

Oracle Utilities Rate Cloud Service

Release Notes

Release 19C

F22352-01

September 2019

Oracle Utilities Rate Cloud Service Release 19C Release Notes

Copyright © 2000, 2019 Oracle and/or its affiliates. All rights reserved.

This software and related documentation are provided under a license agreement containing restrictions on use and disclosure and are protected by intellectual property laws. Except as expressly permitted in your license agreement or allowed by law, you may not use, copy, reproduce, translate, broadcast, modify, license, transmit, distribute, exhibit, perform, publish, or display any part, in any form, or by any means. Reverse engineering, disassembly, or decompilation of this software, unless required by law for interoperability, is prohibited.

The information contained herein is subject to change without notice and is not warranted to be error-free. If you find any errors, please report them to us in writing.

If this is software or related documentation that is delivered to the U.S. Government or anyone licensing it on behalf of the U.S. Government, then the following notice is applicable:

U.S. GOVERNMENT END USERS: Oracle programs, including any operating system, integrated software, any programs installed on the hardware, and/or documentation, delivered to U.S. Government end users are "commercial computer software" pursuant to the applicable Federal Acquisition Regulation and agency-specific supplemental regulations. As such, use, duplication, disclosure, modification, and adaptation of the programs, including any operating system, integrated software, any programs installed on the hardware, and/or documentation, shall be subject to license terms and license restrictions applicable to the programs. No other rights are granted to the U.S. Government.

This software or hardware is developed for general use in a variety of information management applications. It is not developed or intended for use in any inherently dangerous applications, including applications that may create a risk of personal injury. If you use this software or hardware in dangerous applications, then you shall be responsible to take all appropriate fail-safe, backup, redundancy, and other measures to ensure its safe use. Oracle Corporation and its affiliates disclaim any liability for any damages caused by use of this software or hardware in dangerous applications.

Oracle and Java are registered trademarks of Oracle and/or its affiliates. Other names may be trademarks of their respective owners.

Intel and Intel Xeon are trademarks or registered trademarks of Intel Corporation. All SPARC trademarks are used under license and are trademarks or registered trademarks of SPARC International, Inc. AMD, Opteron, the AMD logo, and the AMD Opteron logo are trademarks or registered trademarks of Advanced Micro Devices. UNIX is a registered trademark of The Open Group.

This software or hardware and documentation may provide access to or information about content, products, and services from third parties. Oracle Corporation and its affiliates are not responsible for and expressly disclaim all warranties of any kind with respect to third-party content, products, and services unless otherwise set forth in an applicable agreement between you and Oracle. Oracle Corporation and its affiliates will not be responsible for any loss, costs, or damages incurred due to your access to or use of third-party content, products, or services, except as set forth in an applicable agreement between you and Oracle.

Contents

Chapter 1

Release Notes	1-1
About This Release.....	1-2
Oracle Utilities Application Framework v4.4.0.2 Release Notes	1-3
Web Services Enhancements	1-3
Implementation Tool Enhancements	1-5
Accessibility Enhancements	1-7
Miscellaneous Enhancements	1-8
Oracle Utilities Application Framework Deprecation Notices	1-9
Known Issues	1-12
Bug Fixes Not Included in This Release	1-12
Known Issues in Oracle Utilities Application Framework	1-12

Chapter 1

Release Notes

These release notes contain the following sections:

- [About This Release](#)
- [Oracle Utilities Application Framework v4.4.0.2 Release Notes](#)
- [Known Issues](#)

About This Release

This section contains general information about Oracle Utilities Rate Cloud Service Release 19C.

Oracle Utilities Rate Cloud Service includes the following Oracle Utilities applications:

- Oracle Utilities Customer To Meter v2.7.0.3
- Oracle Utilities Cloud Service Foundation v19C
- Oracle Utilities Testing Accelerator

Oracle Utilities Application Framework v4.4.0.2 Release Notes

Note: Not all of the enhancements described in this section are applicable to Rate Cloud Service.

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 additional 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-aj-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 Handling 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 v4.3.0.5, 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 about 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_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).

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.

Known Issues

This section lists known issues and bugs not fixed in this release of Oracle Utilities Rate Cloud Service and Oracle Utilities Application Framework.

- [Bug Fixes Not Included in This Release](#)
- [Known Issues in Oracle Utilities Application Framework](#)

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
30065650	2.4.0.3.0	Issue with selecting Characteristic Types from a Calculation Rule	30073164

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 Rate Cloud Service 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).