

ContentReporter™ 3.0

Reporting Guide

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Preface

Introduction

Welcome to the NetApp® *ContentReporter™ 3.0 Reporting Guide*, a product from NetApp—The Network Appliance Company™, which is Serving Data By Design™.

This guide contains the information you need to log in to a ContentReporter server to create, schedule, and generate reports about NetCache™ appliances and Web and streaming server log files. This guide assumes that ContentReporter is installed, processing log files, and accessible to you through a Web browser. For more information about installing and configuring the ContentReporter server, and setting up log-file collection and processing, see the *ContentReporter 3.0 System Administration Guide*.

Audience

This guide is for reporting users who will access ContentReporter through a web browser to create, schedule, and generate reports on NetCache Appliance, web and streaming server log files. It assumes you are familiar with your operating system, your network, caches, web and streaming servers, and the basic concepts of how data moves over a network. This guide does not cover basic system or network administration topics, such as IP addressing, routing, and network topology.

Terminology and conventions

This guide uses the term “type” to mean pressing one or more keys on the keyboard. It uses the term “enter” to mean pressing one or more keys, and then pressing the Enter key.

Keyboard conventions

When describing key combinations, this guide uses the hyphen (-) to separate individual keys. For example, “Ctrl-D” means pressing the “Control” and “D” keys simultaneously. Also, this guide uses the term “Enter” to refer to the key that generates a carriage return, although the key is named “Return” on some keyboards.

Typographic conventions

The following table describes typographic conventions used in this guide.

Convention	Type of information
<i>Italic type</i>	Words or characters that require special attention. File names. Placeholders, for information you must supply. For example, <i>IP=12.34.56.78</i> Book titles in cross-references.
Monospaced font	Command names. Information displayed on the system console or other computer monitors. The contents of files.
<i>Bold monospaced font</i>	Words or characters you type. What you type is always shown in lowercase letters, unless you must type it in uppercase letters.

Special messages

This guide contains special messages that are described as follows:

Note

A note contains important information that helps you install or operate the system efficiently.

Caution

A caution contains instructions that you must follow to avoid loss of data.

About this chapter

This chapter gives you a quick look at how to use the reporting features of ContentReporter 3.0.

About the Reporting Feature

ContentReporter functionality is generally split between administrative and reporting functions. Administrative functions provide for the control and configuration of the ContentReporter Server. Reporting functions deal solely with creating, processing, and viewing reports. This book focuses on these functions.

Topics in this chapter

This chapter provides the following topics:

- ◆ [“What reports are for”](#) on page 2
- ◆ [“Understanding reporting concepts”](#) on page 3
- ◆ [“What reports look like”](#) on page 5
- ◆ [“About preparing and using reports”](#) on page 6

What reports are for

Using reports to analyze NetCache log files

ContentReporter is a software tool for collecting, analyzing, and reporting on NetCache log files. These files contain large amounts of streaming and web access information on almost every aspect of the files, data, and media accessed on a NetCache. You can analyze content usage, performance, and infrastructure loads across one or more NetCache appliances with ContentReporter reports.

Examples of reports

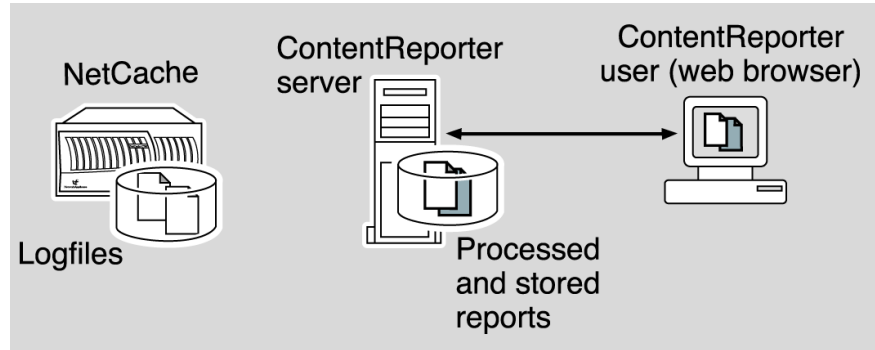
The following are some examples of NetCache report information you can include in a report:

- ◆ Client usage reports can help you identify which types of files are most frequently requested
These types of reports will help you:
 - ❖ Understanding who's accessing what data (security)
 - ❖ Understanding who's watching which streaming events
- ◆ File usage reports can help you:
 - ❖ Understand where best to pre-populate data
 - ❖ Understand how often content is viewed
 - ❖ Provide data for departmental charge back
- ◆ Cache performance reports can help you understand how to provision and grow your infrastructure by determining what parts of the network are stressed by growth or activity.

Understanding reporting concepts

About the reporting environment

The ContentReporter reporting environment has three major components. These include the log file source, the ContentReporter Server, and the ContentReporter User. The concepts introduced in this section explain each of these components from the reporting user's point of view.



About reporting concepts

As a reporting user, you only need to understand a few basic reporting concepts and ContentReporter components to quickly create, process, and view reports.

Log file source and collection

Your system administrator is responsible for setting up and initiating log file collection by defining a cache group on the ContentReporter server. As a reporting user, you only need to know that this information is collected from NetCache log files that reside directly on a NetCache or that have from been copied from a NetCache and stored in a location accessible from the ContentReporter Server machine. When you create a report, you will need to attach a log file source to the report by naming a specific cache or cache group.

Log file data processing and storage

Log file data is collected by ContentReporter, put into a form that ContentReporter understands — a process called parsing — and then stored in the ContentReporter database. Database records are stored on a per-cache basis. If a group has several caches, the ContentReporter server updates each cache's database records.

Extracting stored data with the report creation process

Once data from a log file has been parsed and stored in the ContentReporter database, ContentReporter then extracts that information when it processes a report as it searches the database for specific information. The visual elements of a report, the tables and graphs, are based on database queries.

Queries and their associated data elements are the building blocks of reports. ContentReporter has over fifty pre-defined queries you can include in a report. Each query is a specific grouping of data elements that are stored in the database. Queries are displayed in a report as a table or a graph. For example, “Reference by HTTP Status Code” and “Transfer Rate vs. Hits” are examples of queries that could appear in your reports.

What reports look like

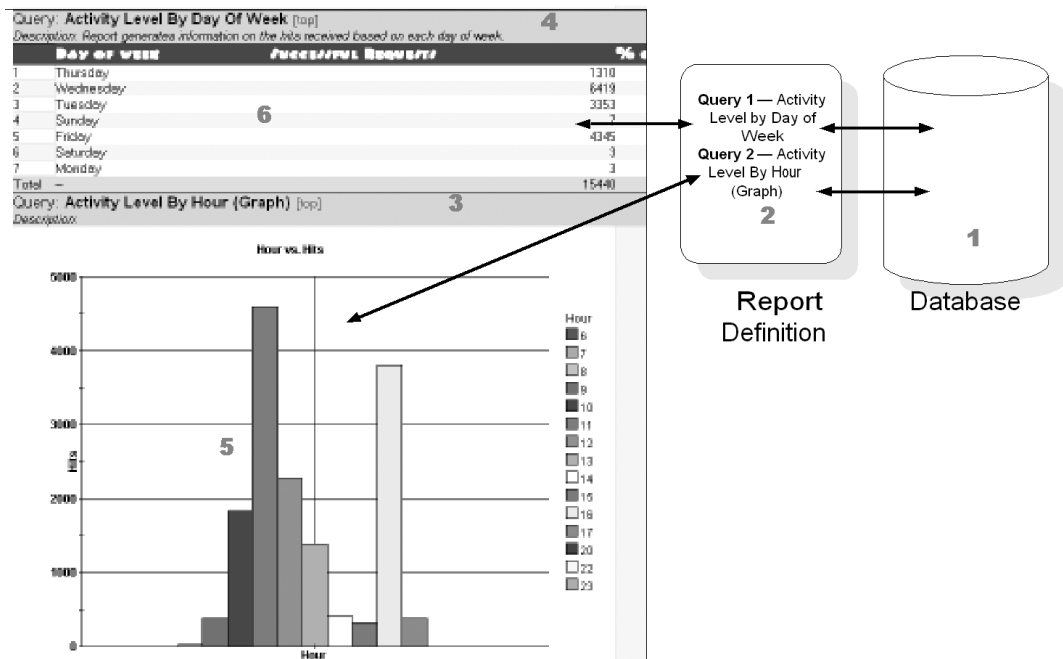
Looking at reports

A report is a visual representation of the log file information that has been collected and stored in the database for each cache's log files. This log file information is retrieved through a specific set of database queries that are displayed in the report as a table or a graph in XHTML format in a Web browser window or text format in a .TXT file. XHTML files can be opened in Microsoft Word, Excel, or Acrobat Reader.

Looking at the report window and data elements

The following figure shows the table and graph elements of a ContentReporter report and their relationship to queries and data in the ContentReporter database. Item 1 is a visualization of the ContentReporter database. Item 2 shows the two queries that this report uses to search the database. Once the report is processed, any information in the database that pertains to either of these queries is display in table or graph format (See items 3 and 4.) Each table or graph is also comprised of more specific information called data elements. (See items 5 and 6.)

XHTML formatted report



About preparing and using reports

Overview

This section provides you with a quick overview of the four general groups of tasks you will use to prepare and view a ContentReporter report. Tasks are categorized into the following matrix. Each of these tasks are further explained in other sections of this guide.

Category	Tasks	User Interface Location	Step-by-Step
Preparing and processing a report			
	Creating a report definition	◆ Report definition properties windows	“Creating a report definition” on page 14
	Processing a report definition	◆ Scheduler/Event properties window	“Processing a report through the scheduling interface” on page 25
	Running a report	◆ Scheduler/Event window	“About immediately processing (running) a report from the Scheduler/Event tab” on page 32
		◆ Report definition window	“About immediately processing (running) a report after you create a report definition” on page 24
Using Reports			
	Finding a report	◆ Report Results window	“Finding reports” on page 41
	Viewing a report	◆ Report Results window	“Viewing the report” on page 43
	Managing the report list	◆ Report Results window	“About managing the report list” on page 41
	Deleting a report	◆ Report Results window	“Deleting a report definition” on page 51
Modifying report components			

Category	Tasks	User Interface Location	Step-by-Step
	Modifying a Report Definition	◆ Report Definition properties window	“Modifying a report definition” on page 48
	Modifying a Report Schedule	◆ Scheduler/Event properties window	“Modifying a report schedule” on page 52
	Modifying a Report Query	◆ Query Definitions Properties window	“Modifying report queries” on page 56
Customizing report information			
	Filtering data in a report definition	◆ Report Definition properties window, Filters tab	“Filtering log file data with report filters” on page 66
	Creating new table and graph queries	◆ Query Definitions properties window	“Customizing the tables and graphs that appear in reports” on page 75
	Filtering data in a report query	◆ Query Definitions properties window	“Filtering report information with query filters” on page 70
Controlling access to report components			
	Setting access to Report definitions	◆ Report Definition properties window, Security tab	“Controlling access to report schedules” on page 84

About this chapter

This chapter shows you how to start ContentReporter and take a quick look at the user interface.

Topics in this chapter

Topics in this chapter include:

- ◆ “[Starting ContentReporter](#)” on page 10
- ◆ “[Taking a look around the user interface](#)” on page 11

Starting ContentReporter

About starting the product

As a reporting user, you will most likely be starting ContentReporter from a web browser on a machine that has HTTP access to the machine where the ContentReporter server is installed. The first time you run ContentReporter, you need to know the IP address or machine name of the ContentReporter Server.

Starting ContentReporter

To log into ContentReporter the first time, complete the following steps.

Step	Action	
1	If...	Then...
	You want to log into ContentReporter from the ContentReporter Server machine.	Double-click the ContentReporter icon on your desktop, (or click Start > Programs > Network Appliance > ContentReporter 3.0 > ContentReporter 3.0 Login). Result: The Login window appears.
	You want to log into ContentReporter from a machine that has HTTP access to ContentReporter server machine.	Launch your Web browser, and browse to: <code>http://servername:7777/ContentReporter/index.html</code> (the server name or IP address is of the machine where the installed ContentReporter Server is installed. 7777 is the ContentReporter-specific port). Result: The Login window appears. Note _____ If you use the machine name instead of the IP Address, you might have to modify your system's DNS settings to resolve the server name to the correct IP address. _____
2	Enter your username and password. Click on OK.	Result: Your home page is displayed.

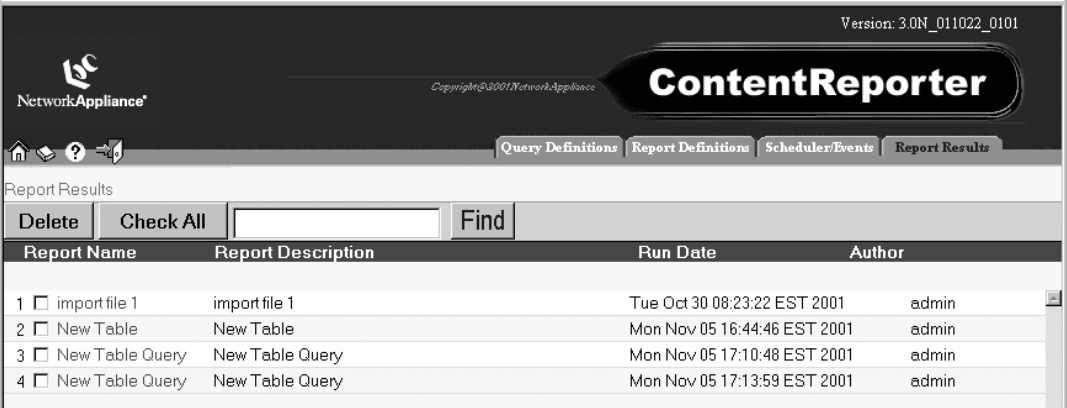
Taking a look around the user interface

About looking around the user interface

Although there is a basic split between ContentReporter administration and reporting functions, you, as a reporting user, can have a wide or limited range of access to report screens and functions. This access is based on the way your user account has been setup by the system administrator. For example, if you are a reporting user with administrative privileges, you will see all screens when you start the product and have access to all features and controls. If, on the other hand, you are a reporting user with limited privileges, you might only be able to view a few reports and will not see any of the administrative or control-feature screens. As a general rule, if you are not the administrator of a specific ContentReporter server, then find the system administrator to learn the specifics of your user account.

Checking out the reporting user's home page

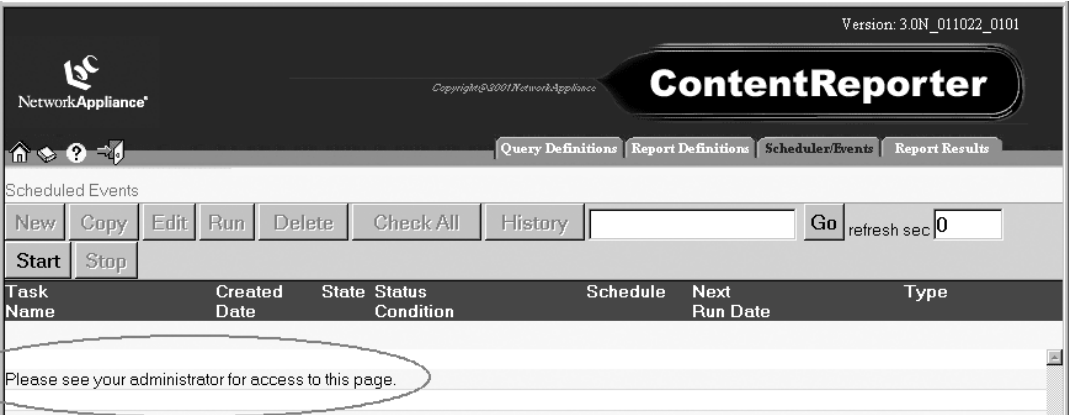
The following screen shows you the reporting user's home page. For reporting users without administrative privileges, the default start page is the Report Results page. This tab presents a list of all the reports you have access to view. You might or might have access to the three other tabs displayed.



What happens if you don't have access to a component?

If you don't have access to a screen, dialog box, or report component, an error message is displayed. An example of an error message is displayed in the screen below. The message tells you to see your ContentReporter system administrator

to get access to the Scheduled Events page. If you don't have access to a page, you cannot use any of the controls on the page or view the list of scheduled reports.



About this chapter This chapter gives you the information you need to create and process a report.

Topics in this chapter Topics include:

- ◆ “[Creating a report definition](#)” on page 14
- ◆ “[Processing a report through the scheduling interface](#)” on page 25

Creating a report definition

About this section This section gives you all the information you need to create a report definition.

More detailed information For more information on creating a report definition, see the following topics.

- ◆ [“Learning about report definitions”](#) on page 15
- ◆ [“Naming the report and selecting the data source”](#) on page 16
- ◆ [“Selecting the report format and logo”](#) on page 17
- ◆ [“Selecting the report location and delivery method”](#) on page 19
- ◆ [“Selecting database queries”](#) on page 21

Learning about report definitions

What you need to know about report definitions

Each report in ContentReporter is associated with a particular definition. When you create a report definition you need to:

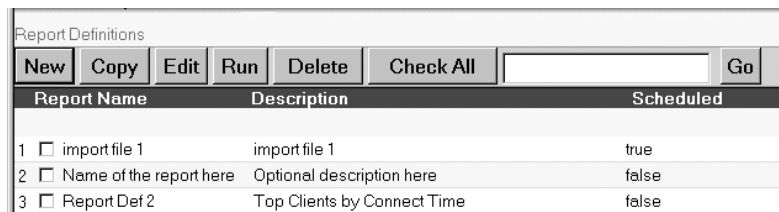
- ◆ Include the name of the report
- ◆ Attach a log file source
- ◆ Assign at least one database query to search the database for specific information you want displayed in the report.

Optionally, you can

- ◆ Filter log file information
- ◆ Control access by others to this specific report definition

About the Report Definition page

The Report Definitions page lists each of the reports that you have created or that you have access to. You can filter the report definitions in the list by typing in name of a definition and clicking on the Find button.

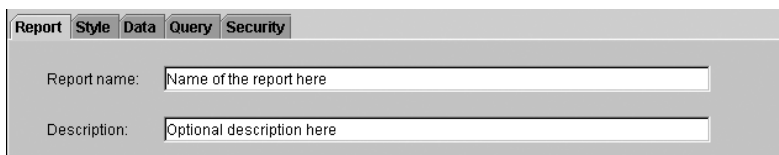


The screenshot shows a window titled "Report Definitions". At the top, there is a toolbar with buttons: "New", "Copy", "Edit", "Run", "Delete", "Check All", a text input field, and a "Go" button. Below the toolbar is a table with three columns: "Report Name", "Description", and "Scheduled". The table contains three rows of data, each with a checkbox in the first column.

	Report Name	Description	Scheduled
1 ☐	import file 1	import file 1	true
2 ☐	Name of the report here	Optional description here	false
3 ☐	Report Def 2	Top Clients by Connect Time	false

About the Report Definition Properties window

Use the fields on the various tabs in the Report Definition properties window to create the report definition. Once you have created the report definition, it is listed in the Report Definition window. There you can access it, process it, and/or modify it. All reports are defined by entering the above information on the appropriate tab.



The screenshot shows a window with five tabs: "Report", "Style", "Data", "Query", and "Security". The "Report" tab is selected. It contains two text input fields: "Report name:" with the value "Name of the report here" and "Description:" with the value "Optional description here".

Naming the report and selecting the data source

About naming the report and selecting the source

Every report definition needs to have a unique name and be associated with one or more caches. This data source must be configured prior to creating a report definition.

Name the report definition

To name a report definition and attach a data sources, complete the following steps.

Step	Action
1	On the Report Definition tab, click on the New button. Result: The Report Definition Properties window is displayed. Five tabs should be listed: Report, Style, Data, Query, and Security.
2	On the Report tab, include the Report Name and Description of the report definition you are creating.
3	In the Report On panel, select the data source you want to associate with this definition. This can be a specific cache or cache group or imported log file source. An object of either type must appear in this panel. If no names appear in this panel under the ContentReporter Server name, then you either do not have privileges to access a data source or none have been create. Click on the add arrows (>>>). Result: The cache or group is added to the selected items panel.
4	Continue completing the report definition. See “Selecting the report format and logo” on page 17.

Selecting the report format and logo

About selecting the report format

Reports can be defined to display in either XHTML or .TXT format. You need to make that selection in this step. Additionally, you can add a company logo or any other graphic file to the top of an XHTML formatted report in this step.

Note

To use a particular image in reports, save the image file in this logo sub-folder on the machine where the ContentReporter server is installed. You can access this directory if you have administrative privileges and have access to the server.

Select the report format

To select the report format and logo, use the following steps.

Step	Action	
1	In the Report Definition Properties window, select the Style tab.	
2	Select the Output format.	
3	If the format is...	Then...
	XHTML TEXT Note _____ If you select text-only reports, only table queries will display in the report. TEXT creates .csv and .txt files.	Proceed to Step 4 . The Delimiter drop-down box activates. Query values in reports with the Text output format are separated by either commas, spaces, or tabs. You can accept the default (commas), or change the Delimiter to spaces or tabs.

Step	Action
4	Select the logo file you want to include on your report header. Click on the drop-down box. This drop-down list displays all the image files available for your report header. The logo or graphic file must reside in the logo directory on the ContentReporter Server. Path to this directory typically would be: Network Appliance\ContentReporter\jakarta-tomcat\webapps\ContentReporter\logo\
5	Continue completing the report definition. See “Selecting the report location and delivery method” on page 19.

Selecting the report location and delivery method

About selecting the report location and delivery method

The next step in defining a Report Definition is to select the report delivery location. This location is the physical location where ContentReporter will place the report's XHTML or TXT files when it is processed. The three possible types of delivery are:

- ◆ To a ContentReporter directory on the ContentReporter Server
- ◆ FTPed to a directory on an FTP server
- ◆ E-mailed to a specific user with an account on an SMTP mail server

Note

All reports are stored locally on the ContentReporter server even when FTP'ed or E-mailed

Selecting the location

To select a report delivery location, follow these steps.

Step	Action	
1	In the Report Delivery section, select the type of report format: Stored Report, E-mail Report, or FTP report.	
2	If the delivery location is...	Then...
	Stored directory	Click on the Stored Report radio button. Result: This places the Report Definition stored on the machine where you installed ContentReporter in a subfolder under the “.\Network Appliance\ContentReporter\jakarta-tomcat\webapps\ContentReporter\Reports\” folder. The sub folder name is composed of the report definition name and a date-time stamp.

Step	Action	
	E-mail	Click on the E-Mail Report radio button to activate the E-mail Settings button. To configure ContentReporter to automatically e-mail the report, click the E-Mail Report radio button, and click E-mail Settings... Result: The E-mail Settings window appears.
		In the E-mail Settings window, enter your E-mail server address in the first field. For example, enter “smtp.domainname.com” (where “domainname” is your E-mail server’s domain name). For one or more E-mail addresses, enter the address in the Recipients field, and click Add. Result: : Each E-mail address appears in the lower panel. Click OK to have the E-mail settings take affect
	FTP	Click the FTP Report radio button, enter the FTP server name in the Server field, the port number (such as 21) in the Port field, and the User name and Password in the appropriate fields. Reports based on this Report Definition will be sent by FTP to the home directory of the user account on the FTP server.
3	Continue completing the report definition. See “ Selecting database queries ” on page 21.	

Selecting database queries

About selecting database queries

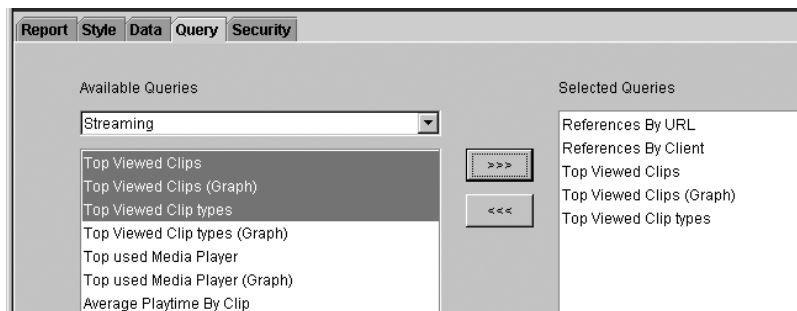
A key component of a report definition is the database queries that define the type of information presented in the report. ContentReporter has 45 pre-defined database queries that are available for most types of reports. The queries available for a report definition are listed on the Query tab of the Report Definition Properties window.

About the Query tab in the Report Definition Properties window

The Query tab contains a listing of all queries available to you for your report definition.

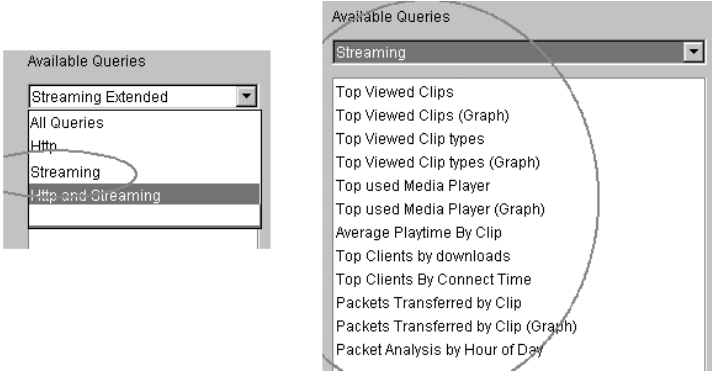
Note

You can only see the queries your account has permissions to access.



Selecting queries by categories

Use the following steps to assign a pre-defined category of queries to a report definition.

Step	Action
1	In the Report Definition Properties page, select the query tab. In the drop-down box at the top of the Available Queries column, select the query category you want to select individual queries from. In the example below, the Streaming Category is selected. 

Selecting database queries

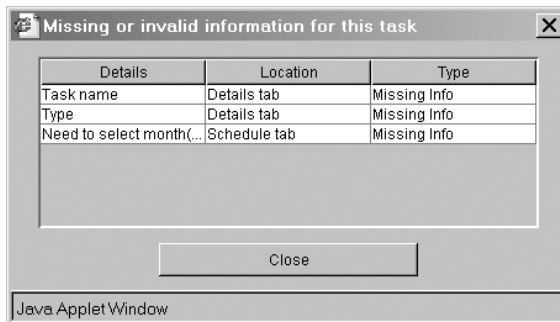
To attach a database query to your report definition, follow these steps.

Step	Action
1	In the Report Definition properties window, click on the Query tab.
2	In the Query tab, select the category of queries you want displayed in the Available Queries panel. You can view a different category by clicking on the drop-down box. As you select different categories in the upper field, the lower panel dynamically changes to display available queries.
3	To add one or more queries to a Report Definition, select the appropriate category from the upper Available Queries drop down list, select the query (or select multiple queries by holding down the Ctrl or Shift keys) from the Available Queries panel, and click the >>> (Select) button. Result: The query or queries appear in the right-hand Selected Queries panel.

Step	Action
4	To remove one or more queries from a Report Definition, select the query (or select multiple queries by holding down the Ctrl or Shift keys) from the right-hand Selected Queries panel, and click the <<< (Remove) button. Result: The query or queries no longer appear in the right-hand Selected Queries panel
5	Complete the report definition by clicking on the OK button at the bottom of the screen. Result: The report definition is completed and listed in the Report Definition tab.

About the Missing or Invalid Information dialog box

If you have not completed the schedule information correctly, a dialog displays listing the missing information.



About immediately processing (running) a report after you create a report definition

Once you have created a report definition to process a report, you can run it immediately by selecting the definition and pressing the run button.



Processing a report through the scheduling interface

About processing reports through the scheduling interface

You can create a schedule to process a report. Use the tabs in the Scheduling Properties window to schedule a report, define schedule times and frequency, and assign viewing privileges to a specific user or set of users.

For more information

For more detailed information on running a report through the scheduling interface, see these topics:

- ◆ [“Learning about the scheduling interface”](#) on page 26
- ◆ [“Creating a report schedule”](#) on page 28
- ◆ [“Viewing a schedule’s processing history”](#) on page 34

Learning about the scheduling interface

About the scheduling interface

ContentReporter contains a scheduling feature that makes it possible to process a report definition at a pre-determined time and frequency. For example, you can create a schedule to process a report definition daily at 12:00 AM. When ContentReporter runs the schedule, it process the report definition and places a pointer to the completed report on the Report Results page. If the report is to be FTPed or E-mailed, it will be at this time.

About the Scheduler/Event page

The Scheduler/Event page is the central location for scheduling report processing.

This page provides controls to create and modify scheduled jobs. Pertinent information about a specific schedule is displayed in table format in the lower part of this screen. Highlights of that information include the:

- ◆ Task Name column — Lists the name of each Scheduled Event (accessible by your account)
- ◆ State and Status column — Lists the status (such as completed, scheduled, or rescheduled) of each Scheduled Event.

Scheduled Events							
New	Copy	Edit	Run	Delete	Check All	History	
Start	Stop						Go refresh sec 0
Task Name	Created Date	State	Status Condition	Schedule	Next Run Date	Type	
1 ☐ Report Def 2	11/4/01	Idle		every N minutes	Sun @ 5:48 PM 11/4/01	Reporting	

- ◆ Schedule column — Lists the frequency (such as “one time only,” “hourly,” or “weekly”) of each Scheduled Event occurrence.
- ◆ Next Run Date column — Lists the date of each Scheduled Event’s next occurrence.

Button controls include the:

- ◆ Schedule Filter field — To the left of the Find button, enter the name of the

- ◆ Refresh Seconds field — As an report processes, you can set the screen refresh rate to browser to refresh the screen so you can see the latest processing status.
- ◆ History button — Displays a history of a selected scheduled report.

About the Scheduler/Event Properties window

The Scheduler/Event Properties window contains the Details, Schedule, and Security tabs.

- ◆ Use the Details tab to define the name of the schedule, type of event, and group or definition that will be processed.
- ◆ Use the Schedule tab to define parameters on which the schedule is based. For example, frequency, time, and date.
- ◆ Use the Security tab to define users and groups who will have access to this report.

The screenshot shows the 'Details' tab of the Scheduler/Event Properties window. It features three tabs at the top: 'Details' (selected), 'Schedule', and 'Security'. Below the tabs, there are three labeled text input fields: 'Task Name:' with the value 'Report Def 2', 'Type:' with the value 'Reporting', and 'Definitions:' with the value 'Report Def 2'. Each field is followed by a horizontal line, likely representing a scroll bar or a separator.

Creating a report schedule

About report processing through the Scheduler

When you schedule a report for processing through the Scheduler interface, you need to create a schedule task and then assign a frequency of processing to that task.

Create a schedule

Follow these steps to create a schedule.

Step	Action
1	In the Scheduler/Event page, click on the New button. Result: The Scheduler/Event Properties window is displayed with the Details tab shown
2	In the Task Name field, add the name of the new schedule.
3	In the Type drop-down box, select reporting.
4	In the Definitions drop-down box, select the Report Definition you want processed. Note _____ If there are no report definitions listed in the drop-down box, then you need to create one before you can complete this schedule. _____

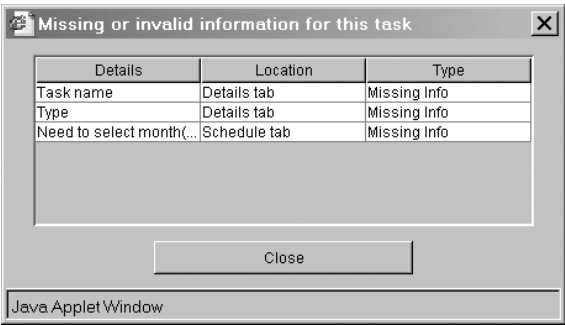
Step	Action	
5	Click on the Schedule tab.	
	If you want to schedule the report to run...	Then...
	ONE TIME	Click on the Execute this task drop-down box and select one time only. In the Start-time and Start-date boxes, select the time and date when you want the report to be processed. Go to Step 6
	EVERY [N] MINUTES	Click on the Execute this task drop-down box and select every N minutes. In the Start-time and Start-date boxes, select the time and date when you want the report to be processed. In the End-date drop-down box, select the date you want the scheduled processing to end. Leave the Ignore box checked (the default setting), and ContentReporter will automatically run this Scheduled Event at the scheduled intervals. Complete this step by making selections in the Interval and Run every drop-down boxes. Go to Step 6

Step	Action	
	HOURLY	Click on the Execute this task drop-down box and select every N minutes. In the Start-time and Start-date boxes, select the time and date when you want the report to be processed. In the End-date drop-down box, select the date you want the scheduled processing to end. Leave the Ignore box checked (the default setting), and ContentReporter will automatically run this Scheduled Event at the scheduled intervals. Complete this step by making selections in the Interval and Run every drop-down boxes. Go to Step 6
	DAILY	Click on the Execute this task drop-down box and select every N minutes. In the Start-time and Start-date boxes, select the time and date when you want the report to be processed. In the End-date drop-down box, select the date you want the scheduled processing to end. Leave the Ignore box checked (the default setting), and ContentReporter will automatically run this Scheduled Event at the scheduled intervals. Complete this step by making selections in the Interval drop-down boxes. Click the OK button. Go to Step 6

Step	Action	
	WEEKLY	Click on the Execute this task drop-down box and select weekly. In the Start-time and Start-date boxes, select the time and date when you want the report to be processed. In the End-date drop-down box, select the date you want the scheduled processing to end. Leave the Ignore box checked (the default setting), and ContentReporter will automatically run this Scheduled Event at the scheduled intervals. Complete this step by making selections in the Day(s) selection boxe(s.) Go to Step 6
	MONTHLY	Click on the Execute this task drop-down box and select weekly. In the Start-time and Start-date boxes, select the time and date when you want the report to be processed. In the End-date drop-down box, select the date you want the scheduled processing to end. Leave the Ignore box checked (the default setting), and ContentReporter will automatically run this Scheduled Event at the scheduled intervals. Complete this step by making selections in the Interval and Month(s) selection boxe(s.) Go to Step 6
6	Click the OK button. Result: The report is scheduled for processing. The Task name and its pertinent information is listed on the Scheduler/Event tab. If the schedule is not properly configured, the missing information dialog box displays.	

About the Missing or Invalid Information dialog box

If you have not completed the schedule information correctly, a dialog displays listing the missing information.



About immediately processing (running) a report from the Scheduler/Event tab

Once you have created a schedule to process a report, you can run it immediately by selecting the Schedule and pressing the run button.



Viewing event states, statuses, and conditions

The following table describes the possible states, statuses, and conditions of scheduled events.

Event Property	Value	Meaning
State	Pending	An occurrence of the scheduled event will begin when some other process completes.
	Running	An occurrence of the scheduled event is currently running.
	Completed	An occurrence of the scheduled event has just completed.
	Idle	The scheduled event is scheduled to occur sometime in the future.

Event Property	Value	Meaning
Status Condition	Pending	The scheduled event will begin when some other process completes.
	Successful	The scheduled event was successful.
	With Errors	The scheduled event completed, but had one or more errors. It did not completely fail nor completely succeed.
	Failed	The scheduled event failed.

Processing a report through the scheduling interface interface

Viewing a schedule's processing history

About viewing report processing history

ContentReporter keeps an audit-trail of all reports that have been processed through the scheduling interface. This allows you to view the specific detail of the report processed and track the processing history.

Scheduled Events History

Close	Check All	Logs	Details			
Task Name	Start Time	Finish Time	Duration	Status	Type	
1 ☐ Report Def 2	Sun Nov 04 17:48:01 EST 2001	Sun Nov 04 17:48:05 EST 2001	5 seconds	SUCCESSFUL	REPORT	
2 ☐ Report Def 2	Sun Nov 04 18:18:01 EST 2001	Sun Nov 04 18:18:03 EST 2001	3 seconds	SUCCESSFUL	REPORT	
3 ☐ Report Def 2	Sun Nov 04 18:48:01 EST 2001	Sun Nov 04 18:48:03 EST 2001	3 seconds	SUCCESSFUL	REPORT	
4 ☐ Report Def 2	Sun Nov 04 19:18:01 EST 2001	Sun Nov 04 19:18:03 EST 2001	3 seconds	SUCCESSFUL	REPORT	
5 ☐ Report Def 2	Sun Nov 04 19:48:01 EST 2001	Sun Nov 04 19:48:03 EST 2001	3 seconds	SUCCESSFUL	REPORT	
6 ☐ Report Def 2	Sun Nov 04 20:00:40 EST 2001	Sun Nov 04 20:00:41 EST 2001	2 hours 42 minutes	SUCCESSFUL	REPORT	

To view the history To view the history of Scheduled Events, complete the following steps.

Step	Action
1	In the Scheduled Events page, select one scheduled report and click on the History button. Result: The Scheduled Events History window displays all processing details of the Events you selected.

Step	Action	
	If you want to...	Then...
	See processing details	Click on the Details button to see details on a specific processing event. The details window lists the ContentReporter server's actions, such as "Collecting from" or "Getting file," and status, such as "Completed" and "Successful," for each occurrence of a Scheduled Event. Click on the Close button to return to the Scheduled Events tab
	See log files associated with a processed report	Click on the Logs button to display the ContentReporter log file containing processing information about this scheduled report. Lists the log files collected for an occurrence of a Scheduled Event. Click on the Close button to return to the Scheduled Events tab.
	Close the history window	Click on the Close button.

About this chapter This chapter gives you the information you need to view and manage Reports.

Topics covered in this chapter This chapter covers the following information:

- ◆ “[Learning about viewing reports](#)” on page 38
- ◆ “[Managing the Report Results list](#)” on page 41
- ◆ “[Viewing the report](#)” on page 43`

Learning about viewing reports

About viewing reports

Once you have created and processed a report definition. You can view the report to see the processed results. You view a report from the Report Results page.

About the Report Results page

The Report Results page provides you access to all instances of a processed report definition. Each time a definition is processed, a new report result is listed in the Report Results page.

The information listed for each Report Result provides you with:

- ◆ The the report name and description from the report definition.
- ◆ The date and time when the definition was processed
- ◆ The name of the person who created the Report Definition — the Author

Note

Based on the privileges associated with your ContentReporter account, you might or might not have access to certain Report Definitions.

Report Results			
Delete	Check All	Go	
Report Name	Report Description	Run Date	Author
1 ☐ import file 1	import file 1	Tue Oct 30 08:23:22 EST 2001	admin
2 ☐ Report Def 2	Top Clients by Connect Time	Sun Nov 04 17:48:03 EST 2001	admin
3 ☐ Report Def 2	Top Clients by Connect Time	Sun Nov 04 18:18:02 EST 2001	admin
4 ☐ Report Def 2	Top Clients by Connect Time	Sun Nov 04 18:48:02 EST 2001	admin
5 ☐ Report Def 2	Top Clients by Connect Time	Sun Nov 04 19:18:03 EST 2001	admin
6 ☐ Report Def 2	Top Clients by Connect Time	Sun Nov 04 19:48:03 EST 2001	admin
7 ☒ Report Def 2	Top Clients by Connect Time	Sun Nov 04 20:00:41 EST 2001	admin
8 ☐ Report Def 2 Text Output	Top Clients by Connect Time	Mon Nov 05 07:34:38 EST 2001	admin
9 ☐ Report Def 2 Text Output	Top Clients by Connect Time	Mon Nov 05 07:39:26 EST 2001	admin
10 ☐ Report Def 2 Text Output	Top Clients by Connect Time	Mon Nov 05 08:22:42 EST 2001	admin
11 ☐ Report Def 2 Text Output	Top Clients by Connect Time	Mon Nov 05 08:29:34 EST 2001	admin
12 ☐ Report Def 2 Text Output	Top Clients by Connect Time	Mon Nov 05 08:32:41 EST 2001	admin
13 ☐ Report Def 2 Text Output	Top Clients by Connect Time	Mon Nov 05 08:33:09 EST 2001	admin
14 ☒ Report Def 2 Text Output	Top Clients by Connect Time	Mon Nov 05 08:36:21 EST 2001	admin

About report formats

Depending on the format selection you made when you created the Report Definition, ContentReporter reports display in three different formats:

XHTML Format— The default report format is XHTML, which displays in a browser window.

Successful Hits [top]			
ption:			
Status Code	Status Code description	Hits	
200	OK		
204	No Content		
Totals			

Failed Hits [top]			
ption:			
Status Code	Status Code description	Hits	
400	Bad Request		
401	Unauthorized		
403	Forbidden		
404	Not Found		
Totals			

Text Format — Reports formatted for text output delimited by spaces or tabs display as a text file in Notepad or program associated with .TXT files on your system.

```

index.txt - Notepad
File Edit Format Help
-----
Total Successful Hits
-----
Description:
Status Code,Status Code description,Hits, of Hits
-----
200      OK      41442    99.94
204      No Content  22      0.05
-----
Total Failed Hits
-----
Description: |
Status Code,Status Code description,Hits, of Hits
-----
400      Bad Request    2      0.06
401      Unauthorized   24     0.83
403      Forbidden     9      0.31
404      Not Found    2846   98.78

```

Csv Format — Report Definitions formatted for text output delimited by commas displayed as CSV files in Microsoft Excel or program associated with .csv files on your system

index.csv						
	A	B	C	D	E	F
1						
2						
3	Total Successful Hits					
4						
5	Description:					
6						
7	Status Code	Status Code description	Hits	of Hits		
8						
9						
10	200	OK	41442	99.94		
11	204	No Content	22	0.05		
12						
13	Total Failed Hits					
14						
15	Description:					
16						
17	Status Code	Status Code description	Hits	of Hits		
18						
19						
20	400	Bad Request	2	0.06		
21	401	Unauthorized	24	0.83		
22	403	Forbidden	9	0.31		
23	404	Not Found	2846	98.78		
24						

Managing the Report Results list

About managing the report list

A listing of all processed reports is displayed in the Report Results window. This window might have many reports listed depending on the amount of reports you have scheduled for processing. You can manage this list of reports by finding similarly named reports. You can then select items in that list for viewing, editing, or deletion. The find function only looks for strings at the start of a name. For example, “bills” [Find] will only find billsreport and not reportbybills

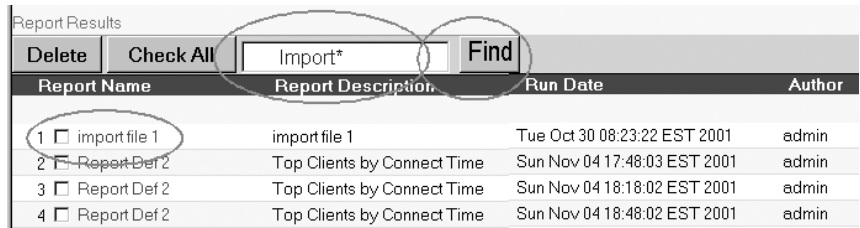
Note

When a report is deleted from the Report Results page, it does not affect the Report Definition that report was generated from.

Finding reports

Use the following steps to find a report listed on the Report Results page.

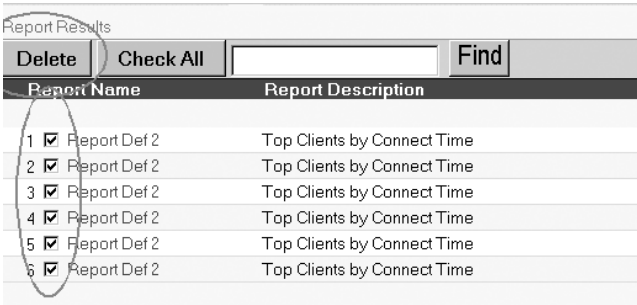
Step	Action
1	In the Report results page, type in the name of the report you want to find in the blank search field. Press the Find button. You can broaden the search by only typing a partial name in the search filed. Result: All the reports with a similar first word in the name are displayed.
2	To re-display the complete list of reports, clear the search field and press the Find button. Result: All report names are re-listed in the window.



Deleting report results

Use the following steps to delete a report listed on the Report Results page.

Step	Action
1	In the Report Result page, click on the selection box to the left of the Report you want to delete.
2	Press the Delete button. Result: The report is deleted from the list.



Viewing the report

About viewing

Reports are displayed from the Report Results page. Because XHTML reports display in a new browser window and .txt and .csv reports display in any associated program you can have two or more reports display simultaneously.

Viewing the report

Use the following steps to display a report.

Step	Action
1	On the Report Results page, find the report you want to view.
2	Click on the Report Name. Result: The report displays.

Report Results			
Delete	Check All		Find
Report Name	Report Description	Run Date	Author
1 ☐ Import file 1	import file 1	Tue Oct 30 08:23:22 EST 2001	admin
2 ☐ Report Def 2	Top Clients by Connect Time	Sun Nov 04 17:48:03 EST 2001	admin
3 ☐ Report Def 2	Top Clients by Connect Time	Sun Nov 04 18:18:02 EST 2001	admin
4 ☐ Report Def 2	Top Clients by Connect Time	Sun Nov 04 18:48:02 EST 2001	admin

Viewing a SmartFilter Report

Using the SmartFilter categories, you can create a SmartFilter report. SmartFilter reports provide you with the following information:

- ◆ The “x-smartfilter-categories” values are two letter strings (such as "gm" for games)
- ◆ The “x-smartfilter-result” values are either 1 (for blocked) or 0 (for not blocked). The "blocked" value means the NetCache prevented the user (client IP) from opening the web page. The "unblocked" means the NetCache allowed the user to open the web page.

The following screen is a typical SmartFilter report.

Report: Smartfilters Report

Report Date: 11/19/01 3:31:20 PM

Description:

Reported By: admin

Summary of Category Activity [top]

Description: Summary of Activity based on Smartfilter Category

Smartfilter Category		Hits	Percent of Hits
1	sx	26	61.90
2	ex	8	19.04
3	os	6	14.28
4	ch	2	4.76
Totals		42	100.00

Details of User Activity [top]

Description:

	Client IP	Date Time	Smartfilter Category	Web Site Location
1	10.96.0.101	2001-02-09 10:27:58.0	os	http://www.commission-junction.com/banners/tracker.exe
2	10.96.0.101	2001-02-09 10:27:59.0	os	http://www.commission-junction.com/banners/tracker.exe
3	10.96.0.101	2001-02-09 10:28:11.0	sx	http://xxx.com/
4	10.96.0.101	2001-02-09 10:28:24.0	ch	http://chat.msn.com/
5	10.96.0.101	2001-02-09 10:28:47.0	os	http://www.goto.com/d/sr
6	10.96.0.101	2001-02-09 10:32:02.0	sx	http://sex.com/
7	10.96.0.101	2001-02-09 10:32:04.0	sx	http://sex.com/
8	10.96.0.101	2001-02-09 10:32:05.0	sx	http://sex.com/
9	10.96.0.101	2001-02-09 10:32:06.0	sx	http://sex.com/
10	10.96.0.101	2001-02-09 10:32:36.0	sx	http://sex.com/
11	10.96.0.101	2001-02-09 10:32:40.0	ex	http://www.sex.com/
12	10.96.0.101	2001-02-09 10:32:40.0	sx	http://www.sex.com/
13	10.96.0.101	2001-02-09 10:32:42.0	ex	http://www.sex.com/

Viewing a Billing Report

ContentReporter gives you the ability to generate Billing reports (delimited Text files) based on usage of your network resources. You can import these Billing reports into third-party billing applications as delimited text files.

Report: Billing Report

Report Date: 11/19/01 3:19:31 PM

Description:

Reported By: admin

billing [top]

Description:

	Hour	Cache Hits	Byte Hit Rate
1	18:00	677	12.80
2	19:00	923	0.93
3	20:00	1048	2.08
4	21:00	791	1.28
5	22:00	796	2.38
6	23:00	824	2.31
7	0:00	795	2.36
8	1:00	813	2.62
9	2:00	809	2.65
10	3:00	810	2.39
11	4:00	792	2.08
12	5:00	786	2.11
13	6:00	806	2.28
14	7:00	794	2.44
15	8:00	866	2.69
16	9:00	1099	1.89
17	10:00	1043	2.63
18	11:00	1052	10.74
19	12:00	1763	5.98
20	13:00	3365	15.83
21	14:00	4664	15.64
22	15:00	1992	5.84
23	16:00	1038	1.13
24	17:00	680	4.04
Totals			

Note

Whenever your administrator changes the Billing aggregation settings, the database is cleared of all billing data for the ContentReporter servers connected to your database. Any pre-existing query definitions with billing statistics will no longer generate data. If your administrator modifies the Billing tab settings, delete any pre-existing query definitions based on Billing statistics, and create new query definitions based on Billing statistics.

You obviously need to work very closely with your admin on making sure you have access to the latest billing setup information.

To learn more about configuring Billing aggregation, see the *ContentReporter 3.0 System Administration Guide*.

Viewing queries with Object hit rate and Byte hit rate elements

- ◆ Object Hit rate equals the percent of hits served from the cache against total hits for data values other than numeric values (other than statistics) like URL, Date, Status code, abort code etc.

Object hit rate = (total hits) / (total hits + total misses)

- ◆ Byte Hit rate means Percent of bytes served from cache against total bytes for data values other than numeric values(other than statistics) like URL, Date, Status code, abort code etc.

Byte hit rate = (total bytes for hits) / (total bytes for hits + total bytes for misses)

Totals hits includes hits served from cache + origin server.

References by Transaction Code [\[top\]](#)

Description:

	Trans Code	KBytes-XFRD	Percent of Bytes	Total Refs	ICP Refs	Reload Refs	Abort Refs	Total Response Time	Non Cacheable object Refs	Object hit rate	Byte hit rate
1	TCP_MISS_PRIVATE_METHOD	345,700.63	63.96	46374	0	0	0	7,857.29	46374	0.00	0.00
2	TCP_HIT_IMS_NOTMOD	2,963.93	0.54	25148	0	0	0	555.30	0	100.00	100.00
3	TCP_MISS	87,384.77	16.16	6782	0	0	0	12,147.25	6782	0.00	0.00
4	TCP_MISS_PRIVATE_STATUS_CODE	2,178.25	0.40	4982	0	0	0	3,408.37	4982	0.00	0.00
5	TCP_MISS_PRIVATE_ON_STOP_LIST	21,955.60	4.06	4632	0	0	0	5,634.86	4632	0.00	0.00
6	TCP_HIT	28,864.71	5.34	4194	0	0	0	988.95	0	100.00	100.00
7	TCP_MISS_PRIVATE_CTRL	19,844.27	3.67	2060	0	0	0	1,644.56	2060	0.00	0.00
8	TCP_MISS_VERIFY	8,770.67	1.62	1113	0	0	0	388.68	1113	0.00	0.00
9	TCP_MISS_PRIVATE_NO_LAST_MOD	11,909.39	2.20	737	0	0	0	751.55	737	0.00	0.00
10	TCP_MISS_PRIVATE_AUTHORIZATION	1,494.38	0.27	412	0	0	0	72.78	412	0.00	0.00
11	MISS	1,415.23	0.26	357	0	0	0	348.26	357	0.00	0.00
12	MISS_PRIVATE_AUTHORIZATION	1,719.26	0.31	328	0	0	0	67.54	328	0.00	0.00
13	TCP_HIT_VERIFY	1,207.28	0.22	252	0	0	0	72.57	0	100.00	100.00
14	TCP_MISS_PRIVATE_COOKIE	4,017.89	0.74	157	0	0	0	330.57	157	0.00	0.00

About this chapter

This chapter gives you information on how to modify report components. Once you have created elements of a report — the report definition, a report schedule, or a new table or graph query — you can edit, copy, or delete these components to change the report result of a specific report.

Note

Modifications made to report components only affect subsequently generated reports and do not dynamically change already generated reports

Topics in this chapter

This chapter contains the following topics:

- ◆ “[Modifying a report definition](#)” on page 48
- ◆ “[Modifying report queries](#)” on page 56
- ◆ “[Modifying a report schedule](#)” on page 52

Modifying a report definition

About modifying a report definition

Once you have created a report definition, you can modify it by editing any of definitions you included in the original report definition.

For more information

For details about modifying a report definition, see the following topics:

- ◆ [“Editing a report definition”](#) on page 49
- ◆ [“Copying a report definition”](#) on page 50
- ◆ [“Deleting a report definition”](#) on page 51

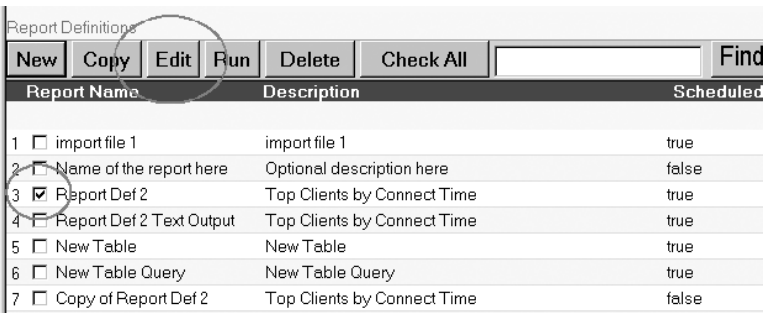
Modifying a report definition

Editing a report definition

About editing a report definition

If you need to modify any of the parameters in a report definition, you can edit the definition and make changes to all user-defined values.

To modify a report definition, complete the following steps.

Step	Action																														
1	On the Report Definition page, select the report definition you want to run by clicking on the selection box. <table><tr><th colspan="3">Report Definitions</th></tr><tr><th colspan="3"> NewCopyEditRunDeleteCheck AllFind </th></tr><tr><th>Report Name</th><th>Description</th><th>Scheduled</th></tr><tr><td>1 ☐ import file 1</td><td>import file 1</td><td>true</td></tr><tr><td>2 ☐ Name of the report here</td><td>Optional description here</td><td>false</td></tr><tr><td>3 ☒ Report Def 2</td><td>Top Clients by Connect Time</td><td>true</td></tr><tr><td>4 ☐ Report Def 2 Text Output</td><td>Top Clients by Connect Time</td><td>true</td></tr><tr><td>5 ☐ New Table</td><td>New Table</td><td>true</td></tr><tr><td>6 ☐ New Table Query</td><td>New Table Query</td><td>true</td></tr><tr><td>7 ☐ Copy of Report Def 2</td><td>Top Clients by Connect Time</td><td>false</td></tr></table>	Report Definitions			NewCopyEditRunDeleteCheck AllFind			Report Name	Description	Scheduled	1 ☐ import file 1	import file 1	true	2 ☐ Name of the report here	Optional description here	false	3 ☒ Report Def 2	Top Clients by Connect Time	true	4 ☐ Report Def 2 Text Output	Top Clients by Connect Time	true	5 ☐ New Table	New Table	true	6 ☐ New Table Query	New Table Query	true	7 ☐ Copy of Report Def 2	Top Clients by Connect Time	false
Report Definitions																															
NewCopyEditRunDeleteCheck AllFind																															
Report Name	Description	Scheduled																													
1 ☐ import file 1	import file 1	true																													
2 ☐ Name of the report here	Optional description here	false																													
3 ☒ Report Def 2	Top Clients by Connect Time	true																													
4 ☐ Report Def 2 Text Output	Top Clients by Connect Time	true																													
5 ☐ New Table	New Table	true																													
6 ☐ New Table Query	New Table Query	true																													
7 ☐ Copy of Report Def 2	Top Clients by Connect Time	false																													
2	Click on the Edit button. The Report Definition properties window is displayed. Modify information on the Run, Style, Data, Query, or Security tab as needed. For more information on each of these tabs, see the following: ◆ “Naming the report and selecting the data source” on page 16 ◆ “Selecting the report format and logo” on page 17 ◆ “Selecting the report location and delivery method” on page 19 ◆ “Selecting database queries” on page 21																														

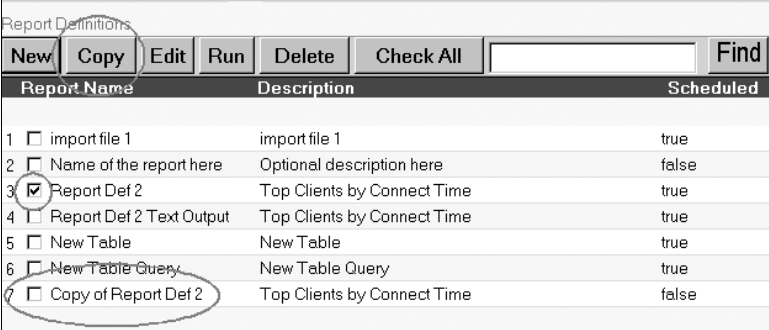
Modifying a report definition

Copying a report definition

About copying a report definition

Instead of creating a complete new definition for a report that might be similar to the one you have already created, you can copy an existing definition and give it a new name.

To copy a Report Definition, complete the following steps.

Step	Action
1	On the Report Definition page, select the report definition you want to copy by clicking on the selection box.
2	Click on the Copy button.  Result: The original definition is copied to a new definition, which appears at the end of the definition list. Note that you can rename the copied definition by selecting the report name and then clicking on the Edit button.

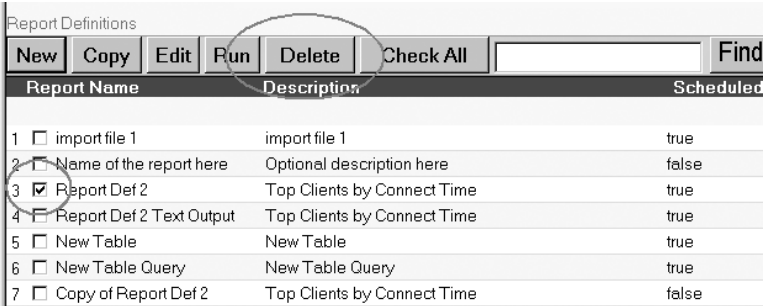
Modifying a report definition

Deleting a report definition

About deleting a report definition

You can delete any Report Definition listed on the Report Definition page.

To delete a Report Definition, complete the following steps.

Step	Action																																
1	In the Report Definition page, select the definition you want to delete.																																
2	Click on the Delete button.  The screenshot shows the 'Report Definitions' interface. At the top, there are buttons: 'New', 'Copy', 'Edit', 'Run', 'Delete', 'Check All', and a 'Find' search box. Below these is a table with columns 'Report Name', 'Description', and 'Scheduled'. The table contains seven rows. The third row, 'Report Def 2', is selected with a checkbox. The 'Delete' button is circled with a red circle. <table><tr><th></th><th>Report Name</th><th>Description</th><th>Scheduled</th></tr><tr><td>1</td><td>☐ import file 1</td><td>import file 1</td><td>true</td></tr><tr><td>2</td><td>☐ Name of the report here</td><td>Optional description here</td><td>false</td></tr><tr><td>3</td><td>☒ Report Def 2</td><td>Top Clients by Connect Time</td><td>true</td></tr><tr><td>4</td><td>☐ Report Def 2 Text Output</td><td>Top Clients by Connect Time</td><td>true</td></tr><tr><td>5</td><td>☐ New Table</td><td>New Table</td><td>true</td></tr><tr><td>6</td><td>☐ New Table Query</td><td>New Table Query</td><td>true</td></tr><tr><td>7</td><td>☐ Copy of Report Def 2</td><td>Top Clients by Connect Time</td><td>false</td></tr></table> Result: The report definition and any reports associated with it are deleted and removed from your system.		Report Name	Description	Scheduled	1	☐ import file 1	import file 1	true	2	☐ Name of the report here	Optional description here	false	3	☒ Report Def 2	Top Clients by Connect Time	true	4	☐ Report Def 2 Text Output	Top Clients by Connect Time	true	5	☐ New Table	New Table	true	6	☐ New Table Query	New Table Query	true	7	☐ Copy of Report Def 2	Top Clients by Connect Time	false
	Report Name	Description	Scheduled																														
1	☐ import file 1	import file 1	true																														
2	☐ Name of the report here	Optional description here	false																														
3	☒ Report Def 2	Top Clients by Connect Time	true																														
4	☐ Report Def 2 Text Output	Top Clients by Connect Time	true																														
5	☐ New Table	New Table	true																														
6	☐ New Table Query	New Table Query	true																														
7	☐ Copy of Report Def 2	Top Clients by Connect Time	false																														

Modifying a report schedule

About modifying a report schedule

You can modify existing scheduled events by:

- ◆ Copying them to create a new event with the original event's values
- ◆ Editing existing schedules and modifying their values
- ◆ Deleting scheduled events and removing them completely from your system

Modifying a report schedule

Copying a report schedule

About copying a report schedule

You can copy an existing scheduled event, with all its definitions, to a new scheduled event instance. This allows you to quickly create new scheduled events closely related to existing ones without the need to re-enter information in each of the fields that will not change.

Copy a report schedule

To modify a scheduled event, complete the following steps.

Step	Action
1	With the Scheduler/Event page displayed, select the scheduled event you want to copy by clicking on the check box to the left.
2	Click on the Copy button at the top of the screen. The screenshot shows a web interface titled "Scheduled Events". At the top, there is a row of buttons: "New", "Copy", "Edit", "Run", "Delete", and "Check All". Below these are two more buttons, "Start" and "Stop". Underneath is a table with columns: "Task Name", "Created Date", "State", "Status", and "Condition". The first row of the table has a checkbox checked, followed by the text "Report Def 2", the date "11/4/01", and the status "Expired Successful". Circles are drawn around the "Copy" button and the checkbox in the first row of the table. Result: The selected scheduled event is copied to a new instance with the same name and an increment number at the end “my schedule” is renamed to “copy of my schedule”
3	Select the new scheduled events and click on the Edit button at the top of the screen to make changes to the newly copied scheduled event. One of the first changes you should make is the scheduled event name.

Modifying a report schedule

Deleting a report schedule

About deleting a report schedule

Remove scheduled events from your system by deleting them from the Report Definition page.

Step	Action
1	In the Scheduler/Events page, select the scheduled events you want to delete. 
2	Click on the Delete key at the top of the page. Result: The scheduled event is permanently deleted from your system. Note_____ Deleting a scheduled event does not remove the report definition or reports already generated from this definition. _____

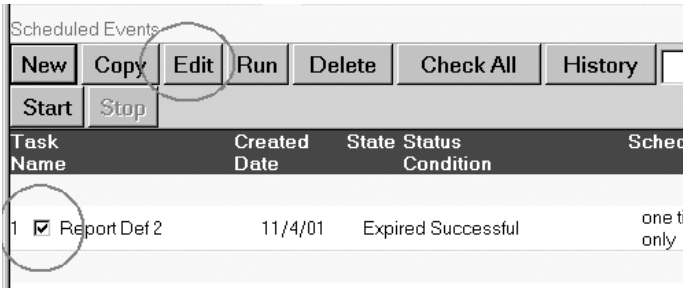
Modifying a report schedule

Editing scheduled events

About editing
scheduled events

You can modify a scheduled event by changing any of its parameters you defined when you first created it. For example, you can change the data elements it reports on or even the values ranges in a data element.

To modify a scheduled event, complete the following steps.

Step	Action																								
1	In the Scheduler/Event page, select the schedule you want to edit. Click on the appropriate tab and modify the parameters as needed. Proceed to the schedule component you want to edit and change it as needed  <table><caption>Scheduled Events</caption><tr><td>New</td><td>Copy</td><td>Edit</td><td>Run</td><td>Delete</td><td>Check All</td><td>History</td></tr><tr><td>Start</td><td>Stop</td><td></td><td></td><td></td><td></td><td></td></tr><tr><th>Task Name</th><th>Created Date</th><th>State</th><th>Status Condition</th><th>Sched</th></tr><tr><td>1 ☒ Report Def 2</td><td>11/4/01</td><td>Expired</td><td>Successful</td><td>one ti only</td></tr></table>	New	Copy	Edit	Run	Delete	Check All	History	Start	Stop						Task Name	Created Date	State	Status Condition	Sched	1 ☒ Report Def 2	11/4/01	Expired	Successful	one ti only
New	Copy	Edit	Run	Delete	Check All	History																			
Start	Stop																								
Task Name	Created Date	State	Status Condition	Sched																					
1 ☒ Report Def 2	11/4/01	Expired	Successful	one ti only																					
2	Once you have finished modifying all the scheduled events attributes, click on the OK button. Result: The changes to the scheduled events are saved.																								

Modifying report queries

About modifying report queries

You can modify existing table and graph queries by:

- ◆ Copying them to create a new query with the original query's values
- ◆ Editing existing queries and modifying their values (not recommended for built-in queries. See below.)
- ◆ Deleting queries and removing them completely from your system

Use caution when you edit pre-defined table and graph queries

If you want to modify one of the predefined queries, and also want to preserve its configuration, copy the pre-defined query, and then modify the copy. There is no option to restore the configuration of a pre-defined query.

Modifying report queries

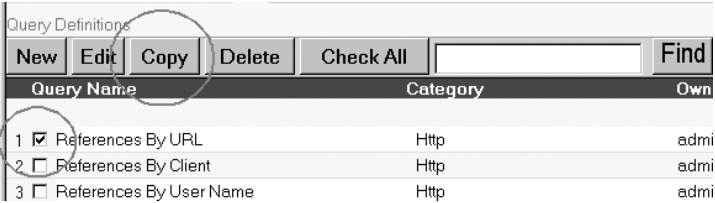
Copying queries

About copying queries

Copy an existing query, with all its definitions, to a new query instance. This allows you to quickly create new queries closely based on existing ones without the need to enter new information in each of the fields.

Copying queries

To modify a Query Definition, complete the following steps.

Step	Action
1	With the Query Definition page displayed, select the query you want to copy by clicking on the check box to the left of the Query name.
2	Click on the Copy button at the top of the screen.  Result: The selected query is copied to a new query with the same name and an increment number at the end of the name. For example, “my query” is now named “copy of my query).” Note If there are many Query Definitions listed, filter the entries by typing the name of the Query definition you are looking for and press the Find button.
3	Select the new query and click on the Edit button at the top of the screen to make changes to the newly copied query. One of the first changes you should make is the query name.

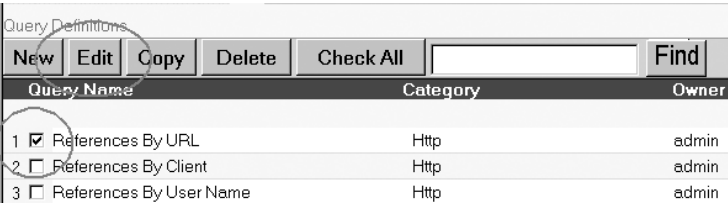
Modifying report queries

Editing table and graph queries

About editing table and graph queries

By editing a table or graph query, you can make changes to any of its existing values. For example the data elements it reports or the range of values in a data element.

To modify a Query Definition, complete the following steps.

Step	Action																																		
1	In the Query Definition page, select the query you want to edit and press the Edit button. Result: The Query Definition Properties page is displayed.  <table><tr><th colspan="3">Query Definitions</th></tr><tr><td>New</td><td>Edit</td><td>Copy</td><td>Delete</td><td>Check All</td><td></td><td>Find</td></tr><tr><th colspan="2">Query Name</th><th colspan="2">Category</th><th colspan="2">Owner</th></tr><tr><td>1</td><td>☒</td><td>References By URL</td><td>Http</td><td colspan="2">admin</td></tr><tr><td>2</td><td>☐</td><td>References By Client</td><td>Http</td><td colspan="2">admin</td></tr><tr><td>3</td><td>☐</td><td>References By User Name</td><td>Http</td><td colspan="2">admin</td></tr></table>	Query Definitions			New	Edit	Copy	Delete	Check All		Find	Query Name		Category		Owner		1	☒	References By URL	Http	admin		2	☐	References By Client	Http	admin		3	☐	References By User Name	Http	admin	
Query Definitions																																			
New	Edit	Copy	Delete	Check All		Find																													
Query Name		Category		Owner																															
1	☒	References By URL	Http	admin																															
2	☐	References By Client	Http	admin																															
3	☐	References By User Name	Http	admin																															
2	Proceed to the tab for the attribute you want to edit and change it based on information found in the following sections: ◆ “Customizing the tables and graphs that appear in reports” on page 75 ◆ “Filtering log file data with report filters” on page 66																																		
3	Once you have finished modifying all the query attributes, click on the OK button. Result: : The changes to the query are saved.																																		

Modifying report queries

Deleting table and graph queries

About deleting table and graph queries

Remove queries from your system by deleting them from the Query Definition page.

Step	Action
1	In the Query Definition page, select the query you want to edit.
2	Click on the Delete key at the top of the page. Result: The query is permanently deleted from your system. Caution————— If you delete a pre-defined query, it will be permanently deleted from the database.

About this chapter

This chapter gives you the information you need to customize report components.

Topics in this chapter

Topics in this chapter include:

- ◆ [“Learning about customizing reports”](#) on page 62
- ◆ [“Filtering log file data with report filters”](#) on page 66
- ◆ [“Filtering report information with query filters”](#) on page 70
- ◆ [“Customizing the tables and graphs that appear in reports”](#) on page 75

Learning about customizing reports

About customizing report information

ContentReporter gives you two powerful methods of customizing reports by:

- ◆ Controlling the information placed in a report with Report and Query filters.

ContentReporter provides you with a filtering mechanism to control the level and type of log file information included in a report when it is processed. By default, all the information from a log file is available for a report. By filtering that data, you can exclude extraneous data and zero-in on specific information to create a meaningful report.

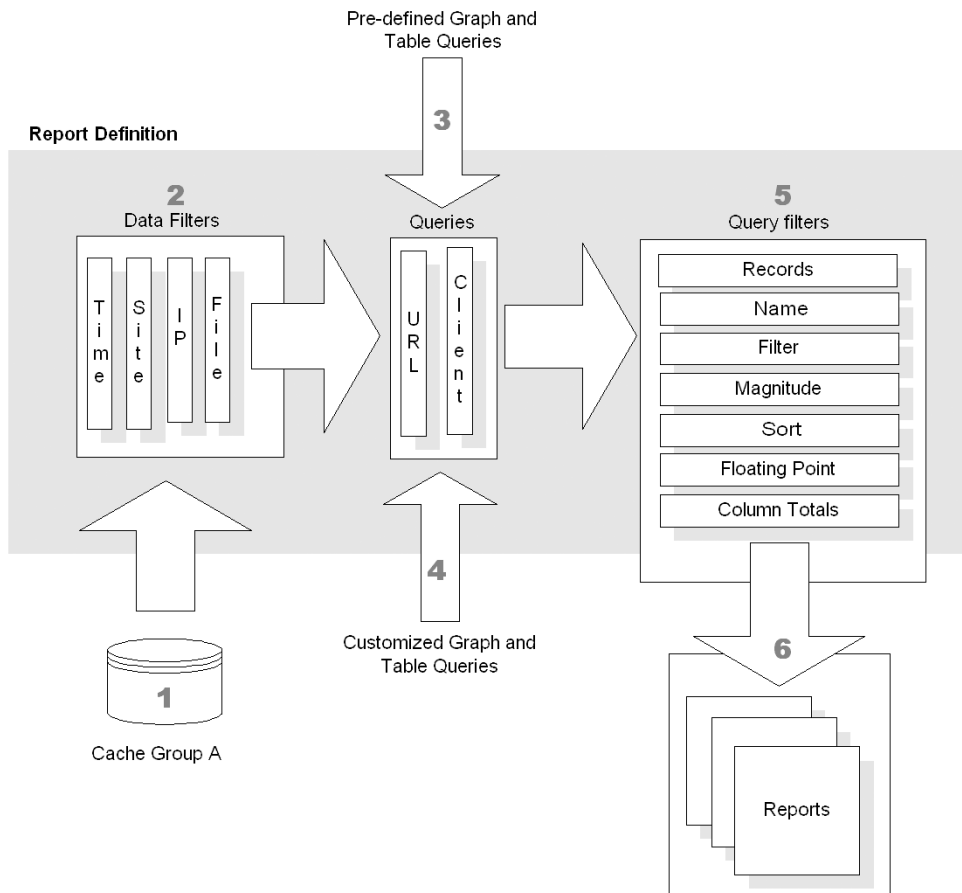
- ◆ Controlling the visual presentation of information in reports by modifying the look and feel of the tables and graphs that appear in your reports.

You can change the manner in which the table and graph queries are displayed in a report. You can modify tables by changing the number and order of columns that are displayed in a specific table.

In a graph, you can modify its visual appearance by displaying it as a two or three-dimensional pie or bar chart. You can also change the data elements displayed in the X and Y axes of a report graph.

Visual overview of customizing report components

The following diagram illustrates the ContentReporter customization features. Each of the numbered items are discussed in the paragraphs following this figure.



Using Report and Query filters

When you create a report definition, you must attach a log file source (1.) By default, all data for this source will be available for this report definition unless you filter it with a Report filter (2) and/or Query filter (5).

With Report filters (2,) you can filter log file data based on time, site names, IP addresses, or file types.

Once you have decided which queries you want to include in a report (3, 4,) you can filter data at a more specific level, you can filter information on a single data element in a specific table or graph in a report. These filters are called query-level filters.

The difference between the Report and Query filters is the that the Report filter affects all queries in the report. Report filters take presendence over query filters. In other words, the report filter is applied to the database records first, then the query filter. Query filters only affect values in the query.

For example, if you set report Time Filter time range for January 1 - 5, 2001 and set the query filter for 1/3/2001-1/10/2001, the query will only contain data for January 3-5.

By default, all the information in this data source is included in the report unless you exclude it filters. with Report filters (2). You can also limit the amount of information displayed in the report by attaching specific queries to the definition (3, 4). In this example, the Reference by URL and Client queries are the only ones used.

Using pre-defined queries

ContentReporter ships with over 50 pre-defined queries. You can include any or all of these queries in a report definition (3).

Pre-defined queries are organzied into the following categories:

Category	Queries	
Streaming	◆ Top Viewed Clips ◆ Top Viewed Clips (Graph) ◆ Top Viewed Clip types ◆ Top Viewed Clip types (Graph) ◆ Top used Media Player ◆ Top used Media Player (Graph) ◆ Average Playtime By Clip	◆ Top Clients by downloads ◆ Top Clients By Connect Time ◆ Packets Transferred by Clip ◆ Packets Transferred by Clip (Graph) ◆ Packet Analysis by Hour of Day
Http	◆ References By URL ◆ References By Client ◆ References By User Name ◆ References By Site ◆ References By Method	◆ References By Transaction Code ◆ References By Status Code ◆ References By Abort Code ◆ References By Content Type ◆ References By Cache

Category	Queries	
Http and streaming	◆ Error Query ◆ Client Error Statistics ◆ Client Error Statistics (Graph) ◆ Server Error Statistics ◆ Server Error Statistics (Graph) ◆ Total Successful Hits ◆ Total Failed Hits ◆ Total Cached Hits ◆ Error By Category ◆ File Not Found Errors ◆ Technical Statistics And Analysis Table	◆ Summary Of Activity By Day ◆ Summary Of Activity By Day (Graph) ◆ Activity Level By Hour ◆ Activity Level By Hour (Graph) ◆ Activity Level By Day Of Week ◆ Activity Level By Day Of Week (Graph) ◆ Activity Level By Month ◆ Bandwidth By Day Of Week ◆ Bandwidth By Day Of Week (Graph) ◆ Bandwidth By Day (Graph) ◆ Bandwidth By Month ◆ Bandwidth By Month (Graph)

Using customized queries

Customized queries are those that you have created. These can either be modifications of existing, pre-defined queries that you have modified or new queries that you have constructed from scratch. For information on customized queries, see [“Customizing the tables and graphs that appear in reports”](#) on page 75.

Filtering log file data with report filters

About report and time filters	With Report filters, you can filter log file data based on time, site names, IP addresses, or file types. You enter data filter information in the Data tab of the Report Definition Properties window.
About the Report Definitions Data tab	All Report and Time filters are entered on the Report Definitions Data tab.[add pix]
About Report Filter conventions	You can enter two or more filters separated by “,” (commas) in the three Report Filter fields. You can also use the * (asterisk) wildcard character in filter names. Caution————— If you enter a value in a filter for which no database records exist, the resulting report’s tables and graphs will have no any information. For example, if you misspell a clip name, enter the wrong IP address, or specify a time range for which no data exists, the report will be blank. —————
About Site Name conventions	By entering filters in the Site Name field, you can generate a report on one or more specific site names. Note————— If this field appears as drop-down box, the ContentReporter administration has limited you to running reports on only the entries listed. —————
Understanding the difference between host name and site name	In ContentReporter, a Site name is the first or only domain name (with its extension) in a URL string. When one web site hosts another web site, the first domain name (with its extension) is the “site name,” and the last domain name (with its extension) is the “host name.” The following table provides examples of Site Names and Host Name and in ContentReporter.

Log file entry	Site Name	Host Name
www.netapp.com/newproducts/index.html	www.netapp.com	none
www.netapp.com/aaa/www.webmanage.com/home.htm	www.netapp.com	www.webmanage.com

Filtering report information on hosted sites, IP addresses, and files and clips

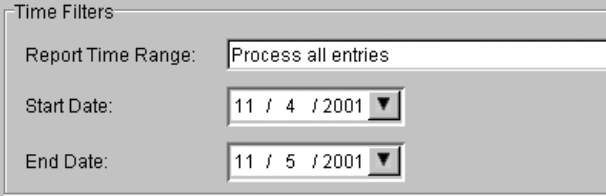
Using the following steps to filter report information on the Data tab of the Report Definition Properties window.

Step	Action
1	Generate one or more reports on a specific site name, enter the site name or names in the Site Name field on the Data tab of the Report Definition Properties window. This tab gives you the ability to create report definitions based on Hosted Sites, URLs, files, and Client IPs for a specified interval of time for one or more caches. For example, ◆ Enter www.netapp.com to generate reports based only on log file data related to www.netapp.com. ◆ Enter *.net to generate reports based only on log file data related to site names ending with .net.

Step	Action
2	To generate reports on specific files or file types, enter the file names and/or types in the File / Clip field. For example, ◆ Enter bill.jpg to generate reports based only on log file data related to the bill.jpg file. ◆ Enter *.gif to generate reports based only on log file data related to .gif files. ◆ Enter */images/* to generate reports on all files in images folders.
3	To generate reports on a specific client IP address or several IP addresses, enter the address or address in the Client IP field. For example, ◆ Enter 12.34.56.78 to generate reports based only on log file data related to the 12.34.56.78 address. ◆ Enter 12.34.56.* to generate reports based only on log file data related to the 12.34.56 subnet.

Filtering report information on a specific time range

Using the following steps to filter report information on the Data tab of the Report Definition Properties window.

Step	Action
1	In the Report Time Range field, specify the time range of log file data on which to generate a report with this filter.  You can choose one of the following “Specify date,” “Today,” “Yesterday,” “Last 7 days,” “This Week,” “Last 15 days,” Last Month,” “This month,” “Last quarter,” “Last 6 months, or ” Last year.”
2	In the Start Date drop-down, specify the first day of a period of log file data on which to generate a report. For example, if you want to generate a report on log file data from January 1, 2001 through January 31, 2001, you select 1/1/2001 in the Start Date Field.
3	In the End Date field specify the last day of a period of log file data on which to generate a report. For example, if you want to generate a report on log file data from January 1, 2001 through January 31, 2001, you select 1/31/2001 in the End Date Field

Filtering report information with query filters

About using query filters to display specific report information

When creating a new query or editing an existing one, you can use the components on the Query Definitions Filters tab screen to further customize the information displayed in a Table or Graph Query.

About the Filter tab

The Filters tab provides you with another level of granularity to zero-in on specific data elements you want to display in the tables or graphs in your reports. Filter properties are based on the data elements of the selected query.

For each selected data element, you can use the Filters tab to:

- ◆ Rename the display name of the data element
- ◆ Apply a filter
- ◆ Define the the magnitude of certain numeric values
- ◆ Specify a sort order for displayed values
- ◆ Specific the precision which you want certain floating point numbers to be displayed
- ◆ Turn on or off column totals for a selected data element.

Query Def Filters Security

Display 100 Records

Selected Data Elements

Day of week
Bytes

Column Properties:

Display Name Day of week

Filter *

Magnitude None

Sort Order Ascending

Float Point Precision 2

☐ Show Column Totals

Customizing query data elements

Use the following steps to filter query data.

Step	Description
1	At the Query Definition page, select a query. Click on the Edit button. Result: The Query Definition Properties page is displayed. Caution_____ If you want to modify one of the pre-defined queries and also want to preserve its configuration, copy the pre-defined query, and then modify the copy. There is no option to restore the configuration of a pre-defined query.,
2	Click on the Filter tab. In this screen, you can customize the following types of information associated with each of the data elements in this query. Note that each of the filterable data elements are listed in the column. Select the data element you want to filter. Result: The Column Properties fields activate if they are a valid property for the selected data element. Each property is explained in detail in following sections of this table. ◆ “Using the Display field” ◆ “Using the Filter field” ◆ “Using the Sort Order field drop down list” ◆ “Using the Magnitude field drop down list” ◆ “Using the Precision field drop down list” ◆ “Show Column Totals check box”

Using the Display field

Enables you to specify the number of records in a table. You may specify all records by making this field empty, or by entering a –1 in the Display field.

Using the Filter field

This Filter field enables you to customize the information displayed in reports by a particular column or axis. For example, if you select the “Appliance” data element in the left-hand Selected Columns/Axes panel, and enter a specific cache name in this Filter field, this query will only include information about the particular cache in reports.

Filter Conventions: The following table lists conventions for each of the valid data types you can use in the Filter field of the Filters tab.

Caution

Use care when entering filters. If you enter a value for which no database records exist, the query will be blank in reports. For example, if you misspell a clip name, enter the wrong IP address, or specify a time range for which no data exists, the query will be blank.

Query Filter values and conventions	
String data	String data is anything that isn't numeric (for example, Appliance, Host Site, and IP address are strings)
String data filter conventions	Special characters: ◆ Comma(,): use the comma to specify multiple strings ◆ Asterisk (*): use an asterisk as a wildcard Examples: ◆ www.netapp.com - will generate a report on this Site Name or Host Name ◆ 12.34.56.* - to generate a report on all users in 12.34.56. subnet ◆ *.netapp.com (or HTTP://www.netapp.com) to generate values for the URL data element
Numeric data	Numeric values in the log files (this can be a raw number, a percentage, or a status code (like 404)) ContentReporter also considers Time and Date values as numeric values
Numeric value filter conventions	Special characters: ◆ ◆ Dash (-): use the dash to specify a range of numeric values ◆ Asterisk (*): use an asterisk as a wildcard Examples: ◆ ◆ 0-5000 (exact range) ◆ *-5000 (no lower limit, upper limit is 5000) ◆ 200-* (lower limit is 200 and no upper limit)

Query Filter values and conventions	
Time and Date values	Also treat like numeric values Values: ♦ ♦ Date - use the “Short” format for the date i.e., M/d/yyyy. ♦ Day of Week - possible values: 1-7 (1= Sunday) ♦ Month - possible values: 1-12 (1= Janauary) ♦ Quarter - possible values: 1-4 (1 = Jan to March) ♦ Hour - possible values: 1-24 (1 = 12am to 1 am) ♦ Year - use yyyy (for example 2001)
Time and Date filter conventions	Special characters: ♦ ♦ Dash (-): use the dash to specify a time or date range ♦ Asterisk (*): use an asterisk as a wildcard Examples: ♦ ♦ M/d/yyyy like 11/11/2001 for single days data ♦ M/d/yyyy-* like 11/1/2001-* for data on or after 11/1/2001 to till date ♦ *-M/d/yyyy like *-11/1/2001 for reporting on activity before and including 11/1/2001 this includes 11/1/2001 data also

Using the Sort Order field drop down list

This field lets you specify the sort order (none, ascending, or descending) for records of a particular Table Query column. The specified sort order applies only to the selected column. If you specify the sort order of two or more Table Query columns, the Query sorts on the columns from left to right.

Using the Magnitude field drop down list

This field lets you specify the magnitude of certain numeric data elements. For example, if you select the “File Size” data element in the left-hand Selected Data elements panel, you can select a magnitude in either bytes (none), kilobytes, megabytes or gigabytes from this drop down list. Make sure to change Display name to represent data appropriately.

The following screen illustrates the use of the magnitude field to change the output of the bytes data element from no magnitude to a magnitude of giga. Note the change in each of the circled columns.

Report: magnitude example report					reported by: admin
magnitude none [top]					
Description:					
	Appliance	Site name	Host name	Bytes	Hits
1	Techpubs.codec.netapp.com	a1055.g.akamai.net	images.barnesandnoble.com	53269.0000000000	76
2	Techpubs.codec.netapp.com	a1055.g.akamai.net	www.barnesandnoble.com	141752.0000000000	71
Totals					
magnitude kilo [top]					
Description:					
	Appliance	Site name	Host name	Bytes	Hits
1	Techpubs.codec.netapp.com	a1055.g.akamai.net	images.barnesandnoble.com	52.0205078125	0
2	Techpubs.codec.netapp.com	a1055.g.akamai.net	www.barnesandnoble.com	138.4296875000	0
Totals					
magnitude mega [top]					
Description:					
	Appliance	Site name	Host name	Bytes	Hits
1	Techpubs.codec.netapp.com	a1055.g.akamai.net	images.barnesandnoble.com	0.0508012771	0
2	Techpubs.codec.netapp.com	a1055.g.akamai.net	www.barnesandnoble.com	0.1351852416	0
Totals					
magnitude giga [top]					
Description:					
	Appliance	Site name	Host name	Bytes	Hits
1	Techpubs.codec.netapp.com	a1055.g.akamai.net	images.barnesandnoble.com	4.9610622227	7
2	Techpubs.codec.netapp.com	a1055.g.akamai.net	www.barnesandnoble.com	1.3201683759	6
Totals					

Using the Precision field drop down list

This drop-down list lets you specify the Float Point Precision (from 0 to 10) of certain numeric data elements. For example, if you select the “% of Hits” data element in the left-hand Selected Data Elements panel, you can select the Floating Point Precision for values in this column.

Show Column Totals check box

This check box lets you to either show or not show the totals of Table Query columns. To show totals for a column, select the column in the left-hand Selected Columns/Axes panel, and ensure that the “Show Column Totals” check box is checked

Customizing the tables and graphs that appear in reports

About this section This section covers customizing the look and feel of ContentReporter reports and tables.

Topics include Topics in this section include:

- ◆ [“Learning about customizing tables and graphs”](#) on page 76
- ◆ [“Creating a new report table”](#) on page 79
- ◆ [“Creating a new report graph”](#) on page 81

Customizing the tables and graphs that appear in reports

Learning about customizing tables and graphs

About customizing tables and graphs

The best way to produce a report that has exactly the information you need in it is to create new table and graph queries based on specific information you want to extract from NetCache log file information stored in the ContentReporter database. Use the Query Def tab of the Query Definition Properties window to customize existing tables and graphs and create new ones.

About the Query Def tab

This tab is where you create new table and graph queries. The controls on this tab change dynamically based on the type of query you want to create — a table or a graph.

About creating tables with the Query Def tab

When you select Table as the query type, the Query Def tab displays a tree structure of all available categories of data elements from which you can construct a table. For example, in the general category of User data elements you could chose only to include a user’s IP, Name, and CPU type in your new table query. You can use the Move Up and Move Down buttons to determine the order the columns will appear in the table. The report below was create by these selections.

Available Columns:

User

Client IP

User Name

DSN

Country

CPU

Player

Browser

>>>

<<<

Move up

Move down

Selected Columns:

Client IP

User Name

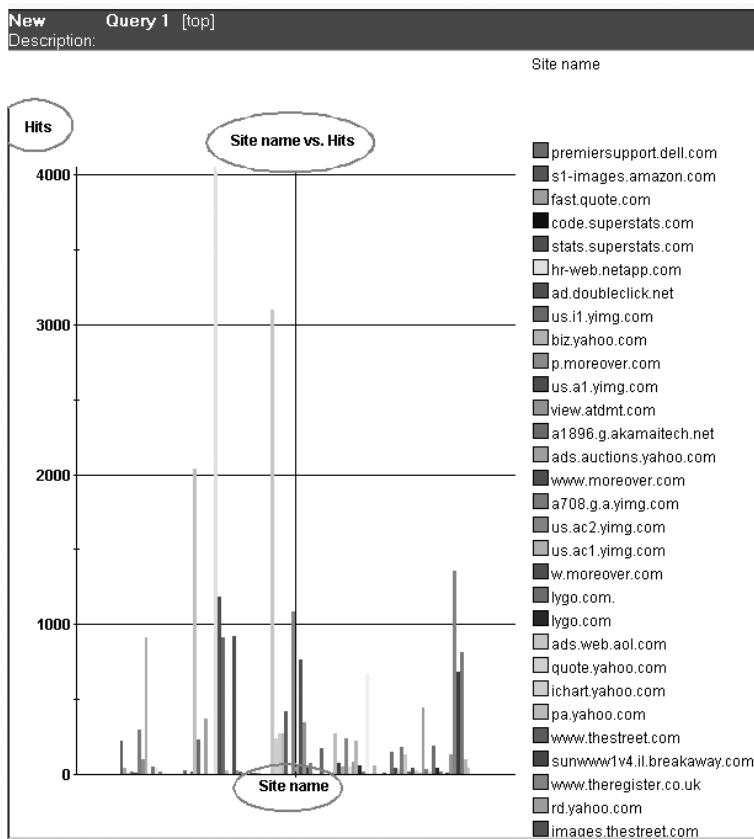
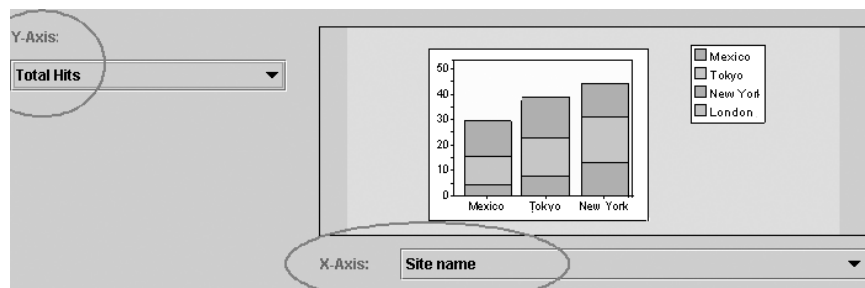
CPU

Table Query

Client IP	User Name	CPU
10.60.8.143	-	-
10.60.8.116	-	-
10.60.8.118	-	-
10.60.8.62	-	-
10.60.8.128	-	-

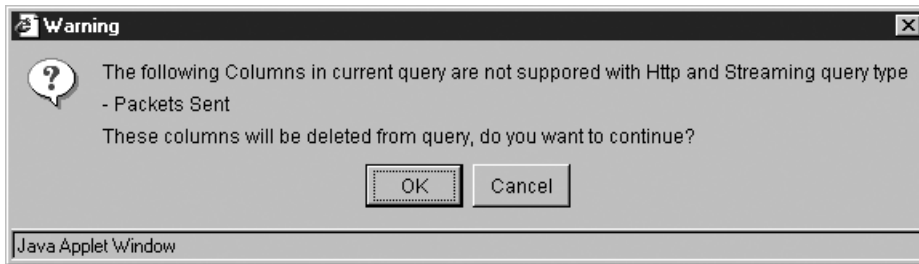
About creating graphs with the Query Def tab

When you select Graph as the query type, the Query Def tab displays a thumbnail example of the selected graph type and the controls for customizing the query. You can select several different types of graphics, both two and three-dimensional. The X and Y-axis drop-down boxes list all available data elements that can be used for a particular graph. In the example below, the graph is constructed of Site name and Total Hits axis.



About the columns warning dialog box

When creating a new table query, the following warning message displays if you have assigned data elements to the query that are not supported by the query category you have assigned. For example, in the example below, Packets Sent cannot be used in the Http and Streaming, category. The message is displayed and informs you that the data elements assigned will be dropped from the query.



Creating a new report table

About creating a new report table

To create a new table query, use the components found in the Query Def tab in the Query Definition Properties window.

Complete the Query Def screen

Follow these steps to create a new table query.

Step	Action
1	With the Query Definitions tab displayed, click on the new button. Result: The Query Definition Properties screen is displayed.
2	In the Query Def tab, Name field enter a name, such as “sales_query (table)”
3	In the Category field drop down list, select a category (such as “HTTP and Streaming,” “Billing,” and “Smart Filter”) for the selected query. Categories help you manage the large number of pre-defined queries, as well as new queries. You may move any query to or from any category.
4	On the Query Type radio buttons, select Table query. Result: The Available Columns and Selected Columns panels appear.

Step	Action
5	In the Available Columns panel, select the data elements you want to include in this query. Data elements are the information building-blocks in all queries, they include such items as, “user name,” “cache hits,” “method,” and “action”) The data elements are grouped by categories in subfolders under the Column List folder. To see all the available data elements, expand the Column List folder, and the individual subfolders Note _____ Especially for visual/XHTML reports avoid using too many columns/data elements per query. Avoid creating a Table Query with more than 5-8 columns. All the table columns get narrower each time you add another column.
6	To move data elements into the new query, select the element in the left-hand column and click on the arrow keys. Result: The data element moves into the right-hand column.
7	To move the position of the data element in the table, click on the element and then on the Move up and Move down keys. Result: The higher the element is in the column, the closer to the left that column will display in the actual displayed table query.
8	In the Comments field, type in the query description in that will appear above the table in the generated report. This text is optional. You can also modify or delete the default descriptions for pre-defined queries.
9	Click on the OK button. Result: The new query is added to the overall query listings in the Query Definitions page. You can search for the new query by in the Query Definition tab by typing in the name of the query in the search field at the top of the screen and then clicking on Find. Result: The screen clears and the new query is listed.

Creating a new report graph

About creating a new graph query

To create a new graph query, use the components found in the Query Def tab of the Query Definition properties window.

Creating a query

To create a new graph Query Definition, complete the following steps.

Step	Action
1	On the ContentReporter home page, click on the Query Definitions tab. Result: The Query Definition page is displayed.
2	In the Query Def tab, Name field enter a name (such as “sales_query (graph)”)
3	In the Category field drop down list, select a category (such as “HTTP and Streaming,” “Billing,” and “Smart Filter”) for the selected query. Categories help you manage the large number of pre-defined queries, as well as new queries. You may move any query to or from any category.
4	On the Query Type radio buttons select Graph. Result: The graph creation fields display.
5	In the graph type drop-down box, select the type of graph you want to include in this query. The four choices are: two and three-dimensional pie charts and two and three-dimensional bar charts Result: The graph-type thumbnail changes to show the type you selected.

Step	Action
6	In the Y-axis and X-axis drop-down boxes, select the data elements you want included in those axes in your report. Data elements are the information building-blocks in all queries, they include such items as, “user name,” “cache hits,” “method,” and “action”) The data elements are grouped by categories in subfolders under the Column List folder. To see all the available data elements, expand the Column List folder, and the individual subfolders.
7	In the Comments field, type in the query description that will appear above the table in the generated report. This text is optional. You can also modify or delete the default descriptions for pre-defined queries.
8	Click on the OK button. Result: The new query is added to the overall query listings in the Query Definitions page. You can search for the new query by in the Query Definition tab by typing in the name of the query in the search field at the top of the screen and then clicking on Go. Result: The screen clears and the new query is listed.

About this chapter

This chapter provides you with information on how to set access to report definitions, schedules, and table and graph queries.

Understanding your level of user privileges

Your ability to set permissions on reports is limited by your user account's privileges. For example, if your ContentReporter account only has read and execute privileges, you cannot set security settings for Scheduled events, Report Definitions, Query Definitions.

Note

If you have administrative privileges, see the *ContentReporter 3.0 System Administration Guide* for an in depth discussion of user privileges and rights. If you are not sure about the level privileges you have, contact your ContentReporter or system administrator for more information.

Topics in this chapter

Topics in this chapter include:

- ◆ [“Controlling access to report schedules”](#) on page 84
- ◆ [“Controlling access to report definitions”](#) on page 86
- ◆ [“Controlling access to report queries”](#) on page 88

Controlling access to report schedules

About setting security on schedules

ContentReporter gives you the ability to set specific permissions for scheduled events. These permissions prevent certain users or groups from seeing, modifying, running, or deleting report schedules.

Security descriptions for scheduled events

The following table describes security in Scheduled events.

Security	Description
Read	Gives a user or group the ability to see the scheduled event on the Scheduled Events page.
Write	Gives a user or group the ability to modify and copy the scheduled event.
Execute	Gives a user or group the ability to run a scheduled event (by clicking Run) from the Scheduled Events page.
Delete	Gives a user or group the ability to delete the scheduled event.

Setting report schedule access

To set permissions on report schedules, follow these steps.

Step	Action
1	Click the Security tab in the Scheduler/Event Properties window.  Result: The Security tab appears.
2	In the Users Names field, enter the user name on which you want to set security settings. If you enter more than one name, separate them by commas.

Step	Action
3	Set permissions for the user or users by checking or unchecking the Read, Write, Execute, and Delete check boxes.
4	In the Groups Names field, enter the group name (such as “guest”) or names (separated by commas) on which you want to set security settings.
5	Set permissions for the group or groups by checking or unchecking the Read, Write, Execute, and Delete check boxes.
6	Click OK to save these security settings.

Controlling access to report definitions

About controlling access to report definitions

ContentReporter gives you the ability to set specific permissions for a report definition. These permissions prevent certain users or groups from seeing, modifying, running or deleting a report definition.

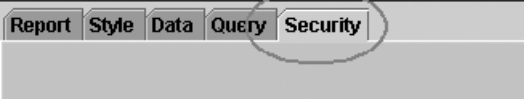
Security descriptions for report definitions

The following table describes security for Report Definitions.

Security	Description
Read	Gives a user or group the ability to see the report definition listed on the Report Definitions page and select it for a scheduled event.
Write	Gives a user or group the ability to modify and copy a report definition.
Execute	Gives a user or group the ability to generate a report with this report definition (by clicking Run) from the Report Definitions page.
Delete	Gives a user or group the ability to delete a report definition.

Setting report schedule access

To set permissions for report definitions, follow these steps.

Step	Action
1	Click the Security tab  Result: The Security tab appears.
2	In the Users Names field, enter the user name (such as “John”) or names (separated by commas) on which you want to set security settings.

Step	Action
3	Set permissions for the user or users by checking or unchecking the Read, Write, Execute, and Delete check boxes.
4	In the Groups Names field, enter the group name (such as “guest”) or names (separated by commas) on which you want to set security settings.
5	Set permissions for the group or groups by checking or unchecking the Read, Write, Execute, and Delete check boxes.
6	Click OK to save these security settings.

Controlling access to report queries

About controlling access to report queries

ContentReporter gives you the ability to set specific permissions for a table or graph query. These permissions prevent certain users or groups from seeing, modifying, running or deleting a pre-defined or customized table and graph queries. Security Descriptions

The following table describes security for queries.

Security	Description
Read	Gives a user or group the ability to see the query definition on the Query Definitions page and select it for a report definition..
Write	Gives a user or group the ability to modify and copy a Query Definition.
Execute	Does not apply.
Delete	Gives a user or group the ability to delete a query definition.

Setting query access

To set permissions for the Query tab, follow these steps.

Step	Action
1	Click the Security tab. A screenshot of a web interface with three tabs: 'Query Def', 'Filters', and 'Security'. The 'Security' tab is highlighted with a grey background and a red circle around it. Result: The Security tab appears.
2	In the Users Names field, enter the user name (such as “John”) or names (separated by commas) on which you want to set security settings.
3	Set permissions for the user or users by checking or unchecking the Read, Write, Execute, and Delete check boxes.

Step	Action
4	In the Groups Names field, enter the group name (such as “guest”) or names (separated by commas) on which you want to set security settings.
5	Set permissions for the group or groups by checking or unchecking the Read, Write, Execute, and Delete check boxes.
6	Click OK to save these security settings.

Glossary

appliance	A device that performs a single, well-defined function and is simple to install and operate, for example, a NetCache appliance or NetApp filer.
authentication	The process of verifying the identity of a user who is logging into a computer system. The ContentReporter server authenticates a username-password combination each time a user logs in. ContentReporter gives you the ability to simultaneously use its own built-in “Local” authentication, and either a Lightweight Directory Access Protocol (LDAP) server or an NT LAN Manager (NTLM) to authenticate users. A Local user is a login account maintained in the ContentReporter application.
auto discovery	The ContentReporter feature that gives you the ability to add one or more SNMP-enabled NetCache appliances (for which you have community string names) to a cache group at one time. You can only discover NetCaches with Class C IP addresses using the auto discovery feature.
cache	A device that generates the log files that the ContentReporter server collects/imports and processes. ContentReporter can collect/import and process NetCache™ appliance log files, Web server log files, and streaming server log files.
cache group	A logically defined group of one or more caches. A cache group is a management tool that enables you to specify the time and frequency of log file collection, and the type of log file analysis for its caches.
console	A physical or virtual terminal that is used to monitor and control a NetApp appliance.
ContentReporter	A Network Appliance software solution that enables you to analyze content usage, performance, and infrastructure load across your entire content delivery network. The ContentReporter server collects and processes log files from NetCache appliances, directories, and FTP servers throughout a

network, and outputs the results of the log file processing to your enterprise database. You log into ContentReporter with a Web browser on your network, and schedule and generate customized reports on the log file data in your database.

**ContentReporter
bulk uploader**

The ContentReporter server component that performs bulk updates to the database.

**ContentReporter
log file**

The log file that contains a record of the ContentReporter server activity. If you have a problem processing log files or generating reports, you may be able to discover the cause of the problem by examining this log file.

**ContentReporter
parser**

The ContentReporter server component that processes collected log files.

**ContentReporter
server**

The program that receives and fulfills HTTP requests from client browsers on the same or other computers. The computer on which you install ContentReporter is the ContentReporter server machine.

**ContentReporter
sorter**

The ContentReporter server component that sorts and groups the log file data it receives from the ContentReporter parser.

**ContentReporter
user interface**

A Web browser with HTTP access to the ContentReporter server. You make requests to, and receive fulfilled requests from, the ContentReporter server through a Web browser.

data element

The columns of table queries and the axes or components of graph queries. Data elements are the actual values, measurements, and statistics that make up queries. “Packets sent” and “URL” are examples of data elements. You can select which data elements to include in a particular query, and customize how each data element appears in a query.

database rollup	A scheduled database background task that converts hourly data into monthly data. The database rollup feature gives you the ability to keep a specified number of days of hourly data available for reports in your database. You can also specify the number of days of Billing data and Streaming data to keep available for reports.
Domain Name System (DNS)	An Internet service that locates and translates domain names into Internet Protocol (IP) addresses.
embedded database	A Sybase Adaptive Server Anywhere (ASA) 7.0.1 database intended for evaluation situations. When you first install ContentReporter, the ASA is your default database. You can use this database to collect and process small log files, and to generate reports on these log files.
enterprise database	The database (MS SQL 7.0, SP 2 or Oracle 8.1.7) used by the ContentReporter application. The ContentReporter server stores its settings and all aggregated log file records for each cache device in the database. All reports in ContentReporter are based on the records for each cache in the database.
filer	An appliance that attaches to a computer network and is used for data storage. NetApp filers operate using Data ONTAP software.
fully qualified domain name (FQDN)	The complete name of a specific computer on the Internet, an intranet, or a network consisting of the computer's host name and its domain name.
host name	The last domain name (with its extension) in a URL string that contains two domain names. When one web site hosts another web site, the first domain name (with its extension) is the site name. For example, in the URL string "www.netapp.com/aaa/www.webmanage.com/home.htm," "www.netapp.com" is the site name and "www.webmanage.com" is the host name.

Import log files feature	The ContentReporter feature that enables you to process log files for a cache device without creating a scheduled event. This feature gives you the ability to process log files that were not collected or processed by a scheduled event and output the result to your database for a new or existing cache.
IP address	The unique numerical Internet Protocol (IP) address of a computer that is attached to a TCP/IP network, for example, 12.34.56.78.
MIME	Multipurpose Internet Mail Extensions. A specification that defines the mechanisms for specifying and describing the format of Internet message bodies. An HTTP response containing the MIME Content-Type header allows the HTTP client to invoke the application that is appropriate for the data received.
MMS	Microsoft Media Streaming. The streaming media control protocol used in Windows Media Technologies 3 and 4 streams.
NetCache	The proprietary software that runs on NetCache appliances. Developed by Network Appliance.
NetCache appliance	An appliance designed specifically to serve Internet and intranet content quickly and reliably. Developed by Network Appliance.
NetCache Manager	The browser interface through which a NetCache appliance is managed.
NOW	NetApp On the Web. The secure customer service Web site for Network Appliance.
page permissions	Settings that specify which Local users and which groups have permission to access a page, and specify how they can use a page's features and objects. ContentReporter gives you the ability to grant Unix-style permissions (read, write, execute, and delete) for the Administration, Query Definitions, Report Definitions, Scheduled Events, and Report Results pages.

query	The tabular or graphical report results of a customized search of the database records of a report definition's cache or caches. A report query is generated by a query definition. Each report definition includes one or more query definitions.
query definition	A customizable template used to search the database records of a report definition's cache or caches that generates table and graph queries in reports. You can select the data elements to include in the query, and customize how each data element appears in a report. You can create your own customized query definitions or use the pre-defined query definitions. "Reference by Status Code" and "Top View Clips" are two of the pre-defined query definitions.
report definition	A customizable template used to generate cache device reports. You select the queries to include in a report, the format (XHTML or Text) of a report, and the delivery method (save locally, FTP, or e-mail) of a report.
RTSP	Real Time Streaming Protocol. An open standard for delivery of real-time media over the Internet.
scheduled event	A scheduled log file collection and processing event or a scheduled report generation event. You create a scheduled event to schedule the ContentReporter server to automatically collect and process log files or generate a report one time or at regular intervals.
security	Permission settings for users and groups on specific objects (query definitions, report definitions, and scheduled events) on pages. Page permissions apply to all objects on a page. Object security enables you to prevent certain users or groups who have access to the Query Definitions, Report Definitions, and Scheduled Events pages from seeing, modifying, running, selecting, or deleting particular events or definitions.
site name	The first or only domain name (with its extension) in a URL string. When one web site hosts another web site, the first domain name (with its extension) is the site name and the last domain name (with its extension) is the host name. For example, in the URL string "www.netapp.com/aaa/www.webmanage.com/home.htm," "www.netapp.com" is the site name and "www.webmanage.com" is the host name.

SSL protocol	Secure Sockets Layer (SSL) protocol. A protocol that provides an encrypted administrative exchange between a NetCache and a client browser. If you installed SecureAdmin™ software on a NetCache appliance, you can configure ContentReporter to use the SSL protocol to securely collect log files from the NetCache.
stream	A media file that is transmitted in a continuous flow over a network. Streams are of two types, live and on-demand.
streaming media	A term used to describe media files that begin playing while they are being transmitted over the network to the media player on the client computer.
streaming server	A server configured to serve streaming media to clients.

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