Oracle Utilities Customer To Meter

Release Notes

Release 2.7.0.3

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Contents

Preface

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

Audience

Release Notes is intended for anyone installing or using Oracle Utilities Customer To Meter.

Related Documents

For more information, refer to these Oracle documents:

Installation Guides and Release Notes
- *Oracle Utilities Customer To Meter Release Notes*
- *Oracle Utilities Customer To Meter Quick Install Guide*
- *Oracle Utilities Customer To Meter Installation Guide*
- *Oracle Utilities Customer To Meter Database Administrator's Guide*
- *Oracle Utilities Customer To Meter Optional Products Installation Guide*
- *Oracle Utilities Customer To Meter Licensing Information User Manual*

Administrative and Business User Guides
- *Oracle Utilities Customer To Meter Administrative User Guide*
- *Oracle Utilities Customer To Meter Business User Guide*

Supplemental Documents
- *Oracle Utilities Customer To Meter Server Administration Guide*
- *Oracle Utilities Customer To Meter Security Guide*

Conventions

The following text conventions are used in this document:

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

Acronyms

The following acronyms and terms are used in this document:

Acronym	Definition
CCB	Oracle Utilities Customer Care and Billing
C2M	Oracle Utilities Customer To Meter
SOM	Oracle Utilities Service Order Management
ODM	Oracle Utilities Operational Device Management
MDM	Oracle Utilities Meter Data Management
OUAF	Oracle Utilities Application Framework

Chapter 1

Release Notes

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

Refer to the *Quick Install Guide* and *Installation Guide* for information regarding supported platforms and installation steps.

This guide includes the following:

- Release Overview
- Database Changes
- Enhancements in Oracle Utilities Customer To Meter
- System Data Details
- Known Issues
- Deprecation Notices
- Supported Integrations
- Demo Data Information
- Oracle Utilities Application Framework v4.4.0.1.0 Release Notes
- Oracle Utilities Application Framework v4.4.0.2.0 Release Notes

Release Overview

This section contains general information about this release of Oracle Utilities Customer To Meter 2.7.0.3. The release includes the following components:

- Oracle Utilities Customer To Meter 2.7.0.3

- Oracle Utilities Application Framework v4.4.0.2.0

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 Customer To Meter 2.7.0.3 to ensure you have the most current version of this product.

Supported Platforms

See the **Supported Platforms** section in the *Oracle Utilities Customer To Meter Quick Install Guide* (included in this release) for a list of supported platforms.

Supported Upgrades

This version of Oracle Utilities Customer To Meter supports the following upgrade paths:

- From Oracle Utilities Customer To Meter v2.6.0.1 to v2.7.0.3

- From Oracle Utilities Customer To Meter v2.7.0.0 to v2.7.0.3

- From Oracle Utilities Customer To Meter v2.7.0.1 to v2.7.0.3

Addition of Operational Device Management

Oracle Utilities Operational Device Management is included as part of Oracle Utilities Customer To Meter, providing functionality for asset configuration, configuration reports, asset management for devices, and asset replication.

Customers can disable the Oracle Utilities Operational Device Management functionality if desired. Refer to the *Oracle Utilities Customer To Meter Database Administrator's Guide* and the *Oracle Utilities Customer To Meter Installation Guide* for details related to disabling Oracle Utilities Operational Device Management in Oracle Utilities Customer To Meter.

Database Changes

The database enhancements for V2.7.0.3 are fully documented in Oracle Utilities Customer To Meter *Database Administrator's Guide.*

Refer to the **Database Changes** sections in the following documents for other specific database changes:

- *Oracle Utilities Customer Care and Billing v2.7.0.3 Release Notes*

- *Oracle Utilities Meter Data Management v2.3.0.2 Release Notes*

- *Oracle Utilities Operational Device Management v2.2.0.6 Release Notes*

Enhancements in Oracle Utilities Customer To Meter

This section outlines enhancements added in this release of Oracle Utilities Customer To Meter including:

- Limiting Service Point Characteristics by Service Point Type

- Creation of Customer Contacts for Field Remarks from Field Related Activities

- Creation of Adjustments on Completion of Field and Command Request Related Activities

- Enable Mapping of Field Activity Types to Non-Orchestrator Activity Types

- Enhanced Sync Request Related Business Objects to Support Initial Loading of Specific Master Data

- Enabling Dynamic Options on Usage Subscriptions to be Used to Override TOU Periods

- Devices and Related Assets

- Miscellaneous

- Other Enhancements

Limiting Service Point Characteristics by Service Point Type

The types of characteristics allowed on service points is now limited based on characteristic types defined for the service point's types. The **Service Point Type** portal now includes a **Valid SP Characteristic Types** zone where users can define the characteristic types allowed on service points of that type. See **Understanding Service Point Types** in the *Oracle Utilities Customer To Meter Administrative User Guide* for more information.

Creation of Customer Contacts for Field Remarks from Field Related Activities

In this release, a new algorithm type X1-CRCUSTCN (Create Customer Contact in C2MO) is provided that contains logic to create a customer contact linked to the main customer associated with a field related activity when the activity is completed with a given remark type.

Algorithms based on the above algorithm type may be leveraged on the D1-CustomerContact (Notify Requester of Customer Contact) completion event business object.

Creation of Adjustments on Completion of Field and Command Request Related Activities

In this release, *Field Activity* and *Command Request* related activity types have been enhanced to enable an adjustment to be created when the required work has been completed.

On the *Field Activity* and *Command Request* related activity types, the **Activity Adjustment Type List** zone allows an implementation to configure the types of Adjustments to be created.

The *Field Activity* and *Command Request* related activity types business objects initiate a levy adjustment related completion event that creates the required adjustment(s) when the work for an activity has been completed.

Enable Mapping of Field Activity Types to Non-Orchestrator Activity Types

In severance processes, a Disconnect Warning field activity can be configured to be created by severance events. This type of field activity does not change the status of the service point or installed device.

In this release, the *C2M Mapping Field Values* Extendable Lookup has been enhanced to additionally enable mapping to occur between Field Activity (FA) Types and nonorchestrator related activity types.

Enhanced Sync Request Related Business Objects to Support Initial Loading of Specific Master Data

In Oracle Utilities Customer to Meter, specific master data is stored and kept synchronized across two or more application components.

In this release, specific Sync Request related business objects have been enhanced to support data conversion related activities for the initial loading of specific master data from one application component to another application component.

The following initial load master data flows may be implemented by leveraging the indicated Sync Request related business objects:

- Service Point records from the Oracle Utilities Customer Care and Billing application component to Service Point records in the Oracle Utilities Meter Data Management application component: C1-MDM2SPSyncRequest (MDM2 SP Sync Request) and D1-InitialSyncRequestSP (Service Point Initial Sync Request)

- Service Point records from the Oracle Utilities Meter Data Management application component to Asset Location (Node) records in the Oracle Utilities Operational Device Management application component: D1-ODMSPSyncRequest (ODM SP Sync Request) and W1-InitialSyncRequestLocation (Location Initial Sync Request)

- Contact records from the Oracle Utilities Meter Data Management application component to Contact records in the Oracle Utilities Operational Device Management application component: D1-ODMContactSyncRequest (ODM Contact Sync Request) and W1-InitialSyncRequestContact (Contact Initial Sync Request (W1))

- Service Agreement records from the Oracle Utilities Customer Care and Billing application component to Usage Subscription records in the Oracle Utilities Meter Data Management application component: D2-InitialSyncRequestUS (Usage Subscription Initial Sync Request)

Enabling Dynamic Options on Usage Subscriptions to be Used to Override TOU Periods

There are circumstances and conditions during which the rules for creating Time of Use (TOU) map data might need to be calculated differently than according to the utility's standard rules. Examples of this might include critical peak periods, curtailment requests or other demand response events. During these types of events, the TOU rules defined for a TOU map may be overridden.

Dynamic Options specify terms that override how usage is normally calculated, such as a critical peak period that affects the Time of Use (TOU) mapping of interval consumption. These dynamic options are set when a customer signs up for a service or any time after the service has started and these options are recorded in their service agreement as contract options which eventually get synchronized to the usage subscription.

In this release, enhancements have been made to the usage calculation rule business objects that calculate usage using TOU map data to additionally take into account the dynamic options defined on usage subscriptions.

Devices and Related Assets

Asset Activities in Customer To Meter

You can enable common device-related field asset activities in the Oracle Utilities Customer To Meter using the Service Order Management component, which in turn dispatches these activities to the field work system. This includes support for install meter, meter exchange, device testing and inspections, and others. Two new business objects, W1-SOMActivity and W1-SOMActivityType, were introduced to support this activity synchronization. Field task types maintained in the Service Order Management component, as well as eligible orchestration activity types, are automatically or jointly maintained to a corresponding asset management activity type. When field work is completed, the field work system sends the completion details to complete Service Order Management activity and eventually the corresponding asset management activity.

Besides the activity synchronization, the existing Activity Generator asset management feature is also enabled in this release. This feature allows you to define a set of criteria for identifying assets or asset locations as well as an activity type to be used in the mass generation of activities for the given type, assets, and asset locations.

Steps To Enable

You can refer to the **Customer to Meter Master Configuration** section in the *Oracle Utilities Customer to Meter Administrative User Guide* for more information.

You should review the Service Order Management Activity Types and field task types: add/edit the activity types and field task types to synchronize to the asset portion of Oracle Utilities Customer To Meter.

Tips and Considerations

Existing Service Order Management owned field task types that were delivered in previous versions were intentionally not provided with a corresponding Asset Management activity type. To sync the field task type, you may edit and save the field task

type during implementation and the corresponding activity type will be created in Asset Management.

The Service Order Management's activity type D1-ExchangeMeterType business object is delivered with a business object option, Eligible for Joint Maintenance, set to "Y" to allow synchronization of the activity type instance to Asset Management. A new business object option with a higher sequence and with a value set to "N" can be plugged in during implementation if you prefer not to sync this activity type's instance.

Item Synchronization with Service Point Installation

Items are tracked assets that you can install or remove from a service point. Items include equipment such as back flow devices, current and potential transformers, and AMI routers. In order to support this new feature, two new business objects for Item and Item Specification were created. These business objects will serve as implementation templates for more customized item objects that are eligible for syncing from the asset management portion of Oracle Utilities Customer To Meter to the meter portion of Oracle Utilities Customer To Meter. You can also now send the manufacturer and model to the meter portion of the Oracle Utilities Customer To Meter during asset synchronization.

Steps To Enable

You can refer to the **Customer to Meter Master Configuration** section in the *Oracle Utilities Customer to Meter Administrative User Guide* for more information. You should review the Asset Type and Device Type mapping.

Miscellaneous

Manufacturer and Model

In previous releases, asset manufacturer was disabled and you could not assign a manufacturer to an asset specification. This resulted in the manufacturer and model not getting synced from the asset to the device and created an issue when field activity details were sent to the field work system without the meter or item's manufacturer and model. In this release, the asset manufacturer portal has been enabled and is used to jointly maintain manufacturer between asset management and meter data management. The manufacturer portal also includes a new zone for maintaining the device manufacturer models. Since manufacturer is now jointly maintained, the same codes and descriptions are shared by both applications. This eliminates the need for a value mapping. The device manufacturer portal has been disabled in order to make this seamless and easier for you to maintain manufacturers. As a convenience on the asset specification maintenance, you are presented with a drop-down list of the manufacturer's model instead of entering free format text for the model.

Steps To Enable

You can review the list of manufacturers and models after installation. Manufacturers and models that are only defined in the meter portion of the cloud service may need to be added or edited. For upgrading implementations, the asset manufacturer table will not be populated. You will have to re-add the asset manufacturer for device manufacturer codes or run a SQL script to populate the asset manufacturer table from the device manufacturer table.

Equipment on Service Point

You can record the linking of a piece of equipment to a service point. Equipment is linked over and, once available, you can install it and remove it from the service point. Each event of installing and removing from the service point is reflected in the equipment's asset disposition history. A piece of "equipment" is a physical device that regulates consumption. It does not measure consumption. Examples of equipment include back flow devices, current transformers, potential transformers, AMI routers and collectors, voltage regulators, pulse initiators, and modems. There is a distinction between a device that is an item and a device that is equipment. An item impacts the usage calculation in some way. A piece of equipment does not impact the calculation. Defining equipment is optional. This optional equipment can be stored at the service point.

Steps To Enable

No steps are required to enable this feature.

Other Enhancements

Refer to the **Enhancements** sections in the following documents for descriptions of product-specific enhancements in this release of Oracle Utilities Customer To Meter:

- *Oracle Utilities Customer Care and Billing v2.7.0.3 Release Notes*

- *Oracle Utilities Meter Data Management v2.3.0.2 Release Notes*

- *Oracle Utilities Operational Device Management v2.2.0.6 Release Notes*

System Data Details

Refer to the **System Data Details** sections in the following documents for information about new and updated system data delivered in this release of Oracle Utilities Customer To Meter that may need to be reviewed for possible impact by implementations:

- *Oracle Utilities Customer Care and Billing v2.7.0.3 Release Notes*

- *Oracle Utilities Meter Data Management v2.3.0.2 Release Notes*

- *Oracle Utilities Operational Device Management v2.2.0.6 Release Notes*

Known Issues

The following section lists known issues and bugs not fixed in this release of Oracle Utilities Customer To Meter and the Oracle Utilities Application Framework.

This section includes:

- Known Issues in Oracle Utilities Customer To Meter

- Bug Fixes Not Included in This Release

- Known Issues in Oracle Utilities Application Framework

Known Issues in Oracle Utilities Customer To Meter

Following are the known issues in Oracle Utilities Customer To Meter at the time of this release:

Bug #	Description
30246105	Related to Contract and Products - missing Foreign Key reference constraints for the Customer Service Request Service Location (C1_CS_REQ_SVC_LOC) table

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 table below:

Original Bug	Original Version	Description	2.7.0.3.0 Post-Release
25595408	2.4.0.3.0	Held Field Activities are not processed on Start/Stop Page	29213533
28788688	2.6.0.1.0	Tender Control not balancing even after over/under is fixed by adjusting Ending Balance	29195538
28476977	2.5.0.2.0	Unable to complete a Start Request using IWS WXProcessStartStopRequest, due to duplicate error	28540313
28006231	2.5.0.2.0	Batch C1-PRGSY - the BO Status is not properly validated	29135624
28920187	2.6.0.1.0	Issue with global context not clearing when searching service points from the Main menu	29122050
29716475	2.6.0.1.0	Issue with carriage return included in the Field Order extract file	30255657
30059203	2.7.0.1.0	Issue with Start/Stop Confirmation page not showing all Service Agreement Types based on previous service for the premise	30213203

Original Bug	Original Version	Description	2.7.0.3.0 Post-Release
30215154	2.7.0.1.0	Issue with the Account Debt Monitor (ADM) not deleting entries from the Credit Review Schedule (CI_ADM_RVW_SCH) table	30284879
29753432	2.6.0.1.0	Issue when updating an effective multi-item service point upon completion of a field activity	30284838
30033789	2.6.0.1.0	Issues related to performance of Payment Tender Search screen	30122628
30155469	2.7.0.1.0	Issue with missing COBOL wrapper class for the "Deposit Class - Good Customer" (DPGD) system event	30265808
29836845	2.7.0.1.0	Issue with CMA import error due to missing error messages	30122665
28006231	2.5.0.2.0	Issue with "Purge Sync Requests" (C1-PRGSY) batch process not properly validating business object status	29135625
27661646	2.5.0.2.0	Issues with scenarios not covered by a patch (Bug ID 27410091) related to payments made after a Service Agreement's End Date but prior to the Writeoff Date	27723946
29897137	2.6.0.1.0	Issue with prepaid metering - collection process not being created prior to billing the prepaid customer	30259311
28476977	2.5.0.2.0	Issue with the Process Start Stop Request (WXProcessStartStopRequestEnter) inbound web service	28540311
30065650	2.4.0.3.0	Issue with selecting Characteristic Types from a Calculation Rule	30073164
29024106	2.6.0.1.0	Issue when creating Customer Contacts - contact can be saved without providing any context values	30188623
28971671	2.6.0.1.0	Issue when restricting data based on CIS Division	29131779

Known Issues in Oracle Utilities Application Framework

The following are the known issues in this version of Oracle Utilities Application Framework which may affect Oracle Utilities Customer To Meter at the time of release:

- The display of the characteristic value on the **To Do Management** portal has inconsistent behavior for Foreign Key Value characteristics that do not have a search zone. Characteristic values should be displayed like Adhoc Value

characteristics. When searching by this characteristic alone, the characteristic value displays properly.

- On the **To Do Management** portal, when saving a search that includes any characteristic value filters, the characteristic value is not retained when opening the saved search.

- Cube Type access should be controlled by the application service associated with the Cube type's "sourcing data" zone. Currently, users that have access to Cube View will see all Cube Types.

- When navigating to a portal with data in context, the search does not execute if the target portal is configured with a query zone.

- Firefox Error dialogs do not open large enough for you to view full the error message.

- Miscellaneous user interface issues, including Label/Data alignment, Help icon positioning, Dates in grids are shifted one column to the left, missing frame around Characteristics grids (Bug #29198401).

Deprecation Notices

The following features, functions, and data are planned to be deprecated in a future release.

C1-RateApplication Inbound Web Service

Inbound Web Service C1-RateApplication was inadvertently release in a prior version and has been deprecated .For upgrading customers the owner flag has been set to CM. If your organization has not used this in conjunction with any customization, we recommend you delete the Inbound Web Service.

User - Tender Source Maintenance Object

In a previous release, the functionality contained in the User Tender Source (C1-USRTSRCE) maintenance object was replaced with the User - Miscellaneous maintenance object. The User Tender Source and related objects will be deprecated in a future release

Other Deprecations

Refer to the **Deprecation Notices** sections in the following documents for items that are deprecated in this release or planned for deprecation in a future release of Oracle Utilities Customer To Meter:

- *Oracle Utilities Customer Care and Billing v2.7.0.3 Release Notes*

- *Oracle Utilities Meter Data Management v2.3.0.2 Release Notes*

- *Oracle Utilities Operational Device Management v2.2.0.6 Release Notes*

Supported Integrations

Refer to the **Supported Integrations** sections in the following documents for integrations that are supported in this version of Oracle Utilities Customer To Meter:

- *Oracle Utilities Customer Care and Billing v2.7.0.3 Release Notes*

- *Oracle Utilities Meter Data Management v2.3.0.2 Release Notes*

- *Oracle Utilities Operational Device Management v2.2.0.6 Release Notes*

Demo Data Information

The application delivers a demo database based on the application versions provided with the release, including Oracle Utilities Application Framework. Demo data provides sample configuration and data for key application features.

Demo data is included in the package and includes its own installation instructions. Please refer to the *Oracle Utilities Customer To Meter Database Administrator's Guide* for more information or contact Oracle Support.

Oracle Utilities Application Framework v4.4.0.1.0 Release Notes

This section describes enhancements, system data details and deprecation notices in Oracle Utilities Application Framework v4.4.0.1.0 including:

- Web Services Enhancements
- Market Transaction Management
- Application Security Enhancements
- To Do Enhancements
- Integration Enhancements
- Scripting Enhancements
- Miscellaneous Enhancements
- Oracle Utilities Application Framework Deprecation Notices

Note: The **Steps To Enable** sections provide guidelines for enabling each feature, where applicable.

User Interface Enhancements

Error in Business Object Maintenance Dialogue Scrolls

When making change to a business object driven record using the pop-up maintenance dialogue any error message displayed will 'float' or scroll with the page.

Previously, error messages on a pop-up maintenance dialogue were shown at the top of the dialogue. However, if the element in error was located lower on the page and was marked as part of the error, the user needed to scroll to view the error. In this release, the dialogue has been enhanced so that the error message is always visible until the user clicks **Save** or **Cancel**.

Steps To Enable

No steps are required to enable this feature.

Query Filter Area Enhancement

The query data explorer filter area has been enhanced to automatically collapse when showing results to allow for more results to be visible.

In this release, we have introduced functionality in query data explorer zones. If the query results in more than two records, the filter area will automatically collapse to provide more space for the results. An **Expand Filters** button will appear to allow the user to expand and view the filters. When the filters are expanded, a **Collapse Filters** button is visible.

This functionality applies to saved searches as well.

Steps To Enable

No steps are required to enable this feature.

Timeline Zone Redesign

The Timeline zone has been redeveloped to improve the overall look and feel.

The redesign has the following main features:

- The calendar controls have been repositioned to be more in line with the new standards

- Events now appear as a simple circle enclosing the day in the month that the event occurred. Icons are no longer used.

- The information formerly displayed separately as hover text or within a detail section has now been incorporated into a single pop-up window that appears when the user hovers over the event.

- The zone now follows the updated color standards. Note that as part of this it means that the zone no longer supports different colors for background color, text color or icon overrides as in previous releases.

- The underlying structure has been simplified to enhance rendering and accessibility

Steps To Enable

No steps are required to enable this feature.

Market Transaction Management

In this release support has been provided for market transaction management

Several objects are provided to support market transaction management.

- Market Message Type: This object is used to define the different types of market messages, both inbound and outbound and to define the appropriate market message Business Object to use when creating objects of this type.

- Inbound Market Message: This object captures the instance of a market message received from an external source.

- Outbound Market Message: This object captures the instance of a market message that will initiate a message to an external source.

- Market Process Type: This object is used to define configuration related to processes that may be orchestrate related inbound and outbound market messages. It defines the market process Business Object to use when creating market processes of this type. It may also define one or more market process event business objects to initiate events that are generated to support steps within the market process.

- Market Process: This object captures a instance of a market process that carries out business logic for related inbound and outbound market messages.

- Market Process Event: This object is used to orchestrate individual events that may occur to support steps in a given market process.

- Market Configuration: This object may be used to capture configuration needed to support market transactions. Each type of configuration should use a Business Object to define what information needs to be captured. Each type of configuration may define up to five key fields that may be used to uniquely identify an individual configuration instance.

Note that the Framework supplies basic functionality for each maintenance object. Individual implementations and applications may extend this functionality through business objects designed for specific market transaction management business processes.

Refer to the **Market Transaction Management** chapter in the *Oracle Utilities Application Framework Administrative User Guide* as well as related sections in individual application Administrative User Guides for details about what is supported in each product.

Note that the following objects are enabled for Information Lifecycle Management (ILM). Standard ILM crawler batch controls have been provided for the maintenance objects and the maintenance objects are configured with the standard ILM eligibility algorithms.

- Inbound Market Message
- Outbound Market Message
- Market Process
- Market Process Event
- Are steps required to enable? (required)

Steps To Enable
Security administrative users must provide access to appropriate user groups to several new application services listed below.

Application Service	Description	Access Mode
F1-IMCRL	ILM Crawler - Inbound Market Message	Execute
F1INMM	Inbound Market Message Portal	Inquire
F1-MIMMN	Inbound Market Message Monitor	Execute
F1-MKCRL	ILM Crawler - Market Process	Execute
F1-MKMSO	Outbound Market Message Monitor	Execute
F1-MKPRP	Market Process Monitor	Execute
F1MKTCFG	Market Configuration Portal	Inquire
F1-MKTCFG	Market Configuration MO	Add, Change, Delete, Inquire
F1MKTCFS	Market Configuration Query Portal	Inquire
F1MKTMSG	Market Message Query Portal	Inquire
F1-MKTMSGIN	Inbound Market Message MO	Add, Change, Delete, Inquire
F1-MKTMSGOUT	Outbound Market Message MO	Add, Change, Delete, Inquire
F1-MKTMSGTYP	Market Message Type MO	Add, Change, Delete, Inquire
F1MKTPEV	Market Process Event Portal	Inquire
F1MKTPR	Market Process Portal	Inquire
F1-MKTPRCEVT	Market Process Event MO	Add, Change, Delete, Inquire

F1-MKTPRCTYP	Market Process Type MO	Add, Change, Delete, Inquire
F1-MKTPROC	Market Process MO	Add, Change, Delete, Inquire
F1MKTPTY	Market Process Type Portal	Inquire
F1MMTYPE	Market Message Type Portal	Inquire
F1-MPECL	ILM Crawler - Market Process Event	Execute
F1-MPEVRM	Market Process Event Monitor	Execute
F1-OMCRL	ILM Crawler - Outbound Market Message	Execute
F1OUTMM	Outbound Market Message Portal	Inquire
F1PRCQRY	Market Process Query Portal	Inquire

Application Security Enhancements

User Group Services Management Portal

A new portal is provided to manage application service links to user groups.

In this release, we have introduced a new portal **User Group Services Management** portal. This portal provides a list of all user groups. When a security user broadcasts a user group, additional zones appear.

- **Application Services Linked**: This zone shows the list of application services and access modes currently linked to the user group. A user may remove one or more links using this zone.

- **Application Services Not Linked**: This zone shows the application services and access modes that are not currently linked to this user group. A user may add one or more application services/access modes using this zone.

Both zones include filters allowing a user to narrow the results to a subset of records.

Steps To Enable

Security administrative users must provide access to appropriate user groups to the application service used by this new portal.

To Do Enhancements

This section provides information about enhancements to To Do Entry functionality.

Ability to Work On To Do from To Do Management

The **To Do Management** portal now has a **Work** button for each entry in the search results, allowing a user to drill in and work on the To Do entry.

In this release, the **To Do Management** portal (introduced in the previous release) has been enhanced to include a **Work** button for each row in the results. Clicking this button causes the To Do entry to be the user's "current To Do", resulting in the following functionality.

- The user is taken to the page associated with the related object (the "drill key"), or if configured, it launches the BPA script associated with the To Do type.

- The **Current To Do** dashboard zone is populated with this To Do entry. This zone provides a link to view the To Do entry record and provides a button to Complete the To Do. In addition if the To Do entry has related To Do entries, the user may click a link to view the related To Do entries and provides a button to Complete All of the To Do entries.

This new column includes the **Worklist** icon, allowing a user to put all the results in the dashboard's **Worklist** zone. Once records are in the **Worklist** zone, clicking another entry triggers all the code described above. The new entry becomes the "current To Do"; the user is brought to the appropriate page or an associated BPA is launched; and the **Current To Do** dashboard zone is updated accordingly.

Steps To Enable
No steps are required to enable this feature.

Integration Enhancements

More Detail in API Specification for REST Services
In this release, the API Specification generated for REST Services has been enhanced to show more useful, descriptive information.

The API Specification now displays the Inbound REST Web Service' long description at the top of the specification.

In addition, for each element in the schema of the business object, business service or service script referenced by each operation, the API specification shows information based on the element's related Field, if populated. It shows the field's label, field type and field size. In addition, if the field is a lookup, the valid values of the lookup are also displayed.

Steps To Enable
No steps are required to enable this feature.

Scripting Enhancements

Support for Marking an Element in a List in Error
Syntax is provided in XPath scripting for marking an element within a list in the terminate with error statement.

The terminate with error supports 'element=' to refer to the XPath of the element in error. However, previously there was no way to support indicating a list occurrence if the element in question was in a list. In this release, support is provided by moving the proper XPath reference to a variable and then referencing the variable in the element= syntax.

Steps To Enable

In order to correctly reference an element within a list as the element to mark for an error, script writers must update any script to configure the information.

- The 'for' loop should maintain a count of the list occurrence.

- When an error is detected, a move "concat" statement should be used to build the correct XPath syntax for the list occurrence / element to reference, populating a variable.

- The terminate with error statement should use the variable in the element= attribute.

Example:

```
move "0" to $count;
default $elementReference;
for ($list in "parm/hard/newBusinessObject/listName")
move "1 + xs:integer($count)" to $count;

  if //** check some condition for elementName

     move "concat('list[',$count,']/elementName')" to
$elementReference;
     terminate with error (11000, 11000
element=$elementReference);
  end-if;
end-for;
```

Ability to Mark Field in Error for Groovy Script

A new method is provided in Groovy scripting to indicate a field to mark when issuing an error.

In this release, the method `addErrorWithPath` has been added to support issuing an error from a Groovy script and providing a reference to the field in error so that the user interface can correctly mark the field. This syntax supports referencing a field within a list as well.

Steps To Enable

In order to correctly reference an element within a list as the element to mark for an error, script writers must update any Groovy script to use the new method and configure the field to mark. The syntax is documented in the Javadocs for the method.

Miscellaneous Enhancements

Ability to Manually Transition Object Erasure

Users may transition an object erasure record from Pending to Discarded or Erased and from Discarded back to Pending.

Previously a user could only edit an object erasure record and adjust its erasure date. In this release, the user may now transition an object erasure record from Pending to Discarded or Erased and from Discarded back to Pending. As per standard processing, the status transitions may be controlled by application security.

Steps To Enable

No steps are required to enable this feature.

Support a Summary Panel for a Process Flow

A process flow designer may now provide a high level summary panel for a finalized process flow.

When applicable, a process flow may be configured to present the user with a high level summary of the information and events associated with a closed process flow. The summary panel is defined on the process flow type and is optional.

In addition, log records associated with a process flow record are no longer displayed as part of the query portal. They are displayed on a standard log tab on the process flow portal.

Steps To Enable

No steps are required to enable this feature.

New Batch Control Template for Monitor Batch Controls

A new batch control template is provided.

The new template is provided as an easy starting point for implementers to create new monitor batch controls and include the appropriate parameters.

Steps To Enable

No steps are required to enable this feature.

Application Viewer Supported in Chrome Browser

The application viewer is now supported in the Chrome browser.

Note that this was also hot fixed to the 4.4.0.0.0 code line. Refer to bug 29648052.

Steps To Enable

No steps are required to enable this feature.

Status Added to Installed Products Collection

A product status has been added to the **Installation Options - Installed Products** collection.

In this release, a new **Product Status** field has been introduced to the list of installed products in the **Installation Options** portal. It allows the installation step of a multi-product installation to mark one or more products in the 'stack' as inactive, meaning that certain functionality related to that product is 'turned off'.

Steps To Enable

No steps are required to enable this feature.

Oracle Utilities Application Framework Deprecation Notices

This section provides information on functionality that has been removed, is no longer supported by Oracle Utilities Application Framework v4.4.0.1.0, or is planned for removal.

Items Planned for Future Deprecation

This is a list of functionality / system data that Oracle plans to deprecate in a future release.

Append Setting In Pagination

There are several known issues with the functionality of the 'append' option in pagination such that it is not recommended to use this pagination setting. This functionality will be deprecated in a future release.

Support for Master / Subordinate Services for Web Services Catalog

The Service Catalog Configuration (master configuration) supports defining subordinate servers. This functionality is no longer applicable for the Oracle Integration Cloud and will be removed in a future release.

Selected Functionality of the Batch Run Statistics Portal

The **Batch Run Statistics** portal provides some additional information abut batch runs. However, some of the functionality provided on this page is related to capturing additional information from an external tool. This information is stored in a Fact record.

The functionality related to capturing additional information will no longer be supported in a future release. This information will still be available to existing clients, but the functionality will no longer be maintained.

Miscellaneous System Data

- 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.

  - F1-EnvironmentRefPhysicalBO business object

  - ENV REF maintenance object

- 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 following metadata related to the legacy LDAP import pages will be removed in a future release: Services CILTLDIP, CILTLDIL, CILTLDIS, Application Service: CILTLDIP

- The following algorithm types and algorithms provided for the current LDAP import functionality do not include any logic. They will be removed in a future release.

  - Algorithm Type / Algorithm F1-LDAPIMPRT

- Algorithm Type / Algorithm F1-LDAPPREPR
- The lookup value CHAR_ENTTTY_FLG / F1SE (Characteristic Entity / Sync Request Inbound Exception) is not in use and will be removed in a future release.
- The zone F1-MGRREQDSP will be removed in a future release.

CMA Migration Requests

The migration requests F1-FrameworkAdmin (Framework Admin) and F1-SchemaAdmin (Schema Admin) are no longer recommended and are not going to be updated with new administration / control tables in future releases. The product may deprecate them in a future release.

CMA Import Algorithm

In a future release, the CMA Import algorithm plug-in spot will be deprecated. As an alternative, review any existing algorithms and create appropriate Pre-Compare algorithms.

Business Object Read in F1-MainProc When Pre-Processing Exists

In the original implementation of configuration tools, if a pre-processing script was linked to the business object via options, the main framework maintenance BPA (F1-MainProc) would not perform a Read of the business object (leaving it to the responsibility of the pre-processing script).

In a subsequent release, to solve a UI Hints issue related to child business objects, a business object Read was included in F1-MainProc even if a pre-processing script existed. This solution introduced a problem only visible for specific scenarios and a different fix has been introduced. In the meantime, the business object Read is no longer necessary in F1-MainProc. Since there are many pre-processing scripts that are properly performing the Read of the business object, ideally the business object Read should be removed from F1-MainProc so that multiple reads are not performed.

However, there may have been pre-processing scripts introduced after the business object Read was included in F1-MainProc that were coded to not perform a business object read in the pre-processing script. Due to this situation, the business object Read is still performed as part of the processing of F1-MainProc.

The product plans to remove the business object Read from F1-MainProc logic when a pre-processing script exists. Review your custom pre-processing scripts that are linked to your business object options to ensure that it properly performs a Read of your business object.

Oracle Utilities Application Framework v4.4.0.2.0 Release Notes

This section describes enhancements, system data details and deprecation notices in Oracle Utilities Application Framework v4.4.0.2.0 including:

- Web Services Enhancements
- Implementation Tool Enhancements
- Accessibility Enhancements
- Miscellaneous Enhancements
- Oracle Utilities Application Framework Deprecation Notices

Note: The **Steps To Enable**, **Tips and Considerations**, **Key Resources**, and **Role Information** sections provide guidelines for enabling each feature, where applicable.

Web Services Enhancements

XSLT Storage in the Database for SOAP Services

In previous releases, you had to store eXtensible Stylesheet Language Transformations (XSLTs) files in the file system. The system now supports creating a Managed Content record for any XSLT that you can reference on a SOAP Inbound Web Service (IWS) or External System/Outbound Message Profile record.

Your decision to use Managed Content as the storage mechanism rather than the file system is a system-wide decision. The product does not support some records referring to XSLTs in the file system and managed content. You can control this setting using a Feature Configuration option on the "External Messages" feature type. If you do not define an option, the default value is that the XSLT will be stored in managed content. For new installations, we recommend storing the XSLT records as managed content.

For backward compatibility, you can use an upgrade script to add the XSL Location feature type and set the value to F1FL (file system). If desired, you can see the steps to enable below for information about adopting the new feature.

Be aware that other locations where XSLTs are defined do not support XSL in the database. This includes XAI Inbound Service and any internal functionality, such as zone type configuration, that uses XSLT. Also, be aware that that the business service that supports sending a real-time email supports providing XSLT names as part of the payload. This functionality does not support a XSLT defined in managed content.

Steps To Enable

By default, the system-wide configuration for upgrading clients is set to indicate that XSLTs used for SOAP IWS records and outbound messages are defined in the file system for backward compatibility. In order to support defining these XSLTs as a Managed Content record instead, you should perform the following steps:

1. Create a Manage Content record for each unique XSLT. If the existing file is 30 characters or less, set the Managed Content code to the same name as the existing file name.

2. Locate the feature configuration record for the "External Messages" feature type and find for the XSLT Location option.

3. Change the value to F1MC from F1FL, or you can simply remove the option as F1MC is the default. Since this setting is cached, be sure you flush the cache.

4. For each SOAP IWS record or external system or outbound message profile record that references an XSLT, confirm the name. Make any necessary changes to the referenced XSLT to ensure that it is referencing a valid Managed Content recorded for SOAP IWS records and outbound messages are defined in the file system for backward compatibility.

REST Web Service URL Update

The published API for REST services was updated to the following URL format:

```
…/rest/apis/{ownerURIComponent}/{resourceCategoryURIComponent}/
{iwsURIComponent}/{iwsOperationURIComponent}
```

The information preceding /rest/ is needed to reference the environment. This part of the URL configuration has not changed and will continue to work like previous releases.

The following provides more information about where the various components:

- **Owner URI Component**: Configured using a new extendable lookup. Each owner flag will define its URI Component and the URL will be built using the URI Component for the owner of the REST IWS.

- **Resource Category URI Component**: A new element on the Resource Category extendable lookup. The product delivered resource categories are updated with appropriate values. For any custom Resource Categories, an upgrade script will populate the new URI Component using the extendable lookup value preceded by a slash. You should review these records and make any desired updates to the value.

- **IWS URI Component**: A new element on the REST IWS record. The product delivered IWS records are updated with appropriate values. For any custom REST IWS records, an upgrade script will populate the new URI Component using the Web Service code preceded by a slash. You should review these records and make any desired updates to the value.

The system will continue to support the REST URL format from previous releases. However, we plan to deprecate that code in a future release. You should plan to review any external REST calls and adjust them to follow the new pattern.

Steps To Enable
No steps are required to enable this feature.

REST Web Services Support Parameters and Additional HTTP Methods

The REST IWS was enhanced to support addition HTTP methods along with path and query parameters. On the IWS operation, the methods GET, PUT and PATCH are now supported. This is in addition to existing support for POST.

The actual actions and functionality that are triggered by a given REST service call are still controlled by the business object, business service, or service script that is configured

on the operation. For example, if you configure an operation with the HTTP method of PUT and you reference a service script that is simply reading a record, the system will perform the action of the service script and read the record. The HTTP methods are meant as external documentation.

In addition to supporting additional HTTP methods, the system also supports designing path or query parameters. When using the HTTP Method of GET, PUT or PATCH, a new child collection for IWS Operation is available for the REST IWS record. The collection is a mapping from the schema element XPath to the text that you want used for that parameter in the URL. In addition, for each parameter, you indicate whether it is a path or query parameter:

- **Path parameters**: Parameters that are part of the endpoint and required. The Operation's URI Component must declare each path parameter surrounded by curly braces. The API for the Inbound REST Web Service will include this notation so that REST callers will know what needs to be provided.

- **Query parameters**: Optional. Parameters that are not part of the endpoint. They are included in the endpoint URL after a question mark and followed by name-value pairs.

Steps To Enable
No steps are required to enable this feature.

Implementation Tool Enhancements

Data Conversion Tools
You can use the following new template batch programs to convert data for enabled maintenance objects:

- **Validation** (F1-CVVAL): Validates the schema and business rules associated with a maintenance object.

- **Key Assignment** (F1-CVASG): When the primary key is system generated, generates new keys for legacy keys for a table.

- **XML Resolution** (F1-CVXML): Resolves converted foreign key references in XML storage fields.

- **Insert to Production** (F1-CVINS): Inserts data to production while resolving legacy keys across physical fields and XML storage fields.

- **Copy to Staging** (F1-CVCTS): Allows you to copy data from production back to staging in order to resolve unique conversion situations that may arise when multiple products are installed.

Steps To Enable
No steps are required to enable this feature.

Key Resources
You can refer to your product's online help for more information about the conversion process. You can refer to your product-specific documentation for more information on the specific maintenance objects enabled for conversion.

Oracle JavaScript Extension Toolkit (OJET) Upgrade

Oracle JavaScript Extension Toolkit (OJET) was upgraded to accommodate security fixes within JQuery.

Steps To Enable

No steps are required to enable this feature.

Tips and Consideration

The new version of OJET also incorporated newer releases of other included libraries. Knockout, one of these new releases, is used for data binding. Knockout uses a JavaScript function to enable this binding, which resembles the following:

```
ko.applyBindings(viewModel, document.body);
```

With the previous OJET and Knockout releases, the applyBindings function only required the view/model parameter. The second parameter, the DOM object, was optional. With the new release, the second parameter is now required. If you have code that omitted this parameter, you will need to add it. If you do not provide it, a message will appear on the console log informing you of the situation. Be aware that while "document.body" is an acceptable parameter, performance may be enhanced if you can provide a smaller portion of the document. For example:

```
ko.applyBindings(viewModel,
document.getElementById('bindContainer'));
```

With the previous release of OJet v3.2, the elements were included on the page by use of the data-bind format. For example:

```
<div id="barChart" data-bind="ojComponent: { component: 'ojChart',
    type: 'bar',
    orientation: orientationValue,
    stack: stackValue,
    series: barSeriesValue,
    groups: barGroupsValue,
    hoverBehavior: 'dim'          }"
</div>
```

This format of definition is still supported by the current OJET v7.1 release. However, a new format of definition called Web Component is available in this release. For example:

```
<oj-chart id="areaChart" type="bar"
orientation="[[orientationValue]]" stack="[[stackValue]]"
data="[[dataProvider]]">
    <template slot="itemTemplate" data-oj-as="item">
        <oj-chart-item value="[[item.data.value]]" group-id="[[
        [item.data.quarter] ]]" series-id="[[item.data.series]]"></
        oj-chart-item>
    </template>
</oj-chart>
```

While the structure appears to be different, the actual functionality and parameter usage are almost identical to the "data-bind" format. Since it provides more functionality (if needed) and performance changes to make rendering faster, we recommend using the Web Component format instead of the data-bind format.

Be aware that OJET v8.0 and later will no longer support the deprecated "data-bind" format. Therefore, updating any OJET code now will provide you with immediate benefits as well as reduce or remove future implementation issues. Details and examples of the Web Component format are provided on the website listed below.

Key Resources
You can refer to the OJET site at https://www.oracle.com/webfolder/technetwork/jet/index.html.

Accessibility Enhancements

Alternate Row Header on Data Explorers
For accessibility, every table in the system should define its row header as the data that uniquely identifies the row. In previous releases, for data explorer results, the first column in the results was automatically designated as the row header. There was no ability for you to designate a different column or multiple columns as the row header. In this release, a new zone column mnemonic has been introduced: rowheader=true. You can use this when designing a data explorer zone if the first column in the results does not uniquely define the row.

Steps To Enable
If you have accessible users and custom zones where the first column does not uniquely define the row, you should consider updating the zone columns to indicate the column(s) that uniquely identify the row.

Alternate Red Text Color Option
There are places in the products where the color red is used for emphasis. The standard red color supported in HTML does not satisfy the accessibility requirement for color contrast minimum when the background is white.

Instead of using color=red or #FF0000 (the RGB color model combination for "red"), we recommend you use the following red shade on a white background: color=#E0292F.

In addition, we provide a new Cascading Style Sheet (CSS) class so that you do not have to remember the code to implement this change. You can use the class textColorRedOnWhite. You can use this UI maps, zone help text, and scripting. For data explorer columns, reference the RGB code.

Steps To Enable
No steps are required to enable this feature.

Tips and Considerations
If implementations are coding their own user interface components and plan to use the color red, we recommend implementing the alternate red color to accommodate any accessible users that may be impacted.

Key Resources
You can reference the new "Accessibility Considerations" section in the Configuration Tools chapter of the online help.

Miscellaneous Enhancements

Date and Time Extracted in XSD Format

By default, date and time fields are retrieved and extracted in an internal "OUA'" format. In this release, various changes were implemented to support indicating that all date and time fields should be converted to standard XSD format:

- The plug-in driven extract batch program supplied by the product was enhanced to include a new parameter to indicate the date format.

- The F1-ConvertXMLToDelimited and F1-ConvertXMLToFileFormat business services were enhanced to include a new parameter to indicate the date format. By default, date and time fields are retrieved and extracted in an internal "OUAF" format. In this release, various changes were implemented to support indicating that all date and time fields should be converted to standard XSD format.

- The plug-in driven extract batch program supplied by the product was enhanced to include a new parameter to indicate the date format.

Steps To Enable

No steps are required to enable this feature.

Market Transaction Management Environment Initialization

If you plan to import market transaction management accelerator metadata, you are required as an initial step to include a new entry in the Installed Products database for the "utility markets" owner flag.

Steps To Enable

You need to submit the F1-IPUM background process. This process has its own F1-IPUM application service that you need to configure for the appropriate user group.

Configuration Updates on ILM-Enabled Maintenance Objects

We added a missing eligibility algorithm and an ILM crawler batch control to the ILM-enabled Process Flow (F1-PROSTR) and Statistics Snapshot (F1-STSSNPSHT) maintenance objects. As per the recommended settings, several maintenance objects that are ILM enabled and are configured with the base ILM Eligibility algorithm by status were updated to configure maintenance object options related to status.

Steps To Enable

Make the feature accessible by assigning or updating privileges and/or job roles. Details are provided in the Role section below.

Tips and Considerations

If any of the settings do not align with your implementation's business rules, you should take steps to adjust the options.

Role Information

The two new ILM crawler batch jobs include new application services: F1-SSCRL and F1-PFCR. Security administrators should add these application services to any user group that is authorized to run the ILM crawler batch controls.

Batch Thread Error Handing Enhancement

Batch jobs may fail because of technical or environmental reasons that are transient in nature, such as an interruption in the availability of the database. With the previous batch implementation, temporary failures would result in the batch thread being marked in Error status and a customer alert. Since these issues cannot always be resolved, batch processing now supports automatic thread resubmission when a failure occurs for technical reasons. The thread will now move to a status of "Interrupted" and the system will attempt a number of retries before moving the thread to "Error."

Steps To Enable

No steps are required to enable this feature.

Oracle Utilities Application Framework Deprecation Notices

This section provides information on functionality that has been removed, is no longer supported by Oracle Utilities Application Framework v4.4.0.2.0, or is planned for removal.

Items Planned for Future Deprecation

This is a list of functionality / system data that Oracle plans to deprecate in a future release.

Application Viewer

In a future release, we plan to no longer support a standalone application viewer. The functionality will be incorporated into the application:

- Similar to the data dictionary, we will enhance user interfaces for tables and fields to provide more information at a glance and provide a view of links between tables.

- Information displayed for maintenance objects, batch controls and algorithm types and algorithms are already visible in the application.

- Javadocs and Groovy Javadocs will be viewable from within the application rather than launching a separate application viewer application.

REST IWS - Original REST Servlet

The original URL supplied for invoking IWS-based REST services included the IWS Service name in its makeup. We continue to support this for backward compatibility purposes, but we will deprecate it in a future release. As defined in the documentation, you should adjust your existing integrations to use the currently supported URL.

Maintenance BPA Change Warnings to Popup

Currently, the common maintenance BPA used by most of the system displays warnings as errors. This erroneously allows you to make changes to the record before clicking OK. In this situation, the warning conditions will not be checked again for the new changes.

We plan on changing this in the future to show warnings as pop-ups. You will be able to click OK to accept the warning without being able to make any changes. You can click Cancel to adjust the form and resubmit, which will check the warning conditions again.

Append Setting In Pagination

There are several known issues with the functionality of the 'append' option in pagination such that it is not recommended to use this pagination setting. This functionality will be deprecated in a future release.

Support for Master / Subordinate Services for Web Services Catalog

The Service Catalog Configuration (master configuration) supports defining subordinate servers. This functionality is no longer applicable for the Oracle Integration Cloud and will be removed in a future release.

Selected Functionality of the Batch Run Statistics Portal

The **Batch Run Statistics** portal provides some additional information abut batch runs. However, some of the functionality provided on this page is related to capturing additional information from an external tool. This information is stored in a Fact record.

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Miscellaneous System Data

- 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.

  - F1-EnvironmentRefPhysicalBO business object

  - ENV REF maintenance object

- 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 following metadata related to the legacy LDAP import pages will be removed in a future release: Services CILTLDIP, CILTLDIL, CILTLDIS, Application Service: CILTLDIP

- The following algorithm types and algorithms provided for the current LDAP import functionality do not include any logic. They will be removed in a future release.

  - Algorithm Type / Algorithm F1-LDAPIMPRT

  - Algorithm Type / Algorithm F1-LDAPPREPR

- The lookup value CHAR_ENTITY_FLG / F1SE (Characteristic Entity / Sync Request Inbound Exception) is not in use and will be removed in a future release.

- The zone F1-MGRREQDSP will be removed in a future release.

CMA Migration Requests

The migration requests F1-FrameworkAdmin (Framework Admin) and F1-SchemaAdmin (Schema Admin) are no longer recommended and are not going to be updated with new administration / control tables in future releases. The product may deprecate them in a future release.

CMA Import Algorithm

In a future release, the CMA Import algorithm plug-in spot will be deprecated. As an alternative, review any existing algorithms and create appropriate Pre-Compare algorithms.

Business Object Read in F1-MainProc When Pre-Processing Exists

In the original implementation of configuration tools, if a pre-processing script was linked to the business object via options, the main framework maintenance BPA (F1-MainProc) would not perform a Read of the business object (leaving it to the responsibility of the pre-processing script).

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However, there may have been pre-processing scripts introduced after the business object Read was included in F1-MainProc that were coded to not perform a business object read in the pre-processing script. Due to this situation, the business object Read is still performed as part of the processing of F1-MainProc.

The product plans to remove the business object Read from F1-MainProc logic when a pre-processing script exists. Review your custom pre-processing scripts that are linked to your business object options to ensure that it properly performs a Read of your business object.