

# Monitoring and Analyzing Switch Operation

---

## Contents

Overview .....	B-3
Status and Counters Data .....	B-4
Menu Access To Status and Counters .....	B-5
General System Information .....	B-6
Menu Access .....	B-6
CLI Access .....	B-6
Switch Management Address Information .....	B-7
Menu Access .....	B-7
CLI Access .....	B-7
Module Information .....	B-8
Menu: Displaying Port Status .....	B-8
CLI Access .....	B-8
Port Status .....	B-9
Menu: Displaying Port Status .....	B-9
CLI Access .....	B-9
Web Access .....	B-9
Viewing Port and Trunk Group Statistics and Flow Control Status .....	B-10
Menu Access to Port and Trunk Statistics .....	B-11
CLI Access To Port and Trunk Group Statistics .....	B-12
Web Browser Access To View Port and Trunk Group Statistics .....	B-12
Viewing the Switch's MAC Address Tables .....	B-13
Menu Access to the MAC Address Views and Searches .....	B-14
CLI Access for MAC Address Views and Searches .....	B-16
Spanning Tree Protocol (STP) Information .....	B-18
Menu Access to STP Data .....	B-18
CLI Access to STP Data .....	B-19
Internet Group Management Protocol (IGMP) Status .....	B-20
VLAN Information .....	B-21
Web Browser Interface Status Information .....	B-23
Port and Static Trunk Monitoring Features .....	B-24

**Monitoring and Analyzing Switch Operation**  
Contents

Switch 6108 and Series 4100gl Switches .....	B-24
Series 2600, 2600-PWR, and 2800 Switches .....	B-24
Menu: Configuring Port and Static Trunk Monitoring .....	B-25
CLI: Configuring Port and Static Trunk Monitoring .....	B-27
Web: Configuring Port Monitoring .....	B-29

## Overview

The switch has several built-in tools for monitoring, analyzing, and troubleshooting switch and network operation:

- **Status:** Includes options for displaying general switch information, management address data, port status, port and trunk group statistics, MAC addresses detected on each port or VLAN, and STP, IGMP, and VLAN data (*page B-4*).
- **Counters:** Display details of traffic volume on individual ports (*page B-10*).
- **Event Log:** Lists switch operating events (*“Using Logging To Identify Problem Sources” on page C-23*).
- **Alert Log:** Lists network occurrences detected by the switch—in the Status | Overview screen of the web browser interface (*page 5-6*).
- **Configurable trap receivers:** Uses SNMP to enable management stations on your network to receive SNMP traps from the switch (*“SNMP Notification and Traps” on page 13-18*).
- **Port monitoring (mirroring):** Copy all traffic from the specified ports to a designated monitoring port (*page B-24*).

---

### Note

Link test and ping test—analysis tools in troubleshooting situations—are described in chapter 18, “Troubleshooting”. See page C-35.

## Status and Counters Data

This section describes the status and counters screens available through the switch console interface and/or the web browser interface.

---

### Note

You can access all console screens from the web browser interface via Telnet to the console. Telnet access to the switch is available in the Device View window under the **Configuration** tab.

---

Status or Counters Type	Interface	Purpose	Page
Menu Access to Status and Counters	Menu	Access menu interface for status and counter data.	<b>B-5</b>
General System Information	Menu, CLI	Lists switch-level operating information.	<b>B-6</b>
Management Address Information	Menu, CLI	Lists the MAC address, IP address, and IPX network number for each VLAN or, if no VLANs are configured, for the switch.	<b>B-7</b>
Module Information	Menu, CLI	Lists the module type and description for each slot in which a module is installed.	<b>B-8</b>
Port Status	Menu, CLI, Web	Displays the operational status of each port.	<b>B-9</b>
Port and Trunk Statistics and Flow Control Status	Menu, CLI, Web	Summarizes port activity and lists per-port flow control status.	<b>B-10</b>
VLAN Address Table	Menu, CLI	Lists the MAC addresses of nodes the switch has detected on specific VLANs, with the corresponding switch port.	<b>B-13</b>
Port Address Table	Menu, CLI	Lists the MAC addresses that the switch has learned from the selected port.	<b>B-13</b>
STP Information	Menu, CLI	Lists Spanning Tree Protocol data for the switch and for individual ports. If VLANs are configured, reports on a per-VLAN basis.	<b>B-18</b>
IGMP Status	Menu, CLI	Lists IGMP groups, reports, queries, and port on which querier is located.	<b>B-20</b>
VLAN Information	Menu, CLI	For each VLAN configured in the switch, lists 802.1Q VLAN ID and up/down status.	<b>B-21</b>
Port Status Overview and Port Counters	Web	Shows port utilization and counters, and the Alert Log.	<b>B-23</b>

---

## Menu Access To Status and Counters

Beginning at the Main Menu, display the Status and Counters menu by selecting:

### 1. Status and Counters

```
===== CONSOLE - MANAGER MODE =====  
Status and Counters Menu  
  
1. General System Information  
2. Switch Management Address Information  
3. Module Information  
4. Port Status  
5. Port Counters  
6. Vlan Address Table  
7. Port Address Table  
8. Spanning Tree Information  
0. Return to Main Menu...  
  
Displays switch management information including software versions.  
To select menu item, press item number, or highlight item and press <Enter>.
```

**Figure B-1. The Status and Counters Menu**

Each of the above menu items accesses the read-only screens described on the following pages. Refer to the online help for a description of the entries displayed in these screens.

## General System Information

### Menu Access

From the console Main Menu, select:

#### 1. Status and Counters

#### 1. General System Information

```
===== CONSOLE - MANAGER MODE =====
                        Status and Counters - General System Information

System Contact      :
System Location     :

Firmware revision   : G.05.01           Base MAC Addr      : 0001e7-a09900
ROM Version         : G.05.00           Serial Number      : S2600017409

Up Time             : 2 hours            Memory - Total     : 24,588,136
CPU Util (%)        : 1                  Free               : 19,613,568

IP Mgmt - Pkts Rx   : 0                  Packet - Total     : 832
           Pkts Tx   : 0                  Buffers  Free      : 793
                                           Lowest   : 769
                                           Missed   : 0

Actions->  Back      Help
Return to previous screen.
Use arrow keys to change action selection and <Enter> to execute action.
```

**Figure B-2. Example of General Switch Information**

This screen dynamically indicates how individual switch resources are being used. See the online Help for details.

### CLI Access

**Syntax:** show system-information

## Switch Management Address Information

### Menu Access

From the Main Menu, select:

**1 Status and Counters . . .**

**2. Switch Management Address Information**

```
===== CONSOLE - MANAGER MODE =====
                        Status and Counters - Management Address Information

Time Server Address : Disabled

  VLAN Name      MAC Address      IP Address
-----
DEFAULT VLAN    0001e7-a09900    10.28.227.101
VLAN-22         0001e7-a09901    Disabled
VLAN-33         0001e7-a09902    Disabled

Actions->      Back      Help
Return to previous screen.
Use arrow keys to change action selection and <Enter> to execute action.
```

**Figure B-3. Example of Management Address Information with VLANs Configured**

This screen displays addresses that are important for management of the switch. If multiple VLANs are *not* configured, this screen displays a single IP address for the entire switch. See the online Help for details.

### CLI Access

**Syntax:** show management

## Module Information

Use this feature to determine which slots have modules installed and which type(s) of modules are installed.

### Menu: Displaying Port Status

From the Main Menu, select:

1. Status and Counters . . .
3. Module Information

```
=====-- CONSOLE - MANAGER MODE -----  
Status and Counters - Module Information  
  
Slot      Module Type      Module Description  
-----  
A          HP J4863A 10/100/1000Base-TX module  
B          HP J4863A 10/100/1000Base-TX module  
C          HP J4863A 10/100/1000Base-TX module  
D          HP J4863A 10/100/1000Base-TX module  
E          HP J4864A Transceiver module  
F          Slot Available  
G          Slot Available  
H          Slot Available  
  
Actions->  Back      Help  
  
Return to previous screen.  
Use up/down arrow keys to scroll to other entries, left/right arrow keys to  
change action selection, and <Enter> to execute action.
```

Figure B-4. Example of Module Information in the Menu Interface

### CLI Access

**Syntax:** show module



## Port Status

The web browser interface and the console interface show the same port status data.

### Menu: Displaying Port Status

From the Main Menu, select:

1. **Status and Counters . . .**
4. **Port Status**

```

HPswitch
----- CONSOLE - MANAGER MODE -----
                Status and Counters - Port Status

Port      Type      Intrusion
Alert     Enabled  Status   Mode     Flow
-----
A1      10/100TX  No       Yes      Down    10FDx   off
A2      10/100TX  No       Yes      Down    10FDx   off
A3      10/100TX  No       Yes      Down    10FDx   off
A4      10/100TX  No       Yes      Down    10FDx   off
A5      10/100TX  No       Yes      Down    10FDx   off
A6      10/100TX  No       Yes      Down    10FDx   off
A7      10/100TX  No       Yes      Down    10FDx   off
A8      10/100TX  No       Yes      Down    10FDx   off
A9      10/100TX  No       Yes      Down    10FDx   off
A10     10/100TX  No       Yes      Down    10FDx   off
A11     10/100TX  No       Yes      Down    10FDx   off

Actions->  Back      Intrusion log  Help

Return to previous screen.
Use up/down arrow keys to scroll to other entries, left/right arrow keys to
change action selection, and <Enter> to execute action.
    
```

**Figure B-5. Example of Port Status on the Menu Interface**

### CLI Access

**Syntax:** show interfaces brief

### Web Access

1. Click on the **Status** tab.
2. Click on **Port Status**.

## Viewing Port and Trunk Group Statistics and Flow Control Status

Feature	Default	Menu	CLI	Web
viewing port and trunk statistics for all ports, and flow control status	n/a	page B-11	page B-12	page B-12
viewing a detailed summary for a particular port or trunk	n/a	page B-11	page B-12	page B-12
resetting counters	n/a	page B-11	page B-12	page B-12

These features enable you to determine the traffic patterns for each port since the last reboot or reset of the switch. You can display:

- A general report of traffic on all LAN ports and trunk groups in the switch, along with the per-port flow control status (On or Off).
- A detailed summary of traffic on a selected port or trunk group.

You can also reset the counters for a specific port.

The menu interface and the web browser interface provide a dynamic display of counters summarizing the traffic on each port. The CLI lets you see a static “snapshot” of port or trunk group statistics at a particular moment.

As mentioned above, rebooting or resetting the switch resets the counters to zero. You can also reset the counters to zero for the current session. This is useful for troubleshooting. See the “Note On Reset”, below.

---

### Note on Reset

The **Reset** action resets the counter display to zero for the current session, but does not affect the cumulative values in the actual hardware counters. (In compliance with the SNMP standard, the values in the hardware counters are not reset to zero unless you reboot the switch.) Thus, using the **Reset** action resets the displayed counters to zero for the current session only. Exiting from the console session and starting a new session restores the counter displays to the accumulated values in the hardware counters.

## Menu Access to Port and Trunk Statistics

To access this screen from the Main Menu, select:

1. Status and Counters . . .
4. Port Counters

```

=====  CONSOLE - MANAGER MODE  =====
                        Status and Counters - Port Counters


Port      Total Bytes  Total Frames  Errors Rx  Drops Tx  Flow
-----  -
A1      195,072      323           0           0      off
A2      651,816      871           0           0      off
A3      290,163      500           0           0      off
A4      260,134      501           0           0      off
A5-Trkl  859,363      5147          0           0      off
A6-Trkl  674,574      1693          0           0      off
C1       26,554        246           0           0      off
C2      113,184        276           0           0      off
C3         0           0             0           0      off

Actions->  Back      Show details  Reset      Help

Return to previous screen.
Use up/down arrow keys to scroll to other entries, left/right arrow keys to
change action selection, and <Enter> to execute action.

```

**Figure B-6. Example of Port Counters on the Menu Interface**

To view details about the traffic on a particular port, use the  key to highlight that port number, then select **Show Details**. For example, selecting port A2 displays a screen similar to figure B-7, below.

```

=====  CONSOLE - MANAGER MODE  =====
                        Status and Counters - Port Counters - Port A2

Link Status      : up

Bytes Rx         : 630,746           Bytes Tx         : 21,070
Unicast Rx       : 568               Unicast Tx       : 285
Bcast/Mcast Rx   : 18               Bcast/Mcast Tx   : 0

PCS Rx           : 0                 Drops Tx         : 0
Alignment Rx     : 0                 Collisions Tx    : 0
Runts Rx         : 0                 Late Colln Tx   : 0
Giants Rx        : 0                 Excessive Colln : 0
Total Rx Errors  : 0                 Deferred Tx      : 0

Actions->  Back      Reset      Help

Return to previous screen.
Use arrow keys to change action selection and <Enter> to execute action.

```

**Figure B-7. Example of the Display for Show details on a Selected Port**

This screen also includes the **Reset** action for the current session. (See the “Note on Reset” on page B-10.)

## CLI Access To Port and Trunk Group Statistics

**To Display the Port Counter Summary Report.** This command provides an overview of port activity for all ports on the switch.

**Syntax:** show interfaces

**To Display a Detailed Traffic Summary for Specific Ports.** This command provides traffic details for the port(s) you specify.

**Syntax:** show interfaces [ethernet] < port-list >

**To Reset the Port Counters for a Specific Port.** This command resets the counters for the specified ports to zero for the current session. (See the “Note on Reset” on page B-10.)

**Syntax:** clear statistics < [ethernet] port-list >

## Web Browser Access To View Port and Trunk Group Statistics

1. Click on the **Status** tab.
2. Click on **Port Counters**.
3. To reset the counters for a specific port, click anywhere in the row for that port, then click on **Refresh**.

## Viewing the Switch's MAC Address Tables

Feature	Default	Menu	CLI	Web
viewing MAC addresses on all ports on a specific VLAN	n/a	page B-14	page B-16	—
viewing MAC addresses on a specific port	n/a	page B-15	page B-16	—
searching for a MAC address	n/a	page B-15	page B-17	—

These features help you to view:

- The MAC addresses that the switch has learned from network devices attached to the switch
- The port on which each MAC address was learned

## Menu Access to the MAC Address Views and Searches

**Per-VLAN MAC-Address Viewing and Searching.** This feature lets you determine which switch port on a selected VLAN is being used to communicate with a specific device on the network. The per-VLAN listing includes:

- The MAC addresses that the switch has learned from network devices attached to the switch
- The port on which each MAC address was learned

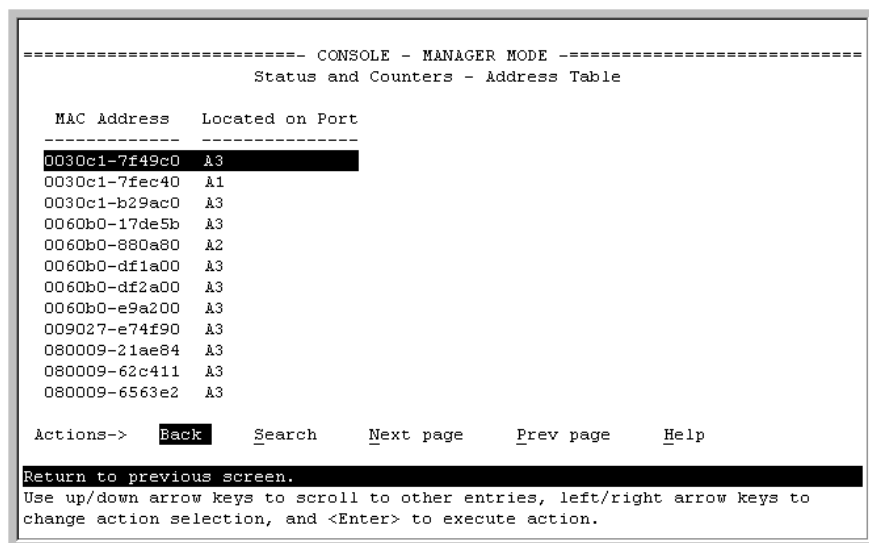
1. From the Main Menu, select:

- 1. Status and Counters**
  - 5. VLAN Address Table**

2. The switch then prompts you to select a VLAN.



3. Use the Space bar to select the VLAN you want, then press [Enter]. The switch then displays the MAC address table for that VLAN:



**Figure B-8. Example of the Address Table**

To page through the listing, use **Next page** and **Prev page**.

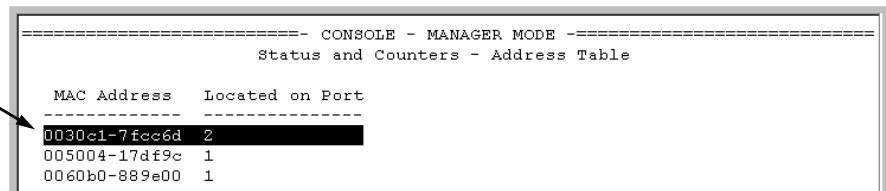
**Finding the Port Connection for a Specific Device on a VLAN.** This feature uses a device's MAC address that you enter to identify the port used by that device.

1. Proceeding from figure B-8, press **[S]** (for **S**earch), to display the following prompt:

Enter MAC address: \_

2. Type the MAC address you want to locate and press **[Enter]**. The address and port number are highlighted if found. If the switch does not find the MAC address on the currently selected VLAN, it leaves the MAC address listing empty.

Located MAC  
Address and  
Corresponding  
Port Number



```
===== CONSOLE - MANAGER MODE =====
                        Status and Counters - Address Table
-----
MAC Address   Located on Port
-----
0030c1-7fcc6d 2
005004-17df9c 1
0060b0-889e00 1
```

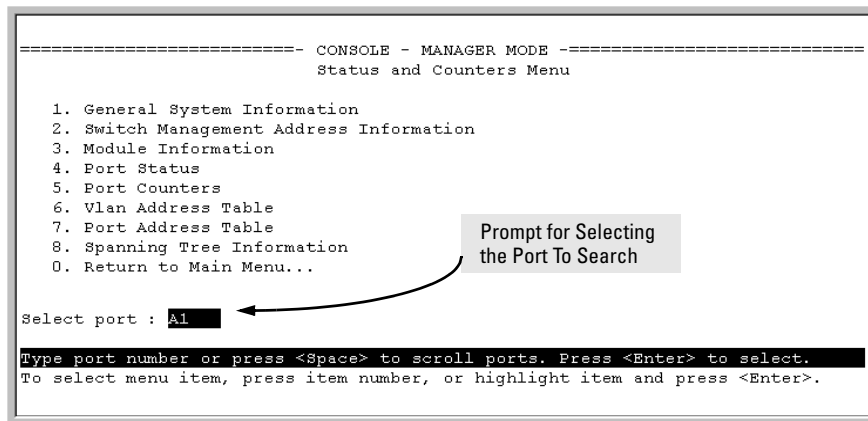
**Figure B-9. Example of Menu Indicating Located MAC Address**

3. Press **[P]** (for **P**rev page) to return to the full address table listing.

**Port-Level MAC Address Viewing and Searching.** This feature displays and searches for MAC addresses on the specified port instead of for all ports on the switch.

1. From the Main Menu, select:

- 1. Status and Counters**
  - 7. Port Address Table**



**Figure B-10. Listing MAC Addresses for a Specific Port**

2. Use the Space bar to select the port you want to list or search for MAC addresses, then press **[Enter]** to list the MAC addresses detected on that port.

**Determining Whether a Specific Device Is Connected to the Selected Port.** Proceeding from step 2, above:

1. Press **[S]** (for **S**earch), to display the following prompt:  
Enter MAC address: \_
2. Type the MAC address you want to locate and press **[Enter]**. The address is highlighted if found. If the switch does not find the address, it leaves the MAC address listing empty.
3. Press **[P]** (for **P**rev page) to return to the previous per-port listing.

**CLI Access for MAC Address Views and Searches**

**Syntax:** show mac-address  
[vlan <vlan-id >]  
[ethernet]<port-list >  
[<mac-addr >]

**To List All Learned MAC Addresses on the Switch, with The Port Number on Which Each MAC Address Was Learned.**

```
ProCurve> show mac-address
```

**To List All Learned MAC Addresses on one or more ports, with Their**



**Corresponding Port Numbers.** For example, to list the learned MAC address on ports A1 through A4 and port A6:

```
ProCurve> show mac-address a1-a4,a6
```

**To List All Learned MAC Addresses on a VLAN, with Their Port Numbers.** This command lists the MAC addresses associated with the ports for a given VLAN. For example:

```
ProCurve> show mac-address vlan 100
```

---

**Note**

---

The switch operates with a multiple forwarding database architecture. For more on this topic, refer to “Duplicate MAC Addresses Across VLANs” on page C-21

**To Find the Port On Which the Switch Learned a Specific MAC Address.** For example, to find the port on which the switch learns a MAC address of 080009-21ae84:

```
ProCurve# show mac-address 080009-21ae84
Status and Counters - Address Table - 080009-21ae84
MAC Address : 080009-21ae84
Located on Port : A2
```

**Figure B-11. List the Port on which the Switch Deleted a MAC Address**

## Spanning Tree Protocol (STP) Information

### Menu Access to STP Data

From the Main Menu, select:

1. Status and Counters . . .
8. Spanning Tree Information

STP must be enabled on the switch to display the following data:

```
----- CONSOLE - MANAGER MODE -----  
                Status and Counters - Spanning Tree Information  
  
STP Enabled           : Yes  
Switch Priority       : 32,768  
Hello Time           : 2  
Max Age              : 20  
Forward Delay        : 15  
  
Topology Change Count : 3  
Time Since Last Change : 4 mins  
  
Root MAC Address     : 0030c1-7fcc40  
Root Path Cost       : 0  
Root Port            : This switch is root  
Root Priority         : 32768  
  
Actions->   Back   Show ports   Help  
  
Return to previous screen.  
Use arrow keys to change action selection and <Enter> to execute action.
```

**Figure B-12. Example of Spanning Tree Information**

Use this screen to determine current switch-level STP parameter settings and statistics.

You can use the **Show ports** action at the bottom of the screen to display port-level information and parameter settings for each port in the switch (including port type, cost, priority, operating state, and designated bridge) as shown in figure B-13.

```
----- CONSOLE - MANAGER MODE -----  
Status and Counters - Spanning Tree - Port Information  
  
Port      Type      Cost  Priority  State      Designated Bridge  
-----  
A1  100/1000T  5     128  Forwarding 0001e7-a09900  
A2  100/1000T  5     128  Forwarding 0001e7-a09900  
A3  100/1000T  5     128  Disabled  
A4  100/1000T  5     128  Disabled  
A5  100/1000T  5     128  Disabled  
A6  100/1000T  5     128  Disabled  
C1  1000SX     5     128  Forwarding 0001e7-a09900  
C2  1000SX     5     128  Forwarding 0001e7-a09900  
C3  1000SX     5     128  Forwarding 0001e7-a09900  
  
Actions->  Back      Help  
  
Return to previous screen.  
Use up/down arrow keys to scroll to other entries, left/right arrow keys to  
change action selection, and <Enter> to execute action.
```

Figure B-13. Example of STP Port Information

## CLI Access to STP Data

This option lists the STP configuration, root data, and per-port data (cost, priority, state, and designated bridge).

**Syntax:** show spanning-tree

ProCurve> show spanning-tree

## Internet Group Management Protocol (IGMP) Status

The switch uses the CLI to display the following IGMP status on a per-VLAN basis:

Show Command	Output
show ip igmp	Global command listing IGMP status for all VLANs configured in the switch: <ul style="list-style-type: none"><li>• VLAN ID (VID) and name</li><li>• Active group addresses per VLAN</li><li>• Number of report and query packets per group</li><li>• Querier access port per VLAN</li></ul>
show ip igmp <vlan-id>	Per-VLAN command listing above IGMP status for specified VLAN (VID)
show ip igmp group <ip-addr>	Lists the ports currently participating in the specified group, with port type, Access type, Age Timer data and Leave Timer data.

For example, suppose that **show ip igmp** listed an IGMP group address of 224.0.1.22. You could get additional data on that group by executing the following:

```
ProCurve>show ip igmp group 224.0.1.22
IGMP ports for group 224.0.1.22
Port Type      Access      Age Timer  Leave Timer
-----
A3  10/100TX  host       0          0
```

Figure B-14. Example of IGMP Group Data

## VLAN Information

The switch uses the CLI to display the following VLAN status:

**Syntax:** show vlan

*Lists:*

- *Maximum number of VLANs to support*
- *Existing VLANs*
- *Status (static or dynamic)*
- *Primary VLAN*

**Syntax:** show vlan < vlan-id >

For the specified VLAN, lists:

- Name, VID, and status (static/dynamic)
- Per-Port mode (tagged, untagged, forbid, no/auto)
- "Unknown VLAN" setting (Learn, Block, Disable)
- Port status (up/down)

For example, suppose that your switch has the following VLANs:

<b>Ports</b>	<b>VLAN</b>	<b>VID</b>
1 - 12	DEFAULT_VLAN	1
1, 2	VLAN-33	33
3, 4	VLAN-44	44

The next three figures show how you could list data on the above VLANs.

### Listing the VLAN ID (VID) and Status for ALL VLANs in the Switch.

```
ProCurve > show vlan
Status and Counters - VLAN Information
VLAN support : Yes
Maximum VLANs to support : 9
Primary VLAN: DEFAULT_VLAN

802.1Q VLAN ID Name          Status
-----
1          DEFAULT_VLAN  Static
33         VLAN-33     Static
44         VLAN-44     Static
```

Figure B-15. Example of VLAN Listing for the Entire Switch

### Listing the VLAN ID (VID) and Status for Specific Ports.

Because ports A1 and A2 are not members of VLAN-44, it does not appear in this listing.

```
ProCurve > show vlan ports A1-A2
Status and Counters - VLAN Information - for ports A1,A2
802.1Q VLAN ID Name          Status
-----
1          DEFAULT_VLAN  Static
33         VLAN-33     Static
```

Figure B-16. Example of VLAN Listing for Specific Ports

### Listing Individual VLAN Status.

```
ProCurve > show vlan 1
Status and Counters - VLAN Information - Ports - VLAN 1
802.1Q VLAN ID : 1
Name           : DEFAULT_VLAN
Status        : Static

Port Information Mode      Unknown VLAN Status
-----
A1             Untagged Learn        Up
A2             Tagged   Learn         Up
A3             Untagged Learn        Up
A4             Untagged Learn        Down
A5             Untagged Learn        Down
.              .                      .
.              .                      .
.              .                      .
```

Figure B-17. Example of Port Listing for an Individual VLAN

## Web Browser Interface Status Information

The “home” screen for the web browser interface is the Status Overview screen, as shown below. As the title implies, it provides an overview of the status of the switch, including summary graphs indicating the network utilization on each of the switch ports, symbolic port status indicators, and the Alert Log, which informs you of any problems that may have occurred on the switch.

For more information on this screen, see chapter 5, ‘Using the Web Browser Interface’.

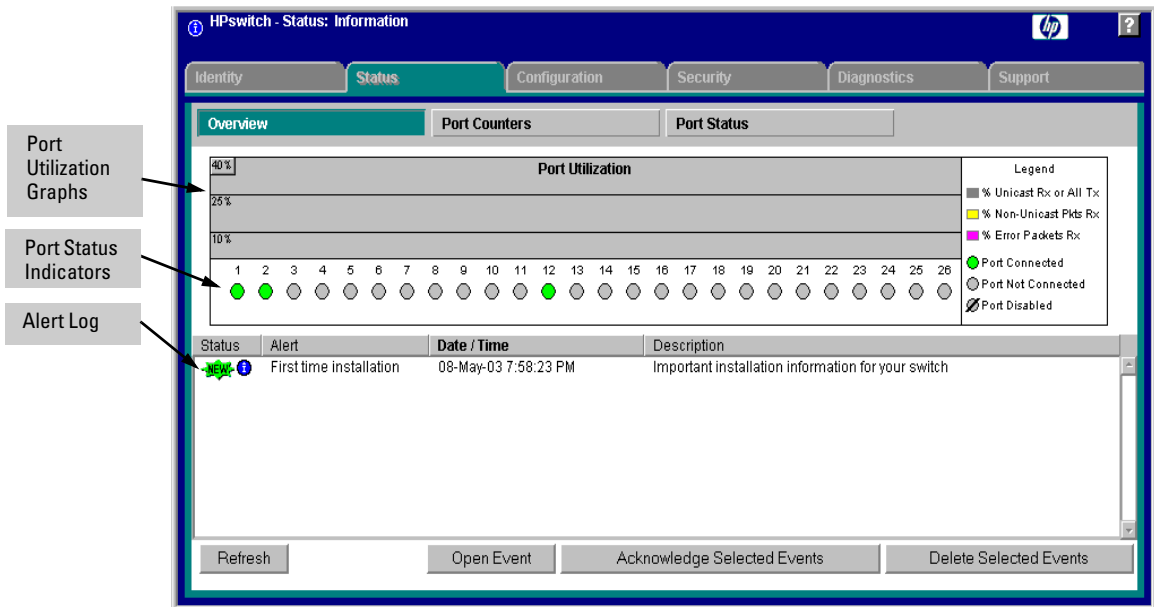


Figure B-18. Example of a Web Browser Interface Status Overview Screen

## Port and Static Trunk Monitoring Features

### Port Monitoring Features

Feature	Default	Menu	CLI	Web
display monitoring configuration	disabled	page B-25	page B-27	page B-29
configure the monitor port(s)	ports: none	page B-25	page B-27	page B-29
selecting or removing ports	none selected	page B-25	page B-28	page B-29

### Switch 6108 and Series 4100gl Switches

You can designate a port for monitoring inbound (ingress) traffic of other ports and of static trunks on the switch. The switch monitors the network activity by copying all traffic inbound on the specified interfaces to the designated monitoring port, to which a network analyzer can be attached.

### Series 2600, 2600-PWR, and 2800 Switches

You can designate a port for monitoring inbound (ingress) and outbound (egress) traffic of other ports and of static trunks on the switch. The switch monitors the network activity by copying all inbound and outbound traffic on the specified interfaces to the designated monitoring port, to which a network analyzer can be attached.

All 2600 Series models will support inbound and outbound port monitoring. However, the 2650 and 2650-PWR require that the “mirror port” be within the same grouping as the monitored ports. On the 2650/2650-PWR switches, ports are grouped as follows: 1-24 + 49, and 25-48 + 50. These groupings represent the connections of ports to NetSwitch ASICs within the models.

The instructions below apply to all of the switches covered in this manual.

---

#### Note

Port trunks cannot be used as a monitoring port.

It is possible, when monitoring multiple interfaces in networks with high traffic levels, to copy more traffic to a monitor port than the link can support. In this case, some packets may not be copied to the monitor port.

---



## Menu: Configuring Port and Static Trunk Monitoring

This procedure describes configuring the switch for monitoring when monitoring is disabled. (If monitoring has already been enabled, the screens will appear differently than shown in this procedure.)

1. From the Console Main Menu, Select:

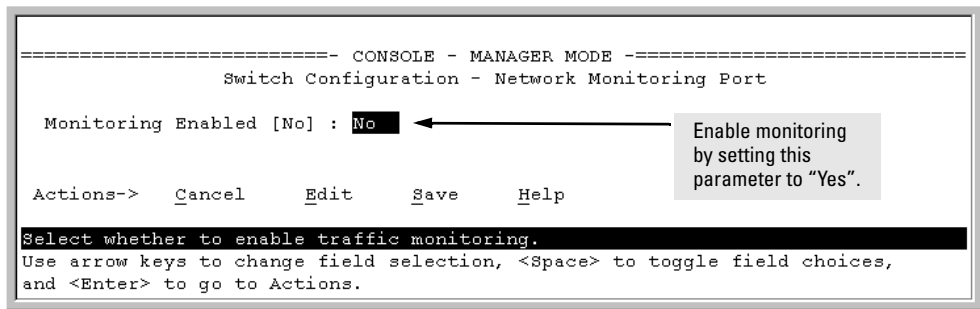
### 2. Switch Configuration...

### 3. Network Monitoring Port

```
=====-- CONSOLE - MANAGER MODE -----=====
                Switch Configuration - Network Monitoring Port

Monitoring Enabled [No] : No
Actions->  Cancel    Edit    Save    Help

Select whether to enable traffic monitoring.
Use arrow keys to change field selection, <Space> to toggle field choices,
and <Enter> to go to Actions.
```



**Figure B-19. The Default Network Monitoring Configuration Screen**

2. In the Actions menu, press [E] (for Edit).
3. If monitoring is currently disabled (the default) then enable it by pressing the Space bar (or [Y]) to select Yes .
4. Press the down arrow key to display a screen similar to the following and move the cursor to the **Monitoring Port** parameter.

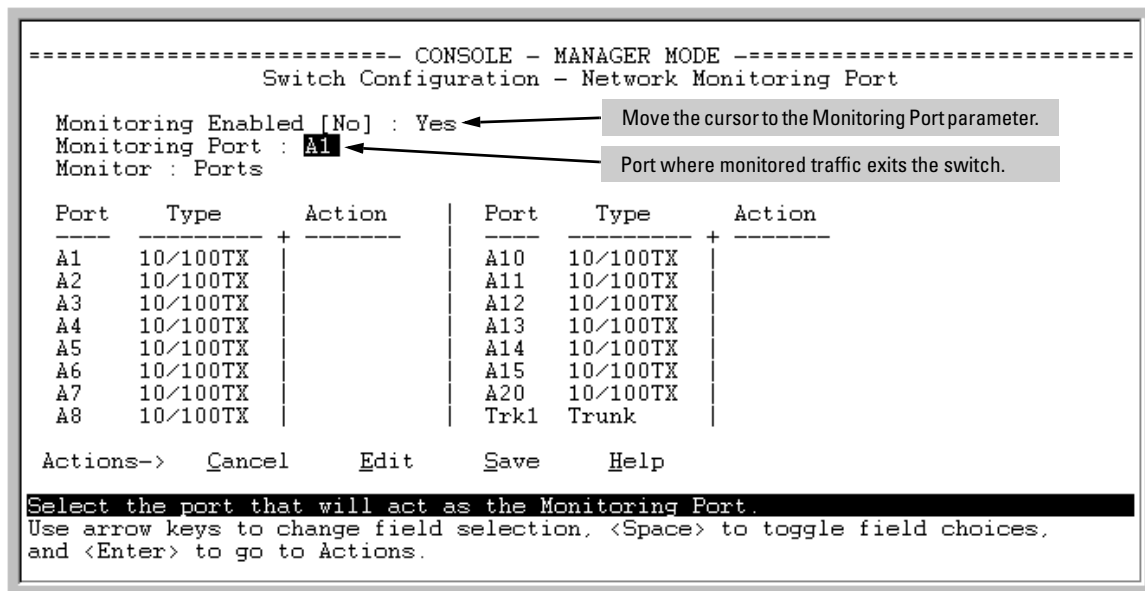


Figure B-20. How To Select a Monitoring Port

5. Use the Space bar to select the port to use for monitoring.
6. Use the down arrow key to move the cursor to the **Action** column for the individual ports and position the cursor at a port you want to monitor.
7. Press the Space bar to select **Monitor** for each port and trunk that you want monitored. (Use the down arrow key to move from one interface to the next in the **Action** column.)
8. When you finish selecting ports to monitor, press **[Enter]**, then press **[S]** (for **Save**) to save your changes and exit from the screen.
9. Return to the Main Menu.

## CLI: Configuring Port and Static Trunk Monitoring

### Port and Static Trunk Monitoring Commands Used in This Section

show monitor	below
mirror-port	page B-27
monitor	page B-28

You must use the following configuration sequence to configure port and static trunk monitoring in the CLI:

1. Assign a monitoring (mirror) port.
2. Designate the port(s) and static trunk(s) to monitor.

**Displaying the Monitoring Configuration.** This command lists the port assigned to receive monitored traffic and the ports and/or trunks being monitored.

**Syntax:** show monitor

For example, if you assign port A6 as the monitoring port and configure the switch to monitor ports A1 - A3, **show monitor** displays the following:

```
ProCurve(config)# show monitor

Network Monitoring Port

Mirror Port: A6 ← Port receiving monitored traffic.

Monitoring sources
-----
A1 ← Monitored Ports
A2
A3
```

**Figure B-21. Example of Monitored Port Listing**

**Configuring the Monitor Port.** This command assigns or removes a monitoring port, and must be executed from the global configuration level. Removing the monitor port disables port monitoring and resets the monitoring parameters to their factory-default settings.

**Syntax:** [no] mirror-port [*port-num*]

For example, to assign port A6 as the monitoring port:

```
ProCurve(config)# mirror-port a6
```

To turn off monitoring:

```
ProCurve (config)# no mirror-port
```

### Selecting or Removing Ports and Static Trunks As Monitoring

**Sources.** After you configure a monitor port you can use either the global configuration level or the interface context level to select ports and static trunks as monitoring sources. You can also use either level to remove monitoring sources.

**Syntax:** [no] interface ethernet < monitor-list > monitor

*where:* < monitor-list > includes port numbers and static trunk names such as a4, c7, b5-b8, and trk1.

Elements in the monitor list can include port numbers and static trunk names at the same time.

For example, with a port such as port A6 configured as the monitoring (mirror) port, you would use either of the following commands to select these ports and static trunks for monitoring:

- A1 through A3, and A5
- Trunks 1 and 2

```
ProCurve (config)# int e a1-a3,a5,trk1,trk2 monitor
ProCurve (config)# int e a1-a3,a5,trk1,trk2
ProCurve (eth-A1-A3,A5,Trk1-Trk2)# monitor
```

From the global config level, selects ports and trunks for monitoring sources.

Selects the interface context level, then selects the ports as monitoring sources.

**Figure B-22. Examples of Selecting Ports and Static Trunks as Monitoring Sources**

```
ProCurve (eth-A1-A3,A5)# no int e a5 monitor
ProCurve (eth-A1-A3,A5)# no monitor
ProCurve (config)# no int e a5 monitor
ProCurve (config)# no int e a1-a3,a5 monitor
```

These two commands show how to disable monitoring at the interface context level for a single port or all ports in an interface context level.

These two commands show how to disable monitoring at the global config level for a single port or a group of ports .

**Figure B-23. Examples of Removing Ports as Monitoring Sources**

## Web: Configuring Port Monitoring

To enable port monitoring:

1. Click on the **Configuration** tab.
2. Click on **Monitor Port**.
3. To monitor one or more ports.
  - a. Click on the radio button for **Monitor Selected Ports**.
  - b. Select the port(s) to monitor.
4. Click on **Apply Changes**.

To remove port monitoring:

1. Click on the **Monitoring Off** radio button.
2. Click on **Apply Changes**.

For web-based Help on how to use the web browser interface screen, click on the [?] button provided on the web browser screen.

*— This page is intentionally unused. —*