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About This Book

Audience

SAS IT Resource Management Report Center (hereafter called ITRM Report Center) provides information about the performance and capacity of IT infrastructures. This information addresses the needs of particular groups of people based on their roles and the tasks that they perform in an enterprise.

*SAS IT Resource Management 3.10: Report Center Guide* is designed for the following users:

- Information consumers who are responsible for analyzing IT performance and capacity data and making decisions based on that data. These users are business people who are interested in the overall performance aspects of IT at a company. They often function as system architects, IT managers, line of business IT administrators, and IT executives. Information consumers use the reports that are generated by SAS IT Resource Management and often access them from the office as well as from remote locations.

  Information consumers typically use the documentation that is found in *SAS IT Resource Management 3.10: Overview* and in this document, *SAS IT Resource Management 3.10: Report Center Guide*.

- IT performance analysts who are responsible for analyzing IT performance data, designing and creating reports that communicate IT intelligence, and making those reports available in ITRM Report Center to information consumers. These users analyze this data in order to best benefit the business and to improve the utilization, availability, and performance of IT resources and the IT enterprise. Performance analysts often function as capacity planners, system administrators, and business analysts.

  Performance analysts typically use the documentation that is found in *SAS IT Resource Management 3.10: Reporting Guide*, although they might refer to all SAS IT Resource Management documentation.

- Data administrators are responsible for administering the IT Resource Management data marts and setting up the jobs that stage and aggregate IT performance data so that report-ready data is available for generating reports. Data administrators typically deploy and schedule the batch production jobs that prepare and generate the IT performance reports. They often function as IT performance managers and capacity planners.

  Data administrators typically use the documentation that is found in the *SAS IT Resource Management 3.10: Administrator's Guide*, although they usually refer to all SAS IT Resource Management documentation.
Prerequisites

Prerequisites for using SAS IT Resource Management are

- An operating environment that includes SAS IT Resource Management software.
- A user ID and password that are appropriate for that user's use of ITRM Report Center functions.
- A web browser that is supported by ITRM Report Center and, depending on the browser, extensions or plug-ins to enable ActiveX content to be viewed.
Chapter 1
About ITRM Report Center

Overview of ITRM Report Center

ITRM Report Center is a web-based application that enables you to filter and view the Performance and Exception reports that are produced by the SAS IT Resource Management solution.

Benefits of Using ITRM Report Center

ITRM Report Center enables users to filter and view the reports that are created using SAS IT Resource Management.

You can use ITRM Report Center to perform the following tasks:

- Search for reports using keywords.
- Filter to view logical subsets of reports.
- View IT performance and exception reports that are generated using SAS IT Resource Management.
- Email or share reports with other users.
Introduction to ITRM Report Center

When you sign in to ITRM Report Center, you can view all the IT Resource Management Performance and Exception reports and the metadata associated with the reports. The user can:

• search for specific reports using the Report Title and By Variables and create subsets.
• filter reports based on the metadata.
• display reports in a table or tile view.
• specify the columns of data to be displayed in the table view.

How to Get Help and Documentation for ITRM Report Center

ITRM Report Center provides the following two types of documentation:

Embedded Help
Help pop-ups and tooltips provide brief descriptions of various tasks and fields to help you use ITRM Report Center effectively.

To access a Help pop-up for more information about a current topic, click , when it appears next to a field or an area in the user interface (UI). You can also place the mouse pointer over an element in the UI to view the associated tooltip for more information.

SAS IT Resource Management 3.10: Report Center Guide
This document provides detailed information about the concepts and tasks that are related to using ITRM Report Center. To access this document, click the user name icon in the upper right corner and select Help Center. You can access all the documentation (PDF and HTML) for the SAS IT Resource Management solution.

About provides more information about the version of the application and related details.

Accessing ITRM Report Center

Signing in as a Registered User

Any individual user who can successfully connect to the SAS IT Resource Management metadata server is a member of SASUsers. This membership allows the users to access the SAS IT Resource Management Report Center Web Application.

To sign in to ITRM Report Center, perform the following steps:

1. In the address bar of your web browser, enter the URL for ITRM Report Center. For example, to access your ITRM Report Center, your URL might be http://<Middle-Tier-Server-Name:Port#>/ITRMReportCenter.
Then press Enter. The log in window appears.

*Note:* Contact your ITRM Report Center administrator if you do not have the URL for ITRM Report Center.

2. Enter a valid user ID and password. Your user ID and password are case-sensitive.

3. Click **Sign In**. The ITRM Report Center interface appears.

*Note:* Unexpected results might occur if you use the same authentication credentials to open and operate multiple sessions of the ITRM Report Center web application at the same time.

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**Running ITRM Report Center on the Secure Sockets Layer Protocol**

Transport Layer Security (TLS) and its predecessor, Secure Sockets Layer (SSL), are cryptographic protocols that are designed to provide communication security. TLS and SSL are protocols that provide network data privacy, data integrity, and authentication.

*Note:* All discussion of TLS is also applicable to the predecessor protocol, Secure Sockets Layer (SSL).

ITRM Report Center can be run on the Transport Layer Security (that is, the HTTPS protocol). The *Transport Layer Security (TLS)* is the standard security technology for creating an encrypted link between a web server and a browser. This link ensures that all data passed between the web server and browser remains private and secure. To generate an encrypted link, a web server requires a TLS Certificate. For more information, see *Encryption in SAS 9.4*, which is located here: Encryption in SAS(R) 9.4.

---

**Logging Level of ITRM Report Center**

After installing ITRM Report Center, the logging level is set by default to **Warn**. Only those logging messages that are set for WARN, ERROR, or FATAL do appear in the ITRMReportCenter log file. Logging messages that are set for DEBUG or INFO do not appear.

---

**Signing Out of ITRM Report Center**

To sign out from ITRM Report Center, click the user icon in the upper right corner of the user interface and select **Sign Out**.

By default, if ITRM Report Center is open for more than 30 minutes with no activity, then a warning message appears. The message states that due to inactivity, your session will time out. It provides the amount of time that remains before the session times out. You can extend the session or sign out.

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**ITRM Report Center Users**

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**Adding Users**

Any individual who successfully connects to the IT Resource Management metadata server can access IT Resource Management Report Center. To allow users to access to the SAS IT Resource Management metadata server:
1. As a member of the SAS Administrators Group, invoke the SAS Management Console from Microsoft Windows, click the Microsoft Windows Start button and select Programs ➔ SAS ➔ SAS Management Console.

2. Click the Plug-ins tab, if necessary, to display the plug-ins in the left panel of SAS Management Console. In the Repository field at the top of this panel, select the Foundation repository from the drop-down list.

   Note: Each metadata server has one foundation repository. By default, the name of the foundation repository is Foundation. (If you perform a custom installation, then the repository name can be different.)

3. Select the User Manager component in Environment Management of the SAS Management Console. Right-click the selection or anywhere on the workspace panel that is open. Click New and select User.

4. A New User Properties dialog box appears. In the General tab, enter the name and other identifying information for the user.

5. Select the Accounts tab and click New. Enter the user ID and password to define the new login properties for this user. By default, the Authentication Domain value is DefaultAuth for the SASApp server.

6. Click OK to save your changes.


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**About the Metadata Server: Unrestricted Role**

User IDs with the SAS Metadata Server: Unrestricted role can access SAS Management Console to add users to access ITRM Report Center. The following documentation provides pertinent information:

- SAS 9.4 Management Console: Guide to Users and Permissions
- SAS 9.4 Intelligence Platform: Security Administration Guide
- SAS IT Resource Management 3.10: Administrator’s Guide

   Note: Locate this documentation by using the Products Index A-Z at http://support.sas.com/documentation/index.html.

User IDs with the SAS Metadata Server: Unrestricted role can view and manage files and WebDAV folders in the SAS Content Server. Using the Administration Console component of the SAS Content Server, you can view, delete, and set permissions for WebDAV folders and files. For more information see “Using the SAS Content Server Administration Console” in the SAS 9.4 Intelligence Platform: Middle-Tier Administration Guide.
Chapter 2
The ITRM Report Center Workspace

ITRM Report Center Workspace

ITRM Report Center Workspace presents the ITRM performance and capacity analysis reports that are created using ITRM batch reporting. The creation of the ITRM batch reports is described in the SAS IT Resource Management Reporting Guide. There are potentially thousands of ITRM performance and exception reports that are available in the ITRM Report Center. The workspace allows the users to locate these reports using a combination of Search, Filter, Display, and Sort capabilities. The workspace also allows the users email these reports. The workspace is displayed, when a user logs in to the ITRM Report Center.

Search Reports

You can search for reports by entering text strings in the search field on the SAS IT Resource Management Report Center Home page.

- You can search for whole words that are separated by blank spaces. For example, suppose that you want to find reports that contain the string “CPU Utilization”, enter CPU in the search field.
- You can use keywords to search reports based on the Report Title or By Variables fields.

A subset of the reports are returned.
Working with Filters

About Filters
You can filter the reports based on a large set of report metadata in the ITRM Report Center. For example, you might create subset of reports with report metadata that includes a particular machine, adapter data source, and a set of keywords. ITRM Report Center filtering is a wizard driven process where selections for each step specify the available selections in subsequent steps.

Filter ITRM Report Center Reports
To filter reports:

1. Click , a Filter Reports window is displayed.

2. Select the primary filters on the Primary Filters tab. For more, see “Primary Filters” on page 7.

3. Select the secondary filters on the Secondary Filters tab. For more information, see “Secondary Filters” on page 8.

4. After you have made your Filter Reports selections, you can view those selections in the Summary page. To access the Summary page, select the Summary tab. On the Summary page, review your previous selections and ensure that they reflect the results that you expected.
5. Select **Save** to subset the reports based on these selections.

**Primary Filters**

On the **Primary Filters** tab, select the primary filters that designate the criteria for reports of interest. For example, you might choose to create a report subset that includes only reports that were defined to run weekly (Schedule Frequency) and that are available for a particular adapter data source (Domain Category) or keyword.

The values that appear in this filter list are based on the properties (report metadata) of the SAS ITRM batch reports that are available in the SAS Content Server. You can use four groups of primary filters to refine the set of reports:
• **Domain Category** for the appropriate domain category that is associated with the adapter.

• **Domain Subcategory** for the appropriate domain subcategory that is associated with the domain category.

• **Keywords** for other terms or variables by which you might filter the reports, such as “Top”, “Bottom” or “Exception”.

• **Schedule Frequency** for the time period on which the reports are run, such as daily, weekly, and monthly.

*Note:* The **Schedule Frequency** filter, specified in the SAS Enterprise Guide ITRM Report Definition task, is a filter value that suggests when the corresponding report job should run. It does not schedule report jobs and is not necessarily indicative of the date properties of the corresponding reports.

To select primary filters, click the primary filter group to display the filters that are available. The primary filters that are available include only the variables that are present for at least one of the reports in the SAS Content Server. Check the box next to the filter that you want to select.

*Note:*

• You must select a domain category.

• Selecting a filter restricts the report subset to only those reports that have properties that match the selected filter.

**Secondary Filters**

After you specify the primary filters, select the secondary filters on the **Secondary Filters** tab. Select the **Secondary Filters** tab to further subset the reports that meet the primary filter criteria.

To specify secondary filters:

• Select whether you want to include reports with no date property in the subset. Some reports might not have a Date, StartOfWeek, or StartOfMonth BY variable. If you
want to include these reports, then check the box next to the Include reports with no date property option.

- Check the box next to the date-based variable for which you want to specify the number of occurrences to include.

Reports can include the following date variables:

- **Date** specifies that date is in the BY variable of the report.
- **StartOfWeek** specifies that start of the week is in the BY variable of the report.
- **StartOfMonth** specifies that the start of the month is in the BY variable of the report.

Note: If you want to exclude all reports with a date BY variable of Date, StartOfWeek, or StartOfMonth, then deselect the appropriate check box.

- In the occurrences field for the selected date-based variable, specify the maximum number of instances (1 to 99) of the date variable that you want to include. If a report includes a corresponding date variable that is within this range, then the report is included.

The range begins with the date of the most recent BY variable for the given time variable (Date, StartOfWeek, or StartOfMonth) and includes the next latest dates within the range.

For example, the figure below shows the date-based reports that are included in the subset if occurrences are specified for all three date variables Date, StartOfWeek, and StartOfMonth. This figure uses the following conventions to represent reports:

- A black square (■) indicates that a report for the given date is available in the SAS Content Server and meets the primary filter criteria.
- A shaded cell indicates that the report is included.
Go to the Additional Filters tab to further subset the reports. These secondary filters are listed in the Additional Filters box and are based on the primary filters that you selected on the previous page. Select or deselect items of interest.

If you do not select an additional report variable, then the reports can include any of the variables for this secondary filter category. If you select at least one variable, then the reports include only those with the variables that you selected from the secondary filter group. For example, in a domain category for VMware, the BY variables might be Host and Cluster. You might want to view only reports that contain a certain host within a certain cluster. To do so, on the Secondary Filters page, select the desired values for Host and for Cluster from the Additional Filters box.

View Reports

SAS IT Report Center provides two ways to view the reports that you select:

- Click to display the reports in a table view. The table view displays the reports and their associated metadata in a tabular format. You can scan these reports for similarities and click an individual report to view a larger image of it in a separate browser window.

In the table view, an ordered list of reports is displayed with columns containing the metadata associated for those reports. Select any column in the table view, to sort the reports in ascending or descending order with respect to that column.
By default, the Report Title, By Variables, Content Date and Generation Date and Details (report properties) columns are displayed. To add or remove columns (Manage Columns) in Table view, click on the right corner of the column headings.

- Click to display the reports in the tile view. The tile view displays a thumbnail view of each report.

**Working with Reports**

You can select and launch the SAS ITRM Report Center reports in both the views (tile and table view). Depending on the format of the report (ActiveX, Java, PNG) and the browser that is used to work with the ITRM Report Center, launching reports enables you to do the following:

- actively interact with the reports in the form of data tips.
- drill down into the reports.
- change the graph display.

*Note:* ActiveX capabilities are available with Internet Explorer only.

To launch reports from SAS ITRM Report Center, click the report title in the table view or double-click the report image in the tile view. Report properties for each report are described in Appendix 1, “Report Properties,” on page 15.

**Email Reports**

SAS ITRM Report Center enables you to email reports from the reports that are displayed in the Report Center table and the tile view. You can share interesting or
notable reports. The emails that SAS ITRM Report Center generates include links to the reports. For email recipients to view these reports, they must have an IT Resource Management metadata identity. See, “Accessing ITRM Report Center” on page 2 for more information.

To email reports:

1. Select the reports that you want to share.
2. Click.
3. In the Email Report Link window, enter the email addresses separated by semicolons.
4. On the upper right corner, click Send Email.
Chapter 3
Administration Tasks

Administration Tasks

For more information, see the Chapter 10, “Administrative Tasks” in the SAS IT Resource Management 3.10: Reporting Guide.

SAS Content Server Locations

SAS IT Resource Management reports are written to \(<Middle-Tier-Server-Name>/SASContentServer/repository/default/sasdav/ITRM\).
Appendix 1
Report Properties

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Report Properties of Performance Reports

The list of report properties of a selected report is displayed if you click in the Details column for a report in the table view. Alternatively, right-click the report name and select Properties. In the tile view, right-click the report and select Properties.
The expanded list of the report properties of performance reports consists of these items:

- Report Title
- Domain Category
- Domain Subcategory
- Report Type (list of BY variables such as Date, Machine, and so on)
- Keywords
- Job Schedule Frequency
- IT Data Mart Name
- Job Name
• Data Source
• Data Path

*Note:* The **Data Path** is available if you store the data path with report definitions that you create. Data paths are not stored with supplied report definitions.

• Process Flow
• Transformation Name
• Report Definition
• Report Author
• Expire After
• Report URL

*Note:* Some properties might not appear if they were not defined by the user.

---

**Report Properties of Exception Reports**

The list of exception report properties of a selected report is displayed if you click in the **Report Center** view.

**Figure A1.2** List of Exception Report Properties

The list of report properties for exception reports consists of these items:

• Domain Category
• Domain Subcategory
• Report Type
• Keywords
• Job Schedule Frequency
• IT Data Mart Name
• Job Name
• Data Source
• Data Path
• Transformation Name
• Report Author
• Expire After
• Report URL

*Note:* Some properties might not appear if they were not defined by the user.
About Sample Reports

During the SAS IT Resource Management installation, multiple sample reports are stored in the SAS Content Server. These reports provide examples of the different types of reports that SAS IT Resource Management can create. They also enable you to practice using ITRM Report Center before you generate your own reports.

SAS IT Resource Management provides 30 sample performance reports and 4 sample exception reports. These samples include various plots and charts that demonstrate how your reports might look when you begin working with SAS IT Resource Management. Each sample report also includes a combination of BY variables.

As shown in the following display, the sample reports are stored in the SAS Content Server in the /sasdav/ITRM/SampleReports folder.
Administrators can access these reports using the http://Middle-Tier-Server-Name:<port>/SASContentServer/repository/default/sasdav/ITRM URL.

The sample performance and exception reports each include the DomainCategory ITRMDomainIntelligence so that you can identify and work with them in ITRM Report Center. The reports also include additional BY variables that you can use as filters in ITRM Report Center.

To distinguish the performance reports from the exception reports, the sample reports use the Keyword attribute as follows:

- The sample performance reports each include the keyword Performance.
- The sample exception reports each include the keyword Exception.

This enables you to identify and work with the reports in ITRM Report Center.

The following two topics explain how to create separate report center views for sample performance and sample exception reports.

**TIP** If you want to view all sample reports, follow the instructions here, but do not specify a Keyword.

---

**How to Filter or View Sample Performance Reports in ITRM Report Center**

To view the performance reports, perform the following steps:

1. Open ITRM Report Center and click .
2. In the Filter Reports dialog box, on the Domain Category tab, check the ITRMDomainIntelligence box. This action moves that domain category to the Selected Items list.

3. Click Keywords to display the entries in that domain category. Then check the box next to the Performance.

4. Click Save to display the reports.

Note: All sample performance reports include the domain category ITRMDomainIntelligence and the keyword Performance. If this domain category and this keyword do not appear as available options in your ITRM Report Center session, then the sample performance reports are no longer on your SAS Content Server. Contact your systems administrator for assistance.

Note: Sample reports can be deleted from the SAS Content Server by the SAS administrator. For more information, see the “Administrative Tasks” chapter in the SAS IT Resource Management 3.10: Reporting Guide.

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How to Filter or View Sample Exception Reports in ITRM Report Center

To create a gallery of sample exception reports, perform the following steps:

1. Open ITRM Report Center and click "Filter Reports".

2. In the Filter Reports dialog box, on the Domain Category tab check the ITRMDomainIntelligence box. This action moves that domain category to the Selected Items list.

3. Click Keywords to display the entries in that domain category. Then check the box next to the Exception.

4. Click Save to display the reports.

Note: All sample exception reports include the domain category ITRMDomainIntelligence and the keyword Exception. If this domain category and keyword do not appear as available options in your ITRM Report Center session, then the sample exception reports are no longer on your SAS Content Server. Contact your systems administrator for assistance.
Appendix 3
Troubleshooting Problems in ITRM Report Center

Using Multiple Open Sessions of ITRM Report Center on a Single Workstation

CAUTION:
Do not open multiple instances of ITRM Report Center using the same user ID, at the same time. Unexpected results could occur if a user uses the same authentication credentials to open and operate multiple sessions of the ITRM Report Center web application at the same time.

Several web browsers support a feature that merges multiple open sessions. This feature shares cookies, sign-in credentials, and preferences among all open sessions of the browser. If your workstation has multiple sessions of ITRM Report Center open with different sign-in credentials, then the actions that you perform in one session might adversely affect what you see in the other open sessions.
Static Image Is the Expected Image for Tabular Reports

*Figure A3.1  Static Image*

The preceding image is displayed for tabular reports. Click the static image to view the tabular report.

Location of ITRM Report Center Log

The ITRM Report Center log is located in the SAS middle-tier server at `YourSASConfigFolder\Lev1\web\Logs\SASServer10_1\ITRMReportCenter3.10.log`. If errors are reported in the log, save a copy of the log and contact SAS Technical Support.

The log contains the application name and the status information pertaining to the application start-up process.

*Note:* For information about setting the logging level for the tc server, see the topic called “How to Set the Logging Level for the tc Server”. It is located in the Appendix 9, “Best Practices and Troubleshooting Tips” in the *SAS IT Resource Management 3.10: Administrator’s Guide*.

ITRM Report Center Release Details

When reporting problems to SAS Technical Support, include information about your configuration. To access the Configuration Details window, click the user name icon on the upper right corner.

Select **About** to view the configuration details.
Issues with the ITRM Report Center Workspace

If your view of a workspace is not what you expect, you might need to clear your browser cache.
Recommended Reading

- *SAS IT Resource Management 3.10: Overview*
- *SAS IT Resource Management 3.10: Reporting Guide*

For a complete list of SAS publications, go to sas.com/store/books. If you have questions about which titles you need, please contact a SAS Representative:

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Web address: sas.com/store/books
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