AVM-RTA Design Studio User Guide

v2.0SP07

Greenlight TECHNOLOGIES

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DOCUMENT REVISION HISTORY

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1 ABOUT THIS GUIDE

Green light's AVM-RTA Design Studio (RTA DS) is a software application that extends the SAP GRC applications for Access Control (AC) and Process Control (PC) to non-SAP systems in the customer's IT landscape. The AVM RTA DS application establishes connections to non-SAP ERP systems and provides data to AC or PC. AVM-RTA DS has many valuable features including the ability to establish real time connections to target ERP systems, databases, legacy systems, as well as reading data from flat files.

This guide is to familiarize users with the AVM RTA DS application.

1.1 DOCUMENT PURPOSE

This document is intended as a starting point for understanding the overall capability of the AVM RTA DS application.

1.2 DOCUMENT CONVENTIONS

Document conventions are as follows:

1. **Bold Book Antiqua** to designate names of icons, buttons and menus and emphasize important terms.
2. *Italic Book Antiqua* text in blue to designate hyperlinks and cross-references.

1.3 RELATED DOCUMENTS

AVM RTA DS Installation Guide v2.0SP07 -This document contains step-by-step instructions on the installation of the AVM-RTA Design Studio.

1.4 TARGET AUDIENCE

This manual is intended for System Administrators, Solution Administrators and/or Technical People, who are responsible for using the AVM- RTA DS product for Risk Analysis through SAP RAR or configuring various real time adapters for different applications.

1.5 MASTER STARTING POINT

The AVM RTA DS is an application that extends the SAP GRC capabilities for Risk Analysis to the non-SAP systems. This is accomplished by installing the AVM RTA DS and the appropriate target ERP system connector. After installing AVM RTA DS and the RTA, use the RTA DS to configure the connector parameters and settings. This enables the communication between the SAP GRC product and the Target ERP RTA to pull data from the ERP system and reformat it for consumption in GRC.

To begin with, the first step is to install the software. The software consists of two main components as follows.

1. Greenlight AVM-RTA DS
2. RTA Adapter

The documents required are as follows:

1. AVM-RTA DS Installation Guide
2. AVM-RTA DS User Guide
3. Real Time Adapter Installation Guide

To install the first software component, follow the instructions given in the RTA Design Studio Installation Guide. Once the AVM-RTA DS is installed and verified, install the Target ERP system RTA as per the instructions in the Real Time Adapter Installation Guide for Adapter.

The next step is to configure the AVM-RTA DS. This involves setting up the SAP GRC RAR product to access the AVM-RTA DS and configuring the AVM-RTA DS to access the RTA in Oracle. After configuring SAP GRC, the AVM-RTA DS and the RTA, test the connection and validate if the systems are working together. Once the systems are validated, you can extract users, roles, and permissions for analysis in the SAP GRC RAR Product.

1.6 SECURITY

The AVM RTA DS is an application that relies on the SAP GRC product for handling the User management activities. The AVM-RTA DS software package and its configuration data do not provide any user accounts or passwords. However, certain Id's are required for the proper functioning of the system. These ID's are established in the SAP GRC UME as follows:

1. **Administrator** - is capable of defining the connector, applications, systems and registration in the RTA Design Studio.
2. **System Owner** - owns the system that is connected to RTA Design Studio. The system owner can import, export system adapter metadata and has access to standard adapters under adapter metadata, Auto Batch Execution.
3. **System User** - is the end user of any specific system connector - Access to just the informer and Auto batch Execution.

The System Admin role has sufficient privileges to configure and maintain the system and connections. For more information on this, refer RTA Design Studio Installation guide. To manage the user accounts and privileges refer to: the SAP GRC documents.

1.6.1 COMMUNICATION

The AVM RTA DS is typically installed on the same NetWeaver server where GRC Access Control/Compliance Calibrator is installed. In case of Oracle Applications it is a standard JDBC communication.

1.7 CONTACT GREENLIGHT

For any questions or queries contact:
Email: *support@greenlightcorp.com*
Web: *www.greenlightcorp.com*

2 OVERVIEW

AVM RTA DS is a web-based tool to configure web services and adapters to connect to multitude of systems. For compliance purpose, the AVM RTA DS v2.0SP07 deals with connecting to the systems through SAP's Risk Analysis and Remediation (alternately known as Compliance Calibrator) Product.

2.1 INTRODUCTION

The requirements of the AVM RTA DS are as follows:

1. The AVM RTA DS manages configuring web services and adapters. It removes redundancy and improves reusability of the web services and adapters to connect with various standard and legacy systems.
2. It incarnates the Object Oriented approach to configure web services leaving significant components of the Adapters to be reused in different web service configurations.
3. It also encapsulates the complexity involved in deploying the web services for various systems.
4. The systems configured for web services through AVM RTA Design Studio can be centrally managed and enhanced as required. It provides the framework to generate various reports from whatever system that is connected through AVM RTA DS.
5. The AVMRTA DS has Role based access. So securing its access to various profiles across the hierarchy of the organization.

Key features of AVM RTA DS are as follows.

1. The AVM RTA DS provides ease of configuring Real Time and Batch Extract adapters to feed data to SAP ARA.
2. It provides reusability of programs to configure adapters.
3. It provides various default reports as well as customized reports.
4. Debugging of the web services connection in AVM RTA DS is easier. The point of error can be easily diagnosed.
5. The various components in AVM RTA DS have role-based access. The person delegated to the task of specific component maintenance and updating can only access these components.
6. Using the **Upload SOD Rules Configuration** feature, you can configure **GRC Application Connector** for the **Upload SOD Rules functionality**.

Note: if you are not using Upload SOD or Offline feature this configuration is not required.

2.2 ARCHITECTURE

The following section illustrates how AVM RTA DS is deployed on SAP NWA.

2.2.1 AVM RTA DS DEPLOYMENT ON SAP NW AS 7.31+

1. AVM RTA DS can be deployed in the following two ways for GRC 10.x integration depending upon if GRC is deployed on a dual stack Netweaver system (ABAP + JAVA) or just ABAP system.
2. Even if the dual stack is available for the GRC box, application can be deployed on a separate Netweaver Java Stack.
3. AVM-RTA DS utilizes the Net weaver Java Stack Database onto which it is deployed to create and populate its tables.

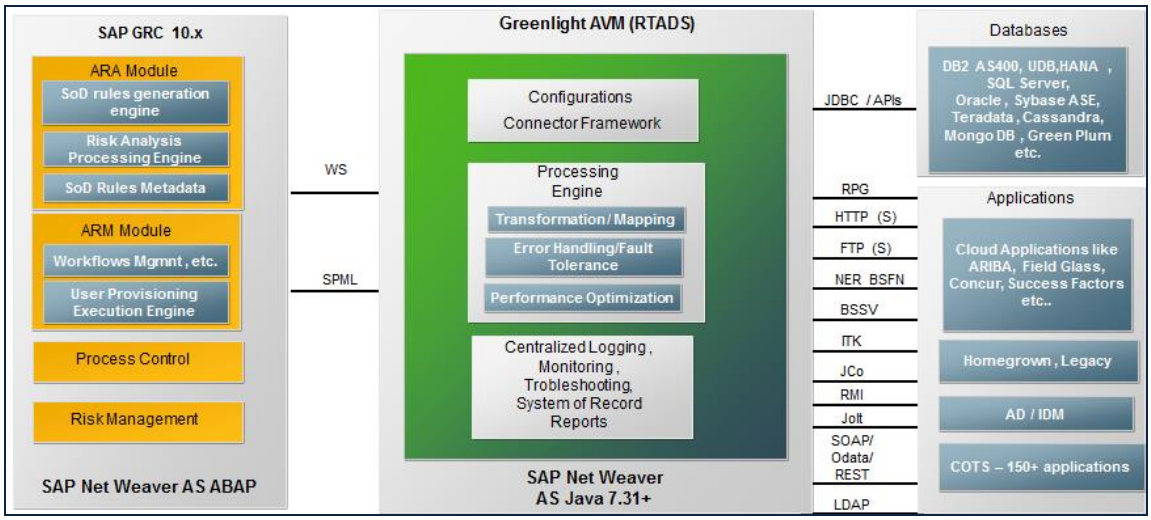


Figure 2.1: Landscape Architecture

Note: If AVM is installed on a clustered NW JAVA instance (multiple application servers / multiple JAVA server nodes) then please maintain either Message Server based application URL or URL based on any load balancer (if one has been deployed in customer landscape) to distribute requests from Access Control to AVM.

3 LOGIN DETAILS

The User Login for the AVM RTA DS happens through SAP User Management Engine (UME). In UME, various AVM RTA DS role components are imported through text file. The roles for a user can be configured through SAP UME. It allows access to various Links, Tabs and Buttons as per the user profile.

3.1 USER LOGIN

All the active users defined in UME can login to the application through User Logins. To have an appropriate access within the application, ensure that a role with one or more actions is assigned to the users.

On the User Login Screen, the Registration (for registering the platform) and the Support links are provided for the product. Platform should be registered first for user to login to the AVM RTA DS Application.

3.1.1 REGISTERING PLATFORM

The steps to register the platform are as follows.

1. Launch the **AVM RTA DS** application.
2. Click the **Registration** link.
3. Enter the **User ID** and **Password** of system administrator.
4. Click on the **Register the Platform**.

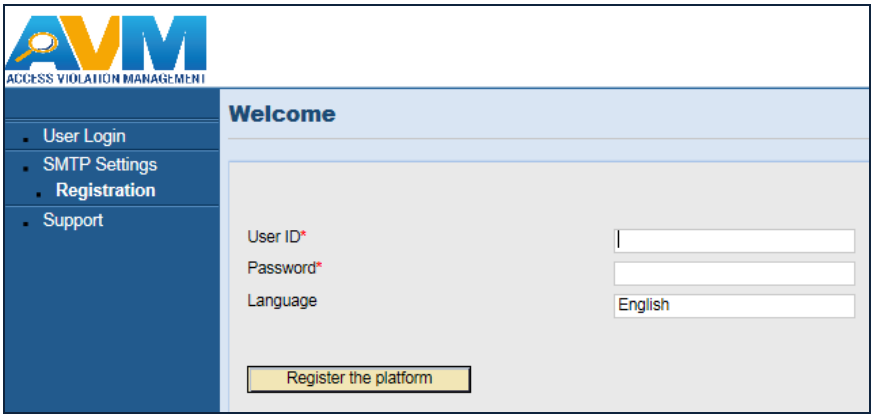


Figure 3.1: Platform Registration

5. The **Platform Registration** screen opens.

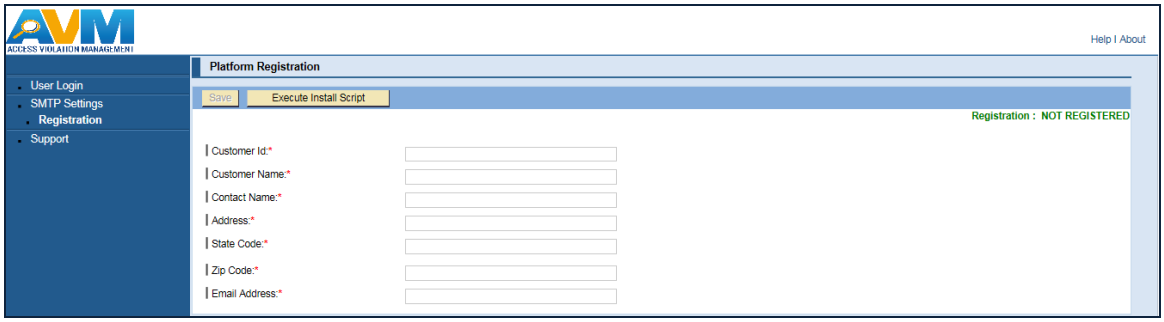


Figure 3.2: Platform Registration

6. Click on the **Execute Install Script** button.
7. The **Details** screen opens.

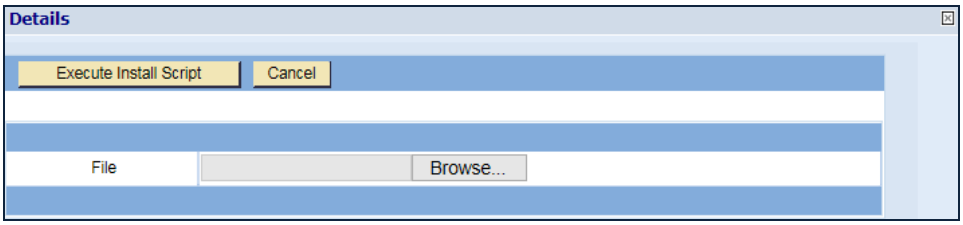


Figure 3.3: Details

8. Click on **Browse** button and select appropriate install script.

Note: This script is provided in the build/package folder. The database scripts should not be having than one semi colons in a query. Single Query should be written on single line.

9. Click on the **Execute Install Script** button. The screen displays message as shown in the below screenshot. Detail information about the executed script is displayed under the Script Execution Summary section under the column headings **Table Name**, **Operation** and **No. Of Executed Queries**.

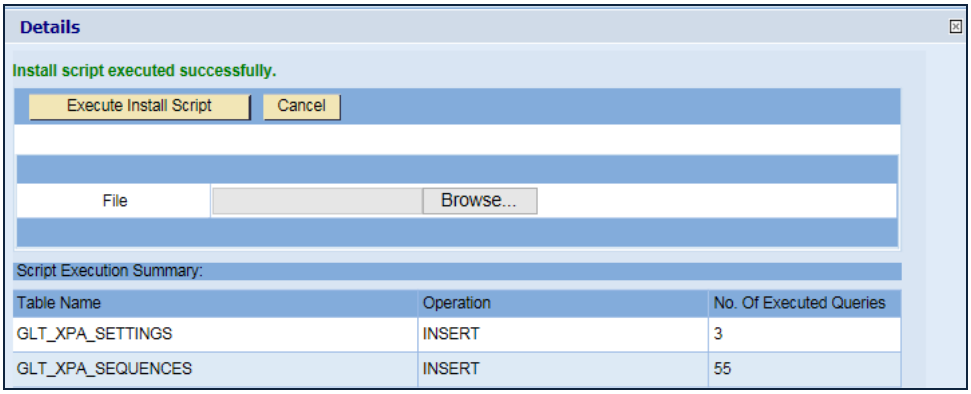


Figure 3.4: Details

10. Click on the **Cancel/Close** (image in the right corner) button and go to the Platform Registration screen.
11. Enter appropriate **Customer Id**, **Customer Name**, **Contact Name**, and **Address** (of customer), **State Code**, **Zip Code** and **Email Address** (of customer).

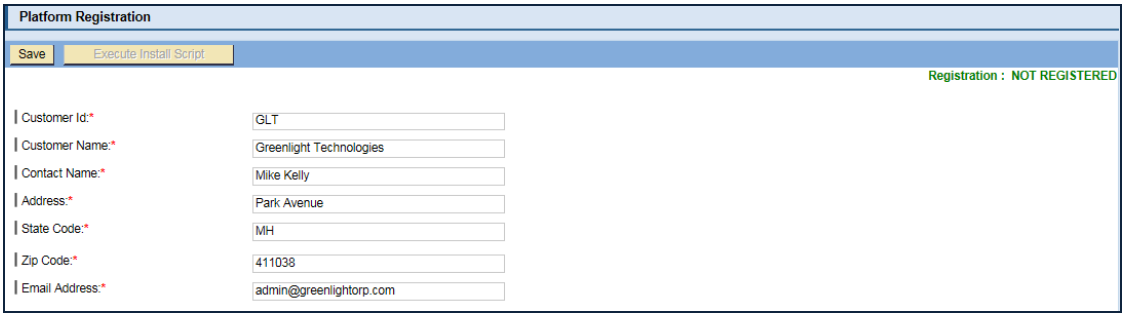


Figure 3.5: Platform Registration

12. Click on **Save**. The screen displays message as shown in the below screenshot.

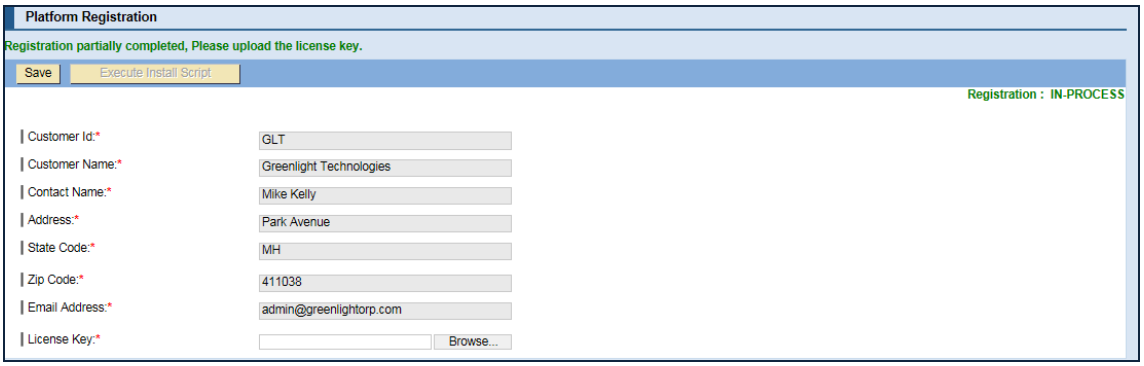


Figure 3.6: Platform Registration

13. All the modifications are grayed out and the **License Key** field appears on the screen.
14. Click on the **Browse** button and import the **GLT_RTADS_PLAT.xml** file provided with the build.

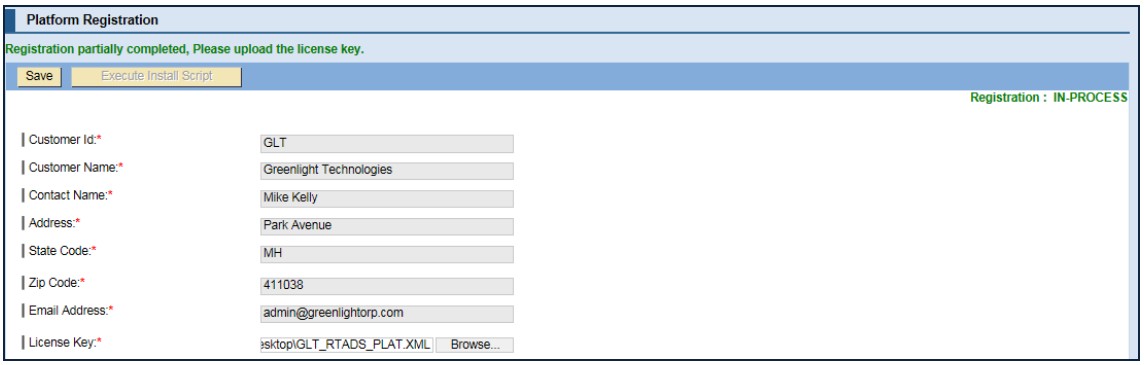


Figure 3.7: Platform Registration

15. Click on **Save**. The screen displays message as shown in the below screenshot.

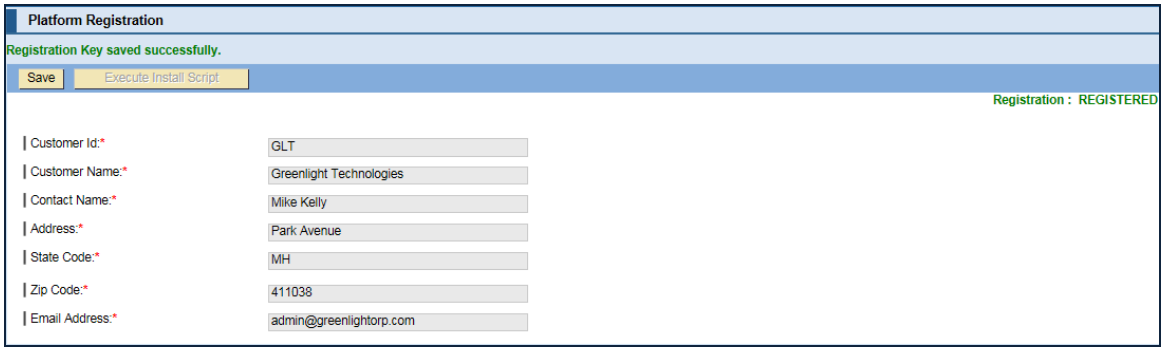


Figure 3.8: Platform Registration

3.1.2 LOGIN

The steps to login to the AVM RTA DS application are as follows.

1. Launch the **AVM RTA DS** application.
2. In the left pane, click on the **User Login** link.

   The login screen appears as shown in the following screenshot.

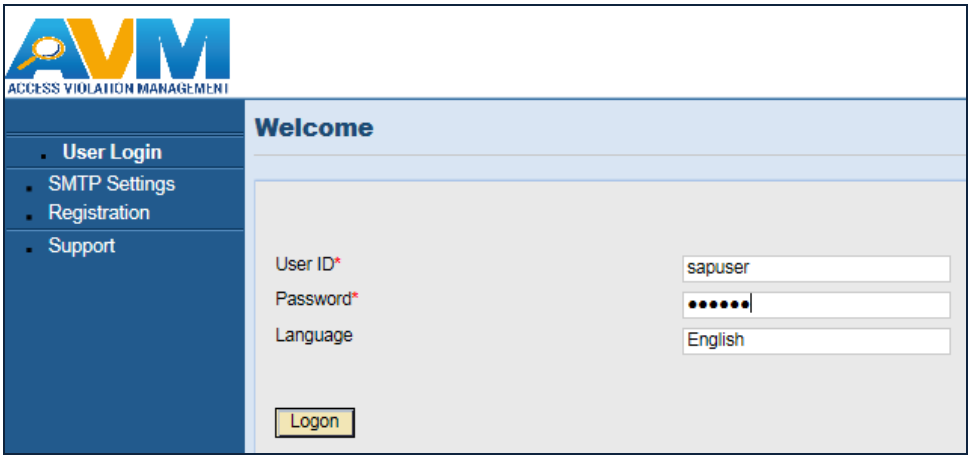


Figure 3.9: User Login

3. Enter appropriate **User ID** and **Password** in the respective fields.
4. Click **Logon** to login to the application.

4 CONNECTORS

Using the **Connectors** feature, you can create connectors. For each system, you need to create at least one connector. Using the **Connectors** page, you can search, create, view, modify and test the connection.

4.1 SEARCH CONNECTORS

Use a search criterion to find the previously created connectors. The search criterion helps you to search a particular connector or find all the existing connectors in one go.

The steps to search the connectors are as follows.

1. Click on **Configuration** tab.
2. In the left menu pane, click on the **Connectors** link.

   The **Connectors>Search** screen opens as shown in the following screenshot.

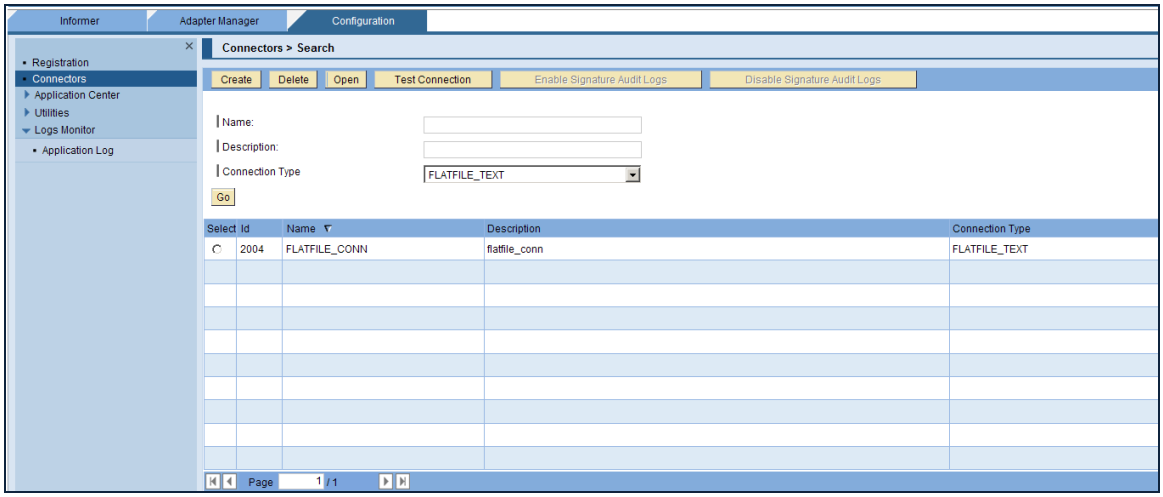


Figure 4.1: Connectors>Search

3. To view all the existing connectors, click **Go**.

   -Or-

   To view a particular connector, enter the parameter value in the **Name/Description** field. Select the **Connection Type** from the dropdown list. Click on **Go**.
4. The screen displays records under the column headings **Select**, **Id**, **Name**, **Description** and **Connection Type**.
5. To sort the data in **ascending/descending** order, click the arrow beside the **Name** column.

4.2 CREATE CONNECTORS

You need to create two WEBSERVICE connectors.

a. One webservice connector is to get role details (start date, end date) from the SAP GRC for the submitted request. Example: RQST_DTLS_CONN

b. The other is user access webservice connector which will remove the roles from SAP GRC request (in GRC table) so that same role can be submitted in next request. Example: USRACCES_WS_CONN

A. The steps to create the Role Details Webservice Connector are as follows.

1. Click on the **Configuration** tab.
2. In the left menu bar, click on the **Connectors** link.
3. The **Connectors>Search** screen opens.
4. Click on **Create**.
5. The **Connector>Create** page opens.

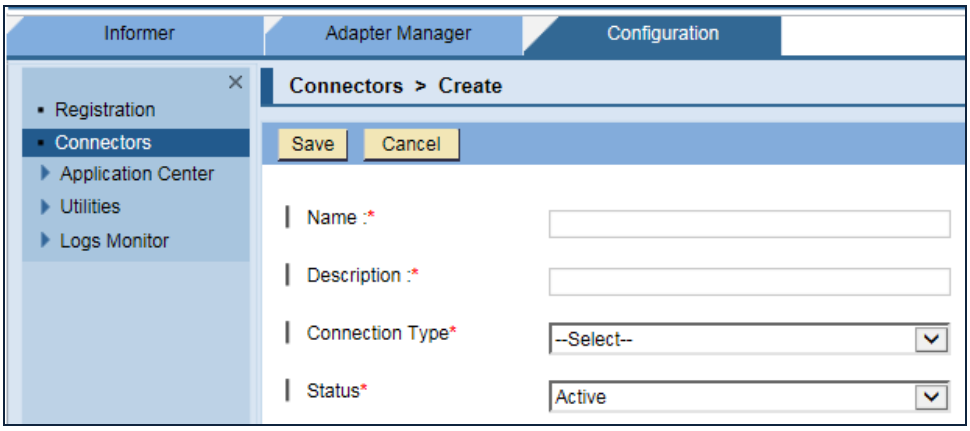


Figure 4.2: Connectors > Create

6. In the Name field, enter appropriate name of the connector. For Example: RQST_DTLS_CONN.
7. In the Description field, enter brief description of the connector.
8. In the Connection Type drop-down list, select the connector type as WEBSERVICE. After selecting the connection type, some additional fields appear on the screen.
9. In the **Status** dropdown list, select the status as Active.
10. In the URI text box, enter the appropriate URI obtained from GRC.

    For Example:

    http://linux-j6n11.greenlight.com:8000/sap/bc/srt/rfc/sap/grac_request_details_ws/100/glt_grac_request_details_ws/glt_grac_request_details_ws
11. For more information on how to get URI, refer **GRC_CG_for_10.0_10.1_v1.5.pdf**- section 4.2 Request Details webservice Binding.

12. In the **User Name** and **Password** text box, enter appropriate credentials in the respective text box.
13. In the **Web Service Name** text box, enter the value as REQUESTDETAILS.
14. Click on the **Save** button to save the newly created connector settings.
15. The screen displays message as "<Connector Name>: Connector created successfully".

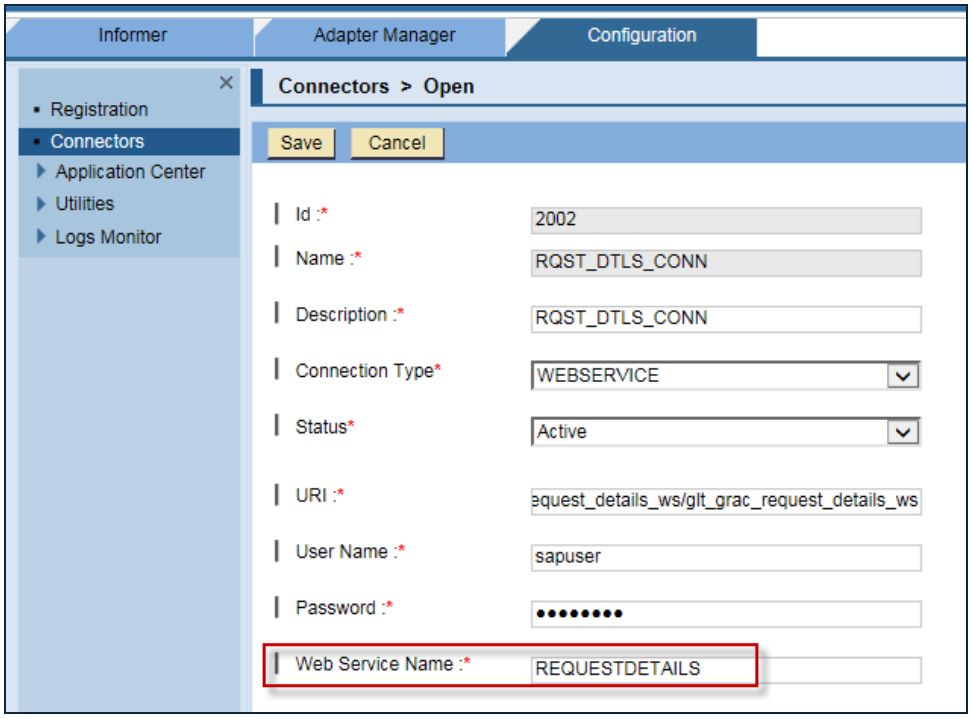


Figure 4.3: Connectors > Open

B. The steps to create the User Access Webservice Connector are as follows.

1. Click on the **Configuration** tab.
2. In the left menu bar, click on the **Connectors** link.
3. The **Connectors>Search** screen opens.
4. Click on **Create**.
5. The **Connector>Create** page opens.

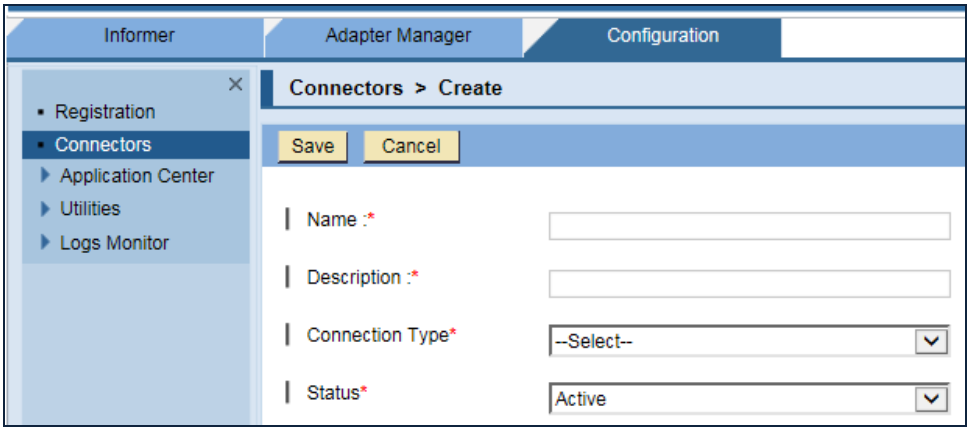


Figure 4.4: Connectors > Create

6. In the **Name** field, enter appropriate name of the connector. For Example: USRACCES_WS_CONN.
7. In the **Description** field, enter brief description of the connector. For Example: User Access Webservice Connector.
8. In the **Connection Type** drop-down list, select the connector type as WEBSERVICE. After selecting the connection type, some additional fields appear on the screen.
9. In the **Status** dropdown list, select the status as Active.
10. In the **URI** text box, enter appropriate URI obtained from GRC.
11. For Example:
12. http://linux-j6n11.greenlight.com:8000/sap/bc/srt/rfc/sap/grac_user_acces_ws/100/glt_grac_user_acces_ws/glt_grac_user_acces_ws
13. For more information on how to get URI, refer: GRC_CG_for_10.0_10.1_v1.5.pdf- chapter 4.1 User access webservice request binding.
14. In the **User Name** and **Password** text box, enter appropriate credentials in the respective text box.
15. In the **Web Service Name** text box, enter the value as USERACCESS.
16. Click on the **Save** button to save the newly created connector settings.
17. The screen displays message as "<Connector Name>: Connector created successfully".

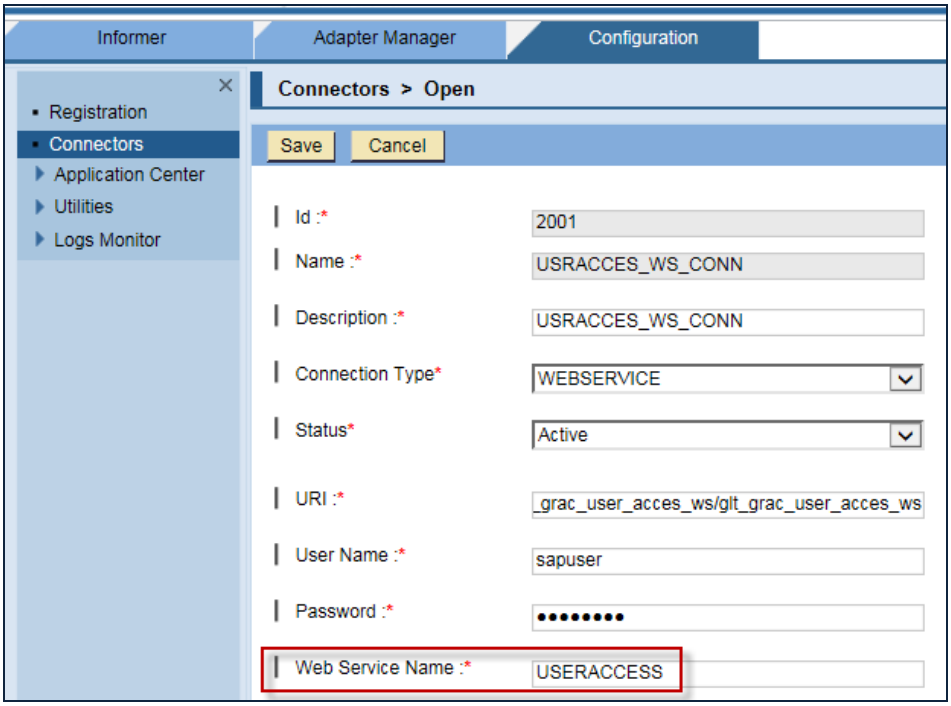


Figure 4.5: Connectors > Open

4.3 VIEW/MODIFY CONNECTOR

The steps to view/modify the connector are as follows.

1. On the **Connector > Search** page, select the connector whose details you wants to modify/view.
2. Click on the **Open** button.

   The **Connector > Open** screen opens displaying the information of the selected connector in various fields.

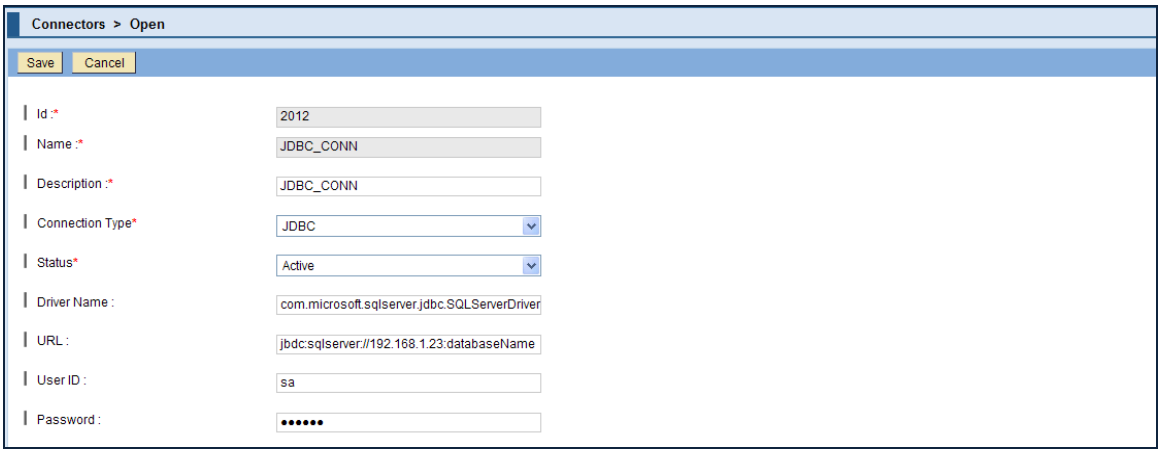


Figure 4.6: Connector>Open

3. The **Id** and **Name** fields are not editable.
4. Edit the **Description** if required.

5. Edit the **Connection Type** from the **Connection Type** drop-down list.
6. Modify the required fields based on the connection type.
7. Click on the **Save** button.

   The screen displays the message as shown in the following screenshot.

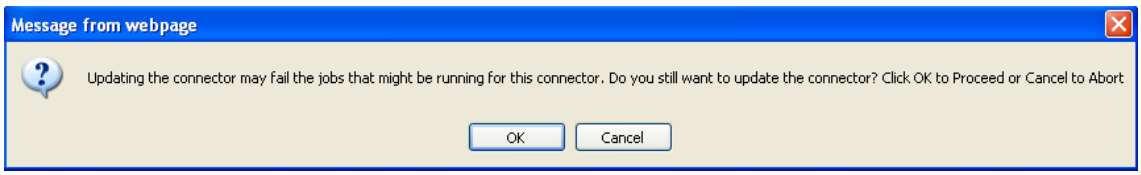


Figure 4.7: Message

8. Click **OK** to continue or **Cancel** to Abort.

4.4 DELETE CONNECTOR

You can delete a connector by two ways:

1. Selecting a connector and making its status Inactive.
2. Selecting a connector and click on **Delete** button.

4.4.1 DELETING A CONNECTOR BY CHANGING ITS STATUS

The steps to delete a connector by changing its status are as follows.

1. Click the **Configuration** tab.
2. In the left navigation pane, click on **Connectors** link.
3. On the **Connector>Search** page, click the select column corresponding to the **Name** which you want to delete.
4. Click on the **Open** button.

   The **Connector>Open** page opens displaying the details of selected connector in each field.
5. In the **Status** dropdown list, select the status as **Inactive** as shown in the following screenshot.

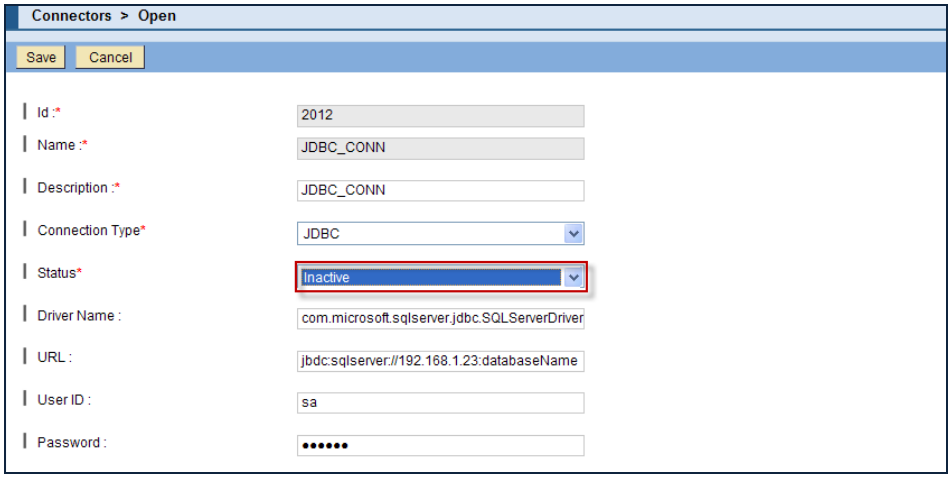


Figure 4.8: Connector>Open

6. Click on the **Save** button. The screen displays message as shown in the following screenshot.

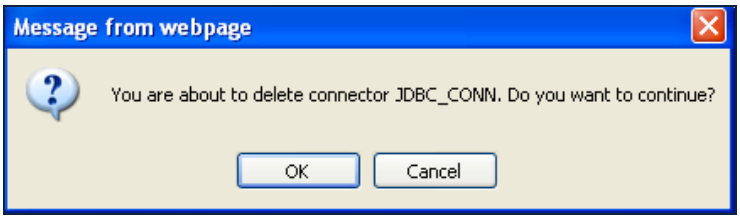


Figure 4.9: Message

7. Click on **OK** to delete the record.

   The screen displays message as, "<Connector Name>: Connector deleted successfully."

Note: once you select the status as Inactive, you cannot change it to Active. If you try to change the status of the connector, which is associated with system, the screen alerts with RED error message as shown in the following screenshot. Once the new Connector is saved it is available to map under Configuration> Application Center>System-Create

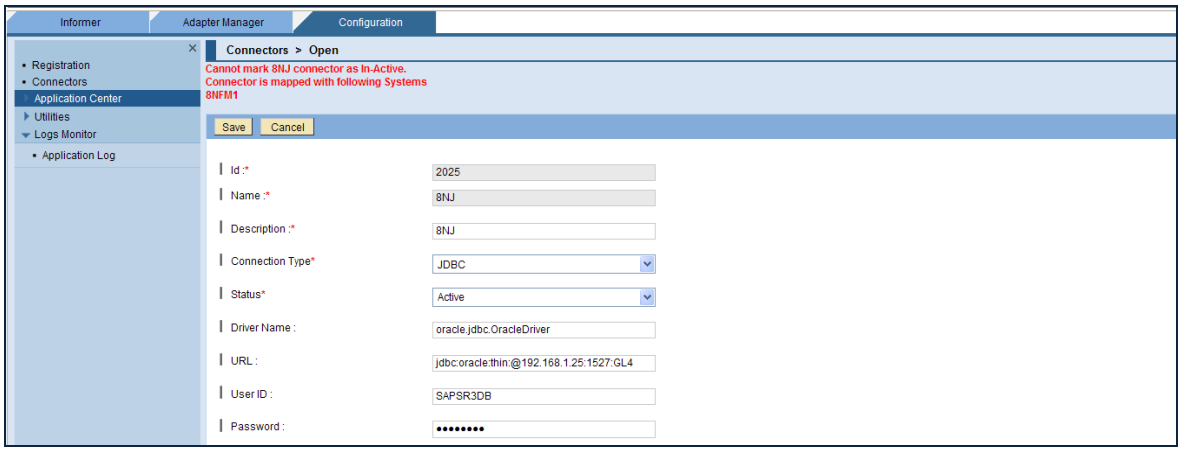


Figure 4.10: RED Error Message

4.4.2 DELETING SYSTEMS USING DELETE BUTTON

The steps to delete a connector by clicking delete button are as follows.

1. Click the **Configuration** tab.
2. In the left navigation pane, click on **Connectors** link.
3. On the **Connector>Search** page, click the select column corresponding to the **Name** which you want to delete.
4. Click on the **Delete** button.

   The following message appears on the screen.

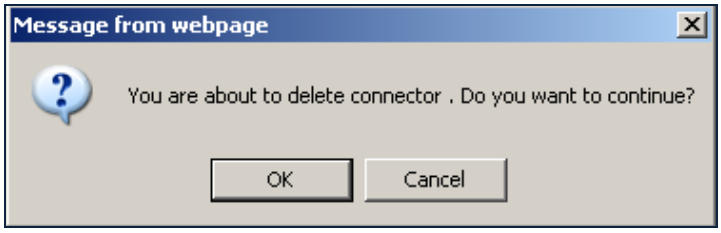


Figure 4.11: Message

5. Click on the **OK** button.

   The screen displays message as, "<Connector Name>: Connector deleted successfully" as shown in the following screenshot.

Note: you cannot delete a connector mapped with the system.

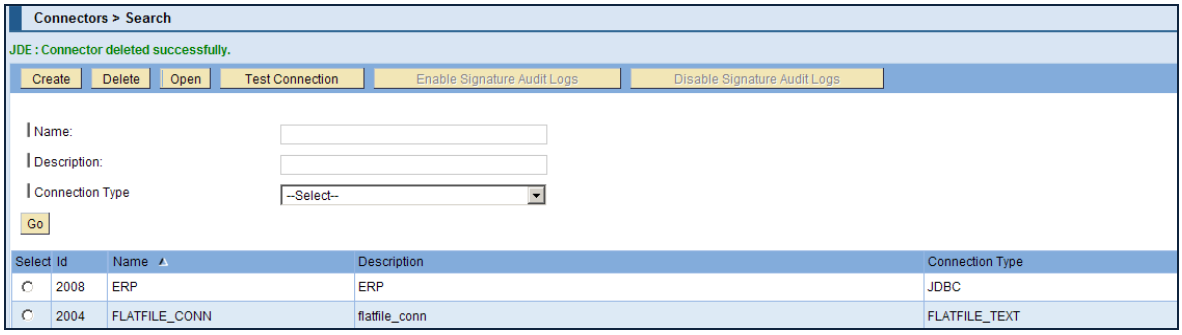


Figure 4.12: Connector > Search

4.5 TEST CONNECTION

The steps to test the connector are as follows.

1. Got to the **Connectors > Search** screen.
2. Select appropriate connector, which you want to test.
3. Click on the **Test Connection** button.

   The application displays the message as, <Connector Name> Success as shown in the following screenshot.

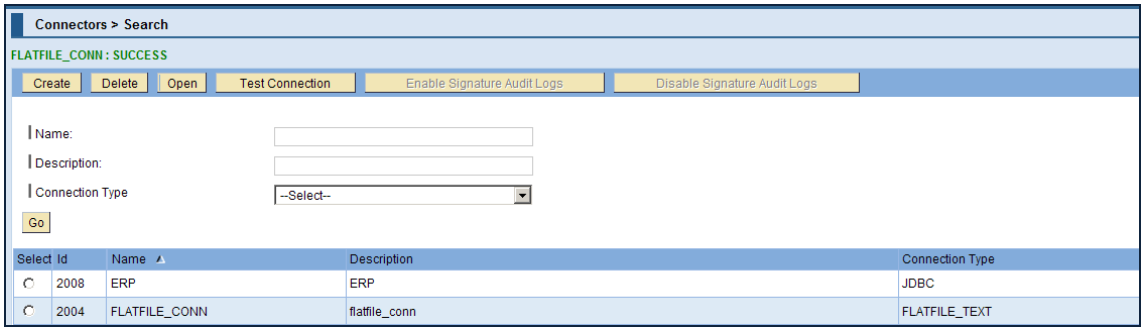


Figure 4.13: Connector>Search-Test Connection

5 APPLICATION CENTER

The **Application** is a homogeneous group of the **Systems**. For Example: PeopleSoft is an Application and PeopleSoft HR Dev, PeopleSoft HR Prod are its systems.

5.1 APPLICATION

Using application screen you can create/search and modify the previously created applications.

5.1.1 SEARCH APPLICATIONS

A search criterion helps to find the previously created applications. The search criterion helps to search a particular application or find all the existing applications in one go.

The steps to search an application are as follows.

1. Click the **Configuration** tab.
2. In the left navigation menu, click the **Applications Center**.
3. Click on the **Applications link**.

   The **Applications>Search** page opens as shown in the following screenshot.

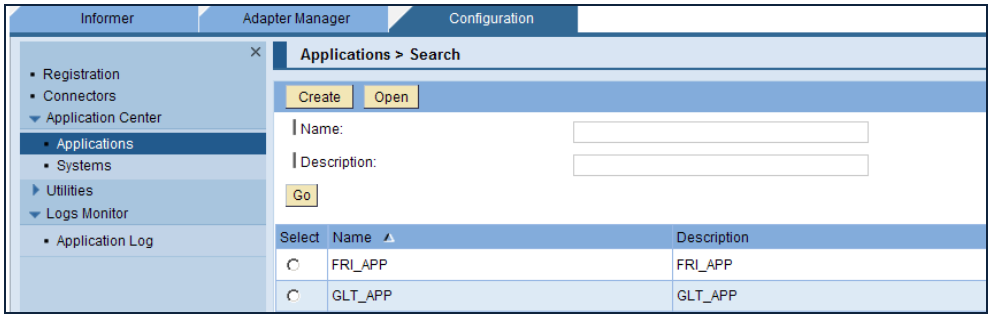


Figure 5.1: Application>Search

4. To view the existing applications records, click **Go**.

   -Or-

   To view a particular application, enter the parameter value in the **Name/Description** field and click on **Go**.
5. The screen displays records under the column headings **Select**, **Name**, and **Description**.

5.1.2 CREATE APPLICATION

The steps to create a new application are as follows.

1. Click the **Configuration** tab.
2. In the left navigation pane, click **Applications Center>Applications**.

3. The **Application>Search** screen opens.
4. Click on the **Create** button.

   The **Application>Create** page opens as shown in the screenshot below.

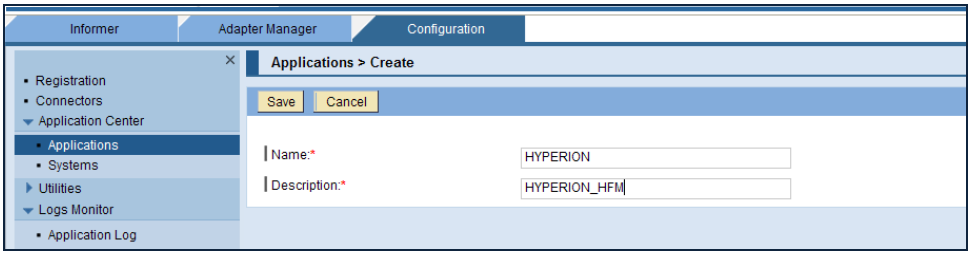


Figure 5.2: Application>Create

5. In the **Name** field, enter appropriate name of the application.
6. In the **Description** field, enter appropriate description of the application.
7. Click **Save** to save the newly created application.

   Once the applications details are saved, it is listed on the Application>Search page. The screen displays message as, "<Application Name>: Application created successfully."

5.1.3 VIEW/MODIFY APPLICATION

The steps to view/modify the application are as follows.

1. On the **Application>Search** page, click the select column corresponding to the application name, which you want to view/modify.
2. Click on **Open button**.

   The **Application>Open** page opens as shown in the following screenshot.

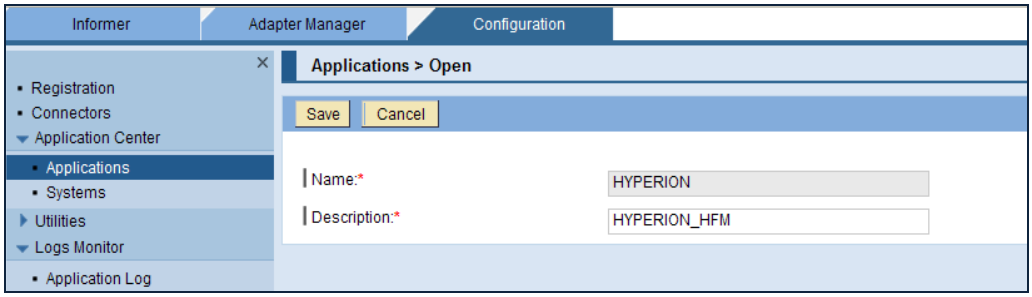


Figure 5.3: Application>Open

3. The **Name** field is not editable.
4. Edit the **Description** as required.
5. Click **Save** to save and update the changes.

***Note:** the Description is editable until the time Application is not registered or until it is in process of registration. Once it is Registered, Application details cannot be edited.*

5.2 SYSTEM

After defining the **Application**, you can create a system and associate it with the application. Apart from this, you can associate the connectors with the system. All the connectors (that have been created through Connector screen) are available through Add Connector button on the System Screen.

5.2.1 SEARCH SYSTEM

A search criterion helps to find the previously created systems. The search criterion helps you to search a particular system or find all the existing systems in one go.

The steps to search the system are as follows.

1. Click the **Configuration** tab.
2. In the left navigation pane, click the **Application Center>Systems**.

   The **Systems>Search** page opens as shown in the following screenshot.

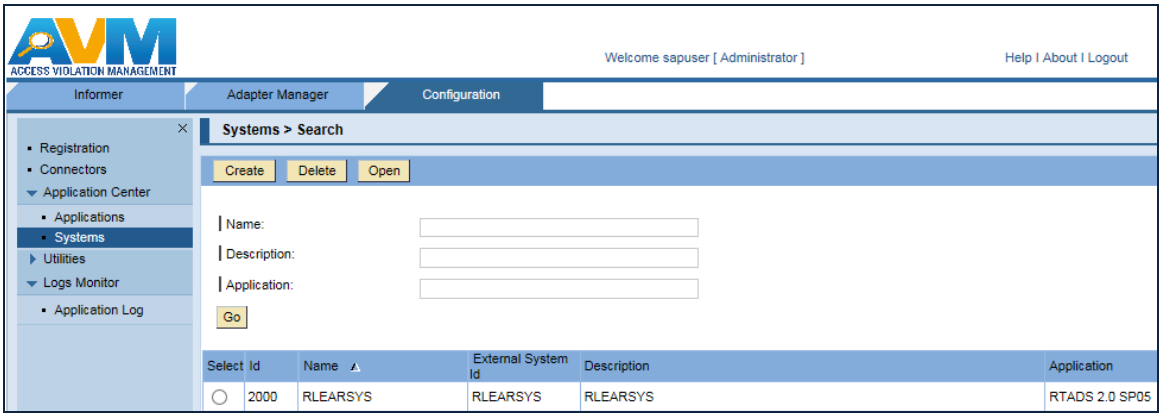


Figure 5.4: Systems>Search

3. To view all the existing systems, click **Go**.

   -Or-

   To view a particular application, enter the parameter value in the **Name/Description/Application** field and click on **Go**.
4. The records are displayed under the column headings **Select**, **Id**, **Name**, **External System Id**, **Description** and **Application**.

5.2.2 CREATE A SYSTEM

The steps to create a new system are as follows.

1. Click the **Configuration** tab.
2. In the left navigation pane, click the **Application Center>Systems**.

   The **Systems>Search** page opens.
3. Click on **Create**.

   The **Systems>Create** page opens as shown in the following screenshot.

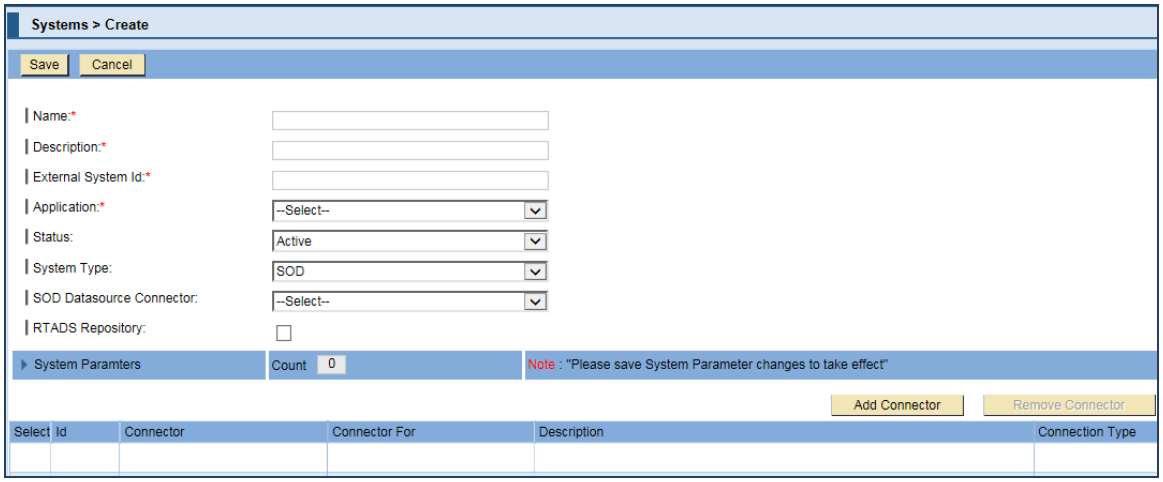


Figure 5.5: Systems>Create

4. In the **Name** field, enter appropriate name of the system.
5. In the **Description** field, enter brief description of the system.
6. In the **External System Id** field, enter appropriate id.

***Note:** the System creation has one External System Id associated that denotes the exact name of the System that is configured into the SAP RAR. There is one to one mapping between the System Name and the External System Id and the validation has been placed for the External System Id to be unique.*

7. In the **Application** drop-down list, select appropriate application. This field is mandatory.
8. In the **Status** drop-down list, and select the status as **Active**.
9. In the **SOD Datasource Connector** dropdown list, select appropriate value.

***Note:** the SOD Datasource Connector dropdown list displays all the active connectors. This field is not mandatory. This setting is required for upload SOD. If you are not using Upload SOD or Offline feature this configuration is not required.*

Mark the **AVM-RTADS Repository** checkbox. When you check the **RTADS Repository** checkbox, you can conduct offline analysis. Instead of real time call, you can fetch data from AVM-RTA DS table. This feature is added for performance enhancement. For More information on this refer, Chapter 14 Appendix. When the **AVM-RTADS Repository** checkbox is not checked, it indicates you need to do online (Real time) analysis. In that case, while creating **Autobatch Extraction**, under the **Adapter Manager> Auto Batch Extraction>Job Scheduler-Create** page, the **Create File** checkbox is by default checked and non-editable. Files are auto generated. When the **AVM-RTADS Repository** checkbox is checked, it indicates offline analysis mode. In that case while creating **Autobatch Extraction**, under the **Adapter Manager> Auto Batch**

Extraction>Job Scheduler-Create page, the **Create File** checkbox is not checked and is editable. You can create .zip files as required.

10. Click on the **Add Connector** button.

    The **Connector** page opens displaying the list of connectors under the column headings **Select**, **Connectors** and **Description** as shown in the screenshot below.

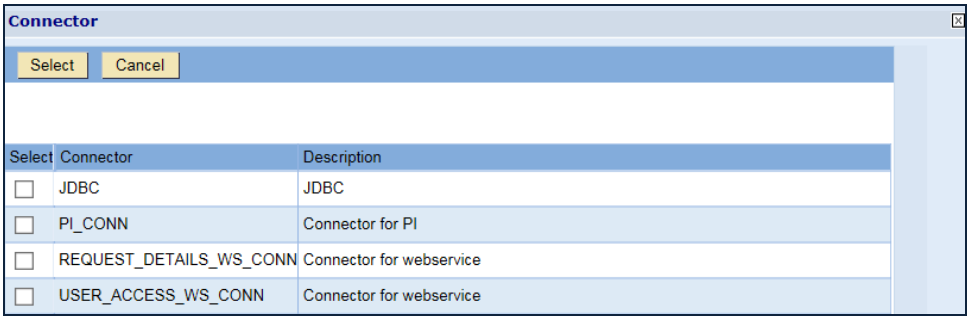


Figure 5.6: Connector

11. Click on **Select**, next to the connector, which you want to add.
12. Click on **Select** button.

    The connector is added to the system and is displayed under the column headings **Select, Id**, **Connector**, **Connector For**, **Description**, and **Connection Type**.

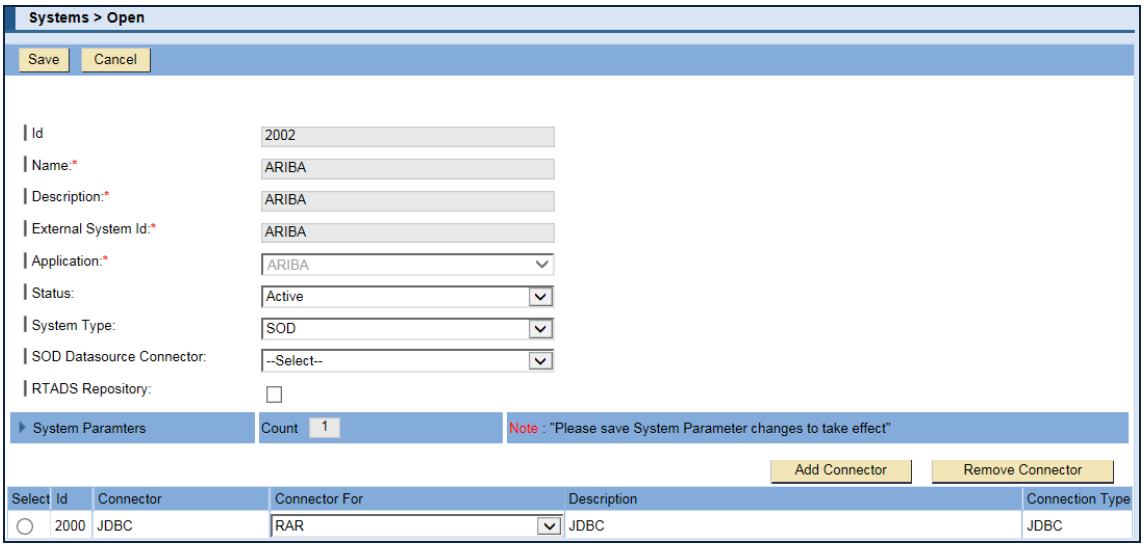


Figure 5.7: Systems>Open

Note: under Informer>Report, when you click Run Report, at that time only that connector is selected for which Connector For type is Report.

13. To add new parameter, click on the arrow image corresponding to the **System Parameter**.

    The following screen opens.

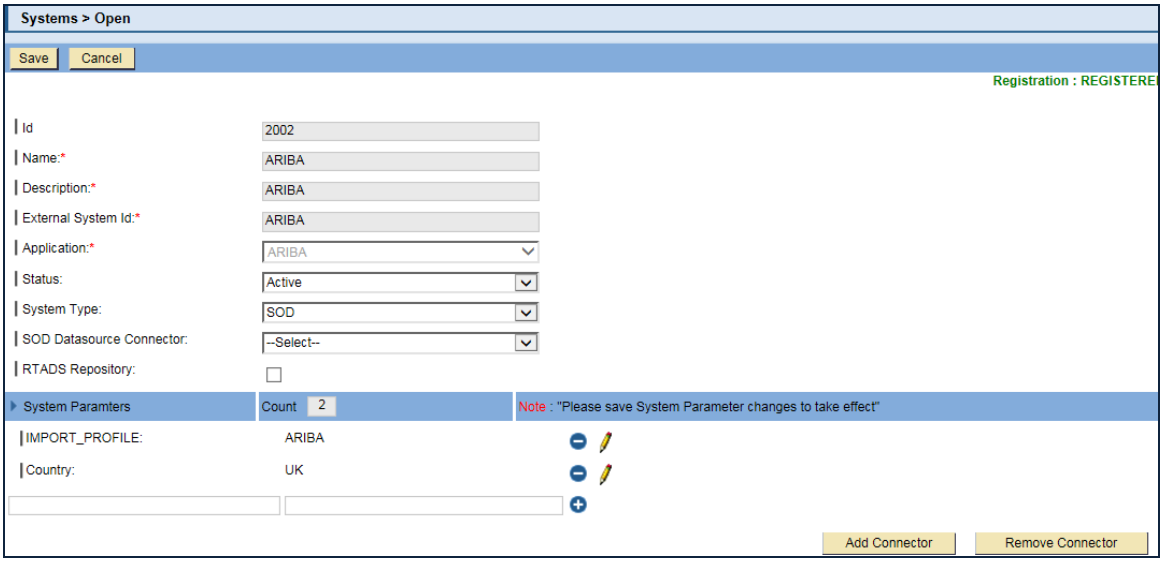


Figure 5.8: System Parameters

Note: It is mandatory to enter system parameter as IMPORT_PROFILE for importing CSV Data. The Configuration tab> Utilities> Import CSV Data screen displays only those systems for which system parameter is added as IMPORT_PROFILE.

14. Enter appropriate name and parameter value. Click on **Save**. The screen displays message as, "<Name>: System updated successfully."
15. Click on the **Edit** image . Below screen opens.

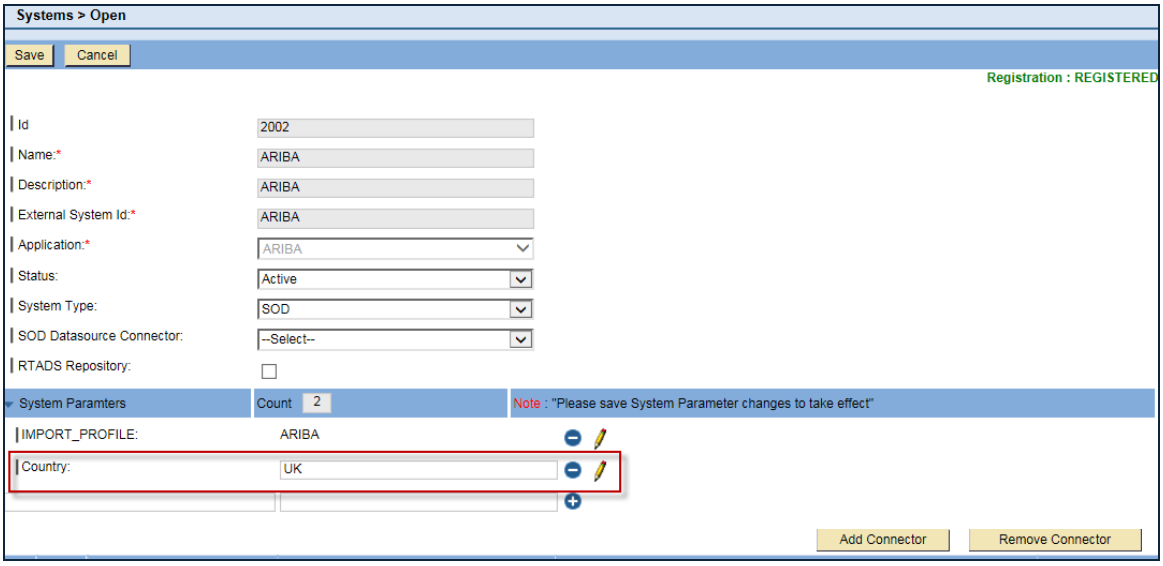


Figure 5.9: System Parameter

16. Edit the **Parameter Value** as required and click **Save** to save the system.
17. Click on the **Delete** image to delete the selected parameter.
18. Click on **Save** to save the newly created System.

The **System>Search** screen displays message as SYSTEM NAME: System created successfully.

19. Once the **Systems** details are saved, they are displayed on the **System>Search** page.

Note: *the System and Application Name created in these screens will be available for all the screens where in System and Application fields are present. The Registration Status of the Application and System do not hamper these to be available in other screens (like Custom Adapter configuration, Add System –Connector Screen). However, the APIs attached to the system will only function if the system is registered.*

5.2.3 VIEW/MODIFY SYSTEM

The steps to view/modify the system are as follows.

1. Click the **Configuration** tab.
2. In the left navigation pane, click the **Application Center>Systems**.
3. On the **System>Search** page, click the select column corresponding to the **System Name** which you want to view/modify.
4. Click on the **Open** button.

   The **System>Open** page opens displaying the details of selected system in each field as shown in the following screenshot. The screen displays the details of associated connectors under the column headings **Select**, **Id**, **Connector**, **Connector For**, **Description**, and **Connection Type**.

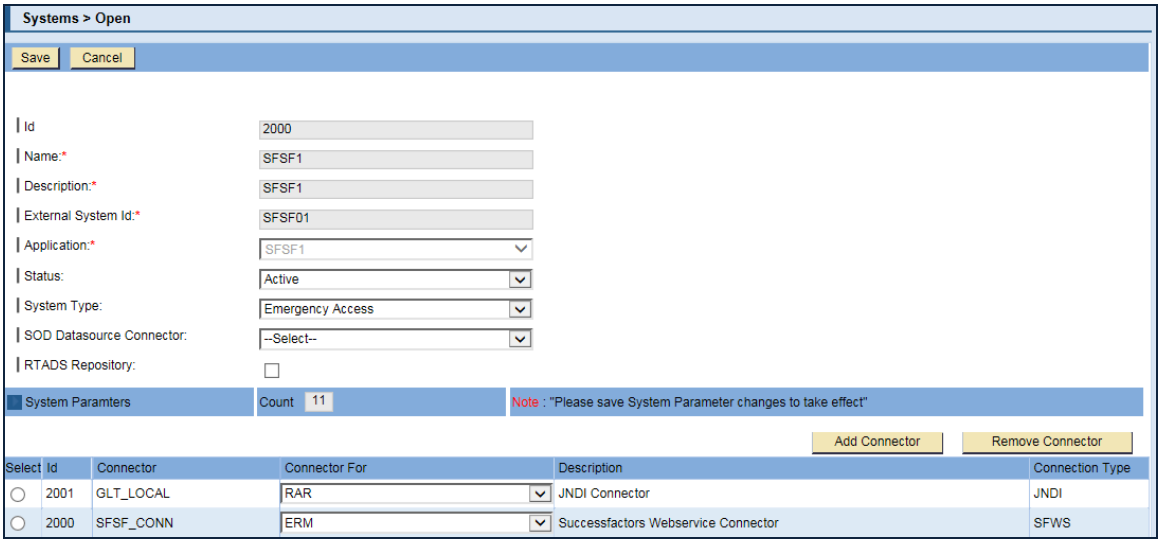


Figure 5.10: Systems > Open

5. To remove the associated connector, select the connector and click on the **Remove Connector** button.

   The associated connector is removed from the system.

Note: *if the system is registered then you cannot remove connector associated with it.*

6. To add a new connector to the system: follow the steps 10 to 12 under **Create System**.
7. Click **Add Parameter**, the **Parameter** screen opens. Enter appropriate parameter name and parameter value. Click **Add** to add the newly defined parameter value.
8. Click **Save** to save and update the changes.

Note: once applied for registration the External System Id, the System Name and Application name becomes non – editable. However, the status of the System remains editable. Perform either Add or Remove Connectors and save. Do not perform Add-Remove or Remove-Add connector activity at a time. The RTA DS application will consider only last action perform on UI.

5.2.4 DELETING SYSTEM BY CHANGING ITS STATUS

You can delete a system in two ways:

1. Selecting a system and making its status Inactive.
2. Selecting a system and click on Delete button.

The steps to delete a system by changing its status are as follows.

1. Click the **Configuration** tab.
2. In the left navigation pane, click the **Application Center>Systems**.
3. On the **System>Search** page, click the select column corresponding to the **System Name** which you want to delete.
4. Click on the **Open** button.

   The **System>Open** page opens displaying the details of selected system in each field as shown in the following screenshot. The screen displays the details of associated connectors under the column headings **Select**, **Id**, **Connector, Connector For**, **Description,** and **Connection Type**.
5. The **Id**, **Name**, **Description**, **External System Id**, **Application** fields are not editable.

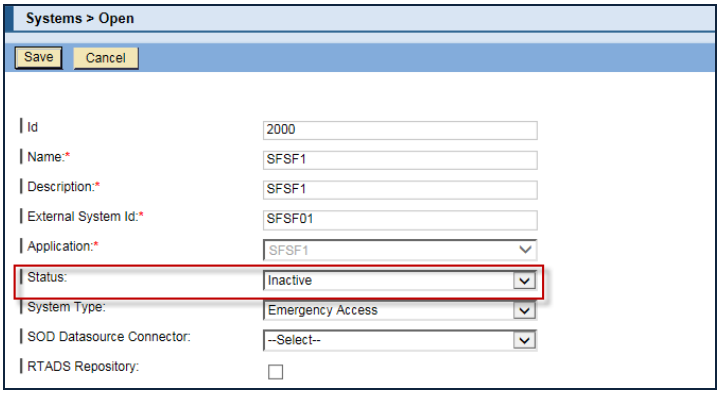


Figure 5.11: Systems>Open

6. In the **Status** dropdown list, select the status as **Inactive**.

7. Click on the **Save** button.

   The **Message** dialog box opens as shown in the following screenshot.

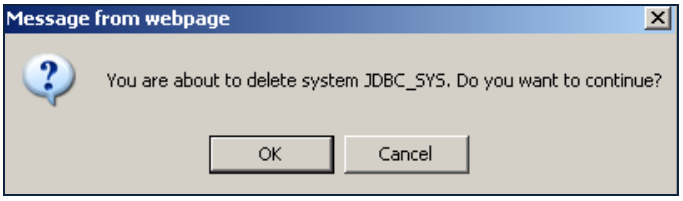


Figure 5.12: Message

8. Click on **OK** to delete the system.

   The screen displays message as, "<System Name>: System deleted successfully."

Note: once you select the status as Inactive, you cannot change it to Active. You cannot change the status of the system which is Registered and associated with connector.

5.2.5 DELETING SYSTEMS USING DELETE BUTTON

The steps to delete a system by clicking on **Delete** button are as follows.

1. Click the **Configuration** tab.
2. In the left navigation pane, click the **Application Center>Systems**.
3. On the **System>Search** page, click the select column corresponding to the **System Name** which you want to delete.

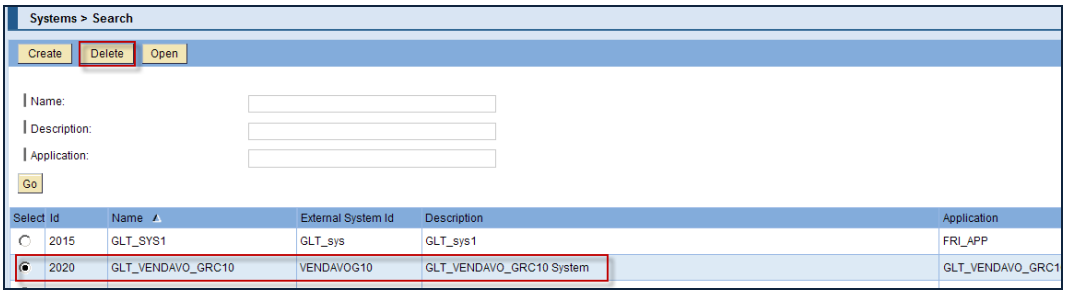


Figure 5.13: Systems> Search

4. Click on the **Delete** button.

   The following message appears on the screen.

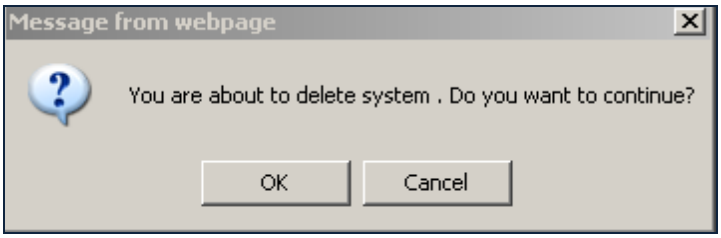


Figure 5.14: Message

5. Click on **OK** to delete the system.

Note: If the system is mapped with connector/API, you cannot delete it.

6 REGISTRATION

For importing and configuring the API Information, the registration of the application and System are required. First register the application then register the system.

If the Application is in-progress or registered then only you can register the system.

6.1 REGISTERING AN APPLICATION

For importing and configuring the API Information, the registration of the application and system are required. After registering the application and system, the external system id will become non-editable. Hence, before registering the application/system, verify the connector name of GRC and external system id.

First, register the application then the system.

The steps to register an application are as follows:

1. Click the **Configuration** tab.
2. Click **Registration** in the left menu bar.

   The **Registration >Application - System>Search** screen opens.

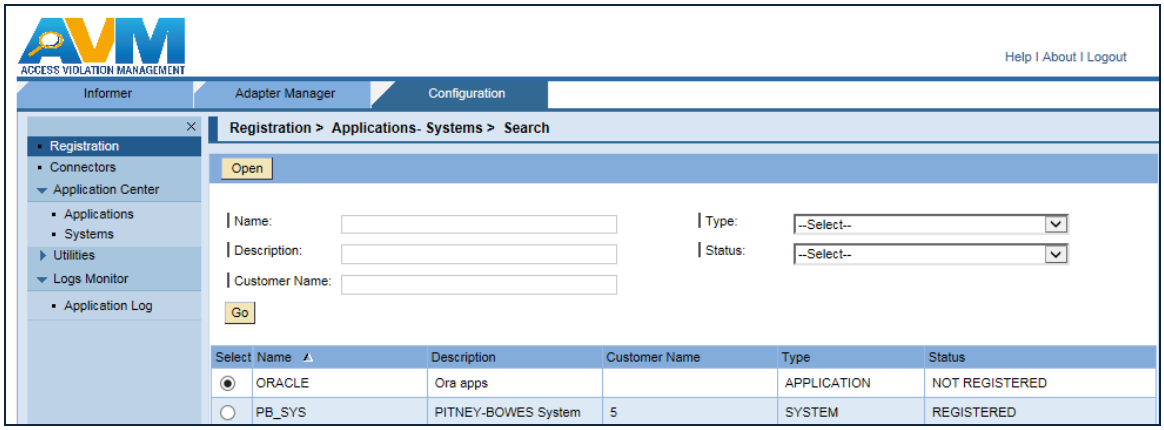


Figure 6.1: Registration > Application- Systems > Search

3. To find all the previous records, click **Go**.

   -Or-

   To find a particular parameter, enter the value in the **Name/Description/Customer Name** field and click **Go**.
4. The screen displays search results under the column headings **Select**, **Name**, **Description, Customer Name**, **Type** and **Status**.
5. Select **Application** whose status is non-registered.
6. Click on **Open**.

   The **Registration** screen opens as shown in the screenshot below.

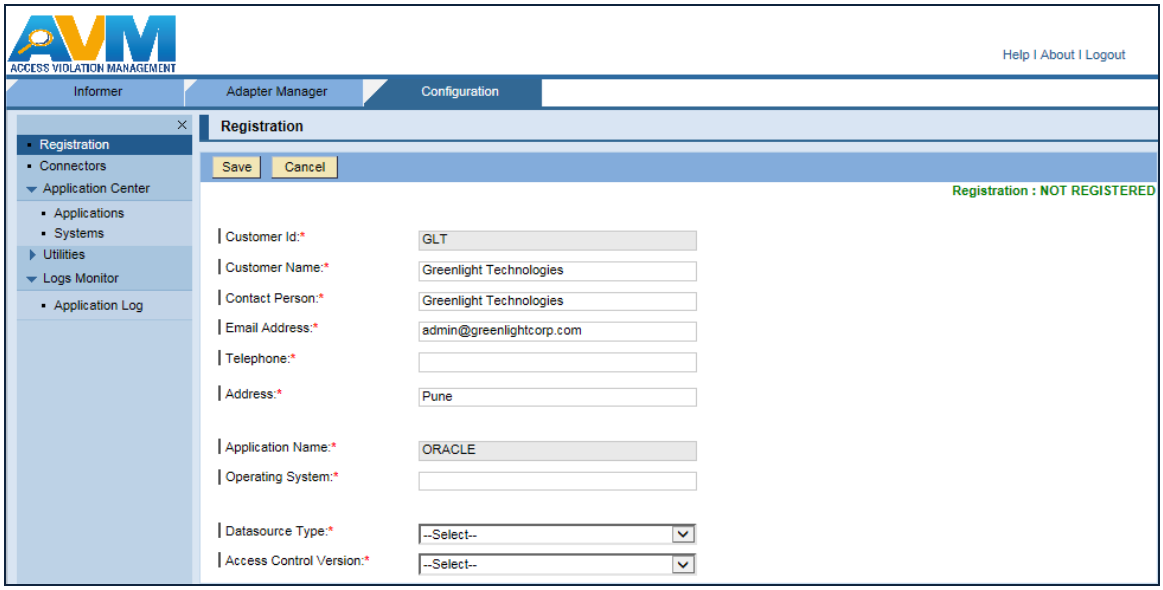


Figure 6.2: Registration

7. The **Customer Id** field is non-editable.
8. In the **Customer Name** text box, enter appropriate Customer Name.
9. In the **Contact Person** text box, enter appropriate name.
10. In the **Email** Address text box, enter appropriate contact mail address.
11. In the **Telephone** text box, enter appropriate contact number.
12. In the **Address** text box, enter appropriate customer address.
13. The **Application Name** fields are non-editable.
14. In the **Operating System** text box, enter appropriate operating system.
15. In the **Datasource Type** dropdown list, select appropriate value.
16. In the **Access Control Version** dropdown list, select appropriate value.
17. Click **Save**.
18. The screen displays message as shown in the below screenshot.

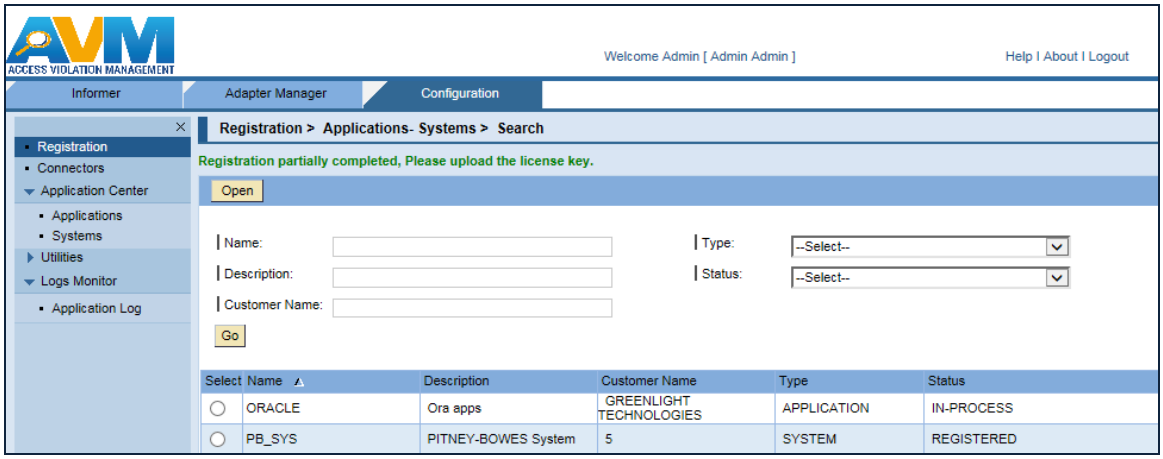


Figure 6.3: Registration > Application- Systems > Search

19. Select the application and click on the **Open** button.
20. The below screen opens.

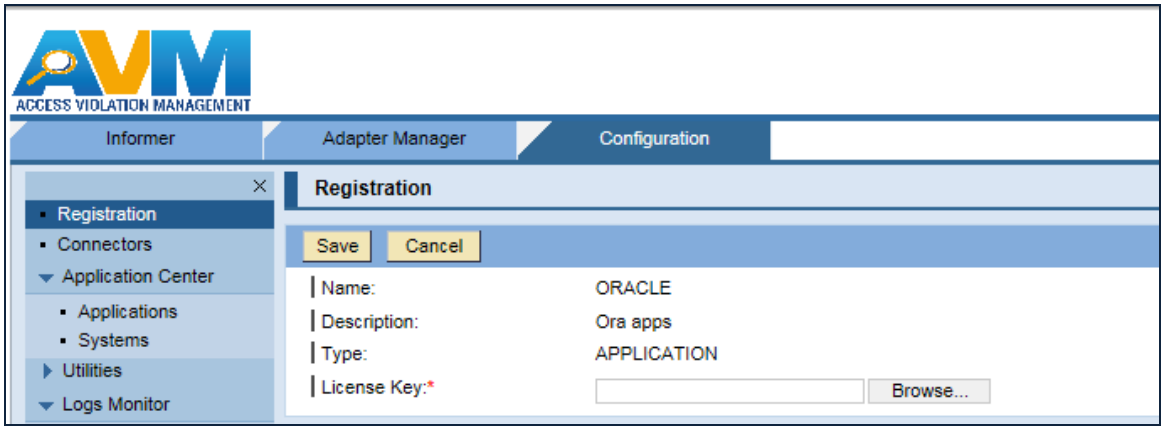


Figure 6.4: Registration

21. Click on the **Browse** button and import the **GLT_RTADS_APPL.XML** license key provided in the build.
22. Click on **Save**.
23. The screen displays message as shown in the following screenshot.

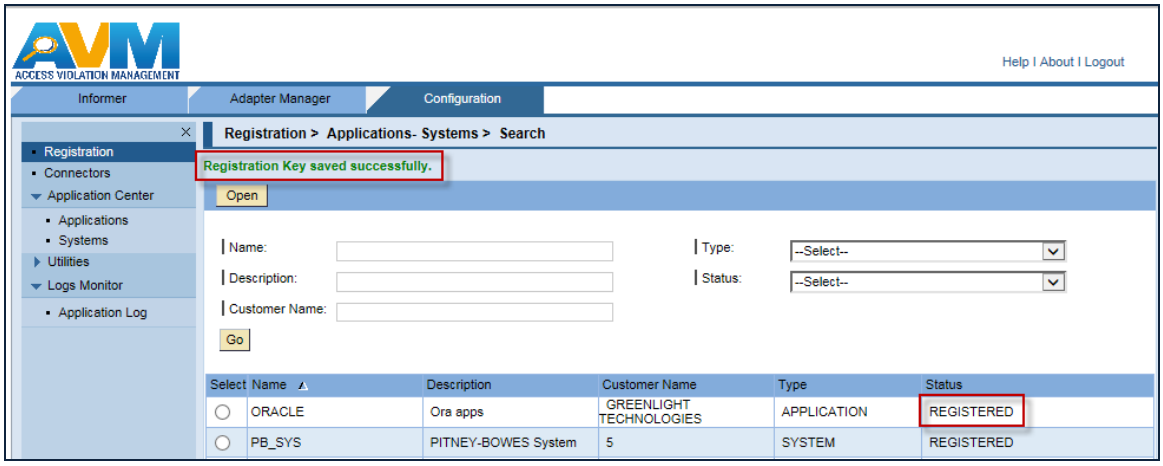


Figure 6.5: Registration > Application- Systems > Search

24. After saving the application its status changes to REGISTERED.

6.2 REGISTERING A SYSTEM

The AVM-RTA DS application processes the GRC requests only after the system is registered. Before registering the system, ensure to register the application.

You can register the system only when, the application status is in-progress and its status is registered.

Note: if the configuration for the system in AVM-RTA DS and GRC side is complete then you can schedule the jobs from GRC.

The steps to register an application are as follows:

1. Click the **Configuration** tab.
2. Click **Registration** in the left menu bar.

   The **Registration >Application - System>Search** screen opens.

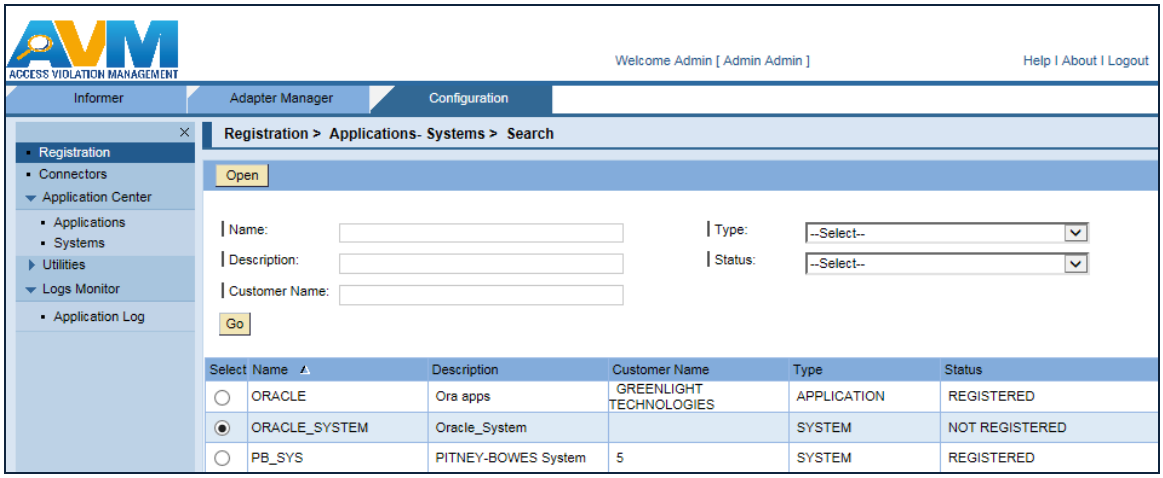


Figure 6.6: Registration > Application- Systems > Search

   To find all the previous records, click **Go**.

   -Or-

   To find a particular parameter, enter the value in the **Name/Description/Customer Name** field and click **Go**.

3. The screen displays search results under the column headings **Select**, **Name**, **Description**, **Customer Name**, **Type** and **Status**.
4. Select the **System** whose status is non-registered.
5. Click on **Open**.

   The **Registration** screen opens.

6. The **Customer Id** field is non-editable.
7. In the **Customer Name** text box, enter appropriate Customer Name.
8. In the **Contact Person** text box, enter appropriate name.
9. In the **Email Address** text box, enter appropriate contact mail address.
10. In the **Telephone** text box, enter appropriate contact number.
11. In the **Address** text box, enter appropriate customer address.
12. The **Application Name** fields are non-editable.
13. In the **Operating System** text box, enter appropriate operating system.
14. In the **Datasource Type** dropdown list, select appropriate value.
15. In the **Access Control Version** dropdown list, select appropriate value.

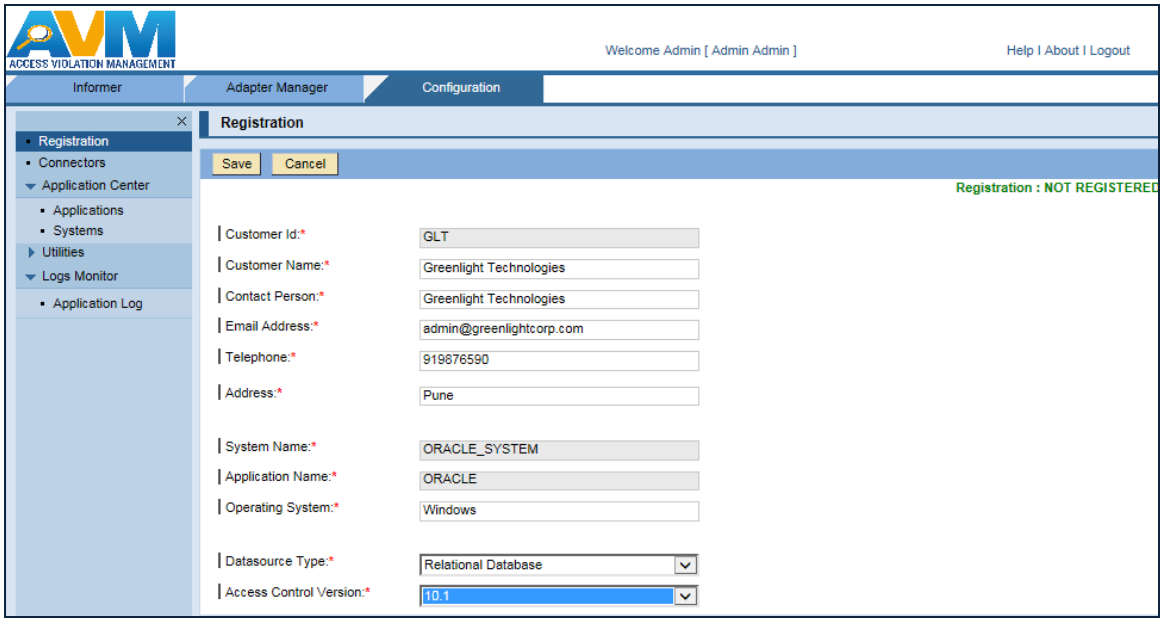


Figure 6.7: Registration

16. Click on **Save**.
17. The system is listed on the **Registration** screen.
18. Select the system with status as **In-Process** and click on **Open**.
19. The below screen opens.

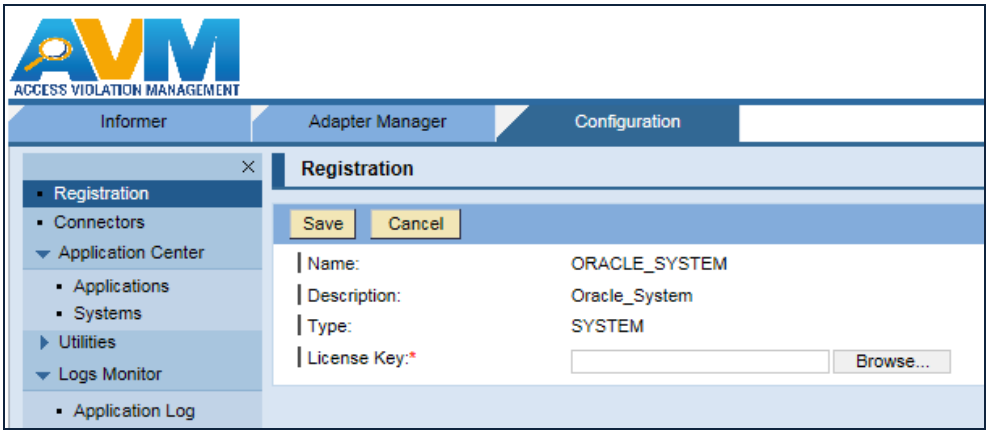


Figure 6.8: Registration > Application- Systems > Search

20. Click on the **Browse** button and import the **GLT_RTADS_SYS.XML** license key provided in the build.
21. Click on **Save**.
22. The screen displays message as shown in the following screenshot.

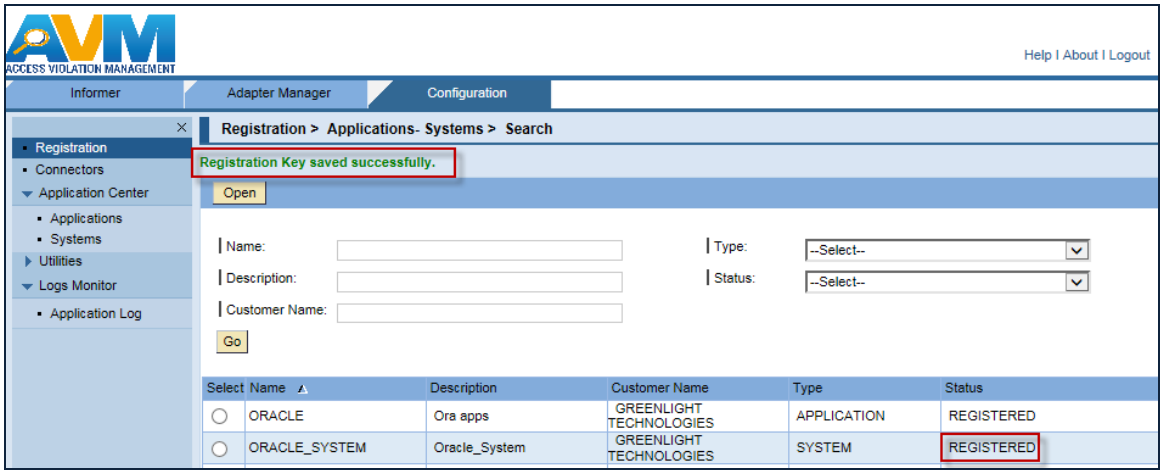


Figure 6.9: Registration > Application- Systems > Search

23. After saving the system its status changes to **REGISTERED**.

7 UTILITIES

Using the **Utilities** feature, you can import master data as well as adapters and can configure flat files.

7.1 IMPORT MASTER DATA

The steps to import master data are as follows.

1. Click the **Configuration** tab.
2. Click the **Utilities>Import Master Data**.

   The **Import Master Data** page opens as shown in the following screenshot.

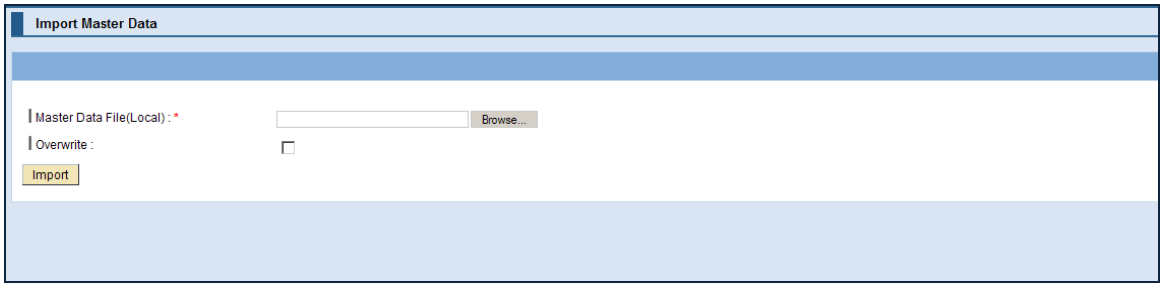


Figure 7.1: Import Master Data

3. Click on **Browse** button.
4. In the **Choose File to Upload** window, select appropriate XML file to be uploaded and click **Open.**
5. **The** file **path is displayed in the** in the **Master Data File (Local)** text box.
6. Click on the **Import** button**.** The application prompts with the message, "Master data imported successfully".
7. To overwrite the previously imported master data xml file, click on **Overwrite** and re-import the master data.

   Overwriting the xml file deletes all the adapters and programs defined in the RTA DS application.

7.2 IMPORT ADAPTER

The **Import Adapter** screen asks for the **Adapter Name** and the **Application Name** and asks for the **XML** file to be imported. The **XML** File once properly imported will create the programs in the **Program Definition** and **Program Configuration** screens.

The steps to import the adapter are as follows.

1. Click on **Configuration** tab.
2. In the left navigation pane, click on the **Utilities> Import Adapter** link.

   The **Import Adapter Data** screen opens as shown in the following screenshot.

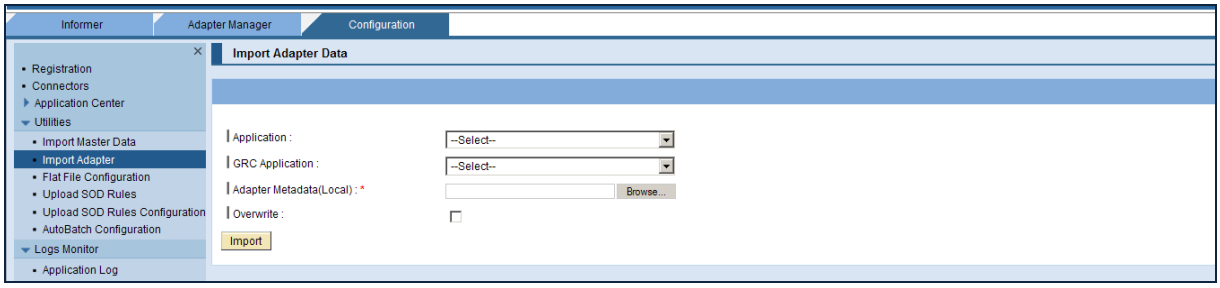


Figure 7.2: Import Adapter Data

3. In the **Application** dropdown list, select appropriate application name.
4. In the **GRC Application** dropdown list, select appropriate application.
5. Click **Browse** button and select appropriate xml file in the **Adapter Metadata (Local)** text box.
6. Click and select the **Overwrite** checkbox.

   If the checkbox is **checked**, the standard adapter's components such as **Program Definition, Program Configuration,** and **Adapter to Program mapping** and **Program to API** field mapping are over written.

   If the overwrite checkbox is **not checked** the standard adapter is imported.
7. The validation checks are as follows.
   a. The **Program** name imported through the **xml** is unique.
   b. The data types of the program output fields imported through xml should match with the master data for the output fields defined in the RTA tables.
   c. All the API fields stated in the xml should be present in the master data tables of RTA.
   d. The output field names to which the API fields are mapped should be the same as defined in the section for Programs in the same xml.
8. Click **Import**.

   The adapter is imported.

7.3 IMPORT CSV DATA

This section discusses about importing Ariba relevant CSV for a particular system.

The systems displayed here are created under the **Configuration** tab> **Application Center> Systems**. Only those systems are populated in the dropdown which are registered and for which **IMPORT_PROFILE** parameter is added.

The steps to import CSV data are as follows:

1. Click on **Configuration** tab.
2. In the left menu bar, click on the **Utilities> Import CSV Data** link.

   The **Import CSV Data** screen opens.
3. In the **Systems** dropdown list, select appropriate system.

Note: the System dropdown lists, systems created under Configuration tab> Application Center> Systems.

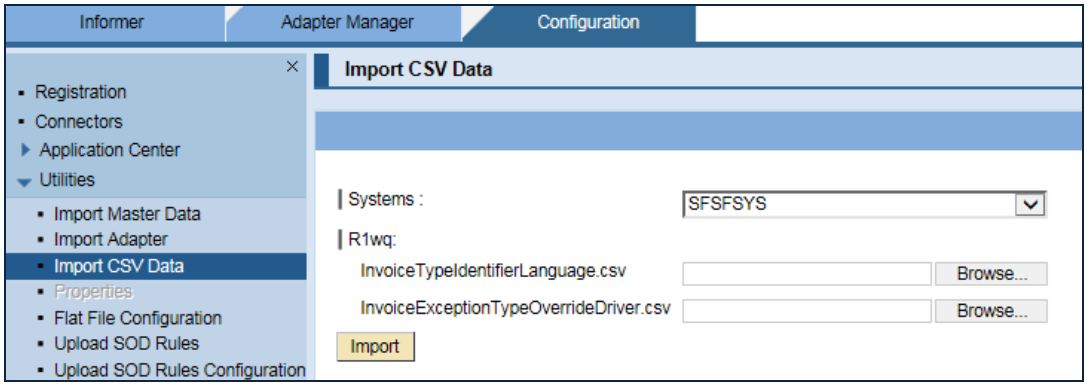


Figure 7.3: Import CSV Data

4. Based on the selected system its mapped realm profiles are displayed.

Note: The system displays only those realm profiles which are mapped to system. The Realm Profiles are mapped to System by adding System Parameter value of Realm for the System Parameter IMPORT_PROFILE. The Realm Profiles are created under the Configuration tab> AVM Import/Export Configuration> Define Realm Profile. Click on Browse, select appropriate .CSV file.

5. Click on the **Import** button.

   The screen displays message as, "CSV files Uploaded Successfully."

7.4 PROPERTIES

Property feature is introduced to list all the properties available in the AVM-RTA DS application on GUI. These properties are maintained in the rtads_application.properties file. This properties file is loaded while application server starts-up and values are available for use, throughout application.

By default when the application is deployed all the values available in the rtads_application.properties file are displayed on the UI.

7.4.1 SEARCH PROPERTIES

The search criterion helps to find previously all the existing AVM- RTA DS properties in one go or search particular AVM- RTA DS property.

The steps to search the Properties are as follows.

1. Click on **Configuration** tab.
2. In the left navigation pane, click the **Utilities> Properties**.

   The **Properties > Search** page opens as shown in the following screenshot.

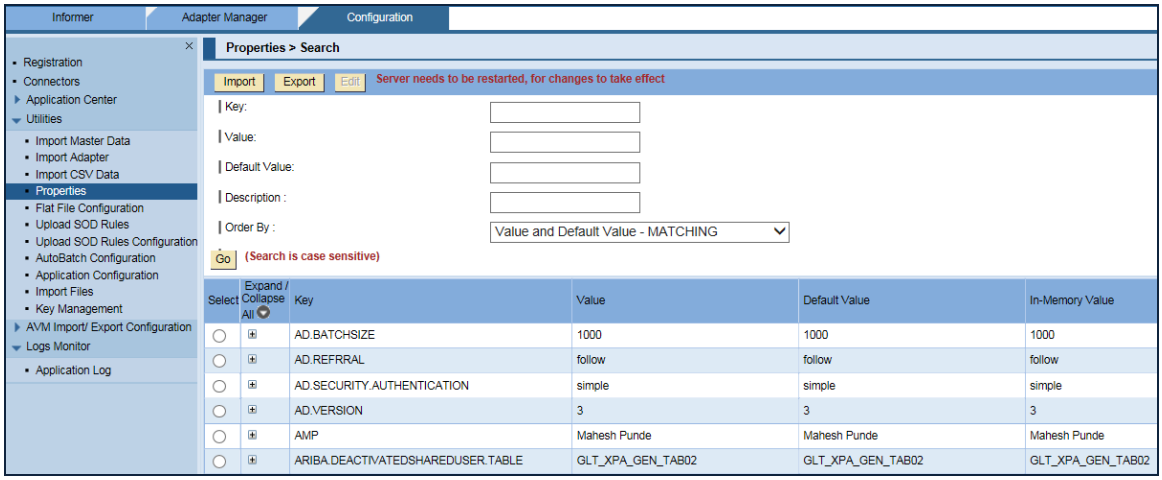


Figure 7.4: Properties > Search

3. To streamline the view, enter appropriate value in the **Key/Value/Default Value/Description** fields. Alternatively, select appropriate value in the, **Order By** dropdown list from the options given in below table and click on the Go button.

Options	Meaning
Value and Default Value – MATCHING	Properties for which value and default values are **matching** are listed on **top**. Properties for which value and default values are **not matching** are listed at **bottom**.
Value and Default Value - NOT MATCHING	Properties for which value and default values are **not matching** are listed on **top**. Properties for which value and default values are **matching** are listed at **bottom**.
Value and In-memory value – MATCHING	Properties for which value and in memory values are **matching** are listed on **top**. Properties for which value and in memory values are **not matching** are listed at **bottom**.
Value and In-memory value - NOT MATCHING	Properties for which value and in memory values are **not matching** are listed on **top**. Properties for which value and in memory values are **matching** are listed at **bottom**.

-Or-

Click on the **Go** button.

Note: the Search is case sensitive.

4. Based on the search criterion the information about properties is displayed under the column headings **Select**, **Expand/Collapse All**, **Key**, **Value**, **Default Value** and **In- Memory Value**.
5. The below table explains description about each column name.

Column Name	Description
Key	Property Key Name.
Value	Property Key Value. You can change this value as per requirement.

Default Value	Default value of property. Cannot be changed.
In-Memory Value	Indicates the value currently used by Application server.
Description	Detail description about the property.

Note: Expand or collapse option is provided to view full text values.

7.4.2 IMPORT PROPERTIES

The **Import Properties** allows updating more than one property values at a time. You can import a file of type 'properties'.

The file should contain existing keys (which are already present in table) and values for corresponding keys. System updates values in table.

The steps to import the rtads_application.properties file are as follows.

1. Click on **Configuration** tab.
2. In the left navigation pane, click the **Utilities> Properties**.
   The **Properties > Search** page opens.
3. Click on the **Import** button.
4. The **Import Properties** screen opens.

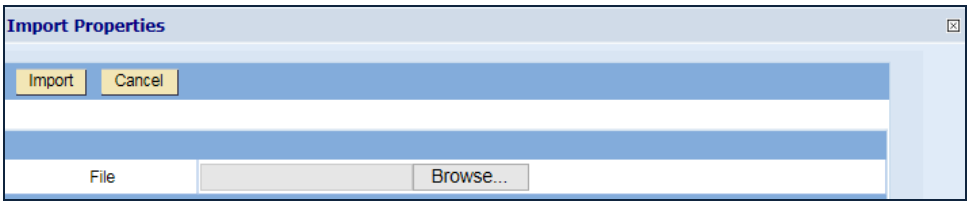


Figure 7.5: Import Properties

5. Click on the **Browse** button and select the rtads_application.properties file.
6. Click on the **Import** button.

Note: Server needs to be restarted, for changes to take effect. Import functionality does not help user to add new properties. This is to update values for multiple keys in a single go.

7.4.3 EXPORT PROPERTIES

The Export Properties allows exporting all the existing properties (keys and corresponding values)into rtads.properties file. You can save it on local machine.

The steps to export the rtads_application.properties file are as follows.

1. Click on **Configuration** tab.
2. In the left navigation pane, click the **Utilities> Properties**.
   The **Properties > Search** page opens.
3. Click on the **Export** button.

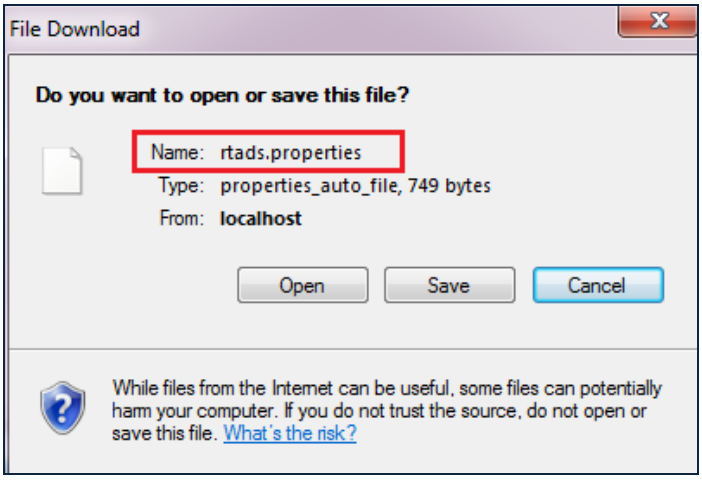


Figure 7.6: File Download

4. Click on the **Open** button to open the file.
5. Click on the **Save** button to save the file on your machine.

7.4.4 EDIT PROPERTIES

The Edit Properties allows editing particular property.

The steps to edit properties are as follows:

are as follows.

1. Click on **Configuration** tab.
2. In the left navigation pane, click the **Utilities> Properties**.
   The **Properties > Search** page opens.
3. Select appropriate property.
4. Click on the **Edit** button.
   The **Properties Edit Page** opens as shown in the below screenshot.

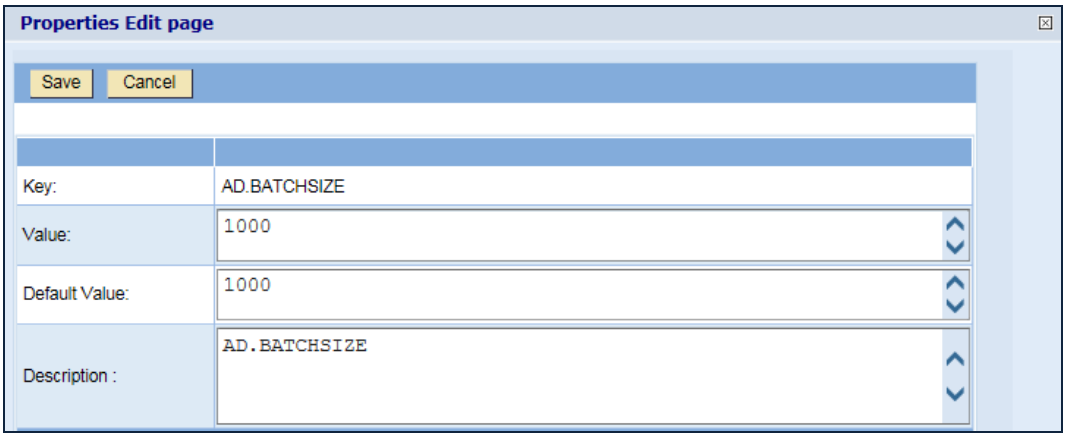


Figure 7.7: Properties Edit Page

5. Click on the **Save** button.

Note: Server needs to be restarted, for changes to take effect.

6. The **Properties > Search** page displays message as, "Property updated successfully".

Note: The column IN-MEMORY Value shows the values that are used by application server currently. If In-Memory value and Updated property values are different, it is highlighted with Red color.

7.5 FLAT FILE CONFIGURATION

You can do the **Flat File Configuration** for the systems, which provides data for risk analysis through Flat Files.

The steps for **Flat File Configuration** are as follows.

1. Click on **Configuration** tab.
2. Click **Utilities> Flat File Configuration**.

   The **Flat File Configuration** screen opens as shown in the following screenshot.

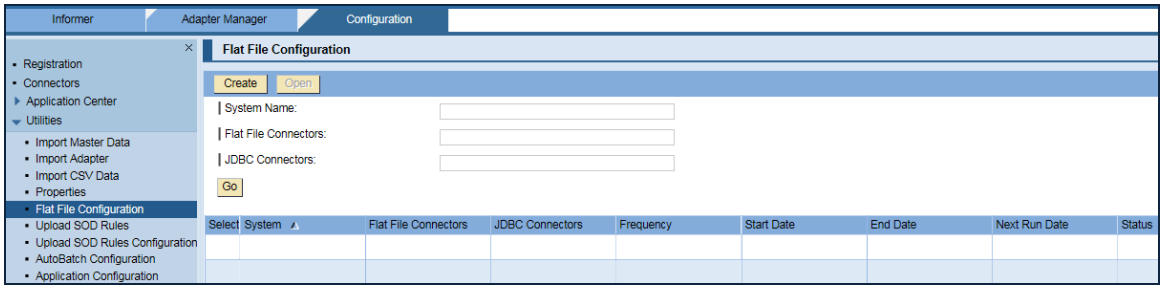


Figure 7.8: Flat File Configuration

3. To create new configuration record, click on **Create**.

   The **Flat File Configuration > Create** screen appears as shown in the following screenshot.

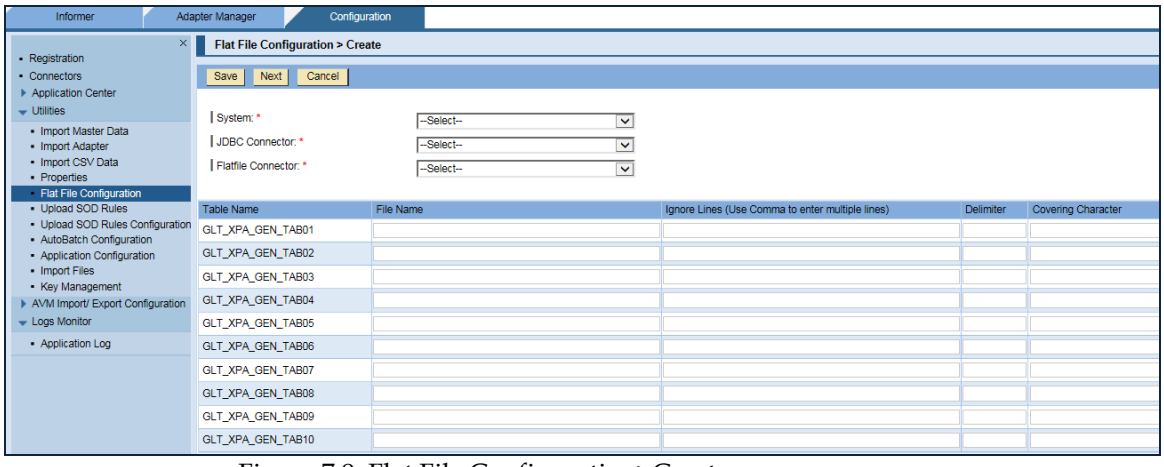


Figure 7.9: Flat File Configuration>Create

4. In the **System** dropdown list, select an appropriate system name.
   a. In the **JDBC connector**, select an appropriate connector. The JDBC connection loads data into the RTA DS database. It reads data from the flat files pointed by the Flat File Connector.

b. In the **Flat file Connector,** select an appropriate connector. The Flat File Connector points to the FTP location where the source files resides.

c. Enter in the **Filenames** to store into the tables, specified under **Table Name** column.

5. The filenames against the tables named as GLT_XPA_GEN_TAB01 to GLT_XPA_GEN_TAB10.
6. The **Ignore Lines** (Use Comma to enter multiple lines) column, specifies the lines in the files that are not be read into the tables.
7. The **Delimiter** specifies the entity that distinguishes one column data from the other.
8. The **Covering Character** column contains the data with the delimiter character that has to be read as one column data. For example if the name in the file provided is John, Smith and it needs to be stored in one column then the file should have covering characters enclosing this entity as "John, Smith".
9. Once all the details are specified, the AVM-RTA DS system is ready to load the data into the AVM-RTA DS database.
10. Click on **Save** to save the configuration and load it later.
11. Or else click on the **Load Data** to Save the configuration and as well load the data reading from the flat files.

Note: ***it is recommended that once the programs are defined and the data is loaded entering the configuration. Do keep the file configuration as it is. Else, care needs to be taken for the programs if the flat file configurations are changed. The Files kept at the source can be zip files or the .csv files; if there are any zip files present on the source then priority will be given to these zip files to be read. Also if there are zip files then this need to be present in MMDDYYYY_n.zip; so that the AVM-RTA DS automatically sorts to get the latest zip and it unzips the zip files to get the set of files specified in the Filename column on the Flat File Configuration>Create screen.***

12. Click on **Next** to schedule upload of files based on the frequency apt to the business requirements the **Flat File Configuration>Schedule** screen appears as shown in the following screenshot.

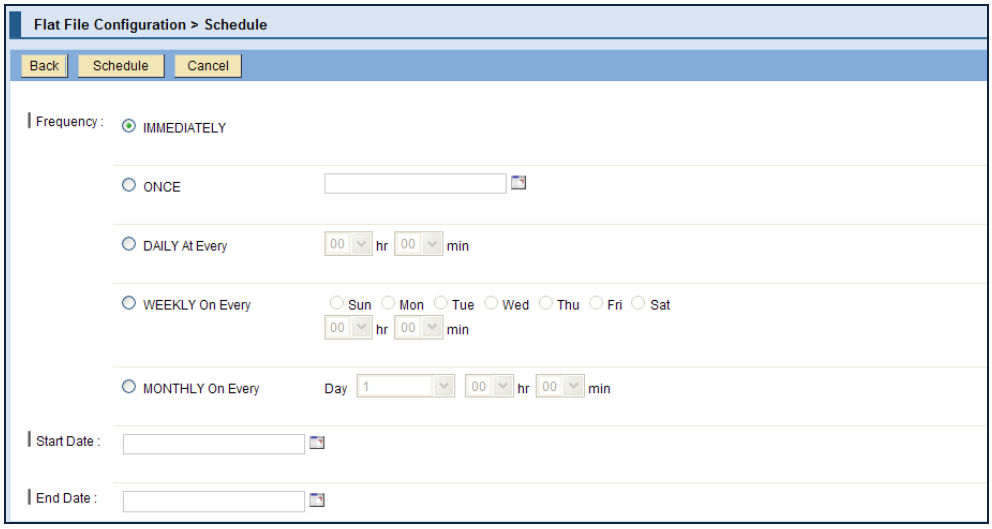


Figure 7.10: Flat File Configuration>Schedule

13. Click on **Schedule**.

    The application displays the message as, "<System Name>: Details saved and Flat file load data scheduled successfully."

7.6 UPLOAD SOD RULES

The SOD is the segregation of duties. For risk analysis, GRC uses the actions and permissions data (of users/ roles) for which SOD rules are defined. The **Upload SOD Rules** feature is designed to filter SOD rules data (actions/permissions). The "Upload SOD Rules" functionality uploads the SOD rules from GRC table to custom table in ERP. In the custom table the SOD Rules for given system are stored. RTA uses SOD rules data in the ERP custom table to filter the actions and permissions data for users/roles. This filtering is done for real time analysis as well as analysis using RTADS repository. In turn, this reduces the returned data volume to GRC. In addition, helps to improve the performance for both real time analysis and analysis using RTADS repository. Before uploading SOD rules, ensure to set upload SOD Rules Configuration.

Note: If you are not using Upload SOD or Offline feature this configuration is not required.

7.6.1 SEARCH UPLOAD SOD RULES

The search criterion helps to find previously uploaded Sod Rules information for a particular system or find all the existing uploaded Sod Rules information for all the system in one go.

The steps to search the upload SOD rule information for system/systems is as follows.

1. Click on **Configuration** tab.
2. In the left navigation pane, click the **Utilities> Upload SOD Rules**.

The **Upload SOD Rules** page opens as shown in the following screenshot.

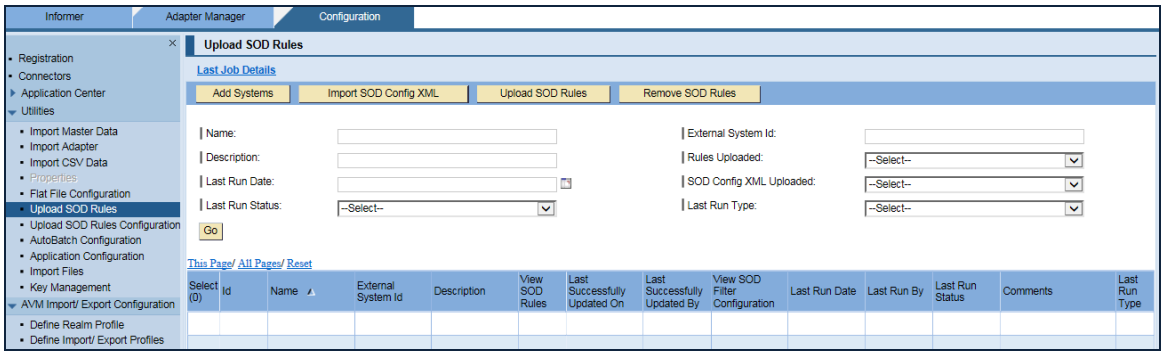


Figure 7.11: Upload SOD Rules

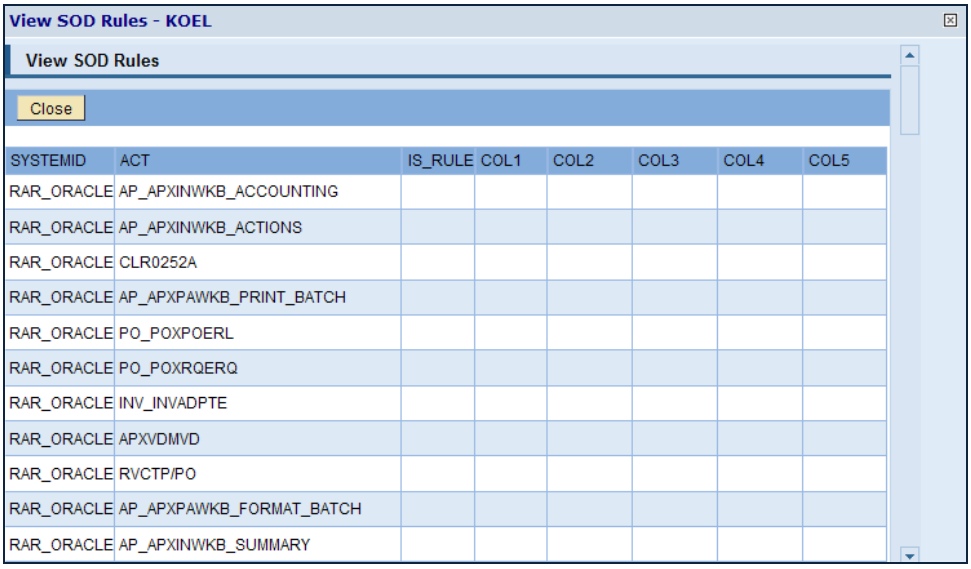
3. To streamline the view, enter appropriate value in the **Name/Description/External System Id/Last Run Date** fields. Alternatively, Select appropriate value in the, **Rules Uploaded/SOD Config XML Uploaded/Last Run Status/Last Run Type** dropdown list and click on **Go**.

   -Or-

   Click on the **Go** button.

   Based on the selected criterion the screen displays details under the column headings **Select**, **Id**, **Name , External System Id**, **Description**, **View SOD Rules**, **Last Successfully Updated On**, **Last Successfully Updated By**, **View SOD Filter Configuration**, **Last Run Date**, **Last Run By**, **Last Run Status**, **Comments**, and **Last Run Type**.
4. The **Id** column displays the unique **identification** number of the system.
5. The **Name** column displays the name of the system.
6. The **External System Id** column displays the id defined while creating the system.
7. The **Description** column displays the description given while creating the system.
8. The **View SOD Rules** column displays the count of SOD entities. Under the **View SOD Rules** column, click on the **View** link.

   The **View SOD Rules** page opens as shown in the following screenshot. The information about the rule is displayed under the column headings **SYSTEMID, ACT** and **IS_RULE** and COL1, COL2, COL3, COL4, and COL5.

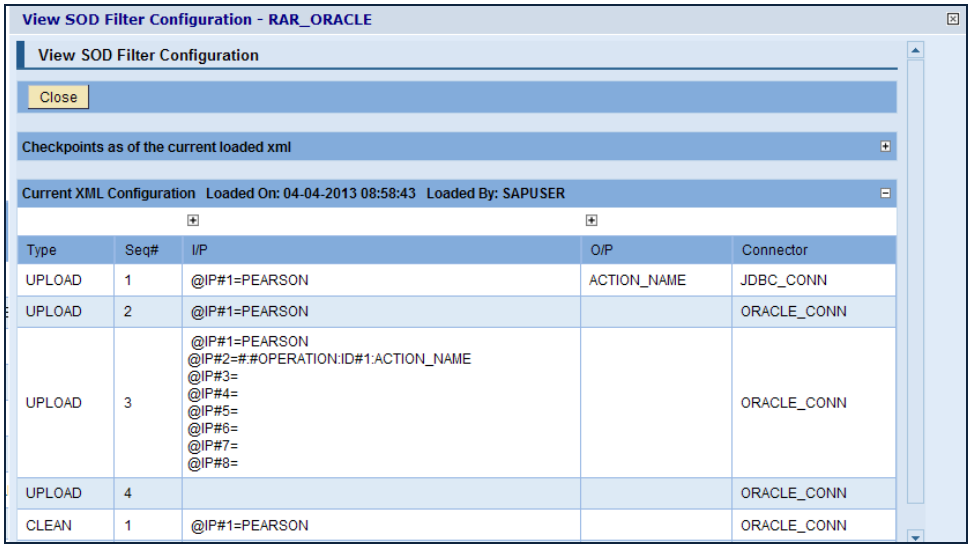


SYSTEMID	ACT	IS_RULE	COL1	COL2	COL3	COL4	COL5
RAR_ORACLE	AP_APXINWKB_ACCOUNTING						
RAR_ORACLE	AP_APXINWKB_ACTIONS						
RAR_ORACLE	CLR0252A						
RAR_ORACLE	AP_APXPAWKB_PRINT_BATCH						
RAR_ORACLE	PO_POXPOERL						
RAR_ORACLE	PO_POXRQERQ						
RAR_ORACLE	INV_INVADPTE						
RAR_ORACLE	APXVDMVD						
RAR_ORACLE	RVCTP/PO						
RAR_ORACLE	AP_APXPAWKB_FORMAT_BATCH						
RAR_ORACLE	AP_APXINWKB_SUMMARY						

Figure 7.12: View SOD Rules

9. The **Last Successfully Updated On** column displays the information on SOD rules successfully uploaded/removed last time for given system in yyyy-MM-dd hh:mm:ss format.
10. The **Last Successfully Updated By** column displays the name of the login user who successfully upload/ remove SOD rules last time for given system.
11. Under the **View SOD Filter Configuration** column, click the **View** link. The **View SOD Filter Configuration** page opens as shown in the following screenshot.

Note: the View link appears only after uploading SOD Rules.



Type	Seq#	I/P	O/P	Connector
UPLOAD	1	@IP#1=PEARSON	ACTION_NAME	JDBC_CONN
UPLOAD	2	@IP#1=PEARSON		ORACLE_CONN
UPLOAD	3	@IP#1=PEARSON @IP#2=#.#OPERATION:ID#1:ACTION_NAME @IP#3= @IP#4= @IP#5= @IP#6= @IP#7= @IP#8=		ORACLE_CONN
UPLOAD	4			ORACLE_CONN
CLEAN	1	@IP#1=PEARSON		ORACLE_CONN

Figure 7.13: View SOD Filter Configuration

a. The **View SOD Filter Configuration** page displays the details imported using "Import SOD Config XML" against the selected system.

b. The **View SOD Filter Configuration** page displays two sections **Checkpoints as of the current loaded xml** and **Current XML Configuration Loaded On** and **Loaded By** as shown in the above screenshot. Click on the ⊞ image to view detail of each section. At a time, you can view the detail of only one section.

c. Click the ⊞ image corresponding to the **Checkpoints as of the current loaded xml**. The screen displays information as shown in the following screenshot.

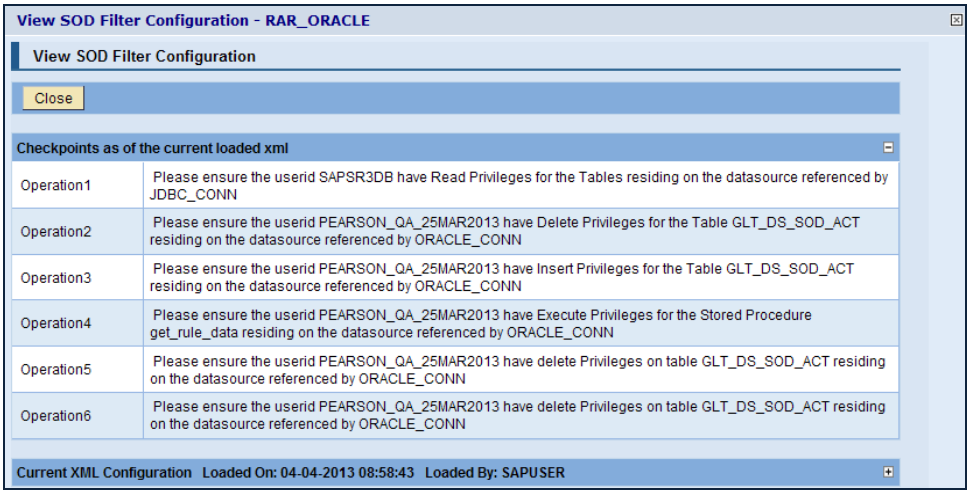


Figure 7.14: View SOD Filter Configuration

d. Click the ⊞ image corresponding to the **Current XML Configuration**. The screen displays information as shown in the following screenshot.

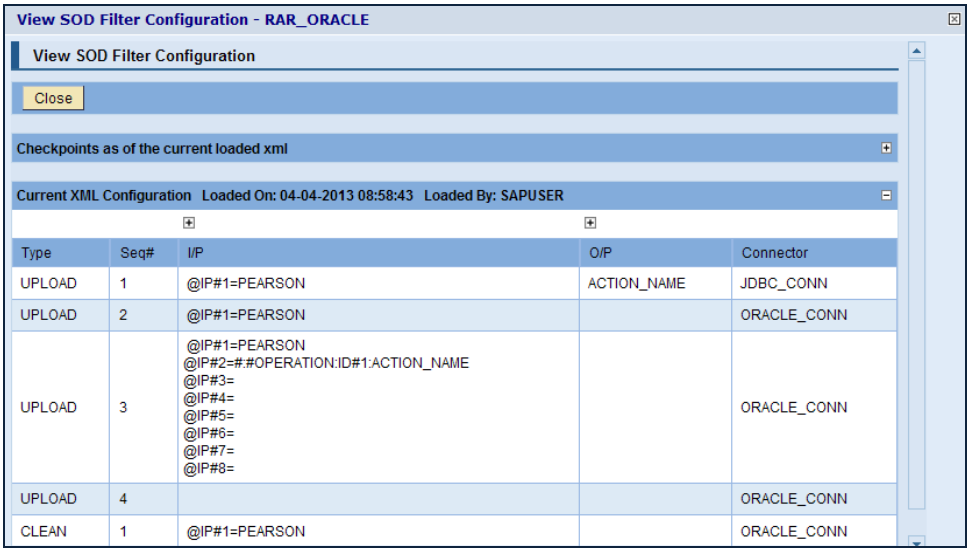


Figure 7.15: View SOD Filter Configuration

e. Under the **Current XML Configuration** section, click on the ⊞ image to expand and collapse information about the description and program section, refer the following screenshot.

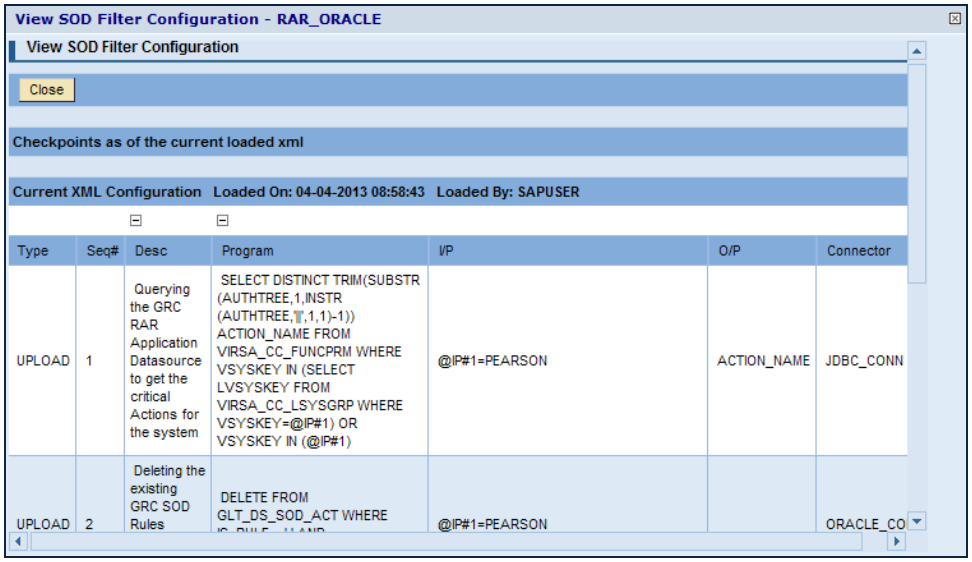


Figure 7.16: View SOD Filter Configuration

12. The **Last Run Date** column displays information on the SOD rules upload/remove operation performed last time for given system in yyyy-MM-dd hh:mm:ss format.
13. The **Last Run By** column displays the name of the user who has run the upload SOD rules functionality.
14. The **Last Run Status** column displays the status of the upload SOD status for last transaction. It can be **SUCCESS/ERROR/FAILED**.
15. The **Comments** column displays the comments generated on last upload/ remove SOD rules for given system.
16. The **Last Run Type** column displays the last action used by the user for the corresponding system. It can be either **Upload** or **Remove** depending on whether the last operation on system was **Upload SOD Rules /Remove SOD Rules** respectively.

7.6.2 ADD SYSTEMS

Using the Add Systems button, you can add the systems for uploading the SOD Rules.

The steps to add systems for uploading SOD Rules are as follows.

1. Click on **Configuration** tab.
2. In the left navigation pane, click the **Utilities> Upload SOD Rules**.
   The **Upload SOD Rules** page opens.
3. Click on the **Add Systems** button.
4. The **Add Systems** page opens displaying the list under the column headings **Select, Id**, **Name**, **External System Id** and **Description**.

Note: the Systems displayed are registered but not still added for uploading SOD rules. The systems are created under

Configuration> Application Center> system. The systems are registered under Configuration> Registration.

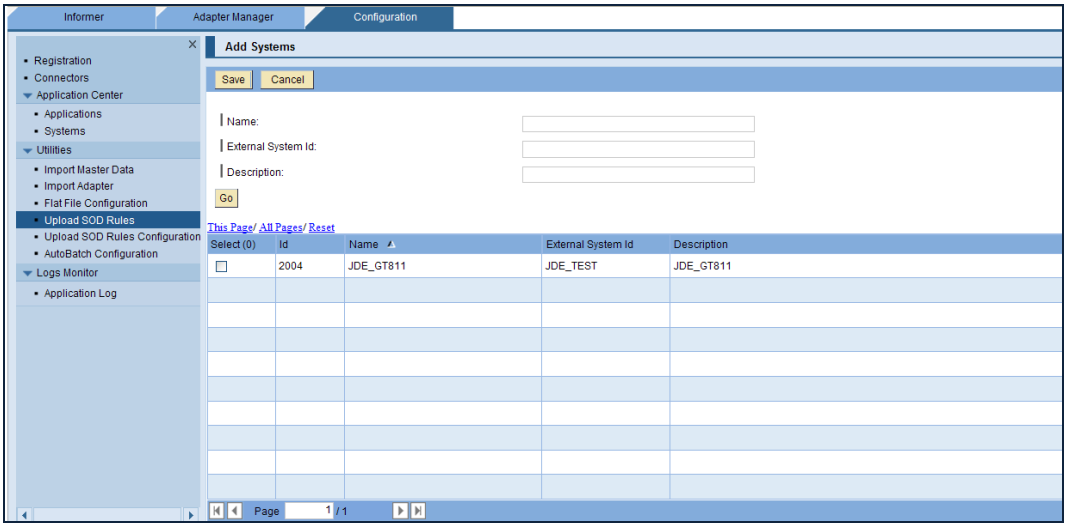


Figure 7.17: Add Systems

5. To add a particular system, enter appropriate value in the **Name/External System Id/Description** text box and click **Go**.

   -Or-

   Click **Go** to add all the registered systems.
6. The **Add System** page displays the list of the systems under the column headings **Select, Id, Name**, **External System Id** and **Description**.
7. Check the **Select** checkbox corresponding to the Id column.
8. Click on the **Save** button.

   The screen displays message as, "Systems added successfully for SOD Rule Upload" as shown in the following screenshot.

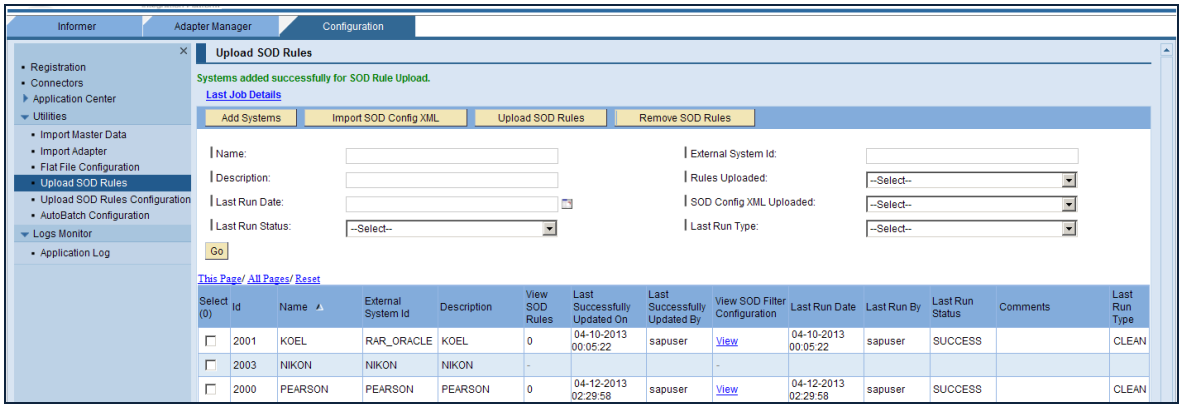


Figure 7.18: Upload SOD Rules

7.6.3 IMPORT SOD CONFIG XML

Before importing SOD Config XML file, it is necessary to select the system. The **SOD Config.xml** file is provided by the **Greenlight** technologies.

The steps to import SOD config XML are as follows.

1. Click on **Configuration** tab.
2. In the left navigation pane, click the **Utilities> Upload SOD Rules**.
   The **Upload SOD Rules** page opens.
3. Select appropriate system and click on the **Import SOD Config XML** button.
   The **Import SOD Config XML** screen opens.
4. Click on the **Browse** button and select the **SOD Config XML** file as shown in the following screenshot.

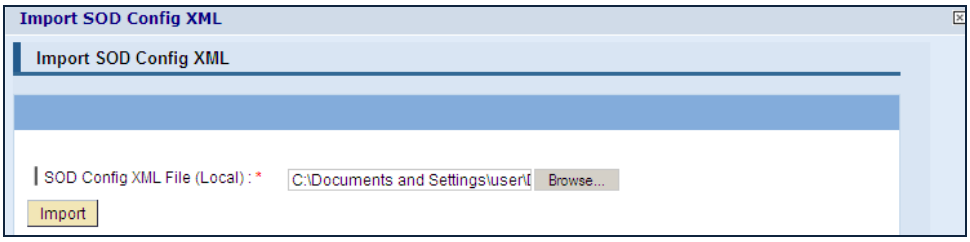


Figure 7.19: Import SOD Config XML

5. Click on the **Import** button.
   The screen displays message as shown in the following screenshot.

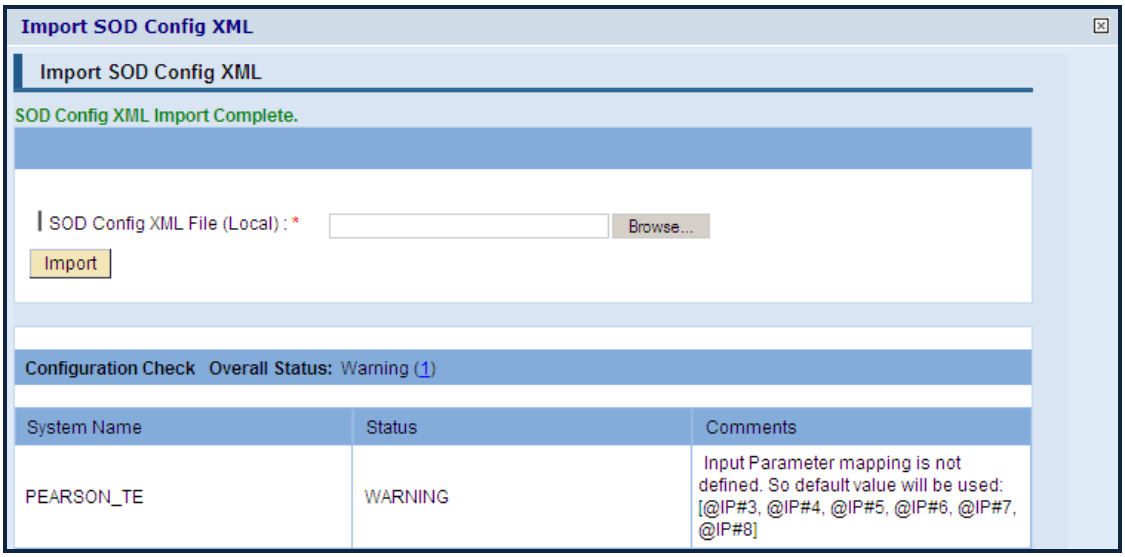


Figure 7.20: Import SOD Config XML-Message

6. The **Configuration Check Overall Status** displays number of missing configurations and successful uploads. For Example: there are five records (3 Success + 2 Warnings) then, click on the number hyperlink. The records are sorted out based on their status.
7. The **System Name** column displays the name of the system for which SOD Config XML file is imported.
8. The **Status** column displays status of the import. For Example: **Warning/Successful**.
9. The **Comment** column displays the comments given.

7.6.4 UPLOADING SOD RULES

Before uploading SOD rules, it is necessary to select the system and import SOD Config XML for the selected system.

The steps to upload SOD rules are as follows.

1. Click on **Configuration** tab.
2. In the left navigation pane, click the **Utilities> Upload SOD Rules**.
   The **Upload SOD Rules** page opens.
3. Select appropriate system and click on the **Upload SOD Rules** button.
   The screen displays message as shown in the following screenshot.

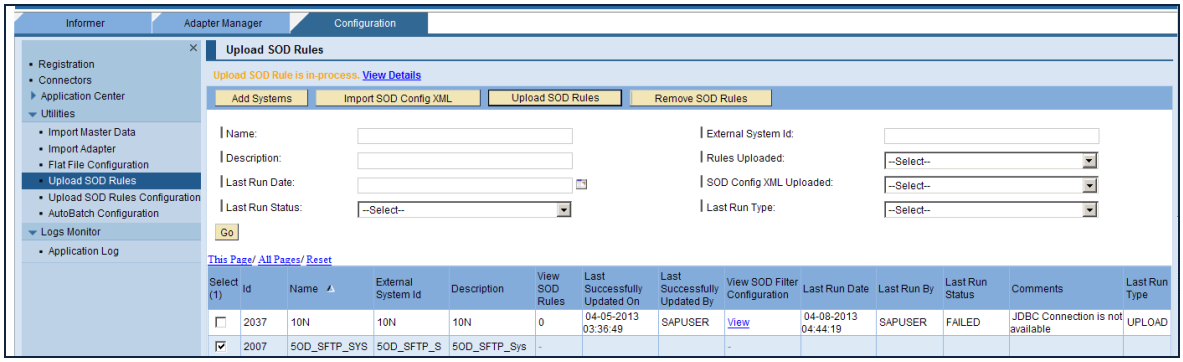


Figure 7.21: Upload SOD Rules-Message

4. Click on the **View Details** link to view the **SOD Job Details**.
   The **View SOD Job Status** displays details under the column headings **System, Status** and **Comments**.
   When the upload is completed, the screen displays message as shown in the following screenshot.

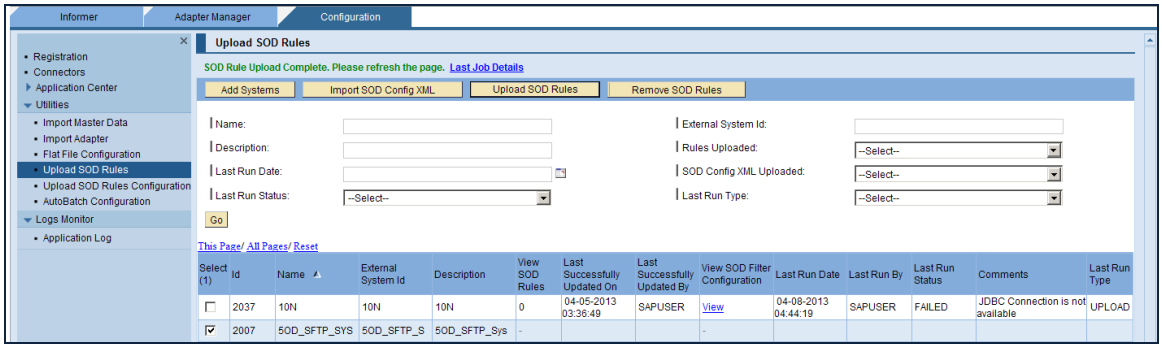


Figure 7.22: Upload SOD Rules

5. Click on the **Last Job Details** link to view the **SOD Job Details**.
   The **View SOD Job Status** displays details under the column headings **System, Status** and **Comments**.

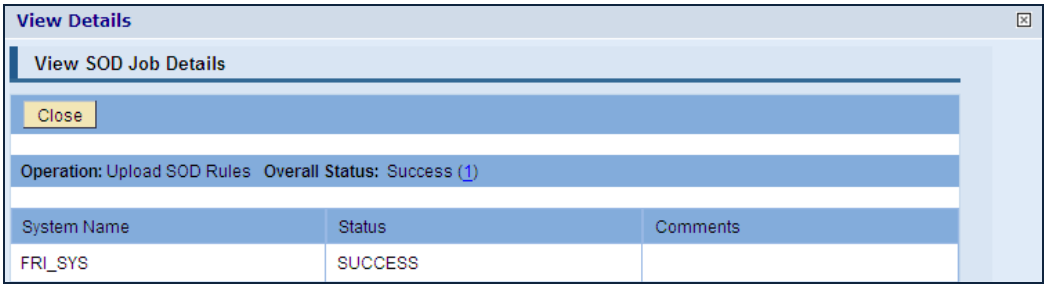


Figure 7.23: View Details

Note: while uploading SOD rules if you click on the Cancel Job button, Then Job is cancelled and the Last Run Status is displayed as CANCELLED on the Upload SOD Rules page.

7.6.5 REMOVING SOD RULES

Before removing SOD rules, it is necessary to select the system for SOD Config XML is imported and SOD rules are uploaded.

The steps to remove SOD rules are as follows.

1. Click on **Configuration** tab.
2. In the left navigation pane, click the **Utilities> Upload SOD Rules**.
   The **Upload SOD Rules** page opens.
3. Select appropriate system and click on the **Remove SOD Rules** button.
   The screen displays message as shown in the following screenshot.

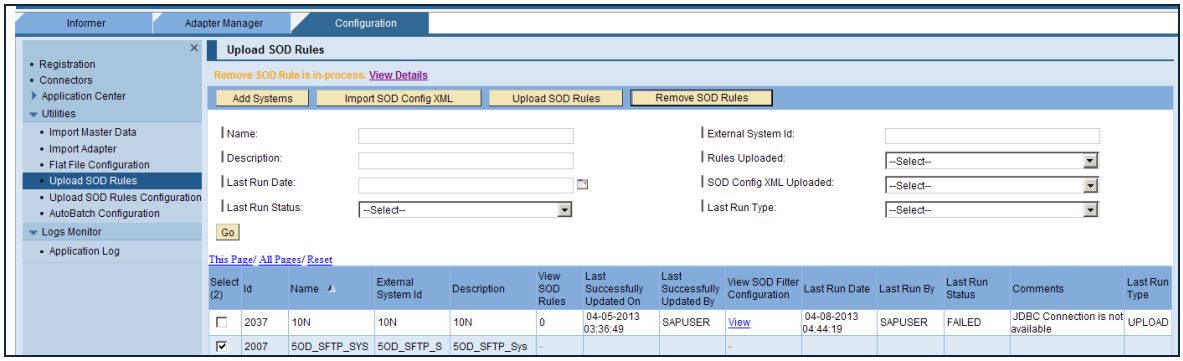


Figure 7.24: Upload SOD Rules

4. Click on the **View Details** link to view the **SOD Job Details**.
   The **View SOD Job Status** displays details under the column headings **System, Status** and **Comments**.

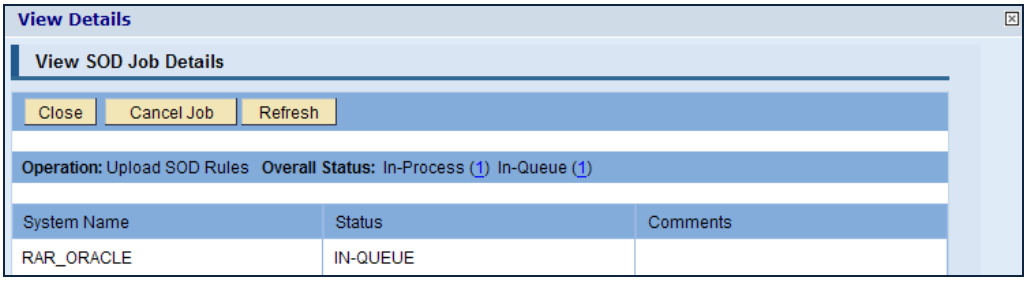


Figure 7.25: View Details

5. When the SOD rule removal is completed, the screen displays message as shown in the following screenshot.

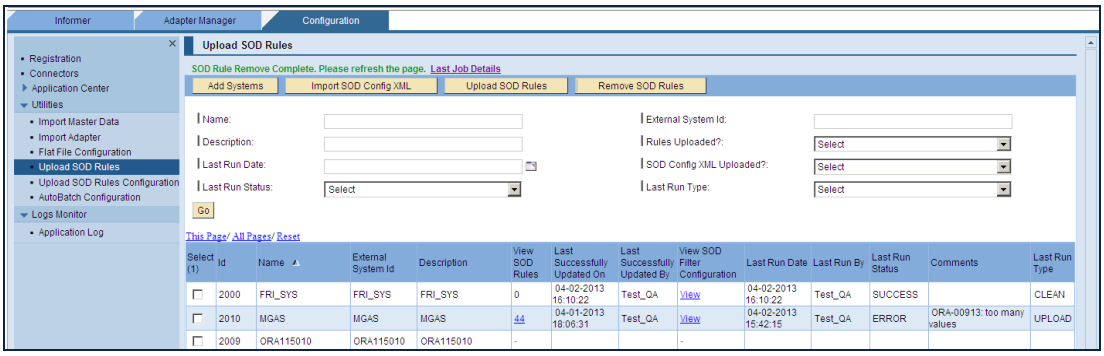


Figure 7.26: Upload SOD Rules

6. Click on the **Last Job Details** link to view the **SOD Job Details**.

   The **View SOD Job Status** displays details under the column headings **System, Status** and **Comments**.

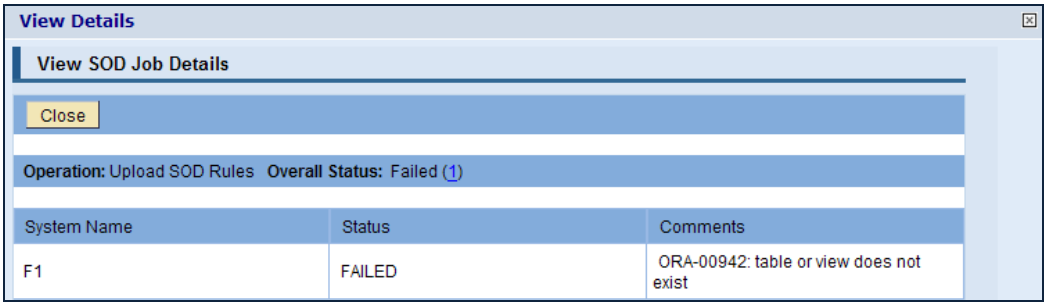


Figure 7.27: View Details

Note: while removing SOD rules if you click on the Cancel Job button, then Job is cancelled and the Last Run Status is displayed as CANCELLED on the Upload SOD Rules page.

7.7 UPLOAD SOD RULE CONFIGURATION

Using the Upload SOD Rules Configuration feature, you can configure GRC Application Connector for the Upload SOD Rules functionality**.**

The steps to set **Upload SOD Rules Configuration** are as follows.

1. Click on **Configuration** tab.
2. In the left navigation pane, click the **Utilities> Upload SOD Rules Configuration** link.

   The **Upload SOD Rules Configuration** page opens as shown in the following screenshot.

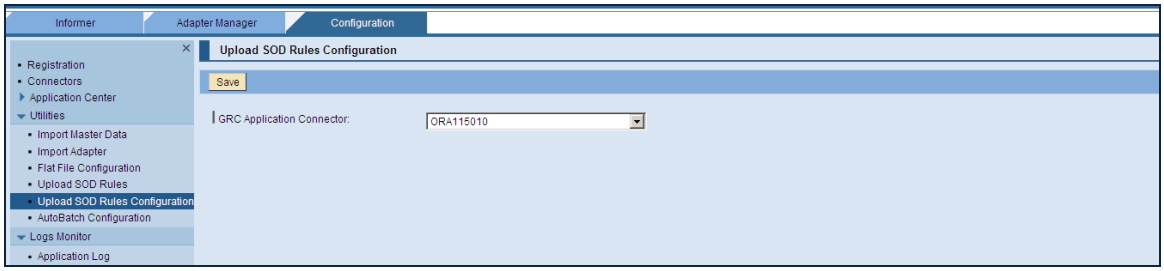


Figure 7.28: Upload SOD Rules Configuration

3. In the **GRC Application Connector** dropdown list, select appropriate value.
4. Click on the **Save** button.

   The screen displays message as shown in the following screenshot. The information is saved in the AVM-RTA DS database.

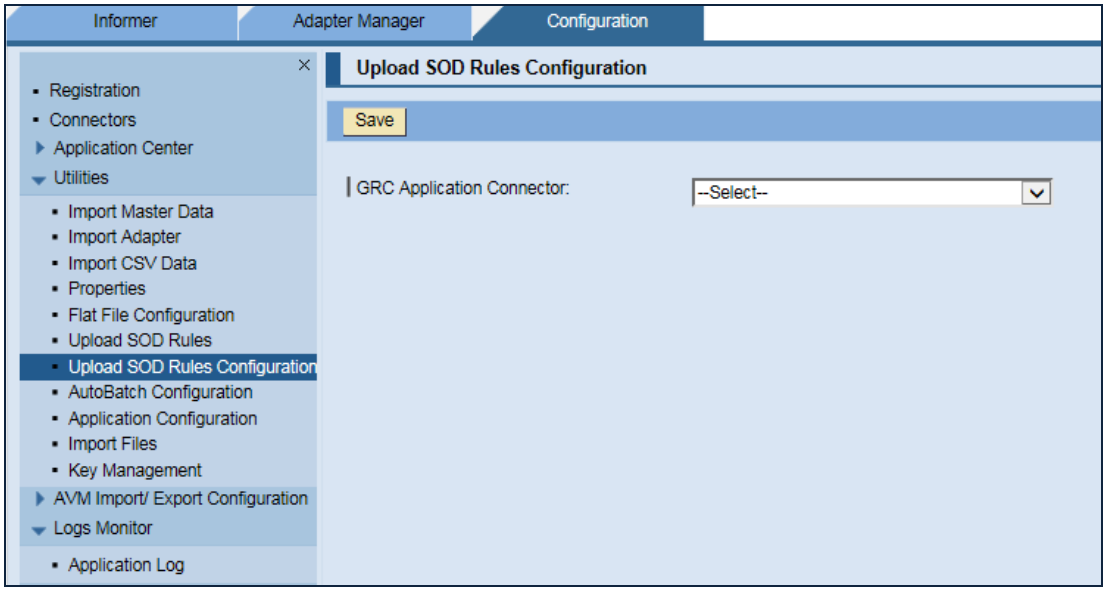


Figure 7.29: Upload SOD Rules Configuration

***Note:** the GRC Application JDBC Connector dropdown list is populated with all active connectors defined in the RTA DS application. The connectors are defined under Configuration> Connectors. . If you are not using Upload SOD or Offline feature this configuration is not required.*

7.8 AUTOBATCH CONFIGURATION

The **Autobatch Configuration** screen displays the list of API's imported through the Master Data File. In the master data file (local), you can set Auto_Enabled field as Y/N. If the field is set as Y, all the API's displayed on the screen are selected.

The steps for Autobatch Configuration are as follows:

1. Click on **Configuration** tab.
2. Click **Utilities>Autobatch Configuration**.

The **Autobatch Configuration** page opens as shown in the following screenshot.

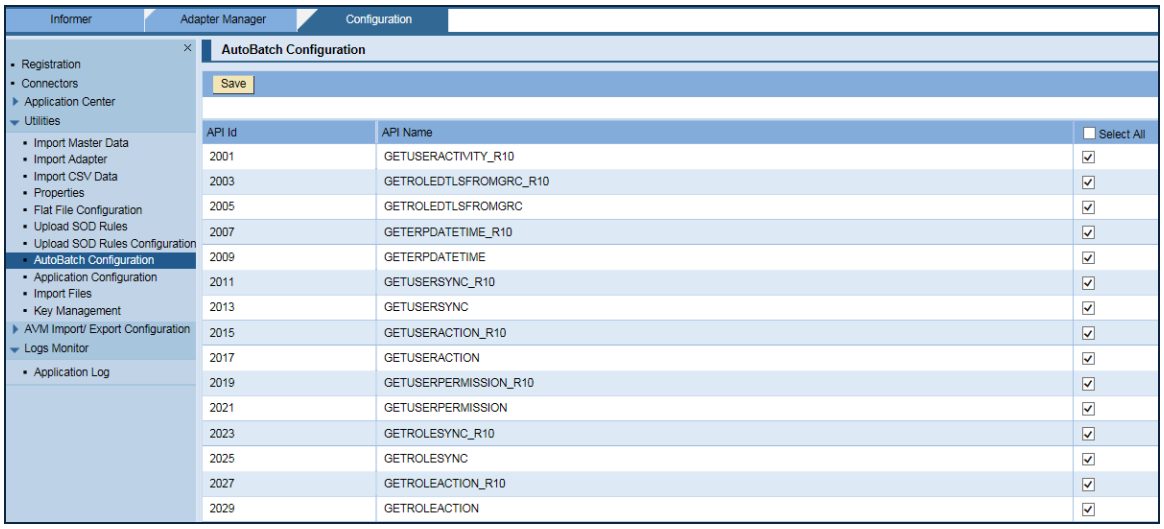


Figure 7.30: AutoBatch Configuration

3. The screen displays API's under the column headings **API Id, API Name** and **Select All** columns.
4. Based on the configuration, in the master data file (local) the **Select All** checkbox is checked/unchecked.
5. Click and select the API's which you want to display while scheduling a job.
6. Click **Save**.

   The screen displays message as, "**AutoBatch Configurations successfully updated**."

Note: the API's configured under Utilities>Autobatch Configuration page are displayed on the Auto Batch Extraction >Job Scheduler page. To access the page go to Adapter Manager>Auto Batch Extraction> Job Scheduler-Create.

The Master data is imported under the Configuration>Utilities>Import Master Data.

7.9 APPLICATION CONFIGURATION

The **Application Configuration** feature is used to set RTA DS and ResQ applications URL.

The steps to configure application configuration are as follows:

1. Click on **Configuration** tab.
2. Click **Utilities>Application Configuration**.
3. The **Application Configuration** page opens as shown in the following screenshot.

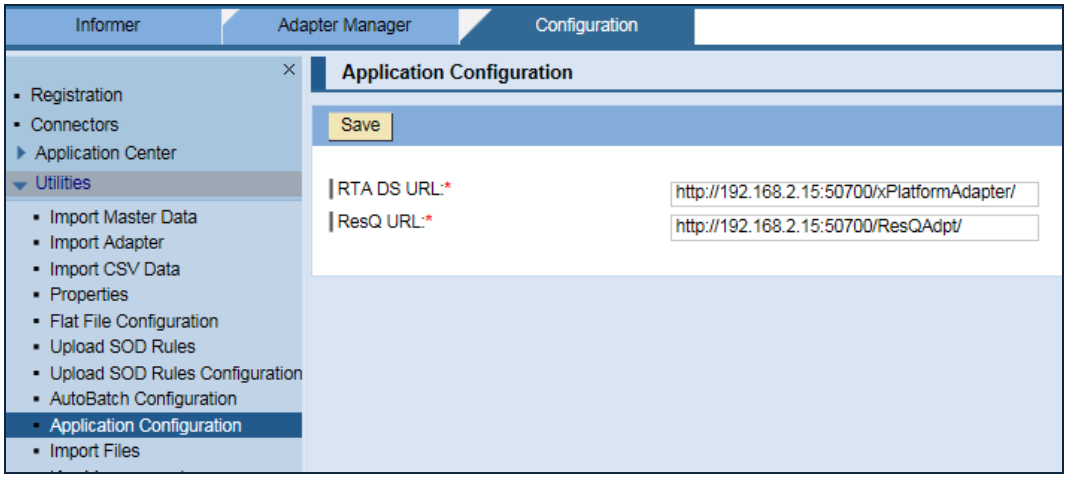


Figure 7.31: Application Configuration

4. In the **RTA DS URL** text box, enter RTA DS application URL. For Example: http://192.168.2.15:50100/xPlatformAdapter/
5. In the **ResQ URL** text box, enter ResQ application URL. For Example: http://192.168.2.15:50100/ResQAdpt/
6. Click on **Save** to save the settings.

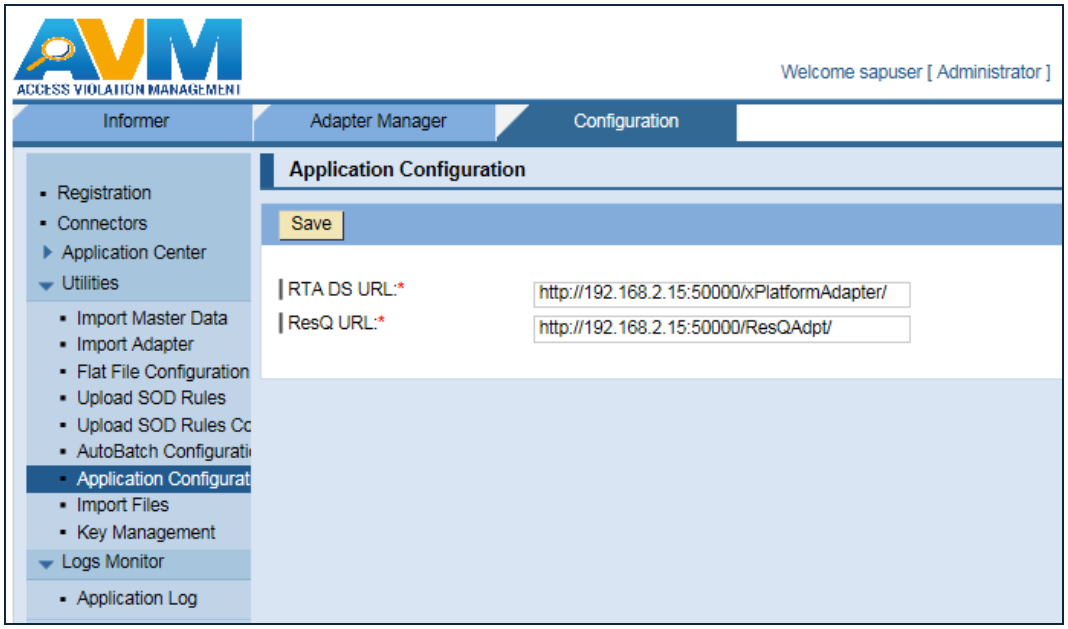


Figure 7.32: Application Configuration

7.10 IMPORT FILES

The files imported here are used for flat file configuration.
The steps to import files are as follows:

1. Click on the **Configuration** tab> **Utilities**> **Import Files**.
2. The **Import Files** page opens.

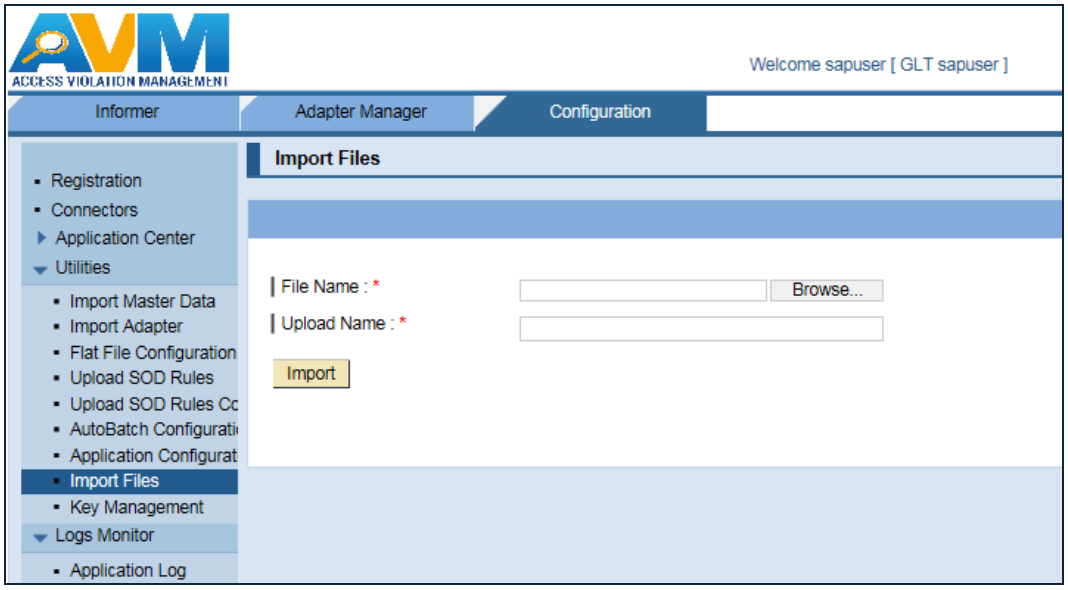


Figure 7.33: Import Files

3. Click on the **Browse** button and select AuthData file in the **File Name** box. This file resides in the **Import Files>AuthData** from the provided build.
4. In the **Upload Name** field, enter appropriate name.
5. Click on the **Import** button.
6. The file name and path is displayed as shown in the screen.

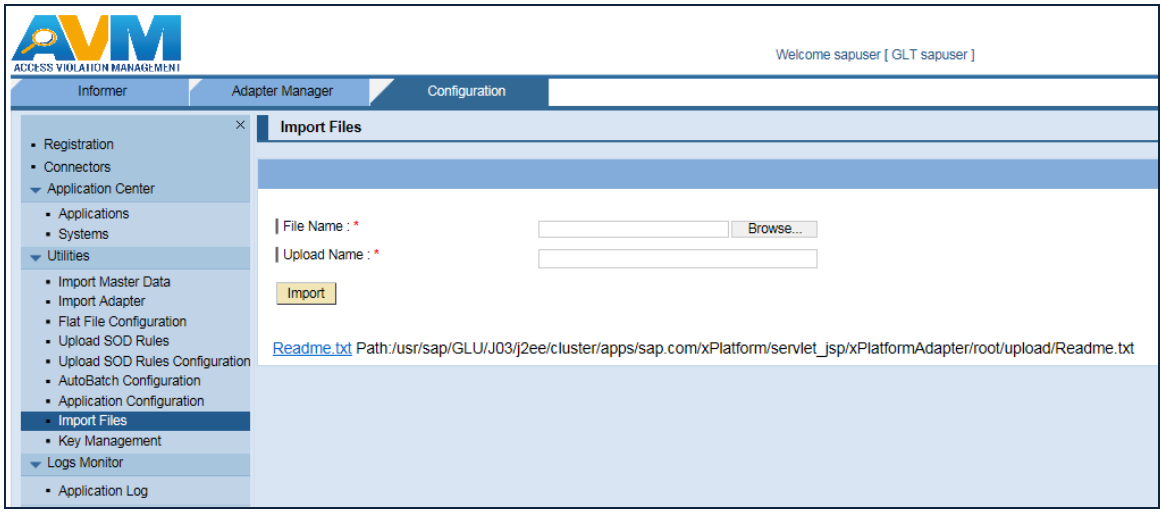


Figure 7.34: Import Files

7.11 KEY MANAGEMENT

Using this functionality, you can select Key file and provide Key Name. The Key name defined here is used while creating **FLATFILE_TEXT** connector of **File-Key Type** in the **Open SSH Key Name** field.

1. Click on the **Configuration** tab**> Utilities> Key Management**.
2. The **Key Management** page opens.

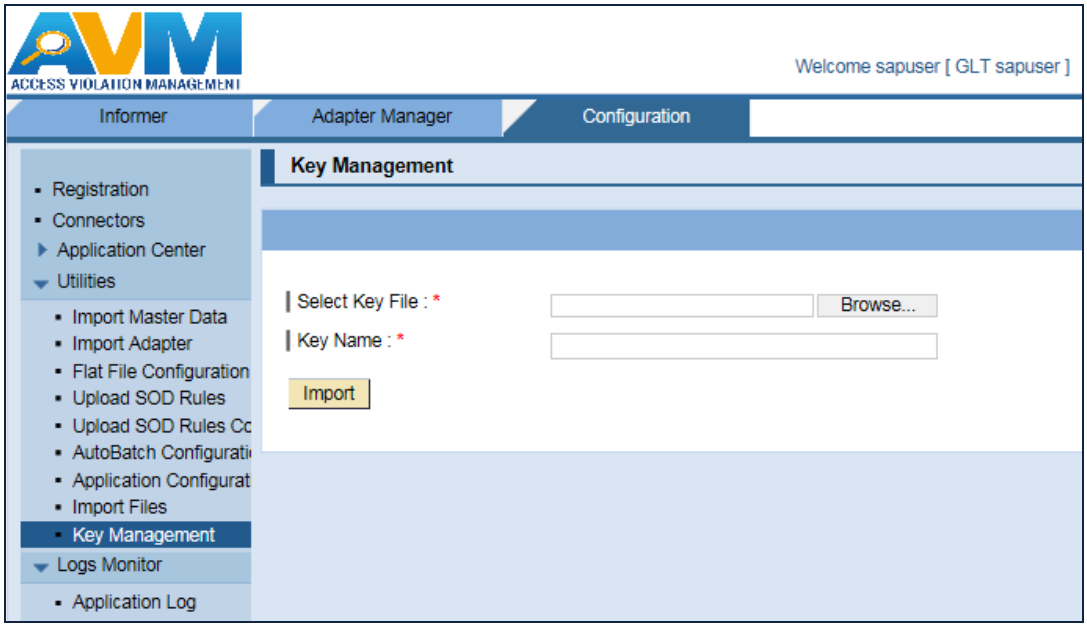


Figure 7.35: Key Management

3. Click on the **Browse** button and select appropriate file in the **Select Key File** box. The Private Key: SFTP and PGP Decryption key should be imported.
4. In the **Key Name** text box, enter appropriate name.
5. Click on **Import** button. The screen displays message as, "Key File updated successfully."

7.12 DEFINE IMPORT/EXPORT PROFILE

This feature allows defining set of Ariba Export/ AVM import files (along with field definition) in AVM.

7.12.1 SEARCH IMPORT EXPORT PROFILE

The search criterion helps to search a particular import export profile or find all the existing profiles in one go.

The steps to search the import export profile are as follows.

1. Click the **Configuration** tab.
2. Click the **AVM Import/Export Configuration >Define Import Export Profiles**.

   The **Import Export Profiles >Search** page opens as shown in the below screenshot.

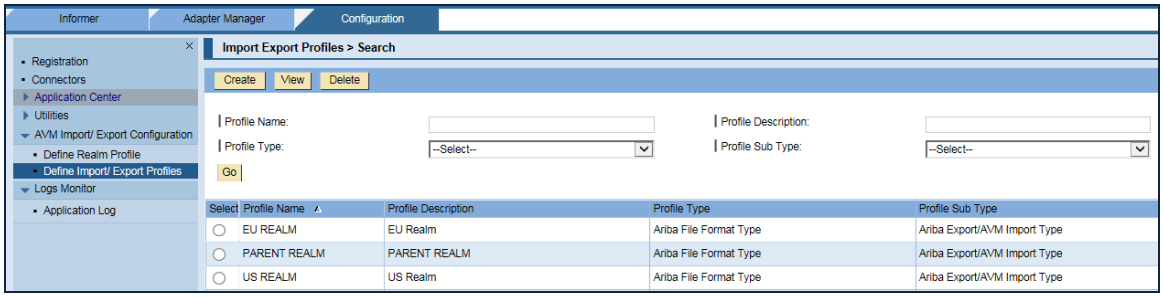


Figure 7.36: Import Export Profiles>Search

3. To view all the existing profiles, click **Go**.

   -Or-

4. To view a particular **Profile**, enter appropriate value in the **Profile Name/ Profile Description**. Select appropriate **Profile Type/Profile Sub Type** field and click on **Go**.
5. Based on the selected criterion, details are displayed under the column headings **Select**, **Profile Name**, **Profile Description**, **Profile Type** and **Profile Sub Type**.

7.12.2 CREATE IMPORT EXPORT PROFILE- BY IMPORTING DATA DICTIONARY

The steps to create the import export profile are as follows.

1. Click the **Configuration** tab.
2. Click the **AVM Import/Export Configuration >Define Import Export Profiles**.
3. The **Import Export Profiles >Search** page opens.
4. Click on the **Crea**te button.
5. The **Import Export Profiles >Create** page opens as shown in the below screenshot.

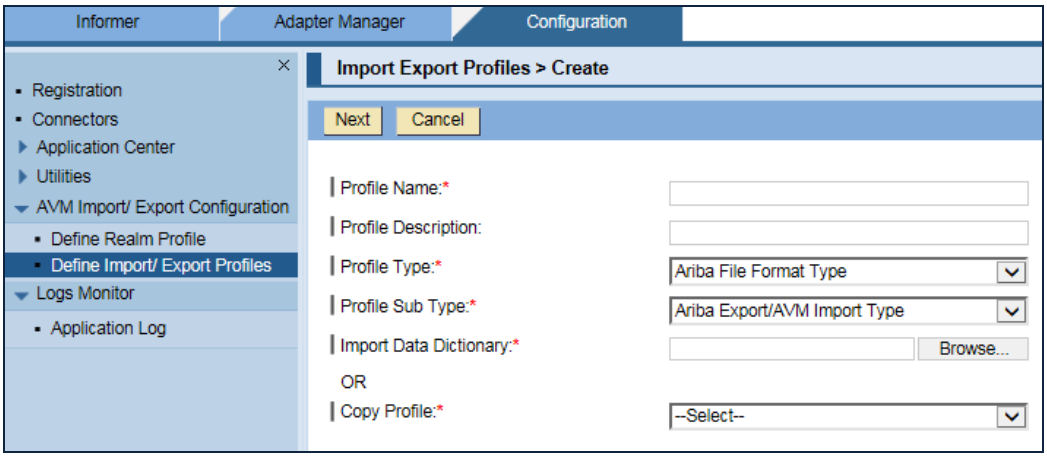


Figure 7.37: Import Export Profiles >Create

6. In the **Profile Name** text box, enter appropriate name.
7. In the **Profile Description** text box, enter appropriate description.

8. In the **Profile Type** dropdown, select appropriate value.
9. In the **Profile Sub Type** dropdown, select appropriate value.
10. Click on the **Browse** button and select appropriate **Import Data Dictionary**. This file is provided in the package. For Example: DataDictionary_EU.xls

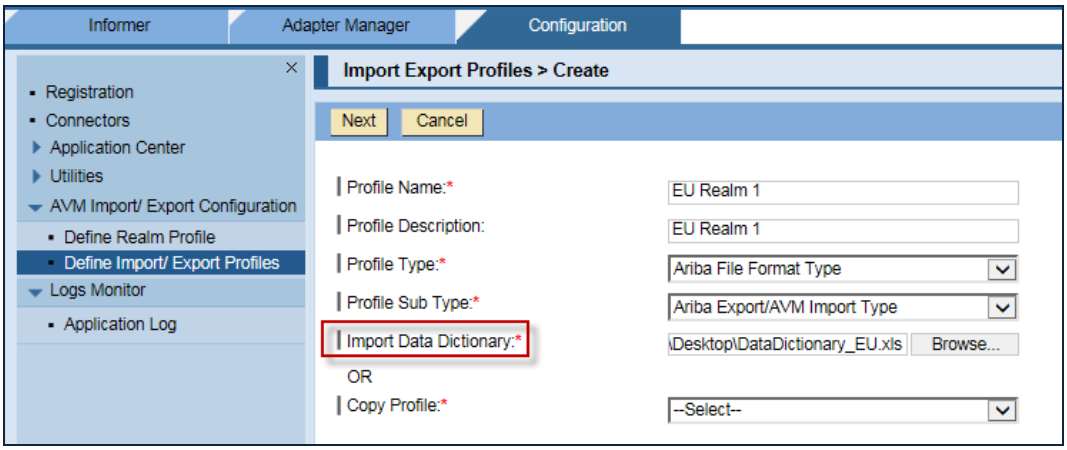


Figure 7.38: Import Export Profiles >Create

11. Click on the **Next** button.
12. The **Import Export Profiles > Select Files** screen opens.

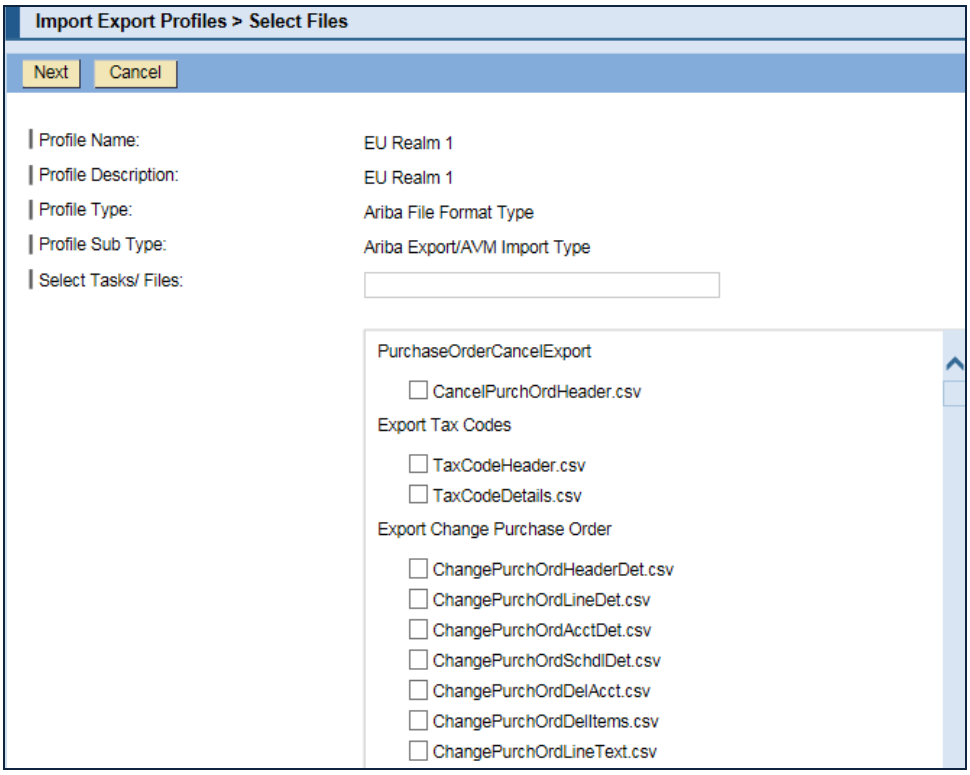
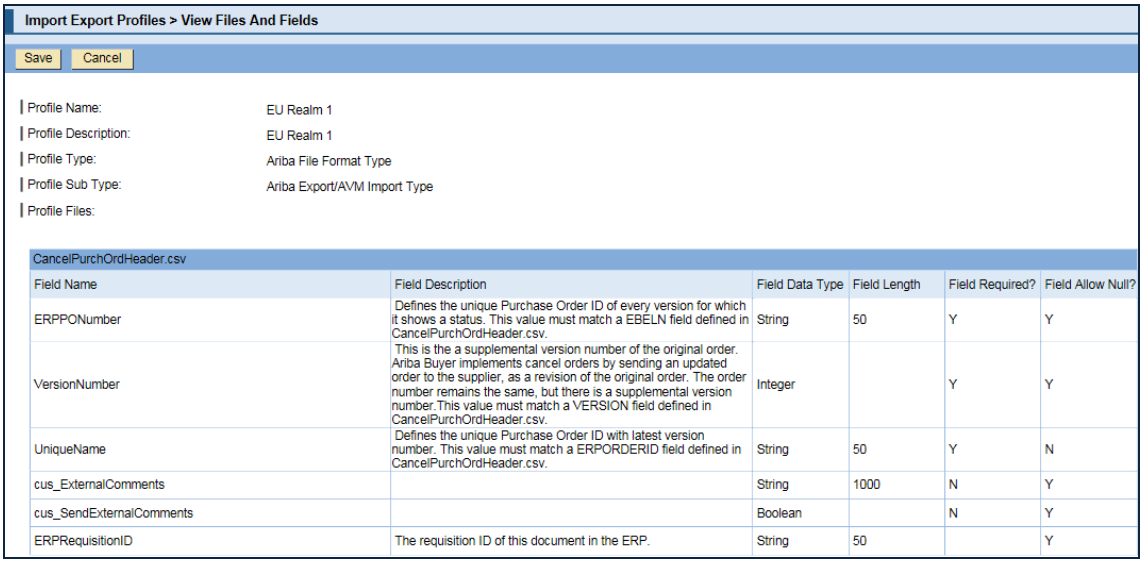


Figure 7.39: Import Export Profiles >Select Files

13. Check the appropriate tasks/files check box.
14. Click on the **Next** button.

15. **Import Export Profiles > View Files And Fields** screen opens as shown in the below screenshot.



Field Name	Field Description	Field Data Type	Field Length	Field Required?	Field Allow Null?
ERPPONumber	Defines the unique Purchase Order ID of every version for which it shows a status. This value must match a EBELN field defined in CancelPurchOrdHeader.csv.	String	50	Y	Y
VersionNumber	This is the a supplemental version number of the original order. Ariba Buyer implements cancel orders by sending an updated order to the supplier, as a revision of the original order. The order number remains the same, but there is a supplemental version number.This value must match a VERSION field defined in CancelPurchOrdHeader.csv.	Integer		Y	Y
UniqueName	Defines the unique Purchase Order ID with latest version number. This value must match a ERPORDERID field defined in CancelPurchOrdHeader.csv.	String	50	Y	N
cus_ExternalComments		String	1000	N	Y
cus_SendExternalComments		Boolean		N	Y
ERPRequisitionID	The requisition ID of this document in the ERP.	String	50		Y

Figure 7.40: Import Export Profiles >View Files And Fields

16. The **Import Export Profiles > View Files And Fields** screen displays detail information about **Profile Files** under selected .CSV file under columns **Field Name**, **Field Description**, **Field Data Type**, **Field Length**, **Field Required**? **Field Allow Null**?
17. Click on **Save**. The screen displays message as, "Profile created successfully."
18. The newly created profile is listed on the **Import Export Profiles >Search** screen.

7.12.3 CREATE IMPORT EXPORT PROFILE- BY COPY PROFILE

The steps to create the import export profile are as follows.

1. Click the **Configuration** tab.
2. Click the **AVM Import/Export Configuration >Define Import Export Profiles**.
3. The **Import Export Profiles >Search** page opens.
4. Click on the **Crea**te button.
5. The **Import Export Profiles >Create** page opens as shown in the below screenshot.

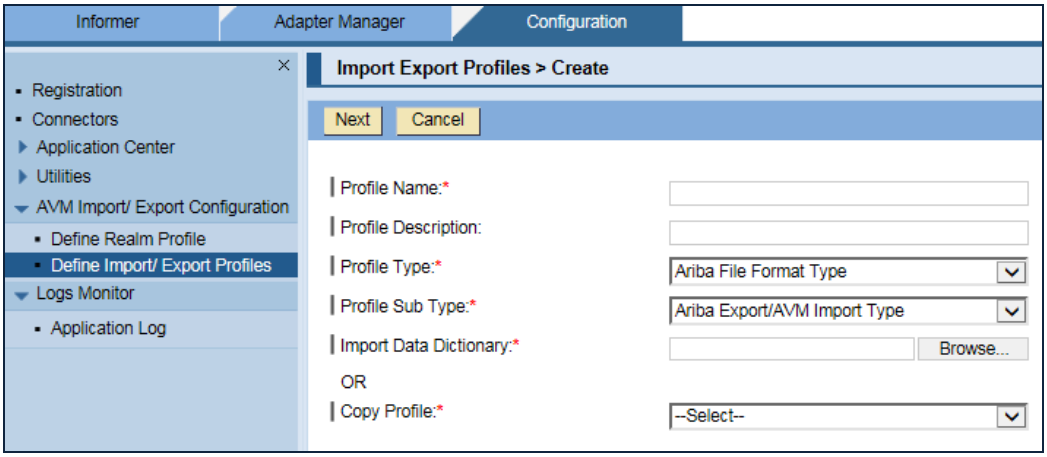


Figure 7.41: Import Export Profiles >Create

6. In the **Profile Name** text box, enter appropriate name.
7. In the **Profile Description** text box, enter appropriate description.
8. In the **Profile Type** dropdown, select appropriate value.
9. In the **Profile Sub Type** dropdown, select appropriate value.
10. Click on the **Browse** button and select appropriate **Import Data Dictionary**.

    -Or-
11. In the **Copy Profile** dropdown select appropriate profile. This dropdown is populated with previously created profiles.
12. Click on the **Next** button.

    The **Import Export Profiles > View Files And Fields** screen opens as shown in the below screenshot.

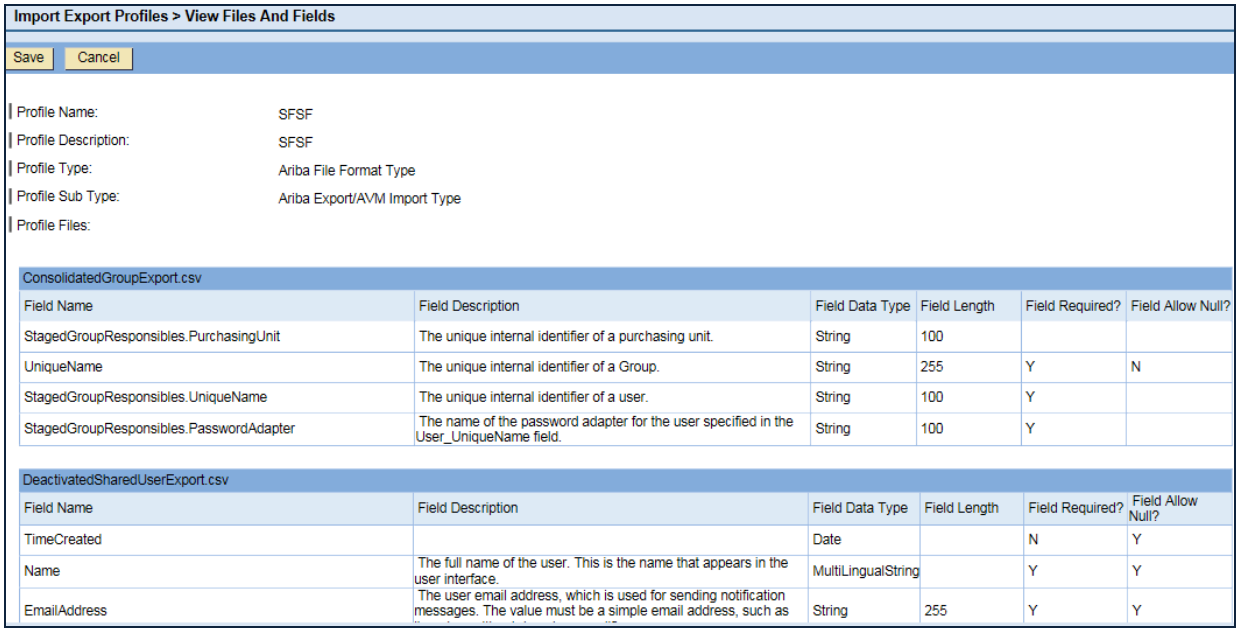


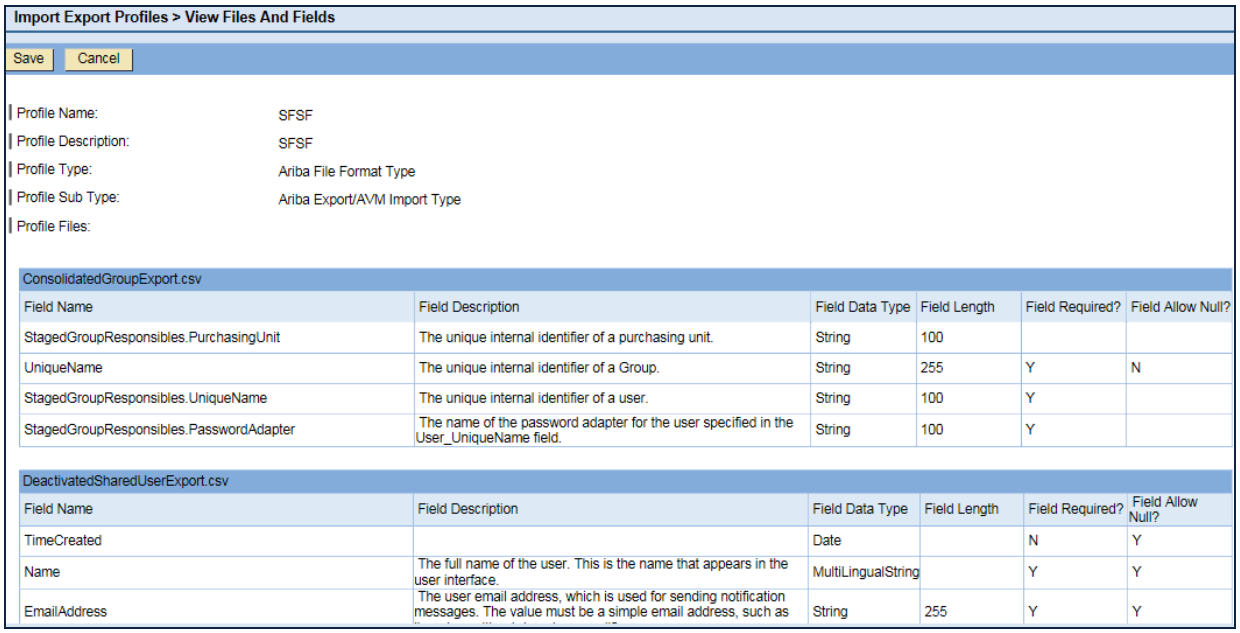
Figure 7.42: Import Export Profiles >View Files And Fields

13. The **Import Export Profiles > View Files And Fields** screen displays detail information about **Profile Files** under selected .CSV file under columns **Field Name**, **Field Description**, **Field Data Type**, **Field Length**, **Field Required**? **Field Allow Null**?
14. Click on **Save**. The screen displays message as, "Profile created successfully."
15. The newly created profile is listed on the **Import Export Profiles > Search** screen.

7.12.4 VIEW IMPORT EXPORT PROFILE

The steps to view the import export profile are as follows.

1. Click the **Configuration** tab.
2. Click the **AVM Import/Export Configuration >Define Import Export Profiles**.
3. The **Import Export Profiles >Search** page opens.
4. Select appropriate profile.
5. Click on the **View** button.
6. The **Import Export Profiles > View Files And Fields** screen opens displaying detail information about selected profile as shown in the below screenshot.



Import Export Profiles > View Files And Fields

Save | Cancel

Profile Name: SFSF
Profile Description: SFSF
Profile Type: Ariba File Format Type
Profile Sub Type: Ariba Export/AVM Import Type
Profile Files:

ConsolidatedGroupExport.csv

Field Name	Field Description	Field Data Type	Field Length	Field Required?	Field Allow Null?
StagedGroupResponsibles.PurchasingUnit	The unique internal identifier of a purchasing unit.	String	100		
UniqueName	The unique internal identifier of a Group.	String	255	Y	N
StagedGroupResponsibles.UniqueName	The unique internal identifier of a user.	String	100	Y	
StagedGroupResponsibles.PasswordAdapter	The name of the password adapter for the user specified in the User_UniqueName field.	String	100	Y	

DeactivatedSharedUserExport.csv

Field Name	Field Description	Field Data Type	Field Length	Field Required?	Field Allow Null?
TimeCreated		Date		N	Y
Name	The full name of the user. This is the name that appears in the user interface.	MultiLingualString		Y	Y
EmailAddress	The user email address, which is used for sending notification messages. The value must be a simple email address, such as	String	255	Y	Y

Figure 7.43: Import Export Profiles >View Files And Fields

7.12.5 DELETE IMPORT EXPORT PROFILE

The steps to delete the import export profile are as follows.

1. Click the **Configuration** tab.

2. Click the **AVM Import/Export Configuration >Define Import Export Profiles**.
3. The **Import Export Profiles >Search** page opens.
4. Select appropriate profile.
5. Click on the **Delete** button.
6. The screen prompts with below confirmation message.

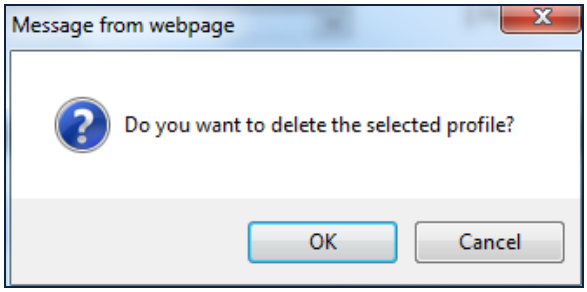


Figure 7.44: Message

7. Click on **OK**.
8. The **Import Export Profiles >Search** displays message as, "Profiles deleted successfully."

7.13 DEFINE REALM PROFILE

This feature allows define Ariba System realms and associate the Import/ Export profile with the realm.

7.13.1 SEARCH REALM PROFILE

The search criterion helps to search a particular realm profile or find all the realm profiles in one go.

The steps to search the realm profile are as follows.

1. Click the **Configuration** tab.
2. Click the **AVM Import/Export Configuration >Define Realm Profile**.
   The **Realm Profile >Search** page opens as shown in the below screenshot.

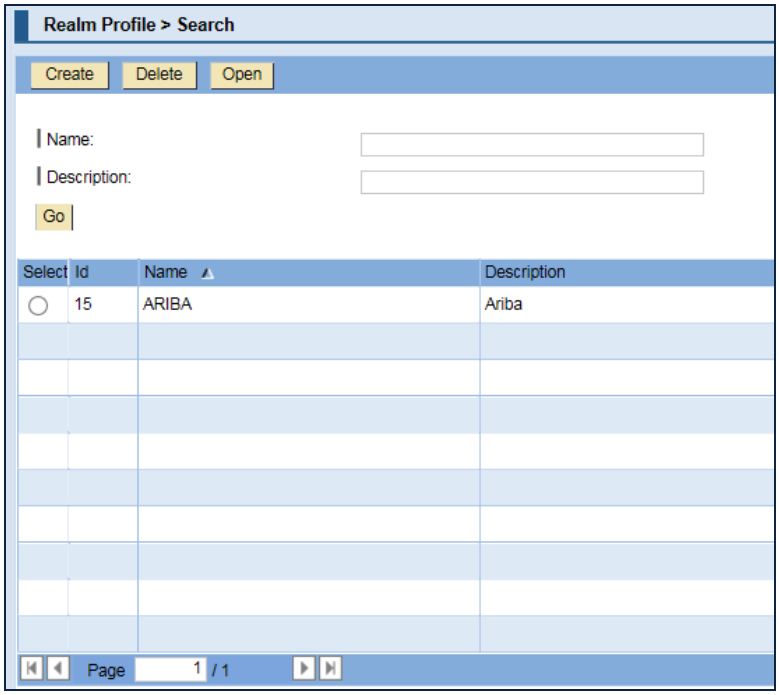


Figure 7.45: Message

3. To view all the existing realm profile, click **Go**.
   -Or-
4. To view a particular **Realm Profile**, enter appropriate value in the **Name** and **Description** and click on **Go**.
5. Based on the selected criterion, details are displayed under the column headings **Select**, **Id**, **Name** and **Description**.

7.13.2 CREATE REALM PROFILE

The steps to create the realm profile are as follows.

1. Click the **Configuration** tab.
2. Click the **AVM Import/Export Configuration >Define Realm Profile**.
3. The **Realm Profile >Search** page opens.
4. Click on **Create**.
5. The **Realm Profile >Create** page opens.

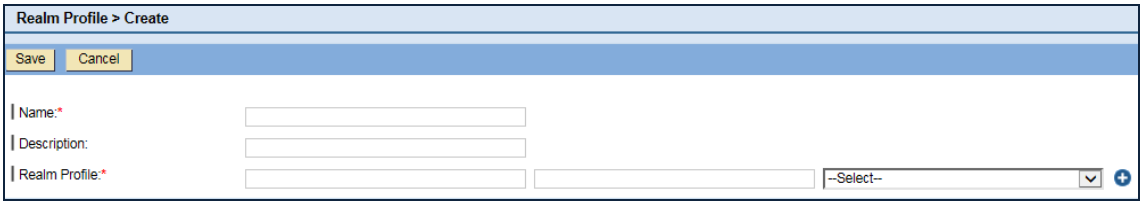


Figure 7.46: Realm Profile > Create

6. In the **Name** text box, enter appropriate name of the realm.
7. In the **Description** text box, enter appropriate description about the realm.

8. Select the appropriate **Realm Profile** in the dropdown and enter appropriate values in the corresponding text boxes.
9. Click on **Save**.
10. The **Realm Profile >Search** page displays message as, "<Realm Name>: Realm Profile created successfully.

7.13.3 VIEW REALM PROFILE

The steps to view the realm profile are as follows.

1. Click the **Configuration** tab.
2. Click the **AVM Import/Export Configuration >Define Realm Profile**.
3. The **Realm Profile > Search** page opens.
4. Select appropriate profile.
5. Click on the **Open** button.
6. The **Realm Profile > Open** screen opens displaying details of the realm such as **Id, Name, Description** and **Realm Profile** as shown in the below screenshot.

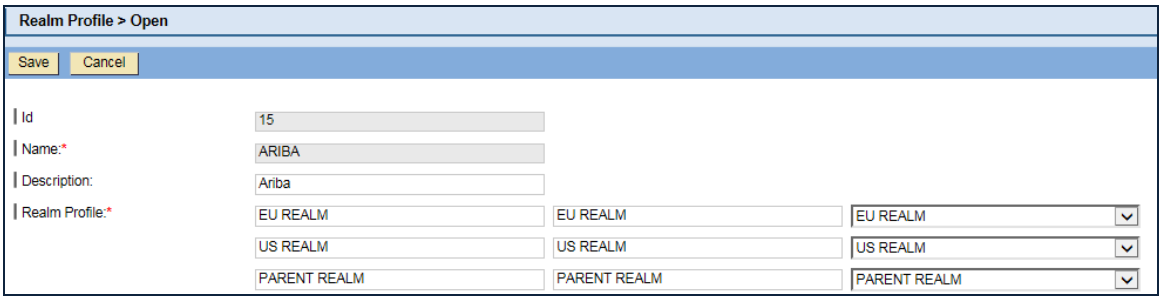


Figure 7.47: Realm Profile > Open

7.13.4 DELETE REALM PROFILE

The steps to view the realm profile are as follows.

1. Click the **Configuration** tab.
2. Click the **AVM Import/Export Configuration >Define Realm Profile**.
3. The **Realm Profile > Search** page opens.
4. Select appropriate profile.
5. Click on the **Delete** button.
6. The screen prompts with below confirmation message.

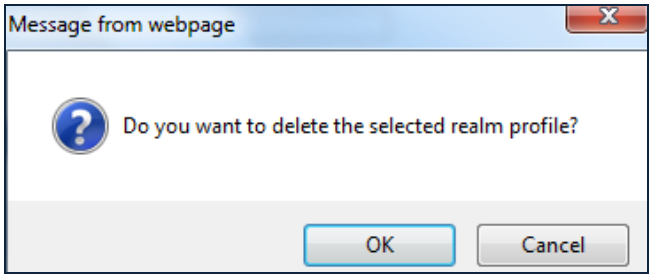


Figure 7.48: Confirmation Message

7. Click on **OK**.
8. The **Realm Profile > Search** page displays message as, "<Name>: Realm Profile deleted successfully."

8 PROGRAM WORKBENCH

Program Workbench includes the definitions and configurations of the **Standard Adapters** provided. This section covers Program Definitions and Program configurations**.**

8.1 PROGRAM DEFINITION

Under the **Program Definition**, the Program Definitions and Program Configurations are clubbed. These are associated with the Standard Adapters.

8.1.1 SEARCH PROGRAM DEFINITION

The search criterion helps to find program definition. The search criterion helps you to search a particular program definition or find all the existing program definition in one go.

The steps to search the program definition are as follows.

1. Click the **Adapter Manager** tab.
2. In the left navigation menu, click the **Program Workbench>Program Definition.**

   The **Program Definition>Search** page opens as shown in the screenshot below.

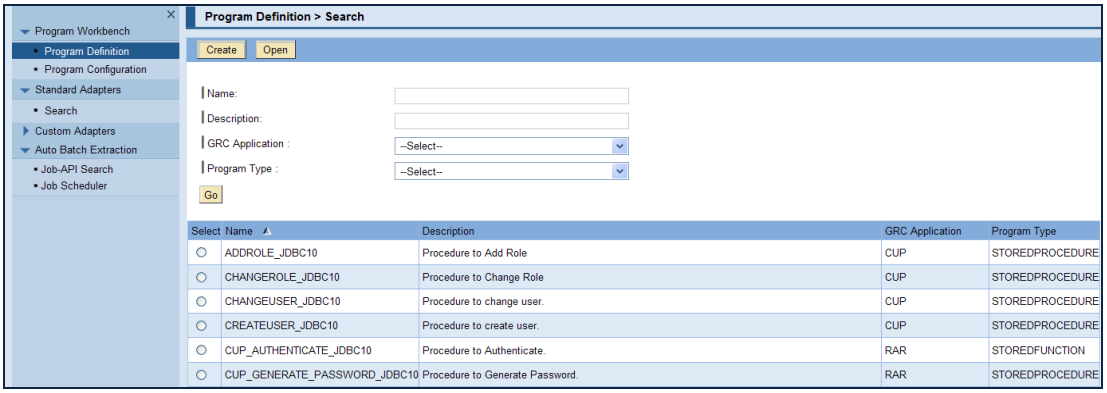


Figure 8.1: Program Definition>Search

3. To view all the existing program definition, click **Go**.

   -Or-

   To view a particular **Program Definition, enter the parameter value in the Name/Description/GRC Application/Program Type** field and click on **Go**.

   The screen displays records under the column headings **Select, Name, Description, GRC Application** and **Program Type**.

8.1.2 CREATE PROGRAM DEFINITION

The steps to create program definition are as follows.

1. Click the **Adapter Manager** tab.
2. In the left navigation menu, click the **Program Workbench>Program Definition.**
   The **Program Definition>Search** page opens.
3. Click **Create**.
   The **Program Definition>Create** page opens as shown in the following screenshot.

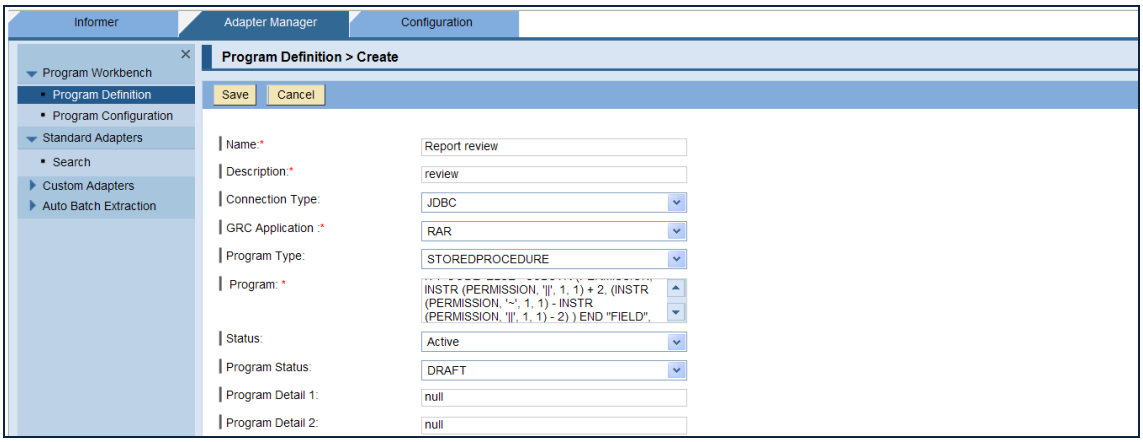


Figure 8.2: Program Definition>Create

4. In the **Name** text box, enter appropriate name of the program definition.
5. In the **Description** text box, enter appropriate description.
6. In the **Connection Type** dropdown list, select appropriate connection type. For Example: JDBC.
7. In the **GRC Application** dropdown list, select appropriate value. For Example: RAR.

   Note: to create report under informer tab, select the GRC Application type as REPORT.

8. In the **Program Type** dropdown list, select appropriate value. For Example: STOREPROCEDURE.

   Note: to create report under informer tab, select the Program Type as QUERY.

9. In the **Status** dropdown, list as active.
10. In the **Program Detail 1** text box, enter appropriate details.
11. In the Program Detail 2 text box, enter appropriate details.
12. Click **Save** to save the record.

8.1.3 VIEW/MODIFY PROGRAM DEFINITION

The steps to view/modify the program definition are as follows.

1. On the **Program Definition>Search** page, click the select column corresponding to the program definition name, which you want to view/modify.
2. Click on the **Open** button.

   The **Program Definition >Open** page opens as shown in the screenshot below.

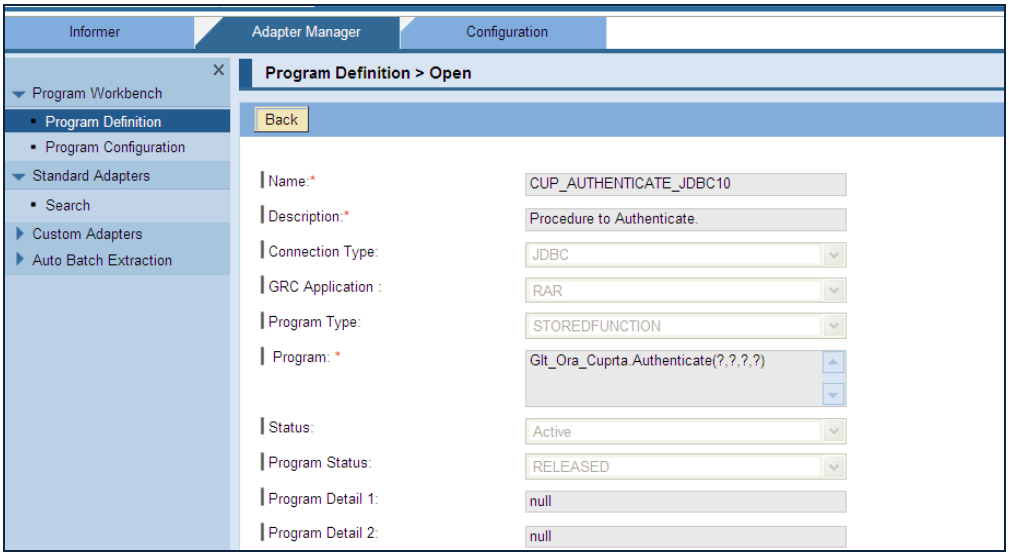


Figure 8.3: Program Definition>Open

3. The **Name** field is not editable.
4. Edit the **Description** as required.
5. Edit the **Connection Type, Program Type, Program** and **Status** as required.

Note: these fields are editable for the Custom Programs only. The Standard Programs are non-editable.

6. Click **Save** to save and update the changes.

8.2 PROGRAM CONFIGURATION

The Program Configuration Page has Fields (Output Columns) and Parameters (Where Criteria columns) to be configured for a particular program definition.

The Custom Programs are editable. The Standard Programs and Program Configurations are non – editable.

8.2.1 SEARCH PROGRAM CONFIGURATION

The search criterion helps to find program configuration. The search criterion helps you to search a particular program configuration or find all the existing program configuration in one go.

The steps to search the program configuration are as follows.

1. Click the **Adapter Manager** tab.

2. In the left navigation menu, click the **Program Workbench>Program Configuration.**

   The **Program Configuration>Search** page opens as shown in the following screenshot.

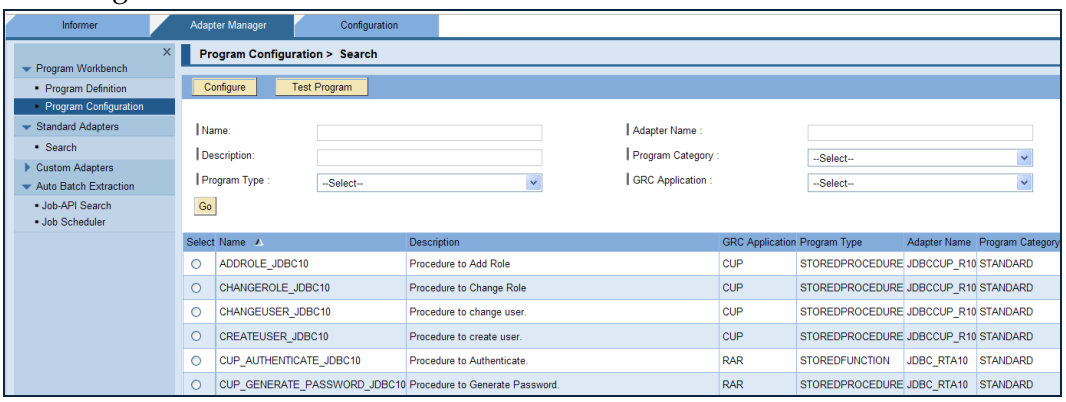


Figure 8.4: Program Configuration>Search

3. To view all the existing **Program Configuration**, click **Go**.

   -Or-

   To view a particular **Program Configuration**, enter the parameter value in the **Name/Description/Adapter Name/Program Type/Program Category /GRC Application** field and click on **Go**.

4. The screen displays under the column headings **Select, Name, Description, GRC Application/Program Type, Adapter Name and Program Category**.

8.2.2 PROGRAM CONFIGURATION

There are different programs such as SQL queries; stored procedures, APIs, java programs etc. All the programs require certain input parameters. These parameters are full or incremental sync, from user Id to user Id, from Date, to Date etc.

1. On the **Program Configuration >Search** page, click and select the program configuration which you wants to modify.
2. Click on **Configure**.
3. The **Program Configuration>Parameter(s)** screen appears as shown in the screenshot below.

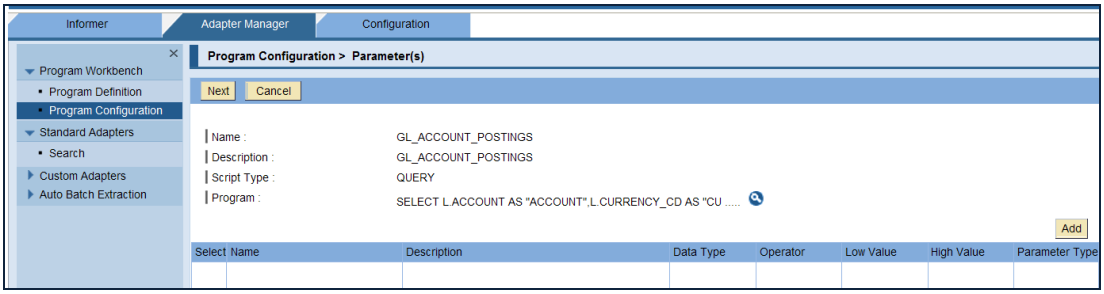


Figure 8.5: Program Configuration>Parameter(s)

4. Click image to view the program.

   The **Program** screen opens as shown in the following screenshot.

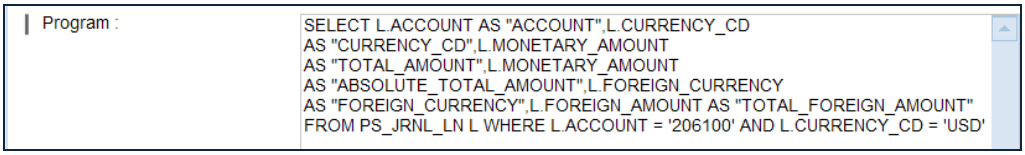


Figure 8.6: Program

5. To add the parameter, on the **Program Configuration>Parameter(s)** screen, click **Add** button.

   The **Parameter** screen opens as shown in the following screenshot.

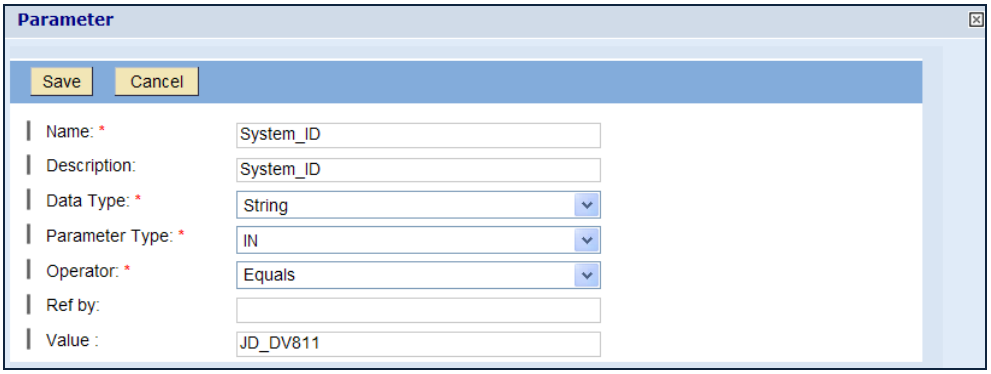


Figure 8.7: Parameter

6. In the **Name** and **Description** text box, enter appropriate details.
7. Select **Data Type, Parameter Type**, and **Operator** from the dropdown list.

Note: *if the program doesn't have any input parameter in query, you can add input parameters using Add Parameter. Select parameter type as In. These input parameters are displayed under Informer>Reports tab.*

8. Enter appropriate **Value** and click **Save**.

   The **Program Configuration>Parameter(s)** screen displays parameter as shown in the following screenshot.

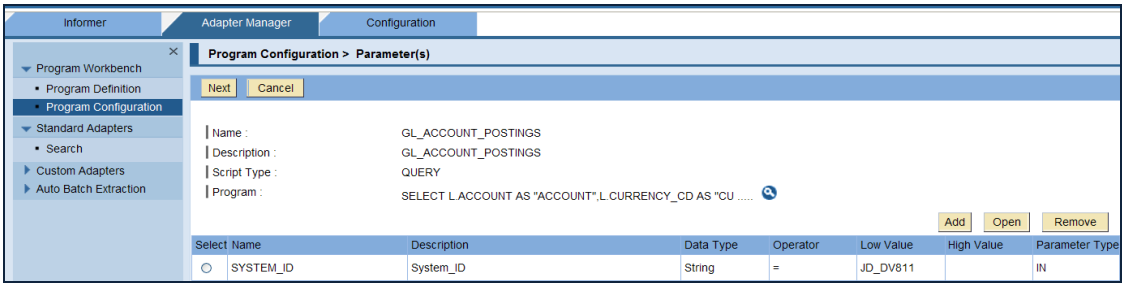


Figure 8.8: Program Configuration>Parameter(s)

9. Click on **Next**, to go to next step of **Program Configuration**.
10. The **Name, Description, Script Type,** and **Program** field are populated with defined values.

Note: the program configuration is done for the Custom Adapters only. In case of the Custom Adapters, add and remove buttons are available on the screen to add or remove the fields from the program.

11. To add the field, click on **Add**.
    The field screen appears as shown in the screenshot below.

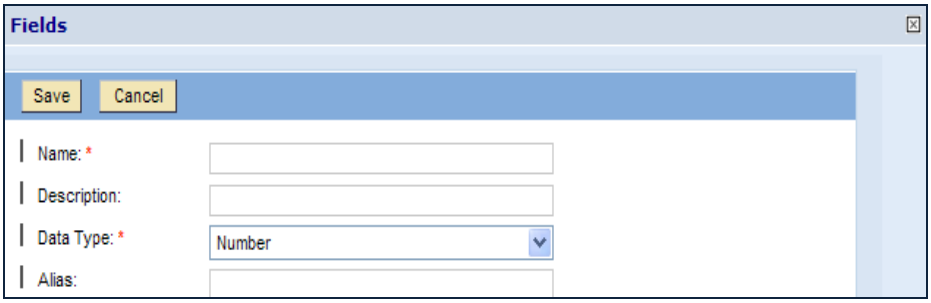


Figure 8.9: Fields

12. In the **Name** textbox, enter appropriate name of the field.
13. In the **Description** box, enter appropriate description of the field.
14. In the **Data** Type dropdown list, select appropriate data type.
15. In the **Alias** text box, enter appropriate value.
16. Click on **Save** to save the newly defined field record.

Note: after configuring the Program, it is available for adding to on the API Field mapping page for assigning of programs to the APIs.

8.2.3 TEST PROGRAMS

Test program allows users to test the programs imported through adapter import for standard adapters. The adapters are imported through **Configuration->Utilities>Import Adapter**. Every imported standard adapter has a userSync, userAction, and testObjects programs.

The steps to test the program configuration are as follows.

1. Click the **Adapter Manager** tab.

2. Click **Program Workbench> Program Configuration** in the left menu bar. The **Program Configuration>Search** screen opens.
3. Click and **Select** the program which you want to test and click on **Test Configuration.**

   The **Program Configuration>Test Configuration** screen opens as shown in the following screenshot.

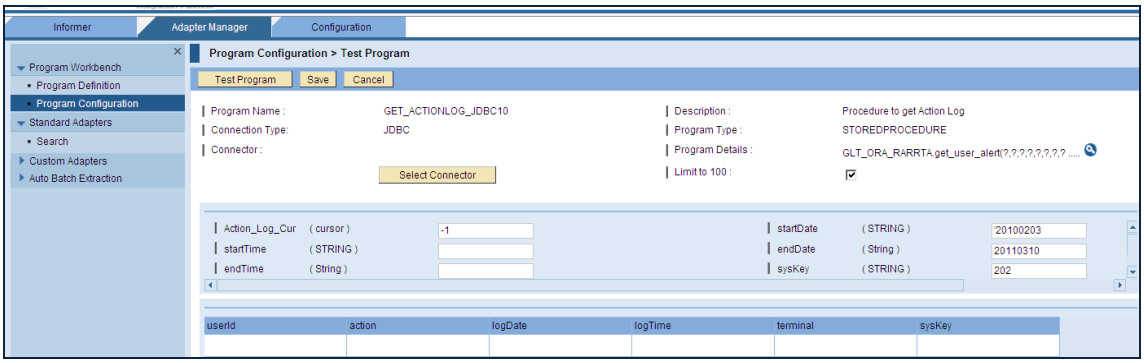


Figure 8.10: Program Configuration>Test Program

4. The **Program Name, Connection type, Description, Program type, Program Details** fields is populated with predefined values.
5. Click on **Select Connector** button.

   The **Connector** screen opens as shown in the following screenshot.

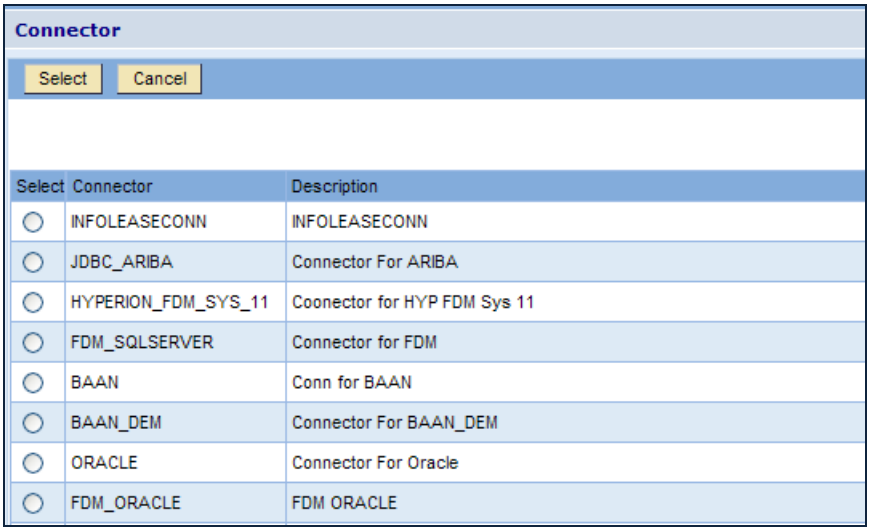


Figure 8.11: Connector

6. Select appropriate connector and click on **Select** button.
7. Provide appropriate values to the program parameters such as connector Ids.
8. Click on the **Test Program** button.

   This executes a particular program against the selected connector.

9. If the program is configured appropriately the results are displayed on the lower portion of the **Program Configuration> Test Configuration** screen.

9 STANDARD ADAPTERS

The **Standard Adapters** are the delivered programs and API field mapped units that are imported through Import Adapter.

1. **Import Adapter (Configuration Tab -> Utilities)**: The screen prompts for the Adapter Name and the Application Name and asks for the XML file to be imported. The XML File once imported will create the programs in the Program Definition and Configuration screens.
2. The Adapter is created in the Standard Adapters and then the System and Connector are mapped to it.

9.1 SEARCH STANDARD ADAPTERS

Use a search criterion to find standard adapters. The search criterion helps you to search particular standard adapters or find all the existing program standard adapters in one go.

The steps to search the standard adapters are as follows.

1. Click the **Adapter Manager** tab.
2. In the left navigation menu, click the **Standard Adapters**.

   The **Standard Adapters >Search** page opens as shown in the screenshot below.

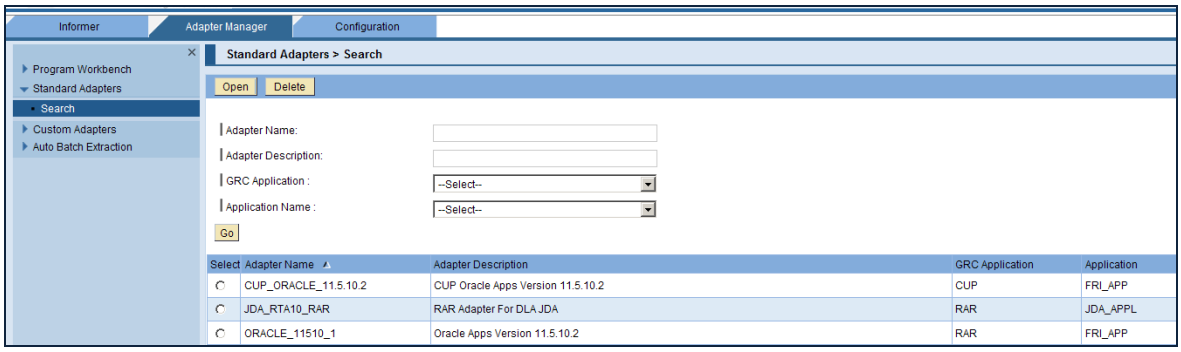


Figure 9.1: Standard Adapters>Search

3. To view all the existing **Standard Adapters**, click **Go.**

   -Or-

   To view a particular Standard Adapters, enter the parameter value in the **Adapter Name/Adapter Description/GRC Application/Application Name** and click on **Go**.
4. The screen displays records under the column headings **Select, Adapter Name, Adapter Description, GRC Application and Application**.

9.2 DELETE STANDARD ADAPTERS

The steps to delete the standard adapters are as follows.

1. On the **Standard Adapters>Search** page, click the select column corresponding to the adapter name, which you want to delete.
2. Click on the **Delete** button.

   The following message appears on the screen.

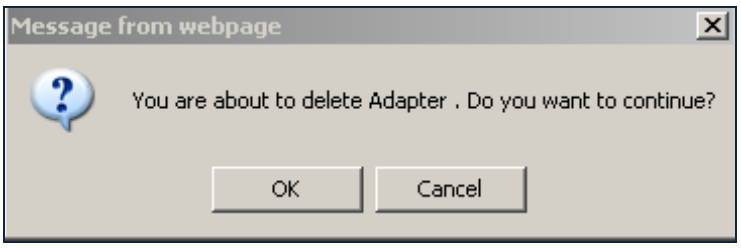


Figure 9.2: Message

3. Click on the **OK** button. The screen displays message as, "Adapter data deleted successfully.

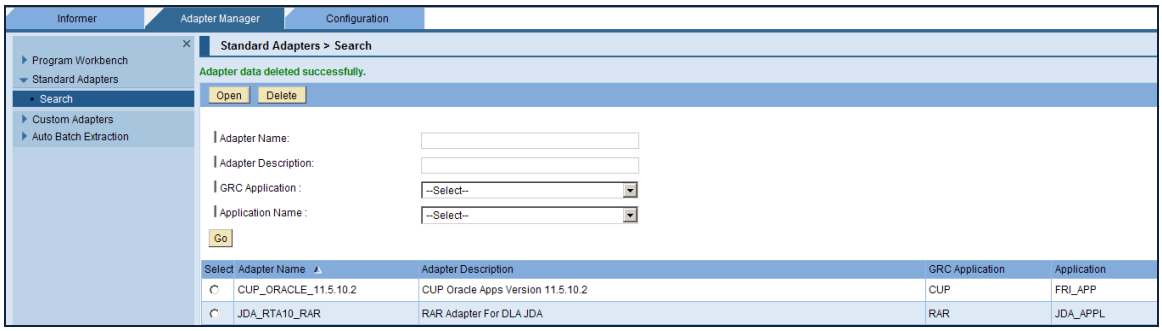


Figure 9.3: Standard Adapters> Search

Note: If the adapter is mapped, to the system and job is IN-PROCESS or SCHEDULED state, you cannot delete the adapter in that case the system displays the message as shown in the Fig 9.4.

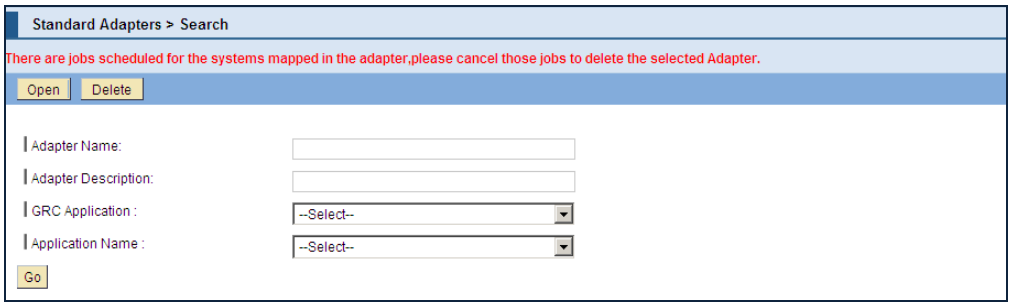


Figure 9.4: Standard Adapters> Search

9.3 VIEW/MODIFY STANDARD ADAPTERS

For a standard adapter you can modify its association with the system. You can remove the system-connector or add a system connector to it.

The steps to view/modify the standard adapters are as follows.

1. On the **Standard Adapters>Search** page, click the select column corresponding to the adapter name, which you want to view/modify.
2. Click on the **Open** button.

   The **Standard Adapters >Open** page opens as shown in the screenshot following screenshot.

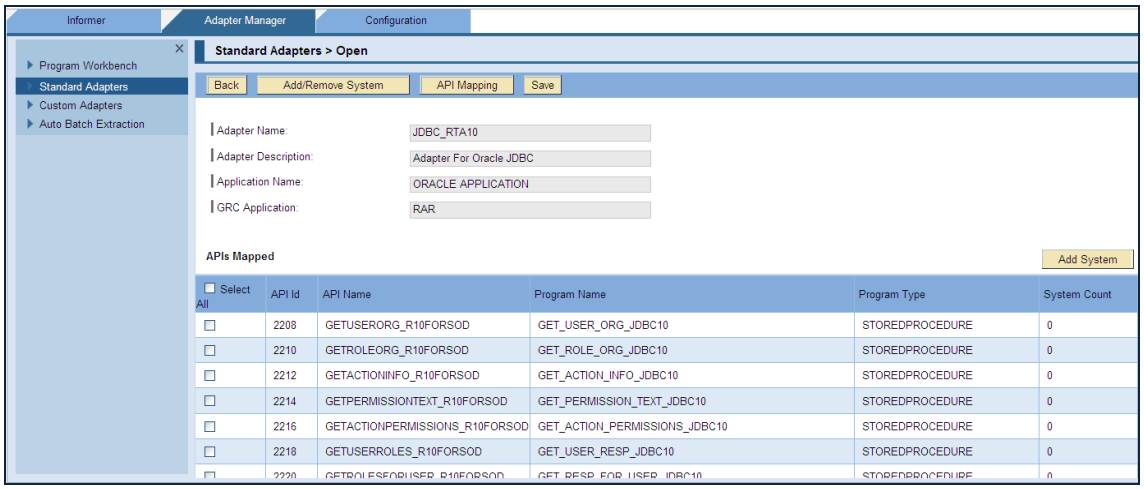


Figure 9.5: Standard Adapters>Open

3. The **Adapter Name, Adapter Description, Application Name, GRC Application** are not- editable and are populated with the defined values.
4. To **Add/Remove** a system, click and select the column corresponding to API name and click on the **Add/Remove System**.

   The **Standard Adapters> Add/Remove System** screen opens as shown in the screenshot below.

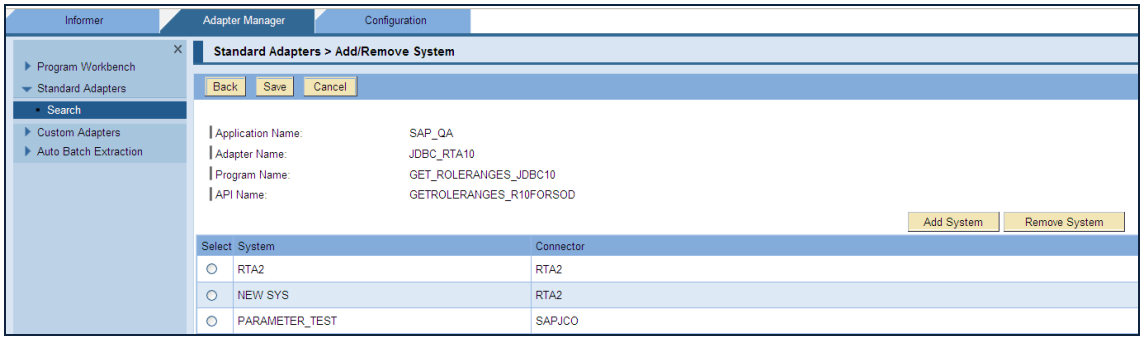


Figure 9.6: Standard Adapters>Add/Remove System

5. To add a system, click on **Add System**.

   The **System-Connector** screen opens as shown in the screenshot below.

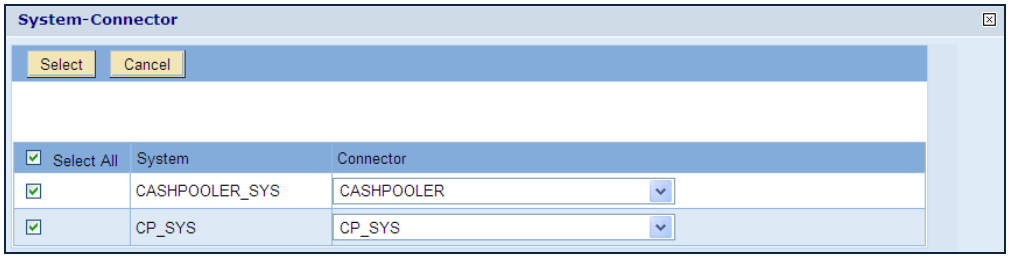


Figure 9.7: System-Connector

6. Click and select the system, which you want to add and click on **Select**.
7. Click **Save** to add the system.

   The screen displays message,"**<Adapter Name>: Details saved successfully**."
8. To see the Program output fields and the Program parameters to the external API, go to **Standard Adapters> Open** screen.

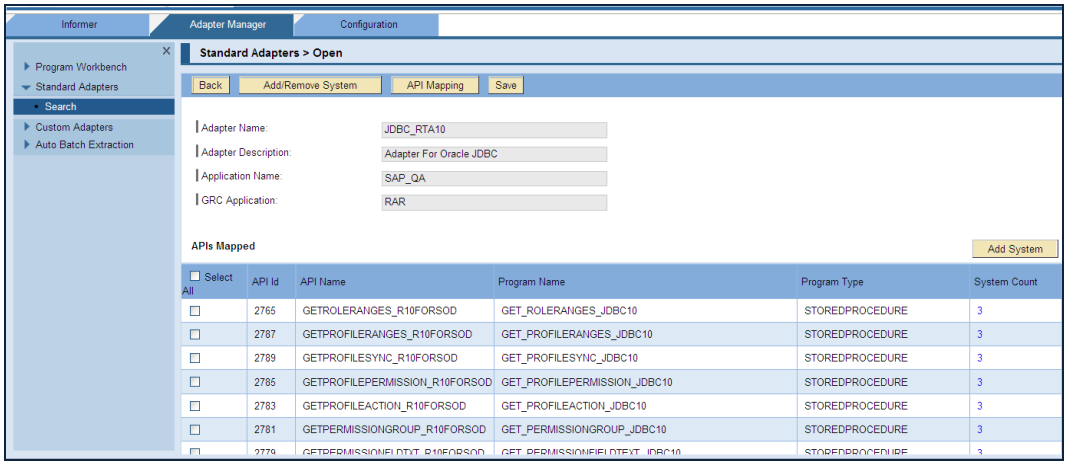


Figure 9.8: Standard Adapters>Open

9. Click **System Count** Link to view mapped **System-Connector**.
10. Select an **appropriate API.** Click on the **API Mapping**.

    The **Standard Adapters>API Mapping** screen opens as shown in the screenshot below. You can additional fields / parameters.

Note: RTA DS facilitates users to add additional fields/parameters than existing, by using image. Using this Additional Input/output Configuration, any Additional input parameters from SAP GRC can be mapped to a Program parameter and any Program field can be sent to SAP GRC as an additional output field.

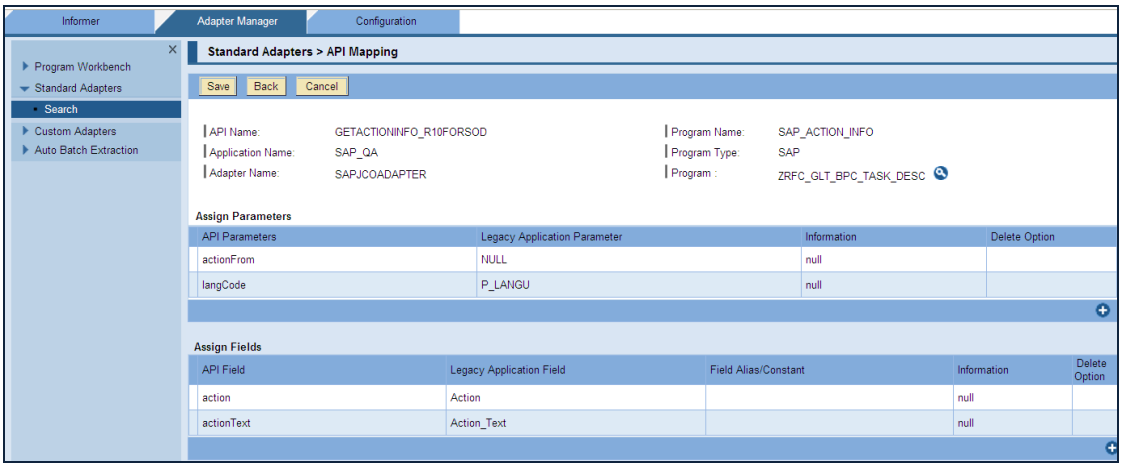


Figure 9.9: API Mapping

11. Under **Assign Parameters**, click image to add additional parameters to API's.

    The **Legacy Application Parameter** dropdown list field appears as shown in the following screenshot.

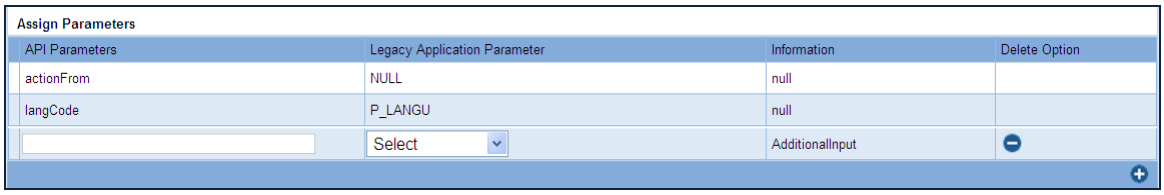


Figure 9.10: Assign Parameters

12. Select appropriate parameter in the **Legacy Application Parameter** dropdown list. This dropdown list is populated with the parameter values defined in the Adapter.xml file.
13. Corresponding to the **Legacy Application Parameter** dropdown list, enter appropriate name in the **API Parameters** text box.
14. Click **Save**.

    The **Assign Parameters** screen displays the value as shown in the following screenshot.

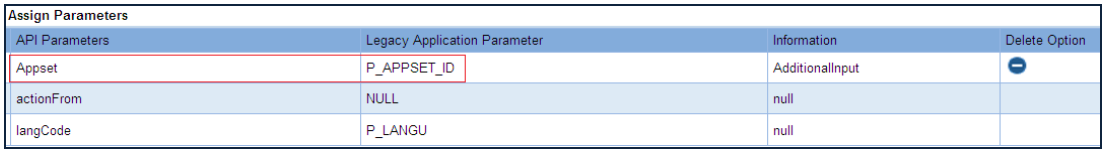


Figure 9.11: Assign Parameters

15. Click image to delete newly added parameter.
16. Under **Assign Fields,** click image to add additional fields to API's.

    The **Legacy Application Field** dropdown list field appears as shown in the following screenshot.

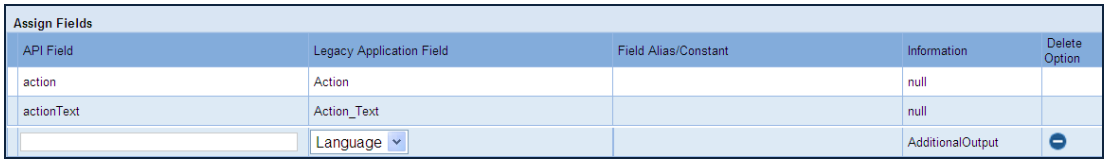


Figure 9.12: Assign Fields

17. Select appropriate field in the Legacy Application Field dropdown list. This dropdown list is populated with the fields defined in the Adapter.xml file.
18. Corresponding to the Legacy Application Field dropdown list, enter appropriate name in the API Field text box.
19. Click Save.
20. The value is added under Assign Fields as shown in the following screenshot.

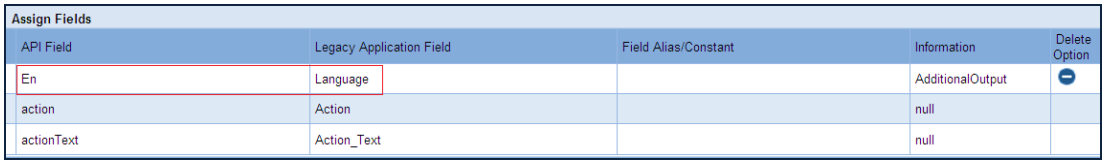


Figure 9.13: Assign Fields

21. Click image to delete newly added field.

***Note:** you can add additional fields/parameters to API's only if image appears on the screen. image appears on the screen only when, there is no input parameter mapping or output field mapping for any program parameter or program field. Using image you should add at least one parameter or field to the API.*

9.3.1 REMOVE SYSTEM ASSOCIATED WITH API'S

The steps to remove the system associated with API's are as follows:

1. Go to **Standard Adapters>Open** screen.
2. Select appropriate **API** and click **Add /Remove Systems**.

   The following screen appears.

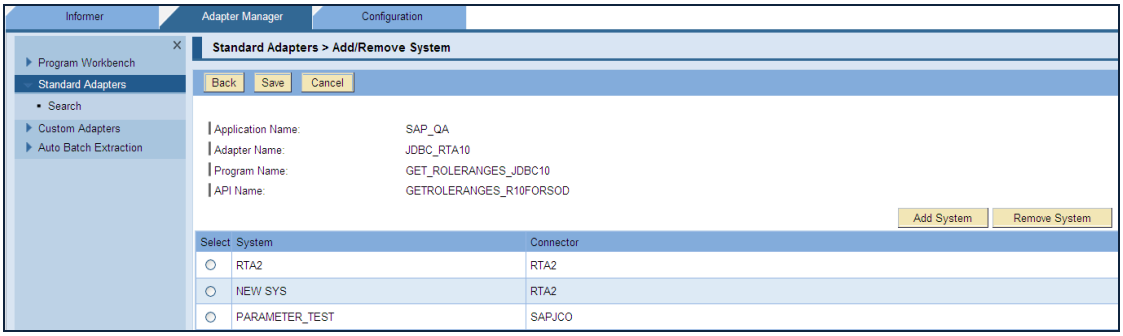


Figure 9.14: Standard Adapters>Add/Remove System

3. Select the system, which you want to remove and click **Remove System**.

   The associated system is removed.

9.3.2 ADDING MULTIPLE SYSTEMS TO MULTIPLE API'S

RTA DS facilitates to add multiple systems to multiple API's in one go.

The steps to add multiple systems to multiple API's are as follows.

1. Go to **Adapter Manager>Standard Adapters>Search**.
2. On the **Standard Adapters>Search** page, select appropriate adapter and click **Open**.

   The **Standard Adapters>Open** page opens as shown in the following screenshot.

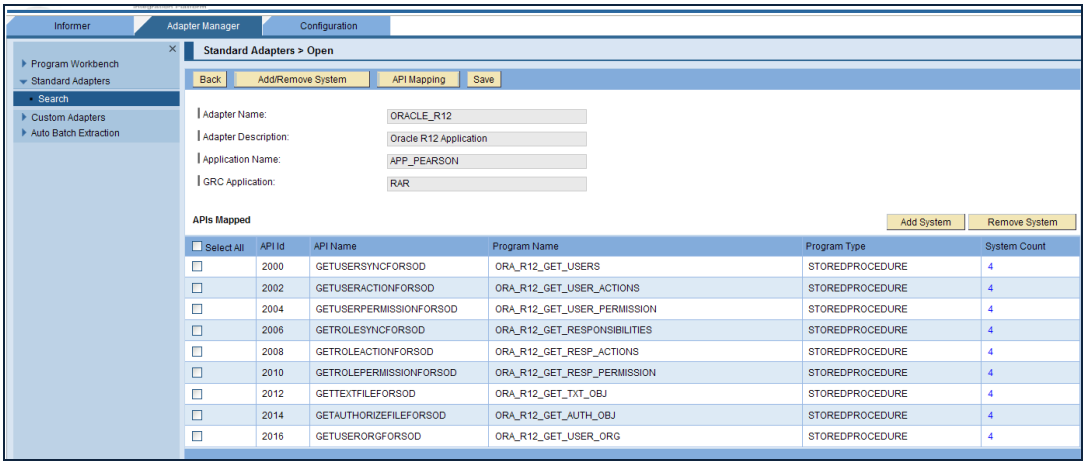


Figure 9.15: Standard Adapters>Open for GRC Application RAR

3. To map multiple systems to multiple API's, click **Select All.**
4. Click **Add System**.

   The **System-Connector** screen opens as shown in the following screenshot.

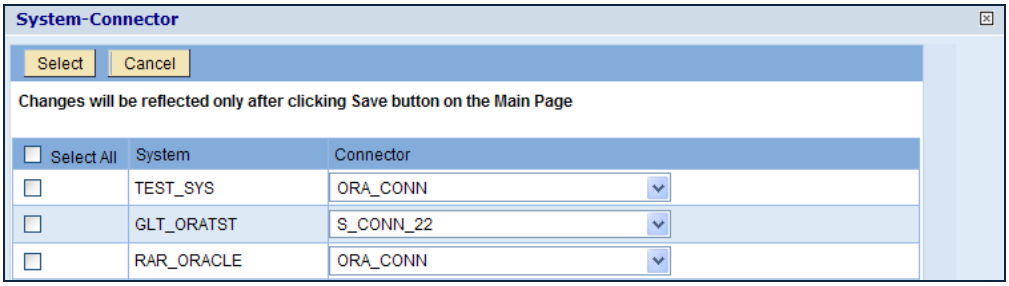


Figure 9.16: System-Connector

5. Click **Select All** checkbox to select all the systems.
6. Click **Select.**

   The system gets mapped to the API's and the count is updated on the **Standard Adapters>Open** page, under the **Systems Count** column.
7. Click **System Count** Link to view mapped **System-Connector**.

> ***Note:*** *when the mapped system count is greater than zero, then you cannot edit the System/Connector on the System –Connector page.*

9.3.3 REMOVING MULTIPLE SYSTEMS FROM MULTIPLE API'S

RTA DS facilitates to remove multiple systems to multiple API's in one go, thus saves time.

The steps to remove multiple systems to multiple API's are as follows.

1. Go to **Adapter Manager>Standard Adapters>Search**.
2. On the **Standard Adapters>Search** page, select appropriate adapter.
3. Click on **Open**.

The following screen opens.

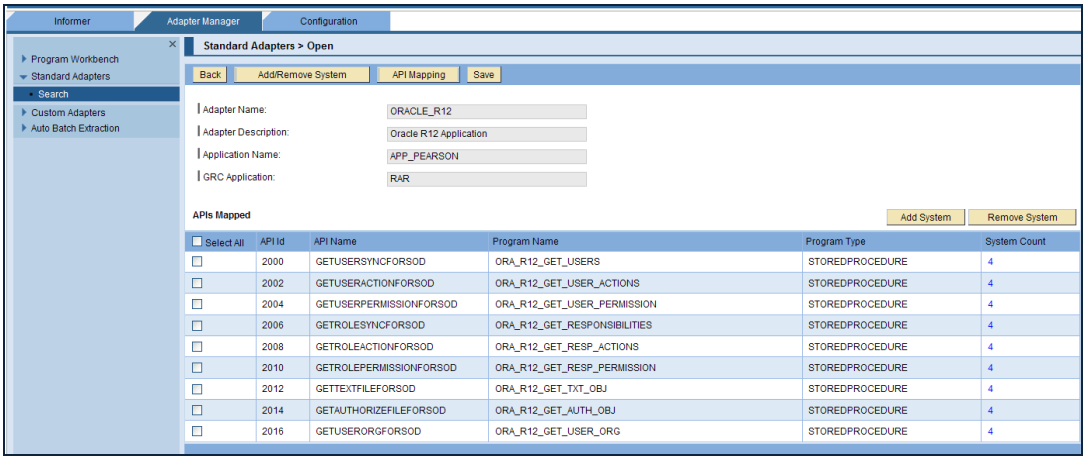


Figure 9.17: Standard Adapters>Open

4. To remove multiple systems from multiple API's, click **Select All.**
5. Click on the **Remove System** button.

   The following screen opens.

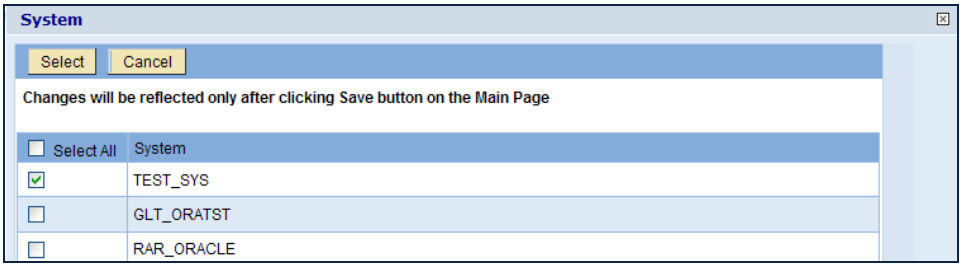


Figure 9.18: System

6. Click on the **Select** button.
7. Click on **Save**.

   The screen displays following message as, <Adapter Name>: Details saved successfully.

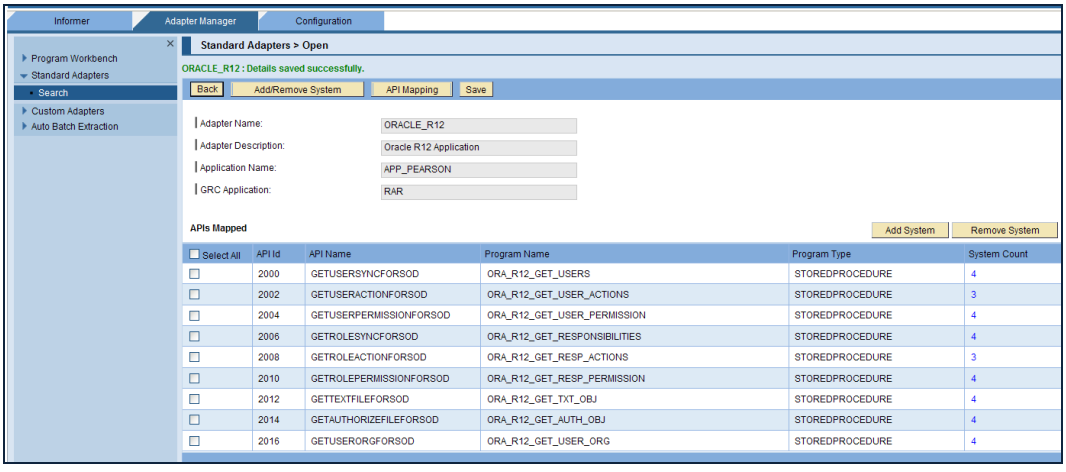


Figure 9.19: Standard Adapters> Open

Note: If the job is in the Scheduled status, then you cannot remove the API system mapping.

10 CUSTOM ADAPTERS

You can configure custom adapters through the AVM-RTA DS Application.

It does not require importing the Adapter XML as in the case of the **Standard Adapters**.

The steps to configure a custom adapter for a system are as follows.

1. Create an **Application**: as mentioned in the Chapter 3.
2. Create **Connectors**: as mentioned in the Chapter 4.
3. Create **Systems**: as mentioned in the Chapter 3.
4. Register **Application** and **System**: as mentioned in the Chapter 5.
5. Create a program, which is the part of the custom adapter.

10.1 CREATE PROGRAM

The steps to create a program are as follows.

1. Click the **Adapter Manager** tab.
2. Click **Program Workbench>Program Definition**.

   The **Program Definition> Search** screen appears as shown in the screenshot below.

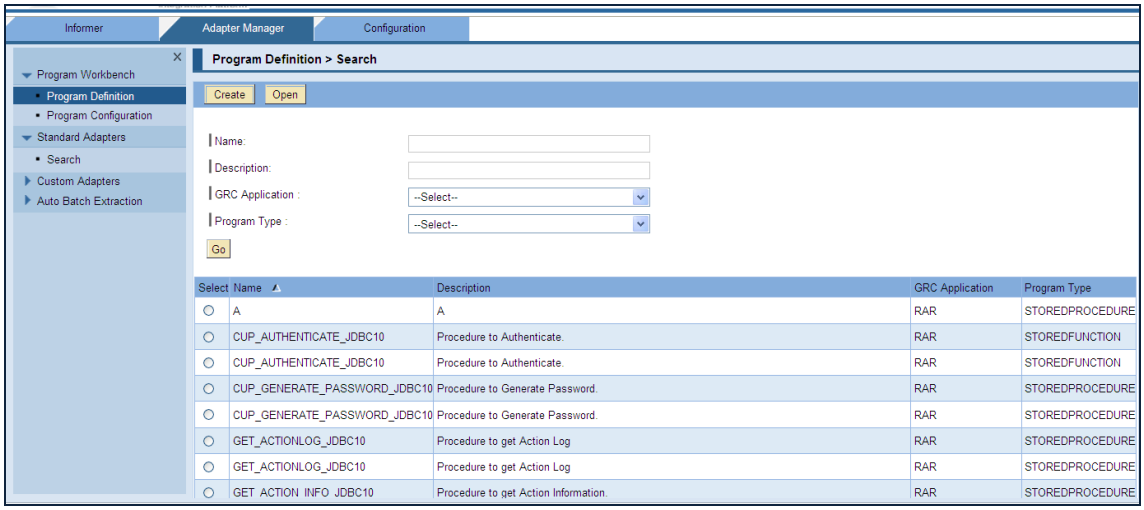


Figure 10.1: Program Definitions>Search

3. Click on **Create.**

   The **Program Definition>Create** screen appears as shown in the screenshot below.

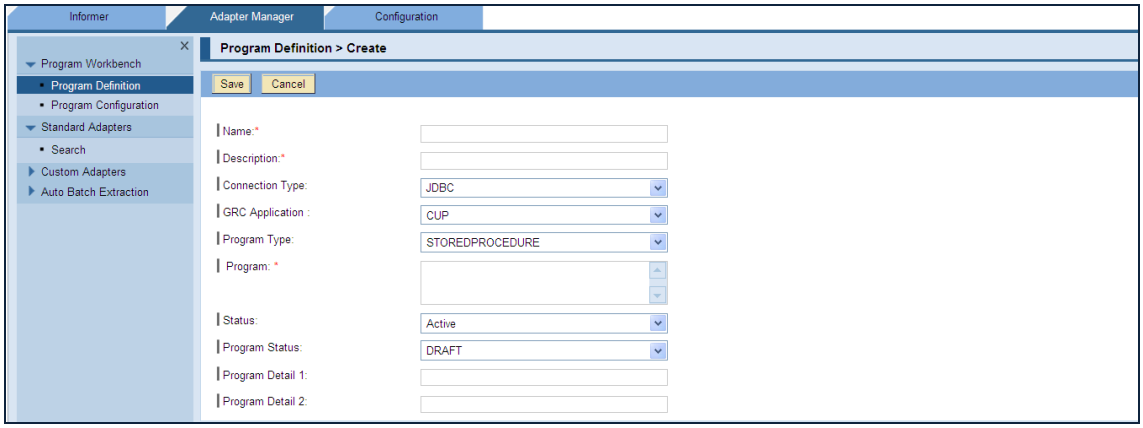


Figure 10.2: Program Definitions>Create

4. In the **Name** text box, enter appropriate program name.
5. In the **Description** box, enter appropriate description.
6. In the **Connection Type** and **Program Type** dropdown list, select appropriate values.
7. In the **GRC Application** dropdown list, select appropriate option from the values RAR, CUP and REPORT.

   Note: If you select GRC Application as report, based on that you can configure you can create report under Informer tab.

8. In the **Program Type** field, select appropriate program type.

   Note: if you select GRC Application type as Report, then the Program type should be QUERY only.

9. In the **Program** text box, provide the program as defined in the underlying database to which the connection is to be made to fetch the data.

   For example the program is: GLT_ORA_CCRTA.Get_User_Sync(?,?,?,?,?,?,?) which is the User Sync program for Oracle Stored procedure.
10. In the **Status** dropdown list, select the status from the option Active/Inactive.
11. In the **Program Status** dropdown list, select appropriate status from the dropdown list.
12. Enter appropriate description in the **Program Detail 1** and **Program Detail 2** fields.
13. Click on **Save** to save the record.

10.2 CONFIGURE PROGRAM

After defining the program, next step is to configure the program. Configuring the program refers to the input and output parameters. This is applicable only in case of Custom Adapters.

The steps to configure the program are as follows.

1. Click on the **Adapter Manager** tab.
2. Click **Program Workbench>Program Configuration**.

The **Program Configuration>Search** screen appears as shown in the following screenshot.

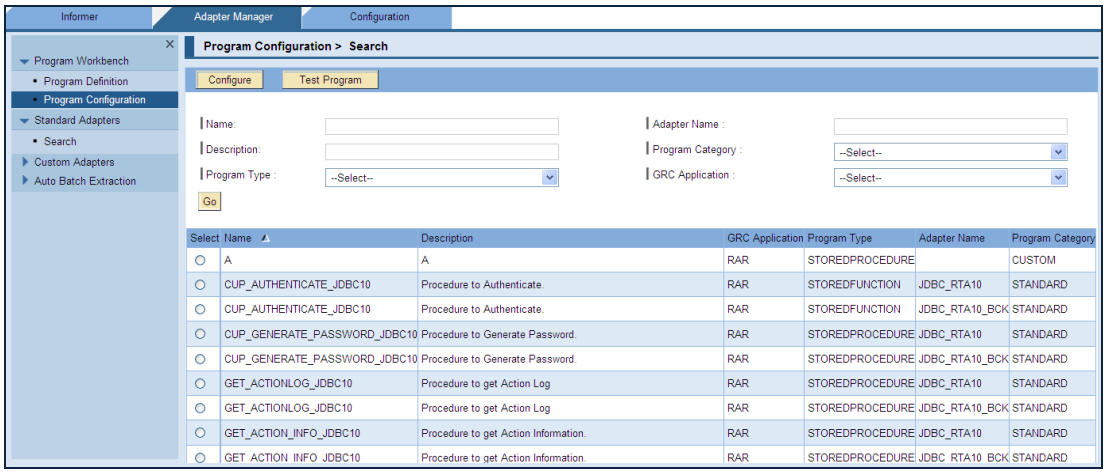


Figure 10.3: Program Configuration> Search

3. Click and **Select** the defined program and click on **Configure**.

   The **Program Configuration>Parameter(s)** screen opens as shown in the following screenshot.

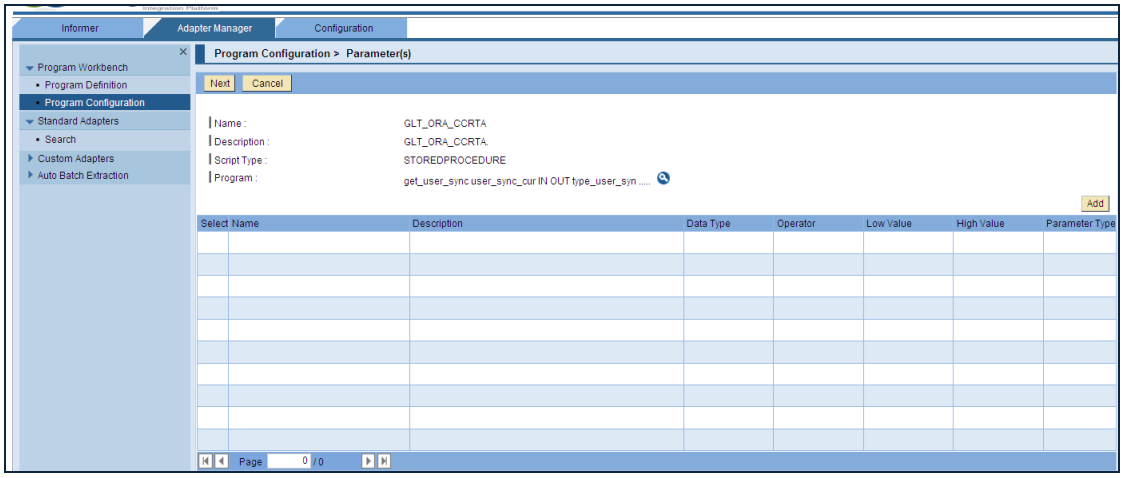


Figure 10.4: Program Configuration>Parameters

4. On this screen, define the input parameters should be added to the program.

Note: the sequence in which the input parameters are defined for the program should be the same.

5. For Example, we have the program as: GLT_ORA_CCRTA.Get_User_Sync oracle stored procedure, which is installed at the database of the application. This is to be analyzed for risk analysis.
6. In this program's definition, the program looks as below.
   a. PROCEDURE get_user_sync
   b. user_sync_cur IN OUT type_user_sync_cur,
   c. in_full_inc IN VARCHAR2 := 'F',
   d. in_date_from IN DATE := NULL,

e. in_date_to IN DATE := SYSDATE,
f. in_user_from IN VARCHAR2 := NULL,
g. in_user_to IN VARCHAR2 := NULL

7. The input parameters are to be defined in exactly the same sequence, starting with the cursor and ending at in_user_to.
8. To define the input parameters click on **Add** button.

   The **Parameters** screen opens as shown in the following screenshot.

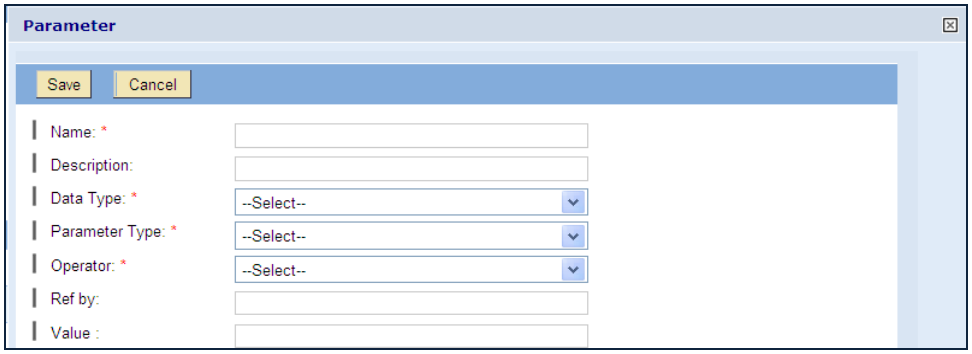


Figure 10.5: Program Configuration>Parameters

9. In the **Name** text box, enter appropriate with which the parameter is to be identified.
10. In the **Description** text box, enter appropriate description
11. In the **Data Type** dropdown list, select appropriate value.
12. In the **Parameter type** dropdown list, select appropriate value as IN /OUT (In many cases, the parameter type is IN, for Oracle's cursor parameter the parameter type is OUT).
13. As per the given example, the first parameter is **CURSOR**.
14. Define the input parameter with other values as mentioned in the following screenshot.

Figure 10.6: Parameters

15. Define the parameters in exactly the same sequence as per the stored procedure program installed at the application database.
16. After defining all the program parameters, the **Parameters** screen appears as shown in the following screenshot.

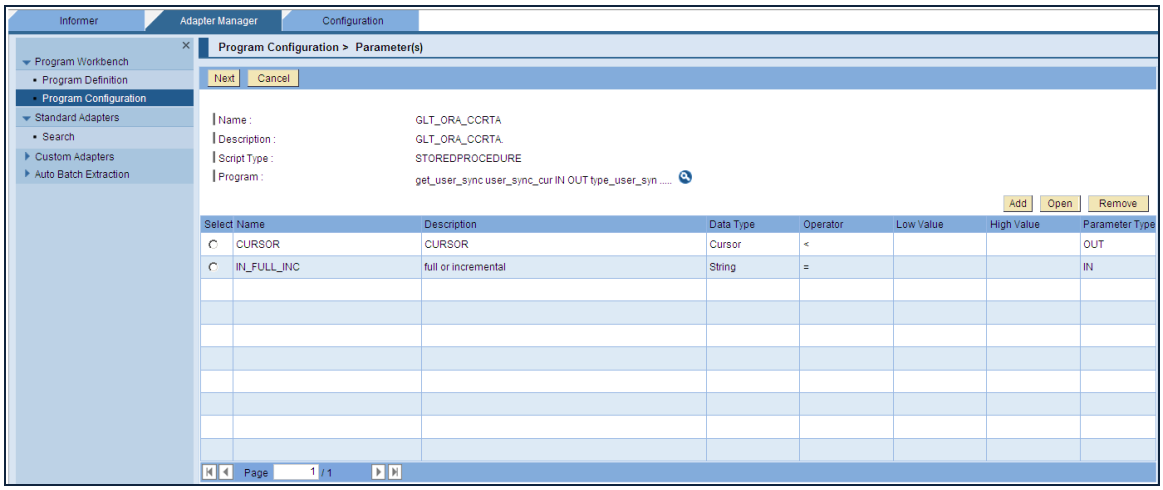


Figure 10.7: Program Configuration>Parameters

17. Click on **Next**.

    The **Program Configuration>Fields** screen opens shown in the screenshot below.

Note: on the Program Fields screen, click on save to insert the values in the database.

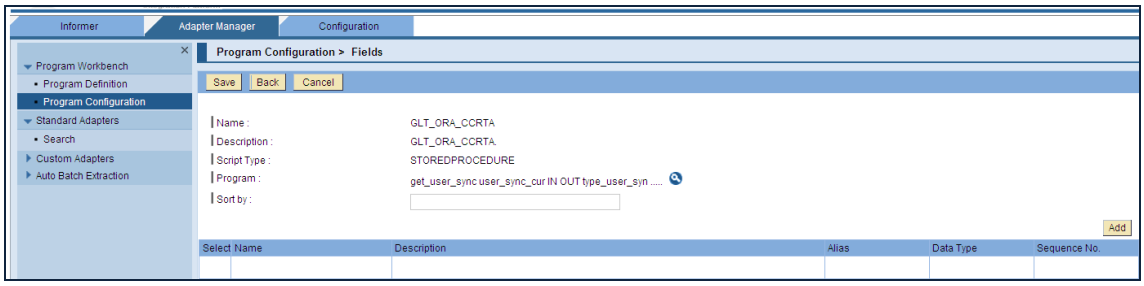


Figure 10.8: Program Configuration>Fields

The **Program Configuration>Fields** specify the output fields that the program will be returning.

18. On the **Program Fields** screen, click on **Add** button.

    The **Program Configuration>Fields** screen appears as shown in the screenshot below.

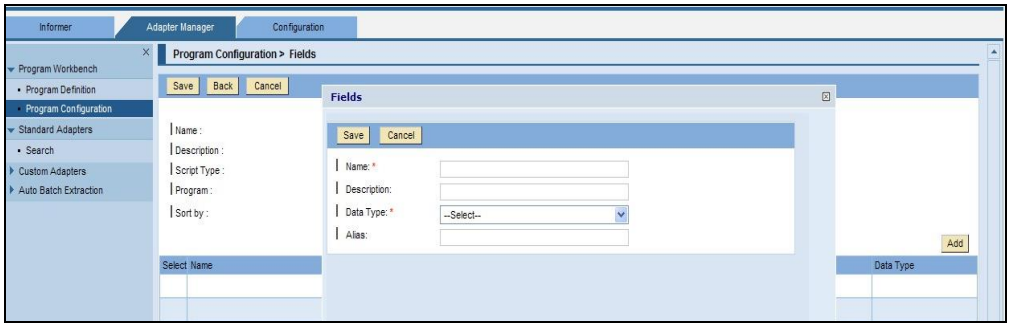


Figure 10.9: Fields

19. Enter appropriate information such as **Name, Description** and **Alias** in the respective text boxes.
20. Select the **Data Type** from the drop down.

Note: the Alias field is the name of the output column, which is returned by the underlying program installed at the application. The Alias field is very important field and it needs to be filled with caution.

21. In the above example: the GET_USER_SYNC stored procedure returns the data, which is identified by the columns are RTRIM(USER_NAME), NAME_FIRST, RTRIM(T.NAME_LAST),SMTP_ADDR etc. Enter the field name exactly the same name in the alias field as returned by the program.
22. In continuation with our example following screenshot shows the information filled in for the first column named as USER_ID:

Figure 10.10: Fields

23. In the given example the while run from the database (program is run on the SQL editor pointing to schema where it is installed) returns the output as shown:

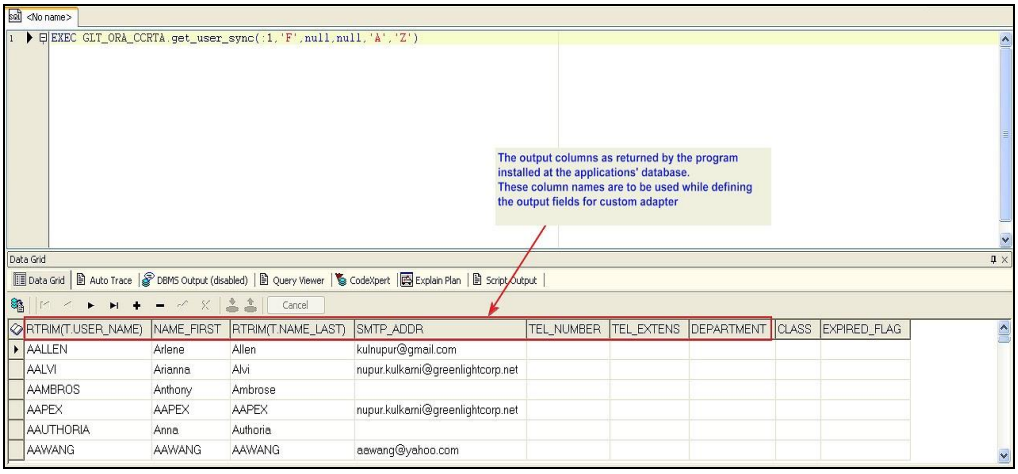


Figure 10.11: Program Configuration>Fields

24. The output column displays the values such as: RTRIM(T.USER_NAME), NAME_FIRST, RTRIM (T.NAME_LAST),SMTP_ADDR etc.
25. Click **Save** to save the created parameters/fields.

    It navigates to the **Program Configuration> Search** screen.

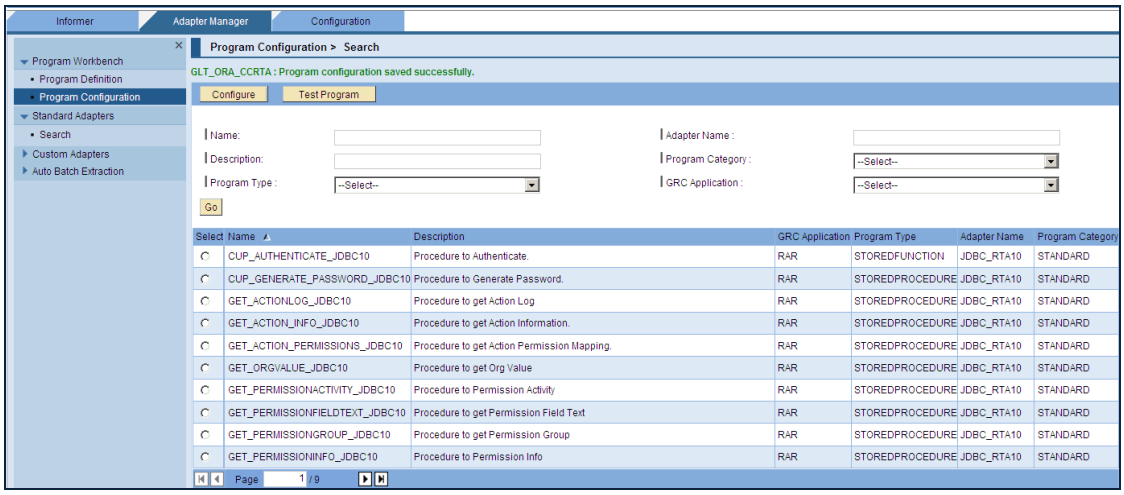


Figure 10.12: Program Configuration> Search

26. To test the program go to **Program Configuration>Search** screen, select the program name which you want to test and click on the **Test Program**.

    The following screen appears.

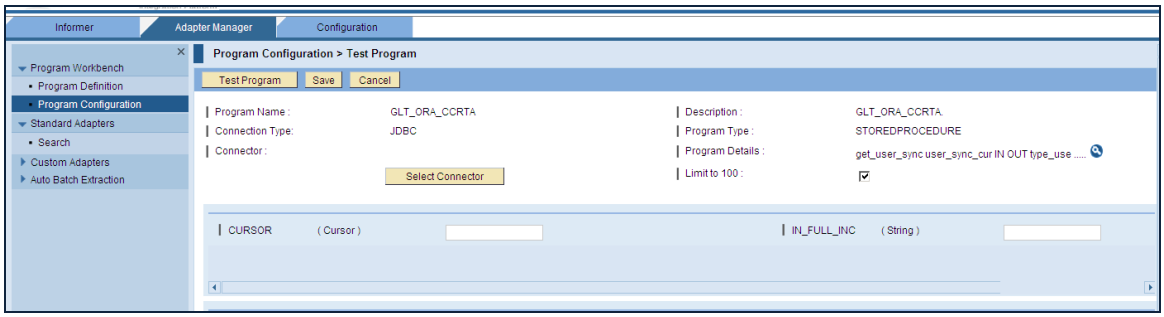


Figure 10.13: Program Configuration>Test Program

27. Enter the parameters. Click on the **Select Connector** button.

    The **Connector** screen opens.

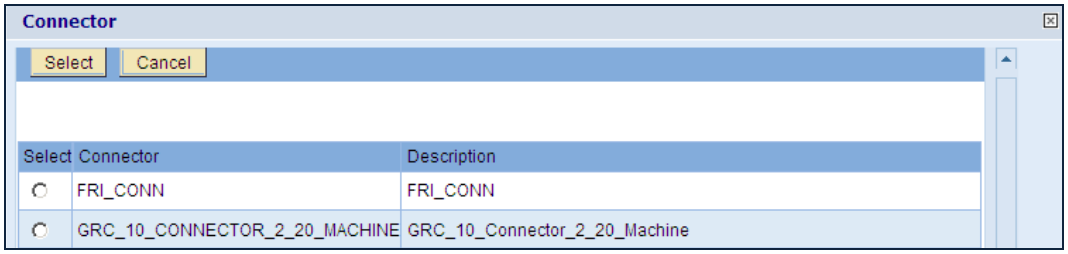


Figure 10.14: Connector

28. Select appropriate connector and click on the **Select** button. The selected connector is displayed on the **Program Configuration>Test Program** screen.
29. Click on **Test Program**.

    The **Program Configuration>Test Program** screen appears as shown in the screenshot below.

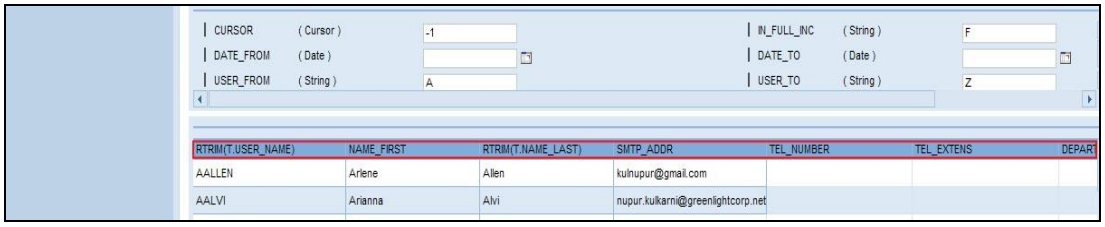


Figure 10.15: Columns

30. In the above screenshot, the columns highlighted in red, are the actual column names returned by the installed program. Enter them into **Alias** field while defining the program fields.
31. Click on **Save** and the rest of the columns are to be configure on the similar lines.
32. Click on **Save** to save record.

    Following the above given steps define the programs and configure the programs that are to be associated to the custom adapter.

    All the other programs: User Action, User Permission, User Org, Role Action, Role permission, Role Sync, Auth and Text Object, whichever are applicable are to be defined and configured as per the above steps.

10.3 CREATE CUSTOM ADAPTER

The steps to create customer adapter are as follows.

1. Go to the **Adapter Manager>Custom Adapters>Search**.

   The **Custom Adapters>Search** screen appears as shown in the screenshot below.

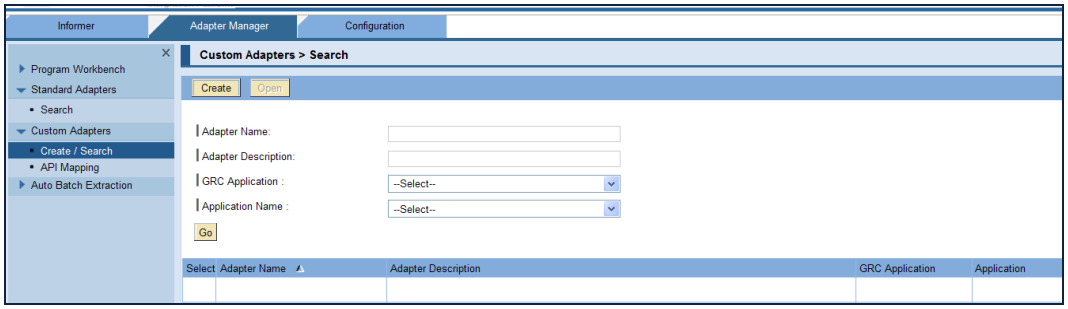


Figure 10.16: Customer Adapters>Search

2. Click on **Create.**

   The **Adapter>Create** screen appears as shown in the screenshot below.

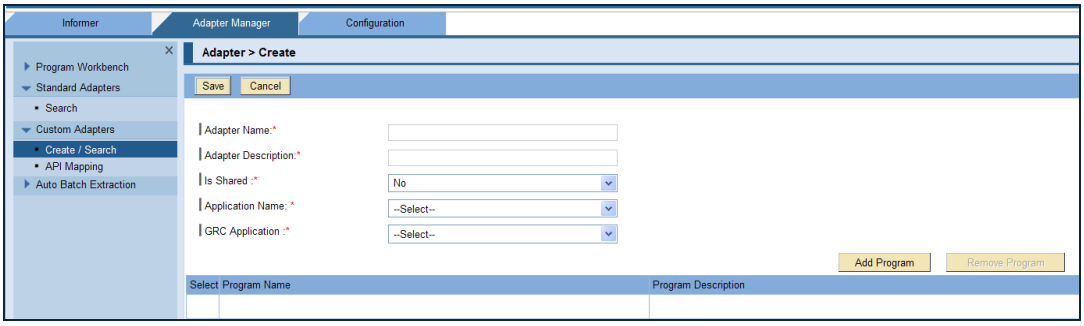


Figure 10.17: Customer Adapters>Create

3. In the **Adapter Name** text field enter appropriate name.
4. In the **Adapter Description,** enter appropriate description.
5. In the **Is Shared** dropdown list, select appropriate value. Is Shared Flag tells whether this adapter needs to be shared for different applications. If the same programs exist for other applications, then the same adapter can be used for the other applications. Many times the adapter is specific for a particular application.
6. In the **Application Name** dropdown list, select appropriate application name for which you want to create the adapter.
7. In the **GRC Application** dropdown list, select appropriate value.
8. Click on **Add Program** and attach the programs, which you want to associate to adapter.
9. Click on **Save** to save the newly created adapter.
10. Go to the **Custom Adapters>API Mapping**.

    The **API Mapping>Search** screen appears as shown in the screenshot below.

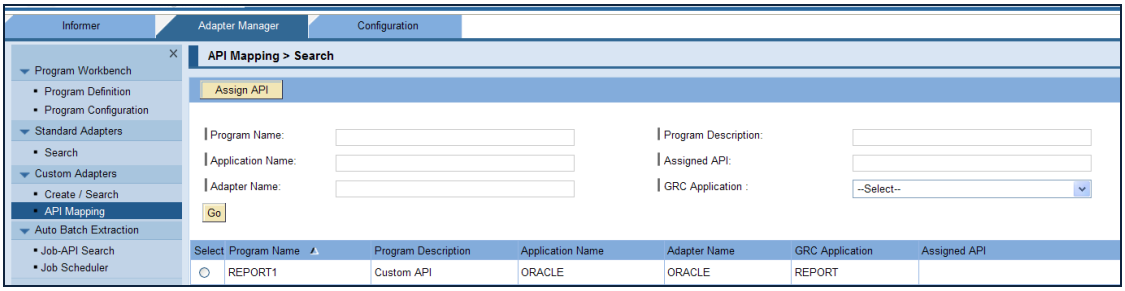


Figure 10.18: API Mapping>Search

11. Enter the search criteria as the custom **Adapter Name**, to segregate the programs for which you want to perform API mapping.
12. Select the program and click on **Assign API** button.

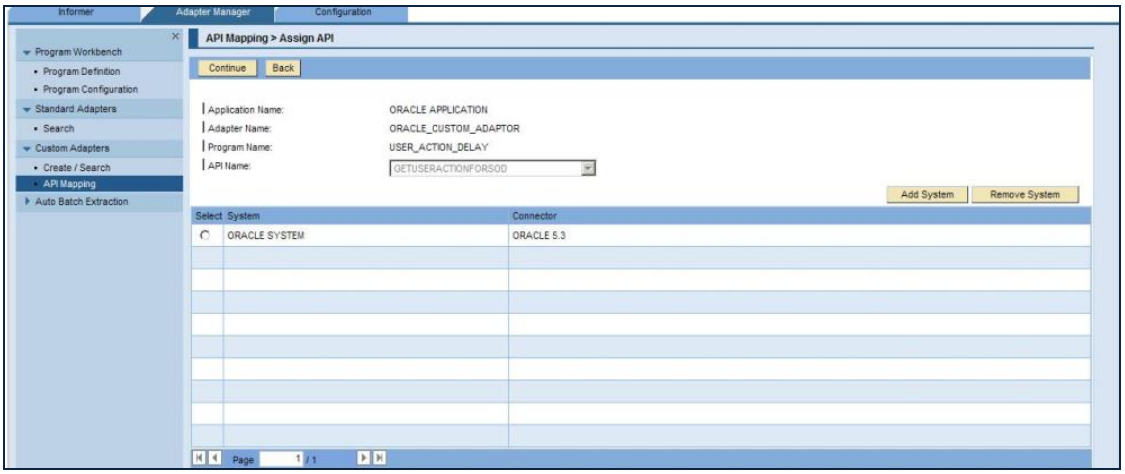


Figure 10.19: API Mapping>Assign API

13. Select the **API Name** from the dropdown list.
14. Click on **Add System**, to associate the System and connector to this API as in the following screenshot.

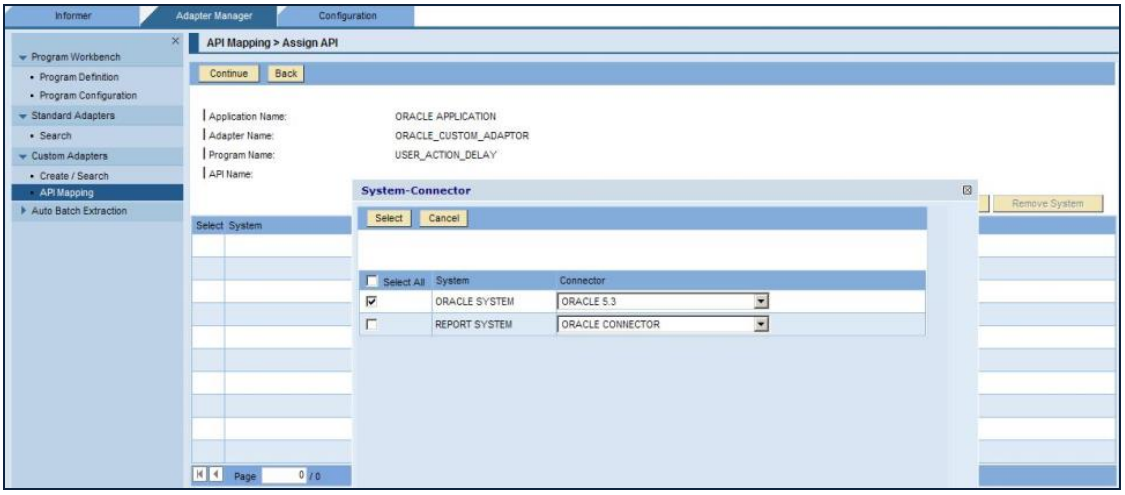


Figure 10.20: API Mapping>Assign API

15. Click and **Select** appropriate system and connector.

16. Click on **Continue**. The following screen appears. Map the parameters and fields to the SAP GRC input parameters and output fields.

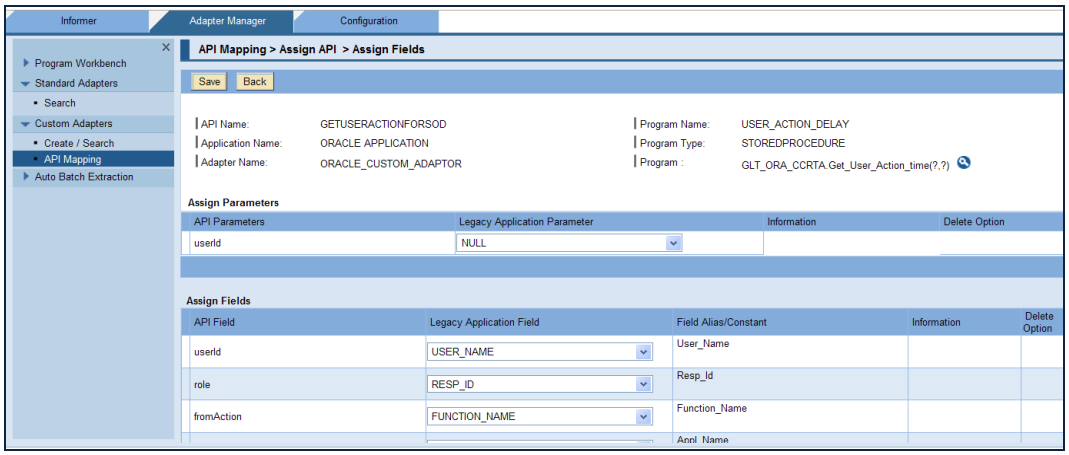


Figure 10.21: API Mapping>Assign API>Assign Fields

17. Under **Assign Parameters**, select appropriate parameter of the program from each of the dropdown list. It tells the RTA DS, which parameters of the SAP GRC request, needs to be mapped to which parameters of the program installed at the applications' database.

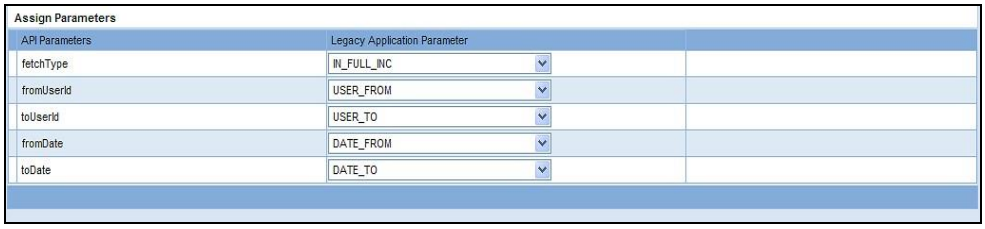


Figure 10.22: API Mapping>Assign API>Assign Fields

18. As per our example, the mapping is done as shown in the screenshot below.

Assign Field mapping as in the screenshot below.

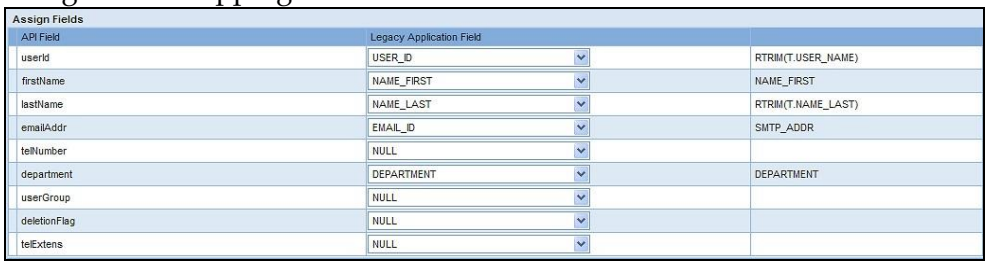


Figure 10.23: Assign Fields

19. Map only those fields, which are returned by the program and leave the rest as null, except for the mandatory fields like **User Id, Last name for User Sync**.
20. Click on **Save**.
21. Similarly do the **API field mapping** for all the programs in the adapter and do the risk analysis for the **System** associated with this custom adapter.

11 AUTO BATCH EXTRACTION

Auto Batch Extract delivers the data required by **SAP RAR** in the **Flat File Format**.

You can generate the Flat Files as per the selected APIs in the Auto Batch Extract at a predefined location, specified internally in the RTA DS. Then the flat files are imported into the **SAP RAR** manually for risk analysis.

Once the **Application** and the **System** is selected, the APIs available for that connector or the system is enabled for the user to choose the files to be generated.

Apart from this, enter the range of users and the roles for which the risk analysis data is to be generated.

A history is maintained for all the jobs created through Auto Batch execution. It stores the input parameter values for different APIs selected in that job.

11.1 SCHEDULED JOBS

The Scheduled Jobs menu enables the user to create/copy and edit the existing jobs/cancel the scheduled jobs and View the existing jobs.

1. The jobs are scheduled for the frequencies: **Immediately, Once, Daily, Weekly** and **Monthly**.
2. The scheduled Job can be **cancelled/copied/edited**.
3. The **Copy** and edit always have the same job name but the user can go and change the description for the Job name. A new Job instance is created having the same name but with a new sequence number and can be scheduled at any of the existing frequencies.

11.1.1 JOB SCHEDULER SEARCH

The steps to search scheduler are as follows.

1. Click **Adapter Manager** Tab.
2. Click on **Auto Batch Extraction** in the left menu bar.
3. Click on **Job Scheduler**.

   The **Auto Batch Extraction>Job Scheduler** screen opens as shown in the screenshot below.

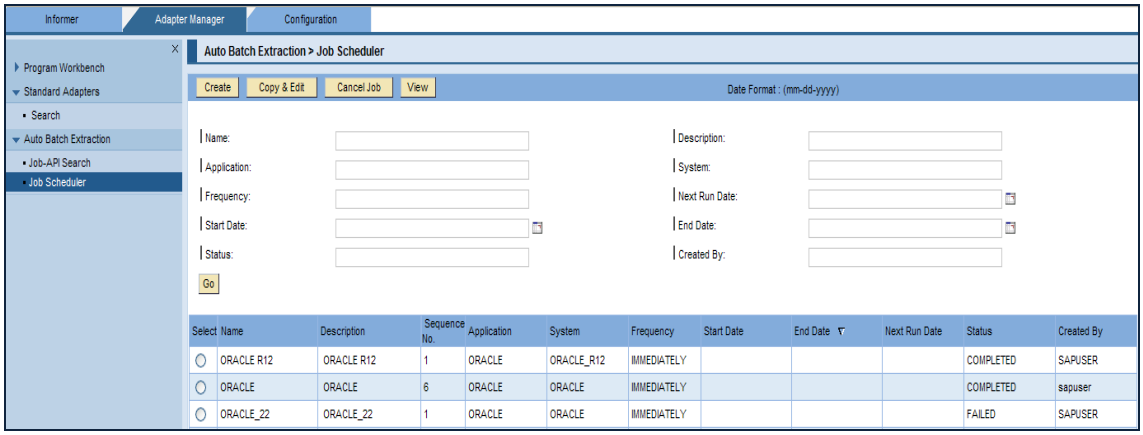


Figure 11.1: Auto batch Extraction>Job Scheduler

4. Enter any one of the fields as search parameter and click **Go.** To view all, simply click **Go**

   The '**Auto Batch Extraction>Scheduled Jobs >Search'** screen displays the Searched Auto Batch Extraction Information.

5. The details are displayed under the column headings **Select, Name, Description, Sequence No., Application , System , Frequency , Start Date, End Date , Next, Run Date, Status,** and **Created By** .

6. To View the Job details, select the job which you want to view and click on **View**.

11.1.2 JOB SCHEDULER CREATE

The steps to create, copy or edit job scheduler are as follows.

1. Click **Adapter Manager** Tab.
2. Click on **Auto Batch Extraction** in the left menu bar.
3. Click **Job Scheduler**.

   The **Auto Batch Extraction > Job Scheduler** screen opens as shown in the following screenshot.

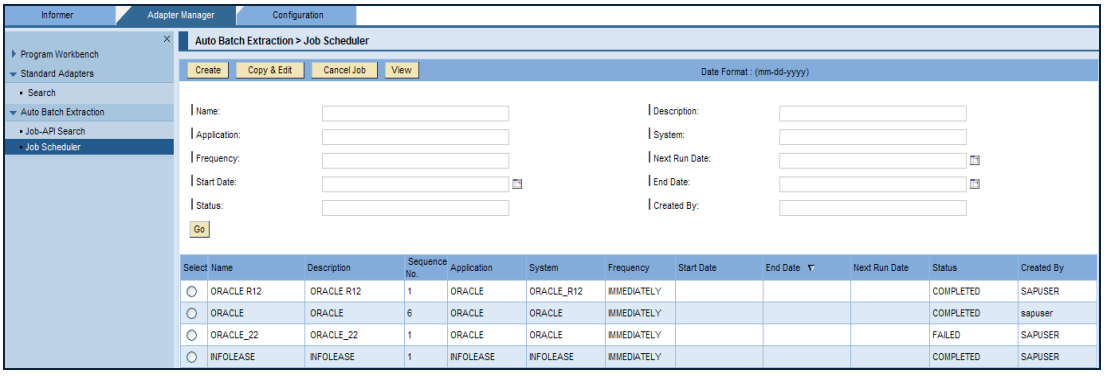


Figure 11.2: Auto Batch Extraction>Job Scheduler

4. To create the new job scheduler, click on **Create**.

The **Auto Batch Extraction>Create** screen appears as shown in the screenshot below.

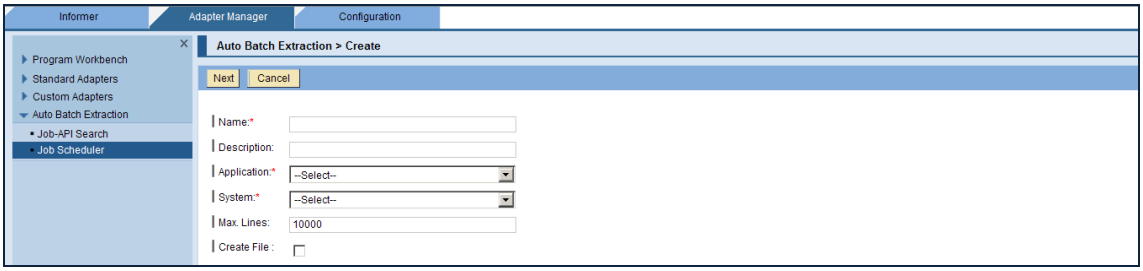


Figure 11.3: Auto Batch Extraction>Create

5. In the **Name** field, enter appropriate name.
6. In the **Description**, field, enter appropriate description
7. In the **Application** dropdown list, select appropriate application.
8. In the **System** drop down list, select appropriate system.

Note: the Application/System dropdown list displays the registered applications/systems. The Application/System is registered under the Configuration>Registration.

9. The **Max Lines** text box, displays value as 10000.
10. The **Create File** checkbox is marked/unmarked, based on the selection of the Application and System. There are two cases.
    a. Case 1: the Create File checkbox is checked. In this case, when you select appropriate **Application** and **System** the create file checkbox is checked. This happens in case of online (real time) analysis mode. During the online (real time) analysis, it creates zip file for data from ERP. The setting for the online (real time) analysis is configured while creating a system, under the **Configuration>Application Center>System-Create**, uncheck the **RTADS Repository** checkbox. The following screenshot demonstrates the **Create File** checkbox is checked.

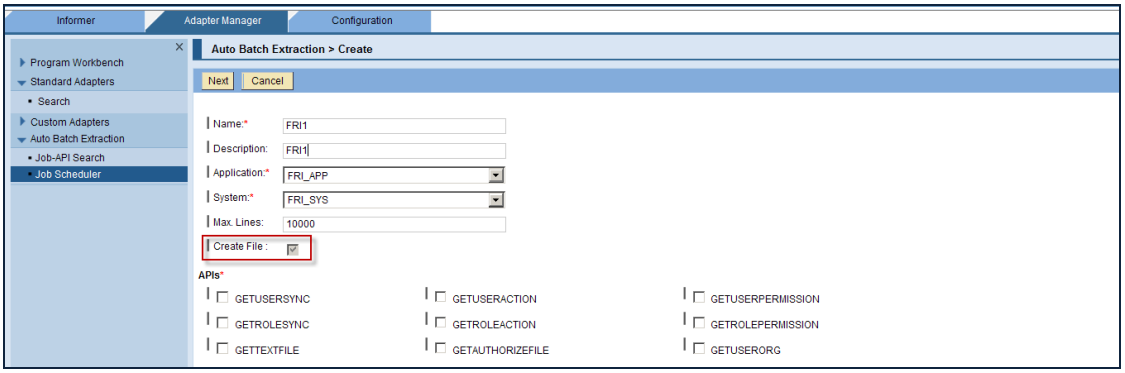


Figure 11.4: Auto Batch Extraction> Create

    b. Case 2: the **Create File checkbox** is unchecked. In this case, when you select appropriate **Application** and **System** the create file checkbox is unchecked. This happens in case of offline analysis

mode. During the offline analysis, you can create .zip files as required. The setting for the offline analysis is configured while creating a system, under the **Configuration>Application Center>System-Create**, check the **RTADS Repository** checkbox. The following screenshot demonstrates the **Create File** checkbox is checked.

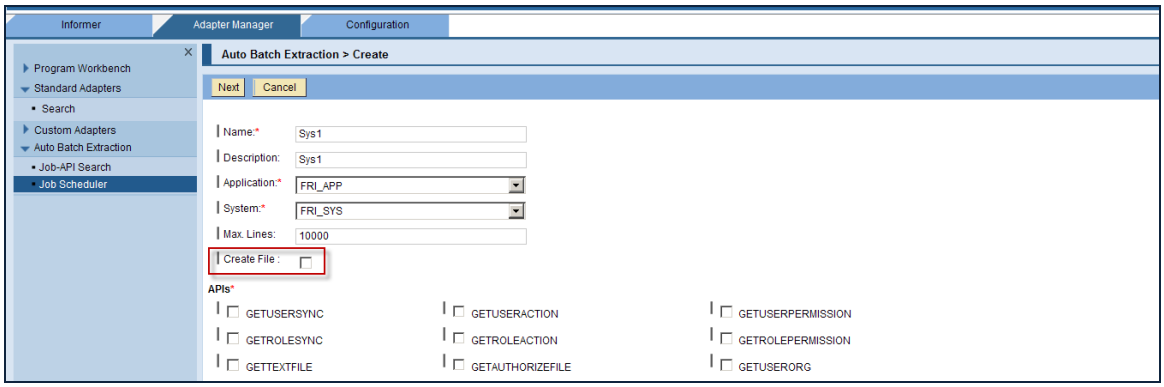


Figure 11.5: Auto Batch Extraction> Create

11. Check the checkbox, corresponding to the required API.
12. To schedule a Job, click on **Next**.

    The **Auto Batch Extraction> Create> Configure Input** screen opens as shown in the screenshot below:

Note: based on the selected API's the Auto batch Extraction>Create> Configure Input screen displays the number of API's on the screen.

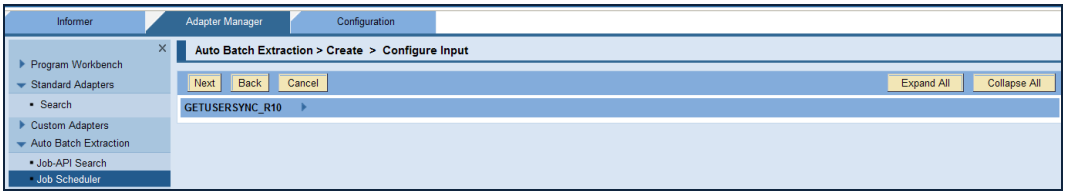


Figure 11.6: Auto batch Extraction>Create>Configure Input

13. Click image/Expand All corresponding to API.

    The **Parameter Name** and **Parameter Value** field appears on the screen.

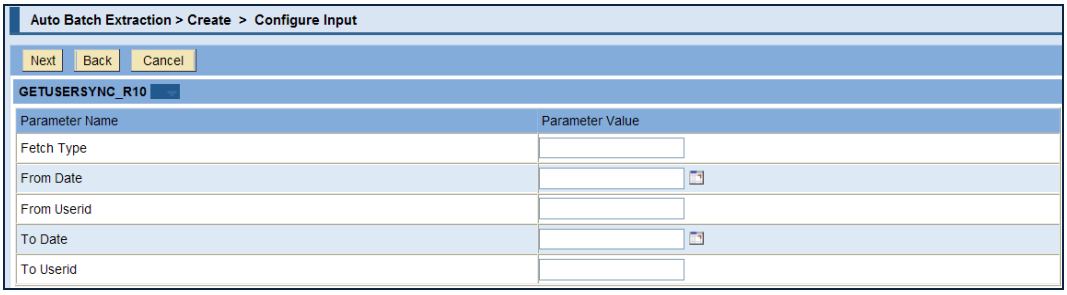


Figure 11.7: Auto batch Extraction>Create> Configure Input

14. Enter appropriate parameter value corresponding to each parameter.
15. Click **Next.**

The following screen appears.

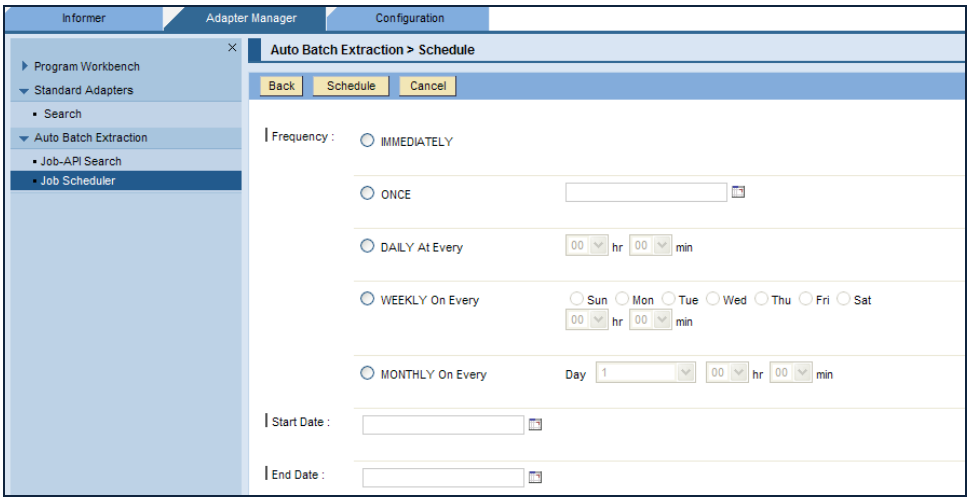


Figure 11.8: Auto batch Extraction>Schedule

16. Select the frequency from the options: **Immediately, Once, Daily, Weekly or Monthly.**
17. For the frequency daily, weekly or monthly, enter the **Start Date** and the **End Date**.
18. To save the record and schedule the Job, Click on **Schedule**.
19. The application displays message, "<Job Name>: Details saved and job scheduled successfully.

Note: if the OFFLINE flag is selected for the SYSTEM, the data generated for the APIS such as GETUSERSYNC, GETUSERACTION, GETUSERPERMISSION, GETROLESYNC, GETROLEACTION, GETROLEPERMISSION scheduled in the JOB will be stored in the RTA DS tables for the respective API. File will be created for AUTH and TEXT APIs.

11.1.3 JOB SCHEDULER COPY AND EDIT

The steps to copy or edit job scheduler are as follows.

1. Click on **Adapter Manager** tab.
2. Click on **Auto Batch Extraction** in the left menu bar.
3. Click **Job Scheduler.**

   The **Auto Batch Extraction>Job Scheduler** opens.
4. Click and Select the job name, which you want to copy/edit.
5. Click on **Copy & Edit**.

   The **Auto Batch Extraction> Open** screen opens as shown in the screenshot below.

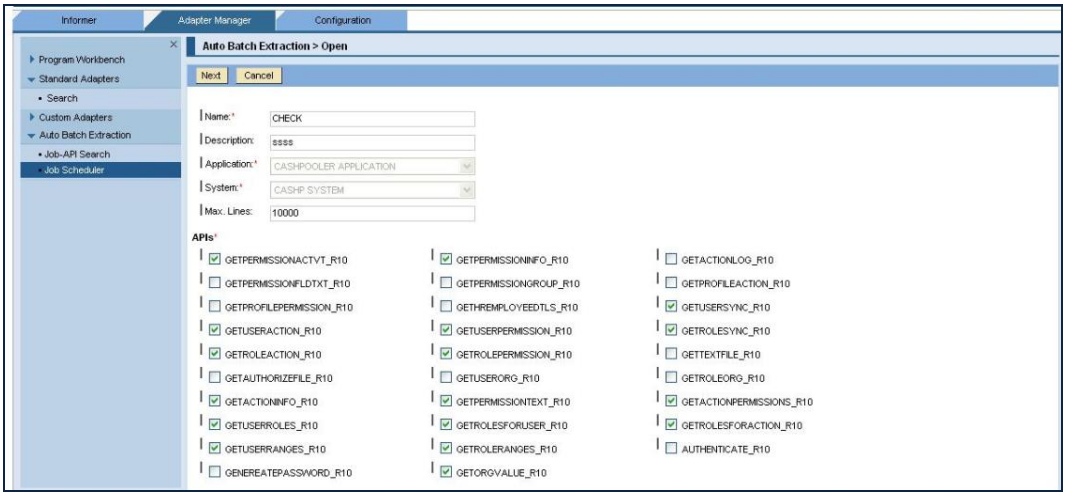


Figure 11.9: Auto batch Extraction>Open

6. The **Name** field is not editable.
7. Edit the other fields as required.
8. To schedule Job, click on **Next**.
9. Refer and follow the similar steps as mentioned under **11.1.2 JOB SCHEDULER CREATE**- steps 11 to 18.

11.1.4 CANCELLING JOB

You can cancel the job whose status is IN-PROCESS or SCHEDULED. When you cancel the job, its status will change from **IN-PROCES/SCHEDULED** to **MARKFORCANCEL**. The Job canceller thread runs every 5 second and cancels the **IN-PROCESS** jobs, which is **MARKFORCANCEL**. Then the job status is changed from **MARKFORCANCEL** to **CANCELLED**.

The steps to cancel the job are as follows.

1. Click on the **Adapter Manager** tab.
2. Click on the **Auto Batch Extraction** in the left menu bar.
3. Click **Job Scheduler.**

   The **Auto Batch Extraction>Job Scheduler** opens as shown in the following screenshot.

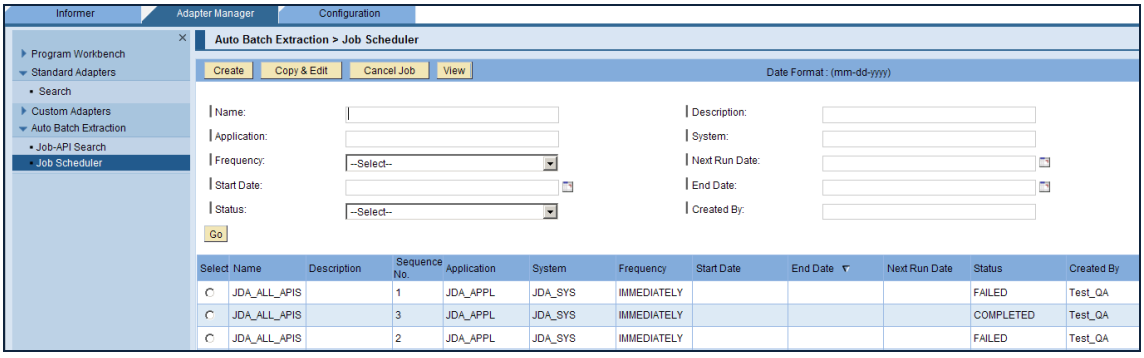


Figure 11.10: Auto batch Extraction>Job Scheduler

4. Select the job whose status is **IN-PROCESS** or **SCHEDULED.**
5. Click on the **Cancel** Job.

   The following message appears on the screen.

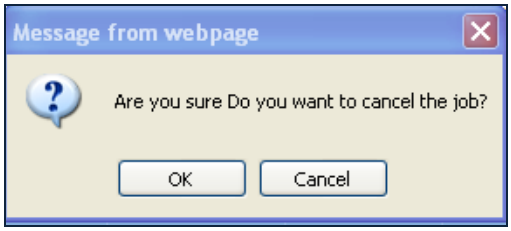


Figure 11.11: Message

6. Click on the **OK** button.

   The screen displays message as shown in the following screenshot.

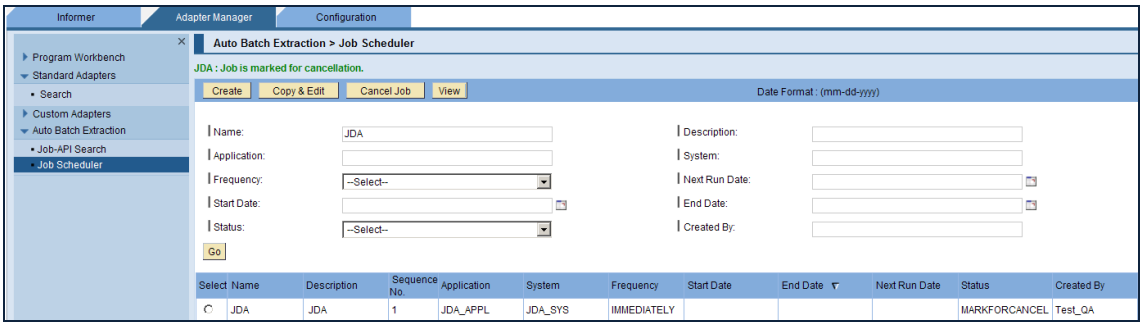


Figure 11.12: Auto batch Extraction>Job Scheduler

Note: you cannot cancel the job whose status is Completed/Failed/Cancelled.

11.2 JOB API SEARCH

This **JOB-API** menu stores the information for the various API runs included in a particular Job.

It briefs the **Job Name, Sequence Number, Application** and **System Name** for which it was scheduled and the associated APIs.

It briefs the status of the various APIs, the time at which they run and whether they are completed. It specifies the path where the data is generated after the API run.

1. Click on **Adapter Manager** Tab
2. Click on **Auto Batch Extraction** in the left menu bar.
3. Click **Job-API Search**.
4. The **Auto Batch Extraction> Job-API Search screen** opens as shown in the screenshot below.

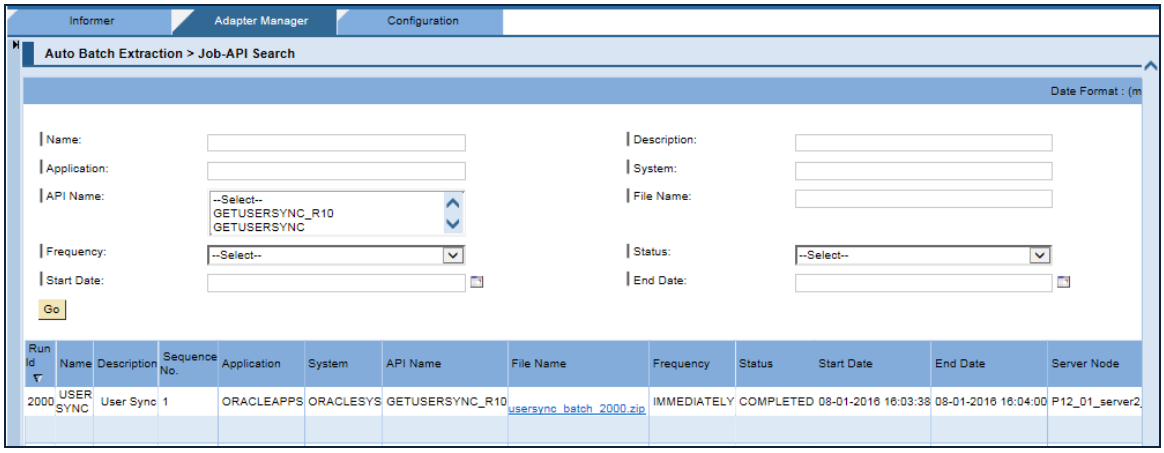


Figure 11.13: Auto batch Extraction>Job-API Search

5. To search a particular record, enter any one of the fields as search parameter and click **Go**.

   -Or-

   To view all records, click **Go**.

6. The **Auto Batch Extraction >Job-API Search** screen displays the search results under the column headings Run Id, Name , Description, Sequence No., Application, System, API Name, File Name, Frequency , Status , Start Date, End Date and Server Node on which job is being executed.

Note: *in Auto Batch Extraction > Job-API Search Screen, each field is a search criterion. You can enter any field and click Go. However, if you want to search for a particular request, enter the unique field and click Go.*

7. To download the generated file, click on the **Filename** link.

Note: *the Auto-Batch Scheduler process creates files in the RTADS_FILES folder on the NetWeaver Java Stack where the application is deployed. Monitor the RTADS_FILES folder for the occupied space to ensure that the space constraints are not violated. If you want to delete a file created by the Auto-Batch process from this location, it will not be available from the RTA DS application through the Auto Batch Extraction > Job API Search- File Name link. So if you do not want to refer the the auto batch job files in future, they can be deleted from the RTADS_FILES folder.*

12 CUSTOM REPORTS

Before you create custom report ensure the following things are in place.

1. Under the **Adapter Manager> Program Workbench> Program Definition**, create Program Definition with GRC Application as REPORT and Program Type as QUERY.
2. Under **Adapter Manager> Program Workbench>Program Configuration,** add parameters and fields while configuring program configuration.
3. Under **Configuration>Connectors**, create connector for reports.
4. Under **Configuration>Application Center>Systems,** create a system and add connectors created for report to it. Select the value in the **Connector For** dropdown list as **Report**.
5. Proceed to informer tab, to create a report.

12.1 CREATING CUSTOM REPORTS

The steps to create custom reports are as follows.

1. Click on the **Informer** tab.
2. Under **Reports**, click **Reports**.

   The **Reports** page opens as shown in the following screenshot.

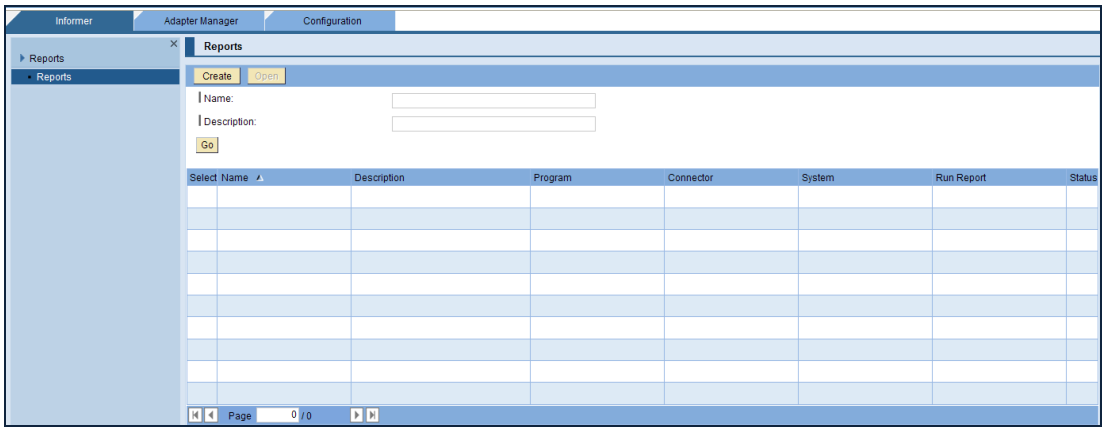


Figure 12.1: Reports

3. Click **Create** to create new report.

   The **Reports>Create** screen opens as shown in the following screenshot.

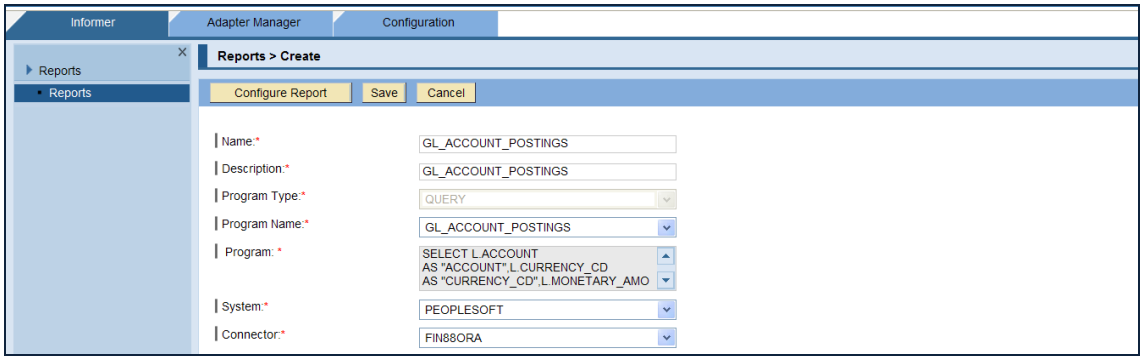


Figure 12.2: Reports>Create

4. In the **Name** text box, enter appropriate name.
5. In the **Description**, enter appropriate description.
6. By default the **Program Type**, dropdown list is populated with the value as **QUERY**.
7. In the **Program Name** dropdown list, select the program name created for reports through Program Workbench.
8. Based on the program configurations done for Program name, the **Program** field is populated.
9. In the **System** dropdown list, select appropriate system for reports.
10. In the **Connector** dropdown list, select appropriate connector associated in that system.
11. Click on **Save**.

    The **Reports** screen lists reports.

    The screen displays message as, "<Report name>: Report(s) saved successfully.

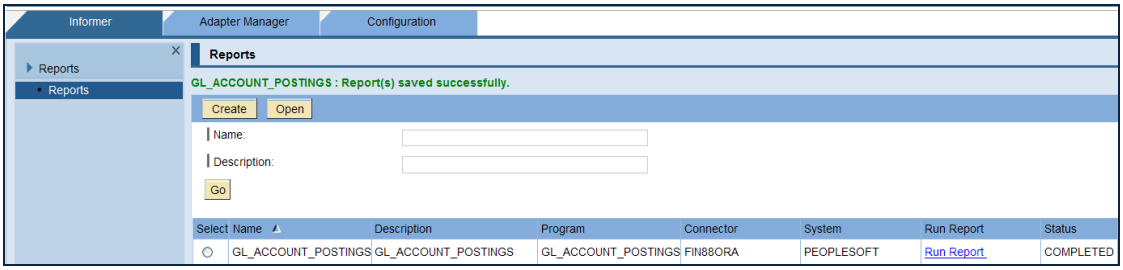


Figure 12.3: Reports

12. Click on the **Run Report** link.
    The **Reports> Run Report** screen opens as shown in the following screenshot.

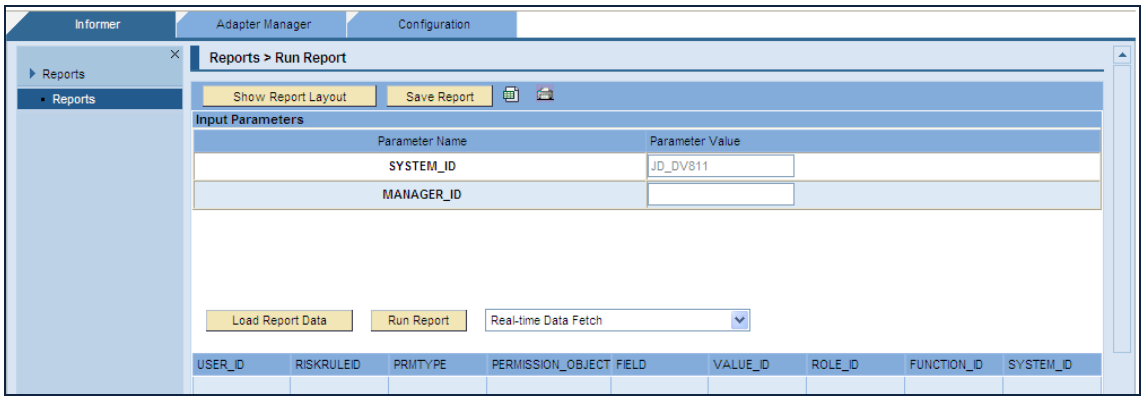


Figure 12.4: Reports>Run Report

12.2 CONFIGURING REPORT

The steps to configure reports are as follows.

1. Go to **Informer> Report**.
   The **Report** screen opens.
2. Click and **Select** the report, which you want to configure.
3. Click **Open**.
   The **Reports>Opens**.
4. Click **Configure Report**.
   The following screen opens.

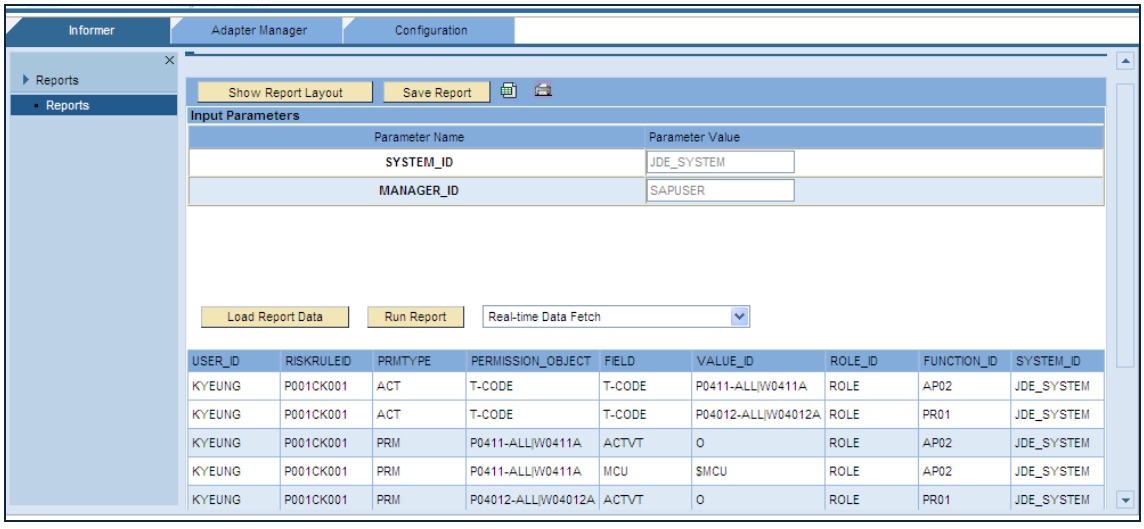


Figure 12.5: Reports>Run Report

Note: if the report contains input parameters, then the above screen (figure 12.5) opens while configuring report. It is mandatory to add at least one input parameter. If there are no input parameters, then while configuring the report, the screen opens as shown in the screen 12.6

5. Enter appropriate values for the Input parameters. For Example in the following screenshot enter parameter values for SYSTEM_ID and MANAGER_ID.
6. Select **Real-time Data Fetch** in the dropdown list and click **Run Report**.

   The report data gets displayed under the columns.

   Note: use Real-time Data Fetch option, when you want to retrieve real time data.
7. Click **Load Report Data** to load data into RTA DS table.

   Note: the Load Report Data helps to retrieve data faster.
8. Select the **Offline Data Fetch** in the dropdown list and click **Run Report**.

   The report data is displayed under the columns.

   Note: when you want to retrieve data stored in the table, use Offline Data Fetch option.
9. Click **Show Report Layout.**

   The following screen opens.

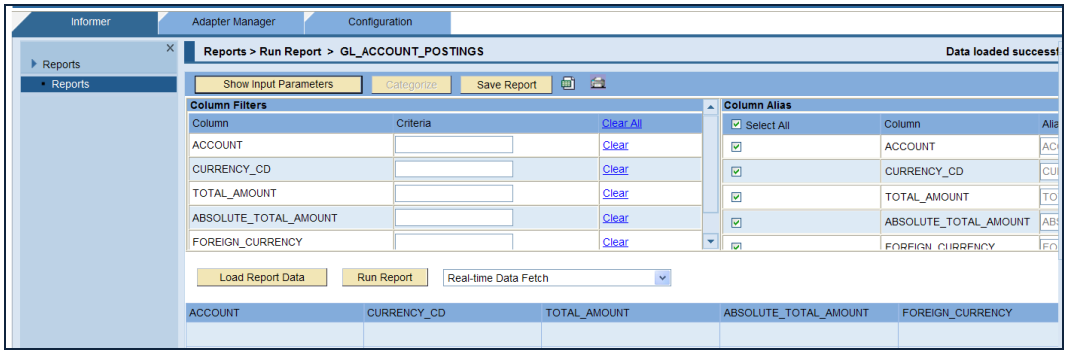


Figure 12.6: Reports>Run Report

10. Column Alias, displays the list of columns under the Column heading Column, Alias and Seq No. as shown in the following screenshot.

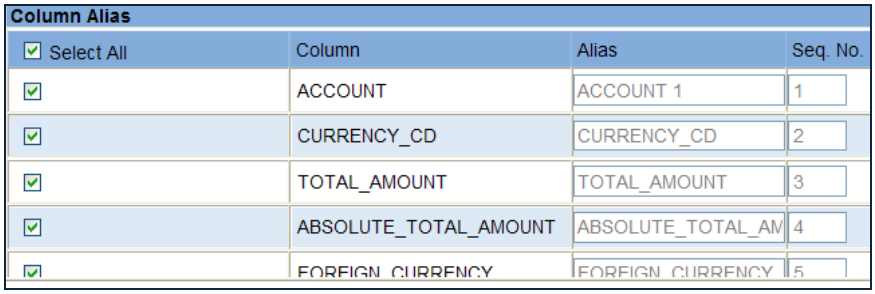


Figure 12.7: Column Alias

11. To load data for all the columns, click **Select All** and **Run Report**.

    Data is displayed on the screen under each defined column as shown in the following screenshot.

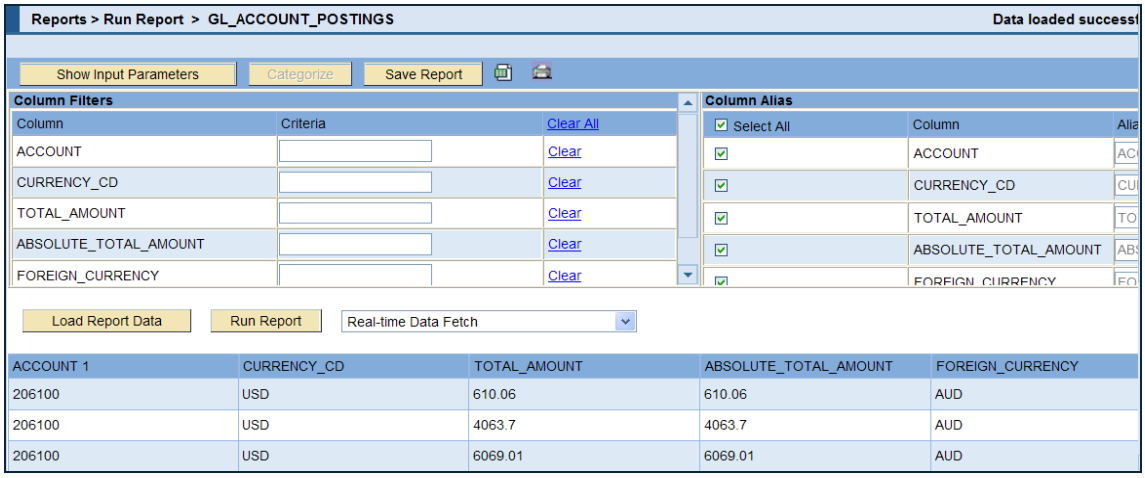


Figure 12.8: Reports Run Report

12. The **Alias** column facilitates to rename the existing column. To do this, enter appropriate name of the corresponding column, in the **Alias** text box.
13. Under **Seq No**, you can edit the current sequence of the columns and set new sequence. The screen loads data, based on the set sequence. To do this, enter the sequence in the **Seq no**. text box, corresponding to each column.
14. Under the **Column Filters**, enter the filter criteria in the **Criteria** text box and click **Run Report**.

    The screen loads data, based on the defined criteria.
15. Click on **Show Input Parameters**, to view and edit input parameters if required.
16. Click on **Save Report** to save the record.
17. To load data in the excel file, click the icon as shown in the following screenshot.

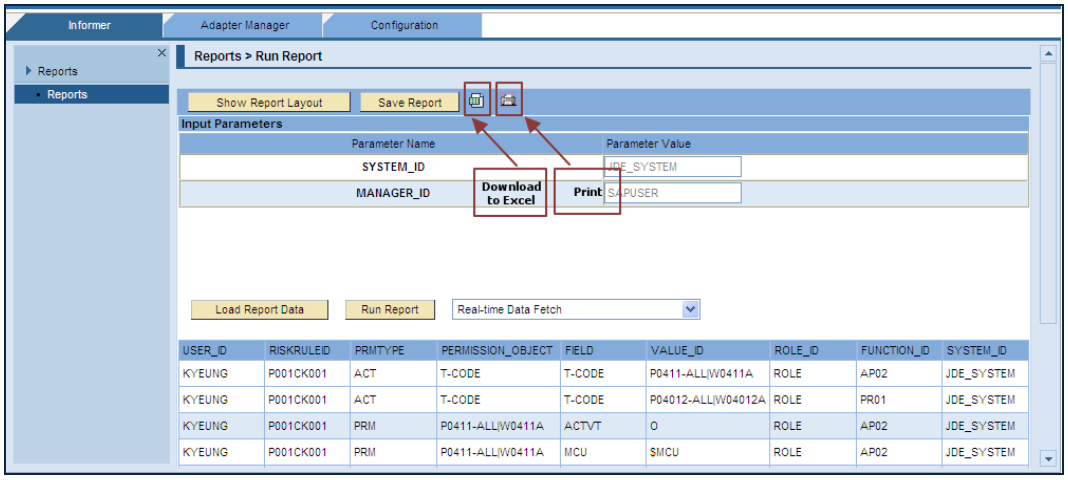


Figure 12.9: Reports>Run Report

18. The **File Download** dialog box opens as shown in the following screenshot.

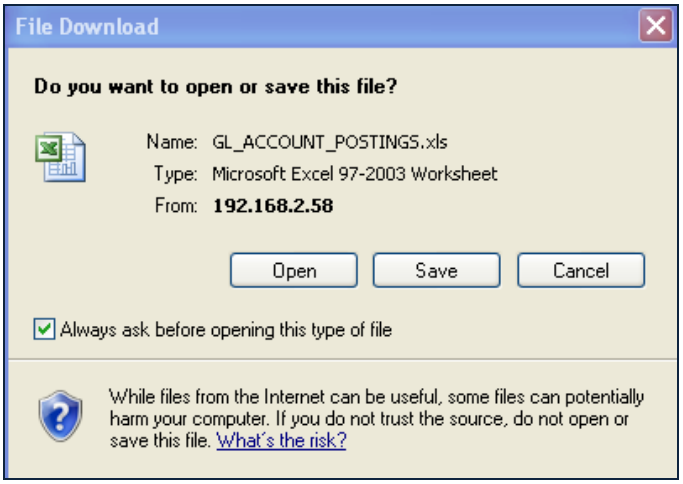


Figure 12.10: File Download

19. Click **Open**. The excel file with data opens as shown in the following screenshot.

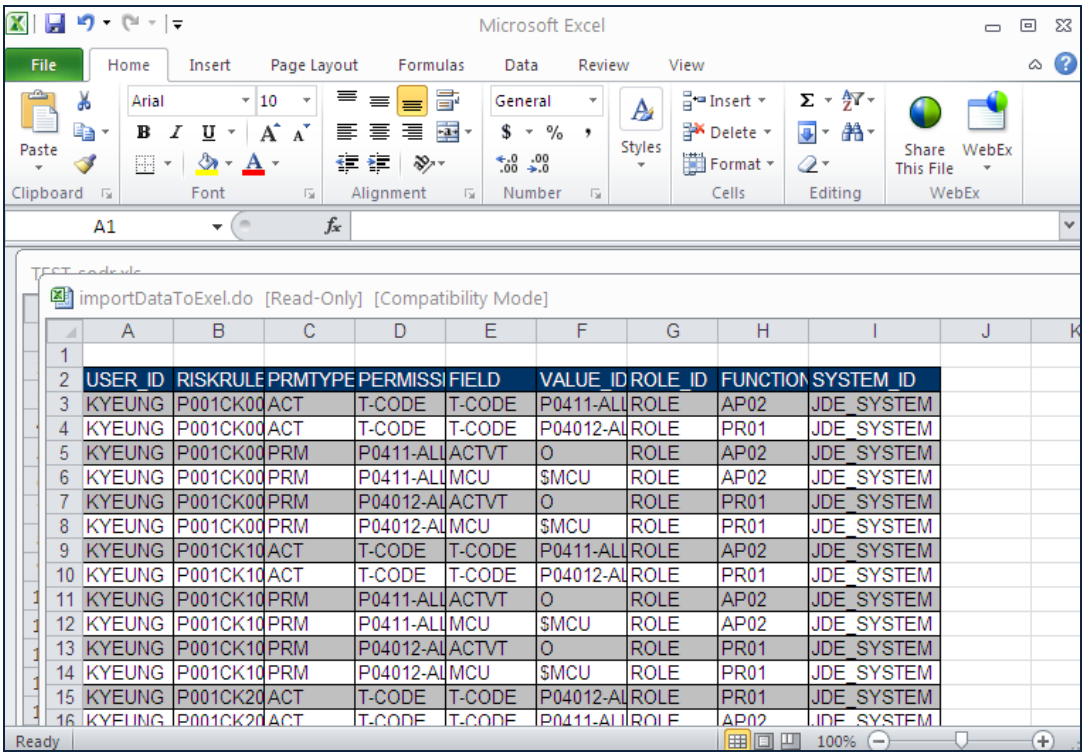


Figure 12.11: Excel file with data

20. On the **Reports>Run Report** screen, click **Print** icon to get print out of the data.

13 LOGS MONITOR

The Logs are available and can be viewed either through the application or directly on the server as an operating system file.

The AVM-RTA DS maintains error and debug logs at following server operating system path: /usr/sap/<SID>/../j2ee/cluster/RTADS_LOGS

To see the logs from the RTA DS application, please follow this path:

Configuration >Logs Monitor >Application Log >xapp error log and xapp.debug.log

1. Click **Configuration** tab.
2. Click **Application Logs** under **Logs Monitor** in the left menu bar.
3. The **Application Log >** screen opens as shown in the screenshot below.

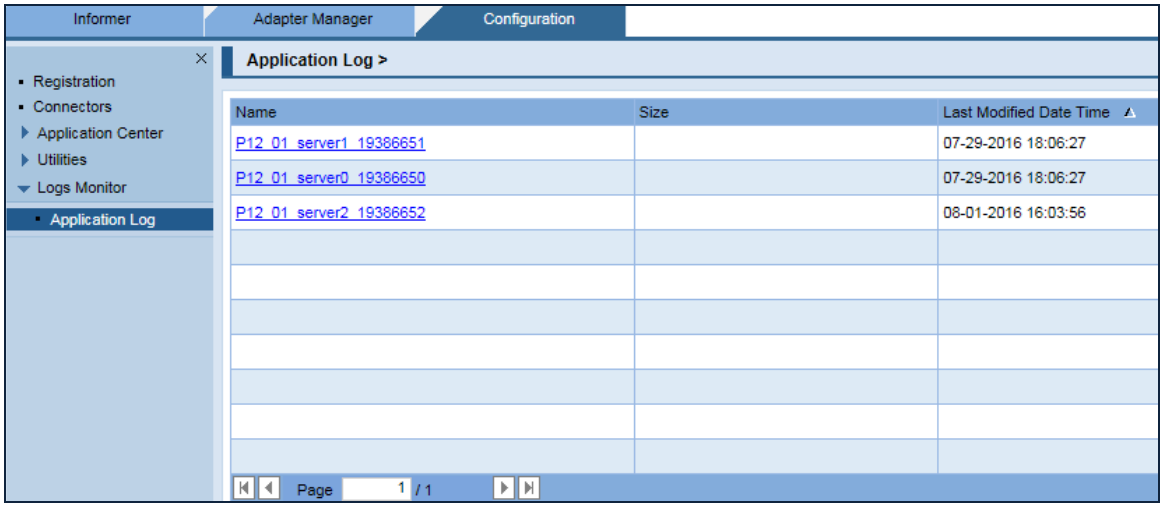


Figure 13.1: Application Log >View Screen

4. The **Application Log>View** table displays Name column with Node link and last modified date time.
5. Click on the **Node** link.
6. The **Application Log > <Node link> >View** screen opens as shown in the following screenshot displaying details under columns **Name**, **Size** and **Last Modified Date Time**.

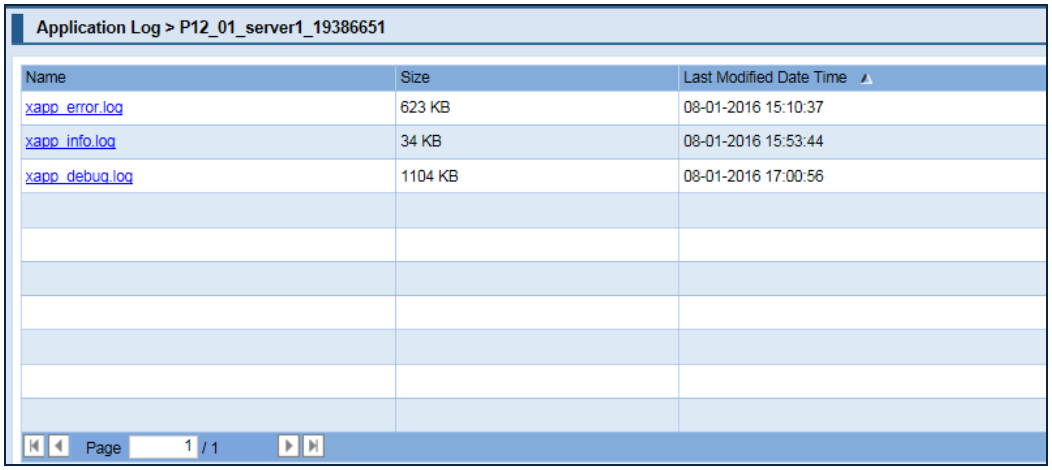


Figure 13.2: Application Log > Node

7. Click on the **Name** link to view and download the log files.
8. Click on the breadcrumb link to visit application log page.
9. The Log files are used by administrators to view the status of the system, database, and applications. The AVM-RTA DS logging API uses the log4j to produce logs in a common format and the status of the log files can be displayed using a browser. The actual log files are invoked using a hyperlink to individual log file. Log files are automatically written and contain a predefined severity that cannot be modified in the current release.

   For debugging purposes, apart from the logs provided by RTA Design Studio; the logs available from NW AS Java and the default log and trace file for the J2EE engine can also be referred.
10. There are primarily three levels of severity it supports:
    1. Error
    2. Info
    3. Debug
11. Each log file records the following events:
    1. Source of the record
    2. Event timestamp
    3. Message
    4. Severity Level

The following table shows the list of important log objects.

Log Objects	Descriptions
/usr/sap/<SID>/JC<instance nor.>/j2ee/cluster/server0/log	Default location of AS JAVA log file.
defaultTrace.trc	The standard log & trace file for the J2EE engine.
/usr/sap/<SID>/JC<instance	Location of RTA DS log files.

Log Objects	Descriptions
no.>/j2ee/cluster/apps/sap.com/xPlatform/servlet_jsp/xPlatformAdapter/root/logs	
xapp_error.log	Contains the exceptions and various errors occurred if any during the flow of execution of the programs.
Xapp_info.log	Contains the information about the flow of execution of the programs
xapp_debug.log	Contains additional information about the flow of execution and error details for troubleshooting/debug purposes.

13.1 CHANGING LOG LEVEL

Initially during the deployment process, the DEBUG level should be ON. Therefore, it might incur large amount of logs in the RTA DS_LOGS folder on the NetWeaver Java Stack server, where the application is deployed.

It is advised to monitor the size of the folder regularly for the spaced occupied. It should be cleared and archived manually on a different server or drive if the logs need to be gathered for some debugging purpose else the can be purged. Once the initial testing for APIs is done and the process is stable then the logging level can be changed. For more information on changing the log level, refer AVM-**RTA_Design_Studio_Installation_Configuration_Guide_v2.0SP05**- section 8.3 **Changing Log Level**.

14 APPENDIX

This chapter provides information about the AVM-RTADS repository.

14.1 AVM-RTADS REPOSITORY

1. Real Time Analysis consumes lot of time as data is in huge amount. For this purpose, the AVM-RTA DS application introduces a new functionality as, " AVM-RTADS Repository".
2. In case of the Real Time analysis, when a request comes in from GRC, a call to the target ERP is made and a user or role information is fetched from the target ERP system on the real time basis. However, this is a time consuming process.
3. In case of the **AVM-RTADS Repository**, the RTA DS application fetches data for users, roles in the database instead of making the direct call to the target ERP system. It saves time as it happens during real time and improves performance utilization.
4. When the **AVM-RTADS Repository** is enabled, the offline analysis jobs should be scheduled and completed before risk analysis is initiated in GRC to ensure that latest data is fetched and stored in RTA DS.
5. You can configure the **AVM-RTADS Repository** checking under the **Configuration> Application Center> Systems- Create.** On the **Systems> Create** page, check the **AVM-RTADS Repository flag**. Once this flag is checked, the RTA DS application fetches data cached for users, roles in the database instead of making the call to the target ERP system.

14.2 AVM-RTADS REPOSITORY WORKFLOW

The sequential steps for the Offline Analysis are as follows.

1. Create a **System** with **RTADS Repository** flag checked. Create a system with the offline flag under the **Configuration** tab **>Application Center>Systems-Create.** For more details on this, refer section, 5.2.2 Create a System.

   Note: for the Offline Analysis, it is mandatory to create a system with AVM-RTADS Repository flag.

2. Schedule jobs for the system for the six APIs (USERSYNC, USERACTION, USERPERMISSION, ROLESYNC, ROLEACTION, ROLEPERMISSION). Schedule a job under the **Adapter Manager** tab**>Auto Batch Extraction> Job Scheduler**. For more details on this, refer section, 11.1.2 Job Scheduler Create.
3. Let the job complete.
4. Run the RISK ANALYSIS in the SAPGRC.

14.3 SETTING ACCESS REQUEST PRIORITY VALUE

This section describes the steps to change the access request priority value within AVM-RTA DS. An appropriate value for the access request priority needs to be set within the AVM-RTA DS property file to ensure zero-stage GRC workflow is utilized for the role removal API. The role removal API is invoked through ResQ during template assignment termination process or template activation termination process. For more information on this, refer: GRC_CG_for_10.0_10.1_v1.5.pdf - section 4.7 Access Request Priority Value in GRC.

14.3.1 AVM-RTA DS APPLICATION PROPERTIES FILE

1. Go to the path where AVM-RTA DS build is deployed, for example: /usr/sap/GLS/J07/j2ee/cluster/apps/sap.com/xPlatform/servlet_jsp/xPlatformAdapter/root/WEB-INF/classes/rtads_application.properties
2. Open the text file rtads_application.properties.
3. Set appropriate value identified through the steps from section Access Request Priority Value in GRC for the property **grc.user.access.request.priority** e.g. grc.user.access.request.priority=006
4. Refer below screenshot with highlighted text.

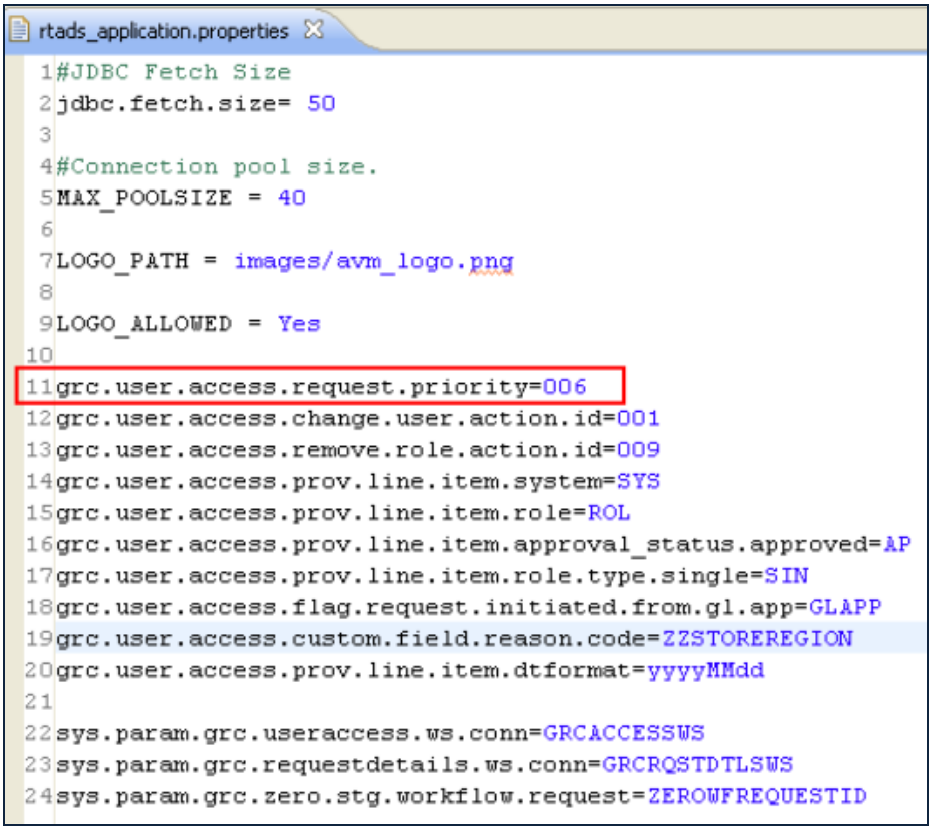


Figure 14.1: rtads_application.properties

5. Restart AVM-RTA DS application after changing the value in the property file.

15 TROUBLESHOOTING

The list of the troubleshooting scenarios with regards to Installation of AVM-RTA DS with the solution is as follows:

1. **Not able to login to AVM-RTA DS application**.

   Solution:

   To be able to login to the **AVM-RTA DS** application,

   a. First make sure the platform has been properly registered.
   b. Go to Platform Registration on the applications Home Page and check whether the status is REGISTERED.
   c. Second, make sure the User Id you are trying to enter into the system has the appropriate RTA roles to login through SAP UME.
   d. Ensure the UME password is correct and if necessary have the Administrator reset the password.

2. **Why I am not getting risks in CC/RAR?**

   Solution:

   For this problem there could be any of the following possibilities:

   a. Please make sure that System name in CC/RAR is same as External Id of the corresponding System in RTA.
   b. Please check whether System in RTA Design Studio is registered.
   c. Please make sure that system is mapped to your Adapter APIs.

3. **Why the connector types are not showing when the master data is imported**?

   Solution:

   a. Make sure that the installation scripts were run during the installation of the RTA DS.
   b. If not run then, run the delete scripts once on the Database schema where RTA DS application is installed to delete the data that might have already been created.
   c. Run the installation scripts and then try re – importing the Master data.

4. **Not able to find pre-configured roles to be attached to AVM-RTA DS application users**.

   Solution:

   a. To be able to associate roles to the **AVM-RTA DS** application user;
   b. Make sure you have imported the pre-configured role file into Sap UME through **NetWeaver** administrator.

5. **The RTA cannot connect to the target ERP database because the database crashed or was offline. How do I reconnect it**?

   Solution:

   a. Ensure that all the services are restarted in SAP Management Console. If this does not help then the server needs to be restarted.

   b. This will clear all the inconsistencies. Once the server is started bring up all the services in SAP Management Console.

6. **Why Standard Adapter mapping is not available**?

   Solution:

   a. Once you overwrite the Master data or Standard Adapter then all the previously done mappings for Standard adapters will be removed. So you need to go and do system-adapter mapping again.

7. **Why Auto Job execution is failing**?

   Solution:

   a. If a job is scheduled and it does not have any data then that job will fail. This is a known issue that is scheduled to be delivered in the next release.

   b. Check whether system is mapped to the correct API.

8. **Why Program is failing in Test Program**?

   Solution:

   a. Please check connection for connector.

   b. Please check whether the adapter program is correct.

   c. While performing test program please provide values for all input parameters. If you perform test program without providing values, then the program will fail.

   d. If it is a JDBC connector and if the database onto which the connector has been restarted then the RTA DS application needs to be restarted to make a fresh connection to the database by the JDBC connector. Restart the RTA DS application and try the test connection again.

9. **Why am I not able to associate the already attached system to the API once I overwrite the Adapter**?

   Solution:

   a. This is a known issue in the current release. Anytime you need to overwrite the already existing adapter; you need to import the Master xml with the overwrite check box checked.

   b. First import the master data in overwrite mode.

   c. Re import, the adapter and now you can attach the system to the API.

10. **Why am I not able to see the updated log entries even though I made a change to a connector in AVM-RTA DS**?

Solution:

a. If you open a log file such as the Error Log, Debug Log or the Info Log in the application and do not see the current time stamped entries, your internet browser may not be displaying the latest data. Clear your temporary internet files and reopen the log file. This issue should now be fixed in the current software release.

16 TERMS AND DEFINITIONS

Terms	Definitions
API	API stands for "Application Programming Interface". An API is the definition of how a programmer can access the functionality contained within a code library.
Application	The application is a homogeneous group of systems.
Application Registration	The process of registering the applications created in RTA DS with a valid key provided by Greenlight Technologies.
Auto Batch Extract	Auto Batch Extract delivers the data required by SAP RAR in the Flat File Format. Batch extracts generate tab delimited flat files which enable to perform the offline risk analysis for a system.
AVM	Access Violation Management
Connection Type	Connection Type refers to the connection mechanism implemented to get the data from the system onto which this connector is attached. E.g. JDBC.
Custom Adapters	Adapters created by the customer in-house or delivered by System Integration Partners of Greenlight Technologies without the use of Import Adapter utility.
Customer ID	The ID provided by Greenlight Technologies to the Customer when the request for Platform registration is received by Greenlight Technologies.
Data source Type	The data source type stands for the type of database that is referred to in pulling information for the particular system. It can be relational, file based systems(C/D-ISAM) or LDAP systems.
External System Id	External System Id is the system name as defined in the SAP RAR.
FTP	File Transfer Protocol (FTP), a standard Internet protocol, is the simplest way to exchange files between computers on the Internet.
Informer	Informer tab of RTA DS consists of the customized reports that can be run through RTA DS.
JDBC	Java Database Connectivity (JDBC) is an application program interface (API) specification for connecting programs written in Java to the data in popular databases. The application program interface lets you encode access request statements in Structured Query Language (SQL) that are then passed to the program that manages the database. It returns the results through a similar interface.
Logs	The error and debug logs created by the RTA DS application.

Terms	Definitions
Master Data	Master Data refers to the configuration data imported into RTA DS in the form of xml that defines the connector types and the SAP and GRC APIs, various constraints and mapping between the two.
NWA	Net Weaver Administrator
Platform Registration	The process of registering the RTA DS platform with a valid key provided by Greenlight Technologies.
RAR	Risk Analysis and Remediation (alternatively known as Compliance Calibrator)
RTA DS	Real Time Analysis Design Studio abbreviated as RTA DS is the Java based application that extends and leverages SAP GRC capabilities to non-SAP systems.
SAP UME	SAP User Management Engine (UME). The data repositories or persistence layers from which SAP User Management Engine (UME) retrieves user management data are referred to as data sources. With UME you can leverage existing user data repositories in your system infrastructure by connecting to them using configurable persistence adapters. You can read data from and write data to multiple data sources in parallel. For example, you can configure UME so that user data is read from an existing corporate directory, while new users are written to a database. A persistence manager is responsible for reading the data from or writing the data to the correct data source. The data source to which the persistence manager writes is transparent to applications using UME.
SMTP	SMTP (Simple Mail Transfer Protocol) is a TCP/IP protocol used in sending and receiving e-mail.
Standard Adapters	Adapters delivered by Greenlight Technologies, by importing the xml through the Import Adapter utility of RTA DS.
System Registration	The process of registering the systems created in RTA DS with a valid key provided by Greenlight Technologies.
XML	XML (Extensible Markup Language) is a flexible way to create common information formats and share both the format and the data on the World Wide Web, intranets, and elsewhere. For example, computer makers might agree on a standard or common way to describe the information about a computer product (processor speed, memory size, and so forth) and then describe the product information format with XML.