Oracle Supply Chain Management Configurations for Oracle Utilities Work and Asset Cloud Service Integration to Oracle Supply Chain Management

Setup Guide

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Oracle Supply Chain Management Configurations for Oracle Utilities Work and Asset Cloud Service Integration to Oracle Supply Chain Management Setup Guide, Release 24C

Contents

Preface

Welcome to the Oracle Supply Chain Management Setup Guide for Oracle Utilities Work and Asset Cloud Service Integration to Oracle Supply Chain Management, release 24C. Oracle Supply Chain Management (mentioned here) is a part of the Oracle Fusion Cloud Financials. This document focuses on the Oracle Supply Chain Management configurations and administration information required for the integration.

> **Please note** that the screenshots and images provided in this document are sample references based on the current release of Oracle Supply Chain Management configurations for Oracle Utilities Work and Asset Cloud Service Integration to Oracle Supply Chain Management. They may change based on changes in the future releases.

The preface includes the following:

- Audience
- Documentation and Resources
- Documentation Accessibility
- Conventions
- Abbreviations

Audience

This document is intended for anyone implementing the integration betweenOracle Utilities Work and Asset Cloud Service and Oracle Supply Chain Management.

Documentation and Resources

For more information regarding this integration, foundation technology and the edge applications, refer to the following documents:

Product Documentation

Resource	Location
Oracle Utilities Work and Asset Cloud Service Integration to Oracle Supply Chain Management documentation	https://docs.oracle.com/en/industries/energy-water/integrations-index.html
Oracle Utilities Work and Asset Cloud Service documentation	https://docs.oracle.com/en/industries/energy-water/work-asset-cloud-service/index.html
Oracle Supply Chain Management documentation	https://docs.oracle.com/en/cloud/saas/supply-chain-and-manufacturing/index.html

Additional Documentation

Resource	Location
Oracle Integration Cloud Service documentation	Refer to the OIC documentation at: https://docs.oracle.com/en/cloud/paas/integration-cloud/index.html
Oracle Support	Visit My Oracle Support at https://support.oracle.com regularly to stay informed about updates and patches.
	Refer to the *Certification Matrix for Oracle Utilities Products (Doc ID 1454143.1)* on My Oracle Support to determine if support for newer versions of the listed products is included.
	For more information, refer to the Oracle Utilities Integrations page at http://my.oracle.com/site/tugbu/productsindustry/productinfo/utilities/integration/index.htm
Oracle Technology Network (OTN) latest versions of documents	http://www.oracle.com/technetwork/index.html
Oracle University for training opportunities	http://education.oracle.com/

Documentation Accessibility

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc.

Access to Oracle Support
Oracle customers have access to electronic support for the hearing impaired. Visit: http://www.oracle.com/pls/topic/lookup?ctx=acc&id=info or http://www.oracle.com/pls/topic/lookup?ctx=acc&id=trs

Conventions

The following text conventions are used in this document:

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

Abbreviations

This document includes the following abbreviations:

Term	Expanded Form
ERP	Enterprise Resource Planning
OUWACS/WACS	Oracle Utilities Work and Asset Cloud Service
OIC	Oracle Integration Cloud
SCM	Oracle Supply Chain Management
OUWAM/WAM	Oracle Utilities Work and Asset Management
BICC	Oracle Business Intelligence Cloud Connector
BIP	Oracle Business Intelligence Publisher

Chapter 1

Overview

This chapter focuses on the configurations required for Oracle Assets in order to make the integration work. It includes the following:

- Integration Overview
- Pre-requisites
- Design Details

Overview 1 - 1

Oracle Supply Chain Management Configurations for Oracle Utilities Work and Asset Cloud Service Integration to Oracle Supply Chain Management Setup Guide

Integration Overview

Utilities around the world are using Oracle Supply Chain Management for their supply chain and inventory management with Oracle Utilities Work and Asset Cloud Service for work and asset management. Oracle Utilities Work and Asset Cloud Service integration to Oracle Supply Chain Management will provide the set of integrations for seamless data flow between the two systems to allow users to carry out the business processes optimally using both the systems. The integration caters to customers who use Oracle Supply Chain Management for inventory management with Oracle Supply Chain Management being source for the inventory master data and transactions.

In addition to the existing Storeroom and Stock Item Details integrations, Material Reservation and Material Request integrations are included in the 24C release. Material Reservation integration synchronizes with the Oracle Utilities Work and Asset Cloud Service Material Activity Resource Requirements (ARR) with reservation as User Defined Reservation in Oracle Supply Chain Management. Material Request integration creates an expense type transfer order in Oracle Supply Chain Management on receiving a material request from Oracle Utilities Work and Asset Cloud Service, It also creates a pick wave for transfer order in Oracle Supply Chain Management closer to required by date of transfer order.

The implementation details are provided in the *Oracle Utilities Work and Asset Cloud Service Integration to Oracle Supply Chain Management Configuration Guide* included in this release. The documentation is available on Oracle Help Center at: https://docs.oracle.com/en/industries/energy-water/integrations-index.html

The Oracle Utilities Work and Asset Cloud Service integration with Oracle Supply Chain Management has dependencies on following integrations.

- Oracle ERP Product Hub Integration to Oracle Work and Asset Cloud Service

- Oracle Utilities Work and Asset Cloud Service Integration to Oracle Fusion Cloud Project Management, if the implementation uses project management for work and financial tracking.

For more details, refer to the Oracle ERP Product Hub Cloud Integration to Oracle Utilities Work and Asset Cloud Service documentation on Oracle Help Center at: https://docs.oracle.com/en/industries/energy-water/integrations-index.html

Pre-requisites

The Oracle ERP Product Hub Cloud Integration to Oracle Utilities Work and Asset Cloud Service is a pre-requisite to the Oracle Utilities Work and Asset Cloud Service Integration to Oracle Supply Chain Management.

The pre-requisites to import files that come as part of the package are:

- Oracle Supply Chain Management

- Oracle Integration Cloud should be available for the integration activities.

- Oracle Utilities Work and Asset Cloud Service integration system should be up and running for the interface.

Design Details

This section describes the design details of the integration.

Storeroom Sync
The Storeroom Integration transfers sub inventory in Oracle Fusion ERP Cloud as storeroom in Oracle Utilities Work and Asset Cloud Service.

Stock Item Details Sync
The Stock Item Details Integration synchronizes the bulk load and incremental synchronization data from Oracle Fusion ERP Cloud inventory to Oracle Utilities Work and Asset Cloud Service.

Material Reservation Sync
The Material Reservation Integration synchronizes the Activity Resource Requirements in Oracle Utilities Work and Asset Cloud Service as User Defined Reservations in Oracle Supply Chain Management.

Material Request Creation
The Material Request Integration creates supply request in Oracle Fusion ERP Cloud on creation of Material Request in Oracle Utilities Work and Asset Cloud Service. The supply request creates an expense type transfer order. The pick wave for the transfer order is also created in Oracle Supply Chain Management nearer to required by date.

Storeroom Integration
The Oracle Fusion ERP Cloud sub inventory is synchronized as Oracle Utilities Work and Asset Cloud Service storeroom. It runs through two modes.

- **Initial Load**: This mode executes when the integration runs for the first time. As part of the execution, the flow reads all active Oracle Fusion ERP Cloud sub inventories and creates the corresponding storerooms in Oracle Utilities Work and Asset Cloud Service.

- **Incremental Load**: After the initial load is executed, incremental load runs on a schedule. As part of incremental load, the changes in Oracle Fusion ERP Cloud sub inventories (create, update, deactivate) are propagated to the corresponding Oracle Utilities Work and Asset Cloud Service storerooms.

Stock Item Details Integration
The stock item details definition and inventory adjustments are synchronized in Oracle Utilities Work and Asset Cloud Service from Oracle Fusion ERP Cloud. The stock item details integration also works in two modes: initial load and increment load. It supports the following sub flows:

- **Stock Item Details Definition**: The stock item details definitions are created based on the Oracle Fusion ERP Cloud item and inventory organization associations from the item definition.

- **Inventory Adjustment**: The on-hand balance and unit cost price are picked from Oracle Fusion ERP Cloud at item-subinventory level and updated as item quantity and average unit price in Oracle Utilities Work and Asset Cloud Service at stock item details.

Material Reservation Integration

On activation of material activity resource requirements (ARR) with reservation date in Oracle Utilities Work and Asset Cloud Service, an user defined reservation is created in Oracle Supply Chain Management. It also updates/deletes the reservation based on updates/cancellation of material ARR.

Material Request Integration

This integration includes the following flows:

- **Supply Request Creation**: The material request from Oracle Utilities Work and Asset Cloud Service creates an expense type supply request in Oracle Supply Chain Management. This supply request gets converted to expense type transfer order in Oracle Supply Chain Management through supply chain orchestration process of Oracle Fusion.

- **Pick Wave Creation**: Closer to the transfer order required by date, the integration creates a pick wave for each transfer order. It also reduces the user defined reservation by appropriate quantity if the Oracle Utilities Work and Asset Cloud Service material request line has a material ARR attached to it with reservation.

Chapter 2

Oracle Supply Chain Management Configurations

This chapter provides information about the Oracle Supply Chain Management configurations that have to be set on top of the standard Oracle Supply Chain Management attributes based on the Oracle Utilities Work and Asset Cloud Service asset information. The following are described:

- Capturing Additional Oracle Utilities Work and Asset Cloud Service Attributes
- Configuring BICC Extract
- BICC Tool Setup
- Running the Extract Job
- Configuring BI Reports

Make sure the Oracle ERP Product Hub Cloud Integration to Oracle Utilities Work and Asset Cloud Service related item configuration is in place before executing the Oracle Utilities Work and Asset Cloud Service Integration to Oracle Supply Chain Management integration.

Refer to the *Oracle ERP Product Hub Cloud Configurations for Oracle ERP Product Hub Cloud Integration to Oracle Utilities Work and Asset Cloud Service for Stock Item Setup Guide* for Oracle ERP Product Hub Cloud configurations.
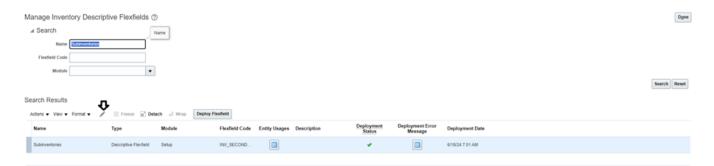
Capturing Additional Oracle Utilities Work and Asset Cloud Service Attributes

A new DFF field was introduced in Sub Inventory. Only if this field is set to "yes", the sub inventory will be synchronized to Oracle Utilities Work and Asset Cloud Service. This section includes the following:
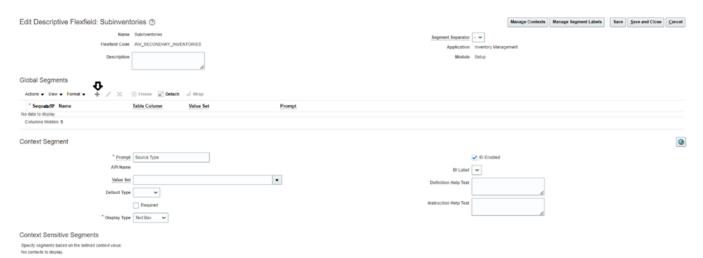
- Setting up the Subinventories DFF attribute "WACS Storeroom"
- Setting up the Transfer Order Line DFF Attributes (WACS ARR ID and WACS GL Account)

Setting up the Subinventories DFF attribute "WACS Storeroom"

1. Navigate to **Setup and Maintenance**. Search for the "Manage Inventory Descriptive Flexfields" task.

2. On **Manage Inventory Descriptive Flexifleds**, search for "Subinventories".

3. Select the **Subinventories** row and click the edit icon. Click the **+** icon in the **Global Segments** section to create a new segment.

4. To validate the "Yes" and "No" values, create a custom value set. On the **Create Segment** page, click **Create Value Set**.

Edit Descriptive Flexfield: Subinventories ⓘ

Manage Contexts   Manage Segment Labels   Save   Save and Close   Cancel

Name Subinventories
Flexfield Code INV_SECONDARY_INVENTORIES
Description

Segment Separator - ▾
Application Inventory Management
Module Setup

Global Segments

Actions ▾ View ▾ Format ▾ + ∕ ✕ ▦ Freeze ▦ Detach ↲ Wrap

* Sequence	Name	Table Column	Value Set	Prompt

No data to display.
Columns Hidden 9

Context Segment

* Prompt Source Type
API Name
Value Set ▾
Default Type ▾
☐ Required
* Display Type Text Box ▾

☑ BI Enabled
BI Label ▾
Definition Help Text
Instruction Help Text

Context Sensitive Segments

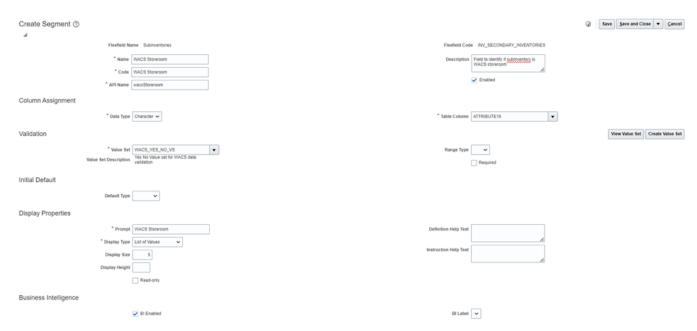Specify segments based on the defined context value.
No contexts to display.

5. Use your implementation standards to create (or reuse) a custom value set for "Yes" and "No" validation. Below is a sample value set for reference.

Create Value Set ⓘ

Manage Values   Save   Save and Close   Cancel

Value Set Code WACS_YES_NO_VS
Description Yes No Value set for WACS data validation
* Module Oracle Middleware Extensions for Applications ▾
Validation Type Independent
Value Data Type Character

☐ Security enabled

Data Security Resource Name   Edit Data Security

Definition

Value Subtype Text
* Maximum Length 5 ∧ ∨
Minimum Value
Maximum Value

☐ Uppercase only
☐ Zero fill

Business Objects Service Definition

Create   Delete

6. Click **Save,** and then click **Manage Values**.

7. Click the **+** icon to add two new rows, and then click **Save and Close**.

8. On the **Create Value Set** page, click **Save and Close**. On the **Create Segment** page, add a new DFF segment with following values:

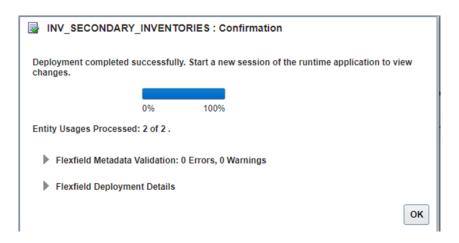| Field Name	Value
Name	WACS Storeroom
Code	WACS Storeroom
API Name	wacsStoreroom
Description	Field to identify if the subinventory is WACS storeroom.
Data Type	Character
Table Column	ATTRIBUTE15
Value Set	WACS_Yes_No_VS

Field Name	Value
Prompt	WACS Storeroom
Display Type	List of Values
Display Size	5

Create Segment ⑦

Save Save and Close ▼ Cancel

Flexfield Name Subinventories

Flexfield Code INV_SECONDARY_INVENTORIES

* Name WACS Storeroom

Description Field to identify if subinventory is WACS storeroom

* Code WACS Storeroom

☑ Enabled

* API Name wacsStoreroom

Column Assignment

* Data Type Character ▾

* Table Column ATTRIBUTE15 ▾

Validation

View Value Set Create Value Set

* Value Set WACS_YES_NO_VS ▾

Range Type ▾

Value Set Description Yes No Value set for WACS data validation

☐ Required

Initial Default

Default Type ▾

Display Properties

* Prompt WACS Storeroom

Definition Help Text

* Display Type List of Values ▾

Instruction Help Text

Display Size 5

Display Height

☐ Read-only

Business Intelligence

☑ BI Enabled

BI Label ▾

9. Click **Save and Close**. On the **Edit Descriptive Flexfield: Subinventories** page, click **Save and Close** to navigate back to the **Manage Inventory Descriptive Flexfields** page.

Manage Inventory Descriptive Flexfields ⑦

Done

⊿ Search

Name Subinventories

Flexfield Code

Module ▾

Search Reset

Search Results

Actions ▾ View ▾ Format ▾ ✎ ☐ Freeze ⊞ Detach ⊣ Wrap Deploy Flexfield

Name	Type	Module	Flexfield Code	Entity Usages	Description	Deployment Status	Deployment Error Message	Deployment Date
Subinventories	Descriptive Flexfield	Setup	INV_SECOND...	☐		☐	☐	6/18/24 7:01 AM

10. Select the **Subinventories** row and click **Deploy Flexfield**. Make sure the deployment is successful.

11. Click **OK** to complete the configuration.

Setting up the Transfer Order Line DFF Attributes (WACS ARR ID and WACS GL Account)

1. Navigate to the **Setup and Maintenance** page. Search for the **Manage Inventory Descriptive Flexfields** task.

2. On the **Manage Inventory Descriptive Flexfields** page, search for **Internal Material Transfer Order Lines**.

3. Select **Internal Material Transfer Order Lines** and then click the edit icon.

4. Click the **+** icon to add two new rows for global segments. Enter the data for each segment, and then click **Save and Close**.

Field Name	Value
Name	WACS ARR Id
Code	WACS ARR Id
API Name	wacsArrId
Description	WACS Activity Resource Requirement Id for the material
Data Type	Character
Table Column	ATTRIBUTE_CHAR19
Value Set	150 Characters
Prompt	WACS ARR Id
Display Type	Text Box

Field Name	Value
Display Size	20

Field Name	Value
Name	WACS GL Account
Code	WACS GL Account
API Name	wacsGlAccount
Description	First GL Account for the material line
Data Type	Character
Table Column	ATTRIBUTE_CHAR20
Value Set	150 Characters
Prompt	WACS GL Account
Display Type	Text Box
Display Size	20

Save the data for both the segments. The following figure shows the saved data.

5. Click **Save and Close**.

6. On the **Manage Inventory Descriptive Flexfields** page, click the **Internal Material Transfer Order Lines** row, and then click **Deploy Flexfield**.

7. Make sure there are no errors and warnings. Click **OK**.

Configuring BICC Extract

To import job definitions into the target BICC application in Oracle Fusion ERP Cloud:

1. Navigate to the package and copy the ERPSCM_ActiveSubinvExtBICC_WACS.zip zip file to the subinventory local directory.

2. Login to the Oracle Fusion ERP Cloud BICC application using BIADMIN/<password>.

   https://FA OHS Host:FA OHS Port/biacm (or)

   https://<Fusion cloud application URL>/biacm

   Example: https://Fusion cloud application URL.com:443/biacm

3. Verify the port when accessing the URL to run the report from BICC.

4. Create a new user "BIADMIN" (if not available) with following roles:

   • ORA_ASM_APPLICATION_IMPLEMENTATION_ADMIN_ABSTRACT

   • OBIA_EXTRACTTRANSFORMLOAD_RWD

   • ORA_ASM_APPLICATION_IMPLEMENTATION_CONSULTANT_JOB

   • ORA_ASM_APPLICATION_IMPLEMENTATION_MANAGER_JOB

   • BICC_UCM_CONTENT_ADMIN

   • RCS_SCM_EXTRACT_TRANSFORM_LOAD_DUTY

   • OBIA_EXTRACT_TRANSFORM_LOAD_DUTY

5. Upload the bulk/incremental zip file.

   a. Login to Oracle Business Intelligence Cloud Connector Console.

   b. From the tool bar on the right pane, click the **Manage offerings and Data stores** icon.

   c. Click **Import Customization**.

   d. On the **Import Customization** page, click **Browse** to navigate to the source folder and select the zip file.

   e. Click **Import**.

6. From the tool bar on the right pane, click the **Manage Jobs** icon > **Manage Jobs** to verify if the job is uploaded successfully.

7. Select **Data Store** > **Edit Data Store Details** to modify the **Query Filter** if necessary.

__DATASTORE__.INVSUBINVPEODISABLEDATE IS NULL OR __DATASTORE__.INVSUBINVPEODISABLEDATE >= CURRENT_DATE is the Query Filter which fetches only the active Subinventories in the extract. Initially it fetches all the Subinventories (Bulk), next it fetches only the modified or newly created ones (Incremental) since last extract datetime. The same Job does the Bulk and Incremental extracts.
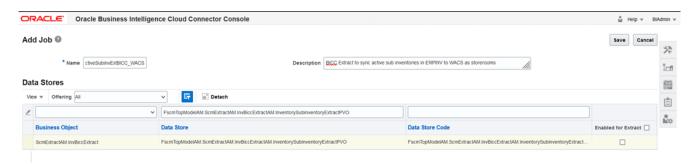
8. Click **Save** to complete the updates.

> **Note**: If the content cannot be loaded directly, use the CSV files in the package to copy the content to the Data Store setting and select the columns manually.

Important! If the steps mentioned above generate an error, do the following:

1. Perform the steps 1 to 4 mentioned above.

2. On the right pane, select **Manage Jobs**.

3. Click **+** to create a new job.

4. Enter the following details:

   - **Name**: ERPSCM_ActiveSubinvExtBICC_WACS

   - **Description**: BICC Extract to sync active sub inventories in ERPSCM to WACS as storerooms.

5. From the **Offering** drop-down list, select "All".

6. Search for the "FscmTopModelAM.ScmExtractAM.InvBiccExtractAM.InventorySubinventoryExtractPVO" data store and select it.

7. Select the **Enabled for Extract** checkbox and click **Save**.

8. After the business object is saved, the data store is displayed.

9. Click the job and then click data store.

10. On the data store, click **Edit Data Store Details**.

11. Enter the following query in the **Query Filter**.

DATASTORE__.INVSUBINVPEOSUBINVENTORYTYPE=1 AND (

DATASTORE .INVSUBINVPEODISABLEDATE IS NULL OR

DATASTORE .INVSUBINVPEODISABLEDATE >= CURRENT_DATE)

12. Click **Done**.

13. On the main screen, click **Select Columns**.

14. Include the necessary columns and click **Save**.

15. Mark "InvSubinvPEOOrganizationId" as the **Primary Key**.

16. Mark "InvSubinvPEOLastUpdateDate" as the **Incremental Key**.

17. Click **Save**.

To manually create an extract from the package, download the package first. It includes the following files:

- Use **C.JOB.csv** to fetch **Name** and **Description**.
- Use **C_JOB_DATA_STORE_CUST_COL_REL.csv** to identify columns to be included in the **Select Column** field. Add the respective primary and incremental keys in the column.
- Use **C_JOB_DATA_STORE_REL.csv** to get the data store.
- Use **C_JOB_DATA_STORE_RUNTIME.csv** to get the query to be updated in the data store.
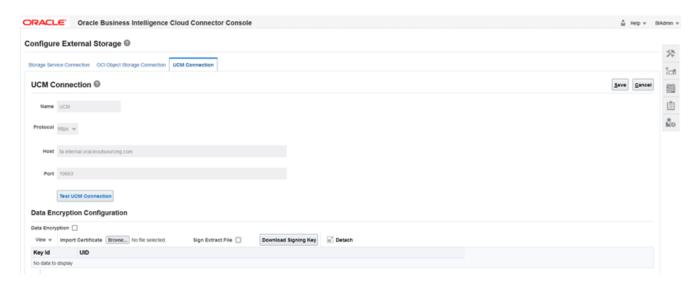
BICC Tool Setup

To set up the BICC tool:

1. Navigate to **Manage Offerings and Data Stores** > **Actions** > **Extract Preferences**.

2. Verify the prune time. Set the **Prune Time in Minutes** to '0' to reflect the changes immediately.

3. Select the **Compression Type** as "Zip".

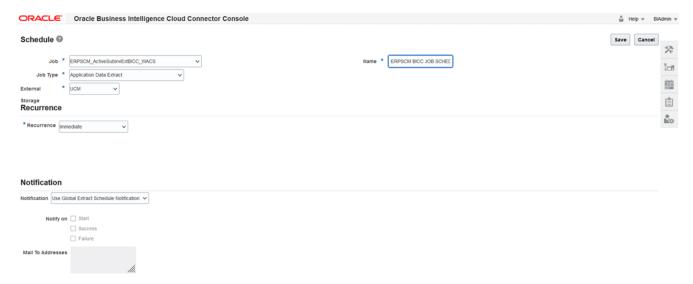4. On the right pane, click **Configure External Storage** and make sure the UCM connection setup is existing.

Running the Extract Job

To run the Extract job:

1. From the toolbar on the right pane, click **Manage Jobs** > **Manage Job Schedules**.

2. Click **Add**.

3. Enter the **Job Name**, **External Storage**, **Job Type**, and **Job Name**. Click **Save**.

   Note: The status should be "Succeeded".

4. Login to UCM and search for the extracted files.

   https://<Fusion application URL>/cs

   a. Enter "subinv*" in the **Quick Search** and press Enter.

   b. Click the respective ID and download the file. You will be able to see the CSV file as per the Subinventory extract mapping file in the BICC.

Configuring BI Reports

To import and configure the BI reports in Oracle Supply Chain Management:

1. Navigate to **Tools** > **Reports & Analytics**.

2. Click **Browse Catalog**.

3. In the **Folders** section, navigate to the required directory.

   Example: /Custom/SCMWACS/Inv Adj, /Custom/SCMWACS/Inv Adj/Data Model

   > **Note**: Make sure that the user has rights to access the folder.

   The BI report path should be configured in the "item.adjust.bipreport" property in the OUTL-BRT-WACS_ERPSCM_ConfigProps Oracle Integration Cloud lookup, along with the file name.

   Example: /Custom/SCMWACS/Inv Adj/ERPSCM_InvAdjReport_WACS.xdo

   The proposed order to import the files in Oracle Supply Chain Management is as follows:

   - ERPSCM_InvAdjQry_WACS.xdm.catalog

   - ERPSCM_InvAdjReport_WACS.xdo.catalog

   Note: ERPSCM_InvAdjQry_WACS.xdm.catalog has to be unarchived at /Custom/SCMWACS/Inv Adj/Data Model folder and ERPSCM_InvAdjReport_WACS.xdo.catalog has to be unarchived at /Custom/SCMWACS/Inv Adj folder.

4. From the list of tasks related to the selected folder, select **Unarchive**.

5. Click **Browse** and select the "ERPSCM_InvAdjQry_WACS.xdm.catalog" archived file to unarchive.

6. Select **None** and **Inherit** from the respective **Replace** and **ACL** drop-down lists.

7. Click **OK**.

8. Repeat the steps 5 and 6 to unarchive the "ERPSCM_InvAdjReport_WACS.xdo.catalog" file.

9. Verify the following BI report artifacts are imported successfully:

   - ERPSCM_InvAdjQry_WACS.xdm.catalog

   - ERPSCM_InvAdjReport_WACS.xdo.catalog

10. Similarly, import the following BI reports:

File Name	Unarchive Location	OIC Config Property Name	OIC Config Property Value
ERPSCM_InvZeroQntyAdjReport_WACS.xdo.catalog	/Custom/SCMWACS/Inv Adj	item.adjust.bipreport	/Custom/SCMWACS/Inv Adj/ ERPSCM_InvAdjReport_WACS.xdo
ERPSCM_InvZeroQntyAdjQry_WACS.xdm.catalog	/Custom/SCMWACS/Inv Adj/Data Model		

File Name	Unarchive Location	OIC Config Property Name	OIC Config Property Value
ERPSCM_CategoryItemReport_WACS.xdo.catalog	/Custom/SCMWACS/Inv Item	wacs.item.bipreport	/Custom/SCMWACS/Inv Item/ ERPSCM_CategoryItemReport _WACS.xdo
ERPSCM_Category_Item_WACS.xdm.catalog	/Custom/SCMWACS/Inv Item/Data Model		
ERPSCM_TransferOrderReport_WACS.xdo.catalog	/Custom/SCMWACS/ Transfer Orders	transfer.order.bipreport	/Custom/SCMWACS/Transfer Orders/ ERPSCM_TransferOrderRepor t_WACS.xdo
ERPSCM_GetTransferOrder _WACS.xdm.catalog	/Custom/SCMWACS/ Transfer Orders/Data Model		