HYPERIC | All Systems Go.

Hyperic Operations IQ V1.1

Getting Started Guide

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Introduction

This document is a getting started guide for new Hyperic IQ end users.

Before You Start

You log onto Hyperic IQ using your Hyperic HQ credentials. You need to know your HQ username and password to log onto IQ. You also need to know the URL to access the Hyperic IQ user interface.

The default Hyperic IQ access control gives users read-only access to all report folders and predefined reports. If you wish to be able to use IQ features that require write access to folders and reports, contact your IQ or HQ administrator to verify you have such privileges, and request them if you do not. If you want to save reports you create in the Ad Hoc Editor, or to save favorite parameter settings for predefined reports, you must have write access.

Other Documentation

This getting started guide is for IQ end users who will run predefined reports and may use the Ad Hoc Editor. Readers with other roles and interests may refer to other IQ documentation resources.

If you want to:

- Understand Hyperic IQ functionality, see *Hyperic Operations IQ Functional Overview*, which describes IQ features and architecture.
- Install and set up Hyperic IQ, see *Hyperic Operations IQ Installation and Administration Guide.*
- Get more detailed information about the Ad Hoc Editor, see *Hyperic Operations IQ Ad Hoc Editor Guide.*
- See developer- and administrative-oriented documentation on managing, supporting, and extending Hyperic IQ, see *Hyperic Operations IQ Reference Guide*.

Run Predefined Reports

This section has step-by-step instructions for working with reports in Hyperic IQ.

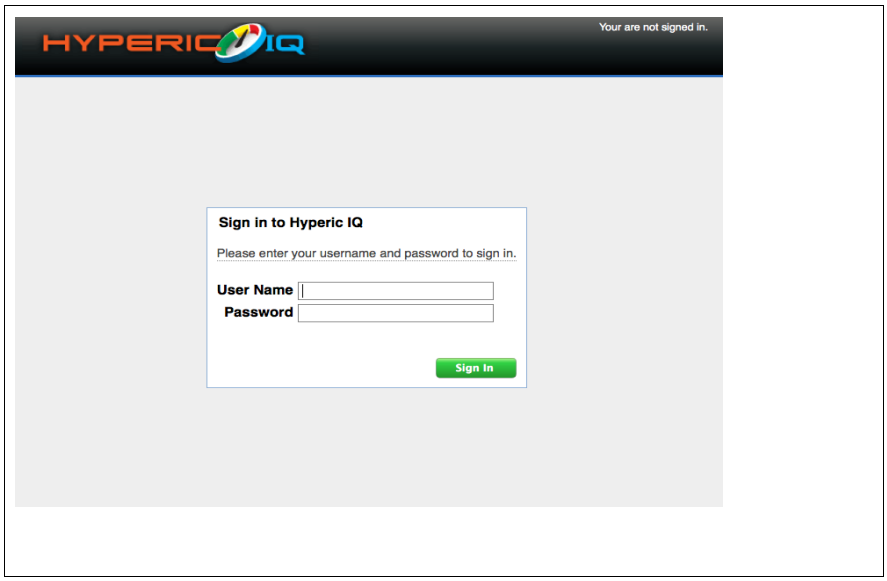
Log on to Hyperic IQ

1. To log on to Hyperic IQ, point your browser to:

   http://*hostname*:9080

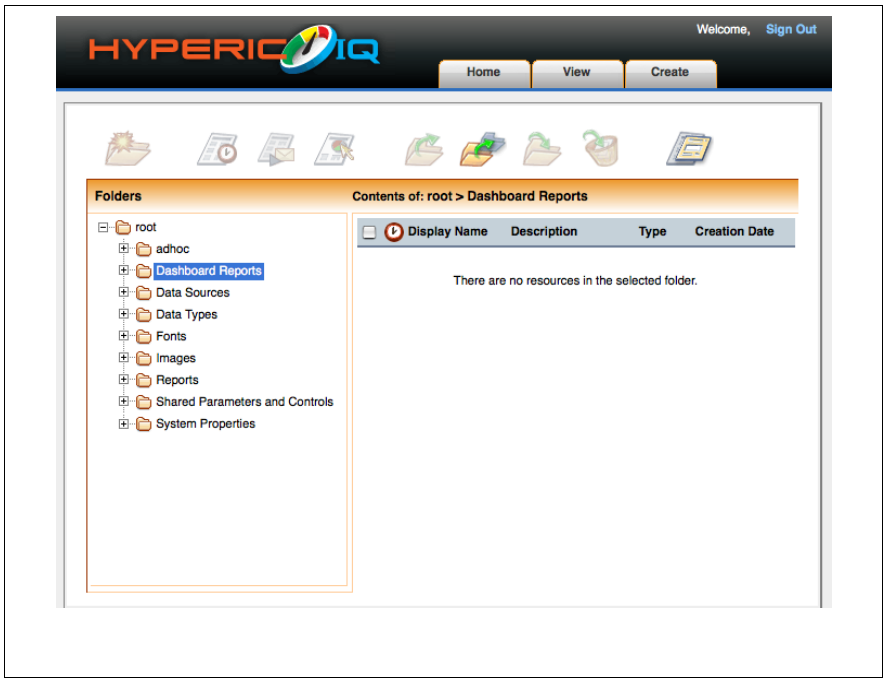
   where *hostname* identifies the IQ host.

   The Hyperic IQ logon page appears.



2. Enter your Hyperic HQ user name and password.

   The Hyperic IQ start page appears.



Key Facts about the IQ User Interface

The IQ home page displays three tabs to end users:

- **Home** - This tab is active when you log on to IQ. Stay on this tab to run predefined reports.
- **View** - End users getting started with IQ can ignore this tab. Later, you may use the Messages option to view IQ-generated messages that are addressed to you, for instance, related to reports that you schedule.
- **Create** - Use this tab to access the Ad Hoc Editor.

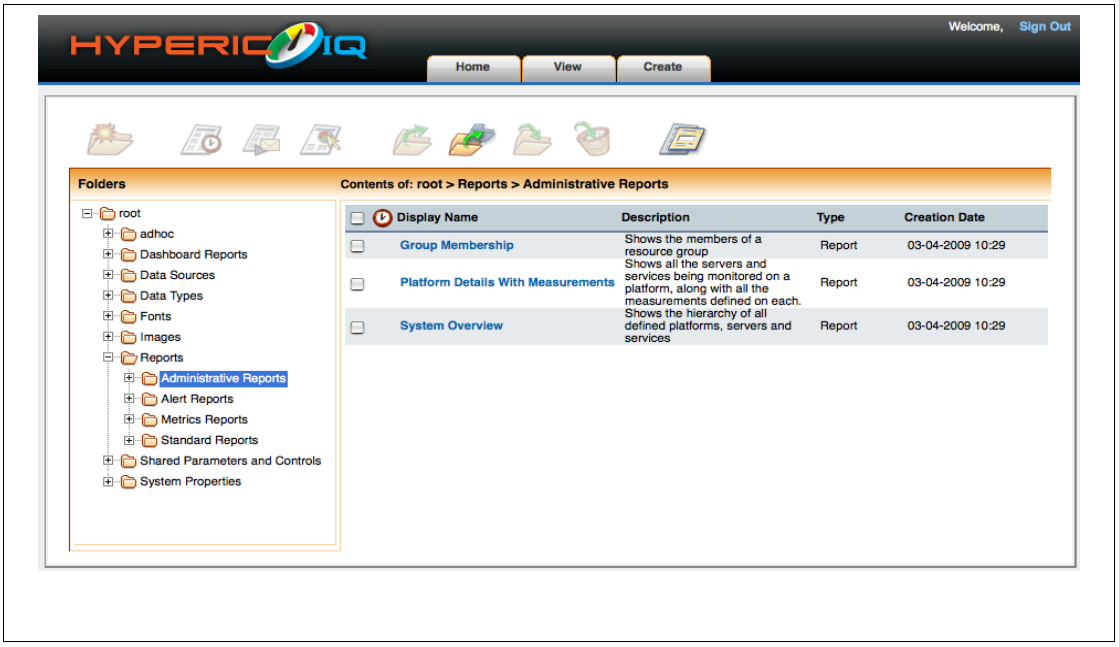
In the IQ Folder tree, the only folders relevant to end users are the **Reports** folder and its subfolders, where you can access IQ's predefined reports. End users can ignore the other folders in the the tree.

Run a Report

To run one of IQ's predefined reports:

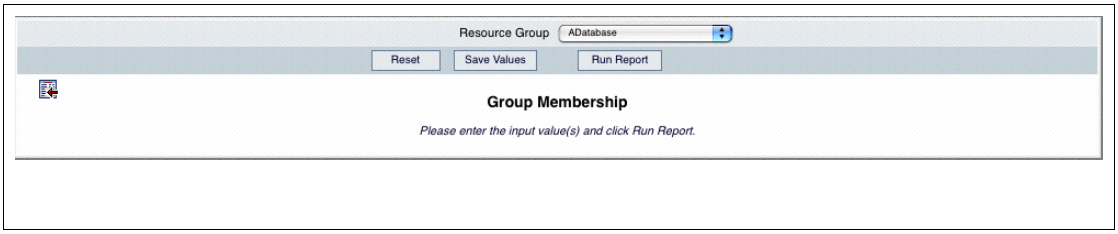
1. Click the **Reports** folder on the IQ start page to display these subfolders:
   - **Administrative Reports** - These reports present information about the resources in HQ inventory, as well as the available and currently configured metric collection options for resources.
   - **Alert Reports** - This folder contains a single report that presents information about alerts that have fired and actions that have been taken during an interval.
   - **Metrics Reports** - These report present metric data.
   - **Standard Reports** - This folder contains the same reports that are available in the HQ Enterprise Report Center. They include administrative, alert, and metrics reports.

   Note: For an example of each report in IQ, see *IQ Reports Quick Reference* on page *14*.
2. Click a report subfolder in the left pane to display its contents. For example, click the **Administrative Reports** folder.



3. In one of the report folders, click a report to run. For example, click the **Group Membership** report.

   If the report requires an input parameter, as most do, you are prompted to make the required selections. If you select the **Group Membership** report, you are prompted to select a group.



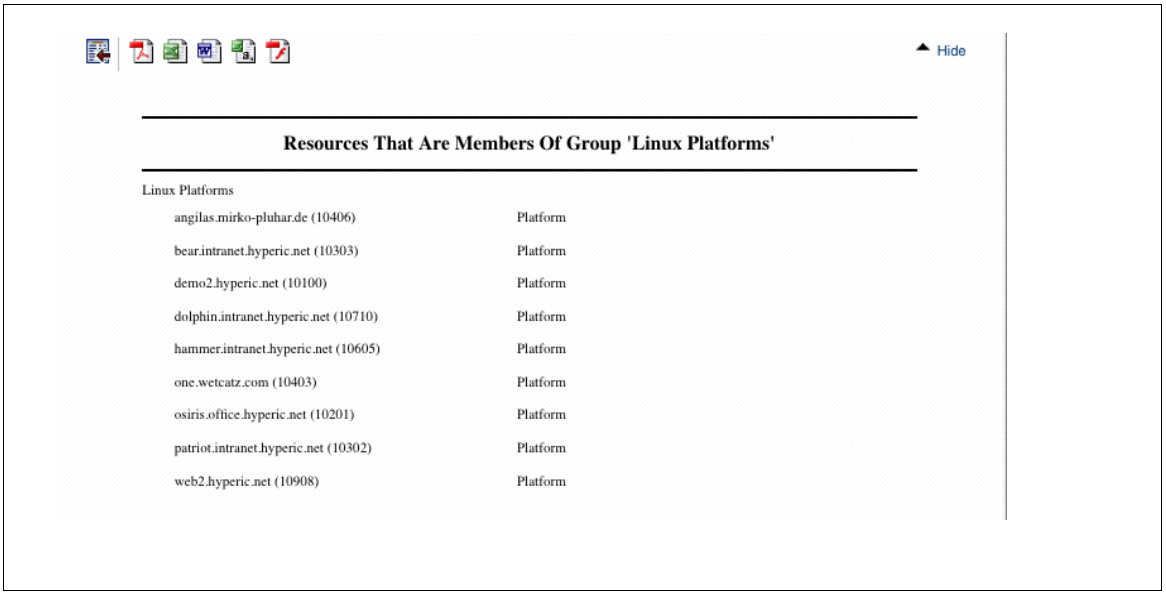
4. Use the pull-down list to select the required report parameters. For the **Group Membership** report, select a group from the Resource Group pull-down list.

Key Facts about Report Parameters

- Required parameters vary by report.
- You need to supply a Range of Days and End Time for metrics and alerts reports. Range of Days defaults to seven days, and the End Time to the current date and time.
- Many reports require selection of a resource group. The groups listed in the selector list are the resource groups defined in HQ.
- Some reports allow selection of multiple values for a parameter.

5. After selecting required parameter(s), click **Run Report.**

   The report appears in the report area of the page. For example, here is the Group Membership report for a group called "Linux Platforms".



6. To return to the IQ start page, click the icon in the upper left of the report page.

If Report is Empty

If you run a report and the results indicate "Report is Empty", it may be because:

- There is no data for the report selections you made.

  This is the most common reason for empty reports. A report will be empty if the resource you selected didn't report the metrics you chose at any time during the report interval.
- You are not authorized to view the report results. If you don't have HQ access to the resources that the report covers, the report will be empty. Check with your Hyperic HQ administrator to verify the resource groups to which you have access.
- You are logged in as the Hyperic IQ administrator. The IQ admin account is internal to IQ, and does not have access to any HQ data. Log in using your HQ username and password.

Format a Report

When you run a report, it is displayed as HTML in the report window. You can output the report in another format using the icons at the top left of the report.

When you click an formatting icon, the report is created in that format. Report files are saved, with a default name that reflects the report type, in your default download folder. From left to right, the icons create output in these formats:

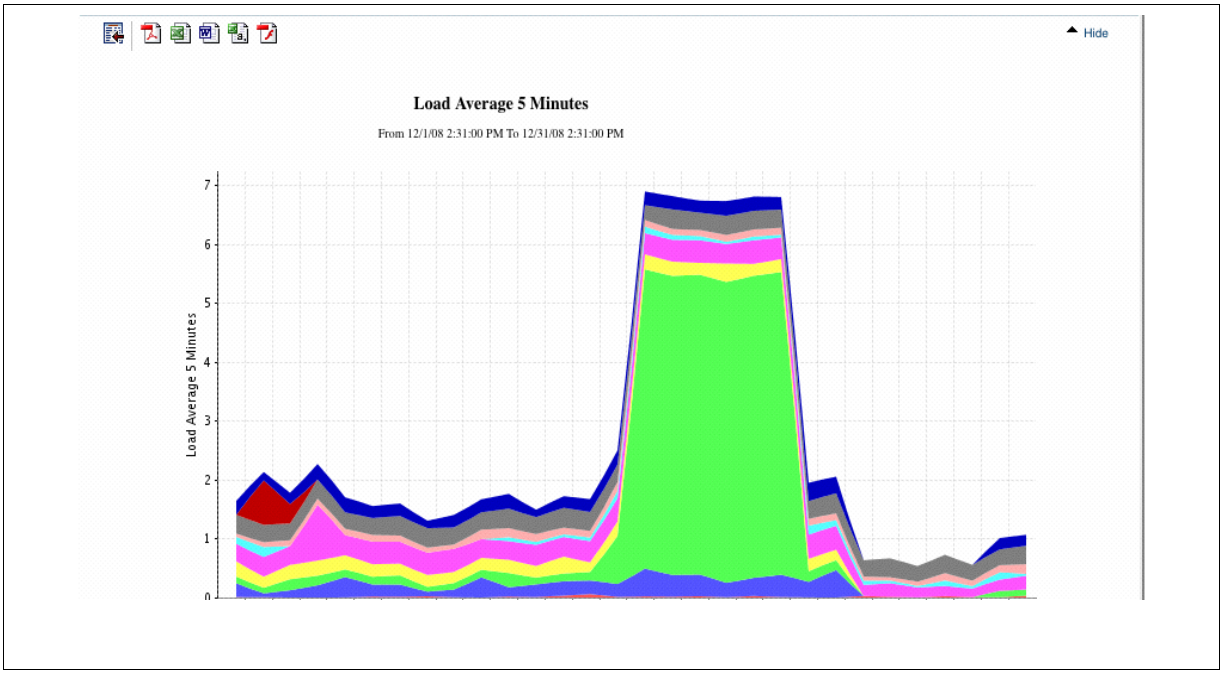
- PDF - This is the best format for reports you wish to share with others exactly as the appear on your screen.
- XLS - This format is useful if you intend to further process the report results in a spreadsheet; it is better for reports with tabular content than charts.
- RTF - This format is useful if you wish to edit or add information to the report.
- CSV - This format is useful if you want to transfer the report data to another tool that accepts comma-delimited input; it is better for reports with tabular content than charts.
- Flash - This format may be useful viewing charts if you need to zoom in deeply.

Save a Report with Selected Input Parameters

If you plan to run a report with the same input parameter(s) frequently, you can save and name the parameter selections. This allows you to run the report again without having to re-enter the input parameters.

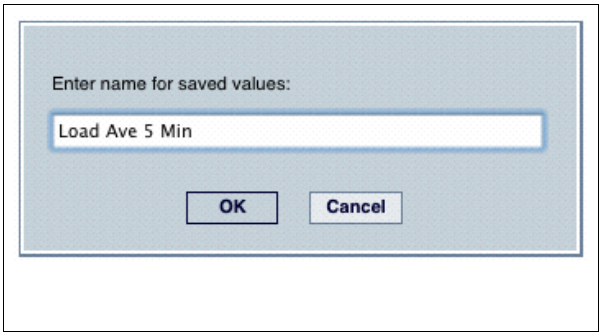
Note: You must have IQ administration privileges or have write access to the Reports directory to save input parameters.

1. Run an IQ report. For example, the following report is the **Stacked Metric Values** report, run for the metric "Load Average 5 Minutes".



2. To save the report parameters, click **Save Values.**

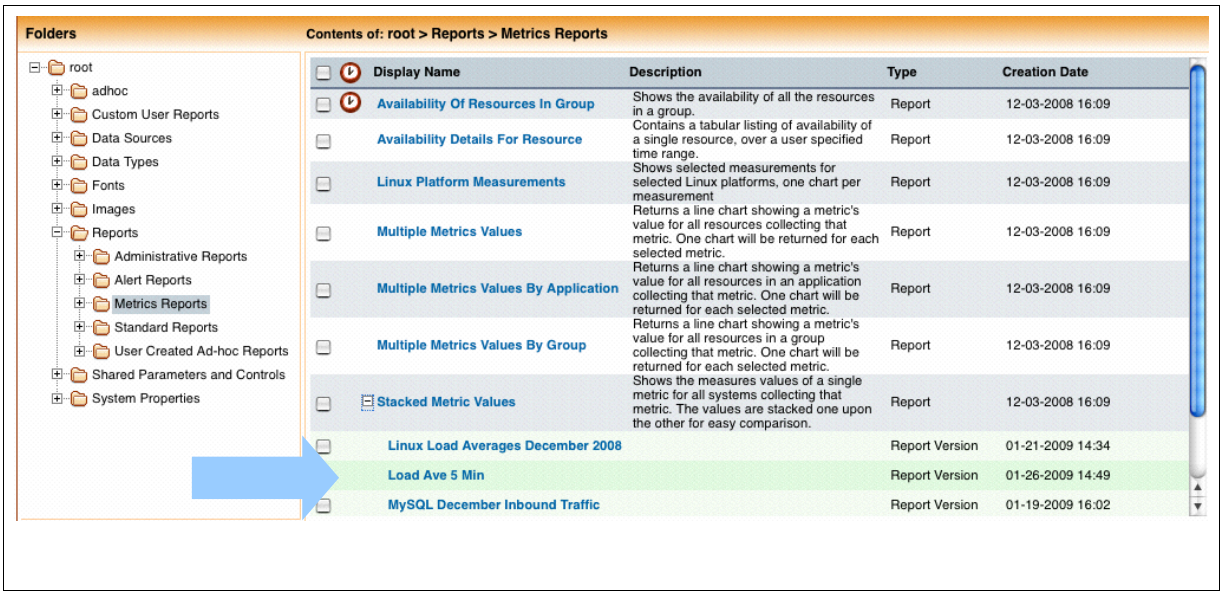
   You are prompted to name the saved selections. In this example, we supply the name "Load Ave 5 Min".



3. Click **OK**.

   If a message indicates you do not have the privilege to save the settings, contact your Hyperic HQ administrator.

After you successfully save the settings, the name you assigned will appear in the report list as a "Report Version" in an expandable list under the report it is based upon. For example, in the screenshot below, see the **Load Ave 5 Min** entry below the **Stacked Metric Values** report.



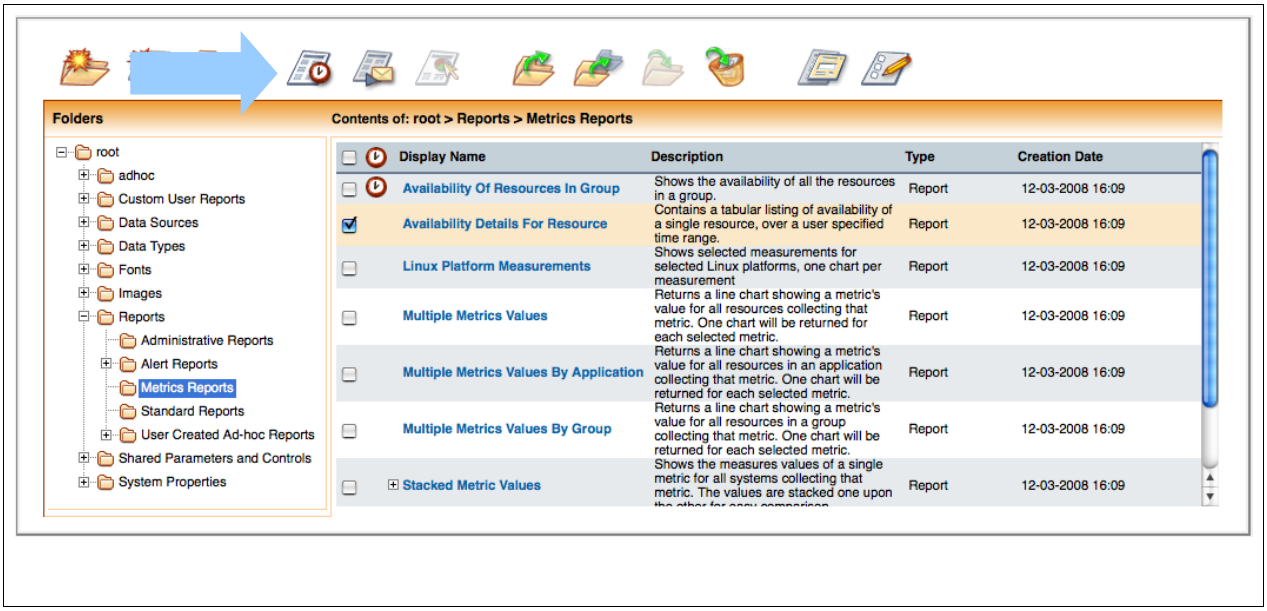
Schedule a Report

You can schedule a report to run on a regular basis and be distributed by email. Before scheduling a report, its a good idea to run it with the desired input parameters to make sure it produces the results you're looking for.

To schedule the report:

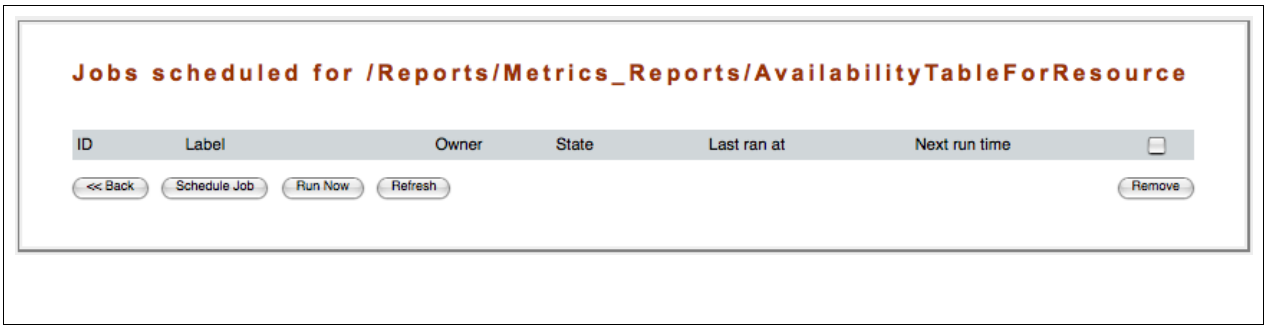
1. Place a check-mark in the box next to the report and click the schedule icon.

   In this example, we choose **Availability Details for Resource**.



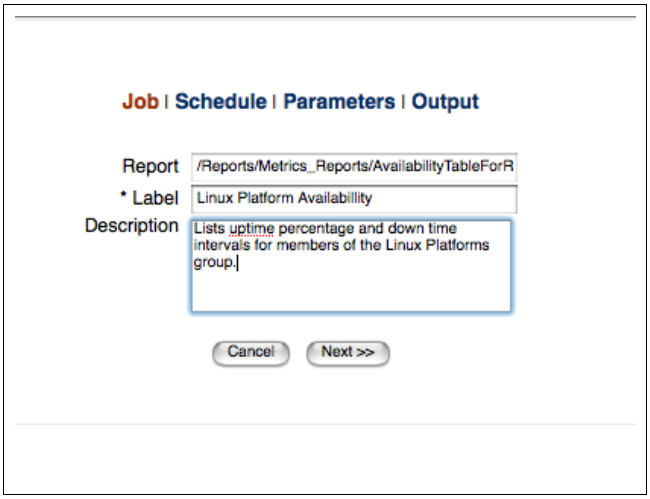
2. The "Jobs Scheduled..." page will appear.

   If the report is already scheduled for regular execution, this page would indicate so.

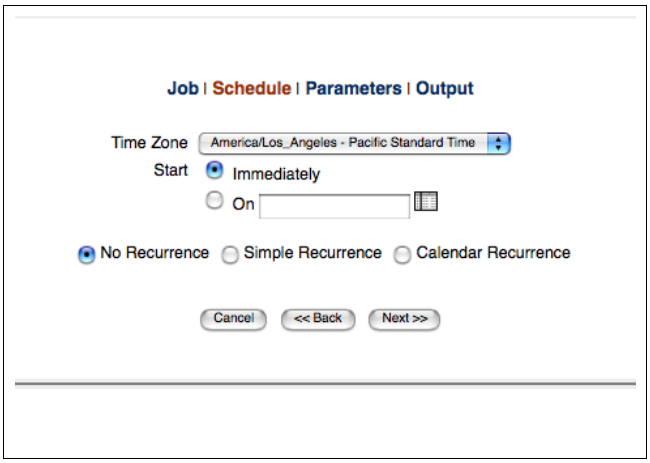


3. Click **Schedule Job** button.

   Enter a label and description for the report, and click **Next**.



4. You are prompted to choose a method of scheduling the report.
   - **No Recurrence** - report will run only once.
   - **Simple Recurrence** - report will run on a simple periodic basis, such as daily or weekly.
   - **Calendar Recurrence** - provides more options for defining a periodic schedule.

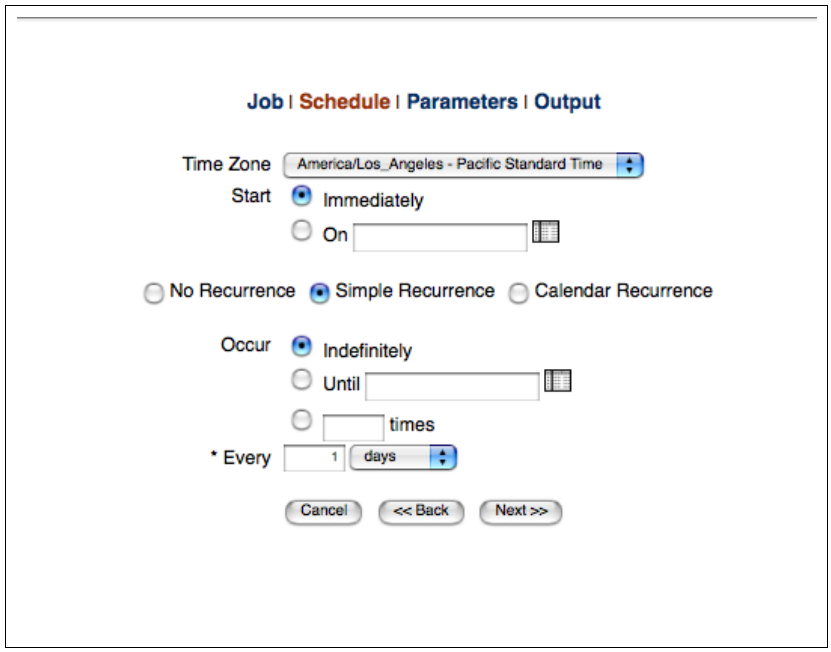


5. Click **Simple Recurrence**.

   Select your time-zone and desired scheduling options:

   - Choose when to run the report the first time - if you have not previous done a test run, it's a good idea to select **Immediately**, so you can verify the report results.
   - Limit the number of scheduled executions by date or number of runs.
   - Choose the frequency of execution.

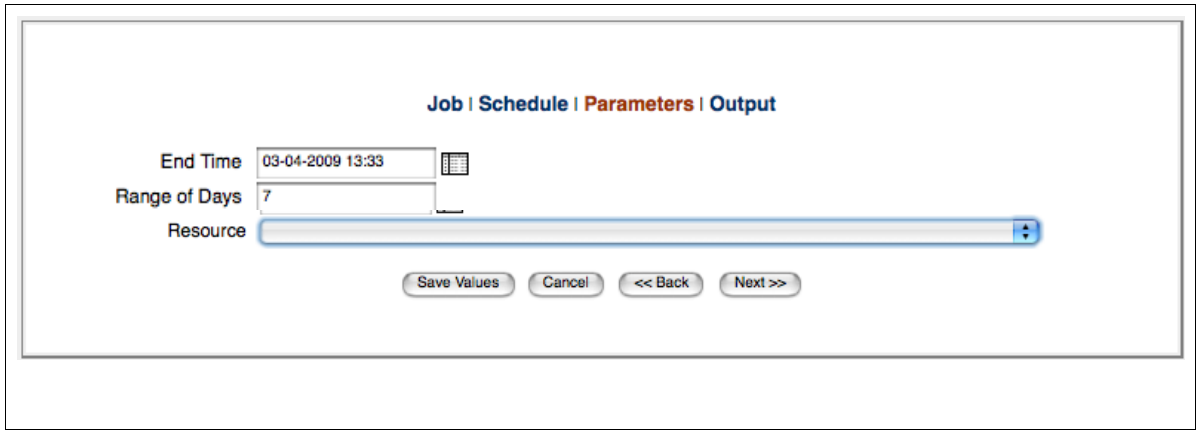
   Click **Next**.



6. You are prompted to select values for the report parameters.

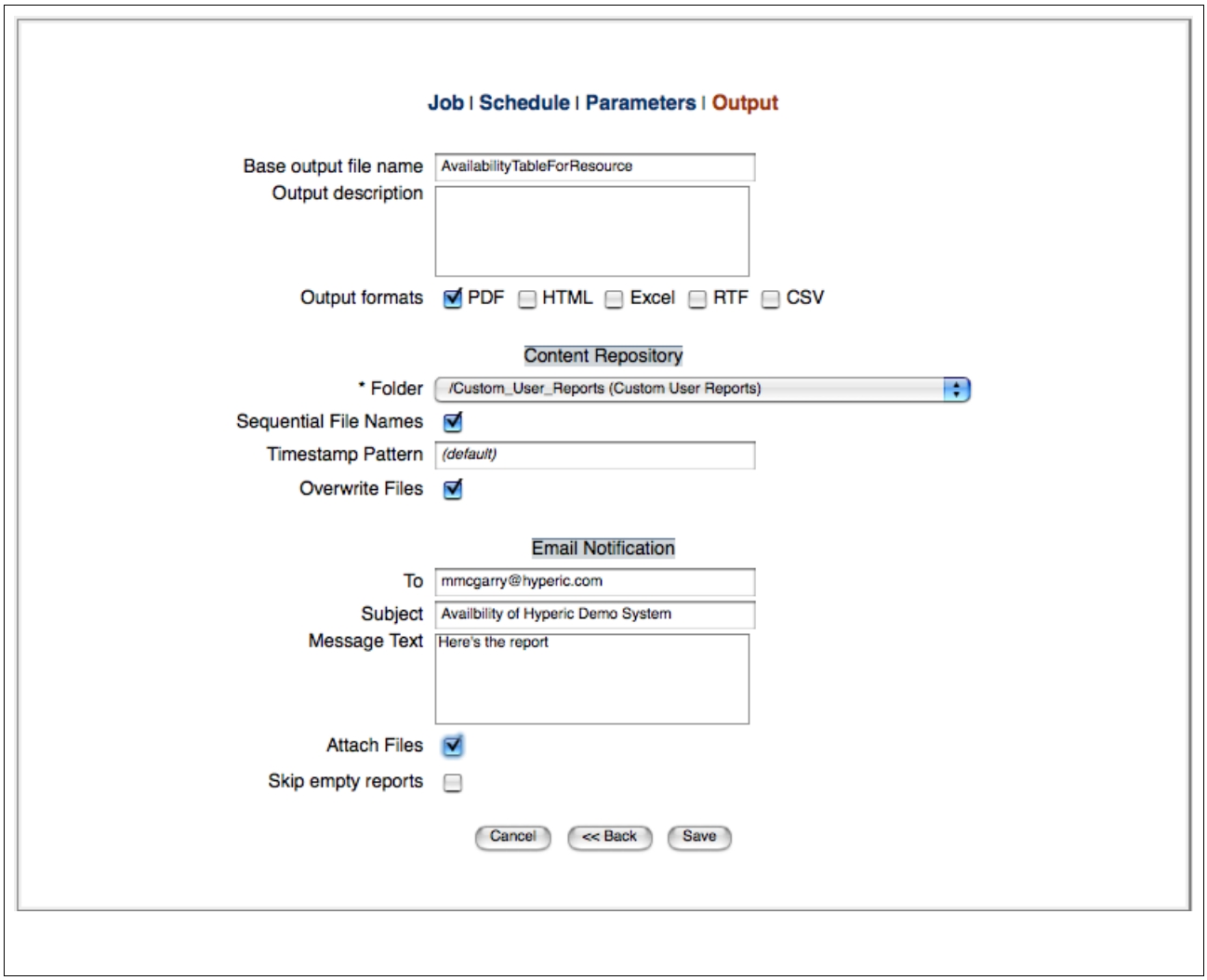
   By default End Time is the current date and time, and Range of Days is . Other input parameters depend on the report you are scheduling. The example report, **Availability Details for Resource,** requires you select a specific resource.

   Select required parameters and click **Next**.

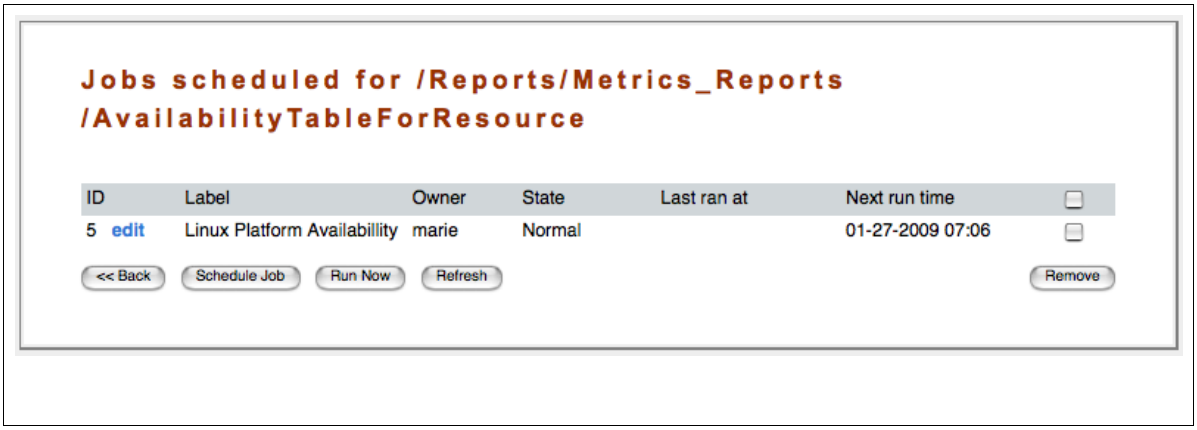
7. 

You are prompted to enter and select output options:

- File name for the report output
- Optional description
- Output format
- Folder to store the output - you must have access to the folder you select.
- Sequential naming
- Timestamp pattern - will be appended to the filename. This version of IQ supports only one timestamp pattern: *yyyymmddnn*, where *nn* is a numeric identifier that increments each time the report is run.
- Overwrite option
- Email options, addressee, attach file, skip empty reports



8. The Jobs scheduled... page will list a scheduled job for the report.

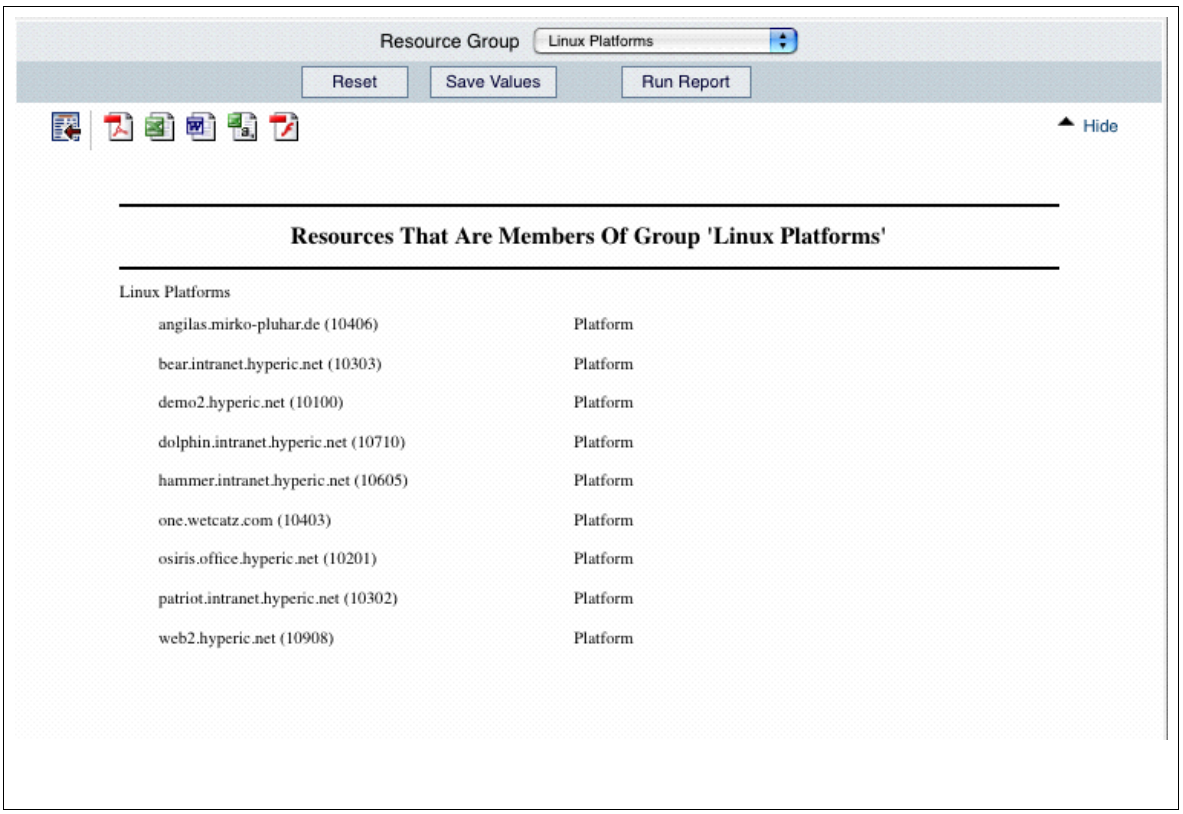


IQ Reports Quick Reference

This section has examples of each of the reports in Hyperic IQ's Reports folder.

Group Membership

The Group Membership report, in the Administrative reports folder, lists the resources that belong to a group. If the selected group contains other groups, the contents of those groups are listed as well.

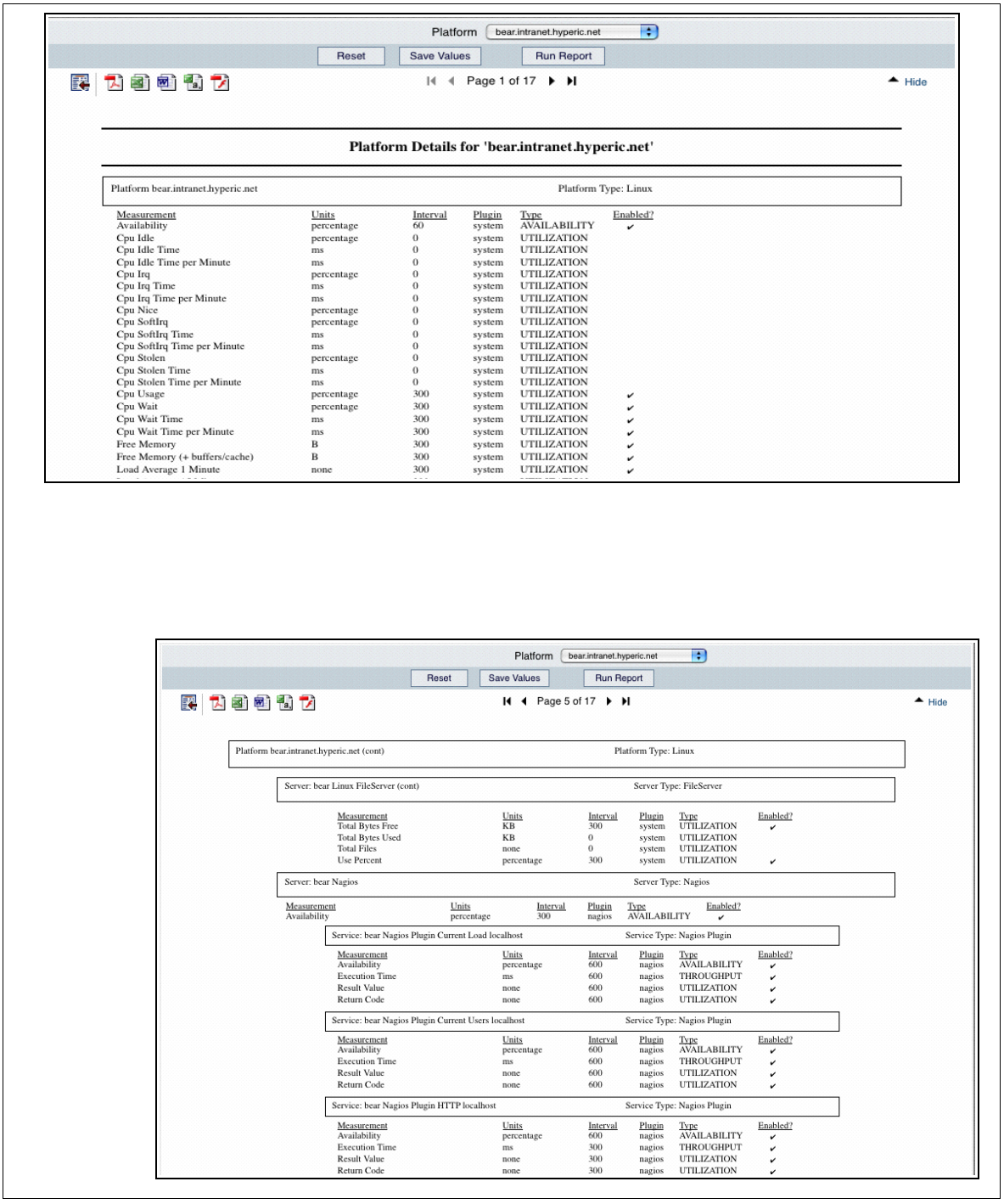


Platform Details With Measurements

The Platform Details With Measurements report, in the Administrative Reports folder, lists the resource hierarchy for a selected platform, along with metric collection settings for each resource.

The first screenshot below is page 1 of the report, which lists the metrics available and configured for the platform.

Later pages provide the same information for servers and services on the platform, as shown on second screenshot.

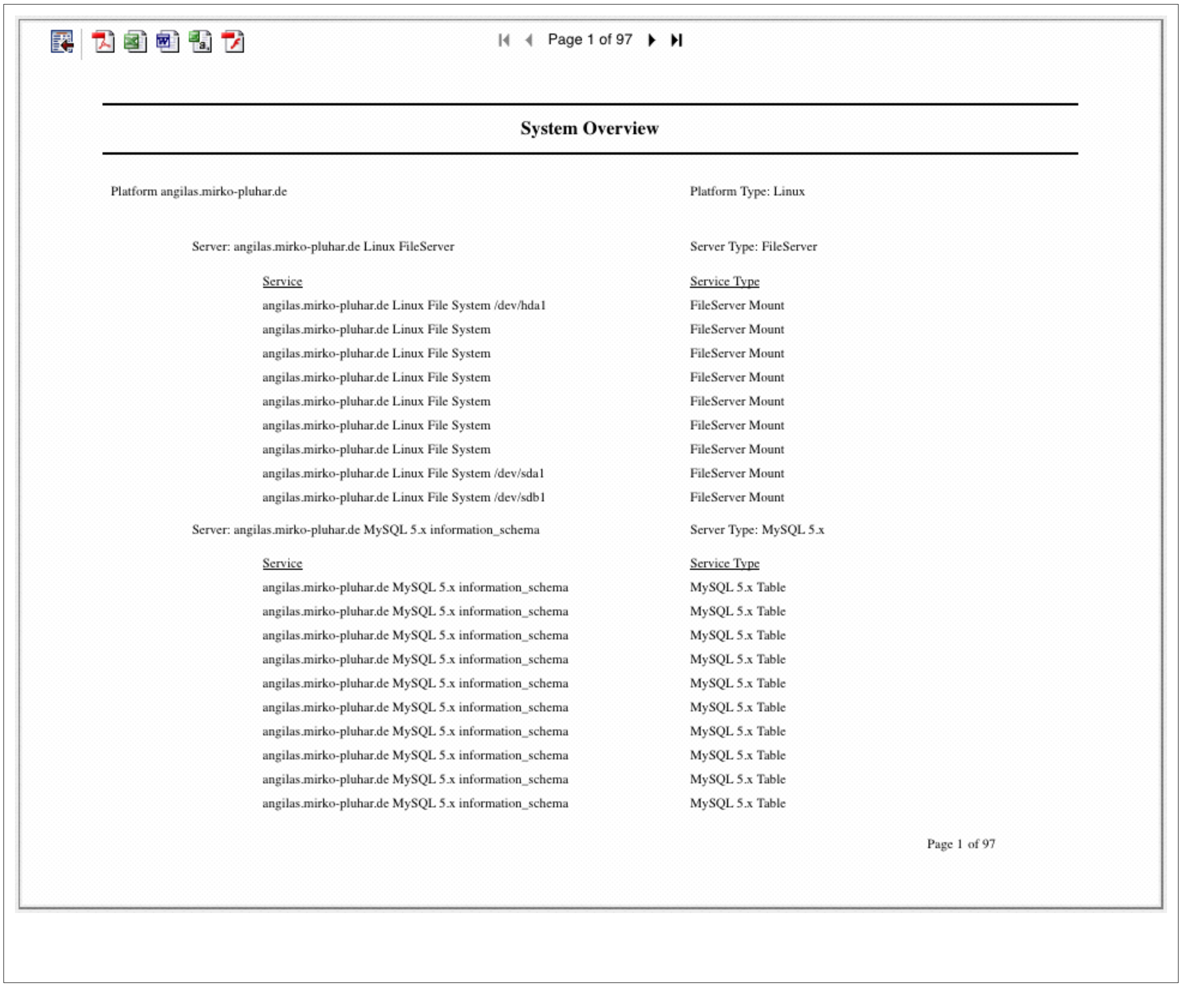


System Overview

The System Overview report, in the Administrative Reports folder, lists the name and type of each resource in HQ inventory. No input parameters are required.

The organization of the report indicates the platform-server-service hierarchy. Platforms are listed in alphabetical order; for each platform, each server and its child services are listed. Page breaks occur before each platform in the report.

Note that this report is **extremely long** because it lists every resource in the HQ database.



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System Overview

Platform angilas.mirko-pluhar.de — Platform Type: Linux

Server: angilas.mirko-pluhar.de Linux FileServer — Server Type: FileServer

Service	Service Type
angilas.mirko-pluhar.de Linux File System /dev/hda1	FileServer Mount
angilas.mirko-pluhar.de Linux File System	FileServer Mount
angilas.mirko-pluhar.de Linux File System	FileServer Mount
angilas.mirko-pluhar.de Linux File System	FileServer Mount
angilas.mirko-pluhar.de Linux File System	FileServer Mount
angilas.mirko-pluhar.de Linux File System	FileServer Mount
angilas.mirko-pluhar.de Linux File System	FileServer Mount
angilas.mirko-pluhar.de Linux File System /dev/sda1	FileServer Mount
angilas.mirko-pluhar.de Linux File System /dev/sdb1	FileServer Mount

Server: angilas.mirko-pluhar.de MySQL 5.x information_schema — Server Type: MySQL 5.x

Service	Service Type
angilas.mirko-pluhar.de MySQL 5.x information_schema	MySQL 5.x Table
angilas.mirko-pluhar.de MySQL 5.x information_schema	MySQL 5.x Table
angilas.mirko-pluhar.de MySQL 5.x information_schema	MySQL 5.x Table
angilas.mirko-pluhar.de MySQL 5.x information_schema	MySQL 5.x Table
angilas.mirko-pluhar.de MySQL 5.x information_schema	MySQL 5.x Table
angilas.mirko-pluhar.de MySQL 5.x information_schema	MySQL 5.x Table
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angilas.mirko-pluhar.de MySQL 5.x information_schema	MySQL 5.x Table
angilas.mirko-pluhar.de MySQL 5.x information_schema	MySQL 5.x Table
angilas.mirko-pluhar.de MySQL 5.x information_schema	MySQL 5.x Table

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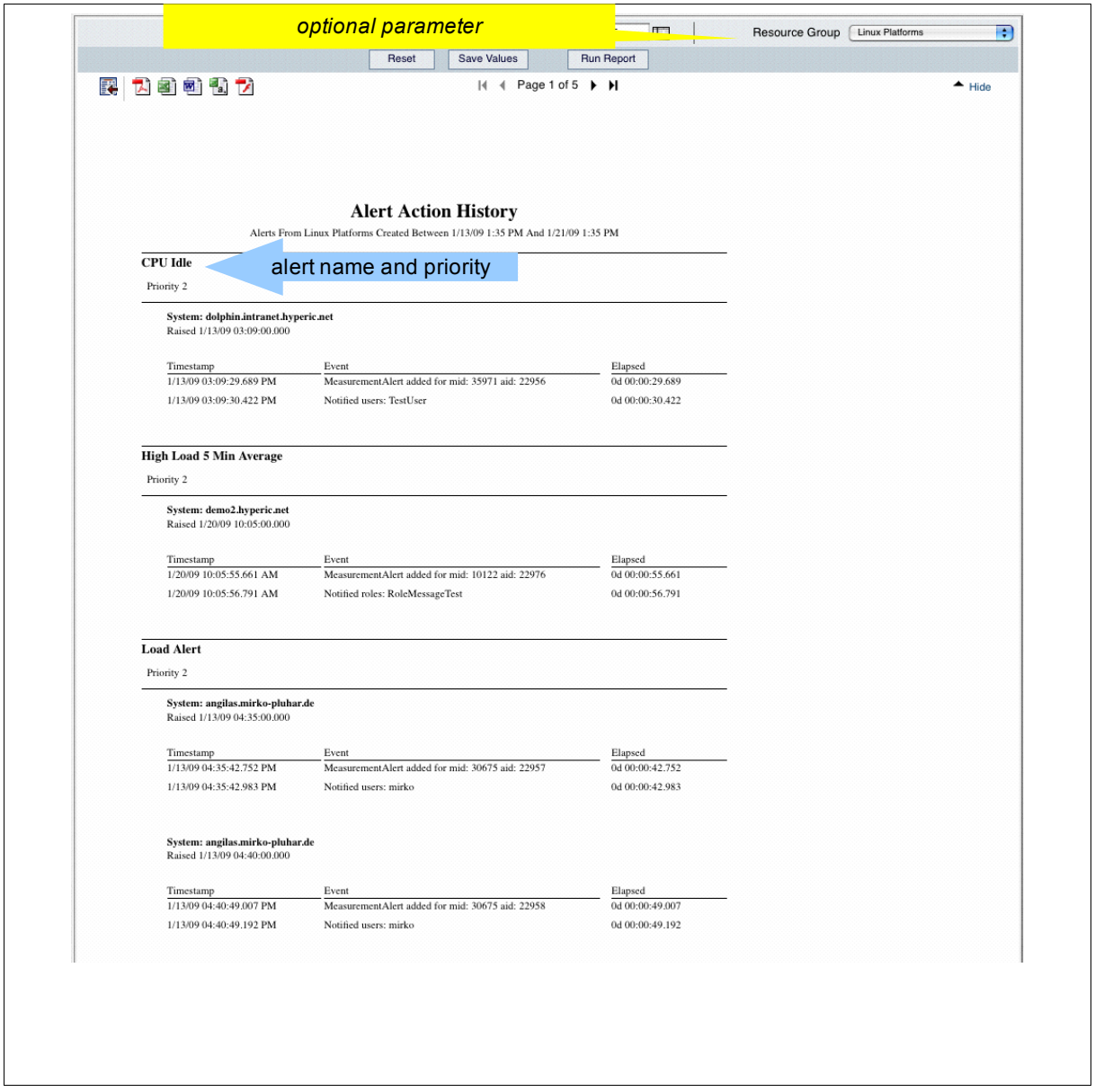
Alert Actions History

The Alert Actions Report, found in the Alert Reports folder, lists the alerts that fired for all or a group of resources during a interval. For each alert, the report lists the resources for which it fired. For each occurrence of the alert firing for a resource, alert-related events and time-stamps are listed. Events include:

- start of alert processing - this is the first event listed for any alert.
- notification issued
- control action performed
- alert fixed

This list includes all events subsequent to alert firing, including those that occur after the End Date of the report. "Elapsed Time" is the duration from alert firing to the event.

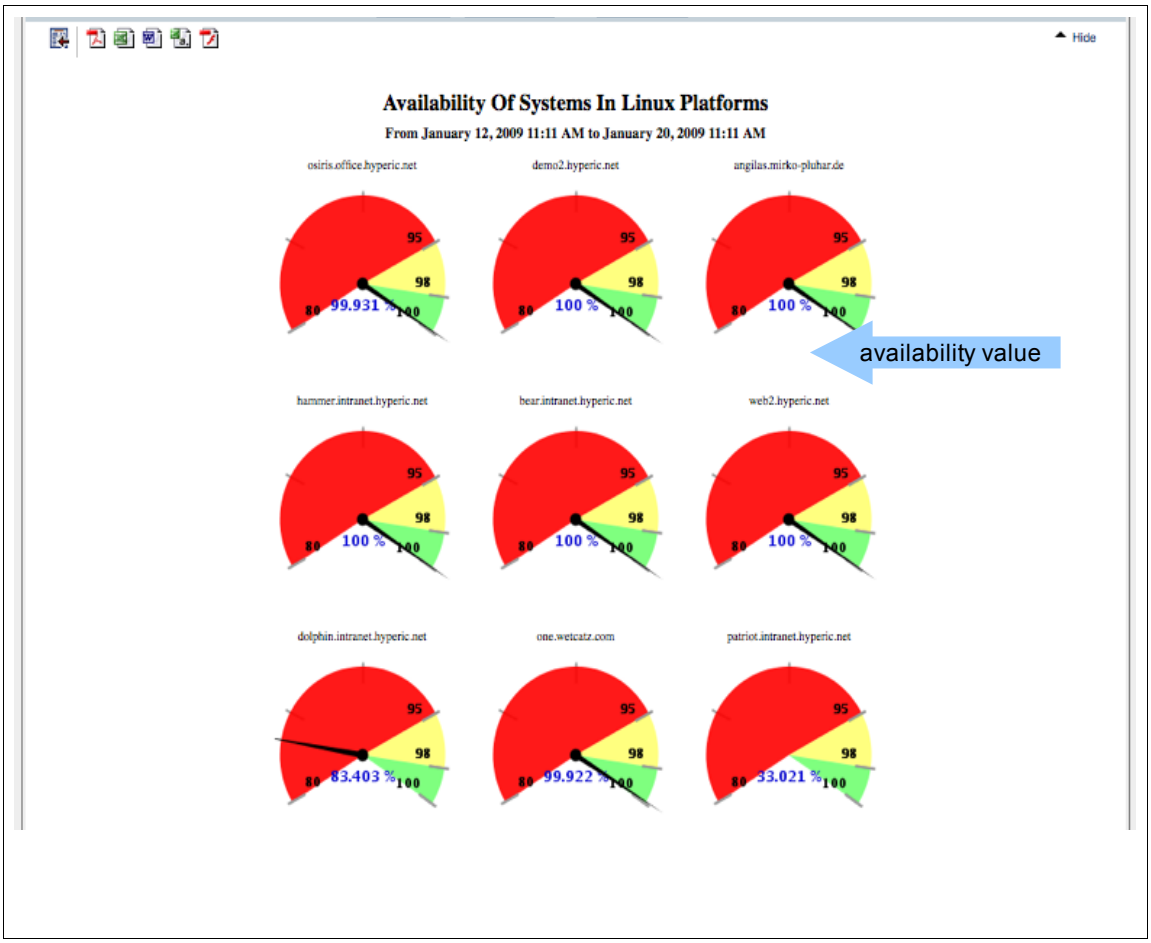
The report presents the "time to fix" for each individual alert that was fixed, the average time to fix alerts of a given type, and the average time to fix across all alert types. (The page below does not show the time to fix statistics.)



Availability Of Resources In Group

The Available of Resources in a Group report, found in the Metric Reports folder, displays an availability gauge for each resource in a selected group. A resource's percentage availability is indicated graphically using a needle indicator, and printed in blue below the center point of the gauge.

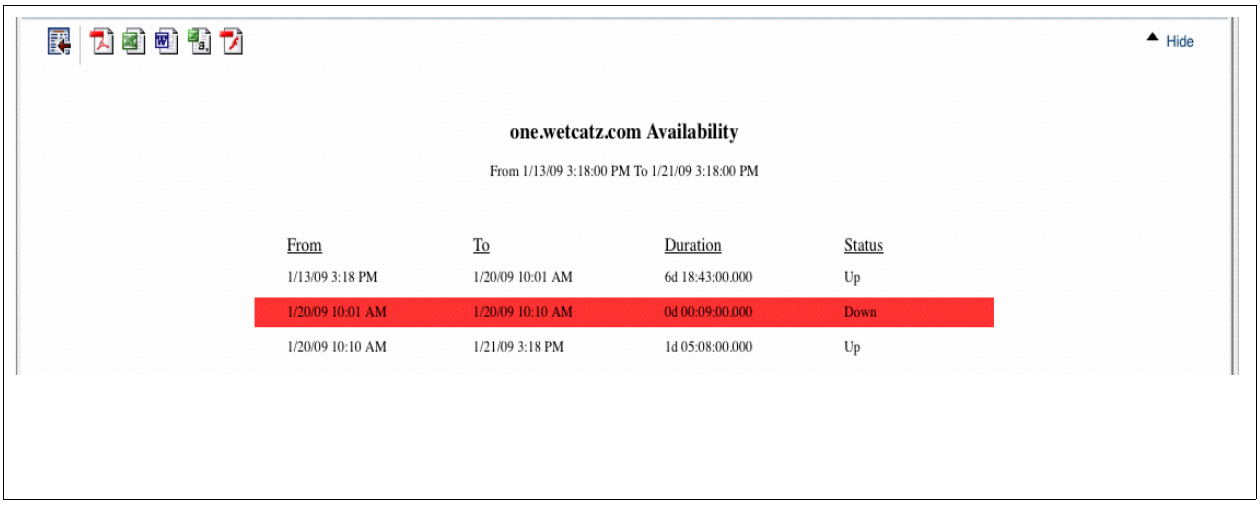
Each gauge is a hot link you can click to view the Availability Details for Resource report, described in the following section.



Availability Details For Resource

The Availability Details for Resource report, available in the Metric Reports folder, is a tabular list of up and down periods for a selected resource, over an selected interval. You can run run this report from the folder tree, or by clicking on a gauge in the the Availability of Resources in a Group report, described in the previous section.

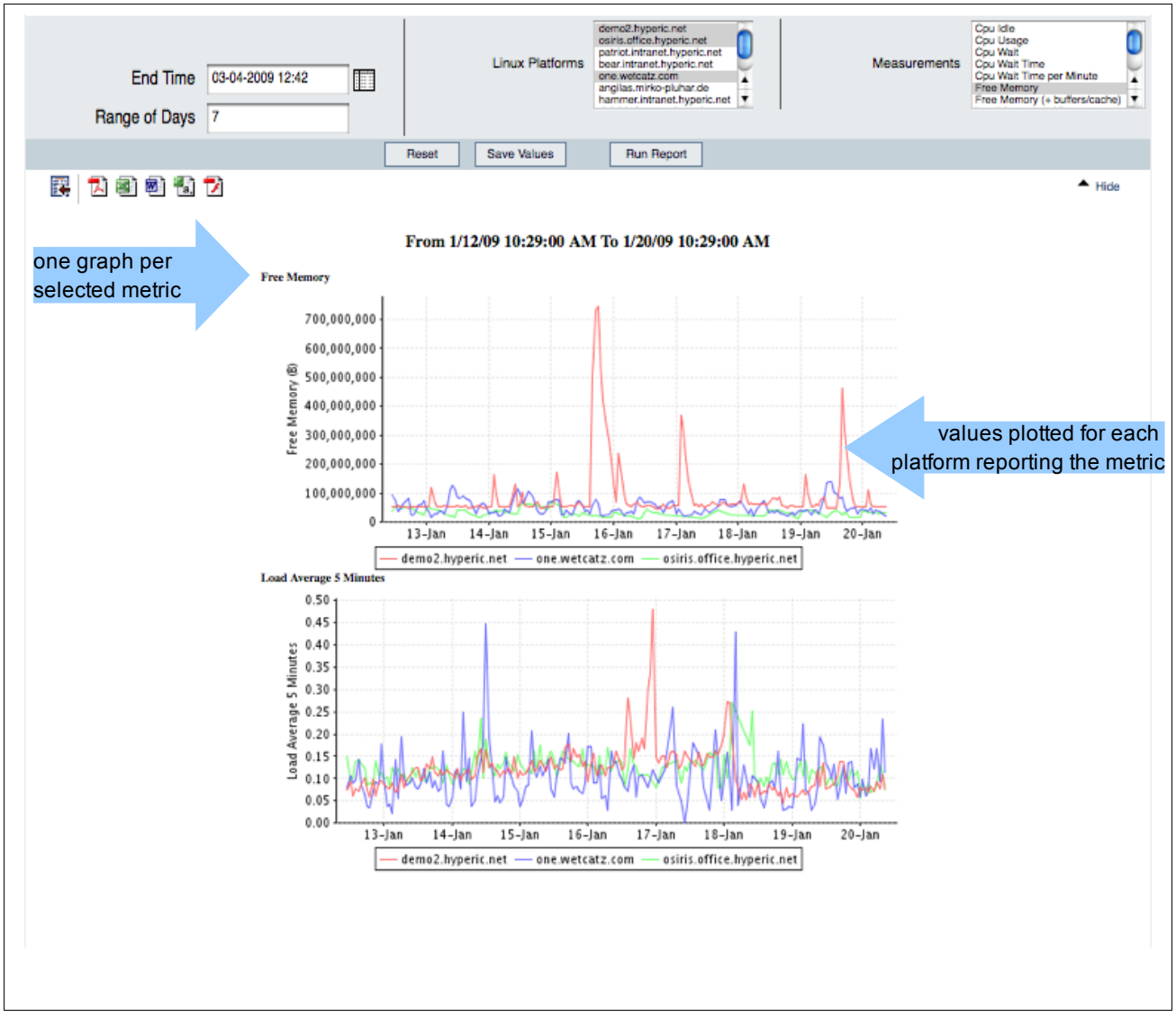
For each up/down period the duration is calculated, and down periods are displayed on a red background.



Linux Platform Measurements

The Linux Platform Measurements report, available from the Metric Reports folder, compares metrics across Linux platforms over a selected interval. You can select specific platforms and specific metrics, but it is not necessary.

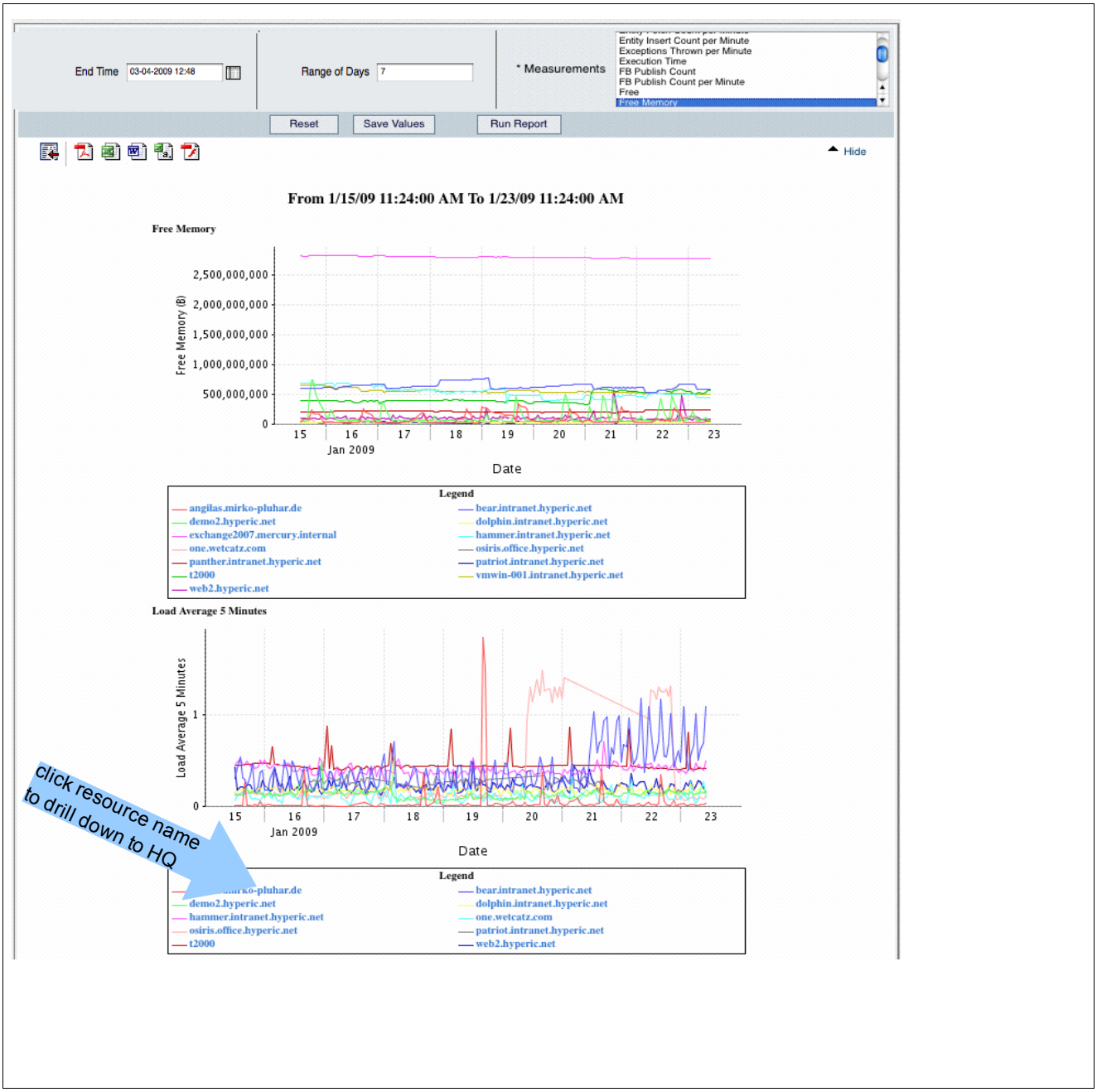
If you run the report without selecting specific platforms and metrics, the report will have a line chart for every metric that was reported for at least one Linux platform during the report interval. Each chart plots a metric for each of the Linux platform that collected it during the report interval.



Multiple Metrics Values (also by Group or Application)

The Metric Reports folder has three reports that compare the value of one or more metrics across a set of resources. The reports vary in terms of whether and how you filter the resources included in the report.

- Multiple Metric Values - no resource filtering; results include all resources that reported the selected metrics.
- Multiple Metric Values by Application - filter by application; results include only resources in that application that reported the selected metrics.
- Multiple Metric Values by Group - filter by group; results include only resources in that group that reported the selected metrics.



Stacked Metric Values (also by Application and Group)

The Stacked Metric Values report, in the Metric Reports folder, is an area chart of a selected metric for all the resources that reported it during the report interval.

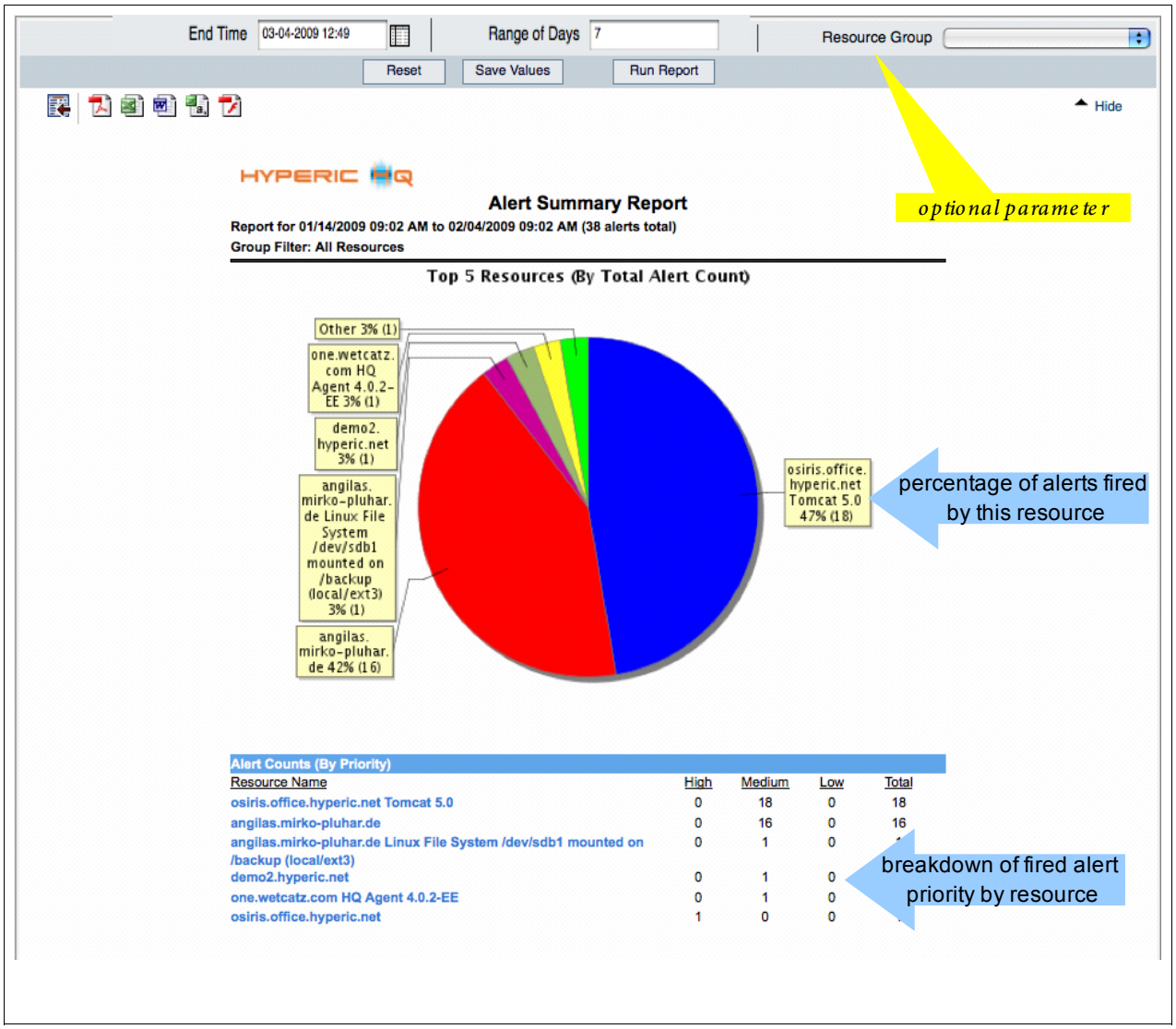
Alert Summary

The Alert Summary report, found on the Standard Reports folder, is a graphical summary of the distribution of triggered alerts across resources during an interval.

The pie chart shows, for the five resources with the most triggered alerts, the percentage of total fired alerts that were fired by each resource.

The table shows a breakdown of alerts by priority for all resources that had alerts fire.

Note: *Alert Detail* on page *25* is similar to this report, but includes a list of alert events instead of the table of alerts by priority and resource.

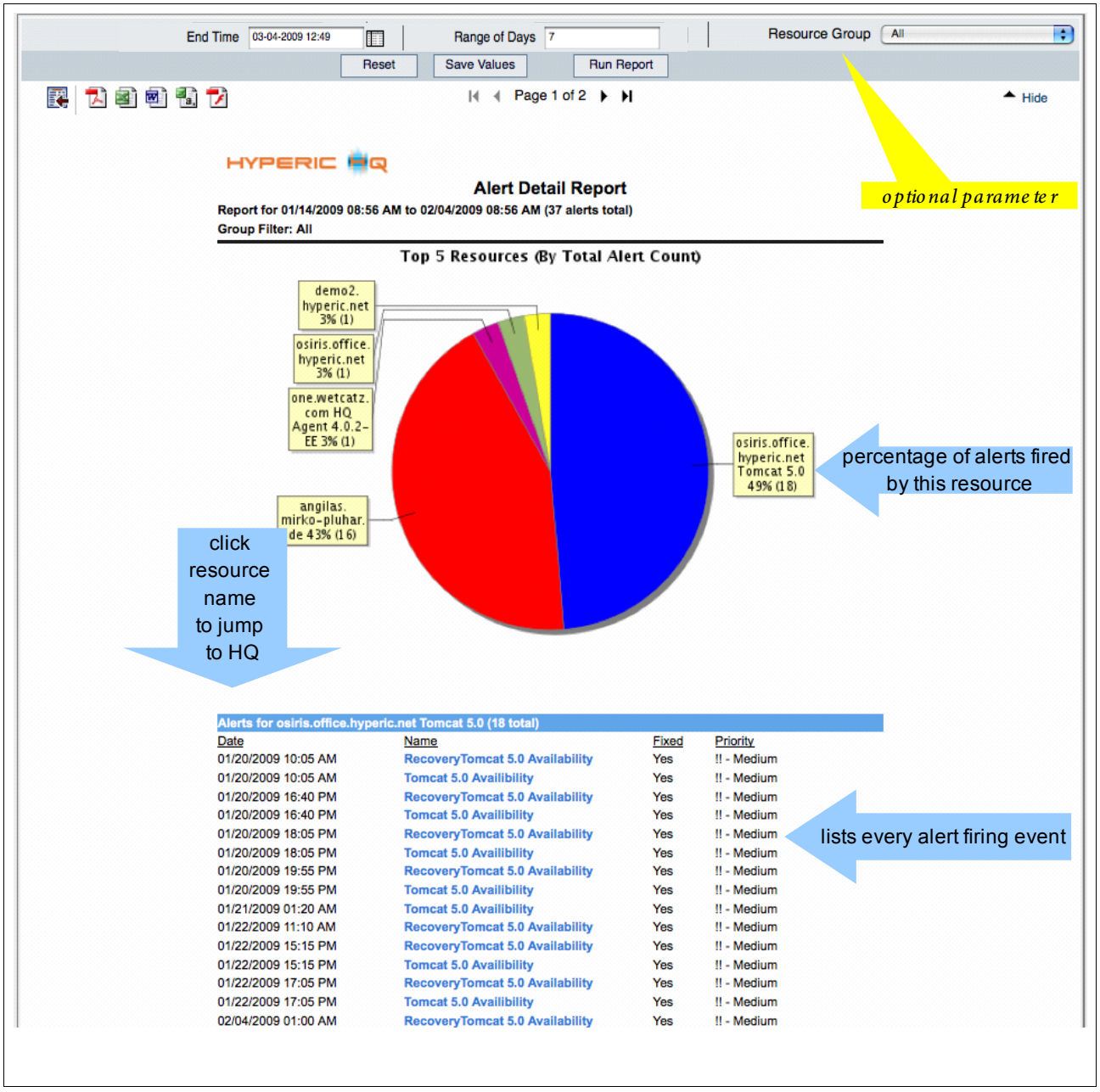


Alert Detail

The Alert Detail report, found on the Standard Reports folder, is a graphical summary of the distribution of triggered alerts across resources during an interval.

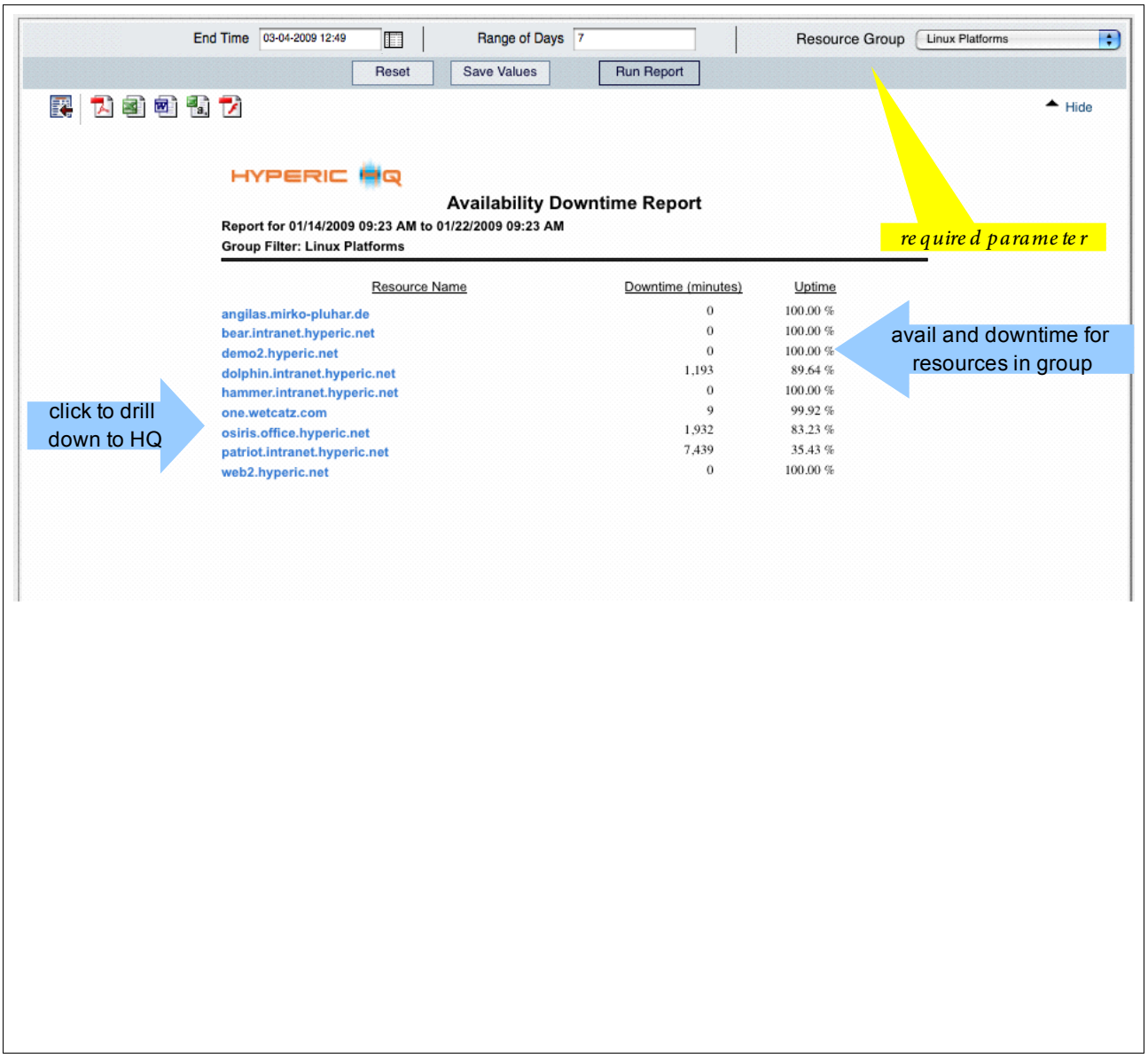
The pie chart shows, for the five resources with the most triggered alerts, the percentage of total fired alerts that were fired by each resource.

The list below the chart includes each alert firing event during the report interval.



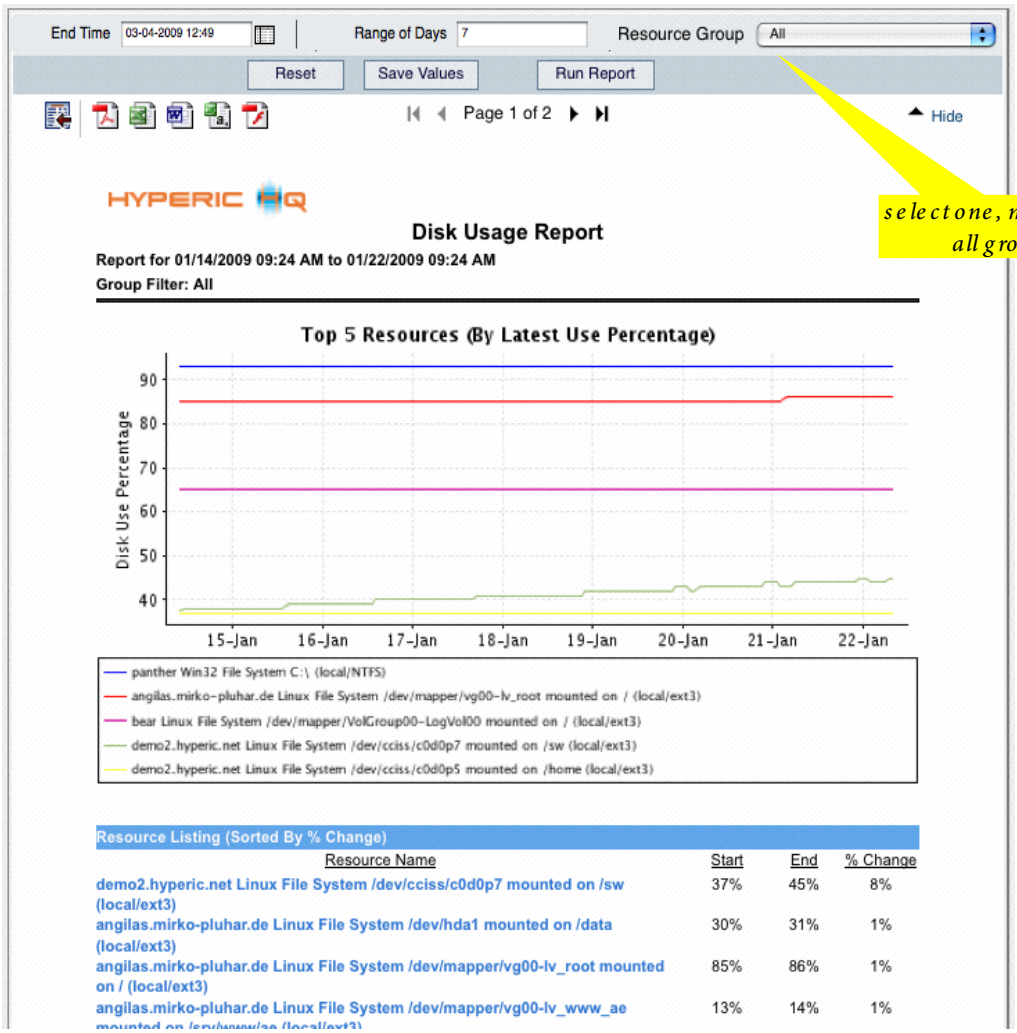
Availability Downtime

This Availability Downtime report, in the Standard Reports folder, lists minutes of downtime and percentage availability for the resources in a selected group over an interval.



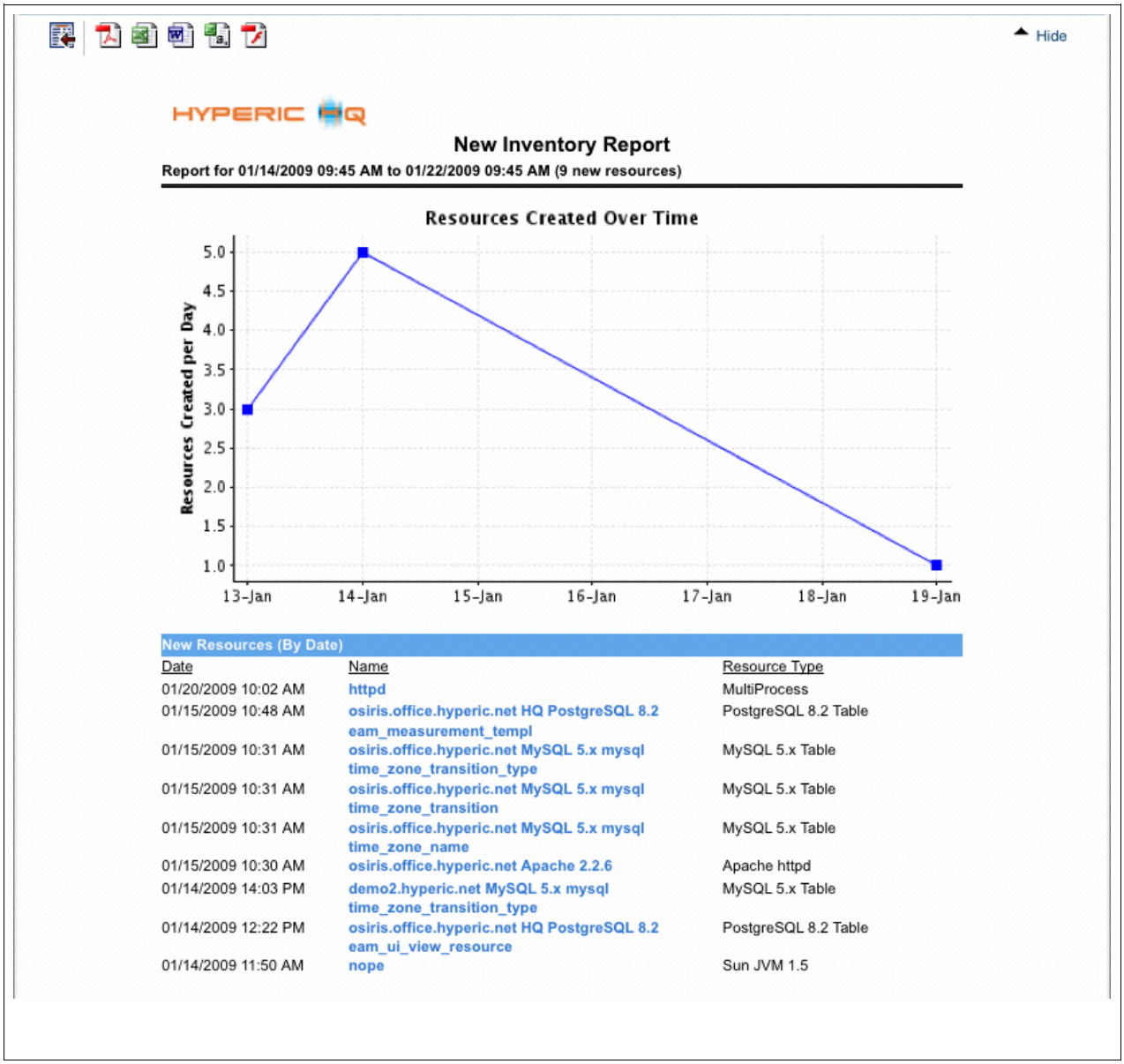
Disk Usage

The Disk Usage report charts the disk utilization of the five file systems with highest disk utilization in one or more resource groups over an interval. The listing below the chart shows disk utilization at the beginning and end of the interval, and the percentage change during the interval.



Inventory

The Inventory report, in the Standard Reports folder, charts the number of resources added to HQ inventory during an interval. This report has no filtering options, all new resources will be listed. The list below the chart shows the date added, the name, and the type of each added resource.

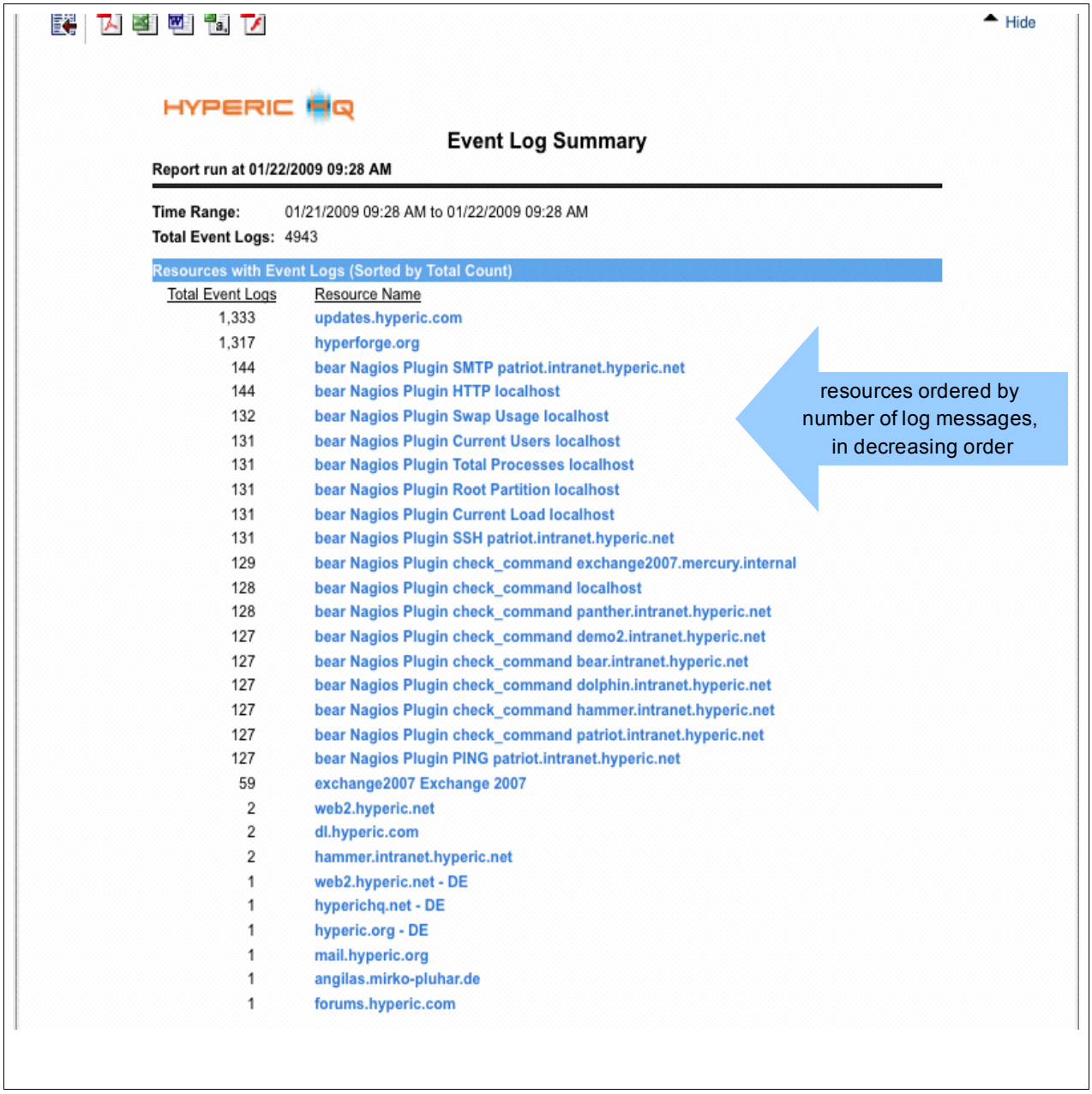


New Resources (By Date)

Date	Name	Resource Type
01/20/2009 10:02 AM	httpd	MultiProcess
01/15/2009 10:48 AM	osiris.office.hyperic.net HQ PostgreSQL 8.2 eam_measurement_templ	PostgreSQL 8.2 Table
01/15/2009 10:31 AM	osiris.office.hyperic.net MySQL 5.x mysql time_zone_transition_type	MySQL 5.x Table
01/15/2009 10:31 AM	osiris.office.hyperic.net MySQL 5.x mysql time_zone_transition	MySQL 5.x Table
01/15/2009 10:31 AM	osiris.office.hyperic.net MySQL 5.x mysql time_zone_name	MySQL 5.x Table
01/15/2009 10:30 AM	osiris.office.hyperic.net Apache 2.2.6	Apache httpd
01/14/2009 14:03 PM	demo2.hyperic.net MySQL 5.x mysql time_zone_transition_type	MySQL 5.x Table
01/14/2009 12:22 PM	osiris.office.hyperic.net HQ PostgreSQL 8.2 eam_ui_view_resource	PostgreSQL 8.2 Table
01/14/2009 11:50 AM	nope	Sun JVM 1.5

Event Log Summary

The Event Log Summary, in the Standard Reports folder, lists the number of messages logged for each resource in inventory. There are no input parameters for this report. It runs against the entire HQ inventory.

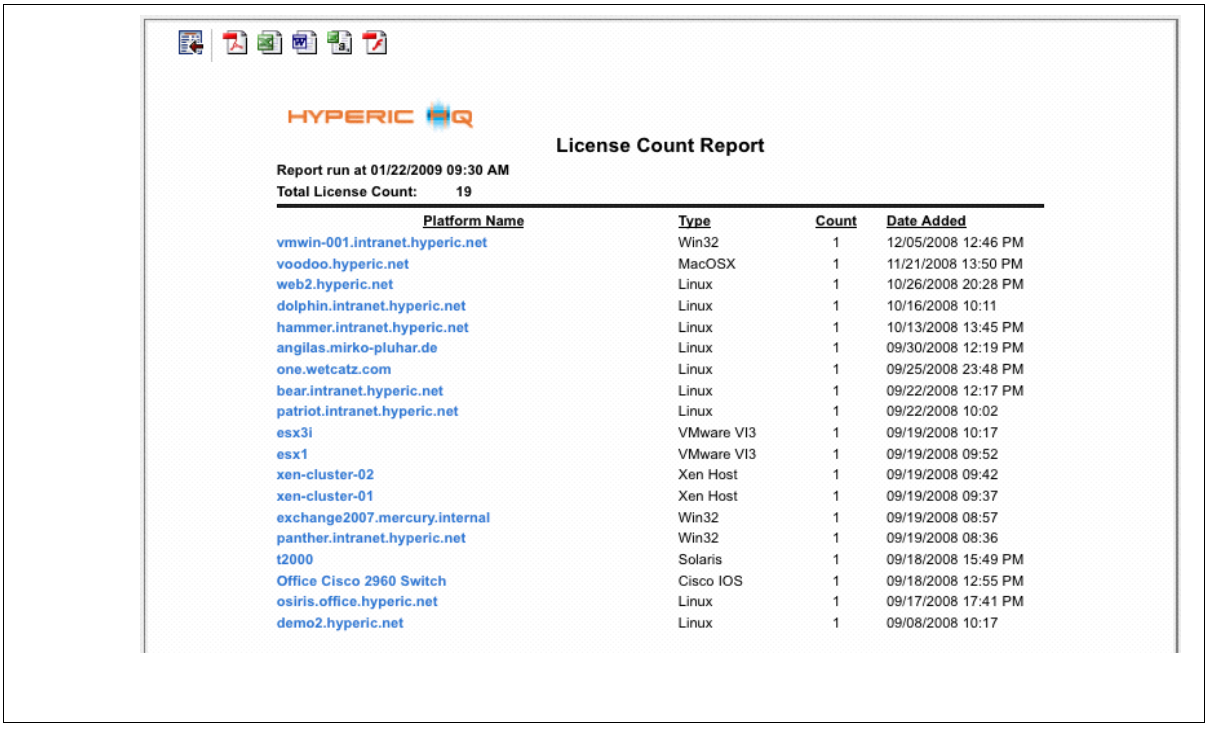


License Count

The License Count report, in the Standard Reports folder, lists the platforms currently under HQ management and the number of agents on each platform registered with the HQ Server. Typically, only a single agent runs per managed platform, but if multiple agent instances have been installed and successfully registered on a platform, the report will show this in the Count column.

There are no input parameters for this report. It runs against the entire HQ inventory.

This report is useful for determining how many of the number of agent instances allowed by your Hyperic license are in use.



HYPERIC HQ

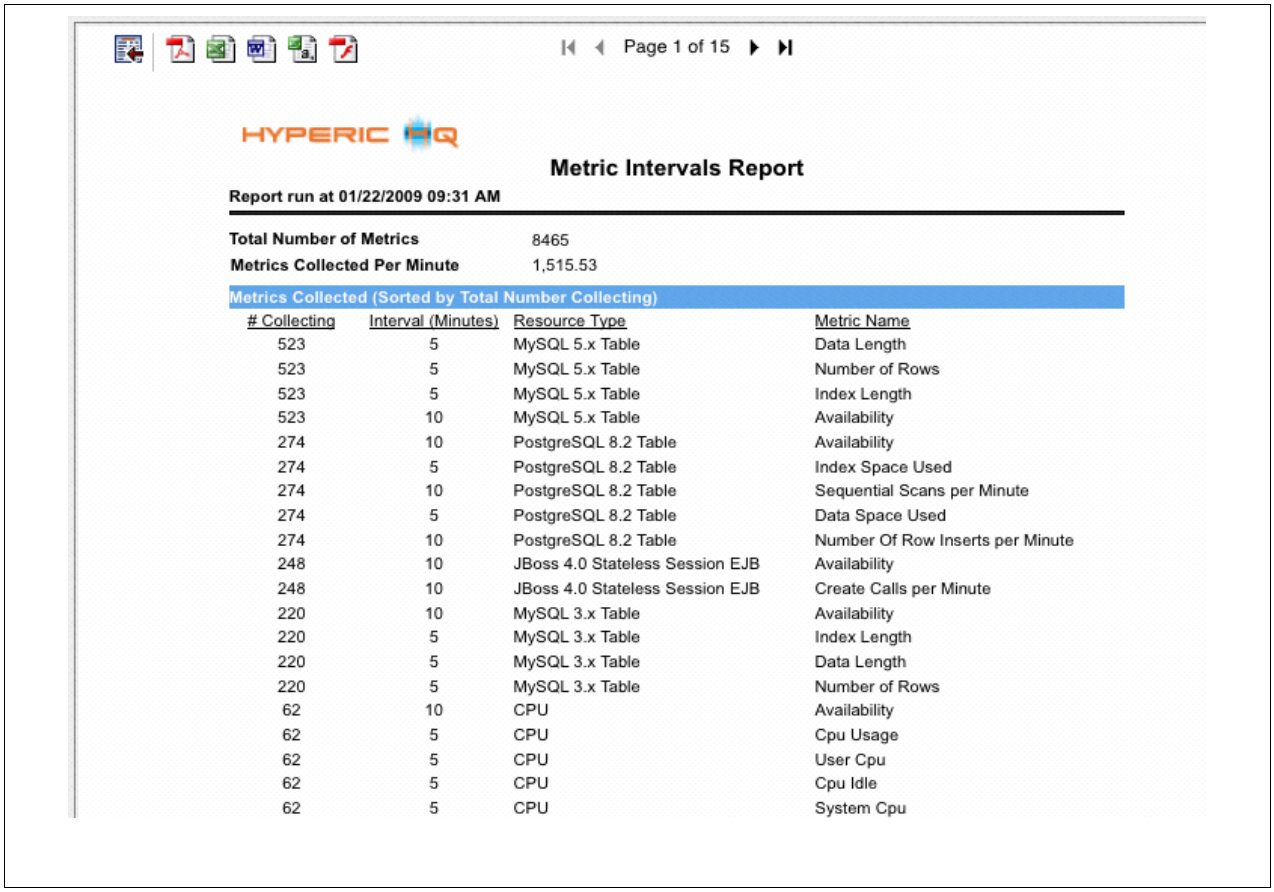
License Count Report

Report run at 01/22/2009 09:30 AM
Total License Count: 19

Platform Name	Type	Count	Date Added
vmwin-001.intranet.hyperic.net	Win32	1	12/05/2008 12:46 PM
voodoo.hyperic.net	MacOSX	1	11/21/2008 13:50 PM
web2.hyperic.net	Linux	1	10/26/2008 20:28 PM
dolphin.intranet.hyperic.net	Linux	1	10/16/2008 10:11
hammer.intranet.hyperic.net	Linux	1	10/13/2008 13:45 PM
angilas.mirko-pluhar.de	Linux	1	09/30/2008 12:19 PM
one.wetcatz.com	Linux	1	09/25/2008 23:48 PM
bear.intranet.hyperic.net	Linux	1	09/22/2008 12:17 PM
patriot.intranet.hyperic.net	Linux	1	09/22/2008 10:02
esx3i	VMware VI3	1	09/19/2008 10:17
esx1	VMware VI3	1	09/19/2008 09:52
xen-cluster-02	Xen Host	1	09/19/2008 09:42
xen-cluster-01	Xen Host	1	09/19/2008 09:37
exchange2007.mercury.internal	Win32	1	09/19/2008 08:57
panther.intranet.hyperic.net	Win32	1	09/19/2008 08:36
t2000	Solaris	1	09/18/2008 15:49 PM
Office Cisco 2960 Switch	Cisco IOS	1	09/18/2008 12:55 PM
osiris.office.hyperic.net	Linux	1	09/17/2008 17:41 PM
demo2.hyperic.net	Linux	1	09/08/2008 10:17

Metric Interval

The Metric Interval report provides information about the metrics you collect, how many resources you collect them for, and the frequency of collection.



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HYPERIC HQ

Metric Intervals Report

Report run at 01/22/2009 09:31 AM

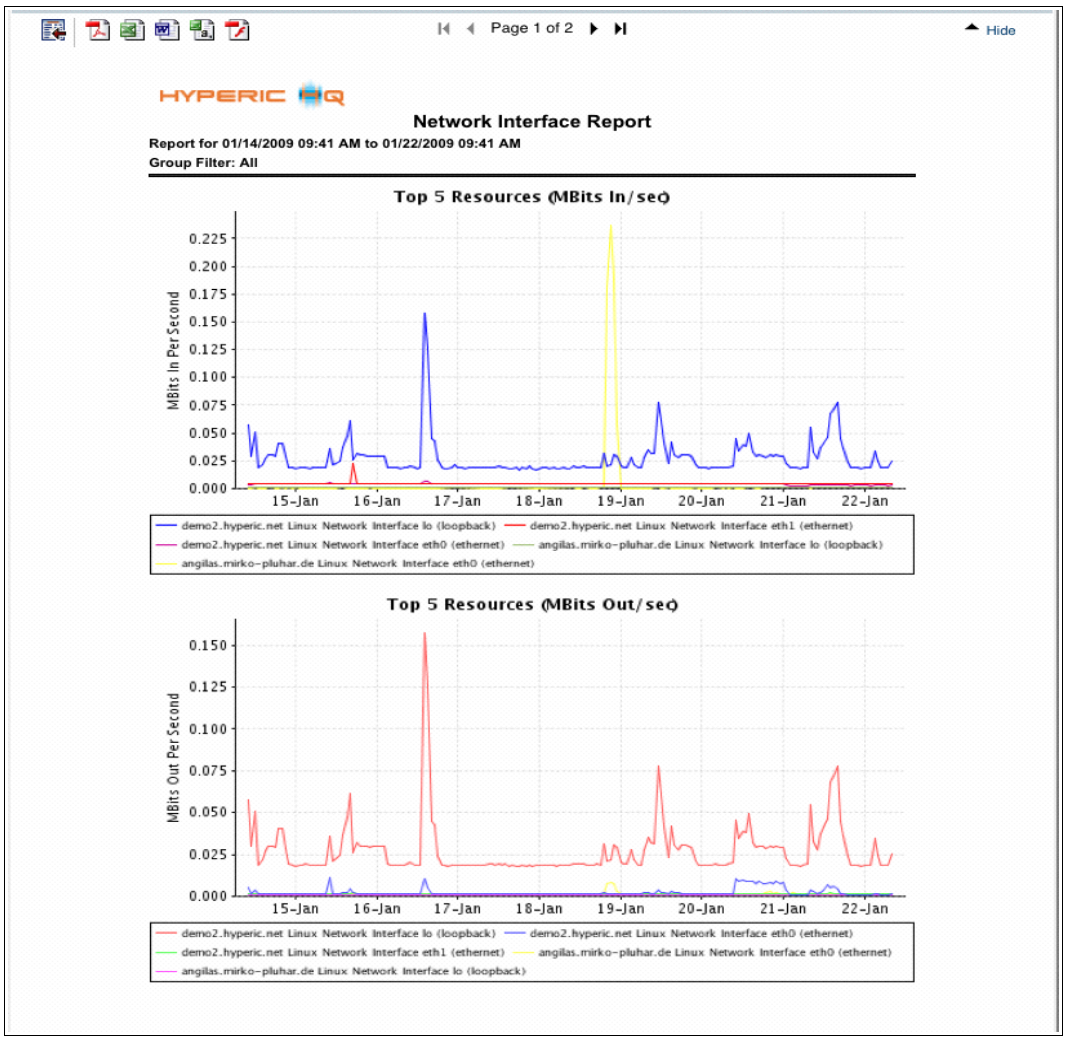
Total Number of Metrics	8465
Metrics Collected Per Minute	1,515.53

Metrics Collected (Sorted by Total Number Collecting)

# Collecting	Interval (Minutes)	Resource Type	Metric Name
523	5	MySQL 5.x Table	Data Length
523	5	MySQL 5.x Table	Number of Rows
523	5	MySQL 5.x Table	Index Length
523	10	MySQL 5.x Table	Availability
274	10	PostgreSQL 8.2 Table	Availability
274	5	PostgreSQL 8.2 Table	Index Space Used
274	10	PostgreSQL 8.2 Table	Sequential Scans per Minute
274	5	PostgreSQL 8.2 Table	Data Space Used
274	10	PostgreSQL 8.2 Table	Number Of Row Inserts per Minute
248	10	JBoss 4.0 Stateless Session EJB	Availability
248	10	JBoss 4.0 Stateless Session EJB	Create Calls per Minute
220	10	MySQL 3.x Table	Availability
220	5	MySQL 3.x Table	Index Length
220	5	MySQL 3.x Table	Data Length
220	5	MySQL 3.x Table	Number of Rows
62	10	CPU	Availability
62	5	CPU	Cpu Usage
62	5	CPU	User Cpu
62	5	CPU	Cpu Idle
62	5	CPU	System Cpu

Network Interface

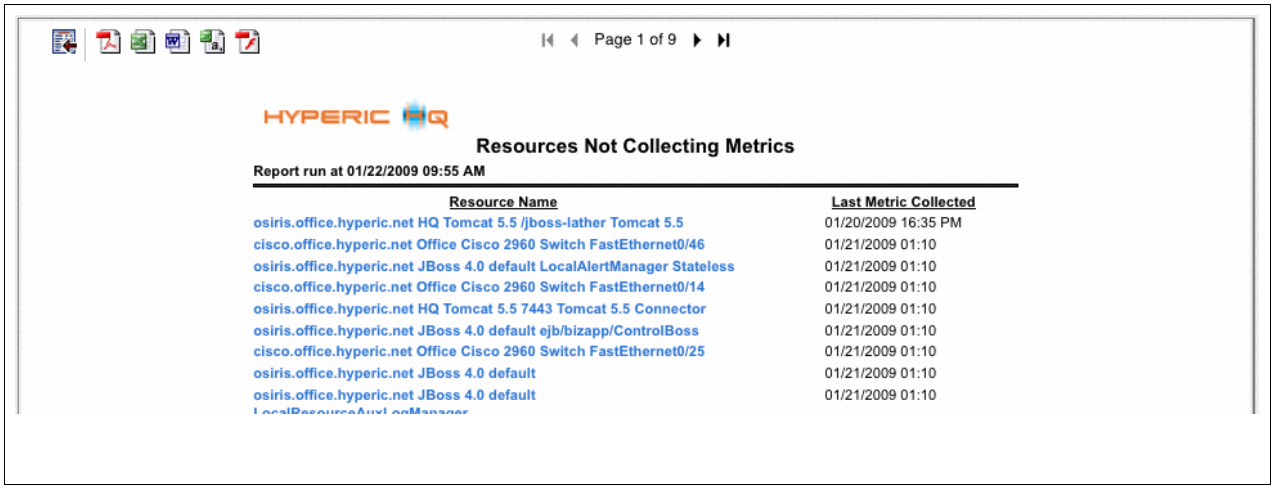
The Network Interface report charts Mbits in and out per second for the busiest five network interfaces, in a group or across all groups, over an interval. The listing below the chart is lists traffic rates, in decreasing order, for all resources within the scope of the report.



Resources Not Collecting Metrics

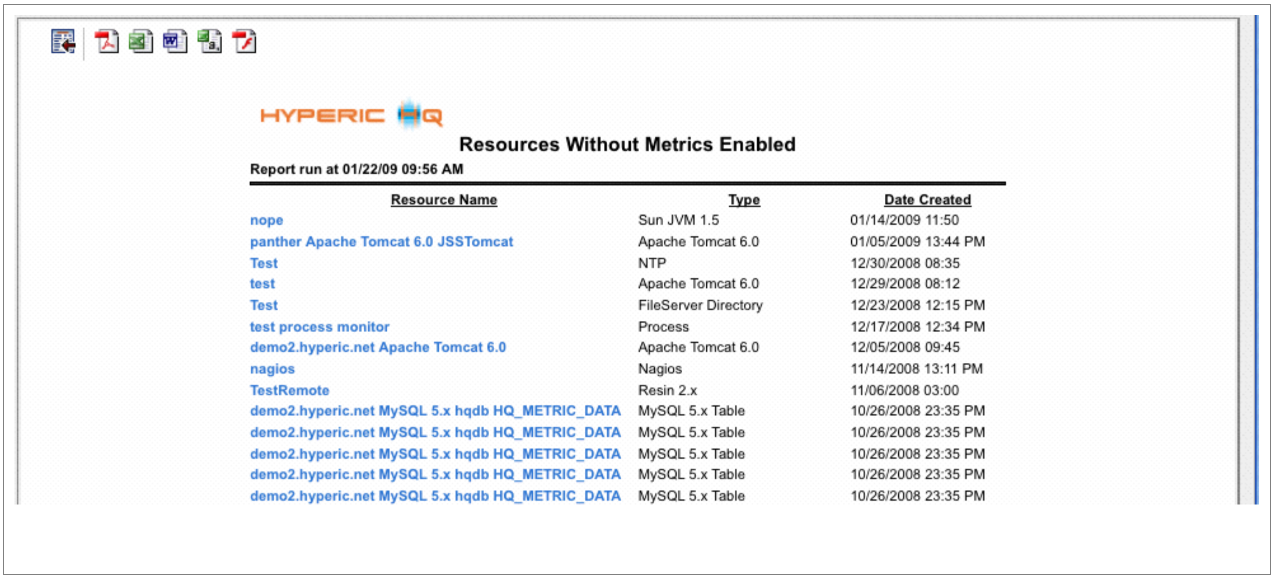
The Resources Not Reporting Metrics report is a list of resources that have stopped publishing metrics. For non-reporting resources, the date and time that metrics were collected for it is shown.

This report runs against all resources in HQ; no user input is required.



Resources Without Metrics

The Resources Without Metrics report lists all resources in HQ for which no metric collection is enabled.



HYPERIC HQ

Resources Without Metrics Enabled

Report run at 01/22/09 09:56 AM

Resource Name	Type	Date Created
nope	Sun JVM 1.5	01/14/2009 11:50
panther Apache Tomcat 6.0 JSSTomcat	Apache Tomcat 6.0	01/05/2009 13:44 PM
Test	NTP	12/30/2008 08:35
test	Apache Tomcat 6.0	12/29/2008 08:12
Test	FileServer Directory	12/23/2008 12:15 PM
test process monitor	Process	12/17/2008 12:34 PM
demo2.hyperic.net Apache Tomcat 6.0	Apache Tomcat 6.0	12/05/2008 09:45
nagios	Nagios	11/14/2008 13:11 PM
TestRemote	Resin 2.x	11/06/2008 03:00
demo2.hyperic.net MySQL 5.x hqdb HQ_METRIC_DATA	MySQL 5.x Table	10/26/2008 23:35 PM
demo2.hyperic.net MySQL 5.x hqdb HQ_METRIC_DATA	MySQL 5.x Table	10/26/2008 23:35 PM
demo2.hyperic.net MySQL 5.x hqdb HQ_METRIC_DATA	MySQL 5.x Table	10/26/2008 23:35 PM
demo2.hyperic.net MySQL 5.x hqdb HQ_METRIC_DATA	MySQL 5.x Table	10/26/2008 23:35 PM
demo2.hyperic.net MySQL 5.x hqdb HQ_METRIC_DATA	MySQL 5.x Table	10/26/2008 23:35 PM

Getting Started with Ad Hoc Editor

This section is a brief introduction to IQ's Ad Hoc Editor, an interactive tool for building simple Hyperic IQ reports. Additional information is provided in *Hyperic Operations IQ Ad Hoc Editor Guide.*

- About Ad Hoc Report Types
- About Ad Hoc Topics
- Create a Table Report
- Create a Chart Report
- Creating a Crosstab Report

About Ad Hoc Report Types

There are three types of report you can build with the Ad Hoc Editor. Your report requirements determine which type is most appropriate.

- Table reports - A simple table layout is useful to present detailed information. Tables are good for presenting HQ inventory information, for instance, if you want to present the name, platform type, operating system, and number of CPUs for all the platforms in a resource group.
- Chart reports - Charts are good when you need a concise summary of a large data set, or you want to analyze or compare values over time or across multiple resources. Graphical views make it easy to digest trends or comparisons, for instance, the availability of a platform over time, or the availability of multiple platforms.
- Crosstab reports - Crosstab reports are similar to tables, but allow for multi-dimensional reporting. For instance, for each platform, you want to report the availability of each server it hosts. Like table reports, crosstabs are good when you need to include detailed data.

About Ad Hoc Topics

When you create a report, you choose a *Topic* from the Ad Hoc Editor user interface. A Topic is a list of related HQ data fields that you can drag into a report. Choose the Topic that contains the information you need in the report. The Topics available in IQ are listed in Ad Hoc Topics Quick Reference on page 49.

Create a Table Report

In the Ad Hoc Editor, click the Table icon and choose a topic.

Choose a Topic for a Table Report

Typically, an Administrative topic with information about inventory items will be the starting point for a table reports.

Use the "Platforms", "Servers", and "Services" topics for "flat" reports that list data about that type of inventory item without showing hierarchy information, like what server owns a service.

To group the report data in terms of the inventory hierarchy, choose a topic that includes the inventory levels you want to include. For example, for a report with:

- server data, organized by owning platform, choose the "Platforms, Servers" topic.
- services data, organized by owning platform and server, choose the "Platforms, Servers, Services" topic.
- services data, organized by owning server, choose the "Servers, Services" topic.

After selecting a topic, click **Create Report**.

Choose Parameter Values

If the Topic you choose for a report supports filters, you are prompted to select them as a first step in defining the report. You can choose to save the values. If you do not, you are prompted to supply the values when they run the report.

Add Fields to a Table Report

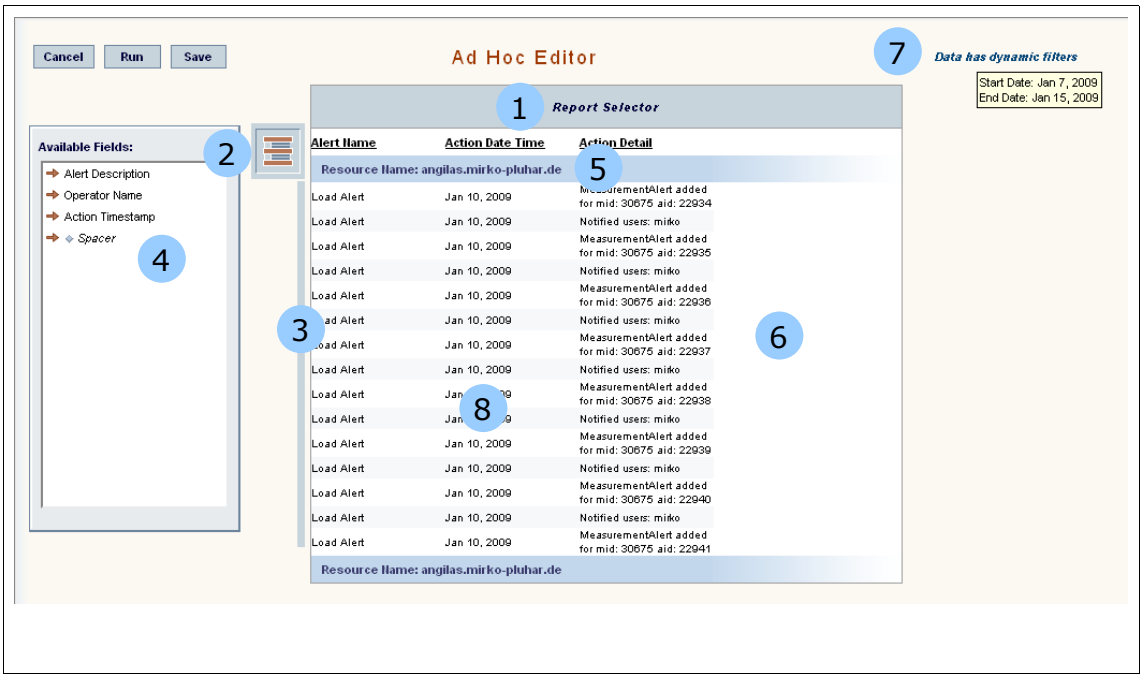
When you add a field to a table report, you add it as a "group" or as a "column". For flat reports that have information on a single inventory type, without groupings, add all fields as columns. Add a field as a "group" if you want to use it to group related objects of another type. For example,

- to present information about servers, organized by hosting platform, add the Platform Name as a group, and the fields about servers as columns.
- to present information about services, organized in terms of the hosting server, and the server's hosting Platform, add Platform Name and Server Name to the report as groups, and the fields about services as columns.

Note: When creating inventory reports that are grouped by type, you can only add one field for a type that you add as a group. For example, if you use the "Platforms, Services, Services" Topic to report services data organized by platform and server, you would add Platform Name and Server Name as groups, and Service Name as a column. You can additional service fields as columns, but not additional fields about platforms or servers.

UI for Creating a Table Report

The figure below illustrates the main components of the Ad Hoc Editor when you are defining a table report.



1. Report Selector bar. The area of the report where the title is generally displayed. In the selector, you can choose report-level options, such as report styles and page setup.
2. Group Control. Drag fields into this icon to make them groups in the table.
3. Left Column Control. Drag fields and drop them on this blue line to insert them in the leftmost position in the report.

4. Available Fields. The list of fields in the Topic that are not currently in the report area.
5. Group. A horizontal region in the report area representing a set of rows with a common value.
6. Report Area. Occupying the right side of the editor, the report area displays an example of how the report will look when run. Before columns have been defined, the report area is blank.
7. Parameter Indicator. Displayed when the report's results are limited by parameters defined in the Topic. For more information, refer to the *JasperServer Professional User Guide*.
8. Column of Values. A vertical region in the report area representing data from a single field.

Create a Chart Report

In the Ad Hoc Editor, click the icon for Chart Report, and then choose a topic.

Choosing a Topic for a Chart Report

Chart reports are most useful for presenting summaries or trends of numerical data. Typically, you'll be using an Alert or Metric Topic, as opposed to Administrative.

If you want to be able to filter the report by group or application choose a topic like "Metric Values by Application", or "Alert for Resource Group". If you want the report to span all applications and groups, choose a topic like "Metric Values" or "Alert Actions History".

After selection a Topic, click **Create Report**.

Choose Parameter Values for Chart Report

You'll be prompted to supply input parameters. If you are using a Metrics topic, you must select a metric.

Note: In this version of IQ, you can only add one metric to a chart.

If you chose a topic that supports filtering by group or application, you'll be prompted to select a specific group or application. The end date parameter defaults to the current date and time. The start date parameter defaults to 8 days ago.

If you want to to be able to select the report parameters each time you run it, uncheck the **Set these values as defaults when saving report** box. If you leave it checked, the parameters you select will be fixed.

Adding Fields to a Chart Report

Add the field that identifies the subject of the report as a group. For metric reports, this would typically be Resource Name. Then, add the Measured Value for each metric you want to chart as a "measure".

UI for Creating a Chart Report

The following figure illustrates the main components of the Ad Hoc Editor when you are defining a chart report:

1. Report Selector bar. The area of the report where the title is generally displayed. In the selector, you can choose report-level options, such as report styles and page setup.
2. Group Control. Drag a field into this object to group data by that field.
3. Available Fields. The fields in the Topic, including those already added to the report view; this allows you to use the same field multiple times in a single chart.
4. Report Area. Occupying the right side of the editor, the report area displays an example of how the report will look when run. Before groups and measures have been selected, the editor displays placeholders to orient you.
5. Parameter Indicator. Displayed when the report's results are limited by parameters defined in the Topic. For more information, refer to the *JasperServer Professional User Guide*.
6. Scale. The range of possible values of the measurements.
7. Chart. A graphical object representing a measurement, in this case, a bar chart.
    - Legend. Key to chart measures. The legend is created automatically but it can be edited and rearranged manually. Rearranging the legend also rearranges the corresponding chart elements. The legend can be removed.
    - Group Title. Name of the group in the chart. The title can be hidden.
    - Group Labels. Indicates the values by which the chart is grouped.

Creating a Crosstab Report

Cross tab reports allow you report using multiple dimensions. For example, you can report on the value of a metric by resource by time.

This section has instructions for creating the sample report below, which lists the average response time for HTTP services, by service, by day.

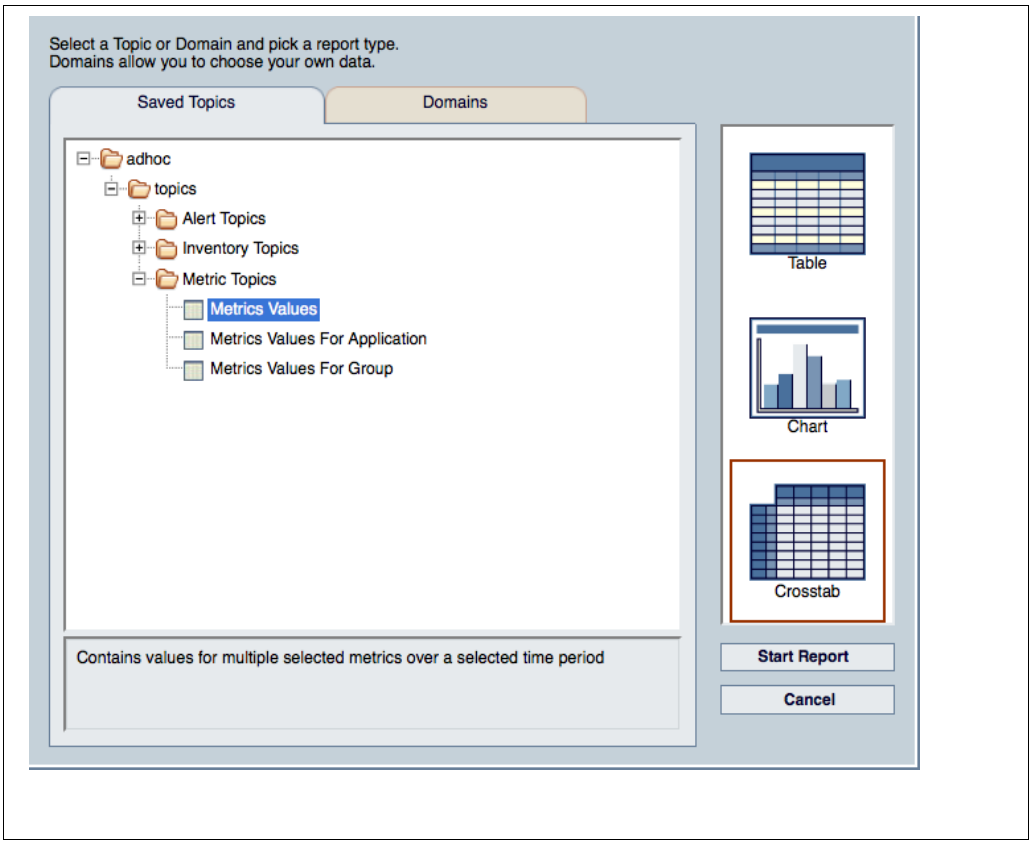
HTTP Response Time, Average in Seconds by Day

	1/26/09	1/27/09	1/28/09	1/29/09	Measurement Time Totals
Jira Check	8.14	8.44	8.30	7.69	8.21
MSNBC Availability	0.65	0.66	0.67	0.73	0.67
comcast.net	1.89	2.07	1.72	1.70	1.86
forums.hyperic.com	1.50	1.59	1.72	1.44	1.59

Choose a Topic for a Crosstab Report

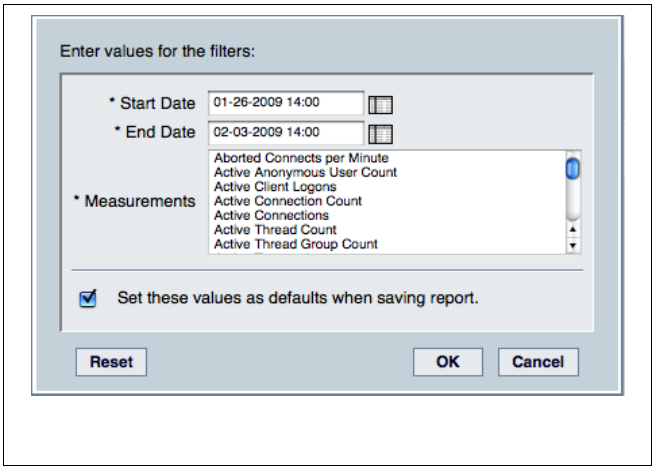
In the Ad Hoc Editor, click the Crosstab icon,choose a topic, and click **Start Report**.

The example report can be created using any of the metric Topics. If you want to be able to filter the report by group or application, select "Metric Values for Application" or "Metrics Values for Group". For simplicity, we assume the use of the "Metric Values" topic, which doesn't support filtering.



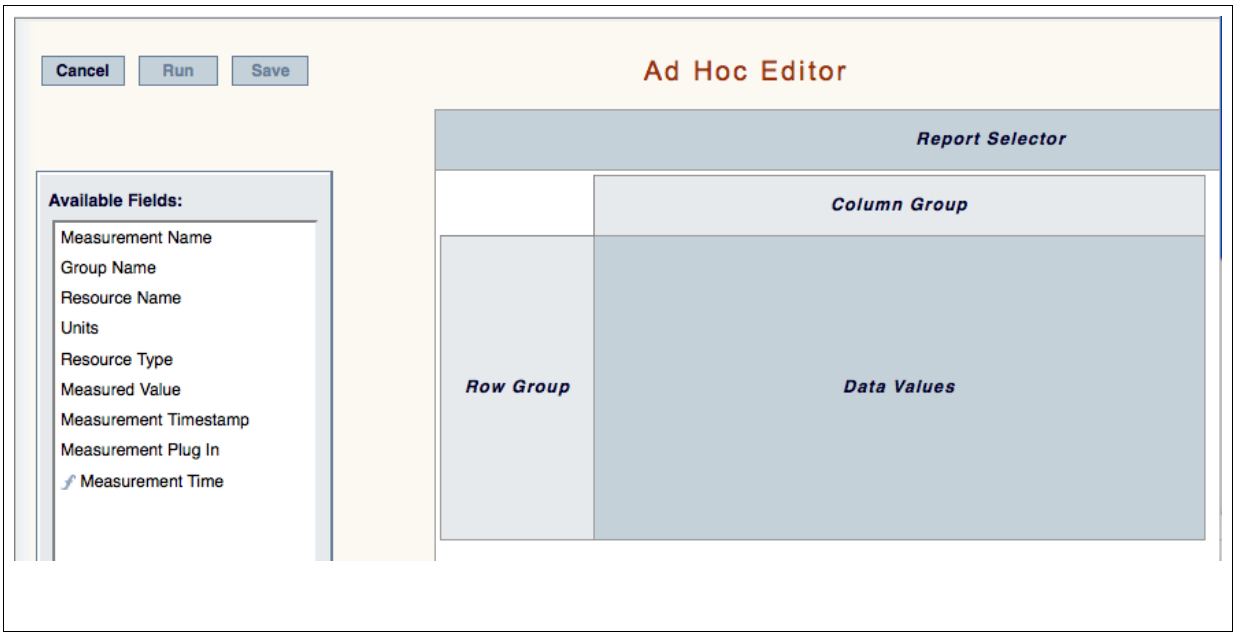
Choose Filters for Crosstab Report

1. You'll be prompted to supply the filter values:



2. Start Date defaults to 8 days prior to the current time. Choose a different value, if desired.
3. Choose the Response Time from the Measurements list.
4. End Date defaults to the current time. Choose a different value, if desired.
5. If you want to to be able to run the report for a different time range and measurement each time you run it, uncheck the **Set these values as defaults when saving report** box. If you leave this box checked, the filter values will be fixed, and will always run for the interval and measurement you've selected.
6. Click **OK**.

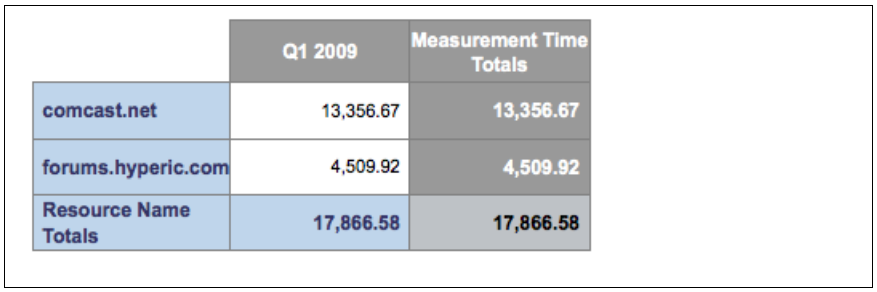
   The Ad Hoc Editor displays Available Fields and a crosstab report layout.



Adding Fields to a Crosstab Report

1. Add Resource Name as a row group. You can drag it to the Row Group area, or click Resource Name and choose **Add as Row Group** from the context menu.
2. Add Measurement Time as a column group. You can drag it to the Column Group area, or click Measurement Time and choose **Add as Column Group** from the context menu.
3. Add Measured Value as a measure. You can drag it to the Data Values area, or click Measured Value and choose **Add as Row Group** from the context menu.

   Your report layout will be displayed with representative data.

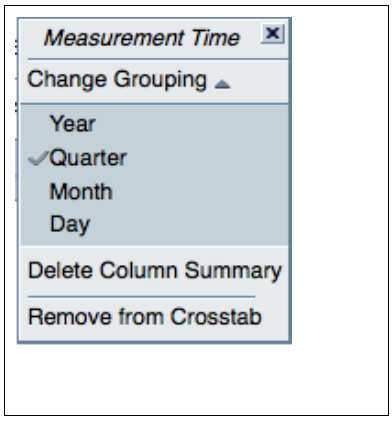


	Q1 2009	Measurement Time Totals
comcast.net	13,356.67	13,356.67
forums.hyperic.com	4,509.92	4,509.92
Resource Name Totals	17,866.58	17,866.58

   By default, the units for the Measurement Time column is one quarter. The value shown in each column is the sum of all Response Time measurements made for the resource during the quarter that includes our selected report interval.

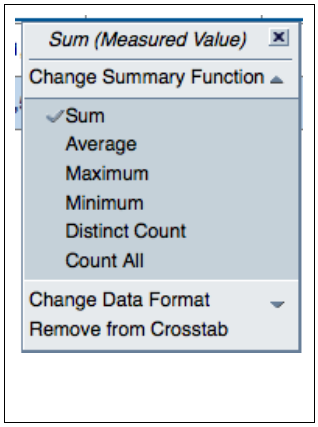
   We want the report to show average response time per day

4. To change the column units of one quarter to one week, click the column heading, expand the **Change Grouping** list, and click **Day.**



5. The report layout reflects the changed data grouping.

6. To change the arithmetic function used on the Response Time measurements to produce the data values, click a cell in the top row, expand the **Change Summary Function** list, and select Select **Average.**



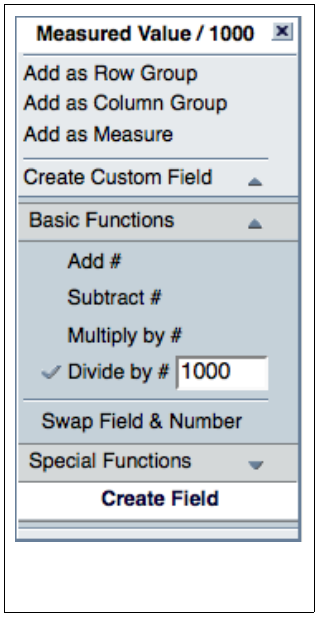
7. The cells now show the average of the Response Time for each day in the report interval.

   By default, the average Response Time is shown in milliseconds.

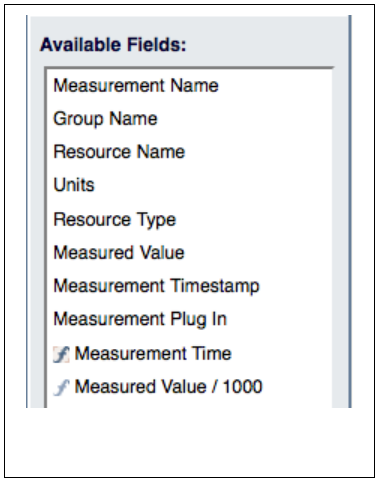
	1/26/09	1/27/09	1/28/09	1/29/09	Measurement Time Totals
comcast.net	188.65	206.98	171.60	170.30	185.51
forums.hyperic.com	150.17	167.12			161.07
Resource Name Totals	169.41	189.90	171.60	170.30	178.67

8. Because we want to display the Response Time value in seconds, we create a custom field based on the Measured Value field.

a) Click the Measured Value field in the Available Fields panel, expand the **Create Custom Field** list, click **Divide by #**, enter 1000 as the divisor, and click **Create Field**.

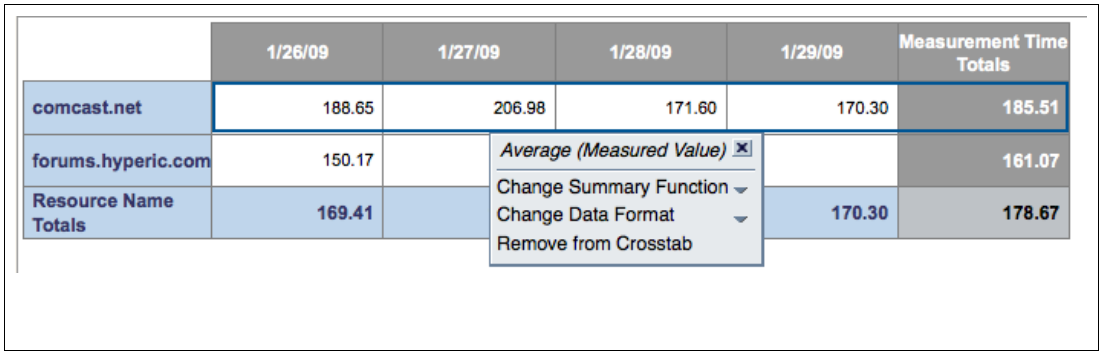


b) The custom field appears in the Available Fields list as Measured Value / 1000.

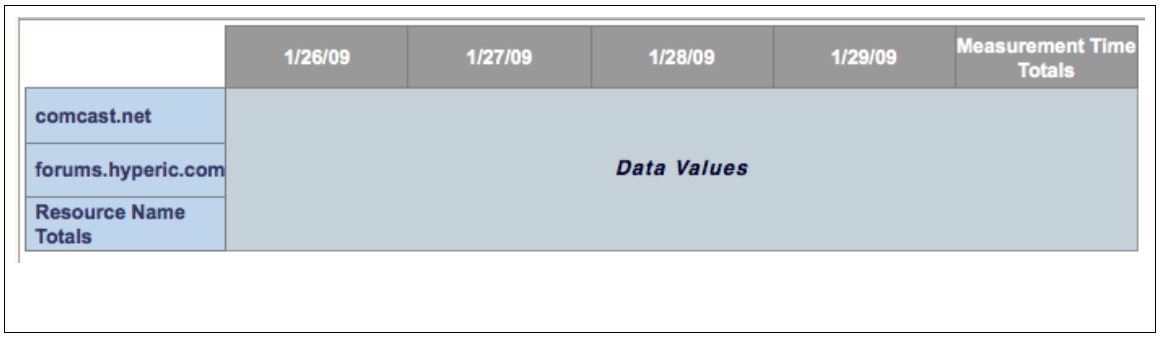


9. Remove the Measured Value field, which shows Response Time in millisecond, from the report.

   Click in a cell in the top row of data, and choose **Remove from Crosstab** to remove the Measured Value field.

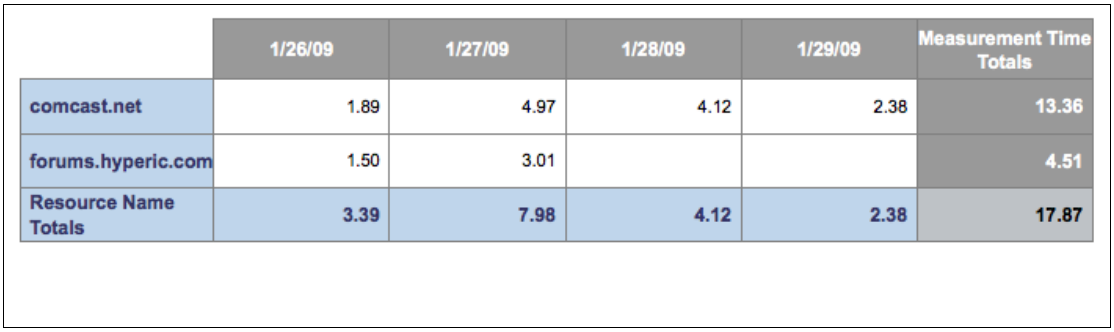


10. The report layout is updated, and shows there are no data values in the report.

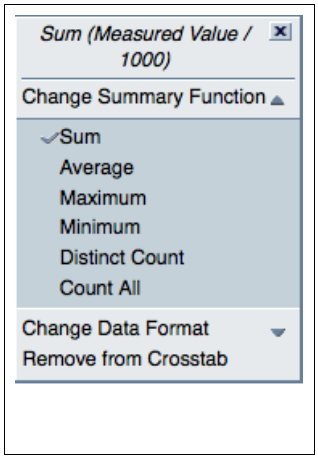


11. Add the Measured Value / 1000 field to the report. Drag it to the Data Values area, or select it in the Available Fields list, and choose **Add as Measure** from the context menu.

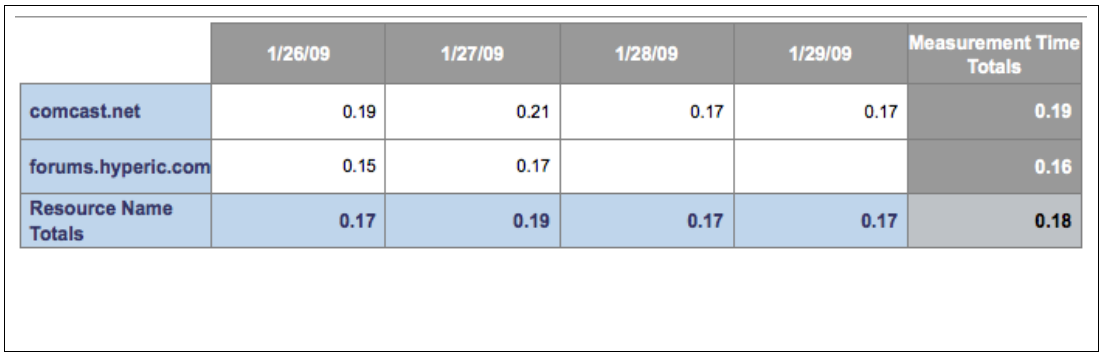
    It still doesn't look right, because the default arithmetic function (sum) has been applied to all the measurements in the range.



12. As we did previously, we need to change the Summary Function for the data values from **Sum** to **Average**.



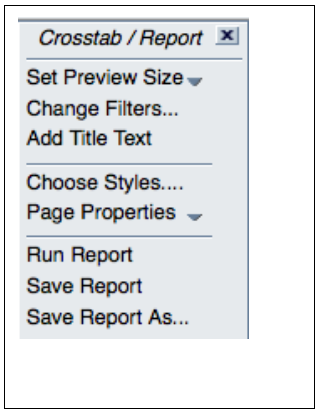
13. The report layout now show Response Time in seconds.



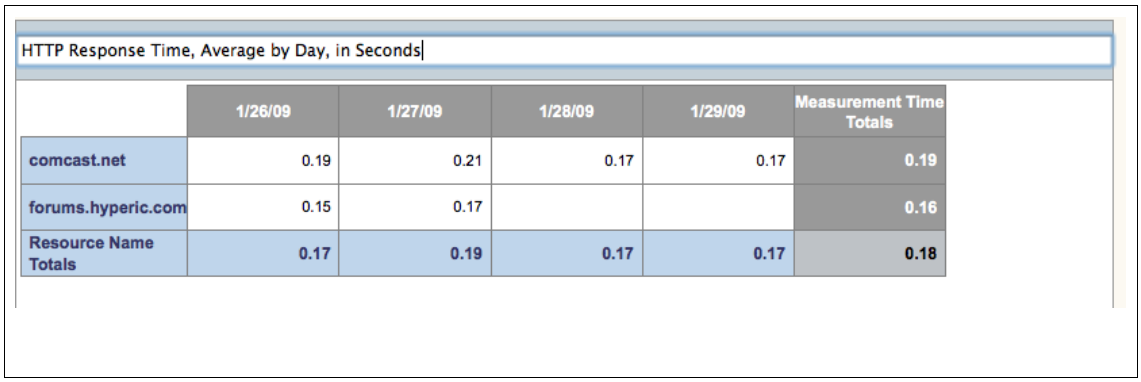
	1/26/09	1/27/09	1/28/09	1/29/09	Measurement Time Totals
comcast.net	0.19	0.21	0.17	0.17	0.19
forums.hyperic.com	0.15	0.17			0.16
Resource Name Totals	0.17	0.19	0.17	0.17	0.18

14. Add a report title.

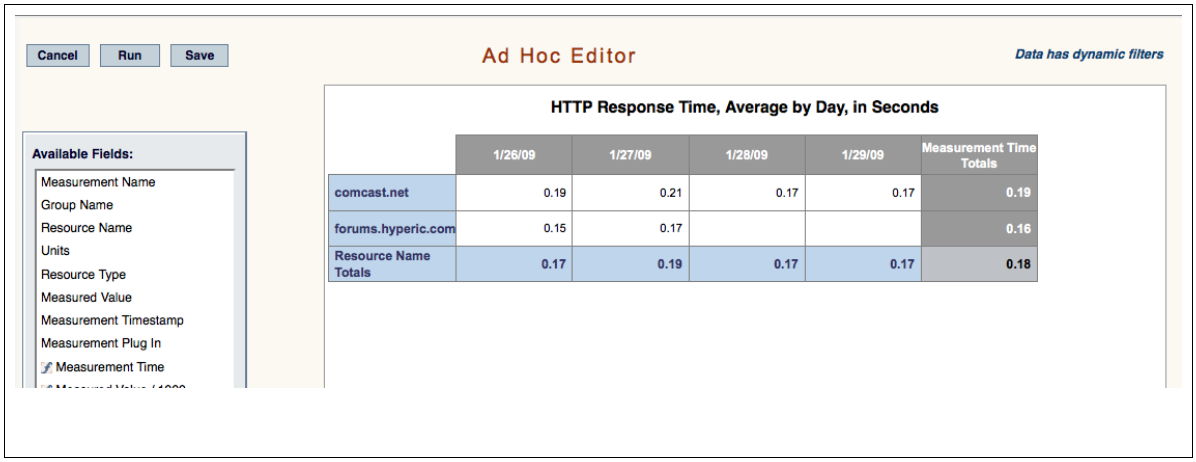
a) Click in the Report Selector area, and select **Add Title Text** from the context menu.



b) Enter the report title in the entry field.

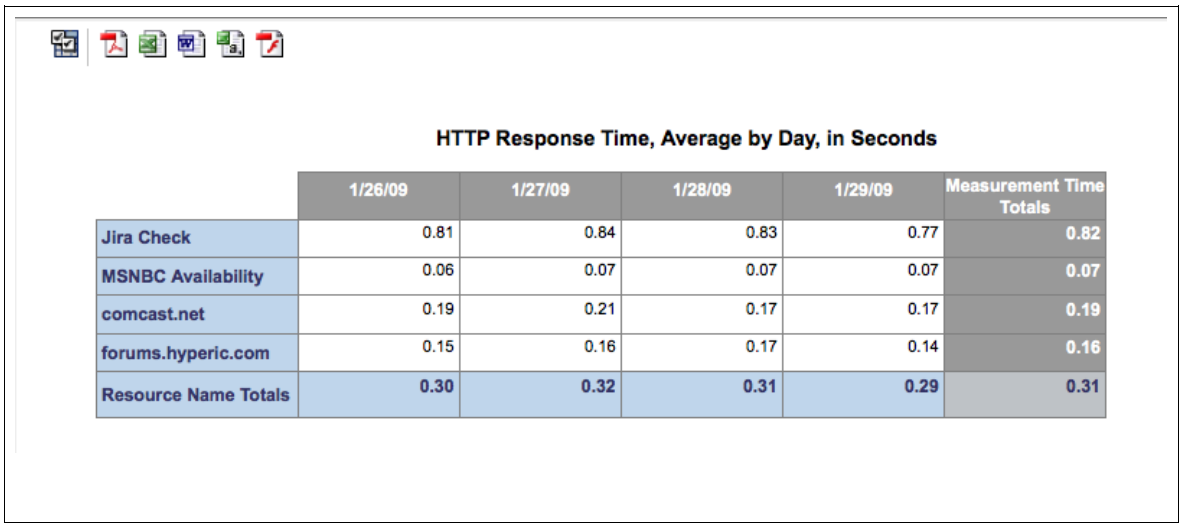


c) The report title appears in the report layout.



15. Now that the layout is as we wish, click **Run** to run the report.

    It will be displayed in a new browser window.



HTTP Response Time, Average by Day, in Seconds

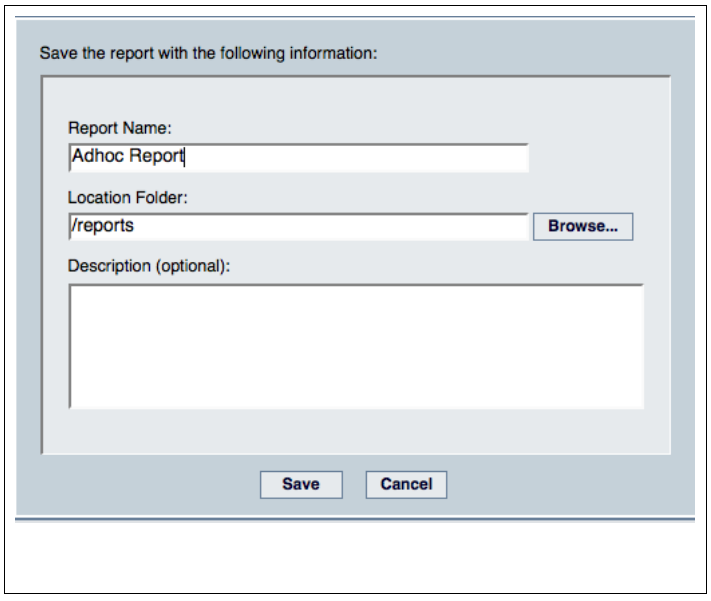
	1/26/09	1/27/09	1/28/09	1/29/09	Measurement Time Totals
Jira Check	0.81	0.84	0.83	0.77	0.82
MSNBC Availability	0.06	0.07	0.07	0.07	0.07
comcast.net	0.19	0.21	0.17	0.17	0.19
forums.hyperic.com	0.15	0.16	0.17	0.14	0.16
Resource Name Totals	0.30	0.32	0.31	0.29	0.31

16. To save the report design, click **Save** in the Ad Hoc Editor window.

    a) Enter a meaningful name for the report.

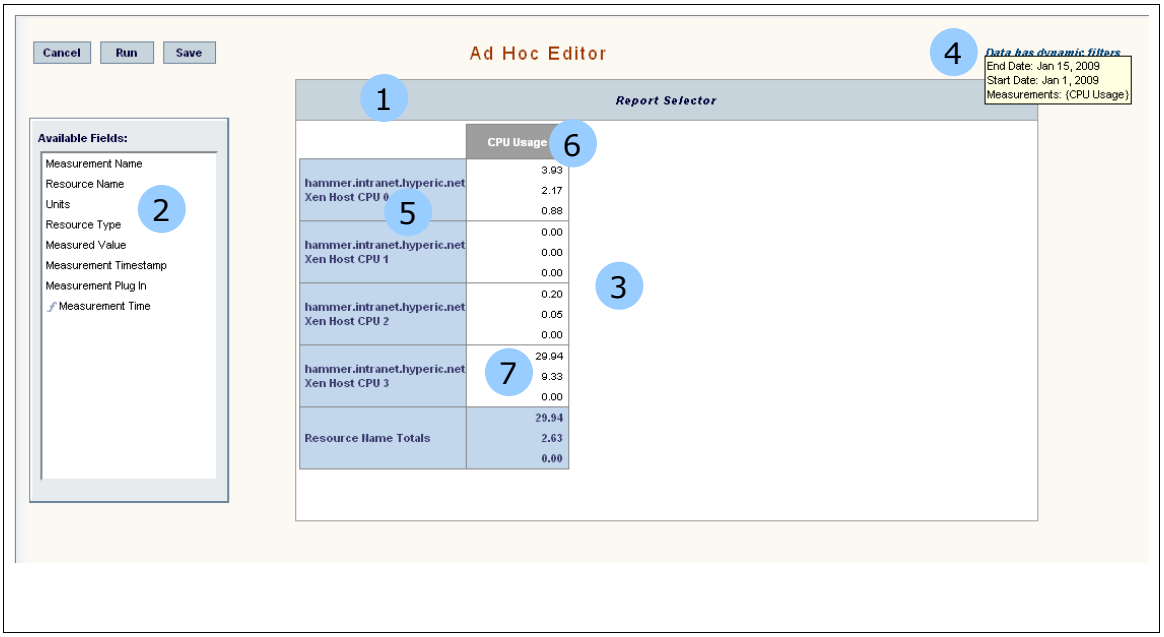
    b) Select a folder location to which you have write permission.

    c) Enter a report description, as desired.



UI for Creating a Crosstab Report

The following figure illustrates the main components of the Ad Hoc Editor when you are defining a crosstab report:



1. Report Selector bar. The area of the report where the title is generally displayed. In the selector, you can choose report-level options, such as report styles and page setup.
2. Available Fields. The list of fields in the Topic, even those currently added to the report view; this allows you to use the same field multiple times in a single crosstab.
3. Report Area. Occupying the right side of the editor, the report area displays an example of how the report will look when run. Before column groups, row groups, or measures have been selected, the editor displays placeholders to orient you.
4. Parameter Indicator. Displayed when the report's results are limited by parameters defined in the Topic. For more information, refer to the *JasperServer Professional User Guide*.
5. Row Group. A vertical region in the report area representing rows into which measures will be grouped.
6. Column Group. A horizontal region in the report area representing the columns into which measures will be grouped.
7. Data Values. Drag fields into the first row in this area to add them as measures. You can drag the measures within the topmost row and leftmost column to rearrange them.

For detailed information on using the Ad Hoc Editor, see *Hyperic IQ Ad Hoc Editor Guide.*

Ad Hoc Topics Quick Reference

Ad Hoc topics are pre-defined queries that allow the user to create their own reports using the Ad Hoc Editor. All the columns returned by the query are available as report fields, and any parameters in the query can be set by the user.

Inventory Topics

Topic Name	When to Use	Filters	Fields	
Platforms	To report data about platforms.	None	Platform Name Platform Fully Qualified Display Name Platform Description # CPUs	Platform ID Platform Type Platform Type Details Platform Operating System
Servers	To report data about servers.	None	Server Name Server Description Server ID	Server Location Server Type Server Was Auto Discovered
Services	To report data about services.	None	Service Name Service Description Service ID	Service Type Service Type Details
Platforms, Servers	To report data about servers, grouped by owning platform.	None	Platform Name Platform Fully Qualified Display Name Platform Description # CPUs Platform ID Platform Type Platform Type Details	Platform Operating System Server Name Server Description Server ID Server Location Server Type Server Was Auto Discovered
Platforms, Servers, Services	To report data about services, grouped by owning platform and server.	None	Platform Name Platform Fully Qualified Display Name Platform Description # CPUs Platform ID Platform Type Platform Type Details Platform Operating System Server Name, Server Description	Server ID Server Location Server Type Server Was Auto Discovered Service Name Service Description Service ID Service Type Service Type Details
Servers, Services	To report data about services, grouped by owning server.	None	Server Name Server Description Server ID Server Location Server Type Server Was Auto Discovered	Service Name Service Description Service ID Service Type Service Type Details

Topic Name	When to Use	Filters	Fields	
Services For Applications	To report data about services, grouped by application.	Application Name	Service Name Service Description Service ID Service Type	Service Type Details Application Name Application Type

Metrics Topics

Metric topics allow access to measured values over a time range. There are three variants, that differ only in how the measurement data is filtered.

Topic Name	Filters	Fields	Calculated Fields
Metric Values	Start Date End Date Measurements	Measurement Name Resource Name Units Resource Type Measured Value Measurement Plug In Measurement Timestamp	Measurement Time
Metric Values For Application	Start Date End Date Application Measurements	Measurement Name Application Name Resource Name Units Resource Type Measured Value Measurement Plug In Measurement Timestamp	Measurement Time
Metric Value For Group	Start Date End Date Resource Group Measurements	Measurement Name Group Name Resource Name Units Resource Type Measured Value Measurement Plug In Measurement Timestamp	Measurement Time

Alert Topics

Topic Name	Description	Filters	Fields	Calculated Fields
Alert Actions History	Shows all the actions that have been taken on alerts during a specified time period.	Start Date End Date	Alert Name Alert Description Resource Name Operator Name Action Detail Action Timestamp	Action Date Time

Topic Name	Description	Filters	Fields	Calculated Fields
Alerts For Resource Group	Shows all alerts created for members of a group during a specified time period.	Start Date End Date Group	Alert Name Alert Description Time Fired Timestamp Fixed? Time Fixed Timestamp Fixed By Resource Name Resource Type Owner Application Definition Id Appdef Type Resource ID Active? Enabled? Alert ID Priority Resource Group Name	Time Fired Time Fixed