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Preface

This guide describes how to extract Oracle Fusion Applications Cloud data and load it into an Oracle Cloud Storage Service or Universal Content Management server. From there, the data is typically loaded into a data warehouse.

Topics:
• Audience
• Related Resources
• Conventions

Audience

The intended audience for this guide is Business Intelligence or data warehouse specialists.

This guide is aimed at Business Intelligence or data warehouse specialists who want to extract Oracle Fusion Applications Cloud data into an Oracle Cloud Storage Service or Universal Content Management server, where it can then be loaded into a BI Data Warehouse or any custom data mart.

Related Resources

For more information, see these Oracle resources:
• Oracle Public Cloud
  http://cloud.oracle.com
• Getting Started with Oracle Cloud

Conventions

These conventions are used in this document.

<table>
<thead>
<tr>
<th>Convention</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>boldface</strong></td>
<td>Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.</td>
</tr>
<tr>
<td><em>Italic</em></td>
<td>Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.</td>
</tr>
<tr>
<td><code>monospace</code></td>
<td>Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.</td>
</tr>
</tbody>
</table>
Overview to Extracting Fusion Applications Cloud Data

Introduction to extracting data from Oracle Fusion Applications Cloud data sources.

Topics
- Extracting Data From Cloud Data Sources

Extracting Data from a Fusion Applications Cloud Data Source

To extract data from a Fusion Applications Cloud data source, you use the BI Cloud Connector Console to schedule a once-only or regular data load, known as a Cloud Extract. For example, you might extract data from Oracle Fusion HCM Cloud. You can load the extracted data into an Oracle Cloud Storage Service area or into an Oracle Universal Content Management (UCM) server.

Starting BI Cloud Connector Console

To extract Fusion Applications Cloud data, you use BI Cloud Connector Console, which is deployed on your Fusion Applications pod.

You start BI Cloud Connector Console using a HTTP URL based on the following format: http://FA OHS Host:FA OHS Port/biacm. You can also start BI Cloud
Connector Console using the Web link and login details supplied to you by Oracle Cloud Support.

**Loading Data into a Cloud Storage Service Area**

To perform a Cloud Extract into an Oracle Cloud Storage Service area, you select the **Cloud Storage Service** storage type in BI Cloud Connector Console.

**Loading Data into a UCM Storage Area**

To perform a Cloud Extract into a UCM storage area, you select the **UCM** storage type in BI Cloud Connector Console.

**Scheduling a Cloud Extract**

To keep your data up-to-date, you use the Manage Extract Schedules option in BI Cloud Connector Console to create a regular Cloud Extract. For example, you might schedule a Cloud Extract to execute at 2.00 AM each day.

**Monitoring a Cloud Extract**

To monitor the last extract run, you use the Manage Extract Schedules page in BI Cloud Connector Console.
Extracting Cloud Data Using BI Cloud Connector Console

To extract data from Oracle Fusion Applications Cloud data sources, you use BI Cloud Connector Console.

Topics

• Provisioning a User for BI Cloud Connector Console Access
• Provisioning a User to Access BI Cloud Connector Content in Universal Content Management
• BI Cloud Connector Console Overview Page
• Specify Which Offerings to Extract
• Perform Advanced Extract Configuration
• Create and Manage an Offering
• Add a Datastore for an Offering
• Reset Last Extract Date For All Enabled Data Stores
• Configure Flexfield Label Languages
• Configure Extract Parameters
• Configure Where to Load Data
• Preview a Data Store
• Specify When to Extract Data
• Create a New or Edit an Existing Data Extract Schedule
• View Last Run Status for a Cloud Data Extract
• View Last Run Status for a Deleted Record Extract
• Manage Files in External Storage for Custom Warehouse Integration
• BI Cloud Connector Console Preferences

Provisioning a User for BI Cloud Connector Console Access

To provision access to the BI Cloud Connector for a user, use the Security Console to create an administrative role that inherits BICC privileges from existing roles and assign the user to that role.

To provision a user:

1. In Fusion, navigate to the Security Console in the Navigator.
2. In the Security Console, create a BIACM_ADMIN role.
   a. Click Create Role.
b. In the Basic Information page, enter the following values and click **Next**.

<table>
<thead>
<tr>
<th>Role Name</th>
<th>BIACM_ADMIN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Role Code</td>
<td>BIACM_ADMIN</td>
</tr>
<tr>
<td>Role Category</td>
<td>BI - Abstract Roles</td>
</tr>
</tbody>
</table>

c. Click the **Add** icon in the Role Hierarchy list

d. In the Add Role Membership dialog box, search for **ESS**.

e. In the search results, confirm that the ESS Administrator role appears, then click **Add Role Membership**.

f. Search for **ORA_ASM_APPLICATION_IMPLEMENTATION_ADMIN_ABSTRACT** and click **Add Role Membership**.

g. Close the Add Role Membership dialog box.

h. Click **Next**.

i. In the Users page, click **Add User**.

j. In the Add User dialog box, search for the name of the user you want to assign access to, then click **Add User to Role**.

k. Close the Add User dialog box.

l. Click **Next**.

m. Click **Save and Close**.

---

### Provisioning a User to Access BI Cloud Connector Content in Universal Content Management

To provision access to the BI Cloud Connector content in Universal Content Management (UCM), use the Security Console to create an administrative role and assign a user to that role.

To provision an administrator:

1. In Fusion, navigate to the Security Console in the Navigator.

2. In the Security Console, create a **BICC_UCM_CONTENT_ADMIN** role.

   a. Click **Create Role**.

   b. In the Basic Information page, enter the following values and click **Next**.

<table>
<thead>
<tr>
<th>Role Name</th>
<th>BICC_UCM_CONTENT_ADMIN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Role Code</td>
<td>BICC_UCM_CONTENT_ADMIN</td>
</tr>
<tr>
<td>Role Category</td>
<td>BI - Abstract Roles</td>
</tr>
</tbody>
</table>

   c. In the Add Role Membership dialog box, search for **OBIA_EXTRACTTRANSFORMLOAD_RWD** and click **Add Role Membership**.

   d. Close the Add Role Membership dialog box.

   e. In the Users page, click **Add User**.
f. In the Add User dialog box, search for the name of the user you want to assign access to, then click Add User to Role.

g. Close the Add User dialog box.

h. Click Next.

i. Click Save and Close.

BI Cloud Connector Console Overview Page

Use BI Cloud Connector Console to extract Business Intelligence data from a Fusion Applications Cloud data source into an Oracle Storage Service or UCM server. For instructions on loading data, refer to the Business Intelligence documentation for your product. If you’re using BI Cloud Connector Console with Oracle BI Applications, before you start, refer to the Fusion Applications compatibility matrix for BI Cloud Connector Console to ensure that your product version is supported.

How to Use the Cloud Extract Configuration and Execution Tool

Use the graph to monitor the number of Data Stores in each Offering that are enabled for extract. To view a list of enabled Data Stores for an Offering, select the Configure Cloud Extract link on the Tasks bar, select an Offering, and use the Data Store for Offering list to view the Data Stores and their last extract date.

To extract Business Intelligence data from a Fusion Applications Cloud data source, perform the tasks in the order they appear in the Tasks bar:

- Select Configure Cloud Extract to select the Offerings and Data Stores that you want to extract.
- Select Configure External Storage to specify the storage area into which you want to load the data.
- Select Manage Extract Schedules to create a schedule for one-time or recurring data extraction and to monitor the last scheduled run and verify completion.

Specify Which Offerings to Extract

Select Configure Cloud Extract to open the Configure Cloud Extract dialog. In the Offering page, you can specify the offerings that you want to extract. Click an Offering to navigate to the Data Store for Offering page to specify View Objects (VOs) from which to extract data, and run once-only data extracts.

<table>
<thead>
<tr>
<th>Field Name or Option</th>
<th>How to Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Offerings list</td>
<td>View the offerings that are available for extraction. Click an offering to view and configure its data stores.</td>
</tr>
<tr>
<td>Actions &gt; Reset Last Extract Date</td>
<td>Specify the last extract date from which extraction should begin for incremental loads.</td>
</tr>
<tr>
<td>Actions &gt; Export Customization</td>
<td>Collect modification information from source environment and export as compressed CSV files.</td>
</tr>
<tr>
<td>Actions &gt; Import Customization</td>
<td>Apply modifications to the destination environment from exported compressed CSV files.</td>
</tr>
</tbody>
</table>
### Field Name or Option | How to Use
--- | ---
Actions > Configure Flex Label Languages | Specify a language for flexfield labels.
Actions > Configure Extract Parameters | Specify extract parameters, including file size for exported CSV file and retry parameters in case of intermittent BI Server connection or query failures.
View > Columns | Select columns to be displayed in the Offerings list.
View > Detach | Pop out the section of the dialog box so you can see more data.
Add | Add a new offering and associate VOs for the offering.
Delete | Delete the currently selected offering and its corresponding VO association. Available only for user-defined offerings.
Edit | Change the Offering Name and VO association of the currently selected offering.
Reset to Shipped Content | Reset offering to shipped content, removing any changes made.
Reset to Full Extract | Reset the last extract date so that a full data load is performed for the selected offering, instead of an incremental load. You typically use this option if your business requirements have changed or when fact data has been corrupted.
Refresh | Refresh the Offerings list.
Detach | Pop out the section of the dialog box so you can see more data.

### Data Store for Offering: **Offering name**

### Field Name or Option | How to Use
--- | ---
Data Stores list | View the data areas that are available for extraction for the offering you clicked.
Actions > Advanced Extract Configuration | Specify initial extract date and chunking for creation date and primary key for full loads.
View > Columns | Select columns to be displayed in the Offerings list.
View > Detach | Pop out the section of the dialog box so you can see more data.
View > Reorder Columns | Change the display order of the columns in the Data Stores list.
View > Query By Example | Filter the displayed results by entering the first few letters of a name.
Add | Specify a new Data Store for an offering. For example, you might want to add a view object (VO) for extraction. To add a VO, in the wizard’s Datastore details page, provide the VO name, then specify whether you want to disable effective data filter, which allows for extraction of all historical records, if required. Enter any required query filter, using column references following the format __DATASTORE__.<BI VO Column Name>. In the wizard’s Select Columns page, select the column types for the select query from the Column Filter drop-down list, then uncheck the columns you don’t want included in the SELECT list. If the VO is defined as Effective Date Disabled, you can select the Natural Key option for a Primary Key Column to define a natural key.
Delete | Delete the currently selected Data Store.
Edit | Change the details of the currently selected Data Store.
**Perform Advanced Extract Configuration**

Select Actions > Advanced Extract Configuration in the Data Store for Offering page of the Configure Cloud Extract dialog to open the Advanced Extract Configuration For: *Data store name* dialog, where you can set advanced extract configuration for a selected data store. For full extracts, you can enable chunking by creation date or by primary key.

**Filter and/or Chunk By Creation Date Columns**

<table>
<thead>
<tr>
<th>Field Name or Option</th>
<th>How to Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Column list</td>
<td>View the columns that are available for designation as creation date. Select the Is Creation Date option for the appropriate column.</td>
</tr>
<tr>
<td>Initial Extract Date</td>
<td>Optionally, specify the initial date from which the full extract should be performed. This option requires selection of the Is Creation Date option for a column or columns in the column list which represent the Creation Date.</td>
</tr>
<tr>
<td>Support chunking</td>
<td>Optionally, select By Creation Date to chunk by to specify a number of days by which to extract date range batches or chunks of data. This option requires selection of the Is Creation Date option for a column or columns in the column list which represent the Creation Date.</td>
</tr>
<tr>
<td>Number of Days</td>
<td>If you have selected to support chunking by creation date, specify the number of days, for example 365, by which to chunk extracts.</td>
</tr>
</tbody>
</table>
Chunk By Primary Key Column

<table>
<thead>
<tr>
<th>Field Name or Option</th>
<th>How to Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Support chunking</td>
<td>Support chunking by numeric primary key. This option requires a single numeric primary key column for the data store.</td>
</tr>
<tr>
<td>Number of Rows</td>
<td>Specify a number of rows to chunk extracts by.</td>
</tr>
</tbody>
</table>

Create and Manage an Offering

Click the Add button in the Offering page of the Configure Cloud Extract dialog to open the Manage Offering dialog, where you can specify a new offering and associate a data store.

**Manage Offering**

<table>
<thead>
<tr>
<th>Field Name</th>
<th>How to Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Offering Code</td>
<td>Enter a code for the offering.</td>
</tr>
<tr>
<td>Offering Name</td>
<td>Enter a name for the offering. This is the name that will appear in the list of Business Intelligence Applications Offerings in the Configure Cloud Extract dialog.</td>
</tr>
<tr>
<td>Offering Description</td>
<td>Optionally, enter a description.</td>
</tr>
</tbody>
</table>

**Associate Data Store**

In the Associate Data Store section of the dialog, filter for the data store, then select and click the Move selected items to other list button to add the VO, then click Save.

Add a Datastore for an Offering

Click the Add button in the Data Store for Offering page of the Configure Cloud Extract dialog to open the Define Datastore dialog, where you can specify a new data store for the selected offering.

**Datastore Details Page**

1. Enter the following information and click Next.

<table>
<thead>
<tr>
<th>Field Name</th>
<th>How to Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data Store Key</td>
<td>Enter the VO name for datastore.</td>
</tr>
<tr>
<td>Enabled</td>
<td>Enable the datastore.</td>
</tr>
<tr>
<td>Disable Effective date filter</td>
<td>Enable this option if there is a requirement to extract all historical records. Note that the the VO not validated as being effective dated in nature, so set this option only after confirming the nature of the data.</td>
</tr>
<tr>
<td>Extract Data Store Metadata</td>
<td>Enable this option to generate an mdcsv file with the data extract.</td>
</tr>
<tr>
<td>Field Name</td>
<td>How to Use</td>
</tr>
<tr>
<td>------------------</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Query Filter</td>
<td>Enter the Query Filter in the Oracle BI Enterprise Edition select_physical supported format. All column references should follow the format underscore (<em>) underscore (</em>) DATASTORE underscore (<em>) underscore (</em>) dot(.)&lt;BI VO Column Name&gt;, for example <strong>DATASTORE</strong>.ViewApplicationId=0 where ViewApplicationId is the column name in the BI VO and of data type number.</td>
</tr>
</tbody>
</table>

2. In the Associate Offerings section of the page, select the names of the offerings you want to associate with the datastore and click the **Move selected items to other list** button to add them, then click **Save**.

3. Click **Next** to navigate to the Select Columns page. The column definitions are fetched from the BI repository. By default, the table shows the date type columns so the user can select which of these columns should be included in the incremental filter query.

### Select Columns Page

By default, the Column Name table shows the Date Type column so you can select which of these columns is included in the incremental filter query. Click the Column Filter drop-down list to switch from the default filter to Primary Key Columns or All Columns.

By default, all of the columns are selected for query. In the columns list, deselect the **Used in Select list** option for any columns you don’t want included.

If the VO is defined as Effective Date Disabled, you can view the Primary Key Columns and select the Natural Key option for a column to define a natural key.

For custom VOs, primary keys are retrieved from the repository (RPD). You can override these and set your own by selecting the Primary Key option for a column. To reset primary keys to those defined in the repository, click the Retrieve PK button.

### Reset Last Extract Date For All Enabled Data Stores

Click the **Reset to Full Extract** button in the Configure Cloud Extract dialog to open the Reset Last Extract Date For All Enabled Data Stores dialog.

Reset the last extract date so that a full data load is performed for the selected Offering, instead of an incremental load. You typically use this option if your business requirements have changed or when fact data has been corrupted.

In the **Last Extract Date**, click the Calendar icon and select a new date, then click **OK** to save.

### Configure Flexfield Label Languages

Click Actions > **Configure Flex Label Languages** to open the Configure Flex Label Languages dialog, in which you can specify a language for flex labels.

In the Flex Label Languages list, scroll to select the language you want, then click the **Move selected items to other list** button to add it to the selected list, then click **Save and Close**. To suspend extraction of flexfield labels during extraction, select the **Suppress Flex Label Extract** option.
Configure Extract Parameters

Click Actions > Configure Extract Parameters to open the Configure Extract Parameters dialog, where you can specify parameters for extracts.

File Parameters

In the Split files by size in gigabytes field, specify the file size by which extracted CSV files are divided for a single VO. The default is 1 GB. You can set the file size from one to five GB.

Retry Parameters

During extraction, connections to the BI Server or queries may fail, causing retries. In the Analytic server connection retry limit field, specify the number of connection attempts made to complete the extraction. In the Analytic server query retry limit field, specify the number of times a query is resubmitted.

Configure Where to Load Data

Select Configure External Storage to open the Configure External Storage dialog, where you can specify the storage area into which to load the FA Cloud data. For example, to load into an Oracle Cloud Storage Service, you select the Cloud Storage Service check box under Storage Type.

<table>
<thead>
<tr>
<th>Field Name</th>
<th>How to Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Storage Type</td>
<td>Select <strong>UCM</strong> to load extracted Cloud data into a Universal Content Management (UCM) Server. Select <strong>Cloud Storage Service</strong> to load extracted Cloud data into an Oracle Storage Service.</td>
</tr>
</tbody>
</table>

Storage Type — UCM

Specify the connection details for a Universal Content Management (UCM) on-premises data source using the following fields:

<table>
<thead>
<tr>
<th>Field Name</th>
<th>How to Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protocol</td>
<td>Specify http for non-SSL, or https for SSL. If you select https here, you must also enable HTTPS on the UCM server, using the UCM Server Console.</td>
</tr>
<tr>
<td>Host</td>
<td>Specify the host name for the UCM Server. For example, <strong>myserver.company.com</strong></td>
</tr>
<tr>
<td>Port</td>
<td>Specify the port number of the UCM Server (optional). For example, <strong>7012</strong>.</td>
</tr>
<tr>
<td>Download Folder</td>
<td>Shows the directory in the domain server where the Batch Extract file is downloaded to reset extract dates before the extraction process.</td>
</tr>
<tr>
<td>Upload Folder</td>
<td>Shows the directory in the domain server where files will be temporarily extracted by the cloud extractor before uploading to UCM.</td>
</tr>
</tbody>
</table>
Storage Type — Cloud Storage Service

Specify the connection details for an Oracle Storage Service using the following fields:

<table>
<thead>
<tr>
<th>Field Name</th>
<th>How to Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protocol</td>
<td>Specify http for non-SSL, or https for SSL connection.</td>
</tr>
<tr>
<td>Host</td>
<td>Specify the Host name for the Oracle Storage Service. For example, mystorage.storage.oraclecloud.com.</td>
</tr>
<tr>
<td>Port</td>
<td>Specify the port number (optional).</td>
</tr>
<tr>
<td>User Name</td>
<td>Specify the user that is provisioned to load data. The user should have privileges to upload files in the container specified. User credentials will be stored in the Weblogic credential store under oracle.apps.security/FUSION_APPS_OBIA_STORAGESERV_USER-KEY.</td>
</tr>
<tr>
<td>Password</td>
<td>Specify the password for the user specified in the User Name field.</td>
</tr>
<tr>
<td>Download Folder</td>
<td>Shows the directory in the domain server where the Batch Extract file is downloaded to reset extract dates before the extraction process.</td>
</tr>
<tr>
<td>Upload Folder</td>
<td>Shows the directory in the domain server where files will be temporarily extracted by the cloud extractor before uploading to the storage service.</td>
</tr>
<tr>
<td>Service Name</td>
<td>Specify the service name of the Oracle Cloud Storage Service. For example, gse-otbie1.</td>
</tr>
<tr>
<td>Container</td>
<td>Specify the name of the container that is allocated to upload extracted files.</td>
</tr>
<tr>
<td>Data Encryption — Support Encryption</td>
<td>If you want to encrypt communication, then select this check box, and use the Import Certificate option below to specify the encryption keys.</td>
</tr>
<tr>
<td>Import Certificate</td>
<td>Click Browse and navigate to and select the location of the key file, or type the literal path location and file name.</td>
</tr>
</tbody>
</table>

Preview a Data Store

Click the Preview button in the Data Store for Offering section of the Configure Cloud Extract dialog to open the Data Store Preview dialog, where you can preview a selected data store’s columns and enable and disable the data store and its effective date filter.

<table>
<thead>
<tr>
<th>Field Name</th>
<th>How to Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data Store</td>
<td>Displays the data store VO name of the selected data store.</td>
</tr>
<tr>
<td>Enabled</td>
<td>Specify whether the data store is enabled for the offering.</td>
</tr>
<tr>
<td>Disable Effective date filter</td>
<td>Specify whether to disable the effective date filter so that a full extract is performed on the data store.</td>
</tr>
<tr>
<td>Query Filter</td>
<td>View or edit the effective date filter for the data store.</td>
</tr>
<tr>
<td>Last Extract Date</td>
<td>View the date of the last extract.</td>
</tr>
<tr>
<td>Data Store Columns list</td>
<td>View the columns in the data store. Includes columns indicating whether each is used in the incremental filter for incremental extracts, appears in the Select list for the data store, or is a primary key.</td>
</tr>
</tbody>
</table>
Specify When to Extract Data

Select Manage Extract Schedules to open the Manage Extract Schedules dialog, where you can set up a once-only or regular data extract of Business Intelligence data from an Oracle Applications Cloud data source. For example, you might want to extract data from your Cloud data source once per day at midnight. You can also monitor an extract here.

<table>
<thead>
<tr>
<th>Field Name</th>
<th>How to Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Schedules</td>
<td>This list shows currently defined schedules. Use the Add option to set up once-only or regular data extract. Use the Edit option to update the details of the currently selected schedule. Use the Delete option to delete the currently selected schedule.</td>
</tr>
<tr>
<td>Schedule Requests</td>
<td>This list shows the details of data extract processes for the Schedule that is currently selected in the Schedules list above. A new row is created in the table every time an Cloud extract request is processed. Use the Delete option to delete the details of the currently selected request. If you delete a schedule job from this list, then this does not remove the BI Cloud data that has been extracted and loaded by that job.</td>
</tr>
</tbody>
</table>

Monitor a Cloud Extract

In the Schedules dialog, click Actions and select the option for the last run corresponding to the job type, Cloud Data Extract or Deleted Record Extract. Each job type displays in its own dialog, which lists the last cloud extract or deleted record extract status of each VO with status of SUCCESS or FAILURE for each data store and error messages in the case of failures. The ESS Request Id column displays the job for which the VO extraction last ran.

Scheduled jobs also write logs that can be used to review issues causing errors or shared with Oracle Support to resolve a service request. To download logs, click Help and select Download Logs.

Create a New or Edit anExisting Data Extract Schedule

In the Schedules dialog, click Add or Edit to create a new Cloud data extract or edit an existing one. For example, you might want to extract data from your Cloud data source once per day at midnight. For a once-only data extract, use the Simple option in the Recurrence drop down list. You can only create a schedule if there is not an active schedule for the selected job type (for example, Cloud Data Extract, Deleted...
Record Extract, or Data and Delete Record Extract). Click Next to specify the data stores for extract for an offering in the Data Store List page.

Schedule Details

<table>
<thead>
<tr>
<th>Field Name or Option</th>
<th>How to Use</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Job Type</strong></td>
<td>To extract data, select <strong>Cloud Data Extract</strong>. To sync the Cloud system to your source data, select <strong>Deleted Record Extract</strong>, which extracts primary key values to identify deleted records. To combine both Cloud Data Extract and Delete Record Extract into one job, select <strong>Data and Deleted Record Extract</strong>. Two manifests are generated.</td>
</tr>
<tr>
<td><strong>Name</strong></td>
<td>Specify a short name to identify the schedule in the Schedules list.</td>
</tr>
<tr>
<td><strong>Description</strong></td>
<td>Specify a brief description to identify the schedule, which is only displayed on the Edit Schedule dialog.</td>
</tr>
<tr>
<td><strong>Global Data Store List?</strong></td>
<td>Accept the default of No to select data stores for extraction. Select Yes to use the Global Data Store.</td>
</tr>
<tr>
<td><strong>Recurrence</strong></td>
<td>Specify how often you want the extract to be performed. To create a once-only data extract, you select Simple.</td>
</tr>
<tr>
<td><strong>Hourly Interval</strong></td>
<td>Specify the number of hours to perform hourly interval extracts by (if you select Hourly in the Recurrence drop-down list).</td>
</tr>
<tr>
<td><strong>Date and Time</strong></td>
<td>Specify the date and time to perform a once-only extract (if you select Simple in the Recurrence drop-down list).</td>
</tr>
<tr>
<td><strong>Time</strong></td>
<td>Specify the time to start an extract, in the format HH:MM:SS AM</td>
</tr>
<tr>
<td><strong>Day</strong></td>
<td>For weekly schedules, select the check box next to each day on which you want to extract data. For Monthly or Yearly extracts, select the day of the month on which you want to extract data.</td>
</tr>
<tr>
<td><strong>Month</strong></td>
<td>For Yearly (annual) schedules, select the month in which you want to extract data.</td>
</tr>
</tbody>
</table>

Data Store List

<table>
<thead>
<tr>
<th>Field Name or Option</th>
<th>How to Use</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Offering</strong></td>
<td>Select an offering to extract.</td>
</tr>
<tr>
<td><strong>Data Store List</strong></td>
<td>Lists the data stores for a selected offering.</td>
</tr>
<tr>
<td><strong>Enabled for Extract</strong></td>
<td>Select to enable a data store for extract.</td>
</tr>
<tr>
<td><strong>Query By Example</strong></td>
<td>Filter the displayed results by entering the first few letters of a name.</td>
</tr>
<tr>
<td><strong>Detach</strong></td>
<td>Pop out the section of the dialog box so you can see more data.</td>
</tr>
</tbody>
</table>

View Last Run Status for a Cloud Data Extract

In the Schedules dialog, click **Actions** and select **Last Run Status for Cloud Data Extract** to open the Last Run Status for Cloud Data Extract dialog, which provides
logging and status for each VO for the last extraction job for each, indicated by the ESS Request Id. Click **Detach** to expand the dialog to full size.

**Statuses**

The status for each data store is displayed in the Status column. In the event of an error, the error message is displayed in the Message column. Status includes:

- ERROR: Extract failed with the error message displayed in the Message column.
- EXTRACT_SUCCESS: Extract ran successfully.
- UPLOAD_SUCCESS: Upload to external storage ran successfully.

**View Last Run Status for a Deleted Record Extract**

In the Schedules dialog, click **Actions** and select **Last Run Status for Deleted Record Extract** to open the Last Run Status for Deleted Record Extract dialog, which provides logging and status for each VO for the last extraction job for each, indicated by the ESS Request Id. Click **Detach** to expand the dialog to full size.

**Statuses**

The status for each data store is displayed in the Status column. In the event of an error, the error message is displayed in the Message column. Status includes:

- ERROR: Extract failed with the error message displayed in the Message column.
- EXTRACT_SUCCESS: Extract ran successfully.
- UPLOAD_SUCCESS: Upload to external storage ran successfully.

**Manage Files in External Storage for Custom Warehouse Integration**

During extract, view object (VO) data in compressed files is uploaded to external storage with a manifest file that lists the files from the current batch. Use the information in the manifest file to process data. For a custom warehouse implementation, you must manage the manifest file and its content.

**Data Uploaded to External Storage**

The following files are uploaded as compressed files with .zip extensions with the file name format of `file_[VONAME]-batch[number]-[TIMESTAMP]`:

- Comma-separated value (.csv) files: VO data and are uploaded as compressed files.
- Metadata comma-separated value (.mdcsv) files: metadata files with details about columns and data type definitions for Flex VOs.
- Primary Key comma-separated value (.pecsv) files: data files with primary key column values used to identify deleted records in the warehouse.

The uploaded files are detailed in a manifest file, whose name format depends on the configured storage area. Universal Content Manager (UCM) manifest files are named `MANIFEST.MF`. Cloud Storage Service manifest files have a file name format of `MANIFEST-[TIMESTAMP].MF`.
Manifest File Formats and Content

The first line of a manifest file describes the source version. In UCM MANIFEST.MF files, the body of the file contains information about each of the uploaded files in the format vo_name;ucm_document_id;md5_check_sum_value. For example, in the below sample line from a UCM manifest file, 9526 is the UCM document ID of the uploaded file, ;b2af2bf486366e2c2cb7598849f0df2e is the check sum value.

```
crmanalyticsam_partiesanalyticsam_customer;9526;b2af2bf486366e2c2cb7598849f0df2e
```

In Cloud Storage Service MANIFEST-[TIMESTAMP].MF files, the body of the file contains information about each of the uploaded files in the format extract_uploaded_filename;md5_check_sum_value. For example, in the below sample line from a Storage Service manifest file, file_fscmtopmodelam_analyticsserviceam_currenciestlpvo-batch1209716923-20150615_105514.zip is the uploaded file name, and ;b2af2bf486366e2c2cb7598849f0df2e is the check sum value.

```
file_fscmtopmodelam_analyticsserviceam_currenciestlpvo-batch1209716923-20150615_105514.zip;fa981be0caf70a9a52df3aceb9998cc9
```

Downloading and Processing Content from UCM

To download extracted content from UCM, search for DOCTITLE MANIFEST.MF and sort by DOCDATE in DESC order. This provides all of the manifest UCM files in order by docid. Download each MANIFEST file using docid. Parse the lines in the manifest file to download data files using their respective ucm_document_ids. You can use the md5_check_sum_value to verify downloaded file content. After downloading the files, unzip them and process them based on their file extension, for example by .csv, .mdcsv, or .pecsv.

Once the data files are processed, rename the corresponding MANIFEST.MF file in UCM by adding a timestamp prefix in the format [TIMESTAMP].MANIFEST.MF so that it’s not reused in the next download from UCM. Expire the manifest file and all the processed files after 30 days so that UCM storage doesn’t run out of space.

Download and Processing Content from Cloud Storage Service

To download extracted content from Cloud Storage Service, search for MANIFEST- and sort by filename. This provides all of the manifest files in order by date. Download each manifest file and parse the lines in the manifest file to download data files using their respective file names. You can use the md5_check_sum_value to verify downloaded file content. After downloading the files, unzip them and process them based on their file extension, for example by .csv, .mdcsv, or .pecsv.

Once the data files are processed, rename the corresponding manifest file in Storage Service by adding a timestamp prefix in the format [TIMESTAMP].MANIFEST so that it’s not reused in the next download. Expire the manifest file and all the processed files after 30 days so that storage doesn’t run out of space.

BI Cloud Connector Console Preferences

Set preferences for the BI Cloud Connector Console, including regional settings, display language, and accessibility options.
<table>
<thead>
<tr>
<th>Preference</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regional</td>
<td>Select the regional options, which include indicating the country, date format, time format, number format, currency, and time zone.</td>
</tr>
<tr>
<td>Language</td>
<td>Select the display language for the BI Cloud Connector Console.</td>
</tr>
<tr>
<td>Accessibility</td>
<td>Select accessibility options, such as use of a screen reader, high color contrast, and font size.</td>
</tr>
</tbody>
</table>