Agilent Technologies

Switch Advisor

Getting Started

Agilent Technologies

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Introduction to Switch Advisor

Getting Started

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Introduction to Switch Advisor

Introduction to Switch Advisor

Welcome to Agilent Technologies Switch Advisor

This Getting Started Guide walks you through everything you need to get started with the Agilent Switch Advisor, including:

- Requirements for running Switch Advisor
- How to install the Switch Advisor software
- How to use the main features of the Switch Advisor software
- Troubleshooting scenario

By following the troubleshooting scenario in Chapter 2, you will learn how to unleash the powerful troubleshooting features available to analyze your switched infrastructure.

What is Switch Advisor?

Collect Data from SNMP Managed Devices

Switch Advisor is a software product that allows you to collect data from any SNMP-managed device on your network. Switch Advisor displays how many packets were monitored going in and out of each port on the managed device, and other vital information about the operation of your network. Switch Advisor gives you the information you need to:

- Track faults
- Spot bottlenecks
- Identify overloaded ports and devices
- and much more

Switch Advisor provides real data about the day-to-day running of your managed devices and helps you to make sensible decisions about:

- How and when to segment your network
- How to plan for future growth
- How to optimize your network usage

What You Need to Run Switch Advisor

PC Requirements

Your PC must be a Pentium-based machine with a minimum of 64 Mbytes of RAM (128 Mbytes RAM for NT4 and Windows 2000), fitted with a LAN card, and running any one of these operating systems:

- Windows NT4
- Windows 2000
- Windows 98
- Windows 95

About the LAN Card

Most recent ISA, PCI, or PCMCIA LAN cards will work without any problems. Some older cards, such as NE2000 cards and clones, may not work reliably on large LANs and when network usage is heavy.

If you find that a particular card does not work, or stops working after a short time, try a different make or model.

Installing Switch Advisor

Switch Advisor has been shipped as part of the Advisor LAN/WAN/ATM software and Advisor Software Edition with software version 11.8 or higher, and is installed automatically when you load any one of these programs.

Once you have installed the application software, you will start one of the application programs, then click the Switch Advisor button  to launch Switch Advisor.

If you Purchased the RMON License

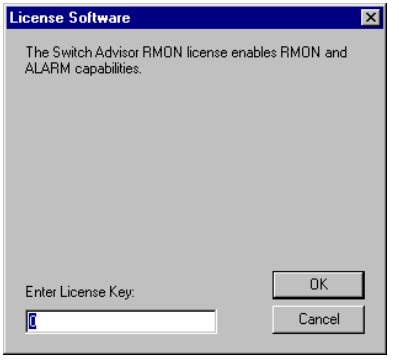
1 Launch the Advisor LAN, WAN, or ATM application program on the Advisor, or the Advisor Software Edition program on the PC.

2 Click the Configuration button.

3 Select the License Software tab.

4 Select the Switch Advisor RMON software (J5425A) checkbox.

5 Type in the Software License key and click OK. The license key number is on the J5425A RMON License Key document included in your shipment.



After you have entered the license key number, you will see a message indicating that the software license was successfully activated. If this message is not displayed, check your license key and re-enter the correct number.

Finding More Information

The Switch Advisor has online help. You can quickly find information for the currently displayed measurement view or dialog by pressing F1.

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Getting Started

Getting Started

Getting Started Using Switch Advisor

Switch Advisor is a complimentary tool of the Agilent Advisor protocol analyzer that helps troubleshoot your switched infrastructure by allowing access to MIB and RMON information that is stored in all SNMP-supported devices. By remotely viewing these statistics, you can quickly identify which collision domain(s) requires a more in-depth analysis to identify the source of a network problem.

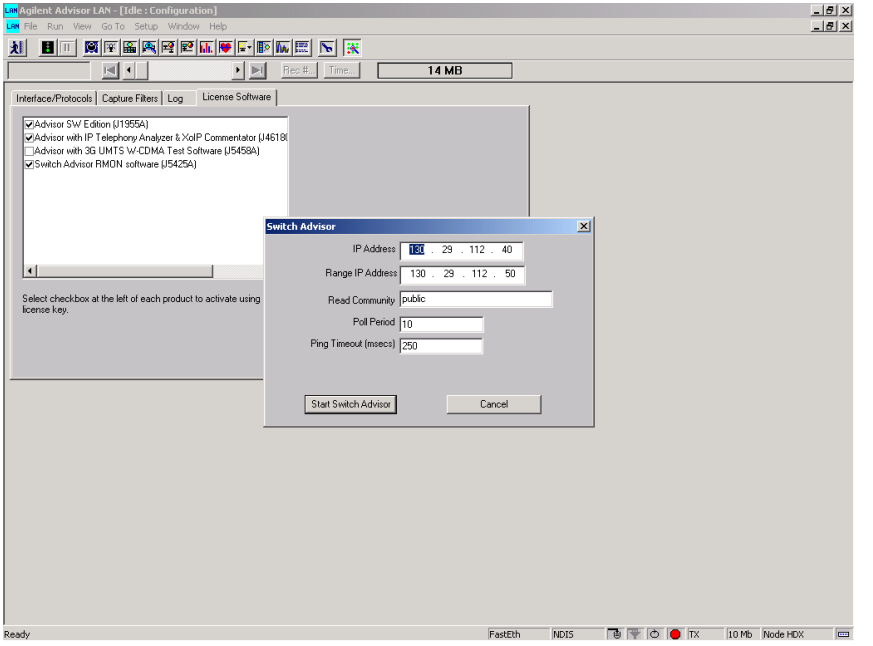
Follow Along with Your Switch Advisor

The most effective way to learn how to use the Switch Advisor is to examine a typical troubleshooting scenario. Use your Switch Advisor in the following troubleshooting tasks to familiarize yourself with Switch Advisor functionality.

Start Up Switch Advisor

1 Click the Switch Advisor button  in the Advisor tool bar.

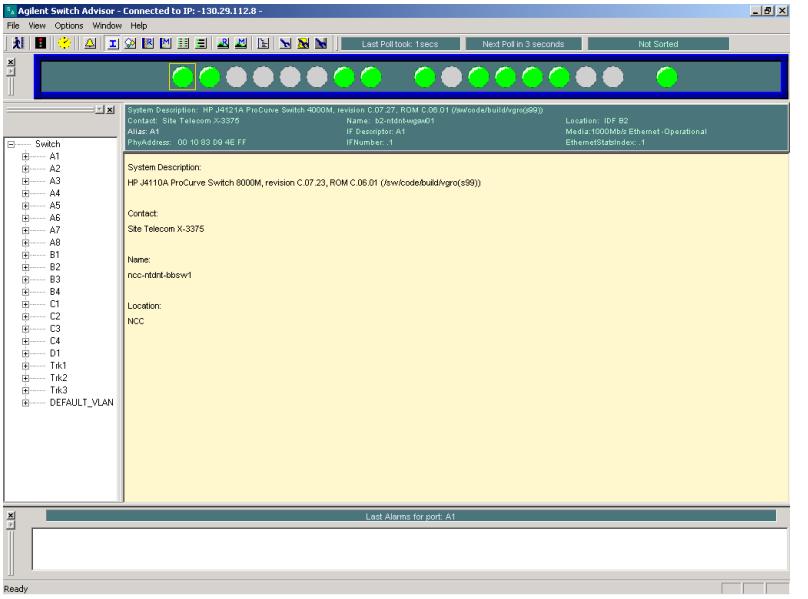
2 In the Switch Advisor configuration dialog that appears, type the IP address of the desired SNMP device. You can type in a range of IP addresses to scan for multiple SNMP-supported devices.



The default settings will work for most situations. However, you can modify the Read Community, Poll Period, and Ping Timeout default settings.

3 Whether you entered a single IP address or a range of IP addresses will determine which view will be used when Switch Advisor starts up.

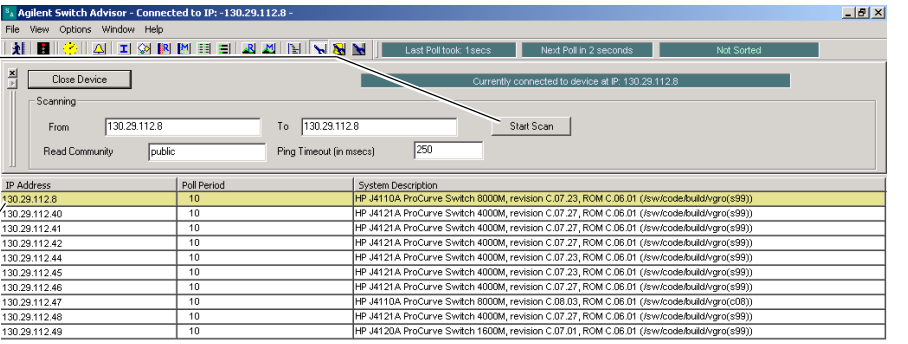
- If you entered a single, valid IP address, Switch Advisor will open in the Information view, as shown here:



- If you entered a range of IP addresses, or you have entered an invalid IP address, Switch Advisor will open in the Configuration view, as shown here:

If no devices are listed, you will first need to enter an IP address or range, then select Start Scan to find valid devices on the network.

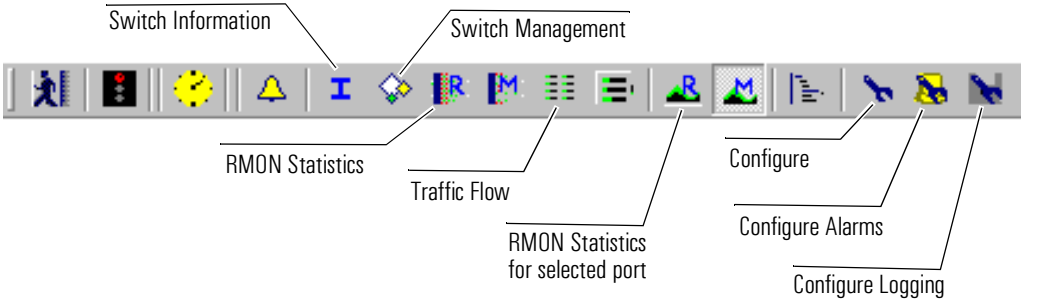
The selected device is highlighted in yellow.



4 If Switch Advisor opens in the Configuration view, select the desired device and click the Open Device button.

5 Once Switch Advisor opens in the Information view, select the RMON Statistics button.

6 View the Switch Advisor tool bar.



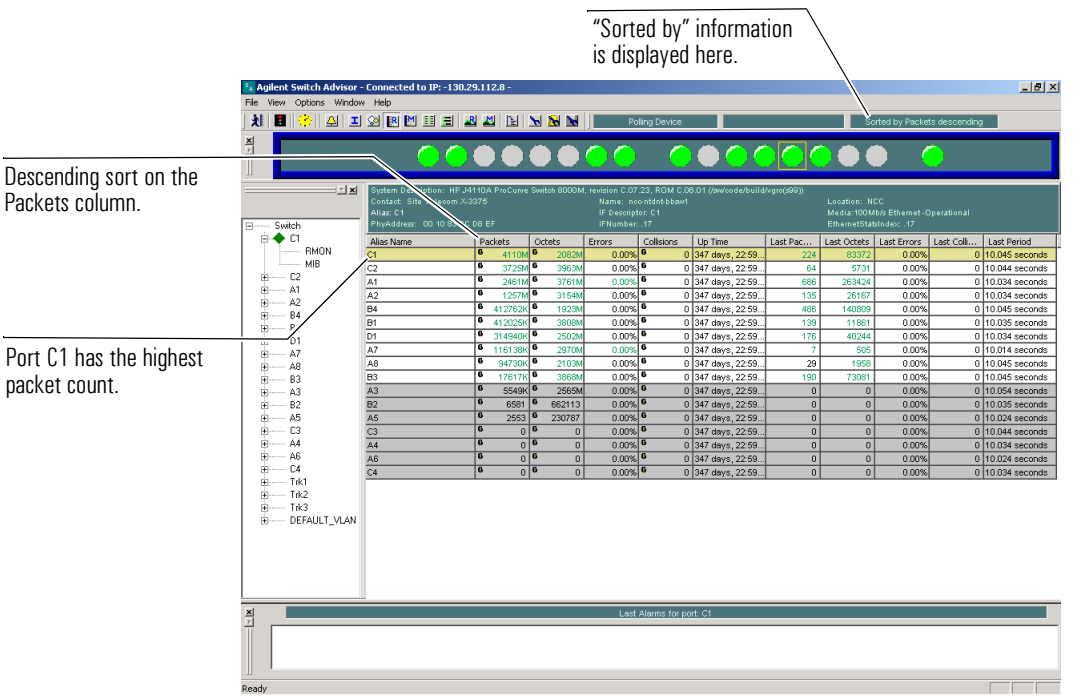
You can place the cursor over a button to display its function.

View Statistics

The RMON Statistics view provides statistical details for each port of the device you have selected. A very powerful feature of the Switch Advisor is its ability to sort on one of the RMON statistics columns displayed in the RMON Statistics view in ascending or descending order. The sort order is maintained for each view.

To view statistics:

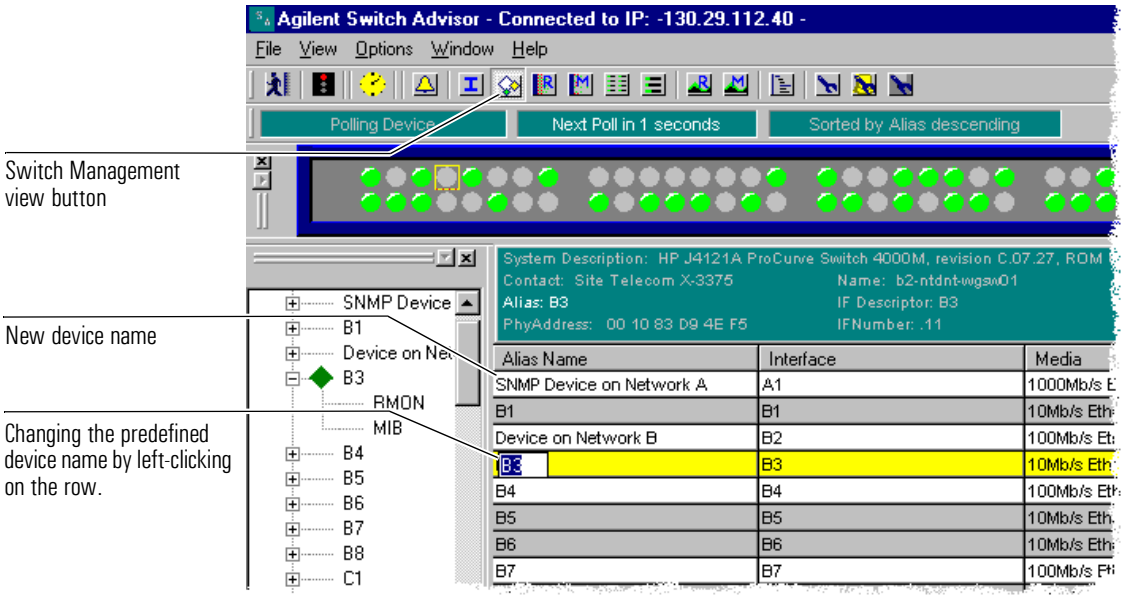
1 Left-click the title of the column you want to sort. In this window, the column titled Packets is sorted in descending order. A second click on the title Packets would result in a sort in an ascending order.



In this example, port C1 has the highest packet count. This is a quick way to see which ports of the selected device are the top talkers.

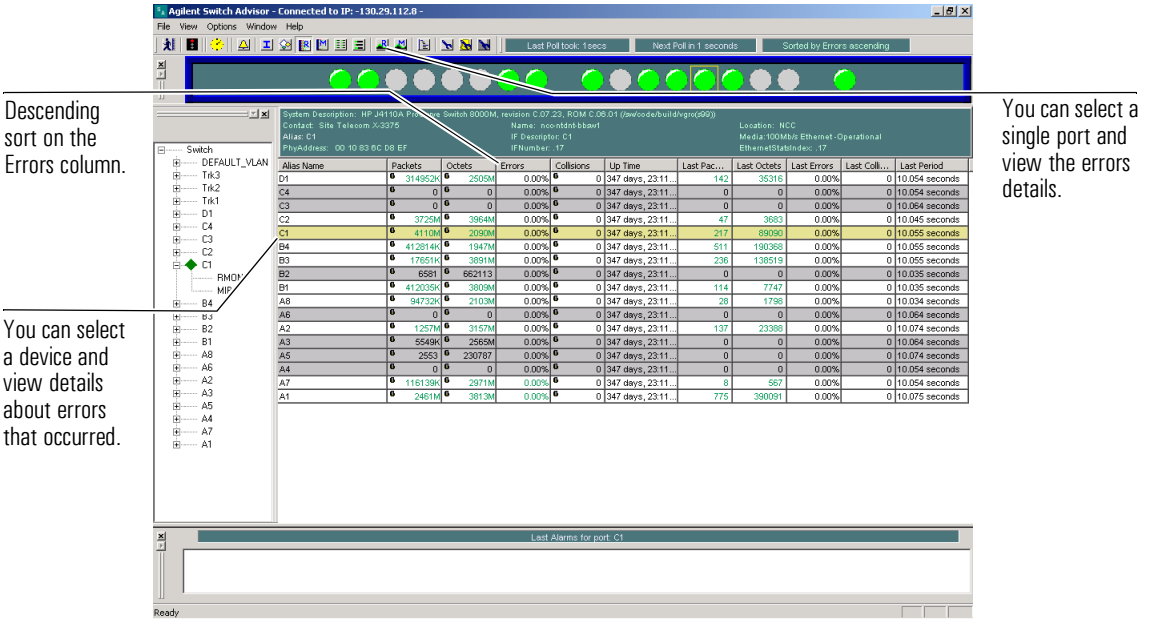
2 You can change the predefined “Alias Name” for a device.

To customize a device name, click the Switch Management button  then click to highlight the row that has the Alias Name you want to change. Click on the row again to highlight the name, type the new name, then press Enter, as shown here:

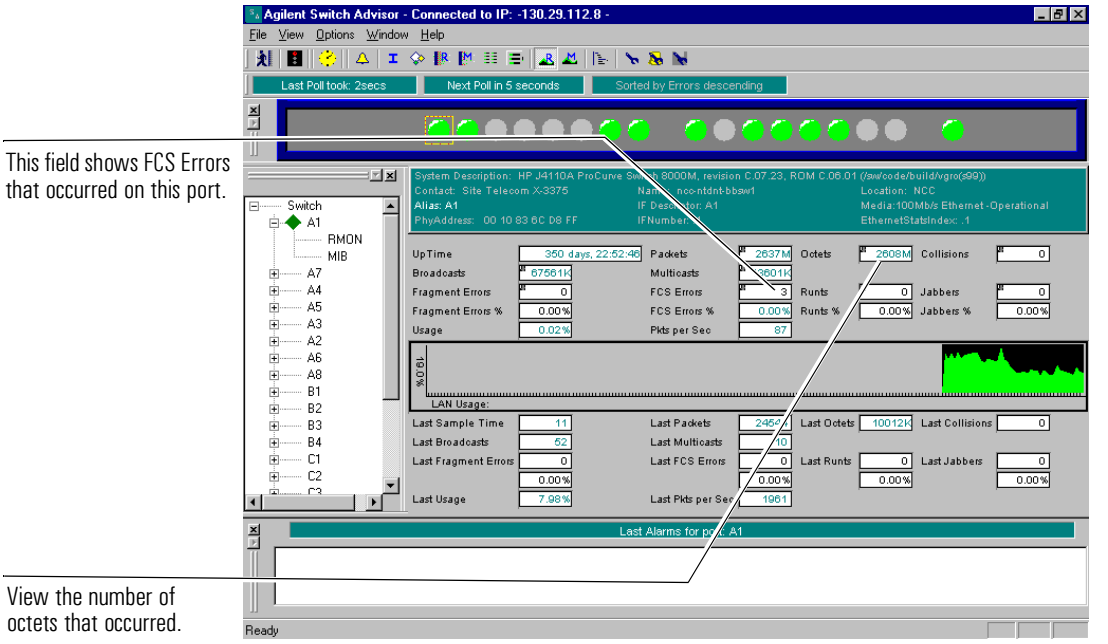


The new name you entered will be used in all views in the Switch Advisor.

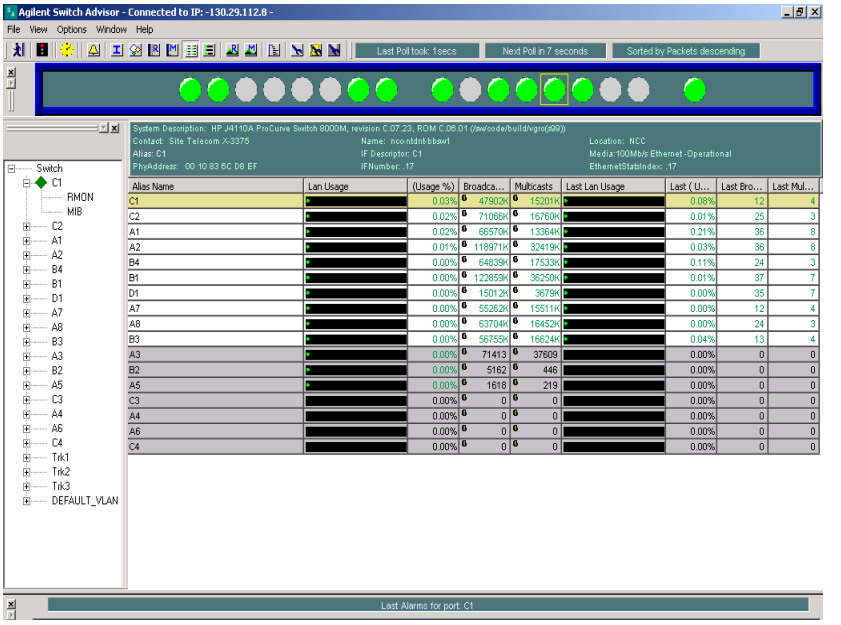
3 Sort the Errors in descending order. Notice that this sort is different from the sort done for Packets.



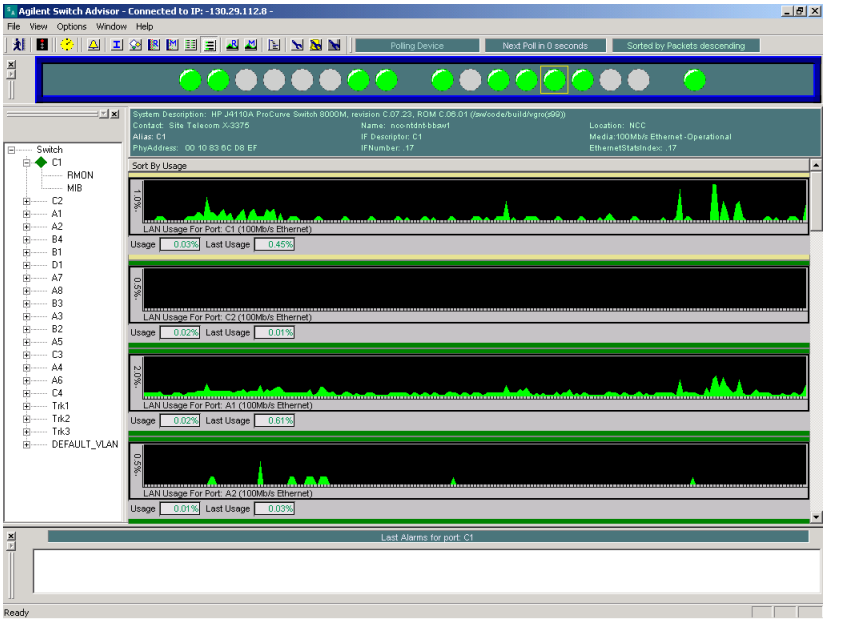
4 To view details about errors that occurred, select the device, then select the "RMON Statistics for selected port" button and view the errors for that port.



5 Select the Traffic Flow button. This view displays all ports showing LAN port usage and its associated percentage of utilization, along with number of packets that were Broadcast or Unicast.



6 Select the Port Usage button. This view graphically displays the utilization level on each port.



The sorting of Packets in descending order is maintained, so you visually see the utilization level of each port in the device under test.

7 Once you have identified one or more ports that require further analysis, select the Configure Alarms button. This view allows you to set up alarms on any port(s).

To set up alarms on any port(s):

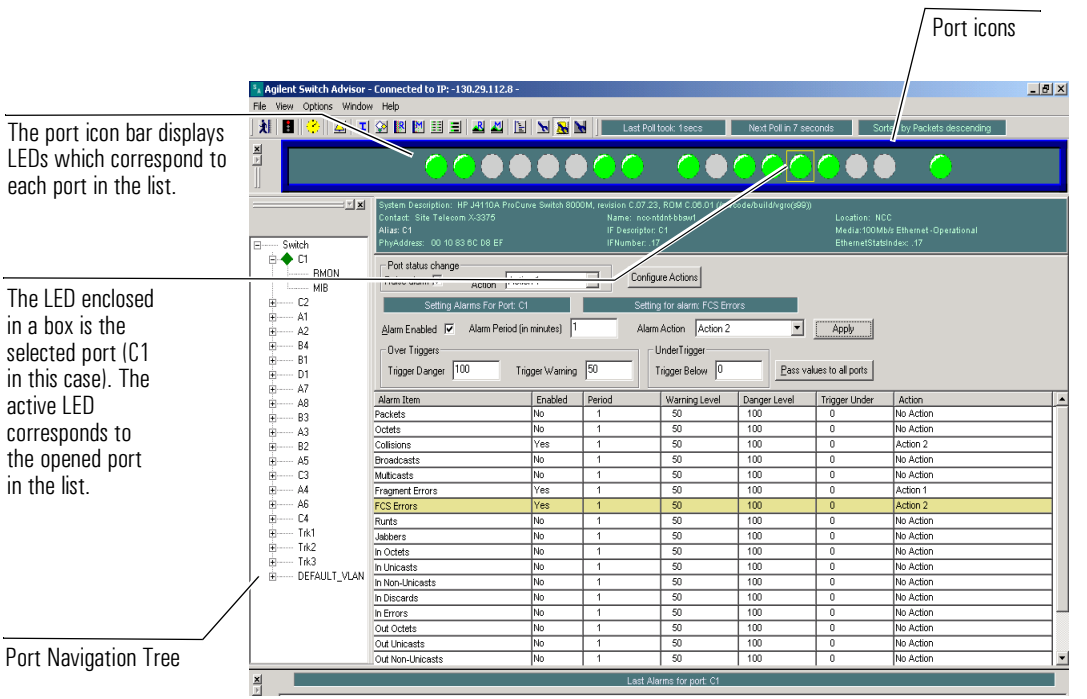
a. Select the port on the port icon bar.

b. Highlight the desired alarm.

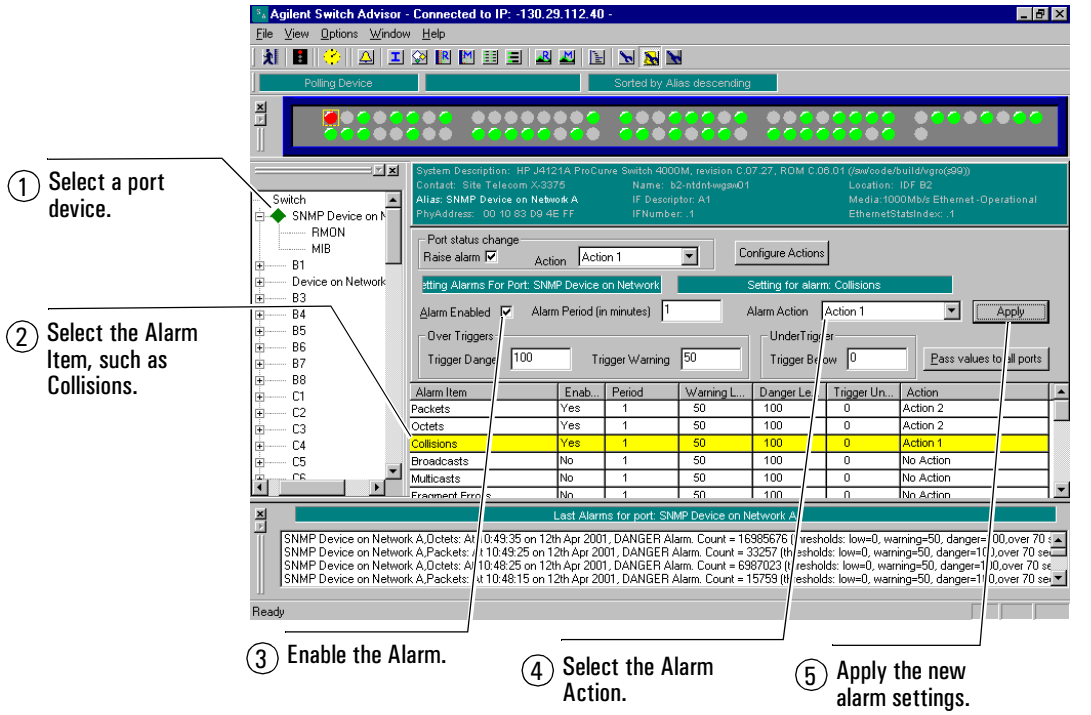
c. Select the Alarm Enabled checkbox.

d. Select the type of alarm under Alarm Action.

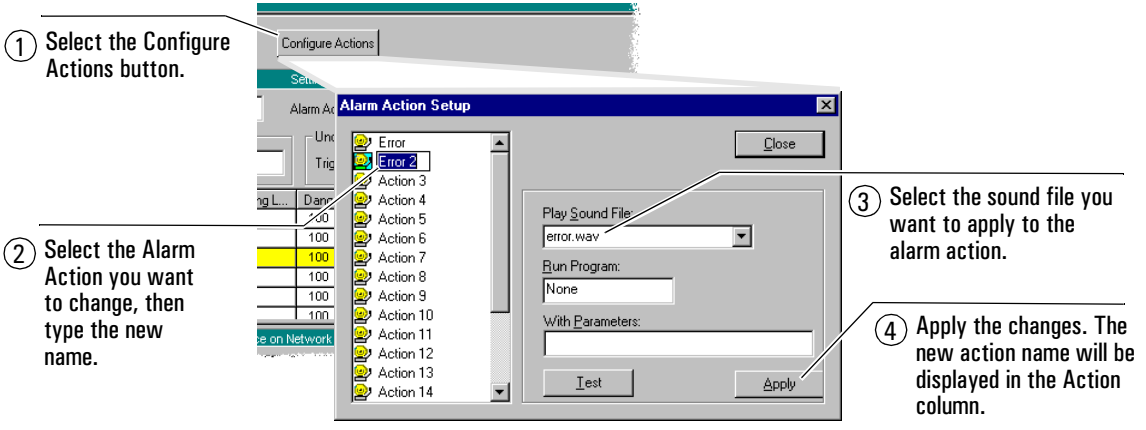
8 Select the Apply button to activate the alarm. This same alarm can now be applied to all ports of the device by selecting the "Pass values to all ports" button.



9 You can customize the alarm actions, as shown here:



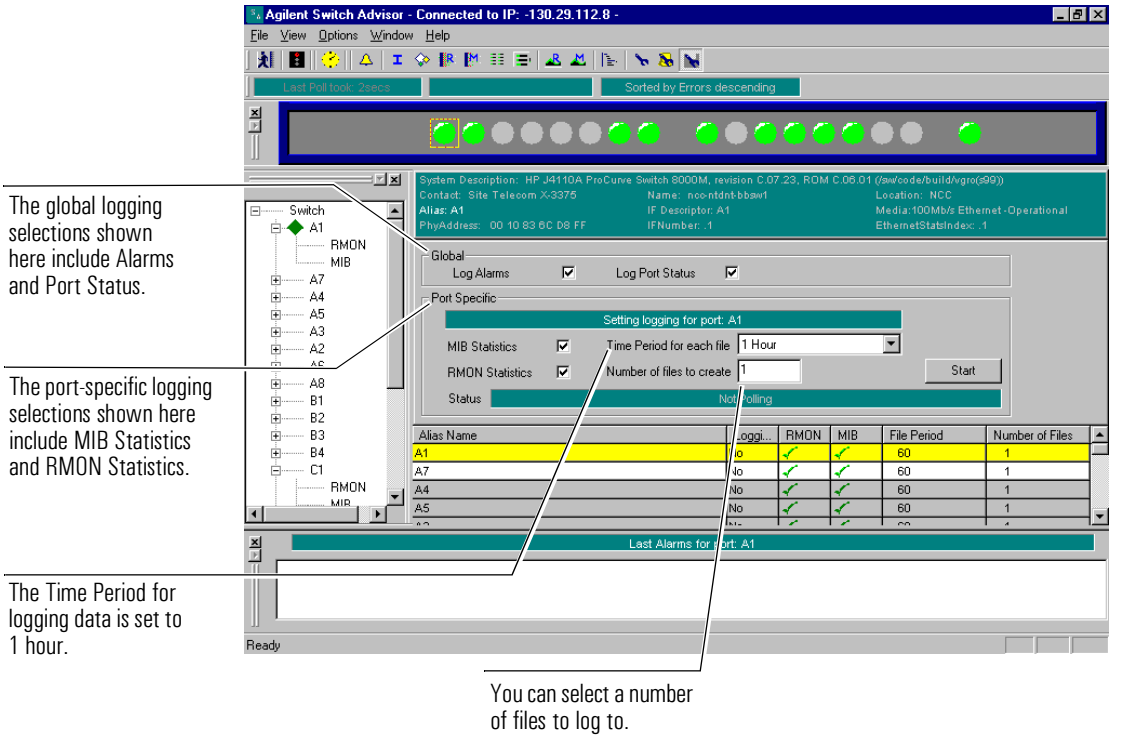
10 You can customize the Alarm Action names, as shown here:



Set Up a Log File

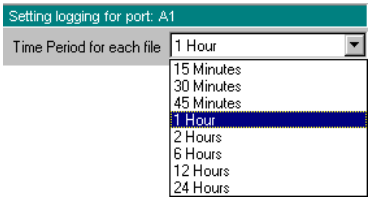
In a final step of troubleshooting, you would set up a Log File to record the statistics on the selected port (or all ports) of the device under test. The log file will be saved in comma-separated variable format (with a .csv extension) so that you can import it into a spreadsheet to further analyze the data.

1 Select the Configure Logging button. In this view you can set up a log file for individual ports.



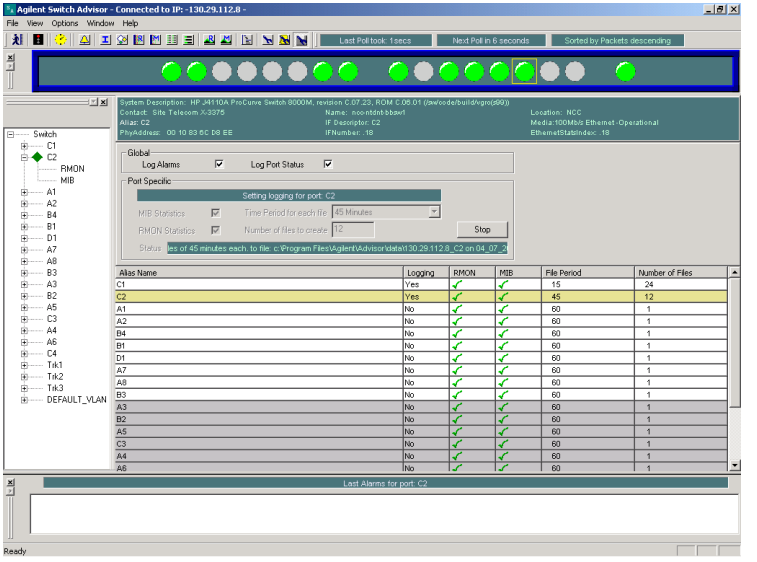
2 You can select to log any combination of the following statistics: MIB, RMON, Port Status, and Alarms. To log statistics, select the desired port on the Switch Advisor port navigation tree, then select the desired statistics you want to log.

3 Set the Time Period for each log file.



4 Set the number of files you want to create.

This example shows port C1 is logging RMON, MIB, Port Status, and Alarms for a period of 15 minutes with 24 files. This is equal to 6 hours of data being collected.



5 When the logging is complete, you can import the data into a spreadsheet to further analyze the data.

Troubleshooting Scenario is Complete

This guide has introduced you to the Switch Advisor and some of its views by stepping through a troubleshooting scenario. By repeating this procedure for each of your SNMP-supported devices, you can quickly assess the health of your switched infrastructure.