

Oracle® Retail Analytics Platform

Administration Guide



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ORACLE®

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Preface

This Administration Guide provides critical information about the processing and operating details of the Retail Analytics Platform, including the following

- System configuration settings
- Technical architecture
- Functional integration dataflow across the enterprise
- Batch processing

Audience

This guide is for:

- Systems administration and operations personnel
- Systems analysts
- Integrators and implementers
- Business analysts who need information about the Retail Analytics Platform processes and interfaces

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Oracle Retail Cloud Services and Business Agility

The Oracle Retail Analytics Platform Cloud Services are hosted in the Oracle Cloud with the security features inherent to Oracle technology and a robust data center classification, providing significant uptime. The Oracle Cloud team is responsible for installing, monitoring, patching, and upgrading retail software.

Included in the service is continuous technical support, access to software feature enhancements, hardware upgrades, and disaster recovery. The Cloud Service model helps to free customer IT resources from the need to perform these tasks, giving retailers greater business agility to respond to changing technologies and to perform more value-added tasks focused on business processes and innovation.

Oracle Retail Software Cloud Service is acquired exclusively through a subscription service (SaaS) model. This shifts funding from a capital investment in software to an operational expense. Subscription-based pricing for retail applications offers flexibility and cost effectiveness.

1

Administration Tasks Overview

The intent of this document is to guide a Retail Analytics Platform (RAP) Administrator to perform the recurring administrative activities for all applications you have licensed within the platform. In some cases, the details will be explained in this document, and in other cases, only the general process will be covered and details will be explained in individual applications' Administration Guides.

Administration activities for RAP applications fall into two general categories:

- **Maintenance Activities** – Tasks where you will be expected to change a configuration, run a process, or update the application in some manner
- **Monitoring Activities** – Tasks where you will need to gather information or assess the status of an application or process, but not necessarily take any action

Each of the sections in this document will highlight the most common administrative tasks within the context of performing one or both of these activity types. If the administrative task is specific to a single application (rather than multiple applications or the entire platform) then you may follow the provided links and references to access additional information on that topic. The table below summarizes the topics covered in this document.

Table 1-1 Administration Tasks Overview

Topic	Summary
Managing User Security	Common tasks performed in IDCS or OCI IAM for user maintenance; for example, user groups and configurations for RAP applications.
Managing Batches	Where to monitor and maintain batch activity by application, how to resolve common batch issues.
Managing Label Customization	How to change the display labels in the application interfaces to use custom or business-specific values.
Managing File Transfers	How to use File Transfer Services (FTS) to upload files to the Oracle Cloud.
Managing Data Visualization	How to manage your Data Visualization (DV) datasets and reports, common tasks to perform regarding security, and data maintenance.
Managing RPAS Applications	Administrative activities performed for RAP modules such as Merchandise Financial Planning, which have specific task flows and interfaces for their administrative duties.
Managing APEX and Extensions	Administering other tools and platform components such as APEX, which are used to extend the platform and provide additional capabilities not listed above.

2

Managing User Security

All applications in the Retail Analytics Platform leverage Identity Cloud Service (IDCS) or Oracle Cloud Infrastructure Identity and Access Management (OCI IAM), which are Oracle's cloud-native security and identity platforms. They provide a powerful set of hybrid identity features to maintain a single identity for each user across cloud, mobile, and on-premise applications. IDCS and OCI IAM enable single sign-on (SSO) across all applications in a customer's Oracle Cloud tenancy. Customers can also integrate IDCS or OCI IAM with other on-premise applications to extend the scope of this SSO.

IDCS and OCI IAM are available in two tiers: Foundation and Standard.

- **Oracle Identity Cloud Service Foundation:** Oracle provisions this free version of Oracle Identity Cloud Service for customers that subscribe to Oracle Software-as-a-Service (SaaS), Oracle Platform-as-a-Service (PaaS), and Infrastructure-as-a-Service (IaaS) applications. A customer can use this version to provide basic identity management functionalities, including user management, group management, password management, and basic reporting.
- **Oracle Identity Cloud Service Standard:** This licensed edition provides customers with an additional set of Oracle Identity Cloud Service features to integrate with other Oracle Cloud services, including Oracle Cloud SaaS and PaaS, custom applications hosted on-premise, on Oracle Cloud, or on a third-party cloud, as well as third-party SaaS applications. Features listed in this pricing tier are applicable for both Enterprise users and Consumer users.

The Retail Analytics Platform only requires the Foundation Tier, as the Foundation Tier includes key features such as User and Group Management, Self-Service Profile Management, Password Reset, and SSO. However, Oracle Retail customers may wish to consider licensing the Standard Tier of IDCS or OCI IAM to have access to more advanced identity features including Identity Synchronization with Microsoft Active Directory, SSO for Third-Party Cloud Services, and Custom Applications, Multi-Factor Authentication and generic SCIM Templates.

Review the table below for common IDCS and OCI IAM administrative tasks available with the Foundation tier which a typical Administrator will be expected to perform:

Task	More Information
Create, modify, or remove user accounts	Create User Accounts Edit Attribute Values for the User Account Deactivate User Accounts
Add or remove users from groups	Assign Groups to the User Account Remove Groups from the User Account
Reset passwords for users	Reset Passwords for User Accounts
Resend user account activation email	Send Invitations to Users to Activate Their Accounts
Bulk import of users and groups	Import User Accounts Import Groups

Application Security Policies

Each application in the platform includes user groups, security policies, application permissions that are specific to their business processes, and user interfaces. The section below provides a high-level summary of these areas with references for accessing additional details.

Platform Components

Each of the common tools and components used by the platform has IDCS or OCI IAM groups to control access to those interfaces and functionality. The most commonly used groups are listed below.

Table 2-1 Common Components User Groups

Example User	IDCS or OCI IAM Groups	Description
Batch Administrator	BATCH_SCHEDULE_ADMINISTRATOR_JOB	Full access to the POM application to monitor and update Oracle Retail batch schedules. For a complete list of groups, see the <i>POM Implementation Guide</i> .
Retail Home Administrator	RETAIL_HOME_ADMIN PLATFORM_SERVICES_ADMINISTRATOR	Full access to the Retail Home application configurations for dashboards, notifications, resource bundles, and customer module setup.
APEX / IW Administrator	DATA_SCIENCE_ADMINISTRATOR_JOB DATA_SCIENCE_OLDS_ADMIN_JOB	Full access to APEX and Python Notebook administration options.

Retail Insights

Retail Insights Cloud Services are built with role-based access to features and functionality. One set of IDCS or OCI IAM groups is used to control data access to functional areas such as Sales or Inventory. Another set of groups controls the access level for Oracle Analytics components, such as the ability to create new reports or edit reports in the catalog. A typical Retail Insights user might have the following groups assigned to them:

Table 2-2 Example Retail Insights User Groups

Example User	IDCS or OCI IAM Groups	Description
RI Application Administrator	BIconsumer_JOB BIAuthors_JOB RIApplicationAdministrator_JOB RetailAnalysts_JOB RETAIL_HOME_ADMIN	This user has access to all functional areas in RI and can manage Agents and modify and delete objects in the /Shared Folders/Custom/ space in the catalog.

Table 2-2 (Cont.) Example Retail Insights User Groups

Example User	IDCS or OCI IAM Groups	Description
Junior Merchandiser	BIconsumer_JOB	This user has access to the Sales, Inventory, and Supplier areas in RI, which are typically required for basic reporting on merchandise. The user can create reports, but not agents.
	BIAuthors_JOB	
	SalesInsights_JOB	
	InventoryInsights_JOB	
	SupplierInsights_JOB	

**Note:**

Pre-production environment groups use the _PREPROD notation at the end of the role names, such as SalesInsights_JOB_PREPROD. For a full list of user groups in Retail Insights, refer to the *Retail Insights Administration Guide*.

Science Applications

Each Science application on the platform has its own set of groups that determine a user's access level to that application's user interface. Groups are divided based on typical business tasks and duties that the user is expected to perform, such as one group for managing markdown optimization configurations and another which only creates and runs scenarios. Just like Retail Insights, these groups also use the _PREPROD notation for non-production environment permissions.

Table 2-3 Example Science User Groups

Example User	IDCS or OCI IAM Groups	Description
System Implementer / Business Administrator	ADMINISTRATOR_JOB	User has access to the Tactical and Control Center for modifying system configurations and creating forecasts.
Inventory Analyst	INVENTORY_ANALYST_JOB RetailVisualAnalyzer_JOB	User has access to the Inventory Optimization application screens as well as the Data Visualizer tool for viewing/editing reports.
Size Profile Analyst	SIZE_PROFILE_ANALYST_JOB	Responsible for system parameter maintenance to support size profile calculations. May also be responsible for the approval of size profiles.

For a complete list of available groups, refer to the *Retail Science Cloud Service Administration Guide*.

Merchandise Financial Planning

Merchandise Financial Planning provides default IDCS or OCI IAM groups to manage access levels in the application. In MFP, user access to various templates can be controlled at the

user-group level, and those groups are aligned with IDCS or OCI IAM. Aside from the default IDCS or OCI IAM groups, administrators can also create new user groups directly within MFP and synchronize those groups using Online Administration Tasks.

Example User	IDCS or OCI IAM Groups	Description
MFP Prod Users	MFP_AUTH_PROD	Grants MFP access to a production environment
MFP Stage Users	MFP_AUTH_STAGE	Grants MFP access to a stage (non-production) environment
Application Administrator	MFP_ADMIN	The administrator will have access to all templates within the application, and can schedule Online Administration Tasks.
MFP Planners/MFP Approvers	MFP_USERS MFP_PLANNERS MFP_BUYERS MFP_APPROVERS	MFP user permissions are given by administrators at the template level. Users within each of these groups will only have access to the associated templates.

For a complete list of available groups and more details, refer to the *RPASCE Administration Guide* and *MFP Administration Guide*.

3

Managing Batches

The Process Orchestration and Monitoring (POM) application is a user interface for scheduling, tracking, and managing batch jobs. As an application administrator, you will be expected to monitor the various batches running in POM and potentially take corrective actions if a batch is in a failed or long-running state. This chapter summarizes the most common activities associated with POM and batch execution and provides references to additional details where available.

Batch Administration Duties

Throughout the project and after you are in a Production environment, the responsibility of monitoring and maintaining batch schedules and processes is divided across multiple groups. Review the information below for a typical breakdown of batch responsibilities.

Initial Configuration: Oracle Cloud Operations deploys batch schedules according to your subscriptions, which come pre-installed with certain basic configurations and enabled or disabled batch programs.

Final Configuration: Customer/Solution Implementation Partner (SI) is responsible for modifying the batch schedules during the project and after go-live in Production, based on their current implementation needs.

Scheduling: Customer/Solution Implementation Partner (SI) uses the POM scheduler to schedule nightly, cyclical, and ad hoc jobs. Oracle is not typically responsible for changing schedule start times after go-live, as it can be done in POM.

Notifications: Customer/Solution Implementation Partner (SI) is responsible for setting up batch notifications using Retail Home and POM. Oracle will not typically alter batch notifications on customer environments (unless needed to change internal notifications of batch status).

Error Resolution: Customer/Solution Implementation Partner (SI) is responsible for resolving issues in non-production environments and restarting batch processes from POM after the errors are resolved. In Production environments, the Customer is responsible for monitoring the batch and resolving errors, if possible (for example, if files are not uploaded on time or uploaded with bad data). In both cases, Service Requests can be raised with Oracle for support.

Review the table below for a summary of duties broken down by environment type:

Environments	Activities	Responsibility	Support Mechanism
Non-Prod (Dev, Breakfix, Stage)	Batch Monitoring Troubleshooting Data Correction	Customer/SI partner	Service Request
Production	Batch Monitoring Troubleshooting Data Correction	Customer/Oracle	Service Request/ Email groups

Batch Email Notifications

The primary source of information about the batch status on a daily basis will be the email notifications sent from POM for every batch execution. These emails will contain a summary of the batch status, the longest-running jobs, the total batch duration, and other useful details to help you assess the state of the current batch cycle. To keep the business up-to-date on batch execution status and take action in the case of batch failures, the designated administrators for the Retail Analytics Platform applications will be expected to receive and review these emails regularly after going live in a production environment.

Figure 3-1 POM Sample Batch Notification

ORACLE

Execution summary for business date 21-AUG-21

 Status: **Complete**

POM EOD Summary		Job Results	
Total Execution Time	160.6 min	Successes	169
Average Execution Time	107.47 min	Errors	0
Total Job Execution Time	35.07 min	Skipped	0
Total POM Wait Time	125.53 min	Skipped on Error	0
Cycle Start Time	23-AUG-21 / 14:29:10		
Cycle End Time	23-AUG-21 / 17:09:46		

Each batch schedule in POM issues its email notifications. Additionally, POM supports numerous notification types for specific use cases, such as individual job failures and long-running processes. Customers are expected to set up local mailing lists which can receive automated messages from Oracle Cloud applications. To change the recipients on an email notification, access the Notifications interface in Retail Home. Follow these steps to add or update a notification:

1. Log in to Retail Home with a user having Retail Home Administrator privileges (see the section on [Application Security Policies](#) for role details if needed).
2. Open the Settings panel and access the Manage Notifications screen.
3. Click **Create** in the Notification Types table to add a new notification.

Create Notification Type

Notification Type Name *

Type Code *

Description *

Retention ☒ Permanent

Email Address

Enter 80 or fe

Cancel OK

4. The **Name** and **Description** fields are user-specified values. The **Type Code** must be one of the supported notification type codes for POM. POM provides a complete list of type codes in the *POM Implementation Guide* in the “Notifications” chapter. For example, the code for batch summary emails is “NightlySummaryReportExternal”.
5. Once a new Notification Type has been created in the previous step, the Notification Groups table refreshes, and an empty table is displayed. Click **Create** in the Notification Groups table. Enter a name and description for the group of users or roles that you plan to send this notification.

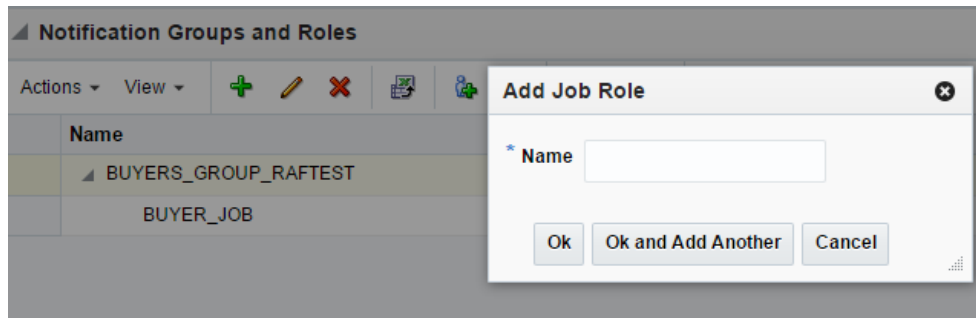
Create Notification Group

* Name

Description

OK Cancel

6. Click **Add Job Role** in the Notification Groups table to add valid roles to the new notification group. Notifications of this type show up for users with these roles within the Notification Panels throughout Oracle Retail applications.
7. Enter a valid role name (for example, BUYER_JOB) to issue the notifications to all users having that role.



Repeat these steps for as many POM notification types as you wish to receive.



Note:

It is not recommended to set up these emails until the implementation is nearing completion, as it could result in spamming email inboxes with many unwanted messages from non-production environments

Batch Monitoring in POM

The POM application provides a Batch Monitoring screen for viewing detailed information about batch schedules, including the current run status of each job in a schedule, and the runtime of completed jobs. Accessing the Batch Monitoring screen requires you to have at least the IDCS or OCI IAM user group `BATCH_VIEWER_JOB`. Once you have the necessary user permissions, follow these general steps to monitor the batch:

1. Navigate to POM using the application link provided in Retail Home, or navigate directly to the POM URL, if known.
2. Click the **Batch Monitoring** link from the navigator menu.
3. Change the business date if you are looking to see batch information for prior runs; otherwise, select an application tile to open the batch details.
4. Select the batch cycle type (nightly / recurring / standalone).
5. Review the information shown on-screen or click **Download Cycle Summary** to save the information to review offline.

For additional information about this screen, refer to the *POM User Guide* section on “Batch Monitoring”.

Change Batch Start Time

Another maintenance task that the application administrator may be required to do periodically is to change the start time for a batch cycle. This activity requires you to have the `BATCH_SCHEDULE_ADMINISTRATOR_JOB` in IDCS or OCI IAM. The POM application provides a way to configure each batch with a start time following the general steps below:

1. Navigate to POM using the application link provided in Retail Home, or navigate directly to the POM URL, if known.
2. Click the **Scheduler Administration** link from the navigator menu.

3. Select a schedule tile and frequency that you wish to edit.
4. Select the row displayed in the table and click the **Edit** action to modify the start time of the batch cycle.

For additional information about this screen, refer to the *POM User Guide* section on “Scheduler Administration”.

Batch Error Details

When a batch process fails in POM, an email notification should be issued, stating the exact point of failure (assuming notifications are configured). You can also access the Batch Monitoring screen in the POM user interface to view the failed job and download the log information. The steps to download job logs are below:

1. Navigate to POM using the application link provided in Retail Home, or navigate directly to the POM URL, if known.
2. Click the **Batch Monitoring** link from the navigator menu.
3. Select your schedule and cycle from the available batches.
4. Click the name of a job with an incomplete status. Under the Batch Details screen, locate the table for Executions and click the download link in the Log column.

Review the error log details for the cause of failure. If the error message does not indicate a problem that can be fixed internally (for example, invalid data files, duplicate data rows, or data that violates a key constraint on the interface) then raise an Oracle Service Request for assistance. After batch issues have been resolved, you may restart the batch processing from the point of failure using the POM user interface.

Planning Batches in OAT

If you are using Merchandise Financial Planning, then POM will not be the only source of batch information that you will be required to access. Planning applications like Merchandise Financial Planning schedule jobs through POM and run ad hoc tasks within the application through [Online Administration Tools \(OAT\)](#). Please refer to the *RPASCE Administration Guide* and *MFP Administration Guide* for more details on managing tasks using OAT.

4

Managing Label Customization

Many Oracle Retail applications come packaged with resource bundles, which are files that contain translatable text resources. These resources appear throughout the Oracle Retail application as instructions, messages, labels, errors, and so on. Virtually any text that appears in the application comes from a resource bundle.

These Oracle Retail applications allow retailers to customize the text that appears in the application to better match the retailer's business language. The ability to change the text for a resource is provided through the Resource Bundles area of Retail Home. Retailers can customize text resources for any Oracle Retail supported language.

Currently, the following Retail Analytics Platform applications support this feature:

- Retail Insights
- Inventory Optimization
- Offer Optimization
- Size Profile Optimization

Resources and Customizations Explained

All text resources in the Retail Analytics Platform have the following values:

- **Base Application Code** - This value identifies the Oracle Retail application that owns this text resource.
- **Language** - This value identifies the language of the text resource.
- **Bundle** - This value identifies the bundle file where this text resource resides.
- **Resource** - This value is the unique name that can be used to receive the text for this resource.
- **Base Text** - This value is the text provided by the Oracle Retail application. This is the text that will appear in the application by default.

Every text resource in Oracle Retail applications is uniquely identified by the combination of Application Code, Language, Bundle, and Resource.

A resource customization is a change made to the text of a resource by a retailer. In addition to the values above, customizations also have the following values:

- **Current Text** - This is the text that will appear in the application. If a retailer has provided custom text for the resource, then this value will display the retailer's custom text. Otherwise, it will display the base text provided by the application.

Retail Home Task Flows

The Resource Bundles area of Retail Home consists of the following task flows:

- Resource Text Strings

- Import Management

Resource Text Strings

From the Retail Home lower-left hand Settings menu, the user can access the **Resource Bundles** link. The Resource Text Strings screen provides the capability to customize the resources present in the resource bundles in an application. The user can search the resources in the application using the Bundle, Language, Resource, Contains Custom Text, or Text fields.

Figure 4-1 Resource Text Strings Screen

Resource	Base Text	Current Text	Updated Date	Updated By
CD_Retail_Administration_Error_Admin	Displays error message from the corresq	Displays error message from the corresq		
CD_Retail_Administration_Error_Admin_Current	Displays the current date.	Displays the current date.		
CD_Retail_Administration_Error_Admin_Error_Cc	Total count of the error for a particular i	Total count of the error for a particular i		
CD_Retail_Administration_Error_Admin_Error_M	Displays error message from the corresq	Displays error message from the corresq		
CD_Retail_Administration_Error_Admin_Error_Ty	Displays type of error.	Displays type of error.		
CD_Retail_Administration_Error_Admin_Lead_Di	Date when the error has occurred.	Date when the error has occurred.		
CD_Retail_Administration_Error_Admin_Table_Nu	This displays the name of the ES table.	This displays the name of the ES table.		

The user can view, add, edit, or remove custom text for a resource using this screen.

The user can also export the results table to an Excel CSV file using this screen. The export action allows the user to modify custom text for many resources at one time, and upload all the custom values in a single action in Import Management.

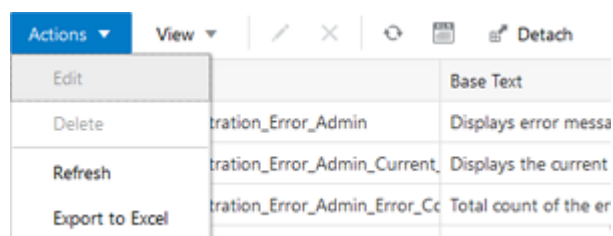
The results table in the Resource Text Strings screen displays the Resource, Base Text, Current Text, Contains Custom Text, Updated Date, and Updated By columns for the resources matching the entered search criteria.

- If there is a custom value present for a resource, it appears in the Text column, along with the date and the user who customized that entry.

The Contains Custom Text column will display **Yes** if a custom value is present for a resource.

- If no custom value is present for a resource, the Text column displays the base text. The Updated Date and Updated By fields will be empty.

The Contains Custom Text column will display **No** in this scenario.

Figure 4-2 Edit or Remove Custom Text

Actions	View	
Edit		Base Text
Delete	tration_Error_Admin	Displays error messa
Refresh	tration_Error_Admin_Current	Displays the current
Export to Excel	tration_Error_Admin_Error_Cc	Total count of the er

Edit Customization

The user can add or edit the custom text for a resource using the Edit menu item or the pencil icon. If no custom text is present for a resource, a new custom text is added. If a custom text is already present for a resource, it will be modified. The Updated Date and Updated By columns are changed to reflect the addition or modification. The Edit option opens up a popup showing the resource, its base text, and editable custom text. Only one record can be edited at a time in a popup. If more than one record or no record is selected, a warning is displayed to the user. The Edit popup can also be opened by double-clicking a record on the results table.

Figure 4-3 Edit Resource Text Screen

Resource CANNOT_DEL_SYS_REQUIRED_LOOKUP_VALUE

Base Text Cannot delete the Lookup Value as it is a System Required Lookup Value

Custom Text

OK Cancel

Remove Customization

The user can remove the custom text for one, many, or all selected resources using the **Remove Customization** menu item or the cross icon. The user can select one or multiple records and remove custom values for the records. The Remove Customization option will give a confirmation warning message before the custom text is removed for the selected records. The base text is not impacted by the Remove Customization operation.

Figure 4-4 Delete Custom Text Confirmation Pop-up

Warning

The custom text will be removed for the selected row(s). Do you want to continue?

Yes No

Export to Excel

The user can export the details of the resources from the results table to an Excel CSV file. When the user selects the **Export to Excel** action, the browser performs the download.

Depending on the user's browser preferences, the browser may prompt the user, asking whether the exported file should be opened or saved, what program should be used to open the file, or where on the user's computer the file should be saved. Exporting a large number of strings may take time to complete; during this time the browser may remain in an active/processing state.

Importing Customizations from a CSV File

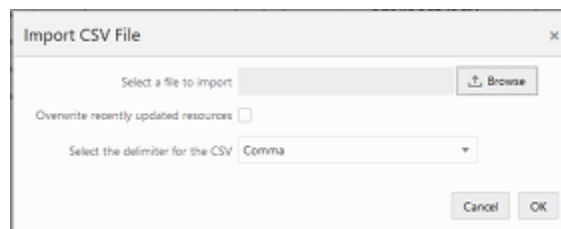
The user can change the values in the Text column of an exported CSV, and then import the CSV file from the Imports Management screen. When the user does this, the values of the Text column are imported into the custom text of each newly customized resource. The user can customize multiple rows with a single action by importing a file that contains multiple customized rows. Importing a file that has not been modified will do nothing because the text for each resource is already the same in Retail Home.

The imported file must meet the following assumptions for the import to succeed:

- The imported file must be a well-formed CSV file. The user can use any compatible program to edit the exported CSV file, as long as the program can read the CSV file and save it again in CSV format.
- The user should only edit values in the Text column. If the user edits any of the values in the Base Application Code, Language, Bundle, or Resource columns, the import may fail, or invalid customizations may be created.
- The user can only add or edit customizations in the import. The user cannot remove customizations using import. Deleting the contents of the Text field or copying the Source Text into the Text field will cause the row to be ignored.
- The size of the imported file is limited to 2000 KB. Users will not be allowed to upload a file larger than this.

From the Import Management screen, select the relevant application code and click **Create**. A popup opens prompting the user to select a file to import.

Figure 4-5 Import CSV File Pop-up



It is possible that, after a user exports resources to a CSV file, but before the user imports the file into Retail Home, another user may go to Retail Home and customize one or more of the exported resources. In this case, the values of resources in Retail Home would be newer than the values in the exported file. To ensure that an import does not inadvertently overwrite these values, the import action will skip resources that have been recently updated in Retail Home, and notify the user. The user can tell the import to instead use the values from the imported file by selecting the **Overwrite recently updated resources** checkbox on the import pop-up.

5

Managing File Transfers



Note:

File Transfer Services do not replace SFTP in existing customer environments. If your environment is already provisioned then you will continue to use SFTP as described in the product documentation for Retail Insights and Science, and the section below does not apply to you.

File Transfer Services (FTS) for the Retail Analytics Platform cloud services replaces SFTP for new environments in this release. This allows you to manage the uploading and downloading of files to and from Oracle Cloud Infrastructure Object Storage, which is an internet-scale, high-performance storage platform offering reliable and cost-efficient data durability.

Access to files is through a pre-authenticated request (PAR), which is a URL that requires no further authentication to upload or download files to the cloud. To retrieve a PAR, you must use the appropriate file transfer REST service. These new services will enable you to import files to and export files from Object Storage used by the solutions. The primary role of these services is to ensure that only valid external users can call the service by enforcing authorization policies. Where supported, the files can be zipped and compressed before upload.

The following describes how an external integrating system uses FTS to upload .zip files to Oracle Cloud Services:

1. The 3rd party solution sends a request to the pre-authentication service for uploading files to Object Storage, including the incoming prefix and file name. On receiving the PAR, the file is uploaded using the metadata from the response.
2. Cloud service batch processing sends a request to the pre-authentication service for downloading files from Object Storage, including the incoming prefix. On receiving the PAR, the files are downloaded using the metadata from the response.
3. Batch processing uses the Delete Files Service to delete the file from Object Storage and the incoming prefix to ensure it is not re-processed in the next batch run. The batch process unzips the file and processes the data.

To interact with FTS, use the REST APIs. The table below lists the API end points for different file operations.

Operation	Method	FTS API Endpoint
Ping	GET	{baseUrl}/services/private/FTSWrapper/ping
List Prefixes	GET	{baseUrl}/services/private/FTSWrapper/{bucketName}/listprefixes
List Files	GET	{baseUrl}/services/private/FTSWrapper/{bucketName}/listfiles

Operation	Method	FTS API Endpoint
Move Files	POST	{baseUrl}//services/private/FTSWrapper/{bucketName}/movefiles
Delete Files	DELETE	{baseUrl}//services/private/FTSWrapper/{bucketName}/delete
Request Upload PAR	POST	{baseUrl}//services/private/FTSWrapper/{bucketName}/upload
Request Download PAR	POST	{baseUrl}//services/private/FTSWrapper/{bucketName}/download

Interaction with the File Transfer Services should be developed and automated during implementation, and ongoing maintenance of the process is minimal. As an administrator, your primary task is to upload files to FTS that produced errors during the nightly batch process. Automate this file upload process simplify ongoing maintenance, such as the development of scripts and server commands that are easy to execute after go-live. For reference, the general file upload process is outlined below, but it is not expected that a customer administrator would run these commands as-is in Production environments.

The upload of files is a multi-step process where you first request access to a location to upload the file, and then you push the file to the URL provided in the response. FTS uses OAuth 2.0 and requires authentication tokens to use the services

Further information on interacting with File Transfer Services can be found in the *Retail Analytics Platform Implementation Guide*.

6

Managing Data Visualization

All implementations of the Retail Science Platform and Retail Insights include Oracle Data Visualization (DV) as a tool for custom analytics and reporting. Administrators should be aware of how DV is maintained as part of your Oracle Cloud environments so that they can manage user-created content and access permissions in the tool.

Accessing the Application

A sample URL to access the DV application is below. The hostname will be the same URL root as your Oracle Analytics (/analytics/) and Science application (/rse/faces/Home/) environments, appending the /dv/ application path shown below.

```
https://xxx-yyy-rsi-ris.oracleindustry.com/dv/?pageid=home
```

Permission to access DV can be granted through IDCS or OCI IAM using the group RetailVisualAnalyzer_JOB (or its PREPROD equivalent). DV access is also granted automatically if you have certain Retail Insights groups assigned, such as BIAuthors_JOB or RIApplicationAdministrator_JOB.

Managing User Content

User-created content comes in several forms and each type of content is managed separately, as defined below.

Table 6-1 DV Content Types

Content Type	Explanation
Projects	DV reports and analyses are saved as Project files in the Oracle Analytics Catalog. In Oracle Retail cloud solutions, you may only use two assigned folders in the catalog: /My Folders/ and /Shared Folders/Custom/. You must not save or modify projects in any other location, as these two folders are the only ones designated for backup between upgrades and patches. By default, projects have their own permissions assigned and are not granted to anyone but the owner. The owner must grant the object to administrators if they want projects to be centrally managed.
Datasets	Users can create datasets by uploading Excel spreadsheets or by querying pre-defined database connections. Datasets have their own permissions assigned and are not granted to anyone but the owner by default. The owner must grant the object to administrators if you want datasets to be centrally managed.
Connections	Database connections are managed by Oracle at this time, end users are not expected to create or modify these objects.

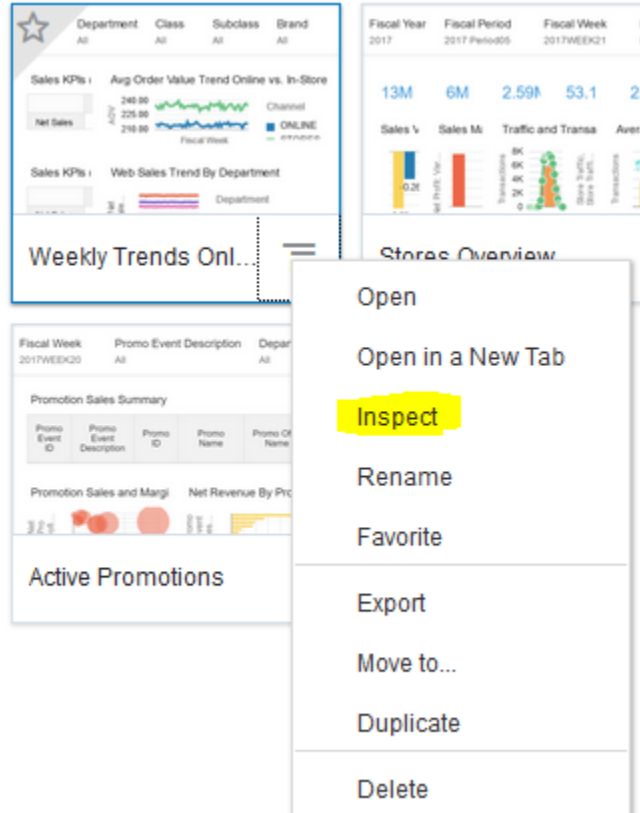
Table 6-1 (Cont.) DV Content Types

Content Type	Explanation
Data Flows	Data flows are used to combine multiple datasets or perform complex transformations and data mining algorithms. Data flows cannot be seen or administered by anyone but the object owner.

Project Permissions

By default, projects are only granted to the original owner. If a project is saved to a shared folder, then it will additionally be granted to the user groups/roles that have access to that folder. You may change the permissions on a project at any time as long as you are the owner or an application administrator. Follow the steps below to access and modify permissions on a DV project:

1. From the DV Home page, expand the navigation panel on the left and click **Catalog**.
2. Locate a project file within the /Shared Folders/Custom/ directory that you wish to view or modify the permissions for.
3. Hover over the object tile and click the menu icon that appears.
4. Select the **Inspect** option in the menu.



5. Click the **Access** menu to view or change permissions.

Users and roles that are not listed do not have any access to the project. Users and roles that are listed in the table may have either read-only or read-write access levels assigned.

6. To add new users or roles, click the associated tab and begin typing in the search box. A menu appears when you have entered enough characters to locate a valid user or role name. Click an item in the menu to add it to the project.

Weekly Trends Online project

Save Close

General Share Access

All Users Roles Add BIC

Name

BI Content Author

BI Consumer	•	•
BIAdministrator	•	•

7. Hover over the list of users and roles and click the blue dots to change the assigned permission. Click the **X** icon to the right of the user/role to delete it.
8. When you are finished, click **Save** to save the changes, then click **Close**.

**Note:**

The same steps can be followed to assign permission to folders so you do not need to manage permissions on a project-by-project basis.

For more information on permission management, go to the [Data Visualization User Guide "Permissions" section](#).

Dataset Permissions

By default, datasets are only granted to the original owner. For this reason, you may prefer to have a single administrative user create all the datasets in the system and then centrally manage and grant access to them. Datasets are not shared unless they are explicitly shared

with other users or roles. Follow the steps below to access and modify permissions on a DV dataset:

1. From the DV Home page, expand the navigation panel on the left and click **Data**.
2. Click the **Datasets** tab. Hover over the object tile and click the menu icon that appears.
3. Select **Inspect**.
4. Click the **Access** menu to view or change permissions.
5. Users and roles that are not listed do not have access to the project. Users and roles that are listed in the table may have full control, read-only, or read-write access levels assigned. Full control allows the user or group to manage access levels and delete the dataset.
6. To add new users or roles, click the associated tab and begin typing in the search box. A menu will appear when you have entered enough characters to locate a valid user or role name. Click an item in the menu to add it to the project.
7. Hover over the list of users and roles and click the blue dots to change the assigned permission. Click the **X** icon to the right of the user/role to delete it.
8. When you are finished, click **Save** to save the changes, then click **Close**.

For more information on dataset management, go to the [Data Visualization User Guide "Manage Datasets" section](#).

Backup and Restore

Data Visualization content can be imported and exported by administrative users to maintain local copies of user content. This can be useful for migrating content between environments and maintaining backup copies in the case of user error or system failure.

For more information on Catalog management, go to the [Data Visualization User Guide section "Import, Export, and Share"](#).

Backup

To export user content:

1. On the Home page, click **Navigator** then click **Catalog**.
2. In the Catalog page, highlight the project or folder that you want to share and click the **Actions** menu, then select **Export** to open the Export dialog.
3. For **Name**, keep the default name or enter a new name for the export file (.DVA file).
4. Enable the **Include Data** option to include the data when sharing a project or folder. This applies to Excel spreadsheets and similar datasets generated from a file.
5. Do **not** enable the **Include Connection Credentials** option: you do not have the credentials needed to copy database connections. This option is only used by Oracle at this time.
6. Enable **Include Permissions** to include access permission details, so that shared connections work when users import the project.
7. Click **Save**.

This will create a DVA file for you to download and save locally. The DVA file is an archive and may contain multiple projects or folders, but it is recommended to archive individual projects and folders where feasible, to make it easy to restore portions of a catalog.

Restore

To import a DVA file:

1. Go to the Catalog main screen and click the application menu in the upper right corner.
2. Select **Import Project/Flow** and locate your DVA files, then click **Import** to load them.

The data will be loaded into the folder you are currently on in the Catalog screen.

Planning and Data Visualization

The Planning applications also allow the use of Data Visualization to review data stored in the planning domains, but the administrator needs to create the Planning Views for the fact data that they want to expose to the Data Visualization solution. There is an Online Administration Task available within Planning Solution to expose the metrics as views so that Data Visualization can be used against those metrics. Please refer to *RPASCE Administration Guide* for more details about exposing metrics to Data Visualization, and refer to the *Configuration Guide* to configure the same for customized Planning solutions.

7

Managing RPAS Applications

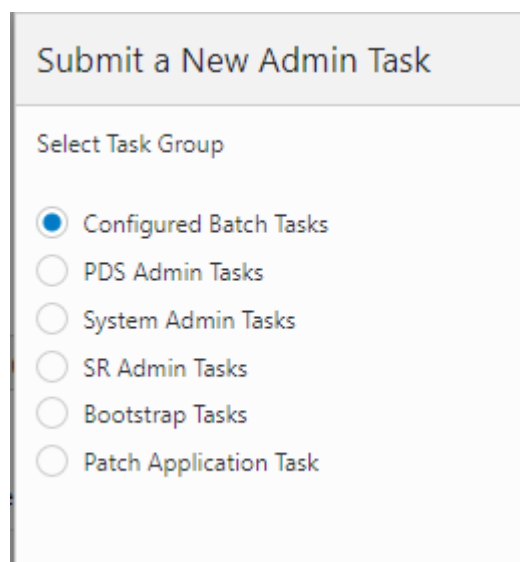
Once a Planning application is implemented, an application administrator has a few options available to them in those solutions. The following are the primary activities of a Planning administrator:

- User Administration
- System Administration
- Application Administration

RPAS provides [Online Administration Tools \(OAT\)](#) tasks, which allows an administrator to perform various activities. A Planning administrator will have the ability to schedule and execute all tasks. They can deploy the application, execute batch tasks, and perform various maintenance activities. Because multiple Planning applications can be deployed on the same RPASCE platform, common Administration Activities for all applications can be found in detail in the *RPASCE Administration Guide*. Application-specific administration activities are found in the respective application's Administration Guide, such as the *MFP Administration Guide*.

Online Administration Tools (OAT)

The RPASCE Online Administration Tools (OAT) allows the application administrator to manage back-end operations on an application from the RPASCE Client. OAT consists of two parts. The first part is a set of activities in the task flow (which is a part of the UI) that allows authorized users to launch tasks and manage back-end processes from the client. The second part is a task status dashboard for an administrator to monitor the status of all the administrative tasks after they have been submitted.



Submit a New Admin Task

Select Task Group

- ☒ Configured Batch Tasks
- ☐ PDS Admin Tasks
- ☐ System Admin Tasks
- ☐ SR Admin Tasks
- ☐ Bootstrap Tasks
- ☐ Patch Application Task

All (6) Scheduled (2) In Progress (0) Completed (1) Failed (0)				All	All Submitters	All Task Types
Task Status						
Actions View Auto-Refresh Download Log Watch Live Log Download Rejected Records						
Description	Status	Task Type	Submitted by	Started/Scheduled	Completed	Record Status
Health-Check Pendo Task	Scheduled	hc-pendo-task		9/7/21 8:00:00 PM		---
Health-Check Pendo Task	Success	hc-pendo-task		9/6/21 8:00:18 PM	9/6/21 8:00:49 PM	---
Health-Check Remove Orphaned Workbooks	Scheduled	hc-orphaned-wbbs		9/9/21 5:00:00 PM		---

Below are the broad classifications of OAT tasks:

- 1. Bootstrap Tasks:** These are the basic tasks available once the application is provisioned. These tasks are needed to build the Application as a template application or configurable application. By default, the Application is deployed as a template application, though it also has a task to change the template status.
- 2. System Admin Tasks, PDS Admin Tasks, SR Admin Tasks:** These are all administration activities, like Managing Hierarchy, Dimensions, Users, Workspaces, and System Properties; and Dashboard scheduling. Details about all tasks can be found in the *RPACE Administration Guide*.
- 3. Configured Batch Tasks:** All planning application batch tasks are controlled by customizable batch control files. The administrators manage the batch control files and schedules tasks through Configured Batch Tasks. Pre-configured batch tasks for template applications are documented in the application-specific Administration Guides.

In addition to the above activities, an administrator can also perform various maintenance activities as specified below, which are covered in detail in the *RPASCE Administration Guide*.

1. Hierarchy Maintenance
2. Security Administration
3. Translation Administration
4. Position Translation Administration
5. Performance Diagnostic Tool

Your implemented Planning application can also have some administrative activities specific to the application. Those activities are mostly application-level administration duties that are defined within the application templates. Details can be found in application-specific User Guides.

8

Managing APEX and Extensions

Innovation Workbench (IW) is a workspace that provides read-only access to application data objects and a clean database schema by using Oracle APEX. This tool is a workspace for advanced analytics users to add new code by using Oracle Advanced Analytics (Oracle R/ODM) algorithms as well as SQL/PLSQL functions. IW is included with a subscription to the Retail Insights and Science Suite of cloud services. As an application administrator, you may be expected to handle certain tasks within Oracle APEX, such as user account management and workspace configuration.

Prerequisites

Before you can log in to Oracle APEX, you must open a Service Request with Oracle to add a user account as an APEX workspace administrator. This user must already be created in IDCS or OCI IAM. They must also have the IDCS or OCI IAM group for `DATA_SCIENCE_ADMINISTRATOR_JOB` (or `DATA_SCIENCE_ADMINISTRATOR_JOB_PREPROD` in non-production environments).

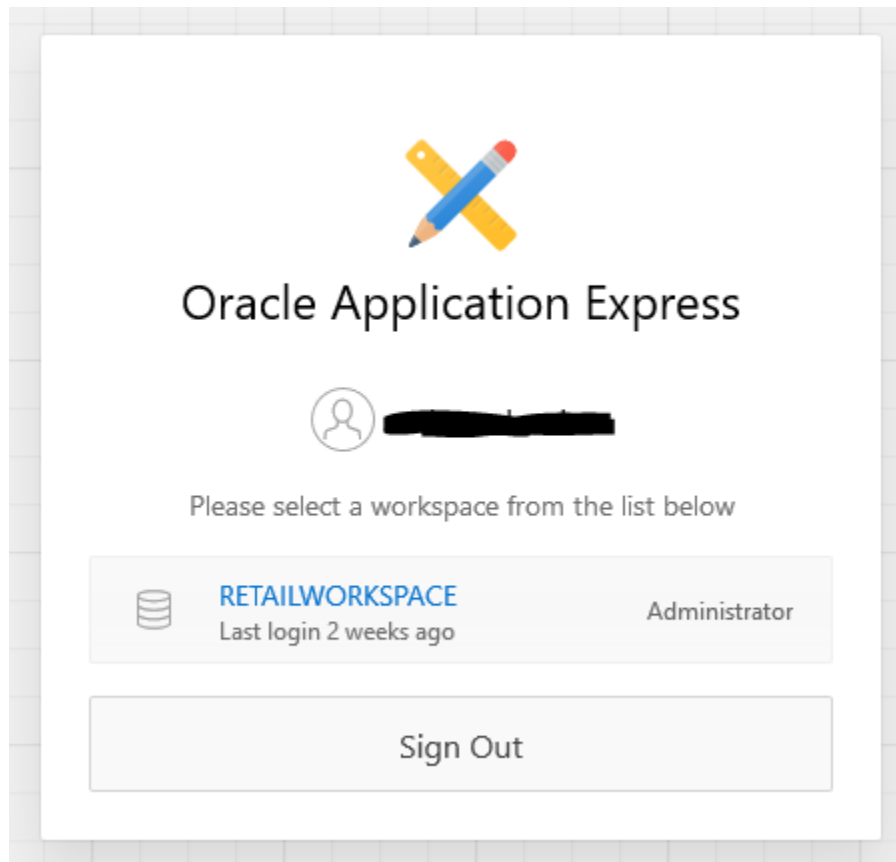
Once you have been granted administrator privileges within the APEX workspace, you may access the application using the Retail Science Cloud Services application menu under Innovation Workbench. You can also navigate directly to APEX using the URL format:

```
https://<your-Oracle Cloud hostname and instance>/ords
```

After authenticating your IDCS or OCI IAM account, you will be asked to select a workspace to log in to. There should only be one workspace listed by default, so click that link to log in.

If you are asked to type in a workspace name instead of selecting one, contact Oracle Support for assistance.

Figure 8-1 APEX Workspace Selection Screen



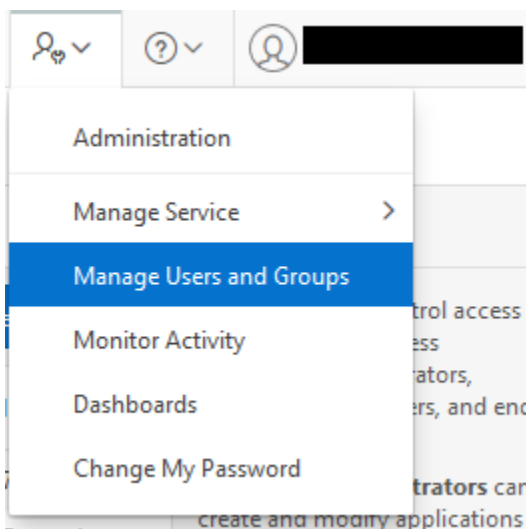
Review the product documentation before starting any work in APEX:

<https://apex.oracle.com/en/learn/documentation/>

User Management

APEX workspace administrators must manually add user accounts to the workspace based on their needed level of access. APEX users must already exist in IDCS or OCI IAM, and they must be granted one or more DATA_SCIENCE groups, such as DATA_SCIENCE_ANALYST_JOB. To add users in APEX, you would do the following:

1. From the APEX start page, access the Administration menu in the upper right corner and select the **Manage Users and Groups** option.



2. Click the **Create User** button within the User Management screen.
3. On the create user form, enter the **Username** and **Email**, which are identical to the IDCS or OCI IAM user account you wish to add.
4. Under Account Privileges, select whether the **User is a workspace administrator** or the **User is a developer**.

If neither option is selected, then the user will not have the ability to create anything in APEX but may be able to access applications that are already created.

Account Privileges

Default Schema

RTLWSP01

?

Accessible Schemas (null for all)

?

User is a workspace administrator:

☐ Yes

☒ No

?

User is a developer:

☒ Yes

☐ No

?

App Builder Access

Yes

?

SQL Workshop Access

Yes

?

Team Development Access

No

?

Set Account Availability

Unlocked

?

5. For the **Password**, you may enter any value you wish. The APEX password is not used when authentication is managed by IDCS or OCI IAM.
6. Ensure the option **Require Change of Password on First Use** is set to **No**, as we do not want APEX to manage the authentication.

7. Under Group Assignments, add one or more privileges to the user if they are a Developer or Administrator. When you are finished, click **Create User** at the top of the screen to add them to APEX.

For details on other user management activities in APEX, refer to the *APEX Administration Guide* chapter “Understanding Workspace Administration”.

<https://docs.oracle.com/en/database/oracle/application-express/index.html>

Application Management

If you are creating custom applications within APEX, an application administrator may be expected to import and export data and configurations between environments. These tools are located under the main menu for **App Builder > Import or Export**.

To import or export a workspace, refer to the *APEX Administration Guide* section [Exporting and Importing a Workspace](#).

To import or export an application, refer to the *APEX App Builder's User Guide* section on [Deploying an Application](#).

For managing high volumes of data between environments (such as moving from a Stage to a Production environment), you should, if possible, regenerate the data tables in the target environment to ensure they are aligned with that database's data. You may also log a Service Request with Oracle to request that a lift-and-shift operation be done on the APEX workspace schema.

Science Application Usage

Included with the Science applications is access to the APEX tool and a variety of other applications and functionality. This includes Python notebooks and Oracle Data Mining processes for advanced analytics users. Access this functionality using the Science application user interface links for Notebooks. You must also have the IDCS or OCI IAM roles for `DATA_SCIENCE_OLDS_ADMIN_JOB` or `DATA_SCIENCE_OLDS_ANALYST_JOB` (or their associated PREPROD groups).

For more details on Notebook usage, see the *Science Cloud Services Implementation Guide* chapter “Innovation Workbench”.