Inline Processing Engine User Guide

Release: 8.0.0.0.0
January 2015

Part Number: E60863-01

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Contents

Preface

This guide explains the concept behind the Inline Processing Engine (IPE) and step-by-step instruction to use the application.

This preface includes the following topics.

- Audience
- Prerequisites
- Limitations
- Related Documents
- Conventions

Audience

This guide is intended for the following users:

- **Business Analysts** (BA) who are instrumental in solution design and creating statistical models using historical data.
- **System Administrators** (SA) who maintain and execute batches, make the Infrastructure Application secure and operational, and configure users and security.

Prerequisites

Before using the Inline Processing Engine application, the following prerequisites are required:

- Successfully installed infrastructure and related software
- Good understanding of business needs and administration responsibilities
- In-depth working knowledge of business statistics
- Sample Application installation - mandatory for IPE Framework

Limitations

The Inline Processing Engine Application has the following limitations:

- IPE and OFSAAI must be installed in the same profile
- IPE is not qualified for Tomcat Webserver
- The Action *Send Message for Cross Selling-RTD* is not supported in OFSAA 8.0.0.0.0 Release

Related Documents

For more information about the Inline Processing Engine, refer to the following documents in OHC:

- *OFS Inline Processing Engine Configuration Guide 8.0*
- *OFS Inline Processing Engine Sample Application Installation Guide 8.0*
- *OFS Advanced Analytical Applications Infrastructure Application Pack Installation and Configuration Guide 8.0*
- *OFS Analytical Applications Environment Check Utility Guide 8.0*

Conventions

Table 1 provides the conventions used in this guide.

Table 1. Conventions Used in this Guide

Convention	Meaning
Italics	• Names of books, chapters, and sections as references • Emphasis
Bold	• Object of an action (menu names, field names, options, button names) in a step-by-step procedure • Commands typed at a prompt • User input
`Monospace`	• Directories and subdirectories • File names and extensions • Process names • Code sample, including keywords and variables within text and as separate paragraphs, and user-defined program elements within text
<Variable>	Substitute input value

Acronyms

This guide uses the following acronyms.

Table 2. Acronyms

Acronyms	Meaning
HTML	Hyper Text Markup Language
HTTP	Hypertext Transfer Protocol
Infodom	Information Domain
IP	Internet Protocol

Table 2. Acronyms

IPE	Inline Processing Engine
OFSAA	Oracle Financial Services Analytical Applications
OFSAAA	Oracle Financial Services Advanced Analytical Applications
OFSAAI	Oracle Financial Services Analytical Applications Infrastructure
OHC	Oracle Help Center
LHS menu	Left hand side menu
PDF	Portable Data Format
URL	Uniform Resource Locator
XML	Extensible Markup Language

CHAPTER 1 About Inline Processing Engine (IPE)

The Oracle Financial Services Inline Processing Engine application creates an infrastructure for real time monitoring of incoming messages. This capability will enable you to identify fraud events earlier, avert more losses, and minimize customer service and retention issues.

This chapter covers the following topics:

- Overview
- Workflow of Inline Processing Engine application
- Users, Roles, and Actions

Overview

The Inline Processing Engine supports the ability to rapidly provide knowledge of related suspicious behavior back to individual business units, and even alert customers about any unpredicted activity.

This capability helps to identify events earlier, avert more losses, and minimize customer service and retention issues. This combination of real-time detection and interdiction, real-time alert correlation, and sophisticated behavior detection provided by the application, will result in a competitive fraud prevention offering.

The system uses cases from risk and performance OFSAA Applications, where real time monitoring is required.

Key Features

The Inline Processing Application has the following key features:

- **Association and Configuration**- The Association and Configuration menu has the following sections:
  - Processing Segments
  - Business Entities
  - Inline Datasets
  - Traversal Path
- **Expressions** - Expressions are used in Evaluation scoring and Filters.
- **Post Processing Actions** - Post Processing Actions are the actions which can be triggered by the outcome of the Assessment.
- **Profiles** - A profile is an aggregation of information. Profiles can be based on different grouping entities (for example, account, customer, and so on). This can be filtered to only look at particular kinds of transactions. Profiles can be based on time (last three months) or transaction counts (last 100 transactions).

- **Evaluations** - An assessment is made up of multiple individual evaluations. These evaluations start with information on the incoming transaction and check logical conditions.
- **Assessments** - When a transaction is received, an Assessment is performed. The assessment is a collection of individual evaluations, each of which can return a score.

Workflow of Inline Processing Engine application

The process flow of the Inline Processing Engine application is shown below.

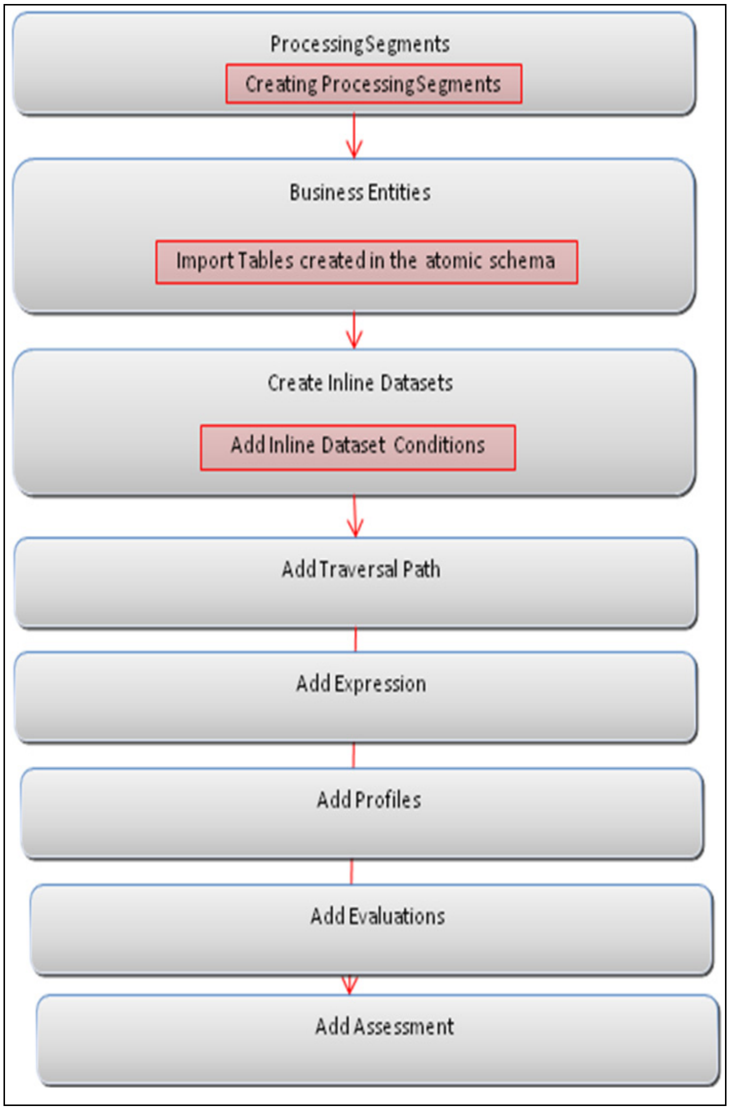


Figure 1. Workflow

Users, Roles, and Actions

The Inline Processing Engine application consists of the following users and their actions:

Users

Business Analyst and System Administrator.
The user group IPEADMN must be mapped to the user to access the Page.

Actions

- Business Analyst- This user assesses and analyses the data.
- System Administrator- This user configures the system.

CHAPTER 2 Getting Started

This chapter describes how to get started with Inline Processing Engine.

This chapter discusses the following topics:

- Accessing OFSAA Applications
- Navigating to Inline Processing Engine Home Page
- Using Common Buttons

Accessing OFSAA Applications

To access the OFSAA Applications, follow these steps.

1. Enter the URL in below format in your browser.

   <scheme/ protocol>://<ip address/ hostname>:<port>/<context-name>/login.jsp (for example, https://myserver:9080/ofsaaapp/login.jsp). The OFSAA Login page is displayed.

Figure 2. OFSAA Login page

2. Select the Language from the Language drop-down list.
3. Enter your User ID and Password.
4. Click **Login**. The OFSAA Application page is displayed.

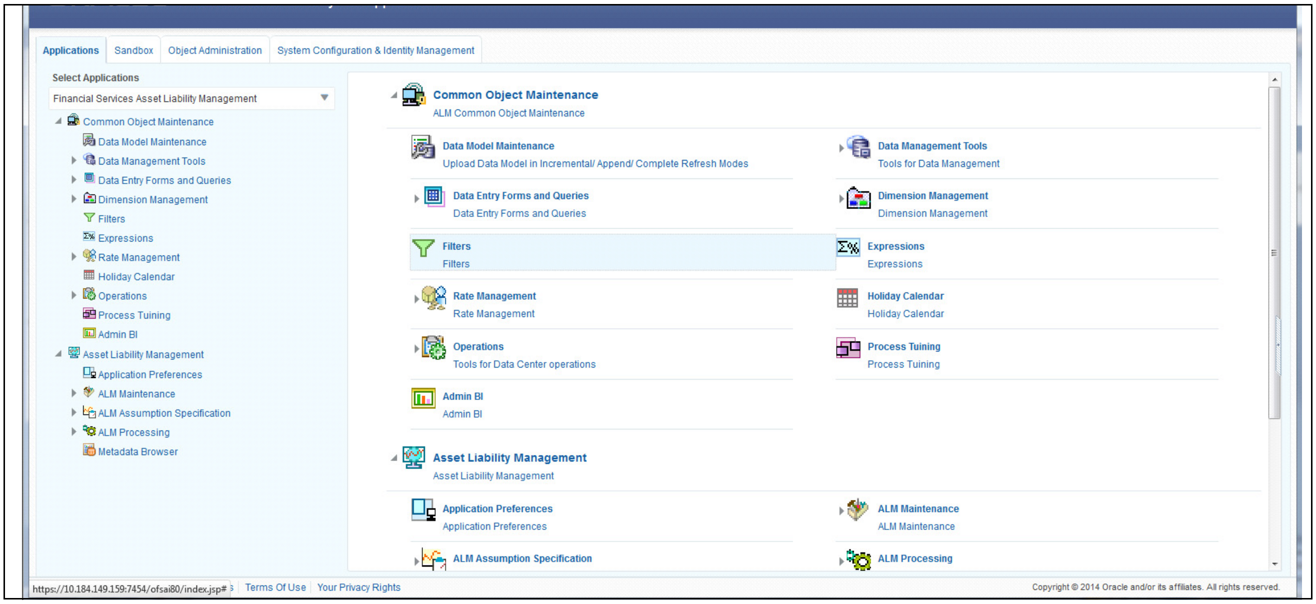


Figure 3. OFSAA Home page

The OFSAA Application page is a common landing page for all users until a preferred application page is set.

The OFSAA Application page has multiple tabs and each tab has specific links to OFSAA Infrastructure and/or Application modules. Depending on the user roles, you are mapped and OFSAA Application you select, relevant the tabs and links are displayed .

This page is divided into two panes:

- **Left pane**: this pane displays the menu(s)/link(s) to modules in a tree format based on the application being selected in the Select Application drop down.
- **Right pane**: this pane displays menu(s)/ link(s) to modules in a navigational panel format as per the selection of the menu on the Left pane. It also provides brief description of each menu or link.

Navigating to Inline Processing Engine Home Page

To navigate to the Inline Processing Engine, follow these steps:

1. Select **Inline Processing Engine** from the Select Application drop-down list. The Inline Processing Engine Home page is displayed.

Figure 4. OFSAA Home page

2. Click **Inline Processing** in the right pane. The Inline Processing Home Page is displayed.

Components of Inline Processing Engine page

Following are the components of Inline Processing Engine Home page:

- Sandbox Tab
- Object Administration Tab
- System Configuration and Identity Management Tab

Sandbox Tab

Sandbox is a restricted environment in which you can analyze the data on a trial and errors basis and come up with actual analysis that helps predict the risks and business opportunities for banking institutions. You can create a sandbox by selecting the required datasets and the information domain which you want to implement as the sandbox.

The Sandbox tab lists the various Sandboxes created in the OFSAA setup based on the logged in user and mapped OFSAA Application User Group(s).

To access the Sandbox tab, select the required Sandbox from the Select Sandbox drop-down list.

Based on your selection, the page refreshes the menus and links across the pane.

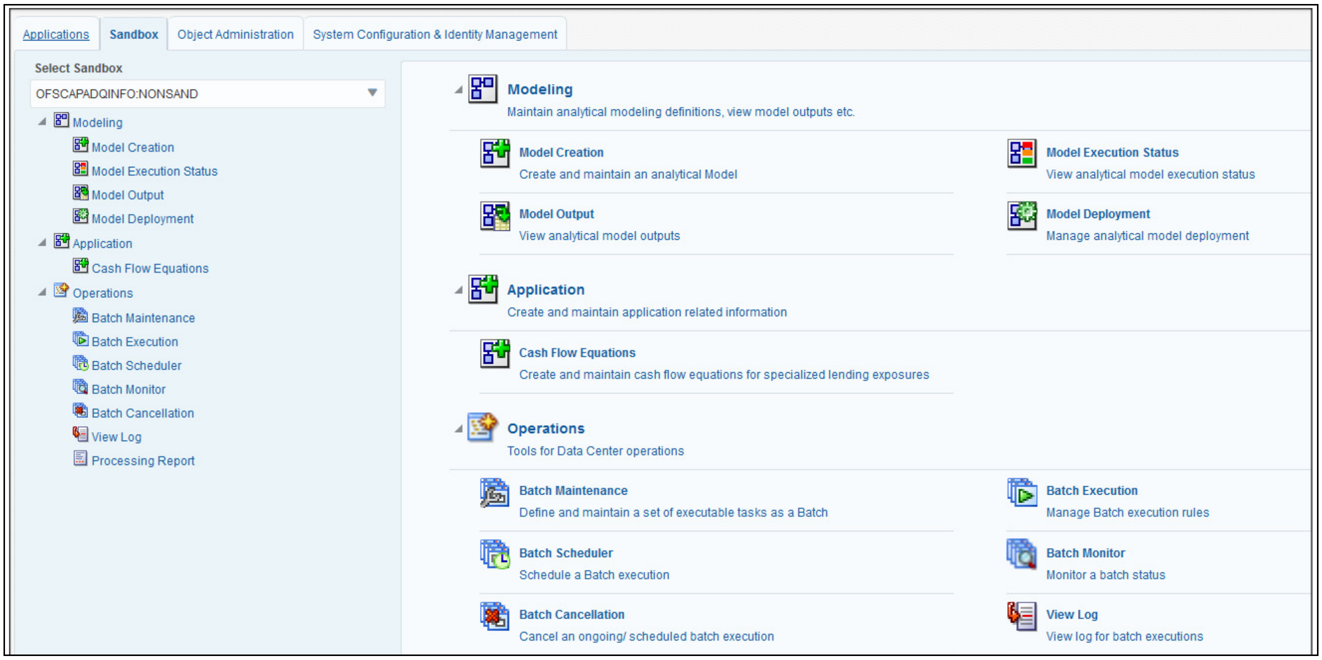


Figure 5. Sandbox tab

Object Administration Tab

Object Administration is an integral part of the Infrastructure system and facilitates system administrators to define the security framework with the capacity to restrict access to the data and metadata in the warehouse, based on a flexible, fine-grained access control mechanism. These activities are mainly done at the initial stage and then on need basis.

The document deals with the information related to the workflow of Infrastructure Administration process with related procedures to assist, configure, and manage the administrative tasks effectively.

The Object Administration tab lists the various OFSAA Information Domains created in the OFSAA setup based on the logged in user and mapped OFSAA Application User Group(s)

To access the Object Administration tab, select the required Information Domains from the Select Information Domains drop-down list.

Based on your selection, the page refreshes the menus and links across the pane.

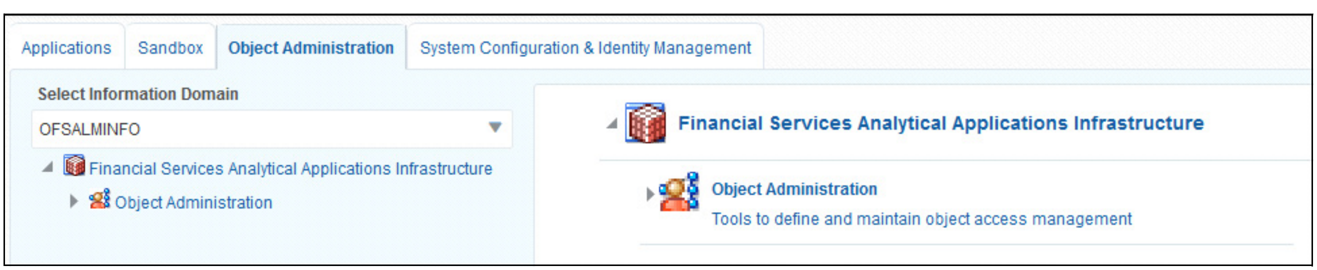


Figure 6. Object Administration tab

System Configuration and Identity Management Tab

System Configuration and Object Administration is an integral part of Infrastructure administration process and facilitates System Administrators to provide security and operational framework required for Infrastructure.

System Administrators can configure the Server details, Database details, OLAP details, and Information Domain along with the other Configuration process such as segment and metadata mapping, mapping segment to security and rules setup. System Configuration is mostly a one time activity which helps System administrator to make the Infrastructure system operational for use.

The System Configuration and Identity Management tab lists the OFSAA Infrastructure System Configuration and Identity Management modules. These modules work across Applications and Information Domains and hence, there are no Application and Information Domain drop-down list in this tab.

To access the System Configuration and Identity Management tab, select the required Information Domains from the Select Information Domains drop-down list.

Based on your selection, the page refreshes the menus and links across the pane.

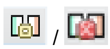
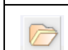
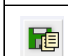
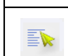
Figure 7. System Configuration and Identity Management Tab

Using Common Buttons

Table 3. Common Buttons

Button	Description
	To create a function.
	To view the details of a function.
	To edit the details of a function.
	To clear the fields and reset to default values.
	To select a new member.
	To select a filter / run condition/ define sub process.
	To select a source / component / job.
	To select a hierarchies / measures / job condition.
	To set precedence for members.
	To execute a Run definition.
	To select hierarchical members
	To delete a function.
	To select the entities.
	To validate grid data.
	To save the details.
/ /	To view the properties.
	To Refresh the grid details.
	To erase a specific value.
	To define an expression.
	To generate source model.
	To add attributes / add Source Configuration / Authorize a function.
	To generate Source Models.
	To generate a logic and view the SQL query / check syntax of the stored procedure.
	To add the source database configuration details.
	To view the dependencies of the selected Object.
/	To Export data.
	To trace a definition details.
	To receive instant on-window help.
	To view the log.

Table 3. Common Buttons

	To view the
	To specify a date using calendar.
	To View Dependencies.
	To run the object migration rule.
	To interrupt the object migration rule.
	To add and view the source database configuration details
	To authorize or reject a function / definition.
	To map / un-map source tables to columns.
	To view the time dependencies.
	To view the pagination option.
	To view SQL statement.
	To view and enter the details in the *Expression* window.
	To create a Rule function.
	To open and view the rule details.
	To save a Rule function.
	To search / find a member.
	To Save with customized details.
	To view the rule properties.
	To map between hierarchies.
	To select a member.
	To deselect a member.
	To sort in ascending order.
	To sort in descending order.
 or 	To access the documentation resources.

CHAPTER 3 Managing Association and Configuration

This chapter provides detail information about Association and Configuration functionality and step-by-step instructions to use this module.

This chapter discusses the following topics:

- Managing Processing Segments
- Managing Business Entities
- Managing Inline Datasets
- Managing Traversal Paths

Accessing Association and Configuration Menu

To access Association and Configuration, follow these steps:

1. Navigate to Inline Processing Home Page.
2. Select **Association and Configuration**. The Association and Configuration Details page is displayed.

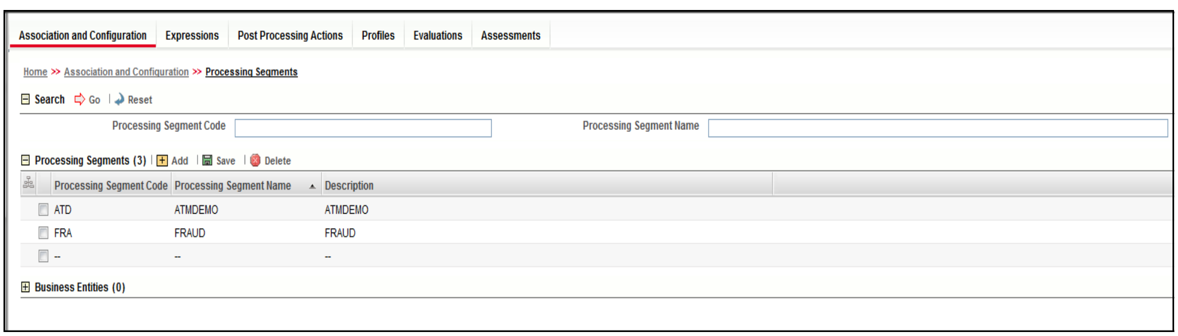


Figure 8. Association and Configuration Details page

Managing Processing Segments

The Processing Segments are the logical sections in an Infodom where all the real-time Metadata is mapped. Through Processing Segments, you can add and save a new segment or search for existing segments for modification or removal a segment.

This section covers the following topics:

- Adding Processing Segment
- Maintaining Processing Segment

Adding Processing Segment

To add a Processing Segment, follow these steps:

1. Navigate to Association and Configuration. Select **Processing Segment**.
2. Click **Add**. A new empty row is displayed in the list. Select the empty checkbox. The Add Processing Segment fields are enabled.

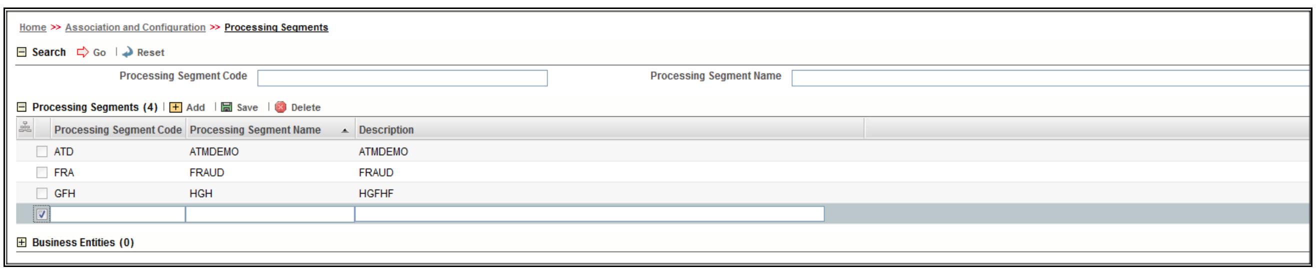


Figure 9. Add Processing Segment

Note: If you click **Add** when a row is empty in the list then the following warning message is displayed: *Row is empty in Processing segment.*

3. Enter the following details:

Table 4. Add Processing Segment

Fields	Description
Processing Segment Code	Enter the processing segment code.
Processing Segment Name	Enter the processing segment name.
Description	Enter description for processing segment.

4. Click **Save**. The following message is displayed: *The Update Operation is Successful*. The new Processing Segment is added to the list.

Maintaining Processing Segment

This section covers the following topics:

- Viewing and Editing Processing Segment
- Deleting Processing Segment
- Searching Processing Segment

Viewing and Editing Processing Segment

To view and edit Processing Segment, follow these steps:

1. Navigate to Processing Segment details page.
2. Select the Processing Segment to modify. The Processing Segment fields are enabled. You can also view the business entities mapped to this Processing Segment in the Business Entities section.

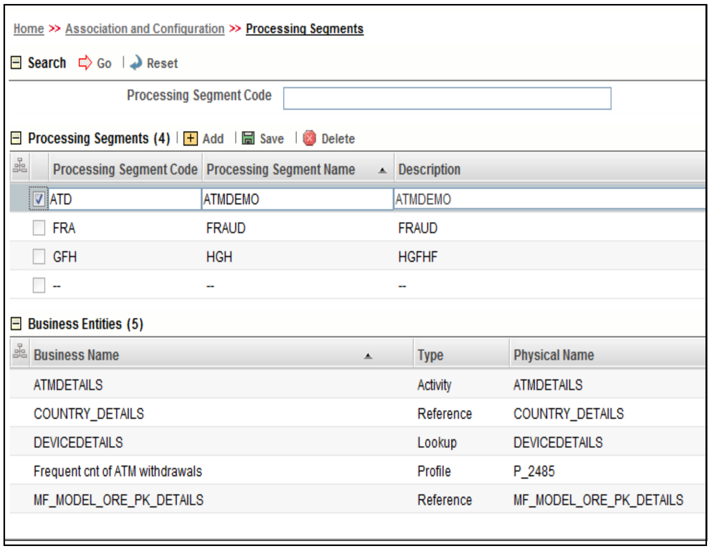


Figure 10. Modify Processing Segment

3. Modify the necessary information. For more information on Processing Segment fields, refer to the *Adding Processing Segment* table.
4. Click **Save**. The Processing Segment is updated.

Deleting Processing Segment

This option allows you to delete Processing Segments which are not required.

To delete a Processing Segment, follow these steps.

1. Navigate to Processing Segment Details page.
2. Select the Processing Segment to delete.
3. Click **Delete**. The Processing Segment details page is updated.

Searching Processing Segment

To search Processing Segments, follow these steps.

1. Navigate to the Processing Segment Details page.
2. Enter the following details:

Table 5. Searching Processing Segment

Fields	Description
Processing Segment Code	Enter the unique code for the processing segment.
Processing Segment Name	Enter an unique name for the processing segment.

3. Click **Go**. The respective search details are displayed.

Managing Business Entities

Business Entity is a metadata layer on Database Tables. Through Business Entities, you can add a new business entity and also search for existing business entities for modification or removing a business entity.

This section covers the following topics:

- Importing Tables
- Maintaining Business Entities
- Updating Table Details
- Updating Business Entity Attributes

Importing Tables

This option allows you to import database tables to Inline Processing.

To import a Table, follow these steps:

1. Navigate to Association and Configuration. Select **Business Entities**. The Business Entities Details page is displayed.
2. Go to **Select Table** section. Click **Import Table**. The Import Table page is displayed.

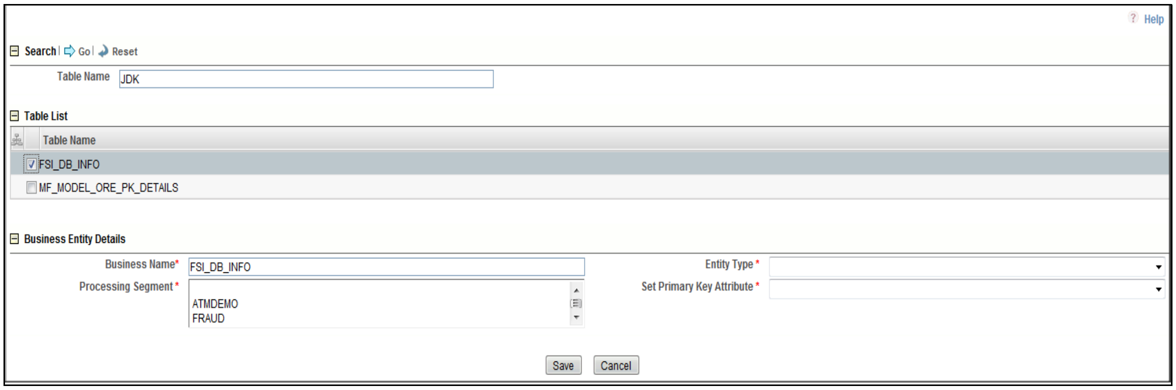


Figure 11. Adding Business Entities

3. Enter the Table Name and select the table from the Table list (this shows all the Database Tables, Views, and Synonyms in atomic schema). The Business Entity fields are enabled.
4. Enter the following details.

Table 6.

Filed	Description
Business Name	Enter the Business Name of the Entity. By default, the business name is the name of the table but you can edit the business name.
Entity Type	Select the entity type from the drop-down list. ● **Activity**: This is the Table whose message is received by ILP from the client code. For example: Transaction, ATM, POS, and so on. ● **Reference:** This table is used as a reference data. For example: Account, Customer, and so on. ● **Lookup**: This table is used for scoring of Evaluation .For example: Country, Score, and so on.
Processing Segment	Select the processing segment from the multi-select drop-down list.
Set Primary Key Attribute	Select the set primary key attribute from the drop-down list. This shows all the columns of the table.
Set Sequence ID Attribute	Select the set sequence ID attribute from the drop-down list. **Note:** This field is enabled if you select Activity in the Entity Type.
DB Sequence Name	Enter the DB sequence name. **Note:** This field is enabled if you select Activity in the Entity Type.
Set Processing Status Attribute	Select the set processing status attribute from the drop-down list. **Note:** This field is enabled if you select Activity in the Entity Type.
Set Processing Period Attribute	Select the set processing period attribute from the drop-down list. **Note:** This field is enabled if you select Activity in the Entity Type.
Score	Select the score from the drop-down list. **Note:** This field is enabled if you select Lookup in the Entity Type.

5. Click **Save**. The following message is displayed: *Import Successfully*.

Maintaining Business Entities

This section has following topics:

- Adding Business Entity
- Editing Business Entity
- Deleting Business Entity

Adding Business Entity

To add Business Entities, follow these steps:

1. Navigate to the Processing Segment details page.
2. Go to Business Entities section.

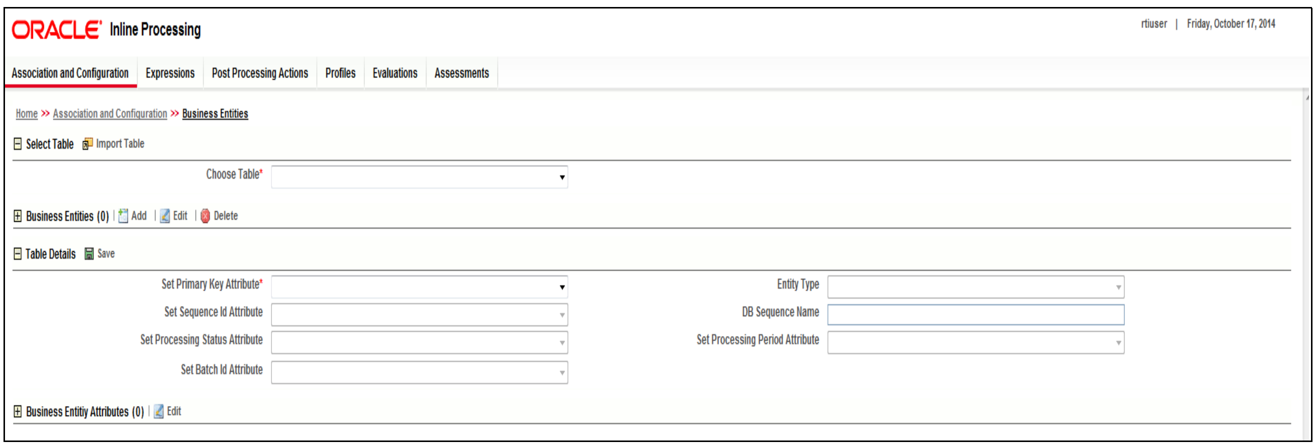


Figure 12. Adding Business Entities

3. Select the table you wish to add entities to from the **Choose Table** drop-down list.
4. Click **Add** in the Business Entities section.
5. The Business Entity Details dialog box is displayed.

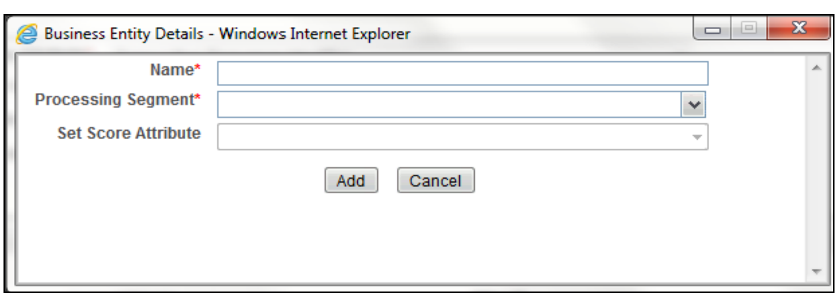


Figure 13. Add Business Entity

6. Enter the following details in the Business Entity Details dialog box:

Table 7. Business Entity Details

Filed	Description
Name	This is a mandatory Field. Enter a name to the selected table in this field.
Processing Segment	This is a mandatory Field. Select the Processing Segment(s) to which you want to add the selected entity, from the multi-select drop-down list.
Set Score Attribute	Select the attribute which you want to set as score from the drop-down list.

7. Click **Add**. The following message is displayed: *The add operation successful*. The new table is added in the list.

Editing Business Entity

To edit the Business Entity, follow these steps:

1. Navigate to the Business Entity Details page.
2. Select the Business Entity to modify. The Business Entity edit dialog box is displayed.
3. Modify the necessary information. For more information on Business Entity fields refer to the *Adding Business Entity* table.
4. Click **Save**. The Business Entity is updated.

Deleting Business Entity

This option allows you to delete a Business Entity which is not required.

To delete Business Entity, follow these steps.

1. Navigate to the Business Entity Details page.
2. Select the Business Entity to delete.
3. Click **Delete**. The Business Entity details page is updated.

Updating Table Details

To update table details, follow these steps.

1. Navigate to the Business Entity Details page.
2. Select the table from the **Choose Table** drop-down list.

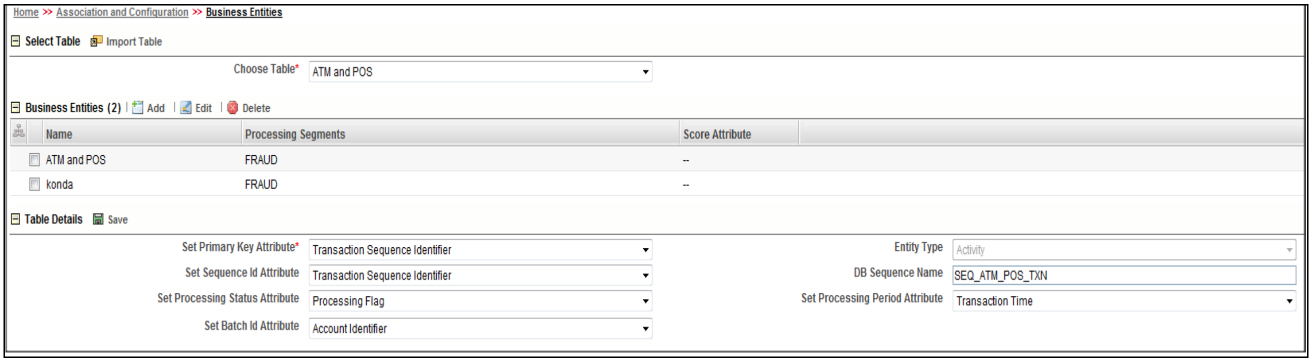


Figure 14. Updating Table

3. Enter or modify the necessary information. For more information on Business Entity fields refer to the *Importing Tables* table.
4. Click **Save**. The following message is displayed: *Update operation successful.*

Updating Business Entity Attributes

To update the Business Entity Attributes, follow these steps.

1. Navigate to the Business Entity Details page. Go to the Business Entity Attributes section.
2. Select the PDM name and click **Edit**.

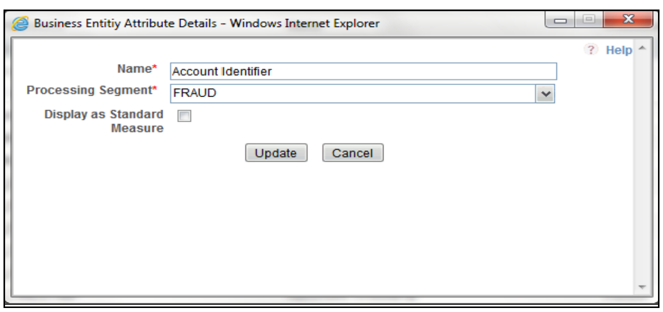


Figure 15. Updating Table

3. Modify the necessary information. For more information on Business Entity fields refer *Adding Business Entity* table. Select Display as Standard Measure or not.
4. Click **Update**. The following message is displayed: *Update operation successful.*

Managing Inline Datasets

This section describes the Inline Datasets functionality and gives step-by-step instructions to use this module.

This section covers the following topics:

- Overview
- Accessing Inline Datasets
- Adding Inline Datasets
- Maintaining Inline Dataset

Overview

Inline Datasets are joins between two Business Entities. The Inline Datasets need at least one condition.

For example, the following conditions are used for an Inline Dataset between Wire Transaction and Beneficiary Account:

Wire Transaction. Beneficiary Account ID=Beneficiary Account. Account ID

Through Inline Datasets, you can add a new Inline Dataset and search for existing Inline Datasets for modification or removal.

Accessing Inline Datasets

To access Inline Datasets, follow these steps:

1. Navigate to the Inline Processing Home Page.
2. Select **Association and Configuration**. Select **Inline Datasets**. The Inline Datasets Details page is displayed.

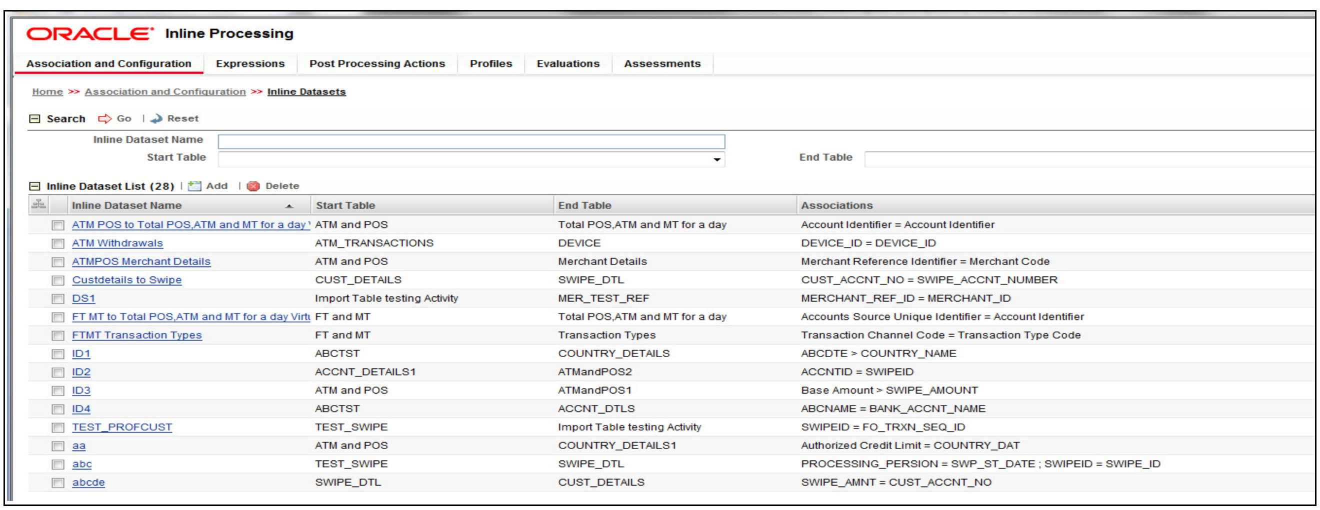


Figure 16. Inline Datasets Details page

Adding Inline Datasets

The add Inline Dataset option allows you to define an Inline Dataset by adding a name and selecting the Start and End tables.

To add new Inline Dataset paths, follow these steps:

1. Navigate to **Inline Dataset** from the Association and Configuration menu.
2. Click **Add** from the Inline Dataset List toolbar. The Inline Dataset dialog box is displayed.

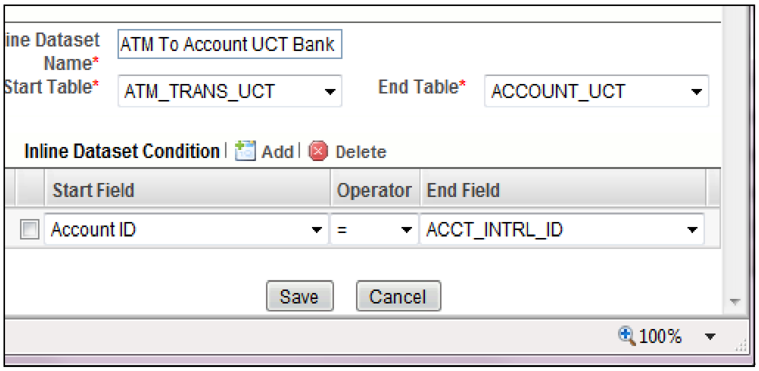


Figure 17. Adding Inline Dataset

3. Enter the following details.

Table 8. Adding Inline Dataset

Field	Description
Inline Dataset Name	Enter the Inline Dataset Name.
Start Table	Select the start table from drop-down list.
End Table	Select the end table from drop-down list.

Adding Inline DataSet Condition

To add new Inline Dataset condition follow these steps:

4. Click **Add** from the Inline Dataset Condition toolbar. The Inline Dataset Condition dialog box is displayed.
5. Enter following details.

Table 9. Adding Inline DataSet Condition

Field	Description
Start Field	Select the start field of the condition from the drop-down list. This shows all Fields (Columns) of the Start Table.
Operator	Select the operator from the drop-down list. The available operators are =, >, <, >=, <=, and <>.
End Field	Select the end field of the condition from the drop-down list. This shows all the Fields (Columns) of the End Table.

6. Click **Save** to save the details.

Maintaining Inline Dataset

This section covers following topics:

- Editing Inline Dataset
- Deleting Inline Dataset
- Searching Inline Dataset

Editing Inline Dataset

To edit Inline Dataset, follow these steps:

1. Navigate to the Inline Dataset Details page.
2. Select the Inline Dataset to modify. The Inline Dataset Edit dialog box is displayed.
3. Modify the necessary information. For more information on Business Entity fields refer to the *Adding Inline Datasets* table.
4. Click **Save**. The Inline Dataset is updated.

Deleting Inline Dataset

To delete the Inline Dataset, follow these steps.

1. Navigate to Inline Dataset Details page.
2. Select the Inline Dataset to delete.
3. Click **Delete**. The Inline Dataset Details page is updated.

Searching Inline Dataset

To search Inline Dataset, follow these steps.

1. Navigate to Inline Dataset details page.
2. Enter the following details:

Table 10. Searching Inline Dataset

Fields	Description
Traversal Path Name	Enter the traversal path name.
Start Table	Select the start table from drop-down list.
End Table	Select the end table from drop-down list.

3. Click **Search**. The Search Details are displayed.

Managing Traversal Paths

This section describes the Traversal Path functionality and provides step-by-step instructions to use this module.

This section discusses the following topics:

- Overview
- Accessing Traversal Paths
- Adding Traversal Path
- Maintaining Traversal Path

Overview

Traversal Paths are the paths between two or more entities. The traversal paths defined can be used for creation of expressions, evaluations, and profiles. The start entity for the path should be the Activity Entity. There are intermediate Entities in the path.

For example, if we must have a path between Wire Transaction and Beneficiary Customer Email entities, then we must have path like Wire Transaction' Beneficiary Account' Beneficiary Customer' Beneficiary Customer Email.

Inline Dataset (Joins) between are compulsory.

- Wire Transaction-Beneficiary Account
- Beneficiary Account- Beneficiary Customer
- Beneficiary Customer- Beneficiary Customer Email

Accessing Traversal Paths

To access the Traversal Paths, follow these steps:

1. Navigate to the Inline Processing Home Page.
2. Select **Association and Configuration**. Select **Traversal Paths**. The Traversal Paths Details page is displayed.

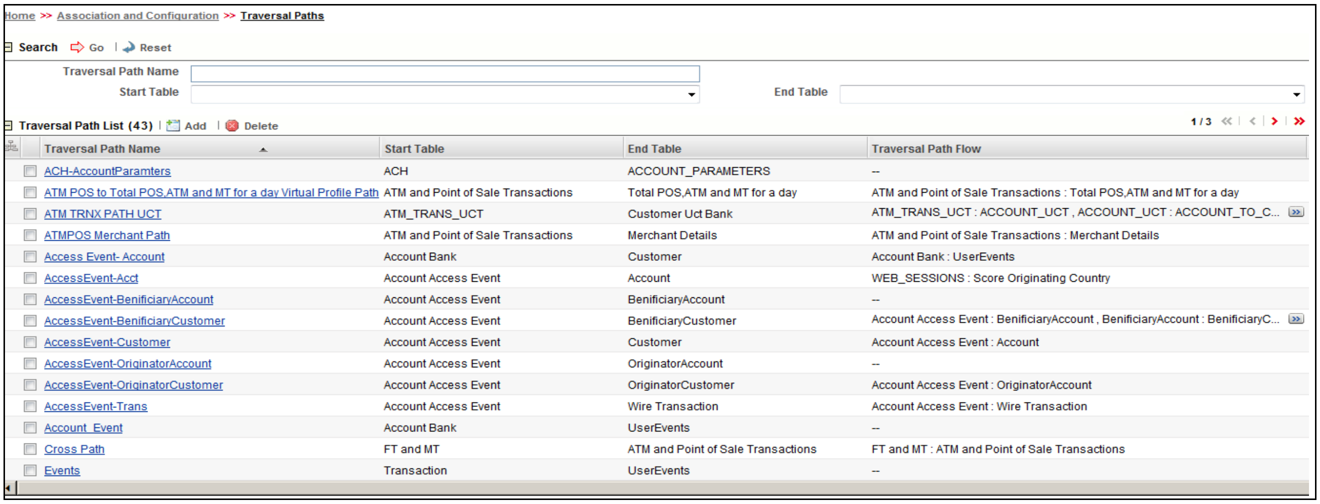


Figure 18. Traversal Paths Details page

Adding Traversal Path

The add traversal path option allows you to define a traversal path by adding a name and selecting the Start and End tables.

To add new a Traversal Path, follow these steps:

1. Navigate to Association and Configuration. Click **Traversal Path**.
2. Click **Add** from the Traversal Path List toolbar. The Traversal Path Maintenance dialog is displayed.

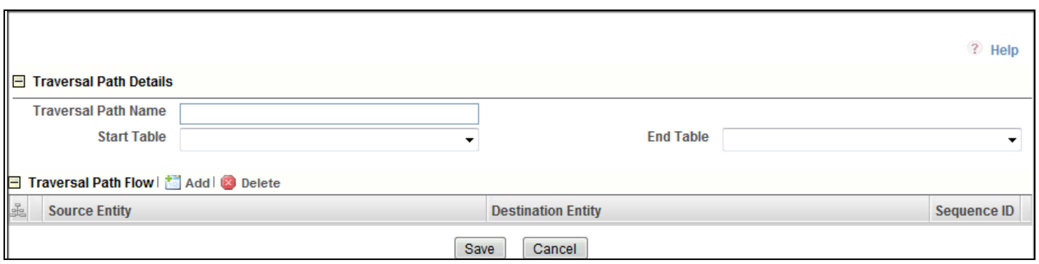


Figure 19. Adding Traversal Path

3. Enter the following details.

Table 11. Adding Traversal Path

Field	Description
Traversal Path Name	Enter the Traversal Path Name name.
Start Table	Select the start table from drop-down list.
End Table	Select the end table from drop-down list.

Adding Traversal Path Flow

4. Click **Add** in the Traversal Path Flow section. The new Traversal Path fields are expanded.
5. Enter following details.

Table 12. Traversal Path Flow

Field	Description
Source Entity	This is pre-selected for the first row. For the further rows, it lists all Entities which have Inline Dataset joins with the previously selected entities (both source and destination).
Destination Entity	Select the Destination Entity from the drop-down list. This option shows the business entities and Virtual Profile who has Inline Datasets defined to Source Entity.
Sequence ID	The sequence ID is auto-generated. When the source and destination entity are added for the first time, the sequence ID generated is 1. On subsequent addition of source and destination entities, the sequence ID will be 2, 3, and so on. This reflects the sequence in which the path has to be traversed.

6. Click **Save.** The following message is displayed: *The operation successful.*
7. To delete the Traversal Path entity, select the Traversal Path and click **Delete**.

Maintaining Traversal Path

This section covers following topics:

- Editing Traversal Path
- Deleting Traversal Path
- Searching Processing Segment

Editing Traversal Path

To edit Traversal Path, follow these steps:

1. Navigate to the Traversal Path Details page.
2. Select the Traversal Path to modify. The Traversal Path Edit dialog box is displayed.
3. Modify the necessary information. For more information on Business Entity fields, refer to the *Adding Traversal Path* table.
4. Click **Save**. The Traversal Path is updated.

Deleting Traversal Path

To delete a Traversal Path, follow these steps.

1. Navigate to the Traversal Path Details page.
2. Select the Traversal Path ID or name to delete.

3. Click **Delete**. The Traversal Path Details page is updated.

Searching Traversal Path

To search Traversal Paths, follow these steps.

1. Navigate to Traversal Path Details page.
2. Enter the following details:

Table 13. Searching Traversal Path

Fields	Description
Traversal Path Name	Enter the traversal path name.
Start Table	Select the start table from drop-down list.
End Table	Select the end table from drop-down list.

3. Click **Go**. The Search Details are displayed.

CHAPTER 4 Managing Expressions

This chapter provides detail information about Expressions functionality and provides step-by-step instructions to use this module.

This chapter discusses the following topics:

- Overview
- Accessing Expressions Menu
- Adding an Expression
- Maintaining Expression

Overview

An Expression Builder is used to build expressions using Entities, Attributes, Functions, Mathematical Operators, and Constant Values. For example: FT and MT Amount for a day: Accounts Source Unique `Identifier_cnt`.

The examples of expressions are as follows:

- A
- A+B
- (A + B)/C
- (ATM and POS: Base Amount)

(Get Last Characters ((ATM and POS: Merchant Address) 2)

The Expression Builder allows you to add and remove expressions.

Accessing Expressions Menu

To access Expressions, follow these steps:

1. Navigate to Inline Processing Home Page.
2. Select the **Expressions**. The Expressions Details page is displayed.

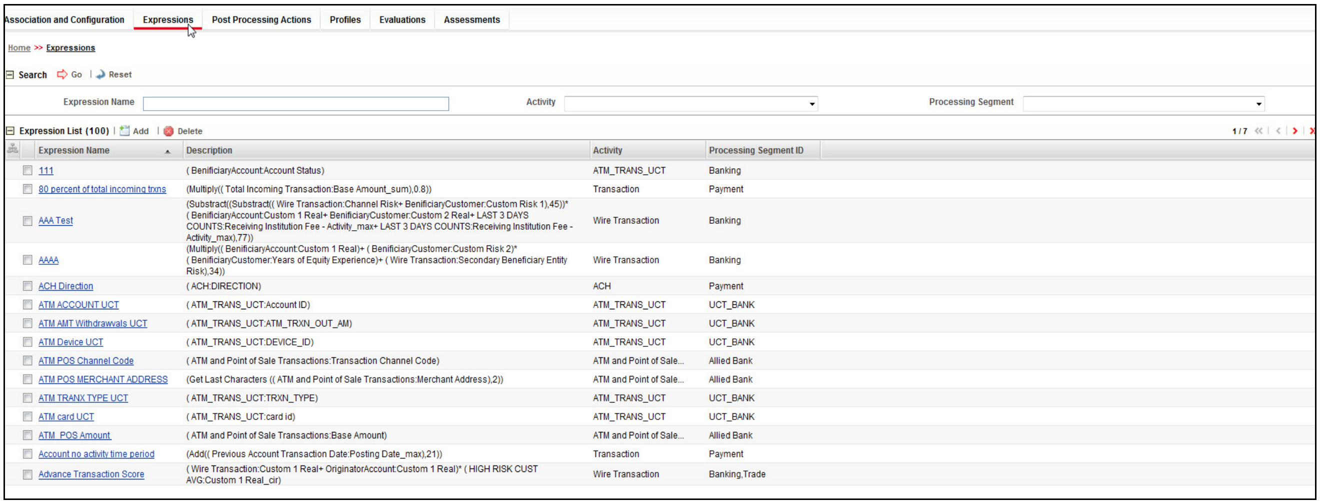


Figure 20. Expressions Details page

Adding an Expression

This option allows you to define an expression by adding a name and selecting the Activity and Processing Segment from the drop-down list.

This section covers following topics:

- Adding Standard Measures
- Adding Variables

To add an Expression, follow these steps:

1. Navigate to the Expressions Details page.
2. Click **Add** on the Expressions tool bar. The Add Expressions dialog box is displayed.

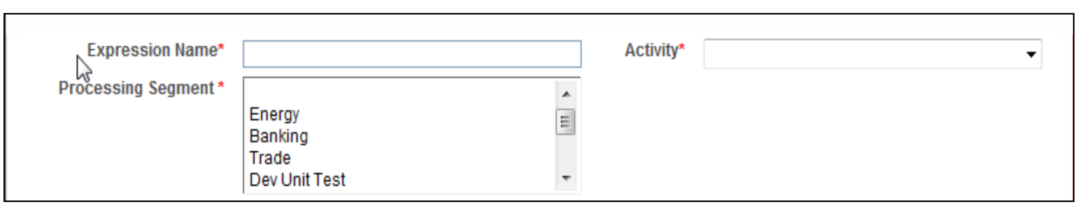


Figure 21. Expressions Details page

3. Enter the following details:

Table 14. Adding an Expression

Field	Description
Expression Name	Enter a name for the expression.
Activity	Select the activity from the drop-down list.
Processing segment	Select the processing segment from the drop-down list (Energy, Banking, and so on).

Adding Variables

This is used to define variables for expressions.

1. Click **Add** on the Variables toolbar. The Add Variables dialog box is displayed.

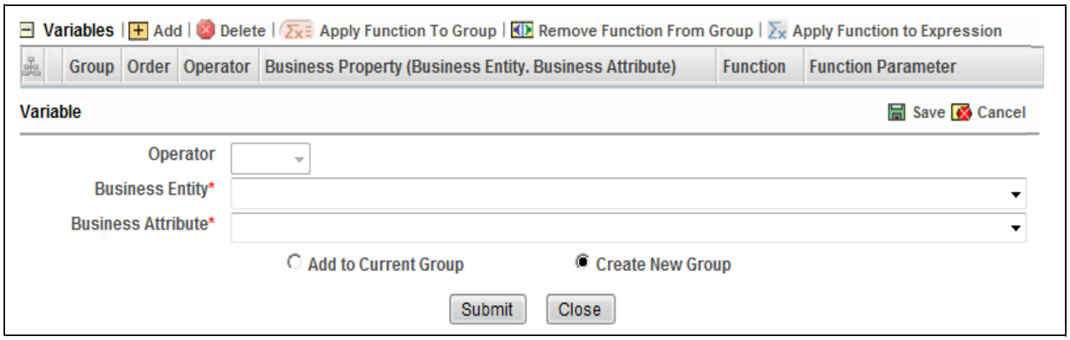


Figure 22. Variable page

2. Enter the following details:

Table 15. Adding Variables

Fields	Description
Operator	Select the operator from the drop-down list. This is disabled for the first variable.
Business Entity	Select the business entity from the drop-down list. The list is based on selected Activity and processing segment.
Business Attribute	Select the business attribute from the drop-down list. The list is based on the selected business entity.
Create New Group	If this option is selected, new Group ID is created.
Add to Current Group	If this option is selected, new variable is added to existing selected Group ID.
Apply Function to Group	Select the function from the drop-down list. The list of function is based on variable data type and function argument data type. If the selected function has additional argument mapped, then Literal Value should be entered in the Text box.
Remove Function from Group	Select a group and then click **Remove** the Function from Group to remove the function from the selected group.
Apply Function to Expression	Select the function from the drop-down list. The list of function will be based on variable data type of expression and variable. If the selected function has additional argument mapped, then Literal Value should be entered in the Text box.

3. Click **Save** to refresh the Variables Grid.

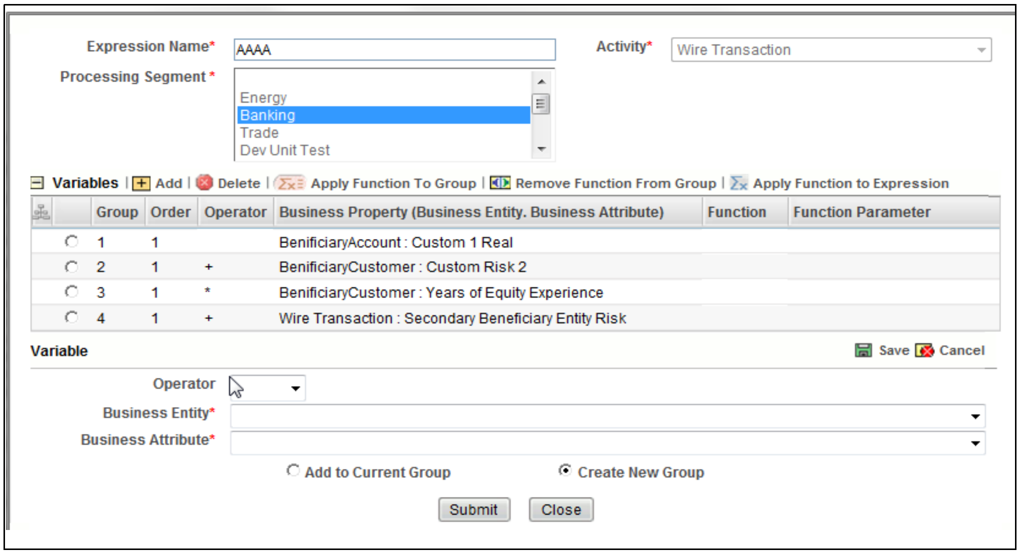


Figure 23. Variable page

4. Click **Submit.** The following message is displayed: *The operation successful.*

Maintaining Expression

This section covers following topics:

- Deleting Expression
- Searching Expression

Deleting Expression

To delete an Expression, follow these steps.

1. Navigate to the Expression details page.
2. Select the required Expression.
3. Click **Delete**. The Expression Detail page is updated.

Searching Expression

To search Expressions, follow these steps.

1. Navigate to the Expression Details page.

2. Enter the following details:

Table 16. Searching Expression

Fields	Description
Expression Name	Enter the Profile Name.
Activity	Select the activity from the drop-down.
Processing Segment	Select the Processing Segment from the drop-down.

3. Click **Go**. The Search Details are displayed.

CHAPTER 5 Managing Post Processing Actions

This chapter describes Post Processing Actions functionality and provides step-by-step instructions to use this module.

This chapter discusses the following topics:

- Overview
- Accessing Post Processing Actions Menu
- Adding Post Processing Actions
- Maintaining Post Processing Action

Overview

Post Processing Actions are the actions which can be triggered by the outcome of Assessment.

In Post Processing Actions, you can add a new post processing action and also search for existing post processing actions for modification or removing a post processing action.

Accessing Post Processing Actions Menu

To access Post Processing Actions, follow these steps:

1. Navigate to the Inline Processing Home Page.
2. Select P**ost Processing Actions**. The Post Processing Actions Details page is displayed.

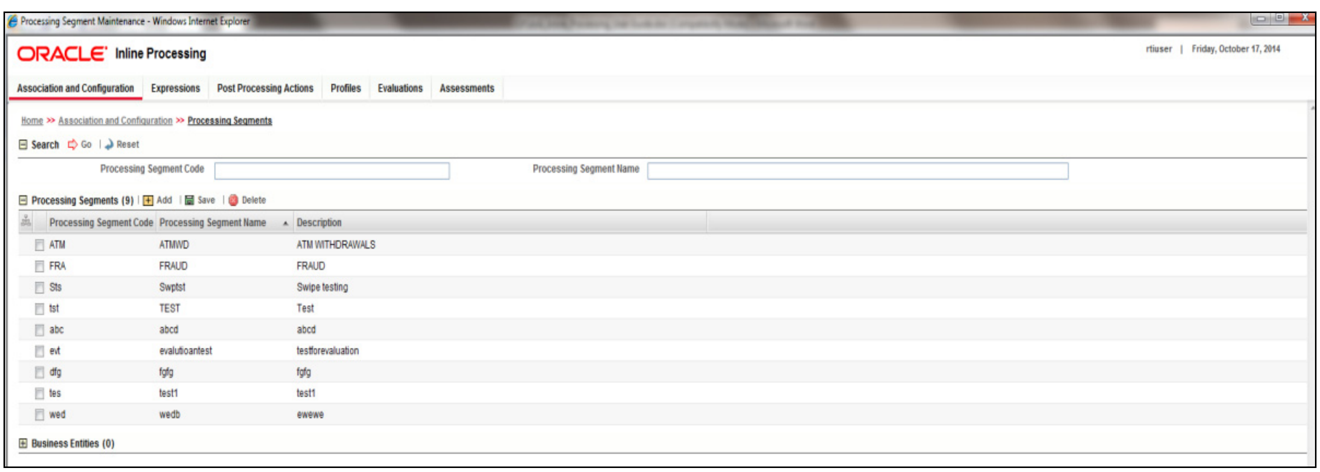


Figure 24. Post Processing Actions Details page

Adding Post Processing Actions

This option allows you to define a post processing action.

This section covers following topics:

- Adding a Post Processing Action
- Adding an Action Parameter

Adding a Post Processing Action

To add a Post Processing Action, follow these steps:

1. Navigate to the Post Processing Actions Details Page.
2. Click **Add** on the Post Processing Actions tool bar. The Add Post Processing Actions dialog box is displayed.

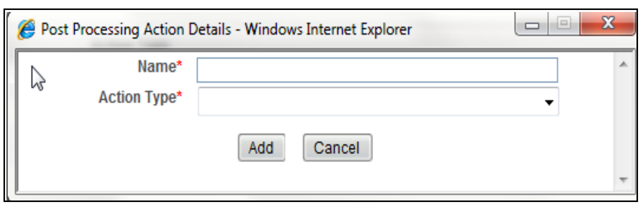


Figure 25. Post Processing Actions page

3. Enter the following details:

Table 17. Post Processing Actions

Field	Description
Name	Enter the name of Post Processing Actions.
Action Type	Select the Post Processing Actions from the drop-down list. (For example, Generate Alert, sent JMS Message, and "Send RTD Message) **Note:** Additionally, the user can also add a new Action Type.

4. Click **Add**. The new Post Processing Actions is added.

Adding an Action Parameter

To add Action Parameters, follow these steps:

1. Navigate to Post Processing Actions Details Page.
2. Click **Add** on the Action Parameters tool bar. The Add Action Parameters dialog box is displayed.

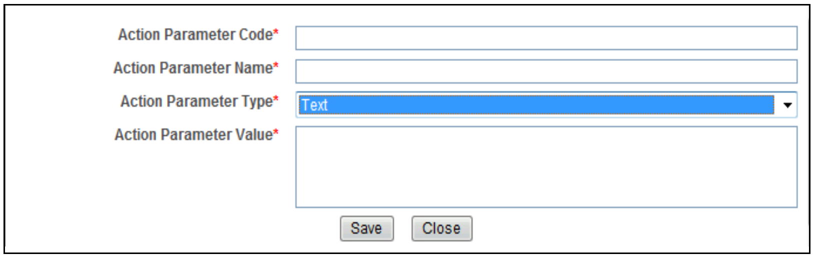


Figure 26. Action Parameter page

3. Enter the following details:

Table 18. Action Parameter

Field	Description
Action Parameter Code	Enter the code of action parameter.
Action Parameter Name	Enter the name of action parameter.
Action Parameter Type	Select the action parameter type from the drop-down list (Text or Password)
Action Parameter Value	Enter the value for action parameter. ● If the action parameter type is text, enter text box. ● If the action parameter type is password, enter password field.

4. Click **Save**. The following message is displayed: *The operation successful.* The new action parameter is added.

Maintaining Post Processing Action

This section covers following topics:

- Editing Post Processing Action
- Maintaining Post Processing Action
- Searching Post Processing Action

Editing Post Processing Action

To modify Post Processing Action details, follow these steps.

1. Navigate to the Post Processing Action Details page.
2. Select the required Post Processing Action.
3. Modify the necessary information. For more information on Processing Segment fields, refer to the *Adding Post Processing Actions* table.
4. Click **Save**. The Post Processing Action Detail page is updated.

Deleting Post Processing Action

To delete a Post Processing Action, follow these steps.

1. Navigate to the Post Processing Action Details page.
2. Select the required Post Processing Action.
3. Click **Delete**. The Post Processing Action Detail page is updated.

Searching Post Processing Action

To search Post Processing Action, follow these steps.

1. Navigate to the Post Processing Action Details page.
2. Enter the Post Processing Action name.
3. Click **Go**. The Search Details are displayed.

CHAPTER 6 Managing Profiles

This chapter describes Profiles functionality and provides step-by-step instructions to use this module.

This chapter discusses the following topics:

- Overview
- Accessing Profile Menu
- Adding a Profile
- Maintaining Profile
- Managing Virtual Profiles

Overview

Profiles are an aggregation of information. Profiles can be based on different grouping entities (For example, account and customer) and can be filtered to only look at particular kinds of transactions. Profiles can also be based on time (last three months) or activity counts (last 100 transactions).

Accessing Profile Menu

To access the Profile, follow these steps:

1. Navigate to the Inline Processing Home Page.
2. Select **Profile**. The Profile Details page is displayed.

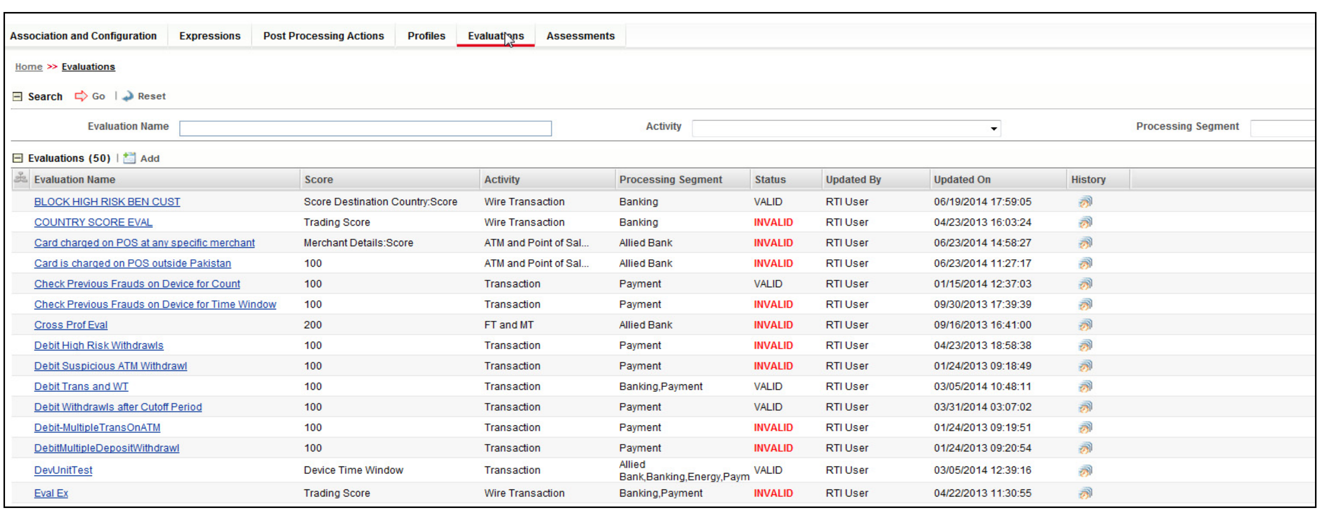


Figure 27. Profile Details page

Adding a Profile

This section covers following topics:

- Adding Standard Measures
- Adding Customer Measures
- Adding Measures Application Group

To add a Profile, follow these steps:

1. Navigate to Profile Details Page
2. Click **Add** on the Profile tool bar. The Add Profile fields are expanded.

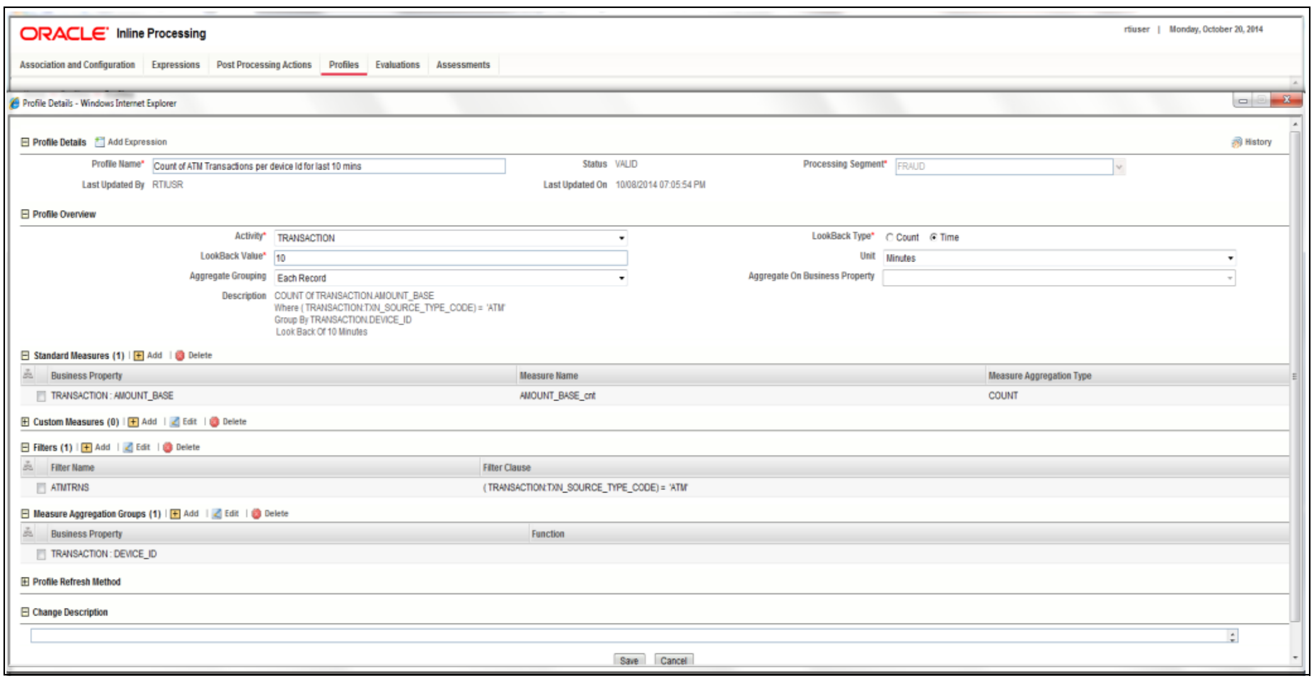


Figure 28. Profile details page

3. Enter the following details:

Table 19. Profile

Field	Description
Profile Name	Enter the name of the virtual profile.
Processing Segment	Select the processing segment from the drop-down list.
Activity	Select the activity from the drop-down list.
LookBack Type	Select the LookBack type.

Table 19. Profile

LookBack Value	Enter the LookBack value.
Unit	This option is enabled only when Time is selected as lookback. Select the unit from the drop-down list.
Aggregate Grouping	Select the type from the drop-down list. The list shows all Time columns of the activity: ● **Each Record**- shows the activity for each record ● **Daily**- shows the daily record ● **Monthly**- shows the monthly record
Aggregate Grouping on Business Property	This option is enabled if Aggregate Grouping is Daily or Monthly. It lists all Time columns of the activity.

Adding Standard Measures

This is used to define a measure on the pre-marked columns in Business Entities module.

1. Click **Add** on the Standard Measures toolbar. The Add Standard Measures fields are expanded.
2. Enter the following details:

Table 20. Standard Measures

Fields	Description
Business Attribute	Select the business attribute from the drop-down list. The list shows all Standard Measurable columns of the activity.
Measure Aggregation Type	Select the measure aggregation type from the drop-down list. The list shows the Standard Measurable functions.

Adding Customer Measures

This is used to define a Customer measure on the pre-marked columns in Business Entities module.

1. Click **Add** on the Customer Measures toolbar. The Add Customer Measures fields are expanded.
2. Enter the following details:

Table 21. Customer Measures

Fields	Description
Business Entity	Select the business entity from the drop-down list. The list is based on selected activity and processing segment.
Business Attribute	Select the business attribute from the drop-down list. The list is based on the selected business entity.
Measure Aggregation Type	Select the measure aggregation type from the drop-down list.

Adding Measures Application Group

This is used to define a Application Group on the pre-marked columns in Business Entities module.

1. Click **Add** on the Measure Application Group toolbar. The Measures Application Group fields are expanded.
2. Enter the following details:

Table 22. Measures Application Group

Fields	Description
Business Entity	Select the business entity from the drop-down list. The list is based on selected Activity and processing segment
Business Attribute	Select the business attribute from the drop-down list. The list is based on the selected business entity.
Measure Aggregation Type	Select the measure aggregation type from the drop-down list.

Adding Profile Refresh Method

This is used to define a Profile Refresh Method on the pre-marked columns in Business Entities module.

1. Click **Add** on the Profile Refresh Method toolbar. The Add Profile Refresh Method fields are expanded.
2. Enter the following details:

Table 23. Profile Refresh Method

Fields	Description
Profile	Select the profile option. ● Live ● Periodic **Note:** *Live*: Updates the profile whenever the activity is being processed. *Periodic*: Updates the profile periodically.
Updated Frequency	This field is enabled if the Periodic profile is selected.
Unit	Select the type from the drop-down list. This option is enabled if Time is selected as lookback.
Include Activity to Profile	This checkbox is enabled if the Live profile is selected.
Change Description	Enter the details in the field.

3. Click **Save**. The following message is displayed: *The operation successful.*

Maintaining Profile

This section covers following topics:

- Editing Profile

- Deleting Profile
- Searching Profile

Editing Profile

To modify the Profile details, follow these steps.

1. Navigate to Profile Details page.
2. Select the required Profile.
3. Modify the necessary information. For more information on Processing Segment fields, refer to the *Adding a Profile* table.
4. Click **Save**. The Profile detail is updated.

   Note: When you edit a profile and cancel the same, still the modifications are saved. When you add a measure or filter it is stored in database tables. Profit Save will save the direct profile related data and generate the queries and table. Profile Refreshment Method Periodic is not supported. By default Profile Refreshment is not selected. You have to select the profile refreshment method explicitly. The system allows you to save the profile without any refreshment method.

When a Standard Measure, Custom Measure, and so on are added in profile, the same would get saved to the profile definition irrespective of saving or cancelling the Profile changes , as these measure creation has the save button in the popup during which it is saved to the database. This holds good for the similar operation everywhere in the Framework.

Once a Profile is re-save , irrespective of the changes to the profile, the profile `tables p_<profile_id>` will be recreated ,hence all the existing records gets deleted.

Deleting Profile

To delete a Profile, follow these steps.

1. Navigate to the Profile details page.
2. Select the required Profile.
3. Click **Delete**. The Profile Detail page is updated.

Searching Profile

To search Profiles, follow these steps.

1. Navigate to the Profile Details page.

2. Enter the following details:

Table 24. Search Profile

Fields	Description
Profile Name	Enter the Profile Name.
Activity	Select the activity from the drop-down.
Processing Segment	Select the Processing Segment from the drop-down.

3. Click **Go**. The Search Details are displayed.

Managing Virtual Profiles

Virtual Profiles are the wrapper around one or more profiles.

Virtual Profile can be used when:

- A user wants to merge profiles on two different activities or same activity
- A user wants to use a reduced look back on the same profile.

Through Virtual Profiles, you can add a new virtual profile and also search for existing virtual profiles for modification or removing a virtual profile

This section covers following topics:

- Adding Virtual Profile
- Maintaining Virtual Profile Details

Adding Virtual Profile

Adding a Virtual Profile allows you to define a virtual profile by adding the profile details.

This section covers following topics:

- Adding Linked Profile
- Adding Measures
- Adding Associated Inline Datasets
- Adding Associated Paths

To add a Virtual Profile, follow these steps:

1. Navigate to the Inline Processing Home Page
2. Select **Virtual Profile**. The Virtual Profile Details page is displayed.
3. Click **Add** on the Virtual Profile tool bar.

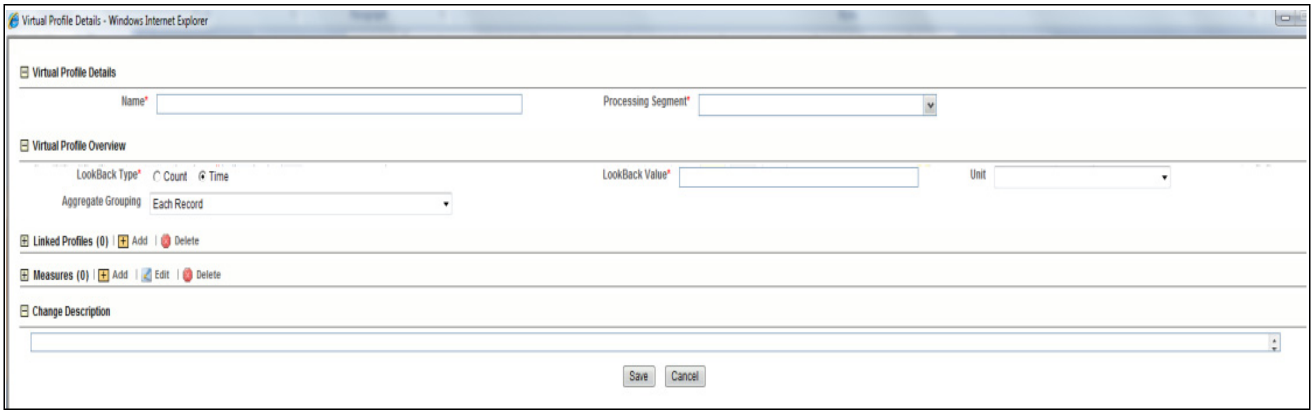


Figure 29. Profile details page

4. Enter the following details:

Table 25. Virtual Profile

Field	Description
Profile Name	Enter the name of the virtual profile.
Processing Segment	Select the processing segment from the drop-down list.
Activity	Select the activity from the drop-down list.
LookBack Type	Select the LookBack Type value. The options are: Count or Time
LookBack Value	Enter the LookBack Value.
Unit	This option is enabled only when Time is selected as lookback. Select the unit from the drop-down list.
Aggregate Grouping	Select the type from the drop-down list. The list will show all the Time columns of the Activity: ● **Each Record**- Shows the activity for each record. ● **Daily**- Shows the daily record ● **Monthly**- Shows the monthly record

5. Click **Save**. The following message is displayed: *The operation successful.*

Note: It is to be noted that while adding the Traversal Path and Inline Dataset from Virtual Profiles, the current Virtual Profile should either be the Start table or the End table. If it is not so, then the added Inline Dataset or the Traversal Path will not be displayed under the corresponding toolbar. The same Traversal Path or Virtual Profile should be added in the Inline dataset list and traversal path list under Associations and configurations. Additionally, once the associated traversal path or associated the Inline Dataset is deleted from Virtual profiles window, the same should be deleted from the Inline dataset list and the Traversal Path list under Associations and Configurations.

Adding Linked Profile

Linked Profiles are the profiles which are used to create the Virtual profile. It can be one or more profiles.

6. Click **Add** on the linked profile toolbar and enter the following details:

Table 26. Linked Profile

Fields	Description
Profile Name	Select the virtual profile from the drop-down list. The first profile which is added will be considered as a primary profile. From the second profile onwards, the drop-down list will only show the Profiles with same number of Measure Aggregate Groups and Measures used in primary profile.

Adding Measures

7. Click **Add** on the Measures toolbar. The Add Measure fields are expanded.
8. Enter the following details:

Table 27. Measures

Fields	Description
Business Property	Select the business property type from the drop-down list.
Measure Aggregation Type	Select the measure aggregation type from the drop-down list.

Adding Associated Inline Datasets

Associated Inline Datasets are shown once user has saved the Virtual Profile.

1. Click **Add** on the Associated Inline Datasets toolbar. The Add Associated Inline Data set fields are expanded.
2. Enter the following details:

Table 28. Associated Inline Datasets

Fields	Description
Inline Dataset Name	Enter the Inline dataset name.
Start Table	Select the start table from the drop-down list.
Start Field	Select the start field of the condition from the drop-down list.
Operator	Select the operator from the drop-down list. The available operators are =, >, <, >=, <=, and <>.

Adding Associated Paths

Associated Paths are shown once the user has saved the Virtual Profile.

1. Click **Add** on the Associated Paths toolbar. The Add Associated Paths fields are expanded
2. Enter the following details:

Table 29. Associated Paths

Fields	Description
Traversal Path Name	Enter the traversal path name.

Table 29. Associated Paths

Start Table	Select the start table from the drop-down list.
End Table	Select the end table from the drop-down list.
Source Entity	Select the source entity from the drop-down list.
Destination Entity	Select the destination entity from the drop-down list.
Change Description	Enter the details in the field.

3. Click **Save**. The following message is displayed: *The operation successful*.

Maintaining Virtual Profile Details

This section covers following topics:

- Editing Virtual Profile
- Deleting Virtual Profile
- Searching Virtual Profile

Editing Virtual Profile

To modify Virtual Profile Details, follow these steps.

1. Navigate to the Virtual Profile details page.
2. Select the required Virtual Profile.
3. Modify the necessary information. For more information on Processing Segment fields, refer to the *Adding Virtual Profile* table.
4. Click **Save**. The Virtual Profile is updated.

Deleting Virtual Profile

To delete the Virtual Profile details, follow these steps.

1. Navigate to Virtual Profile details page.
2. Select the required Virtual Profile.
3. Click **Delete**. The Virtual Profile page is updated.

Searching Virtual Profile

To search Virtual Profile, follow these steps.

1. Navigate to Virtual Profile details page.

2. Enter the following details:

Table 30. Searching Virtual Profile

Fields	Description
Profile Name	Enter the Profile Name.
Activity	Select the activity from the drop-down list.
Processing Segment	Select the Processing Segment from the drop-down list.

3. Click **Go**. The Search Details are displayed.

CHAPTER 7 Managing Evaluations

This chapter describes Evaluations functionality and provides step-by-step instructions to use this module.

This chapter discusses the following topics:

- Overview
- Accessing Evaluation Menu
- Adding a Evaluation
- Maintaining Evaluation

Overview

Evaluations are logical comparisons against conditions that result in a score.

The essential evaluation types are listed below:

- Condition Evaluations: These can be checks against literals or against other attributes.

  For examples,

  - If the Transaction Origination Country is “Nigeria”, then 10 points.
  - If the Transaction Origination Country is in High Risk Countries List, then 10 points.

  These can involve other logical expressions for evaluating multiple conditions.

- Profile Comparison: These are not materially different than the condition evaluations. One of the things that can be on the right side of the equation is the profile check.

  For example:

  If the Transaction Amount is > High Risk Country Transactions 75th Percentile Amount then 10 points.

- Value Lookups: These evaluations use a dimensional table where the attribute values lead to a score that we lookup. This may not necessarily be a separate evaluation type, but rather a mechanism for getting the associated points. For example, the Conditional Checks evaluation could be an evaluation that awards points from a table, but only for transactions originated in Nigeria.

  For example,

  - If the Transaction Origination Country is 'Nigeria', then points based on High Risk Countries List using Transaction Origination Country.

  For example, the evaluation only applies to Nigeria. If that was left out, the evaluation could simply be the following:

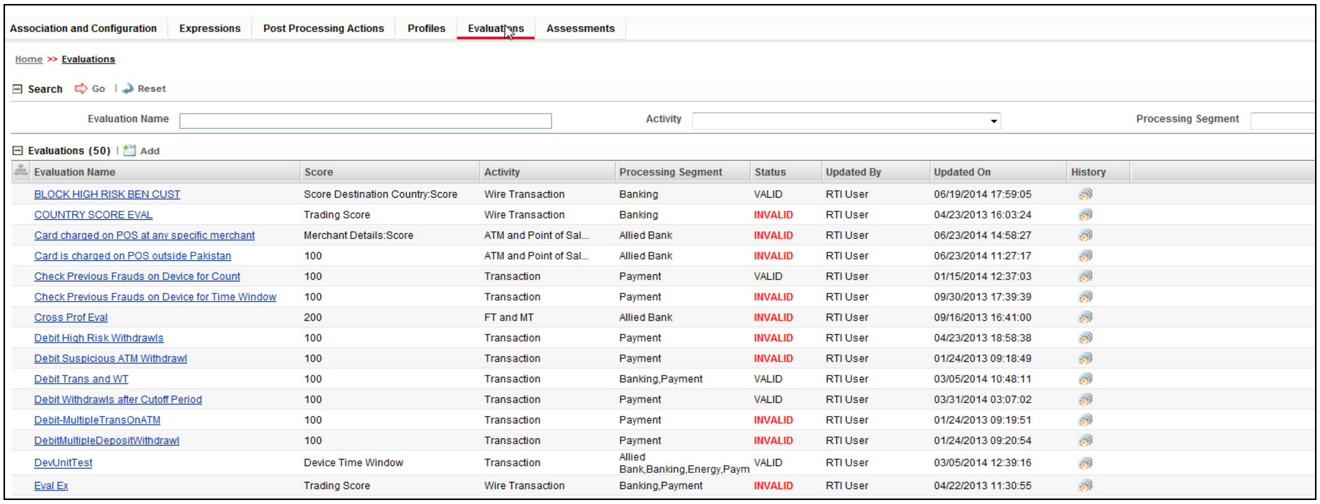
  - Get points based on High Risk Countries List using Transaction Origination Country.

  Through Evaluations, you can add a new evaluation and also search for existing evaluations for modification or removing an evaluation.

Accessing Evaluation Menu

To access Evaluation, follow these steps:

1. Navigate to Inline Processing Home Page.
2. Select **Evaluation**. The Evaluation Details page is displayed.



Evaluation Name	Score	Activity	Processing Segment	Status	Updated By	Updated On	History
BLOCK HIGH RISK BEN CUST	Score Destination Country:Score	Wire Transaction	Banking	VALID	RTI User	06/19/2014 17:59:05	
COUNTRY SCORE EVAL	Trading Score	Wire Transaction	Banking	INVALID	RTI User	04/23/2013 16:03:24	
Card charged on POS at any specific merchant	Merchant Details:Score	ATM and Point of Sal...	Allied Bank	INVALID	RTI User	06/23/2014 14:58:27	
Card is charged on POS outside Pakistan	100	ATM and Point of Sal...	Allied Bank	INVALID	RTI User	06/23/2014 11:27:17	
Check Previous Frauds on Device for Count	100	Transaction	Payment	VALID	RTI User	01/15/2014 12:37:03	
Check Previous Frauds on Device for Time Window	100	Transaction	Payment	INVALID	RTI User	09/30/2013 17:39:39	
Cross Prof Eval	200	FT and MT	Allied Bank	INVALID	RTI User	09/16/2013 16:41:00	
Debit High Risk Withdrawls	100	Transaction	Payment	INVALID	RTI User	04/23/2013 18:58:38	
Debit Suspicious ATM Withdrawl	100	Transaction	Payment	INVALID	RTI User	01/24/2013 09:18:49	
Debit Trans and WT	100	Transaction	Banking,Payment	VALID	RTI User	03/05/2014 10:48:11	
Debit Withdrawls after Cutoff Period	100	Transaction	Payment	VALID	RTI User	03/31/2014 03:07:02	
Debit-MultipleTransOnATM	100	Transaction	Payment	INVALID	RTI User	01/24/2013 09:19:51	
DebitMultipleDepositWithdrawl	100	Transaction	Payment	INVALID	RTI User	01/24/2013 09:20:54	
DevUnitTest	Device Time Window	Transaction	Allied Bank,Banking,Energy,Paym	VALID	RTI User	03/05/2014 12:39:16	
Eval Ex	Trading Score	Wire Transaction	Banking,Payment	INVALID	RTI User	04/22/2013 11:30:55	

Figure 30. Evaluation Details page

Adding a Evaluation

This section covers following topics:

- Adding Filters
- Adding Evaluation Scoring

To add a Evaluation, follow these steps:

1. Navigate to Evaluations Details page.
2. Click **Add** on the Evaluations tool bar. The Add Evaluation page is displayed.

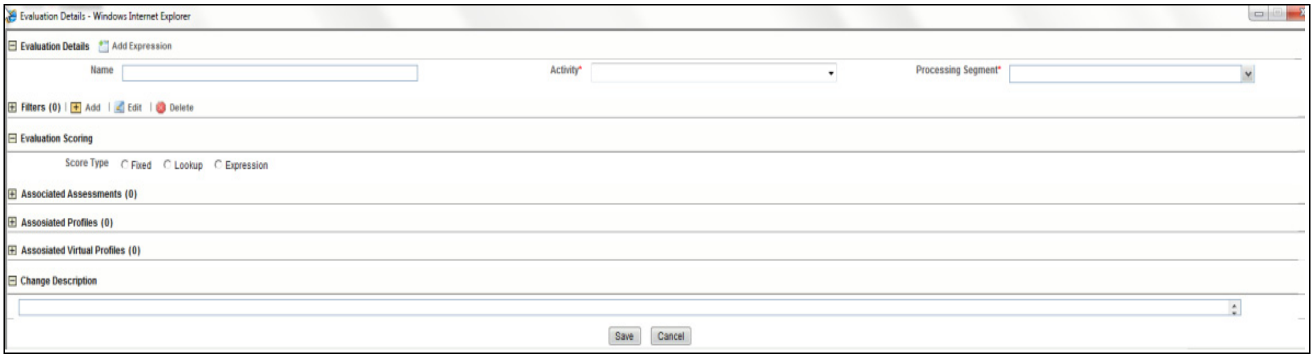


Figure 31. Evaluations page

3. Click **Add Expressions**. The Expressions dialog box is displayed.

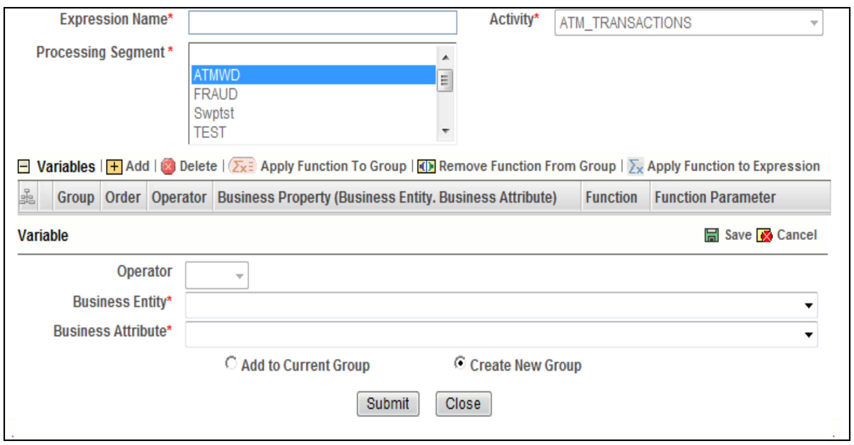


Figure 32. Expression page

4. Enter the following details:

Table 31. Expression

Field	Description
Expression Name	Enter the name of the evaluation.
Processing Segment	Select the processing segment from the drop-down list.
Activity	Select the activity from the drop-down list.

Adding Filters

1. Click **Add** on the Filters tool bar. The Add Filter Dialog box is displayed.

2. Enter the following details:

Table 32. Adding Expression

Fields	Description
Filter Name	Enter the name of the filter.
Source Expression	Select the source expression from the drop-down list. The list will be based on the selected Activity.
Operator	Select the operator from the drop-down list.
Comparator Type	Select the Comparator type: • If Expression type is selected, then a drop-down list is displayed. • If Literal Value is selected, then a text field is displayed to enter the details.

Adding Evaluation Scoring

3. Expand **Evaluation Scoring**. Enter the following details:

Table 33. Evaluation Scoring

Fields	Description
Evaluation Scoring	Select the score type. The options are: • Fixed: If this option is selected, then the score should be entered in the text box displayed. • Lookup: This option shows the lookup tables. • Expression: This option shows the list based on the selected Activity.
Change Description	Enter the change description details.

4. Click **Save**. The following message is displayed: *The operation successful.* The new Evaluation is added to the list.

Maintaining Evaluation

This section covers following topics:

- Editing Evaluation
- Deleting Evaluation
- Searching Evaluation

Editing Evaluation

To modify Evaluation details, follow these steps.

1. Navigate to Evaluation Details page.

2. Select the required Evaluation.
3. Modify the necessary information. For more information on Evaluation fields, referto the *Adding a Evaluation* table.
4. Click **Save**. The following message is displayed: *The operation successful.* The Evaluation Detail page is updated.

Deleting Evaluation

To delete a Evaluation, follow these steps.

1. Navigate to Evaluation details page.
2. Select the required Evaluation.
3. Click **Delete**. The Evaluation Detail page is updated.

Searching Evaluation

To search Evaluation, follow these steps.

1. Navigate to Evaluation details page.
2. Enter the following details:

Table 34. Searching Evaluation

Fields	Description
Evaluation Name	Enter the Profile Name.
Activity	Select the activity from the drop-down.
Processing Segment	Select the Processing Segment from the drop-down.

3. Click **Go**. The Search Details are displayed.

CHAPTER 8 Managing Assessments

This chapter explains about Assessments functionality and provides step-by-step instructions to use this module.

This chapter discusses the following topics:

- Overview
- Adding an Assessment
- Maintaining Assessment

Overview

Analysis of incoming data is handled in by a combination of Evaluations or a single Evaluation, which are created in Assessments.

The final decision on an activity is made by an Assessment, which can be made up of one or more Evaluations. A set of evaluations are assembled into an Assessment. Assessment performs the complete validation and returns a score.

Assessment will check multiple evaluation logic and consider the Sum of all Evaluation Score for the output score.

There are two assessment scoring types:

- **Normalized Base**: It is the adjustments of score or distributions in statistics.
- **Sum of Evaluation Score**: It is the total sum score of all selected evaluations.

Through assessments, you can add a new assessment and also search for existing assessments for modification or removing an assessment.

Accessing Assessment Menu

To access the Assessment menu, follow these steps:

1. Navigate to Inline Processing Home Page.
2. Select **Assessment**. The Assessment Details page is displayed.

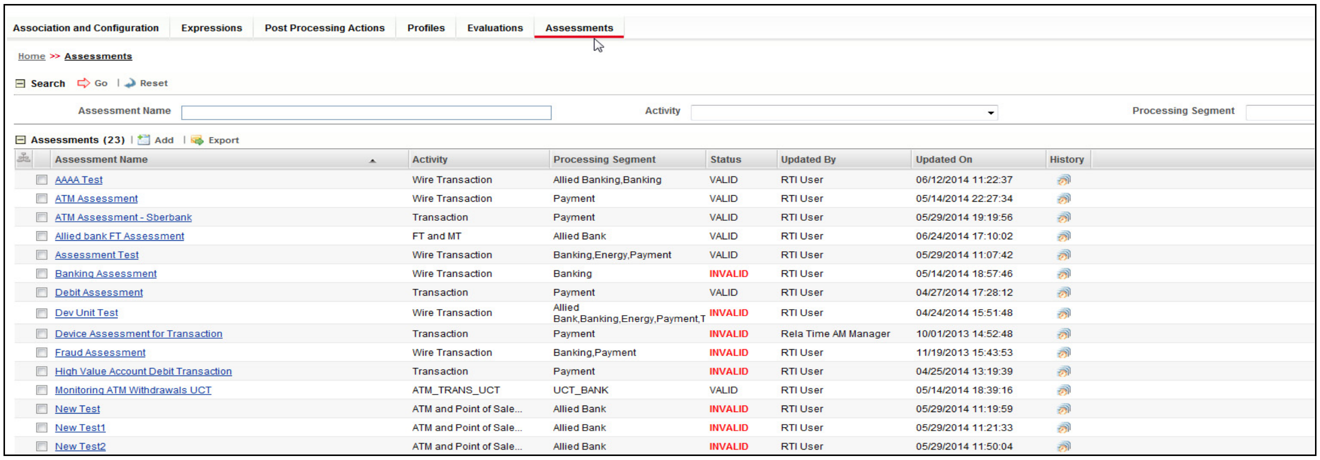


Figure 33. Assessment Details page

Adding an Assessment

This option allows you to define an assessment by adding the assessment details.

This section covers following topics:

- Mapping Associated Evaluations
- Adding Assessment Score

To add an Assessment, follow these steps:

1. Navigate to Assessment Details Home Page.
2. Click **Add** on the Assessment tool bar. The Add Assessment page is displayed.

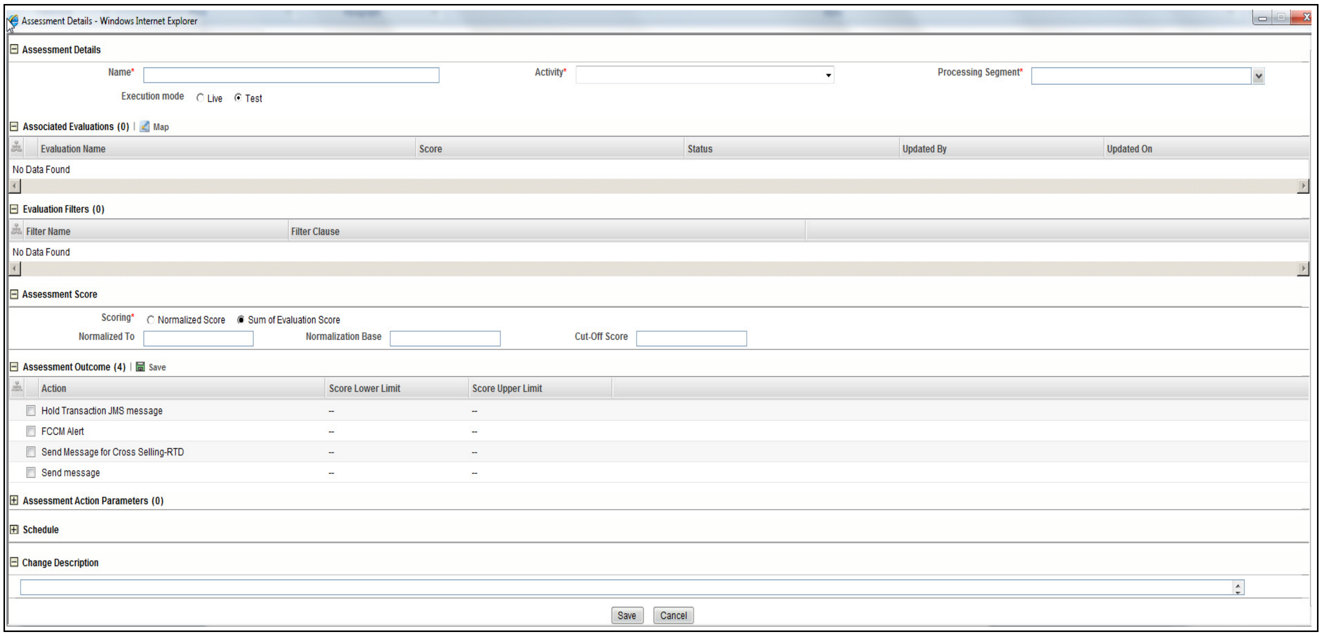


Figure 34. Assessment page

3. Enter the following details:

Table 35. Adding Assessment

Field	Description
Assessment Name	Enter the name of the assessment.
Processing Segment	Select the processing segment from the drop-down list.
Activity	Select the activity from the drop-down list.
Execution Mode	Select the execution mode. The options are: ● Live ● Test

Mapping Associated Evaluations

1. Navigate to Associated Evaluations section. Click **Map.** The Associated Evaluations Mapping Dialog box is displayed.

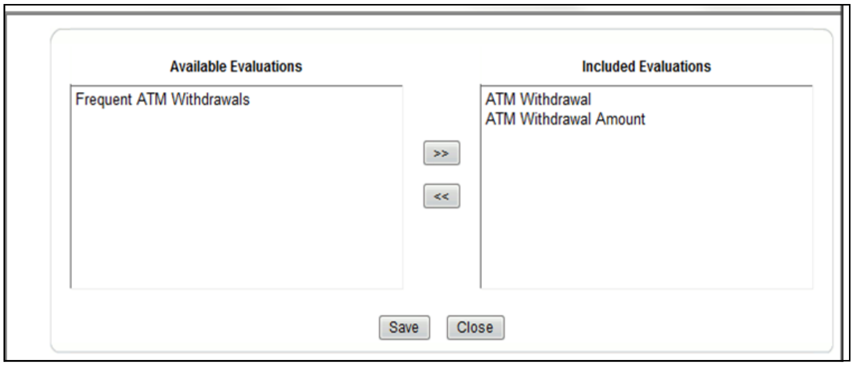
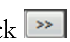


Figure 35. Assessment Evaluation Window

2. Select Evaluations from Available Evaluations pane. Click  :to move to Included Evaluation pane.

   Note: Evaluation filter -This option gets populated for selected the evaluation in Associated Evaluations.

Adding Assessment Score

1. Navigate to Assessment Scoring section.
2. Expand **Assessment Scoring**. The Assessment Score add fields are displayed.
3. Enter the following details:

Table 36. Adding Assessment Score

Fields	Description
Scoring	Select the score type. The options are: ● Normalized Base ● Sum of Evaluation Score
Normalized to	Enter the normalized to score.
Normalization Base	Enter the normalization base score.
Cut-off score	Enter the cut-off score or the minimum score required to attain normalization.
Assessment Outcome	Select the type of action. Enter the upper limit and lower limit score.

Adding Action Parameters

1. Navigate to Action Parameters section.
2. Expand **Action Parameters**. The Action Parameters add fields are displayed.
3. Enter the following details:

Table 37. Adding Action Parameters

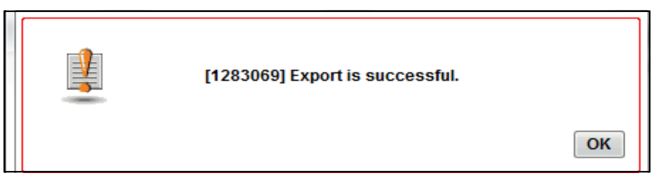
Fields	Description
Parameter Name	Enter the parameter name.
Parameter value	Enter the parameter value.
Schedule	Select the schedule type. The options are: ● Activate- To activate a Schedule ● Deactivate- To deactivate a Schedule

4. Click **Save**. The following message is displayed: *The operation successful.* The new Assessment is added to the list.

   Note: In the assessment details, for the Hold Transaction Message, user has to configure the Assessment Action Parameters manually in the Action Parameter Details page. It is to be noted that the message format can be changed as per the requirement of the user.

Exporting Assessment

1. Navigate to Assessment section.
2. Select the Assessment Name in the list.
3. Click **Export**. The exported assessment details are stored as xml files. Once the assessment is exported, an xml file gets generated in the path <APP_LAYER_FTPSHARE>/<INFODOM>/RTI>. Once the file is exported, the following message is displayed:



Assessment Export Window

Maintaining Assessment

This section covers following topics:

- Editing Assessment
- Deleting Assessment
- Searching Assessment

Editing Assessment

To modify Assessment details, follow these steps.

1. Navigate to the Assessment details page.
2. Select the required Assessment.
3. Modify the necessary information. For more information on Processing Segment fields, refer to the *Adding an Assessment* table.
4. Click **Save**. The following message is displayed: *The operation successful*. The Assessment Detail page is updated.

Deleting Assessment

To delete an Assessment, follow these steps.

1. Navigate to Assessment Details page.
2. Select the required Assessment.
3. Click **Delete**. The Assessment Detail page is updated.

Searching Assessment

To search Assessment, follow these steps.

1. Navigate to Assessment details page.
2. Enter the following details:

Table 38. Searching Assessment

Fields	Description
Assessment Name	Enter the Assessment Name.
Activity	Select the activity from the drop-down.
Processing Segment	Select the Processing Segment from the drop-down.

3. Click **Go**. The search details are displayed.

CHAPTER 9 Managing Import and Export Utilities

This chapter provides detail information about Import and Export functionality and step-by-step instructions to use this module.

This chapter discusses the following topics:

- Overview
- Importing Functionality
- Exporting Functionality

Overview

Import and Export utilities are provided, when performed through command line `RTIImport.sh` and `RTIExport.sh`. These are available in `<FIC_HOME>/ficapp/common/FICServer/bin`

Importing Functionality

To Import functionality, follow these steps:

1. Login to the Server where app layer is installed.
2. Navigate to the path.

   `<FIC_HOME>/ficapp/common/FICServer/bin`

   Execute the below command

   `./RTIImport.sh $1 $2 $3`

   Where $1 is the File name which has to be imported along with the absolute path where file exists.

   $2 is infodom and $3 is true or false. True Creates the profile tables in the atomic schema, false excludes the creation of profile tables during import

   For example,

   ```
   RTIImport.sh <APP LAYER FTPSHARE>/<INFO-
   DOM>/RTI/RTIExport_RTIINFO_2014.06.10.19.39.38.xml RTIINFO true
   ```

   Note: The Import file name should always start with `RTIExport_`

Exporting Functionality

To Export functionality, follow these steps:

1. Login to the Server where app layer is installed.
2. Navigate to the path.

   `<FIC_HOME>/ficapp/common/FICServer/bin`

   Execute the below command.

   `./RTIExport.sh $1 $2 $3`

   $2 is the Infodom name and $3 is Assessment IDs Separated by Comma.

   For example,

   `./RTIExport.sh <APP_LAYTER ftpshare>/RTIINFO/RTI RTIINFO 1790,1802`

APPENDIX A

Configuring an User Defined Function in IPE

This Appendix explains about configuring a user defined function in IPE, This Appendix covers following topics:

- Configuring a User Defined Function in RTI
- Configuring any User defined function

Configuring a User Defined Function in RTI

To configure a User Defined Function in RTI, follow these steps:

1.
```
GETLASTCHARS (FUNCTION NAME) (PARAMETER NAME1 DATA TYPE1, PARAMETER NAME2
      DATA TYPE 2)
return 'return data type'
Begin
Function Body
End
```

2. For Example, to create a Function GETLASTCHARS in the Atomic Schema, follow the steps below.
```
create or replace function GETLASTCHARS(inputString varchar2, noOfChars
number)
return varchar2
is
 v_chars varchar2(32767):='';

begin
  select SUBSTR(inputString,0-noOfChars,noOfChars) into v_chars from dual;

  return v_chars;
end GETLASTCHARS;
```
Note: At any point of time, the user created functions for use in Expression should have only two parameters. In the Example Function, the inputString and noOfChars are the two parameters.

Configuring any User defined function

To Configure any User defined function, follow these steps.

1. The information to be inserted into the tables `rti_function, rti_func_arg_map and rti_func_data_type`.
2. To configure the above Created Function to appear in the Select Function drop-down, execute the below Scripts in the Config Schema.

   The values should be added to the tables according to the format shown below:

   insert into `RTI_FUNC_ARG_MAP (N_MAP_ID, N_FUNC_ID, V_ARG_DESC, V_ARG_DATA_TYPE, N_ARG_NUM)`

   values(value1,value2,value3….)

   Example,

   insert into `RTI_FUNCTION (N_FUNC_ID, V_RETURN_TYPE, V_FUNC_CODE, V_FUNC_NAME, V_DESC, V_NOTES, V_FUNC_TYPE, V_FUNC_STR, V_MAX_PARAM)`
   ```
   values (30, 'VARCHAR2(200)', 'GETLASTCHARS', 'Get Last Characters ', 'Gets
   the Last Characters.', null, 'F', 'GETLASTCHARS(@1@,@2@ )', 2);
   ```

   insert into `RTI_FUNC_ARG_MAP (N_MAP_ID, N_FUNC_ID, V_ARG_DESC, V_ARG_DATA_TYPE, N_ARG_NUM)`
   ```
   values(value1,value2,value3…..)
   ```
   Example,

   insert into `RTI_FUNC_ARG_MAP (N_MAP_ID, N_FUNC_ID, V_ARG_DESC,`
   ```
   V_ARG_DATA_TYPE, N_ARG_NUM)
   values (40, 30, 'Char Value to be evaluated', 'char', 1);
   insert into RTI_FUNC_ARG_MAP (N_MAP_ID, N_FUNC_ID, V_ARG_DESC,
   V_ARG_DATA_TYPE, N_ARG_NUM)
   values (41, 30, 'Number of places', 'char', 2);

   insert into RTI_FUNC_DATA_TYPE (N_MAP_ID, N_FUNC_ID, V_DATA_TYPE)
   values (70, 30, 'CHAR');
   values(value1,value2,value3….)
   ```
   Example,
   ```
   insert into RTI_FUNC_DATA_TYPE (N_MAP_ID, N_FUNC_ID, V_DATA_TYPE)
   values (70, 30, 'CHAR');
   insert into RTI_FUNC_DATA_TYPE (N_MAP_ID, N_FUNC_ID, V_DATA_TYPE)
   values (71, 30, 'VARCHAR');
   ```