HP Network Node Manager i Software

Step-by-Step Guide to Scheduling Reports using Network Performance Server

NNMi 9.1x Patch 2

This document shows an example of building a daily report for the iSPI Performance for Metrics product. The information in the document is specific to version 9.10 of iSPI Performance for Metrics; although, the general procedure applies to other iSPIs as well. These procedures are subject to change in future releases.

All screenshots in this paper are from the Network Performance Server (NPS) graphical user interface.

CONTENTS

Introduction

This document shows an example of building a daily report for the iSPI Performance for Metrics product.

In this paper, we will build a daily report that graphs the top 10 utilized interfaces in a particular interface group (FA Interfaces in Colorado) using the Top N Chart template. This daily report will be available to all users.
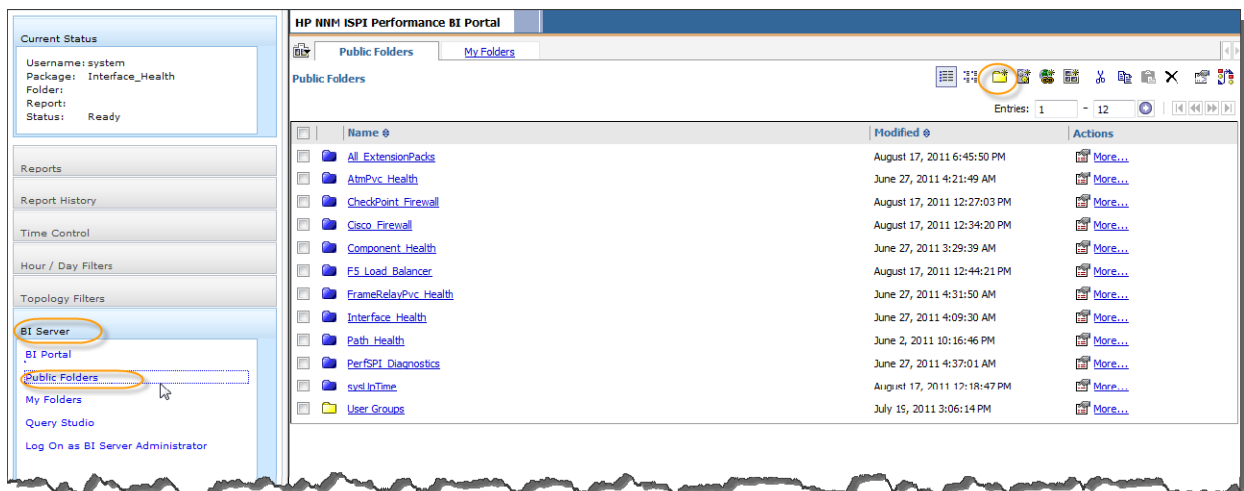
Procedure

Prepare the Infrastructure

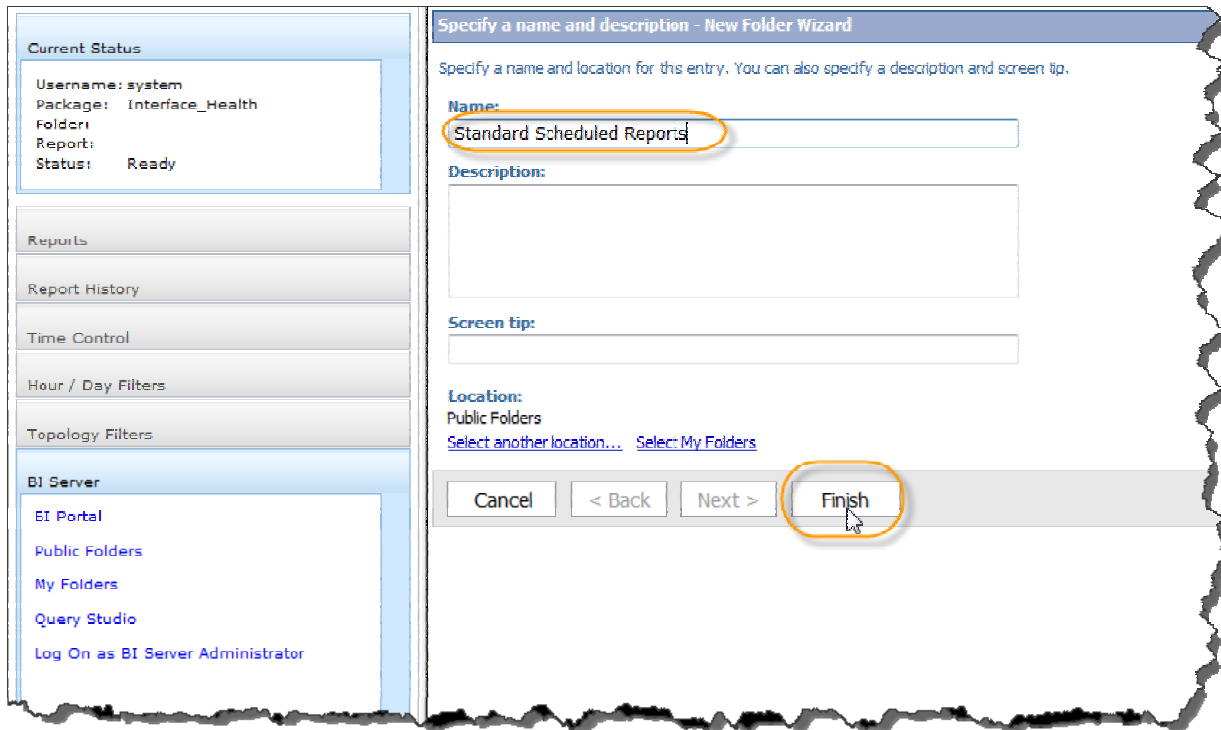We first need to set up a folder to hold our scheduled reports.

1. Click the **BI Server** workspace. Click the **Public Folders** link, and click the folder icon in the top right to create a new folder.
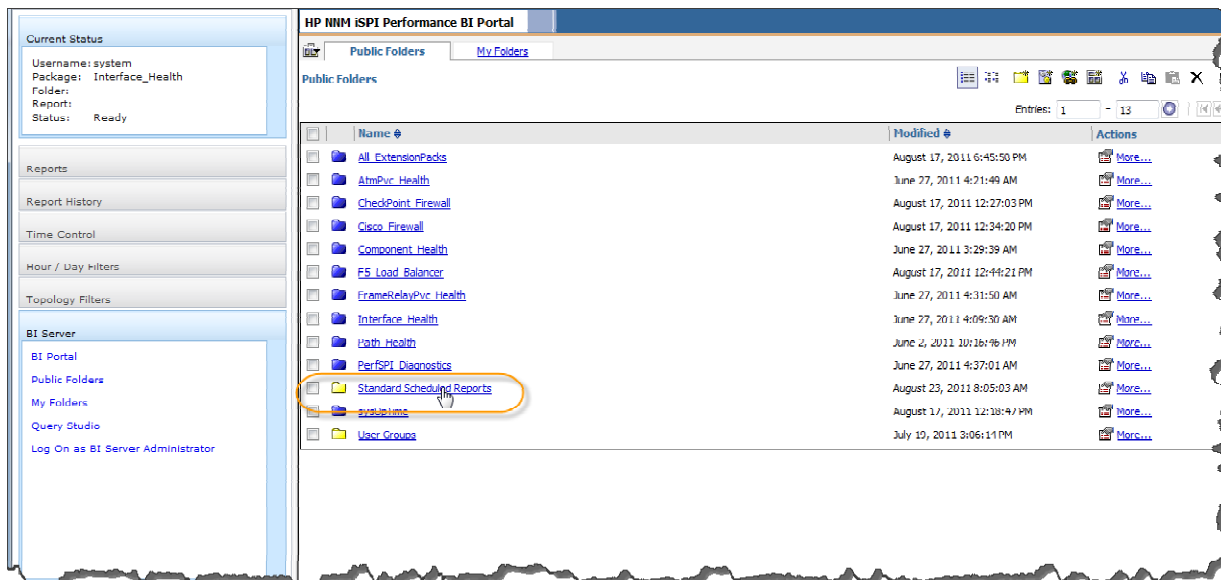
Figure 1: BI Server: Public Folders

2. Name the folder `Standard Scheduled Reports` and click **Finish**.

Figure 2: New Folder Wizard: Name

3. We are now going to create a subfolder for our weekly reports under the newly created Standard Scheduled Reports folder.

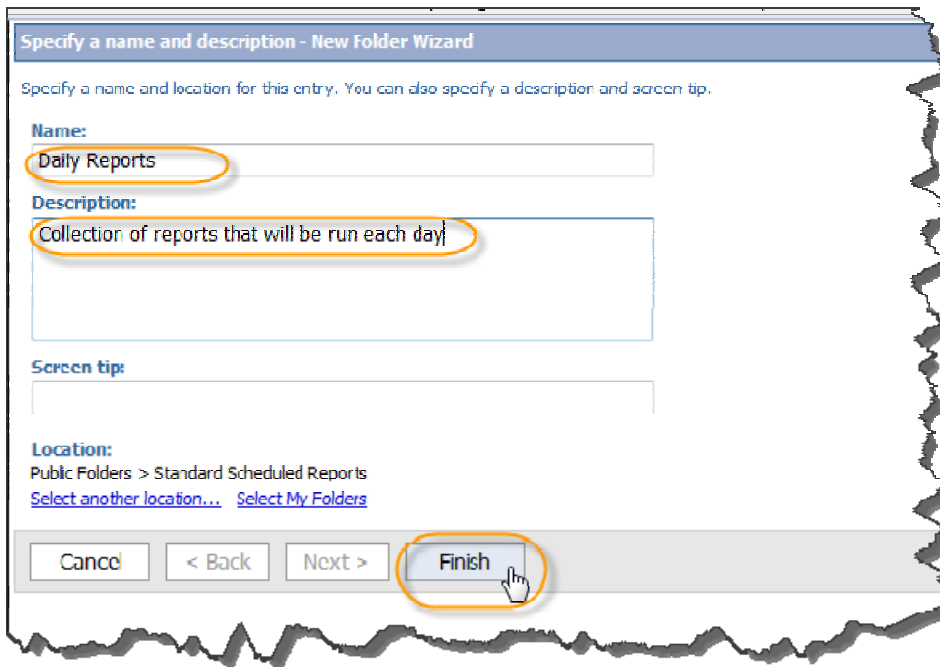**Figure 3: Standard Scheduled Reports Folder**

4. Click the **Standard Scheduled Reports** folder and then click the folder icon in the top right.
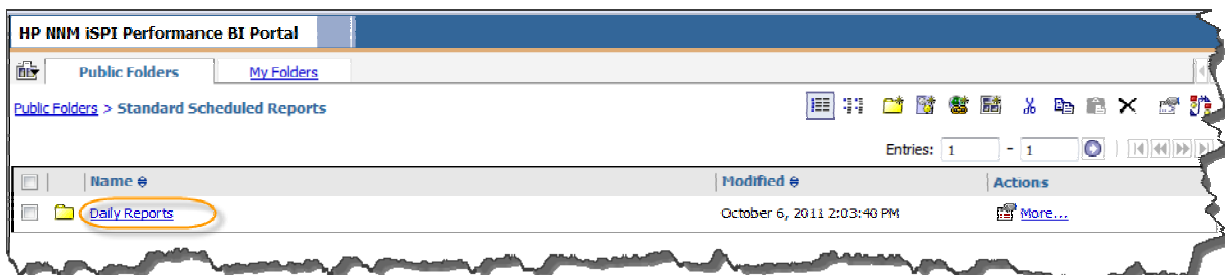
Figure 4: New Folder Icon

5. Create a folder called `Daily Reports`. You could also create Weekly and Monthly report folders, if you like.

Figure 5: New Folder Name and Description

6. You should see the new folder.

**Figure 6: Daily Reports Folder**

Populate the Report Folder

Now we must populate the Daily Reports folder with reports we want to run each day.

1. Navigate to **Public Folders** > **Interface_Health** > **InterfaceMetrics** > **Report Templates suitable for scheduling**.

   NOTE: It is critical that you navigate to **Report Templates suitable for scheduling**. It is easy to make the mistake of selecting the report template from **InterfaceMetrics** without drilling down into **Report Templates suitable for scheduling**.

2. Select the check box to the left of **Top N Chart**.
3. Click the small icon on the right to "Create a report view of this report".

Figure 7: Top N Chart: Create Report View
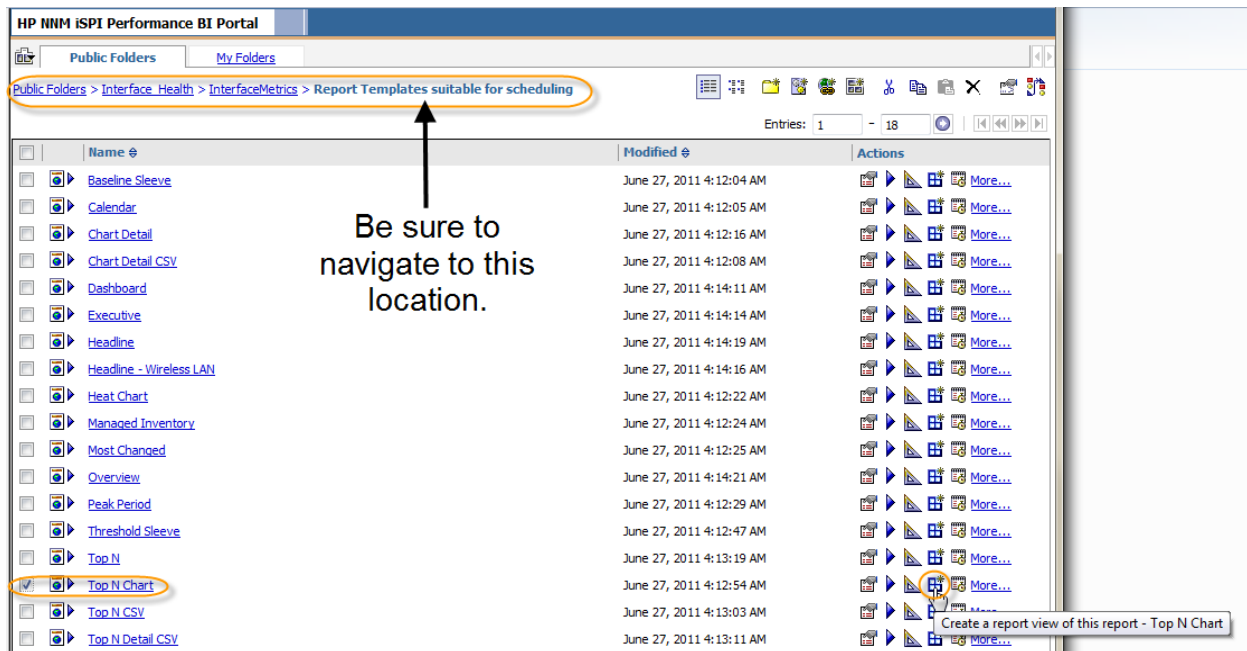
4. Replace the default name with a more meaningful name. We will name it `Daily Top 10 Utilization Chart of FA Interfaces in Colorado` since we are going to restrict it to the top 10 used interfaces in our Colorado group. Click **Select another location**.

Figure 8: New Report View Wizard: Name

5. At the top of the subsequent window, navigate to **Cognos** > **Public Folders** > **Standard Scheduled Reports** > **Daily Reports** and click **OK**.

Figure 9: Select a Location: Daily Reports

6. The location where the report will be saved appears: **Cognos** > **Public Folders** > **Standard Scheduled Reports** > **Daily Reports**. Click **Finish**.

Figure 10: New Report View Wizard: Location

7. You can repeat this process for additional reports, as desired.

Configure your Individual Report

1. Navigate to **Public Folders** > **Standard Scheduled Reports** > **Daily Reports** and click the **Set Properties** icon for this particular report.

Figure 11: Set Properties
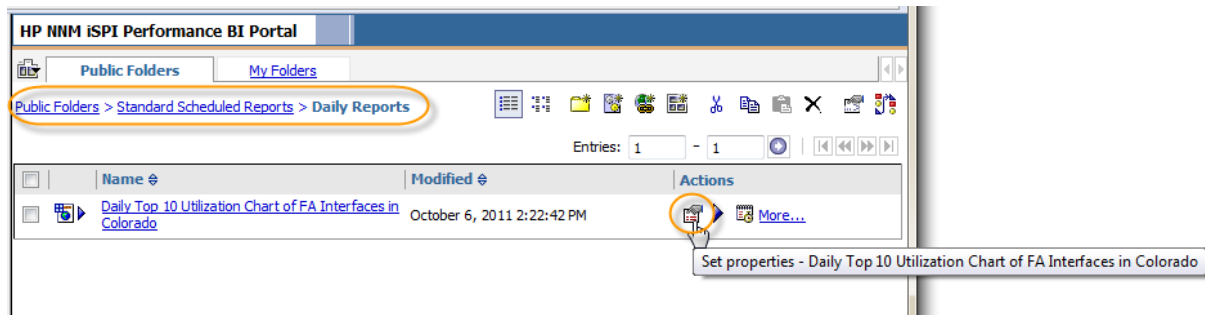
2. Click the **Report View** tab. Uncheck the **Prompt for values** check box and click the **Set** link.

Figure 12: Report View Tab: Set Link
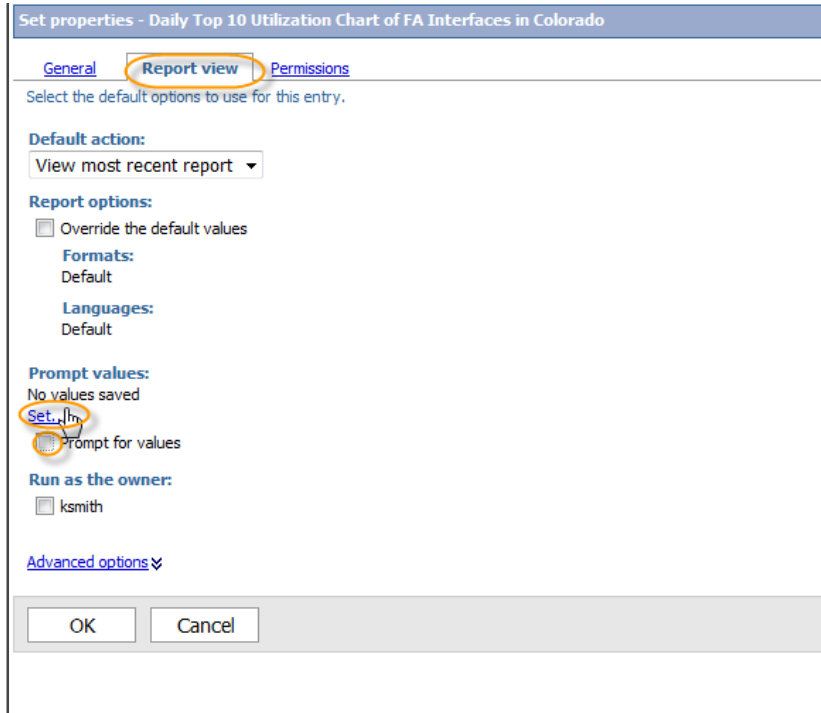
3. Change the Time Range to be **Most Recent Complete Day**.
   NOTE: Since we want to include all hours of the day and all days of the week, it is best <u>not</u> to select any values rather than selecting all. Choosing **Select All** will result in a less efficient report. Click **Next**.

Figure 13: Time Controls
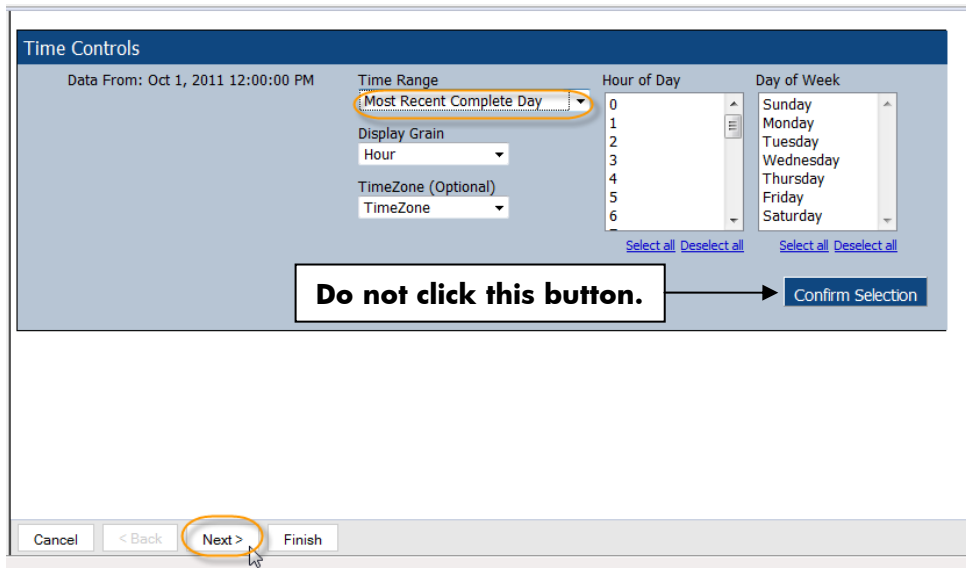
4. We want to filter based on membership of a particular Interface Group that we had previously built. Select this Interface Group name. There are two types of Interface Groups (regular and type 1). See the online help for details about these groups, but in most cases, you will want to use type 1 groups. Click the **Next** button.

Figure 14: Topology Filter

5. Set the values. For this example we will choose **Top 10**, **Qualified Component Name** and **Utilization In (max)** and **Utilization Out (max)** and click **Finish**. Note that you may not always get Figures 13, 14, or 15, depending on the report template you are using. For instance, the Headline report does not give you the report options page. This is by design.

Figure 15: Report Options
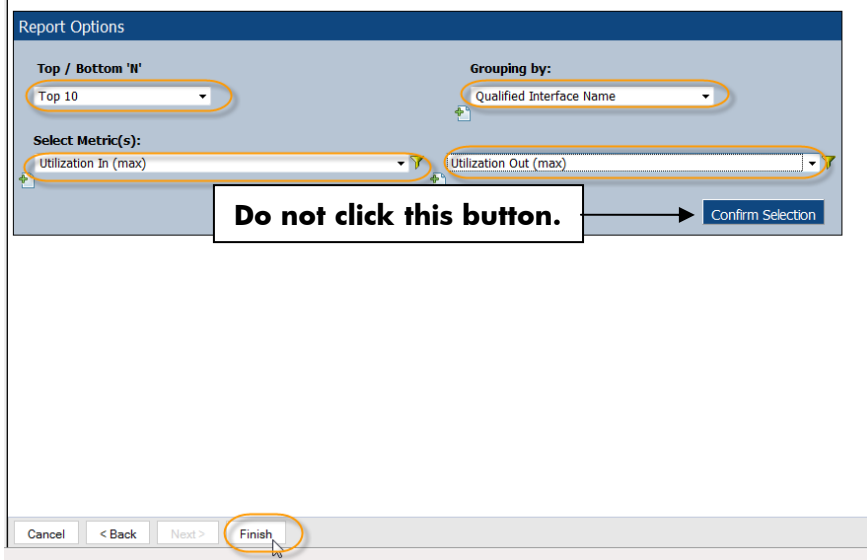
6. You can see that the prompt values have been successfully changed. You may want to change the default output for the report. You can select the **Override the default values** check box to change the output to another format like PDF if you like. In this example, we will control the output type in the context of running a report rather than in the window shown in the following figure.

Figure 16: Report Options and Prompt Values
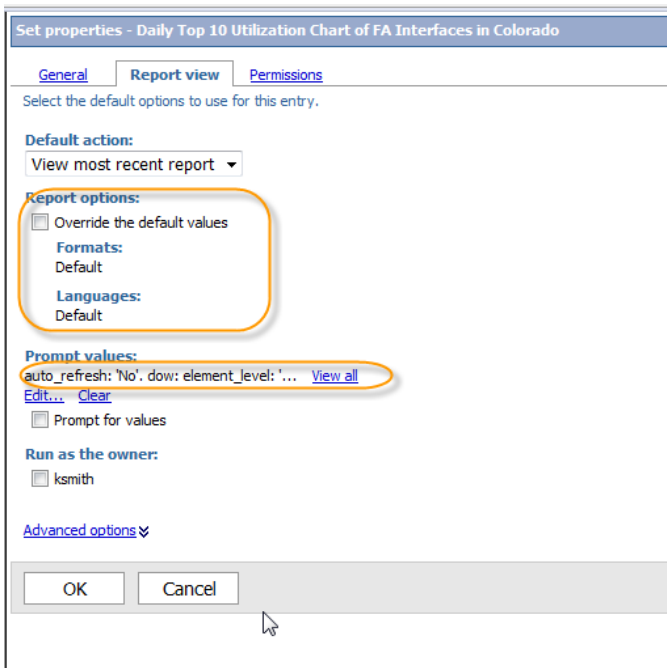
7. You may want to change the number of output versions that are stored and the run history. To do this, click the **General** tab. For our example, we will set these options to 5.

Figure 17: General Tab: Run History and Report Output Versions
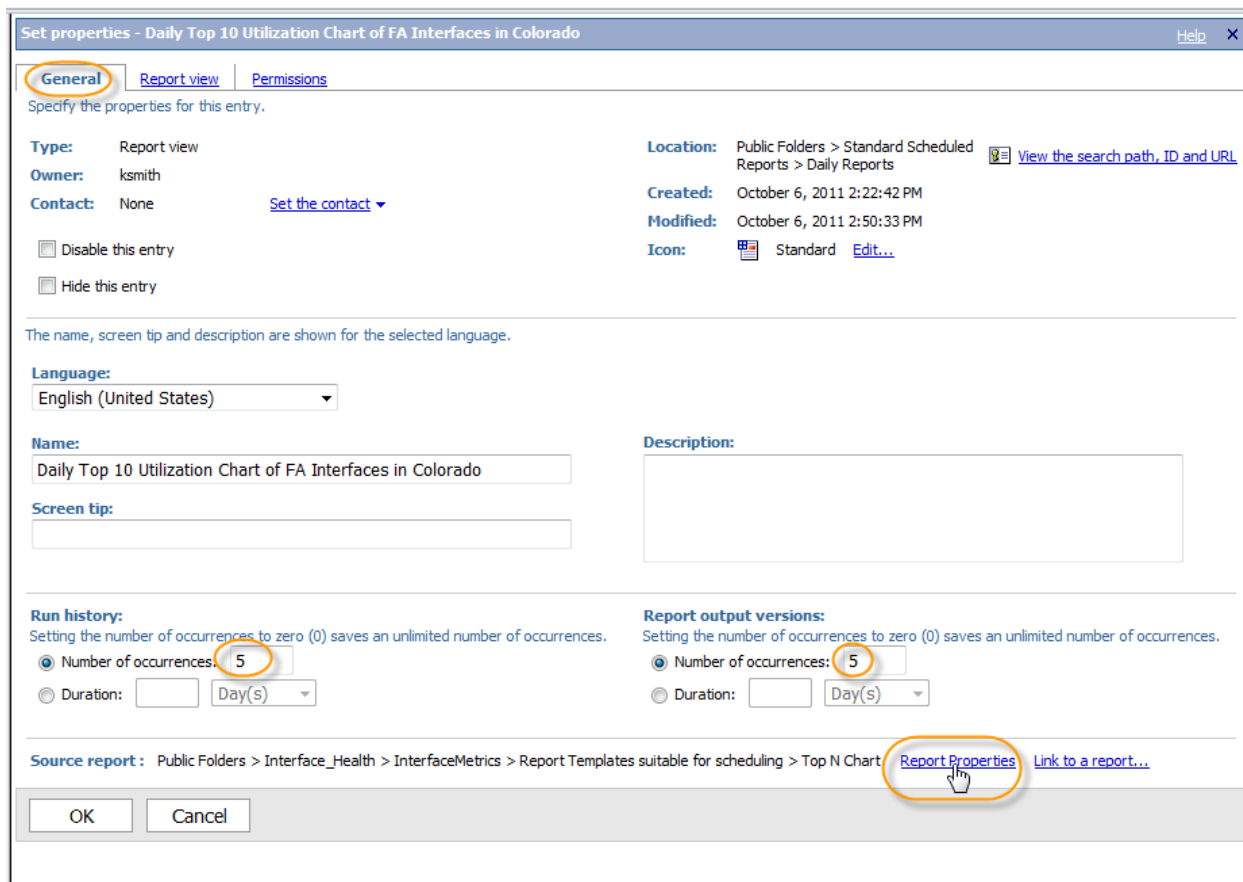
8. There is one final requirement when building reports. If you were to attempt to schedule this report now, you would get the following error:

Figure 18: Error
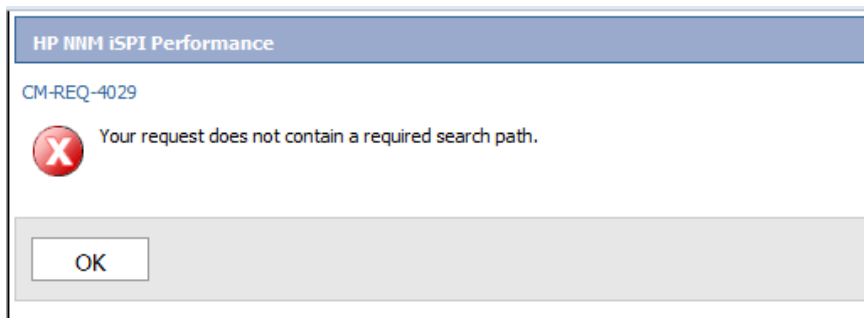
9. In order to prevent the error shown in the previous figure, set up the correct package for the source report. Click the **Report Properties** link at the bottom of the **General** tab as shown in Figure 17.
10. Next, click the **Link to a package** link at the bottom of the window.

Figure 19: General Tab: Link to a Package

11. Select the appropriate report package from which this report comes. In this case, select the **Interface_Health** package and click **OK**.

Figure 20: Select a Package: Interface_Health
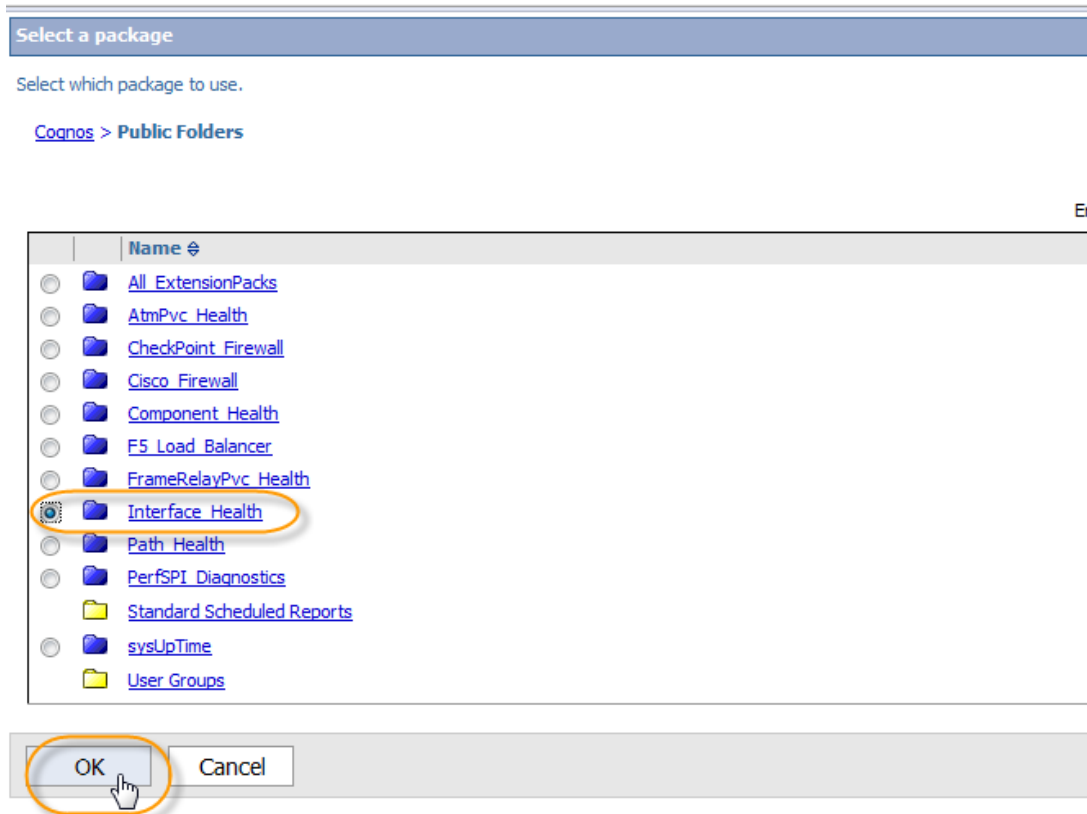
12. Now you can see that the package Interface_Health is properly linked. Click **OK**.

**Figure 21: General Tab: Interface_Health Package**

Scheduling Reports

You can either schedule the report directly or you can schedule collections of reports in the context of a "job". You might prefer a job because it gives an easy way to schedule all of your daily reports in one place.
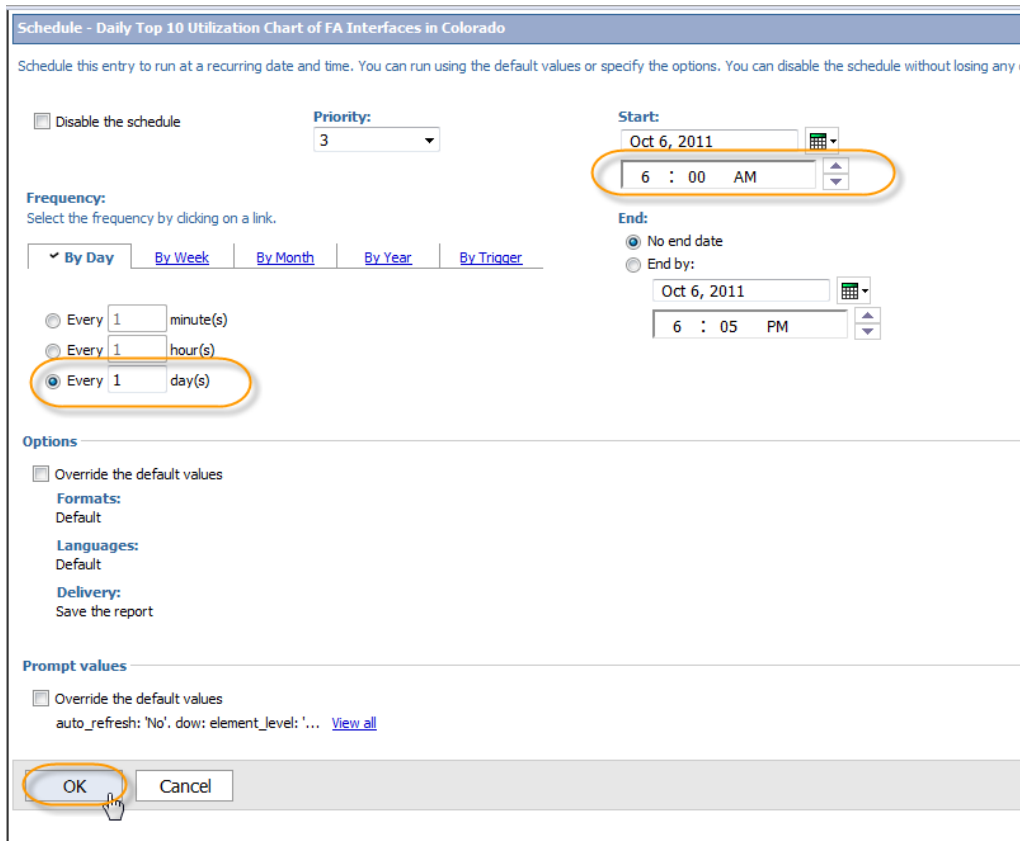
Scheduling a Report

1. To schedule a report directly, click the **Schedule** icon on the right side.

Figure 22: Public Folders: Schedule
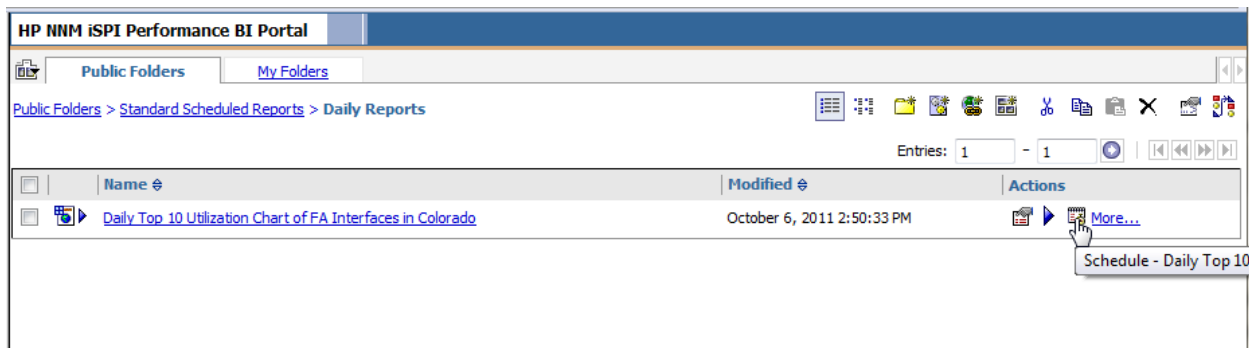
2. Then set the frequency to **By Day** every 1 day and choose a starting time.
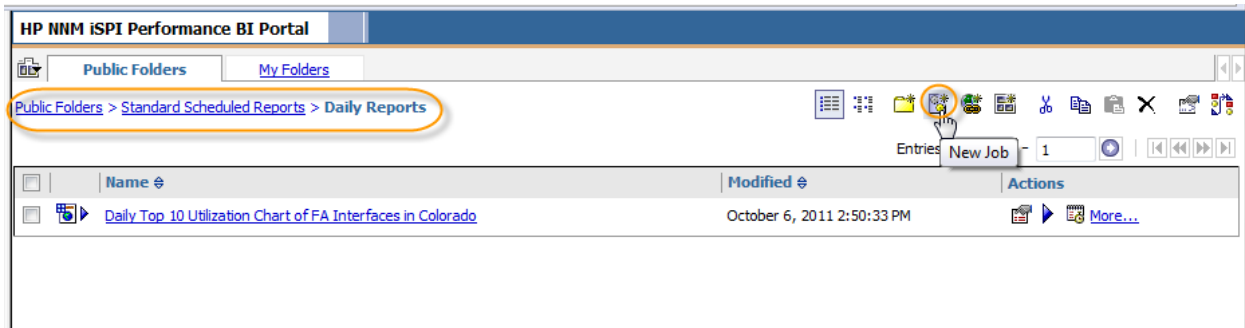
Figure 23: Report Schedule

Scheduling a Job

In many cases, you might want to control a set of daily reports in the context of a single job (similar to running a batch). To create a job:
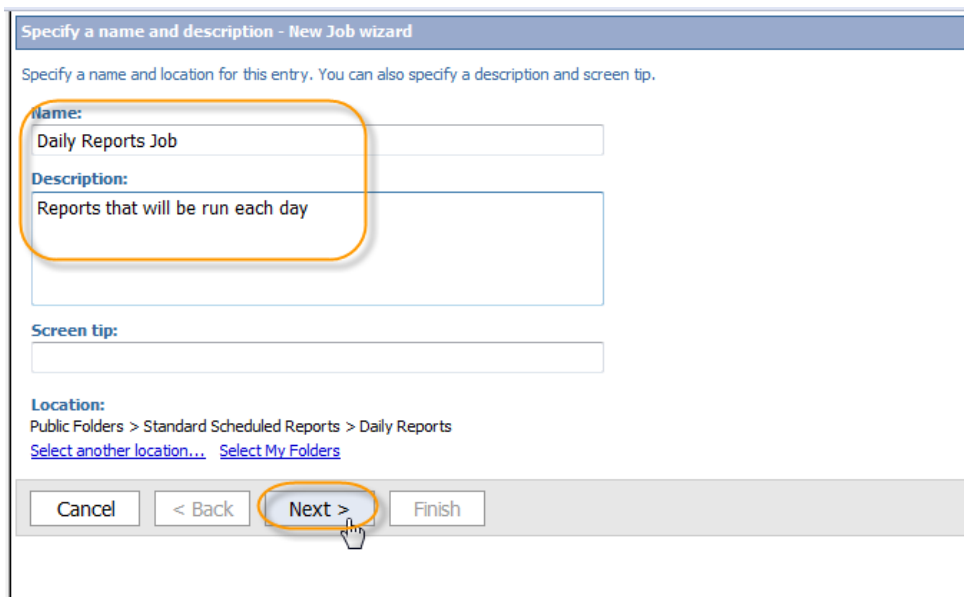
1. Be sure you are in **Public Folders** > **Standard Scheduled Reports** > **Daily Reports** and then click the **New Job** icon at the top.

Figure 24: Daily Reports: New Job

2. Give the job a name and a description and click **Next**.

Figure 25: New Job Wizard: Name and Description

3. Click the **Add...** link to add new reports to this job.

Figure 26: New Job Wizard: Add

4. Since we have only created one report under the Daily Reports folder, there is only one available entry. Typically you would have more from which to choose. Select the report and click the **Add** arrow. Then click **OK**.

Figure 27: New Job Wizard: Add Daily Report
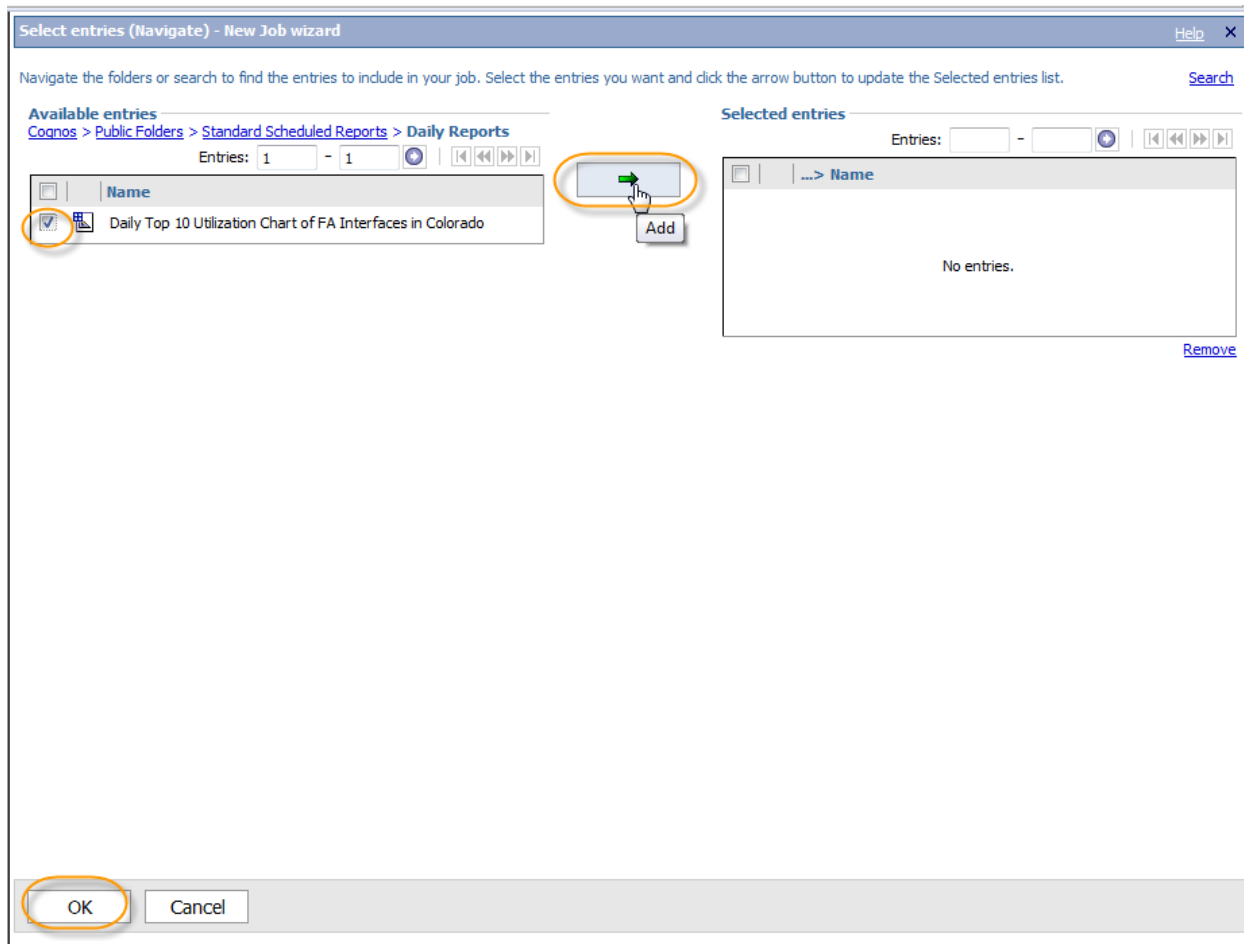
5. You can then choose if you want to run all the reports at once or in sequence. Since we only have one report, it makes no difference. You can also control the output of the reports in the job. Click the **Set...** link.

Figure 28: New Job Wizard: Set... Link

6. Click the **Report Options** link.

Figure 29: New Job: Report Options

7. Select the **Specify default values for all the reports of this job** check box.

Figure 30: New Job: Specify Default Values for all the Reports of this Job

8. Now you can select additional output formats for the reports in this job. You might also want to send an email with the report. Note that you must set up the email on the Network Performance Server to use this feature. See the final section of this paper for more details.

Figure 31: New Job: PDF

9. You can see the options that were set up. Now click the **Next** button.

Figure 32: New Job Wizard: Defaults for all Steps

10. Finally, you can choose the **Save and schedule** button and click **Finish**.

Figure 33: Job: Save and Schedule

11. Now you would set up the frequency of the job and click **OK**.

Figure 34: Daily Reports Job: Frequency

Testing

For testing purposes, you might want to schedule your reports to run more frequently just to try them out and work with the output. You could temporarily change the frequency of this report to be every two minutes.

Figure 35: Daily Reports Job: Frequency: Every 2 Minutes

Viewing and Managing the Reports

1. To see the reports of your running job, go to **Public Folders** > **Standard Scheduled Reports** > **Daily Reports** and click the **View the output versions** button.

Figure 36: Daily Reports: View the Output Versions
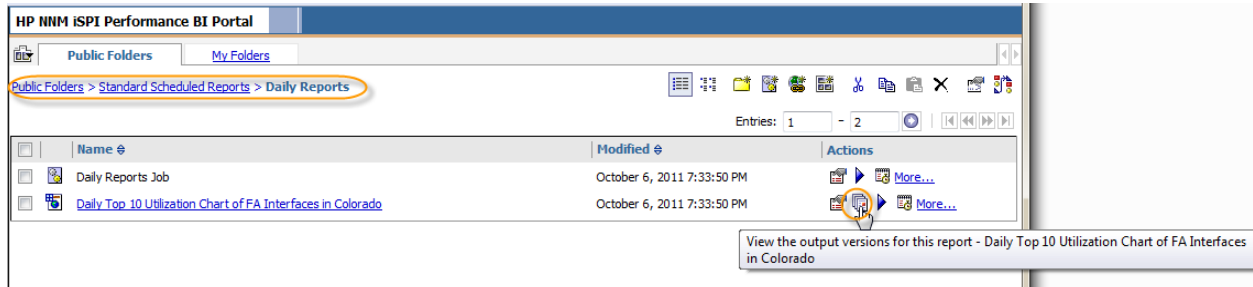
2. From here, you can see the reports that are stored on the server. You can see the two formats that were specified in the job. You can also download the PDF to your local computer by clicking the **Download** button.

Figure 37: View Report Output Versions
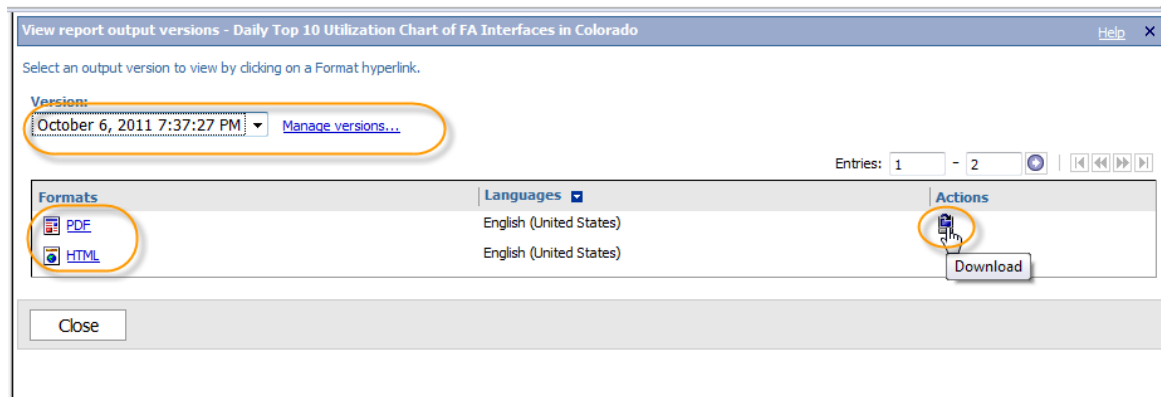
3. You can see previous versions of the reports by selecting the appropriate time stamp from the Version list. Since we set our test to run every two minutes, you can see that each set of output is two minutes apart. Remember that we configured it to only keep five copies on the server so it will not build up too many copies. You can also delete your old reports if you want to by clicking the **Manage versions...** link.

Figure 38: View Report Output Versions
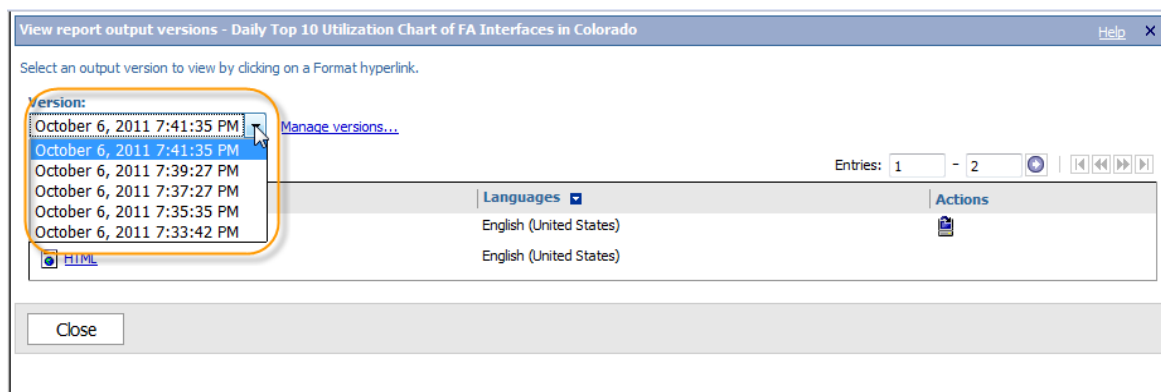
4. You can click the PDF output (see Figure 37) to see the PDF version of the report. Try pressing your BACKSPACE key to return to the previous page after viewing the report.

Figure 39: View Report
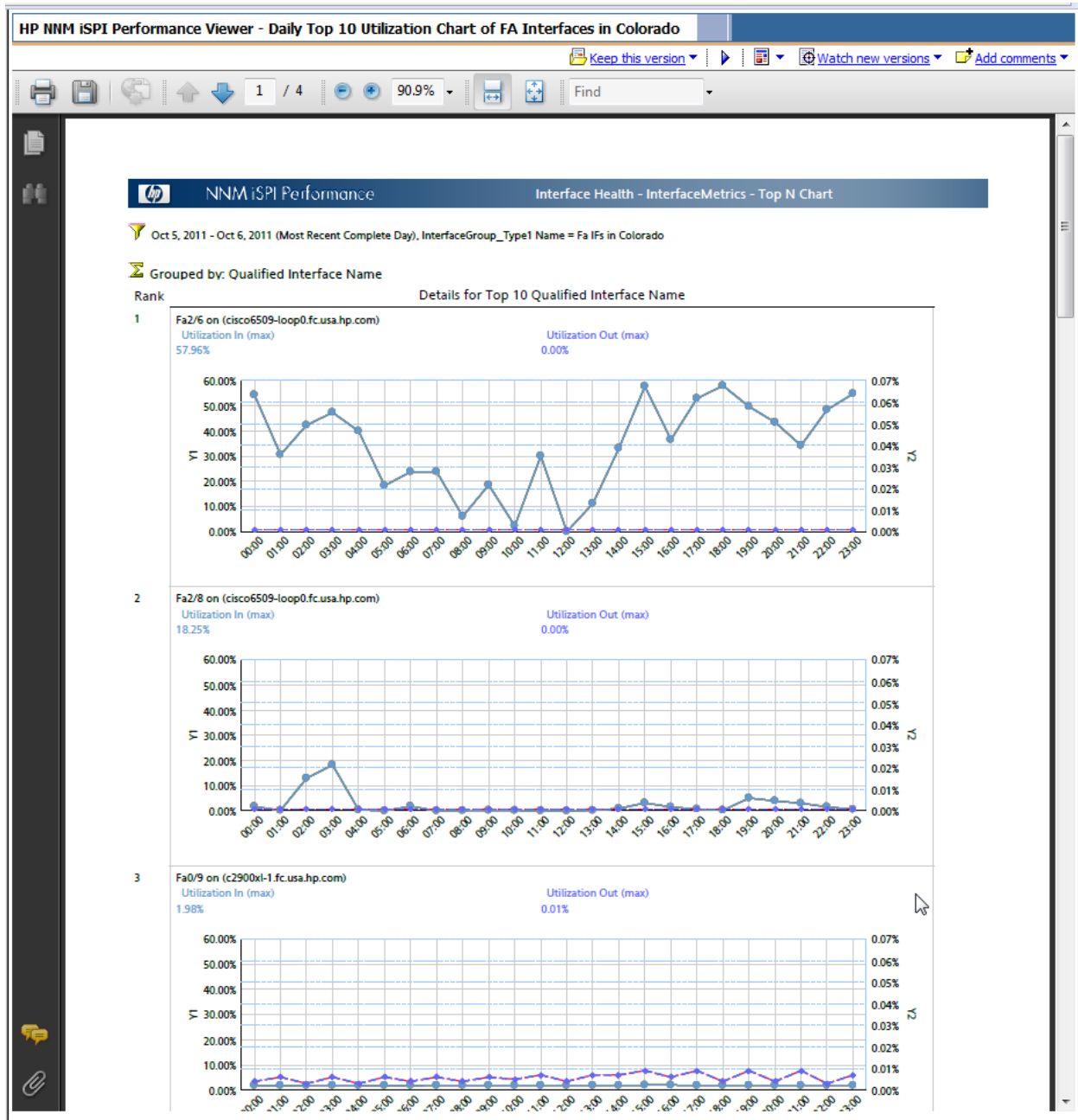
5. You can also click the HTML format and view the report. Remember that this is a static HTML report and the HTML is not live. This report reflects the graphs as they were when the report was run.

Emailing Reports

If you want to use the NPS to email reports, you must configure the BI Server to use a Simple Mail Transfer Protocal (SMTP) email server.

To configure the BI Server to send emails:

1. Launch the BI Server Configuration graphical user interface.
    Windows: %NPSInstallDir%\NNMPerformanceSPI\bin\runBIConfigGUI.ovpl
    Linux: /opt/OV/NNMPerformanceSPI/bin/runBIConfigGUI.ovpl
2. In the Explorer pane, select **Notification**.

Figure 40: BI Configuration
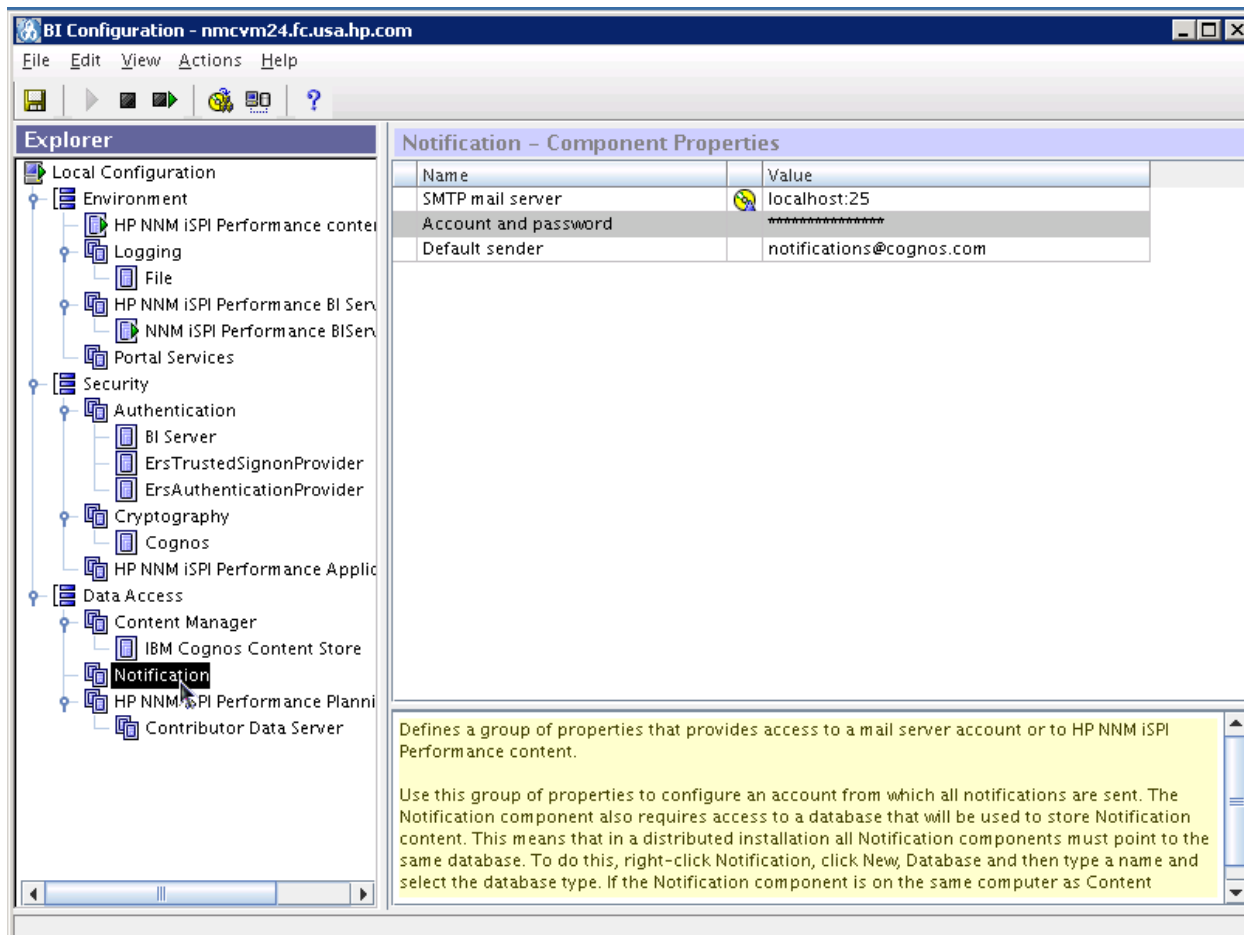
3. Specify appropriate values for the following fields:
    - SMTP Mail server (usually localhost:25 is a good choice)
    - Account and password
    - Default Sender
4. Click the **Save** button.

5. To test the connection, right-click **Notification** in the left pane, and then click **Test**.

Figure 41: BI Configuration: Notification: Test
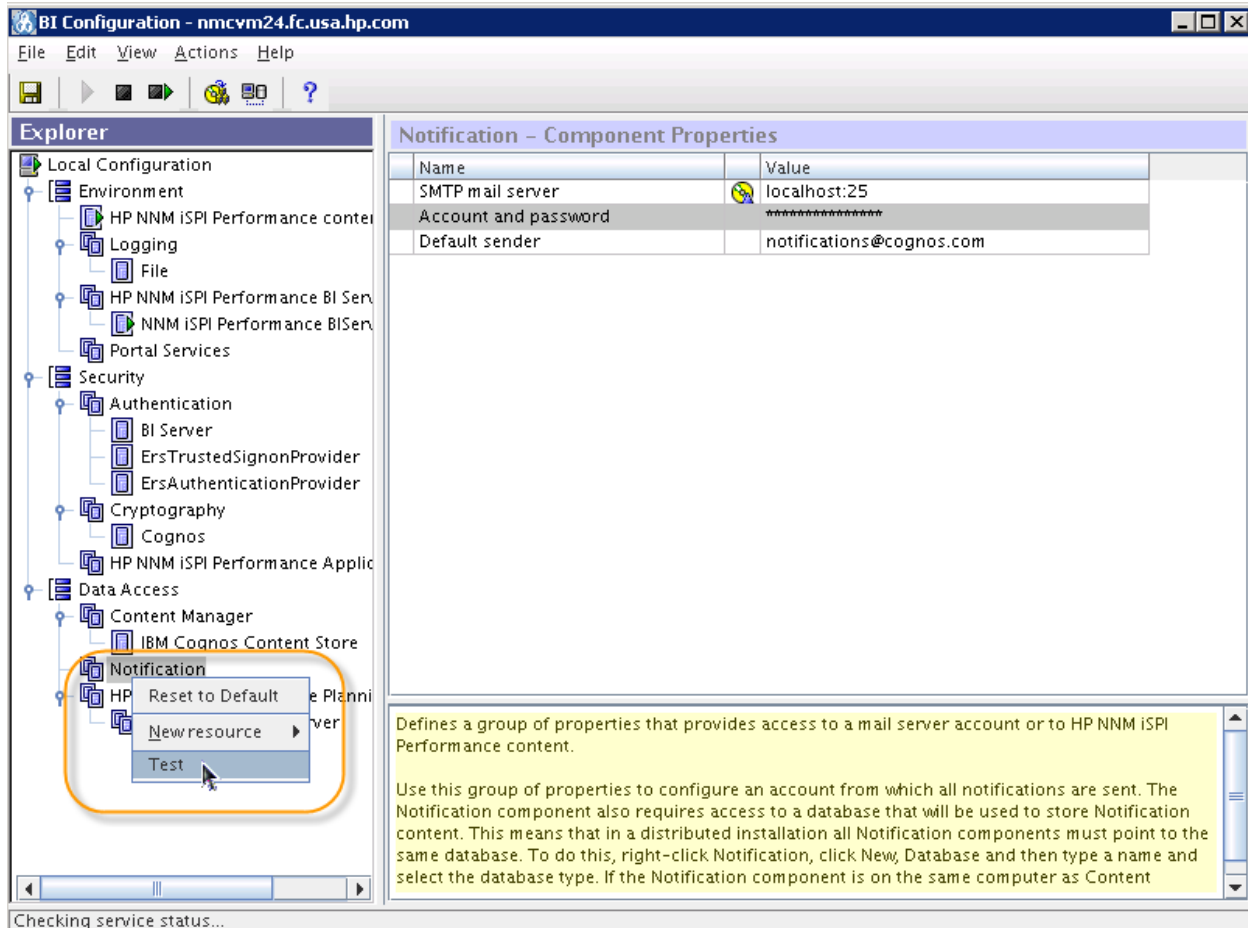
6. You will see the following dialog box on success:

Figure 42: BI Configuration: Success
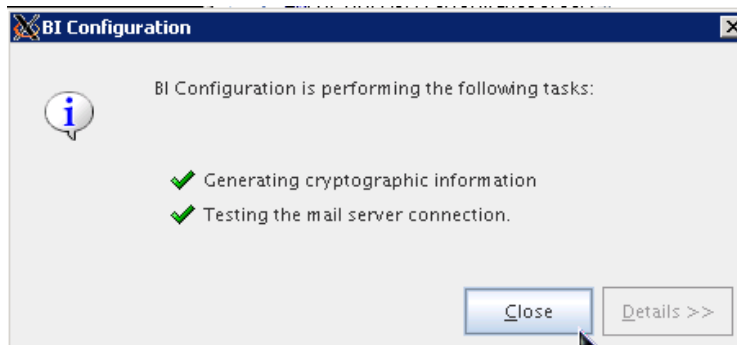
7. Click **Close**.

8. Click **File** > **Save**.
9. Select **Yes** when prompted to restart the service NNM iSPI Performance BIServer.

Figure 43: BI Configuration: Restart Service
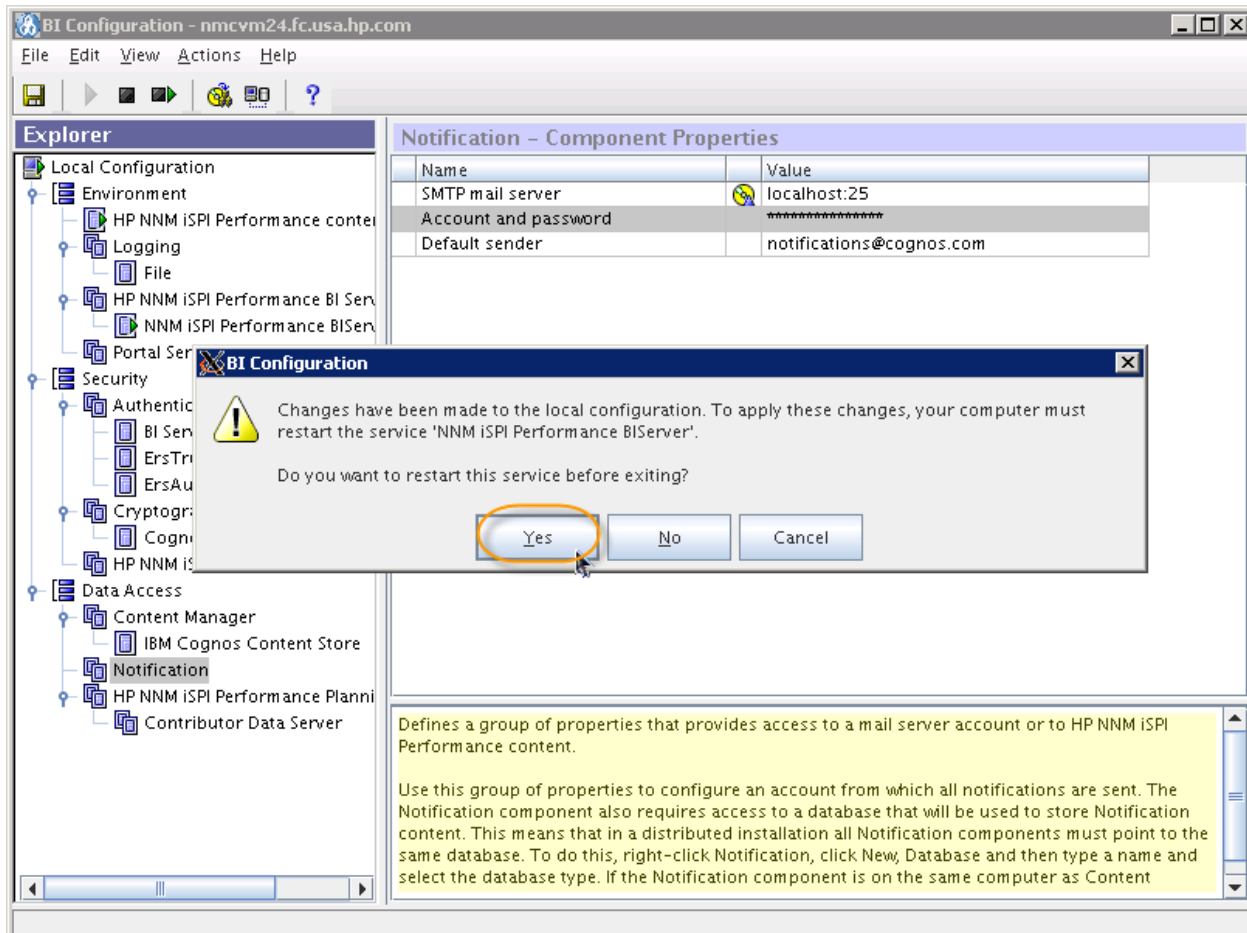
10. After the BI server restarts, you can now configure the job to send email. Return to **Public Folders** > **Standard Scheduled Reports** > **Daily Reports** and click **Set Properties** for the job.

Figure 44: Daily Reports Job: Set Properties
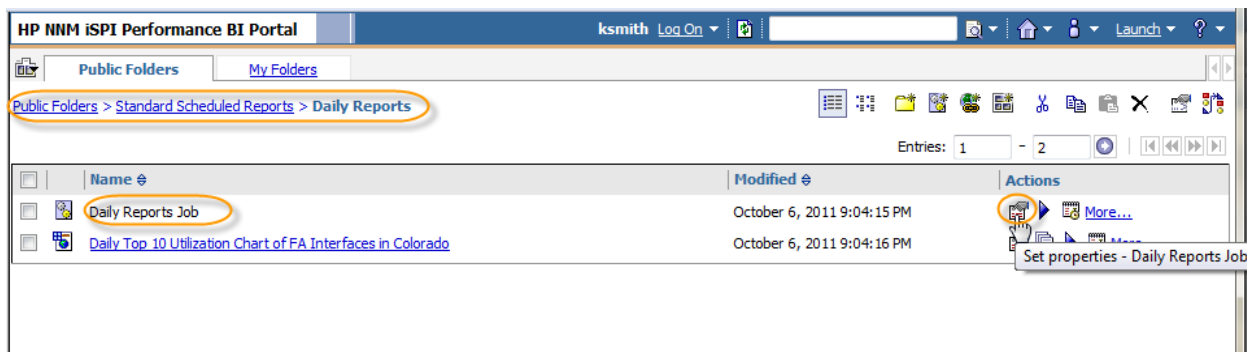
11. Click the **Job** tab and click **Edit...**

Figure 45: Daily Reports Job: Job Tab: Edit

12. Click **Report Options**, check the box to email the report and click **Edit the options...**

Figure 46: Daily Reports Job: Report Options

13. You can choose to include a link to the reports (the link points to the NPS server). You might also want to attach a copy of the HTML and PDF reports to the email. Note that the link in the email will require the user to log on with their NNMi account. Fill in the email address for the destination and click **OK**.

Figure 47: Daily Reports Job: Recipient

14. The email recipient will now begin to receive email messages similar to that shown in the following figure.

Figure 48: Daily Reports Job
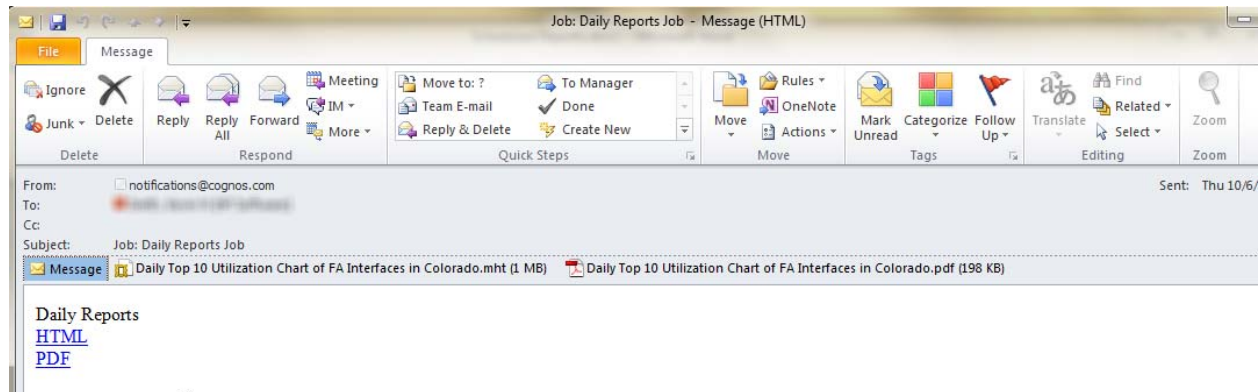
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This product includes software developed by the Apache Software Foundation.

(http://www.apache.org)

This product includes software developed by the Indiana University Extreme! Lab.

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