Scheduling Reports

Using Operations Reports, you can schedule reports to be generated at a later time or to recur periodically. You can also have the report sent to a configured e-mail address upon generation. The scheduled reports can be viewed in a preferred format such as HTML, PDF, CSV, or Excel. The reports that are scheduled are available from the My Workspace view. This view contains the schedules, the generated reports, and the status of schedules.

This section contains the following topics:

- Scheduling a Report, page 6-1
- Deleting Schedules, page 6-5
- Viewing the Status of Generated and Scheduled Reports, page 6-6

Scheduling a Report

Using the Schedule option, you can configure Operations Reports to generate periodic reports without your intervention. Based on the inputs you specify, Operations Reports generates reports at the specified date and time. By default, the intervals available in Operations Reports are: run once, run every X seconds, minutes, hours, daily, weekly, monthly, and yearly. For example, you can set the report to be run the first Sunday of every month for a specified period. Before you schedule a new report, you must create and save the report; you cannot create a schedule as you create a new report. The scheduling procedure is different for interactive (customizable) reports and read-only reports. This section contains the following topics:

- Scheduling a Read-Only Prepackaged Report, page 6-1
- Scheduling a Customizable Prepackaged Report, page 6-2
- Creating a Custom Schedule Interval, page 6-3

Scheduling a Read-Only Prepackaged Report

Only admin-level users can schedule a read-only prepackaged report. If you are a non-admin user, you cannot create schedules for read-only prepackaged reports. You can only subscribe to schedules that the administrator has already created.

Step 1 From the left navigation pane, double-click a report and then in the **Parameters** pane, click **Schedule Report.**

The New Schedule window opens.

Step 2 From the New Schedule window, specify the schedule settings:

- Name—Enter a name for your schedule. This is the name that appears to non-admin users at the time of subscription.
- To (E-mail)—The e-mail address to which the report must be sent after generation. As a prerequisite, you must configure an e-mail server for Operations Reports to send the reports to. For more information, see Enabling Reports to be Sent by E-mail, page 2-4.



Tip

We recommend that you set the output type to one of the following output types: PDF, CSV, or Excel. If you choose the HTML option, a link to the HTML report is sent to your mailbox. To be able to open and view the report, you must have an active session of Operations Reports open.

- Subscription—(Applicable only to non-admin users) From the **Subscription** drop-down list, select an appropriate schedule. The Subscription drop-down list displays the schedules that the administrator has created for the specific report you have selected. Skip to Step 4.
- **Step 3** From the **Recurrence** drop-down list, choose a recurrence option and set the options for the relevant fields that appear upon selection. If you wish to customize the recurrence interval, choose **Cron.** For more information on configuring a Cron setting, see Creating a Custom Schedule Interval, page 6-3
- Step 4 Click OK.



If you selected the output type as HTML (Paginated), only the first page that appears if you clicked View Report is scheduled. For example, if you clicked View Report, and details of 10 devices appear in the first page of the report, upon scheduling, details of only those 10 devices appear. To be able to view the full report, we recommend that you choose the output type as HTML.

Scheduling a Customizable Prepackaged Report

Schedules for customizable prepackaged reports are private and cannot be shared for other users to subscribe to. You cannot have customizable prepackaged reports sent to a configured e-mail address.

Step 1 From the left navigation pane, right-click a report, and choose **Schedule**.

The New Schedule window opens.

- **Step 2** From the New Schedule window, specify the schedule settings:
 - Name—Enter a name for your schedule.
 - Group—Enter the type of report such as Data Center Report or Fault Report. The name of the group reflects in the file system. If a group name already exists, the report is placed in the existing folder. Otherwise, a new folder is created in the file system.
 - Description—Enter an appropriate description.
- **Step 3** From the **Recurrence** drop-down list, choose a recurrence option and set the options for the relevant fields that appear upon selection. If you wish to customize the recurrence interval, choose **Cron.** For more information on configuring a Cron setting, see Creating a Custom Schedule Interval, page 6-3



The time you select here is the time displayed on the client. Upon scheduling a report, the job is listed in the Workspace. The time displayed in the Workspace is the corresponding gateway time of the report.

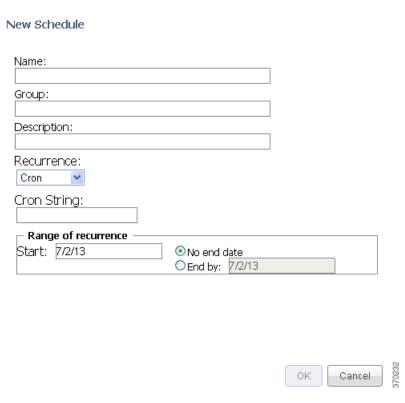
Step 4 Click OK.

Creating a Custom Schedule Interval

By default, the intervals available in Operations Reports are: run once, run every *X* seconds, minutes, hours, daily, weekly, monthly, and yearly. However, if you require the report schedule to be more specific, such as the every two hours only on the last Thursday of every month, you can create a Cron schedule, which is a custom schedule interval.

- Step 1 The procedure to create a schedule depends on the type of report. To begin creating a schedule, see Scheduling a Report, page 6-1.
- **Step 2** (From the New Schedule dialog box) At the time of creating a recurrence for the schedule, choose **Cron.**

Figure 6-1 Creating a Cron Recurrence



Step 3 In the Cron String field, enter a cron string.

The format is the same for every cron string. The value must be listed in the order: *seconds minutes hours* day of month month day of week year. A space separates each attribute.

The permitted values for attributes are:

Table 6-1 Cron Recurrence — Values Permitted

Time Value	Attributes
Seconds and minutes	0 to 59
Hours	0 to 23
Days	1 to 31; alternatively you can use three-letter values for the day of week (MON, TUE, WED, THU, FRI, SAT, SUN
Months	1 to 12; alternatively, you can use a three-letter values for the month (JAN, FEB, MAR, APR, MAY, JUN, JUL, AUG, SEP, OCT, NOV, DEC)
Week	1 to 7
Year	Four-digit year

For example, if you prefer to set a schedule that recurs every two hours between 10:00 AM and 08:00 PM, every day from July 27, 2013 to August 5, 2013, you must set the following cron string:

0 0 10-20*/2 27-7 6-8 ? 2013

Where,

- 0—Indicates 0 second
- 0—Indicates 0 minute
- 10-20—Indicates 10:00 AM to 8:00 PM
- */2—Indicates every two hours; wherein, * denotes 'every', and /2 denotes that the period is split every 2 hours.'
- 27-7—Indicates July 27
- 6-8—Indicates August 6; the date on which the schedule ends
- ?—Indicates that the day of week is skipped
- 2013—Indicates year

Step 4 Click OK.

A cron recurrence is scheduled.

Important notes to consider before setting a cron recurrence:

- An asterisk (*) indicates all values, so an asterisk in the minute field would mean that the report runs once every minute.
- You can specify a range of values with the (dash) operator, and you can specify multiple individual values with a comma.
- If you need to skip a value in the day of month and day of week field from a cron job, you can use the question mark (?) character. This indicates that this value has been skipped.
- If you need to split values, introduce the slash (/) character. This means "every," —so */15 would mean "Every 15."

- In the day of month field, you can use the # character to indicate a certain instance of a day of the month, for instance the second Friday of the month would be 6#2.
- You can use an uppercase L in the day of month and day of week field to indicate "Last," as in the last day of the week. An uppercase C in either of these fields means "Calendar," and combined with a number means that the report should execute a the interval indicated by the C number according to the loaded calendar. A uppercase W in the day of month attribute means "Weekday," which only encompasses Monday through Friday.

Table 6-2 represents the values that are admissible for each value.

Table 6-2 Customizing Intervals—Attribute Conditionals

Attribute	Conditionals and Operators
Seconds	, - * /
Minutes	, - * /
Hours	, - * /
Day of the Month	, - * ? / L W C
Month	, - * /
Day of the Week	, - *? / L C #
Year	, - * /

Deleting Schedules

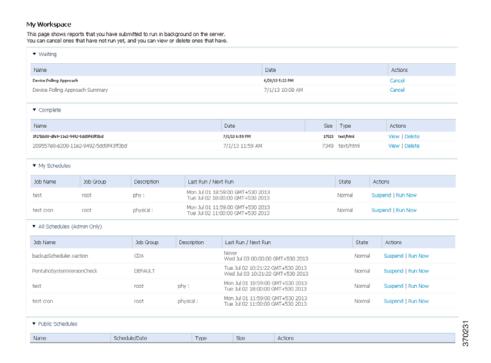
You can delete a schedule that you created if your administrative privileges permit this. We recommend that you first suspend the schedule and then delete it from your workspace. You can restart the schedule after the delete process completes.

- To delete a schedule of a read-only report—From **Public Schedules**, click the **Delete** button next to the name of the schedule. The schedule is deleted.
- To delete a schedule of a customizable prepackaged report or a new report—From the **Complete** folder, click the top-level Delete button next to the schedule. Clicking the **Delete** button available next to the report deletes only the report.

Viewing the Status of Generated and Scheduled Reports

You can view the reports that you generated and the status of the reports you scheduled from **View > Workspace**. My Workspace is a graphical overview of the reports you have created and scheduled. The name of a report displayed in the workspace is the name you enter while scheduling a report.

Figure 6-2 My Workspace View



When you schedule a report, the report is located in one of the panes in the Workspace view. The location of the report in one of the panes is based on the type of report (read-only prepackaged report, customizable prepackaged report, or new report) and the status of its schedule.

Read-Only Prepackaged Report

If you scheduled a read-only prepackaged report:

- Upon scheduling—Appears in the All Schedules pane; appears in Public Schedule with options such as Run Now, Run and Archive, Edit, and Delete activated.
- After completion—Generated report is stored in the server directory. To view the report, from the folder in which you have installed Operations Reports, navigate to the following folder: /server/biserver-ee/pentaho-solutions/system/content/prime-network-report. If you are a non-admin user, you cannot access the server directory. In that case, we recommend you get the report sent as an e-mail attachment.

Customizable Prepackaged Reports and New Reports

- Upon Scheduling—Appears in the All Schedules pane. Also appears in the Waiting pane with the schedule details listed with an option to cancel the report before it is run.
- After completion—Appears in Complete pane with options to view and delete the report.

Workspace Panes

- All Schedules—This pane is viewable only by admin users. This is a list of all reports that are scheduled for your user account. This also contains a log of the schedules that were executed in the past. This lists customizable prepackaged reports, read-only prepackaged report, and new reports that are scheduled. This contains only the schedule details and not the reports. You can initiate a report to be run immediately by clicking **Run Now.**
- Public Schedules—This lists the schedules of only the read-only prepackaged reports. If you are an admin user, this lists all of the read-only prepackaged report schedules you created for the other non-admin users to subscribe to. As a non-admin user, this lists all the read-only prepackaged schedules that you have subscribed to; you (non-admin user) cannot create a new schedule or edit existing schedules for read-only prepackaged report. Run, run and archive, delete, edit.
- Waiting—This category lists all schedules of interactive reports that you have created to run in the
 future. Clicking Cancel will delete the schedule. This section also lists the schedules that are
 repetitive.
- Complete—This lists the new reports and the customizable prepackaged reports that were generated using a schedule job. Every time the schedule executes, it overwrites the report's previous entry in the Complete list. The names of the reports are specified as an alphanumeric string; click **View** to know the report details.
- My Schedules—This category contains a list of schedules specific to your user account. This will
 be identical to your Waiting list unless you have suspended any of your schedules. This contains
 only customizable prepackaged reports and new reports. After completion, move to Complete. The
 entry will be deleted from my schedule.

You can suspend or run reports that you created or have access to. Click the appropriate button to perform an action.

Tasks that you can Perform from Workspace

From the Workspace, based on the pane in which the report resides, some of the following actions can be performed:

• View—Allows you to view a report. The format of the report is specified next to the name of the report.



If you specified the format CSV, the file indicates that it is an unknown file; however, if you open the file with a supported tool such as Microsoft Excel, the file opens as a CSV file.

- Run Now—Runs the report and creates and another entry for the name of the report with the state Running. This is available in My Scheduled pane.
- Run and Archive—This runs in the background and creates a copy in the server.
- Delete (from the Public Schedules pane)—The report is deleted before it runs. If you clicked Run and Archive, the background activity stops abruptly. However, reports that are already saved in the server will remain.
- Suspend—Suspends a report that is running. This job can later be resumed.

Viewing the Status of Generated and Scheduled Reports