Oracle Fusion Cloud Applications

Data Extraction Tool

FA Latest

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1 Overview of the Data Extraction Tool

This playbook provides a comprehensive overview of the Data Extraction tool, outlining its core features.

The Data Extraction tool leverages a read-optimized data store to ensure faster and more reliable data extraction. By seamlessly integrating with the Oracle Autonomous AI Lakehouse, the tool supports near real-time replication of data from Oracle Fusion Cloud Applications. Rather than extracting data directly from the transactional database of Oracle Fusion Applications, the tool performs data extracts against the replicated data. This approach significantly reduces the load on core applications by offloading data extraction to a read-optimized data store, improving overall performance and efficiency for both transactional activities and data extraction needs.

The tool uses a business object data model that simplifies data organization. Predefined business and extraction views make it easy to work with and extract data, without exposing the complex underlying architecture.

The solution supports:

- Selecting one or more business views or extraction views
- Full and incremental extracts
- On-demand runs or scheduled extractions
- Monitoring and viewing extract statuses

This innovative approach is designed as the long-term replacement for Business Intelligence Cloud Connector (BICC), offering a more modern, efficient, Redwood-based experience.

Feature Comparison

Comparison of BICC to the Data Extraction Tool

Feature	BICC	Data Extraction Tool
Performance	Medium	Very High
Schema type	Complicated view	Clean business object views
Incremental support	Limited	Full + optimized
Load on apps database	High	Near-zero
UI	Legacy	Redwood

Overall, the tool provides a high-performance, read-optimized, and user-friendly extraction experience for customers.

2 Before You Start

Enable Authorization Service

You must enable synchronization between Oracle Platform Security Services and the authorization service before assigning permissions to the integration job role.

First, confirm that the authorization service is enabled. You must be signed in as a user with access to the Functional Setup Manager.

1. From the navigator, select **My Enterprise** > **Setup and Maintenance**.
2. In the Setup and Maintenance work area, search for and open the **Manage Administrator Profile Values** task.
3. In the Search region, enter ORA_ASE_SAS_INTEGRATION_ENABLED in the Profile Option Code field, and select **Search**.
4. In the profile details region, verify that the Site profile level is set to **Yes**.

   If necessary, update the Profile Value to **Yes**.
5. Select **Save and Close** to apply the change.

Create and Assign a Custom Job Role

1. From the navigator, select **Tools** > **Security Console**.
2. On the Roles tab, select **Create Role**.
3. Enter the basic information of the custom job role name.
4. Verify that Enable Permission Group is selected for the custom role.
5. Select **Next** to move through the subsequent pages. Skip the Function Security Policies and Data Security Policies pages.
6. On the Role Hierarchy page, select **Add Role**.
7. In the Add Role Membership dialog box, search for and add the following roles:
   - ORA_RCS_SUPPLY_CHAIN_INTEGRATION_SPECIALIST_JOB – Manage Extract Definitions and Extract Schedules
   - ESS Administrator Role – Manage Extract Jobs
8. Select **Add Role Membership** to add each role.
9. Select **Cancel** to close the dialog box.
10. In the Role Hierarchy page, open the Roles and Permission Groups tab and confirm that ORA_RCS_SUPPLY_CHAIN_INTEGRATION_SPECIALIST_JOB appears in the list.
11. Select **Next** on the Role Hierarchy page.
12. On the Segregation of Duties page, skip entering details and select **Next**.
13. On the Users page, select **Add User**.
14. In the Add User dialog box, search for and select the user to assign the role to.
15. Select **Add Selected Users** to add each role.
16. Select **Cancel** to close the dialog box.

17. Select **Next** to review the details of the role added on the Summary page.
18. Select **Save and Close**.

Enable Access to Generated Content on Oracle WebCenter Content

1. From the navigator, select **Tools** > **Security Console**.
2. On the Roles tab, select **Create Role**.
3. Enter the basic information of the custom job role name.
4. Select **Next** to move through the subsequent pages. Skip the Function Security Policies and Data Security Policies pages.
5. On the Role Hierarchy page, select **Add Role**.
6. In the Add Role Membership dialog box, search for OBIA_EXTRACTTRANSFORMLOAD_RWD, then select **Add Role Membership**. This role is required to view and download extract files from Oracle WebCenter Content.
7. Select **Cancel** to close the Add Role Membership dialog box, then select **Next**.
8. On the Segregation of Duties page, skip entering details and select **Next**.
9. On the Users page, select **Add User**.
10. In the Add User dialog box, search for and select the user to assign the role to.
11. Select **Add Selected Users**, then select **Cancel** to close the dialog box.
12. Select **Next**, review the details on the Summary page, and select **Save and Close**.

Flexfields and Business Objects

Synchronize Flexfields with Business Objects

Run the synchronization process to make newly created descriptive or extensible flexfields available in the Data Extraction tool.

Existing flexfields in your instance are automatically synchronized with their corresponding business objects during each Oracle upgrade. If you create new descriptive flexfields or extensible flexfields after an upgrade, run the synchronization process to ensure that the flexfields appear in the Data Extraction tool.

1. From the Navigator, select **Tools** > **Scheduled Processes**.
2. Select **Schedule New Process**.
3. In the Name field, enter **Synchronize Flexfields with Business Objects**, and press **Enter** to confirm the process.
4. Select **OK** to submit the process.

After the process completes, the newly created flexfields are synchronized with their corresponding business objects and become available in the Data Extraction tool.

You can monitor the process in the Scheduled Processes work area.

Descriptive Flexfields in Business Objects

Understand how descriptive flexfields are represented within business objects.

A descriptive flexfield appears as a nested child object within the business object that supports the flexfield.

The parent business object contains the main transactional or reference data, while the descriptive flexfield stores additional attributes associated with that object. When defining extracts, you can access descriptive flexfield attributes through the child object associated with the parent business object.

Extensible Flexfields in Business Objects

Understand how extensible flexfields are represented and organized within business objects.

An extensible flexfield is modeled as a separate business object with a generated view that can be extracted using the Data Extraction tool.

Because extensible flexfields support complex hierarchical structures, a single implementation can generate many additional views. In some cases, an implementation can contain hundreds of generated views based on extensible flexfield configurations.

To simplify navigation, these generated views are organized into subgroup nodes within the business object hierarchy. This grouping enables you to to easily locate extensible flexfield views by functional type.

Extensible Flexfield Subgroups

The following table lists the extensible flexfield subgroups available.

Extensible Flexfield Subgroups

Pillar	Functional Group	Subgroup	Description
Supply Chain & Manufacturing	Order Management	Defined Views	Contains all named business views defined by Oracle and shipped out-of-the-box.
Supply Chain & Manufacturing	Order Management	Fulfillment Line Additional Information Views	Contains business views created from fulfillment line extensible flexfields.
Supply Chain & Manufacturing	Order Management	Sales Order Additional Information Views	Contains business views created from sales order extensible flexfields.
Supply Chain & Manufacturing	Product Lifecycle Management	Defined Views	Contains all named business views defined by Oracle and shipped out-of-the-box.

Pillar	Functional Group	Subgroup	Description
Supply Chain & Manufacturing	Product Lifecycle Management	Item Class Views	Contains business views created from item class extensible flexfields.
Supply Chain & Manufacturing	Product Lifecycle Management	Item Extended Attribute Views	Contains business views created from item attribute group extensible flexfields.
Supply Chain & Manufacturing	Product Lifecycle Management	Manufacturer Additional Information Views	Contains business views created from manufacturer extensible flexfields.

3 Extract Definition

Create an Extract Definition

1. From the navigator, select **Tools** > **Data Extraction**.
2. Select the **+ (Create)** icon.
3. On the Create Extract Definition page, enter the required details for the extract.
4. Select **Add** to add new objects.
5. Search for and select the objects you want to add to the extract definition.
6. Select **Add** to save the new objects.
7. In the **Attributes** column, select the **Select Attributes** link.
8. Search for and select the attributes you want to add to the object and select Update.

   > **Note:** By default, **timeCreated** and **timeUpdated** attributes are selected. These must remain selected for extraction to succeed.

9. Select **Define Rules** link to add new rules and filter the data set being extracted.
10. Define the rules in the Characteristics Values drawer, then select **Save**.
11. On the Create Extract Definition page, select **Create** to finalize the extract definition.

Add an Object to an Extract

1. From the navigator, select **Tools** > **Data Extraction**.
2. On the Create Extract Definition page, search for and select the edit icon next to the extract definition to which you want to add an object.
3. On the Edit Extract Defination page, select **Add**.
4. Select the new object and select **Add**.

Add an Attribute to an Object in an Extract

1. From the navigator, select **Tools** > **Data Extraction**.
2. On the Create Extract Definition page, select the extract definition whose object requires a new attribute.
3. In the **Objects and Attributes** section, select the **Select Attributes** link for the selected object.
4. Select **Update**.

Add Filtering Rules to an Object in an Extract

1. From the navigator, select **Tools** > **Data Extraction**.
2. On the Create Extract Definition page, select the object for which you want to define a rule.
3. In the Objects and Attributes section, select the object and select **Define Rule**.
4. Choose the relevant attributes and set the conditions for filtering the data.
5. Select **Add** to apply the rule.

Update Column Headings of an Extract

After adding the objects and attributes for the extraction definition, the Update Labels link in the Labels column becomes active.

1. Select **Update Headings**.
2. Search for the attribute whose header label you want to update.
3. Select **Apply BICC Headings** to update header labels for all attributes available in the BICC view.
4. To make manual changes, double-click any header label and edit it directly.
5. Select **Reset** to revert all header labels to their default values.
6. Select **Update**.

Note: The **Apply BICC Headings** action updates all applicable attributes in a single action. You can modify any header label before or after using this action.

Import Extract Definition

1. From the navigator, select **Tools** > **Data Extraction**.
2. On the Create Extract Definition page, select **Import**.
3. In the Import drawer, drag and drop the extract definition file to import.
4. Select **Import**.

Export Extract Definition

1. From the navigator, select **Tools** > **Data Extraction**.

2. On the Create Extract Definition page, select an extract definition and select **Export**.
3. Select **Save** to download the extract definition file.

4 Extract Schedules

Create an Extract Schedule

1. Navigate to the Extract Schedules page by selecting the **Create Extract Schedule** icon from the **Actions** menu on the Create Extract Definitions page, or by selecting the **Extract Schedules** horizontal tab at the bottom of the page.
2. Select the **+ Create** icon to create a new extract schedule.
3. On the New Extract Schedule page, enter the required details of the extract.
4. Select the desired recurrence for the extract schedule.
5. In the **Storage** field, select where the extract output should be stored. For more information, see *Storage Options for Extract Output*.
6. Optionally choose the notification settings for the extract schedule and add the email address to which notifications should be sent. Notifications can be configured only when the storage option is Universal Content Manager.
7. Select **Create** to finalize the schedule.

Storage Options for Extract Output

When creating an extract definition, you can choose where the extract output is stored. The application provides two storage options: Oracle Managed Storage and Universal Content Manager.

Oracle Managed Storage

Oracle Managed Storage is the default and recommended option. It's available to all customers, and the extract output is written directly to this storage. Oracle Managed Storage also allows you to download the extracted data directly from the application.

Universal Content Management

Universal Content Manager is provided for compatibility with existing processes, similar to what is available in BICC. However, this option is expected to be deprecated in the future. When Universal Content Management is selected, the extract generation may take longer compared to using Oracle Managed Storage directly.

Search for an Extract Schedule

1. Navigate to the Extract Schedules page by selecting the **Create Extract Schedule** icon from the **Actions** column on the Create Extract Definitions page, or by selecting the **Extract Schedules** horizontal tab at the bottom of the page.
2. Use the storage context switcher at the top of the page to select the storage type associated with the extract schedule.

   The application displays schedules only for the selected storage type because Oracle Managed Storage and Universal Content Manager (UCM) use different REST resources to store schedule information.

3. Enter the name of the extract schedule you need to find.
4. Select **Search**.

Search and View the Details of an Extract Schedule

1. Navigate to the Extract Schedules page by selecting the **Create Extract Schedule** icon from the **Actions** column on the Create Extract Definitions page, or by selecting the **Extract Schedules** horizontal tab at the bottom of the page.
2. Enter the name of the extract schedule you need to find.
3. Select **Search**.
4. From the **Name** column, select the link to view the details of the corresponding extract schedule.
5. View the details of the extract schedule.

Suspend, Resume, Cancel, or Delete an Extract Schedule

1. Navigate to the Extract Schedules page by selecting the **Create Extract Schedule** icon from the **Actions** column on the Create Extract Definitions page, or by selecting the **Extract Schedules** horizontal tab at the bottom of the page.
2. On the Extract Schedules page, select the extract schedule that requires an action.
3. From the Action dropdown, select the appropriate action: Suspend, Resume, Cancel, or Delete.

Import an Extract Schedule

1. Navigate to the Extract Schedules page by selecting the **Create Extract Schedule** icon from the **Actions** column on the Create Extract Definitions page, or by selecting the **Extract Schedules** horizontal tab at the bottom of the page.
2. From the **More Actions** dropdown, select **Import**.
3. Browse and select the file to be imported.
4. Select **Import** to upload the schedule.

Export an Extract Schedule

1. Navigate to the Extract Schedules page by selecting the **Create Extract Schedule** icon from the **Actions** column on the Create Extract Definitions page, or by selecting the **Extract Schedules** horizontal tab at the bottom of the page.

2. Select the extract schedules you want to export.
3. From the **More Actions** dropdown, select **Export** to download the selected schedules.

5 Extract Jobs

Suspend, Cancel, or Resume an Extract Job

1. From the navigator, select **Tools** > **Data Extraction**.
2. On the Extract Defination page, select the Extract Jobs tab.
3. On the Extract Jobs page, select the extract job that requires an action.
4. From the **Action** dropdown, choose **Suspend**, **Cancel**, or **Resume**.

Search for an Extract Job

1. From the navigator, select **Tools** > **Data Extraction**.
2. On the Extract Defination page, select the Extract Jobs tab.
3. Enter the name of the extract job you want to find.
4. Select **Search** to locate the job.

Download Extract Job Output

1. Search for the required extract job.
2. Select the **Download** icon in the **Actions** column.
3. In the drawer, select the **Download** icon for the required business object.

Note: You can download an extract job output only if the **Storage Option** selected during creation is **Oracle Managed Storage**.

6 Map BICC Data to Business Object Data

This section explains how the generated Excel spreadsheet maps BICC data to business object data and how to use the spreadsheet to understand what data can be extracted and how it's structured.

The spreadsheet serves as a reference to help you identify extractable BICC data and its corresponding mapping in business objects. Since each Oracle Fusion Applications release introduces new features, business objects, and BICC views, the mapping is updated regularly. Always download the latest version to stay aligned with recent changes.

Access the Mapping Spreadsheet

Download the *BossBV_to_BICC_Database_Mapping* spreadsheet. The spreadsheet is regenerated with each Oracle Fusion Applications release and posted on My Oracle Support (KA1401). Always download the latest version to ensure you're using the most current mappings.

Spreadsheet Structure

The spreadsheet contains two worksheets, each serving a distinct purpose:

- **Release Information**: Describes mapping changes introduced in each Oracle Fusion Applications release. Use this worksheet to track newly added views and changes to existing mappings.
- **Business Objects BV to Database Tables**: Provides the detailed mapping between BICC public view objects and business objects available in the read-optimized data store.

When a BICC public view object is a flat extract, it can be mapped directly to the corresponding business object available in read-optimized data store. The mapping is defined at two levels:

- From the BICC public view object to the business object
- From individual attributes in the BICC view and the business object view, highlighting commonalities and differences

Column Descriptions

These columns in the Business Objects BV to Database Tables worksheet describe how BICC views map to business objects and database tables:

- Column A – Display name of the business object view as shown in the tool
- Column B – Internal name of the business object view
- Column C – Path and name of the BICC public view object
- Column F – Commonality indicator that identifies the database table shared by both the BICC public view object and the business object

Columns D, E, and G describe attribute-level mappings. After the underlying database table is identified, its columns are mapped to both the BICC view and the business object view.

In Column E, some attributes appear in dot notation, which indicates a navigation path. Business objects convert foreign key references into object references. For example, the database table INV_ABC_CLASSES contains the column

ORGANIZATION_ID. In the BICC public view object, this appears as OrganizationId. In the business object, the value is retrieved through an object reference to the organization instance and is shown as organization.id.