Oracle® Developer Suite

Release Notes

10*g* Release 2 (10.1.2) for Solaris Operating System (SPARC), Microsoft Windows, and Linux x86

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ORACLE®

Oracle Developer Suite Release Notes, 10*g* Release 2 (10.1.2) for Solaris Operating System (SPARC), Microsoft Windows, and Linux x86

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Preface

This document summarizes differences between Oracle Developer Suite 10*g* (10.1.2.0.2) and its documented functionality.

For recent updates to the release notes and other documentation, please visit Oracle Technology Network at
http://www.oracle.com/technology/products/ids/index.html

Audience

This installation guide is intended for developers, database administrators, and others responsible for installing Oracle products. You should be familiar with client/server architecture/relationships, model-view-controller, Java, and database concepts.

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

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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.

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Related Documents

For more information, see the following documents in the Oracle Developer Suite documentation set:

- *Oracle Developer Suite 10g Installation Guide*
- *Oracle Developer Suite 10g Quick Installation Guide*

Conventions

The following text conventions are used in this document:

Convention	Meaning
boldface	Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.
italic	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.
`monospace`	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.

Part I

Product Release Notes

Part 1 of the release notes contains information for the entire Oracle Developer Suite product.

Part 1 contains the following chapters:

- Chapter 1, "Certification Information"
- Chapter 2, "Known Issues"

1 Certification Information

This chapter lists certification information for Oracle Developer Suite.

1.1 Certification Information

Certification information is now maintained online. The most up-to-date certification information for Oracle Developer Suite is always available at Oracle*Metalink* (http://metalink.oracle.com).

1.2 Certification on Linux x86-64

Oracle Developer Suite 10*g* Release 2 (10.1.2) is certified to run as a 32-bit application on the following Linux x86-64 platforms:

- Section 1.2.1, "Red Hat Enterprise Linux AS/ES 3.0, Update 3 or higher (AMD64 / Intel EM64T)"
- Section 1.2.2, "SUSE LINUX Enterprise Server 9 (AMD64 / Intel EM64T)"

1.2.1 Red Hat Enterprise Linux AS/ES 3.0, Update 3 or higher (AMD64 / Intel EM64T)

All the documentation for Red Hat Enterprise Linux AS/E 3.0 included in *Oracle Developer Suite Installation Guide* is applicable for Linux x86-64, including the requirements, kernel parameter requirements, and mandatory preinstallation checks. The steps are also applicable to Linux 86-64. In addition to those requirements, note the following:

- Instead of the packages listed in *Oracle Developer Suite Installation Guide* guide, the following packages (or higher versions) are required:
  - glibc-2.3.2-95.27.x86_64.rpm
  - glibc-3.2.3-95.27.i686.rpm (32-bit)
  - glibc-devel-3.2.3-95.27.x86_64.rpm
  - glibc-devel-3.2.3-95.27.i386.rpm (32-bit)
  - gcc-3.2.3-20.x86_64.rpm
  - libgcc-3.2.3-20.x86_64.rpm
  - libgcc-3.2.3-20.i386.rpm (32-bit)
  - setarch-1.3-1.x86_64.rpm
  - pdksh-5.2.14-21.x86_64.rpm

  - openmotif21-2.1.30-8.i386.rpm
  - compat-glibc-7.x-2.2.4.32.5.i386.rpm (32-bit)
  - compat-gcc-7.3-2.96.122.i386.rpm
  - sysstat-4.0.7-4.x86_64.rpm
  - gnome-libs-1.4.1.2.90-34.1.i386.rpm (32-bit)
  - compat-db-4.0.14-5.1.i386.rpm (32-bit)
- To install 32-bit packages on a 64-bit system, you may need to use the `--force` option and the `--nodeps` option of the `rpm` utility.
- Always use 32-bit shell emulation, use the following command before running the installer and any other Oracle Developer Suite component commands or scripts:

```
# linux32 bash
```

1.2.2 SUSE LINUX Enterprise Server 9 (AMD64 / Intel EM64T)

All the documentation for SUSE LINUX Enterprise Server 9 included in *Oracle Developer Suite Installation Guide* guide is applicable for Linux x86-64, including the requirements, kernel parameter requirements, and mandatory preinstallation checks. The steps are also applicable to Linux 86-64. In addition to those requirements, note the following:

- Instead of the packages listed in *Oracle Developer Suite Installation Guide* guide, the following packages (or higher versions) are required:
  - glibc-2.3.3-98.28.x86_64.rpm
  - glibc-32bit-9-200407011233.x86_64.rpm
  - glibc-devel-32bit-9-200407011229.x86_64.rpm
  - gcc-3.3.3-43.24.x86_64.rpm
  - gcc-3.2.3-20.x86_64.rpm
  - gcc-c++-3.3.3-43.24.x86_64.rpm
  - libgcc-3.2.3-20.i386.rpm (32-bit)
  - libstdc++-3.3.3-43.24.x86_64.rpm
  - libstdc++-devel-3.3.3-43.24.x86_64.rpm
  - libstdc++-devel-32bit-9-200407011229.x86_64.rpm
  - gnome-libs-1.4.1.7-671.1.x86_64.rpm
  - gnome-libs-devel-1.4.1.7-671.1.x86_64.rpm
  - gnome-libs-32bit-9-200407011229.x86_64.rpm
  - binutils-2.15.90.0.1.1-32.5.x86_64.rpm
  - binutils-32bit-9-200407011229.x86_64.rpm
  - compat-32bit-9-200407011229.x86_64.rpm
  - compat-sles8-1.3-93.3.x86_64.rpm
  - compat-2004.7.1-1.2.x86_64.rpm
  - pdksh-5.2.14-780.1.x86_64.rpm

  - make-3.80-184.1.x86_64.rpm
  - sysstat-5.0.1-35.1.x86_64.rpm
  - perl-32bit-9-200407011229.x86_64.rpm
  - libaio-devel-32bit-9-200407011229.x86_64.rpm
  - XFree86-devel-32bit-9-200407011229.x86_64.rpm
  - linux32-1.0-341.1.x86_64.rpm
  - db-32bit-9-200407011229.x86_64.rpm
  - db1-32bit-9-200407011229.x86_64.rpm
  - compat-32bit-9-200407011229.x86_64.rpm
- Always use 32-bit shell emulation, use the following command before running the installer and any other Oracle Developer Suite component commands or scripts:

```
# linux32 bash
```

2

Known Issues

This chapter discusses issues and workarounds that apply to the entire Oracle Developer Suite product. For component-specific issues and workarounds, please refer to the chapters in Part II, "Component Release Notes".

This chapter is divided into the following sections:

- Section 2.1, "Preinstallation Issues"
- Section 2.2, "Installation Issues"
- Section 2.3, "Postinstallation Issues"
- Section 2.4, "Deinstallation Issues"
- Section 2.5, "Platform-specific Issues"
- Section 2.6, "Configuration Issues"
- Section 2.7, "Administration Issues"
- Section 2.8, "Documentation Errata"

2.1 Preinstallation Issues

There is no known suite-level installation issue.

2.2 Installation Issues

There is no known suite-level installation issue.

2.3 Postinstallation Issues

There is no known suite-level installation issue.

2.4 Deinstallation Issues

There is no known suite-level installation issue.

2.5 Platform-specific Issues

There is no known suite-level installation issue.

2.5.1 Linux Issues

There is no known suite-level installation issue.

2.6 Configuration Issues

There are no known suite-level configuration issues.

2.7 Administration Issues

There are no known suite-level administration issues.

2.8 Documentation Errata

There is no known suite-level installation issue.

2.8.1 Oracle Developer Suite 10*g* Installation Guide

This section contains the following:

- Section 2.8.1.1, "Oracle Business Intelligence Tools"

2.8.1.1 Oracle Business Intelligence Tools

Section B.3.1 of the *Oracle Developer Suite Installation Guide* describes the database requirements for Oracle Business Intelligence Tools. This section has been updated to the following:

Oracle Business Intelligence Tools 10.1.2.1 supports the following versions for the database that contains the data on which you want to report:

- Oracle9*i* Release 2 Database (9.2.0.6 and higher)
- Oracle Database 10*g* Release 1 (10.1.0.4 and higher)
- Oracle Database 10*g* Release 2 (10.2.0.1 and higher); certification is planned

Note the following:

- When performing multidimensional analysis, you must use Oracle Database Enterprise Edition with the OLAP Option.
- When performing relational analysis, you can use Oracle Database Standard Edition or Oracle Database Enterprise Edition. You must use Oracle Database Enterprise Edition if you want to take advantage of materialized views, analytic functions, and the Advanced Security Option (ASO) and Transparent Application Failover (TAF) database features.

The latest information on supported versions is on the Certify application on `http://metalink.oracle.com/`.

2.8.2 Oracle Developer Suite 10*g* Quick Installation Guide

There is no known suite-level installation issue.

Part II

Component Release Notes

Part II of the release notes contains one chapter of component-specific information for each component of Oracle Developer Suite.

Part II contains the following chapters:

- Chapter 3, "Oracle Business Intelligence Beans"
- Chapter 4, "Oracle Forms"
- Chapter 5, "Oracle Reports"
- Chapter 6, "Oracle JDeveloper 10g"

3

Oracle Business Intelligence Beans

This chapter describes issues associated with Oracle Business Intelligence Beans (OracleBI Beans). It includes the following topics:

- Section 3.1, "Obtaining Fix for GUID-Generation Issue"
- Section 3.2, "Naming a Project with Spaces"
- Section 3.3, "executecommand Method of Connection Object"
- Section 3.4, "Family Step Followed by KEEP on Asymmetric Saved Selection"
- Section 3.5, "Presentations"
- Section 3.6, "HTML-Client Applications"
- Section 3.7, "Issues with Turkish Regional Settings"
- Section 3.8, "Accessibility Limitations for OracleBI Beans"
- Section 3.9, "Documentation Corrections"
- Section 3.10, "Known Issues with Oracle OLAP Option"

3.1 Obtaining Fix for GUID-Generation Issue

If you installed OracleBI Beans as part of Oracle Developer Suite, then you must obtain and install the standalone version of OracleBI Beans from Oracle Technology Network. By installing the standalone version, you ensure that your installation contains an important fix for a Globally Unique ID (GUID) generation issue.

3.2 Naming a Project with Spaces

You might notice intermittent problems with OracleBI Beans projects that are created in JDeveloper. These problems are often caused by the fact that the project's J2EE root context contains blank spaces, which in turn is caused by the fact that the project's name contains spaces.

To work around these problems, simply avoid including spaces in the project name. If you really prefer to include spaces in a project name, then modify the default J2EE context root that JDeveloper generates for the project by accessing the Project Settings dialog.

3.3 executecommand Method of Connection Object

You might encounter a problem with the `executeCommand` method of the `Connection` object if the input OLAP DML string or the output log information is too long. If this happens, then use the DBMS_AW PL/SQL package through JDBC.

3.4 Family Step Followed by KEEP on Asymmetric Saved Selection

If you have a Family step that is followed by a KEEP action on an asymmetric saved selection, then you might see duplicate results when connecting to an Oracle9*i* (Release 2) database, version 9.2.0.6. This issue has no workaround.

3.5 Presentations

The following issues exist for presentations in OracleBI Beans:

- Section 3.5.1, "Issue with Graphs with Circular Components"
- Section 3.5.2, "Numbers Printing as Pound Signs"
- Section 3.5.3, "Issue with Start Align Button"

3.5.1 Issue with Graphs with Circular Components

Because of Sun Java J2SE 1.2 bug 4151279 and Sun J2SE 1.4 regression bug 4749538, pie graphs and other graphs with circular components may not render optimally. You can help to resolve this issue by setting the graph's graphicAntialiasing property to True.

3.5.2 Numbers Printing as Pound Signs

When printing a crosstab that contains large numbers in the data cells, the string ####### may be printed instead of the actual numbers. This issue has no workaround.

3.5.3 Issue with Start Align Button

In the Java-client crosstab toolbar, the Start Align button always aligns text to the left. For locales that read right-to-left, use the Right Align button.

3.6 HTML-Client Applications

The following issues exist for HTML-client applications in OracleBI Beans:

- Section 3.6.1, "Custom Text for Tooltips in Thin Graphs"
- Section 3.6.2, "Popup Windows and Third-Party Toolbar or Popup Blockers"
- Section 3.6.3, "Issue with Partial Page Rendering"
- Section 3.6.4, "Circular Reference in the FolderList Tag"

3.6.1 Custom Text for Tooltips in Thin Graphs

In HTML-client applications, an application developer can allow end users to enter custom text for tooltips in thin graphs. Developers must be aware that this practice enables users to enter JavaScript that could be used for malicious purposes. Developers are advised to prohibit end users from entering custom text for tooltips in a thin graph.

3.6.2 Popup Windows and Third-Party Toolbar or Popup Blockers

In HTML-client applications, popup windows (Lists of Values, or LOVs) may stop working in browsers that have third-party toolbars or popup blockers installed, such as the Google or Yahoo toolbars. The following OracleBI Beans components use LOVs:

- In data views, paging controls launch a `FindMember` popup.
- QueryBuilder and CalcBuilder launch an `LOVContainer` popup.

You can work around this issue by disabling or hiding the offending toolbars.

3.6.3 Issue with Partial Page Rendering

Occasionally when a partial page rendering action is used to update a component that is contained in paragraph elements (<p>) or invalid HTML, the component might not update correctly and a JavaScript error is generated. To work around this issue, do not place the component in paragraph elements (<p>) or in invalid HTML.

3.6.4 Circular Reference in the FolderList Tag

The targetFolderListIds attribute of the BI Beans FolderList JSP tag allows a developer to specify the identifier of another FolderList tag as a target whose contents will be updated when a folder is selected. The FolderList tag does not automatically detect when a developer incorrectly specifies targets and creates a circular reference. For example, suppose that the following three FolderList tags exist on a page:

```
<orabi:FolderList id="A" targetFolderListIds="B"/>
<orabi:FolderList id="B" targetFolderListIds="C"/>
<orabi:FolderList id="C" targetFolderListIds="A"/>
```

When the page is run, the following infinite loop results:

```
FolderList A updates FolderList B
FolderList B updates FolderList C
FolderList C updates FolderList A
```

The FolderList tag does not detect this circular reference before the page is run.

3.7 Issues with Turkish Regional Settings

Because of Sun JRE 1.4 bug 4688797, you might encounter issues when connecting to a database schema while your computer has Turkish regional settings. You will encounter the issue when you attempt to connect to a database schema with a user name that contains certain letters, such as the letter 'I' or 'i', for example, in "bibdemo". See the Sun JRE bug for information on the letters that are affected.

To work around this issue, either do not use Turkish regional settings or use a user name that does not contain the affected letters.

3.8 Accessibility Limitations for OracleBI Beans

The following accessibility limitations exist for OracleBI Beans:

- The current version of the JAWS screen reader does not correctly identify and read tables in Java applications. This problem occurs in the JDeveloper Help system, which incorporates the OracleBI Beans Help system.
- JAWS does not read the description for some of the panels in the OLAP Connection wizard.

3.9 Documentation Corrections

The following Help topics related to calculations are incorrect:

- In the "Variance Calculation" topic, the formula for the calculation is incorrect. The correct formula is "Base-Target".
- In the "Percent Variance calculation" topic, the formula for the calculation is incorrect. The correct formula is "(Base-Target)/Target".
- In the "Percent Markup calculation" topic, the formula for the calculation is incorrect. The correct formula is "(From - Markup)/Markup".

3.10 Known Issues with Oracle OLAP Option

This section describes some of the known issues with the Oracle OLAP option. These issues affect all products that access OLAP data, including OracleBI Beans.

- At times, database resources are not properly released in the Oracle9*i* (Release 2) OLAP option. This may result in excessive memory consumption. To release the resources, close OracleBI Beans.
- Potential performance issues occur when running against analytic workspaces in Oracle OLAP 10*g* Release 1 version 10.1.0.4. To work around these issues, always check Oracle*Metalink* for the appropriate Oracle OLAP patches at the following location:

  `http://metalink.oracle.com`

- Do not overwrite the OLAP client that ships with OracleBI Beans 10.1.2.1. OracleBI Beans ships with an OLAP client (that is, the `olap_api.jar` file) that communicates with all database versions (including Oracle Database 10*g* Enterprise Edition Release 2 version 10.2.0.1) that are supported by this release of OracleBI Beans.

  Because of a known bug, do not overwrite the `olap_api.jar` file in the OracleBI Beans 10.1.2.1 installation directory with the `olap_api.jar` file from the installation directory for Oracle Database 10*g* Enterprise Edition Release 2.

4

Oracle Forms

This chapter describes issues associated with Oracle Forms. It includes the following topics:

- Section 4.1, "General Issues and Workarounds"
- Section 4.2, "Configuration Issues and Workarounds"
- Section 4.3, "Documentation Errata"

4.1 General Issues and Workarounds

This section describes general issues and workarounds. It includes the following topics:

- Section 4.1.1, "Backwards Compatibility with Earlier Releases"
- Section 4.1.2, "Unix Issues and Workarounds"
- Section 4.1.3, "Solaris Issues and Workarounds"
- Section 4.1.4, "Microsoft Windows Issues and Workarounds"

4.1.1 Backwards Compatibility with Earlier Releases

For information about upgrading from Oracle6*i* Forms, see the "Upgrading to Oracle AS Forms Services" chapter in *Oracle Application Server Forms Services Deployment Guide*. For information about changed or obsolete features, see the *Migrating Forms Applications from Forms6i guide.*

For information about upgrading from Oracle9*i* Forms, you can use the Upgrade Assistant. see the *Oracle Application Server Upgrade and Compatibility Guide* for Microsoft Windows.

For information about upgrading from Oracle9*i* Forms, you can use the Upgrade Assistant. see the *Oracle Application Server Upgrade and Compatibility Guide* for Solaris.

Additional information about backwards compatibility is Meta*Link* Note 113987.1 at:

`http://metalink.oracle.com`

Regardless from which version of Oracle Forms you are upgrading, you will need to recompile your applications and restart Oracle Forms.

4.1.2 Unix Issues and Workarounds

This section contains issues related to Oracle Forms and Unix:

- Section 4.1.2.1, "Unset NLS_LANG with UTF8 Character Sets Before Starting Forms Builder"
- Section 4.1.2.2, "Change Permissions of Re-linked Executables"

4.1.2.1 Unset NLS_LANG with UTF8 Character Sets Before Starting Forms Builder

On all Unix platforms, the Forms Builder cannot be started if NLS_LANG includes any UTF8 characterset. Attempting to start the Forms Builder with this setting will cause the following errors:

```
FRM-91111: Internal  Error: window system startup failure.

FRM-10039: Unable to start up the Form Builder.
```

4.1.2.2 Change Permissions of Re-linked Executables

On Unix platforms, if you relink Forms executables after installation (for example, because you're applying a one-off patch) the permissions on newly created executables will not necessarily be the same as the originals. Use `chmod` to change them manually.

4.1.3 Solaris Issues and Workarounds

This section contains issues related to Oracle Forms and Solaris:

- Section 4.1.3.1, "Truncated UI Strings in Korean"
- Section 4.1.3.2, "Truncated UI Strings in Japanese"

4.1.3.1 Truncated UI Strings in Korean

Korean UI strings are truncated when the font size is too large. As a workaround, change

```
Tk2Motif*fontList: -*-*-medium-r-normal--16-*-*-*-*-*-*-*:
```

to:

```
Tk2Motif*fontList: -*-*-medium-r-normal--14-*-*-*-*-*-*-*:
```

in the file `ORACLE_HOME/guicommon/tk/admin/KO/Tk2Motif.rgb`.

4.1.3.2 Truncated UI Strings in Japanese

Japanese UI strings are truncated when the font size is too large. As a workaround, change

```
Tk2Motif*fontList:
-misc-fixed-medium-r-normal--14-130-75-75-*-*-*-*:
```

to:

```
Tk2Motif*fontList:
-dt-gothic-medium-r-normal--14-*-*-*-m-*-jisx0208.1983-0:
```

in the file `ORACLE_HOME/guicommon/tk/admin/JA/Tk2Motif.rgb`.

4.1.4 Microsoft Windows Issues and Workarounds

This section contains issues related to Oracle Forms and Microsoft Windows:

- Section 4.1.4.1, "Availability of JACOB Libraries for WebUtil"
- Section 4.1.4.2, "Java Related Dialogs And Microsoft Windows Are Not Read By JAWS"
- Section 4.1.4.3, "Location of JAWS Scripts"
- Section 4.1.4.4, "Internet Explorer Hangs When Exiting The Form and Closing Browser"

4.1.4.1 Availability of JACOB Libraries for WebUtil

You can download the latest version of the JACOB libraries from `http://prdownloads.sourceforge.net/jacob-project/`.

4.1.4.2 Java Related Dialogs And Microsoft Windows Are Not Read By JAWS

You need to add access-bridge.jar and jaccess-1_3.jar to CLASSPATH.

4.1.4.3 Location of JAWS Scripts

JAWS scripts are now installed with Oracle Forms. The location for these scripts is `ORACLE_HOME/forms/ScreenReader/`, and are also available at Oracle Technology Network (OTN) at `http://www.oracle.com/technology/products/`.

4.1.4.4 Internet Explorer Hangs When Exiting The Form and Closing Browser

With the JDK 1.5 plugin on Microsoft Windows XP Client and IE browser, the browser hangs when exiting the Form and closing the browser. This is a known issue in the Sun Java Plug-in and will be fixed in a future release of the Sun Java Plug-in.

4.2 Configuration Issues and Workarounds

This section describes configuration issues and their workarounds. It includes the following topics:

- Section 4.2.1, "Non-Internet Explorer Browser Proxy Settings when Using One-Button-Run"
- Section 4.2.2, "Change to Default Setting for FORMS_RESTRICT_ENTER_QUERY Environment Variable"
- Section 4.2.3, "PJC Wizard Now Part of Oracle Forms"
- Section 4.2.4, "Exception When Clicking Other Items While Inputting Multibyte Characters"
- Section 4.2.5, "JDK 1.4.2_06 Plug-in Not Installed When Running a Form on the Web for the First Time"
- Section 4.2.6, "CLOB Data Cannot be Retrieved When Query Data More Than Max Width"
- Section 4.2.7, "FRM-92102 Existing Sessions Disconnect When User Added To JAZN"
- Section 4.2.8, "Monitoring CPU Usage and Response Time"

4.2.1 Non-Internet Explorer Browser Proxy Settings when Using One-Button-Run

If you encounter a FORBIDDEN error when using One-Button-Run with any of the supported Browsers other than Internet Explorer, verify if 127.0.0.1 (localhost) is in the proxy settings for your browser. If 127.0.0.1 is not in the exceptions list, then add it. This ensures that the browser will bypass the proxy server.

4.2.2 Change to Default Setting for FORMS_RESTRICT_ENTER_QUERY Environment Variable

The environment setting FORMS_RESTRICT_ENTER_QUERY has a default value of `TRUE`. This setting disallows users from using QUERY-WHERE functionality until it is set to `FALSE`.

4.2.3 PJC Wizard Now Part of Oracle Forms

With Oracle Forms 10.1.2 and higher, the Forms PJC Wizard is part of the standard Forms installation. The PJC Wizard works with JDeveloper 10*g* (10.1.2) that is part of Oracle Developer Suite 10*g*. For versions of JDeveloper that are obtained from OTN, the PJC wizard is available as a separate Jar file to download and place into your JDeveloper installation.

4.2.4 Exception When Clicking Other Items While Inputting Multibyte Characters

In CJK languages, the Forms client may stop responding when clicking another item while inputting text through inline IME. As a workaround, disable the inline IME. See section 4.10.2, "Inline IME Support" in *Oracle Application Server Forms Services Deployment Guide*. This issue will be fixed in a future patch set.

4.2.5 JDK 1.4.2_06 Plug-in Not Installed When Running a Form on the Web for the First Time

The **Install JDK 1.4.2** dialog appears when running a Form on the Web for the first time. When you click **Install**, the JDK 1.4.2 Plug-in is installed instead of the JDK 1.4.2_06 Plug-in. If you're attempting to use the JDK 1.4.2 plugin from Internet Explorer, and it isn't currently installed on your machine, it will download the wrong version. The workarounds are:

- Modify formsweb.cfg by finding:

  ```
  jpi_codebase=http://java.sun.com/products/plugin/autodl/jinstall-1_4_
  2-windows-i586.cab#Version=1,4,2,06
  ```

  and change it to:

  ```
  jpi_codebase=http://java.sun.com/products/plugin/autodl/
  jinstall-1_4_2_06-windows-i586.cab#Version=1,4,2,06.
  ```

- Run the Form (for the first time) from Netscape, which will go to the correct location for the download.
- Go to the correct location and manually install the JDK 1.4.2_06 Plug-in.

4.2.6 CLOB Data Cannot be Retrieved When Query Data More Than Max Width

When using Japanese NLS_LANG (JA16SJIS, JA16EUC etc.) if the queried CLOB data is longer than the maximum length (240 bytes by default) of the Text Item corresponding to this CLOB data, the query fails at runtime. The issue is that the CLOB data is correctly truncated with the maximum length of the Text Item (240 bytes by default) in English NLS_LANG, but not in Japanese NLS_LANG.

This issue may also raise "`FRM-40505: ORACLE error: unable to perform query`" on Solaris.

Also, on Linux, error FRM-92101 occurs when encountering this issue.

This issue may also raise "`FRM-40505: ORACLE error: unable to perform query`" on Microsoft Windows.

As a workaround, extend the maximum length of the Text Item to fit the length of the CLOB data.

4.2.7 FRM-92102 Existing Sessions Disconnect When User Added To JAZN

The FRM-92102 error appears and existing Forms sessions disconnect after adding a new user to JAZN (**OC4J_BI_FORMS | Applications | formsapp | Security**). Thus, if you're adding new JAZN users to the OC4J_BI_Forms instance, you should do this while no Forms session is running.

4.2.8 Monitoring CPU Usage and Response Time

On the System Component Tables in Enterprise Manager, the CPU and Memory statistics are collected every minute, by default. Note that this potentially can mean that any CPU spikes will not be displayed. In addition, if Forms server processes are dormant, awaiting client activity or requests, it is perfectly normal for the CPU usage to report 0.0%.

On the Forms Overview page, the CPU and Memory statistics are gathered each time the page is rendered when you click the Overview Tab or when you click the refresh icon next to the timestamp. However, due to an operating system restriction, if the Response Time from the Forms Servlet is less than 16ms, it will display as 0.00ms.

4.3 Documentation Errata

This section contains information about documentation errata:

- Section 4.3.1, "Oracle Forms Migrating Forms Applications From Forms 6i 10g (10.1.2.0.2)"

4.3.1 Oracle Forms Migrating Forms Applications From Forms 6i 10g (10.1.2.0.2)

In Chapter 2, Using the Oracle Forms Migration Assistant, some script code is listed as:

```
for file in $*
do
       frmplsqlconv.sh module=$ff
done
```

The correct listing should be:

```
for file in $*
do
       frmplsqlconv.sh module=$file
done
```

5

Oracle Reports

This chapter describes issues with Oracle Reports. It includes the following topics:

- Section 5.1, "General Issues and Workarounds"
- Section 5.2, "Vendor-Specific Issues and Workarounds"
- Section 5.3, "Globalization Support Issues and Workarounds"
- Section 5.4, "Documentation Errata"

See Also:

- Refer to the Oracle Reports 10*g* page on OTN, (`http://www.oracle.com/technology/products/reports/index.html`) for wide-ranging information about Oracle Reports, including a link to download the latest version of the *Oracle Reports online Help*.
- Your Oracle Application Server software ships with a standalone installation of Oracle Application Server Forms and Reports Services. Use this CD if you do not need all the functionality of the full Oracle Application Server installation. For more information, refer to the *Oracle Application Server Forms and Reports Services Installation Guide* available on your Documentation CD. Refer also to the Oracle Reports Technical FAQ on OTN for frequently asked questions about OracleAS Forms and Reports Services installation at `http://www.oracle.com/technology/products/reports/htdocs/faq/faq_fr_services.htm`.

5.1 General Issues and Workarounds

This section describes general issues and their workarounds for Oracle Reports. It includes the following topics:

- Section 5.1.1, "Enabling Backward Compatibility with 9.0.4"
- Section 5.1.2, "Using the New Auto Save Feature in Reports Builder"
- Section 5.1.3, "OracleAS Reports Services Demos Do Not Work If JServ Is Configured"
- Section 5.1.4, "JSP Report Does Not Run in Oracle JDeveloper on UNIX"
- Section 5.1.5, "Error While Editing Batch Registered Report in OracleAS Portal"
- Section 5.1.6, "Limitation on Linked Queries for DelimitedData Output"

- Section 5.1.7, "Summary Column Not Aligned for JSP-Based Web Reports with Group Above and Matrix Style"
- Section 5.1.8, "Images in HTML Output of Oracle Reports Not Displayed When Viewed from Oracle Enterprise Manager 10g"
- Section 5.1.9, "Misalignment in Large Multibyte Reports When Using the Enhanced Font Subsetting Feature with Acrobat Reader 7.0"
- Section 5.1.10, "Incorrect Color for Multiline Text in Paper Design View When Inline HTML Tags Are Used"
- Section 5.1.11, "PL/SQL Compilation Failure When Using SQL Constructs"
- Section 5.1.12, "PL/SQLPackage Specification and/or Body Lost When Saving Report As XML"

5.1.1 Enabling Backward Compatibility with 9.0.4

Oracle Reports 10*g* Release 2 (10.1.2) replaces the use of Borland VisiBroker with Sun Microsystems industry-standard Java Developer's Kit Object Request Broker (JDK ORB), providing support for Reports Server requests from clients across subnets, and using the broadcast mechanism for dynamic Reports Server discovery, both within a subnet and across subnets. For information about the changes related to JDK ORB, refer to the *Oracle Application Server Reports Services Publishing Reports to the Web* manual.

For releases prior to 9.0.4.3, you must apply the patch issued for 9.0.4.2 to achieve ORB backward compatibility between Oracle Reports (9.0.4) client and 10*g* Release 2 (10.1.2) server, or vice versa. Beginning with 9.0.4.3, the patch is included in the installation.

Platform-specific details for this patch are provided in bug 4092150.

5.1.2 Using the New Auto Save Feature in Reports Builder

Oracle Reports 10*g* Release 2 (10.1.2) introduces the Auto Save feature, which recovers unsaved changes in the case of an unexpected event of Reports Builder or system fail. When Auto Save is enabled, Reports Builder can automatically recover unsaved changes in open reports.

To enable the Auto Save functionality, you must perform the following steps:

1. In Reports Builder, select **Edit**, and then select **Preferences** to display the Preferences dialog box.
2. In the Preferences dialog box, on the **General** tab, select **Auto Save**.

Alternatively, you can enable the Auto Save functionality by modifying the `Reports.auto_save` property in the preferences file, `cauprefs.ora` for Windows or `prefs.ora` for UNIX platforms. Modify the file as follows:

```
Reports.auto_save = [YES|NO]
DEFAULT: NO
```

Usage Notes

- When Auto Save is enabled, any modifications done in the reports that are open are saved automatically in temporary recovery files at various events originating from menu, toolbar, tool palette, object navigator, property inspector, and other editor windows in Reports Builder.
- For a new report definition, Auto Save is enabled only after the report is saved the first time.

- After you save your report, Reports Builder deletes the current recovery file. Even if you just recovered unsaved changes, Reports Builder deletes the recovery file when you save the report.
- The temporary recovery file is created and saved in `.rdf` format in the same location as that of the original definition file. The format of recovery files is `reportname_extension.rdf`. For example, the recovery file of an original definition file, `emp.jsp`, would be `emp_jsp.rdf`. The `emp_jsp.rdf` file is saved in the same location as the `emp.jsp` file.
- If you reopen a previously unsaved report definition file for which a recovery file exists, then Reports Builder prompts you to save the changes. The recovery file contains the changes made until the last Auto Save event. After the changes are recovered, you must select the **Save** or **Revert** option. The **Save** option writes the unsaved previous changes to the original report definition file. The **Revert** option does not save the recovered changes. Reports Builder deletes the recovery file when you close the report.
- If an error occurs when autosaving the recovery file, then Reports Builder prompts you to disable Auto Save or continue with the error.

> **Note:** When Auto Save is enabled, Reports Builder assumes that the recovery file contains changes made since the last save of the report definition file. Before you choose to save the recovery file, you must ensure that the recovery file contains your latest changes. If the original report definition file is a later version than the recovery file, then you can choose to revert to the original report definition, so that you do not overwrite it with the changes read from the recovery file.

5.1.3 OracleAS Reports Services Demos Do Not Work If JServ Is Configured

To run OracleAS Reports Services demos successfully, do not configure Apache JServ on the computer where OracleAS Reports Services is installed.

5.1.4 JSP Report Does Not Run in Oracle JDeveloper on UNIX

To run a JSP-based Web report in Oracle JDeveloper on UNIX, perform either of the following steps:

- For the in-process Reports Server, edit *ORACLE_HOME*`/jdev/bin/jdev` to include the path to `lib32`. Append the path of `lib32` to `LD_LIBRARY_PATH=`*ORACLE_HOME*`/lib`, as shown in the following example:

  ```
  LD_LIBRARY_PATH=ORACLE_HOME/lib:ORACLE_HOME/lib32
  ```

  Save and invoke Oracle JDeveloper.
- Use the standalone Reports Server to run JSP-based Web report in Oracle JDeveloper.

5.1.5 Error While Editing Batch Registered Report in OracleAS Portal

If you batch register a report in OracleAS Portal, then subsequently manually edit the report's registration in OracleAS Portal, you may encounter an unexpected Save As dialog box during the manual editing process.

To work around this issue, specify the Display Name property while editing the report's registration in OracleAS Portal.

Refer to the *Oracle Application Server Reports Services Publishing Reports to the Web* manual for information on how to register a report with OracleAS Portal.

5.1.6 Limitation on Linked Queries for DelimitedData Output

DelimitedData output does not allow multiple queries to be linked to the main query, because sibling groups are not supported.

For example:

Case 1: You have a link between `Q1` and `Q2`, a link between `Q2` and `Q3`, and a standalone `Q4` query.

```
Q1<-->Q2<-->Q3          Q4
```

In this case, DelimitedData output is generated correctly.

Case 2: You have a link between `Q1` and `Q2`, a link between `Q2` and `Q3`, and a link between `Q4` and `Q1`.

```
Q1<-->Q2<-->Q3     Q1<-->Q4
```

In this case, DelimitedData output is not generated correctly. Alternatively, you can use XML output.

5.1.7 Summary Column Not Aligned for JSP-Based Web Reports with Group Above and Matrix Style

If any summary column values are not correctly left-aligned in the output of JSP-based Web reports with a Group Above or Matrix style, then you can implement the following workaround to get proper alignment:

- Open the JSP report in Reports Builder.
- Select the **Web Source** view.
- In the Web Source view, locate the section where the summary column is defined, and delete the following line to remove the extra space:

  ```
  <th class="summary_column_name"> </th>
  ```

5.1.8 Images in HTML Output of Oracle Reports Not Displayed When Viewed from Oracle Enterprise Manager 10*g*

If OracleAS Web Cache is configured as SSL-enabled and Oracle HTTP Server is not, then the images in the HTML output of Oracle Reports is not displayed when viewed from Oracle Enterprise Manager 10*g*. This is because the image URLs mentioned in the HTML output points to OracleAS Web Cache ports, which are SSL-enabled, whereas the request for past job outputs of Oracle Reports from Oracle Enterprise Manager 10*g* is non-SSL.

To work around this issue, edit the Servlet property of the URL in the `targets.xml` file for Reports Server type such that it points to the OracleAS Web Cache port instead of the Oracle HTTP Server port. The `targets.xml` file is available at *`ORACLE_HOME`*`/sysman/emd` directory.

For example, if your OracleAS Web Cache is SSL-enabled and the listening port number is `443`, then the Servlet property of the URL for the Reports Server target in the `targets.xml` file should be as shown in the following example:

```
<Target TYPE="oracle_repserv" …..>
......
<Property NAME="Servlet" VALUE="https://xyz.mycompany.com:443/reports/rwservlet"/>
......
</Target>
```

5.1.9 Misalignment in Large Multibyte Reports When Using the Enhanced Font Subsetting Feature with Acrobat Reader 7.0

If you use Acrobat Reader 7.0 to view multibyte and unicode PDF reports that use enhanced font subsetting feature (default) and the report size is very large, then some of the characters displayed will not be aligned properly.

To work around this issue, you can do either of the following:

- Set the environment variable `REPORTS_ENHANCED_SUBSET` to `NO` to revert to the Type 3 font subsetting implementation used in releases prior to Oracle Reports 10*g* Release 2 (10.1.2).
- Use Acrobat Reader 6.0 or earlier.

5.1.10 Incorrect Color for Multiline Text in Paper Design View When Inline HTML Tags Are Used

If any of the following conditions are present, then the text in the Paper Design view of Reports Builder may display in an incorrect color:

- A text object includes multiline text, which wraps beyond the first line.
- The text object's Contains HTML Tags property is set to Yes.
- More than one color is applied to different parts of the multiline text.

> **Note:** This issue is shown in the Paper Design view only. The report output in all other output formats show correct colors.

5.1.11 PL/SQL Compilation Failure When Using SQL Constructs

PL/SQL compilation may fail if you use SQL constructs in your reports and if the following conditions are present:

- The SQL constructs were introduced in Oracle Database versions after 9.0.1, for example, `ROW_NUMBER()`.
- The SQL constructs are used in client side PL/SQL procedures.

To work around this issue, you can do any of the following:

- Use Oracle Database Release 10.1.0.4 or later.
- Move those SQL constructs to the server-side stored procedures.
- Use the SQL constructs within SQL queries directly instead of procedures.

5.1.12 PL/SQLPackage Specification and/or Body Lost When Saving Report As XML

For a report developed in a release prior to Oracle Reports 10*g* Release 2 (10.1.2) patch 2, you may encounter the following issue when saving the report in XML format: if the report defines a PL/SQL package, the package specification, and sometimes the body, is not saved in the XML report. To resolve this issue, perform either of the following steps:

- If the RDF exists, regenerate the XML output file using Oracle Reports 10*g* Release 2 (10.1.2) patch 2 or later.
- If the RDF does not exist, edit the XML manually to add `type="packageSpec"` and/or `type="packageBody"` to the `function` element, as shown in the following example:

```
<programUnits>
  <function name="a" type="packageSpec">
    <textSource>
      <![CDATA[
        PACKAGE a IS
          function lire return date ;
        END a;
      ]]>
    </textSource>
  </function>
  <function name="a" type="packageBody">
    <textSource>
      <![CDATA[
        PACKAGE BODY a IS
          function lire return date is
            c2 date;
            begin
              c2 :=sysdate;
              return c2;
            end;
        END;
      ]]>
    </textSource>
  </function>
  <function name="cf_1formula" returnType="date">
    <textSource>
      <![CDATA[
        function CF_1Formula return Date is
          aa date;
          begin
            --aa :=a.lire;
          end;
      ]]>
    </textSource>
  </function>
</programUnits>
```

5.2 Vendor-Specific Issues and Workarounds

This section describes vendor-specific issues and their workarounds for Oracle Reports. It includes the following topics:

- Section 5.2.1, "Underlines Do Not Display in HTMLCSS Output in Browser"
- Section 5.2.2, "JSP-Based Web Report with Large Number of Columns Generates JSP Compilation Error"
- Section 5.2.3, "Java AWT Windows Hangs with Specific Graphics Cards"

5.2.1 Underlines Do Not Display in HTMLCSS Output in Browser

In HTMLCSS output, underlines may not display in the browser if you use a custom style for a field object and apply both background color and underline as part of the style, as shown in the following example:

```
.ReportLevel {text-decoration:underline;color:blue; background-color:yellow}
```

This is a browser limitation. The browser cannot display underlines, with absolute positioning, for the fields that have both underline and background color applied to them.

5.2.2 JSP-Based Web Report with Large Number of Columns Generates JSP Compilation Error

When you run a JSP-based Web report with more than 149 columns, you may encounter the `oracle.jsp.provider.JspCompileException` error, as shown in the following example:

```
500 Internal Server Error
OracleJSP: oracle.jsp.provider.JspCompileException:
Errors
...
6764 code too large for try statement catch( Throwable e)
{18 code too large public void _jspService(HttpServletRequest request,
HttpServletResponse response) throws java.io.IOException, ServletException}
```

This occurs due to a limitation in the Java language that does not enable compilation of Java files with large methods.

5.2.3 Java AWT Windows Hangs with Specific Graphics Cards

When you start Reports Server with `rwserver.exe`, the UI may not display and Reports Server may hang on computers with specific graphics cards (for example, ATI Rage XL PCI card). This occurs due to a problem with the UI mechanism used in Java.

As a workaround, start Reports Server with the `JVMOPTIONS` command line keyword set as shown in the following example:

```
rwserver SERVER=test JVMOPTIONS="-Dsun.java2d.noddraw=true"
```

Note: It is recommended that you start Reports Server from OPMN.

5.3 Globalization Support Issues and Workarounds

This section describes Globalization Support issues and their workarounds for Oracle Reports. It includes the following topics:

- Section 5.3.1, "Images Do Not Display Correctly in Turkish Environments"
- Section 5.3.2, "MS Mincho Font in PostScript Font Mapping Does Not Work When NLS_LANG is JA16EUC"
- Section 5.3.3, "Multibyte Reports Containing Oracle Object Types Hang Reports Builder"
- Section 5.3.4, "Japanese and Korean Translated UI Strings Are Truncated in the Report Wizard"
- Section 5.3.5, "Reports Server's Job Status Messages in Application Server Control Contain Invalid Characters"
- Section 5.3.6, "ENVID Ignored While Detecting Duplicate Job"

5.3.1 Images Do Not Display Correctly in Turkish Environments

If you are running reports that include images and use advanced imaging in Turkish environments (when `NLS_LANG` is set to `TURKISH_TURKEY.TR8MSWIN125` or `TURKISH_TURKEY.WE8ISO8859P9`), then set the environment variable `REPORTS_OUTPUTIMAGEFORMAT=[PNG|GIF]`.

Alternatively, you can control the value in the reports request using the command line keyword `OUTPUTIMAGEFORMAT=[PNG|GIF]`.

5.3.2 MS Mincho Font in PostScript Font Mapping Does Not Work When NLS_LANG is JA16EUC

When you deploy reports created with Reports Builder on Windows to a Solaris or LINUX Reports Server that has `NLS_LANG` set to `JA16EUC`, the PDF font mappings will not work. This happens if any one of the following fonts is used in the PostScript font mapping entry:

```
"<MS Mincho in JP>".....
"<MS PMincho in JP>".....
```

To work around this issue, you must perform one of the following tasks:

- Set `NLS_LANG` to `JA16SJIS`.
- Use `MS Gothic` instead of `MS Mincho` in PostScript font mappings when creating the reports.

5.3.3 Multibyte Reports Containing Oracle Object Types Hang Reports Builder

Reports Builder may stop responding when you run a multibyte report containing an embedded Oracle Object type.

This is a known issue.

5.3.4 Japanese and Korean Translated UI Strings Are Truncated in the Report Wizard

On the Solaris platform, in the Report Wizard in Reports Builder, the UI strings **Query Builder...** and **Import SQL Query...** are truncated when used in a Japanese and Korean environment. To resolve this issue, you must edit the `Tk2Motif*fontList` setting in *ORACLE_HOME*`/guicommon/tk/admin/JA/Tk2Motif.rgb`, as follows:

- For Japanese, change:

  ```
  Tk2Motif*fontList:
  -misc-fixed-medium-r-normal--14-130-75-75-*-*-*-*:
  ```

  To

  ```
  Tk2Motif*fontList:
  -dt-gothic-medium-r-normal--14-*-*-*-m-*-jisx0208.1983-0:
  ```

- For Korean, change:

  ```
  Tk2Motif*fontList: -*-*-medium-r-normal--16-*-*-*-*-*-*-*:
  ```

  To

  ```
  Tk2Motif*fontList: -*-*-medium-r-normal--14-*-*-*-*-*-*-*:
  ```

5.3.5 Reports Server's Job Status Messages in Application Server Control Contain Invalid Characters

Oracle Reports status messages on the Job Status page in Application Server Control may contain invalid characters if the middle tier character set, `NLS_CHARACTERSET` (the third field of `NLS_LANG`) does not correspond to the encoding of the Reports Servlet response for the Servlet locale.

> **Note:** The middle tier's default encoding can be different from the Servlet's encoding. For example, when you set `LANG` to `ja` or `ja_JP.eucJP`, the default middle tier system encoding is `EUC`. However, in this locale, Reports Servlet messages are encoded in `Shift_JIS`. This is because default encoding for `ja_JP` is `Shift_JIS` in the servlet.

Oracle Enterprise Manager 10*g* converts the messages from the middle tier's `NLS_CHARACTERSET` to `UTF8` resulting in invalid characters in the status messages on the Job Status page. For example, the Reports Servlet messages are encoded in `Shift_JIS` when the middle tier runs with `LANG` set to `ja` and `NLS_LANG` set to `JAPANESE_JAPAN.JA16EUC`. However, Oracle Enterprise Manager 10*g* assumes that the original message is in `JA16EUC`, and converts it to `UTF8`, which results in the display of invalid characters in the status messages.

5.3.6 ENVID Ignored While Detecting Duplicate Job

When detecting a new incoming request for a duplicate job where the job request includes the `TOLERANCE` keyword, Reports Server ignores the value of the `ENVID` keyword. As a result, the job is marked duplicate of a previous job that was submitted with the same values for all keywords except `ENVID`.

The following example illustrates this issue:

Report Request	Report	ENVID	TOLERANCE	Output
1	`Japanese.rdf`	`JA`	`10`	As expected
2	`Arabic.rdf`	`UTF`	`10`	As expected
3	`Arabic.rdf`	`AR`	`10`	Same as request 2 (incorrect)
4	`Japanese.rdf`	`JA`	`10`	Same as request 1 (correct)

In this example, request 4 is correctly marked as a duplicate of request 1 as both the requests use the same values for all keywords, including the `ENVID` keyword. However, request 3 is incorrectly marked as duplicate of request 2 because both requests use the same values for all keywords, except the `ENVID` keyword. As a result, the changed `ENVID` will not be accepted in request 3.

To work around this issue, either do not specify `TOLERANCE` on the command line or specify a dummy user parameter in the job request to differentiate the job requests in duplicate job detection.

5.4 Documentation Errata

This section describes known errors and omissions in Oracle Reports documentation. It includes the following topic:

- Section 5.4.1, "Additional Documentation"

5.4.1 Additional Documentation

This section describes known omissions and additions to the Oracle Reports documentation. It includes the following topic:

- Section 5.4.1.1, "OracleAS Forms and Reports Services is Certified to Work on Solaris 10 Platform"

5.4.1.1 OracleAS Forms and Reports Services is Certified to Work on Solaris 10 Platform

Table 3-1 "System Requirements" in chapter 3 "Requirements" of *Oracle Application Server Forms and Reports Services Installation Guide 10g* Release 2 (10.1.2) for Solaris Operating System (SPARC) mentions Solaris 8 or Solaris 9 platform as prerequisite for installing Forms and Reports Services.

However, note that Forms and Reports Services is certified to work on Solaris 10 platform also.

6

Oracle JDeveloper 10*g*

This chapter describes issues associated with Oracle JDeveloper 10*g* (10.1.2.1.0). It includes the following topics:

- Section 6.1, "Introduction"
- Section 6.2, "What's New in JDeveloper 10.1.2.1.0"
- Section 6.3, "Migration Issues"
- Section 6.4, "Deployment Issues"
- Section 6.5, "ADF DataAction for Struts Known Issues"
- Section 6.6, "ADF Business Components Issues"
- Section 6.7, "ADF UIX Issues"
- Section 6.8, "Apache Struts Restrictions"
- Section 6.9, "Data Binding Issues"
- Section 6.10, "JClient Issues"
- Section 6.11, "Toplink Issues"
- Section 6.12, "Web Services Issues"
- Section 6.13, "Modeling Issues"
- Section 6.14, "Team Based Development Issues"
- Section 6.15, "Unix-Specific Issues"
- Section 6.16, "Macintosh OS X Issues"
- Section 6.17, "Screen Reader Issues"
- Section 6.18, "Miscellaneous Issues"

6.1 Introduction

JDeveloper is an Integrated Development Environment (IDE) for building applications and Web services using the latest industry standards for Java, XML, and SQL. Oracle JDeveloper supports the complete development life cycle with integrated features for modeling, coding, debugging, testing, profiling, tuning, and deploying applications.

A visual and declarative approach and the innovative Oracle Application Development Framework (Oracle ADF) work together to simplify application development and reduce mundane coding tasks, offering developers unparalleled productivity and their choice of technology stack.

Oracle JDeveloper offers an Extension SDK that lets you add capabilities and customize your development environment. To learn more about Oracle JDeveloper, and to catch up on the latest news, visit JDeveloper's home page on the Oracle Technology Network (OTN), at `http://www.oracle.com/technology/products/jdev/`.

Also available on this site is the *Oracle JDeveloper 10g Release Notes Addendum*, which contains additional information not available at the time of this document's publication.

6.2 What's New in JDeveloper 10.1.2.1.0

While primarily a maintenance release, JDeveloper 10.1.2.1.0 adds a small number of new features:

- Section 6.2.1, "Offline Database Objects"
- Section 6.2.2, "Struts Page Flow Diagram"
- Section 6.2.3, "Improvements in the Business Components Wizards"
- Section 6.2.4, "ADF Business Components Performance Improvements"
- Section 6.2.5, "Data Binding"
- Section 6.2.6, "Embedded OC4J"
- Section 6.2.7, "JDBC Drivers"
- Section 6.2.8, "ADF Runtime in Oracle Application Server 10.1.2"

6.2.1 Offline Database Objects

In the Import Offline Database Objects Wizard, the schema selection is now the last step. This was done to allow the schema to be defaulted to the online schema name for TopLink projects.

6.2.2 Struts Page Flow Diagram

- Rendering and general responsiveness of large diagrams has improved for dynamic projects.
- Performance of Struts editing is further improved by only validating the XML against the DTD when the project is compiled or when the developer chooses to explicitly validate it from the context menu, rather than every time that the Struts editor gains focus.
- It is now possible to create actions that are not prefixed with a "/" (forward slash). This means that you can create private actions that are not directly accessible from a browser by specifying a page name without an initial "/" character. Conversely, if you need your action to be accessible from a browser directly, include the "/" at the start of the name.

6.2.3 Improvements in the Business Components Wizards

The Business Components Wizard and View Object Wizard have been updated to make it easier for you to implement the Fast Lane Reader design pattern. When you create a new view object, you now have the option to create a view object with data that is populated by a read only SQL query. In this model, all data is stored in the view cache, which results in very fast performance on repeated queries.

6.2.4 ADF Business Components Performance Improvements

ADF Business Components performance has increased substantially in this release. You do not have to make any modifications to your code or architecture. Just recompile your application in this release, deploy, and run it. Depending on the type of application you are using you could see up to a 30% improvement in performance.

6.2.5 Data Binding

The fix for bug 3077519 BLANK NEW ROW PROBLEM IS BACK FOR WEB APPS has resulted in a small change to data binding design time. This bug in JDeveloper 9.0.5 causes a blank row to be inserted into a browse form when the user clicks a button to add a new row in a blank form, then clicks the browser's back button to go back to the browse form.

For web pages bound to ADF Business Components, this behavior has now been changed: by default, when the user hits the back button, they will no longer see a blank row. If you want your pages to use the old behavior instead, the steps are as follows:

- With your web page or struts page flow diagram open in the editor, go to the UI model tab in the structure pane.
- Edit the action binding for the Create operation.
- In the dropdown list, select the CreateInsert action, replacing the Create action which is shown by default.

6.2.6 Embedded OC4J

JDeveloper 10.1.2 includes embedded OC4J version 10.1.2. For enhancements and bug fixes to OC4J 10.1.2, please see the OC4J release notes.

6.2.7 JDBC Drivers

JDeveloper 10.1.2 is distributed with the Oracle JDBC drivers from Oracle Application Server 10.1.2.

6.2.8 ADF Runtime in Oracle Application Server 10.1.2

Oracle ADF runtime libraries are included in Oracle Application Server 10.1.2. This means that if you are deploying ADF applications to Oracle Application Server 10.1.2, you do not need to run the ADF Runtime Installer to install the ADF libraries in the application server.

6.3 Migration Issues

This section contains information about migrating your JDeveloper applications:

- Section 6.3.1, "JDeveloper 9.0.3 PL/SQL Web Service Has Compile Errors When Regenerated"
- Section 6.3.2, "Regeneration of Migrated Web Service May Result in an Incomplete Deployment Profile"
- Section 6.3.3, "WS-I Test Tools Location Must be Entered Again"
- Section 6.3.4, "Migrating Struts Applications to Oracle JDeveloper 10g Struts Applications Created in Oracle9i JDeveloper"

- Section 6.3.5, "Default Iterators for View Object Rowsets Advance to First Row When Bound to ADF Iterator Bindings"
- Section 6.3.6, "Migrating Projects that Use bc4jhtml.jar"
- Section 6.3.7, "Migrating JClient Projects with Java Web Start and JNLP"
- Section 6.3.8, "Custom JClient Error Handler Dialog Migration"
- Section 6.3.9, "EJB: Migration of OC4J 9.0.x Native CMP Mappings"
- Section 6.3.10, "Trouble Migrating Web Applications from Oracle9i JDeveloper 9.0.4"
- Section 6.3.11, "Migration Dialog May Display when Migrating from 9.0.5.1 to 10.1.2"
- Section 6.3.12, "Oracle-Style Bind Parameters Work Differently"
- Section 6.3.13, "Migrating EJB CMR Relationships to Oracle10g JDeveloper Release 10.1.2"
- Section 6.3.14, "Migrated 9.0.X UIX/BC4J/JSP Applications Do Not Have UIX Resources and Styles Available"

6.3.1 JDeveloper 9.0.3 PL/SQL Web Service Has Compile Errors When Regenerated

(3023311) If you open a JDeveloper 9.0.3 project and attempt to regenerate a PL/SQL web service in that project, it will be left in an uncompilable state afterwards.

Workaround:

Before you regenerate the service, remove from the project all of the Java files directly related to the service package and any object types used by that service.

6.3.2 Regeneration of Migrated Web Service May Result in an Incomplete Deployment Profile

(3506154) When you regenerate a web service that has been migrated from a previous version of JDeveloper, you may find that the regenerated interface is missing from the deployment profile which will cause the deployed service to be inaccessible.

Workaround:

Use the deployment profile dialog to manually include the missing file, then redeploy the service.

6.3.3 WS-I Test Tools Location Must be Entered Again

(3535897) If you migrate user settings from JDeveloper 10*g* Preview, the location of the WS-I test tools will appear to be correct, however you have to enter the location again to populate a hidden field which is necessary for the analyzer code to function correctly.

Go to **Tools | Preferences** and choose **WS-I Testing Tools**. Re-enter the home location for the testing tools by browsing to the folder or by typing in the location.

6.3.4 Migrating Struts Applications to Oracle JDeveloper 10g Struts Applications Created in Oracle9*i* JDeveloper

JDeveloper or other tools may not compile correctly after migrating to Oracle JDeveloper 10*g* production release. This may happen even if the applications were previously successfully migrated to Oracle JDeveloper 10*g*.

If you have a Struts application that no longer compiles correctly after migration to JDeveloper 10*g*, the migration process may have incorrectly removed the struts.jar file from your WEB-INF/lib directory.

To correct Struts compilation errors after migration:

- Copy the correct struts.jar file from the JDeveloper_installation_ directory/jakarta-struts/lib directory into your project's WEB-INF/lib directory.

6.3.5 Default Iterators for View Object Rowsets Advance to First Row When Bound to ADF Iterator Bindings

The new ADF iterator bindings in JDeveloper 10*g* cause the iterator to which they are bound to advance to the first row in the row set. This is the optimal behavior for the UI rendering of those rows, and the behavior is required for ADF iterator bindings to work correctly with standard JSP tag libraries like JSTL.

However, this new behavior can cause trouble for existing application logic when you migrate a BC4J application to JDeveloper 10*g* and begin to add new ADF iterator bindings to your application. Consider the following hypothetical application module method representing some user-written business logic.

```
public boolean employeeExists(Number empno) {
  EmpViewImpl eview = getEmpView();
  eview.setWhereClause("empno = :1");
  eview.setWhereClauseParam(0,empno);
  eview.executeQuery();
  /*
   * When an ADF iterator binding is bound to "EmpView" then after
   * the executeQuery() the iterator will advance to sit on the first
   * row of the result -- in this case, the only row in the result --
   * and the eview.hasNext() will return false.
   */
  if (eview.hasNext()) {
    return true;
  }
  else {
    return false;
  }
}
  * MIGRATION CAVEAT
   * ~~~~~~~~~~~~~~~~
   * When no ADF iterator bindings are bound to the "EmpView"
   * view object instance -- more precisely, to the default iterator
   * of its default rowset -- then immediately after executeQuery()
   * the iterator will be at the slot before the first row. Assuming
   * this query retrives a single row, then the eview.hasNext() will
   * be true, since we haven't yet advanced to the first row.
   *
```

The issue can also surface in middle-tier business logic which is written to loop over row set results and perform some operation on each row. Examples include calculating

the sum of some numeric attribute in each row, but not limited to this. For example, you might have code like:

```
public Number shoppingCartTotal() {
  ShoppingCartImpl cart = getShoppingCart();
  cart.reset();
  double total = 0;
  /*
   * MIGRATION CAVEAT
   * ~~~~~~~~~~~~~~~~
   * When no ADF iterator bindings are bound to the "ShoppingCart"
   * view object instance, then immediately after the reset() call above
   * the iterator will be at the slot before the first row. The loop
   * below will operate over all N rows in the rowset coded like this.
   *
   * When an ADF iterator binding is bound to "ShoppingCart" then after
   * the reset() call, the iterator will advance to sit on the first
   * row of the result. If the loop code is not changed, then it will
   * operate on the 2nd through the Nth rows, missing the first row.
   */
  while (cart.hasNext()) {
    ShoppingCartRowImpl curCartItem = (ShoppingCartRowImpl)cart.next();
    total += curCartItem.getExtendedTotal().doubleValue();
  }
  return total;
}
```

Here are two basic solutions:

1. Where only testing whether the first row exists, use the first() API and test whether it is null or not.
2. Where performing iteration over the row set, use the `createRowSetIterator()` API to create a secondary iterator for use in middle-tier programmatic business logic instead. Remember to call `closeRowSetIterator()` on the iterator when you are finished with the loop if you do not want the iterator to remain around and active.

Use these best-practices for new code that you write as well. Following the two pieces of advice above, the two examples illustrated above would be rewritten like:

```
public boolean employeeExists(Number empno) {
  EmpViewImpl eview = getEmpView();
  eview.setWhereClause("empno = :1");
  eview.setWhereClauseParam(0,empno);
  eview.executeQuery();
  /*
   * Using first() instead of hasNext() to test for existence of
   * at least one row in the result since default iterator might be
   * bound to an ADF iterator binding being used in the view layer
   */
  if (eview.first() != null) { /* Using first() instead of hasNext() */
    return true;
  }
  else {
    return false;
  }
}
```

and

```
public double shoppingCartTotal() {
  ShoppingCartImpl cart = getShoppingCart();
  /*
   * Using secondary iterator since default iterator
   * might be bound to an ADF iterator binding being used
   * in the view layer
   */
  RowSetIterator cartIter = cart.createRowSetIterator(null);
  double total = 0;
  while (cartIter.hasNext()) {
    ShoppingCartRowImpl curCartItem = (ShoppingCartRowImpl)cartIter.next();
    total += curCartItem.getExtendedTotal().doubleValue();
  }
  cartIter.closeRowSetIterator();
  return total;
}
```

6.3.6 Migrating Projects that Use bc4jhtml.jar

The ADF BC runtime archive bc4jhtml.jar has split in this JDeveloper release. If your migrated project uses bc4jhtml.jar, you should update the classpath so that it contains both `<JDEV_HOME>/BC4J/jlib/bc4jhtml.jar` and `<JDEV_HOME>/BC4J/lib/adfmweb.jar`.

6.3.7 Migrating JClient Projects with Java Web Start and JNLP

If your JClient application relied on Java Web Start, the bc4jlibs.ear file in JDeveloper 9.0.5.2 and earlier contained the jndi.jar. Starting in JDeveloper 10.1.2, this JAR file is no longer needed (since it is now available as a standard JDK 1.4 extension). It is necessary to remove the jndi.jar file from your bc4jlibs.ear file when you want to migrate a 9.0.5.x JClient application to 10.1.2.

6.3.8 Custom JClient Error Handler Dialog Migration

When upgrading a JClient-based application from 9.0.3/9.0.4 to JDeveloper 10*g* (9.0.5 or 10.1.2), if the application has a custom error dialog which does not extend oracle.jbo.uicli.controls.JUErrorHandlerDlg, then their custom error handler dialog will need to implement the new oracle.adf.model.binding.DCErrorHandler interface. This can be done by delegating to their existing implementation of the `reportException()` method in their implementation of the oracle.jbo.uicli.binding.JUErrorHandler interface.

6.3.9 EJB: Migration of OC4J 9.0.x Native CMP Mappings

When migrating an EJB application containing CMP Entity beans that use the OC4J native (i.e. not TopLink) CMP mappings, users must perform a simple operation before the application can be redeployed to a 10.1.x OC4J server.

Choose a CMP Entity bean, right-click on its EJB node in the JDev navigator and select 'Edit CMP Mappings...'.

> **Note:** This menu item will only appear if the CMP Entity bean is mapped using OC4J native CMP mappings. If the context menu item does not appear, the Entity bean is not mapped using OC4J native mappings, so no migration step is needed

Once the CMP Mapping Editor opens and the 'CMP Field Mappings' tree node is selected, click on the 'Relationship Mappings' tab and visit each relationship in which the CMP Entity bean participates. Simply visiting the panel will cause the new data to be saved when the panel is exited.

While still in the CMP Mappings editor, repeat this process for each CMP Entity bean in the EJB module. When done, exit the mapping editor by selecting 'OK' to apply the changes.

Once these steps have been performed, the EJB module is ready to be deployed to an OC4J 10.x server.

6.3.10 Trouble Migrating Web Applications from Oracle9*i* JDeveloper 9.0.4

(3672145) When you attempt to compile a web application from JDeveloper release 9.0.4, you may receive the following error:

```
/WEB-INF/ojsp-global-include.xml:oracle.xml.parser.v2.XMLParseEx
ception: Unexpected text in content of Element
'ojsp-global-include'
```

To fix the problem, edit the `/WEB-INF/ojsp-global-include.xml` file and change the element

```
<?xml version="1.0" standalone='yes' ?>
```

so that it reads

```
<?xml version="1.0" standalone='no' ?>
```

6.3.11 Migration Dialog May Display when Migrating from 9.0.5.1 to 10.1.2

(3797912) When you migrate an application from Oracle JDeveloper 10*g* Release 9.0.5.1 to Release 10.1.2, the Migration dialog may open, even though the technology stack has not changed between these releases. You can safely ignore this dialog.

6.3.12 Oracle-Style Bind Parameters Work Differently

(3848733) Oracle JDeveloper releases 9.0.5.2 and earlier contained a version of JDBC that did not provide strict error checking for Oracle-style bind parameters. This allowed expressions that contained more than one bind parameter with the same name, such as:

```
WHERE SALARY > :1 AND DEPARTMENT = :2 AND MANAGER_ID = :1
```

Both the first and third parameters in the above expression are named ":1", an error that was not caught by earlier versions of JDBC.

The earlier version of JDBC also did not catch errors involving spaces between colons and numerical portions of parameter names. ": 1" (with a space) is not a legal Oracle-style bind parameter, but the earlier version of JDBC did not catch this error.

The version of JDBC included with Oracle JDeveloper 10*g* (10.1.2) provides stricter error checking, and will throw an exception on expressions like the above where clauses or parameters contain spaces. If you are migrating an application from an earlier version of JDeveloper, and the application contains expressions with non-unique Oracle-style JDBC bind parameters, you must change the parameter names to ensure they are unique within the expression. For example, the previous expression could be changed to read:

```
WHERE SALARY > :1 AND DEPARTMENT = :2 AND MANAGER_ID = :3
```

You should also ensure that none of your bind parameter names contain spaces, and should change your calls to ViewObject.setWhereClauseParam() and ViewObject.setWhereClauseParams() to ensure that all parameter values are still supplied. For example, for a view object definition with the above WHERE clause, the instruction

```
setWhereClauseParams(new Object[]
{
  value1,
  value2
}
```

should be replaced by

```
setWhereClauseParams(new Object[]
{
  value1,
  value1,
}
```

6.3.13 Migrating EJB CMR Relationships to Oracle10g JDeveloper Release 10.1.2

(3557211) If you are migrating to release 10.1.2 from a previous release and have CMP EJB entity beans with CMR relationships, you need to update those relationships. Simply select each relationship in the CMR Mapping Editor, and JDeveloper will automatically update it appropriately.

6.3.14 Migrated 9.0.X UIX/BC4J/JSP Applications Do Not Have UIX Resources and Styles Available

(3665125) If you migrate a 9.0.X UIX/BC4J/JSP complete application project to JDeveloper 10*g* and then run the application, the UIX resources and styles are not seen at runtime. Since the migration process only removes objects and files that are related to prior versions of the product, it does not add the new installables.

Workaround:

1. Migrate your applications.
2. Rebuild the model and view projects individually for your 9.0.X applications to add the latest UIX resources and styles.

6.4 Deployment Issues

This section contains information about issues related to deploying your application with JDeveloper:

- Section 6.4.1, "XSQL Page Processor Cannot Read Pages from Unexpanded Servlet 2.2 WAR File"
- Section 6.4.2, "Type Incompatibilities when Deploying to WebLogic"
- Section 6.4.3, "WebLogic6.1 Fails to Understand 'Windows-1252' Encoding in XML Files"
- Section 6.4.4, "ejb-ref in web.xml not Updated if the Bean Type is Changed from Remote to Local"
- Section 6.4.5, "Proper Deployment Profiles not Shown for Projects with ADF UIX Technology Scope"
- Section 6.4.6, "Additional Details for Deploying UIX Applications to WebLogic"

- Section 6.4.7, "Configuring Persistence-Manager in orion-ejb-jar.xml not Supported for OracleAS 10.1.2"
- Section 6.4.8, "Starting ADF Application Exception in Websphere 5.1"
- Section 6.4.9, "Additional Details for Deploying UIX Applications to WebLogic"

6.4.1 XSQL Page Processor Cannot Read Pages from Unexpanded Servlet 2.2 WAR File

(1552039) Cannot run XSQL pages in WebLogic 6.1/7.0, JBoss 3.0.4, or Tomcat 4.1.12.

6.4.2 Type Incompatibilities when Deploying to WebLogic

Some applications deployed to WebLogic may have type incompatibilities if you use the BEA supplied Oracle classes. To ensure that you don't have these problems, replace the supplied classes12.zip and classes12.jar file in your server's lib directory with classes12.jar in the `jdev_install/jdbc/lib` directory.

6.4.3 WebLogic6.1 Fails to Understand 'Windows-1252' Encoding in XML Files

WebLogic6.1 fails to understand Windows-1252 encoding in XML files. This is a bug in the XML parser in WebLogic6.1. To deploy applications in JDeveloper to WebLogic6.1 change encoding to an IANA encoding that WebLogic6.1 recognizes. It is recommended to use UTF-8 encoding. Japanese users need to use Shift_JIS.

1. Open **Tools** | **Preferences**.
2. In the Environment panel change the **Encoding** field to UTF-8.
3. Click **OK**.

   Now create a new project and your application.

6.4.4 ejb-ref in web.xml not Updated if the Bean Type is Changed from Remote to Local

(2589997) Creating a JSP application for a BC4J session facade results is an ejb-ref entry in the web.xml of the that project. If you change the interface type of that facade, from local to remote or vice versa, then you must update the ejb-ref entry in web.xml. For example if you change the bean type from remote to local then you must replace the <ejb-ref> section in web.xml with the appropriate <ejb-local-ref> tags.

6.4.5 Proper Deployment Profiles not Shown for Projects with ADF UIX Technology Scope

(3316426) When working with a project that has only the ADF UIX technology scope assigned, in the "New Gallery" dialog the proper list of deployment profiles does not display with the filter set to "Project Technologies". Switching the filter to "All Technologies" will display the full list of deployment profiles.

6.4.6 Additional Details for Deploying UIX Applications to WebLogic

(3390872) In addition to the provided documentation for deploying UIX applications to WebLogic, the following additional details may be helpful:

When extracting the EAR/WAR archive files, the target directory for the archive contents must have the same name as the archive. For example, if you are extracting webapp1.ear which contains webapp1.war, you must have the following structure on disk: /webapp1 (EAR contents) /webapp1/webapp1/ (WAR contents)

After extracting the archives you need to edit the application.xml in the EAR file to point to the expanded directories instead of pointing at the WAR files.

After expanding the EAR and WAR files, these should be deleted, as only the extracted files are part of the application.

6.4.7 Configuring Persistence-Manager in orion-ejb-jar.xml not Supported for OracleAS 10.1.2

When you deploy container-managed persistence (CMP) entity beans from JDeveloper 10.1.2 to OracleAS 10.1.2 and previous versions, you can't configure persistence-manager settings in orion-ejb-jar.xml. These settings will cause a deployment error.

6.4.8 Starting ADF Application Exception in Websphere 5.1

(3590864) If you start an ADF BC4J JSP application after EAR deployment to WebSphere 5.1 the application may fail, writing exceptions similar to the following in the application server log:

```
Exception:
AppDeploymentException: [ADMA0092E: Unexpected exception occurred while preparing
task MapRunAsRolesToUsers. Please check server machines FFDC for more
information.]
AppDeploymentException: []
com.ibm.etools.archive.exception.DeploymentDescriptorLoadException:
WEB-INF/web.xml
AppDeploymentException: []
com.ibm.etools.archive.exception.DeploymentDescriptorLoadException:
WEB-INF/web.xml
com.ibm.etools.archive.exception.DeploymentDescriptorLoadException:
WEB-INF/web.xml
```

To correct this exception, remove the <filter-mapping> attribute from application's web.xml file.

6.4.9 Additional Details for Deploying UIX Applications to WebLogic

(3390872) In addition to the provided documentation for deploying UIX applications to WebLogic, the following additional details may be helpful:

When extracting the EAR/WAR archive files, the target directory for the archive contents must have the same name as the archive. For example, if you are extracting webapp1.ear which contains webapp1.war, you must have the following structure on disk: /webapp1 (EAR contents) /webapp1/webapp1/ (WAR contents)

After extracting the archives you need to edit the application.xml in the EAR file to point to the expanded directories instead of pointing at the WAR files.

After expanding the EAR and WAR files, these should be deleted, as only the extracted files are part of the application.

6.4.10 Using Standalone OC4J with External jazn.xml

If you are using Standalone OC4J to run an application that uses JAAS authentication and Oracle ADF Business Components, and you are not using the copy of jazn.xml provided in `<oc4j_home>/home/config`, you must pass the location of your copy of jazn.xml to the JVM using the property oracle.security.jazn.config. For example, if your jazn.xml file is in the directory `/jazn/`, use the command:

```
java -Doracle.security.jazn.config=/jazn/jazn.xml -jar oc4j.jar
```

to start the server.

6.4.11 Unable To Deploy JClient JNLP Application Based On BC4J EJB to Oracle Application Server

(4025025) When deploying a JClient WebStart application based on a BC4J Session Bean to Oracle Application Server, you may encounter the following deployment error:

```
Closing connection to Oc4jDcmServlet
#### DCM command did not complete successfully (-8)
#### HTTP return code was -8
Exit status of DCM servlet client: -8
```

To fix this problem, follow the workaround described below:

1. In the web.xml file generated by JClient WebStart Wizard, remove the <ejb-ref> element and its contents completely. A sample entry in web.xml looks like:

   ```
   <ejb-ref>
   <ejb-ref-name>ejb/AppModuleBean</ejb-ref-name>
   <ejb-ref-type>Session</ejb-ref-type>
   <home>mypackage1.common.ejb.beanmanaged.AppModuleHome</home>
   <remote>mypackage1.common.ejb.beanmanaged.RemoteAppModule</remote>
   <ejb-link>AppModuleBean</ejb-link>
   </ejb-ref>
   ```

2. Remove the profile dependencies set in the war deployment profile. To do this:
   a. Double click on the war profile (client_war.deploy)
   b. Select **Profile Dependencies** in the tree displayed on the left side of the panel.
   c. Uncheck the profile dependencies in the tree displayed on the right side of the panel.
3. Deploy the war to Oracle Application Server and run WebStart.

6.5 ADF DataAction for Struts Known Issues

This section contains information about issues related to ADF:

- Section 6.5.1, "Best Practice for ADF Binding to Method Results"
- Section 6.5.2, "Data Actions Extending DataForwardAction Change to Data Pages Incorrectly"

6.5.1 Best Practice for ADF Binding to Method Results

In an ADF-based Struts web application, when trying to display data on a page that is the result of a declarative method invocation on your data control, we recommend performing the method invocation in a separate DataAction (with its own binding container) that, in turn, forwards to the DataAction or DataPage that will perform the rendering of the method's results. An attempt to execute the method declaratively via a method action binding in the same binding container as the iterator bound to its results, can run into problems.

6.5.2 Data Actions Extending DataForwardAction Change to Data Pages Incorrectly

(4113412) When you customize the basic ADF Data Action, their custom action class should directly or indirectly extend the DataAction class in the `oracle.adf.controller.struts.actions` package. On the other hand, when you customize an action for an ADF Data Page it should directly or indirectly extend the DataForwardAction class in that same package. Additionally for data pages, JDeveloper associates the action to its related page by recording the name of the page in the value of the parameter attribute of the Struts action in your struts-config.xml file. In contrast, plain data actions which are not data pages do not have a parameter attribute recorded.

In 9.0.5.2 and 10.1.2 it is possible for users to accidentally create a custom data action class which incorrectly extends the DataForwardAction class instead of the correct DataAction class. This was harmless in 9.0.5.2, but in 10.1.2 a data action whose custom action class extends DataForwardAction instead of just DataAction has an undesirable side-effect when the Struts page flow diagram is opened the first time in each JDeveloper session. JDeveloper 10.1.2 notices that the action extends DataForwardAction and assumes that you meant it to be a data page. It then notices this presumed data page is missing its required parameter attribute, so JDeveloper 10.1.2 adds a `parameter="unknown"` attribute for it. This can have the unwanted side effect of making your data action nodes in the diagram turn into data page nodes.

The way to avoid the problem is to insure that your custom data action classes that are not intended to be data pages:

- Extend `DataAction` instead of `DataForwardAction`
- Do not have a parameter attribute in their corresponding `struts-config.xml` `<action>` element entry.

6.6 ADF Business Components Issues

This section contains information about issues with ADF Business Components:

- Section 6.6.1, "Don't Use "Scan Source Path" Project with ADF Business Components"
- Section 6.6.2, "No Such Method Error For ADF BC4J JSP Application in WebLogic 8.1.2"
- Section 6.6.3, "View Object Custom Methods In Batch Mode"
- Section 6.6.4, "Authentication Using LDAP Does not Work with Standalone OC4J"
- Section 6.6.5, "ClassCastException Accessing One-To-Many Entity View Link Accessor"
- Section 6.6.6, "Do Not Use Over 19 Top-Level Application Module Instances in One Application"

6.6.1 Don't Use "Scan Source Path" Project with ADF Business Components

(3508285) The JDeveloper project option "Scan Source Paths to Determine Project Contents" does not work reliably for ADF Business Components. For this release, we recommend not using this project option if your project contains any ADF business components.

6.6.2 No Such Method Error For ADF BC4J JSP Application in WebLogic 8.1.2

(3739767) If you run an ADF BC4J JSP application in WebLogic 8.1.2 you may see the following error:

```
java.lang.NoSuchMethodError:
javax.xml.namespace.QName.(Ljava/lang/String;Ljava/lang/String;Ljava/lang/String;)
V
```

To correct this error, add these items to the WebLogic server classpath before running the application:

```
xmlparserv2.jar
adfmweb.jar
```

6.6.3 View Object Custom Methods In Batch Mode

(3274140) When running in "batch mode", client-side code making use of a custom ADF View Object interface must do so by first returning the view object (cast to this custom interface) from a application module custom method. Otherwise, a ClassCastException can be thrown.

6.6.4 Authentication Using LDAP Does not Work with Standalone OC4J

(3903758) If you are using standalone OC4J (rather than a complete installation of Oracle Application Server) to run your ADF Business Components, you will not be able to use LDAP to provide identity management for authentication or authorization. This has two consequences for applications that use LDAP to provide identity management:

- You must deploy them to a complete installation of Oracle Application Server, rather than standalone OC4J
- You cannot define entity-by-entity authorization in JDeveloper if you use LDAP to provide identity management, because the JDeveloper design time relies on standalone OC4J. This issue will be fixed in the next release of JDeveloper.

6.6.5 ClassCastException Accessing One-To-Many Entity View Link Accessor

(4113607) Prior to JDeveloper 10.1.2, ADF BC runtime was incorrectly hard-coding an expectation that the return type of a view link accessor exposed at entity level was a RowIterator. This assumption caused problems when the exposed viewlink was a 1-to-1 link. This bug (3839762) was fixed in 10.1.2, but the fix uncovered a new issue after 10.1.2 Build 1811 shipped. The issue is a design time bug that incorrectly reverses the source and the destination types of the view link. The design time bug writes the view link accessor type in the entity's XML descriptor. Prior to 10.1.2, when the expectation of a RowIterator was hard-coded, the wrong type that was in the XML was unimportant since it had no dependency with the type at runtime. Since JDeveloper 10.1.2.1.0 uses the XML-based <ViewLinkAccessor> row type info, the type mismatch raises this new ClassCastException.

For example, if you expose a WorksInDeptLink view link between DeptView and EmpView on the Dept EO level with an accessor name of Employees, the incorrect XML snippet is placed in the Dept.xml file:

```
<!-- In Dept.xml entity XML file -->
   :
  <ViewLinkAccessor
      Name="Employees"
      ViewLink="test.mypackage.WorksInDeptLink"
      ViewLinkEnd="test.mypackage.WorksInDeptLink.EmpView"
      ViewLinkOtherEnd="test.mypackage.WorksInDeptLink.DeptView1"
      Type="oracle.jbo.Row"
      IsUpdateable="false" >
   </ViewLinkAccessor>
```

If your DeptView VO is exposing a custom Row class, it will reflect that instead and look like:

```
<!-- In Dept.xml entity XML file -->
   :
   <ViewLinkAccessor
      Name="Employees"
      ViewLink="test.mypackage.WorksInDeptLink"
      ViewLinkEnd="test.mypackage.WorksInDeptLink.EmpView"
      ViewLinkOtherEnd="test.mypackage.WorksInDeptLink.DeptView1"
      Type="test.mypackage.DeptViewRowImpl"
      IsUpdateable="false" >
   </ViewLinkAccessor>
```

The is that neither the `generic oracle.jbo.Row` nor the more specific `test.mypackage.DeptViewRowImpl` is correct for the return type of this accessor. The workaround until we fix this issue in a maintenance release is to update the Dept.xml file outside of JDeveloper to reflect the correct type of the view link accessor. In the example above, you would change the type to be `oracle.jbo.RowIterator` like this:

```
<ViewLinkAccessor
      Name="Employees"
      ViewLink="test.mypackage.WorksInDeptLink"
      ViewLinkEnd="test.mypackage.WorksInDeptLink.EmpView"
      ViewLinkOtherEnd="test.mypackage.WorksInDeptLink.DeptView1"
      Type="oracle.jbo.RowIterator"
      IsUpdateable="false" >
  </ViewLinkAccessor>
```

Note: If you "touch" the view link in the view link editor again, you may have to reapply this workaround after the wizard re-writes the incorrect type value again.

6.6.6 Do Not Use Over 19 Top-Level Application Module Instances in One Application

In the case of Web applications, each top-level application module uses a session cookie to increase application stability (using failover) and to help manage state. ADF also adds a cookie of its own. A limitation in Microsoft Internet Explorer prevents it from accepting more than 20 cookies per unique host. Therefore, if your application may be accessed through Microsoft Internet Explorer, and you have not disabled failover, you should not use more than 19 top-level application module instances per client instance. Any additional application module instances you need should be nested in the definition for one of the 19. Using more than 19 top-level application module instances in a single client instance may cause unpredictable behavior with Microsoft Internet Explorer.

6.7 ADF UIX Issues

This section contains information about issues with ADF UIX:

- Section 6.7.1, "Third-party Popup Blockers and Toolbars May Interfere With ADF UIX"
- Section 6.7.2, "Javascript Compression May Cause Errors in ADF UIX"
- Section 6.7.3, "UIT Templates not Available for Context Menu Insertion"
- Section 6.7.4, "Setting Source Attribute for UIX Image Component Fails if Image on Different Drive"
- Section 6.7.5, "Live Data in UIX Preview"

6.7.1 Third-party Popup Blockers and Toolbars May Interfere With ADF UIX

(2900583) Certain ADF UIX components (date pickers, list of values, etc.) use external popup windows to allow the user to select values without moving to another page. Some third party toolbars interfere with these windows by not allowing them to communicate back to the base page, as is allowed in HTML. The only current workaround is to disable popup blocking for sites with UIX content.

6.7.2 Javascript Compression May Cause Errors in ADF UIX

Due to a bug in Microsoft Internet Explorer, routines used by ADF UIX to load Javascript libraries may not function properly if the server hosting UIX has enabled compression of Javascript files, an optional performance optimization. ADF UIX does not perform this optimization by default, but it can be configured in some servlet containers or via Oracle's Web Cache technology. To work around this, do not compress Javascript libraries to be loaded by UIX applications.

This issue does not affect other browsers.

6.7.3 UIT Templates not Available for Context Menu Insertion

(3038299) Under certain conditions all of the .uit templates in a project may not appear on the context menu for insertion into a UIX page. Performing a Save All operation will force all the templates in the project to be available.

6.7.4 Setting Source Attribute for UIX Image Component Fails if Image on Different Drive

(3458363) When setting the source attribute for an UIX image component, if you choose an image that is outside of your html_root directory and located on a different drive than JDeveloper is installed, the optional copying of the file into the html_root fails. The workaround is to manually move/copy the image file in the file system.

6.7.5 Live Data in UIX Preview

UIX Preview does not support showing live data for pages bound using ADF Data Controls in this release.

6.8 Apache Struts Restrictions

This section contains information about restrictions with JDeveloper and Apache Struts:

- Section 6.8.1, "Multiple Struts Application Modules within a Single Project not Supported"
- Section 6.8.2, "Only Partial Support for Tiles Based Applications"
- Section 6.8.3, "<welcome-file> Entries in Web.xml"
- Section 6.8.4, "Action Attribute Must be Edited When Using HTML Form in JSP Pages"
- Section 6.8.5, "Drag and Drop of Method on to Data Page/Action Fails with Overlapping Forward Label"
- Section 6.8.6, "Directory WEB-INF Does Not Exist Message Is Shown in Console"

6.8.1 Multiple Struts Application Modules within a Single Project not Supported

This release of the Struts diagramming can only support a single Struts Diagram per workspace project. Multiple Struts configuration files should be split off into individual projects. A detailed document describing how to handle multiple configuration Struts applications can be found on the OTN JDeveloper How-To page:

`http://www.oracle.com/technology/products/jdev/howtos/index.html`

6.8.2 Only Partial Support for Tiles Based Applications

Tiles based applications can be used with Struts in JDeveloper 10*g*, however, it is not possible to use the page flow diagrammer view with such applications. Direct editing of the Struts Configuration file, the Struts Console editor, and the use of the Structure pane and property inspector are still all available to developers of Tiles based applications.

6.8.3 <welcome-file> Entries in Web.xml

(3423938) When an Action is defined as the default start action of a Struts Page flow (using the context menu in the page flow diagram), the project properties are updated to make the designated action the default run target. Additionally, if the starting action is a Forward Action the web.xml <welcome-files> collection is updated with a new <welcome-file> entry for the designated page. In some cases you may want to amend this entry in web.xml to use a page which redirects to a Struts action rather than the

underlying ActionForward's page. Additionally, if the default start action is set several times in a project, multiple entries may be added to the welcome file list.

6.8.4 Action Attribute Must be Edited When Using HTML Form in JSP Pages

(3452660) When the component you insert into a Struts-based web page requires a Form element, such as an input field, JDeveloper will prompt you to insert the component inside a Form that it creates for you. The Form element is used at runtime to submit the values with the Request object and contains placeholder text to specify the target Struts action:

```
<html:form action="/Handle_This_Form.do">
```

You must edit the action attribute to specify the name of the action that your page flow uses to handle the form input. For example, change /Handle_This_form.do to /MyActionName.do when the name of the action is MyActionName.

6.8.5 Drag and Drop of Method on to Data Page/Action Fails with Overlapping Forward Label

(3443358) When working in the struts page flow modeler if the text label of a forward is positioned so that it overlaps a data page/action, it can be difficult to drag methods from the data control palette on to the data page/action. Moving the forward label off of the data page/action will allow successful drag and drop of methods on to the data page/action.

6.8.6 Directory WEB-INF Does Not Exist Message Is Shown in Console

(3976907) When designing or running a simple struts Application you may get an erroneous message on the console:

```
Directory C:\WEB-INF does not exist.
```

This message can be safely ignored.

6.9 Data Binding Issues

This section contains information about data binding issues:

- Section 6.9.1, "Avoiding Performance Problems Fetching Data or Retrofitting Client Side Cache"
- Section 6.9.2, "Scalar Attributes Returned by Bean Accessors"
- Section 6.9.3, "NoDefExeception When Rendering a Bean with No Scalar Attributes"
- Section 6.9.4, "oracle.jbo.domain.Array Data Type"
- Section 6.9.5, "Not Possible to Set Type of Rowset Return Type in Custom AM Method"
- Section 6.9.6, "If Secondary RSI is Used for Master, No Detail Rows Are Returned"
- Section 6.9.7, "DataControl IDs in .cpx File Must be Unique"

6.9.1 Avoiding Performance Problems Fetching Data or Retrofitting Client Side Cache

(3278854) To avoid performance problems in fetching data or retrofitting client side cache with a modified rangeSize, Oracle advises to set the same rangeSize for all usages of a RowSetIterator associated to iterator bindings in multiple binding containers of the same application/application flow.

6.9.2 Scalar Attributes Returned by Bean Accessors

(3389123) Scalar attributes returned by Bean accessors are marked as 'readonly' in ADF data binding. Support for updating these values is not implemented in this release.

6.9.3 NoDefExeception When Rendering a Bean with No Scalar Attributes

(3475505) Using the <adf:render> or <adf:inputrender> tags will throw an oracle.jbo.NoDefException when you attempt to render a bean that contains no scalar attributes.

6.9.4 oracle.jbo.domain.Array Data Type

(3412750) The oracle.jbo.domain.Array data type can be rendered using custom Input/Value renderer in JSPs and JUArrayComboBox in JClient. In future releases these Array objects may be dereferenced and treated as a collection type so that its node can be expanded and the Array content (if nonscalar) is accessible on the DataBinding Palette for drop.

6.9.5 Not Possible to Set Type of Rowset Return Type in Custom AM Method

(3323420) There is no way to set the type (or bean class) of a collection return type of a custom application module method. In other models you can edit the XML file and set the bean class of a collection. However, there is no way to do this for the BC4J model. You can work around this by providing a dynamic widget that doesn't require the metadata at design time.

6.9.6 If Secondary RSI is Used for Master, No Detail Rows Are Returned

(3507403) If a view link master/detail is dropped on a page and then the master view object's RSIName is modified to be non-null, then the detail is not actively coordinated with the master as the dropped detail is bound to a default RowSetIterator on the master view object (and not the named RSI). The workaround is to not edit/modify the RSIName for the master ViewObject's iteratorBinding. Leave it as null.

6.9.7 DataControl IDs in .cpx File Must be Unique

(3539053) When you work with more than one business service in your client project, the ID for each data control in the .cpx file must be unique. When you use the Data Control Palette to design your document, the data control references are added to the .cpx file with unique Ids for you. To avoid creating a runtime error, do not edit the Id property of the data control (in the Property Inspector) in the .cpx file to use the same name.

6.9.8 First Calculated Attribute of Read-Only View Object Reverts To Transient

(4081647) When creating a read-only view object by selecting the Read-only Access radio group on the first panel of the JDeveloper 10.1.2 view object wizard, after entering your SQL query on the following panel, if you continue to (Next>) through the wizard and end up visiting the "Attributes" panel, the first attribute will inadvertently have its "Selected in Query" property set to false. This changes the SQL-derived attribute populated by your query's first SELECT list column into a transient attribute unintentionally. The two easy workarounds are:

1. Click **Finish** in the view object wizard before advancing to the Attributes page of the wizard, or
2. Mark the `Selected in Query` property for the first attribute back to `true`.

6.10 JClient Issues

This section contains information about JClient issues:

- Section 6.10.1, "Tooltip Text Is Not Picked up by JClient Clients"
- Section 6.10.2, "JClient Controls Ignore Business Components Control Hints at Design Time"
- Section 6.10.3, "JClient Controls Bound to a Collection are Not Visible in the Java Visual Editor"
- Section 6.10.4, "JClient No Longer Creates Rows Ready to Commit"
- Section 6.10.5, "Java Web Start Not Launched in IE 5.5"

6.10.1 Tooltip Text Is Not Picked up by JClient Clients

(3442568) JClient clients ignore any tooltip text that has been entered for an underlying entity object attribute or view object attribute. To work around this issue you can set the tooltip text in your client code. This example shows how to set the tooltip text for the Deptno attribute:

```
mDeptno.setToolTipText(panelBinding.findCtrlValueBinding("Deptno
").getTooltip());
```

6.10.2 JClient Controls Ignore Business Components Control Hints at Design Time

(3405193) The display width and display height set for the Business Components attributes in the Entity Object Editor or View Object Editor will not be used to render the control in the Java Visual Editor.

6.10.3 JClient Controls Bound to a Collection are Not Visible in the Java Visual Editor

(3379812) After you insert a control from the Data Control Palette that you bind to a collection (such as a table, tree, list, or graph) into the JClient panel or form, the control will have a size of 0 width and 0 height. The 0,0 size initially makes it impossible to resize the control in the Visual Editor. To display the control so it can be resize, select the control in the Structure window and edit the size properties in the Property Inspector.

6.10.4 JClient No Longer Creates Rows Ready to Commit

Starting in JDeveloper 9.0.5.x, new rows that a user creates in the JClient application will be initialized as TEMPORARY and will not be validated and posted until the row is edited by the user -- or the row's state is forced to NEW through a call to

setNewRowState() (see note below). This change was made to reflect the behavior typical of Java UI applications, like spreadsheets, which allow the user to precreate and insert a range of rows while the application need only validate, post, and commit the rows filled in by the user.

Note that this behavior may cause JClient applications that need to create rows as complete, and ready to post, to be ignored during the transaction commit. To set a new row's state into NEW, and thereby simulate the JClient behavior prior to 9.0.5, one has to write code to transition the row state. There are a number of ways to do this:

1. Override and ignore the setNewRowState() call in ViewRowImpl subclass.
2. Override the default navbar action for create and after the super, get the current row on the iterator and set it's new row state back to NEW using getIteratorBinding().getCurrentRow().setNewRowState(Row.STATUS_NEW)
3. Implement a custom action-performed event for the Create/New button and call createRow()/ insertRow() on the appropriate RowSetIterator in code.

6.10.5 Java Web Start Not Launched in IE 5.5

If your default browser is Internet Explorer, the browser may prompt you to download the JSP rather than run it with Java Web Start. This is a known issue with Internet Explorer version 6 and earlier. To address this problem, you can create a static JNLP file or you may set JDeveloper tool's preferences to launch another browser. The JClient Java Web Start Wizard lets you generate a static JNLP file that you can modify to include the JNLP definitions. Alternatively, if you prefer to use dynamic JNLP, and English is the character set you use, you may edit the Local.jsp file to remove the charset encoding attribute in the file's page directive, as shown here:

```
<%@ page contentType="application/x-java-jnlp-file" %>
```

6.11 Toplink Issues

This section contains information about JDeveloper and Toplink Issues:

- Section 6.11.1, "Using the Custom Query Tab in the Mapping Editor"
- Section 6.11.2, "Importing Projects from TopLink Mapping Workbench"
- Section 6.11.3, "Cannot Modify the Primary Key Attribute of an Object in a Unit of Work"
- Section 6.11.4, "orion-ejb-jar.xml Required to Deploy Using TopLink CMP"
- Section 6.11.5, "Exception When Mapping Classes with TopLink Technology Scope"
- Section 6.11.6, "TopLink Mappings Tab Not Available in Code Editor"
- Section 6.11.7, "TopLink Descriptors May Be Lost After Modifying .JAVA Files"
- Section 6.11.8, "Accessors (getters and setters) May Not Appear as Methods in the TopLink Mappings Editor"
- Section 6.11.9, "TopLink Mappings Structure Window May Not Update Properly"

- Section 6.11.10, "Toplink Accessibility Issues"
- Section 6.11.11, "Class Names Containing Dollar Signs"
- Section 6.11.12, "Using TopLink Mapping Editor with Oracle10g Database"
- Section 6.11.13, "Migrating TopLink Data Control Parameters"
- Section 6.11.14, "Some Attributes May Not Appear in TopLink Structure Window"
- Section 6.11.15, "TopLink Default Queries are Non-Configurable"
- Section 6.11.16, "Using TopLink ADF Data Bindings"
- Section 6.11.17, "Using Database Session with Connection Pool Causes SessionLoader Exception"
- Section 6.11.18, "Refactoring Classes Does Not Update TopLink Descriptors"
- Section 6.11.19, "Adding a Preceding Space to a Session Name Causes Exception at Runtime"
- Section 6.11.20, "Synchronizing Datacontrols.dcx and Databindings.cpx"
- Section 6.11.21, "Error When Deleting and Committing a Record"
- Section 6.11.22, "Multibyte Strings in "Source" View for session.xml Appear Garbled"
- Section 6.11.23, "Resetting TopLink Units of Work will Improve Performance"

6.11.1 Using the Custom Query Tab in the Mapping Editor

Use the Custom Query tab in the TopLink Mapping editor to define custom SQL to be used with a TopLink descriptor insert, update, delete, read, or read all actions. For example, to replace the default TopLink readObject function with a custom stored procedure, add the custom SQL string to implement the replacement code on the Read tab of the Custom Query tab.

6.11.2 Importing Projects from TopLink Mapping Workbench

Use this procedure to import your OracleAS TopLink Mapping Workbench 9.0.4.x project (.mwp) into Oracle JDeveloper 10*g*.

Before completing this procedure, you should create a backup copy of your original Mapping Workbench project.

To Import a Mapping Workbench Project:

1. Create a new JDeveloper TopLink-enabled project.
2. Create an offline database object for the project. Use one of the following methods to create the necessary database tables (as identified in the \mw\table directory of the Mapping Workbench project).
3. If the tables in the Mapping Workbench project were imported from a live database, import the tables into the JDeveloper project.

   If the tables were created in the Mapping Workbench project and do not reside on a live database, manually create each database table.

Note: Ensure that each JDeveloper table name, column name, and foreign key constraint is identical to the corresponding table name, field name, and reference name in the Mapping Workbench.

If the names are not identical, JDeveloper may not correctly import the mapping information.

4. Close the JDeveloper project.
5. Copy the following files and directories from the original Mapping Workbench project:

Table 6–1 Mapping Workbench Files and Directories to Copy

Copy this element from the Mapping Workbench Project...	To this location in JDeveloper...
<file name>.mwp	Rename the file to toplink_mappings.mwp and place in the JDeveloper <project name> directory.
descriptor directory	<project name>/descriptor
Java source files and directory structure	<project name>/src
For EJB 2.0 CMP projects: ejb-jar.xml	<project name>/META-INF

6. Schema.Table in a text editor, open the toplink_mappings.mwp file and make the following changes:
   1. Change the project's <name> element
   2. Change the project's <name> element to toplink_mappings.
   3. Convert each database table's <name> element

      The <database-table> element lists each database table in a <name> element. This <name> may include a catalog, schema, and table name. You must change each table to include only a schema and table name.

      The following table demonstrates several sample conversions:

Table 6–2 Sample Conversions for Elements in Database Tables

If your database table <name> element contains...	Convert the <name> element to...
<name>Catalog.Schema.Table</name>	<name>Schema.Table</name>
<name>Schema.Table</name>	No conversion required
<name>Table</name>	<name>Schema.Table</name>

   4. In a text editor, open each descriptor's <projectname>/descriptor/<descriptor name>.xml file and make the following changes:
   5. Convert the descriptor's table elements for each database table.

6. Reopen the JDeveloper project and use one of the following methods to add the source files to your project:

   <name> that you changed in the toplink_mappings.mwp file, you must make the identical name change in the following elements in each descriptor's <project name>/descriptor/<descriptor name>.xml file:

   ```
   <field-table>
   <primary-table>
   <associated-table>
   <reference-table>
   <reference-name>
   <relation-table>
   <sequencing-policy-table>
   <source-table>
   <target-table>
   ```

7. Choose the Scan Source Paths to Determine Project Contents option on the Project Settings dialog. This adds the source files to your dynamic source path.
8. Choose Project > Add to Project to add the contents of the <project name>/src folder. This adds the source files directly to your project.For EJB projects, choose File > Import > EJB Deployment Descriptor File. Use the wizard to import the <project name>/META-INF/ejb-jar.xml and /src files.

6.11.3 Cannot Modify the Primary Key Attribute of an Object in a Unit of Work

(3376332) You cannot modify the primary key attribute of an object in a Unit of Work. This is an unsupported operation and doing so will result in unexpected behavior (such as exceptions or database corruption).

To replace one instance of an object that contains unique constraints with another object, use the Unit of Work setShouldPerformDeletesFirst method. Refer to the OracleAS TopLink Application Developer's Guide for more information.

6.11.4 orion-ejb-jar.xml Required to Deploy Using TopLink CMP

(3492309) An orion-ejb-jar.xml file is required to deploy EJB 2.0 CMP projects with TopLink. If your project does not have an orion-ejb-jar.xml, clicking a TopLink mapping for any CMP EJB in the project will create a basic orion-ejb-jar.xml file, as shown in the following example. Clicking the TopLink mapping tab for a CMP EJB sets the persistence manager as TopLink.

Users will get an `oracle.toplink.workbench.external.meta.ExternalClassNotFoundException` error if they try to import new classes (.java) into a project with the TopLink technology selected, and subsequently attempt to map these classes by selecting the "add descriptor" button under the TopLink node in the Structure pane. In order to eliminate this error, users should compile the classes once before mapping them the first time.

Make sure you have `<PM-name="toplink">` attribute entries set for each EJB CMP in the orion-ejb-jar.xml.

You may also use this procedure to create `<PM-name="toplink">` attribute entries:

1. Create a minimal orion-ejb-jar.xml by selecting **Deployment Descriptors** | **orion-ejb-jar.xml** from the New Gallery dialog.
2. Click the **TopLink Mappings** node in the application navigator.
3. Click each CMP EJB in the TopLink Mappings Structure pane. This will open the TopLink mapping editor and adds `<PM-name="toplink">` attribute entries for the <entity-deployment> tag for each CMP EJB.

6.11.5 Exception When Mapping Classes with TopLink Technology Scope

(3530302) You will get an `oracle.toplink.workbench.external.meta.ExternalClassNotFoundException` error if you try to import new classes (.java files) into a project with the TopLink technology selected, then attempt to map these classes by clicking the **Add Descriptor** button in the TopLink Structure pane. To eliminate this error, you should compile the classes once, before mapping them the first time.

6.11.6 TopLink Mappings Tab Not Available in Code Editor

(2986395) After adding a TopLink deployment descriptor in the Code Editor, the TopLink Mappings tab may not appear in the Code Editor. You must close, then reopen the Code Editor to display the **TopLink Mappings** tab.

6.11.7 TopLink Descriptors May Be Lost After Modifying .JAVA Files

(3733058) After creating Java objects (and TopLink descriptors) from tables, if you modify the .java files with an incorrect syntax (for example: private Stri) and close JDeveloper, when you reopen JDeveloper, the TopLink Descriptor for the modified .java file will be lost.

6.11.8 Accessors (getters and setters) May Not Appear as Methods in the TopLink Mappings Editor

(3633296) To ensure that the accessors appear as methods in the TopLink Mappings editor, you must close the Mappings Editor, save the JDeveloper project, then reopen the Mappings Editor. The accessors will now appear as methods.

6.11.9 TopLink Mappings Structure Window May Not Update Properly

(3747403 and 3773050) When making changes to a mapped attribute, the TopLink Mappings Structure window may not properly update to show the changes. You must save the project after making the changes to update the TopLink Mappings Structure window.

6.11.10 Toplink Accessibility Issues

(3845935, 3845909, 3845804) When using JAWS screen reader with the TopLink Mapping editor, the following user interface elements may not be read correctly:

- Preallocation field on the Sequencing tab
- Specific mapping type in the TopLink Mappings structure window.

6.11.11 Class Names Containing Dollar Signs

(3768125) Class names that contain a dollar sign ($) are assumed to be inner classes. You cannot use the TopLink Mapping editor to create a TopLink descriptor for these classes.

6.11.12 Using TopLink Mapping Editor with Oracle10g Database

(3856465) JDeveloper does not include a 10*g*-specific database file. To use an Oracle10*g* database with the TopLink Mapping editor, select the Oracle9*i* database option.

6.11.13 Migrating TopLink Data Control Parameters

(3859963) When migrating a JDeveloper project with TopLink mappings to 10.1.2, the `TopLinkSequenceOnCreate` and `TopLinkShouldPerformDeleteFirst` parameters are optional, and therefore not included in the migrated project. Use the Structure window or Property window to add these parameters, if necessary. Refer to the Javadocs for more information.

6.11.14 Some Attributes May Not Appear in TopLink Structure Window

(3813680) When adding attributes to the .java file in code, you must save the file to ensure that the attributes correctly appear in the TopLink Structure window.

6.11.15 TopLink Default Queries are Non-Configurable

(3603407) In the TopLink Mapping editor, you cannot configure the caching options for the default TopLink queries (such as readAll, and readOne). For example, you cannot change items such as cache usage, binding, timeout, and row return.

6.11.16 Using TopLink ADF Data Bindings

(3736337) To use the TopLink ADF data bindings in JDeveloper when deploying to OracleAS 10*g* (10.1.2.1.0), select the **Tools | ADF Runtime Installer** option in JDeveloper. It is not necessary to use the ADF Runtime Installer when using standalone OC4J.

6.11.17 Using Database Session with Connection Pool Causes SessionLoader Exception

(3887079) In the TopLink sessions.xml, if you are using a Database session, do not create or use a Connection Pool. Connection Pools should only be used with Server sessions.

6.11.18 Refactoring Classes Does Not Update TopLink Descriptors

(3903528 and 3926599) If you refactor (rename or remove) a class, its associated TopLink descriptor is not renamed or moved. To rename a TopLink descriptor, you must first remove the descriptor from the project, then re-import the renamed Java class. A new TopLink descriptor will be created with the new class name.

6.11.19 Adding a Preceding Space to a Session Name Causes Exception at Runtime

(3900559) Although JDeveloper allows you to prepend a space to the name of a session the TopLink sessions.xml, doing so will cause an exception at runtime. Ensure that your session names do not begin with a space.

6.11.20 Synchronizing Datacontrols.dcx and Databindings.cpx

(3917609) When working with data controls in JDeveloper, changes in the DCX may not be reflected in the CPX. To avoid this problem, be sure to modify the data bindings (CPX) before modifying the data controls (DCX).

6.11.21 Error When Deleting and Committing a Record

(3815959, 3903366) If a TopLink mapped object has 1:M relationship that employs bi-directional relationship maintenance, a database integrity constraint violation can occur upon UnitOfWork.commit() if the source column in the foreign key constraint for this relationship has a non-null constraint. This issue materializes in TopLink ADF through 'commit' data action.

Workarounds:

- Set the 1:M relationship as "privately owned". This will indicate to TopLink that when the related object is removed from the 1:M Collection that it should be deleted from the database rather than updated to have a null FK value. This option should be used carefully as a disassociation of an object in a 1:M Collection will result in the associated database row being deleted.
- Turn the non-null constraint on the source column in the foreign key constraint off. This will allow the null update to occur without an integrity constraint violation.

6.11.22 Multibyte Strings in "Source" View for session.xml Appear Garbled

(3983407) When multibyte strings are in session.xml, they appear as garbled in "Source" view for session.xml. This is just a view problem. "Source" view or session.xml is read-only and the actual session.xml is encoded properly.

6.11.23 Resetting TopLink Units of Work will Improve Performance

When a TopLink Unit of Work is committed, its state is not automatically reset. Over multiple transactions, this will cause the Unit of Work's change set to grow, which may eventually degrade performance. You can reset the Unit of Work's state explicitly by calling TopLinkDataControl.resetState() from within your View or Controller layer. For example, from within a Struts DataAction's

handleLifecycle() method, you could use code like the following:

```
TopLinkDataControl dc =
  (TopLinkDataControl)
actionContext.getBindingContext().findDataControl("DataControlName");
if (! this.hasErrors(actionContext) )
{
  dc.resetState();
}
```

You may also want to call `resetState()` after a commit operation to explicitly reset unmapped aspects of the state.

It is possible that after you regenerate a PL/SQL web service you will get compilation errors caused by some files being removed from the project during regeneration. To correct this, you need to add the files back to the project by hand.

6.12 Web Services Issues

This section contains information about Web Services issues:

- Section 6.12.1, "Insight Not Available for WSDL Documents"
- Section 6.12.2, "Compilation Errors After Regeneration of PL/SQL Web Service"
- Section 6.12.3, "In the Find Web Services Wizard, JAWS Will Only Return a Valid Value Once the Row is Loaded"
- Section 6.12.4, "Changing the Project in the PL/SQL Web Services Wizard May Fail to Update the Context Root for the Endpoint"
- Section 6.12.5, "Must Use Schema Qualified Name for PL/SQL Web Service"
- Section 6.12.6, "Web Service Stub Fails if Generated from JDeveloper Install Path with Space"
- Section 6.12.7, "Cannot Generate Stubs for Web Services which Reference Base64"
- Section 6.12.8, "JPublisher Generates Incorrect Code if the PL/SQL Package Name Contains Hyphens"
- Section 6.12.9, "Location of WS-I Log File has to be on Same System Drive as JDeveloper"
- Section 6.12.10, "Cannot Generate a Stub or Skeleton for a WSDL that Uses Certain Types"
- Section 6.12.11, "Using Underscores in Namespace Paths Can Cause Runtime Errors for Web Services"
- Section 6.12.12, "Report for Web Service on UDDI Registry Is Garbled"

6.12.1 Insight Not Available for WSDL Documents

(2954818) JDeveloper cannot rely upon there being a live network connection available on start-up, and as the relevant schemas are all on the W3C site, which JDeveloper can't copy into its local install for legal reasons, JDeveloper does not pre-register any XML schemas for the WSDL file type. Therefore code insight is not available for WSDL documents in JDeveloper's XML Editor.

6.12.2 Compilation Errors After Regeneration of PL/SQL Web Service

(3431499) In the navigator, select the web service node and click on the Add to Applications button (with a + sign). In the dialog, navigate to the

\src\<package> directory. Select all the .sqlj files and click **Open**. Now you should be able to compile the project without any errors.

6.12.3 In the Find Web Services Wizard, JAWS Will Only Return a Valid Value Once the Row is Loaded

(3194304) If you use an accessibility reader such as JAWS, you need caution when using the Find Web Services wizard. On the Model page of the wizard you need to wait until a row has properly loaded before you can be sure that the 'Is WSDL' column is returning a valid value. You can do this by moving to the Description column first. While the row is being loaded, the Description column returns "Loading". Once the row is loaded, the Description column returns a description of the web service. Now you can go to the 'Is WSDL' column and read the value.

6.12.4 Changing the Project in the PL/SQL Web Services Wizard May Fail to Update the Context Root for the Endpoint

(3477647) In step 1 of the PL/SQL Web Services wizard, there is a combo box which allows you to choose the project into which the service will be generated. Once you move onto step 3 of the wizard you will see that the web service endpoint has been automatically generated using the context root of the chosen project.

However, if you decide to go back to step 1 and choose a different project, then moves forward to step 3 again, you will notice that the automatic regeneration of the web service endpoint has failed and the endpoint still reflects the context of the originally chosen project.

You will need to manually update the endpoint in the wizard to reflect the correct context root for the project before generating the web service, otherwise the endpoint in the generated WSDL document will be incorrect and any stub generated to access the web service will point at the wrong endpoint. Alternatively, you may re-edit the web service after generation to reflect the correct endpoint on regeneration.

6.12.5 Must Use Schema Qualified Name for PL/SQL Web Service

(2966028) In a PL/SQL web service that uses XMLTYPE as a parameter or an attribute of an object type, you must use the schema qualified name of SYS.XMLTYPE.

6.12.6 Web Service Stub Fails if Generated from JDeveloper Install Path with Space

(3068701) If you install JDeveloper in a path where any of the folders have a space in the name and then generate a web service which you run on the embedded OC4J server or on an external instance of the OC4J server, you will find that a stub to the service will fail when the web service is called.

The workaround is to install JDeveloper in a path without a space in any folder name.

6.12.7 Cannot Generate Stubs for Web Services which Reference Base64

(2920137) The WSDL validation on the Select Web Service Description page of the Create Web Service Stub/Skeleton wizard does not recognize the XML Schema type base64 from the `http://schema.xmlsoap.org/soap/encoding/` schema. As a result, you will not be able to generate services from any WSDL files which reference this type.

6.12.8 JPublisher Generates Incorrect Code if the PL/SQL Package Name Contains Hyphens

(3522618) If you are generating a PL/SQL web service for a database package that contains hyphens in its name, the SQLJ files generated by JPublisher will be incorrect as hyphen (-) is not a valid character in a Java identifier.

The workaround is to edit the SQLJ file generated by JDeveloper, and surround the occurrence of the package name with quotes (""), then rebuild.

6.12.9 Location of WS-I Log File has to be on Same System Drive as JDeveloper

(3535903) The location of the WS-I log file, which you set in Tools | Preferences | WS-I Testing Tools, must be on the same system drive as in JDeveloper, otherwise the log file is not written. For example, if JDeveloper is installed on drive D:, the location of the WS-I log file must also be on drive D:.

Please check Migration Issues for Web Services specific migration information.

6.12.10 Cannot Generate a Stub or Skeleton for a WSDL that Uses Certain Types

(3912349) JDeveloper 10.1.2 only understands a subset of all of the complexTypes that can be defined in a WSDL document. For example, if the following appear in the "types" section of the WSDL, any use of those types will cause JDeveloper to generate a reference to UnknownType in a stub or skeleton:

- Restrictions of simpleTypes
- complexTypes which define attributes

6.12.11 Using Underscores in Namespace Paths Can Cause Runtime Errors for Web Services

(3992526) When you have a web service running in OC4J, and run a generated stub against it, the stub will fail with a 'No deserializer found' message when the target namespace for the service has an underscore in the first part of the URL. This is because when the stub is run, the underscore in the target namespace is changed to a hyphen, for example, http://hr_conn/My_WebService1.wsdl becomes http://hr-conn/My_WebService1.wsdl.

The workaround is to either:

- Hand edit the generated stub to replace the underscore with a hyphen. Find the line that starts "m_smr.mapTypes(..." which contains the target namespace, and change the underscore in the namespace with a hyphen.
- After generating the web service, but before deploying it, hand edit the WSDL document to replace the underscore in the target namespace with a hyphen. Next, deploy the service. Finally, generate the stub directly from the WSDL document (under the WEB-INF.wsdl node in the navigator) rather than from the web service itself.

6.12.12 Report for Web Service on UDDI Registry Is Garbled

(4070841) When selecting "View Report" on the context menu for any Web Service on UDDI registry the information page about the selected Web Service is shown with all multibyte characters garbled on JA locale. This is just a view issue and can be avoided by the following workaround:

1. Extract the file used for formatting report with the following command:`cd <DevSuiteHome>/jdev/lib/<J2SE_Install>/bin/jar xvf jdev.jar oracle/jdevimpl/webservices/uddi/report/uddiservicerpt.xsl`

2. Open the extracted file in the text editor and change the following code:

   ```
   <xsl:output method="html" />
   ```

   to

   ```
   <xsl:output method="html" encoding="shift_jis"/> : For
   Windows, or SJIS environment on Unix

   <xsl:output method="html" encoding="euc-jp"/> : For EUC
   environment on UNIX
   ```

3. Open `<JDev_Install>jdev/bin/jdev.conf` and add the following code:

   ```
   AddVMOption -Duddi.serviceReport.Stylesheet=<JDev_
   Install>/jdev/lib/oracle/jdevimpl/webservices/uddi/report/udd
   iservicerpt.xsl
   ```

6.13 Modeling Issues

This section contains information about issues related to modeling:

- Section 6.13.1, "Erasing UML Diagram Elements From Disk"
- Section 6.13.2, "Erasing Modeled EJBs From Disk"
- Section 6.13.3, "Deleting Element from Diagram without Deleting Constraint Affects Node in Add to Diagram Dialog"
- Section 6.13.4, "Renaming a Modeled Java Class to an Invalid Name Causes Errors"

6.13.1 Erasing UML Diagram Elements From Disk

(3421852) If you have class or interface that is modeled on a diagram, and you use

Erase from Disk to remove the class or interface from the navigator, you may find that it still appears on the diagram. This occurs when you have created the class or interface and saved it, then closed JDeveloper. Then after restarting JDeveloper, you have erased the class or interface from the navigator.

The workaround is to manually delete the modeled class or interface from the diagram.

6.13.2 Erasing Modeled EJBs From Disk

(3100651) When you have an EJB that is modeled on a diagram and you select Erase from Disk from the modeled EJB's context menu, the EJB is still shown in the navigator. To remove it, select the EJB and choose

File | Remove from package. When you have an EJB that is modeled on a diagram, and you **Erase from Disk** the EJB in the navigator, the modeled EJB is still displayed. To remove it, select it and choose Erase from Disk from the context menu.

The workaround is to close the diagram before erasing the EJB, and erase the EJB from the navigator.

6.13.3 Deleting Element from Diagram without Deleting Constraint Affects Node in Add to Diagram Dialog

(3431254) When you have an element with a constraint attached to it modeled on a diagram, and you delete the element but not the constraint, you will not be able to expand the **Constraint** node on the **Add to Diagram** dialog.

6.13.4 Renaming a Modeled Java Class to an Invalid Name Causes Errors

(3495725) Using **Tools** | **Refactor** to rename a Java class on a diagram to the package name, e.g. changing mypackage1.JavaClass1 to mypackage1, causes an error to be displayed when you try to model another class on the diagram. To avoid this, do not change the name of a modeled class to be the same as the package name.

6.14 Team Based Development Issues

This section contains information about issues related to Team Based Development:

- Section 6.14.1, "CVS Support: Using Backslash Notation to Create NT PSERVER Connection"
- Section 6.14.2, "WebDAV: Unable to Unlock Files on WebDAV Connection to Oracle9iAS Server"
- Section 6.14.3, "Version History Against Oracle SCM"

6.14.1 CVS Support: Using Backslash Notation to Create NT PSERVER Connection

(3075917) When there is a drive letter in the repository field of a CVs connection's root value, you must not use the drive letter followed by two forward slashes, for example:

```
d//cvshome
```

Instead the repository should be qualified by either an initial forward slash:

```
/d//cvshome
```

or you should use a colon after the drive letter:

```
d:\cvshome
```

6.14.2 WebDAV: Unable to Unlock Files on WebDAV Connection to Oracle9*i*AS Server

(2624464) If you lock a file on a WebDAV connection to an Oracle9iAS server, that file cannot be unlocked using JDeveloper.

6.14.3 Version History Against Oracle SCM

(3998099) You may receive a CDR-17043 and SQL error occurred when opening version history against Oracle SCM. Currently there is no workaround available.

6.15 Unix-Specific Issues

This section contains information about JDeveloper and Unix-specific issues:

- Section 6.15.1, "Running CodeCoach from the Command Line on Linux"
- Section 6.15.2, "OJVM Installation on Linux"

6.15.1 Running CodeCoach from the Command Line on Linux

CodeCoach invocations in the Linux shell may fail due to the incorrect parsing of the semicolon character (';'). The Linux shell interprets the semicolon as a command separator, but some CodeCoach options (such as -Xcc:incl:<packagelist> and -Xcc:excl:<packagelist>) use the semicolon as a list separator. Use double-quotes around such options. For example:

```
/java/jdk1.4.2_03/bin/Java -ojvm -Xcodecoach -Xcc:new -Xcc:level:4
-Xcc:disable:ALL -Xcc:enable:ALL

"-Xcc:excl:com;Java;javax;sun;sunw;org;oracle" -classpath
/home/fred/JDev9.0.5/jdev/mywork/Workspace1/Project2/classes:/home/Fred
/JDev9.0.5/jdev/lib/jdev-rt.jar mypackage2.Application1
```

6.15.2 OJVM Installation on Linux

The JDeveloper Linux installation includes OJVM, and OJVM can be installed for use with JDeveloper, but this configuration is not supported by Oracle. OJVM is a Hotspot-compatible JVM that is required by JDeveloper's Profiler and CodeCoach features. It also enables advanced debugging features.

Install OJVM in your application's J2SE from the Linux shell while logged as root

```
cd <jdev_install>/ojvm_linux_x86
sh installOJVM <j2se_location>
```

where <jdev_install> is JDeveloper's installation directory, and <j2se_location> is the full path to the J2SE folder.

To confirm that OJVM has been properly installed, invoke the command:

```
<j2se_location>/bin/Java -ojvm -version
```

6.16 Macintosh OS X Issues

This section contains information about JDeveloper and Macintosh OS X issues:

- Section 6.16.1, "Can't Scroll Down Using the Scroll Button in Help"
- Section 6.16.2, "Clicking Near the Edge of the Smart Data or Data Window Gives a Console Exception"
- Section 6.16.3, "Running a JClient Application Displays Diagnostic Information From Apple's VM"
- Section 6.16.4, "Active View Does Not Get Highlighted"
- Section 6.16.5, "Column/Row Re-Arrange not Working"
- Section 6.16.6, "UI Outline Does Not Show Graphics"
- Section 6.16.7, "The Context Menu Does Not Pop Up on the JSP Visual Editor"
- Section 6.16.8, "The Focus is Never Set to the Proper Text Field in Dialogs"
- Section 6.16.9, "Dynamic JNLP Files Do Not Work in Safari"
- Section 6.16.10, "Floating a Dockable Window Will Disable the Menu Bar"
- Section 6.16.11, "Java Developer Tools Required for Quick Javadoc to Work"
- Section 6.16.12, "Dragging From the Palette not Supported"

6.16.1 Can't Scroll Down Using the Scroll Button in Help

(3762896) When in the Help, you must use the actual scrollbar to scroll instead of using the scroll buttons directly. Apple Bug #3748025.

6.16.2 Clicking Near the Edge of the Smart Data or Data Window Gives a Console Exception

(3761047) If you look at the Console Window, you may see this exception occur. It is harmless and does not impact the use of JDeveloper in any way.

6.16.3 Running a JClient Application Displays Diagnostic Information From Apple's VM

(3722494) You may notice diagnostic information appearing in the console from the Java VM distributed with OS X. This information is harmless.

6.16.4 Active View Does Not Get Highlighted

(3728924) On other platforms the embedded window that is active is highlighted in a darker color. This is not the case on Mac OS X.

6.16.5 Column/Row Re-Arrange not Working

(3757344) In the JSP/HTML Visual Editor, you cannot use drag-and-drop to rearrange columns or rows.

6.16.6 UI Outline Does Not Show Graphics

(3760903) Under OS X, The UI Debugger does not display the UI outline.

6.16.7 The Context Menu Does Not Pop Up on the JSP Visual Editor

(3895704) When using a single button mouse on OS X, the context menu does not popup. The workaround is to use Command-Shift-Minus or a two-button mouse.

6.16.8 The Focus is Never Set to the Proper Text Field in Dialogs

(3896729) When some dialogs are invoked, the focus is set on the button and not in the text field. You should click in the text field to set focus or tab to it before typing.

6.16.9 Dynamic JNLP Files Do Not Work in Safari

(3907098) When creating a Web Start application, choose static JNLP files instead of a JSP dynamically generating a JNLP file. Safari ignores the MIME type and uses the file extension to determine if Web Start should be launched.

6.16.10 Floating a Dockable Window Will Disable the Menu Bar

(3765717) Floating a dockable window will cause the menu bar to be empty. Re-docking the window into the IDE will correct this situation. Apple Bug #3752818 has been filed for this issue.

6.16.11 Java Developer Tools Required for Quick Javadoc to Work

The Quick Javadoc functionality in JDeveloper relies on having source code access to the classes. On Mac OS X, src.jar is not part of the normal Java installation; it is part of the Developer Tools package. This is required to have the source for the JDK classes available for Quick Javadoc to use.

6.16.12 Dragging From the Palette not Supported

(3845763) Drag and Drop the palette is not enabled on Mac OS X. You must select the palette item then click in the visual designer at the location for the component to appear.

6.17 Screen Reader Issues

This section contains information about JDeveloper and screen reader issues:

- Section 6.17.1, "JDeveloper Can be Installed with Java Access Bridge 1.2"
- Section 6.17.2, "Issues With JDeveloper 10.1.2 When Using JAWS 3.70"
- Section 6.17.3, "Issues With JDeveloper 10.1.2 When Using Either JAWS 3.70 or JAWS 5.0"
- Section 6.17.4, "Issues With JDeveloper 10.1.2 When Using JAWS 5.0"
- Section 6.17.5, "Issues With JAWS 3.70"
- Section 6.17.6, "Issues With JAWS 5.0"

6.17.1 JDeveloper Can be Installed with Java Access Bridge 1.2

Please follow the steps in the Install Guide for setting up JDeveloper to work with JAWS, and download accessbridge-1_2.zip from:

`http://java.sun.com/products/accessbridge/`

The screen reader setup steps in the online help recommend that you download accessbridge-1_1.zip, which is no longer the most recent version of Access Bridge; these instructions were created before Java Access Bridge 1.2 became available.

6.17.2 Issues With JDeveloper 10.1.2 When Using JAWS 3.70

The following issues have been noted when using JDeveloper 10.1.2 with JAWS 3.70:

- Extend dialog invoked from the Open EJB Finder View Object Wizard has an edit box labeled Object that is not read by JAWS (2565846).
- The Object Gallery dialog has text descriptions for each available option which are not read by JAWS and are not in the Tab sequence of the dialog (2498024).
- JAWS does not read the drop down list box values if there is only one value. With Jaws v5.0 and Access Bridge 1.1GA, the problem is fixed although it may recur intermittently. (3345137)

  Workaround: If the problem occurs, the user has to press the Down Arrow key when the focus is set to the list box or combo box to open the list and read the item.

6.17.3 Issues With JDeveloper 10.1.2 When Using Either JAWS 3.70 or JAWS 5.0

- The following issues have been noted when using JDeveloper 10.1.2 with either JAWS 3.70 or JAWS 5.0:
- No keyboard solution (spacebar) to drag and drop complex objects from the Component Palette to Java Visual Editor in the diagram tools (3682651)
- Unable to navigate to available list in step 4 of the Create Offline Table Wizard using keyboard (Tab key). Workaround: Using Move All button, shuttle a list item to the Selected list box, then back to the Available list box, thereafter the Available list is included in the dialog tab order (3655901).

6.17.4 Issues With JDeveloper 10.1.2 When Using JAWS 5.0

The following issues have been noted when using JDeveloper 10.1.2 with JAWS 5.0:

- No context for duplicate UI objects in same frame; multiple edit boxes with duplicate labels in **Tools | Preferences | Business Components | Base Classes** panel (3803044).
- Buttons without labels exist in the Preferences dialog, when you choose the **Tools | Preferences | Environment | Dockable Windows** panel (3557870).
- For the five bugs listed below, the title or state of the window in the IDE is not read when a user navigates or moves focus to the window. Although the content if some of the dialogs may be read, there is a lack of context when the user is not informed of the type of window or that the viewer is open and active, so it is confusing as to how to proceed with navigation.

  - The Image Viewer title and state are not read by JAWS (2217088).
  - SQL Worksheet title and state are not read by JAWS (2217097).
  - Table Viewer title and state are not read by JAWS (2217099).
  - Sequence Viewer title and state are not read by JAWS (2217101).
- JAWS does not read the selected item in a combo (or edit combo) box controls when the control is in focus by default in the launch of a dialog or wizard. (2057497)

  Workaround: After a dialog or wizard is invoked and JAWS has finished reading, use the Tab key to navigate around the dialog's tab sequence letting the screen reader identify each UI component until focus has returned to the combo box. Then, the screen reader will read the combo box name, state and selected item.
- The text area containing a description associated with each item in the Object Gallery dialog is not read by JAWS. (2498024)

6.17.5 Issues With JAWS 3.70

The following issues have been noted specifically with JAWS 3.70:

- Context menu fails to be read by screen reader (2718451, 2843320, 202170).
- Help panel titles are not read, only UI components including Table of Contents tab, Full Text Search tab, and Index Search tab are read (3200557).
- IDE windows reading as group boxes, titles not reading; including Property Inspector, Thumbnail window, Data Controls window, Component Palette (fails to read title if not populated with list of components; general issue among miscellaneous IDE windows). Workaround: set windows in focus by selecting the menu options from the View menu, screen reader then reads the window name by reading the menu item when selected (3432531, 2498082, 3506930).

- Business components message box contents not read (various locations throughout the IDE); alert message boxes, validation message boxes, error dialogs (red stop sign) etc. have content that is not read by JAWS (2465154, 2944784, 2565846, 2573384, 2505465, 2032707, 2032726, 2566192, 2566202).
- Some combo boxes fail to read selected item until the user selects the next item, in various locations throughout the IDE (2936822, 2057497, 2939382, 2939245).
- Some edit boxes default contents are not read by JAWS, in various locations throughout the IDE, until focus is reset on UI component using tab order sequence (2565938, 2939366).
- In various wizards throughout the IDE, the Welcome step descriptive text fails to read in JAWS (2569119, 2942044, 2200314, 2944263, 2944750, 2939670).
- In various wizards throughout the IDE, descriptive text in the wizard steps fails to be read by JAWS (2565846, 29337544, 2937552, 2939670, 2944792, 2942060, 2459125, 2939186, 2939670, 2944750, 3195732).
- JAWS crashes when running java threads from JDeveloper; for example, the memory profiler (3078996).
- Code insight is inaccessible; there is no method to set focus to the JoptionPane pop-up dialogs showing Java methods for code completion (2936838).
- The View Object Edit dialog Query panel displays test results in an edit box which JAWS fails to read (2565599).
- Starting and stopping the JDeveloper debugger causes JAWS to crash (2936822).
- In various locations throughout the IDE, JAWS sometimes reads items that are out of focus in the background (2497997).
- In various locations throughout the IDE, JAWS sometimes repeats descriptive text with each focus change; speaks too much, or repeats values multiple times (3659804).
- New/Advanced from context menu are not read by JAWS (3928664).
- Session Rename dialog is not read by JAWS (3928653).

6.17.6 Issues With JAWS 5.0

The following issues have been noted specifically with JAWS 5.0:

- Jdialog static text speaks not only when a dialog first gains focus, but also every time the user tabs from control to control the descriptive text is spoken by JAWS in addition to the control name or option label. This occurs in several dialogs throughout JDeveloper, for example, the Find Web Services Wizard has a group box containing several controls such as checkboxes or radio buttons, etc. (3663546)
- The Windows system menu is receiving focus at inappropriate times, such as when a user selects a control with a shortcut key or keyboard combination. Workaround is to press the Escape key twice and then continue navigating the dialog with keyboard. (JDeveloper bug 3686207, JAWS bug 3670196)
- In the context menus, sub menu items are not read by JAWS when using JDeveloper 10.1.2 and JAWS 5.0. (JDeveloper bug 3672967, JAWS bug 3686135)
- EWT tooltips are not read even when JAWS is configured to read tooltips. (JAWS bug 3163530)

- When editing in an EWT grid, JAWS sometimes reads the previous column, row, column value and edited cell value. If you press Tab after editing, JAWS then reads the committed value. (JAWS bug 3163516)
- In an EWT grid, a user is unable to select the checkbox by pressing the space bar. There is no workaround. (JAWS bug 3163469)
- In the checklist Java component, the checkbox is not found or read by JAWS 5.0. The checklist Java component in the Create Web Service Wizard is a list control with checkboxes on each list item for the user to select a row. The checklist rows are read only as list items, as the checkbox is not recognized by JAWS. Also, when using the latest version of the access bridge (AccessBridge_1.2_GA) the varying implementations of the checklist are read by JAWS incompletely; in some cases, only the checkbox information is read from the checklist item (i.e. checkbox name, checkbox state - checked or not checked). In other checklist implementations, JAWS reads only the list item information (list box name, list item), without reading any checkbox information. There is no workaround. (JDeveloper bug 3663621, JAWS bug 3692427)

6.18 Miscellaneous Issues

This section contains information about miscellaneous JDeveloper issues:

- Chapter 6.18.1, "Error Message When Deploying Applications Using the IDE (4502734)"
- Chapter 6.18.2, "Unable to Debug with Client VM when JDeveloper Started with JDK 1.5\JRE\BIN in Path (4502080)"
- Section 6.18.3, "Issue When Upgrading Library Definition from JDeveloper 10.1.2.0.0 to 10.1.2.1.0"
- Section 6.18.4, "Null Pointer Exception in the UML Class Editor"
- Section 6.18.5, "Running JDeveloper on Windows XP Service Pack 2"
- Section 6.18.6, "Fail to Make/Run JSPs if Unused tlds Exist in Jars in WEB-INF/lib"
- Section 6.18.7, "Using JDeveloper in a Multibyte Environment Obscures Some Characters in Text"
- Section 6.18.8, "JSP/HTML Editor Cannot Decode File's Encoding Correctly if the File Has Large HEAD Tags"
- Section 6.18.9, "Working with Offline Database Definitions"

6.18.1 Error Message When Deploying Applications Using the IDE (4502734)

Users will see the error message `checkIsLocalHost() error:` during the deployment of applications using JDeveloper. This message can be ignored and does not have any effect on the overall deployment process.

6.18.2 Unable to Debug with Client VM when JDeveloper Started with JDK 1.5\JRE\BIN in Path (4502080)

If you have jdk1.5\jre\bin on your path when you start JDeveloper on Windows, you will not be able to use the debugger with JDK1. (The default JDK with JDeveloper 10.1.2) with the HotSpot JVMs (hotspot, client, or server). Attempting to debug with JDK1.4 with a HotSpot JVM will cause the following error to appear in the log window:

```
FATAL ERROR in native method: No transports initialized
Transport dt_socket failed to initialize, rc = 509.
```

The error is caused by the debuggee process looking for the dt_socket.dll and finding the JDK1.5 version of the dll from the jdk1.5\jre\bin directory on the path instead of the JDK1.4 version of the DLL The error will not occur when using the debugger with OJVM because OJVM does not use the dt_socket.dll.

Try either of these workarounds to avoid this problem:

- Remove jdk1.5\jre\bin from the path before starting JDeveloper.
- Use OJVM when debugging. This is specified in the Project Properties dialog box, on the Runner panel.

6.18.3 Issue When Upgrading Library Definition from JDeveloper 10.1.2.0.0 to 10.1.2.1.0

(4148838) If you created your own library definition in JDeveloper 10.1.2.0.0 and manually added the EL Jar files (commons-el.jar, jsp-el-api.jar, and oracle-el.jar) to your library, you may see `NoClassDefFound` errors when you compile or run in JDeveloper 10.1.2.1.0. You can fix the library definition by pointing the jar files that are present in the new location from `$DevSuiteHome/jakarta-commos-el/` to `$DevSuiteHome/jlib/`.

6.18.4 Null Pointer Exception in the UML Class Editor

(3891954) Users may receive a null pointer exception `javax.swing.SwingUtilities.getWindowAncestor(SwingUtilities.java:63` when clicking "Alt-Tab" while in the UML Class editor or while clicking in the Structure window with the mapping editor open. This situation occurs infrequently and is the result of a JDK bug which has been corrected in JDK 1.4.2_05 and later.

6.18.5 Running JDeveloper on Windows XP Service Pack 2

When running JDeveloper or OC4J on Windows XP Service Pack 2 for the first time you will be shown a Windows security alert. Once you click Unblock you should not receive this alert again.

SP2 blocks all ports. Even if OC4J is "unblocked" the default port 8888 is still blocked. Therefore, to run an application using the external OC4J, (say, port 8888) it needs to be physically added to the firewall exception list. To do this:

1. Open network properties and select the ethernet connection.
2. Click **Advanced**.
3. Click on settings for firewall.
4. Click **Exceptions** tab and click Add port and give port as 8888 or whichever OC4J uses and an optional name.
5. Click **OK** to close the network connections window.

6.18.6 Fail to Make/Run JSPs if Unused tlds Exist in Jars in WEB-INF/lib

(3421004) You may encounter the following error when making/running JSPs even if the reported taglib handler class is in the classpath:

```
Error(1): java.lang.ClassNotFoundException:
Error(1): Unable to load taghandler class:
```

This may be the side-effect against some jars in WEB-INF/lib that contain the unused tlds, whose implementation libraries are not in this project's classpath. In this case, you can use one of the following:

- Remove the jars containing unused tlds from WEB-INF/lib.
- Add all libraries related with jars in WEB-INF/lib into Project's classpath.
- Uncheck "Make Project" in Project Properties, Profiles-Runner-Options.

6.18.7 Using JDeveloper in a Multibyte Environment Obscures Some Characters in Text

(2670389) If you use JDeveloper in a multibyte environment, the embedded browser may display all multibyte characters as squares. If this happens, use the following option to prevent the problem:

```
AddVMOption -Dice.pilots.html4.ignoreNonGenericFonts=true
```

6.18.8 JSP/HTML Editor Cannot Decode File's Encoding Correctly if the File Has Large HEAD Tags

(3313918) Currently, JSP/HTML Editor detects file's encoding from META tag in HEAD tag like <meta HTTP-EQUIV="Content-Type" CONTENT="text/html; charset=shift_jis"/>.

JSP/HTML Editor expects such META tag within the first 2000 bytes of its file. If your JSP/HTML file is garbled in JSP/HTML Editor, please check whether the correct META tag exists within the first 2000 bytes.

6.18.9 Working with Offline Database Definitions

Importing from a database and generation to a database are not certified against non-Oracle databases.

Part III

Other Release Notes

Part III of the release notes contains information for server components that are installed with Oracle Developer Suite. Each feature has its own chapter.

Part III contains the following chapter:

- Chapter 7, "Oracle Application Server Containers"

7

Oracle Application Server Containers

This chapter describes issues with Oracle Application Server Containers for J2EE (OC4J). It includes the following topics:

- Section 7.1, "OC4J Bugs Fixed in 10.1.2.0.2"
- Section 7.2, "Configuration Issues and Workarounds"
- Section 7.3, "Enterprise Java Beans"
- Section 7.4, "OC4J Services"
- Section 7.5, "Oracle Application Server Java Authentication and Authorization Service (JAAS) Provider"
- Section 7.6, "Documentation Errata"

7.1 OC4J Bugs Fixed in 10.1.2.0.2

The following OC4J-related bugs have been resolved in 10.1.2.0.2:

- BUG 4373794 - OC4J 10.1.2 - FATAL ERROR CODE ENHANCEMENT - This fix is described in this document at "Fatal Error Code Enhancement" on page 7-6.
- BUG 4226465 - MULTIPLE CONNECTION POOLS EXIST FOR SAME DATA SOURCE - This resolves code bug 4226465 and documentation bug 4373802. This fix is described in this document at "Fixed Connection Pool Problems" on page 7-7.

7.2 Configuration Issues and Workarounds

This section describes configuration issues and their workarounds for OC4J. It includes the following topics:

- Section 7.2.1, "Oracle JDBC-OCI driver upgrade in the Oracle Application Server"
- Section 7.2.2, "OC4J Out of Memory Errors"
- Section 7.2.3, "JDK 1.3 With OC4J 10.1.2.02"
- Section 7.2.4, "Configuring Maximum Connections with Oracle HTTP Server"

7.2.1 Oracle JDBC-OCI driver upgrade in the Oracle Application Server

It is not possible to upgrade to an arbitrary Oracle JDBC-OCI driver version due to client library compatibility constraints. Upgrading to OCI driver versions with matching Oracle Client libraries that are installed within the Oracle Application Server 10*g* (10.1.2) is supported. For example, Oracle JDBC 10.1.x drivers are supported, but the Oracle JDBC 9.2.x drivers are not.

Where the use of JDBC-OCI within the Oracle Application Server is supported, it is also necessary for the `opmn.xml` entry for each OC4J instance to propagate appropriate *`ORACLE_HOME`* and library path values to its startup environment.

The environment variable *`ORACLE_HOME`* is common to all platforms, but the name of the environment variable that specifies the library path is different depending on the operating systems:

- `LD_LIBRARY_PATH` for Solaris
- `SLIB_PATH` for AIX
- `SHLIB_PATH` for HP-UX
- `PATH` for Windows

The generic syntax for specifying the library paths in `opmn.xml` looks like this:

```
<variable id="<LIB_PATH_VARIABLE>" value="<LIB_PATH_VARIABLE_VALUE>"/>
```

where `<LIB_PATH_VARIABLE>` should be replaced with the appropriate platform-specific variable name that specifies the library path, and

```
<LIB_PATH_VARIABLE_VALUE>
```

should be replaced with that variable's value.

Here is an example, assuming the Solaris OS:

```
<process-type id="OC4J_SECURITY" module-id="OC4J">
  <environment>
    <variable id="ORACLE_HOME"
     value="/u01/app/oracle/product/inf10120"/>
    <variable
      id="LD_LIBRARY_PATH"
      value="/u01/app/oracle/product/inf10120/lib"
    />
  </environment>
  ...
```

7.2.2 OC4J Out of Memory Errors

If the OC4J default JVM heap size is too small for applications that you deploy, then you may see Out Of Memory errors from your OC4J processes. If you review the log files for the OC4J Instance in the directory`$ORACLE_HOME/opmn/logs`, you may find errors similar to the following:

```
java.lang.OutOfMemoryError
```

To work around this problem, increase the specified heap memory by changing the Java command line options for the OC4J Instance.

Using Application Server Control Console, go to the OC4J instance homepage and perform the following steps:

1. Stop the OC4J Instance.
2. Drill down to the Server Properties page.
3. In the Command Line Options area of the Server Properties page, under the heading Multiple VM Configuration, set the Java Options.

   For example, enter the following to set the JVM heap sizes to 512 Megabytes:

   ```
   -Xmx512m
   ```

4. Use the Apply button to apply the changes.
5. Start the OC4J instance.

For more information, see the Oracle Application Server Performance Guide.

7.2.3 JDK 1.3 With OC4J 10.1.2.02

In order to use JDK 1.3, which is not shipped with OC4J 10.1.2, modify JDK 1.3 as follows:

1. Download and install JAAS1.0_01 from http://java.sun.com/products/jaas
2. Drop `jaas.jar` from the JAAS1.0_01 distribution into `jre/lib/ext`
3. Add the following lines into `jre/lib/security/java.security`.

```
#These two lines are Oracle-specific definitions
#
auth.policy.provider=oracle.security.jazn.spi.PolicyProvider
@ login.configuration.provider=oracle.security.jazn.spi.LoginConfigProvider
```

7.2.4 Configuring Maximum Connections with Oracle HTTP Server

In standalone OC4J, you can configure the maximum number of connections by using the `<max-http-connections>` subelement of `<application-server>` in the `server.xml` file. (This is documented in the Oracle Application Server Containers for J2EE User's Guide.)

Now there is also a `<max-ajp-connections>` subelement of `<application-server>` to configure a maximum number of connections for use with Oracle HTTP Server. For example:

```
<application-server>
   ...
   <max-ajp-connections value="10000" max-connections-queue-timeout="10"
                        close-idle-connection="allow">
        http://optional.redirect.url/page.jsp
   </max-ajp-connections>
   ...
<application-server>
```

The (optional) value of the element indicates a "redirect-URL", the usage of which is described below.

Attributes of `<max-ajp-connections>`:

- `value`: The maximum number of connections allowed. The default value is -1, for no limit. (0 is a reserved value.)
- `max-connections-queue-timeout`: How many seconds to wait for the number of connections to drop below the maximum number. If a connection is attempted when the maximum number of connections has been reached, and there are still no available connections after the timeout expires, then appropriate action is taken depending on other settings (see below). The default is 0 seconds.
- `close-idle-connection`: A setting of "`allow`" (the default) makes a new connection possible by allowing the least-recently used (LRU) idle connection to be closed if the maximum number of connections has been reached and the queue timeout has expired. Use "`deny`" to disallow the LRU idle connection to be closed.

- `socket-backlog`: The number of connections to queue up before denying connections at the socket level. The default is 30. This is inherited from `<max-http-connections>` functionality, but has no particular use in addition to other `<max-ajp-connections>` attribute settings; there should be no reason to use a value other than the default.

There are three possible responses when a connection is being attempted after the maximum number of connections has been reached and the timeout has expired:

- If `close-idle-connection="allow"`, the connection listener will close the oldest open idle connection by closing the client socket (but the working thread is allowed to finish its work). This allows the attempted connection to be accepted.
- If `close-idle-connection="deny"` and a redirect-URL is specified in the `<max-ajp-connections>` element value (as shown in the example above), then the connection listener will reject the attempted connection with a 302 "Moved Temporarily" HTTP response. (The client system is expected to immediately retry the alternate URL.) The client socket of the attempted connection is then closed.
- If `close-idle-connection="deny"` and no redirect-URL is specified, then the connection listener will reject the attempted connection and send a 503 "Service Unavailable" HTTP response. The client socket of the attempted connection is then closed.

7.3 Enterprise Java Beans

This section describes issues with Enterprise Java Beans (EJB). It includes the following topics:

- Section 7.3.1, "Deprecated orion-ejb-jar.xml Attributes"
- Section 7.3.2, "Big EAR File Deployment Runs Out of Memory"
- Section 7.3.3, "EJB Wrapper Code Compilation Fails When Running in zh_CN.GB18030 Locale."
- Section 7.3.4, "Package Name for RMIInitialContextFactory Has Changed"
- Section 7.3.5, "How To Disable EJB Instance Pooling"
- Section 7.3.6, "How To Compile in Non-Batch Mode"

7.3.1 Deprecated orion-ejb-jar.xml Attributes

The following `orion-ejb-jar.xml` attributes are deprecated in releases 9.0.4.1 and 10.1.2 and will be removed in release 10.1.3:

- `max-instances-per-pk`
- `min-instances-per-pk`
- `disable-wrapper-cache`
- `disable-wrapper-cache`

In addition, the following `locking-mode` attribute setting is deprecated:

- `locking-mode="old_pessimistic"`

7.3.2 Big EAR File Deployment Runs Out of Memory

`OutOfMemory` exceptions occur when deploying EAR files with a large number of EJBs.

As part of the deployment process, wrapper code classes are generated for each EJB. The size of these classes is proportional to the number of business methods on the bean. As a performance optimization, OC4J compiles all wrapper code classes in one compiler invocation. An error can occur if the amount of generated wrapper code is too much for available memory.

A workaround is to direct the deployment process to compile each EJB module's wrapper code individually. You can do this by starting OC4J with the `ejbdeploy.batch` system property and setting it to `false`, as in the following example:

```
-Dejbdeploy.batch=false
```

Note: This workaround should only be used when this specific exception occurs.

This workaround may result in an increased deployment time for the application.

7.3.3 EJB Wrapper Code Compilation Fails When Running in zh_CN.GB18030 Locale.

EJB wrapper code compilation fails when running in zh_CN.GB18030 locale. When running in zh_CN.GB18030 locale, parts of the EJB wrapper source code may be generated with missing characters. This causes compilation errors. The missing characters in the generated source code are due to a Sun bug documented at:

`http://bugs.sun.com/bugdatabase/view_bug.do?bug_id=4954023`

The workaround is to use a different locale. See the Sun bug for details.

7.3.4 Package Name for RMIInitialContextFactory Has Changed

The package name for `RMIInitialContextFactory` has changed from `oracle.j2ee.rmi.server` to `oracle.j2ee.rmi`.

7.3.5 How To Disable EJB Instance Pooling

To disable instance pooling, use the new `<max-instances>` setting with any negative number in the `orion-ejb-jar.xml` file. This creates a new instance at the start of the EJB call and releases it at the end of the call.

7.3.6 How To Compile in Non-Batch Mode

To compile in non-batch mode (for example, if OC4J throws `java.lang.OutOfMemory` exceptions while compiling in batch mode), use the `-Dejbdeploy.batch=false` option. Although non-batch mode requires less memory allocation, this mode results in a longer deployment time.

7.4 OC4J Services

This section describes release notes for OC4J services. OC4J Services include: Java Naming and Directory Interface (JNDI), Java Message Service (JMS), Data Sources, Oracle Remote Method Invocation (ORMI), J2EE Interoperability (IIOP), Java Transaction API (JTA), J2EE Connector Architecture (J2CA), and Java Object Cache.

The section contains the following release note(s):

- Section 7.4.1, "Data Sources"
- Section 7.4.2, "ORMI"

7.4.1 Data Sources

This section describes issues with Data Sources. It includes the following topics:

- Section 7.4.1.1, "Data Sources Creates the Correct Number of Connection Pools in 10.1.2"
- Section 7.4.1.2, "Fatal Error Code Enhancement"
- Section 7.4.1.3, "Fixed Connection Pool Problems"

7.4.1.1 Data Sources Creates the Correct Number of Connection Pools in 10.1.2

In the 9.0.4 release, Data Sources incorrectly created multiple connection pools for the same data source: One pool for transactional connections and one pool for non-transactional connections.

This behavior is corrected for release 10.1.2.

7.4.1.2 Fatal Error Code Enhancement

For each data source defined in `data-sources.xml`, you can define fatal error codes that indicate that the back-end database with which the data source communicates is no longer accessible. When OC4J detects one of these error codes (stated when a SQLException is thrown by the JDBC driver), OC4J will clean its connection pool. That is, it closes all connections in the connection pool. For Oracle, the predefined fatal error codes are: `3113`, `3114`, `1033`, `1034`, `1089`, and `1090`.

Use the following procedure to add additional fatal error codes for Oracle.

Use the `<fatal-error-codes>` element, which is a subtag of the `<data-source>` element. The `<fatal-error-codes>` element uses the child element `<error-code>` to define one fatal error code. You can define 0 - n `<error-code>` elements for each `<fatal-error-codes>` element. For example, for fatal error codes `10`, `20`, and `30`, the data source definition would look like this:

```
<data-source
class="com.evermind.sql.DriverManagerDataSource"
name="ds"
location="jdbc/ds"
xa-location="jdbc/xa/ds"
ejb-location="jdbc/ejb/ds"
@ connection-driver="oracle.jdbc.driver.OracleDriver"
username="scott"
@ password="tiger"

@ url="jdbc:oracle:thin:@//localhost:1521/oracle.regress.rdbms.dev.us.oracle.com">

         <fatal-error-codes>
            <error-code code='10'/>
            <error-code code='20'/>
            <error-code code='30'/>
         </fatal-error-codes>

</data-source>
```

7.4.1.3 Fixed Connection Pool Problems

The following connection pool problems are fixed in 10.1.2.0.2.

In pre-10.1.2.0.2 versions of OC4J, the data sources subsystem would create multiple connection pools for the same data source for the following cases:

- When a connection was used inside a global transaction and outside a global transaction during the same thread of execution (during the execution of a servlet for example.) In this case one connection pool was created for connections used inside global transactions and one connection pool was created for connections used outside of the global transaction.
- When a connection was retrieved from the data source using the non-default user/password. For example, the use of `getConnection()` caused one connection pool to be created and `getConnection("user", "password")` caused another connection pool to be created. This is especially bad because each user/password combination created another, separate connection pool.
- Indicating via configuration that a data source's connections are to be shared caused an additional data source to be created under the covers which would then duplicate all of the connection pool issues described above.

This resolves code bug 4226465 and documentation bug 4373802.

7.4.2 ORMI

This section describes issues with ORMI. It includes the following topics:

- Section 7.4.2.1, "ORMI - OC4J Only Creates IPv4 Sockets"
- Section 7.4.2.2, "ORMI Protocol Is Not Secure"

7.4.2.1 ORMI - OC4J Only Creates IPv4 Sockets

OC4J only creates IPv4 sockets. Even on dual network stack machines (with both IPv4 and IPv6 stacks available) OC4J creates only IPv4 sockets. This may cause a problem if client-issued requests are from a IPv6 system. This is indicated by connection-refused messages from the server to the IPv6 client. To avoid this problem, start the client process with the system property `java.net.preferIPv4Stack=true`. This forces the client to only issue IPv4 requests, allowing it to communicate with the server.

7.4.2.2 ORMI Protocol Is Not Secure

It should be noted that the ORMI protocol is not secure. Any and all communication over ORMI is not encrypted including security credentials. Customers that want to encrypt ORMI traffic are advised to use ORMI over HTTPS, which will encrypt all communication between the client and the server.

7.5 Oracle Application Server Java Authentication and Authorization Service (JAAS) Provider

Be aware of the following notes when using the Oracle Application Server Java Authentication and Authorization Service (JAAS) Provider (OracleAS JAAS Provider) in release 10.1.2.0.2:

- Section 7.5.1, "Using the 9.0.4 Oracle Internet Directory Server with 10.1.2.0.2 OracleAS JAAS Provider"
- Section 7.5.2, "Support for auth-method="DIGEST" in <jazn-web-app>"

7.5.1 Using the 9.0.4 Oracle Internet Directory Server with 10.1.2.0.2 OracleAS JAAS Provider

Prior to the 10.1.2 Oracle Internet Directory implementation, Access Control List (ACL) features are not set up properly for JAZNAdminGroup. To use the 9.0.4 Oracle Internet Directory implementation with the 10.1.2 OracleAS JAAS Provider implementation, place the following contents into a file, replacing `%s_MgmtRealmDN%` with the appropriate ID management realm (for example, `dc=us,dc=oracle,dc=com`), then execute the steps that follow.

```
dn: cn=JAZNContext,cn=Products,cn=OracleContext,%s_MgmtRealmDN%
changetype: modify
replace: orclaci
orclaci: access to entry
   by group= "cn=JAZNAdminGroup,cn=Groups,cn=JAZNContext,cn=Products,cn=OracleContext"
(browse, add, delete)
   by group= "cn=IASAdmins,cn=Groups,cn=OracleContext,%s_MgmtRealmDN%
added_object_constraint=(objectclass=orclApplicationEntity) (add, delete, browse)
   by * (none)
orclaci: access to attr=(*)
   by group= "cn=JAZNAdminGroup,cn=Groups,cn=JAZNContext,cn=Products,cn=OracleContext"
(search, read, write, compare)
   by group= "cn=IASAdmins,cn=Groups,cn=OracleContext,%s_MgmtRealmDN%"
(read, search, write, compare)
   by * (none)
```

1. Name the file with the `.ldif` extension, such as `jaznacl.ldif`.
2. Run the `ldapmodify` utility with the newly created file as input, specifying *`oidport`*, *`oidhost`*, *`adminuser_dn`*, *`password`*, and *`filename`* as appropriate:

```
ldapmodify -c -a -p oidport -h oidhost -D adminuser_dn -w password \
           -f filename.ldif
```

7.5.2 Support for auth-method="DIGEST" in <jazn-web-app>

The 10.1.2.0.2 OracleAS JAAS Provider implementation now supports the setting `auth-method="DIGEST"` in the `<jazn-web-app>` element, in either the `orion-web.xml` file or `orion-application.xml` file. This is in addition to the already supported setting `auth-method="SSO"`. Support for `DIGEST` is already noted in the 10.1.2.0.2 *Oracle Application Server Containers for J2EE Servlet Developer's Guide* (which includes reference documentation for `orion-web.xml`), but is not indicated in the 10.1.2.0.2 *Oracle Application Server Containers for J2EE User's Guide* (which includes reference documentation for `orion-application.xml`). "`SSO`" is to use Oracle Application Server Single Sign-On for HTTP client authentication; "`DIGEST`" is to use the digest authentication mechanism. See the 10.1.2.0.2 *Oracle Application Server Containers for J2EE Security Guide* for complete information.

7.6 Documentation Errata

This section describes known errors in the OC4J documentation in Oracle Application Server 10g Release 2 (10.1.2). It covers the following books:

- Section 7.6.1, "Oracle Application Server Containers for J2EE User's Guide Documentation Errata"
- Section 7.6.2, "Oracle XML API Reference Documentation Errata"
- Section 7.6.3, "Oracle Application Server Containers for J2EE Services Guide Documentation Errata"

- Section 7.6.4, "Oracle Application Server Containers for J2EE Security Guide"

7.6.1 Oracle Application Server Containers for J2EE User's Guide Documentation Errata

This section describes known errors in the *Oracle Application Server Containers for J2EE User's Guide*. It includes the following topic(s):

- Section 7.6.1.1, "An OC4J Process Is Not "Contained" in an OC4J Instance"
- Section 7.6.1.2, "Correct Cross Reference for Metric-Based Load Balancing Information"
- Section 7.6.1.3, "JDK 1.4.2 Supported and Installed with OC4J"
- Section 7.6.1.4, "Primers Content Removed from OC4J User's Guide"
- Section 7.6.1.5, "Deprecated Oc4JUserKeepalive Parameter in OC4J User's Guide and OC4J Standalone User's Guide"
- Section 7.6.1.6, "Additional OC4J Deployment Notes"

7.6.1.1 An OC4J Process Is Not "Contained" in an OC4J Instance

The following incorrect statement appears in the *Oracle Application Server Containers for J2EE User's Guide* Chapter 8, OC4J Clustering:

"Each OC4J process is contained in an OC4J instance and inherits its configuration from the OC4J instance. All applications deployed to an OC4J instance are deployed to all OC4J processes in the OC4J instance."

The statement is incorrect in that an OC4J process as such can only be "contained" in other processes, an OC4J instance is not a process.

The correct statement in this case is:

"Each OC4J process is associated to an OC4J instance and inherits its configuration from that OC4J instance. All applications deployed to an OC4J instance are started in all the OC4J processes associated to that OC4J instance."

7.6.1.2 Correct Cross Reference for Metric-Based Load Balancing Information

In the description of the `<metric-collector>` element of the `server.xml` file in Appendix B - Additional Information of the Oracle Application Server Containers for J2EE User's Guide, the following incorrect cross reference is given:

"For details on using the <metric-collector> element and using metric-based load balancing with mod_oc4j, see the *Oracle Application Server 10g Performance Guide*."

Replace the incorrect cross reference with the following correct cross reference:

For details on using metric-based load balancing with mod_oc4j, see the Oracle HTTP Server Administrator's Guide.

7.6.1.3 JDK 1.4.2 Supported and Installed with OC4J

Chapter 1: "OC4J Overview" of the Oracle Application Server Containers for J2EE User's Guide contains incorrect references to the Java Development Kit (JDK) used with Oracle Application Server Containers for J2EE 10g Release 2 (10.1.2).

The "Using JDK With OC4J" section lists JDK 1.3.1 and 1.4.1 as the supported versions. This list should also include JDK 1.4.2.

The "Requirements" section incorrectly states that JDK 1.3.x is installed with OC4J. The correct version is JDK 1.4.2.

7.6.1.4 Primers Content Removed from OC4J User's Guide

Chapter 1: "OC4J Overview" of the Oracle Application Server Containers for J2EE User's Guide contains a reference to "primers", which are no longer included in the User's Guide.

7.6.1.5 Deprecated Oc4JUserKeepalive Parameter in OC4J User's Guide and OC4J Standalone User's Guide

The solution documented in the "Connection Timeouts Through a Stateful Firewall Affect System Performance" topic in Appendix A: "Troubleshooting OC4J" incorrectly references a deprecated parameter, `Oc4jUserKeepalive`. Contrary to statements made in this topic, this parameter should not be set in either the `httpd.conf` or `mod_oc4j.conf` configuration files.

7.6.1.6 Additional OC4J Deployment Notes

The following notes on undeployment and redeployment are intended to supplement the deployment discussion in the Oracle Application Server Containers for J2EE User's Guide.

General undeployment/redeployment notes:

- Once an application is undeployed from OC4J, it is no longer accessible to clients. In an Oracle Application Server environment, Oracle HTTP Server will be restarted to remove the OC4J mount point. This will result in the loss of existing HTTP sessions.
- During a redeployment, OC4J removes the existing application (EAR/WAR) before redeploying the new EAR. This means, for example, that attempts to access an HTML file that was included in the previous application, but not the new one, will result in "`File Not Found`" errors.
- Also note that a redeployed WAR file overlays the previously expanded WAR, meaning that some older files may persist in the new deployment and will need to be deleted. For example, static HTML files from the previous deployment that are not included in the new WAR may continue to reside in the expanded WAR directory structure, and would have to be manually deleted.

"Hot redeployment" notes:

- When an EAR is redeployed or "hot redeployed" on a running OC4J instance, the status of the classes loaded in the JVM from the previous application may vary. In some cases a classloader may recognize that a class or JAR file in the file system has changed, and reload the class or library. In other cases whether a new class definition is loaded may depend on whether the JVM tuning allows the garbage collector to flush the existing class definition.
- Issues may also exist with respect to serialized objects containing session data. If the class related to a session object changes, it may not be possible to cast the generic session object back to the class, since the class has changed and its variables may occupy a different memory footprint. This may result in lost session data.
- In an Oracle Application Server environment, a "hot deployment" - deploying an application without restarting OC4J - adds Oc4jMount directives to mod_oc4j.conf,

which in turn forces a restart of Oracle HTTP Server. This will result in the loss of existing HTTP sessions.

7.6.2 Oracle XML API Reference Documentation Errata

This section describes known errors in the *Oracle XML API Reference*. It includes the following topic:

- Section 7.6.2.1, "Add Information for formDocument() Method"

7.6.2.1 Add Information for formDocument() Method

In the Oracle XML API Reference, Chapter 15, "Package Dom APIs for C++", add the following entries:

- On page 15-22, in Table 15-7 "Summary of DOMImplRef Methods; Dom Package", add an entry for `formDocument()` method, description: "Forms a document reference given a pointer to the document."
- On page 15-24, add the following method description:

  `formDocument()`

  Description

  Forms a document reference given a pointer to the document.

  Syntax

  ```
  DocumentRef< Node>* formDocument( Node* node);
  ```

  Parameter **Description**

  ---

  node Pointer to the document node.

  Returns

  `DocumentRef< Node>*` pointer to the document reference.

7.6.3 Oracle Application Server Containers for J2EE Services Guide Documentation Errata

This section describes known errors in the Oracle Application Server Containers for J2EE Services Guide. It includes the following topics:

- Section 7.6.3.1, "Corrected JDBC Connect String for Third-Party Databases"

7.6.3.1 Corrected JDBC Connect String for Third-Party Databases

In the "Example DataDirect Data Source Entries" section of the "Data Sources" chapter of the Oracle Application Server Containers for J2EE Services Guide for 9.0.4 and 10.1.2.x, the URLs in the examples are incorrect.

The INCORRECT part of the URL is as follows:

```
url="jdbc:databasevendor://...
```

The CORRECT URL fragment is as follows:

```
 url="jdbc:oracle:databasevendor://...
```

The corrected example DataDirect Data Source Entries are as follows:

SQLServer

Here is a data source configuration sample for a SQLServer database.

```
<data-source
                class="com.evermind.sql.DriverManagerDataSource"
                name="OracleDS"
                location="jdbc/OracleCoreDS"
                xa-location="jdbc/xa/OracleXADS"
                ejb-location="jdbc/OracleDS"
                schema="database-schemas/ms-sql.xml"

 connection-driver="com.oracle.ias.jdbc.sqlserver.SQLServerDriver"
                username="mssql"
                password="mssql"

 url="jdbc:oracle:sqlserver://PZWU-PC\WUPZIAS;User=mssql;Password=mssql"
                inactivity-timeout="30"
 />
```

DB2

Here is a data source configuration sample for a DB2 database:

```
  <data-source
                  class="com.evermind.sql.DriverManagerDataSource"
                  connection-driver="com.oracle.ias.jdbc.db2.DB2Driver"
                  name="OracleDS"
                  location="jdbc/OracleCoreDS"
                  xa-location="jdbc/xa/OracleXADS"
                  ejb-location="jdbc/OracleDS"
                  schema="database-schemas/db2.xml"
                  username="db2admin"
                  password="db2admin"

 url="jdbc:oracle:db2://ying.us.oracle.com:50000;DatabaseName=sample;CreateDefa
ultPackage=TRUE"
                  inactivity-timeout="30"
/>
```

Sybase

Here is a data source configuration sample for a Sybase database:

```
  <data-source
                class="com.evermind.sql.DriverManagerDataSource"
                name="OracleDS"
                location="jdbc/OracleCoreDS"
                xa-location="jdbc/xa/OracleXADS"
                ejb-location="jdbc/OracleDS"
                schema="database-schemas/sybase.xml"
                connection-driver="com.oracle.ias.jdbc.sybase.SybaseDriver"
                username="JDBC_TEST"
                password="JDBC_TEST"
                url="jdbc:oracle:sybase://dlsun150:4101"
                inactivity-timeout="30"
 />
```

Informix

Here is a data source configuration sample for an Informix database:

```
<data-source
                class="com.evermind.sql.DriverManagerDataSource"
                name="OracleDS"
                location="jdbc/OracleCoreDS"
                xa-location="jdbc/xa/OracleXADS"
                ejb-location="jdbc/OracleDS"
                schema="database-schemas/informix.xml"

connection-driver="com.oracle.ias.jdbc.informix.InformixDriver"
                username="tg4odbc"
                password="tg4odbc"

url="jdbc:oracle:informix://dlsun150:3900;informixServer=gtw93;DatabaseName=ga
tewaydb"
                inactivity-timeout="30"
/>
```

7.6.4 Oracle Application Server Containers for J2EE Security Guide

This section describes issues with the Oracle Application Server Containers for J2EE Security Guide. It includes the following topics:

- Section 7.6.4.1, "Incorrect Example in Deployment Roles and Users"
- Section 7.6.4.2, "Incorrect internal-settings.xml Information"

7.6.4.1 Incorrect Example in Deployment Roles and Users

On page 3-8 of the Oracle Application Server Containers for J2EE Security Guide, under "Deployment Roles and Users", there is an example that does not properly close the `<type>` and `<name>` subelements of a `<member>` element. Here is the corrected example:

```
<role>
 <name>developer</name>
  <members>
   <member>
    <type>user</type>
    <name>john</name>
   </member>
  </members>
</role>
```

7.6.4.2 Incorrect internal-settings.xml Information

The Oracle Application Server Containers for J2EE Security Guide incorrectly states that the `internal-settings.xml` file supports password indirection for keystore-password and truststore-password (page 14-2). This is incorrect; the `internal-settings.xml` file does not support password indirection.