## **Oracle® Warehouse Builder**

Release Notes

10g Release 1 (10.1)

Part No. B12149-01

April 2004

These release notes provide the following information on Oracle Warehouse Builder:

- Requirements
- Related Publications
- New In This Release
- Known Limitations in Existing Features
- Documentation Errata
- Resolved Issues
- Documentation Accessibility

# Requirements

This section lists the Oracle database versions compatible and certified with Warehouse Builder and the required patches. Go to http://metalink.oracle.com for updates on certification and patches.

The following versions of the Oracle Database are supported by Oracle Warehouse Builder 10g Release 1 (10.1):

- Oracle Database 10g
- Oracle9*i* Release 2 (9.2.x)
- Oracle8*i* Release 3 (8.1.7.4.x)

Oracle Warehouse Builder 10*g* is currently not certified for use with a RAC database.

Go to http://metalink.oracle.com to verify final availability. Note that the OLAP Bridges feature is only available on Windows platforms and the Name and Address Server is only available on Windows and Solaris platforms.

For all gateways, including generic connectivity, you must apply database patches to both the repository and target databases. To download gateway patches, go to the patch section of MetaLink. Select Product: Oracle Transparent Gateway for [database] and the appropriate platform.



## Related Publications

You can find links to related publications on the html page <code>index.htm</code> located in the OWB\_ORACLE\_HOME\doc directory.

Or you can navigate to the HTML or PDF subdirectories located under the OWB\_ORACLE\_HOME\doc directory. To view the documentation in html, navigate to OWB\_ORACLE\_HOME\doc\<publication name>\toc.htm. When you double click the toc.htm file, the html page displays the table of contents for the selected publication.

The Warehouse Builder 10*g* documentation set includes these publications:

- Oracle Warehouse Builder Installation and Configuration Guide (April 2004)
- Oracle Warehouse Builder User's Guide (November 2003)
- *Oracle Warehouse Builder Transformation Guide* (November 2003)
- Oracle Warehouse Builder Scripting Reference (November 2003)
- Oracle Warehouse Builder Java API Reference (available in html only, November 2003)
- Oracle Warehouse Builder Release Notes (April 2004)

## **New In This Release**

Warehouse Builder Release 10*g* has the same functionality as Warehouse Builder Release 9.2, with the following differences:

- Warehouse Builder 10g provides support for Oracle Database 10g sources and targets.
- There is no longer a distinction between the Server Side and Design Time installations. Warehouse Builder 10g has only one type of installation on the database server, which you must install on a computer hosting an instance of Oracle Database. In addition, for all computers designated as design clients, you can install Warehouse Builder 10g without an instance of Oracle Database.
- Warehouse Builder 10g enables remote execution via the owb/rtp/sql/set\_oem\_home.sql script. For more information, see "Remote Execution" in the Documentation Errata on page -21.
- Warehouse Builder 10*g* is available on all the same platforms as the Oracle Database 10*g* with the exception of HP OpenVMS and IBM zOS (OS/390). In accordance with the Oracle Database 10*g*, Warehouse Builder 10*g* is available on Solaris 64 bit platform and not available on Solaris 32 bit platform.
- Support for the Express Bridge has been removed.

# **Known Limitations in Existing Features**

This section lists the known limitations in features introduced in previous releases. Limitations are grouped by subject area.

## **Bridges**

EXPRESS BRIDGES NOT SUPPORTED IN WAREHOUSE BUILDER 10g RELEASE 1 (10.1)

Beginning in this release, Warehouse Builder no longer supports Express bridges. Ignore all references to Express bridges in the documentation.

### SOME BRIDGES NOT SUPPORTED ON UNIX

The Discoverer bridge generates an EEX file that you must import using the Discoverer Administration tool, which is only available on Windows. The ERWin and PowerDesigner bridges are only supported on the Windows platform.

REPOSITORY AND RUNTIME REPOSITORY ASSISTANTS: DROPPING A REPOSITORY

When you drop a repository in the Repository Assistant or the Runtime Assistant, the Assistant removes all repository objects. It does not remove any other objects from the schema, such as database links, user deployed objects, and the schema itself. You must remove these objects manually.

BRIDGES DO NOT RUN FIRST TIME AFTER INSTALL (2237444)

When you run the bridge during the first user interface session, it will not find the preferences.properties file.

#### Workaround

Close the Warehouse Builder Client once, open it again, and run the bridge.

### Client

CUT/COPY/PASTE DOES NOT SUPPORT PROJECTS (2277487)

The cut, copy and paste functionality does not currently support projects. These operations are limited to design objects only, including all the objects stored within projects.

## Workaround

To copy a project into another repository, use the MDL Import and Export utilities.

RIGHT-CLICK POP-UP MENUS MAY NOT APPEAR (1621822)

In the console and Module Editor, be careful about shrinking the window horizontally and where you position the cursor if you use a right-click pop-up menu for any node. If the window is shrunk too far you may have to either right click on the extreme left or the extreme right of the node label. If you click in the middle of the label the menu will not appear. Also if the window is narrower than the menu, the menu will not appear.

#### Workaround

Stretch the window horizontally and the menu will appear. Or, use the menu bar items, such as Transformation, Edit, and View, instead of the pop-up menu.

USER NAME AND PASSWORD QUOTED IN CODE (2089342)

The user name and password are always quoted in the generated code. Do not enclose quotes around user/password.

USE AVAILABLE WIZARDS TO VIEW AND EDIT OPERATORS (2854976)

In this release, do not use the operator properties dialog to view and edit the Match-Merge operator and the Name and Address operator. Use the wizard editor. To edit Match-Merge operator and the Name and Address operators, right click on the operator in the mapping canvas and select Edit. Do not select Operator Properties. In a future release, the Operator Properties dialog will not be available for operators that have wizards.

VALIDATION AND GENERATION OF LARGE PROJECT SEEMS EXTREMELY SLOW (2998887)

Warehouse Builder may be slow to fetch and display the results of a validation for very large projects. This occurs when the memory available to Warehouse Builder is insufficient to allow all objects to remain in cache while fetching the validation results.

#### Workaround

If the validation or generation of a large project takes a significant amount of time, increase the amount of memory available to Warehouse Builder. If you launch Warehouse Builder from owbclient.bat, change the java command with maximum memory set to 80% of the available physical memory. For example:

```
..\..\jdk\jre\bin\java -Xms64M -Xmx512M -Dlimit=512M
```

Ensure you have physical memory available on your machine to accommodate this setting.

## **Correlated Commit**

TO LOAD MAPPINGS USING PEL, DISABLE CORRELATED COMMIT (2992304)

In this release, mappings that use partition exchange loading and correlated commit may fail.

### Workaround

Disable correlated commit.

## **Database Links**

DATABASE LINKS GENERATED WITH QUOTED LOWER LETTERS GIVES ORA-00942 (2720359)

If you update the database links module properties and set the user and/or password in lower case or mix of lower and upper case, the generated database link contains user and/or password in quoted lower or mixed case, and may result in ORA-00942. Configuration of database links (or registration of locations in releases after 9.0.4) will preserve the case of the username and password entered by the user when database links are generated. Therefore it is important to use the appropriate case for the referenced object; i.e. uppercase for Oracle and mixed case for some non-Oracle systems.

DATABASE LINKS THAT CONNECT TO GATEWAYS REQUIRE GLOBAL-NAMES SET TO FALSE (2789391)

Global-name setting should be set to false on the host of the Runtime Platform if you have database links that connect to a Gateway. This impacts the database

link that is created by the Importer. The installation notes advise that global-names are set to false.

REUSING DEPLOYED AND MIGRATED CONNECTORS VS. REDEPLOYING MAPS (3545736)

After you migrate from Warehouse Builder 9.2 to 10g, if you attempt to deploy mappings without deploying the associated connectors, you may encounter error *ORA-02019: Connection description for remote database not found.* 

### Workaround

Ensure that the GLOBAL\_NAME for the source and target are the same. To determine if they are the same, run the following statement in the source and target instances:

```
SELECT * FROM GLOBAL_NAME;
```

If the names are different, redeploy the connectors and packages that use these connectors.

## **Deployment Manager**

DEPLOYMENT MANAGER SHOWS NO INDICATION THAT UPGRADE GENERATION HAS FAILED (2786899)

The Deployment Manager may incorrectly display the deployment status for a failed upgrade. The Deployment Results dialog may report an upgrade as successful when it failed or was never deployed because the impact report indicated errors.

#### Workaround

To determine the correct status, do one of the following:

View the deployment status in the Runtime Audit Browser.

OR

In the Deployment Results Dialog, in the top grid, click on the row containing the upgraded object. The details grid displays the detailed result message for that upgrade.

ORA-12154 UNABLE TO RESOLVE TNS NAME ERROR (2935974)

You may encounter the error message ORA-12154 when you deploy objects. This error occurs when you type an invalid NetServiceName in the location registration dialog. Warehouse Builder does not currently validate the NetServicesName in the location registration dialog.

DATABASE LINK GETS GENERATED EVEN THOUGH LOCATION IS LOCAL (2682262)

In some cases, Warehouse Builder may generate a database link when one is not required and is not used.

LOCATION NAMES MUST BE UNIQUE WITHIN A RUNTIME REPOSITORY (2712901)

Errors occur during deployment due to limitations in the way locations are identified. These errors occur if you use locations with the same name or if you use locations previously deployed from another project.

After deploying to a location for the first time, an internal identifier is registered to the location and is used to identify the location as unique between the design and runtime repositories. Errors will occur if you try to deploy using the same location from another project. This can happen if you import a project that contains the previously used location and attempt to use it during a deployment. Additionally, all location names must be unique within a runtime repository. Renaming locations does not change the internal identifier, so an error would still occur if you only re-name the location.

### Workaround

- **1.** Create new locations for each project and do not re-use locations across projects.
- **2.** Use a naming convention when creating locations and do not duplicate the names of any locations.
- **3.** When working with an exported or imported project, replace all locations by creating new locations.

ERROR PROCESSING DEPENDENCIES MAY CAUSE DEPLOYMENT TO FAIL (2944626)

A deployment may not be possible if errors occur when processing the dependencies between objects selected for Upgrade. There is a particular problem when renamed objects are deployed with the Upgrade action. This will cause errors to be seen in the Upgrade Impact Report and you will not be able to proceed with the deployment.

### Workaround

Upgrade the objects individually with the following strategies:

- 1. Upgrade all Dimensions before upgrading any objects that reference them.
- **2.** Upgrade all Materialized Views before upgrading any objects they reference. If this is not possible then, drop the altered Materialized Views, upgrade any objects they reference, and create the altered Materialized Views.

NEW NAMES FOR CUBES, DIMENSIONS, MATERIALIZED VIEWS, AND TABLES NOT PROPAGATED TO IMPACT REPORTS (2970967, 2970970)

In this release you cannot rename Cube, Dimension, Materialized View, and Table operators in Warehouse Builder. If you rename these objects, the new names are not propagated to the Lineage Impact Analysis report.

PROCESS FLOW LOCATIONS FOR WORKFLOW 2.6 NOT UPGRADED CORRECTLY (3027103)

In this release, the Deployment Manager does not correctly upgrade process flow locations for Workflow 2.6.

#### Workaround

- 1. Open the properties sheet on the Process Flow location.
- **2.** Select the details tab and click on the version number
- **3.** Click OK on the properties sheet.
- **4.** Refresh the Deployment manager.
- **5.** Now you can set the deployment action in the Deployment Manager and deploy the Process Flow package.

DEPLOY MGR NOT DISPLAYING HISTORY - TWO LOCAITONS WITH SAME NAME IN REPO (3027073)

The Deployment Manager may incorrectly display all objects under a location as New and not previously deployed. This can be caused if there are two or more locations with the same name in the same Design Repository.

#### Workaround

Rename one of the locations.

DEPLOYMENT MANAGER NOT AWARE OF RUNTIME DATABASE SHUTDOWN (3547647)

The runtime repository connection is not aware of the runtime database shutdown after Warehouse Builder has connected to the runtime database. Thus, you may be able to open the Deployment Manager even while runtime database is down. And, even after a runtime database that is down is started again, Warehouse Builder may not be able to reconnect to it.

Workaround:

You need to restart the Warehouse Builder Client.

## Flat File Sources and Targets

FLAT FILE SAMPLE HANGS FOR LARGE EBCDIC FILES (2327414)

Flat file sample wizard may hang during sampling of large EBCDIC files. This is because, currently, when Warehouse Builder samples files, it assumes lines are <CR> delimited and the character set is ASCII.

### Workaround

Sample a small representative data sample file before sampling the entire file.

SPECIFYING PATHS FOR LOCATIONS FOR FLAT FILE AND EXTERNAL TABLES (2803476)

When using SQL\*Loader mappings, when you define flat file and external table locations that reference a Windows platform, include an additional directory separator following the path such as,

c:\temp\

and not

c:\temp

MAPPING USING FLAT FILE AS TARGET FAILS (3547516)

When you execute a mapping using a Flat File as target, you must set the utl\_file\_dir parameter. If the Flat File is set to a location D:\Directory\_Name\, then the utl\_file\_dir must also be set to the same location, D:\Directory\_Name\. If utl\_file\_dir is not set to D:\Directory\_Name\, the mapping will fail.

## Gateways

FETCH-ACROSS-COMMIT IS NOT SUPPORTED BY GENERIC HS COMPONENT OF THE DATABASE. (2585118, 2584812)

When you access non-Oracle Sources via gateways, you may encounter ORA-01002 FETCH OUT OF SEQUENCE ERROR IN PL/SQL. Fetch-across-commit is not supported by generic HS component of the database.

SELECT STATEMENT FOR THE VIEW IS NOT DISPLAYED FOR HSODBC SOURCE (2604966, 2627237)

When views are imported into Warehouse Builder from a non-Oracle Source, such as SQL SERVER, accessing via HSODBC, the SQL statement tab of the View properties does not contain the actual SQL used in creation of the view.

When views are imported into Warehouse Builder from Informix Source via Informix Gateway, the full query text is not returned by the gateway, when running an Oracle 9*i* database. Only first 64 characters of the query are returned by the gateway. The full query text of the view is returned by the gateway only if you are running an Oracle 10*g* database.

GATEWAY LOCATION CONNECTION NOT VERIFIED PRIOR TO RUNTIME REGISTRATION (2806240)

When you register a Gateway location in the Deployment Manager or through OMB Plus, Warehouse Builder currently does not verify the connection details.

#### Workaround

To access tables from an RDB gateway, configure each table in a mapping and specify an existing database link to be used to access the object. You can use the dblink property of the mapping and specify a dblink manually outside of Warehouse Builder. This results in a select statement such as

select .... from 'table@dblink'

## Mapping Debugger

DO NOT SET BREAKPOINTS FOR OPERATORS OR MAPPINGS THAT CANNOT BE STEPPED THROUGH (2887323, 2981111)

For mappings with multiple targets and correlated commit set to true, you cannot set breakpoints on the targets. If you set a breakpoint on an operator that does not permit stepping through, Warehouse Builder discards the breakpoint. Setting breakpoints on the following operators is ineffective:

- Sequence
- Mapping input parameters
- Mapping output parameters
- Pre-map process
- Post-map process
- Procedure with no inputs
- Procedure with no outputs
- Constant

MAP EXECUTION DONE MESSAGE COMES UP BEFORE RESULTS ARE DISPLAYED (2887449)

In the current release, the Debugger displays a message that the mapping execution is complete, the progress bar continues to show activity, and then

displays the debugging results. This is incorrect. The message that the mapping execution is complete should not appear until after the debugging results display.

DEBUGGER DISPLAYS TWO ROWS IN WATCH POINT TAB FOR CONSTANT AND MAPPING INPUT PARAMETER OPERATOR (2962621)

In this release, the Debugger incorrectly displays the Constant and Mapping Input Parameter operator as having two rows in the watch point tab.

DEBUGGER DOES NOT SUPPORT ADVANCED QUEUES (2979844)

In this release, the Debugger does not support debugging of Advanced Queues.

DEBUGGER CREATES LOG FILE (2983137)

The Debugger creates a log file called debugger.log in the <owb home>\owb\bin\admin directory. The log file includes each step processed during mapping debug sessions and the generated code. Delete this file if it becomes very large.

DEBUGGER MAY ALLOW YOU TO EDIT MAPPINGS (2996824, 2981614, 2976127, 3020874)

In this release, the Debugger may give you error messages but incorrectly allow you to edit a mapping while in the debug mode. Do not edit a mapping during a debugger session.

#### Workaround

- 1. Stop the Debugger.
- **2.** Edit the mapping.
- 3. Restart the Debugger.

ORA-00972: IDENTIFIER IS TOO LONG MSG SHOWS FOR NON-ORACLE SOURCES MAP (3012621)

When you run the Mapping Debugger in indirect access mode on a mapping with a non-Oracle source, you may encounter error ORA-00972. This occurs when you specify a database link with a name greater than 30 characters.

### Workaround

Specify a database link name with 30 characters or less.

CANNOT COPY A SAP SOURCE TABLE IN DEFINE TEST DATA (3014556)

In this release, you may encounter warning message

ORA-01861: literal does not match format string

when you use the Create New table option for an SAP source table in the define test data.

DEBUGGING MAP WITH OPERATORS HAVING THE SAME NAME IN BUSINESS NAME MODE (3029309)

When you debug a mapping with naming mode set to business name mode and propagation to physical name selected, the debugger may not display all operators when you attempt to pick the next step.

#### Workaround

Debugging mappings with naming mode set to physical naming mode.

## **Mapping Designs and Configurations**

MATERIALIZED VIEW QUERY REWRITE (1364923)

By default, Warehouse Builder creates unique key constraint on each dimension level and generates a unique key constraint for the dimension table for the lowest or standalone level. Because unique keys allow null values, this can be a problem for materialized view query rewrite. The query is not redirected to the materialized view. The problem is a materialized delta join, which is a join that occurs in the materialized view but not in the query. You must guarantee LOSSLESSNESS for a join in the materialized view you want to discard.

You can do this with a foreign key relationship and a NOT NULL constraint on the foreign key column. Or, you can use an outer join (for the dimension join key column) and a NOT NULL constraint on the join key column in the fact (foreign key column).

### Workaround

Open the dimension table properties and change the constraint type to Primary Key for all lowest level and standalone level constraints.

UNPREDICTABLE OUTCOME FOR SET BASED FAIL OVER RUNS TO MULTIPLE TARGETS (1807064)

Where multiple targets are involved, the order of the mappings to those targets is unpredictable, and may vary from one generation to the next for exactly the same mapping. In failover modes, if any of the batch procedures fail, it will skip the rest of the set-based processing. If the mapping has errors for one table but not for the other, it is unpredictable whether the mapping without errors will run in set-based or row-based mode. This has the following implications:

- Performance
- In certain cases, the mapping that would have run in set-based mode may not run in row-based mode (for example, if it is TRUNCATE/INSERT that requires foreign key disablement).

### Workaround

Consider running mappings with multiple targets with correlated commit set to true. Review the documentation on correlated commit in the Oracle Warehouse Builder User's Guide.

MAPPING WITH TRUNCATE/INSERT OR INSERT AND PARALLEL ROW CODE SET TO YES (2698141, 2706928)

The execution of a table function may fail with internal errors when a cursor referring to a remote table is passed as an argument to the table function. This problem occurs when you set Parallel Row Code to 'true'.

#### Workaround

Generate mappings with the above characteristics in with Parallel Row Code set to 'false'.

MAPPING CONTAINING A TABLE FUNCTION OPERATOR RETURNING A TABLE OF SCALAR IN SET BASED MODE (2702085, 2708816)

Execution of a mapping containing a Table Function operator, whose outgroup property 'Return Table of scalar' is set to 'True', fails with an ora-22905 error. The issue is with a scalar argument to the table function being called with a PL/SQL variable as the formal parameter.

#### Workaround

Avoid mappings with the characteristics described above.

CONSTRAINT PROPERTIES FOR LOADING AND MATCHING NOT UPDATED WHEN RECONCILED (2447219)

Changes to constraint properties, such as primary key column properties, are not updated in mappings during inbound reconcile.

### Workaround

- 1. Set the properties manually.
- 2. Click Advanced under Match by constraint.

PARALLEL ROW CODE = Y - MAPPING RUNS FOR 90 MIN IN ROW MODE AND FAILS (2761711, 2763192)

When the query containing a full outer join is passed as a ref-cursor parameter to the table function, during execution, wrong number of rows is fetched.

#### Workaround

Avoid mappings that result in full outer join being used as a ref cursor parameter to a table function.

VALIDATION ERROR WHEN PARALLEL ROW CODE NOT GENERATED (2761724)

Warehouse Builder reports Error VLD-1127 or VLD-1125 when a mapping has Parallel Row Code is set to true and Warehouse Builder cannot the generate parallel code due to any of the following restrictions:

- When the input cursor refers to objects (tables, views, etc.) in remote schemas. For example, a mapping containing a table operator bound to a table in a remote database schema cannot be executed in parallel.
- Table functions cannot take a sequence as an input.
- Table functions allow map input variables (which are implemented as package variables in Warehouse Builder) to be passed as parameters. However, package variables are treated as process local variables during parallel execution because the Oracle parallel query engine starts a different session for each parallel query slave (process). Since package variables are not shared across sessions and therefore, by parallel slaves, the final value of package variables, if written to by the slaves, is undefined. Therefore, package variables should not be passed as IN OUT or OUT parameters to parallelizable table functions.
- Warehouse Builder cannot parallelize mappings containing Mapping Input Parameters.
- When the input cursor passed to a table function refers to objects in non-Oracle databases. The Oracle database server parallel engine cannot extract parallelism when the objects are accessed via Oracle gateway. For example, when a mapping contains a table operator that is bounded to a table in DB2 database, the mapping will not be executed in parallel.
- Warehouse Builder cannot parallelize mappings that contain tables with triggers such before-row or after-row triggers.
- Updates and deletes can only be parallelized on partitioned tables. Update and delete parallelism is not possible within a partition, nor on a

non-partitioned table. For example, if a mapping contains a table operator with a delete/update load, the target table must be partitioned.

Delete on tables having a foreign key with delete cascade is not parallelized.

#### Workaround

Set the Parallel Row Code option to false.

The parallel row code mapping configuration option cannot be used in the following circumstances since 'Parallel' code uses a database feature called table functions.

### INTERNAL TABLES CANNOT BE CONFIGURED (2062170)

While trying to configure a map which has SAP tables as its source to generate ABAP code, the configuration properties sub-screen has a parameter 'Use Internal tables' whose default value is 'FALSE'. If the default value of this parameter is changed to 'TRUE' no change will be reflected in the ABAP code that will be generated.

POST MAPPING PROCESS RUNS REGARDLESS OF SUCCESS/FAILURE OF MAPPING (2577706, 2797671)

The mapping return status has one of three values:

- SUCCESS Mapping completes successfully with no errors
- WARNING Mapping completes with errors but not over the max error limit
- ERROR Mapping does not complete OR mapping has errors over the max error limit

The Maximum Number of Errors parameter applies to the count of errors for the entire mapping run, whether run in set-based, row-based, or failover modes. Consider the following cases:

- Max number of errors set to 50, mapping run in set-based mode. Data did not load successfully. One error resulted from failure of the set-based load DML statement. Mapping return status is "WARNING".
- Max number of errors set to 50, mapping run in set-based mode, "Enable constraint" property set to false. Data loaded successfully but 60 constraint violation errors occurred during re-enabling of constraint. Mapping return status is "ERROR".
- Max number of errors set to 50, mapping run in row-based mode. Some data loaded successfully but with many errors. Mapping will terminate after hitting the 50th error. Mapping return status is "ERROR".
- Max number of errors set to 50, mapping run in set-based failover to row-based mode. Data did not load successfully in set-based process. One error resulted from failure of the set-based load DML statement. Some data loaded successfully in row-based process but with many errors. Mapping will terminate after hitting the 49th error in row-based because there was one error counted in set-based. Mapping return status is "ERROR".

UNIQUE KEY VIOLATED DURING EXECUTION OF SQL\*LOADER MAPPING, RESULTS SHOW NO PROBLEMS (2761777)

In previous releases, the DIRECT setting for SQL\*Loader mappings defaulted to TRUE. Beginning in Warehouse Builder 9.2, the DIRECT setting for SQL\*Loader

mappings now defaults to FALSE. If you wish to set DIRECT to TRUE to get better performance please read the restrictions on the DIRECT load option in the SQL\*Loader documentation.

CHOOSE LEADING SOURCE DIALOG NOT FUNCTIONING PROPERLY (2859423)

When you debug a mapping with a Joiner operator, the Debugger prompts you to select the leading source for the join. In this release, the user interface allows you to cancel the Choose Leading Source dialog without selecting a leading source. This is incorrect. You must select a leading source.

UNIQUE KEY DROP DOWN LIST ONLY SHOWS THE DEFAULT LEVEL UNIQUE KEY (2989450)

Warehouse Builder generates a unique key on the dimension table when you create a level. In the cube wizard and cube property sheet, you can create foreign keys on the fact table to refer to these generated dimension unique keys. In addition, you can create any number of custom unique keys on the dimension table. If you need to refer to these custom unique keys, use the table property sheet of the fact table. To do this, open cube editor, click Launch table property sheet under the Fact menu. Go to foreign key tab to create a foreign key to refer to any generated or custom unique key on the dimension table.

MAPPINGS WITH AQ OPERATOR MIDSTREAM AND PARALLEL SET TO TRUE GIVES INCORRECT RESULTS (2996088)

A mapping may generate incorrect results if it includes an AQ operator midstream and parallel is set to true. The AQ operator is considered midstream if it is neither a source or target but an intermediate operator in the mapping.

#### Workaround

To use an AQ operator midstream, set parallel to false.

## **MDL** Import and Export

MDL EXPORT FROM SCRIPTING OR COMMAND LINE MDL

Create a MDL Control file and specify the keyword SUPPORTEDLANGUAGESID to export the Other (supported) Languages in the MDL data file. For example, the wildcard indicates to export all other languages in the following:

SUPPORTEDLANGUAGESID=\*

If you have a specific language to export (e.g., repository contains more than one supported language), then specify the language ISO id such as the following for Spanish:

SUPPORTEDLANGUAGESID=es\_ES

Below is an example of the OMBEXPORT command using a MDL control file:

OMBEXPORT TO MDL\_FILE 'd:/mdl/exp1.mdl' FROM PROJECT 'MY\_PROJECT' CONTROL\_FILE 'd:/mdl/parameters.ctl' OUTPUT LOG TO 'd:/mdl/exp1.log'

Exporting the Other (supported) Languages from the OWB client (Metadata Export) is not available.

## Migration

WAREHOUSE BUILDER DOES NOT SUPPORT MIGRATION INVOLVING DATABASE UPGRADES WHILE SWITCHING CHARACTER SETS (3582171)

Warehouse Builder does not support migration for database upgrades while switching character sets. For example, if you are migrating a runtime target schema from an Oracle 8*i* instance and importing it into Warehouse Builder 10*g* running on an Oracle 9*i* instance, then you will encounter errors.

## Multi-Byte Characters in Translation

WAREHOUSE BUILDER FLAT FILE SAMPLE WIZARD COUNTS A MULTI-BYTE CHARACTER LENGTH AS 1 (3066632)

The Warehouse Builder Flat File Sample Wizard does not handle multi-byte characters in delimited files correctly, when translated into Japanese. The Sample Wizard handles a multi-byte character in delimited files as 1 length.

#### Workaround

You need to manually edit the length using the Flat File Sample Wizard.

DEPLOYING A TARGET MAPPING SCRIPT FAILS WHEN NLS IS USED FOR SOURCE MODULE NAME (3229915)

The deployment of a target mapping script fails (error ORA-02083) if a translated source module name uses multi-byte characters. The generated script creates a "CREATE DATABASE LINK" statement with NLS DB\_LINK, which is the translated source module name. The "CREATE DATABASE LINK" statement does not support this NLS DB\_LINK name.

### Workaround

Use a single-byte-character for the source module name, for example, SOURCE@DATABASE

NLS : WAREHOUSE BUILDER CANNOT GENERATE UPGRADE SCRIPTS FOR OBJECTS USING MULTI-BYTE CHARACTER (3100554)

Warehouse Builder cannot generate upgrade scripts for objects using multi-byte characters in their definitions, for example, in the object name or column name.

There is no work around for this bug in the current release.

WAREHOUSE BUILDER DESIGN BROWSER IS NOT TRANSLATED INTO JAPANESE (2844894)

The Warehouse Builder design browser is only translated with iAS integration. The design browser client will be translated for stand alone versions as well in the next release.

## Multiple Name and Address Software Providers

USER REQUIRED TO SPECIFY LENGTH FIELDS FOR NAME AND ADDRESS COMPONENTS(3003335)

The Warehouse Builder default length field for name and address output components is zero. To process name and address components properly, you must populate the length fields for all specified components. Refer to your Name Address service provider documentation for acceptable length values.

## **Multiple User Notes**

The following scenarios describe the current multiple user functionality.

### **SCENARIO 1**

The Deployment Manager performs a commit after generation is performed, which unlocks the objects. These objects can be altered in OMB Plus. When the Deployment Manager is invoked from the console, this commit is not performed, and the objects remain locked until a commit is performed manually.

The deployment commit is required to ensure consistency between the runtime and design repositories. In Warehouse Builder, there are two commits: one as soon as you press 'Deploy' (which displays a Commit dialog box to the user), and the second is performed immediately after the generation is complete. As a result, the second commit only commits the generated results.

After the generation is performed, and the Pre Deployment Generation results screen is displayed, the generated scripts are passed to the runtime platform in preparation for the deployment. Users may continue to change the design objects without affecting the deployment (this could be through another client, or OMB).

### **SCENARIO 2**

Object is not locked. When you open the editor or property sheet, the object gets locked (other sessions UI or OMB users trying to access object obtain it read-only mode). You do not make any changes and then you close the editor or property sheet. The lock is released.

## **SCENARIO 3**

For many objects, when configuration properties are opened, validation is performed 'underground'. The object is altered and the lock is not released even when you close the configuration properties. However, validation only occurs for a newly created object or for an updated object. If you open or close the configuration parameters window for a non-modified object, the lock will be released.

PROBLEMS WHEN RUNNING CONCURRENT WAREHOUSE BUILDER SESSIONS FROM THE SAME OWB\_HOME (2990726)

Whether you start multiple sessions from the Warehouse Builder client, or OMB Plus, or both, you may encounter problems using Cut/Copy/Paste in the client or the OMBCOPY OMBMOVE scripting commands in OMB Plus. This is because Warehouse Builder currently allows only a single clipboard. You may encounter the following issues:

- If you attempt to write to the clipboard while another session writes to the clipboard, your operation fails.
- If you attempt to read from the clipboard while another session reads from the clipboard, the results are unpredictable. The operation may fail outright or perform only a partial import.
- If you attempt to read from the clipboard while another session writes to the clipboard, Warehouse Builder may import the incorrect clipboard contents.
   The chance of a successful import is unpredictable.

## Workaround

Do not attempt to use the clipboard in a separate session. Complete its use in one session before you use another session.

### **OLAP**

9.2.0.3.1 OLAP SERVER PATCH DEPENDENCY FOR OLAP (2774351)

To use the OLAP Analytical Workspace with Warehouse Builder, you need to apply the Oracle database 9.2.0.3.0 patch, patch #2897078 for Windows or patch #2761332 for Sun Solaris. You also must apply patch OLAP 9.2.0.3.1.

CWM2 IN OLAP DOES NOT SUPPORT HIERARCHIAL AND LIST DIMENSIONS (2978324)

CWM2 in OLAP does not support dimensions of type hierarchical and list. A dimension must be one type or the other. In this release, Warehouse Builder gives no warning of this when you design, validate, or deploy dimension. If you execute the bridge, the dimension can be cloned in the AW. If the OLAP API is enabled, only one type will be projected.

## **Oracle Enterprise Manager**

PERF: OEM JOB EXECUTION PERFORMANCE ISSUE (2614173)

When executing jobs through OEM there is a significant delay between the job actually completing as seen in OEM console and the runtime platform being notified by OEM that the job has completed. The job completes successfully, but there is a 50 second delay.

#### Workaround

Wait a minute or two for the notification.

## **OMB Plus**

OMB PLUS RETURNS EXCEPTION ERROR AND HANGS WHEN DOUBLE QUOTES ARE NOT MATCHED IN A REGULAR EXPRESSION. (2778229)

Due to a known issue in Jacl, OMB Plus can return an exception and then hang. This occurs when the double quotes in a string are not matched by a regular expression.

OMB Plus returns the following exception:

Exception in thread "main" java.lang.StringIndexOutOfBoundsException: String index out of range: -1

## Workaround

In the script always match the double quotes in the regular expression.

## **Process Flows**

PROCESS FLOWS NOT AVAILABLE FOR USE WITH ORACLE 8.1.7 DATABASE

Due to limitations in the Oracle 8.1.7 database, Warehouse Builder does not support deployment of process flows to that version of the database.

PASTE NOT AN OPTION WHEN COPY PROCESS FLOW FROM ONE PROJECT INTO ANOTHER (2803158)

Although you can copy a process flow, you cannot paste the process flow into another project. This is because the reconcile option is not available for a process flow in this release.

PROCESS FLOW HANGS WHEN THE PROCESS FLOW INCLUDES A MAPPING OR EXTERNAL PROCESS WITH THE SAME NAMES AS THE PROCESS FLOW (2823721)

A process flow hangs when you attempt to execute a mapping activity or external process activity with the same name as the process flow that contains it.

### Workaround

For reliable deployment and execution, assign unique names to all process flows, mappings, and external processes deployed to the same runtime platform. Rename either the process flow or the mapping or external process. If you rename the mapping, you must delete the mapping activity from the process flow and add the newly renamed mapping activity to the activity.

## **RAC**

Oracle Warehouse Builder 10*g* is currently not certified for use with a RAC database.

OWB INSTALLATION ON RAC FAILED WITH FILE-COPYING PROBLEM (3567100)

When installing Oracle Warehouse Builder 10g on RAC nodes, you must use Local Installation Mode.

UNABLE TO CREATE RUNTIME REPOSITORY ON RAC DATABASE (3569889)

When you attempt to create a Runtime Repository on 10g RAC DB, the installation may fail with the error code INS-0029.

### Runtime Audit Browser

The Oracle Net Service field has been added to the following pages:

- Client Version Login Page
- Portal Version Create DB Link Page
- Portal Version Edit DB Link Page

For the field, type the trsname for the database. The trsname contains the Service Name in the trsnames.ora file. Maximum Length: 30 Characters.

Database locations can be defined using either Host Name, Port Number and Service Name or using Net Service Name and Service Name. Net Service Name is a name that is defined in your tnsnames.ora file. A Net ServiceName should be defined in the appropriate Oracle Home. For example, to deploy to a location identified by Net Service Name the name should be defined in the Oracle Home of the Runtime Platform Service. Database links are generated in the form <service-name>@<connector-name>. If you have global-names set to true, it is important that the service-name you specify for the location matches the global-name of the database you want to link to.

## Security

SECURITY CAN NOT HANDLE FOR SERVICES WHEN PROJECT IS FROZEN (2661282)

In this release, certain service level operations including mdl import, mdl export, and generate are not disabled for frozen projects. You may decide to take other measures to prevent intrusive operation such as these.

MAPPINGS CONFIGURED TO MERGE DATA INTO A TARGET PROTECTED BY VIRTUAL PRIVATE DATABASES (VPD) RESULT IN ERROR

When you attempt to run a mapping with the loading option set to MERGE and the target has a VPD schema applied to it, the Oracle database generates the error message 'ORA-28132: Merge into syntax does not support security policy'. This occurs in mappings in Warehouse Builder 9i and higher releases only.

#### Workaround

To avoid this error, choose the solution that meets your security criteria:

Exempt the Warehouse Builder target schema owner from the VPD policy by granting the user the 'EXEMPT ACCESS POLICY' privilege. See note 174799.1 on <a href="http://metalink.oracle.com">http://metalink.oracle.com</a>.

Apply the VPD policy only on the select privilege. This solution is more appropriate where security concerns prevent granting the EXEMPT ACCESS POLICY to the Warehouse Builder target schema user. When applying the security policy, the command should be similar to the following:

```
Execute dbms_rls.add_policy('WH', 'SALES', 'SALES_ACC_
POLICY', 'WH', 'SALES_ACC_FUNC', 'SELECT')
```

When the SALES table under the WH schema is referenced in a query or subquery (SELECT access), the server calls the SALES\_ACC\_FUNC function under the WH schema. This function returns a predicate specific to the current user for the SALES\_ACC\_POLICY policy. This enables Warehouse Builder to run merge statements in the WH schema, and also enables the convenient VPD data protection and partition for the reporting users.

If stringent security policies do not permit the above solutions, you can force Warehouse Builder to generate INSERT/UPDATE statements instead of the MERGE statement. You can set the version of the target schema to 8i when creating the target module and deploy the generated the code into a file. Since Oracle 8i does not support MERGE, Warehouse Builder always generates INSERT/UPDATE syntax for an 8i module. Then deploy the generated file to the target schema using the Warehouse Builder scripting language. You will not be able to directly deploy to the 9i or higher database from an Oracle 8i module.

Or, design your mappings so that the insert and the update statements can be isolated and executed separately. This could degrade the performance. For example, from a single mapping you can create two mappings such that one mapping performs all the inserts and a second mapping performs all the updates.

## SQL\*Loader

PRE-MODEL AND POST-MODEL TRIGGERS FOR SQL\*LOADER (1524760)

Pre-model and post-model triggers for SQL\*Loader do not function correctly.

#### Workaround

You can define an external process for the function that you wanted in the pre or post mapping triggers and use OEM or Workflow to call the external processes before or after the SQL\*Loader mapping.

THE CONFIG PARAMS FOR NAME AND LOCATION OF SQLLOADER CONTROL AND LOG FILE (2793993)

Using the Configuration Properties sheet, it is possible to specify the name and location for a SQL\*Loader Control file and its Log file. Any values specified against these Configuration properties will not have any effect and the Runtime will use default values.

## **Upgrade**

WAREHOUSE UPGRADE CANNOT DELETE AN INDEX (1477144, 1668554)

The Warehouse Upgrade does not drop an index from the data warehouse when you delete that index from the model in the Warehouse Builder repository. The upgrade script is created and deployed successfully but the index remains in the database.

#### Workaround

Use another database tool external to Warehouse Builder (such as, SQL\*Plus, or Enterprise Manager) to drop the index.

PARTITION VALUES AND WAREHOUSE UPGRADE SCRIPTS (1811047)

Warehouse Upgrade scripts are incorrectly generated for objects that have had partition values changed or new partition keys added to a previously deployed partition.

### Workaround

Using an external Oracle database tool (SQL\*Plus or Enterprise Manager), drop the partition and then recreate it.

GENERATING UPGRADE SCRIPTS USING RTP ON HP-UX (3102139)

Warehouse Builder fails to generate upgrade scripts using the Runtime Platform on HP-UX. You may receive the following message from the Deployment Manager:

RPE-01008: Recovery of this request is in progress.

RTC-5351: A serious error occurred whilst generating the Impact Report. Please review the Runtime Service Log.

Workaround

The JVM is searching for a 32-bit libocijdbc9.sl located under \$ORACLE\_HOME/lib32. You need to set the SHLIB\_PATH environment variable to get to the 32-bit library.

Edit the file run\_service.sh located under <OWB\_home>/owb/bin/unix

Add the following lines:

```
SHLIB_PATH=${RTHOME}/lib32:${SHLIB_PATH}
export SHLIB_PATH
```

Then stop the service using stop\_service.sql and start the service using start\_service.sql.

ORACLE 9i SCHEMA MUST BE RUNNING WHEN YOU UPGRADE WORKFLOWS FROM 9i TO 10g USING THE FULL DATABASE EXPORT OPTION

To correctly perform a full database export and upgrade workflows from 9i to 10g, complete the following steps:

- 1. From Warehouse Builder 9i, run the full export from the 9i database.
- **2.** Restart the 9i database.
- **3.** From Warehouse Builder 10g, run the import to the 10g database.
- **4.** Run the design repository upgrade script.
- 5. Run the runtime repository upgrade script.
- **6.** In Warehouse Builder 10g, re-register the workflow location to the 10g schema.

If you upgrade workflows from Oracle 9i to Oracle 10g without the Oracle9i database running, you encounter error code 12541: Failed to connect to this OWF instance using <connect string>. OWF was NOT upgraded.

#### Workaround

If you encounter error 12541, create the 10g workflow environment in the Warehouse Builder client.

## Warehouse Builder Browser

CANNOT MINIMIZE WAREHOUSE BUILDER BROWSER PORTLETS ADDED TO ORACLE9iAS PORTAL (2429528)

OWB Browser portlets cannot be minimized. The COLLAPSED portlets feature is only supported from 9iAS version 9.0.2 and higher.

## RESTRICTIONS FOR USING LINEAGE IMPACT ANALYSIS REPORTS

Lineage Impact Analysis reports do not work on an Oracle 9.0.1 instance if the original XML toolkit (version 9.0.1) is installed. Make sure a higher version is installed in the SYS schema. This problem does not occur in 9.0.2.

Lineage Impact Analysis reports do not work on an Oracle 9.0.1 instance if the Warehouse Builder repository is installed into a non-default tablespace with Locally Managed and Segment Management Clause set to AUTO. The reports do work in Warehouse Builder repository is installed into a default tablespace.

Install the Warehouse Builder Browser schema into a iAS instance, not the Warehouse Builder Repository instance.

## XML Toolkit

Due to limitations in Oracle 8i and 9i Release 1 of the database, when applying the style sheet, the Warehouse Builder XML Toolkit is limited by memory of the JVM process in the server. It is advisable to use XML files, less than 10MB, that require no style sheet or use a simple style sheet. Larger XML files can be

handled if the document splitter feature is utilized, otherwise use SQL\*Loader. In Oracle 9.2 of the database, the XML features will alleviate these issues.

## **Documentation Errata**

## Chapter 10: Designing Process Flows, page 10-16

Under the heading File Exists, the following text is wrongly stated: In the Activities panel, type a string value for the path of the file.

The correct text is as follows: In the Activities panel, type a string value for the name of the file. You must type only the file name and not the file path in the Activities panel. Otherwise, the process flow will fail.

### Express Bridges Not Supported in Warehouse Builder 10g Release 1 (10.1)

Beginning in this release, Warehouse Builder no longer supports Express bridges. All reference to the Express Bridges in the User's Guide are outdated. Please ignore the following references in the User's Guide:

- Chapter 2: Getting Started with Warehouse Builder, Using the Warehouse Builder Transfer Wizard, p.2-28
- Chapter 22: Integrating Warehouse Builder Metadata with Other BI Products, references to the Express Bridge throughout the chapter.

### **Remote Execution**

Beginning in this release, you can use the script <code>owb/rtp/sql/set\_oem\_home.sql</code> to configure the Warehouse Builder Runtime Service to use the correct OEM client code when accessing an OEM server.

For each supported OEM version, configure the Runtime Service differently when running on Windows or UNIX. To execute the script from the SQL Plus prompt, enter the following command:

```
sqlplus repowner/repowner@repos @set_oem_home.sql
%OEM_VERSION% %OS% %RT_HOME% %DB_HOME%
```

## where

OEM\_VERSION identifies on which platform this configuration applies. Valid values include 10.1 or 9.2 or 9.0.

OS is the operating system. Valid values include NT (for Windows) or UNIX.

RT\_HOME is the Oracle home folder of the OWB Runtime ServiceDB\_HOME.

DB\_HOME is the Oracle home folder which contains the version of the OEM client.

For example, enter a command similar to the following:

```
sqlplus repowner/repowner@repos @set_oem_home.sql
9.2 NT d:\oracle\owbhome d:\oracle\oemhome
```

## **Resolved Issues**

This release also includes all bug fixes for the 9.2.0.4 patch release.

2708335, 2711993 INSERT/UPDATE: DIFFERENT NUMBER OF ROWS IN DIFF MODES

2936225 MAPPING GENERATES INCORRECT RESULTS WHEN CORRELATED COMMIT SET TO TRUE AND OPERATING MODE AT SET BASED FAIL OVER TO ROW BASED.

3031142 SAMPLING A FIXED LENGTH FLAT FILE WITH A DECIMAL FIELD ISSUES ERROR INCORRECTLY

3031449 EXTERNAL TABLE MAY GENERATE INVALID RESULTS WHEN BASED ON A FLAT FILE WITH DECIMAL FIELD

3029007 INCONSISTENT BEHAVIOR IN OWB REPOSITORY ASSISTANT MAY IMPEDE SECURITY FUNCTIONALITY

2048683 RENAMING LARGE OBJECTS CAN TAKE SEVERAL MINUTES

2981639 RTC-5312: ERROR WHILE DEPLOYING A RDB GATEWAY MAP

2696005 PARALLEL ROW CODE MAPPING UNPIVOT + FULL OUTER JOIN DOWNSTREAM. DML TYPE TRUNCATE/INSERT

2711405 MAPPING CONTAING A TABLE FUNCTION OPERATOR WITHOUT BULK IS GIVING PROBLEMS IN EXECUTION

2711518 EXECUTION OF A MAPPING CONTAINING TWO TABLE FUNCTION OPERATORS APPEARING CONSECUTIVELY

2721852 UNEXPECTED DATA INSERTED INTO TARGET: MERGE AS SELECT FROM REMOTE SYNONYMS

2712141 DIFFERENT RESULTS IN ALL THREE MODES

3011029 MAPPINGS MAY FAIL TO EXECUTE OR DEPLOY ON ORACLE DATABASE 9.2

2974597 MAPPING WITH TABLE FUNCTIONS AND CASE OR DECODE STATEMENTS MAY FAIL

2804168, 2803645, 2805647 GENERATING DIMENSION SCRIPTS IN OMBPLUS OVERWRITES THE DIM-TABLE SCRIPT

3028355 DO NOT REMOVE LAST NODE FROM RUNTIME AUDIT BROWSER REPORT

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