AT-VIEW PLUS

VLAN MANAGER USER'S GUIDE

TABLE OF CONTENTS

This User's Guide describes the basic operations of AT-View Plus VLAN Manager.

1 Overview

VLAN Manager is a tool that enables you to configure VLANs on a device using a graphical user interface (GUI) or by importing VLAN definitions from a file.

Topics

2 Starting VLAN Manager

VLAN Manager can be started from AT-View Plus Device Manager or from the command line. In a Windows environment, VLAN Manager can be started from the AT-View Plus program folder or from the Run command of the Start menu.

You can start VLAN Manager from AT-View Plus Device Manager by clicking on **Tool > VLAN Manager** on the main menu or by clicking on the VLAN Manager icon  on the toolbar. If AT-View Plus Device Manager is connected to a device, target host information is automatically passed on to VLAN Manager so that the VLAN configuration of the device can be retrieved and displayed in VLAN Manager's main window.

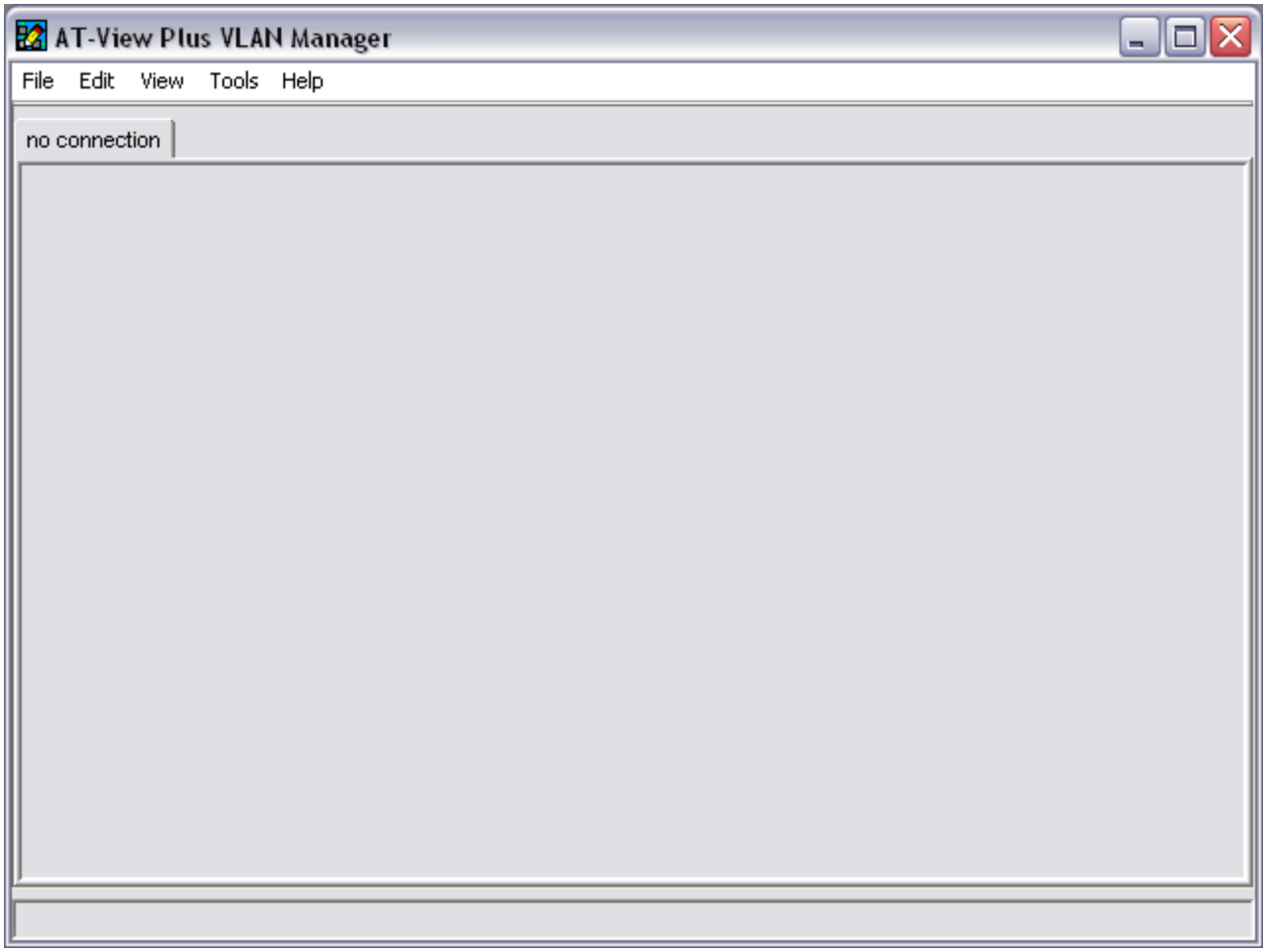
3 Main Window

When started, VLAN 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 if one or more connection parameters do not match what is configured on the host, the following window appears.

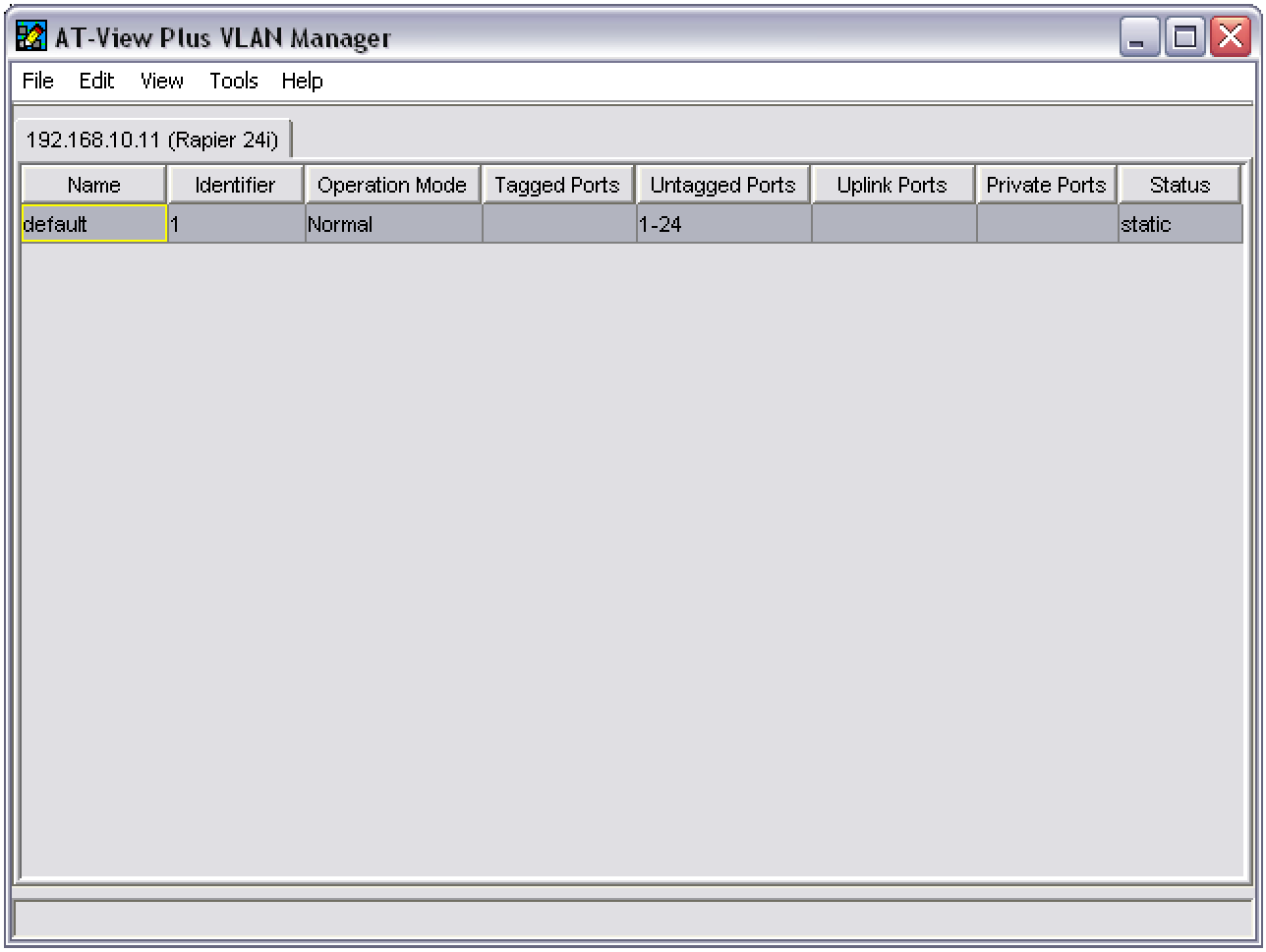


Initial Window

To specify a target host from this window, select **File > Open**. If the target host is a device model that is supported by VLAN Manager, the VLAN Information Window displaying the target host's VLAN configuration will appear.

3.2 VLAN Information Window

When a target host is specified and VLAN Manager recognizes it as a device model that it supports, the following window appears.



VLAN Information Window

The menu bar provides access to VLAN Manager's operations.

The VLAN Information Window displays the VLAN configuration of the device being managed. Information is organized in a table format with each row representing one VLAN definition and each column representing one attribute of the VLAN. VLAN attributes displayed differ from one device family to another. Refer to Section 6 - Device Support for the specific attributes displayed for each device family.

4 Basic Operations

This chapter discusses the basic operations within VLAN Manager windows.

Topics

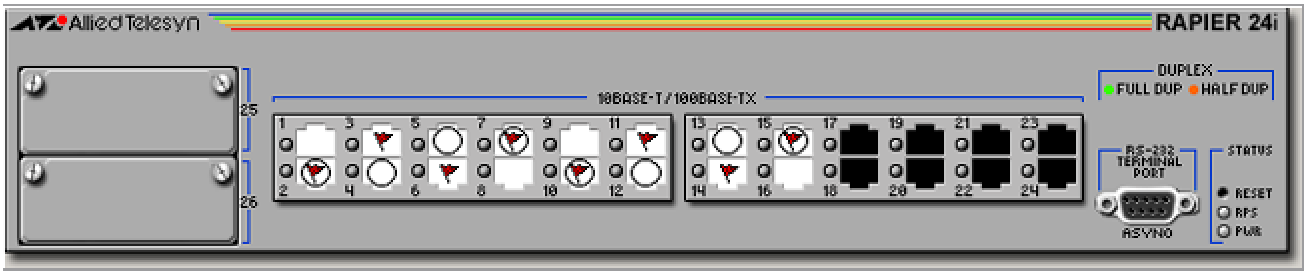
4.1 Selecting VLAN Definitions

To select a VLAN definition in the VLAN Information Window or the Import VLAN dialog box, click on a row. To select multiple contiguous VLAN definitions, hold down the *Shift* key while clicking on the desired VLAN definitions. To select multiple non-contiguous VLAN definitions, hold down the *Ctrl* key while clicking on the desired VLAN definitions.

4.2 Device Panel

A device panel that reflects the actual ports available on the target host is used to create or modify a VLAN definition.

Note - The AT-A48/SC, AT-A48/MT and AT-A49 Expansion Modules for the AT-8350GB are not supported and will not show up on the device panel.



Device Panel

A port can be in any of the following states:

Port Image	State	Description
	Not Selected	This port does not belong to the VLAN.
	Selected	This port is an *untagged* member of the VLAN. ***Note*** - For the AT-8200XL Series, this port is considered a *member* of the VLAN. ***Note*** - For the AT-8600, AT-8700XL, AT-8800, Rapier, AT-8900 and AT-9900 series, this port is a *private untagged* member of the Private VLAN. ***Note*** - For the AT-8900 and AT-9900 series, this port is a *customer* port of the Nested VLAN.
	Flagged	This port is a *tagged* member of the VLAN. ***Note*** - For the AT-8200XL Series, this port is considered an *untagged* (port-based) member of the VLAN. ***Note*** - For the AT-8600, AT-8700XL, AT-8800, AT-9900, Rapier and AT-8900 series, this port is a *private tagged* member of the Private VLAN. ***Note*** - For the AT-8900 and AT-9900 series, this port is a *core* member of the Nested VLAN.

Port Image	State	Description
	Selected	***Note*** - For the AT-8600, AT-8700XL,AT-8800, Rapier, AT-8900 and AT-9900 series, this port is an *uplink untagged* member of the Private VLAN. ***Note*** - For the AT-9700, this port is a *forbidden* member of the VLAN.
	Flagged	***Note*** - For the AT-8600, AT-8700XL, AT-8800, Rapier, AT-8900 and AT-9900 series, this port is an *uplink tagged* member of the Private VLAN.

Clicking on a *port* will change its state as follows:

Current State	New State
	
	
	
	
	

4.3 VLAN Configuration Files

VLAN Configuration Files are Comma Separated Value (CSV) files containing VLAN definitions and are used by the **Import VLAN** and **Export VLAN** functions.

The format of the VLAN Configuration File is as follows:

VLAN_Entry1_Name, VLAN_Entry1_Identifier, attribute1, attribute2, etc.

VLAN_Entry2_Name, VLAN_Entry2_Identifier, attribute1, attribute2, etc.

and so on...

The number and order of VLAN attributes, and their corresponding values, differ from one device family to another. Refer to Section 6 - Device Support for details on the specific attributes for each device family.

The following is an example of a VLAN Configuration File for the Rapier 24i device that contains two (2) VLAN definitions:

prod,2,Private,"","10,12,14","12","10,14"

test,3,Normal,"20-21","19,22","",""

4 Basic Operations

5 Menus

This chapter describes the items on VLAN Manager's main menu.

Topics:

5.1 File

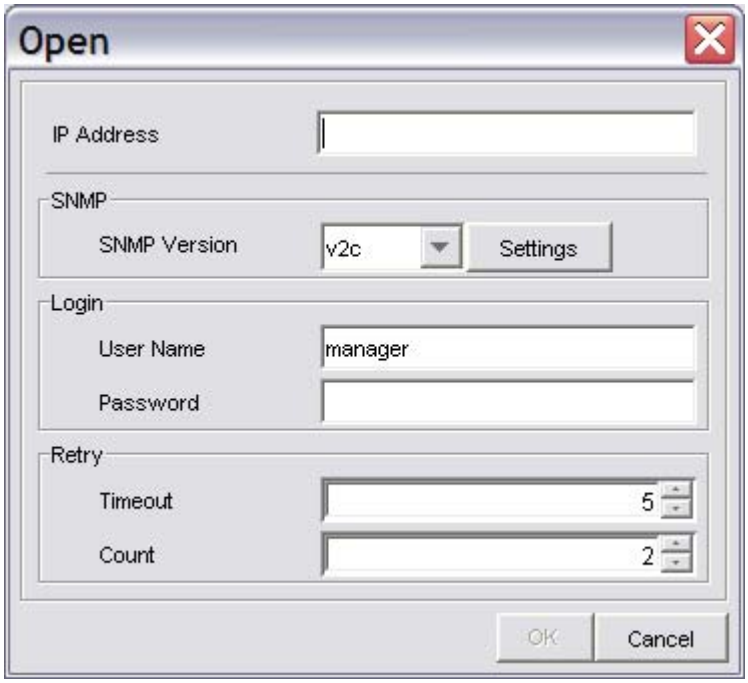
The File menu lets you connect to and disconnect from a target host, check the properties of the target host, or exit VLAN Manager.

Topics:

5.1.1 Open

This option allows you to specify a target host to connect to. When you select **File > Open**, the following dialog box appears. To connect to the device, fill in parameters in the dialog box, and click OK.

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



Open dialog box

IP Address

This is the Host Name or IP Address of the target host.

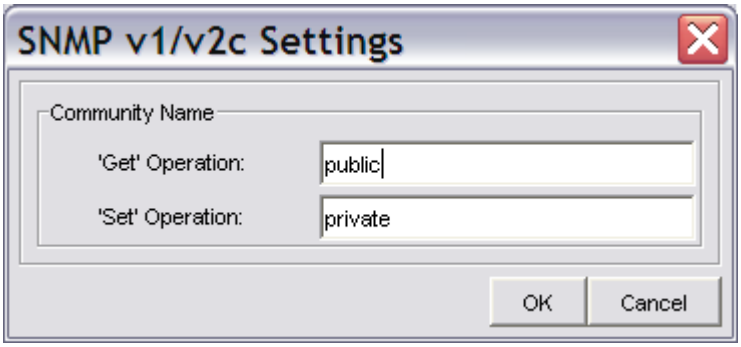
SNMP Version

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.



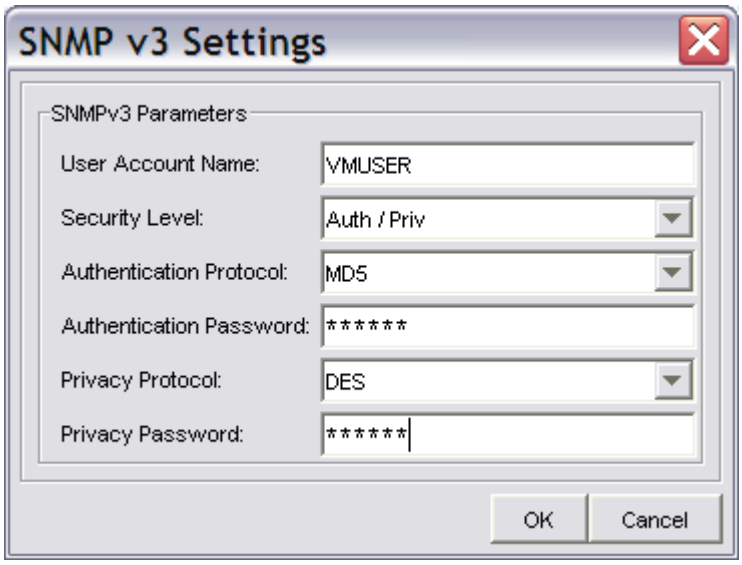
SNMP v1/v2c Settings dialog box

Community Name

The community strings to use in performing SNMP operations on the target host. There are two types of community strings for 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 that is configured for the User Account Name 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.

Note - Do not use a user account with a security level of AUTHPRIV to connect to an AT-9700 device. Doing so will result in the error message: "Unable to connect to '<ip address>'. Confirm valid IP address, SNMP settings or login, and if the network is functional."

Note - VLAN Manager will not be able to connect to an AT-9700 device using an SNMPv3 account that has SHA authentication if the previous connection established with that device used an account with MD5 authentication. The same behavior will occur if VLAN Manager tries to connect using an account with MD5 authentication when the previous connection used an account with SHA authentication.

Authentication Protocol
If the Security Level is "Auth / No Priv" or " Auth / Priv", you need to specify an Authentication Protocol that is configured for the User Account Name 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 that is configured for the User Account Name 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 that is configured for the User Account Name on the target device.

Login User Name
This is the account name to be used to log in to the device. By default, this field is set to *manager*. This field is used for non-L2 devices only. For L2 devices, this field is ignored.

Password
This is the password for the account to be used. This field is used for non-L2 devices only. For L2 devices, this field is ignored.

Retry Timeout
The number of seconds VLAN Manager waits before it determines that the device is not responding. By default, this value is set to *5 seconds*.

Count
The number of times VLAN Manager sends SNMP messages to the agent before giving up. By default, this value is set to *2 retries*.

5.1.2 Close

This option closes the active connection with the device and empties the **VLAN Information Window**.

Note - This option is not available if VLAN Manager is not yet connected to a device.

5.1.3 Properties

The Properties dialog box allows you to modify the connection settings for the connected device. The Properties dialog box is identical to the Open dialog box used to open a connection. See Section 5.1.1 - Open.

Note - This option is only available if VLAN Manager is already connected to a target host.

5.1.4 Exit

This option terminates connection to the target host and closes the VLAN Manager application.

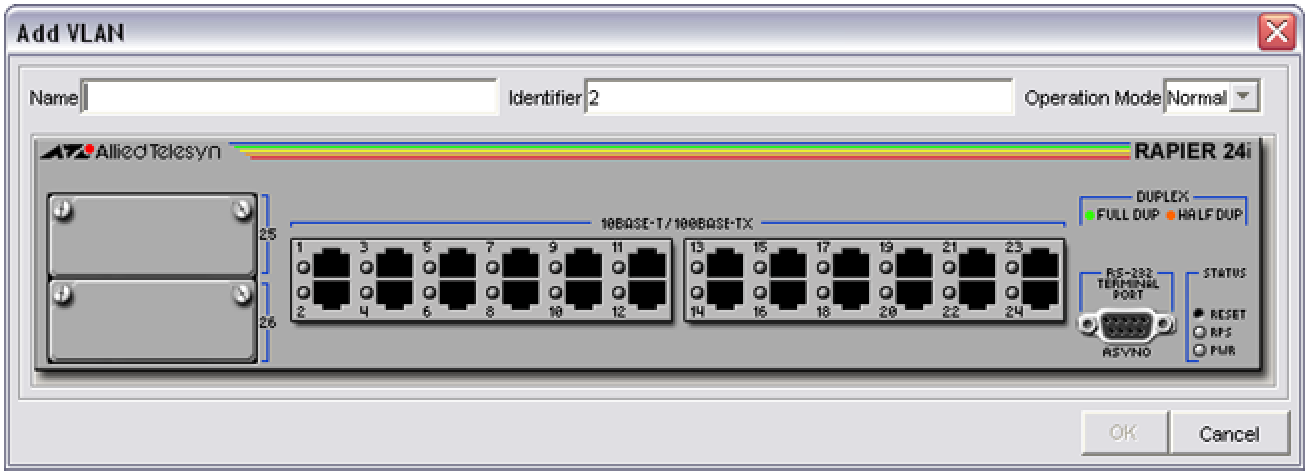
5.2 Edit

The Edit menu lets you modify the VLAN configuration of the currently connected device. You can also save the VLAN configuration of the device to a file.

Topics:

5.2.1 Add VLAN

This option opens the Add VLAN dialog box that allows you to create a VLAN definition.



Add VLAN dialog box

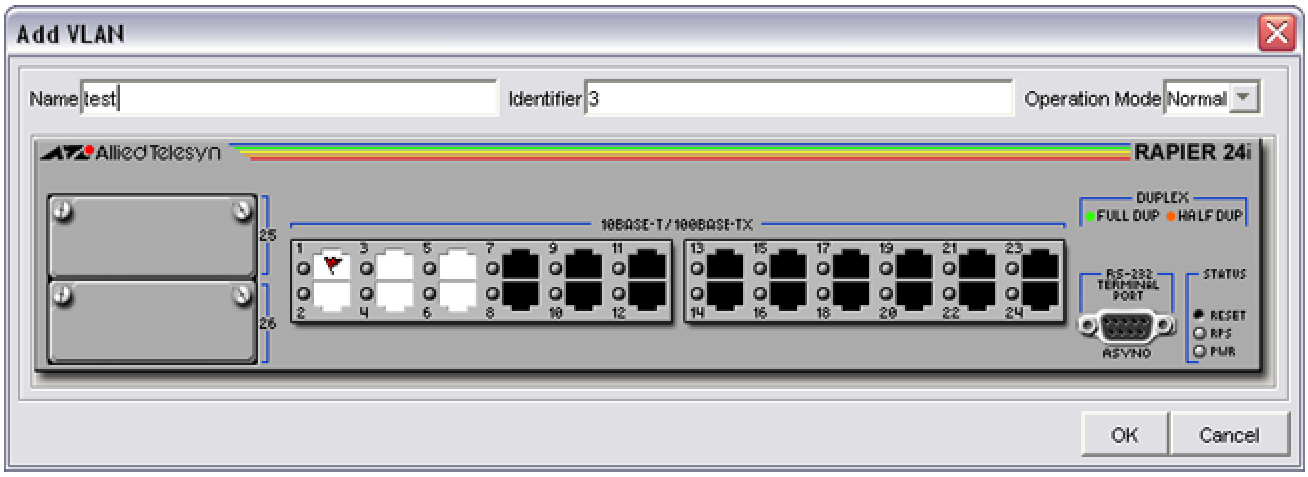
5.2.1.1 Input Fields

The *Input Fields* are the attributes that serve as VLAN creation parameters. These fields differ from one device family to another. In the illustration above, the device panel shown is for a Rapier 24i. Since the required *Input Fields* for the Rapier Family are *Name*, *Identifier*, and *Operation Mode*, these are the fields that are displayed in the Add VLAN dialog box.

Refer to Section 6 - Device Support for details on the specific *Input Fields* available for each device family.

5.2.1.2 Adding/Removing Ports

You can add ports to or remove ports from a VLAN definition by clicking on the port images on the device panel. Refer to Section 4.2 - Device Panel for details on how to specify tagged and untagged ports, uplink untagged and uplink tagged ports, private untagged and private tagged ports, core and customer ports and to unselect ports.

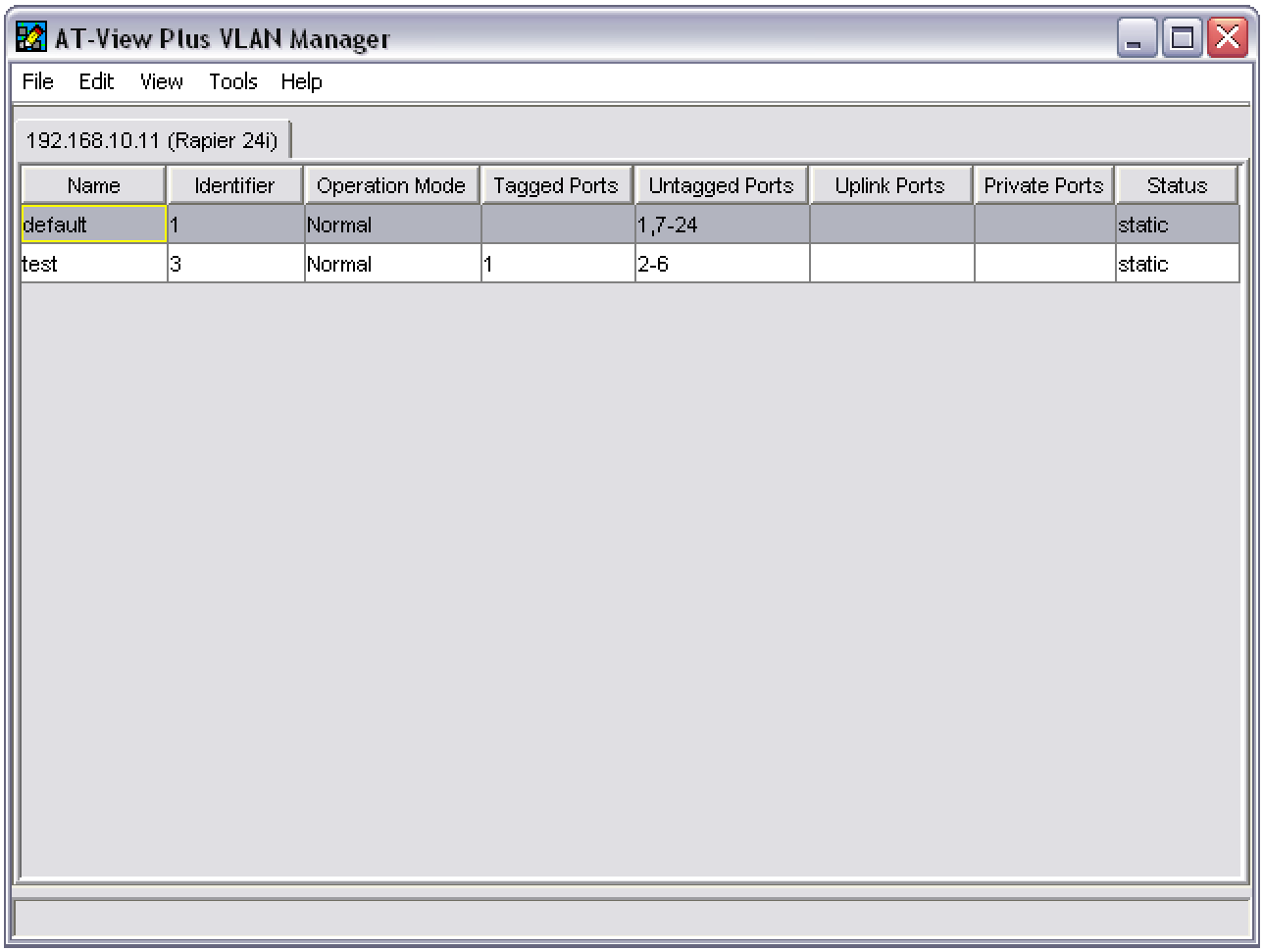


Adding/Removing Ports

In the illustration above, a new VLAN definition is being created for a Rapier 24i. The VLAN *Name* is "test" while its *Identifier* is "3". Ports 2 to 6 are untagged members while Port 1 is a tagged member of the VLAN.

5.2.1.3 OK Button

The OK Button is disabled by default. It is only enabled when both the *Name* and *Identifier* fields are populated. When the OK button is clicked, VLAN Manager adds the new VLAN definition to the target host and updates the **VLAN Information Window**.



New VLAN definition added to VLAN Information Window

After clicking the *OK* button, the new Add VLAN dialog will be closed and the new VLAN entry will be added to the Main window's Information Pane.

5.2.1.4 Cancel Button

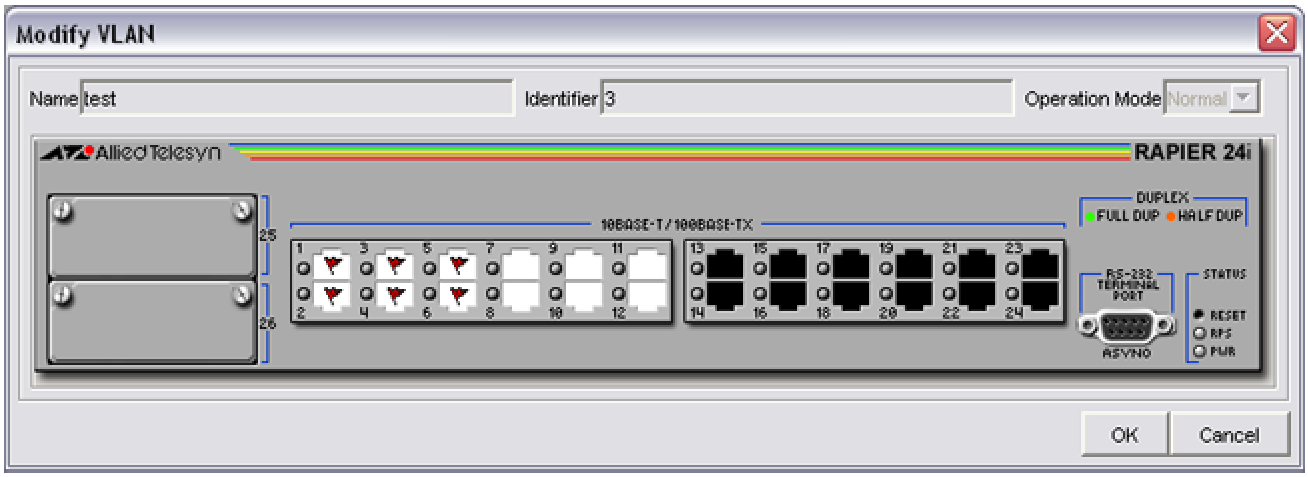
The Cancel Button cancels the Add VLAN operation and closes the Add VLAN dialog box.

5.2.2 Modify VLAN

This option opens the Modify VLAN dialog box that allows you to change specific attributes of a VLAN.

Note - This option is only available if a VLAN definition is selected.

Refer to Section 4.1 - Selecting VLAN Definitions for details on how to select a VLAN definition.



Modify VLAN dialog box

5.2.2.1 Input Fields

The *Input Fields* are attributes of the VLAN definition to be modified. Depending on the device, one or more of the fields may be disabled and cannot be modified.

Refer to Section 6 - Device Support for details on the specific attributes that can and cannot be modified for each device family.

5.2.2.2 Modifying Ports

You can add ports to or remove ports from a VLAN definition by clicking on the port images on the device panel. Refer to Section 4.2 - Device Panel for details on how to specify tagged and untagged ports, uplink untagged and uplink tagged ports, private untagged and private tagged ports, core and customer ports and to unselect ports.

5.2.2.4 OK Button

When the OK Button is clicked, VLAN Manager updates the VLAN definition in the target host and in the **VLAN Information Window**.

5.2.2.5 Cancel Button

The Cancel Button cancels the Modify VLAN operation and closes the Modify VLAN dialog box.

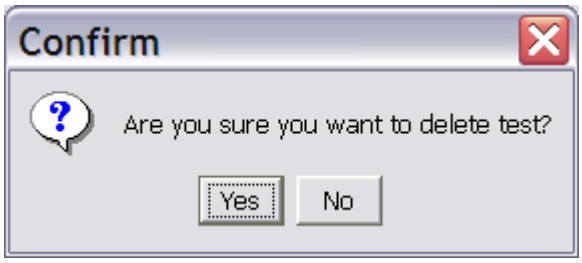
5.2.3 Delete VLAN

This option displays a delete VLAN confirmation dialog box.

Note - This option is only available if a VLAN definition other than the default VLAN is selected.

Note - You may select multiple VLAN definitions (except for the default VLAN) for deletion.

Refer to Section 4.1 - Selecting VLAN Definitions for details on how to select multiple VLAN definitions.



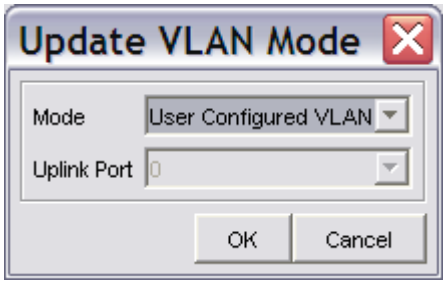
Delete VLAN confirmation dialog box

To remove the selected VLAN definition(s) from the target host and the *VLAN Information Window*, click Yes.

5.2.4 Update VLAN Mode

This option opens the Update VLAN Mode dialog box.

Note - This option is only available to the AT-8000 Series, AT-8200XL Series, AT-8400, AT-8500 Series, and AT-9400 Series.



Update VLAN Mode dialog box

Mode

Sets the VLAN Mode for the device. The available options are:

- *User Configured VLAN*
- *Multiple VLAN*
- *802.1Q Multiple VLAN*

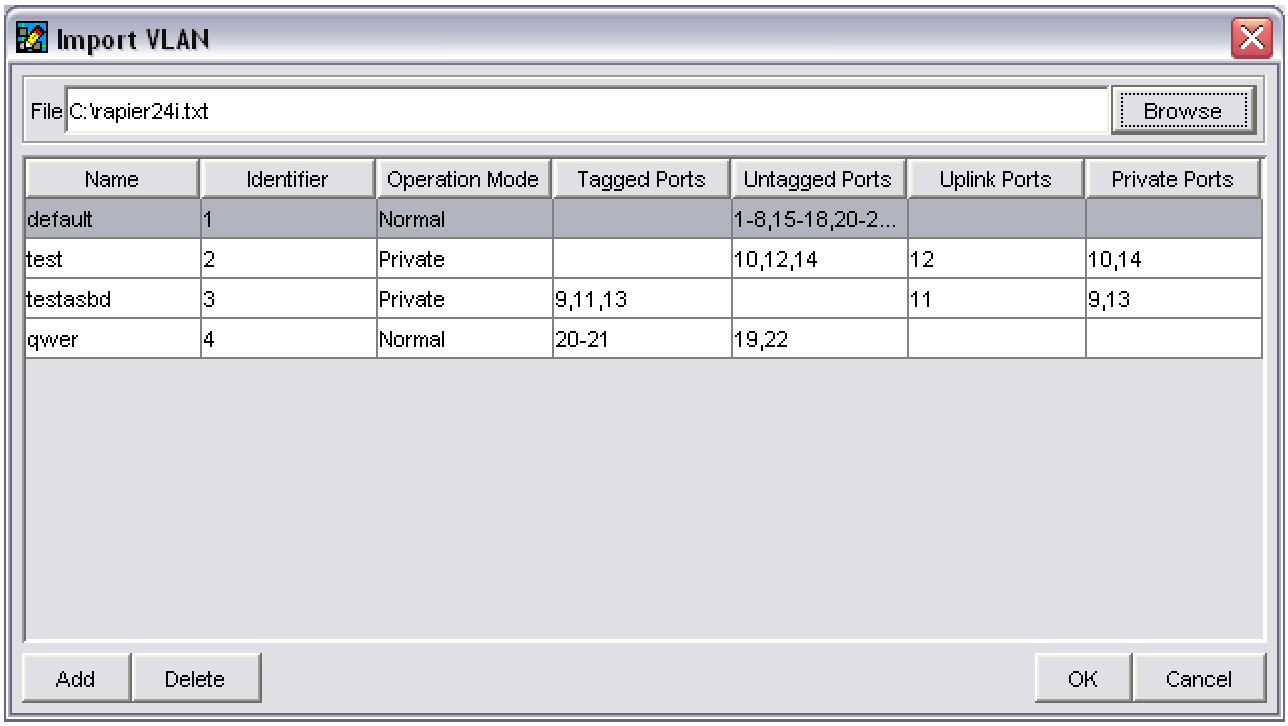
Uplink Port

Designates a port as the uplink port that can be connected to a shared device.

Note - This field does not apply to the AT-8200XL Series.

5.2.5 Import VLAN

This option opens the Import VLAN dialog box that allows you to import VLAN definitions from a VLAN Configuration File, modify the VLAN entries, and overwrite the existing VLAN entries on the currently connected device.



Import VLAN dialog

5.2.5.1 File Field and Browse Button

You may specify a VLAN Configuration File (full path) in the *File field*. Alternatively, you can use the *Browse* button to locate the VLAN Configuration File to use. Once a valid VLAN Configuration File has been specified, the *VLAN Definitions Table* will be populated with the VLAN definitions contained in the file. You may then manually edit the definitions within the table.

Note - Be sure to specify a VLAN Configuration File that contains VLAN entries suitable for the currently opened device. Otherwise, the Import VLAN function will fail. Refer to Section 4.3 - VLAN Configuration Files for more details.

5.2.5.2 Add Button

Clicking the Add Button adds an empty row to the *VLAN Definitions Table*. Once a row is added, it can be used to define a new VLAN.

5.2.5.3 Delete Button

Clicking on the Delete Button removes the selected row(s) from the *VLAN Definitions Table*.

5.2.5.4 OK Button

Once the OK Button is clicked, VLAN Manager deletes all user-configured VLANs from the currently connected device and creates new user-configured VLANs based on the VLANs defined in the *VLAN Definitions Table*.

5.2.6 Export VLAN

This option opens a file browser dialog that allows you to specify a destination file and location in which to store exported VLAN definitions. Once a valid file and location is specified, VLAN Manager exports the VLAN definitions displayed in the *VLAN Information Window* to this file in CSV format. This file is then referred to as a VLAN Configuration File that can be used by the Import VLAN function.

5.3 View

The View menu lets you refresh the contents of the *VLAN Information Window*.

Topics:

5.3.1 Refresh

This option allows you to refresh the *VLAN Information Window* with the latest VLAN configuration of the currently connected device.

Note - This option is only available if a VLAN Manager is already connected to a target host.

5.4 Tools

The Tools menu lets you restart the currently connected device.

Topics:

- Restart

5.4.1 Restart

This option displays a restart confirmation dialog box.

Note - This option is only available if a VLAN Manager is already connected to a target host.

Note - The restart option will not work for the AT-9400 series.

Restart Confirmation dialog box

To restart the currently connected device, click Yes.

5.5 Help

The Help menu lets you view the online user's guide as well as some basic information about the application.

Topics:

5.5.1 Index

This option displays this user's guide.

Note - For HP-UX:

- If there are no active Netscape sessions, selecting this option will not display the online help.
- If there is one or more active Netscape session, selecting this option will cause one of the sessions to display the user's guide.

5.5.2 About

This option displays the version and copyright information for VLAN Manager. It also displays a list of the currently supported devices.

6 Device Support

This section describes, on a per device family basis, the specific VLAN attributes displayed in the **VLAN Information Window**, the input fields that are available in the **Add VLAN** and **Modify VLAN** dialog boxes, and any known issues and/or operational notes.

Topics:

6.1 AT-8000 Series

Topics:

6.1.1 VLAN Information Window

The **VLAN Information Window** displays the following attributes for each VLAN definition:

Column Name	Description
Name	This is the name of the VLAN.
Identifier	This is the unique identifier of the VLAN.
Tagged Ports	This is a list of the tagged member ports of the VLAN.
Untagged Ports	This is a list of the untagged member ports of the VLAN.
Mirror Port	This is the number of the port on which all VLAN traffic is mirrored.
Status	This indicates the status of the VLAN. • active • not in service • not ready • create and go • create and wait • destroy

Note - If the selected Uplink Port is not connected to the Uplink VLAN, and the VLAN Mode is set to Multiple VLAN or 802.1Q Multiple VLAN, the connection with the device will be lost. Furthermore, no warning message will be displayed before the connection is lost.

6.1.2 Add/Modify VLAN Dialogs

The Add/Modify VLAN Dialogs have the following Input Fields:

Input Field	Valid Values	Length
Name	• Alphanumeric characters • Underscore ("_") • Dash ("-") ***Note*** - VLAN names must contain at least one (1) alphabet character. ***Note*** - "ALL" is a reserved word and cannot be used as a VLAN name.	1 - 19 characters
Identifier (cannot be modified)	1 - 4094	-
Mirror Port	0-65535 ***Note*** - The default value of 0 indicates that there is no port mirror defined for this VLAN.	-

6.2 AT-8124XL (v2)

Topics:

6.2.1 VLAN Information Window

The **VLAN Information Window** displays the following attributes for each VLAN definition:

Column Name	Description
Name	This is the name of the VLAN.
Identifier	This is the unique identifier of the VLAN.
Tagged Ports	This is a list of the tagged member ports of the VLAN.
Untagged Ports	This is a list of the untagged member ports of the VLAN.
Status	This indicates the status of the VLAN. • idle • operational • under-construction • not-operational

Note - An error message, "An error occurred during the operation. Error: Read only" will be displayed when the user tries to modify the Default VLAN.

Note - After an Import VLAN operation of Multiple VLANs, all VLANs with valid VLAN definitions will have a successful status except for the Default VLAN.

6.2.2 Add/Modify VLAN Dialogs

The Add/Modify VLAN Dialogs display the following Input Fields:

Input Field	Valid Values	Length
Name	• Alphanumeric characters • Underscore ("_") • Dash ("-")	0 - 20 characters
Identifier	1 - 4094	-

6.3 AT-8200XL Series

Topics:

6.3.1 VLAN Information Window

The **VLAN Information Window** displays the following attributes for each VLAN definition:

Column Name	Description
Name	This is the name of the VLAN.
Identifier	This is the unique identifier of the VLAN.
Member Ports	This is a list of the member ports of the VLAN.
Untagged Ports	This is a list of the untagged (port-based) member ports of the VLAN.
Status	This indicates the status of the VLAN. • idle • operational • under-construction • not-operational

Note - An error message, "An error occurred during the operation. Error: Bad Value." will be displayed when the user tries to modify the Default VLAN.

Note - An error message, "An error occurred during the operation. Error: The device is in Multiple VLAN mode. Pre-configured VLANs cannot be displayed for this device." will be displayed when the VLAN Mode is set to Multiple VLAN and the VLAN definitions for the multiple VLANs were not displayed in the VLAN Information Window.

Note - After an Import VLAN operation of Multiple VLANs, all VLANs with valid VLAN definitions will have a successful status except for the Default VLAN.

Note - After an Import VLAN operation, VLAN definitions with out of range Member Ports will have a successful status.

Note - If the selected Uplink Port is not connected to the Uplink VLAN, and the VLAN Mode is set to Multiple VLAN or 802.1Q Multiple VLAN, the connection with the device will be lost. Furthermore, no warning message will be displayed before the connection is lost.

6.3.2 Add/Modify VLAN Dialogs

The Add/Modify VLAN Dialogs display the following Input Fields:

Input Field	Valid Values	Length
Name	• Alphanumeric characters • Underscore ("_") • Dash ("-")	0 - 20 characters
Identifier	1 – 4094	-

6.4 AT-8324

Topics:

6.4.1 VLAN Information Window

The **VLAN Information Window** displays the following attributes for each VLAN definition:

Column Name	Description
Name	This is the name of the VLAN.
Identifier	This is the unique identifier of the VLAN.
<Stack ID> - Tagged Ports	This is a list of the tagged member ports of the VLAN that belong to a specific module on the stack.
<Stack ID> - Untagged Ports	This is a list of the untagged member ports of the VLAN that belong to a specific module on the stack.
Status	This indicates the status of the VLAN. • active • not in service • not ready • create and go • create and wait • destroy

6.4.2 Add/Modify VLAN Dialogs

The Add/Modify VLAN Dialogs display the following Input Fields:

Input Field	Valid Values	Length
Name	• Alphanumeric characters • Underscore ("_") • Dash ("-") ***Note*** - VLAN names must contain at least one (1) alphabet character. ***Note*** - "ALL" is a reserved word and cannot be used as a VLAN name.	1 - 19 characters
Identifier (cannot be modified)	1 - 2048	-

6.5 AT-8300GB Series

Topics:

6.5.1 VLAN Information Window

The **VLAN Information Window** displays the following attributes for each VLAN definition:

Column Name	Description
Name	This is the name of the VLAN.
Identifier	This is the unique identifier of the VLAN.
<Stack ID> - Tagged Ports	This is a list of the tagged member ports of the VLAN that belong to a specific module on the stack.
<Stack ID> - Untagged Ports	This is a list of the untagged member ports of the VLAN that belong to a specific module on the stack.
Status	This indicates the status of the VLAN. • idle • operational • under-construction • not-operational

Note - Ports in the Default VLAN cannot be changed from untagged to tagged.

Note - VLAN definitions that only contain tagged ports cannot be deleted.

Note - VLAN definitions that only contain tagged ports cannot be deleted during an Import VLAN operation.

Note - The retry timeout must be set to a higher value when adding or modifying VLAN definitions. The timeout value varies depending on the number of devices in the stack.

6.5.2 Add/Modify VLAN Dialogs

The Add/Modify VLAN Dialogs display the following Input Fields:

Input Field	Valid Values	Length
Name	• Alphanumeric characters • Underscore ("_") • Dash ("-")	0 - 20 characters
Identifier	1 - 4094	-

6.6 AT-8400

Topics:

6.6.1 VLAN Information Window

The **VLAN Information Window** displays the following attributes for each VLAN definition:

Column Name	Description
Name	This is the name of the VLAN.
Identifier	This is the unique identifier of the VLAN.
Type	This indicates the type of the VLAN. • Port Based • MAC Based • Multiple • Multiple 802.1Q
Tagged Ports	This is a list of the tagged member ports of the VLAN.
Untagged Ports	This is a list of the untagged member ports of the VLAN.
Status	This indicates the status of the VLAN. • active • not in service • not ready • create and go • create and wait • destroy

Note - If the selected Uplink Port is not connected to the Uplink VLAN, and the VLAN Mode is set to Multiple VLAN or 802.1Q Multiple VLAN, the connection with the device will be lost. Furthermore, no warning message will be displayed before the connection is lost.

Note - Modifying the default VLAN definition will cause all other VLAN definitions to be deleted. Furthermore, the affected device should be reset after this error occurs.

6.6.2 Add/Modify VLAN Dialogs

The Add/Modify VLAN Dialogs display the following Input Fields:

Input Field	Valid Values	Length
Name (cannot be modified)	• Alphanumeric characters • Underscore ("_") • Dash ("-") ***Note*** - VLAN names must contain at least one (1) alphabet character.	1 - 19 characters
Identifier (cannot be modified)	1 - 4094	-

6.7 AT-8500 Series

Topics:

6.7.1 VLAN Information Window

The **VLAN Information Window** displays the following attributes for each VLAN definition:

Column Name	Description
Name	This is the name of the VLAN.
Identifier	This is the unique identifier of the VLAN.
Tagged Ports	This is a list of the tagged member ports of the VLAN.
Untagged Ports	This is a list of the untagged member ports of the VLAN.
Status	This indicates the status of the VLAN. • active • not in service • not ready • create and go • create and wait • destroy

Note - If the selected Uplink Port is not connected to the Uplink VLAN, and the VLAN Mode is set to Multiple VLAN or 802.1Q Multiple VLAN, the connection with the device will be lost. Furthermore, no warning message will be displayed before the connection is lost.

Note - The current firmware version does not allow the Default VLAN to be modified. As a result, all AT-View Plus VLAN Manager operations involving the Default VLAN will fail.

Note - For 20-character VLAN Names entered via telnet, only the first 19 characters are registered in VLAN Manager.

Note - AT-8550 : Changing the VLAN Mode parameter setting from '802.1Q Multiple VLAN' to a different mode may result in the error message: "Unable to communicate. Confirm SNMP settings or login, and if the network is functional." However, VLAN Mode is still set to the new mode successfully. To prevent this error message from reappearing, go to File -> Properties and increase the Retry Timeout value.

6.7.2 Add/Modify VLAN Dialogs

The Add/Modify VLAN Dialogs have the following Input Fields:

Input Field	Valid Values	Length
Name	• Alphanumeric characters • Underscore ("_") • Dash ("-") ***Note*** - VLAN names must contain at least one (1) alphabet character.	1 - 20 characters
Identifier (cannot be modified)	1 - 4094	-

Note - For the VLAN Name parameter, the current firmware version allows up to 19 characters to be entered via SNMP and up to 20 characters via telnet. Since AT-View Plus VLAN Manager is an SNMP-based application, the 19-character limit will apply to all operations involving VLAN Name.

Note - AT-8550 : The current firmware version does not allow AT-View Plus VLAN Manager to perform Add VLAN, Modify VLAN and Import VLAN operations that involve ports 33 to 50. Attempting to perform such operations will result in the error message: "An error occurred during the operation. Error: Wrong value."

6.8 AT-8600

Topics:

6.8.1 VLAN Information Window

The **VLAN Information Window** displays the following attributes for each VLAN definition:

Column Name	Description
Name	This is the name of the VLAN.
Identifier	This is the unique identifier of the VLAN.
Operation Mode	This indicates the operation mode of the VLAN.
Tagged Ports	This is a list of the tagged member ports of the VLAN.
Untagged Ports	This is a list of the untagged member ports of the VLAN.
Uplink Port	This is a list of the uplink ports of the VLAN.
Private Ports	This is a list of the private ports of the VLAN.
Status	This indicates the status of the VLAN. • dynamic • static

Note - When importing the default VLAN, VLAN Manager disregards the values specified for Untagged Ports.

Note - When performing an Import VLAN operation, if the specified Operation Mode is Normal or Protected, the Uplink Ports and Private Ports fields will be ignored by the application.

Note - When two Private VLANs specify the same Uplink port (Uplink port is untagged for the first Private VLAN and tagged for the second Private VLAN), modifying the Private VLAN that has the untagged Uplink port will result in the error message: "<VLAN Name> already has an uplink, more than one Uplink is not permitted." All ports in that Private VLAN will then be deleted.

Note - A GBIC image is always visible on the GBIC slot of the AT-A47 expansion module image even if there is no GBIC physically inserted. Furthermore, the GBIC image will always show an SC port regardless of the actual type of GBIC used.

6.8.2 Add/Modify VLAN Dialogs

The Add/Modify VLAN Dialogs have the following Input Fields:

Input Field	Valid Values	Length
Name (cannot be modified)	• Alphanumeric characters • Underscore ("_") • Dash ("-") ***Note*** - VLAN names must contain at least one (1) alphabet character. ***Note*** - "ALL" is a reserved word and cannot be used as a VLAN name.	1 - 15 characters
Identifier (cannot be modified)	1 - 4094	-
Operation Mode (cannot be modified)	• Normal • Private • Protected	-

6.9 AT-8700XL/AT-8800/Rapier Series

Topics:

6.9.1 VLAN Information Window

The **VLAN Information Window** displays the following attributes for each VLAN definition:

Column Name	Description
Name	This is the name of the VLAN.
Identifier	This is the unique identifier of the VLAN.
Operation Mode	This indicates the operation mode of the VLAN.
Tagged Ports	This is a list of the tagged member ports of the VLAN.
Untagged Ports	This is a list of the untagged member ports of the VLAN.
Uplink Port	This is a list of the uplink ports of the VLAN.
Private Ports	This is a list of the private ports of the VLAN.
Status	This indicates the status of the VLAN. • dynamic • static

Note - The Operation Mode is not available if the software release version used on the AT-8700XL is 2.6.4-00 to 2.6.4-02

Note - Adding a Private VLAN with a Private Port that has already been associated with the Default VLAN as a Tagged Port will result to an error. However, the Private VLAN will still be added on the device with only the Uplink Port configured.

Note - When importing the default VLAN, VLAN Manager disregards the values specified for Untagged Ports.

Note - On Import VLAN operation, if the specified Operation Mode is Normal, the Uplink Port and Private Ports fields will be ignored by the application.

Note - When two Private VLANs specify the same Uplink port (Uplink port is untagged for the first Private VLAN and tagged for the second Private VLAN), modifying the Private VLAN that has the untagged Uplink port will result in the error message: " already has an uplink, more than one Uplink is not permitted." All ports in that Private VLAN will then be deleted.

6.9.2 Add/Modify VLAN Dialogs

The Add/Modify VLAN Dialogs have the following Input Fields:

Input Field	Valid Values	Length
Name (cannot be modified)	• Alphanumeric characters • Underscore ("_") • Dash ("-") ***Note*** - VLAN names must contain at least one (1) alphabet character. ***Note*** - "ALL" is a reserved word and cannot be used as a VLAN name.	1 - 15 characters
Identifier (cannot be modified)	1 - 4094	-
Operation Mode (cannot be modified)	If the firmware version is 2.6.4 (AT-8800 / Rapier): • Normal • Private If the firmware version is 2.6.3 or lower: • Normal • Protected If the firmware version is 2.6.4-03 to 2.6.4-05 (AT-8700XL): If the firmware version is 2.6.4-04 to 2.6.4-05 (AT-8800): If the firmware version is 2.6.1-10 to 2.6.1-12 and 2.6.4-04 to 2.6.4-05 (Rapier): • Normal • Protected • Private	-

6.10 AT-8900/AT-9900 Series

Topics:

6.10.1 VLAN Information Window

The **VLAN Information Window** displays the following attributes for each VLAN definition:

Column Name	Description
Name	This is the name of the VLAN.
Identifier	This is the unique identifier of the VLAN.
Operation Mode	This indicates the operation mode of the VLAN.
Type	This indicates the type of the VLAN. • Port-based • Multiple Type
Tagged Ports	This is a list of the tagged member ports of the VLAN.
Untagged Ports	This is a list of the untagged member ports of the VLAN.
Uplink Port	This is a list of the uplink ports of the VLAN.
Private Ports	This is a list of the private ports of the VLAN.
Core Ports	This is a list of the core ports of the VLAN.
Customer Ports	This is a list of the customer ports of the VLAN.
Status	This indicates the status of the VLAN. • dynamic • static

Note - When adding/modifying a Nested VLAN, specifying a port that is already a member of an existing Normal VLAN will not generate any error. However, the specified port will be ignored. In addition, during modification, existing member ports having the same status (tagged/untagged) as the specified port will be deleted.

Note - When importing the default VLAN, VLAN Manager disregards the values specified for Untagged Ports.

Note - For the Import VLAN operation:

- If the specified Operation Mode is Normal - the Uplink Ports, Private Ports, Core Ports and Customer Ports fields will be ignored.

- If the specified Operation Mode is Private - the Core Ports and Customer Ports fields will be ignored.
- If the specified Operation Mode is Nested - the Tagged Ports, Untagged Ports, Uplink Ports and Private Ports fields will be ignored.

Note - User-created VLANs are classified as Multiple Type VLANs. There are three possible VLAN associations for a Multiple Type VLAN: IP Subnet, Protocol and Port. Currently, VLAN Manager only supports Port association. As a result, when attempting to modify a VLAN with an association other than Port, VLAN Manager automatically changes the association of that VLAN to Port.

Note - AT-9900 : When adding/modifying a Nested VLAN, specifying 2 or more core ports where one of the specified ports is already a member of an existing Nested VLAN will result in the error message: "Must return port <n> to the default VLAN as untagged port based."

6.10.2 Add/Modify VLAN Dialogs

The Add/Modify VLAN Dialogs have the following Input Fields:

Input Field	Valid Values	Length
Name (cannot be modified)	• Alphanumeric characters • Underscore ("_") • Dash ("-") ***Note*** - VLAN names must contain at least one (1) alphabet character. ***Note*** - "ALL" is a reserved word and cannot be used as a VLAN name.	1 - 15 characters (AT-8900) 1 - 32 characters (AT-9900)
Identifier (cannot be modified)	1 - 4094	-
Operation Mode (cannot be modified)	• Normal • Private • Nested	-

6.11 AT-9400 Series

Topics:

6.11.1 VLAN Information Window

The **VLAN Information Window** displays the following attributes for each VLAN definition:

Column Name	Description
Name	This is the name of the VLAN.
Identifier	This is the unique identifier of the VLAN.
Tagged Ports	This is a list of the tagged member ports of the VLAN.
Untagged Ports	This is a list of the untagged member ports of the VLAN.
Status	This indicates the status of the VLAN. • idle • operational • under-construction • not-operational

Note - If the selected Uplink Port is not connected to the Uplink VLAN, and the VLAN Mode is set to Multiple VLAN or 802.1Q Multiple VLAN, the connection with the device will be lost. Furthermore, no warning message will be displayed before the connection is lost.

Note - The current firmware version does not allow AT-View Plus VLAN Manager to distinguish between Protected VLANs and standard Port-based VLANs. As a result, AT-View Plus VLAN Manager will display and treat Protected VLANs as if they were standard Port-based VLANs. Furthermore, modifying a Protected VLAN will convert that VLAN into a standard Port-based VLAN.

Note - The current firmware version does not allow the Default VLAN to be modified. As a result, all AT-View Plus VLAN Manager operations involving the Default VLAN will fail.

Note - The VLAN Mode parameter can only be set to a different mode if it is currently set to 'User Configured VLAN'. However, changing the mode from 'User Configured VLAN' to 'Multiple VLAN' will set VLAN Mode to '802.1Q Multiple VLAN'. On the other hand, changing the mode from 'User Configured VLAN' to '802.1Q Multiple VLAN' will set VLAN Mode to 'Multiple VLAN'.

Note - For 20-character VLAN Names entered via telnet, only the first 19 characters are registered in VLAN Manager.

6.11.2 Add/Modify VLAN Dialogs

The Add/Modify VLAN Dialogs have the following Input Fields:

Input Field	Valid Values	Length
Name	• Alphanumeric characters • Underscore ("_") • Dash ("-") ***Note*** - VLAN names must contain at least one (1) alphabet character.	1 - 20 characters
Identifier (cannot be modified)	1 - 4094	-

Note - For the VLAN Name parameter, the current firmware version allows up to 19 characters to be entered via SNMP and up to 20 characters via telnet. Since AT-View Plus VLAN Manager is an SNMP-based application, the 19-character limit will apply to all operations involving VLAN Name.

6.12 AT-9410GB

Topics:

6.12.1 VLAN Information Window

The **VLAN Information Window** displays the following attributes for each VLAN definition:

Column Name	Description
Name	This is the name of the VLAN.
Identifier	This is the unique identifier of the VLAN.
Tagged Ports	This is a list of the tagged member ports of the VLAN.
Untagged Ports	This is a list of the untagged member ports of the VLAN.
Status	This indicates the status of the VLAN. • idle • operational • under-construction • not-operational

Note - Ports in the Default VLAN cannot be changed from untagged to tagged.

Note - VLAN definitions that only contain tagged ports cannot be deleted.

Note - When adding/importing VLAN definitions with a blank VLAN name attribute cannot be created/imported. The Import operation for those definitions will fail.

Note - VLAN definitions that only contain tagged ports cannot be deleted during an Import VLAN operation.

6.12.2 Add/Modify VLAN Dialogs

The Add/Modify VLAN Dialogs display the following Input Fields:

Input Field	Valid Values	Length
Name	• Alphanumeric characters • Underscore ("_") • Dash ("-")	0 - 20 characters
Identifier	1 - 4094	-

6.13 AT-9700 Series

Topics:

6.13.1 VLAN Information Window

The **VLAN Information Window** displays the following attributes for each VLAN definition:

Column Name	Description
Name	This is the name of the VLAN.
Identifier	This is the unique identifier of the VLAN.
Type	This indicates the type of the VLAN. • 1q_vlan • protocol
Advertisement	This specifies that the VLAN is able to join GVRP. • Enabled • Disabled
Tagged Ports	This is a list of the tagged member ports of the VLAN.
Untagged Ports	This is a list of the untagged member ports of the VLAN.
Forbidden Ports	This is a list of the forbidden member ports of the VLAN.

Note - The current firmware version allows a maximum of 32 characters for the VLAN Name parameter. When adding ports 1 and/or 2 as tagged/untagged ports of a VLAN whose name is of length 32, an additional character is appended to the name thereby causing the name to exceed 32 characters. When this happens, problems may be encountered while attempting to modify or delete this VLAN.

Note - The current firmware version allows you to pre-configure switches that may be added to the stack in the future. Pre-configured switches are identified by a “Non-Existing” label that appears above the device panel in the Add VLAN and Modify VLAN dialog boxes. Ports on pre-configured switches can be included in a VLAN but only those marked as “untagged” or “forbidden” will appear on the VLAN Information Window. Ports marked as “tagged” will not appear. They will appear only when a physical switch, whose box id matches the box id of the pre-configured switch to which the tagged ports belong, is added to the stack.

6.13.2 Add/Modify VLAN Dialogs

The Add/Modify VLAN Dialogs have the following Input Fields:

Input Field	Valid Values	Length
Name (cannot be modified)	• Alphanumeric characters except the double quote (")	1 - 32 characters
Identifier (cannot be modified)	• 2 - 4094	-
Advertisement (cannot be modified if VLAN Type is Protocol)	• Enabled • Disabled	-

6.14 AT-9800/SwitchBlade Series

Topics:

6.14.1 VLAN Information Window

The **VLAN Information Window** displays the following attributes for each VLAN definition:

Column Name	Description
Name	This is the name of the VLAN.
Identifier	This is the unique identifier of the VLAN.
Tagged Ports	This is a list of the tagged member ports of the VLAN.
Untagged Ports	This is a list of the untagged member ports of the VLAN.
Type	This indicates the type of the VLAN. • Port-based • IP subnet-based • Protocol-based • MAC address-based • Limited protocol-based
Status	This indicates the status of the VLAN. • dynamic • static

Note - After Import VLAN operation, Default VLAN with invalid Untagged Ports will have successful status.

6.14.2 Add/Modify VLAN Dialogs

The Add/Modify VLAN Dialogs have the following Input Fields:

Input Field	Valid Values	Length
Name (cannot be modified)	• Alphanumeric characters • Underscore ("_") • Dash ("-") ***Note*** - VLAN names must contain at least one (1) alphabet character. ***Note*** - "ALL" is a reserved word and cannot be used as a VLAN name.	1 - 15 characters
Identifier (cannot be modified)	• 1 - 4090 (AT-9800 Series) • 1 - 4078 (SwitchBlade Series)	-

6.15 AT-RG600 Series

Topics:

6.15.1 VLAN Information Window

The **VLAN Information Window** displays the following attributes for each VLAN definition:

Column Name	Description
Name	This is the name of the VLAN.
Identifier	This is the unique identifier of the VLAN.
Tagged Ports	This is a list of the tagged member ports of the VLAN.
Untagged Ports	This is a list of the untagged member ports of the VLAN.
Priority	This indicates the 802.1p Priority.
Status	This indicates the status of the VLAN. • static

Note - VLANs whose names start with a number cannot be deleted.

6.15.2 Add/Modify VLAN Dialogs

The Add/Modify VLAN Dialogs have the following Input Fields:

Input Field	Valid Values	Length
Name (cannot be modified)	• Alphanumeric characters • Underscore ("_") • Dash ("-") ***Note*** - VLAN names cannot start with a digit and cannot contain period '.' or slash symbols '/'.	1 - 15 characters
Identifier (cannot be modified)	• 1 - 512 (AT-RG656BD) • 1 - 4094 (AT-RG613TX / AT-RG613SH)	-
Priority (cannot be modified)	• 0 - 7 ***Note*** - This field is implemented as a drop-down list.	-

Note - AT-RG634A : As a general rule, a port can be a member of several VLANs but can only be an untagged member of one VLAN. The current firmware version for the AT-RG600 ADSL series, however, operates differently and does not follow this rule. If a port is initially an untagged member of a VLAN, then it can no longer be a member of other VLANs. On the other hand, if a port is initially a tagged member of a VLAN, then it can only be added to other VLANs as a tagged member also.
