

# **D-View 6.0** Network management system User Guide



#### D-Link Corporation D-View 6.0 SP2 User Manual Published: August 2011

#### **PROPRIETARY NOTICE**

This document supports D-Link Network Management System software. This manual is current for D-Link D-View 6.0 with Service Pack 2 installed. Some features and interfaces shown in this manual may require you to update your D-View installation. For more information and updates, please go to the D-View website dview.dlink.com.

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## **About this Guide**

#### Scope

Use this document to learn, use, and configure the different features of D-View.

#### Audience

This document is written for network managers, system administrators, and IT personnel who needs to work with D-View.

#### **Reader Alert Conventions**

Reader alerts are used throughout this document to notify you of essential information. The following table explains the meaning of each alert.

Reader Alert	Meaning
	Alerts you about
Tin	supplementary information
	that is not essential to the
	completion of the task at hand.
122222	Alerts you about
Note 🥖	supplementary information.

# **Style Conventions**

Element	Meaning
Bold font	Use for describing user
	interface elements and
	characters that you type into
	the interface.
	For example, <b>Hierarchy</b>
	Topology Workplace and type
	http://192.168.1.1
<i>Italic</i> font	Variables for which you supply a
	specific value.
	For example: <i>Filename.ext</i> can
	refer to any valid file name.
Courier New font	Samples of code and file paths
	and names.
<u>Underline</u> font	Hyperlink to sections within the
	manual.

The following style conventions are used in this guide.



# **Introducing D-View**

# **1.1 Overview**

D-View 6.0 is powerful network management software designed for SMB (Small and Medium Business) and Enterprise network administrators to efficiently manage their IT infrastructure.

D-View accommodates a wide range of devices including but not limited to the following devices:

- Wireless bridges
- Access points
- SNMP-capable Smart/Managed switches
- SNMP-capable routers
- OLT/ONU devices
- Broadband CO devices
- Servers

10000000

This guide does not discuss network design, management concepts or provide detailed explanations of SNMP, MIB, RMON and associated concepts. We assume the reader is familiar with these networking concepts; hence variables defined in D-View menus are self-explanatory.

#### 1.1.1 What's Included

D-View 6.0 comes with:

- CD with D-View 6.0 and User Manual
- User Manual

## **1.2 Product Line**

There are two editions of D-View:

- D-View 6.0 Standard Edition: D-View Standard Edition targets novice-intermediate users that have a small/mid-scale network of less than 1000 devices with basic requirements.
- D-View 6.0 Professional Edition: D-View Professional Edition targets advanced users that have a small/mid-scale network of more than 1000 devices with higher requirements.

The differences between the two editions are described in the following table:

Standard Edition	Professional Edition
Standalone architecture	Client-Server architecture
Single user login	Multiple user login
Supports ~ 1000 nodes	Supports ~ 5000 nodes
Supports Microsoft Access	Supports Microsoft SQL

#### **1.2.1 Hardware and Software Requirements**

	Standard Edition	Professional Edition
CPU	2GHz or	above
Memory	1GB or	above
Disk Space	1GB or	above
Supported Operating System	<ul> <li>Microsoft Windows 2008 R2 with SP1</li> <li>Microsoft Windows 2003 with SP2</li> <li>Microsoft Windows 2000 Server with SP4</li> <li>Microsoft Windows 2000 Advanced Server with SP4</li> <li>Microsoft Windows 7 Enterprise (32 bits)</li> <li>Microsoft Windows Vista (32 bits)</li> </ul>	<ul> <li>Microsoft Windows 2008 R2 with SP1</li> <li>Microsoft Windows 2003 with SP2</li> <li>Microsoft Windows 2000 Server with SP4</li> <li>Microsoft Windows 2000 Advanced Server with SP4</li> </ul>

	<ul> <li>Microsoft Windows XP (32bits) Home/Professional with SP2</li> </ul>	
Supported Databases	• None	<ul> <li>Microsoft SQL Server 2000 with SP2</li> <li>Microsoft SQL Server 2005</li> </ul>
Prerequisit e Software	<ul> <li>D-Link D-View 6 with SP1 (6.0</li> <li>Microsoft .NET Framework 3.5</li> <li>Microsoft Report Viewer 2008</li> <li>Microsoft Internet Explorer 6</li> <li>Windows SNMP Service</li> </ul>	0.01B03) F Redistributable Package with SP1



*D-Link recommends using a display with 1024 x 768 resolution or higher.* 

#### **1.2.2. Client-Server Architecture**

#### (Professional Edition)

By using the remote access feature of SQL Server, **D-View 6.0 Professional Edition** implements Client-Server architecture allowing workstations to share database information. Given below is an illustration of the SQL Server Remote Access chart.



Figure 1: SQL Server Remote Access

To configure and connect to the SQL Server database, refer to <u>2.1</u> <u>Installation Steps</u> and <u>2.1.1 Creating a Database</u> (for Professional Edition).



# **Upgrading D-View**

## 2.1 Installation Steps

To install D-View 6.0 for both Standard and Professional Edition, follow these procedures:

#### For Professional Edition:

Prior to installation, ensure the environment on your designated server is compliant with the software requirements given below:

- Ensure the authentication mode on MS SQL 2000 is Mixed Mode (SQL Server and Windows) when installing SQL Server. Use Enterprise Manager for configuration settings.
- Click Microsoft SQL Server > SQL Server Group > Local Windows NT.
- Right-click on Local Windows NT, and select Security.
- Configure Authentication as SQL Server and Windows.
- Insert the CD and wait for the autorun wizard to run. Click Install D-View
   6.0 SP2. If the installer does not start automatically, start the installer by doubleclicking the DV-600SV02.exe or DV-600PV02.exe under the Software folder in the CD drive.

The InstallShield Wizard screen will appear.



Figure 2: InstallShield Wizard screen

D-View Setup initiates the **InstallShield Wizard**, which after loading, will take you through the installation process.

2. The License Agreement screen will appear.

Click **Yes** to proceed.

tallShield Wizard	>
License Agreement Please read the following license agreement carefully.	
D-View 6.0 will be installed in your computer. Please read the software license agreeme carefully.	ent
D-Link D-View 6.0	-
Software License Agreement	_
IMPORTANT READ CAREFULLY: This Software End-User License Agreement ("EULA") is a legal agreement between you (either an individual or a single entity) and D-Link for the SOFTWARE(s) identified above, which includes the User's Guide, any associated SOFTWARE components, any media,	<u>.</u>
Press "No" to exit the installation. Press "Yes" to continue.	
allshield - Kack Yes	No

Figure 3: License Agreement screen

3. The **Choose Destination Location** screen will appear.

By default D-View is installed in C:\Program Files\D-Link\D-View. Alternately, you can choose to install D-View in your preferred designated folder. Click **Browse** to select the target location and then click **Next** to continue.

InstallShield Wizard	×
Choose Destination Location Select folder where Setup will install files.	
Setup will install D-View in the following folder.	
To install to this folder, click Next. To install to another folder.	a different folder, click Browse and select
Destination Folder C:\Program Files\D-Link\D-View	Browse
In stall Chiefe	
Instalioniela	< Back Next > Cancel

Figure 4: Choose Destination Location screen

4. The **Select Program Folder** screen displays.

The Setup will add program icons into the Program Folder. Click **Next** to continue.

stallShield Wizard	
Select Program Folder Please select a program folder.	
Setup will add program icons to the name, or select one from the existi	e Program Folder listed below. You may type a new folder ng folders list. Click Next to continue.
Program Folders:	
D-View	
Evisting Folders	
Accessories	
Administrative Tools HyperSnap-DX 4 Microsoft SQL Server Microsoft SQL Server - Switch SiS VGA Utilities Startup	
tallShield	
	< Back Next > Cancel

Figure 5: Select Program Folder screen

5. The **Start Copying Files** screen will appear.

Verify the settings before clicking **Next**. To make changes, click **Back**.

Start Copying Files		
Review settings before copying fi	iles.	
Setup has enough information to change any settings, click Back. copying files.	start copying the program files. If you wa If you are satisfied with the settings, click	nt to review or K Next to begin
Current Settings:		
[User Into]: User Name: Company Name: License Code: [Application Info]: OS Directory :C:\WINNT Setup Directory :C:\Progra	ſ\ am Files\D-Link\D-View	×
		<b>&gt;</b>
IIIShield		

Figure 6: Start Copying Files screen

#### The **Setup Status** screen will appear.

6. This screen indicates that D-View installation is in progress.

InstallShield Wizard		×
Setup Status		
D-View Setup is performing the	requested operations.	
Installing:		
	32%	
InstallShield		
		Cancel

Figure 7: Setup Status screen

InstallShield Wizard	×
Setup Status	
D-View Setup is performing the requested operations.	
1000/	
100%	
InstallShield	
	Cancel



 Once the D-View installation is successfully completed, the Welcome to the Microsoft XML Parser and SDK Setup Wizard window will appear. Click **Next** to continue installing Microsoft XML Parser and SDK on your server.

🖶 Microsoft XML Parser and SDI	(Setup	×
Ð	Welcome to the Microsoft XML Parser and SDK Setup Wizard	
	The Setup Wizard will install Microsoft XML Parser and SDK on your computer. Click Next to continue or Cancel to exit the Setup Wizard.	
	Cancel	

Figure 9: Welcome to the Microsoft XML Parser and SDK Setup Wizard

#### 8. The End-User License Agreement screen will appear.

Select **I accept the terms in the License Agreement** and click **Next** to continue.

🔂 Microsoft XML Parser and SDK License Agreement	×
End-User License Agreement Please read the following license agreement carefully	G
END-USER LICENSE AGREEMENT FOR MICROSOFT SOFTWARE	1
MICROSOFT XML CORE SERVICES (MSXML) 4.0	
IMPORTANT-READ CAREFULLY: This Microsoft End-User License Agreement ("EULA") is a legal agreement between you (either an individual or a single entity) and Microsoft Corporation for the Microsoft software identified above, which may include computer software, associated media, printed materials, and "online" or electronic documentation ("SOFTWARE"). By downloading, installing counting or otherwise using the SOFTWARE".	•
• I accept the terms in the License Agreement	
C I do not accept the terms in the License Agreement	
< <u>B</u> ack Next > Car	ncel

Figure 10: End-User License Agreement screen

9. The **Customer Information** screen will appear.

Enter the **User Name** and the name of your **Organization**. Click **Next** to continue.

Microsoft XML Parser and SDK Se Customer Information Please enter your customer informati	tup on			®
User Name:				
Organization:				
Jdlink				
	< <u>B</u> ack	Next >	Cancel	

Figure 11: Customer Information screen

#### 10. The **Choose Setup Type** screen will appear.

Use the **Customize** option to select the program location. Click **Install Now** to continue with the installation (recommended).

Hicrosoft XML Parse	r and SDK Setup
Choose Setup Type Choose the setup type	e that best suits your needs
	<b>Install Now</b> Install MSXML 4.0 at C:\Program Files\MSXML 4.0
i,	<b>Customize</b> Allows users to choose which program features will be installed and where they will be installed. Recommended for advanced users.
	< Back Next > Cancel
	Figure 12: Choose Setup Type screen

11. The **Completing the Microsoft XML Parser and SDK Setup Wizard** screen will appear. Click **Finish**.



Figure 13: Completing the Microsoft XML Parser and SDK Setup Wizard screen

12. The Device Modules Setup screen will appear.

To install to this folder click **Next**. To install to a different folder, click **Browse** and select another folder.

Device Modules Setup	×
Choose Destination Location Select folder where Setup will install files.	
Setup will install Device Modules in the following folder.	
To install to this folder, click Next. To install to a different folder, click Browse and another folder.	select
Destination Folder C:\Program Files\D-Link\DevModule	3rowse

Figure 14: Device Modules Setup screen

The Setup Status screen will appear.

Figure 15: Setup Status screen

13. The Setup is installing the required device modules. Once completed, the **Installation Completed** screen will appear.

Click **Finish** to exit and complete the installation.



Figure 16: Installation Completed screen

14. The screen indicates that D-View 6.0 and Microsoft XML Parser and SDK software have been installed.

Click **Complete** to close this window.



Figure 17: Setup Complete screen

15. To start D-View, double click the 🔛 on the desktop.

The **Login D-View** screen will appear. Refer to 5.1 Getting Started to continue working with D-View and 2.3 D-View 6.0 Licensing to receive the activation code.

#### 2.1.1 Creating a Database

#### (for Professional Edition)

Once D-View and Microsoft XML Parser and SDK software installation is complete, create a database for D-View.



#### To create a database, follow the steps below:

 Double-click MakeDB.exe under Software directory. The D-View Database Tool window will appear.

BMS Config SQL Server 2000 Database  SQL Server 2005 Database	ew Databas	e Tool		
<ul> <li>SQL Server 2000 Database</li> <li>SQL Server 2005 Database</li> </ul>	)BMS Config			
C SOL Server 2005 Detabase	<ul> <li>SQL Ser</li> </ul>	er 2000 Databa	se	
OBE OCIVER 2000 Database	C SQL Ser	er 2005 Databa	ise	
		1000	anon 1	(Diese)
		1.197	COLORINA AND	1000

Figure 18: D-View Database Tool screen

2. D-View Database Tool is in the process of creating a database. Click **OK** to close the window.



Figure 19: MakeDB screen

- 3. To edit information in the hosts file, go to:
  - C:\WINNT\system32\drivers\etc\hosts



Figure 20: Etc Folder screen

4. Right-click **hosts** and select **Open With**. In the Open With window, select **Notepad**.



D-Link recommends using Notepad to edit the hosts file.

THE FOR FOR			
New	Ctrl+N P3	–1999 Microsoft Corp.	
Open	Ctrl+O	OSTS file used by Micro	soft TCP/IP for Windows.
Save	Ctrl+S		19
Save <u>A</u> s	hs	the mappings of IP add	resses to host names. Each
Page Setup	Ke	irst column followed by	the corresponding bost name
Print		the host name should b	be separated by at least one
Euros	Curre		
E <u>x</u> it			
E <u>x</u> it # lines on	following	ents (such as these) ma	y be inserted on individual
E <u>x</u> it # lines or #	following	ents (such as these) ma the machine name denot	y be inserted on individual ed by a '#' symbol.
E <u>x</u> it # lines or # # For exam	following	ents (such as these) ma the machine name denot	y be inserted on individual ed by a '#' symbol.
E <u>x</u> it # lines or # # For exam # 107	following	ents (such as these) ma the machine name denot	y be inserted on individual ed by a '#' symbol.
E <u>x</u> it # lines or # # For exam # 102 # 39	following ple: 2.54.94.97	ents (such as these) ma the machine name denot rhino.acme.com	y be inserted on individual ed by a '#' symbol. # source server # x client bast
E <u>x</u> it # lines or # For exam # 102 # 38	following ple: .54.94.97 8.25.63.10	ents (such as these) ma the machine name denot rhino.acme.com x.acme.com	y be inserted on individual ed by a '#' symbol. # source server # x client host
E⊻t # lines or # # For exam # 102 # 38 127.0.0.1	following pple: .54.94.97 3.25.63.10 loca	ents (such as these) ma the machine name denot rhino.acme.com x.acme.com lhost	y be inserted on individual ed by a '#' symbol. # source server # x client host
E⊻t # lines or # # For exam # 102 # 38 127.0.0.1 10.90.90.1	following pple: .54.94.97 3.25.63.10 loca 01 dvie	ents (such as these) ma the machine name denot rhino.acme.com x.acme.com lhost w-test	uy be inserted on individual ed by a '#' symbol. # source server # x client host

Figure 21: Hosts File screen

- 5. Update the host file with the following information, for example:
  - 127.0.0.1: localhost
  - dview-test : 10.90.90.101
  - 10.90.90.101: SQL-server (Follow this format to connect to the server, i.e. "IP Address: SQL-server").



To implement the client-server architecture, ensure that D-View 6.0 Professional Edition is installed in required servers to connect with the SQL database.

6. Click **Save** to save the file.



D-View utilizes SQL-Server alias name to query the SQL database, so therefore make sure the name entered is the same as the alias name. Ensure the IP address of your server is added in the hosts file. Check with the system administrator for the correct IP address of your server.

The **Login D-View** screen will be displayed. Refer to <u>5.1 Getting Started</u> to continue working with D-View.

# 2.2 Upgrade Steps

#### 2.2.1 Upgrade from Earlier Version of D-View 6

- 1. Make sure D-Link D-View 6 SP1 (6.0.01B03) has been installed in your system.
- 2. Make sure Microsoft .NET Framework 3.5 has been installed in your system.
- Make sure Microsoft Report Viewer 2008 Redistributable Package has been installed in your system. (Note: D-View 6 SP2 does not support Microsoft Report Viewer 2010)
- 4. Make sure Windows SNMP service has been installed in your system.
- 5. Install D-View SP2 installation package.

#### 2.2.2 Upgrade from D-View 5.1 or Earlier

#### Version

To upgrade from D-View 5.1 or earlier versions to D-View 6, uninstall all the programs related to the old version and then re-install the new version.

## 2.3 D-View 6.0 Licensing

#### 2.3.1 Trial Version

When you install D-View, the trial version is automatically installed and allows you to evaluate the product for a period of 30 days. During this 30-day period, D-Link recommends that you request a permanent license for D-View. For every single license key obtained, you can run D-View on up to five different computers. Skip the **Activation** step as seen in Figure 24 and continue working with D-View.



During the trial period, every time D-View is started, a message is displayed indicating the time remaining before the trial version will expire.

#### 2.3.2 Obtaining the Activation Code

If you opt to buy D-View, you must register online to get your activation code. There are three ways to get to the online site to register:

#### **OPTION A**

The most direct way to register is to go to http://dview.dlink.com.tw and enter user related information such as license key and MAC address of the server where D-View is to be installed. You can find the license key on the back cover of the user manual.

#### **OPTION B**

1. Start **D-View**.

The **D-View 6.0 Activation Wizard** screen will appear.

2. Click **Next** to continue.



#### Figure 22: D-View Activation Wizard screen

- The **Input Activation Key** screen will appear.
- 3. Click **Register** to open the registration website and update the information on-line.

D-View 6.0 Activ	ation Wizard
D-View" Version 6.0	Input Activation Key
	Please enter the Activation Key and click "Activate".
	After successfully activating D-View, you can experience all its features. If you do not have an Activation Key, click "Register" to register your product online.
	Activation Key:
	(Format: XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
D-Link	Activate Register Skip

Figure 23: Input Activation Key screen

#### **OPTION C**

Start **D-View**, go to **Help**>**D-View Activation Wizard**. Follow the steps accordingly to register for D-View.



# Understanding the Architecture

# 3.1 Modular Architecture

D-View 6.0 is a vendor-independent platform with user plug-in modules. This new adaptive architecture comprises multiple components such as DBMS access, basic modules, and plug-in modules.



Figure 24: D-View System Architecture

D-View follows three-tier architecture that is client-server architecture in which an application is executed by more than one distinct software agent. For example, an application that uses middleware to service data requests between a user and a database employs three-tier architecture.



*D-View modules are also compatible with HP's OpenView Network Node Manager (NNM v6.40, NNM v6.41, NNM v7.50, and NNM v7.51).* 

## 3.2 Features

With the addition of new features to D-View, administrators can now:

- Automatically create topology maps of device relationships.
- Graphically represent the real-time status of devices.
- Centrally manage multiple D-Link devices. Administrators can view and manage multiple devices within the LAN.
- Customize third party devices to integrate with D-View.
- Define trap events using the **Trap Editor**.
- Generate reports on the network topology using the **Report** tool.
- Manage multiple identical devices at the same time using Batch
   Configuration (Firmware updates, Save config, RMON Enable and more).
- Manage third-party devices using the **MIB Compiler** and **MIB Browser**.
- Schedule when batch actions will be done for Save, Reboot, Firmware Update and Config functions.
- Supports SNMPv3 for major MIBs.
- Monitor the status of network devices by polling network devices periodically.
- View and check the status of the **Safeguard Engine** from the topology map.
- Handle events based on severity and notify the users with e-mail or sound alerts.
- Generate a user-defined report using the **Reporting Tool**.
- Generate a list of devices using **Inventory Management.**

# **3.3 Functions**

The following section briefly describes the various functions of D-View:

- New Device Identifier: D-View constantly monitors the network for new devices. Once a device is plugged in, administrators can add the device into the topology.
- Database Access Component: Provides an interface to access Microsoft Access and SQL Server 2000/2005 out of the box. If required, functional components can be changed to access other DBMS such as Oracle or Sybase.
- Domain Management: D-View allows administrators to categorize network devices into single or multiple domains.
- Multiple Views: D-View supports tree and list views for viewing devices in the domain.
- Polling: D-View polls network devices and displays any abnormal behavior on the Message Board. Devices are polled using ICMP (Internet Control Message Protocol) or SNMP (Simple Network Management Protocol).
- Performance Management: D-View provides flexible mechanisms to retrieve SNMP OID information. For example, using the Performance Monitor function, the administrator can monitor data ratio per port.
- Report Tool: Create collectors to gather information from the network and generate reports.
- **Syslog Management:** Maintain user action log information.
- System Config: Configure global parameters of the network, for example, Local and Radius Authentication.
- SNMP v3 Support: For major MIBs including MIB II, IF- MIB (RFC2233), Entity MIB (RFC2737), Bridge 802.1D(RFC1493), RMON, 802.1P (RFC2674) and 802.1Q (RFC2674).
- Resource Management: Manage, add, or remove network device resources from/to a topology.
- Device Customization: Include customized network devices by manually entering device type information.
- Layer 3 Utilities: Layer 3 utilities include IP forwarding, RIP 2 (Routing Information Protocol), OSPF (Open Shortest Path First), IP MRoute, DVMRP (Distributed Vector Multicast Routing Protocol) and PIM (Protocol Independent Multicast) functions for managing switches and advanced routers in enterprise networks.
- **Topology Generator:** Create diagrams and schematics for network design and layout planning.
- Topology Import/Export: Import or export topology information to/from XML.



# Understanding the Interface

# 4.1 Introduction

D-View's user interface provides access to all views and tools from a single location.



Figure 25: D-View User Interface

The key interface elements are:

- Domain: A subnetwork comprised of netmaps. Dividing the network into domains improves performance and security.
- Netmap: A netmap is a graphical representation of your domain/network. You can also refer to it as a network topology map.
- Menu Toolbar: Access different functional modules from the Menu toolbar.
- Hierarchical Topology Workplace: Displays a tree-like structure of the topology.
- Main Toolbar: Use the Main toolbar for quick access of the functional modules.
- **Topology View Window:** Displays the net cells that include devices, links and netmaps.
- Message Board: View event messages of various devices in the domain.
- Advanced Toolbar: Use the Advanced toolbar for quick access of the functional modules.

- Net Toolbar: Use the Net toolbar for quick access of the functional modules.
- **System Toolbar:** Use the System toolbar for quick access of the functional modules.
- **Application Toolbar:** Use the Application toolbar for quick access of the functional modules.
- **Topo Manager Toolbar:** Use the Topo Manager Toolbar for quick access of the functional modules.
- Status Area: Provides context-sensitive information about the current state of what you are viewing in the window.

Refer to <u>4.2 Main Menu</u> for the different functional modules.

Drag and drop the toolbar to rearrange elements around the user interface to suit your working model.

#### **4.1.1 Context-sensitive Menus**

Most items in D-View have context-sensitive menus. Select an item in the topology and then right-click the mouse to view additional details.

#### **Topology Workspace**

<u>R</u> efresh	Reload the hierarchy topology data
<u>A</u> dd Netmap	Add Netmap into the current topology
Topo Export/Import	Backup or Restore the topology data
<u>D</u> omain Manager	Call domain manager
Polling Config	Config the poll device list
$\underline{E}$ vent Viewer by Netmap	Retrieve the event data of devices
<u>T</u> opology Generator	Call Topology Generator to create topology

Figure 26: Context-sensitive menu accessed from the Topology Workspace

#### **Topology View Window**

CopyCtrl+CPasteCtrl+V	Copy the selected device Add the device into the topology from clipboard
<u>D</u> elete	To delete the selected net cell
P <u>r</u> operty	To modify the property of the selected net cell
<u>D</u> -View Module	Call the device module to manage the selected device
Management Module 🕨	Call up E2ES or wireless management module
Remote Management 🕨	Manage devices remotely using Telnet, SSH, HTTP or HTTPS
Run Ba <u>t</u> ch	Call batch tool to operate the selected devices
Add to Po <u>I</u> I List	Add the selected devices into poll device list
Delete from Poll List	Delete the selected devices from poll device list
Re <u>a</u> rrange Topology	Rearrange the topology after selecting one device
View Op <u>t</u> ions	Set the display option for topology
Set <u>B</u> ackground	Set the topology background
<u>U</u> pper Layer	Activate the upper topology
Zoom <u>I</u> n	Zoom in the netcell in the topology
Zoom <u>O</u> ut	Zoom out the netcell in the topology
Zoom <u>F</u> it	Display all the netcells according to window size
Device Manager	Operate the net cell: Device
Link Manager 🔹 🕨	Operate the net cell: Link
Netmap Manager	Operate the net cell: Netmap
Topology <u>R</u> ollback	Reload the topology data and cancel all modifications

Figure 27: Context-sensitive menu accessed from the Topology View Window

#### **Hierarchy Topology Workspace**

🖌 Menu Toolbar	Display or Hide the Main Menu window
Hierarchy Topology Workplace	Display or Hide the Topology Workplace
🖌 Message Board	Display or Hide the message board window

Figure 28: Context-sensitive menu accessed from the Hierarchy Topology Workspace
# 4.2 Main Menu

D-View's **Main Menu** is the entry point for accessing most of the features. It runs along the top of the screen. This section briefly describes the available menu options.

#### 4.2.1 File

Menu Item	Description
Save	Save the current topology.
Startup Wizard	The wizard guides you to create a
	topology. Refer to 5.1.5 Startup Wizard
	for more information.
Close	Close the current Topology View
	window.
Close All	Close all open Topology View
	windows.
Print	Print the current topology.
Preview	Preview the current topology.
Page Setup	Set printer options, properties and
	paper size.
Lockup	Locks D-View; only the current user or
	an administrator can unlock the
	system.
Logout admin	Logout of D-View and sign in as a
	different user.
Exit	Exit D-View.

The following table lists the **File** menu items and their descriptions.

#### 4.2.2 View

The **View** menu enables you to view or hide various D-View Toolbars. The following table describes the different toolbars.

Toolbar	Description
Advanced Toolbar	<ul> <li>Access Link</li> <li>Capacity Check</li> <li>Safeguard Check</li> <li>ARP info</li> </ul>
Net Toolbar	<ul> <li>Access Device Discovery</li> <li>Trace route</li> <li>File Transport</li> <li>NET Toolbox</li> <li>Performance monitor</li> </ul>
System Toolbar	<ul> <li>Access System</li> <li>Log System</li> <li>Config Administrator Management</li> <li>Change Password.</li> </ul>
Application Toolbar	<ul> <li>Topo Export Import</li> <li>Device Customization.</li> </ul>
Topo Manager Toolbar         Image:	<ul> <li>Access Select Netmap</li> <li>Add Netmap</li> <li>Edit Netmap</li> <li>Delete Netmap</li> <li>Select device</li> <li>Add device</li> <li>Edit device</li> <li>Delete device</li> <li>Select link</li> <li>Add link</li> <li>Edit link</li> <li>Delete link</li> </ul>
Main Toolbar	<ul><li>Access Save</li><li>Copy</li><li>Paste</li></ul>

	<ul> <li>Print</li> <li>Background</li> <li>Zoom out</li> <li>Zoom in</li> <li>Zoom fit</li> <li>Domain Manager</li> <li>Configure the devices want to be polled</li> <li>Query the event log by netmap</li> <li>Search the devices in the network and create a topology automatically</li> </ul>
	Startup wizard
Status Area	• Help View status or details at bottom of page.
Menu Bar	Access Main Menu.
Hierarchy Topology Workspace	Access Topology.
Message Board	Access Message Board.
Cascade	Cascades the different topologies one behind the others.
Tile Vertically	Arranges the different topologies one below the other.

# 4.2.3 Topology

The following table lists the **Topology** menu items and their descriptions.

Menu Item	Description
Device Label:	Shows the respective
Device IP and	information in topology
Name	diagram.
Device Type	
SafeGuard Info	

Link Label	Display link port and link speed
Link Port	in topology diagram.
Link Speed	
View Options	Choose to enable or disable
	display tips, display direction
	and display redundancy.
Сору	Copy the selected device.
Paste	Add the device into the
	topology from clipboard.
Device Manager	Select, add, edit, or delete a
Select Device	device.
Add Device	
Edit Device	
Delete Device	
Link Manager	Select, add, edit, or delete a
Select Link	link.
• Add Link	
• Edit Link	
Delete Link	
Netmap Manager	Select, add, edit, or delete a
Select Netmap	netmap.
Add Netmap	
Edit Netmap	
Delete Netmap	
Zoom In	Zoom into the netcell in the
	topology.
Zoom Out	Zoom out of the netcell in the
	topology.
Zoom Fit	Display all the netcell according
	to window size.
Topology Rollback	Reload the topology data and
	cancel all modifications.
Rearrange Topology	Rearrange the topology after
Rearrange Totally	selecting one device.
Rearrange by Step	
Set Background	Set a color or image for the
	background.
Upper Layer	Move to the topology above the
	current one.

## 4.2.4 Application

Menu Item	Description
Batch Config:	Execute a sequence of
<ul> <li>Advanced Option</li> </ul>	operations in D-View such as
• Run Batch	Save Configuration, Retrieve
	Port Status, and so on. Refer to
	7.9 Batch Configuration for
	more information.
Topo Export Import	Restore and backup D-View.
	Refer to 6.3 Using Topo
	Export/Import for more
	information.
<b>Device Customization</b>	Add, modify and delete
	devices. Refer to 7.3
	Customizing Devices for more
	information.

The following table lists the **Application** menu items and their descriptions.

#### 4.2.5 System

The following table lists the **System** menu items and their descriptions.

Menu Item	Description
System Log	Store logged events. Refer to
	8.1.6 System Log for more
	information.
Domain Manager	Manage domain information.
	Refer to 5.1.4 Domain Manager
	for more information.
Event Manager	Monitor and manage events.
• Event Viewer by	Refer to 7.10 Managing Events
Netmap	for more information.
• Event Viewer by IP	
Device Group	
Manager	
Polling Config	
Device Event	
Config	
• Trap Editor	
Resource Manager	Locate devices using IP or MAC

MAC Locator	address.
Device Locator	
User Locator	
Device Collector	
User Statistic	
Device Statistic	
System Config	Configure the root domain
	name, management station
	and authentication
	information. Refer to <u>5.1.1</u>
	Login to D-View for more
	information.
Administrative Manager	Create user groups and provide
	access rights for certain
	functional modules to an
	administrator. Refer to 8.1.7
	Administrator Manager_for
	more information.
Change Password	Change password after login.
	Refer to 8.1.7.2 Changing
	Password for more information.

#### 4.2.6 NetTools

The following table lists the  $\ensuremath{\textbf{NetTools}}$  menu items and their descriptions.

Menu Item	Description
Device Discovery	Search for devices by IP address.
	Refer to 8.1.9.1 Device Discovery
	for more information.
Advanced Device	Search for devices within IP
Discovery	segment by IP address and
	update topology automatically by
	selecting response from provided
	options. Refer to 8.1.9.2
	Advanced Device Discovery for
	more information.
Trace Route	Lists all the intermediate routers
	a connection must pass through
	to get to reach its destination.
	Refer to 8.1.9.3 Trace Route for
	more information.
TFTP	Upload/Download/Update
	configuration files to and from

	devices. Refer to 8.1.10 TFTP for
	more information.
NetToolbox	Manage devices through Telnet,
	Web, Ping and Device Configure
	using the IP address. Refer to
	8.1.12 Net Toolbox for more
	information.
Port Packet Monitor	Monitor the port packet
	performance. Refer to <u>8.1.13 Port</u>
	Packet Monitor for more
	information.
Performance Monitor	Monitor the RMON performance
	of a device. Refer to $8.1.14$
	Performance Monitor for more
	information.
MIB Tools	Manage and configure non D-Link
• MIB Compiler	devices. Refer to 7.4 How to
MIB Browser	Configure Devices not in
	Supported List for more
	information.
Topology Generator	Tool to generate a Topology. Refer
	to 6.5 Using Topology Generator
	for more information.

#### 4.2.7 Report

The following table lists the **Report** menu items and their descriptions.

Menu Item	Description
Configure	Configure a Collector. Refer to
	7.11.1 - Configuring a Collector
	for more information.
Schedule	Schedule a Collector. Refer to
	7.11.2 - Schedule for more
	information.
Start	Start a Collector. Refer to
	7.11.3 - Start for more
	information.
Template	Schedule a collector to gather
• Port Utilization	port, CPU or memory usage
CPU Utilization	information. Refer to 7.11.6 -

Memory Utilization	Template for more information.
Device Inventory	Displays list of devices. Refer to
	7.11.4 - Device Inventory for
	more information.
Report	View report on collected
	information.
	Refer to 7.11.5 - Report for
	more information

# 4.2.8 Advanced

Menu Item	Description
Link Capacity Check	Monitor and modify the link
	status. Refer to 7.10.9
	Monitoring the Link Status for
	more information.
Device type Check	Check the network for new and
	updated devices. Refer to 7.9.2
	Using Device Type Check for
	more information.
Safeguard Check	Check the safeguard status of
	devices. Refer to 7.9.3 Using
	Safeguard Check for more
	information.
All of ARP info	Retrieve ARP information from
	devices in the topology. Refer to
	8.1.11 Retrieving ARP
	information for more details.
Services Manager	Configure Trap Service or
	Syslog Service. Refer to
	7.10.10 - Managing Trap and
	Syslog Services.

The following table lists the **Advanced** menu items and their descriptions.

#### 4.2.9 Help

Menu Item	Description
D-View Help	Opens D-View online help.
<b>Devices Supported</b>	Displays a list of devices
	supported by D-Link.
<b>D-View Activation Wizard</b>	Helps you obtain the activation
	code.
D-View Site	Opens up D-View website in
	browser
About D-View	Displays the About D-View
	window.

The following table lists the **Help** menu items and their descriptions.



# **Using D-View**

# 5.1 Getting Started

Before proceeding with this section, D-Link recommends you familiarize yourself with the User Interface. Refer to 4.1 Introduction section.

#### 5.1.1 Login to D-View

After successfully installing D-View, type the default Account and Password for D-View. The default **Account** is Admin and the default **Password** is 111111.

Enter your acc	ount and password:	$\cap$
Account	admin	
Password	*****	
Password	*****	0

Figure 29: D-View Login screen

1000000

*Click Option to login to D-View by using different domain-specific administrator accounts to view different topology maps.* 

#### **5.1.2 Managed IP Feature**

The **Managed IP** feature enables the administrator to control which domain can be managed by which user. After the user has successfully logged in with the domain's managed IP, the user will only be able to see that domain. The **Managed IP** feature differs between **Standard Edition** and **Professional Edition**.

Standard Edition: Since D-View Standard is a standalone platform, the Managed IP feature is used to control which user can manage which domain locally. The domain can be divided by different departments or locations, with each department or location having a dedicated user who monitors the network status. Professional Edition: D-View Professional supports Client-Server architecture, thus allows for users to install D-View Professional to different locations. Each user can manage and monitor their responsible domain. The administrator at the company headquarters can user the Super Domain account to manage and monitor all domains.

The user can also configure each account's access rights to limit features available while using D-View. This can be done by accessing **System > Administrator Manager**.

To enable **Managed IP** click **Option** on the D-View login screen.

D Login D-View : Local Mode	X
Enter your account and password: Account Password	
Login <u>C</u> ancel <u>O</u> ption>	>

Figure 30: D-View Login screen option button

D Login D-∀iew Enter your acc	: Local Mode	
Account	admin	
Password	*****	
Managed IP	172 . 17 . 5 . 41	
	Login <u>C</u> ancel <u>O</u> ption	<<

Figure 31: D-View Login screen Managed IP feature

To configure Managed IP:

1. Click System > Domain Manager.



Figure 32: Domain Manager selection

- 2. Select a domain.
- 3. Click on the **Workstation** tab.

D Domain Manager	
Domain Name: Super Domain D-Link HQ D-Link Taiwan	Domain Information       Workstation         Manage Station       Workstation IP         Super Admin       172.17.5.40
	Station Info Station Name: Super Admin Station IP: 172 . 17 . 5 . 40
	<u>Delete</u>

Figure 33: Domain Manager

#### 4. Enter the Station Name and Station IP.

Repeat the above process for all domains.

When logging in using **Super Domain**, the administrator can manage and monitor all domains.

D D-View 6.0 - [Super Domain::	Ron[71]	
Eile ⊻iew Topology	Application System NetTools Advanced Plug-In UserMgr Help	, _ θ ×
💾 🖹 🖣 🕲 📼	呸 ≔ 診 ሺ @ ↑ ፇ @	
Hierarchy Topology W × Root D-Link RO P-Link P-LINK RO P-LINK P-LINK RO P-LINK P-LINK P-L		
Me1721755 Me1721755 D-Link Tavas Me1721755 D-Link Tavas Me1721745 Me1721745 Me1721745 Me1721745 Me1721745 Me1721745 Me1721745	Domah Domah D-Link Talwan D-Link HO	-
<		
× Time	Source Device IP Description	
Message Resady		

Figure 34: Super Domain

When logging in using the account for the company headquarters, the administrator can only manage and monitor the devices situated in the headquarters.



Figure 35: Headquarters account

When logging in using the account for branch office, the administrator can only manage and monitor the devices situated in the branch office.



Figure 36: Branch office account

## 5.1.3 System Configuration

D-View supports two modes of authentication – **Local** and **Radius Authentication**. To configure the root domain name, management station and authentication information, go to **System** > **System Config**. By default D-View uses **Local Authentication**.

asic Config Root Topo Name :	Root	Authentication Config	C Radius Auth	entication	
Management Stati	on IP Config	Radius IP	Port	Key	
Management IP :	172.17.5.101				Add
Local IP :	172.17.5.154	IP.		Key:	Delet

Figure 37: System Config screen

#### **Local Authentication**

The account and password information is stored in the D-View database.

#### **Radius Authentication**

- The information is stored in the Radius server database.
- If the account and password information entered is valid, the server accepts the authentication and allows the administrator to manage and monitor the network.

#### 5.1.4 Domain Manager

In a real environment administrators often need to manage multiple domains of the network. D-View can divide the entire network into many designated domains for administrators to manage different network. An administrator needs to create a domain before working on any topology. When creating a new domain, the administrator should allocate IP address of the workstation.

Use **Domain Manager** to create, delete and modify the domain information.



After logging in, D-View creates a Super Domain and the IP address of the workstation by default. A super domain is a virtual domain which manages the topologies of all the domains. Refer to <u>6.1 Creating a</u> <u>Topology</u> to manually create a topology using Domain Manager.

#### 5.1.5 Startup Wizard

The **Startup Wizard** helps you create a Topology. The Wizard will automatically create a new topology based on the information you provide. **To create a topology using the Startup Wizard:** 

1. Click **File> Startup Wizard**. The **Startup Wizard** screen displays.



Figure 38: Startup Wizard screen

2. Click Next. The Domain Manager screen displays.

D Domain Manager		×
Domain Name: Super Domain Test	Domain Information Workstation	
	Domain Name: Test	
	Please specify a domain name to create a domain for management. To modify or delete a domain, select it from the Domain Name list and then click "Modify" or "Delete".	
	Crea <u>t</u> e <u>M</u> odify <u>D</u> elete <u>N</u> ext	

Figure 39: Domain Manager screen

- 3. Enter the name of your new **Domain**.
- 4. Click **Next**. The **Add Netmap** screen displays.

D Add Netmap		
Netmap Info		
Name:	Topology	
Description:	Test	
	Next	

Figure 40: Add Netmap screen

- 5. Enter the **Netmap Name** and **Description**.
- 6. Click Next. The Select Network Adapter screen displays.

t Network Adapte Select a network	er adaptor and proceed.	ĺ
IP Address 0.0.0.0 10.254.0.134 192.168.11.10	MAC Address 00:16:41:B2:F6:A9 00:18:DE:1F:1E:59 00:18:F3:54:93:8A	
		0K

Figure 41: Select Network Adapter screen

- 7. Select a network adapter to build the topology.
- 8. Click **OK**. The **Topology Generator Wizard** screen displays.

The Topology Generator Wizard will help you generate a Topology Analysis Mode • Local Network	
Analysis Mode	
Contract	
C Designated Network	
Topology Name	
Enter the Name for the Topology:	
Topology_1	

Figure 42: Topology Generator Wizard screen

- Select either Local Network or Designated Network.
   Local Network accesses devices in the local network and Designated Network accesses devices by specifying the IP range.
- 10. Enter a name for Topology Generator analysis.
- 11. Click **Next**. The **Topology Analysis Configuration** screen displays.

Topology Generato	r Wizard	×
Topology Analysis	s Configuration	
		_
Top	ology Generator will start to analyze local	
🗾 netv	vork	
Local IP :	172.17.5.154	
Subnet Mask :	255.255.255.0	
SNMP Community	String Setting	
Read Only :	public	
Read/Write :	private	
	< Back Finish Cancel	1
4		-

Figure 43: Topology Analysis Configuration screen

- 12. The topology generator analyzes the local network for the IP address and subnet mask. The **SNMP Community String Setting** is by default defined in D-View.
- 13. Click **Finish** to generate the topology. The **Topo Export** screen displays.

Торо Ех	port
Торо Ехр	ort
Select a	Domain to export the generated topology
From :	C:\Program Files\D-Link\D-View\delconfig\Topology_1
	Domain: Netmap:
To :	Domain_1 test 🔹
	Export Cancel

Figure 44: Topo Export screen

14. Click **Export** to export the generated topology to the Netmap. D-View displays the status of the export.

After completing the startup wizard's initial process, you can manage and monitor devices as described in the following chapters.



# Working with Topologies

# 6.1 Creating a Topology

In D-View there are two ways to create a topology. They are:

- Using Startup Wizard: The wizard guides the users to create a topology.
   Refer to <u>5.1.5 Startup Wizard</u> to create a topology.
- Create a topology manually.

To manually create a topology:

 Go to System > Domain Manager and create a new Domain to manage the topology.

000000

Super Domain is by default a virtual domain from which the topologies of all other existing domains can be managed.

D Domain Manager		×
Domain Name: Super Domain Domain_1	Domain Information Workstation	
	Domain Name : Domain_1	
	Please specify a domain name to create a domain for management. To modify or delete a domain, select it from the Domain Name list and then click "Modify" or "Delete".	
Ot	oen Create Modify Delete Close	

Figure 45: Domain Manager screen

2. Create a netmap. To create a netmap, right-click on the domain in the **Hierarchy Topology Workplace**, and select **Add Netmap**.

ierarchy Topology	Workplace 👻 🗙
🛛 🧮 Root	
🖻 🌓 Domain_1	
🚊 🦨 Topolog	y_1
🖻 🦨 Net-	172.17.5.0
	Net_172.17.5.241
- S - I	Net_172.17.5.242
- <b>S</b>	Net_172.17.5.243
- <b>G</b>	Net_172.17.5.244
2 - A - I	Net_172.17.5.245
Net_	Unknow
Domain_2	
l opoid	<u>H</u> efresh
	Add Netmap
	Topo Export/Import
	Domain Manager
	Polling Config
	Event Viwer by Netmap
	Topology Generator

Figure 46: Hierarchy Topology Workplace screen

3. The Add Netmap screen displays.

D Add Netmap		×
Netmap Info		
Name:	Topology	
Description:	Test	
Save the Topolo	ogy.	
ОК	Cancel	

Figure 47: Add Netmap screen

- 4. Enter the **Name** and **Description** for the Netmap.
- 5. Click **OK**.



- 6. There are three ways to accomplish the next task. They are:
  - Go to NetTools > Device Discovery to search for and add devices into the Netmap manually. Then create links between the devices. Refer to <u>8.1.9.1 Device Discovery</u> for more information.

otarrin .	192 . 168 .	11 . 10	
End IP:	192 . 168 .	11 . 252	
Community:	public		
Туре:	SNMP Devices	•	<u></u> lose
Current IP:	192.168.11.62		
		1	
Search		Stop	
Device Name	Туре	IP Address	Description
ev-192.168.11.1	1 Cisco 2611	192.168.11.11	
ev-192.168.11.1	7 DES6500	192.168.11.17	
ev-192.168.11.1	5 DGS3427	192.168.11.15	
	6 DES3828P	192.168.11.16	
0ev-192.168.11.1		192.168.11.18	
Dev-192.168.11.10 Dev-192.168.11.10 Dev-192.168.11.10	DU003324	100 100 11 00	
Dev-192.168.11.1 Dev-192.168.11.1 Dev-192.168.11.2 Dev-192.168.11.2	2 DWL2700	192.168.11.22	

Figure 48: Device Discovery screen

From the **Topo Manager Toolbar**, Click **Add Devices** [

the **Copy/Paste** function. Refer to

- <u>8.1.2</u> Copy/Paste for more information.
- Continue to Export your topology. Refer to <u>6.3 Using Topo</u> Export/Import for more information.

# 6.2 Creating Administrator-specific Topologies

D-View manages the entire topology in domain mode; administrators can create different topology maps to be managed by different administrators. Only the administrators in the Super Domain can manage the entire network.

To create multiple topologies with Domain Manager:

- 1. Login to D-View with **Super Domain** administrator access.
- Go to System > Domain Manager and then create two domains. For example: Domain\_1, Domain\_2.

D Domain Manager		<
Domain Name: Super Domain Domain_1 Domain_2	Domain Information       Workstation         Domain Name :       Domain_1         Please specify a domain name to create a domain for management.         To modify or delete a domain, select it from the Domain Name list and then click "Modify" or "Delete".	
	pen Crea <u>te M</u> odify <u>D</u> elete <u>C</u> lose	

Figure 49: Domain Manager screen

 Select a domain, update the Workstation information and then click Create to define the management workstation in D-View. For example: Domain\_1, Station\_1 and IP address.

Domain Name: Super Domain Domain_1 Domain_2	Domain Information Workstation	
	Station_1 172.231.255.11	
	Station Info Station Name: Station IP:	
<u></u>	 Open Create Modify Delete Clos	e

Figure 50: Domain Manager: Workstation screen

- 4. Repeat the previous step for the other domain.
- 5. Create a topology for each domain.



Figure 51: Hierarchy Topology Workplace

 Login to D-View by using different domain-specific administrator accounts to view different topology maps. For example: Click **Option** to login with **Domain\_1** administrator account by using **Domain\_1 Station:** 172.231.255.11.

Enter your acc	ount and password:	$\cap$
Account	admin	
Password	******	
Managed IP	172 . 231 . 255 . 11	-

Figure 52: Login screen

7. This administrator can view only the **Domain\_1** topology.



Figure 53: Domain\_1 window

# 6.3 Using Topo Export/Import

D-View allows you to export to or import from an XML file. Use this feature to make regular backups.

- To export or import topology information:
- 1. Go to **Application > Topo Export/Import**. The **Topo Export/Import** screen displays.

<b>D</b> Торо Ехрог	t/Import				
Topo Export/I	mport				
<ul> <li>Export</li> </ul>	C Import	Domain:		Netmap:	
		Domain_1	-	Topology_1	•
Select the s	source or destir	nation:			
C:\Progran	n Files\D-Link\E	)-View\delconfig\lnc	iex.xml	<u>B</u> r	owse
				Apply	Class
			-		

Figure 54: Topo Export/Import screen

- 2. Select either **Export** or **Import**.
  - **Export:** Backup/save topology data to an external XML file.
  - **Import:** Restore topology data from an XML file.
- 3. Select the **Domain**.
- 4. Select the **Netmap**.
- 5. Browse to select the file to export to or import from.
- 6. Click **Apply**.

Refer to <u>8.1.8 Restoring and Backing Up D-View</u> to restore and backup D-View.

# 6.4 Topology Generator Principle

Using **ARP** (Address Resolution Protocol) and forwarding table information in devices, D-View creates a topology for a specific network. The following steps describe the principle behind **Topology Generator**. **Topology Generator**:

- 1. Discovers the devices by getting the ARP information in devices, and identifies the relationship among devices by their MAC or IP address.
- 2. Identifies the device type.
- 3. Retrieves the forwarding table information in switches to obtain the relationship among switch ports and MAC address of the devices.
- 4. Creates a Topology.



The generated topology can be incorrect if the switches' forwarding table information is incorrect or incomplete. The topology created by Topology Generator can be considered as a reference in completing the actual topology map.

# 6.5 Using Topology Generator

Use the **Topology Generator** to create the topology map. **To use the Topology Generator:** 

 Go to NetTools > Topology Generator. The Topology Generator Wizard screen displays.

Analysis Mode		
• Local Network		
C Designated Networ	k	
Topology Name		
Enter the Name for the	l opology:	

Figure 55: Topology Generator Wizard screen

- 2. Select the **Analysis Mode**.
- 3. Enter the **Topology** Name.
- Click Next. The Topology Analysis Configuration screen displays. The topology generator analyzes the local network for the IP address and Subnet Mask. The SNMP Community String Setting is by default defined in D-View.

opology Analys	is Configuration	
	pology Generator will start to analyze local	
Local IP :	172 . 17 . 5 . 154	
Subnet Mask :	255.255.255.0	
SNMP Communi	ty String Setting	
Read Only :	public	
-	private	

Figure 56: Topology Analysis Configuration screen

5. Click **Finish** to generate the topology. The new topology displays in the window.



For a designated network, enter the IP address and ensure that the D-View management console can access the designated subnet.



Figure 57: Generated Topology window

6. Go to **Topology** > **Topo Export** or select and right click on the netmap of the generated Topology to select **Topo Export**.

D Topo Ex	port 🔀		
_ Торо Ехр	ort		
Select a	Domain to export the generated topology		
From :	C:\Program Files\D-Link\D-View\delconfig\Topology_1		
	Domain: Netmap:		
To :	Domain_1 Test		
	<u>Export</u>		

Figure 58: Topo Export screen

7. Click **Export** to export the generated topology.

# 6.6 Rearranging the Topology

Manually rearranging multiple devices and links in a topology is a laborious and difficult process. But with D-View, you can:

- Rearrange Totally
- Rearrange by step

#### 6.6.1 Using Rearrange Totally

Open and select a device in the topology. Go to **Topology** > **Rearrange Totally**. The system will rearrange the linked devices in hierarchy considering the selected device as the topmost device.

#### 6.6.2 Using Rearrange by step

Open and select a device in the topology. Go to **Topology > Rearrange by step.** The system will rearrange the linked devices in hierarchy considering the selected device as the top device.

Before Rearranging	After Rearranging		
172.18.192.254 172.18.192.254	TI S 19234 10 S 19244 10 S 19244 10 S 1		

Figure 59: Topology before and after rearranging

#### 6.6.3 Rolling Back a Topology

After rearranging the topology, you can restore the saved topology that was created initially from the database.

#### To Rollback a Topology:

Go to **Topology** > **Topology Rollback**. The Topology reverts to the previous settings. The following screenshots displays the sequence of steps by using the Topology Rollback function.







Figure 60: Sequence of steps displaying the Topology Rollback function



# Managing and Monitoring Devices

# 7.1 Identifying Devices

To view the installed device modules, go to **Help** > **Devices Supported**. Information about all the supported devices is displayed. D-View, by default, supports all D-Link devices that have been added to D-View.



If you cannot find your device in the list, some functions might not work properly. You must download and install the relevant D-View modules or new software patches from the D-View website.

D Devices S	Supported		×
Vender	Device Type	Device Alias	^
D-Link	DES1228	DES-1228	
D-Link	DES1252	DES-1252	
D-Link	DES3028	DES-3028	
D-Link	DES3028P	DES-3028P	
D-Link	DES3052	DES-3052	
D-Link	DES3052P	DES-3052P	
D-Link	DE83250TG	DE8-3250TG	
D-Link	DES3526	DES-3526	
D-Link	DES3528	DES-3528	
D-Link	DES3550	DES-3550	
D-Link	DES3828	DES-3828	
D-Link	DES3828DC	DES-3828DC	
D-Link	DES3828P	DES-3828P	
D-Link	DES6500	DES-6500	
D-Link	DES7206	DES-7206	
D-Link	DES7210	DES-7210	
D-Link	DFL1600	DFL-1600	
D-Link	DFL1610	DFL-1610	
D-Link	DFL1660	DFL-1660	
D-Link	DFL210	DFL-210	
D-Link	DFL2500	DFL-2500	
D-Link	DFL2510	DFL-2510	
D-Link	DFL2510F	DFL-2510F	
D-Link	DFL2560	DFL-2560	
D-Link	DFL2560F	DFL-2560F	~
D-LINK	DFL260	DFL-200	
		Refresh	Close

Figure 61:Devices Supported screenRefer to 7.3 Customizing Devicesto extend the device module list.
## 7.2 Multi-vendor Support

Only the following modules can be used by third-party devices:

- GenSNMPDeviceModule: D-View recognizes SNMP enabled devices irrespective of device type, vendor and model number. Refer to <u>7.8</u> <u>Retrieving OID of the device</u> for more information.
- MIB Browser/Compiler: The MIB compiler translates the MIB from its normal ASN.1 format to a format that is comprehensible by other applications. Refer to <u>7.4 How to Configure Devices not in Supported List</u> for more information.
- Telnet, Web management tools: Refer to <u>Management Methods</u> for more information.
- Monitoring performance status by ICMP/SNMP. Refer to 7.10.2 Setting the Devices to Poll for more information.
- Extension of supported device types with **Device Customization** functional module. Refer to <u>7.3 Customizing Devices</u> for more information.

# 7.3 Customizing Devices

D-View provides a flexible method to manage devices that can be identified and managed by configuring the interface between platform and device module.

#### To customize devices:

1. Go to Application > Device Customization. The Device Customization screen displays.

Vender :	D-Link 🝷		Apply
LOGO :	C:\WINDOWS\system32\Resource	Browse	Delete
evice Type Info			
Device Type :	DES3526		Apply
Max Ports :	26		<u>D</u> elete
Alias :	DES-3526		
System OID :	1.3.6.1.4.1.171.10.64.1		
Up Icon :	C:\Program Files\D-Link\DevModule\R	Browse	
Down Icon :	C:\Program Files\D-Link\DevModule\R	Br <u>o</u> wse	
Unpoll Icon :	C:\Program Files\D-Link\DevModule\R	Bro <u>w</u> se	
Program :	C:\Program Files\D-Link\DevModule\D	Brow <u>s</u> e	

Figure 62: Device Customization screen

- 2. From the **Device Customization** screen, you can modify the device type properties in the dialog.
  - **Vendor:** Select/enter a vendor from the drop-down list.
  - **Logo:** Select a logo for the device module.
  - **Device Type:** Select/enter the device type.
  - Max Ports: Enter the maximum number of ports, depending on the device.
  - Alias: Enter an alias name for the device.
  - **System OID:** Enter the OID value of the device. Refer to <u>7.8</u> <u>Retrieving OID of the device</u> to obtain the OID of a device.
  - **Up, Down, Unpoll icons:** Browse to define and customize the device icons.

- Program: Specify the location of D-View module. Double-click on the device icon in the topology to manage multiple devices through a D-View Module (graphic interface).
- 3. Click **Apply** to save the Device Type info into the database.
- 4. Click **Refresh** to clear the fields.

# 7.4 How to Configure Devices not in Supported List

To verify if a switch is supported by D-View 6.0, go to **Help > Devices Supported**.



|--|

D Devices S	Supported		X
Vender	Device Type	Device Alias	<b>_</b>
D-Link	DES1228	DES-1228	
D-Link	DES1252	DES-1252	
D-Link	DES3028	DES-3028	
D-Link	DES3028P	DES-3028P	
D-Link	DES3052	DES-3052	
D-Link	DES3052P	DES-3052P	=
D-Link	DES3250TG	DES-3250TG	
D-Link	DES3526	DES-3526	
D-Link	DES3528	DES-3528	
D-Link	DES3550	DES-3550	
D-Link	DES3828	DES-3828	
D-Link	DES3828DC	DES-3828DC	
D-Link	DES3828P	DES-3828P	
D-Link	DES6500	DES-6500	
D-Link	DES7206	DES-7206	
D-Link	DES7210	DES-7210	
D-Link	DFL1600	DFL-1600	
D-Link	DFL1610	DFL-1610	
D-Link	DFL1660	DFL-1660	
D-Link	DFL210	DFL-210	
D-Link	DFL2500	DFL-2500	
D-Link	DFL2510	DFL-2510	
D-Link	DFL2510F	DFL-2510F	
D-LINK	DFL2560	DFL-2560	
D-LINK	DFL2560F	DFL-2560F	~
D-LINK	DFL260	DFL-260	2
		Refresh	Close

Figure 64: Devices Supported list

### 7.4.1 Discover Devices

In order to discover a device, follow the steps below. The DES-3028 will be used as an example for Device Discovery.

To search for the device and then add it to the topology map go to **NetTools** > **Device Discovery.** 



Figure 65: Device Discovery function

Enter the information related to the switch:

- IP address.
- Community name.

Next, click **Search.** Select the discovered device and click **Add to Topo.** 

Lange and the second	10.90.	90 . 90	
End IP:	10 . 90 .	90 . 90	
Community:	public		<u>C</u> lose
Гуре:	SNMP Devices		
Current IP:	10.90.90.90		
<u>S</u> earch		Stop	
evice Name	Туре	IP Address	Description
v-10.90.90.90	GenSNM	10.90.90.90	

Figure 66: Device Discovery screen

To change the device type:

1. Double click the device icon on the topology map to launch the D-View module.

🕐 D-Link DES-3028 Fi	sast Ethernus Switch	
DeviceInfo DeviceMani	lags Iod Help	
System Lefo Interface Info APP Table Router Table Forwarding Table RIMON Stansbird New		
SBround stee	Figure 67: GenSNMP D-	View

2. Check device's OID information, go to **DeviceInfo > System Info.** 

Name:		Description D-Link DES-3028 Fast Ethernet Switch
Location:		
Run Time: 2 Hours	9 Minutes	
System OID:	33.6	
1.0.0.1.4.1.171.10.0		
Service	/ 1040420-500 5V /-	
Service	k 🗂 Network 🛛	Transport 🗖 Application

Figure 68: System Information screen

 Launch the Device Customization tool and add the OID information to D-View's database, go to Application > Device Customization.

D-View 6.0 - [HQ::TP-5F?	225]
Eile View Iopology	Application System NetTools Advanced Help Batch Config + 25 🖾 38 1 1 🌮 🥥
Hierarchy Topolo • ×	Gen SNMP

Figure 69: Device Customization function

- 4. Enter the vendor's information.
  - Vendor: Enter vendor's name.
  - Logo: Upload a logo for the vendor.

- 5. Enter the device type.
  - Device Type: Enter the model name.
- 6. Enter the alias name & OID.
  - Alias: The name entered is displayed on the topology map.
  - System OID: Device's OID number.
- 7. Click **Apply**.

D Device Customi	zation		
Vender Informatio	on		
Vender:	•		Apply
LOGO :		Browse	Delete
Device Type Info		)	
Device Type :	•		Apply
Max Ports :	0	_	Delete
Alias :			
System OID :			
Up Icon :		Browse	
Down Icon :		Browse	
Unpoll Icon :		Browse	
Program :		Browse	
		Refresh	Close

Figure 70: Device Customization screen

There are two **Apply** buttons in the **Device Customization** window: Vendor Information:

- If the vendor's name is not seen in the list, you can create a new one.
- Enter the vendor's name and click **Browse** to upload a logo, then click **Apply.**

Device Type Info:

To add a new device module into D-View's database, enter the vendor's information.

If the model name did not change, be sure to execute **Device Type Check** to update the database. Save the changes.

Vender:	D-Link •	Apply
LOGO :	C:\WINDOWS\system32\panelbmp\D-	Delete
wee type inte		57
evice Type inic	DES-3028	Apply
evice Type :	DES-3028	Apply
evice Type :	DES-3028	Apply

Figure 71: Device Customization

The purpose of Device Type Check is to update the customized information to the database.

 Launch the Device Type Check function, go to Advanced > Device Type Check.



Figure 72: Device Type Check

- 2. Click **Check** to load the data from the database.
- 3. Click **Update** to update the database with the correct model name.

Device Type Check						×
Device Name	IP	Туре	Checked Type	Read Commu	Write Commu	
Dev-10.90.90.90	10.90.90.90	GenSNMPDevice	DES-3028	public	private	
			0	C <u>h</u> eck	p Update	<u>C</u> lose

Figure 73: Device Type Check

In this case, the model name changes from GenSNMP to DES-3028. Click **Save** to save the changes.

D-¥iew 6.0 - [HQ::TP-5F	225]
I D Eile ⊻iew Iopology	Application System NetTools Advanced Help
💾 🖻 🖣	📼 🔍 🔍 🕮 🏂 🖾 🥔 🕇 🦻 🥥
Hierarchy Topolo * ×	н
E Boot	
E TP-SE	
000 <b>500</b> 100 0420	
	DES-3028
	10.00.00.00
	10.30.30.30

Figure 74: DES-3028 identified in the topology

In order to configure the Batch Config support for DES-3028's firmware update, the associated function OID for the device has to appear in the list. To check if DES-3028 is on the list:



 Right-click the device and click on Run Batch or go to Application > Batch Config > Run Batch.

Figure 75: Right-click on device

2. Click on the pulldown menu to see if DES-3028 is on the list.

riesoulce		Config File Manager		Port Status
Save Reb	oot RMON	Safeguard Engin	e Spanning Tree	Firmware Update
Device Name Dev-172.17.5.89 Dev-172.17.5.113 Dev-172.17.5.119 Dev-172.17.5.122 Dev-172.17.5.181 Dev-172.17.5.186 Dev-172.17.5.200 Dev-172.17.5.241 Dev-172.17.5.241 Dev-172.17.5.243 Dev-172.17.5.244 Dev-172.17.5.245 Dev-172.17.5.245 Dev-172.17.5.245 Dev-172.17.5.248 Dev-172.17.5.248 Dev-172.17.5.254	Device Type GenSNMPDevice GenSNMPDevice DFL2560F GenSNMPDevice GenSNMPDevice GenSNMPDevice GenSNMPDevice DGS3200-10 DGS3450 DGS3450 DGS3450 DGS3450 DGS3450 DGS3450 DGS3450 DGS3450 DGS3450 DGS3450 DGS3450 DGS3450 DGS3450 DGS3450 DGS3450 DGS3450	IP         Status           172.17.5.89         172.17.5.113           172.17.5.119         172.17.5.122           172.17.5.181         172.17.5.182           172.17.5.182         172.17.5.182           172.17.5.200         172.17.5.201           172.17.5.241         172.17.5.241           172.17.5.243         172.17.5.243           172.17.5.244         172.17.5.244           172.17.5.245         172.17.5.246           172.17.5.248         172.17.5.248           172.17.5.254         172.17.5.254	Contig By Device Type DS3326GSF DGS3200-10 DGS3200-16 DGS3200-16 DGS3200-16 DGS3200-24 DES3350SR DES3852P DES3828P DES3828D DES3828D DES326S DES326S DES3526 USS3526 DES3526 This effore performing ensure TFTP Server has designated workstation, for the devices. The status informations indicates a SNMP operal devices successfully.	Select Setting S-3528_Series_FW18.190.53 CKUP IVE GE1 TimeOut(ms): 3000 Firmware Update, please been running on the and the server is reachab shown on the panel only tion has been sent to the Schedule

Figure 76: DES-3028 not on the list

To customize DES-3028's associated OID functions, add DES-3028 to the firmware update supported device list.

 Open Advanced Option to customize the OID function, go to Application > Batch Config > Advanced Option.

D-View 6.0 - [HQ::TP-5F?	225]		
Eile View Iopology	Application System NetTools A	dvanced <u>H</u> elp	
1 🖹 🖹 🔌	Batch Config	Advanced Option	
Hierarchy Topolo • X	Device Customization	<u>H</u> un Batch	h.
1H-SF			
			DES-3028
			10.90.90.90
			1912010191919

Figure 77: Advanced Option function

- 2. Select FIRM in the functions list and then click **Next**.
- 3. Search for DES-3028 in the **Device Types supported by...** list.
- 4. Click Add to add to the **Configured Devices Types** list.

Function Name	Function Descripti	on	
CONFIGURE	Firmware update Config update		
RESOURCE	Resource Manager		
SAVE	Port status Save config		
SPANNING	Spanning tree config		
RMON SAFEGUARD	RMON config Safeguard Engine config		
REBOOT	Reboot devices		
Eurotion Info			
Name: FIBN	F. J.		
n in Finn			
Description: Firmi	vare update		

Figure 78: Firmware Update function

Device Types supported by DFL2560F DWL2100 DGS3627G DGS3324SR DFL1660 DES3528 DES 3028 DWL7700 GenSNMPDevice DGS3450 DFL2510 DFL2510 DES3828 DGS3612G DFL 2500	<ul> <li>▲ Configured Device Types</li> <li>▶ DG\$33245Ri</li> <li>▶ DG\$33245Ri</li> <li>▶ DG\$33125R</li> <li>▶ DG\$33125R</li> <li>▶ DE\$33505R</li> <li>▶ DE\$3852P</li> <li>▶ DE\$3852P</li> <li>▶ DE\$3828D</li> <li>▶ DE\$3828DC</li> <li>▶ DE\$3828</li> <li>▶ DE\$3828</li> <li>▶ DE\$32265</li> <li>▶ DH\$3226</li> <li>▶ W\$3218</li> </ul>	<ul> <li>"Batch" configuration. The device list on the left shows all device types currently managed by D-View. The device list on the right shows all the device types that support batch configuration. Note: The non-configured devices are displayed in grey, when you perform the batch configuration.</li> </ul>
Add	Delete Eroperty.	

Figure 79: Adding DES-3028 to the support list

5. Select DES-3028 and then click **Property** to configure the OID function.

Device Types supported by DFL2560F DWL3200 DWL2100 DGS3627G DGS3324SR DFL1660 DES3528 DES-3028 DWL7700 GenSNMPDevice DGS3450 DFL260 DFL2510 DFL2510 DES3828 DGS3612G DES300		Configured Device Types         ▲           DES3828P         DES3828DC           DES3828         DES3526S           DES3526         DHS3626           DHS3226         DHS3218           DHS3210         DHS3210           DHS228S         DHS328           DHS328         DHS3210           DHS2218S         DHS2218S           DHS3828         DHS3828           DHS3828         DHS3828	Add or Delete devices to support "Batch" configuration. The device list on the left shows all device types currently managed by D-View. The device types that support batch configuration. Note: The non-configured devices are displayed in grey, when you perform the batch configuration.
Add	1	Delete Property	

Figure 80: Device Type Config

	OID Name	Туре	Description	Read/Write	
Config			⊣ ⊢ OID Value Co	onfig	
Config —			OID Value Co	onfig Value	
Config			- OID Value Co Name	onfig Value	
Config			- OID Value Cr Name	onfig Value	
Config : [ e: scription: ad/Write			- OID Value Co Name Name	onfig Value	
Config : [ e: cription: id/Write			OID Value Co Name Name: Value:	onfig Value	

Figure 81: OID Config screen

Follow these steps to retrieve the OID information:

Open the MIB compiler to query the OID information.
 Go to NetTools > MIB Tools > MIB Compiler.



- 2. Click **Compile** to open the dialog window.
- 3. Browse **and** open the Genmgmt.mib file for compilation.
- 4. Enter the MIB file's location.

Module DL	INK-ID-REC-MIB		
	2003-308 NVS 8207	2N	
mported M	IB Module Pa	dh	
D.I.C	S-3028\MIB\DES1	30yyn-MIRs-for-la	b-070122 bl 🛱

Figure 83: MIB Compiler

Browse Agent IP:       Image: Section 10 and 1		
MIB S AGENT-GENERAL-MIB A BRIDGE-MIB T IANAIType-MIB T IANAIType-MIB T IGMP-STD-MIB F IG	Open         Look in:       DES30xxp-MIBs-for-lab-070122_b23 •       • <t< td=""><td>IAN   IAN   IAN   IAN   INE   Lag   MS'   Pkt:   Open   Cancel</td></t<>	IAN   IAN   IAN   IAN   INE   Lag   MS'   Pkt:   Open   Cancel

Figure 84: MIB Compiler

- 5. Select **agentBscSwFileLoadType** from the MIB Tree, the OID is displayed in the right window. This allows you to view information about uploaded and downloaded firmware.
  - The number in the **Value List** will control the upload or download action.



Figure 85: MIB Compiler screen

This slide refers to the DGS-3450 model's configuration; please configure the same for the DES-3028.

OID 1.3.6.1.4.1.171.12.1.2.1.1.7 refers to the file name.

1.3.6.1.4.1.171.12.1.2.1.1.7.**1**, here 1 refers to the index.

Value list defines the types of actions:

- 2: Upload (backup firmware).
- 3: Download (update firmware).



Figure 86: MIB Value description screen

	OID Name	Туре	Description	Read/Write
1.3.6.1.4.1.17 1.3.6.1.4.1.17 1.3.6.1.4.1.17 1.3.6.1.4.1.17 1.3.6.1.4.1.17	71.12.1.2.1.1.5.1 71.12.1.2.1.1.3.1 71.12.1.2.1.1.3.1 71.12.1.2.1.1.7.1 71.12.1.2.1.1.8.1 71.12.1.2.1.1.10.1	STRING IPADDR INTEGER INTEGER INTEGER	File Name Server IP Operation Type Procedure Image	READJWRITE READJWRITE READJWRITE READJWRITE READJWRITE
ID Config-			OID Value Co	nfig

Figure 87: OID Parameter screen

6. Check the File Name's OID number and update the fields in **OID Config**, as seen in the screen below. Use the MIB-Compiler to enter the parameters.

OID Name	Type Description Read/Write	Configure the OID properties of the device
1.3.6.1.4.1.171.12.1.2.1.1.5.1	STRING File Name READ WRITE	by entering the Name, Type and Decription.
DID Config	OID Value Config	
OID: 1.3.6.1.4.1.171.12.1.2.1.1.5.1 Type: STRING	Name Value FILENAME NULL	
OID:         1.3.6.1.4.1.171.12.1.2.1.1.5.1           Type:         STRING           Description:         File Name	Name Value FILENAME NULL	
OID: 1.3.6.1.4.1.171.12.1.2.1.1.5.1 Type: STRING  Description: File Name Read/Write READ WRITE	Name Value     FILENAME NULL     Name: FILENAME	
OID: 1.3.6.1.4.1.171.12.1.2.1.1.5.1 Type: STRING • Description: File Name Read/Write READ WRITE	Name Value  FILENAME NULL  Name: FILENAME Value: NULL	
OID: 1.3.6.1.4.1.171.12.1.2.1.1.5.1 Type: STRING  Description: File Name  Read/Write READ/WRITE  Add	Name Value FILENAME NULL Name: FILENAME Value: NULL Dejete Add De	lete

Figure 88: OID Config screen





- 7. Select **FileName** and enter the values of the OID Value Config information.
  - Name: Enter file name.
  - Value: Defines the input format and the space to store data.

	OID Name	Type	Description	Read/Write	Configure the OID properties of the device
1.3.6.1.4.1.17	1.12.1.2.1.1.5.1	STRING	File Name	READIWRITE	by entering the Name,Type and Decription.
DID Config DID: 1.3.6.1 Vpe: STRIN	4.1.171.12.1.2.1.1.5.1 G •		OID Value C Name FILENAME	config Value NULL	
)escription:	File Name				
Read/Write	READ/WRITE	•	Name: F	ILENAME	
	Add	Delete	Value: N	Add De	

Figure 90: OID Value Configuration

- 8. Add Server **IP** to the OID list.
  - Follow the on-screen icons.
  - There is no "value" description in MIB file, please enter 1.

) Config		
OID List		Indication:
OID Name 1.3.6.1.4.1.171.12.1.2.1.1.5.1 1.3.6.1.4.1.171.12.1.2.1.1.3.1	Type Description Read/Write STRING File Name READ/WRITE IPADDR Server IP READ/WRITE	Configure the OID properties of the device by entering the Name, Type and Decription.
OID Config           OID:         1.3.6.1.4.1.171.12.1.2.1.1.3.1           Type:         IPADDR           Description:         Server IP	Name Value IP 10.90.90.90	
Read/Write READ/WRITE	Name:     IP       Value:     10.90.90       Delete     Add	
	Close	

Figure 91: Server IP Parameter Configuration



Figure 92: OID Information Query in MIB Compiler

- 9. Add **Operation** Type to the OID list.
  - Repeat the previous procedure.
  - Enter the values: 2 for backup and 3 for update.

OID Config	×
OID List	Indication:
OID Name         Type         Description         Read/Write           1.3.6.1.4.1.171.12.1.2.1.1.5.1         STRING         File Name         READ WRITE           1.3.6.1.4.1.171.12.1.2.1.1.3.1         IPADDR         Server IP         READ WRITE           1.3.6.1.4.1.171.12.1.2.1.1.7.1         INTEGER         Operation Type         READ WRITE	Configure the OID properties of the device by entering the Name,Type and Decription.
OID Config OID 1.3.6.1.4.1.171.12.1.2.1.1.7.1 Type: INTEGER • Description: Operation Type Read/Write READ/WRITE • Add Delete Add Delete Qlose	

Figure 93: Operation Type Parameter Configuration





10. Add Procedure to the OID list.

- Repeat the previous procedure.
- Enter the values: 2 for inactive and 3 for active.

)ID Config	<u>x</u>
OID List         OID Name         Type         Description         Read/Write           1.3.6.1.4.1.171.12.1.2.1.1.5.1         STRING         File Name         READ/WRITE           1.3.6.1.4.1.171.12.1.2.1.1.3.1         IPADDR         Server IP         READ/WRITE           1.3.6.1.4.1.171.12.1.2.1.1.7.1         INTEGER         Operation Type         READ/WRITE           1.3.6.1.4.1.171.12.1.2.1.1.8.1         INTEGER         Procedure         READ/WRITE	Indication: Configure the OID properties of the device by entering the Name,Type and Decription.
OID Config         OID Value Config           OID         1.3.6.1.4.1.171.12.1.2.1.1.8.1	
Type:     INTEGER     INACTIVE     2       Description:     Procedure     ACTIVE     3       Read/Write     READ WRITE     Name:	
Add Delete Add Delete	

Figure 95: Procedure

Procedure Parameter Configuration





- 11. Add **Image** to the OID list.
  - Repeat the previous procedure.
  - Enter the values: 1 for Image1 and 2 for Image2.

D Config			
OID List			Indication:
OID Name 1.3.6.1.4.1.171.12.1.2.1.1.5.1 1.3.6.1.4.1.171.12.1.2.1.1.3.1 1.3.6.1.4.1.171.12.1.2.1.1.7.1 1.3.6.1.4.1.171.12.1.2.1.1.8.1 1.3.6.1.4.1.171.12.1.2.1.1.8.1	Type Description STRING File Name IPADDR Server IP INTEGER Operation Type INTEGER Procedure INTEGER Image	Read/Write READ WRITE READ WRITE READ WRITE READ WRITE	Configure the OID properties of the device by entering the Name,Type and Decription.
OID Config OID: 1.3.6.1.4.1.171.12.1.2.1.1.10.1 Type: INTEGER • Description: Image	ID Value C Name IMAGE1 IMAGE2	onfig Value 1 2	
Read/Write READ/WRITE	Value:	<u>A</u> dd <u>D</u> elete	
		Add Delete	

Figure 97: Image Parameter Configuration





12. Launch the **Run Batch** function. *Go to* **Application** > **Batch Config** > **Run Batch.** Be sure to enter the parameters correctly to avoid error

messages.



Figure 99: Run Batch function

D Run Batch	
Save Reboot RMON Safeguard Engme Span	nmmg Tree       Pinnware Opdate       Resource       Config File Manager       Port Status         IP       Status       Config By Device Type         DES3028       Image: Setting         File Name       102b10 had         Server IP       NULL         Local Type       NULL         WILL       NULL         Ver       Ption:         102b10 had       Intervention         Configuration is invalid       Ption:         102b10 had       Note:         Before performing Firmware Update, please ensure TFTP Server has been running on the designated workstation, and the server is reachable for the devices.         The status information shown on the panel only indicates a SNMP operation has been sent to the devices successfully.

Figure 100: Error message during first process initiation

- DES-3028 is now in the list.
- The parameters you configured are in the list now. Select the appropriate information to proceed with the firmware procedure.
- Select **Run Local TFTP** to implement the firmware procedure.

Nam	ie .	D-View Mar	nager	IP Address	10.90.90.	100	2
Ope	ned	5:59:00 PM		Action Session	0		Total
Index	Ac	tion IP	Туре	Tftp File Name	(	Status	
1	10	.90.90.90	Get	R102B10.had		OK	
2	10	.90.90.90	Get	R102B10.had		OK	
							Clear
(							
59-01 F	M · M	Start transferrin	10				
:59:01 F	PM : S PM - 1	Start transferrin Fransfer OK	ng				

Figure 101: TFTP Server

Resource Config File Manager Save Reboot RMON Safeguard Engine	Port Status Spanning Tree Firmware Update
Device Name       Device Type       IP       Status         ✓ Dev-10.90.90.90       DES-3028       10.90.90.90       Success	Config By Device Type DES-3028 Select Config Name Setting File Name R102810.had Server IP 10.90.90.100 Operation Type UPDATE Procedure ACTIVE Image IMAGE2 Option: UPDATE Eun Local TETP TimeOut(ms): 3000 Indication Note: Before performing Firmware Update, please ensure TFTP Server has been running on the designated workstation, and the server is reachable for the devices. The status information shown on the panel only indicates a SNMP operation has been sent to the devices successfully.

Figure 102: Configured Parameters in Run Batch screen

In order to Batch Config the reboot function for the DES-3028, follow the steps below:

As seen in the screen below, DES-3028 is greyed-out which means that the reboot function does not support DES-3028 model.

F	lesource	in the second	Config File Manager	2	Port	Status
Save	Reboot	RMON	Safeguard Engine	Spanning Tre	e	Firmware Update
Devic	e Name Dev	ice Type	IP Status	Config By Device Ty	pe	
Dev-10.90.9	90.90 DES-30	28 10.5	0.90.90	DGS3612G	• •	Select
				Config Name	1	Setting
				Reboot	NULL	
				Option:		
				Indication Note: Please select to operations according to Then press "Apply" to devices. The status int panel only indicates a sent to the devices sur Press "Schedule" to r function.	he devices for o device type uttorn to rebo- formation sho SNMP operat coessfully.	t performing of the selected win on the ion has been dule batch
				TimeOut(ms); 30	000	Schedule

Figure 103: DES-3028 not in supported list

- 1. Open Advanced Option and select Reboot.
  - Please refer to previous session on how to launch the Advanced Option.
- 2. Select DES-3028 and add it to the Configured Device Types list.
  - Click **Property** to edit OID.

1 GLICUOLLINGHIC	Function Desci	iption	1
FIRM CONFIGURE RESOURCE PORTSTATUS SAVE SPANNING RMON SAFEGUARD REBOOT	Firmware update Config update Resource Manager Port status Save config Spanning tree config RMON config Safeguard Engine config Reboor devices		
Function Info	nt:		
Name, nebo			
Description: Reboo	ot devices		

Figure 104: Reboot function

Device Types supported by DFL2560F DWL3200 DWL2100 DGS3627G DGS3627G DGS33245R DFL1660 DES3528 DES3028 DWL7700 GenSNMPDevice DGS3450 DFL260 DFL260 DFL2510 DES3828 DGS3612G DFL2500	<ul> <li>▲ Configured Device Types</li> <li>DGS3612G</li> <li>DGS3627G</li> <li>DGS3627</li> <li>DGS3627</li> <li>DGS3450</li> <li>DGS3427</li> <li>DGS3427</li> <li>DGS3428</li> <li>DES3828P</li> <li>DES3828</li> <li>DES3828</li> <li>DES3550</li> <li>DES3526</li> <li>DES-3028</li> </ul>	Add or Delete devices to support "Batch" configuration. The device list on the left shows all device types currently managed by D-View. The device list on the right shows all the device types that support batch configuration. Note: The non-configured devices are displayed in grey, when you perform the batch configuration.
Add	Delete Erope	rty

Figure 105: Adding of DES-3028 to list

- 3. Update the fields in the OID Config as seen in the screen below.
  - DES-3028 can now be seen in the list.
  - Click **Apply** to reboot the switch.

OID Config		
COID List		_ Indication:
OID Name 1.3.6.1.4.1.171.12.1.2.3.0	Type Description Read/Write INTEGER Reboot READ WRITE	Configure the OID properties of the device by entering the Name,Type and Decription.
OID Config OID: 1.3.6.1.4.1.171.12.1.2.3.0 Type: INTEGER • Description: Reboot Read/Write READ WRITE Add	OID Value Config Name Value cold-start 2 warm-start 3 no-reset 4 Name: Value: Dejete Add Delete Qlose	

Figure 106: Reboot Parameter Configuration

Save Reboot	RMON	Config File Manager Safeguard Engine	Spanning Tree	Port Status Firmware Update
Device Name D	evice Type	IP Status	Config By Device Type	•
Dev-10.90.90.90 DES-	3028 10.90	.90.90	DES-3028	• 🔽 Select
			Config Name	Setting
			Reboot	warm-start
			Option	warm-start 💌
			Indication Note: Please select the operations according to Then press "Apply" but devices. The status infor panel only indicates a 59 sent to the devices succ Press "Schedule" to us function.	devices for performing device type. ton to reboot the selected mation shown on the IMP operation has been essfully. e the schedule batch
			TimeOut(ms); 300	0 <u>S</u> chedule

Figure 107: Reboot Function execute

## 7.5 Third Party Devices: Cisco Catalyst 2960

For Cisco's Catalyst 2960 follow the steps below:

 Double-click the icon to launch GenSNMP D-View module. Confirm the Catalyst 2960's system OID information, go to *DeviceInfo* > *System Info.*

Name: Switch	Description
	Cisco IOS Software, C2960 Software
Contactor:	(C2960-LANBASE-M),
Location:	RELEASE SOFTWARE
	(fc1) Copyright (c) 1986-2007
un Time: 0 Hours 24 Minutes	s by Cisco Systems, Inc.
stem OID:	20:06 by nachen
1.3.6.1.4.1.9.1.694	
rvice	
Physical 🗵 Link 🔲 f	Network 🗖 Transport 🗖 Application

Figure 108: System OID Query



Figure 109: GenSNMP D-View module

- 2. Open Device **Customization** to configure the Catalyst 2960.
- Update the necessary fields.
- The updated content will be displayed in the topology map.

Vender:	Cisco 🔹		Apply
LOGO:	C:\WINDOWS\system32\panelbmp\cis	<u>B</u> rowse	Delete
evice Type Info			
evice Type :	Catalyst 2960		Apply
Max Ports :	<u>0</u>		Delete
Alias :	Cayalyst 2960		
ystem OID :	1.3.6.1.4.1.9.1.694		
Up Icon :		Browse	
Down Icon :		Br <u>o</u> wse	
Unpoll Icon :		Bro <u>w</u> se	
Program :		Brow <u>s</u> e	

Figure 110: Parameter Configuration

D-View 6.0 - [HQ::Net-172	.17.5.0?227]
Eile ⊻iew Iopology	Application System NetTools Advanced Help
Hierarchy Topolo • × Hierarchy Topolo • × Root HQ HQ HQ HQ HQ Net-172.1	Batch Config Topo Export/Import Device Customization
	Gen SNMP 1 3 172.17.6.232 I72.17.6.231

Figure 111: Device Customization

To perform the Device Type Check:

Open Device Type Check... to update the database, go to Advanced
 > Device Type Check.



- 2. Click **Check** and then press **Update** to update the database.
- Save the changes.

Device Name	IP	Туре	Checked Type	Read Commu	Write Commu	
ev-172.17.5.231 ev-172.17.5.232	172.17.5.231 172.17.5.232	GenSNMPDevice GenSNMPDevice	GenSNMPDevice Catalyst 2960	public public	private private	
				heck	p Update	<u>C</u> lose

D-View 6.0 - [HQ::Net-17	72.17.5.0?227]	
Eile View Iopology	gy <u>Application System N</u> etTools Advanced <u>H</u> elp	
1 🖹 🔁 🔊	📼 🔍 🔍 🖾 📰 🏂 🖾 🞯 🕇 🦻 🥥	
Hierarchy Topolo • ×		
E- Broot E- O HQ E- C TP-SF - C Net-172.1		
	Catalyst 2960 Gen SNMP	
	1 3 172.17.6.232 172.17.6.231	

Figure 114: Saving changes

To set up Batch Config to support Catalyst 2960:

- 1. Open **Advanced Option...** to configure 2960.
- If the device type is not activated it means the device is not supported by D-View.

D-View 6.0 - [HQ::Net-172	.17.5.0?226]
Eile ⊻iew Iopology	Application System NetTools Advanced Help
📔 🖹 🖹 为 👔	Batch Config
Hierarchy Topolo ×	Topo Export/Import Device <u>C</u> ustomization
⊖_ 🖉 TP-5F Net-172.1	
	Gen SNMP Catalyst 2960
	· · · · · · · · · · · · · · · · · · ·
	172.17.5.231

Figure 115: Advanced Option Function

Resource		, Co	nfig File Manager	1	Port Status
Save Rebo	ot   RMI	ON	Safeguard Engine	Spanning Tree	Firmware Update
Device Name	Device Type	IP	Status	- Config By Device Typ	e
Dev-172 17 5 231 Dev-172 17 5 232	GenSNMPDevice Catalust 2960	1721752	22	DPN3012E	<ul> <li>E Select</li> </ul>
ACCESS TO A TRANSPORT		106.00.50		Config Name	Setting
				Reboot	NULL
				Option:	
			10	Indication	
				Note: Please select performing operation type.	t the devices for is according to device
				Then press "Apply selected devices. T shown on the panel operation has been successfully.	" button to reboot the he status information only indicates a SNMP sent to the devices
				TimeOut(ms): 300	0

Figure 116: Cisco 2960 not in the supported list as shown in Run Batch

- 2. Select Firmware and then click **Next**.
- 3. Add Catalyst 2960 into the list and click **Property** to configure the OID information.

Function I	Vame	Functio	on Description		
FIRM CONFIGURE RESOURCE PORTSTATUS SAVE SPANNING RMON SAFEGUARD REBOOT	Firmwar Config Resour Port sta Save c Spannir RMON Safegu Reboot	e update update ce Manager tus onfig ng tree config config ard Engine config devices			
Function Info	FIRM			 	 
Description:	Firmware update				

Figure 117: Firmare Update Function

Device Types supported by DXS3326GSR DWL3260 DPF500 DGS3612 DFL2510F DWL8200 DWL7100 DWL7100 DWL7100 DGS3425	Configured Device Types     DES3828     DES32265     DES3550     DES3526     DHS3526     DHS3228     DHS3228     DHS3218     DHS3218	Add or Delete devices to support "Batch" configuration. The device list on the left shows all device types currently managed by D-View. The device list on the right shows all the device types that support batch configuration. Note: The non-configured devices are displayed in grey, when you
DG33429 DG33427 DE53828DC DG53627 DG53200-10 DFL800 DFL2560 DFL2560 DFS3526	DHS2226S           DHS2218S           DHS2210S           DPN3012E           DHS3828           DES3828           DES3828           T	perform the batch configuration.
Add	Delete Property	1

Figure 118: Adding Cisco 2960 to list

- 4. Update the related OID information as follows:
- Configure the Protocol Type.
- Configure the Source File Type.

	OID Name	Туре	Description	Read/Write	Configure the OID properties of the device
.3.6.1.4.1.9.9.	96.1.1.1.2.100	INTEGER	Protocol	READIWRITE	by entering the Name, Type and Decription.
.3.6.1.4.1.9.9.	96.1.1.1.1.3.100	INTEGER	SourceFileType	READ/WRITE	
.3.6.1.4.1.9.9.	96.1.1.1.1.4.100	INTEGER	DestFileType	READ/WRITE	
.3.6.1.4.1.9.9.	96.1.1.1.1.5.100	IPADDR	ServerIP	READ/WRITE	
.3.6.1.4.1.9.9.	96.1.1.1.1.6.100	STRING	FileName	READIWRITE	
D Config			⊤ ⊢ OID Value C	Config	
ie voning			STATE STREET		
D: 1.3.6.1.	4.1.9.9.96.1.1.1.1.3.10(	)	Name	Value	
D: 1.3.6.1.	4.1.9.9.96.1,1.1.1.3.10( ER •	)	Name NetFile StartConfig	Value 1 3	
D: 1.3.6.1. pe: INTEGE	4.1.9.9.96.1.1.1.1.3.100 ER		Name NetFile StartConfig RunningCo	Value 1 1 3 onfiç4	
D: 1.3.6.1. pe: INTEGE escription:	4.1.9.9.96.1.1.1.1.3.10( ER • SourceFileType	1	Name NetFile StartConfig RunningCo IOSFile	Value 1 3 3 onfiç4 2	
D: 1.3.6.1, pe: INTEGE escription: ead/Write	4.1.9.9.96.1.1.1.1.3.100 ER • SourceFileType READJWRITE	•	Name NetFile StartConfig RunningCo IOSFile Name:	Value 1 3 3 onfig4 2	
D: 1.3.6.1. pe: INTEGE escription: ad/Write	4.1.9.9.96.1.1.1.1.3.100 ER • SourceFileType READJWRITE	) V	Name NetFile StartConfig RunningCo IOSFile Name:	Value 1 3 3 onfi£4 2	
D: 1.3.6.1. pe: INTEGE escription: ead/Write	4.1.9.9.96.1.1.1.1.3.100 ER • SourceFileType READ WRITE		Name NetFile StartConfig RunningCt IOSFile Name: Value:	Value 1 3 3 onfic4 2	
D: 1.3.6.1. pe: INTEGE escription:	4.1.9.9.96.1.1.1.1.3.100 ER • SourceFileType READ WRITE <u>A</u> dd	) ▼ Delete	Name NetFile StartConfig RunningCo IOSFile Name: Value:	Value 1 3 3 onfi(4 2 Add Dele	fe l

Figure 119: Parameter Configuration

- Configure the Destination File Type.
- Configure the TFTP server IP address.

Config				
DID List				Indication:
OID Name 1.3.6.1.4.1.9.9.96.1.1.1.1.2.100 1.3.6.1.4.1.9.9.96.1.1.1.1.3.100 1.3.6.1.4.1.9.9.96.1.1.1.1.4.100 1.3.6.1.4.1.9.9.96.1.1.1.1.5.100 1.3.6.1.4.1.9.9.96.1.1.1.1.6.100 1.3.6.1.4.1.9.9.96.1.1.1.1.1.4.100	Type INTEGER INTEGER INTEGER IPADDR STRING INTEGER	Description Protocol SourceFileType DestFileType ServerIP FileName Operation	Read/Write READ WRITE READ WRITE READ WRITE READ WRITE READ WRITE READ WRITE	Configure the OID properties of the device by entering the Name,Type and Decription.
DID Config DID: 1.3.6.1.4.1.9.9.96.1.1.1.1.5.100 Fype: IPADDR		- OID Value C Name IP	onfig Value NULL	
Description: ServerIP Read/Write READ WRITE	↓ velete	Name: Value:	Adu De	iete
		- <u>-</u>		rse

Figure 120: Parameter Configuration

OID Name	Type Description Read/Write	Configure the OID properties of the device
136141999611112100 INT	EGER Protocol READIWRITE	by entering the Name, Type and Decription.
.3.6.1.4.1.9.9.96.1.1.1.1.3.100 INT	EGER SourceFileType READ/WRITE	
1.3.6.1.4.1.9.9.96.1.1.1.1.4.100 INT	EGER DestFileType READ/WRITE	
1.3.6.1.4.1.9.9.96.1.1.1.1.5.100 IPA	DDR ServerIP READ/WRITE	
1.3.6.1.4.1.9.9.96.1.1.1.1.6.100 STF	RING FileName READ/WRITE	
DID Config	OID Value Config	
DID Config DID Config DID: 1.3.6.1.4.1.9.9.96.1.1.1.1.2.100	OID Value Config	
DID Config DID: 1.3.6.1.4.1.9.9.96.1.1.1.1.2.100 Type: INTEGER •	OID Value Config Name Value TFTP 1 RCP 3	
DID Config DID: 1.3.6.1.4.1.9.9.96.1.1.1.1.2.100 (ype: INTEGER •	OID Value Config Name Value TFTP 1 RCP 3	
DID Config DID: 1.3.6.1.4.1.9.9.96.1.1.1.1.2.100 Vpe: INTEGER • Description: Protocol	OID Value Config Name Value TFTP 1 RCP 3	
DID Config DID 1.3.6.1.4.1.9.9.96.1.1.1.1.2.100 Vpe: INTEGER • Description: Protocol Read/Write READ WRITE •	OID Value Config Name Value TFTP 1 RCP 3 Name:	
DID Config           DID:         1.3.6.1,4.1.9.9.96.1,1.1.1,2.100           'ype:         INTEGER           Oescription:         Protocol           Read/Write         READ[WRITE	OID Value Config Name Value TFTP 1 RCP 3 Name:	
DID Config DID: 1.3.6.1,4.1.9.9.96.1.1.1.1.2.100 Type: INTEGER • Description: Protocol Read/Write READ/WRITE •	OID Value Config Name Value TFTP 1 RCP 3 Name: Value:	
DID Config DID: 1.3.6.1.4.1.9.9.96.1.1.1.1.2.100 Vpe: INTEGER • Description: Protocol Read/Write READ/WRITE •	OID Value Config	Triplete

Figure 121: Parameter Configuration

1212121	UNIT 22/2003/1			 Configure the OID properties of the device
OID Name	Type	Description	Read/Write	by entering the Name Type and Decription
.3.6.1.4.1.9.9.96.1.1.1.1.2.100	INTEGER	Protocol	READIWRITE	, , , , , ,
3.6.1.4.1.9.9.96.1.1.1.1.3.100	INTEGER	SourceFileType	READIWRITE	
36141999611115100	IPADDR	ServerIP	READIWRITE	
3.6.1.4.1.9.9.96.1.1.1.1.6.100	STRING	FileName	READIWRITE	
.3.6.1.4.1.9.9.96.1.1.1.1.14.100	INTEGER	Operation	READIWRITE	
				-1:
D Config		OID Value C	onfig	
D Config D: 1.3.6.1.4.1.9.9.96.1.1.1.1.4.100		OID Value C Name	onfig Value	
D Config D: 1.3.6.1.4.1.9.9.96.1.1.1.1.4.100	(	OID Value Co Name NetFile	onfig Value 1	
D Config D: 1.3.6.1.4.1.9.9.96.1.1.1.1.4.100 pe: INTEGER •	(	OID Value Co Name NetFile StartConfig	onfig Value 1 3	
D Config D: 1.3.6.1,4.1.9.9.96.1,1.1.1.4.100 pe: INTEGER •		OID Value Co Name NetFile StartConfig RunningCo	onfig Value 1 3 nfiç4	
D Config D: 1.3.6.1.4.1.9.9.96.1.1.1.1.4.100 pe: INTEGER • escription: DestFileType	(	OID Value Co Name NetFile StartConfig RunningCo IOSFile	onfig Value 1 3 nfic4 2	
D Config D: 1.3.6.1.4.1.9.9.96.1.1.1.1.4.100 pe: INTEGER • escription: DestFileType		OID Value Co Name NetFile StartConfig RunningCo IOSFile	onfig Value 1 3 nfic4 2	
D Config D: 1.3.6.1,4.1.9.9.96.1,1.1.1.4.100 pe: INTEGER • escription: DestFileType ead/Write READ WRITE		OID Value Co Name NetFile StartConfig RunningCo IOSFile Name:	onfig 1 3 nfiç4 2	
D Config D: 1.3.6.1,4.1.9.9.96.1,1.1.1,4.100 pe: INTEGER • escription: DestFileType ad/Write READ[WRITE		OID Value Co Name NetFile StartConfig RunningCo IOSFile Name:	onfig 1 3 nfiç4 2	
D Config D: 1.3.6.1.4.1.9.9.96.1.1.1.1.4.100 pe: INTEGER • escription: DestFileType ead/Write READ WRITE		OID Value Co Name NetFile StartConfig RunningCo IOSFile Name: Value:	onfig 1 3 nfiç4 2	
D Config D: 1.3.6.1.4.1.9.9.96.1.1.1.1.4.100 pe: INTEGER • escription: DestFileType ead/Write READ WRITE	• Dejete	OID Value Co Name NetFile StartConfig RunningCo IOSFile Name: Value:	onfig Value 1 3 nfic4 2	

Figure 122: Parameter Configuration

- Configure the File Name.
- Configure the Operation, Create, or Delete.

OID Nome	Time	Departmention	Deeddikkite		-1	Configure t	he OID properties o	f the device
OID Name	Type	Description	Read/write		b	y entering th	he Name, Type and	Decription
3.6.1.4.1.9.9.96.1.1.1.1.2.100	INTEGER	Protocol	READIWRITE					
3.6.1.4.1.9.9.90.1.1.1.1.3.100	INTEGER	DestEileType	READ/WRITE					
36141999611115100	IPADDR	ServerIP	READIWRITE					
3.6.1.4.1.9.9.96.1.1.1.1.6.100	STRING	FileName	READIWRITE					
3.6.1.4.1.9.9.96.1.1.1.1.1.4.100	INTEGER	Operation	READIWRITE					
) Config		OID Value Co	onfig					
D Config D - 13614199961111141	00	OID Value Cr	onfig Value					
) Config D: 1.3.6.1.4.1.9.9.96.1,1.1.1.14.1	00	OID Value Co Name CreateAndG	onfig Value 30 4					
D Config D: 1.3.6.1.4.1.9.9.96.1.1.1.1.4.1 De: INTEGER •	00	OID Value Cr Name CreateAndG Delete	onfig Value 30 4 6					
D Config D: 1.3.6.1.4.1.9.9.96.1.1.1.1.1.4.1 De: INTEGER •	00	OID Value Co Name CreateAndG Delete	onfig Value 30 4 6					
D Config D: 1.3.6.1.4.1.9.9.96.1,1.1.1.14.1 De: INTEGER • scription: Operation	00	OID Value Co Name CreateAndO Delete	onfig Value 30 4 6					
D Config D: 1.3.6.1.4.1.9.9.96.1,1.1.1.14.1 De: INTEGER • scription: Operation	00	OID Value C Name CreateAndG Delete	onfig Value 30 4 6					
D Config D: 1.3.6.1.4.1.9.9.96.1.1.1.1.14.1 De: INTEGER • scription: Operation ad/Write READ WRITE	00	OID Value Co Name CreateAndO Delete Name:	onfig   Value 30 4 6					
D Config D: 1.3.6.1.4.1.9.9.96.1.1.1.1.14.1 De: INTEGER • scription: Operation ad/Write READ WRITE	00	OID Value Co Name CreateAndO Delete Name:	onfig   Value 30 4 6					
D Config D: 1.3.6.1.4.1.9.9.96.1.1.1.1.14.1 De: INTEGER • scription: Operation ad/Write READ WRITE	00	OID Value C Name CreateAndO Delete Name: Value:	onfig Value 30 4 6	]				
D Config D: 1.3.6.1.4.1.9.9.96.1.1.1.1.14.1 De: INTEGER • scription: Operation adWrite READ[WRITE	00 •	OID Value Co Name CreateAndO Delete Name: Value:	onfig Value 30 4 6					

Figure 123: Parameter Configuration

				Configure the OID properti		
OIL	) Name	Type	Description	Read/Write	by entering the Name, Type and Decription.	
1.3.6.1.4.1.9.9.96.	1.1.1.1.2.100	INTEGER	Protocol	READIWRITE		
1.3.0.1.4.1.9.9.90. 1 3 6 1 <i>4</i> 1 9 9 96.	1.1.1.1.3.100	INTEGER	DestFileType	READIWRITE		
1.3.6.1.4.1.9.9.96.	1.1.1.1.5.100	IPADDR	ServerIP	READIWRITE		
1.3.6.1.4.1.9.9.96.	1.1.1.1.6.100	STRING	FileName	READ/WRITE		
1.3.6.1.4.1.9.9.96.	1.1.1.1.14.100	INTEGER	Operation	READIWRITE		
ID Config			T TOID Value C	onfiq		
ID Config			OID Value Ci	onfig		
ID Config	9.9.96.1.1.1.1.6.100		OID Value Ci Name	onfig Value		
ID Config	9.9.96.1,1.1.1.6.100	ŝ	OID Value Ci Name FileName	onfig Value NULL		
ID Canfig ID: 1.3.6.1.4.1 ype: STRING	9.9.96.1.1.1.1.6.100		OID Value C Name FileName	nnfig Value NULL		
ID Config ID: 1.3.6.1.4.1 ype: STRING	9.9.96.1.1.1.1.6.100		OID Value Ci Name FileName	onfig Value NULL		
ID Config ID: 1.3.6.1.4.1 ype: STRING rescription: F	9.9.96.1,1.1,1.6,100 • ileName		- OID Value Ci Name FileName	onfig Value NULL		
ID Config ID: 1.3.6.1.4.1 ype: STRING escription: F ead/Write F	9.9.96.1.1.1.1.6.100 ileName XEADJWRITE		OID Value Ci Name FileName	onfig Value NULL		
ID Config ID: 1.3.6.1.4.1 ype: STRING escription: F ead/Write F	9.9.96.1.1.1.1.6.100 • 'ileName {EAD WRITE		OID Value Ci Name FileName Name:	onfig Value NULL		
ID Config ID: 1.3.6.1.4.1 ype: STRING rescription: F read/Write F	9.9.96.1,1.1,1.6,100 • 'ileName {EAD WRITE		OID Value Co Name FileName Name: Value:	onfig Value NULL		
ID Config ID: 1.3.6.1.4.1 ype: STRING rescription: F read/Write F	9.9.96.1.1.1.1.6.100 ileName READ WRITE	•	OID Value Co Name FileName Name: Value:	onfig Value NULL		
ID Config ID: 1.3.6.1.4.1 ype: STRING escription: F lead/Write F	9.9.96.1.1.1.1.6.100 TileName READ WRITE <u>A</u> dd	• Dejete	OID Value Cr Name FileName Name: Value:	NULL		

Figure 124: Parameter Configuration

To back up Catalyst 2960's configuration file:

Because of the difference in the MIB design between D-Link and Cisco, you have to implement the backup via the Firmware Update function. There are a few limitations in the current design, such as:

- There are no problems with one to one relationship (backup one config to a tftp server).
- One to many is the appropriate way to run this function (one config file to many switches). Use the config file for multiple switches, the IP address for each device needs to be modified.
- Many to one relationship is not recommended (many switches to a tftp server). The configuration file will be overwritten on that single config file.

The terminology definition:

- NetFile: refers to TFTP, please select this option if the destination is TFTP server.
- Operation: please select **Create and Go** to process the task.
- According to Cisco's MIB document, the IOS update via SNMP is not supported.

Follow these steps to backup 2960's configuration file:

- 1. Open Run Batch.
- 2. Select the **Firmware Update** tab to back up the configuration.
- 3. Select the appropriate action and enter the information.

D-View 6.0 - [HQ::Net-172	.17.5.0?226]		
D-View 6.0 - [HQ::Net-172]	.17.5.0?226]         Application       System       NetTools       A         Batch Config       ▶       Topo Export/Import         Device Customization       ■	dvanced Help Advanced Option Bun Batch	
		GenSNMP 172.17.5.231	Cayalyst 2960

Figure 125: Run Batch function

Resour Save	ce   Reboot   RM	Config F 10N   Safi	ile Manager eguard Engine	   Spanning Tree	Port Status Firmware Update
Save Device Nam Dev-172.17.5.231	Heboot Elv e Device Type GenSNMPDevic Catalyst 2960	(EN Sah    P  e 172,17,5,231  172,17,5,232	Failed	Spanning Tree         Config By Device Type         Catalyst 2960         Totocol         Protocol         TisourceFileType         ServerIP         TiFleName         Operation         Option:         C29600         Run Local TFTP         Note: Before performinglease ensure TFTP Srunning on the designation the server is reachable	Pirmware Update Setting FTP tartConfig etFile 72.17.5.59 2950Backup0509 reateAndGo Backup0509 meDut(ms): 3000 mg Firmware Update, erver has been sted workstation, and for the devices.
				The status information shown on the panel only indicates a SNMP operation has been sent to the devices successfully.	

Figure 126: Firmware Update Selection screen

- 4. After all the parameters are set, click **Apply.**
- The status is displayed in the TFTP's directory
| C:\Program Files\D-Link\D-Yiev       |                                   |          |                       |                    |          |
|--------------------------------------|-----------------------------------|----------|-----------------------|--------------------|----------|
| <u>File Edit View Favorites Tool</u> | s <u>H</u> elp                    |          |                       |                    | <i>.</i> |
| 3 Back 👻 🕥 👻 🍠 🔎 Search              | 📂 Folders 🛛 😼 🌶 🗙 坷 🛛 🖽 -         |          |                       |                    |          |
| Address 📴 C:\Program Files\D-Link\D  | View                              |          |                       |                    | Go       |
| Folders ×                            | Name -                            | Size     | Туре                  | Date Modified      | 44       |
| 🕀 🦳 risco2960                        | BmpResource                       |          | File Folder           | 5/5/2008 5:12 PM   |          |
| DG5-3200-10                          | 🛅 delconfig                       |          | File Folder           | 5/5/2008 5:22 PM   |          |
| E S My Computer                      | 📄 devmodule                       |          | File Folder           | 4/29/2008 2:58 PM  |          |
| F 4 316 Eloppy (A:)                  | Mibsolution                       |          | File Folder           | 5/8/2008 5:01 PM   |          |
| $\Box \cong \text{Local Disk}(C;)$   | 📄 panelbmp                        |          | File Folder           | 5/5/2008 5:12 PM   |          |
| Documents and Setti                  | i perconfig                       |          | File Folder           | 5/8/2008 5:18 PM   |          |
| E C Program Files                    | i 🛅 tmpconfig                     |          | File Folder           | 5/8/2008 5:30 PM   |          |
| E Adobe                              | 📄 xmlinstall                      |          | File Folder           | 5/5/2008 5:13 PM   |          |
| E C cmak                             | 🗖 🖻 2960backup                    | 2 KB     | File                  | 5/8/2008 4:42 PM   | ÷.       |
| III Common Files                     | 🔊 AdvancedApp.dll                 | 152 KB   | Application Extension | 3/12/2008 1:12 PM  | F        |
| ComPlus Applicat                     | 🔊 Authentication. dll             | 1,048 KB | Application Extension | 3/12/2008 1:12 PM  | F        |
| E D-Link                             | 🔊 AutoDiscover.dll                | 72 KB    | Application Extension | 3/12/2008 1:12 PM  | £        |
| E DevModule                          | AutoDiscover.xml                  | 1 KB     | XML Document          | 4/29/2008 4:42 PM  | F        |
| D-Link SNMP                          | D AutoTopor.exe                   | 584 KB   | Application           | 3/12/2008 1:13 PM  | F        |
|                                      | AutoToporCom.dll                  | 40 KB    | Application Extension | 3/12/2008 1:13 PM  | F        |
|                                      | BatchCom.dll                      | 44 KB    | Application Extension | 3/12/2008 1:13 PM  | - F      |
|                                      | BatchCustomCfg.exe                | 92 KB    | Application           | 3/12/2008 1:13 PM  | £        |
|                                      |                                   | 280 KB   | Application           | 3/12/2008 1:13 PM  | F        |
|                                      | C2960Backup0509                   | 2 KB     | File                  | 5/9/2008 9:26 AM   | £        |
|                                      | 🔤 c2960-lanbase-mz.122-35.5E5.bin | 5,101 KB | BIN File              | 5/8/2008 5:30 PM   | ÷.       |
|                                      | Sommon.dll                        | 43 KB    | Application Extension | 7/6/1998 11:06 PM  | F        |
|                                      | DBrowser, exe                     | 1,671 KB | Application           | 4/25/2005 11:43 PM | f        |
|                                      | DBStore1.exe                      | 44 KB    | Application           | 7/12/2007 9:54 AM  | F        |
| 🖽 Module                             | DBStore.exe                       | 48 KB    | Application           | 3/12/2008 1:13 PM  | ¢.       |
| E Ginabyte                           | DCompiler.exe                     | 2,419 KB | Application           | 4/25/2005 11:43 PM | ÷.       |
| HyperSpac-DX 4                       | 🚺 🛐 DevResMg.dll                  | 168 KB   | Application Extension | 3/12/2008 1:13 PM  | F        |
| T DistallShield Tost                 | DevTypeCfg.exe                    | 40 KB    | Application           | 3/12/2008 1:13 PM  | £,       |
|                                      | K                                 |          |                       | 1                  | ١        |

Figure 127: File Backup Configuration

Device	Name De	vice Type	IP Statu	us Config	By Device Typ	e
)ev-172.17 )ev-172.17,	5.231 GenSN 5.232 Catalys	MPDevice t 2960	172.17.5.231 172.17.5.232 Succe	catal	vst 2960 🔹	Select
					Config Name	Setting
<u>A</u> bout Nam Oper	e D-View Man hed 5:24:25 PM	ager	IP Address 172.17.5.5 Action Session 0	59	2	VetFile 72.17.5.59 22960Backup0509 CreateAndGo
Index	Action IP	Туре	Tftp File Name	Status	- I otal	Backup0509
2	172 17 5 232 172.17.5.232	Put Put	c2960-lanbase-mz 122-35 C2960Backup0509	OK OK	Clear	imeOut(ms): 3000
					Close	ning Firmware Update, Server has been ated workstation, and
<ul> <li>▼</li> <li>5:30:03 F</li> <li>9:26:34 A</li> <li>9:26:34 A</li> </ul>	<sup>9</sup> M : Transfer OK M : Start transferring M : Transfer OK	)			<u>1</u>	e for the devices. In shown on the panel P operation has been accessfully.

Figure 128: Apply to back up

To configure Batch Config to support the reboot function for Catalyst 2960:

 Open Advanced Option and select Reboot to add 2960 into the list. Click Next to continue. Go to Application > Batch Config > Advanced Option.

Function Name	Function Description	~
FIRM CONFIGURE RESOURCE PORTSTATUS SAVE SPANNING RMON SAFEGUARD REBOOT	Firmware update Config update Resource Manager Port status Save config Spanning tree config RMDN config Safeguard Engine config Reboot devices	
Function Info		
Name: HEB	DUT	
Description: Rebo	pot devices	

Figure 129: Reboot function selection

- 2. Add Catalyst 2960 to the list and click **Property** to configure the OID information.
- Follow the on-screen icons to add the 2960.

Device Types supported by DWL3260 DPF500 DGS3612 DFL2510F DWL8200 DWL7100 DGS3426		Configured Device Types DPN3012E DGS3612G DGS3627G DGS3627 DGS3627 DGS3650 DGS3450 DGS3427	Add or Delete devices to support "Batch" configuration. The device list on the left shows all device types currently managed by D-View. The device list on the right shows all the device types that support batch configuration. Note: The non-configured devices
Catalyst 2960 DGS 3427 DES 3828DC DGS 3627 DGS 3200-10 DFL800 DFL2560 DES 3526		DGS3426 DGS3200-10 DES3828DC DES3828P DES3828 DES3550 DES3550 DES3526 Catalyst 2960	perform the batch configuration.
Ad	1	Delete Property	

Figure 130: Device Type Config

- 3. Enter the OID information and click Add.
- 4. Select the added OID information.

OID Config	×
OID List	Indication:
OID List     OID Name     Type     Description     Read/Write       1.3.6.1.4.1.9.2.9.9.0     INTEGER     Reboot     READ/WRITE       OID Config     OID Config     OID Value Config       OID:     1.3.6.1.4.1.9.2.9.9.0     Name     Value       Type:     INTEGER     •       Description:     Reboot     2	Indication: Configure the OID properties of the device by entering the Name,Type and Decription.
Read/Write     READ/WRITE       Add     Delete	
Close	

#### 5. Add the OID value as seen in the screen below.

Figure 131: Reboot Parameter Configuration

- 6. Select the Reboot tab to reboot the switch.
- Follow the on-screen icons to reboot the switch.

Save Re	boot RMOI	Config Fil N Safe	e Manager guard Engine	   Spanning Tree	Port Status
Device Name Dev-172.17.5.231 ✓ Dev-172.17.5.232	Device Type GenSNMPDevice Catalyst 2960,	IP 172.17.5.231 172.17.5.232	Status	Config By Device Type Catalyst 2960 • Config Name Reboot Re Option: Indication Note: Please select th performing operations a type. Then press "Apply" b selected devices. The shown on the panel on operation has been ser successfully. TimeOut(ms): 3000	Select Setting eboot ebo

Figure 132: Reboot function execute

# 7.6 Managing Devices with Device Panel Simulation

Double-click on a switch icon in the topology window of D-View 6.0 to open a new window. This window graphically represents the front panel of the switch. Different management tasks can be started via context menus that appear in the Device Panel Simulation.



Figure 133: Opening the Device Panel Simulation

The Device Panel Simulation also displays LEDs situated on the physical switch. The following image shows the Device Panel for the DGS-3100. The context menus can be seen on the upper part of the window, and ports and LEDs are shown in the graphical representation of the switch. The LEDs show status information about Power, Console, RPS, Fan Errors, and individual ports.

<b>D</b> DGS-3100-24: 172.17.5.212	🛛 🛛
Device Manager Public MIB Tools SNMPv3 About	
D-Link Managed Switch Power Console RPS Fan Err	17 18 19 20 21 22 23 24 21 22 23 24 21 23 24 20 20 20 20 20 20 20 20 20 20 20 20 20

Figure 134: Panel Simulation for the DGS-3100 switch

Point the cursor to the context menu to start management tasks for the corresponding switch.

Device Parameter Co	nfigurati	on			×
SNMP Parameter					
Device IP:	172	. 17	. 5	. 212	
Timeout:	3000				
	Apply		ОK		Close

Figure 135: Device Parameter Configuration

Point the cursor to a port and click on it to open the Port Configuraton Window.

D Port C	onfiguration				$\mathbf{X}$
⊢ Port Inf	ormation				
Index	DuplexAdminMode	DuplexOperMode	BackPressureM	ode TaggedMode	
•				Þ	
- Port Co	Infiguration				
Port ID:		 BackPressureMod	e 🗖 TaggedM	ode: 🗖	
	1				
FlowCo	ntrolMode:		I DuplexAu	toNegotiation:	
		Refres	sn Appl	y Close	
		Refres	sh Appl	y Close	

Figure 136: Port Configuration window

Several switches can be managed and monitored at the same time using the Device Panel Simulation.



Figure 137: Device Panel modules

## 7.7 Managing Devices with MIB Compiler

The **MIB Compiler** is used for configuring non-D-Link devices, through a MIB file. The MIB compiler translates the MIB from its normal ASN.1 format to a format that is comprehensible by other applications. The benefits of using the MIB compiler are that you can query data and configure the settings for a third party device with the help of D-View.

#### To manage devices with MIB Compiler:

 Go to NetTools > MIB Tools and then select MIB Compiler. The D-Link MIB Compiler screen will display.



Figure 138: D-Link MIB Compiler screen

2. Open the rfc1213 file for modification. D-View will load the compiled MIB file.

*Typically, D-View identifies the device type by retrieving the OID value* 1.3.6.1.2.1.1.2.0 *from the RFC1213 MIB file.* 

000000000

D-Link MIB Compiler	
File Edit View Window Help	
Browse Agent IP : 172.17.5.30	
C IANAIT	
CIFMB Loading compiled MIB module [ RFC1213-MIB ]	
C IGMP-S	
C P-BRIDE IND	
C PORTAR CHI	
A: PEC.100-SMI	
C (BFC1213-MIB	
≤ RFC-1215	
C:SNMPv2-CONF	
C SNMPv2-MIB	
C SNMPv2-SMI	
A SNMPV21U A SNMPV21U	
	10

Figure 139: Loading compiled MIB Module screen

3. For example, right-click on sysLocation and select Info in the MIB tree.



Figure 140: MIB Tree screen

#### The Browse Result Node: sysLocation screen will appear.

- 4. Click **Query** to get the value of the device.
- 5. Click Set to apply the change of the value for sysLocation.
- 6. Make a note of the **OID** value of the device.

BA				ige Set Value	3
Agent IP :	192.16	8.11 15	5	Remote IP 192 168 11.15	Poll every 30 Sec.
Name	OID S	Syntax	Access 1		
sysLocation	1 (	Displ	Read	Object Name sysLocation	
				Object ID 1.3.6.1.2.1.1.6.0	
				Syntax Display String	
				Community String         Write Community String           Read Community String         private	
				Value to Set	
				Set Cancel	Close
Count	1		A ) (		Close

Figure 141: Set Value screen

99999994	Use MIB Browser to browse MIB files after compilation.	
----------	--	--

## Setting Up SNMP Configuration to Retrieve Device

#### Information

1. Click **SNMP Configuration** from the **MIB Complier** screen. **The** 

**SNMP Configuration** screen displays.

NMP Configuration	
SNMP Protocol Version  SNMPv1  SNMPv1  SNMPv2  General	
Read Community String : public     Ime-out:     2     Retries:     1	
Write Community String : private     Port:     161	
SNMPV3 User Name: Security Level: NoAuthNoPriv	Delete User
Auth Password: Priv Password:	
Auth Protocol: NONE Prix Protocol: NONE	ок
Context Engine ID:	Cancel

Figure 142: SNMP Configuration screen

#### 2. Select the **SNMP Protocol Version**.

3. Enter the community string to access devices through SNMP.

If you select SNMPV3, update the SNMPV3-specific fields and access devices respectively.

4. Click OK and manage the selected device using MIB Compiler.

## **7.8 Retrieving OID of the device**

To identify non D-Link devices, the administrators must first retrieve the OID of the device and then customize them to add to D-View.



#### To retrieve the OID of the device:

1. Go to **NetTools** > **MIB Tools** > **MIB Compiler**. The **MIB Compiler** screen will appear.



Figure 143: MIB Compiler screen

- 2. Enter the device IP address.
- 3. Set the **SNMP Configuration**. Refer to <u>Setting Up SNMP Configuration</u> <u>to Retrieve Device Information</u> from devices.
- 4. Compile the RFC1213 MIB File and select sysObjectID from the MIB tree.
- 5. Right-click sysObjectID and select Info. The Browser Result screen will appear.
- 6. Make a note of the OID value of the device.

#### OR

- 1. For a non-designated device module, D-View will identify the device as **GenSNMPDevice** type.
- 2. Double-click on the device. The graphical interface of the device will appear.

3. Go to **Device Info** and then select **System Info**. The **System InfoGenSNMPDevice Module** screen will appear.

D Sy	ystem Information GenSNMPDeviceModule						
	Name: Print Server PS-10B37B Description D-Link DP-301P+ Print Server						
	Location: RD1						
S	Run Time: 462 Hours 13 Minutes #ystem OID: 1.3.6.1.4.1.171.11.10.1						
Г Г	Service						
	Refresh Apply Close	]					

Figure 144: System InfoGenSNMPDeviceModule screen

- 4. From the **System InfoGenSNMPDeviceModule** screen, modify the device type properties in the dialog.
  - **Name:** Enter the name of the device.
  - Contactor: Enter the name of the user responsible for managing the device.
  - **Location:** Enter the location of the device.
  - **Run Time:** Displays the run time of the device.
  - **Service:** Displays the OSI layers the device supports.
- 5. Click **Apply** to save the changes.
- 6. Click **Refresh** to view the updated information.

## 7.9 Batch Configuration

The **Batch Configuration** tool allows you to execute a sequence of operations in D-View, for example: Save Configuration and Retrieve Port Status. With Batch Configuration you can configure multiple devices simultaneously. Since all the configurations are similar, only one has been described below.



*Remember to configure the OID information before using the Run Batch tool.* 

To configure the OID information of SafeGuard Engine:

 Go to Application > Batch Config> Advanced Option. The Advanced Option screen will display.

Function Nar FIRM	ne Function Descrip Firmware update	otion	
RESOURCE	Lonfig update Resource Manager		
PORTSTATUS	Port status		
SPANNING	Save conrig Spanning tree config		
RMON	RMON config		
SAFEGUARD	Safeguard Engine config		
,			
Function Info			
Name: S.	AFEGUARD		
Description: S	afeguard Engine config		

Figure 145: Advanced Option screen

- 2. D-View supports a list of batch function templates. They are:
  - FIRM: Download firmware from the switch to the TFTP server or upload firmware to the device.
  - **CONFIGURE:** Download/Upload config information in the device.
  - **RESOURCE:** Retrieve/Set the information about name, location, contact of the device.
  - **PORTSTATUS:** Retrieve/Set the **Port Enable** status.

- **SAVE:** Save the configuration changes in a device.
- **SPANNING:** Enable/Disable the **STP** status in device.
- **RMON:** Enable/Disable the **RMON** status in device.
- **SAFEGUARD:** Enable/Disable the **SAFEGUARD** status in device.
- **REBOOT:** Reboot devices.
- 3. Select **SAFEGUARD** and then click **Next** to continue. The **Device Type Config** screen will display.

Device Types supported by DWL3200 DWL2100 DGS3627G DGS3324SR DWL7700 GenSNMPDevice DGS3450 DES3828 DGS3612G DES3828P DGS3650 DWL2700 DES3550 DGS3550 DGS3505G DGS3308FG DES6500 DXS33505R	<ul> <li>▲ Configured Device Types</li> <li>DGS3612G</li> <li>DGS3627G</li> <li>DGS3650</li> <li>DGS3450</li> <li>DGS3427</li> <li>DGS3426</li> <li>DES3828DC</li> <li>DES3828P</li> <li>DES3828</li> <li>DES3550</li> <li>DES3550</li> </ul>	"Batch" configuration. The device list on the left shows all device types currently managed by D-View. The device list on the right shows all the device types that support batch configuration. Note: The non-configured device: are displayed in grey, when you perform the batch configuration.
Ad	Delete Property	

Figure 146: Device Type Config screen

- 4. The devices can be added or deleted to support batch configuration.
- Click Property to configure the OID properties of a device type. The OID Config screen will display.
- 6. Enter the values of the **OID Config** information.

<b></b>		OID Name	Type	Description Read/Write	Configure the OID properties of the device
1.3.6.1	1.4.1.171	.12.19.1.1.0	INTEGER	Safeguard READ WRITE	by entering the Name,Type and Decription.
	onfig 1.3.6.1.4	4.1.171.12.19.1.1.0		OID Value Config Name Value OTHER 1	
Type:	INTEGE	R 🔹		DISABLE 2	
	ption:	Safeguard			
Descri	Abito	READ/WRITE	•	Name: OTHER	
Descrij ReadA	white				
Descrij Read/V	vinte			Value: 1	

Figure 147: OID Config screen

- 7. Enter the values of the **OID Value Config** for each OID.
  - 1 Other
  - 2 Disable
  - 3 Enable
- 8. Click **Add** to configure the OID value of **Safeguard Engine**.

#### 7.9.1 Backup and Update the Devices'

#### Configuration

Use the **Batch** tool to backup and update the devices' configuration.

 Go to Application > Batch Config > Run Batch or right-click and select Run Batch from the popup menu after selecting the devices in the opened topology. The Run Batch screen will display.

Pa	Reboot	RMON	Safegua Config File M	ard Engine	Spanning Tre	e Firmwa Port Statuo	are Update
ne	source		Coning Flic I	lanager		Fuit Status	
Dev	vice Name	Device Type	IP		Config File N	ame	Stati 4
Dev-172. Dev-172. Dev-172. Dev-172. Dev-172. Dev-172. V Dev-172. V Dev-172. V Dev-172. V Dev-172. V Dev-172.	17.5.108       G         17.5.108       G         17.5.119       G         17.5.181       G         17.5.182       G         17.5.183       G         17.5.184       G         17.5.243       D         17.5.242       D         17.5.243       D         17.5.244       D         17.5.245       D         17.5.245       D         17.5.245       D	enSNMPDevice enSNMPDevice enSNMPDevice enSNMPDevice enSNMPDevice enSNMPDevice enSNMPDevice GS3450 GS3450 GS3450 GS3450 GS3450 SS350 SS SS SS SS SS SS SS SS SS SS SS SS SS	172.17.5108 172.17.5108 172.17.5119 172.17.5181 172.17.5182 172.17.5184 172.17.5184 172.17.5241 172.17.5241 172.17.5243 172.17.5243 172.17.5244 172.17.5243 172.17.5245 172.17.5254	_172.17.5.241 _172.17.5.242 _172.17.5.243 _172.17.5.244 _172.17.5.245	I_DGS3450cfg 2_DGS3450cfg 3_DGS3450cfg 4_DGS3450cfg 5_DGS3450cfg		
Setting		— – Config File N	lame			lu di satisu	
TFTP Server IP	:	File	iunio.		Browse	Note: All the op	eration will
192 168	. 119 . Deelue				<u>M</u> odify	be implemented i working folder of	n the TFTP
Operation: Backup 🔹		-Select devic	es			server before any	operation.
Uperation:	3000	Select All	Select None	DGS3450	- 🔽 Select		
Uperation: TimeOut(ms):							
Uperation: TimeOut(ms): Run Local TFTP	<b>V</b>						

Figure 148: Run Batch screen

- 2. A brief description of other tabs is given below:
  - **Save:** Save device configuration.
  - RMON: Enable/Disable RMON status to monitor device performance.
  - **Safeguard Engine:** Enable/Disable safeguard status. Refer to 7.9.3 Using Safeguard Check for more information.
  - **Spanning Tree:** Enable/Disable the status to prevent undesirable loops in the network.
  - Firmware Update: Upload/Download firmware through TFTP server.
  - Resource: Select to update the resource information for a specific device.
  - Config File Manager: Update and backup configuration files from the TFTP server.
  - **Port Status:** Select to view the port status of the device.
- 3. Select the **Config File Manager** tab. The **Config File Manager** tool helps the administrators to perform the following actions.
  - **TFTP Server IP:** Enter the IP address on which the TFTP server program runs.
  - **Operation:** Select the mode of operation- Backup or Update.
  - **TimeOut:** SNMP timeout value.
  - Run Local TFTP: Select to use the TFTP server tool provided by D-View. The D-Link TFTP Server screen displays.

4. Click **Apply** and monitor the running status of the TFTP Server.

Nam	e	D-View Mana	ger	IP Address	192.168.11.9	9	2
Oper	ned	06:07:22		Action Session	0		Total
Index	Ac	tion IP	Туре	Tftp File Name		Status	- I otal
1 2	19) 19)	2.168.11.12 2.168.11.252	Put Put	_192.168.11.12 _192.168.11.2	2_DES3550 52_DES355	OK OK	Clear Close
<						>	

Figure 149: D-Link TFTP Server screen

5. The **Config File Manager** enables uploading of the configuration files to the device through TFTP server. Administrators can make the required changes to the file and then upload this file to the device. It reduces the administrators' time when a similar configuration has to be made to several similar devices. The status displays **OK**, when the transaction is successfully completed. Refer to <u>8.1.10 TFTP</u> for more information.

## 7.9.2 Using Device Type Check



Use **Device Type Check** to check the network for new and updated devices. 1. Open the **Topology** and select the device that needs to be monitored.

Figure 150: Generated Topology window

- Go to Advanced > Device Type Check. D-View scans the devices in the open topology.
- 3. Click **Check** to manually scan the device.

Device Name	IP	Туре	Checked Type	Read Commu	Write Commu	
Dev-172.17.5.119	172.17.5.119	GenSNMPDevice	GenSNMPDevice	public	private	
Dev-172.17.5.181	172.17.5.181	GenSNMPDevice	GenSNMPDevice	public	private	
ev-172.17.5.182	172.17.5.182	GenSNMPDevice	GenSNMPDevice	public	private	
ev-172.17.5.183	172.17.5.183	GenSNMPDevice	GenSNMPDevice	public	private	
ev-172.17.5.184	172.17.5.184	GenSNMPDevice	GenSNMPDevice	public	private	
ev-172.17.5.241	172.17.5.241	DGS3450	DGS3450	public	private	
ev-172.17.5.242	172.17.5.242	DGS3450	DGS3450	public	private	
ev-172.17.5.243	172.17.5.243	DGS3450	DGS3450	public	private	
Dev-172.17.5.244	172.17.5.244	DGS3450	DGS3450	public	private	
Dev-172.17.5.245	172.17.5.245	DGS3450	DGS3450	public	private	
Dev-172.17.5.254	172.17.5.254	DXS3326GSR	DXS3326GSR	public	private	
Dev-172.17.5.40	172.17.5.40	GenSNMPDevice	GenSNMPDevice	public	private	
Dev-172.17.5.30	172.17.5.30	GenSNMPDevice	GenSNMPDevice	public	private	

Figure 151: Device Type Check screen

4. Select one or more devices and click **Update**. D-View refreshes the information of the selected devices.

#### 7.9.3 Using Safeguard Check

Malicious hosts on the network could attack the Switch through various methods (for example, packet flooding). To overcome this situation, D-View uses **Safeguard Engine** to protect switches from malicious traffic flood. This minimizes the workload of the switch during the attack. The Switch, therefore, is capable of forwarding essential packets even during limited bandwidths.



By default, the safeguard status of all devices is disabled.

#### To configure the safeguard status:

 Go to Application > Batch Config > Run Batch Or

In the opened topology select the device and right-click and select **Run Batch**.

The **Run Batch** screen will display. You can now enable or disable the devices' Safeguard Engine.

- Check the devices and then select ENABLE from the Option drop-down list.
- 3. Click **Apply** to enable the **Safeguard Engine** status of the selected devices.

Resource Save Rel	poot   RMO	N Config Fi	le Manager guard Engine	Spanning Tree	Port Status Firmware Update
Device Name	Device Type	I721751	Status	Config By Device Typ	De
Dev-172.17.5.33 Dev-172.17.5.108 Dev-172.17.5.119 Dev-172.17.5.181 Dev-172.17.5.181	GenSNMPDevice GenSNMPDevice GenSNMPDevice GenSNMPDevice GenSNMPDevice	172.17.5.33 172.17.5.108 172.17.5.119 172.17.5.181 172.17.5.182		Config Name Safeguard	Setting ENABLE
Dev-172.17.5.183 Dev-172.17.5.184 Dev-172.17.5.213 Dev-172.17.5.241 Dev-172.17.5.242 Dev-172.17.5.243 Dev-172.17.5.244	GenSNMPDevice GenSNMPDevice GenSNMPDevice DGS3450 DGS3450 DGS3450 DGS3450 DGS3450	172.17.5.183 172.17.5.184 172.17.5.213 172.17.5.241 172.17.5.242 172.17.5.243 172.17.5.244 172.17.5.244		Option:	
Dev-172.17.5.254	DXS3326GSR	172.17.5.254		Indication Note: Please sele- performing operatio type. Then press "Apply Safeguard status of The status informat only indicates a SN sent to be devices	IDISABLE     ENABLE     The devices for     ns according to device      // button to config the     (the designated devices,     ion shown on the panel     MP operation has been     surcessful
				TimeDut(ms): 30	

Figure 152: Run Batch: Safeguard Engine screen

- Go to Advanced > Safeguard Check for the updated enable status of the selected devices. The Safeguard Check screen will display.
- 5. Click **Check** to manually scan the safeguard status of the device.

Safeguard Check						E
Device Name	Туре	IP	Safeguard	Read Commu	u Write Commu	
Dev-172.17.5.241 Dev-172.17.5.242 Dev-172.17.5.243 Dev-172.17.5.244	DG83450 DG83450 DG83450 DG83450 DG83450	172.17.5.241 172.17.5.242 172.17.5.243 172.17.5.244	Enable Enable Enable Enable	public public public public	private private private private	
Dev-172.17.5.245 Dev-172.17.5.254	DGS3450 DXS3326GSR	172.17.5.245 172.17.5.254	Enable Disable	public public	private private	
				Check	Undate	Close
						1

Figure 153: Safeguard Check screen

- 6. Click **Update** to refresh the updated information.
- 7. Click **Close** to exit the window.

The **Safeguard Engine** icon is displayed on the top left-hand corner of the device in the topology.



Figure 154: Topology indicating the Safeguard Engine enabled for certain switches



The Safeguard status is not saved into the database; the status value is only for the opened topology.

## 7.9.4 Labeling Devices

There are two types of labels in D-View:

- Device Label Used to label the device. Administrators can set what details should be displayed.
- Link Label Used to label the connectors connecting two or more devices.



*By default, D-View displays the IP addresses under the device icon in a topology.* 

#### 7.9.4.1 Device Label

To change the **Device Label**, go to **Topology** > **Device Label** and select a type.

The following table lists the different types of **Device Labels**.

Device Label	Description	Example
Device Name	The device name is displayed under the device icon.	Dev-172.17.6 .30
Device IP	The device IP address is displayed under the device icon.	172.17.5.30
Device Type	The device type is displayed above the device icon.	DGS-3450
Safeguard Info	The Safeguard status is displayed on the top left corner of the device icon. The Safeguard status can be checked and updated by calling <u>7.9.3 Using Safeguard</u> <u>Check</u> function module.	172.17.5.244
Hide Info	Hides the information of the devices.	

#### 7.9.4.2 Link Label

To change the **Link Label**, go to **Topology** > **Link Label** and select a type. The following table lists the different types of **Link Labels**.

Device Label	Description	Example
Link Port	Displays the port number used to connected the two devices.	Dev-172
Link Speed	Displays the maximum connection speed between the two devices.	Dev-172 100M 13 23 10M Dev-172 Dev-172 Dev-172

## 7.9.5 Editing Device Information

D-View can store device-related information such as name of the device, the port it uses, interface configuration details, vendor, and so on.

#### To edit device information:

Select the device from an open topology and then go to **Topology** >
 **Device Manager** > **Edit Device**. The **Edit device** screen will appear.
 OR
 OR
 OR
 OR
 OR
 ON
 Device Manager > Device
 Device Manager > Device
 Device Manager > Edit Device
 Device Manager > Device
 <p

Right-click on the device and select **Property** to edit the properties of the device. The **Edit Device** screen will appear.

Basic Inform	ation				
Name:	Dev-172.17.5	5.30	Descriptio	n:	
Vender:	Others	-			
Туре:	GenSNMPDe	evice 💌			
nterface Co	nfiguration				
Interface II	>	Туре			<u>A</u> dd
172.17.5.3	0	Etherne	et		Edit
•				•	<u>)</u> elete
Dotailad Info	rmation				
Location:	Outdoon				
Location.	3rd lloor			1722	
Buyer:	ABC		Buy Date:	2008/ 1/25	-
Modules:	0		Port Num:	0	
Serial No:	221133		Firmware:		
Note 1:	Test				
Note 2:					
/anagemen	t Method				- 262
_	SNMP v1/v2c		-	<u>C</u> onfig	
	SNMP v1/v2c				70
	ONMP V3		1.0	Cancal	

Figure 155: Edit Device screen

- 2. Enter the **Basic Information** for the device. Basic Information comprises **Name**, **Vendor**, **Type**, and **Description** of the device.
- 3. Configure the **Interface IP**. Click **Add** to add a new Interface IP, **Edit** to update an existing Interface IP, or **Delete** to remove an existing Interface IP.
- Enter the Detailed Information for the device. Detailed Information comprises the Location, Buyer, Modules, Serial No., Buy Date, Port Num, and Firmware of the device.
- 5. Configure the **Management Method**. Refer to <u>Management Methods</u> for more information.
- 6. Click **Apply**.

#### **Management Methods**

D-View allows administrators to manage multiple device modules simultaneously, using different management methods. When administrators need to configure the device, D-View opens the designated management tool.

D	evice Management	Method		
	SNMP v1/v2c SNM	9 v3   TELNET   W	EB   Customize	
	Read Community:	public		
	Write Community:	private		
			ОК	Cancel

Figure 156: Device Management Method screen

D-View includes the following methods for managing a device:

- SNMP v1/v2c: D-View will use device modules that support SNMP v1/v2c to manage the device.
- SNMP v3: D-View will use device modules that support SNMP v3 to manage the device.
- **TELNET:** D-View will use the telnet tool embedded in the OS to manage the device.
- WEB: D-View will use web browser (IE) tool imbedded in the OS to manage the device.
- Customize: D-View will use the designated program to manage the device.

## 7.10 Managing Events

Events are one of the core functions of D-View. In fact, the main function of D-View can be described as detecting changes within the network, and every change can be thought of as an event. The following sections will discuss **Events** in detail.

## 7.10.1 Setting Poll Parameters

Parameters for the polling include poll interval and poll timeout.

```
To set the Polling Parameters:
```

1. Go to System > Event Manager > Polling Config > Parameters.

D Polling Config		<u>×</u>
⊡-® HQ	Parameters Polling Level	Unpolled Device List Polling Device List
	Polling Levels	Timeout Second(s)
	Aggregation Access	
	Client	Time of Polling Interval
		Day Hour Minute Second
		Reset
		Retry Time(s)
	Depart Delling	
	Reset nolling status at	
	It is a point of a large at 12	everyudy.
	<u>R</u> eset All Levels	<u>Apply</u>

Figure 157: Set Parameter screen

- 2. Choose the appropriate polling level in **Polling Levels** from **Core**, **Aggregation**, **Access** and **Client**.
- 3. Set the **Timeout** in seconds. D-View will stop polling the device after this timeout period. Click **Reset** to reset value to default value, which is 2.
- 4. Set the **Polling Interval** in days, hours, minutes and seconds. D-View will poll the devices at the set time interval. Click **Reset** to reset value to default value, which is 0.
- Set the **Retry Time**. D-View will retry this amount of times if polling is initially unsuccessful. Click **Reset** to reset value to default value, which is 1.

6. Click on **Reset Polling** if you want to enable it. Then set the time which the polling will be reset everyday.

```
7. Click Apply.
```



After you configure the poll parameters, D-View must remain open for polling to be executed.

#### 7.10.2 Setting the Devices to Poll

To monitor the status of the devices, add the devices to the poll list. You can also delete the devices if you no longer want to monitor the device status.



When the devices are added to the poll list, the device icon color changes from grey to green.

To configure the Poll List:

 Go to System > Event Manager > Polling Config > Unpolled Device List tab.

Net-172.17.5.0 Net_Unknow       Device Filter       Add to Poll         Polling Level:       All       Protocol:       ICMP         Device List       Add to Poll       Add to Poll         Device List       Device Name       Device Type       IP       Con         Dev-172.17.5.33       NonSIMPDevice       172.17.5.33       public         Dev-172.17.5.47       NonSIMPDevice       172.17.5.47       public         Dev-172.17.5.50       NonSIMPDevice       172.17.5.65       public         Dev-172.17.5.93       NonSIMPDevice       172.17.5.93       public         Dev-172.17.5.10       NonSIMPDevice       172.17.5.10       public         Dev-172.17.5.10       NonSIMPDevice       172.17.5.10       public         Dev-172.17.5.16       NonSIMPDevice       172.17.5.12       public         Dev-172.17.5.16       NonSIMPDevice       172.17.5.16       public         Dev-172.17.5.44       NonSIMPDevice       172.17.5.44       public	n nu ⊨	Parameters Po	olling Level	Unpolled Devic	e List   Pollin	ng Device List	
Device Group:       All       Protocol:       ICMP         Polling Level:       All       All       Add to Poll         Device List       Device Name       Device Type       IP       Com         Dev172.17.5.33       NonSNMPDevice       172.17.5.33       public         Dev172.17.5.47       NonSNMPDevice       172.17.5.47       public         Dev172.17.5.50       NonSNMPDevice       172.17.5.65       public         Dev172.17.5.65       NonSNMPDevice       172.17.5.65       public         Dev172.17.5.93       NonSNMPDevice       172.17.5.93       public         Dev172.17.5.93       NonSNMPDevice       172.17.5.93       public         Dev172.17.5.10       NonSNMPDevice       172.17.5.10       public         Dev172.17.5.12       NonSNMPDevice       172.17.5.10       public         Dev172.17.5.16       NonSNMPDevice       172.17.5.16       public         Dev172.17.5.44       NonSNMPDevice       172.17.5.44       public		Device Filter			Add to Poll-		
Polling Level:         All         Add to Poll           Device List		Device Group:	All	•	Protocol	ICMP	•
Device List           Device Name         Device Type         IP         Com           Dev-172.17.5.33         NonSNMPDevice         172.17.5.33         public           Dev-172.17.5.47         NonSNMPDevice         172.17.5.47         public           Dev-172.17.5.50         NonSNMPDevice         172.17.5.50         public           Dev-172.17.5.55         NonSNMPDevice         172.17.5.65         public           Dev-172.17.5.93         NonSNMPDevice         172.17.5.93         public           Dev-172.17.5.99         NonSNMPDevice         172.17.5.93         public           Dev-172.17.5.10         NonSNMPDevice         172.17.5.10         public           Dev-172.17.5.10         NonSNMPDevice         172.17.5.10         public           Dev-172.17.5.12         NonSNMPDevice         172.17.5.12         public           Dev-172.17.5.16         NonSNMPDevice         172.17.5.16         public           Dev-172.17.5.44         NonSNMPDevice         172.17.5.44         public		Polling Level:	All	•		<u>A</u> dd t	to Poll
Device Name         Device Type         IP         Com           Dev-172.17.5.33         NonSNMPDevice         172.17.5.33         public           Dev-172.17.5.47         NonSNMPDevice         172.17.5.47         public           Dev-172.17.5.50         NonSNMPDevice         172.17.5.50         public           Dev-172.17.5.65         NonSNMPDevice         172.17.5.65         public           Dev-172.17.5.93         NonSNMPDevice         172.17.5.93         public           Dev-172.17.5.10         NonSNMPDevice         172.17.5.99         public           Dev-172.17.5.10         NonSNMPDevice         172.17.5.10         public           Dev-172.17.5.12         NonSNMPDevice         172.17.5.10         public           Dev-172.17.5.14         NonSNMPDevice         172.17.5.14         public		Device List					
Dev-172.17.5.33       NonSNMPDevice       172.17.5.33       public         Dev-172.17.5.47       NonSNMPDevice       172.17.5.47       public         Dev-172.17.5.50       NonSNMPDevice       172.17.5.50       public         Dev-172.17.5.65       NonSNMPDevice       172.17.5.65       public         Dev-172.17.5.93       NonSNMPDevice       172.17.5.93       public         Dev-172.17.5.93       NonSNMPDevice       172.17.5.93       public         Dev-172.17.5.10       NonSNMPDevice       172.17.5.10       public         Dev-172.17.5.12       NonSNMPDevice       172.17.5.12       public         Dev-172.17.5.16       NonSNMPDevice       172.17.5.16       public         Dev-172.17.5.44       NonSNMPDevice       172.17.5.44       public		Dev	ice Name	Device	Туре	IP	Com
Dev-172.17.5.47       NonSNMPDevice       172.17.5.47       public         Dev-172.17.5.50       NonSNMPDevice       172.17.5.50       public         Dev-172.17.5.65       NonSNMPDevice       172.17.5.65       public         Dev-172.17.5.93       NonSNMPDevice       172.17.5.93       public         Dev-172.17.5.99       NonSNMPDevice       172.17.5.99       public         Dev-172.17.5.10       NonSNMPDevice       172.17.5.10       public         Dev-172.17.5.12       NonSNMPDevice       172.17.5.12       public         Dev-172.17.5.16       NonSNMPDevice       172.17.5.16       public         Dev-172.17.5.44       NonSNMPDevice       172.17.5.44       public		Dev-172.17.5	5.33	NonSNMPD	evice 172.	17.5.33	public
Dev-172.17.5.50       NonSNMPDevice       172.17.5.50       public         Dev-172.17.5.65       NonSNMPDevice       172.17.5.65       public         Dev-172.17.5.93       NonSNMPDevice       172.17.5.93       public         Dev-172.17.5.99       NonSNMPDevice       172.17.5.99       public         Dev-172.17.5.10       NonSNMPDevice       172.17.5.10       public         Dev-172.17.5.12       NonSNMPDevice       172.17.5.12       public         Dev-172.17.5.16       NonSNMPDevice       172.17.5.16       public         Dev-172.17.5.44       NonSNMPDevice       172.17.5.44       public		Dev-172.17.5	5.47	NonSNMPD	evice 172.	17.5.47	public
Dev-172.17.5.65         NonSNMPDevice         172.17.5.65         public           Dev-172.17.5.93         NonSNMPDevice         172.17.5.93         public           Dev-172.17.5.99         NonSNMPDevice         172.17.5.99         public           Dev-172.17.5.10         NonSNMPDevice         172.17.5.10         public           Dev-172.17.5.12         NonSNMPDevice         172.17.5.12         public           Dev-172.17.5.16         NonSNMPDevice         172.17.5.16         public           Dev-172.17.5.44         NonSNMPDevice         172.17.5.44         public		Dev-172.17.5	5.50	NonSNMPD	evice 172.	17.5.50	public
Dev-172.17.5.93         NonSNMPDevice         172.17.5.93         public           Dev-172.17.5.99         NonSNMPDevice         172.17.5.99         public           Dev-172.17.5.10         NonSNMPDevice         172.17.5.10         public           Dev-172.17.5.12         NonSNMPDevice         172.17.5.12         public           Dev-172.17.5.16         NonSNMPDevice         172.17.5.16         public           Dev-172.17.5.44         NonSNMPDevice         172.17.5.44         public		Dev-172.17.5	5.65	NonSNMPD	evice 172.	17.5.65	public
Dev-172.17.5.99         NonSNMPDevice         172.17.5.99         public           Dev-172.17.5.10         NonSNMPDevice         172.17.5.10         public           Dev-172.17.5.12         NonSNMPDevice         172.17.5.12         public           Dev-172.17.5.16         NonSNMPDevice         172.17.5.16         public           Dev-172.17.5.44         NonSNMPDevice         172.17.5.44         public		Dev-172.17.5	5.93	NonSNMPD	evice 172.	17.5.93	public
Dev-172.17.5.10         NonSNMPDevice         172.17.5.10         public           Dev-172.17.5.12         NonSNMPDevice         172.17.5.12         public           Dev-172.17.5.16         NonSNMPDevice         172.17.5.16         public           Dev-172.17.5.44         NonSNMPDevice         172.17.5.44         public		Dev-172.17.5	5.99	NonSNMPD	)evice 172.	17.5.99	public
Dev-172.17.5.12         NonSNMPDevice         172.17.5.12         public           Dev-172.17.5.16         NonSNMPDevice         172.17.5.16         public           Dev-172.17.5.44         NonSNMPDevice         172.17.5.44         public		Dev-172.17.5	5.10	NonSNMPD	)evice 172.	17.5.10	public
Dev-172.17.5.16         NonSNMPDevice         172.17.5.16         public           Dev-172.17.5.44         NonSNMPDevice         172.17.5.44         public		Dev-172.17.5	5.12	NonSNMPD	)evice 172.	17.5.12	public
Dev-172.17.5.44 NonSNMPDevice 172.17.5.44 public		Dev-172.17.5	5.16	NonSNMPD	evice 172.	17.5.16	public
		Dev-172.17.5	5.44	NonSNMPD	evice 172.	17.5.44	public [
		•					•

Figure 158: Select Poll Device screen

- 2. Select the **Device Group**. Refer to <u>7.10.4 Grouping Devices using</u> <u>Device Manager</u> for more information on grouping devices.
- 3. Select the **Polling Level** from **Core, Aggregation, Access, Client** or **All.**
- 4. Select devices.
- 5. Select the **Poll Protocol**. The two options to poll the network devices periodically are **SNMP** (Simple Network Management Protocol) and

**ICMP** (Internet Control Message Protocol). The default poll protocol is **ICMP**. Click **Add to Poll** to add to the poll list.



From the topology, select the device and right-click to select **Add to Poll List** or **Delete from Poll List** from the popup menu.



By default, when the topology is imported, the devices are in an **unpoll** status. The status of the device is changed to **Up** or **Down** when the device is added manually.

## 7.10.3 Viewing the Poll Device List

The **Poll Device List** displays the list of devices after generating the Topology.

 Go to System > Event Manager > Polling Config > Poll Device List tab.

Param	eters Polling Le	evel Unpolled Device I	_ist Polling Device	List	
172.17.5.0 Net 172.17.5.2	IP	Device Name	Device Type	Protocol	Polling I
Net 172.17.5.2	72.17.5.119	Dev-172.17.5.119	DFL2560F	ICMP	Access
5.2 🛛 🗹 1	72.17.5.211	Dev-172.17.5.211	DGS3200-10	ICMP	Aggregatio
7.5.2	72.17.5.241	Dev-172.17.5.241	DGS3450	ICMP	Aggregatio
7.5.2	72.17.5.242	Dev-172.17.5.242	DG83450	ICMP	Aggregatio
7.5.2 🗌 🗌 1	72.17.5.243	Dev-172.17.5.243	DGS3450	ICMP	Aggregatio
5.2 🗌 🗌 1	72.17.5.244	Dev-172.17.5.244	DGS3450	ICMP	Aggregatio
2 🗌 🗌 1	72.17.5.245	Dev-172.17.5.245	DGS3450	ICMP	Aggregatio
1	72.17.5.246	Dev-172.17.5.246	DGS3450	ICMP	Aggregatio
1	72.17.5.247	Dev-172.17.5.247	DGS3450	ICMP	Aggregatio
🗹 1	72.17.5.248	Dev-172.17.5.248	DGS3450	ICMP	Aggregatio
	72.17.5.254	Dev-172.17.5.254	DGS3627G	ICMP	Aggregatio
1	72.17.5.89	Dev-172.17.5.89	GenSNMPDevice	ICMP	Client
1	72.17.5.113	Dev-172.17.5.113	GenSNMPDevice	ICMP	Client
1 🗌 🗌	72.17.5.122	Dev-172.17.5.122	GenSNMPDevice	ICMP	Client
🗌 1	72.17.5.181	Dev-172.17.5.181	GenSNMPDevice	ICMP	Client
🗌 1	72.17.5.182	Dev-172.17.5.182	GenSNMPDevice	ICMP	Client
🗌 1	72.17.5.186	Dev-172.17.5.186	GenSNMPDevice	ICMP	Client
🗌 1	72.17.5.200	Dev-172.17.5.200	GenSNMPDevice	ICMP	Client
•					Þ
Se	elect <u>A</u> ll	Select <u>N</u> one	<u>D</u> elete	<u>(</u>	<u>D</u> lose

Figure 159: Poll Device List screen

2. From here you can delete devices you've added to the list.



From the topology, select the device and right-click to select **Add to Poll** List or **Delete from Poll List** from the popup menu.

## 7.10.4 Grouping Devices using Device Manager

For monitoring similar devices, you can group devices of the same type using the **Device Group Manager**.

 Go to System > Event Manager > Device Group Manager. The Device Group Manager screen will appear.

omain_1	Device's Group			
omain_2	Name	Description		
	Device List			
	Name	Туре	Interface	Description
	Dev-172.17.5.30	GenSNMPDevice	172.17.5.30	
	Dev-172.17.5.40	GenSNMPDevice	172.17.5.40	
	Dev-172.17.5.119	GenSNMPDevice	172.17.5.119	
	Dev-172.17.5.181	GenSNMPDevice	172.17.5.181	
	Dev-172.17.5.182	GenSNMPDevice	172.17.5.182	
	Dev-172.17.5.183	GenSNMPDevice	172.17.5.183	
	Dev-172.17.5.184	GenSNMPDevice	172.17.5.184	
	Dev-172.17.5.185	GenSNMPDevice	172.17.5.185	
	Dev-172.17.5.241	DGS3450	172.17.5.241	
	Dev-172.17.5.242	DG83450	172.17.5.242	
Group Del Group				

Figure 160: Device Group screen

2. Click Add Group to create a group. The Add Group screen will display.

<b>D</b> Add Group		
Domain:	Domain_1	-
Group:	Access Points	
Description:	For test	
	<u>A</u> dd <u>C</u> lose	

Figure 161: Add Group screen

- 3. Enter the name of the Group.
- 4. Enter a brief **Description** of the group.
- 5. Click Add. The group is created.

 Next, select devices from the device list you want to add to this group and click Add To Group. The Add Device to a group screen will display.

Device's Group				
Name	Description			
Device List	Туре	Interface	Description	
Dev-172.17.5.30 Dev-172.17.5.40 Dev-172.17.5.119	GenSNMPDevice GenSNMPDevice GenSNMPDevice	172.17.5.30 172.17.5.40 172.17.5.119		
Dev-172.17.5.181 Dev-172.17.5.182	<b>D</b> Add device to gr	oup		
Dev-172.17.5.183 Dev-172.17.5.184 Dev-172.17.5.185 Dev-172.17.5.241	Select a group Access Point	) S	•	
Dev-172.17.5.242 Dev-172.17.5.243 Dev-172.17.5.244 Dev-172.17.5.245	Add	<u>Close</u>		T
Dev.172.17.5.254	DYS3376GSR	172 17 5 254		•
	Device's Group Name Device List Name Dev-172.17.5.30 Dev-172.17.5.10 Dev-172.17.5.119 Dev-172.17.5.182 Dev-172.17.5.183 Dev-172.17.5.184 Dev-172.17.5.184 Dev-172.17.5.241 Dev-172.17.5.243 Dev-172.17.5.243 Dev-172.17.5.245 Dev-172.17.5.245	Device 's Group           Name         Description           Device List         Type           Dev-172.17.5.30         GenSNMPDevice           Dev-172.17.5.181         GenSNMPDevice           Dev-172.17.5.182         Dev-172.17.5.183           Dev-172.17.5.183         Dev-172.17.5.184           Dev-172.17.5.241         Dev-172.17.5.241           Dev-172.17.5.242         Add           Dev-172.17.5.243         Dev-172.17.5.244           Dev-172.17.5.244         Dev-172.17.5.245           Dev-172.17.5.245         DVS3326GSP	Device's Group           Name         Description           Device List         Interface           Name         Type           Device List         GenSNMPDevice           Dev172.17.5.30         GenSNMPDevice           Dev172.17.5.119         GenSNMPDevice           Dev172.17.5.119         Dev172.17.5.119           Dev172.17.5.181         Dev172.17.5.182           Dev172.17.5.182         D Add device to group           Dev172.17.5.183         Select a group           Dev172.17.5.241         Add           Dev172.17.5.242         Add           Dev172.17.5.244         Dev172.17.5.245           Dev172.17.5.245         DX63326038           Dev172.17.5.245         DX63326038	Device's Group           Name         Description           Name         Description           Device List         Interface         Description           Name         Type         Interface         Description           Dev172.17.5.30         GenSNMPDevice         172.17.5.30           Dev172.17.5.119         GenSNMPDevice         172.17.5.40           Dev172.17.5.181         D Add device to group         X           Dev172.17.5.183         Select a group         X           Dev172.17.5.184         Dev172.17.5.241         Add           Dev172.17.5.241         Add         Close           Dev172.17.5.242         Add         Close           Dev172.17.5.243         DYS3280GSE         172.17.5.254

Figure 162: Add device to group screen

- 7. Select the group from the list.
- 8. Click **Add**. The devices are added to the group.

Domain_1	Device's Group			
Access Points	Name	Description		
Domain_2	Access Points	DESCRIPTION	1	
	Device List	Туре	Interface	Description
	Dev-172.17.5.30	GenSNMPDevice	172.17.5.30	
	Dev-172.17.5.40	GenSNMPDevice	172.17.5.40	
	Dev-172.17.5.181	GenSNMPDevice	172.17.5.181	
	Dev-172.17.5.182	GenSNMPDevice	172.17.5.182	
	20112.11.5.105		112.11.3.103	
Add <u>O</u> roup Del G <u>r</u> oup				

Figure 163: Device Group screen

9. Click **Set Community** to change the read/write community of devices.

#### 7.10.5 Configuring Device Events

After defining the poll list, configure the event process mechanism for a device or a group of devices when an event occurs.

#### **To configure Device Events:**

1. Go to System > Event Manager > Device Event Config. The Event Configuration screen will appear.

DEvent Configuration				
	O Device Group:			*
Erragi 57 Net-172.17.5.0	Oevice Name:	Dev-17	2.17.5.89	•
Net_Unknow	Commom Event Type	Self-trap E	ent Type	Syslog Event Type
	Common Event Ty	rpe:	Up -> Dow	'n
	Severity:		Critical	
	Filter event of th	nis type		
	- Notice of event			
	Sound C Boon			
	(• Beep	<b>F</b> 11-		
	O Sound	File		
	<b>▽</b> Log			
	🔽 Flash			
	EMail to:			
				Mail Server Config
	Ар	ply		Close

Figure 164: Event Configuration screen

- 2. Select a **Device Group** or a **Device Name**.
- 3. Select whether the event is a **Common Event**, **Self-trap Event** or **Syslog Event Type**.
- 4. If the event is a Common Event:
  - a. Select what kind of **Common Event** it is. The different events are:

Тгар	Indication
Up -> Down	The link between the device and the
	workstation (D-View) is disconnected.
Down -> Up	The link between device and the
	workstation is connected.
Cold Start	Device sends Cold Start trap message
	when the device is powered off/on.

Warm Start	Device sends Warm Start trap message
	when the device has been rebooted.
Link Down	Device sends Link Down trap message
	when the status of an attached
	communication interface has changed
	from up to down.
Link Up	Device sends Link Up trap message when
	the status of an attached communication
	interface has changed from down to up.
Device	Device sends Authentication Fail trap
Authentication	when the agent received a request from
Fail	an unauthorized manager.
EGP Fail	In routers running the Exterior Gateway
	Protocol (EGP), an EGP Neighbor has
	changed to a down state.
Self-Defined	Device sends the private trap defined by
T <b>rap</b>	the users.
Threshold Event	Device sends the trap message, when
	D-View detects a threshold event.
	Whenever the exceeded count reaches
	the trigger value then a threshold event is
	generated.
Syclog Event	Device sends log messages to the syslog
Syslog Event	Device sends log messages to the systog

- b. Enable **Filter event of this type** if you do not want to notify users of this event.
- c. Set the notification options as required:
- **Sound:** D-View plays the selected sound file or beeps to notify users that an event has occurred.
- Log: Saves the event into database. Set the color of the Log messages displayed in the message board.
- **Flash:** The netmap icon in the Hierarchy Topology Workplace will flicker a warning sign.
- **EMail:** D-View notifies administrators of an event through an email.
- **Mail Server Config:** Click to configure the email.

Mail Configur	ation 📀
Name:	User1
— <u>E</u> Mail:	User@123.com
 Authority:	Password Authentication
Acco <u>u</u> nt:	User Name
<u>P</u> assword:	*****
SMTP Server	
<u>S</u> MTP Ser	ver: 172.18.192.120
SM <u>T</u> P F	Port: 25
	<u>T</u> est <u>O</u> K <u>C</u> ancel

Figure 165: Email Configuration screen

- Sender: Update the Sender's information by entering the name, email, authority, account and password.
- SMTP Server: Enter the IP address of the device. SMTP is a server program that lets you send email messages directly from your computer.
- **SMTP Port:** Enter the **SMTP Port** number to connect to the server.
- Click **Test** to connect to the mail server.

If the event is a Self-trap Event:

Event Configuration	
□-① HQ □-② 5F □-③ Net-172.17.5.0 □-③ Net_172.17.5.211 □-③ Net_172.17.5.241	Device Group:     Device Name:     Dev-172.17.5.33     Common Event Type     Self-trap Event Type     Syslog Event Type
→	Private Trap Type     C Public Trap Type
Net_172.17.5.245 Net_172.17.5.246 Net_172.17.5.247 Net_Unknow	Num         Event Type Description         OID
	Filter event of this type  Notice of event  Sound  Beep  C Sound File
	Flash     EMail to:     Mail Server Config
	Apply Close
Figure 166. Calf the	an Event Type corean

Figure 166: Self-trap Event Type screen

- a. Select whether it is a private or public trap type.
- b. Select the event in the table.
- c. Select the **Severity** of the event.
- d. Set the notification options as required:
- Sound: D-View plays the selected sound file or beeps to notify users that an event has occurred.
- Log: Saves the event into database. Set the color of the Log messages displayed in the message board.
- **Flash:** The netmap icon in the Hierarchy Topology Workplace will flicker a warning sign.
- **Email:** D-View notifies administrators of an event through an email.
- Mail Server Config: Click to configure the email.
- Sender: Update the Sender's information by entering the name, email, authority, account and password.

If the event is a Syslog Event:

DEvent Configuration			
	O Device Group:		Ŧ
⊟	Device Name:	Dev-172.17.5.33	•
→ Net_172.17.5.211	Commom Event Type Se	If-trap Event Type Syslo	g Event Type
Net_172.17.5.242		Add Key	Delete Key
	Num	Kev	
Net_172.17.5.245		,	
Net_172.17.5.246			
I			
	Severity:	Informational	-
	Eilter event of this typ	) <b>.</b>	
	Notice of event		
	Sound		
	eep		
	🔿 Sound File		
	🔽 Log		
	Flash		_
		Mail Serve	er Config
1	A	spply <u>C</u> l	ose

Figure 167: Syslog Event Type screen

- a. Add a key.
- b. Select the **Severity** of the event.
- c. Set the notification options as required:
- Sound: D-View plays the selected sound file or beeps to notify users that an event has occurred.

- Log: Saves the event into database. Set the color of the Log messages displayed in the message board.
- **Flash:** The netmap icon in the Hierarchy Topology Workplace will flicker a warning sign.
- **Email:** D-View notifies administrators of an event through an email.
- **Mail Server Config:** Click to configure the email.
- Sender: Update the Sender's information by entering the name, email, authority, account and password.

#### 7.10.6 Retrieving Device Event Logs

D-View saves all events into the database as and when they occur. Retrieve the **Device Event Log** to view event information.

1. **Event Viewer by Netmap:** To view events that occurred for a selected Netmap, go to **System** > **Event Manager** > **Event Viewer by Netmap**.

	Type	Severity	Time	IP	Description	Count
Domain_2	1	Critical	2008-02-21 10:47:38	172.17.5.183	Up -> Down	1
	2	Informational	2008-02-20 19:42:26	172.17.5.182	Down -> Up	1
		Critical	2008-02-2019:41:43	172.17.5.182	Up-> Down	
Iter Setting						
Iter Setting			Time			
Iter Setting Event • Type:	All Event Type		Time			
Iter Setting Event Type: C Severity:	All Event Type All Severity		Time All Period	From: 2008/	2/22 <b>To:</b> 200	8/ 2/22 💌
Iter Setting Event ● Type: ← Severity: Device	All Event Type All Severity		Time     All     Period     Event Sour	From: 2008/	2/22 <b>To:</b> 200	8/ 2/22
Iter Setting Event Type: Severity: Device Vender:	All Event Type All Severity All Venders		Time     All     Period     Event Sour     O Databas	From: 2008/ ce	2/22 <b>To:</b> 200	8/ 2/22 💌
Iter Setting Event Type: Severity: Device Vender: Type:	All Event Type All Severity All Venders All Device Type		Time All Period Event Sour C Databas File	From: 2008/ ce	2/22 <b>To:</b> 200	8/ 2/22 💌

Figure 168: Event Viewer by Netmap screen

 Event Viewer by IP: To view events that occurred for a selected IP address, go to System > Event Manager > Event Viewer by IP.

ype	Severity	Time	IP	Description	Count
	nformational Critical	2008-02-20 19:42:26 2008-02-20 19:41:43	172.17.5.182 172.17.5.182	Down -> Up Up -> Down	1
ilter S	Setting				
ilter S	Setting	All Event Tune		Time	
Filter S - Ever (• T) (• S)	3etting nt ype everity	All Event Type All Severity	•	Time • All • Period From:	2008/ 2/22 Y To: 2008/ 2/22 Y

Figure 169: Event Viewer by IP address screen

- 3. From here, you can further filter the events. Select from the following to filter the events:
  - **Filter Setting:** Administrators can set filters such as event type and level of severity.
  - Device: Select device information such as the IP address, vendor name and device type from the drop-down list.
  - **Time:** Set the time interval at which the event has occurred.
  - Event Source: Select the source of the event saved in the database or stored in a file.
- 4. Save the settings and click **Query** to query the database and a list of devices are displayed depending on the filter setting.
- 5. Click **Statistics** to view event statistics by event type, manufacturer, severity and device type.

D Event Statistics
Bar Chart Pie Chart
100.0%2
90.0% -=
80.0%
70.0% =
60.0% =
50.0% -
40.0%
30.0%
20.0%
10.0%
0.0% 2~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
Statistics By Event Type     C Statistics By Serverity
C Statistics By Manufacturer C Statistics By Type Device
Close

Figure 170: Event Statistics: Bar Chart screen

 Bar Chart: Illustrates the event statistics by Event Type, Manufacturer, Severity and Device Type.



Figure 171: Event Statistics: Pie Chart screen

 Pie Chart: Illustrates the event statistics by Event Type, Manufacturer, Severity and Device Type.
# 7.10.7 Defining Trap Information

D-View monitors device events by polling devices by sending ICMP or SNMP packets positively and using **Trap Editor** to retrieve trap information passively.

D-View retrieves and parses trap information from devices. In order to receive and parse the private trap information from a designated device, administrators need to customize the private trap information.



To customize trap information, retrieve the definition format from the device vendor.

#### To define trap information:

 Go to System > Event Manager > Trap Editor. The Trap Editor screen will appear.

Spec Descrip	ition	DeviceTyp	)e		
mplsL	3VpnVrfUp test				
mpIsL	3VpnVrfDown				
mpIsL	3VpnVrfRouteMidThreshExceeded				
4 mplsL3VpnVrfNumVrfRouteMaxThreshExc					
5 mplsL3VpnNumVrfSecIllglLblThrshExcd					
mpIsL	3VpnNumVrfRouteMaxThreshClear	red			
1					
			l l		
nternrise OID:	1.3.6.1.2.1.10.166.11		Add		
L Enterprise OID:	1.3.6.1.2.1.10.166.11	•	Add		
Enterprise OID:	1.3.6.1.2.1.10.166.11	T	► <u>A</u> dd		
Enterprise OID:	1.3.6.1.2.1.10.166.11	•	Add <u>M</u> odify		
Enterprise OID: Specific Num: Description:	1.3.6.1.2.1.10.166.11 6 mpIsL3VpnNumVrfRouteMaxTh	▼ reshCleared	Add <u>M</u> odify Delete		
Enterprise OID: Specific Num: Description:	1.3.6.1.2.1.10.166.11 6 mpIsL3VpnNumVrfRouteMaxTh	• reshCleared	Add Modify Delete		

Figure 172: Trap Editor screen

- 2. Enter the **Enterprise OID**. Contact D-Link support to obtain the trap OID.
- 3. Enter the **Specific Num**. The **Specific Num** associates with the specific trap action. The **Enterprise OID** and the **Specific Num** define the designated type of trap.
- Type the **Description** of the message, for the designated trap. For example: The enterprise OID is **1.3.6.1.2.1.10.166.11**

The specific number 6 here represents mplsL3VpnNumVrfRouteMaxThreshCleared trap message.

# 7.10.8 Locating the Switch Port

D-View provides an easy and effective way to inspect and report which network devices are connected to each switch port. This solves the problem of having to trace cables in order to see which port a network device is connected to, making it a very valuable tool for network and IT administrators.

Locate the switch port of the end user's computer with the MAC or IP address using **MAC Locator**.

 Go to System> Resource Manager > MAC Locator. The Mac Locator screen will appear.

192.168.1	1.23	by IP	*	Locate
earch device fr	om topology in data	abase		
Device IP:	192.168.11.16	Port	8	<u>S</u> earch
Device ID	Device Name	2	IP	By Mana
851	Dev-192.168.	11.16	192.168.11.1	6 N
•				
Detailed Path:P	Root->Topo1->Test	1->Net-192	2.168.11.0	

Figure 173: MAC Locator screen

Enter the MAC or IP address. Click Locate.
 D-View locates the specified device, if found.



Figure 174: Specified device located in the Topology using MAC Locator

# 7.10.9 Monitoring the Link Status

D-view lets you monitor and modify the link status in a topology.

#### To monitor the Link Status:

- 1. Open the topology.
- Go to **Topology** > Link Label and then select Link Speed. The status of the links is displayed.



Figure 175: The Topology displays the Link status of the devices

 Go to Advanced > Link Capacity Check, to monitor the link status of all the devices in a table.

clink capacity c	neck									
Link Name	Capacity	DevName-1	DevIP-1	DevPort-1	DevName-2	DevIP-2	DevPort-2	LinkID	FstDevComm	SndDevCor
Dev-172.17.5.242	100M	Dev-172.17.5.242	172.17.5.242	13	Dev-172.17.5.1	172.17.5.119	0	240	public	public
Dev-172.17.5.242	100M	Dev-172.17.5.242	172.17.5.242	15	Dev-172.17.5.30	172.17.5.30	0	241	public	public
ev-172.17.5.242	100M	Dev-172.17.5.242	172.17.5.242	25	Dev-172.17.5.1	172.17.5.181	0	242	public	public
ev-172.17.5.242	10M	Dev-172.17.5.242	172.17.5.242	23	Dev-172.17.5.1	172.17.5.183	0	243	public	public
ev-172.17.5.244	1000M	Dev-172.17.5.244	172.17.5.244	48	Dev-172.17.5.1	172.17.5.182	0	244	public	public
ev-172.17.5.245	1000M	Dev-172.17.5.245	172.17.5.245	48	Dev-172.17.5.2	172.17.5.254	0	245	public	public
ev-172.17.5.245	100M	Dev-172.17.5.245	172.17.5.245	35	Dev-172.17.5.40	172.17.5.40	0	246	public	public
:										
							Check	Stop	Update	Clor

Figure 176: Link Capacity Check screen

4. Click **Check**. D-View checks the capacity of each device link port and displays the minimum capacity value of the link as seen in the following figure.





By default, when a link is created between devices the link capacity is set to 100M.

#### To modify the Capacity Value:

 Go to **Topology** > **Link Manager** > **Edit Link**. The **Edit Link** screen will be displayed.

OR

100000

In a topology, right-click on a link and then select **Property**. The **Edit Link** screen will appear.

Link Name	Dev-172.17.5.	242	11-12-		
Dev-1 :	Dev-172.17.5.242	Ψ.	Dev-2 :	Dev-172.17.5.30	*
Port :	15		Port :	0	
Color :		B	rowse		
Capacity	100M -	Link	(Type :	Ethernet	
🗖 Redun	10M Idant Lin 100M	Ordinar	y Link		

Figure 178: Edit Link screen

- 2. Update the Capacity. Select from 10M, 100M, 1000M, or 10G.
- 3. Click **OK**.



In order to obtain accurate results from the link capacity, ensure the port numbers between the devices are entered correctly.

# 7.10.10 Managing Trap and Syslog Service

You can use the Services Manager tool to manage the Trap and Syslog Services. Go to **Advanced > Services Manager**.

Enter the Trap UDP Port and click Start Trap Service. Click Apply to enable it. If you want to configure the syslog service, enter the Syslog UDP Port and click Start Syslog Service. Click Apply to enable it.

D Services Manager	×
Trap Service Configuration	Indication
Trap UDP Port : 162 Start Trap Service	Trap Service can receive the trap events from devices such as switches etc. The default UDP port is 162.
Syslog Service Configuration	Indication
Syslog UDP Port : 514 Start Syslog Service	Syslog Service can receive the syslog events from devices such as switches etc. The default UDP port is 514.
<u>Apply</u> <u>Close</u>	
Figure 179: Ser	vices Manager screen

# 7.10.11 Locating Devices

In D-View, you can locate devices using the Device Locator tool. Use **Device Locator** to find devices in multiple topologies by entering the **Device Name** or **IP address**.

1. Go to **System > Resource Manager > Device Locator**. The **Device Locator** screen will display.

iput Device Name	e or Device IP:	172.17.5.30	<u>S</u> earch
evice List			
Device ID	Device Name	IP	By Manage
992	Dev-172.17.5.30	172.17.5.30	N
•	not->Test1->Test1->Net-1	172 17 5 0	
Detailed Fulling		112.11.0.0	

Figure 180: Device Locator screen

- 2. Enter the name or IP address of the device to be located.
- 3. Click **Search** to locate the device. The results are displayed.
- 4. Click **Open Topo** to locate the device in a topology.

	172.17.5.30	172.17.5.119	172.17.5.181	
172.17.5.40	Device Locator	e or Device IP:	172.17.5.30	<u>S</u> earch
	Device List Device ID 992	Device Name Dev-172.17.5.30	IP 172.17.5.30	By Manager N
2.17.5.254	▲ Detailed Path:Ro	oot->Test1->Test1->Net-1	72.17.5.0	
172.			L	Open <u>T</u> opo

Figure 181: The Topology indicates the device located after using Device Locator tool

## **Entering User Information**

In D-View, you can use the **Device Collector** tool to enter **User Information**.

#### To enter user information:

- 1. Go to System > Resource Manager > Device Collector. The Device Collector screen will be displayed.
- 2. Use filter options to select the vendor's name and device type. A list of devices will be displayed.

ROOL	rinter				
Test1	Vender: All Ve	nder -	Type :	All Type	•
E P Net-172					
Net_	Numper: 125				
Net_	Device Name	Device Type	IP	Link Status	
"Net_	Dev-172.17.5.30	GenSNMPD	172.17.5.30	Connect	
- 🖓 Net_	Dev-172.17.5.40	GenSNMPD	172.17.5.40	Connect	
	Dev-172.17.5.119	GenSNMPD	172.17.5.1	Connect	
🚽 🔐 Net_Un	Dev-172.17.5.181	GenSNMPD	172.17.5.1	Connect	
f) Test	Dev-172.17.5.182	GenSNMPD	172.17.5.1	Connect	
	Dev-172.17.5.183	GenSNMPD	172.17.5.1	Connect	
	Dev-172.17.5.184	GenSNMPD	172.17.5.1	Connect	
	Dev-172.17.5.241	DGS3450	172.17.5.2	Connect	
	Dev-172.17.5.242	DGS3450	172.17.5.2	Connect	
	Dev-172.17.5.243	DGS3450	172.17.5.2	Connect	
	Dev-172.17.5.244	DGS3450	172.17.5.2	Connect	
	Dev-172.17.5.245	DGS3450	172.17.5.2	Connect	
	Dev-172.17.5.254	DX83326G	172.17.5.2	Connect	
	Dev-172.17.5.108	NonSNMPD	172.17.5.1	Connect	
	Dev-172.17.5.20	NonSNMPD	172.17.5.20	Connect	
	Dev-172.17.5.39	NonSNMPD	172.17.5.39	Connect	
	Dev-172.17.5.47	NonSNMPD	172.17.5.47	Connect	
	Detailed Both: Boot	NonChiMDD	47047540	Connect	
	Detailed Patri.Root	->Testi->Testi->r	vet-172.17.5.0		

Figure 182: Device Collector screen

3. Select a device from the list and then click **User Info**. The **User Info** screen will be displayed.

obero intornation	Port			
User 1	1			
User 2	2			
User 3	3			
Jser Information —	12		 	
Jser Information — Port Number :	3			

- Figure 183: User Information screen
- 4. Add/Edit/Delete user information of the selected device.

# 7.10.12 Locating Users

In D-View, you can locate users using the **User Locator** tool. Use **User Locator** to find users connected with a particular device. **To Locate Users:** 

1. Go to **System > Resource Manager > User Locator**. The **User Locator** screen will be displayed.

ser Locator				
earch Users with key	words. Seperate mu	Itiple enrties with	commas	
User1				Search
Jser List				
User information	Device Name	Device Type	Port	
User1	Dev-172.17.5.30	GenSNMPD	1	
1				
				Open Topo

Figure 184: User Locator screen

- 2. Enter the user's name. Separate multiple entries with a comma (,).
- 3. Click **Search**. The search results will appear.
- 4. Click **Open Topo** to locate the device in a topology.

## 7.10.12.1 User Statistics

User Statistics displays the users connected to particular devices. **To view User Statistics:** 

1. Go to System > Resource Manager > User Statistics.

Ser Statistics	- User List			
🗄 🚺 Domain_1	User information	Port	Device Name	
Topology_1 Topology_1 Test Net_17217 Net_17 Net_17 Net_17 Net_17 Net_17 Net_17 Net_17 Net_17 Net_17 Net_17 Net_17	User1 User2	1 2	Dev-172.17.5.30 Dev-172.17.5.40	
	Number: 2			

Figure 185: User Statistics screen

2. The users are then displayed.

## 7.10.12.2 Device Statistics

Device Statistics can display information related to a vendor, buyer, or buyer date. For example, you can view all the devices sold by a particular vendor. **To view Device Statistics:** 

 Go to System > Resource Manager > Device Statistic. The Device Statistic window will be displayed.

Type :     Vender     Statistics       Root     Domain_1       Totai     142       Others     142	D Device Sta	tistics		
Root     Domain_1       Total     142       Others     142       142     142	Туре :	Vender	✓ Statistics	
1	Total Others	Root Domain_1 142 14 142 14	22	

Figure 186: Device Statistic screen

 View the devices in the domain. You can sort them by Vendor, Buyer, or Buy Date.

# 7.11 Collector Configuration

The **Report** tool allows you to collect data and view information about your network, including packet exchange, devices, and CPU utilization.

# 7.11.1 Configuring a Collector

The **Report** tool allows you to use collectors to gather performance data from the network. Collectors are user-defined queries that gather network data according to user-defined parameters.

To configure a collector:

D CollectorConfig								
E Root		Device Name				Device Type		Read A
⊡- <b>5</b> F	<b>•</b>	Dev-172.17.5.89				GenSNMPDevice		public
Net-172.17.5.0     Net Unknow		Dev-172.17.5.113	}			GenSNMPDevice		public
net_onknow		Dev-172.17.5.119	)			DFL2560F		public
		Dev-172.17.5.122	2			GenSNMPDevice		public
		Dev-172.17.5.181				GenSNMPDevice		public
		Dev-172.17.5.182	2			GenSNMPDevice		public
		Dev-172.17.5.186	;			GenSNMPDevice		public
		Dev-172.17.5.200	)			GenSNMPDevice		public
		Dev-172 17 5 211				DGS3200-10		public 🚬
Lollector				r= Obiec	t List			
Device Name: Device IP:					CheckBox	Object Name	Obie	et ID 🔺
Domain Name:				•		ifInOctets	1.3.6	1.2.1.2.2.1.
Community:						ifOutOctets	1.3.6	1.2.1.2.2.1.
Collector Name: Test1						ifInUcastPkts	1.3.6	1.2.1.2.2.1.
Collector MarlP: 172 17 5 111						ifOutUcastPkts	1.3.6	1.2.1.2.2.1.
						ifInNUcastPkts	1.3.6	1.2.1.2.2.1.
Duration: 3600 (S) Inte	rval:	5	(S)			ifOutNUcastPkts	1.3.6	1.2.1.2.2.1.
Object Filter						ifInDiscards	1.3.6	1.2.1.2.2.1.
						ifOutDiscards	1.3.6	1.2.1.2.2.1.
<ul> <li>Port Object</li> <li>O Device</li> </ul>	ce Objec	t				iffinErrore	136	121221
1								•
	(	Format:1,2,4-6,20)		Obje	ect Config			
					Run Collectors	Collector List	Apply	Close

1. Go to **Report > Configure Collector**.

Figure 187: Collector Configuration screen

- 2. On the top left, select the network that you want to monitor data from.
- 3. Select a device in the network on the table on the top right for information to be collected from.
- 4. To create a collector for the selected device, go to the lower left and type in the required data.

Collector name: Name of collector.

Collector MgrIP: IP of device.

**Duration:** Amount of time in seconds for how long collector will run.

**Interval:** Amount of time in seconds when collector stops and then resumes.

**Port or device filter:** Port/s or device/s which collector will specifically monitor.

5. On the lower right, select an object type for the collector to monitor.

When you have completed all these steps, click on Apply to enable the collector.

There are two functions at the bottom of the screen.

**Collector List** shows all the collectors on the network and information about them including Port ID, Intervals, duration and the devices these collectors are running on. You can also delete a collector in here.

D Col	lectorList									<u>- 🗆 ×</u>
Colle	ctor List									
	Collector Name	Device Nar	me	Port ID	010	) Name	Int	erval		Dura
	1	Dev-172.17	.5.211	1,3	ifIn(	Octets,ifOut0	5			3600
	3200	Dev-172.17	.5.211		CPI	JUtilizationIn5	5			3600
	3200	Dev-172.17	.5.211		CPI	JUtilizationIn5	5			3600
Þ	test12	Dev-172.17	.5.211	1,3	ifOu	itUcastPkts,if	5			3600
•										•
Deta	il Info									
	Device IP		Device	е Туре		Port		Object N	lame	
•	172.17.5.211		DGS32	00-10		1,3		ifOutUca	stPkts	
	172.17.5.211		DGS32	00-10		1,3		ifOutNUc	astPkt:	s
Filter	Filter Setting									
Dorr	Domain Name: All Domain									
	JAIL DOIN	am		Honoart						
							D	elete	0	Close

Figure 188: Collector List screen

**Run Collectors** shows a list of all collectors similar to the table in **Collector List**. You can select a collector that is not currently scheduled and schedule it. If the collector is already scheduled, you cannot reschedule it and will be asked to choose another collector.

D Star	rtupCollector					<u>-   ×</u>
		Collector Name	Device Name	Port ID	OID Name	Interval
		try	Dev-172.17.5.211	1.3	ifInOctets,ifOut0	5
		1	Dev-172.17.5.211	1,3	ifInOctets,ifOut0	5
		3200	Dev-172.17.5.211		CPUUtilizationIn5	5
		3200	Dev-172.17.5.211		CPUUtilizationIn5	5
►	<b>V</b>	test12	Dev-172.17.5.211	1,3	ifOutUcastPkts,if	5
					Schedule	Close

Figure 189: Run Collectors screen

# 7.11.2 Schedule

To see the list of scheduled collectors, go to **Report** > **Schedule**. The list shows the collectors, its schedule types, and the last and next day they are scheduled to run. You can also delete a collector here.

D Task	kList					I	- 🗆 ×
		Task Name	Task Type	Schedule Type	Previous Run Date		Next B Date
►		task	CollectorTask	Day			4/20/20
		1	CollectorTask	Once	4/19/2011	10	4/19/20
		3200 CPV	CollectorTask	Once	4/19/2011	10	4/19/20
•	_	_	_	_	_		Þ
- Filter S	etting						
				1			
Task	Name:		Refresh				
Taski	Name:		Refresh				

Figure 190: Schedule screen

# 7.11.3 Start

To schedule a collector, go into **Report > Start**, select a collector by ticking the checkbox, and click Schedule. If the collector is already scheduled for a task, then you cannot change its settings and must choose another collector.

D Star	rtupCollector					- 🗆 🗵
		Collector Name	Device Name	Port ID	OID Name	Interval
		try	Dev-172.17.5.211	1.3	ifInOctets,ifOut0	5
		1	Dev-172.17.5.211	1,3	ifInOctets,ifOut0	5
		3200	Dev-172.17.5.211		CPUUtilizationIn5	5
		3200	Dev-172.17.5.211		CPUUtilizationIn5	5
•	V	test12	Dev-172.17.5.211	1,3	ifOutUcastPkts,if	5
1						<u> </u>
					Schedule	Close

Figure 191: Start Collector screen

# 7.11.4 Device Inventory

**Device Inventory** shows a list of hardware devices that are on your network and their relevant information including IP address, Serial Numbers, and Firmware. Go to **Report > Device Inventory** to access this.

D Inventory Report					_ 🗆 🗙
TypeName		Se	arch		
: 📰 🛛 📢 🔺 1 of :	1 ▶ ▶   ◆ ② ∉	) 🦪 🔲 🔍 层 •   100%	•	Find   Next	
Inventory	Report				<u></u>
Type Name	Firmware	IP Address	Serial Number	Count	
Ð					
Ŧ					
DFL2560F		172.17.5.119		1	
E		170 17 5 011			
DG53200-10		1/2.1/.3.211		1	
Ŧ					
		170 17 5 054		1	
DG5302/G		1/2,1/,3,234		1	
Ŧ					<b>•</b>

Figure 192: Device Inventory screen

# 7.11.5 Report

In **Report**, you can view a report for each collector that is running on your network.

To view a report, go to **Report > Report.** 

- Select your network domain and a list of all collectors will appear on the left.
- Click on each collector to see stats on the right.

D CollectorReport				
Running Collectors  Root  Root  HQ  Lets12  Collector Name:	Search		2.50E+008 2.00E+008 1.50E+008 1.00E+008	
Collector Name ty 1 3200 3200 test12	PotID 1.3 1.3 1.3	Int 5 5 5 5 5 5	5.00E+007	OID:12 Port:1 OID:12 Port:3 OID:10 Port:3 OID:10 Port:1
			Figure 193:	Report screen

# 7.11.6 Template

D-¥iew 6.0 - [HQ::5F?3] D File View Topology Application System NetTools Report Advanced Wireless Management Help Configure Collector 💾 🖻 🕒 📼 🔍 🍳 🖳 🏥 🌋 📖 Schedule ... 🚜 🚑 🥪 😓 😓 🍽 🕶 🗣 - 어거 아 Start Template ۲ Port Utilization 🐟 🦸 😔 🐝 🌆 🕎 🎲 🙎 t Device Inventory... CPU Utilization Hierarchy Topology Workplace **▼ X** Report Memory Utilization 🖃 📑 Root 🚺 HQ Ė è-**, 5**F 🧸 Net-172.17.5.0 Ė @ Net\_172.17.5.211
@ Net\_172.17.5.241 Net\_172.17.5.242 Net\_172.17.5.243 Netmap Netmap Net\_172.17.5.244 Provide the second state of the second stat Net\_172.17.5.246 🚡 Net\_172.17.5.247 Net-172.... Net\_Unknow 🖉 Net\_Unknow Figure 194: Template function

#### To set up a template:

- 1. Type in the Collector Name, Device IP and the Port.
- 2. Type in the duration and interval in seconds.
- Click on Schedule to set the collector to run at a specific time. Click Finish which will save the collector and close the tool.

PortUtilization	
Collector Name:	
Device IP:	
Port:	(Format:1,2,4-6,20)
Duration: 3600	(S)
Interval: 5	(S)
Schedule	Finish Cancel
Figure 195:	Port Utilization screen



# **Basic Operations**

# 8.1.1 View Options

View Options	
🔽 Display Tip	
Display Direction	
🔽 Display Redundancy	
ОК	Cancel

Go to **Topology** > **View Options** to turn on or off the view options of the topology.

Figure 196: View Options screen

- Display Tip: Roll mouse icon over objects to view the net cell information in the topology.
- **Display Direction:** Displays the direction of links in the topology map.
- Display Redundancy: Displays the redundant links in the topology map.

# 8.1.2 Copy/Paste

Use **Copy/Paste** function to add devices to the topology.

Device Name Conflict	×
Change Device Name to:	
Dev-172.17.5.40	
OK Cancel	
Change IP Address to:	
OK Cancel	



- Copy: Select a device and then go to Topology > Copy to copy the device icon from the topology map.
- Paste: Select a device and then go to Topology > Paste to paste the device icon into the opened topology.



# 8.1.3 Zoom In / Out / Fit

You can zoom in to get a close-up view of your topology or zoom out to see more.

- Go to **Topology** > **Zoom In** to zoom into the topology.
- Go to **Topology** > **Zoom Out** to zoom out of the topology.
- Go to **Topology** > **Zoom Fit** to fit the topology map in the current window.

## 8.1.4 Set Background

cr buckgrou	nd	
Backgro	und color	
_ strigte		Browse
C. Ditmon		
ышпар	rne	
		Search
		-

Go to **Topology** > **Set Background** to modify the background color of the topology.

## 8.1.5 Upper Layer

Use Upper Layer to move to the parent level.



from the Main Toolbar to

get back to the first layer of the topology.

For example, if you are in the topology level, and you click Upper Layer, netmap level is displayed. Eventually, you will go to the root level.







Figure 199: Sequence of steps navigating from the topology level to the domain.

# 8.1.6 System Log

The **System Log** stores logged events such as additions, deletions, updates, or error messages. The log helps users identify and diagnose the source of system problems.

#### To view logged events of the topology:

Go to **System > System Log**. The **System Log** screen will appear.

🚺 System Log				×
Number: 11				
Operation Time	Domain Name	Admin Name	Operation Module	Description
2011-07-21 16:57:07 2011-07-21 15:53:35 2011-07-21 15:37:40 2011-07-21 15:37:40 2011-07-20 14:01:48 2011-07-20 14:01:48 2011-07-20 14:01:29 2011-07-20 14:01:29 2011-07-20 14:01:23 2011-07-20 14:01:22 2011-07-15 16:26:38	Super Domain Super Domain Super Domain Super Domain Super Domain Super Domain Super Domain Super Domain Super Domain Super Domain	admin admin admin admin admin admin admin admin admin admin	Login Login Login Topology Manager Topology Manager Topology Manager Topology Manager Topology Manager Topology Manager Login	Login successfully Login successfully Login successfully H0::Net_172.17.5.244 Add Device Dev-172.17.5. H0::Net_172.17.5.242 Add Device Dev-172.17.5. H0::Net_172.17.5.243 Add Device Dev-172.17.5. H0::Net_172.17.5.245 Add Device Dev-172.17.5. H0::Net_172.17.5.211 Add Device Dev-172.17.5. H0::Net_172.17.5.241 Add Device Dev-172.17.5. Login successfully
Date From: 7/ 1/2011	Type	on Log	ery <u>D</u> elete	<u>Clean</u> <u>Save</u> Close
To: 7/22/2011	Error L	og		

Figure 200: System Log screen

- 1. Select the **From** and **To** date, to view the events that occurred in that time interval.
- 2. Select the type of log, **Operation** or **Error Log** or both.
- 3. Click **Query** to find the events that match the search criteria.
- 4. Click **Delete** to delete one or several log messages.
- 5. Click **Clean** to clear all log messages.
- 6. Click **Save** to save the log entries to a log testfile.
- 7. Click **Close** to close the **System Log** window.

# 8.1.7 Administrator Manager

## 8.1.7.1 Creating a User Group

Using **Administrator Manager**, authorized administrators can create user groups. Administrators define the access rights for each user group and then add users into the group.

#### To create a User Group:

 Go to System > Administrator Manager. The Administrator Manager screen will appear.

Administrator Manager				
Super Domain Super Group Domain_1 Super Group	Administrator Admin	Domain Na Domain_1	Group Name Super Group	Description 0
Add <u>G</u> roup	Delete Grou	p	<u>S</u> et Rights	Add Administrator
Delete Adminstrator	Change <u>P</u> assw	vord	C <u>h</u> ange Group	Close

Figure 201: Administrator Manager screen

- 2. Select the domain for which you want to add a group.
- 3. Click Add Group. The Add Group screen will appear.

dd Group	
Domain Name:	Domain_1
Group Name:	General User
Description:	Domain_1
	Add <u>C</u> lose

Figure 202: Add Group screen

4. Type the name of the group and description to which you want to assign this right and click **Add** to continue.

Figure 203: Administrator Manager: Add Group screen

5. Click **Add Administrator** to provide access rights to the user. The **Add Administrator** screen will appear.

<b>D</b> Add Administrator	
Group Name:	Super Group
Name:	User
Password:	*****
Confirm Password:	*****
Description:	Domain_1
	<u>A</u> dd <u>C</u> lose

Figure 204: Add Administrator screen

- 6. Update the fields and then click **Add** to create an administrator account.
- Click Set Rights in the Administrator Management screen. The Set Rights screen will appear.

Function Module	SubFunction Module	Execute	Read	Write	
3atch		~			
	Advanced Options	<b>~</b>			
	Run Batch	~			
Device Extension					
VetTools		~			
	Trace Route	~			
	TFTP	~			
	Net Toolbox	~			
	MIB Browser	~			
	MIB Compiler	~			
Performance Monitor					
	Port Packet Monitor				
	SubPerformance Monitor				
Event Manager					
	Event View By Netmap				
	Event View By IP				
	Device Group Manager				
	Polling Config				
	Device Event Config				
	Trap Editor				
Fopology Manager					•

Figure 205: Set Rights screen

- 8. Check the specific functional modules boxes to assign rights (execute, read, write) to the user.
- Click **OK** to apply the changes.
   The changes made will be reflected in the **System Log**.

## 8.1.7.2 Changing Password

D-Link recommends changing the password immediately after logging on for the first time and also on a frequent basis after that.

#### To change the password:

1. Go to **System > Change Password**.

D Change Password	X
Old Password:	*****
New Password:	*****
Confirm Password:	*****
	OK Close

Figure 206: Change Password screen

2. Enter the old password and then type your new password.

# 8.1.8 Restoring and Backing Up D-View

## 8.1.8.1 Backup Procedures

To backup D-View, copies must be made of the following files.

- 1. Backup the following system files
  - C:\Program Files\D-Link\D-Link SNMP Solutions\smidb.mdb
  - C:\Program Files\D-Link\D-View\Mibsolution\MIB\\*.\*
  - C:\Program Files\D-Link\D-View\Mibsolution\SMIDB\\*.\*
  - C:\Program Files\D-Link\D-View\Mibsolution\smidb.mdb
  - C:\Program Files\D-Link\D-View\delconfig\\*.\*
  - C:\Program Files\D-Link\D-View\perconfig\\*.\*
- 2. Then backup the following database files.

#### For Standard Edition

■ C:\Program Files\D-Link\D-View\dvision3.mdb

#### For Professional Edition

Use the SQL Server 2000/2005 management tool to back up **Division3.mdf** and **Division3\_Log.ldf** files

- C:\Program Files\Microsoft SQL
   Server\MSSQL.1\MSSQL\Data\Dvision3.mdf
- C:\Program Files\Microsoft SQL
   Server\MSSQL.1\MSSQL\Data\Dvision3\_log.LDF

## 8.1.8.2 Restore Procedures

To Restore System Files:

 Copy and overwrite the files to the directory from Backup System Files in Backup Procedures.

To Restore Database Files:

#### For Standard Edition

1. Copy and overwrite **division3.mdb** to C:\ProgramFiles\D-Link\D-View\

#### For Professional Edition

- Use the SQL Server 2000/2005 management tool to restore the Division3.mdf and Division3\_Log.ldf files.
- 2. Restart the SQL Server service.

## 8.1.9 NetTools

## 8.1.9.1 Device Discovery

D-View identifies a SNMP supporting device as a **GenSNMPDevice** and an ICMP supporting device as a **NonGenSNMPDevice**.

Use the **Device Discovery** tool to search and identify the type of devices in the designated network.

- To manually add devices into the opened topology:
- Go to NetTools > Device Discovery. The Device Discovery screen will appear.

Start IP:	192 . 168	. 11 . 10	
End IP:	192 . 168	. 11 . 252	
Community:		Close	
Type:	SNMP Devices	-	
Current IP:	192.168.11.62		
Search	,	Stop	
<u>S</u> earch	1	Stop	
Search Device Name	Type	Stop	Description
Search Device Name Jev-192.168.11.1	1 Type 1 Cisco 2611	<u>Stop</u> IP Address 192.168.11.11	Description
<u>S</u> earct Device Name Iev-192.168.11.1 Iev-192.168.11.1	1 Type 1 Cisco 2611 7 DES6500	<u>Stop</u> IP Address 192.168.11.11 192.168.11.17	Description
<u>S</u> earch Device Name rev-192.168.11.1 rev-192.168.11.1 pev-192.168.11.1 pev-192.168.11.1	Type 1 Cisco 2611 7 DES6500 5 DGS3427	<u>Stop</u> IP Address 192.168.11.11 192.168.11.17 192.168.11.15 192.168.11.15	Description
<u>Searct</u> Device Name lev-192.168.11.1 lev-192.168.11.1 lev-192.168.11.1 lev-192.168.11.1	Type 1 Cisco 2611 7 DES6500 5 DGS3427 6 DES3828P 8 DGS3324	<u>Stop</u> IP Address 192.168.11.11 192.168.11.17 192.168.11.15 192.168.11.16 192.168.11.16	Description
<u>Search</u> Device Name lev-192.168.11.1 lev-192.168.11.1 lev-192.168.11.1 lev-192.168.11.1 lev-192.168.11.1	Type 1 Cisco 2611 7 DES6500 5 DGS3427 6 DES3828P 8 DGS3324 2 DWL 2700	Stop IP Address 192.168.11.11 192.168.11.17 192.168.11.15 192.168.11.16 192.168.11.18 192.168.11.2	Description
<u>Search</u> Device Name lev-192.168.11.1 lev-192.168.11.1 lev-192.168.11.1 lev-192.168.11.1 lev-192.168.11.2 lev-192.168.11.2	Type 1 Cisco 2611 7 DES6500 5 DGS3427 6 DES3828P 8 DGS3324 2 DWL2700 3 DWL3200	Stop IP Address 192.168.11.11 192.168.11.17 192.168.11.15 192.168.11.16 192.168.11.21 192.168.11.22 192.168.11.23	Description

Figure 207: Device Discovery screen

- 2. Enter the IP address range to locate devices.
- 3. Enter the **Community** name.
- 4. Select the device **Type**.
- 5. Click **Search** to locate the devices based on the search criteria.
- 6. Select and click **Add Topo** to add devices to the topology.

## 8.1.9.2 Advanced Device Discovery

The Advanced Device Discovery utility allows you to find devices on the network by IP address and update the network topology automatically by selecting a response from three options.

#### To search for devices with an IP range:

- Go to NetTools > Advanced Device Discovery. The Advanced Device Discovery screen will appear.
- 2. Enter the IP address range to locate devices.
- 3. Enter the **Community** name.
- 4. Select the device **Type**.
- 5. Choose the **Discovery Interval** by year, month, day, hour, minute, or second.
- 6. Select one of three options for the system to take action when a newly discovered device conflicts with an existing device on the network:
  - a. Update Update the topology and log.
  - b. **Replace -** Update the topology and delete old log and trap messages of the existing device.
  - c. **Ignore** Ignore the result.
- 7. Select **"Enable discovering devices by schedule**" option to enable the system to discover new devices by a set schedule.

Start IP:	172 . 17 . 9	5.113	End IP:	172 . 17 . 5	. 180
Community:	public		Type:	SNMP Device	•
Discovery Interva	al				
0	▼ Year	0	▼ Month	0 🔹	Day
0	▼ Hour	0	▼ Minute	0 •	Second
What to do when C Update - C Replace - C Ignore -	n a newly discovere To update the topo To update the topo To ignore the disco	d device conf logy and log. logy and dele overed result.	licts with the exist All log and trap m te old log and tra	ed one. essages will be upd p messages of the c	ated. onflicted device.

Figure 208: Advanced Device Discovery Screen

## 8.1.9.3 Trace Route

The **Trace Route** utility enables you to view information about a network packet that is being transmitted and determine the number of hops necessary for that packet to reach its destination.

#### To Trace Routers:

Go to **NetTools** > **Trace Route** to open the Trace Route function.

D TraceRoute	X
Parameters	
Remote host: www.dlink.com Setting, Font	
Coutput	
Trace route to www.dlink.com [207.232.83.10] over a maximum of 30 hops:	
1 < 1ms < 1ms < 1ms [172.17.5.254]	
Traca Stan Claar	
Trace Ziob Clear	

Figure 209: Trace Route Tool screen

- 1. Enter the host address and click **Trace** to trace the routers.
- 2. Select **Settings** to configure the parameters.

Se	ettings			X
	Parameters			
	Timeout:	1000		
	Data length:	32		
	Max hops:	30		
	OK		Cancel	

Figure 210: Option screen

- 3. Modify and customize the **Timeout**, **Data Length** and **Max Hops** parameters according to your requirements.
- 4. Click **Clear** to clear the list.
- 5. Click **Stop** to stop the search.

# 8.1.10 TFTP

The TFTP server enables the client to upload or download configuration files between the server and the client.

1. Go to **NetTools** > **TFTP** to open the TFTP Server tool.

🚺 D-Li	nk T	FTP Server					
<u>A</u> bout							
Name		D-View Mana	ger	IP Address	192.168.11.9		2
Oper	ned	ed 06:07:22 Action Session 0		0	Total		
Index	Ac	tion IP	Туре	Tftp File Name		Status	rotar
1 1 2 1		192.168.11.12 192.168.11.252	Put Put	_192.168.11.1; _192.168.11.2	2_DES3550 52_DES355	OK OK	Clear
							Close
<						>	
06:08:04 06:08:05 06:08:05	: Tra : Sta : Tra	nsfer OK rt transferring nsfer OK					

Figure 211: D-Link TFTP Server screen

- Index: Displays the number of connections between the devices and the TFTP server.
- Action IP: Displays the device IP address.
- Type: Get/Put action of the configuration files.
- TFTP File Name: The uploaded or downloaded files through the TFTP server.
- Status: Displays the file transfer status.
- 2. Click **Clear** to erase the actions.

# 8.1.11 Retrieving ARP information

D-View provides a tool to retrieve the **ARP** (Address Resolution Protocol) information from devices and then create a table for the network. The table lists the IP and MAC addresses of all the devices in the topology.

#### To retrieve the ARP information:

 Go to Advanced > All of ARP Info. The ARP Information Retrieve screen displays.

IP	MAC	
72.17.5.83	00112F8A7359	
72.17.5.94	0080C8773189	
72.17.5.115	000EA66BE311	
72.17.5.134	000C6ED3A517	
72.17.5.150	00E006095566	
172.17.5.154	001AA0C9529A	
172.17.5.171	001485328218	
172.17.5.254	000F3D786E04	
172.17.5.255	0000000000	
172.17.5.0	FFFFFFFFFF	
172.17.5.2	00188BBA6DF8	
172.17.5.3	001CF0573900	
172.17.5.6	000FB0D8A0FB	
172.17.5.10	00112F648C9A	
172.17.5.11	0014C2E28D47	
172.17.5.12	0015F2948F28	
172.17.5.15	00037FBEF0F6	
172.17.5.23	001B11EBCE88	
172.17.5.26	0019D2AEDD77	
172.17.5.39	00188BBF4FAF	
172.17.5.42	00112FEDEA40	
172.17.5.49	001485F98C78	
172.17.5.54	001302149A1C	
177 17 5 50	000500000	

Figure 212: ARP Information Retrieve screen

2. Click Refresh to refresh the information. Click **Stop** to stop retrieving information.

# 8.1.12 Net Toolbox

D-View provides two ways to manage a device in the topology – Telnet and Web. Using **Net Toolbox**, administrators can configure the method of management for each device. **Net Toolbox** also allows administrators to ping a device from the topology.

#### To select the management method:

- 1. Select the device you want to manage.
- 2. Go to **NetTools** > **Net Toolbox** to open the Toolbox.

Ne	t Toolbox		×
			<u>T</u> elnet
	IP Address :		<u>W</u> eb
	172 . 17 . 5	. 211	Ping
			Device Configure

Figure 213: Net Toolbox screen

- 3. Enter the IP address of the device to manage.
- 4. Click Telnet or **Web.**

You can also Ping the device using **Ping.** 

To configure devices using a configuration file, use **Device Configure.** 

# 8.1.13 Port Packet Monitor

D-View helps you monitor and troubleshoot Switch Ports for traffic, utilization and errors of a specific device. D-View pinpoints the port flow in real time and identifies their impact on the network.



Ensure the devices support RFC1213 to monitor the port flow in devices.

#### To monitor the Port Packet flow:

- 1. Go to **NetTools > Port Packet Monitor**.
- Go to File > Setup > Device Information Configure and enter the Device IP and Read and Write Community values. If you have clicked on a device before entering Port Packet Monitor, you can skip this step and move on to step 3.

The **Port Monitor** screen will display.

DPort Packet Monitor	
<u>File View About</u>	•
🙀 🥸 🖇 🗸	
Workplace       * ×         Port Index       Port Speed         Device Information Configure         Device IP : <ul> <li>0</li> <li>0</li></ul>	0 ncel
Device information configure	Number //

Figure 214: Device Information Configure screen

Select the ports on the left and then click the **Utilization** button from the toolbar.



Figure 215: Port Packet Monitor: Line Chart screen

1000000

*The formula to calculate the port percentage usage.* **Utilization:** (InOctets + OutOctets)\*8 / Port Speed / Time Interval

- **InOctets:** The total number of octets received, including framing characters.
- **OutOctets:** The total number of octets transmitted, including framing characters.
- 4. Set the **Port Packet** options. These values are calculated tracking the number of packets received and/or transmitted over a period of time.
  - **Port Index:** Represents the diameter of the network cable.
  - **Color:** Represents the different port packet types.
  - InUcastPkts: Number of subnetwork-unicast packets delivered to a higher-layer protocol.
  - InNUcastPkts: Number of non-unicast packets delivered to a higher-layer protocol.
  - **InDiscard:** Number of packets which are chosen to be discarded to prevent from entering the higher-layer protocol.
  - **InErrors:** Number of error packets.
  - InUnknown Packets: Number of unclassified/unknown packets discarded.
  - OutUcastPkts: Number of out-going packets transmitted from higher-level protocols to a subnetwork-unicast address.
  - OutNUcastPkts: Number of out-going packets transmitted from higher-level protocols to a non-unicast address.
- 5. Click Clear**[C]** to clear the current data on the graph.

## 8.1.13.1 Line Chart

The statistical graph (X-Y) shows the usage of packets of a specified device in real time.

- **Port Index:** Displays the number of ports of a specific device.
- **Port Speed:** Displays the link speed between devices.
- Max/Min Value: Displays the maximum/minimum number of packet flow in real time.
- Max/Min Value X: Displays the current time stamp of the packet flow graph.
- Chart Case: Filter options to monitor the packet flow.
- **Time Interval:** Enter the time period to refresh the packet flow.

## 8.1.13.2 Bar Chart

The **Bar Chart** displays the percentage of packet flow in real-time.



Figure 216: Port Packet Monitor: Bar Chart screen

## 8.1.13.3 Grid Data

The **Grid Data** shows the packet flow in a table format. Click **Packet Info** to view the packet type options.
D Port Packet Monitor - [Utilization]									
☐ Eile ⊻iew Window About									
🙀 🥸 🔋 -									
Workplace	<b>▼ X</b>	Port Index	Utilization	InOctets	OutOctets				
Port Index	Port Speed 🔨	26	2	2		2			
18	0	32	2	2	1.0	2			
19	0	34	2	2		2			
20	0								
21	0	) Line Chart   Bar Chart <mark>Grid Data</mark>							
22	0	Dent Index	1 Hilisetien	InOctota		QuitQuitate			
23	0	Fultinuex	Oulization	Inoclets		Outoclets			
24	0	26	0.001	67 2:	116947769.00000	2100030042.00000			
25	0	32	0.000	39 3	384564380.00000	4161560332.00000			
26	100M	34	0.003	52	17815567.00000	329304474.00000			
27	0	35	0.006	48 4	452390703.00000	1030449968.00000			
28	0	48	0.004	55 23	863415817.00000	916002375.00000			
29	0								



### 8.1.14 Performance Monitor

The **Performance Monitor** tool is a comprehensive bandwidth performance management application that allows you to directly view the real-time statistics of your network. D-View's **Performance Monitor** tool will monitor and collect data from routers, switches, servers, and any other SNMP-enabled device.



Ensure the RMON status of the devices is enabled to start monitoring devices.

#### To monitor the performance of devices:

 Go to NetTools > Performance Monitor. The Performance Monitor screen will appear.



Figure 218: Performance Monitor screen

2. Select the ports and then click the **Errors Ratio button** from the

toolbar. The graph will display a list of different types of error packets.

- 3. Set the **Port Packet** options. These values are calculated tracking the number of packets received over a period of time.
- Drop Events: Represents the total number of events, when packets are dropped due to lack of resources.
- CRCAlignErrors: Represents the total number of packets received that are between 64 and 1518 octets in length. These include packets of either a bad Frame Check Sequence (FCS) with an integral number of octets (FCS Error) or a bad FCS with a non-integral number of octets (Alignment Error).
- **UndersizePkts:** Represents the total number of packets received that are less than 64 octets in length.
- **OversizePkts:** Represents the total number of packets received that are longer than 1518 octets in length.
- Fragments: Represents the total number of packets received that are less than 64 octets in length. These include packets of either a bad Frame Check Sequence (FCS) with an integral number of octets (FCS Error) or a bad FCS with a non-integral number of octets (Alignment Error).
- Jabbers: The total number of packets received that are longer than 1518 octets in length. These include packets of either a bad Frame Check Sequence (FCS) with an integral number of octets (FCS Error) or a bad FCS with a non-integral number of octets (Alignment Error).
- Collisions: An estimate of the total number of collisions on this Ethernet segment.

4. Click **Clear[C]** to clear the current data on the screen.

#### 8.1.14.1 Line Chart

The Statistical graph (X-Y) shows the usage of packets of a specified device in real time.

- **Port Index:** Displays the number of ports of a specific device.
- **Port Speed:** Displays the link speed between devices.
- Max/Min Value: Displays the maximum/minimum number of packet flow in real time.
- Max/Min Value X: Displays the current time stamp of the packet flow graph.
- **Chart Case:** Filter options to monitor the packet flow.
- **Time Interval:** Enter the time period to refresh the packet flow.

#### 8.1.14.2 Bar Chart

The **Bar Chart** displays the percentage of packet flow in real-time.



Figure 219: Performance Monitor: Bar Chart screen

#### 8.1.14.3 Grid Data

The **Grid Data** shows the packet flow in a table format.

D Perfor	mance Monito	r - [Error Ratio]							
D Eile	e ⊻iew <u>W</u> indow	About							
0 2	0 ? .								
Workplace	e – X	Port Index	DropEvents	CRCAlignErrors	UndersizedPkts	OversizedPkts	Fragments ]	abbers Co	Ilisions
Index	Port Index 🔥	11	2	2	2	2	2	2	2
1	Interface #1	12	2	2	2	2	2	- 2	2
2	Interface #2	15	2	2	2	2	2	2	2
3	Interface #3								
4	Interface #4	Line Chart	Bar Chart	Grid Data					
			bar criare						
5	Interface #5	Deut Indeu	Duran Essente		Lindowsing dDlate				Callisians
	Interface #5 Interface #6	Port Index	DropEvents	CRCAlignErrors	UndersizedPkts	OversizedPkts	Fragments	Jabbers	Collisions
5 6 7	Interface #5 Interface #6 Interface #7	Port Index 11	DropEvents 221.0	CRCAlignErrors 0.0	UndersizedPkts 0.0	OversizedPkts 0.0	Fragments	Jabbers	Collisions
5 6 7 8	Interface #5 Interface #6 Interface #7 Interface #8	Port Index 11 12	DropEvents 221.0 0.0	CRCAlignErrors 0.0 0.0	UndersizedPkts 0.0 0.0	OversizedPkts 0.0	Fragments	Jabbers 1.0 (	Collisions 0.0 496.0 0.0 0.0
5 6 7 8 9	Interface #5 Interface #6 Interface #7 Interface #8 Interface #9	Port Index 11 12 15	DropEvents 221.0 0.0 1.0	CRCAlignErrors 0.0 0.0 0.0	UndersizedPkts 0.0 0.0 0.0	OversizedPkts 0.0 0.0	Fragments Fragments	Jabbers 1.0 ( 1.0 ( 1.0 (	Collisions 0.0 496.0 0.0 0.0 0.0 0.0
5 6 7 8 9 10	Interface #5 Interface #6 Interface #7 Interface #8 Interface #9 Interface #1(	Port Index 11 12 15 16	DropEvents 221.0 0.0 1.0 0.0	CRCAlignErrors 0.0 0.0 0.0 0.0	UndersizedPkts 0.0 0.0 0.0 0.0	OversizedPkts 0.0 0.0 0.0 0.0	Fragments Fragments C C C C C C C C C C C C C C C C C C C	Jabbers 1.0 ( 1.0 ( 1.0 ( 1.0 (	Collisions .0 496.0 .0 0.0 .0 0.0 .0 0.0
5 6 7 8 9 10 10	Interface #5 Interface #6 Interface #7 Interface #8 Interface #9 Interface #10 Interface #11	Port Index 11 12 15 16 18	DropEvents 221.0 0.0 1.0 0.0 1.0 0.0	CRCAlignErrors 0.0 0.0 0.0 0.0 0.0 3.0	UndersizedPkts 0.0 0.0 0.0 0.0 0.0	OversizedPkts 0.0 0.1 0.0 0.0	Fragments Fragments C C C C C C C C C C C C C C C C C C C	Jabbers 1.0 (1.0 (1.0 (1.0 (1.0 (1.0 (1.0 (1.0 (	Collisions 

Figure 220: Performance Monitor: Grid Data screen

#### 8.1.14.4 Data Distribution Chart

The **Data Distribution Chart** monitors packet types of different sizes received by their designated ports.

1. Click the **Data Distribution** 🔁 button from the toolbar. The **Data** 

D Performance Monitor - [Data Distribution Chart]								
Eile	e <u>V</u> iew <u>W</u> indow	About						
-								
- 👬 🗲	• ¥ +							
Workplac	e – X	Port Index	0~640ctets	65~1270ctets	128~2550ctets	256~5110ctets	512~1023Octets	1024~1518Octets
Index	Port Index 🔥	12	2	2	2	2	2	2
	Interface #	13	2	2	2	2	2	2
2	Interface #:	15	2	2	2	2	2	2
3	Interface #:	-	<u> </u>					
4	Interface #-	Line Chart	Bar Chart					
5	Interface #!							
	Interface #	100000					- Chart Cas	e
7	Interface #	1.10E0	3					
<b>D2</b> 8	Interface #:						✓ 0~6-	4Octets
<b>D2</b> 9	Interface #'		10				<b>▼</b> 65~1	127Octets
10	Interface #	8.23E0	2					
11	Interface # 📃						J <b>∨</b> 128-	~255Octets
12	Interface #		<u>-</u> -				✓ 256-	~511Octets
13	Interface #	5.45E0	2			····/htt:/	E 540	10000.000
14	Interface #		-			1 / MALA	I <b>∞</b> 512-	~1023Octets
15	Interface #		-			ANA	☑ 102-	4~1518Octet
16	Interface #	2.68E0	2					
17	Interface #							
18	Interface #	10000	-				Time Inter	val(s):
19	Interface #	-1.00E0	1-1-1-1			1 2		I
	Interface #:	1	7:31:55	17:32:40	17:33:25 17:	34:10 17:34:5	5 3	-
21	Interrace #:							
1	Interrace #.	- Statistic :						
	Interface #.	Maultet		222	Min Value.	0		66
24	Interface #	Max Valu	ie.	932	win vaide:	V	Ave value : 4	00
25	Interface #:	Max Valu	e X:	17:34:39	Min Value X:	17:33:32	Clear[C]	
	incendue #.							

**Distribution Chart** screen will appear.

Figure 221: Performance Monitor: Data Distribution Chart screen

- 2. The packets are classified by its length:
  - **0~64Octets:** Total number of packets received that are 64 octets in length.
  - **65~127Octets:** Total number of packets received, between 65 and 127 octets in length.
  - **128~255Octets:** Total number of packets received, between 128 and 255 octets in length.

- 256~511Octets: Total number of packets received, between 256 and 511 octets in length.
- **512~1023Octets:** Total number of packets received, between 512 and 1023 octets in length.
- **1024~1518Octets:** Total number of packets received, between 1024 and 1518 octets in length.

#### 8.1.14.5 Port Flow Chart

The **Port Flow Chart** retrieves the statistical performance data to monitor the designated ports' performance status.

1. Click the **Port Flow** 🔮 button from the toolbar. The **Port Flow** screen



Figure 222: Performance Monitor - Port Flow Data screen

The different types of packets displayed in the graph are:

- Octets: Total number of octets received.
- **Packets:** Total number of packets received.
- BroadcastPkts: Total number of packets received and directed to the broadcast address.
- MulticastPkts: Total number of packets received and directed to a multicast address.

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