

# **Oracle Utilities Application Framework**

Release Notes

Release 4.2.0.3

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# Preface

These release notes provide an overview of the enhancements, known issues, and other changes in this release.

## Audience

Oracle Utilities Application Framework Release Notes is intended for anyone installing or using Oracle Utilities Application Framework.

## Related Documents

For more information, refer to these Oracle documents:

### Administration and Business Process Guides

- *Oracle Utilities Application Framework V4.2.0.3 Administration Guide*
- *Oracle Utilities Application Framework V4.2.0.3 Business Process Guide*

## Conventions

The following text conventions are used in this document:

Convention	Meaning
<b>boldface</b>	Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.
<i>italic</i>	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.



# Chapter 1

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## Release Notes

This document provides general information about this release of Oracle Utilities Application Framework, including new functionality, known issues, and other important information.

Refer to the quick install guide and the installation guide for information regarding supported platforms and installation steps.

This section includes the following:

- [Release Overview](#)
- [New Features and Enhancements](#)
- [Known Issues](#)

### Release Overview

This section contains general information about this release of Oracle Utilities Application Framework version 4.2.0.3.

Please visit My Oracle Support (<http://support.oracle.com>) and Oracle Software Delivery Cloud (<http://edelivery.oracle.com/>) for the most recent service packs and patches for Oracle Utilities Application Framework V4.2.0.3 to ensure you have the most current version of this product.

### Supported Platforms

For supported platforms information, refer to the Quick Installation Guide for the edge product(s) that are installed with this version of Oracle Utilities Application Framework.

### Supported Upgrades

For upgrade path information, refer to the Release Notes for the edge product(s) that are installed with this version of Oracle Utilities Application Framework.

## New Features and Enhancements

This section describes new and enhanced features in this release of Oracle Utilities Application Framework, including:

- [User Enhancement](#)
- [Configuration Migration Assistant Enhancements](#)
- [Status Reason Enhancements](#)
- [External Message Enhancements](#)
- [Sync Request Enhancements](#)
- [Request Enhancements](#)
- [Miscellaneous Enhancements](#)
- [Planned Deprecation](#)

### User Enhancement

#### Email Address Increased

In this release, the user's email address has been increased from 70 bytes to 254 bytes. Besides the user table, this change is reflected in Batch Submission and Batch Control.

### Configuration Migration Assistant Enhancements

The following items describe enhancements to Configuration Migration Assistant (CMA) functionality.

#### Changes to the Import, Compare and Apply to Improve Performance

**Known Issues:** Refer to the [Known Issues](#) section for a description of bug 20504847 related to this functionality.

In previous releases, all steps related to importing a data set, including comparing the imported data to the target region's data and applying the data, were performed at the data set level. This meant that for a data set with a large amount of data, the processes could be very slow.

In this release, various changes were made to the import process to take advantage of multi-threading. The following are a summary of the changes made to the overall import process:

- The steps to import the data and compare the imported data to the data in the target environment were previously done in a single step for the whole data set. In this release, the logic has been separated into several steps. The import of the data is still performed as a single step for each data set. This step creates migration transactions and migration objects based on the input file. For the compare step, the bulk of the logic is performed at the migration object level. This step may be performed multi-threaded. There are also two additional minor steps at the migration transaction and data set levels to update status values.
- No changes have been made to the approval step. As with previous releases, the user may set default states for objects being added or changed (to **Approved**, **Needs Review**, or **Rejected**). A user must verify when the data set is ready to transition to the Apply step using a state transition.
- The step to apply the data was previously a single step for the whole data set. In this release the logic has been separated into multiple steps to improve performance and to improve error handling. The apply steps take into account that fact that there may be dependencies between records. The steps can be summarized as follows:



- First, a batch process at the migration object level tries to apply objects. All objects that do not have a dependency on any other object can be processed successfully at this step. This step is iterative to cater for simple dependencies between objects, where timing may result in an object with a dependency being processed prior to the object it is dependent on. It will keep trying to apply objects up to a maximum retry count. Objects that have circular references to each other will not successfully be processed in this step and will result in an error.
- The next step is a batch process at the migration transaction level. If all objects are applied after the first step, the transaction step is merely a status update. But if any of the objects are in error after the first step, the transaction level process will try to apply objects grouped in the same transaction as a single step.

The lifecycle of the data set supports retrying the **Apply** at the object level or at the transaction level to allow for users to resolve errors in this step.

In addition, changes have been made to the cancellation process for an import data set and its related migration transactions and migration objects. In previous releases, a user could cancel a pending data set or an approved data set, but then undo the cancel. In this release, cancelling a data set is a final state and a user cannot undo this decision. This follows more closely the standard followed for other business objects in the product that support a canceled state.

To support the above changes, several changes have been made to the lifecycle of the base business object for migration data set import, migration transaction and migration object business objects.

- Migration Data Set Import lifecycle changes (Business Object **F1-MigrDataSetImport**):
  - The **Cancel Apply** and **Applied with Errors** states have been removed.
  - All non-final states may go to the **Canceled** state. This state has been configured to support a **Status Reason**.
  - The status **Ready to Compare** has been changed from a transitory status to a non-transitory status. This status now has a deferred batch control defined. This state is now waiting for its migration transactions to be moved to a **Ready to Apply** state.
  - The **Ready to Apply** state is now called **Apply Objects**. This state waits for its related migration objects to move out of the **Approved** state.
  - The **Applying** state is now called **Apply Transactions**. This state waits for its related migration transactions to move out of the **Ready to Apply** state.
  - Two new transitory states have been added to support error retry functionality: **Retry Objects** and **Retry Transactions**.
- Migration Transaction lifecycle changes (Business Object **F1-MigrTransactionImport**):
  - The **Applying** state has been removed.
  - The **Canceled** state has been added. All non-final states may transition to this state. A record will automatically transition to this state if the system detects that its data set is canceled.
  - The **Pending** state now has a deferred batch control. This is to support then new **Compare** step functionality. This state monitors that all related migration objects have processed their comparison step.
  - The **Ready to Apply** state now has a deferred batch control. Records in this state are picked up to perform the **Apply** step at the transaction level.
  - The **Error Applying** state now has a deferred batch control. Records in this state are picked up when a user has initiated a retry of the apply step at the transaction level.
- Migration Object lifecycle changes (Business Object **F1-MigrObjectImport**):

- The **Pending** state now has a deferred batch control. Records are picked up in this status and transition to a new **Comparing** state, which is transitory. Algorithms on the comparing state determine the appropriate next state for the migration object based on the comparison.
- The **Error Comparing** state has been added. This is used to mark problems with imported objects that prevent further processing.
- The **Canceled** state has been added. All non-final states may transition to this state. A record will automatically transition to this state if the system detects that its data set is canceled.
- The **Approved** state now has a deferred batch control. Records in this state are picked up to perform the Apply step at the object level.
- The **Error Applying** state now has a deferred batch control. Records in this state are picked up when a user has initiated a retry of the apply step at the object level.

In addition, several new batch controls have been introduced to support the various steps in the import, compare and apply steps at the various record levels. This includes a new **Data Set Import** monitor batch control that is separated from the **Data Set Export** monitor batch control.

**More Information:** Refer to the Summary tab of the business object page for the above business objects for a view of the lifecycles. In addition, the Configuration Migration Assistant chapter in the user documentation includes extensive detail about the various steps covering the import of a data set.

**Upgrade Comment:** The “Cancel Apply” and “Applied with Errors” states on the **Migration Data Set Import** lifecycle have been removed. It used to be possible to transition a data set into this status and then to “un-cancel” it and move it back to an apply-able status. Now, if a data set is moved into **Canceled** status, it will not be possible to undo this. If there are any data sets you think you might like to un-cancel, you should do that before installing this fix.

## User Interface Enhancements

The following items describe enhancements to various user interface portals related to CMA.

### Migration Data Set Export Query Portal Enhancements

In this release, the existing **Migration Data Set Export Search** option has been enhanced to allow a user to filter by the data set status.

### Migration Data Set Import Query Portal Enhancements

In this release, the existing **Migration Data Set Import Search** option has been enhanced to allow a user to filter by the data set status.

In addition, a new search option, **Migration Data Sets In Error**, has been added. Using this search option, a user can find data sets that one or more migration objects in the **Error Applying** state or one or more transactions in the **Error Applying** state.

### Migration Data Set Import Portal Enhancements

The maintenance portal for migration data set import has several changes to support the enhancements described above and to aid in error handling:

- The main section now displays the number of migration objects in the data set that still need to be applied.
- The main section includes an indication of the number of migration objects in the largest migration transaction.
- The **Migration Data Set Transactions** zone now includes a column that indicates the number of unapplied migration objects for the transaction.

- The **Migration Data Set Impacted Object Summary** zone now includes a new filter adjacent to the status drop down, allowing the user to indicate that all records in a final status should be ignored.
- The portal includes a new zone **Migration Objects in Error**. This is only visible if there are objects in error. It lists all the errors, allowing a user to see if there are related issues, and allowing a user to review individual problems.
- The portal includes a new zone **Migration Transactions in Error**. This is only visible if there are transactions in error.

### Migration Transaction Portal Enhancements

The maintenance portal for migration transaction has been enhanced to display the number of related migration objects that are not yet processed.

## Status Reason Enhancements

The following items describe enhancements to Status Reason functionality.

### New Optional Usage Flag

In this release, an optional **Usage** flag has been added to BO Status Reason business object. This usage flag is configured as a pre-defined characteristic type that allows custom values to be defined. The usage flag allows an implementation to mark a given status reason for a given business object/status with a business usage. Only one status reason for a given BO/Status may be assigned a given usage.

This allows for an appropriate status reason to be chosen for a state transition that occurs via a system action. An algorithm can find the correct reason to use for the record's BO and status using the usage flag, providing the ability to reuse algorithms across business objects.

In addition, the system supplies a business service that retrieves the status reason for a given BO, Status, and usage value.

**Note:** This was fixed in 4.2.0.2.0 as a hot fix related to Bug 19697312.

## External Message Enhancements

The following items describe enhancements related to exchanging messages with an external system.

### WebSphere Support for Inbound Web Service

In this release, inbound web service functionality is now supported on WebSphere.

**Note:** This enhancement was added in 4.2.0.2.0 as a hot fix related to Bug 18072916.

### External Message - Suppress Standard Time Adjustment

In previous releases, when no time zone information is received for a date/time element on an incoming message, it is assumed to be in "legal time" (example summer time) of the installation time zone. The system then converts the time to "standard time" for the installation time zone within the integration layer if the target date/time field is configured as storing date/times in "standard time".

In this release, a new notation was added to indicate to the system that no adjustments should be made to the time of an input date/time field to shift for "legal time" to "standard time". This allows the decision of whether to treat the incoming date/time as being in "legal time" or "standard time" to be deferred to the business logic (where the correct time zone associated with the incoming data may be known).

A new flag value **ignoreStandardTime** has been added to **dateTimeTagFormat** for date and time elements on incoming messages to indicate that no standard time adjustment should be done when mapping to business schema elements. It is advisable to only use this option when the requesting system will send a mixture of date/times in “legal time” and “standard time” and it is unable to provide the appropriate UTC offset to unambiguously identify them as such.

For example, imagine a request is submitted as follows and the target schema element indicates **stdTime="true"** (and we are currently in summer time):

```
<request dateTimeTagFormat="xsd:ignoreStandardTime">
  <availableOnStd>2009-07-15T13:11:00</availableOnStd>
</request>
```

When converted to the target business object, it will be:

```
<availableOnStd>2009-07-15-14.13.00</availableOnStd>
```

If **ignoreStandardTime** is *not* set, the system would have adjusted the time by an hour to shift from "legal time" to "standard time" of the installation time zone.

It should be noted that this new functionality only applies to incoming date/times in the **XSD:dateTime** format; OUAF formatted date/times will continue to always be assumed as “legal time” of the installation time zone when no time zone indication has been provided.

## Sync Request Enhancements

The following items describe enhancements to Sync Request functionality.

### Correct Status Reason Configuration

In a previous release some of the configuration of status reason on the Sync Request and BI Sync Request business objects were incorrect and have been corrected.

- **F1-SyncRequest** - Sync Request. This business object had introduced the state **SYNC\_WITH\_ER** and had marked it as optionally allowing a status reason. However, status reason is not supported by the business object. That setting has been removed.
- **F1-GenericBISyncRequest** - Generic BI Sync Request. This business object supports status reason. However, no state was configured to mark status reason as optional or required. In this release, the state **DISCARDED** has been configured to allow status reason as Optional and **CANCELED** has been configured with status reason as Required.

**Note:** When upgrading, an implementation that uses the Generic BI Sync Request functionality and allows manual Cancellation must define appropriate status reason fields. Alternatively, if you wish to not require status reasons for cancelling records that reference this business object, update the configuration to change the setting of status reason from required to the desired option.

The base status reason **F1NR** - Synchronization Not Required - for BO **F1-GenericBISyncRequest**/Status **DISCARDED** had previously been released. However, it was not visible on the status reason page because the Discarded state on the Generic BI Sync Request BO had not been configured to indicate status reason is optional. In this release, the base status reason is now visible. Note that it has been changed to be "Not Selectable".

### Assigning Discarded Reason Based on Usage

As mentioned in [New Optional Usage Flag](#), the status reason BO has been updated to allow for the definition of a usage for a given reason. Specifically to support the BI Sync Request BO, the usage characteristic type includes the characteristic value of **F1NC** - "No Changes Detected".

The base status reason **F1NR** - Synchronization Not Required - for BO **F1-GenericBISyncRequest**/Status **DISCARDED** has been updated to define the usage of **F1NC**.

In addition, the following algorithms have been changed to determine the Status Reason for the current BO, the **DISCARDED** state and the usage of **FINC** when transitioning the record to Discarded. This allows other Sync Request BOs that have the same lifecycle as **F1-GenericBISyncRequest** to reuse these algorithms, if applicable:

- Compare Initial and Final Snapshot, with Status Reason (**F1-CMPSNAPSR**)
- Take Final Snapshot (**F1-FINALSNAP**)

## Request Enhancements

The following items describe enhancements to Request functionality.

### New Characteristic Collection

The **Request** maintenance object is provided by the product to enable an implementation to design an ad-hoc batch process using the configuration tools.

In this release a characteristic collection has been added to the maintenance object.

**Note:** This enhancement was added in 4.2.0.2.0 as a hot fix related to Bug 19977490.

## Miscellaneous Enhancements

### New Business Service Converts XML to Delimited Format

In this release, a new business service has been provided that can receive an XML document along with the related schema that defines the XML document and return the data formatted using a supplied delimiter.

**Note:** This enhancement was added in 4.2.0.2.0 as a hot fix related to Bug 19971152.

### Passing Context From Favorites

In version 2.2 of the framework, clicking a link in the **Favorite Links** zone in the dashboard populated context in the target transaction, even if the context was not configured in the navigation option that defines the link. In version 4.0.0 and higher, this behavior was changed to only populate context if defined in the navigation option (consistent with other navigation methods).

For implementations upgrading from version 2.2 to version 4.x, retaining the 2.2 behavior is desirable in the case where business processes expect this behavior. To support this, a new **Feature Configuration** option has been defined for the **General System Configuration** feature type: **Pass Context in Favorites Zone** (*true/false*). Setting this to *true* will retain the 2.2 behavior. Setting it to *false* (or not defining the option at all) will apply the 4.x behavior.

**Upgrade Note:** When upgrading, the system will attempt to detect if the implementation is upgrading from 2.2; if so, it will automatically insert a feature option to set this configuration to *true*.

### Extract for DataRaker

In this release, the batch process that is used to create flat files for Business Intelligence-oriented extracts has been enhanced to support the following new parameters:

- **filePath**. Indicates the file path where the flat files will be extracted. If the value is not populated, the file path from the General BI Master Configuration is used (as per previous releases). If this parameter is populated, the **charEncoding** parameter must also be supplied.

- **charEncoding.** Defines the character encoding used for flat file extraction, for example UTF-8. If the value is not populated, the character encoding setting from the General BI Master Configuration is used (as per previous releases). If this parameter is populated, the **filePath** parameter must also be supplied.
- **includeRunDateFlatFileName.** This is a Boolean that accepts **Y** or **N** as values. Setting the value to "Y" indicates that the system date/time should be appended to the file name. A value of "N" (the default) does not add any information to the file name.

**Note:** this enhancement was added in 4.2.0.2.0 as a hot fix related to Bug 19976768.

## Planned Deprecation

- **Embedded Help Portal.** This portal was provided to help in defining inline or embedded help for UI maps. The tool is not widely used. It will be deprecated in a future release.
- The table usage flag (TBL\_USAGE\_FLG) on MD Table (CI\_MD\_TBL) and the field usage flag (FLD\_USAGE\_FLG) on MD Table Field (CI\_MD\_TBL\_FLD) will be deprecated in a future release. The fields are not used by the product.
- **ConfigLab** and **Archiving and Purging.** In a future release the configuration lab and archiving and purging processes that are built using DB processes will be deprecated.
- **Environment Reference.** This administrative maintenance object was related to ConfigLab and Archiving, which are no longer supported. In a future release, the following will be removed:
  - Migration Plan **F1-EnvironmentRef.** Note that no base migration request references this plan. Implementations should ensure that no custom migration request references this plan.
  - Business Object **F1-EnvironmentRefPhysicalBO.**
  - Maintenance Object **ENV REF.**
- The To Do Type **F1-SYNRQ** (Sync Request Error) is not in use and will be deleted in a future release. Errors for the Sync Request Monitor (that also has the name **F1-SYNRQ**) are reported using the To Do Type **F1-SYNTD** (Sync Request Monitor Errors).
- The service program **EMAILSERVICE** (Email Service) is invalid and will be deleted in a future release. The service program **F1-EMAILSERVICE** is the valid one provided for real-time email service functionality.

## Known Issues

The following are known issues in Oracle Utilities Application Framework version 4.2.0.3 at the time of release:

- The import process for CMA (configuration migration import) is not working correctly and should not be used. [20504847]

## Bug Fixes Not Included in This Release

This section lists bug fixes released for previous versions of the product that have not been included in this release. These fixes are planned for a future date for the current release using the bug numbers listed in the tables below:

Original version	Original Bug	Description	4.2.0.3 Bug
4.2.0.1.0	18111283	Problem handling optional varchar prime key fields	20960645
4.2.0.1.0	18201137	Primary key 1 missing when displaying migration transaction objects	20925067
4.2.0.1.0	18387829	Home link does not navigate to the correct home page	20794181
4.2.0.1.0	19232235	Scroll bars always hide one menu item even when there is enough space	20925175