Oracle Financial Services Customer Screening

Oracle Financial Services Customer Screening Administration and Configuration Guide

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Table of Contents

Table o	Table of Contents			3
About	this	Guide		6
Chapte	er 1:	Oracle	e Customer Screening Overview	7
2	1.1	Arch	itecture Overview	8
2	1.2	Data	Flow	9
Chapte	er 2:	Gener	ral Configuration	10
_	2.1 Scree		iguring Watch List Management, Customer Screening, External Entity and Real-Time Screening	10
	2	2.1.1	Preparing Watch List Data	11
	2	2.1.2	Private Watch List Set Up	13
	2	2.1.3	Showing Watch List Staged Data/Snapshots in the Server Console UI	13
	2	2.1.4	Configuring Match Rules	14
	2	2.1.5	Real-Time and Batch Screening Set Up	14
	2	2.1.6	Outputting Relationships Data to Files	15
2	2.2	Filter	ring Watch List Data	15
	2	2.2.1	Enabling Watch List Filtering	15
	2	2.2.2	Configuring Watch List Filtering	15
	2	2.2.3	Example - Filtering World Check Data	17
	2	2.2.4	Screening All Data Using Sanctions Rules	19
2	2.3	Conf	iguring Enterprise Case Management(ECM)	19
	2	2.3.1	Case Class in ECM	19
	2	2.3.2	Case Types under Case Class	20
	2	2.3.3	Creating Workflows for Case Types	21
		2.3.4 ECM	Searching Customer Screening related Cases in Oracle Financial Service 21	es
		2.3.5 Service	Taking Action on Customer Screening related Cases in Oracle Financial es ECM	21
	2	2.3.6	Match Persistence and Flag Keys	21
2	2.4	Sche	duling the Customer Screening Run Job	22
2	2.5	Risk	Scoring	25
	2	2.5.1	Adjusting the Risk Scoring Mechanism	26
2	2.6	Conf	igurations for GDPR	29
Chapte	er 3:	Prepa	ring Customer and External Entity Data for Screening	30

	3.1	Real	-Time Screening	30
	3.2	Batc	h Screening from Financial Services Crime Model (FCDM)	32
		Stagin	g Database Connection Details	32
	3.3	FCDI	M System Name	34
	3.4	FCDI	M Data Preparation	34
		3.4.1	Analyzing Customer Data and External Entity Data Quality	34
		3.4.2	Running the Data Quality Analysis	34
		3.4.3	Data Quality Errors	35
		3.4.4	ETL Database Connection Details	35
		3.4.5	Batch Screening Job	36
		3.4.6	Real-Time Screening Job	36
Арре	endix	A: Scre	eening Watch list Records in Real Time	38
Арре	endix	B: Wo	rkflow Diagrams	39
	B.1	SAN	and PRB Workflow	39
	B.2	PEP	and EDD Workflow	39
Арре	endix	C: Pre-	-Configured Watch List Information	40
	C.1	HM	Treasury Reference Data	41
	C.2	OFA	C Reference Data	41
	C.3	EU R	Reference Data	42
	C.4	UN F	Reference Data	42
	C.5	Wor	ld-Check Reference Data	42
	C.6	Dow	Jones Watchlist Reference Data	43
	C.7	Dow	Jones Anti-Corruption List Reference Data	44
	C.8	Accu	uity Reference Data	46
Арре	endix	D: Scre	eening Non-Latin Character Sets	49
Арре	endix	E: Risk	scoring reference data	51
	E.1	Gen	eral	51
	E.2	Cour	ntry Prohibitions	51
	E.3	Dow	Jones Watchlist	51
	E.4	Dow	Jones Anti-Corruption List	51
	E.5	EU R	Reference Data	51
	E.6	HM	Treasury Reference Data	52
	F 7	OΕΛ	C Reference Data	52

E.8	UN Reference Data	52
E.9	World-Check Reference Data	52
E.10	Accuity Reference Data	52
E.11	Risk Element Weightings	52

About this Guide

This document details the steps required to configure Oracle Financial Services Customer Screening based on your requirements after the application has been installed.

For information on the installation process, refer to the <u>Oracle Financial Services Sanctions</u>
Pack Installation and Configuration Guide.

These instructions assume the reader has a good understanding of Enterprise Case Management (ECM), Financial Crime Data Model (FCDM), Oracle Enterprise Data Quality (OEDQ) and knowledge of Sanctions, PEP, EDD and country prohibition screening requirements.

Oracle Financial Services Customer Screening consists of:

- Customer or External Entity Data in FCDM
- Real-time Screening User Interface and REST web service
- OEDQ functionality for managing watch list data and screening working data
- Enterprise Case Management for Batch Scheduling, Case Types and Workflows

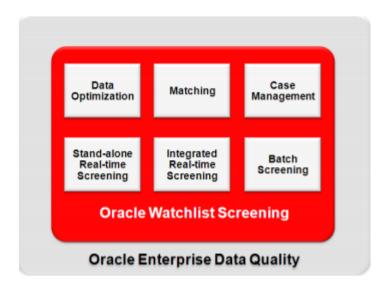
The standard Customer Screening implementation is customized for specific data, screening, watchlist and operational requirements.

Chapter 1: Oracle Customer Screening Overview

The primary function of Oracle Customer Screening is to provide an end-to-end process for matching any individual or entity against entries on various watch lists. There are many watch lists against which an organization may, for regulatory or risk purposes, be required to screen individuals and entities when initiating a business relationship. These include sanctions lists published by governments or economic, political, and law enforcement bodies. Lists published by commercial sources, such as politically exposed person (PEP) lists, and internal blacklists created by companies themselves may also be required for review. Sanctions lists contain entries of debarred individuals or entities due to involvement in criminal activity such as money laundering, international terrorism, and financial crime. Sanctions lists may also include lists of embargoed countries. PEP lists contain entries of high-profile (and often high-value) public figures, such as business leaders, prominent social figures, and members of political parties. Due to their position in society, their political position, or associations and relationships with other high-profile parties, PEPs may be subject to potential bribery or misuse their power and influence for personal gain or financial advantage.

Oracle Customer Screening runs on the Oracle Enterprise Data Quality platform, and therefore shares common hardware. Built upon a modular architecture, it can be tailored to meet the compliance screening processes specific to each industry; the types of records being screened; the match rules applied; and the processes for investigating, managing, and escalating any potential match. In this way, Oracle Customer Screening includes configurable data optimization, matching, and case management modules to provide tailored solutions to meet the specific needs of each customer. Data optimization prepares both customer and watchlist data ahead of matching to ensure that any errors and variances in both the structure and content of data are resolved. Matching takes the output from the data optimization module and attempts to determine potential matches between records contained in list datasources and customer data. Those records that exhibit a close match are then presented to case management for investigation and resolution by the compliance team.

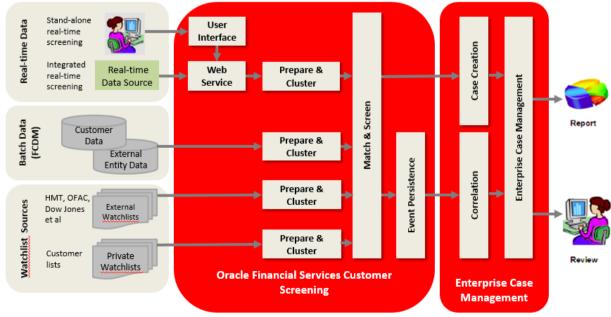
An overview of Oracle Customer Screening and its functional components is shown below:



The underlying Oracle Enterprise Data Quality platform is a state-of-the-art information quality analysis and transformation tool employing a multithreaded, client-server-based architecture built around a Java framework. This allows for simple deployment on a wide range of platforms. The client—server approach enables users of Oracle Customer Screening to access multiple instances of the core system while having full flexibility to create new jobs, processes, and reports from their own devices. This architecture also enables the same instance of Oracle Customer Screening to be used by compliance teams distributed across multiple locations. Oracle Customer Screening can screen records in both batch and real time, making it suitable for a range of use cases including client on-boarding and regular screening of existing customers.

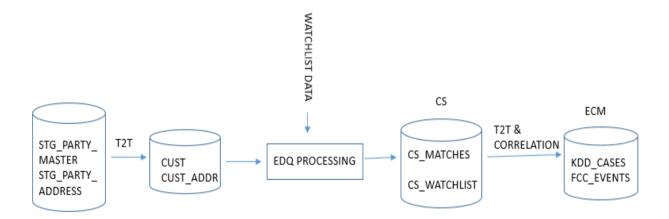
1.1 Architecture Overview

The diagram above gives a high level overview of the Oracle Financial Services Customer Screening architecture.



1.2 Data Flow

The diagram below describes the data flow from Customer Screening Enterprise Case Management (ECM):



The steps are explained below:

- 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 table, cust_addr table, acct table and other associated customer tables using T2T.
- 2. The watchlist data is downloaded from the watchlist management project in EDQ. This watchlist data is matched with the data in the *cust* and *cust addr* tables in the Customer Screening project.
- 3. The matches are then loaded into the *cs_matches* table and the corresponding watchlist 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: The *cs_matches_hist* table contains all matches. Each time screening is run, the *cs_matches* table is compared to the *cs_matches_hist* table and any new or changed matches are added to the *cs_matches_hist* table and used to create new alerts. Every time you run the customer screening project, data is truncated in the *cs_matches* table.

5. Data is correlated and loaded into the kdd cases and fcc events tables in ECM.

Chapter 2: General Configuration

The sections in this chapter describe the following general configuration areas for Oracle Financial Services Customer Screening:

- <u>Configuring Watch List Management, Customer Screening, External Entity</u> Screening and Real-Time Screening
- Configuring Case Management
- Scheduling the Customer Screening Run Job
- Filtering Watch List Data
- Risk Scoring

2.1 Configuring Watch List Management, Customer Screening, External Entity Screening and Real-Time Screening

The Watch List Management, Customer Screening, External Entity, and Real-time screening properties can be configured using Run Profiles. Run Profiles are optional templates that specify a number of 'override' configuration settings for externalized options when a Job is run. They offer a convenient way of saving and reusing a number of configuration overrides, rather than specifying each override as a separate argument.

Run Profiles are used when running jobs using the 'runopsjob' command from the Batch Scheduler. For further information about Run Profiles and using the Command Line Interface, see the OEDQ online help.

Oracle Financial Services Customer Screening distribution contains the following Run Profiles:

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

The watchlist-management.properties Run Profile controls:

- Which watch lists are downloaded, and the configuration of the download process
- Whether filtering is applied to the watch lists
- Whether Data Quality Analysis is applied to the watch lists.

The customer-screening.properties, external-entity.properties and customer screening- real time Run Profiles control:

- Real-Time or Batch Screening set up
- Screening reference ID prefixes and suffixes
- Watch list routing
- Configuration of match rules.

Note: The properties controlling match rules are not included in the **customer-screening.properties**, **external-entity.properties**, and **customer screening-real**

time.properties Run Profiles by default. See <u>Configuring Match Rules</u> for further information.

2.1.1 Preparing Watch List Data

Oracle Financial Services Customer Screening is pre-configured to handle reference data from the following sources:

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

Additionally, you can optionally supply reference data from your own private watch list using the Private List Interface (PLI).

Values in the **watchlist-management.properties** Run Profile control which lists are used and how they are downloaded, staged, and filtered (or not).

Note:

- Watch lists can be downloaded automatically (by setting the appropriate values in the Run Profile) or manually (by navigating to the list provider's web site, downloading the list and saving it to the matching sub-folder in the Landing Area).
- The staging value **must** be set to **Y** the first time a watch list is downloaded. Thereafter, leave it set to Y to refresh the staged data every time a download is performed, or **N** to preserve the pre-existing staged data.
- All downloaded watch lists **must** be set to filtered or unfiltered.
- The Accuity, Dow Jones, Dow Jones Anti-Corruption and World-Check lists are all
 provided as paid services. To use one of these watch lists it is necessary to apply
 to the individual list providers for an account. Please refer to the relevant
 provider websites for further information.
- The option to download private watch lists is not supplied, as it is assumed that this data will be available in house.

For specific configuration information on each of these watch lists, see Appendix B: Watch List Information.

Example - Preparing the Accuity list

This example describes how to edit the **watchlist-management.properties** Run Profile to allow the download and configuration of the Accuity list. The steps in the example can be applied, with little modification, to other data lists.

Download and Staging

To automatically download the Accuity list, set the following values to Y:

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

Note: To manually download the Accuity list, leave these values set to N. Navigate to the URL provided in the Accuity Reference Data section, download the list and save it to the config/landingarea/Accuity subfolder.

Filtering

To prepare the Accuity list with filtering, set the following value to Y:

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

To prepare the Accuity list without filtering, set the following values to Y:

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

For details of how to configure watchlist filtering, See "Filtering Watch List Data".

Data Quality Analysis

To enable Data Quality analysis for the Accuity list, set the following values to Y:

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

Enable phases for download and staging

To enable automated download of the Accuity list, the OEDQ server must be connected to the internet.

Enter the username and password combination for the Accuity login in the values ending:

```
ftp://username:password@ftp.financialgo.net/PIDGWL.ZIP
```

If the OEDQ server is connected to the internet via a proxy, set the following properties:

- proxy host
- proxy port
- proxy username
- proxy password

2.1.2 Private Watch List Set Up

Oracle Financial Services Customer Screening is pre-configured to work with a number of commercially-available and government-provided watch lists. However, you can also screen against your own private watch lists. On installation, screening is configured to run against a sample private watch list with minimal additional configuration, allowing the installation to be validated quickly. The sample private watch list is provided in two files - **private individuals.csv** and **private entities.csv**- in the **config/landingarea/Private** folder.

The OEDQ Config Folder:

Your OEDQ instance's **config** folder might not be named 'config'. The choice of the config folder's name is made when OEDQ is installed - in some cases a name is automatically allocated. OEDQ release 11g and later has both a 'base' and a 'local' config folder. The base config folder is often called '**oedqhome**', and the local config folder is often called '**oedqlocalhome**'. In some cases, dots or underscores may be inserted into these names (for example: 'oedq_local_home'). Whenever you see a file path in this document that begins with **config**, this always refers to your OEDQ instance's local config folder.

The first step in screening against your own private watch list is to replace the data in the supplied files with your own data. To do this:

- 1. Transform your private watch list data into the format specified by the Private List Interface (see the Data Interfaces Guide for further information).
- 2. Replace the data in the **private individuals.csv** and **private entities.csv** files with your transformed private watch list data.

Note: The files must be saved in UTF-8 format.

Note: To screen against multiple private watch lists, consolidate them into the two files: **privateindividuals.csv** and **privateentities.csv**. These two files can also be used to hold data from external watch lists that Oracle Financial Services Customer Screening is not pre-configured to work with.

The second and final step is to enable the staging and preparation of the private watch list in the watchlist-management.properties Run Profile. To stage your private watch list set the following value to Y:

```
phase.PRIV\ -\ Stage\ reference\ lists.enabled
```

Once you have done this, set the following value to **Y** to prepare the private watch list without filtering:

```
phase.PRIV\ -\ Prepare\ without\ filtering.enabled
```

Or set both of the following values to **Y** to prepare the private watch list with filtering:

```
phase.PRIV\ -\ Prepare\ with\ filtering\ (Part\ 1).enabled
phase.PRIV\ -\ Prepare\ with\ filtering\ (Part\ 2).enabled
```

2.1.3 Showing Watch List Staged Data/Snapshots in the Server Console UI

Certain types of staged data and snapshots are hidden in the Server Console UI by default. These are:

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

To display this data, set the corresponding visibility property value(s) in the relevant Run Profile(s) to **Y**.

For example, to make all Accuity watch list snapshots generated during Watchlist Management visible, set the following properties in the watchlist-management.properties Run Profile:

- stageddata.ACY\ Sources.visible = Y
- stageddata.ACY All.visible = Y
- stageddata.ACY Sources.visible = Y

2.1.4 Configuring Match Rules

Match rules - and also match clusters - can be configured and controlled by adding a property to the customer-screening.properties and external-entity.properties Run Profiles.

For example, to disable the **Exact name only** rule for Batch and Real-Time Sanctions screening, add the following property to the Run Profile:

```
phase.*.process.*.[I0100]\ Exact\ name\ only.san rule enabled = false
```

Note: Capitalization must be respected and characters must be escaped as required.

The * character denotes a wildcard, and therefore specifies that the above rule applies to all phases and all processes. If disabling the rule for Batch screening only, the property would read:

```
phase.Batch\ screening.process.*.[I0100]\ Exact\ name\
only.san_rule_enabled = false
```

Note: For further details on tuning Match rules, please refer to the Oracle Financial Services Customer Screening Matching Guide.

2.1.5 Real-Time and Batch Screening Set Up

By default, Real-Time and Batch screening is enabled for SAN, PEP and EDD records.

This is controlled by the Real-Time and Batch screening properties in the <code>customer-screening.properties</code> and <code>external-entity.properties</code> Run Profiles. Using these properties, it is possible to enable or disable Real-Time or Batch screening for all records or by record type.

For example, to only run Real-Time screening for PEP and EDD individual and entity records, change the value of the following properties as indicated:

- 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 all other Real-Time screening properties are set to Y.

2.1.6 Outputting Relationships Data to Files

Screening identifies possible relationships, or possible matches, between individuals and entities in your customer data and the external entities on watch lists. These relationships form the basis of the events and cases that you can review in Enterprise Case Management. When you run screening in batch, as well as outputting these relationships to the Customer Screening data layer, you can also output them to .csv files. This can be useful if, for example, you want to use Oracle Financial Services Customer Screening to identify the relationships, but you want to review them using another system.

To enable the output of relationships data to files, set the following values to **Y** in the Batch Screening Setup section of the customer-screening.properties and external-entity.properties Run Profiles:

```
phase.*.process.*.output_relationships
phase.Export\ Batch\ Relationships.enabled
```

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

- relns-ent-batch.csv (which holds relationship data for entities).
- relns-ind-batch.csv (which holds relationship data for individuals).

The two files are placed in the **config/landingarea/sentryrelns** folder.

2.2 Filtering Watch List Data

To filter Watchlist data, follow the steps mentioned in the sections below.

2.2.1 Enabling Watch List Filtering

Watch list data is filtered either during List Management, Screening, or both.

To enable filtering for a specific watch list, set the **Prepare Filtering** phase(s) in the appropriate Run Profile to **Y**, and the **Prepare Without Filtering** phase(s) to **N**.

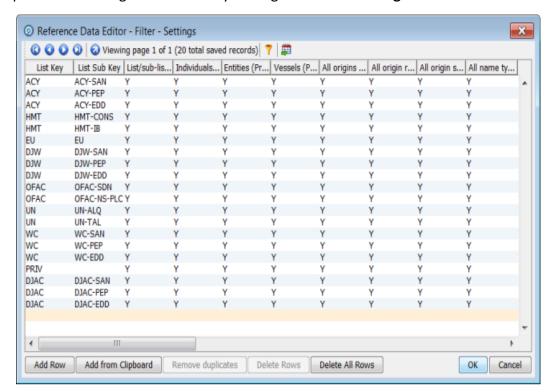
2.2.2 Configuring Watch List Filtering

Watchlist filtering is controlled by configuring reference data in the Watchlist projects.

Note:

- The reference data sets in Watchlist Management and Watchlist Screening projects are identical. This is to support installations requiring filtering at different stages. For example, a company may wish to perform initial filtering as watch list data is prepared, and then run several screening projects on specific parts of that data (by country, origin, etc.)
- Once data is filtered out, it is not possible to filter it back in. For example, if all
 entities are filtered out in Watchlist Management, even if the Watchlist
 Screening project is configured to include entities, they will not show up in
 results data.

The top level of filtering is controlled by editing the **Filter - Settings** reference data:



All the reference data filters are set to **Y** by default, except **Linked Profiles** which is set to **N**. Unless these settings are changed, no actual filtering is performed on watch list data.

In the **Filter - Settings** reference data, a value of **Y** indicates that all records should be included - in other words, no filter should be applied.

Broadly speaking, watch list filtering falls into four categories:

- By list and list sub key.
- By list record origin characteristics.
- By list profile record characteristics.
- By linked profiles.

Primary and Secondary Filtering, and Linked Records

- Primary filtering These filters are used to return all profiles that match the criteria specified.
- Linked Profiles If this value is set to Y, then all profiles linked to those captured by Primary filters are also captured an example of use is a filter configured to capture all Sanctions and their related PEPs.
- Secondary filtering These filters are applied to further filter any linked profiles that are returned.

Note: Only the World-Check and DJW watch lists can provide Linked Profiles.

Setting Multiple Values for Primary and Secondary Filters

The following filter options require further configuration in additional reference data:

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

To filter 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.

The effect of setting a value in the **Filter - Settings** reference data to **N** is that only records that match values set in the corresponding reference data will be included. For example, if you set the value of **All name qualities (Primary)?** to **N** in **Filter - Settings**, then, in the **Filter - Primary Name Qualities** reference data you could determine which name qualities should be included for each watch list. For instance, if you include a row for High quality names in the EU watch list, but you do not include rows for medium and low quality names for this watch list, then only records with high quality names will be included for this watch list.

Some of these reference data sets will be prepopulated with rows, to be edited or removed as required. These rows contain data (generally, but not always) supplied by each watch list provider, and are all contained within the Watchlist Management project.

For example,. to view all possible keywords for World-Check data, open the **WC Keyword** reference data in the Watchlist Management project. See the following example for further details.

2.2.3 Example - Filtering World Check Data

This example describes configuring filtering on the World-Check Sanctions list in the Watchlist Management project, and setting further filters in the Watchlist Screening project. Specifically:

- Enabling filtering in the Run Profiles
- Configuring the Primary filters in the Watchlist Management project to return only active records for sanctioned individuals (not entities) originating from the EU list
- Enabling the filtering of Linked Profiles in the Watchlist Management project
- Configuring the Secondary filters in the Watchlist Screening project to further filter out all Linked Profiles of deceased individuals.

Setting filtering options in the Run Profiles

In the watchlist-management.properties Run Profile, set the World-Check filtering phases as follows:

- 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

In the **customer-screening.properties** Run Profile, set the World-Check filtering phases as follows:

- 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

Setting Primary Filters and Linked Profiles in the Watchlist Management project

- 1. In Director, open the Watchlist Management project and expand the Reference Data node.
- 2. Locate the **Filter Settings** reference data, and double-click to open it.
- 3. Ensure the List/sub-list (Primary?) value in the WC-SAN row is set to Y.
- 4. Set the Entities (Primary)? value in the WC-SAN row to N.
- 5. Set the Inactive (Primary)? value in the WC-SAN row to N.
- 6. Set the All Origins (Primary)? value in the WC-SAN row to N.
- 7. Ensure all other values in the WC-SAN row are set to Y.
- 8. Click **OK** to close the reference data and save changes.
- 9. Locate the Filter Origins reference data and double-click to open it.
- 10. Add a new row with the following values:
 - a. List Key WC
 - b. List Sub Key WC-SAN
 - c. Origin EU
- 11. Change the Linked Profiles? value in the WC-SAN row to Y.
- 12. Click **OK** to close the **Filter Settings** reference data and save changes.

Setting Secondary Filters in the Watchlist Screening project

- 1. Open the Watchlist Screening project, and expand the reference data link.
- 2. Locate the Filter Settings reference data file, and double-click to open it.
- 3. Set the **Deceased (Secondary)?** value in the **WC-SAN** row to **N**.
- 4. Click **OK** to close the reference data and save changes.

2.2.4 Screening All Data Using Sanctions Rules

By default, watch list records are routed to the different screening processes depending on their record type (such as SAN, PEP or EDD). This allows different rules, and hence different levels of rigor, to be applied to the list data according to risk appetite.

However, if you want to use the same screening logic for all list records, and do not want the overhead of maintaining separate rulesets, the system can be configured to reroute all list records to the SAN screening processes. To do this, set the **phase.*.process.*.Screen\ all\ as\ SAN?** value in the **customer-screening.properties** Run Profile to **Y**.

2.3 Configuring Enterprise Case Management(ECM)

Oracle Financial Services Customer Screening uses the Enterprise Case Management application to investigate and manage cases and events generated by the matching processes.

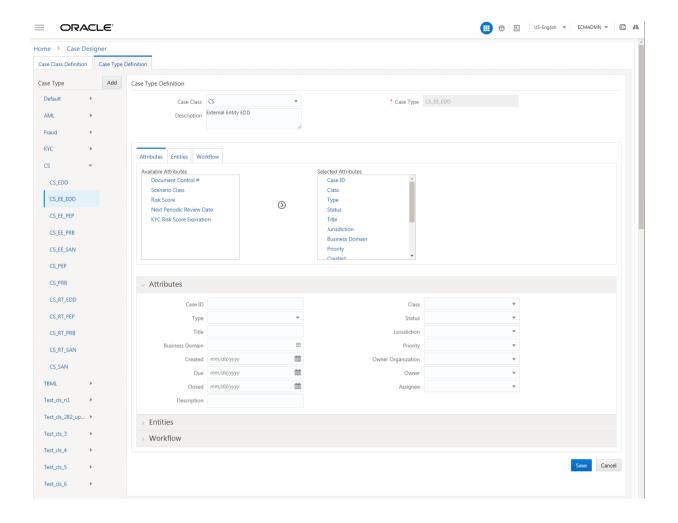
The following sections describe the default case types and workflows provided with Oracle Financial Services Enterprise Case Management, but all of these can be edited to suit your requirements. For full instructions on editing workflows and case sources, please refer to the Oracle Financial Services Enterprise Case Management Admin Guide.

2.3.1 Case Class in ECM

For Oracle Financial Services 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 further new case classes, follow the steps in *Adding Case Class* in the <u>Oracle Financial Services Enterprise Case Management Admin Guide</u>.



2.3.2 Case Types under Case Class

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

- CS EDD: Enhanced Due Diligence (EDD)
- 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 PRB: Prohibition (PRB)
- 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
- CS_ SAN: Sanctions (SAN)

For each Case Type, default Entities (Tabs) have been mapped. If additional Entities (Tabs) are required, follow the steps in *Adding Optional Entities to the Case Type* in <u>Oracle Financial</u>
<u>Services Enterprise Case Management Admin Guide</u>.

2.3.3 Creating Workflows for Case Types

For each of the aforementioned Case Types, a workflow is also mapped. To create a workflow, see the section *Creating a Business Process* in OFSAAI User Guide.

Two workflows are provided by default, one for Sanctions Cases and the other which is used for Politically Exposed Persons (PEP), Enhanced Due Diligence (EDD) and Country Prohibition (PRB) cases. For more information, see Workflow Diagrams.

2.3.4 Searching Customer Screening related Cases in Oracle Financial Services ECM

Once the Oracle Financial Services Customer Screening batch is run, events are correlated into cases based on watchlist record type, so there may be up to three open cases for a customer, one for Sanctions, one for Politically Exposed Persons and one for Enhanced Due diligence events. Correlation rules may be changed if required. The Related Cases Tab will have links to other cases for the given customer.

For Search and Advanced Search procedures, see the section *Searching Cases* in <u>Oracle</u> Financial Services Enterprise Case Management User Guide.

2.3.5 Taking Action on Customer Screening related Cases in Oracle Financial Services ECM

The Workflow Actions for Customer Screening Cases depend on the Case Type, User and Status. To take action on a case, follow the steps in *Using Take Action Window* in <u>Oracle Financial Services Enterprise Case Management User Guide</u>.

The following figure shows a sample of an EDD Workflow which has a 'Pending Review' status and logged-in user as Supervisor.



2.3.6 Match Persistence and Flag Keys

Customer Screening screens all customer records against all required watchlist records on a daily basis. This allows new events to be created due to changes in either the customer or the watchlist data. Where there is no change to the customer or the watchlist record and the match is identical to a previously generated relationship no new event is created.

Many attributes can change on a customer or watchlist record but not all should trigger a new event to be reviewed. A flag key is a set of fields in the data which are considered significant when evaluating a match to present a new event to Case Management.

Note: If a new alias name of a list record is added that matches the customer record this will be presented as a new event.

An example of a potential flag key field is date of birth some potential matches may be eliminated on the grounds that the date of birth is too different between the customer and watch list records. Therefore, if the date of birth information on either list changes, it is likely that any potential matches which depend on it should be re-reviewed. An example of a field which should not be included in the flag key is account balance. This contains a value which is likely to change rapidly but which does not have any impact on the match decisions.

Flag keys are set in individual match processes and then a hash value is generated which is used for comparison.

Note: The order of fields in the flag key is important changing the order will treat the relationship as a new match.

2.4 Scheduling the Customer Screening Run Job

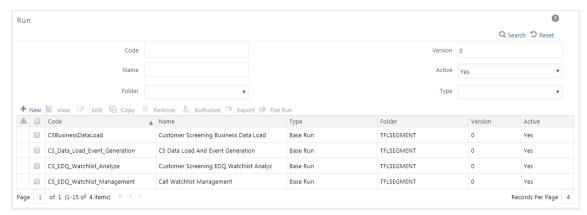
To execute a Customer Screening Run job, follow these steps:

- 1. Navigate to FCI DB HOME/bin.
- 2. Execute EDQInsert.sh by passing infodom. This step is used to register the EDQ server details. Enter the EDQ server IP, Port number, user name and password details.

For example, ./EDQInsert.sh SANCTIONSINFO

```
/scratch/ofsaadb/PACK806BS/PACK806BS/ficdb/bin>./EDOInsert.sh BDPACKINFO
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:
Enter EDQ Server User Name:
weblogic
Enter EDQ Password:
Encrypting password
Enter ECM URL:
https://mum00ctf.in.oracle.com:7501/BDPACK
Enter ECM User Name:
ECMADMN.
Enter ECM Password:
Encrypting password
```

- 3. Copy the EDQ run profile to FIC_DB_HOME/conf folder. The Name should be exactly same as customer-screening.properties.
- 4. Load the stage table data for customer related tables. It is mandatory for Customer and Customer Address.
- 5. Run the **Truncate_Tables** job in the Rule Run Framework screen.



6. Fire the CS Data Load Alert Generation run.

2.4.1 Loading Data into the CUST tables

Once the job is run, data is truncated and loaded back into the CUST tables. To prevent this, follow these steps:

- 1. Login as CSADMN.
- 2. Click Common Tasks >> Rule Run Framework >> Run. The Run page appears.
- 3. Click Run in the RHS menu.
- 4. Select the checkbox for CS Data Load Event Generation.
- 5. Click Edit.
- 6. In the Selector menu, click **Job**. The Job window appears.
- 7. Select the checkbox for Truncate Tables.
- 8. Click . The Parameters window appears.
- 9. Change the parameter value to "N".
- 10. Click **OK** to close the Parameters window.
- 11. Click **OK** to close the Job window.
- 12. Click NEXT.
- 13. Click SAVE.

2.4.2 Creating and Running Parallel Batches

Parallel batches can be run in CS if you want to run batches which have different jurisdictions at the same time. To run parallel batches, you can run the **CS_Data_Load_Event_Generation** job for each jurisdiction.

To create parallel batches, follow these steps:

- 1. Create a process.
- 2. Create a run.

2.4.1.2 Creating a Process

To create a process, follow these steps:

- 1. Log on to the Customer Screening application.
- 2. Click **Common Tasks > Rule Run Framework > Run**. The Run page appears.

- 3. Make an entry in the cs_processing_group table. For ex, GROUP_US.
- 4. Search for Start in the Code field.
- 5. Select CS End To End Start Batch.
- 6. Click **Copy**. The Run page appears in Copy Mode.
- 7. In the Folder field, click the folder icon.
- 8. Click TFLSEGMENT.
- 9. In the Name field, change the job name to include the Jurisdiction Code. For example, CS Data Load Event Generation US.
- 10. Select F CS BATCH RUN.
- 11. Select Component.
- 12. 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.
- 13. Click **Ok**.
- 14. Click **Ok**.
- 15. Click Save.
- 16. Search for End in the Code field.
- 17. Select CS End To End End Batch.
- 18. Click **Copy**. The Run page appears in Copy Mode.
- 19. In the Folder field, click the folder icon.
- 20. Click TFLSEGMENT.
- 21. In the Name field, change the job name to include the Jurisdiction Code. For example, CS Data Load Event Generation US.
- 22. Select F CS BATCH RUN.
- 23. Select Component.
- 24. 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.
- 25. Click **Ok**.
- 26. Click Ok.
- 27. Click Save.

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

Note: In the example above, 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.

2.4.1.3 Creating a Run

To create a run, follow these steps:

- 1. Select CS Data Load Event Generation.
- 2. Click **Copy**. The Run page appears in Copy Mode.
- 3. In the Folder field, click the folder icon.
- 4. Click TFLSEGMENT.
- 5. In the Name field, change the job name to include the Jurisdiction Code. For example, CS Data Load Event Generation US.
- 6. Click **Selector > Job**. The Component Selector page appears.
- 7. In the Component Selector page, remove the CS_End_To_End_Start_Batch, CS_End_To_End_Start_Batch, and Truncate CS Tables tasks (in that order) by selecting them and clicking . The tasks are moved to the List section.
- 8. Replace these tasks with the tasks that we have created in step 24 of *Creating a Process*.

Note: Ensure that you remove the Truncate CS Tables job, else data will get lost. In the event that you do not move the job, run the CSBusinessDataLoad job. This will reload data in the tables.

- 9. Click **Ok**.
- 10. Click **Ok**.
- 11. Click Save.

The new job is now displayed in the Run page.

Note: All the above steps also must be done in the ECM setup. The processes and runs created in Customer Screening create events or alerts, and the processes and runs created in ECM fetches alerts which are converted to events and finally to cases. 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.

2.5 Risk Scoring

Oracle Financial Services Customer Screening includes a mechanism for estimating the relative risk of doing business with a given entity or individual. A risk score is calculated for each individual or entity on each watch list, based on various attributes such as country of residence, operating country, associated regime and so on. For a full description of the risk scores and weightings supplied as defaults with Oracle Financial Services Customer Screening, please refer to Appendix D: Risk scoring reference data.

The risk element score values and weightings supplied with Oracle Financial Services Customer Screening are general defaults only. They should be evaluated and tuned by a risk and compliance expert with knowledge of your business requirements and the relevant legislation.

2.5.1 Adjusting the Risk Scoring Mechanism

Oracle Financial Services Customer Screening calculates a risk score and a PEP risk score for every alert created by the screening processes. The risk score is a relative measure, out of a maximum of 100, of the risk posed by the identified individual or entity. The PEP risk score identifies the relative riskiness of the individual or entity when considered as a PEP, and as such does not apply to sanctions. This may be quite different to the non-PEP risk score. Therefore, the same algorithms are used to derive the risk score and PEP risk score, but the underlying scores and weightings on which the calculations are based are different.

Note: The remainder of this section will use the phrase 'risk scores' exclusively. However, the methods and algorithms described apply equally to PEP risk scores.

The overall risk score of a potential match is calculated as a weighted average of the risk scores calculated for the watch list and customer data and external entity records which are involved in the match. In turn, both the watch list risk score and customer data and external entity risk scores are calculated as a weighted average of the risk scores of contributing risk elements. A risk element is a data field, such as country of operation or occupation, which can be assigned a risk score based on its value.

The risk scoring calculation can be customized by adjusting:

- The scores associated with the values of the risk elements
- The relative weightings of the risk elements
- The relative weight of the watch list risk score, customer data risk score, and external entity risk score

The reference data tables which must be adjusted to fine-tune the risk scoring mechanism depend on which watch lists you are using in your screening processes.

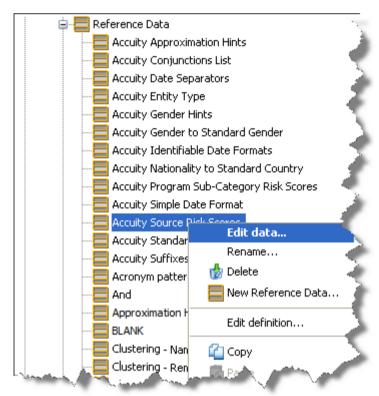
Alternatively, Oracle Financial Services Customer Screening may be integrated with a third party source of watchlist risk scores which can be used to completely replace the in-process risk score calculation.

Adjusting the Risk Element Scores

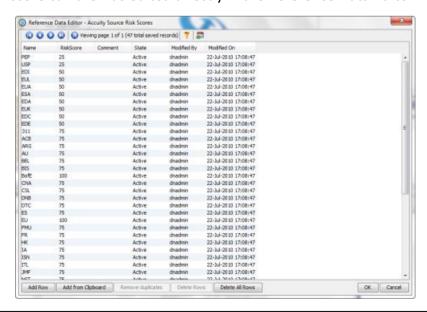
Risk element scores are adjusted by editing reference data directly. The elements that are considered when calculating a risk score for a record depend on the fields that are present in the watch list (or customer) record.

To edit the risk element values in EDQ, follow these steps:

- 1. Open the Watchlist Management project.
- 2. Double-click on the reference data item in the Project Browser.
- 3. Right-click on the reference data item and select Edit data.



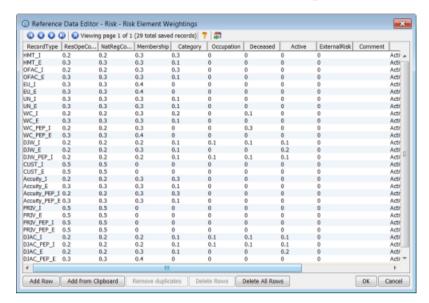
4. The risk score can then be edited directly in the Reference Data Editor:



Note: If you edit the risk scores you must re-run the Download, Prepare, Filter and Export All Lists job (in the Watchlist Management project), and then run the MAIN job (in the Watchlist Screening project). Until this is done, the new risk scores will not be reflected in the generated matches.

Adjusting the Risk Element Weightings

Risk element weightings are controlled in a set of reference data named Risk Element Weightings. This reference data set specifies, for each type of record, which fields in that record contribute to the risk score calculation, and to what degree:



Record types are specified as a combination of the originating watch list and a suffix specifying whether the record represents and individual (_I), or an entity (_E). Working records have a record type of CUST_I or CUST_E, respectively.

The **ResOpeCountries** column specifies the weighting for the **Residential Country** field for individuals, or the **Operating Country** field for entities. The **NatRegCountries** column specifies the weighting for the **Nationality Country** field for individuals, or the **Registrations Country** field for entities.

This reference data, which is in the Watchlist Management project, can be edited as described above. The higher the weighting number, the more the corresponding element will contribute to the final score. The weighting scores for each row type should add up to 1.

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

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

Where the risk element score for element x is represented by \mathbb{E}_x , the weighting for element x is represented by \mathbb{W}_x , and

```
(w1 + w2 + ... + wn = 1).
```

Note that if no data is present for a given element, it is not assumed to have a risk score of zero, but instead will not be included in the risk score calculation.

Setting Thresholds for Case Priorities

Case priority is based on the case type and risk score. You can see the case priority in the FCC_CASE_PRIORITY table. For more information, refer to the <u>Oracle Financial Services</u> Enterprise Case Management Administration Guide.

2.6 Configurations for GDPR

The following configurations need to be made only if GDPR masking has been applied for BD:

- 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

Note: Before you execute the grant, you must first connect to the user.

3. 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 who has the cust data and GDPR applied.

Note: Before you execute the command, you must first connect to the user.

- 4. In the Project Browser pane in EDQ, click **FCCM Batch Data**. The Edit Data Source window appears.
- 5. In the Edit Data Source window, give the details of the user.

Once you complete the above steps, you will be able to access the complete data in the CUST table.

Chapter 3: Preparing Customer and External Entity Data for Screening

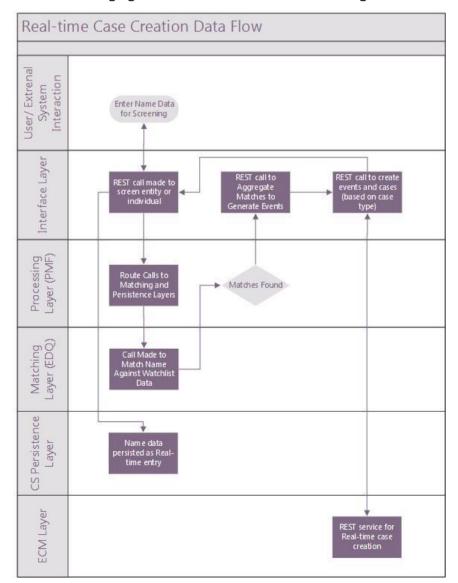
The sections in this chapter describe the steps needed to prepare the customer data and external entity data for Oracle Financial Services Customer Screening:

- Real-Time Screening
- Batch Screening from Financial Crime Data Model (FCDM)
- Financial Crime Data Model (FCDM) System Name
- Financial Crime Data Model (FCDM) Data Preparation

3.1 Real-Time Screening

Real-time screening is deployed in conjunction with a back-office batch screening approach, allowing the business to screen individuals and entities at the point of data acquisition and on an ongoing basis.

The below image gives the flow of Real-time screening:



There are two ways to perform real-time screening: using the *Case Summary* page in Enterprise Case Management (ECM) or by making a REST call.

When you provide data in the *Real-Time Screening* page (see section below), a REST call is made to the individual or entity being screened in the Process Monitor Facility (PMF) system. The call is then routed to the Enterprise Data Quality (EDQ) system, and data is matched against the watch list data. Data is also persisted as external entities in the FCT RTSCR REQUEST table.

If a match is found, matches are aggregated, and events and responses are generated in PMF. The aggregated matches are used to create events and cases for external entities in FCDM and AAI and generate responses in PMF. The cases are displayed in the *Case Summary* page in Enterprise Case Management (ECM) and can be reviewed.

Note:

- Real-time screening can be performed only when the real-time screening job is running.
- If you need to cancel either of the real-time screening processes for any reason other than as part of a scheduled job, it is important that you select Shutdown web services:



• 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.

3.1.1 Configuring the EDQ URL

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

- 1. Navigate to FCI DB HOME/bin.
- 2. Execute EDQInsert.sh by passing infodom. This step is used to register the EDQ server details. Enter the EDQ server IP, Port number, user name and password details.

For example, ./EDQInsert.sh SANCTIONSINFO

```
/scratch/ofsaadb/PACK806BS/PACK806BS/ficdb/bin>./EDQInsert.sh BDPACKINFO
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 EDO Server Director Port:
Enter EDQ Server User Name:
weblogic
Enter EDQ Password:
Encrypting password
Enter ECM URL:
https://mum00ctf.in.oracle.com:7501/BDPACK
Enter ECM User Name:
ECMADMN.
Enter ECM Password:
Encrypting password
```

3. Configure the EDQ URL in config schema. To do this, run the following script and replace the placeholders in the <code>v_method_name</code> and <code>v_param_1</code> columns with your EDQ URL and EDQ user name and 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')
```

For example:

- The placeholder for the EDQ URL may be http://whf00bte.in.oracle.com:7008/edq. You must replace this with the URL of your EDQ server.
- The placeholders for the EDQ user name and password may be weblogic and weblogic1. You must replace this with the user name and password of your EDQ server.

3.2 Batch Screening from Financial Services Crime Model (FCDM)

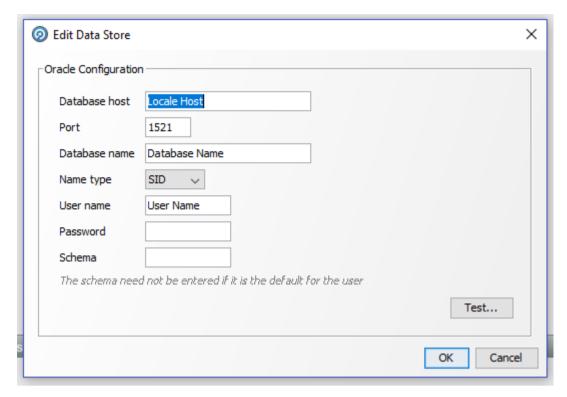
Staging Database Connection Details

In order to be able to run the Customer Screening jobs using FCDM as source of customer data and external entity data, you need to tell EDQ about the connection details of the staging database into which FCDM will place the Customer Information to be screened.

Database parameters have to be set in Data Stores.

To do this, follow these steps:

 For Customer Screening, open the director and select the 'Customer-Screening' project. In Data stores, open 'FCDM Batch Data'. Edit and enter the data base details.



 For External Entity Screening, open the director and select the 'Customer-Screening' project. In Data stores, open 'FCDM Batch Data'. Edit and enter the data base details.

The OEDQ Config Folder:

Your OEDQ instance's config folder might not be named 'config'. The choice of the config folder's name is made when OEDQ is installed - in some cases a name is automatically allocated. OEDQ release 11g and later has both a 'base' and a 'local' config folder. The base config folder is often called 'oedqhome', and the local config folder is often called 'oedqlocalhome'. In some cases, dots or underscores may be inserted into these names (for example: 'oedq_local_home'). Whenever you see a file path in this document that begins with config, this always refers to your OEDQ instance's local config folder.

2. Amend the parameter values so that they reflect the connection details of your staging database. For example, in the top line, replace hostname with the name or IP address of the machine that hosts your staging database.

Note: It is not necessary to enter the schema if the user you input is the schema owner.

The parameters can be passed as externalized values in the runopsjob command.

3.3 FCDM System Name

The FCDM Integration section of the **customer-screening.properties** Run Profile contains the following parameters:

```
phase.Batch\ Screening\ FCDM.enabled = Y
phase.Snapshot\ External\ Entity\ Data.enabled = N
```

The FCDM Integration section of the **external.entity.properties** Run Profile contains the following parameter:

```
phase.Snapshot\ External\ Entity\ Data.enabled = Y
```

You can optionally amend this parameter's value to a value of your choice. Whatever value you associate with this parameter is presented to reviewers as the List Sub Key in Enterprise Case Management.

3.4 FCDM Data Preparation

There is an FCDM specific data preparation process which needs to be run prior to the standard Customer Entities Preparation and Customer Individuals Preparation Process. This process performs a number of 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 needs to be validated for each specific implementation and the process adapted if needs be.

3.4.1 Analyzing Customer Data and External Entity Data Quality

Oracle Financial Services Customer Screening is supplied with a process which checks the appropriateness of data in FCDM for screening. This process can be run independently of the screening process, and identifies potential issues with the customer data and external entity data quality which may affect the efficiency of screening.

3.4.2 Running the Data Quality Analysis

To analyze your working customer data and external entity data, follow these steps:

- 1. Ensure that your working data has been loaded into FCDM and the customer-screening project has the correct database parameters.
- 2. Run the Analyze FCDM Customer Data Quality job.

Note: The **Analyze FCDM Customer Data Quality** job needs to be run with the FCDM version along with the **customer-screening.properties** file to get customer data and **external-entity-screening.properties** file to get external entity data.

The job checks your customer data for any quality issues that may have a negative impact on the screening process. The results of the quality analysis are written as staged data and can be viewed using the Server Console UI.

3.4.3 Data Quality Errors

The error codes and the associated messages that can be raised by the customer data and external entity data quality analysis are listed in the CDI Error Codes reference data. Each error message is assigned an error severity, from 1 to 4, which corresponds to the likely impact the issue will have on screening efficiency. The error severities are as follows:

Severity code	Description
1	Severe data error which prevents screening.
2	Invalid data which will limit the effectiveness of screening.
3	Missing data which will limit the effectiveness of screening.
4	Invalid data which has no effect on screening. Errors in this category will not
	affect the output of the match processor, but may cause issues when manually
	evaluating any potential matches that are raised.

Please refer to the Oracle Financial Services Customer Screening Customer Data Interface Guide for a more complete description of the data quality checks and potential validation errors.

Any rows in your customer data and external entity data which cause a severity 1 error message to be raised will also be rejected by the screening process. These rows lack data in the core attributes used by the screening process, and so cannot be processed meaningfully.

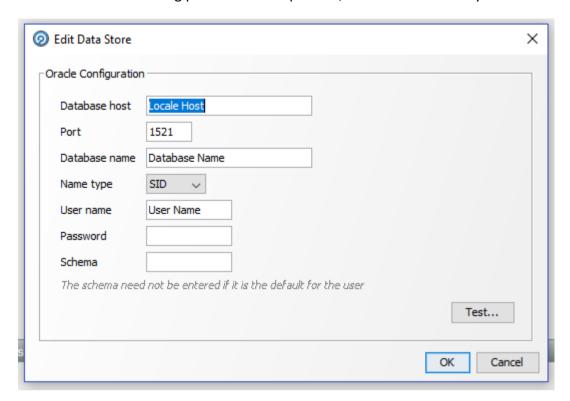
The screening processes will output rows which cannot be screened into the CUST_Individuals_Invalid staged data or the CUST_Entities_Invalid staged data, as appropriate. The error codes associated with each row will also be written to the database.

3.4.4 ETL Database Connection Details

After screening has run relationships (matches) and watchlist records are exported to the Customer Screening database for further processing and publishing to ECM.

Database parameters are set in 'ECM Matches Output' under the Data stores in Customer-Screening project.

Ensure that the following parameters are present, and add them if they are not:



Note: It is not necessary to enter the schema if the user you input is the schema owner.

The parameters can be passed as externalized values in the runopsjob command.

3.4.5 Batch Screening Job

To source the data from FCDM and run the FCDM data preparation process, the MAIN batch screening job phase needs to be disabled and the FCDM version enabled in the customer screening.properties and external-entity.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 also need to be enabled.

```
phase.ECM\ Export\ Matches.enabled = Y
phase.ECM\ Export\ Watchlist.enabled = Y
```

3.4.6 Real-Time Screening Job

To source the data from FCDM and run the FCDM data preparation process, the MAIN_RT real-time screening job phase needs to be disabled and the FCDM version enabled in the customer screening-real time.properties and external-entity.properties Run Profiles:

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

```
phase.Batch\ Screening\ FCDM.enabled = Y
```

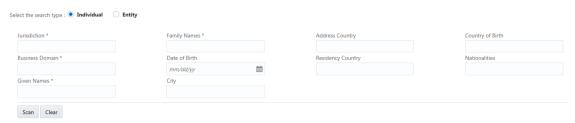
To export the data to the Customer Screening database these job phases also need to be enabled.

```
phase.ECM\ Export\ Matches.enabled = Y
phase.ECM\ Export\ Watchlist.enabled = Y
```

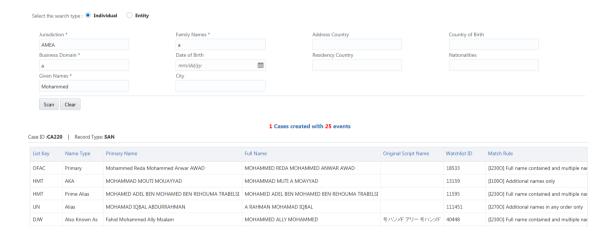
Appendix A: Screening Watch list Records in Real Time

To screen watch list records, follow these steps:

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



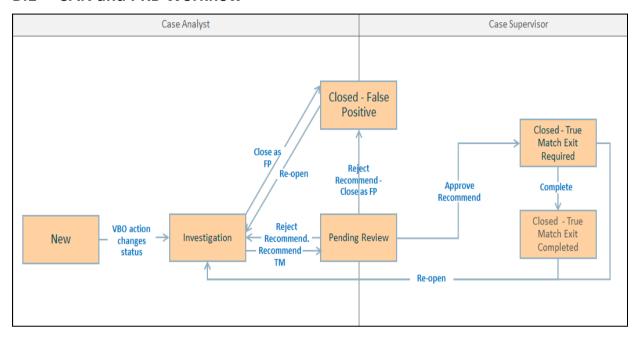
- 3. Select the search type as **Individual** or **Entity**.
- 4. Enter the Jurisdiction, Family Name, Business Domain, and Given Name of the individual (mandatory fields for Individual) or the Jurisdiction, Entity Name, and Business Domain of the Entity (mandatory fields for Entity). You can also provide additional details such as the Address, Country of Birth, Date of Birth, Country of residence, Nationality, and City of residence of the individual.
- 5. Click **Scan**. The screened watch list records appear.



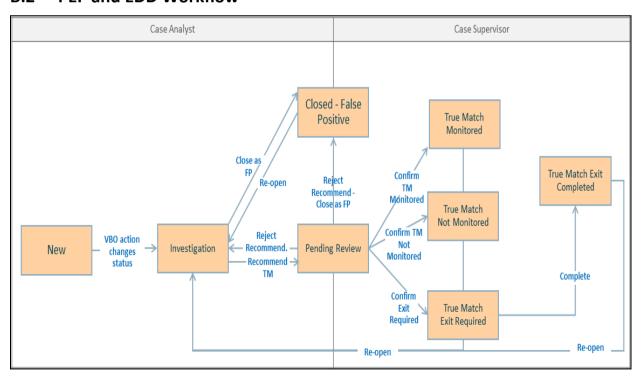
Appendix B: Workflow Diagrams

The following diagrams represent the workflow:

B.1 SAN and PRB Workflow



B.2 PEP and EDD Workflow



Appendix C: Pre-Configured Watch List Information

This appendix contains details of each of the pre-configured watch lists that can be used by Oracle Financial Services Customer Screening:

- HM Treasury
- OFAC
- EU consolidated list
- UN consolidated list
- World-Check
- <u>Dow Jones Watchlist</u>
- <u>Down Jones Anti-Corruption List</u>
- Accuity

C.1 HM Treasury Reference Data

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

The HM Treasury website provides more details about the list at:

https://www.gov.uk/government/publications/financial-sanctions-consolidated-list-of-targets.

Oracle Financial Services Customer Screening uses the list in a semi-colon delimited form. It can be downloaded from:

http://hmt-sanctions.s3.amazonaws.com/sanctionsconlist.csv.

C.2 OFAC Reference Data

The US Treasury website states that: "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." More details on the OFAC list can be found on the US Treasury website, at:

http://www.treasury.gov/ofac/

Oracle Financial Services Customer Screening supports two lists that are produced by OFAC:

- The OFAC Specially Designated Nationals (SDN) list, which is available for download in three separate parts from the following links:
 - 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, which can be downloaded in three separate parts from the following links:
 - 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

C.3 EU Reference Data

The European Union applies sanctions or restrictive measures in pursuit of the specific objectives of the Common Foreign and Security Policy (CFSP) as set out in Article 11 of the Treaty on 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. See the European Commission website for more details:

http://eeas.europa.eu/cfsp/sanctions/index en.htm

The consolidated list can be downloaded from the following link:

http://ec.europa.eu/external relations/cfsp/sanctions/list/version4/global/global.xml

C.4 UN Reference Data

The United Nations consolidated list includes all individuals and entities subject to sanctions measures imposed by the Security Council.

Details are here: https://www.un.org/sc/suborg/en/sanctions/un-sc-consolidated-list

Download link is:

https://www.un.org/sc/suborg/sites/www.un.org.sc.suborg/files/consolidated.xml

C.5 World-Check Reference Data

World-Check provides a subscription based service, offering a consolidated list of PEPs (Politically Exposed Persons) 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.

To download the World-Check Premium+ feed, set values in the **WC Setup** section of the watchlist-management.properties **Run Profile as follows**:

```
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 feeds, set values in the **WC Setup** section of the watchlist-management.properties **Run Profile as follows**:

```
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 parameter is set to Y, content from the following URL is displayed:

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

When the parameter is set to N, content from the following URL is displayed:

"https://www.world-check.com/frontend/profile/" || UID

See the World-Check website for more details:

https://risk.thomsonreuters.com/en/products/third-party-risk/world-check-know-your-customer.html

Note: If your instance of Oracle Financial Services Customer Screening uses the WebLogic application server, and you are screening against the World-Check watch list, then, in order to download the World-Check reference data successfully, you must add the following to the 'Server Start' arguments of your EDQ managed server:

```
-DUseSunHttpHandler=true
```

This is only required if you are using the WebLogic application server **and** screening against the World-Check watch list.

C.6 Dow Jones Watchlist Reference Data

Dow Jones provide a subscription based service offering a consolidated list of PEPs (Politically Exposed Persons) and entities and individuals appearing on the various sanctions lists. See the Dow Jones website for more details:

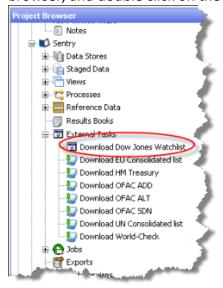
http://www.dowjones.com/products/risk-compliance/

The Dow Jones Watchlist automated download task uses one of two script files that are provided with Oracle Financial Services Customer Screening to provide further configuration of the download process. These script files are:

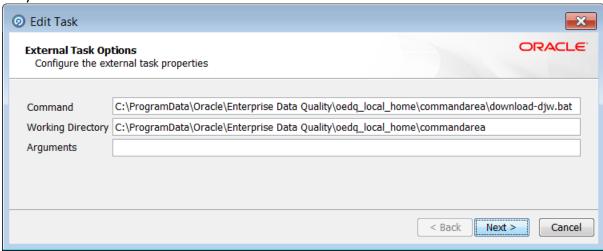
- download-djw.sh (for use on Unix platforms)
- download-djw.bat (for use on Windows platforms)

The script files are invoked by the automated task and will download the data files and copy them to the appropriate sub-folder of the OEDQ landing area. The script files must be modified to provide the appropriate download URL and any required proxy server details for your Internet connection, as detailed in the following procedure:

1. Open the **External Tasks** node for your List Management project in the project browser, and double click on the **Download Dow Jones Watchlist** task.



2. Configure the external task to call the batch or shell file, as appropriate, that is in use for your installation:



- 3. Configure your PATH system variable to include the path to your Java installation. The external file invokes Java directly, so the PATH must be configured appropriately.
- 4. Finally, edit your batch or script file to include your Dow Jones authentication information and any proxy server configuration details that are applicable.

C.7 Dow Jones Anti-Corruption List Reference Data

Dow Jones provide a subscription based service containing data to help you assess, investigate and monitor third-party risk with regard to anti-corruption compliance regulation. See the Dow Jones website for more details:

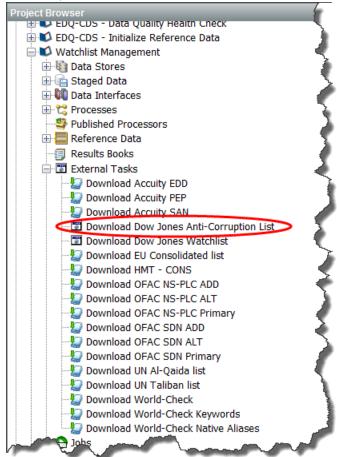
http://www.dowjones.com/products/risk-compliance/

The Dow Jones Anti-Corruption List automated download task uses one of two script files that are provided with Oracle Financial Services Customer Screening to provide further configuration of the download process. These script files are:

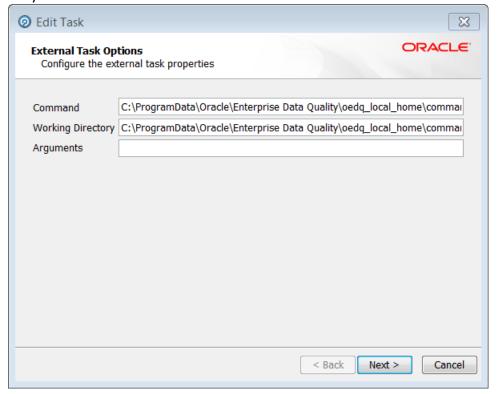
- download-djac.sh (for use on Unix platforms)
- download-djac.bat (for use on Windows platforms)

The script files are invoked by the automated task and will download the data files and copy them to the appropriate sub-folder of the OEDQ landing area. The script files must be modified to provide the appropriate download URL and any required proxy server details for your Internet connection, as detailed in the following procedure:

1. Open the **External Tasks** node for your Watchlist Management project in the project browser, and double click on the **Download Dow Jones Anti-Corruption List** task.



2. Configure the external task to call the batch or shell file, as appropriate, that is in use for your installation:



- 3. Configure your PATH system variable to include the path to your Java installation. The external file invokes Java directly, so the PATH must be configured appropriately.
- 4. Finally, edit your batch or script file to include your Dow Jones Anti-Corruption List authentication information and any proxy server configuration details that are applicable.

C.8 Accuity Reference Data

The Accuity Global Watchlist is a subscription based service. The Accuity website states:

Accuity'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. Global WatchList provides the ideal framework for your customer screening and interdiction filtering processes.

Accuity provide their aggregated data as a set of three lists, as follows:

- The Regulatory Due Diligence (RDD) Lists, covering sanctioned entities and individuals. Optionally, the Accuity Group File can be used in conjunction with this list (see <u>section UNRESOLVED CROSS REFERENCE "Using the Accuity Group File"</u>)
- Enhanced Due Diligence (EDD) Lists, covering entities and individuals who are not part of the regulatory sanctions lists, but whose activity it may be desirable to monitor

• The Politically Exposed Persons (PEPs) Due Diligence Database, covering PEPs.

Any or all of the lists can be downloaded and used separately or in conjunction with each other. Please refer to the Accuity website for further details:

http://www.accuity.com/compliance/

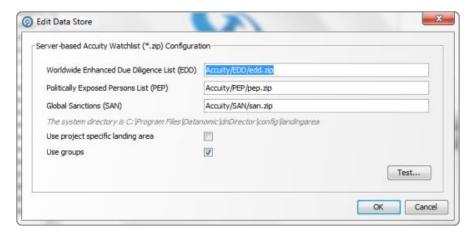
Using the Accuity Group File

The Accuity Global Watchlist is created by aggregating many other lists. As such, any given individual or entity may be represented in the list by multiple entries.

The group file, **GROUP.XML**, provides a way to work with a data set of this type in Oracle Financial Services Customer Screening. Records which all represent the same individual or entity are collected into groups, and each group is assigned a unique group ID. The group ID is used, with a prefix indicating the fact that this is a group ID, in place of the original record identifier in Case Management. Records which are not included in a group use their original Accuity record ID, with a different prefix to indicate that they are single records.

Note: The group file only applies to sanctions screening. That is, only entities and individuals on the Regulatory Due Diligence (RDD) Lists are included in the group file.

The group file allows case generation to be centered around real-world individuals, rather than separate watch list records. Groups are used by default. To change this, open the Accuity Data Store in the Watchlist Management project, and deselect the **Use groups** option:



If you choose to use the group file but it is not present in your downloaded data, an error will be generated.

New Alerts Resulting from Use of the Group File

Using the group file causes the original list ID for an entry to be replaced with the appropriate group ID. The list ID is used in the alert key, so changes to the list ID will result in new alerts being raised for existing, known relationships. There are two main scenarios in which this may occur:

• Individuals or entities are moved into, out of or between groups by Accuity, new alerts will be generated for existing relationships.

Note: Use of the group file may result in new alerts being raised for existing relationships if the group file structure is changed by Accuity. There is at present no way to circumvent this issue

• The **Use Groups** setting is changed after cases and alerts have already been generated.

WARNING: The setting for the **Use Groups** option should be selected during the implementation phase of the project. Once screening has started, it should not be changed unless absolutely necessary. Changing this setting is likely to result in existing alerts being re-raised with a new alert ID.

Appendix D: Screening Non-Latin Character Sets

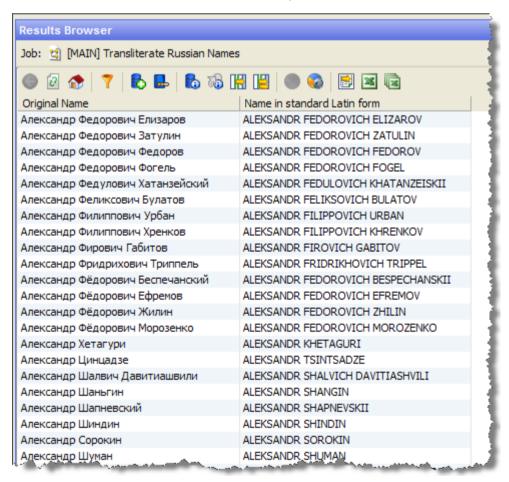
The reference data sources supported by Oracle Financial Services Customer Screening are all provided in the Latin character set, and some in original scripts as well (See "Screening Non-Latin Character Sets"). The screening processes can be used with non-Latin data if required. In addition, Oracle can provide linguistic name matching and culture derivation by integration with IBM's Global Name Recognition product.

Non-Latin working data can be screened against the existing supported Latin reference data sources by performing transliteration of the working data from the non-Latin character set to the Latin character set.

Non-Latin working 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 in the non-Latin character set. Text will be processed on a left-to-right basis.

Note: It may be necessary to install additional language packs in order to display non-Latin data.

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



Original Script Matching

To match original script data against reference data:

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

For further details on preparing customer data and external entity data and to enable match rules, see the Customer Data Interface and Matching Guides.

Note: Changes will be required to the FCDM Customer Preparation process to support this.

Appendix E: Risk scoring reference data

This appendix lists the reference data tables supplied with Oracle Financial Services Customer Screening which contain data used to calculate risk scores and PEP risk scores. You can find these reference data tables in the Watchlist Management project.

E.1 General

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.

E.2 Country Prohibitions

The following reference data tables contain risk score values used in country prohibition screening processes:

- Country Prohibitions Entities
- Country Prohibitions Individuals

E.3 Dow Jones Watchlist

The following reference data tables contain risk score values used when calculating risk scores for the Dow Jones Watchlist records:

- DJW Occupation Category
- DJW List Provider Risk Scores
- DJW SI Category Description
- DJW SI Category

E.4 Dow Jones Anti-Corruption List

The following reference data tables contain risk score values used when calculating risk scores for the Dow Jones Watchlist records:

- DJAC Occupation Category
- DJAC List Provider Risk Scores
- DJAC SI Category Description

E.5 EU Reference Data

There are no reference data tables containing risk score values used only for calculating risk scores for the EU reference data records.

E.6 HM Treasury Reference Data

The following reference data table contains risk score values used when calculating risk scores for the HM Treasury Reference Data records:

• HMT Regime

E.7 OFAC Reference Data

The following reference data table contains risk score values used when calculating risk scores for the OFAC Reference Data records:

• OFAC SDN Program

E.8 UN Reference Data

The following reference data table contains risk score values used when calculating risk scores for the UN Reference Data records:

UN List Type

E.9 World-Check Reference Data

The following reference data tables contain risk score values used when calculating risk scores for the World-Check Watchlist records:

- WC Category
- WC Keyword (used by the lookup WC Keyword Risk Score Lookup)

E.10 Accuity Reference Data

The following reference data tables contain risk score values used when calculating risk scores for the Accuity Reference Data records:

- Accuity Program Sub-Category Risk Scores
- Accuity Source Risk Scores

E.11 Risk Element Weightings

The following reference data table contains the weightings used when calculating a record risk score from the various contributing elements:

• Risk - Risk Element Weighting