Oracle® OFS Basel Regulatory Capital IRB Approach

Admin Guide

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Oracle Financial Services Software Limited

Oracle Park
Off Western Express Highway
Goregaon (East)
Mumbai, Maharashtra 400 063
India

Worldwide Inquiries:
Phone: +91 22 6718 3000
Fax:+91 22 6718 3001
www.oracle.com/financialservices

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Preface

Intended Audience

Welcome to Release 6.1.0.0.0 of the *Oracle OFS Basel Regulatory Capital IRB Approach Admin Guide.*

This guide is intended for a system administrator and a user administrator.

See Related Information Sources on page vi for more Oracle product information.

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Structure

1 About OFS Basel Regulatory Capital
2 Function Maintenance
3 Role Maintenance
4 Function - Role Mapping for Basel UI
5 User Group Role Map
6 Performance Tuning

Related Information Sources

OFS Basel Regulatory Capital IRB Approach Release 6.1.0.0.0 User Guide

OFS Basel Regulatory Capital IRB Approach Release 6.1.0.0.0 Installation Guide

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About OFS Basel Regulatory Capital

Introduction

Compliance to the Basel accord is a mandated business requirement for financial institutions in most jurisdictions around the world. Financial institutions need a complete solution that allow them to quickly respond to these requirements and provides them with an in-depth analysis of regulatory capital requirements under baseline and stress scenarios for effective capital planning. With the latest Oracle Financial Services Basel Regulatory Capital application, Release 6.1.0.0.0, banks can now meet requirements as mentioned in the Basel accord, in multiple jurisdictions with a single application, thereby eliminating the need for multiple point applications from multiple software vendors. The application encompasses Credit, Market, and Operational Risks and provides a detailed breakup of the Capital Requirements across Tier 1, 2 and 3. The application supports the computation of Capital Adequacy Ratio (CAR) as per the guidelines laid out in the BIS (Basel I, Basel II and Basel III), India, USA, Islamic Banking, Brazilian, and CBRC jurisdictions.

Role of an Administrator

There are two types of Administrators as defined by the OFS Analytical Applications Infrastructure: A User Administrator and System Administrator.

System Administration: refers to a process of managing, configuring, and maintaining confidential data in a multi-user computing environment. A System Administrator in creates functions, roles, and mapping functions to specific roles. A System Administrator also maintains segment information, holiday list, and restricted passwords to ensure security within the application.

User Administration: is one of the core functions of Security Management which involves administrators to create user definitions, user groups, maintain profiles, authorize users and usergroups, and map users to groups, domains and roles. A User Administrator controls the user privileges in accessing the application and is based on business requirements to provide access to view, create, edit, or delete confidential data.

A User Administrator grants permissions based on user roles and requirements. The function roles SYSADM and METAAUTH function roles should be mapped, to access User Administrator in LHS menu of Security Management. The following sections detail the following activities of a System Administrator and User Administrator:

System Administrator:

- Function Maintenance
- Role Maintenance
- Function-Role Mapping

User Administrator:

- User Group Role Map

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Function Maintenance

Overview

A function defines the privileges to access modules or components in the OFS Basel Regulatory Capital Application and define or modify associated metadata information. Function maintenance allows you to create functions for users to ensure only those functions are executed which are specific to the user's role. To access Function Maintenance:

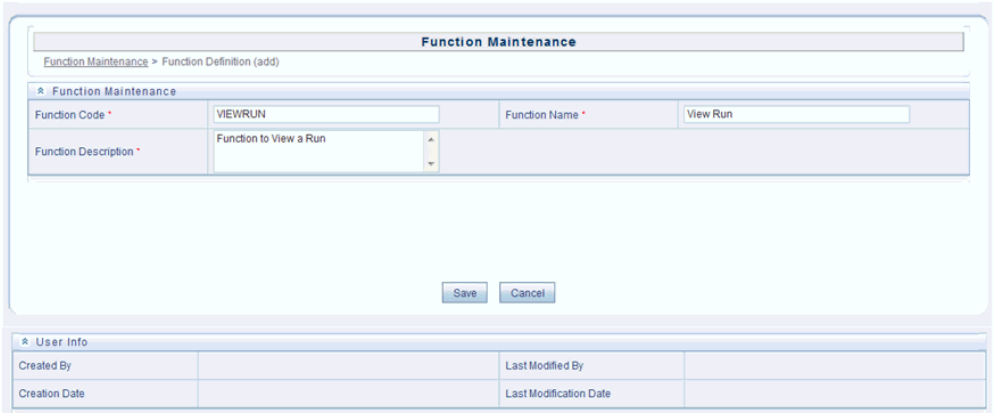
1. Expand the Administration menu in the LHS menu of the OFSAAI.
2. Click Security Management.
3. Expand the System Administrator menu in the LHS menu of the OFSAAI.
4. Click Function Maintenance.

The Function Maintenance screen displays the function details such as Function Code, Function Name, Description and the number of Roles Mapped to the function. The Function Maintenance screen also facilitates you to view, create, modify, and delete functions within the system. You can also make use of Search and Pagination options to search for a specific function or view the list of existing functions within the system.

Create Function

To create function in the Function Maintenance screen:

1. Select the Add icon from the Function Maintenance tool bar. Add icon is disabled if you have selected any function in the grid. The New Function screen is displayed.



2. Enter the function details as tabulated.

Field	Description
Function Code	Enter a unique function code. Ensure that there are no special characters and extra spaces in the code entered. For example, VIEWRUN to to view a Run.
Function Name	Enter a unique name for the function. Ensure that the Function Name does not contain any special characters except "(", ")", "_", "-", "."
Function Description	Enter the function description. Ensure that the Function Description does not contain any special characters except "(", ")", "_", "-", "."

Note: Fields marked with an "*" are mandatory fields and must be updated.

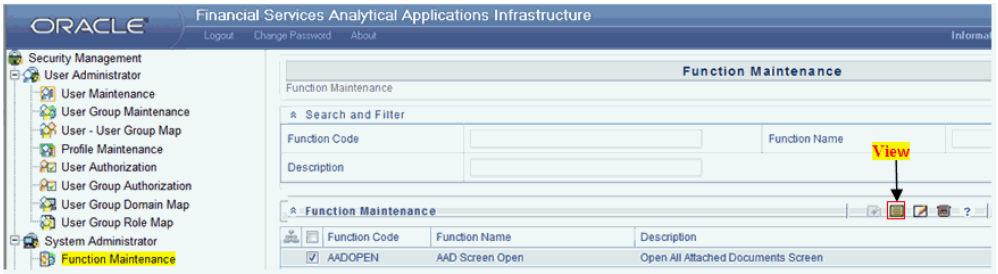
3. Click Save to upload the function details.

The User Info grid at the bottom of Function Maintenance screen displays metadata information about the function created.

View Function

You can view individual function details at any given point. To view the existing user details in the Function Maintenance screen:

1. Select the checkbox adjacent to the Function Code.
2. Click the View icon in the Function Maintenance tool bar.

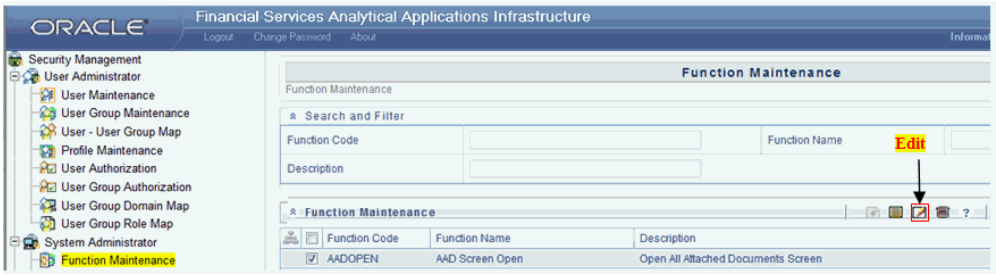


The View Function Details screen is displayed with the details such as Function Code, Function Name, and Function Description.

Modify Function

To update the existing function details (other than system generated functions) in the Function Maintenance screen:

1. Select the checkbox adjacent to the required Function Code.
2. Click the Edit Icon in the Function Maintenance tool bar. The Edit Function Details screen is displayed.



3. Update the required information.

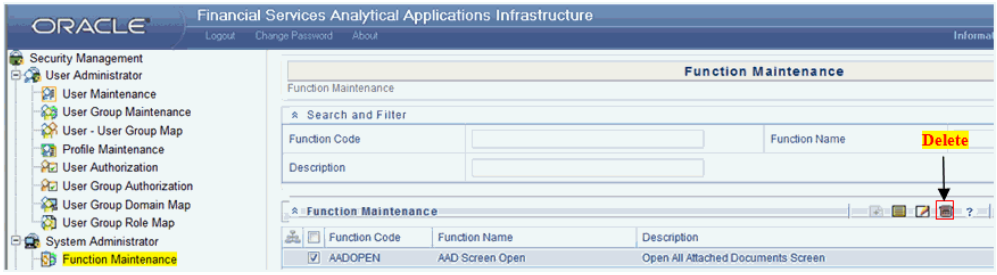
   Note: Function Code cannot be edited.

4. Click Save to upload the changes.

Delete Function

You can remove only those function(s) created by you and which are no longer required in the system, by deleting from the Function Maintenance screen.

1. Select the checkbox adjacent to the Function Code whose details are to be removed.
2. Click the Delete icon in the Function Maintenance tool bar.



3. Click OK in the information dialog to confirm deletion.

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Role Maintenance

Overview

A role is a collection of functions defined for a set of users to execute a specific task. You can create roles based on the group of functions to which users are mapped. To access Role Maintenance:

1. Expand the Administration menu in the LHS menu of the OFSAAI.
2. Click Security Management.
3. Expand the System Administrator menu in the LHS menu of the OFSAAI.
4. Click Role Maintenance.

The Role Maintenance screen displays the role details such as Role Code, Role Name, Role Description and the number of Users Mapped to the role. The Role Maintenance screen also facilitates you to view, create, modify, and delete roles within the system. You can also make use of Search and Pagination options to search for a specific role or view the list of existing roles within the system.

The default codes defined in the application are as follows:

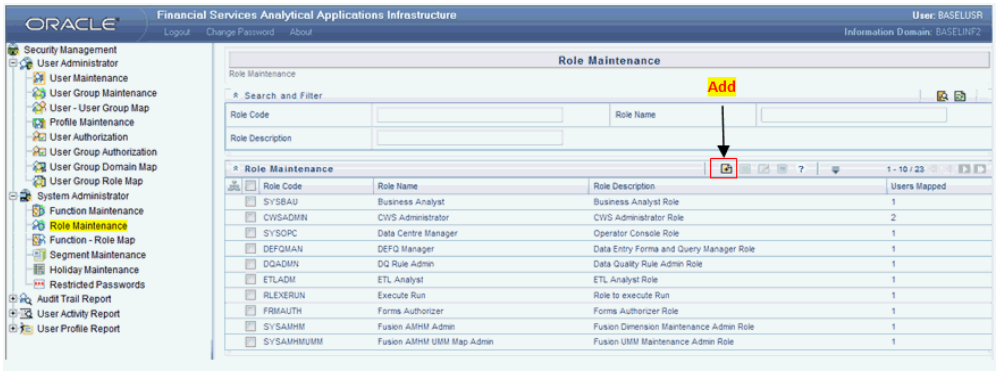
Role Code	Role Description
GLDROLE	Role to access Run Management
RLEXERUN	Role to execute a Run
RLMODPRM	Role to modify Run Parameters
RLVIEWRUN	Role to view Run Details

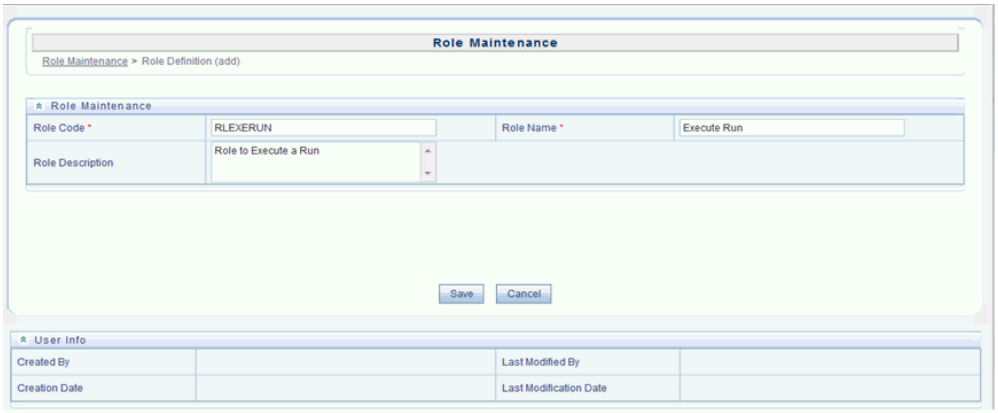
Role Code	Role Description
ATTROLE	Role to access to Attribution link
RUN ROLE	Role to access Run Definition link

Create Role

To create a role in the Role Maintenance screen:

1. Click the Add icon from the Role Maintenance tool bar. Add icon is disabled if you have selected any role in the grid. The New Role screen is displayed.





2. Enter the role details as tabulated.

Field	Description
Role Code	Enter a unique role code. Ensure that there are no special characters and extra spaces in the code entered. For example, ACTASR to create Action Assessor.
Role Name	Enter a unique name for the role. Ensure that the Role Name does not contain any special characters except space.
Role Description	Enter the role description. Ensure that the Role Description does not contain any special characters except space.

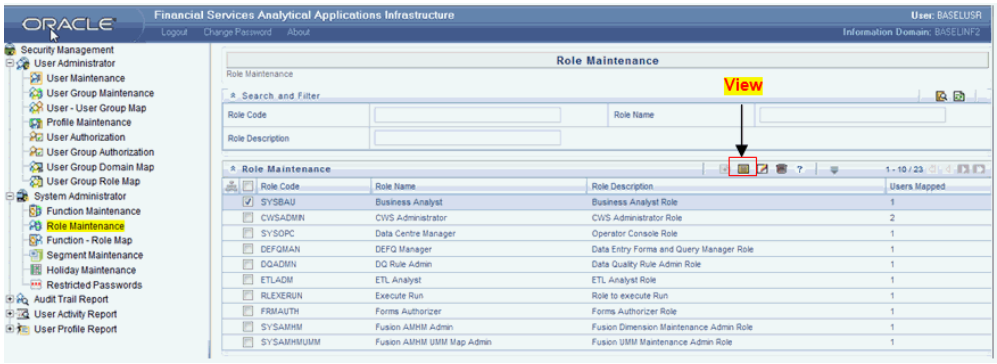
3. Click Save to upload the role details.

The User Info grid at the bottom of Role Maintenance screen display metadata information about the role created.

View Role

You can view individual role details at any given point. To view the existing role details in the Role Maintenance screen:

1. Select the checkbox adjacent to the Role Code.
2. Click the View icon in the Role Maintenance tool bar.



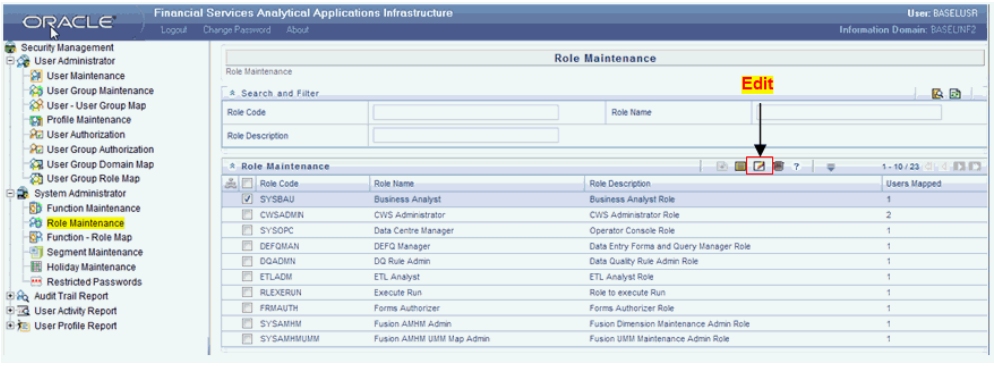
The View Role Details screen is displayed with the details such as Role Code, Role Name, and Role Description.

Modify Role

To update the existing role details in the Role Maintenance screen:

1. Select the checkbox adjacent to the required Role Code.

2. Click the Edit icon in the Role Maintenance tool bar. The Edit Role Details screen is displayed.



3. Update the required information.

   Note: Role Code and Role Name cannot be edited.

4. Click Save to upload the changes.

Delete Role

You can remove only those role(s) which are created by you, which does not have any users mapped, and which are no longer required in the system by deleting from the Role Maintenance screen.

1. Select the checkbox adjacent to the Role Code whose details are to be removed.

2. Click the Delete icon in the Role Maintenance tool bar.

3. Click OK in the information dialog to confirm deletion.

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Function - Role Mapping for Basel UI

Overview

Function Role Map facilitates you to view and map a set of function(s) to a specific role within the OFS Basel Regulatory Capital application. Functions can only be mapped to a defined set of roles to ensure effective system security. The system administrator can create new roles and assign the functions as required instead of using the default roles. To access Function Role Map:

1. Expand the Administration menu in the LHS menu of the OFSAAI.
2. Click Security Management.
3. Expand the System Administrator menu in the LHS menu of the OFSAAI.
4. Click Function-Role Map.

The Function – Role Map screen displays a list of available Role Codes in alphabetical order with the Role Name. On selecting a particular Role Code, the Mapped Functions are listed in the Mapped Functions grid of Function – Role Map screen. The default Function – Role mapping defined within the application are as follows:

Roles	Function Mappings
Access Run Management	BSLPORTADD (Function to add Portfolio Details)
	BSLPORTVW (Function to View Portfolio Details)
	BSLPORTEDT (Function to Edit Portfolio Details)
	BSLPORTDEL (Function to Delete Portfolio)

Roles	Function Mappings
	BSLPORTSAS (Function to use saveas facility for the Portfolio)
Execute Run	EXEREQRUN(Function to Execute the Requested Run)
	MODRUNPRM (Function to Modify the Run Parameters)
	VIEWRUNDET (Function to View the Run Details)
Modify Run Parameters	MODRUNPRM (Function to Modify the Run Parameters)
View Run Details	VIEWRUNDET (Function to View the Run Details)
Business Analyst	POOLDEF (Function to view/add the Pooling definitions)
	POOLDEL (Function to delete the Pooling definition)
	OPTDEF (Function to view/add the Optimizer definitions)
	OPTDEL (Function to delete the Pooling definitions)
	FFIEC (The user mapped to this function can access FFIEC LINK)
Access Attribution link	ATTFUNC (The user mapped to this function can access Attribution Link)
Access Run Definition Link	RUNFUNC (The user mapped to this function can access Run definition link)

Mapping Function to a Role

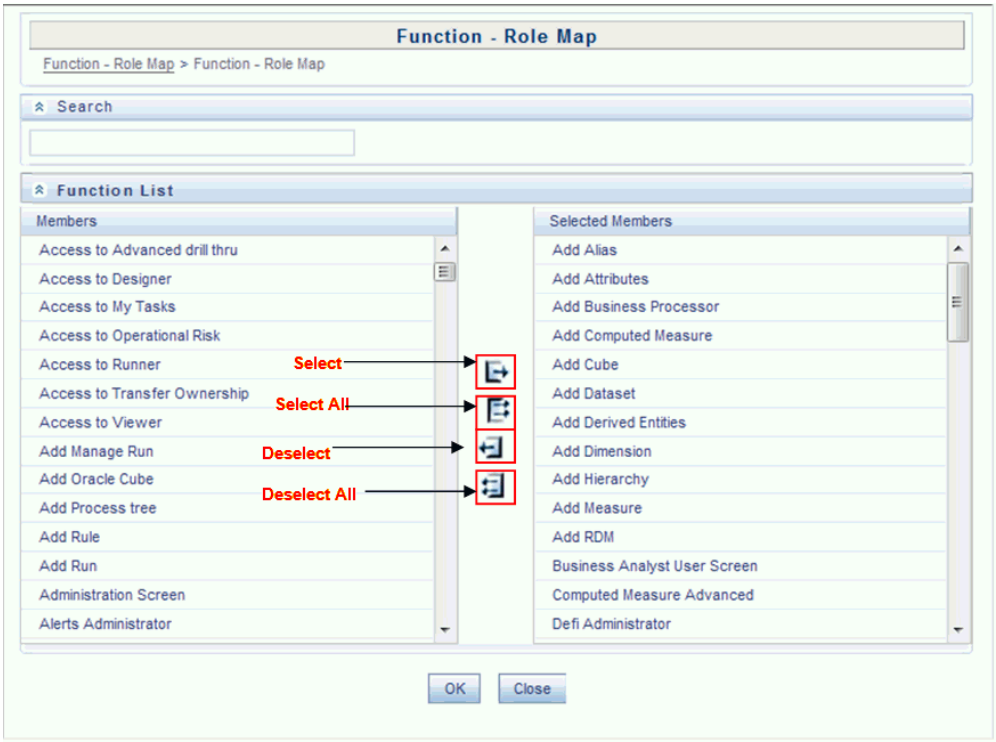
To map a function to a role in the Function – Role Map screen, do the following:

1. Select the checkbox adjacent to the required Role Code. The Function – Role Map screen is refreshed to display the existing mapped functions.

2. Click the Edit icon in the Mapped Functions section tool bar. The Function Role Mapping screen is displayed.

3. In the Function Role Mapping screen, you can search for a function using the Search field and edit the mapping.

   - To map a function to a role, select the function from the Members list and click the Select icon. You can press Ctrl key for multiple selections.
   - To map all the functions to the selected role, click the Select All icon.
   - To remove function mapping for a specific role, select the function from Select Members pane and click Deselect icon.
   - To remove all function mapping for a role, click Deselect All icon.



4. Click OK to save the mappings and return to Function – Role Map screen.

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User Group Role Map

Overview

User Group Role Map facilitates System Administrators to map Role(s) to specific User Group(s). Each role has a defined function and any user(s) mapped to the role has to perform only those functions. For example, the table below lists the user group mapped to a specific role.

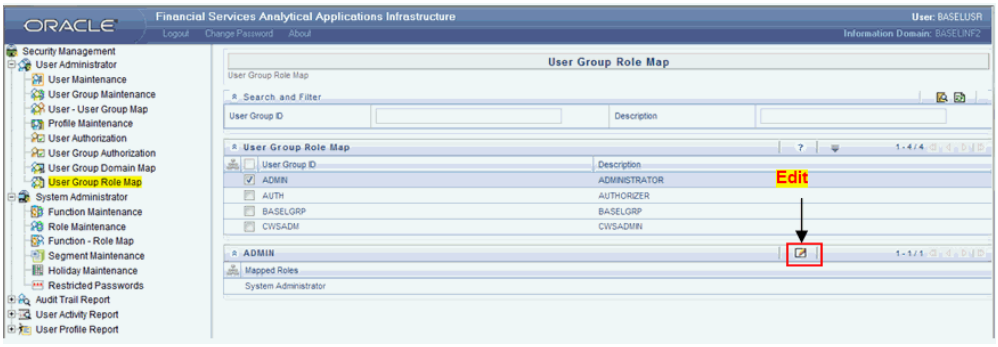
GROUP CODE	ROLE CODE
ADMIN	SYSADM
AUTH	SYSATH
CWSADM	CWSADMIN

You can access User Group Role Map screen by expanding User Administrator section within the tree structure of LHS menu. The UserGroup Role Map screen displays a list of available user groups in alphabetical order with the User Group ID and Description. On selecting a user group, the list of available mapped roles are displayed. You can also make use of Search and Pagination options to search for specific usergroup or view the list of existing usergroups within the system.

Mapping Role to a User Group

To map a Role to User Group, do the following:

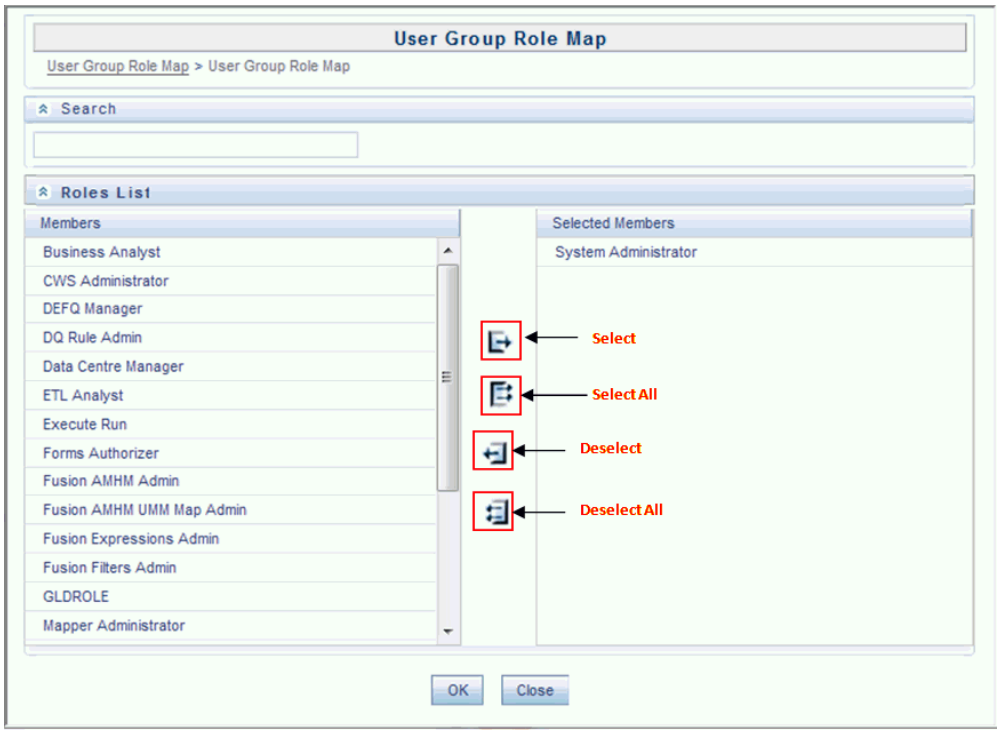
1. Select the checkbox adjacent to the required User Group ID. The User Group Role Map screen is refreshed to display the existing mapped roles.



2. Click the Edit icon in the Mapped Roles section tool bar. The User Group Role Map screen is displayed.

3. In the User Group Role Map screen, you can search for a Role using the Search field and edit the mapping.

   - To map Role to a User Group, select the Role from the Members list and click the Select icon. You can press Ctrl key for multiple selections.
   - To map all the Roles to a specific User Group, click the Select All icon.
   - To remove mapping for a user group, select the Role from Select Members list and click the Deselect icon.
   - To remove all Roles mapped to a User Group, click the Deselect All Icon



4. Click OK to save the mappings and return to User Group Role Map screen.

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Performance Tuning

Table Partitioning

The column **n_run_skey** is available in all the FACT tables of the OFS Basel Regulatory Capital application. This column stores a unique surrogate key for each Run execution. All records populated through a Run execution has the same value for **n_run_skey**. Value of this column is incremented by one, for each execution. Hence, it is recommended to create interval partitions on the FACT tables with **n_run_skey** as the key of the partition. If Runs are executed in an immediate execution mode for different dates where **n_run_skey** remains the same across these dates, it is recommended to create range partition on the column **n_mis_date_skey**. It is also recommended to create a local index.

Parallel Executions

When you execute SQL statements in parallel, then multiple processes work simultaneously to execute a single SQL statement. To execute a statement faster than a single process, divide the work necessary to execute a statement among multiple processes. For more information to execute the T2Ts and Rules in parallel mode, refer to *Section 1.3* of*OFSAAI Administration Guide*. To execute optimizer and pooling in parallel mode, uncomment the tag ALTER_STATEMENTS in Optimizer_Config.xml and Pooling_Config.xml respectively, which are available in ficdb/conf. Appropriate degrees of parallelism need to be set.

Result Cache

Result cache stores the results of SQL queries for re-use in subsequent executions. By caching the results of queries, you can avoid repetitions of time consuming and intensive operations that generates the result set in the first place (for example, sorting/aggregation, physical I/O, joins and so on). Result caching feature can be for queries as well functions. In OFS Basel Regulatory Capital application, there are

functions for currency conversion, returning a parameter value for the given parameter code and so on. Many records exist that have the same input parameter values. Hence, result cache is implemented for these functions. Similarly, there are T2T expressions with sub-queries which fetch the same result set. Result cache is implemented for these as well.

Result cache is enabled in three ways: hint, alter session, or alter system. Default is MANUAL which indicates that we need to explicitly request caching via the RESULT_CACHE hint. However, it is recommended to enable the result cache using alter system so that hints need not to be provided time and again. The following command needs be executed by the DBA: ALTER SYSTEM SET RESULT_CACHE_MODE = FORCE.