

Web Hub

WH-2400M

WH-2400S

Network Management Manual

Trademarks

Copyright © PLANET Technology Corp. 1998.

Contents subject to revision without prior notice.

PLANET is a registered trademark of PLANET Technology Corp. All other trademarks belong to their respective owners.

FCC Warning

This device has been tested and found to comply with limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the user's manual, may cause interference in which case user will be required to correct the interference at his own expense.

CE Mark Warning

This is a Class A product. In a domestic environment, this product may cause radio interference in which case the user may be required to take adequate measures.

Reversion

User's Network management guide for PLANET Web Hub

Models: WH-2400M / WH-2400S

Rev: 1.0 (Feb. 1998)

Part No.: EMWH24MGT

Table of Contents

Chapter 1.....	1.1
Introduction	1.1
Getting Started.....	1.2
Chapter 2.....	2-1
System	2-1
Home Page	2-1
Dynamic Device Panel.....	2-2
Hub ID.....	2-3
Link Symbol	2-4
LEDs	2-4
Other Links.....	2-5
Identifying Slave Panel.....	2-5
Activating Slave Panels.....	2-6
Active Slave Device Panel.....	2-6
Ports	2-7
Arranging Device Panels.....	2-8
System Information.....	2-9
Chapter 3.....	3-1
Management Interface.....	3-1
Networking.....	3-1
Serial Port Information.....	3-2
Chapter 4.....	1
Control.....	1
Hub	1
Selecting a Hub.....	2
Naming a Hub.....	4
Apply.....	5
Port	6

Port Number	7
Naming a Port.....	8
Scroll to View Named Port.....	9
Administration.....	10
Disabled Port	11
Chapter 5.....	1
Statistics	1
Hub Statistics.....	1
Port Statistics.....	3
Select Hub	4
Select Port	5
Port ID/Port Name	5
Error 404	7
Chapter 6.....	1
Utility	1
Restart Agent.....	1
Appendix A.....	A-1
IE 3.0 and IE 4.0 Setup to Enable Java Communication.....	A-1

Chapter 1

Introduction

WEB HUB's Embedded Web Server integrates HTML Forms and Java™ Applets for dynamic, real-time status update and monitoring and Standard Web Server security makes Web Management a reality now.

With Web Management, the LAN Administrator can virtually manage the system from anywhere in the world, at any time.

Web Management functions of WEB HUB fall into 6 main categories:

- System
 - ◆ Home Page
 - ◆ System Information
- Management Interface
 - ◆ Networking
 - ◆ Serial Port
- Control
 - ◆ Hub
 - ◆ Port
- Statistics
 - ◆ Hub
 - ◆ Port
- Utility
 - ◆ Reset

Getting Started

WEB HUB's Web Management Program is easily started from your Web Browser by simply entering the IP address (provided by the LAN administrator) in the Browser's Location Panel and pressing ENTER. WEB HUB's Logon Screen will be loaded and the correct User Name and Password must be entered to continue.

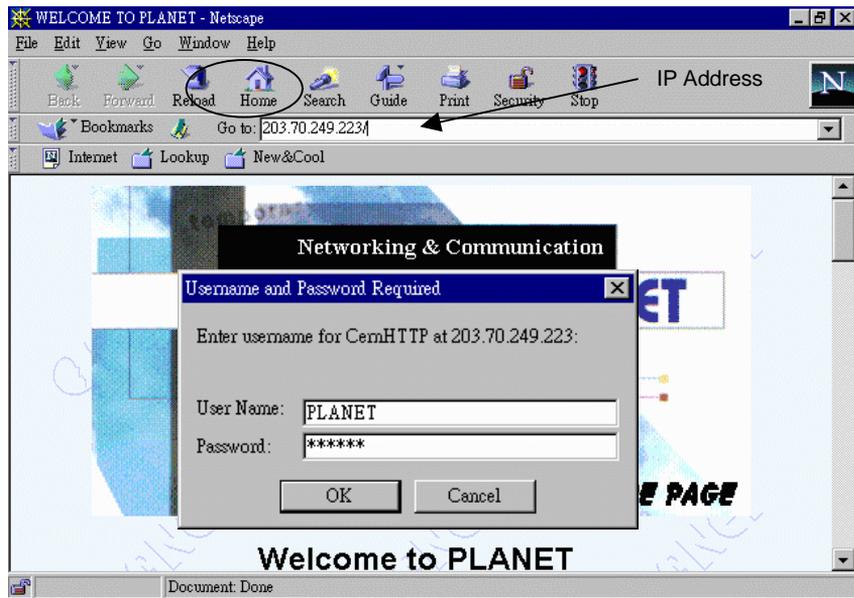


Figure 1.1 IP Address

Chapter 2

System

Home Page

WEB HUBs home page looks similar to Figure 2.1.

The top window displays the Device Panel, the left window displays the Menu, and the right window displays the Contents.

Menu items can be accessed with a mouse click. A dynamic visual representation of the master hub as well as all linked slave hubs can be activated to enhance monitoring.

Figure 2.1 illustrates the Home Page as it first appears after entering the correct User Name and Password. Initially the Device Panel Window is inactive.

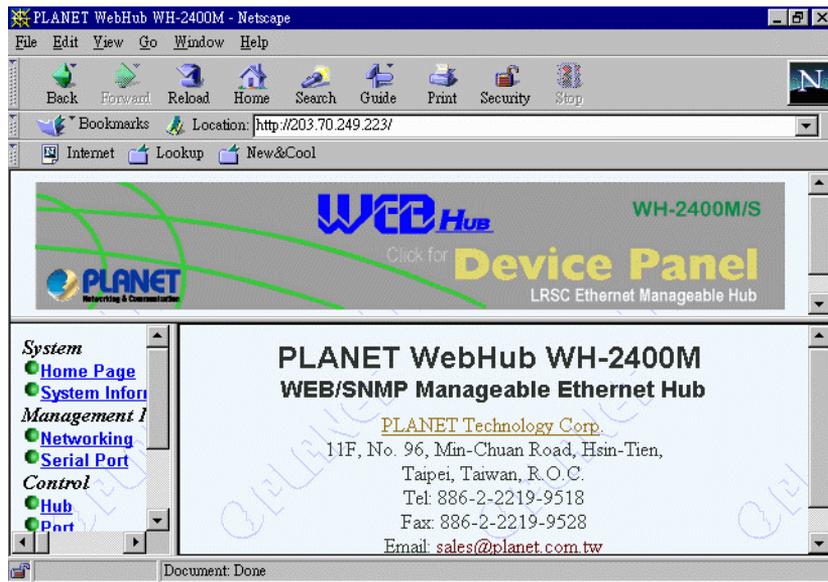


Figure 2.1 Home Page

Dynamic Device Panel

The Device Panel becomes a dynamic, real-time status and monitoring device once clicked with the mouse and loaded.

To load the Dynamic Device Panel click anywhere in Device Panel Window. It takes a moment to display a front view of WEB HUB that reflects the actual device's current state including links.

The Dynamic Device Panel's LED's continuously update, indicating traffic flow and utilization, its ports show all links allowing real time monitoring capability.

The hubs ID is also clearly visible as indicated by the number 1 in the ID LED.

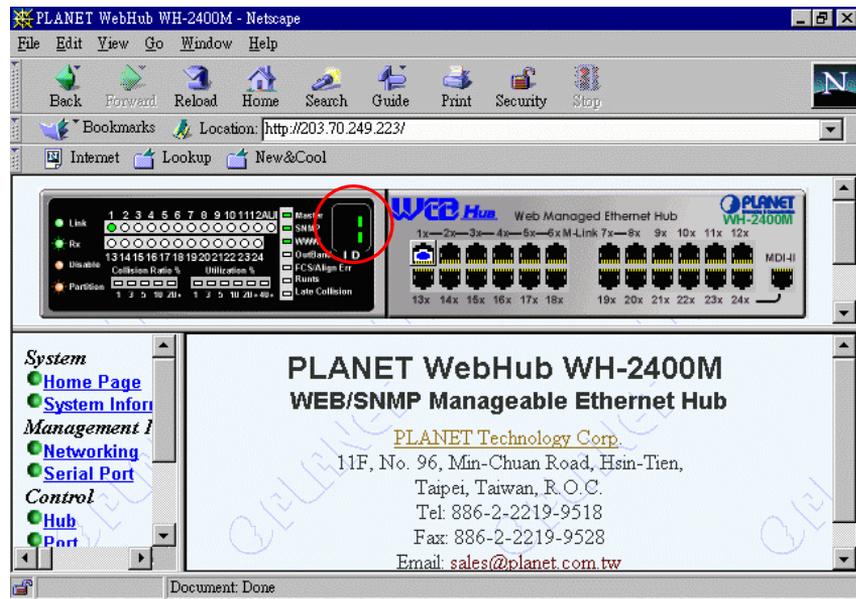


Figure 1.2 Dynamic Device Panel

Hub ID

When the Dynamic Device Panel is loaded, the Hub ID is identified in the ID LED. Since this is the Master Hub it assumes the ID number “1”.



Figure 2.2 Hub ID

Link Symbol

A symbol appears in the Dynamic Device Panel, indicating the Master Hub's link port. Figure 2.3 illustrates this link at port 24.

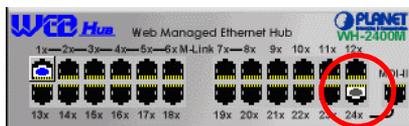


Figure 2.3 Link Symbol

LEDs

The Master, SNMP and Web LEDs glow green in color indicating this is the Master Hub and Web Management Program is monitoring the system.

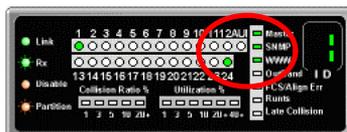


Figure 2.4 LED of Master, SNMP and Web

The LED at port 24 will be blinking green in color, indicating traffic flow through the linked port and the Utilization LEDs, glow green indicating the percentage of utilization.

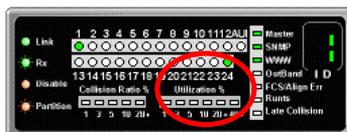


Figure 2.5 Port and Utilization LED

Other Links

When managed slave hubs are linked, a symbol appears on the port or ports in the Device Panel showing the link(s). Figure 2.6 illustrates that Port 1 is linked.

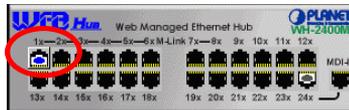


Figure 2.6 Other Links

Identifying Slave Panel

Each Slave Device has its own Device Panel that can be activated and visible at the same time the Master Dynamic Device Panel is visible.

Positioning the mouse pointer over a port with the blue & white colored symbol changes the mouse pointer to an Arrow. Clicking the mouse when it is an Arrow, activates the slave device panel.

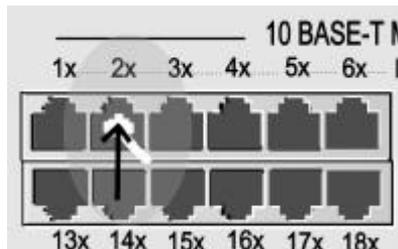


Figure 2.7 Identifying a Slave on the Device Panel

Activating Slave Panels

Clicking the left mouse button while the pointer is an up arrow, activates the Slave Device Panel. The slave panel pops up in an independent window.

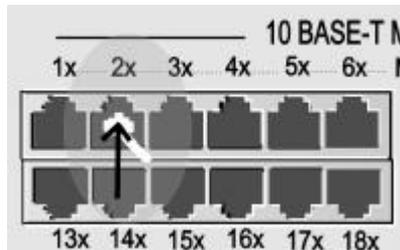


Figure 2.8 Activating Slave Panels

Active Slave Device Panel

The Slave Device Panel appears as an independent window or Java Applet Window. This window can be repositioned anywhere on the desktop. The Slave Device Panel has all the functions of the Master Device Panel.

Note: The Slave Device Panel will not stay on top, once there is a mouse clicking anywhere on the browser, it is sent to the back. However it stays active and can be brought to the front again, by clicking the symbol at its port, in the Master Dynamic Device Panel.

The slave device panel can be repositioned anywhere on the desktop by dragging it with the mouse.

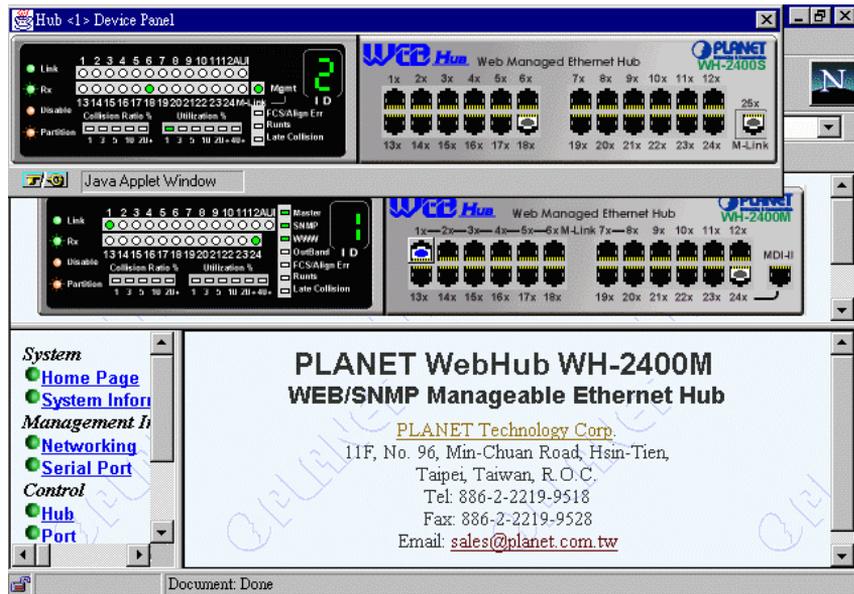


Figure 2.9 Active Slave Device Panel

Ports

The Slave Device Panel shows that there is an M-Link to the Master Hub by the symbol in the MDI-II port.

The illustration in Figure 2.10 indicates additional links on port 18.

The LEDs for ports 18, blink green in color indicating traffic flow.



Figure 2.10 Slave Device Ports

Note: Passing the mouse pointer over the symbols on the ports of a slave device panel does not change the mouse pointer since these do not represent manageable slave hubs.

Arranging Device Panels

It is easy to constantly monitor all Device Panels, master and slaves, simultaneously, however it is necessary to resize the browser so that it does not cover the Slave Device Panels.

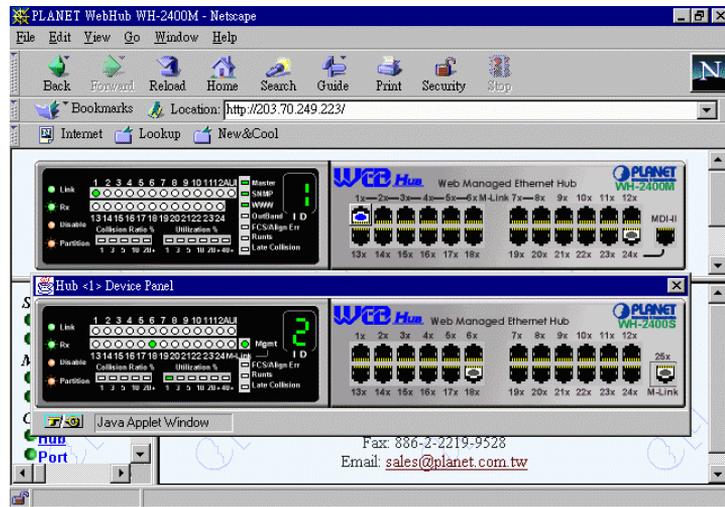


Figure 2.11 Arranging Slave Device Panels

System Information

The System Information screen displays the System Up-Time, Name, Contact and Location. The System Name, Contact and Location can be edited and updated by users with Read/Write privileges.

Clicking the APPLY button updates the system and re-loads the panel with the revised information.

The screenshot displays the 'System Information' page for a PLANET WebHub-Ethernet Manageable Hub. The page includes a navigation menu on the left, a top status bar with various indicators, and a main content area with a table of system details. The table has a yellow header row and several data rows. At the bottom of the table are 'Update' and 'Cancel' buttons.

System	Description
System Up Time	0 day 3 hr 43 min 27 sec
System Name	PLANET WebHub WH-2400M
System Contact	
System Location	

Figure 2.12 System Information

Chapter 3

Management Interface

Networking

The IP Configuration menu displays the IP Address, Subnet Mask and Default Gateway. These configurations must be set correctly in order for the Web Browser to make a connection with Web Hub's internal Web Environment.

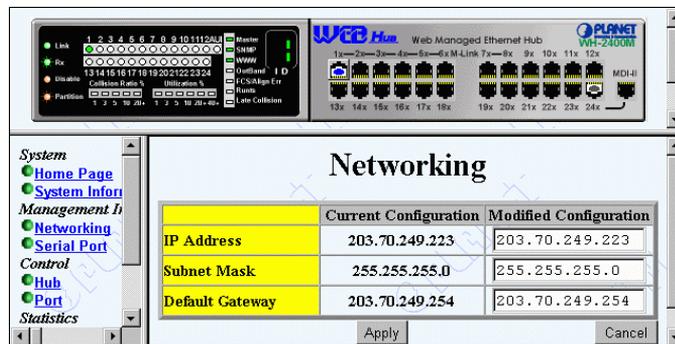


Figure 3.1 Networking

After editing IP Address, Subnet Mask or Default Gateway, click the APPLY button. The new settings will not take effect until the system reboots or until it is restarted via the Restart Menu.

Serial Port Information

The Serial Port Information menu displays the settings that have been made through the Console Program and that are needed for WEB HUB to communicate with a terminal program.

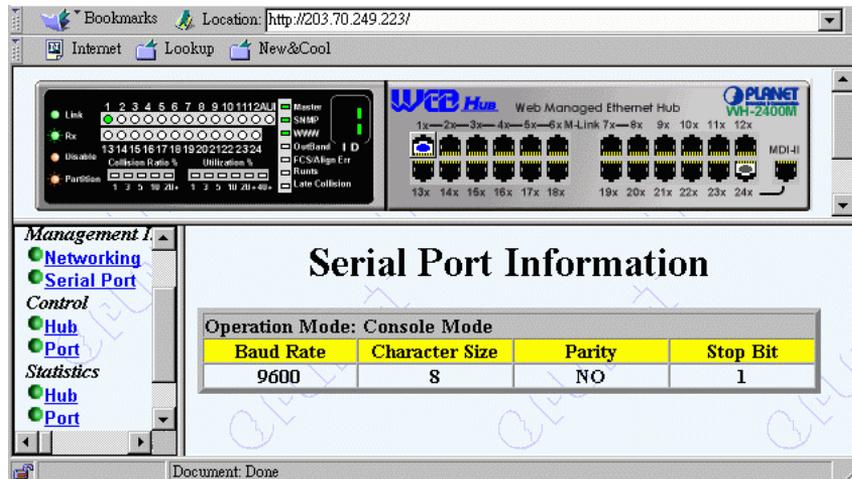


Figure 3.2 Serial Port Information

Chapter 4

Control

The Hub Control/Status Menu displays software and hardware version numbers, which are useful for identification, in-the-event-of software upgrades being available. This Menu is also used to configure hubs and ports.

Hub

These address/versions are assigned by the internal Software.

- ◆ MAC Address
- ◆ Boot ROM Version
- ◆ H/W Version (Hardware Version)
- ◆ System Software Version
- ◆ Web Pages Version

The Hub ID of linked hubs is automatically assigned and is entered in the Hub ID column.

Each hub can be given a unique name to clarify its identity.

A Hub Name can consist of up to 40 Alpha-Numeric Characters.

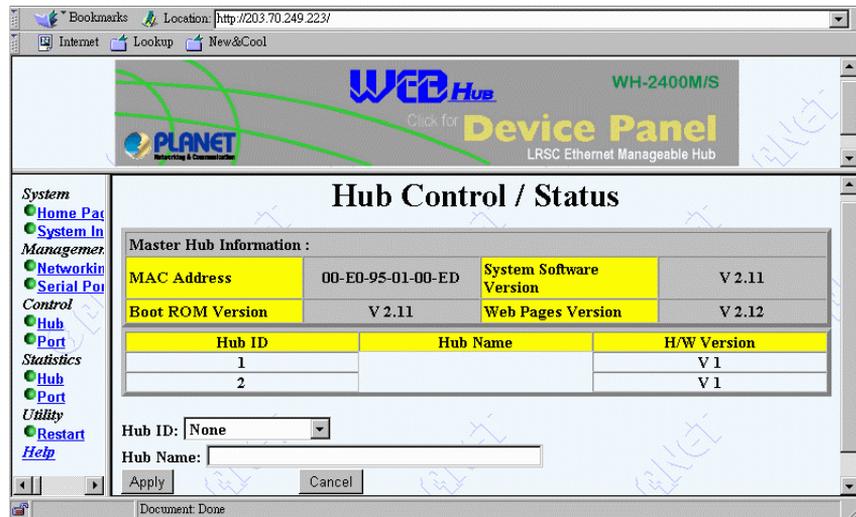


Figure 4.1 Hub Configuration

Selecting a Hub

A hub is selected in the Hub Configuration menu by clicking on the Hub ID panel arrow. Choose the desired hub in the pop-up menu (only linked hubs can be selected). Once a linked hub is selected from the pop-up menu, the Hubs ID number will appear in the Hub ID panel.

Figure 4.2 illustrates selecting the master hub, “1(Master Hub)”.

The screenshot shows a web browser window displaying the WED Hub Device Panel. The page title is "Hub Control / Status". The interface includes a navigation menu on the left with categories: System, Management Interface, Control, Statistics, and Utility. The main content area displays a table for hub configuration and status. The "Master" dropdown menu is open, showing options from "None" to "9", with "1 (Master Hub)" selected. The "Hub ID" is set to "None" and the "Hub Name" field is empty. The status table shows System Software Version V 2.11 and Web Pages Version V 2.12. A table below shows Hub Name and H/W Version for two hubs, both V 1.

Hub Name	H/W Version
	V 1
	V 1

Figure 4.2 Select Hub

Naming a Hub

With the selected hub visible in the Hub ID panel, type a descriptive name in the Hub Name panel. In Figure 4.3 the name “ADMIN” has been entered. To update and write the new information to WEB HUB’s memory, click the APPLY button.

The hubs name will remain in memory and if the Hubs ID is changed by connecting to a different port, the name remains unchanged even the ID number changes.

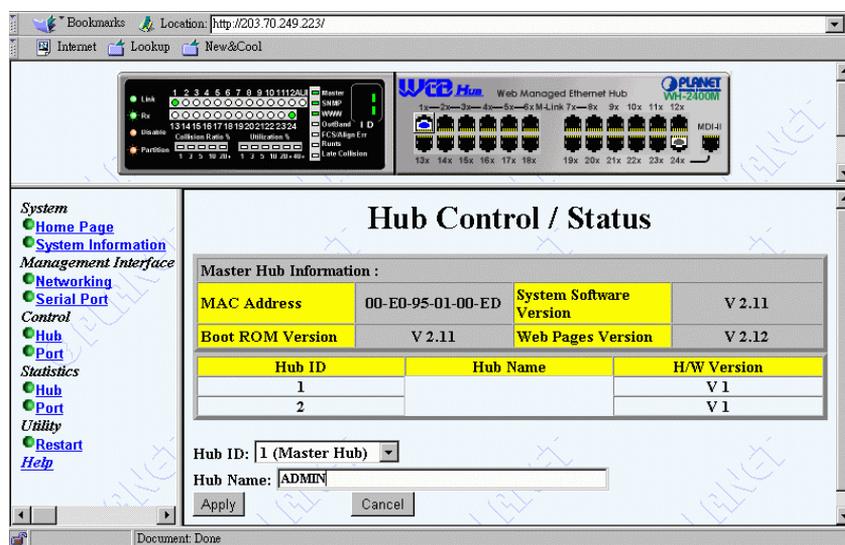


Figure 4.3 Naming a Hub

Apply

After entering a name and clicking the APPLY button the screen will re-load with the name just entered below the name title adjacent to the Hub ID number. Name the next Hub by selecting its ID number, entering a name and clicking the APPLY button.

Figure 4.4 illustrates that Hub 1 has been named “ADMIN” and Hub 2 is selected is about to be named “ACCOUNTING DEPT.”.

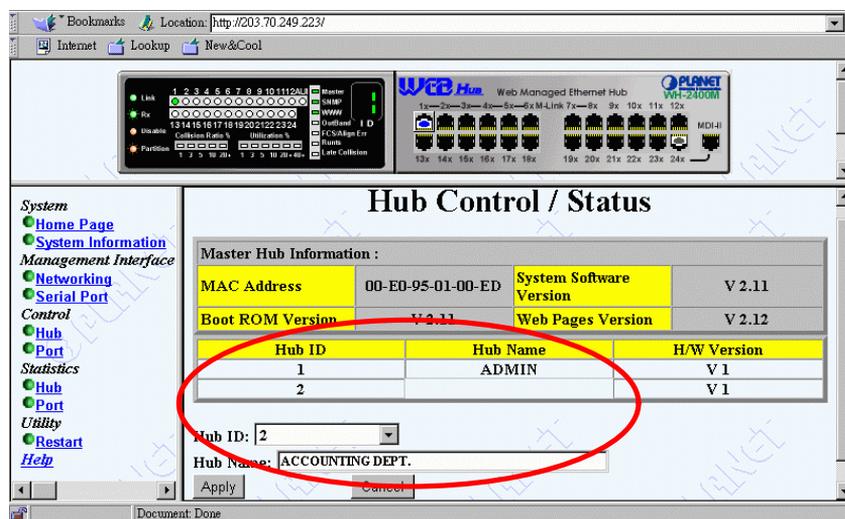


Figure 4.4 APPLY

Note: A hub must be linked before it can be named. Attempting to name a Link Down hub will result in a non-fatal error. Click a menu item to continue.

Port

The Port Configuration Menu displays the Port Name, Type, Administration, Operation State, Link Status and Auto Partition settings.

Each port of every linked hub can be configured by Name and Administration Options. Displayed are the Port Number, Type, Operation Status, Link Status and Partition Status.

In Figure 4.5, the Hub ID is [1] and port 2 shows a Link Up under the Operation State column. Port 2 can be named at the bottom of the window, use the scroll bars to view the entire panel.

The screenshot displays the 'Port Control / Status' window for a PLANET Web Hub WH-2400M/S. The window title is 'Port Control / Status' and it shows 'HUB ID: [1]'. A table lists the configuration for six ports. Port 2 is circled in red, indicating it is the focus of the configuration. The table columns are: Port ID, Port Name, Interface Type, Administration State, Operation State, Link Status, and Auto Partition.

Port ID	Port Name	Interface Type	Administration State	Operation State	Link Status	Auto Partition
1		10BASE-T	ENABLE	YES	Link Down	NotPart
2		10BASE-T	ENABLE	YES	Link Up	NotPart
3		10BASE-T	ENABLE	YES	Link Down	NotPart
4		10BASE-T	ENABLE	YES	Link Down	NotPart
5		10BASE-T	ENABLE	YES	Link Down	NotPart
6		10BASE-T	ENABLE	YES	Link Down	NotPart

Figure 4.5 Port Configuration

Port Number

Once the Hub is selected, the ports can be named and the administration level selected. Ports can be named before or after they are linked. Select the desired port from the Port Number pop-up.

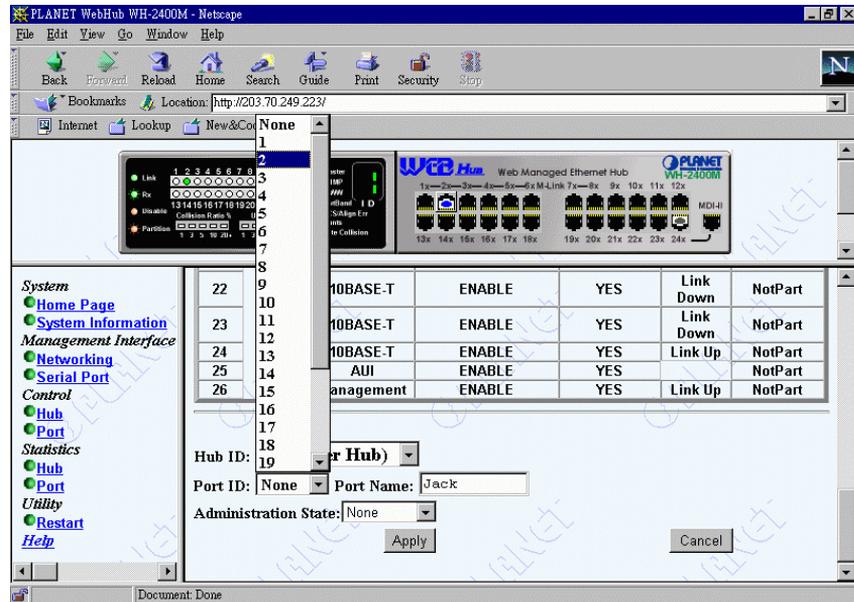


Figure 4.6 Port Number

Naming a Port

With the port number selected, enter a name in the Name panel (max 8 chars) and click the APPLY button. After clicking the APPLY button the name of the Port will be entered under the Port Name column, it may be necessary to scroll the window to view the named port. Additional ports can be named in the same manner.

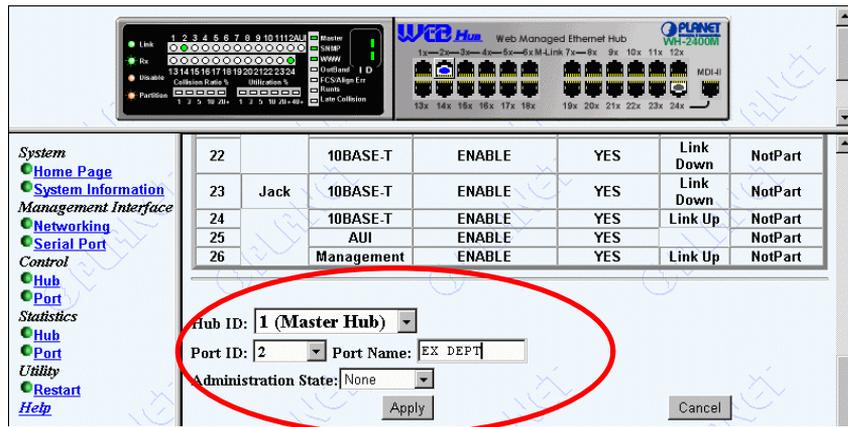


Figure 4.7 Naming a Port

A port can be named even if it is not yet linked, its link status will show Link Down.

Scroll to View Named Port

The port name is entered under the Port Name column and next to its ID number.

The screenshot shows the management interface for a Planet Web Managed Ethernet Hub (WH-2400R). The main content area displays the 'Port Control / Status' for HUB ID: [1]. A table lists the ports, with a red circle highlighting the 'Port Name' column. The table data is as follows:

Port ID	Port Name	Interface Type	Administration State	Operation State	Link Status	Auto Partition
1		10BASE-T	ENABLE	YES	Link Down	NotPart
2	EX DEPT	10BASE-T	ENABLE	YES	Link Up	NotPart
3		10BASE-T	ENABLE	YES	Link Down	NotPart
4		10BASE-T	ENABLE	YES	Link Down	NotPart
5		10BASE-T	ENABLE	YES	Link Down	NotPart
6		10BASE-T	ENABLE	YES	Link Down	NotPart

Figure 4.8 View Named Port

Administration

The default Administration is Enable. Setting the status to None will not change the current administration state. When setting the Administration Status of a port, select its ID number from the Port ID pop-up, then type the port name in the Port Name panel and make the appropriate Administration Status setting then click the APPLY button.

If the name of the port is not typed into the Port Name panel (assuming the port has been named), the port name remains the original setting after clicking the APPLY button.

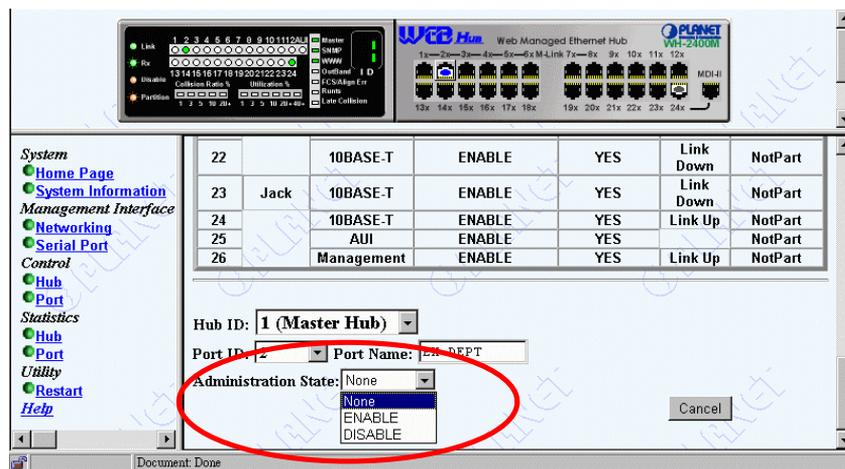


Figure 4.9 Administration

Disabled Port

The state of a disabled port will entered as “DISABLE” under the Administration State column. The Operation State will be “NO” for a disabled port.

The LED in the Active Panel for the disabled port will glow amber in color also indicating the port is disabled.

The screenshot shows the management interface for a Planet Web Managed Ethernet Hub (WH-2400R). At the top, there is a status bar with various indicators and a physical port panel with 24 ports. Below this is a navigation menu on the left and a main content area titled "Port Control / Status".

The "Port Control / Status" table is as follows:

Port ID	Port Name	Interface Type	Administration State	Operation State	Link Status	Auto Partition
1		10BASE-T	ENABLE	YES	Link Down	NotPart
2	EX DEPT	10BASE-T	DISABLE	NO	Link Up	NotPart
3		10BASE-T	ENABLE	YES	Link Down	NotPart
4		10BASE-T	ENABLE	YES	Link Down	NotPart
5		10BASE-T	ENABLE	YES	Link Down	NotPart
6		10BASE-T	ENABLE	YES	Link Down	NotPart

A red circle highlights port 2, which is in the "DISABLE" state. The "Operation State" for this port is "NO", and the "Link Status" is "Link Up".

Figure 4.10 Disabled Port

Chapter 5

Statistics

Hub Statistics

From the Hub Statistics menu, the Total Frames, Total Octets and Total Errors statistics for each linked hub can be viewed.

The statistics are not displayed dynamically, press the UPDATE to view up, dated result of the statistics.

When more hubs are linked, the statistics panel expands to include all linked hubs. The maximum being 8 slave hubs.

The Figure 3.3 shows hubs 1 and 3 are linked and the statistics for each hub.

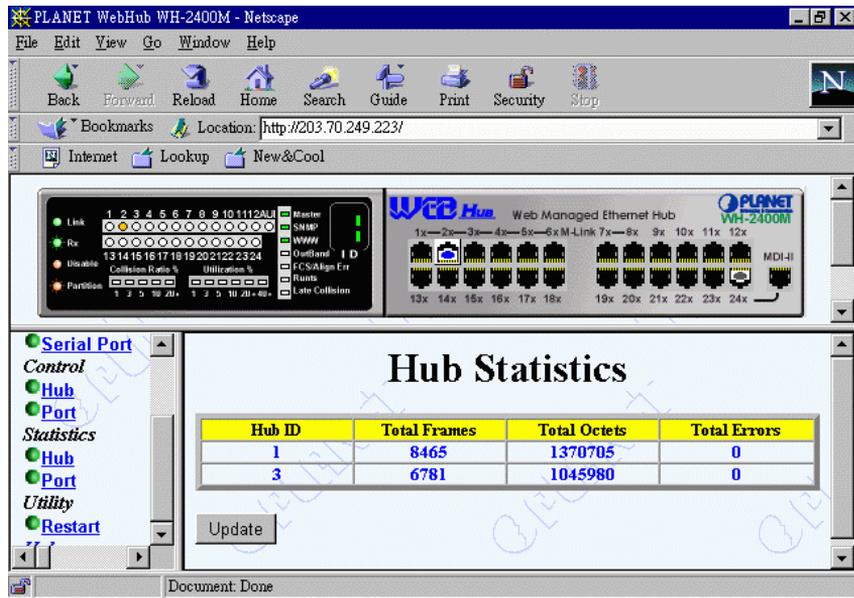


Figure 5.1 Hub Statistics

Port Statistics

Ports statistics can be read for individual ports through this menu. The statistics for Port 1 of Hub 1, appear as the default when this menu is selected.

The port statistics for other ports can be read by selecting a port number from the Port Number pop-up and clicking the Update button.

Port Statistics

Hub ID: 1		Hub Name: [ADMIN]		Port: 1		Port Name: []	
Item	Value	Item	Value	Item	Value	Item	Value
Readable Frames	0	Runt	0				
Readable Octets	0	Collisions	0				
FCS Errors	0	Late Events	0				
Alignment Errors	0	Data Rate Mismatches	0				
Frames Too Long	0	Auto Partitions	0				
Short Events	0	Total Errors	0				

LSA Changes: 0
Last Source Address: 00-00-00-00-00-00

Hub ID: 1 (Master Hub) Port Number: 1

Absolute Value

Figure 5.2 Port Statistics

Select Hub

Linked hubs are select by clicking the down arrow to right of Hub ID located at the bottom of the panel. If there is no hub linked for the Hub ID selected and the Update button is clicked, a non-fatal error message is loaded.

Port Statistics

Hub ID: 1		Hub Name: [ADMIN]		Port: 1		Port Name: []	
Item	Value	Item	Value				
Readable Frames	0	Runts	0				
Readable Octets	0	Collisions	0				
FCS Error	0	Late Events	0				
Alignment	0	Data Rate Mismatches	0				
Frames	0	Auto Partitions	0				
Short Errors	0	Total Errors	0				
LSA Chunks							
Last Source	00-00-00-00						

Hub ID: 1 (Master Hub) ▼ Port Number: 1 ▼

Absolute Value

Update

Figure 5.3 Select Hub

Select Port

To select a specific port of a linked hub, click the arrow to the right of Port Number, located at the bottom of the Port Statistics Panel. Click the Update button.

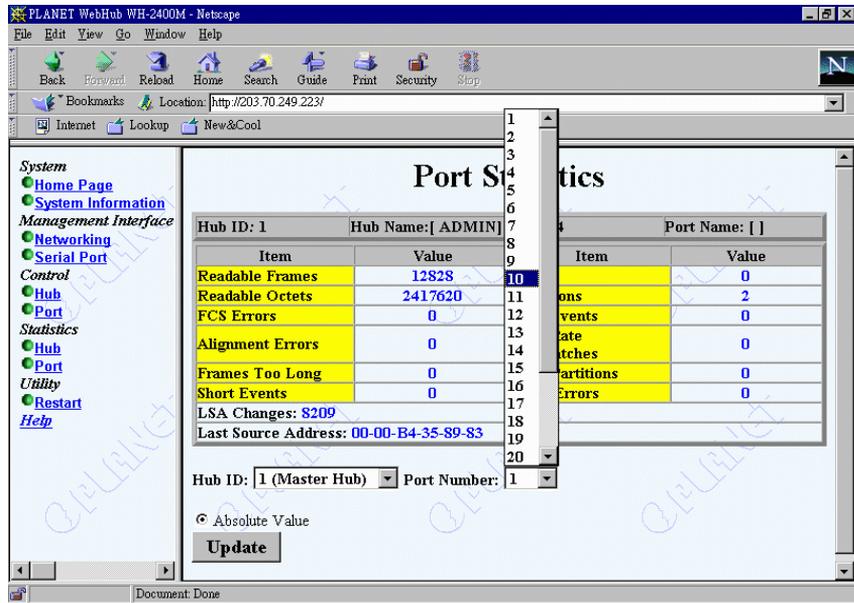


Figure 5.4 Port Number

Port ID/Port Name

After clicking the Update button the Port Statistics, the Hub ID Number, Hub Name (if configured), Port Number and Port Name (if configured) are clearly visible on the header.

In Figure 5.5 the Hub ID is “3”, the Hub Name is “Accounting DEPT.”, the Port Number is “23” and no Port Name.

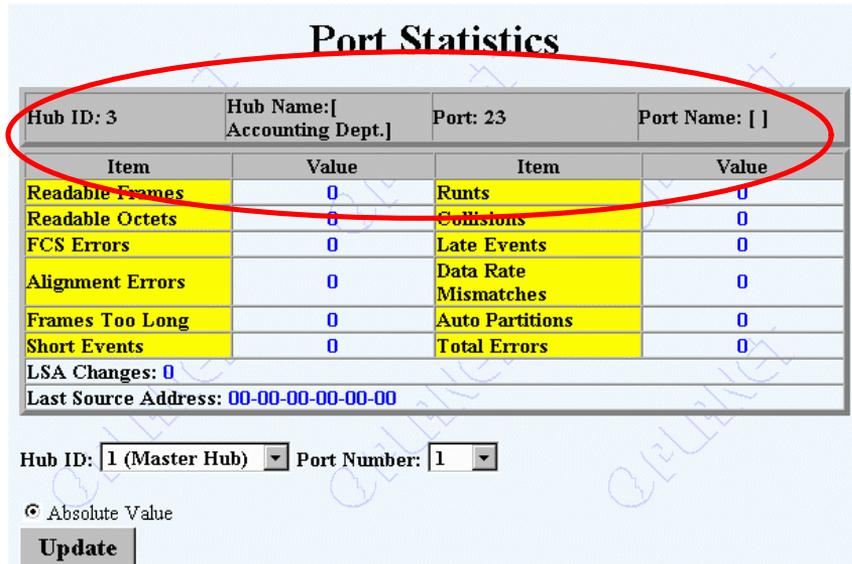


Figure 5.5 Port ID & Name

Error 404

When attempting read the port statistics of a hub that is not linked, the following Error is loaded. Select Port Statistics from the Menu again and select a linked hub.

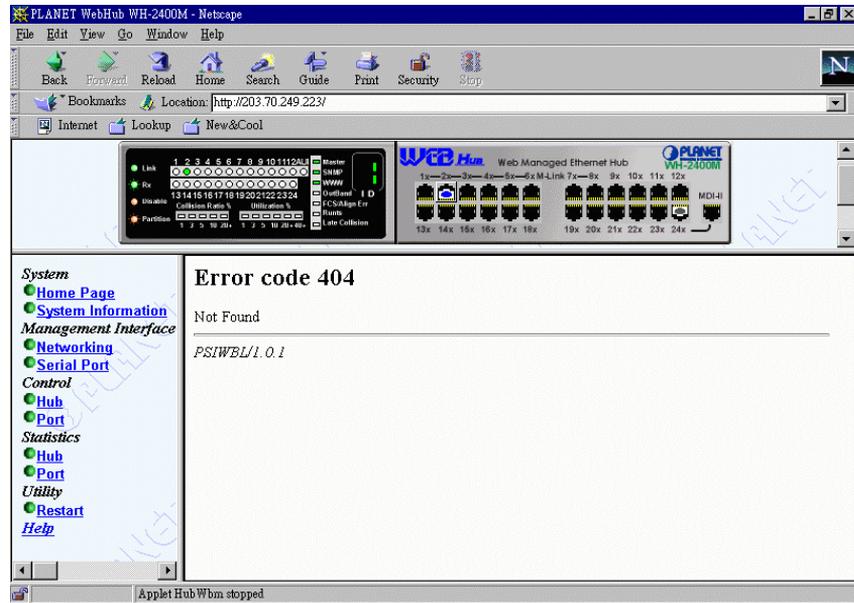


Figure 5.6 Error 404

Chapter 6

Utility

Restart Agent

The Restart Agent menu must be used after modifying Network configuration settings, before the new settings take effect.

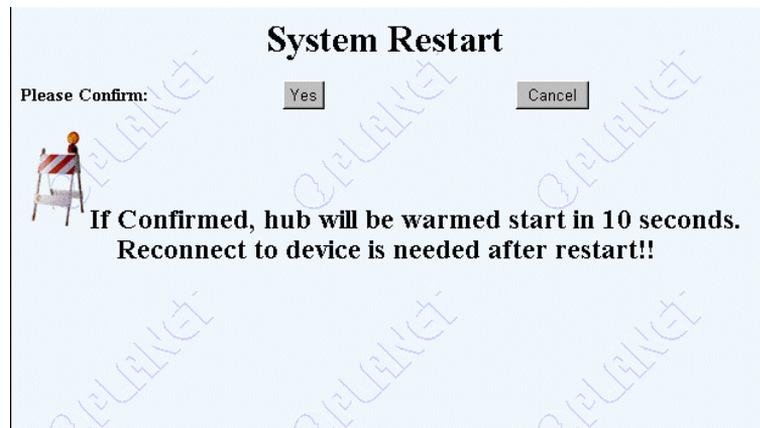


Figure 6.1 System Restart

Restarting the Agent will break the Web Browser's connection to WEB HUB. To reconnect to Web Hub's Web Software, enter the Hubs IP address your Web Browser Location panel and press Enter.

Figure 6.2 illustrates the error message that the connection has been set by peer.



Figure 6.2 Network Error

Appendix A

IE3.0 and IE 4.0 Setup to Enable Java Communication

Condition

According to the practice of using IE 3.0 (English version) or IE 4.0 in Windows95, if you directly give the IP address in the text field of URL to download Java class, then

- The class loader of IE 3.0 may not resolve the IP and the downloading of class will be terminated,
- The download speed of Java class in IE 4.0 will very very slow,
- UDP communication with server in IE 4.0 will hang the system for a while

Recommendation

The following two methods can be applied to solve the problem described above:

- First, construct one host entry in the host table of your local machine:

Host table file is in WINDOWS\hosts

For example, if the IP of the device is 210.68.0.99 then you can edit the file as follows:

127.0.0.1	localhost
210.68.0.99	device99

Then, type **device99** in the URL text field of IE 3.0 or IE 4.0 to get HTML document and download Java class.

- Second, create the host entry in the host table of one Domain Name Server and setup the domain name server of your local machine.

The first method is the most recommended.

EMWH24MGT

