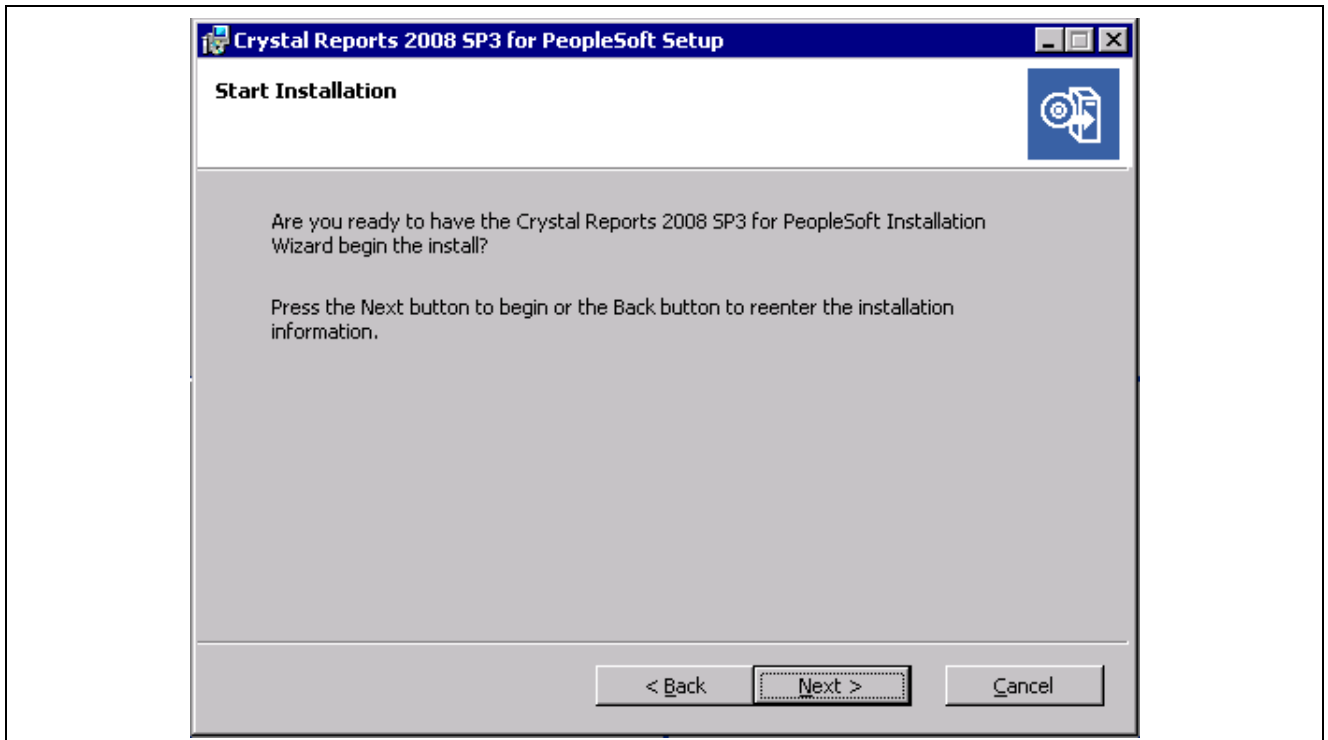
The information in this example explains that the update service offers notification of Crystal Reports software updates, and gives privacy information.



Crystal Reports 2008 Setup Web Update Service Option window

9. Click Next to begin the installation.

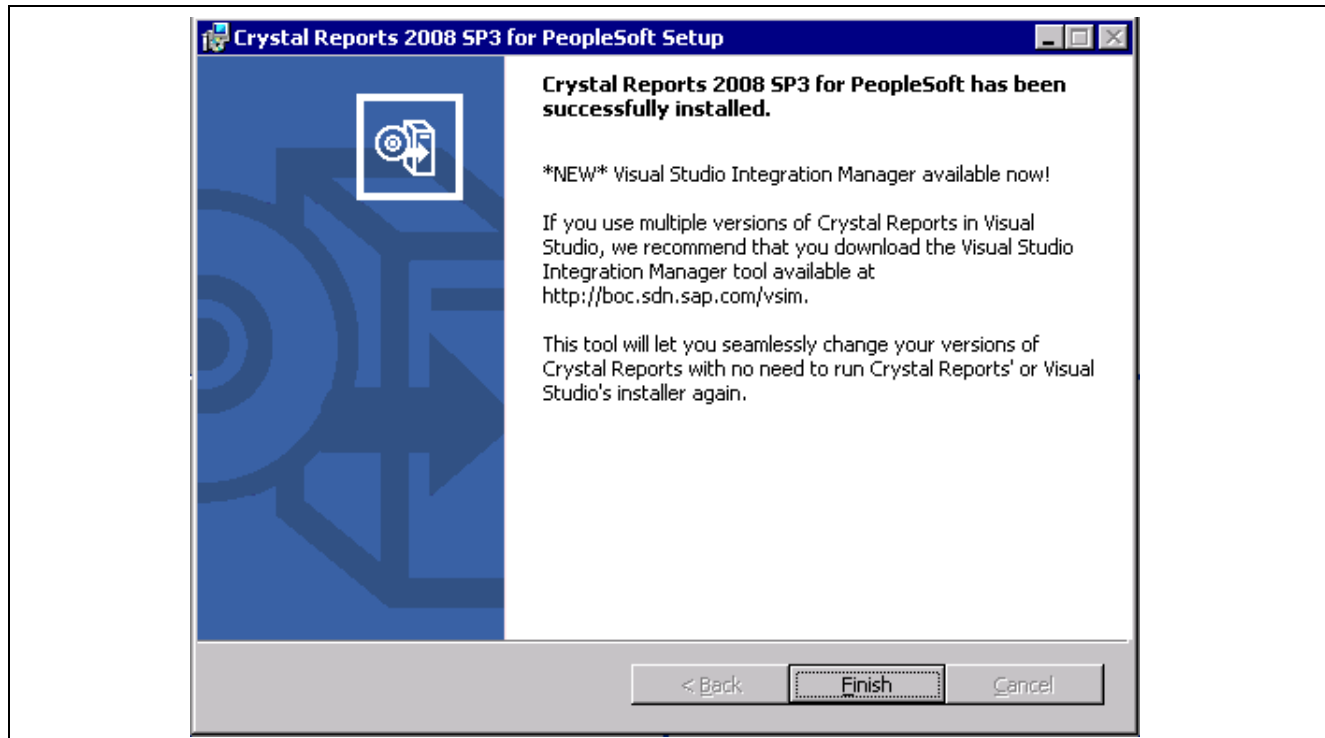
Click Back to go to a previous window to change the installation information.



Crystal Reports 2008 Setup Start Installation window

10. Click Finish to exit the installation window.

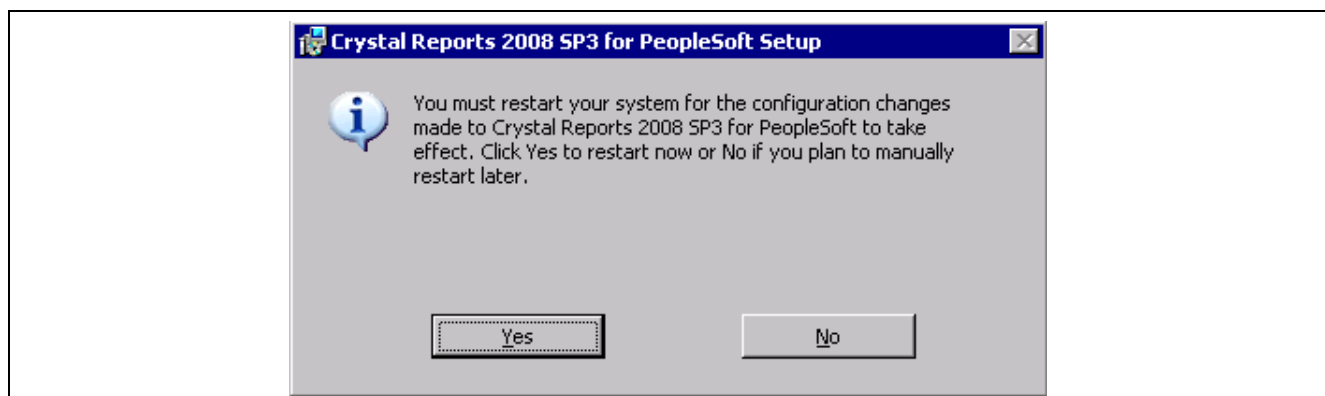
You must reboot your machine to complete the installation.



Crystal Reports 2008 Setup Successful Installation window

11. Click Yes or No when asked whether to restart your machine.

The dialog box includes the information that you may restart now or later.



Crystal Reports 2008 Setup restart message

Task 15-3-2: Installing Crystal Reports 2008 .NET Runtime

Before installing SAP Crystal 2008 .NET Runtime, read this prerequisite information. SAP Crystal 2008 .NET Runtime requires Microsoft .NET Framework 2.0. Follow the instructions in the task "Installing Products for PS/nVision" to install the Microsoft .NET Framework version 3.5 if not already installed on the machine, as this version includes the .NET 2.0 Framework.

See "Setting Up Process Scheduler for Windows," Installing Products for PS/nVision.

To install SAP Crystal Reports 2008 .NET Runtime:

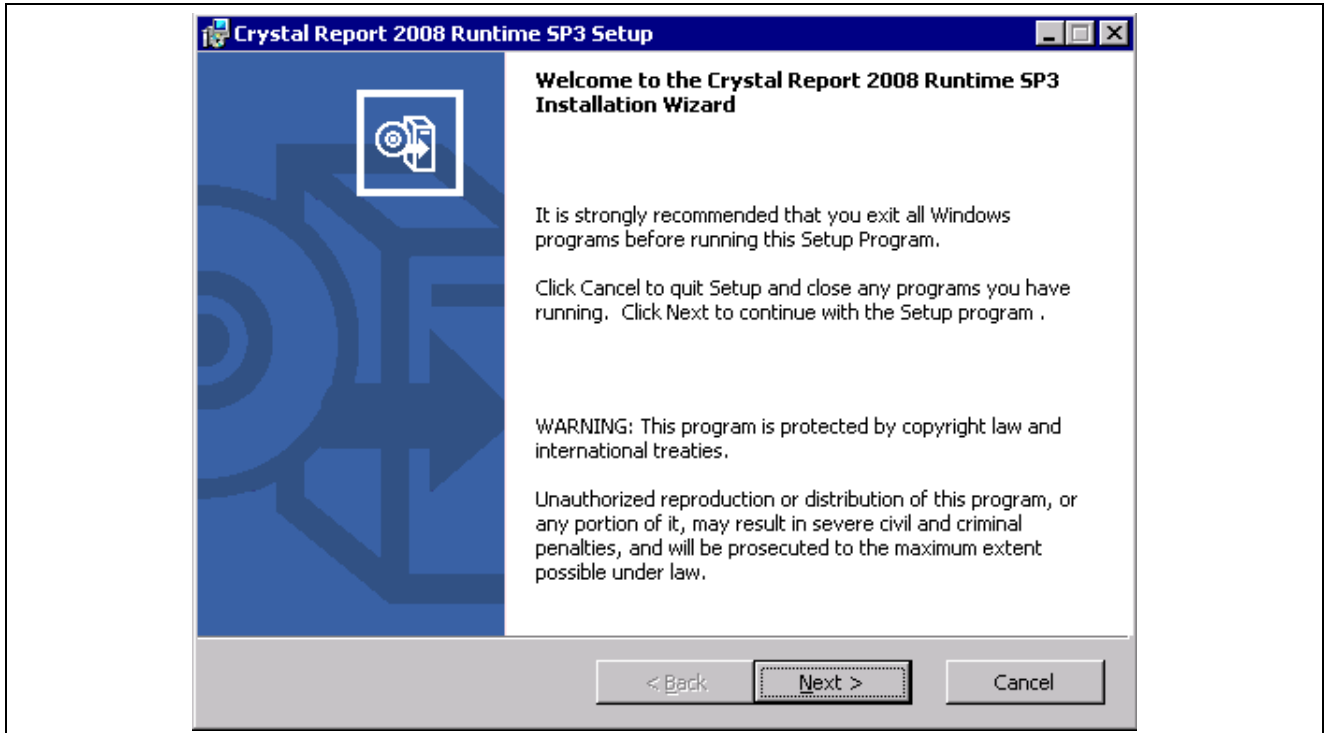
1. Change directory to *BOE_INSTALL* and extract the contents of the Crystal 2008 Redistributable Runtime Zip file to this directory.

2. Run the installer .exe file, for example, CRRuntime_12_3_mlb.exe.

The Welcome window appears.

3. Click Next.

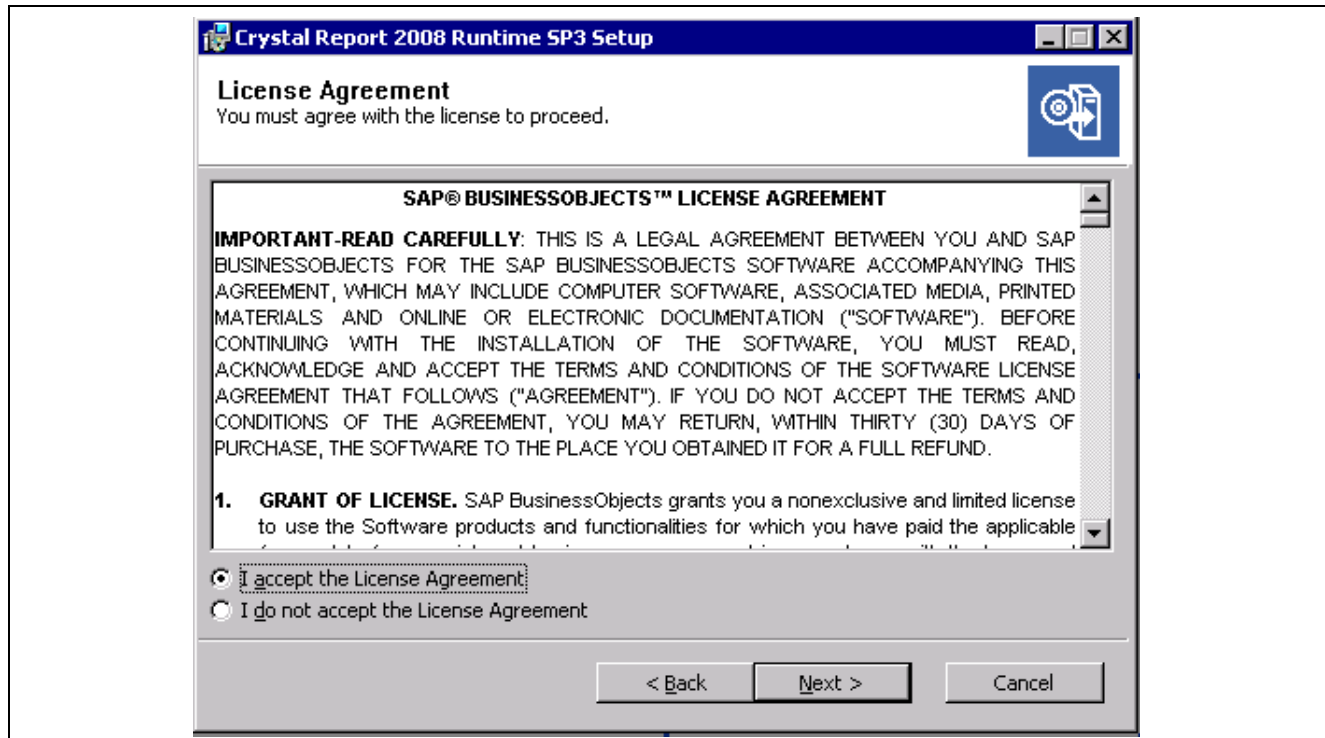
The window includes the recommendation to exit all Windows programs before running the setup program.



Crystal Reports 2008 Runtime Setup Welcome window

4. Select the I accept the License Agreement option and click Next.

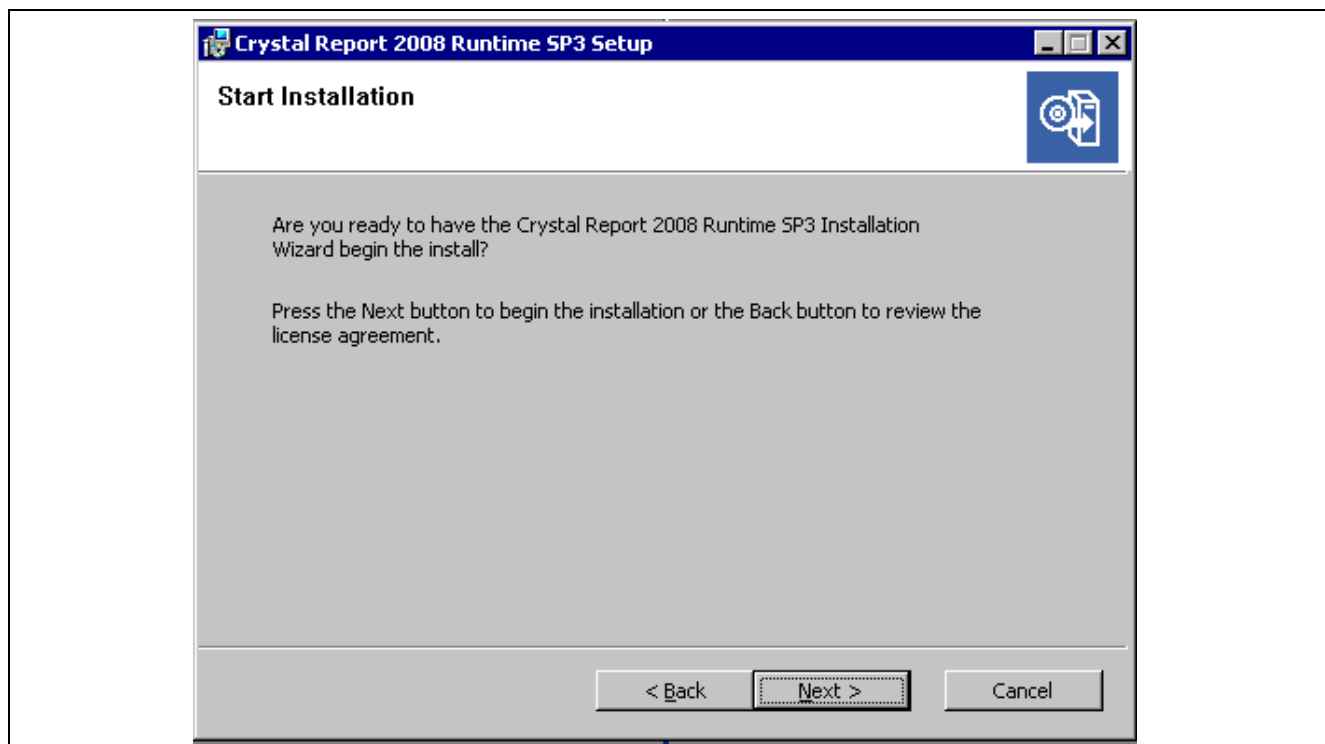
You must accept the SAP BusinessObject license agreement to proceed.



Crystal Reports 2008 Runtime Setup License Agreement window

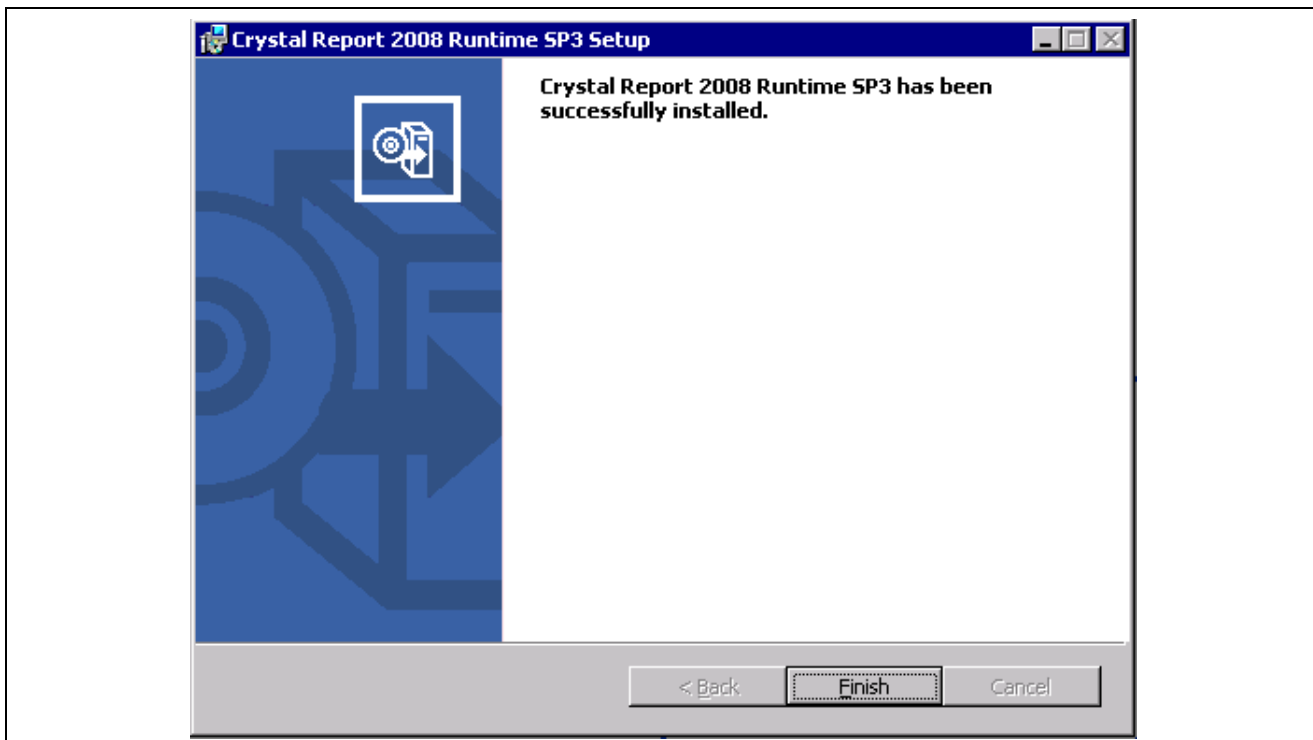
5. Click Next to begin the installation.

Click Back to go to a previous window to change the installation information.



Crystal Reports 2008 Runtime Setup Start Installation window

6. Click Finish to exit the installation window.



Crystal Reports 2008 Runtime Setup successful installation window

Note. You will need to convert all your existing custom Crystal Reports to Crystal Reports 2008. See the section Converting Crystal Reports in this chapter for additional information and tasks.

See Also

Configuring Crystal Reports 2008 for SAP BusinessObjects Enterprise XI 3.1

Task 15-4: Installing SAP BusinessObjects Enterprise XI 3.1

This section discusses:

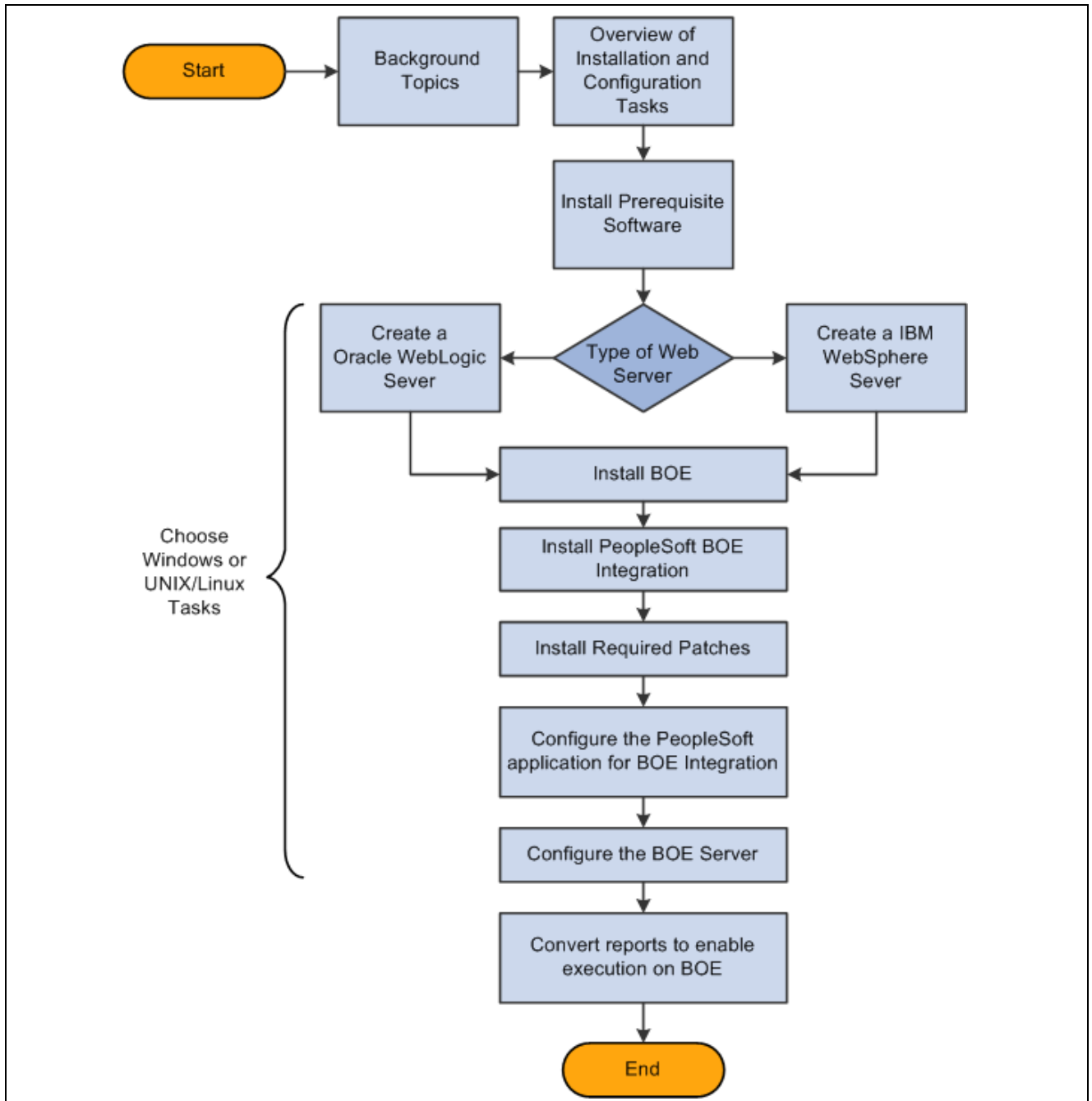
- Understanding the SAP BusinessObjects Enterprise XI 3.1 Installation
- Understanding Integration Between SAP BusinessObjects Enterprise XI 3.1 and PeopleSoft Enterprise
- Understanding Query Access Services
- Reviewing Key SAP BusinessObjects Enterprise XI 3.1 Components
- Planning your SAP BusinessObjects Enterprise XI 3.1 Integration
- Installing the PeopleSoft Application Environment
- Creating a Web Server for SAP BusinessObjects Enterprise XI 3.1 on Windows
- Installing SAP BusinessObjects Enterprise XI 3.1 on Windows
- Installing BusinessObjects Integration Kit for PeopleSoft on Windows
- Installing Fix Packs or Service Packs on Windows

- Creating the BusinessObjects Enterprise Archive and Installing Files on Windows
- Extracting the Archive on Windows
- Installing TrueType Fonts on Windows
- Creating a Web Server for SAP BusinessObjects Enterprise XI 3.1 on UNIX or Linux
- Installing SAP BusinessObjects Enterprise XI 3.1 on UNIX or Linux
- Installing BusinessObjects Integration Kit for PeopleSoft on UNIX or Linux
- Installing Fix Packs or Service Packs on UNIX or Linux
- Creating the BusinessObjects Enterprise Archive and Installing Files on UNIX or Linux
- Extracting the Archive on UNIX or Linux
- Installing TrueType Fonts in UNIX or Linux
- Confirming Access to the SAP BusinessObjects Enterprise XI 3.1 Administration and Central Management Console
- Configuring the PeopleSoft Application for BusinessObjects Enterprise XI 3.1 Integration
- Importing the Security Certificate to the Oracle WebLogic Server
- Importing Security Certificate to the IBM WebSphere Server
- Configuring the SAP BusinessObjects Enterprise XI 3.1 Server
- Configuring Crystal Reports 2008 for SAP BusinessObjects Enterprise XI 3.1
- Modifying the SAP BusinessObjects Enterprise XI 3.1 Chunk Size
- Verifying the PeopleSoft to SAP BusinessObjects Enterprise XI 3.1 Integration

Understanding the SAP BusinessObjects Enterprise XI 3.1 Installation

Use the following flowchart to understand which parts of this section are relevant to your particular circumstances. The flowchart is an overview of the entire process. After the step to install the prerequisite software, you must choose the type of web server software, then continue with several installation and configuration steps. This section includes the instructions for the installation on Windows, and on UNIX or Linux.

Note. In the following flowchart, “BOE” refers to SAP BusinessObjects Enterprise XI 3.1.



Navigating the BOE Installation and Configuration

To familiarize yourself with the most current support information and information about any required service packs for SAP BusinessObjects Enterprise XI 3.1 and supporting software, based on operating system platform or PeopleSoft PeopleTools versions, consult My Oracle Support or the hardware and software requirements guide.

See Also

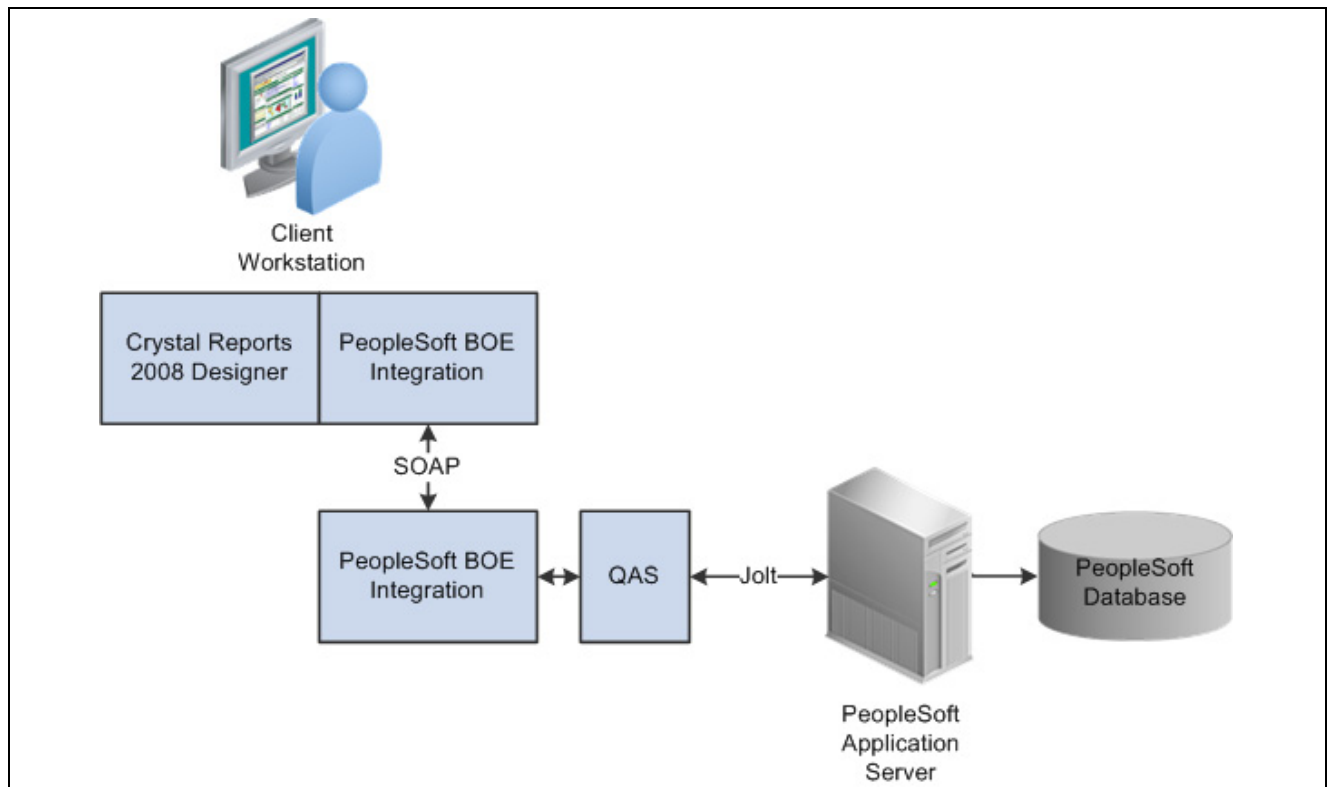
My Oracle Support, Certifications

PeopleTools 8.52 Hardware and Software Requirements Guide

Understanding Integration Between SAP BusinessObjects Enterprise XI 3.1 and PeopleSoft Enterprise

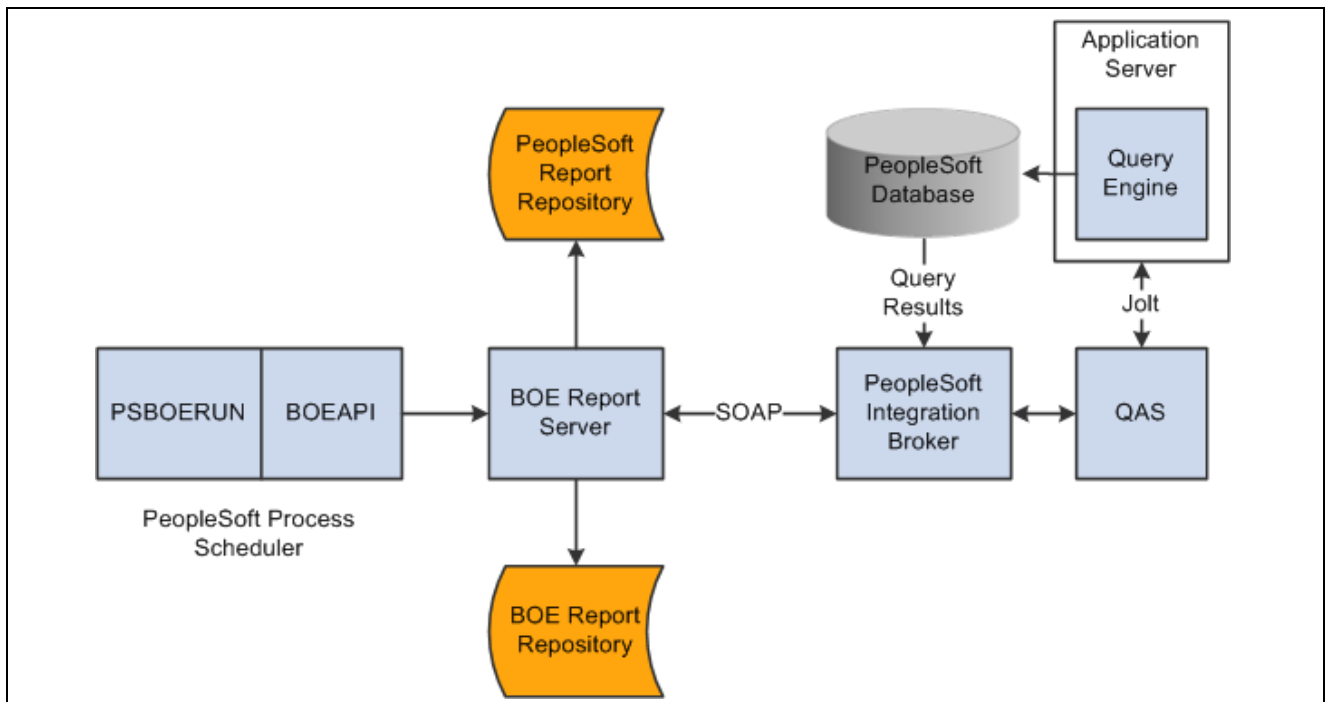
PeopleSoft Enterprise, together with Business Objects, provides a robust suite of reporting tools to be used with PeopleSoft products. The diagrams in this section illustrate how SAP BusinessObjects Enterprise XI 3.1 integrates with PeopleSoft Enterprise.

The following diagram illustrates the process by which the PeopleSoft BusinessObjects Enterprise integration communicates with the PeopleSoft Integration Broker, Application Server, and the database, when a user designs a report.



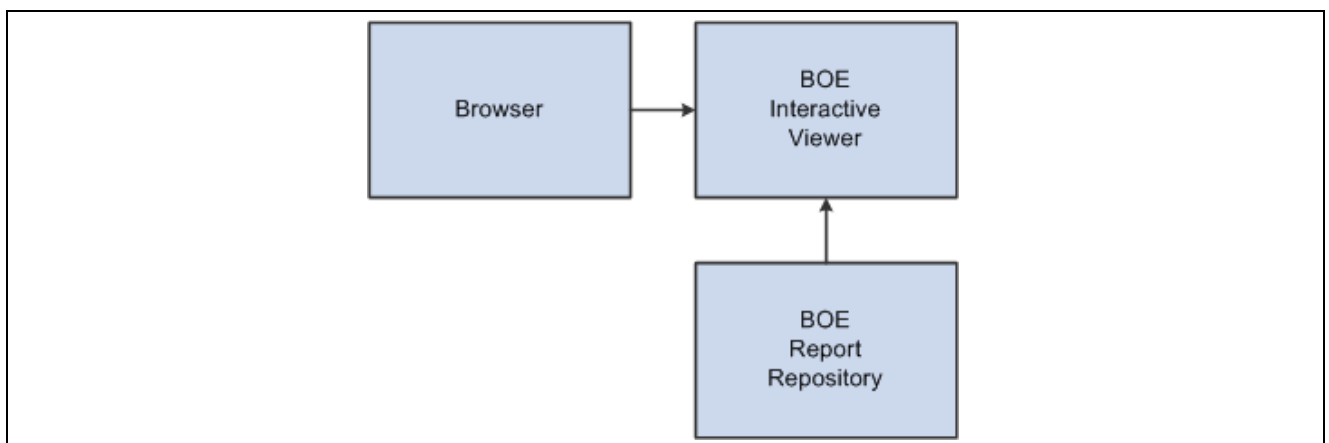
Design a report with the PeopleSoft BusinessObjects Enterprise XI 3.1 integration

The following diagram illustrates the process by which the BusinessObjects Enterprise integration works with PeopleSoft Process Scheduler and PeopleSoft Integration Broker to run a report.



Run a report with the PeopleSoft BusinessObjects Enterprise XI 3.1 integration

The following diagram illustrates the interaction between the end-user browser, the BusinessObjects Enterprise InfoViewer, and the BusinessObjects Enterprise report repository in displaying a report.



View a report stored in the BusinessObjects Enterprise XI 3.1 Repository

Implementation of this integration requires:

- installation of SAP BusinessObjects Enterprise XI 3.1 server
- installation of PeopleSoft-specific components on the SAP BusinessObjects Enterprise XI 3.1 server
- configuration tasks in your PeopleSoft application
- configuration tasks in your SAP BusinessObjects Enterprise XI 3.1 server
- conversion of Crystal report definitions from Crystal 9 format to Crystal 2008 format.

SAP BusinessObjects Enterprise XI 3.1 for PeopleSoft Enterprise interacts with PeopleSoft Enterprise security server using a plug-in. This integration provides single signon and ensures the synchronization of users and roles between PeopleSoft Enterprise and SAP BusinessObjects Enterprise XI 3.1. Using a data driver that uses the Query Access Services, SAP BusinessObjects Enterprise XI 3.1 receives data from PS Query and builds a report using Report Application Server (RAS) API.

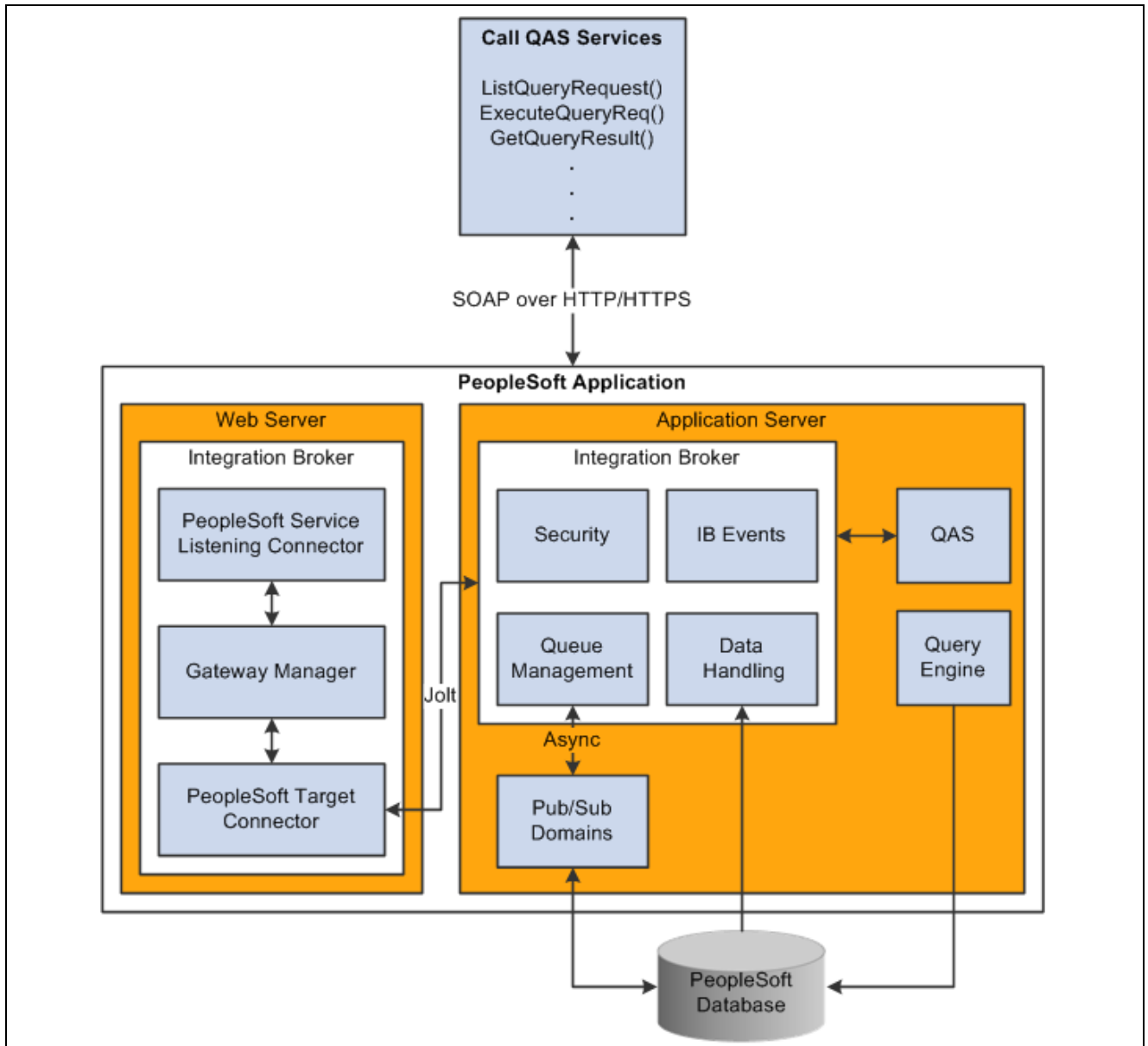
Understanding Query Access Services

Query Access Services (QAS) provides PeopleSoft query results to BusinessObjects Enterprise over the web to create Crystal reports.

QAS plays the following roles in SAP BusinessObjects Enterprise XI 3.1 for PeopleSoft Enterprise:

- Provides a mechanism for the SAP BusinessObjects Enterprise XI 3.1 to access Query metadata so that users can design Crystal Reports based on the queries.
- Provides a mechanism for the SAP BusinessObjects Enterprise XI 3.1 to obtain results for a query to be used in report definitions.

The following diagram illustrates the QAS architecture and the relationship of the QAS components to the PeopleSoft servers and BusinessObjects Enterprise. The components are described in detail immediately following the diagram:



QAS interaction with PeopleSoft application

The following sections describe the components in the Query Access Services architecture:

- SAP BusinessObjects Enterprise XI 3.1

When SAP BusinessObjects Enterprise XI 3.1 makes a request to obtain XML data from Integration Broker, the request is authenticated and sent to the Integration Gateway.

- Web Server

The Integration Gateway is a component of PeopleSoft Integration Broker, and resides on a PeopleSoft web server that generates the URL to navigate inside BusinessObjects Enterprise. The Integration Gateway receives every SOAP request coming from BusinessObjects Enterprise over HTTP/HTTPS, and forwards the request to the integration engine running on the application server.

- Application Server

PeopleCode running on the application server implements most of the QAS services and generates the required response. Several components on the application server are involved in the query and responses, including the Integration Broker integration engine, the QAS query engine, and the application server publish/subscribe domains.

When a query execution request arrives, it is executed and the requested data returned as a message or as the URL of an XML file. The query execution is carried out in one of three ways:

- Synchronous Request/Response
- Asynchronous Request/Asynchronous Response
- Synchronous Request/Synchronous Poll with chunked response

Reviewing Key SAP BusinessObjects Enterprise XI 3.1 Components

BusinessObjects Enterprise involves the interaction of the following components:

- Central Management Console (CMC)

The Central Management Console (CMC) enables you to perform administrative tasks. Administrative tasks include authenticating users, granting rights to groups, adding domains, mapping PeopleSoft roles with BusinessObjects Enterprise roles, and adding users.

- Security Plugin

The Central Management Server uses the SAP BusinessObjects Enterprise XI 3.1 security plug-in to verify the user name and password against the system database. In the context of BusinessObjects Enterprise for PeopleSoft Enterprise, the security plug-in enables you to map user accounts and groups from PeopleSoft into SAP BusinessObjects Enterprise XI 3.1. The user names and passwords are authenticated against the SAP BusinessObjects Enterprise XI 3.1 user list that is synchronized with the users and roles in the PeopleSoft database.

Task 15-4-1: Planning your SAP BusinessObjects Enterprise XI 3.1 Integration

This section discusses:

- Installing Prerequisite Software
- Understanding SAP BusinessObjects Enterprise XI 3.1 License Keys
- Configuring Environment Variables

Note. These are steps that should be done prior to starting the installation and configuration of PeopleSoft PeopleTools and SAP BusinessObjects Enterprise XI 3.1. Completing these tasks will make the installation and configuration process proceed smoothly.

Installing Prerequisite Software

Several different alternative software packages are supported for SAP BusinessObjects Enterprise XI 3.1. These alternatives are listed in the PeopleSoft PeopleTools hardware and software guide. Additional detailed information on specific release levels supported is available online on My Oracle Support.

Note. The versions of the prerequisite software required for proper installation of SAP BusinessObjects Enterprise XI 3.1 may differ from the versions required for PeopleSoft PeopleTools. Take care in noting the versions required.

See *PeopleTools 8.52 Hardware and Software Requirements*.

See My Oracle Support, Certifications.

- Operating System

In order for the integration between PeopleSoft software and SAP BusinessObjects Enterprise XI 3.1 to work, the PeopleSoft Process Scheduler must be installed on an operating system that SAP BusinessObjects Enterprise XI 3.1 supports. This is because PSBOERUN.EXE, the PeopleSoft process that calls SAP BusinessObjects Enterprise XI 3.1, uses Business Objects-supplied APIs.

- Database Software

SAP BusinessObjects Enterprise XI 3.1 requires a relational database, which stores report definitions as well as report output. Oracle, DB2/LUW, Microsoft SQL Server, and Sybase are all supported database platforms.

The database server software can run on a different machine in the same network as your installation of SAP BusinessObjects Enterprise XI 3.1.

Before you begin to install SAP BusinessObjects Enterprise XI 3.1, you should identify the database server that you want to use. Make note of the database or schema name, user account name, and password for the database, as you will need this information to complete the SAP BusinessObjects Enterprise XI 3.1 installation. A database must exist, which will become the Central Management Server database.

If the database platform is Oracle, it is recommended that you create a new database or schema, create a new user account, and assign that user account a secure password. Ensure that the new account has permission to create, modify, and delete tables so that SAP BusinessObjects Enterprise XI 3.1 can modify the database as required. You need the name of the database, the user account, and the password when you run the SAP BusinessObjects Enterprise XI 3.1 installation script.

Note. MySQL is not a supported database platform for the integration between PeopleSoft PeopleTools and SAP BusinessObjects Enterprise XI 3.1.

- Database Connectivity Software

SAP BusinessObjects Enterprise XI 3.1 runs under a web server and requires a database, which stores report definitions as well as report output. In order for SAP BusinessObjects Enterprise XI 3.1 to communicate with the database software, the appropriate database client connectivity software must be installed on the server running SAP BusinessObjects Enterprise XI 3.1.

Before you begin to install SAP BusinessObjects Enterprise XI 3.1, install the appropriate database connectivity software on the server where SAP BusinessObjects Enterprise XI 3.1 will reside.

- Java SDK

If your web application server software does not automatically install the Java SDK as part of its installation process, you must install the J2SE SDK first. Ensure that your machine's PATH environment variable includes the Java SDK bin directory.

- Web Application Server Software

SAP BusinessObjects Enterprise XI 3.1 runs under a web application server, either Oracle WebLogic or IBM WebSphere. Before you begin to install SAP BusinessObjects Enterprise XI 3.1, install the appropriate web server software on the server where SAP BusinessObjects Enterprise XI 3.1 will reside.

Note that the Business Objects web server support can differ from the PeopleSoft PeopleTools support. Obtain and install the software and license from Oracle or IBM before beginning this procedure.

Note. You must install SAP BusinessObjects Enterprise XI 3.1 with the same user account as that used to install the web server software.

For successful integration between the PeopleSoft system and SAP BusinessObjects Enterprise XI 3.1, you must set up Secure Sockets Layer (SSL) on the web server.

See *PeopleTools 8.52: Security Administration PeopleBook*.

See *PeopleTools 8.52: Integration Broker Administration PeopleBook*, "Setting Up Secure Integration Environments."

- **Application Server Domains**

In PeopleSoft PeopleTools 8.50 and later, you can configure more than one PeopleSoft application to run with a single SAP BusinessObjects Enterprise XI 3.1 server. For example, if your environment includes both an application server domain on a Financials database, and another on a Human Capital Management database, you can configure both with the same SAP BusinessObjects Enterprise XI 3.1 server, and the state of one PeopleSoft application (running or not running) does not adversely impact the ability of the other PeopleSoft application to run reports on the SAP BusinessObjects Enterprise XI 3.1 server.

Thus when you generate reports from the Financials domain, as long as the Financials domain is up and running, you will be able to access the reports even if the Human Capital Management domain is down.

The instructions in this section assume SAP BusinessObjects Enterprise XI 3.1 is installed on one server machine that is separate from the machine on which you have installed (or will install) the PeopleSoft software. The SAP BusinessObjects Enterprise XI 3.1 installation documentation includes instructions for other installation configurations.

Understanding SAP BusinessObjects Enterprise XI 3.1 License Keys

There are two types of license keys relevant to SAP BusinessObjects Enterprise XI 3.1:

- **Named Users licenses**

Named users licenses allow a specific user access to SAP BusinessObjects Enterprise XI 3.1. If you are a named user, you have access to SAP BusinessObjects Enterprise XI 3.1 regardless of how many other users are connected to the system.

- **Concurrent Access licenses**

Concurrent access licenses allow a certain number of unspecified users access to SAP BusinessObjects Enterprise XI 3.1 from a pool of users. If you are a concurrent user, you have access to SAP BusinessObjects Enterprise XI 3.1 only if there are Concurrent Access Licenses that are not being used by other concurrent users.

During the SAP BusinessObjects Enterprise XI 3.1 configuration, you must specify one license key.

In the context of PeopleSoft applications integrated with SAP BusinessObjects Enterprise XI 3.1, one Named User License is reserved for use by Process Scheduler to schedule reports to be run by SAP BusinessObjects Enterprise XI 3.1.

In the context of PeopleSoft applications integrated with SAP BusinessObjects Enterprise XI 3.1, Concurrent Access licenses are used in these ways:

- when a user views a report using the SAP BusinessObjects Enterprise XI 3.1 InfoViewer

- when a user logs into the SAP BusinessObjects Enterprise XI 3.1 Central Management Console (CMC) directly using a user id set up as a concurrent user

After a user is done viewing the report in either scenario, the Concurrent Access license is then free to be used by another user.

Note. Viewing a report in Adobe Acrobat (pdf) format or in viewers other than the SAP BusinessObjects Enterprise XI 3.1 InfoViewer does not use a Concurrent Access License.

A relatively small number of concurrent access licenses can support a large number of users. The number of users that it will support depends on how many reports users view and how long they view them.

You may need to purchase additional Concurrent Access licenses to provide greater access for more users. When you purchase more Concurrent Access licenses from SAP, you will be provided a license code. You will need to add this license code to your SAP BusinessObjects Enterprise XI 3.1 installation. To add license keys, use the procedure in the section Configuring the SAP BusinessObjects Enterprise XI 3.1 Server.

Configuring Environment Variables

To configure environment variables for UNIX platforms:

1. Set the JAVA_HOME environment variable:


```
JAVA_HOME= java_installDirectory; export JAVA_HOME
```
2. Set the LC_ALL environment variable to include a UTF-8 locale in your login environment.
3. Run the `locale -a` command to verify that all of the related locale environment variables were properly set by LC_ALL.

Note. If the `locale` command does not return the correct values, contact your system administrator to set the values properly.

This example checks required environment variables, and shows sample output values

1. Echo the following environment variables and ensure that their values correspond to your database client software installation:

```
$ echo $ORACLE_HOME
/home/dbclient/oracle/10.1.0.3
$ echo $LD_LIBRARY_PATH
/home/dbclient/oracle/10.1.0.3/lib32
$ echo $PATH
/usr/local/bin:/home/dbclient/oracle/10.1.0.3/bin
```

2. Issue the following command to run the Oracle SQL tool and connect to the appropriate service name:

```
sqlplus <accountname>/<password>@<tnsname>
```

Replace <accountname>, <password> and <tnsname> with the appropriate values. If the shell environment has been configured correctly, you are connected to Oracle.

3. Issue the following command to ensure that account has permission to create tables:

```
create table sampletale (field1 char(10));
```

4. Issue the following command to ensure that the account has permission to delete tables:

```
drop table sampletable;
```

5. Issue the following command to ensure that the account has permission to create procedures:

```
CREATE PROCEDURE test_proc (foo_in VARCHAR, bar_in VARCHAR)
IS
BEGIN
INSERT INTO test_table (foo, bar) VALUES (foo_in, bar_in);
END;
```

6. Issue the following command to ensure that the account has permission to drop procedures:

```
DROP PROCEDURE TEST_PROC;
```

7. Type exit.

Task 15-4-2: Installing the PeopleSoft Application Environment

Install PeopleSoft PeopleTools and your PeopleSoft application environment as you normally would. There are special configuration steps that you will have to perform later in order to complete the integration of the PeopleSoft system with SAP BusinessObjects Enterprise XI 3.1. The machine with the PeopleSoft PeopleTools and PeopleSoft application installation must also include the BusinessObjects Integration Kit for PeopleSoft and Crystal 2008. The machine with the SAP BusinessObjects Enterprise XI 3.1 installation must include web server software in addition to the SAP BusinessObjects Enterprise XI 3.1 software.

Task 15-4-3: Creating a Web Server for SAP BusinessObjects Enterprise XI 3.1 on Windows

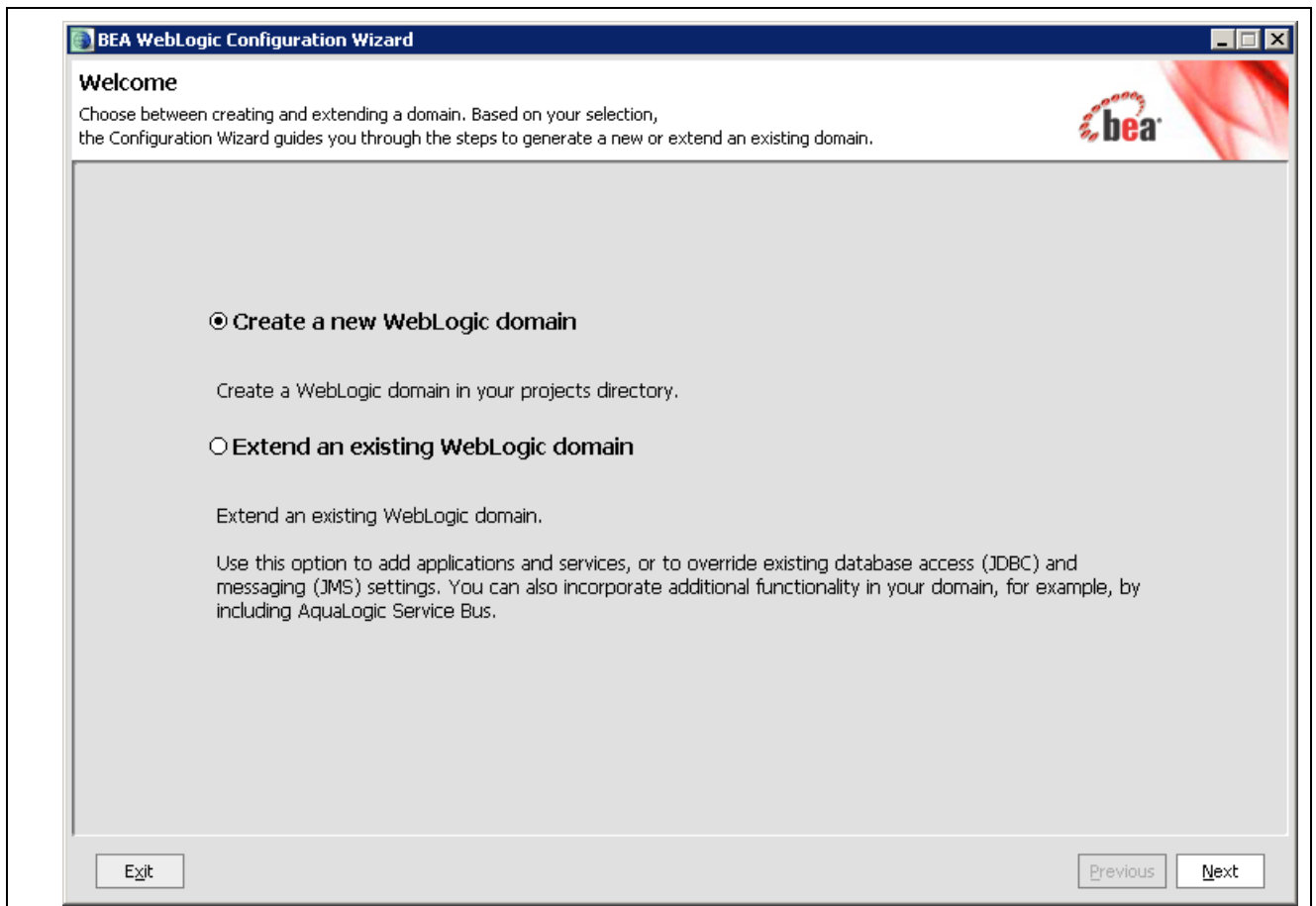
This section discusses:

- Creating an Oracle WebLogic Server on Windows
- Creating an IBM WebSphere Server on Windows

Creating an Oracle WebLogic Server on Windows

Before beginning this procedure, you must have installed Oracle WebLogic on the server where SAP BusinessObjects Enterprise XI 3.1 is installed.

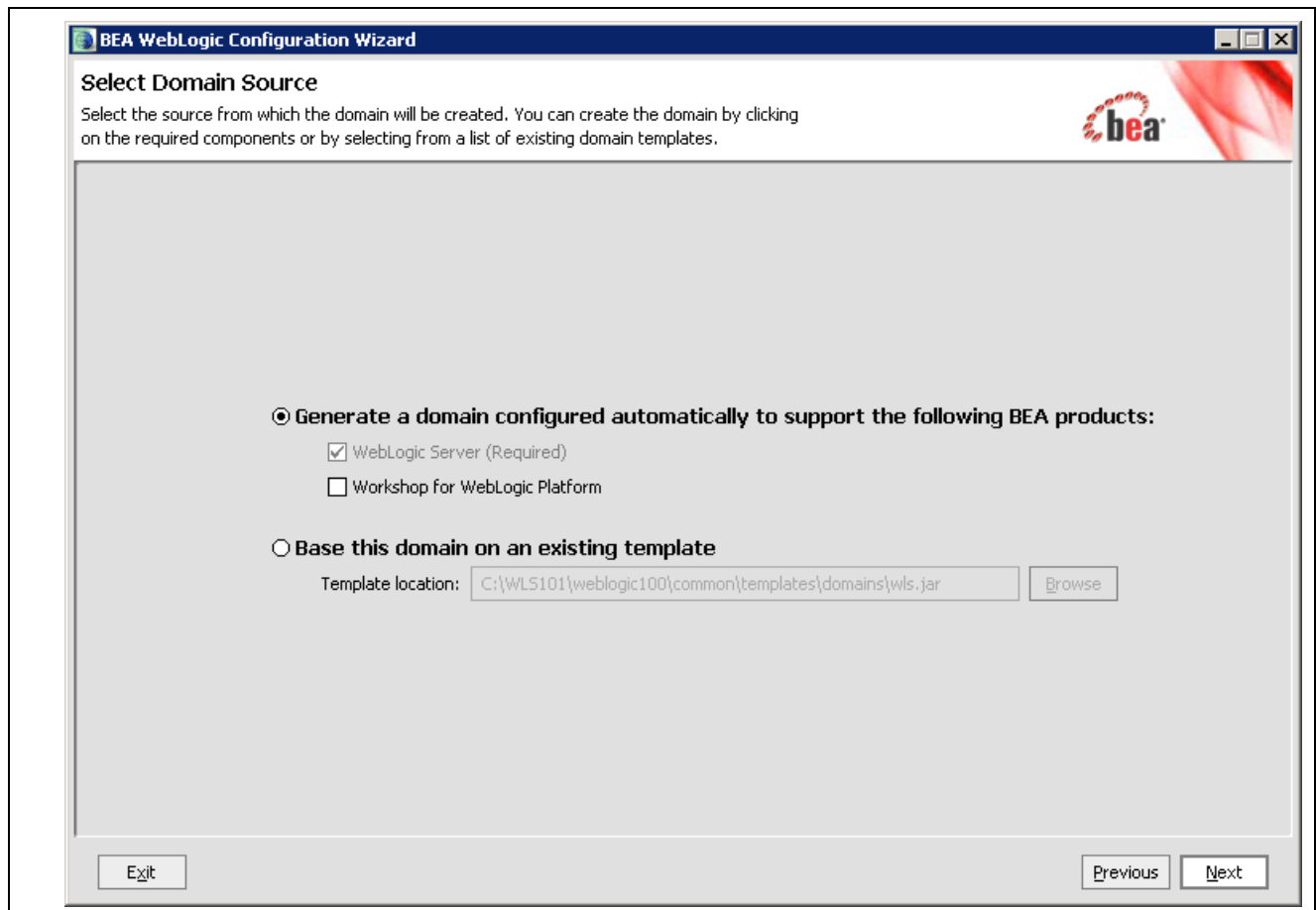
1. Select Start, Programs, BEA Products, Tools, Configuration Wizard to launch the Configuration Wizard.
2. Verify that Create a new WebLogic domain is selected and click Next.



BEA WebLogic Configuration Wizard Welcome window

The Select Domain Source window appears.

3. Select Generate a domain configured automatically to support the following BEA products:
When you select this option, the check box for WebLogic Server (Required) is selected.

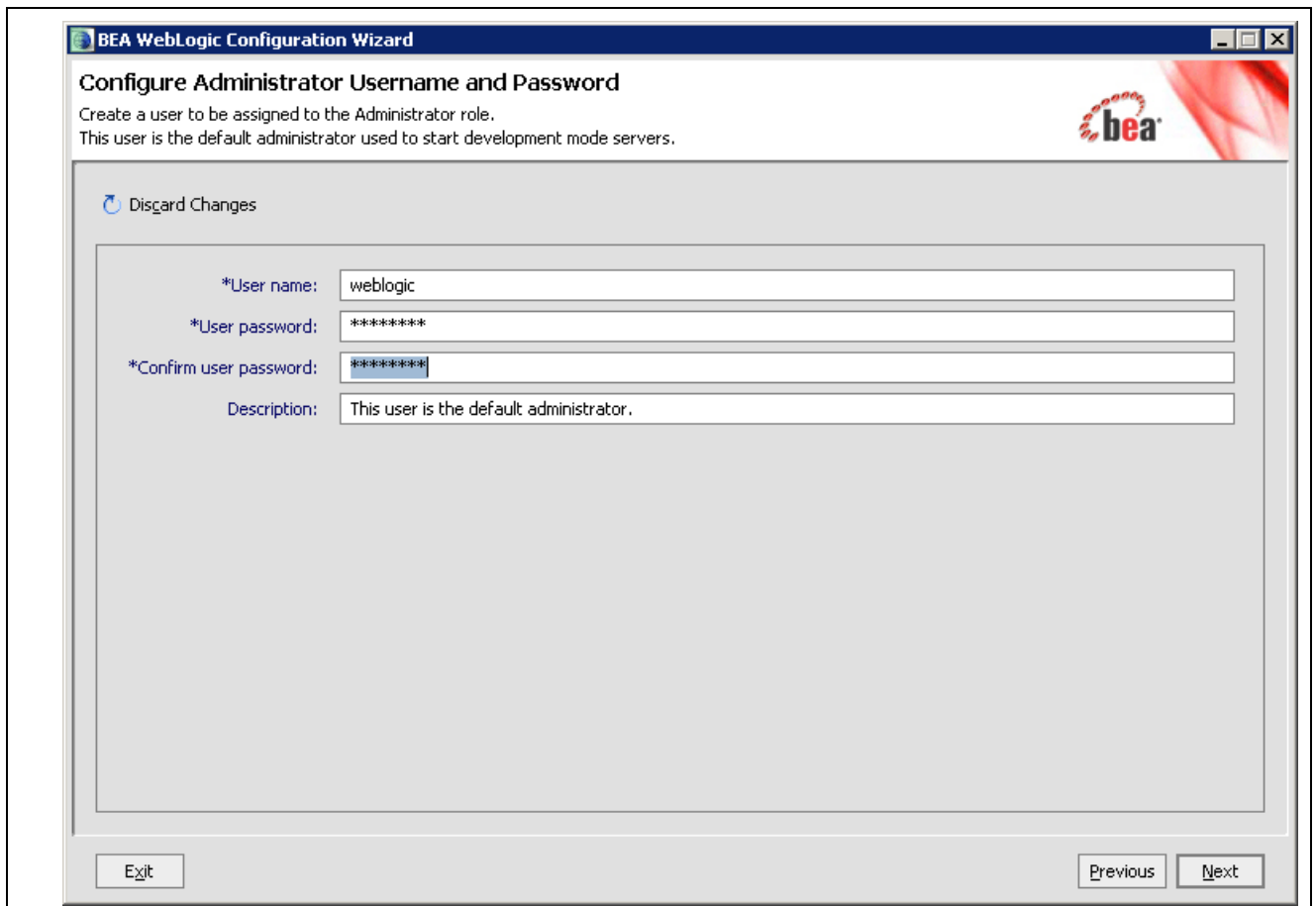


Select Domain Source window

4. Enter a password, confirm the password, and click Next.

In the following example, *weblogic* is entered for the user name.

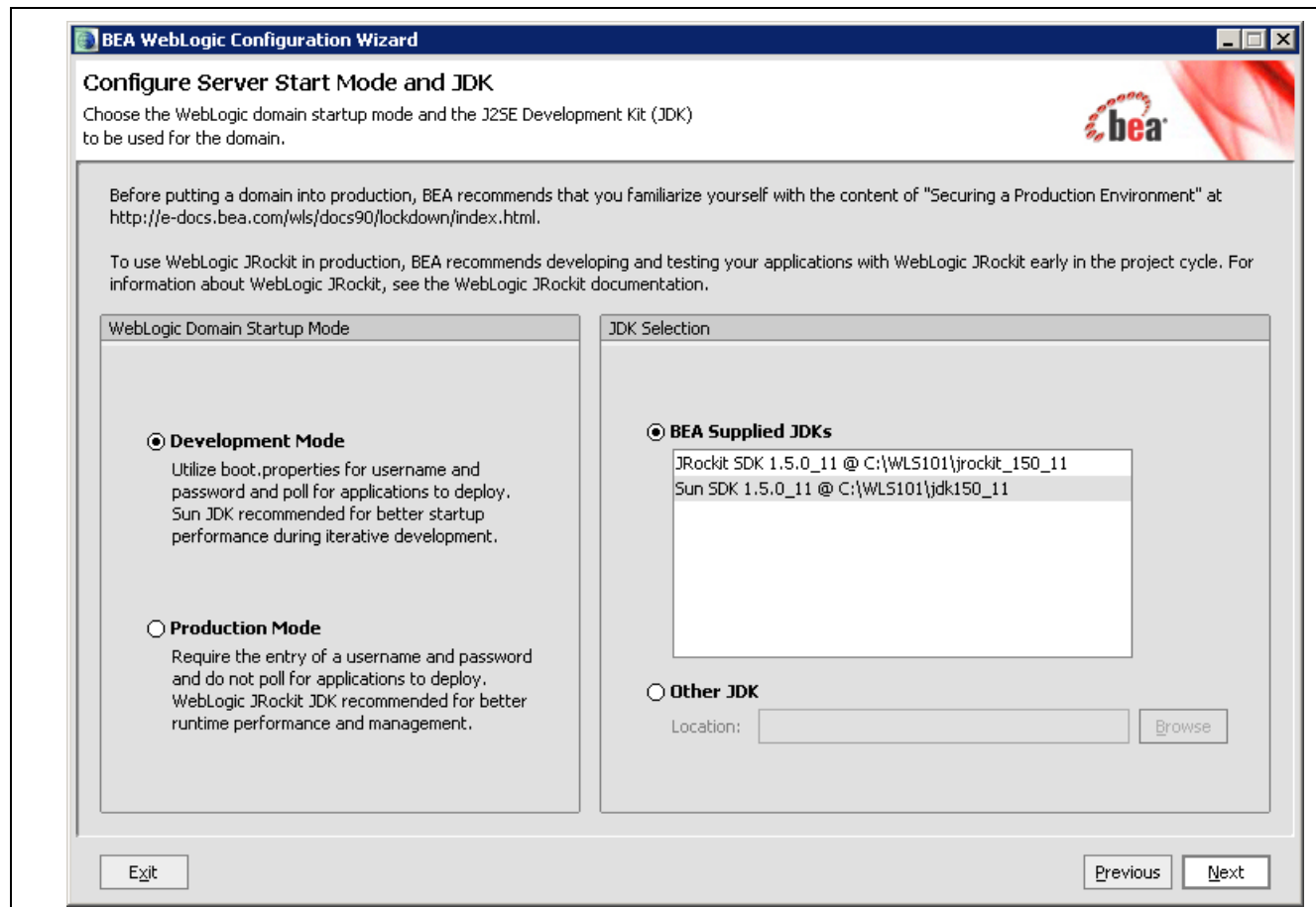
Note. For testing, *password* is often used as the password.



Configure Administrator Username and Password window

The Configure Server Start Mode and JDK window appears.

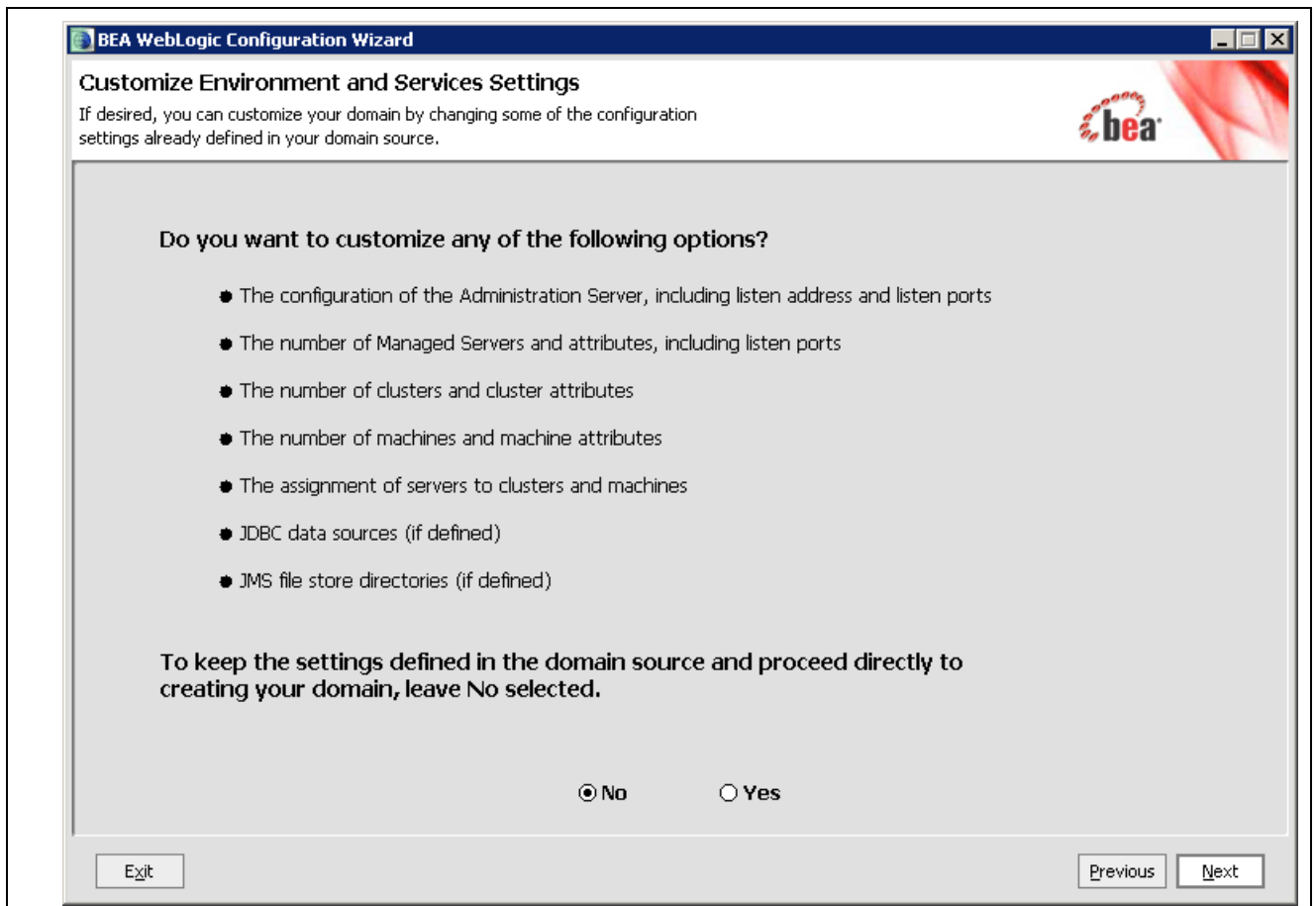
5. Select the Development Mode option and any supported JDK you installed, and click Next.



Configuring the Server Start Mode and JDK window

6. On the Customize Environment and Services Settings window, accept No, the default option, and click Next.

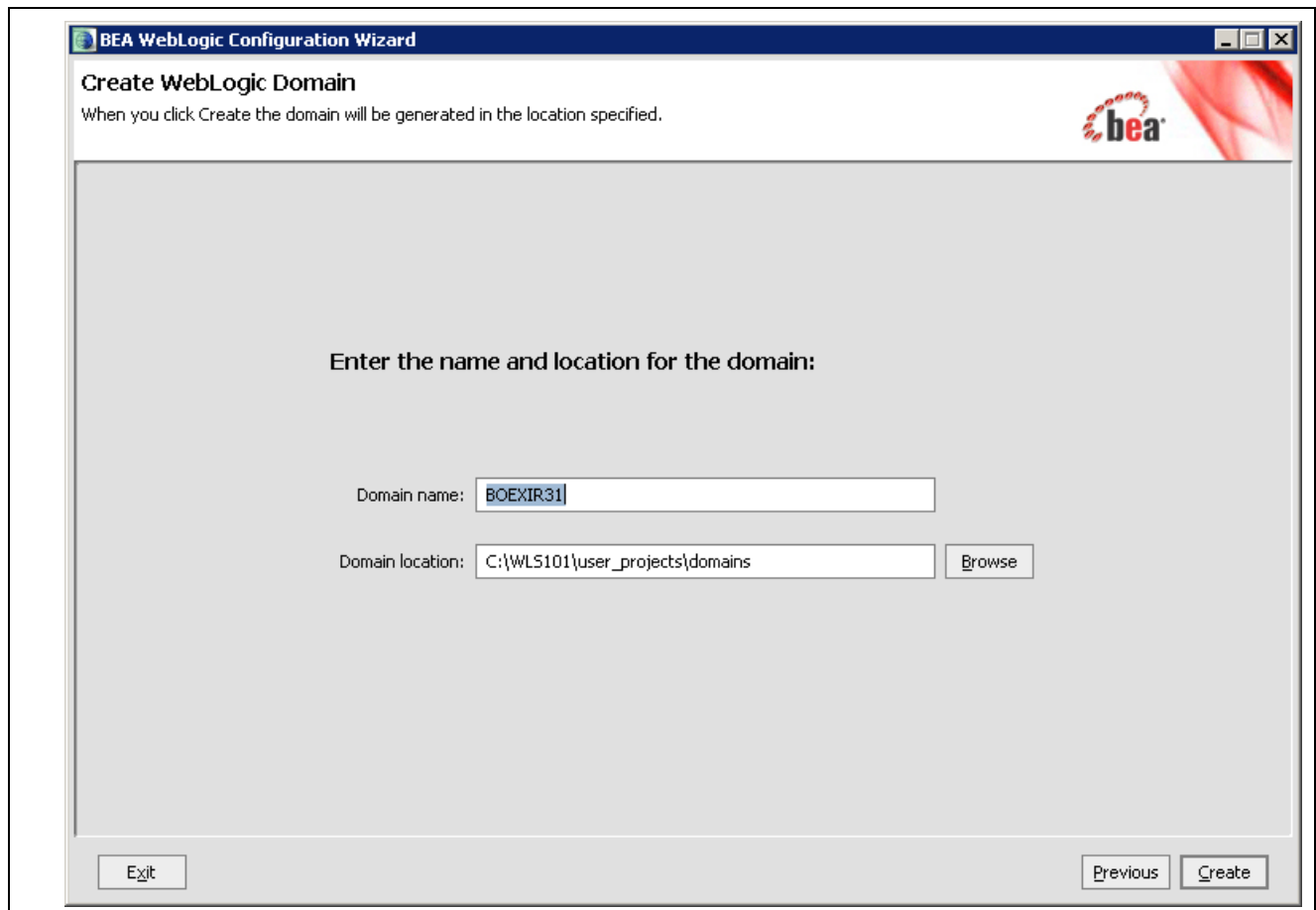
Note. If you want to change the default port number, or other settings, select Yes and complete the screens that follow.



Customize Environment and Service Settings window

7. Enter a meaningful domain name, select the location of the domain and click Create.

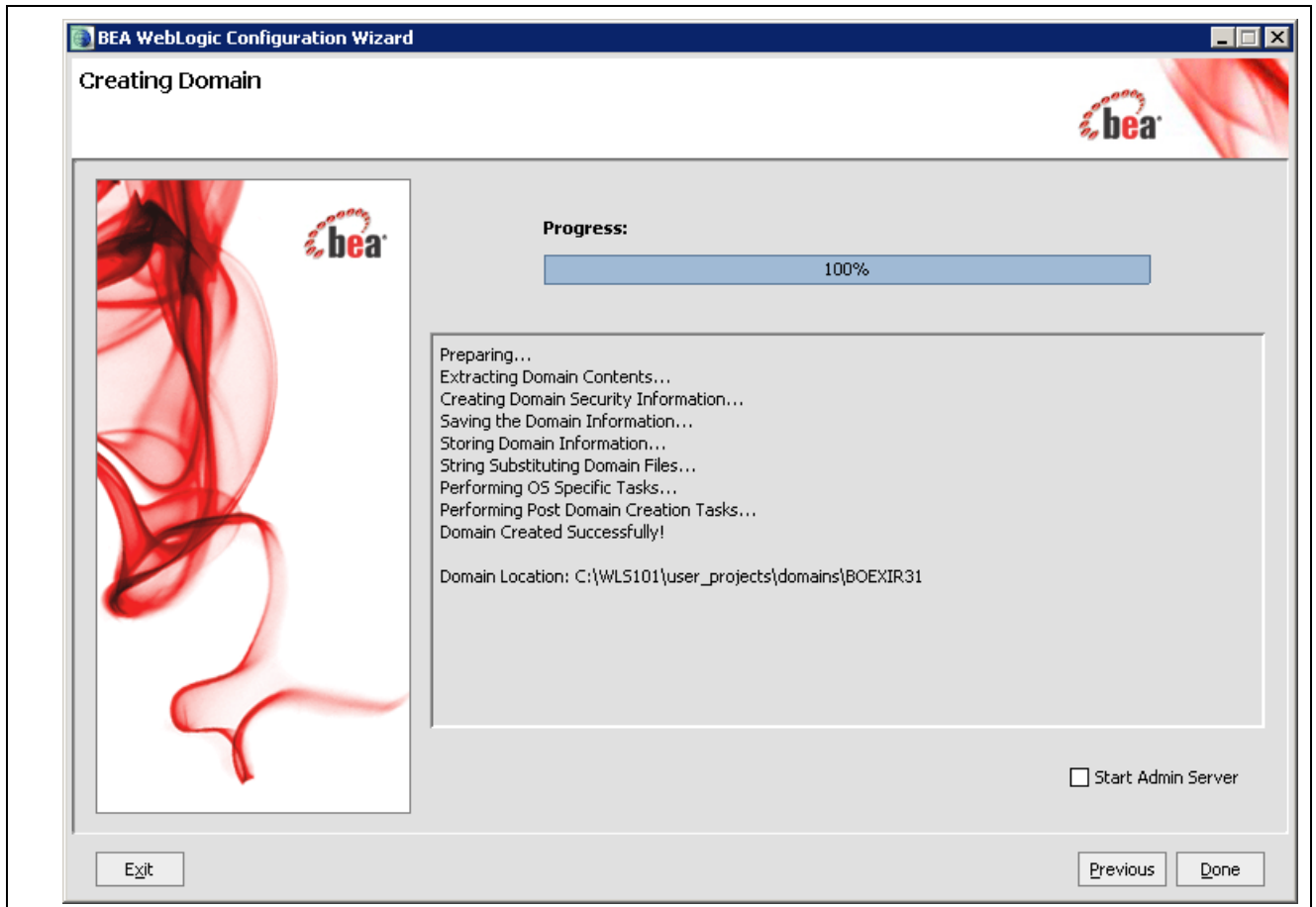
In the following example, the domain name is *BOEXIR31*, and the domain location is *C:\WLS101\user_projects\domains*.



Create WebLogic Domain window

8. Select Done to complete the wizard.

You have now created a web server at the default port 7001.



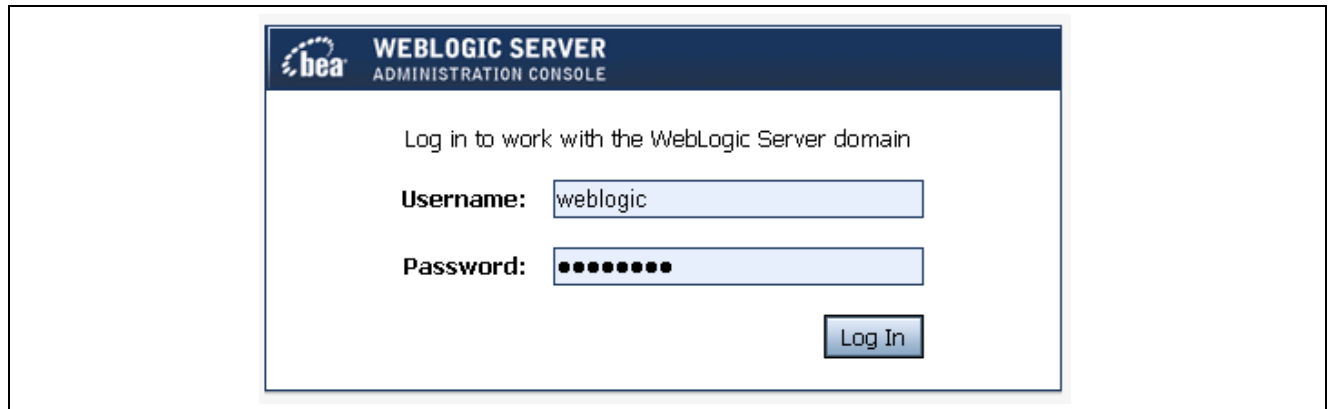
Creating Domain window

9. To start the web server, select Start, Programs, BEA Products, User Projects, *domain_name*, Start Admin Server for WebLogic Server Domain.

An MS-DOS window opens. Wait until a message containing the phrase “Server started in RUNNING mode” appears, indicating that the web server is active.

Note. You perform this step to start the web server. You will need to perform this step after you reboot the machine or close down the Oracle WebLogic web server.

10. To confirm that you can log in to the web server, enter this URL in a browser:
http://machine_name:7001/console
11. In the login window, enter the user name and password for the Oracle WebLogic administrator that you entered during your installation of Oracle WebLogic.
 In the following example, the user name is *weblogic*.
 Click Log In.



Oracle WebLogic Server Administration Console Login Window

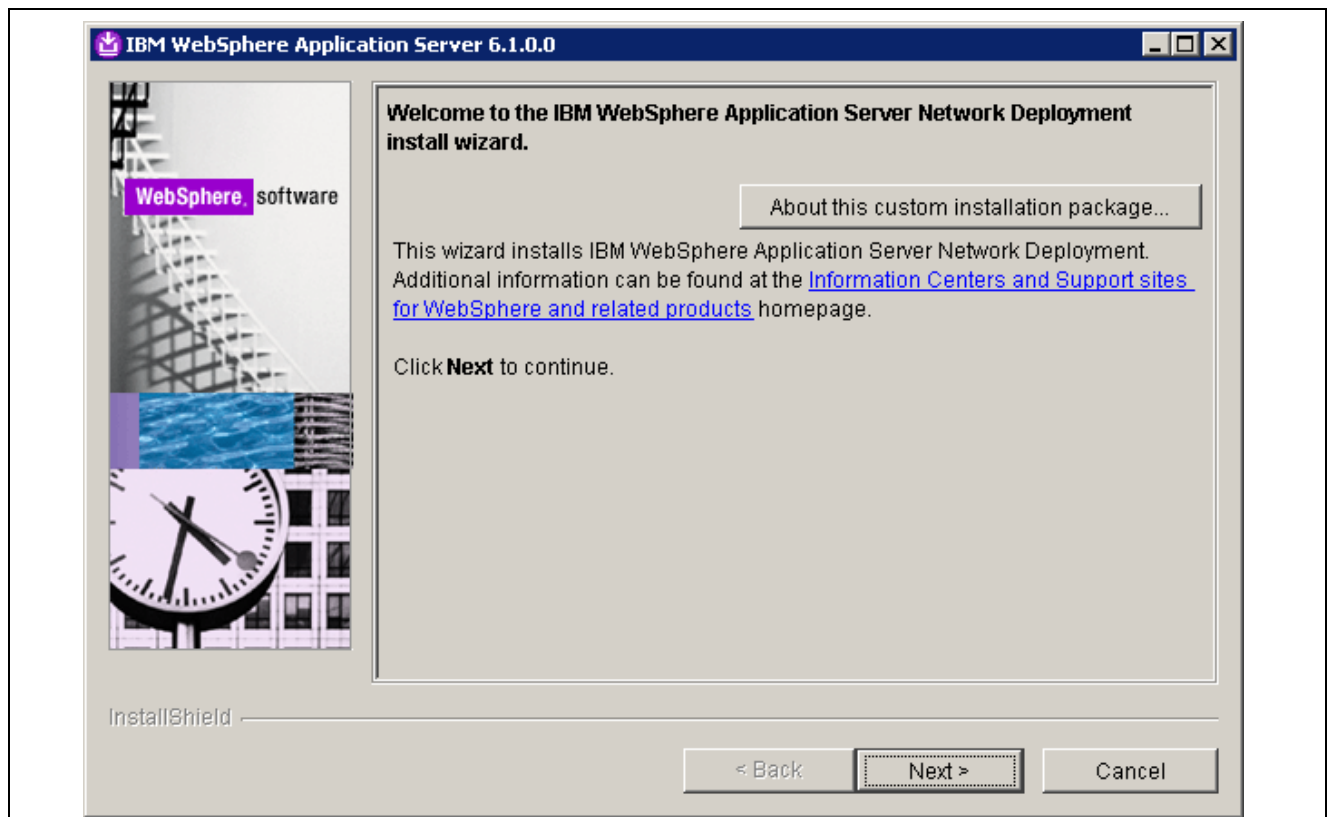
12. If you are logged in, this verifies that your Oracle WebLogic server setup was successful.

Creating an IBM WebSphere Server on Windows

Before beginning this procedure, you must have installed IBM WebSphere on the server where SAP BusinessObjects Enterprise XI 3.1 is installed.

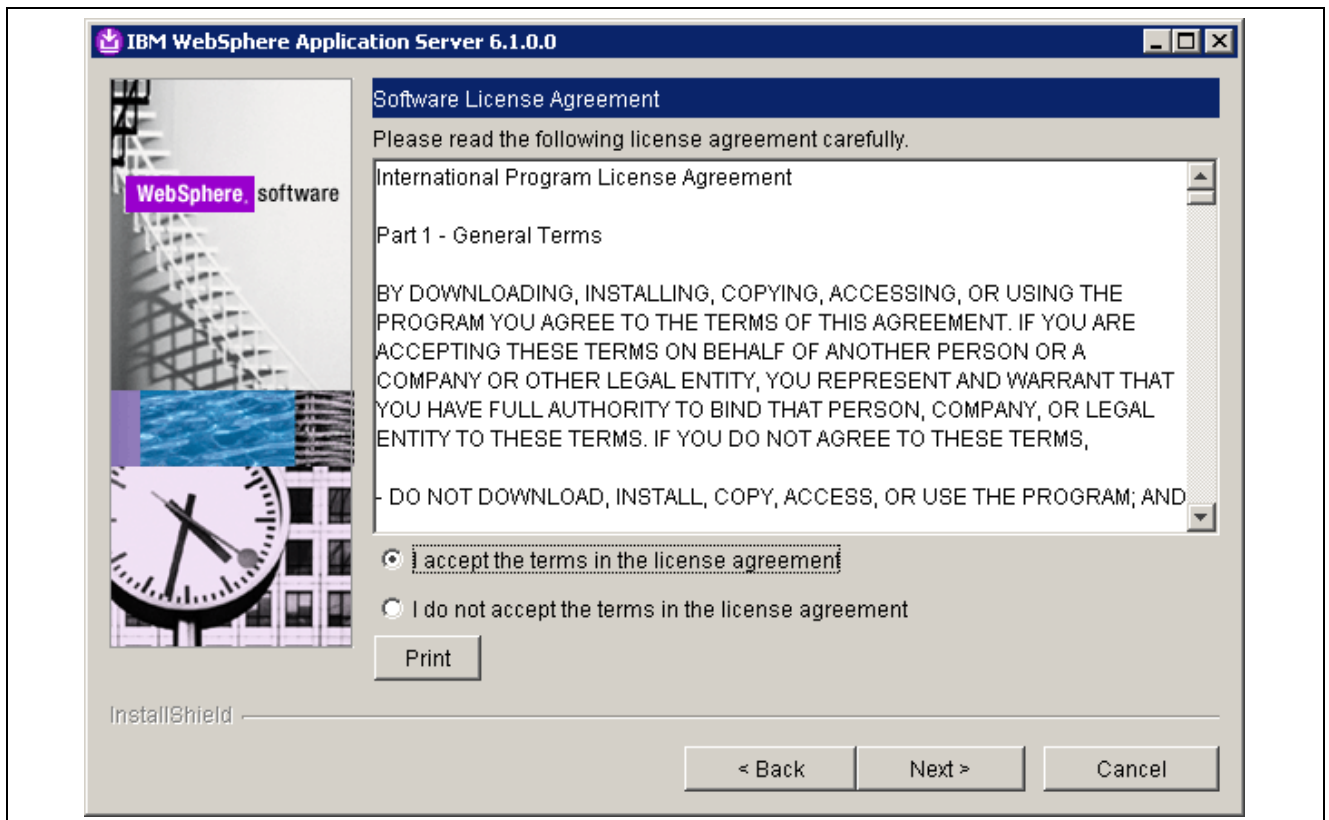
1. Run installWAS.bat from the WebSphere installation.

A welcome window appears.



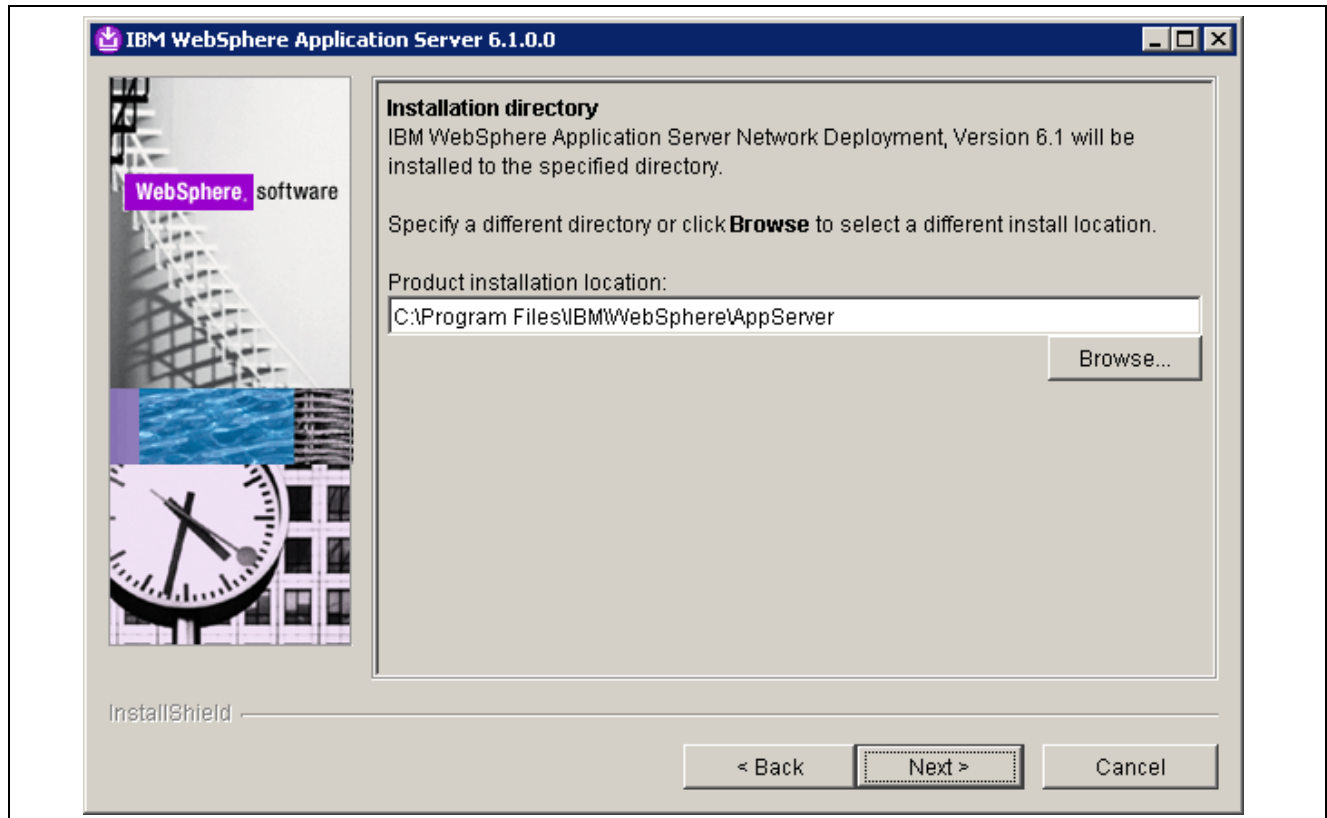
IBM WebSphere Application Server welcome window

2. Click Next.
3. Accept the license agreement and click Next.



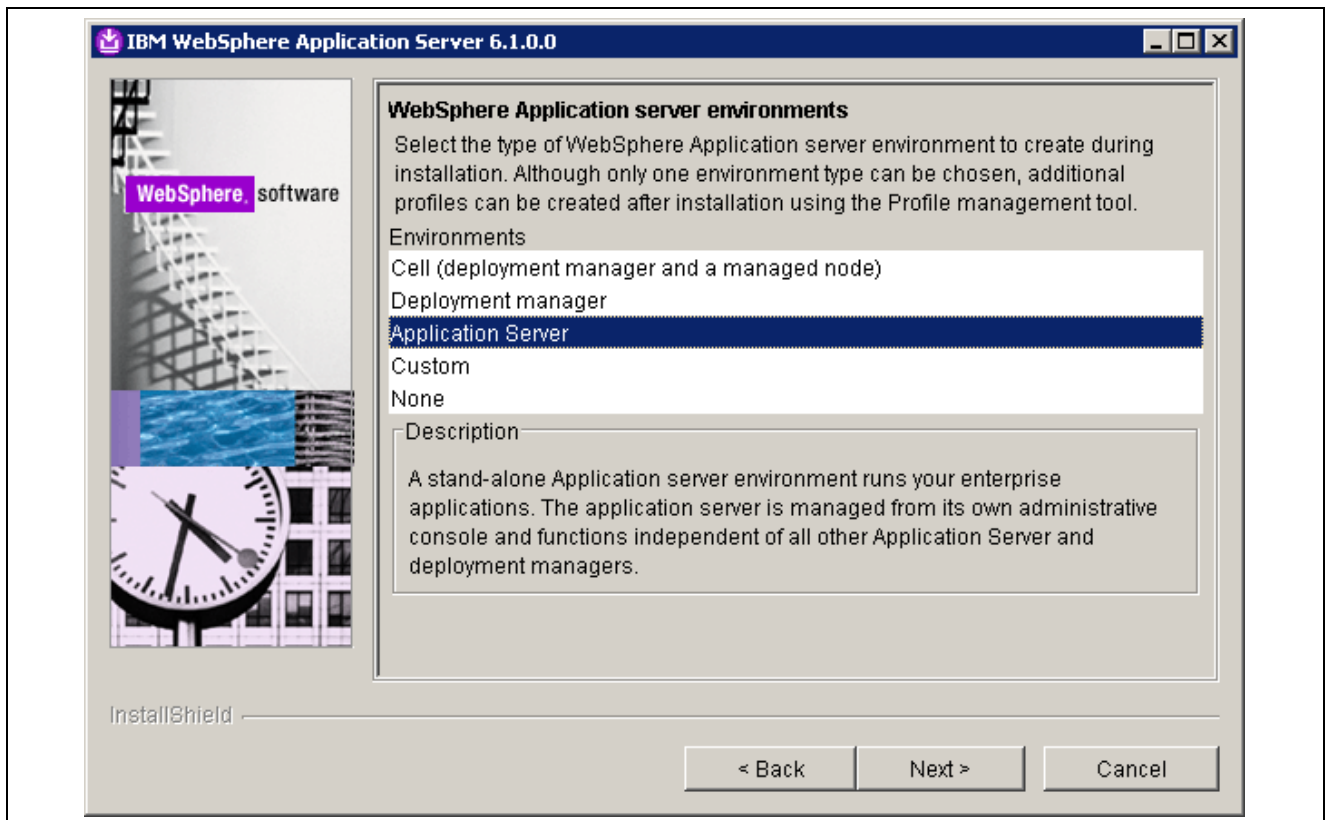
IBM WebSphere Application Server License Agreement window

4. The IBM WebSphere installer carries out a system check and displays an error message if your system does not meet the prerequisites.
5. Select an installation location and click Next.



IBM WebSphere Application Server Installation directory window

6. On the WebSphere Application server environment window, select *Application Server* from the list of environments.



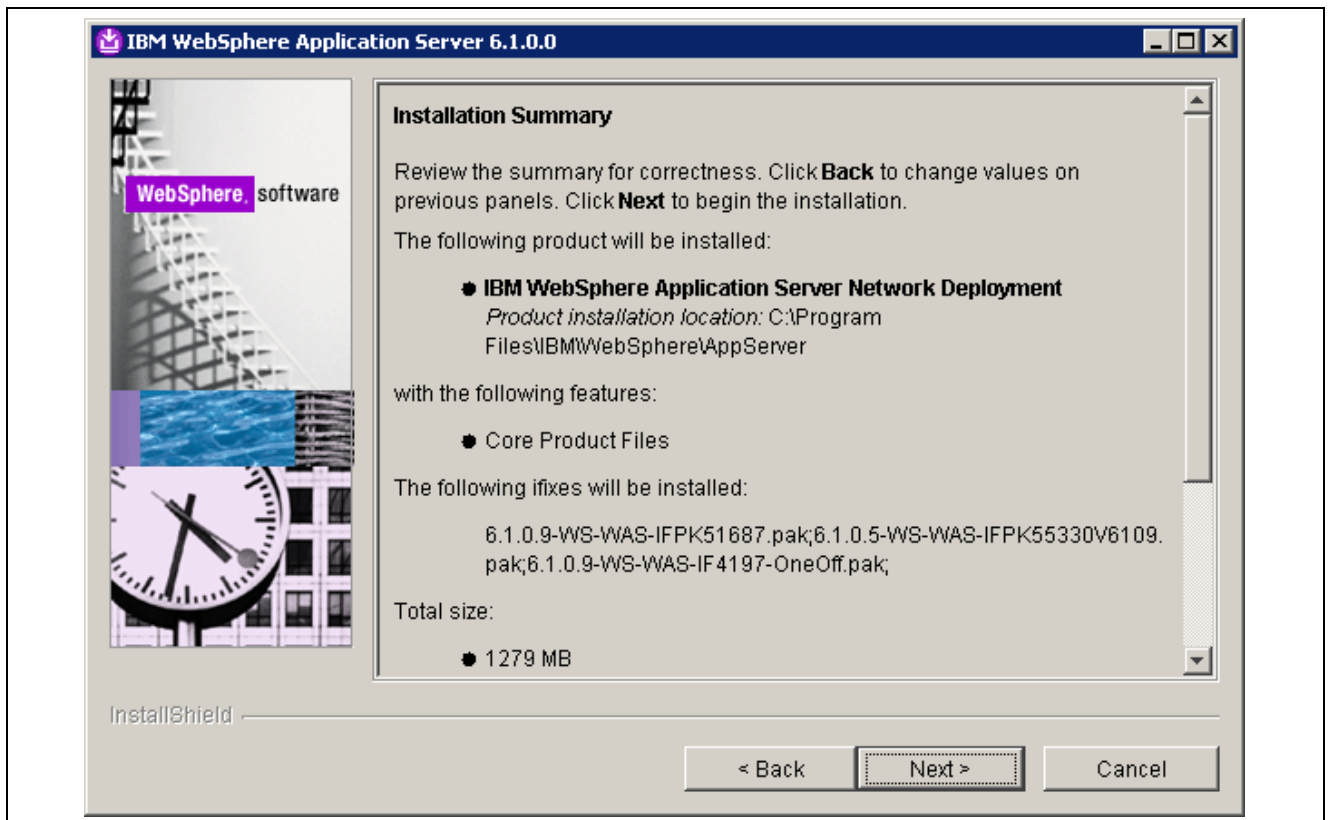
IBM WebSphere Application Server environments window

7. Select the default profile and click Next.
8. Enter the user name and password for the Administrator user; for example websphere and password. Select the Enable Administrative security check box.



Enable Administrative Security window

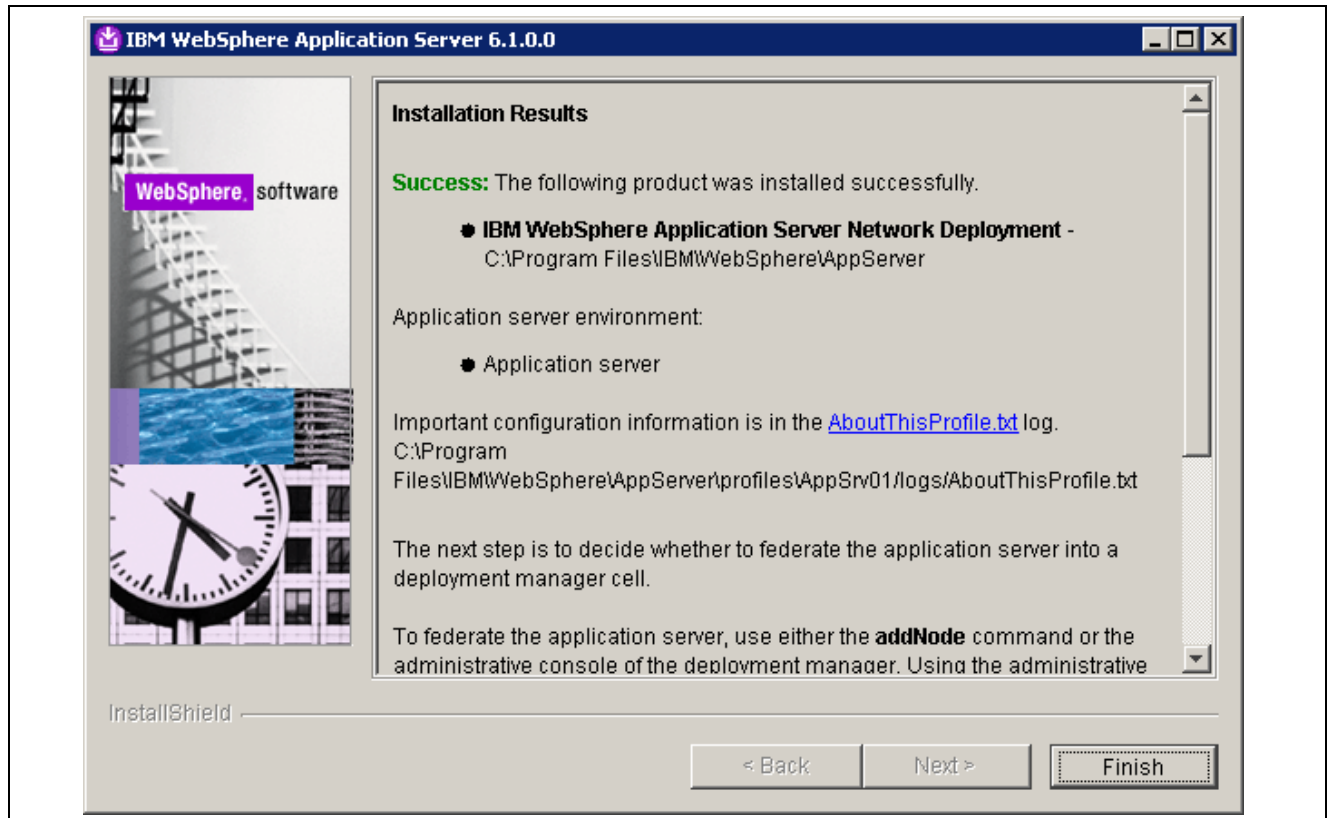
9. Review the installation summary and click Next to begin the installation.



Installation Summary window

10. When the installation completes successfully, you see the installation results window.

Click Finish to open the First Steps dialog box. If you don't want to open the First Steps dialog box, clear the option Launch First Steps.



Installation Results window

11. To start the server after the installation is complete, select Start, Programs, IBM WebSphere, Application Server Network Deployment V6.1, Profiles, AppSrv01, Start the Server.

Task 15-4-4: Installing SAP BusinessObjects Enterprise XI 3.1 on Windows

This section assumes that you downloaded the necessary files to a directory referred to here as *BOE_INSTALL*. See Obtaining SAP BusinessObjects Enterprise and Crystal Reports Software.

You must log on to the Windows machine as a user included in the Administrator group.

To install SAP BusinessObjects Enterprise XI 3.1:

1. Change directory to *BOE_INSTALL* and run *setup.exe*.

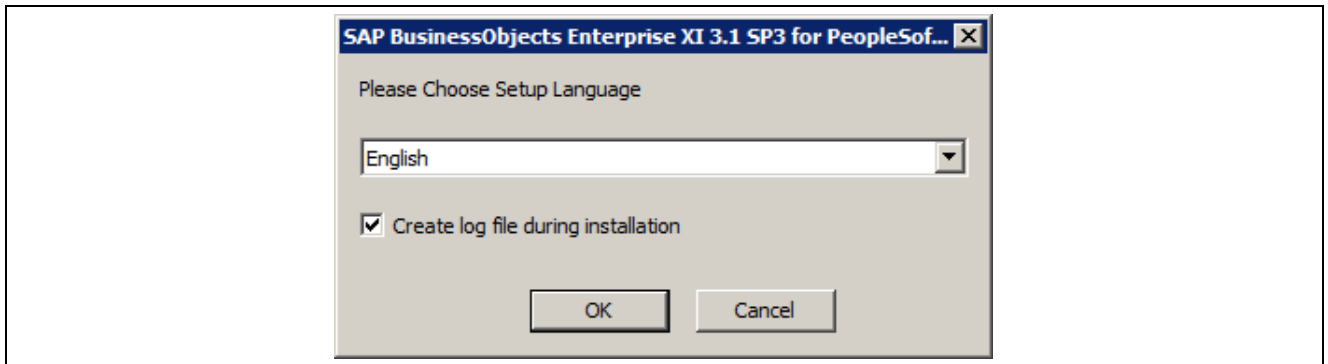
Note. If you are installing from a network, you must run *setup.exe* from the network location.

The install program searches for any previous version of SAP BusinessObjects Enterprise XI 3.1 and then presents a Welcome message. Click OK.

2. Choose a Setup language and click OK.

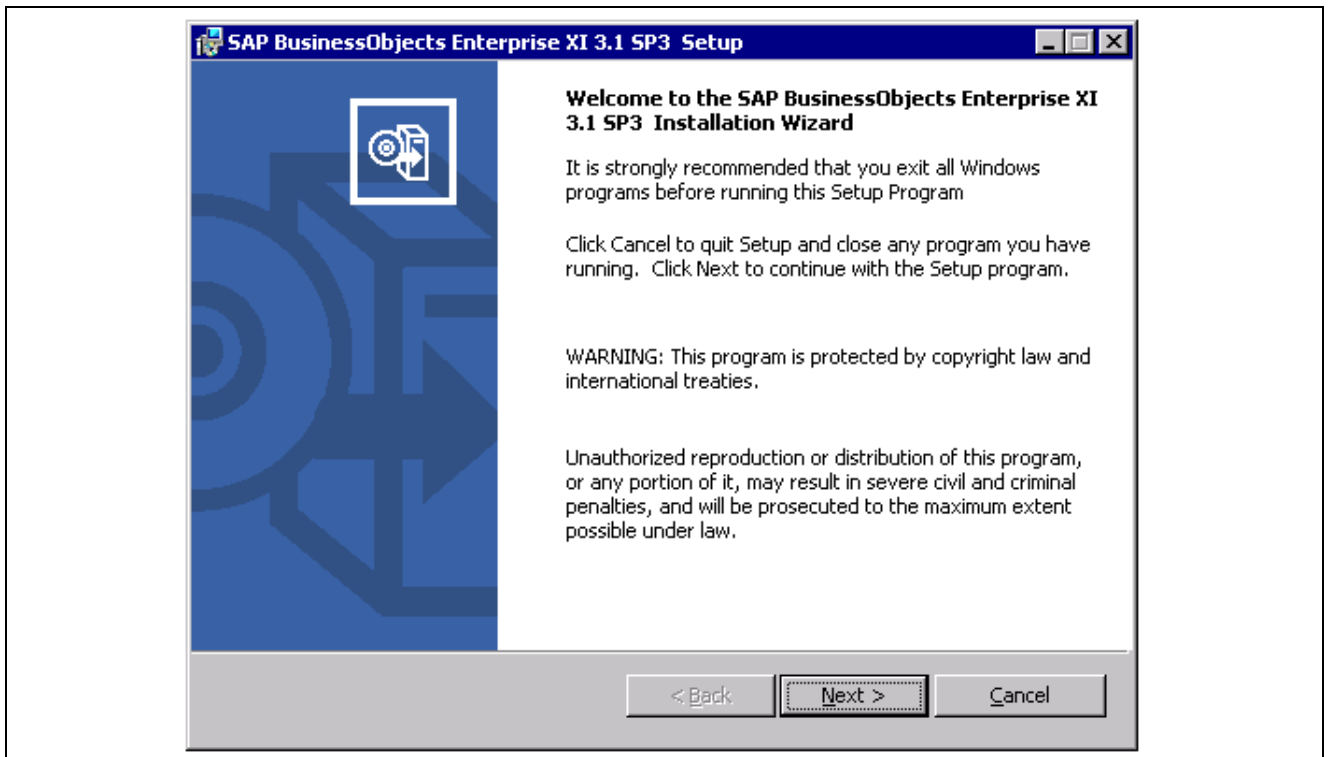
The example shows English as the Setup language.

If you don't want the installer to create a log file, clear the option Create log file during installation. If you accept the default to create the log file, it is created in *BOE_HOME*, the directory where you install SAP BusinessObjects Enterprise XI 3.1 as *BOE_HOME\BusinessObjects Enterprise 12.0\Logging\BOEInstall_X.log*.



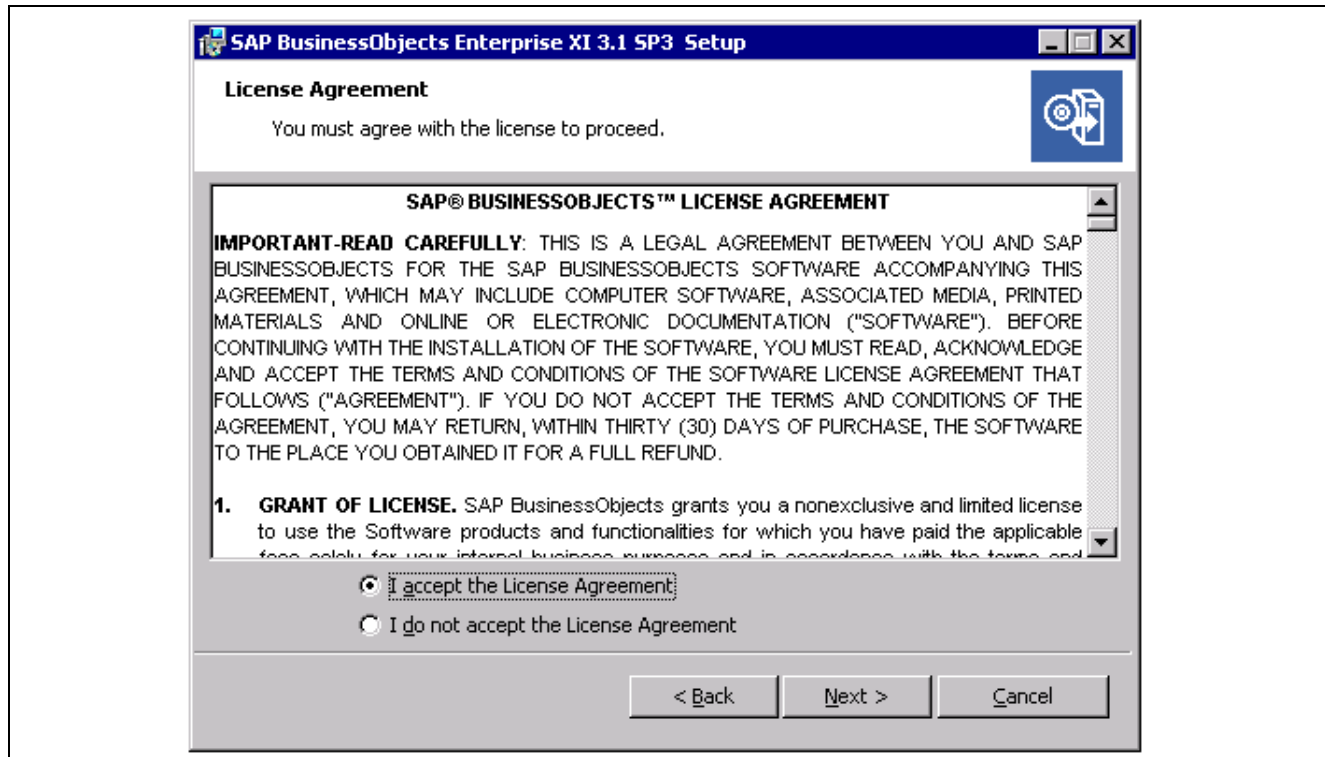
Choosing the setup language for SAP BusinessObjects Enterprise for PeopleSoft

3. Click Next on the welcome window.



SAP BusinessObjects Enterprise XI 3.1 SP3 Setup Welcome window

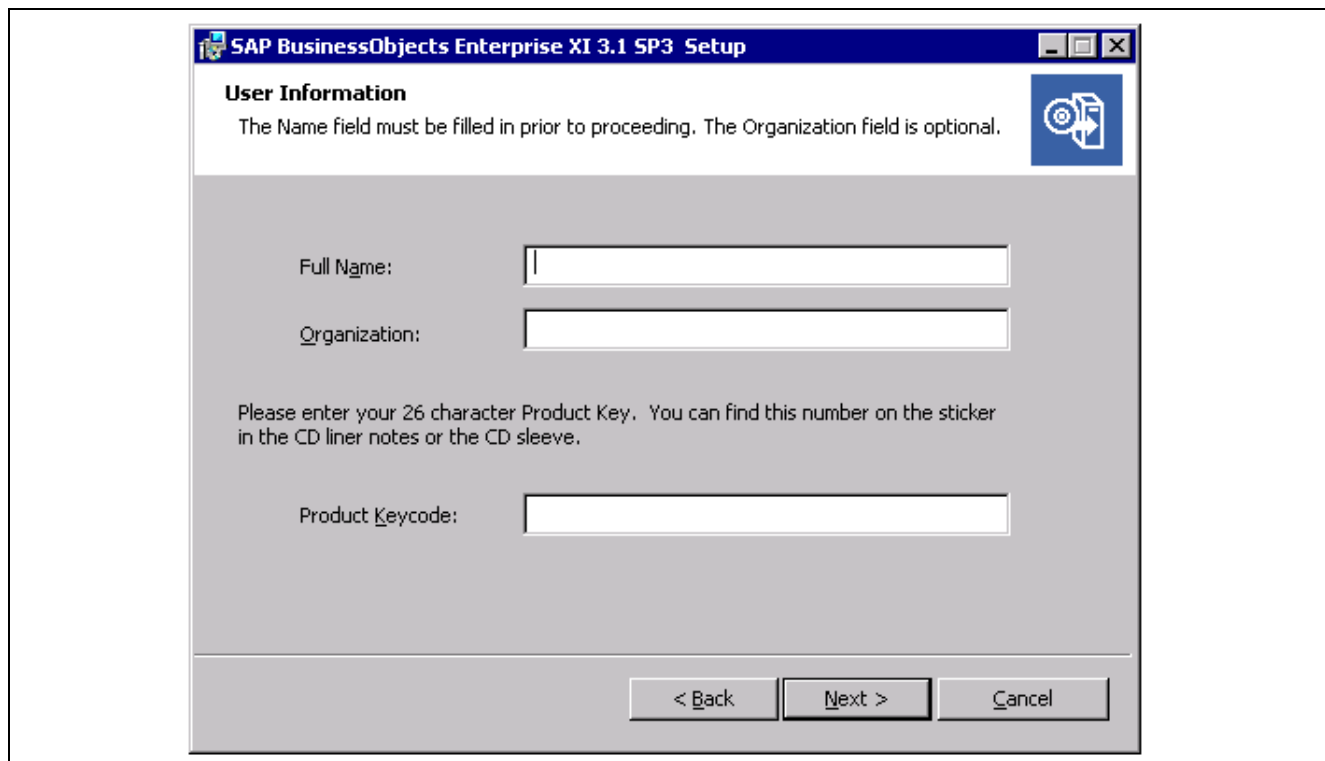
4. Read the license agreement and select I accept the License Agreement.



SAP BusinessObjects Enterprise XI 3.1 SP3 Setup License Agreement window

5. Click Next.

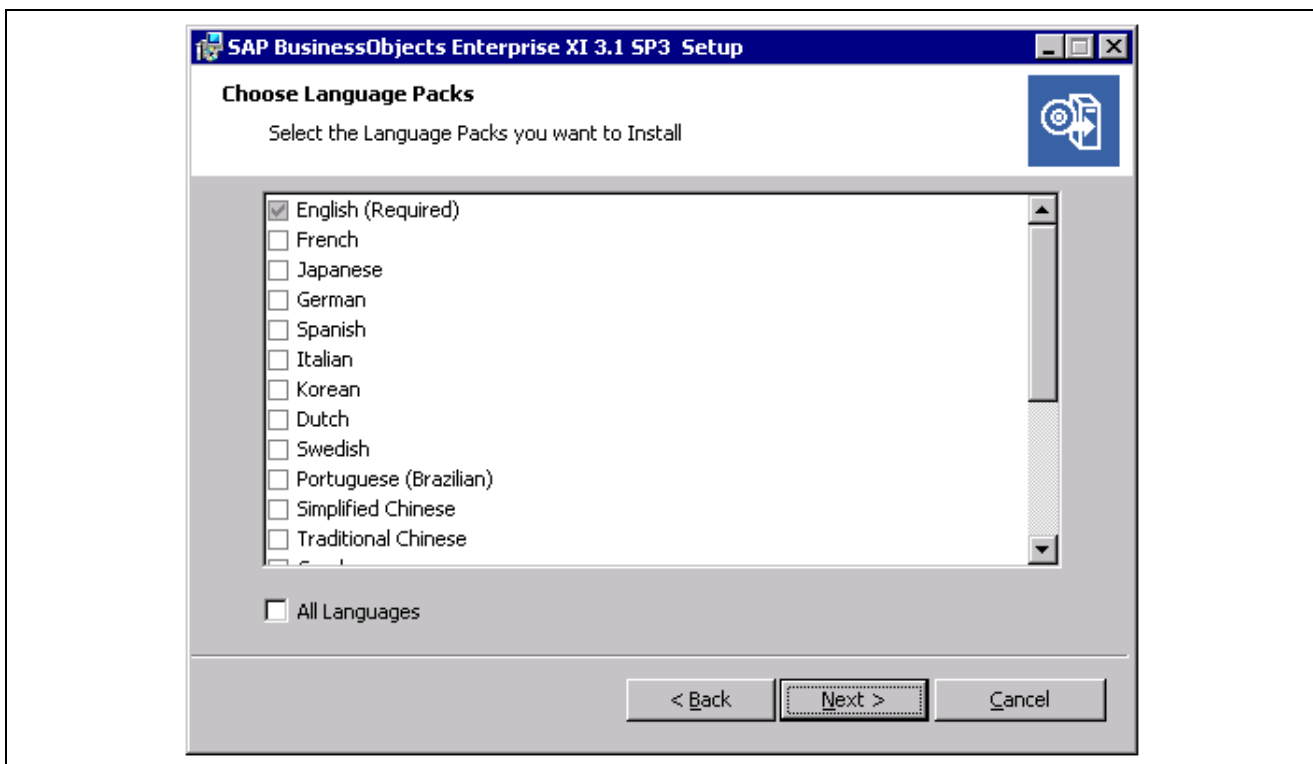
The User Information window appears. Enter a name, organization name (optional), and 26-character Product Keycode.



SAP BusinessObjects Enterprise XI 3.1 SP3 Setup User Information window

6. Select a language pack on the Choose Language Pack window and click Next to continue.

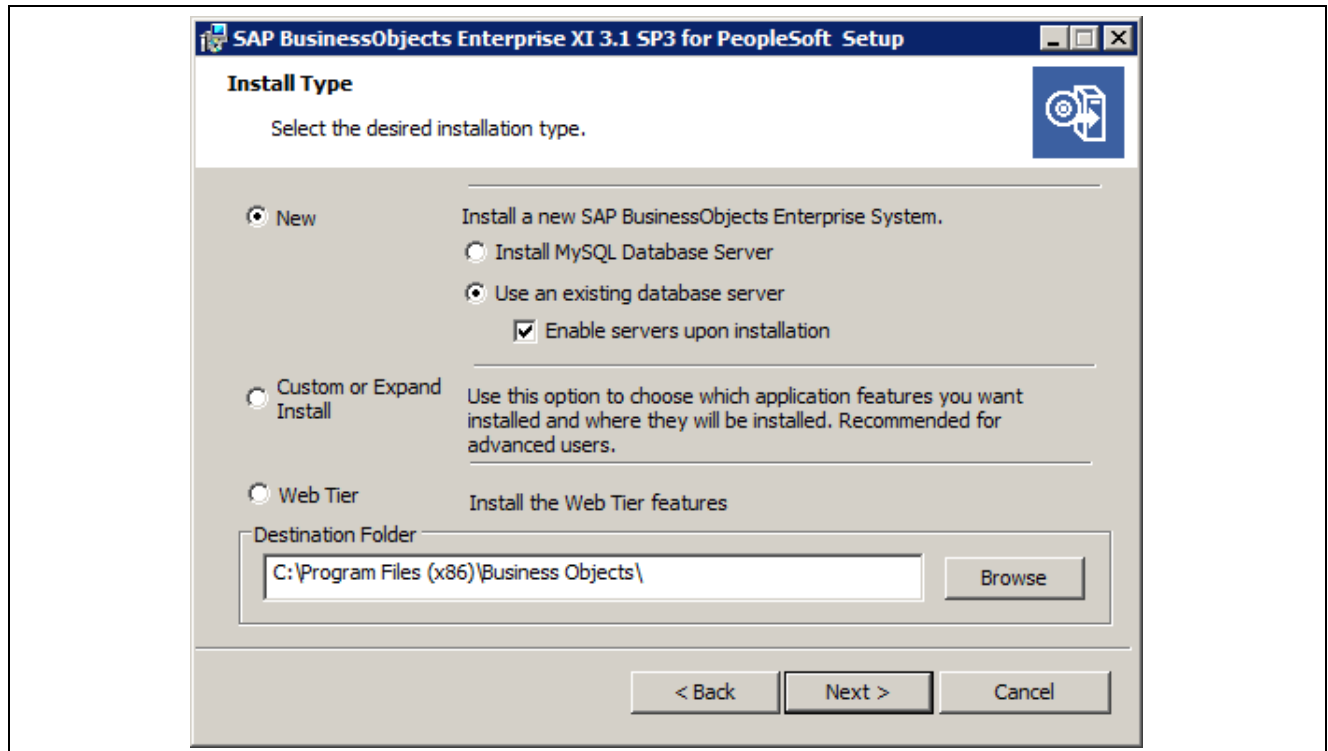
Note. English is mandatory because it is used as a backup language in case of a problem with a language pack. The check box for English cannot be cleared.



SAP BusinessObjects Enterprise XI 3.1 SP3 Setup Choose Language Packs window

The Install Type window appears.

7. Select New as the installation type.



SAP BusinessObjects Enterprise XI 3.1 SP3 Setup Install Type window

Select one of the following options:

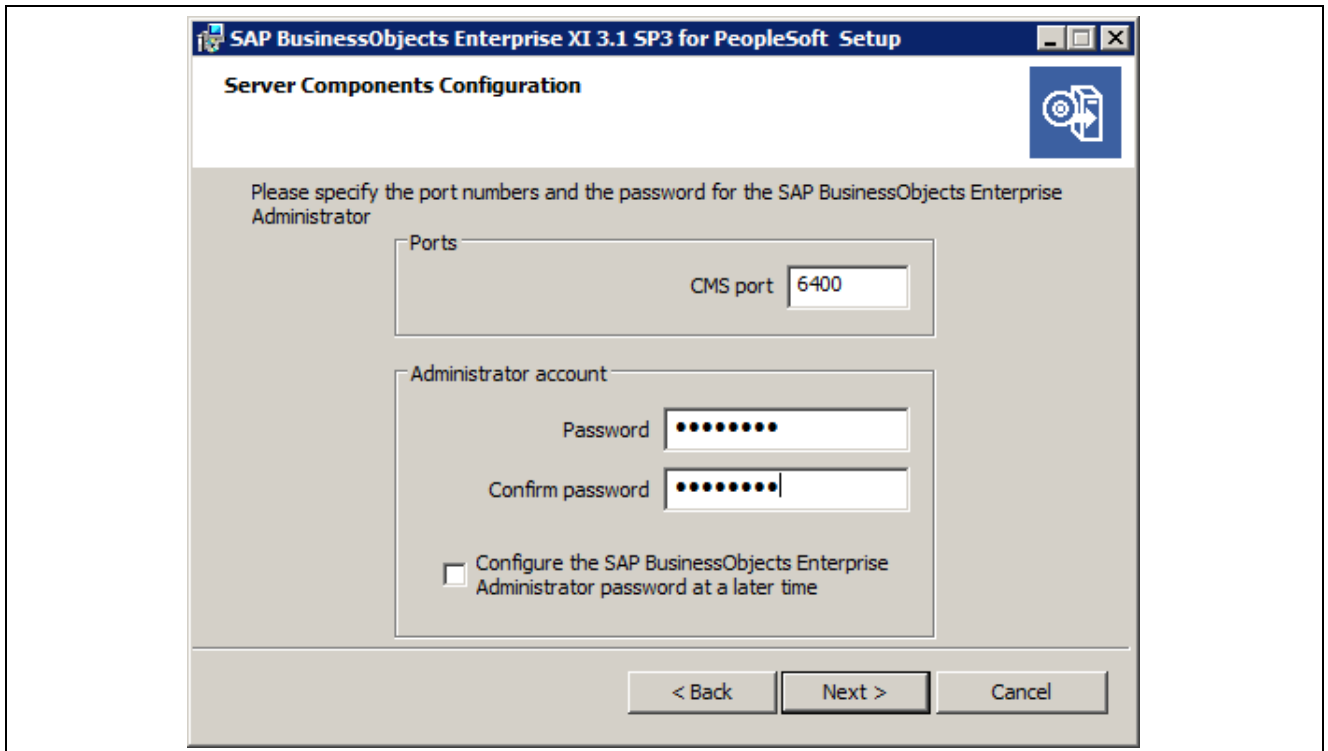
- Select Use an existing database server if you want to use an existing database server. (This is the option selected in the example.)
- Select Enable servers upon installation if you want to launch BusinessObjects Enterprise when the installation process finishes.
- Specify where to install the SAP BusinessObjects Enterprise XI 3.1 SP3 components in the Destination Folder field.

The installation directory is referred to in this documentation as *BOE_HOME*. In this example the installation directory is C:\Program Files (x86)\Business Objects.

8. Click Next.

The Server Components Configuration window appears.

9. Specify the following information:



SAP BusinessObjects Enterprise XI 3.1 SP3 Setup Server Components Configuration window

- CMS port

The default Central Management Server (CMS) port number is 6400. The CMS will communicate with other BusinessObjects Enterprise servers through the specified port. If the port you specified is unavailable, you will be requested to specify another port number.

Use this port number with your machine name to log in from the Central Configuration Manager later in this section.

- Password

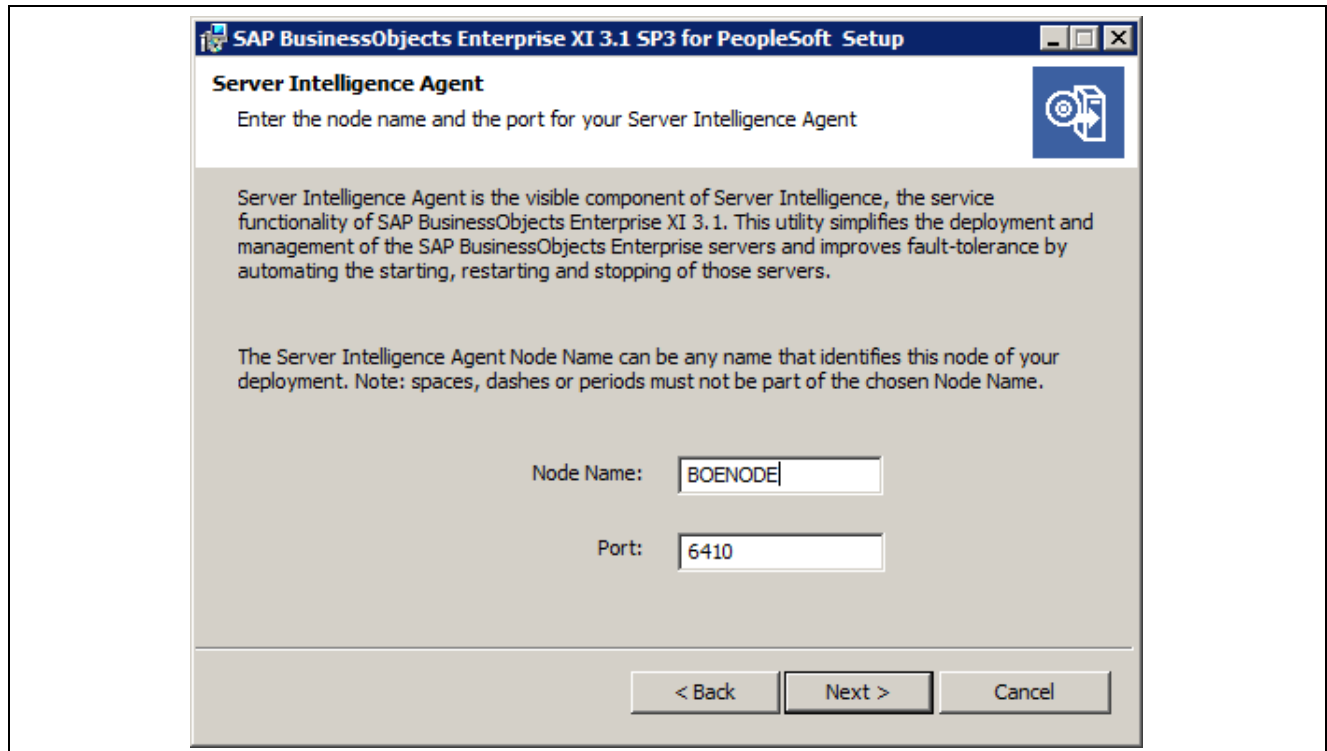
Specify a secure password for the CMS administrator account in the Password and Confirm password fields.

Use this password with user name *Administrator* to log in from the Central Configuration Manager later in this section. You will also need it during the setup process for the BusinessObjects Enterprise XI 3.1 Integration Kit for PeopleSoft.

10. Click Next.

The Server Intelligence Agent (SIA) window appears.

11. Specify the following information:



SAP BusinessObjects Enterprise XI 3.1 SP3 Setup Server Intelligence Agent window

- *Node Name*

Provide a unique name to identify the SIA node. The name in the example is BOENODE.

Note. Do not use spaces or non-alphanumeric characters in a SIA node name.

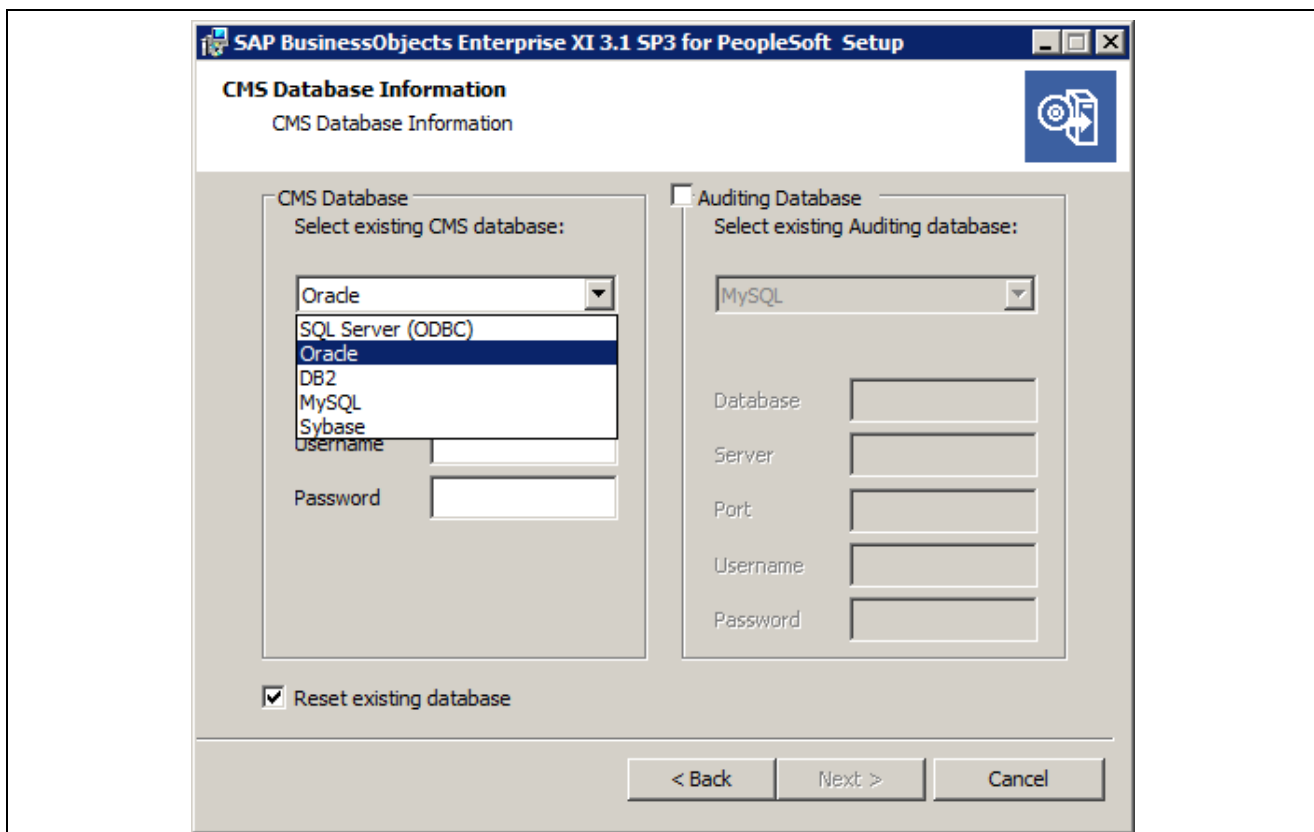
- *Port*

Specify a port number for the SIA. The default is 6410, as shown in the example. This port will be used by the Server Intelligence Agent to communicate with the Central Management Server.

After you enter the SIA information, the port number will be validated. A warning will appear if the port you specify is not available. After the port is validated, you can proceed to configure the CMS database for your installation.

12. Click Next.

The CMS Database Information window appears.



SAP BusinessObjects Enterprise XI 3.1 SP3 Setup window CMS Database Information window

13. If you chose the option to use an existing database server, enter connection and authentication details for the database as follows:

SAP BusinessObjects Enterprise XI 3.1 SP3 for PeopleSoft Setup

CMS Database Information
CMS Database Information

CMS Database
Select existing CMS database:
Oracle

Server: BOEDBS
Username: sysadm
Password:

☒ Reset existing database

Auditing Database
Select existing Auditing database:
MySQL

Database:
Server:
Port:
Username:
Password:

< Back Next > Cancel

CMS Database Information for an Oracle database

- Select a database type from the Select existing CMS database drop-down list in the CMS Database pane. Depending on your database server selection, corresponding input fields are displayed in the CMS Database pane.

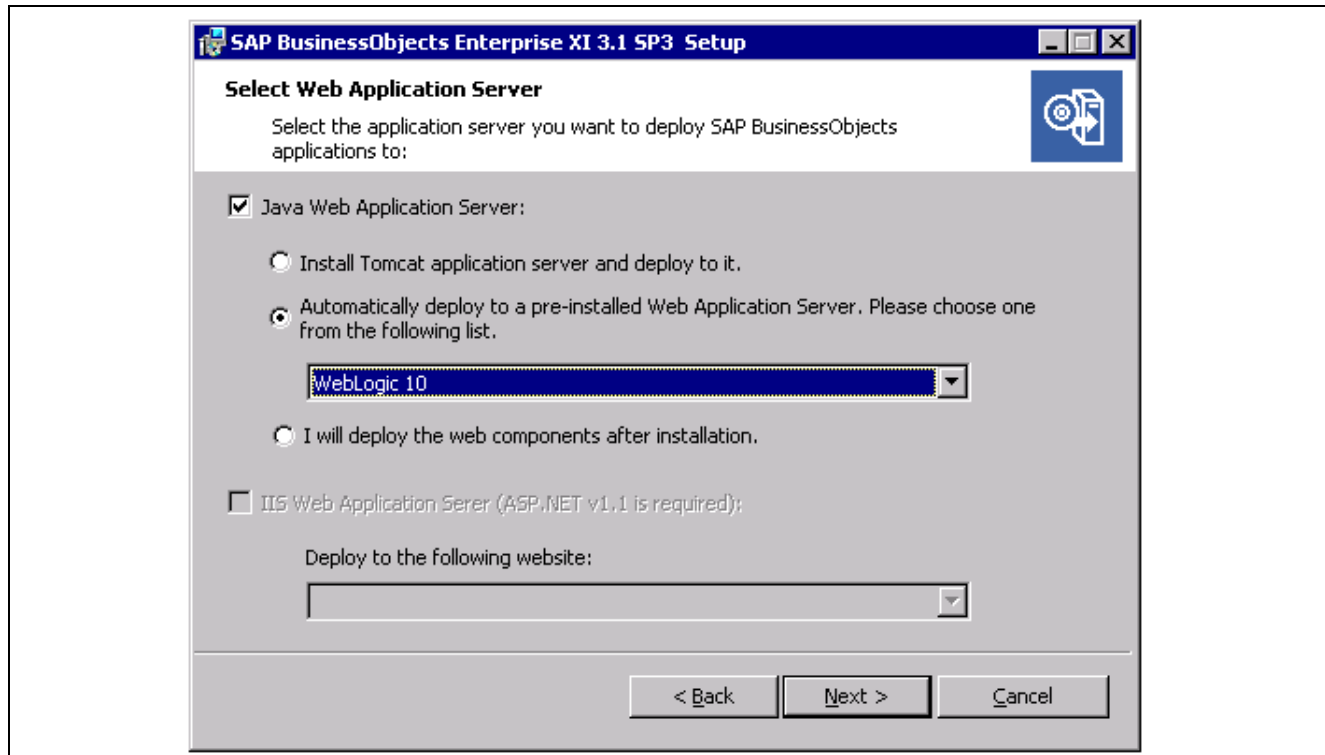
- Provide all the required information for the database in the fields provided in the CMS Database pane. The table below summarizes all the information required for each database type:

Database Platform	Required Information
DB2 LUW	<ul style="list-style-type: none"> • Server: DB2 LUW database alias • User name for login • Password for login
Microsoft SQL Sever (ODBC)	ODBC DSN This is specified in the Microsoft Windows Data Sources (ODBC) dialog box. Select Start, Programs, Control Panel, Administrative Tools, Data Sources (ODBC).
MySQL	MySQL is not supported in the integration of PeopleSoft with BusinessObjects Enterprise XI.
Oracle	<ul style="list-style-type: none"> • Server: tnsnames connect identifier • User name for login • Password for login
Sybase	<ul style="list-style-type: none"> • Server: Sybase Server Name The Sybase server name is a combination of the host name and the port number which is set by your database administrator in the file sql.ini. <ul style="list-style-type: none"> • User name for login The user name should be a default user for the SAP BusinessObjects Enterprise XI 3.1 database. <ul style="list-style-type: none"> • Password for login

- Select the Reset existing database box to delete all current tables and entries in existing database CMS and auditing databases.

14. Click Next to continue with the installation.

The Select Web Application Server window appears. This screen only appears if a connection is established with the database configuration you provided.



SAP BusinessObjects Enterprise XI 3.1 SP3 Select Web Application Server window

15. Select Java Web Application Server option, and select one of the options for the web server software from the drop-down list under Automatically deploy to a pre-installed Web Application Server:

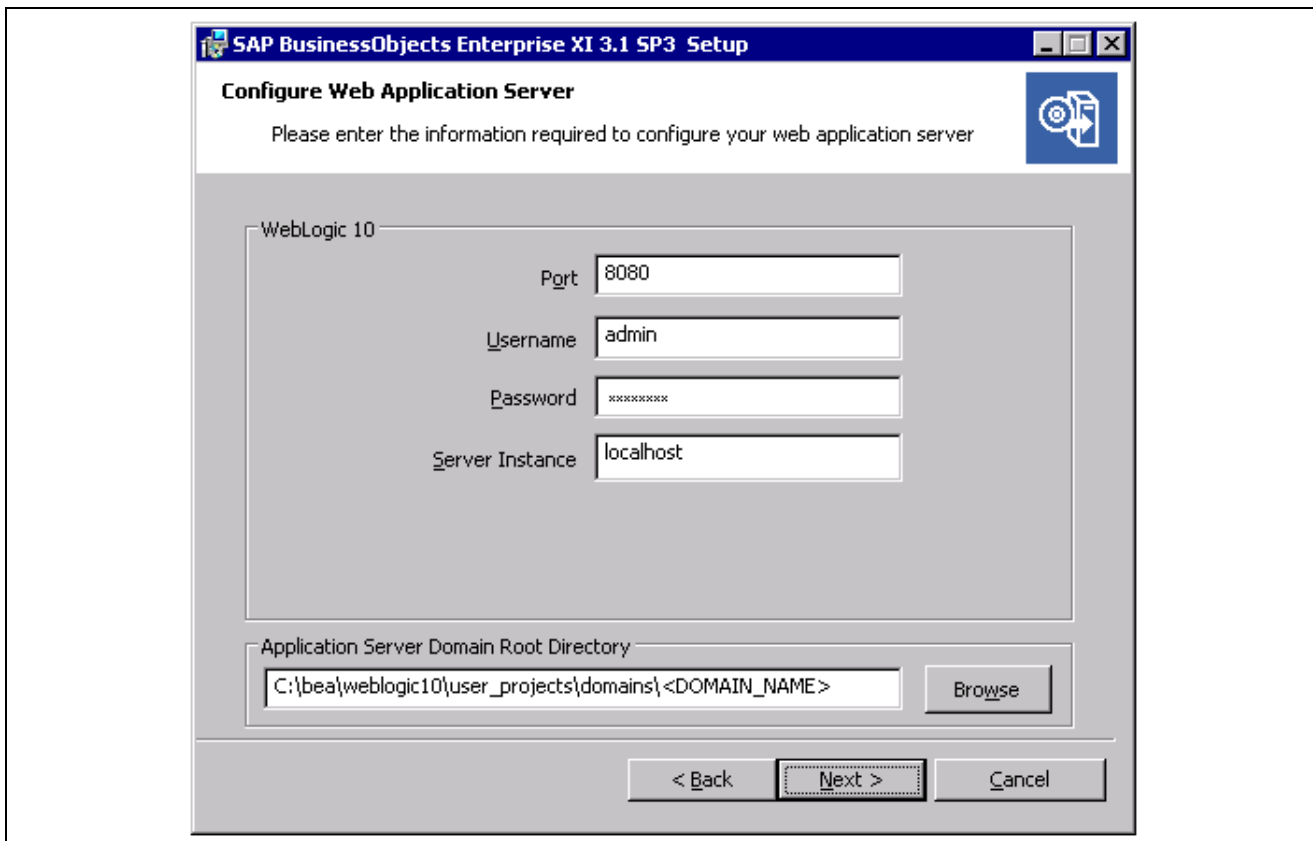
Note. Tomcat and IIS web application servers are not supported by Oracle for PeopleSoft installations.

- Oracle WebLogic (The example above shows WebLogic 10.)
- IBM WebSphere

16. Click Next.

The options on the screen that appears next depend upon which web application server you select.

17. If you selected the option for Oracle WebLogic, the following Configure Web Application server window appears:



SAP BusinessObjects Enterprise XI 3.1 SP3 Configure Web Application Server window for Oracle WebLogic

Enter the following information for an Oracle WebLogic web server:

See Creating an Oracle WebLogic Server

- *Port*

Enter the application port of the web application server; in this example, the port is 8080.

- *Username*

Enter the name for the user with administration rights to the web application server; in this example, the user name is admin.

- *Password*

Enter the password for the administrator user account.

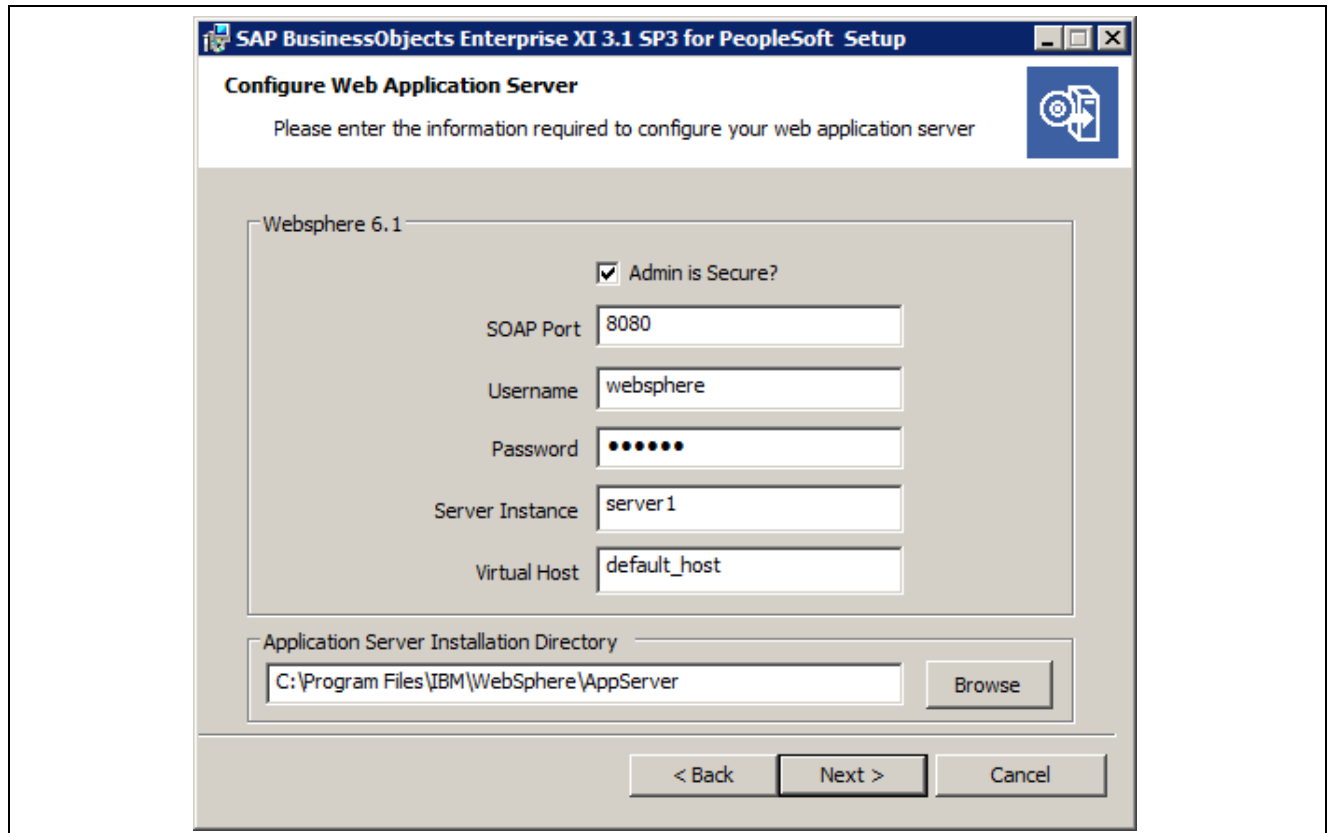
- *Server Instance*

Enter the name for the current web application server instance; in this example, localhost.

- *Application Server Domain Root Directory*

The root directory for the web server domain; in this example, the directory is C:\bea\weblogic10\user_projects\domains\<DOMAIN_NAME>.

18. If you selected the option for IBM WebSphere, the following Configure Web Application server window appears:



SAP BusinessObjects Enterprise XI 3.1 SP3 Configure Web Application Server window for IBM WebSphere

Enter the following information for an IBM WebSphere web server:

- *SOAP Port*

The SOAP Connector Port of the application server (the default is 8080 as shown in the example).

- *Username*

User name with administration rights to the WebSphere application server; for example, websphere.

- *Password*

Password for account with administration rights to the application server.

- *Server Instance*

Name of the current web application server instance. The default is server1, as shown in the example.

- *Virtual Host*

The virtual host to which the application must be bound. The default is default_host, as shown in the example.

- *Admin is secure?*

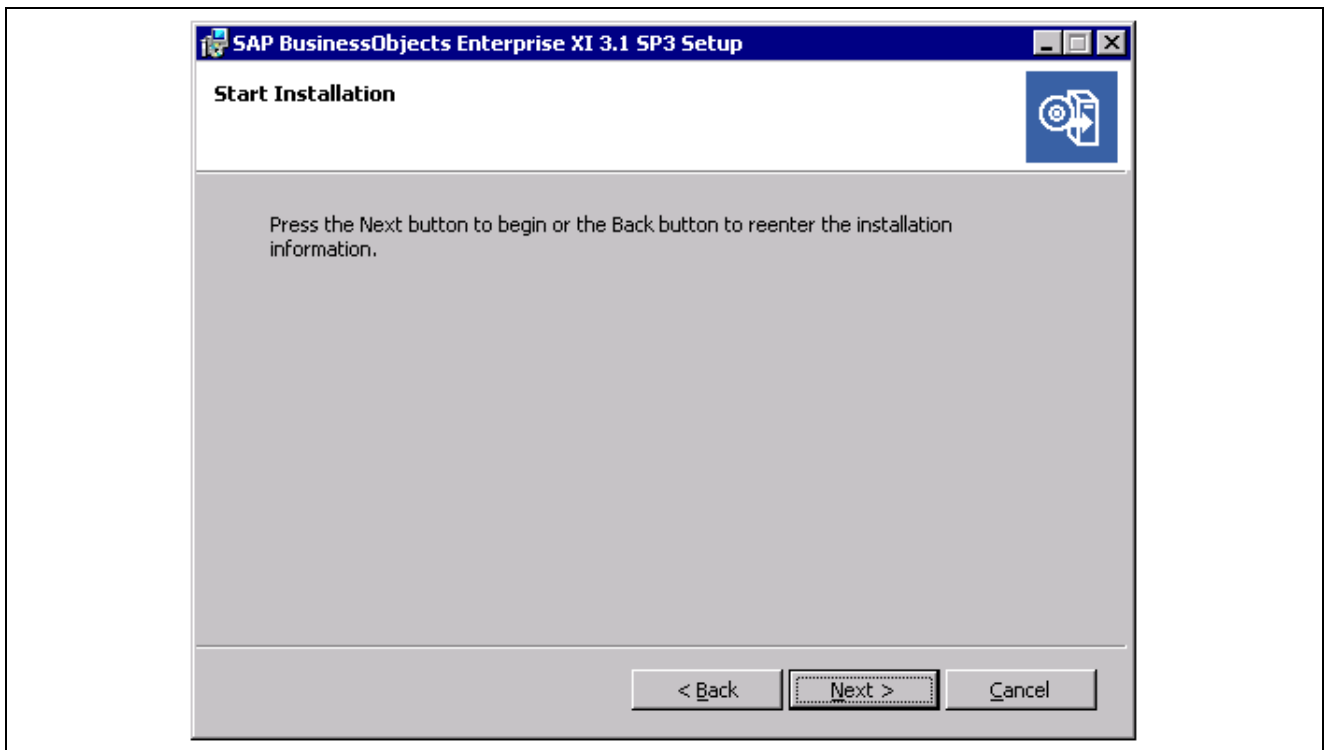
Select this option to enable security requiring administrative access credentials to the application.

Note. Values for Username and Password must be set when Admin is Secure is enabled.

- *Application Server Installation Directory*

The directory where the web application server is installed (for example, C:\Program Files\IBM\WebSphere\AppServer).

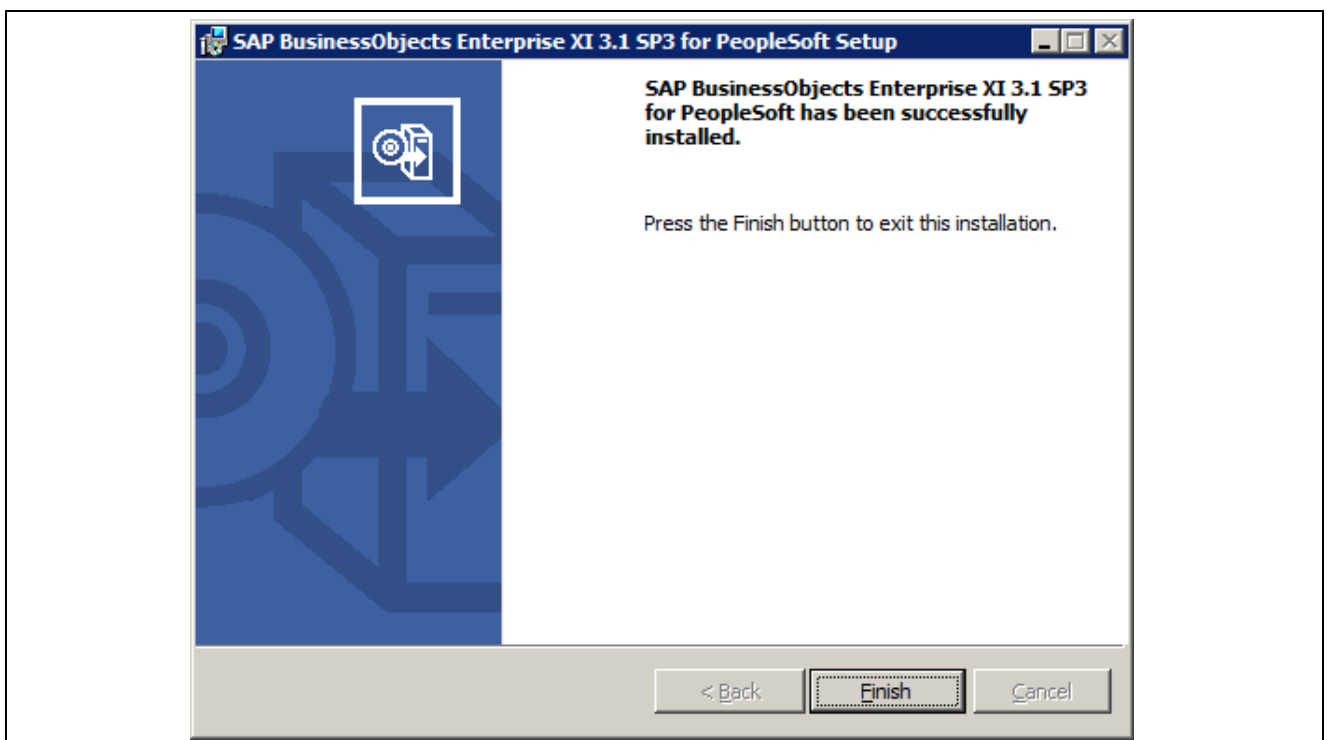
19. Click Next to start the installation process.



SAP BusinessObjects Enterprise XI 3.1 SP3 Start Installation window

20. Click Finish when the installation is complete.

Reboot your machine.

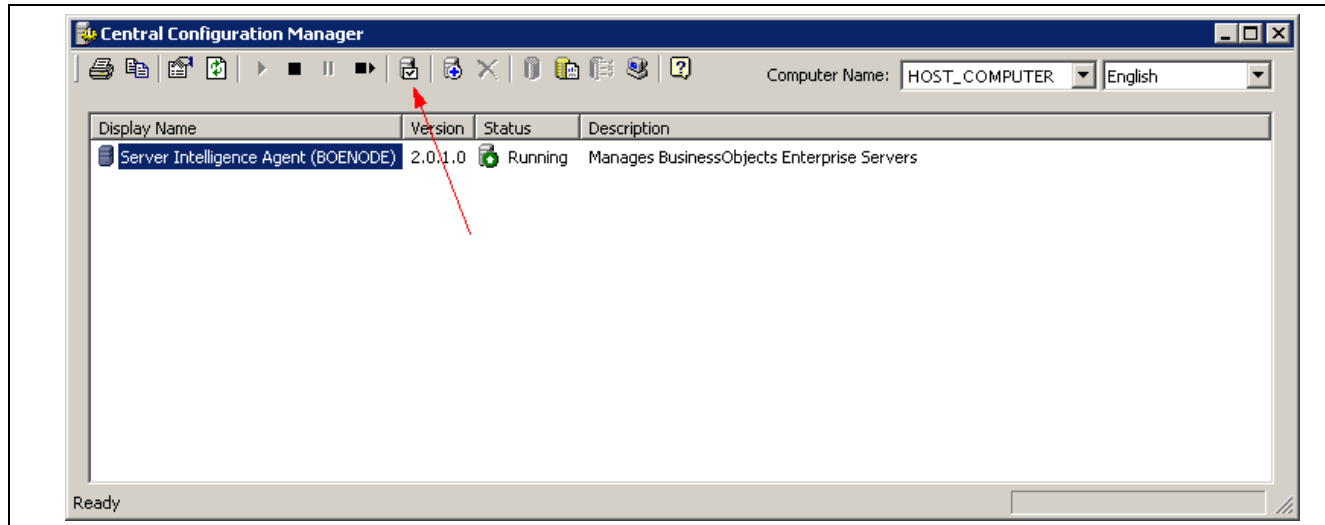


SAP BusinessObjects Enterprise XI 3.1 SP3 for PeopleSoft Setup has been successfully installed window

21. Select Start, Programs, BusinessObjects XI 3.1, BusinessObjects Enterprise, Central Configuration Manager.

The Central Configuration Manager appears.

22. Click the Manage Servers icon, indicated by the red arrow in the example below.



Central Configuration Manager dialog box

The Log On dialog box appears.

23. Enter the following information to log on:



Log on dialog box

- *System*

Enter the node name and port, separated by a colon. The default name is the machine name, and the default port is 6400.

- *User Name*

Enter the CMS administrator user name; the default is Administrator.

- *Password*

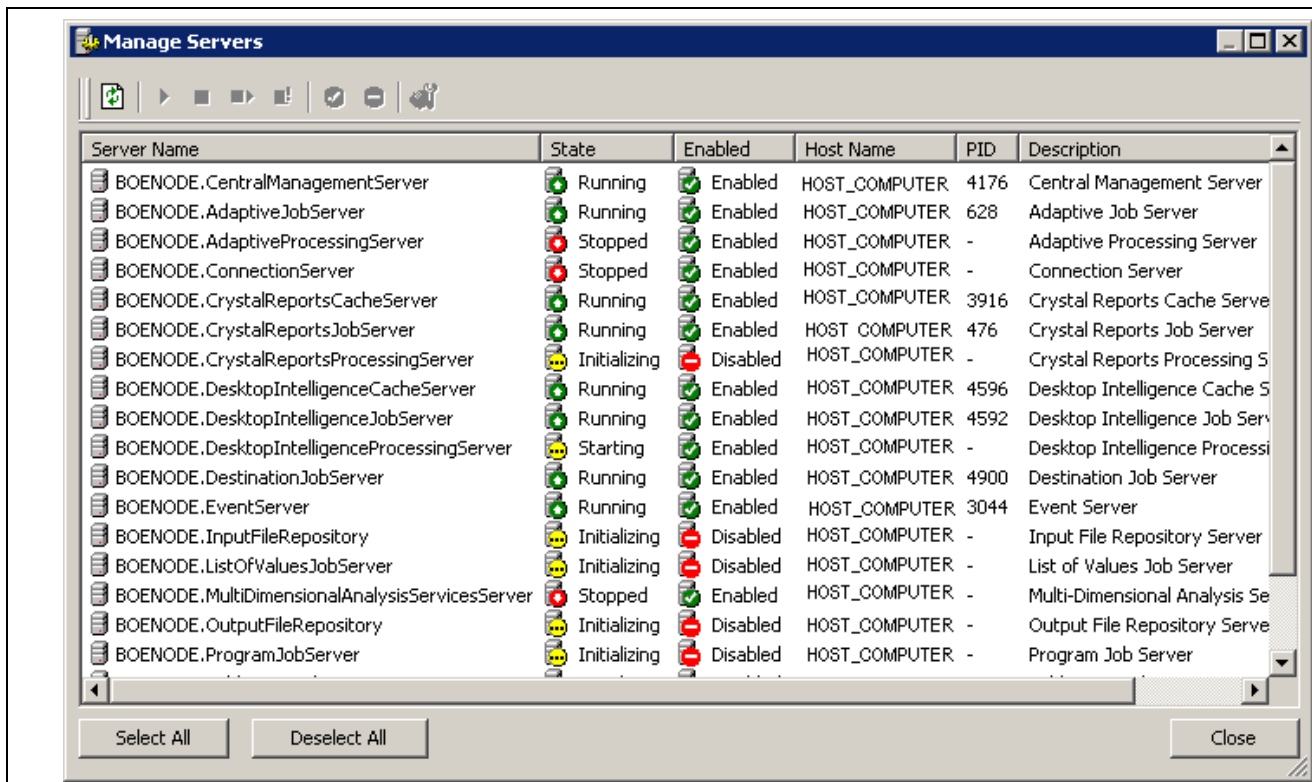
Enter the CMS administrator password, as you specified on the Server Components Configuration window above.

- *Authentication*

Select *Enterprise* from the drop-down list.

24. Click Connect.

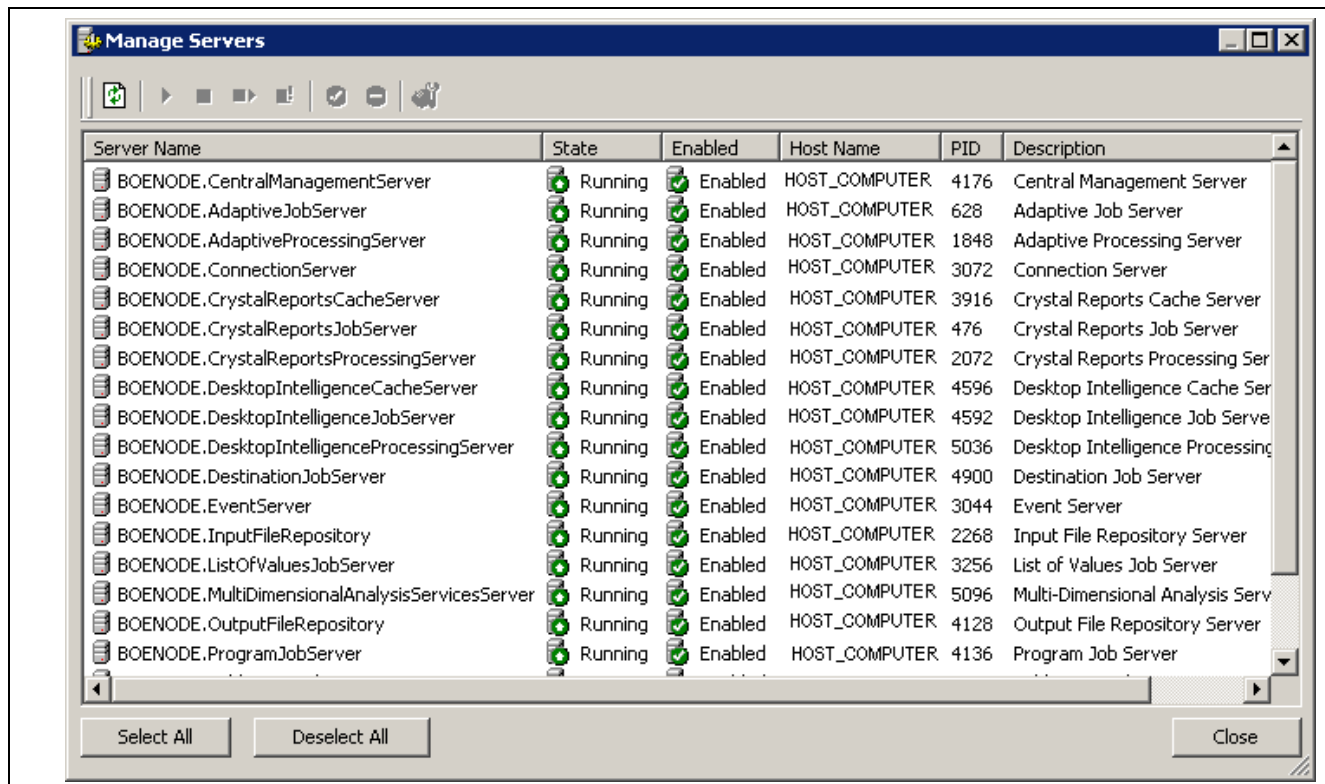
The Manage Servers dialog box appears with all servers and their state. The servers take a couple of minutes to start up. The listing is not refreshed unless the refresh button is clicked.



Manage Servers dialog box before refreshing

Ensure all servers are started, as indicated by the status Running in the State column.

Note. After each machine reboot, you have to restart the Server Intelligence Agent in the Central Configuration Manager.



Manage Servers dialog box after refreshing

25. Set the following environment system variables after the SAP BusinessObjects Enterprise XI 3.1 installation is complete:

Important! If these system variables are not set, the deployment of the BusinessObjects Enterprise web applications will fail as they are dependent on these environment settings.

Note. *BOE_HOME* refers to the folder in which you installed SAP BusinessObjects Enterprise XI 3.1 (for example, C:\Program Files (x86)\BusinessObjects\). Substitute your path in the following.

The PATH environment system variable should include:

```
BOE_HOME\BusinessObjects Enterprise 12.0\win32_x86
```

26. Reboot your machine.

If your web server software is Oracle WebLogic 10.3, see the section on deploying web applications manually later in this chapter.

See Administering and Using SAP BusinessObjects Enterprise XI 3.1, Deploying Manually on Oracle WebLogic 10.3.

Task 15-4-5: Installing BusinessObjects Integration Kit for PeopleSoft on Windows

Before you begin, ensure that:

- The Central Management Server (CMS) and web server are running.

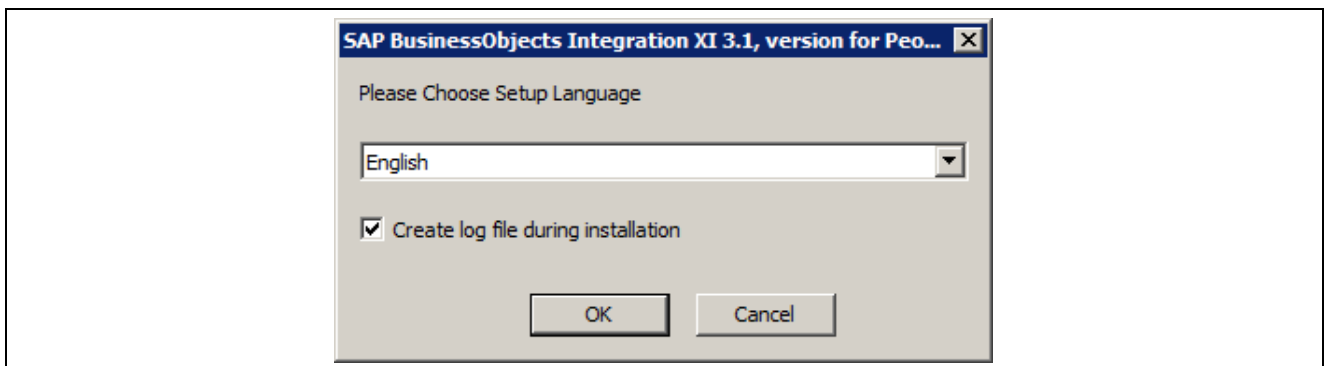
- You know the logon credentials for the BusinessObjects Enterprise Administrator account and for the web server. You will be prompted for administrator logon details for the CMS machine and the web server.
- You have downloaded the installation files for the BusinessObjects Enterprise XI 3.1 Integration Kit for PeopleSoft from Oracle E-Delivery and extracted them into a convenient directory, referred to here as *BOE_INTEG_INSTALL*.

Carry out this procedure on the machine where SAP BusinessObjects Enterprise XI 3.1 is installed.

To install the integration kit:

1. Run *BOE_INTEG_INSTALL\setup.exe*.
2. Choose the setup language and click OK.

Note. This is the language in which you want to perform the installation.



SAP BusinessObjects Integration XI 3.1, version for PeopleSoft Enterprise Choose Setup Language window

The Welcome window appears.

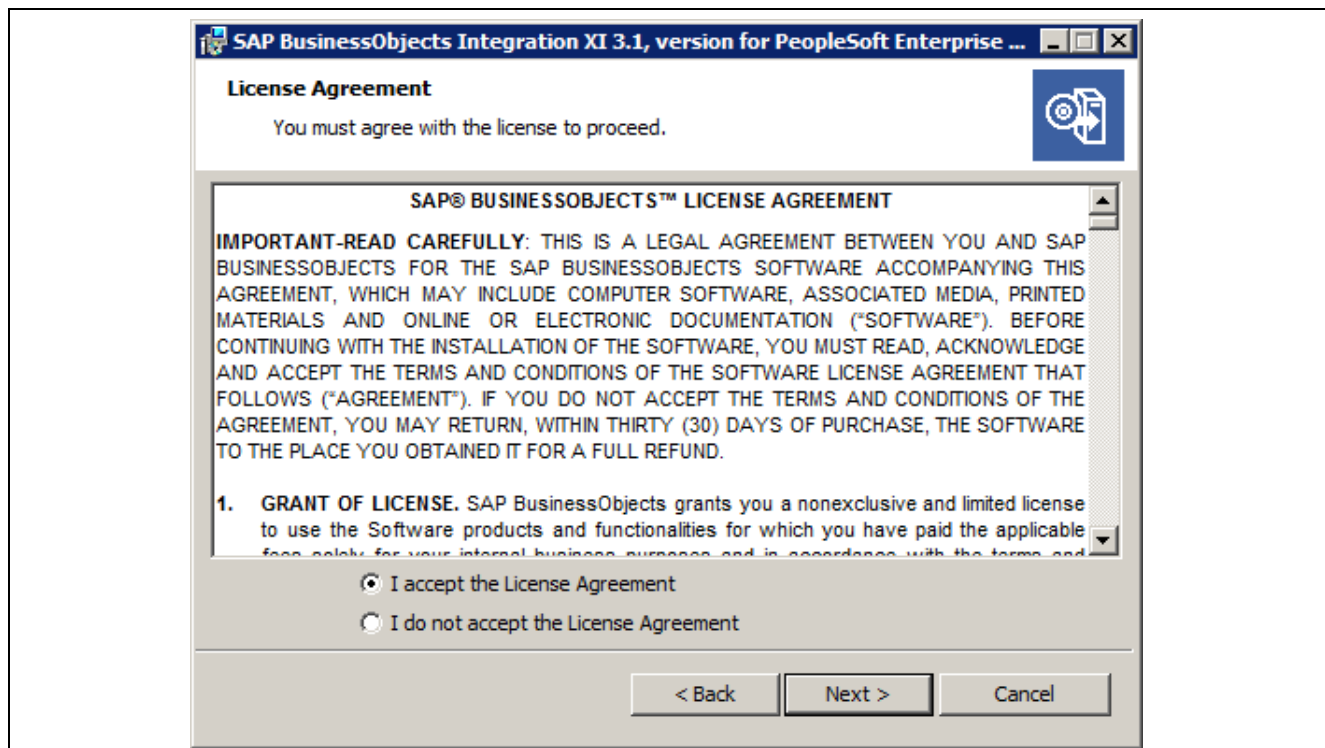
3. Read the recommendation to exit all Windows programs, and click next



SAP BusinessObjects Integration XI 3.1, version for PeopleSoft Enterprise Welcome window

The License Agreement dialog box appears.

4. To continue the installation, you must accept the license agreement and click Next.

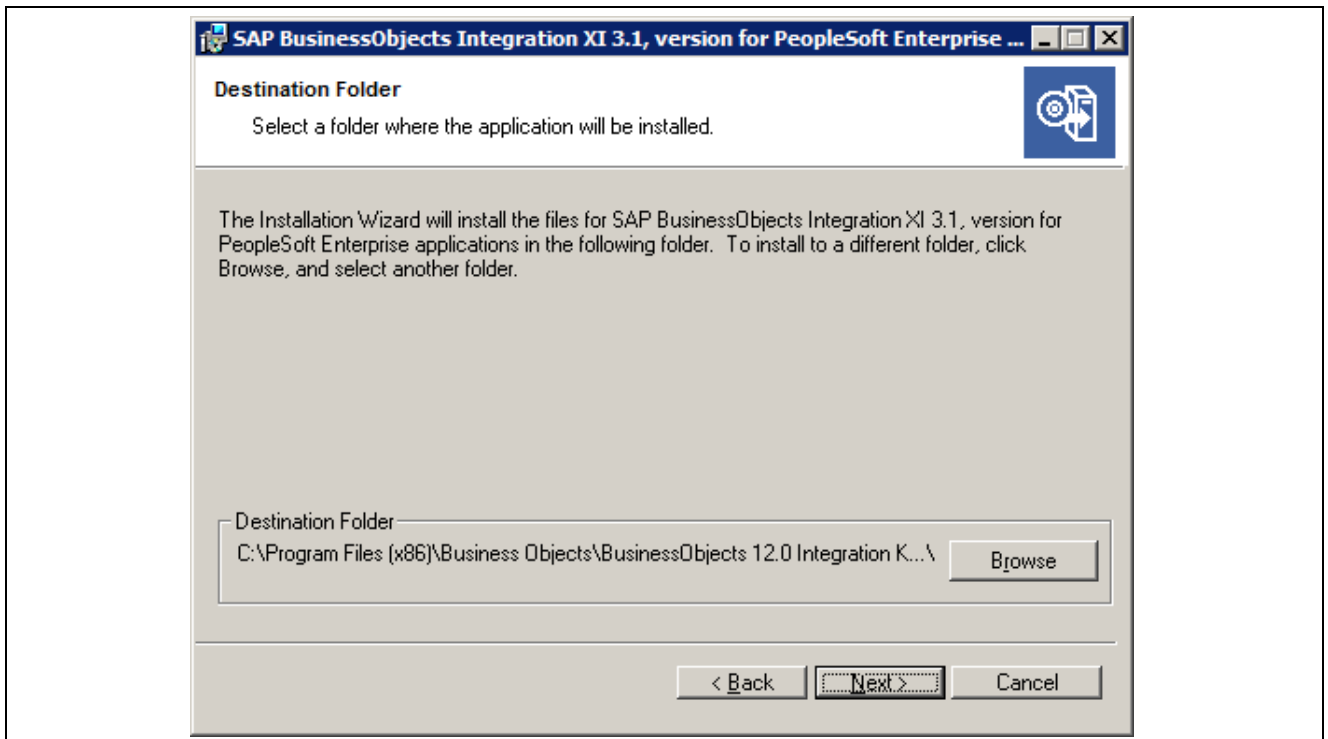


SAP BusinessObjects Integration XI 3.1, version for PeopleSoft Enterprise License Agreement window

The Destination Folder window appears.

5. Specify the folder where you want the integration product files to be installed, or accept the default, and click Next.

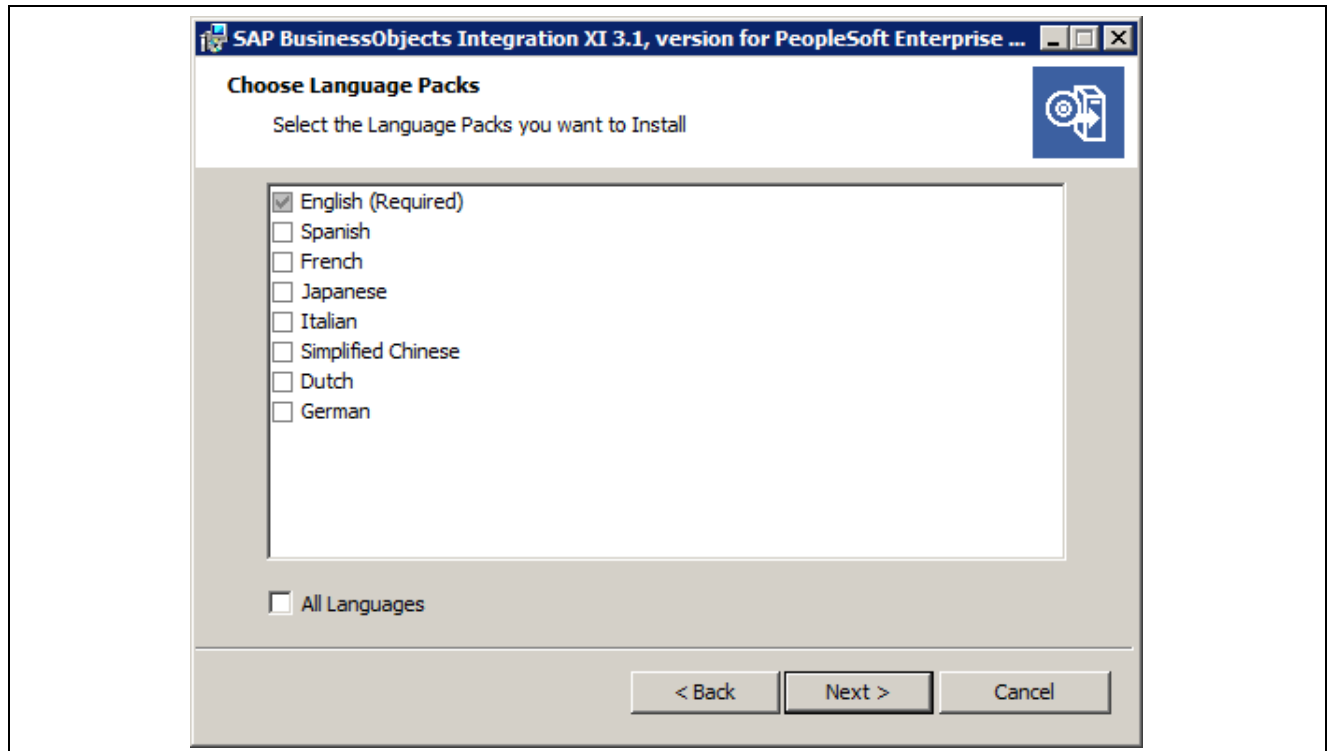
In this example, the default is C:\Program Files (x86)\Business Objects\BusinessObjects 12.0 Integration Kit for PeopleSoft.



SAP BusinessObjects Integration XI 3.1, version for PeopleSoft Enterprise Destination Folder window

The Choose Language Pack window appears.

6. Choose the language pack you want to install and click Next.

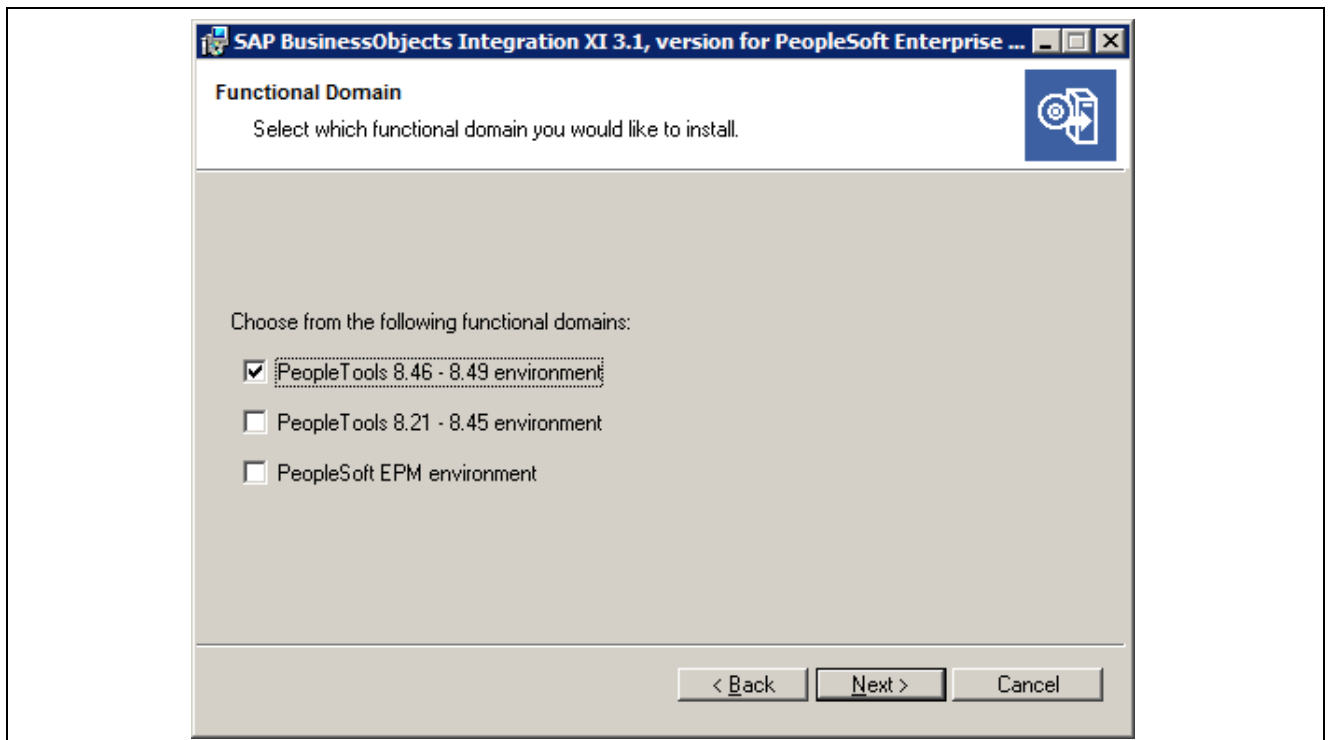


SAP BusinessObjects Integration XI 3.1, version for PeopleSoft Enterprise Choose Language Packs window

The Functional Domain window appears.

7. Select the first option PeopleTools 8.46-8.49 environment and click Next.

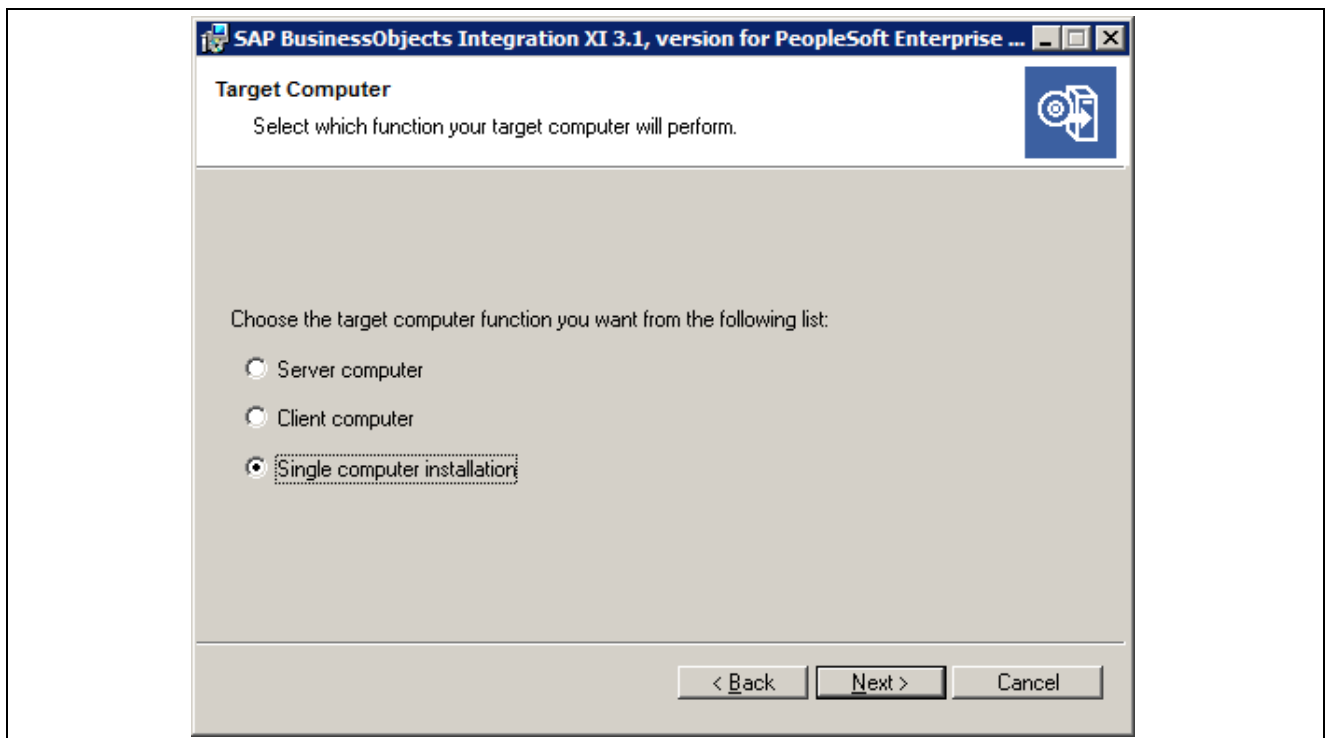
Note. This option is correct for PeopleSoft PeopleTools 8.50 and higher as well as for PeopleTools 8.46-8.49.



SAP BusinessObjects Integration XI 3.1, version for PeopleSoft Enterprise Functional Domain window

The Target Computer window appears.

8. Choose Server computer, Client computer, or Single Computer, as follows:



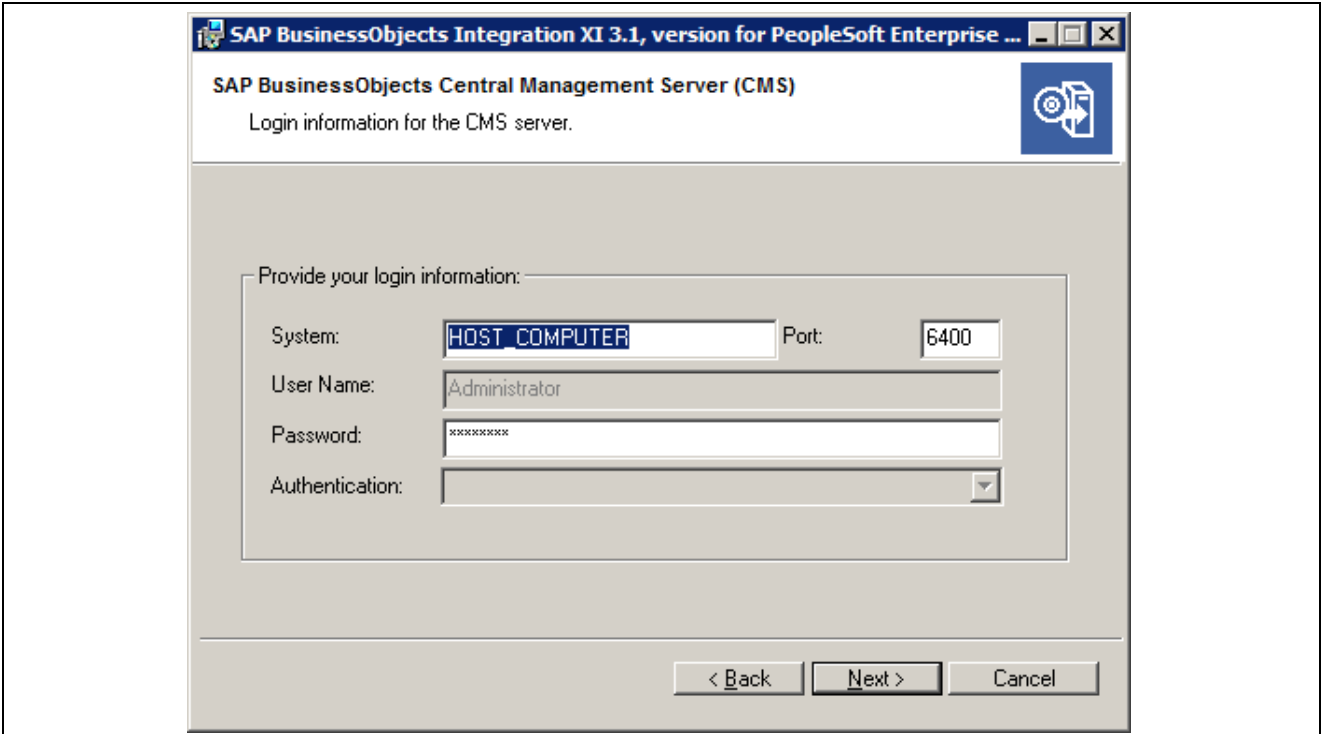
SAP BusinessObjects Integration XI 3.1, version for PeopleSoft Enterprise Target Computer window

- If only BusinessObjects Enterprise is installed, select the Server computer type.

- If only Crystal Reports or Business View Manager or Publishing Wizard is installed, select the Client computer type.
- If both BusinessObjects Enterprise and Crystal Reports or Business View Manager or Publishing Wizard are installed, select the Single computer type.

9. Click Next.

The BusinessObjects Central Management Server window appears.



SAP BusinessObjects Integration XI 3.1, version for PeopleSoft Enterprise Central Management Server window

Enter the following information:

- *System*

Enter the name of the computer on which you installed SAP BusinessObjects Enterprise XI 3.1. This example uses HOST_COMPUTER.

- *Port*

Enter the CMS port number, 6400 in this example, you entered on the Server Components Configuration window when installing SAP BusinessObjects Enterprise XI 3.1.

- *User Name*

When you enter the System and Port, the user name Administrator is populated.

- *Password*

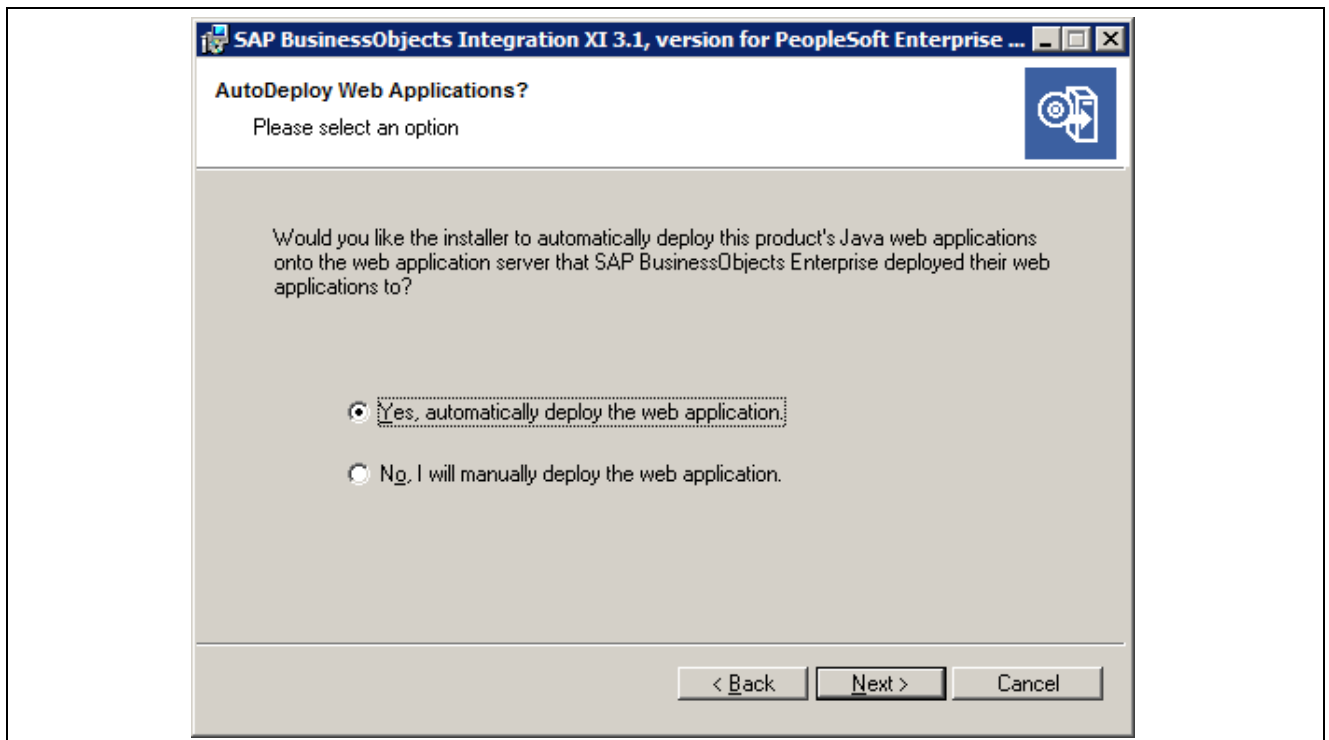
Enter the password for the CMS Administrator account that you entered on the Server Components Configuration window.

- *Authentication*

When you fill out the above fields, and click Next, this field is populated with Enterprise.

10. Click Next.

The AutoDeploy Web Applications window appears.



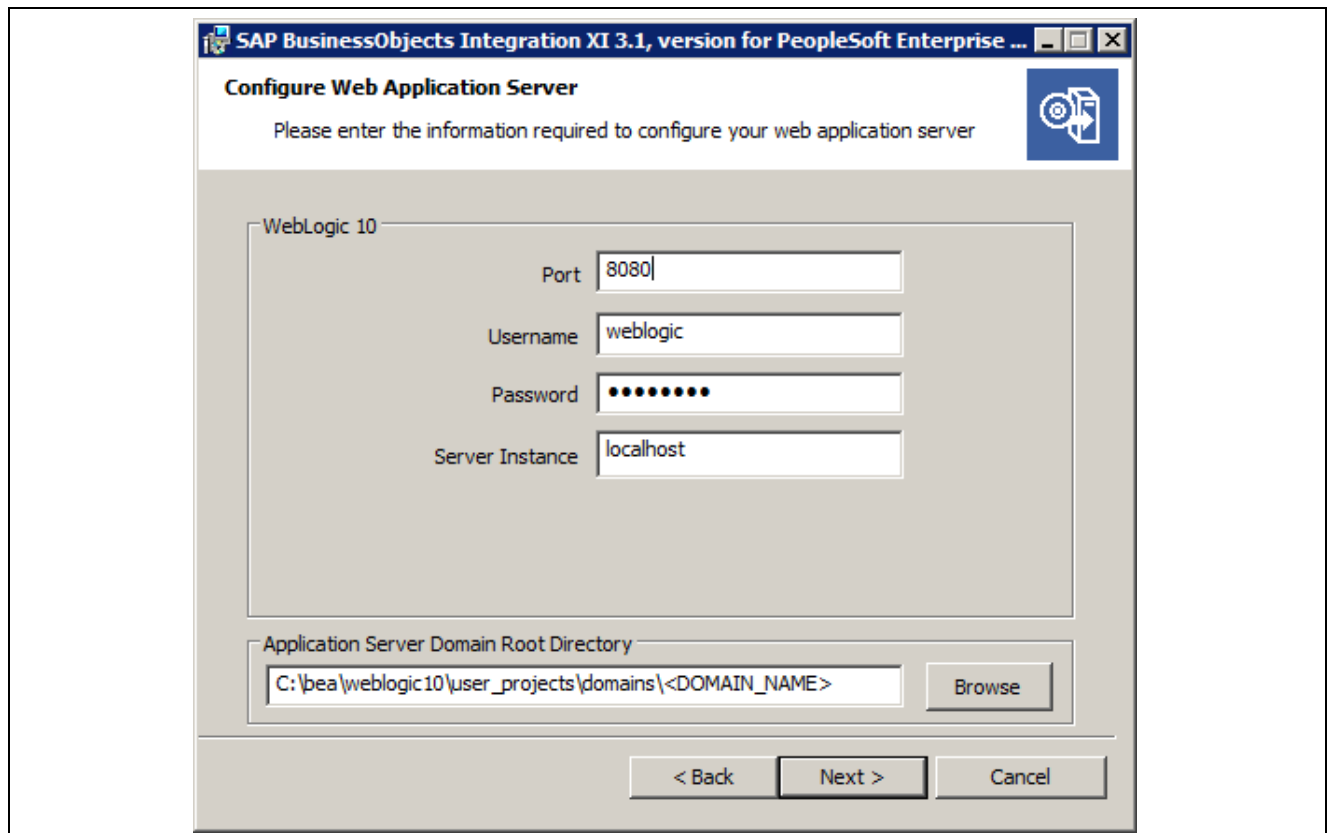
SAP BusinessObjects Integration XI 3.1, version for PeopleSoft Enterprise AutoDeploy Web Applications window

11. If your web server is Oracle WebLogic, select the first option, Yes automatically deploy the web application, and click Next.
12. If your web server is IBM WebSphere, select the second option, No, I will manually deploy the web application.

Skip the next step, for Oracle WebLogic. The instructions for manual deployment for IBM WebSphere are given in a later section.

See Administering and Using SAP BusinessObjects Enterprise XI 3.1, Deploying Manually Through IBM WebSphere Console.

13. If your web server is Oracle WebLogic, the following Configure Web Application Server Window appears:



SAP BusinessObjects Integration XI 3.1, version for PeopleSoft Enterprise Configure Web Application Server window

Enter the following information for the web application server that you created before you installed SAP BusinessObjects Enterprise XI 3.1:

- *Port*

Enter the listening port for the web application server. In this example, the port is 8080.

- *Username*

Enter the administrator user name that you entered when installing the web application software. In this example, for Oracle WebLogic, the user name is weblogic.

- *Password*

Enter the administrator password that you entered for the web application software.

- *Server Instance*

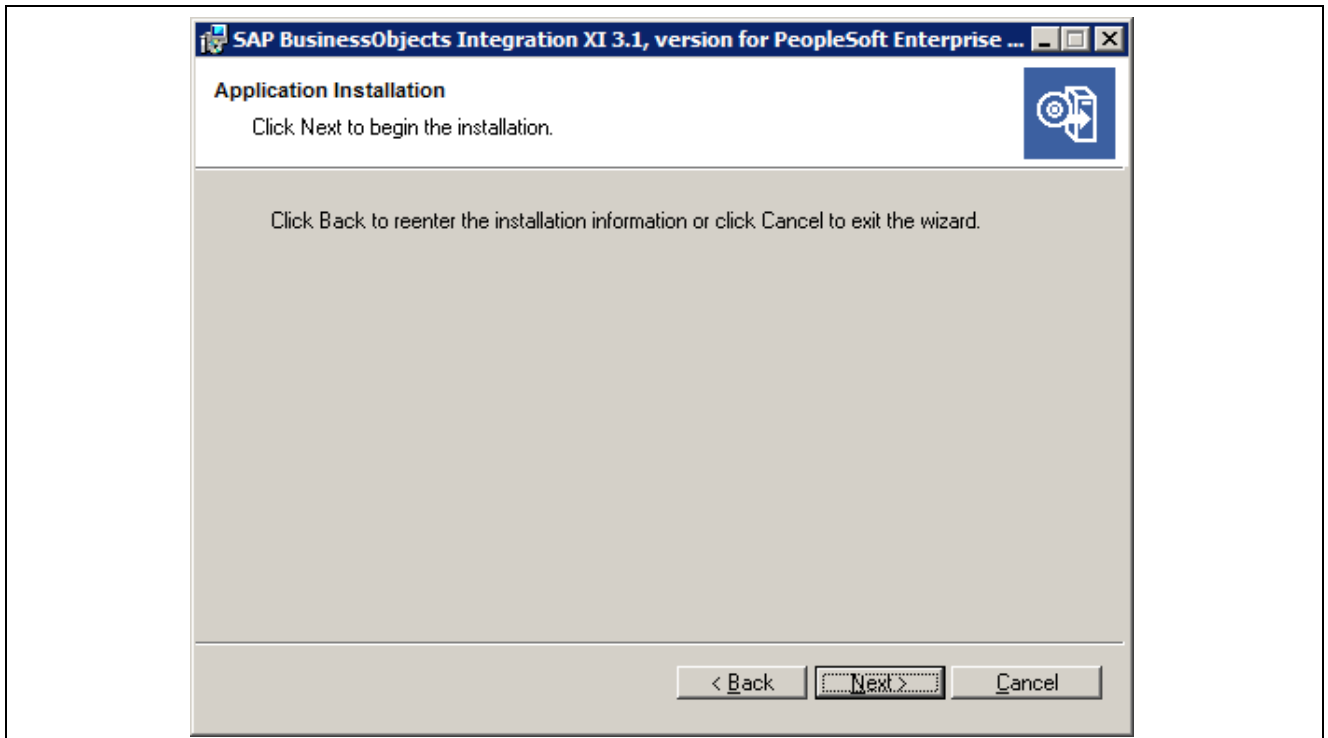
Enter the server instance, in this example, localhost. For Oracle WebLogic, the default is AdminServer.

- *Application Server Domain Root Directory*

Browse to find the directory of the domain you created for the web server. In this example, the directory is C:\bea\weblogic10\user_projects\domains\<DOMAIN_NAME>.

14. Click Next.

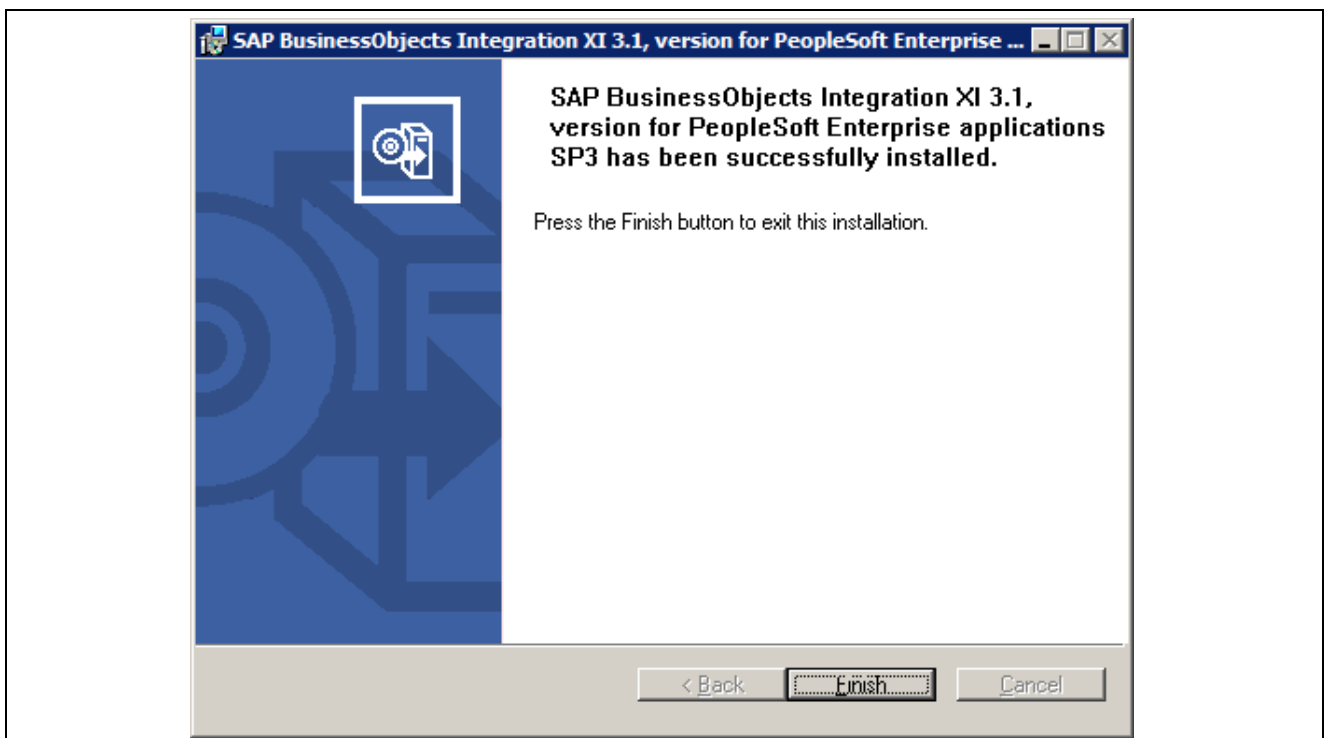
The Application Installation dialog box appears.



SAP BusinessObjects Integration XI 3.1, version for PeopleSoft Enterprise Application Installation window

15. Click Next to begin the installation.

When the installation is complete, click Finish.



SAP BusinessObjects Integration XI 3.1, version for PeopleSoft Enterprise has been successfully installed window

Task 15-4-6: Installing Fix Packs or Service Packs on Windows

After completing the full installation of SAP BusinessObjects Enterprise XI 3.1 and the BusinessObjects Integration Kit for PeopleSoft, you must install the appropriate additional fix pack or service pack for each. Consult the certification information on My Oracle Support for the patch level required for your installation.

See "Operating System, RDBMS & Additional Component Patches Required for Installation PeopleTools," My Oracle Support, (search for article name).

Use these instructions to apply each fix pack:

1. Go to the local directory where you downloaded and extracted the fix pack.
2. Launch the installation by running setup.exe.

- If you see the following error message:

```
The install has detected that a recommended Microsoft patch is not present on⇒
this machine. If you continue, the following error message might be⇒
displayed: "Error 1718. File was rejected by digital signature policy". To⇒
prevent any error messages during installation, please refer to Microsoft⇒
kbase article ID 925336.
```

See the information in this Microsoft web site: <http://support.microsoft.com/kb/925336>.

- If you see the following error message:

```
This patch only applies to BusinessObjects Enterprise XI 3.1. Setup will now⇒
exit.
```

Locate the setup.ini file in the directory where you downloaded the fix pack installation files. Open it in a text editor, and add "for PeopleSoft" as shown in the following examples:

Original:

```
[Bootstrap]
ProductName=BusinessObjects XI 3.0
Msi=package\BusinessObjects.msp
Transform=package\
TempFilePrefix=BOE_SP1FP6_Install_
CheckLargePackage=Yes
PatchForTargetMSI={5418F914-1D31-4849-822C-314AC28B06BF};12.1.0;Business⇒
Objects Enterprise XI 3.1
PatchDispName=FP1.6
```

Modified:

```
[Bootstrap]
ProductName=BusinessObjects XI 3.0
Msi=package\BusinessObjects.msp
Transform=package\
TempFilePrefix=BOE_SP1FP6_Install_
CheckLargePackage=Yes
PatchForTargetMSI={5418F914-1D31-4849-822C-314AC28B06BF};12.1.0;Business⇒
Objects Enterprise XI 3.1 for PeopleSoft
PatchDispName=FP1.6
```

3. Click Next on the Welcome window.
4. Click Next on the License Agreement window.
5. Enter the same CMS information that you entered during the SAP BusinessObjects Enterprise XI 3.1 installation:
 - *System*
Enter the name of the computer on which you installed BusinessObjects Enterprise XI Release.
 - *CMS port*
Enter the CMS port number you entered on the Server Components Configuration window when installing SAP BusinessObjects Enterprise XI 3.1.
 - *Password*
Enter the password for the CMS Administrator account that you entered on the Server Components Configuration window.
6. Select Yes, automatically re-deploy the web applications.
7. If you created the web server on Oracle WebLogic, enter the same values that you entered during the SAP BusinessObjects Enterprise XI 3.1 installation for the following:
 - Port
 - Username
 - Password
 - Server instance
 - Application server domain root directory
8. If you created the web server on IBM WebSphere, enter the same web server information that you entered during the SAP BusinessObjects Enterprise XI 3.1 installation for the following:
 - SOAP port
 - Username
 - Password
 - Server Instance
 - Virtual host
 - Administrative security option
 - Application server installation directory
9. Click Next to begin the installation.

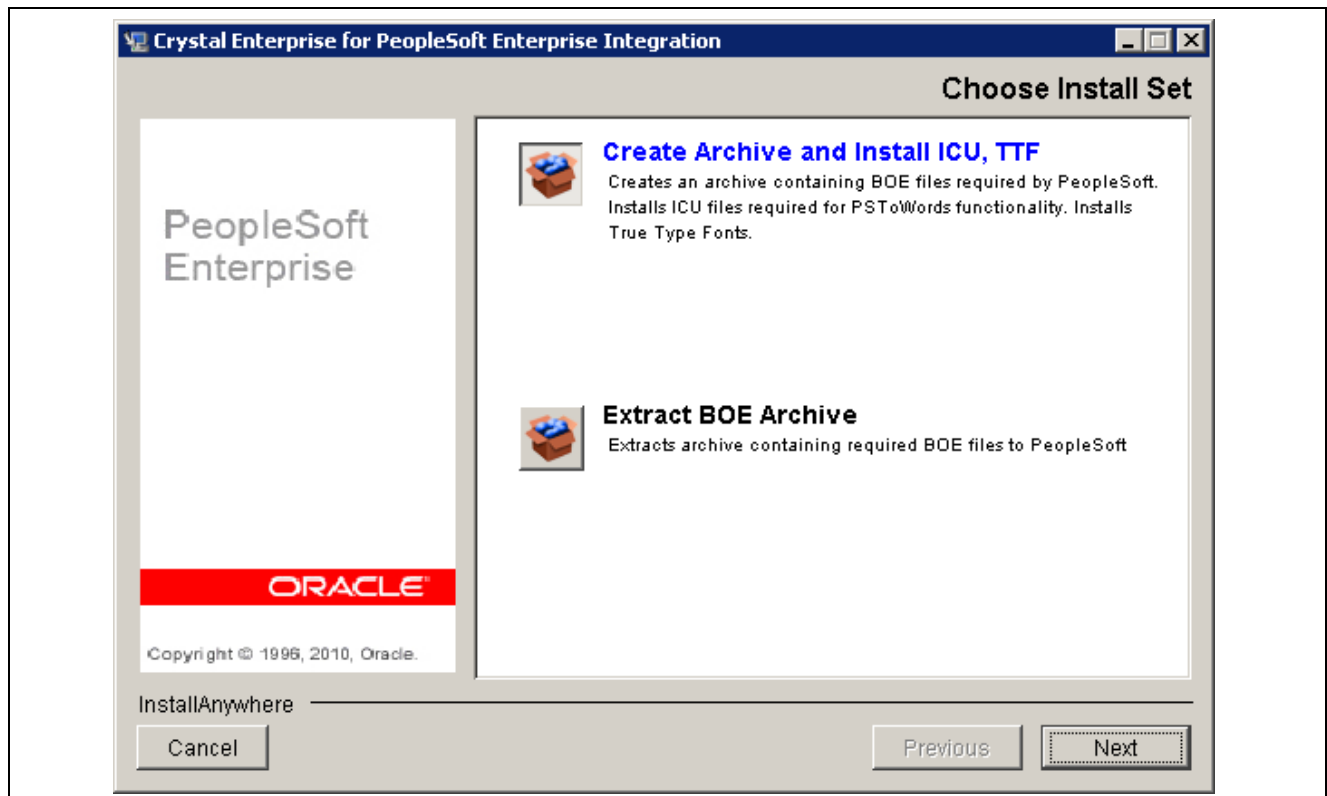
Task 15-4-7: Creating the BusinessObjects Enterprise Archive and Installing Files on Windows

In this section you consolidate the files that are needed for the PeopleSoft to BusinessObjects Enterprise integration in an archive. Also, this procedure installs International Components for Unicode (ICU) files that are required for the PStoWords functionality that is used with Crystal reports.

See *PeopleTools 8.52: Crystal Reports for PeopleSoft PeopleBook*, "Working with Multiple Languages."

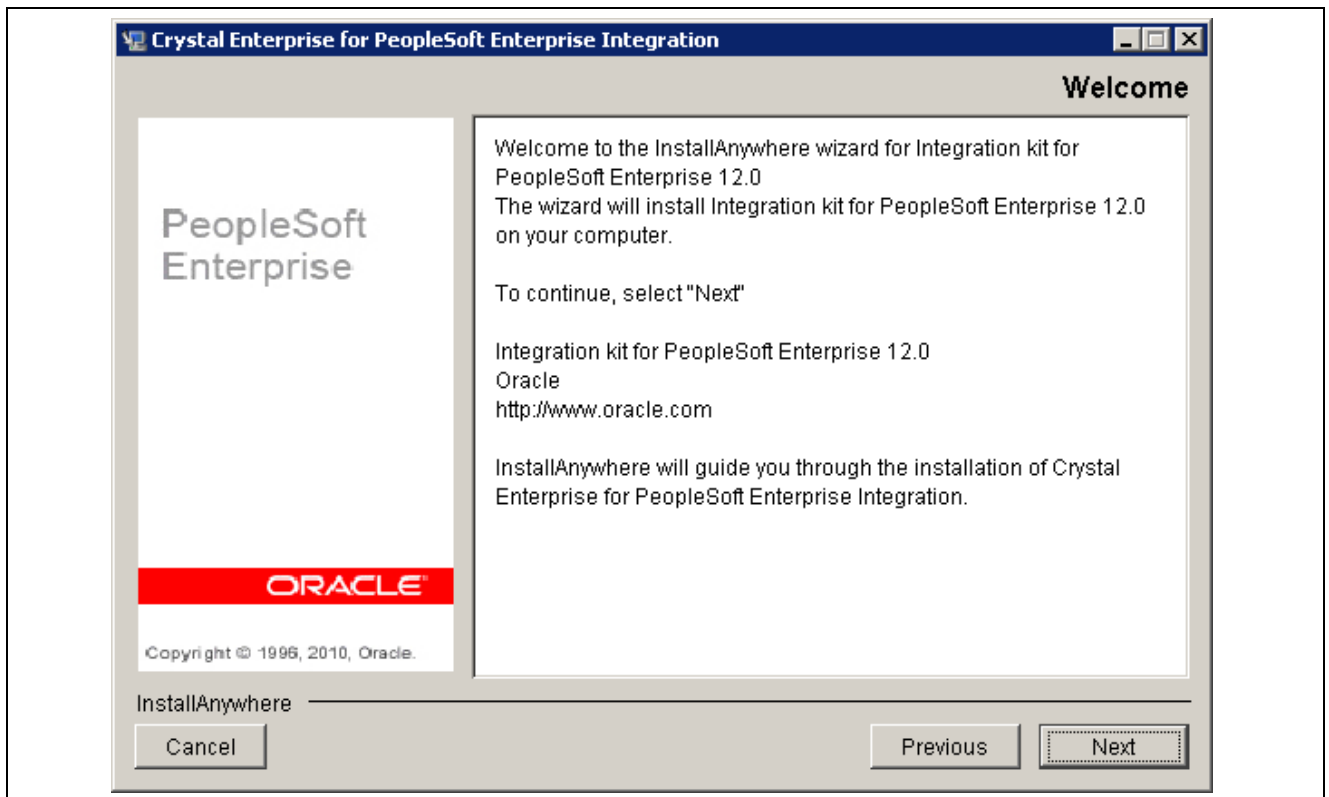
1. Go to `PS_HOME\setup\PsmPCrystalInstall\Disk1` and run `setup.bat`.

2. Select the option Create Archive and Install ICU, TTF, and then click Next.



Crystal Enterprise for PeopleSoft Enterprise Integration Choose Install Set window

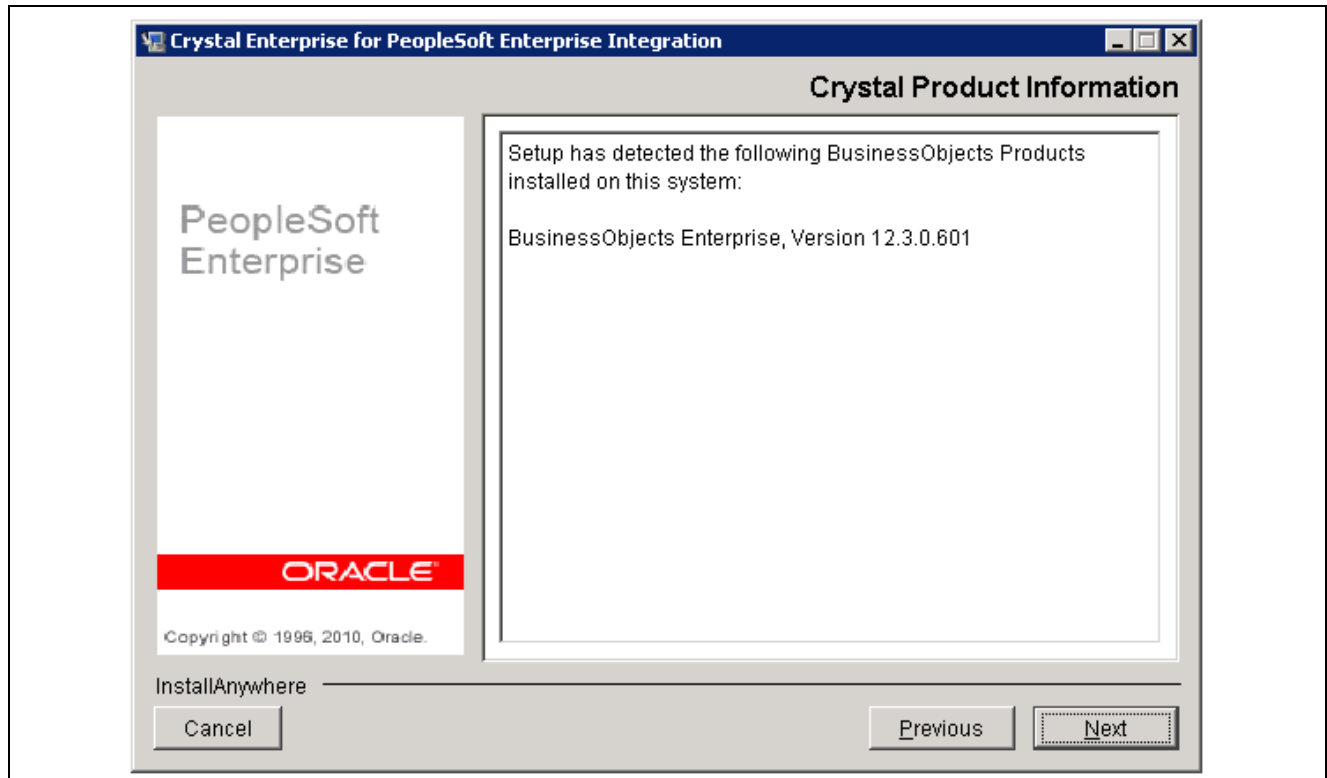
3. Click Next on the Welcome window.



Crystal Enterprise for PeopleSoft Enterprise Integration Welcome window

4. Click Next on the Crystal Product window.

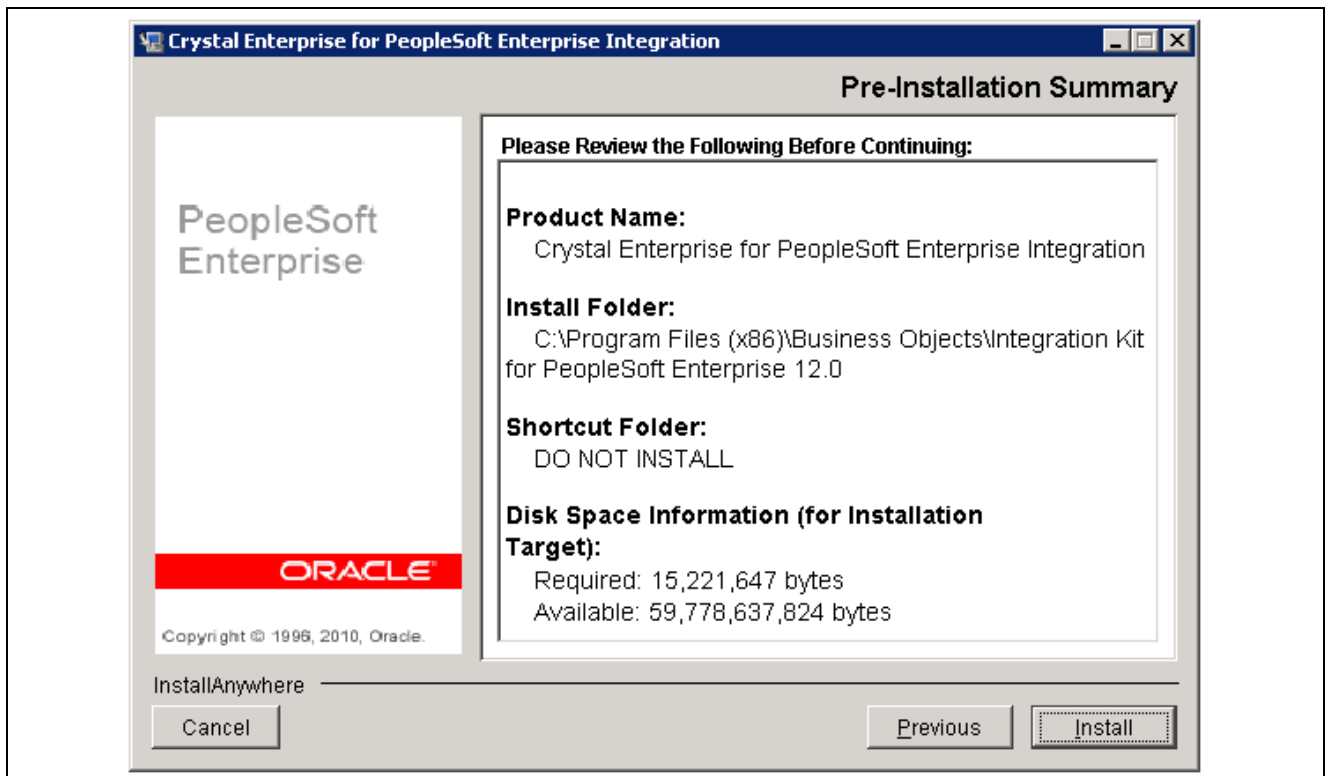
The installer checks your system for the correct version of BusinessObjects Enterprise and display the version details. In this example, Version 12.3.0.601.



Crystal Enterprise for PeopleSoft Enterprise Integration Crystal Product Information window

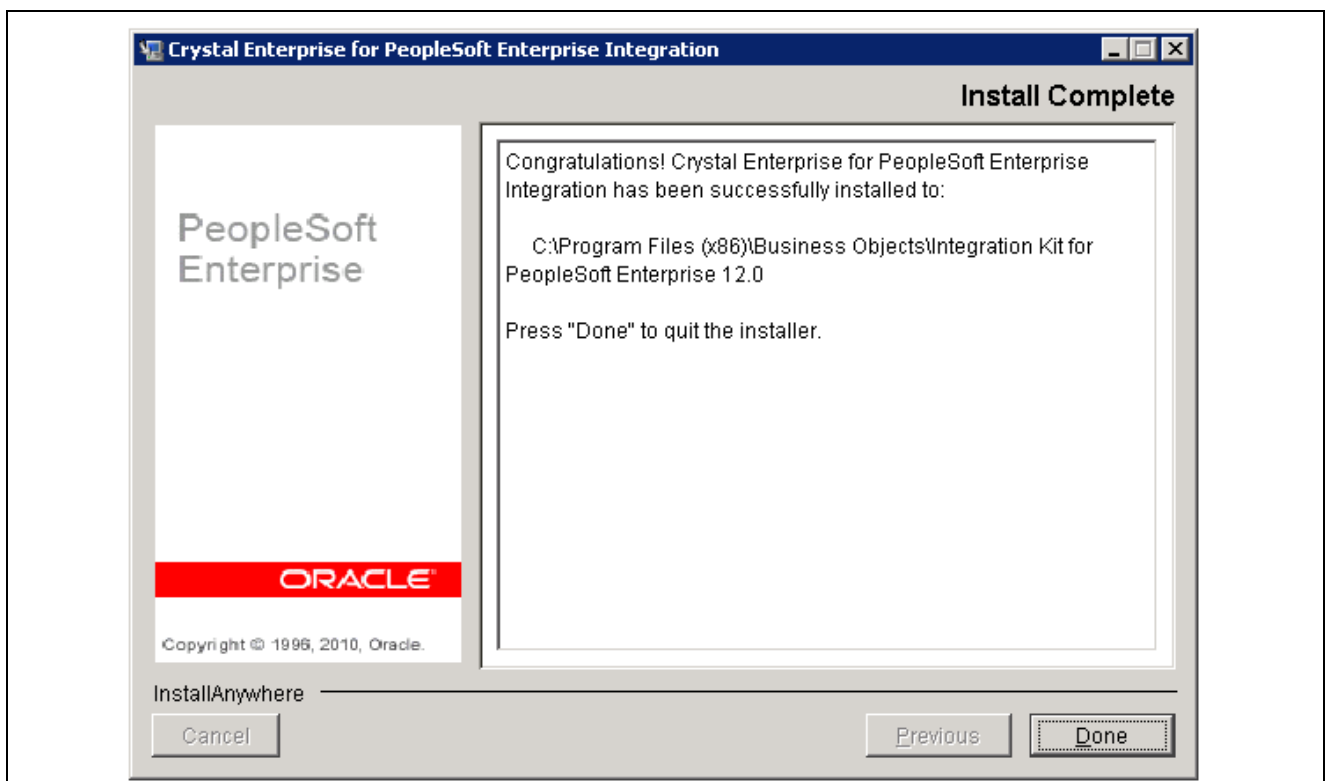
5. Review the installation summary, including the install folder and disk space information, and then click Install to begin the installation.

In this example the install folder is C:\Program Files (x86)\Business Objects\Integration Kit for PeopleSoft Enterprise 12.0.



Crystal Enterprise for PeopleSoft Enterprise Integration Pre-Installation Summary window

6. Click Done to finish the installation.



Crystal Enterprise for PeopleSoft Enterprise Integration Install Complete window

7. Restart all BusinessObjects Enterprise servers.

The archive is saved as boearchive.zip in *PS_HOME*\PsMpCrystalInstall\Disk1\InstData.

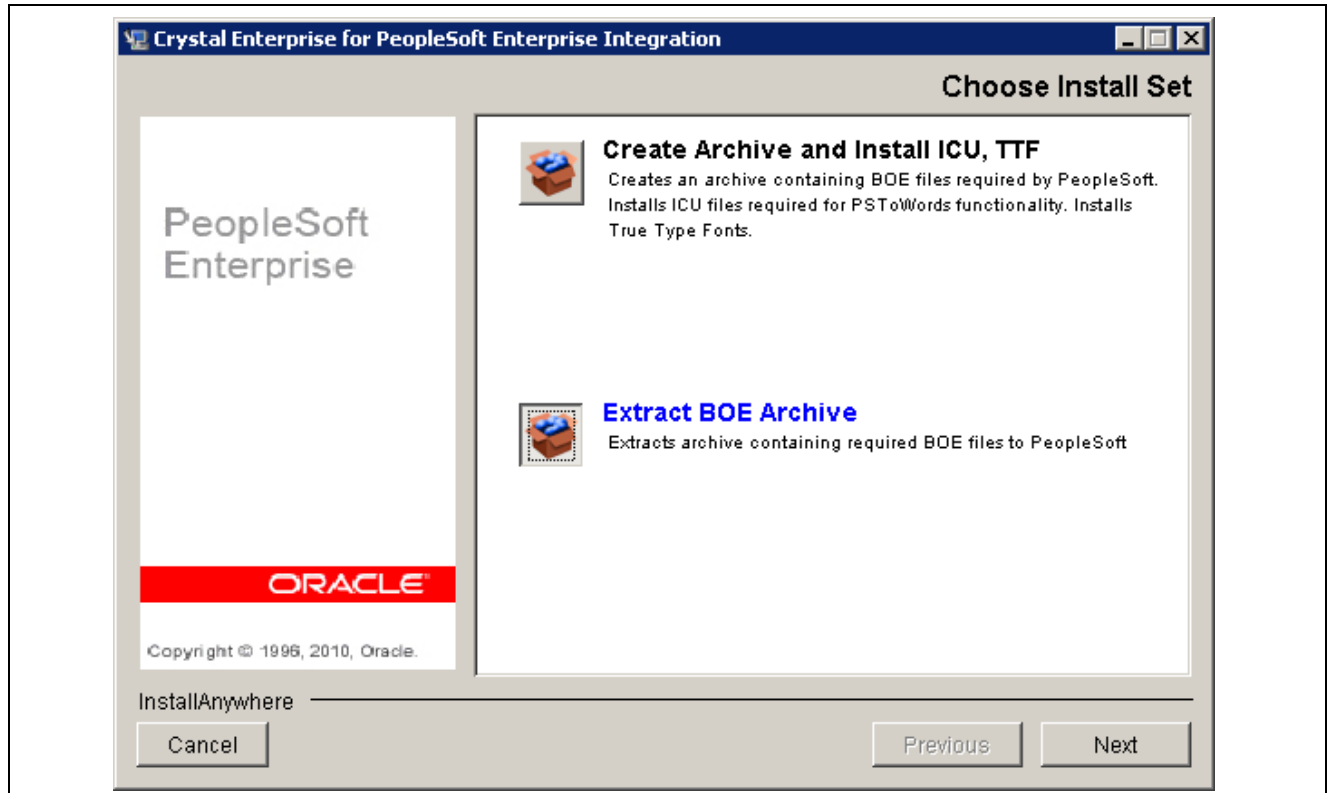
Task 15-4-8: Extracting the Archive on Windows

After you create the boearchive.zip as described in the previous section, you must extract it to the following locations:

- *PS_HOME* on the machine that is used for report conversion
- *PS_HOME* on the Process Scheduler server
- *PIA_HOME* on the machine used for viewing reports

To extract the archive:

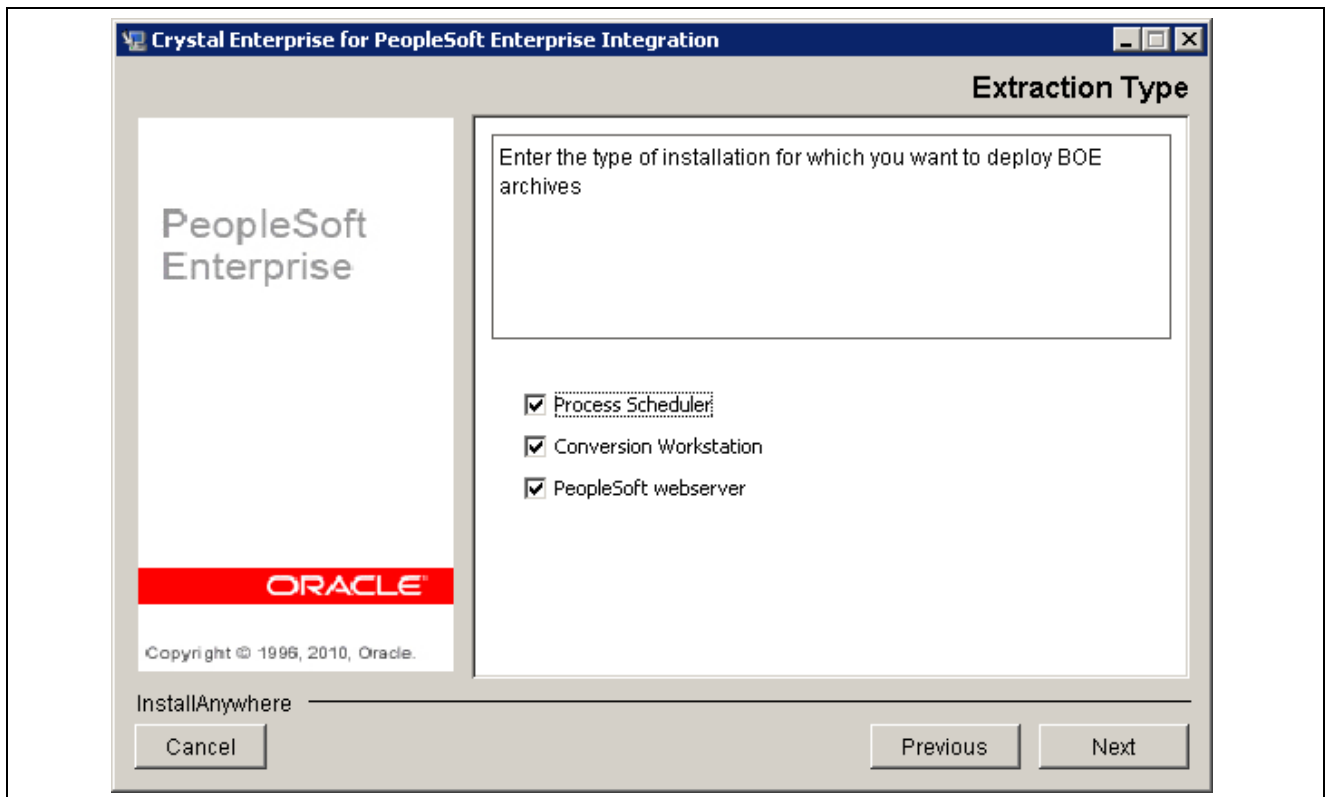
1. Copy boearchive.zip to PsMpCrystalInstall\Disk1\InstData under *PS_HOME* or *PIA_HOME*.
2. Go to *PS_HOME*\PsMpCrystalInstall\Disk1 or *PIA_HOME*\PsMpCrystalInstall\Disk1 and run setup.bat.
3. Select the option Extract BOE archive and then click Next.



Crystal Enterprise for PeopleSoft Enterprise Integration Choose Install Set window with extracting archive option

4. Select the types of installation you require and then click Next.

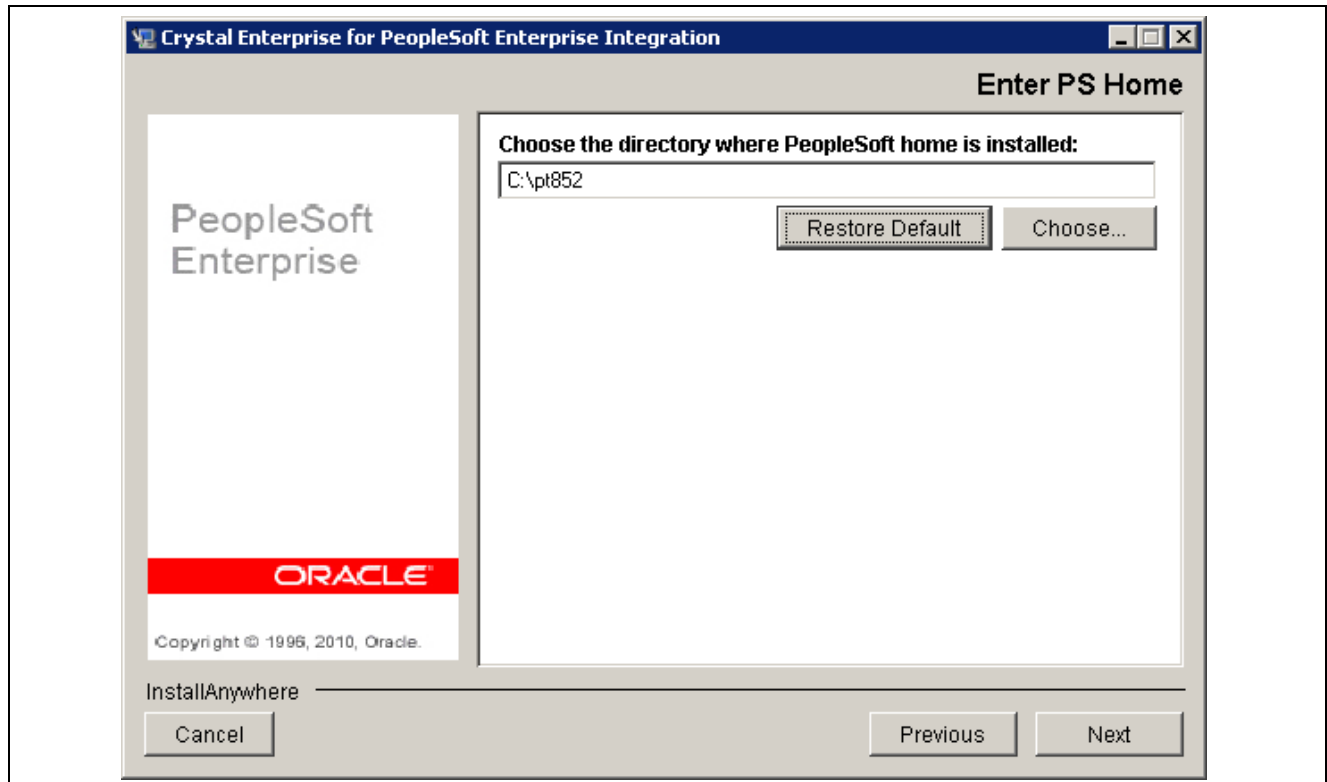
The options you choose depend upon your setup. You can select all three options, Process Scheduler, Conversion Workstation, and PeopleSoft webserver, if you have the Process Scheduler and web server set up on the same system, and also plan to use this system for the report conversion. If not, select only the options that you need and continue.



Crystal Enterprise for PeopleSoft Enterprise Integration Extraction Type window

5. If you selected Process Scheduler or Conversion Workstation, specify the location of *PS_HOME*, and then click Next.

This example uses C:\pt852 for *PS_HOME*.

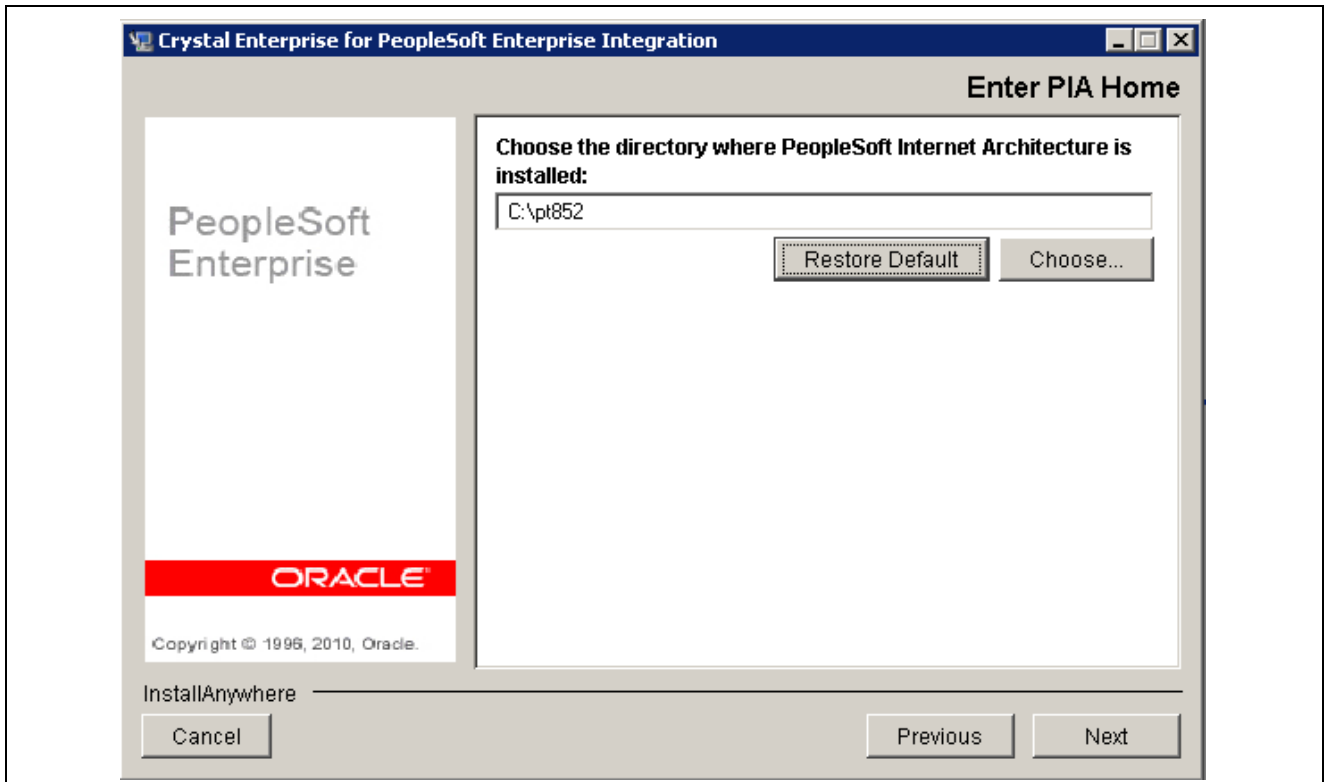


Crystal Enterprise for PeopleSoft Enterprise Integration Enter PS Home window

6. If you select PeopleSoft webserver, specify the location of *PIA_HOME*, and then click Next.
This example uses C:\pt852 for *PIA_HOME*.

Note. Although in this example *PIA_HOME* is the same as *PS_HOME*, that is not a requirement. Your environment may be different.

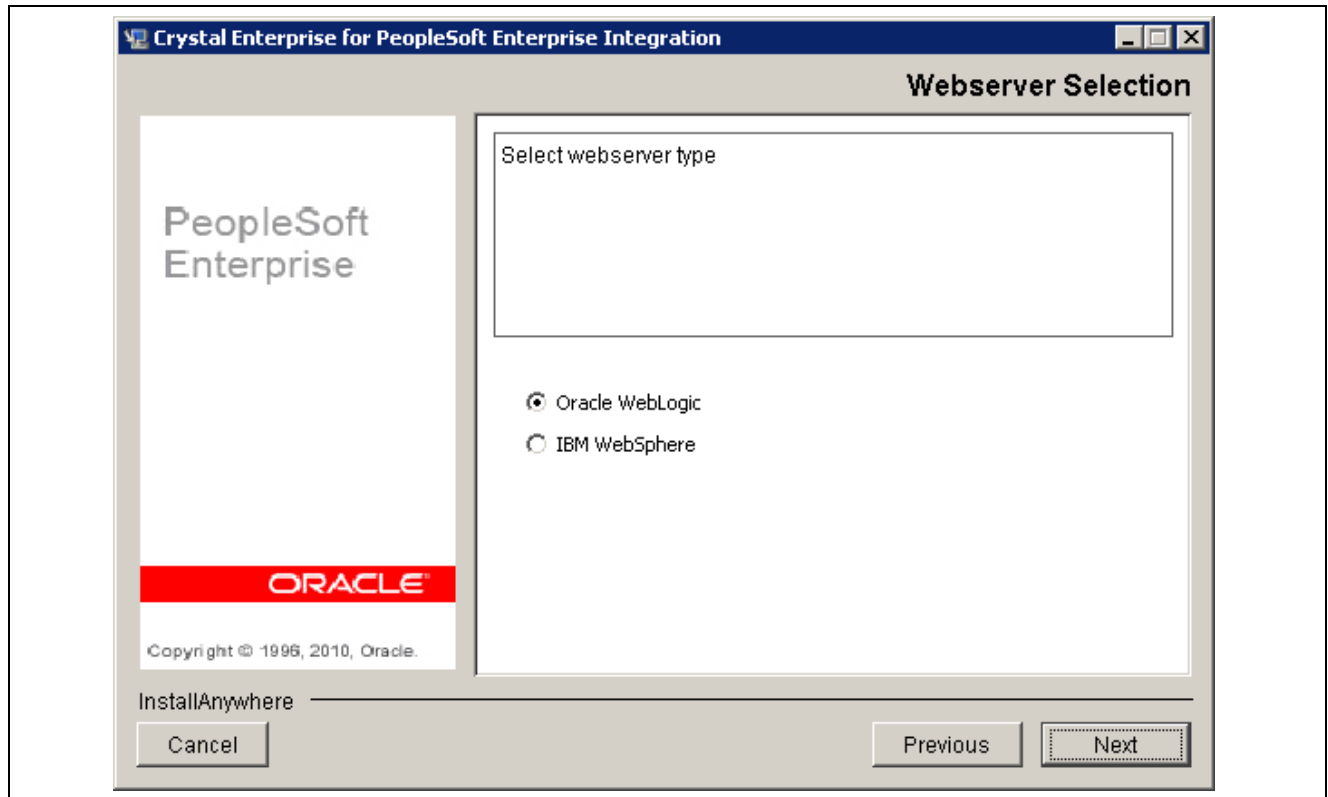
See “Preparing for Installation,” Defining Installation Locations.



Crystal Enterprise for PeopleSoft Enterprise Integration Enter PIA Home window

7. Select the option for the web server software installed on your system, Oracle WebLogic or IBM WebSphere, and then click Next.

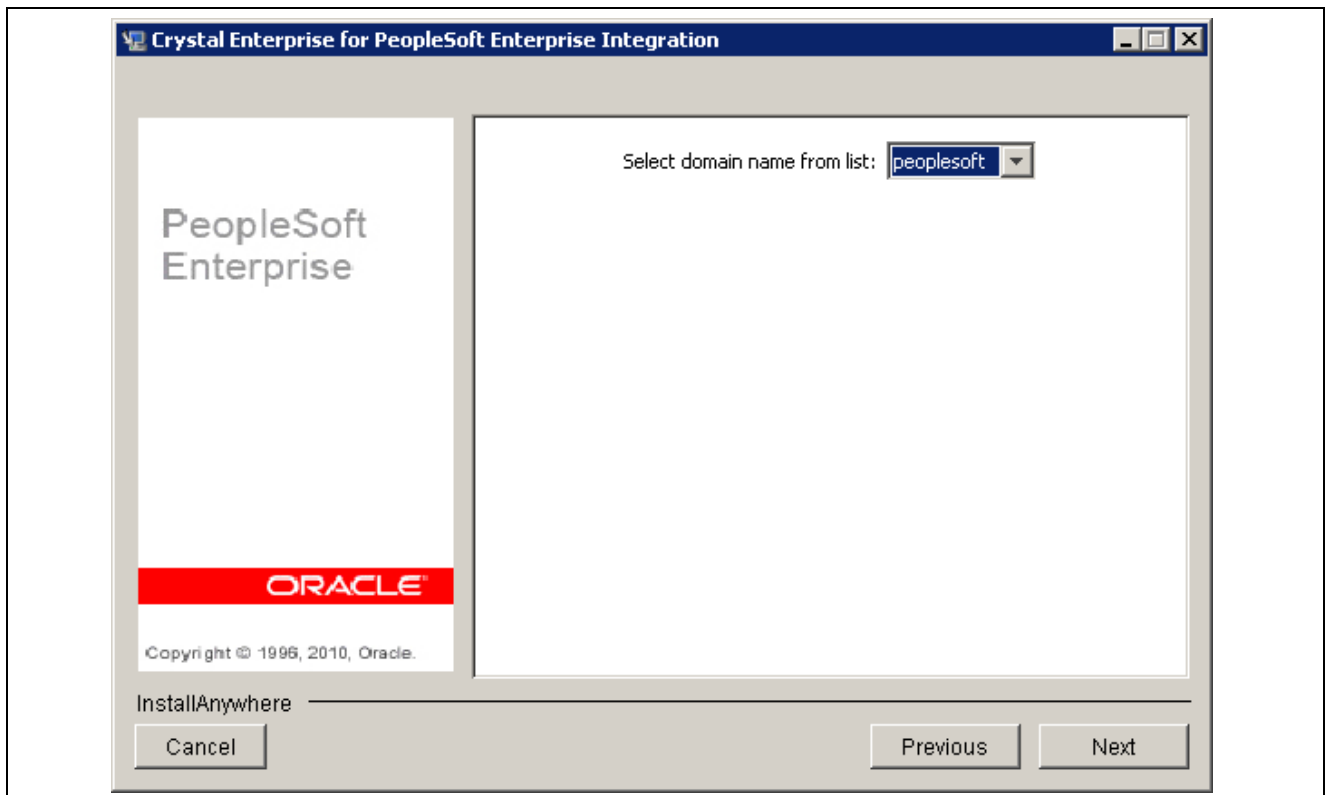
This example selects Oracle WebLogic:



Crystal Enterprise for PeopleSoft Enterprise Integration Webserver Selection window

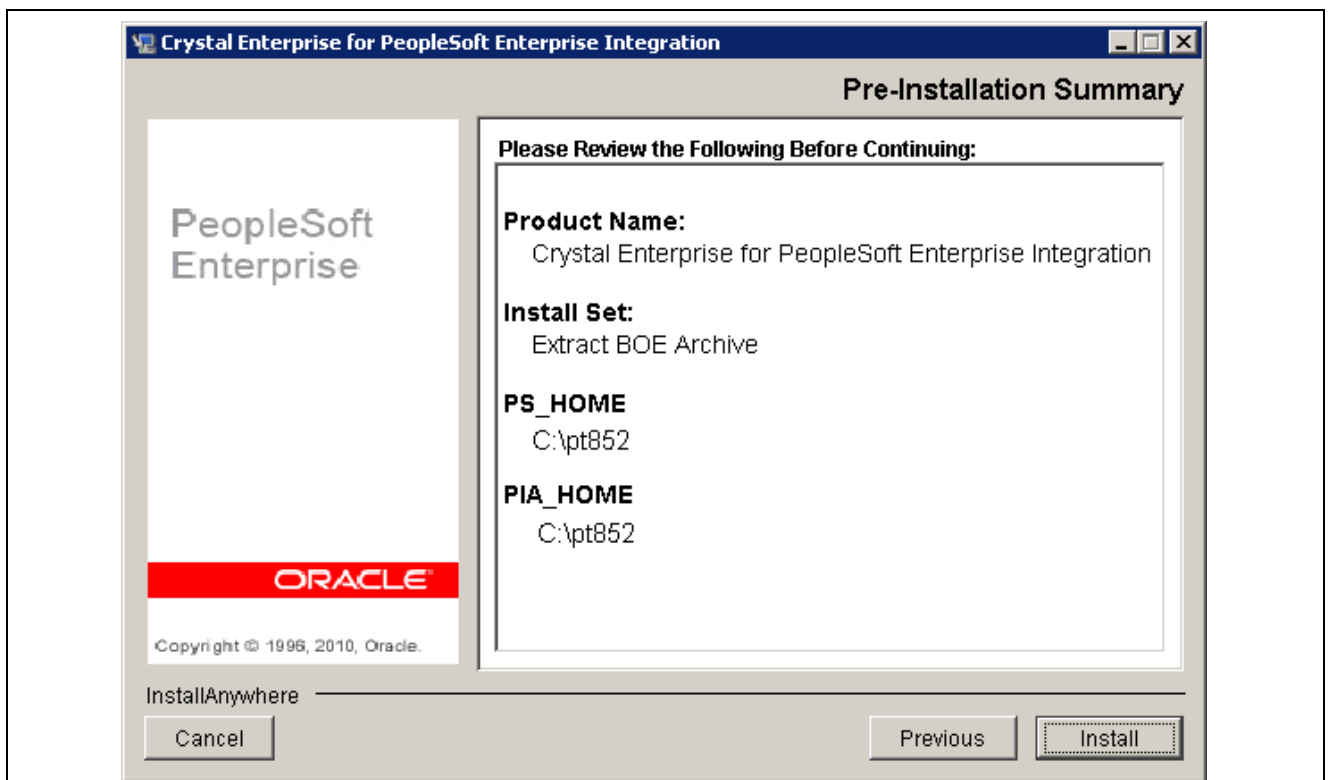
8. Select the domain name (for Oracle WebLogic) or application name (for IBM WebSphere) from the drop-down list and then click Next.

The default is peoplesoft for both web servers, as shown in this example.



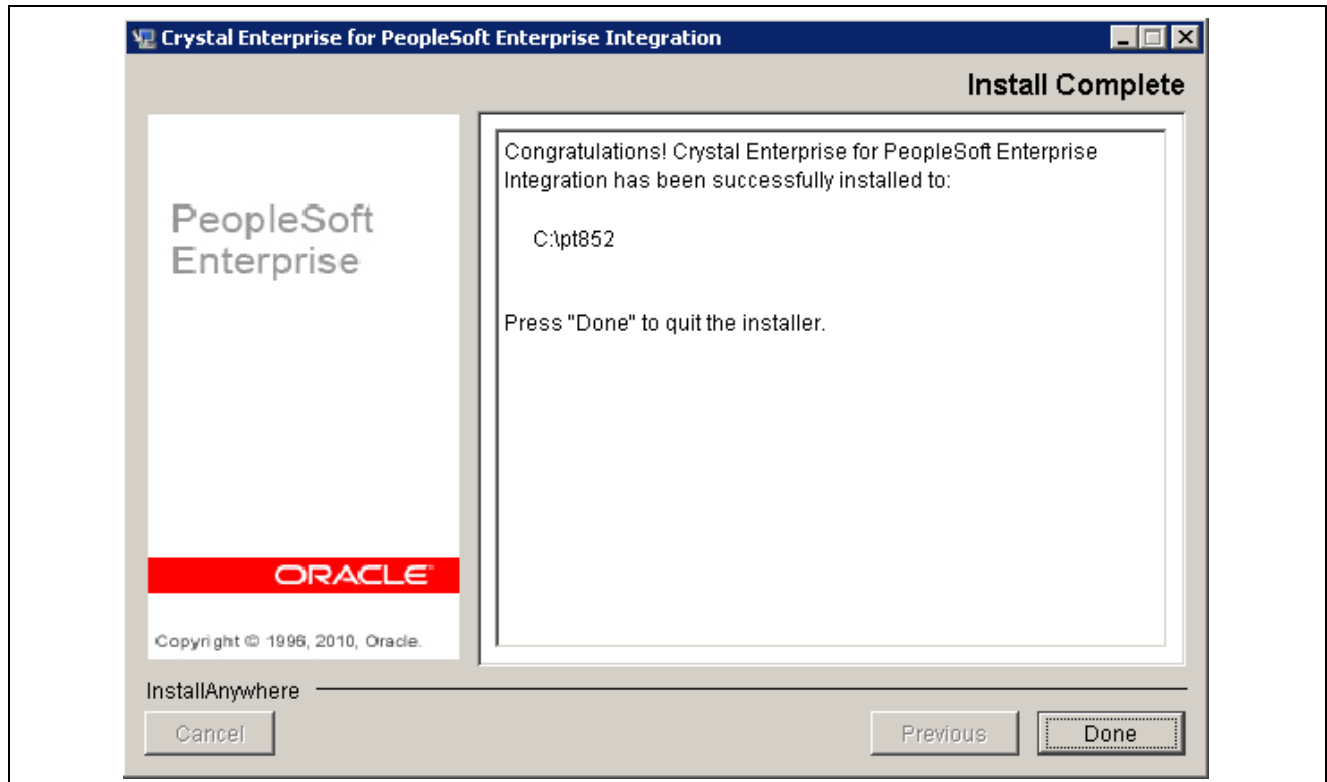
Crystal Enterprise for PeopleSoft Enterprise Integration Selecting the domain name

9. Review the summary information, which includes the *PS_HOME* and *PIA_HOME* values you entered, and click Install to begin the installation.



Crystal Enterprise for PeopleSoft Enterprise Integration Pre-Installation Summary window

10. Click Done to finish the installation.



Crystal Enterprise for PeopleSoft Enterprise Integration Install Complete window

11. If you installed on a web server, restart the web server.

Task 15-4-9: Installing TrueType Fonts on Windows

To run certain reports you may need special fonts that do not normally come with SAP BusinessObjects Enterprise XI 3.1. The PeopleSoft system packages and installs two such TrueType fonts in its directory structure:

- MICR____.ttf: MICR font for check printing
- B39R00.ttf: 3of9 barcode font

You can copy and install them on your machine where SAP BusinessObjects Enterprise XI 3.1 is installed to make them available to that application.

To install TrueType fonts on Microsoft Windows:

1. Copy the *PS_HOME\FONTS\Truetype* folder to your SAP BusinessObjects Enterprise XI 3.1 machine (the *C:\Windows\Fonts* folder is a good place to copy it to).
2. Select Start, Settings, Control Panel.
3. Double-click the Fonts directory to display its contents.
4. Select File, Install New Font.
5. Locate the fonts you want to install:
 - In the Drives list, select the drive that contains the fonts you want to install.

- In the Folders list, select the folder that contains the fonts you want to install.

The fonts in the folder appear under List of Fonts.

6. Select the fonts to install.

To select more than one font, hold down the CTRL key and click each font.

7. To copy the fonts to the Fonts folder, make sure the Copy fonts to Fonts folder check box is selected
8. Click OK to install the fonts.

Task 15-4-10: Creating a Web Server for SAP BusinessObjects Enterprise XI 3.1 on UNIX or Linux

This section discusses:

- Creating an Oracle WebLogic Server on UNIX or Linux
- Creating an IBM WebSphere Server on UNIX or Linux

Creating an Oracle WebLogic Server on UNIX or Linux

Before beginning this procedure, you must have installed Oracle WebLogic on the server where SAP BusinessObjects Enterprise XI 3.1 is installed. You must use the same user account to install Oracle WebLogic and SAP BusinessObjects Enterprise XI 3.1.

To create a Oracle WebLogic server on UNIX:

1. Start the Configuration Wizard by running `config.sh` from the *WLS_HOME/weblogic100/common/bin* directory.
2. Select *I*, Create a new WebLogic configuration and press Enter.
3. Select *I*, Choose WebLogic Platform components and press Enter.
4. Accept the default template, WebLogic Server (Required).
5. Enter the Administrator user name and user password.

The default values are *weblogic* and *password*. Press Enter.

6. At the Domain Mode Configuration prompt, choose *Development Mode* and press Enter.
7. Select the Java SDK that you installed and press Enter.
8. Accept all the default settings until you reach the Edit Domain Information prompt.
9. At the Edit Domain prompt replace `base_domain` with a meaningful domain name, like *BOEXI*, and press Enter.

The web server has been created at the default port 7001.

10. If you want to use a port other than the default port of 7001, follow the steps below.

This may be useful if you want to run both a PeopleSoft Pure Internet Architecture web server and the SAP BusinessObjects Enterprise XI 3.1 web server on the same machine.

- a. Edit the file: `<WLS_HOME>/user_projects/domains/<domain_name>/config.xml`.
- b. Find the text 7001 and replace it with the port number you want.
- c. Save the config.xml file and exit.

WLS_port will be used to refer to the port number that you are now using. Substitute your specific port number as needed in the following steps.

11. Start the web server by running `startWebLogic.sh` from `<WLS_HOME>/user_projects/domains/<domain_name>`.

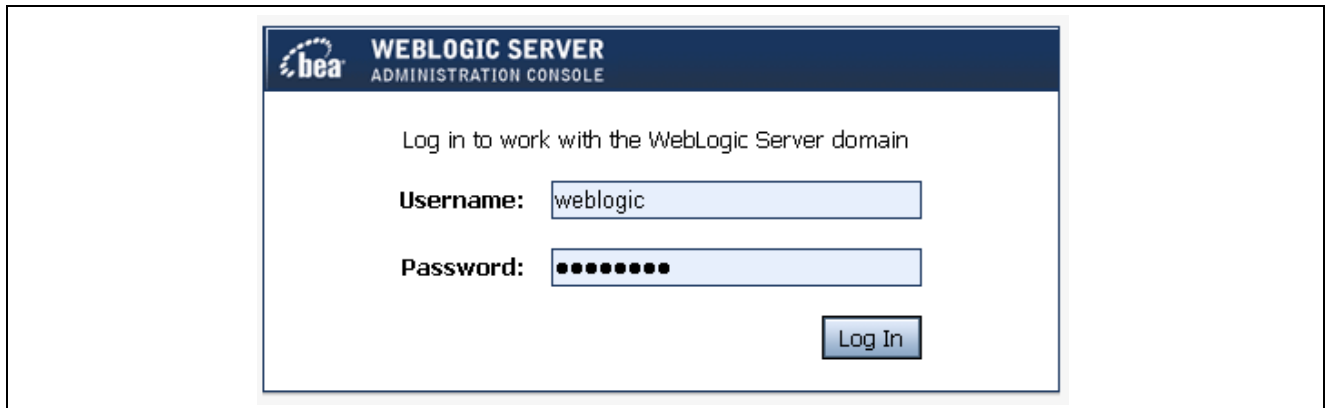
Wait until a message containing “listening on port `<WLS_port>`” appears. The web server is now started.

12. Enter the following URL in a browser to confirm that you are able to log in to the web server:

`http://<machine_name>:<WLS_port>/console`

13. At the login page, enter the user name and password for the Oracle WebLogic administrator that you entered during the Oracle WebLogic installation.

For example, `weblogic/password`. Then click the Sign In button. If you are able to log in then it verifies that your Oracle WebLogic Server is set up correctly.



Oracle WebLogic Server Administration Console Log In window

If you are running on AIX and the web server is Oracle WebLogic, you must increase the value of the "ulimit" open file descriptor before beginning the installation.

A deployment to an Oracle WebLogic 10.3 system running on AIX with Sun JDK 1.6 or IBM JDK 1.6 (32 or 64-bit) may fail with the error message:

```
java.util.zip.ZipException: error in opening zip file (too many files open).
```

To avoid this issue, increase the default value of the "ulimit" open file descriptor limit from 1024 to 4096. This can be done by modifying the file `WLS_HOME/weblogic103/common/bin/commEnv.sh` to look like the example shown below:

```
maxfiles='ulimit -H -n`
if [ "$?" = "0" -a `expr ${maxfiles} : '[0-9][0-9]*$`
-
eq 0 ]; then
ulimit -n 4096
```

After making this change, restart your Oracle WebLogic web server.

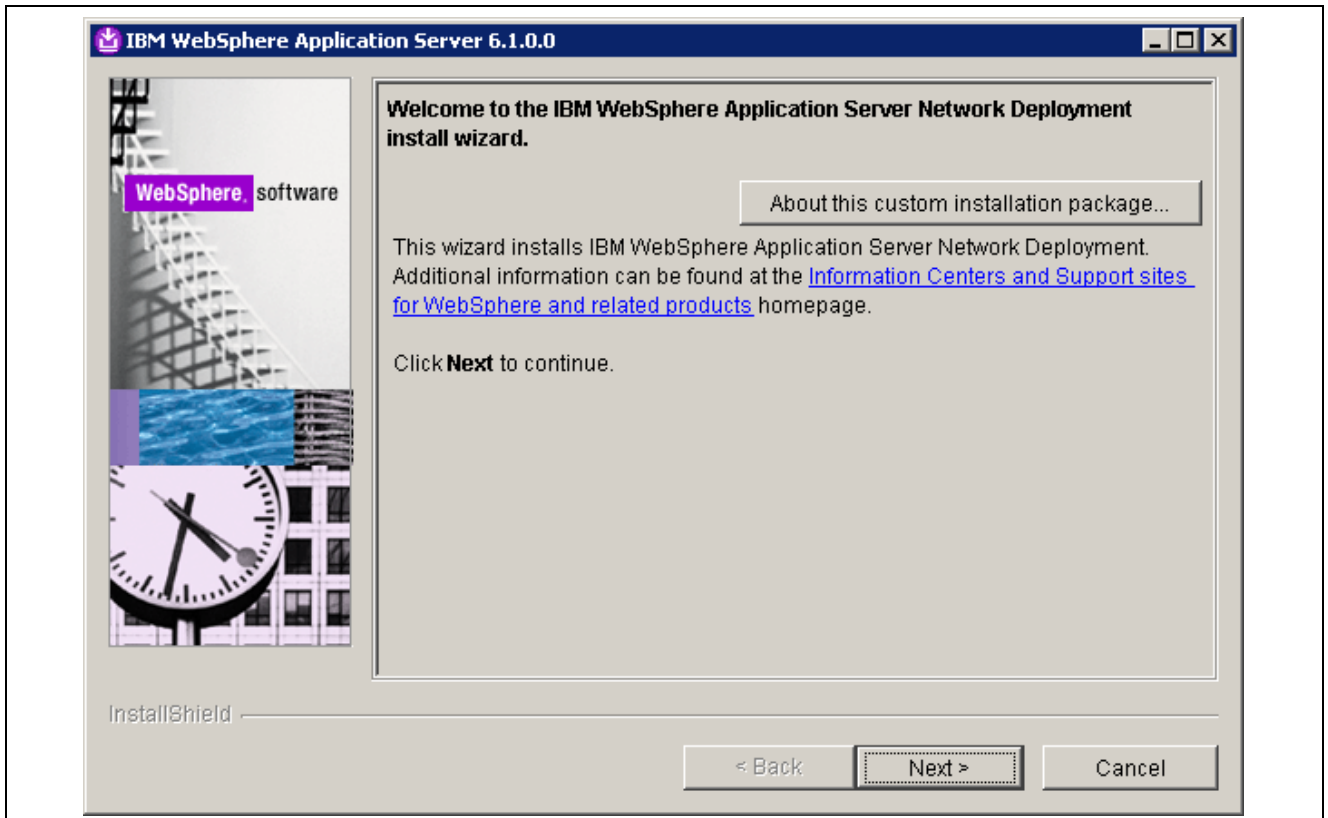
Creating an IBM WebSphere Server on UNIX or Linux

Before beginning this procedure, you must have installed IBM WebSphere on the server where SAP BusinessObjects Enterprise XI 3.1 is installed. You must use the same user account to install IBM WebSphere and SAP BusinessObjects Enterprise XI 3.1.

To install on UNIX or Linux you must have a X-Windows terminal emulation program such as Xmanager, Cygwin and so on.

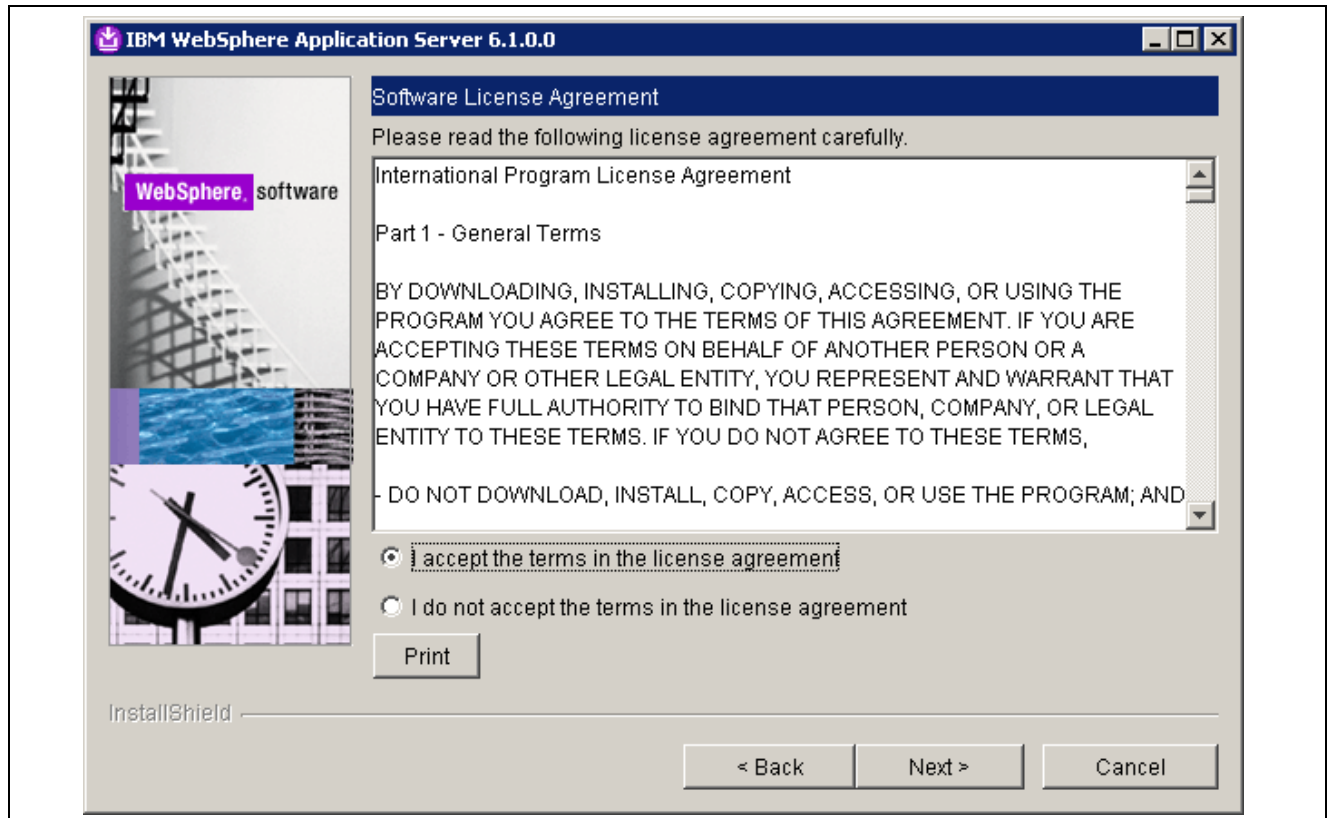
1. Run `installWAS.sh` from the WebSphere installation.

A welcome window appears.



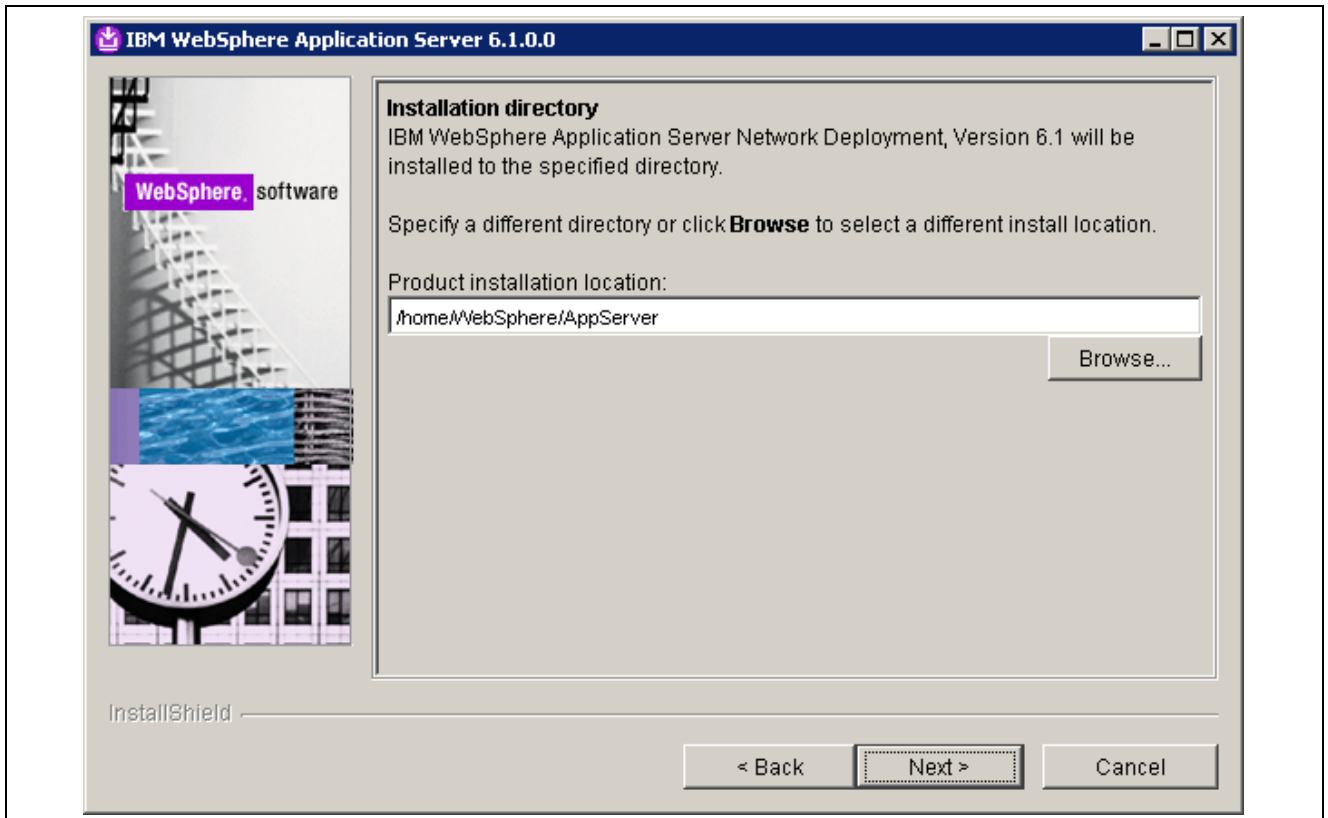
IBM WebSphere Application Server welcome window

2. Click Next.
3. Accept the license agreement and click Next.



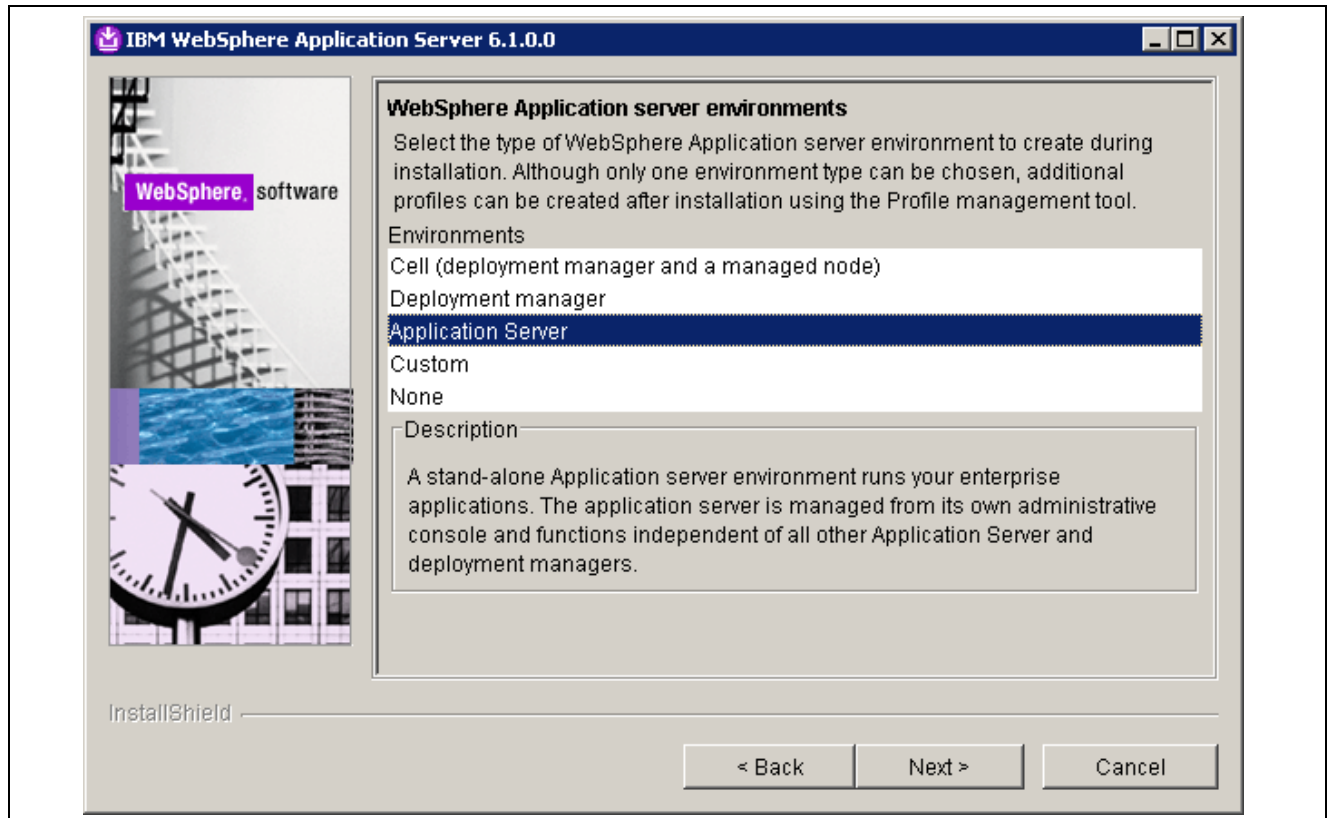
IBM WebSphere Application Server License Agreement window

4. Select an installation location, referred to as *WAS_HOME* in this documentation, and click Next.



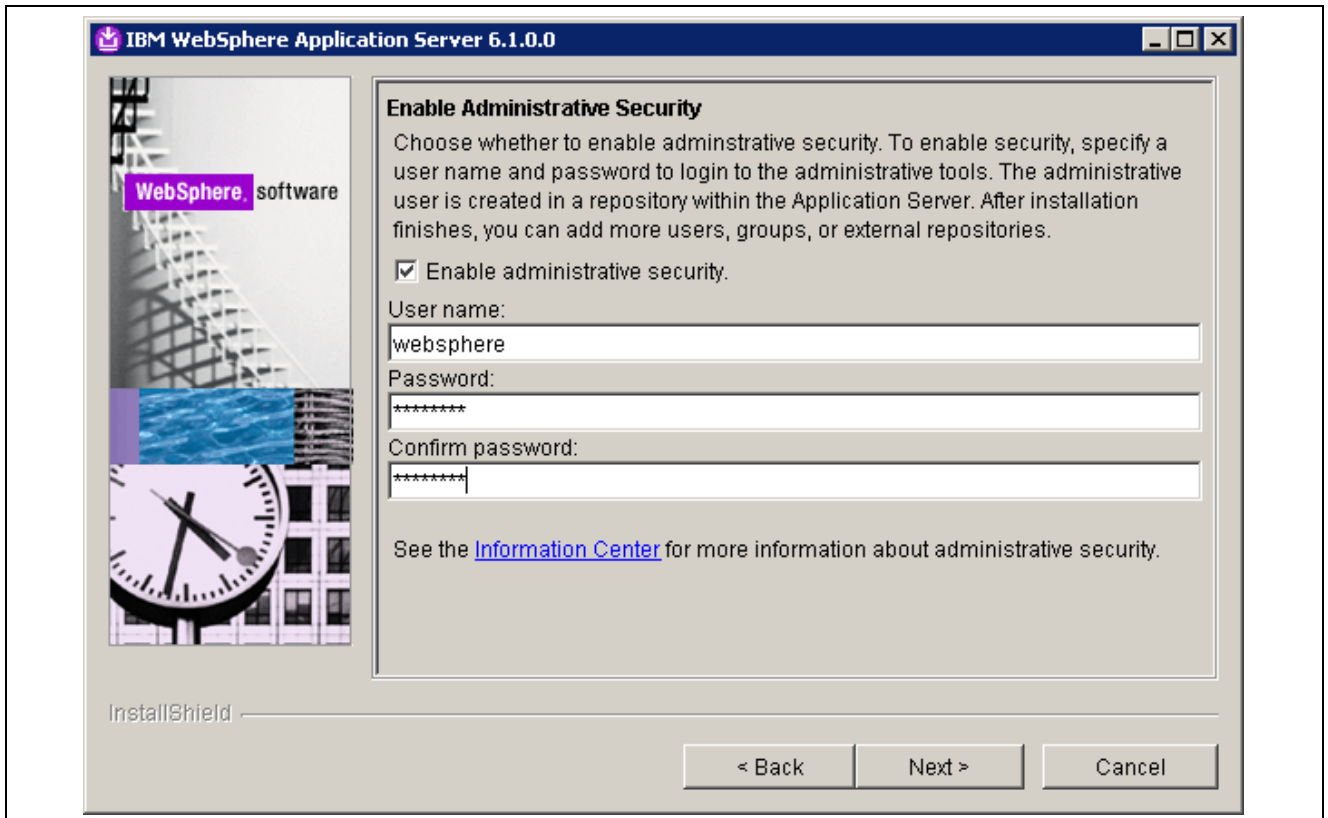
IBM WebSphere Application Server Installation directory window

5. On the WebSphere Application server environment window, select *Application Server* from the list of environments.



IBM WebSphere Application Server environments window

6. Accept the default profile and click Next.
7. Provide the Administrator user (websphere) and password (password).
Select the Enable Administrative Security option.



IBM WebSphere Enable Administrative Security window

8. Click Next to begin the installation.
9. To start the server after the installation is complete, enter the following command, where `<WAS_HOME>` is the installation location you specified above; `<profile_name>` is the default profile, AppSrv01; `<admin_userid>` is the WebSphere Administrator user name, and `<admin_password>` is the password for the WebSphere Administrator:

```
<WAS_HOME>/profiles/<profile_name>/bin/startServer.sh server1 -username <admin_userid> -password <admin_password>
```

For example:

```
/home/WebSphere/AppServer/profiles/AppSrv01/bin/startServer.sh server1 ->
username websphere -password password
```

Task 15-4-11: Installing SAP BusinessObjects Enterprise XI 3.1 on UNIX or Linux

To install SAP BusinessObjects Enterprise XI 3.1 on UNIX or Linux do the following:

Note. You can perform this installation from the server console or with X Windows terminal emulation software such as Cygwin. Telnet and ssh clients, such as Putty, will not allow you to install the software properly.

1. If you are running on HP-UX PA-RISC, you must edit three environment variables before beginning the installation.

Determine the directory where you will install SAP BusinessObjects Enterprise XI 3.1, referred to in this documentation as *BOE_HOME*, and add the following to the beginning of the *SHLIB_PATH*, *LIBPATH* and *LD_LIBRARY_PATH* environment variables:

BOE_HOME/bobje/enterprise120/hpux_pa-risc

2. Go to the *BOE_INSTALL* directory and run `./install.sh`.

Note. If the installation files have been extracted from a *.ZIP file, the files will not have execute permission set and you will get the error “Cannot execute [Permission denied]”. To avoid this, set the execute permission using the following command: `chmod -R 755 BOE_INSTALL`

3. Select a language in which to carry out the installation and press Enter.
4. Read the SAP BusinessObjects Enterprise License Agreement.
Type *Y* to agree to the terms and continue with the setup program.
5. At the Enter Product Keycode prompt, enter your 26-character Product Keycode.
6. At the Installation Directory prompt, enter your own path for the installation directory, or press Enter to accept the default one, which is your current directory.
7. At the Choose Language Pack prompt, select the languages that you want to install.
English is the default. Select any additional language packs that you want to install.
8. Choose User Install at the Install Option prompt.
9. At the Installation Type prompt, select New Installation.
Verify that the Enable Servers after Installation option is selected. Press Enter.
10. At the Enter the information for your new CMS prompt, type the CMS port number (default 6400).
11. Type the same password under Administrator Password and Confirm Password and press Enter.
12. Select Use an existing database and press Enter.
13. Choose the type of database (Oracle, DB2 or Sybase) from the list and press Enter.

Provide all the required information for the database. The table below summarizes all the information required for each database type:

Database Platform	Required Information
DB2 LUW	<ul style="list-style-type: none"> • Server: DB2 LUW database alias • User name for login • Password for login
Microsoft SQL Sever (ODBC)	ODBC DSN This is specified in the Microsoft Windows Data Sources (ODBC) dialog box. Select Start, Programs, Control Panel, Administrative Tools, Data Sources (ODBC).
MySQL	MySQL is not supported in the integration of PeopleSoft with Business.

Database Platform	Required Information
Oracle	<ul style="list-style-type: none"> • Server: tnsnames connect identifier • User name for login • Password for login
Sybase	<ul style="list-style-type: none"> • Server: Sybase Server Name <p>The Sybase server name is a combination of the host name and the port number which is set by your database administrator in the file sql.ini.</p> <ul style="list-style-type: none"> • User name for login <p>The user name should be a default user for the SAP BusinessObjects Enterprise XI 3.1 database.</p> <ul style="list-style-type: none"> • Password for login

14. At the prompt that asks for auditing database details, select the option Do not install auditing database.
15. At the Enter Server Intelligence Agent (SIA) information prompt, type a name in the Server Intelligence Agent Node field.

Do not use spaces or non-alphanumeric characters in a SIA node name.

16. Type a valid port number under Server Intelligence Agent Port (default 6410).
17. Select Use an existing Java application server, deploy web applications, and press Enter.
18. Select your web server, Oracle WebLogic or IBM WebSphere.
19. If you selected Oracle WebLogic, provide the following information:
 - *Admin port*
Enter the application port of the web application server.
 - *Admin login*
Enter the name for the user with administration rights to the web application server.
 - *Admin Password*
Enter the password for the administrator user account.
 - *Instance to install to*
Enter the name for the current web application server instance; the default is AdminServer.
 - *Application server Domain Root directory*
Enter the root directory for the web server domain.
20. If you selected IBM WebSphere, provide the following information:

- *SOAP port*
The SOAP Connector Port of the application server; for example, 8880.
- *Admin login*
The user name with administration rights to the WebSphere application server.
- *Admin password*
The password for the account with administration rights to the application server.

- *Instance to install to*

The name of the current web application server instance. The default is server1.

- *Application server Install directory*

The directory where the web application server is installed, for example, /opt/websphere/appserver.

21. Press Enter to begin the installation.

The installation program validates your system and installs SAP BusinessObjects Enterprise XI 3.1 in the specified directory. When the new installation is finished, the setup program starts the servers as daemons and then enables each server that is registered with the CMS.

If you are running on AIX, and your webserver is IBM WebSphere, you must complete an additional step. Use the option `deployall` as described in the section Deploying Manually with Wdeploy Tool to deploy all war files manually. After completing the manual deployment, continue with the installation.

See Administering and Using SAP BusinessObjects Enterprise XI 3.1, Deploying Manually with Wdeploy Tool.

If your web server software is Oracle WebLogic 10.3, see the section on deploying web applications manually later in this chapter.

See Administering and Using SAP BusinessObjects Enterprise XI 3.1, Deploying Manually on Oracle WebLogic 10.3.

Task 15-4-12: Installing BusinessObjects Integration Kit for PeopleSoft on UNIX or Linux

Before beginning this procedure, ensure that:

- The CMS is running.
- You know the credentials for the BusinessObjects Enterprise Administrator account. You will be prompted for the Administrator user name and password on the CMS machine.
- You have downloaded the installation files for the BusinessObjects Enterprise XI 3.1 Integration Kit for PeopleSoft from Oracle E-Delivery and extracted them into a convenient directory, referred to here as *BOE_INTEG_INSTALL*.

Carry out this procedure on the machine where SAP BusinessObjects Enterprise XI 3.1 is installed.

To install the integration kit:

1. Run *BOE_INTEG_INSTALL/install.sh*.
2. Select the language in which you want to perform the installation.

Note. Use the arrow keys on your keyboard to make your selection. Use the U and D keys to scroll up and down. Press ENTER to continue.

3. Read the license agreement and press *Y* to accept it.
4. Specify the directory where SAP BusinessObjects Enterprise XI 3.1 is installed, referred to in this documentation as *BOE_HOME*.

The integration files are installed in the peoplesoft sub-directory in the location that you specify.

For example, if *BOE_HOME* is /home/user/install/bobje, the integration files are saved in /home/user/install/bobje/peoplesoft.

5. Select the language packs you want to install.

Use the arrow keys and the space bar to choose the language packs you want, and then press ENTER.

6. Select *1 - PeopleTools 8.46-8.49 environment* and press ENTER.

Note. This option is correct for PeopleSoft PeopleTools 8.50 and higher as well as for PeopleTools 8.46-8.49.

7. Specify the following information for the Central Management Server and press ENTER.

- *System*

Enter the name of the computer on which you installed SAP BusinessObjects Enterprise XI 3.1.

- *Port*

Enter the CMS port number that you entered when installing SAP BusinessObjects Enterprise XI 3.1.

- *Password*

Enter the password for the CMS Administrator account that you entered when installing SAP BusinessObjects Enterprise XI 3.1.

8. At the prompt for autodeploy web applications, make the following selection depending upon your web server:

- If your web server is Oracle WebLogic, enter *1*, Automatically deploy the web application.

- If your web server is IBM WebSphere, enter *2*, Manually deploy the web application.

Skip the next step, which is for Oracle WebLogic. The instructions for manual deployment for IBM WebSphere are given in a later section.

See Administering and Using SAP BusinessObjects Enterprise XI 3.1, Deploying Manually Through IBM WebSphere Console.

9. If you installed on Oracle WebLogic, enter the same values for the web application server that you entered when you installed SAP BusinessObjects Enterprise XI 3.1:

- Admin port
- Admin login
- Admin password
- Instance to install to
- Application server Domain Root directory

10. Press ENTER to begin the installation.

If you are *running on AIX, and your webserver is IBM WebSphere*, you must complete an additional step to deploy the war files manually. After completing the manual deployment, continue with the installation.

Use the instructions in the section Deploying Manually with Wdeploy Tool to undeploy and deploy the war files in the following order:

1. undeploy InfoViewApp
2. deploy InfoViewApp
3. undeploy CmcApp
4. deploy CmcApp

5. undeploy OpenDocument
6. deploy OpenDocument
7. deploy PartnerPlatformService
8. deploy bobjpsenterprise

See Administering and Using SAP BusinessObjects Enterprise XI 3.1, Deploying Manually with Wdeploy Tool.

Task 15-4-13: Installing Fix Packs or Service Packs on UNIX or Linux

After completing the full installation of SAP BusinessObjects Enterprise XI 3.1 and the BusinessObjects Integration Kit for PeopleSoft, you must install the appropriate additional fix pack or service pack for each. Consult the certification information on My Oracle Support for the patch level required for your installation.

See "Operating System, RDBMS & Additional Component Patches Required for Installation PeopleTools 8.52," My Oracle Support, (search for article name).

Use these instructions to apply each fix pack:

1. Go to the local directory where you downloaded and extracted the fix pack.
2. Launch the installation by running the following command, where BOE_HOME is the directory where you installed SAP BusinessObjects Enterprise XI 3.1:


```
./install.sh BOE_HOME
```
3. Enter *y* in response to the License Agreement prompt.
4. Enter the values for the CMS port and password that you entered during the SAP BusinessObjects Enterprise XI 3.1 installation.
5. If your web server is Oracle WebLogic, select Yes, automatically re-deploy the web applications.
6. If your web server is IBM WebSphere, select No, I will manually deploy the web application.
7. If you created the web server on Oracle WebLogic, enter the same values that you entered during the SAP BusinessObjects Enterprise XI 3.1 installation for the following:
 - Admin port
 - Admin login
 - Admin password
 - Instance to install to
 - Application server Domain Root directory
8. If you created the web server on IBM WebSphere, enter the same web server information that you entered during the SAP BusinessObjects Enterprise XI 3.1 installation for the following:
 - SOAP port
 - Admin login
 - Admin password
 - Instance to install to
 - Application server install directory

9. Verify the installation directory, and press ENTER to start the installation.

If you are running on AIX, and your webserver is IBM WebSphere, you must complete an additional step to manually deploy the war files, using the instructions in the section Using Manual Deployment. After completing the manual deployment, continue with the installation.

- After installing fix packs (or service packs) for the SAP BusinessObjects Enterprise XI 3.1 base installation, undeploy all war files, then deploy all war files.
- After installing fix packs or service packs for the BusinessObjects Integration Kit for PeopleSoft, undeploy and deploy the war files in the following order:
 - a. undeploy InfoViewApp
 - b. deploy InfoViewApp
 - c. undeploy CmcApp
 - d. deploy CmcApp
 - e. undeploy OpenDocument
 - f. deploy OpenDocument
 - g. undeploy PartnerPlatformService
 - h. deploy PartnerPlatformService
 - i. undeploy bobjpsenterprise
 - j. deploy bobjpsenterprise

See Administering and Using SAP BusinessObjects Enterprise XI 3.1, Deploying Manually Using Wdeploy Tool.

If your web server is Oracle WebLogic, you may get an error message saying either BusinessProcessBI or dswsbobje failed to deploy. In this case, complete the following additional steps after installing the fix pack for the SAP BusinessObjects Enterprise XI 3.1 base installation:

1. Delete the following directories:
 - `<WLS_HOME>/user_projects/domains/<domain_name>/servers/AdminServer/stage/dswsbobje/dswsbobje`
 - `<WLS_HOME>/user_projects/domains/<domain_name>/servers/AdminServer/stage/BusinessProcessBI/BusinessProcessBI`
2. Restart the web server.
3. Manually deploy dswsbobje and BusinessProcessBI using the wdeploy tool.

See Administering and Using SAP BusinessObjects Enterprise XI 3.1, Deploying Manually Using Wdeploy Tool.

Task 15-4-14: Creating the BusinessObjects Enterprise Archive and Installing Files on UNIX or Linux

In this section you consolidate the files that are needed for the PeopleSoft to BusinessObjects Enterprise integration in an archive. Also, this procedure installs International Components for Unicode (ICU) files that are required for the PSToWords functionality that is used with Crystal reports.

See *PeopleTools 8.52: Crystal Reports for PeopleSoft PeopleBook*, "Working with Multiple Languages."

1. Go to *PS_HOME/setup/PsMpCrystalInstall/Disk1* and run *setup.sh*.
2. In the Choose Install Set menu, select option *1*, Create Archive and Install ICU, TFF.
3. At the welcome prompt press ENTER to continue.
4. Enter the location where SAP BusinessObjects Enterprise XI 3.1 is installed, and then enter *1* to continue.
5. If you see the following prompt, specify *1* for *Yes to All*.

You see this prompt if certain files exist in the installation location.

```
1- Yes to All
2- Yes
3- No
4- No to All
```

```
A newer file named "libu25pstowords.so" already exists at
"/home/user/install/bobje/enterprise120".
```

```
Do you want to overwrite the existing file?: 1
```

6. Press ENTER at the pre-installation summary.
7. Press ENTER at the Ready to Install prompt.
8. When the installation is complete, press ENTER to exit the installer.
The archive is created in *PS_HOME/PsMpCrystalInstall/Disk1/InstData/boearchive.zip*.
9. Restart all BusinessObjects Enterprise servers.

Task 15-4-15: Extracting the Archive on UNIX or Linux

After you create the *boearchive.zip* as described in the previous section, you must extract it to the following locations:

- *PS_HOME* on the Process Scheduler server
- *PIA_HOME* on the machine used for viewing reports

To extract the archive:

1. Copy *boearchive.zip* to *PsMpCrystalInstall/Disk1/InstData* under *PS_HOME* or *PIA_HOME*.
2. Go to *PS_HOME/PsMpCrystalInstall/Disk1* or *PIA_HOME/PsMpCrystalInstall/Disk1* and run *setup.sh*.
3. Select option 2, Extract BOE Archive.
4. Select the types of installation you require by entering the corresponding numbers. Enter *0* to continue when you have finished.

The options you choose depend upon your setup. You can select both options, Process Scheduler and PeopleSoft webserver, if you have the Process Scheduler and web server set up on the same system. If not, select only the option that you need and continue.

5. If you selected the Process Scheduler installation type, enter the location of *PS_HOME*, and then press ENTER.
6. If you selected the PeopleSoft webserver installation type, enter the location of *PIA_HOME*, and then press ENTER.

Note. Keep in mind that *PIA_HOME* can be the same as or different from *PS_HOME*. Enter the correct path for your installation environment.

See “Preparing for Installation,” Defining Installation Locations.

7. Select the option for the web server software installed on your system, Oracle WebLogic or IBM WebSphere, and then press ENTER.
8. Specify the domain name (for Oracle WebLogic) or application name (for IBM WebSphere) and then press ENTER.

The default is peoplesoft for both web servers.

9. Review the pre-installation summary and press ENTER to start the installation.
10. Press ENTER to exit the installer.
11. If you installed on a web server, restart the web server.

Task 15-4-16: Installing TrueType Fonts in UNIX or Linux

To install a custom TrueType supported font in SAP BusinessObjects Enterprise XI 3.1 on supported UNIX and Linux platforms, copy the font from the *PS_HOME*/FONTS/Truetype directory to the following directory:

`<BOE_HOME>/bobje/enterprise120/<platform>/crpe/fonts`

Depending on the operating system, substitute `<platform>` with the appropriate value from the following list:

- `solaris_sparc` (Solaris)
- `aix_rs6000` (AIX)
- `hpux_pa-risc` (HP-UNIX)
- `linux_x86` (Linux)

Keep the following points in mind while working with special fonts in UNIX or Linux:

- The Japanese version of SAP BusinessObjects Enterprise XI 3.1 for UNIX does not support True Type Collection (TTC) fonts. However, you can split your TTC fonts into two or three TTF fonts using a font conversion tool (such as FontLab). Alternatively, your font vendor may be able to provide TTF versions of your required fonts.
- To refer to a font name in its native language, the 'mainwin' locale must be set to that language. For example, to refer to a Japanese font by its Japanese name, the locale must be set to Japanese.
- Too many installed fonts may cause slow performance. To improve performance, delete unused fonts from your `/crpe/fonts` directory.
- If a font or font size contained in a report cannot be found on the system where the report processing is occurring (that is, the server with Crpe32.dll installed), the processing engine will attempt to approximate the font in the generated output.

For more information on the use of supported fonts in Crystal Reports and PeopleSoft software, search the BusinessObjects documentation.

Task 15-4-17: Confirming Access to the SAP BusinessObjects Enterprise XI 3.1 Administration and Central Management Console

After you have completed the installations, you should confirm that you can access the Business Objects Central Management console. Use this procedure for both the Windows and UNIX/Linux installations.

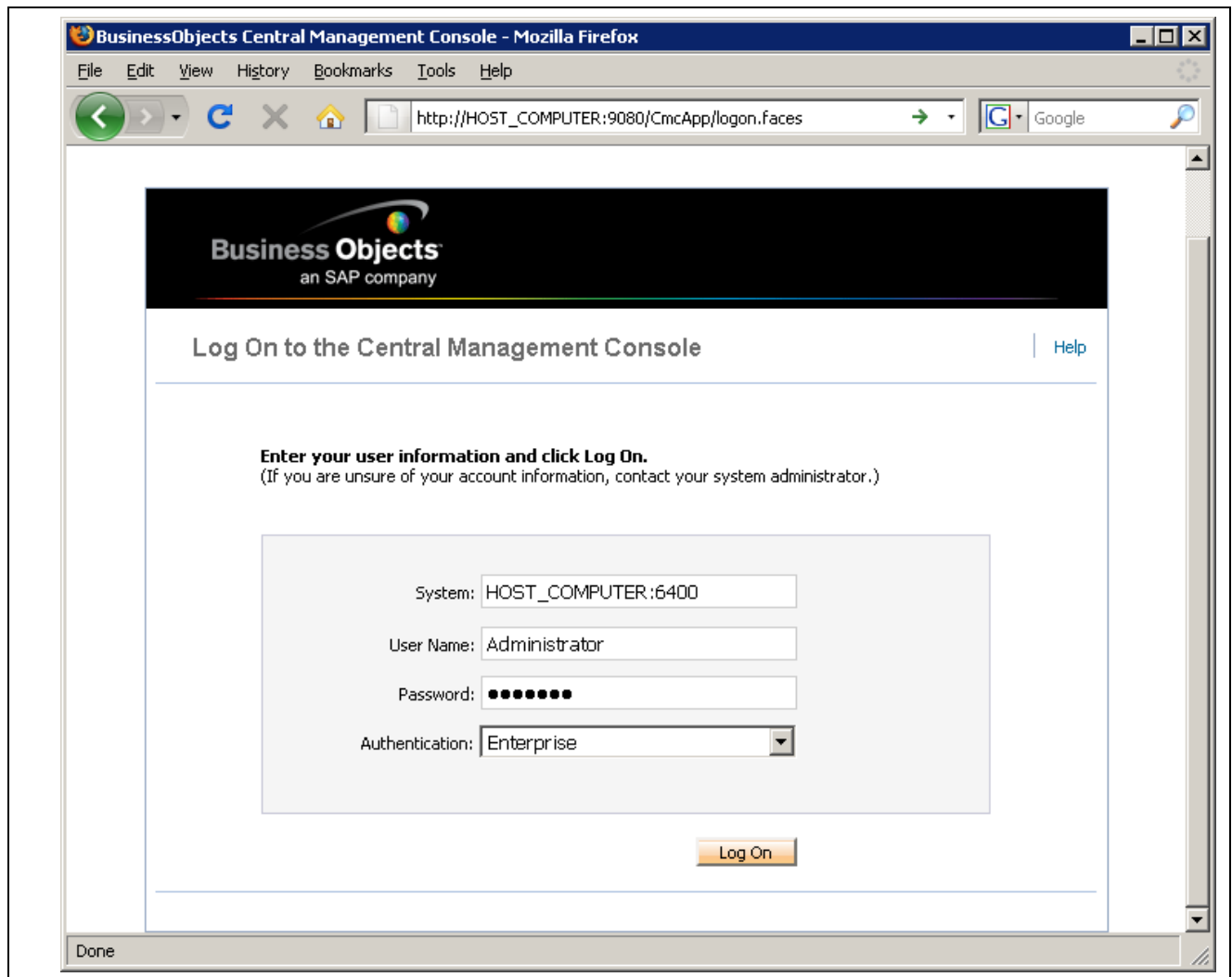
Before beginning this task, start the web server software under which you installed SAP BusinessObjects Enterprise XI 3.1.

1. In a new browser window, enter the following URL for the Central Management Console (where *<machine_name>* is the computer name and *<port>* is the web server port).

`http://<machine_name>:<port>/CmcApp`

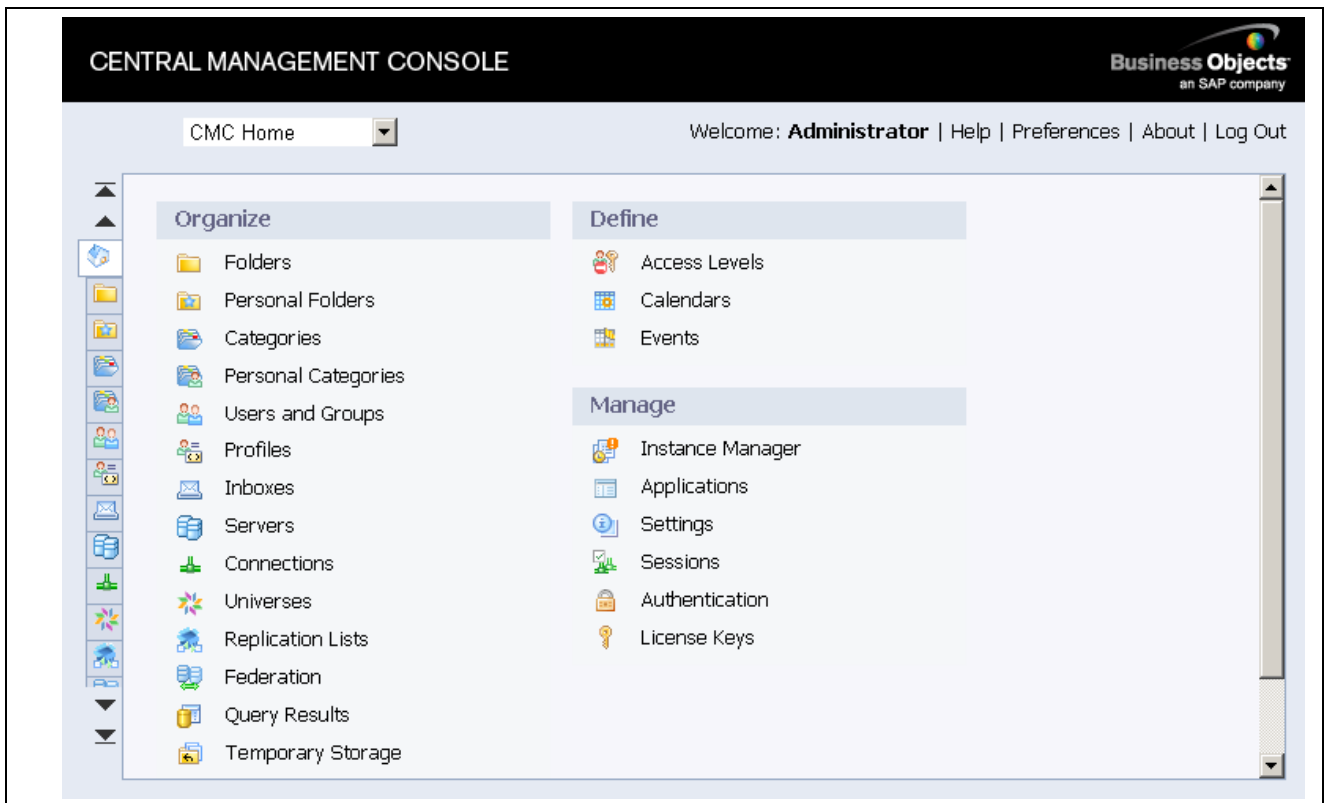
For Oracle WebLogic, the default port is 7001.

For IBM WebSphere, this is the HTTP port, not the SOAP port; the default is 9080. You can view this value in the file *WAS_HOME*\profiles\AppSrv01\logs\AboutThisProfile.txt. The following example shows the default port for IBM WebSphere.



Central Management Console Logon window

2. Enter the following information to confirm that you can log in:



Central Management Console home page

- System — Enter *machine_name:6400*, the name of the system where you installed SAP BusinessObjects Enterprise XI 3.1, followed by a colon and the CMS port, 6400.
- Username — Enter Administrator.
- Password — Enter the password for the CMS Administrator account that you entered during the SAP BusinessObjects Enterprise XI 3.1 installation.

Note. Remember that before you can use SAP BusinessObjects Enterprise XI 3.1, you must complete additional installation and configuration procedures

Task 15-4-18: Configuring the PeopleSoft Application for BusinessObjects Enterprise XI 3.1 Integration

This section discusses:

- Preparing the PeopleSoft Application to Integrate with SAP BusinessObjects Enterprise XI 3.1
- Configuring the PeopleSoft Application Server
- Configuring the PeopleSoft Pure Internet Architecture
- Identifying the Local Default Node in Your System
- Running the Data Mover Script and Database Project
- Adding PeopleSoft Users and Roles
- Verifying Process Scheduler Server Definition

- Updating the PeopleSoft Integration Broker Gateway

Preparing the PeopleSoft Application to Integrate with SAP BusinessObjects Enterprise XI 3.1

In the PeopleSoft applications that you wish to integrate with SAP BusinessObjects Enterprise XI 3.1, you will have to configure settings in the following areas:

- PeopleSoft Application Server
- PeopleSoft Web Server
- PeopleSoft Integration Broker
- Query Access Services (QAS)

If the computer hosting the Process Scheduler is different from the computer where SAP BusinessObjects Enterprise XI 3.1 is installed, ensure that the machine name of the Process Scheduler computer can be pinged from the SAP BusinessObjects Enterprise XI 3.1 server box and vice versa. If not, add the full machine name and the IP address of the Process Scheduler computer to the host file of the computer where SAP BusinessObjects Enterprise XI 3.1 is installed.

Note. Carry out the steps in this section for each PeopleSoft application domain that you want to integrate with the SAP BusinessObjects Enterprise XI 3.1 server.

Configuring the PeopleSoft Application Server

To configure the application server:

1. Make sure that your PeopleSoft application server is down.
2. Access the PSADMIN Quick-Configure menu by launching `psadmin.exe` from the `PS_HOME\appserv` directory.

Select the domain to configure.

See "Configuring the Application Server on Windows."

3. Confirm that Pub/Sub Servers (Feature 1) and Jolt (Feature 4) are turned on (set to Yes).

Note. To change a feature from Yes to No, type the feature number and press ENTER.

```
-----
Quick-configure menu -- domain: HRDB
-----
```

Features		Settings	
=====		=====	
1) Pub/Sub Servers	: Yes	15) DBNAME	: [HRDB]
2) Quick Server	: No	16) DBTYPE	: [ORACLE]
3) Query Servers	: No	17) UserId	: [HRDMO]
4) Jolt	: Yes	18) UserPswd	: [HRDMO]
5) Jolt Relay	: No	19) DomainId	: [TESTSERV]
6) WSL	: No	20) AddToPATH	: [c:\oracle\product\11.1.0\db_1⇒ \BIN]
7) PC Debugger	: No	21) ConnectID	: [people]
8) Event Notification	: No	22) ConnectPswd	: [people]
9) MCF Servers	: No	23) ServerName	: []

```

10) Perf Collator      : No      24) WSL Port       : [7000]
11) Analytic Servers   : No      25) JSL Port        : [9000]
12) Domains Gateway    : No      26) JRAD Port       : [9100]

```

```

    Actions
    =====

```

```

13) Load config as shown
14) Custom configuration
    h) Help for this menu
    q) Return to previous menu

```

Enter selection (1-26, h, or q):

4. Open psappsrv.cfg, the PeopleSoft Application Server configuration file, from the `<PS_CFG_HOME>\appserv\<domain>` directory.
5. Change the MIN Instances and MAX Instances for the Application Server to be greater than 1.
These settings allow multiple instances of the application server to execute. Suggested settings are 2 and 25 for MIN and MAX, respectively. Of course, the MAX setting should be no less than the MIN setting.

```

[PSAPPSRV]
;=====
; Settings for PSAPPSRV
;=====

;-----
; UBBGEN settings
Min Instances=2
Max Instances=25

```

6. Save and exit.
7. Re-start the application server.

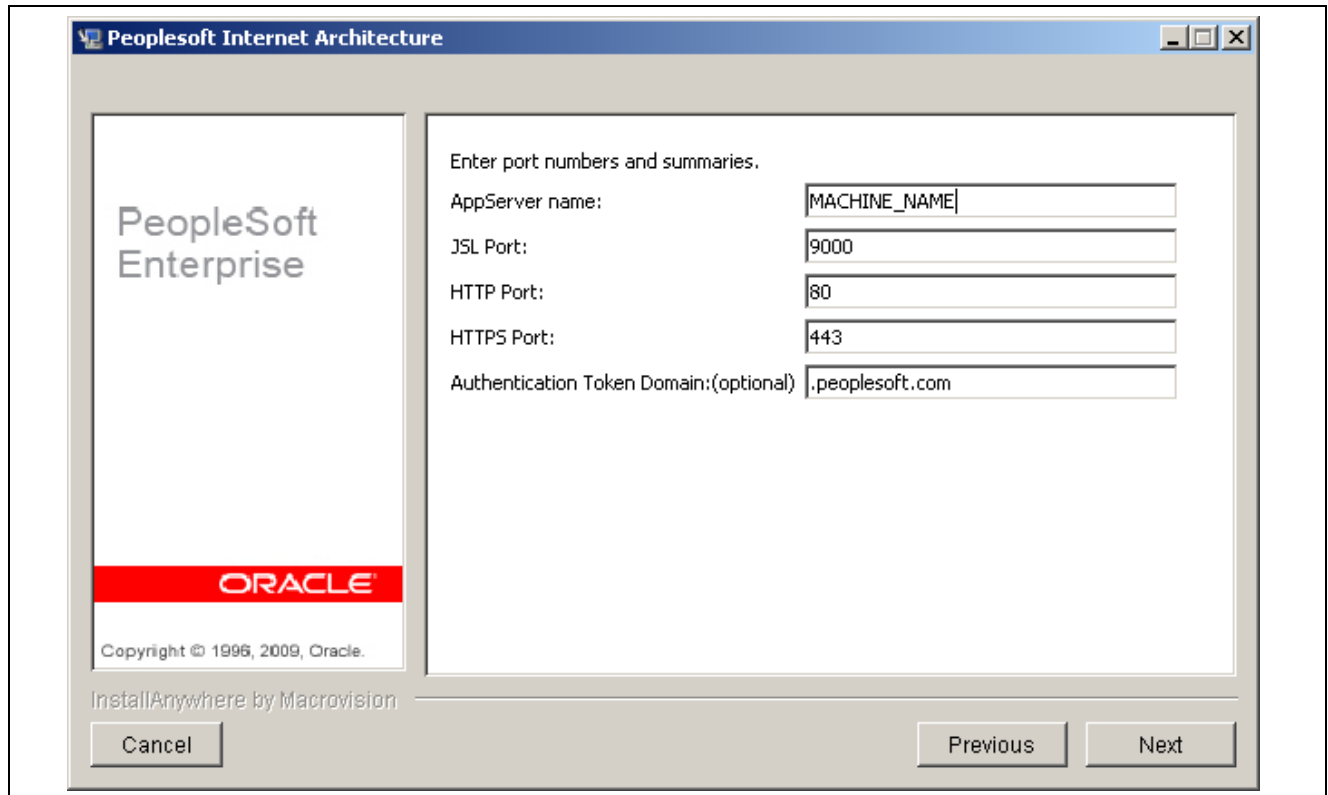
Configuring the PeopleSoft Pure Internet Architecture

To ensure that single sign-on works properly in the integration between the PeopleSoft installation and SAP BusinessObjects Enterprise XI 3.1, you must configure the Authentication Token Domain in the PeopleSoft Pure Internet Architecture and set the PeopleSoft Integration Gateway properties.

1. Run `PS_HOME\setup\PsmPPIAInstall\setup.bat`.
2. Enter a value for the Authentication Token Domain.

In the following example, the authentication token domain is `.peoplesoft.com`.

See "Setting Up the PeopleSoft Pure Internet Architecture in GUI Mode," Using Authentication Domains in the PeopleSoft Pure Internet Architecture Installation.



Specifying the Authentication Domain

Identifying the Local Default Node in Your System

After you identify the Local default node, use it in the next procedure.

1. Select PeopleTools, Integration Broker, Integration Setup, Nodes.
2. Click the Search button to display a list of all nodes defined in the system.

There should be one (and only one) node designated as the Default Local Node. You can sort on the Default Local Node column header to quickly find the proper node. Look for the node that has a “Y” in the Default Local Node column in the search results. In the following example, the local default node name is QE_LOCAL.

ORACLE

Home | Worklist | MultiChannel Console

Favorites | Main Menu > PeopleTools > Integration Broker > Integration Setup > Nodes

Nodes

Enter any information you have and click Search. Leave fields blank for a list of all values.

Classic Search Add a New Value

Search Criteria

Search by: Node Type begins with

☐ Include History ☒ Correct History

Search Advanced Search

Search Results

View All First 1-71 of 71 Last

Node Type	Node Name	Description	Local Node	Default	Local Node
PIA	ERP	Portal Node - ERP	1	N	
PIA	QE_LOCAL	QE_LOCAL	1	Y	
External	AIA	Internal Use. Do not modify.	0	N	
PIA	ATOM	Internal Use. Do not modify.	0	N	
External	ANONYMOUS	Used internally by IB system.	0	N	
PIA	ENTP	Portal Node - ENTP	0	N	
PIA	ACVNIC_MDM	ACVNIC Node from MDMs	0	N	

Node search results

- Copy the node name to a text editor, as you will use it in a later step.

See Adding the Local Default Node as a Message Node to your Gateway.

Running the Data Mover Script and Database Project

In order to use SAP BusinessObjects Enterprise XI 3.1 to run reports with the PeopleSoft application, you need to run a Data Mover script and use the Copy Project from File functionality with the project CRTOBOE.

This will add pertinent roles and change the Crystal process types to use the SAP BusinessObjects Enterprise XI 3.1 executable.

- Launch Data Mover and run the Data Mover script *PS_HOME\scripts\CRTOBOE.dms*.
- Launch Application Designer and sign on to your database.
- Select Tools, Copy Project, From File.
- In the resulting dialog box, change the import directory to *PS_HOME\projects*, select CRTOBOE from the list of projects, and click Select.

Adding PeopleSoft Users and Roles

SAP BusinessObjects Enterprise XI 3.1 requires two users, BOE_Admin and BOE_Viewing.

To add users BOE_Admin and BOE_Viewing:

- Log in to the PeopleSoft application.
- Select PeopleTools, Security, User Profiles, User Profiles.

3. Select Classic Search and search for *BOE_Admin*.

ORACLE® Home | Worklist

Favorites Main Menu > PeopleTools > Security > User Profiles > User Profiles

User Profiles

Enter any information you have and click Search. Leave fields blank for a list of all values.

Classic Search Add a New Value

Search Criteria

Search by: User ID begins with BOE

Search Advanced Search

Search Results

View All First 1-2 of 2 Last

User ID	Description
BOE_Admin	BOE administrative user
BOE_Viewing	BOE viewing user

Classic Search Add a New Value

User Profiles search results showing BOE_Admin

4. If the BOE_Admin user does not exist, select Add a New Value and create it.

5. On the User ID page for BOE_Admin, on the General page, specify PTPT2200 for the Process Profile.

New Window Personalize Page http

General ID Roles Workflow Audit Links User ID Queries

User ID: BOE_Admin

Description: BOE administrative user

Account Locked Out?

Logon Information

Symbolic ID: SYSADM1

Password: Password Expired?

Confirm Password:

User ID Alias:

Edit Email Addresses Instant Messaging Information

General Attributes

Language Code: English

Currency Code:

Default Mobile Page:

Enable Expert Entry

Permission Lists

Navigator Homepage: ALLPAGES Primary: ALLPAGES

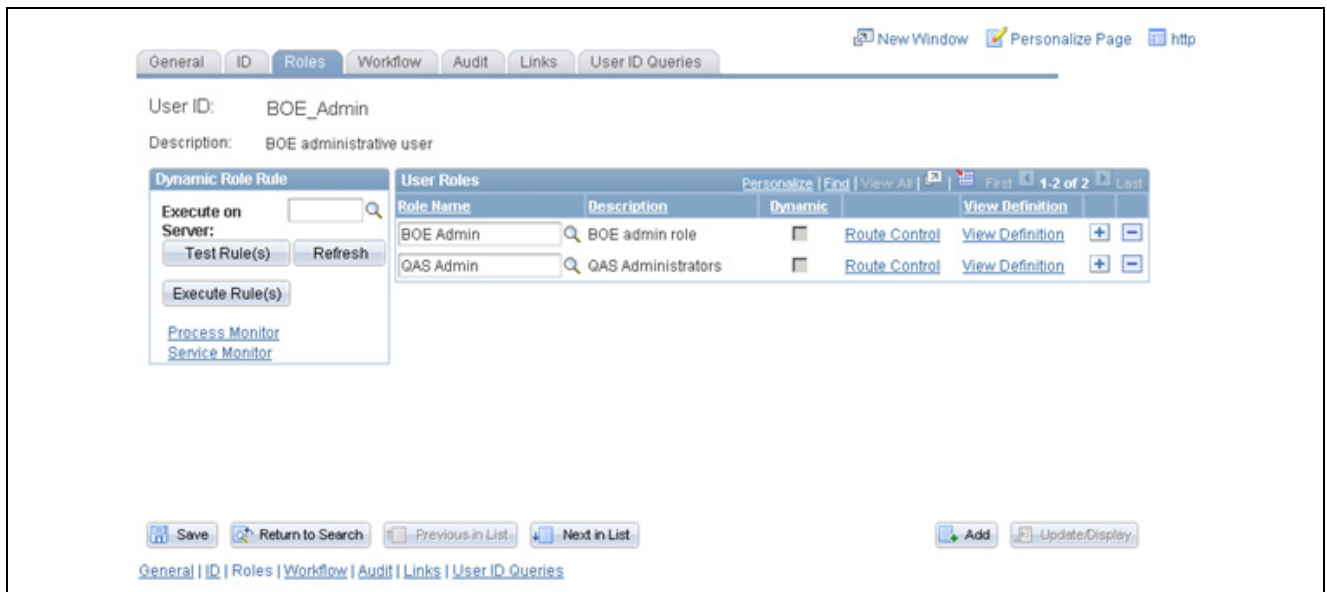
Process Profile: PTPT2200 Row Security: ALLPAGES

Save Return to Search Previous in List Next in List Add Update/Display

General | ID | Roles | Workflow | Audit | Links | User ID Queries

BOE_Admin User ID General page

6. Select the Roles tab.



BOE_Admin User ID Roles page

Verify that the following roles are present, or add them if necessary:

- BOE Admin
- QAS Admin

7. If you made any changes, click Save.
8. Repeat step 2, and search for *BOE_Viewing*.
9. If the user does not exist, select Add a New Value and create the BOE_Viewing user.
10. On the User ID: BOE_Viewing page, select the Roles tab.
11. Verify that the BOE Viewing role is present, or add it if it is not present.
12. If you made any changes, click Save.

Any PeopleSoft user ID that will run Crystal Reports through SAP BusinessObjects Enterprise XI 3.1 must have the QAS Admin role associated with it.

To add the “QAS Admin” role to a user:

1. Log in to the PeopleSoft application in a browser.
2. Select PeopleTools, Security, User Profiles, User Profiles.
3. Select Classic Search and search for the PeopleSoft user you want to configure, for example PTDMO.
4. Select the Roles tab.
5. Add the QAS Admin role, and click Save.

To configure the user credentials:

1. Select PeopleTools, Utilities, Administration, BOE Administration.

The following examples show three portions of the BOE Integration Administration page.

BOE Integration Administration page: BusinessObjects Enterprise portion

BOE Integration Administration page: BusinessObjects Web Server portion

BOE Integration Administration page: BusinessObjects Database portion

2. Enter the following values:

- Enable BOE

Select the Enable BOE check box. This option is required to convert or publish reports, and to run reports through Process Scheduler. Note that *clearing* the option is not sufficient to change your environment from running with BusinessObjects Enterprise to running with Crystal Reports. That conversion is discussed in a later section.

See Converting Crystal Reports.

- Administrative User: Enter BOE_Admin
- Password: Enter the password associated with BOE_Admin.
- Viewing User: Enter BOE_Viewing.

- **Viewing User Password:** Enter the password associated with the user BOE_Viewing. The default password is the same as the user name; that is, BOE_Viewing for the BOE_Viewing user.
- **BOE Web Server URL**
Enter `http://<machine_name>:<port>`
- **CMS Machine Name:** Enter the name of the computer where you installed SAP BusinessObjects Enterprise XI 3.1, and the port for the CMS. The default port is 6400.
- **BOE Domain Name (Optional):** Enter a name to identify the BOE domain.
Make a note of this domain name. You will use it on the CMC authentication page in a later step.

Verifying Process Scheduler Server Definition

You need to verify that the Process Scheduler servers that you plan to use to run Crystal Reports are configured to run those processes.

To verify the Process Scheduler server definition:

1. Log into your PeopleSoft application in a browser.
2. Select PeopleTools, Process Scheduler, Servers.
3. Choose each server on which you plan to schedule Crystal Reports. The example below shows the Server Definition page for the PSNT server.

ORACLE

Home | Worklist | MultiChannel Console | Add to Favorites | Sign out

New Window | Customize Page | http

Server Definition | Distribution | Operation | Notification | Daemon

Server Name: PSNT

Description: NT Server Agent

***Sleep Time:** 15 Seconds **CPU Utilization Threshold:** %

***Heartbeat:** 60 Seconds **Memory Utilization Threshold:** %

Max API Aware: 5 Concurrent Tasks **Server Load Balancing Option:** Use for Load Balancing

***Operating System:** Windows **Redistribute Workload Option:** Redistribute to any O/S

Note: To disable a process category on this server, set the max. concurrent to 0.

Process Category	Priority	Max Concurrent
Default	Medium	5
LOADCACHE	Medium	0
QEHIGH	Medium	5
QELow	Medium	5
QEMEDIUM	Medium	5
QEZEROMAX	Medium	5

Server Definition page for PSNT: Part 1

ORACLE

Home | Worklist | MultiChannel Console | Add to Favorites | Sign out

QEZEROMAX Medium 5

Process Types run on this Server

Process Type	Priority	Max Concurrent		
Application Engine	Medium	3	+	-
COBOL SQL	Medium	3	+	-
Crw Online	Medium	3	+	-
Crystal	Medium	3	+	-
Cube Builder	Medium	3	+	-
Data Mover	Medium	3	+	-
Essbase Cube Builder	Medium	3	+	-
Optimization Engine	Medium	2	+	-
SQR Process	Medium	3	+	-
SQR Report	Medium	3	+	-
SQR Report For WF Delivery	Medium	3	+	-
Winword	Medium	3	+	-
XML Publisher	Medium	3	+	-
nVision-Report	Medium	3	+	-
nVision-ReportBook	Medium	3	+	-

Save Return to Search Notify Add Update/Display

Server Definition page for PSNT: Part 2

For each server, verify that Crystal is one of the Process Types in the grid Process Types run on this Server.

4. If the Crystal Process Type does not exist, add it and save the page.

Updating the PeopleSoft Integration Broker Gateway

You must update the PeopleSoft Integration Broker Gateway to recognize your PeopleSoft application server.

To configure the Integration Broker Gateway:

1. Log in to your PeopleSoft application.
2. Select PeopleTools, Integration Broker, Configuration, Gateways.
3. In the Gateway URL field, enter the following value, where <machine_name> is the machine where the Integration Broker is installed, and <port> is the port number where the PeopleSoft web server is listening.

That is, the machine where PeopleSoft PeopleTools is installed, and the port number for the web server listener; in the following example, PTOOLS-HOST100 and 7041, respectively.

`http://<machine_name>:<port>/PSIGW/PeopleSoftListeningConnector`

Gateways

Gateway ID: LOCAL [Inbound Gateways](#)

☒ Local Gateway ☐ Load Balancer

URL: [Ping Gateway](#)

[Gateway Setup Properties](#)

[Load Gateway Connectors](#)

Connectors				Personalize	Find	First	1-9 of 9	Last
	Connector ID	Description	Connector Class Name	Properties	+	-		
1	AS2TARGET		AS2TargetConnector	Properties	+	-		
2	FILEOUTPUT		SimpleFileTargetConnector	Properties	+	-		
3	FTPTARGET		FTPTargetConnector	Properties	+	-		
4	GETMAILTARGET		GetMailTargetConnector	Properties	+	-		
5	HTTPTARGET		HttpTargetConnector	Properties	+	-		
6	JMSTARGET		JMSTargetConnector	Properties	+	-		
7	PSFT81TARGET		ApplicationMessagingTargetConnector	Properties	+	-		
8	PSFTTARGET		PeopleSoftTargetConnector	Properties	+	-		
9	SMTPTARGET		SMTPTargetConnector	Properties	+	-		

[Save](#) [Return to Search](#)

Gateways page for Gateway ID Local

4. Select PeopleTools, Integration Broker, Service Operations Monitor, Administration, Domain Status.

Activate the domain by changing the status in the Domains list to Active. Select Domain Status. Select Domain Status. On the page that appears, select Purge Domains, and then click Save.

Domain Status

Domain Criteria

Grace Period for all Domains (Minutes)

[Purge Domain Status](#) ☐ All Domains Active ☐ All Domains Inactive **Failover Disabled**

[Refresh](#) [Update](#) [Set Up Failover](#) [Master/Slave Load Balance](#) [Slave Templates](#)

Domains							Personalize	Find	View All	First	1 of 1	Last
Failover Group	Failover Priority	Machine Name	Application Server Path	Domain Status	Grace Period	Slave Indicator						
		RTDC78017TLSDB	D:\PT8.52-801-R1\lappser\F8528012	Active								View Domain Queue Sets

Dispatcher Status				Personalize	Find	First	1-3 of 3	Last
Machine Name	Dispatcher Name	Application Server Path	Status String	Date/Time Stamp				
PTOOLS-HOST100	PSBRKDSP_dftt	D:\PT8.52-801-R1\lappser\F8528012	ACT					
PTOOLS-HOST100	PSPUBDSP_dftt	D:\PT8.52-801-R1\lappser\F8528012	ACT					
PTOOLS-HOST100	PSSUBDSP_dftt	D:\PT8.52-801-R1\lappser\F8528012	ACT					

Domain Status page

5. Select PeopleTools, Integration Broker, Configuration, Service Configuration.
Select Setup Target Locations.

Target Locations

Web Services Target Locations

***Target Location:**

Example: http://<machine>:<port>/PSIGW/PeopleSoftServiceListeningConnector

Alternate Example: http://<machine>:<port>/PSIGW/PeopleSoftServiceListeningConnector/<defaultlocalnode>

Secure Target Location:

Example: https://<machine>:<port>/PSIGW/PeopleSoftServiceListeningConnector

Alternate Example: https://<machine>:<port>/PSIGW/PeopleSoftServiceListeningConnector/<defaultlocalnode>

REST Services Target Locations

Target Location:

Example: http://<machine>:<port>/PSIGW/RESTListeningConnector

Alternate Example: http://<machine>:<port>/PSIGW/RESTListeningConnector/<defaultlocalnode>

Secure Target Location:

Example: https://<machine>:<port>/PSIGW/RESTListeningConnector

Alternate Example: https://<machine>:<port>/PSIGW/RESTListeningConnector/<defaultlocalnode>

Target Locations page

6. Fill in the Target Location and Secure Target Location fields.

The SAP BusinessObjects Enterprise XI 3.1 configuration requires an HTTPS address on this page.

- Target Location

Enter the machine name where PeopleSoft PeopleTools is installed, and the HTTP port number for the web server (the example uses ptools-host100 and 7041, respectively):

http://<machine_name>:<http_port>/PSIGW/PeopleSoftServiceListeningConnector

- Secure Target Location

The URL must be a valid HTTPS PeopleSoftServiceListeningConnector. Enter the machine name where PeopleSoft PeopleTools is installed, and the HTTPS port number for the web server (the example uses ptools-host100 and 7042, respectively):

https://<machine_name>:<https_port>/PSIGW/PeopleSoftServiceListeningConnector

7. Select PeopleTools, Integration Broker, Configuration, Gateways.

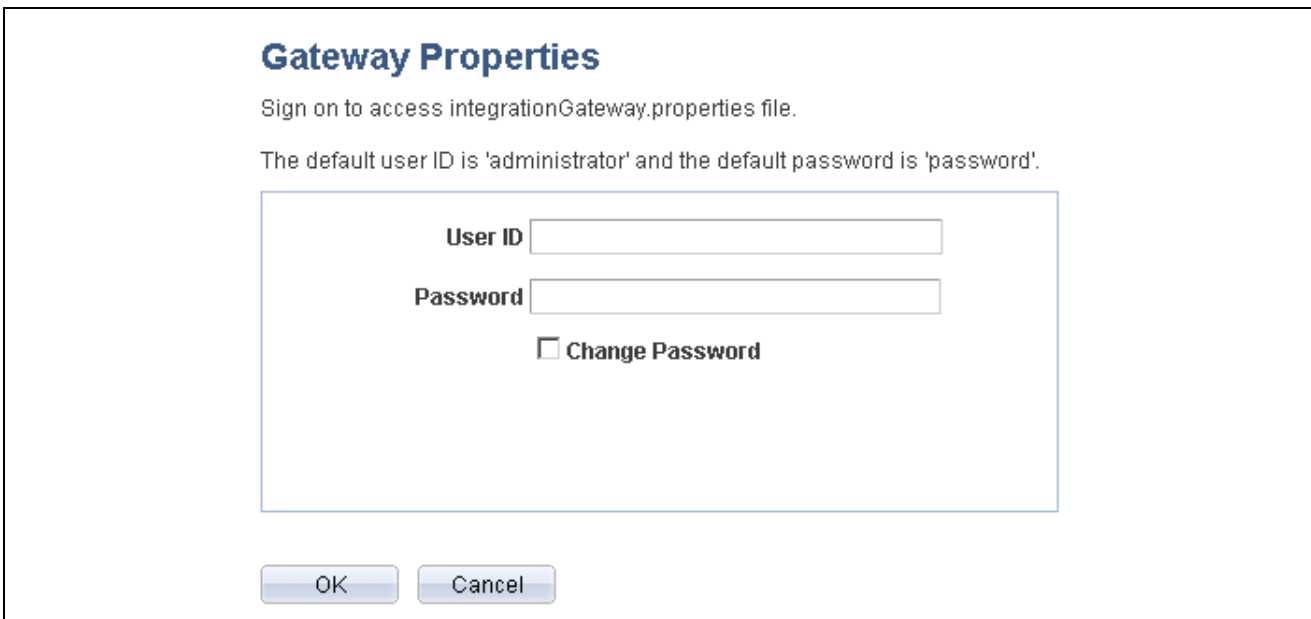
Click Search on the page that appears.

8. On the Gateways page, select the link Gateway Setup Properties.

The Gateways Properties page appears.

9. Enter the Integration Gateway administrator user ID and password.

The default values are administrator and password.



Gateway Properties

Sign on to access integrationGateway.properties file.

The default user ID is 'administrator' and the default password is 'password'.

User ID

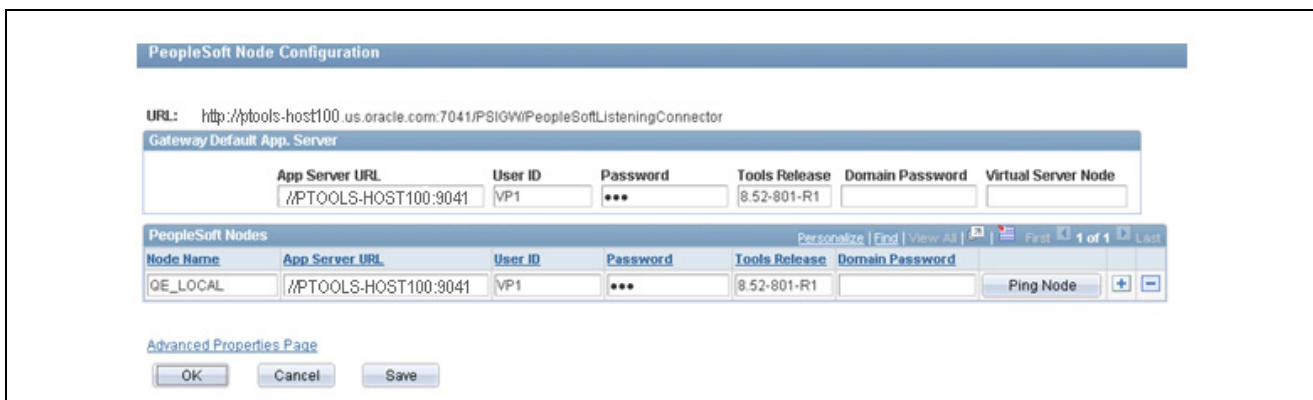
Password

☐ Change Password

OK Cancel

Gateway Properties Sign on window

10. Add a new node in the PeopleSoft Node Configuration page and save.



PeopleSoft Node Configuration

URL: <http://ptools-host100.us.oracle.com:7041/PSIGW/PeopleSoftListeningConnector>

Gateway Default App. Server

App Server URL	User ID	Password	Tools Release	Domain Password	Virtual Server Node
/PTOOLS-HOST100:9041	VP1	***	8.52-801-R1		

PeopleSoft Nodes

Node Name	App Server URL	User ID	Password	Tools Release	Domain Password	
QE_LOCAL	/PTOOLS-HOST100:9041	VP1	***	8.52-801-R1		Ping Node

Advanced Properties Page

OK Cancel Save

PeopleSoft Node Configuration page

Enter the following values:

- Node Name: Enter the name of the active default node.

This example uses QE_LOCAL as the default node.

See Identifying the Local Default Node in Your System.

- App Server URL: Enter the URL of the web server that is connected (through Jolt) to your PeopleSoft database's application server.
- User ID: Enter user *BOE_Admin* and its password.
- Password: Enter the password for user *BOE_Admin*; the default password is *BOE_Admin*.
- Tools Release: Provide the exact PeopleSoft PeopleTools release that your application server is using; for example, 8.52-19.

11. Click Save.

12. Click Ping Node to be sure the node is accessible, and then exit.

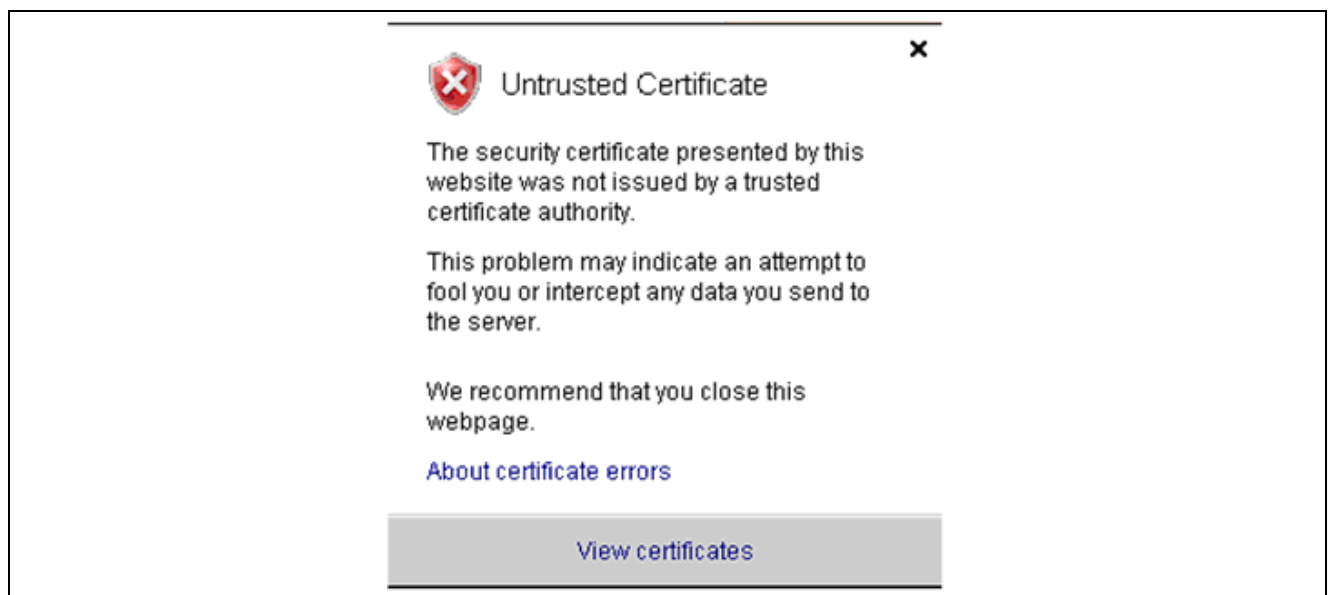
Task 15-4-19: Importing the Security Certificate to the Oracle WebLogic Server

This section describes how to export the security certificate for PeopleSoft PeopleTools and import it into SAP BusinessObjects Enterprise XI 3.1. Before carrying out this step you should have configured Secure Socket Layers (SSL) for the PeopleSoft web server.

See *PeopleTools 8.52: System and Server Administration PeopleBook*, "Working with Oracle WebLogic."

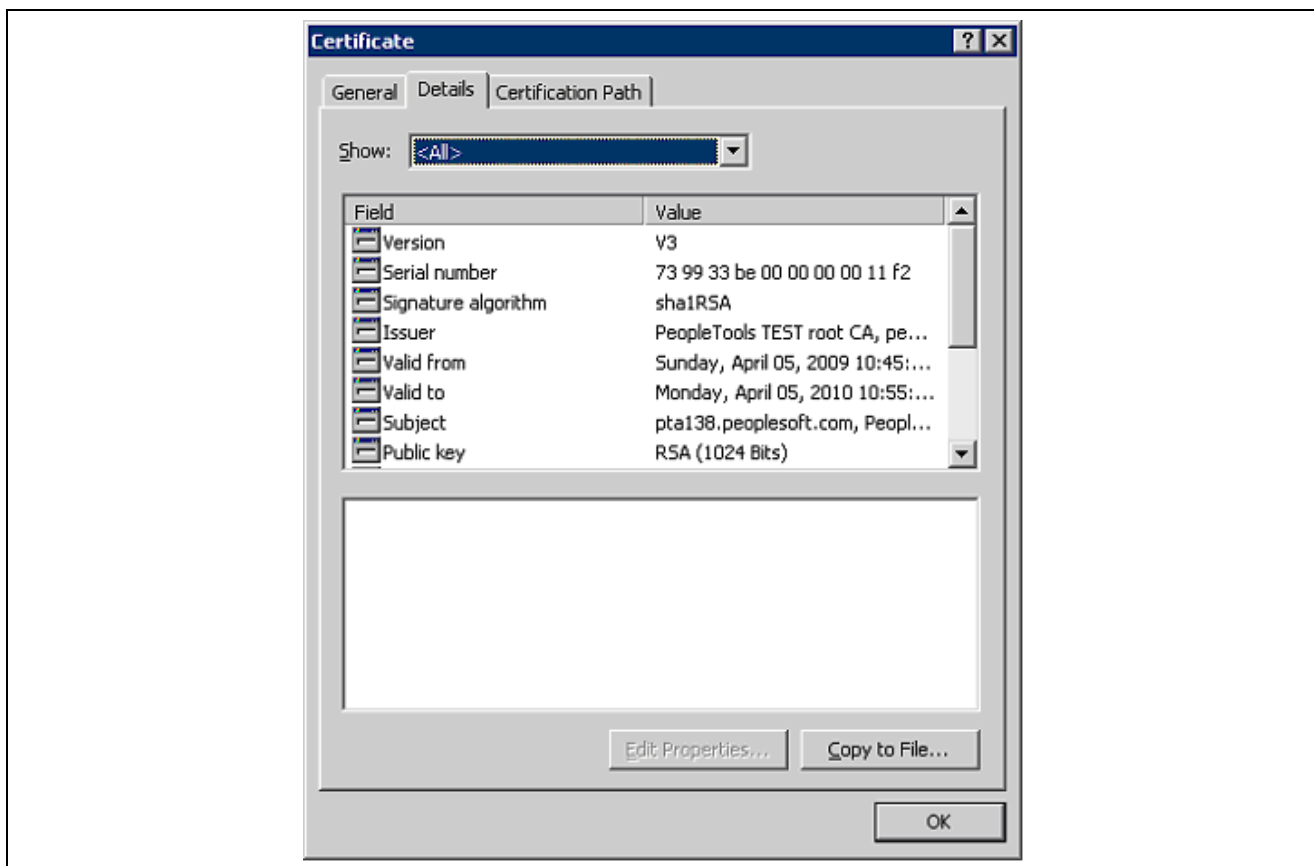
1. Sign in to the PeopleSoft application using the https port.
2. In the browser menu, select View, Security Report.

Note. Depending upon your browser version, you may need to use another command to view the certificates.



Untrusted Certificate message

3. Click the View certificates link.
The Certificate dialog box appears.



Certificate dialog box

4. Click the Copy to File button.

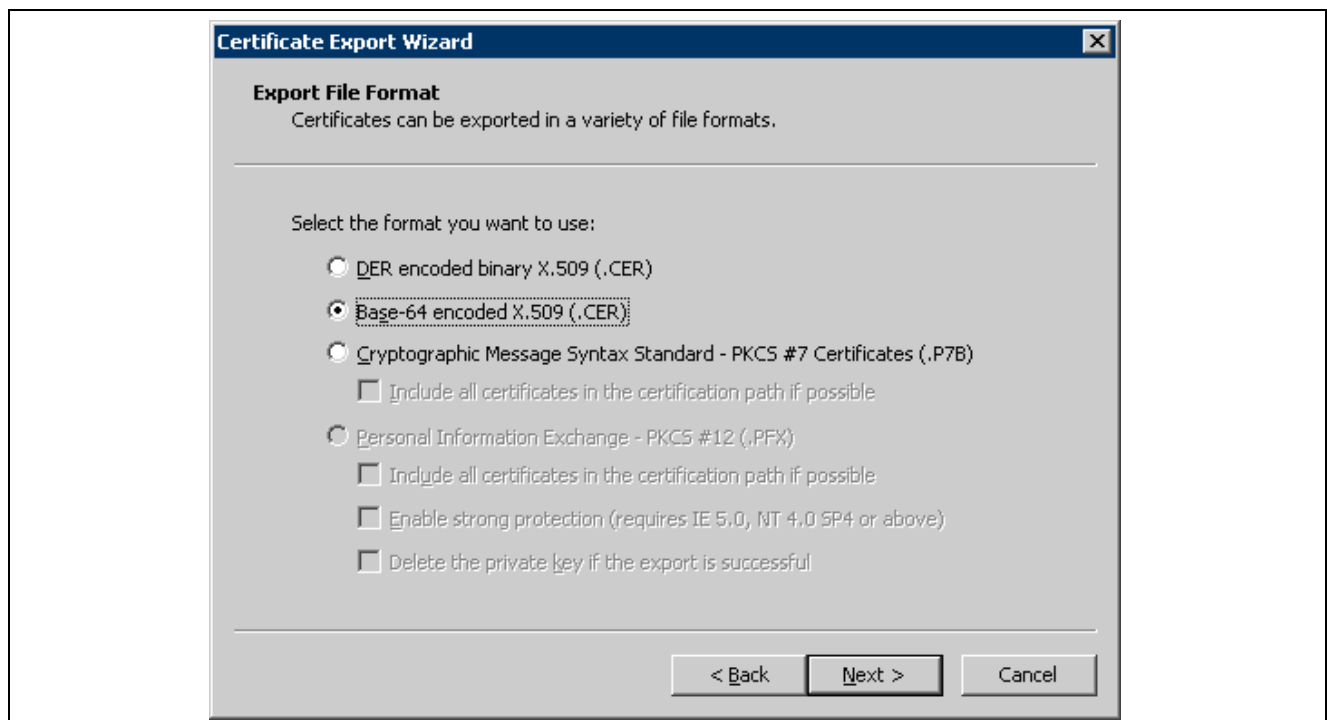
The Certificate Export Wizard dialog box appears.



Certificate Export Wizard dialog box

5. Click Next.

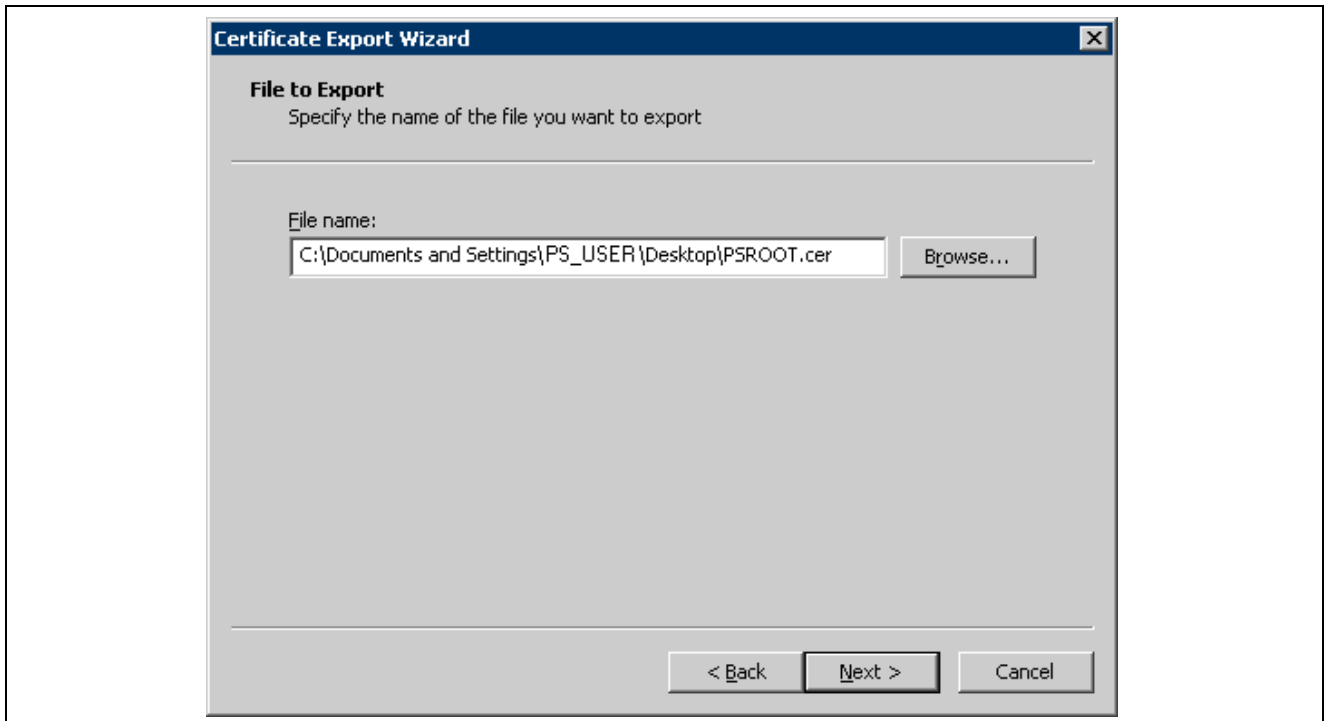
On the Export File Format page, select Base-64 encoded X.509 (.CER), and click Next.



Export File Format page

6. Enter the name you would like to provide for the certificate and the location to export it to, and then click Next.

In this example, the full path to the file is C:\Documents and Settings\PS_USER\Desktop\PSROOT.cer.



File to Export page

7. Click Finish to export the certificate.
8. Copy the exported certificate to a directory, referred to here as *CERTIFICATE_DIR*, on the system where the you installed the web server for BOE.
9. Go to the *<WLS_HOME>\jdk<version>\bin* directory, where *<WLS_HOME>* is the directory where you installed Oracle WebLogic.

Use the following command to import the PeopleSoft certificate to WebLogic keystore:

```
keytool -import -file <certificate file> -keystore <keystore file> -alias =>
<alias>
```

- For *<certificate file>* enter the full path of the directory where you saved the exported certificate, *CERTIFICATE_DIR*.
- For *<keystore file>* enter *<WLS_HOME>\jdk<version>\jre\lib\security\cacerts*
- For *<alias>* enter any name.

10. Enter the keystore password. (The default is *changeit*.)

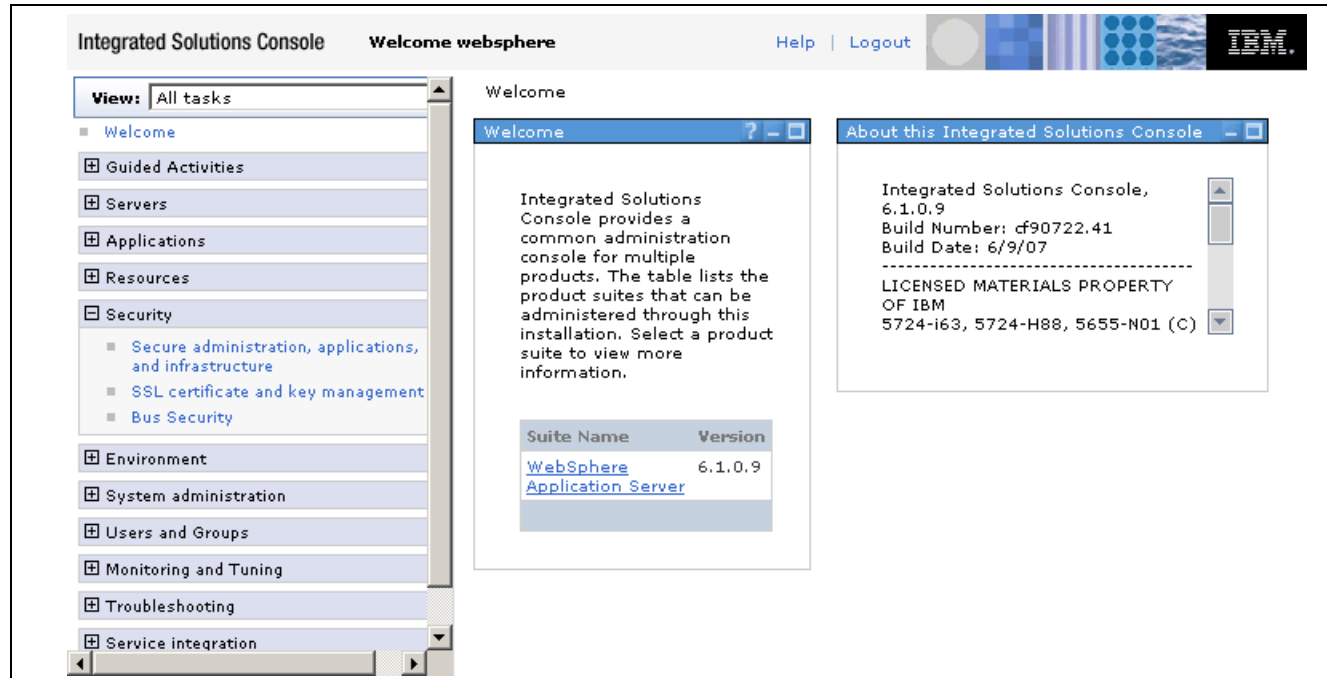
Enter y to import the certificate.

Task 15-4-20: Importing Security Certificate to the IBM WebSphere Server

This section describes how to export the security certificate for PeopleSoft PeopleTools and import it for SAP BusinessObjects Enterprise XI 3.1. Before carrying out this step you should have configured Secure Socket Layers (SSL) for the PeopleSoft web server.

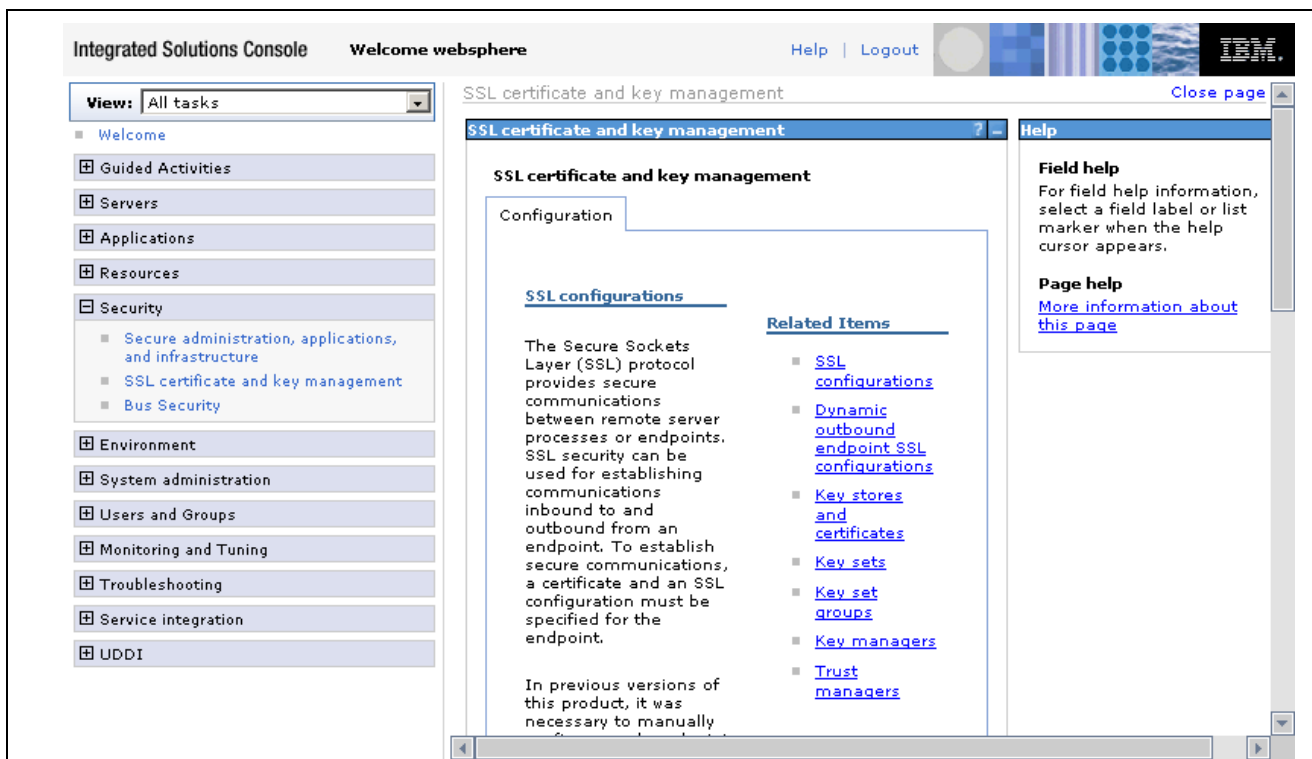
See *PeopleTools 8.52: System and Server Administration PeopleBook*, "Working with IBM WebSphere."

1. Export the certificate as described in steps 1–8 in the task above, Importing Security Certificate to the Oracle WebLogic Server.
2. Log on to IBM WebSphere Administrative Console.
3. Select Security, SSL certification and key management.



IBM WebSphere Integrated Solution Console welcome page

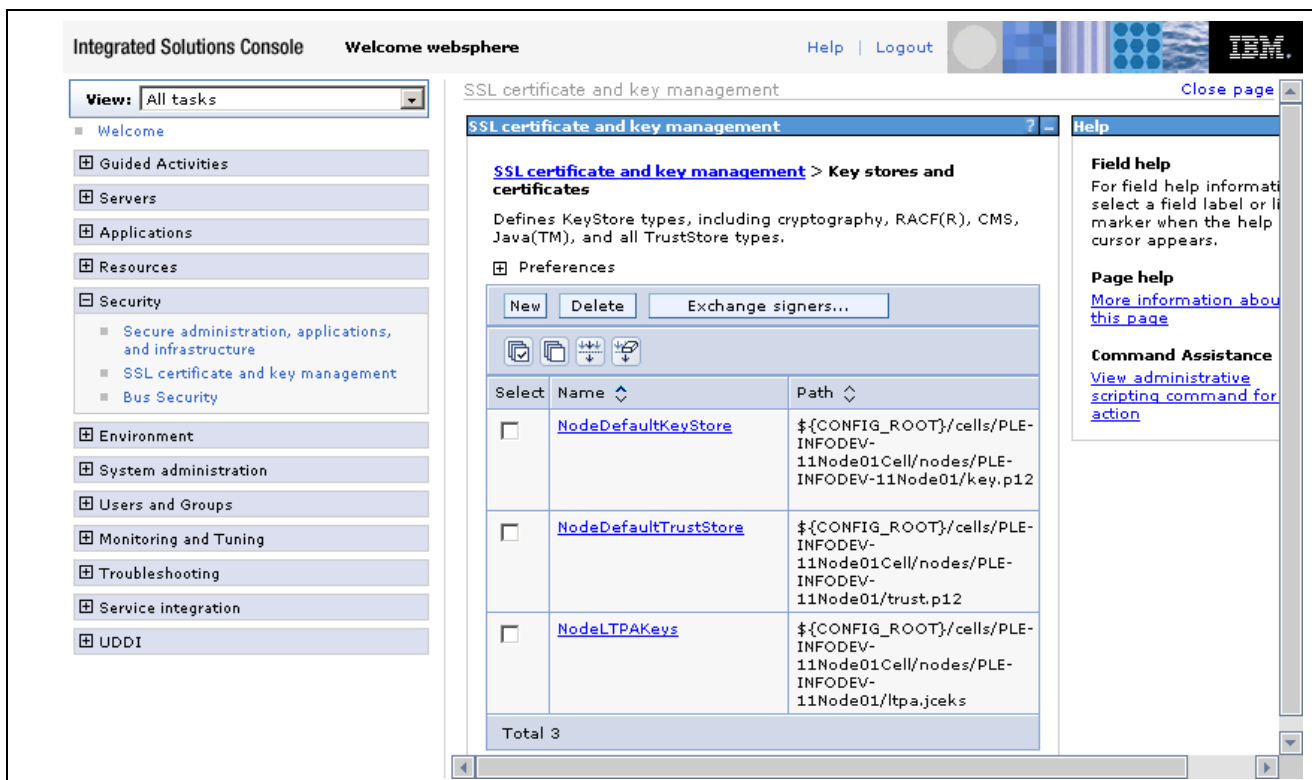
4. Select Key stores and certificates in the Related Items area.



SSL certificate and key management page

5. Select the link for NodeDefaultTrustStore.

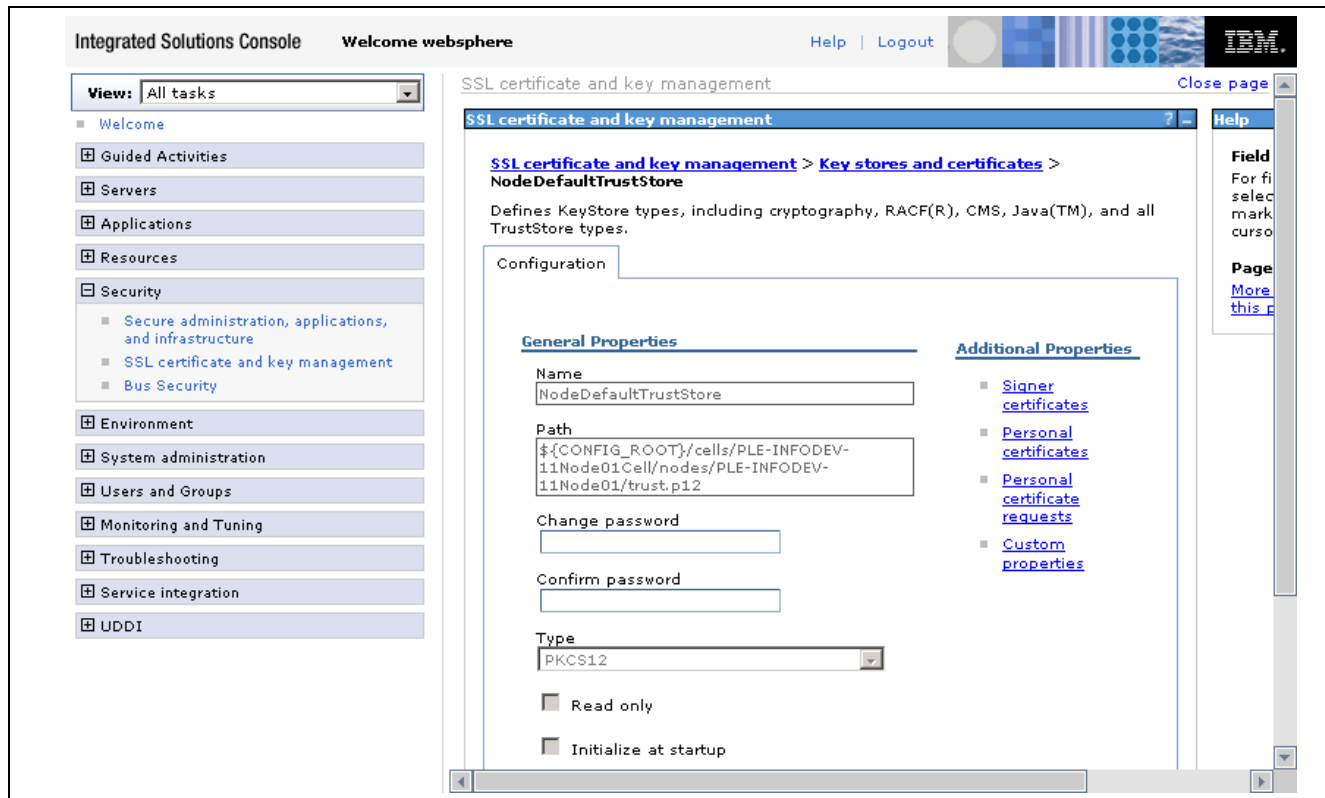
The trust store filename can be found on the Key stores and certificates page.



Key stores and certificates page

- On the NodeDefaultTrustStore page, make a note of the path for this trust store file and the trust store type, which is PKCS12 in this example.

The variable `${CONFIG_ROOT}` refers to the installation directory for IBM WebSphere, referred to here as `WAS_HOME`. Note that on the NodeDefaultTrustStore page you can change the trust store password.



NodeDefaultTrustStore page

- Run the following command to launch the IBM WebSphere ikeyman utility to import the certificate:

Note. You can also use Java keytool, as described in the previous section.

On Microsoft Windows:

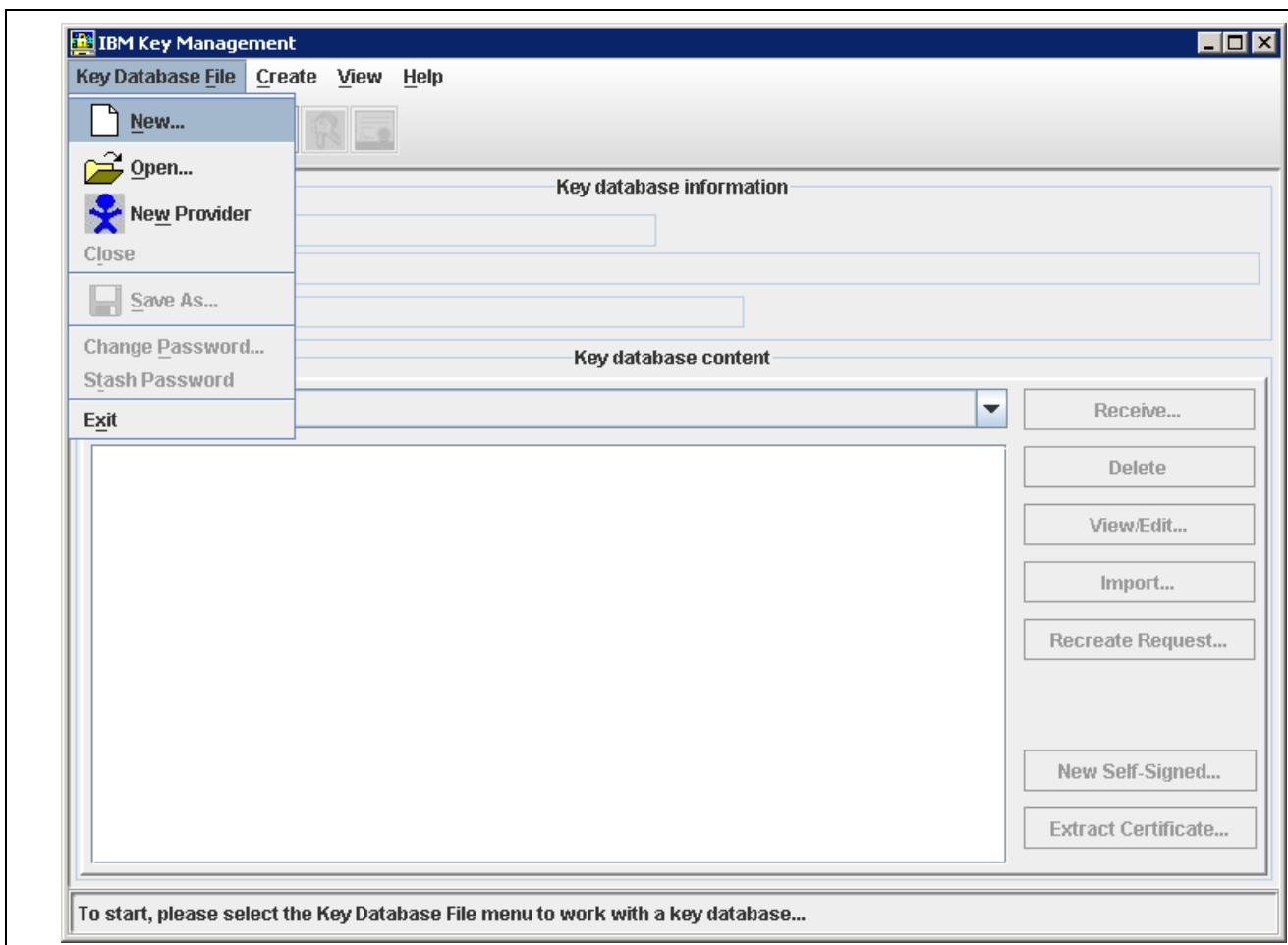
```
WAS_HOME\AppServer\bin\ikeyman.bat
```

On UNIX or Linux:

Note. Use Windows X reflection tool to invoke ikeyman in GUI mode

```
WAS_HOME/AppServer/bin/ikeyman.sh
```

- Select Key Database File, Open.

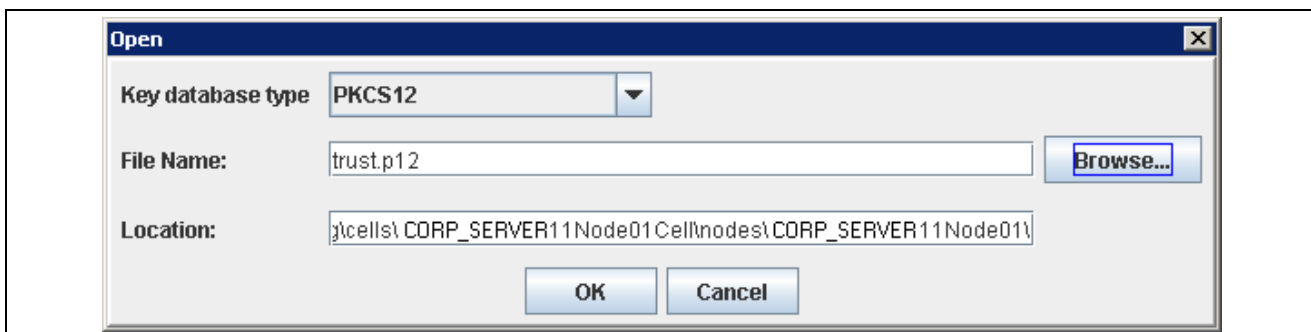


IBM Key Management dialog box

9. Browse to the trust.p12 file.

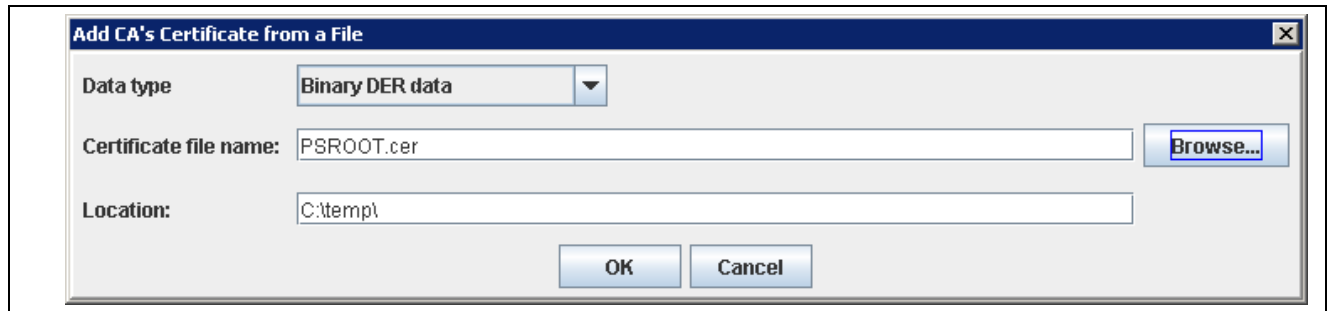
When you browse to and open the file, there will be a prompt to enter a password. Enter the password of the key database file.

Note. The file is found in the path listed on the NodeDefaultTrustStore page in a previous step.



Selecting the trust file

10. Click the Add button, and browse to find the PeopleSoft certificate you saved in *CERTIFICATE_DIR*.



Selecting the PeopleSoft certificate

11. Click OK, and enter any label at the Enter a Label prompt.
12. Save the trust store file.
13. Restart IBM WebSphere.

Task 15-4-21: Configuring the SAP BusinessObjects Enterprise XI 3.1 Server

This section discusses:

- Entering License Keys for the SAP BusinessObjects Enterprise XI 3.1 Server
- Entering the PeopleSoft Authentication Information into the SAP BusinessObjects Enterprise XI 3.1 Server

Entering License Keys for the SAP BusinessObjects Enterprise XI 3.1 Server

To enter the license keys for SAP BusinessObjects Enterprise XI 3.1:

See Planning your SAP BusinessObjects Enterprise XI 3.1 Components, Understanding SAP BusinessObjects Enterprise XI 3.1 License Keys.

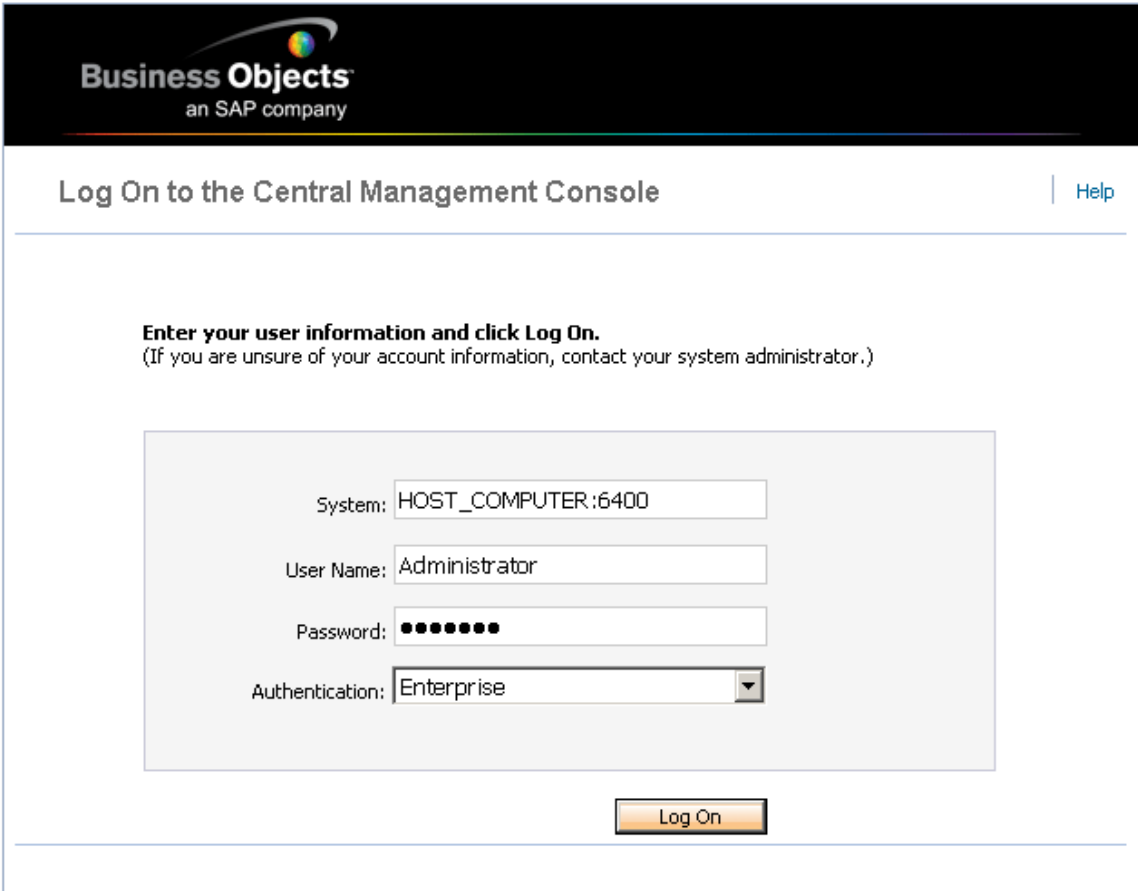
1. In a browser, enter the following URL, substituting the name of your SAP BusinessObjects Enterprise XI 3.1 server for <machine_name>, and the SAP BusinessObjects Enterprise XI 3.1 port number for <BOE_port>:

`http://<machine_name>:<BOE_port>/CmcApp.`

Note. You can also click the Webserver Ping button on the BOE administrator page to open the Central Manager Console.

2. Log in using Administrator as the User name and the associated password:

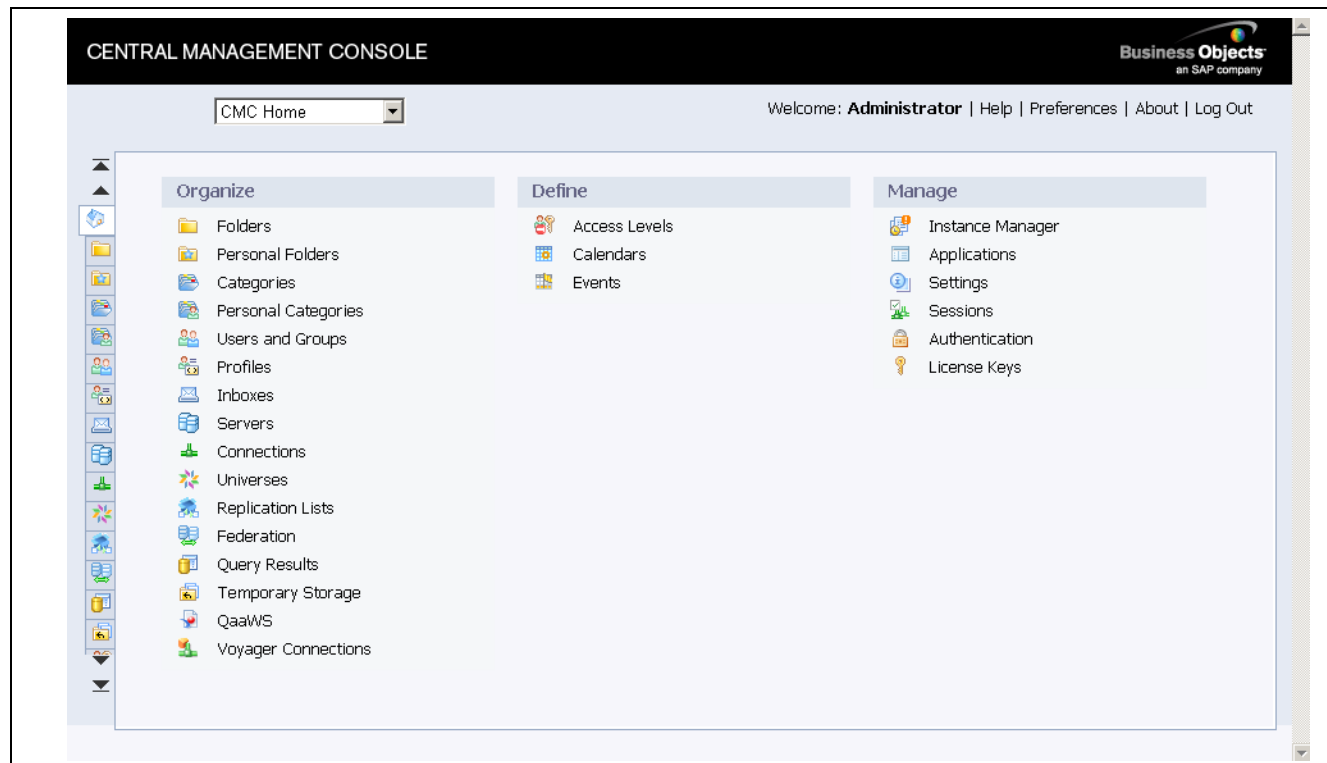
Note. This is the password you assigned to the Administrator account on the Server Components Configuration window when installing SAP BusinessObjects Enterprise XI 3.1.



The image shows a web-based login interface for Business Objects. At the top is a black header with the Business Objects logo and the text "an SAP company". Below the header, the page title is "Log On to the Central Management Console" with a "Help" link on the right. The main content area contains instructions: "Enter your user information and click Log On." followed by a note in parentheses: "(If you are unsure of your account information, contact your system administrator.)". Below this is a light gray rectangular box containing four input fields: "System:" with the value "HOST_COMPUTER:6400", "User Name:" with the value "Administrator", "Password:" with masked characters "••••••••", and "Authentication:" with a dropdown menu showing "Enterprise". Below the gray box is a "Log On" button.

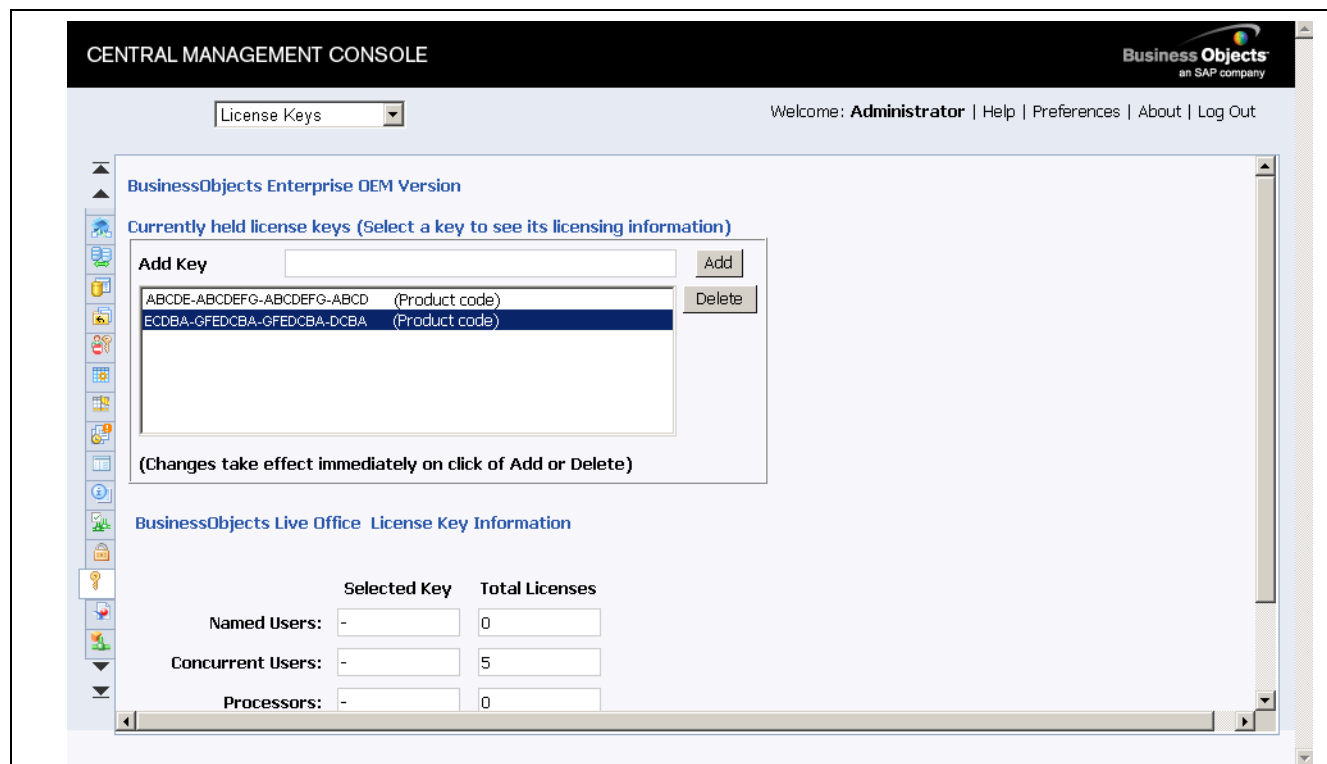
BusinessObjects Enterprise log in window

3. Select License Keys.



Central Management Console home page

4. Enter your license key in the Add Key box and click Add.



Central Management Console License Keys page

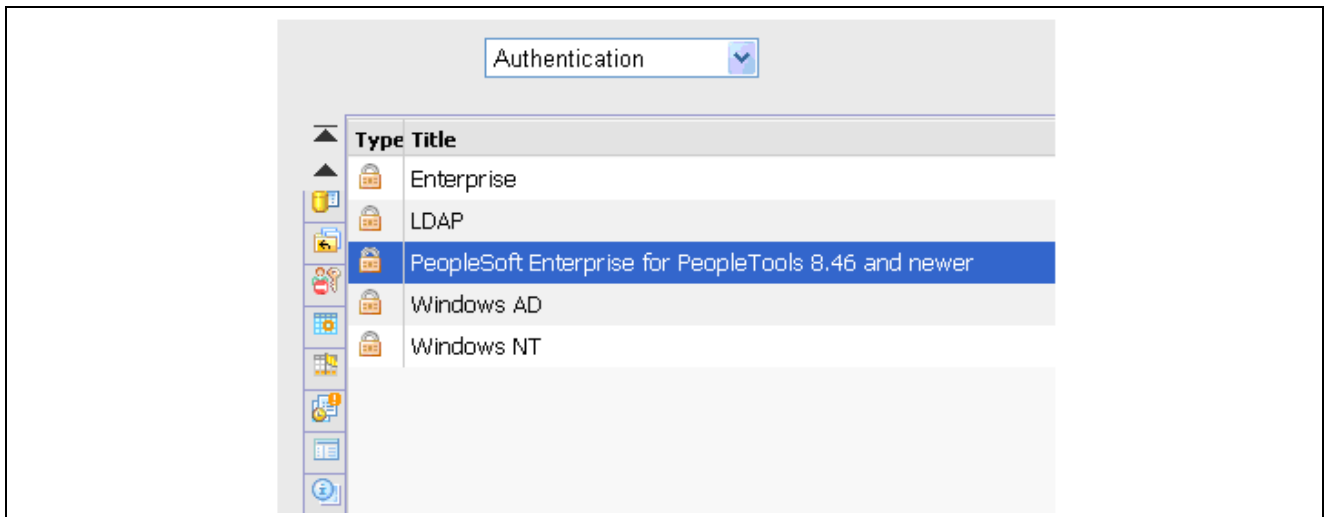
Entering the PeopleSoft Authentication Information into the SAP BusinessObjects Enterprise XI 3.1 Server

This procedure assumes you logged into the SAP BusinessObjects Enterprise XI 3.1 Central Management Console in the previous step.

To enter PeopleSoft authentication information in SAP BusinessObjects Enterprise XI 3.1:

1. On the CMC home page, click the Authentication button.
2. Double-click the PeopleSoft Enterprise link.

Note. If this link is not present, it means the PeopleSoft Integration Kit has not been installed.



BusinessObjects Enterprise XI 3.1 Authentication page

3. Select the Domain tab.

The PeopleSoft Enterprise page appears.

The screenshot shows the 'CENTRAL MANAGEMENT CONSOLE' for 'PeopleSoft Enterprise'. The 'Options' tab is selected, showing the 'PeopleSoft Enterprise System User' and 'PeopleSoft Enterprise Domains' sections.

PeopleSoft Enterprise System User

User Name:
 Password:

PeopleSoft Enterprise Domains

Domain Name:
 QAS Address:
 Current Domains:
 Default Domain:

PeopleSoft Enterprise System User page

Enter the following information:

- In the PeopleSoft Enterprise System User field, enter *BOE_Admin* as the user, and enter the password that you assigned to the *BOE_Admin* user in the BOE Integration Administration page.

See Adding PeopleSoft Users and Roles.

- In the Domain Name field, enter the domain name which you entered in the BOE Integration Administration page.

See Adding PeopleSoft Users and Roles.

- In the QAS Address field, enter the secure Target Location (HTTPS) that you entered on the Service Configuration page when configuring Integration Broker.

See Updating the PeopleSoft Integration Broker Gateway.

- In the Default Domain field, you can enter any domain configured in the PeopleSoft Enterprise Domains field, Current Domains section.

4. Click the Add button to add the domain to the list.
5. Click Update.

6. Select the Options tab.



The screenshot shows the 'PeopleSoft Enterprise' configuration window with the 'Options' tab selected. The window has a title bar 'PeopleSoft Enterprise' and three tabs: 'Options', 'Domains', and 'Roles'. The 'Options' tab is active and contains the following sections:

- PeopleSoft Enterprise Authentication**
 - ☒ Enable PeopleSoft Enterprise Authentication
- New Alias Options**
 - ☒ Assign each added alias to an account with the same name
 - ☐ Create a new account for every added alias
- Update Options**
 - ☒ New aliases will be added and new users will be created
 - ☐ No new aliases will be added and new users will not be created
- New User Options**
 - ☒ New users are created as named users
 - ☐ New users are created as concurrent users

Options tab

Select the following options:

- Verify that the option Enable PeopleSoft Enterprise Authentication is selected.
- New Alias Options

Select Choice 1: Assign each added PeopleSoft Enterprise alias to an account with the same name

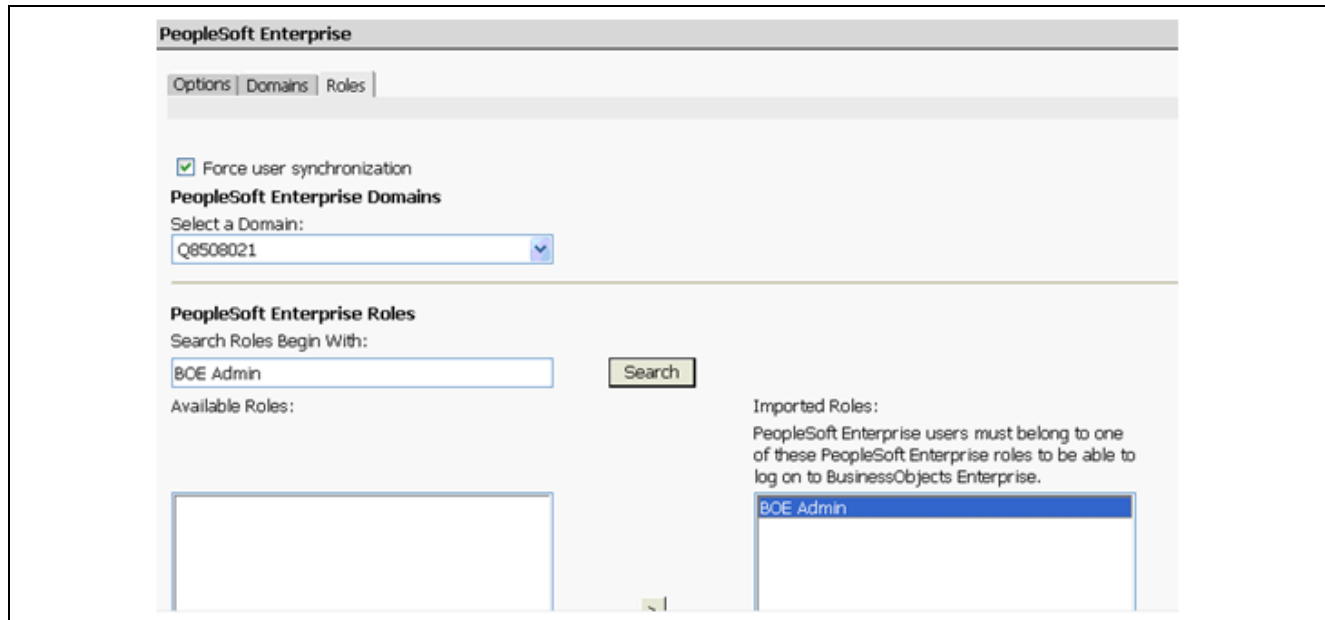
- Update Options

Select Choice 1: New aliases will be added and new users will be created

- New User Options

Select Choice 1: New users are created as *named* users

7. Select the Roles tab.



Roles tab

- a. Under PeopleSoft Enterprise Domains, select each domain configured.
- b. Under PeopleSoft Enterprise Roles, search for role BOE Admin.
- c. Click the Add button to add each role to the selected domain.
- d. Click the Update button.

Note. Clicking the Update button should result in a new Authentication Type of PeopleSoft Enterprise as shown in the Authentication Type drop-down list when you log in to the Central Management Console. Also, User Ids from the PeopleSoft database with the given roles will automatically be added into SAP BusinessObjects Enterprise XI 3.1.

8. Select the Options tab, and select the following options:
 - Verify that the option Enable PeopleSoft Enterprise Authentication is selected.
 - New Alias Options

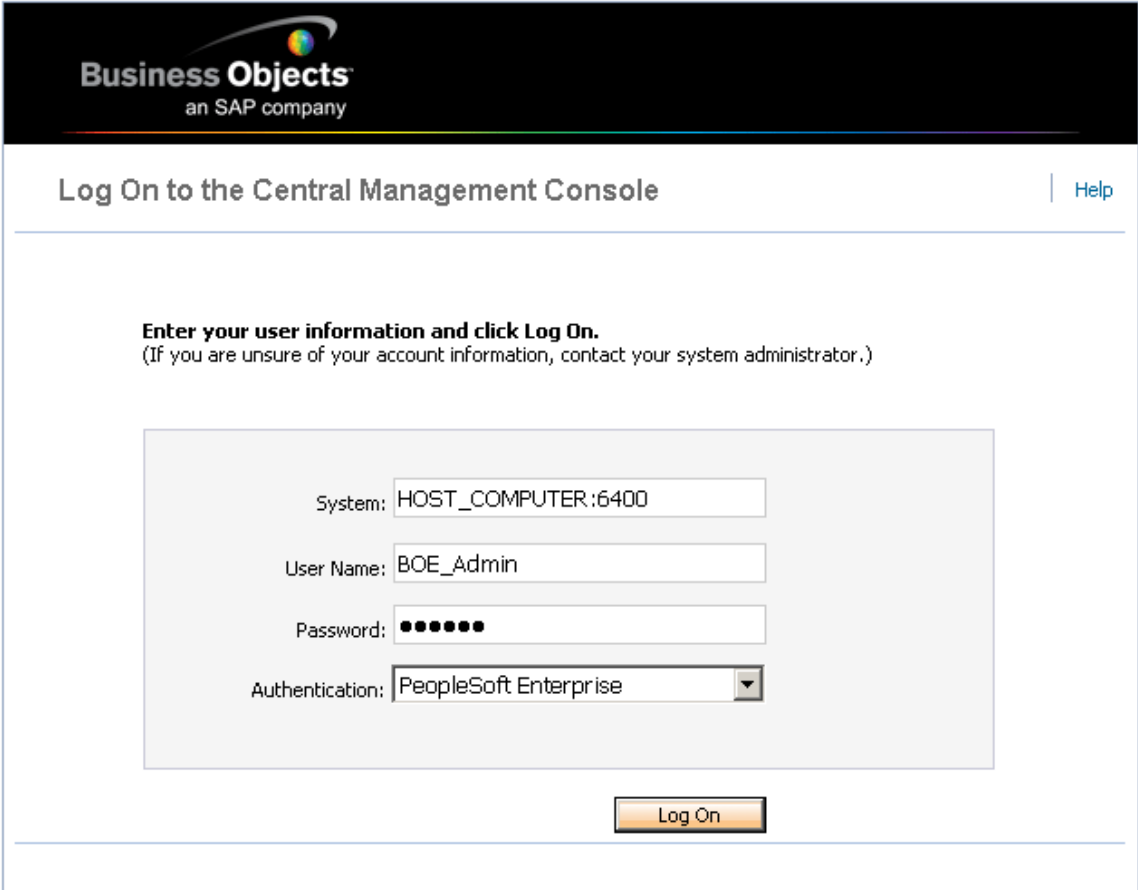
Select Choice 1: Assign each added PeopleSoft Enterprise alias to an account with the same name
 - Update Options

Select Choice 1: New aliases will be added and new users will be created
 - New User Options

Select Choice 2: New users are created as *concurrent* users
9. Select the Roles tab.
 - a. Under PeopleSoft Enterprise Domains, select each domain configured.
 - b. Under PeopleSoft Enterprise Roles, search for role BOE Viewing.
 - c. Click the Add button to add each role to the selected domain.
 - d. Click the Update button.

Note. Clicking the Update button should result in a new Authentication Type of PeopleSoft Enterprise as shown in the Authentication Type drop-down list when you log in to the Central Management Console. Also, User Ids from the PeopleSoft database with the given roles will automatically be added into SAP BusinessObjects Enterprise XI 3.1.

10. Click the log-off button on the right top and re-log in again with user BOE_Admin and PeopleSoft Enterprise as Authentication Type.



Verifying configuration on log in dialog box

You have completed the installation and configuration.

Task 15-4-22: Configuring Crystal Reports 2008 for SAP BusinessObjects Enterprise XI 3.1

The prerequisites for this configuration are:

- Crystal Reports 2008 must be installed.
See Installing Crystal Reports 2008.
- BusinessObjects XI Integration Kit for PeopleSoft must be installed.
See Installing BusinessObjects Integration Kit for PeopleSoft for Windows.

See Installing BusinessObjects Integration Kit for PeopleSoft on UNIX or Linux.

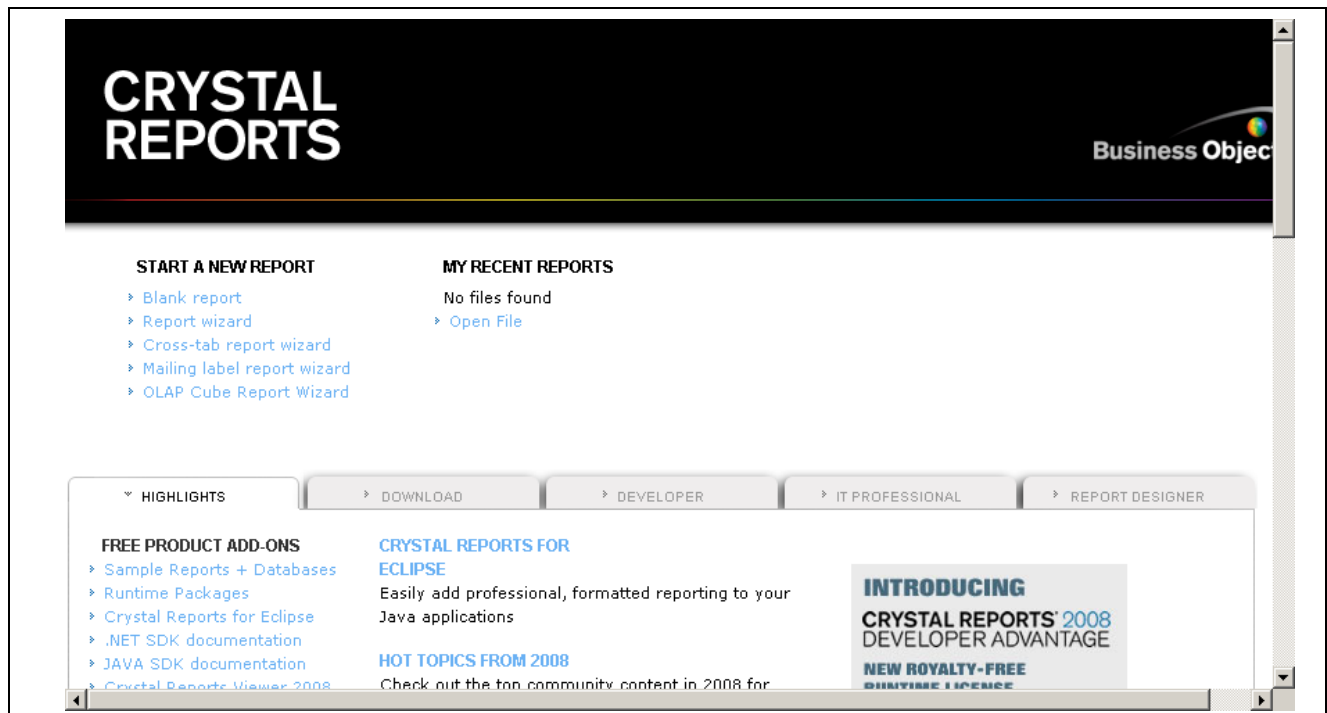
- Integration Broker and QAS must be configured.

See Configuring the PeopleSoft Application for SAP BusinessObjects Enterprise XI 3.1 Integration.

To configure Crystal Reports 2008:

1. Select Start, Programs, Crystal Reports 2008, Crystal Reports 2008.

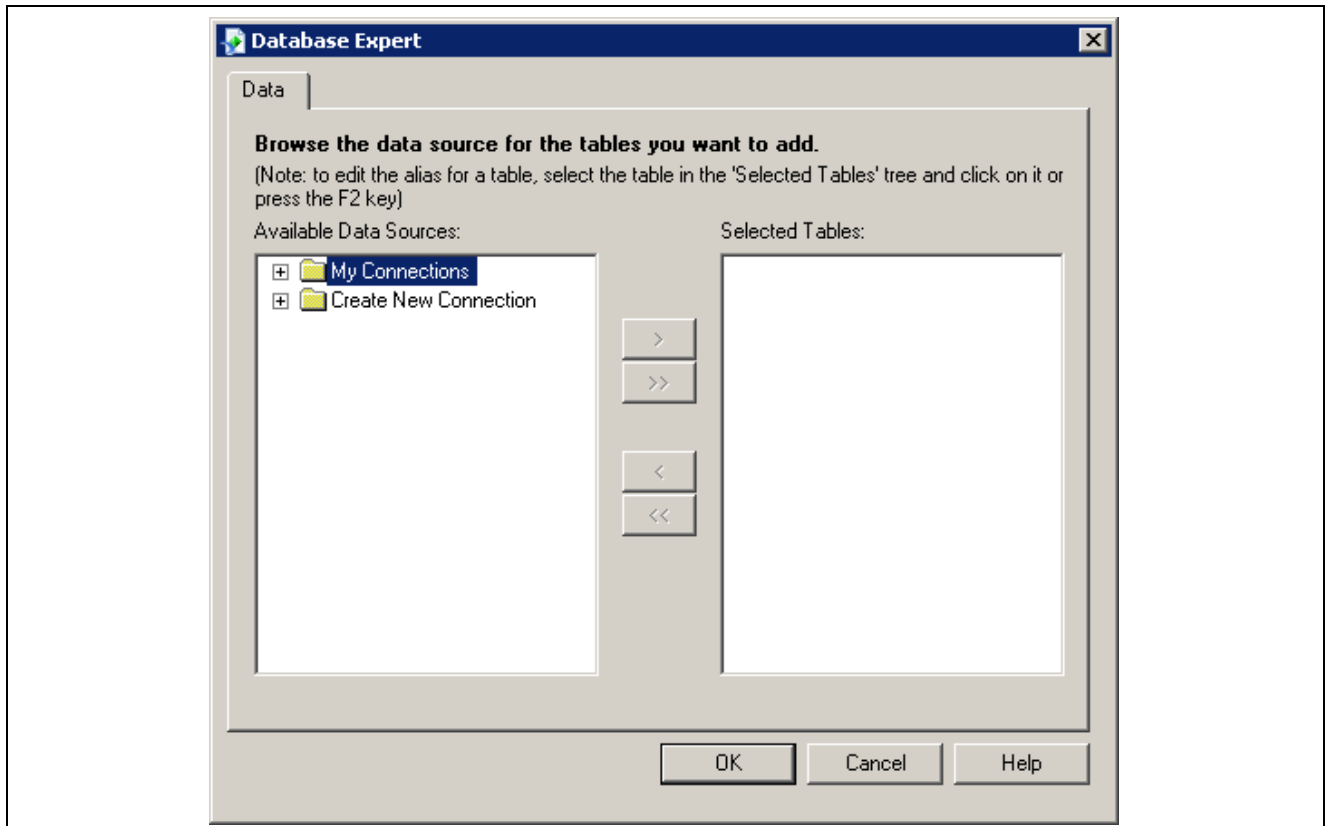
Crystal Reports 2008 opens in a browser.



Crystal Reports home page

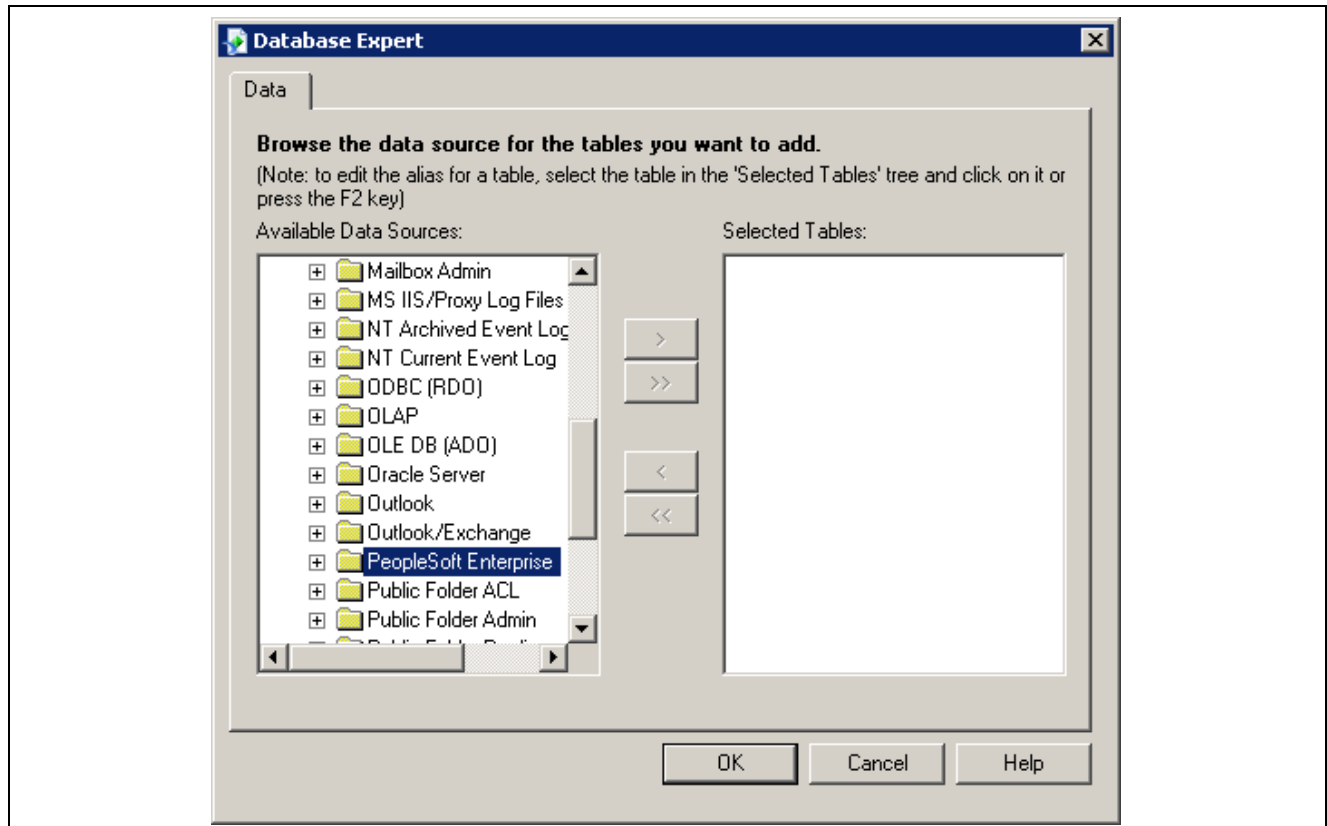
2. Select the Blank report link.

The Database Expert dialog box appears.



Database Expert dialog box

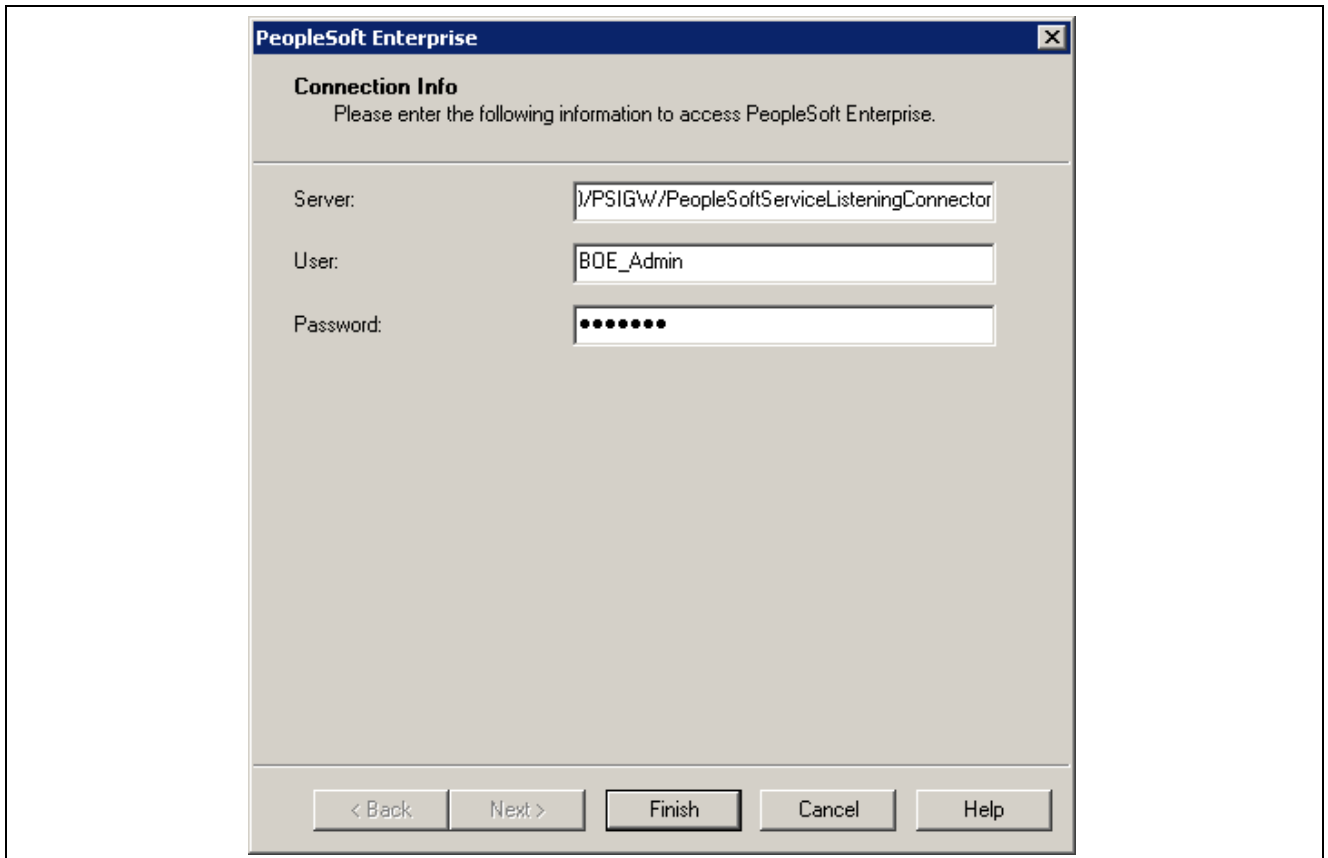
3. Expand Create New Connection in the Available Data Sources list, and then expand PeopleSoft Enterprise.



Selecting PeopleSoft Enterprise on the Database Expert

The Connection Info dialog box appears.

4. Enter the QAS endpoint URL for the Server and provide the User and Password.



Connection Info dialog box

5. Click Finish.

Task 15-4-23: Modifying the SAP BusinessObjects Enterprise XI 3.1 Chunk Size

Before you run any reports with SAP BusinessObjects Enterprise XI 3.1, Oracle recommends that you change the chunk size that BusinessObjects Enterprise uses to a larger value, in order to facilitate faster processing.

Note. This procedure includes changes to the system registry file. Exercise caution when making changes to the registry. It is a good idea to make a back up file before making changes.

To change the default chunk size on Microsoft Windows:

1. Open the Microsoft Windows registry and navigate to:
HKEY_LOCAL_MACHINE\SOFTWARE\Software\Business Objects\Suite 12.0\Integration Kit for PeopleSoft Enterprise
2. Edit the registry key “Chunk Size” to change the value from the default, 1000, to 20000.
3. Restart all SAP BusinessObjects Enterprise XI 3.1 servers.

To change the default chunk size on UNIX:

1. Navigate to *BOE_HOME*/bobje/data/.bobj/registry/software/business objects/suite 12.0/integration kit for peoplesoft enterprise
2. Edit the .registry file.

Set Chunk Size as "Chunk Size"="20000", and save the file.

3. Restart all SAP BusinessObjects Enterprise XI 3.1 servers.

Task 15-4-24: Verifying the PeopleSoft to SAP BusinessObjects Enterprise XI 3.1 Integration

Use these tests to ensure that the various features of SAP BusinessObjects Enterprise XI 3.1 are functional:

Note. Prior to running your verification tests, you need to convert your Crystal Reports from Crystal 2008 format to Crystal XI format. See *Converting Crystal Reports* for details.

1. Schedule and run a Crystal Report.
 - a. Log in to the PeopleSoft application as a user who has the authority to run report XRFWIN.
 - b. Select PeopleTools, Process Scheduler, System Process Request.
 - c. Select the Add New Value tab.
 - d. Enter a new run control ID of BOETEST, and click the Add button.
Click the Run button in the Process Request dialog box.
 - e. Select an active process scheduler server.
 - f. Select the check box next to the crystal report XRFWIN.
 - g. Select *Web* for the type and *CR RPT* for the format.
 - h. Click OK to run the report. It should generate a process instance id.
2. View Report output in InfoViewer.
 - a. Using the Process Instance ID, ensure the process runs to completion in process monitor.
 - b. Select Reporting Tools, Report Manager, and select the Administration tab.
 - c. Search for the report using the process instance id generated in the previous step.
 - d. Click the Details link next to the report, then the .RPT link to view the report in the SAP BusinessObjects Enterprise XI 3.1 report viewer.

Task 15-5: Migrating your SAP BusinessObjects Enterprise XI 3.1 Installation to a New Version of PeopleTools

You must complete several steps in order to ensure that your new version of PeopleSoft PeopleTools integrates properly with an SAP BusinessObjects Enterprise XI 3.1 installation.

Important! If you fail to perform these steps in the correct order, you could compromise the installation.

Note. You can also use this procedure if you need to delete a PeopleSoft domain from the SAP BusinessObjects Enterprise XI 3.1 CMC for any reason.

1. Delete all PeopleSoft Users from the SAP BusinessObjects Enterprise XI 3.1 server as follows:

- a. Login to the Central Management Console.
 - b. Select USERS from the navigation drop-down list and click the GO button.
 - c. Select the options next to all PeopleSoft Users (not administrator or guest) and delete them.
2. Delete Roles in the SAP BusinessObjects Enterprise XI 3.1 server:
 - a. Login to the Central Management Console.
 - b. Select the PeopleSoft Authentication tab.
 - c. Delete All the roles.
 - d. Click Update.
3. Delete the Domains:
 - a. Delete All the Domains and click Update.
 - b. Click LOGOFF.
 - c. Log back in to the Central Management Console and verify all that the roles and domains are gone.
4. Stop the SAP BusinessObjects Enterprise XI 3.1 Web Server and all the SAP BusinessObjects Enterprise XI 3.1 services.
5. Uninstall the PeopleSoft Integration for SAP BusinessObjects Enterprise XI 3.1 from the server.

This is the integration that was installed for the old version of PeopleSoft PeopleTools.
6. Install the PeopleSoft Integration for SAP BusinessObjects Enterprise XI 3.1 for the new version of PeopleSoft PeopleTools.
7. Run the verification steps in the task Installing SAP BusinessObjects Enterprise XI 3.1, Verifying the PeopleSoft to SAP BusinessObjects Enterprise XI 3.1 Integration.

Task 15-6: Administering and Using SAP BusinessObjects Enterprise XI 3.1

This section discusses:

- Understanding PeopleSoft Permission Lists, Roles, and Users Involved in PeopleSoft Integration with SAP BusinessObjects Enterprise XI 3.1
- Changing the Data Source of the SAP BusinessObjects Enterprise XI 3.1 Report Repository
- Returning to Crystal 2008 from SAP BusinessObjects Enterprise XI 3.1
- Enabling Logging in SAP BusinessObjects Enterprise XI 3.1
- Deploying Manually with Wdeploy Tool
- Deploying Manually Through IBM WebSphere Console
- Deploying Manually on Oracle WebLogic 10.3
- Configuring Microsoft Office 2010 to Read Crystal Reports

Understanding PeopleSoft Permission Lists, Roles, and Users Involved in PeopleSoft Integration with SAP BusinessObjects Enterprise XI 3.1

Certain PeopleSoft permission lists, roles, and users are necessary in order to have your PeopleSoft application integrate with SAP BusinessObjects Enterprise XI 3.1. To run SAP BusinessObjects Enterprise XI 3.1 the following need to be present in the PeopleSoft database and then referenced in the appropriate places (described in the installation instructions) in both the PeopleSoft application and SAP BusinessObjects Enterprise XI 3.1:

- PeopleSoft Permission Lists
- PeopleSoft Roles
- PeopleSoft Users IDs

The Permission Lists and Roles are added to the PeopleSoft database when you copy the CRTOBOE project from file and run the CRTOBOE Data Mover script. The PeopleSoft users must be created manually.

Note. You should use the objects (that is, permission list and roles) as delivered. Do not rename them, delete them or otherwise alter them. This will only complicate and possibly compromise your installation.

PeopleSoft Permission Lists:

The following Permission Lists are inserted into the PeopleSoft database when you copy the project CRTOBOE from file:

- PTPT2200
This is the “QAS Access” permission list. It provides permission to a number of web services related to Query Access Services (QAS).
This permission list is used only by the “QAS Admin” role. When the role is created, this association is already defined.
- PTPT2300
This is the “BOE Viewing” permission list.

PeopleSoft Roles

The three roles listed here work hand-in-hand with the three PeopleSoft users that you need to create. The following Roles are inserted into the PeopleSoft database when you copy the project CRTOBOE from file:

- “QAS Admin”
This role is associated with the QAS_Admin and BOE_Admin user IDs. This role (through the permission list associated with it) allows users associated with the role to make QAS web-service calls. Note that the name of this role *cannot* be changed, as it is hardcoded into the QAS web service implementation. Any PeopleSoft user ID that will run Crystal Reports using SAP BusinessObjects Enterprise XI 3.1 must have the QAS Admin role associated with it
- “BOE Admin”
This role is associated with the BOE_Admin user ID (which is configured in the PeopleSoft BusinessObjects Enterprise PIA page).
- “BOE Viewing”
This role is associated with the BOE_Viewing user ID (which is configured in the PeopleSoft BusinessObjects Enterprise PIA page).

PeopleSoft Users

You will have to create 3 PeopleSoft users in the PeopleSoft database. They work hand-in-hand with the three PeopleSoft roles described above. For ease of supportability we strongly suggest that you create the users with exactly the names specified. The users are:

- **BOE_Admin**

This user is used:

- to run the Crystal 2008 to Crystal XI report convert/publish utility
- by Process Scheduler to run reports in SAP BusinessObjects Enterprise XI 3.1
- to make QAS web service calls to the PeopleSoft application from BusinessObjects Enterprise. It is known only within the PeopleSoft application. SAP BusinessObjects Enterprise XI 3.1 is not aware of this user.

This user is specified in the PeopleSoft BusinessObjects Enterprise PIA configuration page. The user will be created in SAP BusinessObjects Enterprise XI 3.1 automatically by specifying its corresponding role (that is, “BOE Admin”) in that application. This user is considered a named user in BusinessObjects Enterprise. Additionally, this user must also be in the SAP BusinessObjects Enterprise XI 3.1 administrators group.

- **BOE_Viewing**

PeopleSoft Report Manager logs in to SAP BusinessObjects Enterprise XI 3.1 InfoViewer as this user in order to permit viewing dynamic report output. This user is specified in the PeopleSoft BusinessObjects Enterprise XI 3.1 PIA configuration page.

The user will be created automatically in SAP BusinessObjects Enterprise XI 3.1 by specifying its corresponding role (that is, “BOE Viewing”) in that application.

This user id is a concurrent user in SAP BusinessObjects Enterprise XI 3.1, which means that each time it logs into SAP BusinessObjects Enterprise XI 3.1 it will use a BOE concurrent access license.

Please note that multiple end-users (that is, real people) accessing reports concurrently in the BusinessObjects Enterprise XI 3.1 InfoViewer via the PeopleSoft Report Manager will appear from the perspective of the BusinessObjects XI InfoViewer to be concurrent logins from the same user – BOE_Viewing.

Task 15-6-1: Changing the Data Source of the SAP BusinessObjects Enterprise XI 3.1 Report Repository

This section discusses:

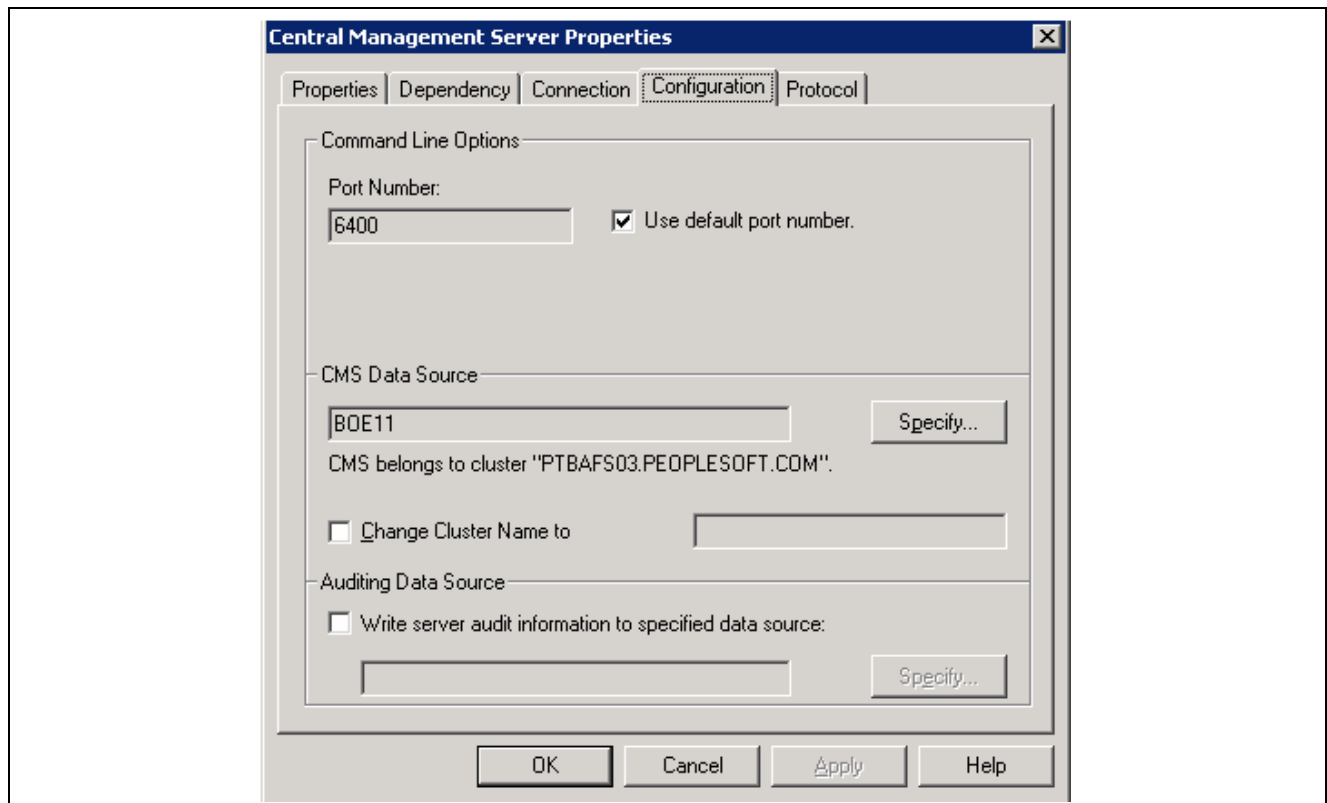
- Changing the Data Source on Windows
- Changing the Data Source on UNIX or Linux

Changing the Data Source on Windows

Use the steps in this section if you want to change the data source after you have completed the installation and integration.

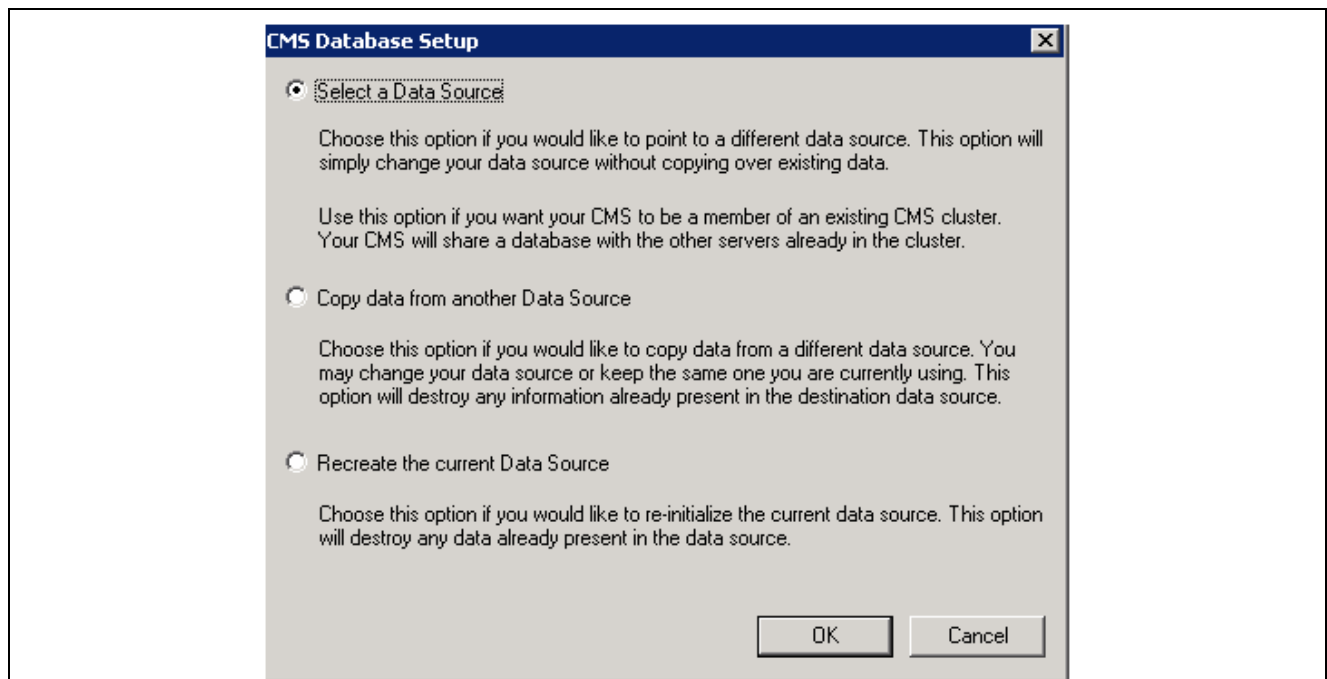
1. Select Start, Programs, Business Objects XI, Business Objects Enterprise, Central Configuration Manager.
2. Right-click the Central Management Server and choose the Stop option.
3. Right-click the Central Management Server and select Properties.
4. Select the Configuration tab.

- Click the Specify button in the CMS Data Source area.



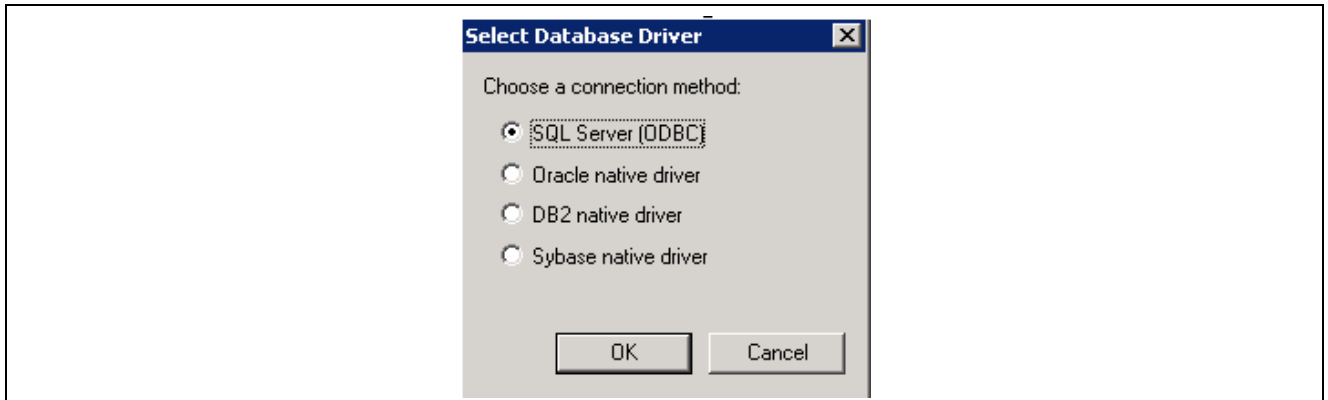
Central Management Server Properties dialog box: Configuration tab

- Select the radio button Select a Data Source and click OK.



CMC Database Setup window

- Specify whether you want to connect to the production CMS database through ODBC or through one of the native drivers, and then click OK.



Select Database Driver dialog box

- If you select ODBC, the Windows “Select Data Source” dialog box appears.
Select the ODBC data source that corresponds to your CMS database; then click OK. If prompted, provide your database credentials and click OK.
 - If you select a native driver, you are prompted for your database server name, user id and password.
- Click OK.
The SvcMgr dialog box notifies you when the CMS database setup is complete.
 - Start the Central Management Server.

Changing the Data Source on UNIX or Linux

Use the steps in this section if you want to change the data source after you have completed the installation and integration.

- Use the script `ccm.sh` to stop the Central Management Server.
- Run `cmsdbsetup.sh`.
When prompted, enter the CMS name or press Enter to select the default one.
- Type 6 in order to specify source CMS.
- Select the type of database connection.
- Enter the database server name, user ID and password.
- The script notifies you when the setup is complete.

Task 15-6-2: Returning to Crystal 2008 from SAP BusinessObjects Enterprise XI 3.1

Use the instructions in this section if you need to switch your environment to run Crystal Reports using the SAP Crystal Reports 2008 runtime instead of the SAP BusinessObjects Enterprise XI 3.1 server.

To switch from using SAP BusinessObjects Enterprise XI 3.1 to Crystal Reports:

- Run the DMS script `boetocr.dms` in `PS_HOME\scripts`.
- Run the project `BOETOCR` in `PS_HOME\projects`.

Running this script and project will change your delivered Crystal process type back to use Crystal 2008.

Note. This will not change any process types that you created.

You cannot run any reports converted to SAP BusinessObjects Enterprise XI 3.1 format using Crystal Reports. You have to run your original Crystal reports.

Task 15-6-3: Enabling Logging in SAP BusinessObjects Enterprise XI 3.1

This section discusses:

- Enabling SAP BusinessObjects Enterprise XI 3.1 Server Logging
- Enabling Security Plug-in Logging
- Enabling SAP BusinessObjects Enterprise XI 3.1 Services Tracing

Enabling SAP BusinessObjects Enterprise XI 3.1 Server Logging

Each of the SAP BusinessObjects Enterprise XI 3.1 servers is designed to log messages to your operating system's standard system log.

Windows:

SAP BusinessObjects Enterprise XI 3.1 logs to the Event Log service. You can view the results with the Event Viewer (in the Application Log).

UNIX or Linux:

SAP BusinessObjects Enterprise XI 3.1 logs to the syslog daemon as a User application. Each server prepends its name and PID to any messages that it logs.

Each server also logs assert messages to the logging directory of your product installation. The programmatic information logged to these files is typically useful only to Business Objects support staff for advanced debugging purposes. The location of these log files depends upon your operating system:

- On Windows, the default logging directory is C:\Program Files\Business Objects\BusinessObjects Enterprise 12.0\Logging.
- On UNIX, the default logging directory is the *BOE_HOME*/bobje/logging directory of your installation.

Note. The log files are cleaned up automatically, so there will never be more than approximately 1 MB of logged data per server.

For more information on logging SAP BusinessObjects Enterprise XI 3.1 server activity consult the BusinessObjects Enterprise administration guide.

Enabling Security Plug-in Logging

The procedure to turn on security plug-in logging varies by operating system.

Note. Return the log mode to a value of 0 when you do not need logging. Performance will be impacted otherwise.

- *Windows:*

To turn on logging, edit the Windows registry.

```
HKLM\SOFTWARE\BusinessObjects\12.0\BusinessObjects Enterprise for PeopleSoft⇒
Enterprise
Log Mode REG_SZ
```

- a. Change the Log Mode value from 0 to 1.
- b. Restart all the BusinessObjects Enterprise services.

This will then generate log files in the directory specified in Path Log. You may want to clean up that directory first, if logging had been turned on before.

- *UNIX or Linux:*

To turn on logging you need to update the Log Mode setting in the registry file.

The registry file is located at: *BOE_HOME/bobje/data/.bobj/registry*

- a. Open the file in a text editor and set the value of "Log Mode" to "1".
- b. Restart all the BusinessObjects Enterprise services. This will turn on the driver/security plug-in tracing.

Enabling SAP BusinessObjects Enterprise XI 3.1 Services Tracing

It is also possible to turn on tracing for the SAP BusinessObjects Enterprise XI 3.1 services. This involves updating the command line for each of the services and adding `-trace` at the end.

Remove the `-trace` from the command line after your testing is complete as it can cause performance issues with the servers because of the large number of log files created.

Windows

1. Log on to the Central Manager Console with an account with administrative privileges.
2. Select Servers.
3. Highlight the server you would like to enable tracing on and click the Stop button.
4. Double-click the server, add `-trace` to the command line parameters, and click the Start button.

Completing these steps will enable advanced logging on a Crystal Enterprise, Crystal Reports Server, or SAP BusinessObjects Enterprise XI 3.1 server. You can find the logs in the following directory:

BOE_HOME\BusinessObjects Enterprise 12.0\Logging

UNIX or Linux:

1. Go to the *BOE_HOME/bobje* directory.
2. Open the file *ccm.config* for editing.
3. Add "`-trace`" at the end of the lines for those servers where you want to enable logging, and save the file.
4. Restart all servers.

You can find the log files in the following directory:

BOE_HOME/bobje/logging

Task 15-6-4: Deploying Manually with Wdeploy Tool

Use the wdeploy tool found in *BOE_HOME*\deployment to manually deploy the war files to the web server. On Microsoft Windows, the tool is wdeploy.bat. If you are running on UNIX or Linux, substitute wdeploy.sh in the following steps. If your web server is on IBM WebSphere, substitute the appropriate version, websphere6 or websphere7, for websphere<version> in the following steps.

To use manual deployment:

1. Go to *BOE_HOME*\deployment and locate the wdeploy configuration file corresponding to the web server that you installed.
2. Open the file in a text editor and make the changes detailed in the next steps.
3. If you are using Oracle WebLogic, the file is config.weblogic10.

Update the following items:

- as_admin_port: Administration port of the application server (for example 7001).
- as_admin_username: WebLogic administrator account username (for example *weblogic*).
- as_admin_password: WebLogic administrator account password (for example *password*).
- as_instance: The name of your WebLogic application server instance (for example *AdminServer*).
- as_domain_dir: WebLogic domain directory (for example *C:\bea\weblogic10\user_projects\domains\base_domain*).

4. If you are using IBM WebSphere, the file is config.websphere<version>.

Update the following items:

- as_soap_port: SOAP port for application server administration. If not set, the default SOAP port will be used (for example 8880).
- as_admin_username: WebSphere administrator account username (for example *websphere*).
- as_admin_password: WebSphere administrator account password (for example *password*).
- as_instance: The name of your WebSphere application server instance (for example *server1*).
- as_virtual_host: The virtual host to which the application must be bound (for example *default_host*).
- as_admin_is_secure: Instructs wdeploy that WebSphere security is enabled (for example *true*).
- as_dir: WebSphere installation directory (for example *"C:\Program Files\IBM\WebSphere\AppServer"*).
- enforce_file_limit: Indicates to wdeploy whether or not the web application server may encounter issues loading applications that contain more than 65,535 files (for example *true*).

5. In a command prompt, go to *BOE_HOME*\deployment.
6. If you want to deploy all war files, use these commands:

- For Oracle WebLogic:

```
wdeploy.bat (sh) weblogic10 -Das_admin_password=<password> deployall
```

- For IBM WebSphere:

```
wdeploy.bat (sh) websphere<version> -Das_admin_password=<password> deployall
```

7. If you want to deploy one war file, use these commands:

- For Oracle WebLogic:

```
wdeploy.bat (sh) weblogic10 -Das_admin_password=<password> -DAPP=<Application>=>
Name> deploy
```

- For IBM WebSphere:

```
wdeploy.bat (sh) websphere<version> -Das_admin_password=<password> -DAPP=>
<Application Name> deploy
```

8. If you want to undeploy all war files, use these commands:

- For Oracle WebLogic:

```
wdeploy.bat (sh) weblogic10 -Das_admin_password=<password> undeployall
```

- For IBM WebSphere:

```
wdeploy.bat (sh) websphere<version> -Das_admin_password=<password> undeployall
```

9. If you want to undeploy one war file, use these commands:

- For Oracle WebLogic:

```
wdeploy.bat (sh) weblogic10 -Das_admin_password=<password> -DAPP=<Application>=>
Name> undeploy
```

- For IBM WebSphere:

```
wdeploy.bat (sh) websphere<version> -Das_admin_password=<password> -DAPP=>
<Application Name> undeploy
```

10. To review the logs for wdeploy, go to *BOE_HOME\deployment\workdir*.

Task 15-6-5: Deploying Manually Through IBM WebSphere Console

When using IBM WebSphere as the web server for SAP BusinessObjects Enterprise XI 3.1, you must deploy any web applications manually. The following table lists the SAP BusinessObjects Enterprise XI 3.1 web applications that must be deployed to the WebSphere Application server manually, along with the context roots for each:

Web Application Name	Context Root
AdminTools	/AdminTools
AnalyticalReporting	/AnalyticalReporting
bobjpsenterprise	See step 15
BusinessProcessBI	/BusinessProcessBI
CmcApp	/CmcApp
CmcAppActions	/CmcAppActions
CrystalReports	/CrystalReports
dswsbobje	/dswsbobje
InfoViewApp	/InfoViewApp
InfoViewAppActions	/InfoViewAppActions
OpenDocument	/OpenDocument

Web Application Name	Context Root
PartnerPlatformService	/PartnerPlatformService
PerformanceManagement	/PerformanceManagement
PlatformServices	/PlatformServices
PMC_Help	/PMC_Help
VoyagerClient	/VoyagerClient
XCelsius	/XCelsius

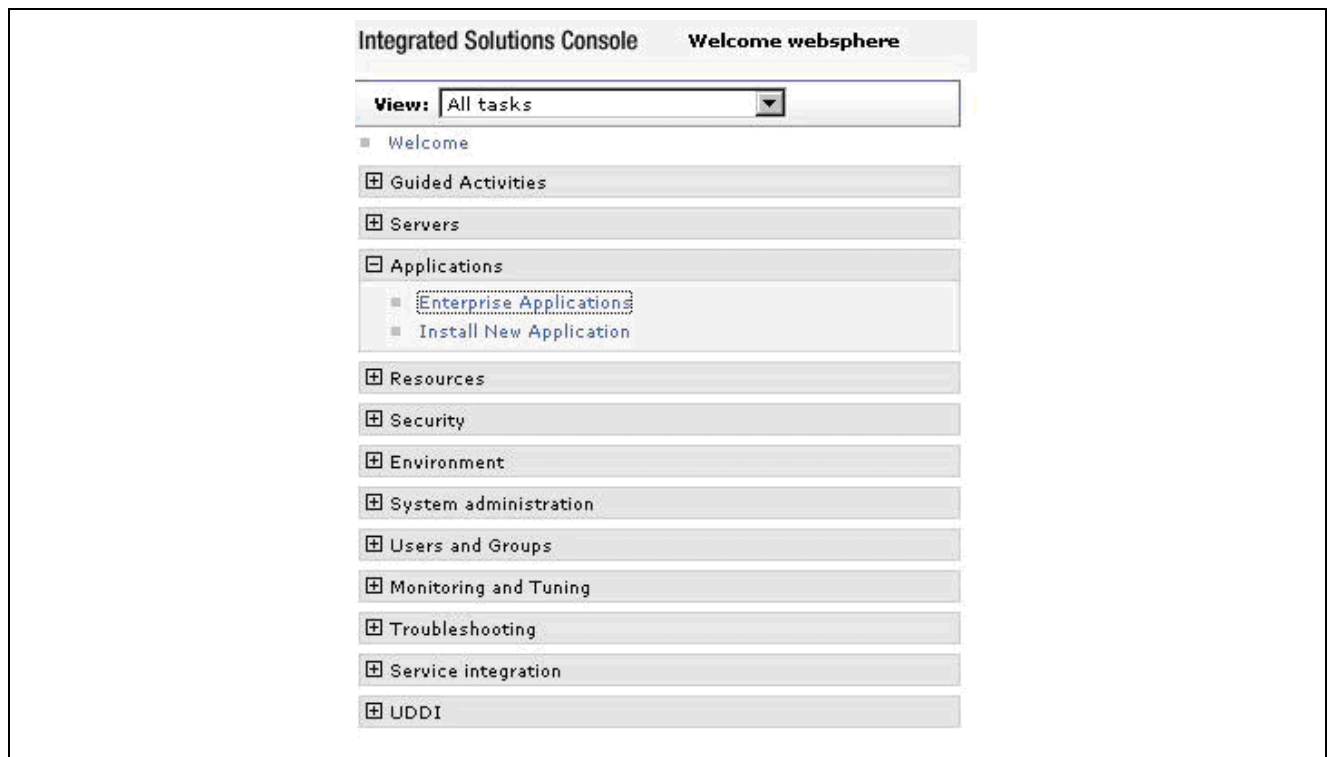
Before using the IBM WebSphere console, you must use the wdeploy tool to predeploy the web applications. To manually deploy web applications through the IBM WebSphere console:

1. Go to *BOE_HOME*\deployment and locate the wdeploy configuration file config.websphere6.
2. Open the file in a text editor, and update it as described in step 4 in the previous section, Deploying Manually with Wdeploy Tool.
3. Use the following command to pre-deploy the web applications (if you are running on UNIX or Linux, substitute wdeploy.sh):

```
wdeploy.bat websphere6 predeployall -Das_admin_password=<password>
```

The web applications are placed in *BOE_HOME*/deployment/workdir/websphere6/application.

4. Log on to the IBM WebSphere Application Server Administrative Console using this URL:
`http://<machine_name>:<port>/ibm/console`
5. Expand Applications and then select Enterprise Applications.



IBM WebSphere Integrated Solutions Console menu

6. Click Install, and then elect Remote File System.

7. Select the node cell that is being used and navigate to the location of the EAR file to deploy.
The files are in *BOE_HOME*/deployment/workdir/websphere6/application.
8. Enter the context root for the web application from the table at the beginning of this section, and then click Next.

Preparing for the application installation

Specify the EAR, WAR, JAR, or SAR module to upload and install.

Path to the new application

☐ Local file system

Full path

Browse...

☒ Remote file system

Full path

Browse...

Context root

Used only for standalone Web modules (.war files) and SIP modules (.sar files)

How do you want to install the application?

☒ Prompt me only when additional information is required.

☐ Show me all installation options and parameters.

Next

Cancel

Specifying the context root for manual deployment

- Accept the defaults and click Next.
- Select the server to use and click Next.

Install New Application

Specify options for installing enterprise applications and modules.

Step 1 Select installation options

→ **Step 2: Map modules to servers**

Step 3 Summary

Map modules to servers

Specify targets such as application servers or clusters of application servers where you want to install the modules that are contained in your application. Modules can be installed on the same application server or dispersed among several application servers. Also, specify the Web servers as targets that serve as routers for requests to this application. The plug-in configuration file (plugin-cfg.xml) for each Web server is generated, based on the applications that are routed through.

Clusters and Servers:

`WebSphere:cell=st-ibm22bNode01Cell,node=st-ibm22bNode01,server=server1`

Select	Module	URI	Server
<input checked="" type="checkbox"/>	Business Objects Crystal Report Plugins	CrystalReports.war,WEB-INF/web.xml	WebSphere:cell=st-ibm22bNode01Cell,node=st-ibm22bNode01,server=server1

Map modules to servers page in the IBM WebSphere administrative console

11. Click Finish at the summary page.
12. When the installation is complete, select Save directly to the Master.

13. Select the recently installed web application and click the Start button.
Ensure that the web application starts successfully.
14. Repeat steps 4–13 for each web application in the table at the beginning of this section.
15. Use the instructions in the previous section to deploy bobjpsenterprise using the wdeploy tool.

Task 15-6-6: Deploying Manually on Oracle WebLogic 10.3

This section discusses:

- Determining Whether Manual Deployment is Required
- Deploying Web Applications Manually

Determining Whether Manual Deployment is Required

You only need to follow the instructions in this section if you are deploying PeopleSoft web applications on Oracle WebLogic 10.3, and if the deployment of a web application fails. See the earlier tasks in this chapter for more information on the following steps.

To determine whether manual deployment is necessary:

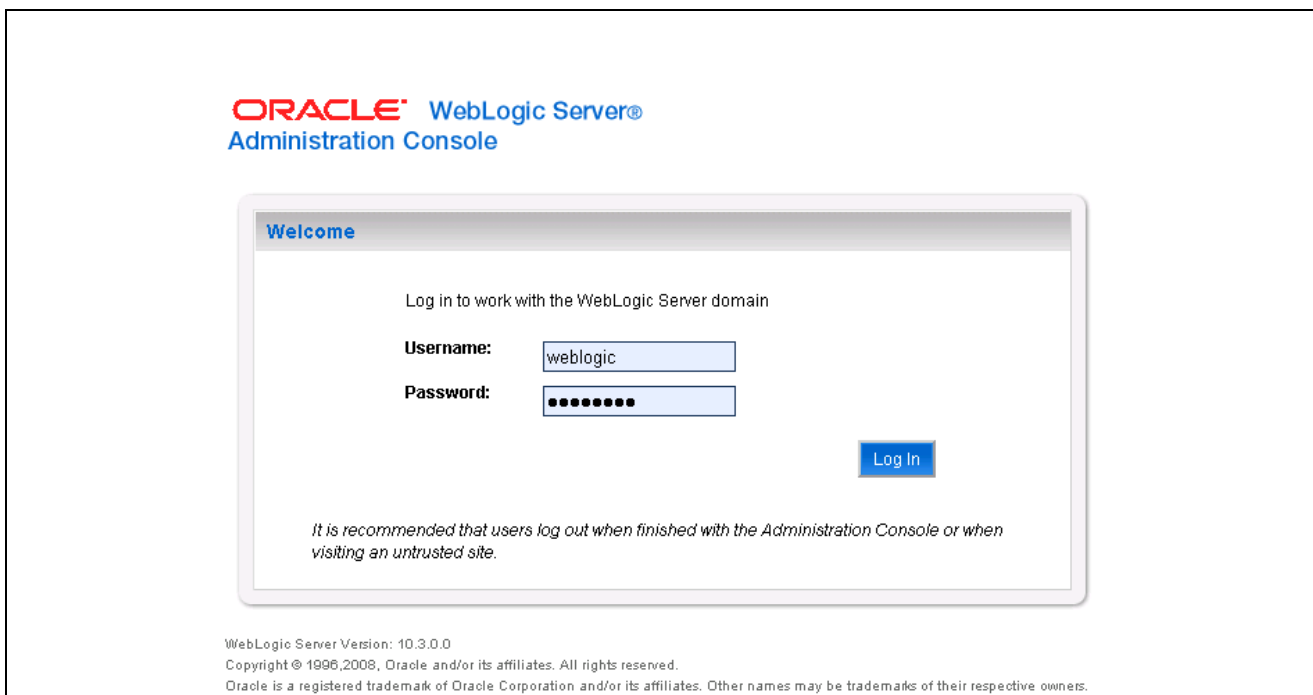
1. Install and configure an Oracle WebLogic 10.3 domain.
2. Configure a BOE database.
3. Install the BusinessObjects Enterprise XI 3.1 base installer.
During the installation, select the option to deploy a pre-installed web application server at the step to select a web application server (the exact wording of the prompt varies depending upon the operating system).
4. After deployment verify whether fifteen web applications have been deployed, by checking the Oracle WebLogic console.
5. Install the PeopleSoft Integration Kit on the base installation.
During the installation, select the option to deploy a pre-installed web application server at the step to select a web application server (the exact wording of the prompt varies depending upon the operating system).
6. If any of the web applications, for example bobjpsenterprise, fails to deploy, use the following procedure to manually deploy the web application.

If the web application deploys successfully, you do not need to carry out the manual deployment.

Deploying Web Applications Manually

If any web application deployment failed after carrying out the previous set of steps, use this procedure for manual deployment. To deploy manually:

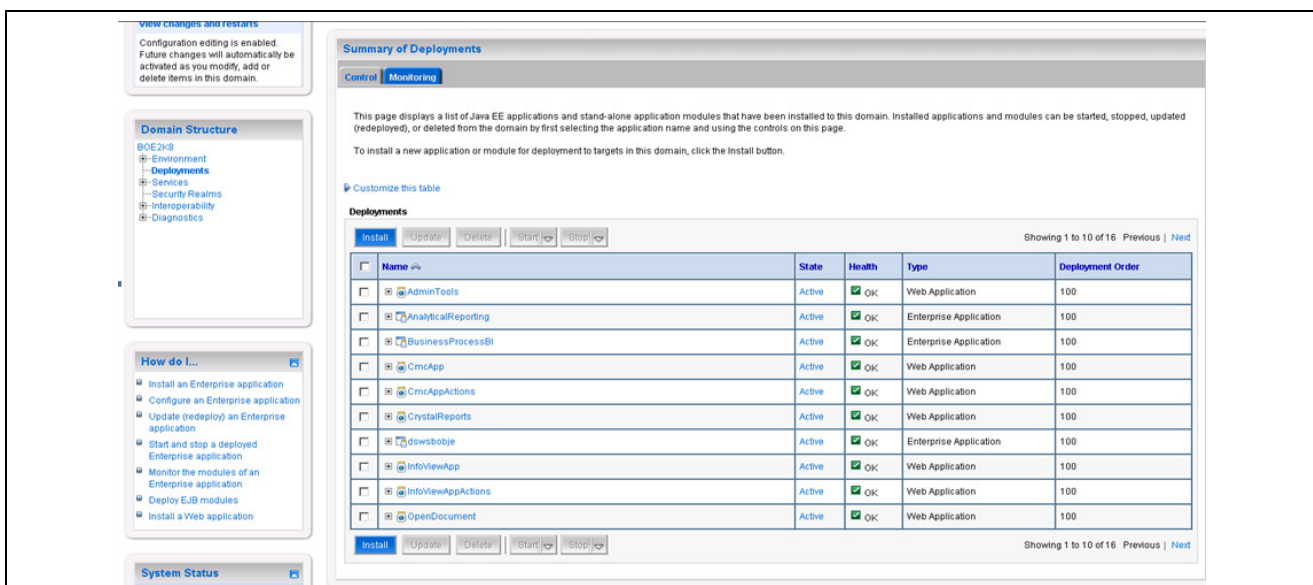
1. Log in to the Oracle WebLogic application server console with the username and password.



Oracle WebLogic Server Administration Console Log In window

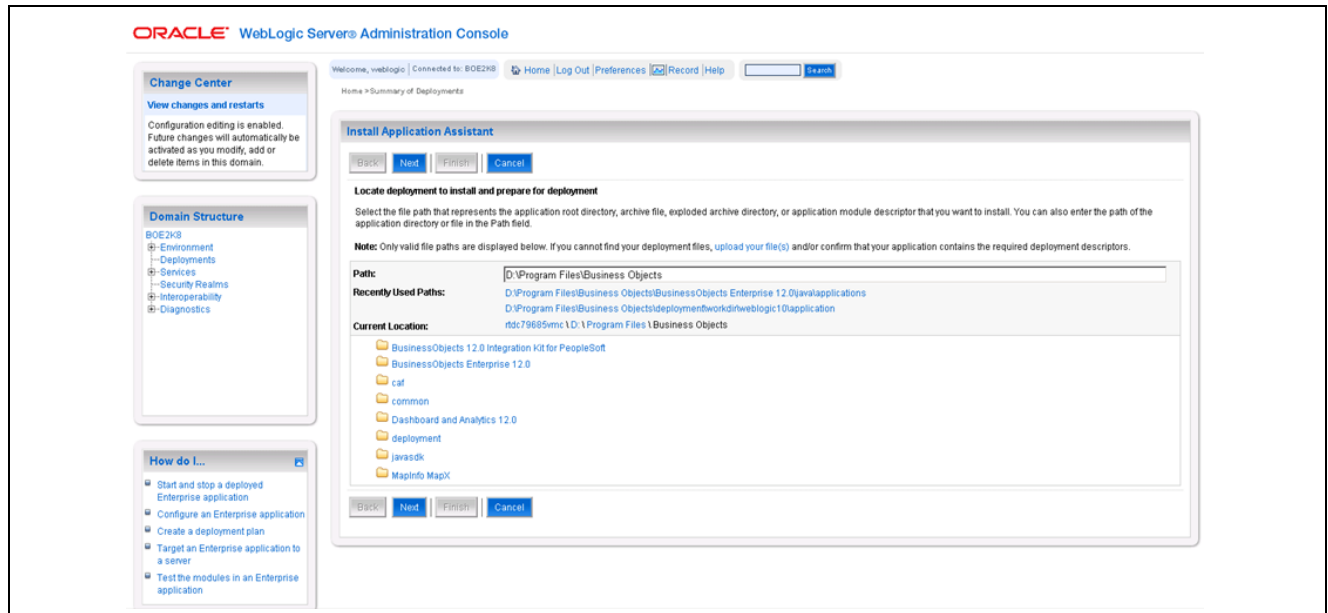
2. Select Domain Structure, Deployments from the menu on the left.

Note. For the sake of visibility, only a portion of the browser window is shown in these examples.



Summary of Deployments page on the Oracle WebLogic Administration Console

3. Click the Install button on the bottom of the page.
4. For Path, enter the following:

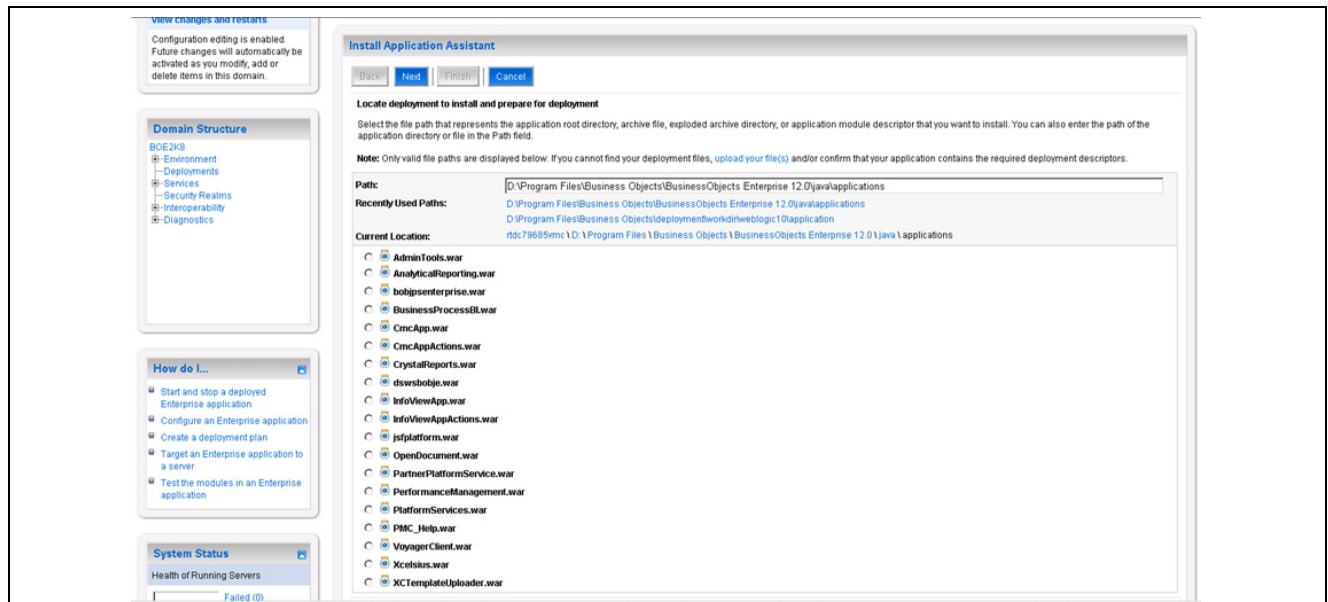


Install Application Assistant page

- On Microsoft Windows: *BOE_Install_Directory\BusinessObjects Enterprise 12.0\java\applications*.
 - On Linux or UNIX: *BOE_Install_Root_Path/bobje/enterprise120/java/applications*.
5. Choose the application that you want to deploy from the Current Location list, for example *bobjpsenterprise.war*.

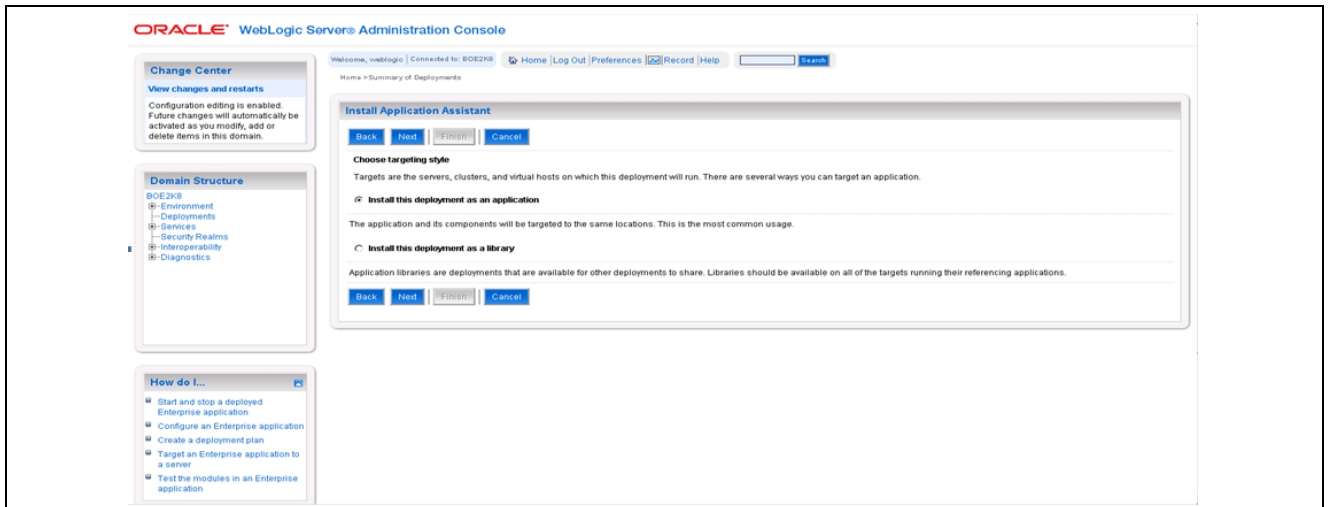
In this example, on Microsoft Windows, the complete path is *D:\Program Files\Business Objects\BusinessObjects Enterprise 12.0\java\applications\bobjpsenterprise.war*.

On Linux or UNIX, a sample path is */home/BOE_HOME/SLR103/bobje/enterprise120/java/applications*.



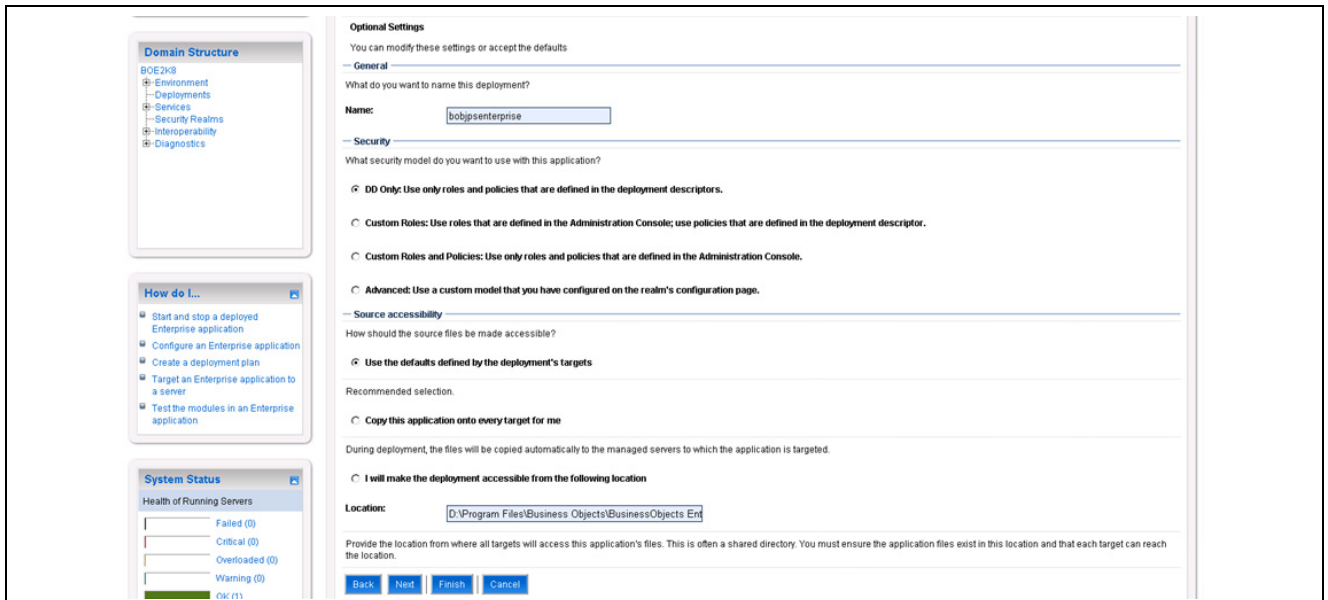
Install Application Assistant page with list of deployments

6. Click Next and then select Install this deployment as an application.



Selecting the targeting style on the Install Application Assistant page

7. Click Next and select the following options:



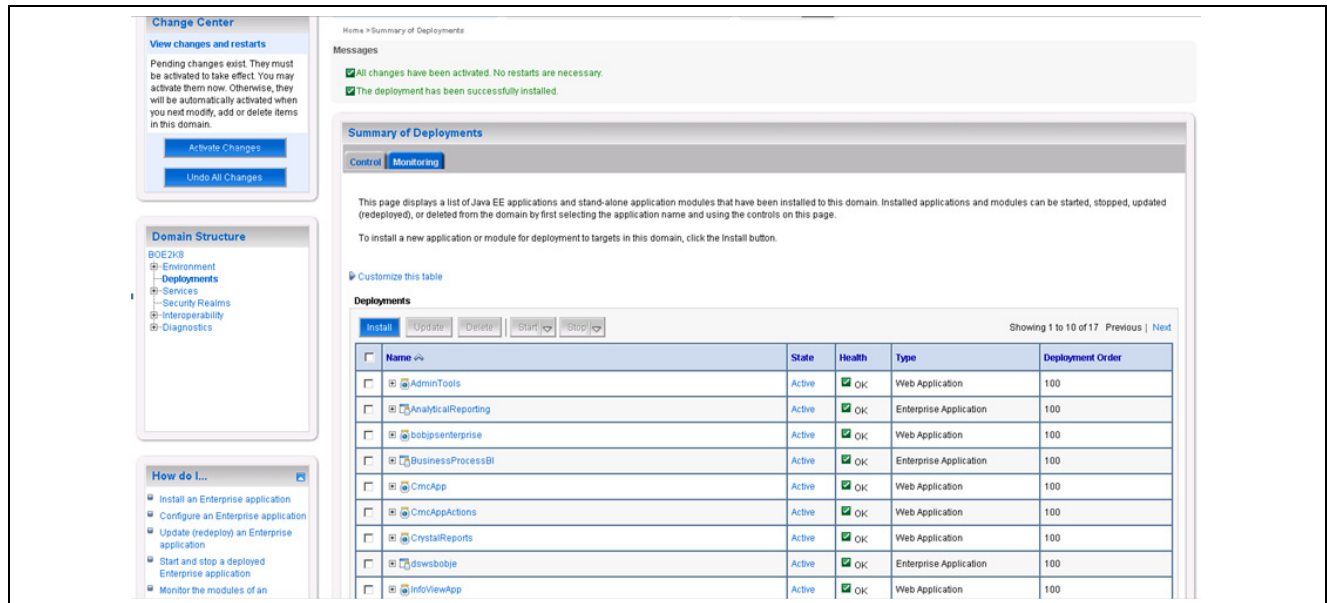
Choosing optional settings for deployment

- Under General: What do you want to name this deployment?
Name: bobjpsenterprise
- Under Security: What security Policies model do you want to use with this application?
DD Only: Use only roles and policies that are defined in the deployment descriptors.
- Under Source accessibility: How should the source files be made accessible?
Use the defaults defined by the deployment's targets.

8. Click Finish.

You see the following Deployment Complete messages:

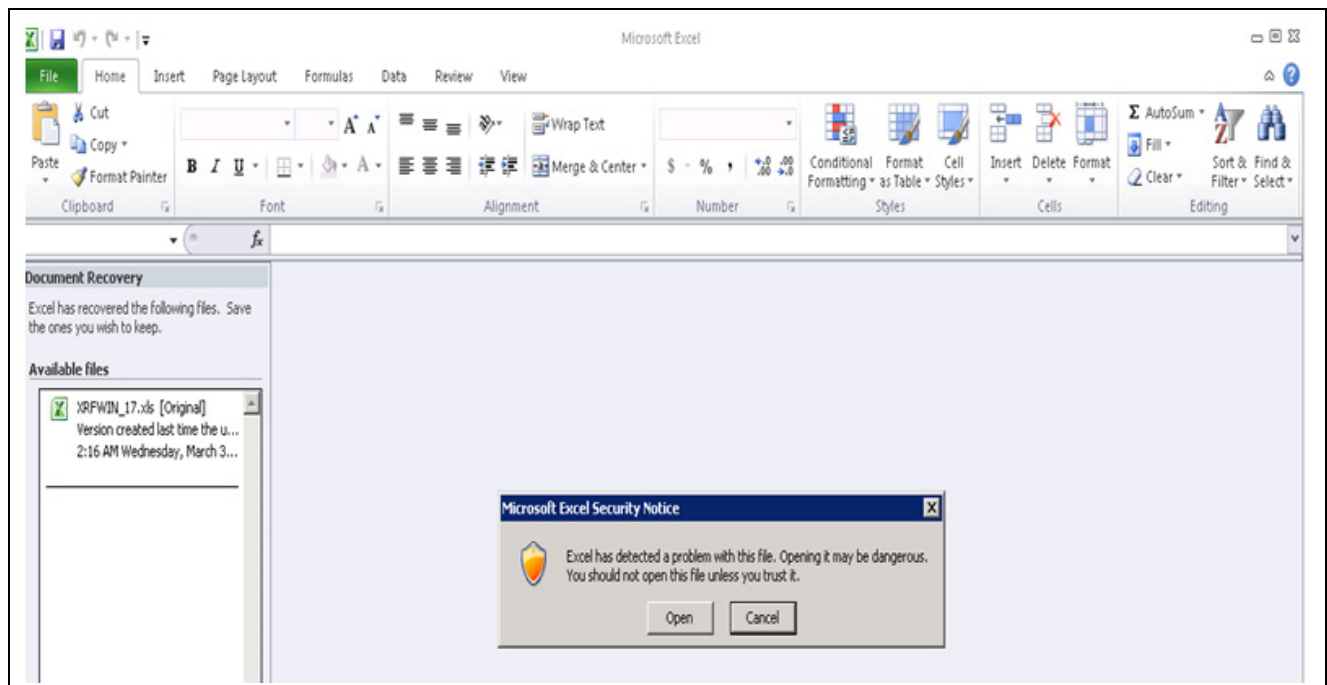
All changes have been activated. No restarts are necessary.
The deployment has been successfully installed.



Deployment Complete messages

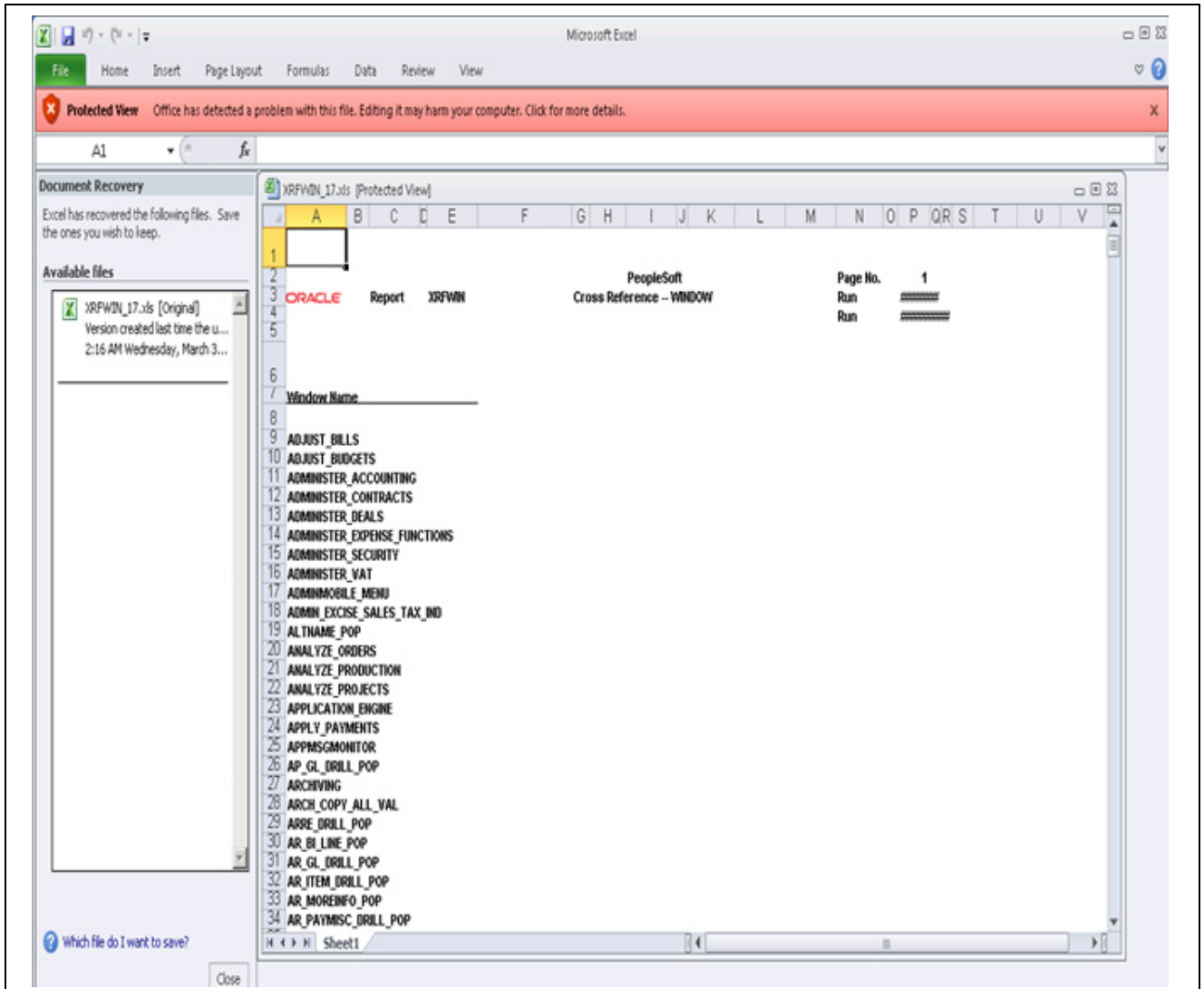
Task 15-6-7: Configuring Microsoft Office 2010 to Read Crystal Reports

When using Microsoft Excel 2010 or Microsoft Word 2010 to open a Crystal report created with SAP BusinessObjects Enterprise, the report may open in read-only mode, with the security message shown in this example: “Excel has detected a problem with this file. Opening it may be dangerous. You should not open this file unless you trust it.”



Microsoft Excel Security Notice message

After you click Open on the Microsoft Excel Security notice, you see the Protected View banner on the Microsoft Excel 2010 or Microsoft Word 2010 window, with this message: “Protected View. Office has detected a problem with this file. Editing it may harm your computer. Click for more details.”



Microsoft Excel 2010 window with Protected View banner

The information in this section applies to Crystal reports run with output formats .doc and .xls and viewed with Microsoft Word 2010 and Microsoft Excel 2010. In order to edit the report, disable the protected view and file blocking settings. For more information on Protected View, see the Microsoft Office support information.

See "View or modify Protected View settings in the Trust Center," Microsoft Office Support <http://office.microsoft.com/en-us/excel-help/what-is-protected-view-HA010355931.aspx#BM5>

See "How do I edit a blocked file?" Microsoft Office Support <http://office.microsoft.com/en-us/excel-help/what-is-file-block-HA010355927.aspx#BM2>

To change the Microsoft Office 2010 settings to disable Protected View and allow editing of the report files:

1. Access the Trust Center in Microsoft Excel 2010 or Microsoft Word 2010.
2. Select Protected View from the frame on the left.
3. Clear these check boxes:

- Enable Protected View for files that fails validation
 - Enable Protected View for files originating from the Internet
4. Select File Block Settings in the Trust Center window.
 5. Select Open selected file types in Protected View and allow editing.
 6. In the File Type list, select the Open and Save options for the following:
 - Word 2007 and later Documents and Templates
 - Word 2003 Binary Documents and Templates
 - Excel 2007 and later Documents and Templates
 - Excel 2003 Binary Documents and Templates

Task 15-7: Removing the Integrated SAP BusinessObjects Enterprise XI 3.1 Installation

This section discusses:

- Uninstalling PeopleSoft for BusinessObjects Enterprise XI 3.1 on Windows
- Uninstalling SAP BusinessObjects Enterprise XI 3.1 on Windows
- Uninstalling PeopleSoft for BusinessObjects Enterprise XI 3.1 on UNIX or Linux
- Uninstalling SAP BusinessObjects Enterprise XI 3.1 on UNIX or Linux

Task 15-7-1: Uninstalling PeopleSoft for BusinessObjects Enterprise XI 3.1 on Windows

To uninstall the SAP BusinessObjects Enterprise XI 3.1 integration to PeopleSoft on Windows, you must first uninstall the PeopleSoft for BusinessObjects Enterprise XI 3.1 integration, then uninstall SAP BusinessObjects Enterprise XI 3.1.

To uninstall PeopleSoft for BusinessObjects Enterprise XI 3.1 on Windows:

1. Select Start, Settings, Control Panel.
2. Select Add/Remove Programs.
3. Select BusinessObjects XI Integration for PeopleSoft Enterprise.
4. Click Remove.

Task 15-7-2: Uninstalling SAP BusinessObjects Enterprise XI 3.1 on Windows

After removing the BusinessObjects Enterprise XI 3.1 Integration Kit for PeopleSoft, use these steps to uninstall SAP BusinessObjects Enterprise XI 3.1:

Note. These instructions assume that Crystal Reports XI is not installed on the same machine as SAP BusinessObjects Enterprise XI 3.1.

1. Select Start, Settings, Control Panel, Add or Remove Programs.
2. Remove SAP BusinessObjects Enterprise XI 3.1.
3. Remove the following directories:
 - *BOE_HOME*\Business Objects, where *BOE_HOME* is the directory where you installed SAP BusinessObjects Enterprise XI 3.1. If you accepted the defaults during installation, this is C:\Program Files\Business Objects.
 - *BOE_HOME*\Common Files\Business Objects
4. If you have both SAP BusinessObjects Enterprise XI 3.1 and Crystal Reports installed on your system, you must also delete the Crystal Reports folders, and delete the Crystal Reports registry key, following a similar procedure to that described above.
5. Reboot your system.

Task 15-7-3: Uninstalling PeopleSoft for BusinessObjects Enterprise XI 3.1 on UNIX or Linux

To uninstall the SAP BusinessObjects Enterprise XI 3.1 integration to PeopleSoft on UNIX or Linux, you must first uninstall the BusinessObjects Enterprise XI 3.1 Integration Kit for PeopleSoft, then uninstall SAP BusinessObjects Enterprise XI 3.1. To uninstall the BusinessObjects Enterprise XI 3.1 Integration Kit for PeopleSoft on UNIX or Linux:

1. Run the following script, where *<BOE_HOME>* is the directory where you installed SAP BusinessObjects Enterprise XI 3.1:

```
<BOE_HOME>/AddOrRemoveProducts.sh
```
2. Select 2 for BusinessObjects XI Integration for PeopleSoft Enterprise.
3. Enter the information that you specified when installing SAP BusinessObjects Enterprise XI 3.1:
 - Machine name — the computer where you installed SAP BusinessObjects Enterprise XI 3.1.
 - CMS port
 - CMS Administrator password
4. Press ENTER to begin the removal process.

Task 15-7-4: Uninstalling SAP BusinessObjects Enterprise XI 3.1 on UNIX or Linux

After removing the BusinessObjects Enterprise XI 3.1 Integration Kit for PeopleSoft, use these steps to uninstall SAP BusinessObjects Enterprise XI 3.1:

1. Run the following script:

```
BOE_HOME/AddOrRemoveProducts.sh.
```
2. Select 1 for SAP BusinessObjects Enterprise XI 3.1.
3. Select 2, for Uninstall product.

Task 15-8: Converting Crystal Reports

This section discusses:

- Selecting the Crystal Reports Conversion Method
- Converting Existing Crystal Reports to Crystal Reports 2008 Format
- Converting Existing Crystal Reports to Run with SAP BusinessObjects Enterprise XI 3.1

Selecting the Crystal Reports Conversion Method

This section includes information on converting from Crystal Reports to various formats. Your situation will fall into one of the following scenarios:

- *Scenario 1:*

You are upgrading your PeopleSoft installation from a pre-PeopleSoft PeopleTools 8.50 or 8.51 environment to run on PeopleSoft PeopleTools 8.52 or higher and you do *not* plan to use SAP BusinessObjects Enterprise XI 3.1. You will use the Microsoft Windows-based Crystal Report 2008 instead.

You will have to run a conversion program to convert your Crystal reports so that they can run on PeopleSoft PeopleTools 8.52.

See Converting Existing Crystal Reports to Crystal Reports 2008 Format.

- *Scenario 2:*

Your PeopleSoft installation is already running on PeopleSoft PeopleTools 8.52 or higher and you want to run your Crystal reports using SAP BusinessObjects Enterprise XI 3.1.

You will have to convert your reports to enable them to run on SAP BusinessObjects Enterprise XI 3.1.

See Converting Existing Crystal Reports to Run with SAP BusinessObjects Enterprise XI 3.1.

- *Scenario 3:*

You are upgrading your PeopleSoft installation from PeopleSoft PeopleTools 8.49 or earlier to PeopleSoft PeopleTools 8.52 or higher and you plan to use SAP BusinessObjects Enterprise XI 3.1.

You will have to run a conversion program that converts your Crystal Reports to the Crystal Reports format supported for PeopleSoft PeopleTools 8.50 or higher, and to enable them to run on SAP BusinessObjects Enterprise XI 3.1.

See Converting Existing Crystal Reports to Run with SAP BusinessObjects Enterprise XI 3.1.

- *Scenario 4:*

You are upgrading your PeopleSoft installation from PeopleSoft PeopleTools 8.50 or 8.51 to 8.52 and are already running your reports on SAP BusinessObjects Enterprise XI 3.1.

No report conversion is necessary.

Task 15-8-1: Converting Existing Crystal Reports to Crystal Reports 2008 Format

This section discusses:

- Understanding the PeopleTools RPT Conversion Utility

- Converting RPT Files
- Repairing RPT Files

Understanding the PeopleTools RPT Conversion Utility

The PeopleTools RPT Conversion utility is a standalone program that converts your .rpt files from the format used in previous PeopleSoft releases to the format used for PeopleSoft PeopleTools 8.50 and higher. You only need to run this program if you are upgrading from previous versions of PeopleSoft PeopleTools. This section discusses how to:

- Convert .rpt files
- Repair .rpt files

Converting RPT Files

Before you run the PeopleTools RPT Conversion utility, you should move your report files to a specific directory. You can then point the conversion utility to that directory.

You should also back up your report files. If any problem occurs while you run this program, your report files may become corrupted.

To run the conversion:

1. Select Start, Programs, PeopleSoft 8.52, PeopleTools RPT Converter.
Alternatively, run `pscvtrpt.exe` from `PS_HOME\bin\client\winx86`.
2. Accept the default directory or browse to select a new directory.
The Selected Report directory default is the location of your Crystal Reports as specified in the Configuration Manager. If you wish to convert files in a different location, select the new directory.
3. Select the check box Convert RPT files in subdirectories.
The database information is automatically removed from older reports that are converted. After the conversion, reports that were successfully converted appear in the Files Converted list box.
4. Select Convert.
If you have not signed into the PeopleSoft database, you are prompted to do so. After you successfully sign into a database, you can see a progress window.
5. At the prompt "Successful conversion of x files. Skipped x files," click OK.
When the conversion is complete, a Close button is enabled.
6. Select Close.
Before closing, take note of any .rpt files that failed to convert. This is usually due to read-only access.

Repairing RPT Files

You can use the RPT Conversion utility when you are experiencing problems with a report that has already been converted as part of the upgrade procedure.

Note. Select the Run Verify Database option first. If the problem is still not resolved, select the Remove database info from current Crystal reports option.

To repair RPT files:

1. Select Start, Programs, PeopleSoft 8.52, PeopleTools RPT Converter.

2. Accept the default directory or browse to select a different directory.
The Selected Report directory default is the location of your Crystal Reports as specified in the Configuration Manager. If you wish to repair files in a different location, select the new directory.
3. Select either the Run Verify Database or the Remove database info from current Crystal reports check box.
The Run Verify Database option verifies whether the query information saved in the report is in sync with the query definition.
When it is complete, reports that were current and had the database information removed appear in the Files Converted list box, with a * to the left of the report name.
4. Select Convert.
A progress window appears.
5. At the prompt “Successful conversion of x files. Skipped x files,” click OK.
When the conversion is complete, a Close button is enabled.
6. Select Close.
Before closing, take note of any .rpt files that failed. This is usually due to read-only access.

Task 15-8-2: Converting Existing Crystal Reports to Run with SAP BusinessObjects Enterprise XI 3.1

This section discusses:

- Understanding the Conversion to Crystal Reports 2008
- Preparing for Conversion of Existing Crystal Reports
- Converting Reports to the SAP BusinessObjects Enterprise/Crystal Reports Repository
- Publishing Reports to the SAP BusinessObjects Enterprise/Crystal Reports Repository
- Converting and Publishing Reports to the SAP BusinessObjects Enterprise/Crystal Reports Repository
- Verifying the Conversion and Publish
- Reviewing Common Conversion Errors and Warning Messages

Understanding the Conversion to Crystal Reports 2008

The PeopleTools RPT conversion utility `psrconv.exe` is a program that converts your Crystal Reports .rpt files from the format that PeopleSoft software used in previous PeopleSoft PeopleTools releases to the PeopleSoft PeopleTools format for use with Crystal Reports 2008. This utility also publishes the converted Crystal Reports files by moving them into the BusinessObjects Enterprise Repository so that they can run in the PeopleSoft database.

Note. The PeopleTools RPT conversion utility is not intended to be run on reports with non-PeopleSoft data sources.

Overview of the Conversion and Publish Processes

There are two key processes:

- Converting report definition files from Crystal 9 to Crystal 2008 format

- Publishing Crystal 2008 report definition files into the BusinessObjects Enterprise XI 3.1 Report Repository

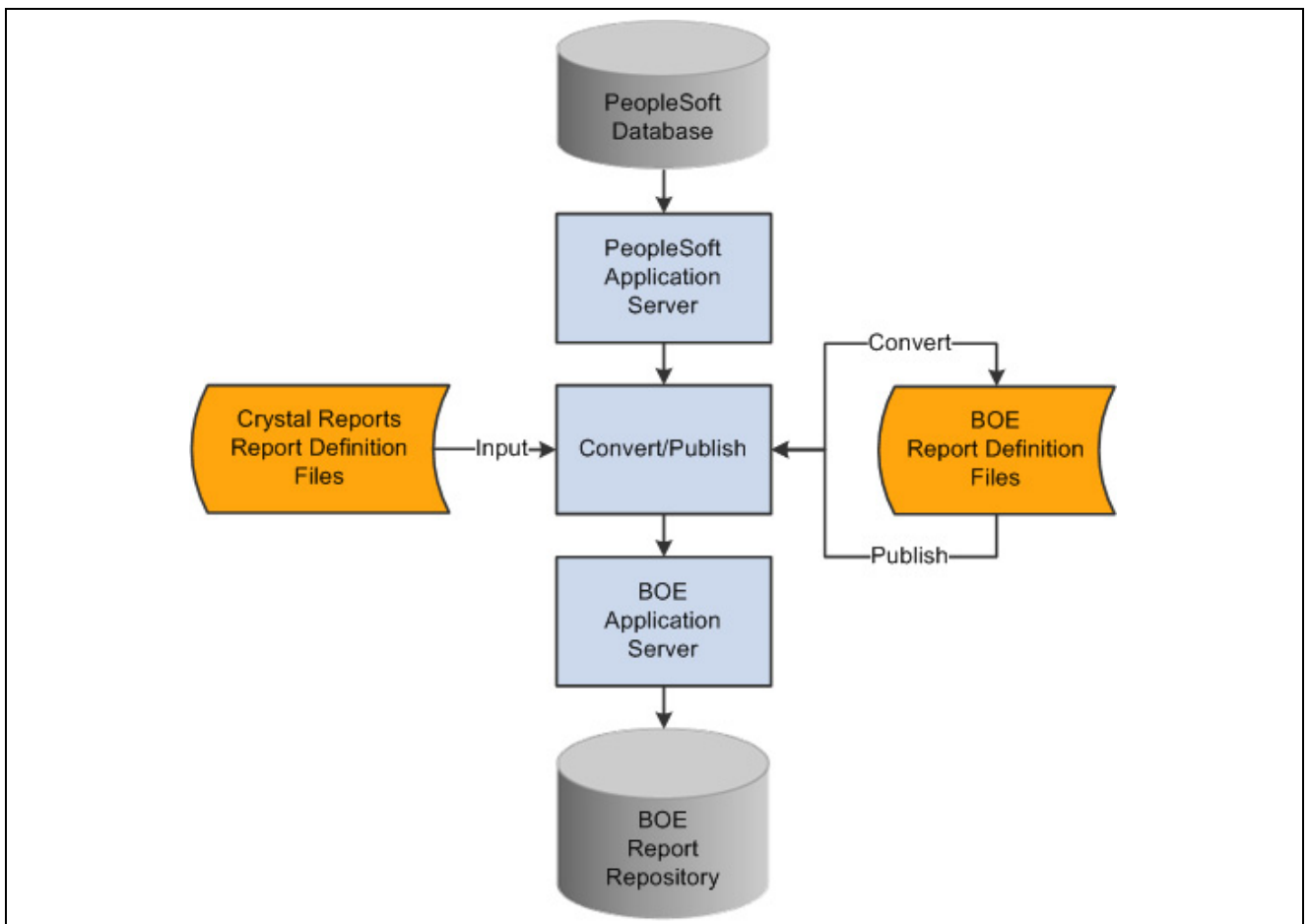
In order to run reports using SAP BusinessObjects Enterprise XI 3.1 through the PeopleSoft software, the Crystal Reports 2008 report definitions must reside in the BusinessObjects Enterprise XI 3.1 Report Repository.

You can perform each process individually or both together. Here are some examples that might make this clear:

- In a development environment you might run convert and publish together to populate your development environment.
- In a test environment you may want to run the conversion by itself, and then run the publish process multiple times in order to publish the same reports to different test environments.

The following diagram illustrates the process flow involved in the conversion and publishing process, moving from the PeopleSoft database to the BusinessObjects Enterprise report repository:

Note. In this flowchart, “BOE” refers to SAP BusinessObjects Enterprise XI 3.1, and “Crystal Reports” refers to Crystal Reports 2008.



PeopleSoft PeopleTools conversion or publish process

Understanding Report Conversion

The conversion process performs the following:

- Prompts the user for inputs:

- PeopleSoft sign-on information
- The action that they would like to take
- Source folder with Crystal Reports 9 report definition files
- Destination folder for Crystal Reports 2008 report definition files
- For each report to be converted in the source folder the program:
 - Reads a Crystal 9 report from a folder
 - Runs a Verify Database on that report
 - Removes database information from the report definition and verifies whether the query information saved in the reports is in sync with their query definitions.
 - For every field on the report the program determines the name by which QAS recognizes it.
The program identifies all the possible field names that could be used in a report (as either a selected field, parameter field, expression field) and then provides the name QAS will use for those same fields.
 - Calls a Business Objects-supplied conversion routine to convert report definition contents from Crystal 9 format to Crystal 2008 format
 - Runs a Verify Database on the converted report definition

Understanding Report Publishing

Report publishing can be accomplished by:

- Publishing reports automatically after converting them
- Publishing reports in a separate execution of the program

If you are publishing Crystal 2008 report files for the first time to the BusinessObjects Enterprise XI 3.1 Report Repository for a PeopleSoft database, folders are created in the BusinessObjects Enterprise XI 3.1 Repository under the database name. Report definitions must be published for each PeopleSoft database for which you plan to run reports. Published report definitions cannot be shared across databases. SAP BusinessObjects Enterprise XI 3.1 security on these folders is set with full access granted to the BusinessObject Enterprise Administrative User (BOE_Admin) identified on the PeopleTools, Query Access Services, Configure, BusinessObject Enterprise page. Read access is granted to individual users.

The publish process:

- Requires login information for the administrative PeopleSoft user (user BOE_Admin)
- Requires as input the user for the source folder with Crystal 2008 reports
- Stores (publishes) the converted report in the BusinessObjects Enterprise XI 3.1 Report Repository
- Updates information in the PeopleSoft Report Manager so that the Report Manager is aware of the report definitions in the BusinessObjects Enterprise XI 3.1 Report Repository

Note. If you publish a report that has been previously published to the BusinessObjects Enterprise XI 3.1 Repository for a PeopleSoft database, the earlier version will be overwritten.

In order to successfully convert and publish you must have the following environment in place:

- A properly installed SAP BusinessObjects Enterprise XI 3.1 server
- A properly installed PeopleSoft application (database and application server)

- Integration between the PeopleSoft application and the SAP BusinessObjects Enterprise XI 3.1 server properly installed and configured
- A designated machine on which you will run the conversion program

See the PeopleSoft upgrade guide for your platform.

Preparing for Conversion of Existing Crystal Reports

Before running the conversion, there are several steps you must complete.

To prepare the conversion workstation:

1. Download and install the BusinessObjects Enterprise report migration file.

Note. Make sure that you have the correct version of the file for your operating system and software versions.

- a. To download the conversion routine, follow the previous instructions for obtaining installation files.

See Obtaining SAP BusinessObjects Enterprise and Crystal Reports Software.

- b. The file for the BusinessObjects Enterprise conversion is `crpsenterprisemigratereport.exe`. Copy this file into `PS_HOME\bin\client\winx86` on the Microsoft Windows computer that will be used to run the conversion.

2. If the computer that you use for conversions is different from the computer hosting the SAP BusinessObjects Enterprise XI 3.1 server where you are publishing the reports:

- Install the SAP BusinessObjects XI 3.1 Integration Kit for PeopleSoft on the computer.
- Ensure that the machine name of the Microsoft Windows computer used for conversion can be pinged from the SAP BusinessObjects Enterprise XI 3.1 server box and vice versa. If not, add the full machine name and the IP address of the computer where conversions are run to the host file of the computer where SAP BusinessObjects Enterprise XI 3.1 is installed.

3. Confirm the operating system of the workstation.

The conversion program must be run on a machine with one of the Microsoft Windows operating systems platforms that is supported for running SAP BusinessObjects Enterprise XI 3.1 on PeopleSoft PeopleTools 8.52.

See My Oracle Support, Certifications.

4. Confirm access to the PeopleSoft application.

The workstation must have connectivity to the PeopleSoft application (that is, you can log on to the application through the PeopleSoft logon page).

5. Confirm access to the SAP BusinessObjects Enterprise XI 3.1 application.

The workstation must have connectivity to the SAP BusinessObjects Enterprise XI 3.1 application. Users can verify connectivity by logging in to the SAP BusinessObjects Enterprise XI 3.1 server Central Management Console (CMC) on the workstation.

Note. When you log in to the CMC, select the Servers link and review the list of servers and their status. If the Web Intelligence Processing Server shows status as failed, delete the server from the list as it is not necessary in the integration between SAP BusinessObjects Enterprise XI 3.1 and PeopleSoft software.

See Confirming Access to the SAP BusinessObjects Enterprise XI 3.1 Administration and Central Management Console.

6. Confirm that the win32_x86 path is included in the PATH environment variable of the workstation.
7. Install PeopleSoft PeopleTools on the workstation.

The way to install the conversion program on the conversion workstation is to simply install PeopleSoft PeopleTools on the workstation. PSCRCNV.EXE is one of the files installed on the machine.

8. Install Crystal Reports XI on the workstation.

Install the latest version of Crystal Reports XI and any hotfixes. Crystal Reports XI will install certain dynamic link libraries that are required for the installation program.

9. Install the PeopleSoft ODBC driver by running psodbcinst.exe.

PSODBC provides connectivity between Crystal 9 or higher reports and the PeopleSoft application database.

See "Setting Up the Install Workstation," Installing PeopleSoft ODBC Driver and Configuring the Crystal 2008 .NET Runtime.

To confirm the PeopleSoft Application environment:

1. Confirm the application version of the database and application version of the Crystal 9 Reports.

The PeopleSoft database that you have must be associated with the Crystal 9 or higher reports that you want to convert. That is, the database must have the queries that the Crystal 9 or higher reports access. And the application version of the database must match the application version of the reports that you plan to convert.

2. Verify that the user that will convert the reports has Query access for all the reports that you are planning to convert.

The simplest way to do this is to assign the PeopleSoft Administrator role to user BOE_Admin. That role allows the user access to run all queries. To assign this role to BOE_Admin:

- a. Log in to the PeopleSoft application in a browser and select PeopleTools, Security, User Profiles.
- b. Open the User Profile for BOE_Admin and select the Roles tab.
- c. If not already present in the list of Roles, add Role *PeopleSoft Administrator* to the roles assigned to BOE_Admin and save the page.

Note. The PeopleSoft Administrator Role should be removed from BOE_Admin as soon as you are done converting reports to minimize security concerns.

- d. If you do not want to assign the PeopleSoft Administrator Role to user BOE_Admin, there are two options:

Option one: Run the conversion by running the conversion program logged on as a PeopleSoft user who does have the PeopleSoft Administrator role assigned to it.

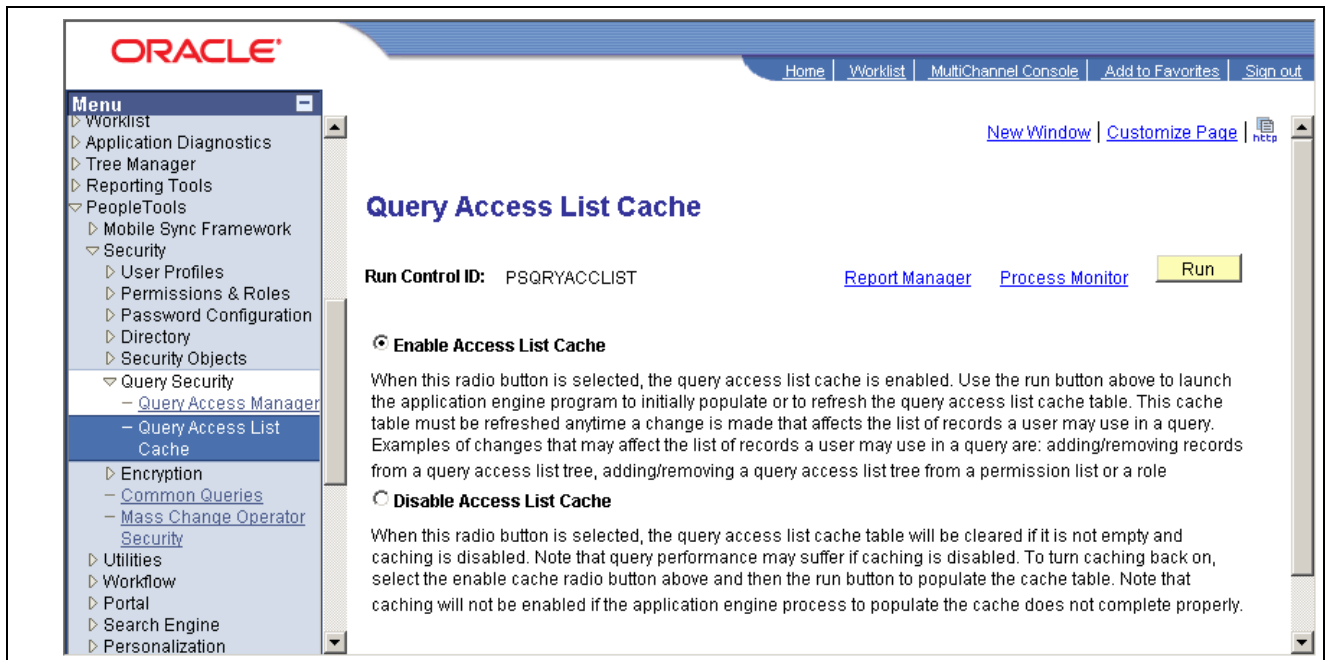
Option two: Manually assign query security to user BOE_Admin such that BOE_Admin has security access to all queries used in Crystal reports. This can be time consuming and error prone, however.

3. Assign Administrator rights to user BOE_Admin in CMC, as follows:

- a. Log in to CMC and navigate to Home, Users and Groups.
- b. In Group Hierarchy, right-click *Domain\BOE Admin* group (where *Domain* is the domain you added in Authentication) and select Join Group.

- c. Select the Administrators group as a destination group and click OK.
4. If you logged out, log in to the PeopleSoft application in a browser.
5. Run the process to update the Query Access List Cache as follows:

Note. When the Enable Access List Cache option is selected and roles of a user Profile or permission list of a role has been modified, which affect the Query Access List Cache, you must rerun the QRYACCLIST Application Engine process to properly update the cache. Otherwise, the Query Access List Cache is not up-to-date and will be switched off automatically.



Query Access List Cache page

- a. Select PeopleTools, Security, Query Security, Query Access List Cache.
- b. On the Query Access List Cache page, verify that the radio button Enable Access List Cache is selected.
- c. Click the Run button to run the process.
6. Confirm the integrity of the PeopleSoft application database.

Verify the integrity of the PeopleSoft application database by running sysaudit.sqr and sysaud01.sqr on the database. In particular, there should be no anomalies in the database as regards Query definitions (SysQuery-01 through SysQuery-26).

See *PeopleTools 8.52: Data Management PeopleBook*.

If you are swapping the base language, also run swpaudit.sqr.

See *PeopleTools 8.52: Global Technology PeopleBook*.

7. Confirm your SAP BusinessObjects Enterprise XI 3.1 environment and integration with the PeopleSoft system.

The conversion program relies on having a properly installed and configured SAP BusinessObjects Enterprise XI 3.1 so that the converted report definitions can be inserted in the SAP BusinessObjects Enterprise XI 3.1 repository. There are no special steps in this section that are not part of the basic installation steps covered elsewhere in this installation guide.

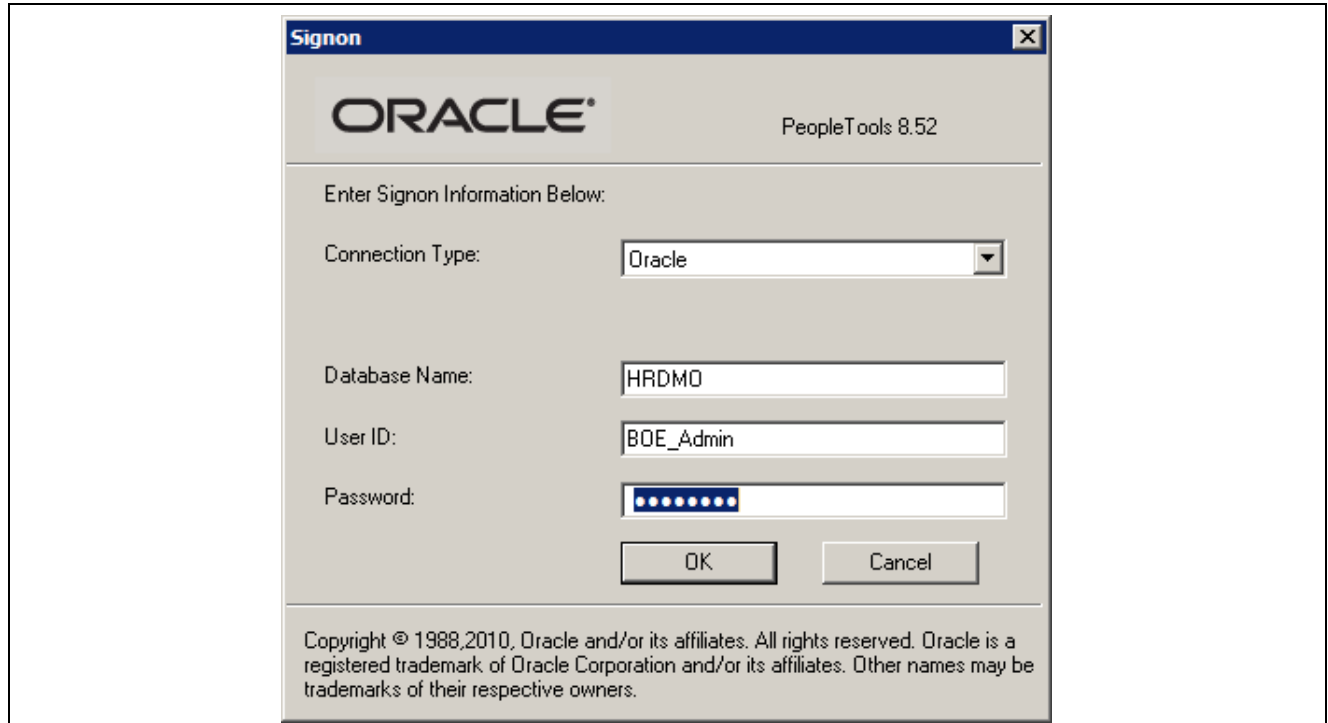
Converting Reports to the SAP BusinessObjects Enterprise/Crystal Reports Repository

To run the conversion:

1. Run `pscrconv.exe` from `PS_HOME\bin\client\winx86` directory.
2. Sign into the PeopleSoft database, if you have not already done so.

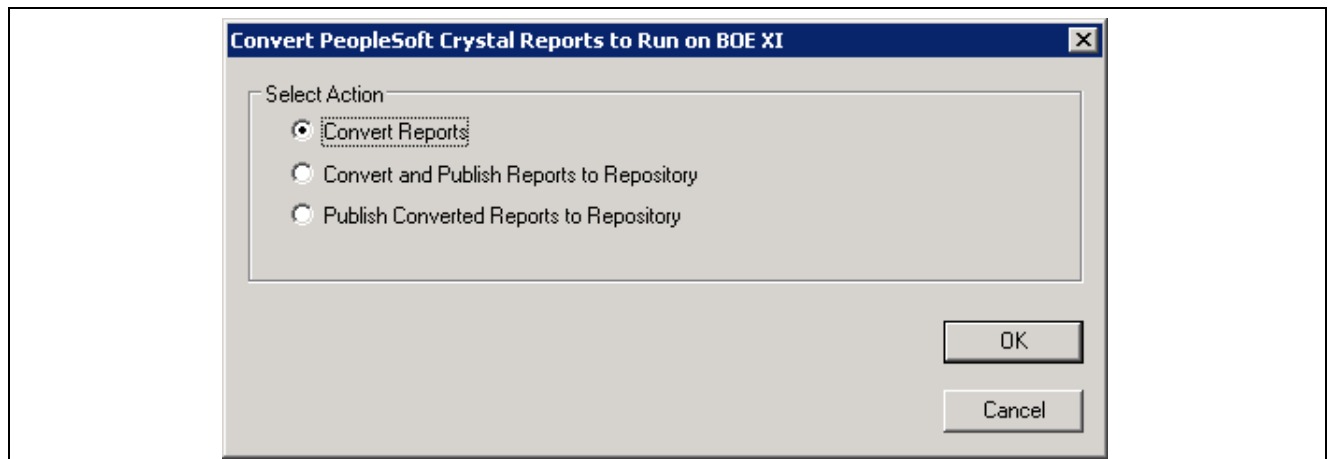
Log in as user `BOE_Admin` as shown in this example:

Ensure that you log into the correct database for the reports that you are converting. For example, do not sign into a Human Resources database if the reports were created against a Financials database.



Signon dialog box for Conversion Utility

3. Select Convert Reports on the Convert PeopleSoft Crystal Reports to Run on BOE XI dialog box, as shown in this example:



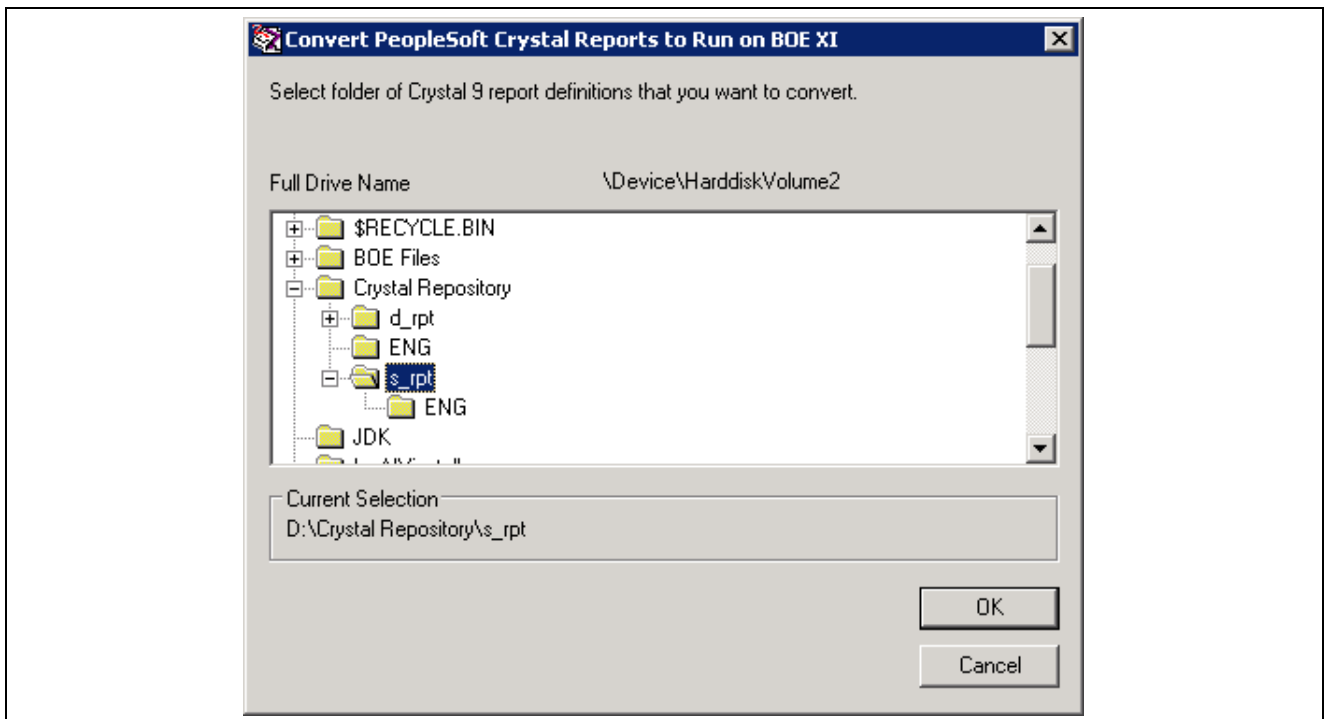
Selecting the convert option Convert PeopleSoft Crystal Reports to Run on BOE XI dialog box

Converting reports without publishing them to the SAP BusinessObjects Enterprise XI 3.1 report repository allows you to go from running Crystal Reports 9 report definitions to running Crystal Reports 2008 report definitions using Crystal Reports XI on a client machine. The converted reports will be stored in a directory that you specify a little later. Converting without publishing is useful in a demonstration environment where you wish to publish reports to a production or development environment at a later time.

4. Select a report input directory and click OK.

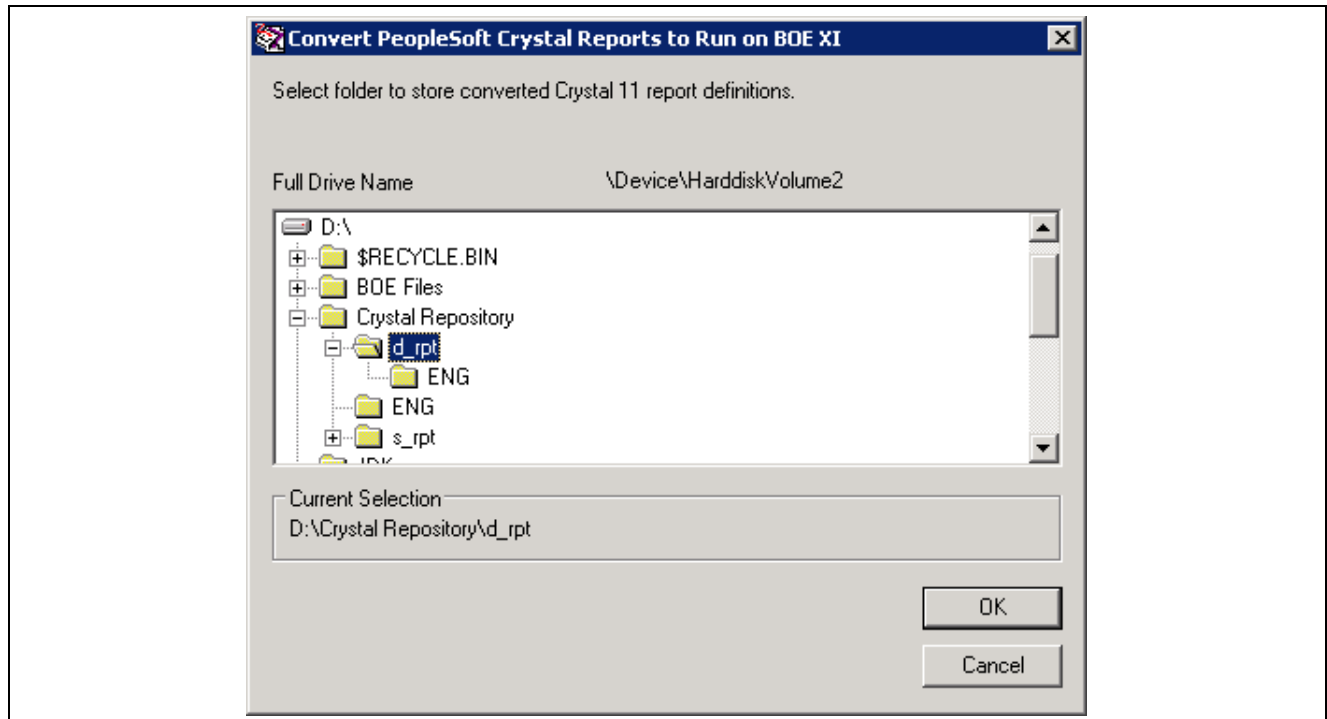
The report input directory must contain a subdirectory that is identified by a language code; the Crystal report definitions to be converted reside in this subdirectory.

For example, select D:\Crystal Repository\s_rpt if the reports to be converted are located in D:\Report Repository\s_rpt\ENG.



Specifying the input directory for the Crystal Reports definition conversion

5. Select a report output directory for the converted reports and click OK.



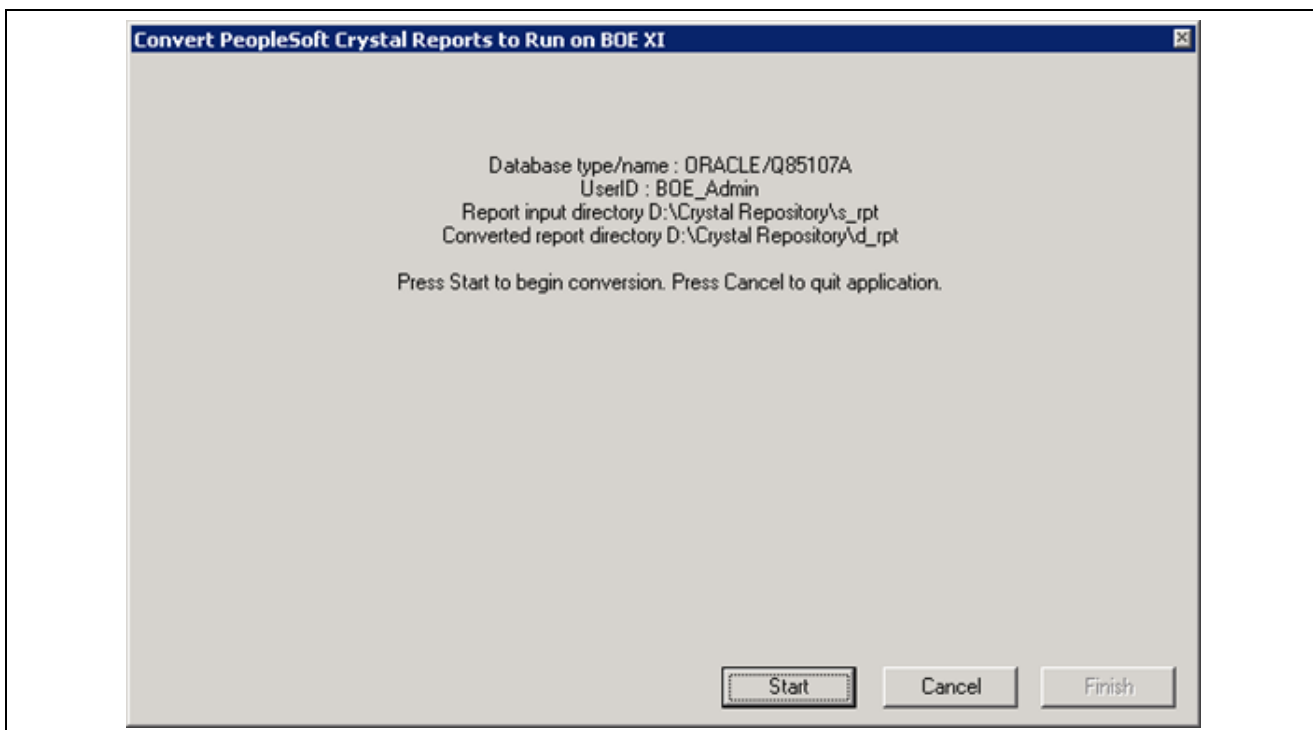
Specifying the output directory for the Crystal Reports definitions conversion

This can be any writable directory, however it cannot be a subdirectory of the report input directory. For example, if the reports to be converted are located in D:\\Crystal Repository\\s_rpt\\ENG, the report output directory cannot be D:\\Crystal Repository\\s_rpt\\NEW.

The conversion program will create an appropriate language subdirectory in which the converted reports will be placed. Therefore, if you want your converted reports to be placed in D:\\Crystal Repository\\d_rpt\\ENG, enter D:\\Crystal Repository\\s_rpt as the report output directory.

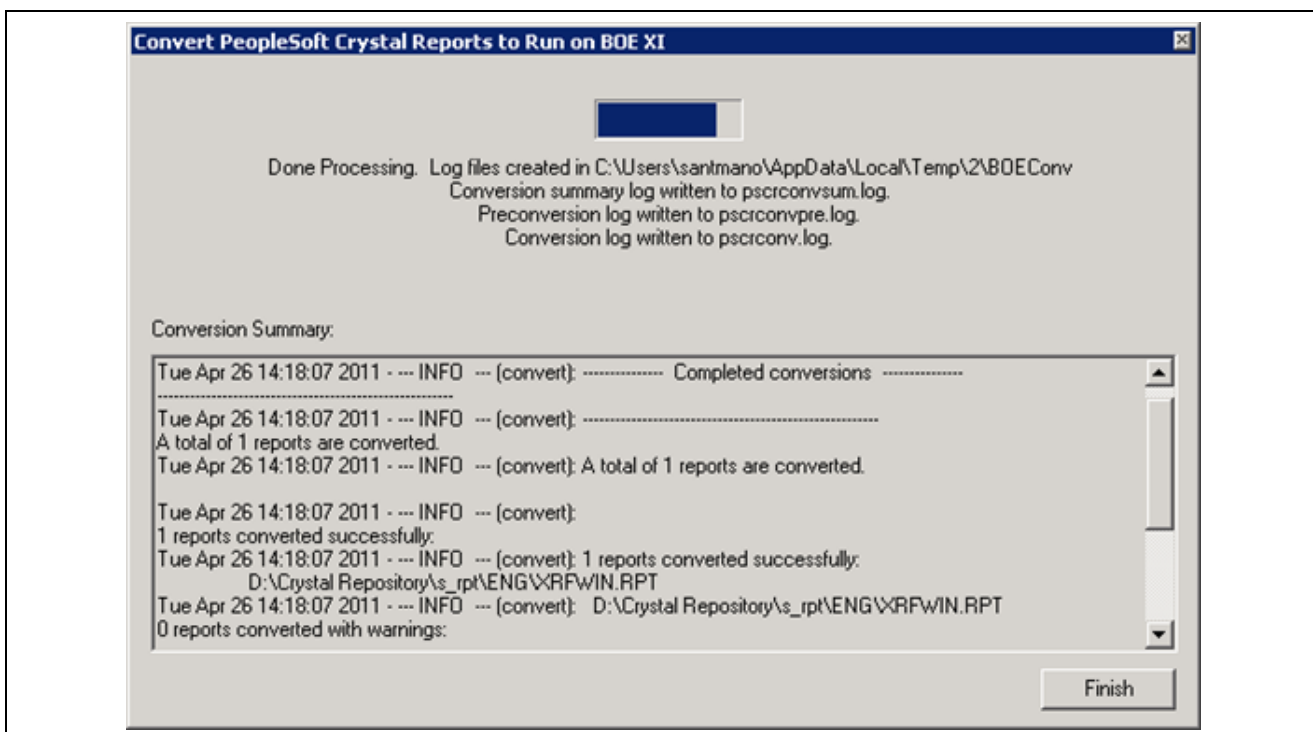
6. Review the information on the summary screen.

The summary includes the database name, user ID, report input directory, and converted report directory. After validating the information, click the Start button to begin the process. Clicking Cancel will cause you to exit from the program.



Summary information for the Crystal Reports conversion

A window appears indicating that the conversion is processing. Once the process is complete, a summary details information about the execution. This information is also written to the *PS_HOME\bin\client\winx86\pscrconvsum.log* file.



Progress indicator for the Crystal Reports conversion

7. Click the Finish button.

8. After the report is published to the BOE Repository, right-click the published report in CMC and update the database configuration information.
9. Verify the conversion using the procedure given earlier.

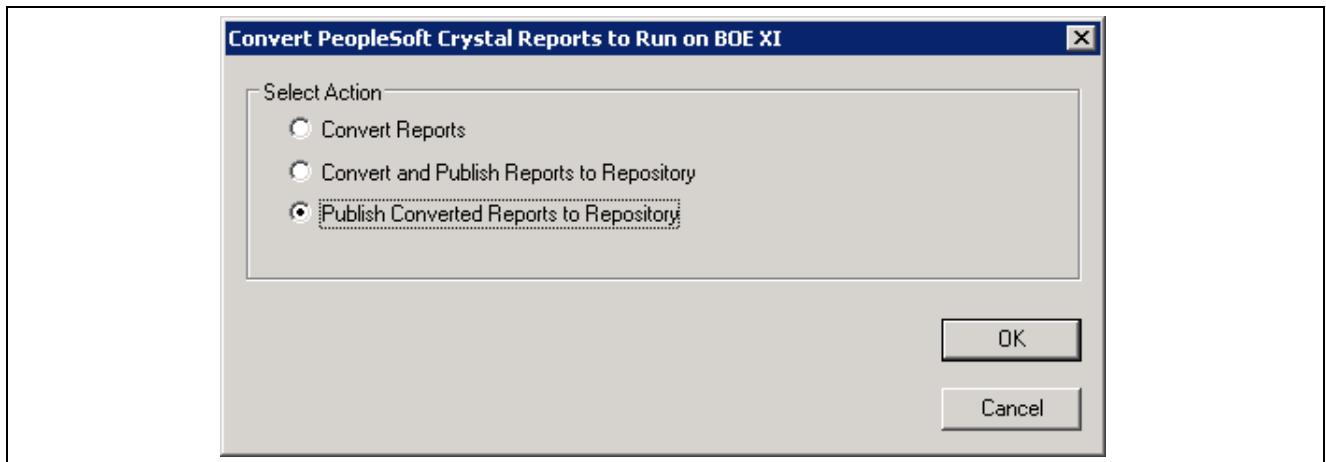
See Verifying the PeopleSoft to SAP BusinessObjects Enterprise XI 3.1 Integration.

The following section also gives information on verifying and troubleshooting the conversion process.

Publishing Reports to the SAP BusinessObjects Enterprise/Crystal Reports Repository

To publish converted reports:

1. Run `pscrconv.exe` from `PS_HOME\bin\client\winx86` directory.
2. Sign into the PeopleSoft database, if you have not already done so.
Log in as user `BOE_Admin`.
3. Select Publish Converted Reports to Repository on the Convert PeopleSoft Crystal Reports to Run on BOE XI dialog box, as shown in this example:

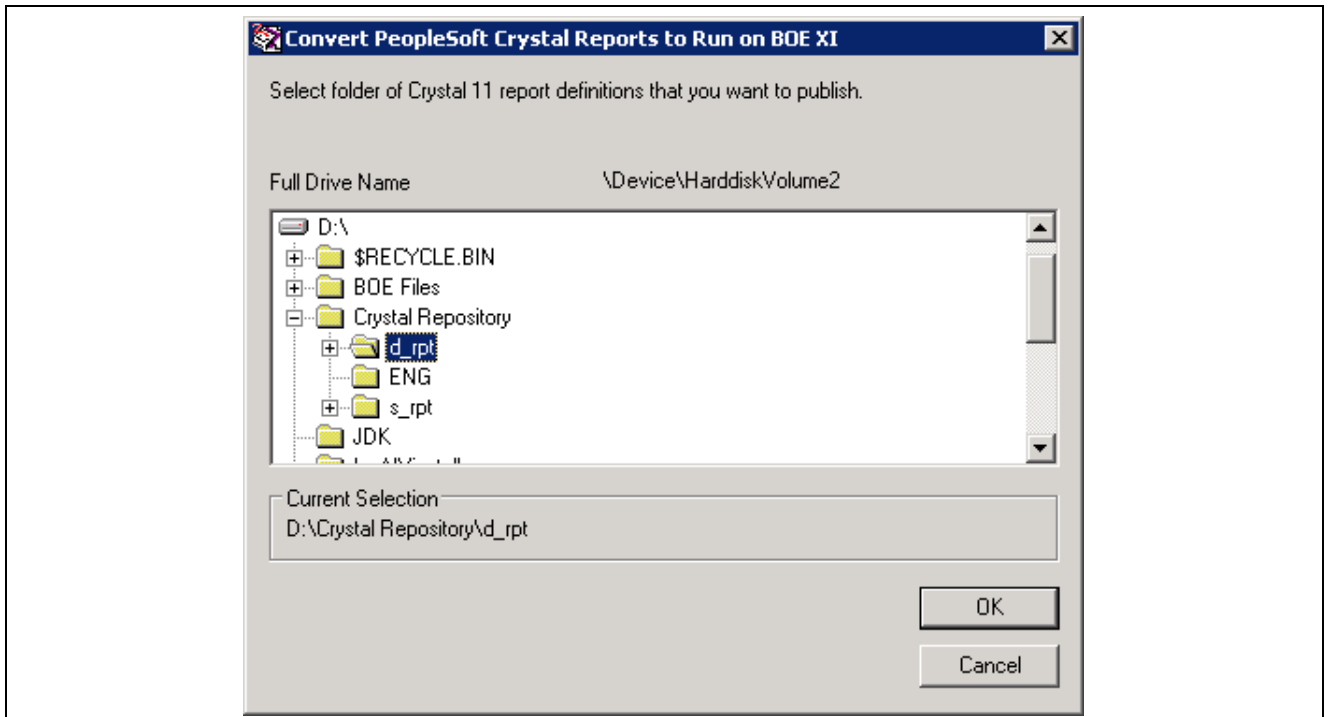


Selecting the publish option on the Convert PeopleSoft Crystal Reports to Run on BOE XI dialog box

If you choose to Publish Reports to the repository, you are publishing to the Report Repository report definitions that have already been converted to Crystal Reports 2008 format

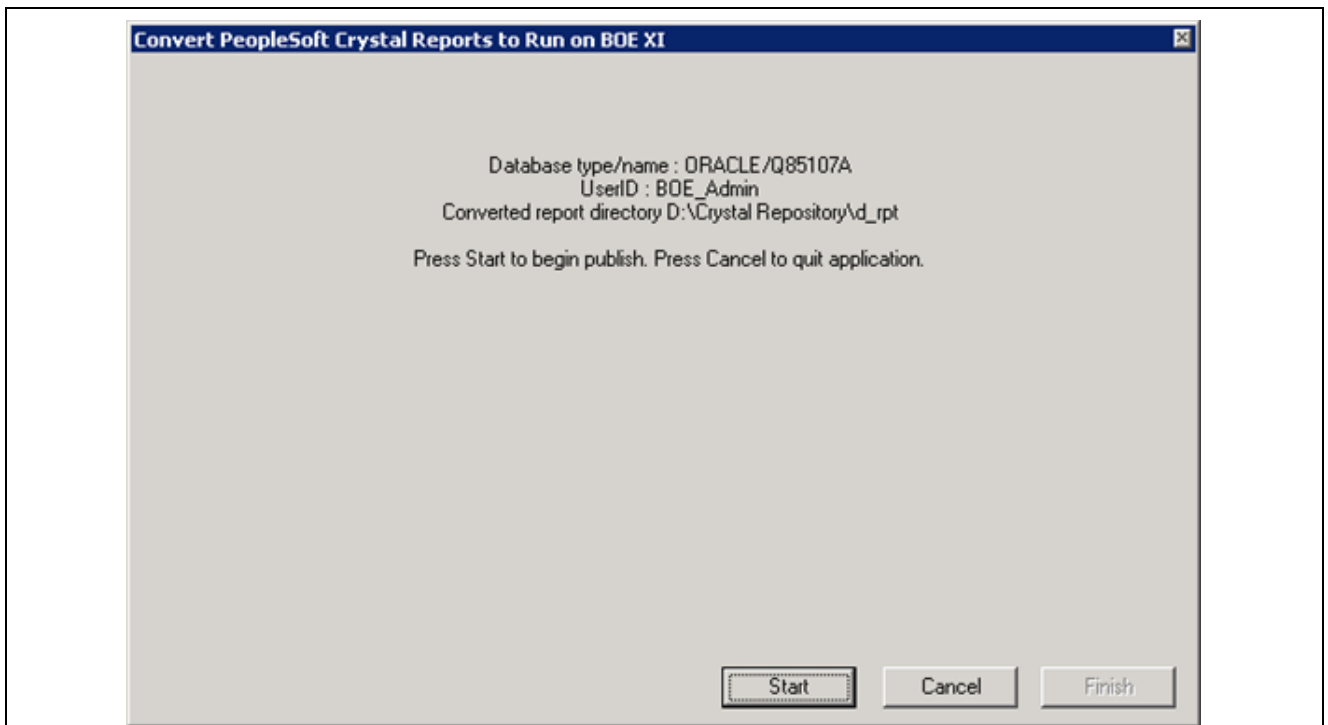
4. Select the Crystal Report definition that you want to publish, by navigating to the directory.

In this example, the report directory is `D:\Crystal Repository\d_rpt`.



Selecting the directory containing Crystal Reports to publish

5. Validate all of the information before beginning the conversion.



Summary information for the Crystal Report publishing

6. Enter the following details (only if prompted and this dialog box appears) required for publishing the report to BusinessObjects Enterprise:

The screenshot shows a configuration window titled "Oracle PeopleTools 8.48". It contains several input fields for configuring BOE integration:

- Database Name:** Q85107A
- Crystal Report Source Directory:** D:\Crystal Repository\d_rpt
- CMS Server Address:** <BOE_MACHINE>:<port>
- Domain:** BOEWIN
- BOE User:** BOE_Admin
- BOE Password:** (masked with dots)

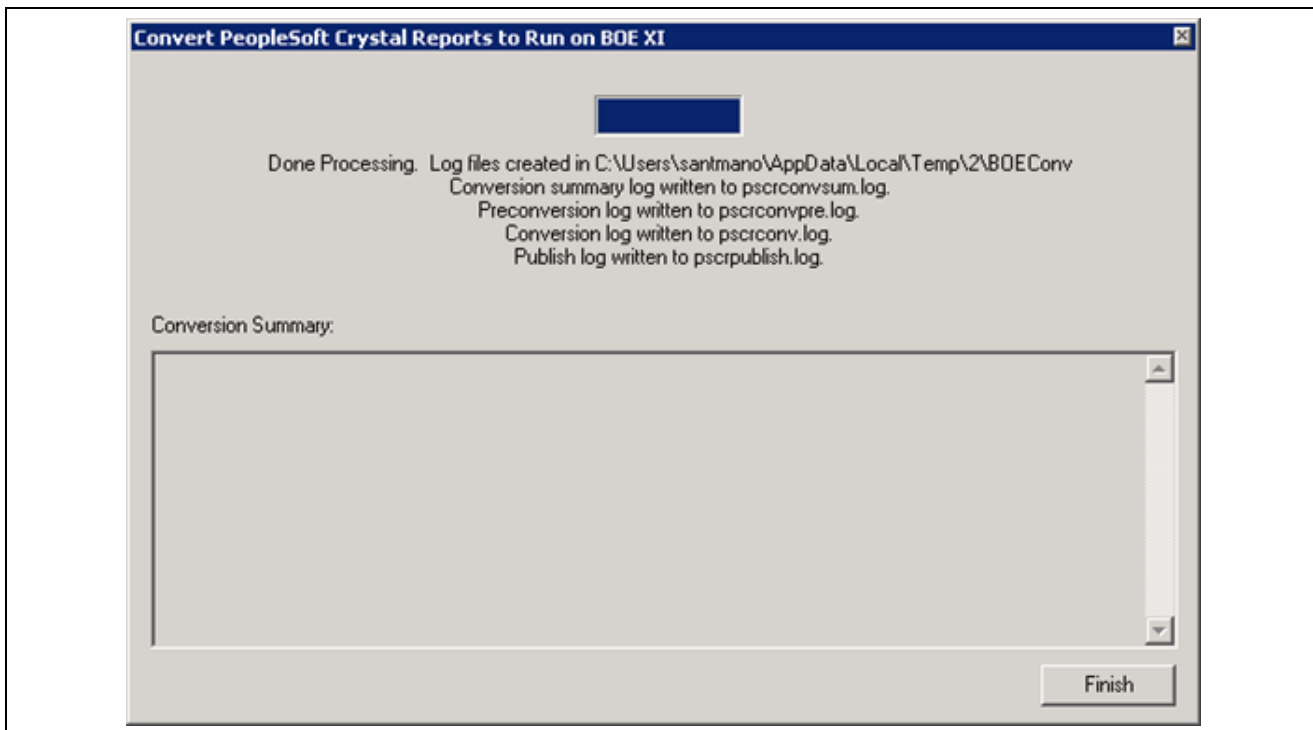
Below the input fields is a large empty rectangular box. At the bottom right are "OK" and "Cancel" buttons. At the bottom left is a copyright notice: "Copyright © 1998, 2009 Oracle. All rights reserved. PeopleSoft is a registered trademark of Oracle Corporation and/or its affiliates. Other names may be trademarks of their respective owners."

Entering BOE database and domain information

- **Database Name:** Enter the name of the database used for the PeopleSoft installation for which BOE integration is being configured, Q85107A in this example.
- **Crystal Report Source Directory:** Enter the location where the converted report has been saved for publishing, D:\Crystal Repository\d_rpt in this example.
- **CMS Server Address:** Enter the BOE CMS address, <BOE_MACHINE>:<port> in the example.
- **Domain:** Enter the BOE domain configured in the PeopleSoft application, BOEWIN in this example.
- **BOE User/Password:** Enter the administrator user (BOE_Admin in this example) and its password.

7. Click Finish.

The following example shows the messages for a successful conversion:

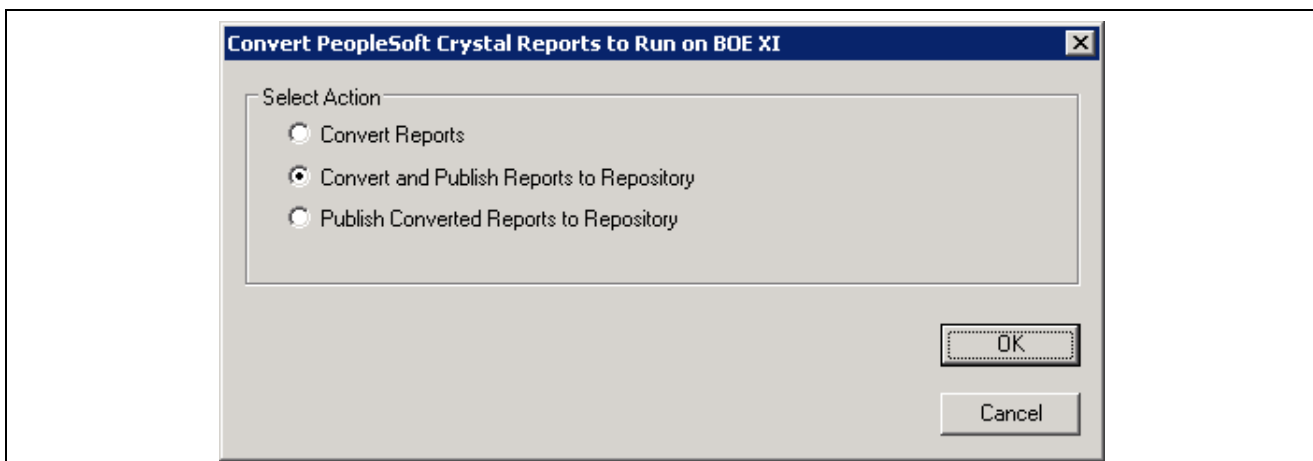


Process Complete messages

Converting and Publishing Reports to the SAP BusinessObjects Enterprise/Crystal Reports Repository

To convert and publish reports:

1. Run `pscrconv.exe` from `PS_HOME\bin\client\winx86` directory.
2. Sign into the PeopleSoft database, if you have not already done so.
Log in as user `BOE_Admin`.
3. Select the option `Convert and Publish Reports to Repository`, as shown in this example:



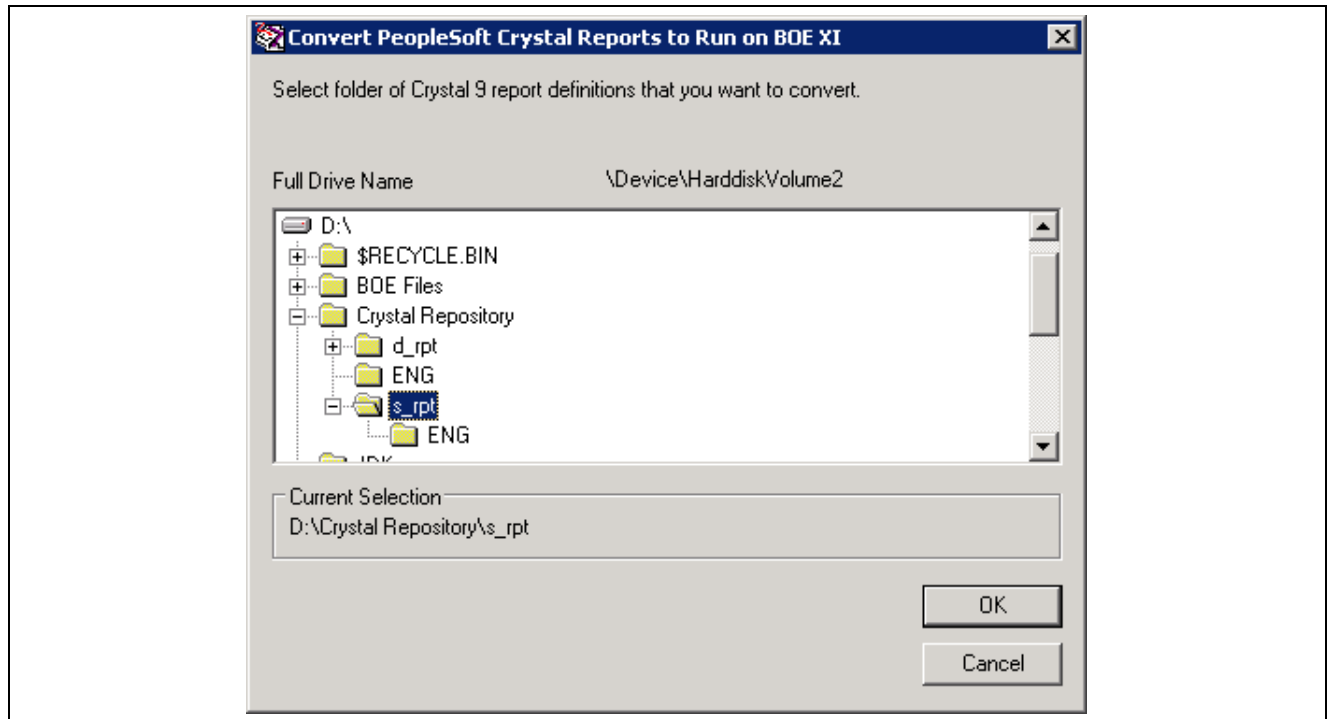
Selecting the convert and publish option on the Convert to PeopleSoft Crystal Reports to Run on BOE XI dialog box

Converting reports and publishing them to the SAP BusinessObjects Enterprise XI 3.1 report repository allows you to go from running Crystal Reports 9 report definitions to running Crystal Reports 2008 report definitions using SAP BusinessObjects Enterprise XI 3.1 with the PeopleSoft Process Scheduler.

4. Select the report input directory from where the Crystal report definition needs to be converted and click OK.

The report input directory must contain a subdirectory that is identified by a language code; the reports to be converted reside in this subdirectory.

For example, select D:\Crystal Repository\s_rpt if the reports to be converted are located in D:\Report Repository\s_rpt\ENG.

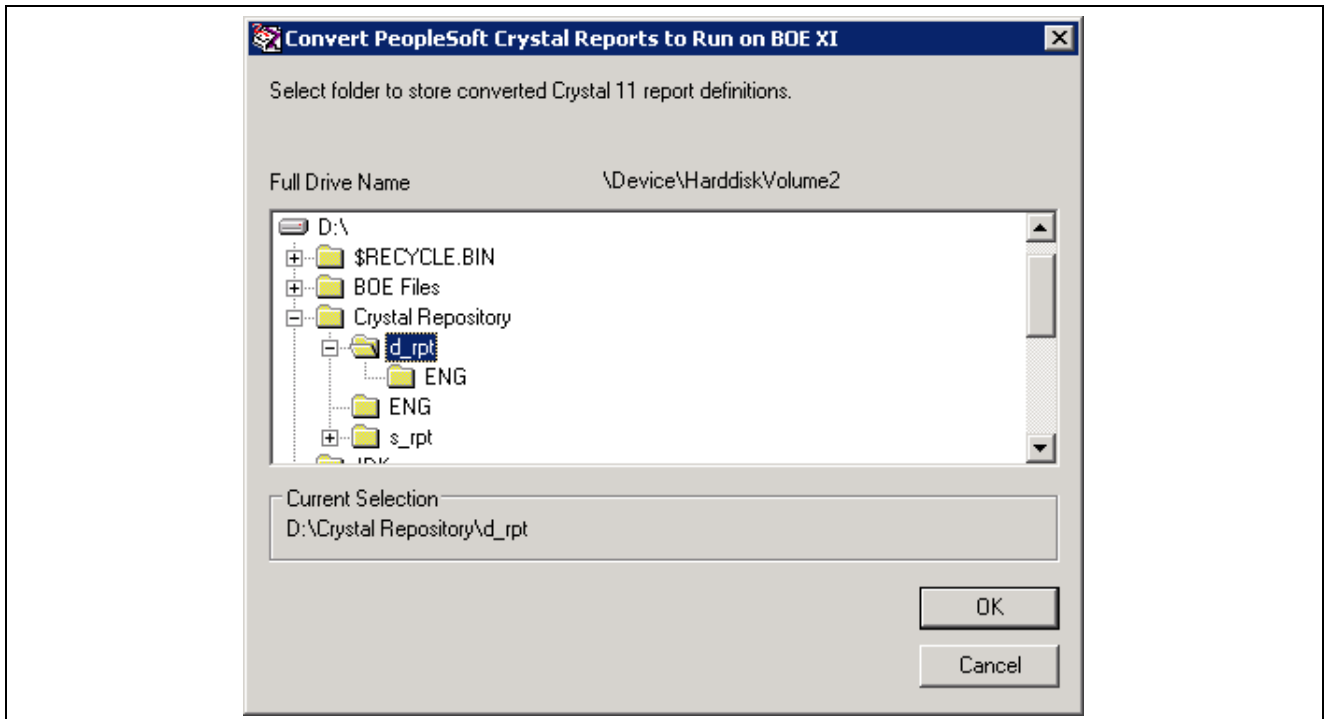


Selecting the Crystal Report input directory

5. Select a report output for the converted reports and click OK.

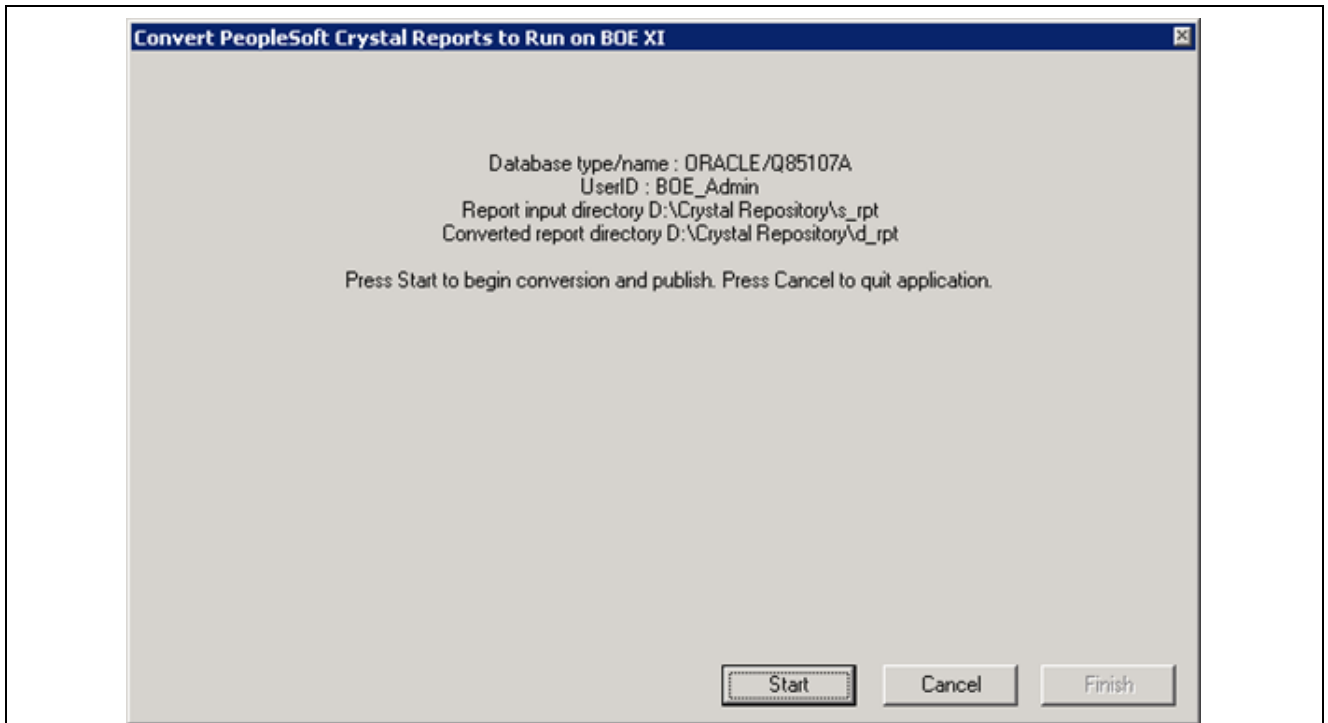
This can be any writable directory; however it cannot be a subdirectory of the report input directory. For example, if the reports to be converted are located in D:\Crystal Repository\s_rpt\ENG, the report output directory cannot be D:\Crystal Repository\s_rpt\NEW.

The conversion program will create an appropriate language subdirectory in which the converted reports will be placed. Therefore, if you want your converted reports to be placed in D:\Crystal Repository\d_rpt\ENG, enter D:\Crystal Repository\s_rpt as the report output directory.



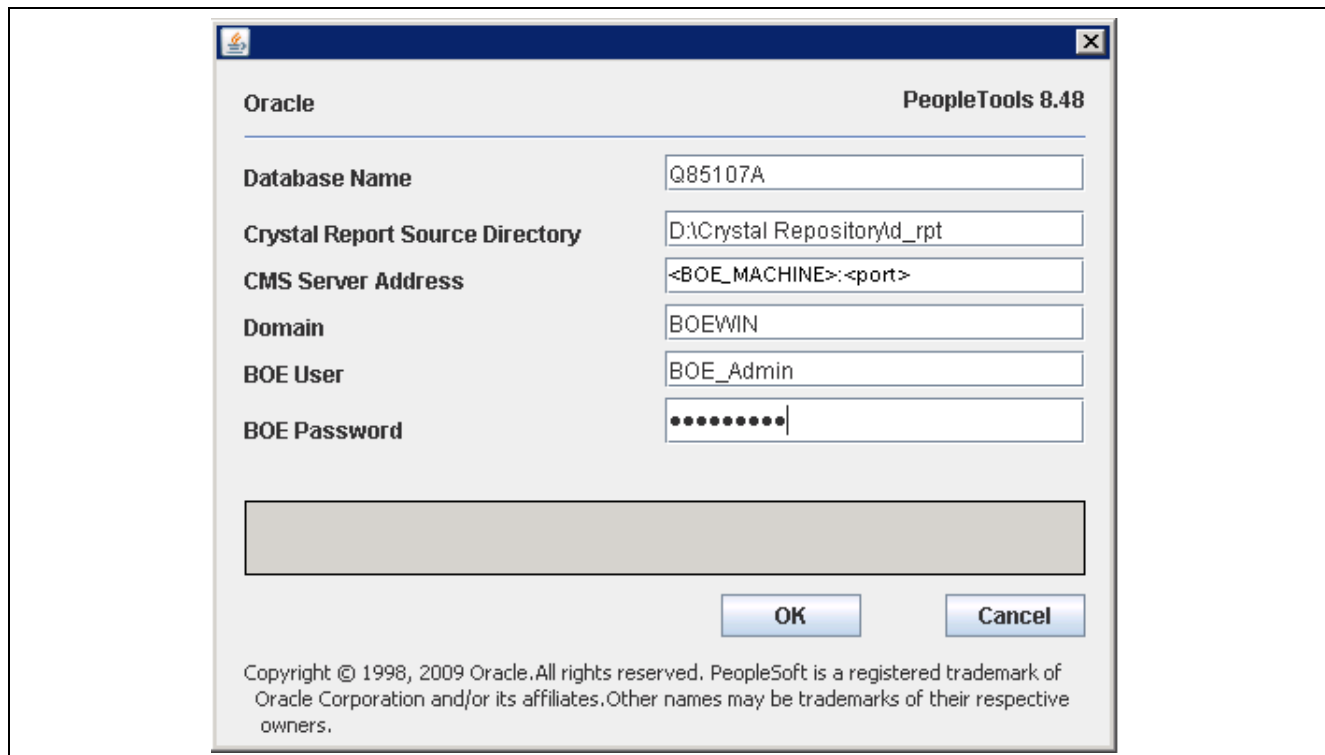
Selecting the Crystal Report output directory

6. Validate all the information before beginning the conversion as shown on this summary page:



Summary window for the Crystal Report conversion and publishing

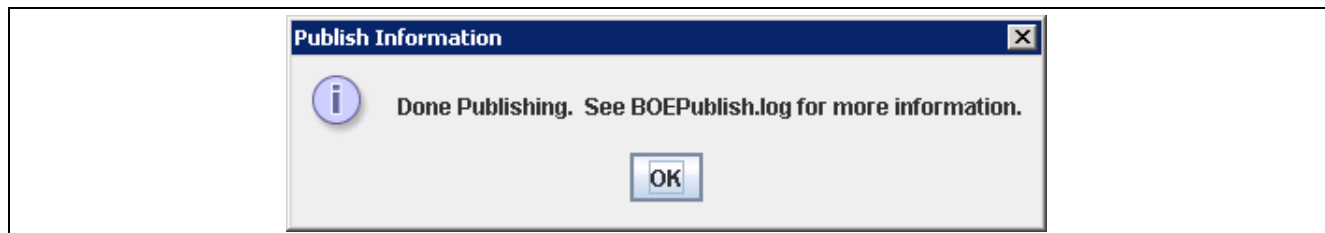
7. Enter the following details (only if prompted and this dialog box appears) required for the publication, as shown in the example:



Entering BOE database and domain information

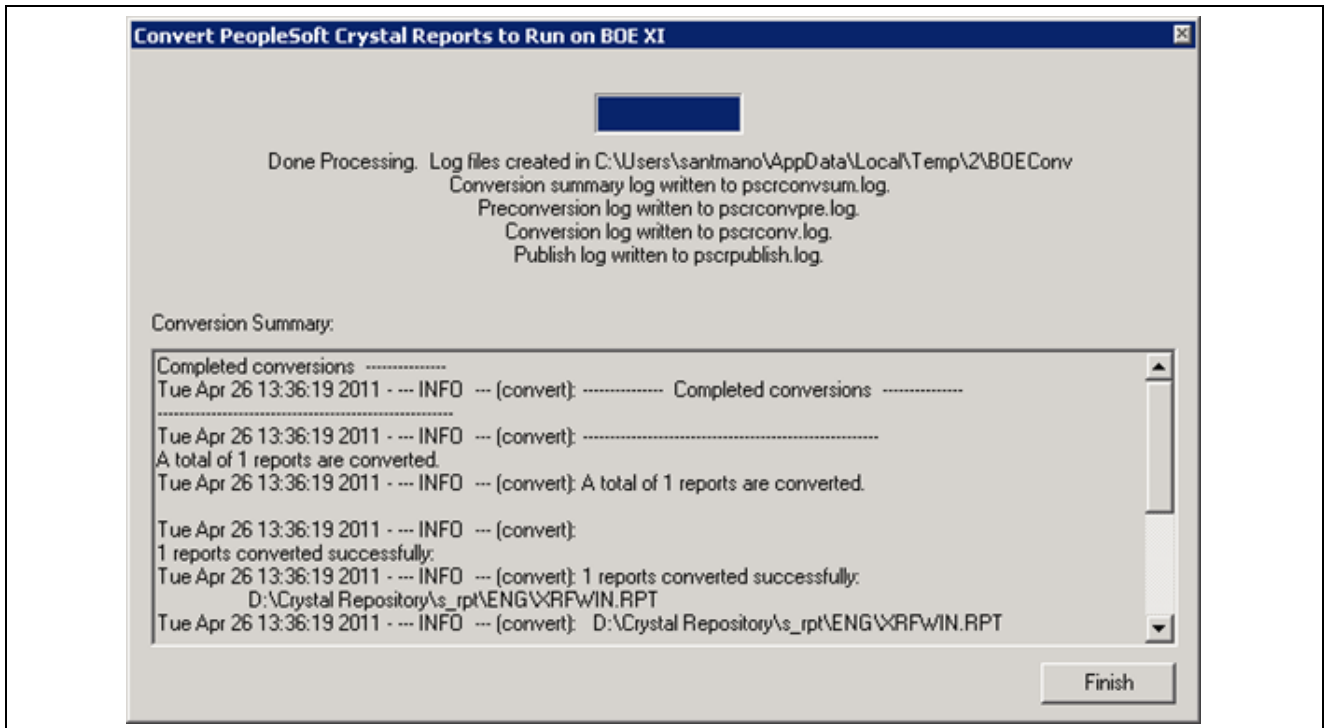
- Database Name:
- Crystal Report Source Directory:
- CMS Server Address:
- Domain:
- BOE User/Password

8. Click OK.



Done Publishing message

For a successful conversion, a window appears indicating that the conversion is processing. Once the process is complete, a summary details information about the execution. This information is also written to the `PS_HOME\bin\client\winx86\psrconvsum.log` file.



Conversion Summary after processing completion

Verifying the Conversion and Publish

Use these steps to verify that your reports are converted properly:

1. Review the conversion logs.

Two log files are generated every time the conversion is run.

PSCRCONVSUM.LOG the summary log

PSCRCONV.LOG the detailed log

These files will be found under your TEMP directory:

TEMP\boeconv.

Note. These files will be overwritten each time you run the conversion program. If you want to save the logs from a previous run, rename them before you run the process.

The log files will contain information about the conversion for all reports that you submitted for conversion in that execution of the conversion program.

- a. Review the Summary conversion log, PSCRCONVSUM.LOG.

The fastest way is to search the summary log for “Error” and “Warn”. If no reports had error or warnings then the conversion was successful. If an error or warning condition is indicated on the summary log, proceed to the next step to check the detailed log.

Here is a sample summary conversion log:

```

Completed conversions -----
Fri Jan 20 13:24:31 2006 - --- INFO --- (convert): ----- =>
Completed conversions -----
  
```

```

-----
Fri Jan 20 13:24:31 2006 - --- INFO --- (convert): -----=>
-----
A total of 13 reports are converted.
Fri Jan 20 13:24:31 2006 - --- INFO --- (convert): A total of 13 reports=>
are converted.

Fri Jan 20 13:24:31 2006 - --- INFO --- (convert):
13 reports converted successfully:
Fri Jan 20 13:24:31 2006 - --- INFO --- (convert): 13 reports converted=>
successfully:
  C:\pt849801i1\CRW\ENG\XRFAPFL.RPT
Fri Jan 20 13:24:31 2006 - --- INFO --- (convert):  C:\pt849801i1\CRW\ENG=>
\XRFAPFL.RPT
  C:\pt849801i1\CRW\ENG\XRFFLPC.RPT
Fri Jan 20 13:24:31 2006 - --- INFO --- (convert):  C:\pt849801i1\CRW\ENG=>
\XRFFLPC.RPT
  C:\pt849801i1\CRW\ENG\XRFFLPN.RPT
Fri Jan 20 13:24:31 2006 - --- INFO --- (convert):  C:\pt849801i1\CRW\ENG=>
\XRFFLPN.RPT
  C:\pt849801i1\CRW\ENG\XRFFLRC.RPT
Fri Jan 20 13:24:31 2006 - --- INFO --- (convert):  C:\pt849801i1\CRW\ENG=>
\XRFFLRC.RPT
  C:\pt849801i1\CRW\ENG\XRFIELDS.RPT
Fri Jan 20 13:24:31 2006 - --- INFO --- (convert):  C:\pt849801i1\CRW\ENG=>
\XRFIELDS.RPT
  C:\pt849801i1\CRW\ENG\XRFMENU.RPT
Fri Jan 20 13:24:31 2006 - --- INFO --- (convert):  C:\pt849801i1\CRW\ENG=>
\XRFMENU.RPT
  C:\pt849801i1\CRW\ENG\XRFPANEL.RPT
Fri Jan 20 13:24:31 2006 - --- INFO --- (convert):  C:\pt849801i1\CRW\ENG=>
\XRFPANEL.RPT
  C:\pt849801i1\CRW\ENG\XRFPCFL.RPT
Fri Jan 20 13:24:31 2006 - --- INFO --- (convert):  C:\pt849801i1\CRW\ENG=>
\XRFPCFL.RPT
  C:\pt849801i1\CRW\ENG\XRFPNPC.RPT
Fri Jan 20 13:24:31 2006 - --- INFO --- (convert):  C:\pt849801i1\CRW\ENG=>
\XRFPNPC.RPT
  C:\pt849801i1\CRW\ENG\XRFRFCFL.RPT
Fri Jan 20 13:24:31 2006 - --- INFO --- (convert):  C:\pt849801i1\CRW\ENG=>
\XRFRFCFL.RPT
  C:\pt849801i1\CRW\ENG\XRFRCPN.RPT
Fri Jan 20 13:24:31 2006 - --- INFO --- (convert):  C:\pt849801i1\CRW\ENG=>
\XRFRCPN.RPT
  C:\pt849801i1\CRW\ENG\XRFWIN.RPT
Fri Jan 20 13:24:31 2006 - --- INFO --- (convert):  C:\pt849801i1\CRW\ENG=>
\XRFWIN.RPT
  C:\pt849801i1\CRW\ENG\XRFWNFL.RPT
Fri Jan 20 13:24:31 2006 - --- INFO --- (convert):  C:\pt849801i1\CRW\ENG=>
\XRFWNFL.RPT

```

```

0 reports converted with warnings:
Fri Jan 20 13:24:31 2006 - --- INFO --- (convert): 0 reports converted with⇒
warnings:
0 reports failed to convert:
Fri Jan 20 13:24:31 2006 - --- INFO --- (convert): 0 reports failed to⇒
convert:

Fri Jan 20 13:24:31 2006 - --- INFO --- (convert):
-----
Fri Jan 20 13:24:31 2006 - --- INFO --- (convert): -----⇒
⇒
⇒
-----

```

b. If necessary review the detailed conversion log, PSCRCONV.LOG

It is not necessary to perform this step if the summary conversion log indicates that all reports converted successfully.

The detailed log contains three types of messages:

```

INFO
WARN
ERROR

```

You need to eliminate all ERROR messages. The best policy is to understand why all WARN messages are generated and eliminate them if you can.

Here's a portion of the detailed log that illustrates a successfully converted report:

```

...
...
Converting the report "C:\pt849801i1\CRW\ENG\XRFAPFL.RPT".
Fri Jan 20 13:29:46 2006 - --- INFO --- (convert): Converting the report "C:⇒
\pt849801i1\CRW\ENG\XRFAPFL.RPT".
Fri Jan 20 13:29:46 2006 - --- INFO --- (verify ): Verifying the report⇒
before conversion.
Fri Jan 20 13:29:46 2006 - --- INFO --- (verify ): Successfully verified⇒
the report.
Fri Jan 20 13:29:50 2006 - --- INFO --- (convert): Successfully converted⇒
report "C:\pt849801i1\CRW\ENG\XRFAPFL.RPT" to target "c:\cnew\ENG⇒
\XRFAPFL.RPT".
...
...

```

If a report has one or more ERROR messages associated with it, it failed conversion. If a report has only WARN and INFO messages associated with it, it passed conversion and will run. The WARN messages may indicate some changes you may want to make to the report definition.

See [Reviewing Common Conversion Errors and Warning Messages](#).

2. Re-run the conversion on the altered reports

After you have made changes to address the ERRORS and WARNs, re-run the conversion program. You should exclude from this execution of the conversion program any reports that were successfully converted in prior executions.

3. Verify report publishing.

To verify that the reports published properly, launch the BusinessObjects Enterprise XI 3.1 Admin Console (on Infoview) and locate the shared folder with the database name you used to publish. Ensure that the number of reports with the datetime of the Publish process matches the number of Crystal Reports XI report definition files that you wanted to publish.

4. Run the converted reports.

For final verification that the reports you converted are correct, you should run the converted reports and compare their output to their unconverted (that is, Crystal 9) counterparts. You should compare them for equivalent layouts and equivalent data.

To run the report in BusinessObjects Enterprise XI 3.1 InfoView:

- Log onto BusinessObjects Enterprise XI 3.1 Infoview with user BOE_Admin.
- Use search edit box at top to find the report that you want to run.
- In the search results choose the report.
- Enter report parameters, if any, and the report displays.

Reviewing Common Conversion Errors and Warning Messages

Here are some conversion errors that you may encounter as you convert your reports. For each we suggest possible ways to address the problem.

- ERROR — Failed to update the data source of table *[datasource(table name)]* to QUERY.*[query name]*

For example:

```
Converting the report "C:\M\CRWFDM\ENG\FORA003-.RPT".
Fri Jan 13 18:10:00 2006 - --- INFO --- (convert): Converting the report "C:\M\
\CRWFDM\ENG\FORA003-.RPT".
Fri Jan 13 18:10:00 2006 - --- INFO --- (verify ): Verifying the report before⇒
conversion.
Fri Jan 13 18:10:00 2006 - --- INFO --- (verify ): Successfully verified the⇒
report.
Fri Jan 13 18:10:01 2006 - --- ERROR --- (convert): Failed to update the data⇒
source of table EB_EAB(EB_EAB_GEN0) to QUERY.EB_EAB.
```

Things to check:

- Does the offending query exist in the database?
- Does the PeopleSoft user doing the conversion (that is, the PeopleSoft user that you provided to the conversion program) have security in the PeopleSoft database to access the query?
- WARN — Encountered a duplicate table *[table name]*. Skipping element.
- WARN — Encountered an element "field" within an invalid "table" element. Skipping element.

For example:

```
Thu Jan 19 11:07:29 2006 - --- INFO --- ( parse ): -----⇒
-----
```

```

Thu Jan 19 11:07:29 2006 - --- INFO --- ( parse ): ----- Reading⇒
command file -----
Thu Jan 19 11:07:29 2006 - --- INFO --- ( parse ): -----⇒
-----
Thu Jan 19 11:07:29 2006 - --- INFO --- ( parse ): Parse commands from file⇒
pscrconv.xml
Thu Jan 19 11:07:29 2006 - --- WARN --- ( parse ): Encountered a duplicate⇒
table WFA0001_AVERAGES_BY_BP_WL. Skipping element.
Thu Jan 19 11:07:29 2006 - --- WARN --- ( parse ): Encountered an element⇒
"field" within an invalid "table" element. Skipping element.
Thu Jan 19 11:07:29 2006 - --- WARN --- ( parse ): Encountered an element⇒
"field" within an invalid "table" element. Skipping element.
Thu Jan 19 11:07:29 2006 - --- WARN --- ( parse ): Encountered an element⇒
"field" within an invalid "table" element. Skipping element

```

These two warnings are often seen together. They can be generated when two reports being converted in the same execution of the conversion program use the same query.

There is no need to take action on these warnings.

APPENDIX A

Adding New Product Modules

This appendix discusses:

- Adding New Modules to PeopleSoft 8.4 Installations

Task A-1: Adding New Modules to PeopleSoft 8.4 Installations

This task explains how to add new application modules to an existing PeopleSoft installation. Follow this procedure if, for example, you already installed HRMS and now you need to install Time and Labor.

When you add new application modules to an existing installation, you may overwrite files that were included as part of a patch or fixes, or customizations that you applied. For example, suppose you customize a report that is updated in a subsequent PeopleSoft release. If you install the update into your current working directory, your customized report will be overwritten with the newly installed, updated report.

The PeopleSoft system does not currently provide an automated way to notify you before overwriting customized modules or patch files. You can make preparations to protect important files from being overwritten. For your customized modules, you need to maintain a backup of any customizations. It is also a good idea to make a copy of your *PS_HOME* directory before beginning this process, so that you can find and restore necessary patch files. Check My Oracle Support to identify any patches or fixes required for your installation.

See My Oracle Support, Patches & Updates.

To add new module(s) to PeopleSoft 8.4 installations:

1. Back up the database, file server, application server, Process Scheduler Server, and web server components of your current system.
2. Make sure you have the new license code that includes the new module(s). The new license code allows you to load the batch components for the new module(s).

See "Using the PeopleSoft Installer," Obtaining License Codes.

3. Install the PeopleSoft Application software on the file server.
4. When prompted, enter the new license code for your applications.

Initially, all installation options will be selected. You must deselect those programs you do not wish to install.

5. Launch Data Mover in bootstrap mode (sign in as the accessid and password).

Data Mover is located in *PS_HOME\bin\client\winx86\psdmt.exe*.

6. Select File, Database Setup and choose your database type in the resulting dialog.
7. Select Next and select add new product.

8. Select Finish and a Data Mover script that updates the license code will be generated in Data Mover.
9. Select File, Run script and your database updates are complete.
10. Install software to your batch server.

See "Setting Up Process Scheduler."

11. Reapply all code customizations if needed.

Note. Remember to maintain backup copies of your customizations.

12. Compile and link COBOL.

See "Installing and Compiling COBOL <on Windows or UNIX>".

13. Verify that the appropriate Installation Records are selected.

If they are not checked, check them and save the page. To open the page, select Setup <apptype>, Install, Installation Options, where <apptype> is HRMS, CRM, Financials/Supply, and so on. (For HRMS the navigation is Setup <apptype>, Install, Installation Table.)

14. Run the dddaudit, sysaudit, and sysaud01 SQR reports.

If you are swapping the base language, also run swpaudit.sqr.

See "Completing the Database Setup," Checking the Database.

15. Shut down all application servers.

16. Install software to your application server.

See "Configuring the Application Server."

17. Restart all required application servers.

18. Shut down all web servers.

19. Install software to your web server.

See "Setting Up the PeopleSoft Pure Internet Architecture."

APPENDIX B

Creating a Database Manually on UNIX

This appendix discusses:

- Understanding Database Creation
- Editing Database Scripts
- Creating an Oracle Instance
- Using SQL Tools
- Setting NLS_LANG in the Windows Registry
- Creating an Oracle Database
- Creating Catalog Views and Utility Tablespaces
- Creating PS.PSDBOWNER Table
- Creating Application-Specific Dbspaces and Tablespaces
- Creating PeopleSoft Database Roles
- Creating the PeopleSoft Database Owner ID
- Setting Up Connect ID
- Updating Connection Information
- Creating Data Mover Import Scripts
- Running Data Mover Import Scripts
- Changing the Base Language

Understanding Database Creation

This section describes the tasks required to create a PeopleSoft product database. During a standard PeopleSoft installation you will execute these tasks to create two distinct types of databases.

- *System:* The System (SYS) database has no company specific data, and can be used to load your data and begin development of your production database.
- *Demo:* The Demo (DMO) database contains data for a sample company, and can be used immediately for demonstration, for testing, and as a development reference.

The requirements for these databases vary, so not all of this section's tasks apply to each database. The instructions will note any distinctions between creating a Demo and a System database.

Remember, you need to have the PeopleTools Development Environment set up to create your database.

Important! Do not forget that application-specific installation steps are provided in a separate document specific to the application. For instance, if you are performing PeopleSoft CRM installation, you need both this PeopleSoft PeopleTools installation guide and any additional instructions provided by CRM. Search in My Oracle Support for the installation documentation specific to your application.

Important! If you are installing the PeopleSoft software on an Oracle RAC database, there are additional configuration procedures that you must follow.

See *PeopleTools 8.52: Data Management PeopleBook*, “Administering PeopleSoft Databases on Oracle,” Setting Up the PeopleSoft Installation with Oracle RAC.

After you complete the tasks in this chapter, read the chapter “Completing the Database Setup.” Depending upon your environment, you may not need to carry out every task in that chapter. However it is important that you evaluate the requirements and perform the necessary tasks.

Task B-1: Editing Database Scripts

This section discusses:

- Understanding Database Scripts
- Modifying Database Scripts

Understanding Database Scripts

The scripts required for creating the database were installed on the server using the PeopleSoft Installer described in the chapter “Using the PeopleSoft Installer.” These scripts reside in the *PS_HOME/scripts/unix* directory on the UNIX database server. You need to edit a few of these scripts for your environment before you execute them and go on with the following procedures.

Typically, you need to modify the file system locations and the Oracle SID name.

Task B-1-1: Modifying Database Scripts

To edit required database scripts:

1. Go to the *PS_HOME/scripts/unix* directory on the database server.
2. Edit the scripts to conform to your environment.

The following list presents the necessary scripts:

- CREATEDB10.SQL

Edit CREATEDB10.SQL to remove the REMARK from the following line:

```
REMARK startup nomount pfile=%ORACLE_HOME%\dbs\init<SID>.ora
```

Note. When editing CREATEDB10.SQL, if you are creating a Unicode database, you need to choose an Oracle character set supported by the PeopleSoft software. Ensure that the CHARACTER SET parameter in the CREATE DATABASE statement is set to either AL32UTF8 or UTF8.

- CONNECT.SQL.

Edit CONNECT.SQL only if you do not wish to use the default CONNECT_ID.

- UTLSPACE.SQL.

- XXDDL.SQL, where XX is a two-letter code for your product line or PeopleSoft PeopleTools, as listed in the table below

Code	Description
CR	PeopleSoft Customer Relationship Management
LM	PeopleSoft Enterprise Learning Management
PF	PeopleSoft Enterprise Performance Management
EP	PeopleSoft Financials / Supply Chain Management
EA	PeopleSoft Financials / Supply Chain Management Argentina
EB	PeopleSoft Financials / Supply Chain Management Brazil
HC	PeopleSoft Human Capital Management
PA	PeopleSoft Portal Solutions
PT	PeopleSoft PeopleTools

Note. This is a complete list of available product lines for PeopleSoft PeopleTools 8.52. Note that not all products go out on all PeopleSoft PeopleTools releases, so you may not see a script corresponding to every product line. In addition, some bolt-on products reference their own scripts within their application installation documentation. Search My Oracle Support to confirm that the product is supported for a specific release and database platform.

See My Oracle Support, Certifications.

Note. Compare the sizes of the PeopleTools tablespaces in XXDDL.SQL with the tablespaces in PTDDL.SQL. If the tablespace sizes in PTDDL.SQL are larger, increase the PeopleTools tablespace sizes in XXDDL.SQL to be at least as large as those in PTDDL.SQL.

Note. For multilanguage installs, you need to increase the size of the PTTBL, PSIMAGE, and PSINDEX tablespaces. Refer to the comments in the DDL scripts for further details regarding the incremental increase for each additional language.

See Also

"Using the PeopleSoft Installer"

PeopleTools 8.52 Hardware and Software Requirements

Task B-2: Creating an Oracle Instance

To create an Oracle instance:

1. Log on to the server as the Oracle owner.

2. Set the ORACLE_SID value to point to the database you are going to set up, and then export the value. From the Bourne or Korn shell, enter the following:

```
$ ORACLE_SID=hdmo; export ORACLE_SID
```

3. Set the NLS_LANG environment variable to indicate the Oracle language and character set.

The PeopleSoft Internet Application Server and reporting tools run in Unicode regardless of the database character set or the NLS_LANG character set component. However, the NLS_LANG character set component does affect the transmission of data in non-PeopleTools connections, such as SQLPlus and direct COBOL. NLS_LANG has three components, a language, a territory and a character set in the form LANGUAGE_TERRITORY.CHARACTERSET. For example, for American English, the correct NLS_LANG setting for PeopleSoft would be AMERICAN_AMERICA.AL32UTF8. See the Oracle National Language Support guide for full details. These parameters need to be set each time you access your PeopleSoft system from the UNIX shell. Therefore, we suggest you edit your psconfig.sh file to make these changes take effect each time you configure your environment. From the Bourne or Korn shell, enter the following, substituting <language> and <territory> for the language and territory values you prefer to use. If unsure, use AMERICAN_AMERICA.AL32UTF8.

```
$ NLS_LANG=<language>_<territory>.AL32UTF8; export NLS_LANG
```

Alternatively, from the C shell, enter the following:

```
$ setenv NLS_LANG <language>_<territory>
```

4. Create an initialization file by copying and editing the init.ora file that is delivered with Oracle and typically resides in \$ORACLE_HOME/dbs.

```
cd $ORACLE_HOME
cd dbs
cp init.ora init<SID>.ora
```

5. Add or modify the following parameters in the init<SID>.ora:

```
DB_NAME = <SID>
DB_FILES = specify max allowed per your OS, typically 1021
CONTROL_FILES = (/filesystem1/cntrl1<SID>,/filesystem2/cntrl2<SID>)
OPEN_CURSORS = 1000 <This is a minimum value; you may choose to set it higher.>
db_block_size = 8192
```

Note. PeopleSoft PeopleTools supports Oracle 10g and Oracle 11g. The PeopleSoft scripts are delivered to work across all versions of the Oracle RDBMS that Oracle will support for this release of PeopleSoft PeopleTools.

Review the following parameters and make any necessary edits for your environment:

DB_BLOCK_SIZE

For UNIX the default DB_BLOCK_SIZE in the init<SID>.ora file is operating system dependent. On most operating systems the default is 8192 or 8K. For PeopleSoft ANSI databases this is more than adequate. For PeopleSoft Unicode databases, (that is, CHARACTER_SET AL32UTF8), a DB_BLOCK_SIZE value of 8K is required.

NLS_LENGTH_SEMANTICS=CHAR

PeopleSoft PeopleTools 8.48 and later introduced the ability to utilize an Oracle feature called CHARACTER LENGTH SEMANTICS for Unicode databases. When CHARACTER LENGTH SEMANTICS is utilized, PeopleSoft no longer needs to triple the VARCHAR2 datatype columns in our schema definitions. You can only take advantage of this new behavior for Unicode database character columns if you upgrade to PeopleSoft Applications 9.0 and upgrade to at least PeopleSoft PeopleTools 8.48. A database conversion is necessary for utilizing CHARACTER LENGTH SEMANTICS and this conversion process is tied to the PeopleSoft Application 9.0 or higher upgrades.

You are required to set the NLS_LENGTH_SEMANTICS=CHAR init.ora parameter only if the following conditions are met:

You are installing a Unicode database, *and* the installation is PeopleSoft Applications 9.0 or higher releases on PeopleTools 8.48 or higher. If necessary, verify the PeopleTools release for your PeopleSoft Application using this SQL script:

```
select TOOLSREL from PSSTATUS
```

It is very important that you set this parameter at the correct point during database creation. Database creation consists of running several scripts before loading the database with Data Mover, as follows:

```
CREATEDB10.SQL
UTLSPACE.SQL
XXDDL.SQL
DBOWNER.SQL
PSROLES.SQL
PSADMIN.SQL
CONNECT.SQL
```

If you are running with Oracle database version lower than 11g, set the NLS_LENGTH_SEMANTICS=CHAR after the database instance has been created running these scripts or right before the Data Mover load.

To do this, modify the init<SID>.ora to add the NLS_LENGTH_SEMANTICS=CHAR parameter, and then shut down and restart the database instance.

If you are running with Oracle 11g or higher, you can set the parameter NLS_LENGTH_SEMANTICS=CHAR at the beginning of database creation or right before the Data Mover load.

Oracle Password

If you choose to use an Oracle Password file, create one using the ORAPWD utility, as illustrated in this example:

```
Set ORACLE_SID=FDMO
orapwd file=$ORACLE_HOME/dbs/pwdtemp2.ora password=manager entries=5
```

If you choose not to use an Oracle Password file, you must make one of the following changes to the init<SID>.ora file before running the CREATEDB10.SQL script:

- Comment out or remove the following line:

```
#remote_login_passwordfile=EXCLUSIVE
```

- Use the following setting:

```
remote_login_passwordfile=NONE
```

For more parameters that may be required for the init<SID>.ora file, consult My Oracle Support.

See "Operating System, RDBMS & Additional Component Patches Required for Installation PeopleTools," My Oracle Support (search for the article title and release).

Task B-3: Using SQL Tools

When you execute PeopleSoft SQL scripts, use the appropriate tool included with your version of the RDBMS. You should use SQL*Plus, which is available with each version of the Oracle RDBMS that is supported by Oracle for PeopleSoft installations.

There are various ways to connect to the database with SQL*Plus. For information on using SQL*Plus, see the Oracle database documentation.

Task B-4: Setting NLS_LANG in the Windows Registry

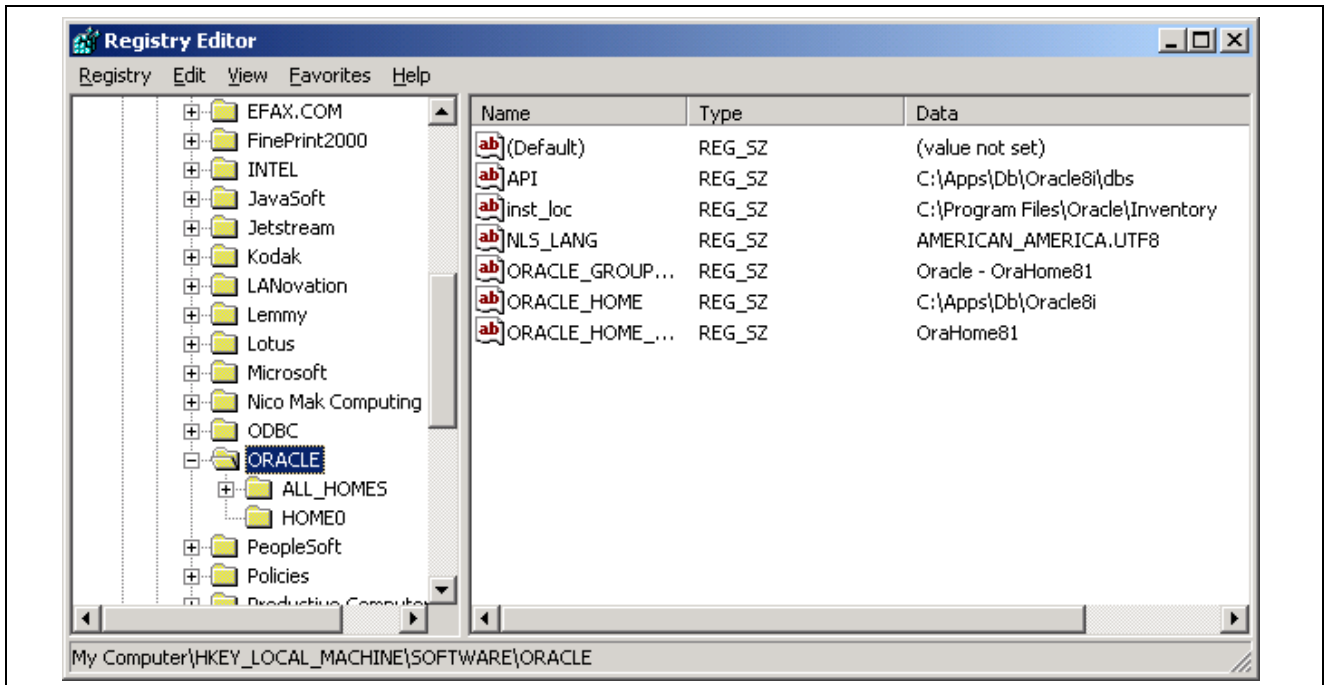
You must set the NLS_LANG Oracle registry key to indicate the Oracle language and character set. The PeopleSoft Internet Application Server and reporting tools run in Unicode regardless of the database character set or the NLS_LANG character set component. However, the NLS_LANG character set component does affect the transmission of data in non-PeopleTools connections, such as SQLPlus and direct COBOL. NLS_LANG has three components, a language, a territory, and a character set in the form LANGUAGE_TERRITORY.CHARACTERSET. For example, for American English, the correct NLS_LANG setting for a PeopleSoft installation would be AMERICAN_AMERICA.AL32UTF8. See the Oracle National Language Support guide for full details.

The NLS_LANG parameter should be set on *each* workstation you use to access the PeopleSoft application in two-tier mode, and on your application server machine.

Note. When using SQL*Plus to query data, set NLS_LANG on the client side to match the OS character set rather than the database character set.

To set NLS_LANG in the Windows registry:

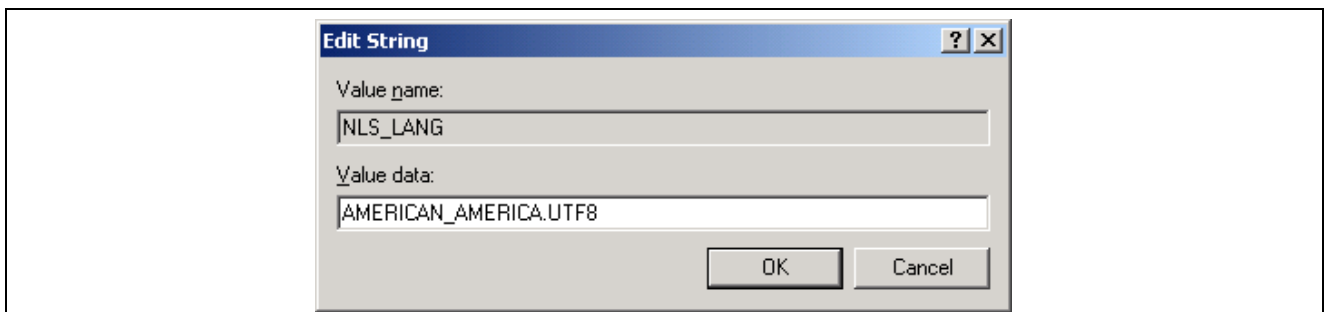
1. Open the Windows Registry Editor by selecting *Run* from the Windows Start menu.
2. Type REGEDIT in the Run dialog.
3. Navigate to the key HKEY_LOCAL_MACHINE\Software\Oracle.



Navigating to NLS_LANG

- Double-click on the NLS_LANG key in the right hand side of the window.

The Edit String dialog box appears as in this example.



Entering the Value data

- Enter `<language>_<territory>.AL32UTF8` in the Value Data field, substituting `<language>` and `<territory>` for your preferred language and territory settings.

If unsure, use `AMERICAN_AMERICA.AL32UTF8`.

- Click *OK* and close the Registry Editor.

Task B-5: Creating an Oracle Database

Run the `CREATEDB10.SQL` script from SQL*Plus to create an Oracle database.

To create an Oracle database:

- Invoke SQL*PLUS (`sqlplus`), connecting as `sysdba`.

```
$sqlplus '/as sysdba'
```

2. Run the CREATEDB10.SQL script using the following example as a guide:

```
sqlplus>@<PS_HOME>/scripts/unix/createdb10.sql
```

Note. When editing CREATEDB10.SQL, if you are creating a Unicode database, you need to choose an Oracle character set supported by Oracle. Ensure that the CHARACTER SET parameter in the CREATE DATABASE statement is set to either AL32UTF8 or UTF8.

Task B-6: Creating Catalog Views and Utility Tablespaces

Run the UTLSPACE.SQL script from SQL*Plus to create catalog views and utility tablespaces.

To create catalog views and utility tablespaces:

1. Invoke SQL*Plus (sqlplus), connecting as sysdba.
2. Run the UTLSPACE.SQL script:

```
sqlplus>@<PS_HOME>/scripts/unix/utlspace.sql
```

Task B-7: Creating PS.PSDBOWNER Table

Run the DBOWNER.SQL script from SQL*Plus to create the PS.PSDBOWNER table.

To create the PS.PSDBOWNER table:

1. Invoke SQL*Plus (sqlplus), connecting as sysdba.
2. Run the DBOWNER.SQL script, using the following example as a guide:

```
sqlplus>@<PS_HOME>/scripts/unix/dbowner.sql
```

Task B-8: Creating Application-Specific Dbspaces and Tablespaces

To create tablespaces for the product you are installing, run the appropriate XXDDL.SQL scripts, logged on as the system user, where XX stands for your product line or PeopleSoft PeopleTools, as listed in the table in the section Editing Database Scripts.

To create application-specific tablespaces:

1. Invoke SQL*Plus (sqlplus), connecting as sysdba.
2. Run the appropriate DDL scripts.

For example:

```
sqlplus>@<PS_HOME>/scripts/unix/epddl.sql
```

Task B-9: Creating PeopleSoft Database Roles

Run the PSROLES.SQL script from SQL*Plus to create the PeopleSoft database roles.

To create the roles for your PeopleSoft database:

1. Log on to SQL*Plus, connecting as the System user.

```
sqlplus system/manager
```

2. Run the PSROLES.SQL script:

```
SQLPLUS>@<PS_HOME>/scripts/unix/psroles.sql
```

Task B-10: Creating the PeopleSoft Database Owner ID

This task creates the PeopleSoft database owner ID that will be referenced in future tasks. It grants the roles, created in the previous step, to this owner ID.

Note. You must run the PSADMIN.SQL script for each PeopleSoft database that you are going to create. When prompted for a default tablespace name, select PSDEFAULT if you are using PeopleSoft naming conventions, or your site equivalent if you are not using PeopleSoft naming conventions.

To create the PeopleSoft database owner ID:

1. Log on to SQL*Plus, connecting as the System user.

```
sqlplus system/manager
```

2. Run the PSADMIN.SQL script.

```
SQLPLUS>@<PS_HOME>/scripts/unix/psadmin.sql
```

Task B-11: Setting Up Connect ID

This section discusses:

- Understanding Connect ID
- Defining the Connect ID
- Creating the Connect ID

Understanding Connect ID

With PeopleSoft PeopleTools 8.52, you establish connections to a database simply by using the connect ID, which allows you to associate multiple PeopleSoft operators to the same connect ID. The connect ID has the minimum privileges required to connect to the database—that is, it has only SELECT privileges on specific PeopleTools tables. After connection, PeopleSoft Security uses the operator ID to control access to objects in the database. The PeopleSoft sign-on process validates the connect ID on the server, rather than the operator ID. Connect ID simplifies database security maintenance. You don't have to maintain access for all PeopleSoft users, just for the connect ID.

The connect ID is granted access using the following script:

Connect.sql: Creates the connect ID and grants CREATE SESSION privilege to the connect ID. Access to the PeopleSoft database is then granted to the connect ID explicitly via the initial Data Mover load script generated by DBSETUP to include the following grants.

```
grant select on PSSTATUS to <CONNECT_ID>;
grant select on PSOPRDEFN to <CONNECT_ID>;
grant select on PSACCESSPRFL to <CONNECT_ID>;
```

In order to work, the connect ID and connect password must be specified at the client Configuration Manager or the configuration file of any two-tier client accessing the application.

Task B-11-1: Defining the Connect ID

When logging into a PeopleSoft database in two-tier mode, the user enters a Database Name, User ID, and Password in the PeopleSoft Signon dialog box. This table lists the steps and related database SQL operations associated with logging in.

Log-in Processing Steps	Related Database SQL Operations
The access to the PeopleSoft Database is established with the Connect ID not the User ID.	Connect=PT84/people/people
Check PSSTATUS	SELECT OWNERID, TOOLSREL, LASTREFRESHDTM, LASTCHANGEDTTM FROM PSSTATUS
Validate the User ID and Password	SELECT VERSION, OPERPSWD, ENCRYPTED, SYMBOLICID, ACCTLOCK FROM PSOPRDEFN WHERE OPRID =:1
Get the Access ID and Password	SELECT ACCESSID, ACCESSPSWD, ENCRYPTED FROM PSACCESSPRFL WHERE SYMBOLICID =:1
Disconnect Connect ID	Disconnect
Login using the Access ID	Connect=PT84/ACCESSID/ACCESSPWD

At this point, access is governed by PeopleSoft security, which determines what applications a specific user ID has access to.

Task B-11-2: Creating the Connect ID

To create connect ID:

1. Log on to SQL*Plus as the System user.
2. Run the connect.sql script.

```
SQLPLUS>@<PS_HOME>/scripts/unix/connect.sql
```

3. The script will then create the connect ID and grant it CREATE Session privileges only.

Task B-12: Updating Connection Information

You must update connection information on the client. To do this, update the connection information in TNSNAMES.ORA on your client to reflect your Database Name, Oracle SID, and Server Name.

Task B-13: Creating Data Mover Import Scripts

This task explains how to create the Data Mover Import script, which is used to populate the PeopleSoft database with data. The following procedure describes how to run Database Setup Wizard from Data Mover to generate the import scripts.

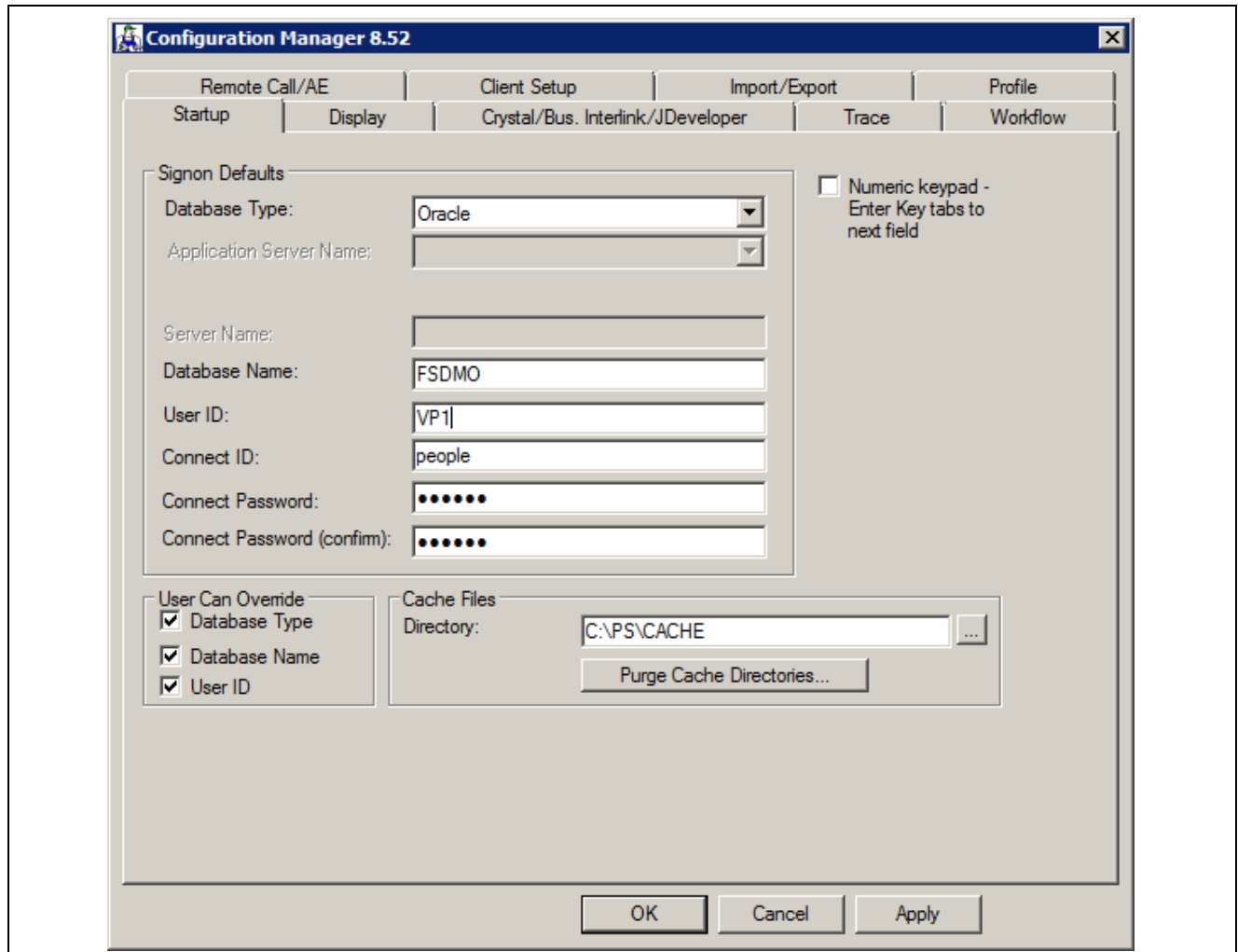
Note. This task and the next one (Running Data Mover Import Scripts) should be executed from a Windows client machine. Before you can load PeopleSoft data from a Windows client machine, you need to install PeopleSoft PeopleTools and your PeopleSoft Application to the Windows client machine and be sure to select File Server and Database Server.

See *PeopleTools 8.52: Data Management PeopleBook*.

To create the Data Mover import script using Data Mover:

1. Verify that the same connect ID was used in the Database Setup and Configuration Manager panel displayed below.

If you accepted all defaults, the connect ID/password is: people/people (password contains the number "1").



Startup tab on the Configuration Manager dialog box

2. If the *PS_APP_HOME* location is not the same as *PS_HOME*, make sure it is set in Configuration Manager, as follows:
 - a. In Configuration Manager, select Profile.
 - b. Highlight the Default Profile and select Edit.
 - c. On the Edit Profile dialog box, select the Process Scheduler tab.
 - d. Verify that the *PS_APP_HOME* value is correct.

See "Setting Up the Install Workstation," Editing the Default Profile.

3. Run Data Mover in bootstrap mode, using the access ID as the user id; this should be the user that creates the database.

When connecting to Data Mover using your access ID, you automatically sign on in bootstrap mode.

4. To invoke the Database Setup wizard, choose File, Database Setup.
5. Select your database platform.

Note. Choose the Database Type—Unicode or Non-Unicode—that you selected in the section on multilingual strategy. If you choose Non-Unicode, select the character set you decided upon in that section.

See "Preparing for Installation," Planning Multilingual Strategy.

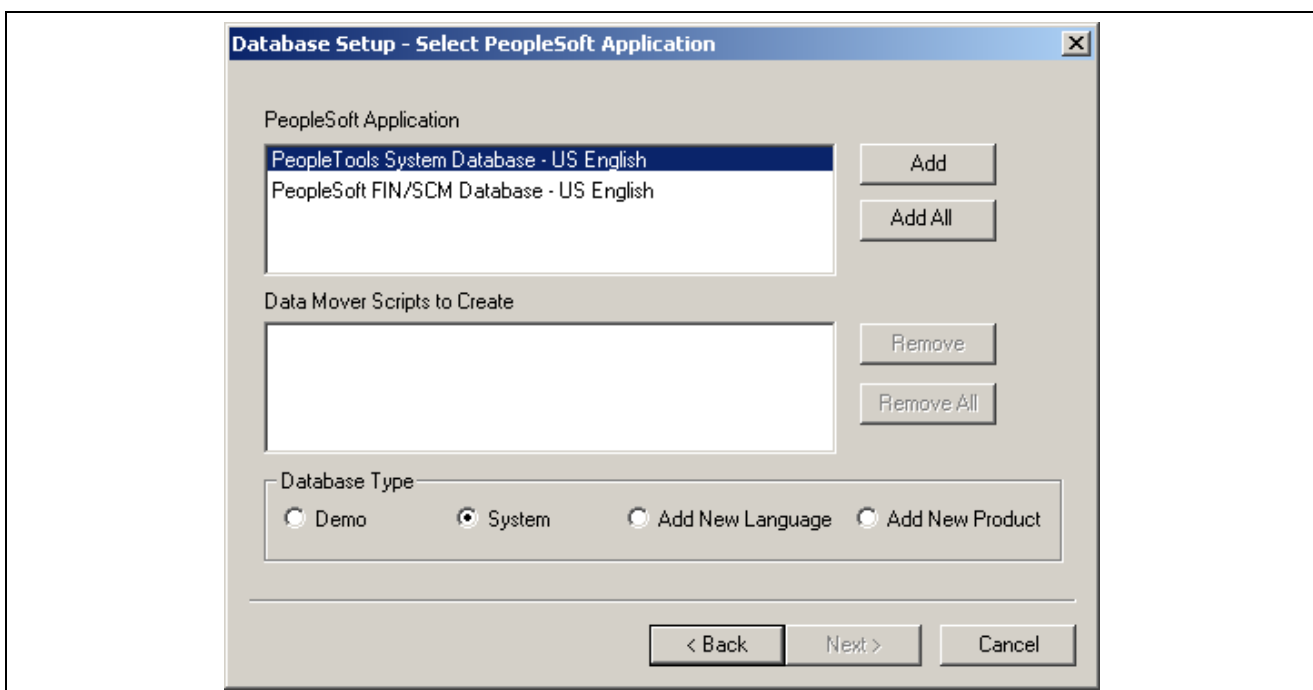
Note. The character set you select here must match the character set you used to create your database in the task Creating an Oracle Database. If you choose to create a Unicode database, you must have created your instance using the AL32UTF8 or UTF8 character set in the step Creating an Oracle Instance.

6. Select your character set and click Next.

Note. DB Setup does not actually modify the character set of your database. That is done by your DBA during database creation. DB Setup will create customized scripts based on your selections.

Note. When you select a non-Unicode character set, only the characters within that character set can be stored in your database. If you require characters from multiple character sets or scripts to be stored in a single database, Oracle recommends that you create your database using Unicode.

7. Select your PeopleSoft Application and click Next.



Selecting a PeopleSoft application in the Database Setup dialog box

8. Select the Demo or System radio button, depending on which type of PeopleSoft database you are installing.
9. Select the Products for which you want to create a Data Mover script from the PeopleSoft Application list box, and move the items you have selected into the Data Mover Scripts to Create list box by clicking on the Add or Add All button.

If you installed the Multilanguage CD, each application will be listed several times, once for each language. If you are installing languages other than English, make sure to select the appropriate language data files for each application you select in English. This will load the translated database objects.

See "Preparing for Installation," Planning Multilingual Strategy.

If you are installing an application in any language other than English, you must also select the English component of the application. For example, if you select PeopleSoft Fin/SCM - French, you must also select PeopleSoft Fin/SCM Database - US English. This ensures that you install the necessary base-language components.

10. Set the database parameters and click Next.

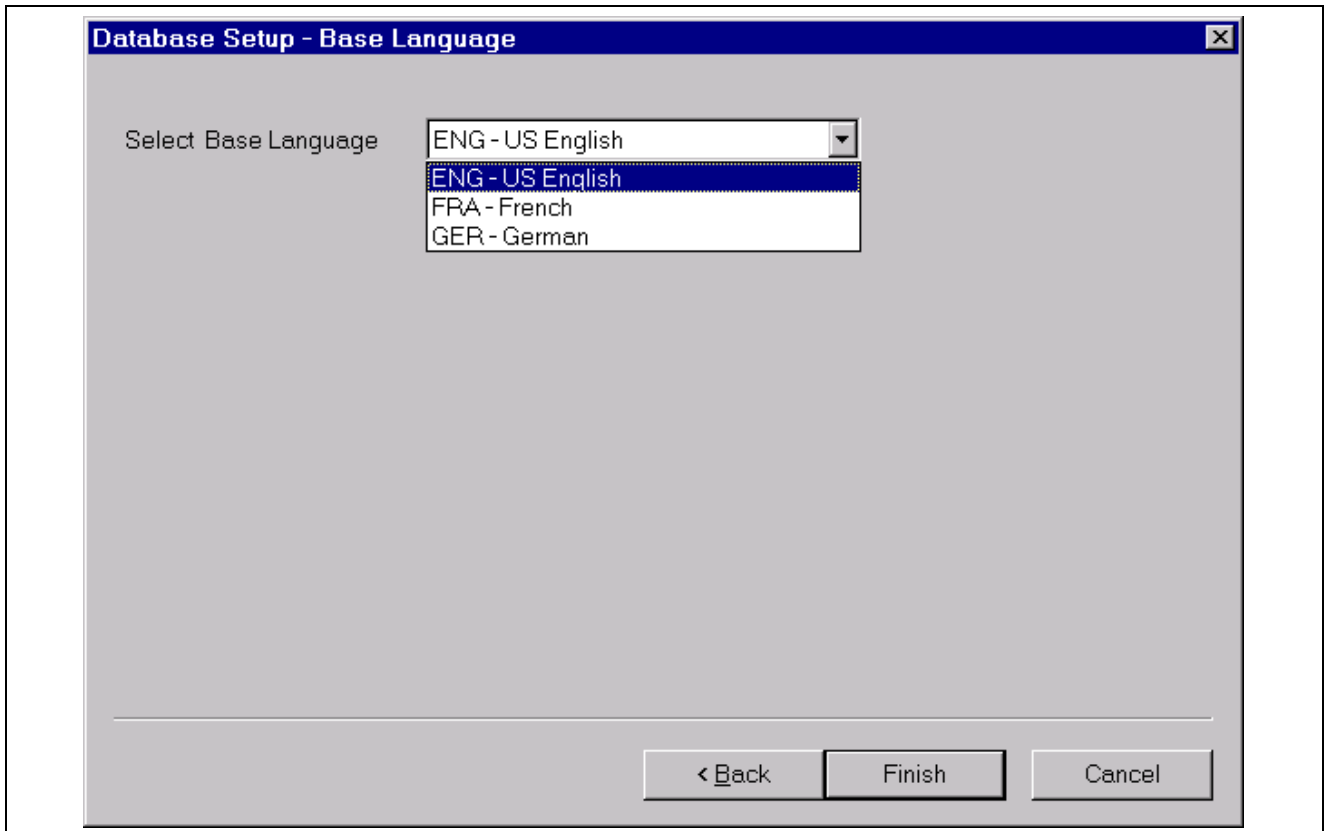
Selecting the database parameters in the Database Setup dialog box

- *Database Name:* The database name that users will enter on the PeopleSoft signon screen. This corresponds to the owner ID. It can be up to eight characters long and must be entered in uppercase.
- *Symbolic ID:* This is used as the key to retrieve ACCESSID and ACCESSPSWD from PSACCESSPRFL. For initial installation set it equal to the Database Name. The symbolic ID cannot be longer than eight characters.
- *Access ID:* This is the user you used to create the database. Limit this to eight characters or less. This value is case sensitive. You will use the access ID every time you want to sign on to Data Mover in bootstrap mode. Limit this to eight characters or less.
- *Access ID Password:* This is the PeopleSoft access ID password defined in chapter 1. Limit this to eight characters or less.
- *Connect ID:* For Oracle, this is the connect ID that is used for the initial connection to Oracle. This ID is used for connecting to the database. Limit this to eight characters or less.

11. Select your database's base language and click *Finish*.

Note. This screen appears only if you selected a database for a language other than English. If you see this screen it is critical to select the correct base language. When you select a base language other than ENG, DBSETUP generates the Data Mover import script with the SWAP_BASE_LANGUAGE command to swap the base language.

At this point you are in Data Mover, with the DMS script you just created ready to run.



Selecting a base language in the Database Setup dialog box

Use the following information in making your selection:

- If you have not already done so, read the first chapter before determining whether to install multiple languages and whether to change your base language.

See "Preparing for Installation," Planning Multilingual Strategy

- If you are creating a database and want to load Oracle-provided translations for non-English languages, you must load English (ENG) in addition to the foreign language components.
- All PeopleSoft releases are shipped with English as the database's base language. Therefore when selecting components for the Data Mover Import script, you must select the English components in addition to any other languages you have licensed. During the Database Setup wizard, you need to select the database's base language that you plan to use most frequently. If your database's base language is different than the Database Setup wizard generate the `SWAP_BASE_LANGUAGE` command in the Data Mover Import script to swap the language.
- If you are creating a non-Unicode database, you must ensure that the languages you select are all supported by the character set you used to create your database.

Task B-14: Running Data Mover Import Scripts

This section discusses:

- Understanding Data Mover Import Scripts

- Populating Tables in the PeopleSoft Database
- Validating Files
- Troubleshooting
- Improving Performance

Understanding Data Mover Import Scripts

Now you will run the Data Mover scripts (DMS) that you created in the preceding task to import the data for your PeopleSoft database. The Data Mover script creates either a system (SYS) or a demo (DMO) database.

When you initially logged onto Data Mover to create the DMS scripts, you logged in using bootstrap mode. *Bootstrap mode* means starting Data Mover with the database Access ID and password, rather than with a PeopleSoft user ID. You need to use bootstrap mode to run the Data Mover import script, because there are not yet any PeopleSoft security tables in the database.

When you start Data Mover in bootstrap mode, the word “BootStrap” appears in the Data Mover status bar.

See *PeopleTools 8.52: Data Management PeopleBook*.

Task B-14-1: Populating Tables in the PeopleSoft Database

To populate tables in the PeopleSoft database:

1. The DMS import script for your application will contain hard-coded file names for log files and data files.
Modify the DMS script if you have moved any files from the delivered directories or want to write log files to another location than that specified in the script.
2. Select File, Run to execute the script.

When you run the script, Data Mover typically does the following:

- **IMPORT ***
Create all the PeopleTools and application tables with their indexes.
- **ENCRYPT_PASSWORD ***
Encrypt security information for the database.
- **CREATE_TRIGGER ***
Create application required triggers.
- **REPLACE_VIEW ***
Create PeopleSoft views.
- **CREATE_TEMP_TABLE ***
Create PeopleSoft temporary tables.

Task B-14-2: Validating Files

Each script will produce .LOG files. The log files are located in the directory you specified in the Data Mover Script.

Examine these files after each run to make sure that all the commands were executed successfully.

Task B-14-3: Troubleshooting

If your script has stopped midway (this can happen for a number of reasons) you need to edit the script and start again.

To edit and restart the DMS script:

1. Determine the record that was being imported (that is, which IMPORT command was running) when the script stopped. (See the note below for additional information on determining where the script stopped.)

Note. When building a DMO database or a multilingual database, adding the SET START statement can be tricky because the Data Mover script used to load the database will include more than one IMPORT statement. The key is to view the LOG files and determine which IMPORT section of the script Data Mover failed on. If the failure occurred during the first IMPORT, add the SET START statement before the first IMPORT *; statement (no problem with this one). If the failure occurred during a subsequent IMPORT, comment out all preceding IMPORT *; statements and add the SET START statement before the IMPORT *; statement of the section in which the failure occurred. This is very important. If you see any 'unique index constraint' error messages in the 'Create Indexes' step (found later in the chapter), your IMPORT script failed during a subsequent IMPORT but the SET START statement was added to the first IMPORT. In this situation, you can run the Data Mover script in its originally generated form, with only one modification. In the first IMPORT section, change the statement IMPORT *; to REPLACE_DATA *;. This will delete all the data in the tables, and re-import it. This process will take some time to run, and you will need to separately create each of the indexes that failed.

2. Add the following line before the offending IMPORT command (the one being executed when the failure occurred):

```
Set start <RECORD NAME>;
```

where <RECORD NAME> is the name of the record that failed. Make sure to review the Data Mover log file to see where the script failed and locate the last record that imported successfully. The 'SET START' will begin the Data Mover import at the <RECORD NAME> specified.

Note. It is a good idea to change the name of the log file in the script before each attempt at running it. This ensures that you have a separate log file for each attempt, if you run the import more than once.

Example:

If the script stops and the table is partially inserted with a message similar to this one:

```
Importing PSPNLFIELD
Rows inserted into PSPNLFIELD

3000
```

First drop the partially inserted table (for example, record) by using the DROP TABLE command, and then restart Data Mover at the record that failed using the SET START command and continue the Data Mover import. With PeopleSoft PeopleTools 8.4x, this can be done in a single pass.

Add the following lines before the offending IMPORT command (the one being executed when the failure occurred):

```
SET START <RECORD NAME>;

DROP TABLE <RECORD NAME>;
```

where <RECORD NAME> is the name of the record that failed. Make sure to review the Data Mover log file to see where the script failed and locate the last record that imported successfully. The SET START will begin the Data Mover import at the <RECORD NAME> specified. For example:

Before

```
REM - PeopleTools System Database - US English
/
SET LOG ptengs.log;
SET INPUT ptengs.db;

SET COMMIT 30000;

SET NO VIEW;
SET NO SPACE;
SET NO TRACE;
SET UNICODE OFF;
IMPORT *;
```

After

```
REM - PeopleTools System Database - US English
/
SET LOG ptengs.log;
SET INPUT ptengs.db;

SET COMMIT 30000;

SET NO VIEW;
SET NO SPACE;
SET NO TRACE;
SET UNICODE OFF;
SET START PSPNLFIELD;

DROP TABLE PSPNLFIELD;

IMPORT *;
```

For the DROP Statement, for records with a rename without a leading PS, add PS_ to the beginning of the rename; otherwise the table will not be found.

Example:

```
PS_<RENAME>
```

3. Re-start the script (File, Run Script).

Task B-14-4: Improving Performance

The following tips can help you save time when running the Data Mover scripts:

- Run only a single instance of Data Mover, and do not have any other applications running during the import.
- In the PeopleSoft Configuration Manager, turn off all Trace options. Tracing during a DMS load will add considerable time to the process.

If you are comfortable changing the options available for an Oracle instance, you might consider tuning the instance used for the import. Some of these options are appropriate only during the import, so you may not want to keep them in effect after the import is complete.

For best performance during a Data Mover import, set these options as follows:

- Increase the number of database blocks.
- Use an 8K Oracle block size.
- Use very large rollback segments.
- Increase the size of the UNDO tablespace or the number of UNDO Segments.
- Use asynchronous read and write.
- Use multiple db_writers.

Task B-15: Changing the Base Language

The information in chapter 1, “Preparing for Installation,” will help you determine whether you should change your base language, and lists the currently supported languages.

See "Preparing for Installation," Planning Multilingual Strategy.

This task applies only if your users will be operating PeopleSoft applications *primarily* in one particular language other than English. It gives a performance boost to the language you designate as the base language, but requires more administrative overhead than leaving English as the base language. The details are spelled out in the following PeopleBook:

See *PeopleTools 8.52: Global Technology PeopleBook*.

APPENDIX C

Installing PeopleBooks

This appendix discusses:

- Understanding PeopleBooks
- Installing and Accessing PeopleBooks
- Configuring Context-Sensitive Help
- Using Oracle Secure Enterprise Search for Full-Text Searches
- Installing PeopleSoft Application PeopleBooks
- Migrating Previous Versions of PeopleBooks

Understanding PeopleBooks

PeopleBooks are the documentation delivered with PeopleSoft PeopleTools and every PeopleSoft application. This appendix describes how to install and configure PeopleBooks so that you can deploy the PeopleSoft documentation at your site.

There are three options for configuring PeopleBooks.

- *Hosted PeopleBooks*: Use PeopleBooks over the Internet with the Oracle PeopleSoft Enterprise Hosted PeopleBooks.
- *Full-text Search*: Requires installation of Oracle Secure Enterprise Search (SES).
- *Context-sensitive help*: Configure PeopleSoft PeopleTools to call PeopleBooks as context-sensitive help from both internet applications and Microsoft Windows-based programs. For instance, when a user clicks the Help link in a browser or presses F1 in Windows, the appropriate documentation appears.

Note. The F1 button calls PeopleBooks Help only for the PeopleTools Development Environment (the Windows-based client). If you press F1 while using the portal, you invoke the help for your current browser. For context-sensitive help in the portal, end users need to click the Help link to call PeopleBooks Help.

See Also

Oracle Documentation, Oracle Technology Network, <http://www.oracle.com/technetwork/documentation/index.html>

Task C-1: Installing and Accessing PeopleBooks

This section discusses:

- Prerequisites
- Accessing Oracle PeopleSoft Enterprise Hosted PeopleBooks
- Obtaining PeopleBooks and Installation Files from Oracle E-Delivery
- Installing the PeopleBooks Installation Software

Prerequisites

PeopleSoft PeopleTools 8.52 PeopleBooks are immediately available for use over the Internet at the Oracle Enterprise PeopleSoft Hosted PeopleBooks web site (<http://www.oracle.com/pls/psft/homepage>). The prerequisite for using this site is an Internet connection available to your server where PeopleSoft PeopleTools is installed. Alternatively, you can install PeopleSoft PeopleBooks to any file server, and for full-text capability, to any server hosting web server software.

Task C-1-1: Accessing Oracle PeopleSoft Enterprise Hosted PeopleBooks

Open a browser and enter the URL: <http://www.oracle.com/pls/psft/homepage>. Here you can see all the hosted PeopleBooks currently available. For the PeopleSoft PeopleTools 8.52 PeopleBooks, select the link for your product application.

You can configure your PeopleSoft server to use hosted PeopleBooks for context-sensitive help. Each page in your PeopleSoft applications includes a Help icon that, when clicked, opens a new browser window displaying help topics that discuss that page. To enable the Help link from application pages:

1. Log in to your PeopleSoft application in a browser.
2. Select PeopleTools, Web Profile, Web Profile Configuration.
3. Click Search and select the Profile Name you specified during your PeopleSoft Pure Internet Architecture installation, for example, PROD.
4. On the General page in the Help URL field, enter the URL for your product.

The URLs are available on the Oracle PeopleSoft Enterprise Hosted PeopleBooks web page. Select the link View the simple steps to set up the context sensitive help.

See "View the simple steps to set up the context sensitive help," Oracle PeopleSoft Enterprise Hosted PeopleBooks, http://download.oracle.com/docs/cd/E17566_01/epm91pbr0/eng/psbooks/EnablingtheHelpLinkfromApplicationPages.pdf

This example uses the URL for PeopleTools 8.51 PeopleBooks:

http://www.oracle.com/pls/topic/lookup?id=%CONTEXT_ID%&ctx=pt851

ORACLE All Search Advanced Search Home Worklist MultiChannel Console Add to Favorites Sign out

Favorites Main Menu > PeopleTools > Web Profile > Web Profile Configuration

General Security Virtual Addressing Cookie Rules Caching Debugging Look and Feel

Profile Name: PROD View History Save As ... Description: Installation Defaults

Authentication Domain: ?

Help URL: http://www.oracle.com/pls/topic/lookup?id=%CONTEXT_ID%&ctx=pt851 ?

☒ Compress Responses ?

☒ Compress Response References ?

Compress Mime Types: application/x-javascript,text/javascript,text/css,text/html ?

☒ Compress Query ?

Save Confirmation Display Time: 3,000 Milliseconds ?

☒ Enable Processing Message ?

☒ Enable New Window ?

☒ Enable PPM Agent ?

PPM Monitor Buffer Size: 0 KB ?

☐ Single Thread Netscape ?

Single Thread Delay: 1,000 Milliseconds ?

Non-standard Base Path: ?

Reports

Reports

☒ Enable Report Repository ?

Report Repository Path: D:\EP910SBX ?

Compress Report Output

Compress Report Output

☒ All Browsers ?

☐ Exclude NetScape ?

☐ Do Not Compress ?

Save Return to Search Previous in List Next in List Notify Previous tab Next tab Add Update/Display

Web Profile Configuration General page with PeopleBooks URL

5. Save and exit the Web Profile Configuration page.
6. Restart the following servers:
 - If your PeopleSoft Pure Internet Architecture (PIA) is running on Oracle WebLogic, restart the PIA and admin web servers.
 - For IBM WebSphere, restart the PeopleSoft Pure Internet Architecture server.
 - If the Help link does not appear in the next step, it may be necessary to also stop and restart the application server.
7. Test the help functionality by clicking the Help icon on a PeopleSoft application page.

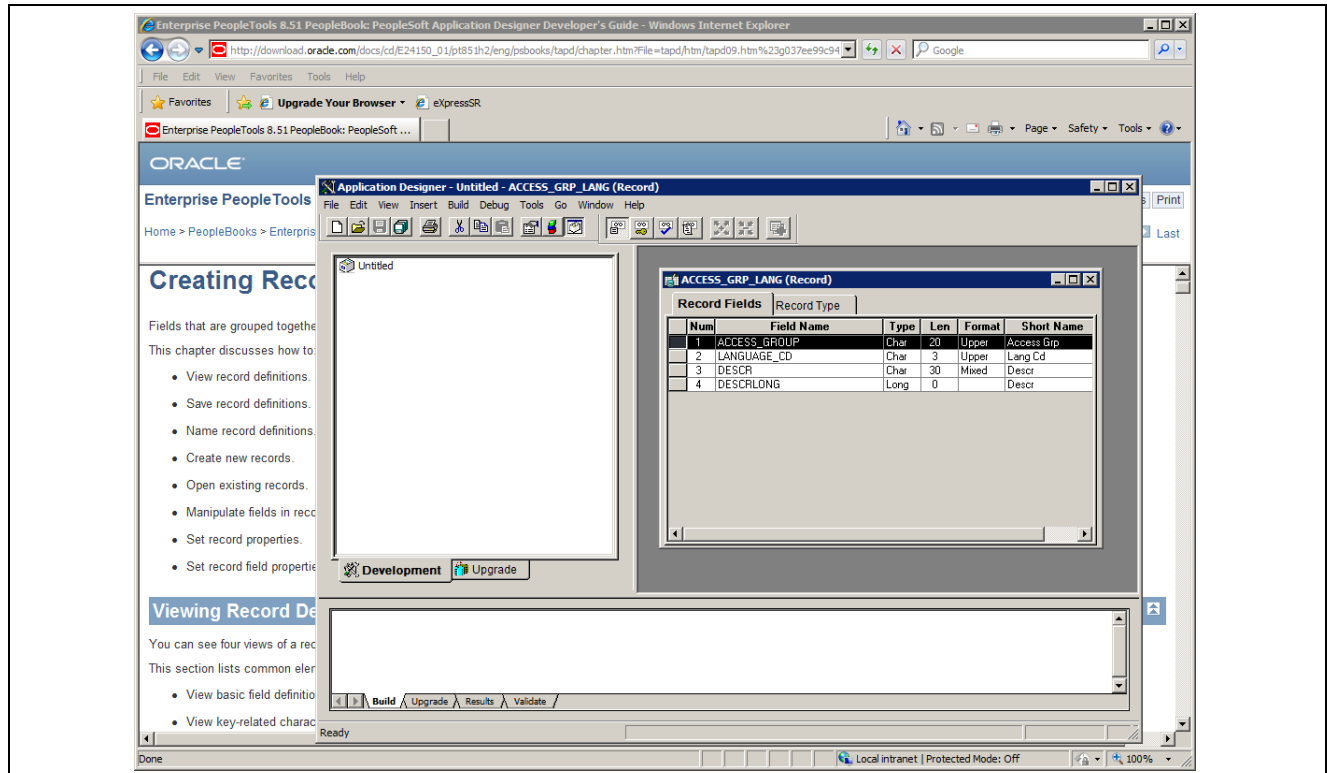
PeopleTools Application Designer also has context sensitive help available through the user's F1 key. To enable this help functionality, the PeopleTools Options must be configured to access the PeopleBooks Library as follows:

1. In your PeopleSoft application, navigate to the PeopleTools, Utilities, Administration, PeopleTools Options.
2. Scroll down to the Help Options group.
3. Enter the value for the F1 URL field. The URL should be similar to the following:
http://www.oracle.com/pls/topic/lookup?id=%CONTEXT_ID%&ctx=pt851

Note. The correct URL for this field is available on the Oracle PeopleSoft Enterprise Hosted PeopleBooks web page. Select the link View the simple steps to set up the context sensitive help, and select the link for PeopleTools 8.52.

4. Save and exit the PeopleTools Options page.
5. Open Application Designer. Press F1 to display general information on using Application Designer.
6. For context sensitive help, open an object, such as a panel or PeopleCode, then press F1.

This example shows the a browser with the documentation for creating a record, with Application Designer.



Application Designer with browser showing F1 Help

Task C-1-2: Obtaining PeopleBooks and Installation Files from Oracle E-Delivery

This section explains locating and using the installation files for PeopleBooks.

To obtain files for the PeopleBooks installation from Oracle, after logging in to Oracle E-Delivery, on the Media Search Pack page, select the *PeopleSoft Enterprise* media pack from the Select a Product Pack drop-down list. Download the zip files for PeopleSoft Enterprise 8.52 PeopleBooks.

Task C-1-3: Installing the PeopleBooks Installation Software

PeopleBooks can be installed directly to a Microsoft Windows, Linux or UNIX machine. In addition, PeopleBooks from prior PeopleSoft releases can be migrated into the new site.

To install the PeopleBooks software on a file server:

1. Go to the directory where you downloaded the PeopleBooks installation files.
2. Extract the contents of the zip file to your file server where you want the PeopleBooks to reside.
After the extraction, there will be two folders: one with the sku number (for example pt852pbr1) and a utils folder.
3. To view PeopleBooks, simply open the folder with the sku number you extracted, then launch index.htm.
4. For full-text search, see the section below on configuring Oracle Secure Enterprise Search.

To install the PeopleBooks software on a web server:

1. Go to the directory where you downloaded the PeopleBooks installation files.
2. Extract the contents of the zip file to your web server root, where you want the PeopleBooks to reside.
After the extraction, there will be two folders: one with the sku number (example pt852pbr1) and a folder named utils.
3. To view PeopleBooks, open a browser and navigate to an URL comprised of the web root of your server plus *sku_number*/index.htm
For example, when the web root is http://myserver:5080, and *sku_number* is pt852pbr1, the URL for viewing is:
http://myserver:5080/pt852pbr1/index.htm
4. For full-text search, see the section below on configuring Oracle Secure Enterprise Search.

See Also

Using Oracle Secure Enterprise Search for Full-Text Searches

Task C-2: Configuring Context-Sensitive Help

This section discusses:

- Enabling the Help Link from the Application Pages
- Enabling F1 Help

Task C-2-1: Enabling the Help Link from the Application Pages

Each page in your PeopleSoft applications includes a Help icon that, when clicked, opens a new browser window displaying help topics that discuss that page.

To enable the Help link from application pages:

1. In your PeopleSoft application, navigate to the PeopleTools, Web Profile, Web Profile Configuration page.
2. Click Search and select the Profile Name you specified during your PeopleSoft Pure Internet Architecture installation.
3. Specify the value for the Help URL field as follows:

```
http://<host_name>:<port>/<document_folder>/flsearch.htm?ContextID=%CONTEXT_
ID%&LangCD=%LANG_CD%
```

Note. If you do not want the Help icon to display in your applications, clear the Help URL field value.

For example, if your web server is called mywebserver, you are using port 5080, and your document_folder is htmldoc, the Help URL value would be:

```
http://mywebserver:5080/htmldoc/flsearch.htm?ContextID=%CONTEXT_ID%&LangCD=>
%LANG_CD%
```

- Change *<host_name>* to reflect your installation.
 - Enter the web server port for *<port>*.
 - The value for *<document_folder>* is htmldoc. If you installed to a directory other than htmldoc, use that value for *<document_folder>*.
 - The system resolves %CONTEXT_ID% to the page name from which you called help. The system resolves %LANG_CD% to the signon language of the user.
4. Save and exit the Web Profile Configuration page.
 5. Before testing help functionality, purge the browser cache on the client and close all web browsers. Restart the application server and web server for PIA.
 6. Test the help functionality by clicking the *Help* icon on a PeopleSoft application page.

Task C-2-2: Enabling F1 Help

This procedure describes how to enable F1 help for Application Designer, PeopleCode Editor, and other Microsoft Windows-based PeopleSoft programs.

To enable F1 help:

1. Sign on to your PeopleSoft application using your browser.
2. Select the PeopleTools, Utilities, Administration, PeopleTools Options page.
3. Enter the same URL as in the previous procedure (where *<host_name>*, *<port>*, and *<document_folder>* reflect your installation) into the F1 Help URL field:

```
http://<host_name>:<port>/<document_folder>/flsearch.htm?ContextID=%CONTEXT_ID%&LangCD=%LANG_CD%
```

For example:

```
http://myserver:5080/htmldoc/flsearch.htm?ContextID=%CONTEXT_ID%&LangCD=%LANG_CD%
```

4. Save the page.

Task C-3: Using Oracle Secure Enterprise Search for Full-Text Searches

This section discusses:

- Understanding Oracle Secure Enterprise Search and PeopleBooks
- Prerequisites

- Crawling a Source to Generate Full-Text Search

Understanding Oracle Secure Enterprise Search and PeopleBooks

Using Oracle Secure Enterprise Search (SES) for full-text searches allows you to build full-text search for your PeopleBooks installation and perform advanced searches.

Prerequisites

Prior to implementing full text search with SES, you must first implement SES. Record the following information, as it will be required when configuring integration between SES and PeopleBooks:

- SES server host name, and the port on which SES is listening.
For example, orases12.urcompany.com:7779
- SES administrator user ID and password, that is, the credentials you use to sign on to the SES administration console.
- PeopleBooks documentation URL
For example: <http://mywebserver:5080/html/doc/index.htm>

See Also

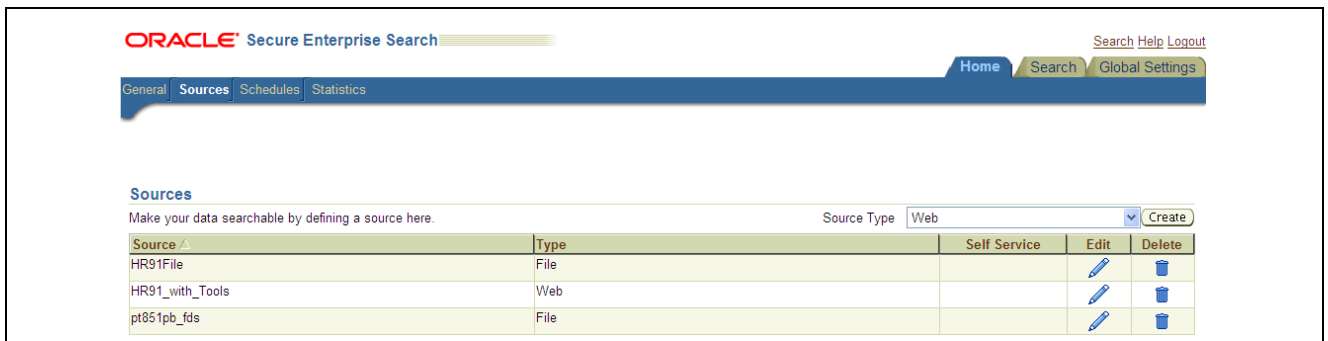
Oracle® Secure Enterprise Search Installation and Upgrade Guide 11g Release 1 (11.1.2.0.0) for <your operating system>

"Configuring Integration Between PeopleSoft PeopleTools and Oracle SES"

Task C-3-1: Crawling a Source to Generate Full-Text Search

To configure SES for full-text search:

1. Log in to your SES portal.
2. Select Sources at the top left.



SES Sources page

3. Select the Source Type from the drop-down box, and click the Create button.
Select Web or File as the Source Type, depending upon where your PeopleBooks are installed. In the example above, Web is selected.
4. Enter a value for Source Name.

This may be any name you like. In this example, the source name is PeopleTools 8.52.

The screenshot shows the 'Create Web Source' page in the Oracle Secure Enterprise Search interface. The page has a header with the Oracle logo and 'Secure Enterprise Search' text. Below the header is a navigation bar with tabs for 'General', 'Sources', 'Schedules', and 'Statistics'. The 'Sources' tab is selected. The main content area is titled 'Create Web Source' and contains a form with the following fields:

- Source Name:** A text box containing 'PeopleTools 8.52'.
- Starting URLs:** A text box containing 'http://myserver:5880/htmldoc/index_pt.html'. Below this box is a small instruction: 'Enter a list of URLs separated by a space.'
- Self Service:** Two radio buttons labeled 'enabled' and 'disabled'. The 'enabled' radio button is selected.
- Start Crawling Immediately:** A checked checkbox.

At the top right of the form area are three buttons: 'Create & Customize', 'Cancel', and 'Create'. The bottom of the page shows a breadcrumb trail: 'Home > Sources'.

Create Web Source page

5. If you selected Web as the Source Type:
 - a. In the Starting URLs field, enter the URL for your PeopleBooks folder, followed by index_XXX.html.
For example: `http://myserver:zzzz/htmldoc/index_pt852pbr1.html` where myserver is the host name, zzzz is the port number and index_pt852pbr1.html is the PeopleTools PeopleBook source file for SES to crawl.
 - b. Click the Create button.
6. If you selected File as the Source type:
 - a. In the Starting URLs field, enter the path to the folder where your PeopleBooks are stored and include the eng folder.
Use the format: `file://localhost/FullPathToDocumentFolder/eng`.
For example, `file://localhost/home/admin/htmldoc/eng`.
 - b. Click the Create & Customize button.
 - c. On the Customize File Source page, select the URL Boundary Rules tab. Under Exclusion rules, enter the value `*.js` to exclude URLs containing this value.
 - d. Click the Add button.

This example shows the Customize File Source page after adding `*.js`:

Customize Files Source page

- e. Select the Display URL tab. Set the File and Display URLs according to your file server requirements.

See the Oracle Secure Enterprise Search Online Help for further information (click the Help link on this page for more information).

7. Select Schedules at the top left.
8. Locate your Index name in the Schedule Name column, then click the corresponding link in the Status column.

Select	Schedule Name	Status	Sources	Type	Log File	Last Crawled	Next Crawl	Edit	Delete
<input type="radio"/>	HR91	Scheduled				Jul 18, 2011 11:05:03 AM			
<input type="radio"/>	HR91File	Scheduled	HR91File	File		Jul 20, 2011 4:28:22 PM			
<input type="radio"/>	PeopleTools 8.52 File	Scheduled	PeopleTools 8.52 File	File					
<input type="radio"/>	PeopleTools_852	Scheduled				Jun 28, 2011 11:54:21 AM			

Crawler Schedules page

9. On the Synchronization Schedule Status page, click the Refresh Status button to monitor job progress. To see detailed information, click the Statistics icon when it appears in the log file table, as shown below.

The screenshot shows the 'Synchronization Schedule Status' page in the Oracle Secure Enterprise Search interface. The page has a top navigation bar with 'Home', 'Search', and 'Global Settings' tabs. Below the navigation bar, there are tabs for 'General', 'Sources', 'Schedules', and 'Statistics'. The 'Schedules' tab is selected, and the breadcrumb 'Home > Schedules' is visible. The main content area displays the 'Synchronization Schedule Status' for a schedule named 'PeopleTools 8.52 File'. The status is 'Executing'. Below this, there are fields for 'Next Attempt At' and 'Last Attempt At', both set to 'none selected'. A 'Stop Schedule' button is present. Further down, there is a section titled 'Crawler Progress Summary and Log Files by Source' with a descriptive paragraph and a 'Log File Directory' path: '/home/admin/htmldoc/log'. A table lists the sources and their log file names.

Source	Log File Name	Statistics
PeopleTools 8.52 File [File]	/home/admin/htmldoc/log/lids87.07211008.log	Statistics

Synchronization Schedule Status page

10. (Optional) To create a Source Group:

You have the option to create a Source Group containing the PeopleTools PeopleBooks index. Search groups allow the user to select which index(es) to search.

- Click the Search tab at the top right of the Synchronization Schedule Status page.
- Select Source Groups at the top left, and click Create.

The screenshot shows the 'Source Groups' page in the Oracle Secure Enterprise Search interface. The page has a top navigation bar with 'Home', 'Search', and 'Global Settings' tabs. Below the navigation bar, there are tabs for 'Relevancy', 'Suggested Links', 'Suggested Content', 'Alternate Words', and 'Source Groups'. The 'Source Groups' tab is selected, and the breadcrumb 'Home > Search > Source Groups' is visible. The main content area displays the 'Source Groups' section with a descriptive paragraph. Below this, there is a 'Create' button and a table listing the source groups.

Group Name	Assigned Sources	Type	Edit	Delete
file	HR91File	File	Edit	Delete
	pt851pb_fds	File	Edit	Delete
web	None	None	Edit	Delete

Source Groups page

- Enter a meaningful name to represent the index group, especially if it will contain your PeopleSoft PeopleTools and later, some PeopleSoft Application indexes.

This name will be visible by end users. Click Proceed to Step 2.

ORACLE® Secure Enterprise Search

Search Help Logout

Home Search Global Settings

Relevancy Suggested Links Suggested Content Alternate Words **Source Groups**

Search > Source Groups

Create New Source Group: Step 1

Specify an arbitrary name for the group.

Name

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About Oracle Secure Enterprise Search Version 11.1.2.2.0

Create New Source Group: Step 1 page

- d. Confirm that the source type selected is correct (web or file).
- e. From the Available Sources column, highlight the index you just created, then click the double right arrow between the two columns to move the index to the Assigned Sources column.

ORACLE® Secure Enterprise Search

Search Help Logout

Home Search Global Settings

Relevancy Suggested Links Suggested Content Alternate Words **Source Groups**

Search > Source Groups

Create New Source Group: Step 2

Assign Sources to Group

To add sources to the group, select them from the list of available sources and click ">>". To remove sources from the group, select them from the list of assigned sources and click "<<".

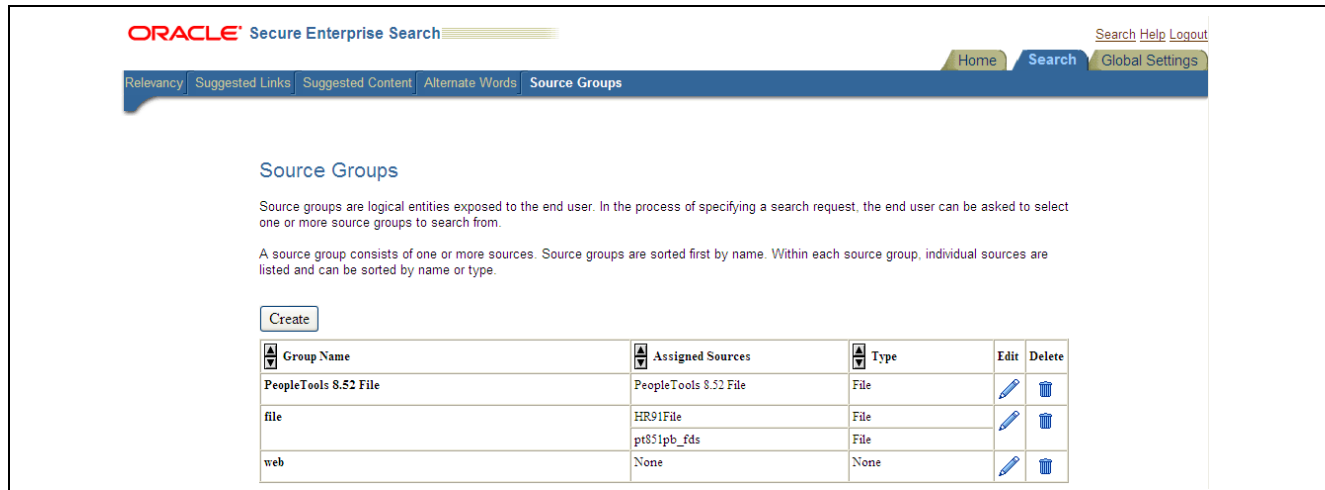
Select Source Type

Available Sources		Assigned Sources
HR91File	>>	[File] PeopleTools 8.52 File
pt051pb_fds	<<	

Note: Successfully updated source group assignments.

Create New Source Group: Step 2 page

11. Click the Finish button and it will return you to the list of index names.



Source Groups page with new group

12. To test the search index, click the Search link, not tab, at the top right of the screen.

Click the name of the Search Source group you created (if applicable) and note the resulting URL, which will serve as the search home for PeopleBooks.

13. Test the index by entering some criteria in the search box and clicking the Search button.

In this example, the Search Source “PeopleTools 8.52” is selected and displays results for search criteria “Application Designer”.



Search results

14. If your PeopleBooks reside on a web server, modify the `document_folder/js/common.js` file as follows:

Locate the line `var searchPageURL = " ";` in the Search Page Settings section and insert the URL of the search home for PeopleBooks determined in step 12 above. This example shows the Search Page Settings section before modification:

```

//////////////////// Search Page Settings //////////////////////
var searchPageURL = " ";

```

This example shows the Search Page Setting section after modification:

```

//////////////////// Search Page Settings //////////////////////
var searchPageURL = "http://myserver:7778/search/query/search?search.timezone=>
420&search_startnum=&search_endnum=&num=10&search_dupid=&exttimeout=false&act=>
ProfID=0&group=MB+pt852pbr1&q=&search_p_main_operator=all&search_p_atname=&adn=>
&search_p_op=equal&search_p_val=&search_p_atname=&adn=&search_p_op=>
equals&search_p_val=";

```

Task C-4: Installing PeopleSoft Application PeopleBooks

This section discusses:

- Understanding Installing PeopleSoft Application PeopleBooks
- Merging PeopleSoft Application PeopleBooks with PeopleSoft PeopleTools PeopleBooks
- Installing the PeopleSoft Application PeopleBooks to its Own Folder
- Creating Full-Text Searches for Custom Documentation

Understanding Installing PeopleSoft Application PeopleBooks

This section describes two options available for installing Application PeopleBooks:

- Merge PeopleSoft Application PeopleBooks with PeopleTools PeopleBooks.
This option allows the application to perform context sensitive search against multiple PeopleBooks with one URL (for example, PeopleSoft PeopleTools 8.52 and Human Capital Management 9.1).
- Install PeopleSoft Application PeopleBooks to their own folder.
This option allows the application to perform context sensitive search against only one PeopleBook (for example: Human Capital Management 9.1).

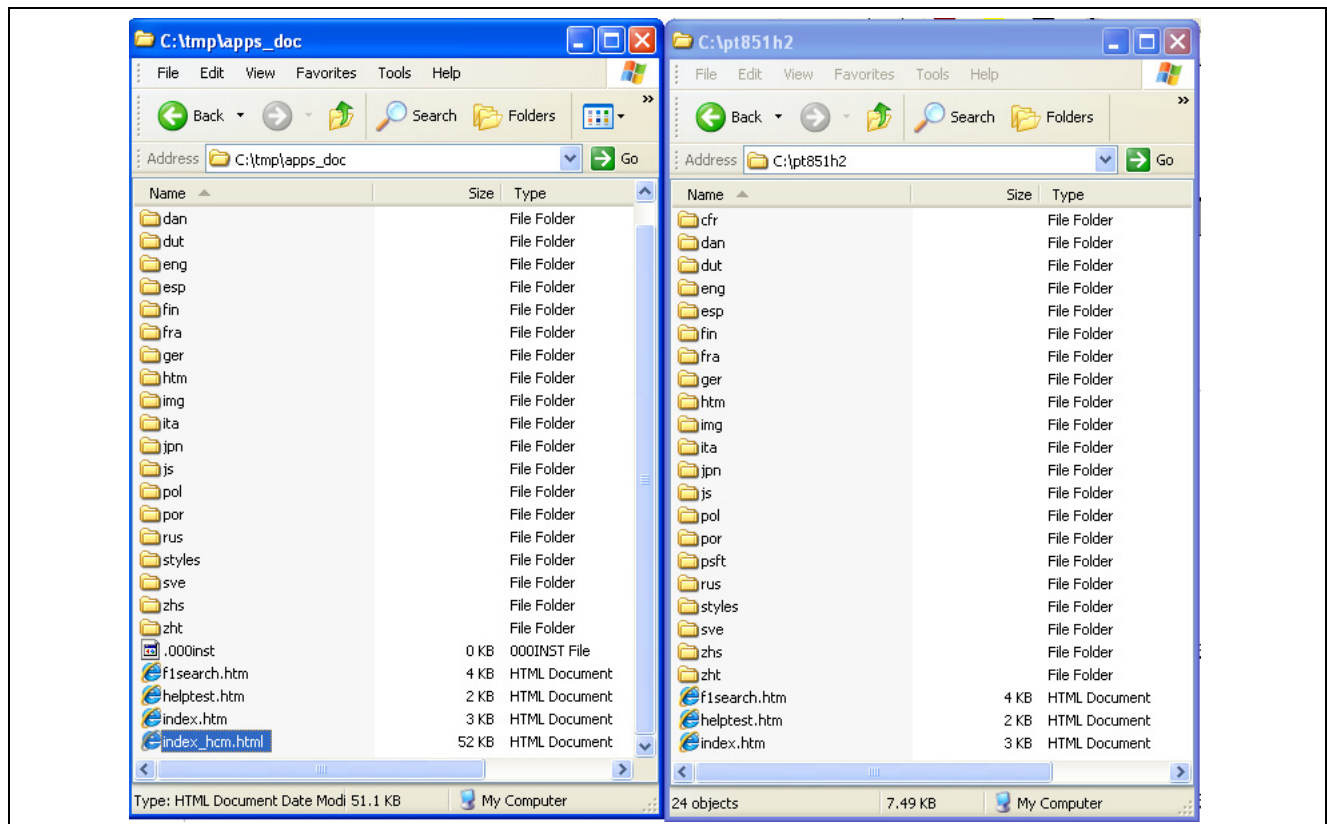
Task C-4-1: Merging PeopleSoft Application PeopleBooks with PeopleSoft PeopleTools PeopleBooks

Merging the Contents of *pt_doc* with *apps_doc*

In these instructions, we refer to the documents folder where the PeopleSoft PeopleTools PeopleBooks are installed as *pt_doc*, and assume its full text search index has already been generated.

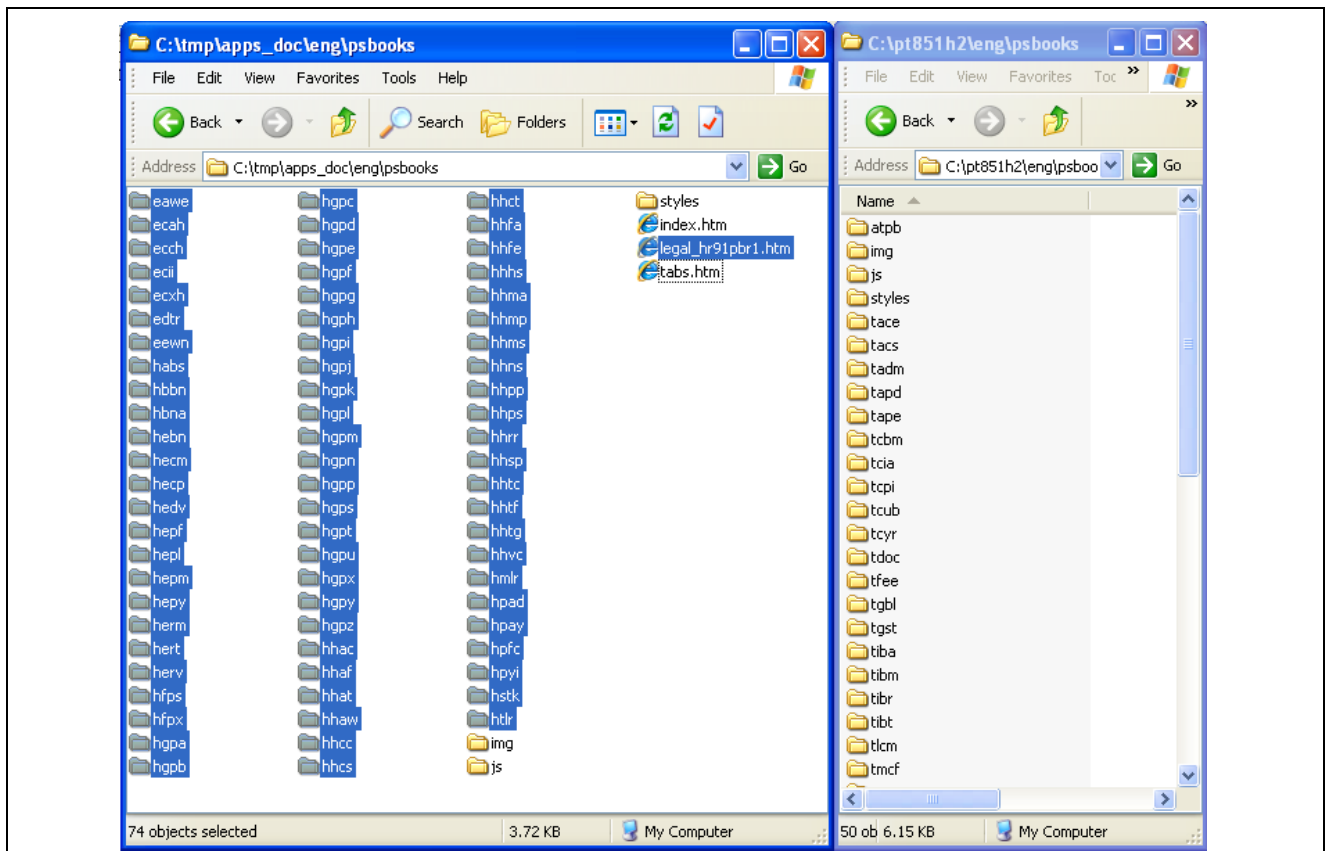
1. Extract the contents of the PeopleSoft Application PeopleBooks zip file to a folder separate from your PeopleSoft PeopleTools documents folder, referred to here as *apps_doc*.
2. In the *apps_doc* folder, search for all files named *index*.**.

In this example, the *apps_doc* folder is C:\tmp\apps_doc and the *pt_doc* folder is C:\pt851h2.



Contents of apps_doc and pt_doc folders

3. Copy <apps_doc>/index_<xxxxx>.html to pt_doc/, where <xxxxx> represents the sku for the PeopleSoft Application books you are installing, for example index_hcm92pbr1.html for Human Capital Management PeopleBooks.
4. For backup purposes, copy pt_doc/eng/psbooks/js/booklist.js to pt_doc/eng/psbooks/js/booklist.js.bak.
5. Open the apps_doc/eng/psbooks folder.



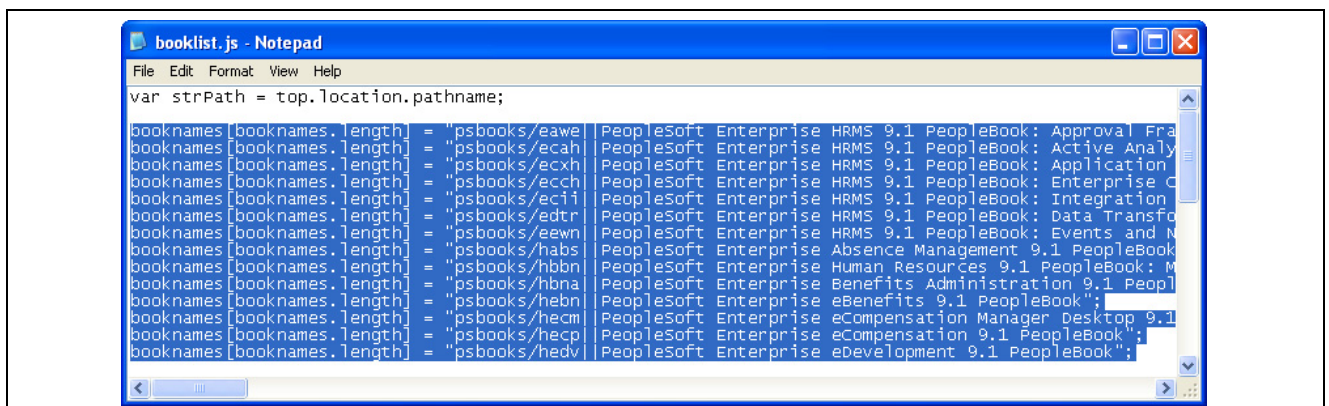
File list in apps_doc folder

Carefully copy everything from this location to *pt doc/eng/psbooks*, except for the following:

- img folder
- js folder
- styles folder
- index.htm
- tabs.htm

6. Open *apps doc/eng/psbooks/js/booklist.js*.

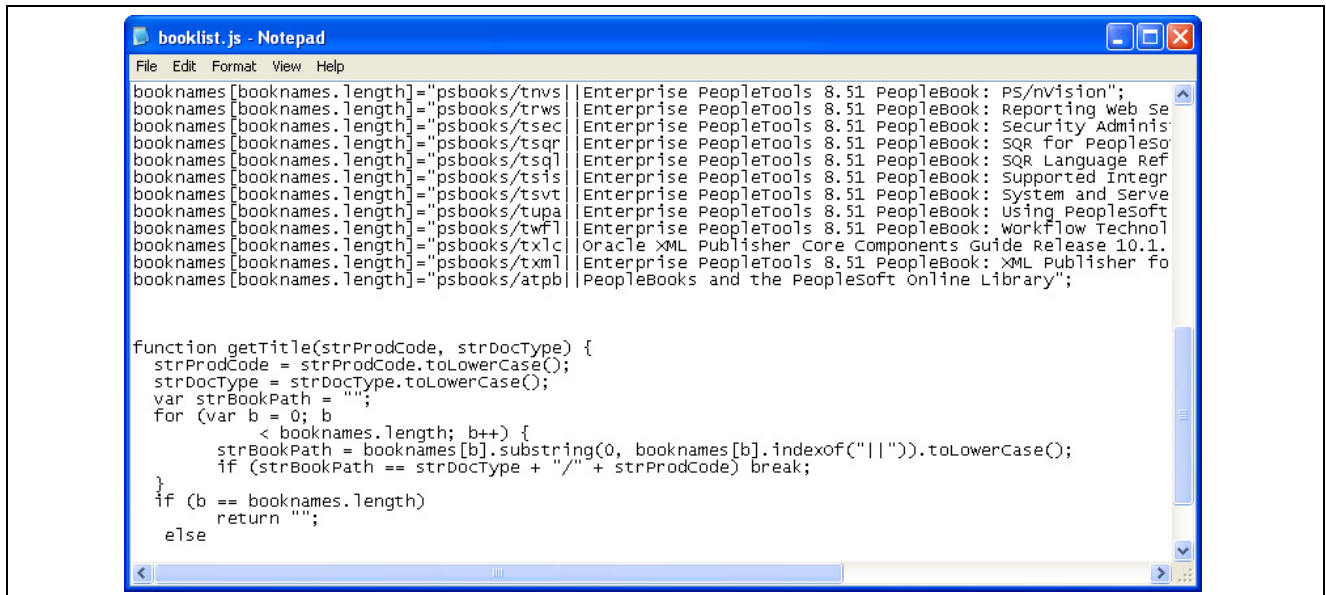
Except for the line containing “atpb”, copy all the lines that begin with “booknames[booknames.length] =”.



Contents of booklist.js under apps doc folder

7. Open `pt_doc/eng/psbooks/js/booklist.js`.

Locate the last line in the file containing “`booknames[booknames.length] =`”. Position the cursor at the beginning of the *next* line and paste all the lines copied in the previous step. Save the file.



Contents of `booklist.js` under `pt_doc` folder

8. Open `apps_doc/eng/psbooks/js/helplist.js`.
Copy all the lines in the file.
9. Open `pt_doc/eng/psbooks/js/helplist.js`.
Paste all the lines copied in the previous step. Save the file.
10. If you have not already done so, generate an index for PeopleTools PeopleBooks index using the instructions in the previous section *Crawling a Source to Generate Full-Text Search Index*, if you want to group it with your Application PeopleBooks Index.

Generating Full-text Search for the New Index

To generate full-text search for the PeopleSoft Application PeopleBooks:

1. Log in to the SES portal.
2. Select the Sources link at the top left, and then select the Source Type, Web or File.
3. Enter a value for the Source Name.

This may be any name you like. In this example of the Create Web Source page, the Source Name is PeopleTools 8.52.

ORACLE Secure Enterprise Search

Search Help Logout

Home Search Global Settings

General Sources Schedules Statistics

Home > Sources

Create Web Source

Create & Customize Cancel Create

Source Name: PeopleTools 8.52

Starting URLs: http://myserver:5880/htmldoc/index_pt.html

Enter a list of URLs separated by a space.

Self Service: ☐ enabled ☒ disabled

☒ Start Crawling Immediately

Create Web Source page

4. If you select Web Source Type, enter the starting URL field for SES to crawl using this format:

`http://<myserver>:<zzzz>/<htmldoc>/index_<app_index>.html`

where `<myserver>` is the host name, `<zzzz>` is the port number, `<htmldoc>` is the name of your documents folder, and `<app_index>` refers to the applications index_xxx.html file located in the pt_doc folder.

Click the Create button.

ORACLE Secure Enterprise Search

Search Help Logout

Home Search Global Settings

General Sources Schedules Statistics

Home > Sources

Create Web Source

Create & Customize Cancel Create

Source Name: HR91 with Tools

Starting URLs: http://myserver:5880/htmldoc/index_hcm.html

Enter a list of URLs separated by a space.

Self Service: ☐ enabled ☒ disabled

☒ Start Crawling Immediately

Web Source List

Name	Description
Infodev_pt851pbws	http://myserver:5880/pt851pbr1/index_pt.html
PeopleTools_852	http://myserver:5880/pt852/index_pt.html

Create & Customize Cancel Create

Create Web Source page for PeopleSoft Application PeopleBooks

5. If you select File Source Type, enter the starting URL field for SES to crawl using this format:

`file://localhost/FullPathToDocumentsFolder/eng`

In this example, *FullPathToDocumentsFolder* is /home/admin/htmldoc. Click the Create and Customize button.

ORACLE® Secure Enterprise Search

Search Help Logout

Home Search Global Settings

General Sources Schedules Statistics

Home > Sources

Create File Source

Create & Customize Cancel Create

Source Name: HR91File

Starting URL: file://localhost/home/admin/html/doc/eng

☒ Start Crawling Immediately

File Source List

Name	Description
pt851pb_fds	file://localhost/home/hr91pbr0/enq
	file://localhost/home/pt851pbr1/enq

Create & Customize Cancel Create

Create File Source page for PeopleSoft Application PeopleBooks

- For File Source Type only, on the Customize File Source page, click the URL Boundary Rules tab. Under Exclusion rules, enter the value “*.js” to exclude URLs containing this value. Click the Add button.

ORACLE® Secure Enterprise Search

Search Help Logout

Home Search Global Settings

General Sources Schedules Statistics

Home > Sources

Customize File Source: HR91File

Cancel

Basic Settings URL Boundary Rules Document Types Display URL Authorization Attribute Mapping Crawling Parameters

If modifications to the boundary rules result in an increase in the scope of documents to be crawled, it may be necessary to enable a "forced recrawl" of the source. To enable a forced recrawl, edit the schedule for this source and select "Process All Documents."

Inclusion Rules

URL contains Add

URL Pattern	Delete
(No data exists.)	

Exclusion Rules

URL contains Add

URL Pattern	Delete
URL contains "*.js"	

Test URL

Enter a URL and click the "Test" button to see if this URL gets excluded or included by the URL boundary rules.

URL Test

Basic Settings URL Boundary Rules Document Types Display URL Authorization Attribute Mapping Crawling Parameters

Cancel

Customize File Source page for PeopleSoft Application PeopleBooks

- Select Schedules at the top left. Locate your index name in the Schedule Name column, for example HR91, then click the corresponding link, Scheduled in this example, in the Status column.

Oracle Secure Enterprise Search

Home Search Global Settings

General Sources **Schedules** Statistics

Crawler Schedules Create

Start Stop

Select	Schedule Name ^	Status	Sources	Type	Log File	Last Crawled	Next Crawl	Edit	Delete
<input type="radio"/>	HR91	Scheduled				Jul 18, 2011 11:05:03 AM			
<input type="radio"/>	HR91File	Scheduled	HR91File	File		Jul 20, 2011 2:52:42 PM			
<input type="radio"/>	Mailing list Schedule	Disabled	All mailing list sources	Mailing list					
<input type="radio"/>	PTools852_HR91	Scheduled	PTools852_HR91	Web		Jul 19, 2011 4:30:53 PM			
<input type="radio"/>	PeopleTools_852	Scheduled				Jun 28, 2011 11:54:21 AM			
<input type="radio"/>	PeopleTools_852_2	Scheduled	PeopleTools_852	Web		Jul 12, 2011 3:48:19 PM			
<input type="radio"/>	pt851pb_fds	Scheduled	pt851pb_fds	File		May 13, 2011 4:49:06 PM			
<input type="radio"/>	pt851pb_fs	Scheduled				May 13, 2011 6:29:37 AM			

Start Stop

Crawler Schedules page

8. On the Synchronization Schedule Status screen, click the Refresh Status button to monitor job progress. To see detailed information, click the Statistics tool when it appears in the log file table, as shown in this example.

Oracle Secure Enterprise Search

Home Search Global Settings

General Sources **Schedules** Statistics

Home > Schedules

Refresh Status

Synchronization Schedule Status

Schedule Name: HR91File
 Status: Executing
 Next Attempt At: none selected
 Last Attempt At: Jul 20, 2011 2:52:42 PM

Stop Schedule

Crawler Progress Summary and Log Files by Source

For each source associated with this schedule, the crawler logs all activity in a log file. The following table lists all sources with their corresponding log files. Click Statistics to view the crawler progress summary for this source.

Log File Directory: /home/admin/oracle/product/11.1.2.2.0/ses1/oradata/ses1/log/

Source	Log File Name	Statistics
HR91File [File]	/home/admin/oracle/product/11.1.2.2.0/ses1/oradata/ses1/log/ids84.07201624.log	

Synchronization Schedule Status page for HR91

9. (Optional) You have the option to group the new applications index with the PeopleTools PeopleBooks index and/or other indexes.

To create a new source group:



Create New Source Group: Step 2 page

- a. Click the Search tab at the top right of the screen.
 - b. Select Source Groups. Click Create.
 - c. Enter a name to represent the index for both your PeopleTools and your Application indexes; it will be visible by end users. Click Proceed to Step 2.
 - d. Confirm that the source type selected is appropriate (web or file). From the Available Sources column, highlight the index you just created, then click the double right arrow between the two columns to move the index to the Assigned Sources column.
 - e. Highlight the name of the PeopleTools SES index and move it from the Available Sources column to the Assigned Sources column as well.
 - f. Click the Finish button and it will return you to the list of source group names.
10. To test the search index, click the Search link, not tab, at the top right of the screen.

Note the URL, as this will be the search home URL for PeopleBooks. Also note that the name you entered for the Source Group in the last step appears in the screen as a search source.

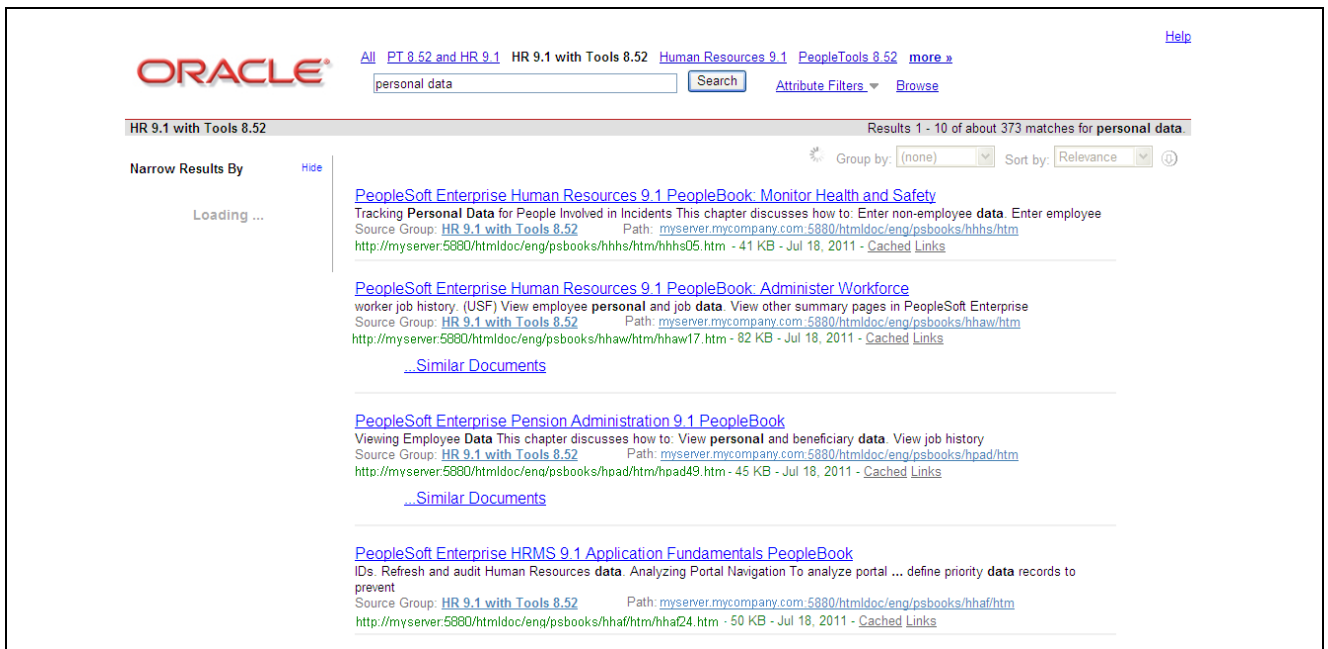
Click the name of the search source to access your new index.



Search page for Merged PeopleBooks

11. In the example below, the Search Source “HR 9.1 with Tools 8.52” is selected and displays results for search criteria “personal data”.

Note the option to select “All”, “HR 9.1 with Tools 8.52”, “Human Resources 9.1”, and “PeopleTools 8.52” as Search Sources. These options allow you to expand or restrict the scope of indexes scanned for results.




Search results for Merged PeopleBooks

Task C-4-2: Installing the PeopleSoft Application PeopleBooks to its Own Folder

If you elect to install each PeopleBook to its own document folder, simply extract each PeopleBooks zip file to a unique folder under the web root of your server, or a shared location on a file server.

Generate search, if desired, as indicated in the section of this appendix titled Crawling a Source to Generate Full Text Search Index. In the example below, the Search Source has defaulted to “All”. You have the option to select “All”, “Human Resources 9.1” and “PeopleTools 8.52” as Search Sources. These options allow you to expand or restrict the scope of indexes scanned for results



Search page for PeopleSoft Application PeopleBooks

Task C-4-3: Creating Full-Text Searches for Custom Documentation

You can use the same instructions given above to create full-text search indexes against custom documentation. Keep the following in mind:

- Web Source Type

Before configuring SES, you will need to generate an index file containing a list of all the html documents in your site that you would like SES to crawl. By viewing `htmldoc/index_pt.html` or `htmldoc/index_xxx.html` from an application PeopleBooks, you can see the format and sequence of what SES expects. For assistance with custom documentation, please request to speak with an Oracle Consultant.

- File Source Type

Enter the lowest level root folder from which SES should begin scanning for html documents. In our examples above, the majority of html documents in PeopleBooks are stored in the English language folder (`htmldoc/eng`). Identify the appropriate folder for your installation to specify in SES.

Task C-5: Migrating Previous Versions of PeopleBooks

This section discusses:

- Understanding PeopleBook Migration
- Generating Lists of HTML Files Using HTMLListGenerator.jar (Optional)
- Copying HTML Content Files into the Target Web Site
- Merging Entries from booklist.js and helplist.js
- Generating a Full-Text Search Index Using SES (Optional)

Understanding PeopleBook Migration

To migrate documentation that resides in an existing PeopleBooks website (PSOL or ODLA structure), use the following procedure. The process consists of four basic steps:

1. Generate a list of HTML files using HTMLListGenerator.jar.
2. Copy HTML content files into target web site.
3. Merge entries from booklist.js and helplist.js files.
4. Generate full search index using Oracle Secure Enterprise Search (SES).

The existing PeopleBooks from the PSOL or ODLA structure are referred to here as *legacy_doc* and the new folder is referred to as the *target_doc*.

Note. Consult the PeopleSoft PeopleTools installation guides for earlier releases for more information on these PeopleBooks structures.

Task C-5-1: Generating Lists of HTML Files Using HTMLListGenerator.jar (Optional)

Carry out the instructions in this section if you intend to build a full-text search index for your migrated documents; otherwise, skip to the next section, Copying HTML Content Files into Target Web Site.

The installation files for your PeopleSoft PeopleTools 8.52 PeopleBooks contains a folder named utils. HTMLListGenerator.jar, located inside the utils folder, will create a specially formatted file you can use with SES to build a full-text search index for migrated PeopleBooks.

The output from HTMLListGenerator.jar will be named index_xxx.html, where xxx is a name you assign according to the content you migrate. For example, if you migrate PeopleSoft Human Capital Management 9.0, you would name the file index_hcm90.html.

To view the options and usage (arguments) for HTMLListGenerator.jar, run the utility with the “-h” or “-H” option. For example:

```
java -jar HTMLListGenerator.jar -h
```

```
HTMLListGenerator:Generate list of HTML files for SES web crawler
```

```
Usage:java -jar HTMLListGenerator.jar -h [-I include] [-E exclude] [-L linkfrmt] [->
o outfile] [-t title] PATH
```

Generate a list of HTML links for all documents in PATH and use -I option to designate file names with a regular expression.

Options:

```
-h          : Print this help message.
-I include  : Regular expression to designate included file names.
              default : ^[a-z]{4,6}[0-9]{2}\.htm[1]?$|^legal[^\/]*\.htm[1]?$|.+=>
\.pdf$
-E exclude : Regular expression to exclude file names. No default value.
-L linkfmt  : Output format for link elements.
              default : <a href="%s"> </a><br/>
-o outfile  : Output file-- stdout is used if this option is not specified.
-t title    : Title text for this file.
              default : "PeopleBooks"
```

Examples:

```
java -jar PeopleBooksUtils4User.jar .
Generate list of documents that reside in current directory and
decendants; print to standard output. Default regular expression
for included documents.
"^[a-z]{4,6}[0-9]{2}\.htm[1]?$|^legal[^\/]*\.htm[1]?$|.+\.pdf$" is used.

java -jar PeopleBooksUtils4User.jar -o pt852pbr0/index_pt852pbr0.html pt852pbr0
Generate list of documents that reside in pt852pbr0 directory and
decendants. Output is saved in pt852pbr0/index_pt852pbr0.html.
Default regular expression to include document
"^[a-z]{4,6}[0-9]{2}\.htm[1]?$|^legal[^\/]*\.htm[1]?$|.+\.pdf$" is used.
```

To use HTMLListGenerator.jar:

1. From the PeopleTools 8.52 PeopleBooks installation folder, extract the contents of the utils folder into a temporary location.
2. Change directory to the parent directory of your source, or *legacy_doc* folder. Copy the contents of the utils folder to the current directory, including any subdirectories.
3. At a command prompt from the web root folder, execute the following command:

```
java -jar HTMLListGenerator.jar arguments
```

Use the following format for the HTMLListGenerator utility, unless your site has a specific need to modify the default regular expression:

```
java -jar HTMLListGenerator.jar -o target_folder/index_xxx target_folder
```

The default regular expression is:

```
^[a-z]{4,6}[0-9]{2}\.htm[1]?$|^legal[^\/]*\.htm[1]?$|.+\.pdf$
```

This will retrieve the following files and add them to the index:

- Files beginning with four to six lowercase letters followed by two digit numbers, then the extensions “.htm” or “.html”

- Files beginning with “legal” and ending with “.htm” or “.html”
- Files ending with “.pdf”

You can concatenate additional regular expressions to include files using “|” (the pipe symbol) with the -I option. For example to add files that start with “help_” and end with “.html”, modify the regular expression as follows:

```
$ java -jar HTMLListGenerator.jar -I "[a-z]{4,6}[0-9]{2}\\.htm[l]?$|^legal[^\/*]
\\.htm[l]?$|\\.pdf$|help_\\.html" -o index_xxx.html
```

After successfully executing the HTMLListGenerator utility, you will have an index_xxx.html in your *target_doc* that was built for all the content.

Task C-5-2: Copying HTML Content Files into the Target Web Site

Open the *legacy_doc/eng/psbooks* folder.

Carefully copy everything from this location to *target_doc/eng/psbooks*, except for the following:

- img folder
- js folder
- styles folder
- index.htm
- tabs.htm

Task C-5-3: Merging Entries from booklist.js and helplist.js

To merge entries from booklist.js and helplist.js:

1. For backup purposes, copy *target_doc/eng/psbooks/js/booklist.js* to *target_doc/eng/psbooks/js/booklist.js.bak*.
2. Open *legacy_doc/eng/psbooks/js/booklist.js*.
3. Except for the line containing “atpb”, copy all the lines that begin with “booknames[booknames.length] =”.
4. Open *target_doc/eng/psbooks/js/booklist.js*.
5. Locate the last line in the file containing “booknames[booknames.length] =”.
Position the cursor at the beginning of the next line and paste all the lines copied in the previous step. Save the file.
6. Open *legacy_doc/eng/psbooks/js/helplist.js*.
7. Copy all the lines in the file.
8. Open *target_doc/eng/psbooks/js/helplist.js*.
9. Paste all the lines copied in the previous step. Save the file.

Task C-5-4: Generating a Full-Text Search Index Using SES (Optional)

If you wish to build a full text search index against your migrated content, copy the file generated in the previous section, Generating Lists of HTML Files Using HTMLListGenerator.jar (Optional), to your *target_doc/* folder, and follow instructions for “Generating Full-text Search for the New Index” under the section Merging PeopleSoft Application PeopleBooks with PeopleSoft PeopleTools PeopleBooks earlier in this appendix.

APPENDIX D

Installing Software for PS/nVision Drilldowns

This appendix discusses:

- Understanding PS/nVision DrillDown Add-ins
- Installing the DrillToPIA Add-In
- Installing the nVisionDrill Add-In
- Installing the nVisionDrill Add-Ins for Multi-Language Installations
- Setting Up PeopleSoft Integration Broker for Using Web Service Capability with nVisionDrill Add-in

Understanding PS/nVision DrillDown Add-ins

When you use PS/nVision to view reports, you can use the DrillDown feature to select a cell in your report and expand it according to criteria contained in a special DrillDown layout.

See *PeopleTools 8.52: PS/nVision PeopleBook*, "Using DrillDown."

To use the PS/nVision DrillDown feature with Microsoft Excel reports, you need to install one of the following add-ins, as described in this appendix:

Note. DrillToPIA and nVisionDrill VSTO add-ins do not coexist. You can use only one add-in at a time.

- DrillToPIA add-in
- nVisionDrill VSTO add-in (Visual Studio tools for Microsoft Office SE Runtime).

See *PeopleTools 8.52: PS/nVision PeopleBook*, "Running PS/nVision Report on the Web."

Here is the way the two drilldown add-ins work with the supported version of Microsoft Excel 2007:

If the nVisionDrill VSTO add-in was installed, the nVisionDrill add-in runs and the nVisionDrill VSTO drilldown menu is available when Microsoft Excel opens.

Optionally, you can disable the nVisionDrill VSTO add-in and run the DrillToPIA add-in.

Note. To disable the nVisionDrill VSTO add-in and use the DrillToPIA add-in, access the Add-Ins dialog box and select the DrillToPIA check box. This selection replaces the nVisionDrill VSTO add-in with the DrillToPIA add-in, and the DrillToPIA drilldown menu appears until you reinstall the nVisionDrill VSTO add-in.

To reinstall the nVisionDrill VSTO, double-click the setup.exe file and select the Repair option.

Task D-1: Installing the DrillToPIA Add-In

This section discusses:

- Understanding Drilldown with DrillToPIA Add-in
- Installing the DrillToPIA Add-in on the Microsoft Excel Environment

Understanding Drilldown with DrillToPIA Add-in

DrillDowns are run on the PS/nVision report server – like Report Requests and Report Books – and are accessible through Report Manager. You can also select to run the DrillDown using the output type of *Window*, which automatically delivers the results to a new browser window. A copy of the results will also be accessible through Report Manager.

You can drill down on individual cells within the report by selecting the cell and using Drill from the nVisionDrill menu for a Microsoft Excel report.

Note. A drilldown result report inherits the output format of its parent report. So, if the parent instance is in Excel format, then the drilldown result is in Excel format.

DrillDown in a web browser does not include the AutoDrill, Drill-to-Query, and Drill-to-Panel options.

Task D-1-1: Installing the DrillToPIA Add-in on the Microsoft Excel Environment

To drill down on Microsoft Excel reports, the Microsoft Visual Basic Application (VBA) add-in DrillToPIA.xla file needs to be installed on the Microsoft Excel environment. This file is stored in the *PS_HOME*\Excel directory on the Application Server. Your System Administrator needs to distribute a copy of this file to all users who need to drill down on Microsoft Excel reports on the Web.

Note. If a non-English version of Microsoft Excel is used, translated versions of DrillToPIA.xla can be found in the *<PS_HOME>\Excel\<Language>* directory on the Application Server.

In Apple Macintosh systems, PS/nVision DrillToPIA add-in launches Microsoft Internet Explorer for the drilldown page when drilling is performed on a Microsoft Excel report, regardless of the browser from which the original report is opened.

To install the add-in DrillToPIA.xla file into the Microsoft Excel environment:

1. Copy the *PS_HOME*\Excel\DrillToPIA.xla file, and paste it into the Excel add-in directory.
If Microsoft Office is installed in the directory *MS_OFFICE*, the Excel add-ins directory is *MS_OFFICE*\Office\Library.
2. Launch Microsoft Excel and select Tools, Add-ins from Excel toolbar.
3. Select the DrillToPIA option in the Add-ins dialog box.
The nVisionDrill menu appears in the Excel menu bar.

Note. To remove the add-in from the Excel menu, clear the DrillToPIA option from the Add-Ins dialog box.

Task D-2: Installing the nVisionDrill Add-In

This section discusses:

- Understanding PS/nVision DrillDown using Web Services
- Understanding Security for DrillDown Using nVisionDrill VSTO Add-in
- Installing the nVisionDrill Add-in for Microsoft Excel 2007

Understanding PS/nVision DrillDown using Web Services

Starting with PeopleSoft PeopleTools 8.50 and later, you are able to use the web service capability when drilling from summarized to detailed PS/nVision reports using the nVisionDrill VSTO add-in.

To enable DrillDown to use web services, you must install these software items on the machine where drilldown is performed:

- Microsoft Excel 2007
- Visual Studio Tools for Microsoft Office SE Runtime (VSTO add-in)
- Microsoft Office 2007 Primary Interop Assemblies
- nVisionDrill add-in

In addition, take note of the following requirements:

- You must set up and configure Integration Broker to use the nVision Drilldown feature as a web service.
See Setting Up Integration Broker for Using Web Service Capability with nVisionDrill Add-in.
- The web servers should be SSL enabled.

This is because all the web service calls happen through secure channels.

When you create the SSL-enabled web server domain, you need to provide the optional parameter Authentication Token Domain with the appropriate domain name.

Note. The new nVisionDrill VSTO add-in is mainly designed for remote standalone file drilldown (where the end user doesn't have access to the PeopleSoft Pure Internet Architecture system). For all other purposes and Web drilldown, the nVision users are still encouraged to use the DrillToPIA add-in.

Understanding Security for DrillDown Using nVisionDrill VSTO Add-in

The nVisionDrill VSTO Add-in allows users to perform drilldown without having to access the PeopleSoft Pure Internet Architecture pages. This necessitates that the end users of nVisionDrill must sign in to the PeopleSoft system to be able to submit the drilldown process and access the subreports. The users of nVisionDrill VSTO add-in will be prompted to enter a user ID and password for the first time. This user ID and password are validated. If the users have access, they are taken to the menu with the list of DrillDown layouts for further drilldown operation.

When the users attempt another drilldown using the same parent report instance which is already open, the system does not prompt for the credentials, and the credentials of the first login are re-used. But for each new report instance or new drilldown report instance, the credentials must be entered again.

Note. All web service calls between the Microsoft Excel and PeopleSoft applications are SSL-enabled.

Task D-2-1: Installing the nVisionDrill Add-in for Microsoft Excel 2007

To install the nVisionDrill VSTO add-in on for Microsoft Excel 2007:

1. Go to *PS_HOME\setup\nVisionDrill*.
2. Run the *nVisionDrillSetup.msi* file.

If all required software items have been installed, the nVisionDrill add-in installation will run to success.

If any of the items, for example, Visual Studio 2005 SE Runtime *vstor.exe* or Microsoft Office 2007 PIA *o2007pia.msi*, are not installed on the machine, the add-in installer displays an appropriate message that asks you to run the corresponding executable. If necessary, you can find the files *vstor.exe* and *o2007pia.msi* in *PS_HOME\setup\nVisionDrill*.

3. Ensure that the web server domain's SSL Root certificate is installed on the machine where the nVisionDrill VSTO add-in is installed.

The Root Certificate should be installed correctly on the default browser of the machine. For example, on Microsoft Internet Explorer 8 the SSL Root Certificate should be installed under Trusted Root Certification Authorities.

Task D-3: Installing the nVisionDrill Add-Ins for Multi-Language Installations

If you have a multi-language installation, first install *NVisionDrillSetup.msi* for English, as described above, and then install the *NVisionDrillSetup_xxx.msi* for the desired languages, where the extension *xxx* is the three-letter language code.

See *PeopleTools 8.52: Global Technology PeopleBook*, "Translating PeopleSoft Applications."

Task D-4: Setting Up PeopleSoft Integration Broker for Using Web Service Capability with nVisionDrill Add-in

To set up Integration Broker for using web service capability with PS/nVision DrillDown:

1. Select PeopleTools, Integration Broker, Configuration, Gateways.
2. Select the Integration Gateway ID for which the Local Gateway is enabled from the search results.

An enabled Local Gateway is marked as 'Y' in the search results.

3. In the URL field, enter the following value, where *<machine_name>* is the Web server machine name, including the domain name, and *<port>* is the HTTP port number of the PeopleSoft web server:

`http://<machine_name>:<port>/PSIGW/PeopleSoftListeningConnector`

This example shows the Integration Broker Gateways page with the URL <http://webs07.dom1.com:8000/PSIGW/PeopleSoftListeningConnector>, where webs07.dom1.com is the combined machine name and domain name, and 8000 is the HTTP port:

Gateways

Gateway ID: LOCAL [Inbound Gateways](#)

☒ Local Gateway ☐ Load Balancer

URL: [Ping Gateway](#)

[Gateway Setup Properties](#)

[Load Gateway Connectors](#)

Connectors			Personalize	Find	First	1-9 of 9	Last
	Connector ID	Description	Connector Class Name	Properties	+	-	
1	AS2TARGET		AS2TargetConnector	Properties	+	-	
2	FILEOUTPUT		SimpleFileTargetConnector	Properties	+	-	
3	FTPTARGET		FTPTargetConnector	Properties	+	-	
4	GETMAILTARGET		GetMailTargetConnector	Properties	+	-	
5	HTTPTARGET		HttpTargetConnector	Properties	+	-	
6	JMSTARGET		JMSTargetConnector	Properties	+	-	
7	PSFT81TARGET		ApplicationMessagingTargetConnector	Properties	+	-	
8	PSFTTARGET		PeopleSoftTargetConnector	Properties	+	-	
9	SMTPTARGET		SMTPTargetConnector	Properties	+	-	

[Save](#) [Return to Search](#)

Integration Broker Gateways page

- Click Ping Gateway.

A message appears saying “Gateway URL has changed. Existing connector information will be cleared”. Click OK on this message.

You should see a message with the status ACTIVE, indicating a successful connection. Close this message.

- On the Gateways page, click the Load Gateway Connectors button to load the list of connectors, and then click Save.

If the ping is unsuccessful, check the Web server URL entered, and also make sure Pub/Sub servers are enabled in the Application Server configuration.

- Select PeopleTools, Integration Broker, Service Operations Monitor, Administration, Domain Status.
- Purge the unnecessary domains and enable the required domain.

You should be able to see at least three dispatchers under Dispatcher Status. This is required for running asynchronous requests through Integration Broker.

Note. PeopleSoft Integration Broker must process all nVision web service requests that are sent from nVisionDrill VSTO add-in, so the Local PeopleSoft Node of PeopleSoft Integration Broker gateway must include at least three dispatchers.

- Select PeopleTools, Integration Broker, Configuration, Gateways.
Select the same Integration Gateway ID that you chose in step 1.

- On the Gateways page, select the link Gateway Setup Properties.

The Gateways Properties page appears.

10. Enter the Integration Gateway administrator user ID and password.

The default values are administrator and password, as shown in this example.

Gateway Properties

Sign on to access integrationGateway.properties file.

The default user ID is 'administrator' and the default password is 'password'.

User ID: administrator

Password:

☐ Change Password

OK Cancel

Gateway Properties sign on page

11. Add a new node in the PeopleSoft Node Configuration page.

PeopleSoft Node Configuration

URL: http://webs07.dom1.com:8000/PSIGW/PeopleSoftListeningConnector

Gateway Default App. Server

App Server URL	User ID	Password	Tools Release	Domain Password	Virtual Server Node
//<machine name>:<jolt port>	<database use	<peopletools r	

PeopleSoft Nodes

Node Name	App Server URL	User ID	Password	Tools Release	Domain Password	
\$NODENAME	//<machine name>:<jolt port>	<database user>	<peopletools r	Ping Node +

Advanced Properties Page

OK Cancel Save

PeopleSoft Node Configuration page

Node Name: Enter the name of the active default node.

This example uses \$NODENAME.

To find the active default node, navigate to Integration Broker, Integration Setup, Nodes. Do a search, and choose the node for which the Local Node value is '1' and the Default Local Node value is 'Y'.

Enter the following values to complete the page:

Note. The following information can be retrieved by pressing CTRL+J on the PeopleSoft Node Configuration page.

- App Server URL: Enter the application server machine name and the Jolt port.
- User ID: Enter PeopleSoft user ID
- Password: Enter the password for the PeopleSoft user ID specified in the User ID field.
- Tools Release: Provide the exact PeopleSoft PeopleTools release that your application server is using.

12. Click Save.

13. Click Ping Node to be sure the node is accessible, and then exit.

See *PeopleTools 8.52: Integration Broker Administration PeopleBook*.

APPENDIX E

Installing Web Application Deployment Tools

This appendix discusses:

- Prerequisites
- Installing the Web Application Deployment Tools on WebLogic in GUI Mode
- Installing the Web Application Deployment Tools on WebSphere in GUI Mode
- Installing the Web Application Deployment Tools on WebLogic in Console Mode
- Installing the Web Application Deployment Tools on IBM WebSphere in Console Mode
- Testing and Troubleshooting the Web Application Deployment

Prerequisites

This appendix includes instructions for installing the Web Application Deployment tools on Oracle WebLogic and IBM WebSphere. Complete the instructions for the web server you selected when you carried out the PeopleSoft PeopleTools installation. Typically, you would choose GUI mode for Microsoft Windows platforms and console mode for UNIX or Linux platforms.

Consult the product-specific installation guide for your product application to determine whether Web Application Deployment tools are required.

Before you install the Web Application Deployment tools, confirm that you have completed the following requirements.

If you use Oracle WebLogic as your web server, you must fulfill these requirements:

- Java 6 must be installed and working properly. Your PATH environment variable must include an entry for Java 6 (for example, <java6>/bin). If you do not install Java 6 the deployment will fail due to the absence of a Java compiler.
- You must install the PeopleSoft web server during the PeopleSoft PeopleTools installation.
- Oracle WebLogic 10.3.4 must be installed.

If you use IBM WebSphere as your web server, you must fulfill these requirements:

- Java 6 or above must be installed and working properly. You can use the Java software that is supplied with the PeopleSoft PeopleTools installation.
- You must install the PeopleSoft web server during the PeopleSoft PeopleTools installation.
- The IBM WebSphere 7.0.0.15 software must be installed and the web server must be up and running when you carry out the Web Application Deployment tools installation.

- If you are running on UNIX or Linux, run the Web Application Deployment install with a user who owns IBM WebSphere, and who owns *PS_HOME*. Here are two examples:
 - If IBM WebSphere is owned by "root" and group "system", the Web Application Deployment install must be run with "root" and group "system."
 - If WebSphere is owned by user "wsadmin" and group "wsadmin", then the Web Application Deployment install must be run with wsadmin and wsadmin as the user and group.

See Also

"Installing Web Server Products"

"Using the PeopleSoft Installer"

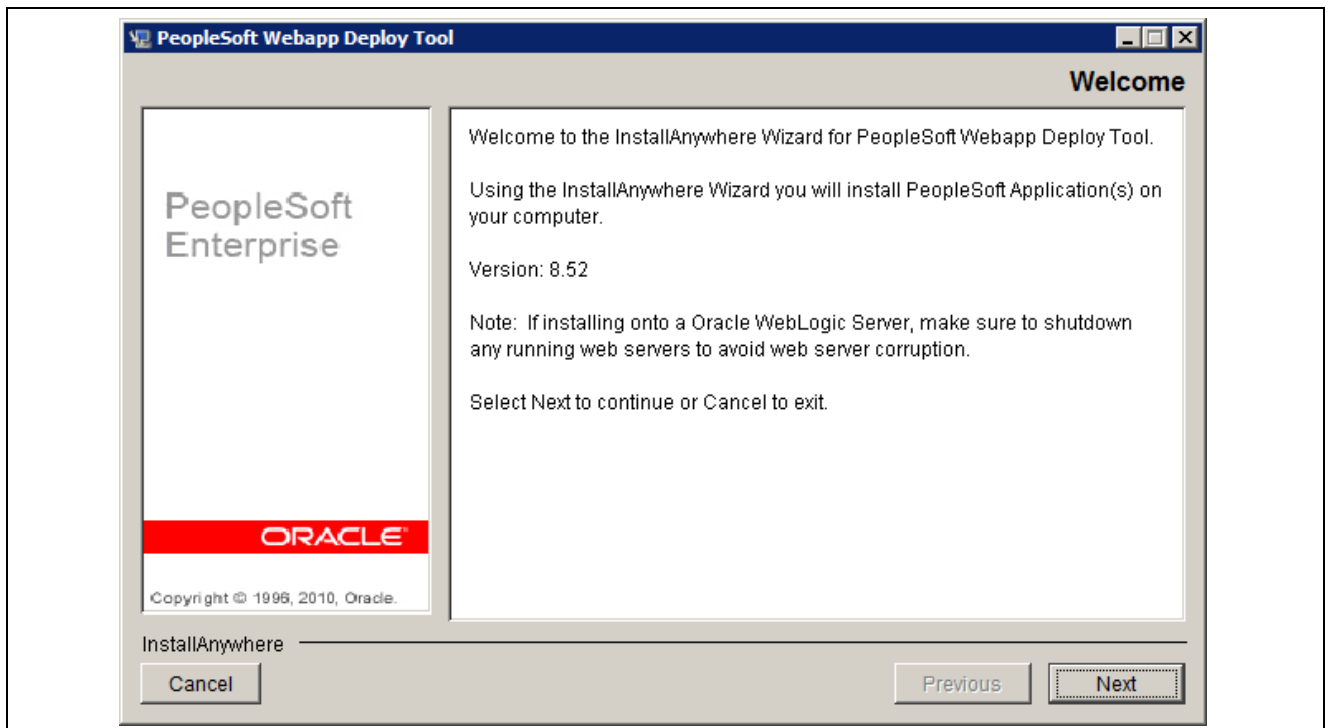
PeopleTools 8.52: System and Server Administration PeopleBook

Task E-1: Installing the Web Application Deployment Tools on WebLogic in GUI Mode

Use these instructions to install the Web Application Deployment Tools on Oracle WebLogic in GUI mode.

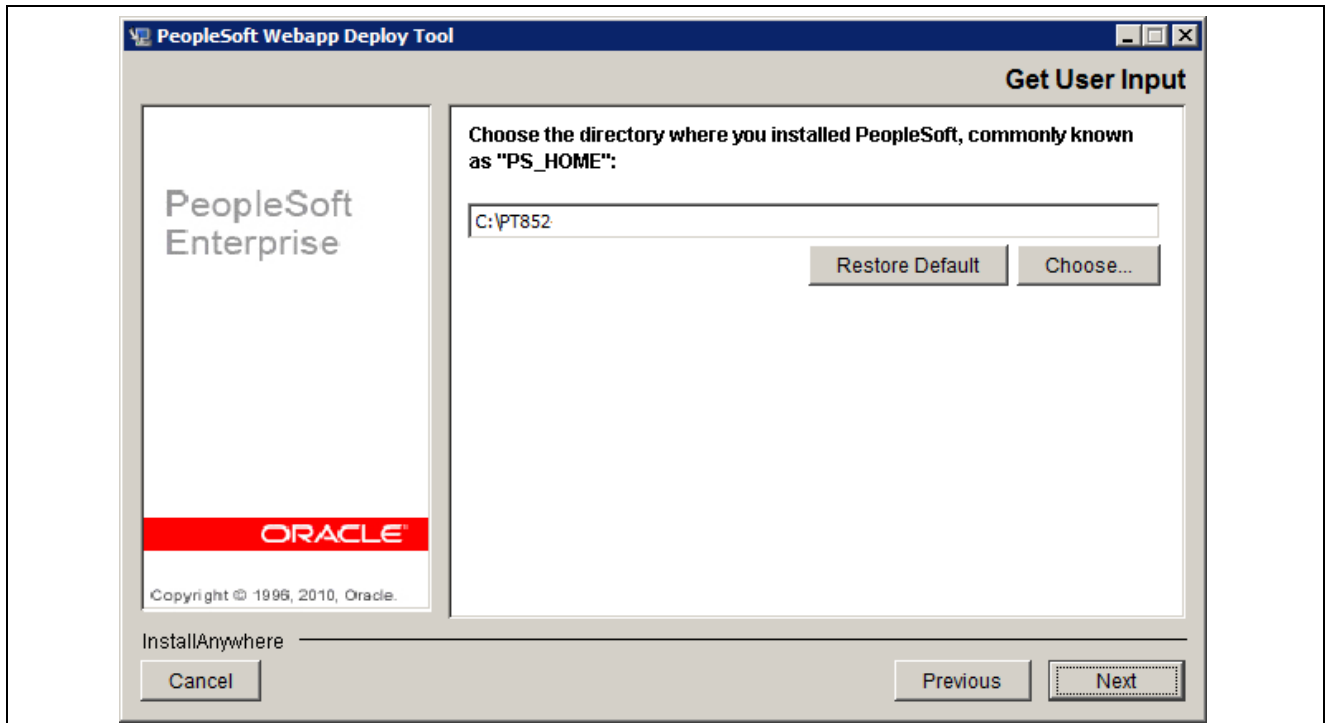
1. Copy the required Web Applications (EAR) files to *PS_HOME/setup/PsMpWebAppDeployInstall/archive*.
2. Navigate to *PS_HOME/setup/PsMpWebAppDeployInstall*.
3. Double-click on setup.bat.
4. Click Next on the Welcome window.

The window displays the PeopleSoft PeopleTools version, which is 8.52 in this example, and includes the note: "If installing onto a Oracle WebLogic Server, make sure to shutdown any running web servers to avoid web server corruption."



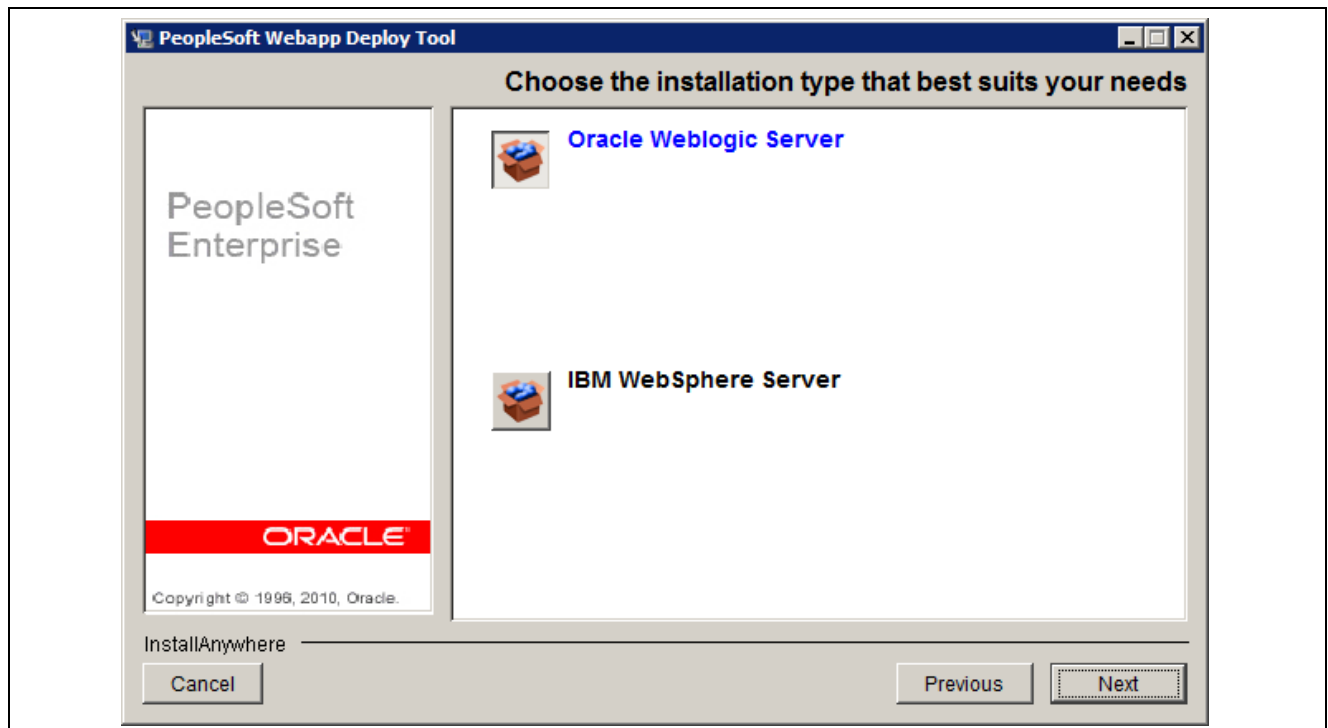
PeopleSoft Webapp Deploy Tool Welcome window

5. Enter the same *PS_HOME* directory that you specified when you ran the PeopleSoft PeopleTools Installer. In this example, *PS_HOME* is C:\PT852.



Entering PS_HOME for the PeopleSoft Webapp Deploy Tool installation

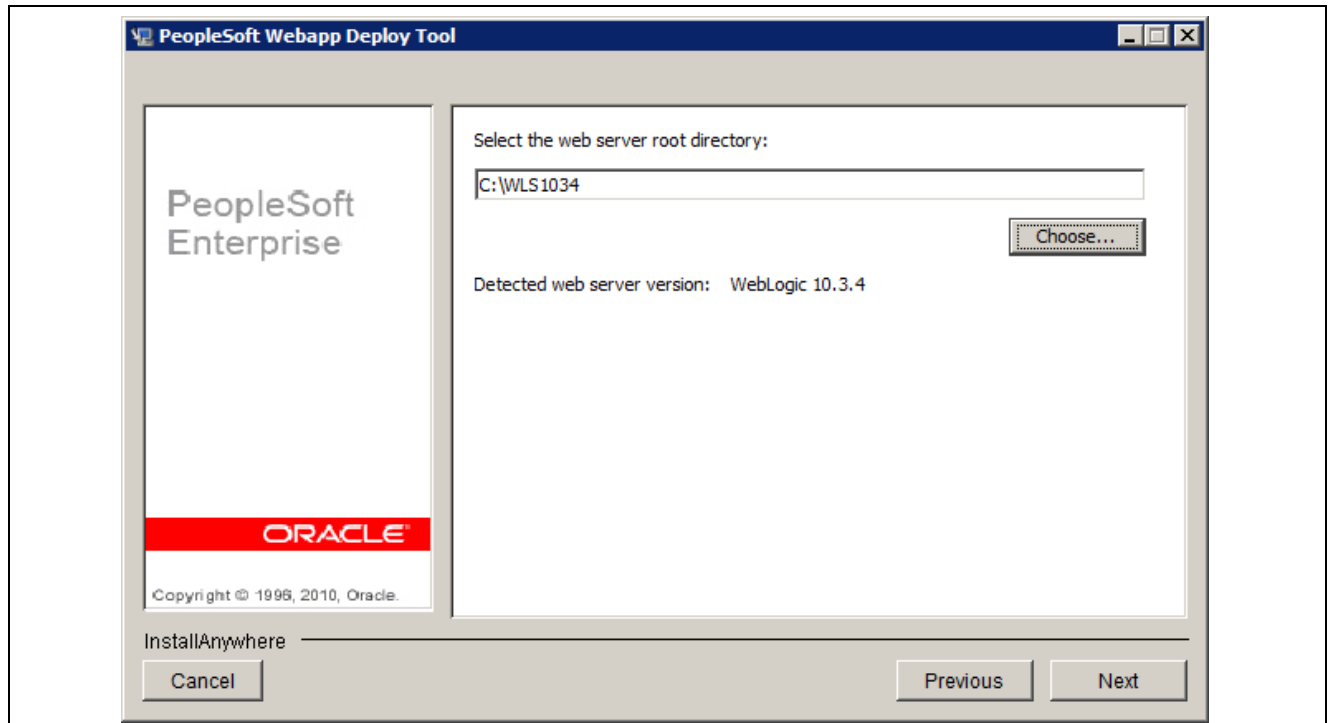
6. Select Oracle Weblogic Server and click Next.



Selecting Oracle WebLogic Server for the PeopleSoft Webapp Deploy Tool installation

7. Specify the root directory where you installed Oracle WebLogic, and click Next.

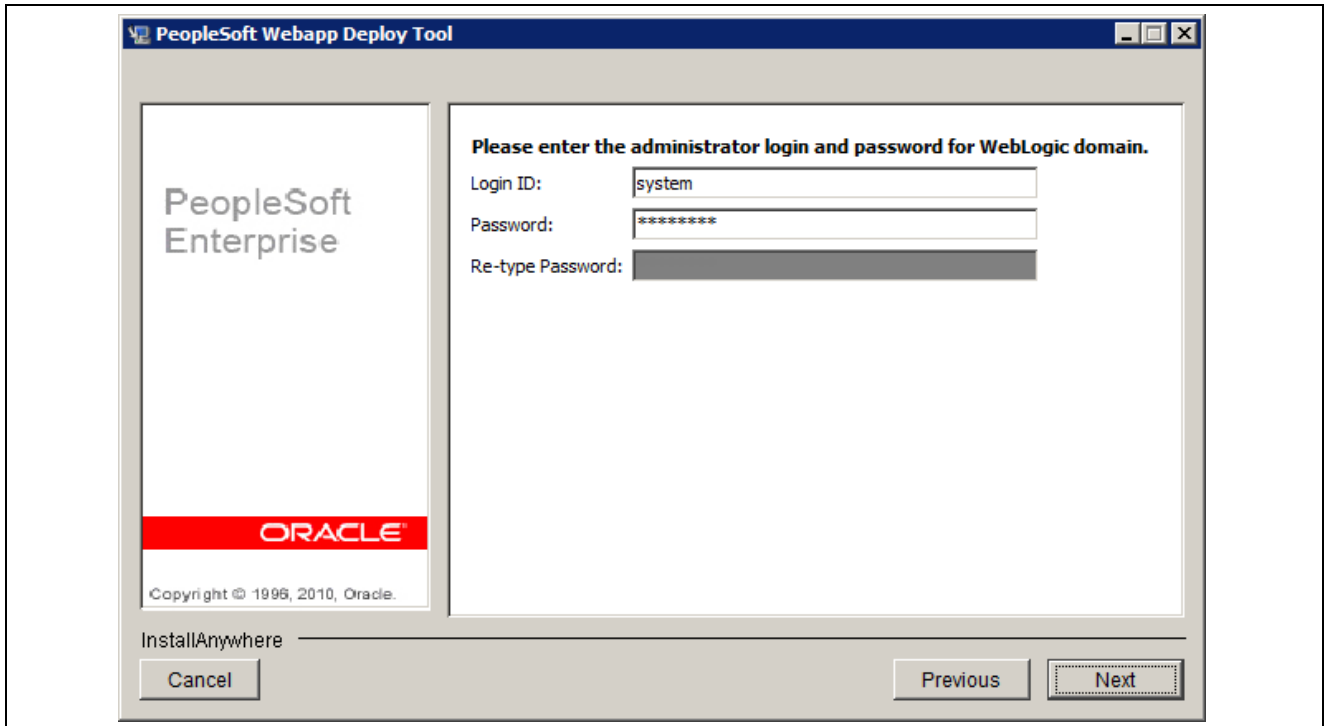
In this example, the web server root directory for Oracle WebLogic 10.3.4 is C:\WLS1034.



Specifying the Oracle WebLogic root directory for the PeopleSoft Webapp Deploy Tool installation

8. Enter the login ID and password for the new web server domain that you are creating, and then click Next to continue.

Note. The default login ID is system, and the default password is Passw0rd (with a capital “P” and zero rather than the letter “o”). The password must be at least 8 alphanumeric characters with at least one number or special character.

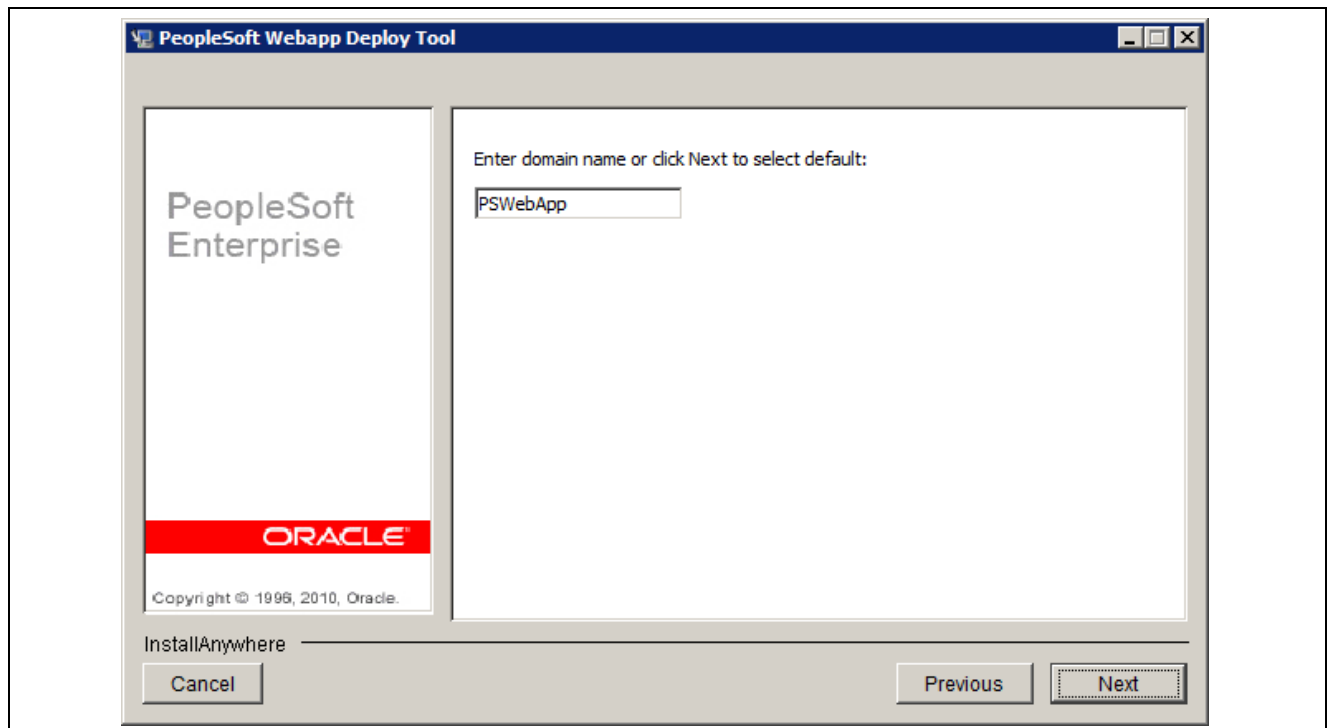


Entering the WebLogic domain administrator login and password for the PeopleSoft Webapp Deploy Tool installation

9. Enter a name for the Web Application Deploy domain, or accept the default name, PSWebApp, as shown in this example.

Use a fully qualified domain name, and do not use an IP address. Click Next to continue.

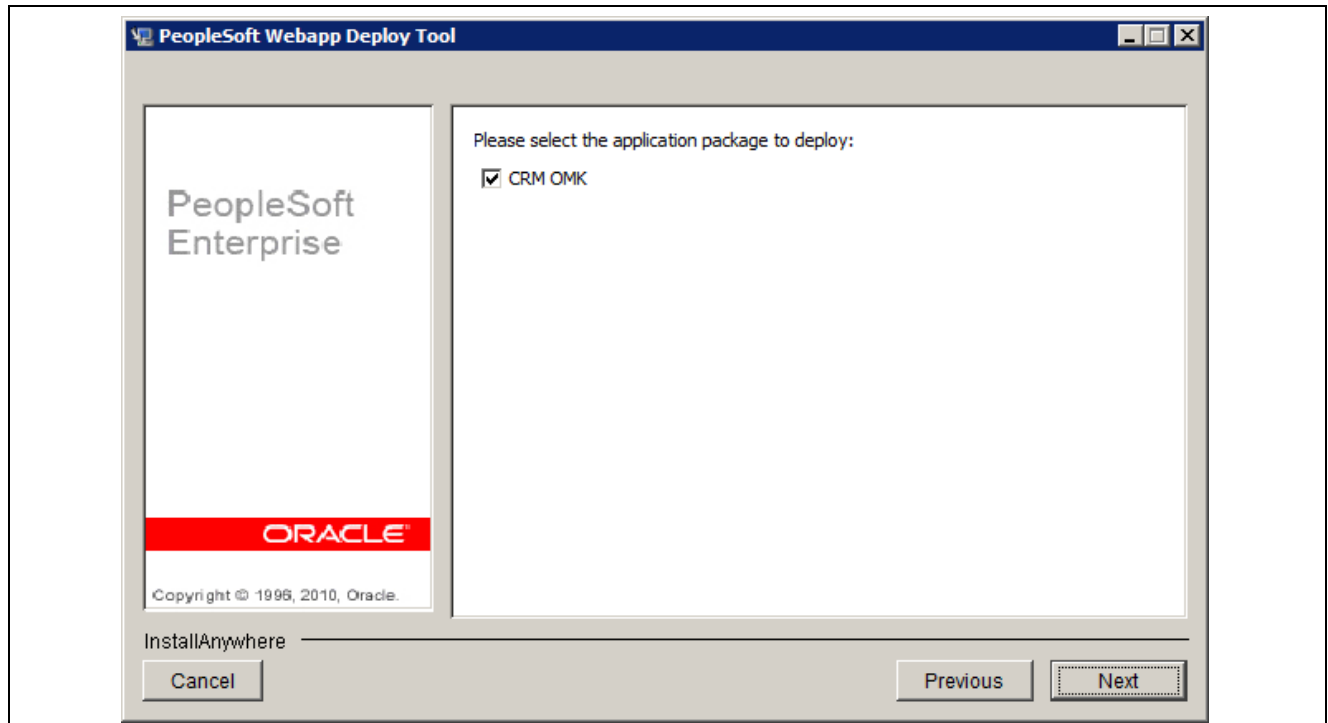
Important! The domain that you create for the Web Application Deploy cannot be the same as any existing PeopleSoft Pure Internet Architecture domains. Be sure you do not enter a name that you used for a PeopleSoft Pure Internet Architecture domain.



Entering domain name for the PeopleSoft Webapp Deploy Tool installation

10. The next window lists all of the available application packages (EAR files).

Select the packages you want to install. *You must select at least one application package from the list.*



Selecting application packages for the PeopleSoft Webapp Deploy Tool installation

11. If the application(s) you selected in step 10 requires additional information, a window appears with entry fields for the required information.

PeopleSoft Webapp Deploy Tool

PeopleSoft Enterprise

ORACLE

Copyright © 1998, 2010, Oracle.

CRM OMK :

Database Type: ORACLE

Database Server Name: SERVER1

Database Port Number: 1433

Database Instance Name: db_1

Database User Name: Admin

Database User Password: *****

InstallAnywhere

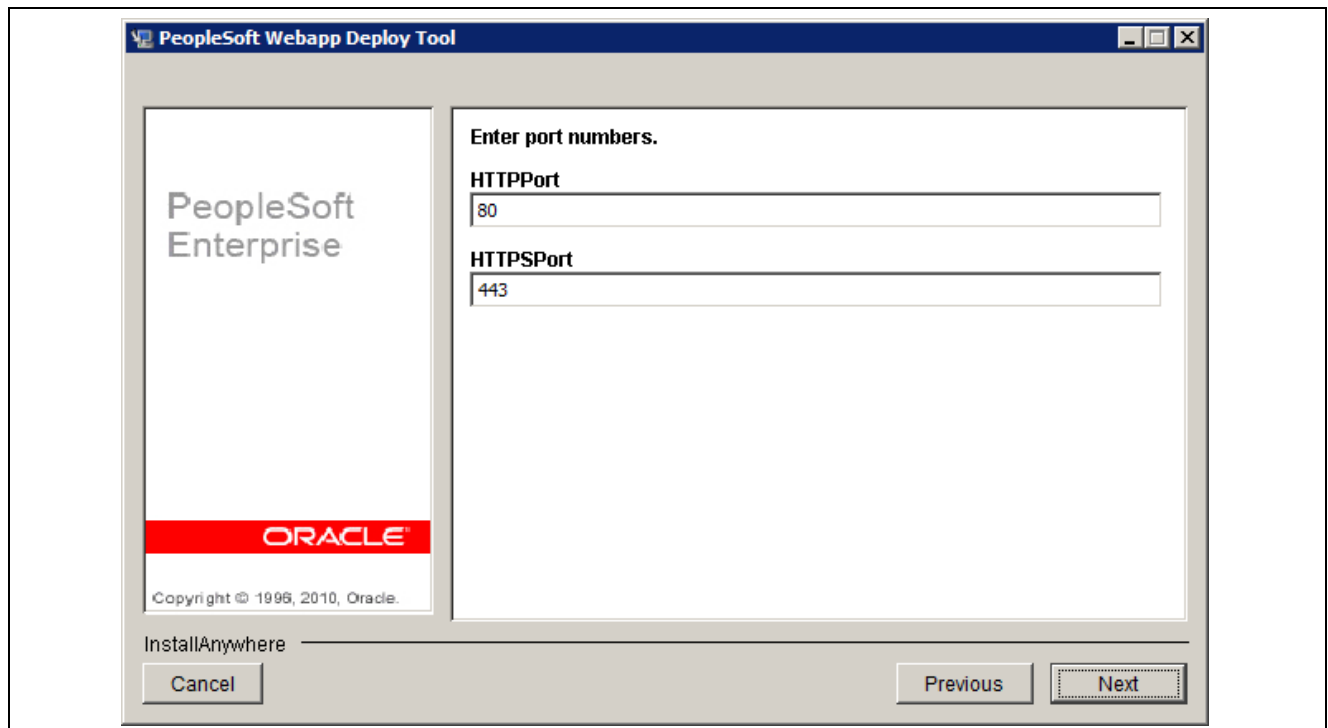
Cancel Previous Next

Specifying application information for the PeopleSoft Webapp Deploy Tool installation

The information required for the application in this example includes:

- Database Type
- Database Server Name
- Database Port Number
- Database Instance Name
- Database User Name
- Database User Password

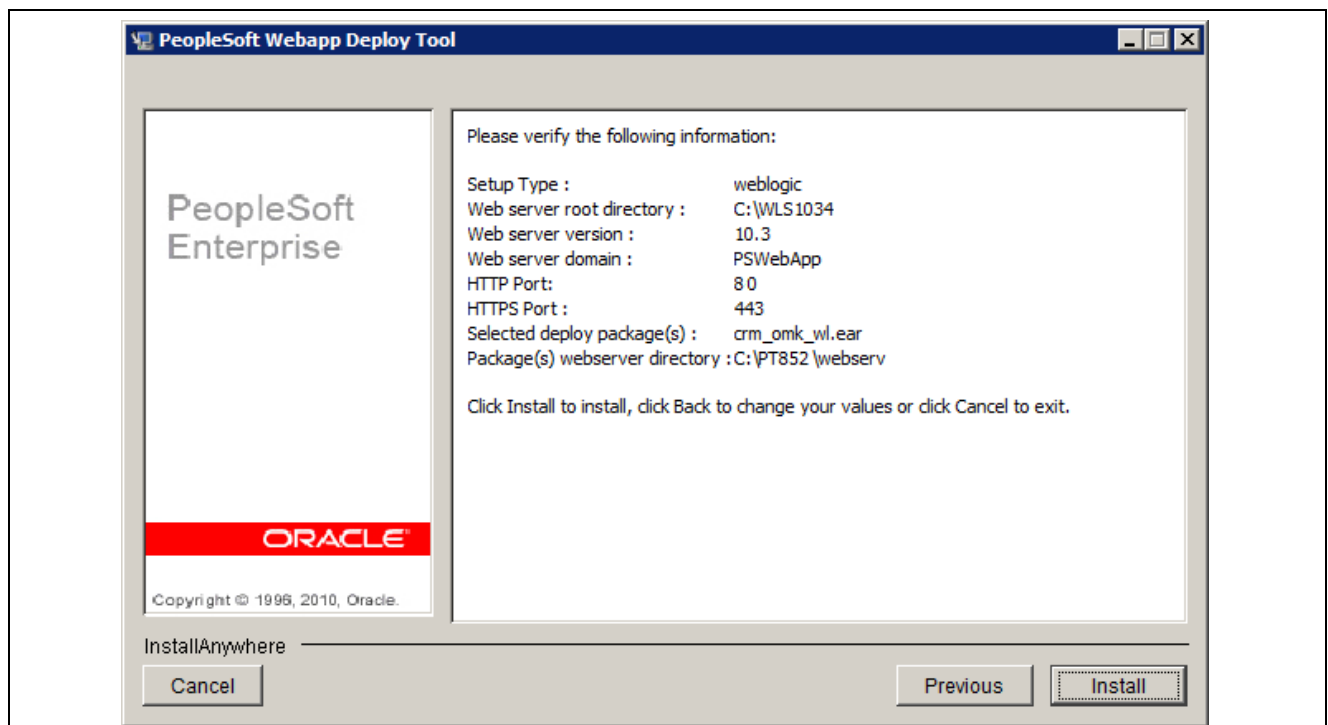
12. Enter HTTP and HTTPS port numbers. Click Next to continue.



Entering port numbers for the PeopleSoft Webapp Deploy Tool installation

13. Verify your installation information, such as web server information, HTTP and HTTPS port, and application deployment package, on the summary screen that appears.

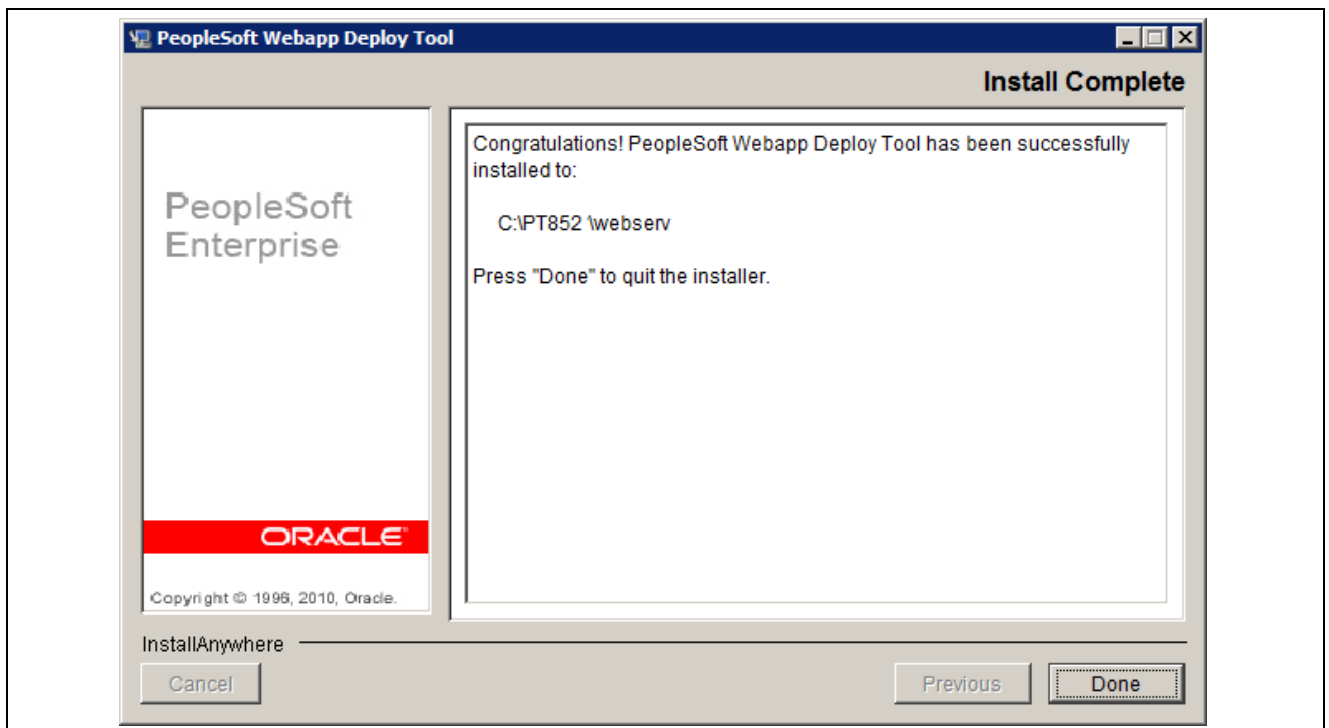
Click Install to begin the installation, Previous to go back to make changes on an earlier window, or Cancel to exit the installation.



Verifying installation information for the PeopleSoft Webapp Deploy Tool installation

14. A confirmation screen appears, which displays the installation location, C:\PT852\webserve in this example, when the installation completes.

Click Done to exit.



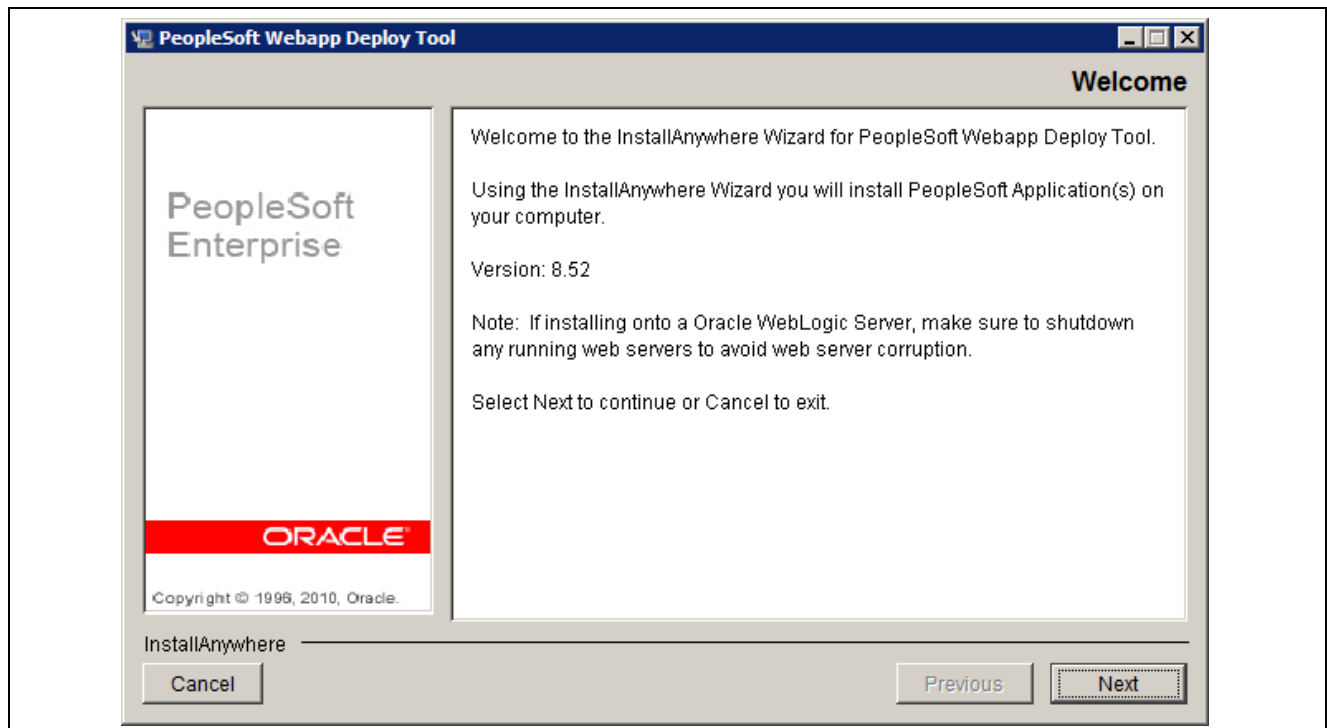
PeopleSoft Webapp Deploy Tool Install Complete window

Task E-2: Installing the Web Application Deployment Tools on WebSphere in GUI Mode

Use these instructions to install the Web Application Deployment Tools on WebSphere in GUI mode.

1. Copy the required Web Applications (EAR) files to *PS_HOME\setup\PsmPWebAppDeployInstall\archive*.
2. Start WebSphere on the server on which you plan to deploy the Web Application Deployment tools.
 - a. Select Start, Programs, IBM WebSphere, Application Server Network Deployment V7.0, Profiles, <profile_name>, First steps.
 - b. Select the link Start the server.
3. Navigate to *PS_HOME\setup\PsmPWebAppDeployInstall*.
4. Double-click on setup.bat.
5. Click Next on the Welcome window.

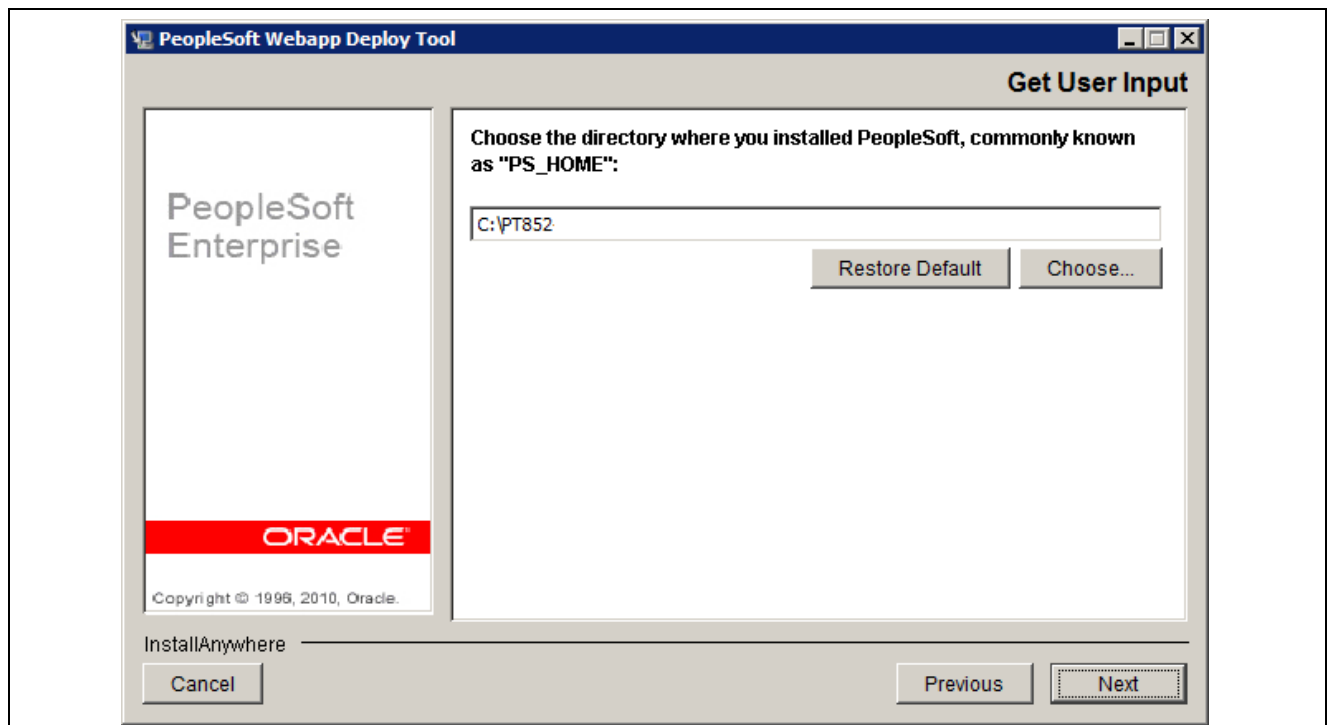
The window includes the PeopleSoft PeopleTools version number, which is 8.52 in this example, and this message: “If installing onto a Oracle WebLogic Server, make sure to shutdown any running web servers to avoid web server corruption.”



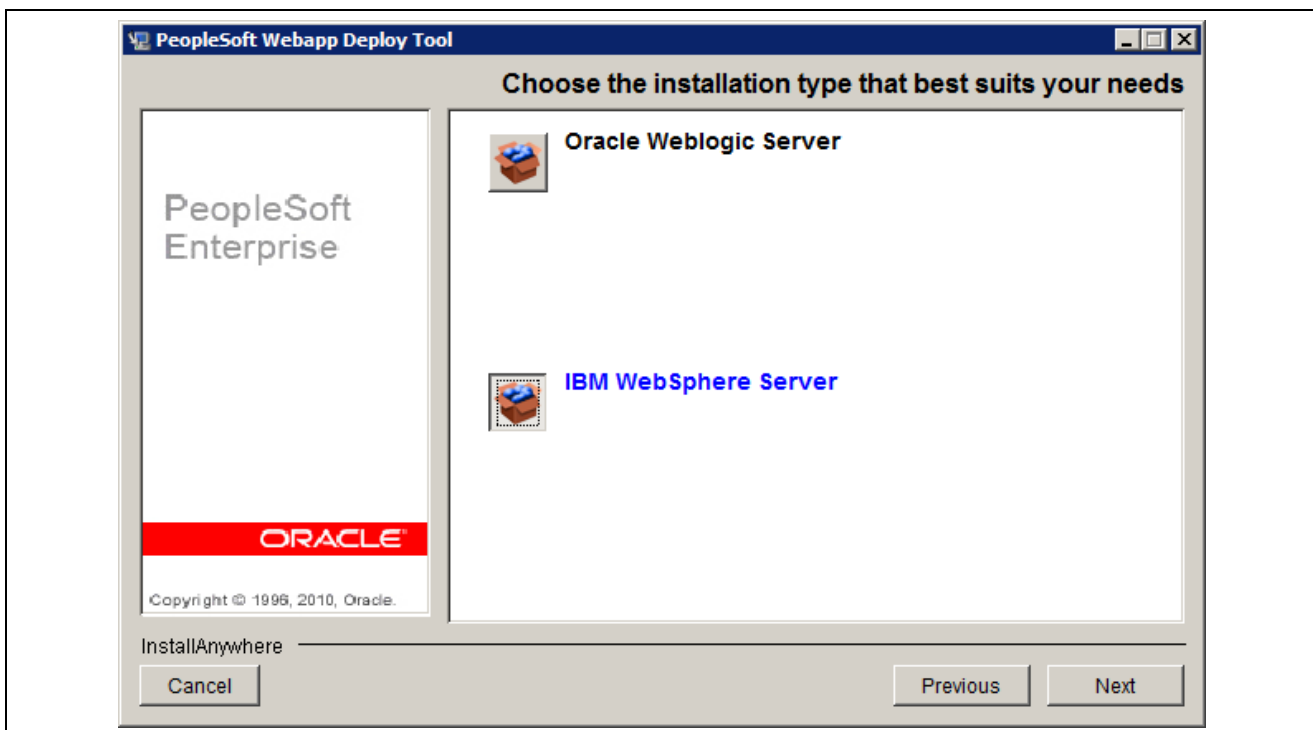
PeopleSoft Webapp Deploy Tool Welcome window

6. Enter the same *PS_HOME* directory that you specified when you ran the PeopleSoft PeopleTools Installer and then click Next.

In this example, *PS_HOME* is C:\PT852.

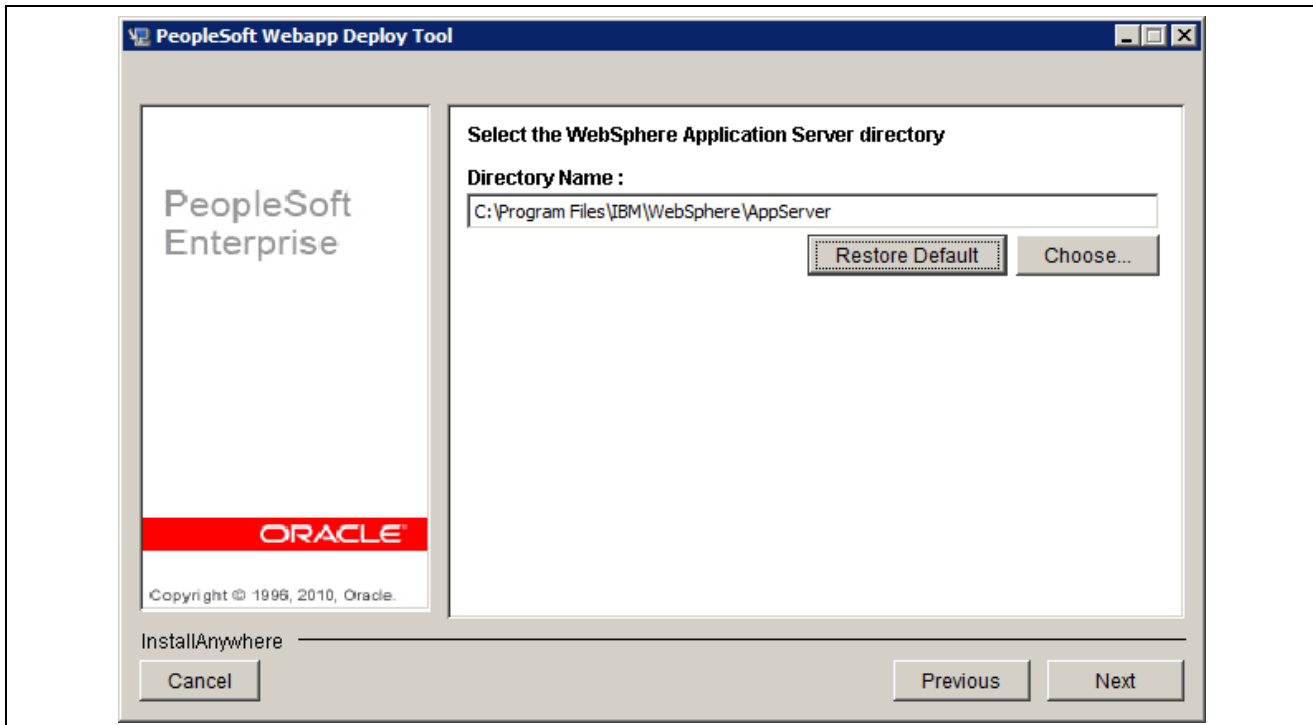
Entering *PS_HOME* on the PeopleSoft Webapp Deploy Tool window

7. Select IBM WebSphere Server and click Next.



Selecting IBM WebSphere on the PeopleSoft Webapp Deploy Tool window

8. Specify the root directory where you installed the IBM WebSphere Application server.
In this example, the root directory is C:\Program Files\IBM\WebSphere\AppServer.



Specifying the WebSphere Application Server directory on the PeopleSoft Webapp Deploy window

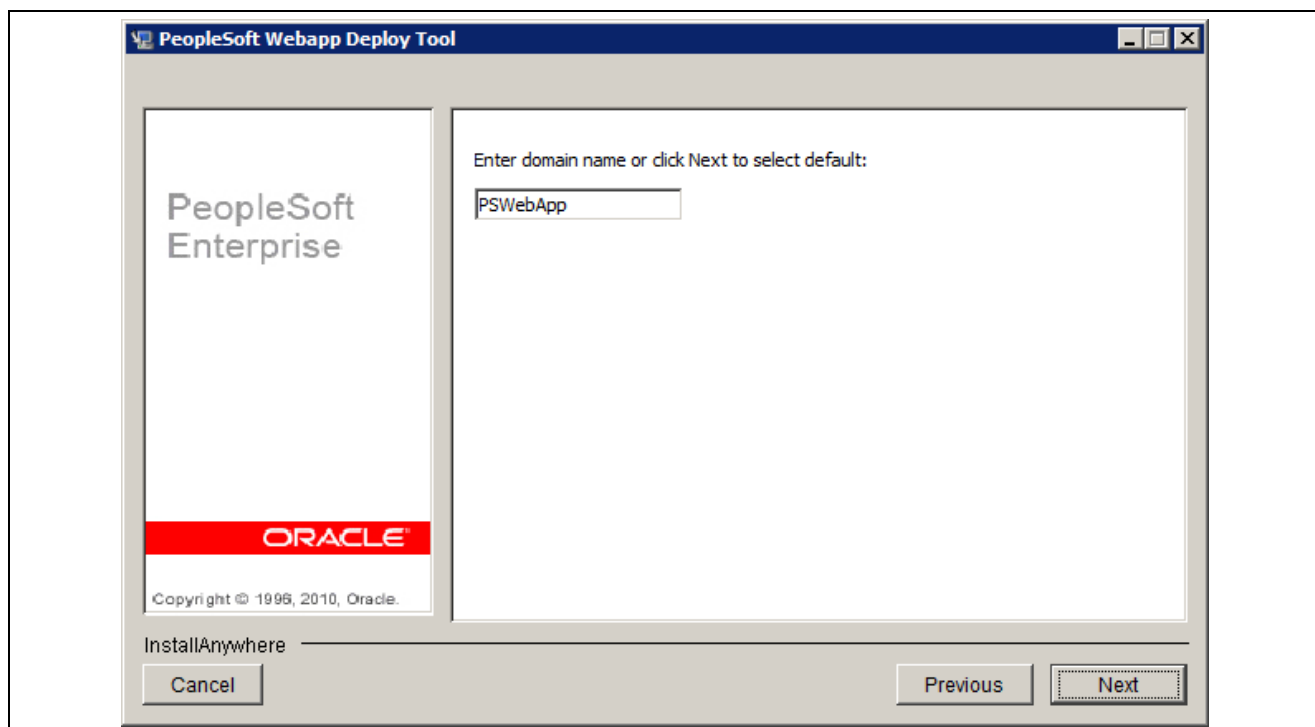
Note. If the web server on which you are installing the Web Application Deployment tools is not up and running, you receive an error message at this point instructing you to start your web server.

See *PeopleTools 8.52: System and Server Administration PeopleBook*.

9. Enter a name for the Web Application Deploy domain, or accept the default name, PSWebApp, as in this example.

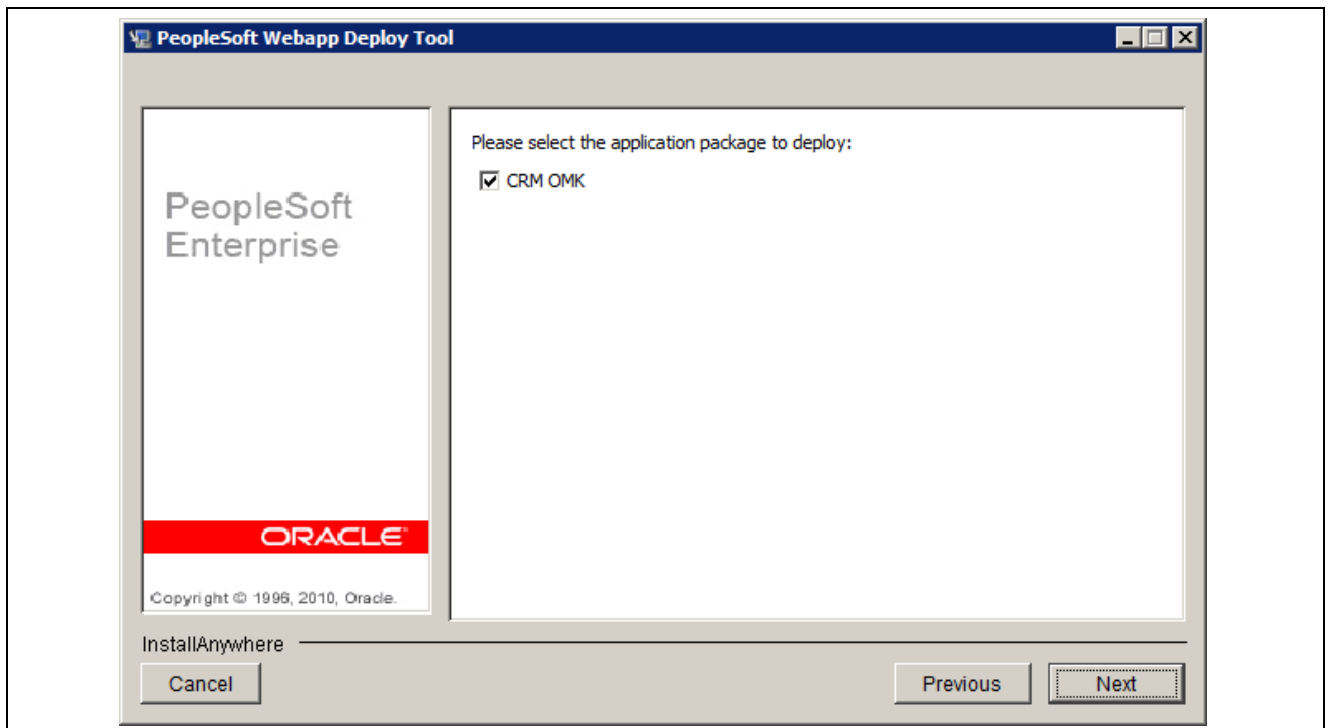
Use a fully qualified domain name, and do not use an IP address. Click Next to continue.

Important! The domain that you create for the Web Application Deploy cannot be the same as any existing PeopleSoft Pure Internet Architecture domains. Be sure you do not enter a name that you used for a PeopleSoft Pure Internet Architecture domain.



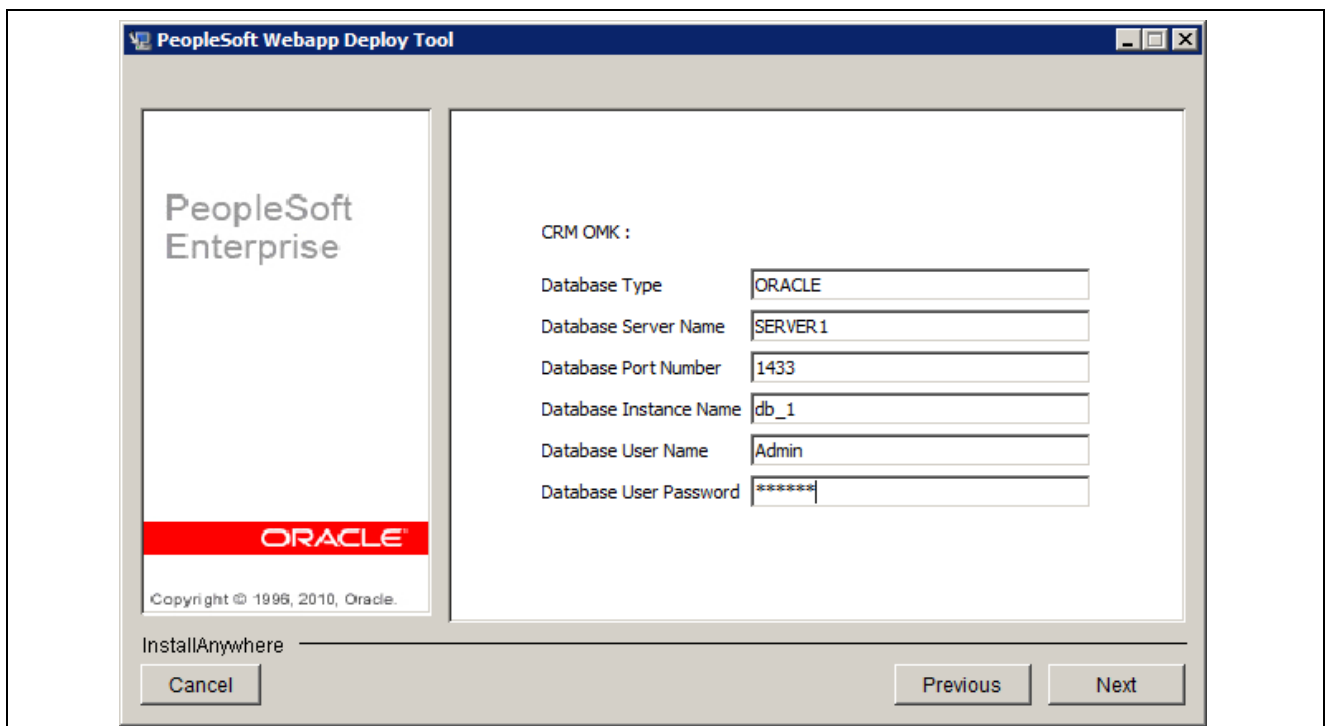
Entering the domain name on the PeopleSoft Webapp Deploy Tool window

10. The next window lists all of the available application packages (EAR files). Select the packages you want to install. *You must select at least one application package from this list.*



Selecting the application package to deploy on the PeopleSoft Webapp Deploy Tool window

11. If the application(s) you selected in the previous step requires additional information, a window appears with entry fields for the required information.



Specifying application information on the PeopleSoft Webapp Deploy Tool window

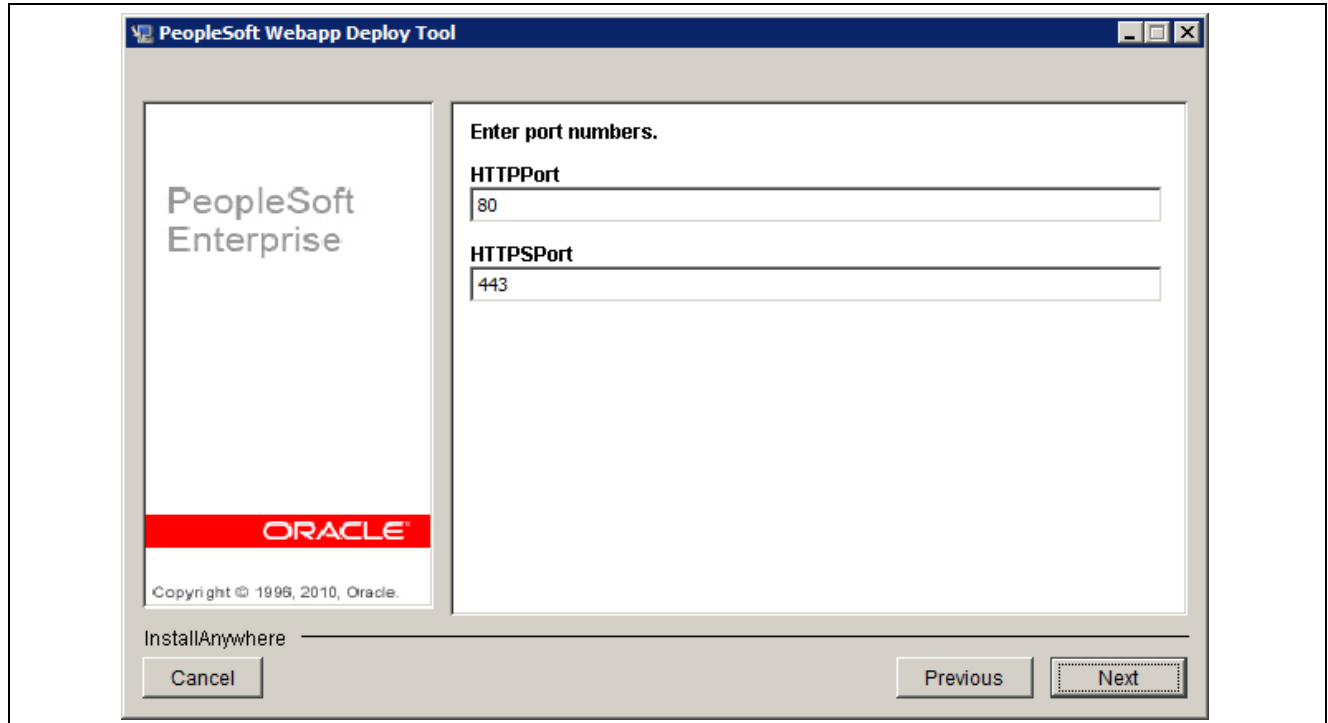
In this example, the required information includes:

- Database Type

- Database Server Name
- Database Port Number
- Database Instance Name
- Database User Name
- Database User Password

12. Enter HTTP and HTTPS port numbers, and then click Next to continue.

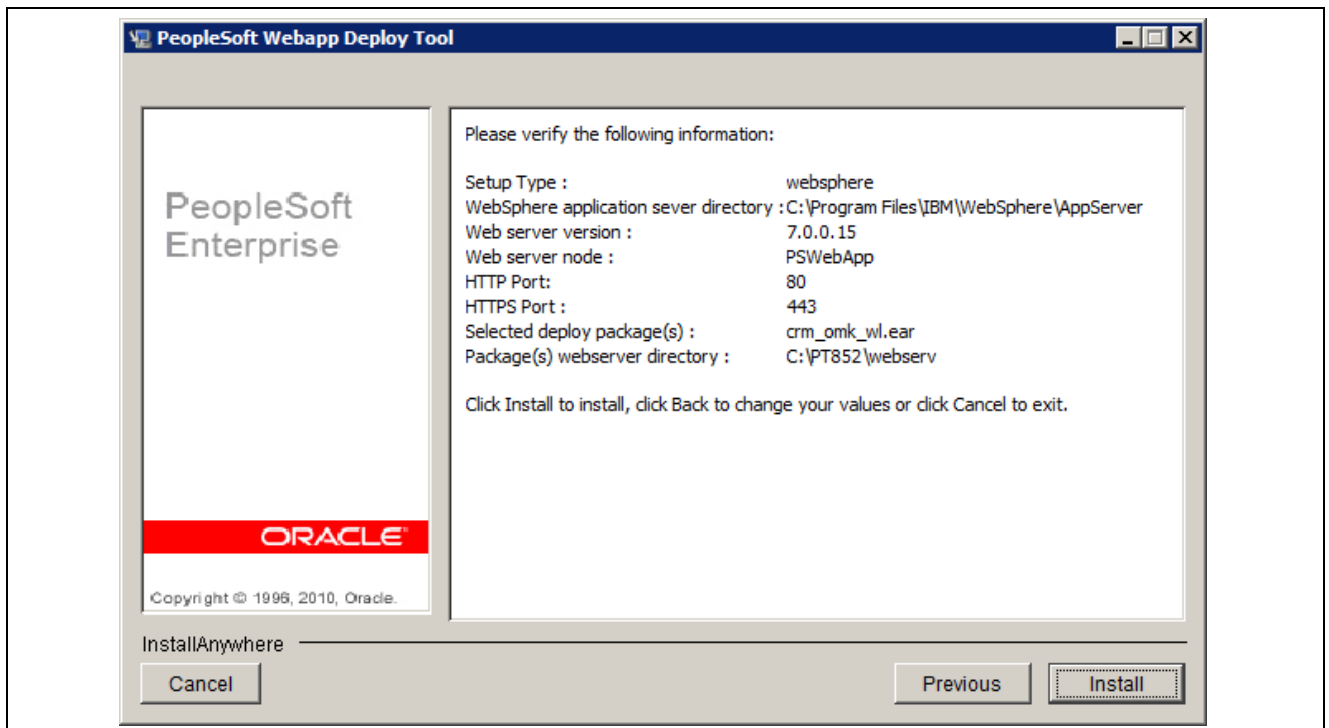
This example shows the default port numbers for HTTP = 80 and HTTPS = 443.



Entering port numbers on the PeopleSoft Webapp Deploy window

13. Verify your installation information, such as the web server information, HTTP and HTTPS port numbers, and deployment packages, on the summary screen that appears.

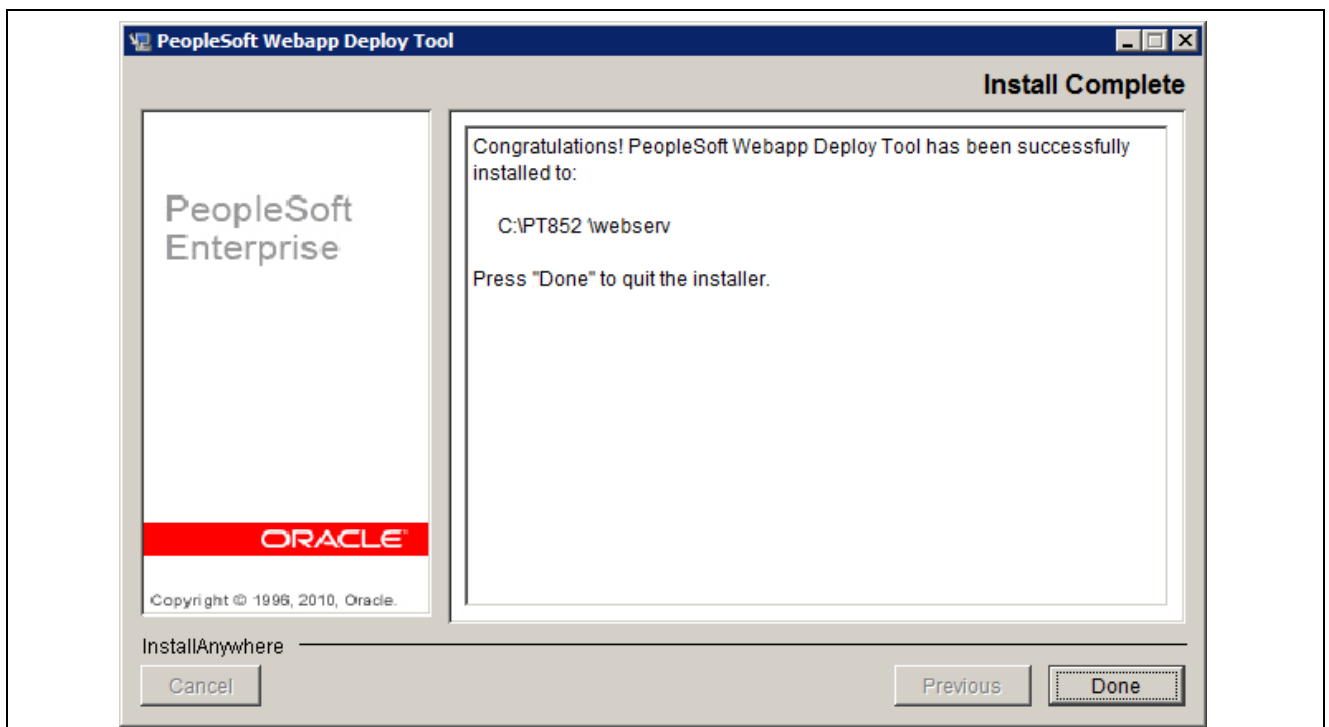
Click Install to begin the installation, Previous to go back to make changes on an earlier window, or Cancel to exit the installation.



Verifying installation information on the PeopleSoft Webapp Deploy Tool window

A window appears with a progress indicator.

14. A confirmation screen appears when the installation completes, which includes the installation directory, C:\PT852\websevr in this example. Click Done to exit.



PeopleSoft Webapp Deploy Tools Install Complete window

Task E-3: Installing the Web Application Deployment Tools on WebLogic in Console Mode

Use these instructions to install the Web Application Deployment Tools on Oracle WebLogic in console mode.

Note. The console mode installation is typically used on UNIX platforms.

1. Copy the required Web Applications (EAR) files to *PS_HOME/setup/PsMpWebAppDeployInstall/archive*.
2. Set up the PeopleSoft environment by going to *PS_HOME* and running the following command:

```
../psconfig.sh
```

3. To run the installer, go to *PS_HOME/setup/PsMpWebAppDeployInstall*, and run the following command:

```
setup.sh -tempdir <temporary_directory> -javahome <java_directory>
```

Use the optional flag `-javahome <javahome>` if you installed the JRE/JDK files in a directory that is different than the vendor-defined JRE search path.

4. You see a welcome message. Enter *I* to continue.

```
Welcome to the InstallShield Wizard for PeopleSoft Webapp Deploy Tool.
```

```
Using the InstallShield Wizard you will deploy PeopleSoft Application(s) on⇒
your computer.
```

```
Note: If installing onto a Oracle WebLogic Server, make sure to shutdown any⇒
running web servers to avoid web server corruption.
```

```
Select Next to continue or Cancel to exit.
```

```
Press 1 for Next, 3 to Cancel or 5 to Redisplay [1]
```

5. Choose the *PS_HOME* directory that you specified when you installed PeopleSoft PeopleTools. Enter *I* to continue.

```
Choose the directory where you installed PeopleSoft, commonly known as "PS_⇒
HOME":
```

```
Please specify a directory name or press Enter [/opt/PS_HOME]
```

```
Press 1 for Next, 2 for Previous, 3 to Cancel or 5 to Redisplay [1]
```

6. Enter *I* to select Oracle WebLogic Server, at the following prompt, and then enter *I* to continue.

```
Choose the setup type that best suits your needs.
```

```
->1- Oracle WebLogic Server
```

```
2- IBM WebSphere Server
```

```
To select an item enter its number, or 0 when you are finished: [0]
```

```
Press 1 for Next, 2 for Previous, 3 to Cancel or 5 to Redisplay [1]
```

7. Enter the directory where you installed Oracle WebLogic, and press ENTER to continue at the following prompt.

Select the web server root directory:
Please specify a directory name or press ENTER [/opt/bea_ps]

Note. You receive an error message if the correct Oracle WebLogic version is not found in the directory you enter.

8. Enter a name for the Web Application Deploy domain, or accept the default name. Use a fully qualified domain name, and do not use an IP address.

Enter domain name or click Next to select default:

[PSWebApp]

Important! The domain that you create for the Web Application Deploy cannot be the same as any existing PeopleSoft Pure Internet Architecture domains. Be sure you do not enter a name that you used for a PeopleSoft Pure Internet Architecture domain.

9. Enter the administrator login and password for your Oracle WebLogic domain, and press ENTER to continue.

Note. The default login ID is system, and the default password is Passw0rd (with a capital “P” and zero rather than the letter “o”). The password must be at least 8 alphanumeric characters with at least one number or special character.

Please enter the administrator login and password for WebLogic domain.

Login ID:

[system]

Password:

[password]

Re-type Password:

[password]

10. The next prompt lists all of the available application packages (EAR files). Enter the numbers beside the packages you want to install. *You must select at least one application package from this list.*

Please select the application package to deploy:

->1- CRM Package
2- Financial Package

To select an item enter its number, or 0 when you are finished [0]:

11. Select the type of domain to create—single server, multi server, or distributed managed server.

See "Setting Up the PeopleSoft Pure Internet Architecture in Console Mode," Installing the PeopleSoft Pure Internet Architecture in Console Mode.

Please select the configuration to install.

```
->1- Single Server Domain
    2- Multi Server Domain
    3- Distributed Managed Server
```

To select an item enter its number, or 0 when you are finished: [0]

- *Single Server Domain*

This configuration is intended for single user or very small scale, non-production environments.

- *Multi-Server Domain*

This configuration is intended for a production environment.

- *Distributed Managed Server*

This option is an extension of the Multi-Server Domain selection and installs the necessary files to boot a managed server. This option requires a Multi Server installation to be performed to some other location, which will contain the configuration for this managed server.

12. If the application(s) you selected in step 10 requires additional information, supply the necessary information at the next prompt. For example:

CRM OMK :

Database Type
[ORACLE]

Database Server Name
[SERVER1]

Database Port Number
[1431]

Database Instance Name
[db_1]

Database User Name
[Admin]

Database User Password
[]

13. Enter HTTP and HTTPS port numbers.

Enter port numbers.

HTTP Port : [80] 80

HTTPS Port : [443] 443

14. Verify your installation information on the next prompt and press ENTER to begin the installation. An indicator shows your installation progress.

Please verify the following information:

Setup Type : weblogic

Web server root directory : /opt/bea_ps

Web server version :10.3.4

Web server domain : PSWebApp

HTTP Port : 80

HTTPS Port : 443

Selected deploy package(s) : CRM Package.ear

Package(s) webserver directory : /opt/PS_HOME/webserv

15. After the installation is complete, you must deploy the Web Application Deploy tools. Use the following commands:

```
cd <PS_HOME>/webserv/<domain_name>
startPSWEBAPPS.sh
```

For *domain_name*, use the name you entered in step 8. The default is PsWebApp.

Note. You can choose to deploy at a later time using the same commands.

Task E-4: Installing the Web Application Deployment Tools on IBM WebSphere in Console Mode

Use these instructions to install the Web Application Deployment Tools on IBM WebSphere in console mode.

Note. The console mode installation is typically used on UNIX platforms.

1. Copy the required Web Applications (EAR) files to *PS_HOME/setup/PsMpWebAppDeployInstall/archive*.
2. Set up the PeopleSoft environment by going to *PS_HOME* and using the following command:

```
../psconfig.sh
```

3. Start IBM WebSphere on the server on which you plan to deploy the Web Application Deployment tools.

Navigate to the bin directory under the directory where you installed IBM WebSphere, *WAS_HOME*. Use the following commands:

```
cd WAS_HOME/bin
startServer.sh server_name
```

4. To run the installer, go to *PS_HOME/setup/PsMpWebAppDeployInstall* and run the following command:

```
setup.sh -javahome <java_directory>
```

Use the optional flag `-javahome <java_directory>` if you installed the JRE/JDK files in a directory that is different than the vendor-defined JRE search path.

5. You see a Welcome message. Enter *1* to continue.

```
Welcome to the InstallShield Wizard for PeopleSoft Webapp Deploy Tool.
Using the InstallShield Wizard you will deploy PeopleSoft Application(s) onyour⇒
computer.
```

```
Note: If installing onto a Oracle WebLogic Server, make sure to shutdown any⇒
running web servers to avoid web server corruption.
```

```
Select Next to continue or Cancel to exit.
```

```
Press 1 for Next, 3 to Cancel or 5 to Redisplay [1]
```

6. Choose the same *PS_HOME* directory that you specified when you ran the PeopleSoft PeopleTools Installer.

```
Choose the directory where you installed PeopleSoft, commonly known as "PS_⇒
HOME":
```

```
Please specify a directory name or press Enter [/opt/PS_HOME]
```

7. Enter *2*, to select the IBM WebSphere Server, at the following prompt:

```
Choose the setup type that best suits your needs.
```

```
->1- Oracle WebLogic Server
    2- IBM WebSphere Server
```

```
To select an item enter its number, or 0 when you are finished: [0]
```

8. Enter the root directory where you installed IBM WebSphere at the following prompt, and press ENTER to continue:

```
Select the WebSphere Server directory:
```

```
Directory Name:
```

```
Please specify a directory name or press Enter [/opt/webserv]
```

Note. If the web server on which you are installing the Web Application Deployment tools is not up and running, you receive an error message at this point instructing you to start your web server.

See *PeopleTools 8.52: System and Server Administration PeopleBook*.

9. At the next prompts, enter a cell name, node name, and server name.
10. Enter a name for the Web Application Deploy domain, or accept the default name, *PsWebApp*. Use a fully qualified domain name, and do not use an IP address. Press *1* to continue.

Enter domain name or click Next to select default:

[PSWebApp]

Important! The domain that you create for the Web Application Deploy cannot be the same as any existing PeopleSoft Pure Internet Architecture domains. Be sure you do not enter a name that you used for a PeopleSoft Pure Internet Architecture domain.

11. The next prompt lists all of the available application packages (EAR files). Enter the number corresponding to the packages you want to install. *You must select at least one application package from this list.*

Please select the application package to deploy:

->1- CRM Package
2- Financial Package

To select an item enter its number, or 0 when you are finished [0]:

12. If the application(s) you selected in the previous step requires additional information, supply the necessary information at the next prompt. For example:

CRM OMK :

Database Type
[ORACLE]

Database Server Name
[SERVER1]

Database Port Number
[1431]

Database Instance Name
[db_1]

Database User Name
[Admin]

Database User Password
[]

13. Enter HTTP and HTTPS port numbers at the following prompt. Press */* to continue.

Enter port numbers.

HTTP Port: [80] 80

HTTPS Port: [443] 443

14. Verify your installation information at the next prompt and press ENTER to begin the installation. An indicator shows your installation progress.

15. A confirmation screen appears when the installation completes. Click Finish to exit the install shield wizard.
16. After the installation is complete, you must stop and start the IBM WebSphere server. Use the following commands:

```
cd WAS_HOME/bin
../stopServer.sh <server_name>
../startServer.sh <server_name>
```

For <server_name>, use the name of the IBM WebSphere server you used in step 3.

Task E-5: Testing and Troubleshooting the Web Application Deployment

Check the log file for any problems encountered during installation. The log file is saved in the following location:

<PIA_HOME>/webserv/piainstall<domain_name>.log

If you need to start or stop Oracle WebLogic or IBM WebSphere, use the commands given in the chapter on installing the PeopleSoft Pure Internet Architecture.

See "Setting Up the PeopleSoft Pure Internet Architecture (in GUI Mode or Console Mode)," Testing the PeopleSoft Pure Internet Architecture Installation.

APPENDIX F

Relinking SQR on UNIX

This appendix discusses:

- Understanding SQR Relinking
- Relinking SQR on UNIX
- Relinking SQR on Oracle Solaris

Understanding SQR Relinking

PeopleSoft SQR is now linked with Unicode libraries and therefore no longer requires relinking with Unicode libraries. PeopleSoft SQR uses dynamic linking for database connectivity libraries and should not require relinking to support new versions of database connectivity. The exception to this rule is if the PeopleTools release spans multiple RDBMS versions and the database connectivity changes the names or functionality of required libraries in the new release. In addition, relinking may be required for invoking an external application's APIs using the UFUNC.C interface, as described in the SQR for PeopleSoft Developers PeopleBook.

See *PeopleTools 8.52: SQR for PeopleSoft Developers PeopleBook*, "Using Interoperability Features."

For example, PeopleTools 8.51 and higher releases are currently supported on Oracle 10g. Based on the timing of our release we built the SQR modules for a specific PeopleSoft release with the lowest supported RDBMS version. For PeopleSoft PeopleTools 8.51 and higher, the minimum supported Oracle version is Oracle 10g (10.2.0.x.x). This means PeopleSoft SQR will work right out of the box on Oracle 10g (no relink required).

Task F-1: Relinking SQR on UNIX

Here's a high-level overview of what you need to do, on a UNIX platform, to relink SQR:

1. Export the following environment variables:
 - SQRDIR, the location of the SQR executable.
 - PS_HOME, the PeopleSoft home directory.
 - PS_DB, the platform identifier variable:
ORA for Oracle
2. Export the database install home directory:
ORACLE_HOME
3. Add SQRDIR to the library path.

```
export LD_LIBRARY_PATH=$SQRDIR:$LD_LIBRARY_PATH
or
export SHLIB_PATH=$SQRDIR:$SHLIB_PATH
```

4. Change directory to <PS_HOME>/bin/sqr/<PS_DB>/lib
5. Run sqrmake.

Task F-2: Relinking SQR on Oracle Solaris

The following section is a step-by-step example illustrating how to relink SQR for an Oracle database on the Oracle Solaris platform. Other operating system/database platform combinations work in a similar fashion.

To relink SQR on Oracle Solaris:

1. If the psconfig.sh shell script has not been executed, check for SQR environment variables and set them as necessary.

Note. If your *PS_HOME*/psconfig.sh correctly sets the environment variables described below, you can skip this step.

```
env | grep SQRDIR
SQRDIR=
export SQRDIR=/home/PT-SOL852/bin/sqr/ORA/bin
```

```
env | grep PS_HOME
PS_HOME=
export PS_HOME=/home/PT-SOL852
```

```
env | grep PS_DB
PS_DB=
export PS_DB=ORA
```

```
env | grep ORACLE_HOME
ORACLE_HOME=
export ORACLE_HOME=/products/oracle/b.10.2.0-64bit
```

```
export SHLIB_PATH=/home/PT-SOL852/bin/sqr/ORA/bin:$SHLIB_PATH
```

2. Recheck the SQR env:

```
st-sun06:$ env | grep -i sqr
```

```
SHLIB_PATH=/home/PT-SOL852/bin/sqr/ORA/bin:/lib:/usr/lib:/usr/local/lib:/usr⇒
/lib/X11:/tuxedo/prod/10.3_031-j10-64bit/lib:/cobol/prod/svexp-5.0_wp4-64bit⇒
/coblib:/products/oracle/10.2.0.1/lib32:/products/oracle/10.2.0.1/lib:/pt⇒
/products/solaris-10-sparc/lib:/home/valg/lib
```

```
PATH=/home/PT-SOL852/jre/bin:/jre/prod/1.6.0/bin:/bin:/sbin:/usr/sbin:/usr/bin:⇒
/usr/local/bin:/usr/ccs/bin:/usr/local/etc:/usr/bin/X11:/usr/ucb.../tuxedo/prod⇒
```



```
/10.3_031-j10-64bit/bin:/cobol/prod/svexp-5.0_wp4-64bit/bin:/clrcase/prod⇒
/7.0.1/bin:/products/oracle/10.2.0.1/bin:/pt/bin:/pt/products/solaris-10-sparc⇒
/bin:/home/valg/bin:/home/PT-SOL852/bin:/home/PT-SOL852/bin/sqr/ORA/bin:/home⇒
/PT-SOL852/verity/solaris/_ssol26/bin
```

```
SQRRDIR=/home/PT-SOL852/bin/sqr/ORA/bin
```

```
SQR_HOME=/home/PT-SOL852/bin/sqr/ORA
```

3. Relink SQR using sqrmake file.

```
st-sun06:$ sqrmake
```

```
/usr/ccs/bin/ld -o sqr -u __1cH__CimplKcplus_init6F_v_ -s -R/usr/ccs/lib⇒
/sparcv9:/lib/sparcv9:/usr/lib/sparcv9 crt1.o CCrt1.o crt1.o values-xa.o -Y P,⇒
/usr/ccs/lib/sparcv9:/lib/sparcv9:/usr/lib/sparcv9 -L/products/oracle/10.2.0.1⇒
/lib -L/products/oracle/10.2.0.1/rdbms/lib sqr.o rosette.o sqr.a libsti64.a⇒
bcl.a pdf.a zlib.a -L. -lsqrbtunicode -lclntsh -lc /usr/lib/sparcv9/lib⇒
Crun.so.1 /usr/lib/sparcv9/libCstd.so.1 -lm -lthread -lc CCrt1.o crtn.o -⇒
lkstat -lnsl -lsocket -lggen -ldl -lsched
/usr/ccs/bin/ld -o sqrp -u __1cH__CimplKcplus_init6F_v_ -s -R/usr/ccs/lib⇒
/sparcv9:/lib/sparcv9:/usr/lib/sparcv9 crt1.o CCrt1.o crt1.o values-xa.o -Y P,⇒
/usr/ccs/lib/sparcv9:/lib/sparcv9:/usr/lib/sparcv9 -L/products/oracle/10.2.0.1⇒
/lib -L/products/oracle/10.2.0.1/rdbms/lib sqrp.o rosette.o sqrp.a libsti64.a⇒
bcl.a pdf.a zlib.a -L. -lsqrbtunicode -lc /usr/lib/sparcv9/libCrun.so.1 /usr⇒
/lib/sparcv9/libCstd.so.1 -lm -lthread -lc CCrt1.o crtn.o -lkstat -lnsl -⇒
lsocket -lggen -ldl -lsched
/usr/ccs/bin/ld -o sqrt -u __1cH__CimplKcplus_init6F_v_ -s -R/usr/ccs/lib⇒
/sparcv9:/lib/sparcv9:/usr/lib/sparcv9 crt1.o CCrt1.o crt1.o values-xa.o -Y P,⇒
/usr/ccs/lib/sparcv9:/lib/sparcv9:/usr/lib/sparcv9 -L/products/oracle/10.2.0.1⇒
/lib -L/products/oracle/10.2.0.1/rdbms/lib sqrt.o rosette.o sqrt.a libsti64.a⇒
bcl.a pdf.a zlib.a -L. -lsqrbtunicode -lclntsh -lc /usr/lib/sparcv9/lib⇒
Crun.so.1 /usr/lib/sparcv9/libCstd.so.1 -lm -lthread -lc CCrt1.o crtn.o -⇒
lkstat -lnsl -lsocket -lggen -ldl -lsched
cp -i sqr /home/PT-SOL852/bin/sqr/ORA/bin/sqr
```

4. Validate the relinked SQR executable:

Once linked, cd to \$SQRRDIR.

```
st-sun06:$ cd $SQRRDIR
st-sun06:$ pwd
/home/PT-SOL852/bin/sqr/ORA/bin
```

Validate SQR executable:

```
st-sun06:$ sqr -id
```

SQR for PeopleSoft/8.52/Sun/SunOS/Oracle/Mar 23 2011

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SQR is a registered trademark.

Any other brand and product names used herein may be trademarks
or registered trademarks of their respective companies.

```
st-sun06:$ sqr
```

```
SQR for PeopleSoft V8.52
```

```
SQR for PeopleSoft [program] [username/password] [-flags...] [pars...] =>
[@file...]
```

where

```

    program = Report filename
    username = Database username
    password = Database password
    -A = Append to existing output file
    -Bn = Fetch n rows at a time
    -Burst:{xx} = Generate .LIS using specified burst mode (S,T or P)
    -Dn = Display report while processing, pause every n lines
    -DEBUGxx = Compile #DEBUG[x] lines
    -DNT:{xx} = Set the default numeric type (Decimal,Integer,Float)
    -E[file] = Direct errors to {program}.ERR or specified file
    -EH_BQD[:file] = Create BQD file or set linkage for Enhanced HTML
    -EH_APPLETS:dir = Set applets directory name for Enhanced HTML
    -EH_BROWSER:{xx} = Specify target browser for Enhanced HTML
    -EH_CSV[:file] = Create CSV file or set CSV linkage for Enhanced HTML
    -EH_CSVONLY = Create CSV file but do not create HTML file
    -EH_ICONS:dir = Set icons directory name for Enhanced HTML
    -EH_IMAGES:dir = Set images directory name for Enhanced HTML
    -EH_KEEP = Copy (not move) files when used with -EH_ZIP
    -EH_FULLHTML:{xx} = Specify the level of the generated Enhanced HTML
    -EH_LANGUAGE:{xx} = Specify language for Enhanced HTML navigation bar
    -EH_PDF = Set PDF linkage for Enhanced HTML
    -EH_SCALE:nn = Set scaling factor for Enhanced HTML
    -EH_XIMG = Do not remove directory path from IMAGE reference
    -EH_XML[:file] = Set XML linkage for Enhanced HTML
    -EH_ZIP[:file] = Move files to ZIP container file
    -F[dir/file] = Use [dir]{program}.LIS or specified file for output
    -Idir_list = Directory list to be searched for include files
    -ID = Display copyright banner
    -KEEP = Keep the .SPF file(s) after program run
    -LL{s|d}{c|i} = Load-Lookup: S=SQR, D=DB, C=Case Sensitive, I=Insensitive
    -Mfile = Maximum sizes declared in file
    -NOLIS = Do not generate .LIS file(s) from .SPF file(s)
    -O[file] = Direct log messages to console or specified file
    -PRINTER:{xx} = Printer mode: EP, EH, HT, LP, HP, PD, or PS
    -RS = Save run time file in {program}.sqt
    -RT = Use run time file (skip compile)
    -S = Display cursor status at end of run
    -Tn = Test report for n pages, ignore 'order by's
    -XB = Do not display the program banner

```

```

-XI = Do not allow user interaction during program run
-XL = Do not logon to database (no SQL in program)
-XLFF = Do not generate trailing report form feed
-XTB = Do not trim blanks from LP .LIS files
-XNAV = Do not put navigation bar into .HTM file
-XTOC = Do not generate Table Of Contents
-ZEN{name} = Set default encoding name
-ZIF[file] = Complete pathname of the initialization file to use
-ZMF[file] = Complete pathname of the message file to use
    pars = Report parameters for ASK and INPUT commands
    @file = File containing report parameters, one per line

```

```
st-sun06:$
```

5. Change directory (cd) to the actual location of \$PS_HOME to set the PeopleSoft environment with the correct SQR environment.

```
st-sun06:$ . ./psconfig.sh
st-sun06:$
```

6. Test SQR from the UNIX command line, entering the access ID and password for the database <DBNAME>.

Note. Remember that this example is specifically for Oracle database platforms. The commands for other RDBMS platforms may be different.

```

st-sun06:$ sqr $PS_HOME/sqr/xrfwin <ACCESS_ID>/<ACCESS_PSWD>@<DBNAME> -ZIF$PS_⇒
HOME/sqr/pssqr.unx
SQR for PeopleSoft V8.52
Database Name (Optional, Press ENTER to continue):
Process Instance (Optional, Press ENTER to continue):

SQR for PeopleSoft: End of Run.
st-sun06:$

```


Index

A

- access ID
 - reviewing requirements 10
- additional languages 15
- ALTER AUDIT
 - running as part of updating database to latest PeopleSoft PeopleTools release 196
 - running during database creation 216
- alter PeopleSoft PeopleTools tables
 - as part of updating database to latest PeopleSoft PeopleTools release 196
- Application Messaging objects
 - deleting obsolete 208
 - saving 208
- application server 6
 - configuring domain processes 236
 - configuring domains, UNIX 239
 - configuring domains, Windows 223
 - creating domains, UNIX 239
 - creating domains, Windows 223
 - getting started, UNIX 236
 - getting started, Windows 222
 - importing configuration, UNIX 243
 - importing configuration, Windows 228
 - reconfiguring a domain, UNIX 245
 - reconfiguring a domain, Windows 230
 - setting up on UNIX or Linux 235
 - setting up on Windows 221
 - specifying domain parameters, UNIX 245
 - specifying domain parameters, Windows 230
 - starting domains, UNIX 239
 - starting domains, Windows 223
- application server administrator for Oracle Tuxedo
 - designating on Microsoft Windows 67
- Application software
 - installing 125
- archive for BusinessObjects Enterprise
 - creating on Microsoft Windows 553
 - creating on UNIX or Linux 577
 - extracting on Microsoft Windows 558
 - extracting on UNIX or Linux 578

- Asian languages
 - configuration issues on UNIX 248
 - configuration issues on Windows 233
- auditing database 214
- authentication domains, using in console mode 295
- authentication domains, using in GUI mode 253

B

- backing up servers and workstations 22
- backups 22
- base language
 - changing 158, 679
 - choosing 14
- base time zone option 291, 318
- batch server 7
- BOE_Admin, adding users and roles 585
- BOE_Viewing, adding users and roles 585
- BOETOCR project 619
- BusinessObjects Enterprise XI 3.1
 - obtaining software 489

C

- catalog views 145, 668
- CBLBLD.BAT
 - compiling COBOL when PS_APP_HOME is different from PS_HOME 409
 - compiling COBOL when PS_APP_HOME is the same as PS_HOME 406
- CBLMAKE.BAT
 - compiling COBOL when PS_APP_HOME is different from PS_HOME 411
 - compiling COBOL when PS_APP_HOME is the same as PS_HOME 407
- Central Management Console, SAP BusinessObjects Enterprise XI 3.1 508
- Change Assistant, *See* PeopleSoft Change Assistant
- character set 15

CIA, *See* PeopleSoft Change Impact Analyzer

client connectivity 21

testing 22

client setup 133

CMC, *See* Central Management Console

COBOL

compiling Micro Focus COBOL on UNIX 440

compiling Micro Focus source files on Microsoft Windows 405

distributing 18

distributing files compiled with IBM COBOL compiler 424

linking 446

modifying \$COBDIR/etc/cobopt 443

modifying \$COBDIR/etc

/cobopt64 443

recompiling 447

setting up for Remote Call 223, 238

using the IBM COBOL compiler 418

using the IBM compiler on AIX 450

COBOL compilation files

GNT and INT 413

COBOL compiler

installing IBM COBOL compiler for IBM AIX 447

installing IBM Rational Developer for System z 414

installing on UNIX or Linux 434

COBOL compiler for Windows, *See* Micro Focus Net Express

cobopt file, modifying 443

compiling

IBM COBOL on Microsoft Windows 418

compiling IBM COBOL

on IBM AIX 450

compiling Micro Focus COBOL

on Microsoft Windows 405

on UNIX 440

compiling with IBM COBOL

troubleshooting problems 424

configuration

planning initial 3

Configuration Manager

Client Setup tab 133

editing profiles 131

starting 130

startup options 130

connect ID

creating 146, 669

CONNECT.SQL 146, 669

connection information

updating 148, 671

context-sensitive help, configuring 685

CREATEDB10.SQL 667

CRT files 119

CRTOBOE project 585

CRTOBOE script 585

Crystal 2008, switching back from SAP

BusinessObjects Enterprise XI 3.1 619

Crystal Reports 2008

installing 491

obtaining software 489

Crystal Reports formats, converting 634

D

data field length checking option 291, 318

Data Mover

creating scripts 149, 671

running additional scripts 209

running scripts 154, 675

using for troubleshooting, UNIX 180

database

auditing 214

comparing Oracle and PeopleSoft 11

creating 667

names 11

planning creation of 10

server 6

updating database name and type 292, 319

updating to latest PeopleSoft PeopleTools release 185

verifying connectivity 223, 239

Database Configuration Wizard

checking log files, UNIX 180

prerequisites, UNIX 160

running on UNIX 165

troubleshooting, UNIX 180

database engine

installing 19–20

database instance

creating for Oracle database 663

database roles 146, 669

database scripts

editing 143, 662

running 145, 668

- database server
 - overview 6
- Daylight Savings Time, updating Oracle WebLogic 49
- DB_BLOCK_SIZE, setting in init.ora 139
- DBOWNER.SQL 145, 668
- Dbspaces
 - creating application-specific 145, 668
- dddaudit.sqr 214
- deploying war files manually
 - for SAP BusinessObjects Enterprise with Oracle WebLogic 10.3 626
 - using IBM WebSphere console 623
 - using wdeploy tool 622
- Distribution Agent
 - starting on UNIX 365
 - starting on Windows 329
- documentation
 - installing PeopleBooks 681
- DrillToPIA add-in
 - installing 708
- DrillToPIA.xla file 708

E

- E-Delivery, *See* Oracle E-Delivery
 - obtaining files for Oracle Tuxedo 64
 - obtaining files for Oracle WebLogic 27
 - obtaining installation files for Micro Focus Net Express 394
 - obtaining installation files for Micro Focus Server Express 435
- e-Delivery, obtaining installation files 2
- environment variables
 - setting 337
 - setting for application server configuration 237
 - setting for COBOL compilation 442
 - setting for SAP BusinessObjects Enterprise XI 3.1 508

F

- F1 help for PeopleBooks 685
- feed options table, populating 207
- file server 5

G

- GNT files 413

H

- hash columns, populating 207
- hosted PeopleBooks
 - introduction 681
 - setting up 682
 - setting up as server 682
- HTMLListGenerator.jar 703

I

- IBM COBOL
 - compiling 418
 - distributing compiled files 424
 - installing compiler for IBM AIX 447
 - installing for Microsoft Windows 414
 - removing the compiler 461
 - setting up the runtime environment 425
 - setting up the runtime files on AIX 457
 - troubleshooting after compiling 424
- IBM HTTP Server
 - installing on AIX, Linux, and Microsoft Windows 60
 - installing on HP-UX Itanium and Oracle Solaris 60
- IBM Rational Developer for System z COBOL compiler 414
- IBM WebSphere
 - installing PeopleSoft Pure Internet Architecture in console mode 303
 - installing PeopleSoft Pure Internet Architecture in GUI mode 270
 - starting and stopping 284, 311
 - uninstalling PeopleSoft Pure Internet Architecture in console mode 307
 - uninstalling PeopleSoft Pure Internet Architecture in GUI mode 281
 - verifying PIA installation 284, 311
- IBM WebSphere Application Server
 - installing 54, 59
 - obtaining installation files 56
 - operating systems 55
 - reviewing prerequisites 55
- init.ora file, setting parameters 139
- install workstation
 - prerequisites 129
- installation table, updating 291, 318
- installing
 - PeopleSoft PeopleTools 116
- INT files 413
- Integration Broker

- setting up for PS/nVision drilldown 710
- Integration Broker, updating 207
- Internet Architecture (PeopleSoft), *See*
PeopleSoft Pure Internet Architecture

J

- JDBC drivers for PeopleSoft Change
Impact Analyzer 481
- JDK required for Oracle WebLogic 28

L

- laser printer 10
- liblist, modifying for Micro Focus COBOL
compilation 442
- license
 - entering for SAP BusinessObjects
Enterprise XI 3.1 602
 - understanding BusinessObjects
Enterprise XI license keys 510
- license codes, obtaining 97
- License Management Facility for Micro
Focus Server Express 434
- linking COBOL 446
- log files from Database Configuration
Wizard, checking 180
- logical drive, creating on install
workstation 127

M

- mapping logical drive on install
workstation 127
- media packs, downloading from
E-Delivery 2
- message data, cleaning obsolete 186
- Micro Focus COBOL
 - distributing binaries 414
 - modifying liblist files 442
- Micro Focus COBOL compiler
 - installing on Windows 394
- Micro Focus Net Express 394
 - obtaining installation files 394
- Micro Focus Server Express 434
 - obtaining installation files 435
- Microsoft .NET Framework, installing for
PS/nVision 350
- Microsoft Office 2010, configuring for
Crystal Reports 630
- Microsoft Open XML SDK, installing for
PS/nVision 350

- multi-currency option 291, 318
- multilanguage files
 - installing 126
- multilingual objects
 - updating PeopleSoft PeopleTools 191
- multilingual strategy
 - planning 13
- multilingual system database
 - installing 210

N

- Navigation Collection data
 - converting 205
- new tablespaces
 - migrating records to 199
- NLS_LANG
 - setting in the Windows Registry 148,
666
- NLS_LENGTH_SEMANTICS parameter,
setting in init.ora 139
- NLS_PATH environment variable 337
- nmake, using with the IBM COBOL
compiler 418
- node transaction data
 - deleting 209
 - saving 208
- non-Unicode databases 17
- nVision, *See* PS/nVision
- nVisionDrill VSTO add-in 709
 - installing 710
 - security for 709

O

- ODBC driver, installing 134
- Oracle Configuration Manager
 - introduction 10
- Oracle database
 - creating 667
- Oracle database instance
 - creating 663
- Oracle E-Delivery
 - obtaining PeopleSoft installation
files 98
- Oracle Net
 - installing on client 21
 - installing on server 20
 - testing connectivity 22
- Oracle Secure Enterprise Search

- using for PeopleBooks full-text searches 686
- Oracle Tuxedo
 - checking Windows Services 82
 - checklist for installing on UNIX 87
 - designating the Microsoft Windows application server administrator 67
 - designating the owner on UNIX 88
 - downloading patches 64
 - ensuring coexistence 93
 - installing on Microsoft Windows 68
 - installing on UNIX 88
 - obtaining files for installation 64
 - prerequisites for installing 63
 - restricting domain process privileges 83
 - setting up Windows services 84
 - uninstalling from Microsoft Windows 65
 - uninstalling from UNIX 87
 - verifying installation on Microsoft Windows 86
 - verifying server installation on UNIX 92
- Oracle WebLogic
 - installing 25
 - installing in GUI mode 31
 - installing JDK and JRockit 28
 - installing on Linux or UNIX 40
 - installing on Windows 31
 - installing PeopleSoft Pure Internet Architecture in console mode 297
 - installing PeopleSoft Pure Internet Architecture in GUI mode 255
 - obtaining files from E-Delivery 27
 - removing installation in console mode 53
 - removing installation on Microsoft Windows 50
 - reviewing error messages 26
 - silent mode installation on Linux or UNIX 47
 - starting and stopping 282, 310
 - updating JDK for Daylight Savings Time change 49
 - using temporary files 26
- owner ID
 - for PeopleSoft database 146, 669
 - PeopleSoft, compared with Oracle user ID 11

P

- Pagelet Wizard data
 - converting 205
- patches with database projects, applying 195
- PATH environment variable 337
- PeopleBooks
 - configuring context sensitive help 685
 - creating search collections with Oracle Secure Enterprise Search 686
 - enabling F1 help 686
 - installation overview 681
 - installing 682
 - installing PeopleSoft Applications 693
 - migrating previous versions 703
 - obtaining files from Oracle E-Delivery 684
- PeopleSoft application, installing 125
- PeopleSoft Change Assistant
 - firewall settings 471
 - installing 466
 - introduction 22
 - setting email options 474
 - setting environment management options 476
 - setting Test Framework options 474
 - setting web services options 475
 - specifying Change Assistant options 472
 - verifying environment variable 471
- PeopleSoft Change Impact Analyzer
 - installing 481
 - introduction 22
- PeopleSoft Client
 - defining 5
- PeopleSoft Database Configuration Wizard, *See* Database Configuration Wizard
- PeopleSoft database owner ID 146, 669
- PeopleSoft installer
 - command line options 100
- PeopleSoft Installer
 - running 99
 - running in console mode 116
 - running in GUI mode 101
- PeopleSoft integration with SAP BusinessObjects Enterprise XI 3.1
 - permission lists, roles, and users 616
- PeopleSoft license codes 97
- PeopleSoft PeopleTools

- applying patched database objects 195
- PeopleSoft PeopleTools database objects
 - deleting obsolete 193
 - updating 189
- PeopleSoft PeopleTools multilingual objects
 - updating 191
- PeopleSoft PeopleTools system data
 - updating 202
- PeopleSoft PeopleTools system database
 - installing multilingual 210
- PeopleSoft PeopleTools system tables
 - updating 187
- PeopleSoft PeopleTools tables
 - altering 196
- PeopleSoft Pure Internet Architecture 303
 - installing in console mode on Oracle WebLogic 297
 - installing in GUI mode on IBM WebSphere 270
 - installing in silent mode 307
 - installing on IBM WebSphere in console mode 302
 - installing on IBM WebSphere in GUI mode 269
 - installing on Oracle WebLogic in GUI mode 255
 - testing the installation, console mode 310
 - testing the installation, GUI mode 282
 - uninstalling on IBM WebSphere in console mode 307
 - uninstalling on IBM WebSphere in GUI mode 281
 - using authentication domains in console mode 295
 - using authentication domains in GUI mode 253
- PeopleSoft Search Framework
 - setting up PeopleSoft Integration Broker 385
 - setting up permission lists 384
- PeopleSoft Search Framework, setting up with SES 381
- PeopleTools Development Environment 4
- PIA, *See* PeopleSoft Pure Internet Architecture
- PIA_HOME
 - defining 7
- Portal objects
 - converting 204
- printer 10
- Process Scheduler server
 - configuring for Word for Windows 347
 - creating on UNIX 373
 - creating on Windows 338
 - overview 7
 - reconfiguring on UNIX 377
 - reconfiguring on Windows 342
 - Report Repository, on UNIX 362
 - Report Repository, on Windows 326
 - setting up distribution settings on UNIX 369
 - setting up distribution settings on Windows 335
 - setting up Process Scheduler Server Agent on UNIX 371
 - setting up Process Scheduler Server Agent on Windows 337
 - setting up security on UNIX 360
 - setting up security on Windows 322
 - starting as Windows service 345
 - verifying status on UNIX 378
 - verifying status on Windows 343
- product modules
 - adding 659
- profile
 - editing default 131
- Protected View in Microsoft Office 2010, configuring for Crystal Reports 630
- PS_CFG_HOME
 - default locations 8
 - defining 7
- PS_HOME, defining location 7
- PS/nVision
 - installing add-ins for DrillDown 707
 - installing DrillToPIA add-in 708
 - installing in Excel automation mode 350
 - installing in Open XML Mode 350
 - installing nVisionDrill VSTO add-in 709
 - installing products for 349
- PS/nVision drilldown
 - setting up Integration Broker 710
- PS/nVision Drilldown add-ins, installing 707
- PS.PSDBOWNER table 145, 668
- PSADMIN

- and application server domains,
 - UNIX 239
- and application server domains,
 - Windows 223
- importing application server domain
 - with, UNIX 243
- importing application server domain
 - with, Windows 228
- psappsrv.cfg, using to import application
 - server domain 228, 243
- pscfg.exe 130
- PsCIA, *See* PeopleSoft Change Impact
 - Analyzer
- psconfig.sh
 - running 164
- pscrconv.exe
 - converting Crystal Reports 636
- pscvtrpt 635
- psodbccrinst.exe 134
- PSROLES.SQL 146, 669
- PTUPGIBCLONE project 208
- PTUPGIBDELETE project 208

Q

- QAS, *See* Query Access Services
- Query Access Services
 - overview 506
- query headings
 - converting 205

R

- recompiling COBOL 447
- records
 - migrating to new tablespaces 199
- relinking SQR on UNIX, example 738
- Remote Call
 - setting up COBOL for 223, 238
- REN server
 - configuring for UNIX 241
 - configuring for Windows 225
- Report Manager
 - setting up sending and receiving of report
 - folders on UNIX 370
 - setting up sending and receiving of report
 - folders on Windows 336
- report node
 - defining to use FTP on UNIX 367
 - defining to use FTP on Windows 333

- defining to use HTTP/HTTPS on
 - UNIX 365
- defining to use HTTP/HTTPS on
 - Windows 330
- defining to use XCOPY 332
- Report Repository
 - enabling on UNIX 365
 - enabling on Windows 329
 - selecting transfer protocol on
 - UNIX 364
 - selecting transfer protocol on
 - Windows 329
 - setting up single signon on UNIX 363
 - setting up single signon on
 - Windows 328
- Report Repository, UNIX 362
- Report Repository, Windows 326
- response file for silent installation,
 - editing 308
- roles
 - database 146, 669
- RPT conversion utility
 - converting Crystal Reports 636
 - introduction 635
- Rules Editor, installing 481

S

- SAP BusinessObjects Enterprise XI 3.1
 - changing Report Repository data
 - source 617
 - creating a web server on UNIX or
 - Linux 565
 - creating a web server on Windows 512
 - enabling logging 620
 - entering license keys 602
 - environment variables 508
 - facilitating performance speed 613
 - installation overview 502
 - installing fix packs or service
 - packs 552, 576
 - installing on UNIX or Linux 571
 - installing on Windows 526
 - PeopleSoft permission lists 616
 - PeopleSoft roles 616
 - PeopleSoft users 616
 - prerequisites 508
 - removing installation 632
 - Report Repository 617
- Schema data, converting 209
- search instance for SES, defining 387

- seed database 20
- servers
 - setting the SMTP server 474
 - supported combinations 96
- SES
 - activating the identity plug-in 383
 - configuring authentication timeout settings 384
 - configuring for PeopleSoft PeopleTools 381
 - configuring PeopleSoft Integration Broker 385
 - creating a Federated Trusted Entity for the PeopleSoft integration 383
 - defining a search instance 387
 - prerequisites for configuration 381
 - verifying connectivity to PeopleSoft PeopleTools 389
- SETSPACE.SQR
 - running 215
- Setup Manager
 - configuring 348
 - converting 205
- shared assemblies on Windows 119
- single signon
 - for Report Repository access on UNIX 363
 - for Report Repository access on Window 328
- sort order option 291, 318
- SQL tools 144, 666
- SQR
 - database auditing 214
 - relinking on Oracle Solaris 738
 - relinking on UNIX 737
 - running 211
- supporting applications
 - COBOL 18
 - installing 18
 - Microsoft Office 18
 - SQR 18
- sysaudit.sqr 214

T

- Tablespaces
 - populate or synchronize with the system catalog 215
- time zone updater for Oracle WebLogic 49
- TM_CPAU, setting for Oracle Tuxedo 84

- training, recommended xix
- TrueType fonts
 - installing TrueType fonts on UNIX or Linux 579
- TrueType Fonts
 - copying TrueType fonts on Windows 564
 - installing files 553
- TUXDIR environment variable 337
- Tuxedo, *See* Oracle Tuxedo

U

- Unicode databases
 - choosing when selecting a character set 16
- updates and fixes 17
- updating database 185
- updating PeopleSoft PeopleTools
 - database objects 189
 - multilingual objects 191
 - Navigation Collection data 205
 - Pagelet Wizard Data 205
 - Portal objects 204
 - query headings 205
 - Setup Manager 205
 - system data 202
 - system tables 187
- UPG844PORTAL Application Engine program 204
- UPGPT846PP Application Engine program 205
- UPGPT848IBUG, running 208
- UPGPT848PP Application Engine program 206
- UPGPT850PTFP, running 207
- UPGPT852PTFP, running 207
- UPGPTHASH, running 207
- UPGPTSMDAT Application Engine program 205
- UPGQRYDUPHED Application Engine program 205
- users for BusinessObjects Enterprise 585
- utility tablespaces 145, 668
- UTLSPACE.SQL 145, 668

V

- Verity
 - installing in console mode 124
 - installing in GUI mode 120

- Verity for PeopleSoft Enterprise Integration, installing 120
- Verity Integration kit, installing 120
- VERSION Application Engine program 211

W

- wdeploy tool 622
- Web Application Deployment tools 715
 - installing on IBM WebSphere in console mode 733
 - installing on Oracle WebLogic in console mode 730
 - installing on WebLogic in GUI mode 716
 - installing on WebSphere in GUI mode 723
 - log file 736
- web server
 - supported types 8
- WebLogic, *See* Oracle WebLogic
- WebSphere, *See* IBM WebSphere
- Windows service
 - Oracle Tuxedo 82
 - starting Process Scheduler as 345
- Windows-based clients 4
- Word for Windows
 - configuring Process Scheduler for 347
- workstations 4
- WSDL data, converting 209

