Oracle9*i* Application Server

Release Notes

Release 1 (v1.0.2.2.2a) for Windows NT

Part No. A95825-03

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Oracle9*i* Application Server Release Notes, Release 1 (v1.0.2.2.2a) for Windows NT

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Preface

Oracle9*i* Application ServerOracle9*i* Application Server Release Notes contain important information that was not included in the documentation for this release.

Documentation Accessibility

Our goal is to make Oracle products, services, and supporting documentation accessible, with good usability, to the disabled community. To that end, our documentation includes features that make information available to users of assistive technology. This documentation is available in HTML format, and contains markup to facilitate access by the disabled community. Standards will continue to evolve over time, and Oracle is actively engaged with other market-leading technology vendors to address technical obstacles so that our documentation can be accessible to all of our customers. For additional information, visit the Oracle Accessibility Program Web site at

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JAWS, a Windows screen reader, 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, JAWS may not always read a line of text that consists solely of a bracket or brace.

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Related Documenrtation

For more information, refer to these Oracle resources:

Oracle Application Server Documentation on the CD-ROM

Oracle Application Server Documentation Library 1.0.2.2.2

Printed documentation is available for sale in the Oracle Store at

http://oraclestore.oracle.com

To download free release notes, installation documentation, white papers, or other collateral, please visit the Oracle Technology Network (OTN). You must register online before using OTN; registration is free and can be done at

http://otn.oracle.com/membership

If you already have a username and password for OTN, then you can go directly to the documentation section of the OTN Web site at

http://otn.oracle.com/docs

Conventions

The following conventions are also used in this manual:

Convention	Meaning
. . .	Vertical ellipsis points in an example mean that information not directly related to the example has been omitted.
. . .	Horizontal ellipsis points in statements or commands mean that parts of the statement or command not directly related to the example have been omitted
boldface text	Boldface type in text indicates a term defined in the text, the glossary, or in both locations.
< >	Angle brackets enclose user-supplied names.
[ ]	Brackets enclose optional clauses from which you can choose one or none.

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Summary of Changes and New Features

This document is accurate to the best of our knowledge at the time of publication. Information that is discovered subsequent to publication will be available through normal support channels.

You can access the latest information and additions to these Release Notes on the Oracle Technology Network at:

`http://otn.oracle.com/products/ias`

1.1 Purpose of this Document

This document notes differences between Oracle9i Application Server Release 1 (v1.0.2.2.2a) for Windows NT components and their documented functionality.

1.2 Product Naming

Oracle9i Application Server internet applications and their sub-components are listed below:

Oracle HTTP Server

- Apache JServ, mod_jserv
- Perl interpreter, mod_perl
- mod_plsql, mod_ssl
- Dynamic Monitoring Service (DMS)
- FastCGI, mod_mm

Oracle9*i*AS Containers for J2EE

- Oracle9*i*AS Servlet Container
- Oracle9*i*AS EJB Container
- Oracle9*i*AS JSP Container
- Oracle Business Components for Java
- Oracle9*i*AS Object Caching Services for Java

Oracle PL/SQL

- Oracle PL/SQL Server Pages (Oracle PSP)

Oracle9i Application Server Forms Services

Oracle9*i*AS Developer Kits

- Oracle Database Developer Kit
- Oracle XML Developer Kit

Oracle9*i*AS Portal

Oracle9*i*AS Wireless

Oracle9*i*AS Cache

- Oracle9*i*AS Web Cache
- Oracle9*i*AS Database Cache

Oracle9*i*AS Business Intelligence

- Oracle9*i*AS Reports Services
- Oracle9*i*AS Discoverer (includes Discoverer Viewer, Discoverer Plus)

Oracle Enterprise Manager

Oracle Advanced Security

- Oracle9*i*AS Single Sign-On

Oracle9*i*AS Integration

- Oracle Workflow
- Oracle9*i*AS InterConnect
- Oracle9*i*AS SOAP
- Oracle Gateways (licensed separately)
- Oracle9*i*AS Email
- Oracle9*i*AS Unified Messaging

Oracle Internet File System

1.3 Certification Information

You can access the most recent certification information at:

http://metalink.oracle.com

1.3.1 JDK/JRE Certification

Oracle has certified the use of both JDK/JRE 1.1.8 and JDK/JRE 1.2.x for building and deploying Java applications with mod_jserv. For this release, all Java class libraries (e.g., Oracle Business Components for Java, Oracle XML Developer's Kit) are shipped compiled with JDK 1.1.8_10. These compiled classes are certified to run under both supported versions of the Java JRE, and they must not be recompiled.

1.3.2 Oracle9iAS WIreless Data Server Support

Oracle9*i*AS Wireless only supports Oracle 8.1.6 and later.

1.4 New Features

This section describes new features in this release in each application area.

1.4.1 Oracle HTTP Server

This section contains information on Oracle HTTP Server features.

1.4.1.1 Note About Apache JServ Processes

The maximum number of Apache JServ processes supported in an Oracle9i Application Server site has been increased from the Apache distribution default maximum of 25 to an Oracle9i Application Server maximum 128. This value is not runtime configurable.

1.4.1.2 Note About Oracle HTTP Server Status

The Oracle HTTP Server with SSL is now production status. This status applies to all features except for those noted in this document.

1.4.1.3 Support for Third Party Components in *Oracle9i*AS

All Third Party Components Portions of Oracle9i Application Server are distributed by Oracle under license from third parties ("Third Party Components"), including the Apache Web Server, version 1.3.19, licensed by the Apache Software Foundation. Oracle is distributing these Third Party Components as part of the Oracle9i Application Server product and, except as specified herein, will provide standard product support for the Third Party Components, as such support is further defined in the Oracle technical support policies. Please note that Oracle will only support the version of the Third Party Component shipped with Oracle9i Application Server and that other versions which may be freely available on the Internet will not be supported by Oracle.

Oracle may, as a courtesy, refer enhancement requests regarding the Third Party Components to the party who licensed the Component to Oracle; however, Oracle shall have no obligation to do so. In addition, no technical assistance requests will be filed on the non-Third Party Components (the "Oracle Components") unless the problem can be reproduced in an environment consisting of only the Oracle Components.

Apache Modules

Oracle may distribute certain extensions to the Apache Web Server ("Apache Modules") to enhance the functionality provided by the Apache Web Server as part of Oracle9i Application Server. Apache Modules distributed by Oracle are referred to in these Release Notes as Oracle Apache Modules.

Oracle supports the following Oracle Apache Modules in this release:

Apache Module	Description
http_core	Core Apache features.
mod_access	Host-based access control; provides access control based on client hostname or IP address.
mod_actions	Filetype / method-based script execution; provides for CGI scripts based on media type or request method.

Apache Module	Description
mod_alias	Aliases and redirects; provides for mapping different parts of the host filesystem in the document tree, and for URL redirection.
mod_auth	User authentication using text files.
mod_auth_anon	Anonymous user authentication, FTP-style.
mod_autoindex	Automatic directory listings.
mod_cgi	Execution of CGI scripts; processes any file with mime type application/x-httpd-cgi.
mod_digest	MD5 authentication; provides for user authentication using MD5 Digest Authentication.
mod_dir	Basic directory handling; provides for "trailing slash" redirects and serving directory index files.
mod_env	Passing of environments to CGI scripts; provides for passing environment variables to CGI/SSI scripts.
mod_expires	Apply Expires: headers to resources; provides for the generation of Expires headers according to user-specified criteria.
mod_fastcgi	Routes requests to a pool of Fast CGI servers.
mod_headers	Add arbitrary HTTP headers to resources; headers can be merged, replaced or removed.
mod_include	Server-parsed documents; provides for server-parsed HTML documents.
mod_jserv	Communication with servlet engine.
mod_log_config	User-configurable logging replacement for mod_log_common; provides for logging requests made to the server, using the Common Log Format or a user-specified format.
mod_mime	Determining document types using file extensions.
mod_negotiation	Content negotiation.
mod_ose	Delegates URLS to stateful Java and PL/SQL servlets in Oracle Servlet Engine (OSE).
mod_perl	Support for writing Apache modules in Perl.
mod_plsql	PL/SQL support.
libproxy (mod_proxy)	Caching proxy abilities; provides for an HTTP 1.0 caching proxy server.
mod_rewrite	Powerful URL-to-filename mapping using regular expressions; provides a rule-based rewriting engine to rewrite requested URLs on the fly.
mod_setenvif	Set environment variables based on client information; provides for the ability to set environment variables based upon attributes of the request.
mod_so	Support for loading modules at runtime; provides for loading of executable code and modules into the server at start-up or restart time.
mod_speling	Automatically correct minor typographical errors in URLs; attempts to correct misspellings of URLs that users enter, by ignoring capitalization and allowing up to one misspelling.
mod_ssl	SSL support.

Apache Module	Description
mod_status	Server status display; allows a server administrator to find out how well the server is performing, presenting an HTML page that gives the current server statistics in an easily readable form.
mod_userdir	User home directories; provides for user-specific directories.
mod_usertrack	User tracking using cookies.

Any other Oracle Apache Modules that are included in Oracle9i Application Server are provided “as is” without warranty or support of any kind. Apache Modules from any source other than Oracle, including the Apache Software Foundation or a customer, will not be supported by Oracle.

Apache modules modify Apache event processing; therefore, Oracle may require that a problem be reproduced with an Apache configuration consisting only of supported modules in order provide support. Oracle will only provide bug fix support for those problems which can be reproduced in a configuration consisting only of supported modules.

Oracle supports the use of the included Perl interpreter within the supported Apache configuration only.

Support for *Oracle9i*AS Plug-ins:

Oracle has developed several plug-ins components that allow portions of 9i Application Server to be used with web listeners provided by third parties. Except as provided herein, Oracle will provide standard product support for these plug-in components, as such support is further defined in the Oracle technical support policies.

Support for these plug-in components does not imply that any other Oracle-supplied applications, tools, or components will be supported in an environment using these third-party listeners: consult product documentation for details of product-specific support for third-party listeners. Oracle will only provide technical support for a configuration that has been certified by Oracle.

Oracle provides support only for the installation, configuration, and use of the Oracle-provided plug-in components, and does not provide general support on the installation, configuration, or use of any third party listener.

If a customer reports an issue with a plug-in component, Oracle will work on that issue using the normal support processes and escalation procedures. If Oracle determines that the problem lies in the third-party listener, it will be the customer's responsibility to obtain support from the listener vendor.

1.4.1.4 Building mod_perl DBI/DBD-Oracle and Apache::DBI

To build, install, and test mod_Perl DBI/DBD-Oracle and Apache::DBI for Windows NT, follow these steps:

1. Verify that the following software is available in your environment:

   Windows NT 4.0 SP3

   Visual Studio version 5.0

2. Install Oracle Internet Application Server Release 1.0.1 for Windows NT from your product CD. This version has mod_perl 1.22 built in. However, this install does not include the following modules:

   Apache::DBI Perl DBI Perl DBD-Oracle

3. Verify that your perl path is set correctly:
   a. Click Start->Settings->Control Panel.
   b. In the Control Panel, double-click System.
   c. In the System dialog box, click the Environment tab.
   d. On the Environment page, scroll down the System Variables list and select Path.
   e. In the Value field at the bottom of the page, add the Apache Perl path to the system path. For example, add the following to the beginning of system path:

      ```
      %ORACLE_HOME%\Apache\Perl\5.00503\bin\MSWin32-x86
      ```

   f. f.Click Set and OK to close the System dialog box.
4. Build, test, and install DBI version 1.14:
   a. Download DBI-1_14_tar.gz into %ORACLE_HOME%\Apache (for example, into a directory named DBI-1.14), and unpack it.
   b. Go to the DBI-1.14 directory and run 'perl Makefile.PL'.
   c. Follow the README instructions carefully.
   d. Run 'nmake'.
   e. Run 'nmake test' and verify the test results.
   f. Run 'nmake install'.
5. Build, test, and install DBD-Oracle version 1.06. The DBD-Oracle module expects enough Oracle software to be available to build the driver successfully:
   a. Download DBD-Oracle-1_06_tar.gz and unpack it into a directory (for example DBD-Oracle1.06).
   b. Go to the DBD-Oracle1.06 directory and modify Makefile.PL to reflect the correct OCIDIR. In particular, set $OCIDIR = "oci"; if it was not set originally.
   c. Set the ORACLE_HOME environment variable to point to a valid Oracle Internet Application Server Enterprise Edition install or an Oracle 8.1.7 database install.
   d. Set the ORACLE_SID environment variable to point to a valid Oracle SID.
   e. Follow the README instructions carefully.
   f. Run 'perl Makefile.PL'.
   g. Run 'nmake', 'nmake test', and 'nmake install'.
6. Build, test, and install Apache::DBI version 0.87:
   a. Download ApacheDBI-0_87_tar.tar into %ORACLE_HOME%\Apache (for example, into a directory named ApacheDBI-0.87), and unpack it.
   b. Follow the README instructions carefully.
   c. Run 'perl Makefile.PL'.
   d. Run 'nmake', 'nmake test', and 'nmake install'.
7. Add the following line to your httpd.conf file:

   ```
   PerlRequire <absolute path of Apache::DBI's startup.pl script>
   ```

8. Modify the startup.pl connect call to:

```
Apache::DBI->connect_on_init('dbi:Oracle:', "scott/tiger", '');
```

9. Restart your Oracle HTTP Server:
   a. From the Start menu, choose Settings->Control Panel. In the Control Panel dialog box, double-click Services.
   b. In the Services dialog box, click Oracle<ORACLE_HOME>HTTPServer.
   c. Click Stop, then click Start.
10. Test with a sample Perl script from a browser, shown below:

```
 ####### Perl script start ########
#!perl
use DBI;
print "Content-type: text/plain\n\n";
$dbh = DBI->connect("dbi:Oracle:", "scott/tiger", "") ||
die $DBI::errstr;
$stmt = $dbh->prepare("select * from emp order by empno") ||
die $DBI::errstr;
$rc = $stmt->execute() || die $DBI::errstr;
while (($empno, $name) = $stmt->fetchrow()) { print "$empno $name\n"; }
warn $DBI::errstr if $DBI::err;
die "fetch error: " . $DBI::errstr if $DBI::err;
$stmt->finish() || die "can't close cursor";
$dbh->disconnect() || die "can't log off Oracle"
 ####### Perl script End ########
```

1.4.2 Current OJSP Available

For a the most current OJSP and a related information, get OJSP version 1.1.3.1 or higher from

http://otn.oracle.com/tech/java/servlets/

1.5 Wireless New Features

This section describes new Wireless features.

1.5.1 Oracle9iAS Wireless 1.1.1.1

Oracle 9*i* Application Server Wireless 1.1.1.1 is a patch for Oracle 9*i* Application Server Wireless Edition 1.1 (which was shipped with Oracle 9*i* Application Server 1.0.2.1.0). Oracle 9*i* Application Server Wireless 1.1.1.1 is a super-patch that includes the Oracle 9*i* Application Server Wireless 1.1.1 patch recently posted on Oracle Technology Network.

The patch fixes the following bugs:

1684463, 1644304, 1618453, 1561062, 1761993, 1684020, 1640550, 1618443, 1542848, 1745915,1646074, 1635012, 1605794, 1371832,1743977, 1644311, 1620174, 1576480, 1371822, 1743922, 1757409

1.5.2 Adapters

To address language-encoding issues, new optional input parameters have been added:

INPUT_ENCODING has been added to the URL adapter enabling it to specify the remote XML page's charset.

inputEncoding has been added to StripAdapter enabling it to specify the remote HTML page's charset.

1.5.3 Transformers

The HDML, TINY_HTML and WML1.1 transformers have been modified. By default, these modified transformers will NOT be loaded into the Repository.

If you HAVE NOT made changes to the transformers, simply upload up11-111.xml.

If you have modified the shipped version of these transformers:

1. Merge the differences.
2. Upload the new transformers using the LoadXML utility upload.bat with up11-111.xml, shipped with the patch release. You can find the LoadXML utility at:

   %ORACLE_HOME\panama\sample\upload.bat

   See the *Oracle9i Application Server Wireless Configuration Guide* for more information on the LoadXML utility.

1.5.4 New Search/Sort Feature Introduced into Service Designer

When you right click on the Master Services node or a folder node, you will find a Search/Sort command. You can search on service names (service names are case-insensitive); wild cards (such as '%') are accepted. Search results can be sorted by Name, LastUpdated Date, or Sequence Number. The new Search feature is more efficient when you are trying to load a large number of services.

The search results will be the new child nodes of the folder which will be automatically expanded. After you collapse the folder and re-expand it, all of its children will be loaded by default. In either case, if the result set is too large and surpasses the limit size specified in ptgsd.properties, you will receive a warning, and only part of the result set will be loaded. In this case, if your expected service is not displayed, you must fine tune your search criteria and reaccomplish the search.

1.5.5 System Logger

Previously, logging information for service requests and the session were logged in the repository as these events occurred. However, performance was degraded in high-load production environments.

In this patch, System Logger implementation has been improved. To avoid performance issues caused by queuing up the log information and logging to the database, changes were made to defer the database logging by first logging the data into files and having a separate process to read from the file and log to the database.

The Logger creates these directories:

- log—directory into which the file logger writes its file.
- process—directory from which DB Logger reads the records, based on their creation timestamps.
- archive—all processed files are moved to this directory for later use.
- status—processed files information and the records logged into the database are recorded in this directory (1 file per panama instance)

Note: Log file reading and database logging can potentially run in separate JVMs without impacting the performance of the panama servlet. The default configuration will start the database logger along with the servlet (this can be configured differently in the **System.properties** file).

Additional Configuration Needed

The following parameters must be set for the current release. Most of the new configurable parameters have default values. Administrators should reset these values to suit local requirements.

SystemLog.loggerOutputDirectory=xxx
(default same as the value set for property **log.directory**)

The Root path for the log, process and archive directories. These are created under this root directory. By default the System Logger uses the directory specified in the property log.directory which is defaulted to /tmp. This parameter may be left blank.

SystemLog.maxLogFileSize=xxx

The maximum size of the file in the log directory. Once the log file reaches this file size, the logging process will close this file and move it to the process directory.

SystemLog.logFileNamePrefix=xxx (default ias_)

The user-defined log file name prefix. The default prefix will be iaswe. A typical file name will be **<SystemLog.logFileNamePrefix>_<ptginstancename_ <creationtimestamp>.log**

SystemLog.field.delimiter=xxx (default #%=%#)

Delimiter for the logged namevalue pairs. SystemLogger uses its default.

SystemLog.record.delimiter=xxx (default ~#$)

Delimiter for the logged records. SystemLogger uses its default.

SystemLog.maxLogFileSize=xxx

Maximum number of bytes per log file. This needs to be set to a suitably large number.

SystemLog.start.dbLogger=[true/false] (default is true)

Enable or Disable Database logging. If false, then the logged records will only remain in files. If true, the records are picked from files and logged onto the database (that is, the DB Logger thread is started). Values are True/False.

SystemLog.logger.wakeupFrequency=xxx (default is 1 min)

Number of minutes after which the DB Logger thread wakes up to check for any new log files in the process directory.

SystemLog.logger.maxSize=xxx (default 15)

Batch size for Database Logging.

SystemLog.driver=xxx
(default is taken as the value in the **db.driver** property, unless the user requires using a separate driver for the logger.)

Database JDBC driver <String> one of “THIN”, “V7”, “V8”, “INTERNAL” and “CUSTOM”

SystemLog.driver.class=xxx (default is taken as Oracle's driver.)

Connect using a customized JDBC driver <class_name>. Not implemented in version 1. Must be set if SystemLog.driver=CUSTOM

The following are some existing configuration parameters in the **oracle/panama/core/admin/System.properties** file which will be retained:

SystemLog.enableServiceLogging=[true / false]

Specifies whether or not the Service Logging is enabled.

SystemLog.enableSessionLogging=[true / false]

Specifies whether or not the Session Logging is enabled.

The status of the last record logged into the database is stored in the status log files. The status log files assist administrators in crash recovery by enabling them to inspect the last processed file and record, and to ensure that the Database Logger does not attempt to log duplicate records.

How to Start DB Logger

The default configuration will start the DBLogger thread along with the panama servlet launch. However, you can turn this off by setting the property **SystemLog.start.dbLogger** to false.

You can launch DB Logger as a separate process:

- java -classpath <needed panama classes> oracle.panama.core.admin.DbLogger

If all software were installed under d:\ the startup command will look like this:

java -classpath d:\panama\lib\panama.zip;d:\panama\lib\panama_ core.zip;D:\jsdk2.0\lib\jsdk.jar;D:\panama\lib\classes12.zip;d:\panama\lib\jndi.jar; D:\panama\lib\xmlparserv2.jar oracle.panama.core.admin.DbLogger

Debugging

Sending the PAdebug=1 flag as part of a query string will not, by itself, enable the debugging capability. The login user for the current session must be either a Designer or an Administrator. See *Oracle9i Application Server Wireless Implementation Guide* for information on how to create a Designer or an Administrator.

Testing Wizard

You must have the Designer role in order to use the Test Wizard inside the Service Designer, otherwise only the device result will be displayed when a service is being tested.

1.5.6 E-mail and Directory Applications

FastForward Email and Directory applications enable you to provide your end users with access to their corporate email and directory lookup on any mobile device. Mobile email will drive productivity within your enterprise, allowing employees to stay in touch while away from the office. For more information, see *Oracle 9i Application Server Wireless Configuration Guide.*

1.5.7 Multiple VM Setup for Oracle9iAS Wireless

To take advantage of the new group-based load-balancing features, you must make the following changes in the jserv.conf file:

1. ApJServManual must be set to `auto` (as opposed to `on` or `off`) for the new feature directives to take effect.

2. With the new load-balancing architecture, multiple instances can be grouped together. A group is a set of instances across which the traffic is load-balanced. The member instances of a group can exist on one or more machines. A group is defined by the following directive:

   ApJServGroup groupname nprocs weight propfile

   where:

   groupname is the name of the group.

   nprocs is the number of processes to start for this group on the local machine.

   weight is the traffic distribution skew factor assigned to this group on this host.

   propfile the path to the jserv.properties file

   Example:

   ApJServGroup group1 2 1

   P:\ORACLE\10210PWE\Apache\Jserv\etc\jserv.properties

   ApJServGroup group1 1 1

   P:\ORACLE\10210PWE\Apache\Jserv\etc\jserv.properties

   ApJServGroup group2 1 1

   P:\ORACLE\10210PWE\Apache\Jserv\etc\jservSoap.properties

3. The following directive must be used in lieu of ApJServMount, to make allowance for the groups.

   ApJServGroupMount /mountpoint balance://groupname/zone

   where:

   mountpoint is the name of the URI path to mount jserv-url on

   groupname is one of the groups defined in the ApJServGroup directive

   zone is the zone this servlet is associated with

   Example:

   ApJServGroupMount /ptg balance://group1/root

   ApJServGroupMount /ptg balance://group1/root

   ApJServGroupMount /ptg balance://group1/root

1.6 Oracle Internet Directory

This section describes Oracle Internet Directory.

1.6.1 New Version of Oracle Internet Directory Available

Oracle9*i* Application Server Release 1 (v1.0.2.2.2a) includes Oracle Internet Directory 2.1.1. A more recent version of Oracle Internet Directory, 3.0.1, is available with Oracle9*i* Database. If you wish to use this latest version, order the Oracle9*i* CD Pack for your platform and install Oracle Internet Directory from that media kit. For information about Oracle Internet Directory and any available patchsets, please see

http://otn.oracle.com/products/oid/content.html.

1.7 E-Business Integration New Features

This section describes new E-Business integration features.

1.7.1 *Oracle9i*AS Integration

This section describes Oracle9*i*AS integration features.

1.7.1.1 *Oracle9i*AS InterConnect

The new features and changes in OAI 4.1 from OAI 4.0 are listed below:

Throughput Measurement - Ability to monitor the throughput of Adapters through the EM Console.

Message Tracking - Ability to track any messages that flow through OAI. To use this feature, you must select at least one "Tracking Field" in iStudio. Then, you will be able to track messages by specifying values for any of these tracking fields in the EM Console.

Remote Management - EM Console provides features for remotely managing Adapters and Repository. Features include start/stop, view log files, edit ini file, etc.

Metadata Updates to running adapters - When you make changes to the metadata through iStudio, you now have an option to push this new metadata to any running adapter. (Use the "File -> Push Metadata" menu option in iStudio).

Notification on failure/shutdown - EM Console provides Email/Pager alerts, to notify you that Adapters or Repository have stopped.

Message Resubmission - The EM Console now lets you view, modify, and resubmit all "errored out" messages in the database.

Workflow Support - OAI works with Oracle Workflow for business process collaborations.

Enhanced AQ Support - The AQ Adapter has been enhanced to handle more than just XML payload. For XML, the payload can be in either a BLOB or CLOB. For non-XML, the payload can be any ADT; this ADT can be directly imported in iStudio.

SAP Adapter - SAP Adapter is available on the Solaris platform as well.

SAP ABAP Support - SAP Adapter supports ABAP function modules in addition to BAPIs and IDOCs.

Enhanced Array Mapping Support - iStudio provides graphical mapping of array attributes.

Password encryption - All passwords stored in configuration files can now be encrypted. Please refer to the Configuration Security section of the Installation Guide.

The changes from the previous release are listed below:

OID no longer necessary - All necessary configuration is stored directly in the HUB database. When creating a project in iStudio, you must provide the hub database connection information along with the repository information.

OMB no longer necessary - OAI uses Oracle JMS interface to Oracle AQ, so OMB is no longer needed.

Single .ini file - All OAI configuration parameters are all in one file, adapter.ini (as opposed to adapter.ini, Agent.ini, and service.ini).

Improved logging - To preserve log files from a previous run, log files are created in a different directory every time the adapter is started. The timestamp is used as the name of the directory to keep it unique across various runs. All logging is done to only one file "oailog.txt" (as opposed to AgentLog.txt, <Adapter>Log.txt, service.log). As before, when the size of this file exceeds 1MB, a new file "oailog-1.txt" is created (followed by "oailog-2.txt", ... and so on).

Persistence Files - To avoid cluttering up the adapter directory with files, all the persistence files (containing persisted messages, cached metadata, and other information to ensure Guaranteed & Exactly Once delivery) are stored in the .../persistence/... directory.

Database Adapter more performant - The database adapter performance has been enhanced. The database hosting the OAI Schema has support for Oracle Objects in order for the performance gain to be realized.

Cascading Deletion of integration objects in iStudio - When an object is deleted, all objects referred to by that object are also deleted (provided they are not referenced by other objects). For example, if a Customer object contains an Address object, and the Customer object is deleted, the Address object will also be deleted. But if a Purchase Order object contains the Address object, then Address will not be deleted. Also, the Address object cannot be deleted directly, since it is referenced by another object.

Importing data types - iStudio supports importing attributes of other iStudio data types.

1.8 Known Issues

Before using Oracle9i Application Server, read through each item in this section to gain an understanding of the restrictions and limitations in this release that may require additional steps. The items are categorized by solution area.

1.8.1 Installation Issues

This section describes installation issues.

1.8.1.1 Oracle Plug-In for MIcrosoft IIS Not Installed with *Oracle9i*AS Minimal Edition

The Oracle Plug-in for Microsoft IIS is only installed with *Oracle9i*AS Enterprise and Standard Editions. The Oracle9i Application Server Installation Guide incorrectly states that it is installed with the Minimal Edition.

1.8.1.2 Known Limitations with Running *Oracle9i*AS Against a 9*i* Database

*Oracle9i*AS Release 1 (v1.0.2.2.2a) is certified to run against a 9i Database Server v9.0.1.0.0 Solaris release with the following known limitations:

All 9iAS users who want to connect from *Oracle9i*AS Release 1 (v1.0.2.2.2a) to an Oracle9i database using JDBC thin drivers should apply patch ARU: 8.1.7.1 ARU 681288 (bug 1725012)

- *Oracle9i*AS Forms Services users should apply Oracle Forms Patch 5.
- *Oracle9i*AS Portal users need to:
  - **a.** Apply patch ARU: 9.0.1.0 ARU 800710 (which fixes bugs 1794996 and 1806057)
  - **b.** Define 07_DICTIONARY_ACCESSIBILITY =true in init.ora file (bug 1554423)

- *Oracle9i*AS Database Cache and Oracle Enterprise Manager functionality are NOT supported in this configuration.

1.8.1.3 *Oracle9i*AS Portal Configuration Assistant Stops During Installation

*Oracle9i*AS Portal Configuration Assistant stops at 90% during the *Oracle9i*AS Release 1 (v1.0.2.2.2a) installation.

In Oracle9iAS Release 1 (v1.0.2.2.2a), diagnostics was an added feature of the *Oracle9i*AS Portal Configuration Assistant. Diagnostics portion checks the validity of the JServ and Oracle HTTP Server URLs for the installed Portal repository. If the JServ and Oracle HTTP server are not properly configured or not running during the Portal installation, the diagnostics stop during this validation.

The Portal installation is complete, so you can safely cancel the Portal Configuration Assistant and resume the installation. However, because the Diagnostics detected a misconfiguration in JServ and / or the HTTP Server, you must resolve this before accessing the installed *Oracle9i*AS Portal.

1.8.1.4 JDBC Thin Driver Patch Required

The JDBC Thin Driver provided as part of *Oracle9i*AS Release 1 (v1.0.2.2.2a), cannot be used to connect and run against an Oracle9*i* database.

You must download and install a patch in order to connect to a 9*i* database. The patch and associated information is at:

`http://metalink.oracle.com/metalink/plsql/ml2_documents.showNOT?p_id=146267.1`

The download contains instructions to install the patch. If you install jdbc 8171, or rdbms 8171, or rdbms 8171B, after installing the JDBC patch, you will need to re-install the JDBC Thin patch in order to connect to an Oracle9*i* database.

1.8.1.5 *Oracle9i*AS Discoverer Viewer

If you install *Oracle9i*AS onto the same machine where *Oracle9i*AS Discoverer has been previously installed, the following error occurs:

The procedure entry point ??OVBJRuntime@@QAE!PAD!Z could not be located in the dynamic link library vbjruntime.dll" during the installation of Oracle9i Application Server.

Click OK to continue. This error is not fatal, and is generated by the OAD utility program within *Oracle9i*AS Discoverer. After the installation is complete, you can complete the preferences registration for Discoverer by running the registerall.bat file located in the%806_HOME%\discwb4\util directory.

1.8.1.6 *Oracle9i*AS DIscoverer URLs Invalid after Installation

The *Oracle9i*AS Release 1 (v1.0.2.2.2a) installation changes the jserv.conf file so that any URLs (links, bookmarks, etc.) that include references to Discoverer4i\Viewer will no longer work. To fix this problem, change Discoverer4i\Viewer to discoverer4i\viewer (lower case) in the jserv.conf file.

1.8.1.7 *Oracle9i*AS Discoverer Objects Must Be Registered

After the *Oracle9i*AS installation is complete, Discoverer objects must be registered with the Object Activation Daemon (OAD). To register the objects:

1. Open an MS-DOS window.

2. Change the directory to

   %806_HOME%\discwb4\util.

3. Type registerall.bat and press Return.

1.8.1.8 Required Database Versions for *Oracle9i*AS Portal

In order to run *Oracle9i*AS Portal with a version 8.1.7 database, you must be using these versions:

- Solaris: 8.1.7.1
- Windows: 8.1.7.1

1.8.1.9 *Oracle9i*AS Portal Installation Error

There is a known issue with the *Oracle9i*AS Portal on 8.1.7 Standard Edition (SE). The Installer gives an error when installing *Oracle9i*AS Portal into 8.1.7 SE. The workaround is to execute the Oracle Portal Configuration Assistant (OPCA) from the command line and specify the "verbose" mode. In this mode, the errors are ignored and the installation runs to completion.

To run OPCA from the command line for *Oracle9i*AS Portal version 3.0.9:

1. Navigate to *ORACLE_HOME*/assistants/opca.
2. Open launch.bat file in a text editor.

   At approximately line 27 there is a long command line ending in:

   ```
   > install.log
   ```

3. Change the 3rd to last parameter from false to true. For example:

   ```
   ...change_on_install USERS TEMP USERS USERS TRUE FALSE FALSE TRUE > install.log
   ```

   changes to:

   ```
   ...change_on_install USERS TEMP USERS USERS TRUE TRUE FALSE TRUE > install.log
   ```

4. Save the change.
5. Execute launch.bat.

1.8.1.10 *Oracle9i*AS Portal Installation Requires Syntax Requirement for Shared Pool Size

When you install Portal, the configuration assistant may report that the shared pool size or java pool size is insufficient. This is because the assistant expects the pool size value to be in bytes. To fix this problem, change the shared pool size in init.ora to the integer value in bytes (not M, K or G notation). For example, if

SHARED_POOL_SIZE=100M

change it to:

SHARED_POOL_SIZE=100000000

and restart the database.

1.8.1.11 Manual Setting of Oracle9*i* Database Initialization Parameter Required

Some Oracle9i Application Server components may not function correctly when interacting with the Oracle9*i* database if the o7_dictionary_accessibility parameter is set to FALSE. In the Oracle9*i* database init.ora file, add the following line:

```
o7_dictionary_accessibility=TRUE
```

1.8.1.12 Standard Edition Migration Installation Hangs at NET8 Configuration

Oracle9i Application Server Standard Edition Migration installation may hang at Net8 configuration. As a workaround, stop Net8 Configuration by clicking the **Stop** in the OUI. The installation will proceed, and following other configurations, you can 'retry' Net8 configuration to complete the configuration successfully.

1.8.1.13 De-Installation/Cleanup Procedure

After deinstalling Oracle9i Application Server on Windows NT or Windows 2000, perform the following steps to clean up your system of any Oracle remnants:

1. Delete your ORACLE_HOME.
2. Delete all Oracle services using regedit. Delete the following entries:
   - All entries beginning with Oracle in HKEY_LOCAL_MACHINE\SYSTEM\ControlSet001.
   - All entries beginning with Oracle in HKEY_LOCAL_MACHINE\SYSTEM\ControlSet003.
   - All entries beginning with Oracle in HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet
3. Remove all PATH entries relating to Oracle9i Application Server. One way to do this is on the Environment tab page of the System dialog box (from the Start menu, choose Settings->Control Panel. In the Control Panel dialog box, double-click System).

1.8.1.14 Errors Opening redo Logs after Installation

After installing the Oracle9i Application Server seed database, you may see the following errors in the user dump location:

```
ORA-00313: open failed for members of log group 1 of thread 1
ORA-00312: online log 1 thread 1: '<redo log file_name>'
ORA-27037: unable to obtain file status
```

These are not serious errors. The redo logs are created in a future step of the seed database creation.

1.8.1.15 Help Screen Does Not Close in OUI

If you are in the 'Inventory' screen (listing of all installed products) and click **Help**, you cannot close the help screen until the Inventory screen is closed.

1.8.1.16 Path Modification in FormsServlet.InitArgs Required

The Oracle9i Application Server Enterprise Edition installation creates the file FormsServlet.InitArgs in ORACLE_HOME (Release 8.0.6). The file specifies fully qualified paths for BaseHTMLJinitiator, BaseHTMLie and BASEHTML, using the standard Windows NT backslash character ("\"). Because Apache can not interpret the backslash character, you need to edit formsservlet.initargs and replace all path backslash characters with forward slashes ("/").

The full path to this file is

```
%ORACLE_HOME%\Apache\jserv\servlets\oracle\forms\servlet\FormsServlet.InitArgs
```

1.8.1.17 Standard Edition Character Set

The starter database provided as part of the Oracle9i Application Server Standard Edition (SE) installation uses the US7ASCII character set. To change the database character set after installation, connect to the database using SQL*Plus and issue the statement:

```
SQL> alter database character set <character set>
```

For more information, see the *Oracle8i National Language Support Guide*.

1.8.1.18 Deploying Enterprise JavaBeans to *Oracle9i*AS

The following files contain information on deploying Enterprise JavaBeans (EJBs) to *Oracle9i*AS Database Cache:

- <*cd-rom*>:\doc\relnotes\ejbdply.pdf
- <*cd-rom*>:\doc\relnotes\ejbdply.htm

where <*cd-rom*> is the drive with Oracle9i Application Server Disk 1.

1.8.1.19 Running databasesetup.bat

In order to run databasesetup.bat, you must modify the jdbc connection string in ImageLoader\ImageLoader.java must be modified to reflect the setup of the machine. For more information, see `bc4j.html`.

1.8.1.20 spatial.properties FIle Path Correction

The spatial.properties file, located at

```
%ORACLE_HOME%\panama\server\classes\oracle\panama\spatial
```

contains incorrect directory slashes. The parser interprets back slashes as forward slashes, so after installation, change the path in this file to:

```
C:/oracle/iashome/panama/server/classes/...
```

1.8.1.21 spatial.properties file Configuration Location

If 9*i*AS Wireless Edition is installed at C:\ORANT, then the `spatial.properties` file is installed at the following locations:

```
C:\ORANT/panama/ServiceDesigner/classes/oracle/panama/spatial
```

and

```
C:\ORANT/panama/server/classes/oracle/panama/spatial
```

The `spatial.properties` file has pointers to the locations of the XML files for Geocoders, Routers, YP, Mapping and Positioning service providers and their login etc.

Currently, the information for Geocoders is shown as:

```
C:\ORANT/panama/ServiceDesigner/classes/oracle/panama/spatial/geocoder/
Geocoders.xml
```

and

```
C:\ORANT/panama/server/classes/oracle/panama/spatial/geocoder/
Geocoders.xml
```

with "/", respectively. This also applies to other Location features such as Routers, YP, Mapping and Positioning.

Instead, following the Win NT method of conveying directory location, it should be changed to:

```
C:\ORANT\panama\ServiceDesigner\classes\oracle\panama\spatial\
geocoder\Geocoders.xml
```

and

```
C:\ORANT\panama\server\classes\oracle\panama\spatial\geocoder\
Geocoders.xml
```

with a "\' in the path. This also applies to other Location features like Routers, YP, Mapping and Positioning.

1.8.1.22 Long Pathname in TEMP environment variable Causes Installation Error

The recommended value for the TEMP environment variable is `<system drive>:/TEMP`. If longer pathnames are used, installation may stop with an error message that tells you to ensure that the drive is writable and there is sufficient disk space.

1.8.1.23 Oracle Developer 60 Folder Not Accessible Error

The following error occurs during installation of Oracle9*i*AS Enterprise Edition:

```
 C:\WINNT\Profiles\All Users\Start Menu\Programs\Oracle Developer 60 is not
accessible. This folder was moved or removed.
```

This is a known error that has no effect on the successful installation or functionality of any Oracle 9*i*AS component. It originates in the installation of an Oracle Forms and Oracle Reports patch, which removes the Start menu group created when Forms and Reports is initially installed. Windows NT generates an error because the group is removed while its window is open.

1.8.1.24 Language Settings in Developer Server Must be Set Manually

After installing Oracle9i Application Server, you must manually change the language settings in the registry to the language you want. Language files are installed for all languages supported by the 806 products. For 817 products, English and the language detected on the platform are installed.

1.8.1.25 *Oracle9i*AS Database Cache Installation Errors

If the listener for the origin database is not properly configured, the following errors may occur when you attempt to install *Oracle9i*AS Database Cache:

```
Adding users to the cache failed.
Reason: WTE-03501 Error updating list of users: Export failed on origin database
OCI error - ORA-28575: unable to open RPC connection to external procedure agent
```

Refer to the *Oracle9i Application Server Installation Guide* for detailed instructions to configure the listener for the origin database.

1.8.1.26 *Oracle9i*AS Database Cache Configuration

When you install Oracle9i Application Server Enterprise Edition, you can choose whether to configure *Oracle9i*AS Database Cache during the installation or at a later time. If you choose to configure *Oracle9i*AS Database Cache during the installation, the installation procedure uses default values for the following *Oracle9i*AS Database Cache attributes:

- The *Oracle9i*AS Database Cache host (by default, the host name qualified by the domain name).
- The *Oracle9i*AS Database Cache name (by default <*cache_nodename*-cache>).
- The port number for the listener for *Oracle9i*AS Database Cache (by default, 51719).
- The memory allocated to *Oracle9i*AS Database Cache (by default, 25 MB).
- The disk space allocated to *Oracle9i*AS Database Cache (by default, 32 MB).
- The location of the file that holds the disk space (by default, %ORACLE_ HOME%\dbs).

If you want to specify values other than the default values, you can choose not to configure *Oracle9i*AS Database Cache during the installation. Then, after the installation completes successfully, invoke the *Oracle9i*AS Database Cache Configuration Assistant using the following command:

```
prompt> %ORACLE_HOME%
\
bin
\
wtacca -create -custom
```

For more details, refer to the Configuration Assistant online help.

1.8.1.27 Preserving Changes to Oracle HTTP Server Configuration on Re-installation in Same Oracle Home

Be sure to save copies of `httpd.conf`, `jserv.conf`, `zone.properties`, and any Oracle HTTP Server configuration files that you have changed. When you re-install Oracle9*i*AS into the same Oracle home, existing configuration files are overwritten with the newly installed files.

1.8.1.28 Apache Configuration Error Upon Installation

When installing Oracle9i Application Server Enterprise Edition, and you have installed Apache previously in the same ORACLE_HOME, Apache configuration fails with the following error:

```
Syntax Error on line 14 of
<ORACLE_HOME>/Apache/Apache/conf/mod__ose.conf
Aurora Service - directive already effect for this server
<ORACLE_HOME>/Apache/Apache/bin/httpdsctl start: httpd could not be
started
```

To work around this error:

1. Remove the double entry of mod__ose.conf in the file %ORACLE_ HOME%\Apache\Apache\conf\oracle_apache.conf.
2. Restart your Oracle HTTP Server:

a. From the Start menu, choose Settings->Control Panel. In the Control Panel dialog box, double-click Services.

b. In the Services dialog box, click Oracle<*ORACLE_HOME*>HTTPServer.

c. Click Stop, then click Start.

1.8.1.29 HTTP Server Failure after Oracle Forms, Reports, and Discoverer Patch Installation

Because this patch installation updates the system path variable, changing the order of the paths, the HTTP Server fails to start after the patch installation.

To resolve this problem, run the Oracle Home Selector from the Start menu (Programs, Oracle for Windows NT, Oracle Home Selector). Select the Oracle home for the 8.1.7 RSF-based products as the primary Oracle Home.

1.8.1.30 Additional CLASSPATH required for BC4J

After installing Oracle9i Application Server against an Oracle9*i* database on Windows NT, the user should be able to create the schemas necessary for a Sample Application in the database, and set the JDBC connections. However, the `DatabaseSetup.bat` script might fail at the end as it tried to load the images into the database. You might encounter the following error:

```
Exception in thread "main" oracle.jbo.DMLException:JBO-26041:Failed to post data
to database during "Update":SQL Statement
UPDATE INVENTORY_ITEM InventoryItem SET IMAGE=:1 WHERE ID=:2".".
...
java.sql.SQLException:Non supported charachter set:
oracle-character-set-178
```

The user should be able to access the Sample Application and view all items individually, none of the Item Details display their respective images.

To fix this, do the following:

1. Modify the `CLASSPATH` setting in both the compile (javac) line and the execution (java) line in `DatabaseSetup.bat` to include:

```
prompt> ORACLE_HOME\jdbc\lib\nls_charset12.zip
```

Stop the Oracle HTTP Server. Modify the following file:

```
ORACLE_HOME\Apache\JServ\conf\jserv.properties
```

by adding the following line at the very end of the file:

```
wrapper.classpath=ORACLE_HOME\jdbc\lib\nls_charset12.zip
```

1.8.1.31 Oracle Home Setting Conflict in jserv.properties file

In Oracle9i Application Server 1.0, Oracle Forms 6i has to use a special Oracle home setting, different from that used by other components of Oracle9i Application Server. Typical values are:

ORACLE_HOME for Forms: d:\ias\6iserver

ORACLE_HOME for OJSP, etc: d:\ias

When using Forms with the Listener Servlet, a conflict can occur with Oracle JSP if the ORACLE_HOME environment variable is set in the jserv.properties file (using the

syntax "wrapper.env=ORACLE_HOME=..."). This is because both Forms and OJSP will use this value if it is set, but they need different settings.

If ORACLE_HOME is NOT set in jserv.properties, each product will derive its correct ORACLE_HOME setting from the Windows registry. Consequently Oracle recommends NOT setting ORACLE_HOME in the jserv.properties file if Forms 6i and OJSP are being used together in the same JServ process. If only one of these components is being used, then the appropriate ORACLE_HOME value can be set in jserv.properties. In the next release of Oracle9i Application Server, this conflict will be resolved because Forms 6.0.8.14 will no longer use the ORACLE_HOME setting from jserv.properties.

1.8.1.32 Configuration Assistant Failure with Standard Edition Default Large Pool Size

During Oracle9i Application Server Standard Edition install, if you choose to install the *Oracle9i*AS Portal database objects into the newly created 8.1.7 Standard Edition database, the install fails because the default large_pool_size is not big enough. The workaround is to increase this size before running the *Oracle9i*AS Portal Configuration Assistant, as follows:

1. Shut down the database.
2. Double the size of the large_pool_size parameter in the init.ora file.
3. Restart the database.
4. Run the *Oracle9i*AS Portal Configuration Assistant.

If you do not perform these steps during an install, you can fix the problem as follows:

1. Drop the old *Oracle9i*AS Portal user.
2. Shut down the database.
3. Double the size of the large_pool_size parameter in the init.ora file.
4. Restart the database.
5. Run the *Oracle9i*AS Portal Configuration assistant from the ORACLE_HOME located at %ORACLE_HOME%\assistants\opca\launch.sh.

Note: This problem does not occur if you install to a remote 8.1.6 database and has only been observed in a Standard Edition install.

1.8.1.33 Variable Setting Required to Run Multiple Portal Instances on One Machine

The Oracle Portal installation sets a mod_plsql variable, `WV_GATEWAY_CONF` in the WIndows NT/2000 registry. To run multiple Portal instances on the same machine, you must set this variable in a DOS window, and start the HTTP Listener from the DOS window.

The only way to start a second listener that uses mod_plsql is to start it from a console window with the command `apache -k start` after setting the `WV_GATEWAY_CONF` variable.

1.8.1.34 Oracle9iAS Portal 3.0.9 Installation Fails When Running Against Oracle9*i* Database

An error occurs after the second screen of the Oracle9iAS Portal 3.0.9 installation, when the Configuration Assistant prompts for the user sys password and database connection parameters. The installation stops and the following message is written to the install log file:

```
ORA-28009: connection to sys should be as sysdba or sysoper
```

1.8.1.35 Silent Installation of Oracle9*i*AS Database Cache Requires ntadminpw

To install Oracle9*i*AS Database Cache in silent mode, the NT user's password must be passed as shown in the following example

```
setup.exe -silent responsefile <responsefilename>
"ntadminpw=<nt user's password>"
```

1.8.1.36 Silent Installation of *Oracle9i*AS Wireless Not Supported

Silent installation for *Oracle9i*AS Wireless is not supported; it requires entry of information specific to Wireless and manual editing of configuration files.

1.8.1.37 JServ.conf Addition

If you are upgrading from the previous release of *Oracle9i*AS Wireless, you must make the following changes to the `jserv.conf` file, located at:

```
%ORACLE_HOME\Apache\Jserv\conf\jserv.conf
```

1. Comment out `ApJServMount /ptg /root`
2. Insert:

```
# PTG 1.1.1 Begin
ApJServGroupMount /ptg balance://group1/root
# PTG 1.1.1 End
```

If you are doing a new installation of *Oracle9i*AS Wireless:

1. Insert:

```
# PTG 1.1.1 Begin
ApJServGroupMount /ptg balance://group1/root
# PTG 1.1.1 End
```

1.8.1.38 JDBC Driver Patch Required to use Oracle9i Database

If you want to use the Oracle9*i* database with components such as *Oracle9i*AS Portal, you must patch the JDBC driver. The patch is at the top level JDBC patch directory of the *Oracle9i*AS Release 1 (v1.0.2.2.2a) Administrative and Development Client CD for Windows 95/98/NT (available with the release across all operating systems platforms).

1. Copy the patch to $ORACLE_HOME/jdbc/lib, unzip it, then execute the patch file.
2. Test the patch by running a demo such as Employee.java in $ORACLE_HOME/jdbc/demo/.

1.8.1.39 Oracle Forms, Reports and Discoverer Patch Installation

When installing a patch, use <*IAS_HOME*>\6iserver as your ORACLE_HOME for Forms, Reports and Discoverer products, where <*IAS_HOME*> is the ORACLE_HOME used for *Oracle9i*AS.

1.8.1.40 Oracle9iAS Wireless: No Option to Skip Loading Repository for Rapid Install

During rapid installation, Oracle9iAS Wireless has no option to skip loading the repository, causing the installation to take too long.

As a workaround, set the variable `b_loadrepository` to false in the response file. This will skip loading, or upgrading the repository.

Perform the following steps during postinstallation to load the repository:

1. For a new installation, run the following after installation completes:

`create_aq.bat` from *ORACLE_HOME*`\panama\sql`.

Then run the following:

`pa_java_inst.bat` from *ORACLE_HOME*`\panama\setupconf`.

1. For an upgrade installation, run the following:

`upgrade_inst.bat` from *ORACLE_HOME*`\panama\sql`.

Then run the following:

`pa_java_inst_upgrade.bat` from *ORACLE_HOME*`\panama\setupconf`.

1.8.1.41 Oracle Internet File System Configuration Tool Fails on Pentium 4 Machines

On Pentium 4 machine, Oracle Internet File System configuration tool fails because of the incompatible `symcjit.dll` in the jre version used.

To workaround the issue, replace symcjit.dll file present in *ORACLE_HOME*`\ifs1.1\jre\bin` with symcjit.dll file present in <*SYSTEM_DRIVE*>`\Program Files\Oracle\jre\1.1.8\bin`.

1.8.1.42 Poor Error Handling When Wrong Port Entered

System will hang at 100% if it is not able to connect to the database using the port number specified.

As a solution, make sure that you can connect to the database before installation and supply the correct port number to Oracle9i Application Server installation.

1.8.1.43 Release Notes Cannot Be Opened in Notepad

After you finish the installation process, you can view the release notes on the End of Installation screen. However, these release notes are not viewable with notepad. They can be viewed using Wordpad.

1.8.1.44 Oracle9iAS Containers for J2EE Section Removed from Installation Guide

The following section has been removed from the Minimal Edition, Standard Edition and Enterprise Edition chapters of the Installation Guide:

“Configuring Oracle9iAS Containers for J2EE

For Oracle9iAS Containers for J2EE (OC4J) installation and configuration information, refer to *Oracle9iAS Containers for J2EE Quick Reference Card* located in the Oracle9i Application Server Documentation Library."

Oracle9iAS Containers for J2EE is installed only in Core Installation.

1.8.1.45 Windows 2000 Error for 806 RSF-based ORACLE_HOME

The error "Failed to create service for Net8 Client" intermittently occurs when installing any of the 806 RSF-based products (Oracle9iAS Discoverer, Oracle9iAS Forms Services, Oracle9iAS Reports Services) on Windows 2000. If this error occurs, you will need to reinstall the product.

1.8.2 Deinstallation and Migration Issues

This section describes deinstallation and migration issues.

1.8.2.1 Corrections to Terminology in *Oracle9i*AS Installation Guides

The Oracle9*i*AS Installation Guide contains terminology errors on the following page numbers:

3-17, 4-19, 5-23

On these pages, "Upgrading Installation Detected" should read, "Migration Installation Detected". All occurrences of "upgrading" should be changed to "migrating".

1.8.2.2 Oracle Installer Cannot Deinstall Required Support Files

The Oracle Installer issues a dependency warning when you attempt to remove Required Support Files, even after all other products have been removed. There is no workaround.

1.8.2.3 OraInventory Directory Requires Backup Before Migration

Before running the migration process in the Oracle Universal Installer, you must back up the OraInventory directory.

If migration fails or is cancelled in progress, subsequent attempts might also fail because of changes the installer made to the OraInventory directory. After any incomplete migration process, restore the OraInventory directory from your pre-migration backup before attempting migration again.

1.8.2.4 Error When Starting Oracle HTTP Server

The following error may occur when you start the HTTP Server after de-installation and re-installation of Oracle9i Application Server into the same Oracle home:

```
Syntax error on line 14 of <ORACLE_HOME>Apache\Apache\conf\mod_ose.conf:
AuroraService - directive already in effect for this server
```

To resolve this error:

1. Open the <ORACLE_HOME>Apache\Apache\conf\oracle_apache.conf file.
2. Remove the duplicate of the following line:

   ```
   include "<ORACLE_HOME>Apache\Apache\conf\mod_ose.conf"
   ```

3. Re-start the HTTP Server.

1.8.2.5 Forms Patch 3 Installation May Pause in Release 1 (v1.0.2.2.2a) Migrations

Before migrating to Release 1 (v1.0.2.2.2a), ensure that the services for Discoverer, Forms and Reports are stopped in the Services dialog box. The Reports service, which may be present in the Windows System Tray, must also be stopped before migration. To close the System Tray Service:

1. Double-click on the Reports service icon in the system tray.

   A control dialog box appears.

2. Click Shutdown.

   A confirmation dialog appears.

3. Click OK.

   The service terminates.

1.8.2.6 Upgrading *Oracle9i*AS Wireless

You can only upgrade to Oracle 9*i* Application Server Wireless 1.1.1.1 (on Oracle 9*i* Application Server Release 1 (v1.0.2.2.0) from Oracle 9*i* Application Server Wireless 1.1 (on Oracle 9*i* Application Server Release 1 (v1.0.2.1.0)).

If you are migrating from earlier releases, you must first upgrade to Oracle 9*i* Application Server Wireless 1.1 (on Oracle 9*i* Application Server Release 1 (v1.0.2.1.0)), then up to this current release.

1.8.2.7 Reinstallation of Oracle9*i* Wireless

During Oracle 9*i* Application Server Wireless installation, a Wireless repository is created.

Deinstallation of Oracle 9*i* Application Server Wireless DOES NOT automatically remove the database schema. Therefore, if you reinstall Oracle 9*i* Application Server Wireless (using the same database user name as you did in the previous installation) after deinstalling the software, you must MANUALLY remove the database schema. Before you remove the database schema, backup the data under the database schema appropriately. One way to remove the database schema is to delete the Wireless database user.

For example: if during installation, you have specified *panama* as the Wireless repository owner, then:

1. Launch SQL*Plus connected as System user (or other user with DBA privileges)
2. Issue the commands:

   sqlplus>drop user panama cascade

   sqlplus>commit

   sqlplus>exit

1.8.2.8 Oracle9*i* AS Wireless 1.1.1.1.1 Requires Oracle9i Database Migration

If you upgrade from Oracle8i database to Oracle9i database AFTER this maintenance release is installed, run:

migrate_8i_to_9i.sql

against the database containing your Wireless repository, connecting with proper user name, password and schema name.

1.8.2.9 SOAP Release Notes and Documentation Link Inactive

After upgrading or migrating from Release 1 (v1.0.2), Release 1 (v1.0.2.1) or Release 1 (v1.0.2.2) to Release 1 (v1.0.2.2.2a), the link on the index.html page titled "SOAP Release Notes and Documentation" will not work.

To resolve this problem:

1. Add the following directive to the ORACLE_HOME/Apache/Apache/conf/httpd.conf file:

```
Alias /soapdocs/ "ORACLE_HOME/soap/"
```

(where ORACLE_HOME is the full path to your Oracle home directory).

1. Restart the server.

1.8.2.10 nmxw.ora Instantiation Required After Migration

After you have migrated from *Oracle9i*AS Release 1 (v1.0.2.0.1) or Release 1 (v1.0.2.1) to Release 1 (v1.0.2.2.2a), you must manually instantiate the nmxw.ora file to populate the values for the web server directives ServerRoot, ConfigFile, and ApacheVersion. If these are not populated, the Enterprise Manager Console cannot detect the HTTP Server.

The file's path is ORACLE_HOME/network/agent/config/.

1.8.2.11 Known Issues for Upgrading Core Edition to Minimal, Standard, or Enterprise Edition.

1. If you want to install Minimal, Standard or Enterprise Edition into the same Oracle home where Core Edition was previously installed, you need to stop the core HTTP server first. Otherwise, when you click the "next" button on the "Apache Listener Configuration for Oracle9iAS Portal-- Database Access Descriptor (DAD) for the Login Server" screen, there will be an error message stating "The following processes are running cannot continue installation. Please shut them down and continue. *ORACLE_HOME*/Apache/Apache/bin/httpd."
2. If you want to install Minimal, Standard, and Enterprise Editions in the same Oracle home where Core Edition was previously installed (after stopping the Core HTTP server), the installation process will have no error messages. However, one manual step needs to be implemented to make portal accessible from a browser. The file *ORACLE_HOME*/Apache/modplsql/cfg/wdbsvr.app needs to be updated with the portal's connection information, <*machinename*>:<*port*>:<*sid*>.

1.8.2.12 Shut Down All Additional Services When Upgrading from Release 1 (v1.0.2.1.0) to Release1 (v1.0.2.2.2).

All services must be shut down before upgrading from Oracle9iAS Release 1 (v1.0.2.1.0) to Release 1 (v1.0.2.2.2). If Oracle9iAS Discoverer and OracleDiscoverer4*i* Service were started using the command prompts `startosaagent.bat` and `startoad.bat`, then two additional services, `dis4pr.exe` and `dis4ws.exe`, are created, which also need to be shut down before the upgrade. These additional services are not there if Oracle9iAS Discoverer was started from the Windows control panel.

1.8.2.13 Older Version of OUI Unable to Deinstall Oracle9iAS

The following error may appear if you are trying to deinstall Oracle9iAS: "Some of the components you selected cannot be deinstalled because they are installed using

Installer version 2.0.1.6.0. Please user Installer version 2.0.1.6.0 or higher.“ You can launch the installer from the location where Oracle9iAS is installed, either CDs or shiphomes.

1.8.3 Oracle HTTP Server

This section describes Oracle HTTP solution area issues.

1.8.3.1 Static IP or Hostname with Registered DNS Required

When Oracle9*i* Application Server 1.0.2.2.x is installed, the host must have a static IP address or a hostname registered in DNS. Another requirement is that if a backend database is needed (not required for Core install), then the machine which hosts the backend database also needs static IP or a registered hostname.

1.8.3.2 JServ Processes Startup Fails With JDK Version 1.1.8

If you use JDK version 1.1.8 instead of the JDK (version 1.2) shipped with *Oracle9i*AS, JServ processes will fail to start. Messages similar to the following are found in the error_log:

```
ORACLE_HOME/Apache/jdk/bin/java[15]: dirname:  not found
ORACLE_HOME/Apache/jdk/bin/java[15]: dirname:  not found
ORACLE_HOME/Apache/jdk/bin/java[16]: basename:  not found
ORACLE_HOME/Apache/jdk/bin/java[16]: basename:  not found
ORACLE_HOME/Apache/jdk/bin/java[65]: test: argument expected
ORACLE_HOME/Apache/jdk/bin/java[65]: test: argument expected
 was not found in
ORACLE_HOME/Apache/jdk/bin/../bin/sparc/native_threads/
 was not found in
ORACLE_HOME/Apache/jdk/bin/../bin/sparc/native_threads/
```

To resolve this error, add the following line to the jserv.properties and jservSoap.properties files:

```
wrapper.env=PATH=/usr/bin
```

After adding this line, perform a graceful restart of the server. The JServ processes will start.

1.8.3.3 Warning Message In ssl_engine_log File Wrong

The following warning message in the ssl_engine_log file is wrong and should be ignored:

[warn] You are using mod_ssl under win32. This in *NOT* officially supported. Use at your own risk!

1.8.3.4 Recommended Access Restrictions for HTTP Server mod_oprocmgr

Sites should be configured to restrict access to the locations to valid users of mod_oprocmgr. Valid users of mod_oprocmgr include external processes (JServ processes), administrators sending requests to /oprocmgr-status, and administrators using DMS to monitor HTTP Server external processes.

The httpd.conf file should be modified as shown in the following example (additions are shown in bold text):

```
<IfModule mod_oprocmgr.c>
 ProcNode iashost.company.com 7777
  <IfDefine SSL>
    ProcNode iashost.company.com 80
  </IfDefine>
  <Location /oprocmgr-service>
    SetHandler oprocmgr-service
    order deny,allow
    deny from all
    allow from iashost.company.com
  </Location>
  <Location /oprocmgr-status>
    SetHandler oprocmgr-status
    order deny,allow
    deny from all
    allow from iashost.company.com
  </Location>
</IfModule>
```

Another way that the system administrator may want to modify httpd.conf is to permit access by all nodes within the same domain using something similar to "allow from .company.com". Where possible, this strategy is preferable because it permits administration from multiple locations without having to explicitly list each administrative host. Hostname-based access control should be sufficient for most environments. The performance issue with performing DNS lookups during hostname-based access control is not critical in this case, because access to mod_ oprocmgr occurs infrequently.

1.8.3.5 Oracle HTTP Server Crashes when Services Window Used to Stop or Restart

If you use the Services management window on Windows 2000 to start, stop, and restart the Oracle HTTP Server multiple times after any servlet invocation has occurred, the server stops and a Dr. Watson window appears. There is no workaround; simply close the Dr. Watson window. This problem has only been observed during shutdown and should not affect proper functioning of the installation.

1.8.3.6 mod_ose Causes apache -k restart Command Malfunction

If mod_ose.conf is included in%ORACLE_HOME%\Apache\Apache\conf\oracle_ apache.conf, the command "apache -k restart" does not work properly.

This prevents the HTTP Server from a graceful restart. The server will stop some time after the command is issued. The error log file will contain messages like these:

```
[Thu May 17 11:18:25 2001] [crit] (10038)(FormatMessage
failed with code 317):
Parent: WSADuplicateSocket failed for socket 292.
[Thu May 17 11:18:25 2001] [error] (2)No such file or directory: master_
main:create child process failed. Exiting.
```

1.8.3.7 FastCGI Restarts Scripts Containing Errors

FastCGI programs are restarted continuously even if there are errors in the program or configuration. When you start the HTTP Server, ensure that all the FastCGI scripts can be started correctly (by looking at the messages in the log file).

1.8.3.8 Global Server IDs for Oracle HTTP Server

You can use Global Server IDs to legally upgrade an export-level browser to use high grade encryption (128 bit) if the Apache server contains an appropriate GS-ID certificate and the browser has been patched to accept a GS-ID certificate. While all browsers are shipped with high encryption, it is disabled for export products. Note that with the recent change in US export laws, using GS-ID will not be necessary in the future; for now, however, if you have an export grade browser and require a high level of encryption, follow the steps below to obtain a GS-ID certificate and enable your browser:

1. Buy a GS-ID Certificate.

   Obtain a GS-ID certificate from an appropriate vendor. Oracle has tested the GS-ID certificate from Verisign (`http://www.verisign.com/server/prd/g/index.html`).

   Follow the instructions for downloading and saving the certificate on your server. After obtaining the certificate, the Oracle HTTP Server administrator must update the httpd.conf file. The lines to update are:

   ```
   SSLCertificateFile <pathname>
   /
   gsid.crt
   SSLCertificateKeyFile <pathname>
   /
   gsid.key
   SSLCertificateChainFile <pathname>
   /
   gsidintermediate.crt
   ```

   where `pathname` is the fully qualified path to the installed Verisign file(s).

2. Buy the Browser Patch.

   Obtain a patch that will allow your browser to upgrade the encryption method. Sources include Apache (www.apache.org) and Fortify (www.fortify.net/intro.html). Oracle has tested the patch from Fortify. It is straightforward to download and apply to your browser.

1.8.3.9 Oracle Demo Certificates Replacement

Oracle Demo certificates (that is, dummy certificates) are included with the Oracle HTTP Server build so that the server may be tested in a non-production mode. Before going to production mode, you MUST replace the Oracle Demo certificate with a real certificate.

1.8.3.10 Errors Starting Oracle HTTP Server with "APCHECTL -START" When Using Virtual Hosts

If the port number directive and the NameVirtualHost directive ports do not match, this error will occur. To resolve this issue, make sure that both the port and

NameVirtualHost are set to the same port. This can also be resolved by not specifying a port number in the NameVirtualHost directive.

Note that this problem will only occur when starting without SSL.

1.8.3.11 Increasing Memory for Apache JServ Applications

If the Apache JServ log or the browser report an "Out Of Memory" condition, the cause is most likely to be that the JVM ran out of memory. This normally happens when data handled by the JVM exceeds its memory allocation pool.

To increase the maximum size of the memory allocation pool for a JVM, use the following steps:

1. Add this line to %ORACLE_HOME%\Apache\Jserv\conf\jserv.properties:

   ```
   wrapper.bin.parameters=-mx<size>m
   ```

   where `<size>` is the size, in megabytes, of the memory allocation pool. The default value is 1 megabyte of memory. Oracle recommends that you use a size of 128 megabytes. To set the value to 128 megabytes, add the following line:

   ```
   wrapper.bin.parameters=-mx128m
   ```

2. Restart the Web server after this change so that it can take effect.

1.8.3.12 JServ Availability on Windows 2000

If your `mod_jserv.log` file contains errors such as:

```
(EMERGENCY) ajp12: cannot connect to host <ip address:port>
(EMERGENCY) ajp12: connection fail
```

Add the following to your `jserv.conf` file:

```
ApJServRetryAttempts 5
```

1.8.3.13 mod_plsql Requirement

To use the mod_plsql module against a given back-end database, you need to manually install the Oracle PL/SQL Web ToolKit (OWA PL/SQL packages) on the back-end database. The OWA PL/SQL packages should be installed into the SYS database schema; make sure that you have only one installation of the OWA PL/SQL packages. Note that existing Oracle Application Server (OAS) customers upgrading to the Oracle9i Application Server have an older version of these packages that must be replaced.

For more information, see *Using the PL/SQL Gateway* in the Oracle9i Application Server Documentation Library. Or, you can access the online documentation available at http://*hostname.domain*:*port*/pls/admin_/title.htm.

1.8.3.14 Vulnerabilities on Oracle mod_plsql in Oracle9i Application Server

The following vulnerabilities exist on Oracle mod_plsql:

- Potential buffer overflow-related security vulnerabilities exist in the Oracle mod_plsql v3.0.9.8.2 of Oracle9i Application Server. By exploiting excessive string lengths in mod_plsql administration pages, a knowledgeable and malicious user can use Oracle9i Application Server to gain access to Windows OS accounts.
- By attacking the Oracle mod_plsql directory path traversal mechanism using the double-URL encoding exploit, a knowledgeable and malicious user may be able to access readable OS files that may provide OS account information, and thereby gain access to the OS and Oracle9i Application Server.
- Ny directly accessing the Oracle mod_plsql gateway configuration Web pages, a knowledgeable and malicious user may remotely administer PL/SQL DADs without requiring authentication if default passwords for privileged database accounts are not changed in an Oracle9i Application Server production environment.
- By sending a malformed authorization HTTP client header to the Oracle mod_plsql cartridge, a knowledgeable and malicious user may be able to force a Denial of Service (DoS) attach on Oracle mod_plsql if no authorization type such as "Basic Apache" is established on mod_plsql.
- A knowledgeable and malicious user may directly access privileged Oracle database server information or write cross-site script attacks to gain unauthorized access to an Oracle9i Application Server installation by utilizing the Oracle PL/SQL OWA and HTP packages that are installed by default during a "Typical" Oracle9i Application Server and Oracle9i database installation.
- A knowledgeable and malicious user may be able to bypass PL/SQL authentication by substituting an application specific DAD in a given URL and thereby gain unauthorized access to Oracle9i Application Server.

To remove the potential vulnerability identified in number 3 above, change the AdminPath entry located in `ORACLE_HOME\Apache\modplsql\cfg\wdbsvr.app` to an implementation independent path name that does not reveal the exact location of the true administration pages. Refer to Oracle9*i* Application Server Using the PL/SQL Gateway for details.

To remove the security vulnerability identified in the last item, add the following rule to the file `ORACLE_HOME\Apache\modplsql\cfg\wdbsvr.app`

```
exclusion_list= account*, sys.*, dbms_*, owa*
```

1.8.3.15 Problems with mod_plsql Under Moderate Load

On NT, mod_plsql crashes under moderate load. This issue is explained in Bug No. 1432961 and requires backports for Bug No. 1179779 and Bug No. 1405498 on the Oracle Client and Server side. These fixes should be applied to the 8.1.7 Oracle Client libraries in your Oracle home, and the corresponding server side fix should be applied to the Oracle Database Server.

Internal testing could not reproduce the issue on Solaris, although the bug does exist on all platforms. If you have these problems on your system, please apply the required patches (8.1.7.1.1 for the Oracle Client and Server side, and 8.1.6.3.2 for the Oracle Server side.) to your platform as well. These patches are complete SQL*Net patches, and information on applying them is released with them. They contain fixes other than the mod_plsql fix described here.

1.8.3.16 mod_plsql Caching Error

If mod_plsql caching is not working properly, remove the final slash from the two cache_dir entries in %ORACLE_HOME%\Apache\modplsql\cfg\cache.cfg.

1.8.3.17 Restoring Oracle Application Server OWA Packages

When you install the new mod_plsql OWA packages, it places them in the SYS database schema. This can create problems with Oracle Application Server applications using the PL/SQL cartridge. If you experience these problems and want to continue to use your Oracle Application Server PL/SQL cartridge applications, you must recreate the synonyms that reference the Oracle Application Server OWA packages.

To create these synonyms on the origin database machine:

1. Connect to the origin database as the SYS user in SQL*Plus.
2. Run the following commands in SQL*Plus. This drops all of the OWA public synonyms created during the Oracle9i Application Server installation process.

```
drop public synonym OWA_CUSTOM;
drop public synonym OWA_GLOBAL;
drop public synonym OWA;
drop public synonym HTF;
drop public synonym HTP;
drop public synonym OWA_COOKIE;
drop public synonym OWA_IMAGE;
drop public synonym OWA_OPT_LOCK;
drop public synonym OWA_PATTERN;
drop public synonym OWA_SEC;
drop public synonym OWA_TEXT;
drop public synonym OWA_UTIL;
drop public synonym OWA_INIT;
drop public synonym OWA_CACHE;
drop public synonym WPG_DOCLOAD;
```

3. Connect to the "`oas_public`" OWA package installation schema.
4. Ensure that the user schema has "`CREATE PUBLIC SYNONYM`" privileges. If it does not, then grant these privileges to the user schema before continuing with the next step.
5. Run the following commands in SQL*Plus. This recreates the OWA public synonyms so that they reference the Oracle Application Server OWA packages.

```
create public synonym OWA_CUSTOM for OWA_CUSTOM;
create public synonym OWA_GLOBAL for OWA_CUSTOM;
create public synonym OWA for OWA;
create public synonym HTF for HTF;
create public synonym HTP for HTP;
create public synonym OWA_COOKIE for OWA_COOKIE;
create public synonym OWA_IMAGE for OWA_IMAGE;
create public synonym OWA_OPT_LOCK for OWA_OPT_LOCK;
create public synonym OWA_PATTERN for OWA_PATTERN;
create public synonym OWA_SEC for OWA_SEC;
create public synonym OWA_TEXT for OWA_TEXT;
create public synonym OWA_UTIL for OWA_UTIL;
```

```
create public synonym OWA_INIT for OWA_CUSTOM;
create public synonym OWA_CACHE for OWA_CACHE;
create public synonym WPG_DOCLOAD for WPG_DOCLOAD;
```

1.8.3.18 Executing the owaload.sql script

To make the owaload.sql script run correctly, you must always execute it in <ORACLE_HOME>/assistants/opca/. An error occurs if you execute it in <ORACLE_HOME>/Apache/modplsql/owa/.

1.8.3.19 Known Issues with mod_plsql on Windows NT

The Oracle Client dependencies in the Oracle home of Oracle9i Application Server installations exist in 8.1.7.0.0. On NT, the mod_plsql component requires a minimum patch set of 8.1.7.1.1 in the Oracle home. A corresponding patch needs to be applied to the Oracle Portal database as well. If you are running an 8.1.7 database, you need to upgrade to 8.1.7.1.1. If you are using an 8.1.6 database, you need to upgrade to 8.1.6.3.1. Please refer to bug #1432961 for more details.

Internal testing could not simulate any issues on other platforms, but if you are facing stability issues with Oracle9i Application Server mod_plsql on other platforms, please apply the required patches to your Oracle9i Application Server and Oracle installations.

1.8.3.20 mod_plsql Document Upload Fails if cursor_sharing parameter set to "similar"

When running mod_plsql against a 9.0.1 database, you will not be able to upload files if the cursor_sharing parameter in the database initialization file initorcl.ora is set to "similar". In this case, an ORA-3106 error occurs.

This problem will be corrected in the next patch release of 9.0.1. Until then, the workaround is to not use "similar" for the cursor_sharing parameter.

1.8.3.21 Known Issue in Upgrading from 8.1.7.0 to 8.1.7.1

If you are running Oracle9i Application Server-based mod_plsql applications (such as Oracle Portal), please note that the upgrade to 8.1.7.1 will reinstall the default OWA packages provided with the database. These packages are older than those provided withOracle9i Application Server/Oracle Portal and will cause issues while running some components of Oracle Portal (see bug no. 1745320 for more details). To get around this problem, you will need to reinstall the OWA packages from the Oracle9i Application Server shiphome at the end of the upgrade.

If you have not yet upgraded to 8.1.7.1, there is another workaround. Edit the file $ORACLE_HOME/rdbms/admin/catproc.sql and comment out the "@@owacomm.sql"

line which loads OWA packages so that the upgrade script will not reload the OWA packages provided by the database. Instead, the OWA packages already loaded in the database from Oracle9i Application Server will be preserved.

Note: If you reinstall the OWA packages, you should recompile all dependent objects that are invalidated.

1.8.3.22 mod_rewrite Security Vulnerability

A security vulnerability is present in mod_rewrite that allows certain rules to offer access to any file on the Web server. To avoid these problems, rewrite rules should always map to a full URL rather than mapping directly to a file.

For example, if you have a Web server where DocumentRoot is set to /webroot, do not use:

```
RewriteRule /foobar/(.*)  /webroot/myfiles/$1
```

which directly maps the request to a filesystem location. Rather, use a rule such as:

```
RewriteRule /foobar/(.*) http://myserver.mydomain.com/myfiles/$1
```

which restricts access to files that are accessible by the Apache instance (that is, files under the DirectoryRoot directory tree).

1.8.3.23 openssl Command -config Option Requirement

When using the openssl command to create a certificate request, the command must include the -config option to specify the location of the configuration file openssl.cnf (which by default is in %ORACLE_HOME%\Apache\open_ssl\bin. Otherwise, the command will fail.

For example:

```
prompt> openssl req -config %ORACLE_HOME%\Apache\open_ssl\bin -new -x509 -days 365
-key ca.key -out ca.crt
```

Note: The OPENSSL_CONF environment variable can not be used to specify the location of the configuration file.

1.8.3.24 No Support for CA Facilities of OpenSSL

The Certifying Authorities (CA) facilities of OpenSSL are not supported and should not be used. Oracle9i Application Server has moved to the Certicom SSL stack, which does not include the CA features of SSL. You should use the openssl command only for generating certificate requests. Other functionality such as examining certificates, signing certificates, and so on, are not supported by Oracle.

1.8.3.25 mod_ssl Limitations

In this release, the symmetric encryption algorithms RC2, RC5, IDEA are not supported.

1.8.3.26 Valid Servlet Requests Fail on Second Request Using Same URL

If a valid servlet is requested once, and then requested again a second time using the URL-encoded version of the servlet's URL, then the second request may fail with an error logged in the Apache error_log.

For example, the second URL in the example below may cause an HTTP error:

```
http://mysite/demo/basic/hellouser/hellouser.jsp
http://mysite/demo/basic/hellouser/hellouser%2ejsp
```

The server will continue to run, and the unencoded version of the URL continue to function properly.

The workaround is to always use the encoded version of each URL or always use the unencoded version of each URL. If it is necessary to mix them, always use the encoded version before using the unencoded version (for each run of the server).

1.8.3.27 DMS Clients Require Configuration Change

DMS clients, including flexmon, oasomo, ohsTree, and EMD require a small configuration change to soap.properties in order to operate properly. The SOAP server (and every process group with its own JServ properties file) must contain a zone called "root". DMS clients use this zone to retrieve performance metrics.

To add the "root" zone to the soap.properties file, you must change one line in soap.properties and add one new line to soap.properties.

To make these changes:

1. Open the %ORACLE_HOME%/Apache/Jserv/etc/ jservSoap.properties file and change the line that looks like this:

   ```
   zones=soap
   ```

   to this:

   ```
   zones=soap,root
   ```

   Following the line that looks like this

```
soap.properties=%ORACLE_HOME%/soap/webapps/soap/WEB-INF/config/soap.properties
```

Add this line:

```
root.properties=%ORACLE_HOME%/Apache/Jserv/etc/zone.properties
```

(replace %ORACLE_HOME% with your expanded ORACLE_HOME environment variable)

1. Restart the server.
2. To test, use this URL (replace mysite with the hostname:port of your site):

   ```
   @  http://mysite/dms/AggreSpy
   ```

   The first access to the URL may indicate that some metrics are not available, but subsequent accesses should return valid metric values. If the server is not configured correctly, then the URL will cause long timeout delays, errors in the Apache error_log file, and error responses to the HTTP request.

1.8.3.28 Security Implications of "Auto-deploying" SOAP Service Manager

In the default SOAP configuration file, `soapConfig.xml`, the services `urn:soap-service-manager` and `urn:soap-provider-manager`, which allows you to deploy additional services and providers is disabled. To enable these services, set the value of the attributes `autoDeploy`, of the element `serviceManager`, in the

configuration file, to 'true'. When this attribute is set to 'true' (or not specified), Oracle9iAS SOAP deploys the following two services automatically:

- `urn:soap-service-manager`
- `urn:soap-provider-manager`

These two services allow you to deploy/undeploy other SOAP services and SOAP providers, respectively. Oracle9iAS SOAP, which is based on Apache SOAP, comes with a Java Provider, which is always deployed. This provider allows you to deploy Java classes as SOAP services. To deploy a Java class as a SOAP service, there are three restrictions:

- The Java class that is used as a service class has to be available to the soap servlet. It should be part of the JServ classpath or the servlet zone repository.
- The Java class that is used as a service class has to have a public no args constructor.
- The method in the service class that can be used by remote clients must have all the arguments de-serializable and the return value serializable. Oracle9iAS SOAP contains serializers/deserializers for the following Java types: Java inbuilt types/wrapper classes, Java Beans, Hastable, Vector, `org.w3c.dom.Element`, `base64binary`, Parameter, QName, and arrays of supported types. For any other type, serializer/deserializers has to be custom written and deployed.

There are security implications of having the `urn:soap-service-manager` deployed. A client having access to the URL that hosts the service `urn:soap-service-manager` can deploy/undeploy other SOAP services. A client having access to the URL that hosts the service `urn:soap-service-manager` can deploy/undeploy other SOAP providers. It is therefore essential to 'adequately' protect these services, where the meaning of 'adequately' depends on the environment and security requirements. It is important to note that the same SOAP servlet can host multiple services, as in a n-to-1 mapping between the SOAP service and the SOAP servlet. This means that Apache access control will provide an all-or-nothing protection as the service is identified in the XML payload, which Apache does not understand.

Consider an Oracle9iAS SOAPservlet with the sample 'addressbook' (`urn:AddressFetcher`) service deployed along with the `urn:soap-service-manager`. The default SOAP URL is `/soap/servlet/soaprouter`. This means, to access `urn:AddressFetcher` as well as to access `urn:soap-service-manager` which deploys/undeploys new services, a client has to use the relative URL`/soap/servlet/soaprouter`. This means that if a client can access `urn:AddressFetcher`, it can also access `urn:soap-service-manager`.

With the exception of development and testing situations, such all-or-nothing access is rarely the right choice. In addition to custom solutions, such as deploying one servlet per service or having a front end to the SOAP servlet, Oracle9iAS SOAP provides the following features to protect `urn:soap-service-manager` and `urn:soap-provider-manager` services, which you might consider when deploying SOAP in production:

1. Oracle9iAS SOAP configuration allows one to specify the URLs that must be used to access `urn:soap-service-manager` and `urn:soap-provider-manager`. If those URLs are not used then the servlet will reject the request. Using Apache, one can configure two or more URLs to point to the same servlet. With A and B, A can have a one level of protection and can be specified in the soap configuration to be used for the service manager. B can have another level of protection, as in if the client can access A, it can deploy/undeploy services and can also access other

services. A client that can access B but not A cannot deploy/undeploy services, but can access other services. To configure the required URL for urn:soap-service-manager under the serviceManager element in *ORACLE_HOME*\soap\webapps\soap\WEB-INF\config\soapConfig.xml, add the following element: <osc:option name="requiredRequestURL" value="relative-url"/>. To configure the required URL for urn:soap-provider-manager under the providerManager element, add the following element: <osc:option name="requiredRequestURL" value="relative-url"/>. For example, the URL /soap/servlet/soaprouter can be used to access custom soap services, such as urn:AddressFetcher. Apache and JServ directives can be used to configure URLs /soap/admin/servicemanager and /soap/admin/providermanager to point to the same servlet which hosts urn:AddressFetcher. Standard Apache and JServ authentication/authorization/access control facilities can be set to protect /soap/servlet/soaprouter, /soap/admin/servicemanager and /soap/admin/servicemanager, such as allowing only local host to access /soap/admin/servicemanager and /soap/admin/providermanager or requiring SSL with client authentications.

2. Oracle9iAS SOAP also has the concept of pre-deployed services and providers. This means that all the services and providers are deployed and no new services and providers are to be deployed, and deployed services and providers are not undeployed. This is done by adding the following element under the serviceManager element in the soap configuration file, *ORACLE_HOME*\soap\webapps\soap\WEB-INF\config\soapConfig.xml: <osc:option name="autoDeploy" value="false"/>. This undeployed the urn:soap-provider-manager services. When the autoDeploy is set to 'true' or not set at all, services can be deployed/undeployed. This means that any client having access to \soap\servlet\soaprouter can deploy/undeploy services. Such a client can deploy classes, which have no args constructors, available in the JServ classpath, as in classes in packages java.lang.*, java.util.*, etc., and the servlet zone. To invoke the method in such a deployed class requires that the appropriate serializer/deserializer also be made available as noted above.

It is strongly recommended that either:

1. Where SOAP is not used, it is disabled
2. The deployed/undeployed feature be disabled
3. Access to the SOAP deploy/undeploy facility be restricted to administrative or test personnel in the manner detailed above.

If Oracle9iAS SOAP is not being used, it can be disabled by editing the file *ORACLE_HOME*\Apache\Jserv\etc\jserv.conf and commenting out the following lines.

```
ApJServGroup group2 1 1 $ORACLE_HOME/Apache/Jserv/etc/jservSoap.properties
ApJServMount /soap/servlet ajpv12://localhost:8200/soap
ApJServMount /dms2 ajpv12://localhost:8200/soap
ApJServGroupMount /soap/servlet balance://group2/soap
```

Note: Unlike the four lines above, jserv.conf in an Apache install will have ORACLE_HOME expanded and the ajp port may not be 8200.

1.8.4 *Oracle9i*AS Forms Services

This section describes the Oracle9*i*AS Forms Services.

1.8.4.1 *Oracle9i*AS Forms ListenerServlet Requires Patch

Running *Oracle9i*AS Forms using the ListenerServlet causes an ORA-12222 error. The solution is to install *Oracle9i*AS Forms 6.0.8.14 (patch set 5, available on MetaLink) after installing *Oracle9i*AS Release 1 (v1.0.2.2.2a)).

1.8.4.2 Enhancing Forms and Reports Scalability

For instructions on rebasing Forms and Reports DLLs, see the README file located in the /Extras/Forms_Reports directory.

1.8.4.3 JInitiator 1.1.7.31 HTTP(S) Limitations

This release of Oracle9i Application Server ships with JInitiator 1.1.7.31. This JInitiator release does not work using HTTP(S) communication for *Oracle9i*AS Forms Services because of a missing DLL. To enable HTTP(S) communication with *Oracle9i*AS Forms Services, download the latest JInitiator from the Oracle Technology Network (OTN) at:

`http://technet.oracle.com/products/forms`

Click the Software tab and select the latest JInitiator posted, Release 1.1.7.32 or later.

Note: This release of *Oracle9i*AS Forms Services (6.0.8.11) has not been tested with releases of JInitiator earlier than 1.1.7.31.

1.8.4.4 Internet Explorer 5.0 Native JVM Limitations

*Oracle9i*AS Forms Services provides a signed CAB file to enable bronze support for Internet Explorer 5.0 running the native JVM (Java Virtual Machine). This support requires that the HTTP(S) Forms Server and Web listener run on the same machine.

The following are current limitations when running with Internet Explorer 5.0 and the native JVM:

1. In HTTP or HTTPS mode, Forms Server and Web listener need to run on the same machine.
2. In HTTPS mode, *Oracle9i*AS Forms Services cannot communicate through a firewall.
3. In HTTPS mode. *Oracle9i*AS Forms Services applet must be downloaded in HTTPS mode.
4. In HTTPS mode, the heartbeat applet parameter must be set to a low value to maintain communication with the server. The value 0.3 (minutes) has been tested and verified.

For the latest information about the current level of client support and HTTP(S) restrictions, refer to the *Client Platform Statement of Direction* document at:

`http://technet.oracle.com/products/forms`

1.8.4.5 *Oracle9i*AS Forms Services non-SSL Listener Requirement

*Oracle9i*AS Forms Services requires that Apache be listening on at least one port in non-SSL mode, because Oracle JInitiator cannot download the Forms Applet via SSL.

1.8.4.6 Oracle 9*i*AS Forms/Enterprise Manager Limitations

A patch is available on ARU and Metalink to resolve the following problems:

Bug 1286040, version 2.1 - NLS: Multibyte characters in Forms Listener Process Log are corrupted

Bug 1544477, version 6.08.11.3 - Event de-registering causes Error VD-1525

Bug 1549369, version 2.2.0 - Cannot de-register Forms Listener Up / Down Event

Bug 1554211, version 2.2 - Forms event fails with database version 8.1.7

Bug 1562864, version 2.1 - Oracle Agent cannot discover Forms servers in multiple Oracle homes on the same server

Bug 1562887, version 2.1.0.1.0 - Multiple SIDs will not start the Forms listener from Oracle Enterprise Manager

Bug 1383239, version 6.0.8.8 - OEM startup job returns “completed” status if it fails

Bug 1479367, version 8.1.7 - nmiforms.tcl is looking for an ORACLE_HOME environment variable in the wrong way

1.8.4.7 Patch for Oracle9*i* Database When Using ADTs and char Fields in Compound Key

If you are using ADTs or char fields in a compound key with an Oracle9*i* database, you should apply Forms patch 1777190 on top of your Oracle9iAS Release 1 (v1.0.2.2.2a) installation.

1.8.4.8 Patch to Oracle9iAS Forms Services to Eliminate JInitiator Compatibility

For Enterprise Edition installation for Release 1 (v1.0.2.2.2a), apply Forms patchset 5a or above to eliminate JInitiator compatibility on Pentium 4 systems. The patchsets can be found on Oracle*Metalink*.

1.9 Portals Solution Area Issues

This section describes Portal solution area issues.

1.9.1 *Oracle9i*AS Portal Online Help Not Installed

The *Oracle9i*AS Portal online help does not get installed during the *Oracle9i*AS install process. Follow these steps to install the help:

From the <ORACLE_HOME> / assistants / opca directory:

1. Run the command below, replacing the variables as applicable:

   ```
   runimp.csh ../../bin/imp <portal_schema>/<portal_password> <database_hostname>
   <database_port> <database_sid> PORTAL_HELP <portal_schema>
   ../../portal30/doc/site/hlp30ca.dmp hlp30ca.dmp.log
   ```

2. Go to the <ORACLE_HOME> / portal30 / admin / plsql / wwu directory.
3. Log into the database as the Portal schema owner. Run the following command from the SQL prompt:

```
@utlsbmrg.sql reuse database_user 0
```

1.9.2 Fully Qualified Domain Requirement in tnsnames.ora

If sqlnet.ora has default_domain defined, for example:

```
NAMES.DEFAULT_DOMAIN = us.oracle.com
```

then your *Oracle9i*AS Portal DAD connect string needs a domain.

For example:

from %ORACLE_HOME%\Apache\modplsql\cfg\wdbsvr.app:

```
connect_string = portal30.world
```

where `portal30.world` is a defined alias in the tnsnames.ora file. If the connect string does not have a domain extension such as:

```
connect_string = portal30
```

then your tnsnames.ora file must have the DEFAULT_DOMAIN extension in the alias as: `portal30.us.oracle.com`.

1.9.3 Report Output Requirement

To schedule a report page in *Oracle9i*AS Portal, you must specify the output folder name and the status folder name in the Schedule Report Page dialog box. If you do not specify these names, the report output will not display in the content area for which the report component is defined.

1.9.4 Duplicate Entries for Portal and Forms in zone.properties file Cause Connection Failures

Connection to Oracle Portal fails after migrating to *Oracle9i*AS Release 1 (v1.0.2.2) to Release 1 (v1.0.2.2a) because of the following duplicate entries in the `zone.properties` file:

```
repositories=D:\iasv102\Apache\Jserv\servlets\ChartServlet.jar
repositories=D:\iasv102\Apache\Jserv\servlets\Parallel.jar
repositories=D:\iasv102\Apache\Jserv\servlets\AppLoader.jar
servlet.page.code=oracle.webdb.page.ParallelServlet
servlet.chart.code=oracle.webdb.chart.ChartServlet
servlet.apploader.code=oracle.webdb.AppLoaderServlet
servlet.ojsp.code=oracle.jsp.JspServlet
servlet.ojsp.initArgs+alias_translation=false
```

To resolve the error, remove the duplicate entries and restart the Oracle HTTP Server.

1.10 Wireless Solution Area Issues

This section describes Wireless solution area issues.

1.10.1 Adapters

To address language-encoding issues, new optional input parameters have been added:

- **INPUT_ENCODING** has been added to the URL adapter enabling it to specify the remote XML page's charset.
- **inputEncoding** has been added to StripAdapter enabling it to specify the remote HTML page's charset.

1.10.2 Transformers

The HDML, TINY_HTML and WML1.1 transformers have been modified. By default, these modified transformers will NOT be loaded into the Repository.

If you HAVE NOT made changes to the Transformers, simply upload **up11-111.xml**.

If you have modified the shipped version of these transformers: 1.) merge the differences, then 2.) upload the new transformers using the LoadXML utility (you can use **upload.bat**/or **upload.sh**, depending on your hardware platform, with **up11-111.xml** shipped with the patch release). You can find the **upload.bat**/or **upload.sh** script file in panama/sample under ORACLE_HOME. See *Oracle9i Application Server Wireless Edition Configuration Guide* for more information on the LoadXML utility.

1.10.3 New Search/Sort Feature Introduced into Service Designer

When you right click on the Master Services node or a folder node, you will find a Search/Sort command. You can search on service names (service names are case-insensitive); wild cards (such as '%') are accepted. Search results can be sorted by Name, LastUpdated Date, or Sequence Number.

The new Search feature is more efficient when you are trying to load a large number of services.

The search results will be the new child nodes of the folder which will be automatically expanded. After you collapse the folder and re-expand it, all of its children will be loaded by default. In either case, if the result set is too large and surpasses the limit size specified in ptgsd.properties, you will receive a warning, and only part of the result set will be loaded. In this case, if your expected service is not displayed, you must fine tune your search criteria and reaccomplish the search.

1.10.4 Debugging

Sending the PAdebug=1 flag as part of a query string will not, by itself, enable the debugging capability. The login user for the current session must be either a Designer or an Administrator. See *Oracle9i Application Server Wireless Edition Implementation Guide* for information on how to create a Designer or an Administrator.

1.10.5 Testing Wizard

You must have the Designer role in order to use the Test Wizard inside the Service Designer, otherwise only the device result will be displayed when a service is being tested.

1.10.6 JDBC Driver

This release of Wireless Edition only supports the classes12.zip JDBC driver. classes111.zip is no longer supported.

1.10.7 Supported Devices and Gateways

For a list of certified devices and gateways supported by Wireless Edition, see the OTN web site at:

`http://otn.oracle.com/products/iaswe`

1.10.8 Third Party Location Service Providers

To obtain third party files for using location services in Wireless Edition, see the OTN web site at:

`http://otn.oracle.com/products/iaswe`

1.10.9 Database Connections

The default database created by the Oracle8i installation may not be tuned properly for your installation. The "ORA-00020: maximum number of processes exceeded errors" message may appear.

To prevent this, ensure that the `max_processes` database parameter is set high enough, and that the Oracle Net8 dead process detection is configured in your system. See the Oracle8i documentation for more detailed database configuration and performance information.

1.10.10 Notifications

When using *Oracle9i* AS Wireless Edition notifications (the AQ Daemon process), note that if a job terminates with an error, it is removed from the job queue. To continue to use the job, correct the error and reschedule the job.

1.10.11 Bootstrap Repository Provisioning Service

To use the Provisioning Service in the bootstrap repository, you must first set the input parameters of the master service to be User Customizable.

1.10.12 SQL Adapter Master Services

Numeric input parameter names are not allowed in the master service PL/SQL code.

Also, JDBC connect strings that specify a user name and password are not allowed, for example:

```
jdbc:oracle:thin:user/password@hostname:port:sid
```

The connect string information must be of the form:

```
jdbc:oracle:thin:@hostname:port:sid
```

The user name and password must be specified in the User Name and Password fields in the Service Designer.

1.10.13 Bookmarks in the Personalization Portal

When creating a bookmark in the Personalization Portal, the http:// prefix must be included in the URL, for example:

```
http://domain_name.com
```

1.10.14 Service Designer Folder Contents Display

This release of *Oracle9i*AS Wireless allows you to limit the number of objects displayed in the Service Designer navigational tree. To enable this feature, set the number of objects you want to display by editing the `ptgsd.properties` file.

1.10.15 Multibyte Character Set Support for the Web Integration Server

To support multibyte character sets for the Web Integration Server in *Oracle9i*AS Wireless, apply the following configuration changes to the Web Integration server start up script. (The Java Virtual Machine (JVM) bundled with Web Integration Developer and Web Integration Server does not contain the `i18n.jar` or `font.properties` files and therefore does not support multibyte character sets.)

On the application server:

1. Replace the font.properties file of the JVM with `font.properties.<locale>`.
2. The JVM path for the server is:

   ```
   %ORACLE_HOME%\Apache\jdk\jre\lib
   ```

3. Edit the server.bat file.

   The path for the server batch file is:

   ```
   %ORACLE_HOME%\panama\WebIntegration\Server\bin\server.bat
   ```

   a. Comment out (REM) the following line:

   ```
   SET SCMD="%JDKDIR%\bin\java" -ms64M -mx64M -classpath
   %CLASSPATH%
   ```

   b. Add the following line:

   ```
   -Dfile.encoding=<encoding>
   ```

   as a Java command line option, such as:

   ```
   SET SCMD="%JDKDIR%\bin\java" -Dfile.encoding=<encoding>
   -ms64M -mx64M -classpath %CLASSPATH%
   ```

   For example:

   ```
   SET SCMD="%JDKDIR%\bin\java" -Dfile.encoding=SJIS -ms64M
   -mx64M -classpath %CLASSPATH%
   ```

1.10.16 Multibyte Character Set Support for the Web Integration Developer

To support multibyte character sets for the Web Integration Developer in *Oracle9i*AS Wireless, apply the following configuration changes to your client installations. (The Java Virtual Machine (JVM) bundled with Web Integration Developer and Web Integration Server does not contain the i18n.jar or font.properties files and therefore does not support multibyte character sets.)

On the *Oracle9i*AS Wireless client:

1. Download the internationalized (or localized) version of the Java Runtime Environment (JRE) from the JavaSoft Web site at:

   ```
   http://java.sun.com/products/jdk/1.2/jre
   ```

2. Install the Java Runtime Environment (JRE) from JavaSoft.
3. Replace the font.properties file of the JVM with `font.properties.<locale>`. The JVM path for the client is:

   ```
   %JREDIR%\lib
   ```

   For example:

```
SET JDKDIR=jre1.2\lib
```

1. Extract the developer.zip file. The path for the file is:

   ```
   %ORACLE_HOME%\panama\WebIntegration\Developer\lib\developer.zip
   ```

2. Extract the file's content to:

   ```
   %ORACLE_HOME%\panama\WebIntegration\Developer\lib\developer\
   ```

3. Edit the `developer.bat` file. The path for the file is:

   ```
   %ORACLE_HOME%\panama\WebIntegration\Developer\bin\developer.bat
   ```

   a. Comment out (REM) the following line:

      ```
      SET JDKDIR=C:\OraHome1\panama\WebIntegration\Developer\jvm
      ```

   b. Point JDKDIR to the new JRE directory where JRE1.2 is installed, for example:

      ```
      REM SET JDKDIR=C:\OraHome1\panama\WebIntegration\Developer\jvm
      SET JDKDIR=jre1.2
      ```

   c. Comment out (REM) the following line:

      ```
      SET CLASSPATH="%JDKDIR%\LIB\RT.JAR;%DEVDIR%\LIB\DEVELOPER.ZIP;
      %DEVDIR%\packages\wmroot\code\classes"
      ```

   d. Change DEVELOPER.ZIP to DEVELOPER in the CLASSPATH. For example:

      ```
      SET CLASSPATH="%JDKDIR%\LIB\RT.JAR;%DEVDIR%\LIB\DEVELOPER;
      %DEVDIR%\packages\wmroot\code\classes"
      ```

   e. Comment out (REM) the following line:

      ```
      "%JDKDIR%\bin\jre" -ms16M -mx32M -classpath %CLASSPATH%
      watt.app.watt.Main -config "%DEVDIR%\config\developer.cnf"
      -home "%DEVDIR%" %1 %2 %3 %4 %5 %6 %7 %8 %9
      ```

   f. Add the following line:

      ```
      -Dfile.encoding=<encoding>
      ```

      Add the line as a Java command line option, such as:

      ```
      "%JDKDIR%\bin\java" -Dfile.encoding=<encoding> -ms16M
      -mx32M -classpath %CLASSPATH% watt.app.watt.Main -config
      "%DEVDIR%\config\developer.cnf" -home "%DEVDIR%" %1 %2 %3 %4 %5 %6 %7 %8 %9
      ```

For example:

```
"%JDKDIR%\bin\java" -Dfile.encoding=SJIS -ms16M -mx32M
-classpath %CLASSPATH% watt.app.watt.Main -config
"%DEVDIR%\config\developer.cnf" -home "%DEVDIR%"
%1 %2 %3 %4 %5 %6 %7 %8 %9
```

1.10.17 Transformer Testing Tool

On Windows NT, with Service Pack 6, the following error may occur when running the *Oracle9i*AS Wireless Transformer Testing Tool:

```
java.net.SocketException: JVM_SetSockOpt() TCP_NODELAY (code=10055)
```

To resolve this issue, apply Service Pack 6a available from the Microsoft web site. If you still experience this issue with Service Pack 6a installed, try reinstalling Service Pack 6a. If this still does not resolve the issue, add the current Windows NT user to the "Administrators" group.

1.10.18 Web Integration Components and JDK

Web Integration Server requires JDK 1.1. If you experience problems with this component, check the Java settings in the following startup file: %ORACLE_HOME%\panama\WebIntegration\Server\bin\server.bat. In some cases, Oracle 8.1.6 on Windows NT modifies a machine's Java environment. As a result, *Oracle9i*AS Wireless Web Integration Developer may generate error messages or fail to start. To fix the problem, either restore your original Java environment by reinstalling Java, or verify that the Web Integration Developer starts with the JVM from the 8.1.6 installation. To do this, modify the following file:

```
%ORACLE_HOME%\panama\WebIntegration\Developer\bin\developer.bat
```

Change the line:

```
SET JDKDIR=%ORACLE_HOME%\panama\WebIntegration\Developer\jvm
```

to:

```
SET JDKDIR=%ORACLE_HOME%\jre\1.1.7
```

1.10.19 Failed to Load Large XML File from Service Designer in *Oracle9i*AS Wireless

A problem has been discovered concerning corruption of some XML stylesheets (especially in large files) when they are loaded from ServiceDesigner. It is caused by the XML Parser. A patch has posted at:

```
tcpatch:/u01/patch/xdkpatches/bug1736840
```

This directory contains three files: **README**, **changed_classes.zip** and a new **xmlparserv2.jar**. The readme file inside the patch directory contains more detailed information about the nature of the problem.

To apply the patch, copy **xmlparserv2.jar** to `$<ORACLE_HOME>/lib`.

1.10.20 Personalization Portal

The PAPz-based personalization portal released before *Oracle9i*AS Wireless Edition 1.1 is being officially deprecated in the *Oracle9i*AS Release 1 (v1.0.2.2.2a) release, and will be totally de-supported in the next (2.0) production release. The portal-based

personalization portal will be the preferred personalization portal and will be the only supported personalization portal in the next production release.

1.10.21 Web Integration Server Does Not Work on Pentium 4 Systems

Web Integration Server will not work on Pentium 4 systems because of the incompatibility for JRE version used.

The following are the workaround options:

- You can remove the `symcjit.dll` from *ORACLE_HOME*`\panama\WebIntegration\Server\jvm\bin`
- Or, you can copy a patched dll from <*SYSTEM_DRIVE*>`:\Program Files\Oracle\jre\1.1\bin` to the above location.

1.11 Caching Solution Area Issues

This section describes caching solution area issues.

1.11.1 Oracle9iAS Database Cache

This section describes database cache issues.

1.11.1.1 Configuration Assistant Considers Empty String Invalid for NT Administrator Password

The database cache configuration assistant, wtacca, expects that the Administrator password contains characters. An empty string is invalid.

1.11.1.2 Using *Oracle9i*AS Database Cache with Servlets

To access data cached in the middle tier using servlets, you must enable *Oracle9i*AS Database Cache by setting the ORA_OCI_CACHE environment variable in the servlet environment. Add the following line to the jserv.properties file in the %ORACLE_HOME%\Apache\Jserv\etc directory:

```
wrapper.env=ORA_OCI_CACHE=1
```

In addition, the TNS_ADMIN environment variable must be set to the location of the local network configuration. By default, the value is %ORACLE_HOME%\network\admin. Add the following additional line to jserv.properties:

```
wrapper.env=TNS_ADMIN=<absolute path to ORACLE_HOME>\network\admin
```

1.11.1.3 loadjava Limitation in *Oracle9i*AS Database Cache Environment

Because of known issues with LOB support in the *Oracle9i*AS Database Cache environment (when ORA_OCI_CACHE is set to 1), the loadjava utility will not work.

1.11.1.4 Changes to tnsnames.ora and init.ora Requirement

To use the *Oracle9i*AS Database Cache PL/SQL API, you must connect using a Net8 net service name that is constructed using the service name, not the SID. As a result, the tnsnames.ora and init.ora file shipped with this release of Oracle9i Application Server need to be changed. See the *Oracle9i*AS Database Cache README file for information about the necessary changes.

1.11.1.5 Oracle9iAS Database Cache Configuration Assistant Failure

The Oracle9*i*AS Database Cache Configuration Assistant fails when 'Updating User List' is 96% complete. The following error appears:

```
Updating User List
        Adding users to the cache
        Adding users to the cache failed.
        Reason: WTE-03501 Error updating list of users:
                Export failed on origin database.
        OCI error - ORA-06520: PL/SQL: Error loading external library
        ORA-06522: dlopen: cannot load /lib/libc.so
        ORA-06512: at "SYS.WTCSYS", line 11
        ORA-06512: at "SYS.WTCSYS", line 66
        ORA-06512: at line 1
        Processing failed.
```

A patch for all *Oracle9i*AS Release 1 (v1.0.2.2.2a) releases is available to fix this problem. The patch is not specific to NT as reported, but fixes the problem on all Oracle9*i*AS Database Cache platforms that have an Oracle origin database running on the following UNIX operating systems:

- HP-UX
- Compaq Tru64
- IBM AIX

Follow these steps to apply the patch:

1. Complete the Oracle9i Application Server installation after the error described above occurs.
2. Copy `wtcsini.plb` to the following directory:

   WIndows NT: <ORACLE_HOME>\icache\admin

   UNIX: <ORACLE_HOME>/icache/admin

Rerun the Oracle9*i*AS Database Cache Configuration Assistant from the bin directory.

Windows NT:

```
cd <ORACLE_HOME>\bin
wtacca -create -typical "username=sys" "password=your_password"
```

Unix:

```
cd <ORACLE_HOME>/bin
wtacca -create -typical "username=sys" "password=your_password"
```

The Oracle9*i*AS Database Cache Configuration Assistant completes without errors.

1.11.1.6 Oracle9*i*AS Cache Stops Responding When Caching a Table That Contains a Context Index

Using the `dbms_icache.add_table` procedure to cache a table that contains a context index will cause *Oracle9i*AS Cache to stop responding, or "hang." This will also generate an ORA-600 error in the back-end database. Currently, there is no fix available to resolve this issue.

1.11.1.7 Cache Environment Variable Setting

A problem with the ORA_OCI_CACHE system environment variable causes mod_plsql to suspend or stop under moderate load. Ensure that this variable is not set when the Oracle HTTP Server is started.

1.11.1.8 Preserving Original orawtc8.dll Before Applying 8.1.7.1.1 NT Patchset

Applying the 8.1.7.1.1 patchset to *Oracle9i*AS replaces the orawtc8.dll file, so that the *Oracle9i*AS Database Cache does not work correctly. Before you apply this patchset, preserve the original orawtc8.dll.

1.11.2 Oracle9iAS Portal Configuration Assistant Cannot Connect to Oracle9*i* Database

While installing Oracle9i Application Server on Solaris 2.8 against an Oracle9*i* database running on Windows NT SP 6a, Oracle9iAS Portal Configuration Assistant requests the password for the sysdba account, and the database connection information. When specified, the following error is generated:

Oracle9iAS Portal Configuration Assistant could not connect to the specified database.

You can connect to the same database using SQL*Plus on the same Solaris machine.

The workaround for this is as follows:

- Install the JDBC patch, which is part of the 8.1.7.2 patchset, over the Oracle9i Application Server installation.
- Set '`07_DICTIONARY_ACCESSIBILITY=TRUE`' in the database.

After this, Oracle9iAS Portal Configuration Assistant should connect to Oracle9*i* database.

1.11.3 Applying RDBMS Patchset 8.1.7.2+ and Preserving Oracle9iAS Database Cache

To preserve Oracle9iAS Database Cache functionality and apply RDBMS patch set into Oracle9i Application Server Oracle Home, take the following steps:

1. Save the `libwtc8` bundled in Oracle9i Application Server.
2. Apply the RDBMS 8.1.7.2 patch set.
3. Restore the saved `libwtc8` and relink if needed.

1.11.3.1 Configuration Assumes Incorrect Listener Port

The default configuration of *Oracle9i*AS Web Cache assumes that the primary Web listener is listening on port 7777. Oracle HTTP Server chooses the port number to listen on dynamically when installed.

If the HTTP Server chooses a port other than 7777, *Oracle9i*AS Web Cache will return an error when trying to access its own port of 1100 because it is unable to connect to port 7777 of the web server.

To correct this problem, change the port number in the "Application Web Servers" screen of the Web Cache Manager to the port on which the HTTP Server is listening.

1.11.3.2 Oracle9iAS Web Cache Core Dumps if Capacity Parameter Too Low

If the number of requests processed is much larger than the capacity parameter setting, and most of the requests are made to non-cacheable pages, then the web cache may core dump.

To remedy this, set the capacity parameter to a number close to the number of requests expected. A core dump did not occur in a test with 400 clients requesting a non-cacheable page, with the capacity parameter set to 400. In the same test, with the parameter set to 30 (the default), a core dump occurred.

The capacity parameter setting is located in the Application Web Server section.

1.12 Business Intelligence Solution Area Issues

This section describes the business intelligence solution area issues.

1.12.1 *Oracle9i*AS Reports Services

This section describes the Report services issues.

1.12.1.1 Reports Service Fails to Start

If you have set the TNS_ADMIN environment variable or registry key to an alternate value, *Oracle9i*AS Reports Service may fail to start with an error 186 or REP-0186. In such a case, you can start *Oracle9i*AS Reports Service from an MS-DOS command prompt as follows:

```
prompt> set tns_admin=<IAS_HOME>\6iserver\net80\admin
prompt> rwmts60 -listen name=Rep60_<HOSTNAME>
```

replacing <*IAS_HOME*> with the directory where you installed Oracle9i Application Server and <*HOSTNAME*> with your system name. This will force *Oracle9i*AS Reports Service to use the Net8 tnsnames.ora file at <*IAS_HOME*>\6iserver\net80\admin\tnsnames.ora.

1.12.2 "Communication Error or Internal ORB Error" When Starting *Oracle9i*AS Discoverer 3i Viewer

After installing Oracle9i Application Server, you may receive the following error message when you start *Oracle9i*AS Discoverer Viewer:

```
"Communication error or Internal ORB error"
```

To resolve this issue, restart the system.

1.12.3 Discoverer 3.x to 4.x Migration Causes Installation to Fail

Before installingOracle9i Application Server Discoverer into the same ORACLE_HOME as the previous version, stop the DIS33PR.EXE process using the Windows NT Task Manager. Otherwise, the install may fail with the following message: "The installation of Oracle 9i Application Server was unsuccessful."

1.13 Management Solution Area Issues

This section describes management solution area issues.

1.13.1 Oracle Enterprise Manager

This section describes Oracle Enterprise Manager issues.

1.13.1.1 Error Returned When Accessing Oracle Enterprise Manager Through a Browser

When you try to access Oracle Enterprise Manager with a browser, an error is returned because your system cannot find the `oem.conf` file. The Oracle Enterprise Manager entry in the `oracle_apache.conf` file contains both back slashes and forward slashes. This is incorrect.

Edit the entry as shown below to resolve this issue.

The incorrect entry is

```
D:\Oracle\M6/oem_webstage/oem.conf
```

The correct entry is

```
D:\Oracle\M6\oem_webstage\oem.conf
```

1.13.1.2 Direct Connect Not Supported for Web Servers

The Direct Connect feature of Performance Manager is not supported for web servers. An error occurs if you attempt to use the Direct Connect feature with the web server. There is no workaround.

1.13.1.3 Known Issues for Browser-based EM 2.2

Browser-based EM, Release 2.2 has the following known issues:

- You cannot run browser-based Oracle Enterprise Manager from a Web browser on a Windows machine that has the Pentium 4 processor.
- You cannot run browser-based Oracle Enterprise Manager from a Web browser on a Windows 2000 machine, including Windows 2000 machine with the Xeon processor.
- You cannot enable tracing of browser-based Oracle Enterprise Manager from a Web browser on any Windows platforms.
- You cannot launch browser-based Oracle Enterprise Manager from a Web browser on any Windows platforms by connecting to a Management Server that is using a non-default port number.

To resolve the above issues, you can apply the patch `EM_2.2_2119073` that is available from Oracle*Metalink*. For more details on the patch, refer to the readme included in the patch.

1.13.1.4 EM Patch 2.2 Needs to be Applied During Post Installation

After installing Enterprise Edition, Release 1 (v1.0.2.2.2a), install patch `EM_2.2_2119073` that is available from Oracle*Metalink*. This will eliminate the JInitiator compatibility issue on Pentium 4 client machines.

1.14 E-Business Integration Solution Area Issues

This section describes E-Business integration solution area issues.

1.14.1 *Oracle9i*AS Unified Messaging

This section describes Oracle9*i*AS unified messaging issues.

1.14.1.1 *Oracle9i*AS Email Installation Guide for Windows NT Available on OTN

The Oracle9iAS Email Installation Guide that was released with the *Oracle9i*AS Release 1 (v1.0.2.2.2a)) Windows NT/2000 documentation was for SUN SPARC Solaris. The updated Oracle9iAS Email Installation Guide is available with the Oracle9iAS Release 1 (v1.0.2.2.2) Windows NT/2000 documentation at

http://otn.oracle.com/docs/products/ias/content.html

1.14.1.2 Full Path Needed Instead of Variable Name in Configuration Files

The *Oracle9i*AS Email 5.2 for Windows NT Installation Guide contains sections with configuration information of jserv.properties and zone.properties (pages 3-16 and 3-17).

These sections currently instruct the user to add lines to these files that contain variables like $ORACLE_HOME and $ESCLIENT_HOME. This is incorrect; instead, the full path to directory locations should be used.

1.14.2 Oracle Workflow

This section describes Oracle Workflow issues.

1.14.2.1 Connect String Needed for Oracle Workflow

To install Oracle Workflow Release 2.6, you must include the connect string for your database in $ORACLE_HOME/network/admin/tnsnames.ora. The Workflow installation process requires this information in order to connect to the database.

1.14.3 Oracle Internet File System

This section describes Oracle Internet FIles System issues.

1.14.3.1 Post-configuration Steps Required for Oracle Internet File System

There are port conflicts between mod_oprocmgr and the Oracle9*i* File System. The jserv.properties file by default has JServ listening only on port 8007. As part of setting up the Group Mount (ApJServGroupMount), Oracle9*i* File System uses the jserv.properties file. This, however, causes a conflict with mod_oprocmgr, which is also using 8007. The solution is to use a different properties file for the ifs group, and use a different port number.

Please note that the automated Oracle9*i* File System servlet configuration does not cater to the revised configuration mechanism in the High Availability feature. These steps are detailed out in the Oracle9*i* File System release notes, and the following steps are in addition to the release notes.

The Oracle9*i* File System release notes contain information on the steps that you must perform to be able to configure the Oracle9*i* File System Servlet with the Oracle HTTP Server for *Oracle9i*AS Release 1 (v1.0.2.2.2a).

You must perform the following steps in addition to the steps mentioned in the Oracle9*i* File System release notes.

1. Stop the Oracle HTTP Server with the following command:

%ORACLE_HOME%\Apache\Apache\bin apachectl stop

2. Go to %ORACLE_HOME%\Apache\Jserv\conf.
3. Copy jserv.properties to ifsprops.properties.
4. Edit ifsprops.properties to change the port from 8007 to 13138.
5. Edit jserv.conf to change the properties file for the ifs1110 group to be ifsprops.properties instead of jserv.properties
6. Restart the Oracle HTTP Server with the following command:

   %ORACLE_HOME%\Apache\Apache\bin apachectl start

1.14.3.2 Configuring Oracle9i File System and Oracle9*i*AS Email to run on the same machine

The Oracle9*i* File System e-mail component and the Oracle eMail server both use Sendmail for mail transfer. Oracle9*i* File System requires Sendmail version 8.9.3 or later and eMail Server requires versions of Sendmail later than 8. Oracle9*i* File System ships an open source version of Sendmail 8.9.3 for Solaris and other UNIX ports. Windows NT and Windows 2000 installations require purchasing Sendmail version 3.0 or 3.0.2 (respectively) for both e-mail components.

To run the Oracle eMail server and Oracle9*i* File System on the same machine, you must configure them by following the steps below in the order shown:

1. Use the Oracle9*i* File System post-installation scripts to set up the Sendmail 8.9.3 executable and generate the `sendmail.cf` file. (For more information, see the post installation steps in the Oracle9*i* File System Installation Guide).
2. Incorporate the changes required for Oracle eMail server into `sendmail.cf`. (For more information, see Chapter 3, Post installation, in the *Oracle9i*AS Email Installation Guide.)

> **Note:** If you incorporate the eMail server configuration changes into `sendmail.cf` and then run the scripts, the scripts will overwrite the changes (that is, generate `sendmail.cf` anew).

If the IMAP servers provided by Oracle9*i* File System and *Oracle9i*AS Email are to be run on the same machine, you must configure them to listen on different ports. (Use the Oracle9i File System configuration utility and the *Oracle9i*AS Email Administration tool to specify the port for the component.)

For example, you can configure the *Oracle9i*AS Email to listen on the default port 143, and configure the Oracle9*i* File System IMAP server to listen on some other port, as required by the installation.

The clients accessing the IMAP servers must have accounts mapped to these specific ports. To access both servers at the same time, you must use clients that allow you to set the IMAP port number. Alternatively, you can run the two IMAP4 servers on two different *Oracle9i*AS installations.

1.14.3.3 Long Startup Time for Oracle9i File System

The Internet File System may take up to 10 minutes to start. The start is delayed further if you use other applications while Internet File System is starting.

1.14.4 Incorrect Oracle Internet File System File Name

In the Installation Guide, you are asked to run a script during the last screen of the Oracle Internet File System Configuration Assistant.

You are prompted to run the `ifsemailconfig` script. These scripts will configure your system for Oracle Internet File System email, if this option was selected.

Currently, the Installation Guide states that you have to run `ifssetup`.

1.14.5 Oracle9*i*AS InterConnect

This section describes Oracle9*i*AS InterConnect issues.

1.14.5.1 Recommended init.ora values

The recommended minimum database init.ora parameter values to run all Interconnect adapters are as follows:

db_block_buffers=3200

shared_pool_size=314572800

large_pool_size=61440000

java_pool_size=60971520

1.15 Oracle9*i* Developer Suite

This section describes Oracle9*i* Developer Suite issues.

1.15.1 Oracle9*i* Developer Suite Database Port Conflict

You must manually change the Oracle9*i* Developer Suite database listener ports to listen on ports other than 1521 and 2841.

1.15.2 Selecting Destination Oracle Homes With Oracle9*i* Developer Suite Installed on the Same System as Oracle9i Application Server

When installing Oracle9*i* Developer Suite on the same system as Oracle9i Application Server, select destination Oracle homes as follows:

1. When selecting the destination Oracle home for the 8.1.7 RSF-based products, do not select the 8.1.7 Oracle home created by the Oracle9*i* Developer Suite installation.
2. When selecting the destination Oracle home for the 8.0.6 RSF-based products, select the Oracle home created by the Oracle9*i* Developer Suite installation.

1.15.3 Configuring Environment When Installing Oracle9*i* Developer Suite and Oracle9i Application Server in Same Oracle Home

Because the Oracle9*i* Developer Suite and Oracle9i Application Server install a copy of the Oracle HTTP Server, each installs a copy of the mod_plsql configuration file, wdbsvr.app. You must use the WV_GATEWAY_CFG environment variable to specify the copy of the configuration file to use. Only the copy installed by Oracle9i Application Server contains the DAD entries required by Oracle Portal, so to use Oracle Portal, you must specify this copy.

1.16 Examples and Demos

Demos and examples for most Oracle9i Application Server components can be found at http://<*hostname*:*port*> where *hostname* is the name of your machine and *port* is your Oracle HTTP Server listener port. For more information on this port, refer to the Apache documentation.

In addition, examples and demos of Oracle9i Application Server components are provided on your product CD-ROM and installed in the component directories.

1.16.1 Demo Limitations

This section describes demo limitations.

1.16.1.1 OracleJSP Demos: SAMPLE3.JSP

When running the OracleJSP demo SAMPLE3.JSP (ORACLE JSP DEMO->SQLACCESS->SQLTAGS->SAMPLE3.JSP), the resulting page may have no output. This demo is working correctly, but the browser cannot display XML output directly. To see the XML output, choose View->PageSource.

1.16.1.2 OracleJSP Demos: XML QUERY

To ensure that the demo ORACLE JSP DEMO->XML->XML QUERY works correctly, you must first establish a database connection.

1.16.1.3 Oracle Business Components for Java Demo Failure

If the Business Components for Java demo does not work, your system may not be set up for it. Click on the link for the Business Components for Java on the HTTP Server home page, and follow the instructions in the Sample Application Setup link.

1. %ORACLE_HOME%\Apache\Apache\htdocs\OnlineOrders_html\submit_login.jsp

```
session.putValue("CSSURL","\webapp\cabo\images\cabo_styles.css");
session.putValue("ImageBase", "\webapp\jsimages");
```

1.16.2 National Language Support (NLS) Issues

This section describes National Language Support issues.

1.16.2.1 NLS_LANG Environment Variable

mod_plsql When configuring mod_plsql, the NLS_LANG environment variable is configured on a per Web server instance level and not at the DAD level.

Ensure that you have the correct NLS_LANG setting before starting your Oracle9i Application Server instance.

Oracle PSP For Oracle PSP, the NLS_LANG environment variable must be set before loading PL/SQL Server Pages (PSPs) into the database using the `loadpsp` command.

Using the JDBC OCI8 driver with JServ and OracleJSP If connecting to Oracle via the JDBC OCI8 driver, the appropriate NLS_LANG setting is required in jserv.properties. For example:

```
wrapper.env=NLS_LANG=AMERICAN_AMERICA.UTF8
```

For information on the NLS_LANG environment variable, refer to the *Oracle8i National Language Support Guide*.

1.16.2.2 NLS Parameters in the initicache.ora File

The *Oracle9i*AS Database Cache installation creates a cache using the same database character set as the origin database. However, it does not set other National Language Support (NLS) features, such as date format or currency symbols.

If the initialization file (initSID.ora) of your origin database specifies NLS parameters, you must copy those parameters to the initialization file (initicache.ora) of the cache (NLS parameters begin with "NLS_").

For example, if the initialization file of your origin database contains the following parameters, copy them to initicache.ora:

```
NLS_LANGUAGE = JAPANESE
NLS_CALENDAR = "Japanese Imperial"
NLS_DATE_FORMAT = "E YY-MM-DD"
```

The initicache.ora file is located in the %ORACLE_HOME%\admin\icache\pfile directory.

1.16.2.3 NLS Limitations

The following are known NLS bugs in this release:

- Some of the user interface and messages for the Simplified Chinese version of Developer 6*i* Release 2 will appear in English. There is no workaround.
- In the Reports Availability Calendar feature of Reports Server Security using translated versions of *Oracle9i*AS Portal 3.0, some of the calendar headings are truncated. You may choose to use the English-language interface instead.
- In the Japanese version of Developer 6*i* Release 2, the on-line manual *Deploying Applications* will be the same as the manual used for the 6*i* initial release, instead of the manual for 6*i* Release 2. If you require the 6*i* Release 2 version of the manual and it is not part of your printed manual set, please contact your Oracle Support representative.
- In the Traditional Chinese version of Developer 6*i* Release 2 Report Builder, the menu item "File->Generate to file->Delimited", the word "Delimited" should be translated but appears garbled. There is no known workaround.

Reports/Express Integration

To change the Reports/Express Integration interface to your desired language:

1. Change to the directory %ORACLE_HOME%\bin.
2. Make a backup copy of the files xru60.dll and xpeh.dll.
3. Note which language you wish to install.
4. Copy the file xru60<lang>.dll to xru60.dll. The values of <lang> are listed below.
5. Copy the file xpeh<lang>.dll to xpeh.dll. The values of <lang> are listed below.

The Reports/Express integration interface will now appear in the language you chose:

For the language...	Replace <lang> with...
Brazilian	ptb
French	f

For the language...	Replace <lang> with...
German	d
Iberian Spanish	e
Italian	i
Japanese	ja
Latin American Spanish	esa
Russian	ru

For example, to use Japanese, you would copy xru60ja.dll to xru60.dll, then copy xpehja.dll to xpeh.dll.

OLAP Connection Editor

To change the OLAP Connection Editor program's user interface to Japanese, perform the following steps:

1. Change to the directory %GSINSTALLDIR% (usually %ORACLE_ HOME%\olap\ece620.
2. Make backup copies of the files xconedit.exe, xconedit.hlp, and xconedit.cnt.
3. Copy xconeditja.exe to xconedit.exe, xconeditja.hlp to xconedit.hlp, and xconeditja.cnt to xconedit.cnt.

The user interface for the XRQ connection editor will now be in Japanese.

1.16.2.4 NLS Translations in Oracle Forms and Oracle Reports

Beginning in this release, you can install all available Oracle Forms and Oracle Reports language translations at one time. However, some features of Oracle Forms and Oracle Reports do not allow this. For these features, only one language can be installed at a time. The features are:

- Oracle Terminal Help (Japanese translation only).
- Documentation Table of Contents and Index (Japanese Translation only).
- Reports/Express Integration (available in German, Iberian Spanish, Latin American Spanish, French, Italian, Japanese, Brazilian, and Russian).
- OLAP Connection Editor (Japanese translation only).

For these features, the correct translated files will be copied to your machine during installation. You will then have to manually rename them to enable the translation of choice. Please note that you only need to follow these instructions if you install *all* the translations at once.

Important Note: Before you begin, be sure to make a backup copy of the existing file before overwriting a file.

Oracle Terminal Help

To enable the Japanese translation:

1. Change to the directory %ORACLE_HOME%\tools\common60.
2. Make a backup copy of the file ot.hlp.
3. Copy the file otja.hlp to ot.hlp.

The help system for Oracle Terminal will now appear in Japanese.

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These steps may or may not be required. To check, click the Help menu in Form Builder or Report Builder. If the interface appears in English, and you wish to use Japanese, perform the following steps:

1. Change to the directory %ORAINFONAV_DOCPATH% which is usually %ORACLE_HOME%\OIN.
2. Make a backup copy of the files 1aod60.toc, 1aod60.idx, 1aor60.toc, and 1aor60.idx, if they exist.
3. To change the help system for Oracle Forms, copy 1aod60ja.toc to 1aod60.toc, and 1aod60ja.idx to 1aod60.idx.
4. To change the help system for Oracle Reports, copy 1aor60ja.toc to 1aor60.toc and 1aor60ja.idx to 1aor60.idx.

The help system top level will now appear in Japanese.

1.16.2.5 Configuration Assistant Language Limitation

In this release, *Oracle9i*AS Portal Configuration Assistant is certified for use in English only.

1.17 Understanding Port Tunneling

Port tunneling allows all communication between Oracle HTTP Server and JServ to happen on a single, or a small number of ports. Previously, the firewall configuration had to include port information for several ports to handle communication between Oracle HTTP Server and multiple JServ instances. Using port tunneling, a daemon called `iaspt` routes requests to the appropriate JServ instance. Only one, or a small number of ports have to be opened through the firewall regardless of the number of JServ instances involved, thereby offering a higher degree of security for the communication between Oracle HTTP Server and JServ.

To enable this, a de-militarized zone environment is provided where a firewall exists typically between the client and the Oracle HTTP Server, and another that exists between Oracle HTTP Server and JServ. In this configuration, Oracle HTTP Server exists in the DMZ bracketed by the two firewalls. JServ, and other business logic components, exist behind both firewalls in the intranet. To ensure the highest degree of security, all communication transmitted between machines is encrypted using SSL. Port tunneling provides the framework to support this level of security in a flexible, manageable manner, which enhances performance.

The `iaspt` daemon, a stand-alone component, acts as a communication concentrator for connections between Oracle HTTP Server and the Java Virtual Machine (JVM), which contains JServ. Oracle HTTP Server does not connect directly to JServ. Instead, it connects to the `iaspt` daemon which then dispatches communication on to JServ. By doing this concentration of connections, only one port is opened per port tunneling process on the internal firewall, instead of one port per JServ instance.

The communication between Oracle HTTP Server and the `iaspt` daemon is encrypted using SSL. Authentication is enabled when these connections are established using SSL Client Certificates. These connections are persistent, and are maintained for a reasonable time depending on connection resources. The AJP 1.3 protocol, modified to include routing information that indicates which servlet engine a request is to be routed to, is used.

Port tunneling supports connections between Oracle HTTP Server and JServ, using `mod_jserv` module.

There must be at least one `iaspt` daemon per machine. More than one `iaspt` daemon can be run for higher availability. Oracle HTTP Server supports round robin partitioning of requests across `iaspt` daemons, and support application partitioning. Oracle HTTP Server also supports automatic failover of requests which cannot be sent to a given `iaspt` daemon.

1.17.1 Configuring Port Tunneling

The sections below contain instructions for configuring port tunneling on your machine. Topics discussed are:

- Configuration Files
- Configuring iaspt.conf
- Configuring mod_jserv

1.17.1.1 Configuration Files

Port tunneling impacts several configuration files. The following configuration files require modification:

- iaspt.conf
- mod_jserv.conf

1.17.1.1.1 iaspt.conf Configures the port tunneling process.

It is located at:

- UNIX: *ORACLE_HOME*`/iaspt/conf`
- Windows: *ORACLE_HOME*`\iaspt\conf`

It specifies the following information:

- wallet file and password that should be used.
- log file location and log level.
- port that `iaspt` daemon should listen on (optionally). This port can either be specified in `iaspt.conf`. By doing so, more than one port tunneling process can use the same `iaspt.conf` file.

1.17.1.1.2 mod_jserv.conf Configures `mod_jserv` within Oracle HTTP Server.

For port tunneling, you need to add the directives that:

- specify whether port tunneling is active.
- configure port tunneling processes.
- specify the location of SSL certificates to be used in establishing connections with the `iaspt` daemon processes.

1.17.1.2 Configuring iaspt.conf

The `iaspt.conf` file is a set of name value pairs. The names of the parameters accepted are described below:

- wallet-file
- wallet-password

- log-file
- log-level
- iaspt-port

1.17.1.2.1 wallet-file Specifies the location of an Oracle Wallet file that contains SSL certificates that are used for SSL communication with peers.

Category	Value
Parameter Name	`wallet-file`
Parameter Type	string
Valid Values	Path to a wallet file that contains the SSL certificate to be used when establishing SSL connections to other processes.
Default Value	N / A
Syntax	Valid filename For example: `/foo/bar/`*`myfilename`*

1.17.1.2.2 wallet-password Specifies the value of the obfuscated password used for authentication when opening the wallet file. This value is obtained using the utility provided with Oracle Wallet Manager.

Category	Value
Parameter Name	`wallet-password`
Parameter Type	string
Valid Values	Obfuscated password used for authentication when opening the wallet file specified by wallet-file
Default Value	N / A

1.17.1.2.3 log-file Specifies the path to a log file where `iaspt` daemon logging messages are written to.

Category	Value
Parameter Name	`log-file`
Parameter Type	string
Valid Values	Path to a log file where `iaspt` daemon logging messages are written to.
Default Value	N / A
Syntax	Valid filename For example: `/foo/bar/`*`myfilename`*

1.17.1.2.4 log-level Specifies the logging level where 9 is the highest and 0 implies no logging.

Category	Value
Parameter Name	`log-level`
Parameter Type	integer

Category	Value
Valid Values	Integer from 0 to 9
Default Value	3

1.17.1.2.5 iaspt-port Specifies the port value that the `iaspt` daemon should accept connections on. This is optional.

Category	Value
Parameter Name	`iaspt-port`
Parameter Type	integer
Valid Values	Valid TCP/IP port value
Syntax	Integer For example: 9898
Default Value	N/A

1.17.1.3 Configuring mod_jserv

Perform the following steps to configure `mod_jserv` to use port tunneling:

- ApJiASPTActive
- ApJiASPTProcess
- ApJiASPTWalletFile
- ApJiASPTWalletPassword

1.17.1.3.1 ApJiASPTActive Indicates whether `mod_jserv` needs to use the port tunneling processes when routing requests.

Category	Value
Parameter Name	`ApJiASPTActive`
Parameter Type	string
Valid Values	On/Off
Default Value	Off

1.17.1.3.2 ApJiASPTProcess Describes the location of an port tunneling processes. There could be multiple such lines within a `mod_jserv.conf` file.

Category	Value
Parameter Name	`ApJiASPTProcess`
Parameter Type	string
Valid Values	*`host:port`* values of the available port tunneling processes.
Default Value	N/A
Syntax	`host:port` For example: *`myhost`*`.us.oracle.com:6667`

1.17.1.3.3 ApJiASPTWalletFile Specifies the location of an Oracle Wallet file that contains SSL certificates used for SSL communication with the port tunneling processes.

Category	Value
Parameter Name	`ApJiASPTWalletFile`
Parameter Type	string
Valid Values	Path to a wallet file that contains the SSL certificate to be used when establishing SSL connections to the port tunneling process.
Default Value	N / A
Syntax	Valid filename For example: `/foo/bar/myfilename`

1.17.1.3.4 ApJiASPTWalletPassword This is the value of the obfuscated password used for authentication when opening the wallet file. This value is obtained using the utility provided with the Oracle Wallet Manager.

Category	Value
Parameter Name	`ApJiASPTWalletPassword`
Parameter Type	string
Valid Values	Obfuscated password used for authentication when opening the wallet file specified by ApJiASPTWalletFile.
Default Value	N / A