AlliedView™-EMS 3.11

DEVICE MANAGER USER'S GUIDE

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1 Overview

Device Manager is a device management application that lets you manage Allied Telesis' hubs, switches and routers using Simple Network Management Protocol (SNMP). You can perform various operations on the devices from an intuitive graphical user interface. Since Device Manager is written in Java, it runs on multiple platforms, including Windows, Solaris and HP-UX, and provides a common look and feel on all supported platforms.

Device Manager can be used with an integrated network management platform such as HP OpenView or as a standalone application.

This User's Guide describes the functions and operations common to all managed devices. For device-specific operations, please refer to the ATI Device Management Guide.

Topics:

2 Starting Device Manager

Device Manager can be started in two ways, from the command line or from a network management application.

When started, Device Manager identifies the target device after you enter its IP address. Device Manager will then display the main panel of that device.

Note - In Windows environments, Device Manager can also be launched from the Start menu or from the Run command in the File menu.

Topics:

2.1 Starting From the Command Line

The command line interface is the most basic way to start Device Manager.

Topics:

2.1.1 Command Syntax

To start Device Manager from the command line, use the following syntax.

```
devicemanager [options]
```

You can specify the following options:

TargetHost
: Target host's IP address or DNS host name.

SnmpVersion
: SNMP version to be used.

GetCommunity
: SNMP Get community string. This is used when retrieving MIB values.

SetCommunity
: SNMP Set community string. This is used when modifying MIB values.

TrapCommunity
: SNMP Trap community string. This is used when receiving Traps from agents.

DisplayName
Titlebar string.

UserName
User account name to be used for accessing the MIB. This is required when using SNMPv3.

SecLevel
Security level that is configured for the User Name. This is required when using SNMPv3.

AuthProtocol
Authentication protocol that is configured for the User Name. This is required when using SNMPv3.

AuthPassword
Authentication password that is configured for the User Name. This is required when using SNMPv3.

PrivProtocol
Privacy protocol that is configured for the User Name. This is required when using SNMPv3.

PrivPassword
Privacy password that is configured for the User Name. This is required when using SNMPv3.

TrapVersion
SNMP Trap version to be used.

2.1.2 Target Host

The target host can be specified by entering the IP address of the device or its host name.

Examples:

```
devicemanager -TargetHost 172.16.99.123

devicemanager -TargetHost dvcmgrhub
```

2.1.3 SNMP Version

The Device Manager can use SNMPv1, SNMPv2c and SNMPv3. You may specify a value of 1, 2 or 3. If the SNMP Version is not specified, the default value of 1 (SNMPv1) will be used.

Examples:

```
devicemanager -TargetHost 172.16.99.123 -SnmpVersion 1

devicemanager -TargetHost 172.16.99.123 -SnmpVersion 2
```

2.1.4 Get Community

Get Community is an SNMP community string used to get MIB values from the agent. You must specify the same community string as the one configured on the target host. If the string is not specified, the default community string "public" is used.

Examples:

```
devicemanager -TargetHost 172.16.99.123 -GetCommunity  getdvcmgr

devicemanager -TargetHost dvcmgrhub -GetCommunity getdvcmgr
```

2.1.5 Set Community

Set Community is an SNMP community string used to change the values of the agent's MIB variables. You must specify the same community string as the one configured on the target host. If the string is not specified, default community string "private" is used.

Examples:

```
devicemanager -TargetHost 172.16.99.123 -SetCommunity setdvcmgr

devicemanager -TargetHost dvcmgrhub -SetCommunity setdvcmgr
```

2.1.6 Trap Community

Trap Community is an SNMP community string used to receive traps from the agent. You must specify the same community string as the one configured on the target host. If the string is not specified, the default community string "public" is used. If the Trap Community is explicitly defined, the trap will be enabled automatically.

Example:

```
devicemanager -TargetHost dvcmgrhub -TrapCommunity trapdvcmgr
```

2.1.7 Titlebar String

You can specify a string to display on the titlebar.

Example:

```
devicemanager -TargetHost dvcmgrhub -DisplayName dvcmgr
```

2.1.8 User Account Name

If you specified 3 (SNMPv3) for the SNMP Version, you must also specify a User Account Name that is already configured on the target host.

Examples:

```
devicemanager -TargetHost 172.16.99.123 -SnmpVersion 3
        -UserName AlliedView -SecLevel noAuthNoPriv

devicemanager -TargetHost 172.16.99.123 -SnmpVersion 3
        -UserName AlliedView1 -SecLevel authNoPriv -AuthProtocol SHA
        -AuthPassword PASS1233
```

2.1.9 Security Level

If you specified 3 (SNMPv3) for the SNMP Version, you must also specify a Security Level that is configured for the User Account Name on the target host. The available Security Levels are *noAuthNoPriv, authNoPriv,* and *authPriv*.

Examples:

```
devicemanager -TargetHost 172.16.99.123 -SnmpVersion 3
        -UserName AlliedView -SecLevel noAuthNoPriv

devicemanager -TargetHost 172.16.99.123 -SnmpVersion 3
        -UserName AlliedView1 -SecLevel authNoPriv
        -AuthProtocol SHA -AuthPassword PASS1233
```

2.1.10 Authentication Protocol

If you specified 3 (SNMPv3) for the SNMP Version, and your Security Level is *authNoPriv* or *authPriv*, you must specify an Authentication Protocol that is configured for the User Account Name on the target host. The available Authentication Protocols are *MD5* and *SHA*.

Examples:

```
devicemanager -TargetHost 172.16.99.123 -SnmpVersion 3
        -UserName AlliedView -SecLevel authNoPriv
        -AuthProtocol MD5 -AuthPassword PASS1234

devicemanager -TargetHost 172.16.99.123 -SnmpVersion 3
        -UserName AlliedView1 -SecLevel authNoPriv
        -AuthProtocol SHA -AuthPassword PASS1233
```

2.1.11 Authentication Password

If you specified 3 (SNMPv3) for the SNMP Version, and your Security Level is *authNoPriv* or *authPriv*, you must specify an Authentication Password that is configured for the User Account Name on the target host.

Examples:

```
devicemanager -TargetHost 172.16.99.123 -SnmpVersion 3
        -UserName AlliedView -SecLevel authNoPriv
        -AuthProtocol MD5 -AuthPassword PASS1234

devicemanager -TargetHost 172.16.99.123 -SnmpVersion 3
        -UserName AlliedView1 -SecLevel authNoPriv
        -AuthProtocol SHA -AuthPassword PASS1233
```

2.1.12 Privacy Protocol

If you specified 3 (SNMPv3) for the SNMP Version, and your Security Level is *authPriv*, you must specify a Privacy Protocol that is configured for the User Account Name on the target host. The available Privacy Protocol is *DES*.

Examples:

```
devicemanager -TargetHost 172.16.99.123 -SnmpVersion 3
        -UserName AlliedView -SecLevel authPriv
        -AuthProtocol MD5 -AuthPassword PASS1234
        -PrivProtocol DES -PrivPassword PASS5678

devicemanager -TargetHost 172.16.99.123 -SnmpVersion 3
        -UserName AlliedView1 -SecLevel authPriv
        -AuthProtocol SHA -AuthPassword PASS1236
        -PrivProtocol DES -PrivPassword PASS5675
```

2.1.13 Privacy Password

If you specified 3 (SNMPv3) for the SNMP Version, and your Security Level is *authPriv*, you must specify a Privacy Password that is configured for the User Account Name on the target host.

Examples:

```
devicemanager -TargetHost 172.16.99.123 -SnmpVersion 3
        -UserName AlliedView -SecLevel authPriv
        -AuthProtocol MD5 -AuthPassword PASS1234
        -PrivProtocol DES -PrivPassword PASS5678

devicemanager -TargetHost 172.16.99.123 -SnmpVersion 3
        -UserName AlliedView1 -SecLevel authPriv
        -AuthProtocol SHA -AuthPassword PASS1236
        -PrivProtocol DES -PrivPassword PASS5675
```

2.1.14 Trap Version

The Device Manager can use SNMP v1, v2c, v3 traps or all versions of SNMP traps. You may specify a value of 1, 2, 3, or 4. If the SNMP Trap Version is not specified, the default value of 1 (v1) will be used. If the Trap Version is explicitly defined, the trap will be enabled automatically.

Examples:

```
devicemanager -TargetHost 172.16.99.123 -TrapVersion 2

devicemanager -TargetHost 172.16.99.123 -SnmpVersion 2 -TrapVersion 4
```

If you specified 3 (v3) for the SNMP Trap Version, the SNMP Version that must be specified is SNMPv3 also with additional SNMPv3 parameters. You can also combined SNMPv3 parameters with any trap versions.

Examples:

```
devicemanager -TargetHost 172.16.99.123 -SnmpVersion 3
        -UserName AlliedView -SecLevel noAuthNoPriv -TrapVersion 3

devicemanager -TargetHost 172.16.99.123 -SnmpVersion 3
        -UserName AlliedView1 -SecLevel authNoPriv -AuthProtocol SHA
        -AuthPassword PASS1233 -TrapVersion 1
```

2.1.15 Parameter File

Option parameters can be written in a file and can be used by Device Manager to access the device. The parameter file is a plain text file which contains a name-value pair on each line.

Example:

```
devicemanager -TargetHost H3600 @para1.txt
```

where para1.txt is:

```
-SetCommunity set
-GetCommunity get
-Displayname TEST
```

2.2 Starting From a Network Management Application

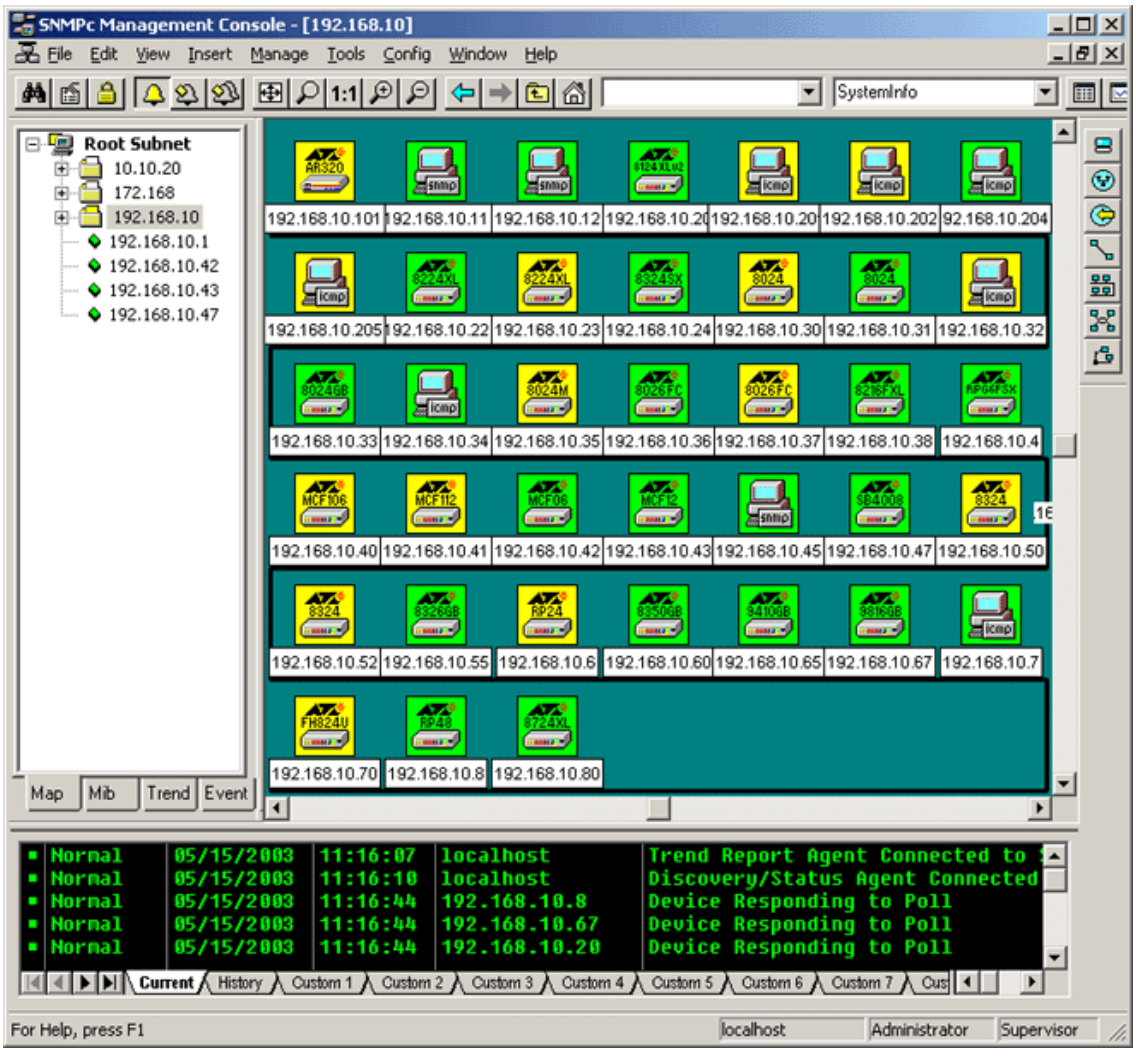
Device Manager can be started from an integrated network management application.

Topics:

2.2.1 Starting From Castle Rock SNMPc

To start Device Manager from SNMPc, double-click on a node icon on the map window. If the node is supported by Device Manager, the main panel of the node is displayed.

Note that Device Manager and SNMPc run independently of each other, so exiting SNMPc has no effect on Device Manager. Device Manager continues to run even after SNMPc stops running. To exit Device Manager, select Exit from its File menu.



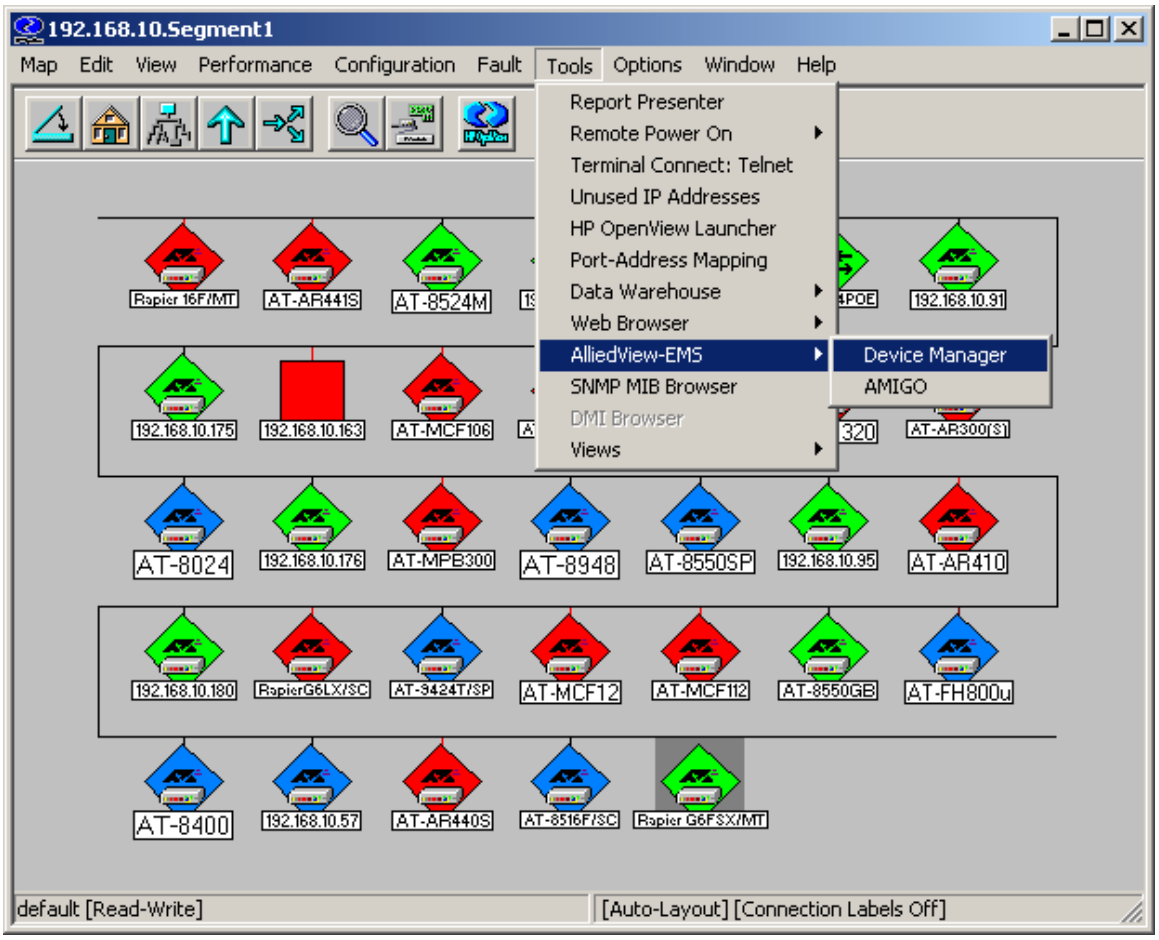
Starting from SNMPc

Note - SNMPv3: In order to start Device Manager in SNMPv3 mode, the node's *Read/Write Access Mode* attribute should be set to *SNMP V3 No-Auth*, *SNMP V3 Auth-MD5*, *SNMP V3 Auth-SHA*, *SNMP V3 Priv Auth-MD5*, or *SNMP V3 Priv Auth-SHA*, depending on the SNMPv3 settings configured on the target device.

2.2.2 Starting From HP OpenView Network Node Manager

To start Device Manager from HP OpenView, select a node on the map window, then select AlliedView-EMS > Device Manager from the Tools menu.

Note that Device Manager and HP OpenView run independently of each other, so exiting HP OpenView has no effect on Device Manager. Device Manager continues to run even after HP OpenView stops running. To exit Device Manager, select Exit from its File menu.



Starting from HP OpenView

Note - The configuration of HP OpenView changes during the installation of AlliedView-EMS to incorporate Device Manager and AMIGO in its menu.

Note - For the AT-AR255E running firmware v1.0.2, HP OpenView sets the host name to "RIP2-ROUTERS.MCAST.NET". Device Manager, when started within HP OpenView, uses this host name and connects to any RIP2 router present in the network. As a result, Device Manager may not load the AT-AR255E device panel and may instead load another device's image. To prevent this from happening, create one entry in the local hosts file for each AT-AR255E running firmware v1.0.2 in the network. Use the LAN IP address of the device and a host name that is unique within the network.

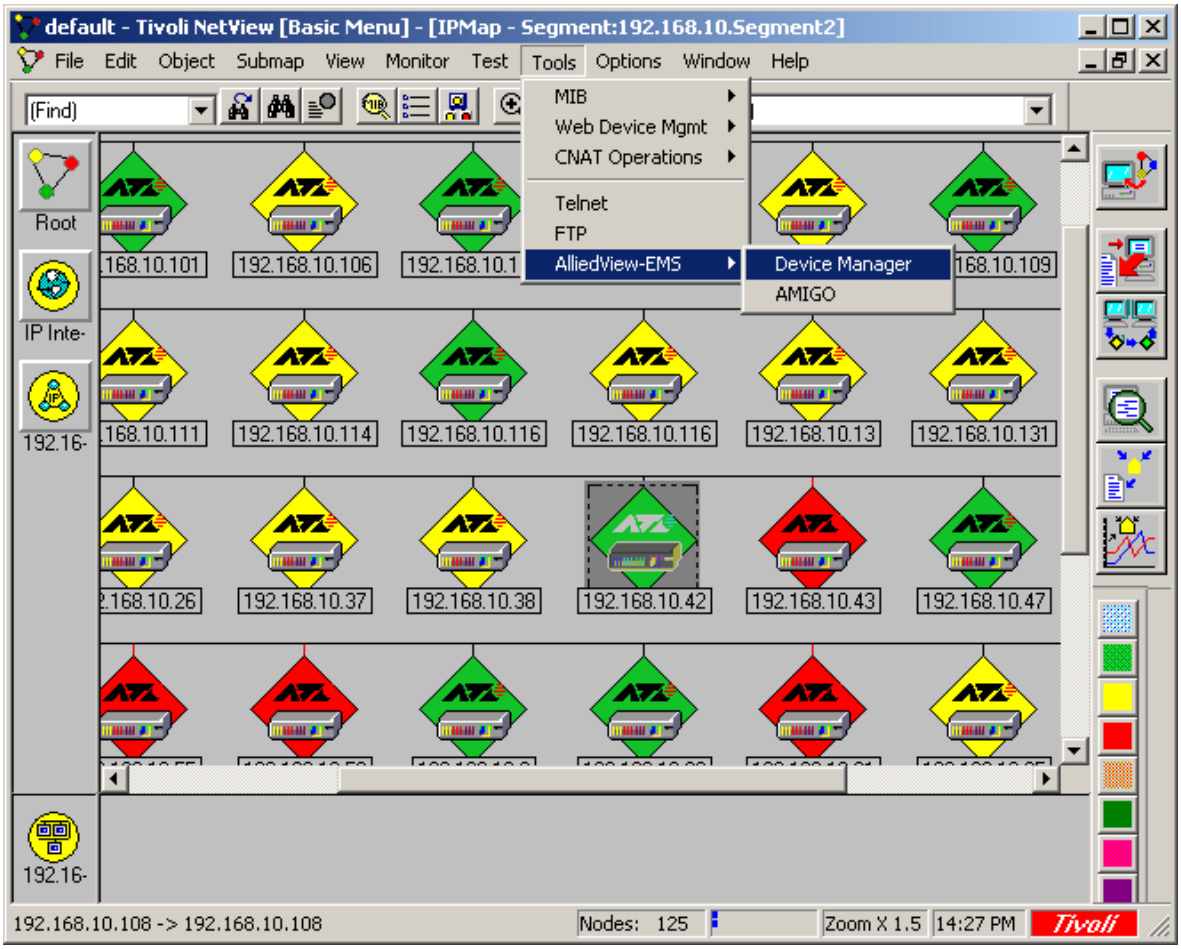
Note - HP-UX : When manually adding an AT-AR255E running firmware v1.0.2 to the network map in HP OpenView, use the device's host name, as specified in the local hosts file, for the Hostname field in the IP Map dialog. Using the device's IP address instead of its host name will reset the Hostname field to "RIP2-ROUTERS.MCAST.NET" causing Device Manager to connect to any RIP2 router present in the network when started within HP OpenView.

Note - HP OpenView can only start Device Manager in SNMPv1 mode.

2.2.3 Starting From IBM Tivoli NetView

To start Device Manager from Tivoli NetView, select the device that you want to connect to then choose Tools > AlliedView-EMS to start Device Manager.

Note that Device Manager and Tivoli NetView run independently of each other, so exiting Tivoli NetView has no effect on Device Manager. Device Manager continues to run even after Tivoli NetView stops running. To exit Device Manager, select Exit from its File menu.



Starting from Tivoli NetView

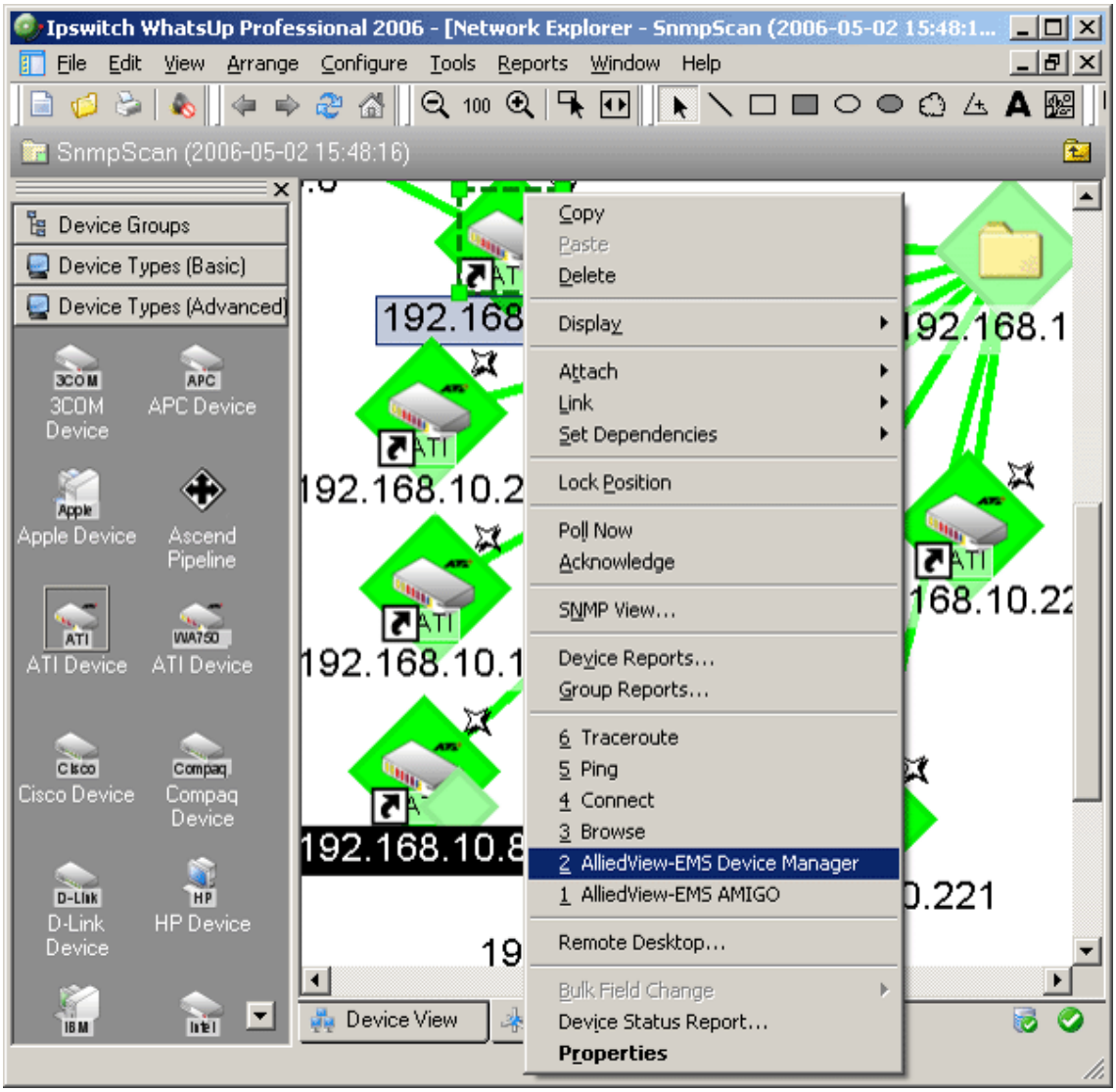
Note - The configuration of Tivoli Netview changes during the installation of AlliedView-EMS to incorporate Device Manager and AMIGO in its menu.

Note - Tivoli NetView can only start Device Manager in SNMPv1 mode.

2.2.4 Starting From Ipswitch WhatsUp

To start Device Manager from Ipswitch WhatsUp, right click on the device you want to connect to then choose AlliedView-EMS Device Manager.

Note that Device Manager and Ipswitch WhatsUp run independently of each other, so exiting Ipswitch WhatsUp has no effect on Device Manager. Device Manager continues to run even after Ipswitch WhatsUp stops running. To exit Device Manager, select Exit from its File menu.



Starting from WhatsUp

Note - Ipswitch WhatsUp can only start Device Manager in SNMPv1 mode.

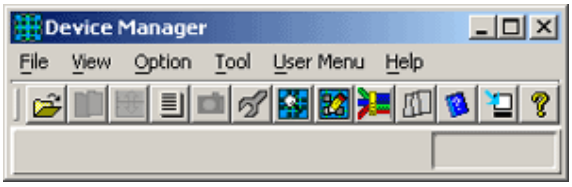
3 Main Window

When started, Device Manager displays one of the following windows, depending on how it is started.

Topics:

3.1 Initial Window

If the target host is not specified, or specified SNMP settings don't match those configured on the host, the following window appears.

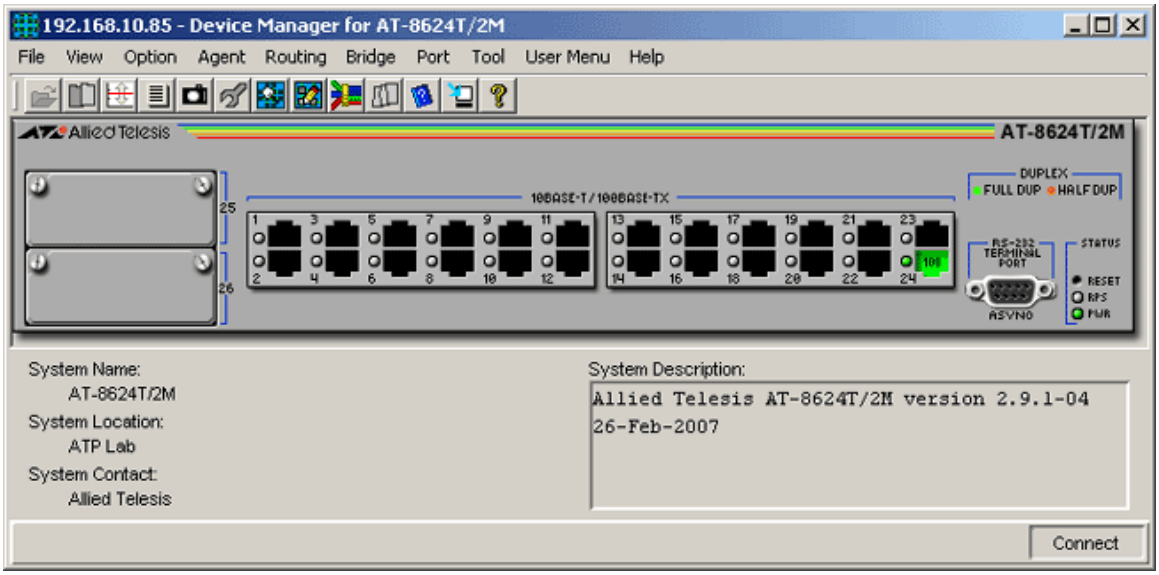


Initial Window

To specify a target host from this window, select File > Open. When Device Manager can identify the host, the panel window displaying the product front panel will appear.

3.2 Panel Window

When the target host is specified and Device Manager can identify the host model, the following window appears.



Panel window

The menu bar includes items specific to the product model, in addition to the menu items common to all models.

Some elements such as network ports also act as menus. When you click on a port, a pull-down menu appears. Select these menu items in the same way as from the menu bar, where they can also be selected.

Refer to the ATI Device Management Guide for device-specific menu items.

In the panel window, the lower half of the window displays information about the target agent, showing values of the MIB-II system group variables. If you change the size of the window, it will open at the new size the next time it is used.

Topics:

- System Name
- System Location
- System Contact
- System Description
- Status Bar

3.2.1 System Name

Usually, the System Name is set to a unique descriptive name for identifying the device. This refers to the MIB object sysName.

Note - SNMPv3: Depending on the READ VIEW access settings of the user name, there is a possibility that the System Name will not be displayed.

3.2.2 System Location

Usually, the System Location is set to indicate where the device is installed. This refers to the MIB object sysLocation.

Note - SNMPv3: Depending on the READ VIEW access settings of the user name, there is a possibility that the System Location will not be displayed.

3.2.3 System Contact

The System Contact is set to indicate the name or phone number of the contact person for the device. This refers to the MIB object sysContact.

Note - SNMPv3: Depending on the READ VIEW access settings of the user name, there is a possibility that the System Contact will not be displayed.

3.2.4 System Description

Usually, the System Description is set to to indicate some information about the device such as model name, software release and version. This refers to the MIB object sysDescr.

Note - SNMPv3: Depending on the READ VIEW access settings of the user name, there is a possibility that the System Description will not be displayed.

3.2.5 Status Bar

The status bar is the area at the bottom of the panel window where a brief description of a highlighted menu option or toolbar button is displayed. The depressed rectangular area at the right end of the status bar shows the connection state of Device Manager.

4 Basic Operations

This chapter describes the basic operations within Device Manager windows.

Topics:

4.1 Click

Device Manager uses both the left and right mouse buttons. To operate items on the menu bar, you can use both the left and right mouse buttons. To click on the icons on the toolbar, use the left mouse button. To open the menus for the device images displayed in the main Device Manager window, use the right mouse button, then you can use either the left or right mouse button to select an item in the menu that you have opened.

4.2 OK, Cancel and Set Buttons

Dialog boxes have buttons to commit or discard changes made in the dialog box.

Clicking the **OK** button confirms and commits the changes made and closes the dialog box. If the dialog box has tabs, the OK button commits changes in all the tabs.

Note - Some configuration options are effective only after restarting Device Manager.

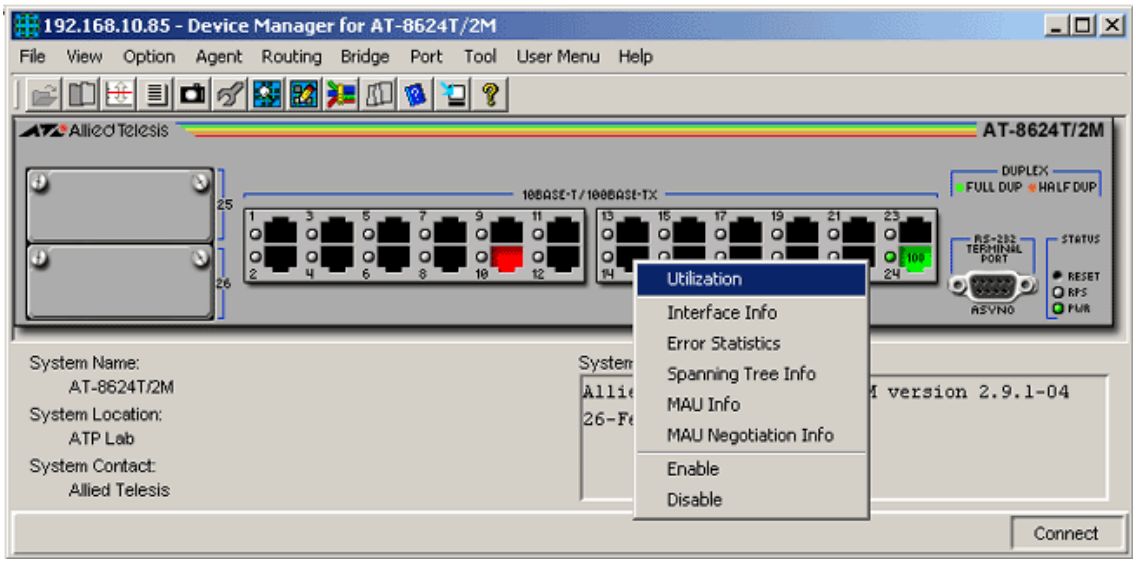
Clicking the **Cancel** button discards the changes made in the dialog box and closes the dialog box.

Clicking the **Set** button commits changes immediately without closing the dialog box.

Note - Clicking the Cancel button after the Set button cannot undo any changes.

4.3 Pop-up Menus

Some elements such as network ports also act as menus. When you right click on a port, a pull-down menu appears. Select these menu items in the same way as from the menu bar, where they can also be selected.



Port

Right clicking on a port displays the menu items specific to the device.

RS-232 Terminal Port

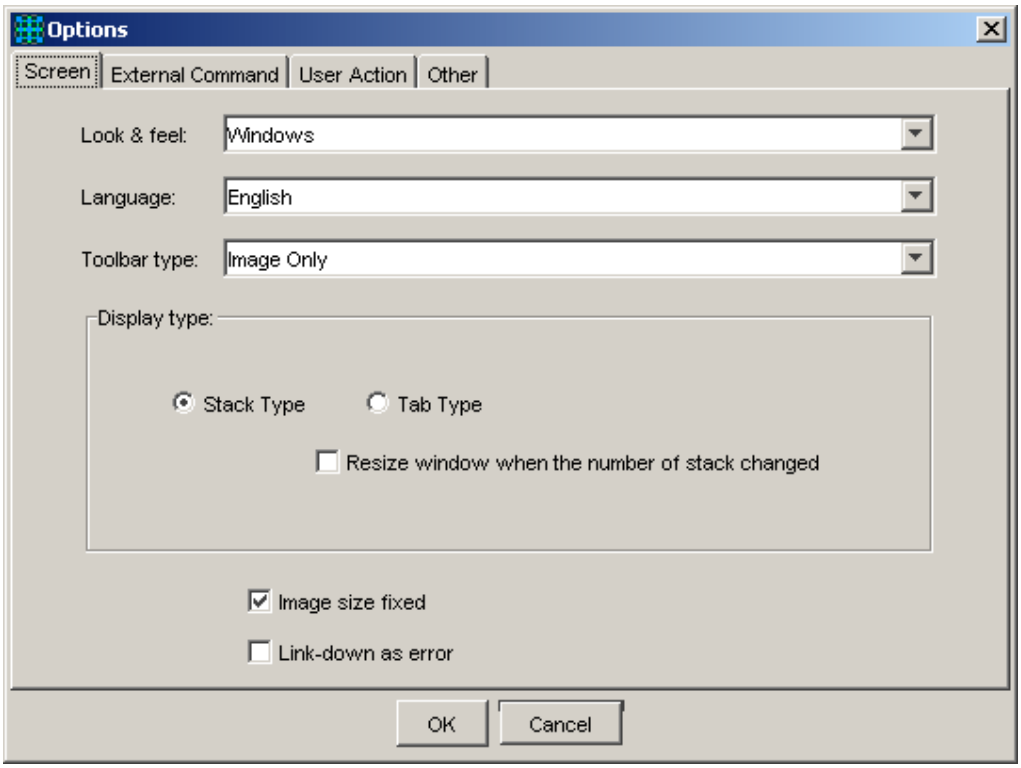
Right clicking on an RS-232 port displays the menu items which allow you to select how to log in to the device's management interface. Depending on the device type, Telnet or WEB Browser (HTTP) can be selected.

Reset Button

Right clicking on a reset button displays a menu item that allows you to reset the device.

4.4 Resizing Windows

To resize a window, follow the procedures specific to the platform you use. The new window size is stored when exiting Device Manager, and restored when Device Manager is restarted. You can also resize the image or fix the display of the image using the Options window. In the main Device Manager window, click Option > Option to open the Options window then check the "Image size fixed" option.

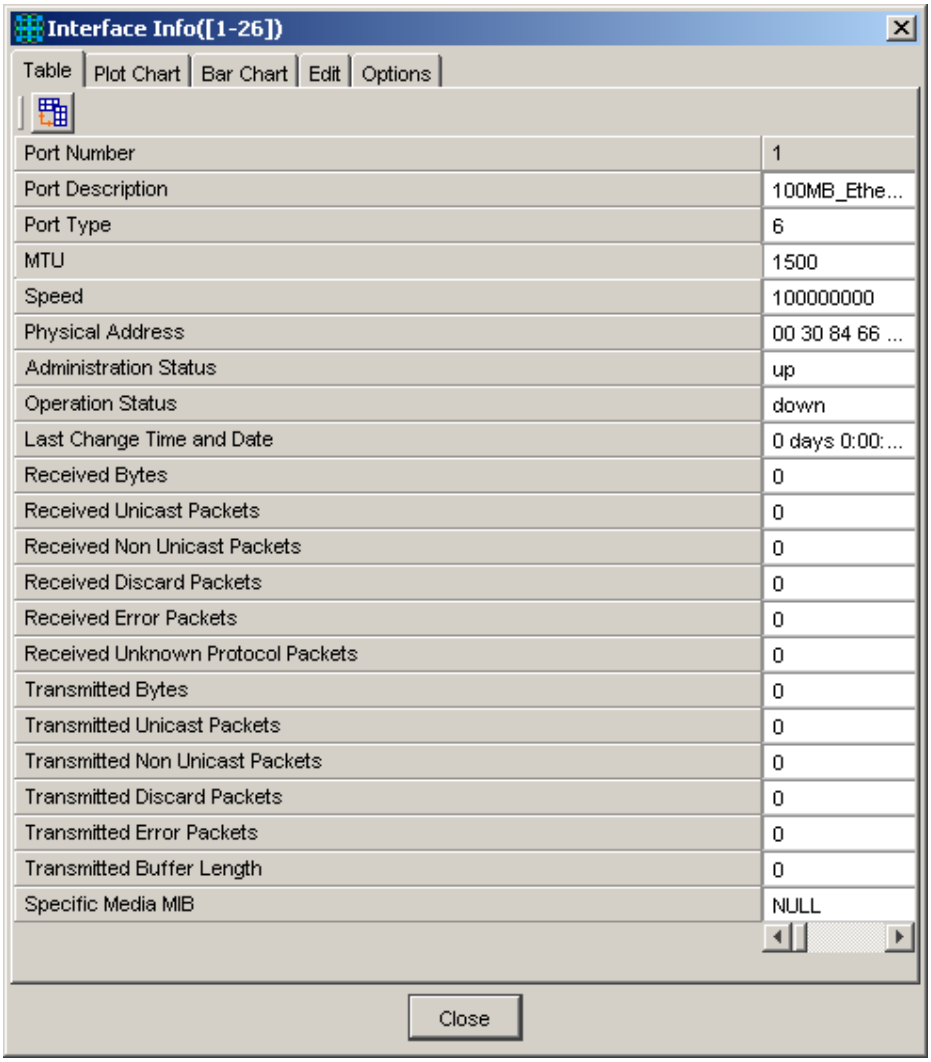


Fixed image size

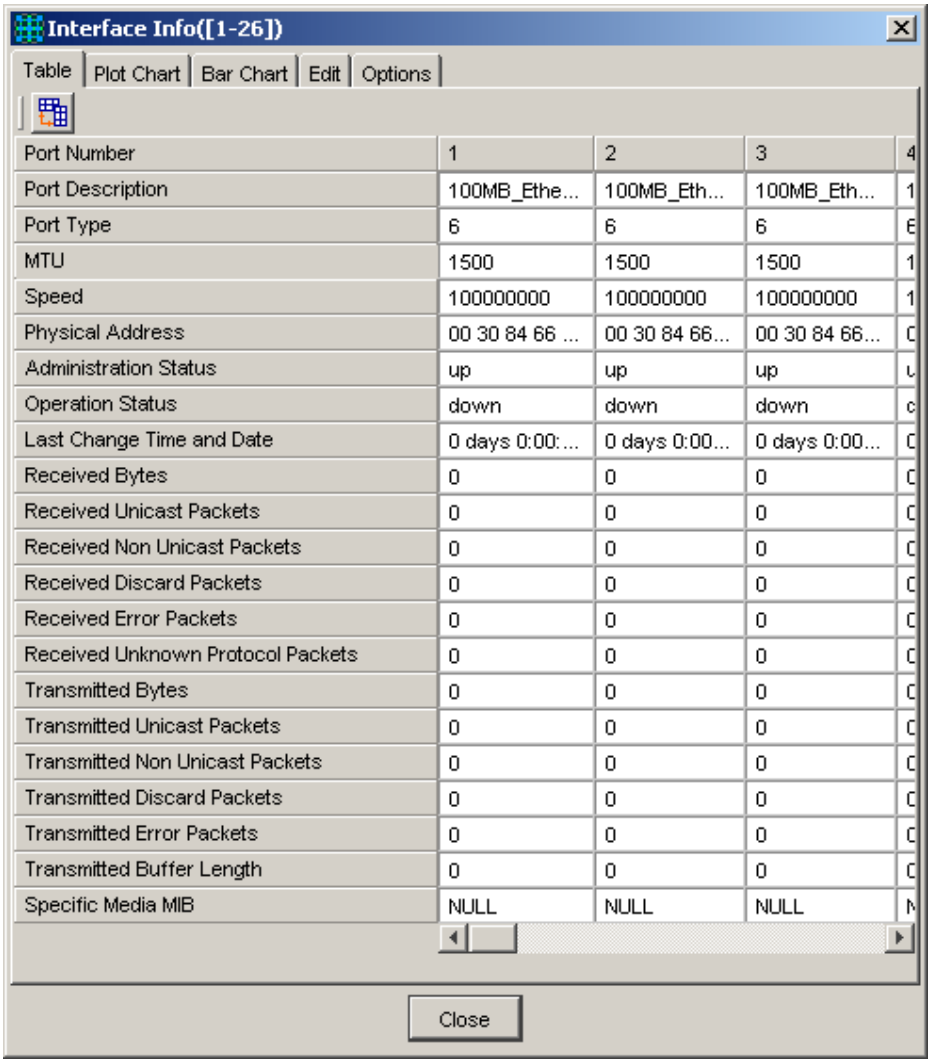
4.5 Resizing Tables

Device Manager displays information in tables. It is possible to resize table boundaries or field/column boundaries by dragging the borders. To do this, position your pointer on a table border. When the pointer has transfomed into arrows, left click on the border and drag it to the right or to the left, depending on whether you want to increase or decrease the table or field/column.

Example 1: Adjusting the MIB Variable column. To do this, position your pointer on the column border. When the pointer has transfomed into arrows, left click on the border and drag it to the left while holding the left mouse button to display the other columns.

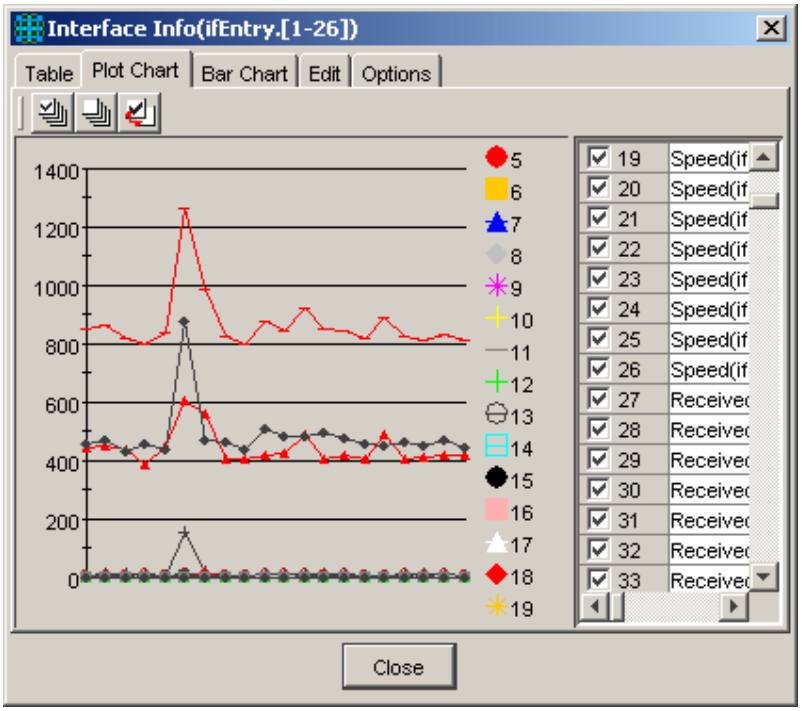


Ex 1: Before adjustment

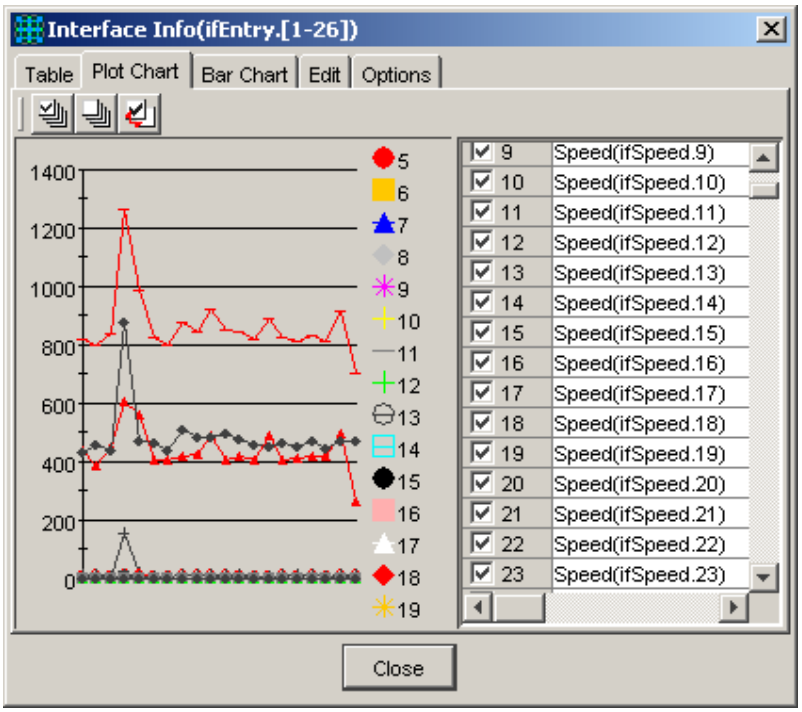


Ex 1: After adjustment

Example 2: Adjusting the boundary between graph and table. To do this, position your pointer on the border between the graph and the table. When the pointer has transfomed into arrows, left click on the border and drag it to the left while holding the left mouse button to increase the table width.

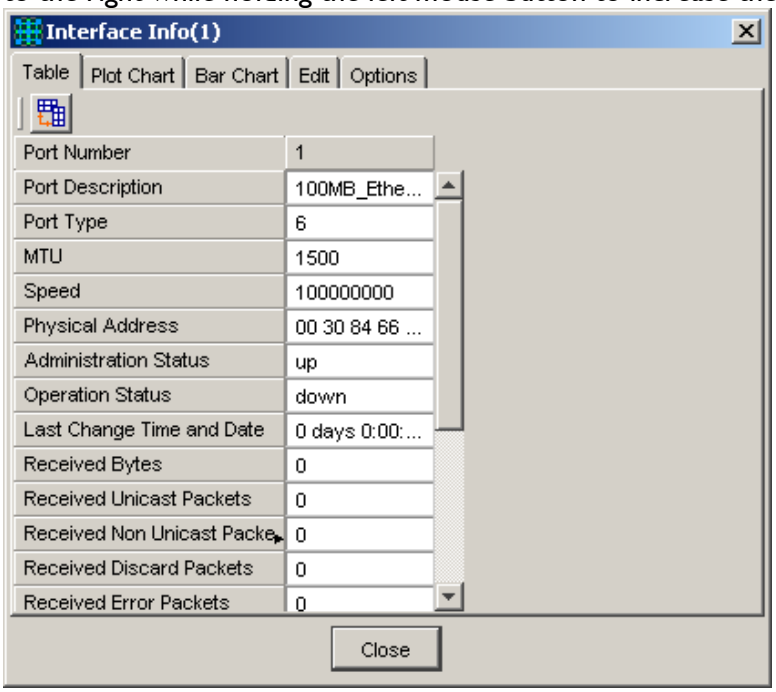


Ex 2: Before adjustment

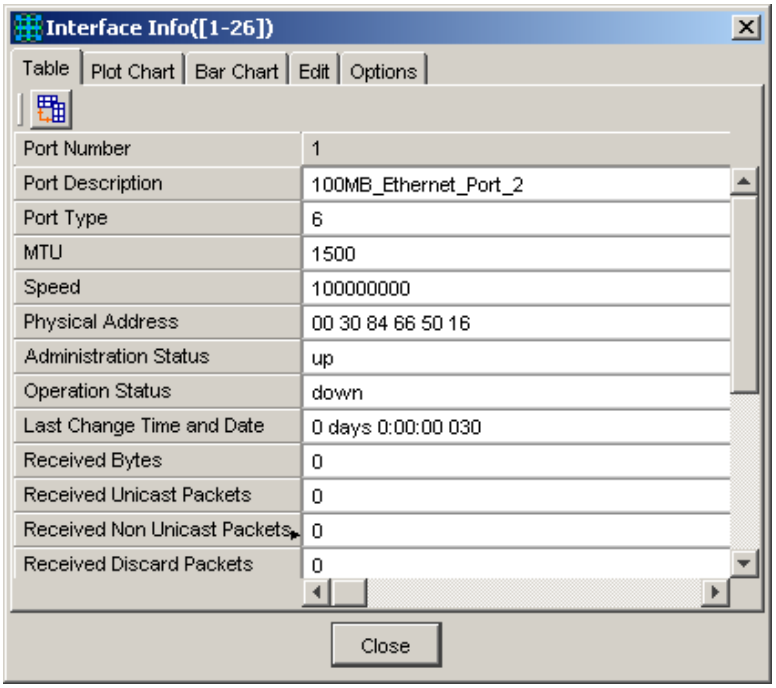


Ex 2: After adjustment

Example 3: Adjusting the table boundary. To do this, position your pointer on the right table border. When the pointer has transfomed into arrows, left click on the border and drag it to the right while holding the left mouse button to increase the table width.



Ex 3: Before adjustment



Ex 3: After adjustment

5 Common Menus

This chapter describes the menu items common to all Allied Telesis managed devices.

Topics:

5.1 File

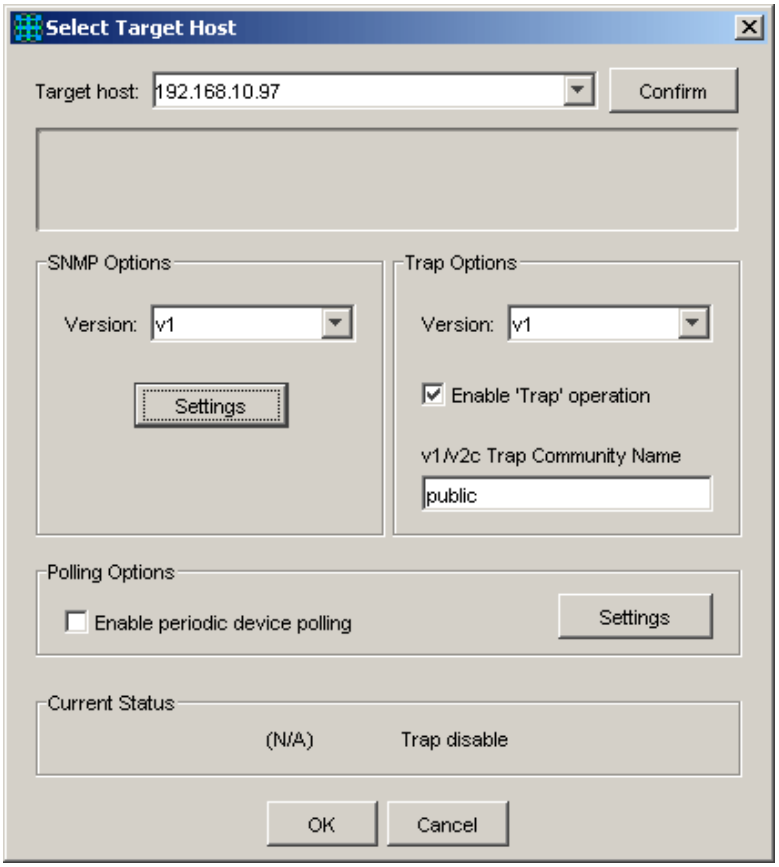
The File menu lets you start and stop managing a device, check the properties of the target host, or exit Device Manager.

Topics:

5.1.1 Open

From the Open menu item, you can specify a target host to manage. When you select File > Open, the following dialog box appears. To connect to the device, fill in parameters in the dialog box, then click OK.

Note - This option is not available if Device Manager is already connected to a target host.



Select Target Host dialog box

Target host

The host name or the IP address of the target host. To see the description of the host, fill in host name or IP address and click Confirm. To connect to the host, click OK.

Note - If "v3" is the selected SNMP version and the specified user account has no READ VIEW access to the System Description OID but has READ VIEW access to the System Object ID, clicking on the confirm button will display the message, "Unable to retrieve system description."

SNMP Options

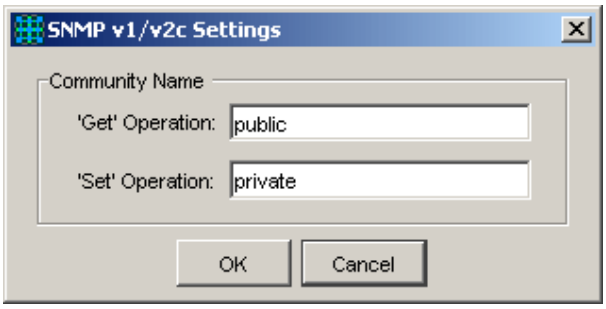
Version

This drop down list allows you to select the SNMP version to use in managing the target device.

Note - Before choosing "v2c" or "v3", make sure that the target device you are connecting to supports SNMP v2c and/or SNMP v3 respectively.

Settings

If the Version is set to "v1" or "v2c", this button opens the SNMP v1/v2c Settings window. Otherwise, if the Version is set to "v3", this button opens the SNMP v3 Settings window.



SNMP v1/v2c Settings dialog box

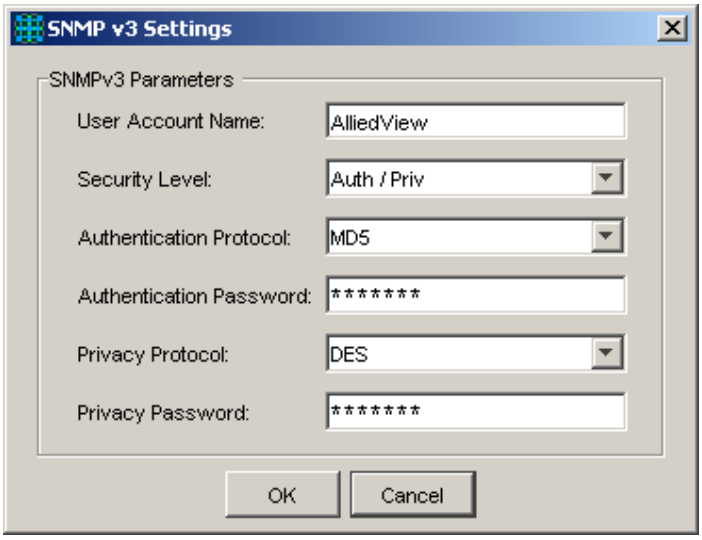
Community name

The community strings to use in performing SNMP operations on the target host. There are three types of community strings for the SNMP. Be sure to specify strings which match the ones configured on the target host.

By default, the following strings are used:

for the Get operation
public

for the Set operation
private



SNMP v3 Settings dialog box

User Account Name

This is the SNMPv3 User Account to be used for accessing the MIB of the target device. Make sure to specify a User Account that has already been configured on the target device.

Security Level
This is the Security Level for the User Account Name that you have specified. Make sure to set the Security Level to be the same as what is configured on the target device.

These are the available Security Levels:

> *No Auth / No Priv*
> This Security Level uses no authentication and no privacy.
>
> *Auth / No Priv*
> This Security Level uses authentication without privacy.
>
> *Auth / Priv*
> This Security Level uses authentication and privacy.

Authentication Protocol
If the Security Level is "Auth / No Priv" or "Auth / Priv", you need to specify an Authentication Protocol. Make sure to set the Authentication Protocol to be the same as what is configured on the target device.

These are the available Authentication Protocols:

> *MD5*
> Use HMAC-MD5-96 protocol
>
> *SHA*
> Use HMAC-SHA-96 protocol

Authentication Password
If the Security Level is "Auth / No Priv" or "Auth / Priv", you need to specify an Authentication Password. Make sure to set the Authentication Password to be the same as what is configured on the target device.

Privacy Protocol
If the Security Level is "Auth / Priv", you need to specify a Privacy Protocol. This is the available Privacy Protocol:

> *DES*
> Use Data Encryption Standard

Privacy Password

If the Security Level is "Auth / Priv", you need to specify a Privacy Password. Make sure to set the Privacy Password to be the same as what is configured on the target device.

Trap Options

Version

This drop down list allows you to select the SNMP trap version to be used in receiving traps.

Note - Device Manager will only accept "v3" trap version if SNMP version in the SNMP Options panel is also set to "v3".

Note - Device Manager will only be able to process and display SNMP v3 traps received from the currently connected device.

Enable 'Trap' operation

To receive traps from a target host's SNMP agent, check this box.

Note - If SNMPc, HP OpenView or Tivoli NetView is running, Device Manager will not receive any traps. This is because the traps are being intercepted by the network management application and will never reach Device Manager.

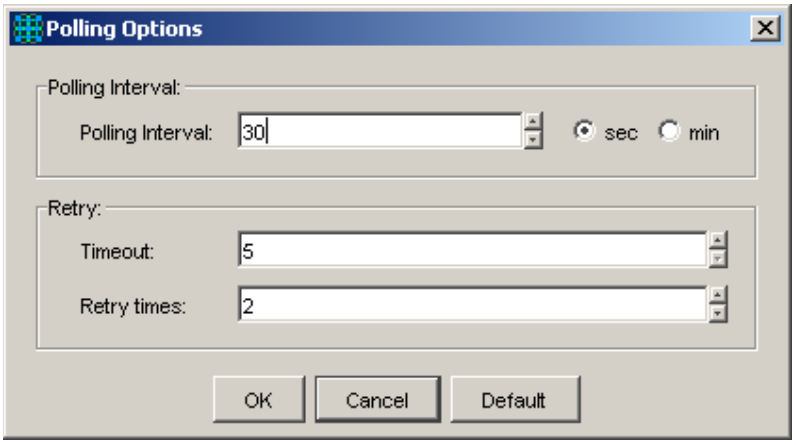
v1/v2c Trap Community Name

Specify the community string that will be used for receiving SNMP v1 or v2c traps. The default string is "public".

Polling Options

Settings

This button opens the Polling Options dialog box, in which you can change the polling interval and retry parameters.



Polling Options dialog box

Polling Interval

Device Manager sends a GetRequest to the SNMP agent at predefined polling intervals to ensure that it is still connected to the device. If a shorter or longer interval is required adjust the value in the Polling Interval field accordingly.

The minimum interval is 5 seconds and the maximum is 3600 seconds (1 hour). The default is 30 seconds.

Retry
Configures the SNMP timeout and the number of retries.

Timeout
The number of seconds Device Manager waits before it determines that the device is not responding. The default is 5 seconds.

Retry times
The number of times Device Manager sends SNMP messages to the agent before giving up. The default is 2 retries.

Enable periodic device polling
To regularly check the hardware configuration of hot-swappable devices, check this box. When this is checked, Device Manager checks the hardware configuration at every polling interval. The Panel window shows any hardware configuration changes it finds.

If the target device is not hot-swappable, or if you do not expect any hardware configuration changes, do not check this box. Polling the hardware configuration may reduce performance.

Note - Device Manager always checks the latest hardware configuration of the target device when initiating connection. To check the configuration on demand after the session is established, select View > Refresh.

Current status
Indicates whether or not Device Manager is currently connected to a target device and whether or not Trap operations are currently enabled.

5.1.2 Reopen

This command can be used to reconnect to a recently accessed device.

5.1.3 Close

Closes the SNMP session with the device and closes the Panel window. To connect to another device, select File > Open.

5.1.4 Property

Change parameters for communicating with the device. The dialog box is identical to the Select Target Host dialog box used to open a connection. For information on the settings that can be modified or viewed from this dialog box, see section 5.1.1.

5.1.5 Exit

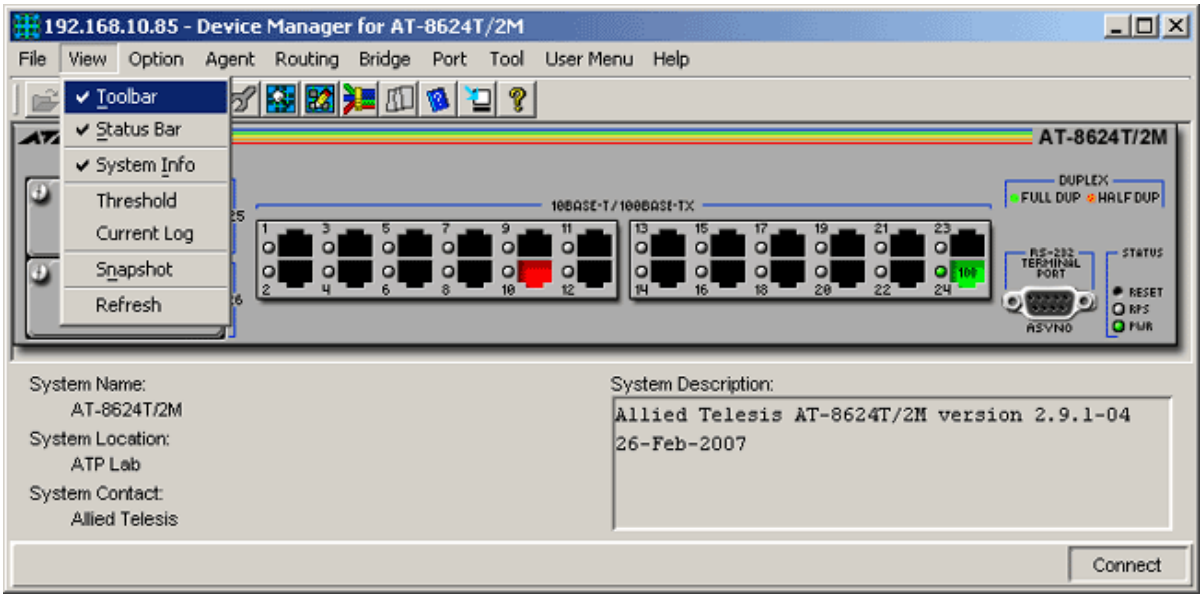
Terminates connection to the target device and closes the Device Manager application.

5.2 View

Using the View menu, you can determine whether or not to display the Device Manager toolbar and status bar, view and set thresholds on MIB variables, and view the log.

Topics:

- Toolbar
- Status Bar
- System Info
- Threshold
- Current Log
- Snapshot
- Refresh



View menu

5.2.1 Toolbar

Toggles display of the toolbar. The toolbar is the area holding command icons just below the menu bar. When checked, the toolbar is displayed.

5.2.2 Status Bar

Toggles display of the status bar. The status bar is the area at the bottom of the Device Manager window. When checked, the status bar is displayed.

5.2.3 System Info

Toggles display of system information, namely, System Name, System Location, System Contact, and System Description.

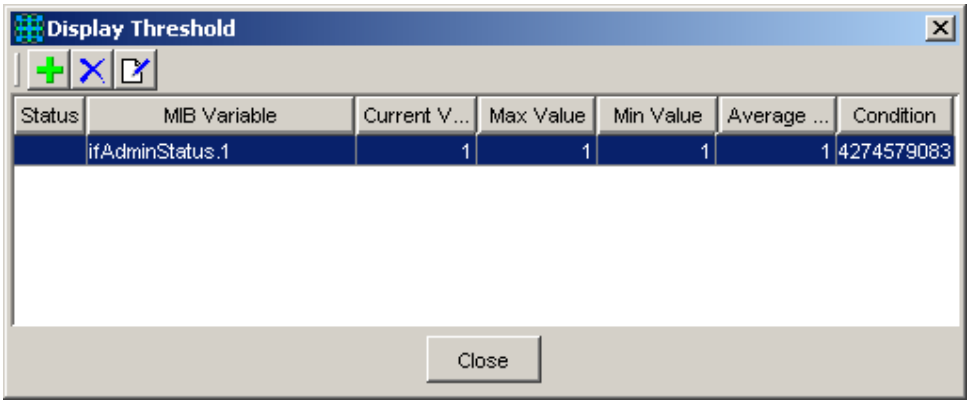
5.2.4 Threshold

Displays a list of the configured thresholds. You can also create new thresholds or change the existing thresholds.

The table has the following fields:

- Status - Indicates the status of the MIB variable that Device Manager is monitoring.
- MIB Variable - Name of the MIB variable that Device Manager is monitoring.
- Current Value - Current value of the variable.
- Max Value - Highest value of the variable after Device Manager starts monitoring.
- Min Value - Lowest value of the variable after Device Manager starts monitoring.
- Average Value - Average value of the variable (per second) after Device Manager starts monitoring.
- Condition - Threshold configured on the variable. If the variable's value exceeds the threshold, an action is executed. You can configure the type of action to execute in the User Action tab of the Option menu.

Note - Current, Max, Min and Average values are zero before the first polling. After the first polling, they all have the same value. Once the threshold is reached, the corresponding row is highlighted with a red background. Note that thresholds can only be set for MIB variables of type GAUGE, INTEGER, COUNTER, GAUGE32, INTEGER32, COUNTER32, or COUNTER64.



Display Threshold

Add button (Green 'plus' icon)

Adds a new threshold definition.

Remove button (Blue 'X' icon)

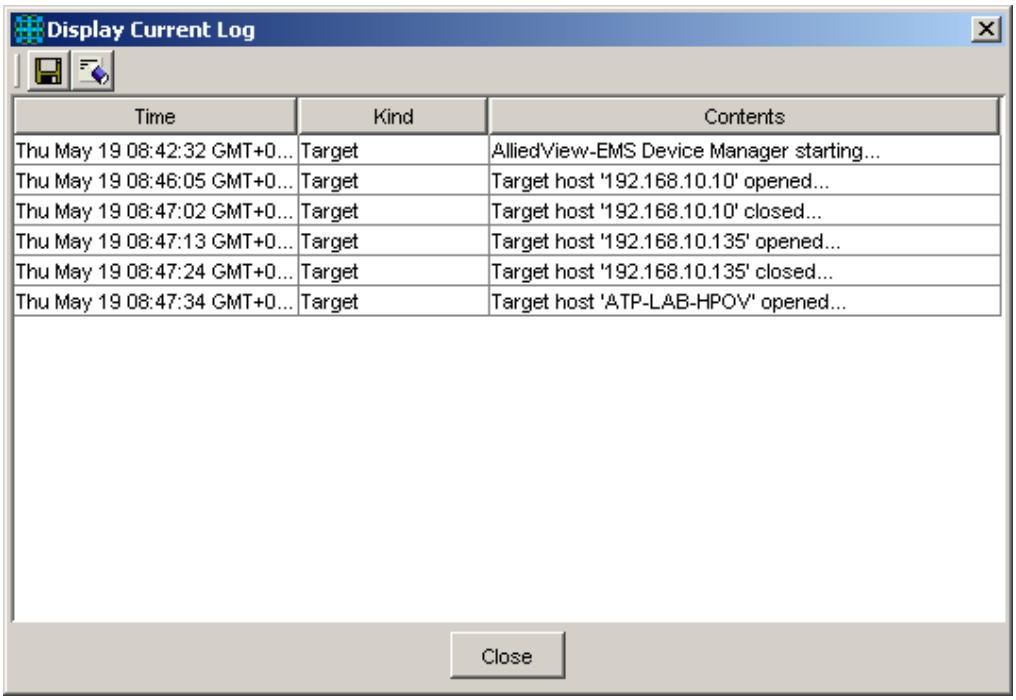
Removes the selected threshold.

Edit button ('note and pen' icon)

Edits the selected threshold.

5.2.5 Current Log

Displays the event log. It records events such as Device Manager start up, reception of traps, or threshold events.



Display Current Log

Save As ('Floppy disk' icon)

Saves the log as a text file. Specify a filename in the Save As dialog box. Each log entry is saved as one line. Each field in an entry is delimited by a TAB character.

Clear ('note and eraser' icon)

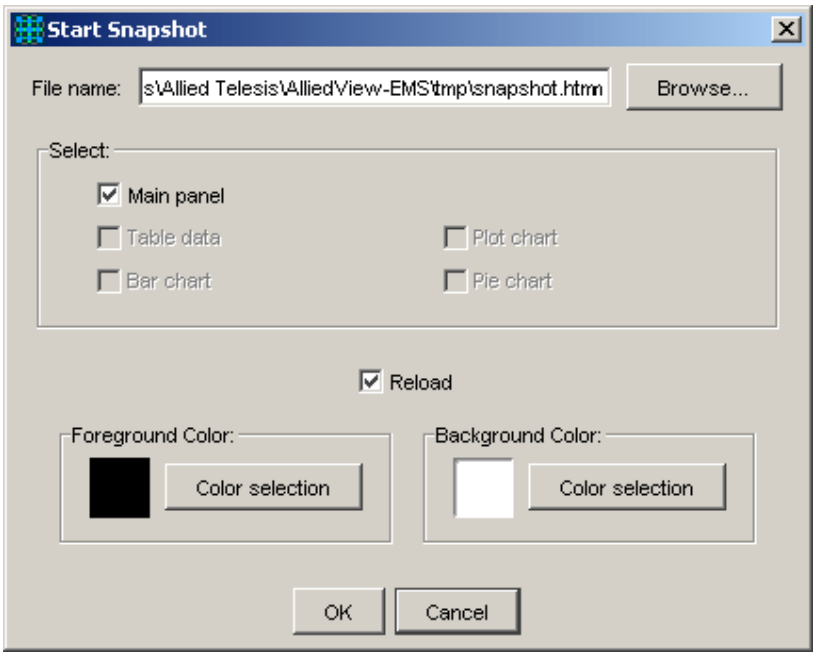
Clears the log.

Note - If SNMPc, HP OpenView, or Tivoli NetView is running, Device Manager will not receive any traps. This is because the traps are being intercepted by the network management application and will never reach Device Manager.

5.2.6 Snapshot

Clicking this option in the View menu opens the Start Snapshot window. Use this window to create an image of the device, as well as tables or charts representing device information, in HTML format.

Note - If you open the Start Snapshot from the View menu in the main window, you can only create an image of the main panel.



Start Snapshot

File name

Use the 'Browse' button to select the directory or folder where you want to save the image and to specify the name of the HTML file. When you click OK, three files will be created in the directory or folder you've selected: a PNG file, an XML file, and an HTML file. To display the device image and associated information, use a web browser to open the HTML file.

Select

Choose the information that you want to save in the HTML file.

Note - Depending on the selections that you make, the following PNG files will be created:

Selection	*PNG File*
Main Panel	snapshot_m#.png
Plot chart	snapshot_p#.png

Selection	PNG File
Bar Chart	snapshot_b#.png
Pie Chart	snapshot_i#.png
Table Data	No .png file is created for table data.

Reload

Mark this option if you want to update the HTML file at a regular interval.

Foreground Color

This enables you to specify the color of the foreground of the HTML file as displayed on the web browser, including the text and table borders. Click the "Color selection" button to open the Foreground Color Selection window where you can choose the foreground color.

Background Color

This enables you to specify the color of the background of the HTML file as displayed on the web browser. Click the "Color selection" button to open the Background Color Selection window where you can choose the background color.

5.2.7 Refresh

Redisplay the Panel window with the latest device information. Use this menu when the target host is replaced with another device or if the hardware configuration of the target host changes.

5.3 Option

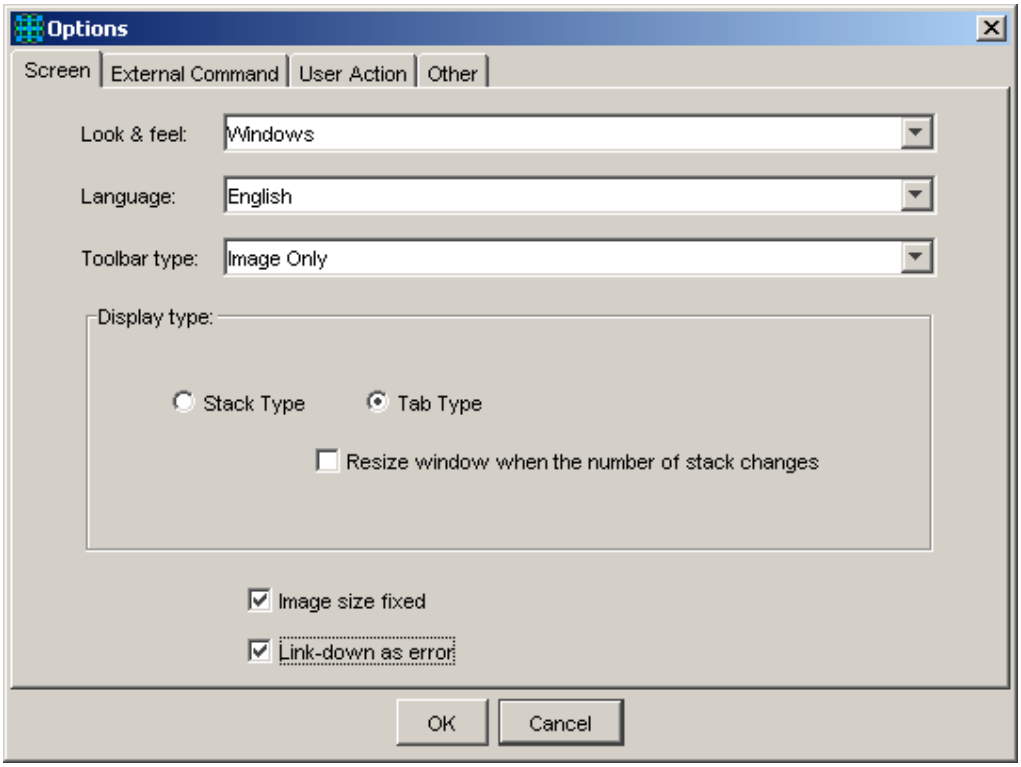
In the Option menu, general preferences for Device Manager can be changed. Although Device Manager works well with the default configuration, you can customize some aspects of its behavior.

This menu has only one submenu, 'Option'. Selecting Option > Option opens the Options dialog box, which has four tabs.

Topics:

5.3.1 Screen Tab

Controls the appearance of Device Manager.



Screen tab

Look & feel

Changes how Device Manager windows are displayed. Your options are Windows, CDE/Motif, and Metal. To put this change into effect, click OK.

Language

Changes the language. English and Japanese are available. If you change this setting, you must restart Device Manager to put the change into effect.

Note - This feature is not supported in this version of Device Manager.

Toolbar type

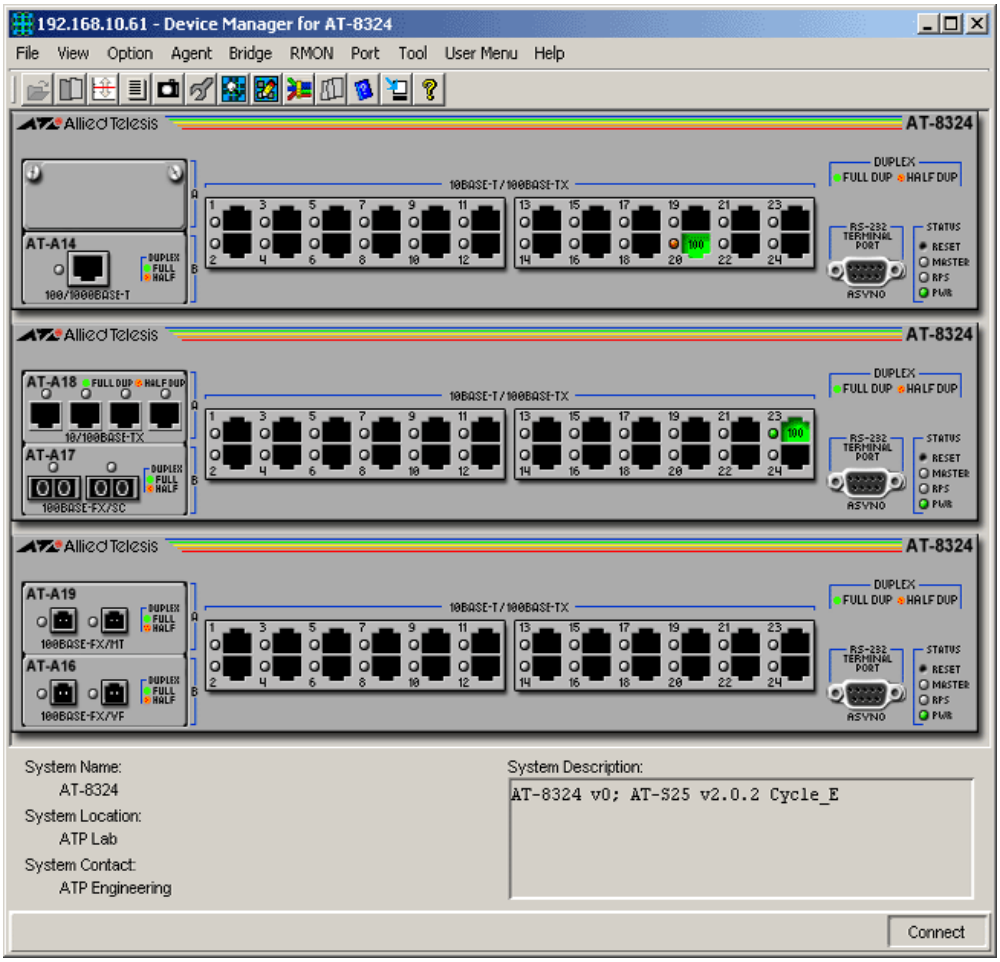
Changes the appearance of the toolbar. Choose one of 'Text Only', 'Image Only' or 'Image and Text'. To put this change into effect, click OK.

Display type

Changes the display style for stackable devices. To put this change into effect, click OK.

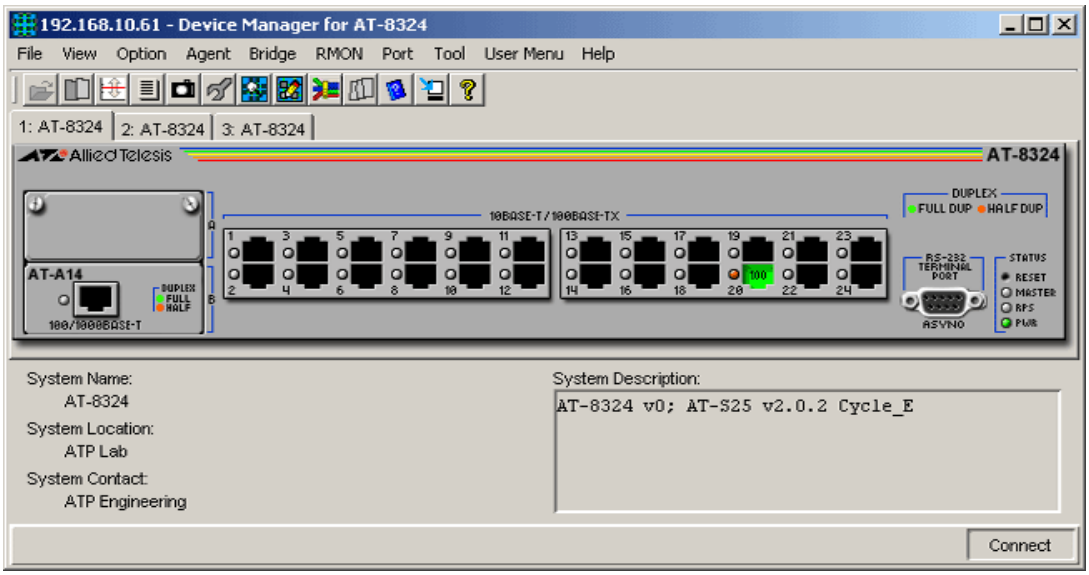
Stack Type

Displays all stacked devices in one window.



Tab Type

Displays each stacked device in a separate tab.



Resize window when the number of stack changes

When checked, Device Manager resizes the Panel window according to the number of stacked devices. If this is not checked, the size of Panel window does not change even if Device Manager detects a change in the stack configuration.

Image size fixed

When this option is selected, the size of the image in the main Device Manager window will not change even if the window size is increased.

Link-down as error

When this option is selected, inactive ports are displayed as red ports in the main Device Manager window, indicating that links to those ports are down. Disabled ports are displayed as black ports.

Note - The Link-down as error option is not applicable to the following devices:

- AT-AR240E
- AT-AR250E
- AT-AR255E
- AT-RG213FX
- AT-RG213TX

5.3.2 External Command Tab

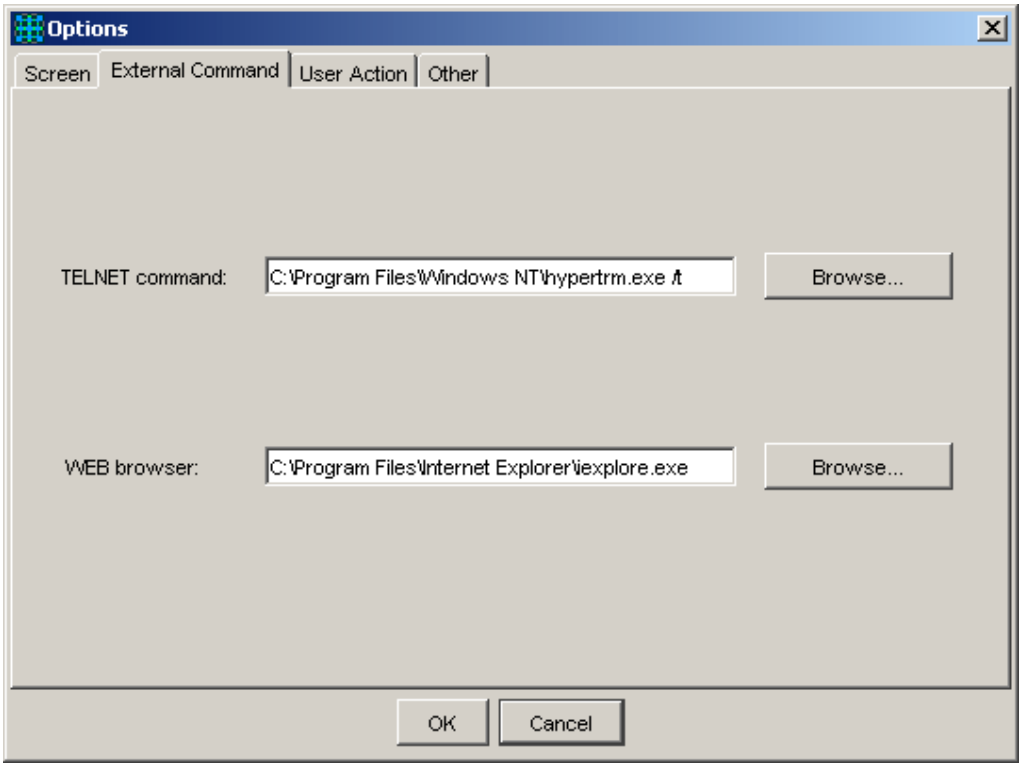
Configures application commands used to directly access the device's management interface. You can specify a telnet client and a web browser to use. The web browser specified here is also used to view the online user's manual.

TELNET command

Specifies a command line to start the Telnet client. On Windows, "C:\Program Files\Windows NT\hypertrm.exe /t" may be used. On UNIX, use "dtterm -e telnet". Make sure that the command is correct by manually executing the command line. To select a command from the file list dialog box, click Browse.

WEB browser

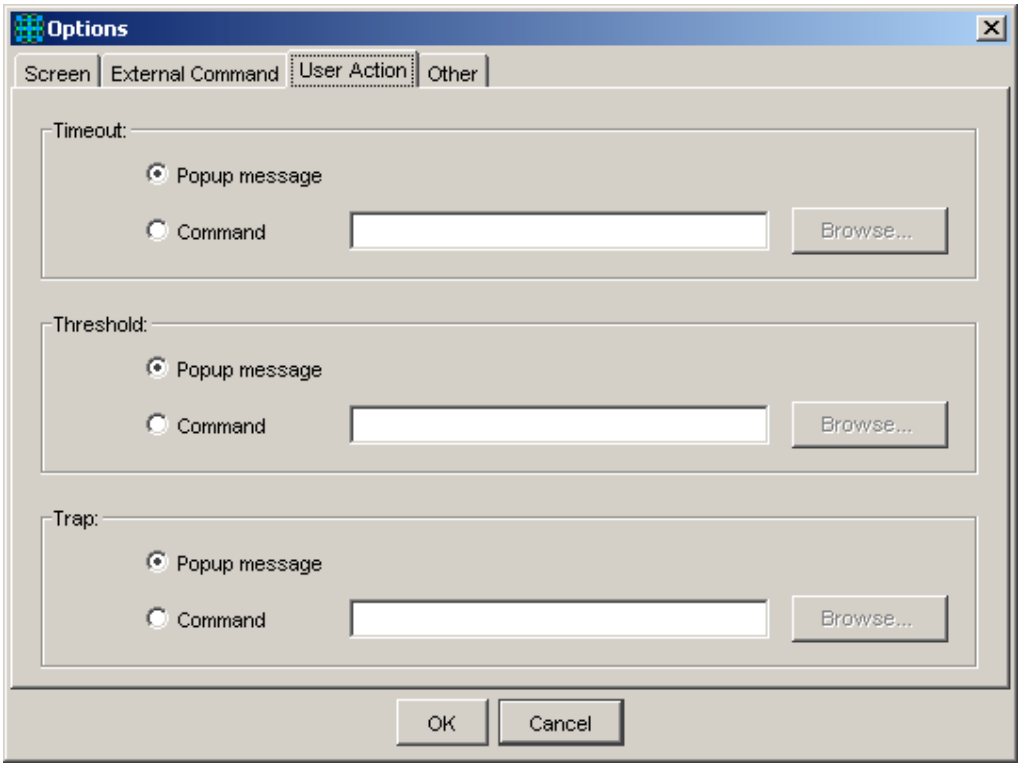
Specifies the command or file used to start your web browser.



External Command tab

5.3.3 User Action Tab

In the User Action tab, you can specify the action to take when an event occurs. There are three types of events: an SNMP command timeout, a threshold event, and the reception of a trap.



User Action tab

You can choose an action for each event type. There are two types of actions.

Popup message

Device Manager displays a popup window when an event occurs.

Command

Device Manager executes a predefined command line when an event occurs. You can use the following special arguments in the command line. They are automatically passed by Device Manager.

For all event types

$TARGETHOST

The host name of the device. If Device Manager cannot get the host name using the address, the IP address is used instead.

$TARGETIPADDR

The IP address of the device.

For threshold events

$MIBNAME

The name of the MIB variable which Device Manager calls.

$CURRENT
Current value of the variable.

$MAXVALUE
Highest value of the variable during the monitoring period.

$MINVALUE
Lowest value of the variable during the monitoring period.

$AVERAGE
Average value of the variable during the monitoring period.

$MAXLIMIT
Threshold value configured for the variable.

For trap events

$TRAPHOST
The host name of the device which sent the trap.

$TRAPIPADDR
The IP address of the device which sent the trap.

$GENERICTRAP
The generic trap number.

$SPECIFICTRAP
The specific trap number.

$ENTERPRISEOID
The trap's enterprise OID.

$ENTERPRISENAME
The name of the Trap MIB object. If Device Manager cannot get an object name, $ENTERPRISEOID is used instead.

$TIMETICKS
The trap's TIMETICKS.

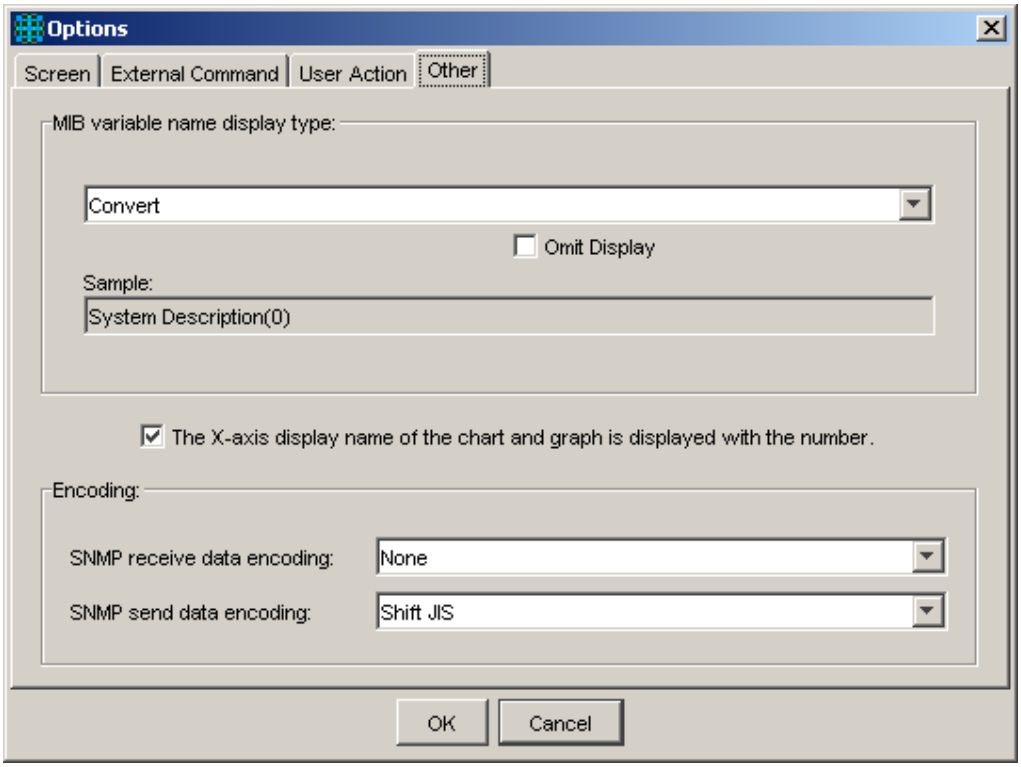
$VAROIDn
The OID of the n^{th} MIB object sent with the trap, where n is a number in the range 1 to 9.

$VARNAMEn
The name of the n^{th} MIB object sent with the trap, where n is a number in the range 1 to 9. If Device Manager cannot get a name, $VAROIDn is used instead.

$VALUEn
The value of the nth MIB object sent with the trap, where n is a number in the range 1 to 9.

5.3.4 Other Tab

In the Other tab, you can configure how MIB variables are displayed and the character encoding system to use in sending and receiving SNMP data. Note that changes made here apply to windows which are opened after the change is applied. Windows which are already open are not affected by the changes.



Other tab

MIB variable name display type

Choose the display type of the variable name from "Convert", "MIB variable" and "Both". When you change the setting, sample text is displayed in the "Sample" textbox.

"Convert" option displays a MIB variable name in English.

Examples:
System Description
System Contact
System Name
System Location

"MIB variable" option displays a MIB variable name in its original form.

Examples:
sysDescr.0
sysContact.0
sysName.0
sysLocation.0

"Both" option displays a MIB variable name in both English and its original form.

Examples:
System Description (sysDescr.0)
System Contact (sysContact.0)
System Name (sysName.0)
System Location (sysLocation.0)

Omit Display

In the Edit tab of dialog boxes, where MIB variables can be edited, "Stack#.Port#" is appended at the end of the MIB variable name. If you want to omit this suffix, check this box.

The X-axis display name of the chart and graph is displayed with the number

When checked, item names on the graph/chart's x-axis are displayed as numbers instead of variable names. This option may be useful when you view a lot of variables on a screen.

Encoding

Specifies the character encoding system to use in sending and receiving SNMP data.

SNMP receive data encoding
Specifies the character encoding of the data received from the device. Your options are None, Auto detect, Shift JIS, JIS, and EUC.

Note - In some cases, Device Manager may not be able to recognize the SNMP data encoding format received when "Auto detect" is selected. If this occurs, you will need to specify the appropriate SNMP data encoding format.

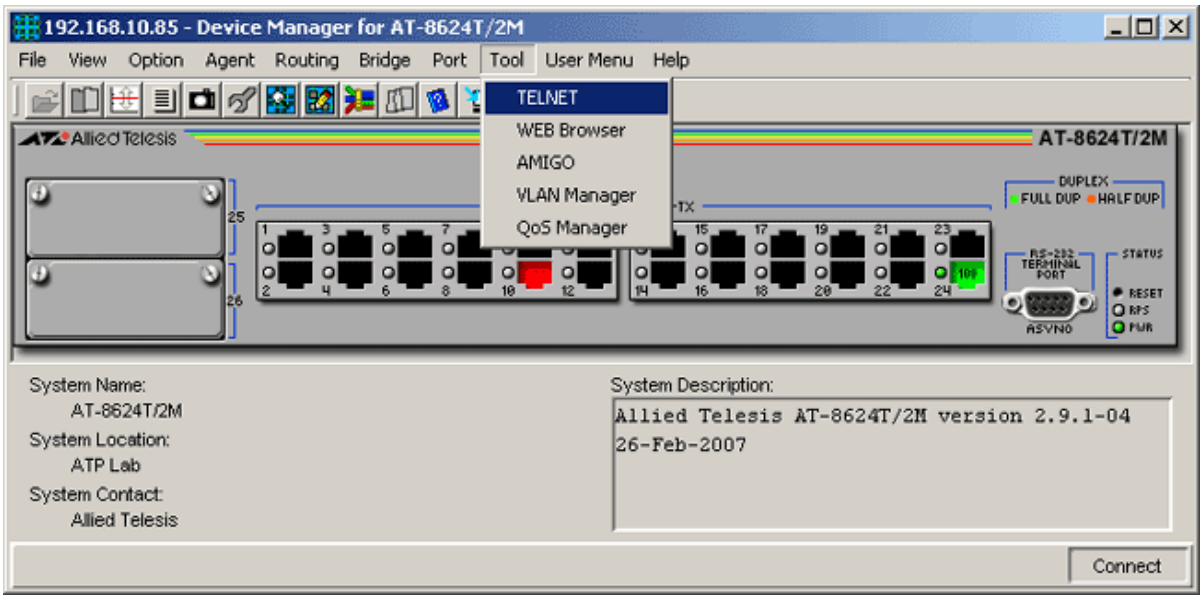
SNMP send data encoding
Specifies the character encoding of the data sent by the device. Your options are None, Shift JIS, JIS, and EUC.

Note - It is advisable to set the encoding option to the default value.

5.4 Tool

From the Tool menu, you can launch external applications such as Telnet, your WEB browser, the MIB browser AMIGO, or VLAN Manager.

Topics:



Tool menu

5.4.1 TELNET

Starts the Telnet application specified in the External Command tab of the Options dialog box (Option > Option > External Command). This menu item simply starts the Telnet application with no argument (target host) specified.

Note - To Telnet directly to the target device, click the RS-232 port in the Panel window and then select Telnet, or select the Telnet command from the Agent menu.

5.4.2 WEB Browser

Starts the web browser specified in the External Command tab of the Options dialog box (Option > Option > External Command). This menu item simply starts the web browser with no argument (URL) specified.

Note - To connect directly to the target device via HTTP, click the RS-232 port in the Panel window and then select WEB Browser, or select the WEB Browser command from the Agent menu.

5.4.3 MIB Browser

Starts the MIB browser (AMIGO) application that comes with Device Manager. Refer to the AMIGO User's Guide for more details.

5.4.4 VLAN Manager

Starts the VLAN Manager application that comes with Device Manager. Refer to the VLAN Manager User's Guide for more details.

5.4.5 QoS Manager

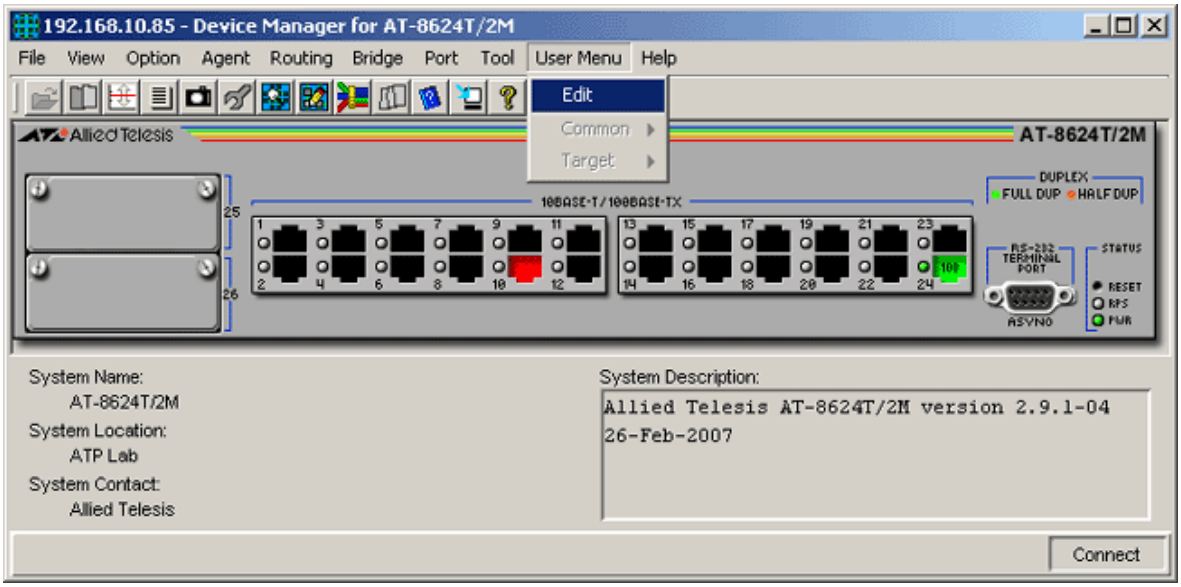
Starts the QoS Manager application that comes with Device Manager. Refer to the QoS Manager User's Guide for more details.

5.5 User Menu

In the User Menu, you can create, edit and execute user-defined menu items.

This function may be useful if there are a small number of Device Manager windows that you use more often than all others (common GUI windows). Usually, you need to perform several steps to open a window. By creating your own menu item, you can open the windows by a single action. You can also add frequently used commands or applications to the User Menu.

Topics:



User Menu

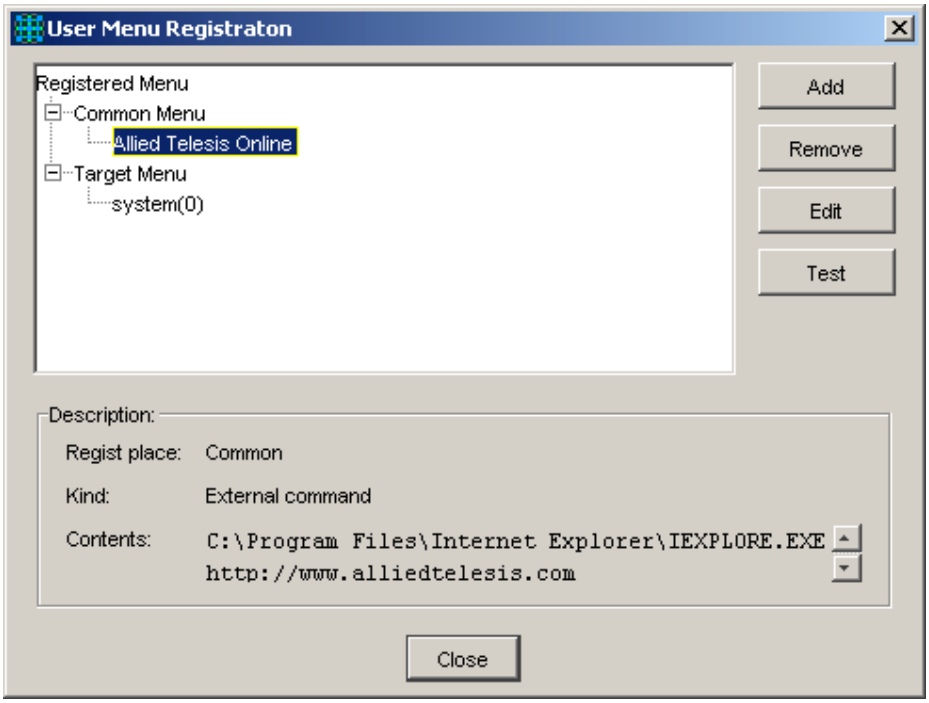
5.5.1 Create Your Own Menu Item

To create a user-defined menu item, select User > Edit, or open the Options tab of the common GUI window. In the Options tab, click on the 'Regist menu' button. The Regist Menu Item window will appear. This window will allow you to add the currently opened common GUI window to the User Menu. After adding the common GUI window, you can open it by selecting it from the User Menu.

User-defined menu items can be classified as either 'Common' or 'Target-specific'. Menu items in the 'Common' group are always available, regardless of the target host. Menu items in the 'Target' group are only accessible when you connect to the same target host as the one you were connected to when creating the menu item.

5.5.2 Edit

Add, delete and edit user-defined menu items.



User Menu Registration

Add

Adds a new menu item to the selected group (Common Menu or Target Menu).

Remove

Deletes a selected menu item.

Edit

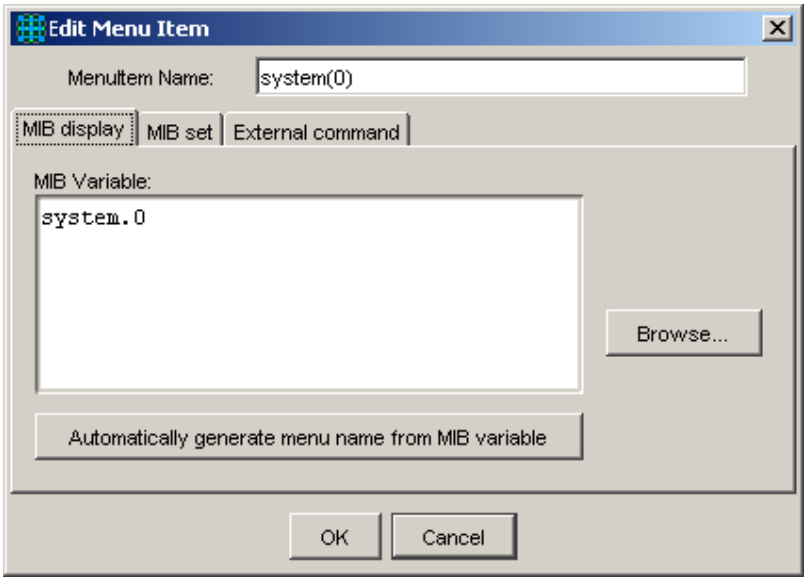
Changes a selected menu item.

User-defined menu items can be created to perform one of the following actions.

MIB display

Displays MIB variables of your choice in the common GUI window.

Note - It takes times to get values for many variables. To improve performance, you can limit the number of variables to be displayed to about 10. You can further improve performance by increasing the polling interval when the volume of the data is high.

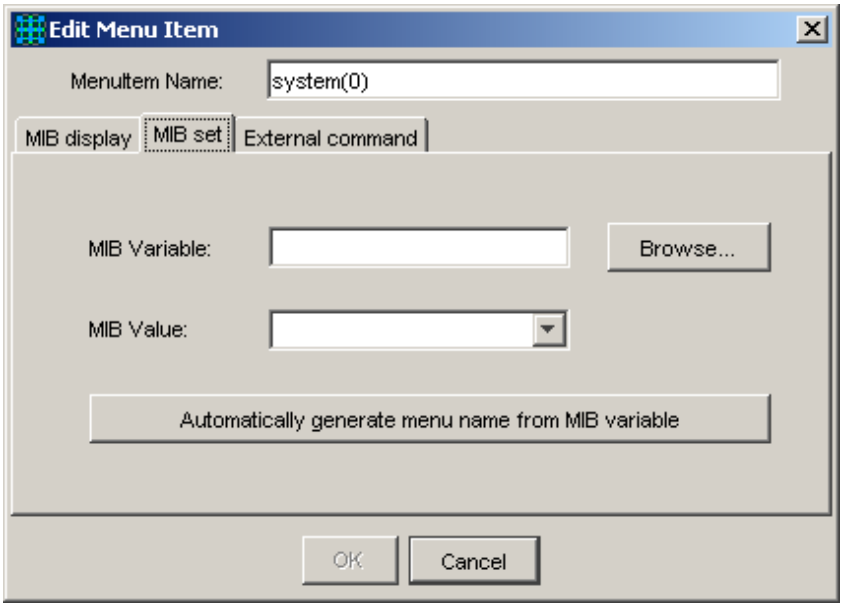


MIB display

MIB set

Sets a value for the MIB variable. Specify a variable and a value to set. You must specify the variable with an instance number. For example, 'sysDescr.0' or rptrMonitorPortEntry.1.8' are valid examples. If you specify a variable without an instance such as 'sysDescr', the set operation cannot be performed.

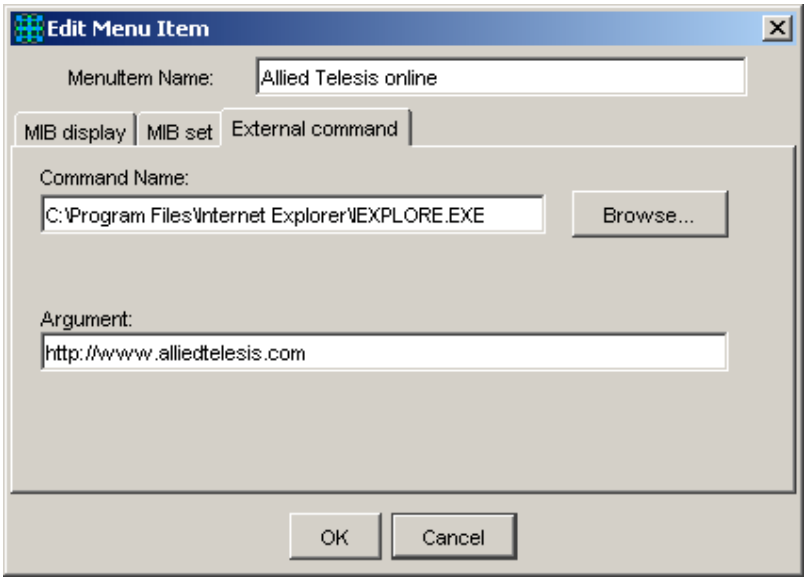
Note - The MIB set operation changes the data structure in the device's SNMP agent. Take care when using this function.



MIB set

External command

Executes the specified command line.



External command

5.5.3 Common

The Common submenu contains the user-defined menu items which are accessible regardless of the target device.

5.5.4 Target

The Target submenu contains the user-defined menu items which are accessible only when connected to the specific target device.

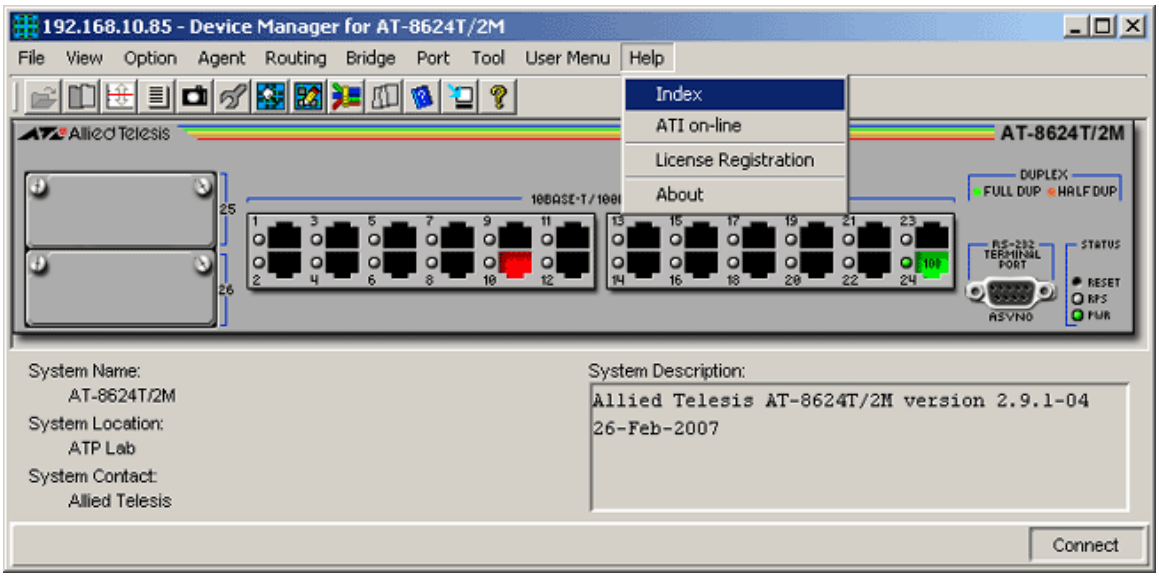
5.6 Help

From the Help menu, you can view the online user's manual, license information and version information for Device Manager.

Note - To view the online user's manual, you must first specify the web browser with which to view it in the External Command tab of the Options dialog box.

Topics:

- Index
- ATI on-line
- License Registration
- About



Help menu

5.6.1 Index

Displays the main page of the online user's manual.

5.6.2 ATI on-line

Opens the Allied Telesis home page with the configured web browser.

5.6.3 License Registration

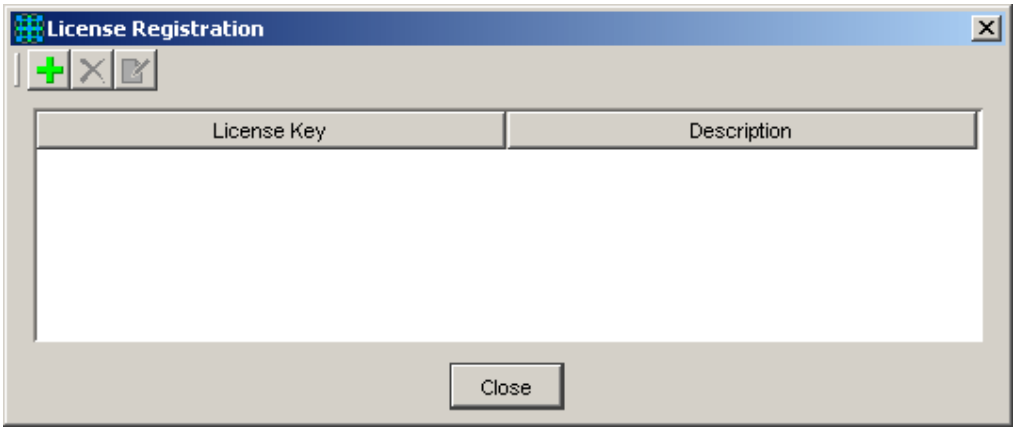
Device Manager can be evaluated for a limited period without a license. If you want to use Device Manager after that period, you must obtain a license. Contact your authorized Allied Telesis distributor or reseller.

In the License Registration menu, you can view, add and remove license information stored in Device Manager.

When you buy a license, you are supplied with a license sheet with your License Key printed on it. Enter this to register your license.

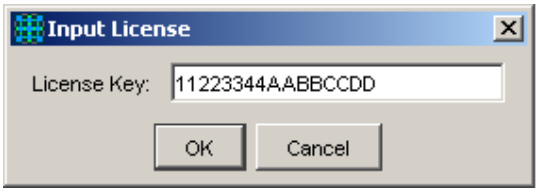
To register your license, follow these steps.

1. Start Device Manager.
2. Select Help > License Registration.
3. Click the 'Add' button (green +).



Click 'Add' button

4. Enter the License Key written on your license sheet, then click OK.



Input License Key

5. Device Manager displays the registered license information.

5.6.4 About

Displays version and copyright information for Device Manager.

6 MIB Variable Window

When you select a menu item to view information from the SNMP agent, a MIB variable window with tabs appears. In this window, you can view MIB variables in several different styles, set a threshold on variables for monitoring, change the value of the variables and change options.

The window has some common components regardless of the information displayed. This section describes operations which are common for all such MIB variable windows.

The MIB variable windows have several tabs, each of which displays variables in different styles, such as tables, plot charts, and bar charts. You can quickly change the view by clicking a tab.

Additionally, the MIB variable windows have a tab which is used to change the values of the MIB objects, and a tab to configure options.

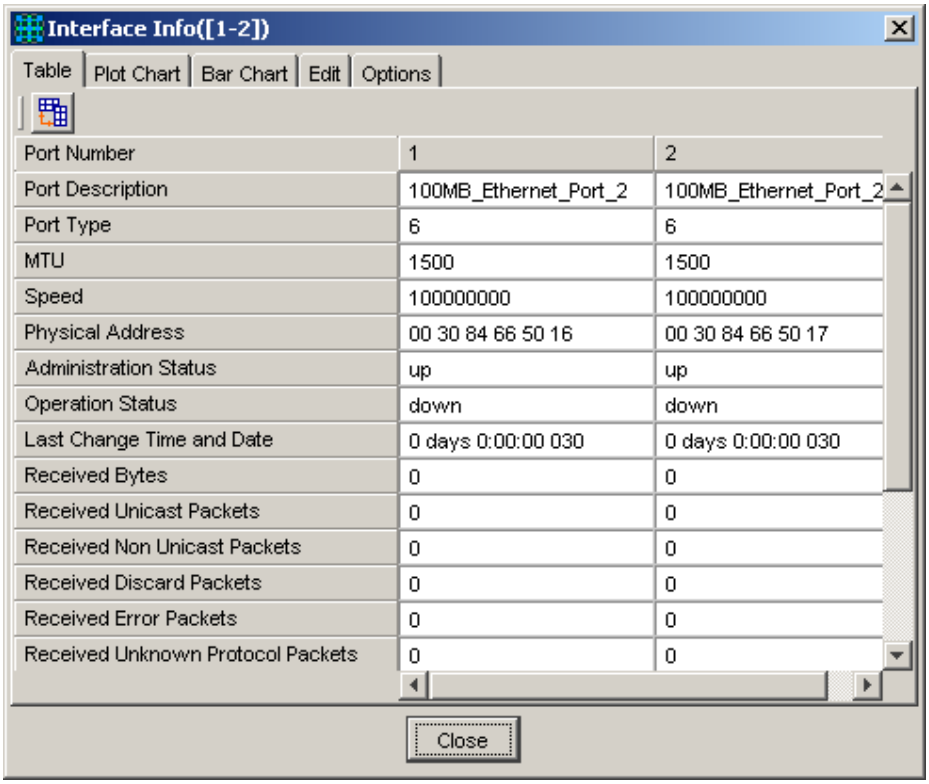
Note - To change MIB variables, you must have configured the community string for the SNMP 'Set' operation both in Device Manager and on the device.

Note - The type of variables displayed determines which kind of tabs are displayed and which are not. For example, chart tabs are not displayed when you are only viewing string variables.

Note - SNMPv3: There are times that the MIB Variable Window will only display one row with the value column displayed as blank. This happens when the user does not refresh the Panel Window after removing the read permission on the MIB Group.

Note - SNMPv3: Depending on the user's view access security settings, the values of some MIB objects may not be displayed.

Topics:



MIB Variable Window

6.1 Table Tab

In the Table tab, MIB variables are displayed in a table. This is the default tab opened by a menu item. Values in the table are updated at each polling interval.

Note - The type of variables displayed determines which kind of tabs are displayed and which are not. For example, chart tabs are not displayed when you are only viewing string variables.

Note - SNMPv3: Depending on the READ VIEW access settings of the User Account Name used, there is a possibility that Device Manager may not be able to access some MIB values. When this happens, the table will display a blank cell for those MIB values.

Topic:

- Transpose Button

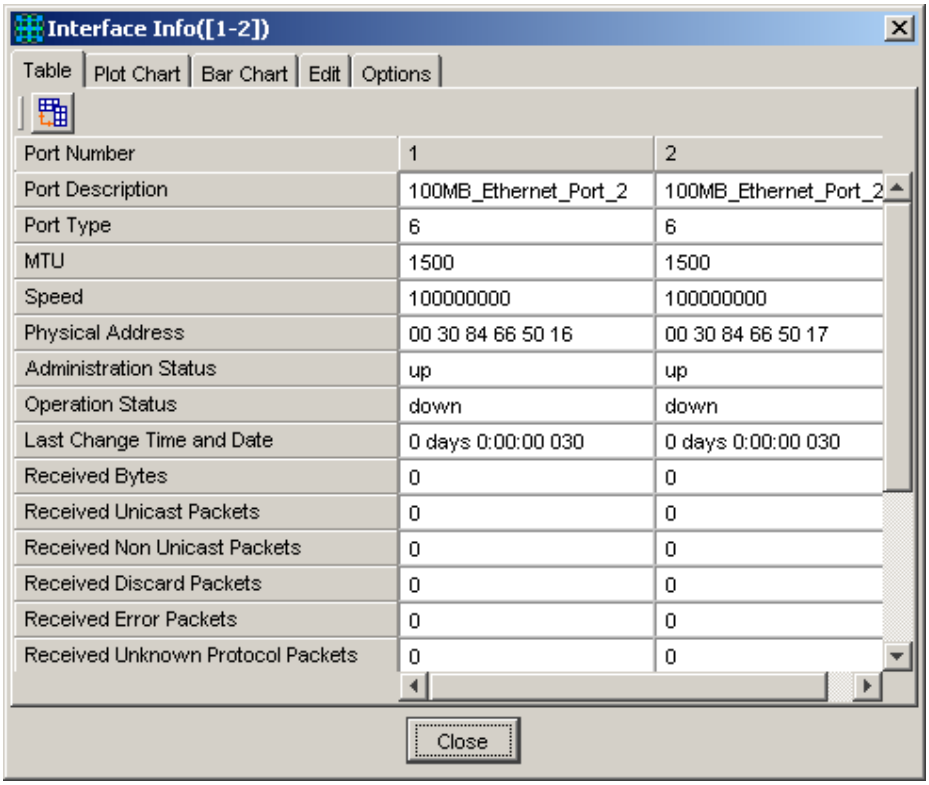


Table tab

6.1.1 Transpose Button

 : flips rows and columns.

6.2 Plot Chart Tab

In the Plot Chart tab, variables are displayed as a graph. To the right of the graph is a table of the numeric variables which can be displayed in the graph. Variables selected in the table are plotted on the graph.

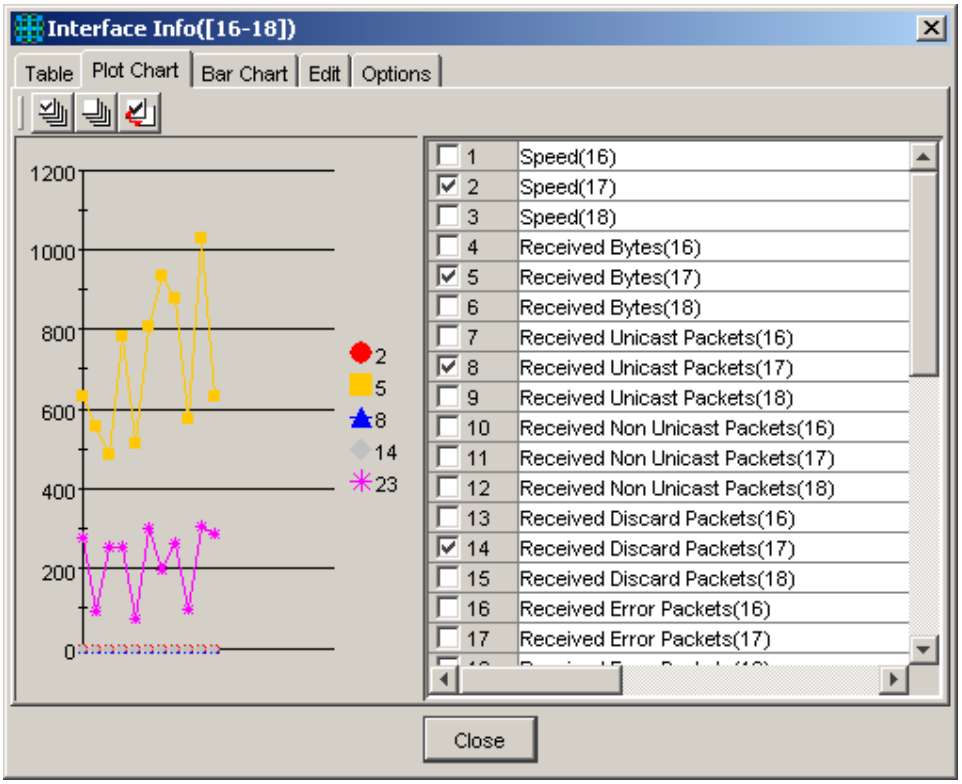
The scale of the vertical axis is automatically adjusted according to the values of the variables. The graph is updated at each polling interval.

Note - The polling interval can be changed in the Options tab.

When you resize the window, the graph is resized accordingly.

Topics:

- Graph
- MIB Variable Table
- Select All Button
- Clear Button
- Reverse Button



Plot Chart tab

The components of the Plot Chart tab are discussed below.

6.2.1 Graph

The left half of the window contains the graph showing the values of the selected variables. The vertical (Y) axis shows the values and the horizontal (X) axis shows time. New values are plotted when Device Manager gets them, at the predefined polling interval.

The scale of the X-axis is automatically adjusted according to the number of values plotted. The X-axis can display a maximum of the latest 20 values. The rightmost point is the most recent.

Each variable is plotted in a different color and shape. A list of the variables on the graph and their shapes and colors is displayed between the graph and the variable table.

By placing the mouse cursor on the plotted dot on the graph, you can see the exact values (coordinates) of the variable. For example, when you move the cursor onto the 10th point on the X-axis which has a value of 100, the numbers "(10,100)" are displayed.

6.2.2 MIB Variable Table

The right half of the window is the table of variables suitable for graph display. Each entry has a checkbox. Only checked variables are plotted on the graph.

Assume that you selected four variables to display. If one of the variables has very large values, for instance 1000000, and the other variables have low values, for instance approximately 100, the vertical axis is automatically scaled to accomodate the largest variable. In this situation, you can see only the largest variable because the scale of the vertical axis is too large for other three smaller variables. To see smaller variables, uncheck the largest variable temporarily.

Note - SNMPv3: Depending on the READ VIEW access settings of the User Account Name used, there is a possibility that some MIB variables will not be displayed in this table.

6.2.3 Select All Button

 : checks all variables. Clicking this button causes all variables to be plotted on the graph.

6.2.4 Clear Button

 : unchecks all variables.

6.2.5 Reverse Button

 : flips the states of all checkboxes, that is, unchecks all variables currently selected and checks all variables currently not selected.

Note - Displaying many variables at the same time imposes a load on system resources. If you encounter delay or reduced system performance, reduce the number of variables displayed, or increase the polling interval. To reduce the number of variables, uncheck some variables in the MIB variable table. To increase the polling interval, click the Options tab and change the Polling Interval.

6.3 Bar Chart Tab

The Bar Chart tab displays variables as a bar chart. To the right of the graph is a table of the numeric variables which can be displayed in the chart. Only variables selected in the table are displayed in the chart.

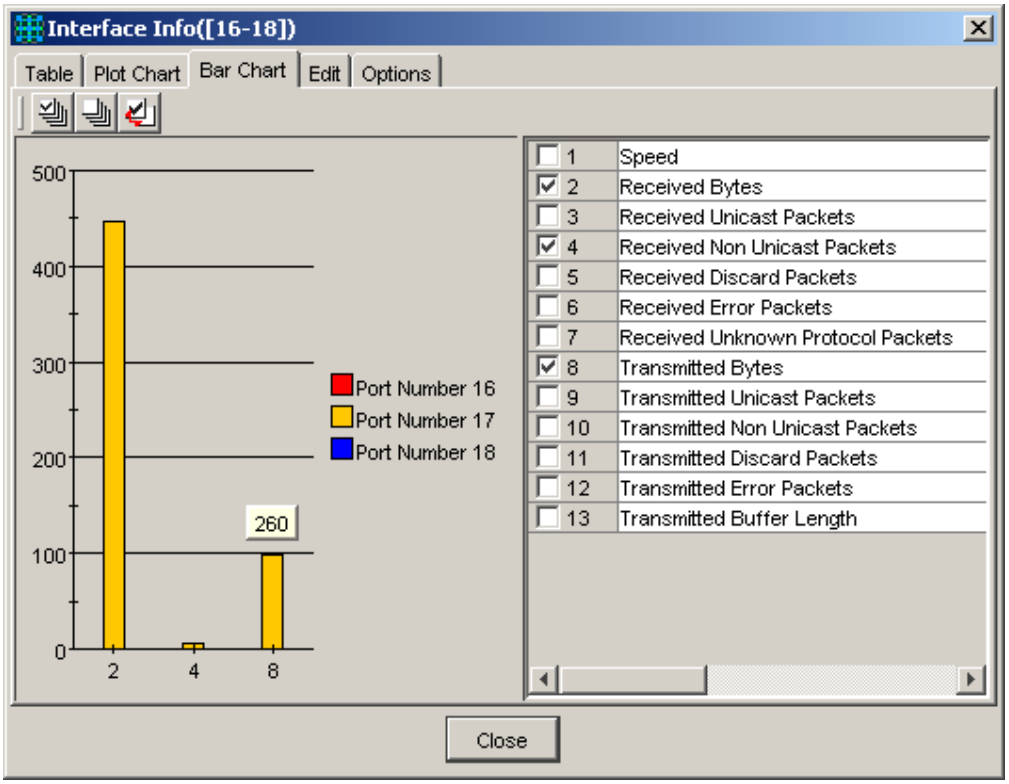
The scale of the vertical axis is automatically adjusted according to values of the variables displayed. The chart is updated at the polling interval.

Note - The polling interval can be changed in the Options tab.

When you resize the window, the chart is resized accordingly.

Topics:

- Chart
- MIB Variable Table
- Select All Button
- Clear Button
- Reverse Button



Bar Chart tab

The components of the Bar Chart tab are discussed below.

6.3.1 Chart

In the left half of the window is the chart showing the values of the selected variables. The vertical (Y) axis shows the values and the horizontal (X) axis shows the variable name or number. You can select whether to display the name or the number in Option > Option > Other.

Each variable is shown with a different color. The colors of the variables are displayed between the chart and the variable table.

By placing the cursor on a bar, you can see the exact value of the variable.

6.3.2 MIB Variable Table

The right half of the window is the table of variables suitable for graph display. Each entry has a checkbox. Only checked variables are shown on the chart.

Assume that you selected four variables to display. If one of the variables has a very large value, for instance 1000000, and the other variables have much lower values, for instance around 100, the vertical axis is automatically scaled to accommodate the largest variable. In this situation, you can see the largest variable only because the scale of the vertical axis is very large. To see the smaller variables, uncheck the largest variable temporarily.

Note - SNMPv3: Depending on the READ VIEW access settings of the User Account Name used, there is a possibility that some MIB variables will not be displayed in this table.

6.3.3 Select All Button

 : checks all variables. Clicking this button causes all variables to be plotted on the chart.

6.3.4 Clear Button

 : unchecks all variables.

6.3.5 Reverse Button

 : flips the states of all checkboxes, that is, unchecks all variables currently selected and checks all variables currently not selected.

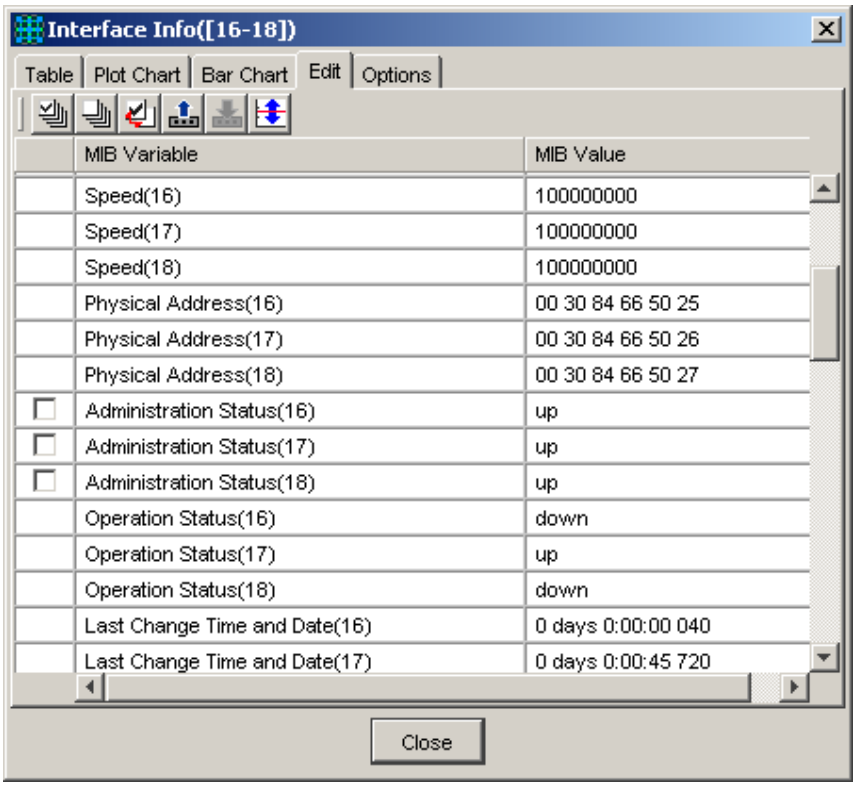
Note - Displaying many variables at the same time imposes a load on system resources. If you encounter delay or reduced system performance, reduce the number of variables displayed, or increase the polling interval. To reduce the number of variables, uncheck some variables in the MIB variable table. To increase the polling interval, click the Options tab and change the Polling Interval.

6.4 Edit Tab

In the Edit tab, you can change the value of any variable with read-write access. All variables are displayed in a table. For variables which can be changed, a checkbox is displayed in the first column. To change a value, input or select a new value in the MIB Value column, check the variable, then click the Set MIB Value button.

Topics:

- Checkbox Column
- MIB Variable Column
- MIB Value Column
- Select All Button
- Clear Button
- Reverse Button
- Get MIB Value Button
- Set MIB Value Button
- Threshold Button



Edit tab

In the Edit tab, variables are shown in a table. The table has the following columns (fields) for each entry.

6.4.1 Checkbox Column

The first (leftmost) column shows whether or not the variable can be changed (i.e. the variable supports the SNMP Set operation). If a checkbox is displayed in the column, the variable's value can be changed.

When you change several variables, set the new values in the Value column and then check all corresponding boxes. Device Manager sends new values for selected variables in a batch.

6.4.2 MIB Variable Column

MIB variable names are displayed.

6.4.3 MIB Value Column

The value of the variable is displayed. If the variable has write access (and a checkbox is displayed in the first column), this field is editable. To change the MIB value, change the value and check the box and then click the Set MIB Value button. If the variable takes a value from a fixed set of options, this field works as a pull down listbox. For such a variable, clicking this field shows the listbox.

The value in this field is the one at the time when this tab is opened. The value in this column is not updated automatically. If you want to see the latest value, use the Get MIB Value button or switch to the Table tab.

Note - SNMPv3: Depending on the READ VIEW access settings of the User Account Name used, there is a possibility that Device Manager may not be able to access some MIB values. When this happens, the table will display a blank cell for those MIB values.

6.4.4 Select All Button

 : checks all variables that can be changed.

6.4.5 Clear Button

 : unchecks all variables that can be changed.

6.4.6 Reverse Button

 : Flips the states of all checkboxes, that is, unchecks all variables currently checked, and checks all variables currently not checked.

6.4.7 Get MIB Value Button

 : Updates the MIB Value fields of the selected variables. To select a variable, click the MIB Variable field of the target variable.

6.4.8 Set MIB Value Button

: Changes the values of the checked variables, using the SNMP Set operation. The values in the MIB Value fields are sent to the SNMP agent on the device.

Note - SNMPv3: Depending on the WRITE VIEW access settings of the User Account Name used, there is a possibility that Device Manager may not be able to set some MIB values. When this happens, a "No access error." value will be displayed on the affected MIB Value cells.

Note - SNMPv3: If the User Account Name does not have READ VIEW but has WRITE VIEW access for a MIB variable, you may still set the value of that variable. However, the new value will not be displayed on the affected MIB Variable cells.

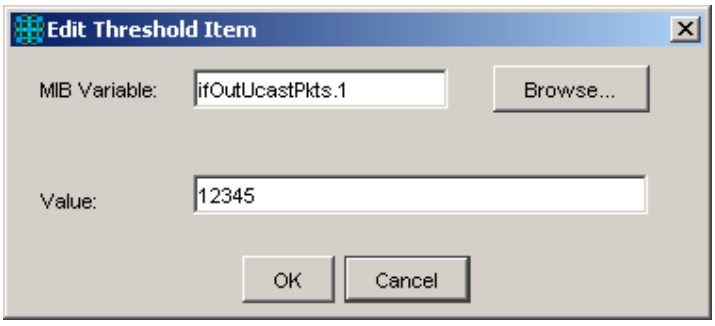
Note - SNMPv3: Device Manager still allows the user to set values for the following parameters even if the user has No Write access to these:

- System Name
- System Contact
- System Location

The write attempt will eventually fail and the value, "No access error" will be displayed on the value column for the said parameters. Additionally, the new values set will be displayed on the Panel Window, but once the user refreshes the display, the values on the Panel Window will be reset to the original values set on the device.

6.4.9 Threshold Button

: Set a threshold on the selected variable. The threshold is used to monitor the variable's value. If the threshold is exceeded, the action configured on the Options menu is executed. To select a variable, click the MIB Variable field of the target variable. When you click the Threshold button, the Edit Threshold Item dialog box appears.



Edit Threshold Item dialog box

The MIB Variable field shows the selected variable name.

To set a threshold, enter a threshold value in the Value field, then click OK. Note that this specifies a rising threshold which triggers an event when the variable's value increases to exceed the threshold, i.e. crosses the threshold from below.

When the threshold is reached, a pop-up message is displayed or a predefined command is executed. You can select which action is executed in the Option > Option > User Action tab.

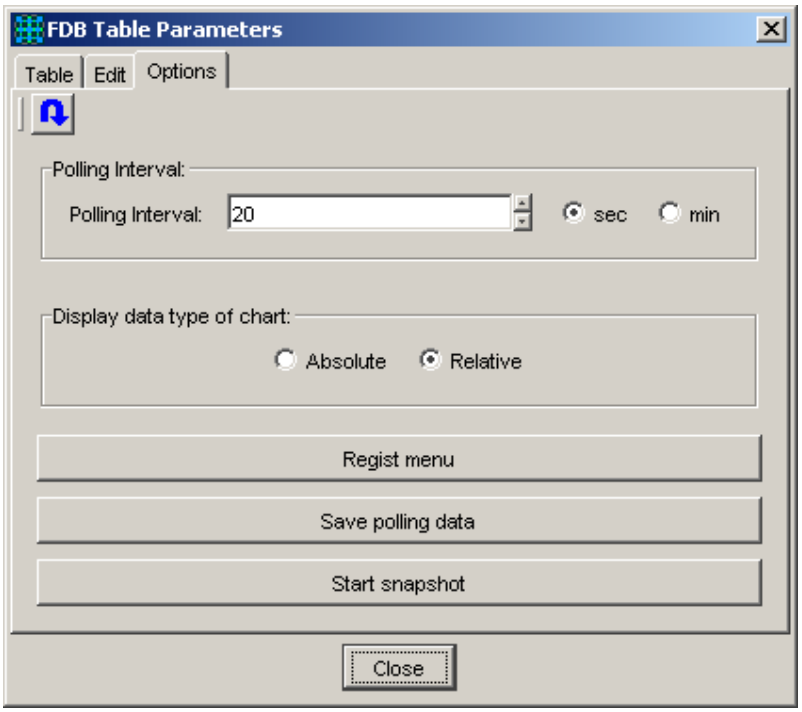
Note - Thresholds can only be used for variables of type GAUGE, INTEGER, COUNTER, GAUGE32, INTEGER32, COUNTER32, or COUNTER64.

6.5 Options Tab

In the Options tab, preferences specific to the MIB variable windows can be changed.

Topics:

- Polling Interval
- Display Data Type of Chart
- Regist Menu
- Save Polling Data
- Start Snapshot
- Default Button



Options tab

6.5.1 Polling Interval

Specifies the polling interval. The valid range is 5 seconds to 3600 seconds (1 hour). However, a short polling interval may reduce system performance. Care must be taken to set an appropriate value for your system.

6.5.2 Display Data Type of Chart

Specifies how to display data on graphs or charts. Select one of the following two options.

Absolute
Displays a value as it is.

Relative
Displays a change in the value per second. This is (Current value - Previous value) / Polling Interval.

Note - The change here takes effect the next time the data is polled.

6.5.3 Regist Menu

Add this window to the User Menu. If you want to view the current window repeatedly, do the following.

1. Click "Regist menu".
2. On "Regist Menu Item" dialog box, select one of "Common Menu" or "Target Menu". Common Menu is always accessible regardless of the target device. Target Menu can be accessed only when connected to the same specific device type.
3. Optionally, change the MenuItem Name. This string is displayed as the menu item name.
4. Click OK.

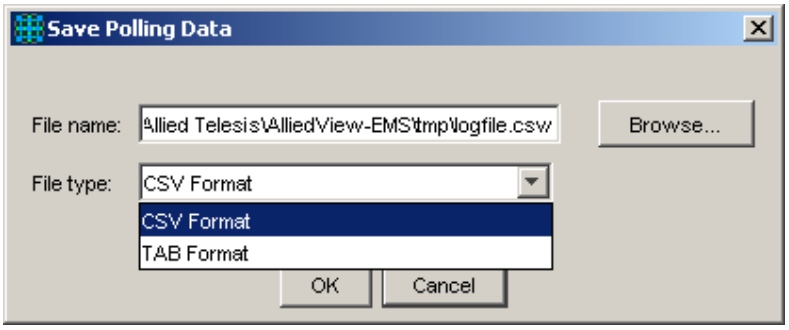
6.5.4 Save Polling Data

Save the collected data to a file. When you click this button, the Polling Data Save dialog box appears and lets you specify the name of the file and the file format. To start saving data, click OK in the Save Polling Data dialog box. The Save polling data button changes to "Saving polled data". To close the file and stop saving data, click this button again.

The file format can be selected from the following options:

CSV Format
Save data in comma-separated values (CSV) format.

TAB Format
Save data in Tab-separated values (TSV) format.

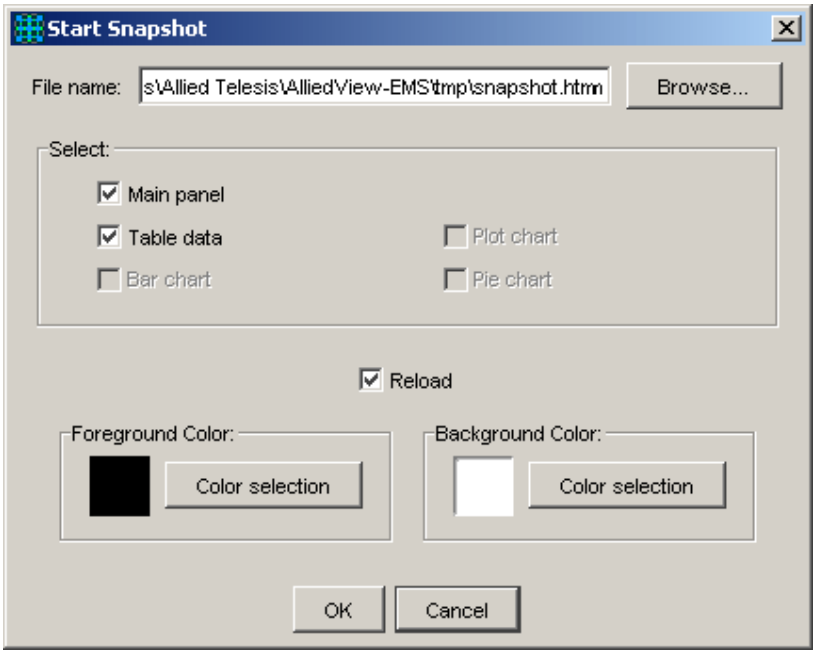


Save polling data

6.5.5 Start Snapshot

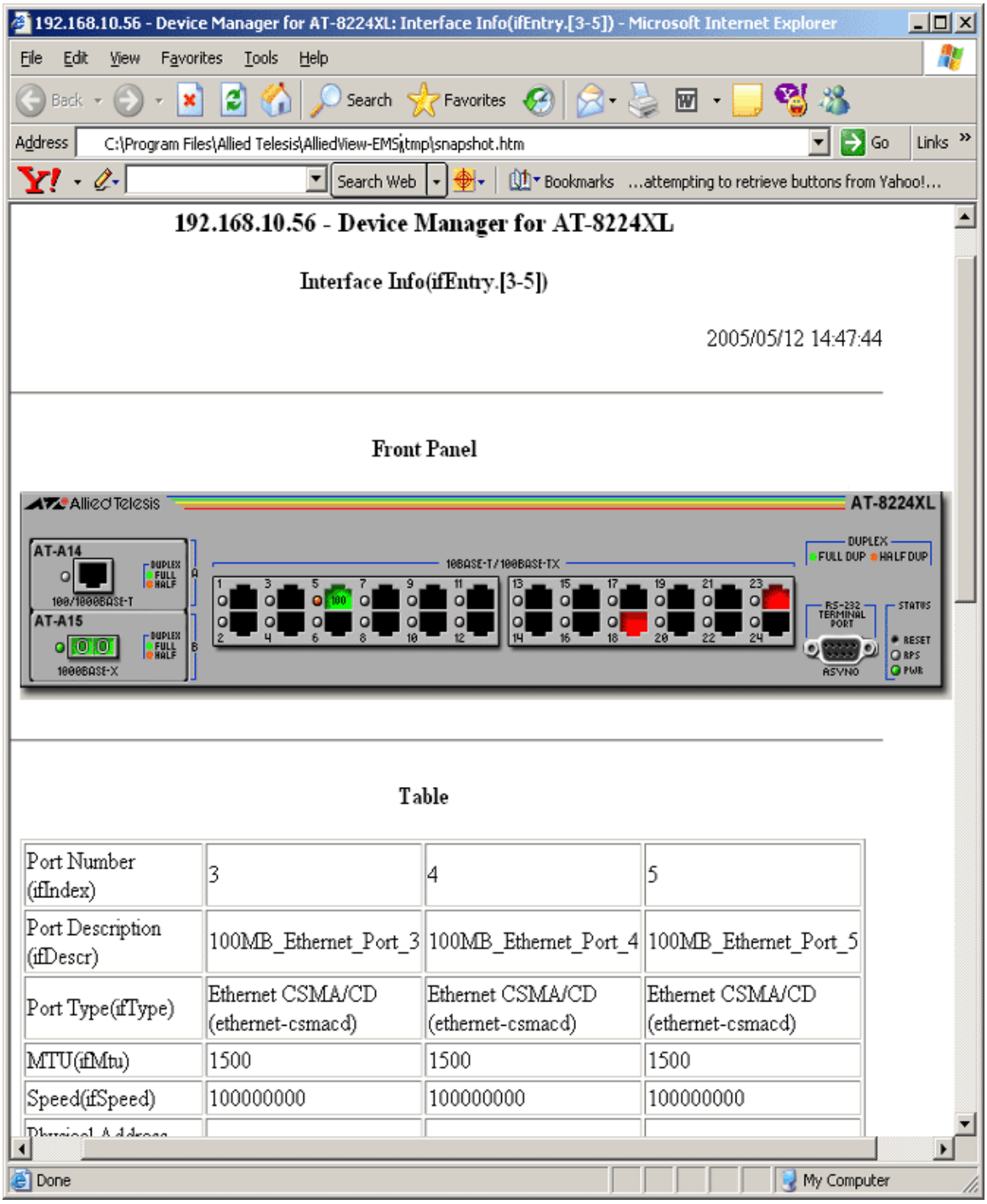
Clicking this button opens the Start Snapshot window. Use this window to save the information displayed in the front panel, as well as tables or charts representing device information. Use the 'Browse' button to select the directory or folder where you want to save the image.

Note - You can generate an image of the main panel, table data, or charts. The type of image or device information that you can generate depends on which menu you opened the Start Snapshot window from. For more information on the file types created in the Start Snapshot window, see section 5.2.6.



Start snapshot

Below is a snapshot from the MIB Variable window, with the main panel and table data both marked in the Start Snapshot window:



MIB Variables snapshot

6.5.6 Default Button

: Reset all options to default settings.

7 RMON

The RMON (Remote network MONitoring) facility collects management information from remote monitoring agents. Monitoring agents are implemented as dedicated hardware devices or are built into networking devices like switches.

With Device Manager, you can view management information retrieved from built-in RMON agents on the Allied Telesis switches that support RMON. You can also configure RMON agents to selectively collect information or set thresholds on variables to monitor their value.

Note - The RMON menu is displayed only if the target device supports the RMON MIB.

Note - Device Manager supports the following RMON groups only: Statistics, History, Alarm and Event.

Topics:

7.1 RMON-specific Buttons

The RMON window is slightly different from the MIB variable windows. The RMON window has several tabs and each tab has the following tool buttons in addition to the buttons in the MIB variable windows.

Absolute Value 
Displays collected data as they are.

Per Sample 
Displays the difference between the last two sampled values. The value is rounded.

Per Second 
Displays the difference between the last two sampled values per second. This is (Current value - Previous value) / Polling Interval. The value is rounded.

Start Polling 
Restarts polling.

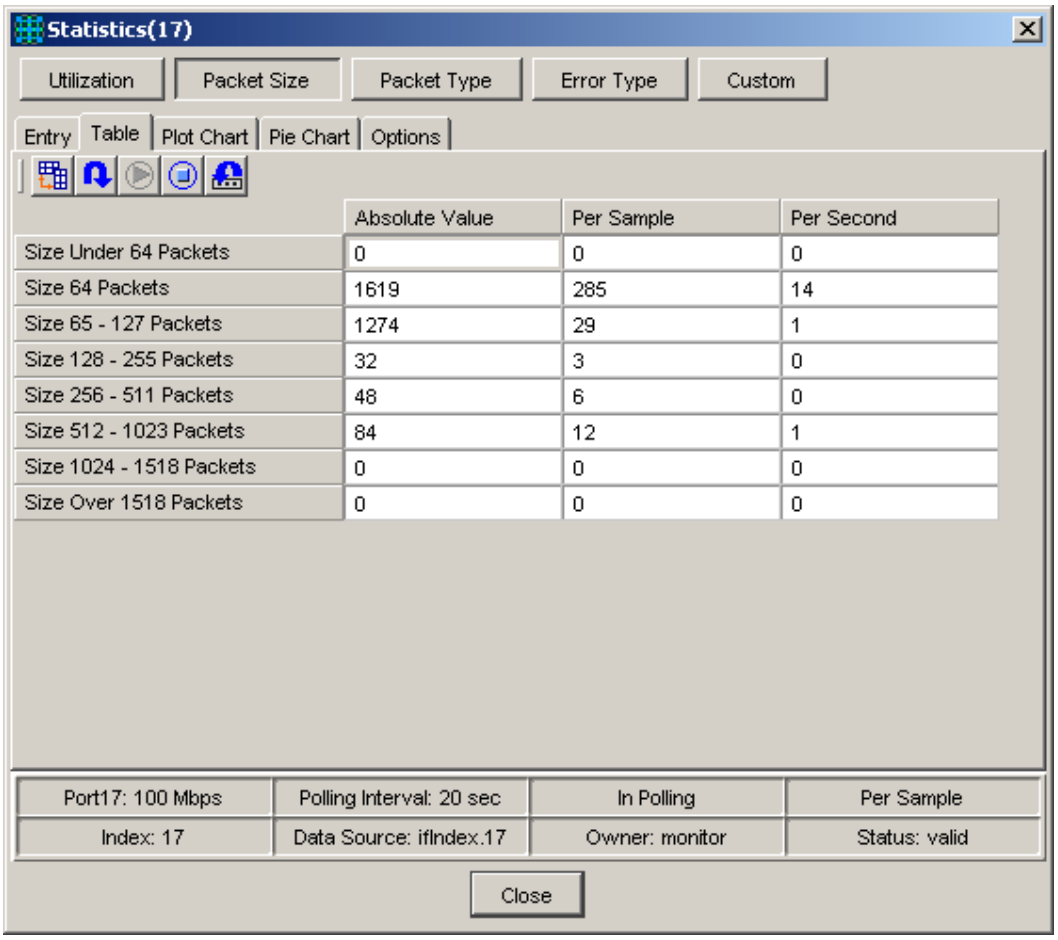
Stop Polling 
Pauses polling. This may be useful for examining current data carefully.

Refresh 
Forces immediate polling and displays the latest sampled value regardless of the regular polling timer.

7.2 Statistics

From the Statistics menu, you can view RMON Statistics information.

Topics:



RMON Statistics window

7.2.1 Data Group Buttons

In the RMON Statistics window, you can view various network statistics. Data is grouped by the type of information. You can view each type of information by clicking a Data Group button at the top of the window (just below the title bar).

Note - Data Group buttons change the data to be displayed. The tabs change the view of the data, that is, how the data selected by the Data Group buttons is displayed.

The following Data Group buttons are available.

Utilization

Shows utilization as a percentage. This is calculated by Device Manager.

Packet Size

Shows the number of packets by their octet size.

- Size Under 64 Packets (calculated by Device Manager)
- Size 64 Packets
- Size 65-127 Packets
- Size 128-255 Packets
- Size 256-511 Packets
- Size 512-1023 Packets
- Size 1024-1518 Packets
- Size Over 1518 Packets (calculated by Device Manager)

Packet Type

Shows the number of packets for each of the following categories.

- Received Packets
- Unicast Packets (calculated by the Device Manager)
- Broadcast Packets
- Multicast Packets

Error Type

Shows the number of packets categorized by error types.

- Good Packets (calculated by Device Manager)
- Error Packets (calculated by Device Manager)
- Collision Packets
- CRC Alignment Error Packets
- Undersize Packets
- Oversize Packets
- Fragment Packets
- Jabber Packets

Custom

Shows all items plus Received Bytes but without Utilization.

Note - Items calculated by Device Manager always have the descriptive title (not the variable name) because they have no related MIB variables.

7.2.2 Management Information Area

At the bottom of RMON Statistics window, the following information is always displayed.

PortX: yyy Mbps
X is the port number of the selected port. yyy is the speed of the port.

Polling Interval: yyy sec
yyy is the polling interval in seconds.

In Polling / Polling Stopped
Status of polling. "In Polling" or "Polling Stopped".

Absolute Value / Per Sample / Per Second
Indicates how data is displayed.

Index
Value of etherStatsIndex of the RMON Statistics group.

Data Source
Value of etherStatsDataSource of the RMON Statistics group.

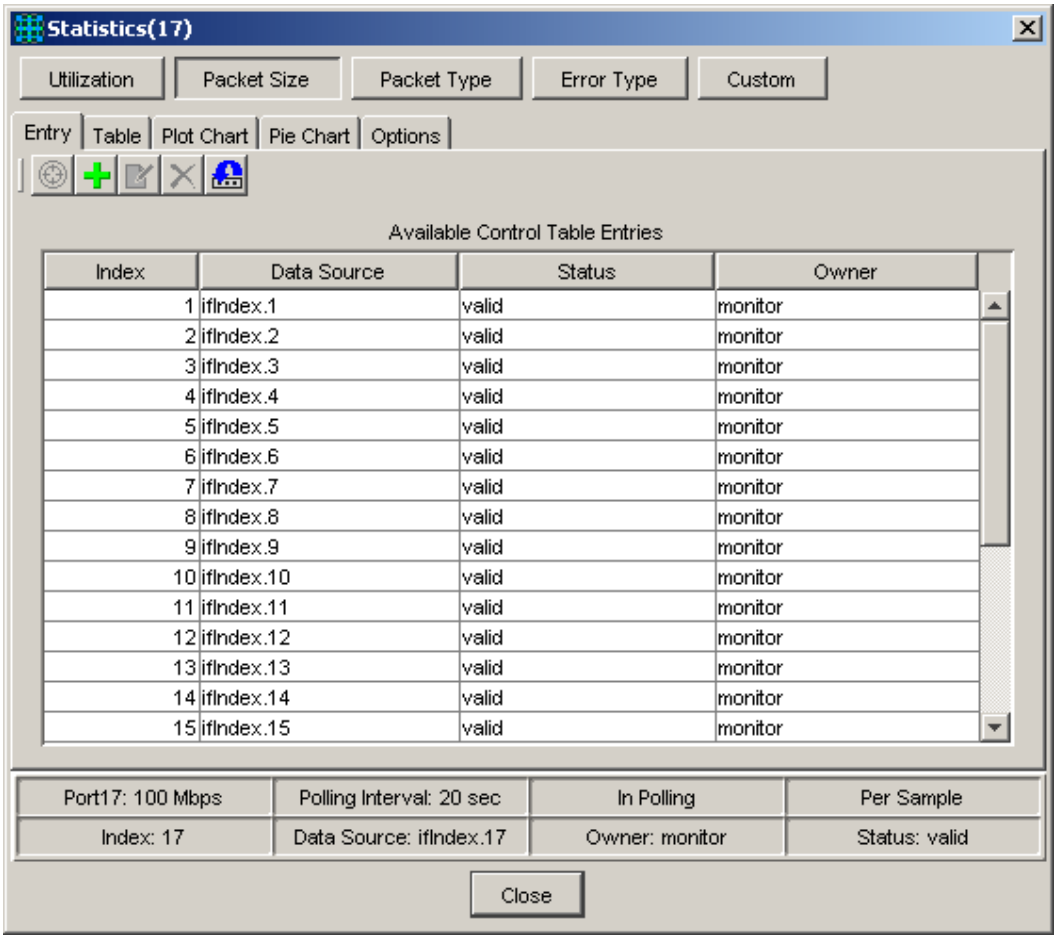
Owner
Value of etherStatsOwner of the RMON Statistics group.

Status
Value of etherStatsStatus of the RMON Statistics group.

7.2.3 Entry Tab

In the Entry tab, you can select and control the table entry displayed. Data collected by the selected entry is shown in the Table, Plot Chart and Pie Chart tabs. By default, the entry with the lowest index number is selected. In this tab, you can also add, remove or edit the entries.

Topics:



RMON Statistics Entry tab

7.2.3.1 Available Control Table Entries

This table shows all control table entries configured on the target RMON agent. Data displayed in the RMON Statistics window is collected using the selected control table entry. Here you can create a new entry, or change or delete an existing entry. By default, the topmost entry is automatically selected.

The control table is not automatically updated. If you want to see the latest information, click the Refresh button.

The table has the following columns.

Index

The index number used to identify this entry.

Data Source

The index of the RMON interface which collects statistics for the entry.

Status

The status of the control entry.

Owner

The owner (creator) of the control entry.

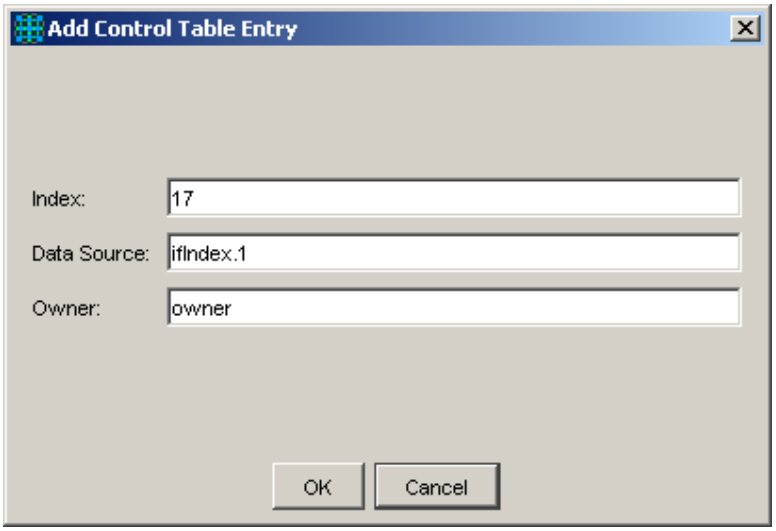
7.2.3.2 Select Button

: changes the control entry displayed in the Statistics window. To change an entry displayed, select the entry in the table, then click the Select button. Data collected for the selected entry is displayed on other tabs thereafter.

Note - When you edit the current entry, or when you add an entry with the same index number after removing the current entry, make sure to select the entry again. Otherwise, the changes will not take effect on the other tabs.

7.2.3.3 Add Button

: adds a new entry to the RMON Statistics control table. When you click this button, the Add Control Table Entry dialog box appears. Enter the Index, the Data Source and the Owner, then click OK to create an entry.



Add Control Table Entry dialog box

7.2.3.4 Edit Button

: changes the selected entry. To edit the entry, select an entry on the table then click the Edit button. The Modify Control Table Entry dialog box appears. Change the required parameters, then click OK. You can also open the dialog box by double-clicking the desired entry.

7.2.3.5 Remove Button

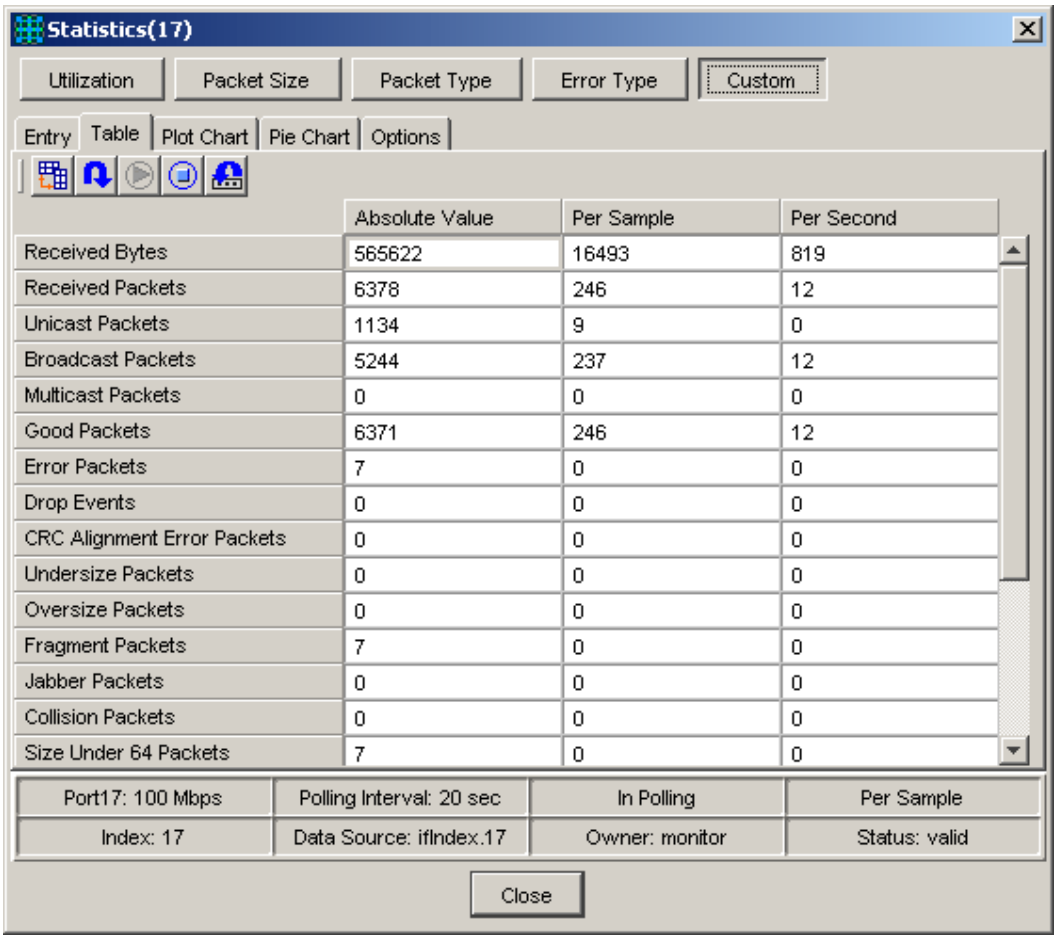
✕: removes the selected entry from the table. Be careful in using this button because the entry is deleted without any confirmation.

7.2.4 Table Tab

In the RMON Statistics Table tab, network statistics are shown in the table format. The data is updated at the polling interval.

Topics:

- Sort
- Reset Table Button



RMON Statistics Table tab

7.2.4.1 Sort

To sort table items, click a column title. When you click the column title, table items are sorted by the column in ascending order. One more click sorts the items in descending order. To restore the original order, click the Reset Table button.

7.2.4.2 Reset Table Button

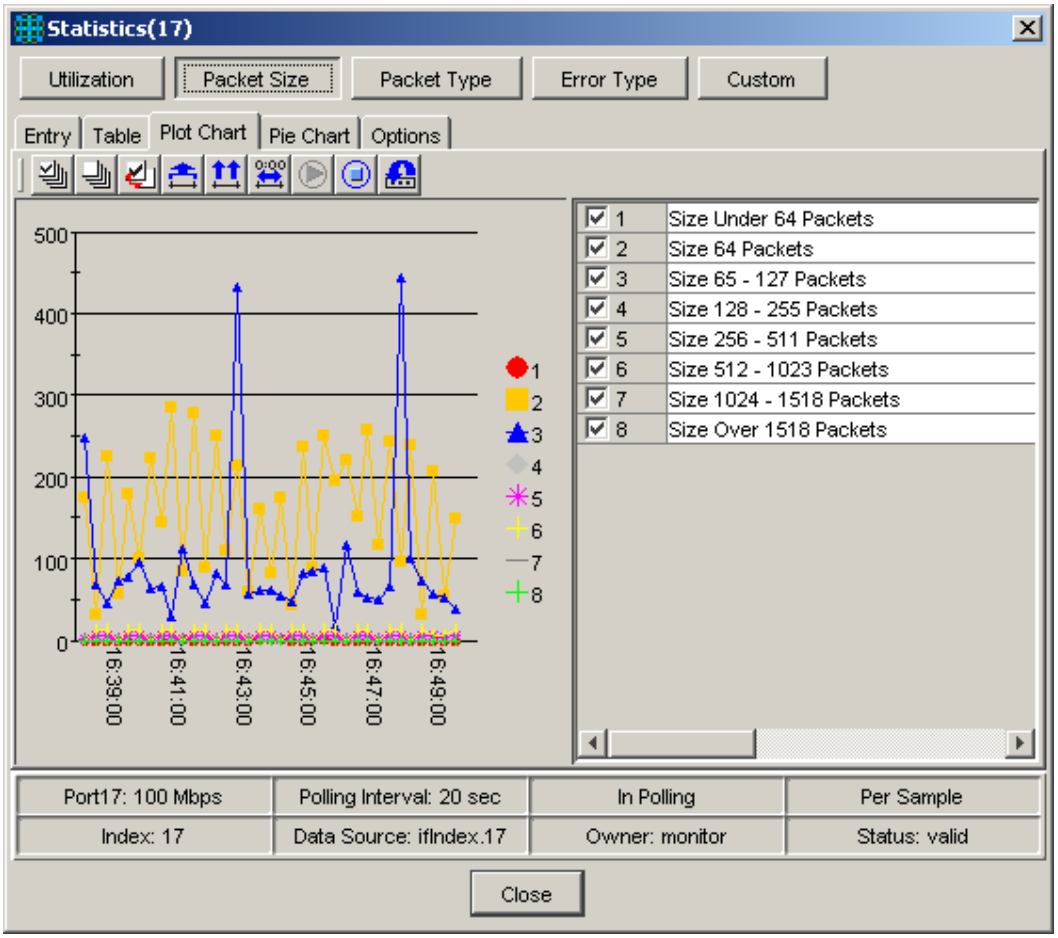
: Reorders table items after using sorting function.

7.2.5 Plot Chart Tab

In the Plot Chart tab, network statistics are shown in the time-scaled plotting graph. Data is updated at the polling interval. The horizontal axis contains a maximum of the 40 latest values.

Topics:

- Popup Display



RMON Statistics Plot Chart tab

7.2.5.1 Popup Display

You can see the exact value of a plotted dot by moving the mouse cursor onto the dot. The values are displayed in the form "(x, y)". where x indicates the time elapsed after the RMON window is opened and y indicates the value of the data.

Below the graph's horizontal axis, time is displayed. Note that the times shown there are only for your reference. They are not synchronized with the polling interval plotted dots.

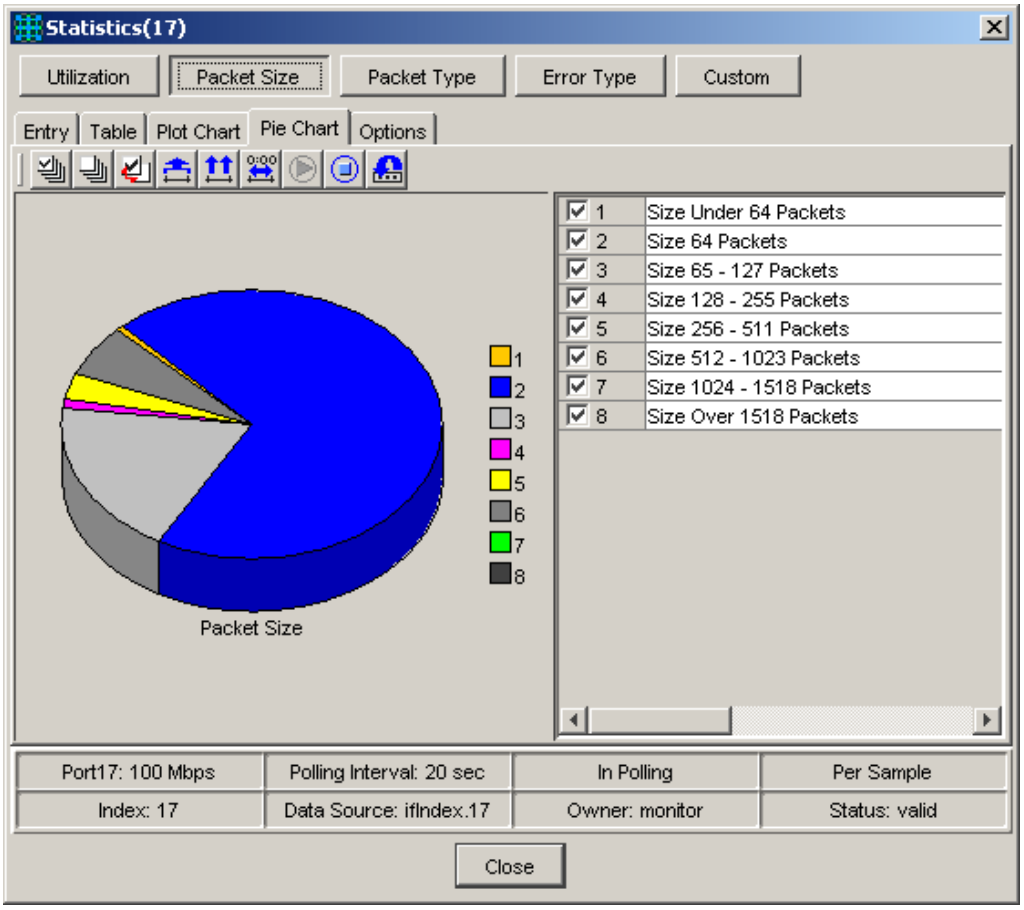
7.2.6 Pie Chart Tab

In the Pie Chart tab, network statistics are shown in a pie chart. This chart is useful for checking the proportions of the various packet counts. The data is updated at the polling interval.

Note - The pie chart is not displayed when all data has the value zero.

Topics:

- Popup Display



RMON Statistics 3-D Pie Chart tab

7.2.6.1 Popup Display

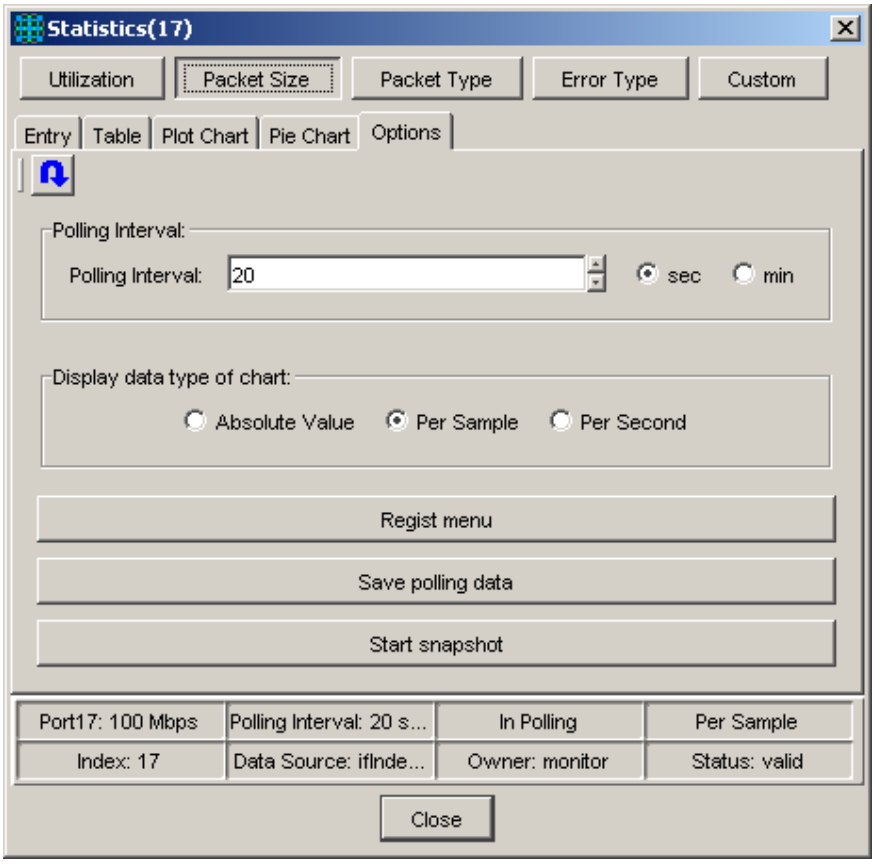
When you move the mouse cursor onto a section of the pie chart, the value of the data for the selected area is displayed.

7.2.7 Options Tab

In the Options tab, you can customize the display options or edit the statistics data.

Topics:

- Polling Interval
- Display Data Type of Chart
- Regist Menu
- Save Polling Data
- Start Snapshot



RMON Options tab (Statistics)

7.2.7.1 Polling Interval

You can change the polling interval here.

7.2.7.2 Display Data Type of Chart

Specifies how to display data on the graph or chart. You can select one from the following options.

Absolute Value
: Displays a value as it is.

Per Sample
: Displays the change in the value between the two pollings. This is Current value - Previous value.

Per Second
: Displays the change in the value per second. This is (Current value - Previous value) / Polling Interval.

Note - Calculated values are rounded. For example, Number of Error packets is usually very small so that calculated value is likely to be zero.

7.2.7.3 Regist Menu

Add this window to the user-defined menu (User Menu).

7.2.7.4 Save Polling Data

This button opens the Polling Data Save dialog box used to save collected data to a file. Specify the name and format of the file in which the data is saved. Select a file format from the options below. To start saving the data, click OK.

When you start saving data, the button's label changes to "Saving polled data". To close the file and stop saving the data, click the "Saving polled data" button.

CSV Format
: Save the data in comma-separated values (CSV) format.

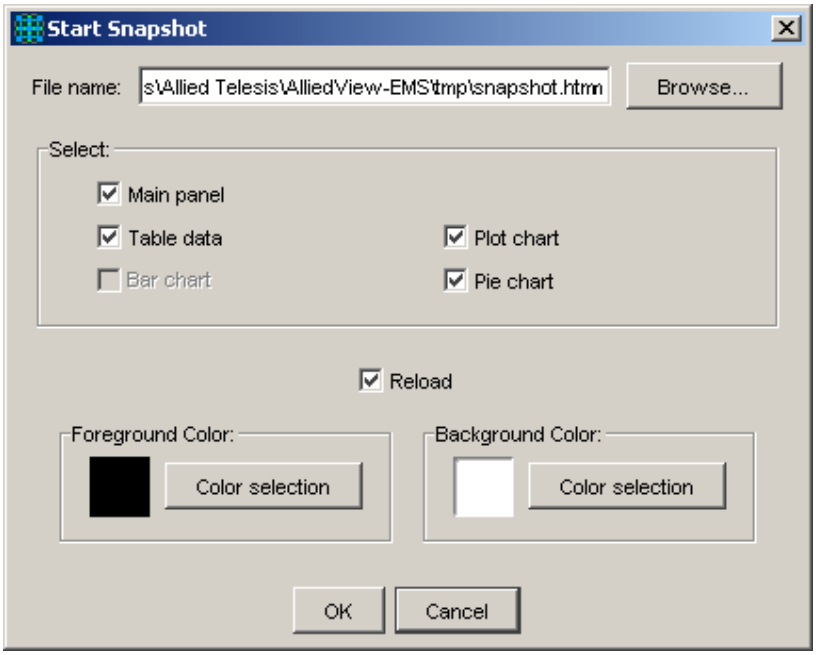
TAB Format
: Save the data in Tab-separated values (TSV) format.

Note - Only the values of the collected RMON variables are saved. Values Device Manager calculates from these collected values are not saved.

7.2.7.5 Start Snapshot

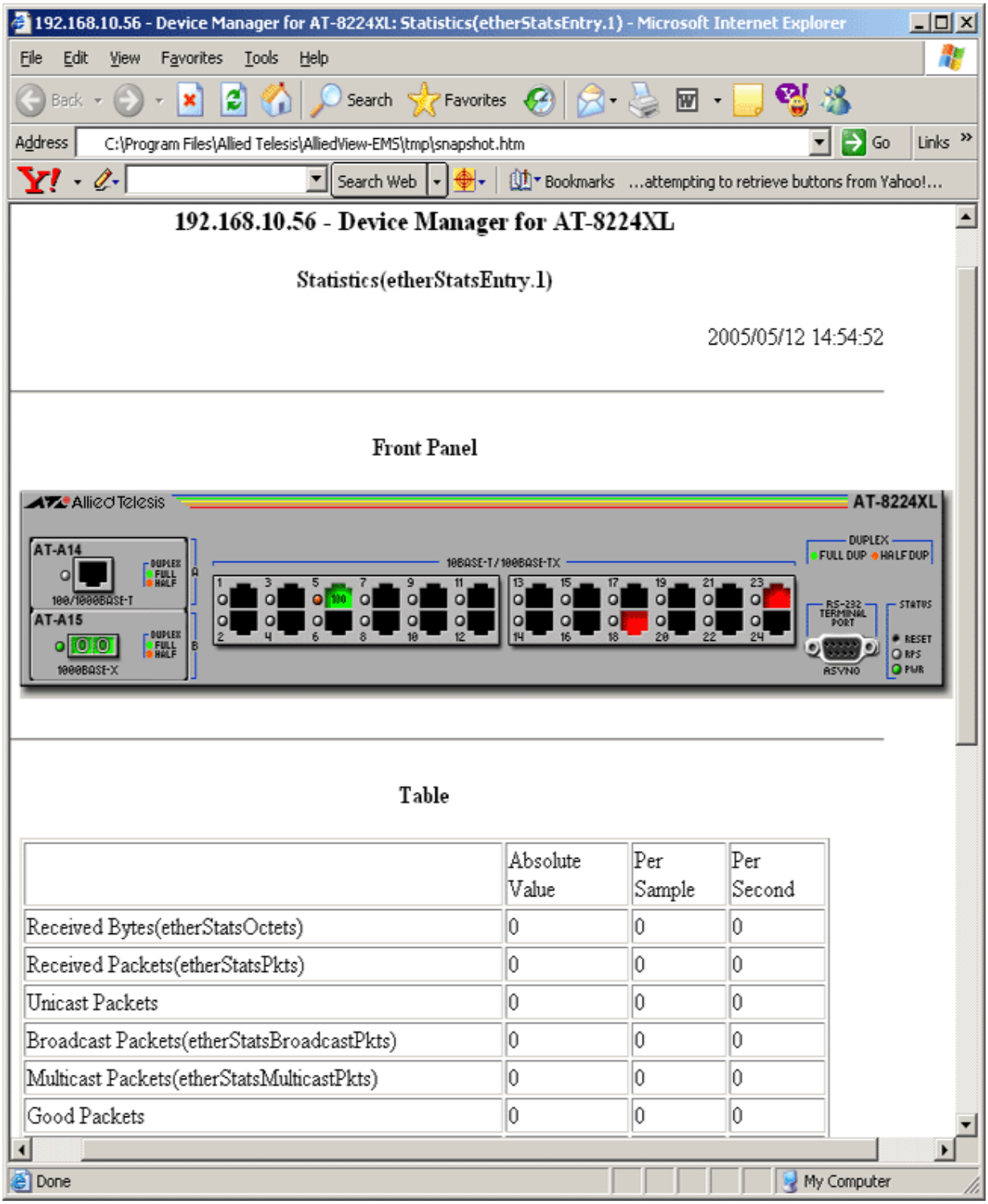
Clicking this button opens the Start Snapshot window. Use this window to create an image of the graph and tables in the RMON tab panel in HTML format. Use the 'Browse' button to select the directory or folder where you want to save the image.

Note - You can generate an image of the main panel, table data, or charts. The type of image or device information that you can generate depends on which menu you opened the Start Snapshot window from. For more information on the file types created in the Start Snapshot window, see section 5.2.6.



Start snapshot

Below is a snapshot from the RMON Statistics window, with the main panel and table data marked in the Start Snapshot window:



	Absolute Value	Per Sample	Per Second
Received Bytes(etherStatsOctets)	0	0	0
Received Packets(etherStatsPkts)	0	0	0
Unicast Packets	0	0	0
Broadcast Packets(etherStatsBroadcastPkts)	0	0	0
Multicast Packets(etherStatsMulticastPkts)	0	0	0
Good Packets	0	0	0

RMON Statistics snapshot

7.2.8 Close

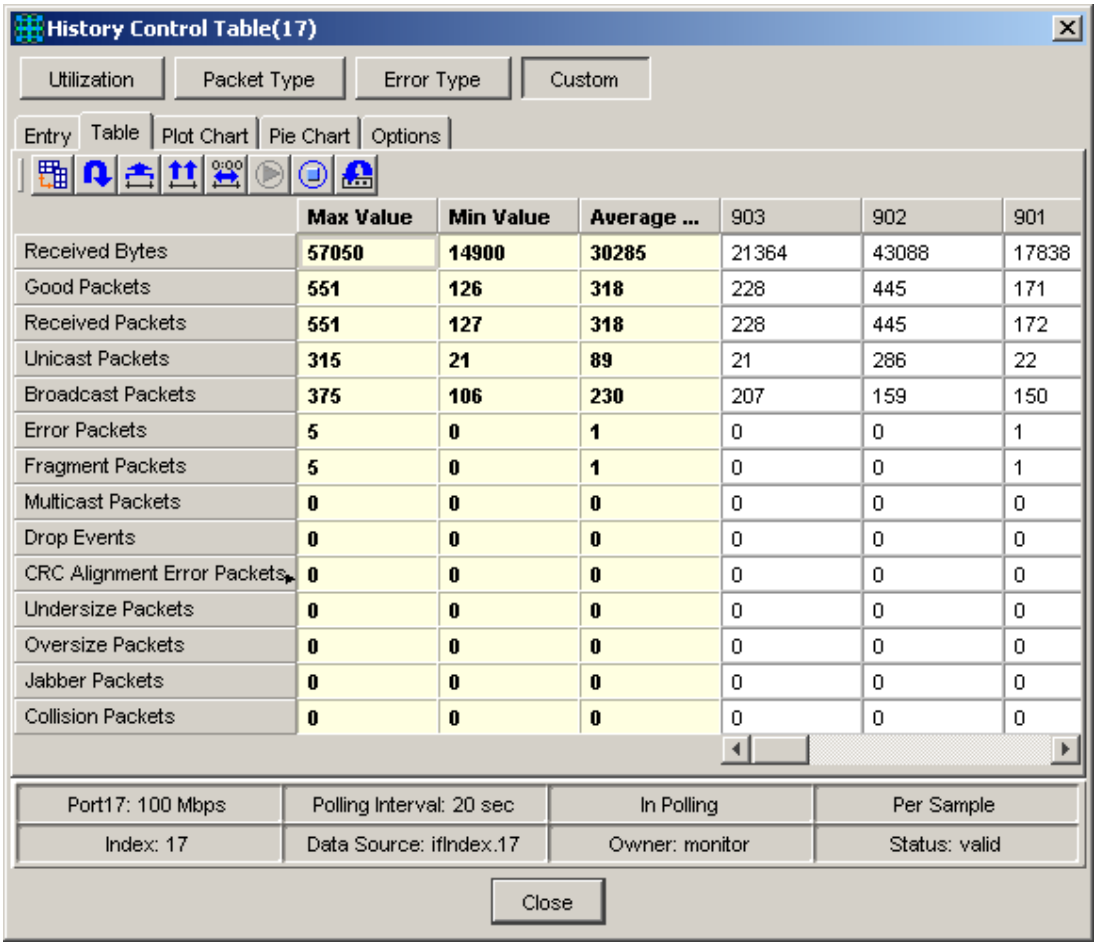
Closes the RMON Statistics window.

7.3 History Control Table

From the History Control Table menu, you can view RMON History information.

Note - If there is a large amount of history data, it takes Device Manager a long time to retrieve this data when you open the History Control Table window. If the message "Please wait for a while" is displayed for a long time, decrease the "Request Bucket" value in the Entry tab of the History Control Table window.

Topics:



RMON History Control Table window

7.3.1 Data Group Buttons

At the RMON History Control Table window, you can view the history of various network statistics. Data is grouped by the type of information. You can view each type of information by clicking a Data Group button at the top of the window (just below the title bar).

Note - Data Group buttons change the data to be displayed. The tabs change the view of the data, that is, how Device Manager displays the data selected by the Data Group buttons.

The following buttons are available.

Utilization

Shows utilization as a percentage, calculated by Device Manager.

Packet Type

Shows the number of packets by the following types.

- Received Packets
- Unicast Packets (calculated by Device Manager)
- Broadcast Packets
- Multicast Packets

Error Type

Shows the number of packets categorized by error types.

- Good Packets (calculated by Device Manager)
- Error Packets (calculated by Device Manager)
- Collision Packets
- CRC Alignment Error Packets
- Undersize Packets
- Oversize Packets
- Fragment Packets
- Jabber Packets

Custom

Shows all items plus Received Bytes but without Utilization.

Note - Items calculated by Device Manager always have the descriptive title (not a variable name) because they have no related MIB variables.

7.3.2 Management Information Area

At the bottom of the RMON History window, the following information is always displayed.

PortX: yyy Mbps

X is the port number of the selected port. yyy is the speed of the port.

Polling Interval: yyy sec

yyy is the polling interval in seconds.

In Polling / Polling Stopped

Status of the polling. "In Polling" or "Polling Stopped".

Absolute Value / Per Sample / Per Second

Indicates how the data is displayed.

Index

Value of etherStatsIndex of the RMON Statistics group.

Data Source

Value of etherStatsDataSource of the RMON Statistics group.

Owner

Value of etherStatsOwner of the RMON Statistics group.

Status

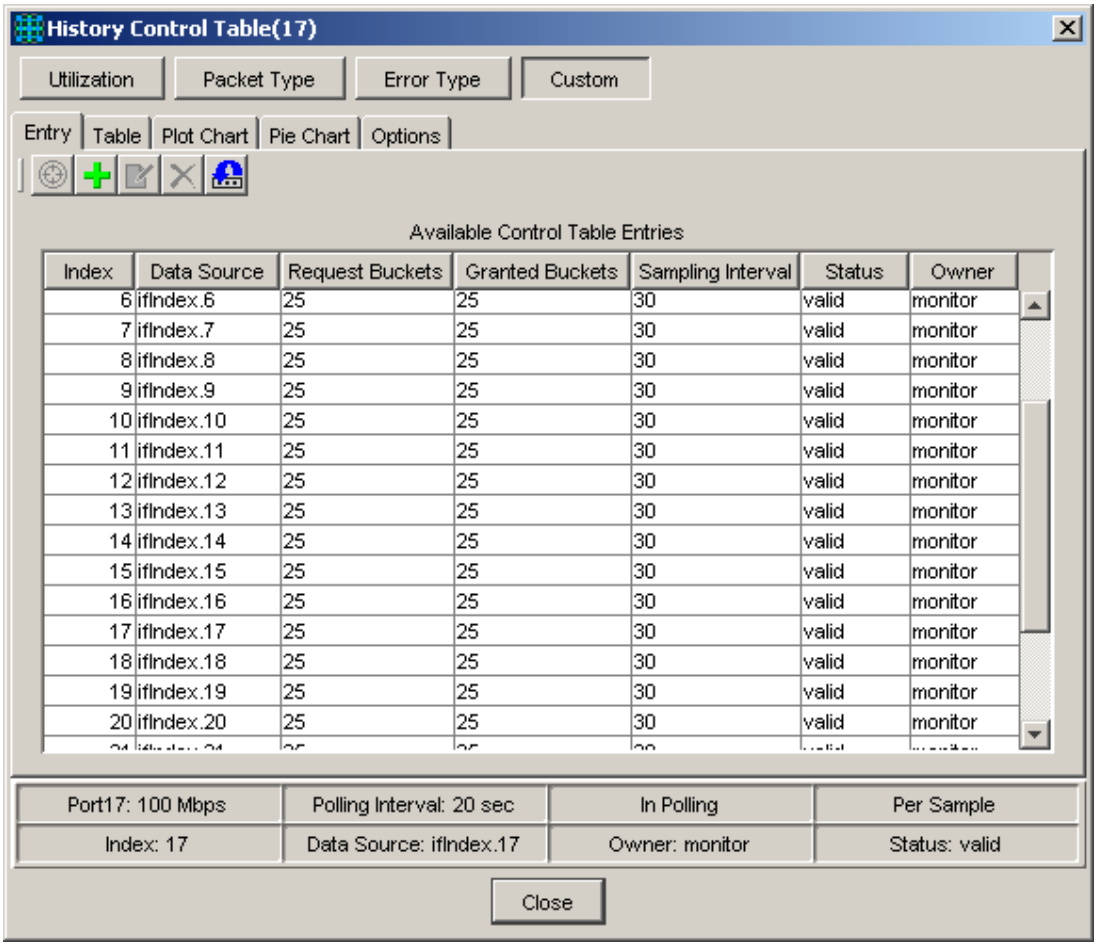
Value of etherStatsStatus of the RMON Statistics group.

7.3.3 Entry Tab

In the Entry tab, you can select a control table entry to view. Data collected by the selected entry is shown on the Table, Plot Chart and Pie Chart tabs. By default, the entry with the lowest index number is selected. On this tab, you can also add, remove or edit entries.

Topics:

- Available Control Table Entries
- Select Button
- Add Button
- Edit Button
- Remove Button



RMON History Entry tab

7.3.3.1 Available Control Table Entries

This table shows all control table entries configured on the target RMON agent. Data displayed in the RMON History window is collected using the selected control table entry. Here you can create a new entry, or modify or remove an existing entry. By default, the topmost entry is automatically selected.

The Control table is not automatically updated. To see the latest information, click the Refresh button.

The table has the following columns:

Index
The index number used to identify this entry.

Data Source
The index of the RMON interface which collects history samples for the entry.

Request Buckets
The number of values which you asked the RMON agent to store.

Granted Buckets
The number of values the RMON agent allows you to store.

Sampling Interval
The time interval at which the RMON agent collects data.

Status
The status of the control entry.

Owner
The owner (creator) of the control entry.

7.3.3.2 Select Button

: changes the control entry displayed in the History window. To change the control entry displayed, select an entry in the table, then click the Select button. Data collected by the selected entry is displayed on other tabs thereafter.

Note - To display changes to the current entry, or to display a new entry with the same index number as a previously removed entry, be sure to select the current entry. Otherwise, the changes will not take effect on the other tabs.

7.3.3.3 Add Button

: adds a new entry to the RMON History control table. When you click this button, the Add Control Table Entry dialog box appears. Enter the following parameters, then click OK to create an entry.

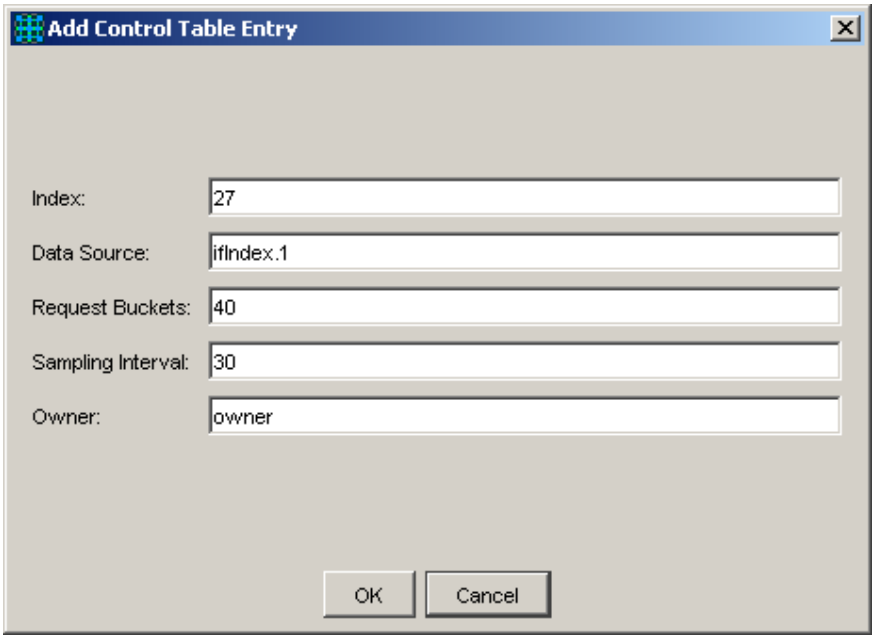
Index
The index number used to identify this entry.

Data Source
The index of the interface on which the RMON agent collects data.

Request Buckets
The number of values which you want the RMON agent to store.

Sampling Interval
The interval at which the RMON agent retrieves data.

Owner
The creator (owner) of this entry.



Add Control Table Entry dialog box

7.3.3.4 Edit Button

: changes the selected entry. To edit the entry, select an entry on the table then click the Edit button. The Modify Control Table Entry dialog box appears. Change the settings, then click OK. You can also open this dialog box by double-clicking the desired entry.

7.3.3.5 Remove Button

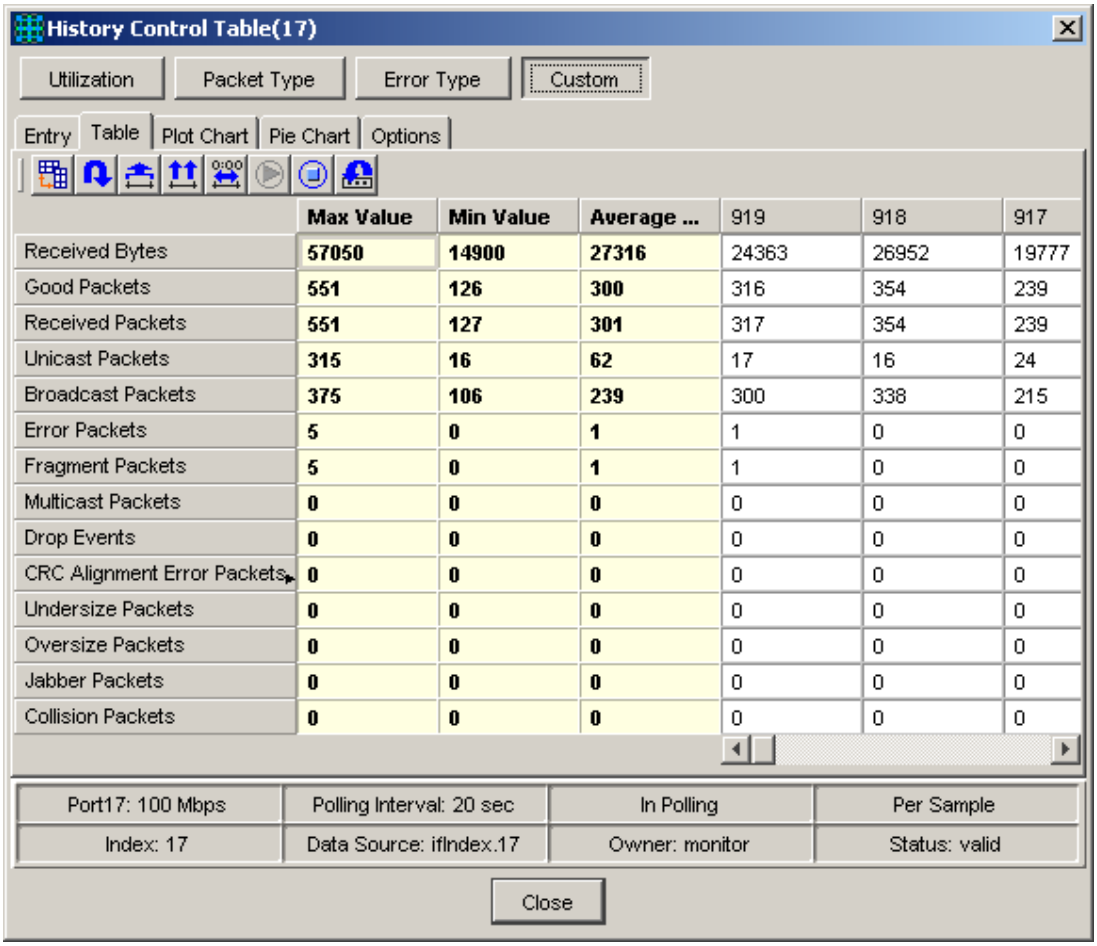
✕: removes the selected entry on the table. Be careful in using this button because the entry is deleted without any confirmation.

7.3.4 Table Tab

In the RMON History Table tab, RMON history information is displayed in table format. The data is updated at the polling interval.

Topics:

- History Table
- Sort
- Reset Table Button



	Max Value	Min Value	Average ...	919	918	917
Received Bytes	57050	14900	27316	24363	26952	19777
Good Packets	551	126	300	316	354	239
Received Packets	551	127	301	317	354	239
Unicast Packets	315	16	62	17	16	24
Broadcast Packets	375	106	239	300	338	215
Error Packets	5	0	1	1	0	0
Fragment Packets	5	0	1	1	0	0
Multicast Packets	0	0	0	0	0	0
Drop Events	0	0	0	0	0	0
CRC Alignment Error Packets	0	0	0	0	0	0
Undersize Packets	0	0	0	0	0	0
Oversize Packets	0	0	0	0	0	0
Jabber Packets	0	0	0	0	0	0
Collision Packets	0	0	0	0	0	0

RMON History Table tab

7.3.4.1 History Table

The table shows history data for the selected control table entry. The table has the following columns:

Max Value
: Shows the highest value of each variable after the current history control entry is selected at the Entry tab.

Min Value
: Shows the lowest value of each variable after the current history control entry is selected at the Entry tab.

Average Value
: Shows the average value of each variable after the current history control entry is selected at the Entry tab.

XXXXXX
: Sample Index. A maximum of the 40 latest index numbers are displayed.

7.3.4.2 Sort

To sort table items, click a column title. When you click the column title, table items are sorted by the column in ascending order. One more click sorts the items in descending order. To restore the original order, click the Reset Table button.

7.3.4.3 Reset Table Button

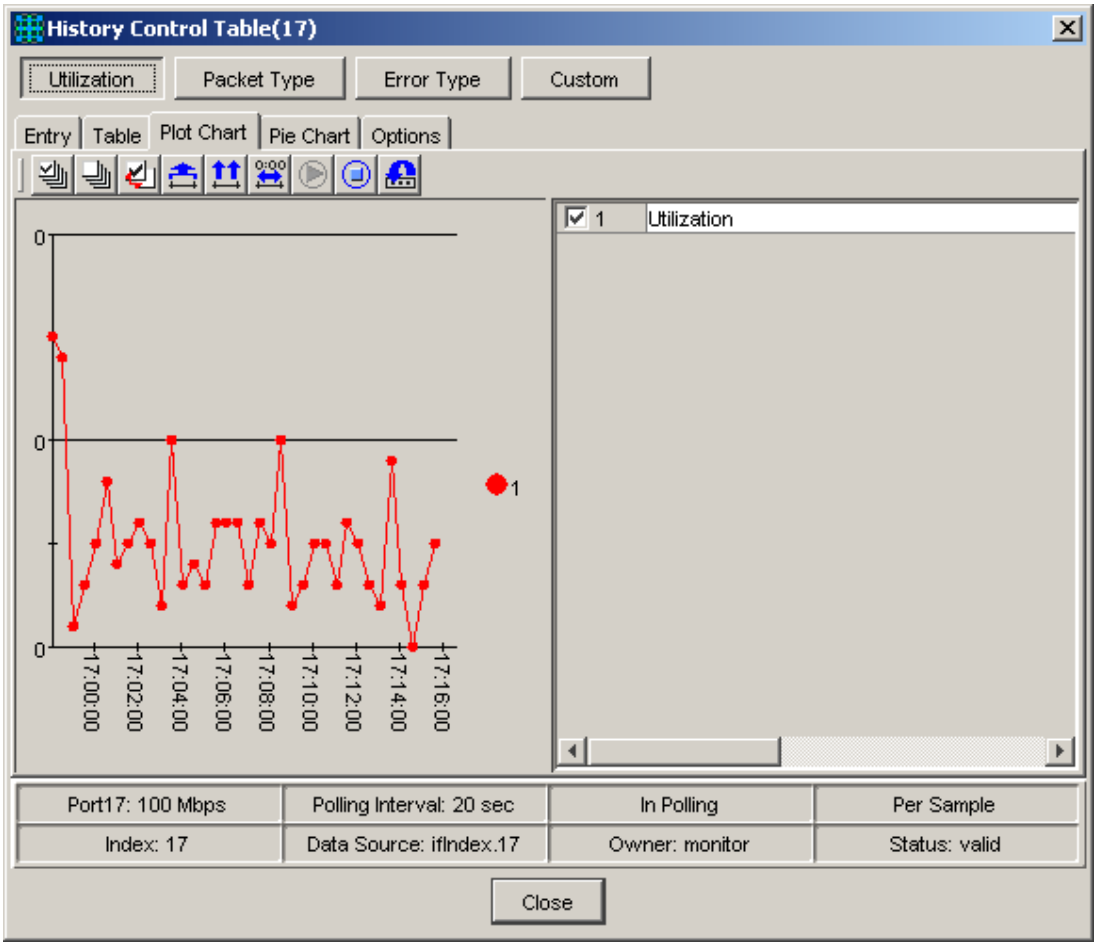
 : Reorders table items to their original order after sorting.

7.3.5 Plot Chart Tab

In the RMON History Plot Chart tab, RMON history information is displayed in a time-scaled plotted graph. Data is updated at the polling interval. The horizontal axis holds a maximum of the 40 latest data values.

Topics:

- Popup Display



RMON History Plot Chart tab

7.3.5.1 Popup Display

You can see the exact value of a dot by moving the mouse cursor onto the dot. The values are displayed in the form of "(x, y)". where x indicates the elapsed time (sysUpTime seconds) and y indicates the value of the data.

Below the graph's horizontal axis, time is displayed. Note that the times shown there are only a reference point. They are not synchronized with the plotted dots.

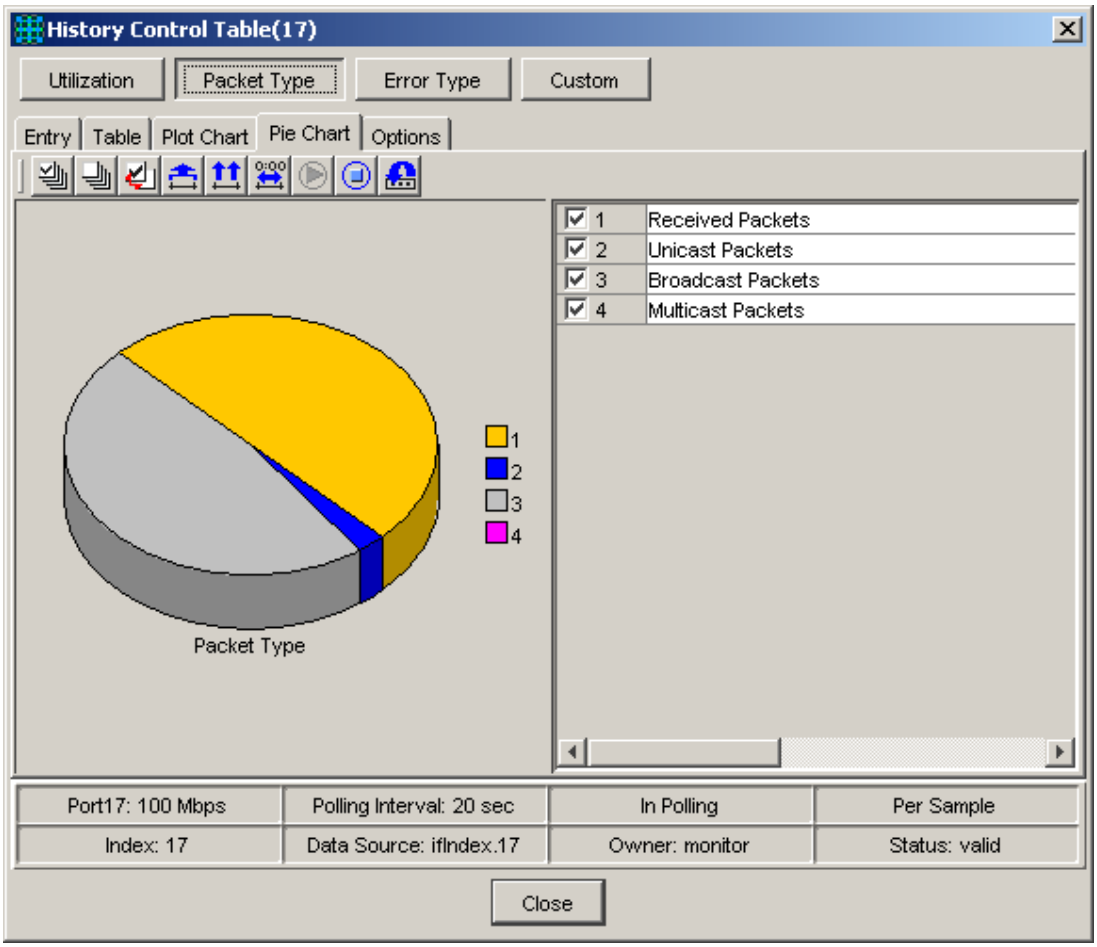
7.3.6 Pie Chart Tab

In the Pie Chart tab, network statistics are shown in the pie chart. This chart is useful for checking the proportions of the various packet counts. The data is updated after each polling interval.

Note - The pie chart is not displayed when all values are zero.

Topics:

- Popup Display



RMON History Pie Chart tab

7.3.6.1 Popup Display

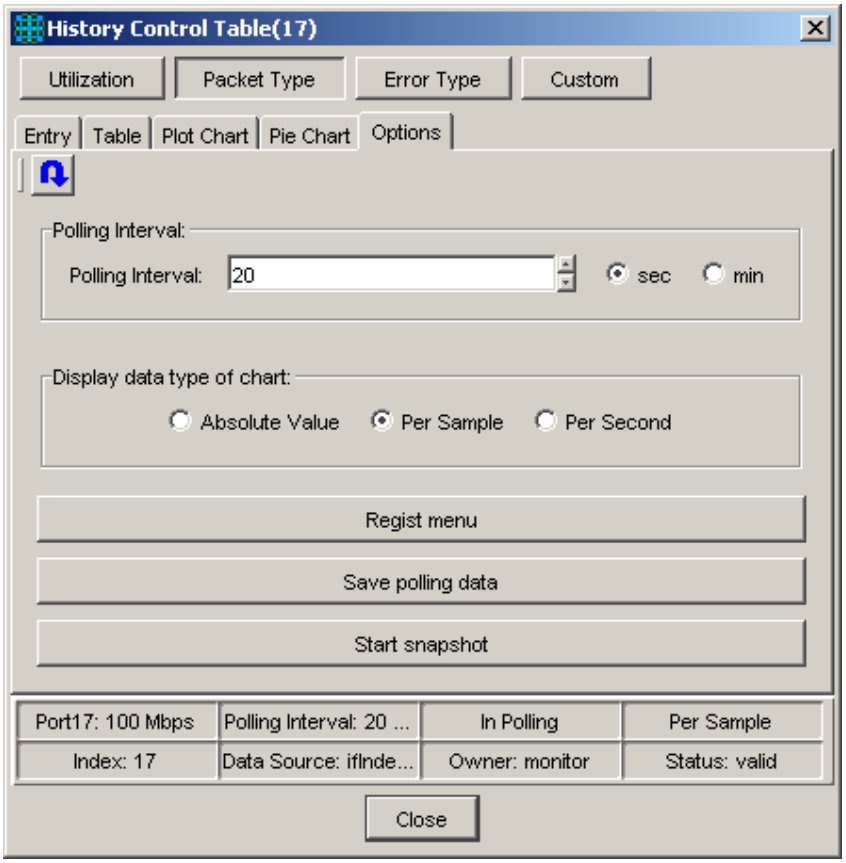
To display the numeric value for a particular section of the pie chart, move the mouse cursor onto that section.

7.3.7 Options Tab

In the Options tab, you can customize the options for viewing and editing the RMON history data.

Topics:

- Polling Interval
- Display Data Type of Chart
- Regist Menu
- Save Polling Data
- Start Snapshot



RMON Options tab (History Control Parameters)

7.3.7.1 Polling Interval

You can change the polling interval here.

7.3.7.2 Display data type of chart

Specifies how to display data in graphs and charts. You can select one of the following options.

Because RMON histories are collected by RMON agents and Device Manager only displays the collected data, settings here are slightly different from other windows. The Polling Interval here is simply the interval at which Device Manager gets collected data from RMON agents.

Absolute Value

Displays the sum of values which Device Manager got from the RMON agents, as shown in the following example.

	Data sampled by RMON	Data displayed by Device Manager
Sample 1	100	100
Sample 2	50	150
Sample 3	250	400

Per Sample

Displays data which Device Manager got from the RMON agent as it is.

	Data sampled by RMON	Data displayed by Device Manager
Sample 1	100	100
Sample 2	50	50
Sample 3	250	250

Per Second

Displays "Sampled data / Sampling Interval configured on the RMON agent". The sampling interval here is the RMON agent's sampling interval, not the interval configured in Device Manager. In the following example, the RMON agent's sampling interval is 10 seconds.

Note - Calculated values are rounded. For example, the Number of Error packets is usually very small so that the calculated value is likely to be zero.

	Data sampled by RMON	Data displayed by Device Manager
Sample 1	100	10 (100 / 10)
Sample 2	50	5 (50 / 10)
Sample 3	250	25 (250 / 10)

7.3.7.3 Regist Menu

Add this window to the user-defined User Menu.

7.3.7.4 Save Polling Data

This button opens the Polling Data Save dialog box, used to save collected data to a file. Specify the name and format of the file in which the data is to be saved. Select a file format from the options below. To start saving the data, click OK.

When you start saving data, the button's label changes to "Saving polled data". To close the file and stop saving the data, click the "Saving polled data" button.

CSV Format

Saves the data in comma-separated values (CSV) format.

TAB Format

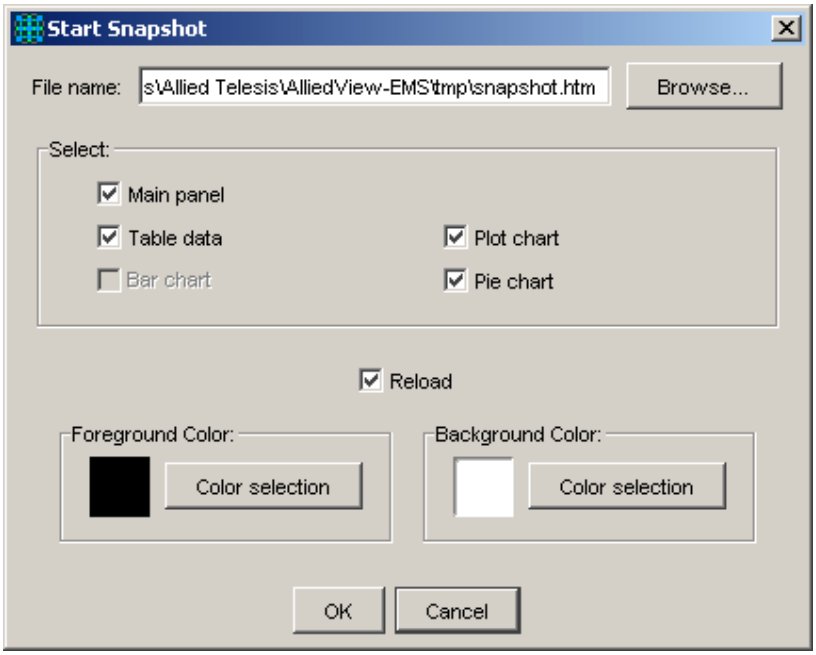
Saves the data in tab-separated values (TSV) format.

Note - Only the values of the collected RMON variables are saved. Values Device Manager calculates from these collected values are not saved.

7.3.7.5 Start Snapshot

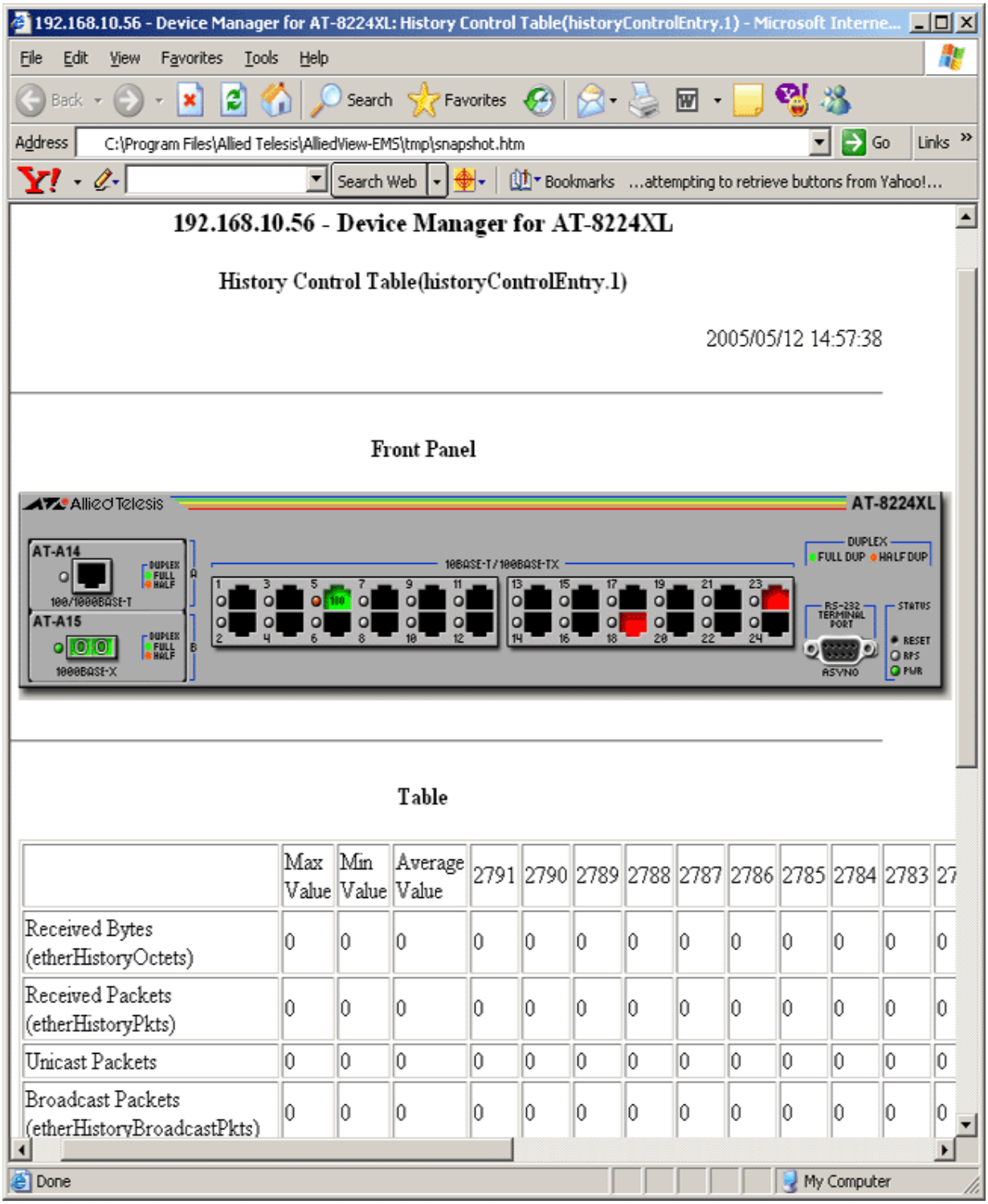
Clicking this button opens the Start Snapshot window. Use this window to create an image of the device, as well as tables or charts representing device information, in HTML format. Use the 'Browse' button to select the directory or folder where you want to save the image.

Note - You can generate an image of the main panel, table data, or charts. The type of image or device information that you can generate depends on which menu you opened the Start Snapshot window from. For more information on the file types created in the Start Snapshot window, see section 5.2.6.



Start snapshot

Below is a snapshot from the RMON History Control Parameters window, with the main panel and table data marked in the Start Snapshot window:



	Max Value	Min Value	Average Value	2791	2790	2789	2788	2787	2786	2785	2784	2783	27
Received Bytes (etherHistoryOctets)	0	0	0	0	0	0	0	0	0	0	0	0	0
Received Packets (etherHistoryPkts)	0	0	0	0	0	0	0	0	0	0	0	0	0
Unicast Packets	0	0	0	0	0	0	0	0	0	0	0	0	0
Broadcast Packets (etherHistoryBroadcastPkts)	0	0	0	0	0	0	0	0	0	0	0	0	0

RMON History Control Parameters snapshot

7.3.8 Close

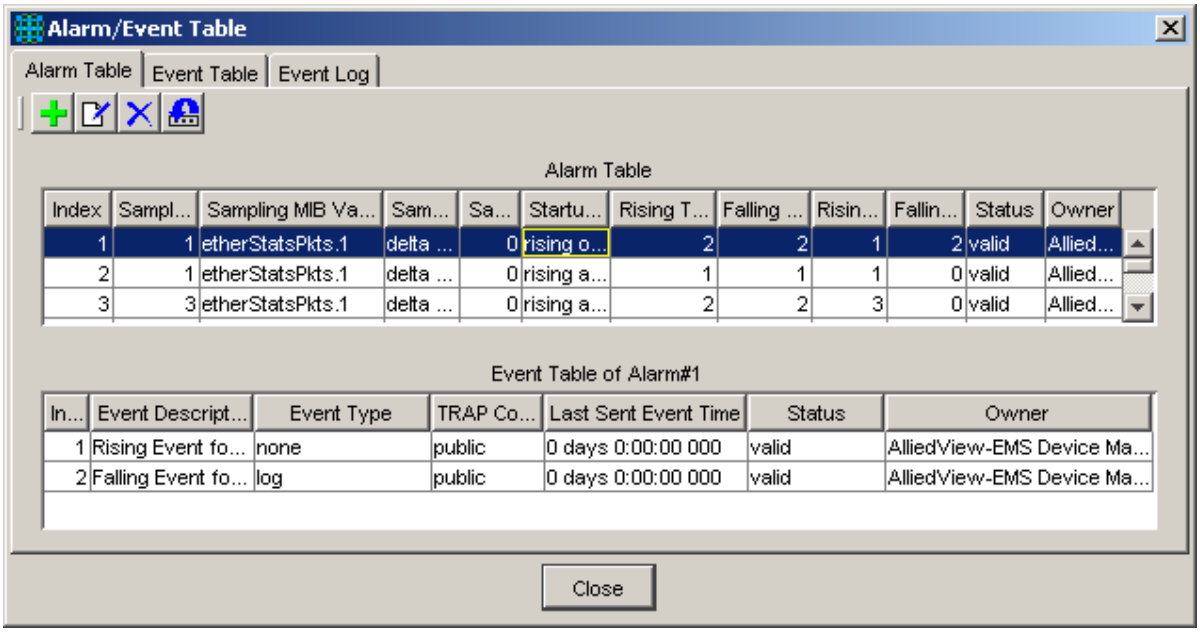
Closes the RMON History window.

7.4 Alarm Table

From the Alarm Table menu, you can view and edit the RMON Alarm table on the RMON agent. RMON Alarm table is used to monitor a specific variable by setting a threshold on the variable and by specifying an event action to be taken if the threshold is reached.

The Alarm Table is not automatically updated. To see the latest information, click the Refresh button.

Topics:



RMON Alarm Table tab

7.4.1 Alarm Table Tab

The Alarm Table shows the list of currently defined alarm entries.

Index

The index number used to identify this alarm entry.

Sampling Interval

The time interval at which the RMON agent samples data.

Sampling MIB Variable Name

MIB variable to be monitored. The object type must be one of INTEGER, COUNTER, GAUGE and TIMETICKS.

Sampling Type

How to compare the sampled value with the threshold. "absolute value" means comparing the sampled data with the threshold without modification. "delta value" means comparing the difference between the latest sampled value and the previous sampled value with the threshold.

Sampling Value

The last sampled value.

Startup Alarm Type

The type of threshold which is applied to the first sampled value after this Alarm entry becomes valid.

rising alarm

A single RMON event is triggered if the first sampled value is greater than or equal to the configured rising threshold.

falling alarm

A single RMON event is triggered if the first sampled value is less than or equal to the configured falling threshold.

rising or falling alarm

A single RMON event is triggered if the first sampled value is greater than or equal to the configured rising threshold, or if the first sampled value is less than or equal to the configured falling threshold.

Rising Threshold

The ceiling threshold.

Falling Threshold

The floor threshold.

Rising Event Index

The index of the RMON Event entry which is triggered when the sampled value rises above the rising threshold.

Falling Event Index

The index of the RMON Event entry which is triggered when the sampled value falls below the falling threshold.

7.4.2 Event Table of Alarm

"Event Table of Alarm" shows a list of events for the Alarm entry which is selected in the Alarm Table. You can check which type of events are configured for a specific alarm entry.

Index
The index number used to identify the Event entry.

Event Description
Text describing the Event entry.

Event Type
The type of action to be taken if the event occurs. Select one of "none" (no action taken), "SNMP trap" (send out an SNMP trap), "log" (record to the log) and "log & SNMP trap" (record to the log and send out an SNMP trap).

TRAP Community
Trap Community name.

Last Sent Event Time
The value of sysUpTime at the time when the last event occured.

Status
The status of the Event entry.

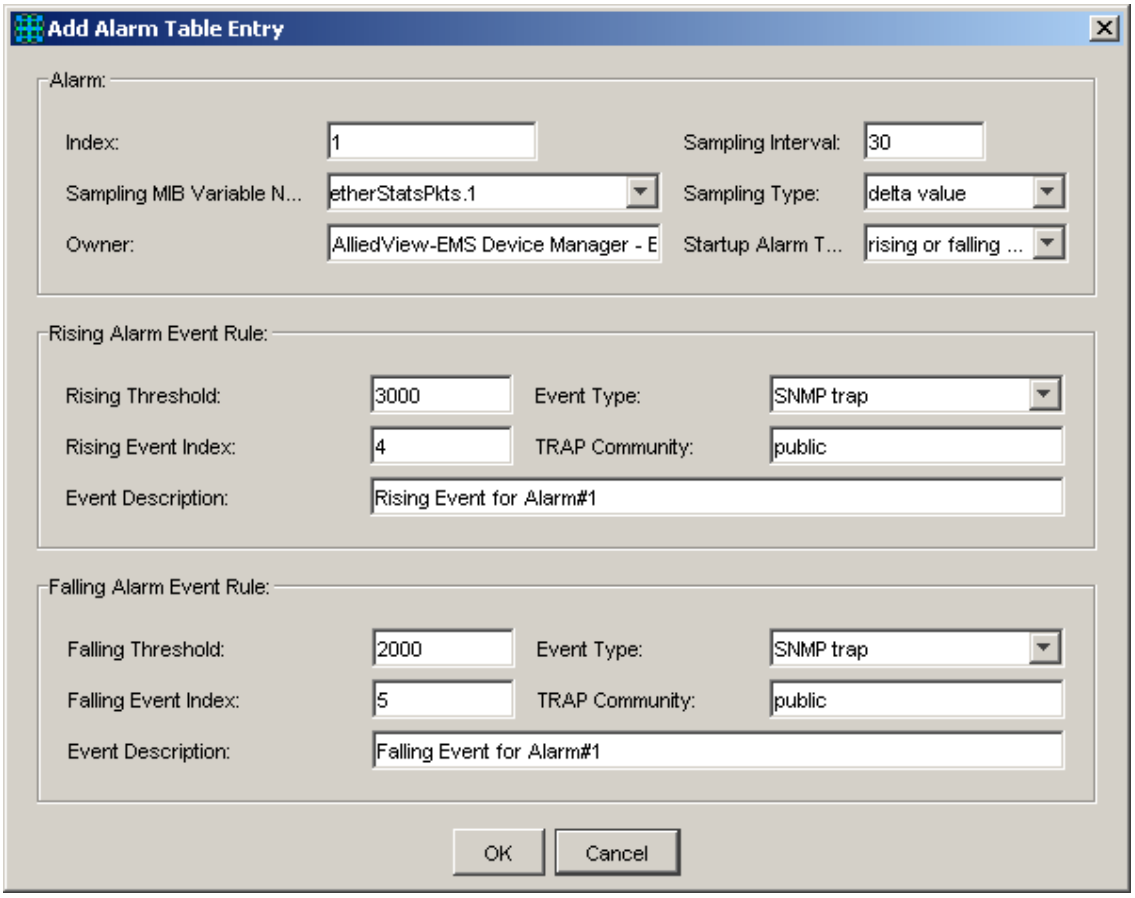
Owner
The owner (creator) of the Event entry.

7.4.3 Add Button

: adds a new entry to the table. Click this button to open the Add Alarm Table Entry dialog box, enter parameters for the Alarm Table entry, and click OK to add the new entry.

Note - If you specify an SNMP trap action, trap hosts must be configured in the RMON agent. Trap hosts cannot be configured by Device Manager. Use other means, such as a console terminal, Telnet or Web interface to set up SNMP trap hosts on the agent.

Note - If you configure the station running Device Manager as the trap host, use the same Trap community name configured in the Target Host Property dialog box (File > Properties).



Add Alarm Table Entry dialog box

Alarm

Index

The index number used to identify this Alarm entry. By default, the lowest unused number is automatically displayed. If you explicitly specify a number currently in use, that entry will be overridden.

Sampling Interval

The sampling interval in seconds.

Sampling MIB Variable Name

Type or select the name of the MIB variable to be sampled.

Sampling Type

How the sampled value is compared with the threshold. "absolute value" compares the sampled data with the threshold without modification. "delta value" compares the difference between the latest sampled value and the previous sampled value with the threshold.

Owner

The owner (creator) of the Alarm entry. By default, "AlliedView-EMS Device Manager - station name" is used where "station name" represents the host name of the station on which Device Manager is running.

Startup Alarm Type

The type of threshold which is applied to the first sampled value after this Alarm entry becomes valid.

rising alarm

A single RMON event is triggered if the first sampled value is greater than or equal to the configured rising threshold.

falling alarm

A single RMON event is triggered if the first sampled value is less than or equal to the configured falling threshold.

\ *rising or falling alarm*

A single RMON event is triggered if the first sampled value is greater than or equal to the configured rising threshold, or if the first sampled value is less than or equal to the configured falling threshold.

Note - The Startup Alarm Type is only applied to the first sampled value. From the second sampled value, both the rising and falling thresholds are effective regardless of the Startup Alarm Type. If only one type of threshold is significant, set the "Event Index" for the Alarm type that is not required to 0. For example, if you want to monitor only the rising threshold, set the Falling Event Index to 0. No event occurs for an Event Index of 0, even if the values reach the threshold.

Rising Alarm Event Rule

Configuration for the rising alarm. If you select "falling alarm" for the Startup Alarm Type, only "Rising Threshold" and "Rising Event Index" can be configured. If there is no Event entry corresponding to the Event Index, no event will occur.

Rising Threshold

The ceiling threshold. If the monitored variable exceeds this threshold, the rising alarm is invoked. The default is 3000.

Event Type

The type of action to be taken when the event occurs. Select one of "none" (no action taken), "SNMP trap" (send out an SNMP trap), "log" (record to the log) and "log & SNMP trap" (record to the log and send out an SNMP trap).

Rising Event Index

Index of the RMON Event entry which is triggered when the sampled value reaches the rising threshold. If you select "falling alarm" for the Start Alarm Type, this defaults to zero. Because an Event Index of 0 is invalid and there is no event related to Index 0, no event will occur even if the rising alarm is triggered.

TRAP Community
Trap Community name.

Event Description
Text string describing the event. By default, "Rising Event for Alarm#idx" is used where "idx" represents the Alarm index number.

Falling Alarm Event Rule
Configuration for the falling alarm. If you select "rising alarm" for the Startup Alarm Type, only "Falling Threshold" and "Falling Event Index" can be configured. If there is no Event entry corresponding to the Event Index, no event will occur.

Falling Threshold
The floor threshold. If the monitored variable falls below this threshold, a falling alarm event occurs. The default is 2000.

Event Type
The type of action to be taken when the event occurs. Select one of "none" (no action taken), "SNMP trap" (send an SNMP trap), "log" (record to the log) and "log & SNMP trap" (record to the log and send an SNMP trap).

Falling Event Index
The index of the RMON Event entry which is triggered when the sampled value falls below the falling threshold. If you select "rising alarm" for the Start Alarm Type, this defaults to zero. Because an Event Index of 0 is invalid and there is no event related to Index 0, no event will occur even if falling alarm is triggered.

TRAP Community
Trap Community name.

Event Description
Text string describing the event. By default, "Falling Event for Alarm#idx" is used where "idx" represents the Alarm index number.

7.4.4 Edit Button

: edits the selected Alarm entry. Click this button to open a dialog box, specify options, then click OK. You can also open this dialog box by double-clicking the entry.

7.4.5 Remove Button

: removes the selected Alarm entry.

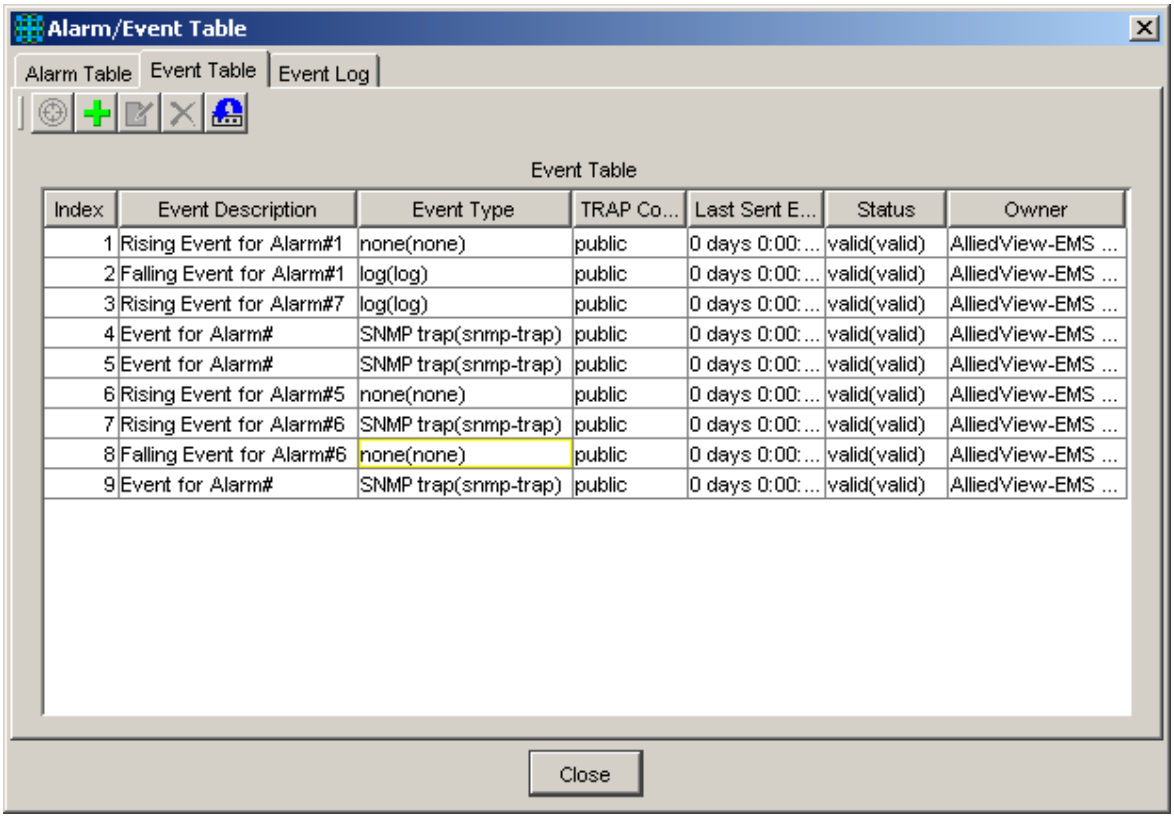
7.4.6 Close

Closes the window.

7.5 Event Table

From the Event Table menu, you can view and edit the RMON Event entries. The data is not automatically updated. Use the Refresh button to view the latest information.

Topics:



RMON Event Table window

7.5.1 Event Table Tab

The Event Table shows the list of all currently configured Event entries.

Index

The index number used to identify the Event.

Event Description
Text describing the Event entry.

Event Type
The type of action to be taken when the event occurs. Select one of "none" (no action taken), "SNMP trap" (send an SNMP trap), "log" (record to the log) and "log & SNMP trap" (record to the log and send an SNMP trap).

TRAP Community
The Trap Community name.

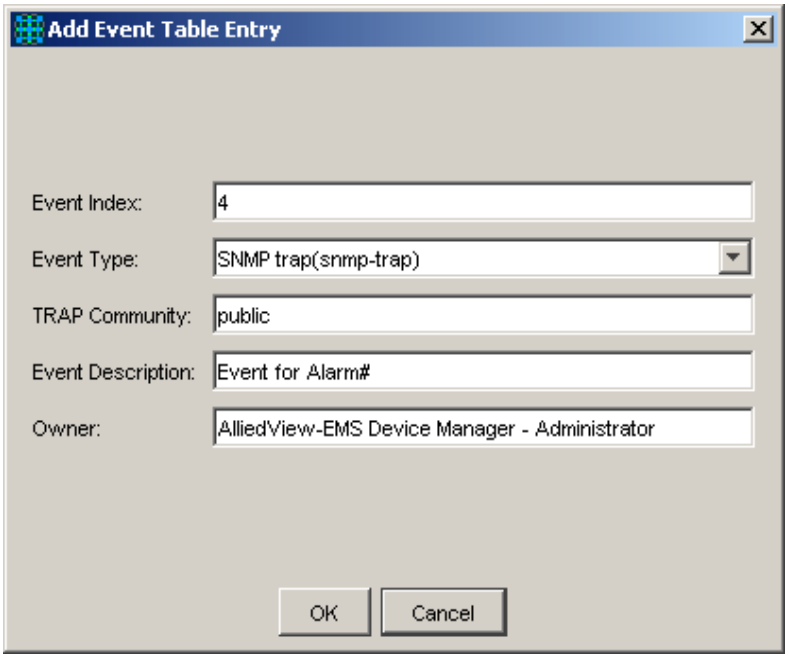
Last Sent Event Time
The value of sysUpTime at the time when the last event occured.

7.5.2 Select Button

: selects an Event entry to be displayed in the Event Log tab. In the Event Log tab, only log entries related to the selected Event Index are displayed.

7.5.3 Add Button

: creates a new Event entry. Click this button to open a dialog box for a new entry. Specify options, then click OK to add the new entry to the table.



Add Event Table Entry dialog box

7.5.4 Edit Button

: edits the selected Event entry. Click this button to open the Edit dialog box for the selected entry. Change the configuration, then click OK to modify the entry. You can also open this dialog box by double-clicking the entry.

7.5.5 Remove Button

: removes the selected Event entry.

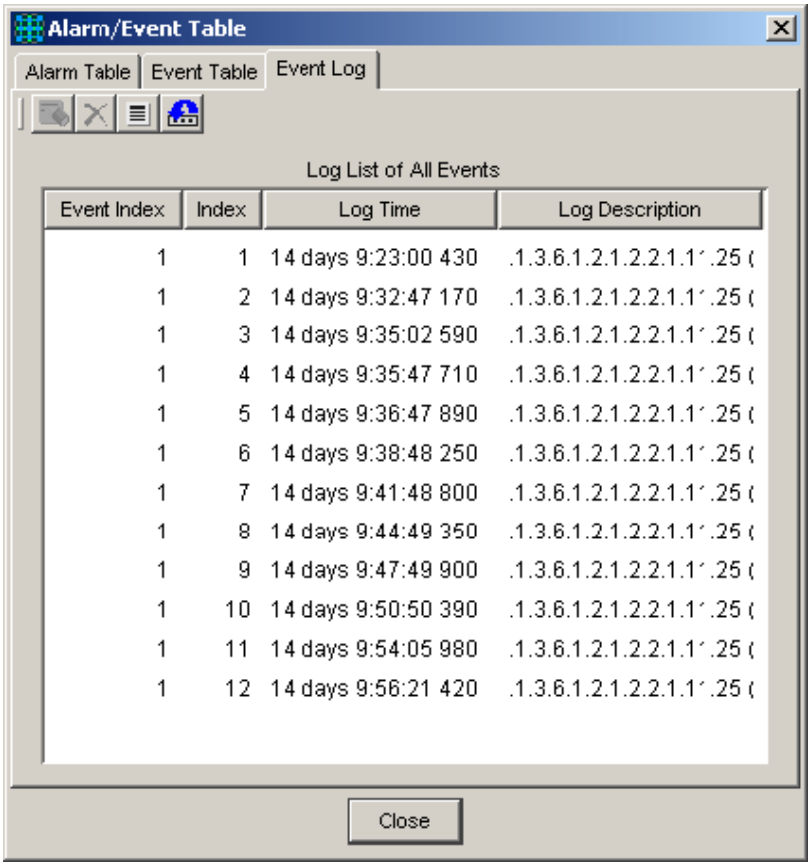
7.5.6 Close

Closes the Event Table window.

7.6 Event Log

From the Event Log menu, you can view and remove RMON event log entries. Log entries displayed on the screen are not automatically updated. To view the latest log entries, click the Refresh button.

Topics:



RMON Event Log tab

7.6.1 Log List of All Events

This table shows a list of all log events which occurred.

Event Index
The index number of the Event table for this log entry.

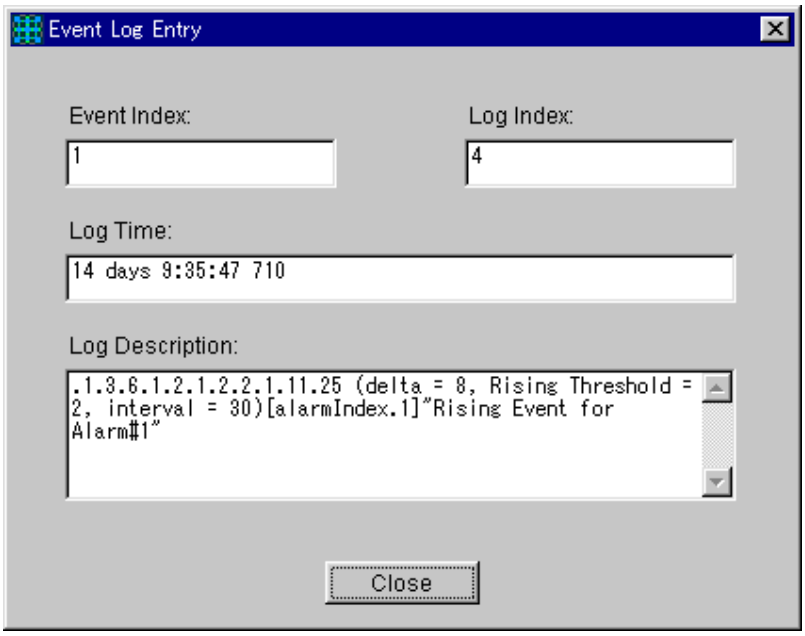
Index
The index number used to identify this log entry.

Log Time
The time when this log entry was recorded.

Log Description
Text describing the log entry.

7.6.2 Event Log Entry

By double-clicking the log entry, the following Event Log Entry dialog box appears.



Event Log Entry dialog box

7.6.3 Remove All Button

: clears all log entries.

7.6.4 Remove Button

: clears log entries that have the selected Event Index. You can select any one of the entries which have the same Event Index number.

7.6.5 Display All Button

: displays all event log entries. It may take some time to display all entries.

7.6.6 Refresh Button

 : displays the latest log table. The log entries are not automatically updated.

7.6.7 Close

Closes the Event Log window.

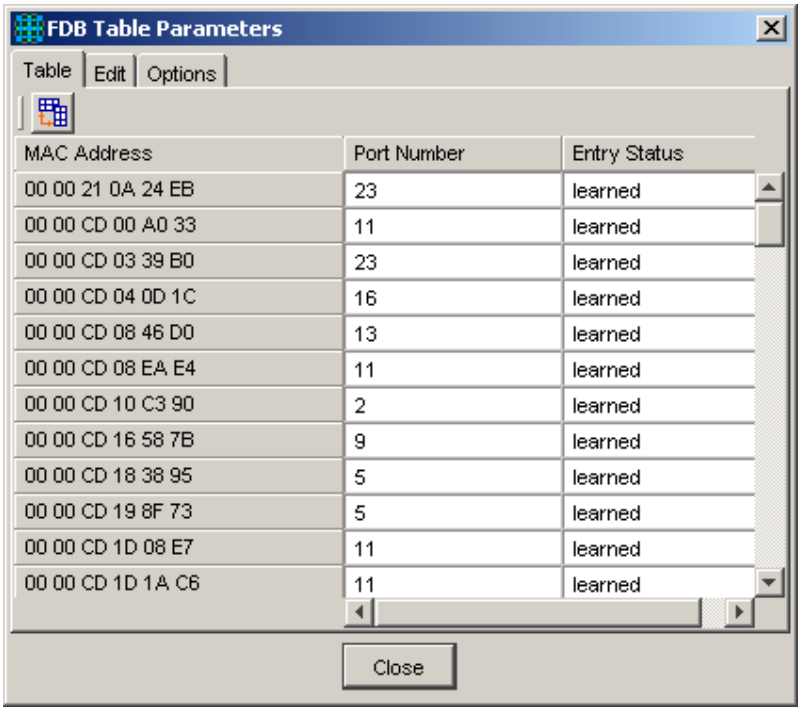
8 Forwarding Database

The Forwarding Database option under the Bridge menu allows you to view the FDB (Forwarding Database) Table containing unicast entries for which the bridge has forwarding and/or filtering information. AlliedView-EMS provides two ways of viewing the FDB Table: Standard View and Enhanced View.

Topics:

8.1 Standard View

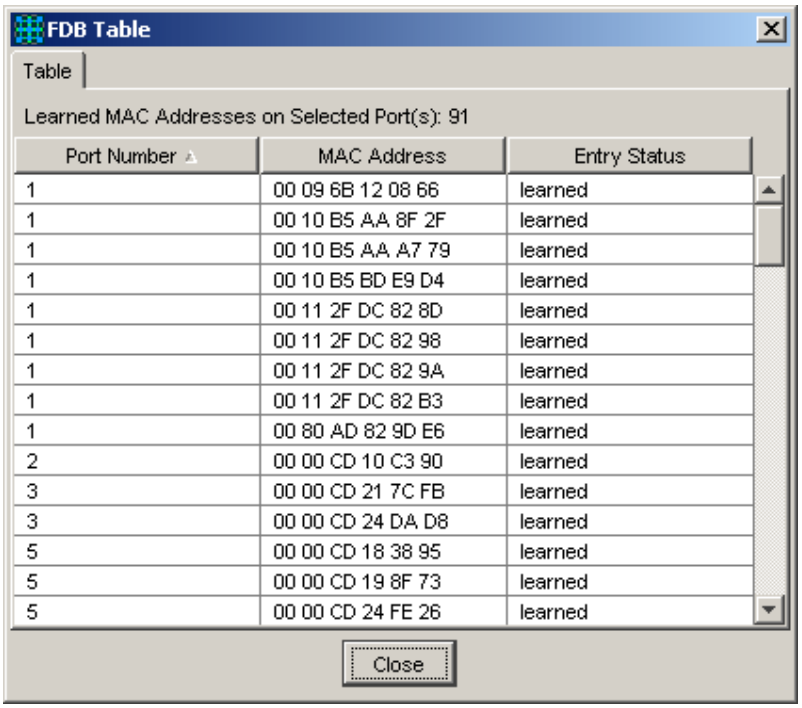
The Standard View allows you to view the FDB Table as returned by the device. This is the default view that is available across all devices that support transparent bridging.



Standard View

8.2 Enhanced View

The Enhanced View allows you to select a port or group of ports to view its corresponding FDB Table entries. It also displays the total number of FDB Table entries associated with the selected ports. This view is available only for selected devices with at least 16 ports.



Enhanced View

FDB Table entries are initially sorted in ascending order based on the Port Number field. To sort based on a different field, click on the column heading of the desired field. Clicking on the same column heading repeatedly will cause the table to sort alternately in ascending and descending order.

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