Oracle Financial Services Customer Screening

Administration Guide

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Customer Screening Administration Guide

Document Control

Table 1: Document Control

Version Number	Revision Date	Change Log
8.0.8.1.4	December 2020	• Added steps to generate the bearer token in *Appendix F: Configurations for the Bearer Token*.
8.0.8.1.0	November 2020	• Added an appendix which shows how to add a new field in a web service.
8.0.8.1.0	October 2020	• Updated steps to configure watch list data for Dow Jones. • Added steps to download watch list data for World-Check.
8.0.8.1.0	August 2020	• Added an appendix which mentions the steps to split jobs across multiple servers. • Added an appendix which mentions the steps to view a snapshot of a table in Enterprise Data Quality (EDQ).
8.0.8.0.4	April 2020	• Updated the Take Action screen in the Taking Action on Customer Screening related Cases in Oracle Financial Services ECM section.
8.0.8.0.1	February 2020	• Added a section that shows how database connections can be done through WebLogic in the Establishing a Database Connection using WebLogic section.
8.0.8.0.0	August 2019	• Added a note which mentions the users who must be mapped to the Real-time access group in the *Real-Time Screening* section.
8.0.8.0.0	July 2019	Created the guide.

Table of Contents

1 About This Guide

This guide explains the concepts of Oracle Financial Services Customer Screening (OFS CS) and provides step-by-step instructions to navigate to the Customer Screening web pages, analyzing, acting on, and researching the business information.

1.1 Intended Audience

The instructions in this guide are written with the assumption that the user has a good understanding of Enterprise Case Management (ECM), Financial Crime Data Model (FCDM), Oracle Enterprise Data Quality (OEDQ) and has knowledge of Sanctions (SAN), Politically Exposed Persons (PEP), Enhanced Due Diligence (EDD), and Country Prohibition Screening (PRB). The Customer Screening User Guide is designed for the following users:

- **Analyst**: This user works on the alerts within the application frequently. This user's specific role determines what they can view and perform within the application.
- **Supervisor**: This user works on the alerts within the application daily and is typically a higher-level Analyst or Compliance Officer.

1.2 Access to Oracle Support

Oracle customers have access to electronic support through My Oracle Support (MOS). For

information, visit http://www.oracle.com/pls/topic/lookup?ctx=acc&id=info

Or visit http://www.oracle.com/pls/topic/lookup?ctx=acc&id=trs if you are hearing-impaired.

1.3 How this Guide is Organized

The Customer Screening User Guide includes the following chapters:

- Introduction provides an overview of Customer Screening and the architecture used.
- Getting Started explains common elements of the interface and how to configure the **Financial Services Analytical Applications Customer Screening** home page.
- General Configurations provides information on how to prepare watch list data, configure the different property files in Customer Screening, how to download the full and delta watch lists, how to filter watch list data, and how to configure General Data Protection Regulations (GDPR) for users.
- Integrations with Enterprise Case Management provides information on the different cases classes used for Customer Screening in Enterprise Case Management, view the correlation rules, what cases are linked to the case being investigated, and the workflows used for the different case types.
- Real-Time Screening shows the real-time user interface used for Customer Screening and how to run the real-time screening job using the Financial Data Crime Model (FCDM).
- Batch Screening provides information on how to prepare and analyze data and how to run the batch screening job using the Financial Data Crime Model (FCDM).

- Appendix A: Screening Non-Latin Character Sets provides information on how to perform matching for non-Latin data.
- Appendix B: Risk Scoring Reference Data shows the different reference data tables used to calculate risk scores in Customer Screening.
- Appendix C: Preconfigured Watch List Information provides information on the different watch lists used in Customer Screening.

1.4 Where to Find More Information

For more information about Oracle Financial Services Customer Screening, see the following Customer Screening application documents, which can be found on the Oracle Help Center page:

- Oracle Financial Services Customer Screening Matching Guide
- Oracle Financial Services Customer Screening Data Interfaces Guide

To find additional information about how Oracle Financial Services solves real business problems, see our website at Oracle for Financial Services home page.

1.5 Conventions Used in This Guide

The following table mentions the conventions used in this guide.

Table 2: Conventions Used

Conventions	Meaning
Italics	Names of books as references Emphasis Substitute input values
Bold	Menu names, field names, options, button names Commands typed at a prompt User input
`Monospace`	Directories and subdirectories File names and extensions Code sample, including keywords and variables within text and as separate paragraphs, and user-defined program elements within text
Hyperlink	Hyperlink type indicates the links to external websites, internal document links to sections.
Asterisk (*)	Mandatory fields in User Interface
<Variable>	Substitute input value

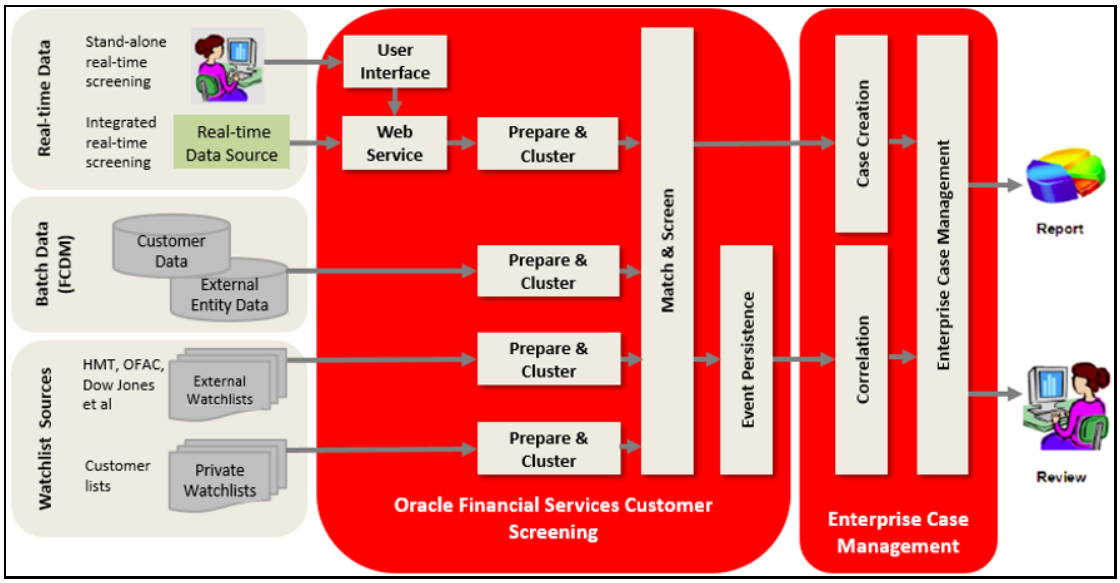
2 Introduction

Oracle Financial Services Customer Screening (OFS CS) enables organizations to effectively and efficiently screen their customers so that they can successfully meet anti-bribery, anti-corruption, export control, and other legal regulations as well as to meet anti-money laundering and counter-terrorist financing legislations. Screening customers enables organizations to keep track of and avoid the risk of being exposed to suspicious or sanctioned individuals and organizations. Customer Screening uses the Oracle Enterprise Data Quality (OEDQ) platform to manage watch list data and apply match rules, Process Modelling Framework (PMF) to generate alerts, and Enterprise Case Management (ECM) to investigate cases generated from the alerts based on the match rules.

2.1 Architecture Overview

This image shows the movement of data from a real-time data source, batch data from the Financial Crime Data Model (FCDM), and data from watch list sources such as OFAC, HM Treasury, and Dow Jones. This data then moves to the Customer Screening user interface where it is prepared and screened. Finally, cases are generated based on the matches in Enterprise Case Management (ECM).

Figure 1: Customer Screening Architecture



3 Getting Started

This chapter provides step-by-step instructions to login to the Oracle Financial Services Customer Screening (OFS CS) application and the different features of the application.

3.1 Accessing the Financial Services Analytical Applications Customer Screening Home Page

Access to the Customer Screening application depends on the Internet or Intranet environment. The system administrator provides the intranet address uniform resource locator (URL), User ID, and Password.

> **NOTE** The first time you log in, you will be prompted to change your password.

To access the **Oracle Financial Services Analytical Applications Customer Screening** home page, follow these steps:

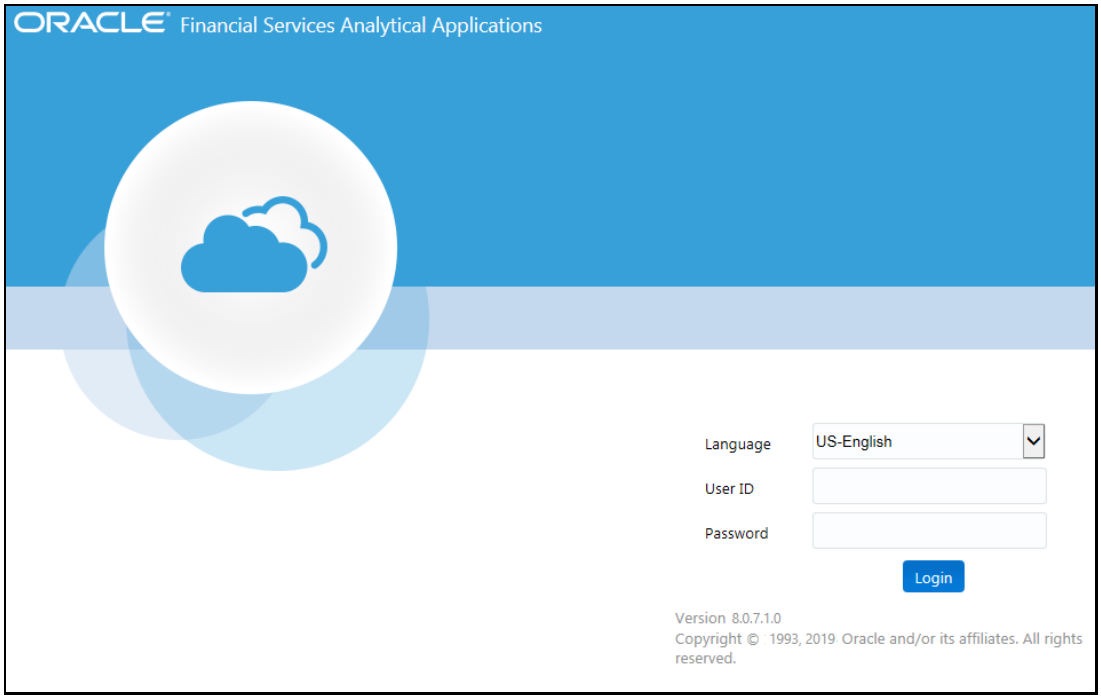
1. Enter the URL into your browser using the following format:

   ```
   <scheme/ protocol>://<ip address/ hostname>:<port>/<context-name>/login.jsp
   ```

   ```
   For example: https://myserver:9080/ofsaaapp/login.jsp
   ```

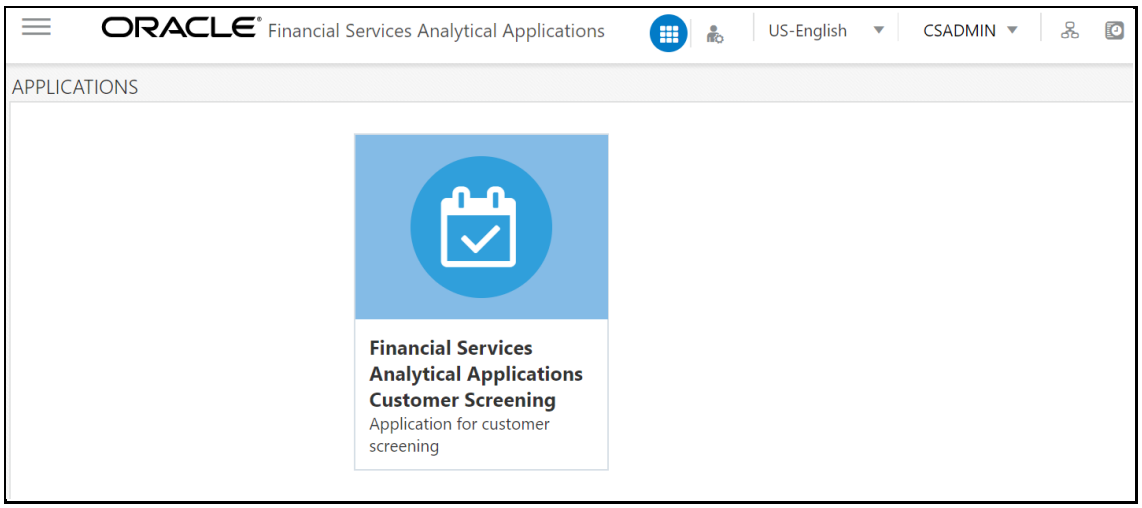
   The **Oracle Financial Services Analytical Applications (OFSAA)** login page is displayed.

Figure 2: Oracle Financial Services Analytical Applications (OFSAA) Login Page



2. Select the language from the **Language** drop-down list. This allows you to use the application in the language of your selection.
3. Enter your User ID and Password in the respective fields.
4. Click **Login**. The **Financial Services Analytical Applications Customer Screening** home page is displayed.

Figure 3: Financial Services Analytical Applications Customer Screening Home Page



Click the **Financial Services Analytical Applications Customer Screening** tile to open the OFS CS home page.

3.2 Managing the Oracle Financial Services Analytical Applications (OFSAA) Page

From the OFSAA application page, you can access the menus for the different message configurations. For information on the different menus, see Oracle Financial Services Analytical Applications Infrastructure Administration and Configuration Guide.

3.3 Troubleshooting Your Display

If you experience problems logging into Oracle Financial Services Customer Screening or with your display, the browser settings may be incompatible with running OFSAA applications. The following sections provide instructions to set your Web display options for OFSAA applications.

3.3.1 Enabling JavaScript

This section describes how to enable JavaScript using the **Scripting** setting. To do this, follow these steps:

1. Navigate to the **Tools** menu.
2. Click **Internet Options**. The **Internet Options** dialog box is displayed.
3. Click the **Security** tab and then click **Local Intranet**.

4. Click **Custom Level**. The **Security Settings** dialog box is displayed.
5. In the **Settings** list and under the **Scripting** setting, enable **all options**.
6. Click **OK**, then click **OK** again to exit the **Internet Options** dialog box.

3.3.2 Enabling Cookies

Cookies must be enabled. If you have problems troubleshooting your display, contact your System Administrator.

3.3.3 Enabling Temporary Internet Files

Temporary Internet files are pages that you view on the Internet and store in a folder for quick viewing later. You must adjust this setting to always check for new versions of a stored page.

To enable Temporary Internet Files, follow these steps:

1. Navigate to the **Tools** menu.
2. Click **Internet Options**. The **Internet Options** dialog box is displayed.
3. In the **General** tab, click **Settings**. The **Settings** dialog box is displayed.
4. Select **Every visit to the page**. Selecting this option ensures that the temporary files are cleared every time.
5. Click **OK**, then click **OK** again to exit the **Internet Options** dialog box.

3.3.4 Enabling File Downloads

This section describes how to enable file downloads with the following steps:

1. Navigate to the **Tools** menu.
2. Click **Internet Options**. The **Internet Options** dialog box is displayed.
3. Click the **Security** tab and then click **Local Intranet**.
4. Click **Custom Level**. The **Security Settings** dialog box is displayed.
5. In the **Downloads** section, ensure that the **Enable** check box is selected for all options.
6. Click **OK**, then click **OK** again to exit the **Internet Options** dialog box.

3.3.5 Setting Printing Options

This section explains how to enable printing background colors and images with the following steps:

1. Navigate to the **Tools** menu.
2. Click **Internet Options**. The **Internet Options** dialog box is displayed.
3. In **Settings**, click the **Advanced** tab.
4. In the **Printing** tab, click **Print background colors and images**.
5. Click **OK** to exit the **Internet Options** dialog box.

> **NOTE** For best display results, use the default font settings in your browser.

3.3.6 Enabling the Pop-Up Blocker

You may have trouble running the Customer Screening application when the IE Pop-up Blocker is enabled. It is recommended to add the URL of the application to the list of allowed sites in the Pop-up Blocker Settings in the IE Internet Options.

To enable the Pop-up Blocker, follow these steps:

1. Navigate to the **Tools** menu.
2. Click **Internet Options**. The **Internet Options** dialog box is displayed.
3. Click the **Privacy** tab. In the **Pop-up Blocker** setting, select **Turn on Pop-up Blocker**.
4. Click **Settings** to open the **Pop-up Blocker Settings** dialog box.
5. In the **Pop-up Blocker Settings** dialog box, enter the URL of the application in the text area.
6. Click **Add**. The URL appears in the **Allowed Sites** list.
7. Click **Close**, then click **Apply** to save the settings.
8. Click **OK** to exit the Internet Options dialog box.

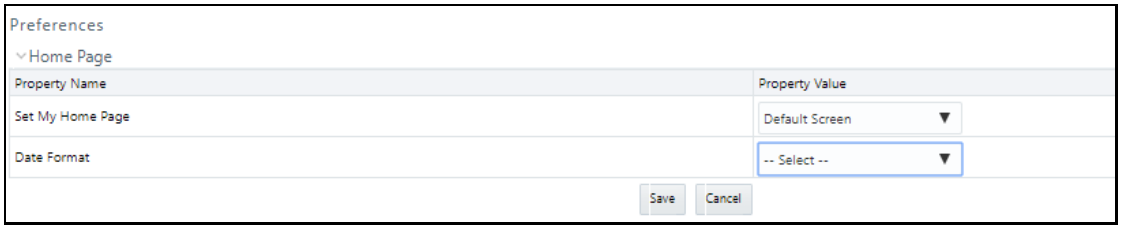
3.3.7 Setting Preferences

Use the **Preferences** section to set the **Financial Services Analytical Applications Customer Screening** home page.

To access this section, follow these steps:

1. In the **Financial Services Analytical Applications Customer Screening** home page, select **Preferences** from the user name drop-down list to open the **Preferences** page.

Figure 4: Preferences Page



2. In the **Set My Home Page** drop-down list, select the window that you want to view when you log in.

   When a new application is installed, the related window for that application is found in the drop-down list.

3. In the **Date Format** drop-down list, select the date format that you want to see. The options available are `dd/mm/yyyy` or `mm/dd/yyyy`.

4. Click **Save** to save your preferences.

4 General Configurations

Some configurations must be done before screening customer or external entity data, such as configuring run profiles to control elements of the watch lists and how screening is performed, preparing private watch lists using the Private List Interface (PLI) and use them for screening, analyzing watch list data, configuring match rules and clusters, configuring real-time and batch screening, configuring risk scores in watch lists, and scheduling the Customer Screening run job. You can also configure the delta watch lists for the Dow Jones watch list, enable the General Data Protection Regulation (GDPR), and enable or disable the Data Quality (DQ) check.

The Watch List Management, Customer Screening, External Entity, and Real-time screening property files can be configured using run profiles in the `FICDB/conf` directory. You can use run profiles to specify the configuration settings that will override the default settings.

The following run profiles are available in the `<domain_name>/edq/oedq.local.home/runprofiles/` directory when you log in to the WinSCP server:

- `watch list-management.properties`
- `customer-screening.properties`
- `external-entity-screening.properties`
- `customer-screening-real-time.properties`

The `watch list-management.properties` run profile controls the following attributes:

- which watch lists are downloaded
- how filtering is applied to the watch lists
- how to apply the Data Quality check to the watch lists

The `customer-screening.properties` and `external-entity-screening.properties` run profiles control the screening of customers and external entities respectively in batches.

The `customer-screening-real-time.properties` run profile controls the screening of customers in real-time.

4.1 Preparing Watch List Data

Customer Screening is preconfigured to handle reference data from the following sources:

- HM Treasury
- OFAC
- EU consolidated list
- UN consolidated list
- World-Check
- Dow Jones Watch list
- Dow Jones Anti-Corruption List
- Accuity

You can also use your private watch list using the Private List Interface (PLI). For more information, see **The Private List Interface (PLI)** chapter in the Oracle Financial Services Data Interfaces Guide.

NOTE

1. Watch lists can be downloaded automatically by setting the appropriate values in the run profile, or by downloading the watch list from the watch list provider's website. For information on downloading the watch lists, see Appendix C: Pre-Configured Watch List Information.
2. The first time a watch list is downloaded, the staging value must be set to **Y**. This ensures that data in the staging tables is refreshed every time the watch list is downloaded.
3. The Accuity, Dow Jones, Dow Jones Anti-Corruption, and World-Check watch lists are provided as paid services. To use a watch list, you must register for an account on the watch list provider's website.

4.1.1 Example - Preparing the Accuity List

This example describes how to edit the `watch list-management.properties` run profile to allow you to download and configure the Accuity list. The run profile is available in the `<domain_name>/edq/oedq.local.home/runprofiles/` directory when you log in to the WinSCP server.

NOTE You can also use the steps provided to download and configure the other watch lists.

4.1.2 Example - Enable Phases for Download and Staging

This example describes how to edit the `watch list-management.properties` run profile to allow you to download and configure the Accuity list.

To automatically download the Accuity list, set the following values in the `watch list-management.properties` run profile:

```
phase.ACY\ -\ Download.enabled = Y
phase.ACY\ -\ Stage\ reference\ lists.enabled = Y
```

To manually download the Accuity watch list using the Oracle Enterprise Data Quality (OEDQ) server, you must first set `phase.ACY\ -\ Download.enabled` and `phase.ACY\ -\ Stage\ reference\ lists.enabled = N` and click sftp://username:password@ftp.financialgo.net/PIDGWL.ZIP to connect to the WinSCP client. Enter your user name and password and download the watch list from the `config/landingarea/Accuity` directory.

If the OEDQ server is connected to the internet through a proxy server, you must provide values for the following attributes in the proxy server:

- proxy_host. For example, proxy.example.microsoft.com.
- proxy_port. For example, 80.
- proxy_username. For example, username.
- proxy_password. For example, password.

4.1.2.1 Filtering

To prepare the Accuity list without filtering, set the following value in the `watch list-management.properties` run profile:

```
phase.ACY\ -\ Prepare\ without\ filtering.enabled = Y
```

To prepare the Accuity list with filtering, set the following values in the `watch list-management.properties` run profile:

```
phase.ACY\ -\ Prepare\ with\ filtering\ (Part\ 1).enabled = Y
phase.ACY\ -\ Prepare\ with\ filtering\ (Part\ 2).enabled = Y
```

4.2 Private Watch List Set Up

Oracle Financial Services Customer Screening is preconfigured to work with commercially-available and government-provided watch lists. However, you can also screen data against your private watch lists. Sample private watch lists are provided in the `config/landingarea/Private` directory for individuals and entities in the `privateindividuals.csv` and `privateentities.csv` files respectively.

> **NOTE** OEDQ release 12c has a base config folder and a local config folder. The base config folder is called `oedqhome` and the local config folder is called `oedqlocalhome`. The names can differ in some cases. For example, dots or underscores can be used in the names, such as `oedq_local_home`.

To screen data against a private watch list, you must first replace the data in the ready-to-use files with your data and then enable the private watch list properties in the `watch list-management.properties` run profile.

To replace the data, replace the data in the `privateindividuals.csv` and `privateentities.csv` files with your private watch list data.

> **NOTE** The files must be saved in UTF-8 format.

To enable the staging and preparation of the private watch list in the `watch list-management.properties` run profile, follow these steps:

1. Set `phase.PRIV\ -\ Stage\ reference\ lists.enabled = Y` to move your private watch list data to the staging tables.
2. Set `phase.PRIV\ -\ Prepare\ without\ filtering.enabled = Y` to prepare the private watch list without filtering.
3. Set `phase.PRIV\ -\ Prepare\ with\ filtering\ (Part\ 1).enabled = Y` and `phase.PRIV\ -\ Prepare\ with\ filtering\ (Part\ 2).enabled = Y` to prepare the private watch list with filtering.

4.3 Showing the Hidden Watch List Staged Data or Snapshots in the Server Console Interface

The following staged data and snapshots are hidden in the Server Console interface by default:

- Watch list snapshots
- Intermediate filtered watch list staged data
- Centralized Reference Data staged data or snapshots

To show this data, set the corresponding visibility property value in the run profile to **Y**.

For example, to view all Accuity watch list snapshots generated during Watch list Management, set the following properties in the `watch list-management.properties` run profile. The run profile is available in the `<domain_name>/edq/oedq.local.home/runprofiles/` directory when you log in to the WinSCP server.

```
stageddata.ACY\Sources.visible = Y
stageddata.ACY_All.visible = Y
stageddata.ACY_Sources.visible = Y
```

4.4 Analyzing Watch List Data

Customer Screening has a process called Data Quality (DQ) that checks the quality of the downloaded watch list data which is later used for screening. This process can be run independently of the watch list screening process.

4.4.1 Analyzing Data Quality

Before you analyze your watch list data, follow these steps:

1. Ensure that your data is loaded into FCDM and the `watch list-screening` project has the correct database parameters.
2. Run the `CS_EDQ_Watch list_Analyze` job. The job checks your watch list data for any quality issues that affect have a negative impact on the screening process.

To analyze the data for watch lists, set the following properties in the `watch list-management.properties` run profile:

> **NOTE** The attributes shown are for the Accuity watch list. You must set the corresponding properties for the watch list for which you want to analyze data.

- `phase.DQ\ -\ Stage\ ACY\ reference\ lists.enabled = Y`
- `phase.DQ\ -\ ACY\ reference\ data\ quality\ analysis.enabled = Y`
- `stageddata.DQ\ ACY\ -\ Invalid\ Standard\ Country\ in\ Accuity\ Nationality\ to\ Standard\ Country.visible = Y`
- `stageddata.DQ\ ACY\ -\ Missing\ Source\ in\ Accuity\ Source\ Risk\ Scores\ Reference\ Data.visible = Y`
- `stageddata.DQ\ ACY\ -\ Obsolete\ Source\ in\ Accuity\ Source\ Risk\ Scores\ Reference\ Data.visible = Y`

4.5 Configuring Match Rules and Clusters for Customers and External Entities

You can configure match rules and clusters by adding a property value to the `customer-screening.properties` and `external-entity-screening.properties` run profiles.

For example, to disable the **Exact name only** rule, that is, `[I010O]`, for batch and real-time sanctions screening, add the following property value in the `customer-screening.properties` and `external-entity-screening.properties` run profiles:

```
phase.*.process.*.[I010O]\ Exact\ name\ only.san_rule_enabled = false
```

The `*` character denotes a wildcard, which indicates that the following rule applies to all phases and processes. If the `[I010O]` rule is disabled for batch screening only, the following is the new property value:

```
phase.Batch\ screening.process.*.[I010O]\ Exact\ name\ only.san_rule_enabled
= false
```

> **NOTE** The property value is case-sensitive.

For information on the match rules and clusters used in Customer Screening, see the Oracle Financial Services Customer Screening Matching Guide.

4.6 Real-Time and Batch Screening Set Up

By default, real-time and batch screening is enabled for SAN (sanctioned), PEP (Politically Exposed Persons), and EDD (Enhanced Due Diligence) records. This is controlled by the real-time and batch screening properties in the `customer-screening.properties, Customer-Screening-real-`

time.properties , and external-entity-screening.properties run profiles. You can use these run profiles to enable or disable real-time or batch screening for all records or a specific record type.

For example, to run real-time screening for PEP and EDD individual and entity records, disable the following property values in the customer-screening.properties and external-entity-screening.properties run profiles:

```
phase.Start\ Batch\ Screening.enabled = N

phase.Real-time\ Screening.process.Individual\ Real-time\
Screening.san_enabled = N

phase.Real-time\ Screening.process.Entity\ Real-time\ Screening.san_enabled
= N
```

Ensure that all other real-time screening properties are set to **Y**.

4.7 Extracting the Output of Matches into CSV Files

Customer Screening identifies possible relationships or matches between individuals and entities in your customer data and the external entities on watch lists. These matches form the basis of the cases that are investigated in Enterprise Case Management. When you perform batch screening and move these matches into the Customer Screening data layer, you can extract the output into the .csv files. This is useful if you want to use Customer Screening to identify the matches or if you want to review the matches using another case management system.

To extract the output of the matches into the .csv files, set the following values in the **Batch Screening Setup** section of the customer-screening.properties and external-entity-screening.properties run profiles. The run profiles are available in the <domain_name>/edq/oedq.local.home/runprofiles/ directory in the WinSCP server.

```
phase.*.process.*.output_relationships = Y

phase.Export\ Batch\ Relationships.enabled = Y
```

When you run Customer Screening with these run profile parameters enabled, two files are created:

- relns-ent-batch.csv. This file holds the match data for entities.
- relns-ind-batch.csv. This file holds the match data for individuals.

4.8 Filtering Watch List Data

The following sections provide information aboout how to enable watch list filtering, configure watch list filtering, how to use primary filters, secondary filters, linked records, and how to screen all watch list records.

4.8.1 Enabling Watch List Filtering

To enable filtering for a specific watch list, set the Prepare with Filtering phase in the appropriate run profile to **Y**, and the Prepare Without Filtering phase to **N**. For more information, see the example provided in Setting Filtering Options in the Run Profiles.

4.8.2 Configuring Watch List Filtering

Watch list filtering is controlled by configuring reference data in the watch list projects.

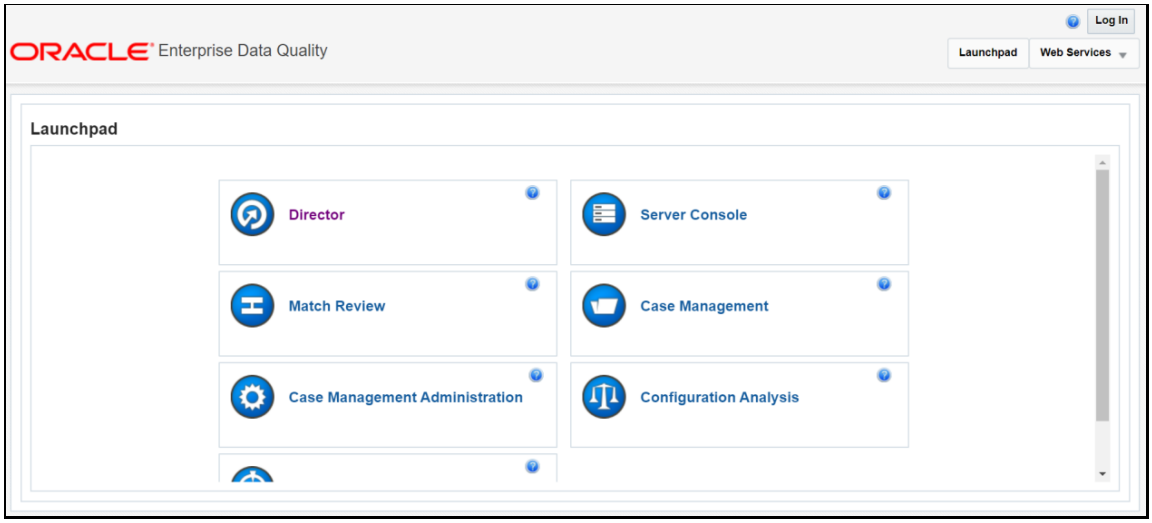
NOTE

1. The reference data sets in the `Watch list Management` and `Customer-Screening` projects are identical. This is to support installations that require filtering at different stages. For example, if a company wants to initially filter the prepared watch list data and then run several screening projects to filter specific parts of the data.
2. Once data is filtered out from the watch list, it is not possible to view the filtered data in another project. If, for example, all entities are filtered out in the `Watch list Management` project, then the `Customer-Screening` project will not display the entities in the screening results.

The first level of filtering is controlled by editing the following filters in the `Watch list Management` project:

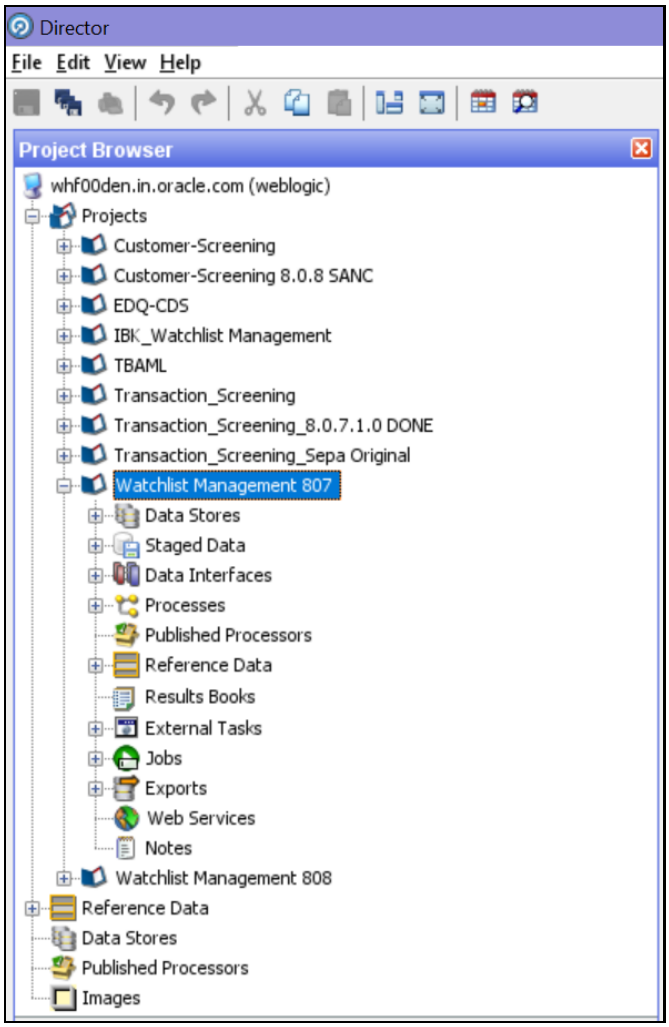
1. Go to the EDQ URL and open the **Director** menu. The **Director** landing page appears.

Figure 5: Director Menu in EDQ



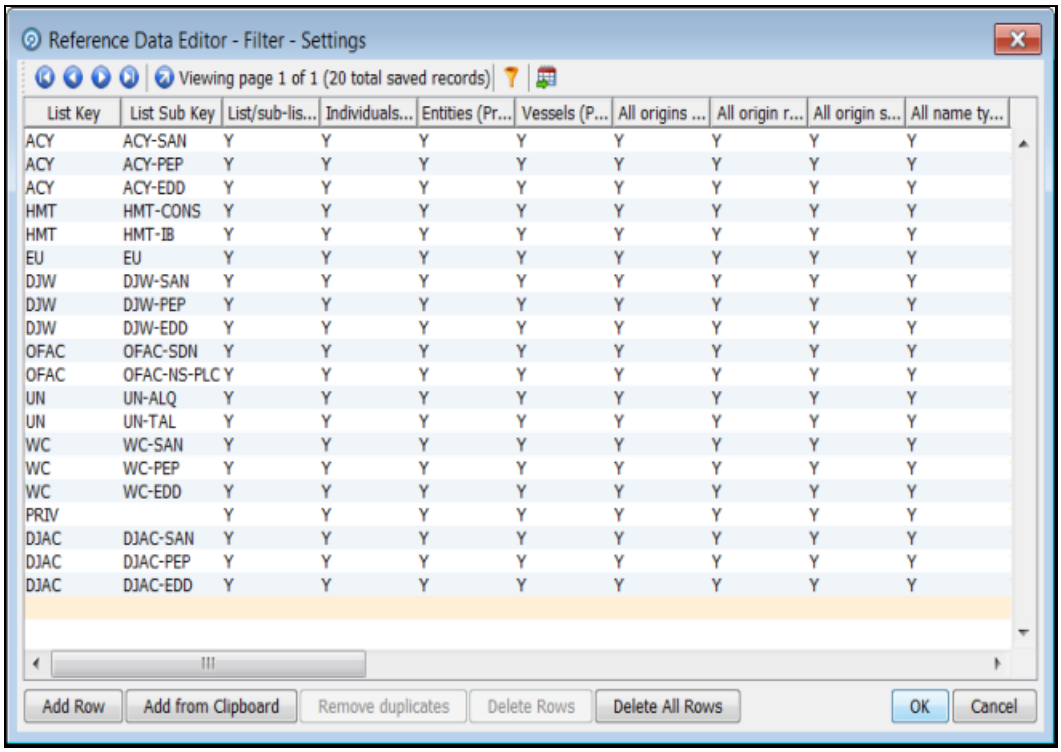
2. In the **Director** landing page, expand the **Watch list Management** project in the **Project Browser** pane.

Figure 6: Project Browser Pane



3. Expand the **Reference Data** node and open **Filter - Settings**. The **Reference Data Editor – Filter - Settings** window appears.

Figure 7: Reference Data Editor – Filter - Settings Window



All the reference data filters except the Linked Profiles filter is set to **Y** by default. Unless these settings are changed, no actual filtering is performed on the watch list data. In the filter settings, a value of **Y** indicates that all records are included, that is, no filters are applied.

Watch list filtering falls into four categories:

- By list and list subke y
- By list record origin characteristics
- By list profile record characteristics
- By linked profiles

For more information, see the example provided in Setting Primary Filters and Linked Profiles in the Watch list Management Project.

4.8.3 Primary Filters, Secondary Filters, and Filters for Linked Profiles

Primary filters are filters that are used to display all profiles that match the criteria specified. Filters for linked profiles are used to display profiles that are linked to the primary filter.

> **NOTE** You can filter linked profiles only for the World-Check and Dow Jones watch lists.

An example of a primary filter is a filter that is configured to capture all sanctions data. For the primary filter, a filter is configured for the related PEP data.

Secondary filters are applied to filter data that is displayed for linked profiles. For example, the secondary filter for PEP data is occupation or nationality.

Primary and secondary filters are set in one project (`Watch list Management/Customer-Screening`), and secondary filters are set in another project (`Watch list Management/Customer-Screening`).

4.8.4 Setting Multiple Values for Primary and Secondary Filters

Further configurations must display the following records:

- Origins
- Origin Regions
- Origin Statuses
- Primary and Secondary Name Qualities
- Primary and Secondary Name Types
- Primary and Secondary PEP Classifications

To filter data using one or more of these options, set the relevant value in the `Filter - Settings reference data` to **N**, and then make further changes to the corresponding reference data. When you set the value in the `Filter - Settings reference data` to **N**, only the records that match these values are included.

For example, if you set the value of the `All name qualities (Primary)?` filter to **N**, then you can determine which name qualities must be included for each watch list in the `Filter - Primary Name Qualities` reference data. Suppose you include a row for high-quality names in the EU watch list, but you do not include rows for medium-quality and low-quality names in this watch list, then only records with high-quality names are included in the watch list data.

> **NOTE** Some reference data sets are prepopulated with rows that usually contain data which is supplied by each watch list provider and can be viewed in the `Watch List Management` project. For example, to view all possible stop keywords for World-Check data, open the WC Keyword reference data in the `Watch list Management` project as mentioned in the following section.

4.8.4.1 Example - Filtering World-Check Data

This example describes the configurations which must be done to use primary and linked profile filters in the World-Check watch list in the `Watch list Management` project and how to set secondary filters in the `Customer-Screening` project. The following tasks are described:

- how to enable filtering in the `watch list-management.properties` run profile. For more information on enabling filtering, see Setting Filtering Options in the Run Profiles.
- how to configure the primary filters and enable the filters for linked profiles in the `Watch list Management` project to return the active records for sanctioned individuals originating from the EU list. For more information, see Setting Primary Filters and Linked Profiles in the Watch list Management project.
- how to configure the secondary filters in the `Customer-Screening` project to filter out all the Linked Profiles of deceased individuals. For more information, see Setting Secondary Filters in the Customer Screening project.

4.8.4.1.1 Setting Filtering Options in the Run Profiles

In the `watch list-management.properties` run profile, set the `World-Check` filtering phases as follows. This file is available in the `<domain_name>/edq/oedq.local.home/runprofiles/` directory in the WinSCP server.

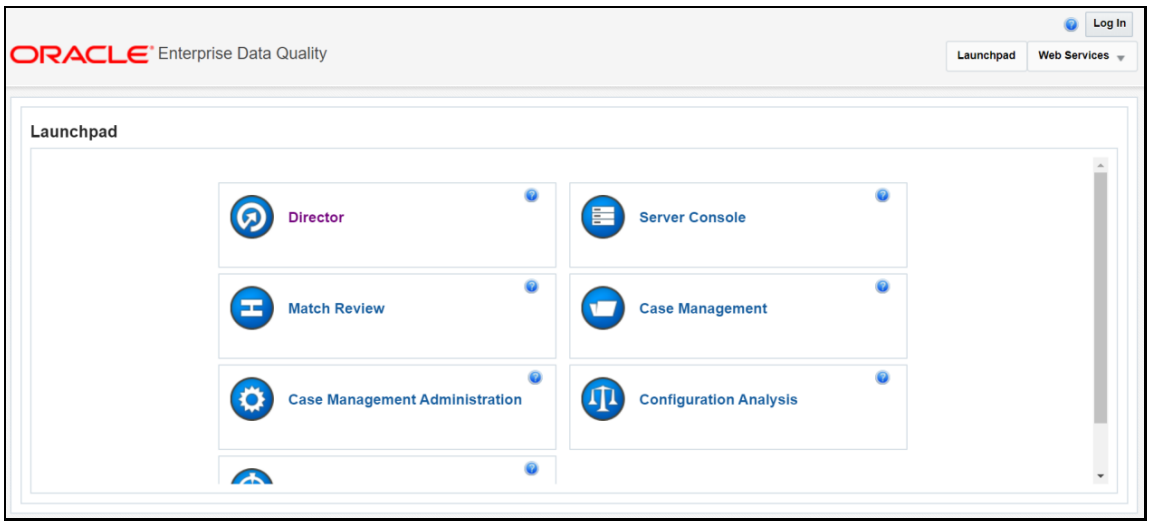
- `phase.WC\ -\ Prepare\ without\ filtering.enabled = N`
- `phase.WC\ -\ Prepare\ with\ filtering\ (Part\ 1).enabled = Y`
- `phase.WC\ -\ Prepare\ with\ filtering\ (Part\ 2).enabled = Y`
- `phase.WC\ -\ Load\ without\ filtering.enabled = N`
- `phase.WC\ -\ Load\ with\ filtering\ (Part\ 1).enabled = Y`
- `phase.WC\ -\ Load\ with\ filtering\ (Part\ 2).enabled = Y`

4.8.4.1.2 Setting Primary Filters and Linked Profile Filters in the Watch list Management Project

Follow these steps to set primary filters and linked profiles in the project:

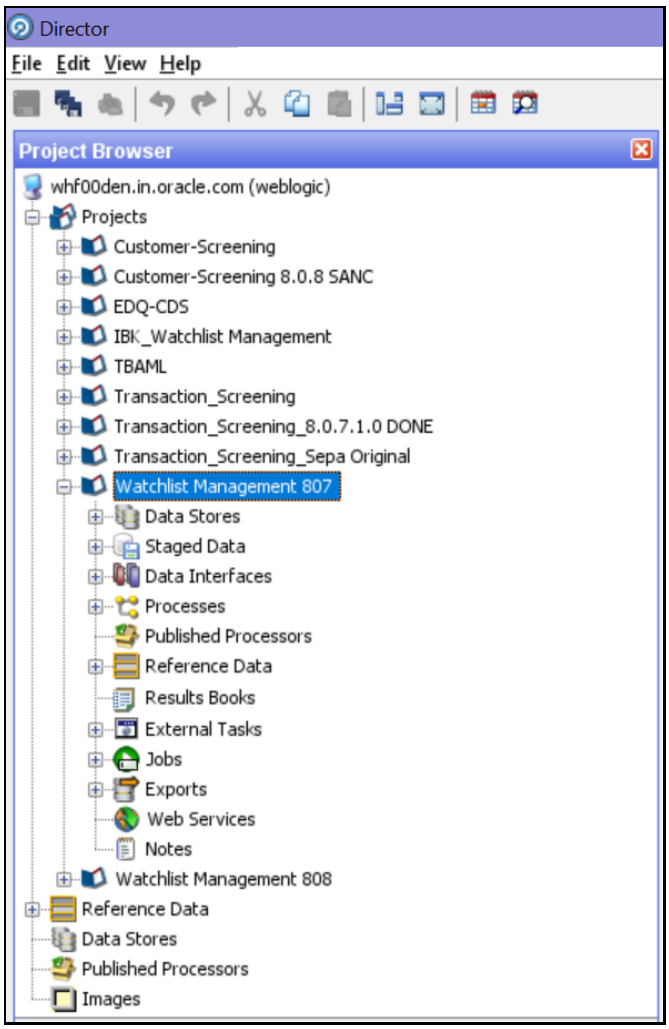
1. Go to the EDQ URL and open the **Director** menu. The **Director** landing page appears.

Figure 8: Reference Data Filters



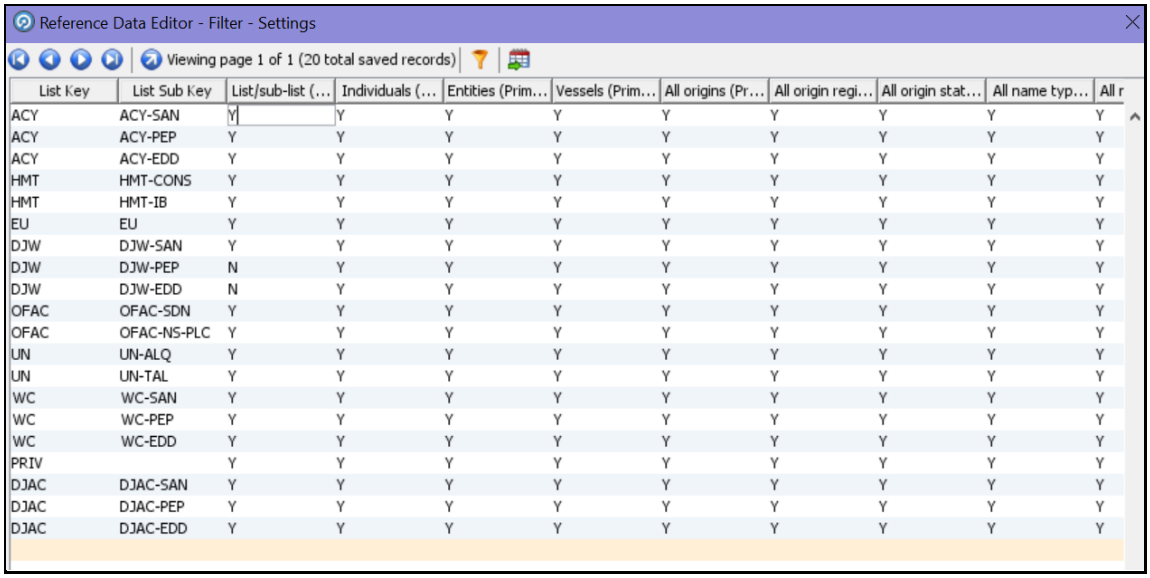
2. In the **Director** landing page, expand the **Watch list Management** project in the **Project Browser** pane.

Figure 9: Reference Data Filters



3. Expand the **Reference Data** node and open **Filter - Settings**. The **Reference Data Editor – Filter - Settings** window appears.

Figure 10: Reference Data Filters



List Key	List Sub Key	List/sub-list (...	Individuals (...	Entities (Prim...	Vessels (Prim...	All origins (Pr...	All origin regi...	All origin stat...	All name typ...	All r
ACY	ACY-SAN	Y	Y	Y	Y	Y	Y	Y	Y	Y
ACY	ACY-PEP	Y	Y	Y	Y	Y	Y	Y	Y	Y
ACY	ACY-EDD	Y	Y	Y	Y	Y	Y	Y	Y	Y
HMT	HMT-CONS	Y	Y	Y	Y	Y	Y	Y	Y	Y
HMT	HMT-IB	Y	Y	Y	Y	Y	Y	Y	Y	Y
EU	EU	Y	Y	Y	Y	Y	Y	Y	Y	Y
DJW	DJW-SAN	Y	Y	Y	Y	Y	Y	Y	Y	Y
DJW	DJW-PEP	N	Y	Y	Y	Y	Y	Y	Y	Y
DJW	DJW-EDD	N	Y	Y	Y	Y	Y	Y	Y	Y
OFAC	OFAC-SDN	Y	Y	Y	Y	Y	Y	Y	Y	Y
OFAC	OFAC-NS-PLC	Y	Y	Y	Y	Y	Y	Y	Y	Y
UN	UN-ALQ	Y	Y	Y	Y	Y	Y	Y	Y	Y
UN	UN-TAL	Y	Y	Y	Y	Y	Y	Y	Y	Y
WC	WC-SAN	Y	Y	Y	Y	Y	Y	Y	Y	Y
WC	WC-PEP	Y	Y	Y	Y	Y	Y	Y	Y	Y
WC	WC-EDD	Y	Y	Y	Y	Y	Y	Y	Y	Y
PRIV		Y	Y	Y	Y	Y	Y	Y	Y	Y
DJAC	DJAC-SAN	Y	Y	Y	Y	Y	Y	Y	Y	Y
DJAC	DJAC-PEP	Y	Y	Y	Y	Y	Y	Y	Y	Y
DJAC	DJAC-EDD	Y	Y	Y	Y	Y	Y	Y	Y	Y

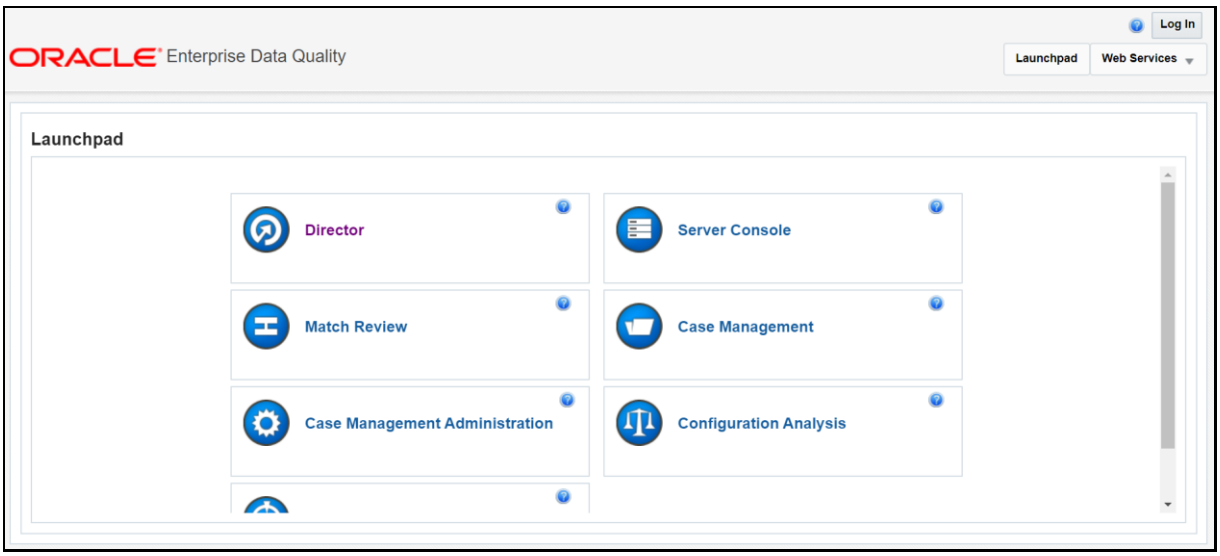
4. In the **Reference Data Editor – Filter - Settings** window, configure the following parameters. Double-click a value to update it.
   a. Set the `List/sub-list (Primary?)` value in the `WC-SAN` row to **Y**.
   b. Set the `Entities (Primary)?` value in the `WC-SAN` row to **N**.
   c. Set the `Inactive (Primary)?` value in the `WC-SAN` row to **N**.
   d. Set the `All Origins (Primary)?` value in the `WC-SAN` row to **N**.
   e. Set all other values in the `WC-SAN` row to **Y**.
   f. Add a new row with the following values:
      i. List Key - WC
      ii. List Sub Key - WC-SAN
      iii. Origin - EU
   g. Set the `Linked Profiles? value` in the `WC-SAN` row to **Y**.
5. Click **OK** to close the window and save your changes.

4.8.4.1.3 Setting Secondary Filters in the Customer Screening project

Follow these steps to set secondary filters in the project:

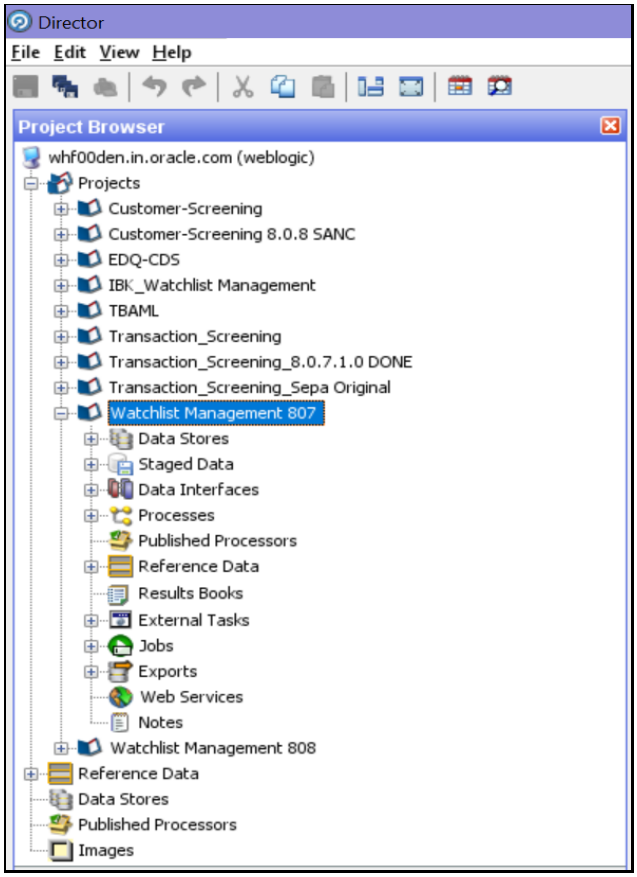
1. Go to the EDQ URL and open the **Director** menu. The **Director** landing page appears.

Figure 11: Reference Data Filters



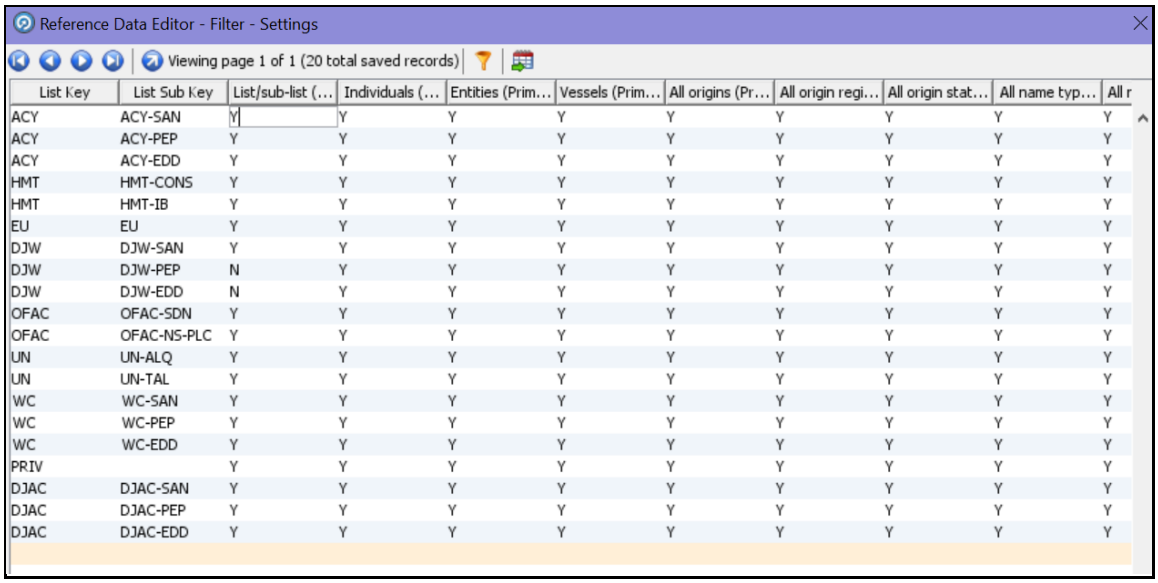
2. In the **Director** landing page, expand the **Watch list Management** project in the **Project Browser** pane.

Figure 12: Reference Data Filters



3. Expand the **Reference Data** node and open **Filter - Settings**. The **Reference Data Editor – Filter - Settings** window appears.

Figure 13: Reference Data Filters



List Key	List Sub Key	List/sub-list (...	Individuals (...	Entities (Prim...	Vessels (Prim...	All origins (Pr...	All origin regi...	All origin stat...	All name typ...	All r
ACY	ACY-SAN	Y	Y	Y	Y	Y	Y	Y	Y	Y
ACY	ACY-PEP	Y	Y	Y	Y	Y	Y	Y	Y	Y
ACY	ACY-EDD	Y	Y	Y	Y	Y	Y	Y	Y	Y
HMT	HMT-CONS	Y	Y	Y	Y	Y	Y	Y	Y	Y
HMT	HMT-IB	Y	Y	Y	Y	Y	Y	Y	Y	Y
EU	EU	Y	Y	Y	Y	Y	Y	Y	Y	Y
DJW	DJW-SAN	Y	Y	Y	Y	Y	Y	Y	Y	Y
DJW	DJW-PEP	N	Y	Y	Y	Y	Y	Y	Y	Y
DJW	DJW-EDD	N	Y	Y	Y	Y	Y	Y	Y	Y
OFAC	OFAC-SDN	Y	Y	Y	Y	Y	Y	Y	Y	Y
OFAC	OFAC-NS-PLC	Y	Y	Y	Y	Y	Y	Y	Y	Y
UN	UN-ALQ	Y	Y	Y	Y	Y	Y	Y	Y	Y
UN	UN-TAL	Y	Y	Y	Y	Y	Y	Y	Y	Y
WC	WC-SAN	Y	Y	Y	Y	Y	Y	Y	Y	Y
WC	WC-PEP	Y	Y	Y	Y	Y	Y	Y	Y	Y
WC	WC-EDD	Y	Y	Y	Y	Y	Y	Y	Y	Y
PRIV		Y	Y	Y	Y	Y	Y	Y	Y	Y
DJAC	DJAC-SAN	Y	Y	Y	Y	Y	Y	Y	Y	Y
DJAC	DJAC-PEP	Y	Y	Y	Y	Y	Y	Y	Y	Y
DJAC	DJAC-EDD	Y	Y	Y	Y	Y	Y	Y	Y	Y

4. In the **Reference Data Editor – Filter - Settings** window, Set the `Deceased (Secondary)?` value in the `WC-SAN` row to **N**.
5. Click **OK** to close the window and save your changes.

4.8.5 Screening All Sanctions Data

By default, data is routed from the `Watch list Management` project to the different screening processes depending on their record type, which can be Sanctions (SAN), Politically Exposed Persons (PEP), or Enhanced Due Diligence (EDD) records. This allows different rules to be applied according to the risk appetite of the record that is being screened.

However, if you want to use the same screening logic for all watch list records and do not want to maintain separate rulesets, you can move all watch list records to the SAN screening processes. To do this, set `phase.*.process.*.Screen\ all\ as\ SAN?` value in the `customer-screening.properties = Y`. This file is located in the `<domain_name>/edq/oedq.local.home/runprofiles/` directory in the WinSCP server.

4.8.6 Match Persistence and Flag Keys

Customer Screening parses all customer records against all watch list records daily. This allows new alerts to be created due to changes in either the customer or the watch list data. When there is no change to the customer or the watch list record and the match is identical to a previously generated relationship, no new alerts are created.

Many attributes can change on a customer or watch list record but not all changes result in a new alert. These attributes are controlled based on the flag key value.

> **NOTE** If a new alias name that matches the customer record is added to a watch list, then this results in a new alert.

An example of a flag key is `date of birth`. Some potential matches are eliminated because the value the customer has provided and the value in the watch list records are different. So, if the value changes, then any potential matches related to the `date of birth` must be rereviewed. An example of a field that is not included in the flag key is `account balance`. This value changes frequently and does not impact the match decision. Flag keys are set in individual match processes, and a hash value is generated which is used for comparison.

> **NOTE** The order of fields in the flag key is important. If the order changes, this will result in a new alert.

4.9 Risk Scoring in Watch Lists

Customer Screening includes a feature to estimate the relative risk of doing business with a given entity or individual. For each watch list, a risk score is calculated for an individual or entity based on various attributes such as country of residence, operating country, and associated regime. The risk scores for watch lists are available in the reference data tables for the specific watch list. For more information, see Appendix B: Reference Data Tables for Watch Lists.

> **NOTE** The risk scores must be evaluated and tuned by a risk and compliance expert with knowledge of your business requirements and the relevant legislation.

4.9.1 Adjusting the Risk Scores

Customer Screening calculates a risk score and a Politically Exposed Person (PEP) risk score for every alert created during screening. The risk score is a relative measure of the risk posed by an individual or entity out of a maximum score of 100. The PEP risk score identifies the relative risk of the individual or entity when the individual or entity is considered as a PEP. Since the risk score can be different from the PEP risk score, the same algorithm is used to derive the risk score and PEP risk score but the underlying scores and weightings on which the calculations are based are different.

The overall risk score of a potential match is calculated as a weighted average of the risk scores generated for the watch list, customer, and external entity records in the match. The risk scores for the watch list, customer, and external entity records are calculated as a weighted average of the risk scores of the contributing risk elements. A risk element is a data field, such as Country of Operation or Occupation, and a risk score is assigned to the risk elements based on its value.

You can adjust the following attributes to customize the overall risk score:

- Risk scores and relative weightings of the risk elements.
- Relative weight of the watch list risk score, customer risk score, and external entity risk score.
- Reference data tables of the specific watch list used in the screening process.

4.9.2 Editing the Risk Element Scores

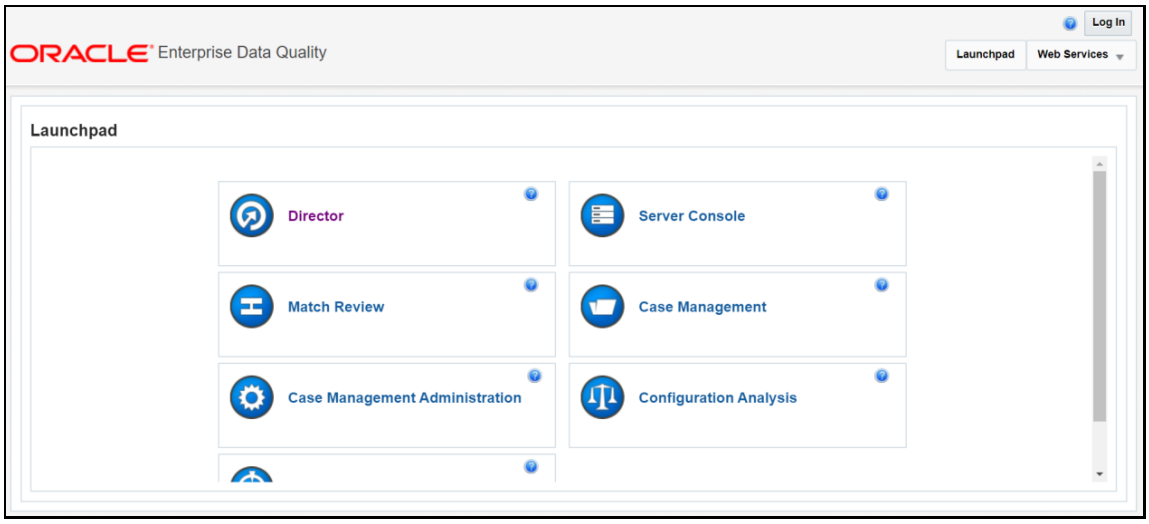
You can adjust the risk element scores by editing the risk element in Enterprise Data Management (EDQ). The risk elements that are considered during the risk score calculation depend on the fields that are present in the watch list or customer record.

4.9.2.1 Example – Accuity Watch List

The following steps explain how to edit the risk element scores for the Accuity watch list:

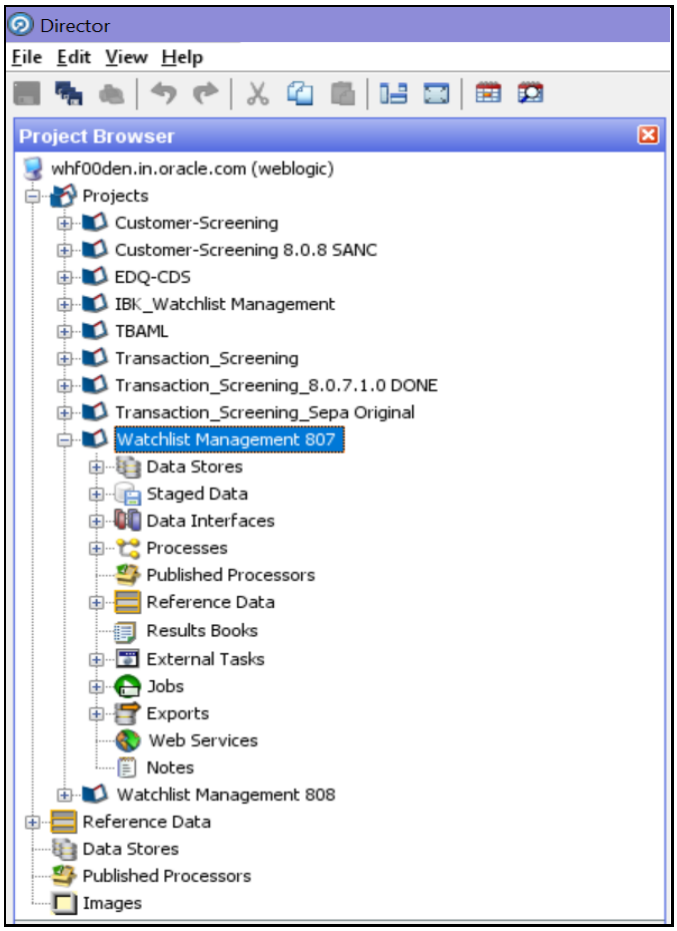
1. Go to the EDQ URL and open the **Director** menu. The **Director** landing page appears.

Figure 14: Director Menu in EDQ



2. In the **Director** landing page, expand the **Watch list Management** project in the **Project Browser** pane.

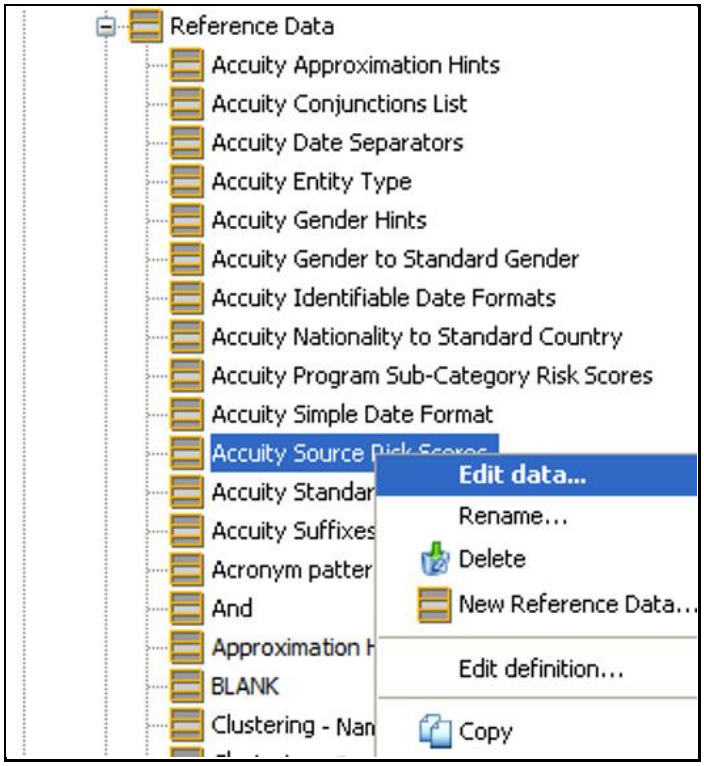
Figure 15: Project Browser Pane



3. Expand the **Reference Data** node.

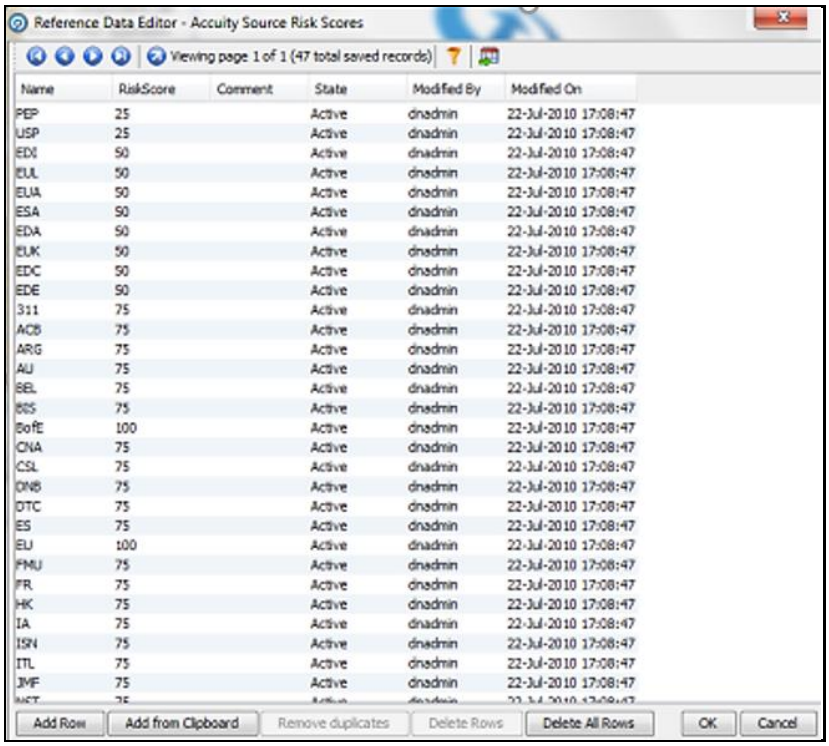
4. Right-click **Accuity Source Risk Scores** and select **Edit data**.

Figure 16: Accuity Source Risk Scores



5. In the **Reference Data Editor – Accuity Source Risk Scores** window, the risk score appears in editable mode.

Figure 17: Reference Data Filters for Accuity



NOTE If you edit the risk scores, you must rerun the `Download, Prepare, Filter and Export All Lists` jobs in the `Watch list Management` project and the `MAIN` job in the `Customer-Screening` project in EDQ. Until this is done, the generated matches will not show the new risk scores. For more information on how to view the jobs, see Analyzing the Data Quality of Customer Data and External Entity.

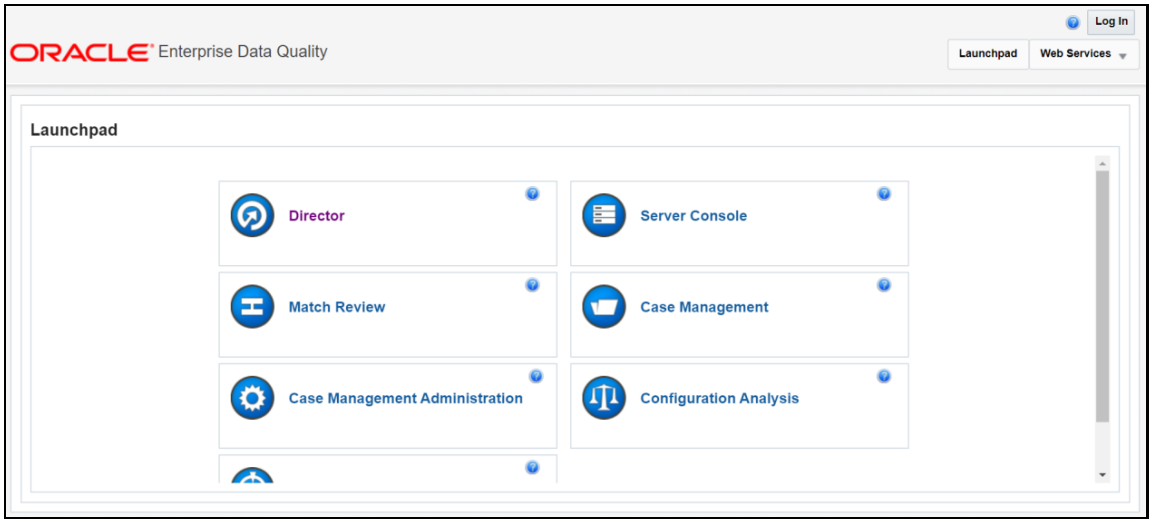
4.9.2.2 Editing the Risk Element Weightings

You can edit the default weightings assigned to each risk element in the **Reference Data Editor – Risk – Risk Element Weightings** window. This reference data set specifies which fields in that record contribute to the risk score calculation for each type of record and to what degree (weightage).

The following steps explain how to view the risk element weightings for all watch lists:

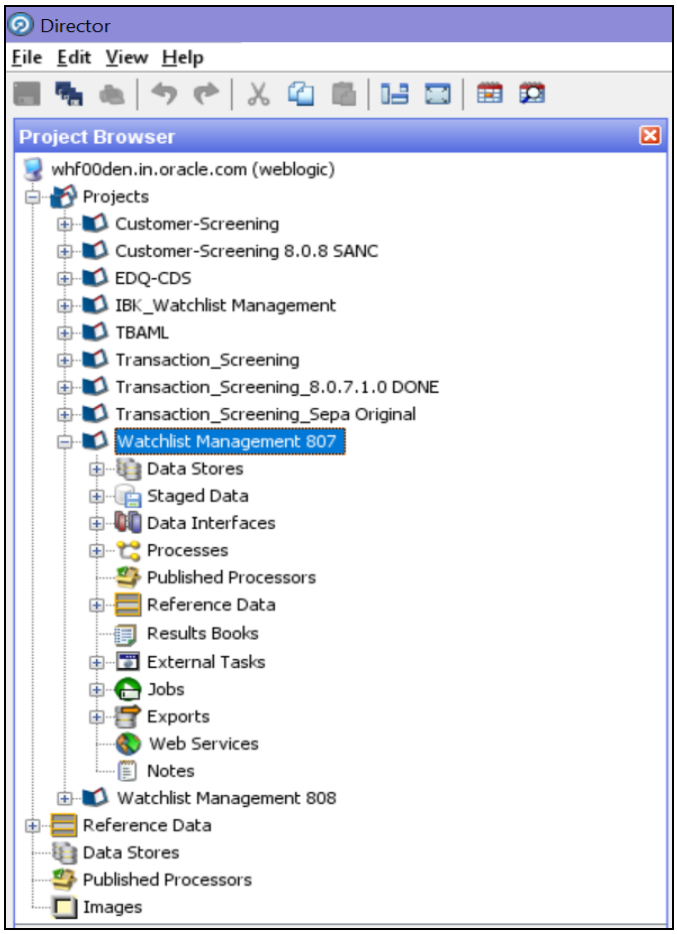
1. Go to the EDQ URL and open the **Director** menu. The **Director** landing page appears.

Figure 18: Director Menu in EDQ



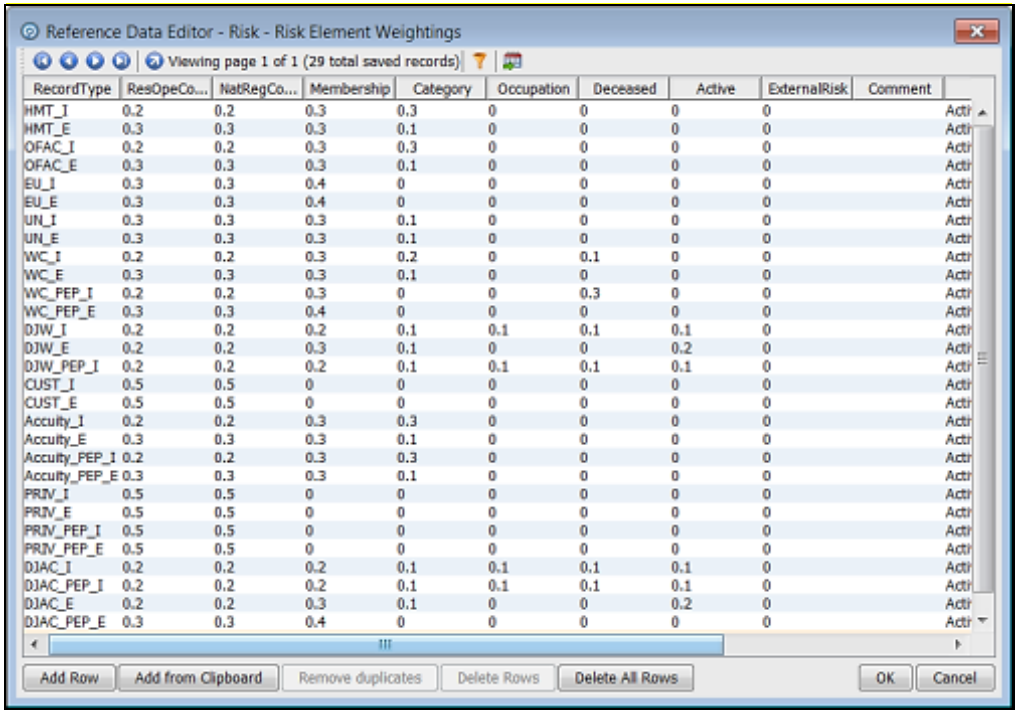
2. In the **Director** landing page, expand the **Watch list Management** project in the **Project Browser** pane.

Figure 19: Project Browser Pane



3. Expand the **Reference Data** node.
4. Right-click **Risk - Risk Element Weightings** and select **Edit data**.

Figure 20: Reference Data Filters for Risk Element Weightings



The format for the value in the **RecordType** column is the watch list and a suffix specifying whether the record represents an individual (`_I`) or an entity (`_E`). For example, `HMT_I`. Customer data have a record type of `CUST_I` for individual records and `CUST_E` for entity records.

The higher the weighting number, the more the corresponding risk element contributes to the overall risk score. The weighting scores for each row must add up to 1.

The overall risk score calculation for a record containing *n* elements is as follows:

```
Risk Score = E1w1 + E2w2 + …+ Enwn
```

Where the risk element score for element `x` is represented by `Ex` and the weighting for element `x` is represented by `wx`.

The total of all weightings must add up to 1, that is, `(w1 + w2 + …+ wn = 1)`.

> **NOTE** If there is no data for a risk element, it must not be included in the risk score calculation.

4.10 Scheduling the Customer Screening Run Job

To execute a Customer Screening Run job, follow these steps:

1. Navigate to the `FCI_DB_HOME/bin` directory.

2. Execute the command `/EDQInsert.sh <INFODOM NAME>`. This step is used to register the EDQ server details. You must replace the `INFODOM NAME` placeholder with your domain name.
3. Enter the following details in the console where the command is run:
   - EDQ Server IP
   - EDQ Server Direct Port number (JMX port number). This value must be 8090.
   - EDQ Server User Name
   - EDQ Password details

Figure 21: EDQ Details

```
/scratch/ofsaadb/ES807AX/ES807AX/ficdb/bin>./EDQInsert.sh ES807AXINFO
Started finding Jars
Ended finding Jars
Classpath Created
Calling EDQ Main Method
Inside EDQ insert method
Enter EDQ Server IP:
10.184.152.8
Enter EDQ Server Director Port:
8090
Enter EDQ Server User Name:
weblogic
Enter EDQ Password:
Encrypting password
Enter ECM URL:
https://whf00avg.in.oracle.com:4752/ES807AX
Is Enterprise Case Management Application in the same installation? (Y/N)
N
Enter ECM User Name:
CSConnect
Enter ECM Password:
Encrypting password
```

4. Create and authorize a new ECM user who has no case privileges. For example, `CSConnect`. For information on how to create or add and authorize a user, see the *User Administrator* section in the Oracle Financial Services Analytical Applications Infrastructure User Guide.

> **NOTE** In the first login as a new user, you are prompted to change the password.

5. Execute the command `/EDQInsert.sh <INFODOM NAME>` again only if you are doing a pack-on-pack installation of Enterprise Case Management (ECM) on Sanctions and the ECM URL is unavailable. An entry is made in the ATOMIC schema in the `cs_appln_params` table.
6. Copy the following run profiles from the `<domain_name>/edq/oedq.local.home /runprofiles/` directory in the WinSCP server to the `FIC_DB_HOME/conf` directory:
   - `watch list-management.properties`
   - `customer-screening.properties`

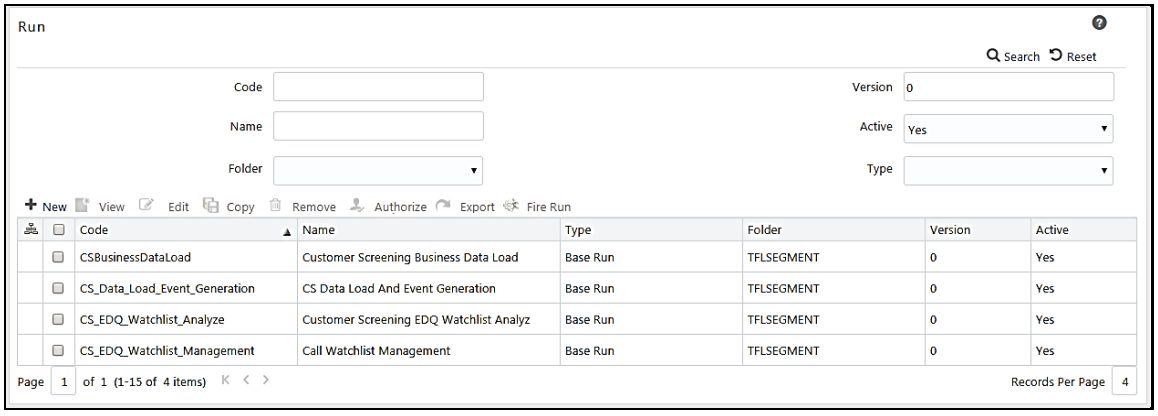
- external-entity-screening.properties
- customer-screening-real-time.properties

7. Load the stage table data for the customer-related tables. For more information, see Loading Data into the Customer tables.
8. In the **Run** page, select the CS_Data_Load_Event_Generation run and click **Fire Run** Fire Run. The batches must be run in the order mentioned in the following table. It is not mandatory to run all the batches.

Table 3: Sequence of Batches to be Run

Sequence	Batch Name	Description
1	CS_EDQ_Watch list_Management	This job is used to run the watch list management project and start real-time screening in EDQ based on the run profile parameters. This job must be run daily.
2	CS_EDQ_Watch list_Analyze	This job is used to check the data quality of the downloaded watch list.
3	CSBusinessDataLoad	This job is used to load data from the staging tables to the business tables.
4	CS_Data_Load_Event_Generation	This job is used to match customer data with the downloaded watch list data and to generate alerts.

Figure 22: Run Page

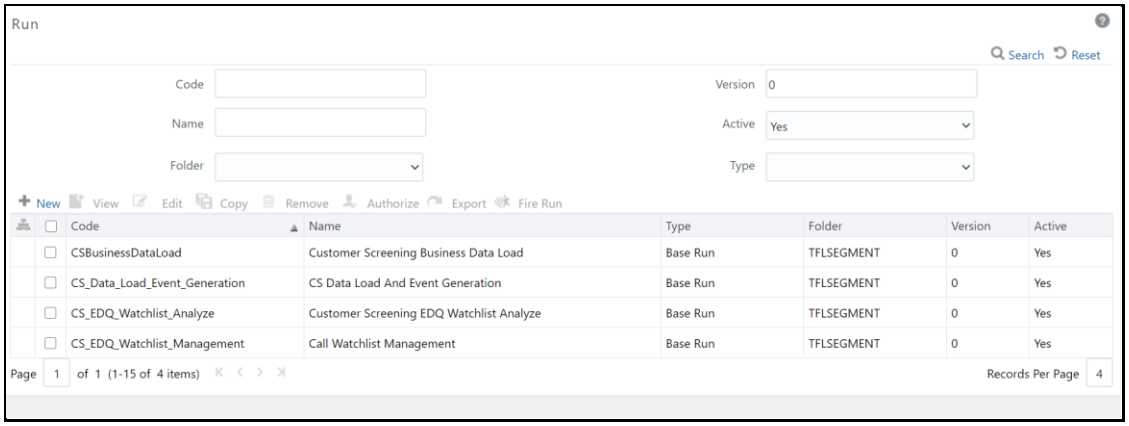


4.10.1 Loading Data into the Customer Tables

To load data into the Customer tables, follow these steps:

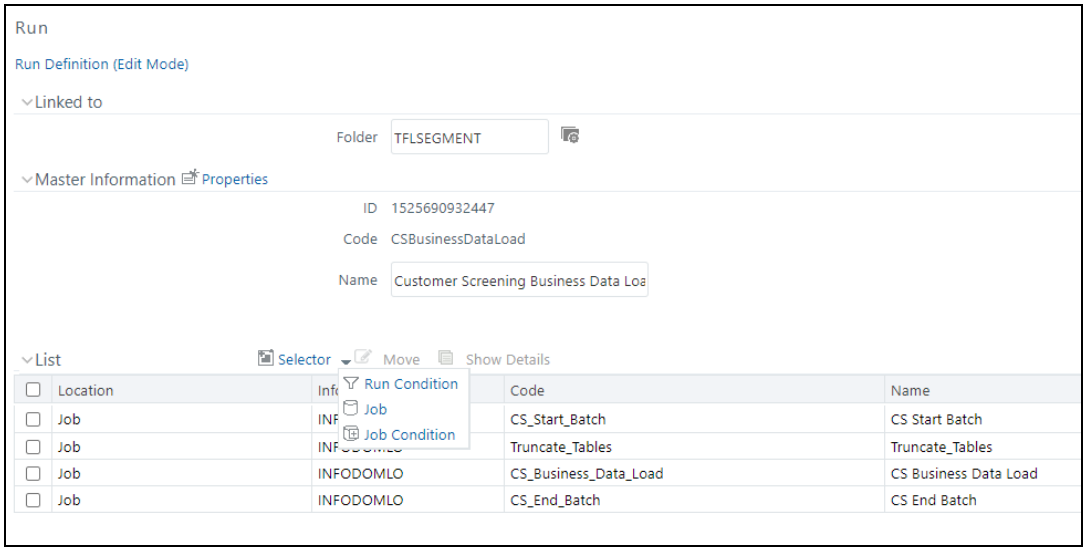
1. Log on to the Customer Screening application.
2. Click **Common Tasks**, then click **Rule Run Framework**, and then click **Run**. The **Run** page appears.

Figure 23: Run Page



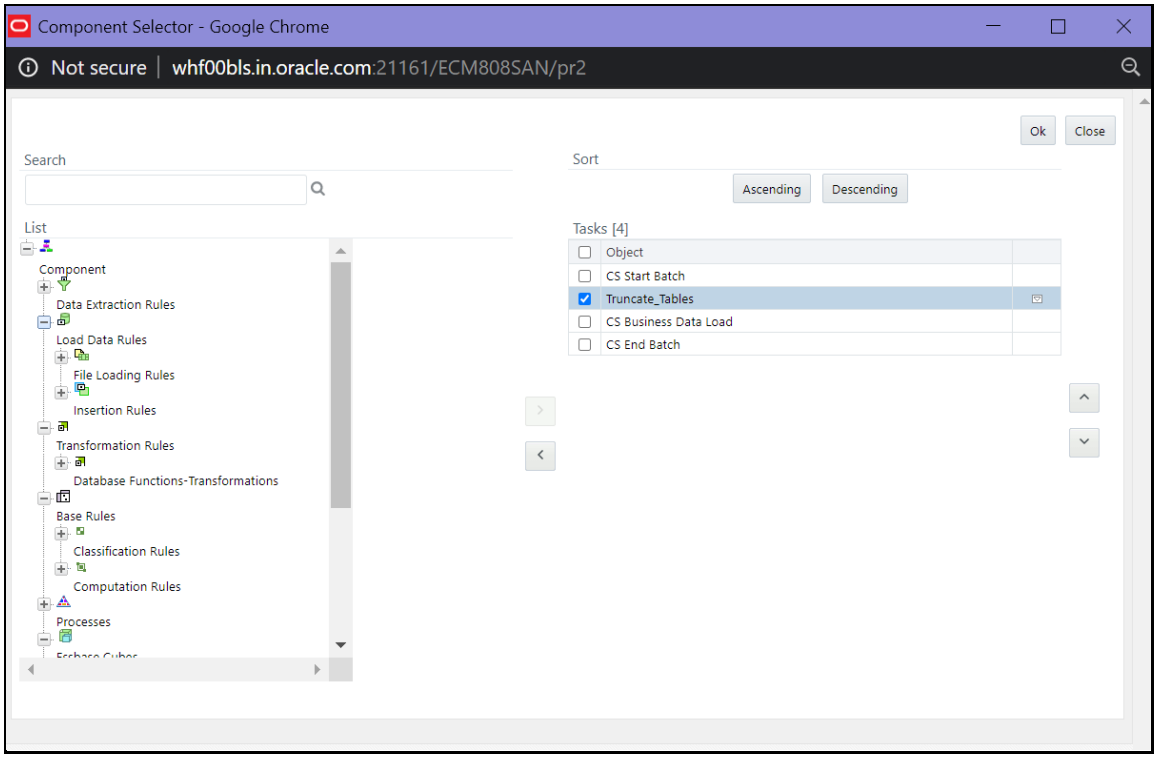
3. In the **Run** page, select the `CSBusinessDataLoad` checkbox and click **Edit**. The **Run** page appears in edit mode.

Figure 24: Run Definition (Edit Mode)



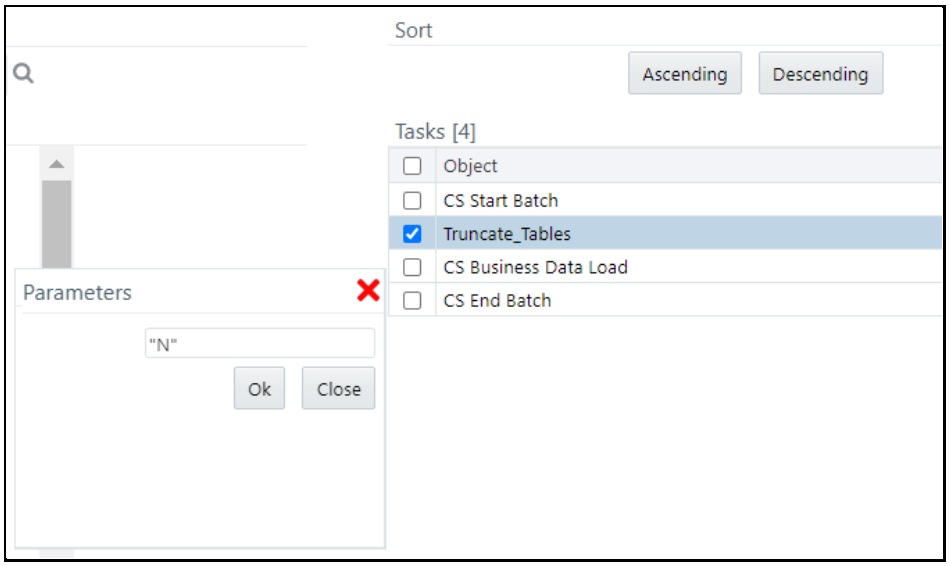
4. Click **Selector** and then select **Job**. The **Component Selector** window appears.
5. Select the `Truncate_Tables` task and then click **drop-down list**.

Figure 25: Component Selector Window



6. Change the parameter value to **N** and click **OK** to close the **Parameters** window.

Figure 26: Parameters Window



NOTE By default it is “N”, if delta mode to be supported, update from “N” to “D”.

7. Click **Ok** to close the **Component Selector** window.
8. Click **Next**.
9. Click **Save**.

4.10.2 Creating and Running Parallel Batches

Parallel batches can be run in CS if you want to run batches with different jurisdictions at the same time. To run parallel batches, run the `CS_Data_Load_Event_Generation` task for each jurisdiction.

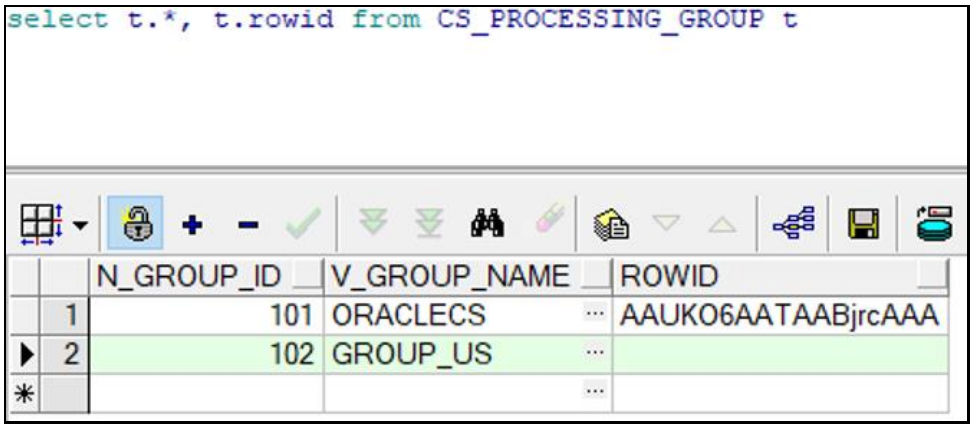
To create parallel batches, follow these steps:

4.10.2.1 Create a process

To create a process, follow these steps:

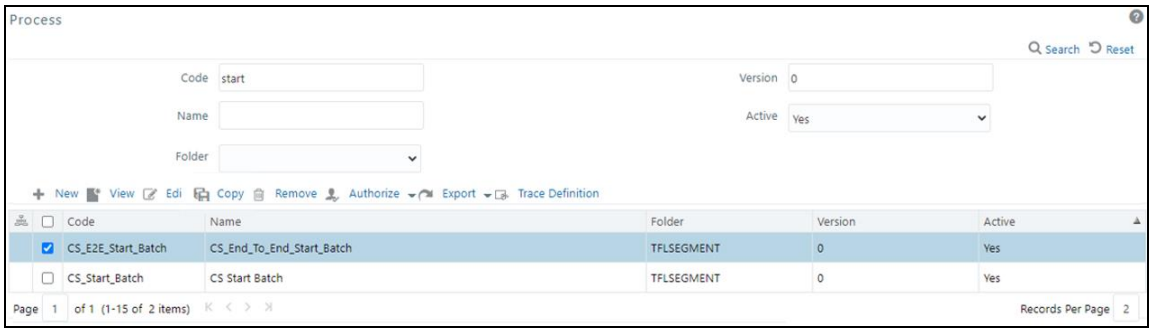
1. Make an entry in the `cs_processing_group` table in the `N_GROUP_ID` and `V_GROUP_NAME` columns. For ex, `102` and `GROUP_US`.

Figure 27: Developer Window



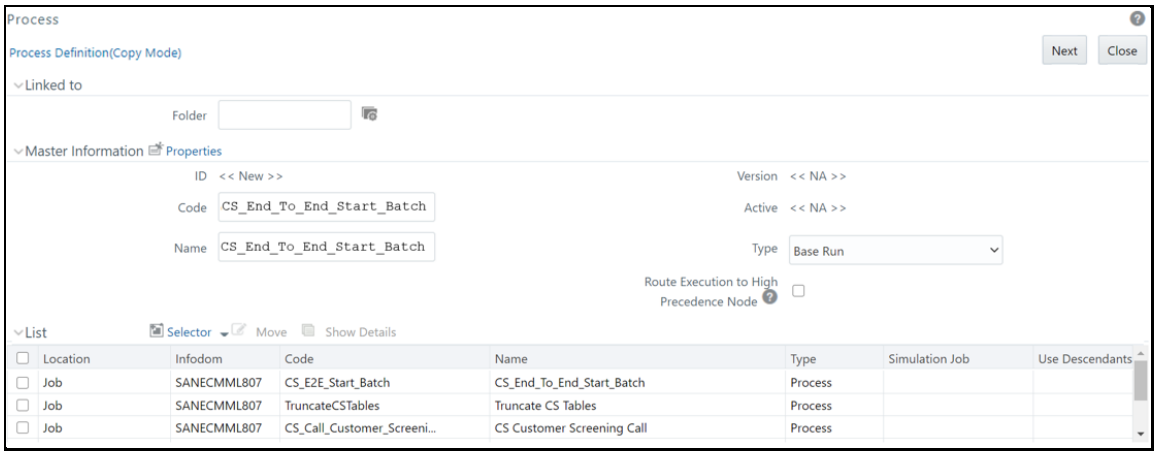
2. Log on to the Customer Screening application.
3. Click **Common Tasks**, then click **Rule Run Framework**, and then click **Process**. The **Process** page appears.
4. Search for *Start* in the **Code** field and select `CS_E2E_Start_Batch`.

Figure 28: Process Page



5. Click **Copy**  . The **Process** page opens in *Copy* mode.

Figure 29: Process Definition (Copy Mode)

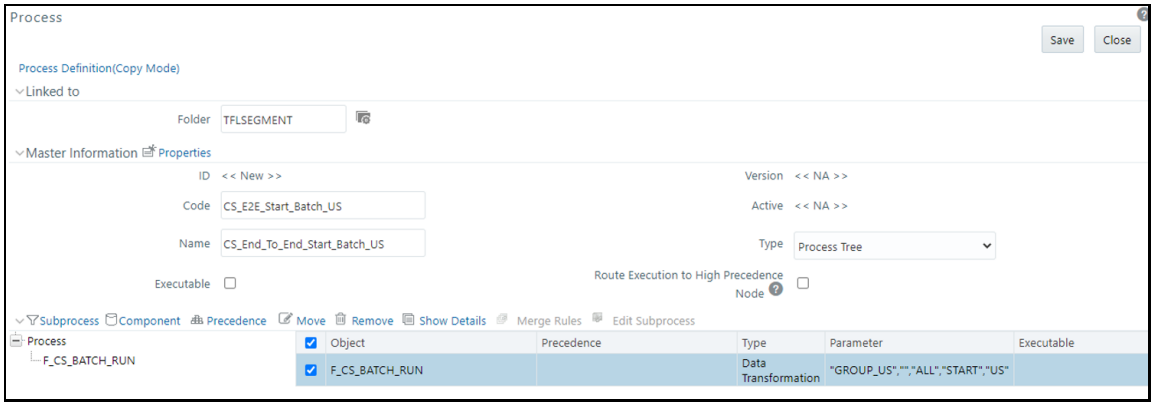


6. In the **Folder** field, click **Folder**  and then select **TFLSEGMENT**.

Figure 30: Folder Selector

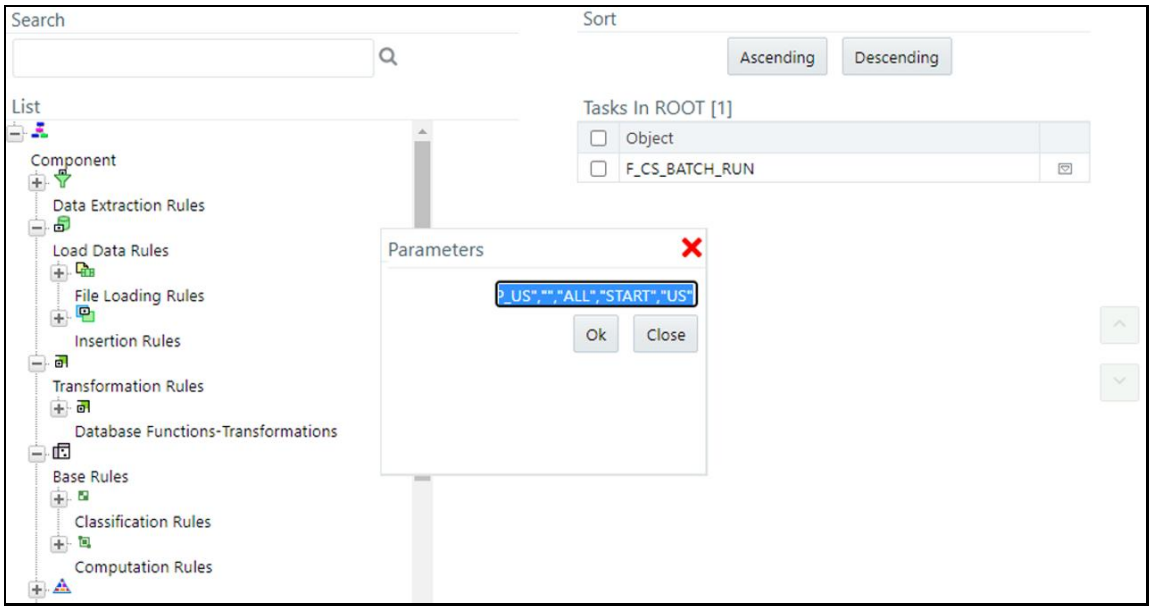
7. In the Name field, change the job name to include the Jurisdiction Code. For example, `CS_Data_Load_Event_Generation_US`.
8. Select `F_CS_BATCH_RUN`.

Figure 31: Process Definition (Copy Mode)



9. Select **Component**.
10. In the **Parameters** window, select the `F_CS_BATCH_RUN` task and then click **drop-down list**. Change the parameter `ORACLECS` to the entry made in the `cs_processing_group` table and the parameter `CS` to the Jurisdiction Code. For example, `"GROUP_US","","ALL","START","US"`.

Figure 32: Component Selector Window



11. Click **OK** to close the **Parameters** window.
12. Click **OK**.
13. Click **Save**.
14. Search for *End* in the **Code** field and select `CS_End_To_End_End_Batch`.
15. Click **Copy**. The **Run** Page opens in *Copy* mode.

16. In the **Folder** field, first click **Folder** and then select **TFLSEGMENT**.
17. In the **Name** field, change the job name to include the Jurisdiction Code. For example, `CS_Data_Load_Event_Generation_US`.
18. Select `F_CS_BATCH_RUN`.
19. Select **Component**.
20. In the **Parameter** field, change the parameter `ORACLECS` to the entry made in the `cs_processing_group` table, for example, `GROUP_US`, and the parameter `CS` to the Jurisdiction Code, for example, `US`.
21. Click **OK**.
22. Click **OK**.
23. Click **Save**.

A confirmation message appears. The new parameter is now displayed in the **Run** page.

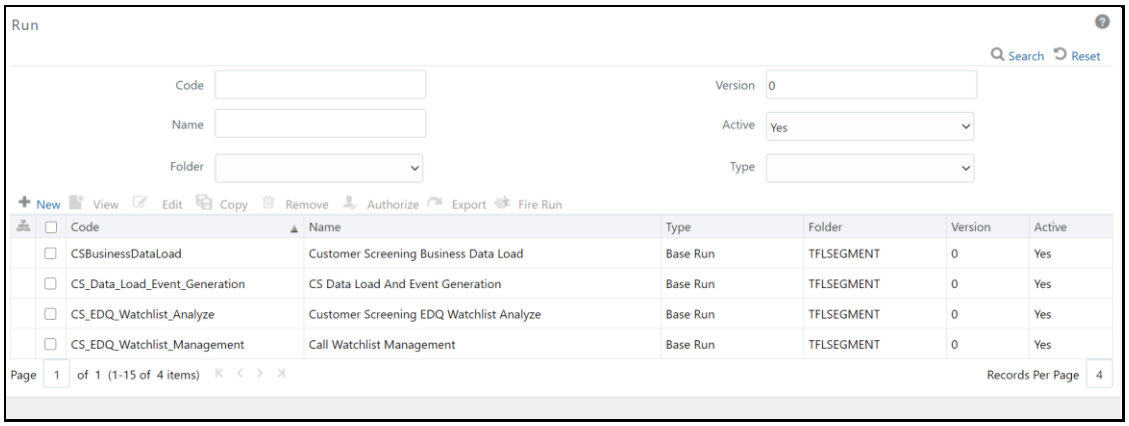
> **NOTE** In the example shown, the new processing batch name has been changed from `CS` to `US`. If this change is not made, no data is loaded in the tables.

4.10.2.2 Creating a Run

To create a run, follow these steps:

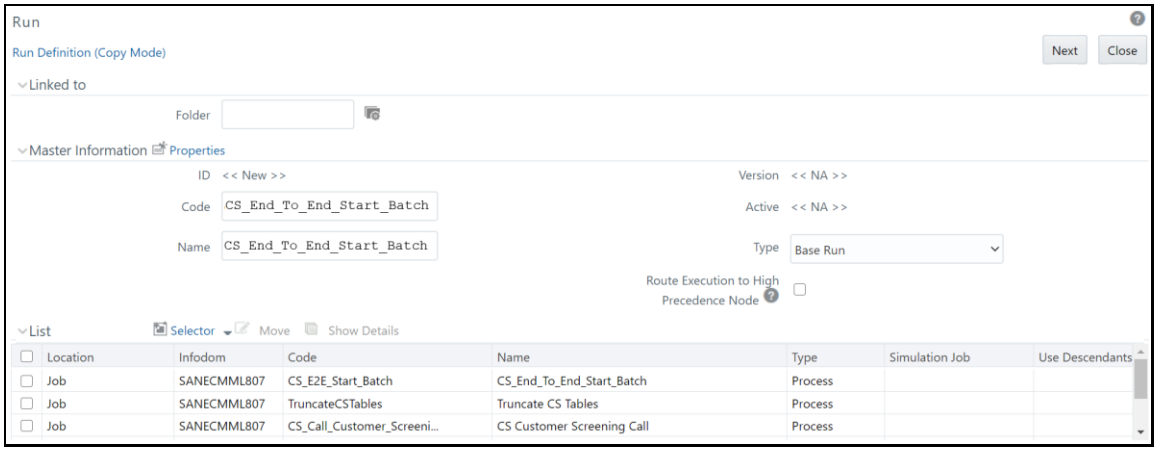
1. Log on to the Customer Screening application.
2. Click **Common Tasks**, then click **Rule Run Framework**, and then click **Run**. The **Run** Page appears.

Figure 33: Run Page



3. Search for *Start* in the **Code** field and select `CS_End_To_End_Start_Batch`.
4. Click **Copy**. The **Run** Page opens in *Copy* mode.

Figure 34: Run Definition (Copy Mode) Page

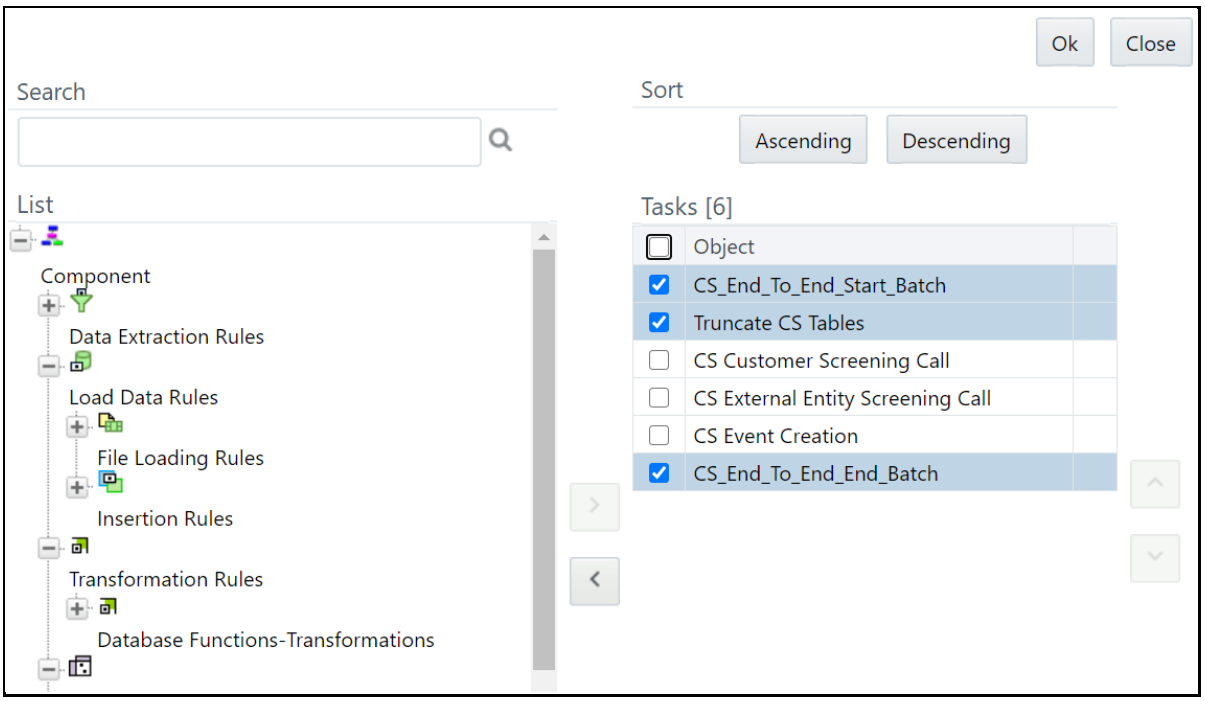


5. In the **Folder** field, click **Folder**  and then select **TFLSEGMENT**.

Figure 35: Folder Selector

6. In the **Name** field, change the job name to include the Jurisdiction Code. For example, `CS_Data_Load_Event_Generation_US`.
7. Click **Selector**  list and select **Job**.
8. In the **Component Selector** page, first select the `CS_End_To_End_Start_Batch`, `CS_End_To_End_End_Batch`, and `Truncate CS Tables` tasks (in that order) from the **Tasks** table and then click  to move them to the **List** table. The tasks are moved to the **Processes** node.

Figure 36: Component Selector



WARNING Ensure that you remove the `Truncate CS Tables` job to prevent the removal of data. If, by mistake, you run the `Truncate CS Tables` job, you can run the `CSBusinessDataLoad` job to reload data in the table.

9. Replace these tasks with the task created in step 17, that is, `CS_Data_Load_Event_Generation_US`. If you do not make this change, no data is loaded in the tables.
10. Click **OK**.
11. Click **OK**.
12. Click **Save**.

The new job is displayed in the **Run** page.

NOTE These steps must also be done in the ECM setup. The processes and runs created in Customer Screening create alerts, and the processes and runs created in ECM fetch the alerts. Cases are generated from these alerts. An example of a process created for ECM is `Oracle_CS_Event_Processing` and an example of a run created for ECM is `Oracle_CS_Event_Processing_US`.

4.11 Configurations for General Data Protection Regulation (GDPR)

GDPR is a set of data protection rules. The main aim of GDPR is to give control to individuals over their data.

To enable GDPR, perform the following configurations:

1. Create a user who will do the GDPR configurations in the same database, for example, GDPR.
2. Assign the `OFS_NOSEC_DATA` privilege to the user by executing the following grant:

   ```
   GRANT OFS_NOSEC_DATA to GDPR
   ```

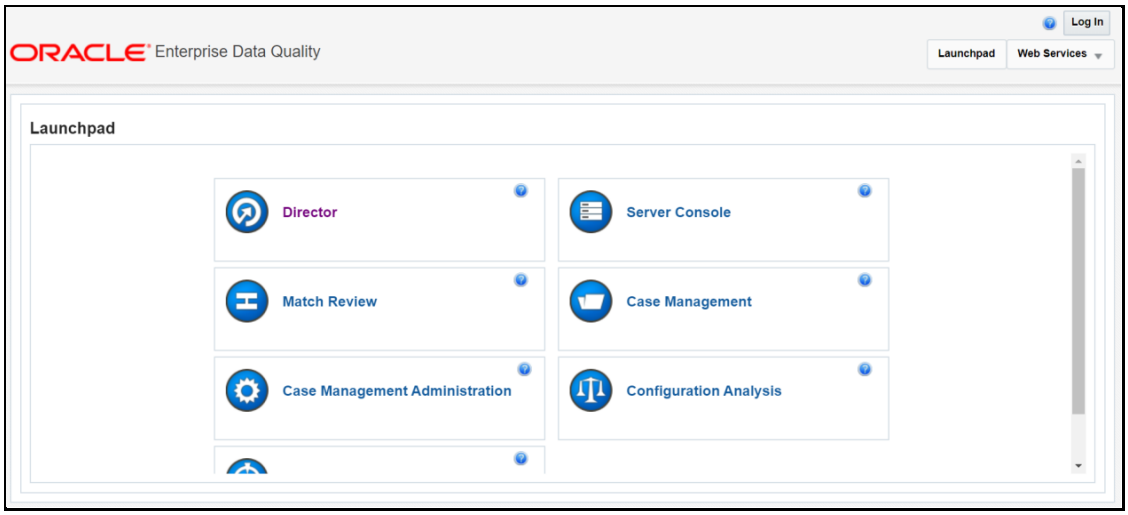
3. Follow these steps to connect to the user:
   a. Create a synonym called `cs_customer` for the user by executing the following command:

      ```
      CREATE PUBLIC SYNONYM cs_customer FOR {dbname}.cs_customer
      ```

      `{dbname}` is the user for whom the `CUST` data and GDPR is applied

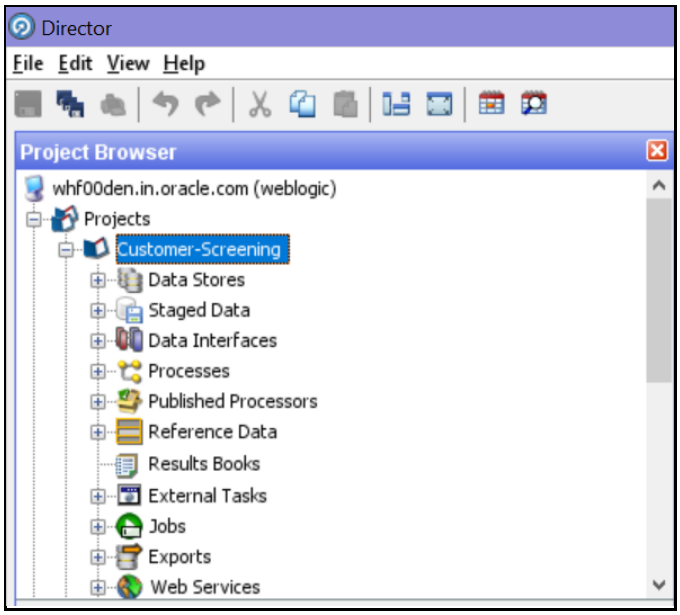
   b. Go to the EDQ URL and open the **Director** menu. The **Director** landing page appears.

Figure 37: Director Menu in EDQ



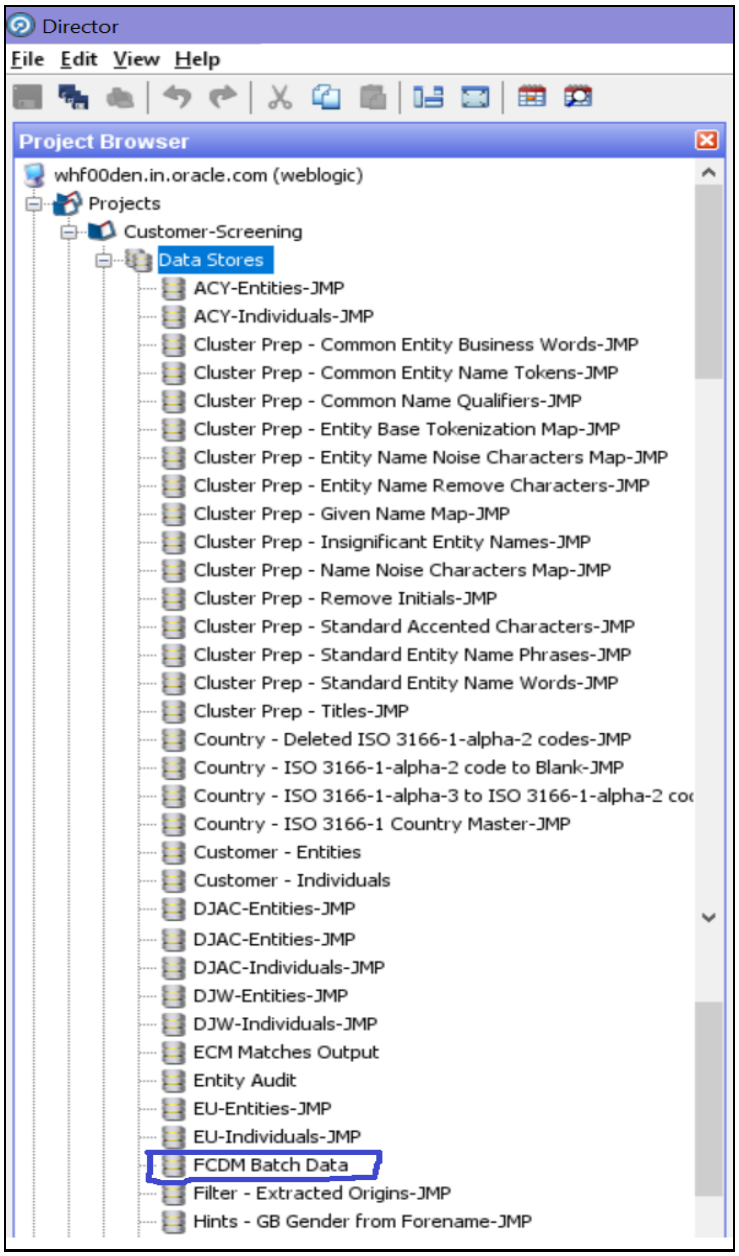
c. In the **Director** landing page, expand the **Customer-Screening** project in the **Project Browser** pane.

Figure 38: Project Browser Pane



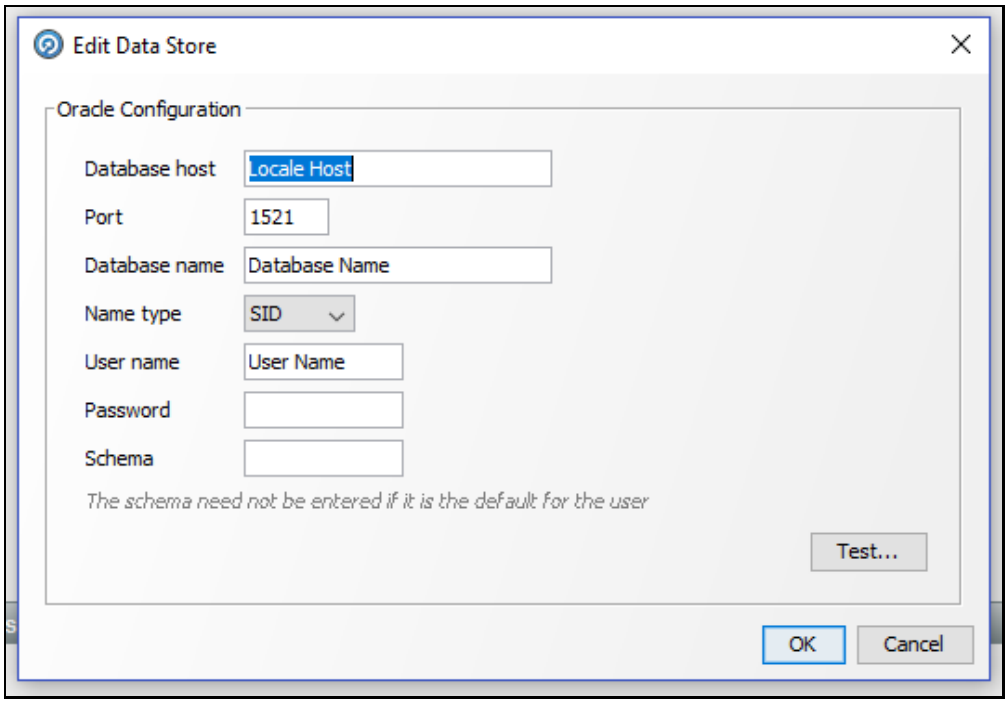
d. Expand the **Data Stores** node and open **FCDM Batch Data**. The **Edit Data Store** window appears.

Figure 39: Edit Data Store Window



e. In the **Edit Data Store** window, enter the **Database host**, **Port**, **Database name**, **User name**, and **Password**.

Figure 40: Edit Data Store for Staging Database Connection



The GDPR configurations are now enabled for the GDPR user. You can view the applicable data in the `CUST` table.

4.12 Optional Configurations

You can perform the following optional configurations:

- To run the Data Quality (DQ) check, set the following values in the `watch list-management.properties` file. This file is located in the `<domain_name>/edq/oedq.local.home/runprofiles/` directory in the WinSCP server.
  - `phase.DQ\ -\ Stage\ DJW\ reference\ lists.enabled = Y`
  - `phase.DQ\ -\ DJW\ reference\ data\ quality\ analysis.enabled = Y`
  - `stageddata.DQ\ DJW\ -\ Invalid\ Standard\ Country\ in\ DJ\ Country\ to\ Standard\ Country.visible = Y`
  - `stageddata.DQ\ DJW\ -\ Missing\ Category\ in\ DJW\ SI\ Category.visible = Y`
  - `stageddata.DQ\ DJW\ -\ Missing\ Category\ in\ DJW\ SI\ Category\ Description.visible = Y`
  - `stageddata.DQ\ DJW\ -\ Missing\ DJW\ Country\ in\ DJ\ Country\ to\ Standard\ Country.visible = Y`

  - `stageddata.DQ\ DJW\ -\ Missing\ Name\ in\ DJW\ List\ Provider\ Reference\ Data.visible`
  - `stageddata.DQ\ DJW\ -\ Missing\ Occupation\ Name\ in\ DJW\ Occupation\ Category.visible`
  - `stageddata.DQ\ DJW\ -\ Obsolete\ Category\ in\ DJW\ SI\ Category.visible`
  - `stageddata.DQ\ DJW\ -\ Obsolete\ Category\ in\ DJW\ SI\ Category\ Description.visible`
  - `stageddata.DQ\ DJW\ -\ Obsolete\ DJW\ Country\ in\ DJW\ Country\ to\ Standard\ Country.visible`
  - `stageddata.DQ\ DJW\ -\ Obsolete\ Name\ in\ DJW\ List\ Provider\ Reference\ Data.visible`
  - `stageddata.DQ\ DJW\ -\ Obsolete\ Occupation\ Name\ in\ DJW\ Occupation\ Category.visible`

- To move data from the Windows batch file to the Linux shell script, follow these steps in the `watch list-management.properties` file:
  - Comment out `phase.DJW\ -\ Download.externaltasks.Download\ Dow\ Jones\ Watch list.command = download-djw.bat`
  - Uncomment `phase.DJW\ -\ Download.externaltasks.Download\ Dow\ Jones\ Watch list.command = download-djw.sh`

5 Integrations with Enterprise Case Management

Customer Screening uses the Enterprise Case Management (ECM) application to investigate and manage cases generated by the matching process in Customer Screening.

The following sections describe the default case types and workflows provided with *Oracle Financial Services Enterprise Case Management*. For more information, see Oracle Financial Services Enterprise Case Management Admin Guide.

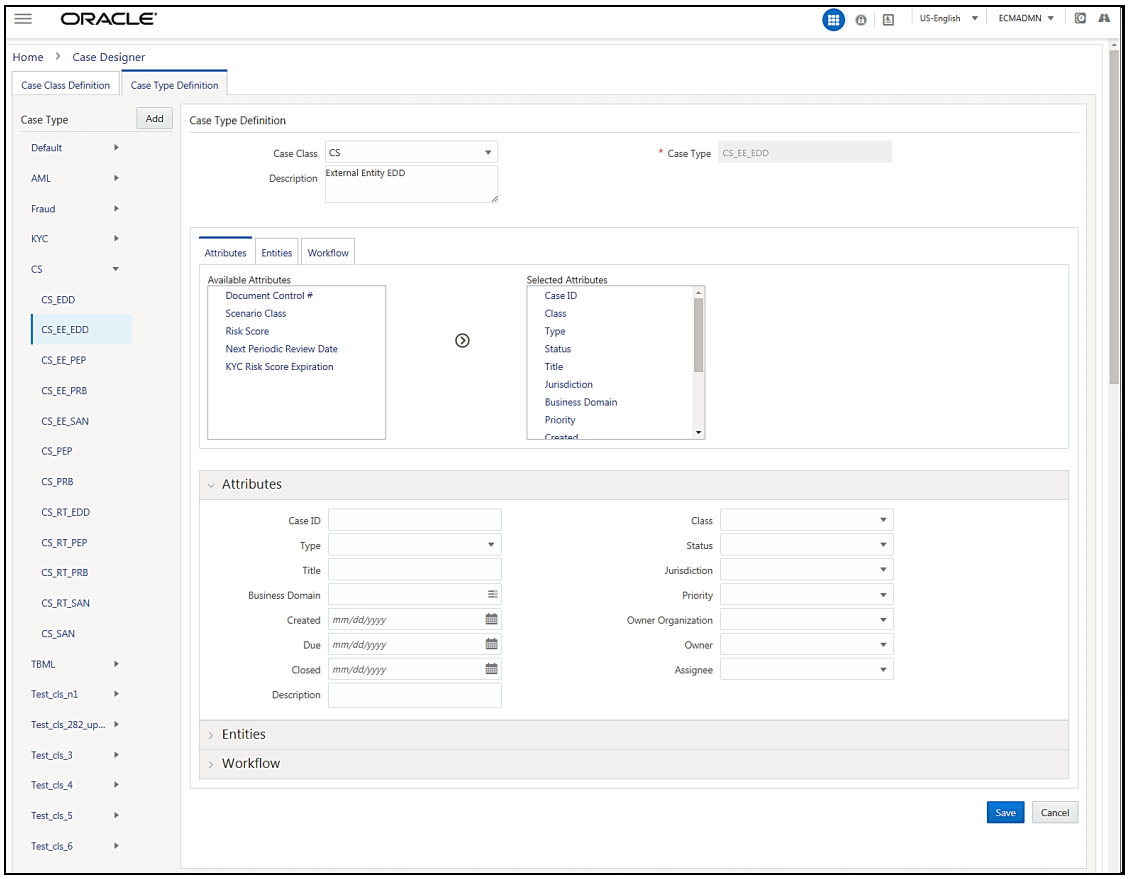
5.1 Case Class in ECM

For Customer Screening Application, the following case classes have been added in the Oracle Financial Services Enterprise Case Management Application:

- CS
- CS_EE
- CS_RT

To add new case classes, follow the steps in the *Adding Case Class* section in the Oracle Financial Services Enterprise Case Management Admin Guide.

Figure 41: Case Designer Page



5.2 Case Types under Case Class

The following case types are created for the CS case class:

- **CS_EDD**: Enhanced Due Diligence (EDD)
- **CS_PRB**: Prohibition (PRB)
- **CS_SAN**: Sanctions (SAN)
- **CS_EE_EDD**: Enhanced Due Diligence (EDD) for External Entity screening
- **CS_EE_PEP**: Politically Exposed Person (PEP) for External Entity screening
- **CS_EE_PRB**: Prohibition (PRB) for External Entity screening
- **CS_EE_SAN**: Sanctions (SAN) for External Entity screening
- **CS_PEP**: Politically Exposed Person (PEP)
- **CS_RT_EDD**: Enhanced Due Diligence (EDD) for Real-Time screening
- **CS_RT_PEP**: Politically Exposed Person (PEP) for Real-Time screening
- **CS_RT_PRB**: Prohibition (PRB) for Real-Time screening
- **CS_RT_SAN**: Sanctions (SAN) for Real-Time screening

For each Case Type, default Entities are mapped. If additional Entities are required, see the *Adding Optional Entities to the Case Type* section in Oracle Financial Services Enterprise Case Management Admin Guide.

5.3 Case Correlation, Linked Cases, and Searching for Cases

After the Customer Screening batch is run, alerts are correlated into cases based on the watch list record type. More than one case can be generated for a single alert, one each for Sanctions (SAN), Country Prohibitions (PRB), Politically Exposed Persons (PEP), and Enhanced Due Diligence (EDD).

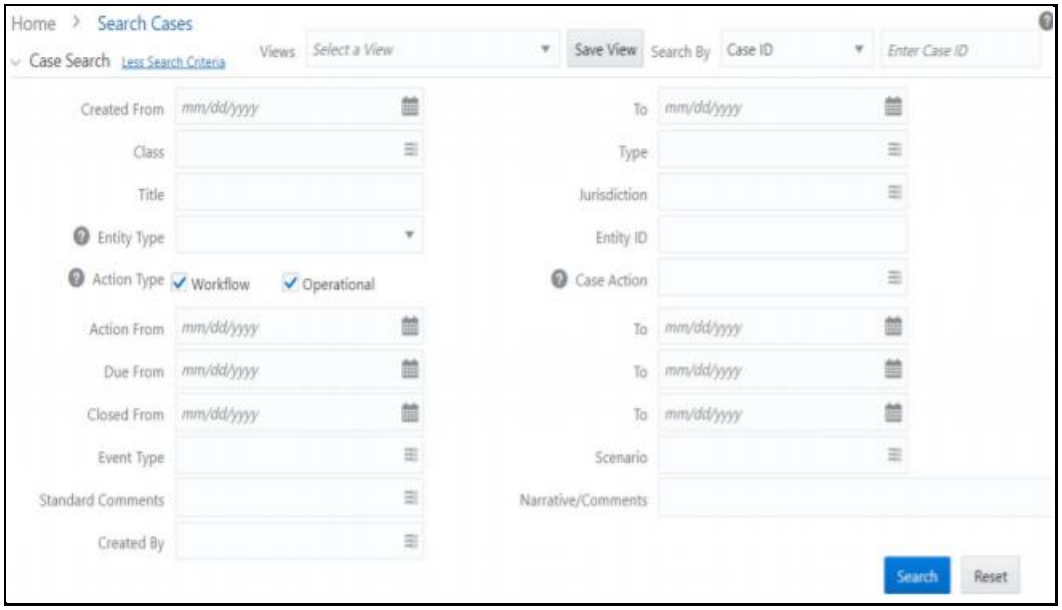
You can view the case which is linked with the case being investigated. The following image shows the fields:

Figure 42: Link Cases Window

You can configure the correlation rules for an alert in the *Correlation* tab, or view the cases linked to the case being investigated in the *Relationship* tab. For more information, see the *Using Operational Data Tabs* section in Oracle Financial Services Enterprise Case Management User Guide.

There are certain ready-to-use Customer Screening case type search criteria. They can be viewed in the *Search Cases* tab in ECM. For more information, see the *Searching Cases* section in Oracle Financial Services Enterprise Case Management User Guide.

Figure 43: Search Cases Window



5.4 Creating Workflows for Case Types

Each of the Sanctions (SAN), Country Prohibitions (PRB), Politically Exposed Persons (PEP), and Enhanced Due Diligence (EDD) cases go through a workflow. The SAN and PRB cases have the same ready-to-use workflow, and the PEP and EDD cases have the same workflow.

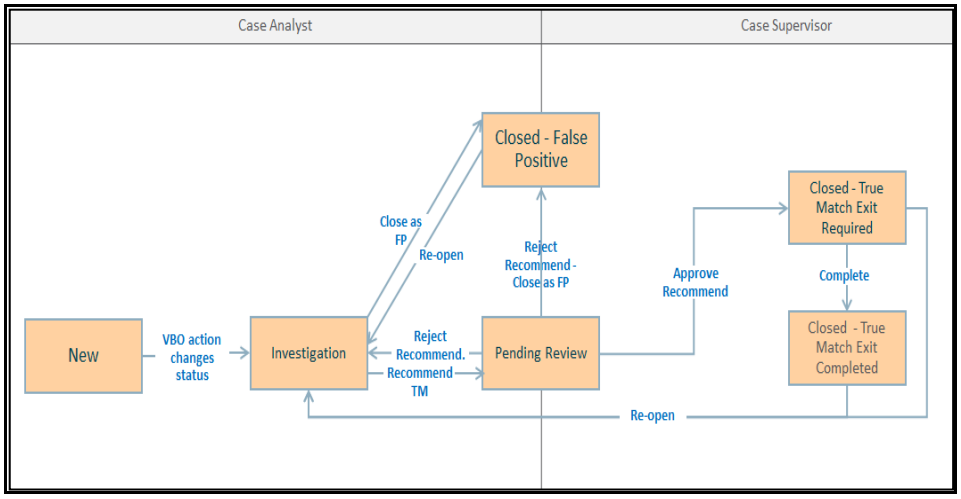
5.5 Workflow Diagrams

The following diagrams represent the workflows for the Sanctions (SAN), Politically Exposed Persons (PEP), Country Prohibition (PRB), or Enhanced Due Diligence (EDD) records:

5.5.1 SAN and PRB Workflow

The workflow for the sanctions and country prohibition records are as follows:

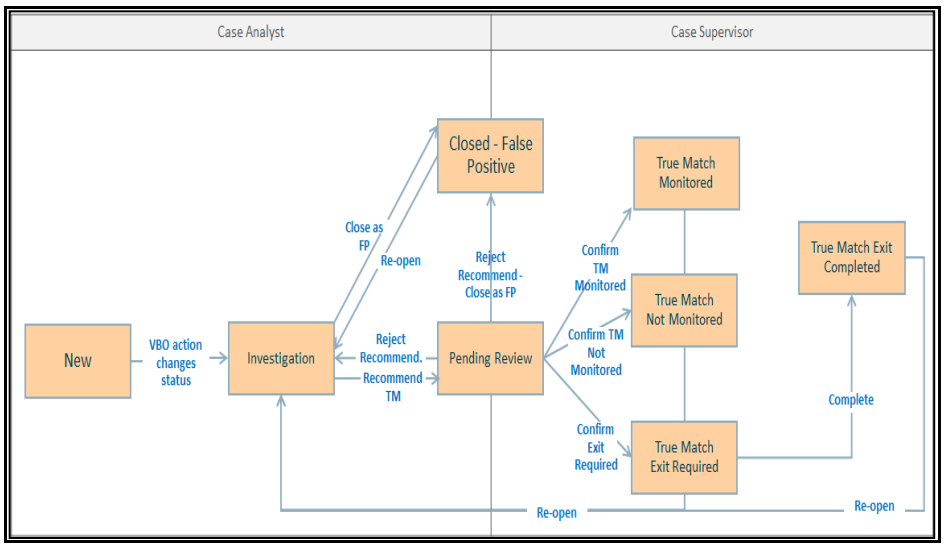
Figure 44: SAN and PRB Workflow



5.5.2 PEP and EDD Workflow

The workflow for the Politically Exposed Persons and Enhanced Due Diligence records are as follows:

Figure 45: PEP and EDD Workflow

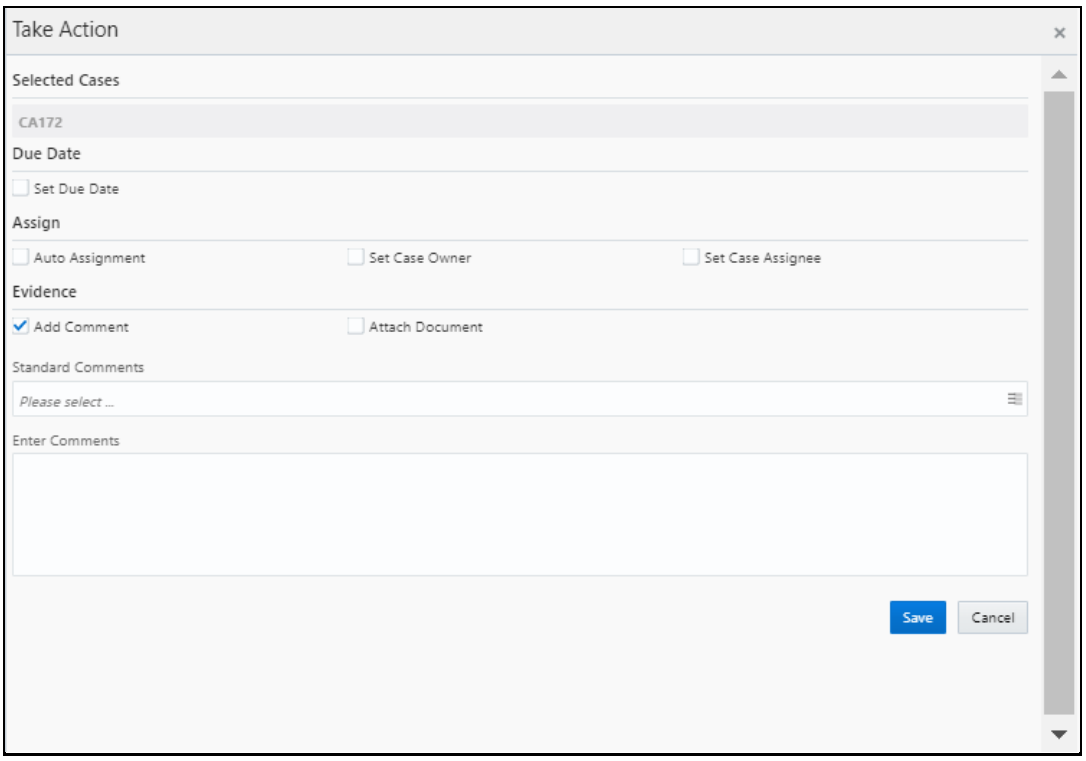


5.6 Taking Actions on Customer Screening-related Cases

You can take an action on a case depending on the workflow status, case type, and user. You can also add a comment and attach a document To take an action on a case, see the *Using Take Action Window* section in Oracle Financial Services Enterprise Case Management User Guide.

The following figure shows a sample of an EDD workflow that has a Pending Review status and Supervisor user.

Figure 46: Take Action Window



NOTE When a match decision is taken for an alert, you can make the comments mandatory or optional.

- To make comments mandatory, set the values of the `REQ_CMNT_FL` column in the `KDD_ACTION` table to **Y**. Run `select t.action_cd,t.action_nm from kdd_action t` and update the value. You cannot take an action until you provide a comment.
- To make comments optional, set the values of the `REQ_CMNT_FL` column in the `KDD_ACTION` table to **N**. You can take an action even if you do not provide a comment.

5.7 Setting Thresholds for Case Priorities

The case priority is based on the case type and risk score. You can set the case priority in the `FCC_CASE_PRIORITY` table. By default, if you do not set the case priority, it is set to **High**.

6 Real-Time Screening

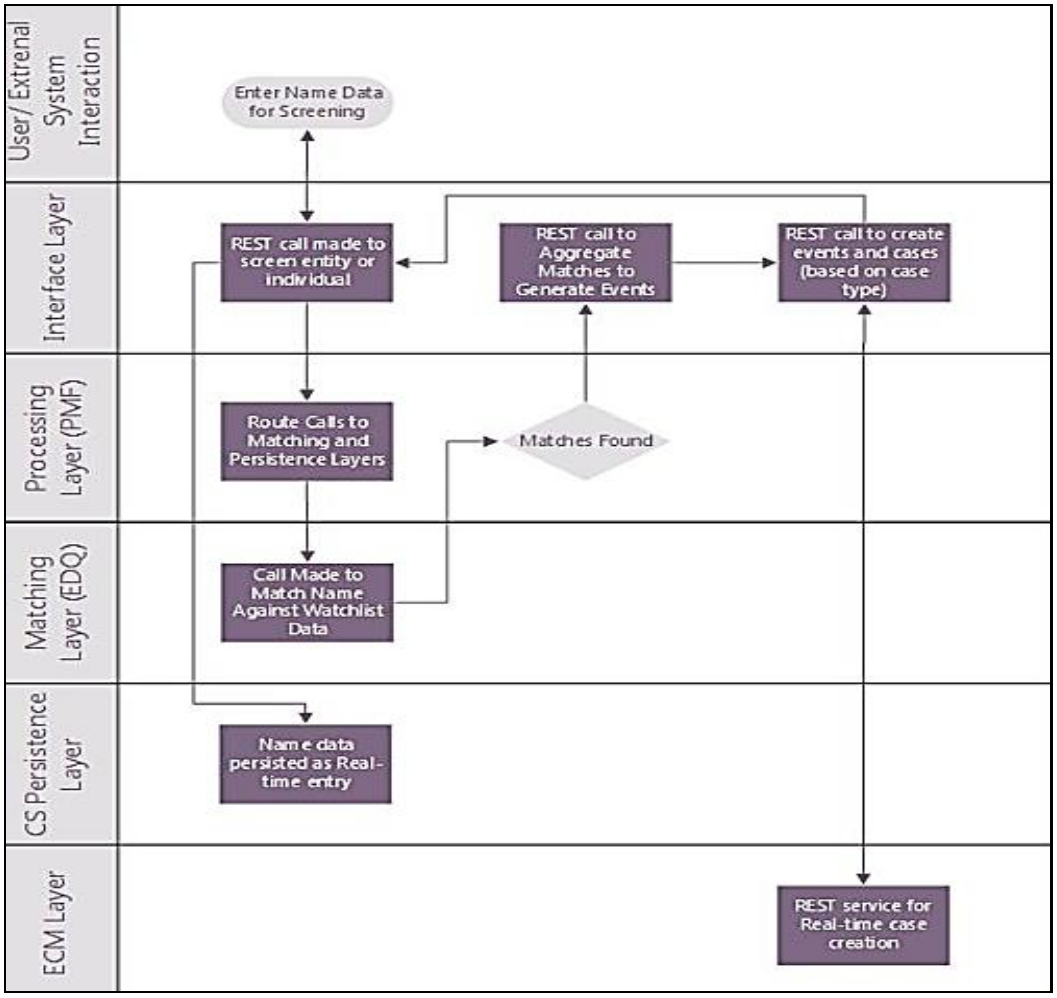
There are two ways to perform screening in the Customer Screening application: real-time screening and batch screening.

Real-time screening is the screening of individuals and entities that occur when you enter data in the **Real-Time Screening** page and click **Scan**. When you screen data in real-time, you can see the screening results after running the real-time screening job. For more information, see Running the Real-Time Screening Job.

Batch screening is the screening of individuals and entities that occur when you run the batch screening job. Before you run the job, you must first configure the Enterprise Data Quality (Director) details and then prepare and analyze the customer screening and external entity data in the Financial Crime Data Model (FCDM). For more information, see Running the Batch Screening Job.

The following image shows the different components involved during the Real-time screening process:

Figure 47: Real-Time Screening Workflow



After you provide data on the **Real-Time Screening** page, a REST call is made to the individual or entity being screened in the real-time screening user interface. The call is then routed to the **Enterprise Data Quality** (EDQ) system through the **Process Modelling Framework** (PMF) application. The information is then matched against the watch list data. Data is also persisted as external entities in the `FCT_RTSCR_REQUEST` table.

If a match is found, the matches are aggregated. The aggregated matches are used to create alerts and cases for external entities in Financial Crime Data Model (FCDM) and Analytical Application Infrastructure (AAI) and generate responses in PMF. The cases are displayed in the **Case Summary** page in Enterprise Case Management (ECM) for investigation.

NOTE

- Real-time screening can be performed only when the real-time screening job in EDQ is running.
- To cancel the real-time screening process, select **Shutdown web services** in the **Cancel Individual Real-time Screening web services** dialog box.
- The Real-time access group must only be mapped to the case supervisor or the case analyst users and must not be mapped to the admin user.

6.1 Configuring the EDQ URL

To configure the EDQ URL for Real-time screening, follow these steps:

1. Navigate to the `FCI_DB_HOME/bin` directory.
2. Execute the command `/EDQInsert.sh <INFODOM NAME>`. This step is used to register the EDQ server details. You must replace the `INFODOM NAME` placeholder with your domain name.
3. Enter the following details in the console where the command is run:
    - EDQ server IP: An example of the EDQ URL is `http://whf00bte.in.oracle.com:7008/edq`. Replace this with your EDQ server's URL.
    - EDQ Server Direct Port number: This is the JMX port number. This value must be 8090.
    - EDQ Server User Name: An example of the EDQ server user name is `weblogic`. Replace this with your EDQ server's user name.
    - EDQ Password: An example of the EDQ password is `weblogic1`. Replace this with your EDQ server's password.

Figure 48: Configure the EDQ URL in Real-time Screening

```
/scratch/ofsaadb/PACK806BS/PACK806BS/ficdb/bin>./EDQInsert.sh SANPACKINFO
Started finding Jars
Ended finding Jars
Classpath Created
Calling EDQ Main Method
Inside EDQ insert method
Enter EDQ Server IP:
10.184.158.232
Enter EDQ Server Director Port:
8090
Enter EDQ Server User Name:
weblogic
Enter EDQ Password:
Encrypting password
Enter ECM URL:
https://mum00ctf.in.oracle.com:7501/SANPACK
Enter ECM User Name:
ECMADMN
Enter ECM Password:
Encrypting password
```

4. Configure the EDQ URL in the CONFIG schema. To do this, run the following script and replace the placeholders in the `v_method_name` and `v_param_1` columns with the EDQ URL, EDQ user name, and EDQ password respectively:

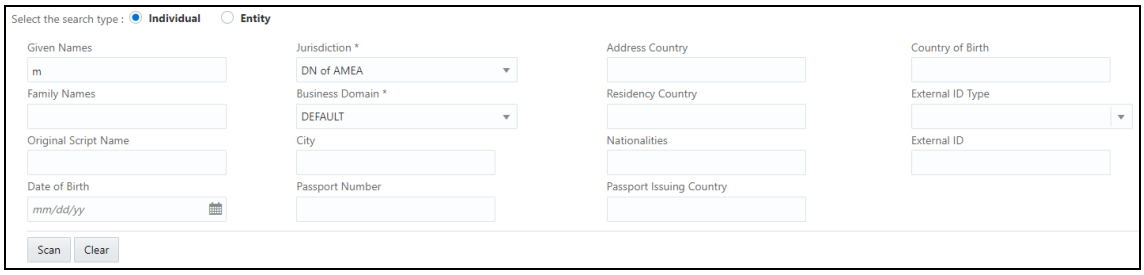
```
select t.*,t.rowid from aai_wf_application_api_b t where
t.v_process_id='CSRT' and t.v_app_api_id in
('1521535704140','1521535760435')
```

6.2 Screening Watch List Records in Real-Time

To screen watch list records, follow these steps:

1. Log on to the Customer Screening application.
2. Click **Real-Time Screening**. appears.

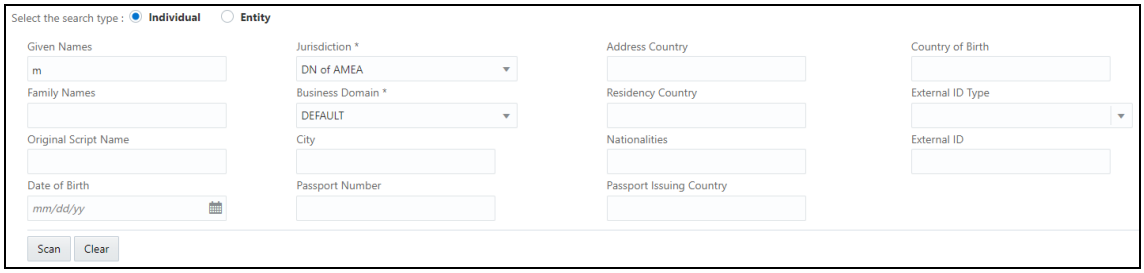
Figure 49: Real-Time Screening Page



3. In the **Real-Time Screening** page, select the search type as **Individual** or **Entity**.

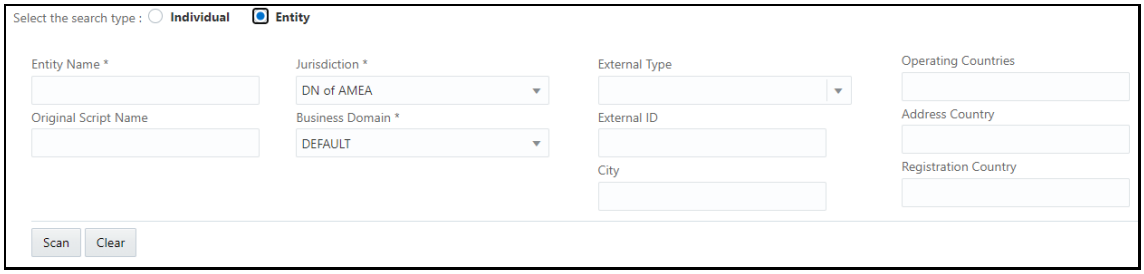
The following fields appear if the search type is **Individual**.

Figure 50: Individual Search Type



The following fields appear if the search type is **Entity**.

Figure 51: Entity Search Type



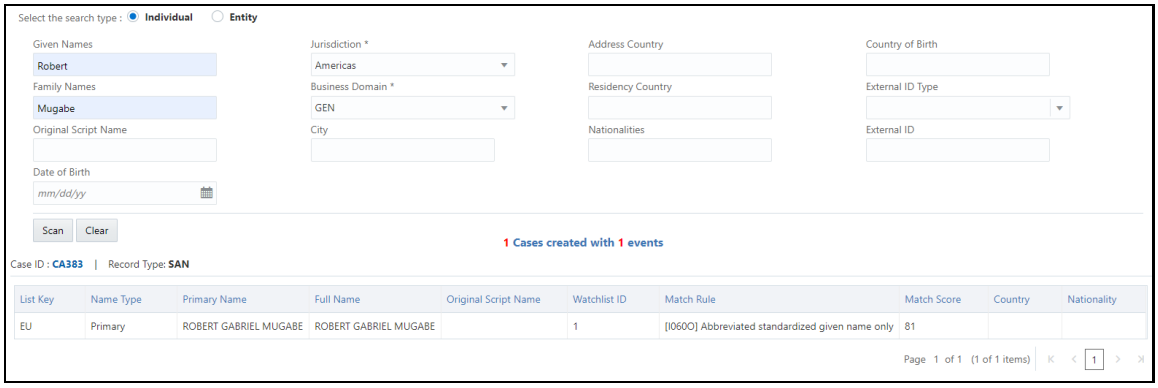
4. Provide details in the following mandatory fields:
    - **Jurisdiction**: Select the jurisdiction to which the individual or entity belongs to.
    - **Business Domain**: Select the business domain to which the individual or entity belongs to.

    You can also provide details in the following optional fields:
    - **Given Name**: Enter the first name of the individual.
    - **Address Country**: Enter the current address of the individual or entity.
    - **Country of Birth**: Enter the country in which the individual was born or the entity originated. This field is applicable only when you select the search type as **Individual**.
    - **Family Name**: Enter the family name of the individual.
    - **Residency Country**: Enter the country of residence of the individual or entity. This field is applicable only when you select the search type as **Individual**.
    - **Operating Countries**: Enter the countries the entity operates in. To add more than one country, add a comma between the country. For example: US, India. This field is applicable only when you select the search type as **Entity**.
    - **Registration Country**: Enter the country the entity is registered in. This field is applicable only when you select the search type as **Entity**.
    - **External ID Type**: Select the external ID type of the individual or entity.

- **Original Script Name**: Enter the name of the individual or entity in the original script if the script is a non-Latin script.
- **City**: Enter the city of residence of the individual or entity.
- **Nationalities**: Enter the nationality of the individual. This field is applicable only when you select the search type as **Individual**.
- **External ID**: Enter the external ID unique to the individual or entity.
- **Date of Birth**: Enter the date of birth of the individual or the date of conception of the entity. This field is applicable only when you select the search type as **Individual**.
- **Passport Number**: Enter the passport number of the individual.
- **Passport Issuing Country**: Enter the country in which the passport is issued.

5. Click **Scan**. The screened watch list records are displayed.

Figure 52: Scanning Real-time Screening Records Table



6.3 Running the Real-Time Screening Job

To source the data from the Financial Crime Data Model (FCDM) and run the FCDM data preparation process, disable the **MAIN_RT** real-time screening job phase and enable the FCDM job phases in the `customer screening-real time.properties` and `external-entity-screening.properties` run profiles. These files are available in the `<domain_name>/edq/oedq.local.home/runprofiles/` directory in the WinSCP server.

```
phase.Start\ Real-time\ Screening.enabled = Y


# Control single real-time screening types

phase.Real-time\ Screening.process.Individual\ Real-time\
Screening.san_enabled = Y

phase.Real-time\ Screening.process.Individual\ Real-time\
Screening.pep_enabled = Y

phase.Real-time\ Screening.process.Individual\ Real-time\
Screening.edd_enabled = Y
```

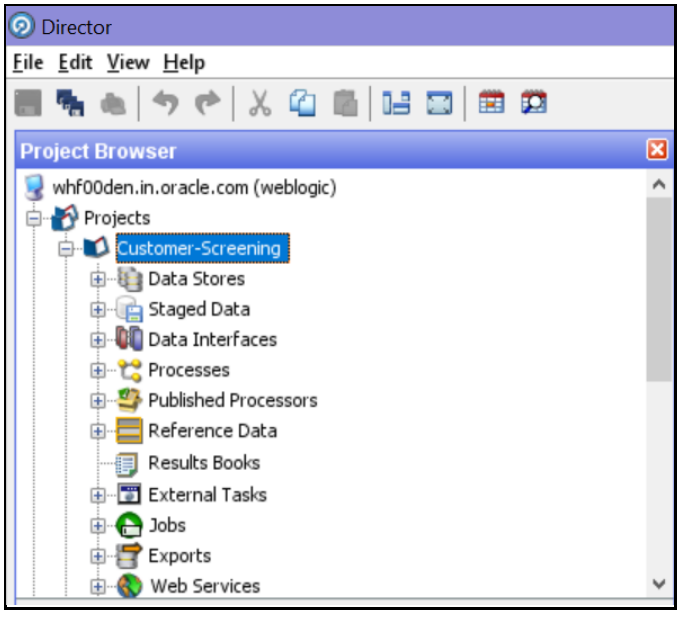
```
phase.Real-time\ Screening.process.Entity\ Real-time\ Screening.san_enabled
= Y

phase.Real-time\ Screening.process.Entity\ Real-time\ Screening.pep_enabled
= Y

phase.Real-time\ Screening.process.Entity\ Real-time\ Screening.edd_enabled
= Y
```

6.4 Adding a New Field in a Webservice

Currently, you can only search for the ready-to-use web service fields in the Real-time screening user interface. If you want to add a custom field to an existing web service, for example, full name, you must enter the field name in the applicable web service node and add the field to the applicable process. To do this, follow these steps:

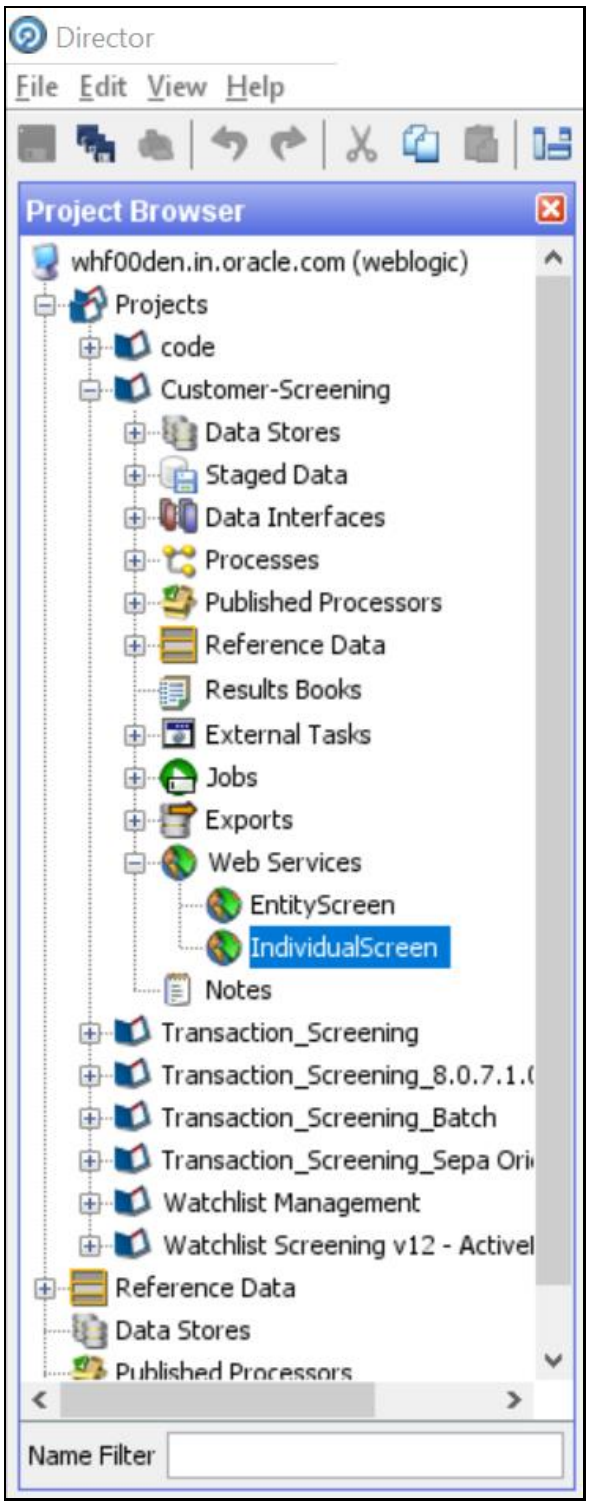
1. In the **Director** landing page, expand the **Customer-Screening** project in the **Project Browser** pane.

Figure 53: Project Browser Pane



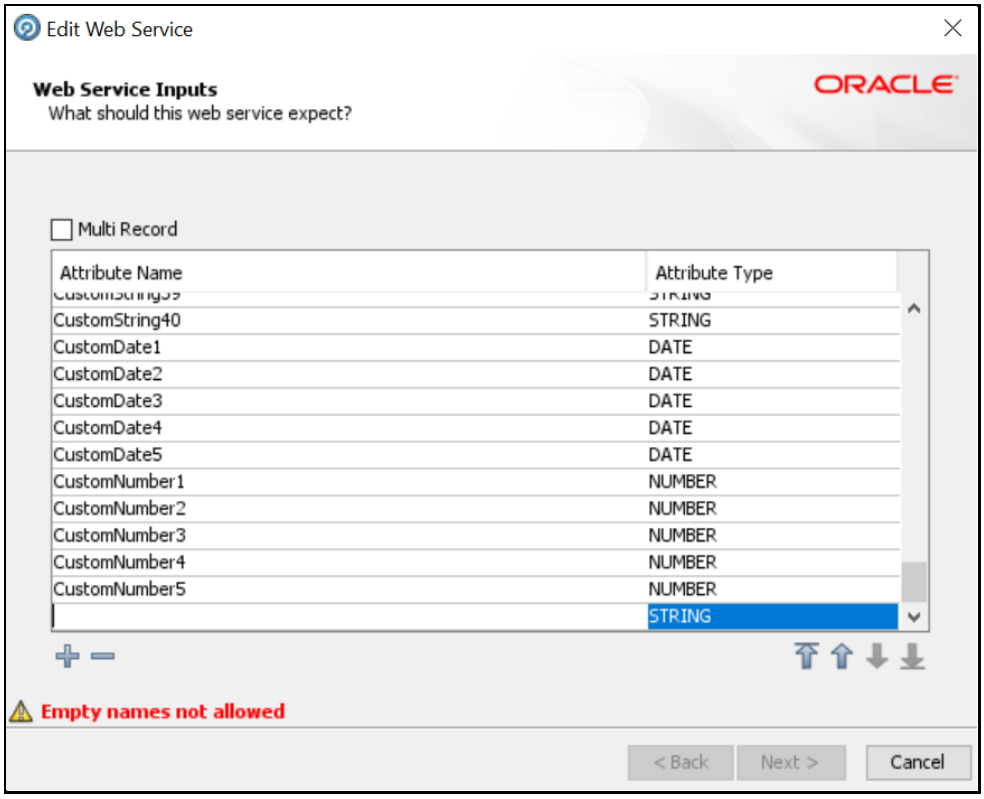
2. Expand the **Web Services** node and double-click the **IndividualScreen** web service.

Figure 54: Web Services Node



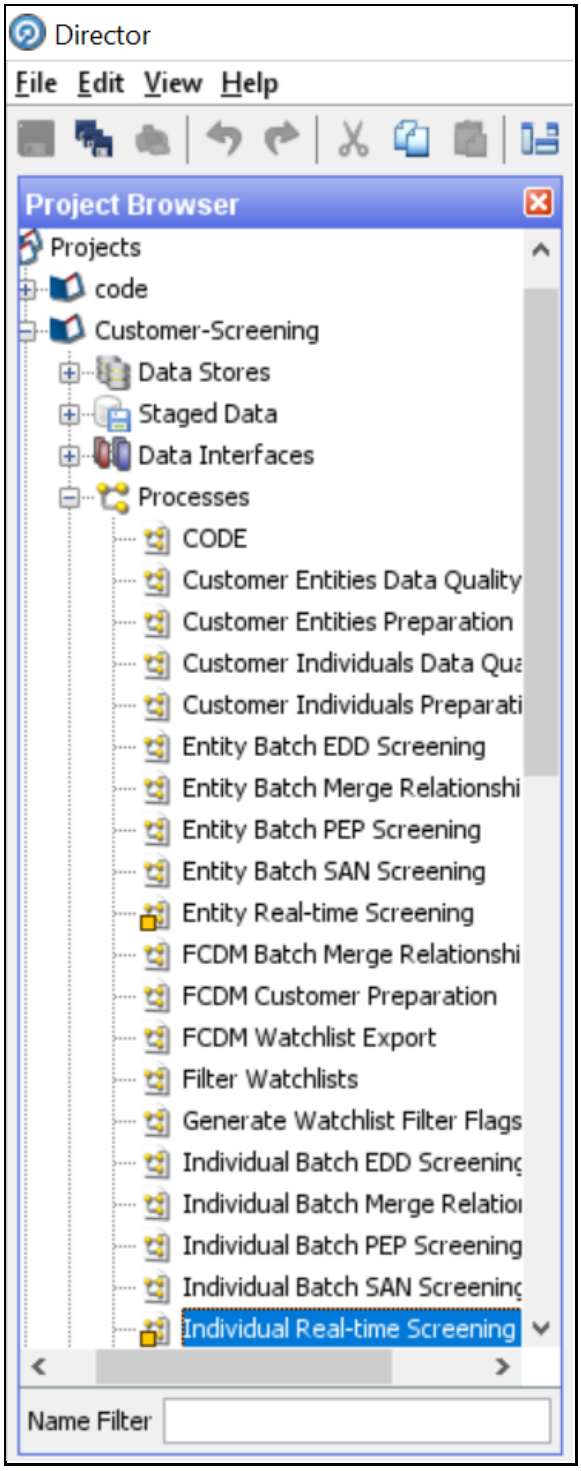
3. Click the **Plus** icon in the **Web Service Inputs** window. A new row appears in the table.

Figure 55: Edit Web Service Window



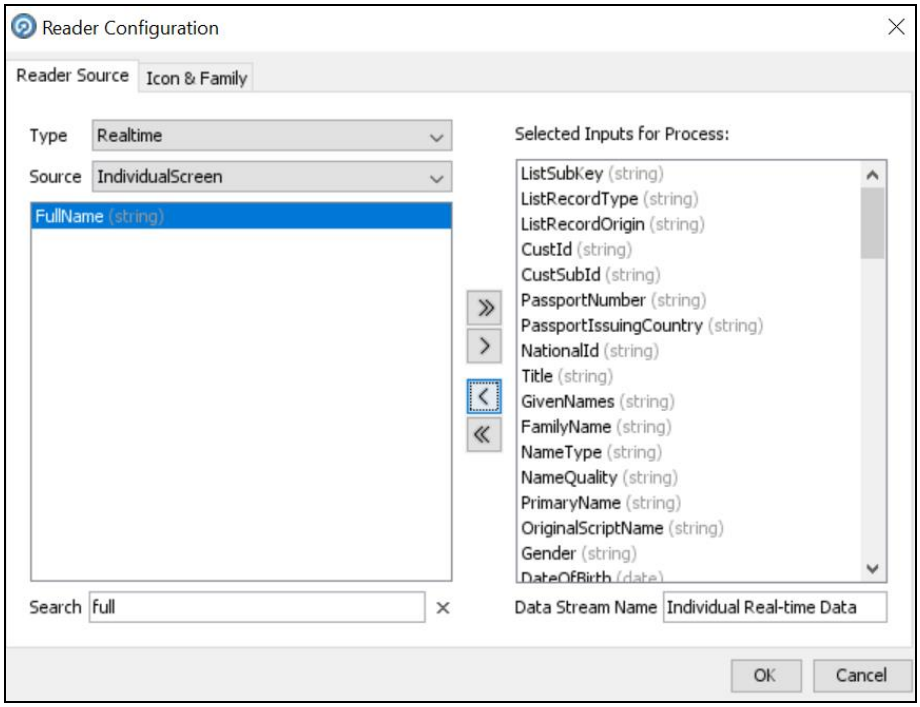
4. Enter the name of the column, for example, *FullName*, and click anywhere inside the table to enable the **Next** button.
5. Click **Next** until you view the **Finish** button, and click **Finish**.
6. In the **Customer-Screening** project, expand the **Processes** node and double-click the **Individual Real time Screening** process.

Figure 56: Processes Node



7. Click the **Individual Real-time Data** process icon in the **Individual Real-time Screening** window.
8. Search for *FullName* in the **Reader Configuration** window.

Figure 57: Reader Configuration window



9. Select *FullName* and select the **Remove** icon ( ) to move it to **Selected Inputs for Process**.
10. Click **OK**.

After you add the new field, you must integrate it with the Real-time screening user interface to display it in the user interface. To do this, follow these steps:

1. Open the **RTScreening.html** file from the `<Installed Sanctions Path>/js/views` directory. For example, `ECM808SAN.war path }/realTimeScreening/js/views`.
2. Change the external ID placeholders to *FullName*.

   ```
   <oj-label for =”text-input”>External ID</oj-label>
   <oj-input-text id=”externalId” value=”{{ExternalId}}”></oj-input-text>
   ```

3. Copy the code with the new value.
4. Open the **RTScreening.js** file from the `<Installed Sanctions Path>/js/viewModels` directory. For example, `ECM808SAN.war path }/realTimeScreening/js/viewModels`.
5. Update the placeholder within `‘’` with the copied code with the same syntax as given in the id in the html file in the `self.Clear` function:

   ```
   Document.getElementById(“FullName”).value = ‘’;
   ```

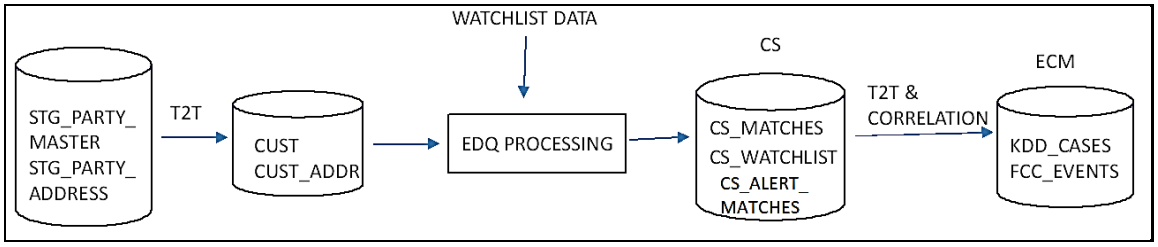
6. Update the placeholder within `“”` with the copied code with the same syntax as given in the id in the html file in the `self. IndividualScreenObject` array:

   ```
   FullName:””
   ```

7 Batch Screening

The following diagram describes the data movement from Customer Screening to Enterprise Case Management (ECM) during the batch screening process.

Figure 58: Batch Screening Workflow



The data movement in the workflow is as follows:

1. Data is moved from the `STG_PARTY_MASTER`, `STG_PARTY_ADDRESS`, `STG_CASA`, `STG_LOAN_CONTRACTS`, `STG_PARTY_ACCOUNT_ROLE_MAP`, `STG_PARTY_ROLE_MAP`, `STG_TD_CONTRACTS`, `STG_TRADING_ACCOUNT`, and `STG_PARTY_OTHER_NAMES` tables to the `CUST`, `CUST_ADDR`, `ACCT`, `CUST_NAME` and other associated customer tables using the Table-to-Table (T2T) mode.
2. The watch list data is downloaded from the `watch list-management` project in EDQ. The watch list data is matched with the data in the `CUST` and `CUST_ADDR` tables in the `Customer-Screening` project.
3. The matches are loaded into the `CS_MATCHES` table and the corresponding watch list data is loaded into the `CS_WATCHLIST` table.
4. Data from the `CS_MATCHES_HIST` table is generated as alerts in the `CS_ALERTS` and `CS_ALERTS_MATCHES` tables.

> **NOTE**
>
> 1. The `CS_MATCHES_HIST` table contains all the matches made. Each time screening is run, the `CS_MATCHES` table is compared to the `CS_MATCHES_HIST` table and any new or updated matches are added to the `CS_MATCHES_HIST` table. This creates a new alert.
> 2. Every time you run the `Customer-Screening` project, data is cleared from the `CS_MATCHES` table.

5. Data is correlated and loaded into the `KDD_CASES` and `FCC_EVENTS` tables in ECM.

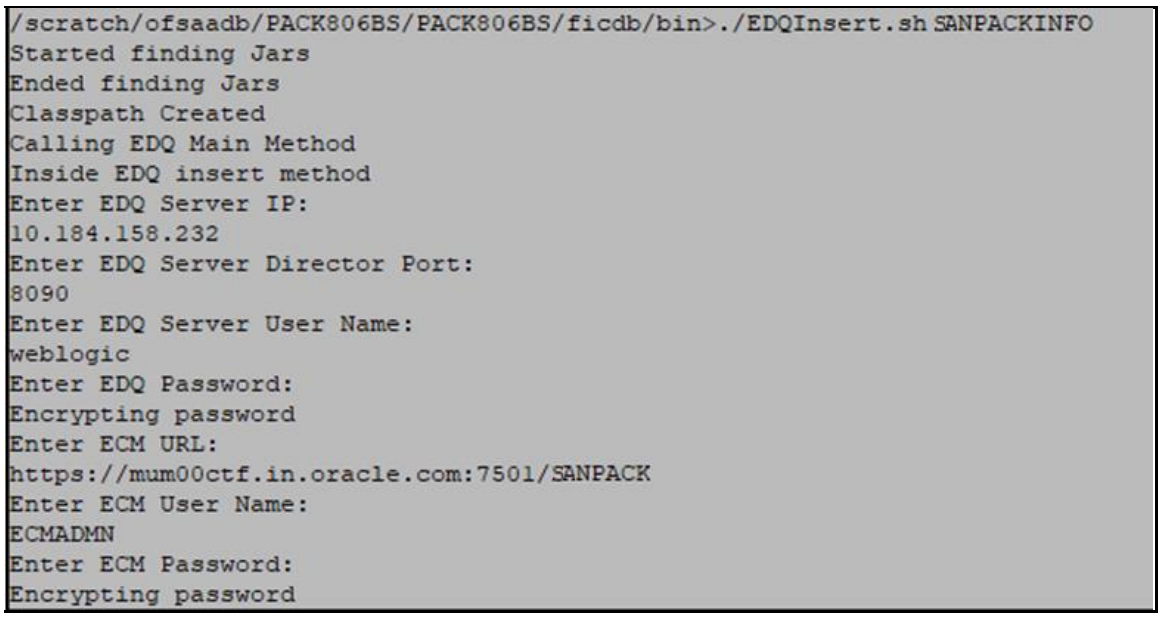
7.1 Configuring the EDQ URL

To configure the EDQ URL for batch screening, follow these steps:

1. Navigate to the `FCI_DB_HOME/bin` directory.

2. Execute the command `/EDQInsert.sh <INFODOM NAME>`. This step is used to register the EDQ server details. You must replace the `INFODOM NAME` placeholder with your domain name.
3. Enter the following details in the console where the command is run:
   - EDQ server IP: An example of the EDQ URL is `http://whf00bte.in.oracle.com:7008/edq`. Replace this with your EDQ server's URL.
   - EDQ Server Direct Port number: This is the JMX port number. This value must be 8090.
   - EDQ Server User Name: An example of the EDQ server user name is `weblogic`. Replace this with your EDQ server's user name.
   - EDQ Password: An example of the EDQ password is `weblogic1`. Replace this with your EDQ server's password.

Figure 59: Configure the EDQ URL in Batch Screening



4. Configure the EDQ URL in the CONFIG schema. To do this, run the following script and replace the placeholders in the `v_method_name` and `v_param_1` columns with the EDQ URL, EDQ user name, and EDQ password respectively:

```
select t.*,t.rowid from aai_wf_application_api_b t where
t.v_process_id='CSRT' and t.v_app_api_id in
('1521535704140','1521535760435')
```

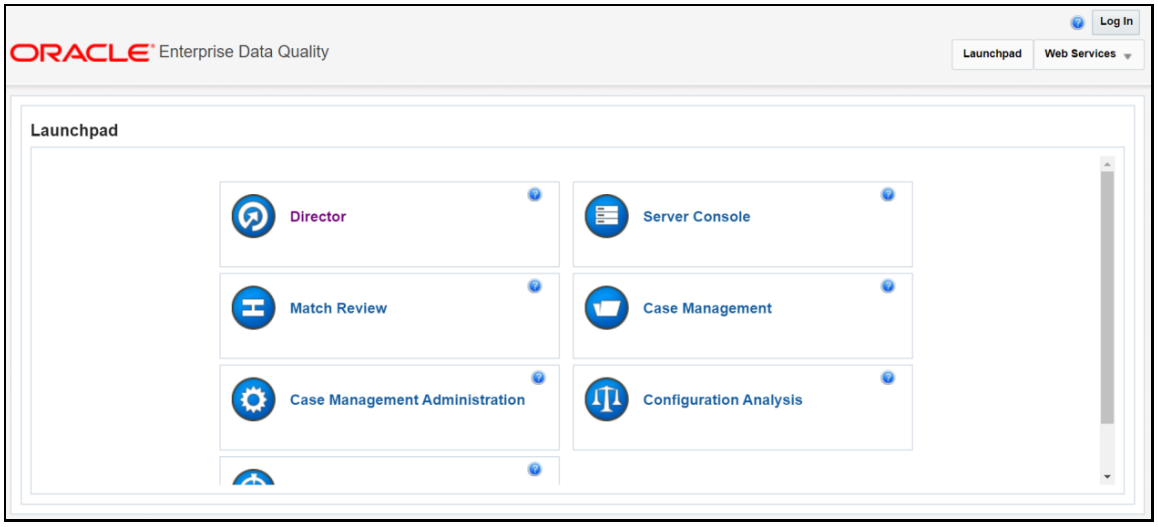
7.2 Staging Database Connection Details

To run the customer screening jobs using the Financial Crime Data Model (FCDM) as a source of customer and external entity data, you must add the connection details of the staging database into which FCDM will place the data to be screened in EDQ.

To set the connection details for customer and external entity data, follow these steps:

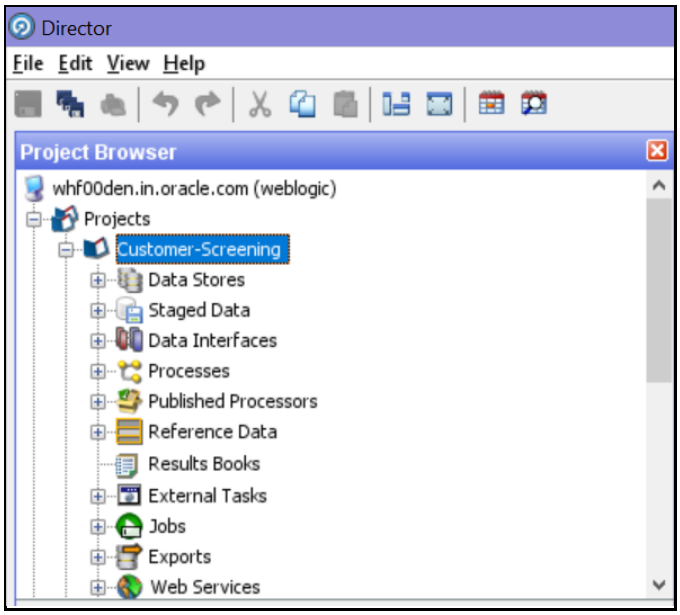
1. Go to the EDQ URL and open the **Director** menu.

Figure 60: Director Menu in EDQ



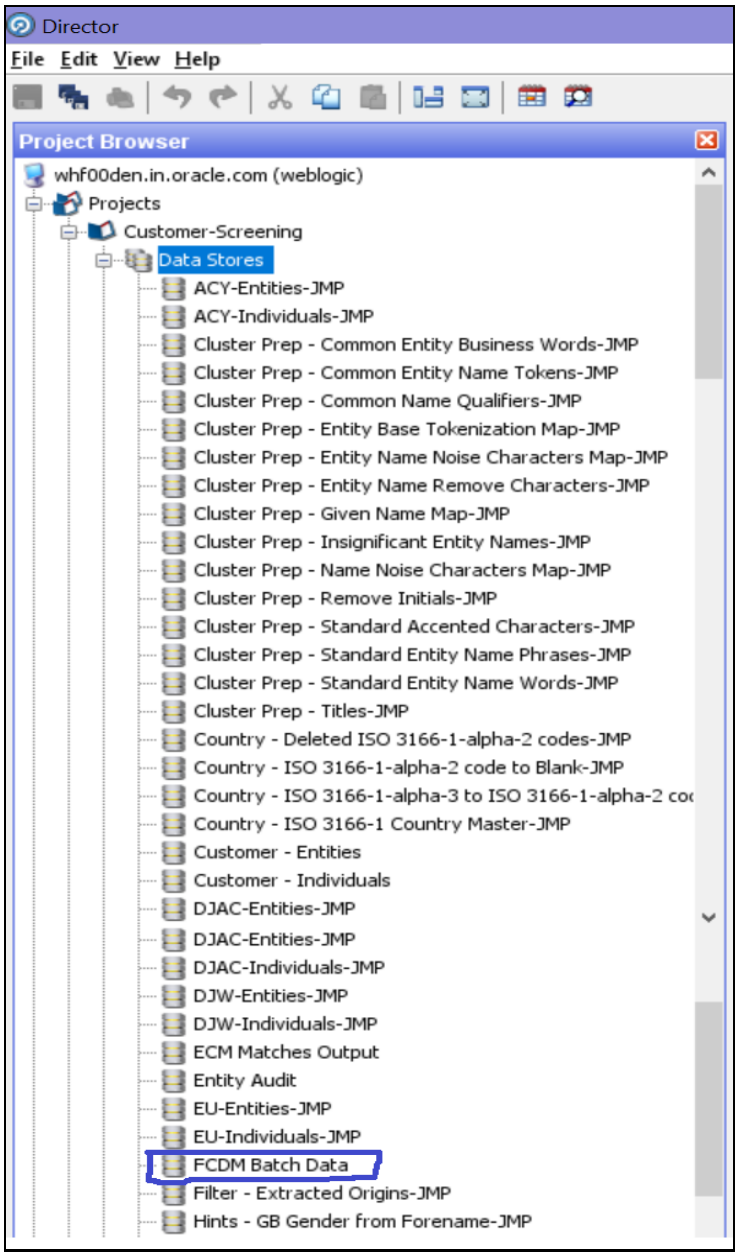
2. In the **Director** landing page, expand the **Customer-Screening** project in the **Project Browser** pane.

Figure 61: Project Browser Pane



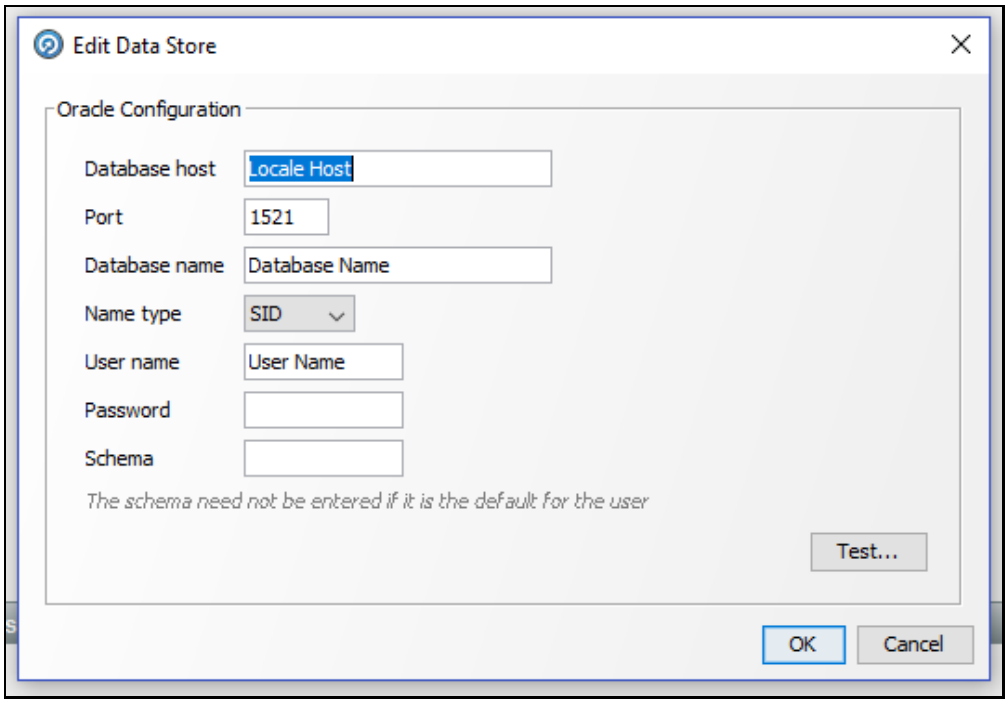
3. Expand the **Data Stores** node and open **FCDM Batch Data**. The **Edit Data Store** window appears.

Figure 62: Data Stores Node



4. In the **Edit Data Store** window, enter the database host, database name, user name, and password.

Figure 63: Edit Data Store for Staging Database Connection



NOTE

1. OEDQ release 12c has a base config folder and a local config folder. The base config folder is called `oedqhome` and the local config folder is called `oedqlocalhome`. The names may differ in some cases. For example, dots or underscores may be inserted in the names, such as `oedq_local_home`.
2. It is not necessary to enter the schema name if the user name mentioned is the schema owner.
3. The parameters can be passed as externalized values in the `runopsjob` command.

7.3 Enabling Customer and External Entity Tables

The FCDM Integration section of the `customer-screening.properties` and `external.entity.properties` run profile contains the following parameters. These files are available in the `<domain_name>/edq/oedq.local.home/runprofiles/` directory in the WinSCP server.

- `phase.Batch\ Screening\ FCDM.enabled`
- `phase.Snapshot\ External\ Entity\ Data.enabled`

To enable screening of the customer table, set `phase.Batch\ Screening\ FCDM.enabled` to **Y** and `phase.Snapshot\ External\ Entity\ Data.enabled` to **N**.

To enable screening of the external entity table, set `phase.Batch\ Screening\ FCDM.enabled` to **N** and `phase.Snapshot\ External\ Entity\ Data.enabled` to **Y**.

7.4 Data Preparation in FCDM

Before you prepare data for individuals and entities, there is an FCDM-specific data preparation process which needs to be performed. This process performs the following transformations:

- Splits records into individuals and entities based on Customer Type Code
- Creates additional rows of data for aliases
- Creates name attributes compatible with CDI
- Derives gender and year of birth for individuals

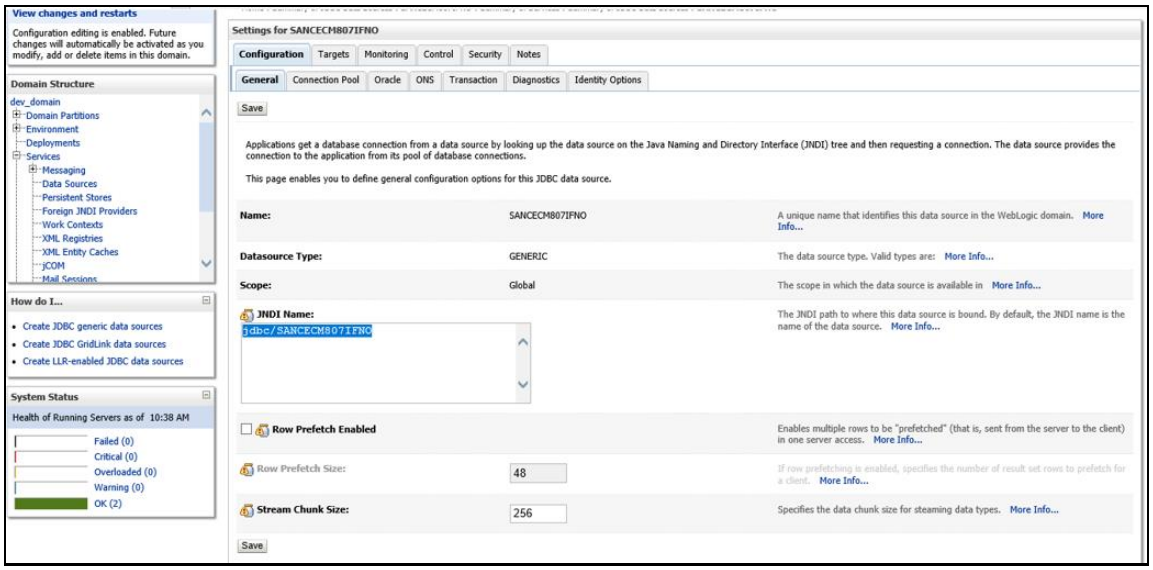
> **NOTE** The FCDM Data Preparation job is built on expected population of data in FCDM. This must be validated for each specific implementation and the process adapted if required.

7.4.1 Establishing a JDBC Database Connection using WebLogic

To set up a database connection using the WebLogic server, follow these steps:

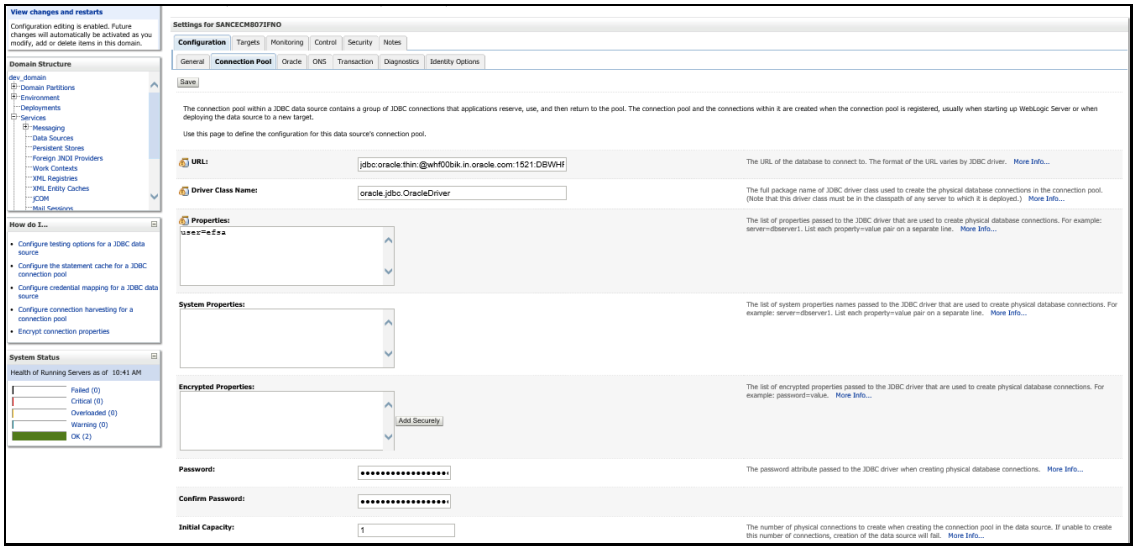
1. In the WebLogic server, provide the name of the JNDI directory in the **JNDI Name** field in the **General** subtab of the **Configurations** tab.

Figure 64: JNDI Name



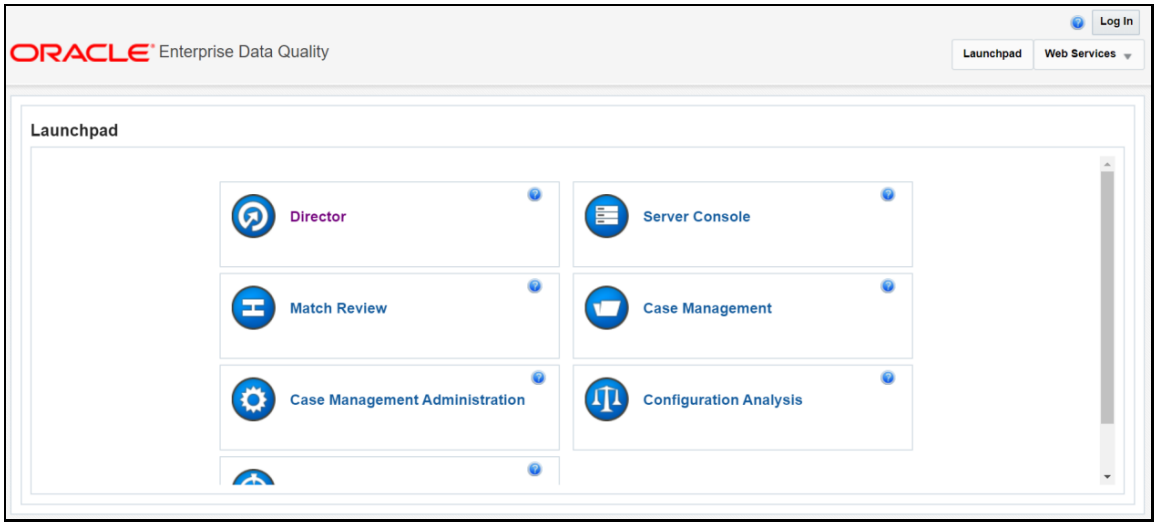
2. In the **Connection Pool** subtab, provide the connection details of the JDBC URL. Enter the JDBC URL in the **URL** field and the class name of the JDBC driver in the **Driver Class Name** field.

Figure 65: JDBC URL and Driver



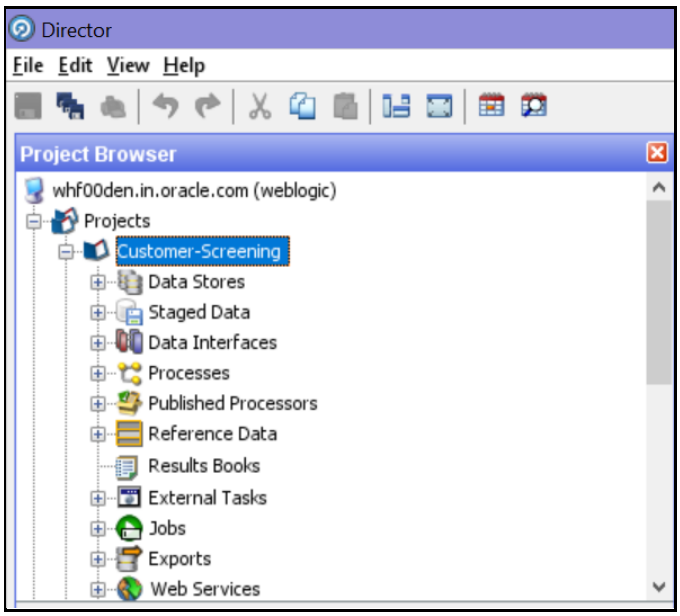
1. Go to the EDQ URL and open the **Director** menu. The **Director** landing page appears.

Figure 66: Director Menu in EDQ



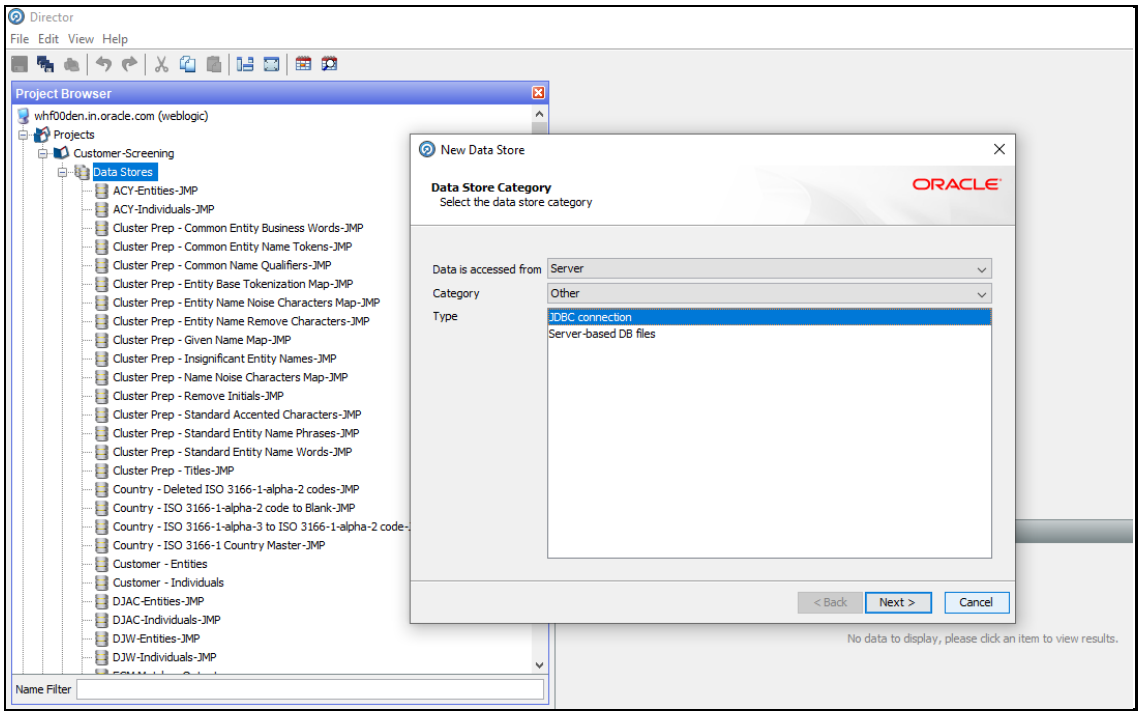
2. In the **Director** landing page, expand the **Customer-Screening** project in the **Project Browser** pane.

Figure 67: Project Browser Pane



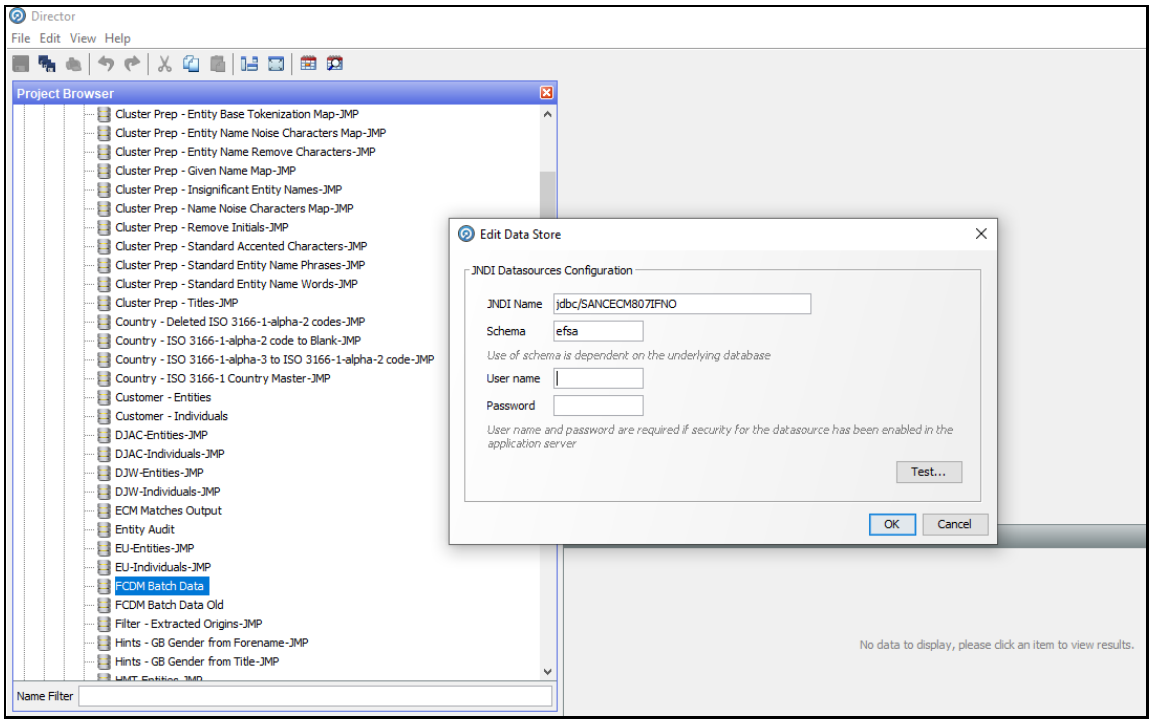
3. In the **Project Browser** pane, right-click **Data Stores** under the Customer-Screening project and then select **New Data Store**.

Figure 68: New Data Store



4. In the **New Data Store** window, select the type as **JDBC Connection** and click **Next**.

Figure 69: Edit Data Store



5. In the **Edit Data Store** window, enter the JDBC connection details.
6. Click **OK**.

You have now created a JDBC database connection.

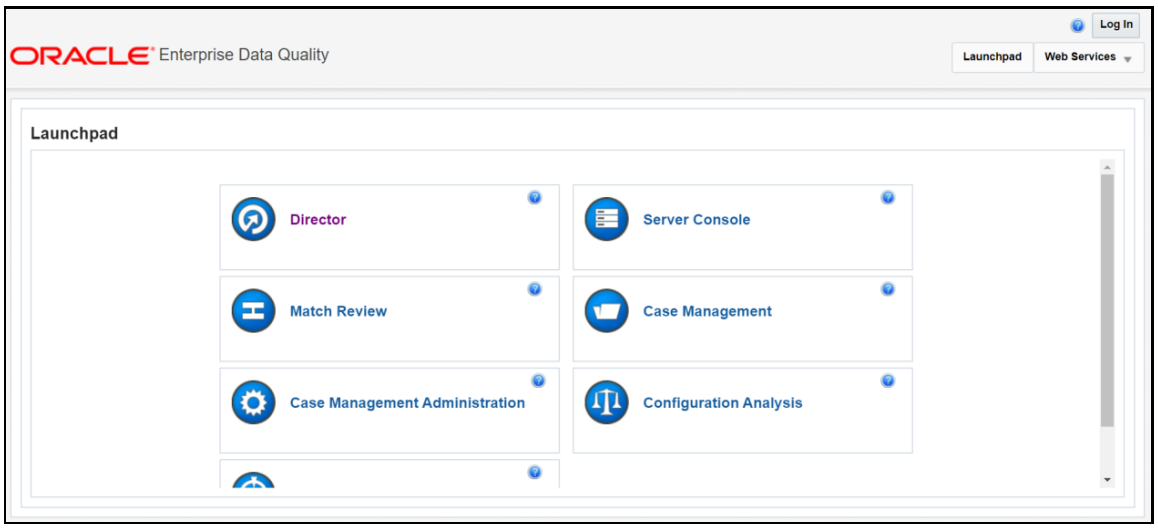
7.5 Analyzing the Data Quality of Customer Data and External Entity

Customer Screening is integrated with a Data Quality (DQ) check process which checks the quality of data in FCDM for screening. This process is run independently of the screening process and identifies potential issues with the customer and external entity data quality that can affect the screening efficiency. Run the `Analyze FCDM Customer Data Quality` job to analyze the data quality. This job checks data for any quality issues that can affect the screening efficiency.

To analyze the customer data, follow these steps:

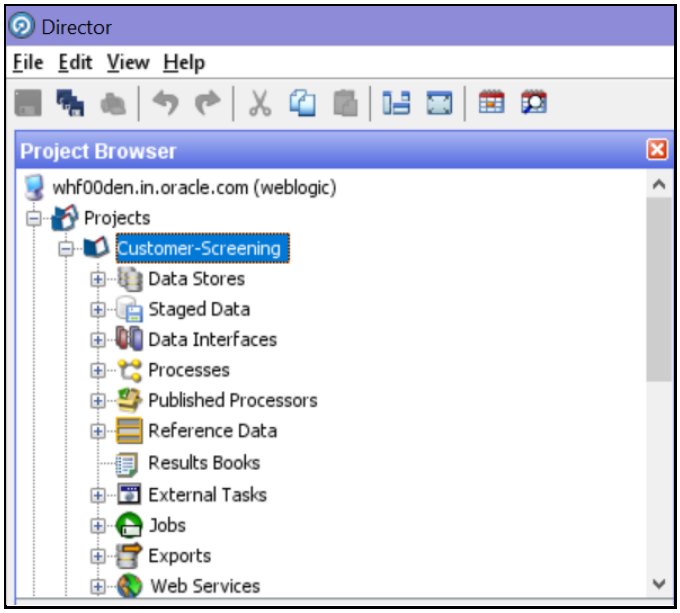
1. Ensure that data is loaded into FCDM and the **Customer-Screening** project has the correct database parameters.
2. Go to the EDQ URL and open the **Director** menu.

Figure 70: Director Menu in EDQ



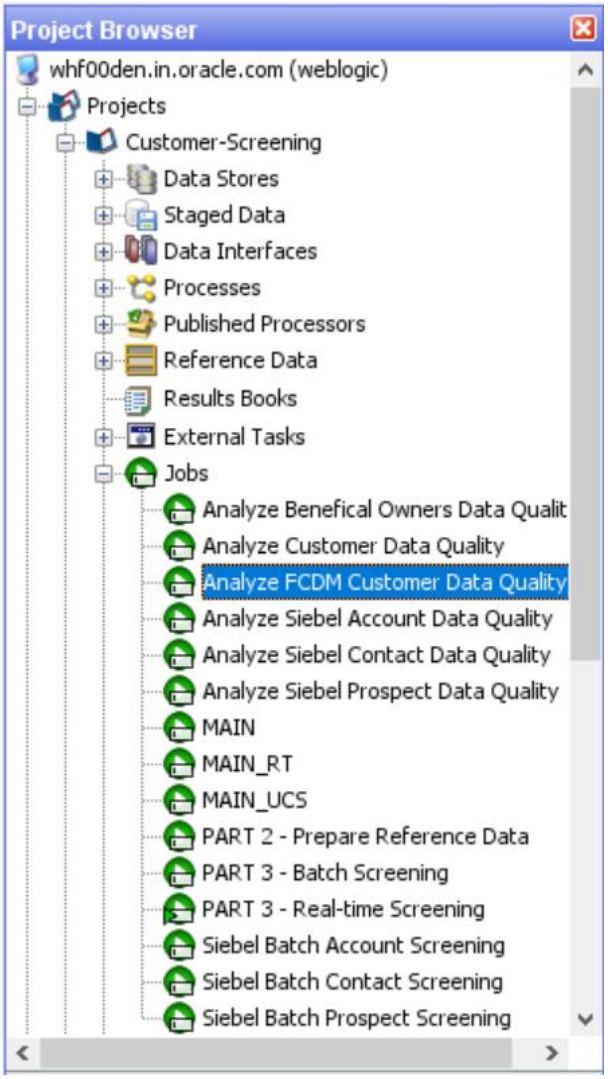
3. In the **Director** landing page, expand the **Customer-Screening** project in the **Project Browser** pane.

Figure 71: Project Browser Pane



4. Expand the **Jobs** node.
5. Right-click the `Analyze FCDM Customer Data Quality` job and click **Run**.

Figure 72: Jobs Node

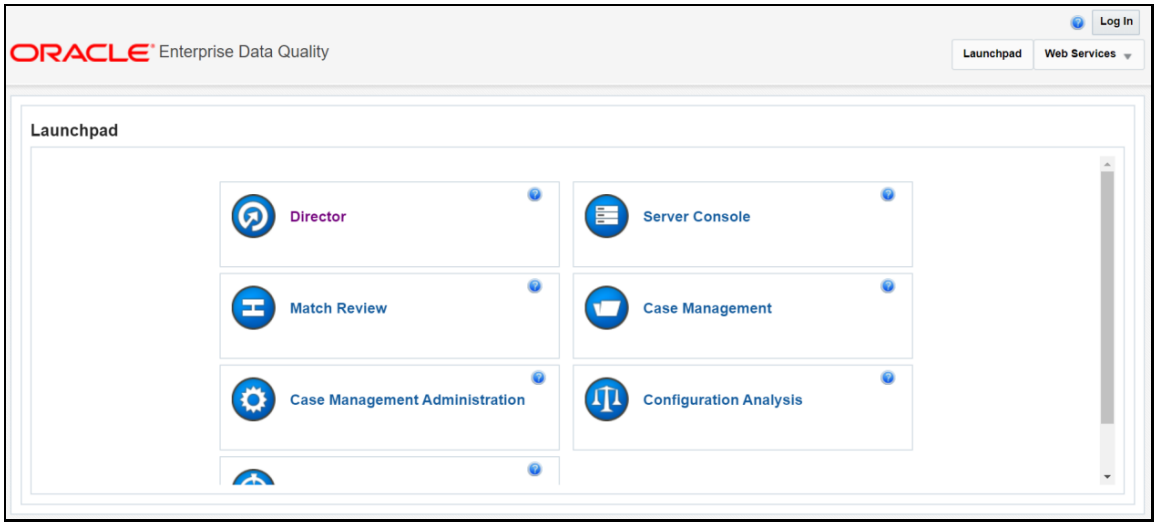


To analyze the external entity data, follow these steps:

1. Ensure that data is loaded into FCDM and the **Watch list Management** project has the correct database parameters.

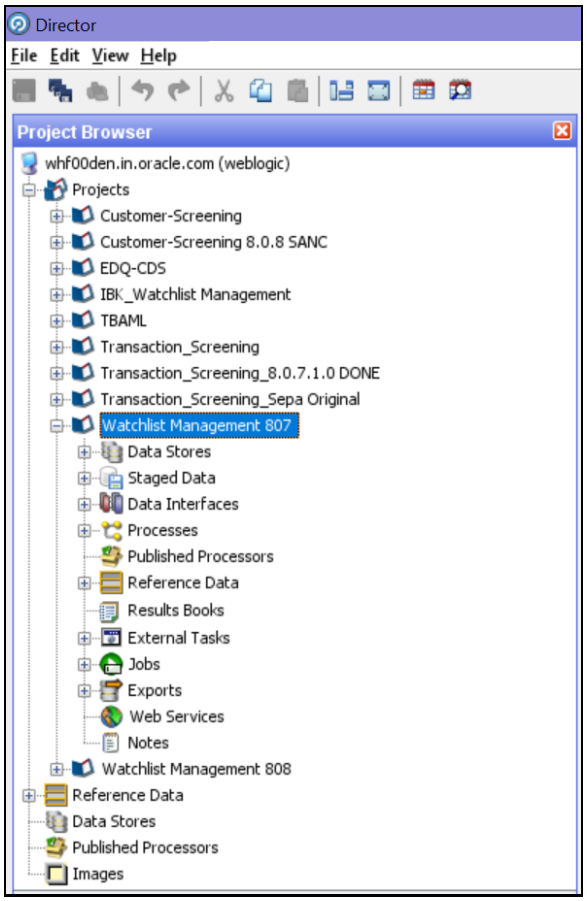
2. Go to the EDQ URL and open the **Director** menu.

Figure 73: Director Menu in EDQ



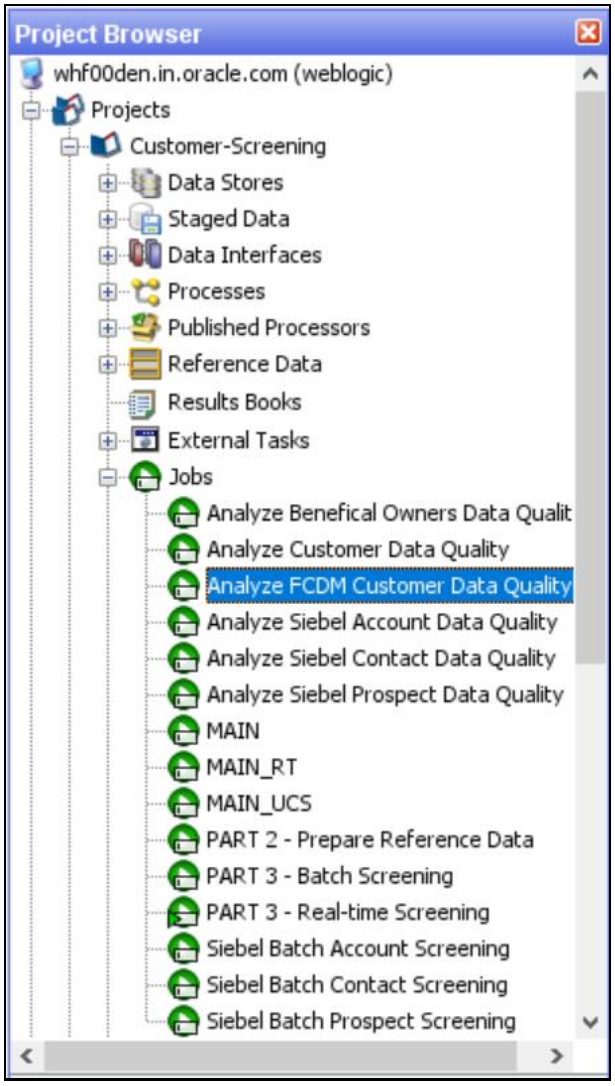
3. In the **Director** landing page, expand the **Watch list Management** project in the **Project Browser** pane.

Figure 74: Project Browser Pane



4. Expand the **Jobs** node.
5. Right-click the `Analyze FCDM Customer Data Quality` job and click **Run**.

Figure 75: Jobs Node



7.5.1 Data Quality Errors

For each Data Quality (DQ) error, a severity code is assigned, and it corresponds to the likely impact the issue will have on screening efficiency. The error codes and the associated messages that are displayed are based on the data analysis are shown in the following table.

Table 4: Severity Codes Assigned to Data Quality Errors

Severity Code	Data Quality Error
1	Severe data error which prevents screening.
2	Invalid data which will limit the effectiveness of screening.

Severity Code	Data Quality Error
3	Missing data which will limit the effectiveness of screening.
4	Invalid data which does not affect screening. Errors in this category will not affect the output of the match processor but can cause issues when manually evaluating any potential matches that are raised.

The data quality check analyses each row of data. If the analysis of any row results in a severity code of 1, it is rejected by the screening process. This is because there is a lack of data in the core attributes used by the screening process, and so screening cannot be performed.

The screening processes load data that cannot be screened into the `CUST_Individuals_Invalid staged data` or the `CUST_Entities_Invalid staged data` tables for the individual and external entity records, respectively. The error codes associated with each row are also stored in the database.

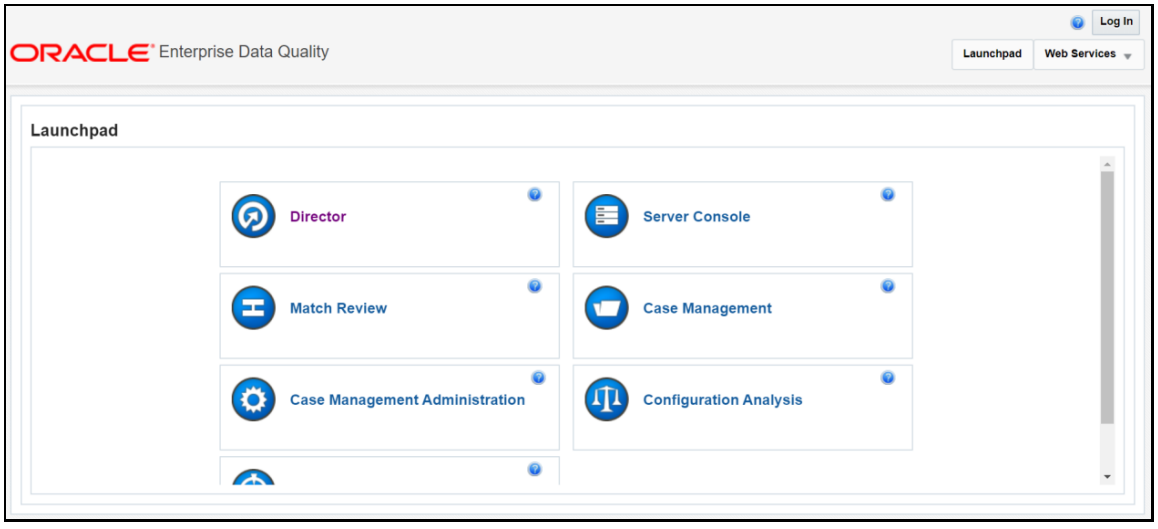
7.6 Extract Transform Load (ETL) Database Connection Details

After screening is run, relationships (matches) and watch list records are exported to the Customer Screening database, and this data is sent to ECM based on the connections configured in the data store.

To set the ETL database connection details, follow these steps

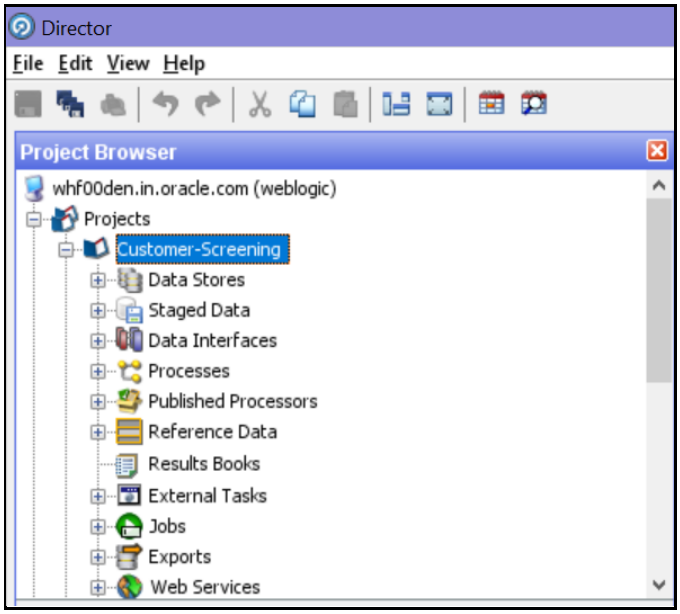
1. Go to the EDQ URL and open the **Director** menu.

Figure 76: Director Menu in EDQ



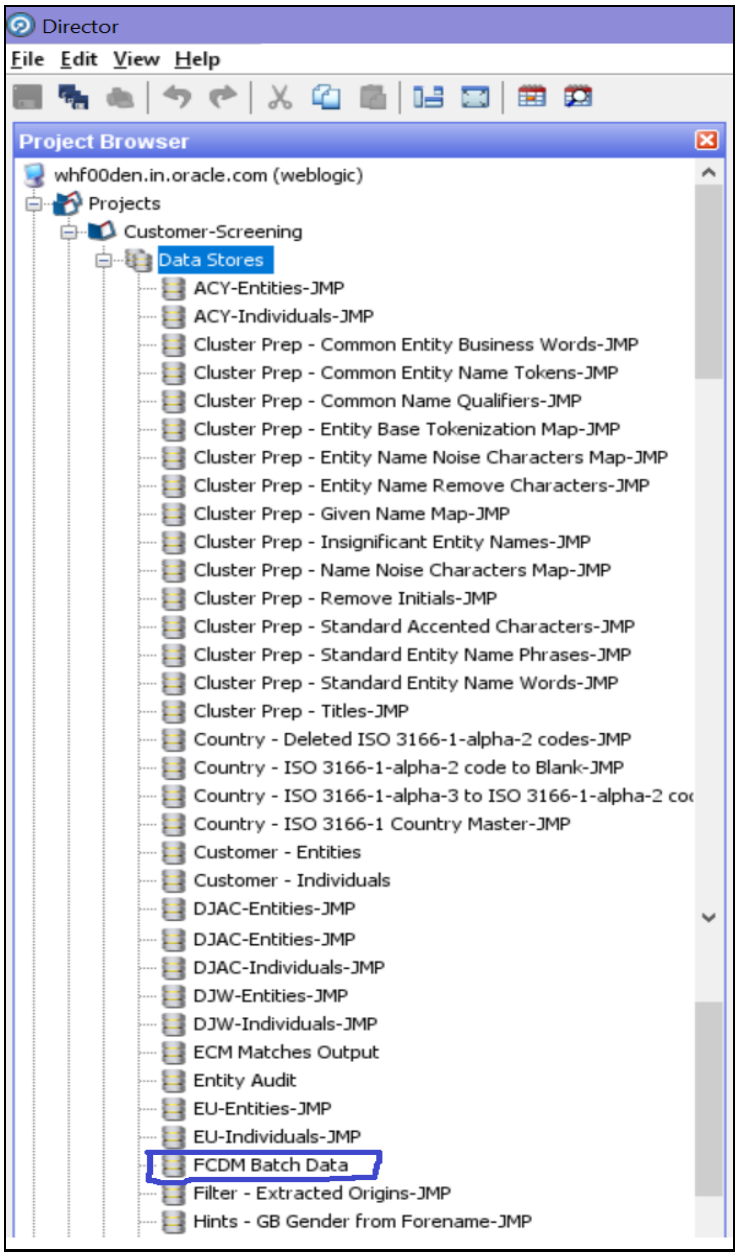
2. In the **Director** landing page, expand the **Customer-Screening** project in the **Project Browser** pane.

Figure 77: Project Browser Pane



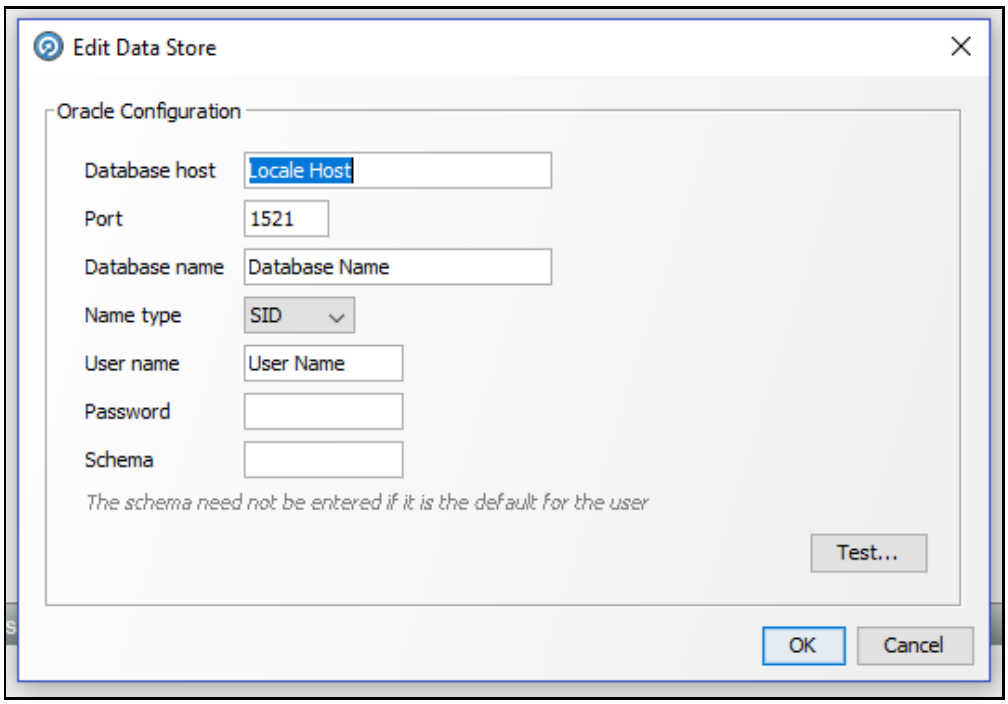
3. Expand the **Data Stores** node and open **FCDM Batch Data**. The **Edit Data Store** window appears.

Figure 78: Data Stores Node



4. In the **Edit Data Store** window, enter the database host, database name, user name, and password.

Figure 79: Edit Data Store for Staging Database Connection



NOTE

1. OEDQ release 12c has a base config folder and a local config folder. The base config folder is called `oedqhome` and the local config folder is called `oedqlocalhome`. The names may differ in some cases. For example, dots or underscores may be inserted in the names, such as `oedq_local_home`.
2. It is not necessary to enter the schema name if the user name mentioned is the schema owner.
3. The parameters can be passed as externalized values in the `runopsjob` command.

7.7 Running the Batch Screening Job

To source the data from the Financial Crime Data Model (FCDM) and run the FCDM data preparation process, disable the **MAIN** batch screening job phase and enable the FCDM version in the `customer screening.properties` and `external-entity-screening.properties` run profiles:

```
# Globally turns on/off batch screening types
phase.Batch\ Screening.enabled = N
phase.Batch\ Screening\ FCDM.enabled = Y
```

To export the data to the Customer Screening database these job phases must also be enabled:

```
phase.ECM\ Export\ Matches.enabled = Y
phase.ECM\ Export\ Watch list.enabled = Y
```

8 Appendix A: Screening Non-Latin Character Sets

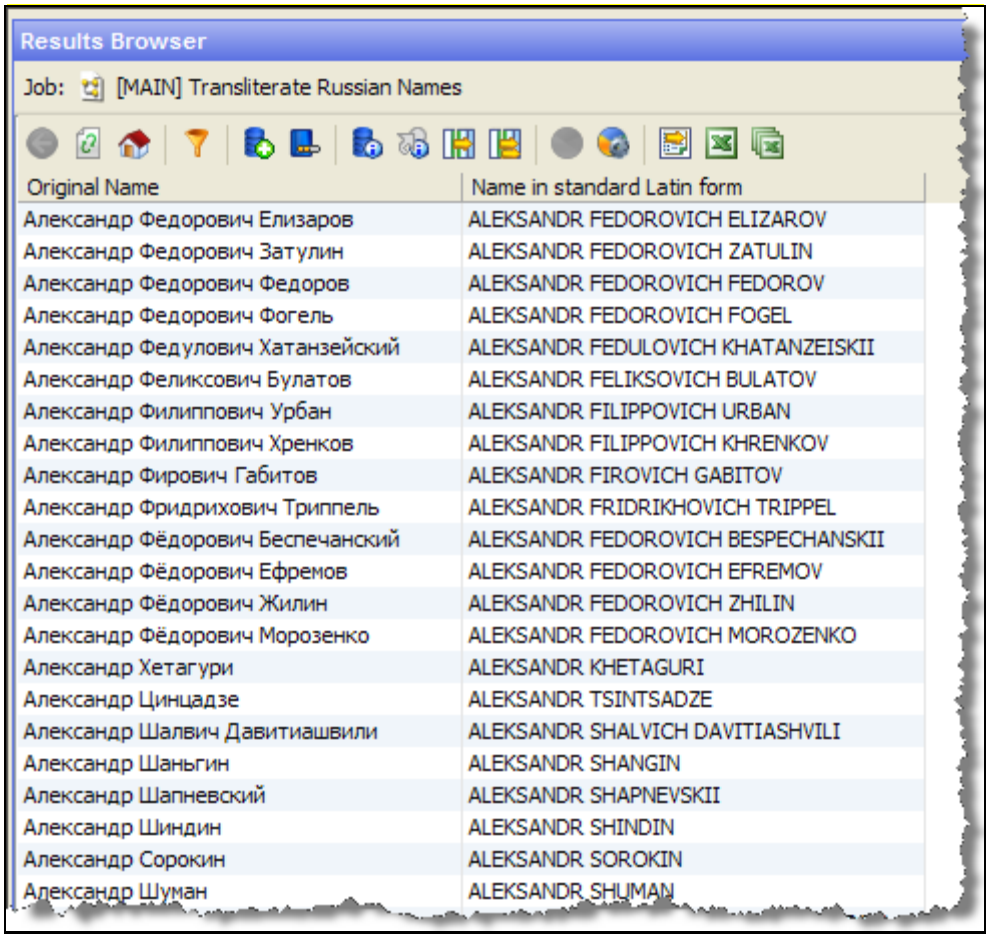
The reference data sources supported by Customer Screening are all provided in the Latin character set, and some in the original scripts. The screening process can also be used with non-Latin data. Non-Latin data can be screened against the Latin reference data sources which are supported by performing transliteration of data from the non-Latin character set to the Latin character set.

Non-Latin customer data can be screened against non-Latin reference data without any changes to the product, although certain fuzzy text matching algorithms may not be as effective when used to match data with the non-Latin character set. Text is processed on a left-to-right basis.

> **NOTE** You may have to install additional language packs to display non-Latin data. For more information, contact My Oracle Support (MOS).

The following screenshot shows the transliteration of Cyrillic to the Latin character set:

Figure 80: Non-Latin Character Set



Original Name	Name in standard Latin form
Александр Федорович Елизаров	ALEKSANDR FEDOROVICH ELIZAROV
Александр Федорович Затулин	ALEKSANDR FEDOROVICH ZATULIN
Александр Федорович Федоров	ALEKSANDR FEDOROVICH FEDOROV
Александр Федорович Фогель	ALEKSANDR FEDOROVICH FOGEL
Александр Федулович Хатанзейский	ALEKSANDR FEDULOVICH KHATANZEISKII
Александр Феликсович Булатов	ALEKSANDR FELIKSOVICH BULATOV
Александр Филиппович Урбан	ALEKSANDR FILIPPOVICH URBAN
Александр Филиппович Хренков	ALEKSANDR FILIPPOVICH KHRENKOV
Александр Фирович Габитов	ALEKSANDR FIROVICH GABITOV
Александр Фридрихович Триппель	ALEKSANDR FRIDRIKHOVICH TRIPPEL
Александр Фёдорович Беспечанский	ALEKSANDR FEDOROVICH BESPECHANSKII
Александр Фёдорович Ефремов	ALEKSANDR FEDOROVICH EFREMOV
Александр Фёдорович Жилин	ALEKSANDR FEDOROVICH ZHILIN
Александр Фёдорович Морозенко	ALEKSANDR FEDOROVICH MOROZENKO
Александр Хетагури	ALEKSANDR KHETAGURI
Александр Цинцадзе	ALEKSANDR TSINTSADZE
Александр Шалвич Давитиашвили	ALEKSANDR SHALVICH DAVITIASHVILI
Александр Шаньгин	ALEKSANDR SHANGIN
Александр Шапневский	ALEKSANDR SHAPNEVSKII
Александр Шиндин	ALEKSANDR SHINDIN
Александр Сорокин	ALEKSANDR SOROKIN
Александр Шуман	ALEKSANDR SHUMAN

8.1 Original Script Matching

To match the original script data against reference data, follow these steps:

1. Prepare customer and external entity data such that non-Latin names are populated in the Original Script Name fields.
2. Enable Original Script Name match rules and clusters.

For more information, see the Oracle Financial Services Customer Data Interfaces Guides.

> **NOTE** You must make changes to the FCDM Customer Preparation process to support original script matching. For more information, contact My Oracle Support (MOS).

9 Appendix B: Reference Data Tables for Watch Lists

This appendix lists the reference data tables which are available in Customer Screening. These tables contain data that is used to calculate the risk scores and PEP risk scores. The reference data tables are stored in the `Watch list Management` project.

The following table has information on the different reference data tables which contain risk score values used by each watch list.

Table 5: Reference Data Tables for Watch Lists

Screening Process or Watch List	Reference Data Table Used
Multiple screening processes	The following reference data table contains risk score values used by multiple screening processes: • Risk - ISO 3166-1 Country to Risk Score (used by the lookup Risk - ISO 3166-1-alpha-2 code to Risk Score) is used to derive a risk score from a country code
Country prohibition screening process	The following reference data tables contain risk score values used in the country prohibition screening process: • Country Prohibitions - Entities • Country Prohibitions - Individuals
Dow Jones watch list (DJW)	The following reference data tables contain risk score values used when calculating risk scores for the Dow Jones watch list records: • DJW Occupation Category • DJW List Provider Risk Scores • DJW SI Category Description • DJW SI Category
Dow Jones Anti-Corruption (DJAC) watch list	The following reference data tables contain risk score values used when calculating risk scores for the Dow Jones watch list records: • DJAC Occupation Category • DJAC List Provider Risk Scores • DJAC SI Category Description
EU watch list	There are no reference data tables containing risk score values used only for calculating risk scores for the EU watch list records.
HM Treasury watch list	The `HMT Regime` reference data table contains risk score values used when calculating risk scores for the HM Treasury watch list records.
OFAC watch list	The `OFAC SDN Program` reference data table contains risk score values used when calculating risk scores for the OFAC watch list records.
UN watch list	The `UN List Type` reference data table contains risk score values used when calculating risk scores for the UN watch list records.

Screening Process or Watch List	Reference Data Table Used
World-Check (WC) watch list	The following reference data tables contain risk score values used when calculating risk scores for the World-Check watch list records: • WC Category • WC Keyword (used by the lookup WC Keyword - Risk Score Lookup)
Accuity watch list	The following reference data tables contain risk score values used when calculating risk scores for the Accuity watch list records: • Accuity Program Sub-Category Risk Scores • Accuity Source Risk Scores
NA	The `Risk – Risk Element Weighting` reference data table contains the weightings used when calculating a record risk score from the various contributing elements.

10 Appendix C: Preconfigured Watch List Information

This appendix contains details of each of the pre-configured watch lists that can be used by Customer Screening.

10.1 HM Treasury Watch List

The HM Treasury publishes a sanctions list that can be used for screening in Customer Screening. The sanctions list provides a consolidated list of targets listed by the United Nations, European Union, and the United Kingdom under legislation relating to current financial sanctions regimes. For more information, visit the HM Treasury website.

Customer Screening uses the watch list in a semi-colon delimited form. Click the following link to download the `.csv` file.

https://ofsistorage.blob.core.windows.net/publishlive/ConList.csv

10.2 OFAC Watch List

The US Treasury's Office of Foreign Assets Control (OFAC) administers and enforces economic and trade sanctions based on US foreign policy and national security goals against targeted foreign countries, terrorists, international narcotics traffickers, and those engaged in activities related to the proliferation of weapons of mass destruction. For more information, visit the Treasury website.

Customer Screening supports the OFAC Specially Designated Nationals and OFAC Consolidated Sanctions watch lists.

The OFAC Specially Designated Nationals (SDN) watch list must be downloaded in three parts:

https://www.treasury.gov/ofac/downloads/sdn.csv

https://www.treasury.gov/ofac/downloads/add.csv

https://www.treasury.gov/ofac/downloads/alt.csv

The OFAC Consolidated Sanctions List watch list must be downloaded in three parts:

https://www.treasury.gov/ofac/downloads/consolidated/cons_prim.csv

https://www.treasury.gov/ofac/downloads/consolidated/cons_add.csv

https://www.treasury.gov/ofac/downloads/consolidated/cons_alt.csv

10.3 EU Watch List

The European Union applies sanctions or restrictive measures to achieve certain objectives as mentioned in the Common Foreign and Security Policy (CFSP) and defined in Article 11 of the Treaty on the European Union. The European Commission offers a consolidated list containing the names and identification details of all persons, groups, and entities targeted by these financial restrictions. For more information, visit the European Commission website.

To download the consolidated list, follow these steps:

1. Go to https://webgate.ec.europa.eu/europeaid/fsd/fsf#!/account and create a user name and password to the site.
2. Navigate to https://webgate.ec.europa.eu/europeaid/fsd/fsf#!/files and open the settings for the crawler file.
3. Copy the URL for 1.0 XML (Based on XSD). This will be in the format `https://webgate.ec.europa.eu/europeaid/fsd/fsf/public/files/xmlFullSanctionsList/content?token=[username]`. You must replace the `[username]` placeholder with the user name you have created.
4. Enter this URL in your run profile or download task.

10.4 UN Consolidated Watch List

The United Nations (UN) or United Nations Security Council consolidated list is a watch list that includes all individuals and entities who are subject to sanctions measures imposed by the Security Council. For more information, visit the UN Security Council website.

Download the consolidated list from https://www.un.org/sc/suborg/sites/www.un.org.sc.suborg/files/consolidated.xml.

10.5 World-Check Watch List

The World-Check watch list provides a subscription-based service and offers a consolidated list of Politically Exposed Persons (PEPs) and entities and individuals appearing on the HM Treasury, OFAC, and other world lists. Three levels of subscription are provided: Standard, Premium, and Premium+. Some features of the World-Check lists are only available to users with a higher subscription level. For more information, visit the World-Check website.

To download the World-Check Premium+ feed subscription service, set the following values in the WC Setup section of the `watch list-management.properties` run profile:

```
phase.WC\ -\ Download.enabled = Y
phase.WC\ -\ Download\ native\ aliases.enabled = Y
phase.WC\ -\ Stage\ reference\ lists.enabled = Y
phase.*.process.*.use_accelus_url = Y
```

To download the Standard or Premium feed subscription services, set the following values in the WC Setup section of the `watch list-management.properties` run profile:

```
phase.WC\ -\ Download.enabled = Y
phase.WC\ -\ Download\ native\ aliases.enabled = N
```

```
phase.WC\ -\ Stage\ reference\ lists.enabled = Y
phase.*.process.*.use_accelus_url = Y
```

When the parameters are set to **Y**, the watch list data is downloaded from the following URL:

https://app.accelus.com/#accelus/fsp/%7B%22location%22%3A%22%3Flocale%3Den-US%23fsp%2Fquickid%2F

When the parameters are set to **N**, the watch list data is downloaded from the following URL:

https://www.world-check.com/frontend/profile/

> **NOTE** If your instance of Oracle Financial Services Customer Screening uses the WebLogic application server and you use the World-Check watch list to screen individuals and entities, then you must add the `-DUseSunHttpHandler=true` script to the Server Start arguments of your EDQ server to download the World-Check watch list data.

10.6 Dow Jones Watch List

The Dow Jones watch list provides a subscription-based service and offers a consolidated list of PEPs (Politically Exposed Persons) and entities and individuals appearing on the various sanctions lists. For more information, visit the Dow Jones website.

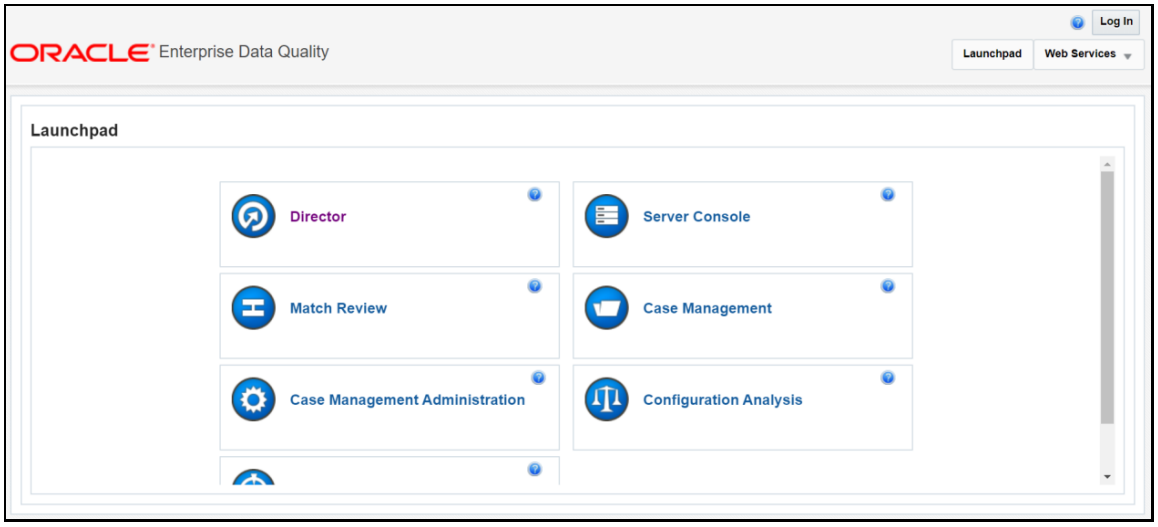
You can automate the download of the Dow Jones watch list using the following script files that are provided with Customer Screening to configure the download process:

```
download-djw.sh (for use on Unix platforms)
download-djw.bat (for use on Windows platforms)
```

The script files are used by the automated task to download the data files and copy them to the Oracle Enterprise Data Quality (OEDQ) landing area. The script files must be modified to provide the download URL and the proxy server details for your Internet connection as follows:

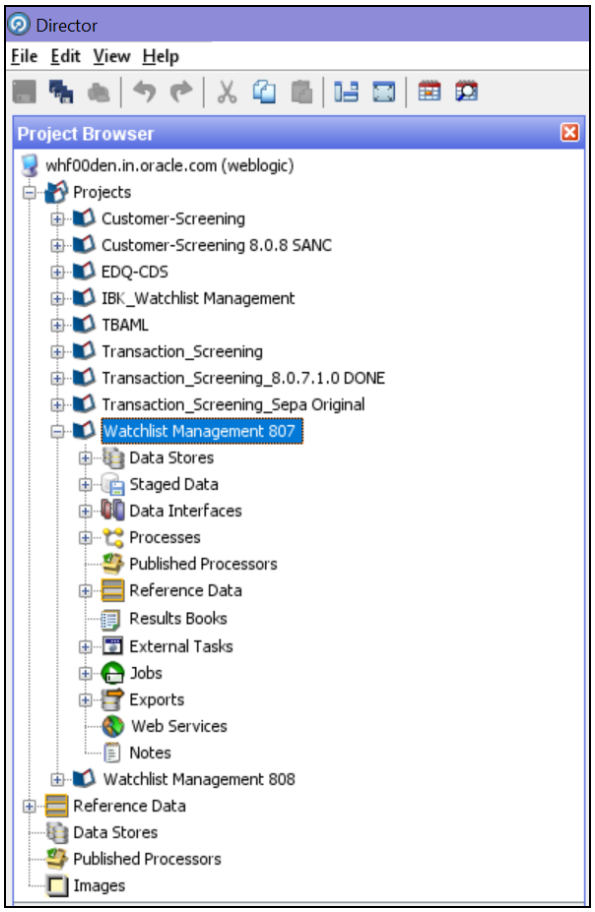
1. Go to the EDQ URL and open the **Director** menu.

Figure 81: Director Menu in EDQ



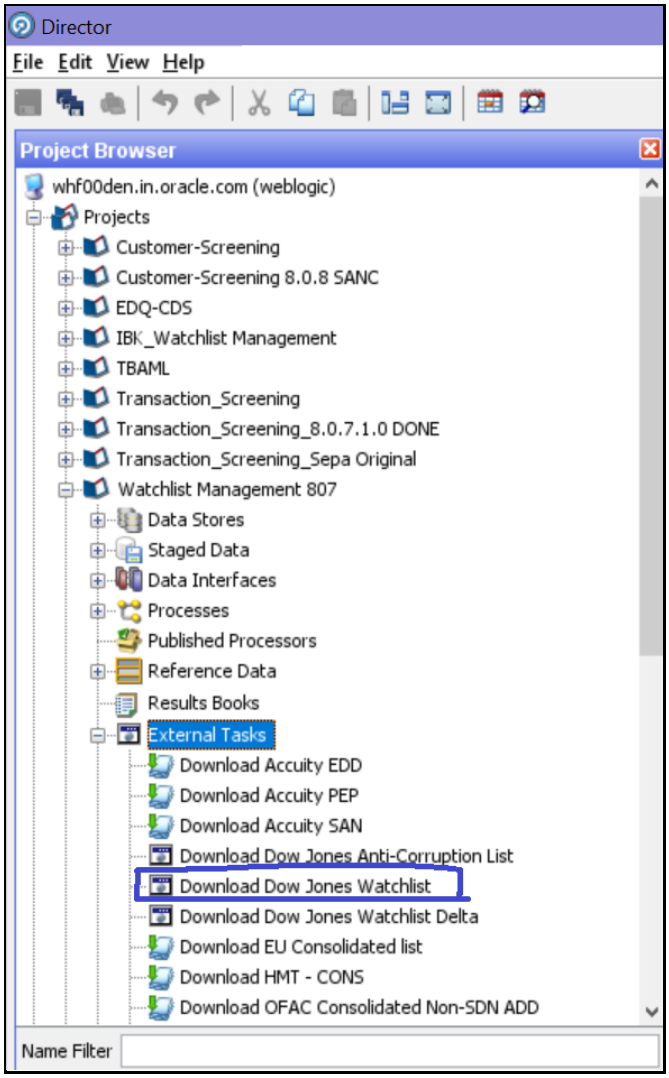
2. In the **Director** landing page, expand the **Watch list Management** project in the **Project Browser** pane.

Figure 82: Project Browser Pane



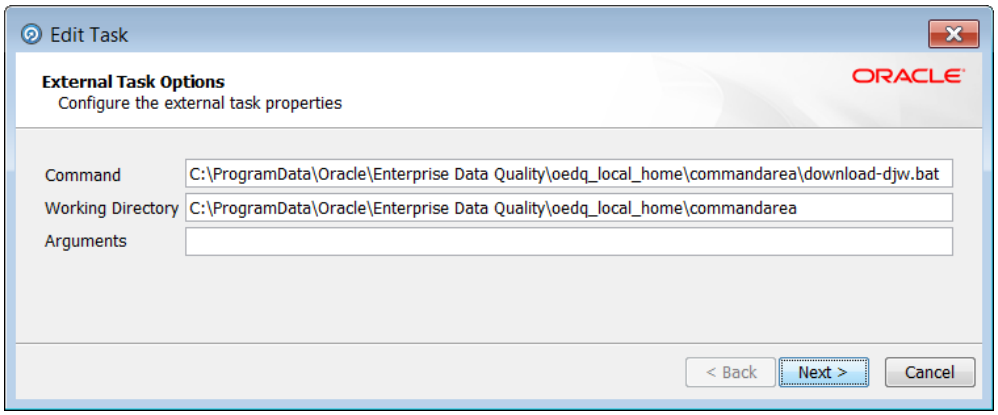
3. Expand the **External Tasks** node for the `Watch list Management` project and then double-click on the **Download Dow Jones Watch list** task.

Figure 83: External Tasks Node



4. Configure the external task to call the batch or shell file by providing the directory and related command as shown:

Figure 84: Edit Task Window for the Dow Jones Watch List



5. Configure your `PATH` system variable to include the path to your Java installation.
6. Add the user name and password and the proxy server configuration details for Dow Jones in the batch or script file.

10.7 Dow Jones Anti-Corruption Watch List

The Dow Jones Anti-Corruption watch list provides a subscription-based service that contains information to help you assess, investigate, and monitor third-party risk with regards to the anti-corruption compliance regulation. For more information, visit the Dow Jones website.

You can automate the download of the Dow Jones watch list using the following script files that are provided with Customer Screening to configure the download process:

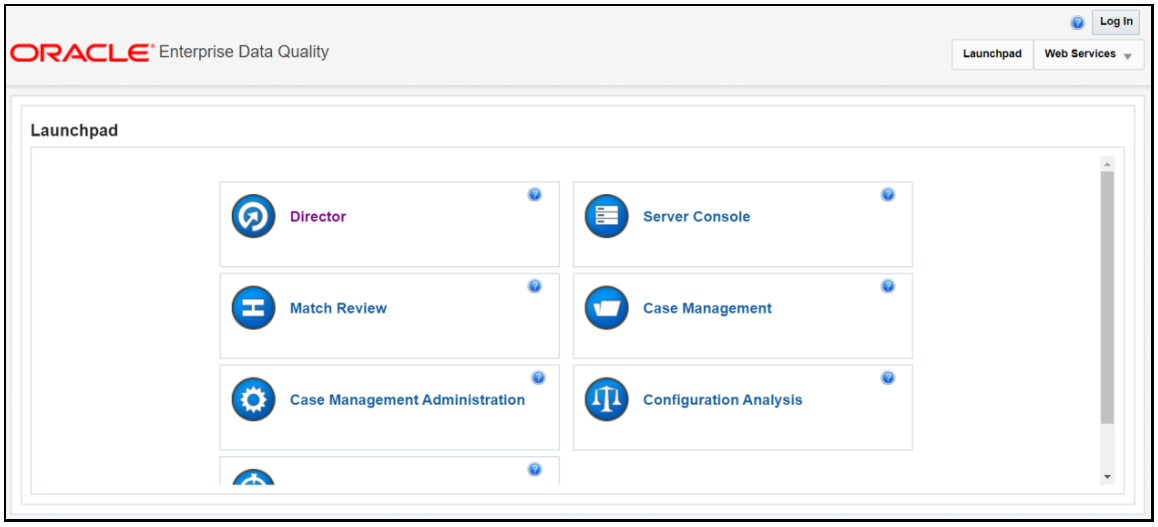
`download-djac.sh (for use on Unix platforms)`

`download-djac.bat (for use on Windows platforms)`

The script files are used by the automated task to download the data files and copy them to the Oracle Enterprise Data Quality (OEDQ) landing area. The script files must be modified to provide the download URL and the proxy server details for your Internet connection as follows:

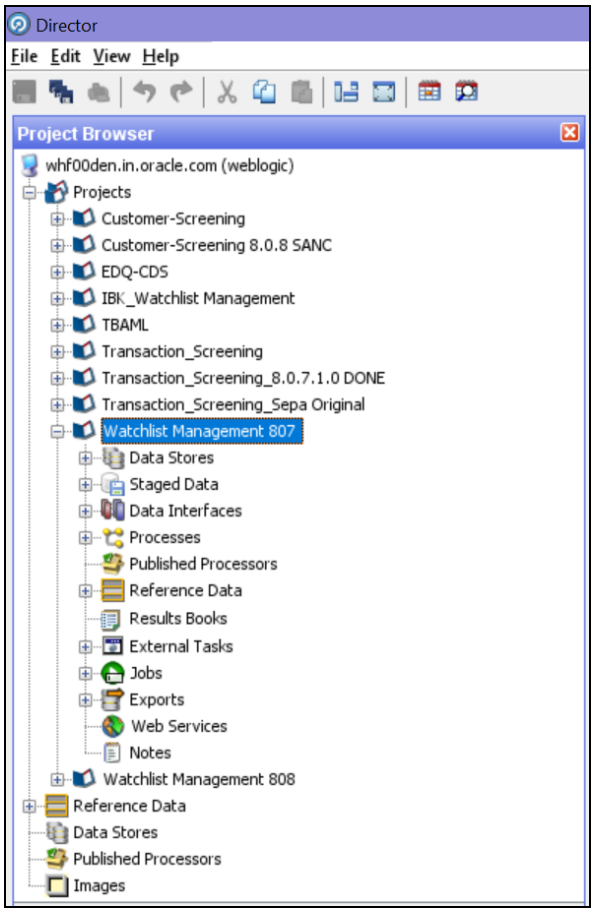
1. Go to the EDQ URL and open the **Director** menu.

Figure 85: Director Menu in EDQ



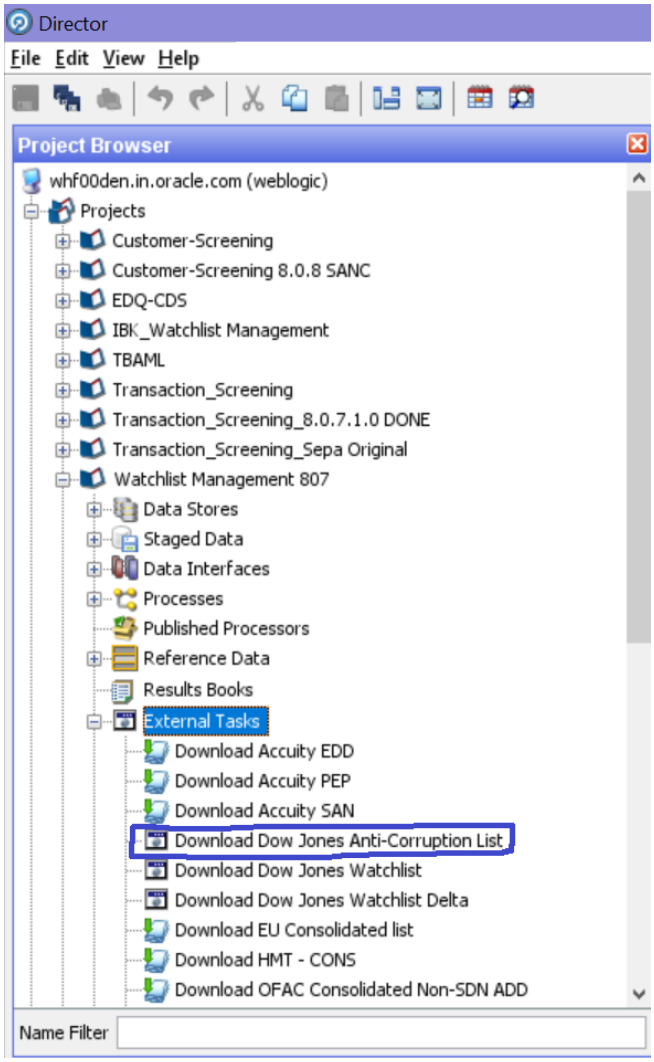
2. In the **Director** landing page, expand the **Watch list Management** project in the **Project Browser** pane.

Figure 86: Project Browser Pane



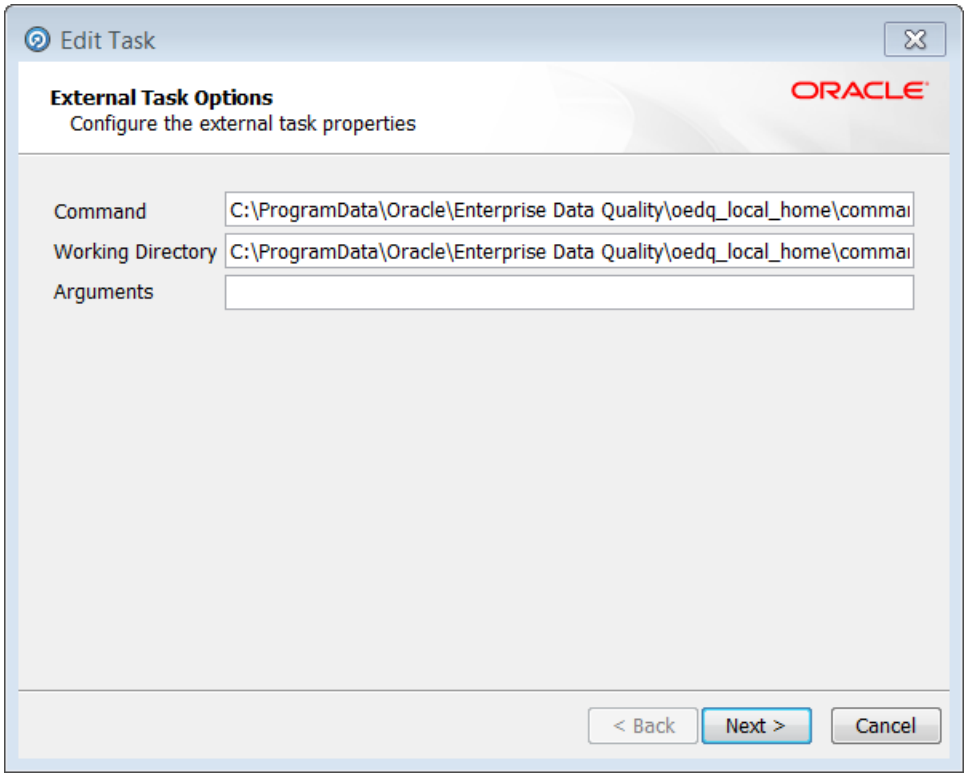
3. Expand the **External Tasks** node for the `Watch list Management` project and then double-click on the **Download Dow Jones Anti-Corruption List** task.

Figure 87: External Tasks Node



4. Configure the external task to call the batch or shell file by providing the directory and related command as shown:

Figure 88: Edit Task Window for the Dow jones Anti-Corruption Watch List



5. Configure your `PATH` system variable to include the path to your Java installation.
6. Add the user name and password and the proxy server configuration details for Dow Jones Anti-Corruption in the batch or script file.

10.8 Accuity Watch List

The Accuity global watch list is a subscription-based service. The Accuity watch list's proprietary collection of watch list screening databases is an aggregation of specially designated individuals and entities compiled from dozens of regulatory and enhanced due diligence lists from around the world. This watch list provides the ideal framework for your customer screening and interdiction filtering processes. For more information, visit the Accuity website.

Accuity provides aggregated data in the following watch lists:

- The Regulatory Due Diligence (RDD) watch list, which covers sanctioned entities and individuals. You can use the Accuity Group File with this list. For more information, see Using the Accuity Group File.
- The Enhanced Due Diligence (EDD) watch list, which covers entities and individuals who are not part of the regulatory sanctions lists, but whose activity must be monitored.
- The Politically Exposed Persons (PEPs) Due Diligence Database watch list, which covers PEP individuals.

10.8.1 Using the Accuity Group File

The Accuity global Watch list is created by aggregating multiple watch lists. As such, any given individual or entity can be represented in the watch list by multiple entries using the `GROUP.XML` file.

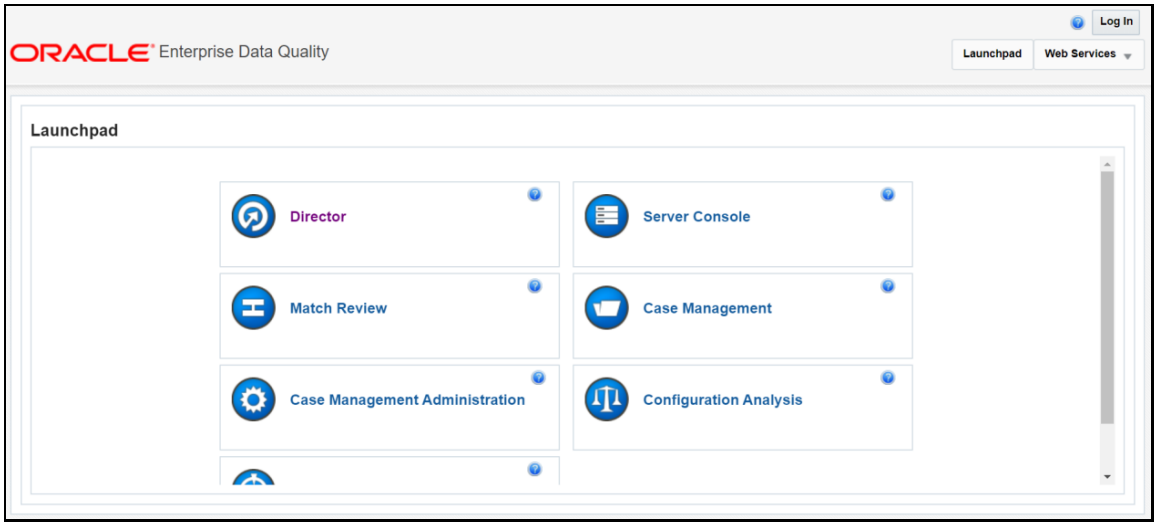
In the `GROUP.XML` file, all records which represent the same individual or entity are collected into groups, and each group is assigned a unique group ID. The group ID has a unique identifier to differentiate it from the original record identifier in Enterprise Case Management (ECM). Records that are not included in the group use their original Accuity record ID with a different identifier to indicate that they are single records.

> **NOTE** Only entities and individuals on the Regulatory Due Diligence (RDD) watch lists are included in the group file.

The group file allows you to generate cases on individuals who are grouped together, instead of generating cases on separate individuals. To use the group file for individuals, follow these steps:

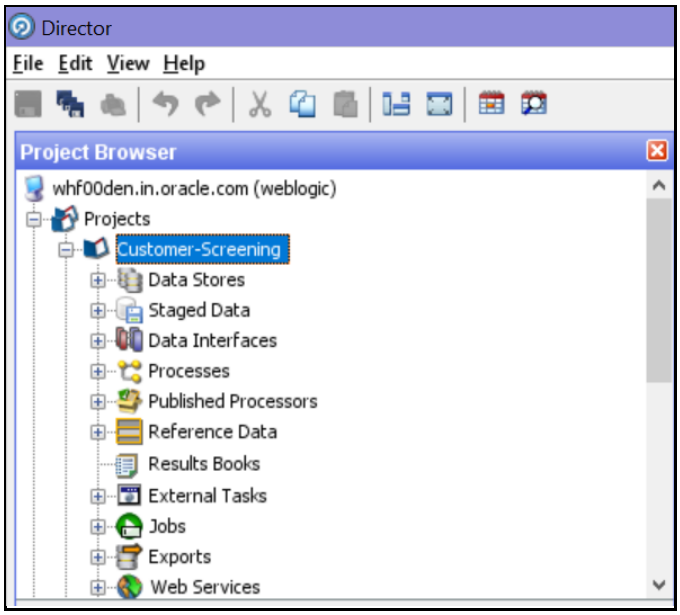
1. Go to the EDQ URL and open the **Director** menu.

Figure 89: Director Menu in EDQ



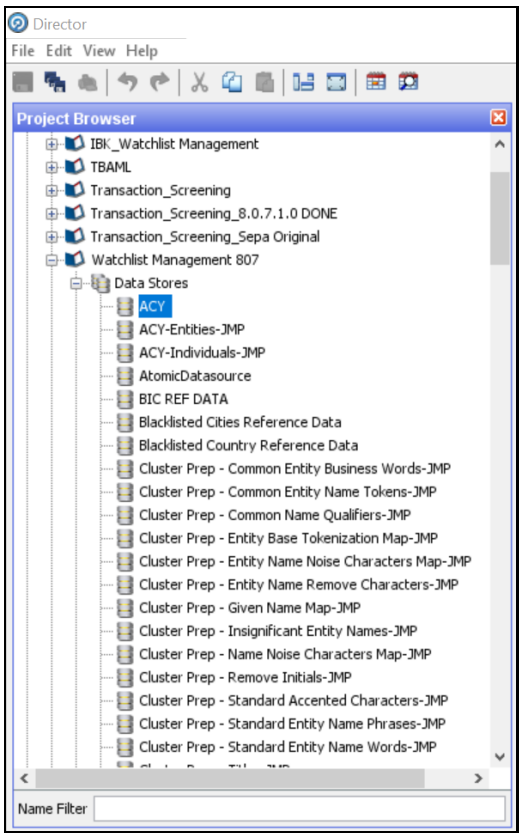
2. In the **Director** landing page, expand the **Customer-Screening** project in the **Project Browser** pane.

Figure 90: Project Browser Pane



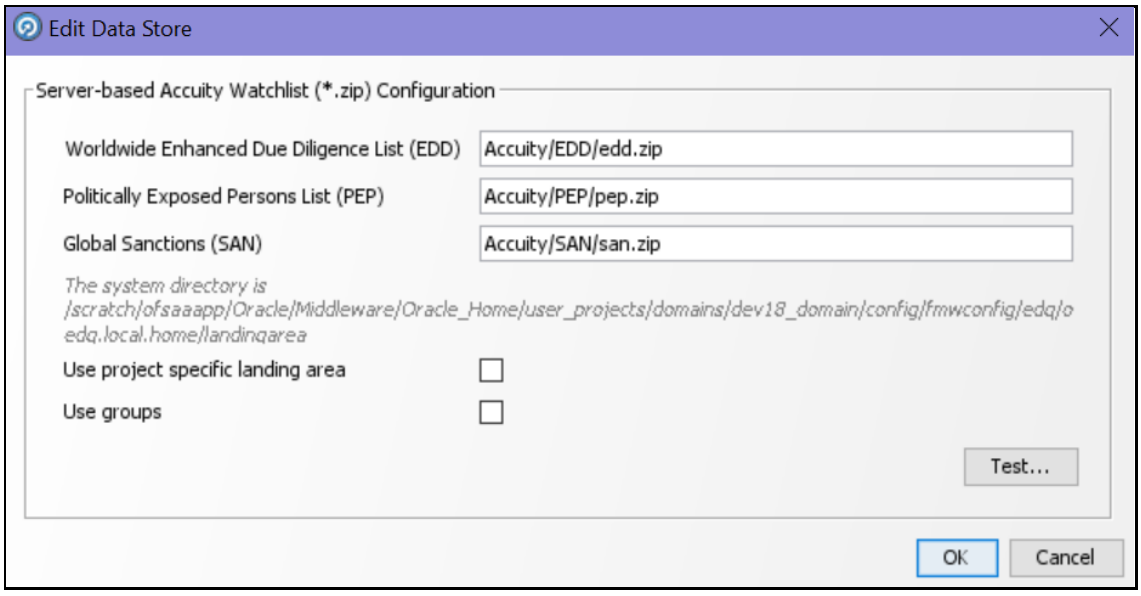
3. Expand the **Data Stores** node and then double-click the **ACY** node.

Figure 91: Data Stores Node



4. In the **Edit Data Store** window, deselect the **Use groups** checkbox.

Figure 92: Edit Data Store Window for the Accuity Watch List



5. Configure your `PATH` system variable to include the path to your Java installation.

6. Add the user name and password and the proxy server configuration details for Accuity in the batch or script file.

> **NOTE** If the **Use groups** checkbox is selected, you must have downloaded the `GROUP.XML` file.

10.8.1.1 New Alerts Resulting from Use of the Group File

When you use the `GROUP.XML` file, the original record identifier for a record is replaced with the group ID of the record. Any change to the original record identifier will result in new alerts being generated for existing and known matches. This can happen in the following scenarios:

- If Individuals or entities are moved into, out of, or between groups, then new alerts are generated for existing matches.
- If the setting of the **Use groups** checkbox is changed after alerts or cases are generated.

> **WARNING** Do not alter the setting of the **Use groups** checkbox during the implementation phase of the project.

10.8.2 Configuring the .sh File

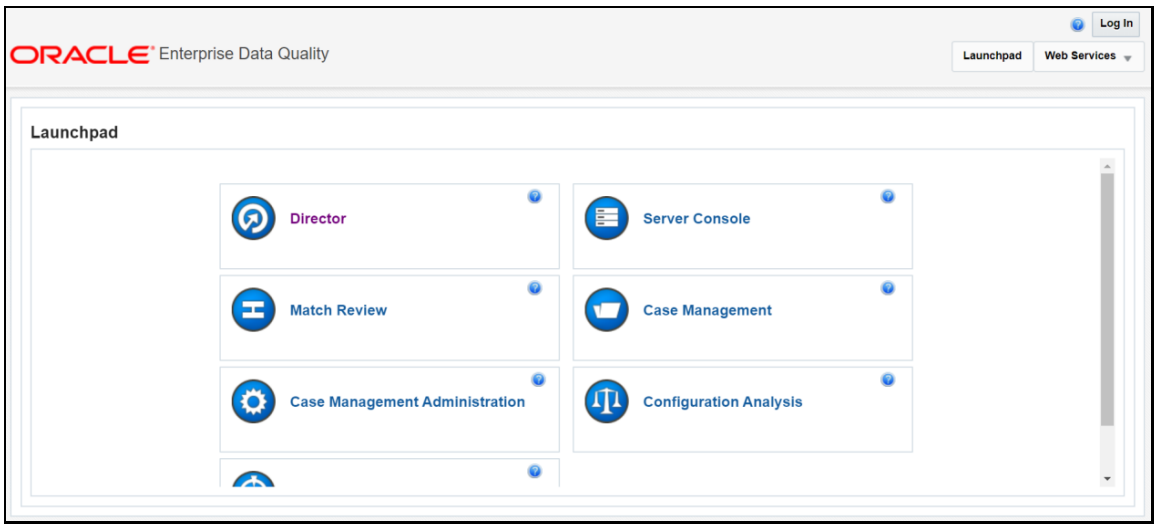
You can automate the download of the Accuity watch list using the following script files that are provided with Customer Screening to configure the download process:

- download-acy-edd.sh
- download-acy-pep.sh
- download-acy-san.sh

The script files are used by the automated task to download the data files and copy them to the Oracle Enterprise Data Quality (OEDQ) landing area. The script files must be modified to provide the download URL and the proxy server details for your Internet connection as follows:

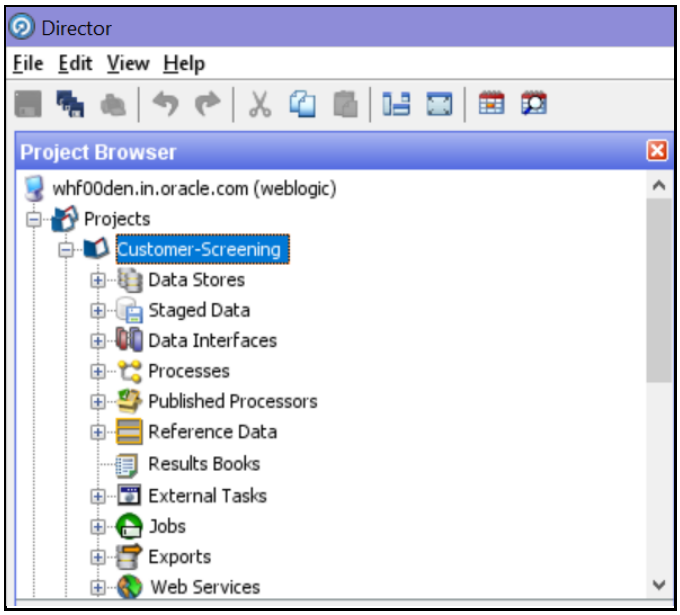
1. Go to the EDQ URL and open the **Director** menu.

Figure 93: Director Menu in EDQ



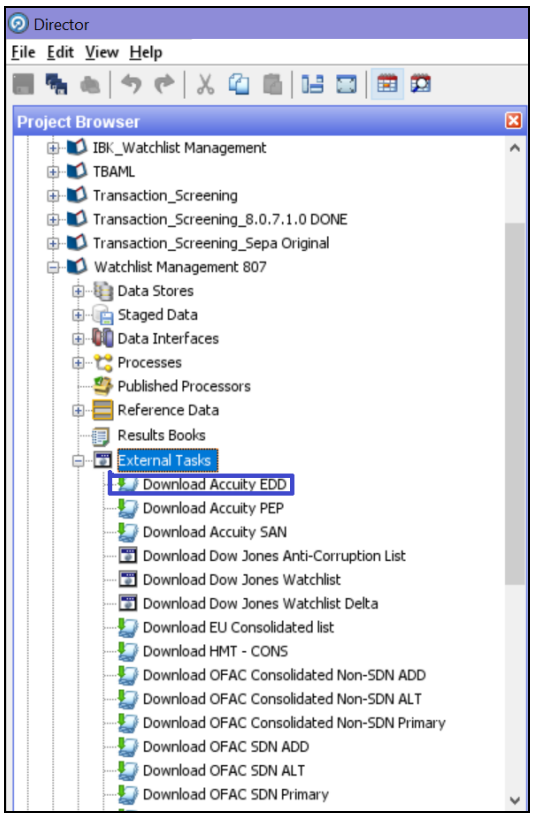
2. In the **Director** landing page, expand the **Customer-Screening** project in the **Project Browser** pane.

Figure 94: Project Browser Pane



3. Expand the **External Tasks** node for the `Watch list Management` project and then double-click on the **Download Accuity EDD** task.

Figure 95: External Tasks Node



4. Replace the `EDQ_DOMAIN` placeholder with the installed domain path for the `EDD`, `PEP`, and `SAN` records.

Figure 96: Edit Task Window for the Accuity Watch List

5. Configure your `PATH` system variable to include the path to your Java installation.
6. Add the user name and password and the proxy server configuration details for Accuity in the `download-acy-edd.sh`, `download-acy-pep.sh`, and `download-acy-san.sh` script files.

> **NOTE** To ensure that you have the SFTP protocol enabled for automatic password recognition, you must install `sshpass`.

10.9 Delta Watch List Configurations for the Dow Jones Watch List

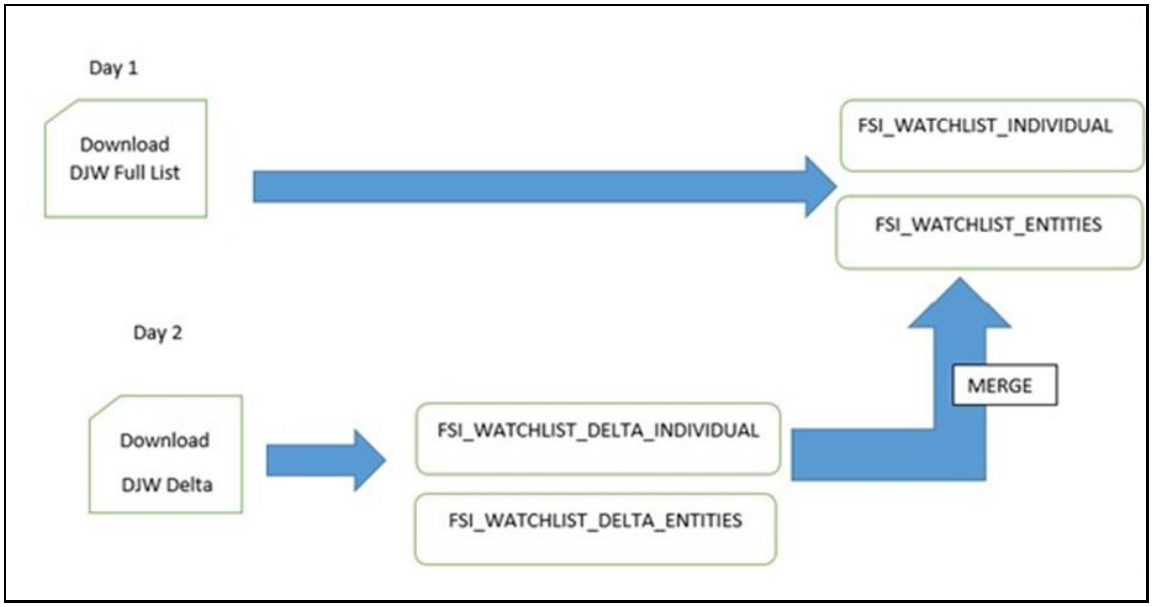
> **NOTE** These configurations are performed when you do not want to download the full watch list, and only want to download the delta watch list. This helps to reduce the download time and is not part of the screening process.

Customer Screening recommends that you always use the full watch list during the screening process. Due to the clustering strategy which is implemented in the screening process, you must not download the delta watch list. There are certain cases in which you must download the delta watch list files, for example, if the full watch list files are not yet available for download or if you want to save time.

Customers who download the delta watch list files must first download the full watch list files and then download the delta watch list files. The delta watch list is then merged into the full watch list before screening.

The following image shows the information flow for the delta watch list:

Figure 97: Flow for Delta Watch List



When you download the full watch list, data is stored in the `FSI_WATCHLIST_INDIVIDUAL` and `FSI_WATCHLIST_ENTITIES` tables. When you download the delta watch list, data is first stored in the

FSI_WATCHLIST_DELTA_INDIVIDUAL and FSI_WATCHLIST_DELTA_ENTITIES tables. Then, based on the value in the ACTION Flag tag in the delta watch list, it merges with the full watch list.

The ACTION flag key is a non-editable value, and can be one of the following values:

- **new**: If the value is new, it means that these records are new and are added to the full watch list when the delta files are merged with the full watch list.
- **chg**: If the value is chg, it means that these records are modified and are added to the full watch list when the delta files are merged with the full watch list.
- **del**: If the value is del, it means that these records are no longer active and are removed from the full watch list when the delta files are merged with the full watch list.

> **NOTE** You must always run the full watch list files before you run the delta watch list files. The full watch list files must be downloaded if, for example, the download of the delta watch list files has failed for multiple days. You can also run the full watch list once every week to ensure that the complete data has been processed.

10.9.1 Configurations for the Full and Delta Watch Lists

The following configurations must be done for both full and delta watch list updates in the watch list-management.properties run profile. The run profile is available in the <domain_name>/edq/oedq.local.home/runprofiles/ directory when you log in to the WinSCP server.

- Set phase.Initialise\ staged\ data.enabled = N to disable the .jmp file updates.
- Set phase.Initialise\ staged\ data\ DB.enabled = Y to initialize the database.
- Set phase.Initilize\ Prepared\ List\ Data.enabled = N to disable the .jmp file updates.
- Set phase.Initilize\ Prepared\ List\ Data\ DB.enabled = Y to prepare the database.

10.9.2 Running the Full Watch list

To run the full watch list, follow these steps:

1. Set the following properties in the watch list-management.properties file:
   - phase.DJW\ -\ Download.enabled = Y.
   - phase.DJW\ -\ Download\ Delta.enabled = N.
   - phase.DJW\ -\ Stage\ reference\ lists.enabled = Y.
   - phase.*.export.*.ind_table_name = FSI_WATCHLIST_INDIVIDUAL.
   - phase.*.export.*.entities_table_name = FSI_WATCHLIST_ENTITIES.
2. Set the following properties in the customer-screening.properties file:

- phase.DJW\ -\ Load\ without\ filtering.enabled = N
- phase.DJW\ -\ Load\ without\ filtering\ DB.enabled = Y
- phase.DJW\ -\ Load\ with\ filtering\ (Part\ 1).enabled = N
- phase.DJW\ -\ Load\ with\ filtering\ (Part\ 1)\ DB.enabled = Y
- phase.DJW\ -\ Load\ with\ filtering\ (Part\ 2).enabled = Y

3. Set the following properties in the customer-screening-real-time.properties file:
   - phase.DJW\ -\ Load\ without\ filtering.enabled = N
   - phase.DJW\ -\ Load\ without\ filtering\ DB.enabled = Y
   - phase.DJW\ -\ Load\ with\ filtering\ (Part\ 1).enabled = N
   - phase.DJW\ -\ Load\ with\ filtering\ (Part\ 1)\ DB.enabled = Y
   - phase.DJW\ -\ Load\ with\ filtering\ (Part\ 2).enabled = Y
4. Set the following properties in the external-entity-screening.properties file:
   - phase.DJW\ -\ Load\ without\ filtering.enabled = N
   - phase.DJW\ -\ Load\ without\ filtering\ DB.enabled = Y
   - phase.DJW\ -\ Load\ with\ filtering\ (Part\ 1).enabled = N
   - phase.DJW\ -\ Load\ with\ filtering\ (Part\ 1)\ DB.enabled = Y
   - phase.DJW\ -\ Load\ with\ filtering\ (Part\ 2).enabled = Y

10.9.3 Running the Delta Watch List

To run the delta watch list, follow these steps:

1. Set the following properties in the watch list-management.properties file:
   - phase.DJW\ -\ Download.enabled = N.
   - phase.DJW\ -\ Download\ Delta.enabled = Y.
   - phase.DJW\ -\ Stage\ reference\ lists.enabled = Y.
2. Set phase.*.export.*.ind_table_name = FSI_WATCHLIST_DELTA_INDIVIDUAL.
3. Set phase.*.export.*.entities_table_name = FSI_WATCHLIST_DELTA_ENTITIES.

10.9.4 Merging the Delta Watch List to the Full Watch List

To merge the delta watch list with the full watch list, set the following properties in the watch list-management.properties file:

- phase.Delta\ Merge.enabled = Y.
- phase.Linked\ Profiles.enabled = Y.

10.10 Delta Watch List Configurations for the World-Check Watch List

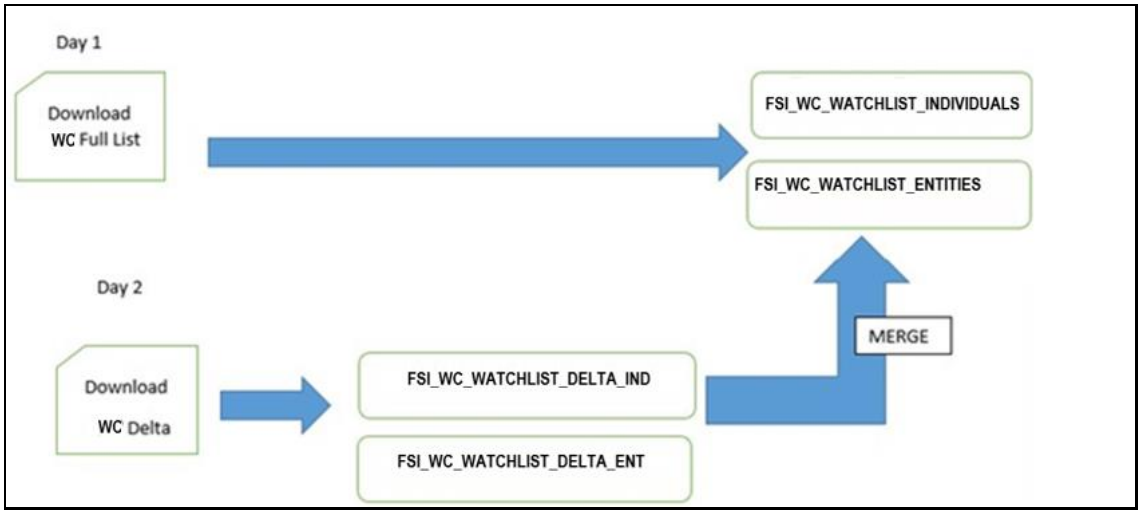
> **NOTE** These configurations are performed when you do not want to download the full watch list, and only want to download the delta watch list. This helps to reduce the download time and is not part of the screening process.

Customer Screening recommends that you always use the full watch list during the screening process. Due to the clustering strategy, which is implemented in the screening process, you must not download the delta watch list. There are certain cases in which you must download the delta watch list files, for example, if the full watch list files are not yet available for download or if you want to save time.

Customers who download the delta watch list files must first download the full watch list files and then download the delta watch list files. The delta watch list is then merged into the full watch list before screening.

The following image shows the information flow for the delta watch list:

Figure 98: Flow for Delta Watch List



When you download the full watch list, data is stored in the `FSI_WC_WATCHLIST_INDIVIDUALS` and `FSI_WC_WATCHLIST_ENTITIES` tables. When you download the delta watch list, data is first stored in the `FSI_WC_WATCHLIST_DELTA_IND` and `FSI_WC_WATCHLIST_DELTA_ENT` tables. Then the data is merged into the main table. For more information, see Merging the Delta Watch List to the Full Watch List.

> **NOTE** You must always run the full watch list files before you run the delta watch list files. The full watch list files must be downloaded if, for example, the download of the delta watch list files has failed for multiple days. You can also run the full watch list once every week to ensure that the complete data has been processed.

10.10.1 Configurations for the Full and Delta Watch Lists

The following configurations must be done for both full and delta watch list updates in the `watch list-management.properties` run profile. The run profile is available in the `<domain_name>/edq/oedq.local.home/runprofiles/` directory when you log in to the WinSCP server.

- Set `phase.Initialise\ staged\ data.enabled = N` to disable the `.jmp` file updates.
- Set `phase.Initialise\ staged\ data\ DB.enabled = Y` to initialize the database.
- Set `phase.Initilize\ Prepared\ List\ Data.enabled = N` to disable the `.jmp` file updates.
- Set `phase.Initilize\ Prepared\ List\ Data\ DB.enabled = Y` to prepare the database.

10.10.2 Running the Full Watch list

To run the full watch list, follow these steps:

1. Set the following properties in the `watch list-management.properties` file:
   - `phase.WC\ -\ Download.enabled = Y.`
   - `phase.WC\ -\ Download\ Delta.enabled = N.`
   - `phase.WC\ -\ Stage\ reference\ lists.enabled = Y.`
   - `phase.*.export.*.wc_ind_table_name=FSI_WC_WATCHLIST_INDIVIDUAL`
   - `phase.*.export.*.wc_entities_table_name=FSI_WC_WATCHLIST_ENTITIES`

   To run the full watch list without filtering, set the following properties:
   - `phase.WC\ -\ Prepare\ without\ filtering.enabled = N`
   - `phase.WC\ -\ Prepare\ without\ filtering\ Full\ DB.enabled = Y`

   To run the full watch list with filtering, set the following properties:
   - `phase.WC\ -\ Prepare\ with\ filtering\ (Part\ 1).enabled = N`
   - `phase.WC\ -\ Prepare\ with\ filtering\ (Part\ 2).enabled = N`
   - `phase.WC\ -\ Prepare\ with\ filtering\ Full\ DB.enabled = Y`

   To run the full watch list without filtering, set the following properties:
   - `phase.WC\ -\ Load\ without\ filtering.enabled = N`
   - `phase.WC\ -\ Load\ without\ filtering\ DB.enabled = Y`

To run the full watch list with filtering, set the following properties:

- `phase.WC\ -\ Load\ with\ filtering\ (Part\ 1).enabled = N`
- `phase.WC\ -\ Load\ with\ filtering\ (Part\ 1)\ DB.enabled = Y`
- `phase.WC\ -\ Load\ with\ filtering\ (Part\ 2).enabled = Y`

2. Set the following properties in the `customer-screening-real-time.properties` file:
   - `phase.WC\ -\ Load\ without\ filtering.enabled = N`
   - `phase. WC \ -\ Load\ without\ filtering\ DB.enabled = Y`
   - `phase. WC \ -\ Load\ with\ filtering\ (Part\ 1).enabled = N`
   - `phase. WC \ -\ Load\ with\ filtering\ (Part\ 1)\ DB.enabled = Y`
   - `phase. WC \ -\ Load\ with\ filtering\ (Part\ 2).enabled = Y`
3. Set the following properties in the `external-entity-screening.properties` file:
   - `phase. WC \ -\ Load\ without\ filtering.enabled = N`
   - `phase. WC \ -\ Load\ without\ filtering\ DB.enabled = Y`
   - `phase. WC \ -\ Load\ with\ filtering\ (Part\ 1).enabled = N`
   - `phase. WC \ -\ Load\ with\ filtering\ (Part\ 1)\ DB.enabled = Y`
   - `phase. WC \ -\ Load\ with\ filtering\ (Part\ 2).enabled = Y`

10.10.3 Running the Delta Watch List

To run the delta watch list, follow these steps:

1. Set the following properties in the `watch list-management.properties` file:
   - `phase.WC\ -\ Download.enabled = N.`
   - `phase.WC\ -\ Download\ Delta.enabled = Y.`
   - `phase.WC\ -\ Stage\ reference\ lists.enabled = Y.`
   - `phase.*.export.*.wc_ind_table_name=FSI_WC_WATCHLIST_DELTA_IND`
   - `phase.*.export.*.wc_entities_table_name=FSI_WC_WATCHLIST_DELTA_EN T`
2. To run the delta watch list without filtering, set the following properties:
   - `phase.WC\ -\ Prepare\ without\ filtering.enabled = N`
   - `set phase.WC\ -\ Prepare\ without\ filtering\ Delta\ DB.enabled = Y`

   To run the delta watch list with filtering, set the following properties:
   - `phase.WC\ -\ Prepare\ with\ filtering\ (Part\ 1).enabled = N`
   - `phase.WC\ -\ Prepare\ with\ filtering\ (Part\ 2).enabled = N`
   - `phase.WC\ -\ Prepare\ with\ filtering\ Delta\ DB.enabled = Y`

10.10.4 Merging the Delta Watch List to the Full Watch List

To merge the delta watch list with the full watch list, set the following properties in the `watch list-management.properties` file:

- `phase.WC\Delta\ Merge.enabled = Y`.
- `phase.WC\Linked\ Profiles.enabled = Y`.

11 Appendix D: Splitting Jobs Using Multiple EDQ Servers

You can split jobs across multiple servers to reduce the time taken to process many customers, for example, one million or more.

> **NOTE** These steps are applicable only if you plan to use multiple EDQ servers for customer screening. If you want to use the default setup, that is, only a single EDQ server, see Scheduling the Customer Screening Run Job.

Some examples are as follows:

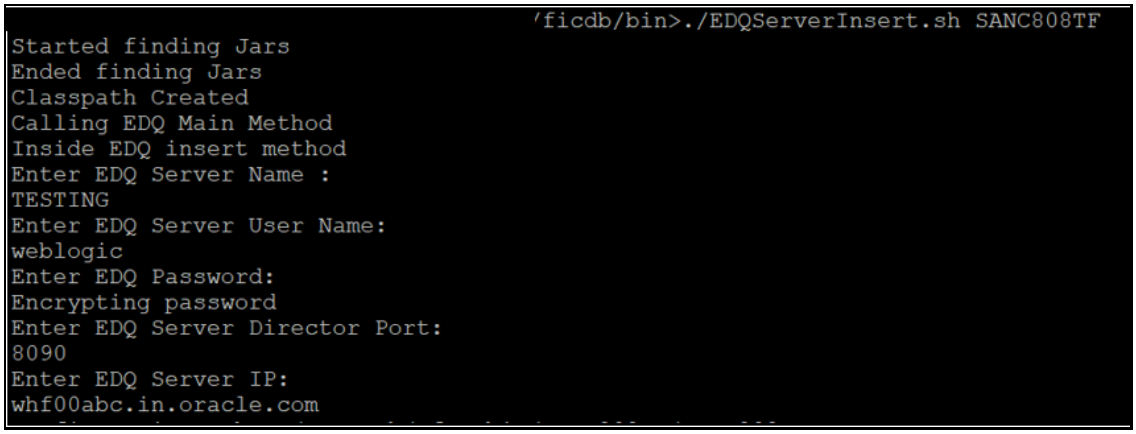
- If one server is used to process the watch lists and another server is used to process the entity names.
- If one server is used to process data of individuals and another server is used to process data of entities during different times of day.

> **NOTE**
>
> 4. Provide the EDQ user name and password in the `cs_appln_params` table .
> 5. Run the `select * from cs_edq_servers` query in your SQL query tool to verify the server details.

To split jobs using multiple servers, follow these steps:

1. Navigate to the `FIC_DB_HOME/bin` directory.
2. Execute `./EDQServerInsert.sh <INFODOM NAME>`. This step is used to register the EDQ server details. You must replace the `INFODOM NAME` placeholder with your domain name.
3. Enter the following details in the console where the command is run:
    - EDQ Server Name
    - EDQ server IP
    - EDQ Server Direct Port number (JMX port number). This value must be 8090.
    - EDQ Server User Name
    - EDQ Password details

Figure 99: EDQ Details

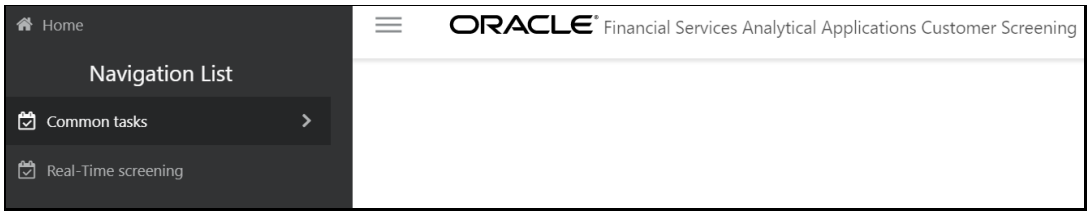


4. Duplicate the `CS_Data_Load_Event_Generation` batch in the **Run** page. To do this, copy the `CS_Data_Load_Event_Generation` batch and create another batch.

   Follow these steps to access the **Run** page:

   a. Login as the administrator. The **Financial Services Analytical Applications Customer Screening** home page appears.

Figure 100: Financial Services Analytical Applications Customer Screening Home Page



   b. Click the **hamburger** icon to view the **Application Navigation List**.

Figure 101: Application Navigation List

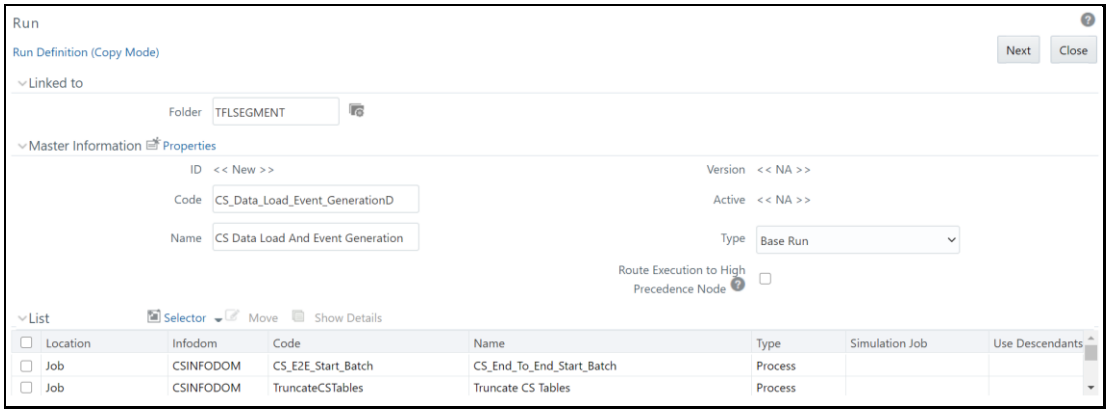
c. From the **Application Navigation List**, select **Common Tasks**, then select **Rule Run Framework**, and then select **Run**. The **Run** page appears.

5. In the **Run** page, follow these steps to create a duplicate batch:

a. Select the `CS_Data_Load_Event_Generation` run and click **Copy**. The **Run** page opens in copy mode.

> **NOTE** You must select the segment folder for the Sanctions pack in the **Folder** field to proceed.

Figure 102: Run Page in Copy Mode



b. Enter a new run code or alter the existing value in the **Code** field. For example, code can be `CS_Data_Load_Event_GenerationD`.

c. Enter a new run name or alter the existing value in the **Code** field. For example, name can be `CS Data Load And Event Generation`.

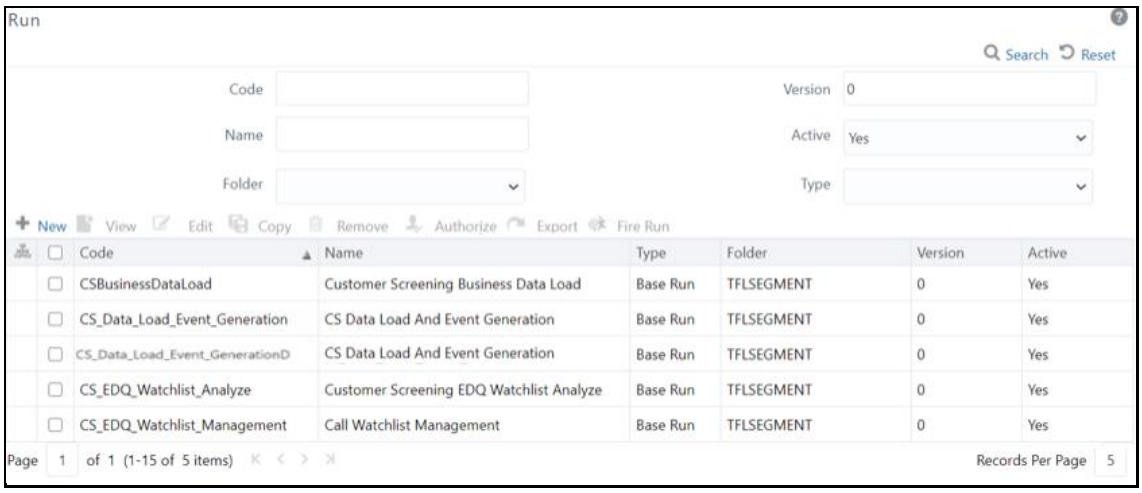
> **NOTE** The run name and run code values can be the same.

d. Click **Next** to go to the next page and confirm the name.

e. Click **Save**.

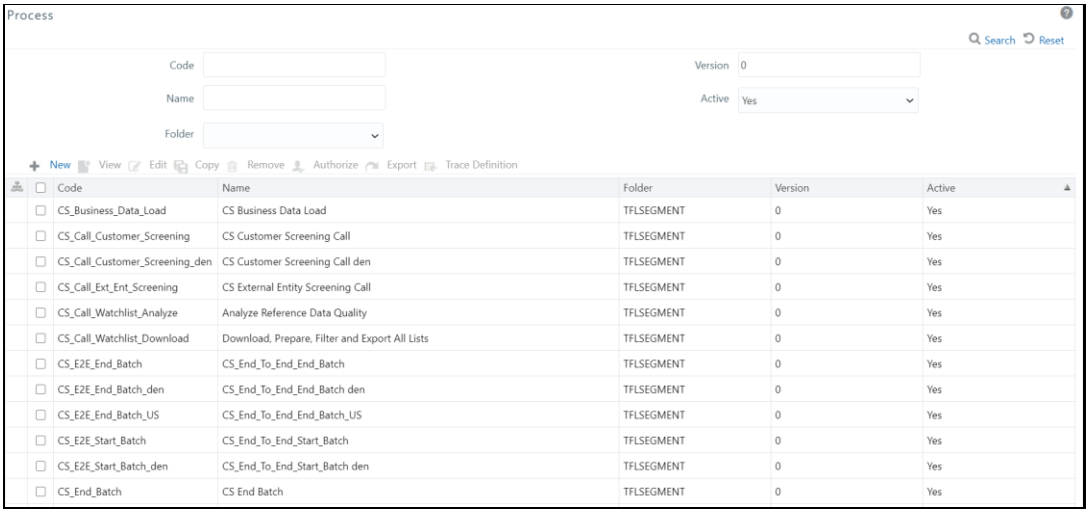
After you click **Save**, the new run name appears in the **Run** page.

Figure 103: New Run Name in Run Page



6. Duplicate the `CS_E2E_Start_Batch`, `CS_Call_Customer_Screening`, and `CS_E2E_End_Batch` processes in the **Process** page.

Figure 104: Process Page



Follow these steps to access the **Process** page:

a. Login as the administrator. The **Financial Services Analytical Applications Customer Screening** home page appears.

Figure 105: Financial Services Analytical Applications Customer Screening Home Page

b. Click the **hamburger** icon to view the **Application Navigation List**.

Figure 106: Application Navigation List

c. From the **Application Navigation List**, select **Common Tasks**, then select **Rule Run Framework**, and then select **Process**. The **Process** page appears.

7. To duplicate each process, follow these steps:

a. For the `CS_E2E_Start_Batch` process:

i. In the **Process** page, select `CS_E2E_Start_Batch` and click **Copy**. The **Process** page opens in copy mode.

> **NOTE** You must select the segment folder for the Sanctions pack in the **Folder** field to proceed.

ii. Enter a new process code in the **Code** field and a new process name in the **Name** field. You can also alter the existing process code or name. For example, `CS_E2E_Start_Batch_den`.

iii. Click **Save**.

b. For the `CS_Call_Customer_Screening` process:

i. In the **Process** page, select `CS_Call_Customer_Screening` and click **Copy**. The **Process** page opens in copy mode.

ii. Enter a new process code in the **Code** field and a new process name in the **Name** field. You can also alter the existing process code or name. For example, `CS_Call_Customer_Screening_den`.

iii. Click **Save**.

c. For the `CS_E2E_End_Batch` process:

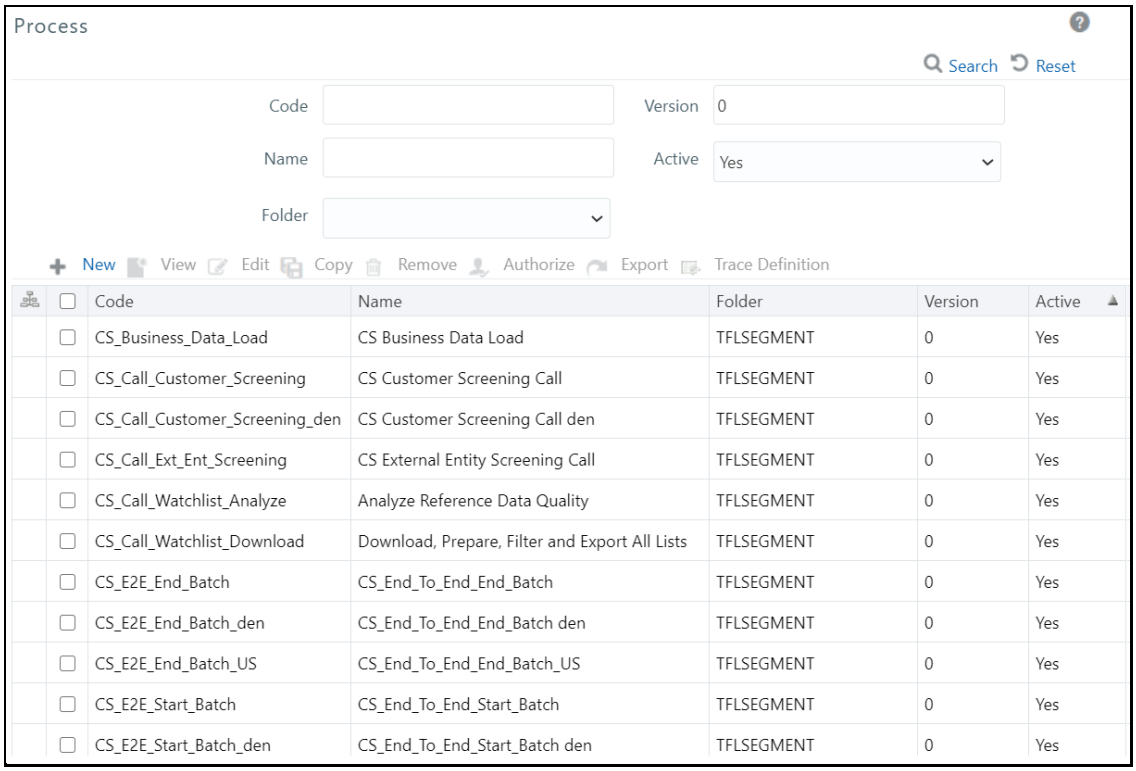
i. In the **Process** page, select `CS_E2E_End_Batch` and click **Copy**. The **Process** page opens in copy mode.

ii. Enter a new process code in the **Code** field and a new process name in the **Name** field. You can also alter the existing process code or name. For example, `CS_E2E_End_Batch_den`.

iii. Click **Save**.

After you click **Save**, the new process names appear in the **Process** page.

Figure 107: New Process Names in Process Page



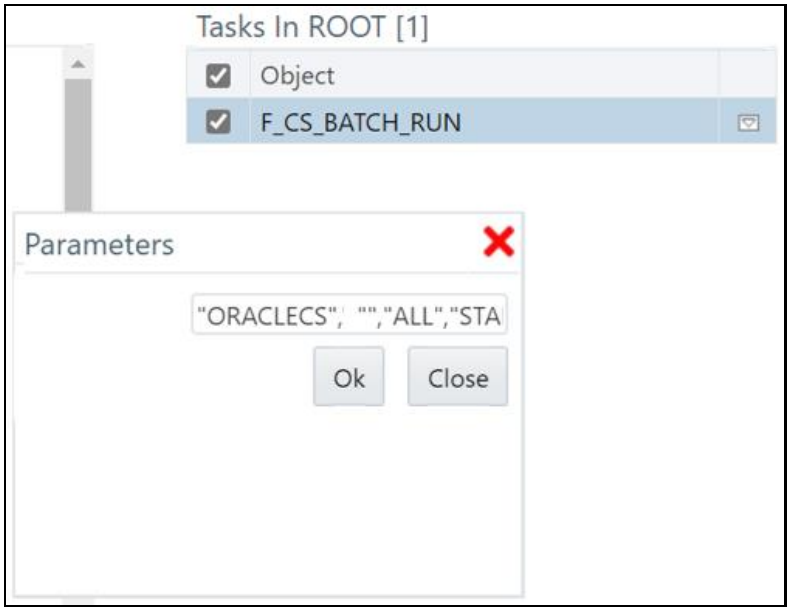
Code	Name	Folder	Version	Active
CS_Business_Data_Load	CS Business Data Load	TFLSEGMENT	0	Yes
CS_Call_Customer_Screening	CS Customer Screening Call	TFLSEGMENT	0	Yes
CS_Call_Customer_Screening_den	CS Customer Screening Call den	TFLSEGMENT	0	Yes
CS_Call_Ext_Ent_Screening	CS External Entity Screening Call	TFLSEGMENT	0	Yes
CS_Call_Watchlist_Analyze	Analyze Reference Data Quality	TFLSEGMENT	0	Yes
CS_Call_Watchlist_Download	Download, Prepare, Filter and Export All Lists	TFLSEGMENT	0	Yes
CS_E2E_End_Batch	CS_End_To_End_End_Batch	TFLSEGMENT	0	Yes
CS_E2E_End_Batch_den	CS_End_To_End_End_Batch den	TFLSEGMENT	0	Yes
CS_E2E_End_Batch_US	CS_End_To_End_End_Batch_US	TFLSEGMENT	0	Yes
CS_E2E_Start_Batch	CS_End_To_End_Start_Batch	TFLSEGMENT	0	Yes
CS_E2E_Start_Batch_den	CS_End_To_End_Start_Batch den	TFLSEGMENT	0	Yes

8. Update the group name for the `CS_E2E_Start_Batch_den` and `CS_E2E_End_Batch_den` processes. To do this, run the following query:

```
select * from cs_processing_group
```

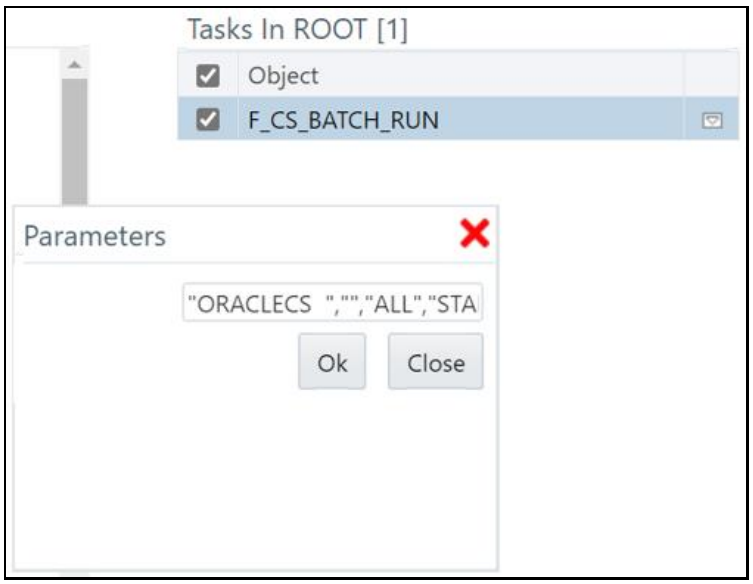
9. Change the parameter for the `CS_E2E_Start_Batch_den` process. To do this, follow these steps:
   a. Select the duplicated process created in the earlier step and click **Edit**. The **Process** page opens in edit mode.
   b. Click **Component**. The **Component Selector** window appears.
   c. Click the drop-down list in line with the **F_CS_BATCH_RUN** task. The **Parameters** window appears.

Figure 108: Parameter for the CS_E2E_Start_Batch Process



   d. Change the `ORACLECS` parameter to the applicable data origin or processing name.
10. Change the parameter for the `CS_E2E_End_Batch_den` process. To do this, follow these steps:
   a. Select the duplicated process created in the earlier step and click **Edit**. The **Process** page opens in edit mode.
   b. Click **Component**. The **Component Selector** window appears.
   c. Select the drop-down list in line with the **F_CS_BATCH_RUN** task. The **Parameters** window appears.

Figure 109: Parameter for the CS_E2E_End_Batch Process



d. Change the `ORACLECS` parameter to the data origin or processing name.

11. To change the parameters for the `CS_Call_Customer_Screening_den` process, follow these steps:

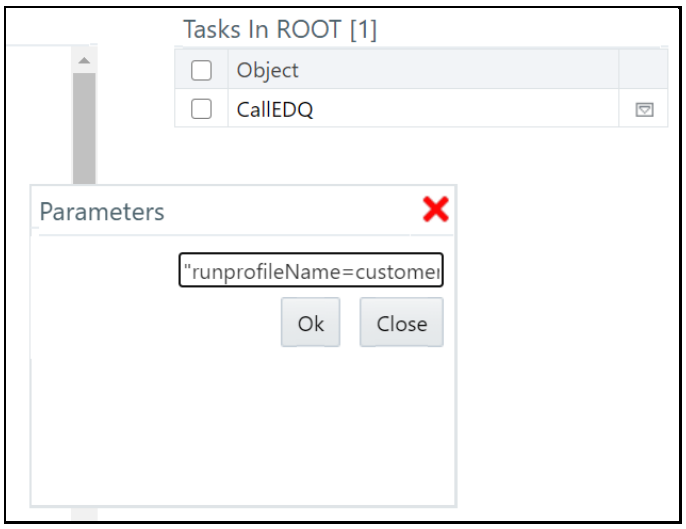
a. Select the duplicated process created in the earlier step and click **Edit**. The **Process** page opens in edit mode.

b. Click **Component**. The **Component Selector** window appears.

c. Select the drop-down list in line with the **CallEDQ** task. The **Parameters** window appears with the following values:

```
"runprofileName=customer-screening1.properties","RunLabel=customer-
screening","JobName=MAIN","ProjectName=Customer-
Screening","edqServerName=SERVER_2","condition=and AGE_YR_CT>20 and
BIRTH_DT  <= @$~20 June 1972@$~"
```

Figure 110: Parameters for the CS_Call_Customer_Screening_den Process



d. Change the following parameters:

i. Run profile name.

Example: `runprofileName=customer-screening1.properties"`

ii. EDQ server name. If you do not change the server name, it is replaced with the server name in the `cs_appln_params` table.

Example: `"edqServerName=SERVER_2"`

iii. Condition. By default, a single condition is provided. Use *and* to give more than one condition.

Example: `"condition=and AGE_YR_CT>20 and BIRTH_DT <= @$~20 June 1972@$~"`

NOTE

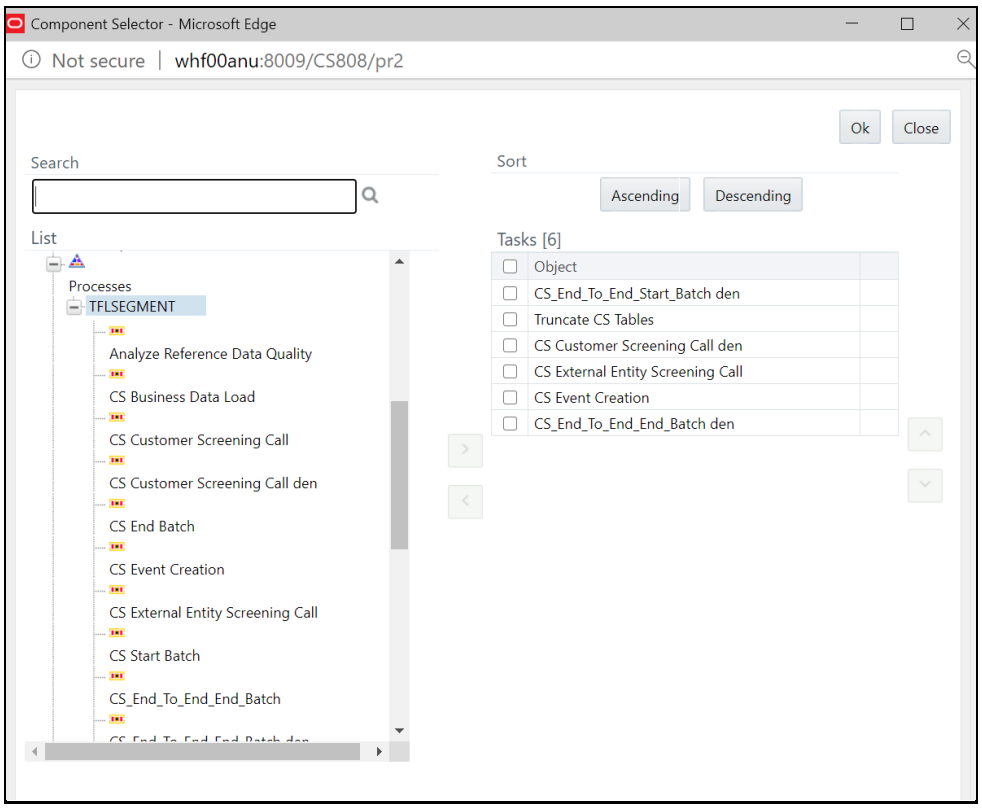
6. It is not mandatory to provide a condition.
7. Provide the expression `@$~` to use alphanumeric characters for fields such as customer birth date. For example, `"condition=and AGE_YR_CT>20 and BIRTH_DT <= @$~20 June 1972@$~"`.

12. Replace the new batches in the **Run** page. To do this, follow these steps:

a. Select `CS_Data_L_Event_Generation_Den` and click **Edit**. The **Run** page opens in edit mode.

b. Click the **Selector** drop-down list and select **Job**. The **Component Selector** window appears.

Figure 111: Parameters for the CS_Call_Customer_Screening_den Process



c. In the **List** hierarchy window, expand the **Transformation Rules** node.

d. Expand the **Processes** node and then the **TFLSEGMENT** node.

e. In the **Tasks** table, select the original processes, which are `CS_End_To_End_Start_Batch`, `CS Customer Screening Call`, and `CS_End_To_End_End_Batch`. These processes must be selected one at a time.

f. Click **Move** <. The selected batches are displayed in the **TFLSEGMENT** node.

g. In the **List** table, select the new processes, which are `CS_End_To_End_Start_Batch_den`, `CS Customer Screening Call den`, and `CS_End_To_End_End_Batch_den`.

h. Click **Remove** >. The selected batches are displayed in the **Tasks** table.

i. Click **OK**.

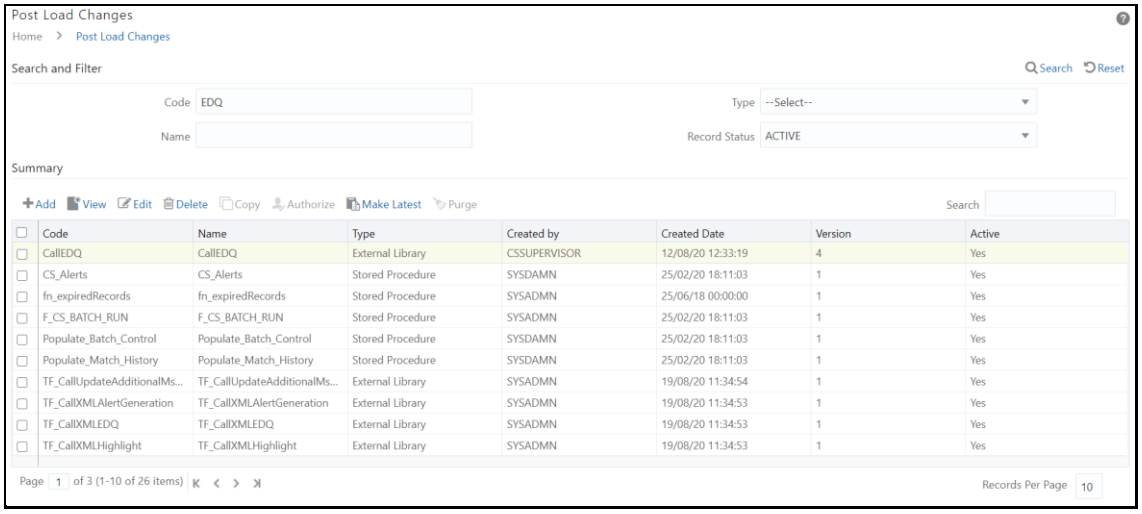
The duplicate jobs are now split across servers using the `CS_End_To_End_Start_Batch`, `CS Customer Screening Call`, and `CS_End_To_End_End_Batch` batches.

11.1 Adding Input Parameters for the CallEDQ Task

Finally, add the new EDQ server name and applicable condition as input parameters in the **Post Load Changes** page as shown in the following steps:

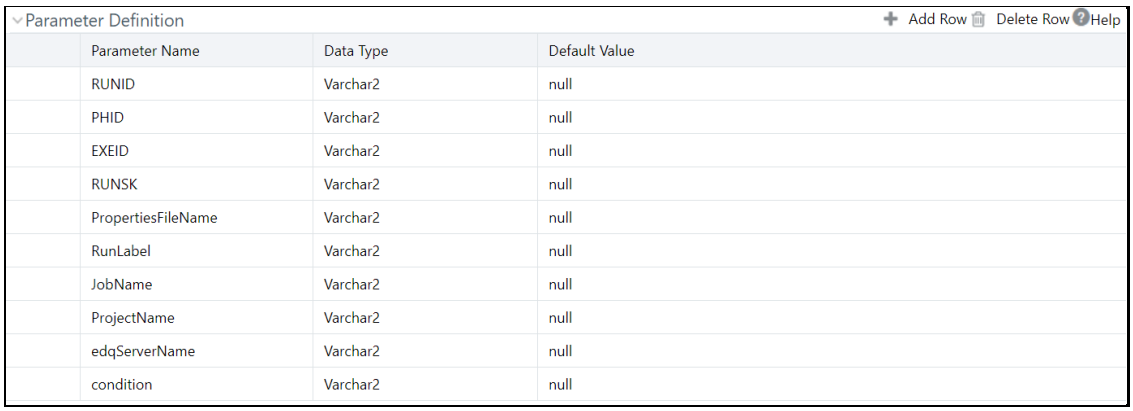
1. Click the **hamburger** icon to view the Application Navigation List.
2. From the **Application Navigation List**, select **Common Tasks**, then select **Data Management Framework**, then select **Data Management Tools**, and then select **Post Load Changes**. The **Post Load Changes** page appears.

Figure 112: Post Load Changes Page



3. Search for *CallEDQ* in the **Code** field and select it.
4. Click **Edit**.
5. In the **Transformation Process Flow** section, select **Input Parameters**. The Input parameters appear in the **Parameter Definition** section.
6. Click **Add Row** to add a row. You must add two rows, one for the EDQ server name and one for the condition.

Figure 113: Adding Input Parameters



7. Click **Finish**.

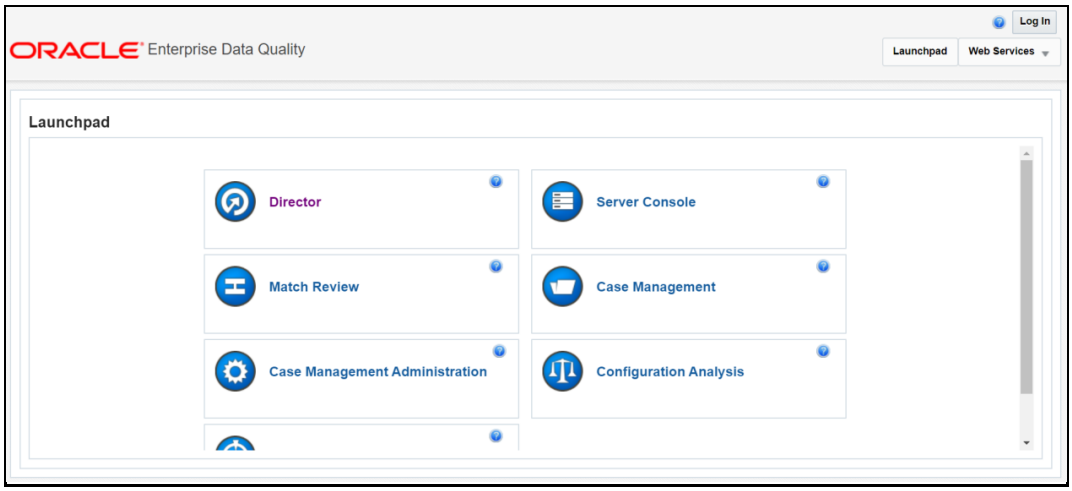
To verify the batch execution logs for the EDQ tasks, see the `FIC_HOME/ficdb/bin/CS_EDQ_CALL` log file.

12 Appendix E: Viewing Snapshots of Tables in EDQ

To view a snapshot of a selected table and associated columns in the **Results Browser** pane in Enterprise Data Quality (EDQ), follow these steps:

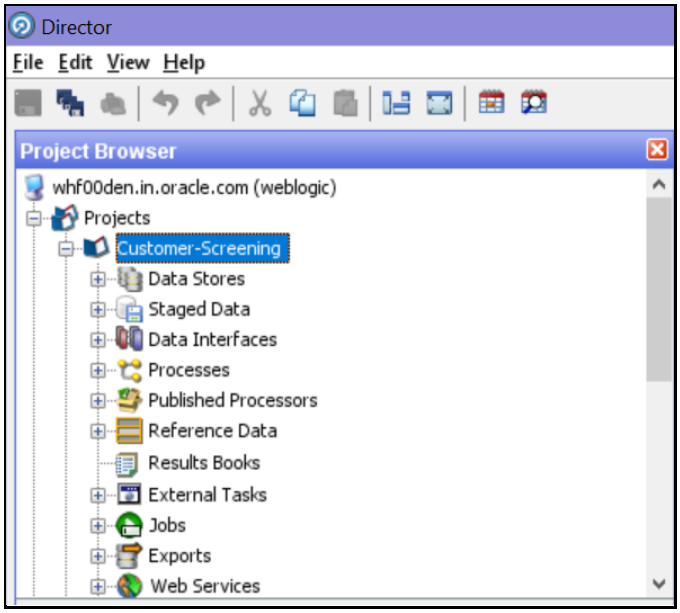
1. Go to the EDQ URL and open the **Director** menu. The **Director** landing page appears.

Figure 114: Director Menu in EDQ



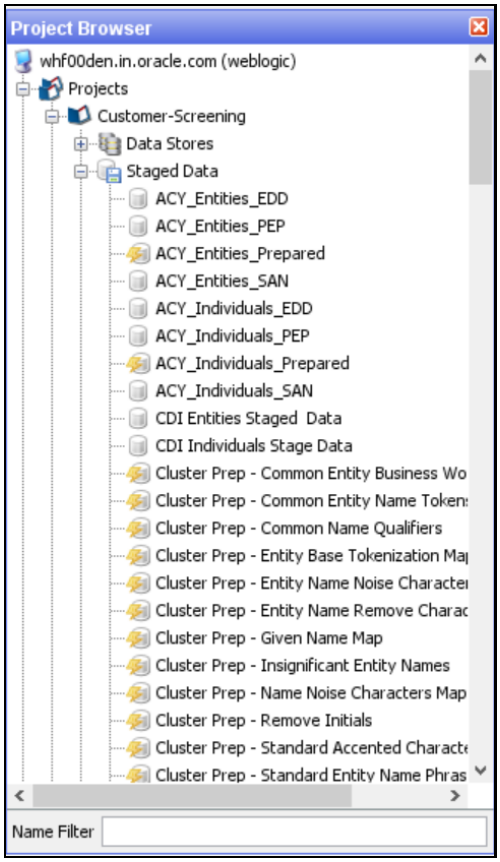
2. In the **Director** landing page, expand the **Customer-Screening** project in the **Project Browser** pane.

Figure 115: Project Browser Pane



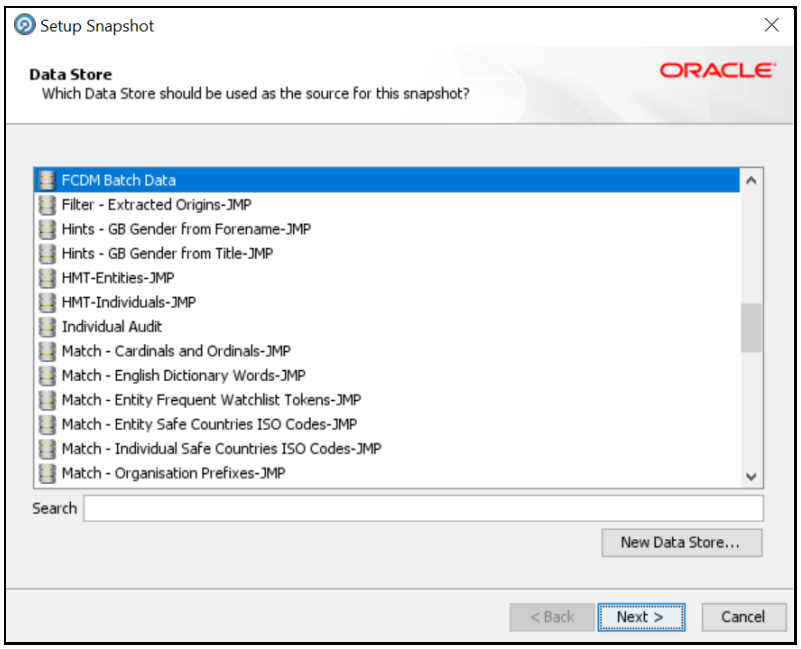
3. Expand the **Staged Data** node and double-click **FCDM Customer Data**.

Figure 116: FCDM Customer Data Node



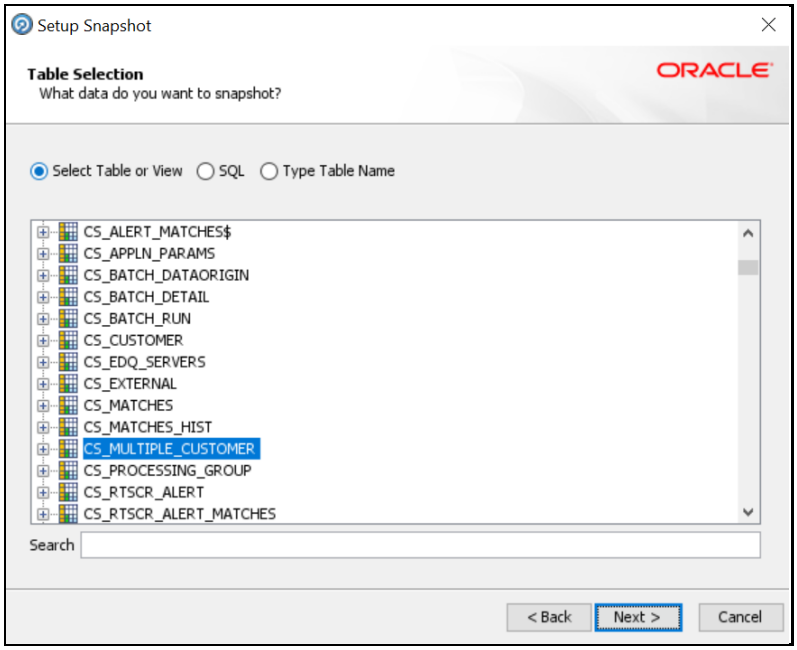
4. In the Setup Snapshot window, double-click **FCDM Batch Data**.

Figure 117: Setup Snapshot Window



5. The default view is the SQL query. To change the view to a table view, select **Select Table or View**.

Figure 118: Select Table or View



6. Click **Next** until you see the **Finish** button.

7. Click **Finish** to view a snapshot of the selected table in the **Results Browser**.

13 Appendix F: Configurations for the Bearer Token

The following section takes you through the process of generating a token and using it to get the individual or entity JSON, depending on the API request. A token is used to authorize the request.

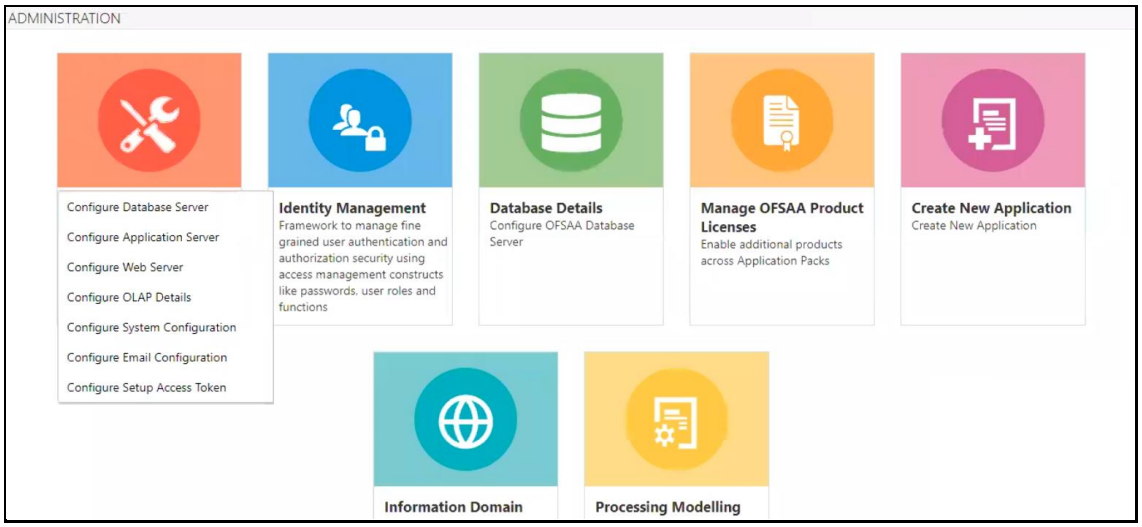
You can begin by generating a password for the user who sends the request. After the password is generated, generate a token to authorize this request. The default time for token expiration is 3600 seconds (1 hour) and can be changed. To change the validity, see Change Token Validity.

13.1 Generate User Password

To generate a password for the user, follow these steps:

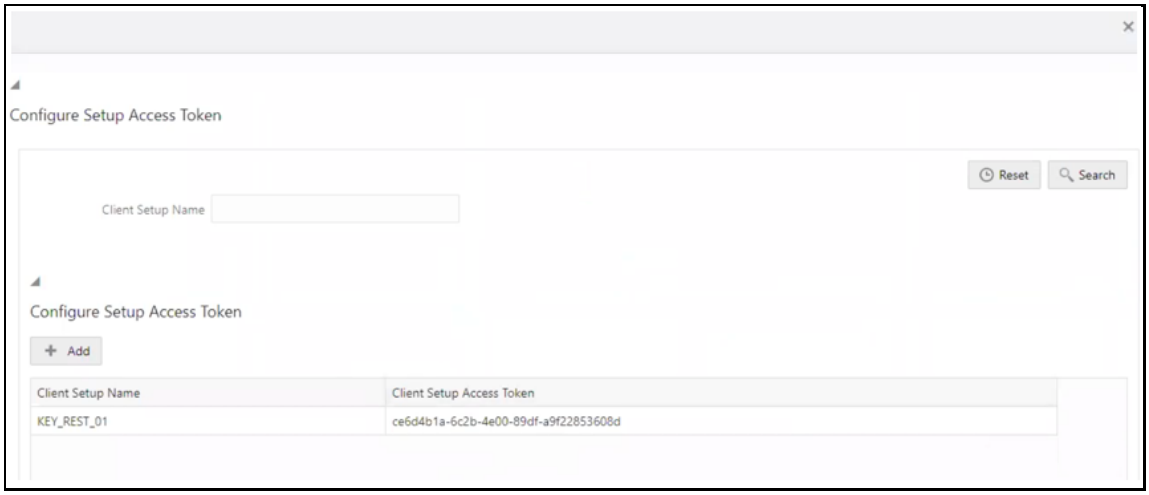
1. Log in as a system administrator.
2. Click **System Configuration** in the **Administration** page and select **Configure Setup Access Token**. The **Configure Setup Access Token** window is displayed.

Figure 119: Administration Page



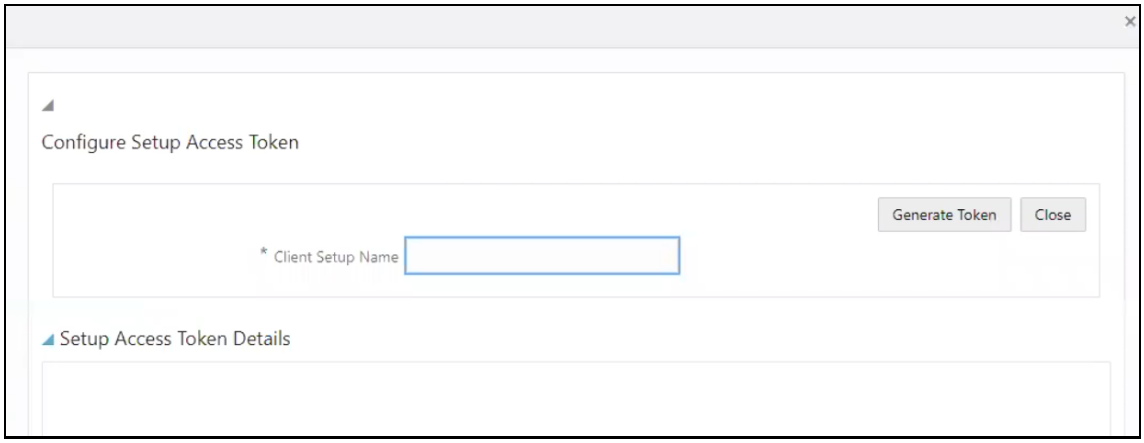
3. In the **Configure Setup Access Token** section**,** click **Add.** A new window is displayed**.**

Figure 120: Configure Setup Access Token



4. Enter the username in the **Client Setup Name** field and click **Generate Token**. The token is displayed in the **Setup Access Token Details** section.

Figure 121: Generate Token Button



5. Copy and save the text generated in the **Setup Access Token Details** section.

Figure 122: Setup Access Token Details

The **STP_ACC_NM** field displays the username. The **STP_ENC_STR** field displays the password.

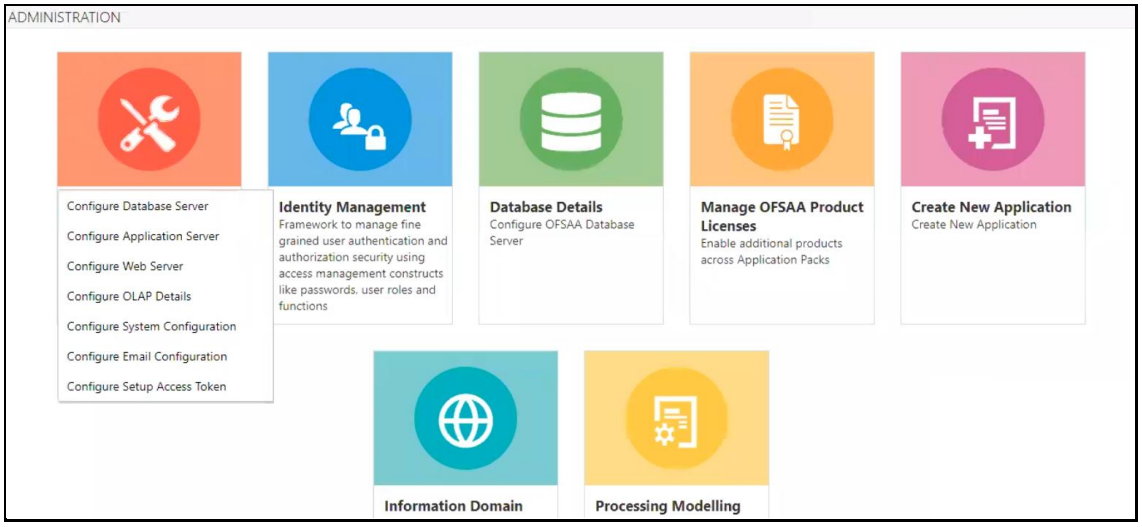
6. Click **Close** and log out as the system administrator.

13.2 Change Token Validity

To generate a password for the user, follow these steps:

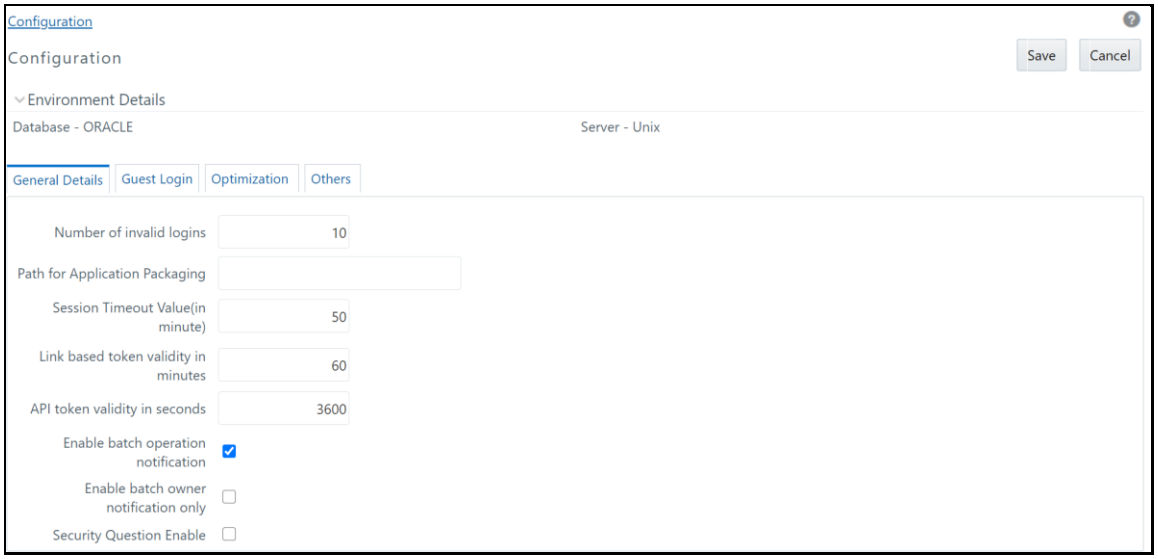
1. Log in as a system administrator.
2. Click **System Configuration** in the **Administration** page and select **Configure System Configuration**. The **Configuration** window is displayed.

Figure 123: Administration Page



3. In the **Configuration** window**,** change the token validity time in the **API token validity in seconds** field.

Figure 124: Configuration window with the API token validity in seconds field shown



4. Click **Save**.

13.3 Generate Token

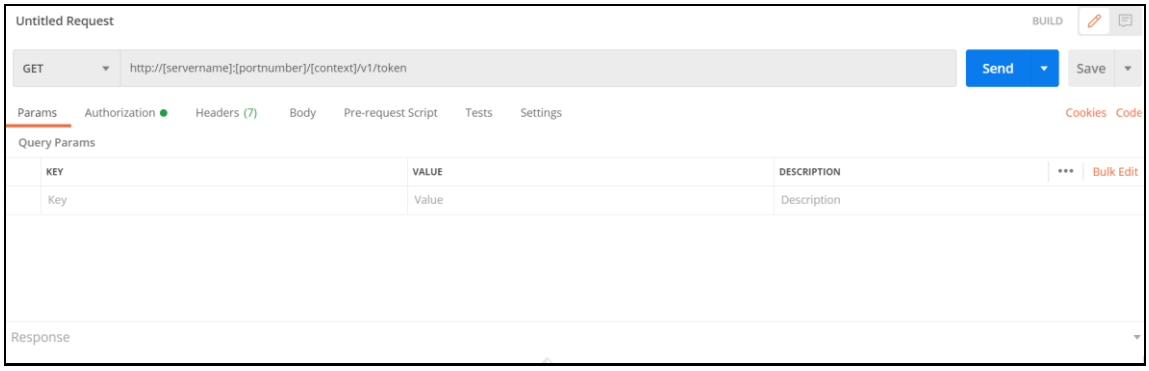
After the password is generated, you can generate the token. To generate the token, open your API client and follow these steps:

> **NOTE**
>
> - You may use the desktop version of the Postman client to perform these steps. Postman is an open-source, collaborative platform for API development. For more information, see Postman Docs.
> - You can also use any other API client, such as cURL. For more information, see REST APIs for Oracle Database.

1. Open the Postman client and click **Create a request**.
2. Select the request type as **GET** and enter the request URL in the following format:

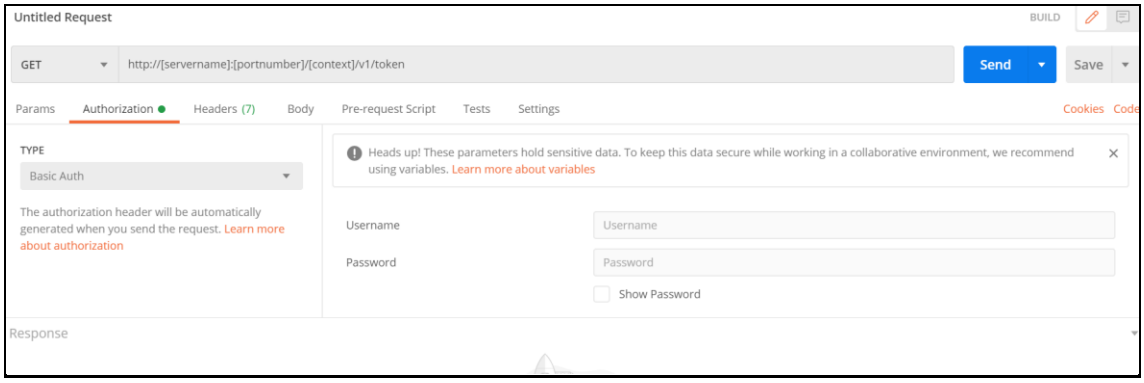
   `http://[servername]:[portnumber]/[context]/v1/token`

Figure 125: Request



3. Select the **Authorization** menu and then select the **TYPE** as **Basic Auth**.

Figure 126: Authorization



4. Enter the username and password.

   The username is the value generated for the **STP_ACC_NM** attribute and the password is the value generated for the **STP_ENC_STR** attribute.

5. Click **Send**. The token is displayed in the **Response** field.

Figure 127: Response

13.4 Send Requests

Requests are sent using the **POST** request feature. Use the token generated to authorize the request and pass the JSON in the correct format.

> **NOTE**
>
> - You may use the desktop version of the Postman client to perform these steps. Postman is an open-source, collaborative platform for API development. For more information, see Postman Docs.
> - You can also use any other API client, such as cURL. For more information, see REST APIs for Oracle Database.

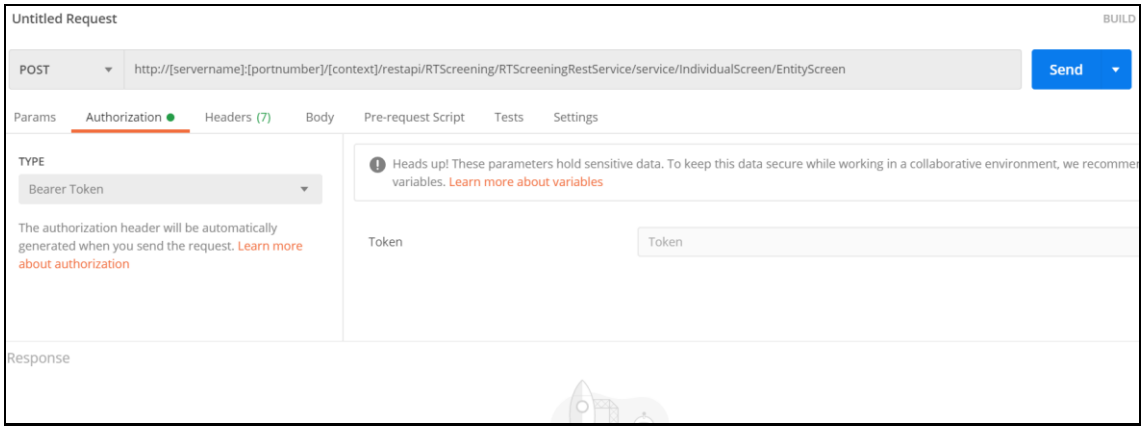
1. In the Postman client, select the request type as **POST** and enter the request URL in the following format:

   ```
   http://[servername]:[portnumber]/[context]/restapi/RTScreening/RTScreeningRestService/service/IndividualScreen/EntityScreen
   ```

Figure 128: Request

2. In the **Authorization** menu, select the **TYPE** as **Bearer Token**.

Figure 129: Authorization



3. Paste the token generated in the **Token** field.
4. Click **Send**. The JSON is displayed in the **Response** field. A sample JSON is shown:

```
{
    "Jurisdiction": "AMEA",
    "BusinessDomain":"d",
    "FamilyName": "HAMMAD",
    "GivenNames": "Fathi Ahmad"
   }
```

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Raise a Service Request (SR) in My Oracle Support (MOS) for queries related to the OFSAA applications.

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