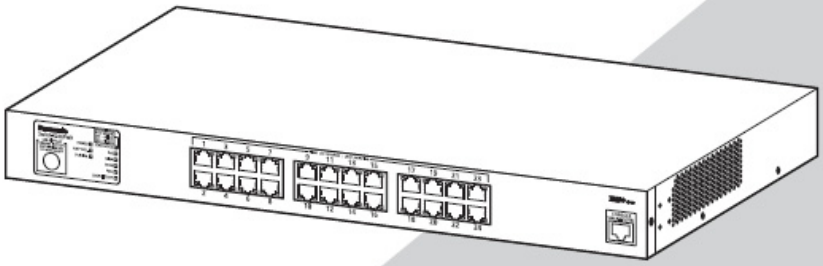
Panasonic®

Operation Manual
for Web Interface

Switch-S24GPWR

Model Number: PN25249

- Thank you for purchasing our product.
- This manual provides important information about safe and proper operations of this Switching Hub.
- **Please read "Important Safety Instructions" on pages 3 to 5 before use.**
- For target model names and numbers, refer to the next page.



The target model for this Operation Manual is as follows.

Model name	Model number	Firmware version
Switch-S24GPWR	PN25249-ID PN25249-TH PN25249-MY PN25249-SG	2.0.0.00 and above

Important Safety Instructions

Please Follow the Instructions

This chapter contains important safety instructions for preventing bodily injury and/or property damage. You are required to follow them.

■Severity of bodily injury and/or property damage, which could result from incorrect use of the Switching Hub, are explained below.

⚠WARNING	This symbol indicates a potential hazard that could result in serious injury or death.
⚠ CAUTION	This symbol indicates safety instructions.Deviation from these instructions could lead to bodily injury and/or property damage.

■The following symbols are used to classify and describe the type of instructions to be observed.

⃠ This symbol is used to alert users to what they must not do.	❗ This symbol is used to alert users to what they must do.

⚠ CAUTION	
⃠	●Do not use power other than AC 100-240 V. Deviation could lead to fire, electric shock, and/or equipment failure. ●Do not handle the power cord with wet hand. Deviation could lead to electric shock and/or equipment failure. ●Do not handle this Switching Hub and connection cables during a thunderstorm. Deviation could lead to electric shock. ●Do not disassemble and/or modify this Switching Hub. Deviation could lead to fire, electric shock, and/or equipment failure. ●Do not damage the power cord. Do not bend too tightly, stretch, twist, bundle with other cord, pinch, put under a heavy object, and/or heat it. Damaged the cord could lead to fire, short, and/or electric shock. ●Do not put foreign objects (such as metal or combustibles) into the opening (such as twisted pair port, console port), and do not drop them inside the Switching Hub. Deviation could lead to fire, electric shock, and/or equipment failure. ●Do not connect equipment other than 10BASE-T/100BASE-TX/ 1000BASE-T to a twisted pair port. Deviation could lead to fire, electric shock, and/or equipment failure.

⚠ WARNING	
	●Do not please this Switching Hub in harsh environment(such as near water, high humid, and/or high dust). Deviation could lead to fire, electric shock, and/or equipment failure. ●Do not place this Switching Hub under direct sunlight and/or high temperature. Deviation could lead to high internal temperature and fire. ●Do not install this Switching Hub at a location with continuous vibration or strong shock, or at an unstable location. The Switching Hub may fall off, leading to injury and/or equipment failure. ●Do not put this Switching Hub into fire. Deviation could lead to explosion and/or fire. ●Do not use the supplied power cord for anything other than this product. Deviation could lead to fire, electric shock, and/or equipment failure. ●Use the bundled power cord (AC 100 - 240V specifications). Deviation could lead to electric shock, malfunction, and/or equipment failure.The warranty does not cover any problems resulting from the use of any power cord other than the one supplied. ●Unplug the power cord in case of equipment failure. Deviation such as keeping connected for a long time could lead to fire. ●Connect this Switching Hub to ground. Deviation could lead to electric shock, malfunction, and/or equipment failure.

⚠ WARNING	
	●Connect the power cord firmly to the power port. Deviation could lead to electric fire, shock, and/or malfunction. ●Unplug the power cord if the Status/ECO LED (Status/ECO mode), blinks in orange (system fault). Deviation, such as keeping connected for a long time, could lead to fire. ●Handle the Switching Hub carefully so that fingers or hands may not be damaged by twisted pair port, console port, or power cord hook block. ●To connect a power receiving equipment supporting IEEE802.3af to this Switching Hub, use a cable rated Cat5e or higher. Using other cables may result in heat generation, ignition, and/or equipment failure.

Important Notice for Measures against Failures Caused by Lightning Strikes

- When connecting devices (especially outdoor devices) prone to lightning strikes, such as network cameras or wireless access points, to a twisted pair port of this Switching Hub, overcurrent and/or overvoltage caused by lightning may affect this Switching Hub through a twisted pair cable, causing equipment failure. When connecting such devices, we strongly recommend installing a lightning arrester (SPD; Surge Protective Device) at the twisted pair port side of the Switching Hub.
- Overcurrent and/or overvoltage caused by lightning may affect this Switching Hub through a power source connected to the power port and/or a grounding line, causing equipment failure. When there is a possibility of overcurrent/overvoltage from lightning affecting this Switching Hub from a power source and/or a grounding line, we strongly recommend installing a lightning arrester (SPD; Surge Protective Device) at the power port side of the Switching Hub.
- In case this Switching Hub fails due to lightning strikes, repair charges will apply even during the warranty period.

Basic Instructions for the Use of This Product

- For inspection and/or repair, consult the retailer.
- Use commercial power supply from a wall socket, which is close and easily accessible to this Switching Hub.
- Unplug the power cord when installing or moving this Switching Hub.
- Unplug the power cord when cleaning this Switching Hub.
- Use this Switching Hub within the specifications. Deviation could lead to malfunction.
- Be sure to confirm that this Switching Hub does not move or fall under the weight of the cables when mounting with magnets. Connect cables while holding the Switching Hub down.
- Securely attach this Switching Hub to the wall with screws when mounting it in a high location.When mounting this Switching Hub with magnets in a high location, a fall of the Switching Hub could lead to injury and/or equipment failure.
- Do not place a floppy disk or magnetic card near the magnet. Deviation could lead to corruption of the data.
- Do not move this Switching Hub when attached to the desk. Deviation could lead to scratches on the painted surface.
- Do not touch the metal terminal of the RJ45 connector, the modular plug of connected twisted pair cable. Do not place charged objects in the proximity of them. Static electricity could lead to equipment failure.
- Do not put the modular plug of the connected twisted pair cable on objects that can carry static charge, such as carpet. Do not place it in the proximity. Static electricity could lead to equipment failure.
- Do not put a strong shock, including dropping, to this Switching Hub. Deviation could lead to equipment failure.
- Before connecting a console cable to the console port, discharge static electricity, for example by touching metal appliance (do not discharge by touching this Switching Hub).

●Do not store and/or use this Switching Hub in the environment with the characteristics listed below.(Store and/or use this Switching Hub in the environment in accordance with the specification.)
- High humidity. Possible spilled liquid (water).
- Dusty. Possible static charge (such as carpet).
- Under direct sunlight.
- Possible condensation. High/low temperature exceeding the specifications environment.
- Strong vibration and/or strong shock.

●Please use this Switching Hub in place where ambient temperature is from 0 to 45 ℃ .Fail- ure to meet the above conditions may result in fire, electric shock, breakdown, and/or malfunction. In addition, do not cover the bent hole of this Switching Hub.Devia- tion could lead to high internal temperature, equipment failure and/or malfunc- tion. If used at a temperature out of the operating temperature range, the protection equipment becomes activated and PoE power supply stops.

●Failure to satisfy the conditions above may result in a fire, electric shock, equipment failure, and/or malfunction. Such events are not covered by the warranty. Do not block the ventilator of the Switching Hub. Blocked ventilator induces the heat accumulation inside, causing equipment failure and/or malfunction. If used at a temperature out of the operating temperature range, the protection equipment becomes activated and PoE power supply stops.

●Do not stack Switching Hubs. When placing Switching Hubs side by side, leave a minimum of 20 mm space them.

●When mounting Switching Hubs in a rack, leave a minimum of 20 mm space between them.

1. Panasonic will not be liable for any damage resulting from the operation not in accordance with this operation manual, or loss of communications, which may or may not be caused by failure and/or malfunction of this device.
2. The contents described in this document may be changed without prior notice.
3. For any questions, please contact your dealer.

* Brands and product names in this document are trademarks or registered trademarks of their respective holders.

Table of Contents

Important Safety Instructions 3
● Basic Instructions for the Use of This Product 6
1. Product Outline 10
2. Web Browser-based Control 11
2.1. System Requirements 11
2.2. Access to Web Control Function 12
2.3. Display of Switch Information 15
3. Switch Configuration 17
3.1. Basic Config 17
3.1.1.Administration Configration 17
3.1.2.IP Config 18
3.1.3.Basic port Configration 19
3.1.4.Extend Port Configration 21
3.1.5.Power Saving Port Configration 22
3.1.6.System Security 23
3.1.7.Telnet Access Limit 24
3.1.8.ID/Password Change 25
3.1.9.MAC Learning 26
3.1.10.FDB Manual Setting 27
3.1.11.FDB Table 28
3.1.12.Time Configration 29
3.1.13.Static ARP Table 30
3.1.14.ARP Table 31
3.2. Advanced Switch Configuration 32
3.2.1.VLAN Management 32
3.2.1.a. VLAN Modification 33
3.2.2.VLAN Creation 34
3.2.3.VLAN Port Config 35
3.2.4.QoS Config 36
3.2.5.Diffserv Config 37
3.2.6.Link Aggregation Config 38
3.2.6.a. Link Aggregation Modification 39
3.2.7.Port Monitoring Configration 40
3.2.8.PoE Port Configration 42
3.2.9.PoE Global Configration 44
3.2.10.PoE Schedule Port List Info 45
3.2.11.PoE Schedule Port List Config 46
3.2.12.PoE Schedule Info 47
3.2.13.PoE Schedule Config 49
3.2.14.Date List Info 53

3.2.15.Date List Config 54
3.2.16.PoE Display Schedule By Port 55
3.2.17.Loop Detection Config 56
3.2.18.Loop History Info 57
3.3. System Tools 58
3.3.1.Software Update 58
3.3.2.Reboot 59
3.3.3.Save Current Config 60
3.3.4.Statistics 61
3.3.5.System log 64
3.3.6.Config File Transfer 66
3.3.7.Ping Execution 67
3.3.8.Exception Handler 68
3.3.9.Watchdog Timer 69
Appendix 70
Specifications 70
Easy IP Address Setup Function 72
Troubleshooting 73
After-sales Service 75

1. Product Outline

Thank you for purchasing Switch-S24GPWR (hereinafter called "this switch"). This manual provides information required to use the Web control function and the e-mail notification function of this switch.

2. Web Browser-based Control

The Web browser-based control function (hereinafter called the Web control function) allows you to configure and monitor this Switching Hub over the network via the user interface of your Web browser. You can also control this Switching Hub from a remote location as if it is at your fingertips because the LED statuses can be displayed.

2.1. System Requirements

You need to configure the network settings before using the Web control function of this Switching Hub.

1. Configuring the System IP Address
   Using the console, configure the IP address of this Switching Hub.
   Select "Basic Switch Configuration..." > "System IP Configuration" > "Set IP Address" to configure the IP address. Then, select "Set Subnet Mask" to configure the subnet mask. If required, select "Set Default Gateway" to configure the default gateway address.
2. Enabling the Web Control Function
   Enable the Web control function of this Switching Hub.
   From the main menu, select "Basic Switch Configuration..." > "System Security Configuration" > "Web Server Status" and the command prompt changes to "Enable or Disable web server(E/D)." Enter "e" to enable the Web control function. "Disable" is the factory default setting.

The terminal must be connected over a network or directly to this Switching Hub. The terminal to access the Switching Hub must have a web browser (Microsoft Internet Explorer 11 (recommend)) and Java RE (Ver. 1.4 or above) installed. Further, the terminal must be connected to the Switching Hub directly or via network.

Note: The active window may not be correctly displayed if you use a proxy. Direct access without a proxy is recommended.

2.2. Access to Web Control Function

To use the Web control function, enter the IP address of this Switching Hub in the URL (such as "Location:" and "Address:") field of your Web browser and press the Enter key. Then, a login screen, similar to **Figure 2-1**, is displayed. Enter your user name and password.
The factory default user name is "manager" and password is "manager."

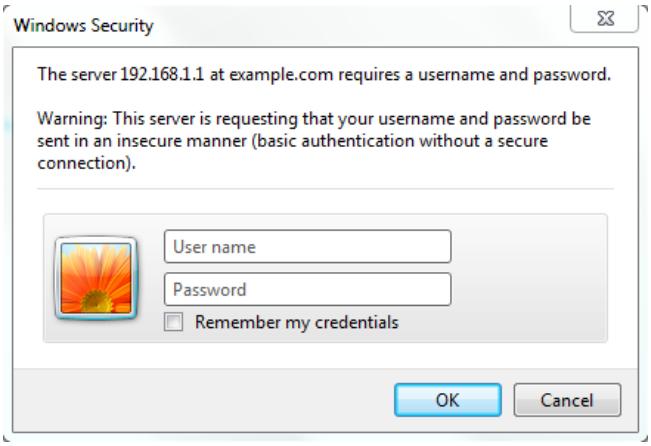


Figure 2-1 Login Screen

Note: If the login screen is not displayed, check the following:
(1) Are the IP address, subnet mask and default gateway of this Switching Hub properly configured?
(2) Is the IP address of this Switching Hub entered on the Web browser?
(3) Is the Web control function enabled?

If you are successfully authenticated, a main screen, similar to **Figure 2-2**, is displayed.

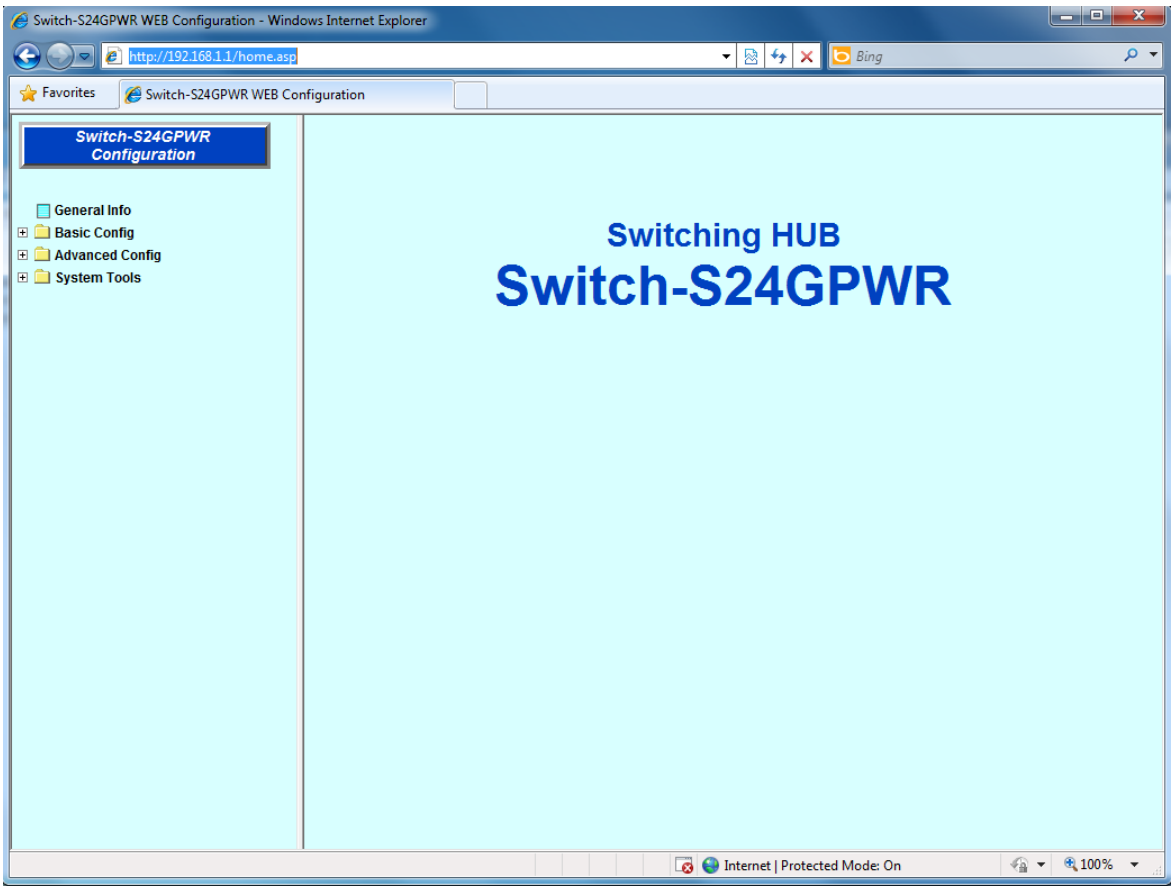


Figure 2-2 Main Screen

The left side of the screen shows a list of actions available to you on this screen.

(1) General Info
Displays a list of basic information of this Switching Hub.

(2) Basic Config
Configure the basic settings such as IP address and port settings.

(3) Advanced Config
Configure the advanced settings such as VLAN, QoS, and IGMP snooping.

(4) System Tools
Use these management tools to update the firmware and browse system logs.

To conduct operation management, it is recommended to conduct the "Basic Config" first, before configuring other advanced settings.

2.3. Display of Switch Information

Selecting "General Information" opens the screen shown in **Figure 2-3**. This screen shows a list of basic information of this Switching Hub.

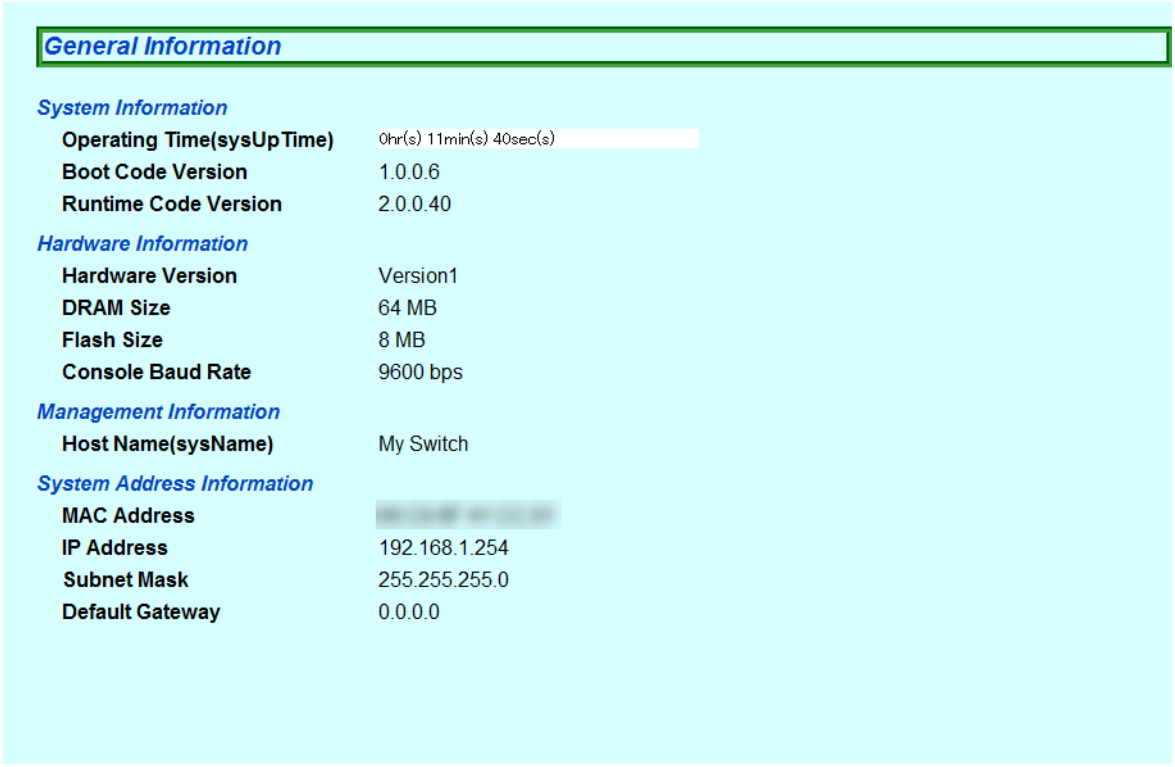


Figure 2-3 General Information

Screen Description

Operationg Time	Displays the cumulative time since the power-on of this Switching Hub.	
Boot Code Version	Displays this Switching Hub's firmware version. * The firmware update described in Section 3.3.1 is available only for runtime codes.	
Runtime Code Version		
Hardware Information	Displays the hardware information.	
	Hardware Version	Displays the hardware version.
	DRAM Size	Displays the size of the installed DRAM.
	Flash Size	Displays the size of the installed Flash memory.
	Console Baud Rate	Displays the baud rate of the console.
Managemenr Information	Configure the items shown here in accordance with "Administration Configration" in Section 3.1.1.	
	Host Name	Displays the Switching Hub name. The factory default setting is blank. For configuration details, refer to Section 3.1.1.
System Address Information	Configure the items shown here in accordance with "IP Config" in Section 3.1.2.	
	MAC Address	Displays the MAC address of this Switching Hub. This value is uniquely assigned to each device and cannot be changed.
	IP Address	Displays the Switching Hub's current IP address. "0.0.0.0" is the factory default setting. For configuration details, refer to Section 3.1.2.
	Subnet Musk	Displays the Switching Hub's current subnet mask. "0.0.0.0" is the factory default setting. For configuration details, refer to Section 3.1.2.
	Default Gateway	Displays the IP address of the router for the default gateway. "0.0.0.0" is the factory default setting. For configuration details, refer to Section 3.1.2.

3. Switch Configuration

After completing configuration, you must save the configuration information in accordance with Section 3.3.3. Unless the configuration information is saved, the settings configured so far will not be reflected after restart.

3.1. Basic Config

3.1.1. Administration Configration

Select "Basic Config" and "Administration Config" to open the screen shown in Figure 3-1. Select this screen to display this Switching Hub's information. On this screen, you can configure the administrative information, such as device name.

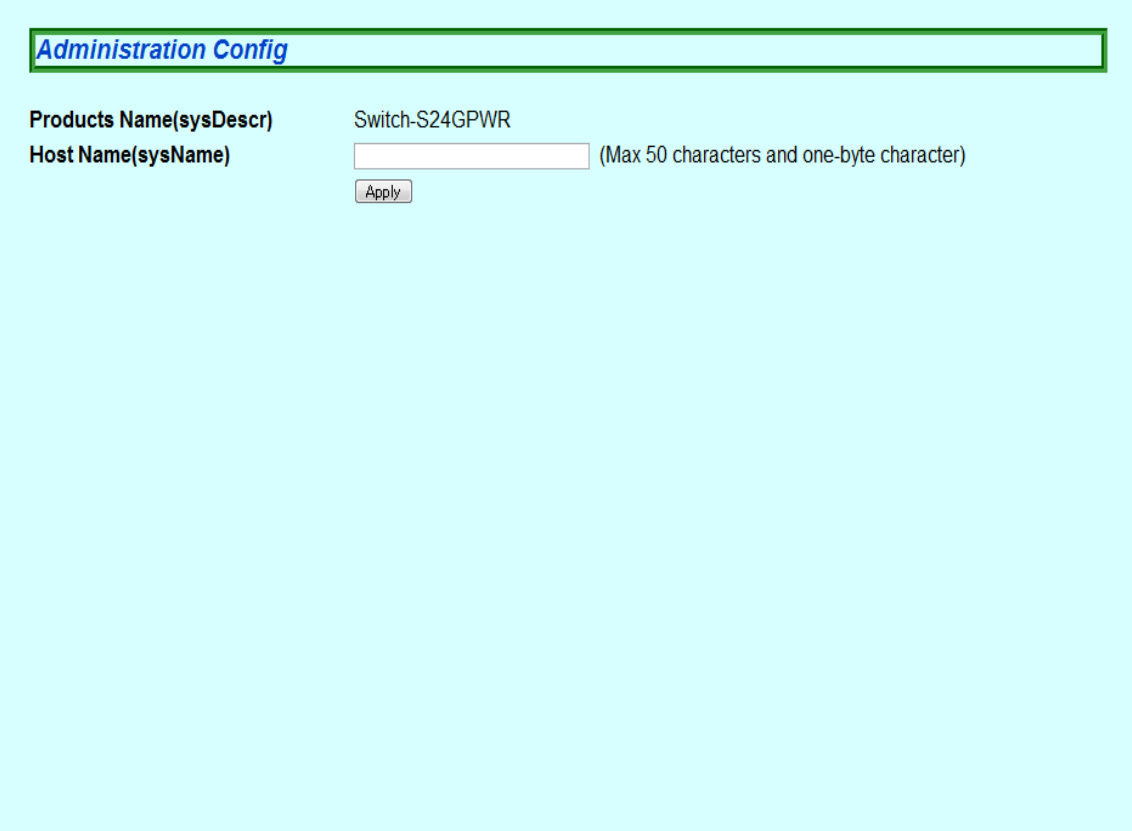


Figure 3-1 Administration Configration

Screen Description

Products Name	Displays the system information. This item is not editable.
Host Name	Displays the system name. The factory default setting is blank.

3.1.2. IP Config

Select "Basic Config" and "IP Config" to open the screen shown in **Figure 3-2**. On this screen, you can configure the IP address of this Switching Hub.

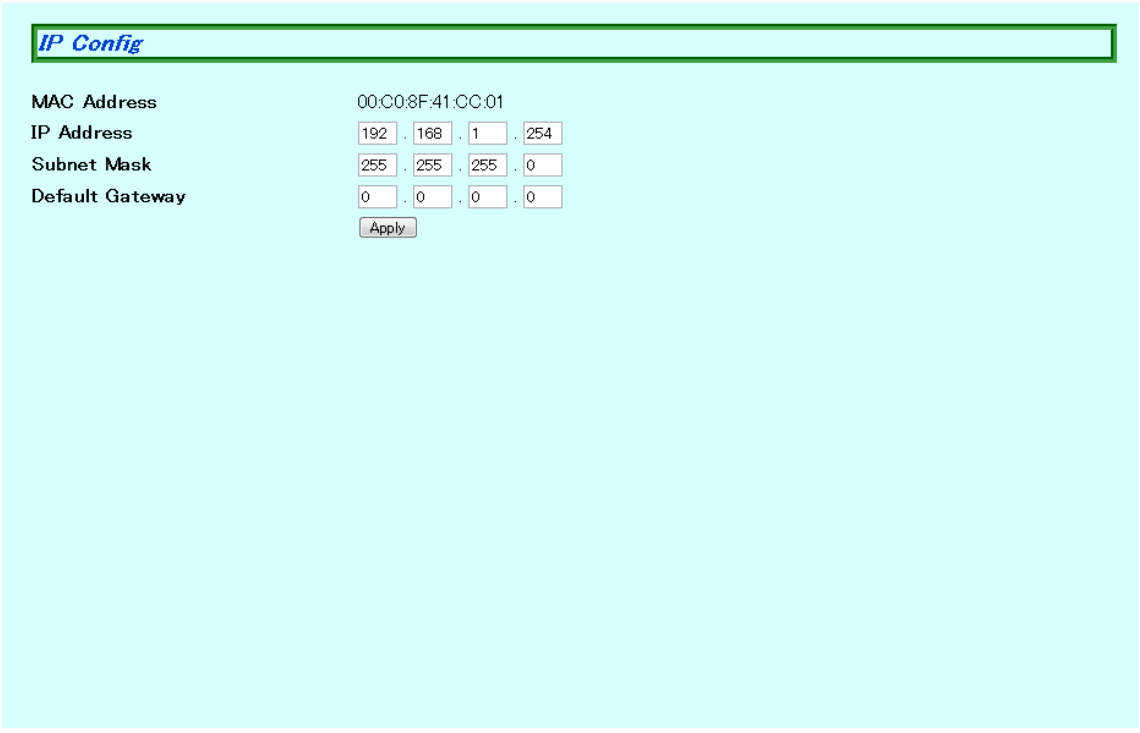


Figure 3-2 IP Config

Screen Description

DHCP Mode	Displays whether the DHCP client is enabled or disabled.	
	Enable	Enables the DHCP client.
	Disable	Disables the DHCP client. (Factory default setting)
MAC Address	Displays the MAC address of this Switching Hub. This item is uniquely assigned to each device and cannot be changed.	
IP Address	Displays the current IP address. "0.0.0.0" is the factory default setting.	
Subnet Mask	Displays the current subnet mask. "0.0.0.0" is the factory default setting.	
Default Gateway	Displays the IP address of the router, set as a current default gateway. "0.0.0.0" is the factory default setting.	

Note: Unless you configure these settings, you cannot use the SNMP management functions and remotely connect to the Switching Hub via Telnet or SSH. Be sure to configure them. If you are unsure, consult the network administrator. All IP addresses on the local network must be unique, and no duplications are allowed. In addition, you need to set the subnet mask and the default gateway, which are the same for other devices on the same subnet using this Switching Hub.

3.1.3. Basic port Configration

Select "Basic Config" and "Port Config" and then "Basic Port Configuration" to open the screen shown in Figure 3-3. On this screen, you can configure port status display settings and mode and other settings.

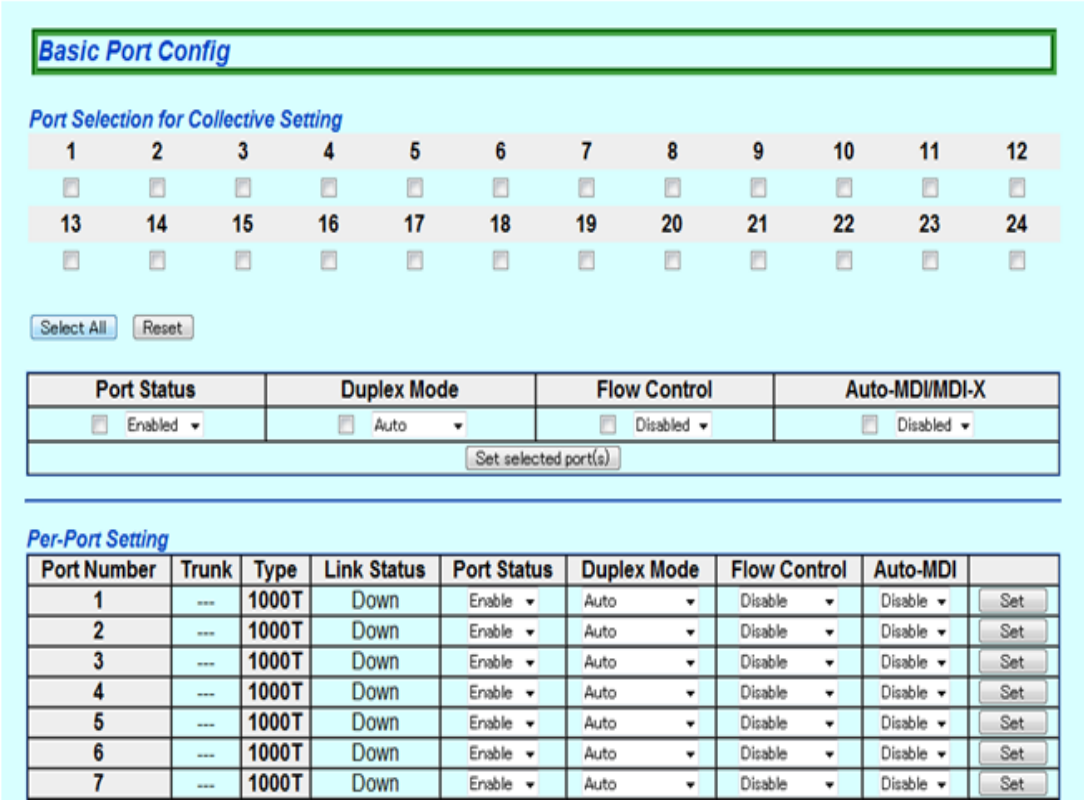


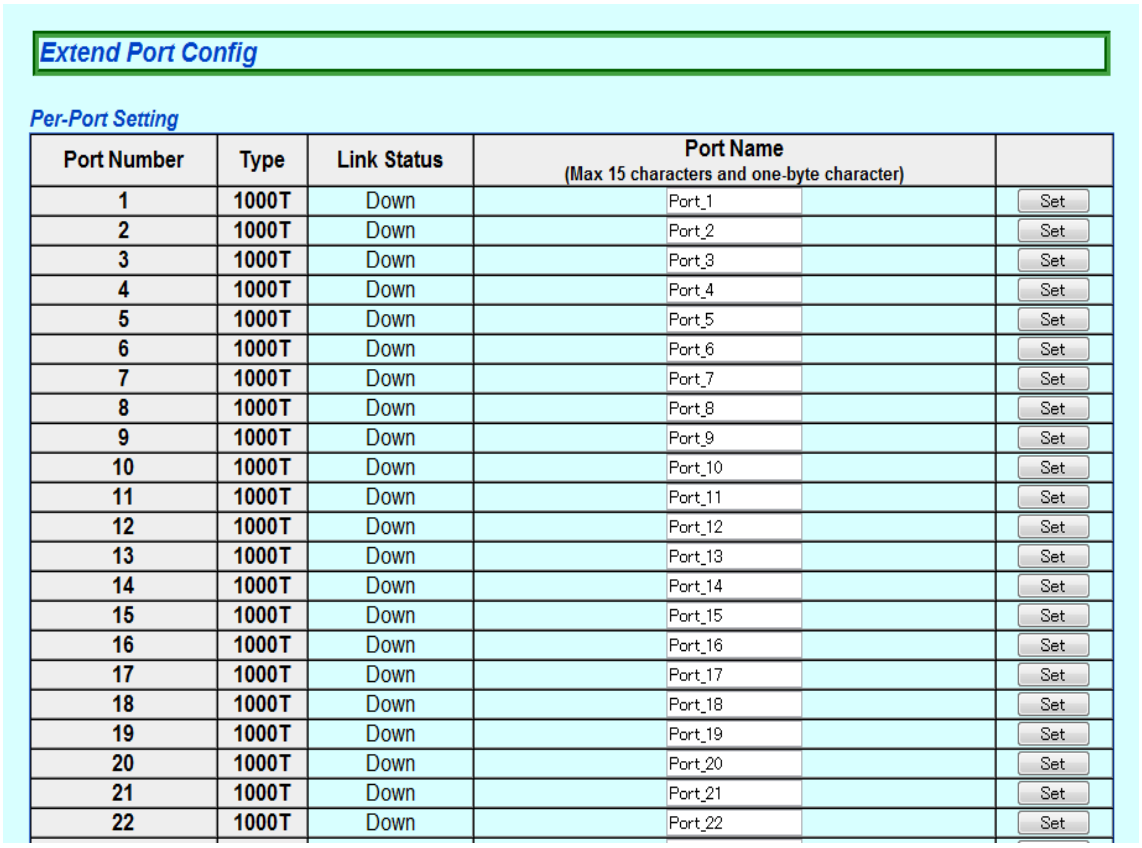
Figure 3-3 Basic Port Configration

Screen Description

Port Number	Displays the port number.	
Trunk	Displays the group number for a trunked port.	
Type	Displays the port type.	
	100TX	The port type is 10/100BASE-TX.
	1000T	The port type is 1000BASE-T.
Port Status	Displays the current port status. For all ports, "Enable" is the factory default setting.	
	Enable	The port is available.
	Disable	The port is not available.
Link Status	Displays the current link status.	
	Up	A link has been established successfully.
	Down	A link has not been established.
Duplex Mode	Displays the communication speed and full-duplex/half-duplex settings. For all ports, "Auto" is the factory default setting.	
	Auto	Auto negotiation mode
	100M/Full	100 Mbps full-duplex
	100M/Half	100 Mbps half-duplex
	10M/Full	10 Mbps full-duplex
	10M/Half	10 Mbps half-duplex
Flow Control	Displays the flow control settings. For all ports, "Disable" is the factory default setting.	
	Enable	The flow control is enabled.
	Disable	The flow control is disabled.
Auto-MDI	Displays the Auto MDI/MDI-X function settings. Ports 1 to -20 are set to "Disable," and Ports 21 to -24 are set to "Enable" at factory default setting.	
	Enable	The Auto-MDI/MDI-X function is enabled.
	Disable	The Auto-MDI/MDI-X function is disabled.

3.1.4. Extend Port Configration

Select "Basic Config" and "Port Config" and then "Extend Port Config" to open the screen shown in Figure 3-4. On this screen, you can configure port status display settings and mode and other settings.



Extend Port Config

Per-Port Setting

Port Number	Type	Link Status	Port Name (Max 15 characters and one-byte character)	
1	1000T	Down	Port_1	Set
2	1000T	Down	Port_2	Set
3	1000T	Down	Port_3	Set
4	1000T	Down	Port_4	Set
5	1000T	Down	Port_5	Set
6	1000T	Down	Port_6	Set
7	1000T	Down	Port_7	Set
8	1000T	Down	Port_8	Set
9	1000T	Down	Port_9	Set
10	1000T	Down	Port_10	Set
11	1000T	Down	Port_11	Set
12	1000T	Down	Port_12	Set
13	1000T	Down	Port_13	Set
14	1000T	Down	Port_14	Set
15	1000T	Down	Port_15	Set
16	1000T	Down	Port_16	Set
17	1000T	Down	Port_17	Set
18	1000T	Down	Port_18	Set
19	1000T	Down	Port_19	Set
20	1000T	Down	Port_20	Set
21	1000T	Down	Port_21	Set
22	1000T	Down	Port_22	Set

Figure 3-4 Extend Port Configration

Screen Description

Port Number	Displays the port number.	
Type	Displays the port type.	
	100TX	The port type is 10/100BASE-TX.
	1000T	The port type is 1000BASE-T.
Link Ststus	Displays the current link status.	
	Up	A link has been established successfully.
	Down	A link has not been established.
Port Name	Displays the port name.	

3.1.5. Power Saving Port Configration

Select "Basic Config" and "Port Config" and then "Power Saving Port Config" to open the screen shown in **Figure 3-5**. On this screen, you can configure the power saving settings of ports.

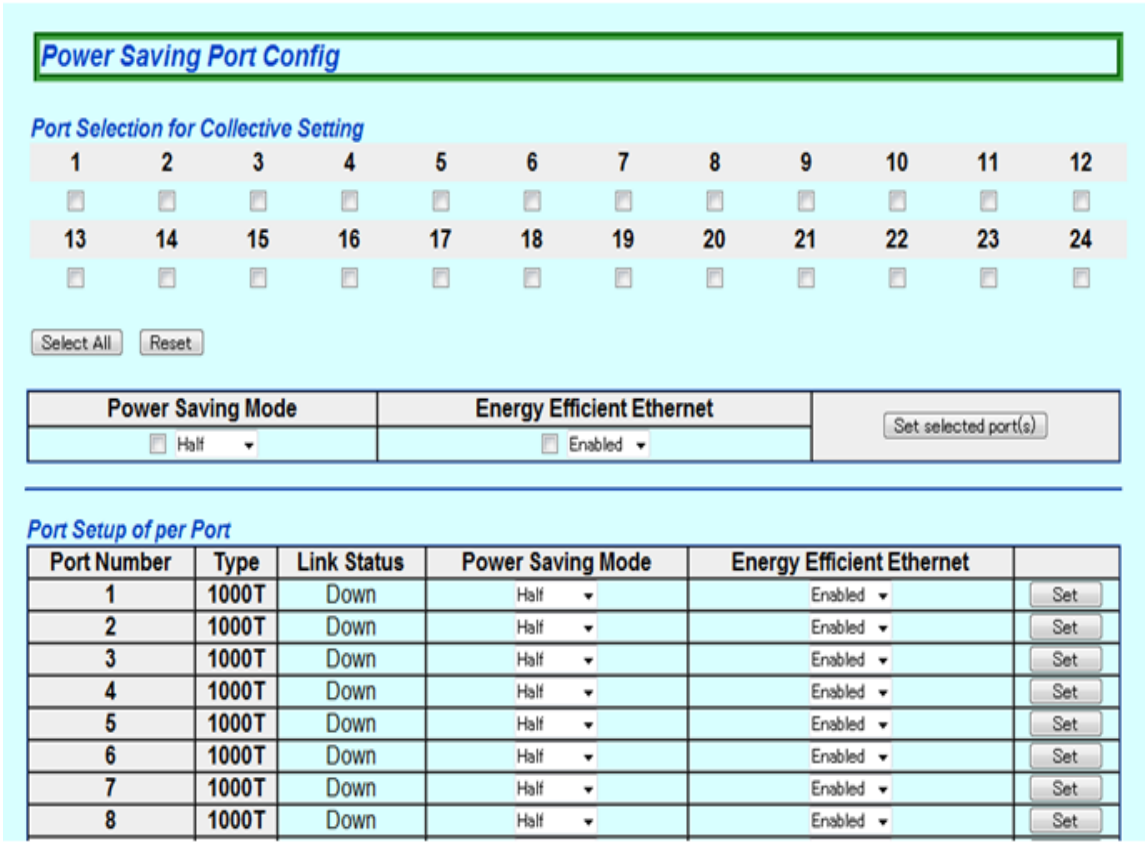


Figure 3-5 Power Saving Port Configration

Screen Description

Port Number	Displays the port number.	
Type	Displays the port type.	
	100TX	The port type is 10/100BASE-TX.
	1000T	The port type is 1000BASE-T.
Link Status	Displays the current link status.	
	Up	A link has been established successfully.
	Down	A link has not been established.
Power Saving Mode	Displays the power saving mode settings. For all ports, "Half" is the factory default setting.	
	Full	The MNO series power saving mode status is enabled (Full).
	Half	The MNO series power saving mode status is enabled (Half).
	Disable	The MNO series power saving mode status is disabled.
Energy Efficient Ethernet	Displays the EEE (Energy Efficient Ethernet) status. For all ports, "Disabled" is the factory default setting.	
	Enabled	The EEE is enabled.
	Disabled	The EEE is disabled.

3.1.6. System Security

Select "Basic Config" and System Security" and then "System Security" to open the screen shown in Figure 3-6. On this screen, you can configure the various settings for accessing this Switching Hub for configuration and management.

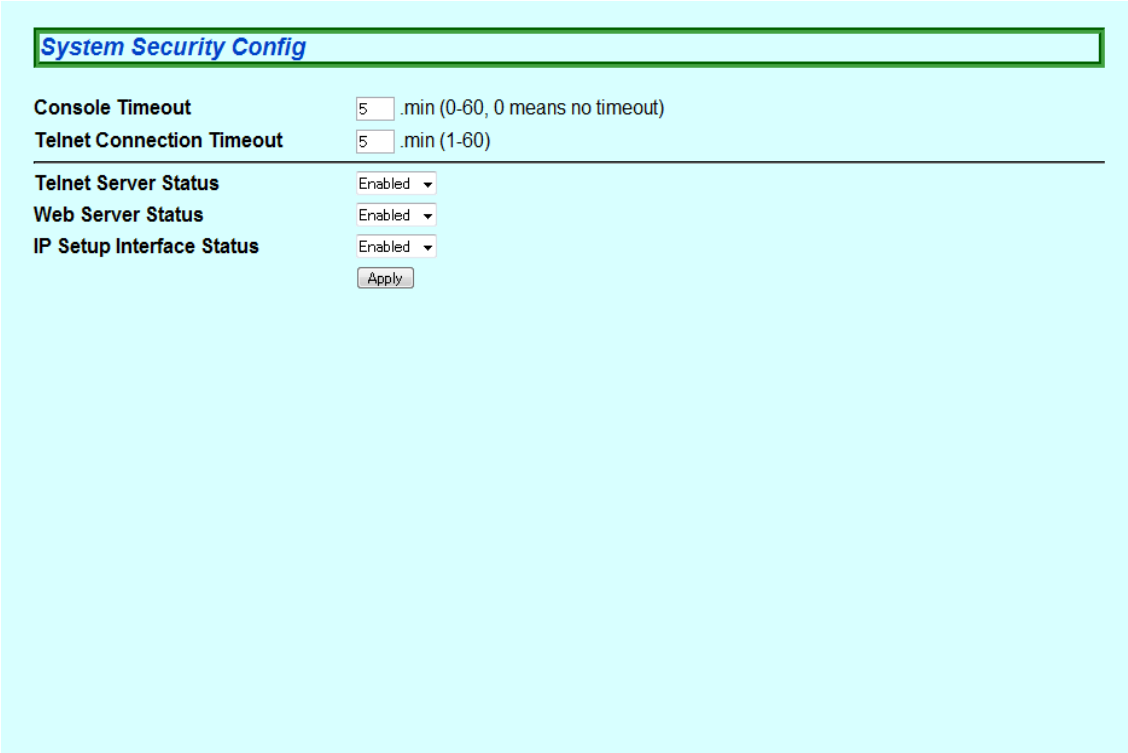


Figure 3-6 System Security

Screen Description

Console Timeout	Displays the idle timeout settings (in minutes) for terminating a console-connected session if no input is made. The factory default setting is 5 minutes.	
Telnet Connection Timeout	Displays the idle timeout settings (in minutes) for terminating a Telnet-connected session if no input is made. The factory default setting is 5 minutes.	
Telnet Server Status	Displays the Telnet access settings. "Enable" is the factory default setting.	
	Enable	Access is enabled.
	Disable	Access is disabled.
Web Server Status	Displays the Web access settings. "Disable" is the factory default setting.	
	Enable	Access is enabled.
	Disable	Access is disabled.
IP Setup Interface Status	Displays the access settings for the IP address configuration software, bundled with the Panasonic network cameras. "Enable" is the factory default setting.* For instructions, refer to Appendix C.	
	Enable	Access is enabled.
	Disable	Access is disabled.
LED Base Mode Configuration		
	Enable	Access is enabled.
	Disable	Access is disabled.

3.1.7. Telnet Access Limit

Select "Basic Config" and "System Security" and then "Telnet アクセス設定 " to open the screen shown in **Figure 3-7**. On this screen, you can configure the Telnet access limitation.

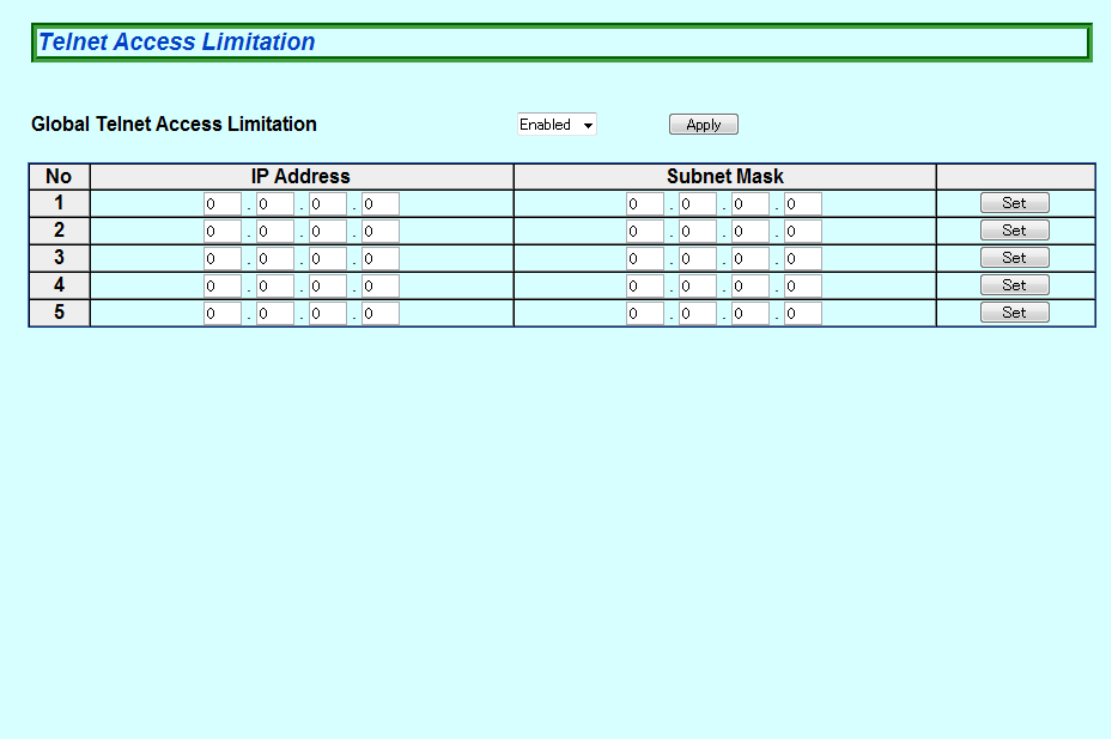


Figure 3-7 Telnet Access Limit

Screen Description

Global Telnet Access Limitation	Displays the Telnet access limitation setting. "Disable" is the factory default setting.	
	Enable	Enables the Telnet access limitation.
	Disable	Disables the Telnet access limitation.
IP Address/Sub-net Mask	Displays the information of accessible networks to be added. There is no factory default setting. 0 is displayed for all of IP Addresses and Sub-net Masks.	

3.1.8. ID/Password Change

Select "Basic Config" and "System Security" and then "ID/Password Change" to open the screen shown in **Figure 3-8**. On this screen, you can configure the user-name/password.

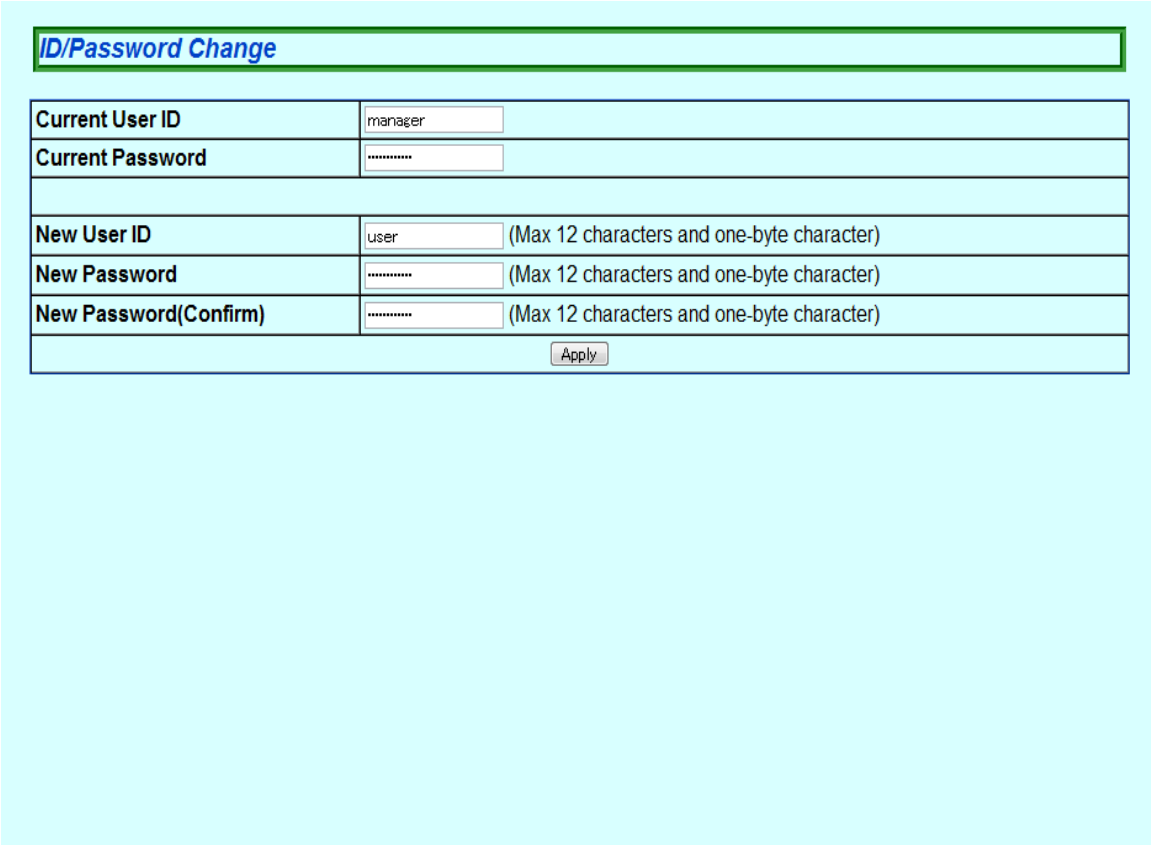


Figure 3-8 ID/Password Change

Screen Description

Current User ID	Enter the current username. This setting is used to log in to this Switching Hub. "manager" is the factory default setting.
Current Password	Enter the current password. This setting is used to log in to this Switching Hub. "manager" is the factory default setting.
New User ID	Enter a new username.
New Password	Enter a new password.
New Password (Confirm)	Enter a password again to prevent erroneous password input.

Note: Do not forget your username and password.
These settings are required to log in to the console, SSH, Telnet, and Web.

3.1.9. MAC Learning

Select "Basic Config" and "System Security" and then "MAC Learning" to open the screen shown in **Figure 3-9**. On this screen, you can configure the MAC Learning settings of ports.

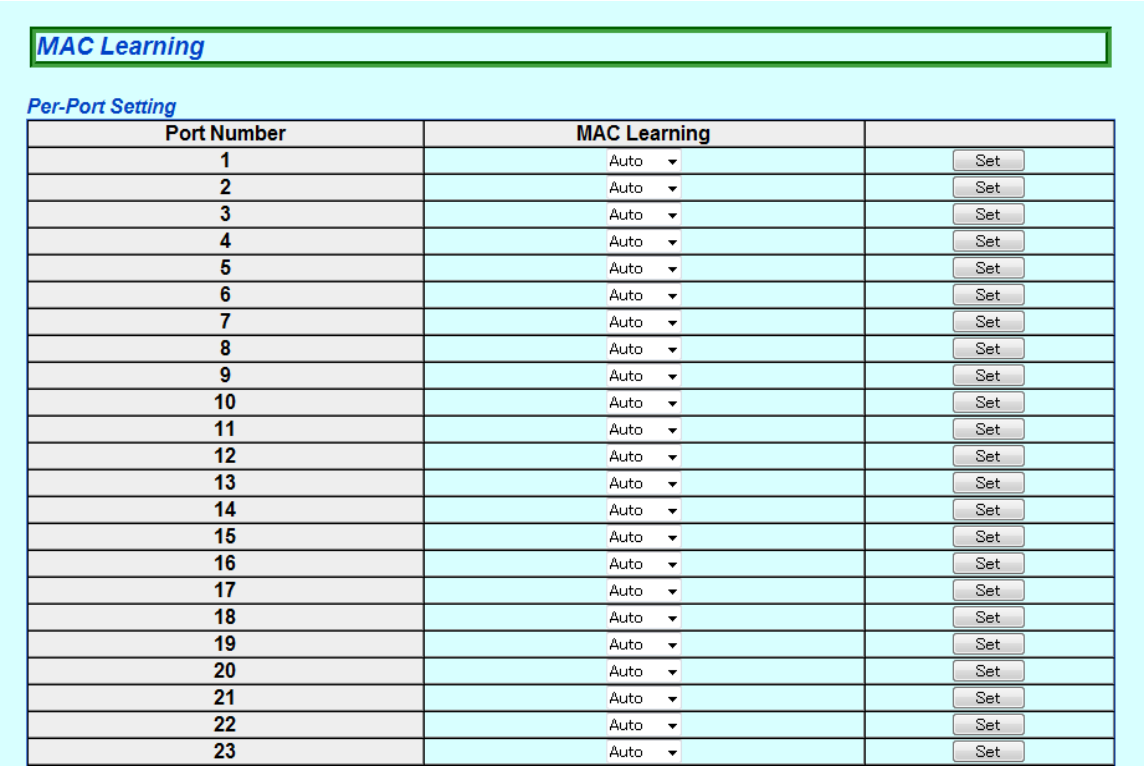


Figure 3-9 Telnet Access Limit

Screen Description

Port Number	Displays the port number.	
MAC Learning	Displays the MAC Learning statuses of ports. "Auto" is the factory default setting.	
	Auto	Enables MAC Learning.
	Disable	Disables MAC Learning.

3.1.10. FDB Manual Setting

Select "Basic Config" and "FDB" and then "FDB Manual Setting" to open the screen shown in Figure 3-10. On this screen, you can register the MAC address statistically in the FDB table.

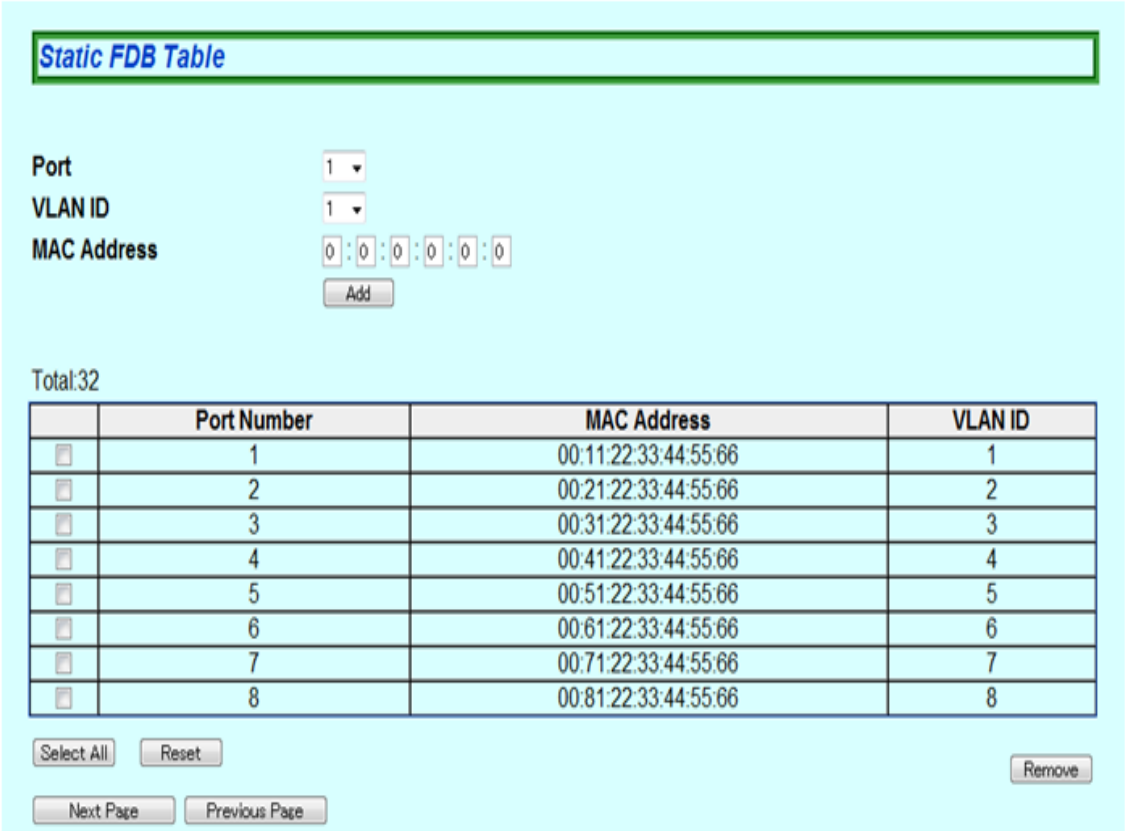


Figure 3-10 FDB Manual Setting

Screen Description

Port (Add)	Select a port to which a MAC address is to be added.
VLAN ID (Add)	Select the VLAN ID of a MAC address to be added.
MAC address (Add)	Enter a MAC address to be added and click the setting button.
VLAN ID (remove)	Select the VLAN ID of a MAC address to be deleted.
MAC address (remove)	Enter a MAC address to be deleted and click the setting button.

3.1.11. FDB Table

Select "Basic Config" and "FDB" and then "FDB Table" to open the screen shown in Figure 3-11. This screen shows the MAC addresses learned in the FDB table by port.

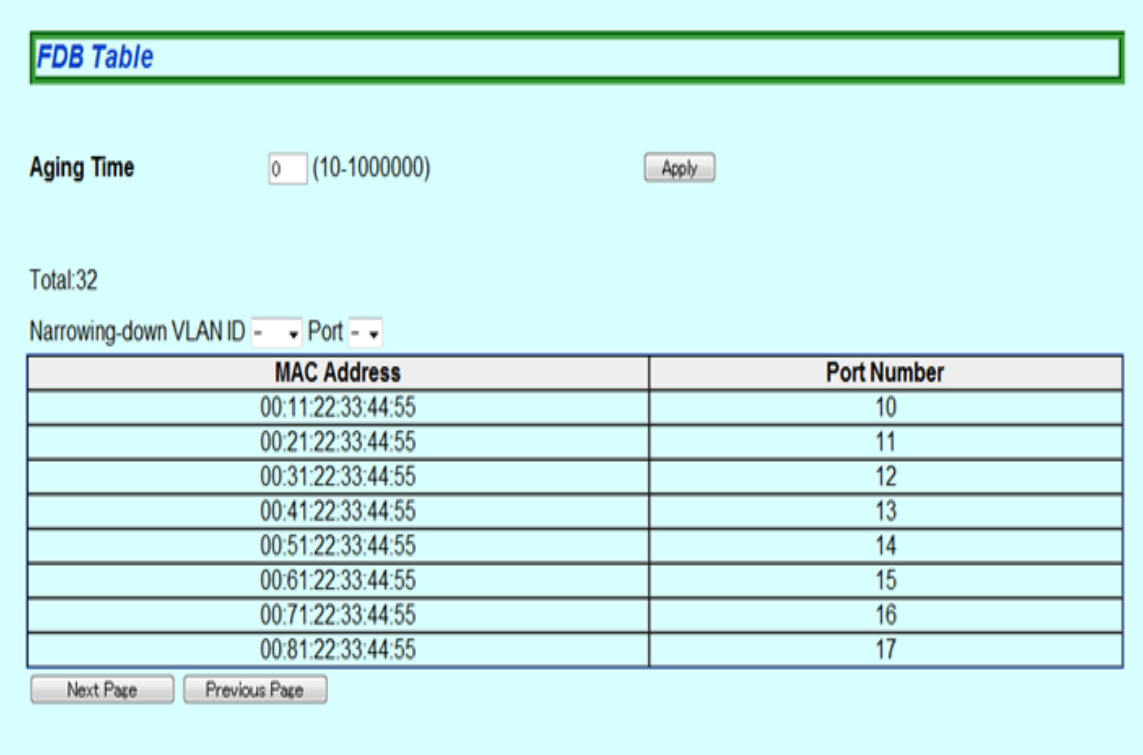


Figure 3-11 FDB Table (by Port)

Screen Description

Aging Time	Displays the time for which an FDB table is retained. It is equal to the time after receiving the last packet. The factory default setting is 300 seconds (5 minutes).
Narrowing-down VLAN ID	Narrows down records in the list by the specified VLAN ID.
Narrowing-down Port number	Narrows down records in the list by the specified port.
Target Port num-ber	Displays the selected port number.
MAC Address	Displays the MAC address in the FDB table.

3.1.12. Time Configration

Select "Basic Config" and "Time Config" to open the screen shown in **Figure 3-12**. On this screen, you can configure the time settings and the SNTP-based time synchronization settings.

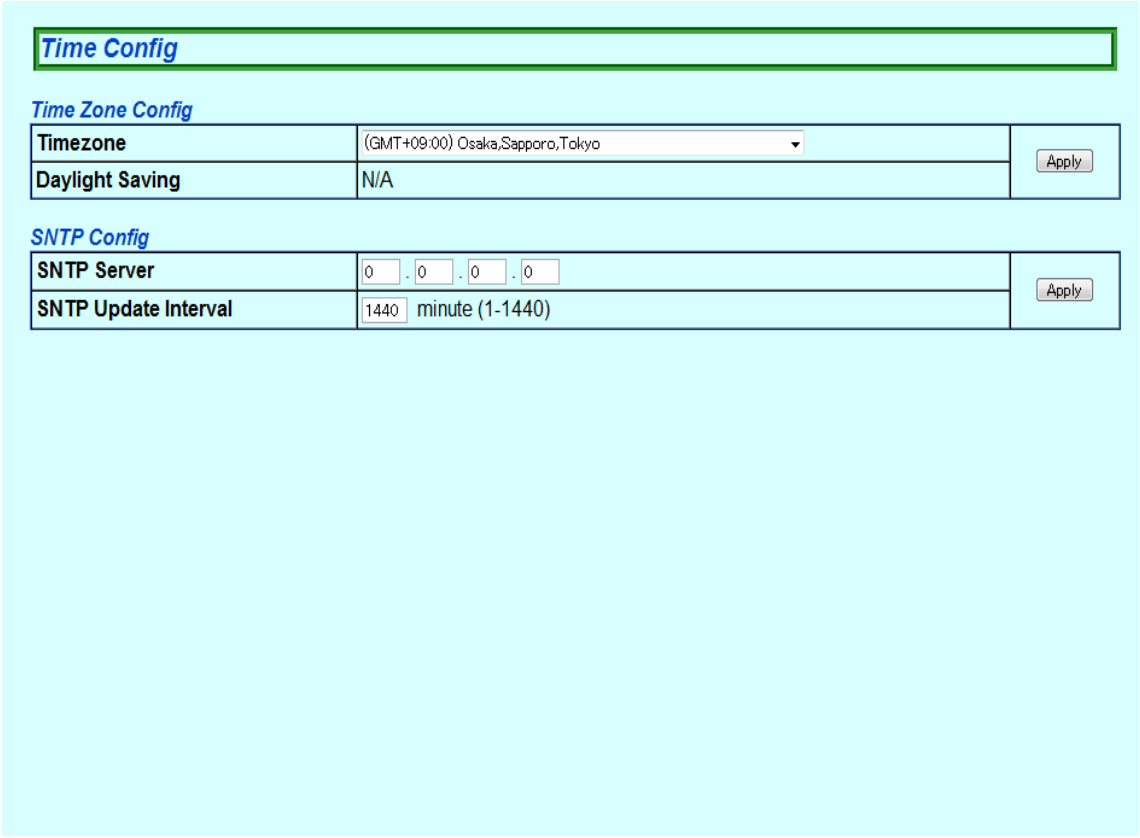


Figure 3-12 Time Configration of This Switching Hub

Screen Description

Time Zone	Displays the time zone.
Daylight Saving	Displays the application status of Daylight Saving (Summer time).
SNTP Server	Displays the IP address of the SNTP server that executes time synchronization.
SNTP Update Interval	Displays the interval time for SNTP synchronization.

Note: In case the SNTP server is located outside of the firewall, connection with the SNTP server may not be possible depending on settings by the network administrator. For details, ask your network administrator.

3.1.13. Static ARP Table

Select "Basic Config" and "ARP Table" and then "Static ARP Table" to open the screen shown in Figure 3-13. On this screen, you can register an ARP table while statistically associating the IP address and MAC address to it.

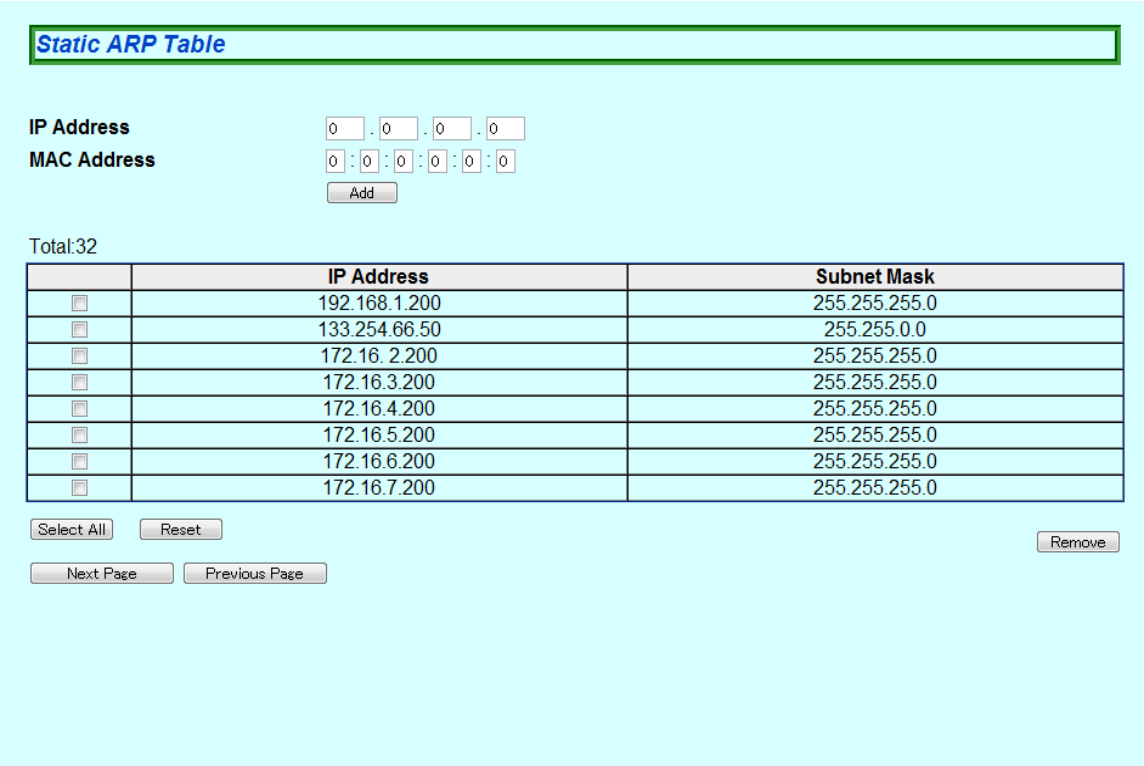


Figure 3-13 Static ARP Table

Screen Description

IP Address	Enter the IP address of the ARP table to be added.
MAC Address	Enter the MAC address of the ARP table to be added.
Checkbox for removal	Put a checkmark on an ARP table to be removed. Click the Remove button to remove it.

3.1.14. ARP Table

Select "Basic Config" and "ARP Table" and then "ARP Table" to open the screen shown in Figure 3-14. This screen shows the ARP Table.

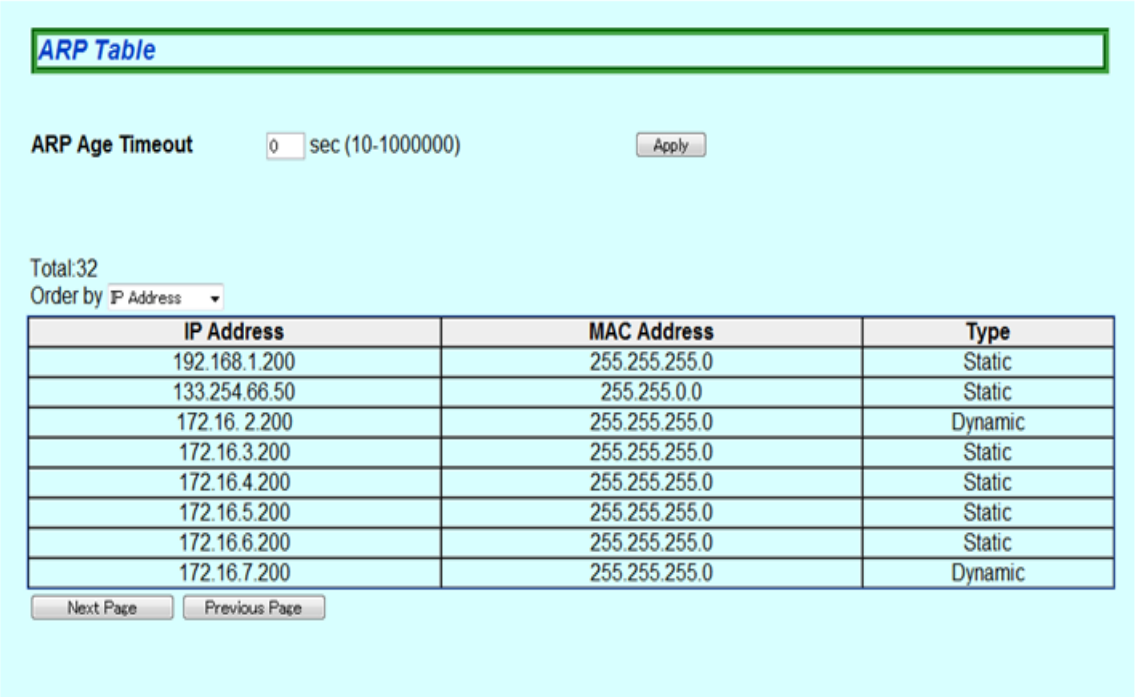


Figure 3-14 ARP Table

Screen Description

ARP Age Timeout	Displays the time for which an ARP table is retained. It is equal to the time after receiving the last packet. The factory default setting is 300 seconds (5 minutes).	
Order by	Sorts the list in a specified order.	
	IP Address	Sorts the list by IP address.
	MAC Address	Sorts the list by MAC address.
	Type	Sorts the list by Type.

3.2. Advanced Switch Configuration

3.2.1. VLAN Management

Select "Advanced Config" and "VLAN" and then "VLAN Management" to open the screen shown in Figure 3-15. On this screen, you can configure the specified VLAN settings.

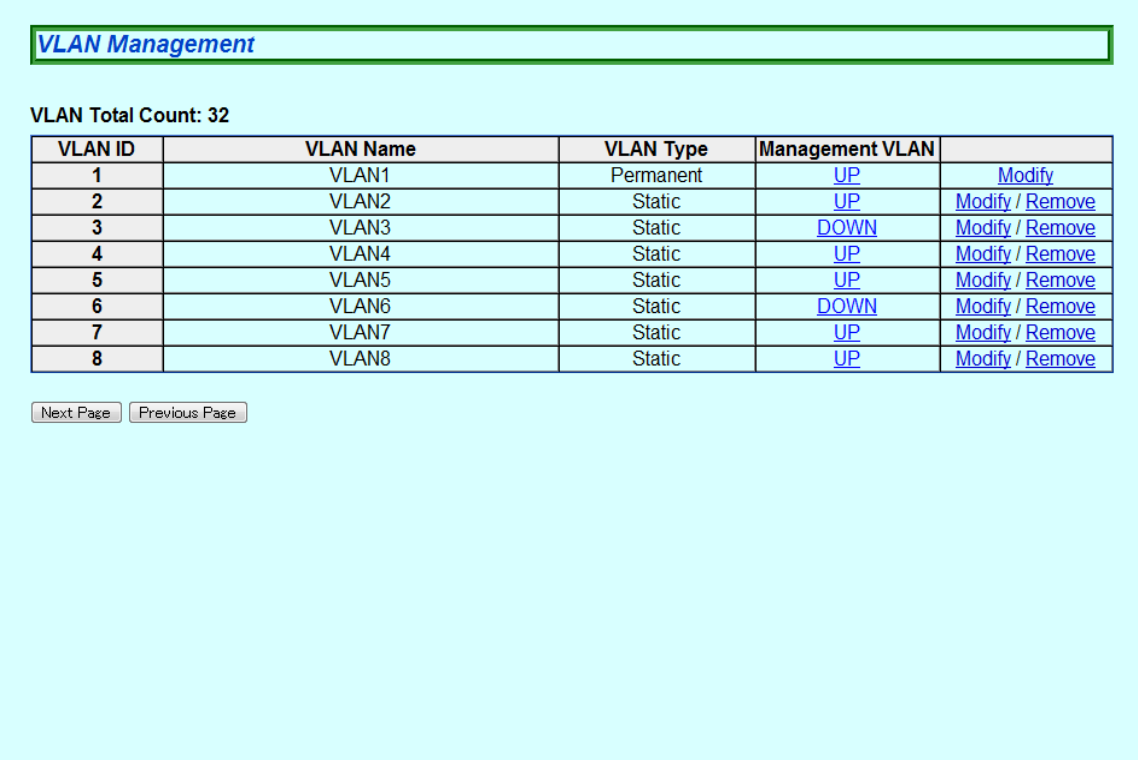


Figure 3-15 VLAN Management

Screen Description

VLAN Total Count	Displays the Switching Hub's current number of VLANs.	
VLAN ID	Displays the VLAN ID of a VLAN.	
VLAN Name	Displays the VLAN name.	
VLAN Type	Displays the VLAN type.	
	Permanent	This is the initial setting VLAN. This VLAN cannot be removed.
	Static	This is a new VLAN.
Management VLAN	Displays whether or not the VLAN is the management VLAN.	
	UP	This VLAN is the management LAN (VLAN that can communicate with CPU).
	DOWN	This VLAN is not the management VLAN.

3.2.1.a. VLAN Modification

On the "VLAN Management" screen, select "Modify" to open the screen shown in Figure 3-16. On this screen, you can modify the VLAN configuration information.

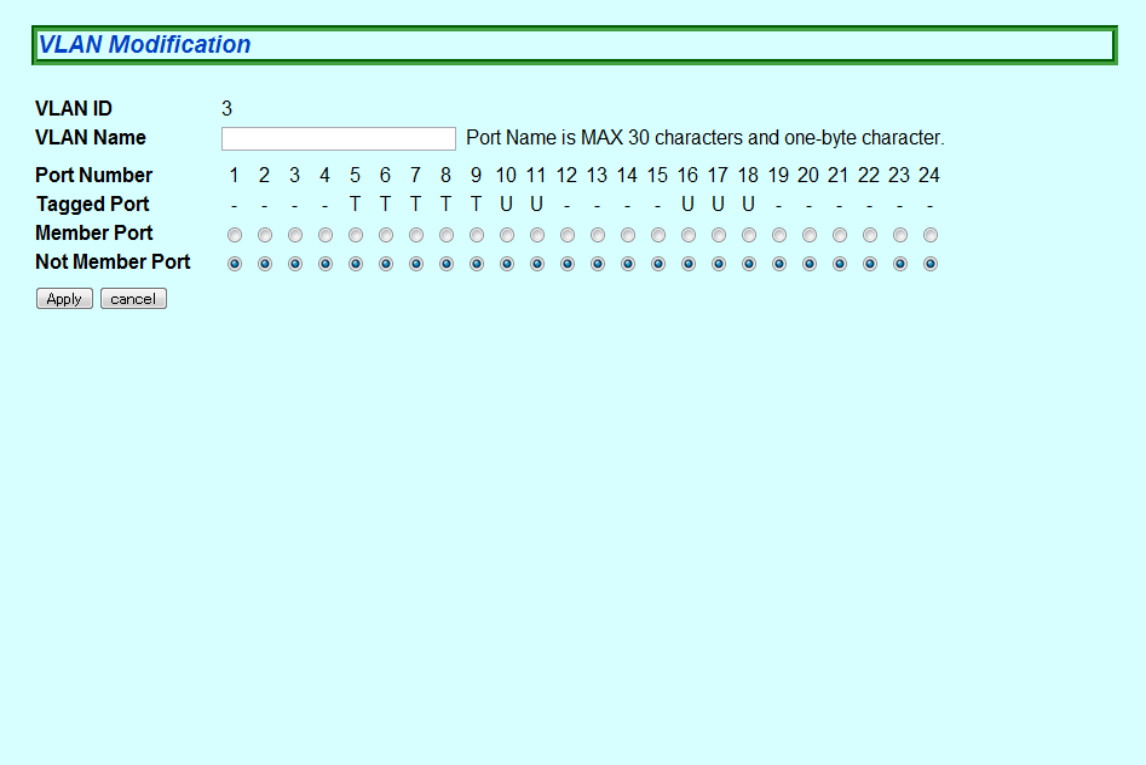


Figure 3-16 VLAN Modification

Screen Description

VLAN ID	Displays the VLAN ID.
VLAN Name	Displays the VLAN name.
Tagged Port	Displays ports that do not use a tag.
Member Port	Displays the ports assigned to the VLAN.
Not Member Port	Displays the ports not assigned to the VLAN.

3.2.2. VLAN Creation

Select "Advanced Config" and "VLAN" and then "VLAN Creation" to open the screen shown in Figure 3-17. On this screen, you can create a new VLAN.

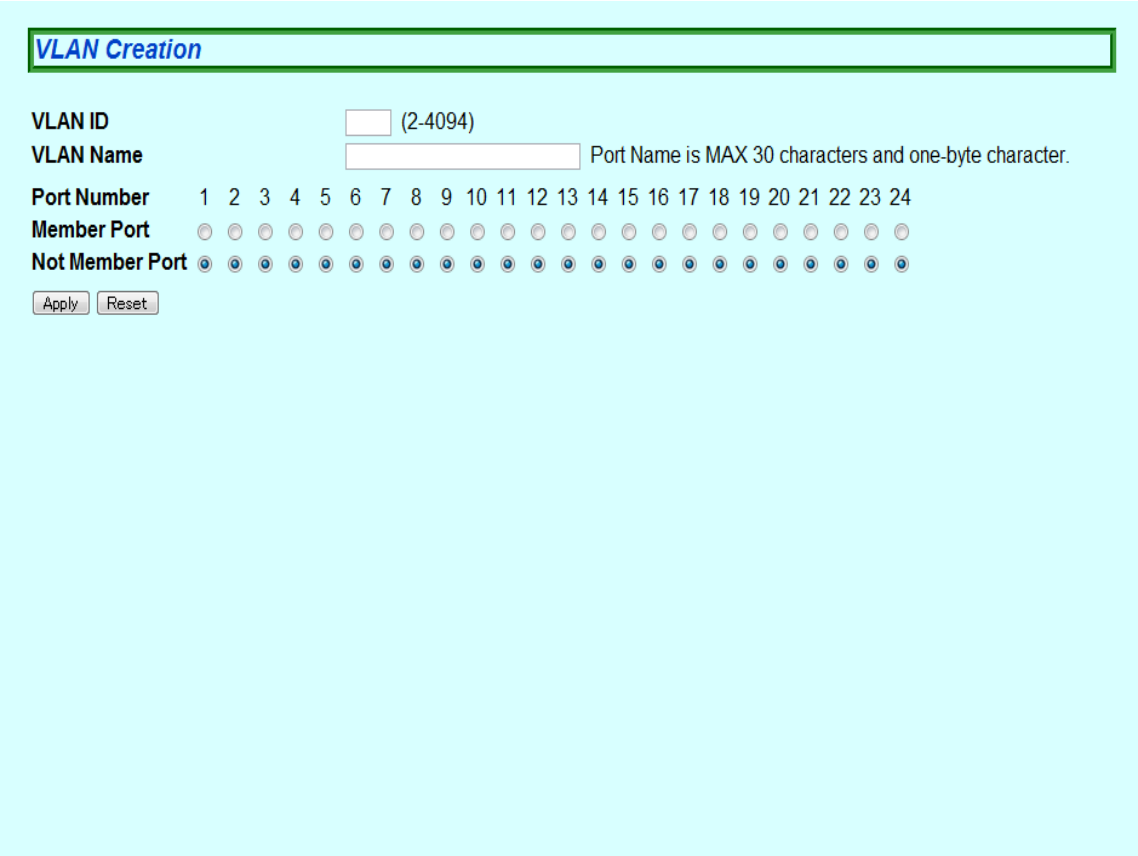


Figure 3-17 VLAN Creation

Screen Description

VLAN ID	Set the VLAN ID.
VLAN Name	Set the VLAN name.
Member Port	Select ports that you want to assign to the VLAN.
Not Member Port	Select ports that you do not want to assign to the VLAN.

3.2.3. VLAN Port Config

Select "Advanced Config" and "VLAN" and then "VLAN Port Config" to open the screen shown in **Figure 3-18**. On this screen, you can configure the specified VLAN port settings.

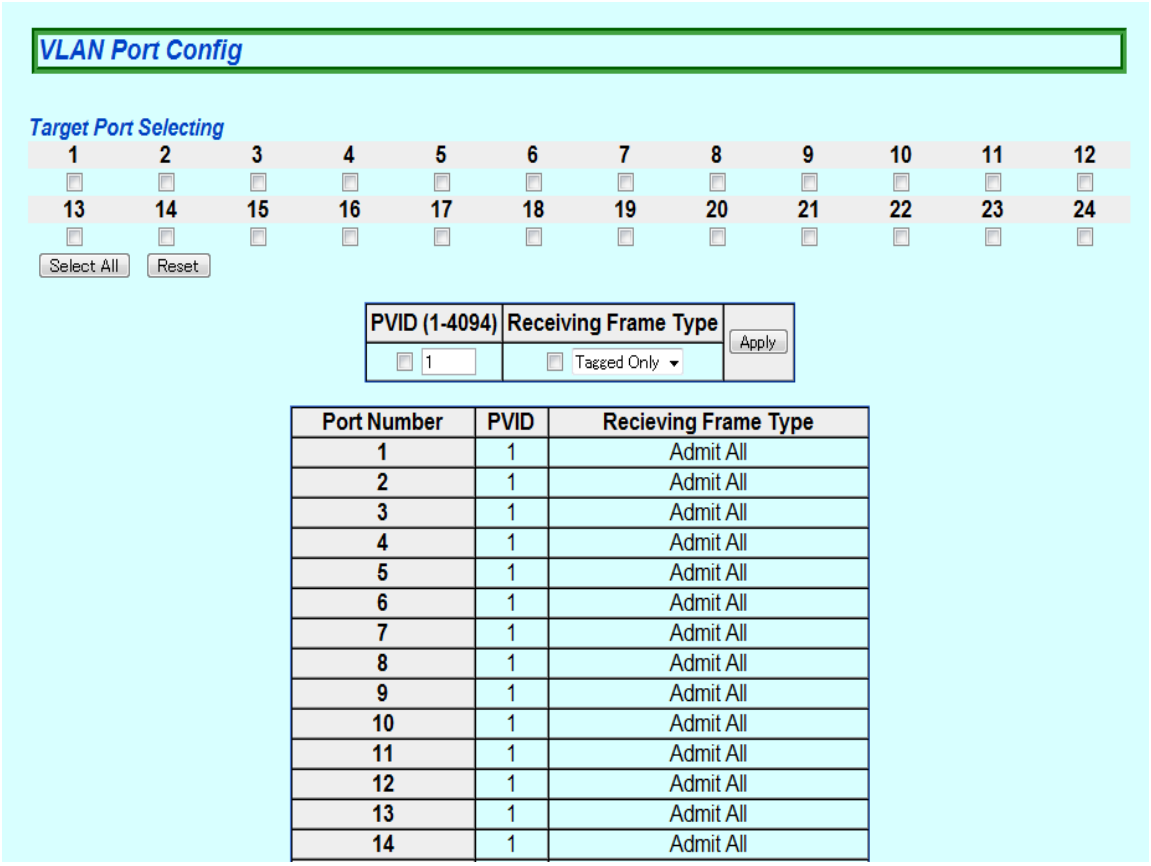


Figure 3-18 VLAN Port Config

Screen Description

Port Number	Displays the port number.	
PVID	Displays the port's current PVID (Port VLAN ID). PVID represents a VLAN ID to which an untagged packet should be sent when it is received. The factory default setting is 1. If a tagged packet is received, the tag is referenced regardless of this value to determine the destination port.	
Receiving Frame Type	Displays the type of frames to be received. For all ports, "Admit All" is the factory default setting.	
	Admit All	All frames are received.
	Tagged Only	Only tagged frames are received.

3.2.4. QoS Config

Select "Advanced Config" and "QoS Config" and then "Traffic Class Config" to open the screen shown in **Figure 3-19**. On this screen, you can configure the QoS settings.

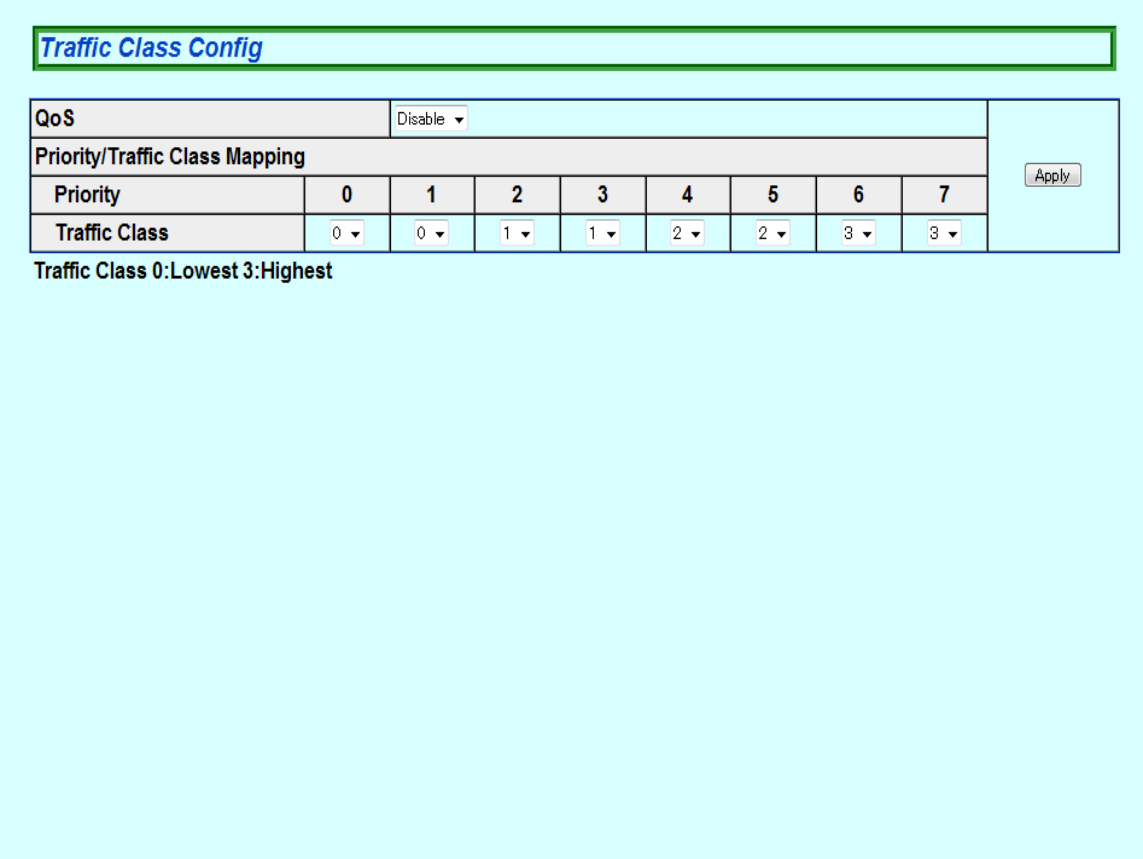


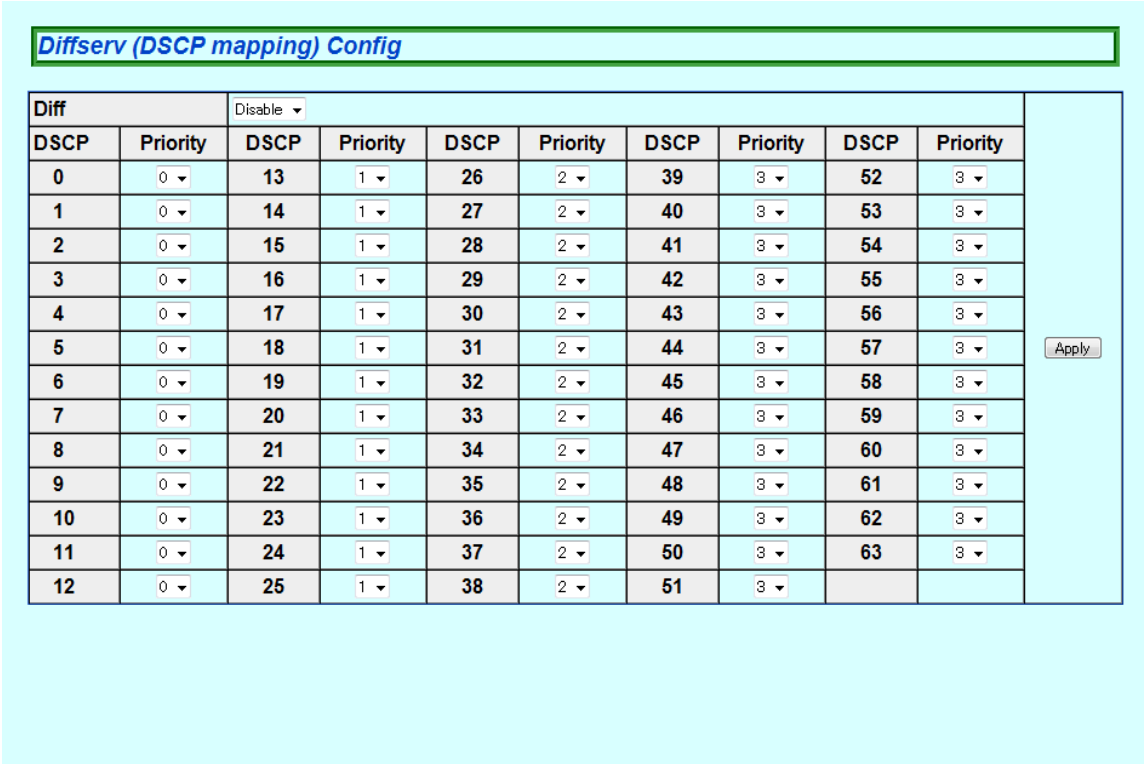
Figure 3-19 QoS Config

Screen Description

QoS	Displays the setting of the QoS function using IEEE802.1p. "Disable" is the factory default setting.	
	Enable	QoS is enabled.
	Disable	QoS is disabled.
Priority	Displays the packet priority value.	
Traffic Class	Displays the priority with which a packet is transferred.	

3.2.5. Diffserv Config

Select "Advanced Config" and "QoS Config" and then "Dffserv Config" to open the screen shown in **Figure 3-20**. On this screen, you can configure the Diffserv settings.



DSCP	Priority	DSCP	Priority	DSCP	Priority	DSCP	Priority	DSCP	Priority
0	0	13	1	26	2	39	3	52	3
1	0	14	1	27	2	40	3	53	3
2	0	15	1	28	2	41	3	54	3
3	0	16	1	29	2	42	3	55	3
4	0	17	1	30	2	43	3	56	3
5	0	18	1	31	2	44	3	57	3
6	0	19	1	32	2	45	3	58	3
7	0	20	1	33	2	46	3	59	3
8	0	21	1	34	2	47	3	60	3
9	0	22	1	35	2	48	3	61	3
10	0	23	1	36	2	49	3	62	3
11	0	24	1	37	2	50	3	63	3
12	0	25	1	38	2	51	3		

Figure 3-20 Diffserv Config

Screen Description

Diffserv Status	Displays the Diffserve function setting. "Disable" is the factory default setting.	
	Enable	Diffserv is enabled.
	Disable	Diffserv is disabled.
Priority	Displays the priority with which a packet is transferred.	

3.2.6. Link Aggregation Config

Select "Advanced Config" and "Link Aggregation Config" to open the screen shown in Figure 3-21. On this screen, you can configure the group settings of link aggregation.

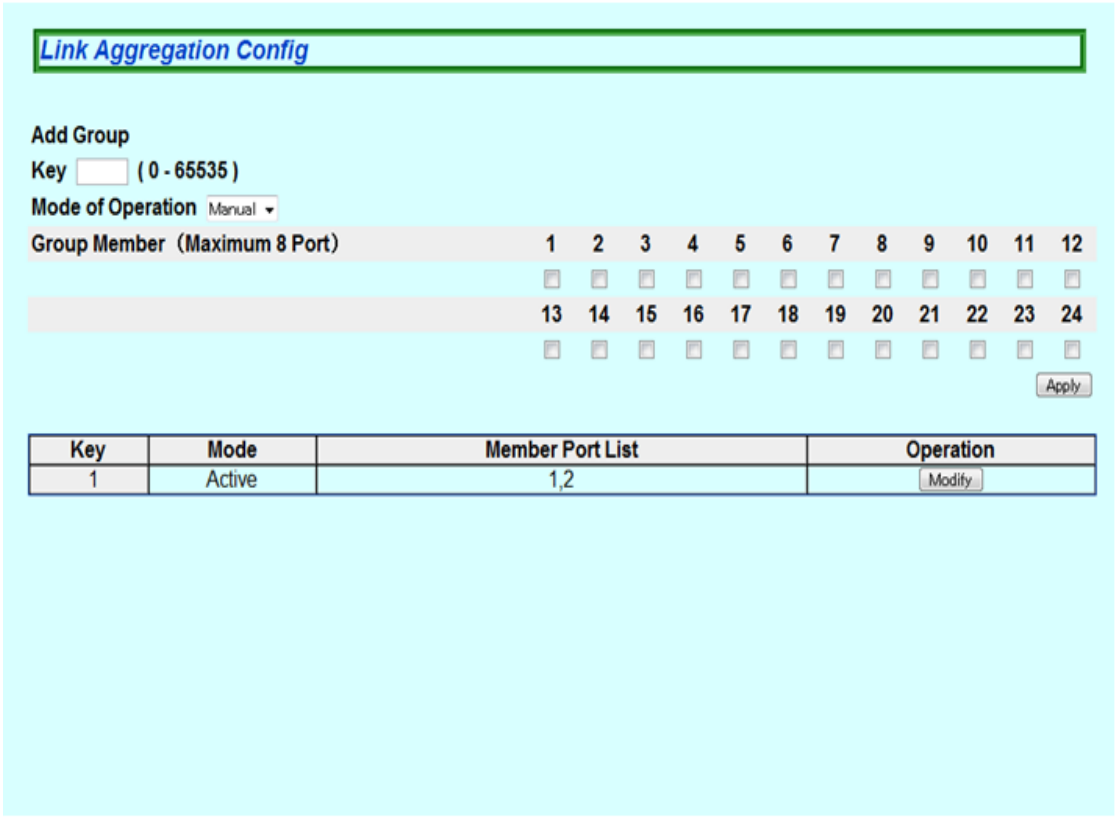


Figure 3-21 Link Aggregation Config

Screen Description

Key	Displays the group number of link aggregation.	
Mode of Operation	Displays the operation mode of link aggregation.	
	Manual	Constructs link aggregation in a fixed way without using LACP. The setting of the other side must be the same.
Group Member	Displays the ports included in the group of link aggregation.	

3.2.6.a. Link Aggregation Modification

Select "Advanced Config" and "Link Aggregation Config" and then click the "Modify" button of a group to open the screen shown in Figure 3-22. On this screen, you can modify the link aggregation.

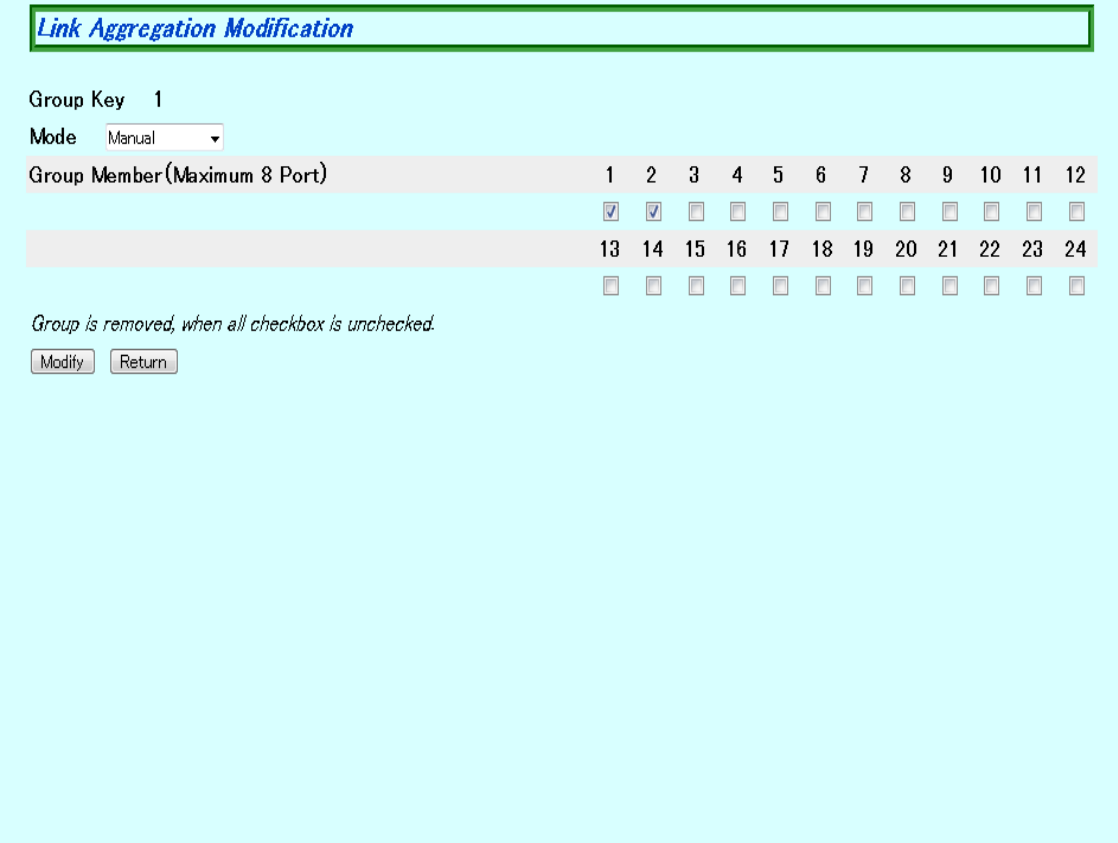


Figure 3-22 Link Aggregation Modification

Screen Description

Mode	Displays the operation mode of link aggregation.	
	Manual	Constructs link aggregation forcibly without using LACP. The setting of the other side must be the same.
Group Member	Displays the ports included in the group of link aggregation.	

3.2.7. Port Monitoring Configration

Select "Advanced Config" and "Port Monitoring Config" to open the screen shown in **Figure 3-23**. On this screen, you can configure the port monitoring settings.

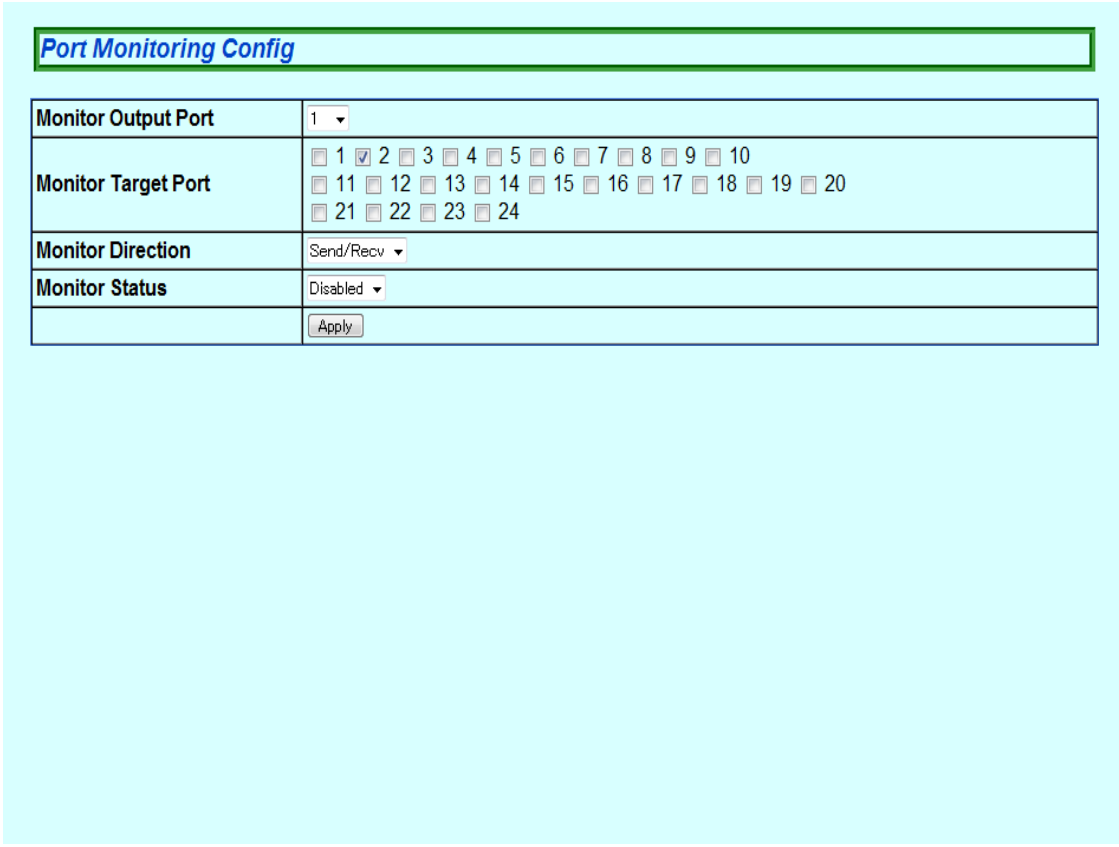


Figure 3-23 Port Monitoring Configration

Screen Description

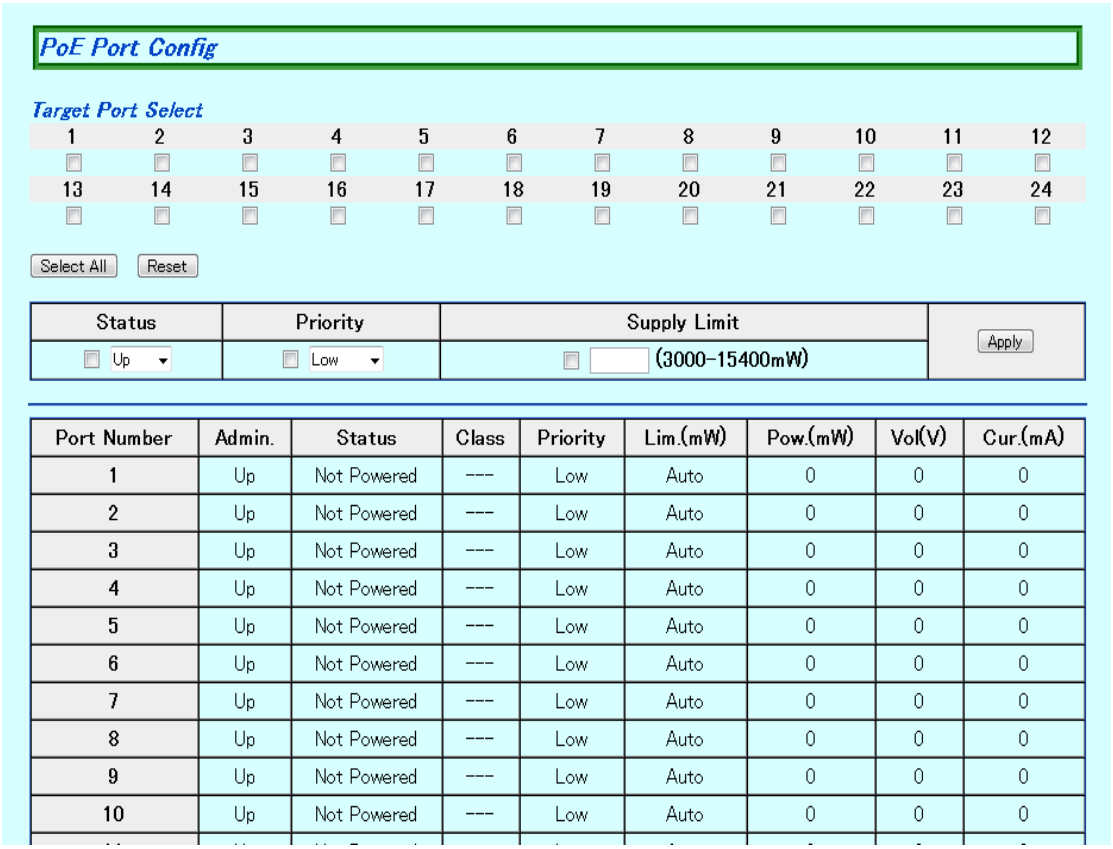
Monitor Output Port	Displays the port number of a port at which packets from other ports can be monitored.	
Monitor Target Port	Displays the port number of a port to be monitored.	
Monitor Direction	Displays which of transmit and receive packets are monitored at the port to be monitored. "Send/Recv" is the factory default setting.	
	Send	Monitors transmit packets.
	Recv	Monitors receive packets.
	Send/Recv	Monitors both transmit and receive packets.
Monitor Status	Displays whether monitoring is enabled. "Disable" is the factory default setting.	
	Enable	Monitors packets.
	Disable	Does not monitor packets.

Note: Mirror packets in transmission direction will include the VLAN tag of the received VLAN ID.

Note: Administrative packets such as Ping and ARP transmitted by this Switching Hub cannot be captured.

3.2.8. PoE Port Configration

Select "Advanced Config" and "PoE Config" and then "PoE Port Config" to open the screen shown in **Figure 3-24**. On this screen, you can configure the power supply settings by port.



PoE Port Config

Target Port Select

1	2	3	4	5	6	7	8	9	10	11	12
13	14	15	16	17	18	19	20	21	22	23	24

Select All Reset

Status	Priority	Supply Limit	
Up	Low	(3000-15400mW)	Apply

Port Number	Admin.	Status	Class	Priority	Lim.(mW)	Pow.(mW)	Vol(V)	Cur.(mA)
1	Up	Not Powered	---	Low	Auto	0	0	0
2	Up	Not Powered	---	Low	Auto	0	0	0
3	Up	Not Powered	---	Low	Auto	0	0	0
4	Up	Not Powered	---	Low	Auto	0	0	0
5	Up	Not Powered	---	Low	Auto	0	0	0
6	Up	Not Powered	---	Low	Auto	0	0	0
7	Up	Not Powered	---	Low	Auto	0	0	0
8	Up	Not Powered	---	Low	Auto	0	0	0
9	Up	Not Powered	---	Low	Auto	0	0	0
10	Up	Not Powered	---	Low	Auto	0	0	0

Figure 3-24 PoE Port Configration

Screen Description

Port Number	Displays the port number.	
Admin	Displays whether or not power can be supplied.	
	Up	Power can be supplied.
	Down	Power cannot be supplied.
Status	Displays the power supply status.	
	Powered	Power is supplied.
	Not Powered	Power is not supplied.
	Overload	More power than the limit is supplied.
Class	Displays the Class value detected by the classification function.	
Priority	Displays the priority of power supply.	
	Critical	Represents the highest priority.
	High	Represents the next priority to Critical.
	Low	Represents no priority.
Lim.(mW)	Displays the upper limit of supplied power. (in units of 200 mW) "Auto" means that the value is calculated according to the layer and class.	
Pow.(mW)	Displays the supplied power. (in units of 100 mW)	
Vol.(V)	Displays the voltage. (in units of 1 V)	
Cur.(mA)	Displays the current. (in units of 1 mA)	

3.2.9. PoE Global Configration

Select "Advanced Config" and "PoE Config" and then "PoE Grobal Config" to open the screen shown in **Figure 3-25**. On this screen, you can configure the general PoE settings.

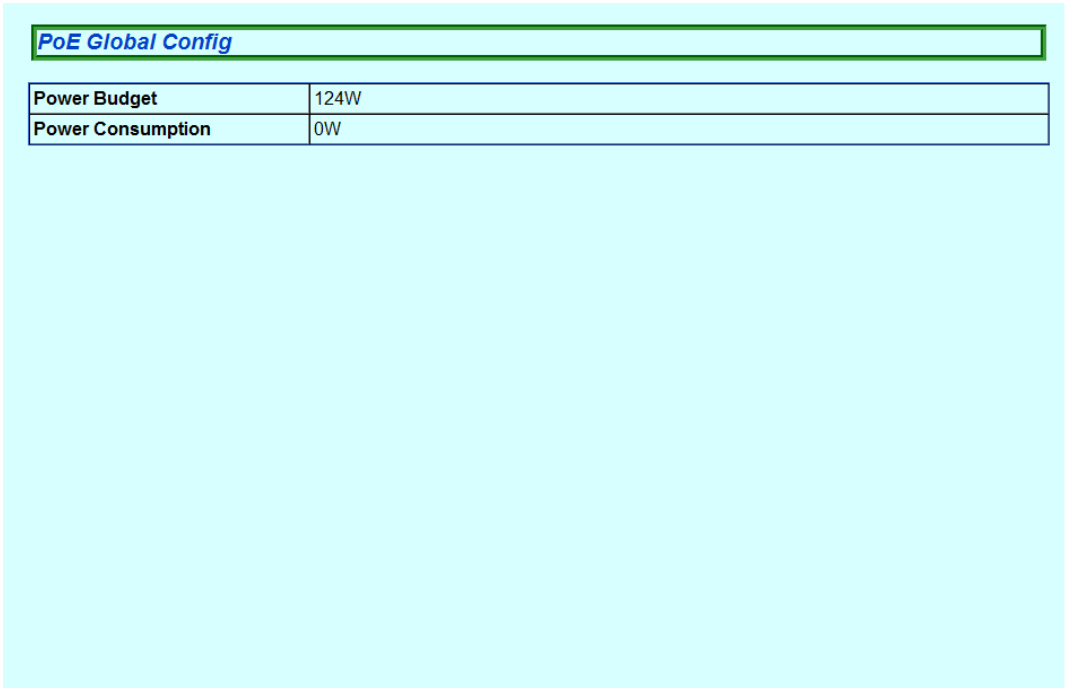


Figure 3-25 PoE Grobal Configration

Screen Description

Power Budget	Displays the maximum amount of power this Switching Hub can supply.
Power Consumption	Displays the amount of power currently supplied by this Switching Hub.

3.2.10. PoE Schedule Port List Info

Select "Advanced Config" and "PoE" and then "PoE Schedule Port List Info" to open the screen shown in Figure 3-26. This screen displays the port list for PoE schedule.

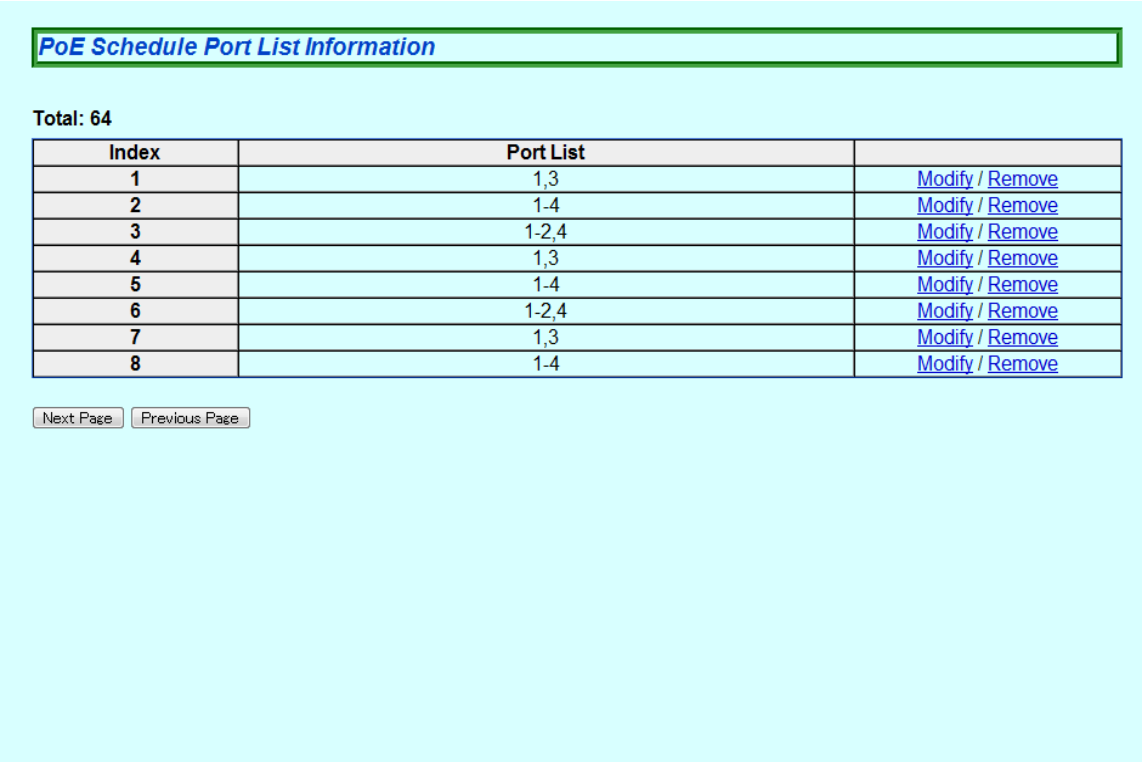


Figure 3-26 PoE Schedule Port List Info

Screen Description

Index	Displays the index number of the PoE port list.
Port List	Displays the port list.

3.2.11. PoE Schedule Port List Config

Select "Advanced Config" and "PoE" and then "PoE Schedule Port List Config" or, on the "PoE Schedule Port List Info" screen, select "Modify" to open the screen shown in Figure 3-27. This screen displays the port list for PoE schedule.

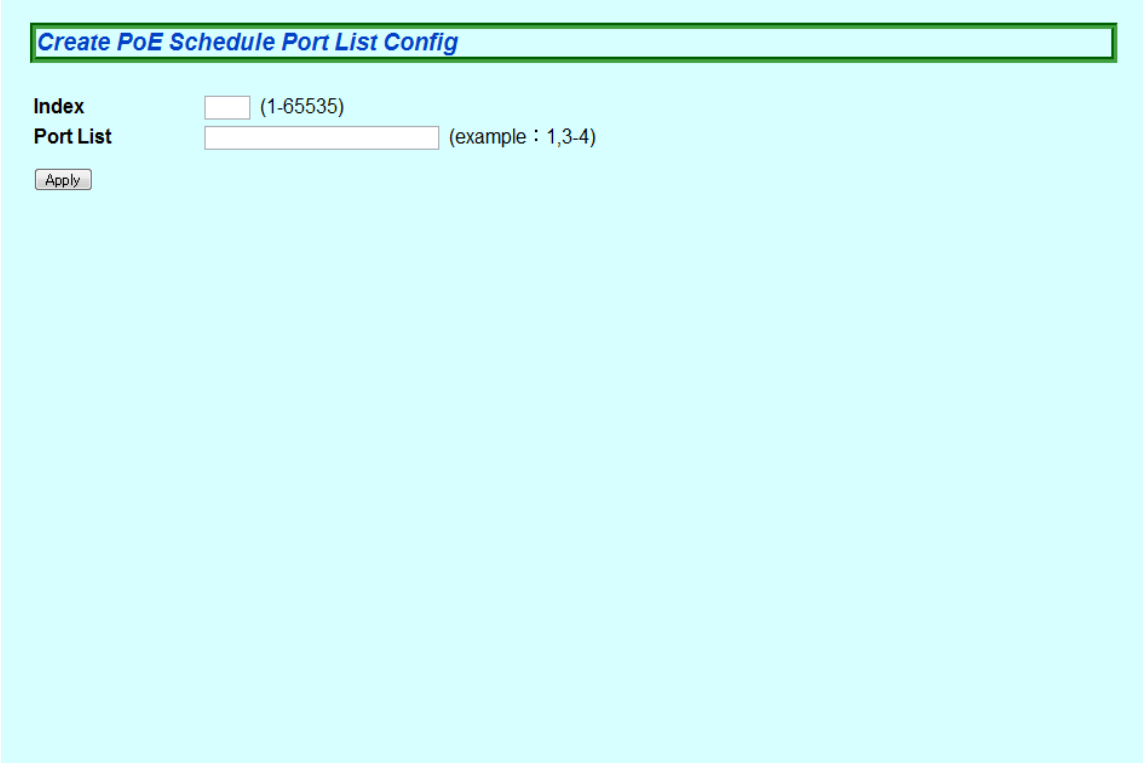


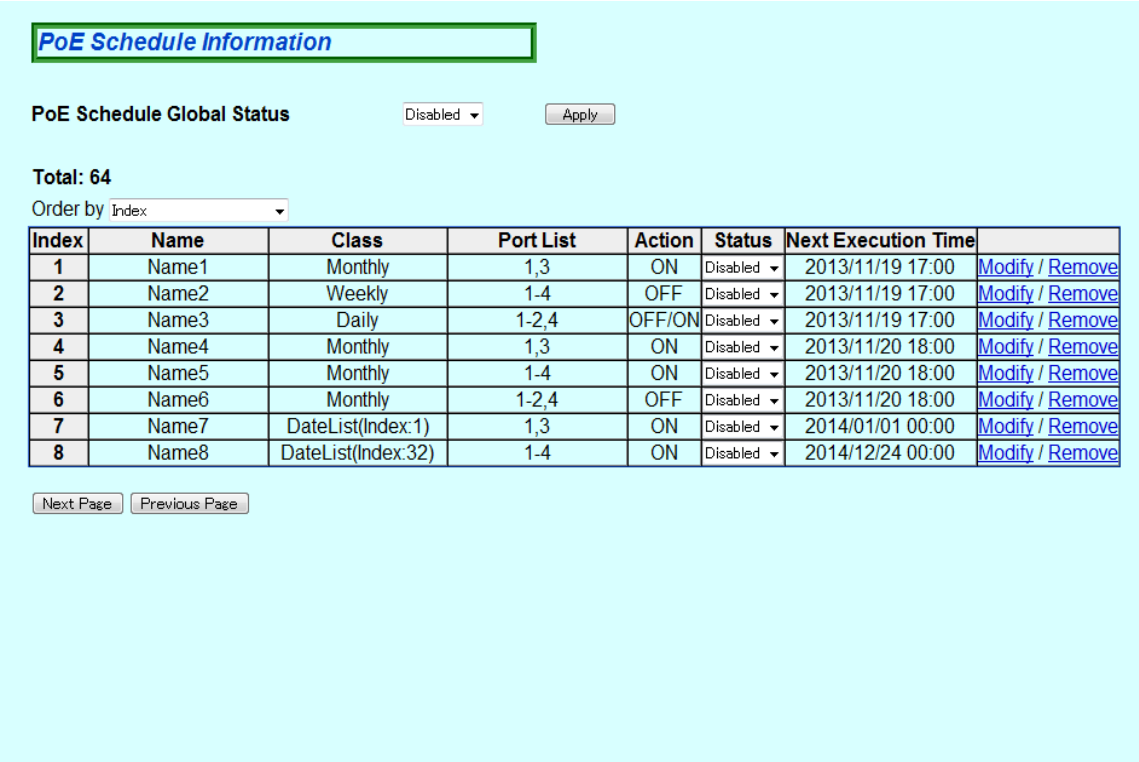
Figure 3-27 PoE Schedule Port List Config

Screen Description

Index	Displays the index number of the PoE port list.
Port List	Displays the port number created in the port list.

3.2.12. PoE Schedule Info

Select "Advanced Config" and "PoE" and then "PoE Schedule Info" to open the screen shown in **Figure 3-28**. This screen displays the PoE schedule that has been configured.



PoE Schedule Information

PoE Schedule Global Status Disabled Apply

Total: 64

Order by Index

Index	Name	Class	Port List	Action	Status	Next Execution Time	
1	Name1	Monthly	1,3	ON	Disabled	2013/11/19 17:00	Modify / Remove
2	Name2	Weekly	1-4	OFF	Disabled	2013/11/19 17:00	Modify / Remove
3	Name3	Daily	1-2,4	OFF/ON	Disabled	2013/11/19 17:00	Modify / Remove
4	Name4	Monthly	1,3	ON	Disabled	2013/11/20 18:00	Modify / Remove
5	Name5	Monthly	1-4	ON	Disabled	2013/11/20 18:00	Modify / Remove
6	Name6	Monthly	1-2,4	OFF	Disabled	2013/11/20 18:00	Modify / Remove
7	Name7	DateList(Index:1)	1,3	ON	Disabled	2014/01/01 00:00	Modify / Remove
8	Name8	DateList(Index:32)	1-4	ON	Disabled	2014/12/24 00:00	Modify / Remove

Next Page Previous Page

Figure 3-28 PoE Schedule Info

Screen Description

PoE Schedule Global Status	Displays the status of the PoE schedule function.	
	Enable	Enables the PoE schedule function.
	Disable	Disables the PoE schedule function.
Order by	Displays the display order setting.	
	Index	Displays PoE schedules in the order of Index numbers.
	Next Execution Time	Displays PoE schedules in the order of next execution time.
Index	Displays the index number of PoE schedule information.	
Name	Displays the name of the PoE schedule.	
Class	Displays the class of the PoE schedule.	
	Daily	Executes the schedule at the specified time every day.
	Weekly	Executes the schedule on the specified day of week and time every week.
	Monthly	Executes the schedule at the specified date and time every month.
	DateList	Executes the schedule at the user-specified date and time.
Port List	Displays the port list.	

Active	Displays the action of the PoE schedule.	
	ON	Turns on PoE.
	OFF	Turns off PoE.
	OFF/ON	Turns off and on PoE (RESTART).
Status	Displays the status of the PoE schedule function of the port.	
	Enable	Enables the PoE schedule function of the port.
	Disable	Disables the PoE schedule function of the port.
Next Execution Time	Displays the date and time when the next schedule is executed.	

3.2.13. PoE Schedule Config

Select "Advanced Config" and "PoE" and then "PoE Schedule Config" or, on the "PoE Schedule Info" screen, select "Modify" to open the screen shown in Figure 3-29. On this screen, you can create or modify a PoE schedule.

Figure 3-29 PoE Schedule Config

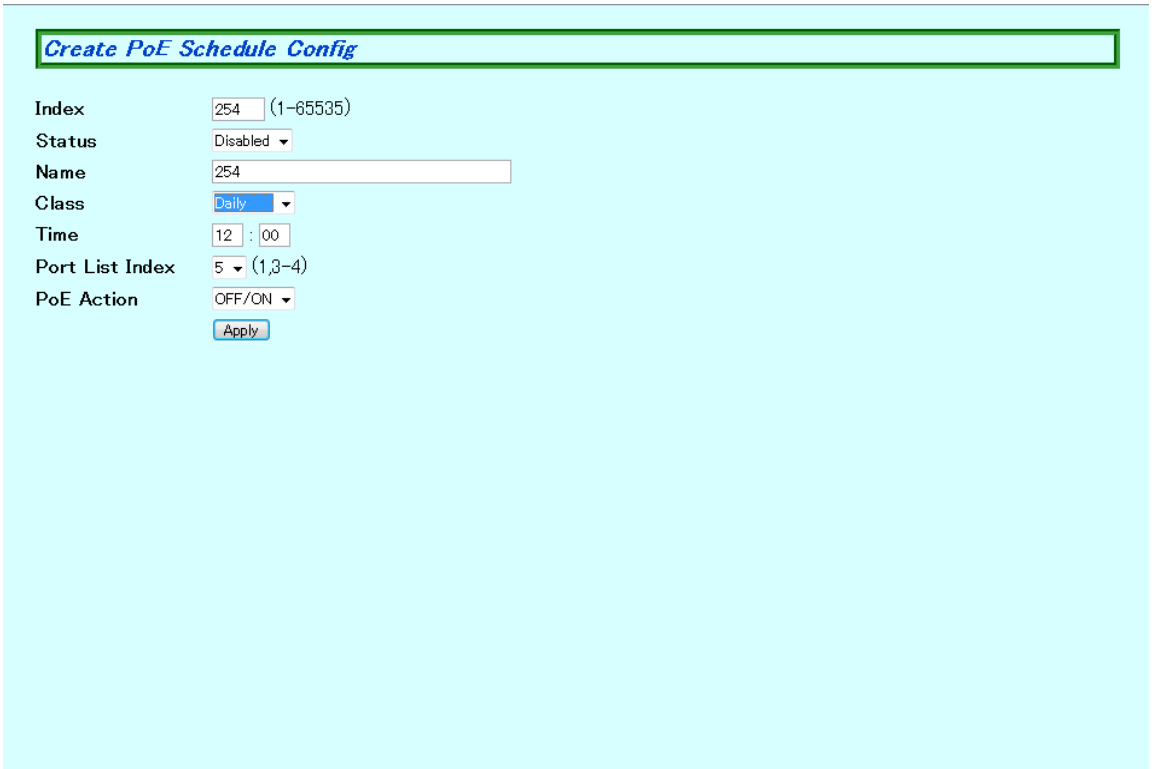


Figure 3-30 PoE Schedule Config (Daily)

Figure 3-31 PoE Schedule Config (Weekly)

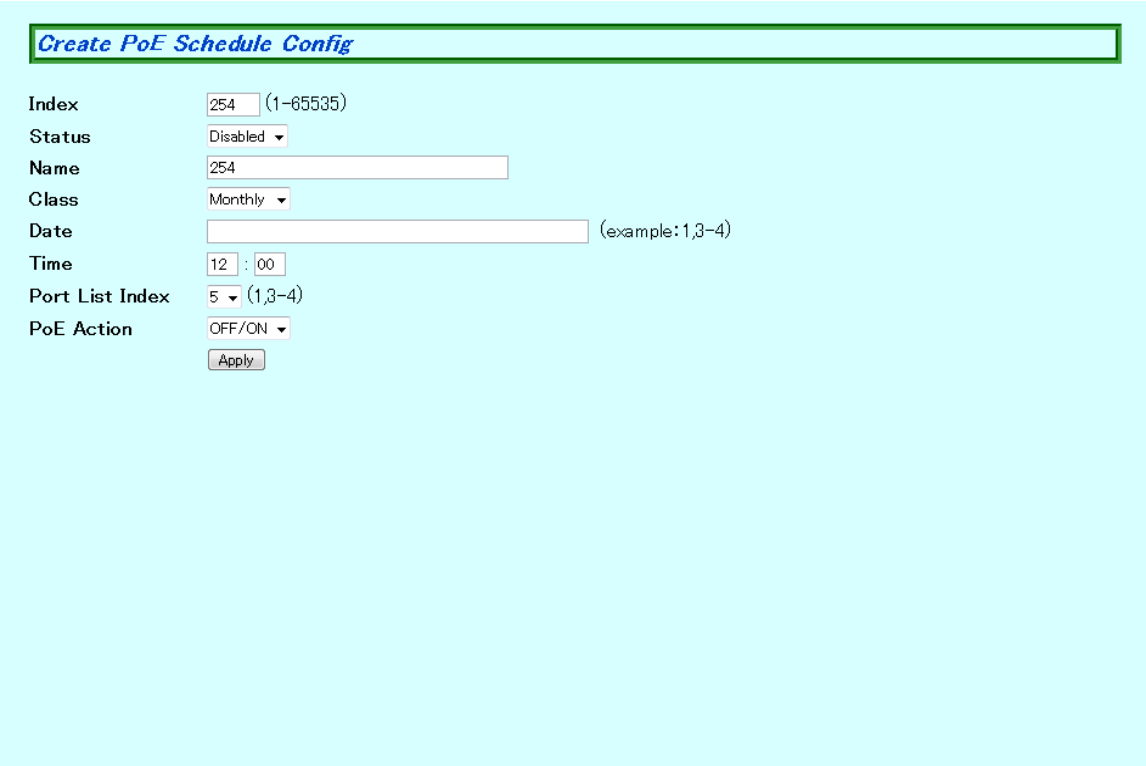


Figure 3-32 PoE Schedule Config (Monthly)

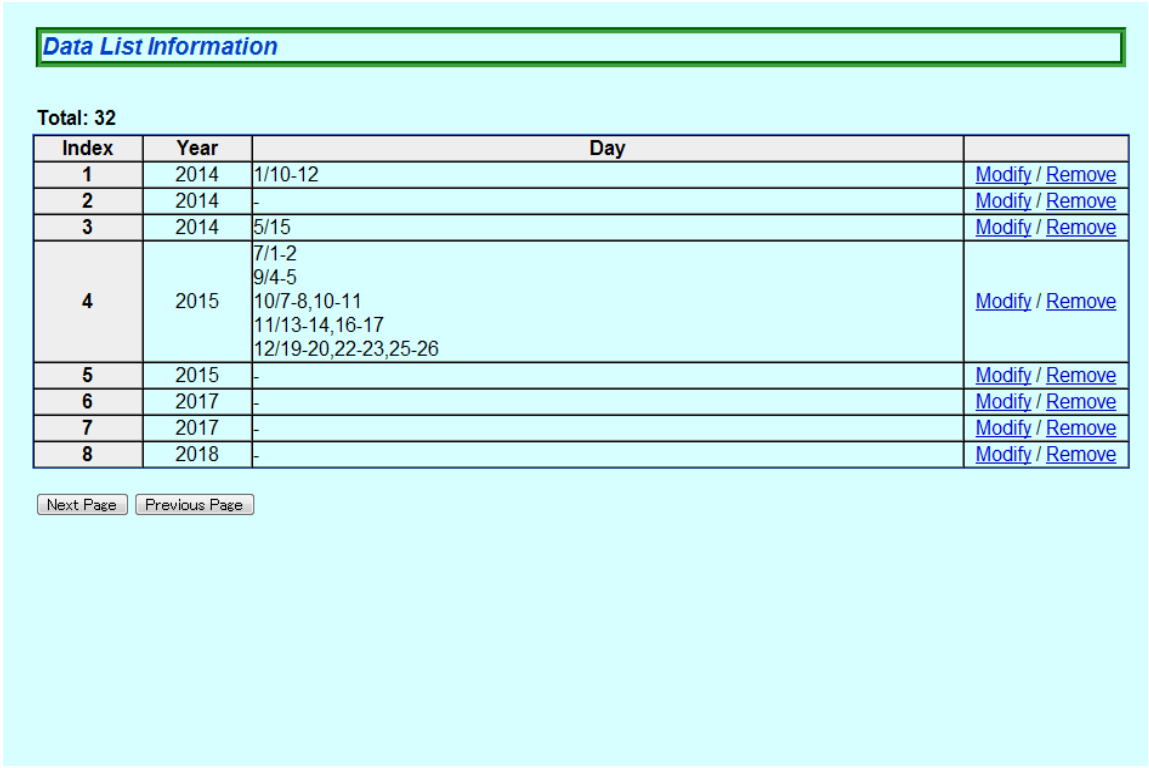
Figure 3-33 PoE Schedule Config (DateList)

Screen Description

Index	Displays the index number of PoE schedule information.	
Status	Displays the status of the PoE schedule function of the port.	
	Enable	Enables the PoE schedule function of the port.
	Disable	Disables the PoE schedule function of the port.
Name	Displays the name of the PoE schedule.	
Class	Displays the class of the PoE schedule.	
	Daily	Executes the schedule at the specified time every day.
	Weekly	Executes the schedule on the specified day of week and time every week.
	Monthly	Executes the schedule on the specified date and time every month.
	DateList	Executes the schedule at the user-specified date and time.
Time	Displays the time when the PoE schedule is executed.	
Port List Index	Displays the index of the port list for which the PoE schedule is executed.	
PoE Action	Displays the action of the PoE schedule.	
	ON	Turns on PoE.
	OFF	Turns off PoE.
	OFF/ON	Turns off and on PoE (RESTART).
Date	Displays the day of week (Weekly) or date (Monthly) when the PoE schedule is executed.	
Date List Index	Displays the index of the date list for which the PoE schedule is executed.	

3.2.14. Date List Info

Select "Advanced Config" and "PoE" and then "Date List Info" to open the screen shown in **Figure 3-34**. This screen displays the date list that has been configured.



Data List Information

Total: 32

Index	Year	Day	
1	2014	1/10-12	Modify / Remove
2	2014	-	Modify / Remove
3	2014	5/15	Modify / Remove
4	2015	7/1-2 9/4-5 10/7-8,10-11 11/13-14,16-17 12/19-20,22-23,25-26	Modify / Remove
5	2015	-	Modify / Remove
6	2017	-	Modify / Remove
7	2017	-	Modify / Remove
8	2018	-	Modify / Remove

Next Page Previous Page

Figure 3-34 Date List Info

Screen Description

Index	Displays the index number of the date list.
Year	Displays the year when the date list is executed.
Day	Displays the day when the date list is executed.

3.2.15. Date List Config

Select "Advanced Config" and "PoE" and then "Date List Config" or, on the "Date List Info" screen, select "Modify" to open the screen shown in **Figure 3-35**. On this screen, you can create or modify a date list.

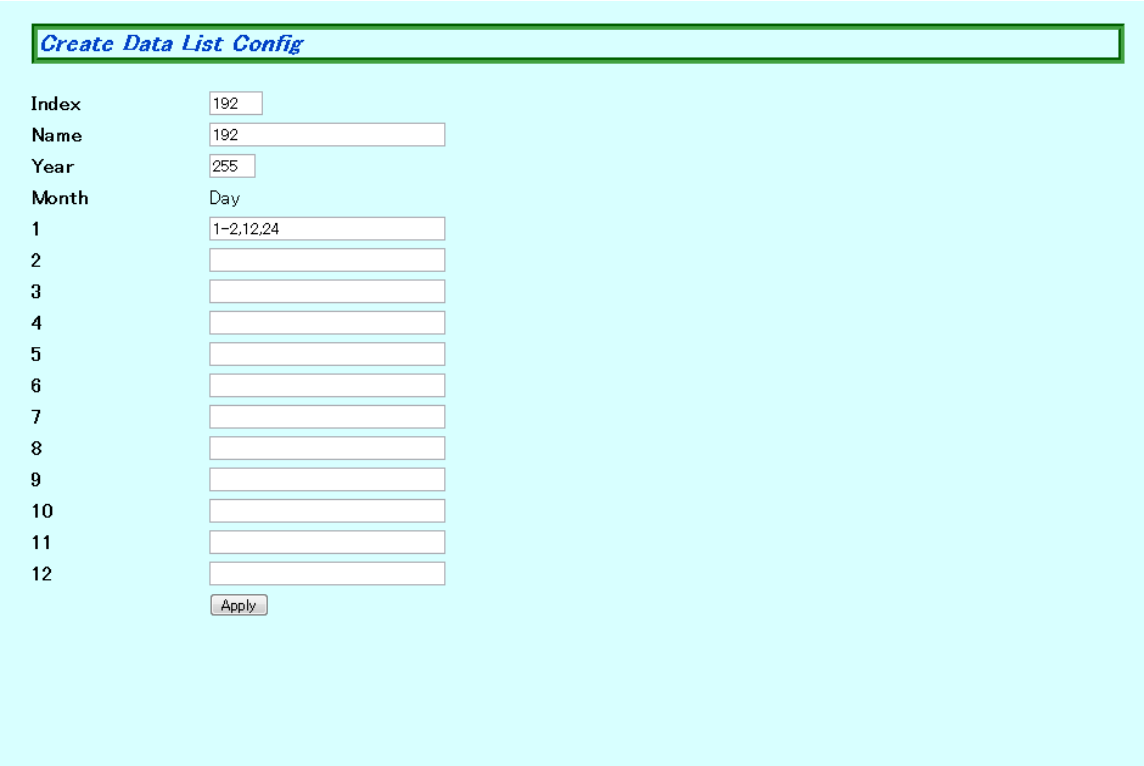


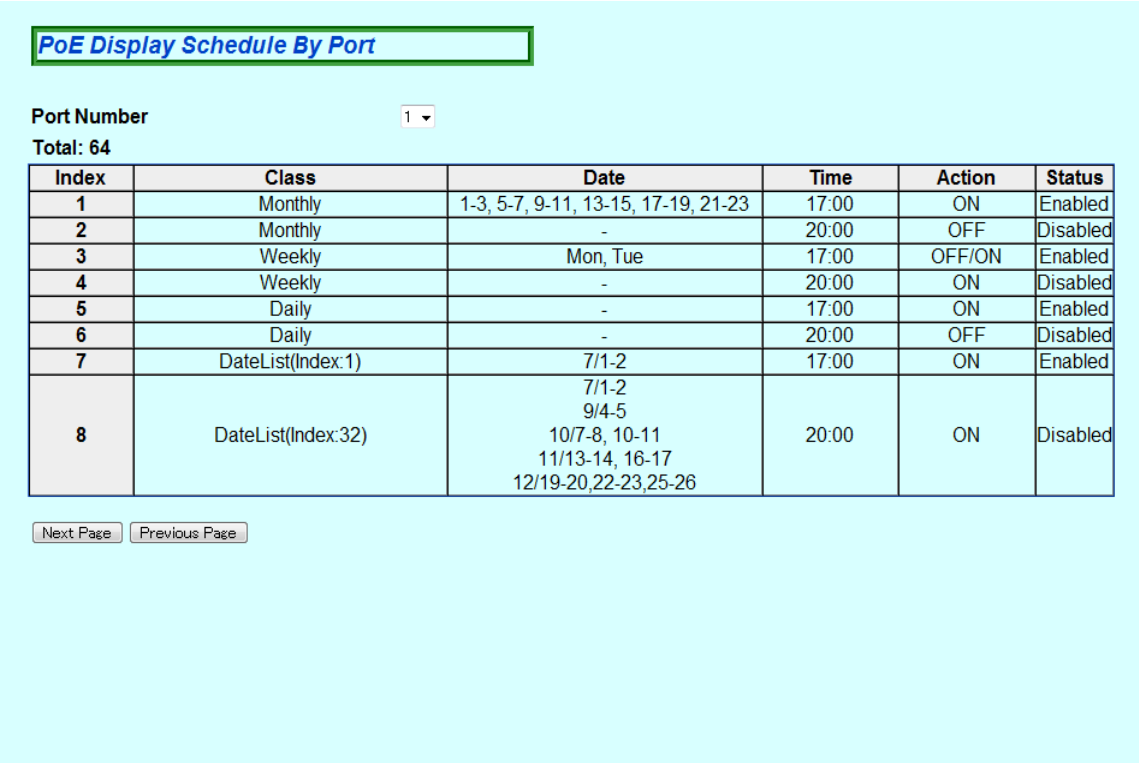
Figure 3-35 Date List Config

Screen Description

Index	Displays the index number of the date list.
Name	Displays the name of the date list.
Year	Displays the year when the date list is executed.
Month	Displays the month of the date list.
Day	Displays the day when the date list is executed.

3.2.16. PoE Display Schedule By Port

Select "Advanced Config" and "PoE" and then "PoE Display Schedule By Port" to open the screen shown in **Figure 3-36**. This screen displays the PoE schedule by port that has been configured.



PoE Display Schedule By Port

Port Number 1

Total: 64

Index	Class	Date	Time	Action	Status
1	Monthly	1-3, 5-7, 9-11, 13-15, 17-19, 21-23	17:00	ON	Enabled
2	Monthly	-	20:00	OFF	Disabled
3	Weekly	Mon, Tue	17:00	OFF/ON	Enabled
4	Weekly	-	20:00	ON	Disabled
5	Daily	-	17:00	ON	Enabled
6	Daily	-	20:00	OFF	Disabled
7	DateList(Index:1)	7/1-2	17:00	ON	Enabled
8	DateList(Index:32)	7/1-2 9/4-5 10/7-8, 10-11 11/13-14, 16-17 12/19-20,22-23,25-26	20:00	ON	Disabled

Next Page Previous Page

Figure 3-36 PoE Display Schedule By Port

Screen Description

Port Number	Specify a port number.	
Index	Displays the index number of PoE schedule information.	
Class	Displays the class of the PoE schedule.	
	Daily	Executes the schedule at the specified time every day.
	Weekly	Executes the schedule on the specified day of week and time every week.
	Monthly	Executes the schedule at the specified date and time every month.
	DateList	Executes the schedule at the user-specified date and time.
Date	Displays the day of week (Weekly) or date (Monthly) when the PoE schedule is executed.	
Time	Displays the time when the PoE schedule is executed.	
Active	Displays the action of the PoE schedule.	
	ON	Turns on PoE.
	OFF	Turns off PoE.
	OFF/ON	Turns off and on PoE (RESTART).
Status	Displays the status of the PoE schedule function of the port.	
	Enable	Enables the PoE schedule function of the port.
	Disable	Disables the PoE schedule function of the port.

3.2.17. Loop Detection Config

Select "Advanced Config" and "Loop Detection" and then "Loop Detection Config" to open the screen shown in Figure 3-37. On this screen, you can configure additional settings.

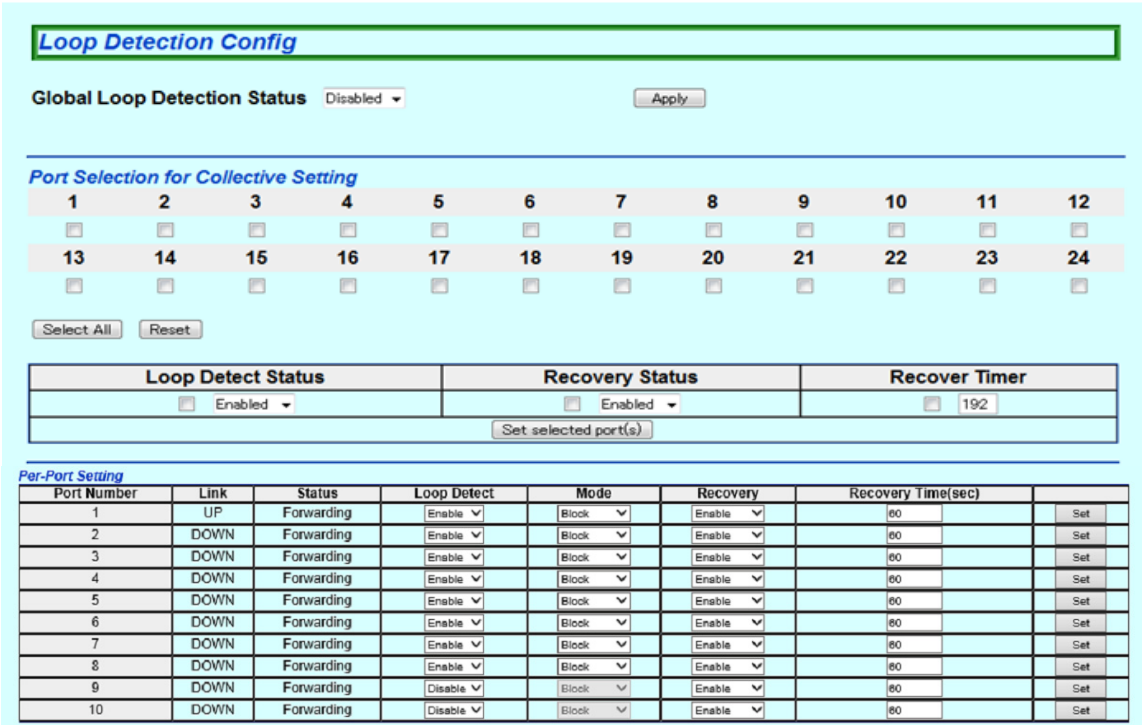


Figure 3-37 Loop Detection Config

Screen Description

Global Loop Detection Status	Displays the status of the Global Loop Detection function.	
	Enable	Enables Global Loop Detection.
	Disable	Disables Global Loop Detection.
Mode	Displays the setting status of the Loop detection mode for that port.	
	Block	When the Switching Hub detects loop, the ports are blocked. (Factory default setting)
	Shutdown	When the Switching Hub detects loop, the ports are shut down.
Loop Detect Status	Enables/disables the loop detection function for ports.	
Recovery Status	Enables/disables recovery when a loop is detected in a port.	
Recover Timer	Enters the time until recovery when a loop is detected in a port. The factory default setting is 60 seconds.	

3.2.18. Loop History Info

Select "Advanced Config" and "Loop Detection" and then "Loop History Info" to open the screen shown in **Figure 3-38**. On this screen, you can configure additional settings.

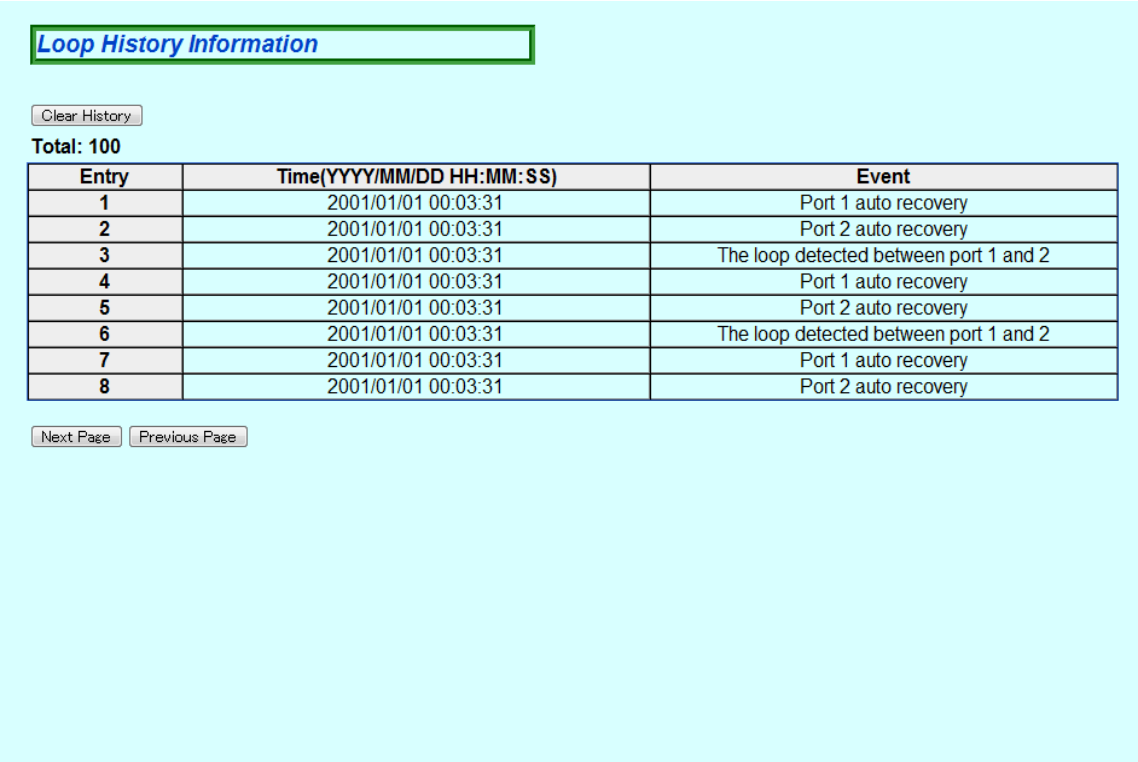


Figure 3-38 Loop History Info

Screen Description

Number	Displays the loop detection event number.	
Time	Displays the time when the loop detection event occurred.	
Event	Displays the description of the loop detection event that occurred on this Switching Hub.	
	Port xxx auto recovery	Auto-recovery was conducted after loop detection.
	The loop detected between xxx and yyy	A loop occurred between the displayed ports.

3.3. System Tools

3.3.1. Software Update

Select "System Tools" and "Software Update" to open the screen shown in **Figure 3-39**. On this screen, you can update the firmware.

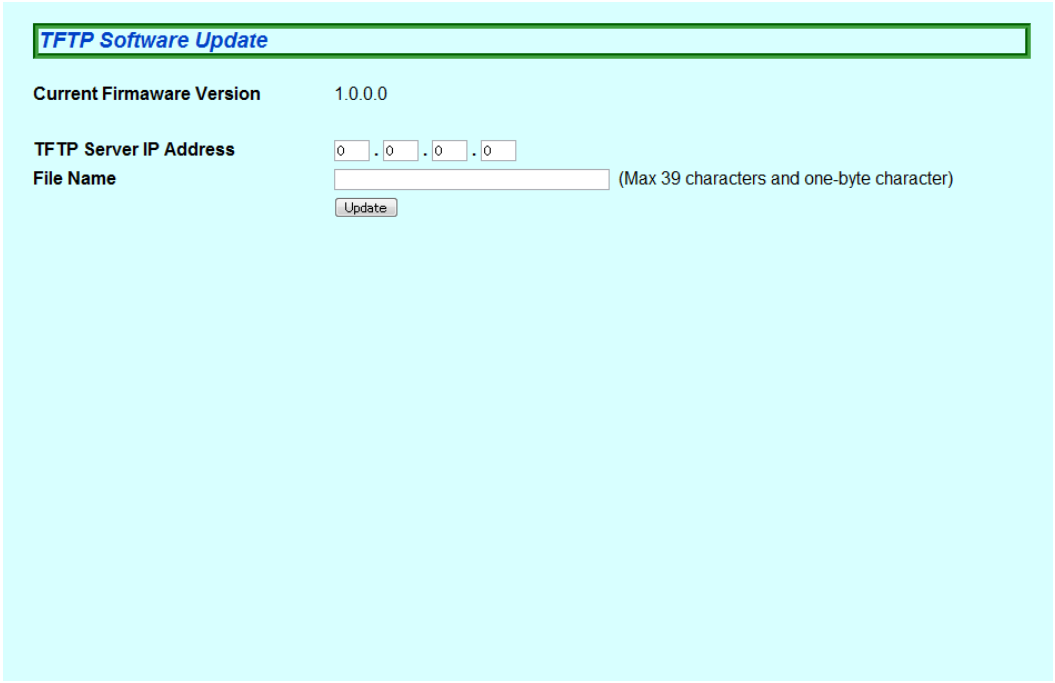


Figure 3-39 Software Update

Screen Description

Current Firmaware Version	Displays the current firmware version.
TFTP Server IP Address	Displays the IP address of the TFTP server on which the firmware for update has been saved.
File Name	Displays the file name of the firmware for update.

Note: Before updating the firmware, you must save the configuration information in accordance with Section 3.3.3. Unless you save the configuration information, the settings configured so far will be deleted upon restart.

3.3.2. Reboot

Select "System Tools" and "Reboot" to open the screen shown in Figure 3-40. On this screen, you can reboot this Switching Hub.

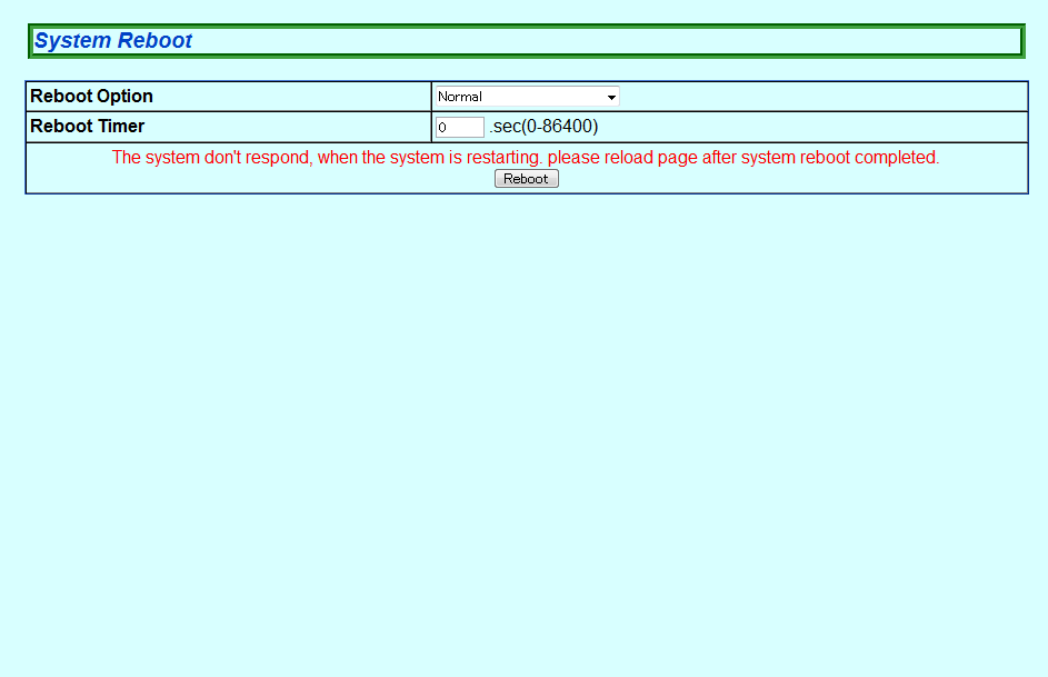


Figure 3-40 Reboot

Screen Description

Reboot Option	Displays the reboot method. "Normal" is the factory default setting.	
	Normal	Normal reboot is conducted.
	Factory Default	All the settings are reset to the factory default settings.
	Factory Defauly Except IP	All the settings except the IP address are reset to the factory default settings.

Note: There is no response while reboot is in progress. Reload the settings after reboot is completed.

3.3.3. Save Current Config

Select "System Tools" and "Save Current Config" to open the screen shown in **Figure 3-41**. On this screen, you can save configuration information.

Figure 3-41 Save Current Config

Click Save to save this Switching Hub's settings to its internal RAM. Unless the configuration information is saved, the settings configured so far will not be reflected after restart.

After saving is completed, a message "**Save Completed**" is displayed.

3.3.4. Statistics

Select "System Tools" and "Ststistics" to open the screen shown in Figure 3-42. On this screen, you can check the statistic information.

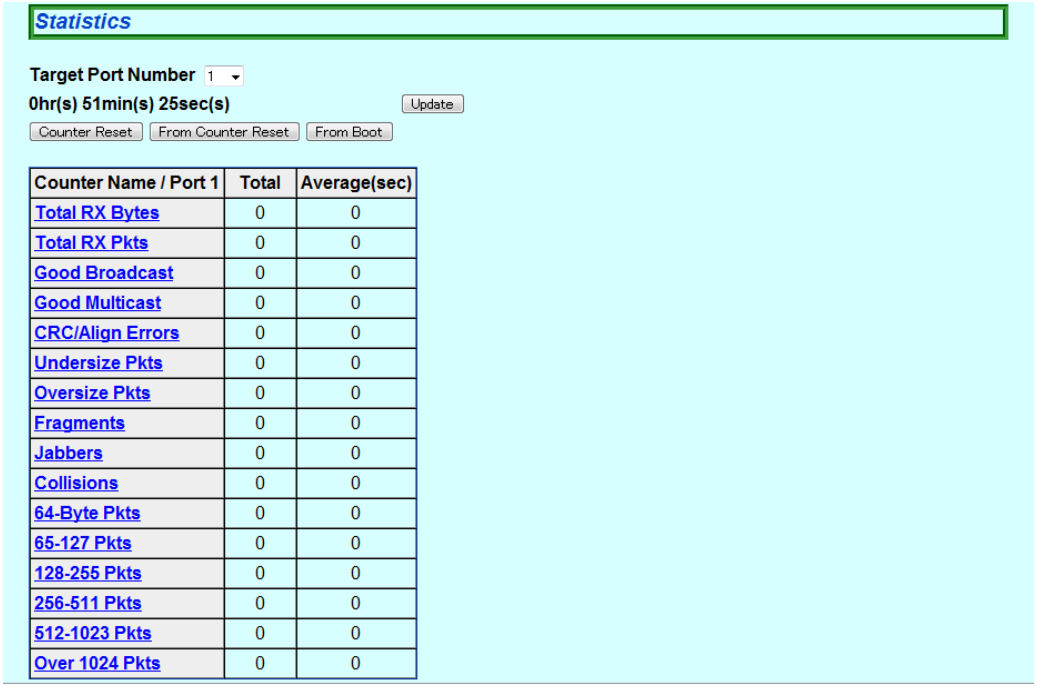


Figure 3-42 統計情報

Screen Description

Target Port Number	Displays the port number.
Time	Displays the time elapsed since power-on or counter reset.
Counter Name	Displays the counter name.
Total	Displays the counter value.
Average(sec)	Displays the average counter value per second.

The counter values are listed below.

Total RX Bytes	Displays the number of bytes of all packets received.
Total RX Pkts	Displays the number of all packets received.
Good Broadcast	Displays the number of broadcast packets received.
Good Multicast	Displays the number of multicast packets received.
CRC/Align Errors	Displays the number of error packets that have a normal packet length (64 to 1518 bytes); however, have an error found by an error detection code (FCS). If the packet length is an integral multiple of one byte, the error is a CRC (FCS) error. If not, it is an alignment error.
Undersize Pkts	Displays the number of error packets that have a packet length less than 64 bytes; however, have no other errors.
Oversize Pkts	<When the Jumbo status is Disabled> Displays the number of packets having a packet length greater than 1518 bytes. <When the Jumbo status is Enabled> Displays the number of packets having a packet length greater than 9216 bytes.
Fragments	Displays the number of error packets that have a packet length less than 64 bytes and have a CRC or alignment error.
Jabbers	Displays the number of error packets that have a packet length less than 1518 bytes and have a CRC or alignment error.
Collisions	Displays the number of packet collisions.
64-Byte Pkts	Displays the total number of packets having a packet length of 64 bytes.
65-127 Pkts	Displays the total number of packets having a packet length of 65 to 127 bytes.
128-255 Pkts	Displays the total number of packets having a packet length of 128 to 255 bytes.
256-511 Pkts	Displays the total number of packets having a packet length of 256 to 511 bytes.
512-1023 Pkts	Displays the total number of packets having a packet length of 512 to 1023 bytes.
Over 1024 Pkts	Displays the total number of packets having a packet length of 1024 bytes. * This item is displayed when the Jumbo Status is Disable.
1024-1518 Pkts	Displays the total number of packets having a packet length of 1024 to 1518 bytes. * This item is displayed when the Jumbo Status is Enable.

Click a counter name to open the screen shown in Figure 3-43. This screen displays the totals and per-second averages of the counter by port.

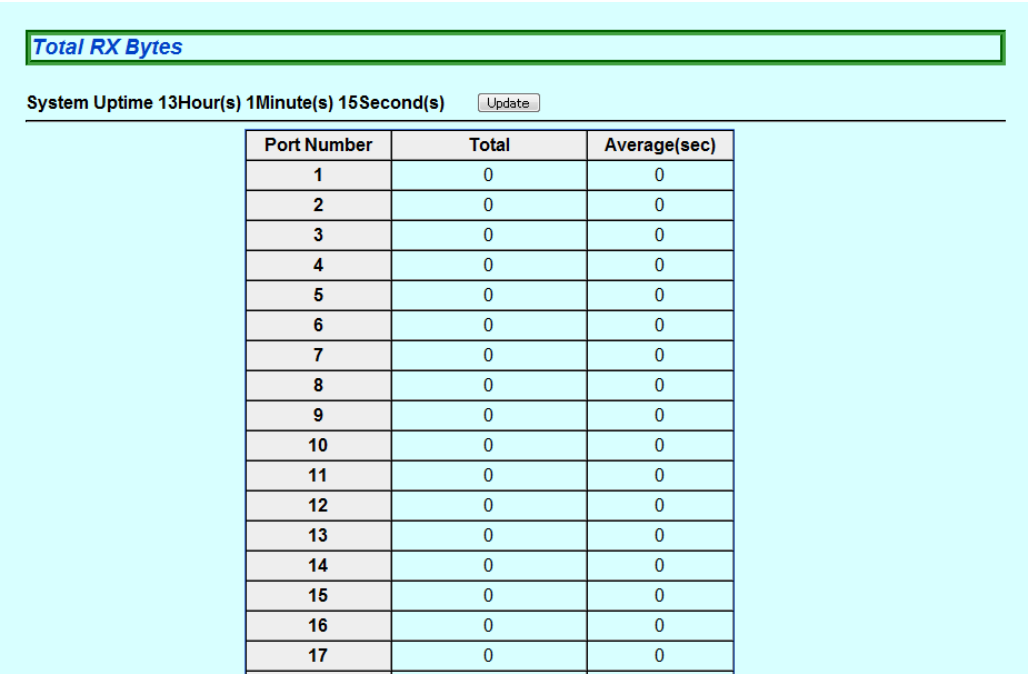


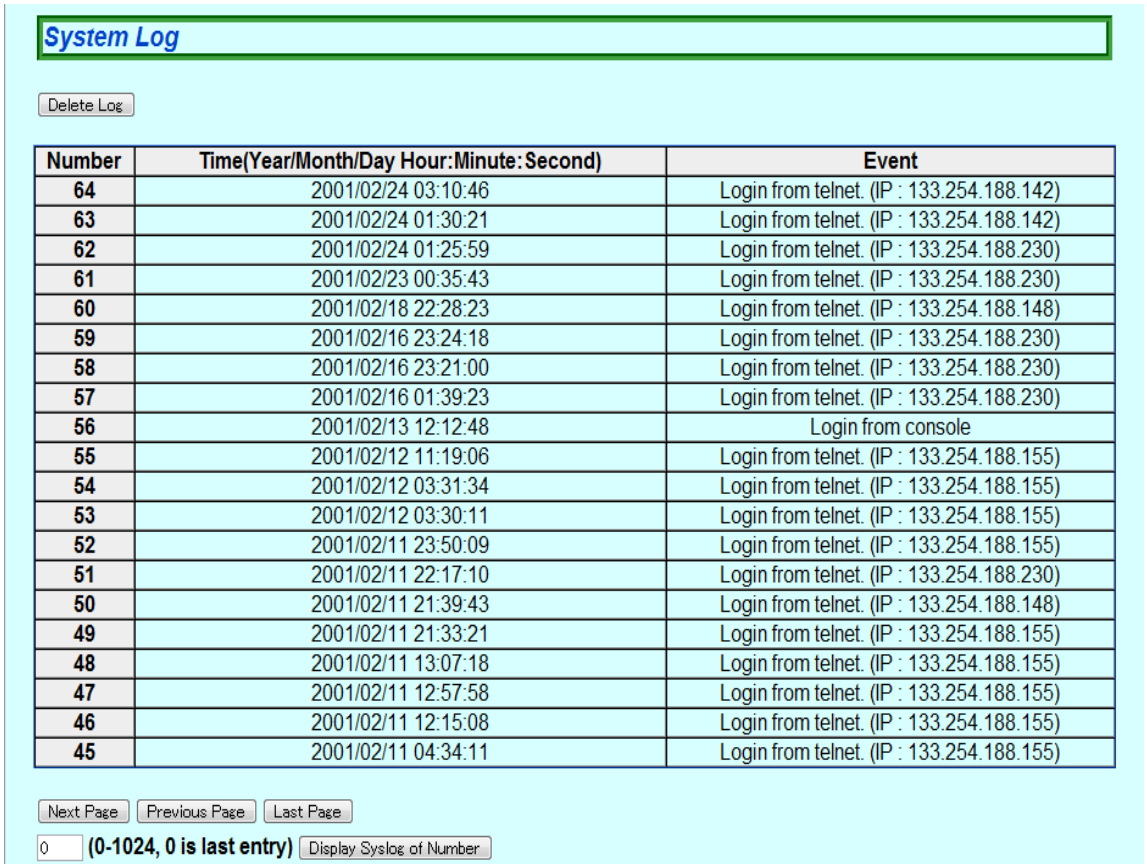
Figure 3-43 Statistic Information of a Counter by Port

Screen Description

Port Number	Displays the port number.
Total	Displays the counter value.
Average(sec)	Displays the average counter value per second.

3.3.5. System log

Select "System Tools" and "System log" to open the screen shown in Figure 3-44. This screen displays the logs of events that occurred on this Switching Hub. By viewing events, you can keep track of phenomena that occurred on this Switching Hub, which are useful for network management.



System Log

Delete Log

Number	Time(Year/Month/Day Hour:Minute:Second)	Event
64	2001/02/24 03:10:46	Login from telnet. (IP : 133.254.188.142)
63	2001/02/24 01:30:21	Login from telnet. (IP : 133.254.188.142)
62	2001/02/24 01:25:59	Login from telnet. (IP : 133.254.188.230)
61	2001/02/23 00:35:43	Login from telnet. (IP : 133.254.188.230)
60	2001/02/18 22:28:23	Login from telnet. (IP : 133.254.188.148)
59	2001/02/16 23:24:18	Login from telnet. (IP : 133.254.188.230)
58	2001/02/16 23:21:00	Login from telnet. (IP : 133.254.188.230)
57	2001/02/16 01:39:23	Login from telnet. (IP : 133.254.188.230)
56	2001/02/13 12:12:48	Login from console
55	2001/02/12 11:19:06	Login from telnet. (IP : 133.254.188.155)
54	2001/02/12 03:31:34	Login from telnet. (IP : 133.254.188.155)
53	2001/02/12 03:30:11	Login from telnet. (IP : 133.254.188.155)
52	2001/02/11 23:50:09	Login from telnet. (IP : 133.254.188.155)
51	2001/02/11 22:17:10	Login from telnet. (IP : 133.254.188.230)
50	2001/02/11 21:39:43	Login from telnet. (IP : 133.254.188.148)
49	2001/02/11 21:33:21	Login from telnet. (IP : 133.254.188.155)
48	2001/02/11 13:07:18	Login from telnet. (IP : 133.254.188.155)
47	2001/02/11 12:57:58	Login from telnet. (IP : 133.254.188.155)
46	2001/02/11 12:15:08	Login from telnet. (IP : 133.254.188.155)
45	2001/02/11 04:34:11	Login from telnet. (IP : 133.254.188.155)

Next Page Previous Page Last Page

0 (0-1024, 0 is last entry) Display Syslog of Number

Figure 3-44 System log

Some of the events displayed on this screen are linked to SNMP traps. Events for which trap occurrence has been configured are displayed. The relationship with traps are shown below.

Screen Description

Entry	Displays the event number.	
Time	Displays the time when the event occurred. The cumulative time since power-on is displayed if 時刻設定 is not configured.	
Event	Displays the description of the event that occurred on this Switching Hub.	
	Login from console	There was login from the console port .
	Login from telnet, xxx.xxx.xxx.xxx	There was login from Telnet.
	Configuration changed	The configuration was changed.
	Runtime code changes	The firmware was changed.
	Configuration file upload	The configuration file was transferred to the TFTP server.
	Configuration file download	The configuration file was transferred from the TFTP server.
	Reboot: Normal	This Switching Hub rebooted.
	Reboot: Factory Default	This Switching Hub rebooted and reset the settings to factory default.
	Reboot: Factory Default Except IP	This Switching Hub rebooted and reset the settings except the IP address to factory default.
	SNTP first update to yyyy/mm/dd hh:mm:ss	This Switching Hub accessed SNTP server to retrieve time information.
	! Stus: xxxxxxxx IP: x Code: x Add: xxxxxxxx ! Tsk: "xxxx" P:xxxxxxxxx Pri: xx	Displays the system information when an exception occurs.
	Port-*xx* Link-up	The port link is up.
	Port-*xx* Link-down	The port link is down.
	Port-*xx* Power ON notification	The power supply to the target port is turned ON.
	Port-*xx* Power OFF notification	The power supply to the target port is turned OFF.
	System Cold Start	This Switching Hub powered on.

Note: Up to 1024 system logs are saved. If 1025 or more system logs are created, the oldest system log will be deleted and overwritten with a new log.

3.3.6. Config File Transfer

Select "System Tools" and "Config File Transfer" to open the screen shown in **Figure 3-45**. On this screen, you can upload and download configuration files.

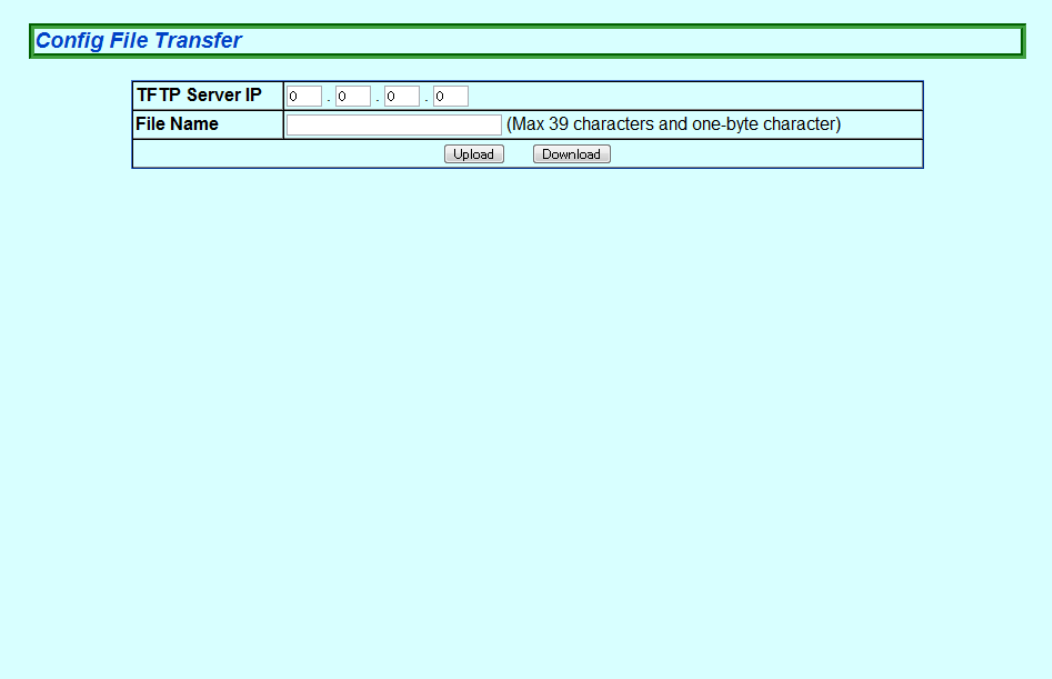


Figure 3-45 Config File Transfer

Screen Description

TFTP Server IP	Displays the IP address of the TFTP server that saves and reads configuration information.
File Name	Displays the file name of the configuration information.

Select "Upload" to save the configuration information to the TFTP server or "Download" to load the configuration information to this Switching Hub.

3.3.7. Ping Execution

Select "System Tools" and "Ping Execution" to open the screen shown in **Figure 3-46**. On this screen, you can send a ping.

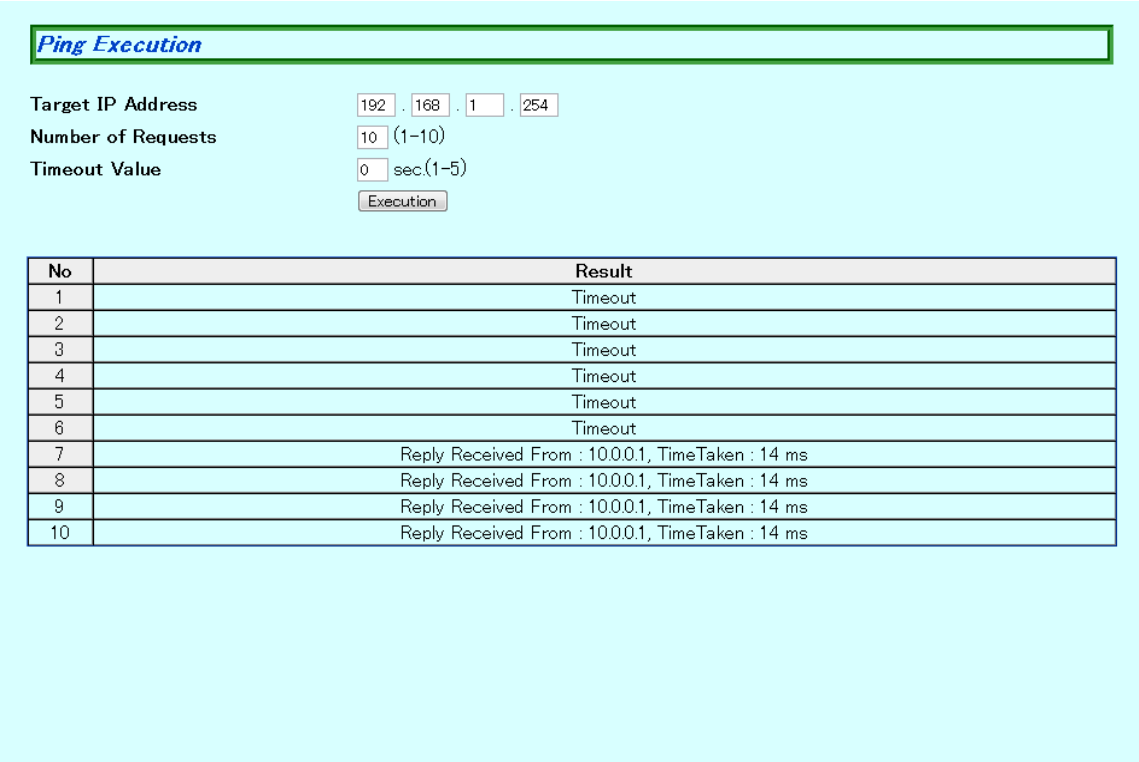


Figure 3-46 Ping Execution

Screen Description

Target IP Address	Displays the IP address of the target to which a ping is sent. "0.0.0.0" is the factory default setting.
Number of Request	Displays the number of times a ping is to be sent. "10" is the factory default setting.
Timeout Value	Displays the timeout time. "3" is the factory default setting.
Result	Displays the ping execution result.

3.3.8. Exception Handler

Select "System Tools" and "Exception Handler" to open the screen shown in **Figure 3-47**. On this screen, you can configure the Exception Handler settings.

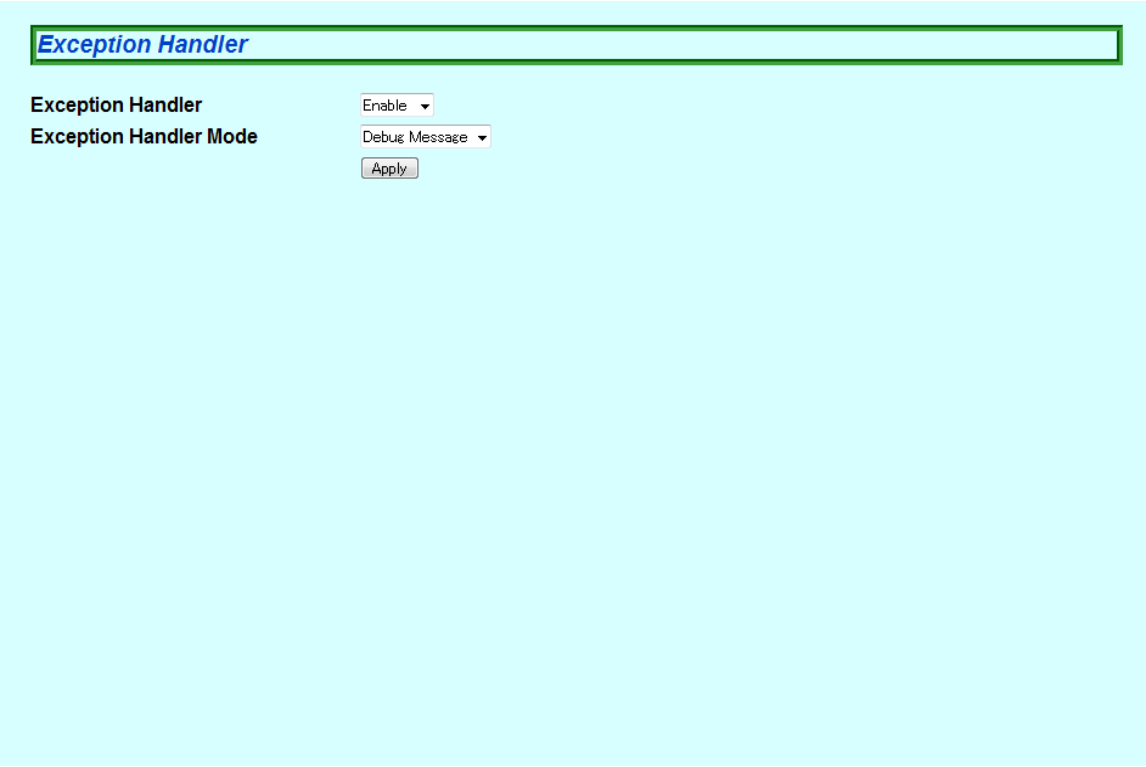


Figure 3-47 Exception Handler

Screen Description

Exception Handler	Displays the status of the Exception Handler function.	
	Enable	Enables the Exception Handler.
	Disable	Disables the Exception Handler.
Exception Handler Mode	Displays the mode of the Exception Handler function.	
	Debug Message	Outputs a debug message to the console when an exception occurs.
	System Reboot	Reboots the system when an exception occurs.
	Both	Outputs a debug message to the console and reboots the system when an exception occurs.

3.3.9. Watchdog Timer

Select "System Tools" and "Watchdog Timer" to open the screen shown in Figure 3-48. On this screen, you can set the Watchdog Timer settings.

Figure 3-48 Watchdog Timer

Screen Description

Watch Dog Timer	Displays the status of the Watchdog Timer function.	
	Enable	Enables the Watchdog Timer.
	Disable	Disables the Watchdog Timer.

4. Appendix

4.1. Specifications

○ Interfacez
- Twisted-pair ports: Ports 1 to 24 (RJ45 connector)
  - ✧ Transmission system IEEE802.3 10BASE-T
    IEEE802.3u 100BASE-TX
    IEEE802.3ab 1000BASE-T

- Console port x 1 (RJ45 connector)
  - ✧ RS-232C (ITU-TS V.24)

○ Switching system

- Store-and-forward system		
- Forwarding rate	10BASE-T	14,880 pps
	100BASE-TX	148,800 pps
	1000BASE-T/SFP	1,488,000 pps
- MAC address table	8K entries/unit	
- Buffered memory	512 KB	
- Flow control	IEEE802.3x (full-duplex)	
	Back pressure (half-duplex)	

○ Major functions

- IEEE802.1Q	Tag VLAN (256 VLANs max.)
- IEEE802.1p	QoS function (Four levels of Priority Queue supported)
- IEEE802.3x	Flow control
- IEEE802.3az	Energy Efficient Ethernet (LPI:10BASE-Te not supported)
- Link aggregation	Capable of establishing up to eight ports in eight groups
- Port monitoring	1:n supported

○ Agent specifications
- TELNET (RFC854)
- TFTP (RFC783)
- BOOTP (RFC951)
- SNTP (RFC1769)

○ Power supply specifications

- Power supply	AC 100-240 V, 50/60 Hz, 2.6 A
- Power consumption	Max. 172 W(29.8 W when not supplying power), Min.18.5 W

○ Environment specifications

- Operating temperature	0 to 45 ℃
- Operating humidity	20 to 80 % RH (no condensation)

- Storage temperature -20 to 70 ℃
- Storage humidity 10 to 90 % RH (no condensation)

○ External specifications
- Dimensions 44mm (Height) x 440mm((Width) x 256 mm (Depth)

  (Excluding protruding sections)
- Mass (Weight) 3,600 g

4.2. Easy IP Address Setup Function

The following are points to note when using the easy IP address setup function.

[Known compatible software]
Panasonic Life Solutions Networks Co., Ltd. "ZEQUOassistPlus" Ver. 1.1.1.0
Panasonic Corporation "Easy IP Setup" V3.01/V4.00/V4.24R00
Panasonic System Networks Co., Ltd. "Easy Config" Ver3.10R00

[User-settable items]
* IP address, subnet mask, and default gateway
* System name
  * This item can be configured only with the software "Easy Config."
    In the software, the item is displayed as "Camera name."

[Restrictions]
* The time for accepting setting changes is limited to 20 minutes after power-on to ensure security.
  However, you can change settings regardless of the time limit if the IP address, subnet mask, default gateway, user name, and password values are set to factory defaults.
  * Even after the time limit is reached, you can check the current settings displayed in a list.
* The following function of the software "Easy Config" cannot be used.
  - "Auto setup function"

*Please contact your manufacturer for information about network cameras.

5. Troubleshooting

If you find any problem, please take the following steps to check.

◆ LED indicators
- ■ The power LED (POWER) is not lit.
  - ● Is the power cord connected? Please confirm that the power cord is securely connected to the power port.
  - ● Use the Switching Hub within the range of operating temperature.
- ■ The port LED is not lit on the Status mode.
  - ● Is the cable correctly connected to the target port?
  - ● Is an appropriate cable used?
  - ● Is a 10BASE-T, 100BASE-TX, or 1000BASE-T terminal connected to the target port?
  - ● Auto-negotiation may have failed.
    → Set the port of this Switching Hub or the terminal to half-duplex mode.
- ■ The port LED (Right) is lit solid orange.
  - ● A loop is occurring. When you recover the loop, solid orange LED is turned off.
- ■ LOOP HISTORY LED is flashing green.
  - ● There is a port having a loop or a port on which a loop was recovered less than 3 days ago.

◆ Communications fail.
- ■ Communications with all ports are down or slow.
  - ● Are the communication speed and mode settings correct?
    → If the communication mode signal cannot be properly obtained, apply half-duplex mode.
    Switching Hub the communication mode of the connection target to half-duplex mode.
    Do not fix the communication mode of the connected terminal to full-duplex mode.
  - ● Are the ports linking up?
    → If the MNO series power saving mode is set to "Full", try setting it to "Half" or "Disabled."
  - ● Is the bandwidth usage rate of the backbone network to which this Switching Hub is connected excessively high?
    → Try separating this Switching Hub from the backbone network.
  - ● Is the port LED (Right) lit solid orange?
    → If the port LED (Right) is lit solid orange, the port is being blocked by the Loop detection and blocking function. After the loop was recovered in the port, wait for more than the recovery time until a port starts to be automatically recovered, or release the blocked port on the configuration screen.

◆ PoE power supply is impossible.

■ The PoE power supply LED (PoE) is not lit.

● Is the LED mode set to the Power supply mode (PoE)?
→ Select the Power supply mode LED (PoE) by pressing the LED switch button.

● Is the cable appropriate to use and connected to a port that supports PoE power supply?

● Is the PoE-ready terminal connected to the port compliant with the IEEE802.3af standard?

● Is a single port or the whole unit overloaded?

■ The port LED (Left) is flashing orange when the LED displays the Power supply mode.

● Is the whole unit overloaded because power request exceeds the limit of 124 W?

■ Power supply suddenly stops.

● If you are using a PoE power receiving device that has different power consumption between during normal operation and during standby power consumption, the Switching Hub may be overloaded.
→ After switching the LED mode to the Power supply mode (PoE), verify that a single port is not overloaded [the Port LED (Left) is not flashing orange] or that power supply is not exceeding the limit of the whole unit (The PoE LIM. LED is not flashing orange).

6. After-sales Service

1. Warranty card

A warranty card is included in the operating instructions (paper) provided with this Switching Hub. Be sure to confirm that the date of purchase, shop (company) name, etc., have been entered in the warranty card and then receive it from the shop. Keep it in a safe place. The warranty period is one year from the date of purchase.

2. Repair request

If a problem is not solved even after taking the steps shown in the "Troubleshooting" section in this manual, please use the Memo shown on the next page and make a repair request with the following information to the shop where you purchased this Switching Hub.

- ◆ Product name ◆ Model No.
- ◆ Product serial No.(11 alphanumeric characters labeled on the product)
- ◆ Firmware version(The number after "Ver." labeled on the unit package)
- ◆ Problem status (Please give as concrete information as possible.)
- ● Within the warranty period:
  Repair service will be provided in accordance with the conditions stipulated in the warranty card.
  Please bring your product and warranty card in the shop where you purchased it.
- ● After the warranty period expires:
  If our check determines that your product is repairable, a chargeable repair service is available upon your request.
  Please contact the shop where you purchased the product.

3. Inquiries about after-sales service and the product

Contact the shop where you purchased the product or call/fax the following number.

Memo(Fill in for future reference)

<table>
<tr><td rowspan="2">Date of purchase</td><td colspan="5" rowspan="2"></td><td>Product name</td><td colspan="5">Switch-S24GPWR</td></tr>
<tr><td>Model No.</td><td colspan="5">PN25249</td></tr>
<tr><td rowspan="2">Firmware version (*)</td><td colspan="4">Boot Code</td><td colspan="6"></td></tr>
<tr><td colspan="4">Runtime Code</td><td colspan="6"></td></tr>
<tr><td rowspan="2">Serial No.</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td colspan="10">(11 alphanumeric characters labeled on the product)</td></tr>
<tr><td>Shop/Sales company</td><td colspan="10">Tel:</td></tr>
<tr><td>Customer service contact</td><td colspan="10">Tel:</td></tr>
</table>

(* You can check the version on the screen described in Section 4.2 of the Operation Manual - for Menu Interface.)

Panasonic Life Solutions Networks Co., Ltd.

2-12-7, Higashi-Shimbashi, Minato-ku, Tokyo Japan, 105-0021
URL: http://panasonic.co.jp/ls/plsnw/english/

P1014-3100