



Agile PLM Business Intelligence

Installation and Setup Guide

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Preface

The Agile PLM documentation set includes Adobe® Acrobat PDF files. The [Oracle Technology Network \(OTN\) Web site](http://www.oracle.com/technology/documentation/agile.html) <http://www.oracle.com/technology/documentation/agile.html> contains the latest versions of the Agile PLM PDF files. You can view or download these manuals from the Web site, or you can ask your Agile administrator if there is an Agile PLM Documentation folder available on your network from which you can access the Agile PLM documentation (PDF) files.

Note To read the PDF files, you must use the free Adobe Acrobat Reader version 7.0 or later. This program can be downloaded from the [Adobe Web site](http://www.adobe.com) <http://www.adobe.com>.

The [Oracle Technology Network \(OTN\) Web site](http://www.oracle.com/technology/documentation/agile.html) <http://www.oracle.com/technology/documentation/agile.html> can be accessed through **Help > Manuals** in both Agile Web Client and Agile Java Client. If you need additional assistance or information, please contact My Oracle Support (<https://support.oracle.com>) for assistance.

Note Before calling Oracle Support about a problem with an Agile PLM manual, please have the full part number, which is located on the title page.

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Readme

Any last-minute information about Agile PLM can be found in the Readme file on the [Oracle Technology Network \(OTN\) Web site](http://www.oracle.com/technology/documentation/agile.html) <http://www.oracle.com/technology/documentation/agile.html>

Agile Training Aids

Go to the [Oracle University Web page](http://www.oracle.com/education/chooser/selectcountry_new.html) http://www.oracle.com/education/chooser/selectcountry_new.html for more information on Agile Training offerings.

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Screen readers may not always correctly read the code examples in this document. The conventions for writing code require that closing braces should appear on an otherwise empty line; however, some screen readers may not always read a line of text that consists solely of a bracket or brace.

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Overview of Agile PLM Business Intelligence Installation

This chapter includes the following:

▪ Tasks Overview	1
▪ Downloading Agile PLM Business Intelligence Software.....	2
▪ Acronyms	2

This guide provides instructions and guidelines to successfully install or upgrade the Agile PLM Business Intelligence 3.2 application. You should be familiar with or have working knowledge of Oracle Data Integrator, Oracle Business Intelligence Enterprise Edition, Agile Product Lifecycle Management (PLM), Agile PLM Data Mart (DM) and the Oracle Database Server to work with Agile PLM Business Intelligence software.

Note This document does not explain the basics of Oracle Business Intelligence (OBI), Oracle Data Integrator (ODI), and Oracle Databases. Refer to the Oracle Technology Network <http://www.oracle.com/technology/documentation/index.html> <http://www.oracle.com/technology/documentation/index.html> for documentation related to these products.

This chapter outlines the tasks for installation of the Agile PLM Business Intelligence software. In addition, it provides the information required to access the necessary software.

Tasks Overview

The Agile PLM Business Intelligence installation requires you to:

1. Verify the capacity planning requirements specific to your deployment configuration. For information, see the Agile PLM BI Capacity Planning Guide.
2. Verify hardware and software requirements. For information, see [System Requirements](#) on page 9 in this guide.
3. Ensure that Agile PLM Data Mart installation is complete. Follow instructions provided in the Agile PLM Data Mart Setup Guide.
4. Download the Agile PLM Business Intelligence software. For information, see Downloading Agile PLM Business Intelligence Software in this guide.
5. Install PLM Business Intelligence software. For information, see Installation in this guide.

Downloading Agile PLM Business Intelligence Software

This section provides information on downloading Agile PLM Business Intelligence software from the Oracle distribution locations.

Obtaining Software from Oracle E-Delivery

Major Oracle product releases are distributed as Media Packs on **Oracle E-Delivery** (<http://edelivery.oracle.com>). A Media Pack is an electronic version of the software. Refer to the Media Pack description or the list of products that you purchased on your Oracle Ordering Document. Then, view the Quick Install Guide License List to help you decide which Product Pack you need to select in order to search for the appropriate Media Pack(s) to download. Prior to downloading, verify that the product you are looking for is in the License and Options section of the E-Pack README. Oracle recommends that you print the README for reference.

There will be an itemized part list within each of the packs and you will need to download all items in order to have the complete download for the desired Oracle Agile release.

All Oracle E-Delivery files have been archived using Info-ZIP's highly portable Zip utility. After downloading one or more of the archives, you will need the UnZip utility or the WinZip utility to extract the files. You must unzip the archive on the platform for which it was intended. Verify that the file size of your downloaded file matches the file size displayed on E-Delivery. Unzip each Zip file to its own temporary directory.

To download the Agile PLM BI Software from Oracle E-Delivery (<http://edelivery.oracle.com>):

1. On the Oracle E-Delivery Welcome page, choose your language and click **Continue**.
2. Enter required information on the Export Validation screen and click **Continue**.
3. On the Media Pack Search screen, select **Oracle Agile Applications** in the **Select a Product Pack** drop-down list box. Select a **Platform** value. Click **Go** to view the applicable Agile release downloads.
4. Select the appropriate link. Click **Continue**.
5. The Download page displays downloadable release parts, including customer guides. Click **Download** for the appropriate media pack.
6. Extract the contents of the media pack, unzip the contents, and navigate to the BI_3.2.0.0 folder. The installers for all platforms are available within the BI_3.2.0.0 folder, regardless of the operating system on which you have chosen to install the software.

Acronyms

Common acronyms used in this document are listed below:

Acronym	Meaning
BI	Business Intelligence
DM	Data Mart
ETL	Extract Transform Load
OBI	Oracle Business Intelligence
OBIEE	Oracle Business Intelligence Enterprise Edition
ODI	Oracle Data Integrator
PC	Product Collaboration
PLM	Product Lifecycle Management
PPM	Product Portfolio Management
PQM	Product Quality Management

Agile PLM Business Intelligence Overview

This chapter includes the following:

▪ Introduction	5
▪ PLM Business Intelligence Architecture	5
▪ Architectural Components	6

Introduction

Oracle Agile PLM Business Intelligence Applications are comprehensive, pre-built Business Intelligence solutions that deliver pervasive intelligence and provide key insights into your Product Lifecycle Management (PLM) data. The Agile PLM Business Intelligence Application provides an integrated view of the product to enable greater alignment of information across product organizations. It is built on Oracle Business Intelligence Enterprise Edition (OBIEE) Analytics and Oracle Data Integrator (ODI) ETL platforms.

Agile PLM Business Intelligence addresses the business use cases specific to Product Quality Management (PQM), Product Collaboration (PC), and Product Portfolio Management (PPM). The product design supports integration of the Oracle Business Intelligence (OBI) application across subject areas related to Customer Relationship Management (CRM) and Supply Chain Management (SCM) with data from E-business, SAP, Siebel and PeopleSoft sources.

PLM Business Intelligence Architecture

The various components in PLM Business Intelligence Architecture are as follows:

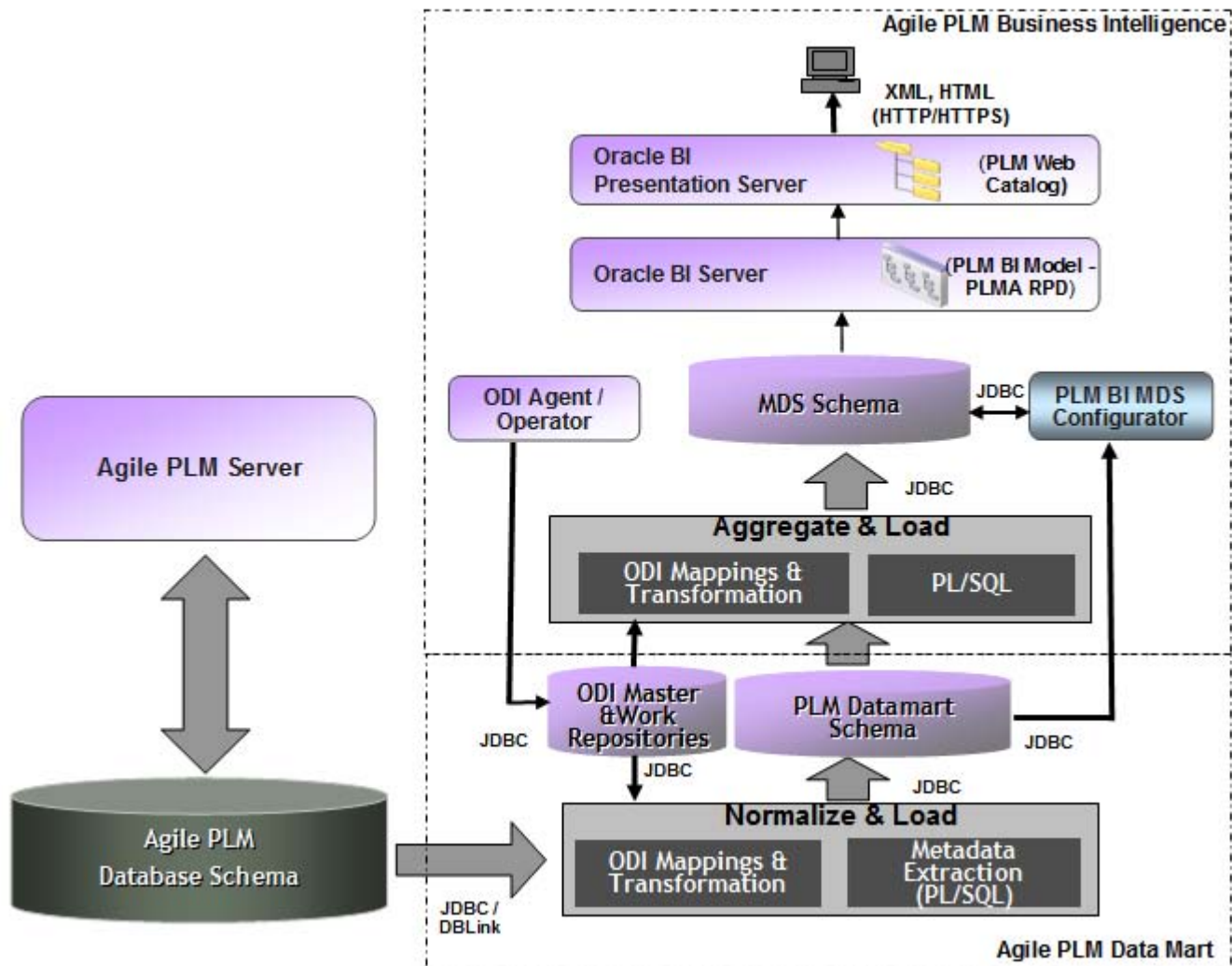
- Oracle Data Integrator (ODI)
- Agile PLM Data Mart Schema
- ODI Repositories
- Agile PLM Multi-Dimensional Schema(MDS)
- PLM BI Configurator
- PLM BI Model (PLMA.RPD)
- PLM BI Web Catalog

Architectural Components

The following table describes the major components in Agile PLM Business Intelligence architecture:

Component	Description
Oracle Data Integrator	Oracle Data Integrator (ODI) is an application which uses the Extract-Transform-Load process to transform data from one schema to another. ODI uses the ODI Interface and PL/SQL procedures to implement the Extract-Transform-Load process.
Agile PLM Data Mart Schema	This is an Operational Data Store built from the Agile PLM OLTP (Online Transaction Processing) database.
ODI Repositories	ODI Repositories maintain all information related to the definition and execution of ETL processes.
Agile PLM BI MDS	This Star Schema contains Fact and Dimension tables that enable you to create analytical reports using any reporting application.
PLM BI Configurator	This component enables you to associate configurable PLM data to the MDS depending on various individual user PLM configurations. It gets installed as part of the ETL installation, in the same machine.
PLM BI Model	PLM BI Model is a metadata repository that has metadata of the MDS tables, the business rules such as measure, formulae, hierarchical dimensions, and user-specific roles and privileges that are required to create analytics reports.
PLM BI Web Catalog	PLM BI Web Catalog component presents organized information in the form of reports on PLM BI Interactive Dashboards.

The following illustration depicts the positioning of various components in the Agile PLM Business Intelligence architecture:



System Requirements

This chapter includes the following:

- Software Requirements 9
- Hardware Requirements 10

The Agile PLM Business Intelligence application may be deployed in different configurations. The amount of time required to complete an installation depends on the complexity of your deployment. For specifications related to your deployment configuration, see *Agile PLM BI Capacity Planning Guide*.

This chapter describes the minimum software and hardware requirements for Agile PLM BI installation.

Software Requirements

The following are the software requirements for Agile PLM BI installation:

Software Component	Name	Version
Browsers	Internet Explorer	6.0 or 7.0 on Windows
	Firefox	1.5.x or higher. 2.0 for Apple Mac O.S 10.x and Sun Solaris
Oracle Business Intelligence – BI server and Presentation services	Enterprise Edition	10.1.3.4.1
Database server	Oracle Enterprise Edition	10g R2*, 11g R1
Data Integration Component	Oracle Data Integrator	10.1.3.5
Data Mart	Agile PLM Data Mart	3.2
Software Development Package	Java Development Kit	1.5.x
Operating Systems	Microsoft Windows Server	2003 (32 bit and 64 bit)
	Red Hat Linux	AS 5.x (32 bit and 64 bit)
	Oracle Enterprise Linux	5.x (32 bit and 64 bit)
	Sun Solaris	10 (SPARC 64 bit)
	AIX	6.1
Data Source	Agile PLM Releases	9.2.2.7, 9.3, 9.3.0.1
*System performance may improve if Oracle Database patch 10.2.04 is installed on a 64-bit operating system.		

Note Refer to the *Oracle Business Intelligence Infrastructure Installation and Configuration Guide* for install options specific to various Web servers.

Installation Notes

1. Ensure that at least 4GB of free disk space is available on the computer server before you begin the installation of Agile PLM Business Intelligence.
2. Do not install any software which occupies a lot of disk space on the systems that have Agile PLM Business Intelligence.
3. Do not use the Agile database server as the Primary Domain Controller (PDC) or Dynamic Host Configuration Protocol (DHCP) server.
4. Do not enable Disk Compression on Agile database servers.
5. Make sure Agile PLM Data Mart ETL is not running while installing the Agile PLM Business Intelligence components.

Note We recommend that the computer systems on which you install Agile PLM Business Intelligence, Agile PLM Data Mart and the Oracle Database, have at least two physical drives or two disk partitions. This enables you to install the Operating system and the Agile/Oracle installation components on separate drives/partitions, thus ensuring better performance.

Hardware Requirements

When you choose a hardware configuration, it is important to consider details such as the total number of users, the number of concurrent users, the size of your database, the number of Agile PLM objects processed per day, and the number of transactions in the database.

The following are the minimum hardware requirements for the Database Server that hosts the Data Mart Database schema and the BI Database Schema:

Environment	CPU	RAM	Minimum Disk Space
Development (DEV)	2	4 GB	4 x PLM DB (Source) db size
Testing or Staging (STAGE)	2	4 GB	4 x PLM DB (Source) db size
Production (PROD)	4	8 GB	4 x PLM DB (Source) db size

Note For detailed information on database sizing, see the *Agile PLM Business Intelligence Capacity Planning Guide*.

Installation

This chapter includes the following:

▪ Pre-installation Checklist	11
▪ Starting the Agile PLM Business Intelligence Installer	12
▪ Installing the Agile PLM Business Intelligence Application	13
▪ Post-Installation Tasks	16
▪ Executing ETL	18
▪ Uninstalling Agile PLM Business Intelligence	20

This section lists the prerequisites for installation, the installation procedure, the post-installation guidelines and uninstallation of the Agile PLM Business Intelligence application. In addition, this section describes the execution of ETL after you complete the Agile PLM Business Intelligence installation.

The complete installation of Agile PLM Business Intelligence application involves:

1. Verifying the pre-requisites using the pre-installation checklist
2. [Starting the Agile PLM BI Installer](#) on page 12
3. [Installing Agile PLM Business Intelligence application](#) on page 13
4. Executing the ETL
5. Performing post-installation tasks

Note For information on configuring multiple work environments, refer Appendix D:
Configuring Multiple Work Environments

Pre-installation Checklist

Verify the prerequisites for the installation of PLM Business Intelligence 3.2 application using the following pre-installation checklist:

#	Check point	Done
1	Install and configure PLM Data Mart 3.2.	
2	Ensure the Database connectivity details for the Data Mart schema, ODI Master and Work repositories are available.	
3	Ensure the Database Server and Listener services are running.	
4	Install and Configure OBIEE 10.1.3.4.1. For information on installation and configuration of OBIEE, refer to the <i>Oracle Business Intelligence Infrastructure Installation and Configuration Guide</i>	
5	Ensure the Oracle BI Server and Presentation Services are running.	

#	Check point	Done
6	Install American English Unicode (en_US.UTF-8) Full Locale package in Solaris system to ensure successful installation and allow the complete functionality of PLM Business Intelligence application.	

Note If you have previously installed Agile PLM Business Intelligence, see [Upgrade Considerations](#) on page 21 for detailed information about upgrading your installation.

It is important to gather the following information before you begin the installation:

- Deployment Configuration specification

Note For more information refer the *Agile PLM Business Intelligence Capacity Planning Guide*.

- Start date of the Fiscal year for your business
- Name of the email server specific to your email configuration
- Location of the ODI and Data Mart Schema details
- Location of the RDBMS and database details
- Names of the tablespaces to be used during the installation

Note For more information on tablespace configuration, refer the *Agile PLM Capacity Planning Guide*.

- Name and location of the OBIEE Repository Home
- Name and location of the OBIEE Web Catalog
- Location of the Data Mart 3.2 ETL installation

Important Install and test this release on a designated test server before installing it on your production environment. Resolve the issues or questions that you might observe during the system testing before you install this software on your production environment.

Starting the Agile PLM Business Intelligence Installer

On Windows, the installer is packaged as **BISetup_Win.exe** file. For UNIX-based operating systems, the installer is packaged as **BISetup_Lin.bin** (for Linux) or **BISetup_Sol.bin** (for Solaris) file. The installer launches an installation wizard powered by 'InstallAnywhere' to install Agile PLM Business Intelligence.

Note Click **Help** in the wizard windows for information about each step. You can keep the Help window open during the installation. The content in the **Help** window is refreshed dynamically as you progress with the installation. For information on fields in the installation wizard, see Appendix A: Fields in the Installation Wizard

To start the Agile PLM Business Intelligence 3.2 installer on Windows:

Double-click **Windows\BISetup.exe** in the list of files available as part of the Installer kit.

To start the Agile PLM Business Intelligence 3.2 installer on UNIX:

1. Navigate to the folder where the file exists, in your UNIX terminal.
2. Provide full (Read, Write, Execute) permissions to the setup file:

AIX: BISetup_Aix.bin

Linux: BISetup_Lin.bin

Solaris: BISetup_Sol.bin

3. Enter the following command on your UNIX prompt:

AIX: ./BISetup_Aix.bin

Linux: ./BISetup_Lin.bin

Solaris: ./BISetup_Sol.bin

Important Install Agile PLM Business Intelligence 3.2 in Linux as a non-root user.

Installing the Agile PLM Business Intelligence Application

The process to install Agile PLM Business Intelligence application is the same for Windows (Microsoft Windows), and versions of UNIX (Sun Solaris and Red Hat Linux) Operating systems.

The Agile PLM BI installation process includes the following steps:

1. Installing the PLM BI DB Schema and ETL Components
2. Installing the PLM BI components

Note You must start the installer twice to complete the Agile PLM BI installation process. In some implementation scenarios, there is a need to manually install the PLM BI DB schema. This section also describes the steps involved in the manual installation of the PLM BI DB Schema. For more information, refer Manually Installing the MDS Schema.

Installing the MDS DB Schema and ETL Components

The installer provides options to install PLM BI DB schema and ETL components separately. You

can also choose to install these components together.

To install the PLM BI DB Schema and ETL Components:

1. Start the installer.
For information, refer [Starting Agile PLM BI Installer](#) on page 12.
2. In the Welcome window, click **Next**.
3. In the **Choose Install Set** window, select the **Business Intelligence MDS** option.
4. In the **PLM BI MDS Installation Components** window, select the components that you want to install. The next steps vary based on your selection. Click **Help** on the wizard window for details on values to be entered in each step of the installation wizard. For information on every field in the Installation wizard windows, refer Appendix A: Fields in the Installation Wizard.
5. Verify the installation details of the selected component in the **Pre-installation Summary** window.
6. Click **Install**.
7. In the **Installation Completed** window, click **Done**.

Manually Installing the MDS schema

If you selected the option 'Generate SQL scripts' in the **Select schema creation** window during the installation of the MDS module, the installer generates a set of SQL files and stores them in **Schema** folder in the **Business intelligence MDS Install Directory**. This option involves running these scripts in SQL*Plus to manually create Business Intelligence MDS schema objects.

You can create the MDS schema using the manually generated installation scripts in the following scenarios:

- Scenario 1: Generate the scripts to create MDS schema in the same system
- Scenario 2: Generate the scripts to create MDS schema in a different system

Scenario 1

This scenario illustrates the procedure to generate the scripts using the installer in System A and create the MDS schema in the same system using the generated scripts.

Note Agile PLM Data Mart needs to be installed before you generate the scripts.

To generate the scripts and create MDS schema in the same system:

1. Set the Oracle SID name.
In Windows:
set ORACLE_SID = <sid_name>
In Solaris/Linux:
export ORACLE_SID = <sid_name>
2. In SQL*Plus, connect to the target database using the **System User** and **Password**.
3. Run the UsersCreation.sql script to create the MDS user and assign privileges.

The UsersCreation.sql script executes the **Create MDS User and Privileges** script if you are creating new database user. For existing users, only the **Privileges** script is executed.

Note For more information on privileges, see [Appendix B: DB privileges](#)

4. Disconnect the System user.
5. Connect to MDS schema using MDS User and password, which was created by the script UsersCreation.sql
6. Run the mds.sql script to install the MDS schema objects and logger object.

Note To avoid installation errors, follow the steps in the given sequence.

Scenario 2

This scenario illustrates the procedure to generate scripts using the installer in System A, and create the MDS Schema in another system using the generated scripts.

If you generate the scripts in System A and execute them in System B, then you need to replace the scripts in the same location in System B, because mds.sql invokes the SQL files using an absolute path. Alternatively, you can modify the directory path in the mds.sql file to any valid directory.

Example:

Generate the scripts in System A in the directory F:\MDS31. Copy the scripts to System B into the location F:\MDS31. If F: drive does not exist in System B, copy the scripts to any valid directory on System B and modify the directory path in the mds.sql file.

Note To manually install the MDS Schema, follow the steps as described in Scenario 1.

Important Ensure that the TNS name is PLMA. It is recommended that you modify the TNSNAMES.ORA file to reflect PLMA as the TNS name, so you can obtain correct display of all the out of box reports.

Installing BI Components

After you complete the installation of MDS Schema and ETL components, you need to install the BI components.

To install the BI Components:

1. Start the installer.
For information, refer to [Starting Agile PLM BI Installer](#) on page 12.
2. In the **Welcome** window, click **Next**.
3. In the **Choose Install Set** window, select the **Business Intelligence Application** option.
4. In the **Business Intelligence Application Temp Directory** window, enter the path to a folder or use the **Choose** button to select a folder as the Business Intelligence Application Temp Directory. The next steps vary based on your selection. Click **Help** on the wizard window for details on each window of the installation wizard. For information on every field in the Installation wizard

windows, refer Appendix A: Fields in the Installation Wizard.

5. Verify the installation details of the selected component that appear in the **Pre-installation Summary** window.
6. Click **Install**.
7. In the **Installation Completed** window, click **Done**.

Installation Folder Structure

After you complete the installation of Agile PLM BI, the MDS installation base directory, for example, **C:\PLMBI32** contains the following sub-folders:

Name of the Folder	Description
\ant	Used to execute ANT scripts
\bin	Configuration tools and Miscellaneous entities
\common	Common Components such as PL/SQL logging libraries
\config	All PLM Business Intelligence configurations including the ANT install configuration file
\images	Contains images used in the PLM BI MDS Configurator tool.
\install	Installation components such as SQL scripts, ETL objects, and Java classes
\jdk	Contains JRE 1.5, used to install ETL components and to launch PLM BI Configurator.
\lib	Dependent libraries that the PLM BI 3.2 installer and Configurator uses
\logs	Centralized location for logs specific to BI
\Schema This folder is created only for Generate SQL option that you select during the installation of MDS DB Schema and ETL components.	SQL scripts to <ul style="list-style-type: none">▫ Create, update or delete schema▫ Create pre and post-populate scripts
\olap	BI Repository and Web catalog
\uninstall	Executable files to uninstall the software. This folder also includes executable file to remove any installed Hot Fix or Service Pack for Analytics.

Post-Installation Tasks

This section describes the post-installation tasks and recommendations related to the following:

- [Starting Windows Services](#) on page 17
- Configuring Connection Pool Settings in OBIEE
- [Optimizing ETL Performance](#) on page 17

Starting the Windows Services

Ensure that you start the following services in the listed order:

1. OC4J or IIS
2. Oracle BI Java Host
3. Oracle BI Server
4. Oracle BI Presentation Server

Configuring Connection Pool Settings in OBIEE

You must ensure that you have configured appropriate Connection Pool settings in OBIEE Administrator:

To configure connection pool settings:

1. Login to the OBIEE Administration tool.
2. Verify in the Physical layer that **Data Source Name** is the TNS Name of the MDS Database and its username/password is `PLMBIMDS/PLMBIMDS`.
3. In the Connection Pool window of Physical Layer, if the TNS Name of the MDS Database is not `PLMA`, then replace the TNS Name in the **Data Source Name** field.

Note If the TNS Name of the MDS Database does not exist on the Oracle BI server, then it must be created.

4. In the Connection Pool window of Physical Layer, if the username and password of the MDS Database are not `PLMBIMDS`, then replace the username and password in the **User name** and **Password** fields.

Administering Users and Passwords in OBIEE

User names and passwords are used to log in and authenticate with PLM BI and OBIEE components. In order to administer the PLM BI system, you should be aware of the various users and passwords in OBIEE. For more information on administering users and passwords, see the *Oracle Business Intelligence Enterprise Edition Deployment Guide*.

Optimizing ETL Performance

Before you execute ETL, it is recommended that you configure the following parameters to optimize ETL performance:

- DB Session and process parameters
- Heap Size in ODI

- ODITimeOut Parameter in ODI

DB Session and process parameters

Verify that the database has enough database sessions (>500) to execute ETL in ODI.

To verify the DB session and process parameters:

1. Login using `sys as sysdba` in command prompt using SQLPlus
2. Execute `SHOW PARAMETER SESSIONS`
3. Execute `SHOW PARAMETER PROCESSES`
4. Execute `'Alter system set processes=1000 scope=spfile`
Alternatively,
Execute `'Alter system set processes=1000 scope=both`
5. Restart the instance. For more information, see the Oracle Database documentation.

Heap Size in ODI

Modify the Heap size in ODI to enhance the ETL performance.

To increase the Heap size:

1. Navigate to the <ODI Home>/ bin folder
2. Set `ODI_INIT_HEAP=32m` (default) and Set `ODI_MAX_HEAP=256m` in the **ODIPARAMS.BAT** file

Note Set the values according to the memory space available in the local machine. For example, if you have 2 GB of available memory, you can set the `ODI_INIT_HEAP` to 512m and `ODI_MAX_HEAP` to 1024m. For more information refer to the ODI Documentation on Oracle Technology Network.

ODI Timeout Parameter in ODI

Ensure that you set the ODITimeOut Parameter to 180 seconds. Use **File > User Parameters** in the ODI Designer Tool Menu Bar to modify this value. The default value is 30 seconds.

Executing ETL

After the BI Installation is complete, you need to execute the Data integration task using the ODI Operator to load data into MDS from the Agile PLM Data Mart. You can also execute ETL from the command prompt. Before you execute the ETL, it is recommended that you follow the guidelines

mentioned in the [Optimizing ETL Performance](#) on page 17 section.

Note If you want to see the status of all the tasks that are under execution, increase the Operator Display Limit to 1000 (the default value is 100). Click **File Menu > User parameter > Set operator Display limit** to change the operator display limit.

To execute ETL from ODI:

1. Launch the ODI Operator and login using authentication details for the ODI session created during the Data Mart installation. The username and password will populate automatically when you open ODI Operator subsequently.
2. Click **OK**.
3. Click the **Scenarios** tab. The Left Frame displays all components.
4. Right-click on **MDS_ETL_LOAD Version 001** component and select **Execute**. The **Execution** window appears.

Note To execute ETL for MDS and DM from ODI, execute the component 'ANALYTICS_ETL Version 001'.

5. Select MDS as **Context**.
6. Click **OK**. The **Sessions Started** window appears.
7. Click **OK**. The ETL process begins.

Note If you install Data Mart and MDS together, then you need an ODI login to execute ETL. Refer the Agile PLM Data Mart Set up Guide for the procedure to create an ODI Login.

Executing ETL from Command Prompt

To execute ETL from command prompt, follow these steps:

1. In Windows command prompt, change directory to **bin** folder in your PLM BI Home Directory, for example, C:\PLMBI32\bin
2. Type the following command:

```
startbi MDS_ETL_LOAD 001 MDS
```

where

startbi is the batch file that executes ETL tasks

MDS_ETL_LOAD is the ETL task name

001 is the version number of ETL task

MDS is the ETL context

To view the status of ETL process:

1. Launch ODI Operator and select **Login**.

2. Enter the user name and password. The user name and password populate automatically on subsequent launches. Click **OK**.
3. In the **Sessions List** tab, select **All Executions** in the left frame which shows all running tasks.
Alternately,
In the **Hierarchical Sessions** tab, select **Status** or **All Executions** in the left frame to check overall progress.

Note For complete information on installation and usage of ODI, refer to the ODI documentation available for free download at <http://www.oracle.com/technology/documentation/index.html>

When your ETL execution is complete, a success or failure notification is sent to the E-mail ID you specified during the PLM BI MDS installation.

Uninstalling Agile PLM Business Intelligence

The uninstaller application is available in the **Uninstall** folder within the installation base directory for Windows installer.

Example

C:\PLMBI32\Uninstall

It is recommended that you create a backup copy of the folder before you begin the un-installation of the application.

Double-click the file named **Uninstall PLM Business Intelligence.exe** to uninstall the PLM Business Intelligence 3.2 application.

<p>Important You must manually remove the schemas after uninstalling the PLM Business Intelligence 3.2 application.</p>
--

Note If the install folder is not deleted automatically after you uninstall the application, you need to manually delete the PLMBI32 folder.

Upgrade Considerations

This chapter includes the following:

▪ Before You Upgrade	21
▪ Upgrading Configured Attributes	21
▪ Upgrading Repositories	25
▪ Upgrading Web Catalog and Permissions in the Presentation Layer	25

The upgrade from Business Intelligence 3.0, 3.1.1, or 3.1.2 to Business Intelligence 3.2 involves upgrading the following components:

- Configured attributes
- Repositories
- Web Catalog and Permissions in the Presentation Layer

This chapter describes the pre-upgrade requirements and the upgrade process. In addition, it lists the attributes which do not migrate when you upgrade the PLM Business Intelligence Configurator.

Note The Agile PLM Business Intelligence 3.2 installer is a full installer. It does not include upgrade software or scripts to upgrade any customizations done on PLM Data Mart or MDS schema or ODI ETL components installed with a previous release of Agile PLM Business Intelligence.

Before You Upgrade

- Create a copy of all your current configurations and customizations. The examples include, PLM BI RPD, Catalog, and schema.
- Ensure that you install the following components:
 - PLM Business Intelligence 3.2
 - JRE/JDK 1.5.x

Upgrading Configured Attributes

The BI_DATA_DICTIONARY table maintains the customization information related to PLM Business Intelligence Configurator. You need to create a back-up copy of the BI_DATA_DICTIONARY.

When you install Business Intelligence 3.2 on an existing Business Intelligence schema or user, the install scripts complete the upgrade and retain the attributes you customized using PLM Business Intelligence Configurator 3.0, 3.1.1, or 3.1.2 in PLM Business Intelligence 3.2.

Note Some attributes do not migrate during the upgrade. For more information, refer the section [Excluded Attributes](#) on page 23.

To upgrade the configured attributes from PLM Business Intelligence 3.0, 3.1.1, or 3.1.2 to PLM Business Intelligence 3.2:

1. Extract the .zip file
2. Set variables in the **config.properties** file
3. Run the scripts.

Extract zip file

Locate the **Upgrade.zip** file in the set of installation files and extract its contents into a new folder.

Set configuration properties

1. Open the **config.properties** file in <Upgrade Extracted Folder>\config directory.
2. Edit the following properties according to your requirement:

Note This is a segment of a sample config.properties file. The entries in your config.properties file may differ.

```
# Database host name of MDS schema installed with PLM BI 3.0 or 3.1.1 or 3.1.2
BI311_HOST_NAME=<Hostname>

# Database schema user name for MDS schema installed with PLM BI 3.0 or 3.1.1 or 3.1.2
BI311_USER_NAME=<Username>

# Database schema user password for MDS schema installed with PLM BI 3.0 or 3.1.1 or 3.1.2
BI311_PASSWORD=<Password>

# Database SID for MDS schema installed with PLM BI 3.0 or 3.1.1 or 3.1.2
BI311_DB_SID=<DB_SID>

# Database port number for MDS schema installed with PLM BI 3.0 or 3.1.1 or 3.1.2
BI311_DB_PORT=1521

#

# Specify database details for MDS schema installed with PLM BI 3.2 or 3.1.2
```

```
# Database Host Number for MDS schema installed with PLM BI 3.2
BI_HOST_NAME=<Hostname>

# Database schema user name for MDS schema installed with PLM BI 3.2
BI_USER_NAME=<Username>

# Database schema user password for MDS schema installed with PLM BI 3.2
BI_PASSWORD=<Password>

# Database SID for MDS schema installed with PLM BI 3.2
BI_DB_SID=<DB_SID>

# Database port number for MDS schema installed with PLM BI 3.2
BI_DB_PORT=1521
```

Execute scripts

For Windows:

1. From the command prompt, navigate to the folder which has the extracted files.
2. Change directory to the bin folder.
3. Set the JAVA_HOME variable.
4. Run the **install.bat** file.

Example:

```
E:\BI\upgrade\bin>set JAVA_HOME=C:\java\jdk1.5.0_14
```

```
E:\BI\upgrade\bin>install.bat
```

For Linux/Solaris:

1. In the terminal window, navigate to the directory which has the extracted files.
2. Change to the bin directory.
3. Set the JAVA_HOME variable.
4. Execute **install.sh** file.

Example:

```
[oracle@agilelab5 bin]$export JAVA_HOME=/home/Java/jdk1.5.0_14
```

```
[oracle@agilelab5 bin]$sh install.sh
```

Excluded Attributes

Attributes mapped from a few attribute groups to the 'Affected Items' on Complaints, NCR, CAPA, and Audit, do not migrate to 3.2. These attributes need to be mapped to new fact tables

corresponding to each attribute group.

The following table lists the Attribute groups that require mapping and the corresponding New Fact tables:

Attribute Groups that require mapping	New Fact Table
Problem Reports.Cover Page, P2 and P3 attributes	PQM_PR_F
Problem Reports.Flex Attributes	PQM_PR_F
NCR.Cover Page, P2 and P3 attributes	PQM_NCR_F
NCR.Flex Attributes	PQM_NCR_F
CAPA.Cover Page, P2 and P3 attributes	PQM_CAPA_F
CAPA.Flex Attributes	PQM_CAPA_F
Audits.Cover Page, P2 and P3 attributes	PQM_AUDIT_F
Audits.Flex Attributes	PQM_AUDIT_F
Documents.Cover Page, P2 and P3 attributes	ITEM_F
Document.Flex Attributes	ITEM_F
Parts.Cover Page, P2 and P3 attributes	ITEM_F
Parts.Flex Attributes	ITEM_F

Upgrading Customization

The PLM BI 3.2 upgrade scripts do not upgrade the customization. Examples of such customization are:

- Custom tasks in ODI or customizations to ODI ETL packaged with product
- Down-stream ETL developed against the PLM Data Mart schema or MDS schema
- Additions or modifications to the database tables, views or other database objects on PLM Data Mart schema or MDS schema

Note A best practice is to package all schema customizations into one or multiple upgrade SQL files that can be run directly after installing Agile PLM Business Intelligence.

- Additions or modifications to the Oracle Business Intelligence Repository (RPD) file
- Additions or modifications to out-of-box packaged Reports and Dashboards

Note For further information on upgrading customization, contact Oracle Support.

Upgrading Repositories

For Repository upgrade, refer to the "Merging Oracle BI Repositories" section in the *OBIEE Server Administration Guide*.

Upgrading Web Catalog and Permissions in the Presentation Layer

For Web Catalog and Presentation Layer upgrade, refer the "Managing Presentation Catalog Using Oracle BI Catalog Manager" section in the *OBIEE Presentation Services Administration Guide*.

Troubleshooting

This chapter lists common installation errors and troubleshooting guidelines for your reference. If you experience errors other than those listed here, contact **support** <http://www.oracle.com/agile/support.html> (<http://www.oracle.com/agile/support.html>) for assistance.

Unsupported Operating systems error

I use Windows XP operating system. I get a warning that states 'Unsupported Operating System' when I run the BISetup_Win.exe file. There are options to quit or continue the installation. If I continue the installation what is the impact?

Cause:

You are running the installer on a computer that is not a Server. This warning indicates that Oracle does not support any issues that might come up after the installation of the software on a desktop at work or a Personal Computer (PC) used for software demonstrations.

Action:

There are no known adverse impacts if you continue with the installation. This warning does not appear if you install PLM BI on a Server.

You can choose to quit the installation if you do not want to install the application on your work desktop or Home PC.

Connection Identifier error on ETL run

When I run ETL, the ODI_INT_CREATE_DBLINK task displays a connection identifier error message.

Cause:

The TNSNAMES.ORA file does not have the correct information that enables connection to the source database.

Action:

Add a TNSNAME entry in the target database that points to the source database before you run the ETL.

If the database SID name of the source and target database are different (Example: Source SID = AGILE9 and Target SID = PLMDM), then modify the TNS Service name as AGILE9 in the tnsname.ora file.

If the database SID name of the source and target database are the same (Example: Source SID = AGILE9 and Target SID = AGILE9), to eliminate DBLINK errors:

1. Modify the TNS entry as follows:

AGILE9_LAB1 =

(DESCRIPTION =

```
(ADDRESS_LIST =  
  (ADDRESS = (PROTOCOL = TCP)(HOST = LAB1)(PORT = 1521))  
)  
(CONNECT_DATA =  
  (SERVICE_NAME = AGILE9)  
)  
)
```

2. Start > Oracle > Oracle Data Integrator > Topology Manager
In the Topology Manager select Physical Architectures
>Technologies>Oracle>SRC_CONN_PHYSICAL.
3. Replace the added TNSNAME (Example: AGILE9_LAB1) in the DB link column.

Credential retrieval failure error on ETL run

My Database server and ODI/ETL systems are in two different domains. When I run ETL, the ODI_INT_CREATE_DBLINK scenario returns the following message:

ORA-12638: Credential retrieval failed.

Cause:

The source DB and target DB are in different domains.

Action:

To eliminate the DBLINK errors:

1. Navigate to the %oracle_home%\network\admin directory.
2. Modify the SID and HOSTNAME in the TNSNAME entry to reflect the domain name.
3. Start > Oracle > Oracle Data Integrator > Topology Manager.
4. In the Topology Manager, select
Physical Architectures >Technologies>Oracle>SRC_CONN_PHYSICAL.
5. Replace the added TNSNAME (Example: AGILE9.ALAB01) in the DB link column.

To verify DBLINK:

Execute the scenario ODI_INT_CREATE_DBLINK from ODI operator in ODI.

If the scenario fails, the following message appears again:

Link AGILE9.ALAB01 error: ORA-12638: Credential retrieval failed

To resolve this issue:

1. Navigate to the %oracle_home%\network\admin directory

2. Modify the value of SQLNET.AUTHENTICATION_SERVICES in sqlnet.ora file as follows:
Original Entry - SQLNET.AUTHENTICATION_SERVICES= (NTS)
Modified Entry - SQLNET.AUTHENTICATION_SERVICES= (NONE)
3. Restart the database instance.
4. Re-run the scenario ODI_INT_CREATE_DBLINK from ODI operator in ODI.

Unable to update RPD and Web Catalog

The PLM BI Installation is unsuccessful. I am unable to update RPD and Web Catalog.

Action:

Ensure that the OC4J server is running before you begin the installation.

Page cannot be displayed

I completed the installation successfully but when I launch the PLM BI application URL, I get a 'Page cannot be displayed' screen.

Action:

Ensure that you start the following services in the listed order:

1. OC4J or IIS
2. Oracle BI Java Host
3. Oracle BI Server
4. Oracle BI Presentation Server

Unable to view reports

When I login to the BI Application, I am unable to view any report. The window displays ODBC Driver errors.

Action:

If either TNSNAMES or MDS schema names or both are not default, reconfigure the TNSNAMES.ORA file, CONNECTION POOL details and MDS Schema Name in OBIEE Administrator, as appropriate.

Installation Unsuccessful

During the installation of PLM BI, I get an error message: Installation unsuccessful. Check the Logs\Bilninstall.log file. The log file is not created under \logs\Bilninstall.log.

Action:

Repeat the installation using the latest download of Bilninstall.exe

Unable to install PLM Business Intelligence and DB in the same system

I have installed the BI 3.2 database. I am unable to install PLM Business Intelligence 3.2 in the same system and in the same directory where the BI 3.2 database is installed.

Action:

If you are installing both the database and ETL on the same system, you can select both options together in the installer. If you install them separately in the same system, you will need to use two separate install folders.

Unable to run ETL after a configuration change

If there are any PLM configuration changes, such as the renaming of an attribute, it is recommended that you run a full ETL including PLM Data Mart. Consult Oracle Support if you need help in resetting your ETL to full load.

Errors when using external .csv files

Do not add deleted Projects to the prj_cost.csv and prj_forecast.csv files.

Performance Issues

Performance degrades on 64-bit platform with Oracle Database 10.2.0.3

Apply Oracle Patch to upgrade database to version 10.2.0.4.

Frequently Asked Questions

How do I ensure that the graphs in the BI Interactive Dashboards have the latest data?

The Report Data refreshes with the successful completion of MDS. Contact your BI Administrator for the latest MDS ETL scheduling and completion information.

How much memory space do I need on my system to execute ETL?

Ensure that you have at least 2 GB of available disk space in both DB server and ETL (ODI) systems to execute ETL. For recommendations, refer to the Hardware Requirements section in this document.

Can I install MDS DB Schema, ETL, and OBIEE application in one system?

You can install ETL components including ODI in the system which has the Data base installation. However, we recommend that you install OBIEE and PLM BI Application components in separate systems for better performance results.

In ODI Operator, I see ANALYTICS_ETL, DATAMART_Load, and MDS_ETL_LOAD in the Scenario tab. Which one should I execute to run the ETL?

- To run both Data Mart and MDS ETL execute the ANALYTICS_ETL scenario
- To run Data Mart ETL only, execute DATAMART_LOAD scenario
- To run MDS ETL only, execute MDS_ETL_LOAD scenario

If I modify the SID and User Name of the MDS database can I continue to use the existing installation of PLM BI?

You need to reinstall the application for the changes to take effect.

If I modify the ODM Password after the installation of PLM BI, how do I modify the same in the existing PLM BI Installation to take effect in the PLM BI Configurator?

To modify the ODM password after the installation of PLM BI:

1. Navigate to the bin directory of the install folder in the Windows command prompt or UNIX prompt.
Example : `D:/PLMBI/bin`
2. Enter `BIEncoder <new password to encrypt>`
3. Copy the encrypted password that appears.
4. Navigate to `<biinstall_home>/config/BIDataLayerconfig.properties` file.
Example : `D:/PLMBI/config/BIDataLayerconfig.properties`
5. Paste the encrypted password in the `ODM_PASSWORD` field. This field is in the #ODM Schema Details section of the `BIDataLayerconfig.properties` file.
6. **Save** and close the `BIDataLayerconfig.properties` file.
7. **Exit** the command prompt.

In addition, you need to change the password of the ODM connection in the Physical Repository of ODI Topology Manager. For information, refer *Oracle Data Integrator User Guide*.

How do I check if OC4J server is up and running?

In <OBIEE_Home>\oc4j_bij2ee\home\log\rmi.log file, check for log entries similar to the following:

```
08/08/21 13:22:39.325 10.1.3.1.0 Started
08/08/21 13:34:40.392 10.1.3.1.0 Stopped (JVM termination)
```

This entry displays the Start time and End time of the OC4J server. If the OC4J is running, the log file will display only the Start time.

What are the possible causes for ETL run time failures?

The possible causes for ETL run time failures are as follows:

- Agile PLM Server Upgrades such as HotFix Patches, and unsupported minor/major releases
- Agile PLM Configuration Changes
- MDS Configuration Changes
- Unsupported Database Server Version Upgrade
- Database Password Changes which do not reflect in Data Mart, MDS and ODI environments.
- Unsupported version of ODI Server Upgrade or Repository Changes

What are the possible root causes for Reports/Dashboard issues?

The possible causes for BI Reports/Dashboard Issues are:

- Patches or Minor release upgrades to BI
- Unsupported versions of OBIEE Server Upgrades
- Reports or Dashboard Configuration Changes
- Database or OBIEE Password Changes which do not reflect in Data Mart, MDS, and ODI environments.
- LDAP Group Changes

How do we localize PLM Business Intelligence application?

Agile PLM Business Intelligence application is built on Oracle Business Intelligence Enterprise Edition that is designed to work in multiple languages. Please refer to Appendix B "Localizing Oracle Business Intelligence Deployments" in the *Oracle® Business Intelligence Infrastructure Installation and Configuration Guide*.

The externalize strings utility in the BI Administrator displays the strings (names and descriptions) used specifically in the PLM Quality Presentation and Product Collaboration catalogs. Please note that an additional effort is required to translate them to the desired language before you can view the localized version of the application. Contact Oracle Support for additional information.

What are the maintenance requirements?

We recommend you to create periodic backup copies of the MDS schema and ODI repositories (Master and Work Repository).

What are the possible causes of failure in installation?

The possible causes of installation failure are:

- Failure in the Import of ODI packages during installation
- Drop in database connections
- Out-of-space errors in database tablespaces
- Unsupported database, ODI, and OBIEE versions

When I install OBIEE on Windows, the command prompt window for OC4J is always on. What should I do so I don't see this window?

When you install OBIEE on Windows, the command prompt window for OC4J is always on when you start the computer. You can set the OC4J to run as a Windows service to avoid seeing this command prompt.

To set the OC4J to run as a Windows service:

1. Download JavaService -2.0.1.0
2. Extract the file to a directory.

Example

```
C:\JavaService
```

3. Note the directory path of your oc4j.jar file in the OBIEE installation folder.

Example

```
C:\OracxleBI\oc4j_bi\j2ee\home\oc4j.jar
```

4. In a Command Prompt window, navigate to the folder which has the extracted JavaService files.

Example

```
cd C:\JavaService\
```

5. Type the following command using the two installation paths:

```
javaservice -install "Oracle BI EE OC4J" "C:\Program  
Files\Java\jdk1.5\jre\bin\client\jvm.dll" -XX:MaxPermSize=128m  
"-Djava.class.path=C:\OracleBI\oc4j_bi\j2ee\home\oc4j.jar" -start  
oracle.oc4j.loader.boot.BootStrap -description "Oracle BI EE OC4J  
Service"
```

6. In **Start > Run**, type `services.msc` to open the Service manager and set the Oracle BI EE OC4J service to run in the 'Automatic' or 'Manual' mode.

Can I install PLM BI in the same folder where Data Mart 3.2 is installed ?

Yes, but we recommend to have a separate folder for the PLM BI installation.

Can I install Data Mart (including Master and Work Repository) and MDS as a single schema?

Yes, you can. You need to use the same schema name for MDS which is being used for Data Mart.

For example, if you installed Data Mart as a single schema option and called it **ODM**, during MDS installation, when prompted for MDS schema name you need to input **ODM**.

Can I use BI Installer for remote installation (i.e. launch installer in machine A to install the software in machine B)?

No, the installer does not support remote installation. However, you can manually install the database schema. See Manual Installation Steps for manual DB schema installation.

Tablespaces assigned for MDS data and indexes grows after successive ETL runs. What are the steps that I can take to prevent this?

After successful every ETL run, purge unused database objects using the following command:

```
PURGE TABLESPACE <Tablespace_Name>;
```

```
PURGE TABLESPACE agileodm;
```

```
PURGE TABLESPACE agileodm_indx;
```


Appendix A

DB Privileges

The DB privileges vary for single schema and multiple schema installations.

Single Database Schema Privileges

The following are the privileges required when you use a single schema to host the MDS, DataMart, ODI Master, and ODI Work Repository objects:

Privilege	Purpose
CONNECT,RESOURCE	Connect, Create, Insert, Update, Delete, Drop or Alter table, Create or Drop or Alter Index in your schema
CREATE DATABASE LINK	Create DBLink to Agile PLM source system for every Full ETL run
DROP PUBLIC DATABASE LINK	Drop the DBLink to Agile PLM after connection
CREATE PUBLIC SYNONYM	Create a synonym to source table in target schema
ANALYZE ANY	ODI Tool analyzes the i\$ table during incremental ETL run
DROP PUBLIC SYNONYM	Drop synonym
ALL ON SYS.DBMS_PIPE	PL/SQL logger module to log the debug, warning and error messages
EXECUTE ON, SYS.DBMS_SYSTEM	PL/SQL logger module to log the debug, warning, and error messages
CREATE VIEW	Create a view in your schema
CREATE MATERIALIZED VIEW	Create a materialized view in your schema

Privileges for Multiple Schemas

The Installer grants the required privileges when it creates the schemas as SYS user.

ODI Work, Data Mart, and MDS Schema require ANALYZE ANY WITH ADMIN OPTION privilege for performance optimizations.

Data Mart and MDS Schema users require the following privileges if not installed in ODI Work schema:

Privilege	Purpose
CREATE DATABASE LINK	Create DBLink to Agile PLM source database for every ETL run
DROP PUBLIC DATABASE LINK	Drop DBLink for every Full ETL run

Privilege	Purpose
CREATE ANY TABLE	Create i\$,e\$,c\$ tables in ODI Work Repository schema.
CREATE ANY SYNONYM	Create a synonym for Source table in ODI Work Repository schema
CREATE ANY INDEX	Create a index in ODI Work Repository Schema for i\$ tables
INSERT ANY TABLE	Insert a table like i\$,e\$,c\$ in Work Repository schema
CREATE PUBLIC SYNONYM	Create a synonym to source table in target schema
DROP ANY SYNONYM	Drop a synonym in ODI Work Repository schema
DELETE ANY TABLE	Delete records from i\$ tables in ODI Work Repository schema and this is used during Incremental ETL run
UPDATE ANY TABLE	Update records in i\$ tables in ODI Work Repository schema and this is used during Incremental ETL run
DROP ANY TABLE	Drop i\$ tables in ODI Work Repository schema and this is used during Full/Incremental ETL runs
SELECT ANY TABLE	Select a table like i\$_listname in ODI Work Repository schema.
CREATE VIEW	Create a view in your schema
CREATE MATERIALIZED VIEW	Create a materialized view in your schema
EXECUTE, DEBUG ON SYS.DBMS_PIPE	PL/SQL logger module to log debug, warning and error messages.
EXECUTE ON SYS.DBMS_SYSTEM	PL/SQL logger module to log debug, warning and error messages.

Note For information on Data Mart and ODI Schema privilege details see Agile PLM Data Mart Setup Guide.

Appendix B

Log Files

Log files are located in the Logs folder within the PLMBI Install Home Folder. These log files are useful to troubleshoot the installation issues. The following table lists the various log files and descriptions:

Name of the Log file	Description
BI_DATA_DICT_PC_SD.log	Status of MDS PC module data dictionary seed data insert
BI_DATA_DICT_PQM_SD.log	Status of MDS PQM module data dictionary seed data insert
BRIDGE_SD.log	Status of MDS Bridge Control table seed data insert
LIST_DIM_SD.log	Status of MDS List dimension control table seed data insert
MDS_TEMP_DDL.log	Status of the MDS temp table creation
MDS_VIEWS.log	Status of the MDS views creation
PC_DDL.log	Status of the MDS PC table creation
PLSQLLogger.log	Status of the PLSQL logger objects creation
SEED_DATA_GLOBAL.log	Status of the BI Measures and Dimension names seed data insert
USERDEF_OBJ.log	Status of the User Defined Dimension and Multi list table creation
BIInstall.log	Status of BI Installation. This file also enables you to track the real-time Installation update.
UsersCreation.log	Status of MDS user creation. This file also stores details of the user grants.
MDS_COMMENT.log	Status of Comments created on tables and columns
MDS_DDL.log	Status of MDS PQM tables and index creation
MDS_PROCS.log	Status of MDS Packages, procedures and function creation
MDS_SD.log	Status of static dimension table seed data insert
WorkSchemaUpd4BI.log	Status of snp_subscriber table which internally inserts the data of J\$tables.
LoadParameter4BI.log	Status of parameter details (such as mail id).
BI_DATA_DICT_PPM_SD.log	Status of MDS PPM module data dictionary seed data insert.
PPM_DDL.log	Status of MDS PPM tables and comments creation.

Configuring Multiple Work Environments

This Appendix includes the following:

▪ Development Environment	39
▪ Test Environment.....	39
▪ Production Environment	44

Implementation scenarios sometimes require installation of separate work repositories and MDS users for work environments such as, Development, Test, and Production. The configuration of Test and Production environments involves:

- Creating MDS user for Test and Production
- Configuring Test and Production context
- Configuring Test and Production Physical Schema

The Development and Test environments should be configured before the Production environment.

Note The configuration order for Test and Production environments is interchangeable.

Development Environment

You need to follow the installation instructions from [Pre-installation instructions](#) on page 11 through [Post-installation Tasks](#) on page 16 to complete the configuration for the Development environment. The installer creates a Master repository and Work repository along with the MDS user.

Test Environment

The following are the pre-requisites to configure the Test environment:

- Oracle Data Mart:
Oracle Data Mart (ODM) must be configured for Test and Production environments. The respective work repositories need to refer the Development environment's Master repository.
- Business Intelligence:
In the Development environment, ensure that the ODM and MDS ETL installation are complete.

The following are the steps to configure the Test environment:

1. Set the environment variables.
2. Extract the BI3.2.0.0.zip file.
3. Set the variables in BIDataLayerConfig.properties file for BI MDS.

4. Set the variables in Temp.properties file for BI MDS.
5. Install BI MDS Components.

Setting Variables

Set the ANT_HOME and JAVA_HOME variables in your system environment.

Extracting zip File

Extract the BI3.2.0.0.zip file into a directory on your hard drive.

Setting variables in BIDataLayerConfig.properties file for BI MDS

In the <BI Extracted Folder>\config directory, edit the **BIDataLayerConfig.properties** file to change the properties according to your requirements.

Note Path separator in all of the path specifications in the **BIDataLayerConfig.properties** file is a double backward slash (\).

The following is a sample BIDataLayerConfig.properties file with comments (A comment line begins with a hash '#' symbol) containing examples for every specification:

```
BI_DATA_LAYER_HOME=<INSTALL DIR>
#Example: BI_DATA_LAYER_HOME=E:\MDS3.2.0.0
#ODI Repository Configuration
#Identify the repository which you want to create.
#PRODUCTION=Create BI on existing PRODUCTION Work Repository.
#QA=Create BI on existing QA Work Repository.
REPOSITORY_OPTION=PRODUCTION
#Specify if you want to create a new BI user or use the existing BI user.
#0 - BI User is existing user
#1 - BI User is new user
BI_USER_EXIST=1
#Oracle Home Directory
ORACLE_HOME_DIR=<ORACLE_OME>
#Example: ORACLE_HOME_DIR_BI=E:\oracle\product\10.2.0\db_1
#ODI Home Directory
```

```
ODI_HOME_DIR=<ODI_HOME>
#Example: ODI_HOME_BI=E:\ODI\oracledi
#DATAMART Database Details
#DATABASE NAME OR SID NAME
DB_SID_NAME=<DATABASE_NAME>
#Example: DB_SID_NAME=PLMDM
#HOST NAME OR MACHINE NAME
DB_HOST_NAME=<HOST_NAME>
#Example: DB_HOST_NAME=agilelab1
#PORT NO
DB_PORT=<PORT_NO>
#Example: DB_PORT=1521
#DATA MART Schema/User Name
ODM_UN=<DM_USER_NAME>
#Example: ODM_UN=ODM
#BI Schema/User Name
#You need to enter a new user name if you entered BI_USER_EXIST=1
BI_USER_NAME=<BI_USER_NAME>
#Example: BI_USER_NAME=MDS
#
#BI Tablespace details
#The Tablespace names must exist
#DATA TABLESPACE NAME
BI_TS_NAME=<DATA_TS_NAME>
#Example: BI_TS_NAME=agileodm
#INDEX TABLESPACE NAME
BI_IDX_TS_NAME=<IDX_TS_NAME>
#Example: BI_IDX_TS_NAME=agileodm_idx
#
```

```
# Oracle Data Integrator Repository Details (Database)
#
#MASTER REPOSITORY USER NAME
MASTER_REP_UN=<MASTERREP_USER_NAME>
# Example: MASTER_REP_UN=ODIMASTER
#Enter the user name of the WORK REPOSITORY
WORK_REP_UN=<WORKREP_USER_NAME>
# Example: WORK_REP_UN=ODIWORK
#Enter the name of the WORK Repository
WORK_REP_NAME=<WORKREP_NAME>
# Example: WORK_REP_NAME=WORKREP
#BI SCHEMA/USER JDBC URL
TGT_DB_URL=jdbc:oracle:thin:@<HOST>:<PORT>:<SID>
# Example: TGT_DB_URL=jdbc:oracle:thin:@agilelab1:1521:PLMDM
#MASTER REPOSITORY SCHEMA/USER JDBC URL
MASTER_DB_URL=jdbc:oracle:thin:@<HOST>:<PORT>:<SID>
# Example: MASTER_DB_URL=jdbc:oracle:thin:@AGILELAB1:1521:PLMDM
#
#Email and Mail server details
#
#EMAIL ADDRESSES [COMMA SEPARATED]
NOTIFICATION_EMAILID=<TO_EMAIL_ADDRESS>
# Example: NOTIFICATION\_EMAILID=john.s@oracle.com
#Enter the name of the mail server
MAILSERVER=<MAIL_SERVER_NAME>
# Example: MAILSERVER =mail.server.com
# The format of the Fiscal Start date must be MM-DD-YYYY
FISCAL_START_DATE=<FSD>
#Example: FISCAL_START_DATE=12-31-2009
```

#Snapshot Frequency Types

W - Weekly

M - Monthly

E - No Snapshot

Ex. SNAPSHOT_FREQUENCY_TYPE=M

SNAPSHOT_FREQUENCY_TYPE=@BI_SNAPSHOT_FREQUENCY_TYPE_T@

Snapshot Frequency

If SNAPSHOT_FREQUENCY_TYPE is E (No Snapshot) then blank(no value)

Ex. SNAPSHOT_FREQUENCY=

If SNAPSHOT_FREQUENCY_TYPE is M (Monthly) then 1-31

Ex. SNAPSHOT_FREQUENCY=31

If SNAPSHOT_FREQUENCY_TYPE is W (Weekly) then MONDAY-SUNDAY

Ex. SNAPSHOT_FREQUENCY=SUNDAY

SNAPSHOT_FREQUENCY=@BI_SNAPSHOT_FREQUENCY_T@

Note If BI user and BI schema objects exist, then the BI schema objects are dropped and recreated. If you are creating a new BI user, the schema objects are created on the new BI user.

Setting variables in Temp.properties file for BI MDS

In the <BI Extracted Folder>\config directory, edit the **Temp.properties** file to change the properties according to your requirements. This file mainly stores the passwords for DM, Work Repository and BI user. After the installation, the passwords stored in the **Temp.properties** file are deleted.

Passwords cleared at end of installation automatically

#BI DATABASE SYSTEM USER PASSWORD

DB_SYSTEM_PWD_T=<SYSTEM USER PASSWORD>

#Example: DB_SYSTEM_PWD_T=MANAGER

#BI DATABASE SYS USER PASSWORD

DB_SYS_PWD_T=<SYS USER PASSWORD>

#Example: DB_SYS_PWD_T=ORACLE

#DATA MART USER PASSWORD

DM_PWD_T=<DATA MART USER PASSWORD>

#Example: DM_PWD_T =ODM

#MASTER REPOSITORY PASSWORD

MASTER_REP_PWD_T=<MASTER REPOSITORY USER PASSWORD>

#Example: MASTER_REP_PWD_T=ODIMASTER

#WORK REPOSITORY PASSWORD

WORK_REP_PWD_T=<WORK REPOSITORY USER PASSWORD>

#Example: WORK_REP_PWD_T=ORKREP

#BI USER PASSWORD

BI_PWD_T=<BI USER PASSWORD>

#Example: BI_PWD_T =MDS

Installing BI MDS

Installation of BI MDS involves creation of ODI Physical architecture, ODI context and BI schema objects.

To install BI MDS on Windows:

1. In the Windows Command prompt, change to the <BI Extracted Folder>\bin directory.
2. Run the MDSetlInstall.bat file.

To install BI MDS on UNIX:

1. From the console, change to the <BI Extracted Folder>/bin directory.
2. Run the MDSetlInstall.sh file.

Production Environment

The prerequisites and procedures to configure a Production environment for PLM BI MDS is the same as that of the Test Environment.

Manually Installing Agile PLM Business Intelligence

This Appendix includes the following:

▪ Setting Variables.....	45
▪ Extracting the Zip File	45
▪ Configuring the .properties Files for BI MDS and Application.....	45
▪ Installing BI MDS	50
▪ Installing the BI Application.....	51
▪ Checking Installation Logs	52

You can install Agile PLM Business Intelligence with a manual installer instead of the GUI-based installer.

Setting Variables

Set the ANT_HOME and JAVA_HOME environment variables in your system.

Extracting the Zip File

Locate the **SilentInstaller.zip** file and extract its contents to a local directory.

Configuring the .properties Files for BI MDS and Application

The BIDataLayerConfig.properties, Temp.properties, and BIConfig.properties files must be configured for BI MDS and the BI application.

BIDataLayerConfig.properties File for BI MDS

The BIDataLayerConfig.properties file is located in the <BI Extracted Folder>\config directory. Change the properties, based on your requirements.

Note Path separator should be a forward slash (/) for Linux, Solaris, or AIX and a double backward slash (\\) for Windows.

BIDataLayerConfig.properties

Property Name	Token	Example	Description
BI_DATA_LAYER_HOME	@INSTALL_DIR@	For Windows: C:\SilentInstallerBI32 For Linux: /home/oracle/SilentInstallerBI32	PLM BI Home Directory
DATAMART_HOME	@DM_HOME@	For Windows: E:\DM32 For Linux: /home/oracle/DM32	PLM DATAMART Home Directory
ORACLE_HOME_DIR_BI	@ORACLE_HOME@	For Windows: C:\oracle\product\10.2.0\db_1 For Linux: /home/oracle/oracle/product/10.2.0/db_1	Oracle Home Directory
ODI_HOME_BI	@ODI_HOME@	For Windows: E:\OracleDI\oracledi For Linux: /home/oracle/ODI/oracledi	ODI Home Directory
Install_Set	@INSTALL_SET@	DBandETL	Specify the option for the following DBandETL: Installing both database and ETL objects DB: Installing Database objects Only ETL: Installing ETL objects Only
TGT_DB_SID_BI	@TGT_DBNAME_T@	PLMDM	Data Mart Database SID
TGT_DB_HOST_BI	@TGT_HOST_NAME_T@	AGILELAB8	Data Mart Database host name
TGT_DB_PORT_BI	@TGT_DB_PORT@	1521	Data Mart Database port number
ODM_UN	@ODM_UN@	ODM	Existing Data Mart user name
BI_USER_NAME	@BI_USERNAME@	PLMBIMDS	MDS user name to

			create User and/or install MDS objects
BI_TS_NAME	@BI_TS_NAME@	AGILEODM	Existing table space name
BI_IDX_TS_NAME	@BI_IDX_TS_NAME@	AGILEODM_INDX	Existing table space name
MASTER_UN_BI	@ODI_MASTER_UN@	ODIMASTER	Existing master repositories user name
WORK_UN_BI	@TGT_WORK_SCHEMA_NAME@	ODIWORK	Existing work repositories user name
WORK_REP_NAME_BI	@ODI_WORKREP@	WOREREP	Existing ODI work repository name
TGT_DB_URL	jdbc:oracle:thin:@<TGT_HOST_NAME_T>: <TGT_DB_PORT>: <TGT_DBNAME_T>	jdbc:oracle:thin:@agilelab8: 1521: PLMDM	MDS Target Database JDBC URL
MASTER_DB_URL	jdbc:oracle:thin:@<TGT_HOST_NAME_T>: <TGT_DB_PORT>: <TGT_DBNAME_T>	jdbc:oracle:thin:@agilelab8: 1521: PLMDM	Master repository database JDBC URL
NOTIFICATION_EMAILID	@TO_EMAIL_T@	PLMBIMDS@ORACLE.COM	Specify email ids, For multiple email ids comma separated
MAILSERVER	@TO_EMAIL_T@	mail.oracle.com	Specify mail server address
FISCAL_START_DATE	@FSD@	01-04-2009	Fiscal Start Date, Date Format must be MM-DD-YYYY
BI_USER_EXIST	@BI_USER_EXIST_T@	1	0 = BI User is existing bi user 1 = BI User is new user
SCHEMA_OPTION	@SCHEMA_OPTION_T@	0	0 = BI installed in different schema 1 = BI installed in single schema(DM, ODIMASTER, ODIWORK)
SNAPSHOT_FREQUENC	@BI_SNAPSHOT_FRE	M	W =Weekly

Y_TYPE	QUENCY_TYPE_T@		M =Monthly E =No Snapshot
SNAPSHOT_FREQUENCY	@BI_SNAPSHOT_FREQUENCY_T@	26	<p>If SNAPSHOT_FREQUENCY_TYPE is E(No Snapshot) then blank(no value)</p> <p>SNAPSHOT_FREQUENCY=</p> <p>If SNAPSHOT_FREQUENCY_TYPE is M(Monthly) then 1 - 31</p> <p>Ex. SNAPSHOT_FREQUENCY=31</p> <p>If SNAPSHOT_FREQUENCY_TYPE is W(Weekly) then MONDAY-SUNDAY</p> <p>Ex. SNAPSHOT_FREQUENCY=SUNDAY</p>
DLF_FILE_PATH	@INSTALL_DIR@\\install\\globalization\\DLF-Files\\PLM_LANG_DATA_UPDATE_ja.dlf;@INSTALL_DIR@\\install\\globalization\\DLF-Files\\PLM_LANG_DATA_UPDATE_zh_CN.dlf;@INSTALL_DIR@\\install\\globalization\\DLF-Files\\PLM_LANG_DATA_UPDATE_zh_TW.dlf;@INSTALL_DIR@\\install\\globalization\\DLF-Files\\w_localized_string_g_ja.dlf;@INSTALL_DIR@\\install\\globalization\\DLF-Files\\w_localized_string_g_zh_CN.dlf;@INSTALL_DIR@\\install\\globalization\\DLF-	For Windows: C:\\SilentInsatllerBI32\\install\\globalization\\DLF-Files\\PLM_LANG_DATA_UPDATE_ja.dlf;C:\\SilentInsatllerBI32\\install\\globalization\\DLF-Files\\PLM_LANG_DATA_UPDATE_zh_CN.dlf;C:\\SilentInsatllerBI32\\install\\globalization\\DLF-Files\\PLM_LANG_DATA_UPDATE_zh_TW.dlf;C:\\SilentInsatllerBI32\\install\\globalization\\DLF-Files\\w_localized_string_g_ja.dlf;C:\\SilentInsatllerBI32\\install\\globalization\\DLF-Files\\w_localized_string_g_zh_CN.dlf;C:\\SilentInsatllerBI32\\install\\globalization\\DLF-Files\\w_localized_string_g_zh_TW.dlf	<p>DLF file path. If multiple files then use semicolon (;) to separate the files</p> <p>Note File name should not contain semicolon (;)</p> <p>Path Separator should be forward slash (/) for linux or solaris or AIX OS</p> <p>Path Separator should be backward slash (\\) for Windows OS</p>

	Files\lw_localized_string_g_zh_TW.dlf	For Linux: /home/oracle/SilentInsatllerBI32/install/globalization/DLF-Files/PLM_LANG_DATA_UPDATE_ja.dlf;/home/oracle/SilentInsatllerBI32/install/globalization/DLF-Files/PLM_LANG_DATA_UPDATE_zh_CN.dlf;/home/oracle/SilentInsatllerBI32/install/globalization/DLF-Files/PLM_LANG_DATA_UPDATE_zh_TW.dlf;/home/oracle/SilentInsatllerBI32/install/globalization/DLF-Files/w_localized_string_g_ja.dlf;/home/oracle/SilentInsatllerBI32/install/globalization/DLF-Files/w_localized_string_g_zh_CN.dlf;/home/oracle/SilentInsatllerBI32/install/globalization/DLF-Files/w_localized_string_g_zh_TW.dlf	
--	---------------------------------------	--	--

Temp.properties File for BI MDS

The Temp.properties file is located in the <BI Extracted Folder>\config directory. Change the properties, based on your requirements.

Temp.properties			
Property Name	Token	Example	Description
ODM_USER_PWD_HIDE	<TGT_USER_PWD_T>	odm	ODM User password
BI_USER_PWD_HIDE	<MDS_PWD>	mds	BI MDS User password
TGT_SYSTEM_PWD_HIDE	<TGT_SYSTEM_PWD>	manager	Target MDS DB System Password
ODI_MASTER_PWD_HIDE	<ODI_MASTER_PWD>	odimaster	ODI Mater repository Schema Password
ODI_WORKDB_PWD_HIDE	<WORK_PWD_HIDE>	odiwork	ODI Work repository schema Password
TGT_SYS_PWD_HIDE	<SYS_PWD>	oracle	Target MDS DB sys password

BIConfig.properties File for BI Application

The BIConfig.properties file is located in the <BI Extracted Folder>\config directory. Change the properties, based on your requirements.

Note Path separator should be a forward slash (/) for Linux, Solaris, or AIX and a double backward slash (\\) for Windows.

BIConfig.properties			
Property Name	Token	Example	Description
PLM_BI_HOME	<TGT_USER_PWD_T>	For Windows: C:\\SilentInstallerBI3.2	BI installed Home
ORACLE_BI_HOME	<MDS_PWD>	C:\\OBI\\OracleBI	Oracle BI Repository installed Home
ORACLE_BI_DATA_HOME	<TGT_SYSTEM_PWD>	C:\\OBI\\OracleBIData\\web	Oracle BI Web catalog installed Home
RPD_FILE_NAME	<ODI_MASTER_PWD>	PLMA.rpd	BI Repository file name
WEBCATALOG_NAME	<WORK_PWD_HIDE>	PLMA	BI Web catalog folder name

Installing BI MDS

When installing BI MDS, you have three options from which to choose:

1. Install Database and ETL
2. Install Database only
3. Install ETL only

Installing Database and ETL

To install the database and ETL:

1. Open a command prompt or console window.
2. Change to the <BI Extracted Folder>\bin directory.
3. Run the **BIDataLayerInstall** file:

Windows: BIDataLayerInstall.bat

UNIX: BIDataLayerInstall.sh

Installing Database Only

To install the database:

1. Open a command prompt or console window.
2. Change to the <BI Extracted Folder>\bin directory.
3. Run the **BIDataLayerDBInstall** file:

Windows: BIDataLayerDBInstall.bat

UNIX: BIDataLayerDBInstall.sh

Installing ETL Only

To install ETL:

1. Open a command prompt or console window.
2. Change to the <BI Extracted Folder>\bin directory.
3. Run the **BIDataLayerETLInstall** file:

Windows: BIDataLayerETLInstall.bat

UNIX: BIDataLayerETLInstall.sh

Installing the BI Application

When installing the BI application, you have three options:

1. Install Repository and Web Catalog
2. Install Repository only
3. Install Web Catalog only

Installing Repository and Web Catalog

To install the Repository and Web Catalog:

1. Open a command prompt or console window.
2. Change to the <Target BI Extracted Folder>\bin directory.
3. Run the **BIInstall** file.

Windows: BIInstall.bat

UNIX: BIInstall.sh

Installing Repository only

To install the Repository:

1. Open a command prompt or console window.
2. Change to the <Target BI Extracted Folder>\bin directory.
3. Run the **BIInstallRPD** file:

Windows: BIInstallRPD.bat

UNIX: BIInstallRPD.sh

Installing Web Catalog

To install the Web Catalog:

1. Open a command prompt or console window.
2. Change to the <Target BI Extracted Folder>\bin directory.
3. Run the **BIInstallWeb** file:

Windows: BIInstallWeb.bat

UNIX: BIInstallWeb.sh

Checking Installation Logs

You can find a list of logs available in the <Target BI Extracted Folder>\logs directory after the installation completes.

Note If any errors occur during installation, repeat the entire installation process. Do not use the existing unzipped content.

Installing Agile PLM Business Intelligence Data Layer (MDS) in Multiple Instances

This Appendix includes the following:

▪ Installing Database and ETL	53
▪ Creating Database Link	54
▪ Running SQL Scripts	55
▪ Granting Privileges	55
▪ Updating Work Schema in Topology Manager	56

This appendix describes the steps to install the Agile PLM Business Intelligence Data Layer (MDS) in multiple instances.

The following steps are required:

1. Installing Database and ETL.
2. Creating Database link.
3. Running the SQL Script to create the MDS Schema.
4. Granting privileges to Agile PLM Data Mart and ODI work schema.
5. Changing the work schema name.

Note Agile PLM Data Mart must be installed before performing these steps.

Installing Database and ETL

To install the MDS schema and ETL components:

1. Use the Agile PLM Business Intelligence Silent Installer scripts to install the MDS schema and ETL components as described in [Installing Database and ETL](#) "Installing Database and ETL" on page 50.
2. Configure the `BIDataLayerConfig.properties` file to support multiple instances.

As an example, let's assume that Agile PLM Data Mart is installed with the following schema details:

Database Name	PLMDM
Port Number	1521
System Name	hostname1

Data Mart Schema Name/Password	ODM_PLMDM/ODM
ODI Work Repository Schema Name/Password	ODIWORK/ODIWORK
Master Repository Schema Name/Password	ODIMASTER/ODIMASTER
ODI Work Repository Name/Password	WORKREP/WORKREP

The Agile PLM Business Intelligence Data Layer should be installed in another database, but should point to the Agile PLM Data Mart repository and schema:

Database Name	PLMBI
Port Number	1521
System Name	hostname2
Data Mart Schema Name/Password	MDS_PLMBI/MDS
System Schema Password	MANAGER
Sys Schema Password	ORACLE

The configuration of the BIDataLayerConfig.properties file specific to multiple instances should be as follows:

Properties	Values
TGT_DB_SID_BI	PLMBI
TGT_DB_HOST_BI	hostname2
TGT_DB_PORT_BI	1521
ODM_UN	ODM_PLMDM
BI_USER_NAME	MDS_PLMBI
MASTER_UN_BI	ODIMASTER_PLMDM
WORK_UN_BI	ODIWORK_PLMDM
WORK_REP_NAME_BI	WORKREP_PLMDM
TGT_DB_URL	jdbc:oracle:thin:@hostname2:1521:PLMBI
MASTER_DB_URL	jdbc:oracle:thin:@hostname1:1521:PLMDM

Creating Database Link

After installing the Agile PLM Business Intelligence Data Layer (MDS), you must create a database link in the MDS schema to access the schema objects from the Agile PLM Data Mart schema.

To create a database link:

1. Create a TNS entry for the Agile PLM Data Mart database in the MDS database. For example,

```
PLMDM_LAB1 =
```

```
(DESCRIPTION =
  (ADDRESS_LIST =
    (ADDRESS = (PROTOCOL = TCP) (HOST = HOSTNAME1) (PORT = 1521))
  )
  (CONNECT_DATA =
    (SERVICE_NAME = PLMDM)
  )
)
```

2. Create two database links, one to access ODI Work Repository schema objects and the other to access Agile PLM Data Mart schema objects, using the following SQL statement:

```
create database link <dblink_name> connect to <dm_schema_name>
identified by <dm_schema_pwd> using '<tnsname>';
```

Using the previous examples, the links would be created as follows:

Data Mart: create database link PLMDM_DM connect to ODM_PLMBI identified by ODM using 'PLMDM_LAB1';

ODI Work Repository: create database link PLMDM_WORK connect to ODIWORK_PMI identified by ODIWORK using 'PLMDM_LAB1';

Running SQL Scripts

After you have created the database links, log in to the MDS schema and run the **replace_proc.sql** file, located in the **silentInstaller.zip** file.

Before running the **replace_proc.sql** file, replace the two tokens in the file with the names of the database links you created.

Granting Privileges

Log in to the Agile PLM Data Mart database schema and run the following statements:

For Data Mart schema:

```
grant drop any trigger to <data mart schema name>;
grant create any view to <data mart schema name>;
grant create any trigger to <data mart schema name>;
```

For ODI Work Repository schema:

```
grant select any table to <work repository schema name>;
grant create any view to <work repository schema name>;
```

Updating Work Schema in Topology Manager

Update the work schema for the MDS layer in the TRG_BI_PHYSICAL data server.

The work schema name and schema name in the Physical Schema should be identical to the following screen:

The screenshot shows a Windows-style dialog box titled "Physical Schema: TRG_BI_PHYSICAL.MDS". It has five tabs: "Definition", "Context", "Version", "Privileges", and "FlexFields". The "Definition" tab is selected. Inside the dialog, the "Data Server: TRG_BI_PHYSICAL" section contains the following fields:

- Name:** TRG_BI_PHYSICAL.MDS
- Schema (Schema):** MDS (selected in a dropdown menu)
- Schema (Work Schema):** MDS (selected in a dropdown menu)
- ☒ **Default**
- Work Tables Prefix:**
 - Errors:** E\$_
 - Loading:** C\$_
 - Integration:** I\$_
- Journalizing elements prefixes:**
 - Datstores:** J\$_
 - Views:** JV\$_
 - Triggers:** T\$_
- Naming Rules:**
 - Local Object Mask:** %SCHEMA.%OBJECT
 - Remote Object Mask:** %SCHEMA.%OBJECT@%DSERVER

At the bottom of the dialog are four buttons: "OK", "Cancel", "Apply", and "Help".

Using External .csv Files

This Appendix includes the following:

- Project Actual Cost 57
- Forecast Revenue 57

Two files, **prj_cost.csv** and **prj_forecast.csv**, are installed with Agile PLM Business Intelligence and located in the <PLM_BI_ETL_Home Directory>\install\etl\srcfiles directory. These files allow you to enter external project cost and project revenue forecast data into your Agile PLM Business Intelligence schema, using .csv files, with the execution of PLM BI ETL.

Project Actual Cost

The **prj_cost.csv** file allows you to enter cost information for a project from a .csv file, if the same information is not maintained in Agile Product Portfolio Management (PPM).

Field	Description
Project Number	This mandatory field contains Project Number information available from the Ag (source) application. The default data type is string.
Cost Incurred Date	This mandatory field captures the Actual Date when the cost was incurred. The type is string with the following format: YYYYMMDD.
External Document Reference Number	This optional field should include a unique entry number for the line entry. The type is string.
Project Actual Total Cost Amount	This mandatory field contains the Actual Total Cost incurred for the project. The type is number with two decimal places.

Forecast Revenue

The **prj_forecast.csv** file allows you to enter forecast revenue by project with data from a .csv file.

Field	Description
Project Number	This mandatory field contains Project Number information a (source) application. The default data type is string.
Forecast Revenue in Years from Project Schedules end date (0-5)	This mandatory field (0-5) contains expected Forecast reve Project Scheduled end date ranging from 0-5 years. The de with two decimal places.
Forecast Revenue in Years from Project Schedules end date (0)	Project forecast revenue at the point of the project schedule
Forecast Revenue in Years from Project Schedules end date (1)	Project forecast revenue after one year of the project sched

Forecast Revenue in Years from Project Schedules end date (2)	Project forecast revenue after two years of the project sche
Forecast Revenue in Years from Project Schedules end date (3)	Project forecast revenue after three years of the project sch
Forecast Revenue in Years from Project Schedules end date (4)	Project forecast revenue after four years of the project sche
Forecast Revenue in Years from Project Schedules end date (5)	Project forecast revenue after five years of the project sche