Oracle® Applications InterConnect

Release Notes

Release 4.1 for Windows and UNIX

May 2001

Part No. A90368-01

These release notes accompany Oracle Applications InterConnect Release 4.1. This document contains the following topics:

- Patches
- New Features in this Release
- Changes from Previous Releases
- Known Issues
- Known Bugs

Patches

Apply the latest Oracle Applications InterConnect 4.1 patches available at MetaLink `<http://metalink.oracle.com>`.

New Features in this Release

The following features are new in this release of Oracle Applications InterConnect.

Oracle Applications InterConnect Name Changed to Oracle9*i*AS InterConnect

The name of Oracle Applications InterConnect has been changed to Oracle9iAS InterConnect. This new name will be reflected in the documentation for the next release.

Workflow Support

Oracle Applications InterConnect works with Oracle Workflow for business process collaborations. Oracle Workflow does not exist on Linux, therefore, Oracle Workflow and Oracle Applications InterConnect business collaboration is not supported for Linux.

Enhanced Advanced Queues Support

The AQ adapter has been enhanced to handle more than just XML payload. The payload can be RAW with XML data or it can be an Oracle Object where any field can contain XML data. This Oracle Object can be directly imported in iStudio.

SAP Adapter for the UNIX platform

The SAP adapter is available on the UNIX platform.

SAP ABAP Support

The SAP adapter supports ABAP function modules in addition to BAPIs and IDOCs.

Enhanced Array Mapping Support

iStudio provides graphical mapping of array attributes.

Password Encryption

All passwords stored in configuration files can now be encrypted. For more information, see the *Oracle Applications InterConnect Installation Guide*.

Metadata Updates to Running Adapters

When changes are made to the metadata through iStudio, an option to push this new metadata to any of the already running adapters is available. This can be accomplished using the Push Metadata option on the File menu in iStudio.

Remote Management

The Oracle Enterprise Manager Console includes the following features for remotely managing the adapters and repository. This list only represents a few of the available features.

- Start

- Stop
- View log files
- Edit `.ini` files

Throughput Measurement

Throughput management allows the user to monitor the throughput of adapters using the Oracle Enterprise Manager Console.

Message Tracking

Message tacking provides the ability to track any messages that flow through Oracle Applications InterConnect. To use this feature, select at least one Tracking field in iStudio. Messages can now be tracked by specifying values for any of these tracking fields in the Oracle Enterprise Manager Console.

Notification on Failure or Shutdown

Email and pager alerts can now be set using the Oracle Enterprise Manager Console to be triggered if an adapter or repository goes down.

Message Resubmission

Similar to previous releases, all errored-out messages are stored in the database. The Oracle Enterprise Manager Console now allows these messages to be viewed, modified, and resubmitted.

Changes from Previous Releases

The following topics describe changes made to Oracle Applications InterConnect since the last release.

Oracle Internet Directory is No Longer Necessary

Oracle Internet Directory is no longer necessary with Oracle Applications InterConnect Release 4.1. All necessary configuration is stored directly in the hub database. When creating a project in iStudio, the hub database connection information needs to be provided along with repository information.

Oracle Message Broker is No Longer Necessary

Oracle Message Broker is no longer necessary with Oracle Applications InterConnect Release 4.1. Oracle Applications InterConnect uses the Oracle JMS interface to Advanced Queues.

One File for Storing Adapters Configuration Information

All Oracle Applications InterConnect configuration parameters are now stored in one `adapter.ini` file, as opposed to many files such as the `adapter.ini`, `Agent.ini`, and `service.ini`.

Improved Adapter Logging

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

Persistence Files

To avoid filling the adapter directory with files, all persistence files containing persisted messages, cached metadata, and other information to ensure guaranteed and exactly once delivery, are stored in a the `persistence` directory.

Database Adapter with Enhanced Performance

The performance of the database adapter has been enhanced. This is realized only if the database hosting the Oracle Applications InterConnect schema has support for Oracle Objects (Oracle8*i* and higher).

Cascading Deletion and Referential Integrity of Integration Objects in iStudio

When deleting an object, any objects referred to by that object are deleted if they are not referenced by other objects. For example, a Customer object contains an Address object. When the Customer object is deleted, the Address object is also deleted. If another object exists, such as Purchase Order that contains Address, then Address is not deleted. In addition, the Address object can not be deleted directly because it is referenced by another object.

Importing Data Types

iStudio supports importing attributes of other iStudio data types.

Known Issues

The following lists the system limitations and known issues of specific Oracle Applications InterConnect components.

Size of Messages Limited by Oracle Advanced Queue

The size of the messages is limited by Advanced Queue. See the Oracle Advanced Queue and the accompanying Oracle JMS interface for the Oracle Advanced Queues for maximum message sizes.

JIT Warning

The publishing and invoking adapter may display the following exception which can be safely ignored:

```
A nonfatal internal JIT (3.00.072b(x)) error 'ResolveItem64' has
occurred in: 'oracle/sql/NUMBER.toBytes (Ljava/math/BigDecimal;)[B':
Interpreting method. Please report this error in detail to
http://java.sun.com/cgi-bin/bugreport.cgi
```

This is a known issue which has already been reported to Sun Microsystems, Inc. For further details see:

```
http://developer.java.sun.com/developer/bugParade/bugs/4237260.html
```

Application Error Handling

In case of application errors when trying to deliver a message, the Oracle Applications InterConnect runtime tries to deliver this message every minute until it succeeds or until it is informed to ignore the error message. The user should run the `ignoreErrors <error code>` command from within the adapter directory to inform Oracle Applications InterConnect to ignore this application error and proceed with the next message. It only stores this error code in memory, so if this adapter is restarted, it does not remember to ignore this error code. The workaround is for the user to store these error codes in a file called `ErrorCodes.ini` in the adapter directory with one error code per line.

OutOfMemory Exceptions

If any `OutOfMemory` exceptions are noticed, it is possible the specified Maximum Heap Size for the Java Virtual Machine is not sufficient. Increase this by completing the following:

- Windows NT—Set an appropriate value for `service_max_heap_size` parameter in `adapter.ini` file.

- UNIX—Set an appropriate value for the `MAX_MEMORY` variable in the start script.

Importing XML in iStudio for XML/AQ Adapter Users

In previous versions of Oracle Applications InterConnect, users imported the DTD in iStudio and configured an application queue where the corresponding XML message could be picked up or placed in by the Oracle Applications InterConnect adapter. If the Advanced Queue had a RAW payload, the payload would be plain XML. If the Advanced Queue's payload was an ADT, the first CLOB attribute of this ADT should have contained the XML message.

> **Note:** For Advanced Queues with a RAW payload containing the XML string, there is **no change** in this release. This issue only affects users using Advanced Queues with an ADT payload.

In this release, the AQ adapter supports Oracle ADTs in addition to XML. This adapter provides complete flexibility to import the Advanced Queue's payload ADT. Therefore, any, some, or all of the attributes can be associated within this ADT to be of different XML types.

For example, a user needs to send a Customer and PurchaseOrder as part of one Oracle Applications InterConnect message. The corresponding DTDs are contained in the `Customer.DTD` and `PurchaseOrder.DTD` files. If an Oracle Advanced Queue is "inQueue" which contains an ADT payload (`Customer CLOB`, `CreationDate DATE`, and `PurchaseOrder BLOB`). In this example, the application is enqueuing an Oracle Object containing Customer XML adhering to `Customer.DTD`, a creation date, and a Purchase Order XML adhering to `PurchaseOrder.DTD`.

The following steps describe the tasks to perform in iStudio to perform the example above in iStudio:

1. Create iStudio datatypes corresponding to the XML DTDs by importing them.

For example, create an application datatype called `DTDs` and then select Import from XML to import `Customer.DTD`. Similarly import `PurchaseOrder.DTD` as well. After this step, select the Reload option from the File menu, then select the current project. This is a workaround for a known iStudio issue.

2. When creating published events, subscribed events, invoked procedures, or implemented procedures, import from the Database option on the Define Application View dialog.

> **Note:** Make sure to connect as the system user.

The three corresponding Oracle Applications InterConnect attributes: `Customer String`, `CreationDate Date`, and `PurchaseOrder String` are created in iStudio.

3. Change the datatype of the Customer attribute from string to the attribute created when `Customer.DTD` was imported. Similarly, change the datatype for the `PurchaseOrder` attribute to correspond to the one created using `PurchaseOrder.DTD`.

The rest of the process is the same as for other messages.

Oracle Applications InterConnect Management Infrastructure

The following are known issues for Oracle Applications InterConnect infrastructure.

- Refresh Adapters/Repositories displays the names of the adapters and repositories registered with the hub but does not get their status. Unknown status is represented by a yellow flag on the corresponding tree node.

- In order to determine the status of any adapter or repository, right-click on that adapter or repository to Get Status. A green flag indicates the entity is started, a red flag indicates it is stopped, and a yellow flag indicates the status is unknown.

- In order to be notified automatically on a failure or shutdown, right-click on the correct adapter or repository and select Alert on Shutdown.

- On an adapter or repository failure, an exception dialog displays when performing any function including Get Status.

- The Get Log File functionality is intended to be used only when an adapter is in non-debug mode. If the log file is too large, as in debug mode, look up the log file directly.

Recommended Minimum Database Parameter Values for Oracle Applications InterConnect Adapters

The following are recommended minimum database parameter values for Oracle Applications InterConnect adapters. These values must be changed in the `init.ora` file.

- `db_block_buffers = 3200`

- `shared_pool_size = 314572800`

- `large_pool_size = 61440000`

- `java_pool_size = 60971520`

Known Bugs

The following bugs are known to exist in the Oracle Applications InterConnect Release 4.1. Workarounds are provided when appropriate. The known bugs are grouped by process or component:

- Oracle Applications InterConnect Generic Bugs

- Oracle Applications InterConnect Adapter Bugs

- Oracle Applications InterConnect iStudio Bugs

Oracle Applications InterConnect Generic Bugs

Bug 1761263	Cannot use ID as the name for an attribute.
Description:	ID is used internally therefore, an attribute cannot be named ID.
Action:	None.

Oracle Applications InterConnect Adapter Bugs

Bug 1757939	Push metadata may cause adapters to crash on UNIX machines.
Description:	When using the Push Metadata option on the File menu in iStudio and an adapter is selected to push metadata to, the adapter may freeze.
Action:	Kill the adapter process and restart.

Bug 1761223	AQ adapter: an exception displays when an Oracle Applications InterConnect message does not match with Advanced Queue's ADT payload.
Description:	An exception displays in the AQ adapter when an Oracle Applications InterConnect message does not correctly correspond to the Advanced Queue's ADT payload.
Action:	Ensure that the corresponding type is created in iStudio by importing the Advanced Queue's payload. Do not create it manually.
Bug 1761233	An exception displays when stopping an adapter
Description:	An exception may display when stopping an adapter.
Action:	The exception can be ignored.

Oracle Applications InterConnect iStudio Bugs

Bug 1754341	Reloading a project after restarting the repository does not work.
Description:	If iStudio loses the connection to the repository, the Reload Project action does not work.
Action:	Re-open the project. For example, open the project from the File menu by selecting Open Project, then select the current project.
Bug 1732018	The default Wizard dialog flickers.
Description:	When deleting an attribute using the default Wizard dialog, the dialog automatically scrolls up and down. This may cause the Wizard dialog to flicker.
Action:	Resize the window.
Bug 1622170	PL/SQL code generation of variables needs a prefix.
Description:	The code that is generated for the PL/SQL packages matches the column names for the table. This creates a too_many_rows exception.
Action:	Edit the PL/SQL code and change the variables so they do not match any of the table variables.
Bug 1572813	Changing the name of an attribute may result in invalid event map conditions.
Description:	In some cases, changing the name of an attribute may cause event map conditions to be invalid as the old name is still used. For example, a customer message and an event map condition exists where Customer.FirstName=x. If the FirstName field is changed to FN, the Customer.FirstName=x event map condition is no longer a valid condition.

Action:	Re-create the event map.

Bug 1487847	**The application name in XREF and DVM tables are not updated when the application is renamed.**
Description:	If an application is renamed, the name of the application in the XREF and DVM tables need to be changed as well.
Action:	Edit the XREF and DVM tables by changing the name of the application.

Bug 1425572	**Importing a common view reuses existing ADTs rather than increasing the version.**
Description:	When defining the application view, if the common view is imported, an ADT is also created with the same attributes as the common view. The ADT is then reused every time a common view with the same name is imported even if the attributes of the common view changed.
Action:	After modifying the common view, re-create the events affected by the change. For example, re-create delete and create, the Publish/Subscribe event, or an Invoke/Implement procedure.

Bug 1398877	**A database browser exception displays when using the Import from Database feature.**
Description:	When importing from a database, after logging in the browser window, select a database table from the left panel. Then select the Content tab on the right panel and enter a query. Click the red arrow and click Done. The selected item does not display in the attribute window.
Action	None.

Bug 1647181	**Error in exported SQL scripts.**
Description:	If the ADT application view is modified, the exported PL/SQL code displays former parameters.
Action:	Edit the Publish/Subscribe event, navigate to the last page of Wizard, and click Finish. Export the PL/SQL code again.

Bug 1761531	**An event that was re-created after deleting it once cannot be published.**
Description:	An event that was re-created after deleting it once cannot be published. The SQL exception: `violation of emd_eventid foreign key constraint` displays.
Action:	Stop and restart iStudio and the repository.