MercuryTM IT Governance Center Reports Guide and Reference Version 5.5.0



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Reports run from report types provided with Mercury IT Governance (ITG) Center. Custom reports can also be built using RML views with external reporting tools.

About This Document

This document:

- Covers how to run reports in Mercury ITG Center
- Details all Mercury ITG reports
- Discusses the Reporting Meta Layer used in reporting

Each chapter covers a particular topic:

Running Reports Discusses the reports available in Mercury ITG Center,

and provides the procedures for running reports using the standard interface and the Workbench interface.

Standard Reports Provides details on all standard reports available in all

Mercury ITG Center products.

Demand Provides details on all reports that are available

Management Reports specifically in Demand Management.

Change Management Provides details on all reports that are available

Reports specifically in Change Management.

Project Management Provides details on all reports that are available

Reports specifically in Project Management.

Time Management
ReportsProvides details on all reports that are available
specifically in Time Management.Reporting Meta
LayerDescribes the procedures for setting up and using the
Reporting Meta Layer.Report TypesDefines the windows and fields included in the Report
Types screen in the Configuration screen group.Reporting Meta
Layer ViewsDetails the views provided with the Reporting Meta
Layer.

Intended Audience

The intended audience for this document include:

- Managers responsible for reporting
- Administrators who need to set up and use the Reporting Meta Layer
- Workbench interface users who run and configure reports
- Standard interface users who run reports
- Administrators who need to set up and use the Reporting Meta Layer

Document Conventions

Table 1-1 lists the types of conventions used in this document.

Table 1-1. Document conventions

| Convention | Description | Example |
|------------------------|---|--------------------|
| Button, menu, tabs | Names of interface components that can be clicked (such as buttons, menus, and tabs) are shown in bold. | Apply button |
| Fields, Windows, Pages | Names of windows, fields, and pages are shown as displayed. | New Request window |

Table 1-1. Document conventions

| Convention | Description | Example |
|------------|---|---|
| Code | Code input and output are shown as displayed. | CauchoConfigFile C:/ITG_Home/conf/ resin.conf |
| Link | Linked URLs, filenames, and cross references are shown as blue italicized text. | www.merc-int.com |
| Variable | Variables are shown as italicized text. | ITG_Home/bin directory |
| Note | Used to identify note boxes that contain additional information. | Note |
| Caution | Used to identify caution boxes that contain important information. Follow the instructions in all caution boxes, failure to do so may result in loss of data. | Caution |
| Example | Used to identify example boxes that contain examples of related procedure. | Example |

Additional Resources

Mercury Interactive provides the following additional resources to help you successfully run Mercury ITG reports:

- Related Documentation
- Customer Support
- Education Services

Related Documentation

The Library includes additional documents related to the topics discussed in this guide. Access the Library through the Mercury ITG Center online help.

Customer Support

Customer support and downloads for the Mercury ITG Center and additional product information can be accessed from the Mercury Interactive Support Web site at http://support.mercuryinteractive.com.

Education Services

Mercury Interactive provides a complete training curriculum to help you achieve optimal results using the Mercury IT Governance Center. For more information, visit the Education Services Web site at http://www.merc-training.com/main/ITG.

Chapter 2 Running Reports

Mercury ITG Center features a pre-defined set of HTML-based reports that are accessed through a Web browser. The reports provided with Mercury ITG Center allow users to view the current detailed status of their Mercury ITG data at any time. Mercury ITG Center also allows users to build their own reports.

Mercury ITG reports output text that provides information on specific entities or configurations. These reports can be accessed through the Workbench, and can be configured for access through the standard interface. Details for each report, such as the description of each parameter, are in subsequent chapters of this book.



All Report Types that end with "Report" are textual reports that list details about specific entities. Report Types that end with "Program" perform some activity and then report on their results.

This chapter describes the following topics related to submitting and viewing reports in Mercury ITG Center:

- Submitting a Report from the Workbench Interface
- Submitting a Report from the Standard Interface
- Viewing Reports

Submitting a Report from the Workbench Interface

This section describes the procedure for submitting a report from the Workbench and how to use the **Scheduling** and **Notifications** tabs:

- Using the Scheduling Tab
- *Using the Notifications Tab*

To submit a Report from the Workbench:

1. In the Workbench, click the appropriate screen group (**Demand Mgmt**, **Change Mgmt**, or **Project Mgmt**) and then click the **Reports** screen.

The Report Submission Workbench window opens.

2. Click New Report in the Query tab, or New in the Results tab.

The New Report Submission window opens.

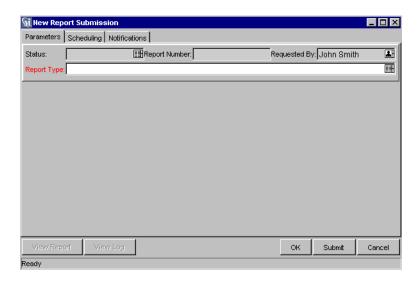
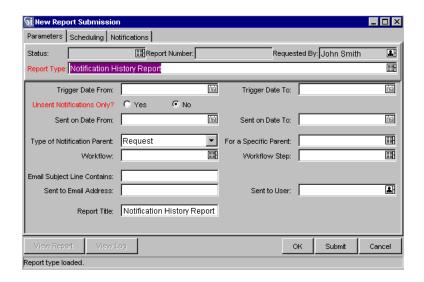


Figure 2-1 New Report Submission window

- 3. In the Report Type auto-complete list, select the desired Report Type.
- 4. Click **OK**.

Report-specific parameters appear at the bottom of the tab.



5. Enter information in the appropriate fields.

Information must be entered for required fields.



Fields in Reports default to AND search criteria, meaning that Reports run with entries in multiple fields yield the most restrictive results.

6. (Optional) Click on the **Scheduling** tab and enter the desired time to run the Report.

If no scheduling information is entered, the report runs immediately. For more information, see "*Using the Scheduling Tab*" on page 8.

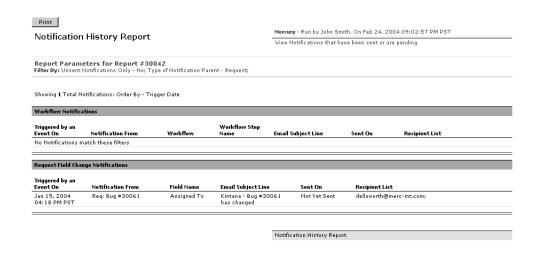
- 7. (Optional) Enter the frequency by which the report will re-run.
- 8. (Optional) Using the **Notifications** tab, select users to inform of the Report results.
 - a. Click on the **Notifications** tab.
 - b. Click New.
 - c. Select users to inform of the Report results.

d. Click OK.

For more information on adding new recipients, refer to "Using the Notifications Tab" on page 10.

- 9. To run the Report, click **Submit**.
- 10. When the Status field becomes either Completed or Failed, click **View Report**.

The Report output displays in the Web browser.





If you do not have permission to submit a report, contact the Mercury ITG configuration team at your site.

11. To print the report, click **Print**.

This feature is not available for all reports.

Using the Scheduling Tab

Use the **Scheduling** tab to determine when a Report runs. Reports can run immediately or be scheduled to run at a later time. Reports can also be scheduled to run periodically.

To schedule when reports will run:

- 1. Click the **Scheduling** tab.
- 2. Check the Schedule the report check box.
- 3. In the Execution Date and Execution Time fields, enter the appropriate date and time to run the report.
- 4. To run the report periodically:
 - a. Check the Repeat Periodically check box.
 - b. Use the Repeat Until Date field to specify the date after which the Report will no longer be run.
 - c. Use the Repeat Interval field to specify how frequently the report will run, based on the time unit specified in the drop-down list following the field.

Example

To schedule a report to run every three days for one month:

- In the Repeat Until Date field, enter the date one month in the future.
- In the Repeat Interval field, enter 3.
- In the drop-down list, select **Days**.

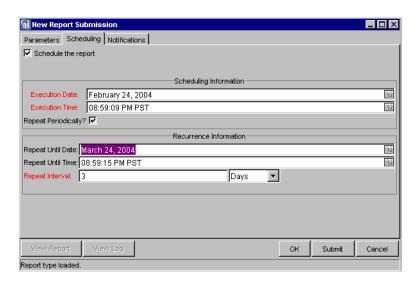


Figure 2-2 New Report Submission window Scheduling tab

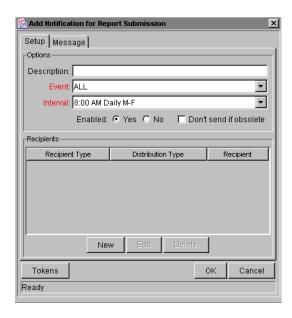
Using the Notifications Tab

Use the **Notifications** tab to specify recipients for the Report.

To specify recipients for the Report:

- 1. Click the **Notifications** tab.
- 2. Click New.

The Add Notification for Report Submission window opens.



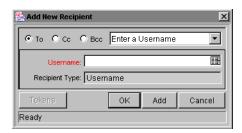
3. In the **Setup** tab, enter information as described in the following table.

| Field | Description |
|-------|--|
| Event | The report event that queues the Notification. The event can be Completed , Failed , or AII . |

| Field | Description |
|---------------------------|--|
| Interval | Each Notification within a report submission has an associated interval. When a Notification is triggered, the Notification Interval determines when the email is sent out. The following intervals are available: |
| | 8:00 AM Daily M-F: This Notification is sent every 8:00 AM on the next available work day after the Notification event occurs. |
| | Hourly M-F: This Notification is sent every hour, starting on the next available work day after the Notification event occurs. |
| | Immediate: This Notification is sent immediately (just once). |
| Don't Send if Obsolete | Specifies the Notification should only be sent if the circumstances triggering the Notification are still present. This setting is used primarily when configuring Workflowbased Notifications to be sent. |

4. To add a new user to the Recipients, click New.

The Add New Recipient window opens.



5. In the Add New Recipient window, enter information as described in the following table.

Table 2-1. Add New Recipient Window Fields and Buttons

| Field | Description | |
|----------------------------------|--|--|
| (Drop Down List) | The format for selecting the recipient(s). The choices are: | |
| | Enter a Username – select a specific User to receive the Notification. The User must have an email address. | |
| | Enter an Email Address – enter any email address for the Notification. | |
| | Enter a Security Group – select a specific Security Group. All enabled users in the group with email addresses receive the Notification. | |
| | Enter a Standard Token – select from a list of system Tokens corresponding to a User, Security Group, or Email Address. | |
| | Enter a User Defined Token – enter any Token corresponding to a User, Security Group, or Email Address. | |
| | Selecting an item from this drop down list dynamically updates subsequent fields. | |
| (Dynamically updated by the Drop | Provides a field for specifying the recipient. If the Enter a Username drop down list is: | |
| Down List Selection) | Enter a Username – the Validate: Username window is returned. | |
| | Enter an Email Address – the Validate: Email Address window is returned. | |
| | Enter a Security Group – the Validate: Security Group window is returned. | |
| | Enter a Standard Token – the Validate: Standard Token window is returned. | |
| | Enter a User Defined Token – the Validate: User Defined window is returned. | |
| Recipient Type | Used when entering a User Defined Token to define the type of recipient that the Token evaluates to.(Dynamically updated by the Drop Down List selection.) The choices are: Username, User ID, Security Group Name, Security Group ID and Email Address. | |

6. Click **OK** to add the new recipient.

7. (Optional) In the Add Notification For Report Submission dialog, use the Edit and **Delete** buttons to modify the list of recipients.

To view available Tokens, click Token.

- 8. (Optional) To view and edit the Message Notification Template, click the Message tab in the Add Notification For Report Submission window.
- 9. To close the Add Notification For Report Submission window, click **OK**.

To return to the **Notifications** tab, click **Cancel**.

The email will be sent to the recipients specified in the Add New Recipient window.

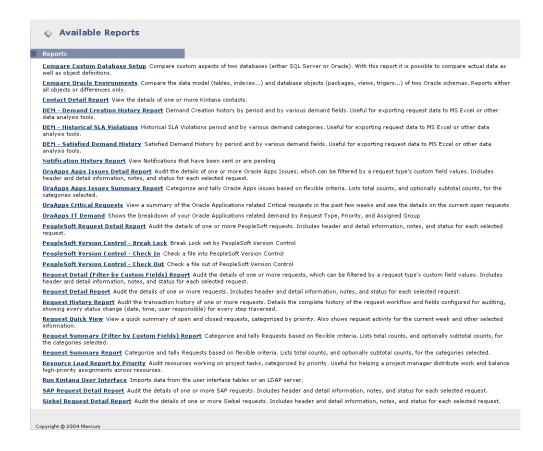
Submitting a Report from the Standard Interface

This section describes the procedure for running a report using the standard interface.

To run a Report from the standard interface:

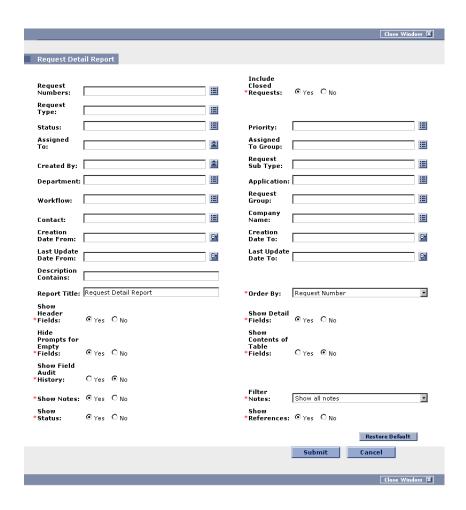
- 1. In the navigation bar at left, select **Reports**.
 - a. To run a Request report for Demand Management, select Request Reports.
 - b. To run a Package report for Change Management, select Package Reports.
 - c. To run a Project report for Project Management, select Project Reports.
 - d. To run a Time report for Time Management, select **Time Reports**.

The Available Reports page opens.



2. Choose the report to be submitted from the list of Report Types by clicking on its name.

The Create Report window opens.



This example of the Create Report window shows the required and optional fields for the Request Detail Report. Each Report Type has its own set of required and optional fields. The Report creation page always displays a different set of fields depending on which Report Type is selected. For information on each report's field descriptions, see the appropriate chapter in this document.

- 3. Enter information in the Report creation page's required fields.
- Enter information in the Report creation page's optional fields.

5. Click Submit.

After the report has been processed, the Submitted: Report window opens to display and refresh the status until the report is completed.



6. The completed report will then be displayed in a separate page as shown in Figure 2-3.

To print the report, click Print. The print feature is only available in certain reports.

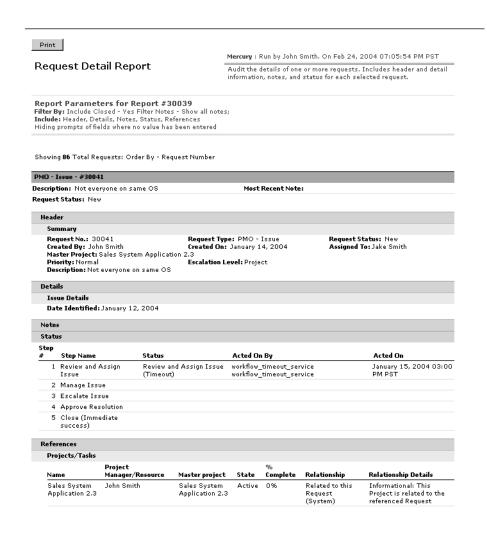


Figure 2-3 Request Detail Report

Viewing Reports

Previously submitted reports can be viewed from the Workbench or standard interface in the following ways:

- Viewing Reports Using the Workbench
- Viewing Previously Submitted Reports Using the Standard Interface
- Viewing and Cancelling Running Reports Using the Standard Interface

Viewing Reports Using the Workbench

This section describes the procedure for viewing reports using the Workbench.

To view previously submitted reports in the Workbench interface:

- 1. In the Query tab of the Report Submission Workbench, enter the desired search criteria.
- 2. Click List.

All matching Report Submissions will be listed in the **Results** tab.

- To view the submission details used for the Report, click **Open**.
- To view the Report output, click View Report, or double-click on the desired Report.



It is not possible to modify the values used for a previous Report Submission. However, from the Results tab of the Report Submission Workbench, you can highlight a particular Report Submission and click Copy. This makes an exact duplicate of the Report Submission. The duplicate report can be modified and submitted.

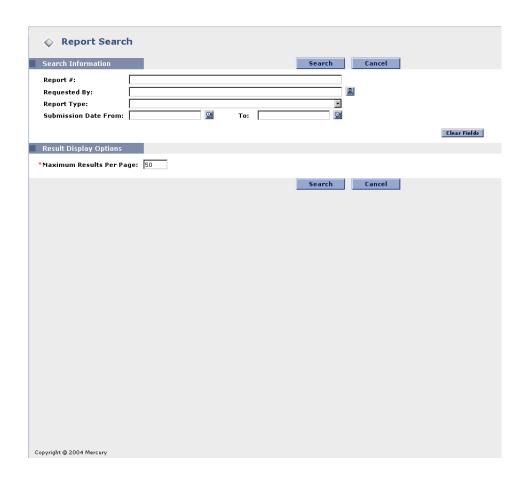
Viewing Previously Submitted Reports Using the Standard Interface

This section describes the procedure for viewing previously submitted reports using the standard interface.

To view previously submitted reports in the standard interface:

1. From the navigation bar, select **Reports > Search Previous Reports**.

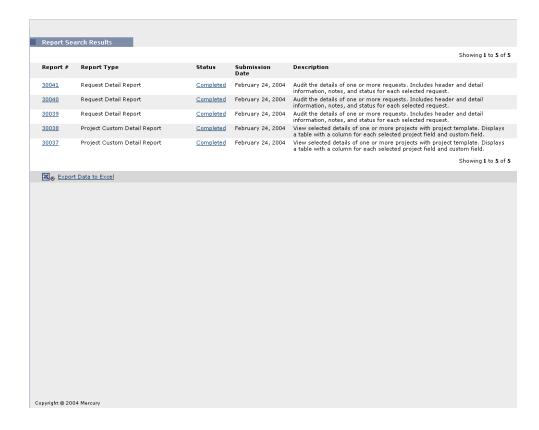
The Report Search page opens.



2. Under Search Information, enter the search criteria in the appropriate fields.

3. Click Search.

All reports that match the search criteria will be displayed on the Report Search Results page.



- 4. To view the report output, click the desired report in the Report # column. The report output displays in your Web browser.
- 5. To export the data to an Excel spreadsheet, click **Export Data to Excel**.

Viewing and Cancelling Running Reports Using the Standard Interface

This section describes the procedure for viewing and cancelling running reports using the standard interface.

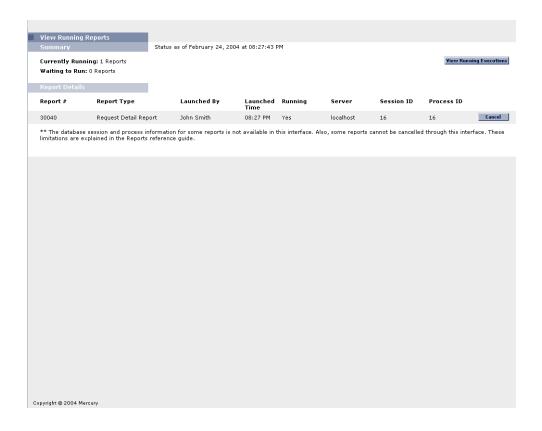


In order to access the View Running Reports page, you must have the Administrator License and the Server Tools: Execute Admin Tools Access Grant.

To view and cancel running reports in the standard interface:

1. From the navigation bar, select **Administration > View Running Reports**.

The View Running Reports page opens.



Under Report Details, both reports that are running and waiting to be run will be displayed. Table 2-2 lists the fields shown in the View Running Reports page.

2. To cancel a report, click the associated **Cancel** button for that report.

Once the report submission has been cancelled, the page will refresh and the cancelled report will no longer be displayed in the list.



Reports that do not use the ksc_run_report Special Command are subject to some limitations and cannot be cancelled in the View Running Reports page.

Table 2-2. View Running Reports fields

| Field | Description |
|-------------------|--|
| Currently Running | Number of reports currently running. |
| Currently Waiting | Number of reports that have been submitted and are waiting to run. |
| Report # | Report ID. |
| Report Type | Report type name. |
| Launched By | Full name of the user who created the report. |
| Launched Time | Creation timestamp of the report. |
| Running | Indicates whether the report is running or waiting. |
| Server | Name of the server running the report. |
| Session ID | Oracle database session ID for the session used by the report. |
| Process ID | Oracle database process ID for the process used by the report. |
| Cancel | Cancels a report that is currently running or waiting to run. |

Chapter Standard Reports

This chapter lists the standard reports available in all Mercury ITG Center products. These reports are HTML files created by the application that can be viewed using a Web browser. The reports list a tabular version of the details for export into Excel. For each report, this chapter provides a brief description and explanation of the screen parameters.

This chapter also provides definitions for all the field names used in each report. By entering criteria into a field, a filter can be created for the report so it only displays information that matches the selected criteria.

This chapter covers the following general reports that are available in all Mercury ITG Center products:

- Compare Custom Database Setup
- Compare Filesystem Environment
- Compare MS SQL Server 7 Environments
- Compare Oracle Environments
- Lookup Types Report
- Notification History Report
- Portlet Detail Report
- Report Type Detail Report
- Run Field Security Denormalization Report
- Run ITG Organization Unit Interface
- Run ITG User Interface
- Run Workflow Transaction Interface Report
- Security Group Detail Report

- Special Command Detail Report
- Synchronize Meta Layer Report
- User Data Detail Report
- User Detail Report
- Validations Report
- Workflow Detail Report
- Workflow Statistics Report

This chapter does not cover reports that are used specifically by each product. For information on Demand Management specific reports, see *Chapter 4* -"Demand Management Reports". For information on Change Management specific reports, see *Chapter 5* - "Change Management Reports". For information on Project Management specific reports, see *Chapter 6* - "Project Management Reports". For more information on running reports, see *Chapter* 2 - "Running Reports".

Compare Custom Database Setup

Use the Compare Custom Database Setup report to run custom Database comparisons. Included are some seed data used to compare Mercury ITG objects, such as:

- **Object Types**
- Request Header Types
- Request Types
- Security Groups
- **Special Commands**
- User Data
- Validations
- Workflow Step Sources (Executions and Decisions)
- Workflows

Custom comparison objects allow for the comparison of actual data within a database as well as within the data model. Custom objects can be generated for both SQL Server and Oracle.

Some standard features have been included with this report. A filter can be applied to each object. The user is also given the option of viewing all the objects in the category along with their associated attributes, or only the objects and attributes which contain differences. In order to run the report, an Environment or Application Code for each schema must be defined.

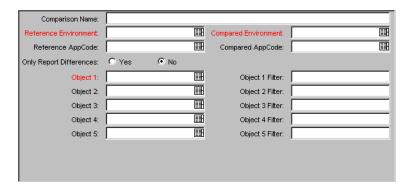


Figure 3-1 Parameters - Compare Custom Database Setup Report

| Table 3-1. | Parameters - | Compare | Custom | Datal | base Setup |
|------------|-----------------|---------|--------|-------|------------|
| 1001001. | i di dilicici s | Compare | ~~~ | Daiai | JUJU UUIUD |

| Field | Description |
|-------------------------|---|
| Comparison Name | Name of the File System comparison. |
| Reference Environment | Environment that will be compared to another Environment. |
| Compared Environment | Environment that will be compared to the Reference Environment. |
| Reference AppCode | AppCode used to override the parameters for the Reference Environment. |
| Compared AppCode | AppCode used to override the parameters for the Compared Environment. |
| Only Report Differences | Display only the differences between the two Database Setups. |
| Object 1-5 | Object to be compared on the Reference and Compared Environments. This auto-complete box provides a list of custom SQL Server or Oracle objects to be compared. |

Table 3-1. Parameters - Compare Custom Database Setup

| Field | Description |
|-------------------|--|
| Object 1-5 Filter | Filter applied to further define which object(s) is to be compared using syntax of the conditions on Mercury ITG commands. |

Compare Filesystem Environment

Use the Compare Filesystem Environments report to compare the files and file structure of two machines. In order to run this report, an Environment or Application Code for each machine must be defined within Mercury ITG Center. The filesystem can be any that an Environment is defined for; this means that a Windows filesystem can be compared with a Unix filesystem, or the many flavors of Unix can be compared with each other.

Some of the options available with this report include:

- The base path can be overridden when the report is run.
- The user may choose to view all the files and directories, or only the ones which are different.
- The user may select any or all of the following comparisons to perform: Owner, Permissions, or Content.
- The user may opt to include or exclude certain file types and directory names.

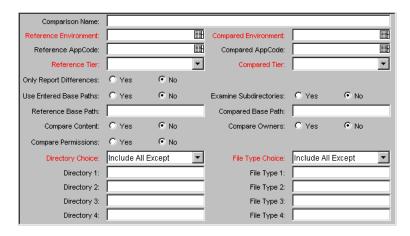


Figure 3-2 Parameters - Compare Filesystem Environments

Table 3-2. Parameters - Compare Filesystem Environments

| Field | Description | | |
|-------------------------|--|--|--|
| Comparison Name | Name of the Database comparison. | | |
| Reference Environment | Environment that will be compared to another Environment. | | |
| Compared Environment | Environment that will be compared to the Reference Environment. | | |
| Reference AppCode | AppCode used to override the parameters for the Reference Environment. | | |
| Compared AppCode | AppCode used to override the parameters for the Compared Environment. | | |
| Reference Tier | Client or server of the Reference Environment. | | |
| Compared Tier | Client or server of the Compared Environment. | | |
| Only Report Differences | Display only the differences between the two. | | |
| Use Entered Base Paths | Determines whether the comparison should use the default basepath from the AppCode/Environment definition or the base paths manually entered on this report submission. | | |
| Examine Subdirectories | Determines whether to compare only the files in the directory specified in the base path, or all the files and directories beneath the directory specified in the base path. | | |

Table 3-2. Parameters - Compare Filesystem Environments

| Field | Description |
|---------------------|---|
| Reference Base Path | The base path for the Reference Environment. |
| Compared Base Path | The base path for the Compared Environment. |
| Compare Content | Determines whether to compare the content of each file. |
| Compare Owners | Determines whether to compare the owners of each file/directory encountered. |
| Compare Permissions | Determines whether to compare the permissions of each file/directory encountered. |
| Directory Choice | Defines the directory comparison with respect to the below Directories (1-4). Possible values include: |
| | Include All Except - Include all directories in the comparison EXCEPT for the directories listed below. |
| | Exclude All Except - Include ONLY the below specified directories in the comparison. |
| File Type Choice | Defines the file types to be compared with respect to the below File Types (1-4). Possible values include: |
| | Include All Except - Include all file types in the comparison EXCEPT for the file types listed below. |
| | Exclude All Except - Include ONLY the below specified file types in the comparison. |
| Directory 1-4 | Specific directories to include in or exclude from the comparison report. |
| File Type 1-4 | Specific file types to include in or exclude from the comparison report using syntax of the conditions on Mercury ITG commands. |



The referenced Environment Base Paths should be defined using absolute paths for best results.

Compare MS SQL Server 7 Environments

Use the Compare MS SQL Server 7 Environments report to compare the data model of two SQL Server Version 7 Databases. The report can compare Tables, Views, Procedures, and Triggers. A unique filter can be specified for each category. The user is also given the option of viewing all the objects in the category along with their associated attributes, or only the objects and attributes which contain differences. In order to run the report, an Environment or Application Code for each schema must be defined within Mercury ITG Center.

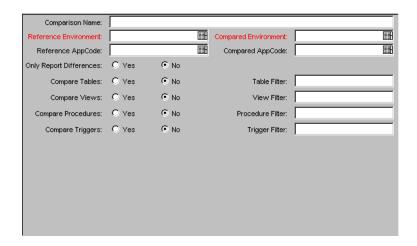


Figure 3-3 Parameters - Compare MS SQL Server 7 Environments

| Table 3-3. Parameters - Compare MS SQL Server 7 | ' Environment | ŀ |
|---|---------------|---|
|---|---------------|---|

| Field | Description | |
|-------------------------|--|--|
| Comparison Name | Name of the Database comparison. | |
| Reference Environment | Environment that will be compared to another Environment. | |
| Compared Environment | Environment that will be compared to the Reference Environment. | |
| Reference AppCode | AppCode used to override the parameters for the Reference Environment. | |
| Compared AppCode | AppCode used to override the parameters for the Compared Environment. | |
| Only Report Differences | Display only the differences between the two. | |

Table 3-3. Parameters - Compare MS SQL Server 7 Environment

| Field | Description |
|--------------------|--|
| Compare Tables | Determines whether or not to compare the Environment tables. |
| Table Filter | Filter applied to further define which tables are to be compared using syntax of the conditions on Mercury ITG commands. |
| Compare Views | Determines whether or not to compare the Environment views. |
| View Filter | Filter applied to further define which views are to be compared using syntax of the conditions on Mercury ITG commands. |
| Compare Procedures | Determines whether or not to compare the Environment procedures. |
| Procedure Filter | Filter applied to further define which procedures are to be compared using syntax of the conditions on Mercury ITG commands. |
| Compare Triggers | Determines whether or not to compare the Environment triggers. |
| Trigger Filter | Filter applied to further define which triggers are to be compared using syntax of the conditions on Mercury ITG commands. |

Compare Oracle Environments

Use the Compare Oracle Environments report to compare the data model of two Oracle schemas. Specifically, the report can compare:

- **Tables**
- Sequences
- Indexes
- Views
- Packages
- Procedures

- **Functions**
- **Triggers**
- Synonyms
- Grants

A unique filter can be specified for each category. The user is also given the option of viewing all objects in the category along with their associated attributes, or only the objects and attributes which contain differences. In order to run the report, an Environment or Application Code for each schema must be defined within Mercury ITG Center.

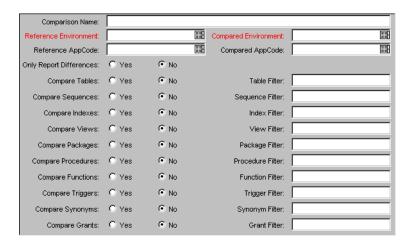


Figure 3-4 Parameters - Compare Oracle Environments Report

Table 3-4. Parameters - Compare Oracle Environments

| Field | Description | |
|-----------------------|--|--|
| Comparison Name | Name of the Database comparison. | |
| Reference Environment | Environment that will be compared to another Environment. | |
| Compared Environment | Environment that will be compared to the Reference Environment. | |
| Reference AppCode | AppCode used to override the parameters for the Reference Environment. | |
| Compared AppCode | AppCode used to override the parameters for the Compared Environment. | |

Table 3-4. Parameters - Compare Oracle Environments

| Field | Description |
|-------------------------|--|
| Only Report Differences | Display only the differences between the two. |
| Compare Tables | Determines whether or not to compare the Environment tables. |
| Table Filter | Filter applied to further define which tables are to be compared using syntax of the conditions on Mercury ITG commands. |
| Compare Sequences | Determines whether or not to compare the Environment sequences. |
| Sequence Filter | Filter applied to further define which sequences are to be compared using syntax of the conditions on Mercury ITG commands. |
| Compare Indexes | Determines whether or not to compare the Environment indexes. |
| Index Filter | Filter applied to further define which indexes are to be compared using syntax of the conditions on Mercury ITG commands. |
| Compare Views | Determines whether or not to compare the Environment views. |
| View Filter | Filter applied to further define which views are to be compared using syntax of the conditions on Mercury ITG commands. |
| Compare Packages | Determines whether or not to compare the Environment packages. |
| Package Filter | Filter applied to further define which Packages are to be compared using syntax of the conditions on Mercury ITG commands. |
| Compare Procedures | Determines whether or not to compare the Environment procedures. |
| Procedure Filter | Filter applied to further define which procedures are to be compared using syntax of the conditions on Mercury ITG commands. |
| Compare Functions | Determines whether or not to compare the Environment functions. |
| Function Filter | Filter applied to further define which functions are to be compared using syntax of the conditions on Mercury ITG commands. |

| Field | Description | |
|------------------|--|--|
| Compare Triggers | Determines whether or not to compare the Environment triggers. | |
| Trigger Filter | Filter applied to further define which triggers are to be compared using syntax of the conditions on Mercury ITG commands. | |
| Compare Synonyms | Determines whether or not to compare the Environment synonyms. | |
| Synonym Filter | Filter applied to further define which synonyms are to be compared using syntax of the conditions on Mercury ITG commands. | |
| Compare Grants | Determines whether or not to compare the Environment grants. | |
| Grant Filter | Filter applied to further define which grants are to be compared using syntax of the conditions on Mercury ITG commands. | |

Table 3-4. Parameters - Compare Oracle Environments

Lookup Types Report

This report shows the configuration details of one or more lookups.



Figure 3-5 Parameters - Lookup Types Report

Table 3-5. Parameters - Lookup Types Report

| Field | Description | |
|------------------|---|--|
| Lookup Type From | Select Lookup Types that are alphabetically equal to or greater than the value in this field. | |

Table 3-5. Parameters - Lookup Types Report

| Field | Description | |
|----------------|--|--|
| Lookup Type To | Select Lookup Types that are alphabetically equal to or less than the value in this field. | |

Notification History Report

Use this report to view Notifications that have been sent or are pending. It contains such information as:

- **Notification Date**
- **Entity Type**
- Subject of the Notification
- Sent and Reminder Flags



Figure 3-6 Parameters - Notification History Report

Table 3-6. Parameters - Notification History Report

| | Fields | | Description |
|-------------------|----------|------------|--|
| Name | Required | Туре | |
| Trigger Date From | N | Date Field | Only select Notifications triggered on or after the value in this date field. |
| Trigger Date To | N | Date Field | Only select Notifications triggered on or before the value in this date field. |

Table 3-6. Parameters - Notification History Report

| Fields | | Description | |
|--------------------------------|----------|------------------------|--|
| Name | Required | Туре | |
| Unsent Notifications Only? | Υ | Yes/No Radio Button | Only select Notifications that have not yet been sent. |
| Sent on Date From | N | Date Field | Only select Notifications sent on or after the value in this date field. |
| Sent on Date To | N | Date Field | Only select Notifications sent on or before the value in this date field. |
| Type of Notification Parent | N | Drop Down List | Type of parent entity for which the Notification is being sent. Possible values include Project, Request, Project, and Module. |
| For a Specific Parent | N | Auto-Complete List | Specific parent entity for which the Notification is being sent. |
| Workflow | N | Auto-Complete List | The name of the Workflow associated with the Notification. |
| Workflow Step | N | Auto-Complete List | The Workflow Step associated with the Notification. |
| Email Subject Line Contains | N | Text Field | Text that appears in the subject line of the Notification. |
| Sent to Email Address | N | Text Field | The email address to which the Notification is sent. |
| Sent to User | N | Auto-Complete List | The name of the user to whom the Notification is sent. |
| Report Title | N | Text Field | Title of the report. |

Portlet Detail Report

The Portlet Detail Report returns the details of a Portlet or range of Portlets. It lists the Portlet's columns, as well as the SQL query used by the Portlet to retrieve data from the system. The Portlet's filter fields and security configuration can also be listed.



The Portlets displayed by the Report may be restricted. The user running the report will only see information on the Portlets for which that user has access, based on settings in the Portlet **User Access** tab. If the user can access the Portlet, that Portlet will be included in the report. Otherwise, information about the Portlet will not be included in the report.

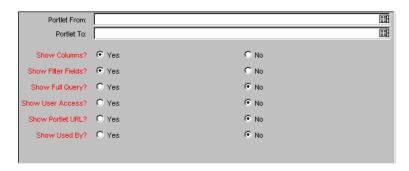


Figure 3-7 Parameters - Portlet Detail Report

Table 3-7. Parameters - Portlet Detail Report

| Fields | | Description | |
|--------------|----------|------------------------|--|
| Name | Required | Туре | |
| Portlet From | N | Auto-Complete List | Only select Portlets that are alphabetically equal to or greater than the value in this field. |
| Portlet To | N | Auto-Complete List | Only select Portlets that are alphabetically equal to or less than the value in this field. |
| Show Columns | Υ | Yes/No Radio Button | Determines whether to show Portlet column information. |

| Fields | | Description | |
|--------------------|----------|------------------------|--|
| Name | Required | Туре | |
| Show Filter Fields | Υ | Yes/No Radio Button | Determines whether to show Portlet filter field information. |
| Show Full Query | Υ | Yes/No Radio Button | Determines whether to show the full Portlet query. |
| Show User Access | Υ | Yes/No Radio Button | Determines whether to show Portlet Security. |
| Show Portlet URL | Υ | Yes/No Radio Button | Determines whether to show Portlet URLs. |
| Show Used By | Υ | Yes/No Radio Button | Determines whether to show which users are using this Portlet. |

Report Type Detail Report

This is a report for Report Type definitions. Use this report to see the parameters and parameter details for each Report Type, as well as the exact commands used to run the report.

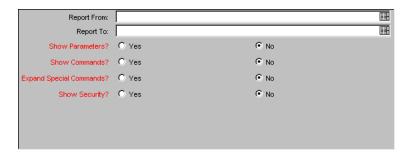


Figure 3-8 Parameters - Report Type Detail Report

| Fields | | | Dogovintion. |
|----------------------------|----------|------------------------|--|
| Name | Required | Туре | Description |
| Report From | N | Auto-Complete List | Select Report Types that are alphabetically equal to or greater than the value in this field. |
| Report To | N | Auto-Complete List | Select Report Types that are alphabetically equal to or less than the value in this field. |
| Show Parameters | Υ | Yes/No Radio Button | Determines whether to show the Parameters and Validations for the selected Report Types. |
| Show Commands | Υ | Yes/No Radio Button | Determines whether to show the Commands and Command Steps for the selected Report Types. |
| Expand Special Commands | Υ | Yes/No Radio Button | Expands user-defined Special Commands, replacing appropriate parameters and listing Commands to be executed. |
| Show Security | Υ | Yes/No Radio Button | Determines whether to show the Security Groups for the selected Report Types. |

Table 3-8. Parameters - Report Type Detail Report

Run Field Security Denormalization Report

This report runs Field Level Security-related denormalization tasks for particular entities.

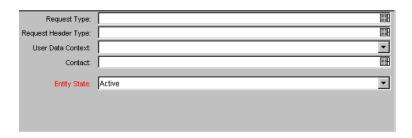


Figure 3-9 Parameters - Run Field Security Denormalization Report

Table 3-9. Parameters - Run Field Security Denormalization Report

| Field | Description | |
|---------------------|--|--|
| Request Type | Selects Requests of a specific Request Type. This field can hold multiple items. | |
| Request Header Type | Selects Request Header Type. | |
| User Data Context | Package User Data (Global) or Request User Data (Global) | |
| Contact | Select Requests with the associated Contact specified in this field. | |
| Entity State | Required field showing the entity state. Possible values include: All , Active , and Closed . | |

Run ITG Organization Unit Interface

This report imports data from the Organization Unit interface tables or an LDAP server. For more information on this report, see Open Interface Guide and Reference.

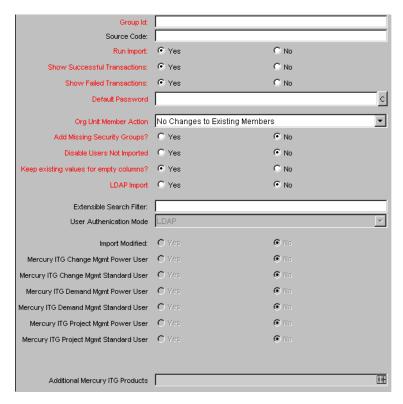


Figure 3-10 Parameters - Run ITG Organization Unit Interface

Table 3-10. Parameters - Run ITG Organization Unit Interface

| Field | Description |
|-------------|--|
| Group Id | Runs the interface for a specific Group ID. The interface program will only look for records with this value in the GROUP_ID column. This is useful when importing a batch of Packages. If this parameter is left blank, the program will only pick up records with a NULL GROUP_ID value. |
| Source Code | Runs the interface for records from a specific source. The interface program will only look for records with this value in the SOURCE_CODE column. |
| Run Import | If set to Yes , the program will process the records in the interface table and try to import them. If set to No , the program will simply report on the records in the interface table. This option is useful when auditing prior executions of the Open Interface. |

Table 3-10. Parameters - Run ITG Organization Unit Interface

| Field | Description | |
|--|---|--|
| Show Successful Transactions | Shows Packages and Package Lines that were successfully imported. | |
| Show Failed Transactions | Shows Packages and Package Lines that were not successfully imported. | |
| Default Password | Enter a default password. | |
| Security Groups | Select Security Groups that have the right to access this group of users. | |
| User Security Group Action | Select action to perform (Add/Drop, Add, Drop or Overwrite). | |
| Add Missing Security Groups | Determines whether or not to add missing Security Groups. | |
| Disable Users Not Imported | Determines whether or not to import users who have been disabled. | |
| Keep existing values for empty columns | Determines whether or not to keep existing values stored for empty columns. | |
| LDAP Import | Determines whether or not to perform LDAP import. | |
| LDAP Import Kintana User Only | Determines whether or not to perform LDAP import of only Mercury ITG users. | |
| Search Filter | Enter a search filter using syntax of the conditions on Mercury ITG commands. | |
| User Authentication Mode | Select a user authentication mode (LDAP or NTLM). | |
| Link User Security Groups from LDAP Groups | Determines whether or not to link Security Groups from LDAP Groups. | |
| Import Modified | Determines whether or not the import can be modified. | |
| Mercury ITG Change Mgmt Power User | Determines whether or not to give permissions for this license type to users when they are imported into the standard Mercury ITG data model. | |
| Mercury ITG Change Mgmt Standard User | Determines whether or not to give permissions for this license type to users when they are imported into the standard Mercury ITG data model. | |
| Mercury ITG Demand Mgmt Power User | Determines whether or not to give permissions for this license type to users when they are imported into the standard Mercury ITG data model. | |

Table 3-10. Parameters - Run ITG Organization Unit Interface

| Field | Description | |
|---|---|--|
| Mercury ITG Demand Mgmt Standard User | Determines whether or not to give permissions for this license type to users when they are imported into the standard Mercury ITG data model. | |
| Mercury ITG Project Mgmt Power User | Determines whether or not to give permissions for this license type to users when they are imported into the standard Mercury ITG data model. | |
| Mercury ITG Project Mgmt Standard User | Determines whether or not to give permissions for this license type to users when they are imported into the standard Mercury ITG data model. | |
| Additional Mercury ITG Products | Determines whether or not to give permissions for the selected product (Portfolio Management, Program Management, Time Management) when they are imported into the standard Mercury ITG data model. | |

Run ITG User Interface

This report imports data from the user interface tables or an LDAP server. For more information on this report, see Open Interface Guide and Reference.

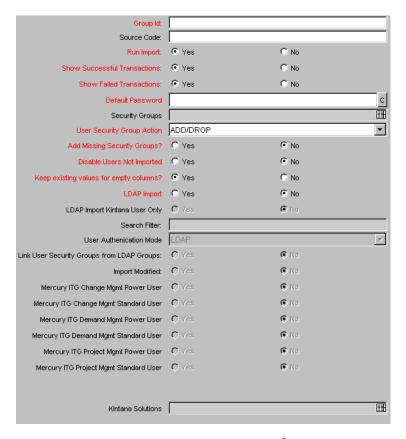


Figure 3-11 Parameters - Run ITG User Interface

Table 3-11. Parameters - Run ITG User Interface

| Field | Description |
|-------------|--|
| Group Id | Runs the interface for a specific Group ID. The interface program will only look for records with this value in the GROUP_ID column. This is useful when importing a batch of Packages. If this parameter is left blank, the program will only pick up records with a NULL GROUP_ID value. |
| Source Code | Runs the interface for records from a specific source. The interface program will only look for records with this value in the SOURCE_CODE column. |

Table 3-11. Parameters - Run ITG User Interface

| Field | Description | | |
|--|--|--|--|
| Run Import | If set to Yes , the program will process the records in the interface table and try to import them. If set to No , the program will simply report on the records in the interface table. This option is useful when auditing prior executions of the Open Interface. | | |
| Show Successful Transactions | Shows Packages and Package Lines that were successfully imported. | | |
| Show Failed Transactions | Shows Packages and Package Lines that were not successfully imported. | | |
| Default Password | Enter a default password. | | |
| Security Groups | Select Security Groups that have the right to access this group of users. | | |
| User Security Group Action | Select action to perform (Add/Drop, Add, Drop or Overwrite). | | |
| Add Missing Security Groups | Determines whether or not to add missing Security Groups. | | |
| Disable Users Not Imported | Determines whether or not to import users who have been disabled. | | |
| Keep existing values for empty columns | Determines whether or not to keep existing values stored for empty columns. | | |
| LDAP Import | Determines whether or not to perform LDAP import. | | |
| LDAP Import Kintana User Only | Determines whether or not to perform LDAP import of only Mercury ITG users. | | |
| Search Filter | Enter a search filter using syntax of the conditions on Mercury ITG commands. | | |
| User Authentication Mode | Select a user authentication mode (LDAP or NTLM). | | |
| Link User Security Groups from LDAP Groups | Determines whether or not to link Security Groups from LDAP Groups. | | |
| Import Modified | Determines whether or not the import can be modified. | | |
| Mercury ITG Change Mgmt Power User | Determines whether or not to give permissions for this license type to users when they are imported into the standard Mercury ITG data model. | | |
| Mercury ITG Change Mgmt Standard User | Determines whether or not to give permissions for this license type to users when they are imported into the standard Mercury ITG data model. | | |

| Field | Description | |
|---|---|--|
| Mercury ITG Demand Mgmt Power User | Determines whether or not to give permissions for this license type to users when they are imported into the standard Mercury ITG data model. | |
| Mercury ITG Demand Mgmt Standard User | Determines whether or not to give permissions for this license type to users when they are imported into the standard Mercury ITG data model. | |
| Mercury ITG Project Mgmt Power User | Determines whether or not to give permissions for this license type to users when they are imported into the standard Mercury ITG data model. | |
| Mercury ITG Project Mgmt Standard User | Determines whether or not to give permissions for this license type to users when they are imported into the standard Mercury ITG data model. | |
| Kintana Solutions | Determines whether or not to give permissions for the selected product (Portfolio Management, Program Management, Time Management) when they are imported into the standard Mercury ITG data model. | |

Table 3-11. Parameters - Run ITG User Interface

Run Workflow Transaction Interface Report

This report validates and runs Workflow transactions based on data in the Workflow open interface tables. Use this report to start process steps from outside the Mercury ITG Center end-user screens.

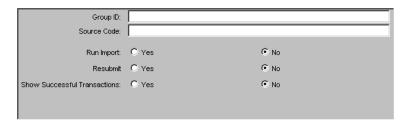


Figure 3-12 Parameters - Run Workflow Transaction Interface Report

Table 3-12. Parameters - Run Workflow Transaction Interface Report

| Field | Parameter |
|---------------------------------|---|
| Group ID | Runs the interface for a specific Group ID. The interface program will only look for records with this value in the GROUP_ID column. This is useful when processing a specific batch of transactions. If this parameter is left blank, the program will only pick up records with a blank GROUP_ID value. |
| Source Code | Runs the interface for records from a specific source. The interface program will only look for records with this value in the SOURCE_CODE column. This is useful for running the open interface at different frequencies depending on the driver of the Workflow transactions. |
| Run Import | If set to Yes , the program will process the records in the interface table and try to import them. If set to No , the program will simply report on the records in the interface table. This option is useful when auditing prior executions of the Open Interface. |
| Resubmit | If set to Yes , the program will reset the appropriate values for the records in the interface table, remove any previous errors, and rerun the interface for the records. To resubmit failed transactions, it is necessary to provide a Group ID and optionally a Source Code. |
| Show Successful Transactions | Shows Workflow Transactions that were successfully processed. |

Security Group Detail Report

The Security Group Detail report lists the setup information for one or more Security Groups. This report lists:

- Which users belong to the group
- What Workflow Steps the Security Group has access to
- Other information such as what screens the users in the Security Group will have update access to
- Which transactional entities (Requests, Packages, Projects or Tasks) can use a Security Group's information in its search fields

Which Request Types that members of a designated Security Group are allowed to create.

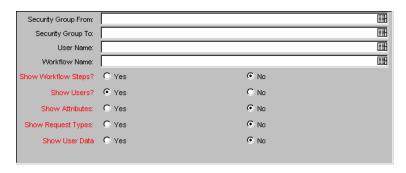


Figure 3-13 Parameters - Security Group Report

Table 3-13. Parameters - Security Group Report

| Fields | | | B |
|------------------------|----------|------------------------|--|
| Name | Required | Туре | Description |
| Security Group From | N | Auto-Complete List | Select Security Groups that are alphabetically equal to or greater than the value in this field. |
| Security Group To | N | Auto-Complete List | Select Security Groups that are alphabetically equal to or less than the value in this field. |
| User Name | N | Auto-Complete List | Select Security Groups containing a specific user. |
| Workflow Name | N | Auto-Complete List | Select Security Groups that are linked to Workflow Steps in a specific Workflow. |
| Show Workflow Steps | Υ | Yes/No Radio Button | For each selected Security Group, show all the Workflow Steps that include the Security Group. |
| Show Users | Υ | Yes/No Radio Button | For each selected Security Group, show all users in the Security Group. |
| Show Attributes | N | Yes/No Radio Button | Determines whether to report the entity types that can use this Security Group's information in its search fields. |
| Show Request Types | N | Yes/No Radio Button | Determines whether to show the Request Types that members of this Security Group are allowed to create. |
| Show User Data | Υ | Yes/No Radio Button | Determines whether to show the User Data custom fields (if any) for each selected Security Group. |

Special Command Detail Report

This report lists details for a Special Command or a range of Special Commands.



Figure 3-14 Parameters - Special Command Detail Report

| Fields | | | 5 |
|-------------------------|----------|---------------------------|---|
| Name | Required | Туре | Description |
| Special Command From | N | Auto- Complete List | Limits the report to a specific Special Command or a range of Special Commands listed alphabetically. |
| Special Command To | N | Auto- Complete List | Limits the report to a specific Special Command or a range of Special Commands listed alphabetically. |
| Show References | Υ | Yes/No Radio Button | For each Special Command, show all the entities that refer to the Special Command. |

Synchronize Meta Layer Report

Use this report to assess or synchronize the Meta Layer.

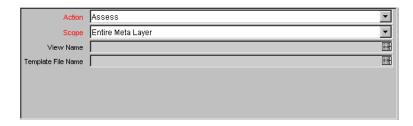


Figure 3-15 Parameters - Synchronize Meta Layer Report

Table 3-15. Parameters - Synchronize Meta Layer Report

| Field | Description |
|--------------------|--|
| Action | Action for the Meta Layer (Assess, Synchronize or Drop). |
| Scope | The scope of the Meta Layer used to assess or synchronize (Entire Meta Layer, Specific View or Specific Template). |
| View Name | The name of the Meta Layer View. This field is enabled if Specific View is selected in the Scope field. |
| Template File Name | The name of the Meta Layer Template. This field is enabled if Specific Template is selected in the Scope field. |

User Data Detail Report

User Data fields are custom fields that can be added to various entities (such as Packages, Requests, Workflows, and Security Groups). The User Data Detail report displays the definition of each custom field. The report is grouped by entity and lists all the custom fields for each entity as well as the Validations that the fields reference.



Figure 3-16 Parameters - User Data Detail Report

Table 3-16. Parameters - User Data Detail Report

| Fields | | | Danasia kia sa |
|----------------|----------|-----------------------|--|
| Name | Required | Туре | Description |
| User Data From | N | Auto-Complete List | Select the type of User Data, where the User Data type is alphabetically equal to or greater than the value in this field. |
| User Data To | N | Auto-Complete List | Select the type of User Data, where the User Data type is alphabetically equal to or less than the value in this field. |

User Detail Report

This is a simple report that lists the users who have been defined in the Mercury ITG system, as well as the Security Groups attached to each user.

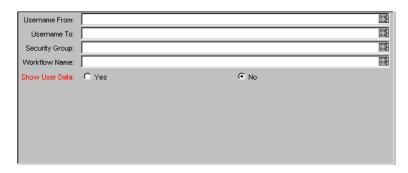


Figure 3-17 Parameters - User Detail Report

Table 3-17. Parameters - User Detail Report

| | Fields | | Description |
|----------------|----------|------------------------|--|
| Name | Required | Туре | Description |
| Username From | N | Auto-Complete List | Select Users with Username alphabetically equal to or greater than the value in this field. |
| Username To | N | Auto-Complete List | Select Users with Username are alphabetically equal to or less than the value in this field. |
| Security Group | N | Auto-Complete List | Select Users in a specific Security Group. |
| Workflow Name | N | Auto-Complete List | Select Users that are tied to Security Groups that can access one or more steps in the given Workflow. |
| Show User Data | Υ | Yes/No Radio Button | Determines whether to show the User Data custom fields (if any) for each selected User. |

Validations Report

This is a simple report on the various custom Validations that have been entered into the system or those that are standard with Mercury ITG Center products.

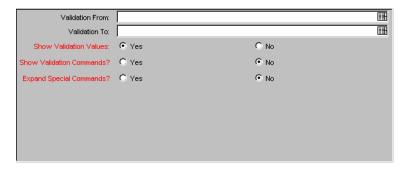


Figure 3-18 Parameters - Validations Report

Table 3-18. Parameters - Validations Report

| | Fields | | D |
|-----------------------------|----------|------------------------|---|
| Name | Required | Туре | Description |
| Validation From | N | Auto-Complete List | Select Validations whose names are alphabetically equal to or greater than the value in this field. |
| Validation To | N | Auto-Complete List | Select Validations whose names are alphabetically equal to or less than the value in this field. |
| Show Validation Values | Υ | Yes/No Radio Button | For each selected Validation that is validated by a list of values, show each value in the list. |
| Show Validation Commands | Υ | Yes/No Radio Button | For each selected Validation that is validated by a list of commands, show each value in the list. |
| Expand Special Commands | Υ | Yes/No Radio Button | Displays the script for any Special Commands contained in displayed Validation commands. |

Workflow Detail Report

Use this report to view the complete definition of a specific Workflow or a set of Workflows. This report details all steps in the Workflow, all transitions in and out of each Workflow Step, possible results of each step, and all Notifications attached to the Workflow. Use this report both as an audit of the

Workflow business process set-up as well as a tool to analyze those business processes.

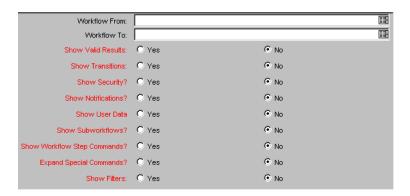


Figure 3-19 Parameters - Workflow Detail Report

Table 3-19. Parameters - Workflow Detail Report

| | Fields | | D |
|-----------------------------------|----------|------------------------|---|
| Name | Required | Туре | - Description |
| Workflow From | N | Auto-Complete List | Select Workflows that are alphabetically equal to or greater than the value in this field. |
| Workflow To | N | Auto-Complete List | Select Workflows that are alphabetically equal to or less than the value in this field. |
| Show Valid Results | Υ | Yes/No Radio Button | For each selected Workflow, show the valid result values for each Workflow Step. |
| Show Transitions | Υ | Yes/No Radio Button | For each selected Workflow, show the transitions in and out of each Workflow Step. |
| Show Security | Υ | Yes/No Radio Button | For each selected Workflow, show the Security Groups that have access to act on each Workflow Step. |
| Show Notifications | Υ | Yes/No Radio Button | For each selected Workflow, show the Notifications attached to each Workflow Step. |
| Show User Data | Υ | Yes/No Radio Button | Determines whether to show the User Data custom fields (if any) for each selected Workflow. |
| Show Sub- Workflows | Υ | Yes/No Radio Button | Determines whether to show sub-workflows for the selected Workflows. |
| Show Workflow Step Commands | Υ | Yes/No Radio Button | Determines whether to show the Workflow Step commands if a step is a command execution step. |

| Fields | | | December - |
|----------------------------|----------|------------------------|---|
| Name | Required | Туре | Description |
| Expand Special Commands | Υ | Yes/No Radio Button | If a displayed Workflow Step command contains Special Commands, checking Yes displays the script for the Special Commands. |
| Show Filters | N | Yes/No Radio Button | Determines whether to show information about field filtering for Change Management header fields. |

Workflow Statistics Report

Given a date range and a Workflow (or a range of Workflows), this report provides statistical information regarding the usage of the Workflow such as:

- How many times the Workflow was used compared to the total number of Packages or Requests
- Average, minimum, and maximum completion time for Packages/ Requests using this Workflow within the date range
- For each Workflow Step, the percentage that the step is traversed of the total Packages/Requests within that Workflow
- For each step, the average, minimum, and maximum completion times
- For each step, the breakdown of the results and transitions that lead out of the step

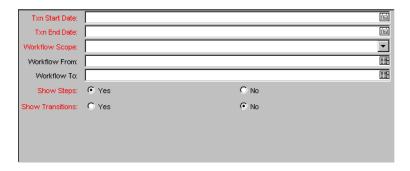


Figure 3-20 Parameters - Workflow Statistics Report

Table 3-20. Parameters - Workflow Statistics Report

| | Fields | | Description |
|---------------------|----------|------------------------|--|
| Name | Required | Туре | Description |
| Txn Start Date | Υ | Date Field | Required parameter that defines the window of time within which to perform the statistical analysis. |
| Txn End Date | Υ | Date Field | Required parameter that defines the window of time within which to perform the statistical analysis. |
| Workflow Scope | Υ | Drop Down List | Show statistics for Workflows in Demand Management or Change Management. |
| Workflow From/To | N | Auto-Complete List | Optional parameters to limit the Workflows being examined. |
| Show Steps | Υ | Yes/No Radio Button | Show the statistical analysis for individual Workflow Steps. |
| Show Transitions | Υ | Yes/No Radio Button | Show the statistical analysis of the transaction history for each Workflow. |

Chapter

Demand Management Reports

This chapter lists all reports specific to Demand Management. These reports are HTML files created by the application that can be viewed using a Web browser. In addition to a graphical representation of the data, the reports list a tabular version of the details for export into Excel. For each report, this chapter provides a brief description and explanation of the screen parameters.

This chapter also provides definitions for all the field names used in each report. By entering criteria into a field, a filter can be created for the report so it only displays information that matches the selected criteria. For more information on running reports, see *Chapter 2* - "Running Reports".

This chapter contains information on the following reports available in Demand Management:

- Contact Detail Report
- Contact Synchronization Report
- Request Detail Report
- Request Detail (Filter by Custom Fields) Report
- Request Header Type Detail Report
- Request History Report
- Request Listing Report
- Request Quick View Report
- Request Summary Report
- Request Summary (Filter by Custom Fields) Report
- Request Type Detail Report
- Resource Load Report by Priority

Run ITG Request Interface

Contact Detail Report

This report is primarily a Request Manager tool. Use this report to query the Contacts already entered in the Demand Management system who are available for entering and updating Requests.



Figure 4-1 Parameters - Contact Detail Report

Table 4-1. Parameters - Contact Detail Report

| | Fields | | Description |
|-----------------------|----------|------------|---|
| Name | Required | Туре | Description |
| Last Name From | N | Text Field | Select Contacts with Last Names alphabetically greater than or equal to this field. |
| Last Name To | N | Text Field | Contacts with Last Names alphabetically less than or equal to this field. |
| Full Name Contains | N | Text Field | Select Contacts whose full name contains the string of characters entered in this field. This search is not case sensitive. |
| Email Contains | N | Text Field | Select Contacts whose email address contains the string of characters entered in this field. This search is not case sensitive. |

Contact Synchronization Report

The Contact Synchronization Report provides a convenient interface for ensuring that the Demand Management Contacts are properly defined. This report can detect all Mercury ITG users with no corresponding Contact record and then create a Contact record for them. This report also searches for and corrects discrepancies between the Contact and Mercury ITG user information within the system.

The Contact Synchronization Report can be used to locate and correct the following problems:

- Users without a Contact
- Users with multiple Contacts
- Contacts associated to nonexistent usernames
- Contacts with the same first and last names as a Mercury ITG user, but are not associated with that user
- Enabled Contacts that have disabled users
- Enabled users that have disabled Contacts
- Associated user and Contact pairs that have different data in common fields (such as a different first name)

The Contact Synchronization Report corrects the above discrepancies in the following ways:

- Creates Contacts for users which have none
- Updates Contact names and email addresses that are out of sync with their user records

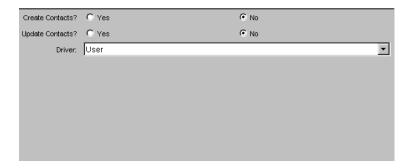


Figure 4-2 Parameters - Contact Synchronization Report

Table 4-2. Parameters - Contact Synchronization Report

| | Fields | | 5 |
|--------------------|----------|------------------------|--|
| Name | Required | Туре | Description |
| Create Contacts | N | Yes/No Radio Button | Determines whether a Contact should be created for users without an associated Contact. Click Yes to create new rows with the same name and email during the report execution. It is recommended that this report should be run with Create Contacts = No and verify the correct processing of the section for Contacts with same first and last names as a user. Some of these Contacts may need to be manually associated to users. If no manual actions need to be made, run the report with Create Contacts = Yes . |
| Update Contacts | N | Yes/No Radio Button | Determines whether a Contact should be created or updated for users associated with a Contact but where the name, email, or enabled status is out of sync. It is recommended that this report should be run the report with Update Contacts = No . Verify that the section for associated user and Contact pairs that have different data in common fields were properly processed. If the information in the user records is correct, run the report with Update Contacts = Yes . |
| Driver | N | Drop Down List | Determines how the records should be synchronized: using information on either the User record, the Contact Record, or on the record most recently updated. |

Request Detail Report

This is the main report in Demand Management. It reports on Requests using a large number of selection criteria. For each Request, the report displays:

- All notes attached to the Request
- Current status of the Request
- Listing of future steps

- All populated detail fields for the Request
- Requests assigned to a user
- Requests ready for review
- All new Requests that need to be tracked

The parameters in this report ensure that only the desired Requests are selected.

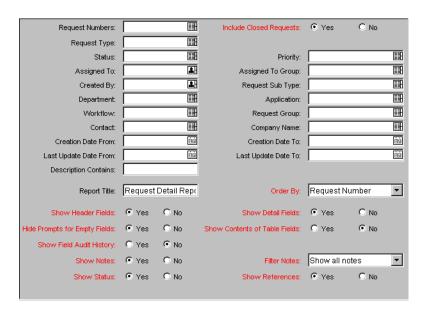


Figure 4-3 Parameters - Request Detail Report

Table 4-3. Parameters - Request Detail Report

| Fields | | | Description |
|----------------------------|----------|------------------------|--|
| Name | Required | Туре | Description |
| Request Numbers | N | Auto-Complete List | Select Requests based on Request number. |
| Include Closed Requests | Y | Yes/No Radio Button | Determines whether to include or exclude Requests that have been Closed or Cancelled. |
| Request Type | N | Auto-Complete List | Select Requests of a specific Request Type. |
| Status | N | Auto-Complete List | Select Requests with Request Statuses matching this field. This field can hold multiple items. |

| Fields | | | 2 |
|--------------------------|----------|-----------------------|---|
| Name | Required | Туре | Description |
| Priority | N | Auto-Complete List | Select Requests with a specific Priority. |
| Assigned To | N | Auto-Complete List | Select Requests with the Assigned to field equal to the value in this field. |
| Assigned To Group | N | Auto-Complete List | Select Requests with the Assigned to Group field equal to the value in this field. |
| Created By | N | Auto-Complete List | Select Requests created by a specific Demand Management user. |
| Request Sub Type | N | Auto-Complete List | Select Requests of a specific Request Sub Type. In order to use this field, the Request Type field must be defined. |
| Department | N | Auto-Complete List | Select Requests for a specific Department. |
| Application | N | Auto-Complete List | Select Requests for a specific Application. |
| Workflow | N | Auto-Complete List | Select Requests for a specific Workflow. |
| Request Group | N | Auto-Complete List | Select Requests for a specific Request Group. |
| Contact | N | Auto-Complete List | Select Requests associated with a specific Contact. |
| Company Name | N | Auto-Complete List | Select Requests associated with a specific company name. |
| Creation Date From | N | Date Field | Select Requests that were created on or after the given date. |
| Creation Date To | N | Date Field | Select Requests that were created on or before the given date. |
| Last Update Date From | N | Date Field | Select Requests that have been updated on or after the given date. |
| Last Update Date To | N | Date Field | Select Requests that have been updated on or before the given date. |
| Description Contains | N | Text Field | Select Requests with descriptions that contain the string of characters entered in this field. This is not a case sensitive search. |
| Report Title | N | Text Field | Title of the Report. |

| | Fields | | D |
|-------------------------------------|----------|------------------------|---|
| Name | Required | Туре | Description |
| Order By | Y | Drop Down List | Determines the ordering of the results. If the results are ordered by Request number, the report orders the Requests in descending order (i.e. highest Request Number first). |
| Show Header Fields | Υ | Yes/No Radio Button | Determines whether to show the full header for each selected Request. |
| Show Detail Fields | Y | Yes/No Radio Button | Determines whether to show the custom fields for each selected Request. |
| Hide Prompts For Empty Fields | Y | Yes/No Radio Button | Determines whether to hide prompts for empty fields. |
| Show Contents of Table Fields | Y | Yes/No Radio Button | Determines whether to show the contents of table component fields for each selected Request. |
| Show Field Audit History | Y | Yes/No Radio Button | Determines whether to show the Transaction History of each selected Request. |
| Show Notes | Υ | Yes/No Radio Button | Determines whether to show the Notes attached to each selected Request. |
| Filter Notes | Y | Drop Down List | Determines whether to show all Notes or only User Notes. |
| Show Status | Y | Yes/No Radio Button | Determines whether to show the Workflow Steps and current Step status for each selected Request. |
| Show References | Υ | Yes/No Radio Button | Determines whether to show the References associated with selected Request. |

Request Detail (Filter by Custom Fields) Report

This report is similar to the Request Detail Report except that Requests can be filtered by values in custom fields. Once the Request Type is specified for the report, select up to four custom fields for that Request Type. Run the report for specific values for each of those fields.

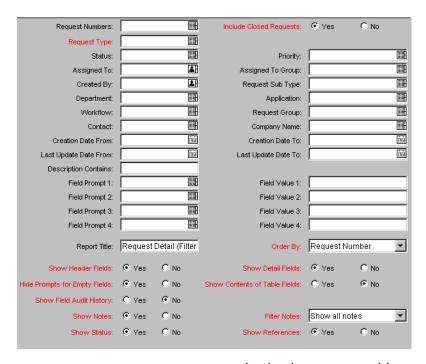


Figure 4-4 Parameters - Request Detail (Filter by Custom Fields) Report

Table 4-4. Parameters - Request Detail (Filter by Custom Fields) Report

| Fields | | | Daniel de la constante de la c |
|----------------------------|----------|------------------------|--|
| Name | Required | Туре | Description |
| Request Numbers | N | Auto-Complete List | Select Requests based on Request number. |
| Include Closed Requests | Υ | Yes/No Radio Button | Determines whether to include or exclude Requests that have been Closed or Cancelled. |
| Request Type | N | Auto-Complete List | Select Requests of a specific Request Type. |
| Status | N | Auto-Complete List | Select Requests with Request Statuses matching this field. This field can hold multiple items. |
| Priority | N | Auto-Complete List | Select Requests with a specific Priority. |
| Assigned To | N | Auto-Complete List | Select Requests with the Assigned to field equal to the value in this field. |
| Assigned To Group | N | Auto-Complete List | Select Requests with the Assigned to Group field equal to the value in this field. |

| Fields | | | 2 |
|--------------------------|----------|-----------------------|---|
| Name | Required | Туре | Description |
| Created By | N | Auto-Complete List | Select Requests created by a specific Demand Management user. |
| Request Sub Type | N | Auto-Complete List | Select Requests of a specific Request Sub Type. In order to use this field, the Request Type field must be defined. |
| Department | N | Auto-Complete List | Select Requests for a specific Department. |
| Application | N | Auto-Complete List | Select Requests for a specific Application. |
| Workflow | N | Auto-Complete List | Select Requests for a specific Workflow. |
| Request Group | N | Auto-Complete List | Select Requests for a specific Request Group. |
| Contact | N | Auto-Complete List | Select Requests associated with a specific Contact. |
| Company Name | N | Auto-Complete List | Select Requests associated with a specific company name. |
| Creation Date From | N | Date Field | Select Requests that were created on or after the given date. |
| Creation Date To | N | Date Field | Select Requests that were created on or before the given date. |
| Last Update Date From | N | Date Field | Select Requests that have been updated on or after the given date. |
| Last Update Date To | N | Date Field | Select Requests that have been updated on or before the given date. |
| Description Contains | N | Text Field | Select Requests with descriptions that contain the string of characters entered in this field. This is not a case sensitive search. |
| Field Prompt 1-4 | N | Auto-Complete List | For each specific Request Type, it is possible to choose up to 4 different custom fields to limit the search. Pick the field by the prompt displayed for the field. |
| Field Value 1-4 | N | Text Field | For each selected field prompt, enter the value for which the report is to search. This value should be the exact visible value seen in the field in the Requests form. For Yes/No Radio Buttons, enter 'Y' for Yes and 'N' for No. |
| Report Title | N | Text Field | Title of the Report. |

| | Fields | | |
|-------------------------------------|----------|------------------------|---|
| Name | Required | Туре | Description |
| Order By | Y | Drop Down List | Determines the ordering of the results. If the results are ordered by Request number, the report orders the Requests in descending order (i.e. highest Request Number first). |
| Show Header Fields | Y | Yes/No Radio Button | Determines whether to show the full header for each selected Request. |
| Show Detail Fields | Y | Yes/No Radio Button | Determines whether to show the custom fields for each selected Request. |
| Hide Prompts For Empty Fields | Υ | Yes/No Radio Button | Determines whether to hide prompts for empty fields. |
| Show Contents of Table Fields | Υ | Yes/No Radio Button | Determines whether to show the contents of table component fields for each selected Request. |
| Show Field Audit History | Y | Yes/No Radio Button | Determines whether to show the Transaction History of each selected Request. |
| Show Notes | Y | Yes/No Radio Button | Determines whether to show the Notes attached to each selected Request. |
| Filter Notes | Y | Drop Down List | Determines whether to show all Notes or only User Notes. |
| Show Status | Y | Yes/No Radio Button | Determines whether to show the Workflow Steps and current Step status for each selected Request. |
| Show References | Y | Yes/No Radio Button | Determines whether to show the References associated with selected Request. |

Request Header Type Detail Report

This report lists the detailed set-up information for the Request Header Types. Use this report to audit Request Header set-up, as well as help debug any problems with Requests using a given Request Header Type.

This report also displays information about field filters that have been selected for the Assigned To, Assigned Group and Contacts fields.



Figure 4-5 Parameters - Request Header Type Detail Report

Table 4-5. Parameters - Request Header Type Detail Report

| Fields | | | 5 · ·· |
|-----------------------------|----------|------------------------|---|
| Name | Required | Туре | Description |
| Request Header Type From | N | Auto-Complete List | Select Request Header Types that are alphabetically equal to or greater than the value in this field. |
| Request Header Type To | N | Auto-Complete List | Select Request Header Types that are alphabetically equal to or less than the value in this field. |
| Show Filters | Υ | Yes/No Radio Button | Determines whether to show information about field filters. |

Request History Report

This report lists the complete Workflow and field change history for each selected Request. For each Request, this report provides the following details on each change in the status of each Workflow Step:

- Date and time the status changed
- Person who caused the change
- New status of that step

For example, a different entry is displayed when a step became Eligible versus when the step was completed and had a result. It is possible to see data changes for fields that have been configured to have Transaction History auditing. Use this report for auditing the transaction history of individual Requests.

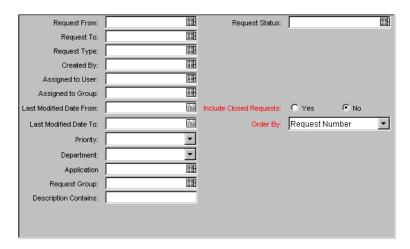


Figure 4-6 Parameters - Request History Report

Table 4-6. Parameters - Request History Report

| | Fields | | Danamin kin m |
|----------------------------|----------|-----------------------|--|
| Name | Required | Туре | Description |
| Request From | N | Auto-Complete List | Select Requests with Request number numerically greater than or equal to this field. |
| Request To | N | Auto-Complete List | Select Requests with Request number numerically less than or equal to this field. |
| Request Type | N | Auto-Complete List | Select Requests of a specific Request Type. |
| Created By | N | Auto-Complete List | Select Requests created by a specific Demand Management user. |
| Assigned To User | N | Auto-Complete List | Select Requests with the Assigned to User field equal to the value in this field. |
| Assigned To Group | N | Auto-Complete List | Select Requests with the Assigned to Group field equal to the value in this field. |
| Last Modified Date From | N | Date Field | Select Requests that have had some activity on or after the given date. |
| Last Modified Date To | N | Date Field | Select Requests that have had some activity on or before the given date. |
| Priority | N | Drop Down List | Select Requests with a specific Priority. |
| Department | N | Drop Down List | Select Requests for a specific Department. |
| Application | N | Auto-Complete List | Select Requests for a specific Application. |

| | Fields | | Danawin kin m |
|----------------------------|----------|------------------------|---|
| Name | Required | Туре | Description |
| Request Group | N | Auto-Complete List | Select Requests for a specific Request Group. |
| Description Contains | N | Text Field | Select Requests with descriptions that contain the string of characters entered in this field. This is not a case sensitive search. |
| Requested Status | N | Auto-Complete List | Select Requests with Request Statuses matching entries in this field. This field can facilitate multiple entries. |
| Include Closed Requests | Υ | Yes/No Radio Button | Determines whether to include or exclude Requests that have been Closed or Cancelled. |
| Order By | Y | Drop Down List | Determines the ordering of the results. If the results are ordered by Request number, the report orders the Requests in descending order (i.e. highest Request Number first). |

Request Listing Report

The Request Listing Report provides a useful interface for viewing selected Request information. Use this report to select various fields for inclusion or exclusion and specify the desired display order. The Request Listing Report can also be used to export data to MS Excel or another data analysis tool. The report output is formatted as an HTML table that can be copied and pasted from a Web browser into the data analysis tool.

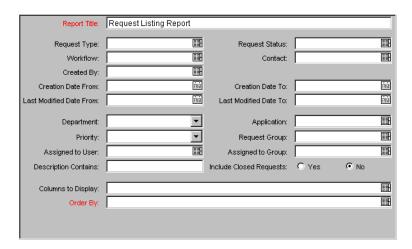


Figure 4-7 Parameters - Request Listing Report

Table 4-7. Parameters - Request Listing Report

| | Fields | • | |
|----------------------------|----------|-----------------------|---|
| rieias | | | Description |
| Name | Required | Туре | Description |
| Report Title | Υ | Text Field | The name of the Report which appears at the top of the generated HTML page. |
| Request Type | N | Auto-Complete List | Select Requests of a specific Request Type. This field can hold multiple items. |
| Request Status | N | Auto-Complete List | Select Requests with Request Statuses matching this field. This field can hold multiple items. |
| Workflow | N | Auto-Complete List | Select Requests with Workflows specified in this field. This field can hold multiple Workflows. |
| Contact | N | Auto-Complete List | Select Requests with the associated Contact specified in this field. |
| Created By | N | Auto-Complete List | Select Requests created by the specific Demand Management user specified in this field. |
| Creation Date From | N | Date Field | Select Requests that were created on or after the date specified in this field. |
| Creation Date To | N | Date Field | Select Requests that were created on or before the date specified in this field. |
| Last Modified Date From | N | Date Field | Select Requests that have had some activity on or after the given date. |

| | Fields | | 5 |
|----------------------------|----------|------------------------|--|
| Name | Required | Туре | Description |
| Last Modified Date To | N | Date Field | Select Requests that have had some activity on or before the given date. |
| Department | N | Drop Down List | Select Requests for the Department specified in this field. |
| Application | N | Auto-Complete List | Select Requests for the Applications specified in this field. This field can hold multiple Applications. |
| Priority | N | Drop Down List | Select Requests with a specific Priority. |
| Request Group | N | Auto-Complete List | Select Requests associated with the Request Groups specified in this field. This field can hold multiple Request Groups. |
| Assigned To User | N | Auto-Complete List | Select Requests with the Assigned To User field equal to the value in this field. This field can hold multiple items. |
| Assigned To Group | N | Auto-Complete List | Select Requests with the Assigned to Groups specified in this field. This field can hold multiple items. |
| Description Contains | N | Text Field | Select Requests with descriptions that contain the string of characters entered in this field. This is not a case sensitive search. |
| Include Closed Requests | N | Yes/No Radio Button | Determines whether to include or exclude Requests that have been Closed or Cancelled. |
| Columns to Display | N | Auto-Complete List | Select one or more fields which should be displayed in the body of the report. If left blank, a general purpose default display is used. |
| Order By | Y | Auto-Complete List | Select one or more fields which should be used to sort the results of the report. If multiple fields are selected, the report is sorted by the first field, then by the next field for each set of Requests having the same value for the first field. This pattern continues until all of the fields are displayed. |

Request Quick View Report

The Request Quick View Report lists a quick summary of open and closed Requests, breaking down the Requests by priority. The report also shows the Request activity for the current week (using a Sunday to Saturday week) such as Requests opened and Requests closed. The report can also show selected Request information for each open Request, allowing managers to view both a summary view on Request activity and drill down into Request details.

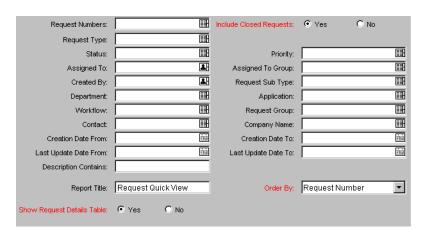


Figure 4-8 Parameters - Request Quick View Report

Table 4-8. Parameters - Request Quick View Report

| | Fields | | Description |
|----------------------------|----------|------------------------|--|
| Name | Required | Туре | Description |
| Request Numbers | N | Auto-Complete List | Select Requests based on Request number. |
| Include Closed Requests | Υ | Yes/No Radio Button | Determines whether to include or exclude Requests that have been Closed or Cancelled. |
| Request Type | N | Auto-Complete List | Select Requests of a specific Request Type. |
| Status | N | Auto-Complete List | Select Requests with Request Statuses matching this field. This field can hold multiple items. |
| Priority | N | Auto-Complete List | Select Requests with a specific Priority. |
| Assigned To | N | Auto-Complete List | Select Requests with the Assigned to field equal to the value in this field. |

| Fields | | | . |
|-------------------------------|----------|------------------------|---|
| Name | Required | Туре | Description |
| Assigned To Group | N | Auto-Complete List | Select Requests with the Assigned to Group field equal to the value in this field. |
| Created By | N | Auto-Complete List | Select Requests created by a specific Demand Management user. |
| Request Sub Type | N | Auto-Complete List | Select Requests of a specific Request Sub Type. In order to use this field, the Request Type field must be defined. |
| Department | N | Auto-Complete List | Select Requests for a specific Department. |
| Application | N | Auto-Complete List | Select Requests for a specific Application. |
| Workflow | N | Auto-Complete List | Select Requests for a specific Workflow. |
| Request Group | N | Auto-Complete List | Select Requests for a specific Request Group. |
| Contact | N | Auto-Complete List | Select Requests associated with a specific Contact. |
| Company Name | N | Auto-Complete List | Select Requests associated with a specific company name. |
| Creation Date From | N | Date Field | Select Requests that were created on or after the given date. |
| Creation Date To | N | Date Field | Select Requests that were created on or before the given date. |
| Last Update Date From | N | Date Field | Select Requests that have been updated on or after the given date. |
| Last Update Date To | N | Date Field | Select Requests that have been updated on or before the given date. |
| Description Contains | N | Text Field | Select Requests with descriptions that contain the string of characters entered in this field. This is not a case sensitive search. |
| Report Title | N | Text Field | Title of the Report. |
| Order By | Y | Drop Down List | Determines the ordering of the results. If the results are ordered by Request number, the report orders the Requests in descending order (i.e. highest Request Number first). |
| Show Request Details Table | Υ | Yes/No Radio Button | Determines whether to show the Request Details table. |

Request Summary Report

The Request Summary report displays the total counts for groups of Requests matching the selection criteria. Categorize/group selected Requests into up to five categories and get the counts for each group. For example, a report can display the counts for Requests in each Department/Assigned User combination or for each Department/Application/Priority combination.

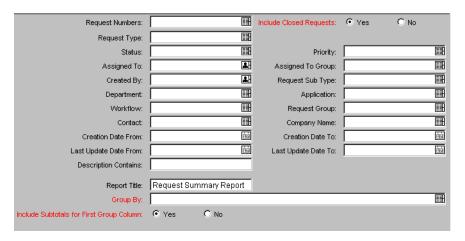


Figure 4-9 Parameters - Request Summary Report

| Table 1-9 | Parameters - | Request | Summan | v Report |
|------------|----------------|---------|-----------|----------|
| IUDIC 4 /. | i didilicici 3 | NEGUESI | Julillial | NEDULL |

| Fields | | | Description |
|----------------------------|----------|------------------------|--|
| Name | Required | Туре | Description |
| Request Numbers | N | Auto-Complete List | Select Requests based on Request number. |
| Include Closed Requests | Υ | Yes/No Radio Button | Determines whether to include or exclude Requests that have been Closed or Cancelled. |
| Request Type | N | Auto-Complete List | Select Requests of a specific Request Type. |
| Status | N | Auto-Complete List | Select Requests with Request Statuses matching this field. This field can hold multiple items. |

| Fields | | | |
|--------------------------|----------|-----------------------|---|
| Name | Required | Туре | Description |
| Priority | N | Auto-Complete List | Select Requests with a specific Priority. |
| Assigned To | N | Auto-Complete List | Select Requests with the Assigned to field equal to the value in this field. |
| Assigned To Group | N | Auto-Complete List | Select Requests with the Assigned to Group field equal to the value in this field. |
| Created By | N | Auto-Complete List | Select Requests created by a specific Demand Management user. |
| Request Sub Type | N | Auto-Complete List | Select Requests of a specific Request Sub Type. In order to use this field, the Request Type field must be defined. |
| Department | N | Auto-Complete List | Select Requests for a specific Department. |
| Application | N | Auto-Complete List | Select Requests for a specific Application. |
| Workflow | N | Auto-Complete List | Select Requests for a specific Workflow. |
| Request Group | N | Auto-Complete List | Select Requests for a specific Request Group. |
| Contact | N | Auto-Complete List | Select Requests associated with a specific Contact. |
| Company Name | N | Auto-Complete List | Select Requests associated with a specific company name. |
| Creation Date From | N | Date Field | Select Requests that were created on or after the given date. |
| Creation Date To | N | Date Field | Select Requests that were created on or before the given date. |
| Last Update Date From | N | Date Field | Select Requests that have been updated on or after the given date. |
| Last Update Date To | N | Date Field | Select Requests that have been updated on or before the given date. |
| Description Contains | N | Text Field | Select Requests with descriptions that contain the string of characters entered in this field. This is not a case sensitive search. |
| Report Title | N | Text Field | Title of the Report. |
| Group By | Υ | Auto-Complete List | Group the selected Requests by values listed in this field. This field can hold multiple values. |

| Fields | | | Description |
|---|----------|------------------------|--|
| Name | Required | Туре | Description |
| Include Subtotals For First Group Column | Υ | Yes/No Radio Button | Includes subtotals by the primary break group. |

Request Summary (Filter by Custom Fields) Report

This report is similar to the Request Summary Report except that Requests can be filtered by values in custom fields. Once the Request Type is specified for the report, select up to four of the custom fields for that Request Type. Run the report for specific values for each of those fields.

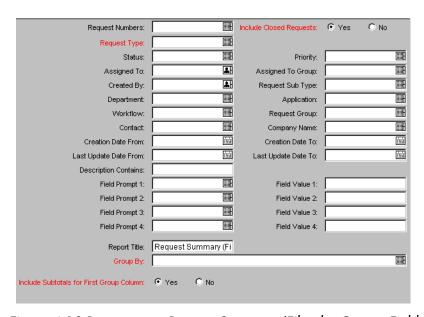


Figure 4-10 Parameters - Request Summary (Filter by Custom Fields) Report

Table 4-10. Parameters - Request Summary (Filter by Custom Fields) Report

| Fields | | | |
|----------------------------|----------|------------------------|---|
| Name | Required | Туре | Description |
| Request Numbers | N | Auto-Complete List | Select Requests based on Request number. |
| Include Closed Requests | Υ | Yes/No Radio Button | Determines whether to include or exclude Requests that have been Closed or Cancelled. |
| Request Type | N | Auto-Complete List | Select Requests of a specific Request Type. |
| Status | N | Auto-Complete List | Select Requests with Request Statuses matching this field. This field can hold multiple items. |
| Priority | N | Auto-Complete List | Select Requests with a specific Priority. |
| Assigned To | N | Auto-Complete List | Select Requests with the Assigned to field equal to the value in this field. |
| Assigned To Group | N | Auto-Complete List | Select Requests with the Assigned to Group field equal to the value in this field. |
| Created By | N | Auto-Complete List | Select Requests created by a specific Demand Management user. |
| Request Sub Type | N | Auto-Complete List | Select Requests of a specific Request Sub Type. In order to use this field, the Request Type field must be defined. |
| Department | N | Auto-Complete List | Select Requests for a specific Department. |
| Application | N | Auto-Complete List | Select Requests for a specific Application. |
| Workflow | N | Auto-Complete List | Select Requests for a specific Workflow. |
| Request Group | N | Auto-Complete List | Select Requests for a specific Request Group. |
| Contact | N | Auto-Complete List | Select Requests associated with a specific Contact. |
| Company Name | N | Auto-Complete List | Select Requests associated with a specific company name. |
| Creation Date From | N | Date Field | Select Requests that were created on or after the given date. |
| Creation Date To | N | Date Field | Select Requests that were created on or before the given date. |

| Fields | | | Description |
|---|----------|------------------------|--|
| Name | Required | Туре | Description |
| Last Update Date From | N | Date Field | Select Requests that have been updated on or after the given date. |
| Last Update Date To | N | Date Field | Select Requests that have been updated on or before the given date. |
| Description Contains | N | Text Field | Select Requests with descriptions that contain the string of characters entered in this field. This is not a case sensitive search. |
| Field Prompt 1-4 | N | Auto-Complete List | For the specific Request Type, choose up to four different custom fields to limit the search. Choose the field by the prompt displayed for the field. |
| Field Value 1-4 | N | Text Field | For each selected field prompt, enter the value for which the report is to search. This value should be the exact visible value shown in the field in the Requests form. |
| Report Title | N | Text Field | Title of the Report. |
| Group By | Υ | Auto-Complete List | Group the selected Requests by values listed in this field. This field can hold multiple values. |
| Include Subtotals For First Group Column | Υ | Yes/No Radio Button | Includes subtotals by the primary break group. |

Request Type Detail Report

This report lists the detailed set-up information for your Request Types. This report displays:

- All custom fields for the Request Type
- All Requests statuses that the Request Type can have
- Any commands the Request type would have
- Which Security Groups are allowed to create Requests of a specific Request Type

Which Workflows can be used in a specific Request Type

Use this report to audit the set-up as well as help debug any problems with Requests of a given Request Type.



Figure 4-11 Parameters - Request Type Detail Report

Table 4-11. Parameters - Request Type Detail Report

| | Fields | | |
|-----------------------------|----------|------------------------|--|
| Name | Required | Туре | Description |
| Request Type From | N | Auto-Complete List | Select Request Types that are alphabetically equal to or greater than the value in this field. |
| Request Type To | N | Auto-Complete List | Select Request Types that are alphabetically equal to or less than the value in this field. |
| Show Fields | Υ | Yes/No Radio Button | Determines whether to show the Fields and Validations for the selected Request Types. |
| Show Statuses | Υ | Yes/No Radio Button | Determines whether to show the linked Requests Statuses for the selected Request Types. |
| Show Defaults | Υ | Yes/No Radio Button | Determines whether to show the Default Rules for the selected Request Types. |
| Show Commands | Υ | Yes/No Radio Button | Determines whether to show the Commands and Command Steps for the selected Request Types. |
| Show Status Dependencies | Υ | Yes/No Radio Button | Determines whether to show the Status Dependencies for the selected Request. |

| Fields | | | Dossvintion |
|----------------------------|----------|------------------------|--|
| Name | Required | Туре | Description |
| Expand Special Commands | Υ | Yes/No Radio Button | Expands user defined Special Commands, replacing appropriate parameters and listing commands to be executed. |
| Show Security Groups | Υ | Yes/No Radio Button | Determines whether to show the Security Groups that can create Requests of this Request Type. |
| Show Workflows | Υ | Yes/No Radio Button | Determines whether to show the Workflows that can be selected for this Request Type. |

Resource Load Report by Priority

This report lists all open Requests assigned to different users once the filtering criteria is selected. The report displays the Request count per priority and the average age (from Request creation) of the Requests in each priority bucket.

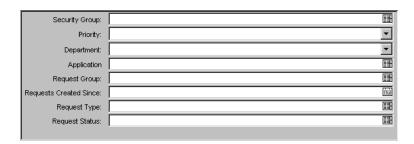


Figure 4-12 Parameters - Resource Load by Priority

Table 4-12. Parameters - Resource Load by Priority

| Fields | | | Description |
|--------------------|---|-----------------------|--|
| Name Required Type | | Туре | Description |
| Security Group | N | Auto-Complete List | Limit to Requests assigned to only users in a specific Security Group. |
| Priority | N | Drop Down List | Limit to Requests on a specific priority. |
| Department | N | Drop Down List | Limit to Requests for a specific department. |

| Fields | | | Description |
|---------------------------|----------|-----------------------|---|
| Name | Required | Туре | Description |
| Application | N | Auto-Complete List | Limit to Requests for a specific application. |
| Request Group | N | Auto-Complete List | Limit to Requests for a specific group. |
| Requests Created Since | N | Date Field | Limit to Requests created after a given date. |
| Request Status | N | Auto-Complete List | Limit to Requests at a specific Request status or group of statuses. |
| Request Type | N | Auto-Complete List | Limit to Requests at a specific Request type or group of Request types. |

Run ITG Request Interface

When executed, the Run ITG Request Interface program:

- Queries the KCRT_REQUESTS_INT interface table for active records matching the given selection criteria.
- Defaults any information that has defaulting rules in Demand Management but has not been specified in the interface table records. For example, if the REQUEST_ID column is left blank, it will be defaulted from a sequence.
- Validates Request header and detail data for both referential and data integrity. This validation is based on the logic used when entering or updating data through the graphical user interface. Information in User Data fields is not validated.
- Imports validated Requests into the Demand Management Request tables. Partial imports are not allowed. Requests with one or more failed fields will not be imported.
- Moves the Request to the appropriate Request Status and moves the Request to the first Workflow Step corresponding to the specific Request Status, if indicated.
- Reports on the results of the execution, listing the specified Requests that failed validation and the specific validation errors they encountered.



Figure 4-13 Parameters - Run ITG Request Interface

Table 4-13. Parameters - Run ITG Request Interface

| Field | Туре | Description |
|---------------------------------|--------------|--|
| Group ID | Text Field | Runs the interface for a specific Group ID. The interface program will only look for records with this value in the GROUP_ID column. This is useful when importing a batch of Requests. If this parameter is left blank, the program will only pick up records with a NULL GROUP_ID value. |
| Run Import | Radio Button | If set to Yes , the program will process the records in the interface table and try to import them. If set to No , the program will simply report on the records in the interface table. This option is useful when auditing prior executions of the Open Interface. |
| Show Successful Transactions | Radio Button | Shows Requests that were successfully imported. |
| Source Code | Text Field | Used to set the SOURCE_CODE column of the final Requests created with a free form text code. It is used as an indicator of how the Request was created for auditing or testing purposes. |

Chapter

Change Management Reports

This chapter lists all reports specific to Change Management. These reports are HTML files created by the application that can be viewed using a Web browser. In addition to a graphical representation of the data, the reports list a tabular version of the details for export into Excel. For each report, this chapter provides a brief description and explanation of the screen parameters.

This chapter also provides definitions for all the field names used in each report. By entering criteria into a field, a filter can be created for the report so it only displays information that matches the selected criteria. For more information on running reports, see *Chapter 2* - "Running Reports".

This chapter contains information on the following reports available in Change Management:

- Distribution Detail Report
- **Environment Comparison Report**
- Environment Comparison by Objects Migrated Report
- **Environment Detail Report**
- Environment Group Detail Report
- Environments/Objects Detail Report
- Object History Report
- Object Type Detail Report
- Objects/Environments Detail Report
- Package Details Report
- Package History Report
- Package Impact Analysis Report

- Packages Pending Report
- RCS Check In Report
- RCS Check Out Report
- Release Detail Report
- Release Notes Report
- Run ITG Package Interface Report

Distribution Detail Report

The Distribution Detail Report is a Release Management Report used to list the contents and results of a Distribution. It is useful in getting a high level view of a Distribution and analyzing the execution results.

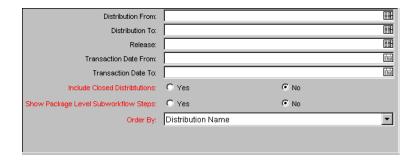


Figure 5-1 Parameters - Distribution Detail Report

Table 5-1. Parameters-Distribution Detail Report

| Field | Description |
|-----------------------|--|
| Distribution From | Only select Distributions that are equal to or greater than the value in this field. |
| Distribution To | Only select Distributions that are equal to or lesser than the value in this field. |
| Release | Name of the product release. |
| Transaction Date From | Only select Transaction Dates that are equal to or greater than the value in this field. |

| | • |
|---------------------------------|--|
| Field | Description |
| Transaction Date To | Only select Transaction Dates that are equal to or greater than the value in this field. |
| Include Closed Distributions | Determines whether to include or exclude Packages with an overall status of Closed-Success, Closed-Failure, or Canceled. |
| Order By | Order the report by Distribution Name or Release. |

Table 5-1. Parameters-Distribution Detail Report

Environment Comparison Report

This report helps audit Environment set-up when there are different Environments that are similar to each other. For example, DEV, QA, and PROD Environments may be almost identical.

Use this report to compare the definitions of two Mercury ITG Environments for any significant differences. The report queries every major field in each Environment and, if different from that same field in the other Environment, lists the different values. The Environment Comparison report also compares the Applications tied to each Environment.



Figure 5-2 Parameters - Environment Comparison Report

Table 5-2. Parameters - Environment Comparison Report parameters

| Field | Description |
|--------------------|--|
| Environment Name 1 | The first of two Environments to compare. |
| Environment Name 2 | The second of two Environments to compare. |

Environment Comparison by Objects Migrated Report

Given two Environments, this report looks at the history of all the objects migrated into each Environment (using Change Management) and lists any differences. These differences include objects migrated into:

- One Environment but not the other
- Both Environments but at different times

The Environment Comparison by Objects Migrated report uses an internal object inventory table for information on objects migrated to each Environment. At the time of execution, the Workflow Engine uses the Workflow definition to determine the Environment an object is being migrated to and updates the object inventory table accordingly.



The Workflow Engine will not recognize any cases where the destination Environment is overwritten in the object command while it is being migrated.



This report serves as a good mechanism to compare one Environment versus the other but only compares the Environments based on the Change Management migrations into that Environment. It does not make any comparisons at the file system or database levels.

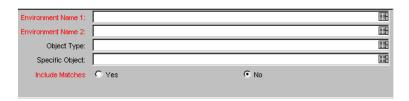


Figure 5-3 Parameters - Environment Comparison by Objects Migrated Report

Table 5-3. Parameters - Environment Comparison by Objects Migrated Report

| Field | Description |
|--------------------|--|
| Environment Name 1 | The first of two Environments to compare their migrations. |

| Field | Description |
|--------------------|---|
| Environment Name 2 | The second of two Environments to compare their migrations. |
| Object Type | Compare migrations for a specific Object Type. |
| Specific Object | Compare migrations for a specific Object. |
| Include Matches | Determines whether to show migration times for objects migrated to both Environments or only show object discrepancies. |

Table 5-3. Parameters - Environment Comparison by Objects Migrated Report

Environment Detail Report

The Environment Detail Report report lists:

- The detailed set-up of a given Environment or group of Environments
- All the major attributes of the Environment
- Attributes of the Applications tied to each Environment

Encrypted information such as database or operation system passwords are not displayed. Use this report as a way to textually audit the Environment set-up.



Figure 5-4 Parameters - Environment Detail Report

Table 5-4. Parameters - Environment Detail Report

| Fields | Description |
|------------------|--|
| Environment From | Only select Environments that are alphabetically equal to or greater than the value in this field. |

| Table 5-4 | Parameters - | Environment | Detail Report |
|------------|-----------------|--------------------|---------------|
| TUDIE J 4. | i di dilicici 3 | LIIVII OIIIIIGIII | Delali Nepoli |

| Fields | Description |
|------------------------------|---|
| Environment To | Only select Environments that are alphabetically equal to or less than the value in this field. |
| Show User Data | Determines whether to show the User Data custom fields (if any) for each selected Environment. |
| Show Mainframe Parameters | Determines whether to show the mainframe parameters (if any) for each selected Environment. |

Environment Group Detail Report

This report contains detailed information from the specified Environment Groups. Users can specify a range of Environment Groups using the From Environment Group and To Environment Group parameters. The Report output includes:

- Header information on an Environment Group
- Constituent Environments of the Environment Group
- Applications defined for the Environment Group.



Figure 5-5 Parameters - Environment Group Detail Report

Table 5-5. Parameters - Environment Group Detail Report

| Fields | Description |
|------------------------|--|
| Environment Group From | Only select Environment Groups that are alphabetically equal to or greater than the value in this field. |
| Environment Group To | Only select Environment Groups that are alphabetically equal to or less than the value in this field. |

Environments/Objects Detail Report

This report lists Objects that have been migrated into a given Environment, or sets of Environments grouping the report output by Environment name. Use this report as an Object inventory for newly migrated objects. The Environment/Objects Detail report uses an internal Object inventory table for information on Objects migrated to each Environment. At the time of execution, the Workflow Engine uses the Workflow definition to determine the Environment an object is being migrated to and updates the Object inventory table accordingly.



The Workflow Engine will not recognize any cases where the destination Environment is overwritten in the Object command while it is being migrated.

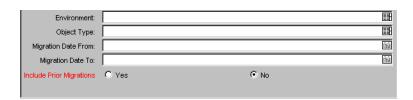


Figure 5-6 Parameters - Environments/Objects Detail Report

Table 5-6. Parameters - Environments/Objects Detail Report

| Fields | Description |
|---------------------|--|
| Environment | Only select migration information for a specific Environment. |
| Object Type | Only select migration information for objects of a specific Object Type. |
| Migration Date From | Only select migrations that occurred on or after this date. |
| Migration Date To | Only select migrations that occurred on or before this date. |

Table 5-6. Parameters - Environments/Objects Detail Report

| Fields | Description |
|--------------------------|--|
| Include prior Migrations | For cases where the same object was migrated to the same Environment more than once, include all the migration transactions, not just the most recent transaction. |

Object History Report

This report provides a Workflow Step transaction history for Packages. Use this report to view:

- All transactions matching the selection criteria
- All executions for a given Object Type and/or a given date range
- If the same Object has been migrated/executed by multiple Packages.

For migration steps, the Object History report uses the Workflow definitions to determine when a step occurred and to which Environment it was migrated. It looks at completed execution type Workflow Steps and at the attached Destination Environment to report the Object's final destination Environment.



This report will not recognize any cases where the destination Environment is overwritten in the Object command while it is being migrated.

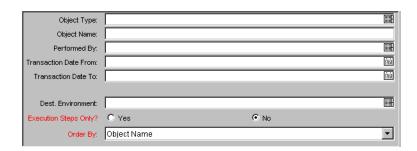


Figure 5-7 Parameters - Object History Report

| Fields | Description |
|-----------------------|---|
| Object Type | Only select transactions for a specific Object Type. |
| Object Name | Only select transactions for a specific object name. |
| Performed By | Only select transactions performed by a specific user. |
| Transaction Date From | Only select transactions that occurred on or after the given date. |
| Transaction Date To | Only select transactions that occurred on or before the given date. |
| Dest. Environment | Only select execution/migration transactions where the destination Environment was a specific Environment. Use this option to view all the Change Management activity for a specific Environment. |
| Execute Steps Only | Determines whether to show only transactions for execution type Workflow Steps. |
| Order By | Order the report by Transaction Date, by Object Name, or by Package Creation Date. |

Table 5-7. Parameters - Object History Report

Object Type Detail Report

The Object Type Detail report is a configuration report used to audit the set-up of an Object Type or a group of Object Types. For each Object Type, this report lists all parameters associated with the Object Type and all commands for that Object Type. In addition to auditing Object Types, use this report as a good tool for debugging problems associated with entering information or migrating a Package Line of a specific Object Type.

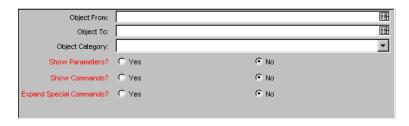


Figure 5-8 Parameters - Object Type Detail Report

Table 5-8. Parameters - Object Type Detail Report

| Fields | Description |
|----------------------------|--|
| Object From | Only select Object Types that are alphabetically equal to or greater than the value in this field. |
| Object To | Only select Object Types that are alphabetically equal to or less than the value in this field. |
| Object Category | Only select Object Types for a given Object Category. |
| Show Parameters | Determines whether to show the Parameters and Validations for the selected Object Types. |
| Show Commands | Determines whether to show the Commands and Command Steps for the selected Object Types. |
| Expand Special Commands | Expands user defined Special Commands, replacing appropriate parameters and listing commands to be executed. |

Objects/Environments Detail Report

This report lists objects that have been migrated into a given Environment or a set of Environments, grouping the report output by Object Type name. Use this report as an Object inventory for newly migrated Objects. The Objects/Environments Detail report uses an internal Object inventory table for information on objects migrated to each Environment. At time of execution, the Workflow Engine uses the Workflow definition to determine the Environment an Object is being migrated to and updates the Object inventory table accordingly.



The Workflow Engine will not recognize any cases where the destination Environment is overwritten in the Object command while it is being migrated.

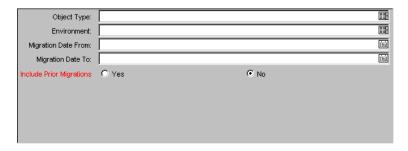


Figure 5-9 Parameters - Objects/Environments Detail Report

Table 5-9. Parameters - Objects/Environments Detail Report

| Fields | Description |
|--------------------------|--|
| Object Type | Only select migration information for objects of a specific Object Type. |
| Environment | Only select migration information for a specific Environment. |
| Migration Date From | Compare migrations that occurred after this date. |
| Migration Date To | Compare migrations that occurred before this date. |
| Include prior Migrations | For cases where the same object was migrated to the same Environment more than once, include all the migration transactions, not just the most recent transaction. |

Package Details Report

Use the Package Details report for auditing individual Packages. Based on the selection criteria, this report lists:

- Individual Packages and detailed data regarding each Package
- Header information about the Package such as Package priority and description
- Detailed information such as Package notes, Package lines and their parameters

Current Workflow status for each Package line on each selected Package

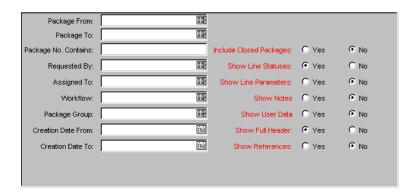


Figure 5-10 Parameters - Package Details Report

Table 5-10. Parameters - Package Details Report

| Fields | Description |
|-------------------------|--|
| Package From | Only select Packages greater than or equal to this field. |
| Package To | Only select Packages less than or equal to this field. |
| Package No. Contains | Only select Packages that contain the string of numeric or alphabetic characters entered in this field. This is a case sensitive search. |
| Requested By | Only select Packages produced by a specific Change Management user. |
| Assigned To | Only select Packages with the Assigned to User field equal to the value in this field. |
| Workflow | Only select Packages that use a specific Workflow. |
| Package Group | Only select Packages that are categorized under a specific Package Group. |
| Creation Date From | Only select Packages generated on or after the given date. |
| Creation Date To | Only select Packages generated on or before the given date. |
| Include Closed Packages | Determines whether to include or exclude Packages with an overall status of Closed-Success, Closed-Failure, or Canceled. |

Table 5-10. Parameters - Package Details Report

| Fields | Description |
|----------------------|---|
| Show Line Statuses | Determines whether to show the Workflow Steps and current Step Status for each Package Line in each selected Package. |
| Show Line Parameters | Determines whether to show all the visible parameters for each Package Line in each selected Package. |
| Show Notes | Determines whether to show the Notes attached to each selected Package. |
| Show User Data | Determines whether to show the User Data custom fields (if any) for each selected Package. |
| Show Full Header | Determines whether to show the full header for the Package. |
| Show References | Determines whether to show References associated with the Package. |

Package History Report

Use the Package History report for auditing the transaction history of individual Packages. This report lists the complete Workflow history for each selected Package, such as:

- Each change in the status of each Workflow Step
- The date and time the status changed
- The person who caused the change
- The new status of that step

For example, a different entry will be displayed when a step became Eligible versus when the step was completed and had a result. The Package History report breaks down each Package into its Package Lines and gives the Workflow history separately for each line.

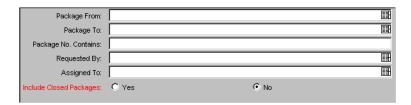


Figure 5-11 Parameters - Package History Report

Table 5-11. Parameters - Package History Report

| Fields | Description |
|----------------------------|--|
| Package From | Only select Packages greater than or equal to this field. |
| Package To | Only select Packages less than or equal to this field. |
| Package Name Contains | Only select Packages that contain the string of characters entered in this field. This is a case sensitive search. |
| Requested By | Only select Packages generated by a specific Change Management user. |
| Assigned To | Only select Packages with the Assigned to User field equal to the value in this field. |
| Include Closed Packages | Determines whether to include or exclude Packages with an overall status of Closed-Success, Closed-Failure, or Canceled. |

Package Impact Analysis Report

Use this report to analyze the impact of a given Package based on the audit history stored in Mercury ITG Center. After listing summary information on the given Package and Package Lines, the report lists three separate sections for analysis:

- Other Packages that contain common objects with a given Package.
- Objects that have migrated alongside one or more of the objects being migrated on the given Package but are not included in the given Package. These objects might be affected by the current object changes (if these

- objects were once tied to the objects being changed in the same Package, there is probably a relation between the objects).
- Recent migrations for each object in the Package, showing where changes to the given objects have recently been deployed.

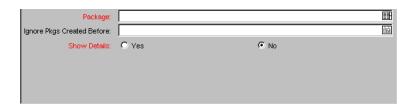


Figure 5-12 Parameters - Package Impact Analysis Report

| Fields | Description |
|-------------------------------|---|
| Package | This required parameter is used to indicate which Package will be the basis of the generated report. |
| Ignore Pkgs Created Before | Enter a date for this parameter to limit the audit history when looking at the impact analysis. If entered, all Packages generated before the given date will be ignored from the analysis. |
| Show Details | If set to Yes , additional information is given in sections #1 and #2 listing all the specific common objects between the queried Packages and the given Package. |

Packages Pending Report

Use this report as a worklist for pending work on Packages. Based on the selection criteria, this report lists:

- Open Packages with pending activity
- Details about each Package
- Pending work for a group of users

Using this information, query the Package using Change Management and perform the appropriate action(s).

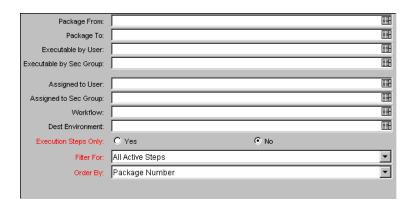


Figure 5-13 Parameters - Packages Pending Report

Table 5-13. Parameters - Packages Pending Report

| Fields | Description |
|----------------------------|--|
| Package From | Only select open Packages greater than or equal to this field (compare the Package Numbers alphabetically rather than numerically). |
| Package To | Only select open Packages less than or equal to this field (compare the Package Numbers alphabetically rather than numerically). |
| Executable by User | Only select open Packages that have at least one Package Line with an active step that can be acted upon by the given user (this selection uses the Workflow Step security setting to determine user access). |
| Executable by Sec Group | Only select open Packages that have at least one Package Line with an active Step that can be acted upon by users in a given Security Group (this selection uses the Workflow Step security setting to determine user access). |
| Assigned to User | Only select Packages that have the indicated user assigned. |
| Assigned to Sec Group | Only select Packages that have the indicated Security Group assigned. |
| Workflow | Only select open Packages that use a specific Workflow. |

| 0 0 1 | |
|----------------------|---|
| Fields | Description |
| Dest Environment | Only select open Package Lines with an active migration step with the given Destination Environment. This is useful when you want to see which Packages are 'ready' to migrate to a given Environment. |
| Execution Steps Only | Only select open Package Lines with an active execution type step with the given Destination Environment. This is useful when you want to see which Packages are 'ready' to migrate to any Environment. |
| Filter For | Limit the report to Package Lines with only Eligible steps or only Scheduled steps. |
| Order By | Order the report by Package Number, Workflow, or Workflow Step Name. |

Table 5-13. Parameters - Packages Pending Report

RCS Check In Report

This is the template of a report used to check a file into the RCS repository (if the RCS file management system is being used).

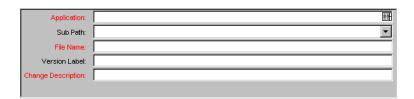


Figure 5-14 Parameters - RCS Check In Report

Table 5-14. Parameters - RCS Check In Report

| Fields | Description |
|---------------|---|
| Application | The Application of the file to be checked in. |
| Sub Path | The sub path of the file to be checked in. |
| File Name | The name of the file to be checked in. |
| Version Label | The version label of the file to be checked in. |

Table 5-14. Parameters - RCS Check In Report

| Fields | Description |
|--------------------|---|
| Change Description | A description of the change made to the file. |

RCS Check Out Report

This is the template of a report used to check a file out of the RCS repository (if the RCS file management system is being used).

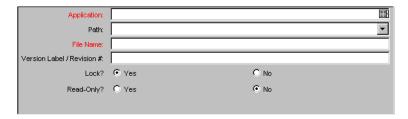


Figure 5-15 Parameters - RCS Check Out Report

Table 5-15. Parameters - RCS Check Out Report

| Fields | Description |
|-----------------------------|--|
| Application | The Application of the file to be checked out. |
| Path | The sub path of the file to be checked out. |
| File Name | The name of the file to be checked out. |
| Version Label/Revision # | The version label of the file to be checked out. |
| Lock | Determines whether or not to lock the checked out file. |
| Read-Only | Determines whether or not the checked out file is read- only. |

Release Detail Report

This is a Management Report used to list the contents of a Release. This report lists all Requests, Packages and Distributions associated with a Release. It is useful in helping to determine if everything that should be included with a Release has been included, and whether or not there are proper dependencies.

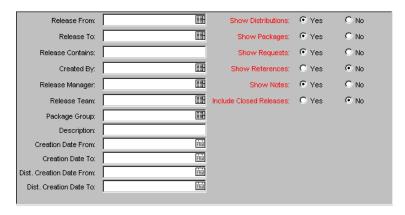


Figure 5-16 Parameters - Release Detail Report

Table 5-16. Parameters - Release Detail Report

| Fields | Description |
|--------------------|--|
| Release From | Select Release names that are alphabetically equal to or greater than the value in this field. |
| Release To | Select Release names that are alphabetically equal to or less than the value in this field. |
| Release Contains | Text field for entering information about the Release. |
| Created By | Select username for creator of report. |
| Release Manager | Select username of Release Manager. |
| Release Team | Select a Security Group Name for this Release. |
| Package Group | Select either Customization, Setup or Upgrade. |
| Description | Select Releases that contain the given description. |
| Creation Date From | Only select Releases generated on or after the given date. |
| Creation Date To | Only select Releases generated on or before the given date. |

| Fields | Description |
|--------------------|---|
| Show Distributions | Determines whether to show Distributions in each Release. |
| Show Packages | Determines whether to show Packages in each Release. |
| Show Requests | Determines whether to show Requests in each Release. |
| | |

Release.

Release.

Determines whether to show References in each

Determines whether to show Notes in each Release.

Determines whether to show Closed Releases in each

Table 5-16. Parameters - Release Detail Report

Release Notes Report

Show References

Include Closed Releases

Show Notes

This is a Release Management Report. This report shows all of the Requests and Packages in a Release as well as their associations. This report can be used to create a list of bugs fixed and patches applied within a specific Release.

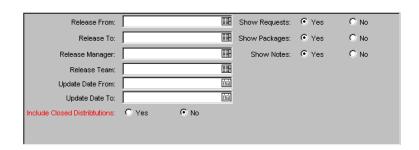


Figure 5-17 Parameters - Release Notes Report

Table 5-17. Parameters - Release Notes Report

| Fields | Description |
|--------------|--|
| Release From | Select Release names that are alphabetically equal to or greater than the value in this field. |

| Fields | Description |
|------------------------------|---|
| Release To | Select Release names that are alphabetically equal to or less than the value in this field. |
| Release Manager | Select username of Release Manager. |
| Release Team | Select a Security Group Name for this Release. |
| Update Date From | Only show Releases updated on or after this date. |
| Update Date To | Only show Releases updated on or before this date. |
| Include Closed Distributions | Determines whether to include Closed Distributions in this Release. |
| Show Requests | Determines whether to show Requests in each Release. |
| Show Packages | Determines whether to show Packages in each Release. |
| Show Notes | Determines whether to show Notes in each Release. |

Table 5-17. Parameters - Release Notes Report

Run ITG Package Interface Report

This report validates and loads Package data from the Package open interface tables into the standard Change Management data model. For more information on this report, see *Open Interface Guide and Reference*.

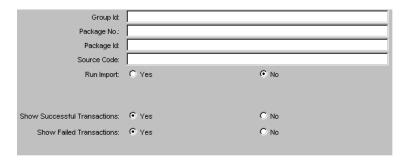


Figure 5-18 Parameters - Run ITG Package Interface Report

Table 5-18. Parameters - Run ITG Package Interface Report

| Fields | Description |
|---------------------------------|--|
| Group ID | Runs the interface for a specific Group ID. The interface program will only look for records with this value in the GROUP_ID column. This is useful when importing a batch of Packages. If this parameter is left blank, the program will only pick up records with a NULL GROUP_ID value. |
| Package No. | Runs the interface for a specific Package Number. The interface program will only look for records with this value in the PACKAGE_NUMBER column. This is useful when importing a specific Package. |
| Package Id | Runs the interface for a specific Package ID. The interface program will only look for records with this value in the PACKAGE_ID column. This is useful when importing a specific Package. |
| Source Code | Runs the interface for records from a specific source. The interface program will only look for records with this value in the SOURCE_CODE column. |
| Run Import | If set to Yes , the program will process the records in the interface table and try to import them. If set to No , the program will simply report on the records in the interface table. This option is useful when auditing prior executions of the Open Interface. |
| Show Successful Transactions | Shows Packages and Package Lines that were successfully imported. |
| Show Failed Transactions | Shows Packages and Package Lines that were not successfully imported. |

Chapter

6

Project Management Reports

This chapter lists all reports specific to Project Management. These reports are HTML files created by the application that can be viewed using a Web browser. In addition to a graphical representation of the data, the reports list a tabular version of the details for export into Excel. For each report, this chapter provides a brief description and explanation of the screen parameters.

This chapter also provides definitions for all the field names used in each report. By entering criteria into a field, a filter can be created for the report so it only displays information that matches the selected criteria. For more information on running reports, see *Chapter 2* - "Running Reports".

This chapter contains information on the following reports available in Project Management:

- Project Critical Path Report
- Project Custom Detail Report
- Project Detail Report
- Project Detail (Filter by Custom Fields) Report
- Project Exception Detail Report
- Project Resource Report
- Project Schedule Change Report
- Project Status Detail Report
- Project Summary Report
- Project Task Assignment Report
- Project Template Detail Report
- Resource Availability Report

Project Critical Path Report

This report displays the tasks that are on a Project's critical path.

The Project Critical Path Report parameters are shown in *Figure 6-1* and defined in *Table 6-1*.

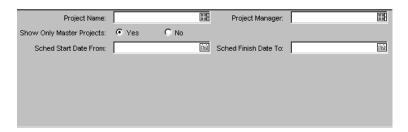


Figure 6-1 Parameters - Project Critical Path Report

Table 6-1. Parameters - Project Critical Path Report

| Field | Description |
|---------------------------|--|
| Project Name | Name of the Project. |
| Project Manager | Name of the Project Manager. |
| Show Only Master Projects | Specifies whether only Master Projects will be shown |
| Sched Start Date From | Only select Projects with a Scheduled Start Date on or after the date value in this field. |
| Sched Finish Date To | Only select Projects with a Scheduled Finish Date on or before the date value in this field. |

Project Custom Detail Report

This report is generated in HTML table format, showing only the columns that are selected from the Header Fields and custom fields based on the selected Project. It is possible to sort by more than one field.

The Project Custom Detail Report parameters are shown in *Figure 6-2* and defined in *Table 6-2*.

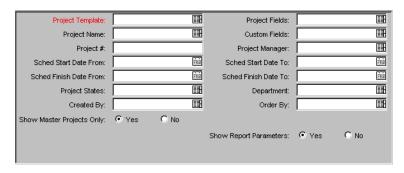


Figure 6-2 Parameters - Project Custom Detail Report

Table 6-2. Parameters - Project Custom Detail Report

| Fields | Description |
|------------------------------|--|
| Project Template | The Template used for the Project. |
| Project Name | The name of the Project. |
| Project # | The number that uniquely identifies the Project. The number is derived from a system sequence but can be updated. |
| Sched Start Date From | Only select Projects with a Scheduled Start Date on or after the date value in this field. |
| Sched Finish Date From | Only select Projects with a Scheduled Finish Date on or after the date value in this field. |
| Project States | The current state of the Project (Active, Cancelled, Completed, New or Plan). |
| Created By | The name of the user who created the Project. |
| Show Master Projects Only | Determines whether or not to query Subprojects. |
| Project Fields | Select from the list of available Project fields for reporting. |
| Custom Fields | Select from the list of available Custom fields for reporting. |
| Project Manager | The name of the Project Manager. |
| Sched Start Date To | Only select Projects with a Scheduled Start Date on or before the date value in this field. |
| Sched Finish Date To | Only select Projects with a Scheduled Finish Date on or before the date value in this field. |
| Department | The department/division that takes responsibility for the Project. This is used for additional Project categorization and reporting. |
| Order By | Select a header field as the criteria for ordering Projects. |

| Fields | Description |
|----------------------------|--|
| Include Closed Projects | Determines whether or not to include Projects that are closed. |
| Show Report Parameters | Determines whether or not to show Report Parameters. |

Project Detail Report

Use this report to query Projects by their header fields. This report can be configured to include the Project's:

- Custom fields
- Statuses
- Notes
- Activities
- Packages
- Requests
- References
- Transaction History

The Project Detail Report parameters are shown in *Figure 6-3* and defined in *Table 6-3*.

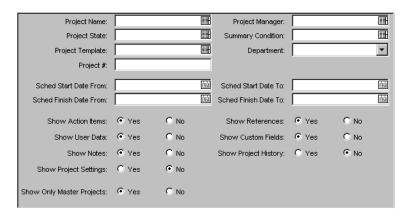


Figure 6-3 Parameters - Project Detail Report

Table 6-3. Parameters - Project Detail Report

| Fields | Description |
|------------------------------|--|
| Project Name | The name of the Project. |
| Project State | The current state of the Project (Active, Cancelled, Completed, New or Plan). |
| Project Template | The Template used for the Project. |
| Project # | The number that uniquely identifies the Project. The number is derived from a system sequence but can be updated. |
| Sched Start Date From | Only select Projects with a Scheduled Start Date on or after the date value in this field. |
| Sched Finish Date From | Only select Projects with a Scheduled Finish Date on or after the date value in this field. |
| Show Action Items | Determines whether or not to show the Project's Action Items. |
| Show User Data | Determines whether or not to show the Project's User Data. |
| Show Notes | Determines whether or not to show the Project's Notes. |
| Show Project Settings | Determines whether or not to show the Project's settings. When set to Yes , the Microsoft Project Synchronization setting section displays in the report. |
| Show Only Master Projects | Determines whether or not to query Subprojects. |
| Project Manager | The name of the Project Manager. |
| Summary Condition | The status of the Project (Red, Green or Yellow). |

| Fields | Description |
|-------------------------|--|
| Department | The department/division that takes responsibility for the Project. This is used for additional Project categorization and reporting. |
| Sched Start Date To | Only select Projects with a Scheduled Start Date on or before the date value in this field. |
| Sched Finish Date To | Only select Projects with a Scheduled Finish Date on or before the date value in this field. |
| Show References | Determines whether or not to show references for the Project. |
| Show Custom Fields | Determines whether or not to show the Project's custom fields. |
| Show Project History | Determines whether or not to show the Project's history. |

Project Detail (Filter by Custom Fields) Report

Use this report to query Projects by their header fields. It is possible to filter the query using the Project's custom fields.

The Project Detail (Filter by Custom Fields) Report parameters are shown in *Figure 6-4* and defined in *Table 6-4*.

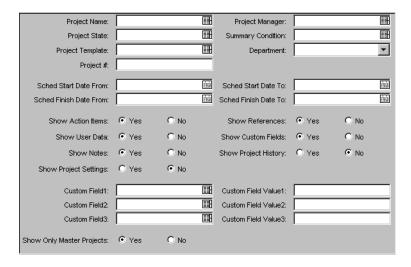


Figure 6-4 Parameters - Project Detail (Filter by Custom Fields) Report

Table 6-4. Parameters - Project Detail (Filter by Custom Fields) Report

| Fields | Description |
|------------------------------|--|
| Project Name | The name of the Project. |
| Project State | The current state of the Project (Active, Cancelled, Completed, New or Plan). |
| Project Template | The Template used for the Project. |
| Project # | The number that uniquely identifies the Project. The number is derived from a system sequence but can be updated. |
| Sched Start Date From | Only select Projects with a Scheduled Start Date on or after the date value in this field. |
| Sched Finish Date From | Only select Projects with a Scheduled Finish Date on or after the date value in this field. |
| Show Action Items | Determines whether or not to show the Project's Action Items. |
| Show User Data | Determines whether or not to show the Project's User Data. |
| Show Notes | Determines whether or not to show the Project's Notes. |
| Show Project Settings | Determines whether or not to show the Project's settings. |
| Custom Field 1-3 | Select up to three custom fields in the Project selected. |
| Show Only Master Projects | Determines whether or not to query Subprojects. |
| Project Manager | The name of the Project Manager. |
| Summary Condition | The status of the Project (Red, Green or Yellow). |
| Department | The department/division that takes responsibility for the Project. This is used for additional Project categorization and reporting. |
| Sched Start Date To | Only select Projects with a Scheduled Start Date on or before the date value in this field. |
| Sched Finish Date To | Only select Projects with a Scheduled Finish Date on or before the date value in this field. |
| Show References | Determines whether or not to show references for the Project. |
| Show Custom Fields | Determines whether or not to show the Project's custom fields. |
| Show Project History | Determines whether or not to show the Project's history. |

| Fields | Description |
|---------------------------|--|
| Custom Field Value 1-3 | Values for the Custom Fields. Enter the complete User Visible Values here. |

Project Exception Detail Report

This report lists all the Task Details for Tasks that have violated user-defined Exception rules. This report provides useful information about Tasks that require attention by a Project Manager.

The Project Exception Detail Report parameters are shown in *Figure 6-5* and defined in *Table 6-5*.

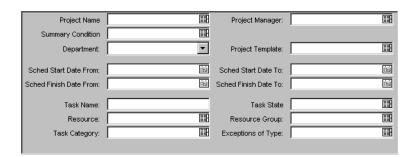


Figure 6-5 Parameters - Project Exception Detail Report

Table 6-5. Parameters - Project Exception Detail Report

| Fields | Description |
|---------------------------|--|
| Project Name | The name of the Project. |
| Summary Condition | The status of the Project (Red, Green or Yellow). |
| Department | The department/division that takes responsibility for the Project. This is used for additional Project categorization and reporting. |
| Sched Start Date From | Only select Projects with a Scheduled Start Date on or after the date value in this field. |
| Sched Finish Date From | Only select Projects with a Scheduled Finish Date on or after the date value in this field. |
| Task Name | The name of the Task. |

| Fields | Description |
|-------------------------|---|
| Resource | The name of the user assigned as a Resource. |
| Task Category | The category to which the Task has been assigned. |
| Project Manager | The name of the Project Manager. |
| Project Template | The Template used for the Project. |
| Sched Start Date To | Only select Projects with a Scheduled Start Date on or before the date value in this field. |
| Sched Finish Date To | Only select Projects with a Scheduled Finish Date on or before the date value in this field. |
| Task State | The state of the Task (such as Bypassed, Cancelled or Completed). |
| Resource Group | The name of the Security Group associated with the Task. |
| Exceptions of Type | Only select Tasks with Exceptions of a certain Exception Type (such as Late Tasks or Unassigned Tasks) or a group of Exception Types. |

Project Resource Report

This report lists all resources working on a Project and the tasks that they are working on. This report enables a Manager to have a high-level view of how much work is assigned to which resource, and which resources can be available to work on more tasks.

The Project Resource Report parameters are shown in *Figure 6-6* and defined in *Table 6-6*.

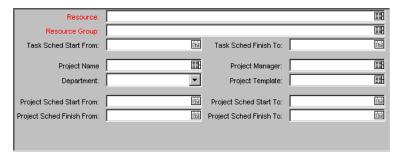


Figure 6-6 Parameters - Project Resource Report

Table 6-6. Parameters - Project Resource Report

| Fields | Description |
|----------------------------|--|
| Resource | The name of the user assigned as a Resource. |
| Resource Group | The Security Group Name assigned as a Resource Group. |
| Task Sched Start From | Only select Tasks with a Scheduled Start on or after the date value in this field. |
| Project Name | The name of the Project. |
| Department | The department/division that takes responsibility for the Project. This is used for additional Project categorization and reporting. |
| Proj Sched Start From | Only select Projects with a Scheduled Start on or after the date value in this field. |
| Proj Sched Finish From | Only select Projects with a Scheduled Finish Date on or after the date value in this field. |
| Task Sched Finish To | Only select Tasks with a Scheduled Finish on or before the date value in this field. |
| Project Manager | The name of the Project Manager. |
| Project Template | The name of the Template for this Project. |
| Project Sched Start To | Only select Projects with a Scheduled Start on or before the date value in this field. |
| Project Sched Finish To | Only select Projects with a Scheduled Finish on or before the date value in this field. |

Project Schedule Change Report

Use the Project Schedule Change report to compare a Project plan with a baseline, or a baseline to another baseline. The report's output is generated in the HTML table format. Plan lines that:

- Have changed appear in red.
- Exist only in the first plan or baseline appear in blue.
- Exist only in the second plan or baseline appear in green.
- Are identical in for both appear as normal text.

The Project Schedule Change Report parameters are shown in *Figure 6-7* and defined in *Table 6-7*.

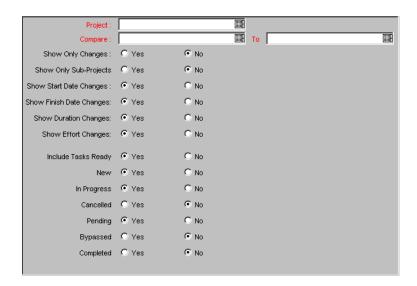


Figure 6-7 Parameters - Project Schedule Change Report

Table 6-7. Parameters - Project Schedule Change Report

| Fields Description | |
|-----------------------------|---|
| rieias | Description |
| Project Name | The name of the Project whose critical path you wish to compare changes for. |
| Compare | Allows you to specify the first entity to compare (Project Plan or Baseline). |
| То | Allows you to specify the second entity to compare, usually a baseline. |
| Show Only Changes | Specify whether you wish to see only changes between the two entities. |
| Show Only Sub- Projects | Specify whether you wish to see only Sub-Projects. |
| SHOW START DATE CHANGES | Specify whether or not you wish to see changes to Task start dates. |
| SHOW FINISH DATE CHANGES | Specify whether or not you wish to see changes to Task finish dates. |
| SHOW DURATION CHANGES | Specify whether or not you wish to see changes to Task durations. |
| SHOW EFFORT CHANGES | Specify whether or not you wish to see changes to Task effort values. |

| | , , |
|---------------------|--|
| Fields | Description |
| INCLUDE TASKS READY | Specify whether or not you wish to see Tasks in the Ready state. |
| New | Specify whether or not you wish to see Tasks in the New state. |
| CANCELLED | Specify whether or not you wish to see Tasks in the Canceled state. |
| PENDING | Specify whether or not you wish to see Tasks in the Pending state. |
| BYPASSED | Specify whether or not you wish to see Tasks in the Bypassed state. |
| COMPLETED | Specify whether or not you wish to see Tasks in the |

Table 6-7. Parameters - Project Schedule Change Report

Project Status Detail Report

This report is a summary of Project statuses of selected Projects and Tasks.

The Project Status Detail Report parameters are shown in *Figure 6-8* and defined in *Table 6-8*.

Completed state.

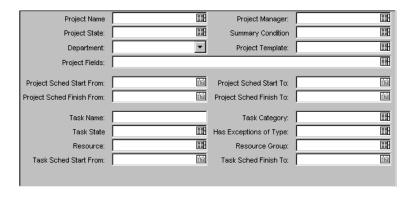


Figure 6-8 Parameters - Project Status Detail Report

Table 6-8. Parameters - Project Status Detail Report

| Fields | Description |
|------------------------------|--|
| Project Name | The name of the Project. |
| Project State | The current state of the Project (Active, Cancelled, Completed, New or Plan). |
| Department | The department/division that takes responsibility for the Project. This is used for additional Project categorization and reporting. |
| Project Fields | The Project fields whose statuses are being viewed. |
| Project Sched Start From | Only select Projects with a Scheduled Start on or after the date value in this field. |
| Project Sched Finish From | Only select Projects with a Scheduled Finish on or after the date value in this field. |
| Task Name | The name of the Task. |
| Task State | The current state of the Task (such as Bypassed, Cancelled or Completed). |
| Resource | The name of the user assigned as a Resource. |
| Task Sched Start From | Only select Tasks with a Scheduled Start on or after the date value in this field. |
| Project Manager | The name of the Project Manager. |
| Summary Condition | The current condition of the Project (Green, Red or Yellow). |
| Project Template | The Template for the Project. |
| Project Sched Start To | Only select Projects with a Scheduled Start on or before the date value in this field. |
| Project Sched Finish To | Only select Projects with a Scheduled Finish on or before the date value in this field. |
| Task Category | The category for the Task (Design or Signoff). |
| Has Exceptions of Type | Only select Tasks with Exceptions of a specific Exception Type (such as Late Tasks or Unassigned Tasks) or a group of Exception Types. |
| Resource Group | The Security Group Name associated with the Task. |
| Task Sched Finish To | Only select Tasks with a Scheduled Start on or before the date value in this field. |

Project Summary Report

This report is generated in HTML table format. Use this report to display all Projects that meet the criteria selected in the header fields.

The Project Summary Report parameters are shown in *Figure 6-9* and defined in *Table 6-9*.

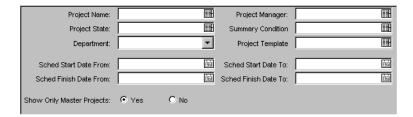


Figure 6-9 Parameters - Project Summary Report

Table 6-9. Parameters - Project Summary Report

| Fields | Description |
|------------------------------|--|
| Project Name | The name of the Project. |
| Project State | The current state of the Project (Active, Cancelled, Completed, New or Plan). |
| Department | The department/division that takes responsibility for the Project. This is used for additional Project categorization and reporting. |
| Sched Start Date From | Only select Projects with a Scheduled Start Date on or after the date value in this field. |
| Sched Finish Date From | Only select Projects with a Scheduled Finish Date on or after the date value in this field. |
| Show Only Master Projects | Determines whether or not to query Subprojects. |
| Project Manager | The name of the Project Manager. |
| Summary Condition | The current condition of the Project (Green, Red or Yellow). |
| Project Template | The Template for the Project. |
| Sched Start Date To | Only select Projects with a Scheduled Start Date on or before the date value in this field. |
| Sched Finish Date To | Only select Projects with a Scheduled Finish Date on or before the date value in this field. |

Project Task Assignment Report

This report shows assignment information for a user or a group of users.

The Project Task Assignment Report parameters are shown in *Figure 6-10* and defined in *Table 6-10*.

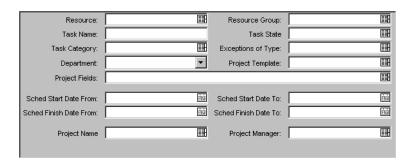


Figure 6-10 Parameters - Project Task Assignment Report

Table 6-10. Parameters - Project Task Assignment Report

| Fields | Description |
|---------------------------|--|
| Resource | The name of the user assigned as a Resource. |
| Task Name | The name of the Task to which the users have been assigned. |
| Task Category | The category for the Task (Design or Signoff). |
| Department | The department/division that takes responsibility for the Project. This is used for additional Project categorization and reporting. |
| Project Fields | Select Project field(s) to be viewed. |
| Sched Start Date From | Only select Projects with a Scheduled Start Date on or after the date value in this field. |
| Sched Finish Date From | Only select Projects with a Scheduled Finish Date on or after the date value in this field. |
| Project Name | The name of the Project. |
| Resource Group | The Security Group name associated with the Task. |

| Fields | Description |
|-------------------------|--|
| Task State | The current state of the Task. |
| Exceptions of Type | Only select Tasks with Exceptions of a specific Exception Type (such as Late Tasks or Unassigned Tasks) or a group of Exception Types. |
| Project Template | The Template for the Project. |
| Sched Start Date To | Only select Projects with a Scheduled Start Date on or before the date value in this field. |
| Sched Finish Date To | Only select Projects with a Scheduled Finish Date on or before the date value in this field. |
| Project Manager | The name of the Project Manager. |

Table 6-10. Parameters - Project Task Assignment Report

Project Template Detail Report

This report lists the parameters and parameter details for Project Templates.

The Project Template Detail Report parameters are shown in *Figure 6-11* and defined in *Table 6-11*.

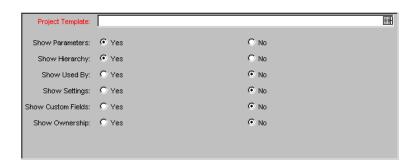


Figure 6-11 Parameters - Project Template Detail Report

Table 6-11. Parameters - Project Template Detail Report

| Fields | Description |
|---------------------|---------------------------|
| Project Template | The name of the Template. |

| Fields | Description |
|-----------------------|---|
| Show Parameters | Determines whether or not to show the Project Template's parameters. |
| Show Hierarchy | Determines whether or not to show the Project Template's hierarchy. |
| Show Used By | Determines whether or not to show which Projects are using the Template. |
| Show Settings | Determines whether or not to show settings for the Project Template. |
| Show Custom Fields | Determines whether or not to show custom fields for the Project Template. |

Resource Availability Report

This report provides a high level view of the availability of Resources in Project Management.

The Resource Availability Report parameters are shown in *Figure 6-12* and defined in *Table 6-12*.

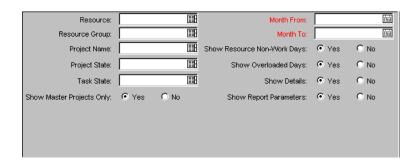


Figure 6-12 Parameters - Resource Availability Report

Table 6-12. Parameters - Resource Availability Report

| Fields | Description |
|----------|---|
| Resource | The user name of the selected resource. |

Table 6-12. Parameters - Resource Availability Report

| Fields | Description |
|---------------------------------|--|
| Resource Group | Only select resources in a set of Security Groups. |
| Project Name | The resources in a selected Projects. |
| Project State | Resources in Projects in a set of specific Project states. |
| Task State | Resources assigned to Tasks in specific Task states. |
| Show Master Projects Only | Determines whether or not to query Subprojects. |
| Month From | A day in the starting month for which to display the information. |
| Month To | A day in the ending month for which to display the information. |
| Show Resource Non- Work Days | Determines whether to show the non-working days in the Resource Calendar for the selected resources. |
| Show Overloaded Days | Determines whether to show days when the resource has been overloaded. |
| Show Details | Determines whether to show task details and non-working days details. |
| Show Report Parameters | Determines whether to show parameters for the report. |

Chapter Time Management Reports

This chapter lists all reports specific to Time Management. These reports are HTML files created by the application that can be viewed using a Web browser. In addition to a graphical representation of the data, the reports list a tabular version of the details for export into Excel. For each report, this chapter provides a brief description and explanation of the screen parameters.

This chapter also provides definitions for all the field names used in each report. By entering criteria into a field, a filter can be created for the report so it only displays information that matches the selected criteria. For more information on running reports, see "Running Reports" on page 5.

This chapter contains information on the following reports available in Time Management:

- TMG Actual Time/Cost Summary Report
- TMG Actual Time Summary Report
- TMG Time Sheet Details Report
- TMG Time Sheet Summary Report
- TMG Work Allocation Details

TMG - Actual Time/Cost Summary Report

The TMG - Actual Time/Cost Summary Report summarizes actual time information entered in non-cancelled Time Sheets and the calculated charge dollar totals for each grouping. Different parameters provide different views into the data, such as:

• The report displaying the total time entered per Resource.

- The report displaying the total time entered per Project.
- The report displaying the total time entered in each given time period.

This report is usually restricted to a smaller group of users than the Actual Time Summary Report. *Table 7-1* lists the parameters available when setting up this report.

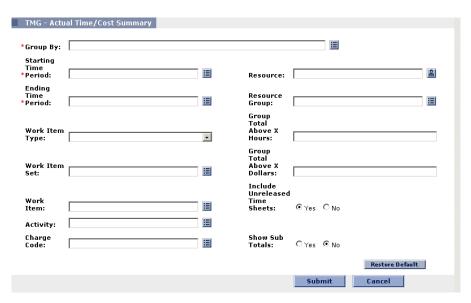


Figure 7-1 TMG - Actual Time/Cost Summary Report

Table 7-1. TMG - Actual Time/Cost Summary Report Parameters

| Fields | Description |
|----------------------|--|
| Group By | Determines how to group the information, such as by Resource or Work Item Type. |
| Starting Time Period | Display information entered on or after a specific time period. |
| Ending Time Period | Display information entered on or before a specific time period. |
| Work Item Type | Display information for a specific Work Item Type. |
| Work Item Set | Display information for a specific set of Work Item Sets, such as Request Types, Master Projects, Packages or Workflows. |
| Work Item | Display information for a specific set of Work Items, such as Package, Request, Project or Task. |

Activity Display information on a specific activity. Charge Code Display information charged to a specific Charge Code. Use the Charge Code percentage to calculate the time against the Charge Code. Resource Display information for a specific set of Resources. Display information for Resources in a specific set of Resource Group Resource Groups. Group Total Above X Display information where the total Actual hours are above Hours the given number. This filters for the areas with large time charges. Group Total Above X Display information where the total Actual hours are above **Dollars** the given number. This filters for the areas with large time charges. Include Unreleased Display information where active Time Sheets are included Time Sheets or excluded. Show Sub Totals If set to Yes, the report shows time totals for the first column selected in the grouping.

Table 7-1. TMG - Actual Time/Cost Summary Report Parameters [continued]

TMG - Actual Time Summary Report

The TMG - Actual Time Summary Report summarizes actual time information entered in non-cancelled Time Sheets. Different parameters provide different views into the data, such as:

- The total time entered per Resource for each time period.
- The total time entered per Project.
- The total time entered in each given time period.

This report is similar to the Time Sheet Summary Report except it does not show Work Allocation budget information. This report is usually run on a larger group of users than the Actual Time/Cost Summary Report. *Table 7-2* lists the parameters available when setting up this report.

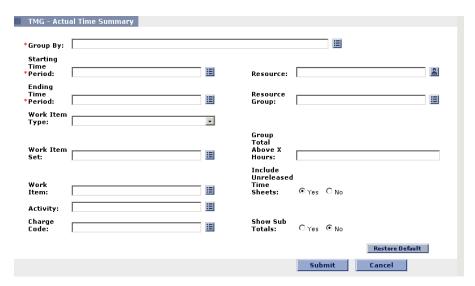


Figure 7-2 TMG - Actual Time Summary Report

Table 7-2. TMG - Actual Time Summary Report Parameters

| Fields | Description |
|----------------------|--|
| Group By | Determines how to group the information, such as by Resource or Work Item Type. |
| Starting Time Period | Display information entered on or after a specific time period. |
| Ending Time Period | Display information entered on or before a specific time period. |
| Work Item Type | Display information for a specific Work Item Type. |
| Work Item Set | Display information for a specific set of Work Item Sets, such as Request Types, Master Projects, Packages or Workflows. |
| Work Item | Display information for a specific set of Work Items, such as Package, Request, Project or Task. |
| Activity | Display information on a specific activity. |
| Charge Code | Display information charged to a specific Charge Code. Use the Charge Code percentage to calculate the time against the Charge Code. |
| Resource | Display information for a specific set of Resources. |

Table 7-2. TMG - Actual Time Summary Report Parameters [continued]

| Resource Group | Display information for Resources in a specific set of Resource Groups. |
|-----------------------------------|--|
| Group Total Above X Hours | Display information where the total Actual hours are above the given number. This filters for the areas with large time charges. |
| Include Unreleased Time Sheets | Display information where active Time Sheets are included or excluded. |
| Show Sub Totals | If set to Yes, the report shows time totals for the first column selected in the grouping. |

TMG - Time Sheet Details Report

The TMG - Time Sheet Details Report reports on multiple Time Sheets at once and views their details. The report displays the following information:

- Header information
- Daily time information
- Line information, such as:
 - o Work Item
 - o Actuals to date
 - o Charge Code
 - o Activity information
 - o Notes details

Table 7-3 lists the parameters available when setting up this report.

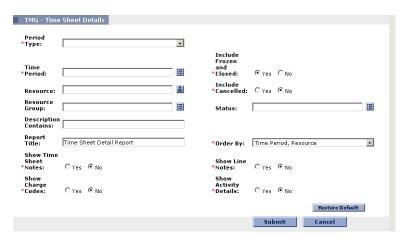


Figure 7-3 TMG - Time Sheet Details Report

Table 7-3. TMG - Time Sheet Details Report Parameters

| Fields | Description | | | |
|----------------------------------|--|--|--|--|
| Period Type | Displays the Time Sheets of the specified tim period type. Period Types include Weekly, Bi-Weekly, Semi-Monthly and Monthly. | | | |
| Time Period | Displays the Time Sheets for a specific set of time periods. | | | |
| Resource | Displays the Time Sheets for a specific set of Resources. | | | |
| Resource Group | Displays the Time Sheets for the Resources of a Resource Group(s). | | | |
| Time Sheet # | Displays the Time Sheets with a specific Time Sheet number. A unique sequence number is assigned when there are multiple Time Sheets for a Resource in the same time period. | | | |
| Time Sheet Status | Displays the Time Sheets currently at a specific status. | | | |
| Order By | Determines how to order the list of Time Sheets if the parameters result in more than one Time Sheet. | | | |
| Include Closed Time Sheets | Closed Time Sheets are excluded unless this parameter is set to Yes. | | | |
| Include Cancelled Time Sheets | Cancelled Time Sheets are excluded unless this parameter is set to Yes. | | | |
| Show Time Sheet Notes | Shows the Header Notes of the queried Time Sheets. | | | |

| Tabl | e 7-3. | TMG - | Time Shee | t Details | Report | Parameters | [continued] |] |
|------|--------|-------|-----------|-----------|--------|-------------------|-------------|---|
|------|--------|-------|-----------|-----------|--------|-------------------|-------------|---|

| Show Line Notes | Shows the detailed Notes attached to each Time Sheet line. |
|-----------------------|---|
| Show Activity Details | Shows the detailed time entered for the Time Sheet line by each activity. |
| Show Charge Codes | Shows the Charge Code Allocations for each Time Sheet line. |

TMG - Time Sheet Summary Report

The TMG - Time Sheet Summary Report summarizes time information entered in non-cancelled Time Sheets. Different parameters provide different views into the data, such as:

- The total time entered per Resource for time period.
- The total time entered per Project versus the budget for that Project.
- The total time entered in each give time period.

This report is similar to the Actual Time Summary report except that this report shows Work Allocation budget information. *Table 7-4* lists the parameters available when setting up this report.

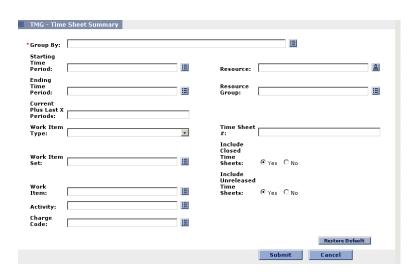


Figure 7-4 TMG - Time Sheet Summary Report

Table 7-4. TMG - Time Sheet Summary Report Parameters

| Fields | Description | | | |
|-----------------------------------|---|--|--|--|
| Group By | Determines how to group the information, such as by Resource or Work Item Type. | | | |
| Starting Time Period | Display Time Sheets entered on or after a specific time period. | | | |
| Ending Time Period | Display Time Sheets entered on or before a specific time period. | | | |
| Current Last X Periods | Displays Time Sheets in the current period and a given number of previous periods. If 0 is entered, the report only shows Time Sheets in the current time period. | | | |
| Work Item Type | Displays Time Sheets containing the specified Work Item Type. | | | |
| Work Item Set | Displays Time Sheets containing the specified Work Item Sets, such as Request Types, Master Projects or Package Workflows. | | | |
| Work Item | Displays Time Sheets for a given set of Work Items (Package, Request, Project or Task). | | | |
| Activity | Displays Time Sheets entered against a specific activity. | | | |
| Charge Code | Displays Time Sheets with time charged to a specific Charge Code. Use the Charge Code percentage to calculate the time against the Charge Code. | | | |
| Resource | Displays Time Sheets for a specific set of Resources. | | | |
| Resource Group | Displays Time Sheets for a specific Resource Group(s). | | | |
| Time Sheet # | Only show Time Sheets of a specific number. A unique sequence number is assigned when there are multiple Tim Sheets for a Resource in the same time period. | | | |
| Include Closed Time Sheets | Closed Time Sheets are excluded unless this parameter is set to Yes. | | | |
| Include Unreleased Time Sheets | Active Time Sheets are excluded unless this parameter is set to Yes. | | | |

TMG - Work Allocation Details

The TMG - Work Allocation Details Report shows much of the same information shown on the Work Allocation definition page. This includes the:

- Allocation Work Item information
- budget and Actuals to date
- Charge Code Allocations
- Resource restrictions.

This report also returns hyperlinks allowing modification of the Work Allocation ("Edit Work Allocations" Access Grant required). *Table 7-5* lists the parameters available when setting up this report.

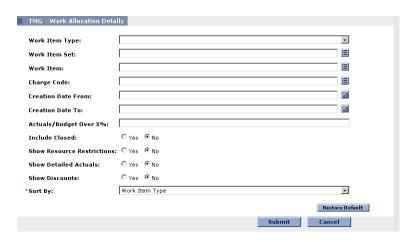


Figure 7-5 TMG - Work Allocation Details Report Parameters page

| Table 7-5 | TMG - | Work A | llocation | Details | Report | Parameters |
|-----------|-------|--------|-----------|---------|--------|-------------------|
| | | | | | | |

| Fields | Description |
|----------------|--|
| Work Item Type | Displays Work Allocations for a given Work Item Type. |
| Work Item Set | Displays Work Allocations for a specific Work Item Set (such as a specific Request Type, Master Project or Package Workflow). |
| Work Item | Displays Work Allocations for a specific Work Item. |
| Charge Code | Displays Work Allocations with a specific Charge Code. This displays all the time being charged to a specific department or cost center. |

Table 7-5. TMG - Work Allocation Details Report Parameters [continued]

| Creation Date From | Displays Work Allocations created on or after a specific date. | | | |
|-------------------------------|---|--|--|--|
| Creation Date To | Displays Work Allocations created on or before a specific date. | | | |
| Actuals/Budget Over X% | Displays Work Allocations where the Actuals to date are over a certain percentage of the current budget. This parameter reports on the allocations close to or over budget. | | | |
| Include Closed | Closed allocations are excluded unless this parameter is set to Yes. | | | |
| Show Resource Restrictions | For each Work Allocation, show the restricted Resources and Resource Groups. | | | |
| Show Detailed Actuals | Displays the total Actuals to date for the Work Allocation, as well as the breakdown of the Actuals entered by each Resource. | | | |
| Show Discounts | Displays the standard and billing discount numbers. | | | |
| Sort By | Sort the report by the: Work Item Type Work Item Set Work Item Name Original Budget Current Budget. | | | |

Chapter Reporting Meta Layer

The Reporting Meta Layer is an additional layer to the Mercury ITG data model that allows customers to use third-party reporting software to define their own custom reports.

This chapter covers Reporting Meta Layer's key features and how to use them in the following sections:

- Key Concepts and Definitions
- Setting Up the Reporting Meta Layer
- Using the Reporting Meta Layer
- Handling Synchronization Issues

Key Concepts and Definitions

This section defines the following key concepts related to the Reporting Meta Layer.

- Reporting Meta Layer
- Reporting Meta Layer View
- Reporting Meta Layer View Template
- View Compilation
- Reporting Meta Layer Synchronization
- Data Security

Reporting Meta Layer

The Reporting Meta Layer (RML) is the layer that sits on top of the Mercury ITG data model, resolving and exposing key functional information and hidden technical complexities. The RML is a schema that resides in the same Oracle database as the Mercury ITG schema. The Reporting Meta Layer's schema contains database Views that read and interpret data from the Mercury ITG database.

Reporting Meta Layer View Template

The Reporting Meta Layer View Template is a guide that is used to create a Reporting Meta Layer View. When the RML is synchronized, each View Template is parsed and used as a basis for generating a View or set of Views in the Reporting Meta Layer schema.



Note: Mercury Interactive does not recommend changing or dropping specific templates. More information on Meta Layer View Templates can be found on Contori (http://customer.contori.com).

Reporting Meta Layer View

The Reporting Meta Layer View is a representation of a logical Mercury ITG business entity or a collection of relevant functional information, presented as an Oracle view. There are several different categories of Reporting Meta Layer Views:

- Cross-Product Views
- Demand Management Views
- Change Management Views
- Project Management Views
- Other Views
- Additional Resources

Cross-Product Views

These Views relate information across all Mercury ITG Center products. For example, RML_RESOURCE_LOAD shows open Requests, Packages, and Project Tasks currently assigned to a specific Mercury ITG user.

Demand Management Views

These Views relate information specific to Demand Management. For example, the Reporting Meta Layer view MREQ_OPENED_CLOSED_BY_TYPE_D provides summary information for Request submission and completion activity, broken down by Request Type and by calendar day.

Change Management Views

These Views relate information specific to Change Management. For example, the Reporting Meta Layer view MPKGL_OBJ_TYPE_DEPLOYMENT_D provides summary information for Package deployment activity, broken down by Object Type and calendar day.

Project Management Views

These Views relate information specific to Project Management. For example, the Reporting Meta Layer View MPRJ_PROJECT_INFO contains columns to display the current state of a Project, the Project's summary condition, percent complete, actuals vs. estimated Project metrics, and other details about the Project.

Other Views

These Views relate information about Mercury ITG entities like Workflows and Security Groups. For example, the Reporting Meta Layer View MWFL_STEP_SECURITY_USERS lists all users with authority to act on a given Workflow Step through static Security Group or User linkage, as defined in the Workflow Step window in the Workflow Workbench.

Additional Resources

These Views are useful to report designers. For example, the Reporting Meta Layer View RML_USER_ACCESS_GRANTS is provided to allow report designers to enforce access security in the data presented in reports.

View Compilation

Refers to the technical process of reading the View Template of a Reporting Meta Layer View, calculating any custom information to include, and generating the final View that will reside in the RML.

Reporting Meta Layer Synchronization

Brings the Reporting Meta Layer up-to-date with the current state of Mercury ITG data. During synchronization, some or all Reporting Meta Layer Views are compiled, depending on user-specified options. For more information, see "Synchronizing the Reporting Meta Layer" on page 137.

Data Security

The Reporting Meta Layer is a self-contained schema residing in the Mercury ITG Database. Its access to Mercury ITG data is read-only, rendering it strictly one-way. Any third-party reporting tool would be able to read and interpret Mercury ITG data through the Reporting Meta Layer, but would not be able to alter or corrupt the Mercury ITG database itself in any way.

Data Authorization

In order to prevent a third-party report from exposing certain information to people who lack the proper authorization, security Views are included in the Reporting Meta Layer that can be referenced by any other View.

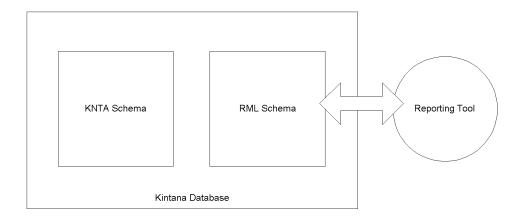
Setting Up the Reporting Meta Layer

The following sections describe the basic structure of the Reporting Meta Layer, as well as the behavior and maintenance of its Views:

- Architectural Overview
- Synchronizing the Reporting Meta Layer

Architectural Overview

The Reporting Meta Layer is a separate schema that resides in the Mercury ITG database. It contains the set of Reporting Meta Layer views that are its functional components, providing interpretation of Mercury ITG Center's complex data model.



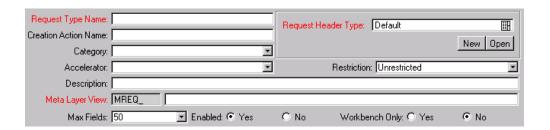
RML Views are essentially SQL statements that return specific, useful data from the Mercury ITG database, providing direct mapping to the business entities defined in Mercury ITG Center applications.

Any third-party reporting software capable of connecting to an Oracle database and running query statements in SQL can use the Reporting Meta Layer. RML Views are used by including them in query statements. In other words, when a reporting tool makes a query on the Mercury ITG database using a Reporting Meta Layer View, it is running a SQL statement on a SQL statement.

Synchronizing the Reporting Meta Layer

Mercury ITG transactional entities like Request Types and Object Types have their own Reporting Meta Layer Views. Each View is defined by a View Template that dictates the View's construction. For example, Templates contain markers for entities containing Custom Fields. When Custom Fields are encountered during View compilation, the Template puts them into the View, using their Tokens as column names.

Every time a new entity such as a Request Type is created, it must be given a corresponding RML View name.



Each View must have a unique name that cannot be duplicated in the system.



Since Reporting Meta Layer Views are essentially Oracle database views, they are named according to Oracle convention. RML Views, therefore, can only have names up to 20 characters in length, A-Z, 0-9, with _ for spaces. Avoid using Oracle-reserved words for field Tokens, since they are being used as View columns.

User Data fields are also incorporated into many Reporting Meta Layer Views. *Table 8-1* lists the types of User Data that may be present in one or more RML Views:

Table 8-1. Available Reporting Meta Layer Views for User Data

| Package User Data | Global and context-sensitive User Data |
|--|--|
| Contact User Data Package Line User Data Request Header Type User Data Request Type User Data Security Group User Data User User Data Workflow Step User Data Workflow User Data Project Environment | Global User Data only. |

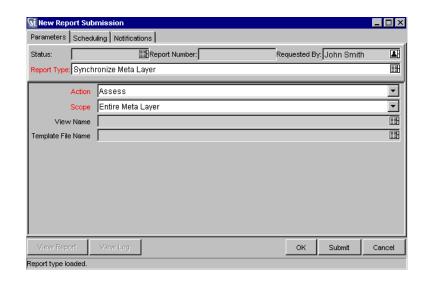
As part of routine Mercury ITG configuration, users can update any custom fields, entity names, and other configuration information at any time. Every change has the potential to render existing RML Views obsolete, invalidating reports based on these obsolete Views. For configuration changes to be reflected in the Reporting Meta Layer, it must be synchronized to keep RML Views current with Mercury ITG configurations.

To synchronize the Reporting Meta Layer:

1. Click the Reports icon in the Demand Mgmt, Change Mgmt, or Project Mgmt screen group.

The Report Submission Workbench opens.

2. Click New Report.



The New Report Submission window opens.

3. Click on the Report Type auto-complete list and select **Synchronize Meta Layer**.

Note

The Report may not be named Synchronize Meta Layer, as it must be copied from read-only data in the system. If you have any questions about the RML synchronization Report, contact the Mercury ITG System Administrator.

If you are the Mercury ITG System Administrator, go to **Configuration** in the Shortcut Bar, click **Report Types**, and list all Reports. Copy the reference Synchronize Meta Layer report and name the copy Synchronize Meta Layer, ensuring that it is enabled for all products.

- 4. From the Action drop down list, select the action desired.
 - To simulate a synchronization, select **Assess**. This will generate a Synchronization Report detailing the updates that *would* have been made to the Reporting Meta Layer, allowing the impact of any changes to be assessed.
 - To perform the actual synchronization, select **Synchronize**. This compiles all Views from existing View Templates and generates a report of the updates made, subject to the Scope specified (see below).

- Any specific Views in the Reporting Meta Layer, including the entire RML itself, that are no longer needed can be removed by selecting Drop.
- 5. From the Scope drop down list, select the scope desired.
 - To perform the selected action on the entire Reporting Meta Layer, select **Entire Meta Layer**.
 - To cause the View Name auto-complete list to become required, select
 Specific View. A View must be selected to perform the selected action.
 - To cause the Template File Name auto-complete list to become required, select Specific Template. A View Template must be selected to perform the selected action.
- 6. To run the Report, click **Submit**.

The Reporting Meta Layer has now been synchronized and the RML View is current with Mercury ITG configurations.

Using the Reporting Meta Layer

Any third-party reporting software capable of running SQL queries on an Oracle database can make use of the Reporting Meta Layer. The process can be summarized by the following two steps:

- 1. Configure the reporting tool to use the Reporting Meta Layer schema in the Mercury ITG database as its data source.
- 2. Build any desired reports using the standard capabilities of the reporting system.

Handling Synchronization Issues

Table 8-2 details the possible RML synchronization informational messages, user error messages, and internal error messages:

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Table 8-2. RML Synchronization Messages

| Message | Description |
|---|---|
| Informational Messages | |
| KNTA-10504: No description available for this view. View description is not provided in template "template name". | The description of the view is not provided in the specific template. The view description provided in an RML template as Token [VIEW_DESCRIPTION=] is recorded as a comment when RML views are created- based on the named template. |
| KNTA-10512: Parameter set context obsolete: ID = parameter_set_context_id | The reason for the drop of an RML view. |
| KNTA-10513: New template "template name". | The reason for the creation of an RML view. |
| KNTA-10514: Custom fields updated | The reason for the replacement of an RML view. |
| KNTA-10515: View name changed from "old view name" to "new view name". | The reason for the creation or drop of an RML view. |
| KNTA-10516: New parameter set context (ID = parameter_set_id) for the template. | The reason for the creation of an RML view. The system found a new entry that is defined as the driving context for the template. For example, the template 'mreq_ud_context_value.rml' has context-sensitive User Data defined as the driving context. This message will be given if the system detects additional Request context-sensitive User Data configured in the system since the last synchronization of this template. |
| KNTA-10517: Drop view "view name" request initiated by user | The reason for the drop of an RML view. |
| KNTA-10518: Dependent template "template name" dropped by user. | The reason for the drop of an RML view. |
| KNTA-10550: Drop operation complete. | The drop operation is complete. |
| KNTA-10551: Dependent context sets changed for template "template name". | The reason for the replacement of an RML view. |
| KNTA-10562: New view for static context template "template file". | The view is created the first time based on the name template. This message is displayed when the view or template is dropped and synchronized again. |
| KNTA-10591: Existing view name is restored: existing view name | The reason for the creation or drop of an RML view. |

Table 8-2. RML Synchronization Messages

| Message | Description |
|--|--|
| KNTA-10620: Another assessment or synchronization process is already running. There can be only one assessment or synchronization process running on a given database. | The RML system allows only one RML assessment or synchronization process running at any given time on a particular Oracle database to ensure data integrity. Wait until the other process finishes before starting another process. |
| KNTA-10622: No Change Detected. | There are no Mercury ITG Configuration Changes that will cause any updates on RML views. |
| KNTA-10698: No views will be generated as no driving contexts were resolved for template: template name | The system did not find any entry that is defined as the driving context for the named template. For example, the template 'mreq_ud_context_value.rml' has context-sensitive User Data defined as the driving context. This message will be given if there is no Request context-sensitive User Data configured in the Mercury ITG system. |
| User Error Messages | |
| KNTA-10505: Could not determine context type for Meta Layer view template file "template name". None of [VIEW_NAME_PREFIX] and [STATIC_VIEW_NAME] is specified in the template. | There is an error in the named RML template. [VIEW_NAME_PREFIX] must be specified for specific entity based RML view templates. [STATIC_VIEW_NAME] must be specified for all other RML view templates. |
| KNTA-10506: Could not determine Meta Layer view name. Either the system could not find the corresponding parameter set or the Meta Layer view name is not specified. | Cannot locate the parameter set context entry to determine the RML view name. |
| KNTA-10507: Fail to create comment for "view name". Oracle Error here. DDL statement: failed Oracle DDL statement here. | The base Mercury ITG schema is missing the "Comment any table" system grant. The system grant is granted to the base Mercury ITG schema at the time of installation and upgrade. Be sure to store it if it has been accidentally dropped. |
| KNTA-10510: "Create or replace view" statement failed | An Oracle error is encountered when the RML system is trying to issue the DDL statement to create the view in the RML schema. The Oracle error and the actual DDL statement always accompany this message. To investigate the problem, copy the DDL statement and execute it in a tool such as SQL*Plus. One of common errors is 'Duplicated column names'. To fix this problem, the duplicate column name must first be identified and then change the field Token where it is necessary. |

Table 8-2. RML Synchronization Messages

| Message | Description |
|--|---|
| KNTA-10511: Oracle error when dropping view "view name". | An Oracle error is encountered while the RML system is trying to issue the DDL statement to drop the view in the RML schema. The Oracle error and the actual DDL statement always accompany this message. To investigate the problem, copy the DDL statement and execute it in a tool such as SQL*Plus. |
| KNTA-10543: The name of the Meta Layer view "view name" you are changing to or creating for associated entity "associated entity name" conflicts with the view name for associated entity "associated entity name". Please choose another name for the view. | The specified view name is already used by another entity. Locate the associated entity and choose a different RML view name for the entity. |
| KNTA-10545: Cannot change the view name for built-in static context template "template name". Please restore the original view name "original static view name" | The static view names defined in RML view templates that come with Mercury ITG Center cannot be changed. Restore the original static view name for the name template, as instructed in the message. |
| KNTA-10546: Driving context changed for template "template name". It is not allowed to change driving context set for built-in template. Please restore original template. Original driving context set is parameter_set_id. | Some un-supported customization has been done for the name template. Be sure to undo those changes. |
| KNTA-10547: Can not change view name prefix to "new view prefix" for Built-in template "template name". Please restore original [VIEW_NAME_PREFIX=original view name prefix]. | The Token [VIEW_NAME_PREFIX=] must be defined for specific entity based RML view templates. The definition is not allowed to change for those view templates that comes with Mercury ITG Center. To resolve this problem, restore it to the original as instructed in the message. |
| KNTA-10548: Driving context changed from "old driving context" to "new driving context" for template "template name". Can not continue assessment. To change driving context set for the template, you must drop the template first and then re-assess the template. | For specific entity based RML view templates, [DRIVING_PARAMETER_SET = parameter_set_id] is specified. Perform a drop operation on the template and synchronize again to make the change take effect. |
| KNTA-10549: Cannot found view "view name" to drop. | The named view is no longer a valid view in the RML system. Validate the view name again using the View Name autocomplete field on the Synchronize Meta Layer Report Type to ensure the view is still valid in the system. |

Table 8-2. RML Synchronization Messages

| Message | Description |
|--|--|
| KNTA-10552: Dependent context sets changed for template "template name". Could not continue process. To make this kind of change, the template must be dropped and re-assessed. | All RML templates that have custom data fields in them have associated contexts. Any changes to the dependent contexts invalidate all views and the templates that have previously been assessed/synchronized. Perform a drop operation on the name template and synchronize the template again. |
| KNTA-10629: Meta Layer View not defined for entity name "specific entity name". | The Meta Layer View field is not filled out for the named specific entity. Locate the specific entity and fill out the Meta Layer View field. |
| KNTA-10675: Value "view name specified for [VIEW_NAME] Token" is too long for [VIEW_NAME] in template "template name". Value for [VIEW_NAME] must be no more than 30 characters. | There is an Oracle database restriction on schema object names being no more than 30 characters long. |
| KNTA-10678: Value "value for [VIEW_NAME_PREFIX]" is too long for [VIEW_NAME_PREFIX] in template "template name". Value for [VIEW_NAME_PREFIX] must be no more than 10 characters. | Rename the view name prefix to be no more than 10 characters. |
| KNTA-10681: The name of the Meta Layer view "new view name" you are changing to or creating for entity "specific entity name" conflicts with the name of a view that is pending drop. Please drop the pending drop view "view name" first before create the view with the same name. | Perform a drop operation to this particular view and try the assessment or synchronization process again. |
| Internal Error Messages | |
| KNTA-10509: View ID is not returned after assessment | Contact Mercury ITG Support to report the problem. |
| KNTA-10680: Could not resolve driving parameter set context id in template "template name". Please verify the template. | The RML system could not resolve the specific entity on which the name template is based. Contact Mercury ITG Support to report the problem. |



This appendix defines the windows and fields included in the **Report Types** screen in the **Configuration** screen group. The following table provides a quick reference guide to the most commonly referenced sections.

| Window Name* | Page |
|-----------------------------------|------|
| Report Type Window | 145 |
| Report Type Window: Fields Tab | 147 |
| Field Window | 147 |
| Report Type Window: Layout Tab | 152 |
| Report Type Window: Commands Tab | 153 |
| Report Type Window: Security Tab | 155 |
| Report Type Window: Ownership Tab | 157 |

^{*} Windows are named by the text located in the window's upper-left title bar.

Report Type Window

The Report Type window is used to define and configure Report Types. The fields and commands defined here are used when a user submits a Report of this Report Type. It consists of the following regions:

- Report Type General Information Region
- Report Type Fields Tab
- Report Type Layout Tab
- Report Type Commands Tab

- Report Type Security Tab
- Report Type Ownership Tab

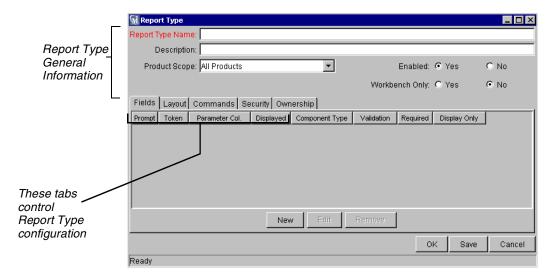


Figure A-1 Report Type Window

Report Type General Information Region

The Report Type General Information region displays the basic header information for the Report Type. It consists of the fields described in *Table A-1*.

Table A-1. Report Type General Information Fields

| Field | Description | | |
|---------------------|--|--|--|
| Report Type Name | The name of the Report Type. | | |
| Description | A description of the Report Type. | | |
| Product Scope | The products that can run Reports of this Report Type. For example, Reports submitted through the Reports screen in the Demand Mgmt screen group will only be able to run Report Types with the scope of Demand Management or All Products . | | |
| Enabled | Determines whether or not the Report Type may be used for new Report submissions. | | |

| Field | Description |
|-------------------|--|
| Workbench Only | Determines whether or not the Report Type can be submitted or viewed from both the standard and Workbench interfaces, or just the Workbench. |

Report Type - Fields Tab

The **Fields** tab in the Report Type window is used to view and edit the fields for the given Report Type. Report Type fields define the prompts displayed in the New Report Submission window for a Report of that Report Type.

Report Type - Fields Tab - Field Window

Report Type fields are defined in the Field window. The Field window consists of four main areas: a header/common region, **Attributes** tab, **Default** tab, and **Dependencies** tab. The fields for each respective area are defined in the tables below.

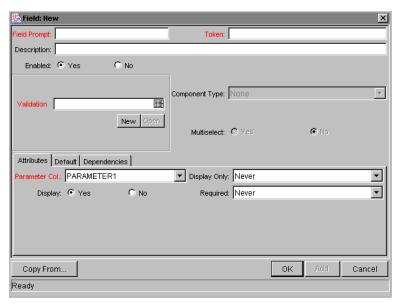


Figure A-2 Report Type - Fields Tab - Field Window

| Table A-2. Report Type - Fields Tab - Field Window - Header / Common Regi | Table A- | Report Ty | pe - Fields To | ab - Field \ | Window - Head | er / Common Regio | nc |
|---|----------|-----------------------------|----------------|--------------|---------------|-------------------|----|
|---|----------|-----------------------------|----------------|--------------|---------------|-------------------|----|

| Field | Description |
|-------------------|--|
| Field Prompt | The name of the field visible for this Report Type in the Report Submission window. |
| Token | An uppercase text string used to identify this field. The Token name must be unique for the specific Report Type. An example of a Token name is P_FILENAME. |
| Description | A brief description of the field. |
| Enabled | Determines whether or not the field is enabled. |
| Validation | Indicates the Validation logic to determine the valid values and component type for this field. This could be a list of user-defined values, a rule that the result has to be a number, etc. |
| Component Type | Defines the visual characteristics of the field (drop down list, a free form text field, etc.). This is derived from the Validation. |
| Multiselect | Determines whether or not the field allows users to select more than one entry. Only valid for fields with the auto-complete component. |

Fields Tab - Field Window - Attributes Tab

The **Attributes** Tab defines the field's basic properties.

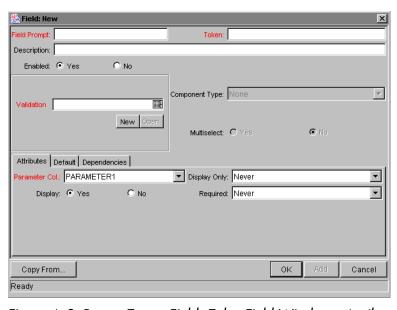


Figure A-3 Report Type - Fields Tab - Field Window - Attributes Tab

Table A-3. Report Type - Fields Tab - Field Window - Attributes Tab

| Field | Description | | |
|-----------------------------|--|--|--|
| Parameter Col | Determines the internal database table column that the field value is stored in. These values are then stored in the corresponding column in the report Submission table for each report request. Report Types enable information to be stored in up to 30 columns, therefore allowing up to 30 Fields/Parameters. No two fields in a Report Type can use the same column. | | |
| Display Only | This selection determines when the field will updateable or read-only. You can select one of the following options: | | |
| | • Always - the field is only displayed and cannot be updated, even at the initial report submission. | | |
| | Never - the field can be updated at the time of report submission. | | |
| | Use Dependency Rules - the field is display only or updateable depending on the settings in the Dependencies tab. | | |
| Display | Determines if this field is visible when a new Report is created. | | |
| Required | Determines if a value needs to be specified for this field. You can select one of the following options: | | |
| | Always - the field is always required for the initial report submission. | | |
| | Never - the field is always required for the initial report submission. | | |
| | • Use Dependency Rules - the field is required depending on the settings in the Dependencies tab. | | |
| Multi- Select Enabled | Determines whether or not the field allows users to select more than one entry. Only valid for fields with the auto-complete component. | | |

Fields Tab - Field Window - Default Tab

The **Default** tab sets the defaults for the field, as well as specifying conditions for the default setting's appearance.

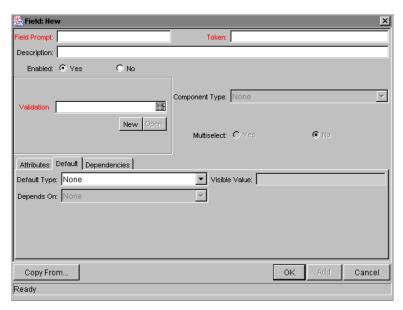


Figure A-4 Report Type - Fields Tab - Field Window - Default Tab

Table A-4. Report Type - Fields Tab - Field Window - Default Tab

| Field | Description | |
|--------------|--|--|
| Default Type | Defines if the field will have a default value. You can select one of the following options: | |
| | • Constant - specify the exact default entry to appear at the Report submission. This is used in conjunction with the Visible Value field. | |
| | • Parameter - select this option to have the field default to the value in another field (or parameter) on the Report Type. This is used in conjunction with the Depends On field, which displays all other fields defined on the Report Type. | |
| | None - indicates that the field does not have a default entry upon Report submission. | |

Table A-4. Report Type - Fields Tab - Field Window - Default Tab

| Field | Description |
|---------------|--|
| Visible Value | If a Default Type of Constant is chosen, the constant value can be entered here. This value should be what the user would normally enter in the field. |
| | If the Report Type field that you are defining is a drop down or an auto-complete list (defined in the Validation selection), the Visible Value field will display only valid values. For example, if you have selected a "Priority" drop down list Validation (with possible values of High, Medium, Low), you can only default the Visible Value to High, Medium or Low. |
| Depends On | If a Default Type of Parameter is chosen, you can select the value from another field to provide the default value for this field. This value should be what the user would normally enter in the field. At runtime, when using this Report Type, every time a value is entered or updated in the source field, it is automatically entered or updated in this destination field. |
| | To default from a field on the Report Type, select the parameter name from the drop down list. This field will then default to the value in that field. |

Fields Tab - Field Window - Dependencies Tab

The **Dependencies** tab defines dependencies for the display and required nature of the field.

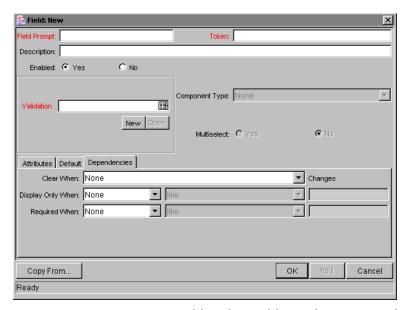


Figure A-5 Report Type - Fields Tab - Field Window - Dependencies Tab

Table A-5. Report Type - Fields Tab - Field Window - Dependencies Tab

| Field | Description |
|----------------------|--|
| Clear When Changes | Indicates that the current field should be cleared when the specified field changes. |
| Display Only When | Indicates that the current field should only be editable when certain logical criteria are satisfied. This field functions with two adjacent fields. These are a drop down list containing a logical qualifier and a text field. To use this functionality, select Use Dependency Rules in the Display Only field on the Attributes tab. |
| Required When | Indicates that the current field should be required when certain logical criteria are satisfied. This field functions with two adjacent fields. These two fields are a drop down list containing logical qualifier and a text field. To use this functionality, select Use Dependency Rules in the Required field on the Attributes tab. |

Report Type - Layout Tab

The **Layout** tab is used to determine the graphical presentation of fields when a new report request of a given Report Type is submitted. This tab determines

Report Type Name:

Description:

Product Scope: All Products

Enabled: Yes No

Workbench Only: Yes No

Fields Layout Commands Security Ownership

Field Width Yes No

the order of the fields, as well as some of their physical characteristics. The **Layout** tab is shown in *Figure A-6*.

Figure A-6 Report Type - Layout Tab

Report Type - Commands Tab

The **Commands** tab is used to define the steps that must be executed for each report to run successfully. Report Type Commands tell Mercury ITG Center precisely which steps must be executed for each report to complete successfully.

Mercury ITG Commands are designed to have a similar look-and-feel to the UNIX and DOS operating system command structure. In fact, the specific parts of a command, the command steps, are often just command-prompt directives.

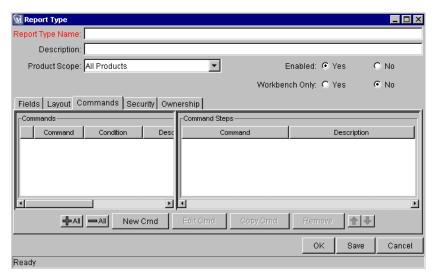


Figure A-7 Commands Tab

To generate a new command, click **New Cmd**. The New Command window opens. The New Command window is shown in *Figure A-8*, and defined in *Table A-6*.

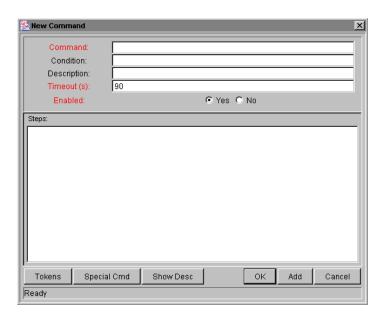


Figure A-8 New Command Window

Table A-6. New Command Fields

| Field | Description |
|-------------|--|
| Command | Simple name for the command. |
| Condition | Condition that determines whether the command steps for the command are executed or not. |
| Description | Description of the command. |
| Timeout (s) | The amount of time, in seconds, the command will be allowed to run before its process is terminated. This mechanism allows commands that are hanging or taking much more than the normal amount of time to be aborted. |
| Enabled | Determines whether the command is enabled for execution. |

A Report Type can have many commands, and each command can have many command steps. A command may be viewed as a particular function for a Report. For example, copying a file may be one command, and checking that file into version control may be another. To perform these functions, a series of events needs to take place and these events are defined in the command steps.

One additional level of flexibility is introduced when commands must be executed in certain cases. This is powered by the Condition field of Report Type commands. This is discussed in detail in *Commands and Tokens Guide and Reference*.

Report Type - Security Tab

The **Security** tab is used to control which users can create or view Reports of this Report Type. Security can be established using one of the following options:

- Viewable by creator only
- Viewable by selected Security Groups
- Viewable by Report Type browsers



The Report Manager (Mercury ITG user with the Report Manager Access Grant) has permission to override the Security Group settings.

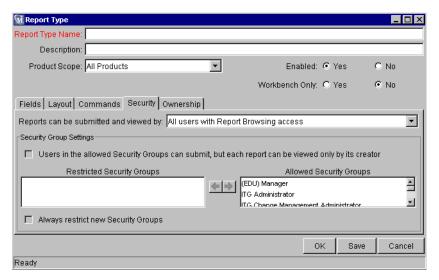


Figure A-9 Security Tab

Table A-7. Security tab fields

| Field | Description |
|--|--|
| Reports can be submitted and viewed by | Choose from the following options: All users with Report Browsing access, Only users in the allowed Security Groups |
| Users in the allowed Security Groups can submit, but each report can only be viewed by its creator | Enabled when Only users in the allowed Security Groups drop down option is selected. Further restricts Report viewing by allowing only the Report's creator to view it. |
| Restricted Security Groups | Lists the Security Groups that are restricted from submitting and/or viewing Report submissions of this Report Type. |
| Allowed Security Groups | Lists the Security Groups that are allowed to submit and/or view Report submissions of this Report Type. |
| Always restrict new Security Groups | Choose whether or not to restrict new Security Groups automatically. By checking this box, all new Security Groups will automatically be added to the Restricted Security Groups column. |

Report Type - Ownership Tab

The **Ownership** tab is used to select Ownership Groups for a specific Report Type. Members of Ownership Groups are the only users who have the right to edit, copy or delete this Report Type. This tab also displays Ownership Groups that have been linked to this Report Type. Ownership Groups can be deleted from this tab by selecting them and clicking **Remove**.

See *Security Model Guide and Reference* for more information about setting Ownership for a new or existing Report Type.

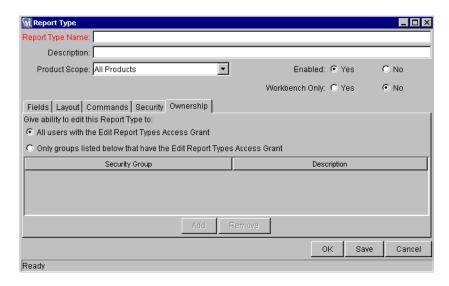


Figure A-10 Ownership Tab

Table A-8. Ownership tab fields

| Field | Description |
|---|---|
| All users with the Edit Report Types Access Grant | Enables all users with the Edit Report Type Access Grant to copy, edit and delete the Report Type. |
| Only Groups listed below that have the Edit Report Types Access Grant | Limits the users who can copy, edit and delete the Report Type to members of the group listed in the below panel. |
| Add | Click to add a new Security Group to the Ownership tab. |
| Remove | Click to remove selected Security Groups from the Ownership tab. |

| Reports Guide and Reference | |
|-----------------------------|--|
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Appendix B

Reporting Meta Layer Views

This appendix lists standard views provided with the Reporting Meta Layer. For each view, this Appendix gives a brief usage guide and a detailed technical description. For information on generating these views, see *Chapter 8* - "Reporting Meta Layer".

Mercury ITG Center provides the Reporting Meta Layer as an integration point for using commercial reporting software to report on Mercury ITG data. The Reporting Meta Layer is an Oracle database schema that contains a set of database views designed to ease the task of creating reports for Mercury ITG Center. Many of the views defined in the Reporting Meta Layer map intuitively to familiar entities in the user interface. This gives a report writer the ability to report on Mercury ITG data without needing to understand the technical complexities of the underlying data model in which the data is stored.

Target users of the Reporting Meta Layer are report designers and Mercury ITG administrators who are responsible for creating business reports on Mercury ITG Center usage. It is assumed that this type of user has a basic understanding of relational database concepts and Oracle technologies, as well as a functional knowledge of Mercury ITG Center. But the Reporting Meta Layer mitigates the need for a detailed technical understanding of the Mercury ITG data model.

The Reporting Meta Layer is implemented as a stand-alone schema in the same Oracle database that contains the Mercury ITG schema. The Meta Layer schema has privileges to view all tables in the Mercury ITG schema. Any reporting tool that has the ability to connect to an Oracle database schema can use the Reporting Meta Layer as a data source for reporting; simply build queries off of the Meta Layer views. And because the Meta Layer just has read-only access to the Mercury ITG tables, report designers can be given access to this schema without concern for accidental data corruption.

How to Use the Reporting Meta Layer

The Reporting Meta Layer can be used as the data source for any reporting tool with connectivity to an Oracle database. This covers most popular reporting software available on the market today, including Crystal Reports, Cognos, Actuate, Brio, and Oracle Reports. Simply configure the reporting software to connect to the Reporting Meta Layer database schema, and build reports using the views provided therein. For instructions on building reports using a commercial software-reporting tool, please see the corresponding user guides for the specific tool being used.

Breakdown of Views

In this document, the views contained in the Reporting Meta Layer have been categorized by the Mercury ITG Center product they are associated with. Several views have been designed to span Mercury ITG Center products and provide summary information of user activity across Mercury ITG Center; these are described in the "Cross-Product Views" section. Within the scope of each product are additional views designed to summarize activity for respective product transactions.

For reporting needs not met by these summary views, the Reporting Meta Layer provides entity-specific views that map more or less to the data shown in the user interface. For example, each Request Type in Demand Management has a unique view in the Reporting Meta Layer, which clearly presents both static and customer-defined fields (i.e. Request detail fields and User Data fields). This allows report writers to devise reports that implement specific customer-oriented business logic, which might drive off of data contained in certain customer-defined fields.

Also included in this set of Meta Layer views are several views presenting Workflow transaction data. Used in conjunction with appropriate Request or Package views, these give a report writer the power to zero in on specific parts of a process that are critical to facilitating IT business decisions.

All together, the views contained in the Reporting Meta Layer represent a broad presentation of Mercury ITG data for limitless reporting needs.

Cross-Product Views

| View Name | Description | Pg. |
|------------------------------------|---|-----|
| RML_RESOURCE_LOAD | Statistics about workload per Mercury ITG user, across all Mercury ITG Center products. | 167 |
| RML_RESOURCE_GROUP_LOAD | Statistics about workload by Security Group, across all Mercury ITG Center products. | 170 |
| RML_RESOURCE_ACTIVITY | Aggregate statistics about the activity of Mercury ITG users, across all Mercury ITG Center products. | 173 |
| RML_WORKFLOW_COMPLETIO N_TRENDS | Statistics about Workflow step completion. | 175 |
| MWFL_STEP_ACTIVITIES | Aggregate statistics about specific Workflow steps. | 177 |
| RML_WORKFLOW_PENDING_AC TIVITY | Statistics about open Workflow steps that are pending activity. | 179 |
| RML_NEW_CHANGED_CONFIGS | Details of changes to certain Mercury ITG configurations. | 181 |

Demand Management Views

| View Name | Description | Pg. |
|------------------------------------|--|-----|
| MREQ_OPENED_CLOSED_BY_T YPE_D | Statistics about Requests being opened and closed, broken down by day. | 183 |
| MREQ_OPENED_CLOSED_BY_T YPE_M | Statistics about Requests being opened and closed, broken down by month. | 183 |
| MREQ_OPENED_CLOSED_BY_D ETAIL_D | Statistics about Requests being opened and closed, broken down by day. | 186 |
| MREQ_OPENED_CLOSED_BY_D ETAIL_M | Statistics about Requests being opened and closed, broken down by month. | 186 |
| MREQ_PENDING_REQUESTS | Statistics about Requests pending action in Demand Management. | 188 |
| MREQ_REQUEST_ACTIONS | Details of actions taken on a Request, and the results. | 190 |
| MREQ_REQUESTS | Information about Requests in Demand Management, including global Request user data fields. | 195 |
| MREQ_[Request Type Name] | Information about Requests of a specific Request Type, including custom Request Detail fields. | 200 |
| MREQ_CONTACTS | Detail information about Contacts in Demand Management. | 204 |
| MREQ_CHANGES | Audit trail of changes to any audited fields during processing of an open Request. | 206 |
| MREQ_NOTES | Request notes. | 208 |
| MREQ_REFERENCES | Information about references for Demand Management Requests. | 209 |
| MREQ_REQUEST_TYPES | Information about Request Type definitions, including Request Type user data fields. | 211 |
| MREQ_REQUEST_HEADER_TYP ES | Information about Request Header Type definitions, including Request Header Type user data fields. | 213 |
| MREQ_TABLE_COMPONENT | Table component data for Requests detail fields with Validations. | 214 |

Change Management Views

| View Name | Description | Pg. |
|------------------------------------|---|-----|
| MPKG_DEPLOYMENT_DETAILS | Details of Package deployments in Change Management. | 215 |
| MPKGL_APP_DEPLOYMENT_D | Breakdown of new Package deployments by App Code, by day. | 217 |
| MPKGL_APP_DEPLOYMENT_M | Breakdown of new Package deployments by App Code, by month. | 217 |
| MPKGL_ENV_DEPLOYMENT_D | Breakdown of new Package deployments by Environment, by day. | 219 |
| MPKGL_ENV_DEPLOYMENT_M | Breakdown of new Package deployments by Environment, by month. | 219 |
| MPKGL_OBJ_TYPE_DEPLOYME NT_D | Breakdown of new Package deployments by Object Type, per day | 221 |
| MPKGL_OBJ_TYPE_DEPLOYME NT_M | Breakdown of new Package deployments by Object Type, by month. | 221 |
| MPKG_PENDING_PACKAGES | Statistics about Packages pending action in Change Management. | 223 |
| MPKGL_PENDING_DEPLOYMN T_BY_ENV | Breakdown of pending Package deployments by destination Environment. | 225 |
| MPKGL_PENDING_DEPLOYMN T_BY_APP | Breakdown of pending Package deployments by destination App Code. | 225 |
| MPKGL_PENDING_DEPLOYME NT_BY_OT | Breakdown of pending Package deployments by Object Type being deployed. | 225 |
| MPKGL_PACKAGE_LINE_ACTI ONS | Details of actions taken on a Package Line, and the results. | 228 |
| MPKG_PACKAGES | Information about Packages, including Package user data fields. | 232 |
| MPKGL_PACKAGE_LINES | Information about Package lines, including global Package line user data fields. | 235 |
| MPKGL_[Object Type Name] | Information about Package lines of a specific Object Type, including the Object Type custom fields. | 237 |
| MPKG_NOTES | Package notes. | 240 |
| MPKG_REFERENCES | Information about references for Change Management Packages. | 241 |
| MPKG_UD_[Context Value] | Context-sensitive Package user data, for a specific context. | 243 |

| View Name | Description | Pg. |
|---------------------------|---|-----|
| MREL_RELEASES | Information about Releases in Change Management. | 246 |
| MREL_DISTRIBUTIONS | Information about Distributions of Change Management Releases, including Distribution user data fields. | 248 |
| MREL_DISTRIBUTION_ACTIONS | Details of actions taken on a Release Distribution, and the results. | 249 |
| MREL_REFERENCES | Information about references for Change Management Releases. | 252 |
| RML_OBJECT_TYPES | Information about Object Types. | 254 |

Project Management Views

| View Name | Description | Pg. |
|--|--|-----|
| MPRJ_PROJECT_INFO | Details of Projects in Project Management. | 256 |
| MPRJ_TASK_INFO | Details of Project tasks in Project Management. | 259 |
| MPRJ_PREDECESSORS | Details of exceptions generated by current Project Tasks in Project Management. | 266 |
| MPRJ_TASK_EXCEPTIONS | Audit trail of changes to any audited fields during processing of a Project or Task in Project Management. | 262 |
| MPRJ_CHANGES | Allows a report to display and drive off of changes to Project fields. | 264 |
| MPRJ_PROJECT_NOTES | Information to link a Project or Task with its Project or Task predecessors in Project Management. | 270 |
| MPRJ_PREDECESSORS | Mercury ITG Users or Security Groups assigned as Project managers in Project Management. | 266 |
| MPRJ_PROJECT_MANAGERS MPRJ_TASK_RESOURCES | Mercury ITG Users or Security Groups assigned as Task resources in Project Management. | 268 |
| MPRJ_PROJECT_NOTES | Project notes. | 270 |
| MPRJ_TASK_NOTES | Task notes. | 270 |
| MPRJ_PROJECT_REFERENCES | Information about references for Project Management Projects. | 271 |
| MPRJ_TASK_REFERENCES | Information about references for Project Management Tasks. | 271 |
| MPRJ_BASELINE_INFO | Basic information about baselines. | 272 |
| MPRJ_BASELINE_PROJECT_INF O | Project information for each baseline. | 273 |
| MPRJ_BASELINE_TASK_INFO | Task information for each baseline. | 274 |

Other Views

| View Name | Description | Pg. |
|-------------------------------|---|-----|
| MWFL_WORKFLOWS | Information about Workflow definitions, including Workflow user data fields. | 276 |
| MWFL_WORKFLOW_STEPS | Information about Workflow Step definitions, including Workflow Step user data fields. | 278 |
| MWFL_STEP_SECURITY_USERS | Information to show which Mercury ITG Users have security access to a Workflow step, or vice versa. | 280 |
| MWFL_STEP_SECURITY_GROU PS | Information to show which Security Groups are linked to a Workflow step, or vice versa. | 280 |
| RML_ENVIRONMENTS | Information about Mercury ITG Environments, including Environment user data fields and application codes. | 283 |
| RML_USERS | Information about Mercury ITG User definitions, including Users user data fields. | 287 |
| RML_SECURITY_GROUPS | Information about security groups, including Security Group user data fields. | 289 |
| RML_LOOKUP_VALUES | Information about lookup values. | 291 |

Additional Resources

| View Name | Description | Pg. |
|--------------------------|---|-----|
| RML_USER_ACCESS_GRANTS | Security information about the levels of access granted to a Mercury ITG user. | 292 |
| KCRT_PARTICIPANT_CHECK_V | Security information about Requests in Demand Management that a Mercury ITG user is a participant of. | 294 |
| KDLV_PARTICIPANT_CHECK_V | Security information about Packages in Change Management that a Mercury ITG user is a participant of. | 295 |
| KRML_CALENDAR_DAYS | A utility table that contains daily date records. | 296 |
| KRML_CALENDAR_MONTHS | A utility table that contains monthly date records. | 296 |

Cross-Product Views

RML_RESOURCE_LOAD

This view is used to create a resource load report, showing the volume of work assigned to any given user in the Mercury ITG system. It can be used to get a quick snapshot of what's on an individual's plate. It shows open Requests, Packages, and Project Tasks currently assigned to a specific Mercury ITG user. The RESOURCE_USERNAME view column is associated with the 'Assigned-to User' fields in Requests and Packages, and the 'Assigned Resource' field in Project Tasks; it does not use individual Workflow Step security information. (For more detailed resource reporting based on eligibility for specific Workflow Steps, please see the general Workflow-related Meta Layer views in *Other Views* (page 276), such as MWFL_STEP_SECURITY_USERS.)

In addition to overall totals of Requests, Packages, and Tasks assigned to a user, this view also breaks down the information by priority (using the 'Priority' header field). This is done because priority is usually the most important breakdown of load information. Data is grouped into three priority groupings – P1, P2, and P3 – mapping to the three highest priority levels defined.

To qualify the results of a resource load report, the RML_RESOURCE_LOAD view also gives information such as the average and maximum ages of the Requests, Packages, and Tasks. For unassigned work, an additional record is returned with resource 'Unassigned'.

As a simple example, suppose a project manager has four developers working on a current project. The manager needs a report that will show current workload on each of the developers, and help him balance and delegate tasks. If the four developers have Mercury ITG usernames 'cnorris', 'esmith', and 'wnelson', the following SQL query can be used as a basis for a report to display their workload:

```
SELECT resource username
                            USER,
       open_requests
                            OPEN_REQS,
       avg_age_open_requests AVG_AGE,
      p1_open_requests P1_OPEN_REQS,
       p2_open_requests
                            P2 OPEN REQS,
                            OPEN_PKGS,
       open_packages
       avg_age_open_packages AVG_AGE,
      pl_open_packages Pl_OPEN_PKGS,
      p2_open_packages
                            P2_OPEN_PKGS
FROM
      rml resource load
WHERE resource username IN
       ('cnorris','esmith','wnelson','unassigned');
```

Results might look as follows:

| USER | Open Reqs | Avg Age | P1 Open Reqs | P2 Open Reqs | Open Pkgs | Avg Age | P1 Open Pkgs | P2 Open Pkgs |
|------------|--------------|------------|--------------------|--------------------|--------------|------------|--------------------|--------------------|
| | | | | | | | | |
| cnorris | 42 | 23 | 12 | 30 | 11 | 9 | 3 | 8 |
| esmith | 68 | 131 | 33 | 35 | 6 | 54 | 5 | 1 |
| wnelson | 4 | 3 | 4 | 0 | 39 | 16 | 14 | 25 |
| unassigned | 105 | 86 | 34 | 71 | 52 | 43 | 15 | 37 |



This view ignores Requests and Packages that have not been submitted, and Tasks that are not in the 'Ready' or 'In Progress' states.

RML_RESOURCE_LOAD View Column Descriptions

| Column Name | Data Type | Description |
|---------------------------|--------------|---|
| RESOURCE_USERNAME | VARCHAR2(80) | username of Mercury ITG user (resource) |
| FULL_NAME | VARCHAR2(61) | RESOURCE_USERNAME's full name |
| FIRST_NAME | VARCHAR2(30) | RESOURCE_USERNAME's first name |
| LAST_NAME | VARCHAR2(30) | RESOURCE_USERNAME's last name |
| USER_ID | NUMBER | RESOURCE_USERNAME's user ID value |
| USER_ENABLED_FLAG | VARCHAR2(1) | is this user enabled? (Y/N) |
| OPEN_REQUESTS | NUMBER | number of open Requests for user |
| AVG_AGE_OPEN_REQUEST S | NUMBER | average age of user's open Requests |
| MAX_AGE_OPEN_REQUES TS | NUMBER | age of user's oldest open Request |
| OPEN_PACKAGES | NUMBER | number of open Packages for user |
| AVG_AGE_OPEN_PACKAGE S | NUMBER | average age of user's open Packages |
| MAX_AGE_OPEN_PACKAG ES | NUMBER | age of user's oldest open Package |
| OPEN_TASKS | NUMBER | number of open Tasks for user |
| AVG_AGE_OPEN_TASKS | NUMBER | average age of user's open Tasks |
| MAX_AGE_OPEN_TASKS | NUMBER | age of user's oldest open Task |
| P1_OPEN_REQUESTS | NUMBER | number of open P1 Requests for user |

| P1_AVG_AGE_OPEN_REQU ESTS | NUMBER | average age of user's open P1 Requests |
|------------------------------|--------|--|
| P1_MAX_AGE_OPEN_REQU ESTS | NUMBER | age of user's oldest open P1 Request |
| P2_OPEN_REQUESTS | NUMBER | number of open P2 Requests for user |
| P2_AVG_AGE_OPEN_REQU ESTS | NUMBER | average age of user's open P2 Requests |
| P2_MAX_AGE_OPEN_REQU ESTS | NUMBER | age of user's oldest open P2 Request |
| P3_OPEN_REQUESTS | NUMBER | number of open P3 Requests for user |
| P3_AVG_AGE_OPEN_REQU ESTS | NUMBER | average age of user's open P3 Requests |
| P3_MAX_AGE_OPEN_REQU ESTS | NUMBER | age of user's oldest open P3 Request |
| P1_OPEN_PACKAGES | NUMBER | number of open P1 Packages for user |
| P1_AVG_AGE_OPEN_PACK AGES | NUMBER | average age of user's open P1 Packages |
| P1_MAX_AGE_OPEN_PACK AGES | NUMBER | age of user's oldest open P1 Package |
| P2_OPEN_PACKAGES | NUMBER | number of open P2 Packages for user |
| P2_AVG_AGE_OPEN_PACK AGES | NUMBER | average age of user's open P2 Packages |
| P2_MAX_AGE_OPEN_PACK AGES | NUMBER | age of user's oldest open P2 Package |
| P3_OPEN_PACKAGES | NUMBER | number of open P3 Packages for user |
| P3_AVG_AGE_OPEN_PACK AGES | NUMBER | average age of user's open P3 Packages |
| P3_MAX_AGE_OPEN_PACK AGES | NUMBER | age of user's oldest open P3 Package |

RML RESOURCE GROUP LOAD

This view is similar to RML_RESOURCE_LOAD, but displays consolidated load information for all users belonging to a specific Security Group. If there are Security Groups that represent logical groups of resources, this view can be used to get a quick snapshot of the current workload for a group. This view also makes use of the 'Assigned-to User' and 'Assigned Resource' fields on Requests, Packages, and Projects. (Note that it does not look at the 'Assigned-to Group' or 'Assigned Resource Group' fields, nor does it take individual Workflow Step security into account. For more detailed resource reporting based on eligibility for specific Workflow Steps, please see the general Workflow-related Meta Layer views in *Other Views (page 276)*, such as MWFL_STEP_SECURITY_USERS.)

The RML_RESOURCE_GROUP_LOAD view returns an extra record of information for open Requests, Packages, and Tasks that are not assigned to any user (i.e. the 'Assigned-to User' or 'Assigned Resource' fields are null). This record has a RESOURCE_USERNAME of 'Unassigned'. Please see the description of the RML_RESOURCE_LOAD view above for further details on additional columns in this view.

As an example, suppose a project manager would like to see the distribution of open Requests and Packages across two Security Groups ('FIN App Dev' and 'MFG App Dev'). The following SQL query can be used as a basis for building a report to display the breakdown:

```
SELECT resource_group GROUP,
    open_requests OPEN_REQS,
    avg_age_open_requests AVG_AGE,
    p1_open_requests P1_OPEN_REQS,
    p2_open_requests P2_OPEN_REQS,
    open_packages OPEN_PKGS,
    avg_age_open_packages AVG_AGE,
    p1_open_packages P1_OPEN_PKGS,
    p2_open_packages P2_OPEN_PKGS

FROM rml_resource_group_load
WHERE resource_group IN
    ('FIN App Dev','MFG App Dev','unassigned');
```

Results might look as follows:

| | | | P1 | P2 | | | P1 | P2 |
|-------------|------|-----|------|------|------|-----|------|------|
| | Open | Avg | Open | Open | Open | Avg | Open | Open |
| GROUP | Reqs | Age | Reqs | Reqs | Pkgs | Age | Pkgs | Pkgs |
| | | | | | | | | |
| FIN App Dev | 11 | 57 | 7 | 4 | 23 | 43 | 8 | 15 |
| MFG App Dev | 19 | 64 | 3 | 16 | 4 | 218 | 0 | 4 |
| unassigned | 105 | 86 | 34 | 71 | 52 | 43 | 15 | 37 |

Note: This view ignores Requests and Packages that have not been submitted, and Tasks that are not in the 'Ready' or 'In Progress' states.

RML_RESOURCE_GROUP_LOAD View Column Descriptions

| Column Name | Data Type | Description |
|------------------------------|---------------|---|
| RESOURCE_GROUP | VARCHAR2(40) | name of Security Group (resource) |
| DESCRIPTION | VARCHAR2(240) | Security Group description |
| GROUP_ENABLED_FLAG | VARCHAR2(1) | is Security Group enabled? (Y/N) |
| OPEN_REQUESTS | NUMBER | number of open Requests for group |
| AVG_AGE_OPEN_REQUEST S | NUMBER | average age of group's open Requests |
| MAX_AGE_OPEN_REQUES TS | NUMBER | age of group's oldest open Request |
| OPEN_PACKAGES | NUMBER | number of open Packages for group |
| AVG_AGE_OPEN_PACKAGE S | NUMBER | average age of group's open Packages |
| MAX_AGE_OPEN_PACKAG ES | NUMBER | age of group's oldest open Package |
| OPEN_TASKS | NUMBER | number of open Tasks for group |
| AVG_AGE_OPEN_TASKS | NUMBER | average age of group's open Tasks |
| MAX_AGE_OPEN_TASKS | NUMBER | age of group's oldest open Task |
| P1_OPEN_REQUESTS | NUMBER | number of open P1 Requests for group |
| P1_AVG_AGE_OPEN_REQU ESTS | NUMBER | average age of group's open P1 Requests |
| P1_MAX_AGE_OPEN_REQU ESTS | NUMBER | age of group's oldest open P1 Request |
| P2_OPEN_REQUESTS | NUMBER | number of open P2 Requests for group |
| P2_AVG_AGE_OPEN_REQU ESTS | NUMBER | average age of group's open P2 Requests |
| P2_MAX_AGE_OPEN_REQU ESTS | NUMBER | age of group's oldest open P2 Request |
| P3_OPEN_REQUESTS | NUMBER | number of open P3 Requests for group |
| P3_AVG_AGE_OPEN_REQU ESTS | NUMBER | average age of group's open P3 Requests |
| P3_MAX_AGE_OPEN_REQU ESTS | NUMBER | age of group's oldest open P3 Request |
| P1_OPEN_PACKAGES | NUMBER | number of open P1 Packages for group |
| P1_AVG_AGE_OPEN_PACK AGES | NUMBER | average age of group's open P1 Packages |

| P1_MAX_AGE_OPEN_PACK AGES | NUMBER | age of group's oldest open P1 Package |
|------------------------------|--------|---|
| P2_OPEN_PACKAGES | NUMBER | number of open P2 Packages for group |
| P2_AVG_AGE_OPEN_PACK AGES | NUMBER | average age of group's open P2 Packages |
| P2_MAX_AGE_OPEN_PACK AGES | NUMBER | age of group's oldest open P2 Package |
| P3_OPEN_PACKAGES | NUMBER | number of open P3 Packages for group |
| P3_AVG_AGE_OPEN_PACK AGES | NUMBER | average age of group's open P3 Packages |
| P3_MAX_AGE_OPEN_PACK AGES | NUMBER | age of group's oldest open P3 Package |

RML RESOURCE ACTIVITY

While the previous two Meta Layer views can be used to summarize current workloads on Mercury ITG users, it may also be desirable to look at the resources' load history. The view RML_RESOURCE_ACTIVITY is designed to give historical load information for specified resources. For each month, it gives the numbers of Requests, Packages, and Tasks assigned to the specified user (using the 'Assigned-to User' fields in Requests and Packages, and the 'Assigned Resource' field in Project Tasks) as well as the numbers closed by that resource.

Some important notes to consider when making use of this view:

- The RESOURCE_USERNAME view column is associated with the 'Assigned-to User' fields in Requests and Packages, and the 'Assigned Resource' field in Project Tasks; it does not use individual Workflow Step security information. (For more detailed resource reporting based on eligibility for specific Workflow Steps, please see the general Workflowrelated Meta Layer views in *Other Views (page 276)*, such as MWFL_ STEP_SECURITY_USERS.)
- Transaction History must have been enabled for the 'Assigned-to User' field. If this is not the case, the view cannot track when Requests were assigned or unassigned and will return 0 for these columns.
- A key assumption about usage is that the current assigned user for a Request, Package, or Task is the user to which you want to credit the 'Opened' and 'Closed' activities.

This view can be used to track the throughput and load history of a specific resource. Adding to the example from *RML_RESOURCE_LOAD* (*page 167*), for resources 'cnorris', 'esmith', and 'wnelson', the following SQL query can be used as a basis for summarizing their activity histories:

```
SELECT resource_username NAME,
       activity_month MONTH,
       total_opened_reqs,
       total_closed_regs,
       avg_req_comp_time_closed,
       total_assigned_reqs,
       total_unassigned_reqs,
       total_curr_open_reqs,
       total_opened_pkgs,
       total_closed_pkgs,
       avg_pkg_comp_time_closed,
       total_curr_open_pkgs
FROM
       rml_resource_activity
WHERE
      resource username IN
       ('cnorris', 'esmith', 'wnelson');
```

producing results like:

| Name | Month | Total Open Reqs | Total Closed Reqs | Avg Req Comp Time Closed | Total Assgnd Reqs | Total Unassgnd Reqs | Total Curr Open Reqs | Total Open Pkgs | Total Closed Pkgs | Avg Pkg Comp Time Closed | Total Curr Open Pkgs |
|--|--|--|---|--|--|--|--|---|---|---|---|
| cnorris cnorris cnorris cnorris esmith esmith esmith wnelson wnelson | 01-FEB-01 01-MAR-01 01-APR-01 01-MAY-01 01-FEB-01 01-APR-01 01-FEB-01 01-FEB-01 | 12 5 3 0 121 139 92 10 8 | 32 11 4 0 89 120 124 9 | 1.3 2.7 10.1 0.9 0.8 0.8 9.3 11.7 | 21 6 2 0 56 57 43 2 | 0 4 6 0 77 32 106 4 | 13 4 2 0 61 58 43 3 | 1 3 4 0 1 0 0 27 44 | 2 3 2 0 2 1 0 31 25 | 8.4 9 12.5 0 9.8 21.2 0 2.9 2.2 | 0 0 0 0 1 0 0 33 37 |

$RML_RESOURCE_ACTIVITY\ View\ Column\ Descriptions$

| Column Name | Data Type | Description |
|------------------------------|--------------|---|
| RESOURCE_USERNAME | VARCHAR2(30) | username of Mercury ITG user (resource) |
| FULL_NAME | VARCHAR2(61) | RESOURCE_USERNAME's full name |
| FIRST_NAME | VARCHAR2(30) | RESOURCE_USERNAME's first name |
| LAST_NAME | VARCHAR2(30) | RESOURCE_USERNAME's last name |
| USER_ID | NUMBER | RESOURCE_USERNAME's user ID value |
| ACTIVITY_MONTH | DATE | calendar month in which to show activity |
| TOTAL_OPENED_REQS | NUMBER | number of Requests opened by user |
| TOTAL_CLOSED_REQS | NUMBER | number of Requests closed by user |
| AVG_REQ_COMP_TIME_CL OSED | NUMBER | average time to complete Requests |
| TOTAL_ASSIGNED_REQS | NUMBER | number of Requests to which user was assigned |
| TOTAL_UNASSIGNED_REQ S | NUMBER | number of Requests to which user was assigned and was then unassigned |
| TOTAL_CURR_OPEN_REQS | NUMBER | total number of user's open Requests |
| TOTAL_OPENED_TASKS | NUMBER | number of Tasks opened by user |
| TOTAL_CLOSED_TASKS | NUMBER | number of Tasks closed by user |
| TOTAL_CURR_OPEN_TASK S | NUMBER | total number of user's open Tasks |
| TOTAL_OPENED_PKGS | NUMBER | number of Packages opened by user |
| TOTAL_CLOSED_PKGS | NUMBER | number of Packages closed by user |
| AVG_PKG_COMP_TIME_CL OSED | NUMBER | average time to complete Packages |
| TOTAL_CURR_OPEN_PKGS | NUMBER | total number of user's open Packages |

RML_WORKFLOW_COMPLETION_TRENDS

This view gives historical completion information for specific Workflows and Workflow steps. These can be Workflows for either Demand Management or Change Management. Information presented in the view includes the number of times a Workflow or Workflow step was completed during a month (cancellations and errors are not included in this calculation), and various time statistics around these completions. In addition, this view includes a column for STANDARD_STEP_TIME that can be used to compare actual step completion times to a pre-defined standard. In order to make use of this field, the 'Average Lead Time' field on the Workflow step definition dialog must have a value for the Workflow step being reported on.

Along with individual Workflow step information, this view includes aggregate records for Workflow summary, showing completions and time statistics for an entire Workflow process. These records are indicated with a Workflow step of 'Open to Close' and have OPEN_TO_CLOSE_FLAG column set to 'Y'.

Some important notes to consider when making use of this view:

- This view will only return records for months where the specified process had completions.
- If a specified Workflow step does not have a value for the 'Average Lead Time' field, the STANDARD_STEP_TIME and PERCENT_GREATER columns will be null.

For example, consider writing a report to gather statistics on a bug review Workflow for the Financials application for the month of April, 2001. A SQL query for this might look as follows:

```
SELECT workflow step
                             WORKFLOW STEP,
       workflow_step_number SEQ,
       num_completions
                        NUM COMPS,
       avg completion time AVG COMP TIME,
       standard_step_time STD_STEP_TIME,
       percent_greater
                            PCT_GRTR,
       max_completion_time MAX_COMP_TIME,
       min_completion_time MIN_COMP_TIME
      rml workflow completion trends
FROM
WHERE
      workflow = 'FIN Bug Review'
      activity_month = ^{\prime}01-APR-01^{\prime}
AND
ORDER BY workflow_step_number;
```

The resulting output might look something like this:

| WORKFLOW_STEP | Seq | Num Comps | Avg Comp Time | Std Step Time | Pct Grtr | Max Comp Time | Min Comp Time |
|--------------------------------|-----|--------------|---------------------|---------------------|-------------|---------------------|---------------------|
| Open-to-Close | 0 | 713 | 286.36 | 496.00 | 22.16 | 745.77 | .00 |
| Review New Request | 2 | 78 | 3.62 | 2.00 | 75.64 | 6.97 | .00 |
| Set In Progress | 3 | 27 | 9.75 | 3.00 | 51.85 | 62.97 | .00 |
| Set Ready for Review | 4 | 19 | 26.33 | 4.00 | 15.79 | 409.96 | .00 |
| Requestor Review | 6 | 37 | 11.03 | 11.00 | 27.03 | 65.86 | .00 |
| Check Project | 7 | 12 | .00 | 12.00 | .00 | .00 | .00 |
| Close (Immediate success) | 8 | 429 | 1.49 | 14.00 | .23 | 637.51 | .00 |
| Approved for Current Release | 9 | 34 | 43.58 | 15.00 | 41.18 | 159.98 | .00 |
| Review in Future Release | 10 | 793 | 266.82 | 16.00 | 80.33 | 740.70 | .00 |
| Priority Notification - Assign | 11 | 73 | .00 | 23.00 | .00 | .00 | .00 |

RML_WORKFLOW_COMPLETION_TRENDS View Column Descriptions

| Column Name | Data Type | Description |
|-----------------------------|--------------|---|
| WORKFLOW | VARCHAR2(80) | name of the Workflow to analyze |
| PRODUCT | VARCHAR2(80) | analyze processes for this Mercury ITG Center product |
| WORKFLOW_STEP | VARCHAR2(30) | name of the Workflow step to analyze |
| WORKFLOW_STEP_NUMBE R | NUMBER | the Workflow step number |
| WORKFLOW_STEP_TYPE | VARCHAR2(80) | the Workflow step type (Approval, Execution, etc.) |
| OPEN_TO_CLOSE_FLAG | VARCHAR2(1) | show entire Workflow trend? (Y/N) |
| ACTIVITY_MONTH | DATE | calendar month in which to show activity |
| NUM_COMPLETIONS | NUMBER | number of Workflow step completions in ACTIVITY_MONTH |
| AVG_COMPLETION_TIME | NUMBER | average time to complete Workflow step |
| STANDARD_STEP_TIME | NUMBER | predicted time to complete Workflow step (if the 'Average Lead Time' Workflow step field is used) |
| PERCENT_GREATER | NUMBER | percent avg completion time is greater than expected standard time |
| MAX_COMPLETION_TIME | NUMBER | process time of longest-duration Workflow |
| MIN_COMPLETION_TIME | NUMBER | process time of shortest-duration Workflow |
| WORKFLOW_ID | NUMBER | internal ID for the Workflow |
| WORKFLOW_STEP_ID | NUMBER | internal ID for the Workflow step |
| WORKFLOW_STEP_TYPE_ CODE | VARCHAR2(30) | internal code for WORKFLOW_STEP_TYPE |

MWFL_STEP_ACTIVITIES

This view contains activity statistics for all Workflow steps, including sub-Workflows. For any given Workflow or Workflow step,

MWFL_STEP_ACTIVITIES can be used to get a quick snapshot of aggregate system activity. It is provided as a general reference for gathering data that isn't covered by other product-specific statistical views. The internal ID columns for Workflow and Workflow step (WORKFLOW_ID and WORKFLOW_STEP_ID, respectively) can be used to join this view to other product action or Workflow-related views to gather additional information about the records contained therein.

As a simple example, suppose that a report needs to contain summary information for the number of errors for step 2 in the 'FIN dev-test-prod' Workflow, broken down by month. The calendar table KRML_CALENDAR_MONTHS can be used to provide the month-by-month breakdown to join with the ACTIVITY_DATE column in this view. A SQL query to gather this information might be constructed as follows:

```
SELECT m.calendar_month MONTH,
    sum(sa.error) NUM_ERRORS

FROM krml_calendar_months m,
    mwfl_step_activities sa

WHERE sa.workflow = 'FIN dev-test-prod'
AND sa.workflow_step_number = 2
AND sa.activity_date >= m.start_date
AND sa.activity_date < m.end_date
GROUP BY m.calendar_month
ORDER BY 1;
```

This query will produce output that looks similar to the following list:

| MONTH | NUM_ERRORS |
|-----------|------------|
| | |
| 01-APR-01 | 16 |
| 01-MAY-01 | 4 |
| 01-JUN-01 | 0 |
| 01-AUG-01 | 0 |
| 01-SEP-01 | 1 |

This view can also be used to flag step duration bottlenecks by looking at step completion times (AVG_TIME_TO_COMPLETE and AVG_TIME_OPEN), or other exceptions such as spikes in the number of cancelled Workflow steps for a point in time.

$MWFL_STEP_ACTIVITIES\ View\ Column\ Descriptions$

| Column Name | Data Type | Description | | | | | |
|--------------------------|--------------|--|--|--|--|--|--|
| WORKFLOW | VARCHAR2(80) | name of Workflow being analyzed | | | | | |
| WORKFLOW_STEP | VARCHAR2(80) | name of Workflow step to analyze | | | | | |
| WORKFLOW_STEP_NUMBE R | NUMBER | the Workflow step number | | | | | |
| ACTIVITY_DATE | DATE | date of activity | | | | | |
| AVG_TIME_TO_COMPLETE | NUMBER | average number of days to complete a step activity | | | | | |
| AVG_TIME_OPEN | NUMBER | average number of days steps have remained open | | | | | |
| ELIGIBLE | NUMBER | number of eligible steps | | | | | |
| COMPLETE | NUMBER | number of completed steps | | | | | |
| ERROR | NUMBER | number of errored steps | | | | | |
| IN_PROGRESS | NUMBER | number of in-progress steps | | | | | |
| CANCELLED | NUMBER | number of cancelled steps | | | | | |
| PENDING | NUMBER | number of steps pending some other event | | | | | |
| SCHEDULED | NUMBER | number of scheduled execution steps | | | | | |
| WORKFLOW_ID | NUMBER | internal ID for the Workflow | | | | | |
| WORKFLOW_STEP_ID | NUMBER | internal ID for the Workflow step | | | | | |

RML WORKFLOW PENDING ACTIVITY

This view gives summary information about pending Workflows and Workflow steps. These can be Workflows for either Demand Management or Change Management. The view also includes historical information regarding the number of times that a Workflow or Workflow step has been opened (becomes 'Eligible') and closed ('Completed').

Along with individual Workflow step information, this view includes records for the entire Workflow. A record for the entire Workflow is indicated with a Workflow step name of 'Open to Close', and will have the OPEN_TO_CLOSE_FLAG column set to 'Y'.

Some important notes to consider when making use of this view:

- Workflow step transactions that were cancelled or errored out are not counted when calculating closures. For the overall Workflow completions, however, cancellations and closures with failure are counted.
- Current week statistics are based on activity from the Monday of the current week.

For example, to get a picture of this week's activity for the Financial App bug review process, consider the following SQL query:

Output might look something like this:

| WORKFLOW_STEP | Seq | Tot Curr Open | Ave Age | Max Age | Min | Open This Month | Open This Week | Closed This Month | Closed This Week |
|--------------------------------|-----|---------------------|------------|------------|-------|-----------------------|----------------------|-------------------------|------------------------|
| Open-to-Close | 0 | 1725 | 359.47 | 797.96 | 5.73 | 78 | 7 | 42 | 0 |
| Review New Request | 2 | 334 | 198.72 | 797.96 | 5.73 | 271 | 24 | 18 | 0 |
| Set In Progress | 3 | 107 | 124.80 | 797.96 | 10.88 | 17 | 0 | 8 | 0 |
| Set Ready for Review | 4 | 5 | 61.06 | 93.21 | 38.06 | 7 | 0 | 8 | 0 |
| Requestor Review | 6 | 182 | 135.19 | 797.96 | 10.89 | 14 | 0 | 4 | 1 |
| Check Project | | 7 | | | | | | | |
| Close (Immediate success) | | 8 | | | | | | | |
| Approved for Current Release | 9 | 258 | 69.74 | 221.97 | 6.68 | 6 | 0 | 2 | 0 |
| Review in Future Release | 10 | 560 | 270.34 | 795.21 | 18.95 | 2 | 0 | 49 | 0 |
| Priority Notification - Assign | 1: | 1 | | | | | | | |

$RML_WORKFLOW_PENDING_ACTIVITY\ View\ Column\ Descriptions$

| Column Name | Data Type | Description |
|-----------------------------|--------------|---|
| WORKFLOW | VARCHAR2(80) | name of the Workflow to analyze |
| PRODUCT | VARCHAR2(80) | analyze processes for this Mercury ITG Center product |
| WORKFLOW_STEP | VARCHAR2(30) | name of the Workflow step to analyze |
| WORKFLOW_STEP_NUMBE R | NUMBER | the Workflow step number |
| WORKFLOW_STEP_TYPE | VARCHAR2(80) | the Workflow step type ('Approval', 'Execution', etc.) |
| OPEN_TO_CLOSE_FLAG | VARCHAR2(1) | show entire process trend? (Y/N) |
| TOTAL_CURRENT_OPEN | NUMBER | total number of open processes |
| OPENED_THIS_MONTH | NUMBER | number of processes submitted this month |
| OPENED_THIS_WEEK | NUMBER | number of processes submitted this week |
| CLOSED_THIS_MONTH | NUMBER | number of processes closed this month |
| CLOSED THIS WEEK | NUMBER | number of processes closed this week |
| WORKFLOW_ID | NUMBER | internal identifier for the process (Workflow ID) |
| WORKFLOW_STEP_ID | NUMBER | internal identifier for the process step (Workflow Step ID) |
| WORKFLOW_STEP_TYPE_ CODE | VARCHAR2(30) | internal code for PROCESS_STEP_TYPE |

RML_NEW_CHANGED_CONFIGS

This view is designed to facilitate an administrative report that shows all major configuration changes in the system, and the date/time at which the changes took place. It includes changes to detail configurations (like Request Type or Object Type fields), but only if those changes took place independently (not when the parent was initially created). As a rule, detail configurations are not shown separately if they occurred within one day of the parent configuration.

Configurations that are included in this view are shown in *Table B-1*.

Table B-1. Configurations included in the Reporting Meta Layer view RML_NEW_CHANGED_CONFIGS.

| Request Types | Workflows | Security Groups |
|-------------------------------|------------------------|---------------------------|
| Request Type Fields | Workflow Steps | Users in a Security Group |
| Request Header Types | Decision Step Types | Report Types |
| Request Header Type Fields | Execution Step Types | Report Type Fields |
| Object Types | Validations | User Data Fields |
| Object Type Fields | Special Commands | User Data Contexts |
| Environments | Notification Templates | |
| Environment Groups | Users | |

For example, to look at recent configuration additions to get an idea about configuration activity within the past 10 days, try the following SQL:

providing results like:

| Entity Type | Entity Name | Creation Date | Parent Entity Type | Parent Entity Name |
|---|--|----------------------------|--|------------------------------------|
| Security Group User Security Group User Security Group User | Chuck Norris Emmit Smith Willie Nelson | 21-MAY-2001 | Security Group Security Group Security Group | |
| User Validation Validation Workflow | Jerry Jeff Walker Cust - Time Bucket Cust - File Name FIN dev -> prod | 13-APR-2098 | | 22 |
| Workflow Step Workflow Step | | 17-MAY-2001 17-MAY-2001 | | FIN dev -> prod FIN dev -> prod |

Or, to look for configurations that were modified in the last 10 days, consider this SQL query: (Note that we do not currently have a means of tracking configuration deletions.)

RML_NEW_CHANGED_CONFIGS View Column Descriptions

| Column Name | Data Type | Description |
|-----------------------|--------------|---|
| ENTITY_TYPE | VARCHAR2(30) | specific type of entity that was changed ('User', 'Field', 'Workflow step', etc.) |
| ENTITY_TYPE_ID | NUMBER | internal identifier for the type of entity |
| ENTITY_NAME | VARCHAR2(80) | name of the specific entity to analyze |
| ENTITY_ID | NUMBER | internal identifier for the entity (User ID, Field ID, etc.) |
| PARENT_ENTITY_TYPE | VARCHAR2(30) | type of entity to analyze ('Object Type', 'Request Type', 'Workflow', etc.) |
| PARENT_ENTITY_TYPE_ID | NUMBER | internal identifier for the type of entity |
| PARENT_ENTITY_NAME | VARCHAR2(80) | name of the specific entity to analyze |
| PARENT_ENTITY_ID | NUMBER | internal identifier for the entity (Object Type ID, Request Type ID, etc.) |
| CREATION_DATE | DATE | date entity was created |
| LAST_UPDATE_DATE | DATE | date entity was last updated |
| CREATED_BY_USERNAME | VARCHAR2(30) | username of Mercury ITG user who created the entity |
| CREATED_BY_FULL_NAME | VARCHAR2(61) | full name of Mercury ITG user who created the entity |

Demand Management Views

MREQ_OPENED_CLOSED_BY_TYPE_D

MREQ_OPENED_CLOSED_BY_TYPE_M

The Reporting Meta Layer views MREQ_OPENED_CLOSED_BY_TYPE_D (MREQ_OPENED_CLOSED_BY_TYPE M) give summary information for Request submission and completion activity, broken down by Request Type and by calendar day (month). They can be used to quickly assess daily (monthly) Request throughput, and can help indicate trends in Request processing over time. Besides just the number or Requests which were opened or closed in a given day (month), these views also contains columns such as the net change in number of open Requests during that day (month), the number of Requests still open at the end of the day (month), and the average time to completion, in days (months), for Requests opened in that day (month) and which have already been closed

Results from a query of this view contain records only for days (months) in which there were Requests opened and/or closed. For example, the following SQL query can be used as a basis for a report that summarizes all Request submission and completion activity, per month, over a range of dates:

```
SELECT *
FROM mreq_opened_closed_by_type_m
WHERE activity_month BETWEEN '01-MAR-01' AND '01-APR-01'
ORDER BY activity_month;
```

(Note that to get a breakdown by day, replace "activity_month" with "activity_date" and "mreq_opened_closed_by_type_m" with "mreq_opened_closed_by_type_d" in the query above.)

The resulting data will appear similar to the following:

| REQUEST_TYPE_NAME | Month | Tot Open | Total Closed | Net Change | Num Still Open | Avg Comp Time Open | Avg Comp Time Closed |
|---------------------------|-----------|-------------|-----------------|---------------|----------------------|-----------------------------|-------------------------------|
| Customer Access | 01-MAR-01 | 53 | 52 | 1 | 0 | .07 | .01 |
| HR Job Requisition | 01-MAR-01 | 16 | 17 | -1 | 6 | 38.84 | 48.93 |
| HR New Hire Process | 01-MAR-01 | 13 | 10 | 3 | 1 | 40.35 | 25.61 |
| Product Bug | 01-MAR-01 | 83 | 232 | -149 | 60 | 7.64 | 299.71 |
| Product Patch | 01-MAR-01 | 8 | 0 | 8 | 8 | | |
| Purchase Request | 01-MAR-01 | 18 | 24 | -6 | 0 | 13.72 | 9.13 |
| Services Work Order | 01-MAR-01 | 17 | 3 | 14 | 17 | .00 | 33.59 |
| Training Approval Request | 01-MAR-01 | 336 | 369 | -33 | 9 | 8.46 | 19.59 |
| Vacation Request | 01-MAR-01 | 115 | 72 | 43 | 33 | 25.87 | 27.84 |
| Customer Access | 01-APR-01 | 15 | 6 | 9 | 12 | 11.63 | 150.55 |
| HR Job Requisition | 01-APR-01 | 5 | 6 | -1 | 0 | .81 | 36.94 |
| HR New Hire Process | 01-APR-01 | 27 | 6 | 21 | 27 | 9.87 | 255.96 |
| Product Bug | 01-APR-01 | 36 | 35 | 1 | 2 | .21 | .29 |
| | | | | | | | |

. . .

For more detailed Request information filtered by common Request Header fields such as Application, Department, Priority, and Assigned-to User, use the detail summary views MREQ_OPENED_CLOSED_BY_DETAIL_D and MREQ_OPENED_CLOSED_BY_DETAIL_M.

MREQ_OPEN_CLOSED_BY_TYPE_D View Column Descriptions

| Column Name | Data Type | Description |
|----------------------|--------------|---|
| REQUEST_TYPE_NAME | VARCHAR2(80) | name of Request Type |
| ACTIVITY_DATE | DATE | date of activity |
| TOTAL_OPENED | NUMBER | number of Requests opened on ACTIVITY_DATE |
| TOTAL_CLOSED | NUMBER | number of Requests closed on ACTIVITY_DATE |
| NET_CHANGE | NUMBER | TOTAL_OPENED - TOTAL_CLOSED |
| NUM_STILL_OPEN | NUMBER | number of Requests opened on ACTIVITY_DATE that are still open |
| AVG_COMP_TIME_OPENED | NUMBER | average time to complete Requests that were opened on ACTIVITY_DATE |
| AVG_COMP_TIME_CLOSED | NUMBER | average time to complete Requests that were closed on ACTIVITY_DATE |

MREQ_OPEN_CLOSED_BY_TYPE_M View Column Descriptions

| Column Name | Data Type | Description |
|----------------------|--------------|--|
| REQUEST_TYPE_NAME | VARCHAR2(80) | name of Request Type |
| ACTIVITY_MONTH | DATE | month of activity |
| TOTAL_OPENED | NUMBER | number of Requests opened during ACTIVITY_MONTH |
| TOTAL_CLOSED | NUMBER | number of Requests closed during ACTIVITY_MONTH |
| NET_CHANGE | NUMBER | TOTAL_OPENED - TOTAL_CLOSED |
| NUM_STILL_OPEN | NUMBER | number of Requests opened during ACTIVITY_MONTH that are still open |
| AVG_COMP_TIME_OPENED | NUMBER | average time to complete Requests that were opened during ACTIVITY_MONTH |
| AVG_COMP_TIME_CLOSED | NUMBER | average time to complete Requests that were closed during ACTIVITY_MONTH |

MREQ_OPENED_CLOSED_BY_DETAIL_D MREQ_OPENED_CLOSED_BY_DETAIL_M

These views give information for Request submission and completion activity, broken down by day (month) and by combinations of Request Type, Application, Department, Priority, and Assigned-to User. Use the Meta Layer view to assess daily Request throughput. It can also help indicate trends in open Requests over time. Use this view instead of the simpler view MREQ_OPENED_CLOSED_BY_TYPE_D (MREQ_OPENED_CLOSED_BY_TYPE_M) to report on Request throughput for a specific Application, Department, Priority, and/or Assigned User, allowing access to more granular summary information.

Results from a query of this view contain records only for days (months) on which there were Requests opened and/or closed. As an example, consider using this view to create a report to examine throughput of all 'Work Order' Request Types for the IT development department:

```
SELECT activity_date,
       application,
       priority,
       total_opened,
       total_closed,
       num_still_open,
       avg_comp_time_opened,
       avg_comp_time_closed
FROM
      mreq_opened_closed_by_detail_d
WHERE activity date BETWEEN '01-APR-01' AND '05-APR-01'
AND
       request_type_name = 'Work Order'
       department = 'Development'
AND
ORDER BY activity_date;
```

(Note that to get a breakdown by month, replace "activity_date" with "activity_month" and "mreq_opened_closed_by_detail_d" with "mreq_opened_closed_by_detail_m" in the query above.)

Results of such a query might look like the following table:

| N Total Total Sti. | |
|--|----------------|
| Date Application Priority Open Closed Open | en Open Closed |
| 01-APR-01 Manufacturing Normal 0 2 | 0 26.06 |
| 01-APR-01 Financials Normal 0 2 | 0 31.07 |
| 01-APR-01 Work-in-process Normal 0 2 | 0 22.74 |
| 02-APR-01 Documentation Normal 0 1 | 0 21.78 |
| 03-APR-01 Bill-of-materials Low 0 1 | 0 41.01 |
| 03-APR-01 Bill-of-materials Normal 0 1 | 0 26.09 |
| 04-APR-01 Bill-of-materials Low 0 1 | 0 47.35 |
| 04-APR-01 Bill-of-materials Normal 0 2 | 0 20.60 |
| 04-APR-01 Configuration Normal 0 1 | 0 63.18 |
| 04-APR-01 Workflow Low 0 2 | 0 20.70 |
| 05-APR-01 Manufacturing Low 0 2 | 0 36.90 |
| 05-APR-01 Work-in-process Normal 0 1 | 0 4.35 |

MREQ_OPEN_CLOSED_BY_DETAIL_D View Column Descriptions

| Column Name | Data Type | Description |
|----------------------|--------------|---|
| REQUEST_TYPE_NAME | VARCHAR2(80) | name of Request Type |
| DEPARTMENT | VARCHAR2(80) | value of Request Department field |
| APPLICATION | VARCHAR2(80) | value of Request 'Application' field |
| PRIORITY | VARCHAR2(80) | value of Request 'Priority' field |
| ACTIVITY_DATE | DATE | date of activity |
| TOTAL_OPENED | NUMBER | number of Requests opened on ACTIVITY_DATE |
| TOTAL_CLOSED | NUMBER | number of Requests closed on ACTIVITY_DATE |
| NET_CHANGE | NUMBER | TOTAL_OPENED - TOTAL_CLOSED |
| NUM_STILL_OPEN | NUMBER | number of Requests opened on ACTIVITY_DATE that are still open |
| AVG_COMP_TIME_OPENED | NUMBER | average time to complete Requests that were opened on ACTIVITY_DATE |
| AVG_COMP_TIME_CLOSED | NUMBER | average time to complete Requests that were closed on ACTIVITY_DATE |

MREQ_OPEN_CLOSED_BY_DETAIL_M View Column Descriptions

| Column Name | Data Type | Description |
|----------------------|--------------|--|
| REQUEST_TYPE_NAME | VARCHAR2(80) | name of Request Type |
| DEPARTMENT | VARCHAR2(80) | value of Request 'Department' field |
| APPLICATION | VARCHAR2(80) | value of Request 'Application' field |
| PRIORITY | VARCHAR2(80) | value of Request 'Priority' field |
| ACTIVITY_MONTH | DATE | month of activity |
| TOTAL_OPENED | NUMBER | number of Requests opened during ACTIVITY_MONTH |
| TOTAL_CLOSED | NUMBER | number of Requests closed during ACTIVITY_MONTH |
| NET_CHANGE | NUMBER | TOTAL_OPENED - TOTAL_CLOSED |
| NUM_STILL_OPEN | NUMBER | number of Requests opened during ACTIVITY_MONTH that are still open |
| AVG_COMP_TIME_OPENED | NUMBER | average time to complete Requests that were opened during ACTIVITY_MONTH |
| AVG_COMP_TIME_CLOSED | NUMBER | average time to complete Requests that were closed during ACTIVITY_MONTH |

MREQ PENDING REQUESTS

This view is used to create a report that shows the volume of open Requests for any given Request Type in Demand Management. It can be used to get a quick snapshot of ongoing Request processing work. It shows a summary of Requests currently open for a specific Demand Management Request Type (total number, average age, etc.), as well as information showing how many Requests have been opened and closed in the current week and current month. MREQ_PENDING_REQUESTS is similar to the view RML_RESOURCE_LOAD, but aggregated across all Requests.

In addition to overall totals of open Requests, this view breaks down the information by priority (using the 'Priority' header field). This is done because priority is usually the most important breakdown of load information. Data is grouped into three priority groupings – P1, P2, and P3 – mapping to the three highest priority levels defined.

As a simple example, suppose a QA manager has three types of Requests to handle, running through three separate processes. The manager needs a report that will show current work volume for each of these Request Types, to help prioritize work and identify bottlenecks. If the three Request Types are named 'MFG bug report', 'FIN bug report', and 'APPS enhancement request', the following SQL query can be used as a basis for a report to display the desired information:

```
SELECT request_type Request_Type,
open_requests Open_Reqs,
avg_age_open_requests Avg Age,
pl_open_requests P1 Open Reqs,
p2_open_requests P2 Open Reqs
FROM mreq_pending_requests
WHERE process_name IN
('MFG bug report',
'FIN bug report',
'APPS enhancement request');
```

Results might look as follows:

| | | | P1 | P2 |
|--------------------------|------|-----|------|------|
| | Open | Avg | Open | Open |
| REQUEST_TYPE | Reqs | Age | Reqs | Reqs |
| | | | | |
| MFG bug report | 98 | 3 | 21 | 77 |
| FIN bug report | 39 | 4 | 14 | 25 |
| APPS enhancement request | 140 | 12 | 8 | 132 |

Note: This view ignores Requests that have not been submitted.

${\tt MREQ_PENDING_REQUESTS~View~Column~Descriptions}$

| Column Name | Data Type | Description |
|------------------------------|---------------|---|
| REQUEST_TYPE | VARCHAR2(80) | the Request Type to show info for |
| REQUEST_TYPE_ID | NUMBER | internal ID of the Request Type |
| REQUEST_TYPE_DESCRIP TION | VARCHAR2(240) | description of the Request Type |
| OPEN_REQUESTS | NUMBER | number of open Requests for this Req Type |
| AVG_AGE_OPEN_REQUEST S | NUMBER | average age of open Requests |
| MAX_AGE_OPEN_REQUES TS | NUMBER | age of oldest open Requests |
| P1_OPEN_REQUESTS | NUMBER | number of open P1 Requests |
| P2_OPEN_REQUESTS | NUMBER | number of open P2 Requests |
| P3_OPEN_REQUESTS | NUMBER | number of open P3 Requests |
| P1_AVG_AGE_OPEN_REQU ESTS | NUMBER | average age of open P1 Requests |
| P2_AVG_AGE_OPEN_REQU ESTS | NUMBER | average age of open P2 Requests |
| P3_AVG_AGE_OPEN_REQU ESTS | NUMBER | average age of open P3 Requests |
| P1_MAX_AGE_OPEN_REQU ESTS | NUMBER | age of oldest open P1 Request |
| P2_MAX_AGE_OPEN_REQU ESTS | NUMBER | age of oldest open P2 Request |
| P3_MAX_AGE_OPEN_REQU ESTS | NUMBER | age of oldest open P3 Request |
| REQS_OPENED_THIS_MON TH | NUMBER | number of Requests opened this month |
| REQS_OPENED_THIS_WEE K | NUMBER | number of Requests opened this week |
| REQS_CLOSED_THIS_MON TH | NUMBER | number of Requests closed this month |
| REQS_CLOSED_THIS_WEE K | NUMBER | number of Requests closed this week |

MREQ REQUEST ACTIONS

This Meta Layer view can be used to gather information about all Workflow actions for any given Request in Demand Management. The view MREQ_REQUEST_ACTIONS contains columns to display the result status of each step, how long it took to complete, details about the step (source and destination Environment), and other relevant details. It also adds the submission ('Process Open') and completion ('Process Close') of a Request as pseudo Workflow step actions, displaying the entire life cycle of the Request in a single view.

This view can be used directly to view the full transaction history of a Request, or it can be used as a basis for more complex reports showing (for example) throughput at specific Request steps. To relate information from this view with information from relevant Requests, the report designer can use the Request identifier REQUEST_ID to join with other standard views (such as MREQ_REQUESTS, or a view for Requests of a specific Request Type, MREQ_[Request Type Name]).

As an example, consider a report that takes a Request ID as input from the person running the report, and shows all transactions for that Request. The report designer would probably want to include the name of the step, the date an action was taken, the result, and how long the step stayed active before the action was taken. A SQL statement such as the following can accomplish this with MREQ_REQUEST_ACTIONS:

In the resulting report, when the user enters a Request ID, the output might include information such as:

```
Action Action
Process Step
                              Date
                                       Result
  Duration
                             26-APR-01 Released
Open
  .00
Check Priority
                             26-APR-01 Normal
  .00
SA - Check Prodcut
                             26-APR-01 NULL result
   .00
CL - Check issue assignment
                              26-APR-01 aaslani
   .00
Work In Progress
                              15-MAY-01 Resolved
  18.72
                              20-MAY-01 Timeout
Feedback
   5.00
```

Close .00 Request resolved .00 20-MAY-01 Closed [Success]
20-MAY-01 Succeeded

As another example, consider a "Work Order" Request Type that has a field for "Customer", with token CUSTOMER. The name of the corresponding Request view will be MREQ_WORK_ORDER (based on the general view MREQ_[Request Type Name]). Suppose a report is needed to show all "Work Order" requests that are eligible for a particular Mercury ITG user (in this case a user with username 'fjohnson') to act on, broken down by customer. Consider a SQL statement such as the following:

```
CUSTOMER,
SELECT wo.customer
      wo.request_id
                                REQ_NUM,
      ra.request_workflow_step_label | ': ' | ra.action_name
                        ELIGIBLE_STEP,
      ra.duration
                                DAYS_ELIGIBLE
FROM mreq_work_order wo,
      mwfl_step_security_users ssu,
      mreq_request_actions ra
WHERE ra.status_type = 'ELIGIBLE'
AND
      ssu.workflow_step_id = ra.workflow_step_id
AND
      ssu.username = 'fjohnson'
      ra.request_id = wo.request_id
AND
ORDER BY 1,2,3,4;
```

In this example, MREQ_REQUEST_ACTIONS was joined to the view MREQ_WORK_ORDER with the REQUEST_ID column. Note the format of the ELIGIBLE_STEP column being selected - this will return a value such as "12.3.1: Review by Lead". Note also the use of the Meta Layer view MWFL_STEP_SECURITY_USERS, which is used to determine if a specified user is authorized for a specified Workflow step. Please see the appropriate sections for the views MREQ_[Request Type Name] and MWFL_STEP_SECURITY_USERS for more details about those views.

Some important notes to consider when making use of this view:

• The column STATUS is the status name that is displayed in the status tab of Requests in the Demand Management application. The internal code STATUS_TYPE is provided to group these status names into logical groupings. For example, there may be many different statuses that all represent a 'COMPLETE' status type (e.g. the result value of any Workflow step, such as 'Approved', 'Succeeded', 'Rejected', 'Failed QA Test'...). While STATUS may have many different possible values, STATUS_TYPE has 9 possible values:

| SUBMITTED | ELIGIBLE | PENDING |
|----------------|----------------|-----------|
| IN_PROGRESS | ERROR | COMPLETE |
| CLOSED_SUCCESS | CLOSED_FAILURE | CANCELLED |

• The internal code STEP_TRANSACTION_ID is provided in this view for use with the Meta Layer view MWFL_TRANSITIONS, which can be used to get detailed information about previous or subsequent process steps.

MREQ_REQUEST_ACTIONS View Column Descriptions

| Column Name | Data Type | Description |
|---------------------------------|--------------------|---|
| REQUEST_ID | NUMBER | the Request ID |
| REQUEST_DESCRIPTION | VARCHAR2(240) | description of the Request |
| REQUEST_TYPE | VARCHAR2(80) | Request Type of this Request |
| REQUEST_WORKFLOW | VARCHAR2(80) | top-level Workflow used by this Request |
| REQUEST_WORKFLOW_STE P_LABEL | VARCHAR2(200 0) | visible label of this step in Request status tab |
| ACTION_NAME | VARCHAR2(80) | name of Workflow step action |
| WORKFLOW | VARCHAR2(80) | name of Workflow that contains this step |
| WORKFLOW_STEP_NUMBER | NUMBER | Workflow sequence number of this step |
| STATUS | VARCHAR2(200) | visible status of this Request |
| STATUS_TYPE | VARCHAR2(30) | internal code for STATUS |
| ELIGIBLE_DATE | DATE | date this step became eligible |
| ACTION_DATE | DATE | date action was taken on this step |
| ACTION_RESULT | VARCHAR2(200) | result of the action |
| ERROR_MESSAGE | VARCHAR2(240) | (if STATUS_TYPE = 'ERROR') error message |
| DURATION | NUMBER | number of days at this status, or until completed (if STATUS_TYPE = 'COMPLETE') |
| SOURCE_ENVIRONMENT | VARCHAR2(80) | source Environment (if applicable) |
| SOURCE_ENVIRONMENT_GR OUP | VARCHAR2(100) | source Environment Group (if applicable) |
| DEST_ENVIRONMENT | VARCHAR2(80) | destination Environment (if applicable) |
| DEST_ENVIRONMENT_GROUP | VARCHAR2(100) | destination Environment Group (if applicable) |
| USER_COMMENT | VARCHAR2(240) | user comment entered when taking action on this step |
| CHILD_REQUEST_ID | NUMBER | ID of child Request |
| CHILD_PACKAGE_ID | NUMBER | internal ID of child Package |
| STEP_TRANSACTION_ID | NUMBER | internal ID of this transaction |
| REQUEST_WORKFLOW_ID | NUMBER | internal ID for top-level Workflow used by this Request |

| WORKFLOW_ID | NUMBER | internal ID for the Workflow that contains this Workflow step |
|---------------------------------|---------------|---|
| WORKFLOW_STEP_ID | NUMBER | internal ID of this Workflow step |
| ACTION_RESULT_CODE | VARCHAR2(200) | internal code for ACTION_RESULT |
| SOURCE_ENVIRONMENT_ID | NUMBER | internal ID of source Env |
| SOURCE_ENVIRONMENT_GR OUP_ID | NUMBER | internal ID of source Env Group |
| DEST_ENVIRONMENT_ID | NUMBER | internal ID of dest Env |
| DEST_ENVIRONMENT_GROUP_ID | NUMBER | internal ID of dest Env Group |

MREQ_REQUESTS

This is the most general view into Request transaction data. A blind query ("SELECT * FROM mreq_requests;") will return one row for each Request present in the system, including closed Requests – a potentially large list! The view columns map to the Request fields that are common to all Request Types (such as Priority, Department, Application, Assigned-to User, and Contact information). There are also columns for the status of a Request and the dates on which it was submitted, closed, and/or cancelled. Since global Request User Data fields are present on all Requests, there is also a view column for each global Request User Data field that is defined. The column name for each global Request User Data field is the same as the token name for that field. (Context-sensitive Request User Data sets have their own views. See MREQ_UD_[Context Value].)

Use this view when writing a report to present general Request information without respect to a particular Request Type. (To build reports that make use of custom detail fields of a particular Request Type, the Request Type-specific views are more appropriate – see MREQ_[Request Type Name].)

For example, to get a picture of the number of open Requests in the system and whom they are assigned to, consider a query such as:

which would produce results like:

| ASSIGNED_USER | NUM_OPEN |
|--|--------------------|
| | |
| rfrazier rjeffries rjones rnelson rsmith | 13 1 28 9 |
| | 5 |

Or consider a similar query with the results grouped by the Request Type, to see how many Requests of each type are open:

which would produce results like:

| REQUEST_TYPE | NUM_OPEN |
|---------------------------|----------|
| | |
| HR Job Requisition | 37 |
| HR New Hire Process | 11 |
| Press Release | 3 |
| Product Patch | 33 |
| Purchase Request | 11 |
| Services Work Order | 81 |
| Training Approval Request | 115 |
| Vacation Request | 56 |

Next, as an example, consider the case where a global Request User Data field has been defined to capture the username of a backup user responsible for each Request. The token name for this field is BACKUP_USERNAME. Thus, in this view there would be a column named BACKUP_USERNAME (in *italic boldface* below):

Now this new column can be used to drive a report if necessary. For instance, to report on Requests that have been open for more than 5 days and assigned to a particular backup user, consider a query such as:

```
GROUP BY backup_username, assigned_to_username
ORDER BY 1, 2;
```

(This query also displays the original user to which the Request was assigned.)

MREQ_REQUESTS View Column Descriptions

| Column Name | Data Type | Description | |
|--------------------------|---------------|--|--|
| REQUEST_ID | NUMBER | name of the Request record | |
| REQUEST_DESCRIPTION | VARCHAR2(240) | Request description | |
| SUBMISSION_DATE | DATE | date Request was submitted | |
| REQUEST_STATUS | VARCHAR2(80) | current status of the Request | |
| WORKFLOW | VARCHAR2(80) | name of Workflow used by this Request | |
| DEPARTMENT | VARCHAR2(80) | visible value of Request department | |
| DEPARTMENT_CODE | VARCHAR2(30) | internal code for department | |
| PRIORITY | VARCHAR2(80) | visible value of Request priority | |
| PRIORITY_CODE | VARCHAR2(30) | internal code for priority | |
| APPLICATION | VARCHAR2(80) | visible value of Request application | |
| APPLICATION_CODE | VARCHAR2(30) | internal code for application | |
| REQUEST_GROUP | VARCHAR2(80) | visible value of Request group | |
| REQUEST_GROUP_CODE | VARCHAR2(30) | internal code for Request group | |
| ASSIGNED_TO_USERNAME | VARCHAR2(80) | username of Mercury ITG user to which this Request is assigned | |
| ASSIGNED_TO_GROUP | VARCHAR2(80) | name of Security Group to which this Request is assigned | |
| CONTACT_FULL_NAME | VARCHAR2(80) | full name of Request contact | |
| CONTACT_LAST_NAME | VARCHAR2(30) | last name of Request contact | |
| CONTACT_FIRST_NAME | VARCHAR2(30) | first name of Request contact | |
| CONTACT_PHONE | VARCHAR2(30) | phone number of Request contact | |
| CONTACT_EMAIL | VARCHAR2(80) | email address of Request contact | |
| COMPANY | VARHCAR2(80) | company of Request contact | |
| CLOSE_RESULT | VARCHAR2(80) | if this Request is closed, this is the visible result value | |
| CLOSE_DATE | DATE | if this Request is closed, this is the date on which it was closed | |
| CANCEL_DATE | DATE | if this Request is cancelled, this is the date on which it was cancelled | |
| Request Global User Data | VARCHAR2(200) | one column for each Request Global User Data field - column name is the User Data field token name | |
| REQUEST_TYPE | VARCHAR2(80) | name of the Request Type | |
| REQUEST_SUBTYPE | VARCHAR2(80) | name of the Request sub-Type | |

| REQUEST_HEADER_TYPE | VARCHAR2(80) | name of the Request Header Type |
|---------------------|--------------|--|
| CREATION_DATE | DATE | date the Request record was created |
| CREATED_BY_USERNAME | VARCHAR2(30) | username of Mercury ITG user who created the Request |
| LAST_UPDATE_DATE | DATE | date the Request record was last updated |
| CONTACT_ID | NUMBER | internal identifier for Contact |
| REQUEST_TYPE_ID | NUMBER | internal identifier for Request Type |
| WORKFLOW_ID | NUMBER | internal identifier for Workflow |
| PERCENT_COMPLETE | NUMBER | value for percent complete defined in the Request's Workflow |

MREQ_[Request Type Name]

This section describes a set of views containing Request Type-specific information. When the Reporting Meta Layer is synchronized, a view is created for every Request Type defined in the system. The name of each view is defined on the Request Type screen in the field 'Meta Layer View:'. It defaults to a prefix 'MREQ_' and a suffix that defaults to the first 20 alphanumeric characters of the corresponding Request Type name. For example, if there are three Request Types defined in Demand Management named 'Support Ticket', 'Bug', and 'Work Order', then three corresponding Meta Layer views would exist: MREQ_SUPPORT_TICKET, MREQ_BUG, and MREQ_WORK_ORDER, respectively.

The view columns are identical to those of the general MREQ_ALL_REQUESTS view (including the global Request User Data fields), and they also include additional columns for each custom Request detail field for the Request Type. This allows a report designer to create a report that implements business logic which drives off of customer-defined Request detail fields. For example, consider the 'Work Order' Request Type mentioned above. This Request Type might have custom detail fields with tokens such as CUSTOMER, TIME_ESTIMATE, and ACTUAL_TIME. The corresponding view MREQ_WORK_ORDER would contain columns with these names (in *italic boldface* below):

```
SQL> desc mreq_work_order
Name
                                  Null?
                                            Type
 REQUEST ID
                                  NOT NULL NUMBER
REQUEST_DESCRIPTION
SUBMISSION_DATE
                                  NOT NULL VARCHAR2 (240)
                                  NOT NULL DATE
 REQUEST_STATUS
                                   NOT NULL VARCHAR2 (80)
 CANCEL DATE
                                   NOT NULL DATE
 BACKUP USERNAME
                                            VARCHAR2 (200)
 CUSTOMER
                                            VARCHAR2 (200)
 TIME ESTIMATE
                                            VARCHAR2 (200)
 ACTUAL_TIME
                                            VARCHAR2 (200)
 REQUEST_TYPE_NAME
                                            VARCHAR2 (80)
 REQUEST_SUBTYPE_NAME
                                            VARCHAR2 (80)
```

Carrying on this example, suppose a report is needed that will list information about Work Order Requests in which the actual time was more than one day longer than the estimated time. A SQL query such as the following would handle this:

```
SELECT request_number REQUEST_NUM,
status_name CURRENT_STATUS,
customer CUSTOMER,
(actual_time - time_estimate) EXTRA_DAYS_WORKED
FROM mreq_work_order
WHERE time_estimate IS NOT NULL
```

```
AND actual_time IS NOT NULL
AND (actual_time - time_estimate) > 1
ORDER BY request_number;
```

MREQ_[Request Type Name] View Column Descriptions

| Column Name | Data Type | Description | |
|--------------------------|---------------|---|--|
| REQUEST_ID | NUMBER | name of the Request record | |
| REQUEST_DESCRIPTION | VARCHAR2(240) | Request description | |
| SUBMISSION_DATE | DATE | date Request was submitted | |
| REQUEST_STATUS | VARCHAR2(80) | current status of the Request | |
| WORKFLOW | VARCHAR2(80) | name of Workflow used by this Request | |
| DEPARTMENT | VARCHAR2(80) | visible value of Request department | |
| DEPARTMENT_CODE | VARCHAR2(30) | internal code for department | |
| PRIORITY | VARCHAR2(80) | visible value of Request priority | |
| PRIORITY_CODE | VARCHAR2(30) | internal code for priority | |
| APPLICATION | VARCHAR2(80) | visible value of Request application | |
| APPLICATION_CODE | VARCHAR2(30) | internal code for application | |
| REQUEST_GROUP | VARCHAR2(80) | visible value of Request group | |
| REQUEST_GROUP_CODE | VARCHAR2(30) | internal code for Request group | |
| ASSIGNED_TO_USERNAME | VARCHAR2(80) | username of Mercury ITG user to which this Request is assigned | |
| ASSIGNED_TO_GROUP | VARCHAR2(80) | name of Security Group to which this Request is assigned | |
| CONTACT_FULL_NAME | VARCHAR2(80) | full name of Request contact | |
| CONTACT_LAST_NAME | VARCHAR2(30) | last name of Request contact | |
| CONTACT_FIRST_NAME | VARCHAR2(30) | first name of Request contact | |
| CONTACT_PHONE | VARCHAR2(30) | phone number of Request contact | |
| CONTACT_EMAIL | VARCHAR2(80) | email address of Request contact | |
| COMPANY | VARHCAR2(80) | company of Request contact | |
| CLOSE_RESULT | VARCHAR2(80) | if this Request is closed, this is the visible result value | |
| CLOSE_DATE | DATE | if this Request is closed, this is the date on which it was closed | |
| CANCEL_DATE | DATE | if this Request is cancelled, this is the date on which it was cancelled | |
| Request Global User Data | VARCHAR2(200) | one column for each Request Global User Data field - column name is the User Data field token name | |
| Request Detail Fields | VARCHAR2(200) | one column for each Request Detail field in the first 4 field batches - column name is the field's token name | |

| REQUEST_TYPE | VARCHAR2(80) | name of the Request Type |
|---------------------|--------------|--|
| REQUEST_SUBTYPE | VARCHAR2(80) | name of the Request sub-Type |
| REQUEST_HEADER_TYPE | VARCHAR2(80) | name of the Request Header Type |
| CREATION_DATE | DATE | date the Request record was created |
| CREATED_BY_USERNAME | VARCHAR2(30) | username of Mercury ITG user who created the Request |
| LAST_UPDATE_DATE | DATE | date the Request record was last updated |
| CONTACT_ID | NUMBER | internal identifier for Contact |
| REQUEST_TYPE_ID | NUMBER | internal identifier for Request Type |
| WORKFLOW_ID | NUMBER | internal identifier for Workflow |

MREQ_CONTACTS

This view contains all fields for Contacts defined in Demand Management. A subset of the information provided here is also present in the Request views MREQ_REQUESTS and MREQ_[Request Type Name]. This view contains all relevant pieces of information about a Contact, including a denormalized username (if present) and a column for each Contact User Data field defined in the system. The column name for each Contact User Data field is the same as the token name for that field.

To generate a simple list of all enabled Contacts in the Demand Management system, a simple SQL statement such as the following will suffice:

If there are Contact User Data fields defined, the token for each field will appear as a separate column in MREQ_CONTACTS. For example, consider a scenario in which two Contact User Data fields have been defined to track additional Contact information, with tokens PAGER_NUMBER and HOME_PHONE_NUMBER. Two columns with the same names would be present in MREQ_CONTACTS (in *italic boldface* below):

```
SQL> desc mreq_contacts
Name
                                  Nu11?
                                            Туре
 LAST NAME
                                  NOT NULL VARCHAR2 (30)
                                  NOT NULL VARCHAR2 (30)
 FIRST_NAME
 PAGER NUMBER
                                            VARCHAR2 (200)
 HOME_PHONE_NUMBER
                                            VARCHAR2 (200)
                                  NOT NULL VARCHAR2(1)
 ENABLED FLAG
                                  NOT NULL DATE
 CREATION_DATE
```

For a slightly more complex example (building upon the previous example from the MREQ_REQUESTS section, in which a global Request User Data field called BACKUP_USERNAME has been defined), consider designing a report to print the full name and pager, work, and home phone numbers of all users who are assigned as backup users on Requests that have been open for more than 5 days. A SQL statement to achieve this type of information might look as follows:

```
AND r.close_date IS NULL
AND r.cancel_date IS NULL
AND r.submission_date IS NOT NULL
AND (sysdate - r.submission_date) > 5;
```

MREQ_CONTACTS View Column Descriptions

| Column Name | Data Type | Description |
|--------------------------|---------------|--|
| LAST_NAME | VARCHAR2(30) | last name of contact |
| FIRST_NAME | VARCHAR2(30) | first name of contact |
| FULL_NAME | VARCHAR2(80) | full name of contact |
| USERNAME | VARCHAR2(30) | Mercury ITG username of contact, if applicable |
| PHONE_NUMBER | VARCHAR2(30) | phone number of contact |
| EMAIL_ADDRESS | VARCHAR2(80) | email address of contact |
| COMPANY | VARCHAR2(80) | company of contact |
| Contact Global User Data | VARCHAR2(200) | one column for each Contact Global User Data field - column name is the User Data field token name |
| ENABLED_FLAG | VARCHAR2(1) | is this contact enabled? (Y/N) |
| CREATION_DATE | DATE | date contact record was created |
| CREATED_BY_USERNAME | VARCHAR2(30) | username of Mercury ITG user who created this contact record |
| LAST_UPDATE_DATE | DATE | date contact record was last updated |
| CONTACT_ID | NUMBER | internal identifier for this contact |

MREQ_CHANGES

Transaction history (audit trail) can be enabled for many key Request fields. When a field is being audited, a record is stored in the Mercury ITG database every time the value in that field changes on any open Request. This audit history can be important to business decision-making. The Reporting Meta Layer provides the view MREQ_CHANGES to allow a report to display and drive off of changes to Request fields. This view exposes the audit trail for the Request header and detail fields. It contains columns for the old and new values, and the field prompts and tokens.

For example, to report on the frequency at which the Request Priority is changed from any value to 'Critical', a SQL statement such as the following can be used:

Note in the 'WHERE' clause of this statement that we are testing the NEW_FIELD_CODE instead of the NEW_FIELD_VALUE. Either would work – 'C' is the code for 'Critical' priority; this statement could also have been written "WHERE c.new_field_value = 'Critical'." The validation for the Request priority field contains the hidden and visible values for this field. Consult this validation in the Validations screen for verification of these values.

Consider a slight extension to the previous SQL statement: If it was necessary to limit this information to a specific Request Type, an additional AND condition could be used: "AND c.request_type = '<name>'."

| MREQ_CHANGES | View | Column | Descriptions |
|--------------|------|--------|--------------|
| | | | |

| Column Name | Data Type | Description |
|---------------------|--------------|--|
| REQUEST_ID | NUMBER | ID of the field's parent Request |
| CHANGE_DATE | DATE | date change occurred |
| CHANGED_BY_USERNAME | VARCHAR2(30) | username of Mercury ITG user who made change |
| REQUEST_TYPE | VARCHAR2(80) | Request Type of the field's parent Request |
| COLUMN_NAME | VARCHAR2(30) | name of field column whose value changed |

| FIELD_PROMPT | VARCHAR2(80) | prompt of field whose value changed |
|-----------------|--------------------|-------------------------------------|
| FIELD_TOKEN | VARCHAR2(30) | token for field whose value changed |
| OLD_FIELD_VALUE | VARCHAR2(180 0) | field value before change |
| NEW_FIELD_VALUE | VARCHAR2(180 0) | field value after change |
| OLD_FIELD_CODE | VARCHAR2(180 0) | field hidden code before change |
| NEW_FIELD_CODE | VARCHAR2(180 0) | field hidden code after change |

MREQ_NOTES

This view provides access to the notes for all Requests in Demand Management. Notes are stored in an Oracle LONG database column; to prevent an overload of information this was presented in a separate Meta Layer view, making it less likely to design a report that inadvertently returns too much data. To query Request notes, join this view with a Request view (MREQ_REQUESTS, or a Request Type-specific view MREQ_[Request Type Name]). For example, to retrieve a list of the notes for all open Requests of the 'Bug' Request Type, that have 'Critical' priority, use the following logic in a SQL statement:

MREQ_NOTES View Column Descriptions

| Column Name | Data Type | Description |
|----------------|--------------|---------------------------------|
| REQUEST_ID | NUMBER | Request internal identifier |
| REQUEST_NUMBER | VARCHAR2(30) | Request number |
| NOTES | LONG | aggregate notes for the Request |

MREQ_REFERENCES

References are used throughout Mercury ITG Center to relate transaction entities together. The view MREQ_REFERENCES can be used to view the references of Requests in Demand Management. There are several types of references for Requests. If a Request is part of a Release, then there will be a reference for that Release. If a Request is a parent or child of another Request, then there will be a reference for that Request. References are also used to attach documents to a Request.

The RELATIONSHIP column in MREQ_REFERENCES describes the relationship of the referenced item to the Request that references it. This view also has columns for each of the entities that can be referenced to a Request - other Requests, Packages, Projects, Tasks, Releases, attachments, and URLs. For each record in MREQ_REFERENCES, only one of these columns will have a value and the others will be NULL. As a simple example, the following SQL can be used to retrieve a list of all references to a particular Request:

```
SELECT referenced_package_id PKG,
    referenced_project_id PROJ,
    referenced_request_id REQ,
    referenced_release_id REL,
    referenced_task_id TASK,
    attachment_name ATTACHMENT,
    document_url URL,
    relationship RELATIONSHIP
FROM mreq_references
WHERE request_number = '54872';
```

Results of this query would look like:

```
PKG PROJ REQ REL TASK ATTACHMENT URL RELATIONSHIP

43301
Contains this Request
Contains this Request
Child of this Request
Parent of this Request
ScreenShot doc
```

MREQ_REFERENCES View Column Descriptions

| Column Name | Data Type | Description |
|---------------------------|--------------|---|
| REQUEST_NUMBER | VARCHAR2(30) | Request number to show references for |
| RELATIONSHIP | VARCHAR2(30) | relationship of reference to this Request |
| REFERENCED_PACKAGE_I D | NUMBER | ID of referenced Package |
| REFERENCED_PROJECT_I D | NUMBER | ID of referenced Project |

| REFERENCED_REQUEST_I D | NUMBER | ID of referenced Request |
|---------------------------|---------------|--|
| REFERENCED_RELEASE_I D | NUMBER | ID of referenced Release |
| REFERENCED_TASK_ID | NUMBER | ID of referenced Task |
| OVERRIDE_CODE | NUMBER | code to manually override the dependency behavior of the reference |
| ATTACHMENT_NAME | VARCHAR2(200) | name of attached document |
| DOCUMENT_URL | VARCHAR2(200) | URL of referenced document on the web |
| REQUEST_ID | NUMBER | internal ID of this Request |

MREQ_REQUEST_TYPES

The Reporting Meta Layer provides this view to access configuration details of Request Types in Demand Management. In some cases a report designer might need to include Request Type information in a report, and can join the REQUEST_TYPE column in this view with the same column in the general Request views (MREQ_REQUESTS and MREQ_[Request Type Name]).

Mercury ITG Center supports User Data on Request Types. All defined Request Type User Data fields are represented in MREQ_REQUEST_TYPES view; there is a column for each Request Type User Data field. The column name for each Request Type User Data field is the same as the token name for that field.

As an example usage case, consider a scenario in which a User Data field with token name OWNER is defined for Request Types, perhaps to keep track of a Mercury ITG administrator responsible for maintaining each Request Type configuration. A corresponding view column named OWNER will be present in MREQ_REQUEST_TYPES view (in *italic boldface* below):

```
SQL> desc mreq_request_types
Name
                                  Null?
REOUEST TYPE
                                  NOT NULL VARCHAR2 (30)
REQUEST_TYPE_DESCRIPTION
                                 NOT NULL VARCHAR2 (240)
INITIAL STATUS
                                 NOT NULL VARCHAR2 (80)
RESTRICTION
                                 NOT NULL VARCHAR2 (30)
OWNER
                                           VARCHAR2 (200)
                                 NOT NULL DATE
CREATION_DATE
CREATED BY USERNAME
                                 NOT NULL VARCHAR2 (30)
```

A SQL query based on this view might be used to determine how many Requests were created prior to a configuration change for a particular Request Type. For instance, suppose a Request Type named 'Work Order' has undergone a significant configuration change, which might invalid open Work Order Requests that were created before the change. Thus a report is needed to determine the status of open Work Order Requests that were created before the changes, which might be based on the following SQL example:

(Notice that we don't have to join the explicit Request Type name to the view MREQ_WORK_ORDER, as it is already implicit in the view definition – only 'Work Order' Requests are returned from that view.)

$MREQ_REQUEST_TYPES\ View\ Column\ Descriptions$

| Column Name | Data Type | Description |
|---|---------------|---|
| REQUEST_TYPE | VARCHAR2(80) | name of Request Type |
| REQUEST_TYPE_DESCRIP TION | VARCHAR2(240) | description of Request Type |
| REFERENCE_FLAG | VARCHAR2(1) | is this a reference Request Type? (Y/N) |
| ENABLED_FLAG | VARCHAR2(1) | is this Request Type enabled? (Y/N) |
| REQUEST_HEADER_TYPE | VARCHAR2(80) | name of Request Header Type |
| ACCELERATOR_NAME | VARCHAR2(80) | name of parent Extension |
| CRT_WORKBENCH_ONLY_ FLAG | VARCHAR2(1) | is this Request Type only available to the Workbench interface? (Y/N) |
| INITIAL_STATUS | VARCHAR2(80) | initial status upon submission of Requests of this Request Type |
| RESTRICTION | VARCHAR2(30) | either 'PARTICIPANT' or 'UNRESTRICTED' |
| Request Type Global User Data fields | VARCHAR2(200) | one column for each Request Type Global User Data field - column name is the User Data field token name |
| CREATION_DATE | DATE | creation date of this Request Type |
| CREATED_BY_USERNAME | VARCHAR2(30) | username of Mercury ITG user that created this Request Type |
| LAST_UPDATE_DATE | DATE | last update date of this Request Type |
| REQUEST_TYPE_ID | NUMBER | internal identifier for the Request Type record |

MREQ_REQUEST_HEADER_TYPES

The Reporting Meta Layer provides this view to access configuration details of Request Header Types in Demand Management. In some cases a report designer might need to include Request Header Type information in a report, and can join the REQUEST_HEADER_TYPE column in this view with the same column in the MREQ_REQUEST_TYPES view, and in general Request views (MREQ_REQUESTS and MREQ_[Request Type Name]).

Mercury ITG Center supports User Data on Request Header Types. All defined Request Header Type User Data fields are represented in MREQ_REQUEST_HEADER_TYPES view; there is a column for each Request Header Type User Data field. The column name for each Request Header Type User Data field is the same as the token name for that field.

As an example usage case, consider a scenario in which a User Data field with token name OWNER is defined for Request Header Types, perhaps to keep track of a Mercury ITG administrator responsible for maintaining each Request Header Type configuration. A corresponding view column named OWNER will be present in MREQ_REQUEST_HEADER_TYPES view (in *italic boldface* below):

| SQL> desc mreq_request_header_typ | pes | | |
|-----------------------------------|------|------|----------------|
| Name | Null | 1? | Type |
| | | | |
| REQUEST_HEADER_TYPE | NOT | NULL | VARCHAR2(80) |
| REQUEST_HEADER_TYPE_DESC | | | VARCHAR2 (240) |
| : | | | |
| ACCELERATOR_NAME | NOT | NULL | VARCHAR2(80) |
| OWNER | | | VARCHAR2 (200) |
| CREATION_DATE | NOT | NULL | DATE |
| CREATED_BY_USERNAME | NOT | NULL | VARCHAR2(30) |
| LAST_UPDATE_DATE | NOT | NULL | DATE |

MREQ_REQUEST_HEADER_TYPES View Column Descriptions

| Column Name | Data Type | Description |
|--|---------------|--|
| REQUEST_HEADER_TYPE | VARCHAR2(80) | name of Request Header Type |
| REQUEST_HEADER_TYPE_ DESC | VARCHAR2(240) | description of Request Header Type |
| REFERENCE_FLAG | VARCHAR2(1) | is this a reference Request Header Type? (Y/N) |
| ENABLED_FLAG | VARCHAR2(1) | is this Request Header Type enabled? (Y/N) |
| ACCELERATOR_NAME | VARCHAR2(80) | name of parent Extension |
| Request Header Type Global User Data fields | VARCHAR2(200) | one column for each Request Header Type Global User Data field - column name is the User Data field token name |

| CREATION_DATE | DATE | creation date of this Request Header Type |
|-------------------------|--------------|---|
| CREATED_BY_USERNAME | VARCHAR2(30) | username of Mercury ITG user that created this Request Header Type |
| LAST_UPDATE_DATE | DATE | last update date of this Request Header Type |
| REQUEST_HEADER_TYPE_I D | NUMBER | internal identifier for the Request Header Type record |

MREQ_TABLE_COMPONENT

This RML view contains table component data for Request Detail fields with Validations.

MREQ_TABLE_COMPONENT View Column Descriptions

| Column Name | Data Type | Description |
|---------------------|---------------|--|
| VALIDATION_ID | NUMBER | ID of the table component Validation. |
| VALIDATION_NAME | VARCHAR2(80) | Name of the table component Validation |
| DESCRIPTION | VARCHAR2(240) | Description of the table component Validation |
| REQUEST_ID | NUMBER | Request ID of the Request where this table component is being used. |
| PARAMETER_TOKEN | VARCHAR2(30) | Token defined in the Request Type fields defined for table components. |
| ROW_SEQUENCE_NUMBER | NUMBER | Control sequence used to identify the order of the current row in the table field. |

Change Management Views

MPKG DEPLOYMENT DETAILS

Use this Meta Layer view to report on the details of object deployments to Environments. MPKG_DEPLOYMENT_DETAILS has a record for each deployment, presented in easy-to-decipher format.

This view is based on object deployment history stored in the Environment contents tables. As a result, it includes accurate records for deployments even when the destination Environment specified on the migration Workflow step was overridden during Object Type command processing.

As a simple example of possible uses of this view, consider a requirement to report on all objects deployed to the 'MFG Prod' Environment in the last day. A simple SQL query such as the following will serve this purpose:

```
SELECT package_number package,
line_number line,
object_type object,
object_name name,
object_revision version
FROM mpkg_deployment_details
WHERE destination_environment = 'MFG Prod'
AND deployment_date > sysdate - 1;
```

Results of this query will be like the following example table:

| package | line | object | name | version |
|----------------------------------|--------|--|--|-------------------------|
| 30023 30023 30121 30122 | 5 1 | Migrate SQL file Migrate SQL file File Migration FIle Migration | add_user.sql create_links.sql runProcess.sh runProcess.sh | 3.12 8 2.7 2.9 |
| | | | | |

$MPKG_DEPLOYMENT_DETAILS\ View\ Column\ Descriptions$

| Column Name | Data Type | Description |
|---------------------------|---------------|---|
| PACKAGE_NUMBER | VARCHAR2(40) | Package number |
| PACKAGE_DESCRIPTION | VARCHAR2(240) | description of the Package |
| LINE_NUMBER | NUMBER | the deployed Package line number |
| OBJECT_TYPE | VARCHAR2(80) | Object Type used by this Package line |
| OBJECT_NAME | VARCHAR2(300) | value of the 'Object Name' field |
| OBJECT_REVISION | VARCHAR2(300) | value of the 'Object Revision' field |
| APPLICATION_CODE | VARCHAR2(30) | application code of the Package line |
| SOURCE_ENVIRONMENT | VARCHAR2(80) | source of deployed object |
| DESTINATION_ENVIRONME NT | VARCHAR2(80) | destination of deployed object |
| WORKFLOW | VARCHAR2(80) | name of the Package Workflow |
| WORKFLOW_STEP | VARCHAR2(80) | deployment step |
| DEPLOYMENT_DATE | DATE | date Package line was deployed |
| DEPLOYED_BY_USERNAME | VARCHAR2(30) | username of Mercury ITG user that deployed the Package line object |
| DEPLOYED_BY_FULL_NAM E | VARCHAR2(61) | full name of Mercury ITG user that deployed the Package line object |
| PACKAGE_ID | NUMBER | internal ID of this Package |
| PACKAGE_LINE_ID | NUMBER | internal ID of this Package line |
| WORKFLOW_ID | NUMBER | internal ID of the Package Workflow |
| WORKFLOW_STEP_ID | NUMBER | internal ID of the Workflow step |
| SOURCE_ENVIRONMENT_I D | NUMBER | internal ID of the source Environment |
| DEST_ENVIRONMENT_ID | NUMBER | internal ID of the dest Environment |

MPKGL_APP_DEPLOYMENT_D MPKGL_APP_DEPLOYMENT_M

These views give summary information for Package deployment activity, broken down by application, Environment, and calendar day (month) for MPKGL_APP_DEPLOYMENT_D (MPKGL_APP_DEPLOYMENT_M). It can be used to quickly assess regular Package throughput for each application managed by the IT department, and can help indicate trends in Package processing over time for a specified application. An application corresponds to an app code designated in Environment definitions.

Besides just the number or Packages which were deployed on a given day (month), these views also contain columns to show the number of Packages and Package lines that were involved in listed deployments, and the number of different Object Types that were used.

Results from a query of one of these views contain records only for days (months) on which deployments occurred for each application. For example, the following SQL query can be used as a basis for a report that summarizes all Package deployment activity, per day, for a specified application, over a range of dates:

```
SELECT app_code Application,
    environment Dest_Env,
    deployment_date Date,
    total_deployments Total_Deployed,
    unique_obj_types Num_Obj_Types
FROM mpkgl_app_deployment_d
WHERE deployment_date BETWEEN '01-APR-01' AND '05-APR-01'
AND app_code = 'FINAPP02'
ORDER BY deployment_date;
```

(Note that to get a breakdown by month, replace 'deployment_date' with 'deployment_month' and 'mpkgl_app_deployment_d' with 'mpkgl_app_deployment_m' in the query above.)

The resulting data will appear similar to the following:

| Application | Dest_Env | | Date | Total Deployed | Num Obj Types |
|-------------|----------|--------------|-----------|-------------------|---------------------|
| FINAPP02 | FIN Test | 1 | 01-APR-01 | 42 | 4 |
| FINAPP02 | FIN Test | - | 01-APR-01 | 12 | 2 |
| FINAPP02 | FIN Prod | | 01-APR-01 | 2 | 1 |
| FINAPP02 | FIN Test | 1 | 02-APR-01 | 3 | 1 |
| FINAPP02 | FIN Test | 2 | 02-APR-01 | 55 | 3 |
| FINAPP02 | FIN Prod | | 02-APR-01 | 39 | 3 |
| FINAPP02 | FIN Test | 1 | 03-APR-01 | 18 | 4 |
| FINAPP02 | FIN Test | 2 | 03-APR-01 | 22 | 3 |
| FINAPP02 | FIN Prod | | 03-APR-01 | 11 | 2 |
| | | | | | |

. . .

MPKGL_APP_DEPLOYMENT_D View Column Descriptions

| Column Name | Data Type | Description |
|-----------------------------|---------------|--|
| APP_CODE | VARCHAR2(30) | application code |
| ENVIRONMENT | VARCHAR2(80) | Mercury ITG Environment name |
| ENVIRONMENT_ID | NUMBER | internal ID of Environment |
| ENVIRONMENT_DESCRIPTI ON | VARCHAR2(240) | description of Environment |
| DEPLOYMENT_DATE | DATE | day on which deployment occurred |
| TOTAL_DEPLOYMENTS | NUMBER | number of deployments on DEPLOYMENT_DATE |
| UNIQUE_PKGS | NUMBER | number of Packages with deployed lines |
| UNIQUE_PKG_LINES | NUMBER | number of PKG lines deployed |
| UNIQUE_OBJ_TYPES | NUMBER | number of distinct deployed Object Types |

MPKGL_APP_DEPLOYMENT_M View Column Descriptions

| Column Name | Data Type | Description |
|-----------------------------|---------------|---|
| APP_CODE | VARCHAR2(30) | application code |
| ENVIRONMENT | VARCHAR2(80) | Mercury ITG Environment name |
| ENVIRONMENT_ID | NUMBER | internal ID of Environment |
| ENVIRONMENT_DESCRIPTI ON | VARCHAR2(240) | description of Environment |
| DEPLOYMENT_MONTH | DATE | month in which deployment occurred |
| TOTAL_DEPLOYMENTS | NUMBER | number of deployments in DEPLOYMENT_MONTH |
| UNIQUE_PKGS | NUMBER | number of Packages with deployed lines |
| UNIQUE_PKG_LINES | NUMBER | number of PKG lines deployed |
| UNIQUE_OBJ_TYPES | NUMBER | number of distinct deployed Object Types |

MPKGL_ENV_DEPLOYMENT_D

MPKGL_ENV_DEPLOYMENT_M

The Reporting Meta Layer views MPKGL_ENV_DEPLOYMENT_D (MPKGL_ENV_DEPLOYMENT_M) give summary information for Package deployment activity, broken down by Environment and calendar day (month). They can be used to quickly assess regular Package throughput for each Environment managed by the IT department, and can help indicate trends in Package processing over time for a specified Environment.

Besides just the number or Packages which were deployed on a given day (month), these views also contain columns to show the number of Packages and Package lines that were involved in listed deployments, and the number of different Object Types that were used.

Results from a query of one of these views contain records only for days (months) on which deployments occurred for each Environment. For example, the following SQL query can be used as a basis for a report that summarizes all Package deployment activity, per day, for a specified Environment, over a range of dates:

```
SELECT environment Dest_Env,
deployment_date Date,
total_deployments Total_Deployed,
unique_obj_types Num_Obj_Types
FROM mpkgl_env_deployment_d
WHERE deployment_date BETWEEN '01-APR-01' AND '10-APR-01'
AND environment = 'FIN Test 2'
ORDER BY deployment_date;
```

(Note that to get a breakdown by month, replace 'deployment_date' with 'deployment_month' and 'mpkgl_env_deployment_d' with 'mpkgl_env_deployment_m' in the query above.)

The resulting data will appear similar to the following:

| Dest_Env | | Date | Total Deployed | Num Obj Types |
|----------|---|-----------|-------------------|---------------------|
| FIN Test | 2 | 01-APR-01 | 12 | 2 |
| Fin Test | _ | 02-APR-01 | 55 | 3 |
| FIN Test | 2 | 03-APR-01 | 22 | 3 |
| FIN Test | 2 | 04-APR-01 | 3 | 1 |
| FIN Test | 2 | 05-APR-01 | 18 | 4 |
| FIN Test | 2 | 06-APR-01 | 39 | 3 |
| FIN Test | 2 | 07-APR-01 | 18 | 4 |
| FIN Test | 2 | 09-APR-01 | 22 | 3 |
| FIN Test | 2 | 10-APR-01 | 3 | 1 |

$MPKGL_ENV_DEPLOYMENT_D\ View\ Column\ Descriptions$

| Column Name | Data Type | Description |
|-----------------------------|---------------|--|
| ENVIRONMENT | VARCHAR2(80) | Mercury ITG Environment name |
| ENVIRONMENT_ID | NUMBER | internal ID of Environment |
| ENVIRONMENT_DESCRIPTI ON | VARCHAR2(240) | description of Environment |
| DEPLOYMENT_DATE | DATE | day on which deployment occurred |
| TOTAL_DEPLOYMENTS | NUMBER | number of deployments on DEPLOYMENT_DATE |
| UNIQUE_PKGS | NUMBER | number of Packages with deployed lines |
| UNIQUE_PKG_LINES | NUMBER | number of PKG lines deployed |
| UNIQUE_OBJ_TYPES | NUMBER | number of distinct deployed Object Types |

MPKGL_ENV_DEPLOYMENT_M View Column Descriptions

| Column Name | Data Type | Description |
|-----------------------------|---------------|---|
| ENVIRONMENT | VARCHAR2(80) | Mercury ITG Environment name |
| ENVIRONMENT_ID | NUMBER | internal ID of Environment |
| ENVIRONMENT_DESCRIPTI ON | VARCHAR2(240) | description of Environment |
| DEPLOYMENT_MONTH | DATE | month in which deployment occurred |
| TOTAL_DEPLOYMENTS | NUMBER | number of deployments in DEPLOYMENT_MONTH |
| UNIQUE_PKGS | NUMBER | number of Packages with deployed lines |
| UNIQUE_PKG_LINES | NUMBER | number of PKG lines deployed |
| UNIQUE_OBJ_TYPES | NUMBER | number of distinct deployed Object Types |

MPKGL_OBJ_TYPE_DEPLOYMENT_D MPKGL_OBJ_TYPE_DEPLOYMENT_M

The Reporting Meta Layer views MPKGL_OBJ_TYPE_DEPLOYMENT_D (MPKGL_OBJ_TYPE_DEPLOYMENT_M) give summary information for Package deployment activity, broken down by Object Type and calendar day (month). They can be used to quickly assess regular Package throughput for each Object Type used by the IT department, and can help indicate trends in Package processing over time for a specified Object Type.

Besides just the number or Packages which were deployed on a given day (month), these views also contain columns to show the number of Packages and Package lines that were involved in listed deployments, and the number of different Environments they were deployed to.

Results from a query of one of these views contain records only for days (months) on which deployments occurred for each Object Type. For example, the following SQL query can be used as a basis for a report that summarizes all Package deployment activity, per month, for a specified Object Type, over a range of dates:

(Note that to get a breakdown by day, replace 'deployment_month' with 'deployment_day' and 'mpkgl_obj_type_deployment_m' with 'mpkgl_obj_type_deployment_d' in the query above.)

The resulting data will appear similar to the following:

| | | Total | Num |
|----------------|-----------|----------|------|
| Object_Type | Date | Deployed | Envs |
| | | | |
| File Migration | 01-MAR-01 | 122 | 12 |
| File Migration | 01-APR-01 | 104 | 12 |
| File Migration | 01-MAY-01 | 87 | 15 |
| File Migration | 01-JUN-01 | 156 | 16 |
| File Migration | 01-JUL-01 | 263 | 22 |
| File Migration | 01-AUG-01 | 290 | 23 |

MPKGL_OBJ_TYPE_DEPLOYMENT_D View Column Descriptions

| Column Name | Data Type | Description |
|-----------------------------|---------------|--|
| OBJECT_TYPE | VARCHAR2(80) | Object Type name |
| OBJECT_TYPE_ID | NUMBER | internal ID of Object Type |
| OBJECT_TYPE_DESCRIPTI ON | VARCHAR2(240) | description of Object Type |
| OBJECT_TYPE_CATEGORY | VARCHAR2(200) | category of Object Type |
| DEPLOYMENT_DATE | DATE | day on which deployment occurred |
| TOTAL_DEPLOYMENTS | NUMBER | number of deployments on DEPLOYMENT_DATE |
| UNIQUE_PKGS | NUMBER | number of Packages with deployed lines |
| UNIQUE_PKG_LINES | NUMBER | number of PKG lines deployed |
| UNIQUE_ENVIRONMENTS | NUMBER | number distinct Environments deployed to |

MPKGL_OBJ_TYPE_DEPLOYMENT_M View Column Descriptions

| Column Name | Data Type | Description |
|-----------------------------|---------------|---|
| OBJECT_TYPE | VARCHAR2(80) | Object Type name |
| OBJECT_TYPE_ID | NUMBER | internal ID of Object Type |
| OBJECT_TYPE_DESCRIPTI ON | VARCHAR2(240) | description of Object Type |
| OBJECT_TYPE_CATEGORY | VARCHAR2(200) | category of Object Type |
| DEPLOYMENT_MONTH | DATE | month in which deployment occurred |
| TOTAL_DEPLOYMENTS | NUMBER | number of deployments in DEPLOYMENT_MONTH |
| UNIQUE_PKGS | NUMBER | number of Packages with deployed lines |
| UNIQUE_PKG_LINES | NUMBER | number of PKG lines deployed |
| UNIQUE_ENVIRONMENTS | NUMBER | number distinct Environments deployed to |

MPKG PENDING PACKAGES

This view is used to create a report that shows the volume of open Packages for any given Workflow in Change Management. It can be used to get a quick snapshot of ongoing Package processing work. It shows a summary of Packages currently open for a specific Change Management Workflow (total number, average age, etc.), as well as information showing how many Packages have been opened and closed in the current week and current month. MPKG_PENDING_PACKAGES is similar to the view RML_RESOURCE_LOAD, but aggregated across all Packages.

In addition to overall totals of open Packages, this view breaks down the information by priority (using the 'Priority' header field). This is done because priority is usually the most important breakdown of load information. Data is grouped into three priority groupings – P1, P2, and P3 – mapping to the three highest priority levels defined.

As a simple example, suppose a project manager has deployments running through three separate Workflows in a current project. The manager needs a report that will show current work volume in each of these Workflows, to help prioritize work and identify bottlenecks. If the three Workflows are named 'MFG prod deployment', 'FIN prod deployment', and 'prod backup', the following SQL query can be used as a basis for a report to display the desired information:

```
SELECT workflow open_packages Open_Pkgs,
avg_age_open_packages Avg Age,
pl_open_packages P1 Open Pkgs,
p2_open_packages P2 Open Pkgs
FROM mpkg_pending_packages
WHERE workflow IN
('MFG prod deployment',
'FIN prod deployment',
'prod backup');
```

Results might look as follows:

| | | | P1 | P2 |
|---------------------|------|-----|------|------|
| | Open | Avg | Open | Open |
| WORKFLOW | Pkgs | Age | Pkgs | Pkgs |
| | | | | |
| MFG prod deployment | 11 | 9 | 3 | 8 |
| FIN prod deployment | 39 | 16 | 14 | 25 |
| prod backup | 6 | 54 | 5 | 1 |

Note: This view ignores Packages that have not been submitted.

 ${\tt MPKG_PENDING_PACKAGES}\ \ {\tt View}\ \ {\tt Column}\ \ {\tt Descriptions}$

| Column Name | Data Type | Description |
|------------------------------|---------------|---|
| WORKFLOW | VARCHAR2(80) | name of Workflow |
| WORKFLOW_DESCRIPTION | VARCHAR2(240) | Workflow description |
| OPEN_PACKAGES | NUMBER | number of open Packages for this Workflow |
| AVG_AGE_OPEN_PACKAGE S | NUMBER | average age of open Packages |
| MAX_AGE_OPEN_PACKAG ES | NUMBER | age of oldest open Package |
| P1_OPEN_PACKAGES | NUMBER | number of open P1 Packages |
| P2_OPEN_PACKAGES | NUMBER | number of open P2 Packages |
| P3_OPEN_PACKAGES | NUMBER | number of open P3 Packages |
| P1_AVG_AGE_OPEN_PACK AGES | NUMBER | average age of open P1 Packages |
| P2_AVG_AGE_OPEN_PACK AGES | NUMBER | average age of open P2 Packages |
| P3_AVG_AGE_OPEN_PACK AGES | NUMBER | average age of open P3 Packages |
| P1_MAX_AGE_OPEN_PACK AGES | NUMBER | age of oldest open P1 Package |
| P2_MAX_AGE_OPEN_PACK AGES | NUMBER | age of oldest open P2 Package |
| P3_MAX_AGE_OPEN_PACK AGES | NUMBER | age of oldest open P3 Package |
| PKGS_OPENED_THIS_MON TH | NUMBER | number of Packages opened this month |
| PKGS_OPENED_THIS_WEE K | NUMBER | number of Packages opened this week |
| PKGS_CLOSED_THIS_MON TH | NUMBER | number of Packages closed this month |
| PKGS_CLOSED_THIS_WEE | NUMBER | number of Packages closed this week |
| WORKFLOW_ID | NUMBER | internal ID of Workflow |

MPKGL_PENDING_DEPLOYMNT_BY_ENV
MPKGL_PENDING_DEPLOYMNT_BY_APP
MPKGL_PENDING_DEPLOYMENT_BY_OT

This set of Reporting Meta Layer views summarizes the number of open Packages and Package lines that are currently pending deployment into Environments. The deployment information is broken down into a different category for each view. Specifically:

- To see the distribution of the number of objects pending deployment across Environments, use the view MPKGL_PENDING_DEPLOYMNT_BY_ENV.
- o To see the same information distributed across applications, use MPKGL_PENDING_DEPLOYMNT_BY_APP.
- o And to see the same deployment information distributed across Object Types, use MPKGL_PENDING_DEPLOYMENT_BY_OT.

As a simple example, to obtain a quick look at the volume of deployments queued up at each Environment defined in the system (for those with one or more pending deployments), consider a SQL query such as:

```
SELECT environment,
total_count,
unique_pkgs,
unique_pkg_lines,
unique_obj_types
FROM mpkgl_pending_deploymnt_by_env;
```

The internal ID columns for Environments and Object Types (ENVIRONMENT_ID and OBJECT_TYPE_ID, respectively) can be used to link this view with other relevant views (such as RML_ENVIRONMENTS or MPKGL_PACKAGE_LINES) to provide additional information in a report built off of these views.

Note: This view will not capture processes in which the Package line is waiting at an approval step which will fire an immediate execution step.

MPKGL_PENDING_DEPLOYMNT_BY_ENV View Column Descriptions

| Column Name | Data Type | Description |
|-----------------------------|---------------|--|
| ENVIRONMENT | VARCHAR2(80) | Environment name |
| ENVIRONMENT_ID | NUMBER | Environment name |
| ENVIRONMENT_DESCRIPTI ON | VARCHAR2(240) | internal ID of Environment |
| TOTAL_COUNT | NUMBER | total number of pending objects |
| UNIQUE_PKGS | NUMBER | number of Packages with pending objects |
| UNIQUE_PKG_LINES | NUMBER | number of PKG lines with pending objects |
| UNIQUE_OBJ_TYPES | NUMBER | number of distinct pending Object Types |

MPKGL_PENDING_DEPLOYMNT_BY_APP View Column Descriptions

| Column Name | Data Type | Description |
|-----------------------------|---------------|--|
| APP_CODE | VARCHAR2(30) | application code |
| ENVIRONMENT | VARCHAR2(80) | Environment name |
| ENVIRONMENT_ID | NUMBER | internal ID of Environment |
| ENVIRONMENT_DESCRIPTI ON | VARCHAR2(240) | description of Environment |
| TOTAL_COUNT | NUMBER | total number of pending objects |
| UNIQUE_PKGS | NUMBER | number of Packages with pending objects |
| UNIQUE_PKG_LINES | NUMBER | number of PKG lines with pending objects |
| UNIQUE_OBJ_TYPES | NUMBER | number of distinct pending Object Types |

MPKGL_PENDING_DEPLOYMENT_BY_OT View Column Descriptions

| Column Name | Data Type | Description |
|-----------------------------|---------------|---------------------------------|
| OBJECT_TYPE | VARCHAR2(80) | Object Type name |
| OBJECT_TYPE_ID | NUMBER | internal ID of Object Type |
| OBJECT_TYPE_DESCRIPTI ON | VARCHAR2(240) | description of Object Type |
| OBJECT_TYPE_CATEGORY | VARCHAR2(80) | category of Object Type |
| TOTAL_COUNT | NUMBER | total number of pending objects |

| UNIQUE_PKGS | NUMBER | number of Packages with pending objects |
|---------------------|--------|--|
| UNIQUE_PKG_LINES | NUMBER | number of PKG lines with pending objects |
| UNIQUE_ENVIRONMENTS | NUMBER | number of distinct pending Environments |

MPKGL PACKAGE LINE ACTIONS

This Meta Layer view can be used to gather transaction details for any given Package line in Change Management. The view

MPKGL_PACKAGE_LINE_ACTIONS contains columns to display the current status of a step, how long that step has been in the current status, whether the step is complete or resulted in an error, details about the step (source and destination Environment), and other relevant details.

To relate information from this view with detail information from related Packages or Package lines, the report designer can use the Package and Package line identifiers (PACKAGE_ID and PACKAGE_LINE_ID columns, respectively) to join with other standard views such as MPKG_PACKAGES and MPKGL_PACKAGE_LINES. As an example of using this view, suppose a report is needed that shows the number of Package lines that have had certain actions taken for each calendar week in the last month, broken down by Object Type, for a customer's "Dev - Test - Prod" Workflow. Consider a SQL statement such as the following:

```
trunc(eligible date,'WW')
SELECT
                                                          Week,
        line object type
Object_Type,
        sum(decode(action_name,'Open',1,0))
                                                          Opened,
        sum(decode(action_name, 'Migrate to Test',1,0))
        sum(decode(action_name, 'Migrate to Prod', 1, 0))
Into Prod,
        sum(decode(action_name, 'Close', 1, 0))
                                                          Closed
FROM
        mpkgl_package_line_actions
WHERE
        package workflow = 'Dev - Test - Prod'
AND
        eligible_date > sysdate - 30
GROUP BY trunc(eligible_date,'WW'),
         line_object_type;
```

Some important notes to consider when making use of this view:

• The column STATUS is the status name that is displayed for lines in the status tab of Packages in the Change Management application. The internal code STATUS_TYPE is provided to group these status names into logical groupings. For example, there may be many different statuses that all represent a 'COMPLETE' status type (e.g. the result value of any Workflow step, such as 'Approved', 'Succeeded', 'Rejected', 'Failed QA Test'...). While STATUS may have many different possible values, STATUS_TYPE has 9 possible values:

| SUBMITTED | ELIGIBLE | PENDING |
|----------------|----------------|-----------|
| IN_PROGRESS | ERROR | COMPLETE |
| CLOSED_SUCCESS | CLOSED_FAILURE | CANCELLED |

• The internal code STEP_TRANSACTION_ID is provided in this view for use with the Meta Layer view MWFL_TRANSITIONS, which can be used to get detailed information about previous or subsequent process steps.

MPKGL_PACKAGE_LINE_ACTIONS View Column Descriptions

| Column Name | Data Type | Description |
|------------------------------|--------------------|---|
| PACKAGE_NUMBER | VARCHAR2(40) | the Package number |
| PACKAGE_DESCRIPTION | VARCHAR2(240) | description of the Package |
| LINE_NUMBER | NUMBER | number of this line in the Package |
| LINE_OBJECT_TYPE | VARCHAR2(80) | Object Type of this line |
| LINE_OBJECT_NAME | VARCHAR2(300) | value of line's 'Object Name' field |
| LINE_OBJECT_REVISION | VARCHAR2(300) | value of line's 'Object Revision' field |
| LINE_APPLICATION_CODE | VARCHAR2(30) | app code of this line |
| PACKAGE_WORKFLOW | VARCHAR2(80) | top-level Workflow used by this Package |
| LINE_WORKFLOW_STEP_LA BEL | VARCHAR2(200 0) | visible label of this step on this line in Package status tab |
| ACTION_NAME | VARCHAR2(80) | name of Workflow step action |
| WORKFLOW | VARCHAR2(80) | name of Workflow that contains this step |
| WORKFLOW_STEP_NUMBER | NUMBER | Workflow sequence number of this step |
| STATUS | VARCHAR2(200) | visible status of this Package line |
| STATUS_TYPE | VARCHAR2(30) | internal code for STATUS |
| ELIGIBLE_DATE | DATE | date this step became eligible |
| ACTION_DATE | DATE | date action was taken on this step |
| ACTION_RESULT | VARCHAR2(200) | result of the action |
| ERROR_MESSAGE | VARCHAR2(240) | (if STATUS_TYPE = 'ERROR') error message |
| DURATION | NUMBER | number of days at this status, or until completed (if STATUS_TYPE = 'COMPLETE') |
| SOURCE_ENVIRONMENT | VARCHAR2(80) | source Environment (if applicable) |
| SOURCE_ENVIRONMENT_GR OUP | VARCHAR2(100) | source Environment Group (if applicable) |
| DEST_ENVIRONMENT | VARCHAR2(80) | destination Environment (if applicable) |
| DEST_ENVIRONMENT_GROUP | VARCHAR2(100) | destination Environment Group (if applicable) |
| USER_COMMENT | VARCHAR2(240) | user comment entered when taking action on this step |
| CHILD_REQUEST_ID | NUMBER | ID of child Request |
| CHILD_PACKAGE_ID | NUMBER | internal ID of child Package |
| STEP_TRANSACTION_ID | NUMBER | internal ID of this transaction |
| PACKAGE_ID | NUMBER | internal ID of the Package |

| PACKAGE_LINE_ID | NUMBER | internal ID of this line in the Package |
|---------------------------------|---------------|---|
| PACKAGE_WORKFLOW_ID | NUMBER | internal ID for top-level Workflow used by this Package |
| WORKFLOW_ID | NUMBER | internal ID for the Workflow that contains this Workflow step |
| WORKFLOW_STEP_ID | NUMBER | internal ID of this Workflow step |
| ACTION_RESULT_CODE | VARCHAR2(200) | internal code for ACTION_RESULT |
| SOURCE_ENVIRONMENT_ID | NUMBER | internal ID of source Env |
| SOURCE_ENVIRONMENT_GR OUP_ID | NUMBER | internal ID of source Env Group |
| DEST_ENVIRONMENT_ID | NUMBER | internal ID of dest Env |
| DEST_ENVIRONMENT_GROU P_ID | NUMBER | internal ID of dest Env Group |

MPKG PACKAGES

This is the most general view into Package transaction data. A blind query ("SELECT * FROM mpkg_packages;") will return one row for each Package present in the system, including closed Packages – a potentially large list! The view columns map to Package header fields such as Priority, Package Group, and Assigned-to User. There are also columns for the Package status and the dates on which it was submitted, closed, and/or cancelled. Since global Package User Data fields are present on all Packages, there is also a view column for each global Package User Data field that is defined. The column name for each global Package User Data field is the same as the token name for that field. (Context-sensitive Package User Data sets have their own views. See MPKG_UD_[Context Value].)

Use this view when writing a report to present general Package header information. For information about individual Package Lines, use the other views that provide Line detail. The view MPKGL_PACKAGE_LINES can be used to query general Package Line data, including Package Line User Data fields. If it is necessary to report on the activity of specific Object Types, the set of Object Type-specific views is more appropriate – see MPKGL_[Object Type Name].

For example, to get a picture of the number of open Packages in the system and whom they are assigned to, consider a query such as:

which would produce results like:

| ASSIGNED_USER | NUM_OPEN |
|---------------|----------|
| | |
| • • • | |
| rfrazier | 13 |
| rjeffries | 1 |
| rjones | 28 |
| rnelson | 9 |
| rsmith | 3 |
| | |

For another example, consider the case where a global Package User Data field has been defined to capture the username of a backup user responsible for each Package. The token name for this field is BACKUP_USERNAME. Thus, in this view there would be a column named BACKUP_USERNAME (in *italic boldface* below):

Now this new column can be used to drive a report if necessary. For instance, to report on Packages that have been open for more than 5 days and assigned to a particular backup user, consider a query such as:

(This query also displays the original user to which the Package was assigned.)

MPKG_PACKAGES View Column Descriptions

| Column Name | Data Type | Description |
|---------------------------------|---------------|--|
| PACKAGE_NUMBER | VARCHAR2(40) | Package number |
| PACKAGE_DESCRIPTION | VARCHAR2(240) | description of this Package |
| WORKFLOW | VARCHAR2(80) | Workflow used by this Package |
| NUMBER_OF_LINES | NUMBER | number of Package Lines in this Package |
| ASSIGNED_TO_USERNAME | VARCHAR2(80) | username of Mercury ITG user to which this Package is assigned |
| ASSIGNED_TO_GROUP | VARCHAR2(80) | name of Security Group to which this Package is assigned |
| SUBMISSION_DATE | DATE | date this Package was submitted |
| PRIORITY | VARCHAR2(80) | Package priority |
| PRIORITY_SEQ | NUMBER | Package priority sequence number |
| PACKAGE_STATUS | VARCHAR2(80) | current Package status |
| PACKAGE_GROUP | VARCHAR2(80) | Package group this Package belongs to |
| PACKAGE_TYPE | VARCHAR2(80) | type of Package |
| Package Global User Data fields | VARCHAR2(200) | one column for each Package Global User Data field - column name is the User Data field token name |
| PARENT_REQUEST_ID | NUMBER | ID of Request in Demand Management that spawned this Package (if applicable) |
| CREATED_BY_USERNAME | VARCHAR2(30) | username of Mercury ITG user that created this Package |
| CREATION_DATE | DATE | creation date of this Package |
| LAST_UPDATE_DATE | DATE | last update date of this Package |
| PARENT_STEP_TRANSACTIO N_ID | NUMBER | internal identifier for Workflow step transaction record corresponding to the Workflow step of the Request that spawned this Package (if applicable) |
| WORKFLOW_ID | NUMBER | internal identifier for Package Workflow |
| PACKAGE_ID | NUMBER | internal identifier for the Package |

MPKGL_PACKAGE_LINES

This is a general view into Package Line transaction data. A blind query ("SELECT * FROM mpkgl_package_lines;") will return one row for each Package Line present in the system, including closed Lines — a potentially large list! The view columns map to common Package Line fields such as Sequence, Object Type Name, Object Revision, and App Code. There are also columns for the dates on which it was submitted, closed, and/or cancelled, and for each Package Line User Data field that is defined. The column name for each Package Line User Data field is the same as the token name for that field.

Note that this view does not contain an indication of Workflow status. Since Workflows may be branched and multiple steps might be active at one time, the Workflow status is not necessarily a single piece of information that can be represented in a view column. Instead, the report designer must also reference the MPKGL_PACKAGE_LINE_ACTIONS view for Workflow step statuses. The Package Line ID is provided as a key column on which to join MPKGL_PACKAGE_LINE_ACTIONS with MPKGL_PACKAGE_LINES. For example, to list all Workflow steps that a particular Mercury ITG user is eligible to act on, consider a SQL statement such as the following:

```
SELECT p.package number PKG NUM,
       pl.line_number LINE_NUM,
       pl.object_name OBJECT,
       pla.workflow step number STEP NUM
FROM
       mpkg_packages p,
       mpkgl_package_lines pl,
       mwfl_step_security_users ssu,
       mpkgl_package_line_actions pla
       pla.status_type = 'ELIGIBLE'
ssu.workflow_step_id = pla.workflow_step_id
WHERE
AND
       ssu.username = 'FJOHNSON'
AND
AND
       pla.package_line_id = pl.package_line_id
AND
       pla.package_id = p.package_id
ORDER BY 1,2,4;
```

The view column PACKAGE_LINE_ID was used to join MPKGL_PACKAGE_LINES with MPKGL_PACKAGE_LINE_ACTIONS. The column PACKAGE_ID was used to join MPKGL_PACKAGE_LINES with MPKG_PACKAGES. Note also the use of the Meta Layer view MWFL_STEP_SECURITY_USERS, which is used to determine if a specified user is authorized for a specified Workflow step. Please see the appropriate sections for the views MPKGL_PACKAGE_LINE_ACTIONS and MWFL_STEP_SECURITY_USERS for more details about those views.

MPKGL_PACKAGE_LINES View Column Descriptions

| Column Name | Data Type | Description |
|--------------------------------------|---------------|---|
| PACKAGE_NUMBER | VARCHAR2(40) | Package number |
| LINE_NUMBER | NUMBER | sequence number of this Package Line |
| SUBMISSION_DATE | DATE | date Package Line was submitted |
| OBJECT_TYPE | VARCHAR2(80) | name of Object Type of this Package Line |
| OBJECT_NAME | VARCHAR2(300) | name of this Package Line |
| OBJECT_REVISION | VARCHAR2(300) | object revision of this Package Line |
| APPLICATION_CODE | VARCHAR2(30) | application context of this Package Line |
| LINE_STATUS | VARCHAR2(80) | current status of this Package Line |
| CLOSE_DATE | DATE | if this Package Line is closed, this is the date on which it was closed |
| CANCELLED_FLAG | VARCHAR2(1) | was this Package Line cancelled? (Y/N) |
| CANCEL_DATE | DATE | if this Package Line was cancelled, this is the date on which it was cancelled |
| Package Line Global User Data fields | VARCHAR2(200) | one column for each Package Line Global User Data field - column name is the User Data field token name |
| CREATION_DATE | DATE | creation date of this Package Line |
| CREATED_BY_USERNAME | VARCHAR2(30) | username of Mercury ITG user that created this Package Line |
| LAST_UPDATE_DATE | DATE | last update date of this Package Line |
| LAST_UPDATED_BY_USERN AME | VARCHAR2(30) | username of Mercury ITG user that last updated this Package Line |
| WORKFLOW_ID | NUMBER | internal identifier for Package Workflow |
| PACKAGE_ID | NUMBER | internal identifier for the Package |
| OBJECT_TYPE_ID | NUMBER | internal identifier for the Object Type |
| PACKAGE_LINE_ID | NUMBER | internal identifier for the Package Line |

MPKGL_[Object Type Name]

This section describes a set of views containing Object Type-specific Package Line information. When the Reporting Meta Layer is synchronized, a view is created for every Object Type defined in the system. The name of each view is defined on the Object Type screen in the field 'Meta Layer View:'. It defaults to a prefix 'MPKGL_' and a suffix that defaults to the first 20 alphanumeric characters of the corresponding Object Type name. For example, if there are three Object Types defined in Change Management named 'Java File Migration', 'SQL Script Migration', and 'Forms 4.5 Migration', then three corresponding Meta Layer views would exist:

MPKGL_JAVA_FILE_MIGRATION, MPKGL_SQL_SCRIPT_MIGRATION, and MPGKL_FORMS_45_MIGRATION, respectively.

The view columns are identical to those of the general MPKGL_PACKAGE_LINES view (including the Package Line User Data fields), and they also include additional columns for each custom field for the Object Type. This allows a report designer to create a report that implements business logic which drives off of customer-defined Object Type fields. For example, consider the 'Java File Migration' Object Type mentioned above. This Object Type might have custom fields with tokens such as FILE_NAME, FILE_LOCATION, and SUB_PATH. The corresponding view MPKGL_JAVA_FILE_MIGRATION would contain columns with these names (in *italic boldface* below):

```
SQL> desc mpkgl_java_file_migration;
                               Null?
Name
                                          Type
 PACKAGE_NUMBER
                                NOT NULL VARCHAR2 (40)
 LINE NUMBER
                                 NOT NULL NUMBER
 CANCEL DATE
                                          DATE
 FILE NAME
                                          VARCHAR2 (200)
 SUB PATH
                                          VARCHAR2 (200)
 FILE LOCATION
                                          VARCHAR2 (200)
                                NOT NULL DATE
 CREATION DATE
 CREATED_BY_USERNAME
                                 NOT NULL VARCHAR2 (30)
```

Carrying on this example, suppose a report is needed that will list the Mercury ITG user who is assigned to open Packages containing one (or more) Package Lines that are 'Java File Migration' objects, and that are eligible for migration. A SQL query such as the following might handle this:

```
SELECT p.workflow,
      p.assigned_to_username ASSIGNED_USER,
      COUNT(UNIQUE(p.package_id)) NUM_ELIGIBLE
FROM mpkg_packages p,
      mpkgl_package_line_actions pla,
      mpkgl_java_file_migration j
WHERE j.close_date IS NULL
AND
      j.cancelled_flag = 'N'
       j.submission_date IS NOT NULL
AND
AND
       j.package_line_id = pla.package_line_id
AND pla.status_type = 'ELIGIBLE'
AND
      j.package_id = p.package_id
GROUP BY p.workflow, p.assigned_to_username
ORDER BY 1, 2;
```

MPKGL_[Object Type Name] View Column Descriptions

| Column Name | Data Type | Description |
|--------------------------------------|---------------|---|
| PACKAGE_NUMBER | VARCHAR2(40) | Package number |
| LINE_NUMBER | NUMBER | sequence number of this Package Line |
| SUBMISSION_DATE | DATE | date Package Line was submitted |
| OBJECT_TYPE | VARCHAR2(80) | name of Object Type of this Package Line |
| OBJECT_NAME | VARCHAR2(300) | name of this Package Line |
| OBJECT_REVISION | VARCHAR2(300) | object revision of this Package Line |
| APPLICATION_CODE | VARCHAR2(30) | application context of this Package Line |
| LINE_STATUS | VARCHAR2(80) | current status of this Package Line |
| CLOSE_DATE | DATE | if this Package Line is closed, this is the date on which it was closed |
| CANCELLED_FLAG | VARCHAR2(1) | was this Package Line cancelled? (Y/N) |
| CANCEL_DATE | DATE | if this Package Line was cancelled, this is the date on which it was cancelled |
| Package Line Global User Data fields | VARCHAR2(200) | one column for each Package Line Global User Data field - column name is the User Data field token name |
| Package Line Fields | VARCHAR2(200) | one column for each Package Line field - column name is the field's token name |
| CREATION_DATE | DATE | creation date of this Package Line |

| CREATED_BY_USERNAME | VARCHAR2(30) | username of Mercury ITG user that created this Package Line |
|------------------------------|--------------|--|
| LAST_UPDATE_DATE | DATE | last update date of this Package Line |
| LAST_UPDATED_BY_USERN AME | VARCHAR2(30) | username of Mercury ITG user that last updated this Package Line |
| WORKFLOW_ID | NUMBER | internal identifier for Package Workflow |
| PACKAGE_ID | NUMBER | internal identifier for the Package |
| OBJECT_TYPE_ID | NUMBER | internal identifier for the Object Type |
| PACKAGE_LINE_ID | NUMBER | internal identifier for the Package Line |

MPKG_NOTES

This view provides access to the notes for all Packages in Change Management. Notes are stored in an Oracle LONG database column; to prevent an overload of information this was presented in a separate Meta Layer view, making it less likely to design a report that inadvertently returns too much data. To query Package notes, join this view with the MPKG_ALL_PACKAGES view. For example, to retrieve a list of the notes for all open Packages being processed through the 'FIN dev -> prod' Workflow, and that have 'Critical' priority, use the following logic in a SQL statement:

MPKG_NOTES View Column Descriptions

| Column Name | Data Type | Description |
|----------------|--------------|---------------------------------|
| PACKAGE_ID | NUMBER | Package internal identifier |
| PACKAGE_NUMBER | VARCHAR2(40) | Package number |
| NOTES | LONG | aggregate notes for the Package |

MPKG_REFERENCES

References are used throughout Mercury ITG Center to relate transaction entities together. The view MPKG_REFERENCES can be used to view the references of Packages in Change Management. There are several types of references for Packages. If a Package is part of a Release, then there will be a reference for that Release. If a Package was spawned by a Request, then there will be a reference for that Request. Packages can be related to other Packages through the use of references. References are also used to attach documents to a Package.

The RELATIONSHIP column in MPKG_REFERENCES describes the relationship of the referenced item to the Package that references it. This view also has columns for each of the entities that can be referenced to a Package - other Packages, Projects, Tasks, Requests, Releases, attachments, and URLs. For each record in MPKG_REFERENCES, only one of these columns will have a value and the others will be NULL. As a simple example, the following SQL can be used to retrieve a list of all references to a particular Package:

```
SELECT referenced_package_id PKG,
    referenced_project_id PROJ,
    referenced_request_id REQ,
    referenced_release_id REL,
    referenced_task_id TASK,
    attachment_name ATTACHMENT,
    document_url URL,
    relationship RELATIONSHIP
FROM mpkg_references
WHERE package_number = '30121';
```

Results of this query would look like:

| PKG | PROJ | REQ | REL | TASK | ATTACHMENT | URL | RELATIONSHIP |
|-------|------|-----|-------|------|------------|-----|-------------------------|
| | | | 20010 | | | | Contain this Deal or |
| | | | 30012 | | | | Contains this Package |
| 30332 | | | | | | | Run after this Package |
| 30043 | | | | | | | Run before this Package |
| 30044 | | | | | | | Run before this Package |
| 30046 | | | | | | | Run before this Package |
| | | | | | design32 3 | doc | |

MPKG_REFERENCES View Column Descriptions

| Column Name | Data Type | Description |
|---------------------------|--------------|---|
| PACKAGE_NUMBER | VARCHAR2(40) | Package number to show references for |
| RELATIONSHIP | VARCHAR2(30) | relationship of reference to this Package |
| REFERENCED_PACKAGE_I D | NUMBER | ID of referenced Package |

| REFERENCED_PROJECT_I D | NUMBER | ID of referenced Project |
|---------------------------|---------------|--|
| REFERENCED_REQUEST_I D | NUMBER | ID of referenced Request |
| REFERENCED_RELEASE_I D | NUMBER | ID of referenced Release |
| REFERENCED_TASK_ID | NUMBER | ID of referenced Task |
| OVERRIDE_FLAG | VARCHAR2(1) | code to manually override the dependency behavior of the reference |
| ATTACHMENT_NAME | VARCHAR2(200) | name of attached document |
| DOCUMENT_URL | VARCHAR2(200) | URL of referenced document on the web |
| PACKAGE_ID | NUMBER | internal ID of this Package |

MPKG_UD_[Context Value]

This section describes a set of views containing context-sensitive Package User Data information. When the Reporting Meta Layer is synchronized, a view is created for every set of context-sensitive Package User Data fields defined in the system. The name of each view is defined on the User Data screen in the field 'Meta Layer View:'. It defaults to a prefix 'MPKG_UD_' and a suffix that defaults to the first 20 alphanumeric characters of the corresponding context value. For example, if there are two sets of context-sensitive Package User Data defined in Mercury ITG Center, with a context field 'Workflow' and context values 'FIN dev -> prod' and 'MFG dev -> prod', then two corresponding Meta Layer views would exist: MPKG_UD_FIN_DEV_PROD and MPKG_UD_MFG_DEV_PROD, respectively.

Note that if no context-sensitive Package User Data has been defined in the User Data screen, then no views of this type will exist in the Meta Layer. Global Package User Data fields are incorporated directly into the Package view MPKG_PACKAGES and thus do not require a separate unique view. Also, if context-sensitive Package User Data has been defined, only new Packages with this User Data and existing packages that have been edited will appear in the views.

Continuing with the example started above, suppose there are two Package User Data fields defined for the 'FIN dev -> prod' Workflow context, with tokens named VERSION_CTL_PROJECT and VERSION_CTL_ENV. In the corresponding view MPKG_UD_FIN_DEV_PROD two columns named the same as the token names would be present (in *italic boldface* below):

```
SQL> desc mpkg_ud_fin_dev_prod;
Name
                                   Null?
                                            Type
                                   NOT NULL VARCHAR2(30)
PACKAGE_NUMBER
PACKAGE TYPE
                                   NOT NULL VARCHAR2 (80)
CONTEXT FIELD
                                            VARCHAR2 (80)
CONTEXT_VALUE
                                            VARCHAR2 (200)
CONTEXT_CODE
                                            VARCHAR2 (200)
VERSION_CTL_PROJECT
                                            VARCHAR2 (200)
VERSION_CTL_ENV
                                            VARCHAR2 (200)
CREATION DATE
                                  NOT NULL DATE
CREATED BY USERNAME
                                   NOT NULL VARCHAR2 (30)
LAST_UPDATE_DATE
                                   NOT NULL DATE
PACKAGE_ID
                                   NOT NULL NUMBER
```

Now suppose that a report is needed that shows the number of open Packages that are being processed through the 'FIN dev -> prod' Workflow, broken down by VERSION_CTL_PROJECT and priority:

```
mpkg_packages p
WHERE p.close_date IS NULL
AND p.cancel_date IS NULL
AND p.submission_date IS NOT NULL
AND p.package_id = f.package_id
GROUP BY f.version_ctl_project, p.priority
ORDER BY 1, 2;
```

The output of such a SQL query might look as follows:

| PROJECT | PRIORITY | NUM_OPEN_PKGS |
|-----------|-----------------------------------|------------------|
| Rel 3.0 | High Normal Low | 2 12 32 |
| Rel 2.1.2 | Critical High Normal Low | 1 1 8 3 |
| Rel 2.1 | Low | 23 |

MPKG_UD_[Context Value] View Column Descriptions

| Column Name | Data Type | Description |
|--|---------------|--|
| PACKAGE_NUMBER | VARCHAR2(40) | Package number |
| PACKAGE_TYPE | VARCHAR2(80) | type of Package |
| CONTEXT_FIELD | VARCHAR2(30) | field whose value drives this context-sensitive User Data |
| CONTEXT_VALUE | VARCHAR2(200) | displayed value of the CONTEXT_FIELD on which this context-sensitive User Data is based |
| CONTEXT_CODE | VARCHAR2(200) | hidden code of the CONTEXT_FIELD on which this context-sensitive User Data is based |
| Package User Data fields for [Context Value] | VARCHAR2(200) | one column for each context-sensitive User Data field for the driving context of this view - column name is the User Data field token name |
| CREATION_DATE | DATE | creation date of this Package |
| CREATED_BY_USERNAME | VARCHAR2(30) | username of Mercury ITG user that created this Package record |
| LAST_UPDATE_DATE | DATE | last update date of this Package |
| PACKAGE_ID | NUMBER | internal identifier for this Package |

MREL RELEASES

This Meta Layer view can be used to gather information about Releases in Change Management. MREL_RELEASES contains columns to display the current status of a Release, the number of Distributions that have been deployed for a Release, the manager, team, and group of a Release, and other detail information.

To relate information from this view with information from related Distributions, the report designer can use the Release identifier RELEASE_ID to join with other views such as MREL_DISTRIBUTIONS or MREL_REFERENCES. For example, suppose a report is needed that shows details about Releases that are part of the Release team 'FIN Apps Prod Release'. To show all Packages that are included in relevant Releases, and their statuses, consider a SQL statement such as the following:

```
SELECT r.release name
                         RELEASE,
       r.release status
                        REL STATUS,
       p.package_number PKG_NUMBER,
      p.package_status PKG_STATUS
FROM
      mpkg_packages p,
      mrel_references ref,
      mrel_releases r
WHERE r.release_team = 'FIN Apps Prod Release'
      r.release_id = ref.release_id
AND
      p.package_id = ref.referenced_package_id
AND
ORDER BY r.release_name, p.package_number;
```

Results of a query such as this might look as follows:

| RELEASE | REL_STATUS | PKG_NUMBER | PKG_STATUS |
|---------------|-------------|------------|-------------|
| | | | |
| | | | |
| Apply to Test | Code Freeze | 43002 | Ready for |
| Release | | | |
| Apply to Test | Code Freeze | 43004 | Ready for |
| Release | | | |
| Apply to Test | Code Freeze | 43005 | In Progress |
| Apply to Test | Code Freeze | 43007 | Ready for |
| Release | | | |
| | | | |

The column RELEASE_STATUS in MREL_RELEASES is the status displayed in the Releases screen in the Change Management application. The RELEASE_STATUS column has 4 possible values:

| New | Open |
|-------------|--------|
| Code Freeze | Closed |

MREL_RELEASES View Column Descriptions

| Column Name | Data Type | Description |
|------------------------------|---------------|--|
| RELEASE_NAME | VARCHAR2(200) | Name of Release |
| RELEASE_DESCRIPTION | VARCHAR2(200) | Release description |
| RELEASE_STATUS | VARCHAR2(200) | current status of Release |
| RELEASE_MANAGER_USERNA ME | VARCHAR2(200) | username of Mercury ITG user designated as Release manager |
| RELEASE_TEAM | VARCHAR2(200) | name of Security Group designated as Release team |
| RELEASE_GROUP | VARCHAR2(200) | Release group, if this Release is categorized as part of a group |
| NUMBER_OF_DISTRIBUTIONS | NUMBER | number of Distributions created to date |
| CREATION_DATE | DATE | date this Release was created |
| CREATED_BY_USERNAME | VARCHAR2(30) | username of Mercury ITG user that created this Release |
| LAST_UPDATE_DATE | DATE | date this Release was last updated |
| RELEASE_ID | NUMBER | internal ID of this Release |
| RELEASE_MANAGER_USER_I D | NUMBER | internal ID of Release manager |
| RELEASE_TEAM_ID | VARCHAR2(200) | internal ID of Release team Security Group |

MREL_DISTRIBUTIONS

This Meta Layer view can be used to gather information about Distributions of Releases in Change Management. MREL_DISTRIBUTIONS contains columns to display the Workflow used by a Distribution, a Distribution's status, whether a Distribution has provided a feedback value to contained Packages, and other detail information.

To relate information from this view with information from related views, the report designer can use the Release identifier RELEASE_ID and Distribution identifier DISTRIBUTION_ID to join with other views such as MREL_RELEASES and MREL_DISTRIBUTION_ACTIONS. Also provided is the DIST_WORKFLOW_ID, which can be useful in joining to Workflow views such as MWFL_WORKFLOWS to include information about the Workflow being used by a Distribution.

MREL_DISTRIBUTIONS View Column Descriptions

| Column Name | Data Type | Description |
|-----------------------|---------------|---|
| RELEASE_NAME | VARCHAR2(200) | name of Release for this Distribution |
| DISTRIBUTION_NAME | VARCHAR2(80) | name of Distribution |
| DIST_DESCRIPTION | VARCHAR2(240) | Distribution description |
| DIST_WORKFLOW | VARCHAR2(80) | Workflow used by this Distribution |
| DIST_STATUS | VARCHAR2(80) | current status of the Distribution |
| PACKAGE_FEEDBACK_FLAG | VARCHAR2(1) | has Package feedback occurred? (Y/N) |
| PACKAGE_FEEDBACK | VARCHAR2(80) | result value fed back to Packages |
| CREATION_DATE | DATE | date this Distribution was created |
| CREATED_BY_USERNAME | VARCHAR2(30) | username of Mercury ITG user that created this Distribution |
| LAST_UPDATE_DATE | DATE | date this Distribution was last updated |
| RELEASE_ID | NUMBER | internal ID of the Release |
| DISTRIBUTION_ID | NUMBER | internal ID of this Distribution |
| DIST_WORKFLOW_ID | NUMBER | internal ID of the Distribution Workflow |

MREL DISTRIBUTION ACTIONS

This Meta Layer view can be used to gather information about current Workflow steps for any given Release Distribution in Change Management. The view MREL_DISTRIBUTION_ACTIONS contains columns to display the current status of a step, how long that step has been in the current status, whether the step is complete or resulted in an error, details about the step (source and destination Environment), and other relevant details.

To relate information from this view with detail information from related Releases or Release Distributions, the report designer can use the Release and Distribution identifiers (RELEASE_ID and DISTRIBUTION_ID columns, respectively) to join with other standard views such as MREL_RELEASES and MREL_DISTRIBUTIONS. For example, suppose a report is needed that takes a Release name input from the user running the report, and shows the details of all open Distributions of the desired Release. Consider a SQL statement such as the following:

```
SELECT release name
                                              RELEASE NAME,
      distribution name
                                             DISTRIBUTION NAME,
       dist_workflow_step_label | ': ' | action_name
                                              ELIGIBLE STEP.
      duration
                                              DAYS ELIGIBLE
      mrel_distribution_actions
FROM
WHERE status_type = 'ELIGIBLE'
GROUP BY release_name,
         distribution name,
         dist workflow step label | ': ' | action name,
         duration
ORDER BY 1,2;
```

Some important notes to consider when making use of this view:

• The column STATUS is the status name that is displayed in the status tab of Distributions in the Change Management application. The internal code STATUS_TYPE is provided to group these status names into logical groupings. For example, there may be many different statuses that all represent a 'COMPLETE' status type (e.g. the result value of any Workflow step, such as 'Approved', 'Succeeded', 'Rejected', 'Failed QA Test'...). While STATUS may have many different possible values, STATUS_TYPE has 9 possible values:

| SUBMITTED | ELIGIBLE | PENDING |
|----------------|----------------|-----------|
| IN_PROGRESS | ERROR | COMPLETE |
| CLOSED_SUCCESS | CLOSED_FAILURE | CANCELLED |

• The internal code STEP_TRANSACTION_ID is provided in this view for use with the Meta Layer view MWFL_TRANSITIONS, which can be used to get detailed information about previous or subsequent process steps.

 $MREL_DISTRIBUTION_ACTIONS\ View\ Column\ Descriptions$

| Column Name | Data Type | Description |
|------------------------------|--------------------|---|
| DISTRIBUTION_NAME | VARCHAR2(80) | the Release Distribution name |
| DIST_DESCRIPTION | VARCHAR2(240) | description of the Distribution |
| RELEASE_NAME | VARCHAR2(200) | name of the parent Release |
| DIST_WORKFLOW | VARCHAR2(80) | top-level Distribution Workflow |
| DIST_WORKFLOW_STEP_LA BEL | VARCHAR2(200 0) | visible label of this step on this line in Package status tab |
| ACTION_NAME | VARCHAR2(80) | name of Workflow step action |
| WORKFLOW | VARCHAR2(80) | name of Workflow that contains this step |
| WORKFLOW_STEP_NUMBER | NUMBER | Workflow sequence number of this step |
| STATUS | VARCHAR2(200) | visible status of this Distribution |
| STATUS_TYPE | VARCHAR2(30) | internal code for STATUS |
| ELIGIBLE_DATE | DATE | date this step became eligible |
| ACTION_DATE | DATE | date action was taken on this step |
| ACTION_RESULT | VARCHAR2(200) | result of the action |
| ERROR_MESSAGE | VARCHAR2(240) | (if STATUS_TYPE = 'ERROR') error message |
| DURATION | NUMBER | number of days at this status, or until completed (if STATUS_TYPE = 'COMPLETE') |
| SOURCE_ENVIRONMENT | VARCHAR2(80) | source Environment (if applicable) |
| SOURCE_ENVIRONMENT_GR OUP | VARCHAR2(100) | source Environment Group (if applicable) |
| DEST_ENVIRONMENT | VARCHAR2(80) | destination Environment (if applicable) |
| DEST_ENVIRONMENT_GROUP | VARCHAR2(100) | destination Environment Group (if applicable) |
| USER_COMMENT | VARCHAR2(240) | user comment entered when taking action on this step |
| CHILD_REQUEST_ID | NUMBER | ID of child Request |
| CHILD_PACKAGE_ID | NUMBER | internal ID of child Package |
| STEP_TRANSACTION_ID | NUMBER | internal ID of this transaction |
| RELEASE_ID | NUMBER | internal ID of the Release |
| DISTRIBUTION_ID | NUMBER | internal ID of this Distribution |
| DIST_WORKFLOW_ID | NUMBER | internal ID for top-level Workflow used by this Distribution |

| WORKFLOW_ID | NUMBER | internal ID for the Workflow that contains this Workflow step |
|---------------------------------|---------------|--|
| WORKFLOW_STEP_ID | NUMBER | internal ID of this Workflow step |
| ACTION_RESULT_CODE | VARCHAR2(200) | internal code for ACTION_RESULT |
| SOURCE_ENVIRONMENT_ID | NUMBER | internal ID of source Env |
| SOURCE_ENVIRONMENT_GR OUP_ID | NUMBER | internal ID of source Env Group |
| DEST_ENVIRONMENT_ID | NUMBER | internal ID of dest Env |
| DEST_ENVIRONMENT_GROU P_ID | NUMBER | internal ID of dest Env Group |

MREL REFERENCES

References are used throughout Mercury ITG Center to relate transaction entities together. The view MREL_REFERENCES can be used to view the references of Releases in Change Management. There are several types of references for Releases. If a Package is part of a Release, then there will be a reference for that Package. Similarly, if a Request is part of a Release, then there will be a reference for that Request. Releases can be designated as children or parents of other Releases through the use of references. References are also used to attach documents to a Release.

The RELATIONSHIP column in MREL_REFERENCES describes the relationship of the referenced item to the Release that references it. This view also has columns for each of the entities that can be referenced to a Release - other Releases, Requests, Packages, attachments, and URLs. For each record in MREL_REFERENCES, only one of these columns will have a value and the others will be NULL. As a simple example, the following SQL can be used to retrieve a list of all references to a particular Release:

```
SELECT referenced_release_id REL,
    referenced_package_id PKG,
    referenced_request_id REQ,
    attachment_name ATTACHMENT,
    document_url URL,
    relationship RELATIONSHIP
FROM mrel_references
WHERE release_name = 'FIN Apps Prod Release';
```

Results of this query would look like:

| REL | PKG | REQ | ATTACHMENT | URL | RELATIONSHIP |
|-------|--|-----|--------------------|-----|--|
| 30012 | | | finAppsRelease.doc | | Parent Release |
| | 42764 42765 42772 42773 42774 42778 | | IIMAPPSKelease.doc | | Contained in this Release Contained in this Release |

MREL_REFERENCES View Column Descriptions

| Column Name | Data Type | Description |
|---------------------------|---------------|---|
| RELEASE_NAME | VARCHAR2(200) | Release to show references for |
| RELATIONSHIP | VARCHAR2(30) | relationship of reference to this Release |
| REFERENCED_PACKAGE_I D | NUMBER | ID of referenced Package |
| REFERENCED_PROJECT_I D | NUMBER | ID of referenced Project |

| REFERENCED_REQUEST_I D | NUMBER | ID of referenced Request |
|---------------------------|---------------|--|
| REFERENCED_RELEASE_I D | NUMBER | ID of referenced Release |
| REFERENCED_TASK_ID | NUMBER | ID of referenced Task |
| OVERRIDE_FLAG | VARCHAR2(1) | code to manually override the dependency behavior of the reference |
| ATTACHMENT_NAME | VARCHAR2(200) | name of attached document |
| DOCUMENT_URL | VARCHAR2(200) | URL of referenced document on the web |
| RELEASE_ID | NUMBER | internal ID of this Release |

RML_OBJECT_TYPES

The Reporting Meta Layer provides this view to access configuration details of Object Types in Change Management. In some cases a report designer might need to include Object Type information in a report, and can join the OBJECT_TYPE_NAME column in this view with the same column in the general Package Line views (MPKGL_PACKAGE_LINES and MPKGL_[Object Type Name]).

A SQL query based on this view might be used to determine how many Package Lines were created prior to a configuration change for a particular Object Type. For instance, suppose an Object Type named 'Java File Migration' has undergone a significant configuration change, which might invalidate open Package Lines of that type that were created before the change. Thus a report is needed to determine the status of open Java File Package Lines that were created before the changes, which might be based on the following SQL example:

```
SELECT p.package_number PKG_NUM,
       p.package_description DESCRIPTION,
       COUNT(j.package_line_id) NUM_LINES
FROM
       mpkg packages p,
       mpkgl_java_file_migration j,
       rml_object_types ot
WHERE ot.object_type = 'Java File Migration'
AND
       j.creation_date < ot.last_update_date</pre>
AND
       j.submission_date IS NOT NULL
AND
       j.cancel date IS NULL
       j.close_date IS NULL
AND
AND
       p.package_id = j.package_id
GROUP BY p.package_number, p.description
ORDER BY 1;
```

(Notice that we don't have to join the explicit Object Type name to the view MPKGL_JAVA_FILE_MIGRATION, as it is already implicit in the view definition – only 'Java File Migration' Package Lines are returned from that view.)

RML_OBJECT_TYPES View Column Descriptions

| Column Name | Data Type | Description |
|-----------------------------|---------------|---|
| OBJECT_TYPE | VARCHAR2(80) | Object Type name |
| REFERENCE_FLAG | VARCHAR2(1) | is this a reference Object Type? (Y/N) |
| ACCELERATOR | VARCHAR2(80) | Extension that this Object Type is a part of (if applicable) |
| OBJECT_CATEGORY | VARCHAR2(80) | this Object Type's category |
| OBJECT_NAME_COLUMN | VARCHAR2(30) | column in KDLV_PACKAGE_LINES designated as the "object name" |
| OBJECT_REVISION_COLUMN | VARCHAR2(30) | column in KDLV_PACKAGE_LINES designated as the "object revision" |
| OBJECT_TYPE_DESCRIPTIO N | VARCHAR2(240) | Object Type description |
| OM_ENABLED_FLAG | VARCHAR2(1) | is this Object Type enabled for use with Object*Migrator? (Y/N) |
| OM_SEQ_NUM | NUMBER | sequence number to determine relative priority of this Object Type in a batch of Object*Migrator executions (applicable if OM_ENABLED_FLAG = 'Y') |
| ENABLED_FLAG | VARCHAR2(1) | is this Object Type enabled? (Y/N) |
| CREATED_BY_USERNAME | VARCHAR2(30) | username of Mercury ITG user that created this Object Type |
| CREATION_DATE | DATE | creation date of this Object Type |
| LAST_UPDATE_DATE | DATE | last update date of this Object Type |
| OBJECT_TYPE_ID | NUMBER | internal identifier for the Object Type |

Project Management Views

MPRJ_PROJECT_INFO

This Meta Layer view can be used to gather information about Projects in Project Management. MPRJ_PROJECT_INFO contains columns to display the current state of a Project, the Project's summary condition, percent complete, actuals vs. estimated Project metrics, and other details about the Project. This view also includes a column for each Project User Data field defined in the system.

As an example, consider a scenario in which a User Data field has been defined for Projects to specify a technical lead resource. Suppose this field is called 'Technical Lead', and has a token TECH_LEAD. Thus in this view there will be a TECH_LEAD column (in *italic boldface* below):

```
SQL> desc mprj_project_info
Name
                                  Null?
                                           Type
PROJECT NAME
                                  NOT NULL VARCHAR2 (300)
MASTER_PROJECT_FLAG
                                           VARCHAR2 (1)
ESTIMATED REMAINING EFFORT
                                           NUMBER
TECH LEAD
                                           VARCHAR2 (200)
CREATION_DATE
                                           DATE
CREATED_BY_USERNAME
                                           VARCHAR2 (30)
```

To relate information from this view with information from related Projects, the report designer can use the Project identifier PROJECT_ID to join with other views such as MPRJ_PREDECESSORS or

MPRJ_PROJECT_MANAGERS. For example, suppose a report is needed that shows all incomplete Tasks for any Projects that are in 'Red' condition. Consider a SOL statement such as the following:

```
SELECT pi.master_project MASTER_PROJECT,
      pi.project_name PROJECT,
      ti.task_sequence SEQ,
      ti.task_name TASK,
                        TASK STATE
      ti.task_state
FROM mprj_task_info ti,
      mprj_project_info pi
WHERE pi.project_summary_condition = 'Red'
AND
      ti.parent_project_id = pi.project_id
      ti.task_state not in ('Completed',
AND
                             'Bypassed'
                             'Cancelled')
ORDER BY pi.master_project, pi.project_sequence,
ti.task sequence;
```

The column PROJECT_STATE in MPRJ_PROJECT_INFO is the state that is displayed in the Projects screen in the Project Management application. The PROJECT_STATE column has 6 possible values:

| New | Plan | Ready |
|--------|-----------|-----------|
| Active | Completed | Cancelled |

MPRJ_PROJECT_INFO View Column Descriptions

| Column Name | Data Type | Description |
|----------------------------------|---------------|--|
| PROJECT_NAME | VARCHAR2(300) | Project name |
| MASTER_PROJECT_FLAG | VARCHAR2(1) | is this a Master Project? (Y/N) |
| PROJECT_TEMPLATE_NAME | VARCHAR2(100) | name of Project template, if applicable |
| PROJECT_DESCRIPTION | VARCHAR2(300) | Project description |
| PROJECT_SEQUENCE | NUMBER | order of this Project relative to other Projects under the same Master Project |
| PROJECT_SUMMARY_CONDITION | VARCHAR2(80) | The project's overall condition (e.g. 'Green', 'Yellow', or 'Red') |
| PARENT_PROJECT | VARCHAR2(300) | name of parent Project |
| MASTER_PROJECT | VARCHAR2(300) | name of Master Project |
| PROJECT_STATE | VARCHAR2(100) | current state of this Project |
| DEPARTMENT | VARCHAR2(80) | value of Project's "department" field |
| PRIORITY | NUMBER | Project's priority number |
| SCHEDULED_START_DATE | DATE | scheduled Project start date |
| SCHEDULED_FINISH_DATE | DATE | scheduled Project finish date |
| SCHEDULED_EFFORT | NUMBER | scheduled effort (days) |
| SCHEDULED_DURATION | NUMBER | scheduled Project duration (days) |
| ACTUAL_START_DATE | DATE | actual Project start date |
| ACTUAL_FINISH_DATE | DATE | actual Project finish date |
| ACTUAL_EFFORT | NUMBER | actual effort (days) |
| ACTUAL_DURATION | NUMBER | actual Project duration (days) |
| PERCENT_COMPLETE | NUMBER | estimated percent complete |
| ESTIMATED_FINISH_DATE | DATE | estimated Project finish date |
| ESTIMATED_REMAINING_DUR ATION | NUMBER | estimated time left to complete (days) |

| ESTIMATED_REMAINING_EFF ORT | NUMBER | estimated remaining effort (days) |
|---------------------------------|---------------|--|
| Project Global User Data fields | VARCHAR2(200) | one column for each Project Global User Data field - column name is the User Data field token name |
| CREATION_DATE | DATE | date Project was created |
| CREATED_BY_USERNAME | VARCHAR2(30) | username of Mercury ITG user that created this Project |
| LAST_UPDATE_DATE | DATE | date Project was last updated |
| PROJECT_ID | NUMBER | internal ID of the Project |
| PROJECT_TEMPLATE_ID | NUMBER | internal ID of the Project template (if applicable) |
| PARENT_PROJECT_ID | NUMBER | internal ID of the parent Project |
| MASTER_PROJECT_ID | NUMBER | internal ID of the Master Project |

MPRJ_TASK_INFO

This Meta Layer view can be used to gather information about Tasks in Project Management. The view MPRJ_TASK_INFO contains columns to display the current state of a Task; whether the Task has exceptions, constraints, or is waiting on open Requests in Demand Management; what percentage is complete; actuals vs. estimated Task metrics; and other details about the Task. MPRJ_TASK_INFO also includes a column for the Task category. This view also includes a column for each Project User Data field defined in the system.

As an example, consider a scenario in which a User Data field has been defined for Projects to specify a technical lead resource. Suppose this field is called 'Technical Lead', and has a token TECH_LEAD. Thus in this view there will be a TECH_LEAD column (in *italic boldface* below):

To relate information from this view with information from related Task or Project views, the report designer can use the Task identifier TASK_ID to join with other views such as MPRJ_TASK_EXCEPTIONS or MPRJ_TASK_RESOURCES. Also provided is the PARENT_PROJECT_ID, which can be useful in joining to views such as MPRJ_PROJECT_INFO to include information about a Task's parent Project. For example, suppose a report is needed that shows all incomplete Tasks for any Projects that are in 'Red' condition. Consider a SQL statement such as the following:

```
SELECT pi.master_project MASTER_PROJECT,
       pi.project name PROJECT,
       ti.task_sequence SEQ,
       ti.task_name
                        TASK,
                         TASK_STATE
      ti.task_state
      mprj_task_info ti,
FROM
      mprj_project_info pi
WHERE
      pi.project_summary_condition = 'Red'
AND
       ti.parent_project_id = pi.project_id
       ti.task_state not in ('Completed',
AND
                             'Bypassed'
                             'Cancelled')
ORDER BY pi.master_project, pi.project_sequence,
ti.task_sequence;
```

Note that the TASK_STATE column has 8 possible values:

| New | Ready | Pending Predecessor |
|-----|-------|---------------------|
|-----|-------|---------------------|

| Pending Request | In Progress | Bypassed |
|-----------------|-------------|----------|
| Completed | Cancelled | |

MPRJ_TASK_INFO View Column Descriptions

| Column Name | Data Type | Description |
|------------------------|---------------|--|
| TASK_NAME | VARCHAR2(300) | Task name |
| TASK_DESCRIPTION | VARCHAR2(300) | Task description |
| TASK_SEQUENCE | NUMBER | order of this Task relative to other Tasks under the same Master Project |
| PARENT_PROJECT | VARCHAR2(300) | name of parent Project |
| MASTER_PROJECT | VARCHAR2(300) | name of Master Project |
| CATEGORY | VARCHAR2(80) | category of this Task |
| TASK_STATE | VARCHAR2(100) | current state of this Task |
| DEPARTMENT | VARCHAR2(80) | value of Task's "department" field |
| CONFIDENCE_LEVEL | VARCHAR2(80) | confidence level of this task |
| PRIORITY | NUMBER | Task's priority number |
| HAS_EXCEPTIONS_FLAG | VARCHAR2(1) | are there any exceptions for this Task? (Y/N) |
| OPEN_REQUESTS_FLAG | VARCHAR2(1) | are there open Requests that this Task is waiting for? (Y/N) |
| HAS_CONSTRAINT_FLAG | VARCHAR2(1) | does this Task have a scheduling constraint? (Y/N) |
| SCHEDULING_CONSTRAINT | VARCHAR2(80) | type of scheduling constraint |
| HAS_NOTIFICATIONS_FLAG | VARCHAR2(1) | are there notifications for this Task? (Y/N) |
| SCHEDULED_START_DATE | DATE | scheduled Task start date |
| SCHEDULED_FINISH_DATE | DATE | scheduled Task finish date |
| SCHEDULED_EFFORT | NUMBER | scheduled effort (days) |
| SCHEDULED_DURATION | NUMBER | scheduled Task duration (days) |
| ACTUAL_START_DATE | DATE | actual Task start date |
| ACTUAL_FINISH_DATE | DATE | actual Task finish date |
| ACTUAL_EFFORT | NUMBER | actual effort (days) |
| ACTUAL_DURATION | NUMBER | actual Task duration (days) |
| PERCENT_COMPLETE | NUMBER | estimated percent complete |
| ESTIMATED_FINISH_DATE | DATE | estimated Task finish date |

| ESTIMATED_REMAINING_DUR ATION | NUMBER | estimated time left to complete (days) |
|---------------------------------|---------------|--|
| ESTIMATED_REMAINING_EFF ORT | NUMBER | estimated remaining effort (days) |
| Project Global User Data fields | VARCHAR2(200) | one column for each Project Global User Data field - column name is the User Data field token name |
| CREATION_DATE | DATE | date Task was created |
| CREATED_BY_USERNAME | VARCHAR2(30) | username of Mercury ITG user that created this Task |
| LAST_UPDATE_DATE | DATE | date Task was last updated |
| TASK_ID | NUMBER | internal ID of the Task |
| PARENT_PROJECT_ID | NUMBER | internal ID of the parent Project |
| MASTER_PROJECT_ID | NUMBER | internal ID of the Master Project |

MPRJ_TASK_EXCEPTIONS

It is important for Project managers to report on exceptions that arise as Tasks are undertaken by their team members, and as progress is made on Projects. The Reporting Meta Layer provides the view MPRJ_TASK_EXCEPTIONS to facilitate the creation of reports that reveal Task exception information.

Use this view to examine the exceptions to Task planning. Reports built off of this view can show details of each exception, and compare schedule targets to actuals. The internal Project and Task ID codes (PARENT_PROJECT_ID, TASK_ID) are also provided for joining this view to other Project or Task views to include additional information.

For example, suppose a report is desired to show exceptions on Tasks belonging to Projects managed by Mercury ITG user 'fjohnson', broken down by month. A SQL statement such as the following can be used:

```
SELECT m.calendar_month
                              MONTH,
                              TASK,
        e.task_name
        e.resource_username RESOURCE,
        e.exception_message EXCEPTION,
       e.violation VIOLATION,
e.parent_project PROJECT,
e.master_project MASTER_PROJECT
      krml_calendar_months m,
       mprj_project_managers pm,
       mprj_task_exceptions e
WHERE pm.manager_username = 'fjohnson'
AND
       pm.project_id = e.parent_project_id
       e.exception_date >= m.start_date
AND
AND
        e.exception_date < m.end_date
ORDER BY e.exception_date, e.parent_project, e.task_name;
```

A sample output from this type of statement might look as follows:

| MONTH TASK | RESOURCE | EXCEPTION | VIOLATION |
|-------------------------|-----------|---|-----------|
| 01-FEB-00 Design | gsmith | Task is not yet "Complete", and the current date is 3 days past the Scheduled Start Date | -2 days |
| 01-FEB-00 Design Review | bjeffries | Task is not yet "Complete", and the current date is 3 days past the Scheduled Start Date | -4 days |
| 01-MAR-00 Unit Test | alouis | Task is not yet "Complete", and the current date is 3 days past the Scheduled Start Date | -3 days |
| 01-APR-00 Design | fjohnson | Estimated Remaining Duration exceeds the time left between the current date and the Scheduled Finish Date | 3 days |
| | | | |

$MPRJ_TASK_EXCEPTIONS\ View\ Column\ Descriptions$

| Column Name | Data Type | Description |
|-----------------------|--------------------|--|
| TASK_NAME | VARCHAR2(300) | Task name |
| TASK_DESCRIPTION | VARCHAR2(300) | Task description |
| PARENT_PROJECT | VARCHAR2(300) | name of parent Project |
| MASTER_PROJECT | VARCHAR2(300) | name of master Project |
| EXCEPTION_DATE | DATE | date on which exception occurred |
| RESOURCE_USERNAME | VARCHAR2(30) | username of resource taking action that generated this exception |
| EXCEPTION_MESSAGE | VARCHAR2(200 0) | the message shown for this exception |
| VIOLATION | VARCHAR2(250) | the exception violation duration |
| RULE_TYPE | VARCHAR2(100) | type of rule that was violated |
| SCHEDULED_START_DATE | DATE | date Task was scheduled to start |
| SCHEDULED_FINISH_DATE | DATE | date Task was scheduled to finish |
| SCHEDULED_EFFORT | NUMBER | effort (days) scheduled for this Task |
| ACTUAL_START_DATE | DATE | date Task actually started |
| ACTUAL_FINISH_DATE | DATE | date Task actually finished |
| ACTUAL_EFFORT | NUMBER | number of days Task actually took |
| TASK_ID | NUMBER | internal ID of the Task |
| RESOURCE_USER_ID | NUMBER | internal ID of resource user |
| PARENT_PROJECT_ID | NUMBER | internal ID of parent Project |
| MASTER_PROJECT_ID | NUMBER | internal ID of master Project |

MPRJ_CHANGES

As Projects and Tasks are processed in Project Management, changes to key Project/Task fields are audited as transactions are made. A record is stored in the Mercury ITG database every time the value in one of these fields changes on any open Project. This audit history can be important to business decision-making. The Reporting Meta Layer provides the view MPRJ_CHANGES to allow a report to display and drive off of changes to Project fields. It contains columns for the old and new values, and the field prompts.

This view contains columns for both Projects and Tasks. If a particular audit record was created when a Task field changed, then the TASK_NAME view column will contain the name of that Task, while the PROJECT_NAME view column will be NULL. Conversely, if a particular audit record was created when a Project field changed, then the PROJECT_NAME view column will contain the name of that Project, while the TASK_NAME view column will be NULL. This facilitates auditing both Project and Task changes in the same view.

For example, to report on the frequency at which the Priority changed from any value to 'Critical' each month, on *both* Projects and Tasks, a SQL statement such as the following can be used:

Note in the 'WHERE' clause of this statement that we are testing the NEW_FIELD_CODE instead of the NEW_FIELD_VALUE. Either would work – 'C' is the code for 'Critical' priority; this statement could also have been written "WHERE c.new_field_value = 'Critical'." The validation for the Project/Task priority field contains the hidden and visible values for this field. Consult this validation in the Validations screen for verification of these values.

Also note that if it was necessary to create a similar report that *only* reported changes to the Priority field on Tasks (not Projects), a simple additional "AND" statement would suffice:

```
AND c.project_name IS NULL
```

MPRJ_CHANGES View Column Descriptions

| Column Name | Data Type | Description |
|---------------------|--------------------|---|
| PROJECT_NAME | VARCHAR2(300) | Project name (if this is a change to a Project field) |
| TASK_NAME | VARCHAR2(300) | Task name (if this is a change to a Task field) |
| PARENT_PROJECT_NAME | VARCHAR2(300) | parent Project name |
| CHANGE_DATE | DATE | date change occurred |
| CHANGED_BY_USERNAME | VARCHAR2(30) | username of Mercury ITG user who made change |
| COLUMN_NAME | VARCHAR2(30) | name of field column whose value changed |
| FIELD_PROMPT | VARCHAR2(100) | prompt of field whose value changed |
| OLD_FIELD_VALUE | VARCHAR2(180 0) | field value before change |
| NEW_FIELD_VALUE | VARCHAR2(180 0) | field value after change |
| OLD_FIELD_CODE | VARCHAR2(180 0) | field hidden code before change |
| NEW_FIELD_CODE | VARCHAR2(180 0) | field hidden code after change |
| PROJECT_ID | NUMBER | internal ID of the Project (if applicable) |
| TASK_ID | NUMBER | internal ID of the Task (if applicable) |
| PARENT_PROJECT_ID | NUMBER | internal ID of parent Project |

MPRJ_PREDECESSORS

A key part of creating a project plan is to specify the ordering in which Tasks on the Project can be acted upon. Project or Task dependencies can be configured in Project Management by specifying "predecessors" on a Project or Task. The Reporting Meta Layer provides the view MPRJ_PREDECESSORS to facilitate creating reports that include details about predecessor Projects or Tasks.

This view can be used to query predecessors of a Project or Task, and returns both Projects and Tasks. The internal IDs for both Projects and Tasks are provided (TASK_ID and PROJECT_ID, respectively) to join this view with other Project Management views. The names and IDs of the parent Projects for the current Project or Task, and for the predecessor, are also provided.

For example, suppose a report is necessary to show the state of all open Tasks that are predecessors for Tasks on which Mercury ITG user 'fjohnson' is a resource. To get information about Task resources, we can use the view MPRJ_TASK_RESOURCES, and to get the state of a Task, we can join MPRJ_PREDECESSORS to the general Task view MPRJ_TASK_INFO. Consider a SQL query such as the following:

```
SELECT tr.task_name
                                current_task,
      p.predecessor_task
                                predecessor,
       ti.task_state
                                predecessor_state,
      ti.scheduled_finish_date planned_complete
FROM mprj_task_info ti,
      mprj_predecessors p,
      mprj_task_resources tr
WHERE tr.resource_username = 'fjohnson'
      tr.task_id = p.task_id
AND
      ti.task_id = p.predecessor_task_id
AND
      ti.task state != 'Completed'
ORDER BY 1,2;
```

MPRJ_PREDECESSORS View Column Descriptions

| Column Name | Data Type | Description |
|--------------------------------|---------------|--|
| PROJECT_NAME | VARCHAR2(300) | Project name (if this is a Project) |
| TASK_NAME | VARCHAR2(300) | Task name (if this is a Task) |
| PARENT_PROJECT | VARCHAR2(300) | parent Project name |
| PREDECESSOR_PROJECT | VARCHAR2(300) | predecessor Project name |
| PREDECESSOR_TASK | VARCHAR2(300) | predecessor Task name |
| PREDECESSOR_PARENT_PROJ ECT | VARCHAR2(300) | parent Project of predecessor |
| PROJECT_ID | NUMBER | internal ID of the Project (if applicable) |

| TASK_ID | NUMBER | internal ID of the Task (if applicable) |
|-----------------------------------|--------|---|
| PARENT_PROJECT_ID | NUMBER | internal ID of parent Project |
| PREDECESSOR_PROJECT_ID | NUMBER | internal ID of predecessor Project |
| PREDECESSOR_TASK_ID | NUMBER | internal ID of predecessor Task |
| PREDECESSOR_PARENT_PROJ ECT_ID | NUMBER | internal ID of predecessor's parent Project |

MPRJ PROJECT MANAGERS

MPRJ_TASK_RESOURCES

These two similar views allow report designers to include details about Mercury ITG users or Security Groups that are managing Projects in Project Management, or that are assigned as resources on Tasks in Project Management. For each Project (Task) with assigned resources, the view MPRJ_PROJECT_MANAGERS (MPRJ_TASK_RESOURCES) returns one row for each Project manager (Task resource).

If the Project manager (Task resource) is a Mercury ITG user, then the column MANAGER_USERNAME (RESOURCE_USERNAME) will have the username of that user. If the Project manager (Task resource) is a Security Group, then the column MANAGER_SECURITY_GROUP (RESOURCE_SECURITY_GROUP) will contain the name of that Security Group. The internal ID columns for the Project (Task), user, and Security Group are provided to facilitate joining to other relevant Meta Layer views when more information is necessary.

As an example, consider a case in which a report is needed to show all open Tasks that are generating exceptions, to which a specified user has been assigned as a Resource. This could be accomplished by using MPRJ_TASK_RESOURCES and MPRJ_TASK_EXCEPTIONS views, joining with the TASK_ID column. A SQL query such as the following shows how this might be accomplished:

```
SELECT tr.resource_username resource,
tr.task_name task,
e.exception_date date,
e.exception_message exception,
e.violation violation
FROM mprj_task_resources tr,
mprj_task_exceptions s
WHERE e.task_id = tr.task_id
ORDER BY e.exception_date;
```

A report built around this type of query might produce results such as the following (after the person running the report has given 'fjohnson' as the resource to report on):

| RESOURCE | TASK | DATE | EXCEPTION | VIOLATION |
|----------|---------------|-----------|---|-----------|
| fjohnson | Design | 12-APR-01 | Task is not yet "Complete", and the current date is 3 days past the Scheduled Start Date | -2 days |
| fjohnson | Design Review | 13-APR-01 | Task is not yet "Complete", and the current date is 3 days past the Scheduled Start Date | -4 days |
| fjohnson | Unit Test | 21-APR-01 | Task is not yet "Complete", and the current date is 3 days past the Scheduled Start Date | -3 days |
| fjohnson | Design | 05-MAY-01 | Estimated Remaining Duration exceeds the time left between the current date and the Scheduled Finish Date | 3 days |
| | | | | |

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Note: These views do *not* expand manager or resource Security Groups to show records for each Mercury ITG user that is a member of the respective Security Group.

MPRJ_PROJECT_MANAGERS View Column Descriptions

| Column Name | Data Type | Description |
|-------------------------------|---------------|--|
| PROJECT_NAME | VARCHAR2(300) | Project name |
| PROJECT_STATE | VARCHAR2(100) | current Project state |
| PRIORITY | NUMBER | priority of Project |
| MANAGER_USERNAME | VARCHAR2(30) | username of Mercury ITG user that is a manager of this Project |
| MANAGER_SECURITY_GROUP | VARCHAR2(40) | name of Security Group that is managing this Project |
| PROJECT_ID | NUMBER | internal ID of Project |
| MASTER_PROJECT_ID | NUMBER | internal ID of master Project |
| MANAGER_USER_ID | NUMBER | internal ID of resource user |
| MANAGER_SECURITY_GROU P_ID | NUMBER | internal ID of resource Security Group |

MPRJ_TASK_RESOURCES View Column Descriptions

| Column Name | Data Type | Description |
|----------------------------|---------------|--|
| TASK_NAME | VARCHAR2(300) | Task name |
| TASK_STATE | VARCHAR2(100) | current Task state |
| PRIORITY | NUMBER | priority of Task |
| RESOURCE_USERNAME | VARCHAR2(30) | username of Mercury ITG user that is an assigned resource on this Task |
| RESOURCE_SECURITY_GROUP | VARCHAR2(40) | name of Security Group that is assigned as resources on this Task |
| TASK_ID | NUMBER | internal ID of Task |
| MASTER_PROJECT_ID | NUMBER | internal ID of master Project |
| RESOURCE_USER_ID | NUMBER | internal ID of resource user |
| RESOURCE_SECURITY_GROUP_ID | NUMBER | internal ID of resource Security Group |

MPRJ_PROJECT_NOTES

MPRJ_TASK_NOTES

These views provide access to the notes for all Projects and Tasks in Project Management. Notes are stored in an Oracle LONG database column; to prevent an overload of information this was presented in separate Meta Layer views, making it less likely to design a report that inadvertently returns too much data. To include Project notes along with other details about Projects, join MPRJ_PROJECT_NOTES with other Project-related views (such as MPRJ_PROJECT_INFO) using the internal Project ID column PROJECT_ID. Similarly, to include Task notes in reports with other details about Tasks, use the TASK_ID column to join MPRJ_TASK_NOTES with other Task-related views (such as MPRJ_TASK_INFO).

As a simple example, to retrieve a list of the notes for all open "priority 1" Tasks that are currently waiting for Requests to be completed, use the following logic in a SQL statement:

MPRJ_PROJECT_NOTES View Column Descriptions

| Column Name | Data Type | Description |
|--------------|---------------|---------------------------------|
| PROJECT_ID | NUMBER | Project internal identifier |
| PROJECT_NAME | VARCHAR2(300) | name of the Project |
| NOTES | LONG | aggregate notes for the Project |

MPKG_NOTES View Column Descriptions

| Column Name | Data Type | Description |
|-------------|---------------|------------------------------|
| TASK_ID | NUMBER | Task internal identifier |
| TASK_NAME | VARCHAR2(300) | name of the Task |
| NOTES | LONG | aggregate notes for the Task |

MPRJ_PROJECT_REFERENCES

MPRJ_TASK_REFERENCES

References are used throughout Mercury ITG Center to relate transaction entities together. The Meta Layer views MPRJ_PROJECT_REFERENCES and MPRJ_TASK_REFERENCES can be used to view the references of Projects or Tasks, respectively, in Project Management. There are several types of references for Projects and Tasks. If a Project contains another Project, then there will be a reference for that Project. If a Task is dependent on a Request, then there will be a reference for that Request. References are also used to attach documents to a Project or Task.

The RELATIONSHIP column in either of these views describes the relationship of the referenced item to the Project or Task that references it. This view also has columns for each of the entities that can be referenced to a Project or Task - other Projects and Tasks, Requests, Packages, attachments, and URLs. For each record in these views, only one of these columns will have a value and the others will be NULL.

MPRJ_PROJECT_REFERENCES View Column Descriptions

| Column Name | Data Type | Description |
|---------------------------|---------------|--|
| PROJECT_NAME | VARCHAR2(300) | Project to show references for |
| RELATIONSHIP | VARCHAR2(30) | relationship of reference to this Project |
| REFERENCED_PACKAGE_I D | NUMBER | ID of referenced Package |
| REFERENCED_PROJECT_I D | NUMBER | ID of referenced Project |
| REFERENCED_REQUEST_I D | NUMBER | ID of referenced Request |
| REFERENCED_RELEASE_I D | NUMBER | ID of referenced Release |
| REFERENCED_TASK_ID | NUMBER | ID of referenced Task |
| OVERRIDE_FLAG | VARCHAR2(1) | code to manually override the dependency behavior of the reference |
| ATTACHMENT_NAME | VARCHAR2(200) | name of attached document |
| DOCUMENT_URL | VARCHAR2(200) | URL of referenced document on the web |
| PROJECT_ID | NUMBER | internal ID of this Project |

MPRJ_TASK_REFERENCES View Column Descriptions

| Column Name | Data Type | Description |
|---------------------------|---------------|--|
| TASK_NAME | VARCHAR2(300) | Task to show references for |
| RELATIONSHIP | VARCHAR2(30) | relationship of reference to this Task |
| REFERENCED_PACKAGE_I D | NUMBER | ID of referenced Package |
| REFERENCED_PROJECT_I D | NUMBER | ID of referenced Project |
| REFERENCED_REQUEST_I D | NUMBER | ID of referenced Request |
| REFERENCED_RELEASE_I D | NUMBER | ID of referenced Release |
| REFERENCED_TASK_ID | NUMBER | ID of referenced Task |
| ATTACHMENT_NAME | VARCHAR2(200) | name of attached document |
| DOCUMENT_URL | VARCHAR2(200) | URL of referenced document on the web |
| TASK_ID | NUMBER | internal ID of this Task |

MPRJ_BASELINE_INFO

This RML view contains basic information about baselines. This view shows all baselines that were taken for a given project and the following information about each baseline:

- Date when the baseline was taken
- Baseline name
- Baseline description
- Whether the baseline is active
- User who took the baseline

| MPR.I B | ASELINE | INFO | View | Column | Descriptions |
|---------|---------|------|------|--------|---------------------|
|---------|---------|------|------|--------|---------------------|

| Column Name | Data Type | Description |
|---------------------|---------------|---|
| BASELINE_ID | NUMBER | ID of referenced baseline. |
| BASELINE_NAME | VARCHAR2(200) | Name of referenced baseline. |
| CREATION_DATE | DATE | Date when baseline was taken. |
| CREATED_BY_USERNAME | VARCHAR2(30) | Username of the user who created the baseline. |
| CREATED_BY_FULLNAME | VARCHAR2(60) | First and last name of the user who created the baseline. |
| PROJECT_ID | NUMBER | Number that uniquely identifies the Project |
| PROJECT_NAME | VARCHAR2(300) | Name of the Project that was baselined. |
| DESCRIPTION | VARCHAR2(300) | Description of the baseline. |
| ACTIVE_FLAG | VARCHAR2(1) | Indicates whether the baseline is active. |

MPRJ_BASELINE_PROJECT_INFO

This RML view contains project information for each baseline. All projects and subprojects contained in a given baseline will be contained in this view. The contents are very similar to MPRJ_PROJECT_INFO. In order to find all of the projects associated with the given baseline, BASELINE_ID from MPRJ_BASELINE_INFO will be required.

MPRJ_BASELINE_PROJECT_INFO View Column Descriptions

| Column Name | Data Type | Description |
|----------------------|----------------|--|
| BASELINE_PROJECT_ID | NUMBER | ID of baselined Project. |
| BASELINE_ID | NUMBER | ID of referenced baseline. |
| PROJECT_ID | NUMBER | Number that uniquely identifies the Project |
| PROJECT_NAME | VARCHAR2(300) | Name of the Project that was baselined. |
| PROJECT_DESCRIPTION | VARCHAR2(300) | Description of the Project. |
| PARENT_PROJECT_NAME | VARCHAR2(300) | Name of the parent Project. |
| MASTER_PROJECT_NAME | VARCHAR2(80) | Name of the master Project. |
| STATE_NAME | VARCHAR2(2000) | Project state. |
| DEPARTMENT_NAME | VARCHAR2(30) | Name of the department that owns this Project. |
| PRIORITY | NUMBER | Priority assigned to the Project. |
| SCHEDULED_START_DATE | DATE | Date when the Project was scheduled to begin. |

| SCHEDULED_FINISH_DATE | DATE | Date when the Project was scheduled to complete. |
|------------------------------------|----------------|--|
| SCHEDULED_EFFORT | NUMBER | Planned amount of effort scheduled for the Project. |
| SCHEDULED_DURATION | NUMBER | Planned duration scheduled for the Project. |
| ACTUAL_START_DATE | DATE | Date when the Project actually began. |
| ACTUAL_FINISH_DATE | DATE | Date when the Project was actually completed. |
| ACTUAL_EFFORT | NUMBER | Actual amount of effort spent on the Project. |
| ACTUAL_DURATION | NUMBER | Actual duration consumed by the Project. |
| ESTIMATED_FINISH_DATE | DATE | Estimated date when the Project will be completed. |
| ESTIMATED_EFFORT | NUMBER | Estimated amount of effort in the Project. |
| ESTIMATED_DURATION | NUMBER | Estimated duration in the Project. |
| PERCENT_COMPLETE | NUMBER | Percentage of Project completed. |
| PROJECT_CREATION_DATE | DATE | Date when Project was created. |
| PROJECT_MANAGER_LIST | VARCHAR2(4000) | List of Project Managers assigned to this Project. |
| PROJECT_MANAGER_FULL_ NAME_LIST | VARCHAR2(4000) | First and last names of Project Managers assigned to this Project. |
| BOOKED_SKILL_NAME_LIST | VARCHAR2(4000) | List of skill names booked for this Project. |
| SUMMARY_CONDITION | VARCHAR2(30) | Summary of Project condition. |

MPRJ_BASELINE_TASK_INFO

This RML view contains task information for each baseline. All tasks contained in a given baseline will be contained in this view. The contents are very similar to MPRJ_TASK_INFO. In order to find all of the tasks associated with the given baseline, BASELINE_ID from MPRJ_BASELINE_INFO will be required.

MPRJ_BASELINE_TASK_INFO View Column Descriptions

| Column Name | Data Type | Description |
|---------------------|---------------|--|
| BASELINE_PROJECT_ID | NUMBER | ID of baselined Project. |
| BASELINE_ID | NUMBER | ID of referenced baseline. |
| TASK_ID | NUMBER | Number that uniquely identifies the Task |
| TASK_NAME | VARCHAR2(300) | Name of the Task that was baselined. |

| TASK_DESCRIPTION | VARCHAR2(300) | Description of the Task. |
|-------------------------------|----------------|---|
| PARENT_PROJECT_NAME | VARCHAR2(300) | Name of the parent Project. |
| MASTER_PROJECT_NAME | VARCHAR2(80) | Name of the master Project. |
| STATE_NAME | VARCHAR2(2000) | Task state. |
| DEPARTMENT_NAME | VARCHAR2(30) | Name of the department that owns this Task. |
| PRIORITY | NUMBER | Priority assigned to the Task. |
| HAS_EXCEPTIONS_FLAG | VARCHAR2(1) | Indicates whether exceptions exist for the Task. |
| SCHEDULED_START_DATE | DATE | Date when the Task was scheduled to begin. |
| SCHEDULED_FINISH_DATE | DATE | Date when the Task was scheduled to complete. |
| SCHEDULED_EFFORT | NUMBER | Planned amount of effort scheduled for the Task. |
| SCHEDULED_DURATION | NUMBER | Planned duration scheduled for the Task. |
| ACTUAL_START_DATE | DATE | Date when the Task actually began. |
| ACTUAL_FINISH_DATE | DATE | Date when the Task was actually completed. |
| ACTUAL_EFFORT | NUMBER | Actual amount of effort spent on the Task. |
| ACTUAL_DURATION | NUMBER | Actual duration consumed by the Task. |
| ESTIMATED_FINISH_DATE | DATE | Estimated date when the Task will be completed. |
| ESTIMATED_EFFORT | NUMBER | Estimated amount of effort in the Task. |
| ESTIMATED_DURATION | NUMBER | Estimated duration in the Task. |
| PERCENT_COMPLETE | NUMBER | Percentage of Task completed. |
| TASK_CREATION_DATE | DATE | Date when Task was created. |
| RESOURCE_NAME_LIST | VARCHAR2(4000) | List of Resources assigned to this Task. |
| RESOURCE_FULL_NAME_ LIST | VARCHAR2(4000) | First and last names of Resources assigned to this Task. |
| RESOURCE_GROUP_NAME_ LIST | VARCHAR2(4000) | List of skill names booked for this Task. |
| BOOKED_SKILL_NAME_LIST | VARCHAR2(4000) | Date when Task was created. |
| IS_ON_CRITICAL_PATH_ FLAG | VARCHAR2(1) | Indicates whether the Task is on critical path. |
| MILESTONE_FLAG | VARCHAR2(1) | Indicates milestone for the Task. |
| AUTOMATIC_COMPLETION_ FLAG | VARCHAR2(1) | Indicates whether the Task is set for automatic completion. |
| REQUIRED_BY_TEMPLATE_ FLAG | VARCHAR2(1) | Indicates whether the Task is required by the template. |

Other Views

MWFL_WORKFLOWS

The Reporting Meta Layer provides this view to access basic configuration details of Workflows. In some cases a report designer might need to include Workflow information in a report, and can join the WORKFLOW_ID column in this view with the same column in Workflow transaction views (such as MREQ_REQUEST_ACTIONS). The view MWFL_WORKFLOW has columns for the main Workflow definition fields present on the first tab of the Workflow detail window in the Workbench, and also includes a column for each Workflow User Data field defined in the system.

For example, if the system has 3 Workflow User Data fields defined, this view will contain 3 respective columns which use the User Data fields' token names as view column names. If these 3 User Data fields have tokens DEPARTMENT, ADMINSTRATOR_USERNAME, and WORKFLOW_MANAGER, then the MWFL_WORKFLOWS view would contain 3 columns with these names (in *italic boldface* below):

```
SQL> desc mwfl_workflows
Name
                                   Null?
                                            Type
 WORKFLOW
                                  NOT NULL VARCHAR2 (80)
 WORKFLOW DESCRIPTION
                                            VARCHAR2 (240)
 SUB_WORKFLOW_FLAG
                                            VARCHAR2 (1)
 DEPARTMENT
                                            VARCHAR2 (200)
 ADMINISTRATOR USERNAME
                                            VARCHAR2 (200)
 WORKFLOW_MANAGER
                                            VARCHAR2 (200)
 CREATED_BY_USERNAME
                                   NOT NULL VARCHAR2 (30)
 CREATION_DATE
                                   NOT NULL DATE
```

A note to consider when making use of this view:

• By default this view returns both 'reference' and 'non-reference' Workflows in the system. Mercury ITG Center provides reference copies of some Workflows, which are disabled and not usable by Mercury ITG transactions, and as such are rarely of reporting interest. The view column REFERENCE_FLAG can be used to filter results. To only show active, non-reference Workflows while using MWFL_WORKFLOWS view, include "REFERENCE_FLAG = 'N'" in the query.

MWFL_WORKFLOWS View Column Descriptions

| Column Name | Data Type | Description |
|-----------------------------|---------------|--|
| WORKFLOW | VARCHAR2(80) | Workflow name |
| WORKFLOW_DESCRIPTION | VARCHAR2(240) | Workflow description |
| REFERENCE_FLAG | VARCHAR2(1) | is this a reference Workflow? (Y/N) |
| ENABLED_FLAG | VARCHAR2(1) | is this Workflow enabled? (Y/N) |
| PRODUCT_SCOPE | VARCHAR2(200) | Mercury ITG product scope of this Workflow |
| RESTRICT_OBJECT_FLAG | VARCHAR2(1) | are new Objects automatically restricted from this Workflow? (Y/N) |
| FORCE_APP_CODES_FLAG | VARCHAR2(1) | (if PRODUCT_SCOPE = 'Change Management':) is App Code choice required on Package Lines using this Workflow? (Y/N) |
| RESTRICT_WORKFLOWS_F LAG | VARCHAR2(1) | are new Workflows automatically restricted from this Workflow? (Y/N) |
| SUB_WORKFLOW_FLAG | VARCHAR2(1) | is this Workflow a sub-Workflow? (Y/N) |
| Workflow Global User Data | VARCHAR2(200) | one column for each Workflow Global User Data field - column name is the User Data field token name |
| CREATED_BY_USERNAME | VARCHAR2(30) | username of Mercury ITG user who created this Workflow |
| CREATION_DATE | DATE | date Workflow was created |
| LAST_UPDATE_DATE | DATE | date Workflow was last updated |
| RESULT_VALIDATION_ID | NUMBER | (if SUB_WORKFLOW_FLAG = 'Y':) internal identifier of Validation that specifies possible outcomes for this Workflow |
| FIRST_WORKFLOW_STEP_ID | NUMBER | internal identifier (Workflow step ID) of the first step in this Workflow |
| REOPEN_STEP_ID | NUMBER | internal identifier (Workflow step ID) of the step that will be eligible if this Workflow is re-opened |
| WORKFLOW_ID | NUMBER | internal identifier for this Workflow |

MWFL_WORKFLOW_STEPS

This view exposes configuration details of Workflow steps. In some cases a report designer might need to present Workflow step information in a report. The report designer can join this view with other Workflow views through the key values WORKFLOW_STEP_ID and WORKFLOW_ID. This view also includes a column for each Workflow step User Data field defined in the system.

As an example, consider a scenario in which a User Data field has been defined for Workflow steps to provide a categorization. Suppose this field is called 'Step Category', has a token CATEGORY. Thus in this view there will be a CATEGORY column (in *italic boldface* below):

```
SQL> desc mwfl_workflow_steps
Name
                                Nu11?
                                         Type
WORKFLOW STEP
                                NOT NULL VARCHAR2 (80)
WORKFLOW_STEP_NUMBER
                                NOT NULL NUMBER
PARENT_REQUEST_TYPE_STATUS
                                         VARCHAR2 (30)
CATEGORY
                                         VARCHAR2 (200)
                      NOT NULL VARCHAR2 (200
CREATED BY USERNAME
CREATION_DATE
                                NOT NULL DATE
```

This type of information can be used to drive reports built using the Meta Layer. To continue the example, suppose the CATEGORY User Data field has possible values 'Normal', 'Test Gate', 'Prod Gate', etc. to give an indication of the nature of each step. Suppose a report is needed to show if a particular Mercury ITG user (in this case a user with username 'fjohnson') is eligible for any Change Management Workflow steps that are critical gateways to production (i.e. with 'Prod Gate' category), and how long they've been eligible. Consider a SQL query such as the following:

```
SELECT pla.package number
                                 PACKAGE NUM,
       pla.line_number
                                 LINE_NUM,
       pla.line_workflow_step_label || ': '
                                            || pla.action_name
                            ELIGIBLE STEP,
      pla.duration
                                 TIME ELIGIBLE,
      ws.workflow
FROM mwfl_step_security_users ssu,
      mwfl_workflow_steps ws,
      mpkgl_package_line_actions pla
WHERE pla.status_type = 'ELIGIBLE'
AND
      ws.category = 'Prod Gate'
AND
      ws.workflow_step_id = pla.workflow_step_id
      ws.workflow_step_id = ssu.workflow_step_id
AND
      ssu.username = 'fjohnson';
```

In this example, MWFL_WORKFLOW_STEPS was joined to the view MPKGL_PACKAGE_LINE_ACTIONS with the WORKFLOW_STEP_ID column. Note the use of the Meta Layer view MWFL_STEP_SECURITY_USERS, which is used to determine if a specified

user is authorized for a specified Workflow step. Please see the appropriate sections for MWFL_STEP_SECURITY_USERS and MPKGL_PACKAGE_LINE_ACTIONS for more details about those views.

Some important notes to consider when making use of this view:

- By default this view returns both 'reference' and 'non-reference'
 Workflow steps in the system. Mercury ITG Center provides reference
 copies of some Workflow steps, which are disabled and not usable by
 Mercury ITG transactions, and as such are rarely of reporting interest. The
 view column REFERENCE_FLAG can be used to filter results. To only
 show active, non-reference Workflow steps while using
 MWFL_WORKFLOW_STEPS view, include "REFERENCE_FLAG =
 'N" in the query.
- The type of each Workflow step is accessible through the column STEP_TYPE. There are 4 types of Workflow steps:
 - o Condition
 - o Decision
 - o Execution
 - o Workflow

MWFL_WORKFLOW_STEPS View Column Descriptions

| Column Name | Data Type | Description |
|------------------------------|---------------|--|
| WORKFLOW_STEP | VARCHAR2(80) | name of Workflow step |
| WORKFLOW_STEP_NUMBER | NUMBER | Workflow step sequence number |
| STEP_TYPE | VARCHAR2(200) | type of Workflow step |
| REFERENCE_FLAG | VARCHAR2(1) | is this a reference Workflow step? (Y/N) |
| ENABLED_FLAG | VARCHAR2(1) | is this Workflow step enabled? (Y/N) |
| STEP_SOURCE_NAME | VARCHAR2(50) | name of source of this Workflow step |
| WORKFLOW | VARCHAR2(80) | Workflow name |
| PRODUCT_SCOPE | VARCHAR2(200) | Mercury ITG product scope of Workflow step |
| PARENT_REQUEST_TYPE_S TATUS | VARCHAR2(80) | (if PRODUCT_SCOPE = 'Demand Management':) status to set in parent Request when at this Workflow step |
| PARENT_ASSIGNED_TO_US ERNAME | VARCHAR2(30) | Mercury ITG user to assign to parent |

| PARENT_ASSIGNED_TO_GR OUP | VARCHAR2(40) | Security Group to assign to parent |
|---------------------------------|---------------|--|
| Workflow Step Global User Data | VARCHAR2(200) | one column for each Workflow step Global User Data field - column name is the User Data field token name |
| CREATED_BY_USERNAME | VARCHAR2(30) | username of Mercury ITG user who created this Workflow step |
| CREATION_DATE | DATE | date Workflow was created |
| LAST_UPDATED_BY_USERN AME | VARCHAR2(30) | username of Mercury ITG user who last updated this Workflow step |
| LAST_UPDATE_DATE | DATE | date Workflow step was last updated |
| WORKFLOW_STEP_ID | NUMBER | internal identifier for Workflow step |
| WORKFLOW_ID | NUMBER | internal identifier for this Workflow |
| CURRENT_PERCENT_COMP LETE | NUMBER | percent complete value defined for a Workflow step |
| PARENT_ASSIGNED_TO_US ER_ID | NUMBER | ID for parent assigned-to Mercury ITG User |
| PARENT_ASSIGNED_TO_GR OUP_ID | NUMBER | ID for parent assigned-to Security Group |

MWFL_STEP_SECURITY_USERS

MWFL_STEP_SECURITY_GROUPS

These views are used to get information about Mercury ITG users or Security Groups linked to Workflow steps. The view

MWFL_STEP_SECURITY_USERS lists all users with authority to act on a given Workflow step through static Security Group or User linkage, as defined in the Workflow step dialog in the Workbench Workflows screen. Similarly, the view MWFL_STEP_SECURITY_GROUPS lists all Security Groups with authority to act on a step through static Security Group linkage. These views can be useful for reporting on specific key Workflow steps to show more detailed information that may not be available in the more general Activity Management views (such as RML_WORKFLOW_PENDING_ACTIVITY).

For example, consider a scenario in which a report is needed to show all Requests in Demand Management for which a given user is eligible for one or more 'approval' Workflow steps. The view MWFL_WORKFLOW_STEPS can be used to show which Workflow steps are 'approval' steps, and the view MREQ_REQUEST_ACTIONS will provide the Request information for eligible steps. Putting these together results in a SQL query such as this one:

SELECT ssu.username

ELIGIBLE_USER,

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```
ra.request_id
                                  REQUEST_NUM,
       ra.request_workflow_step_label | | ': ' | | ra.action_name
                                  ELIGIBLE_STEP,
      ra.duration
                                  DAYS_ELIGIBLE
FROM mwfl_step_security_users ssu,
      mwfl_workflow_steps ws,
      mreq_request_actions ra
WHERE ra.status_type = 'ELIGIBLE'
      ws.step_type = 'Approval'
AND
AND
      ra.workflow_step_id = ws.workflow_step_id
      ssu.workflow_step_id = ra.workflow_step_id
ORDER BY 1,2,3,4;
```

In this query, the Workflow step identifier WORKFLOW_STEP_ID was used to join MWFL_STEP_SECURITY_USERS with the view MREQ_REQUEST_ACTIONS, to relate Request Workflow step information. Please see the sections for MREQ_REQUEST_ACTIONS and MWFL_WORKFLOW_STEPS for additional information about these Meta Layer views.

Note: Dynamic Workflow step security defined by tokens is not included in these views.

MWFL_STEP_SECURITY_USERS View Column Descriptions

| Column Name | Data Type | Description |
|----------------------|--------------|---|
| WORKFLOW_STEP_ID | NUMBER | internal identifier of Workflow step |
| WORKFLOW_STEP | VARCHAR2(80) | name of Workflow step |
| WORKFLOW_STEP_NUMBER | NUMBER | Workflow step sequence number |
| WORKFLOW | VARCHAR2(80) | name of Workflow containing this step |
| USERNAME | VARCHAR2(30) | username of Mercury ITG user authorized to act on this step |
| USER_ID | NUMBER | internal identifier of user |
| WORKFLOW_ID | NUMBER | internal identifier of Workflow |

MWFL_STEP_SECURITY_GROUPS View Column Descriptions

| Column Name | Data Type | Description |
|----------------------|--------------|---|
| WORKFLOW_STEP | VARCHAR2(80) | name of Workflow step |
| WORKFLOW_STEP_NUMBER | NUMBER | Workflow step sequence number |
| WORKFLOW | VARCHAR2(80) | name of Workflow containing this step |
| SECURITY_GROUP_NAME | VARCHAR2(40) | Security Group authorized to act on this step |
| WORKFLOW_STEP_ID | NUMBER | internal identifier of Workflow step |
| SECURITY_GROUP_ID | NUMBER | internal identifier of Security Group |
| WORKFLOW_ID | NUMBER | internal identifier of Workflow |

RML_ENVIRONMENTS

This view contains configuration information about Environments. This includes server, client, and database details at both the base Environment level, and at the Application Code level. The report designer can join this view with other Meta Layer views through the key value ENVIRONMENT_ID. This view also includes a column for each Environment User Data field defined in the system.

As an example, consider a scenario in which a User Data field has been defined for Environments to store the version control project name. Suppose this field is called 'Version Control Project', has a token VC_PROJECT. Thus in the view RML_ENVIRONMENTS there will be a column named VC_PROJECT (in *italic boldface* below):

```
SQL> desc rml_environments
Name
                                 Null?
                                          Type
ENVIRONMENT NAME
                                 NOT NULL NUMBER
ENV DESCRIPTION
                                          VARCHAR2 (240)
ENV_ENABLED_FLAG
                                 NOT NULL VARCHAR2 (1)
LAST_UPDATE_DATE
                                 NOT NULL VARCHAR2 (30)
VC PROJECT
                                           VARCHAR2 (200)
ENVIRONMENT ID
                                 NOT NULL NUMBER
```

This type of information can be used to drive reports built using the Meta Layer. Continuing this example, suppose a report is needed to show how many Packages are pending deployment to the 'FINAPPS v11.4.7' version control project. Consider a SQL query such as the following:

Note: Every Environment in RML_ENVIRONMENTS contains a record where the application code is NULL. This record shows the base Environment configuration information. For example, to view the base Environment information for the 'Fin Prod' Environment, use a query such as:

```
SELECT *
FROM rml_environments
WHERE environment_name = 'Fin Prod'
AND app code IS NULL;
```

For records in RML_ENVIRONMENTS where the application code is *not* NULL, information returned will be that defined at the App Code level, or, if a column value is NULL in the App Code definition, then the base Environment value will be returned (similar to how "[ENV.*]" tokens are resolved during a Change Management Package Line execution).

RML_ENVIRONMENTS View Column Descriptions

| Column Name | Data Type | Description |
|---------------------------|---------------|--|
| ENVIRONMENT_NAME | VARCHAR2(80) | Environment name |
| ENV_DESCRIPTION | VARCHAR2(240) | description of Environment |
| ENV_ENABLED_FLAG | VARCHAR2(1) | is this Environment enabled? (Y/N) |
| ENV_LOCATION | VARCHAR2(240) | location of Environment |
| APP_CODE | VARCHAR2(30) | application code context |
| APP_NAME | VARCHAR2(80) | application name |
| APP_DESCRIPTION | VARCHAR2(240) | description of application |
| APP_ENABLED_FLAG | VARCHAR2(1) | is this app code enabled? (Y/N) |
| SERVER_NAME | VARCHAR2(30) | hostname of the server |
| SERVER_CLASS | VARCHAR2(80) | server machine class |
| SERVER_TYPE | VARCHAR2(240) | server machine type |
| SERVER_BASE_PATH | VARCHAR2(80) | base path to use in a server connection |
| SERVER_NT_DOMAIN | VARCHAR2(80) | (if SERVER_CLASS = 'Windows Hosts':) Windows NT domain to use in a server connection |
| SERVER_CONNECT_PROTO COL | VARCHAR2(200) | server shell connection protocol |
| SERVER_TRANSFER_PROTO COL | VARCHAR2(200) | server file transfer protocol |

| SERVER_USERNAME | VARCHAR2(30) | username to use in a server connection |
|---------------------------|---------------|--|
| SERVER_ENABLED_FLAG | VARCHAR2(1) | is the client enabled? (Y/N) |
| CLIENT_NAME | VARCHAR2(30) | hostname of the client |
| CLIENT_CLASS | VARCHAR2(80) | client machine class |
| CLIENT_TYPE | VARCHAR2(240) | client machine type |
| CLIENT_BASE_PATH | VARCHAR2(80) | base path to use in a client connection |
| CLIENT_NT_DOMAIN | VARCHAR2(80) | (if CLIENT_CLASS = 'Windows Hosts':) Windows NT domain to use in a client connection |
| CLIENT_CONNECT_PROTOC OL | VARCHAR2(200) | client shell connection protocol |
| CLIENT_TRANSFER_PROTO COL | VARCHAR2(200) | client file transfer protocol |

RML_ENVIRONMENTS View Column Descriptions (continued)

| Column Name | Data Type | Description |
|------------------------------|---------------|--|
| CLIENT_USERNAME | VARCHAR2(30) | username to use in a client connection |
| CLIENT_ENABLED_FLAG | VARCHAR2(1) | is the client enabled? (Y/N) |
| DB_TYPE | VARCHAR2(200) | database type |
| ORACLE_DB_SID | VARCHAR2(30) | (if DB_TYPE = 'Oracle Server':) Oracle SID for the database |
| ORACLE_CONNECT_STRING | VARCHAR2(30) | (if DB_TYPE = 'Oracle Server':) Oracle database connection string |
| MSSQL_DB_NAME | VARCHAR2(30) | (if DB_TYPE = 'SQL Server':) Microsoft SQL Server database name |
| DB_USERNAME | VARCHAR2(30) | username to use in a DB connection |
| DB_LINK | VARCHAR2(130) | name of DB link to the database |
| DB_SERVER_NAME | VARCHAR2(30) | hostname of the database server computer |
| DB_SERVER_PORT_NUM | NUMBER | port # for socket database connections |
| DB_VERSION | VARCHAR2(40) | database version |
| DB_ENABLED_FLAG | VARCHAR2(1) | is the database enabled? (Y/N) |
| Environment Global User Data | VARCHAR2(200) | one column for each Environment Global User Data field - column name is the User Data field token name |
| CREATION_DATE | DATE | date Environment was created |
| CREATED_BY_USERNAME | VARCHAR2(30) | username of Mercury ITG user who created this Environment |
| LAST_UPDATE_DATE | DATE | date Environment was last updated |
| ENVIRONMENT_ID | NUMBER | internal identifier for this Environment |

RML_USERS

This view contains detail information about User configurations. In some cases a report designer might need to include User information in a report, and can join the USER_ID column in this view with the same column in other views that reference individual users (such as RML_RESOURCE_ACTIVITY). The view RML_USERS has columns for the main User configuration fields present on the User detail window in the Workbench, and also includes a column for each Users User Data field defined in the system.

For example, if the system has 3 Users User Data fields defined, this view will contain 3 respective columns which use the User Data fields' token names as view column names. If these 3 User Data fields have tokens PAGER_NUM, CELL_PHONE_NUM, and HOME_PHONE_NUM, then the RML_USERS view would contain 3 columns with these names (in *italic boldface* below):

```
SQL> desc mwfl_workflows
Name
                                   Null?
                                            Туре
                                  NOT NULL VARCHAR2 (80)
USERNAME
ENABLED FLAG
                                  NOT NULL VARCHAR2(1)
  :
COMPANY
                                            VARCHAR2 (30)
PAGER NUM
                                            VARCHAR2 (200)
CELL PHONE NUM
                                            VARCHAR2 (200)
HOME_PHONE_NUM
                                            VARCHAR2 (200)
CREATION DATE
                                  NOT NULL DATE
CREATED_BY_USERNAME
                                  NOT NULL VARCHAR2 (30)
```

RML USERS View Column Descriptions

| Column Name | Data Type | Description |
|------------------------------|--------------|-----------------------------------|
| USERNAME | VARCHAR2(30) | username of Mercury ITG user |
| ENABLED_FLAG | VARCHAR2(1) | is the user enabled? (Y/N) |
| PASSWORD_EXPIRATION_D AYS | NUMBER | days until password expires |
| PASSWORD_EXPIRATION_D ATE | DATE | date on which password expires |
| EMAIL_ADDRESS | VARCHAR2(80) | email address of user |
| FIRST_NAME | VARCHAR2(30) | user's first name |
| LAST_NAME | VARCHAR2(30) | user's last name |
| START_DATE | DATE | date on which user becomes active |
| END_DATE | DATE | date on which user is deactivated |
| DEFAULT_ACCELERATOR | VARCHAR2(80) | user's default Extension context |
| AUTHENTICATION_MODE | VARCHAR2(30) | Authentication mode for user |

| COMPANY | VARCHAR2(30) | user's associated company |
|-----------------------|---------------|--|
| User Global User Data | VARCHAR2(200) | one column for each User Global User Data field - column name is the User Data field token name |
| CREATION_DATE | DATE | date this user was created |
| CREATED_BY_USERNAME | VARCHAR2(30) | Mercury ITG user that created this user |
| LAST_UPDATE_DATE | DATE | date this user was last updated |
| USER_ID | NUMBER | internal identifier for this user record |

RML_SECURITY_GROUPS

This view contains detail information about Security Group configurations. In some cases a report designer might need to include Security Group information in a report, and can join the SECURITY_GROUP_ID column in this view with the same column in other views that reference Security Groups (such as MWFL_STEP_SECURITY_GROUPS). The view RML_SECURITY_GROUPS has columns for the main Security Group configuration fields present on the Security Group detail window in the Workbench, and also includes a column for each Security Group User Data field defined in the system.

For example, if the system has 2 Security Group User Data fields defined, this view will contain 2 respective columns which use the User Data fields' token names as view column names. If these 2 User Data fields have tokens DEPARTMENT and GROUP_MANAGER, then the RML_SECURITY_GROUPS view would contain 2 columns with these names (in *italic boldface* below):

```
SOL> desc mwfl workflows
Name
                               Null?
                                        Type
          _____ ____
SECURITY_GROUP_NAME
                               NOT NULL VARCHAR2 (80)
SECURITY_GROUP_DESCRIPTION
                               NOT NULL VARCHAR2 (240)
ENABLED FLAG
                               NOT NULL VARCHAR2 (1)
DEPARTMENT
                                        VARCHAR2 (200)
GROUP MANAGER
                                        VARCHAR2 (200)
                               NOT NULL VARCHAR2 (30)
CREATED_BY_USERNAME
CREATION DATE
                               NOT NULL DATE
```

Following this example, suppose a report is needed that takes a department as input from the user running the report, and shows the details of all open Release Distributions that Security Groups in the given department have authority to act on. Consider a SQL statement such as the following (keep in mind that DEPARTMENT is a Security Group User Data column):

```
SELECT sq.department
                                               DEPARTMENT.
       da.release_name
                                               RELEASE NAME,
       da.distribution name
                                             DISTRIBUTION NAME,
       da.dist workflow step label | | ': ' | da.action name
                                               ELIGIBLE_STEP,
       da.duration
                                              DAYS_ELIGIBLE
      rml_security_groups sg,
FROM
       mwfl_step_security_groups ssg,
      mrel_distribution_actions da
WHERE da.status_type = 'ELIGIBLE'
AND
       da.workflow_step_id = ssg.workflow_step_id
       ssg.security_group_id = sg.security_group_id
ORDER BY 1,2,3,4;
```

Note the use of the key column SECURITY_GROUP_ID to join with the view MWFL_STEP_SECURITY_GROUPS.

RML_SECURITY_GROUPS View Column Descriptions

| Column Name | Data Type | Description |
|------------------------------------|---------------|---|
| SECURITY_GROUP_NAME | VARCHAR2(40) | Security Group name |
| SECURITY_GROUP_DESCRIP TION | VARCHAR2(240) | description of Security Group |
| RESTRICT_WF_FLAG | VARCHAR2(1) | always restrict new Workflows from this Security Group? (Y/N) |
| RESTRICT_APPCODE_FLAG | VARCHAR2(1) | always restrict new app codes from this Security Group? (Y/N) |
| ENABLED_FLAG | VARCHAR2(1) | is the Security Group enabled? (Y/N) |
| Security Group Global User Data | VARCHAR2(200) | one column for each Security Group Global User Data field - column name is the User Data field token name |
| CREATION_DATE | DATE | date this Group was created |
| CREATED_BY_USERNAME | VARCHAR2(30) | Mercury ITG user that created this Group |
| LAST_UPDATE_DATE | DATE | date this Group was last updated |
| SECURITY_GROUP_ID | NUMBER | internal identifier for this Group record |

RML_LOOKUP_VALUES

This view contains all of the static values used in validations for Mercury ITG Center products. Each row includes a code and a meaning for that code. Mercury ITG Center products track lookups by their code internally, and use the meaning to display a meaningful message to the user.

Report designers may need to use the view RML_LOOKUP_VALUES to query a meaningful list of values for field validations in their custom reports. Simple queries from this view can achieve this, such as the following (in this case, to get a list of types of patches, to limit the report runner's choices when kicking off a report that has a field for the patch type):

```
SELECT lookup_value
FROM rml_lookup_values
WHERE lookup_type = 'PATCH_TYPES'
```

For customer-defined Validations in the Validations screen, the value of the LOOKUP_TYPE column matches the corresponding Validation name.

| RML LOOKUP VALUES View Column Descript |
|--|
|--|

| Column Name | Data Type | Description |
|------------------------------|---------------|--|
| LOOKUP_TYPE | VARCHAR2(80) | lookup type |
| LOOKUP_VALUE | VARCHAR2(80) | visible value for this lookup type |
| LOOKUP_CODE | VARCHAR2(30) | internal code for this lookup type |
| LOOKUP_SEQ | NUMBER | sequence number of this value in a list |
| LOOKUP_DESCRIPTION | VARCHAR2(240) | description of lookup value |
| DEFAULT_FLAG | VARCHAR2(1) | is this the default value? (Y/N) |
| USER_MAINTAINABLE_FLAG | VARCHAR2(1) | is this value editable? (Y/N) |
| ENABLED_FLAG | VARCHAR2(1) | is this value enabled? (Y/N) |
| CREATED_BY_USERNAME | VARCHAR2(30) | username of Mercury ITG user that created this lookup value |
| CREATION_DATE | DATE | date this lookup value was created |
| LAST_UPDATED_BY_USERN AME | VARCHAR2(30) | username of Mercury ITG user that last updated this lookup value |
| LAST_UPDATE_DATE | DATE | date this lookup value was last updated |

Additional Resources

RML USER ACCESS GRANTS

This view is provided to allow report designers to enforce access security in the data presented in reports. A query of RML_USER_ACCESS_GRANTS will return the access grants available for a particular Mercury ITG user. This view can be included in report queries to check for certain access grants for the user running the report.

As a simple example, consider a report that is to return information about inprogress Release Distributions in Change Management. If the report designer wants to restrict reported information to only those Mercury ITG users that have either 'Change Management: View Releases' or 'Change Management: Edit Releases' access grants, he first must design the report so that it takes a valid Mercury ITG username as input. (The methodology and support for this type of report input will vary between reporting systems. Please consult the documentation for the reporting system being used for further instructions.) Then, supposing the input username was available as REPORT_USER, he can include the following SQL fragment in a query:

```
WHERE exists (select 1 from rml_user_access_grants where username = 'REPORT_USER' and access_grant_name in ('Change Management: View Release', 'Change Management: Edit Release'))
AND ...
```

Including this fragment in the full SQL statement might look as follows (with an example Mercury ITG username of 'fjohnson'):

```
SELECT r.release_name RELEASE,
r.release_status REL_STATUS,
d.distribution_name DIST,
d.dist_status DIST_STATUS
FROM mrel_distributions d,
mrel_releases r
WHERE exists (select 1
from rml_user_access_grants
where username = 'REPORT_USER'
and access_grant_name in ('Change Management: View Release',
'Change Management: Edit Release'))
AND r.release_id = d.release_id
ORDER BY r.release_name, d.distribution_name;
```

RML_USER_ACCESS_GRANTS View Column Descriptions

| Column Name | Data Type | Description |
|-------------|--------------|-----------------------------------|
| USERNAME | VARCHAR2(30) | username of Mercury ITG user |
| USER_ID | NUMBER | identification number of the user |

| FIRST_NAME | VARCHAR2(30) | first name of Mercury ITG user |
|-------------------|--------------|---|
| LAST_NAME | VARCHAR2(30) | last name of Mercury ITG user |
| ACCESS_GRANT_NAME | VARCHAR2(80) | name of access grant possessed by this user |

KCRT_PARTICIPANT_CHECK_V

This view can be used by report designers to enforce Request participant security in the data presented in reports. A query of

KCRT_PARTICIPANT_CHECK_V will return the Requests in Demand Management of which a particular Mercury ITG user is a participant. This view can be joined into report queries to check whether the user running the report is a participant of Requests that are enforcing participant-only viewing restriction.

As a simple example, consider a report that is to return the description of open Requests in Demand Management. If the report designer wants to restrict reported information to only those Requests that the user running the report is a participant of, he first must design the report so that it requires a valid username as an input field. (The methodology and support for this type of report input will vary between reporting systems. Please consult the documentation for the reporting system being used for further instructions.) Then, assuming the input username was available as REPORT_USER, he can include the following SQL fragment in the report query:

```
FROM kcrt_participant_check_v kpc
WHERE kpc.username = REPORT_USER
AND kpc.request_id = ...
```

Including this fragment in the full SQL statement might look as follows (with an example username of 'fjohnson'):

Note: If a Request Type does not enforce Request participant security, then all Requests of this Request Type will be returned by KCRT_PARTICIPANT_CHECK_V as viewable.

KCRT_PARTICIPANT_CHECK_V View Column Descriptions

| Column Name | Data Type | Description |
|-------------|--------------|---|
| USERNAME | VARCHAR2(30) | username of Mercury ITG user |
| REQUEST_ID | NUMBER | internal ID of Request that this user is a participant of |
| USER_ID | NUMBER | internal ID of the Mercury ITG user |

KDLV_PARTICIPANT_CHECK_V

This view can be used by report designers to enforce Package participant security in the data presented in reports. A query of

KDLV_PARTICIPANT_CHECK_V will return the Packages in Change Management of which a particular user is a participant. This view can be joined into report queries to check whether the user running the report is a participant of Packages that are enforcing participant-only viewing restriction.

As a simple example, consider a report that is to return the description of open Packages in Change Management. If the report designer wants to restrict reported information to only those Packages that the user running the report is a participant of, he first must design the report so that it requires a valid username as an input field. (The methodology and support for this type of report input will vary between reporting systems. Please consult the documentation for the reporting system being used for further instructions.) Then, assuming the input username was available as REPORT_USER, he can include the following SQL fragment in the report query:

```
FROM kdlv_participant_check_v kpc
WHERE kpc.username = REPORT_USER
AND kpc.package_id = ...
```

Including this fragment in the full SQL statement might look as follows (with an example username of 'fjohnson'):

Note: If a Change Management Workflow does not enforce Package participant security, then all Packages using this Workflow will be returned by KDLV_PARTICIPANT_CHECK_V as viewable.

KDLV_PARTICIPANT_CHECK_V View Column Descriptions

| Column Name | Data Type | Description |
|-------------|--------------|---|
| USERNAME | VARCHAR2(30) | username of Mercury ITG user |
| PACKAGE_ID | NUMBER | internal ID of Package that this user is a participant of |
| USER_ID | NUMBER | internal ID of the Mercury ITG user |

KRML CALENDAR DAYS

KRML_CALENDAR_MONTHS

Also included with the Reporting Meta Layer are two tables that contain sequential dates. KRML_CALENDAR_DAYS contains a record for every day from January 1, 1998 to mid-2011. KRML_CALENDAR_MONTHS contains a record for every month from January 1998 to mid-2011. These tables can be used to provide a date for organizing and grouping the results of queries.

As a simple example, suppose that a report needs to contain summary information for the number of errors for step 2 in the 'FIN dev-test-prod' Workflow, broken down by month. The calendar table KRML_CALENDAR_MONTHS can be used to provide the month-by-month breakdown to join with the ACTIVITY_DATE column in the view MWFL_STEP_ACTIVITIES. A SQL query to gather this information might be constructed as follows:

```
SELECT m.calendar_month MONTH,
    sum(sa.error) NUM_ERRORS

FROM krml_calendar_months m,
    mwfl_step_activities sa

WHERE sa.workflow = 'FIN dev-test-prod'
AND sa.workflow_step_number = 2
AND sa.activity_date >= m.start_date
AND sa.activity_date < m.end_date
GROUP BY m.calendar_month
ORDER BY 1:
```

Note the comparison of ACTIVITY_DATE to the START_DATE and END_DATE of the calendar month. This can be very useful for grouping discrete activity dates into aggregate time buckets.

| KRMI | CALENDAR | DAYS View Colum | n Descriptions |
|-------|-----------|------------------|---------------------------------|
| NNWIL | CALLINDAN | DAID YIEW COUIII | <i>uu 17</i> 6801 <i>uuuuuu</i> |

| Column Name | Data Type | Description |
|----------------|-----------|---|
| CALENDAR_DATE | DATE | a calendar date |
| CALENDAR_MONTH | DATE | date of the first day of the month containing the calendar date |
| CALENDAR_YEAR | DATE | date of the first day of the year containing the calendar date |

KRML_CALENDAR_MONTHS View Column Descriptions

| Column Name | Data Type | Description |
|----------------|-----------|---|
| CALENDAR_MONTH | DATE | date of the first day of a calendar month |

| START_DATE | DATE | date the calendar month started |
|------------|------|---------------------------------|
| END_DATE | DATE | date the calendar month ended |

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