These Release Notes identify differences between the delivered Oracle Enterprise Manager 10g Grid Control Release 2 (10.2) product and its documented functionality.

**Note:** To check for updates to this document and view other Oracle Enterprise Manager documentation, refer to the following page on the Oracle Technology Network (OTN) Web site:

http://www.oracle.com/technology/documentation/oem.html

This document contains the following sections:

- Installation Issues
- Configuration Issues
- Upgrade Issues
- Agent Deployment Issues
- Provisioning Issues
- Service Management Issues
- Database Management Issues
- Application Server Management Issues
- Collaboration Suite Issues
- Documentation Issues
- National Language Support Issues
- Documentation Accessibility

1 **Installation Issues**

This section lists the known issues pertaining to installation.

1.1 **Installer Database Checks Are Incorrect**

When installing a Management Repository on a 10g Oracle Database, you may ignore the following errors/warnings during initial checks:

- AQ_TM_PROCESSES needs to be set to 1 or higher.
For optimal performance, the dispatchers parameter of the Management Repository database should not be set.

*(Bug 4683799)*

### 1.2 Management Service Startup May Fail When Enterprise Manager Is Installed Against a 10.1.0.4 ASM Database

The Management Service fails to start up after Enterprise Manager installation and configuration succeeds. The `$ORACLE_HOME/sysman/log/emoms.log` contains error messages indicating Management Service is unable to get a connection to the repository database.

To resolve this issue, follow these instructions:

1. Shut down the Management Service by running:
   
   `$ORACLE_HOME/opmn/bin/opmnctl stopall`

2. Shut down and restart the repository database and listener processes.

3. Start up the Management Service by running:
   
   `$ORACLE_HOME/opmn/bin/opmnctl startall`

*(Bug 4635108)*

### 1.3 Management Repository Installation Issues

This section describes some additional installation issues involving the Management Repository.

#### 1.3.1 Problems with Multi-byte Characters in Target Names for Repository Database Running on a Non-UTF8 Characterset

If the repository database is running on a non-UTF8 multi-byte character set, problems may be encountered if a target name contains multi-byte characters. The hash (HEXADECIMAL string) generated by the agent/console to refer to the target does not match the hash generated by the database for the same target.

This could lead to errors in identifying the target with the following messages in `emoms.log`:

- ORA-01403:SYSMAN.MGMT_TARGET
- ORA-20233:Target with guid %s not exist

As a workaround, make sure the target name does not contain multi-byte characters. *(4693226)*

#### 1.3.2 Agent Loader Unable to Process Files Because of ORA-01801 Errors

Agent file uploads fail with the following error message:

```
ERROR-400|ORA-01801: date format is too long for internal buffer
```

This problem is caused by RDBMS bug 3944226. Restarting the repository database resolves this issue.
Setting `session_cached Cursors` to 0 is another workaround, but will result in significant performance degradation. Run the following SQL as the SYS user on the repository database, then restart the database:

```
ALTER SYSTEM SET SESSION_CACHED_CURSORS=0 SCOPE=SPFILE;
```

If the problem persists, contact Oracle Support to obtain the patch for RDBMS bug 3944226. *(Bug 4482253)*

### 1.3.3 Problems Comparing Configurations for 9.2.0.6 or 9.2.0.7 Management Repository Databases

When comparing multiple configurations using the compare configurations tools, you may encounter the ORA-03113 error. This is because configuration comparisons do not work with Oracle9i Release 2 (9.2.0.6) or Oracle9i Release 2 (9.2.0.7) repository databases.

To fix this, apply the ARU patch for RDBMS bug 4523371.

### 1.3.4 Invalid Objects Error After Upgrade

After upgrading the Management Repository database from Oracle9i to Oracle 10g, if you encounter invalid objects in the SYSMAN schema, execute the following SQL script to recompile them:

```
Disk1/doc/admin_recompile_invalid.sql
```

*(Bug 4659677)*

## 2 Configuration Issues

This section lists the known issues pertaining to configuration.

### 2.1 Real Application Clusters Connect String For the Management Service Does Not Load Balance

An example of the correct connect string that users need to include in the `$<OMS_OH>/sysman/config/emoms.properties` file of the Management Service Oracle home is as follows:

```
(DESCRIPTION=
 (LOAD_BALANCE=on) (FAILOVER=on)
  (ADDRESS=(PROTOCOL=TCP) (HOST=smpperf-linux7) (PORT=1521))
  (ADDRESS=(PROTOCOL=TCP) (HOST=smpperf-linux8) (PORT=1521))
  (ADDRESS=(PROTOCOL=TCP) (HOST=smpperf-linux9) (PORT=1521))
  (ADDRESS=(PROTOCOL=TCP) (HOST=smpperf-linux10) (PORT=1521))
  (CONNECT_DATA=(SERVICE_NAME=emrep)
   (FAILOVER_MODE=(TYPE=select) (METHOD=basic))))
```

*(Bug 4687362)*

### 2.2 Grid Control Browser Intermittently Gives Internal Server Error

The time zone regions setting on all the machines in a Real Application Clusters Database used for the Management Repository should be in sync across all nodes to avoid clock skew problems that could result in intermittent Management Service restart. *(Bug 4657883)*
2.3 Web Site Target Not Created When Installing Enterprise Manager into a RAC Database Using Service Name

When the RAC Database service name is specified in the Enterprise Manager install process, the user is required to create the Web site target manually. To do so, follow these instructions:

1. Obtain the correct database SID of the repository.
2. Edit the file `<AGENT_HOME>/bin/chronos_config.pl` by changing `SID=NO_VALUE` (on line 108) to `SID=<correct SID>`.
3. Execute the `<AGENT_HOME>/bin/agentca -f` command.

(Bug 4700098)

3 Upgrade Issues

This section lists the known issues pertaining to Enterprise Manager upgrade.

3.1 BC4J Targets are in Down Status After Upgrade

When the Management Service is upgraded from 10g Release 1 (10.1) to 10g Release 2 (10.2), Business Component for Java (BC4J) of the 10.1 Management Service will be in down status. By default, the 10.2 Management Service does not come with the BC4J component. You must delete only the old BC4J target from the same Management Service home, leaving the other application server BC4J targets. (Bug 4652073)

3.2 Multiple Versions of Agents on a Shared Cluster Not Supported

When upgrading a shared cluster Agent Oracle home, you must upgrade all the hosts (nodes) of that cluster. Enterprise Manager 10g Release 2 (10.2) does not support multiple versions of agents within a cluster. (Bug 4633197)

3.3 After Upgrade, Port Numbers Are Wrong in Readme.txt and Other Files

The existing port numbers of the Management Service and Application Server Control are maintained through upgrade. The `Readme.txt`, `SetupInfo.txt`, and `portlist.ini` files do not accurately reflect the actual ports that were used by the Management Service and Application Server Control. The user should continue to use the ports as they were configured in the 10g Release 1 (10.1) Management Service. (Bugs 4605902 and 4590979)

3.4 Application Server Control Password Re-initialized to Default

The password for the `ias_admin` user of the Application Server Control is defaulted to `welcome1` after upgrading to Enterprise Manager Grid Control 10g Release 2 (10.2). The user should modify the `ias_admin` password by executing the following command:

```
<new_OMS_Home>/bin/emctl set password welcome1 <new_password>
```

(Bug 4650351)
3.5 Service Management Upgrade Issues

This section contains issues related specifically to service management.

3.5.1 Application Server Diagnostics Pack Disabled For "EM Website" After Management Service Upgrade

A new Enterprise Manager Oracle Application Server stack is installed during a Management Service upgrade, and corresponding targets are deleted and recreated (e.g., from "EnterpriseManager0" to "EnterpriseManager1", etc.). The "EM Website" Web Application does not detect this change during an upgrade, so it no longer has the new Application Server as one of its key components, and disables the licensed Application Server Diagnostic Pack for "EM Website."

The workaround is to perform the following:

1. Identify the system associated with the "EM Website" Web Application.
2. Add the new Application Server target as a member of this system.
3. Mark the new Application Server target as a key component of the "EM Website" Web Application.

(Bug 4652602)

3.5.2 Status of Web Application Target Monitored by an Upgraded Agent Always "Pending"

This applies if your environment is using an Enterprise Manager 10g Release 1 (10.1) Management Service and a 10g Release 2 (10.2) Agent (either upgraded from 10.1, or a new installation).

When an agent is upgraded to 10.2, the Web Application targets on that agent will be upgraded to type_meta_ver 3.0. The 10.1 Management Service does not have Web Application Response metrics for type_meta_ver 3.0. This will cause problems with the computation of Web Application status. A patch must be applied on the repository to create the response metric metadata for type_meta_ver 3.0. This patch is required to show the correct Web Application target status.

(Bug 4407853)

3.5.3 Chart on Service Home Page Missing After Upgrade

After an upgrade, the performance and usage chart on the Service Home page is missing.

To resolve this issue, go to Performance Metrics under Monitoring Configuration to add the metric, and select the chart to be displayed on the home page. You can do this for Usage Metrics as well. (Bug 4655690)

3.6 Upgrading a Management Agent Will Not Move User-Defined Metrics to New Oracle Home

When the Management Agent is upgraded, a new Oracle Home directory is created. Any scripts referenced by OS-based User-Defined Metrics that are located in the 10.1.0.4 Management Agent’s Oracle Home directory will not be copied into the newly created Oracle Home directory.

To ensure that the OS-based User-Defined Metrics continue to work, the original Oracle Home directory of the 10.1.0.4 Management Agent must not be deleted unless all the User-Defined Metric scripts are copied into a new directory.
4 Agent Deployment Issues

This section lists the known issues pertaining to the "Agent Installation" feature—the "Install Agent" link found on Grid Control’s Deployment tab.

4.1 Source Installation Location Functionality Does Not Work

For agent installations and upgrades done using the "Agent Installation" feature, do not choose the "Another Location" option for "Source Shiphome Directory." (Bug 4576575)

4.2 Duplicate Host List in "Provide Host List" Field Hangs the Agent Installation

To resolve this issue, make sure that you:

- Use the same host names that are used for SSH setup via the sshUserSetup.sh script.
- Do not put duplicate host names in the host list box of the "Agent Installation" feature.

(Bug 4576604)

4.3 Agent Installation Ignores Staticports.ini File Input

For agent install and upgrade using the "Agent Installation" feature, do not use the -p <staticport.ini> option in the Additional Parameters section. Use the Port option directly from the "Agent Installation" feature to allocate a specific port for the agent. (Bug 4680048)

4.4 When Installing a Real Application Clusters Agent on a Shared Location, the Remote Node Agent May Not Start

When using the "Agent Installation" feature, if the agent on a remote node does not start, execute the following on each remote node to resolve this issue:

1. Execute $agent_home/<node dir>/bin/emctl config agent updateTZ.
2. Start the agent by executing $agent_home/<node dir>/bin/emctl start agent.

(Bug 4673295)

4.5 "Agent Installation" Feature Not Supported Behind a Load Balancer

If Enterprise Manager is installed behind a server load balancer, the "Agent Installation" feature will not work. The "Agent Installation" feature cannot be accessed via a URL that contains a load balancer as the host name. The physical
host name of one of the Management Services should be used in the URL. (Bug 4690736)

4.6 **Execution of root.sh Script Fails for NFS Agent Installation**

When doing an NFS installation via the "Agent Installation" feature, `root.sh` execution fails. Run the `root.sh` script manually after installation. (Bug 4687187)

5 **Provisioning Issues**

This section lists the known issues in the Provisioning application.

5.1 **Provisioning Requires a 10g Release 2 (10.2) Management Agent**

Hardware running a version 10g Release 1 (10.1) Management Agent will not show up in the Hardware page within Provisioning. The agents will have to be upgraded to 10.2 before provisioning operations can be performed on the hardware. (Bug 4665265)

5.2 **Adding a Newly Provisioned Node May Fail**

When you run the "Add Node" job using preferred credentials instead of the `oraprovision` user, the job may fail, as the user in preferred credentials may not be present in the newly provisioned hardware. The workaround is to always create the user present in the preferred credentials in the provisioned hardware; the user creation can be done in the install directive of the component being installed. (4675865)

5.3 **Agent Patching Not Enabled When Provisioning Pack Is Disabled**

When you click the **Patch Oracle Software** link on the Agent Home page, if you get an error suggesting that you need the Oracle Provisioning Pack, you need to enable the Provisioning pack for at least one target in the enterprise.

To do this, click **Setup**, then **Management Pack Access**, and grant the Provisioning Pack access to the host on which the Management Service is running. (Bug 4658996)

6 **Service Management Issues**

This section lists the known issues pertaining to service management.

6.1 **Services Dashboard NullPointer Exception Using System Time Zone**

In Services Monitoring Dashboard, a service with the time zone value set as "+8:00" will give a Java NullPointer Exception.

When the time zone value of `agentTZRegion` in the agent’s `emd.properties` file is not a specific value, such as "Asia/Taipei," but is set to a value like "+8:00," do not select "Use System Time Zone" when creating a service. Set the time zone of the service to a specific value, for example, "Asia/Taipei." Do not use a value like "+8:00." (Bug 4618467)
7 Database Management Issues

This section lists the known issues pertaining to database management.

7.1 Thresholds in Upgraded 10g Release 2 Database Are Ignored

Upgrading a 10g Release 1 (10.1) databases to 10g Release 2 (10.2) removes all collection thresholds for the metrics that have different collection names. In order to preserve them, create a monitoring template for your 10.1 database. After the upgrade, manually apply the thresholds as recorded in the 10.1 monitoring template to the 10.2 metrics. Alternatively, look for a one off patch on OracleMetaLink for this bug before attempting the upgrade. (Bug 4702199)

7.2 Data Guard Issues

These issues are specific to Data Guard.

7.2.1 Logical Standby Database May Show Dictionary Loading Errors, Primary Database May Show Data Guard Status Error

After creating a logical standby database from a primary database that is in an elevated protection mode, the logical standby database dictionary load may fail to proceed, showing a "0% Dictionary Loaded" warning in the Data Guard status. Concurrently, the primary database may show an ORA-16047 error in the Data Guard status.

Perform the following steps to fix this problem:

1. On the logical standby database, run ALTER DATABASE SET STANDBY DATABASE TO MAXIMIZE PERFORMANCE.
2. Click the warning link for the logical standby database on the Data Guard overview page, then click Reset.

(Bug 4636844)

7.2.2 Data Guard Role or Status May Not Show Correctly for a RAC Database

After creating a standby for a Real Application Clusters (RAC) Database, the primary role may not show correctly on the RAC Database Home page or the Database Targets page. In addition, the Data Guard metrics (status and redo rate) may not be collected for the Primary RAC Database until the Data Guard role is fixed.

In order to fix the role, navigate to the Monitoring Configuration page for the RAC Database and save the target configuration without making any changes. Refresh the Database Targets page and the primary role should appear correctly in the Type column.

This workaround is necessary after any role change event (switchover or failover). This does not affect single instance databases. (Bug 4652294)

7.3 Real Application Clusters Issues

These issues are specific to Real Application Clusters (RAC).
7.3.1 Server Generated Alerts for a RAC Database Target May Not Work
RAC Database targets may not generate server-generated alerts (e.g., “Tablespace full”) for database-level metrics. RAC Database instance targets, however, should not encounter this problem.

This problem may occur in the following two cases:

- During creation by DBCA, DBUA, or EMCA, the 10g Release 2 (10.2) database was registered with a 10.2 Grid Control Management Agent. This does not properly register the target in the central Management Agent.

- After upgrading 10g Release 1 (10.1) agents to 10.2 agents

The workaround for this is to go to the Monitoring Configuration page for the RAC Database and save the target without making any changes. After saving, the agents on all cluster nodes need to be bounced. (Bugs 4664935 and 4641794)

7.3.2 A 10.1 Management Service Does Not Support 10.2 RAC Targets
The configuration with a 10g Release 1 (10.1) Management Service and a 10g Release 2 (10.2) Management Agent currently does not support monitoring of RAC targets in this release. (Bug 4573502)

7.3.3 Synchronizing Clocks on RAC Instances
If you are using a RAC database to host the Enterprise Manager repository, you must run the Network Time Protocol (NTP) or an equivalent service to keep the clocks on the RAC instances synchronized. Not doing so will result in unexpected behavior, such as, the Management System may shut down periodically, or data collection timestamps for some of the data may be incorrect. You must run NTP or an equivalent service to synchronize the clocks on the managed hosts. (Bug 4500241)

8 Application Server Management Issues
This section lists the known issues pertaining to Application Server Management.

8.1 Disabling Application Server Components
After disabling an application server component from Application Server Control, you will continue to see that disabled component in Grid Control. Grid Control displays the component’s last known state. To remove the disabled component from Grid Control, go to the All Targets subtab, select the component, and click Remove.

Note: When you remove a component, all its historical data is also deleted and will not be available if you subsequently re-enable the component.

8.2 Discovering Standalone Web Cache Installations
The central Management Agent does not discover standalone Web Cache installations. For detailed instructions on how to include standalone Web Cache instances, refer to the Enterprise Manager Advanced Configuration Guide.
8.3 Accurate Data Not Available for All Metrics in OC4J_EM Performance Page

The CPU Utilization metric for OC4J instances on the Linux platform does not provide accurate data. There is no workaround. (Bug 4093009)

8.4 Online Backup Job for Application Server 9.0.4 Fails

When you are backing up Application Server mid-tier installation types of Oracle Application Server 9i (9.0.4.x) versions, you may encounter the following error:

Could not copy file /scratch/904/Apache/Apache/conf/osso/osso.conf to /scratch/904/conf1/2005-08-09_06-52/Apache/Apache/conf/osso/: No such file or directory.

To resolve this, follow the steps described in the Application Server Release Notes and retry the backup process. (Bugs 4614414 and 4517767)

8.5 Need to Restart Agent after Discovering Third-Party Application Server

For third-party application server monitoring, the third-party application server libraries will be added to the agent CLASSPATH dynamically while discovering the third-party application server targets (IBM WebSphere and BEA WebLogic). In order for the agent to pick the new CLASSPATH, the agent needs to restarted.

To fix this, remove $ORACLE_HOME/jlib/repository.jar from the CLASSPATH entry in the $ORACLE_HOME/sysman/config/emd.properties file and restart the agent. This is needed only for the first time discovery of third-party application servers. (Bug 4451228)

8.6 Start, Stop, and Restart Not Working for SSL-Enabled WebSphere Application Server

Click the Administer link on the WebSphere Cell Home page to launch the WebSphere Application Server Administration Console. Use this console to start and stop WebSphere Application Server 6.0 when in SSL mode. (Bug 4636058)

9 Collaboration Suite Issues

This section lists the known issues pertaining to Collaboration Suite Management.

9.1 OVF and Mail Issues Need to Be Patched Immediately After the Grid Control Installation

For Oracle Voicemail and Fax, if you add a new PBX to your deployment and discover it in Grid Control, previously discovered PBXs will no longer appear in the Voicemail and Fax Home pages. Similarly, if you add new mid-tiers to an existing PBX, previously discovered mid-tiers for that PBX will no longer appear in the Voicemail and Fax Home pages. You must apply the patch available on MetaLink to resolve this problem.
For the Mail service, some of the sub-services will not appear in the Services Dashboard and topology views. You must apply the patch available on MetaLink to resolve this problem.

Locate the patch by searching MetaLink, or by using the Deployments tab in Grid Control. (Bug 4675082)

9.2 Status of Collaboration Suite Database Is Always "Pending"

If you install a Management Agent on a host where a Collaboration Suite Database is installed, the status of the database is displayed as "Pending" in Grid Control. You need to configure this database target and specify a valid password for monitoring. Select the target from the targets page, and click Configure to configure the database target. (Bug 4506173)

Note: You can also click the Targets Not Configured link on the All Targets page to see which targets are not properly configured.

9.3 Oracle Collaboration Suite Wizard Fails to Create a Service if the Name Includes a Space at the End

When naming a Collaboration Suite service or system, be careful not to leave any trailing spaces. The configuration will fail in this case. To workaround this problem, remove the trailing spaces. (Bug 4660124)

10 Documentation Issues

This section lists the known issues pertaining to documentation.

10.1 Long Initial Load Time for Online Help System

After the Oracle Management Service is started or restarted, it may take a long time for the help browser to display the first time the online help system is invoked. For all subsequent help use, topics display immediately.

To fix this performance problem, apply ARU patch 8083686 to the Management Service. This patch fixes the problem with help browser performance and provides the full set of online help files. To obtain the patch, access the Automated Release Updates (ARU) site at http://aru.us.oracle.com, click Patches, and search for patch request number 8083686. (Bug 4865772)

10.2 Online Help for Oracle Collaboration Suite Metrics Must Be Manually Configured

Due to the increase in the number of helpsets in this release, the online help search operation may take longer than in previous releases.

As a workaround to this issue, the Oracle Collaboration Suite metrics help has been removed from the online help system. Users are required to manually configure the OCS metrics help.
Refer to the "Installing Oracle Collaboration Suite Metric and Policy Helpsets" section of the Oracle Enterprise Manager Configuration for Oracle Collaboration Suite manual for instructions on how to install the metric helpsets. (Bug 4597307)

10.3 Online Help Available Only in English and Japanese
Online help for this release is available in English and Japanese only. Translated help will be made available in the first patch set release. (Bugs 4668497 and 4641350)

10.4 Some Metric Helpsets Available Only in English
Translated online help is not available for the following metrics:

- Oracle Workflow (Bug 4663795)
- Oracle Wireless (Bug 4663795)
- Oracle BC4J (Bug 4610697)
- Oracle Mobile Collaboration Suite (Bug 4610940)

11 National Language Support Issues
This section lists the known issues pertaining to NLS.

11.1 Issues with Multi-byte Characters
These issues are specific to problems using multi-byte characters.

11.1.1 Status of Mail Service Is Always Pending
If a transaction name or a beacon name contains multi-byte (non-ASCII) characters, the transaction may always be in a status pending state. If a service contains such a transaction as an availability transaction, the service will also be stuck in a status pending state.

This bug affects the following test types: Custom Script, DNS, FTP, Host Ping, IMAP, LDAP, NNTP, POP, SMTP, TNS Ping. This bug does not affect the following test types: HTTP Ping, JDBC SQL Timing, Oracle SQL Timing, Port Checker, SOAP, Web Transaction.

The workaround is that all agents running transactions with multi-byte characters in their names, and all agents containing beacons with multi-byte characters, should be run in a UTF-8 locale. The environment variables LANG and LC_ALL should both be set to en_US.UTF-8. (Bug 4653883)

11.1.2 Cannot Play or Trace Web Transactions of a Web Application with a Multi-byte Name
When you attempt to play, or play with trace, a Web transaction of a Web Application target with a multi-byte name, a blank Internet Explorer window appears without displaying any pages. The same transaction, when created for a Web Application target with no multi-byte characters in its name will play without any errors. (Bug 4400488)
11.1.3 Transaction Recorder Fails for Hidden Input with Multi-byte Characters
If an HTML form contains a "hidden" input in which the "name" of the input tag contains multi-byte characters, the hidden-input hint is not generated for the form. In this situation, the transaction record function fails. (Bug 3950779)

11.1.4 Read Web Test Fails When Using Multi-byte Characters
If you are monitoring Content Services and using the "Read Web Test", make sure the file name and full path you specify for the test do not contain any multi-byte characters. Otherwise the test will fail.

The workaround for this issue:
1. Log onto Content Services.
2. Right click the file you want to read and click E-mail URL.
3. Your e-mail client displays a New Message window with the URL of the selected file.
4. Copy the URL and paste it to the Server-Side Filename field in the General page of the Enterprise Manager OCS Wizard.
5. When you click Verify Test, the test will be successfully executed.
6. You can also click Play to view the file.
   (Bug 4640959)

11.1.5 Service Names May Not Contain Multi-byte Characters
When creating service names for Collaboration Suite services, do not use multi-byte characters. (Bug 4635481)

11.2 Incorrect Decimal or Grouping Separator in Western European Languages
In many Enterprise Manager pages, when browser preferred language or OMS OS locale is some Western Europe languages, e.g., French or German, the Decimal Separator and Grouping Separator are interchanged incorrectly. (Bug 3079533)

11.3 Some Features Available Only in English Language
Translations are not available for the following features:

- Edit Service Level Rule pages (Bug 4544108)
- Client System Analyzer functionality (Bug 4556499)

Translations will be made available in the first patch set release.

11.4 Non-English Locales Not Supported for Agent Installation Application
The "Agent Installation" feature is only supported for English locale. Client (browser locales) can use other languages, but the Management Service installation that includes this application should only be done on the machine using English. (Bug 4684043)
11.5 Cannot Define Report Time in French
When the browser preferred language setting is French, the Report time period cannot be defined.

To resolve this issue, switch the language to English before entering the Report page. *(Bug 4639017)*

11.6 Square Boxes Appear When Installing on RHEL 4.0 in Japanese
When you install the product on Red Hat Enterprise Linux 4.0 Japanese, you must follow either of the workarounds listed below:

**Workaround A:**
1. Download JRE 1.4.2_10 (or later) self-extracting file from Sun Microsystems Web site.
2. Extract the JRE 1.4.2_10 (or later) to temporary directory.
3. Set LANG and LC_ALL environment variables to Japanese locale, for example, `ja_JP.UTF-8`.
4. When invoking Oracle Universal Installer, add the `-jreLoc <jre location>` option. For example, `./runInstaller -jreLoc /tmp/jre/1.4.2_10`.

**Workaround B:**
1. Set `LANG` and `LC_ALL` environment variables to C.
2. Invoke Oracle Universal Installer without any option. For example, `./runInstaller`.
3. OUI will come up with English. In the Specify Installation Location screen, click *Product Languages* and add Japanese to the Selected Languages list.

*(Bug 4598146)*

12 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. Accessibility 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 more information, visit the Oracle Accessibility Program Web site at [http://www.oracle.com/accessibility/](http://www.oracle.com/accessibility/).

**Accessibility of Code Examples in Documentation**
Screen readers may not always correctly read the code examples in this document. The conventions for writing code require that closing braces should appear on an otherwise empty line; however, some screen readers may not always read a line of text that consists solely of a bracket or brace.
Accessibility of Links to External Web Sites in Documentation
This documentation may contain links to Web sites of other companies or organizations that Oracle does not own or control. Oracle neither evaluates nor makes any representations regarding the accessibility of these Web sites.

TTY Access to Oracle Support Services
Oracle provides dedicated Text Telephone (TTY) access to Oracle Support Services within the United States of America 24 hours a day, seven days a week. For TTY support, call 800.446.2398.