



#### D-Link Corporation D-View 6.0 User Manual Published: January 2008

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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/or IT personnel who would need to work with D-View.

# Prerequisites

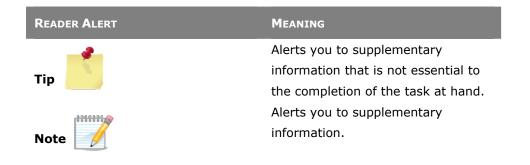
Before using this guide, read the **D-View 6.0 Quick Installation Guide**. The Installation Guide provides installation procedures for both Standard and Professional Editions of D-View.

# **Document Conventions**

The following conventions are used in this guide.

#### **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.



# **Style Conventions**

ELEMENT	Meaning
Bold font	Use for describing user interface
	elements and characters that you
	type into the interface.
	For example, Hierarchy Topology
	Workplace and type
	http://192.168.1.1.
<i>Italic</i> font	Variables for which you supply a
	specific value.
	For example: Filename.ext can refer
	to any valid file name.
Courier New font	Samples of code and file paths and
	names.
Command	A command that is typed at the
	command prompt. For example,
	ipconfig.

The following style conventions are used in this guide.

# **Introducing D-View**

#### **OVERVIEW**

-Link strives to provide easy-to-use devices and software for users. Networking is a core technology for data communication. Based on abundant experience and profound understanding on end-user network management requirements, D-Link introduces D-View 6.0.

Network administrators can now efficiently manage and monitor,

- device configuration,
- fault tolerance,
- performance,
- and security

of multiple networks and management switches with D-View, a Simple Network Management Protocol (**SNMP**) Network Management System. This is a comprehensive standards-based management tool designed to centrally manage critical network characteristics such as availability, reliability and resilience in a consistent manner. D-View accommodates a wide range of devices including:

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

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*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.

D-View is designed for SMB, Enterprise, and Telecom administrators to efficiently manage their networks.

#### What's Included

- D-View 6.0 comes with:
- D-View 6.0
- User Manual

#### **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.
 DBMS: Access 2000

**Operating System:** Windows XP, Windows 2000 Server or Advanced Server (English Version), Windows 2003 (English Version)

• **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.

**Operating System:** Windows Server 2000 or 2003 (English Version) **DBMS:** SQL Server 2000/2005

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

#### **Hardware Requirements**

- CPU: 1.4GHz or above
- DRAM: 1GB or above
- Hard Drive Space: at least 200 MB
- Ethernet Adapter
- D-View supports the following:

#### **D-Link Switch:**

DES-3526, DES-3550, DES-3828, DES-3828DC, DES-3828P, DES-3852, DES-6500, DGS-3308FG, DGS-3324SR, DGS-3426, DGS-3427, DGS-3450, DGS-3612, DGS-3612G, DGS-3627, DGS-3627G, DGS-3650, DXS-3326GSR, DXS-3350SR, DGS-3200-10

D-Link Wireless AP:

DWL-2100 AP, DWL-2700AP, DWL-3200AP, DWL-3260AP, DWL- 7100AP, DWL-7700AP, DWL- 8200AP

#### **Software Requirements**

- Operating System:
  - Microsoft Windows 2000 Professional/Advanced Server (English Version) with Service Pack 4
  - Microsoft Windows Server 2003 with Service Pack 2
- Microsoft Internet Explorer 6 with Service Pack 1 or later
- Microsoft XML Parser and SDK

#### For Standard Edition only:

Microsoft Windows XP Home/Professional Service Pack 2

#### For Professional Edition only:

Database Management System (DBMS):

- Microsoft SQL Server 2000 (English Version) with Service Pack 2
- Microsoft SQL Server 2005 (English Version)

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The differences between t	the two editions are described in the following table:
STANDARD EDITION	PROFESSIONAL EDITION
Standalone	Client-Server
Single User Login	Multiple User Login
Supports Nodes <= 1000	Supports Nodes >= 1000
Supports Microsoft Access Database	Supports SQL Database

Both editions use **COM** (Component Object Model) technology.

10000000 D-Link recommends using a display with 1024 x 768 resolution.

# **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.

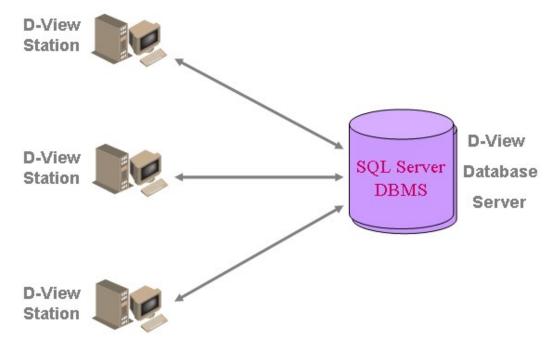


Figure 1: SQL Server Remote Access

To configure and connect to the SQL Server database, refer to Installation Steps and To Create a Database (for Professional Edition).

# Upgrade

To upgrade from D-View 5.1 or earlier versions to 6.0, uninstall all the programs related to the old version and then re-install the new version.

*Jownload the latest version of the User Manual from dview.dlink.com.tw for the* 

added new features.

# **Technical Specifications**

Security Management Functions
<ul> <li>SNMP v3 covering security functions such as packet encryption/decryption, user levels for different classes of access right, MPD (RFC 2572), TARGET (RFC 2573), USM (RFC 2574) and VACM (RFC 2575)</li> <li>SNMP v3 Configuration</li> <li>Device Module Access Right Control</li> <li>NMS System Access Control</li> <li>NMS System Function Module Access Right Control</li> <li>Local and Radius Authentication Modes when Login</li> </ul>
<ul> <li>Resource Management Functions         <ul> <li>Device Resource Manager</li> <li>User Locator</li> <li>Device Locator</li> <li>User Statistics</li> <li>Device System Information Manager (RFC 1213 System)</li> <li>Device Port Status Manager</li> </ul> </li> <li>Performance Management Tools</li> </ul>

•	Topology Import / Export	Port Packet Monitor
•	Hierarchy Topology Manager	
•	Device Type Extension	
•	Web Configuration	
•	Telnet Configuration	
•	TFTP file transport	
•	Trace Route	
•	MAC Locator	
•	Ping	
Fault	Management Tools	Supported Devices
•	Trap Filter	D-Link Devices:
•	Trap Log	- SNMP capable
•	Ping Poll Filter	Smart/Managed switches
•	Ping Poll Log	- OLT/ONU devices
•	SNMP Poll Filter	- Wireless bridges and
•	SNMP Poll Log	access points
•	Event Config Manager	- SNMP capable routers
•	Event Viewer	- Multi-tenant broadband
		CO devices
		Windows Workstation, DC
		and Server
		Device Panel Simulation

# **Installing D-View**

# **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 navigate to D-View Standard.exe/D-View Professional.exe. If the installer does not start automatically, start the installer by double clicking the D-View Standard.exe/ D-View Professional.exe.

The InstallShield Wizard screen displays.

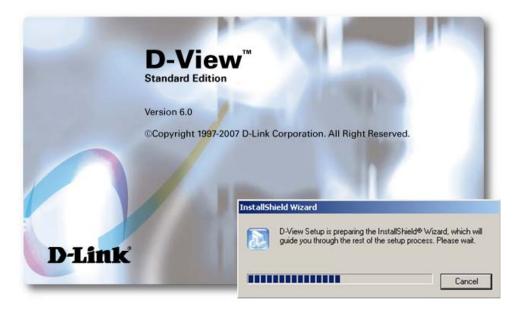


Figure 2: InstallShield Wizard screen

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

The License Agreement screen displays.

icense Agreement		
Please read the following license ag	greement carefully.	
D-View 6.0 will be installed in your of carefully.	computer. Please read the software license ag	reement
D-Link D-	View 6.0	-
Software Lice	ense Agreement	_
	Agreement ("EULA") is a legal	F
Press 'No' to exit the installation. P	ress "Yes' to continue.	_
allShield		
	K Back Yes	No

Figure 3: License Agreement screen

2. Click **Yes** to proceed.

The **Choose Destination Location** screen displays.

noose Destination Location		
Select folder where Setup will install files.	ŝ	
Setup will install D-View in the following f	folder.	
To install to this folder, click Next. To ins another folder.	stall to a different folder, cl	lick Browse and select
Destination Folder		
Destination Folder C:\Program Files\D-Link\D-View		Browse
		Browse

Figure 4: Choose Destination Location screen

- 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.
  - The Select Program Folder screen displays.

name, or select one from the existing folders list. Click Next to continue. Program Folders: Existing Folders: Accessories Administrative Tools HyperSnap-DX 4 Microsoft SQL Server	name, or select one from the existing folders list. Click Next to continue. Program Folders: D-View	Administrative Tools HyperSnap-DX 4 Microsoft SQL Server Microsoft SQL Server - Switch SiS VGA Utilities	name, or select one from the existing folders list. Click Next to continue.  Program Folders:  Existing Folders:  Accessories  Administrative Tools HyperSnap-DX 4  Microsoft SQL Server Microsoft SQL Server Microsoft SQL Server - Switch SiS VGA Utilities Startup	elect Program Folder Please select a program folder.	
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SiS VGA Utilities		IShield		HyperSnap-DX 4 Microsoft SQL Server Microsoft SQL Server - Switch SiS VGA Utilities	
				IShield	
Stint	Shield		(Back Next) Cano	INCOME STATES OF A	

Figure 5: Select Program Folder screen

The Setup will add program icons into the Program Folder.

4. Click **Next** to continue.

The Start Copying Files screen displays.

stallShield Wizard				
Start Copying Files				
Review settings before copying f	iles.			
Setup has enough information to change any settings, click Back. copying files.				
Current Settings:				
[User Info]: User Name: Company Name: License Code: [Application Info]: OS Directory :C:\WINNT Setup Directory :C:\Progra		*		د ب ب
tallShield	< B	lack	Next>	Cancel

Figure 6: Start Copying Files screen

 Verify the settings before clicking Next. To make changes, click Back. The Setup Status screen displays.

nstallShield Wizard		×
Setup Status		
D-View Setup is performin	g the requested operations.	
Installing:		
_	32%	
nstallShield		
		Cancel

Figure 7: Setup Status screen

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

To stop the installation, click <b>Cancel</b> .

nstallShield Wizard Setup Status		×
D-View Setup is performing	the requested operations.	
	100%	
nstallShield		
1940110711E1U		Cancel

Figure 8: Setup Status screen

Once D-View installation is successfully completed the **Welcome to the Microsoft XML Parser and SDK Setup Wizard** window displays.

🕞 Microsoft XML Parser and SE	OK 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.	
	Mext > Cancel	

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

7. Click **Next** to continue installing Microsoft XML Parser and SDK on your server.

The End-User License Agreement screen displays.

d-User License Agreement ease read the following license agre	eement carefully
END-USER LICENSE AGREE	
MICROSOFT XML CORE SE	RVICES (MSXML) 4.0
Agreement ("EULA") is a legal agre- single entity) and Microsoft Corpor above, which may include computer and "online" or electronic document	LY: This Microsoft End-User License ement between you (either an individual or a ration for the Microsoft software identified software, associated media, printed materials, ation ("SOFTWARE"). By downloading, we the SOFTWARE you error to be bound
• I accept the terms in the License	
	License Agreement

Figure 10: End-User License Agreement screen

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

The **Customer Information** screen displays.

User Name: Sink Organization: dlink	

- Figure 11: Customer Information screen
- 9. Enter the **User Name** and the name of your **Organization**. Click **Next** to continue.

The **Choose Setup Type** screen displays.

Choose Setup Type Choose the setup typ	e that best suits your needs
	Install Now Install MSXML 4.0 at C:\Program Files\MSXML 4.0 Customize 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

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

# The **Completing the Microsoft XML Parser and SDK Setup Wizard** screen displays.



Figure 13: Completing the Microsoft XML Parser and SDK Setup Wizard screen 11. Click **Finish** to exit and complete the installation.

D-View 6.0 D-View*	-	×
Version 6.0	Setup Completed	
	D-View has been installed in your computer successfully. Press "complete" to finish the intallation process.	
D-Link		
	Complete	

Figure 14: Setup Complete screen

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

- 12. Click **Complete** to close this window.
- 13. Restart your computer to complete the installation.

14. To start D-View, double click the  $\downarrow \downarrow \downarrow$  on the desktop.

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

#### To Create 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, SQL 2000 server must be installed with SQL service

running on the server.

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

- 1. Copy the following files to a folder:
  - Make DB.exe
  - Task.SQL
  - DBCreate.SQL

As seen in the following figure, the files are stored in:

E:\D-View 6.0\SQLDBScript\SQLDBScript

<u>File E</u> dit <u>V</u> iew F <u>a</u> vorites		7		
🕒 Back 🝷 🕤 👻 🧊 🔎 Sea	arch 🌔 Folders 🛛	\$ B X 9 [	<b></b> •	
Address 🛅 E:\D-View 6.0\SQLDBScript\SQLDBScript 💽 🌖 Go				
Name 🔺	Size	Туре	Date Modified	Attributes
DBCreate.SQL	138 KB	SQL Script File	12/4/2007 12:32 AM	A
DMakeDB.exe	208 KB	Application	9/20/2007 11:57 PM	A
🗐 task.SQL	13 KB	SQL Script File	12/26/2006 3:38 PM	A

Figure 15: MakeDB screen

2. Double-click MakeDB.exe.

The **D-View Database Tool** window displays.

E:\D-View 6.0\SQLDBScript\Si	JLDBScript			-03
<u>File Edit View Pavorites I</u> c	ools <u>H</u> elp			
🔇 Back 🔹 🕥 👻 🏂 💭 Search	Folders	\$ B 🗙 🍤   [	<b></b>	
Address 🗁 E:\D-View 6.0\SQLDBSc	ript\SQLDBScript			💌 🛃 Go
Name 🔺	Size	Туре	Date Modified	Attributes
🗐 DBCreate.SQL	138 KB	SQL Script File	12/4/2007 12:32 AM	А
DMakeDB.exe	208 KB	Application	9/20/2007 11:57 PM	А
🖹 task.SQL	13 KB	SQL Script File	12/26/2006 3:38 PM	A
D-View Database	Tool ©real	ieDB <u>C</u> lo	se	

- Figure 16: D-View Database Tool screen
- D-View Database Tool is in the process of creating a database.

Address 🗀 E:\D-View 6.0\SQLDE	3Script\SQLDBScript			💌 🔁 Go
Name 🔺	Size	Туре	Date Modified	Attributes
DBCreate.SQL	138 KB	SQL Script File	12/4/2007 12:32 AM	A
D MakeDB.exe	208 KB	Application	9/20/2007 11:57 PM	A
🗐 task.SQL	13 KB	SQL Script File	12/26/2006 3:38 PM	A
D-View Databa				
	Crea	teDB		

Figure 17: MakeDB screen

- 3. Click **OK** to close the window.
- 4. To edit information in the hosts file, go to: C:\WINNT\system32\drivers\etc\hosts

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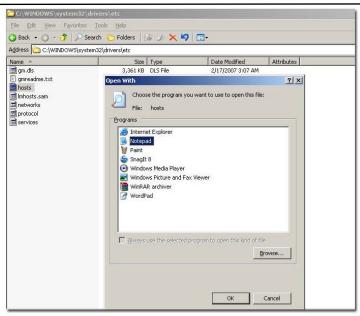


Figure 18: Etc Folder screen

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

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

New Ctrl+N		-1999 Microsoft Corp.		
Open Save	Ctrl+O Ctrl+S	OSTS file used by Micro	osoft TCP/IP for Windows.	
Save <u>A</u> s		s the mappings of IP addresses to host names. Each ept on an individual line. The IP address should		
Page Setyp. Print	[f	irst column followed by	ne. The IP address should / the corresponding host name. De separated by at least one	
Exit			L	
≠ lines or	following	ents (such as these) ma the machine name denot	ay be inserted on individual ed by a '#' symbol.	
# lines or # # For exam		ents (such as these) ma the machine name denot	uy be inserted on individual ed by a '#' symbol.	
# lines or # # For exam # 102		rhino.acme.com	ay be inserted on individual ed by a '#' symbol. # source server # x client host	

Figure 19: Hosts File screen

- 6. 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

To implement the client-server architecture, ensure to install D-View 6.0

professional edition in required servers to connect with the SQL database.

7. 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 to add the IP

address of your server in the hosts file. Check with the system administrator for the

correct IP address of your server.

8. Restart your computer to complete the installation.

The **Login D-View** screen displays. Refer to Getting Started to continue working with D-View.

## **D-VIEW 6.0 LICENSING**

#### **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 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 19 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.

#### **Obtaining the Activation Code**

If you opt to buy D-View, there are three ways to request for your activation code, which are as follows:

#### **OPTION A**

To register, go to http://dview.dlink.com.tw and enter user related information such as license key and MAC address of D-View. The license key is provided with the CD.

#### **OPTION B**

1. Start **D-View**.

The **D-View 6.0 Activation Wizard** screen displays.



Figure 20: D-View Activation Wizard screen

2. Click **Next** to continue.

#### The **Input Activation Key** screen displays.

D-View 6.0 Activ	ation Wizard			
D-View <sup>™</sup> 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: XXXXXXXXX-XXXXX-XXXXX-XXXXXXXXXXXXXXX			
D-Link	Activate Register Skip			

- Figure 21:Input Activation Key screen
- 3. Click **Register** to open the registration website and update the information on-line.

#### **OPTION C**

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

# Understanding the Architecture

#### **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 and plug-in modules.

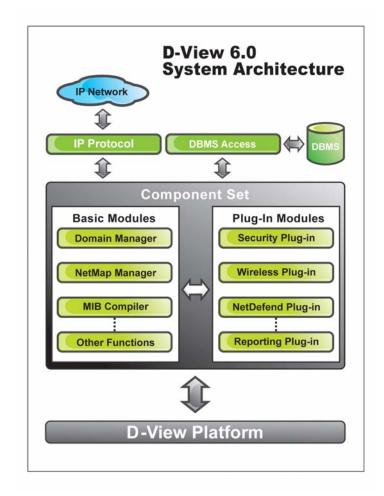


Figure 22: D-View System Architecture

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.

#### **F**EATURES

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**.
- 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**.
- 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 email or sound alerts.

## **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 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 mechanism to retrieve SNMP OID information. For example, using **Performance** Monitor function, the administrator can monitor data ratio per port.
- **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

## INTRODUCTION

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

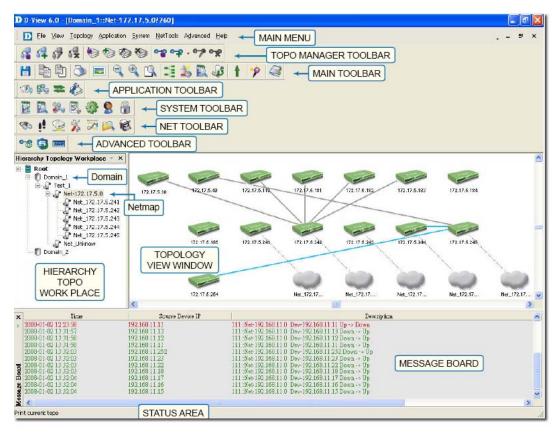


Figure 23: D-View User Interface

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 Main Menu for the different functional modules.

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

working model

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

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

#### **Topology Workspace**

<u>R</u> efresh	Reload the hierarchy topology data
Add Netmap	Add Netmap into the current topology
Topo Export/Import	Backup or Restore the topology data
Domain Manager	Call domain manager
Polling Config	Config the poll device list
Event Viwer by Netmap	Retieve the event data of devices
Topology Generator	Call Topology Generator to create topology

Figure 24: Context-sensitive menu accessed from the Topology Workspace

#### **Topology View Window**

	Copy Ctrl+C	2	Copy the selected device
	Paste Ctrl+\		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
	<u>T</u> elnet		Call Telnet tool to manage the selected device
	<u>W</u> eb		Call Web browser tool to manage the selected device
	Run Ba <u>t</u> ch		Call batch tool to operate the selected devices
	Add to Poll List		Add the seleted devices into poll device list
	Delete from Poll List		Delete the seleted devices from poll device list
	Re <u>a</u> rrange Topology	•	Rearrange the topology after selecting one device
	View Op <u>t</u> ion		Set the display option for topology
	Background Setup		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 netcell according to window size
	Device Manager	•	Operate the net cell : Device
	Link Manager	•	Operate the net cell : Link
	<u>N</u> etmap Manager	•	Operate the net cell : Netmap
	Topology <u>R</u> ollback		Reload the topology data and cancel all the modification
_			

Figure 25: 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 26: Context-sensitive menu accessed from the Hierarchy Topology Workspace

# 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.

# File

The following table lists the	File menu items and their descript
Menu Item	DESCRIPTION
Save	Save the current topology.
Startup Wizard	The wizard guides you to create a
	topology. Refer to Startup Wizard for
	more information.
Close	Close the current <b>Topology View</b>
	window.
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.

## View

following table describes the different f			
TOOLBAR	DESCRIPTION		
Advanced Toolbar	Access Link Capacity		
	Check, Safeguard Check		
	and ARP info.		
Net Toolbar	Access Device		
🖘 i! 🕞 % 🗁 🕰 🚳	Discovery, Trace route,		
	File Transport, NET		
	Toolbox, Performance		
	monitor, MIB browser		
	and MIB compiler.		
System Toolbar	Access System Log,		
🔯 🛅 🐅 🕅 🧀 🌘 🙈	Event Viewer by IP,		
	Device Group Manager,		
	Device Event Configure,		
	System Config,		
	Administrator		
	Management, and		
	Change Password.		
Application Toolbar	Access Batch config,		
50 B = 2	Run Batch Program,		
	Topo Export Import,		
	Device Customization.		
Topo Manager Toolbar	Access Select netmap,		
	Add netmap, Edit		
	netmap, Delete netmap,		
A 60 00 00 . 00 000	Select device, Add		
	device, Edit device,		
	Delete device, Select		
	link, Add link, Edit link,		
	Delete link.		
Main toolbar	Access Save, Copy,		
🖹 🖹 🕭 📼 🔍 🔍	Paste, Print,		
	Background, Zoom out,		
P 📫 🛣 🎇 🖓 🛉 🥠 🥥	Zoom in, Zoom fit,		
	Domain Manager,		
	Configure the devices		
	want to be polled, Query		
	the event log by		
	netmap,		
	Search the devices in		

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

	the network and create
	a topology
	automatically, Upper
	Layer, Startup wizard,
	Help
Hierarchy Topology workspace	Access Main Menu,
	Topology, and Message
	Board
Message Board	Access Message Board
Cascade	Cascades the different
	topologies one behind
	the others
Tile Vertically	Arranges the different
	topologies one below
	the other

# Application

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

Menu Item	DESCRIPTION
Batch Config:	Execute a sequence of operations in
Advanced Option	D-View. For example, Save
Run Batch	Configuration, Retrieve Port Status,
	and so on. Refer to Batch
	Configuration for more information.
Topo Export Import	Restore and backup D-View. Refer to
	Using Topo Export/Import for more
	information.
Device Customization	Add, modify and delete devices. Refer
	to Customizing Devices for more
	information.

# System

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

Menu Item	DESCRIPTION
System Log	Store logged events. Refer to System
	Log for more information.
Domain Manager	Manage domain information. Refer to
	Domain Manager for more
	information.
Event Manager	Monitor and manage events. Refer to
Event Viewer by	Managing Events for more

Netmap	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
	Login D-View for more information.
Administrative Manager	Create user groups and provide
	access rights for certain functional
	modules to an administrator. Refer to
	Administrator Manager for more
	information.
Change Password	Change password after login. Refer to
	Changing Password for more
	information.

## NetTools

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

Menu Item	DESCRIPTION
Device Discovery	Search devices using IP address.
	Refer to 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
	Trace Route for more information.
TFTP (Trivial File Transfer	Upload/Download/Update
Protocol)	configuration files to and from
	devices. Refer to TFTP for more
	information.
NetToolbox	Manage devices through Telnet, Web
	and Ping using the IP address. Refer
	to Net Toolbox for more information.

Port Packet Monitor	Monitor the port packet performance.
	Refer to Port Packet Monitor for more
	information.
Performance Monitor	Monitor the RMON performance of a
	device. Refer to Performance Monitor
	for more information.
MIB Tools	Manage and configure non D-Link
MIB Compiler	devices. Refer to Managing Devices
MIB Browser	with MIB Compiler for more
	information.
Topology Generator	Tool to generate a Topology. Refer to
	Using Topology Generator for more
	information.

#### Advanced

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

Menu Item	DESCRIPTION
Link Capacity Check	Monitor and modify the link status.
	Refer to Monitoring the Link Status
	for more information.
Device type Check	Check the network for new and
	updated devices. Refer to Using
	Device Type Check for more
	information.
Safeguard Check	Check the safeguard status of
	devices. Refer to Using Safeguard
	Check for more information.
All of ARP info	Retrieve ARP information from
	devices in the topology. Refer to
	Retrieving ARP information for more
	details.

## Help

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

Menu Item	DESCRIPTION
D-View Help	Opens D-View online help.
Module supported	Displays a list of devices supported
	by D-Link.
<b>D-View Activation Wizard</b>	Helps you obtain the activation code.
About D-View	Displays the About D-View window.

# **Using D-View**

#### **GETTING STARTED**

Before proceeding with this section, D-Link recommends you to get familiar with the User Interface. Refer to Introduction section.

#### **Login 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 account and password: Account admin Password *****
Login Cancel Option>>
Figure 27: D-View Login screen

#### 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**.

Basic Config Root Topo Name :	Root	Authentication Config	n C Radius Auth	entication	
-Management Stati	on IP Config	Radius IP	Port	Key	Ī
Management IP :	172.17.5.101				Add
Local IP :	172.17.5.154	<		>	
		IP:	Port:	Key:	Delet

Figure 28: 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.

#### **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, by default, creates a Super Domain and the IP address

of the workstation. A super domain is a virtual domain which manages the

topologies of all the domains. Refer to Creating a Topology to manually create a

topology using Domain Manager.

#### **Startup Wizard**

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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 29: Startup Wizard screen
- 2. Click Next. The Domain Manager screen displays.

D Domain Manager	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>te M</u> odify <u>D</u> elete <u>N</u> ext

Figure 30: Domain Manager screen

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

ology
st
Next

Figure 31: Add Netmap screen

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

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

Figure 32: Select Network Adapter screen

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

Analysis Mode     Cocal Network		
C Designated Network		
Topology Name Enter the Name for the Top	ology:	
Topology_1		
Topology_1		

Figure 33: 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.

pology Generator		E
Topology Analysis	Configuration	
D Top	ology Generator will start to analyze local	
	OIK	
Local IP :	172.17.5.154	
Subnet Mask :	255 . 255 . 255 . 0	
CNMD Community	China Callina	
- SNMP Community		
Read Only :	public	
Read/Write :	private	
	< <u>B</u> ack Finish	Cancel

Figure 34: 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.

<b>D</b> Торо Ex	port 🛛 🛛 🛛	
Торо Ехр	port	
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> <u>C</u> ancel	

- Figure 35: 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

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## **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 Startup Wizard create a topology.
- Create a topology manually
- To manually create a topology:
- 1. Go to **System** > **Domain Manager** and create a new **Domain** to manage the topology.

Super Domain is, by default is a virtual domain from which the topologies of all

other, existing domains can be managed.

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".
 	17

Figure 36: 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**.

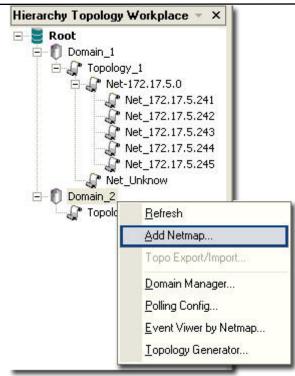


Figure 37: Hierarchy Topology Workplace screen

3. The Add Netmap screen displays.

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

Figure 38: Add Netmap screen

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

Make sure to save the changes made to the database before you proceed.

- 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 Device Discovery for more information.

Start IP:	192 . 168 .		D
End IP:	192 . 168 .	11 . 252	
Community:	public		Close
Type:	SNMP Devices	-	
Current IP:	192.168.11.62		
Consch		Ohen	
<u>S</u> earch		Stop	
	Type	Stop	Description
Device Name	Type Cisco 2611		Description
Device Name ev-192.168.11.11 ev-192.168.11.17	Cisco 2611 DES6500	IP Address 192.168.11.11 192.168.11.17	Description
Device Name ev-192.168.11.11 ev-192.168.11.17 ev-192.168.11.15	Cisco 2611 DES6500 DGS3427	IP Address 192.168.11.11 192.168.11.17 192.168.11.15	Description
Device Name ev-192.168.11.11 ev-192.168.11.17 ev-192.168.11.15 ev-192.168.11.16	Cisco 2611 DES6500 DGS3427 DES3828P	IP Address 192.168.11.11 192.168.11.17 192.168.11.15 192.168.11.16	Description
Device Name ev-192.168.11.11 ev-192.168.11.17 ev-192.168.11.15 ev-192.168.11.16 ev-192.168.11.18	Cisco 2611 DES6500 DGS3427	IP Address 192.168.11.11 192.168.11.17 192.168.11.15 192.168.11.16	Description
Device Name ev-192.168.11.11 ev-192.168.11.17 ev-192.168.11.15 ev-192.168.11.16 ev-192.168.11.18 ev-192.168.11.22	Cisco 2611 DES6500 DGS3427 DES3828P DGS3324	IP Address 192.169.11.11 192.169.11.17 192.168.11.15 192.168.11.16 192.168.11.18	Description
Device Name ev-192.168.11.11 ev-192.168.11.17 ev-192.168.11.15 ev-192.168.11.16 ev-192.168.11.18 ev-192.168.11.22 ev-192.168.11.23	Cisco 2611 DES6500 DGS3427 DES3828P DGS3324 DWL2700	IP Address 192.168.11.11 192.168.11.17 192.168.11.15 192.168.11.16 192.168.11.18 192.168.11.22	Description
Search	Cisco 2611 DES6500 DGS3427 DES3828P DGS3324 DWL2700	IP Address 192.168.11.11 192.168.11.17 192.168.11.15 192.168.11.16 192.168.11.18 192.168.11.22	

Figure 39: Device Discovery screen

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

the **Copy/Paste** function. Refer to Copy/Paste for more information.

• Continue to **Export** your topology. Refer to Using Topo Export/Import for more information.

#### **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 Lesis to D. View with Currey Demoin administrator access

- 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		×
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 medify or delete a domain name to create the Domain	
	To modify or delete a domain, select it from the Domain Name list and then click "Modify" or "Delete". pen <u>Create M</u> odify <u>D</u> elete <u>C</u> lose	

Figure 40: 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.

Super Domain Domain_1 Domain_2	Manage Station
Domain_2	Workstation Name         Workstation IP           Station_1         172.231.255.11
	Station Info Station Name: Station IP:

- Figure 41: Domain Manager: Workstation screen
- 4. Repeat the previous step for the other domain.
- 5. Create a topology for each domain.

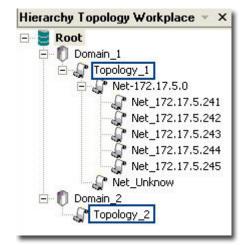


Figure 42: Hierarchy Topology Workplace

 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 43: Login screen

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

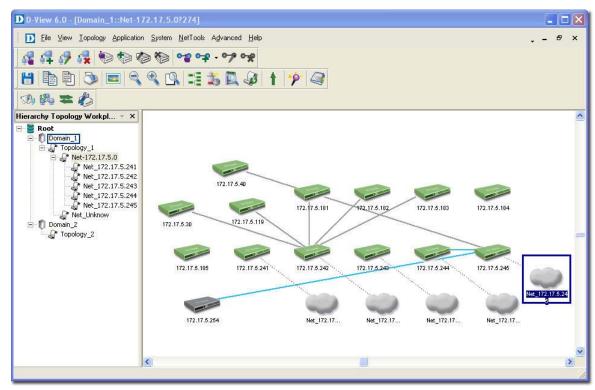


Figure 44: Domain\_1 window

# 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.

Topo Export/Import				
Topo Export/Import				
Export C Import	Domain:		Netmap:	
	Domain_1	-	Topology_1	•
Select the source or dest	nation:			
C:\Program Files\D-Link\	D-View\delconfig\Inc	dex.xml		owse
U				
			Apply	<u>C</u> lose
		1		

Figure 45: 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 Restoring and Backing Up D-View to restore and backup D-View.

9

## **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 the **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.

## **USING TOPOLOGY GENERATOR**

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

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

pology Generator Wizard	
The Topology Generator Wizard will help you generate a Topology	
Analysis Mode	
Cocal Network	
C Designated Network	
Topology Name	
Enter the Name for the Topology:	
,	
< <u>B</u> ack <u>N</u> ext	> Cancel
< <u>B</u> ack <u>N</u> ext	> Cancel

Figure 46: 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.

J

-				
Top net	oology Generat work	or will start to a	analyze local	
Local IP :	172.17	. 5 .154		
Subnet Mask :	255 . 255	. 255 . 0		
SNMP Communit				
Read Only :	public			
Read/Write :	private			

Figure 47: 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.

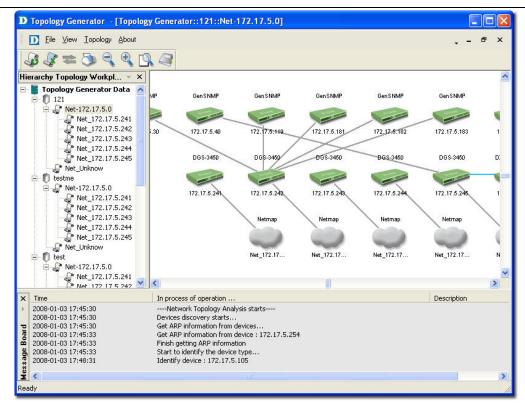


Figure 48: Generated Topology window

 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 49: Topo Export screen

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

#### **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

## 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.

## 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.

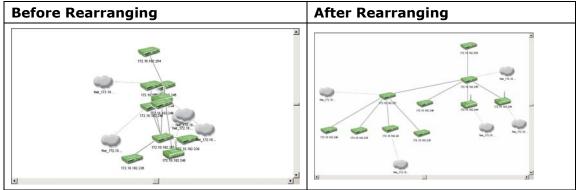


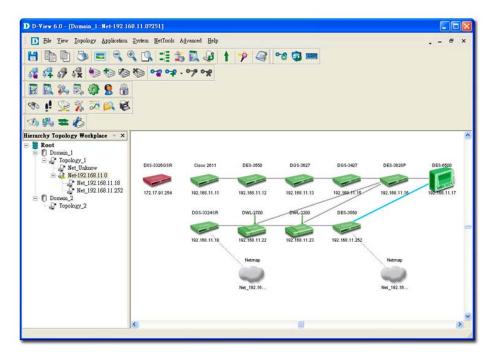
Figure 50: Topology before and after rearranging

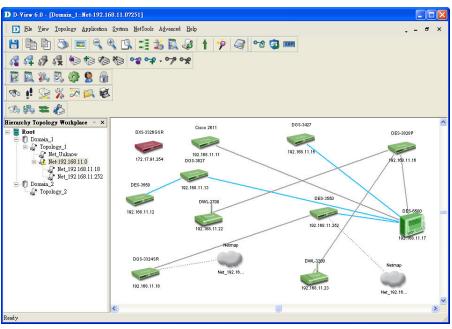
# **Rolling Back a Topology**

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.





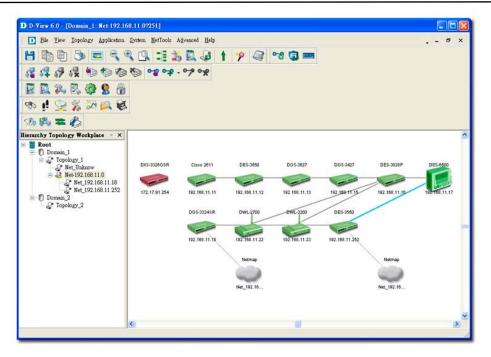


Figure 51: Sequence of steps displaying the Topology Rollback function

# Managing and Monitoring Devices

### **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 the device modules in the list, download and install the device

management modules from the D-Link Website.

Vender	Device Type	Device Alias
D-Link	DES3526	DES-3526
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	DGS3308FG	DGS-3308FG
D-Link	DGS3324SR	DGS-3324SR
D-Link	DGS3426	DGS-3426
D-Link	DGS3427	DGS-3427
D-Link	DGS3450	DGS-3450
D-Link	DGS3612G	DGS-3612G
D-Link	DGS3627	DGS-3627
D-Link	DGS3627G	DGS-3627G
D-Link	DGS3650	DGS-3650
D-Link	DWL2100	DWL-2100
D-Link	DWL2700	DWL-2700
D-Link	DWL3200	DWL-3200
D-Link	DWL7700	DWL-7700
D-Link	DXS3326GSR	DXS-3326GSR
D-Link	DXS3350SR	DXS-3350SR
		Refresh Close

Figure 52: Devices Supported screen

Refer to Customizing Devices to extend the device module list.

#### **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 Retrieving OID of the device 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 Managing Devices with MIB Compiler for more information.
- **Telnet, Web management tools:** Refer to Management Methods for more information.
- Monitoring performance status by **ICMP/SNMP**. Refer to Setting the Devices to Poll for more information.
- Extension of supported device types with **Device Customization** functional module. Refer to Customizing Devices for more information.

#### **CUSTOMIZING DEVICES**

D-View provides a flexible method to extend 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	Prowse	De <u>l</u> ete
evice Type Info			
Device Type :	DES3526		A <u>p</u> ply
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	B <u>r</u> owse	
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 53: 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 Retrieving OID of the device 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.

## 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 Complier. The D-Link MIB Compiler screen displays.

D-Link MIB Compiler         File       Edit       View       Window       Help         Image: State Sta		
MIB           S1:BRIDGE:MIB           S1:ERIDGE:MIB           S1:EANAiType-MIB           S1:F-MIB           S1:GMP-STD-MIB	Open Look in: SMIDB Bridge-MIB.mib IANAIf ype-MIB.mib RFC1155-SMI.mib RFC1212.MIB RFC233.mib RFC293.mib RFC293.mib RFC293.mib SMIPv2-CONF.mib SMIPv2-CONF.mib	Image: SNMPv2-TM.mib       SNMPv2-TM.mib       SNMPv2-TM.mib
5-RFC-1215 5-SNMPv2-CONF 5-SNMPv2-MIB 5-SNMPv2-SMI 5-SNMPv2-TC 5-SNMPv2-TM	File name: RFC1213.MIB Files of type: *.mib	Open Cancel

2. Open the rfc1213 file for modification. D-View loads 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.

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🗹 D-Link MIB Compiler	
File Edit View Window Help	
Browse Agent IP: 172.17.5.30	
МІВ	
CUFMIB Loading compiled MIB module [ RFC1213-MIB ]	
C IGMPS	
C P-BRIDec me	
C: Q-BRIDGE-MIB:	
C RFC1155-SMI	
C RFC-1212	
C RFC1213MIB	
C SNMPV2-CONF	
C:SNMPv2-MIB C:SNMPv2-SMI	
C SNMP 22-TM	
	1

Figure 55: Loading compiled MIB Module screen

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

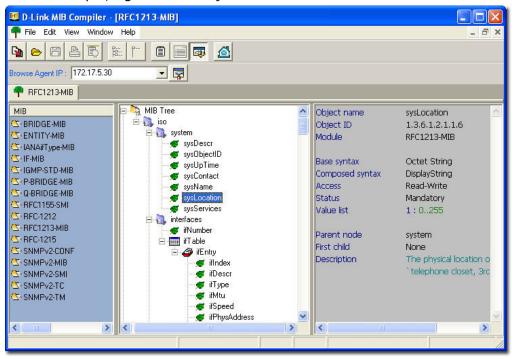


Figure 56: MIB Tree screen

The Browse Result Node: sysLocation screen displays.

				🙀 Set Value	
Agent IP :	192.1	68.11.1	5	Remote IP 132.168.11.15	Poll every 30 S
Name	OID	Syntax	Access \		
sysLocation	1	Displ	Read	Object Name sysLocation	
				1.3.6.1.2.1.1.6.0 Syntax	
				Display String Community String	
				Read Community String         Write Community String           public         private	
				Value to Set	
				Set Cancel	Close
Count :	1	1	Access Mod	e : SNMP V2c Port : 161 Query OK!	

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

Use MIB Browser to browse MIB files after compilation.

#### **Setting Up SNMP Configuration to Retrieve Device**

#### Information

1000000000

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

**SNMP Configuration** screen displays.

<sup>ut:</sup> 2 <u>B</u> etries: 1
161
vel: NoAuthNoPriv 🗾 Delete Us
rd:
ıſ

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**.

#### **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.



Ensure the device is online to retrieve the OID of the device.

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

 Go to NetTools > MIB Tools > MIB Compiler. The MIB Compiler screen displays.

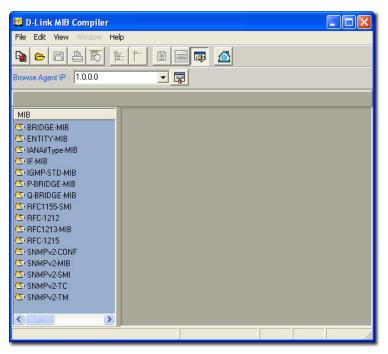


Figure 59: MIB Compiler screen

- 2. Enter the device IP address.
- 3. Set the **SNMP Configuration**. Refer to Setting Up SNMP Configuration to Retrieve Device Information 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 displays.
- 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 displays.
- 3. Go to **Device Info** and then select **System Info**. The **System InfoGenSNMPDevice Module** screen displays.

Contactor:	D-Link DP-301P+ Print - Server
Location: RD1	
Run Time: 462 Hours 13 Minutes	
System OID: 1.3.6.1.4.1.171.11.10.1	
Service Physical II Link II Network	Transport 🔽 Application

Figure 60: 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.

## **BATCH CONFIGURATION**

The **Batch Configuration** tool allows you to execute a sequence of operations in D-View. For example, Save Configuration, Retrieve Port Status, and so on. 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 displays.

Function List			
Function Nar	me	Function Description	
FIRM CONFIGURE RESOURCE PORTSTATUS SAVE SPANNING RMON SAFEGUARD	Firmware updat Config update Resource Manu Port status Save config Spanning tree o RMON config Safeguard Eng	ger	
Function Info	AFEGUARD		
Name: S/	AFEGUARD afeguard Engine config		

Figure 61: 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.
- 3. Select **SAFEGUARD** and then click **Next** to continue. The **Device Type Config** screen displays.

Device Types supported by DWL3200 DWL2100 DGS3627G DGS3324SR DWL7700 GenSNMPDevice DGS3450 DES3828 DGS3612G DES3828P DGS3550 DWL2700 DES3550 DWL2700 DES3550 DGS3308FG DES6500 DXS3350SB	Configured Device Types DGS3612G DGS3627G DGS3650 DGS3450 DGS3427 DGS3426 DES3828P DES3828P DES3828P DES350 DES350 DES350 DES3526 ▼	"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.
--	---	---

Figure 62: Device Type Config screen

- 4. The devices can be added or deleted to support batch configuration.
- 5. Click **Property** to configure the OID properties of a device type. The **OID Config** screen displays.

OID Config	
OID List	Indication:
	Type Description Read/Write Configure the OID properties of the device by entering the Name, Type and Decription.
1.3.6.1.4.1.171.12.19.1.1.0 INT	EGER Safeguard READ/WRITE
OID Config	OID Value Config
OID: 1.3.6.1.4.1.171.12.19.1.1.0	Name Value OTHER 1
Type: INTEGER •	DISABLE 2 ENABLE 3
Description: Safeguard	
Read/Write READ/WRITE -	Name: OTHER
Add Dele	te Add Delete
	Close

Figure 63: OID Config screen

- 6. Enter the values of the **OID Config** information.
- 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**.

## **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 displays.

Save   Reboo Resource	t	RMON		afeguard E File Mana		Spanning	Tree	Firmv Port Status	vare Update
Device Name	0	evice Type	1. IF	-		Config File	e Name	-	State
Dev-17217.5.33 Dev-172.17.5.108 Dev-172.17.5.109 Dev-17217.5.181 Dev-17217.5.182 Dev-17217.5.183 Dev-17217.5.184 Dev-17217.5.213 ♥ Dev-172.17.5.241 ♥ Dev-172.17.5.244 ♥ Dev-172.17.5.244 ♥ Dev-172.17.5.245	Gens Gens Gens Gens DGS DGS DGS DGS DGS	3450 3450 3450	172.17.5.3 172.17.5.1 172.17.5.1 172.17.5.1 172.17.5.1 172.17.5.2 172.17.5.2 172.17.5.2 172.17.5.2 172.17.5.2 172.17.5.2 172.17.5.2 172.17.5.2	08 19 81 82 83 84 13 41 42 43 44 43 44	172.17.5.2 172.17.5.2 172.17.5.2	41_DGS3450_ 42_DGS3450_ 43_DGS3450_ 43_DGS3450_ 45_DGS3450_	cfg cfg cfg		
etting		- Config File N	lame				-	ndication	
FTP Server IP :		File:				Browse		Note: All the o	neration will
192 . 168 . 119 .							Ь	e implemented	in the
Operation: Backup	-					Modify		orking folder o erver. Please i	
meOut(ms): 3000		Select devic	ses Select <u>N</u>	one DG	iS3450	🔹 🔽 Selec		erver before ar	ny operation
							14	Close	Apply

Figure 64: 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 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 Oper		D-View Mana 06:07:22	ger	IP Address 192.168.11.9 Action Session 0	9	2 Total
Index	Ac	tion IP	Туре	Tftp File Name	Status	rular
1 2		2.168.11.12 2.168.11.252	Put Put	_192.168.11.12_DES3550 _192.168.11.252_DES355	OK OK	Clear Close
<		nsfer OK			>	

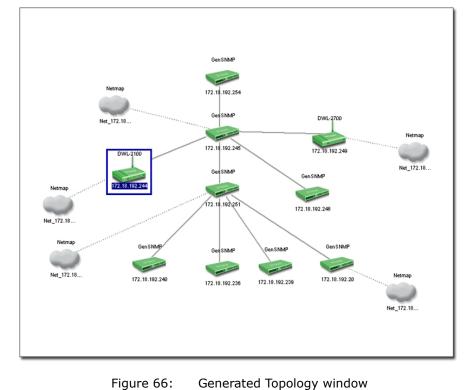
Figure 65: D-Link TFTP Server screen

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 TFTP for more information.

# **Using Device Type Check**

Use  $\ensuremath{\textbf{Device Type Check}}$  to check the network for new and updated devices.

1. Open the **Topology** and select the device that needs to be monitored.



Go to Advanced > Device Type Check. D-View scans the devices in the open topology.

Device Name	IP	Type	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	
Dev-172.17.5.182	172.17.5.182	GenSNMPDevice	GenSNMPDevice	public	private	
Dev-172.17.5.183	172.17.5.183	GenSNMPDevice	GenSNMPDevice	public	private	
Dev-172.17.5.184	172.17.5.184	GenSNMPDevice	GenSNMPDevice	public	private	
Dev-172.17.5.241	172.17.5.241	DGS3450	DGS3450	public	private	
Dev-172.17.5.242	172.17.5.242	DGS3450	DGS3450	public	private	
Dev-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	
				heck Sto	p Update	1

Figure 67: Device Type Check screen

- 3. Click **Check** to manually scan the device.
- 4. Select one or more devices and click **Update**. D-View refreshes the information of the selected devices.

# **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.



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

#### To configure the safeguard status:

1. 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 displays. You can now enable or disable the devices' Safeguard Engine.

Resource	poot   RMO	Contraction of the second seco	e Manager guard Engine	Spanning Tree	Port Status Firmware Update
Dev:T2.17.5.1 Dev-172.17.5.1 Dev-172.17.5.108 Dev-172.17.5.108 Dev-172.17.5.181 Dev-172.17.5.181 Dev-172.17.5.183 Dev-172.17.5.183	Device Type GenSNMPDevice GenSNMPDevice GenSNMPDevice GenSNMPDevice GenSNMPDevice GenSNMPDevice GenSNMPDevice GenSNMPDevice	IP 172.17.5.1 172.17.5.33 172.17.5.108 172.17.5.119 172.17.5.181 172.17.5.182 172.17.5.183 172.17.5.183 172.17.5.184	Status	Config By Device Typ DGS3450 Config Name Safeguard	
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 Dev-172.17.5.245 Dev-172.17.5.254	GenSNMPDevice DGS3450 DGS3450 DGS3450 DGS3450 DGS3450 DGS3450 DSS3450 DSS326GSR	172.17.5.213 172.17.5.241 172.17.5.242 172.17.5.243 172.17.5.244 172.17.5.245 172.17.5.254		Note: Please select performing operation type. Then press "Apply Safeguard status of The status informati	ns according to device "button to config the the designated devices, on shown on the panel MP operation has been
				TimeDut(ms): 300	0

Figure 68: Run Batch: Safeguard Engine screen

- 2. 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.
- Go to Advanced > Safeguard Check for the updated enable status of the selected devices. The Safeguard Check screen displays.

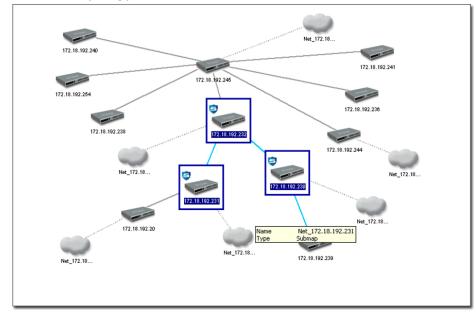
#### D-Link D-View 6.0 User Manual

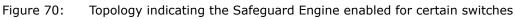
	Туре	IP	Safeguard	Read Commu	Write Commu	
0ev-172.17.5.241 0ev-172.17.5.242 0ev-172.17.5.243 0ev-172.17.5.244 0ev-172.17.5.245	DGS3450 DGS3450 DGS3450 DGS3450 DGS3450 DGS3450	172.17.5.241 172.17.5.242 172.17.5.243 172.17.5.244 172.17.5.244 172.17.5.245	Enable Enable Enable Enable Enable Enable		private private private private private	

Figure 69: Safeguard Check screen

- 5. Click **Check** to manually scan the safeguard status of the device.
- 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.





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

# **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.

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#### **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-172.17.5
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 172.17.5.244
Safeguard Engine	The Safeguard status is displayed on the top left corner of the device icon. The Safeguard status can be checked and updated by calling Using Safeguard Check function module.	172.17.5.244
Hide Info	Hides the information of the devices.	

#### 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 Dev-172 Dev-172 Dev-172
Link Speed	Displays the maximum connection speed between the two devices.	Dev-172 100M 13 23 100M Dev-172 Dev-172

# **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 displays.
 OR
 OR
 OR
 OR
 ON
 ON
 Device Manager
 Device Manager

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

asic Inform		1000	Descriptio	n:		
Name:	Dev-172.17.5	5.30	Description			
/ender:	Others	•				
Гуре:	GenSNMPDe	evice 🔹				
nterface Co	nfiguration					
Interface IP Type					<u>A</u> dd	
172.17.5.3	0	Etherne	et		Edit	1
4				•	<u>D</u> elete	
)etailed Info	rmation					
Location:	3rd floor					
Buyer:	ABC		Buy Date:	2008/	1/25	•
Modules:	0		Port Num:	0		
Serial No:	221133		Firmware:			
Note 1:	Test					
Note 2:						
lanagemen	t Method					
en ander <del>A</del> dersedan (* 1	SNMP v1/v2c		-	<u>C</u> onfig		

Figure 71: 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 Management Methods 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.

Device Management	Method		
SNMP v1/v2c SNM	P v3   TELNET   W	(EB   Customize	
Read Community:	public		
Write Community:	private		
		OK	Cancel

Figure 72: 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.

## **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.

#### **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 > Set Parameter tab.

D Polling Config	
Domain_1 Topology_1 Net_172:17.5.241 Net_172:17.5.243 Net_172:17.5.243 Net_172:17.5.244 Net_172:17.5.244 Net_172:17.5.245 Net_Unknow Domain_2	Set Parameter       Select Poll Device       Poll Device List         Poll Interval:       5       3         Poll Timeout:       5       5
	<u>Apply</u> <u>Close</u>

Figure 73: Set Parameter screen

- 2. Set the **Poll Interval** in seconds. D-View polls the devices at the set time interval.
- 3. Set the **Poll Timeout** in seconds. D-View stops polling the device after the timeout period.
- 4. Click **Apply**.

# **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 > Select Poll Device tab.

P Domain_1	Set Parameter Se	lect Poll Device	Poll Device List		
	2 Poll Protocol:	Access Point	ts •		
- & Net_172.17.5.24 - & Net_172.17.5.24	5 Dev	vice Name	Device Type	IP	
Gomain_2 Net_Unknow → Domain_2	✓         Dev-172.17.           ✓         Dev-172.17.	5.12 5.54 5.75 5.2 5.20	DXS3326GSR NonSNMPDevice NonSNMPDevice NonSNMPDevice NonSNMPDevice NonSNMPDevice	172.17.5.254 172.17.5.12 172.17.5.54 172.17.5.75 172.17.5.2 172.17.5.20 172.17.5.49	F F F F
	Dev-172.17. Dev-172.17. Dev-172.17. Dev-172.17. Dev-172.17. Dev-172.17.	5.63 5.64 5.65 5.78 5.124	NonSNMPDevice NonSNMPDevice NonSNMPDevice NonSNMPDevice NonSNMPDevice	172.17.5.63 172.17.5.64 172.17.5.65 172.17.5.78 172.17.5.78 172.17.5.124	F F F
	Dev-172.17.		NonSNMPDevice	172.17.5.134 172.17.5.142 Poll	Close

Figure 74: Select Poll Device screen

- 2. Select the **Device Group**. Refer to Grouping Devices using Device Manager for more information on grouping devices.
- 3. 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**.
- 4. Select devices and then 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.

00000000

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.

## **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.

nin_1 Set Parameter S	elect Poll Device Poll Device Li		
Net-172.17.5.0	Device Name	Device Type	Protoco
Net_172.17.5.241 172.17.5.30	Dev-172.17.5.30	GenSNMPDevice	ICMP
172.17.5.242	5 Dev-172.17.5.245	DGS3450	ICMP
172.17.5.243	Dev-172.17.5.244	DGS3450	ICMP
7.5.244 772.17.5.243	Dev-172.17.5.243	DGS3450	ICMP
2.17.5.245 🗌 172.17.5.243	2 Dev-172.17.5.242	DGS3450	ICMP
172.17.5.24	Dev-172.17.5.241	DGS3450	ICMP
172.17.5.18	5 Dev-172.17.5.185	GenSNMPDevice	ICMP
172.17.5.18	Dev-172.17.5.184	GenSNMPDevice	ICMP
172.17.5.18		GenSNMPDevice	ICMP
172.17.5.18	2 Dev-172.17.5.182	GenSNMPDevice	ICMP
172.17.5.18	Dev-172.17.5.181	GenSNMPDevice	ICMP
172.17.5.11	Dev-172.17.5.119	GenSNMPDevice	ICMP
172.17.5.40	Dev-172.17.5.40	GenSNMPDevice	ICMP

Figure 75: 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.

## **Grouping Devices using Device Manager**

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

1. Go to System > Event Manager > Device Group Manager. The Device Group Manager screen displays.

Domain_1 Domain_2	Name	Description		
	Device List			
	Name Dev-172.17.5.30	Type GenSNMPDevice	Interface 172.17.5.30	Description
	Dev-172.17.5.30	GenSNMPDevice	172.17.5.30	
	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	DGS3450	172.17.5.242	
Add <u>G</u> roup Del Gro				

Figure 76: Device Group screen

2. Click **Add Group** to create a group. The **Add Group** screen displays.

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

Figure 77: 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.
- 6. 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 displays.

Domain_1 Access Points Domain_2	Device's Group	Description			
	- Device List				
	Name	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 Dev-172.17.5.242	Select a group Access Point		ŀ	
	Dev-172.17.5.242 Dev-172.17.5.243 Dev-172.17.5.244 Dev-172.17.5.245 Dev-172.17.5.254	Add	<u>Close</u>		•
					+

Figure 78: 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			
1 Access Points	Name	Description		
Domain_2	Access Points	DESCRIPTION	I	
	Device List			Decision
	Name Dev-172.17.5.30	Type GenSNMPDevice	Interface 172.17.5.30	Description
	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 Dev-172.17.5.183	GenSNMPDevice GenSNMPDevice	172.17.5.182 172.17.5.183	
dd <u>G</u> roup Del G <u>r</u> oup				
Set Community >>	Add To Group	Del From	Group	Close

Figure 79: Device Group screen

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

## **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:** 

Event Configuration			
i	C Device Group:	Access Points	
Net_Unknow Domain_2	<ul> <li>Device Name:</li> </ul>	Dev-172.17.5.1	
	Event Type:	Up -> Down	
	Severity:	Critical	
	Filter event of thi	s type	
	Notice of event		
	I Sound ⓒ Beep		
	C Sound File		
	I Log		
	🔽 Flash		
	EMail to: User	name@123.com	
	16	Mail Server Co	nfig
		Apply CI	lose

1. Go to **System > Event Manager > Device Event Config**. The **Event Configuration** screen displays.

Figure 80: Event Configuration screen

- 2. Select a **Device Group** or a **Device Name**.
- 3. Select the **Type** of event. The different events are:

TRAP	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 when the
Authentication Fail	agent received a request from an unauthorized
	manager.
EGP Fail	In routers running the Exterior Gateway
	Protocol (EGP), an EGP Neighbor has changed
	to a down state.

Self-Defined Trap	Device sends the private trap defined by 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.	

- 4. Enable **Filter this type event** if you do not want to notify users of this event.
- 5. 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 e-mail.
- Mail Server Config: Click to configure the mail.

EMail Configur	ation	
Sender		
<u>N</u> ame:	User1	
<u>E</u> Mail:	User@123.com	
<u>A</u> uthority:	Password Authentication	-
Acco <u>u</u> nt:	User Name	
Password:	*****	
– SMTP Server <u>S</u> MTP Ser	Lize is used and	
SM <u>T</u> P F	Port: 25	
	<u>T</u> est <u>O</u> K <u>C</u>	ancel

Figure 81: 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.

## **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 occurred for a selected Netmap go to System > Event Manager > Event Viewer by Netmap.

🔐 Domain_1	Туре	Severity	Time	IP	Description	Count
🕼 Domain_2	1	Critical	2008-02-21 10:47:38	172.17.5.183	Up -> Down	1
	2	Informational Critical	2008-02-20 19:42:26 2008-02-20 19:41:43	172.17.5.182	Down -> Up Up -> Down	1
			100002101041.40	112.11.3.102		
ter Setting						
201 - 201			Time			
Event	vent Type		Time			
Event • Type: All E	vent Type everity			From: 2008/	2/22 <b>y</b> To: 2008	8 <i>1 21</i> 22 👻
Event Type: All E Severity: All S			• G All		2/22 <b>To:</b> 2008	3/ 2/22 <b>-</b>
Event Type: All E Severity: All S Device			Gr All     Gr Period	ce	2/22 <u> </u>	8/ 2/22 💌
Event All E Severity: All S Device Vender: All V	everity		All     Period     Event Sour	ce	2/22 💌 To: 2006	3/ 2/22 💌 Browse
C Severity: All S Device Vender: All V Type: All D	everity enders		All     Period      Event Sour     Oatabas	ce	2/22 <u>7</u> To: 2008	

Figure 82: Event Viewer by Netmap screen

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

Гуре	Severity	Time	IP	Description	Count
	ıformational ritical	2008-02-20 19:42:26 2008-02-20 19:41:43		Down -> Up Up -> Down	1
				_	
Filter Se	t	ell Fuent Tare		Time	
	t	All Event Type All Severity	•		2008/ 2/22 ¥ To: 2008/ 2/22 ¥

Figure 83: 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 **Statistic** to view event statistics by event type, manufacturer, severity and device type.

D Event Statistics	×
Bar Chart Pie Chart	
	1
100.0%2	
90.0% =	
80.0%	
60.0%	
50.0% -	
40.0% -	
30.0%	
10.0%	
0.0% 2	
	Ш
Upr⇒>Down	•
Statistics By Event Type     Statistics By Serverity	
C Statistics By Manufacturer C Statistics By Type Device	
Close	

Figure 84: Event Statistics: Bar Chart screen

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

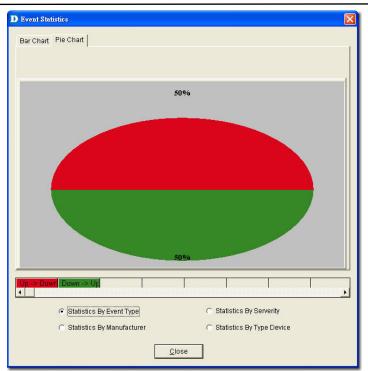


Figure 85: Event Statistics: Pie Chart screen

• **Pie Chart:** Illustrates the event statistics by **Event Type**, **Manufacturer**, **Severity** and **Device Type**.

# **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.

Te

To customize the 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 displays.

Specific Num	Description				
1 2 3 4 5 8	mpIsL3VpnVrfUp mpIsL3VpnVrfDown mpIsL3VpnVrfRouteM mpIsL3VpnVrfNumVr mpIsL3VpnNumVrfRo mpIsL3VpnNumVrfRo	fRouteMaxThreshEx clligiLbiThrshExcd			
Vender:	By Device Type D-Link	Enterprise OID: Specific Num;	1.3.6.1.2.1.10.166.11	1	-

Figure 86: Trap Editor screen

- 2. Check **By Device Type** to select the **Vendor** name and **Device Type** from the drop-down list.
- 3. Enter the **Enterprise OID**. Contact D-Link support to obtain the trap OID.
- 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.
- 5. Type the **Description** of the message, for the designated trap. For example:

The enterprise OID is  $\ensuremath{\textbf{1.3.6.1.2.1.10.166.11}}$ 

The specific number 6 here represents

mplsL3VpnNumVrfRouteMaxThreshCleared trap message.

# Locating the Switch Port

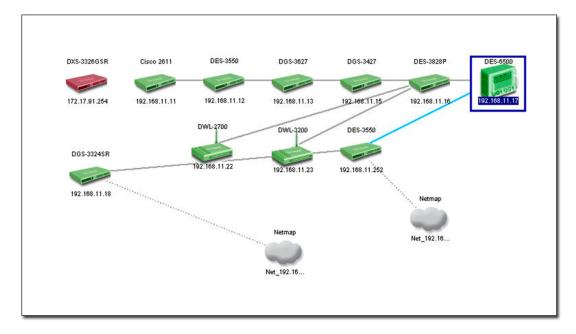
D-View provides an easy and effective way to inspect and report which network devices are connected to each switch port. Therefore it solves the problem of having to trace cables in order to see which port a network device is connected to, making it a very valuable tool for network and IT administrators. Locate the switch port of the end user's computer with the MAC or IP address using **MAC Locator**.

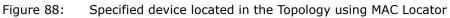
1. Go to **System**> **Resource Manager** > **MAC Locator**. The **Mac Locator** screen displays.

192.168.	ess: 11.23	by IP	•	Locate
				h. 12
earch device	from topology in dat	abase	· · · · ·	
Device IP:	192.168.11.16	Port:	8	<u>S</u> earch
Device ID	Device Name		IP	By Mana <u>c</u>
351	Dev-192.168	.11.16	192.168.11.16	N
( <u> </u>				
etailed Path	:Root->Topo1->Test	1->Net-192	.168.11.0	

Figure 87: MAC Locator screen

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





# **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.

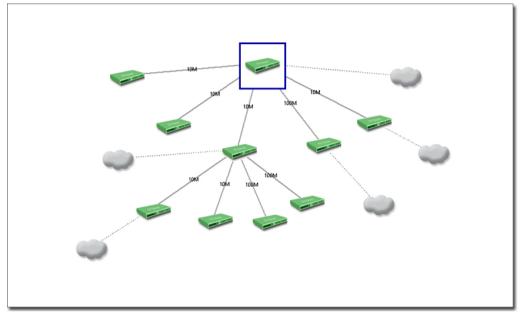


Figure 89: The Topology displays the Link status of the devices

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

_ink Name	Capacity	DevName-1	DevIP-1	DevPort-1	DevName-2	DevIP-2	DevPort-2	LinkID	FstDevComm	SndDevComn
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
ev-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		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-172.17.5.246	1000M	Dev-172.17.5.245	172.17.5.245	48	Dev-172.17.5.2	172.17.5.254	0	245	public	public
Dev-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

Figure 90: 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 figure below.

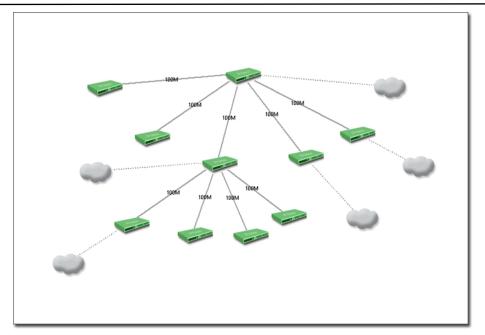


Figure 91: The Topology displays the link status after the Link Capacity check



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

#### To modify the Capacity Value:

 Go to **Topology** > Link Manager > Edit Link. The Edit Link screen displays.

OR

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

Link Nam	e: [	Dev-172.17.5.2	42	- 23		
Dev-1 :	Dev-1	72,17.5.242	Ψ.	Dev-2 :	Dev-172.17.5.30	
Port :	15			Port :	0	
Color :			<u>₿</u> r	owse		
Capacity	:	100M 💌	Link	Type :	Ethernet	
🗖 Redu	ndant Lir	10M 100M 1000M	Ordinaŋ	Link		

Figure 92: Edit Link screen

- 2. Update the  $\ensuremath{\text{Capacity}}$  . Select from  $10\ensuremath{\text{100M}}$  ,  $100\ensuremath{\text{00M}}$  , or  $10\ensuremath{\text{G}}$  .
- 3. Click **OK**.

100000

In order to obtain accurate results from the link capacity, ensure the port

numbers between the devices are entered correctly.

## **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 displays.

put 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
Detailed Path:Ro	oot->Test1->Test1->Net-1	172.17.5.0	

Figure 93: 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	
72.17.5.40	D Device Locator			
	Input Device Name	e or Device IP:	172.17.5.30	<u>S</u> earch
******	Device List			
	Device ID	Device Name	IP	By Manage
	992	Dev-172.17.5.30	172.17.5.30	N
	002			
	4			•
.254		oot->Test1->Test1->Net-172	2.17.5.0	



#### **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 displays.
- 2. Use filter options to select the vendor's name and device type. A list of devices is displayed.

Root	Filter Vender: All	Vender 🔹	Type :	All Type	
🚊 🔐 Test1	Volidor.		1900.		
🗐 🔐 Net-172					
Net.	Number: 12	25			
🖉 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	
🚽 🔐 test2	Dev-172.17.5.11	9 GenSNMPD	172.17.5.1	Connect	
Ret_Un	Dev-172.17.5.18	31 GenSNMPD	172.17.5.1	Connect	
Test	Dev-172.17.5.18	32 GenSNMPD	172.17.5.1	Connect	
~	Dev-172.17.5.18	3 GenSNMPD	172.17.5.1	Connect	
	Dev-172.17.5.18	34 GenSNMPD	172.17.5.1	Connect	
	Dev-172.17.5.24	1 DGS3450	172.17.5.2	Connect	
	Dev-172.17.5.24	2 DGS3450	172.17.5.2	Connect	
	Dev-172.17.5.24	13 DGS3450	172.17.5.2	Connect	
	Dev-172.17.5.24	4 DGS3450	172.17.5.2	Connect	
	Dev-172.17.5.24	15 DGS3450	172.17.5.2	Connect	
	Dev-172.17.5.25	54 DXS3326G	172.17.5.2	Connect	
	Dev-172.17.5.10	08 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			Connect	
	Devi 170 17 5 40 Detailed DethyDe	ot->Test1->Test1->I	470 47 5 40	Connect	
	Detailed Patri.Rt	IUE->TestI->TestI->T	vel-172.17.5.0		
2					

Figure 95: Device Collector screen

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

Users Information	Port	
Jser 1	1	
Jser 2	2 3	
Jser 3	3	
Jser Information —	12	
Port Number :	3	

Figure 96: User Information screen

4. Add/Edit/Delete user information of the selected device.

#### **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:

 Go to System > Resource Manager > User Locator. The User Locator screen displays.

			_	Search
er List		1		
Jser information	Device Name	Device Type	Port	
Jser1	Dev-172.17.5.30	GenSNMPD	1	
ieri	Dev-172.17.5.30	GenSNMPD	6	20

Figure 97: User Locator screen

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

#### **User Statistics**

User Statistics displays the users connected to particular devices.

- To view User Statistics:
- 1. Go to System > Resource Manager > User Statistics.

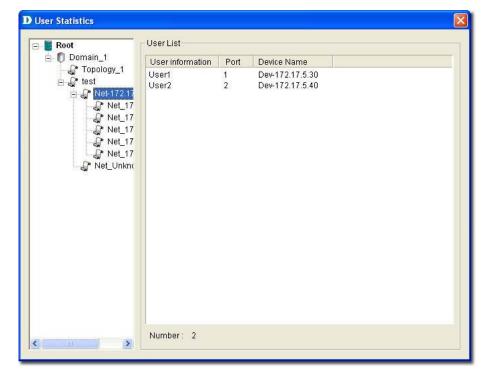


Figure 98: User Statistics screen

2. The users are displayed.

#### **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 displays.

itistics	
Vender	Statistics
Root Domain_1 142 142 142 142 142	
	Vender Root Domain_1 142 142

Figure 99: Device Statistic screen

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

# **Basic Operations**

# **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 100: View Options screen

- **Display Tip:** Mouse over to view the net cell information in the topology.
- **Display Direction:** Displays the direction of link in the topology.
- **Display Redundancy:** Display the redundant link in the topology map.

## Copy/Paste

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

	IP Address Conflict 🛛 🛛
Device Name Conflict	Change IP Address to: 172.17.5.40
OK Cancel	OK Cancel

Figure 101: Device Name Conflict and IP Address Conflict

- **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.

00000000

Rename the device and IP address to paste the copied device icon in the

topology.

# 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.

#### Set Background

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

Set Back	ground	
🖲 Bac	kground color	
		Browse
		Lin <u>ter</u>
C Bitn	nap File	
		Constant
		Search
		116
		1

Figure 102: Set Background screen

## **Upper Layer**

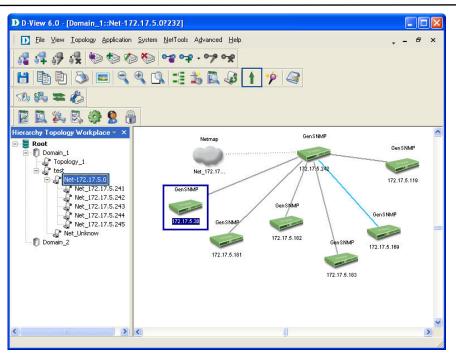
Use Upper Layer to move to the parent level.

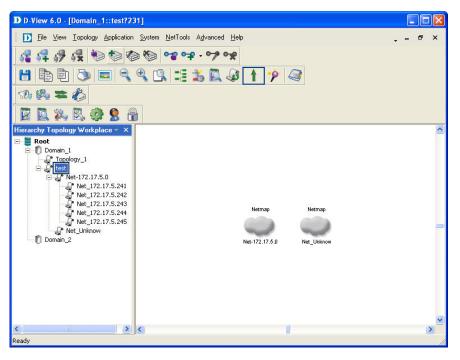
Go to **Topology** > **Upper Layer** or click

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.





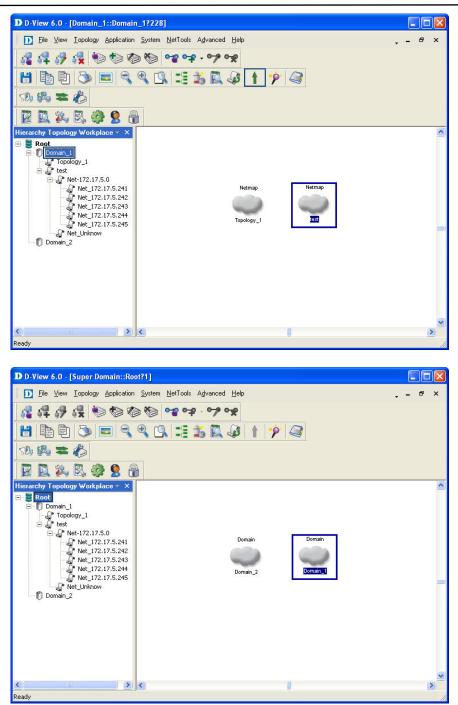


Figure 103: Sequence of steps navigating from the topology level to the domain.

# System Log

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

To view logged events of the topology:

Go to **System > System Log**. The **System Log** screen displays.

Operation Time	Domain Name	Admin Name	Operation Module	Description
2008-01-03 15:41:50 2008-01-03 15:41:41 2008-01-03 15:41:14 2008-01-03 15:41:14 2008-01-03 15:41:12 2008-01-03 15:41:12 2008-01-03 15:43:32 2008-01-03 11:47:54 2008-01-03 11:47:19 2008-01-03 11:47:19	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	Topology Manager Login Topology Manager Topology Manager Administrator Manag Topology Manager Topology Manager Topology Manager Topology Manager	Test1:Net_172.17.5.241 Add device Dev-17 Login successfully Test1:Net_172.17.5.241 Add device Dev-17 Test1:Net_172.17.5.241 Confirm to save topo Add group successfully. Test1:Net_172.17.5.241 Delete device Dev Test1:Net_172.17.5.242 Add device Dev-17 Test1:Net_172.17.5.243 Add device Dev-17 Test1:Net_172.17.5.245 Add device Dev-17
< Date		Туре		) 3
From: 2008/ 1/ 3	•	Operation Log	Query D	elete Clean Close

Figure 104: System Log screen

- 1. Select the **From** and **To** date, to view the events 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 **Clean** to clear log messages.

#### **Administrator Manager**

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

#### To create a User Group:

1. Go to **System > Administrator Manager.** The **Administrator Manager** screen displays.

Super Domain	Administrator	Domain Na	Group Name	Description
<ul> <li>Super Group</li> <li>Domain_1</li> <li>Super Group</li> </ul>	Admin	Domain_1	Super Group	0
Add <u>G</u> roup	Delete G <u>r</u> ou	pq	<u>S</u> et Rights	Add Administrator

Figure 105: Administrator Manager screen

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

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

Figure 106: Add Group screen

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

er Domain	Administrator	Domain Na	Group Name	Description
uper Group ain_1 uper Group eneral User	Admin	Domain_1	Super Group	0

Figure 107: Administrator Manager: Add Group screen

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

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

Figure 108: Add Administrator screen

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

<b>D</b> Set Rights			
Function Module	Execute	Read	Write
Function Module Batch Device Extension NetTools Performance Monitor Event Manager Topology Manager System Log Resource Manager System Config		Read	VVrite
•			
<u>0</u> k		<u>C</u> ancel	

Figure 109: Set Rights screen

- 8. Check the specific functional modules boxes to assign rights (execute, read, write) to the user.
- 9. Click **OK** to apply the changes.

The changes made are reflected in the **System Log**.

### **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	×
Old Password:	*****
New Password:	*****
Confirm Password:	*****
	OK Close

- Figure 110: Change Password screen
- 2. Enter the old password and then type your new password.

### **Restoring and Backing Up D-View**

#### To restore and backup Topology data:

- 1. Select a topology.
- Go to Application > Topo Export/Import to restore & backup topology data.
- 3. For data in D-View :
  - a. **D-View 6.0 Standard Edition** Backup **dvision3.mdb** file, in the installation folder. The file can be used to restore D-View by overwriting the current database dvision3.mdb.
  - b. D-View 6.0 Professional Edition -
    - Backup Dvision3.mdf and Dvision3\_Log.ldf files in the SQL Server 2000 installation folder. Example: C:\Program Files\Microsoft SQL Server\MSSQL\Data.
    - Re-install SQL Server 2000 and run **MakeDB.exe** to create D-View database.
    - Go to Start > Program > Adminitrative Tool > Services and then select MSSQLSERVER from the Services list.
    - Right-click or double click on **MSSQLSERVER** and select **Stop**.
    - Restore **Dvision3.mdf** and **Dvision3\_Log.ldf** files to the SQL Server 2000 installation folder.
    - Restart **SQL Server** service.

# NetTools

### **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 displays.

•		.20200	102.100.1			•
Dev-192.168.11.2		VL2700 VL3200	192.168.1			
Dev-192.168.11.1 Dev-192.168.11.2		983324 VL2700	192.168.1			
Dev-192.168.11.1		S3828P	192.168.1			
Dev-192.168.11.1	and some discount of the little set	983427	the state of the s	A CONTRACTOR OF THE OWNER		
Dev-192.168.11.1	a construction of the second se	S6500	192.168.1			
Dev-192.168.11.1	1 Ci	sco 2611	192.168.1	1.11		
Device Name	Ту	rpe	IP Addres	ss	Description	-
<u>S</u> earc			Stop			
Current IP:	192.16	8 11 62				
Type:	SNMP I	Devices		-		
Community:	public				Close	1
End IP:	192	. 168 .	11 . 2	52		
Start IP:	192	. 168 .	11 . 1	0	D	

Figure 111: 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.

### **Trace Route**

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

#### To Trace Routers:

Host:	168.95.1.1		ΨUΦ	
SEQ	Time(ms)	IP	Information	
1 2 3 4 5 5 6 7 7 3 3 3 0 0 0 11 12 3 3	16 16 15 15 *	10.2.2.1 61.66.238.254 711.78.150.200 211.78.150.200 211.72.41.246 211.22.41.246 211.22.32.78 220.128.2.34 220.128.2.34 220.128.2.17 168.95.1.1	Trace Target = 168.95.1.1 **** No response (TTL = 1) **** No response (TTL = 2) 10.2.2.1 61.66.238.254 **** No response (TTL = 5) 211.78.150.200 211.78.149.66 211.22.41.246 211.22.32.78 220.128.2.34 220.128.2.34 220.128.2.17 **** No response (TTL = 12) 168.95.1.1 HOST Reached	
¢		Run C	ption CLS Stop	>

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

Figure 112: Trace Route Tool screen

- 1. Enter the host address and click **Run** to trace the routers.
- 2. Select **Option** to configure the ICMP parameters.

CMP Config		
Ping Buffer Size:	64	bytes
Ping Timeout:	3000	- msec
Max Hops:	30	
OK		Cancel

Figure 113: Option screen

- 3. Modify and customize the **Ping Buffer Size**, **Ping Timeout** and **Max Hops** parameters according to your requirements.
- 4. Click **CLS** to clear the list.
- 5. Click **Stop** to stop the search.

### 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 call the TFTP Server tool.

🚺 D-Li	nk T	FTP Server					
<u>A</u> bout							
Nam	е	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	rotar
1 2		2.168.11.12 2.168.11.252	Put Put	_192.168.11.12 _192.168.11.25		OK OK	Clear Close
	i : Sta	nsfer OK rt transferring nsfer OK				>	

Figure 114: 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.

# **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	^
172.17.5.83	00112F8A7359	
172.17.5.94	0080C8773189	
172.17.5.115	000EA66BE311	
172.17.5.134	000C6ED3A517	
172.17.5.150	00E006095566	
172.17.5.154	001AA0C9529A	
172.17.5.171	00148532B218	
172.17.5.254	000F3D786E04	
172.17.5.255	00000000000	
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	*
179 17 5 50	000500640000	

Figure 115: ARP Information Retrieve screen

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

### **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 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

et Toolbox	D
IP Address :	Telnet
172 . 18 . 192 . 232	Web
	Ping

- Figure 116: Net Toolbox screen
- 3. Enter the IP address of the device to manage.
- 4. Click **Telnet** or **Web.**

You can also Ping the device from here.

### **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**. The **Port Monitor** screen displays.

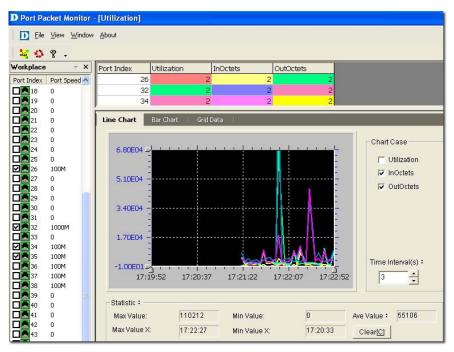


Figure 117: Port Packet Monitor: Line Chart screen

2. Select the ports and then click the **Utilization** button 4 from the toolbar.

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.

.00000000.4

y

- 3. 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.
- 4. Click **Clear[C]** to clear the current data on the graph.

### 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.

### **Bar Chart**

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



Figure 118: Port Packet Monitor: Bar Chart screen

### **Grid Data**

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

D Port Pac	ket Monitor	[Utilization]				
D <u>F</u> ile	⊻iew <u>W</u> indow	<u>A</u> bout				
40	? .					
Workplace	- X	Port Index	Utilization II	nOctets	OutOctets	
Port Index	Port Speed 🔨	26	2	2		2
18	0	32	2	2	1	2
19	0	34	2	2		2
	0					
	0	Line Chart   1	Bar Chart Grid Da	ata		
	0 0	Port Index	Utilization	InOctets		OutOctets
	0	26	0.0016	7 21	16947769.00000	2100030042.000
25	0	32	0.0003	9 3	84564380.00000	4161560332.000
26	100M	34	0.0035	2	17815567.00000	329304474.000
	0	35	0.0064	8 4	152390703.00000	1030449968.000
28	0	48	0.0045	5 23	863415817.00000	916002375.000

to view the packet type options.

Figure 119: Port Packet Monitor: Grid Data screen

### **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 displays.

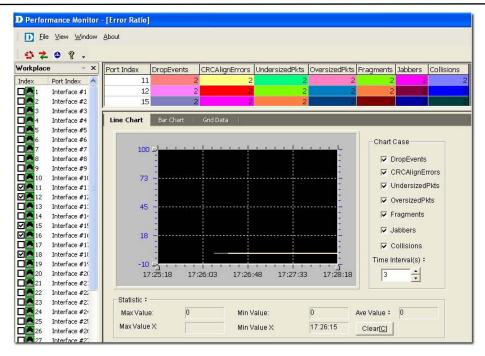


Figure 120: Performance Monitor screen

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

The graph displays 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.
  - Segments: 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.

### 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.

### **Bar Chart**

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

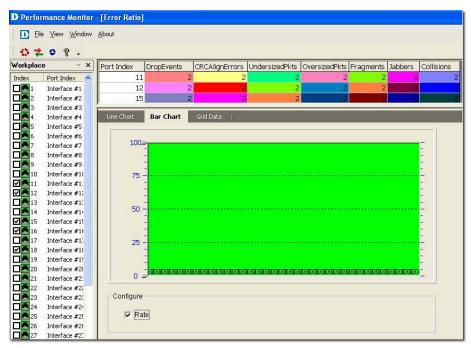


Figure 121: Performance Monitor: Bar Chart screen

### Grid Data

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

020 ?.	About							
Workplace 👻 🗙	Port Index	DropEvents	CRCAlignErrors	UndersizedPkts	OversizedPkts	- ragments	abbers Col	lisions
Index Port Index	11	2	2	2	2	2	2	2
Interface #1	12	2	2	2	2	2	12	2
Interface #2	15	2	2	2	2	2	2	2
	22							
Interface #3     Interface #4     Interface #4	Line Chart	Bar Chart	Grid Data					
Interface #4	Line Chart Port Index	Bar Chart			OversizedPkts	Fragments	Jabbers	Collisions
Interface #4			CRCAlignErrors	UndersizedPkts	OversizedPkts		Jabbers	
Interface #4     Interface #5     Interface #5     Interface #6	Port Index	DropEvents	CRCAlignErrors 0.0	UndersizedPkts 0.0	OversizedPkts 0.0			0 496
4       Interface #4         5       Interface #5         6       Interface #6         7       Interface #7         8       Interface #8         9       Interface #9	Port Index	DropEvents 221.0 0.0	CRCAlignErrors 0.0 0.0	UndersizedPkts 0.0 0.0	OversizedPkts 0.0 0.0		0.0 0.1	0 496 0 0
4       Interface #4         5       Interface #5         6       Interface #6         7       Interface #7         8       Interface #8	Port Index	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 0.0		).0 0.1 ).0 0.1	0 496 0 0 0 0

Figure 122: Performance Monitor: Grid Data screen

### **Data Distribution Chart**

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

1. Click the **Data Distribution** the toolbar. The **Data** 

Distribution Chart screen displays.

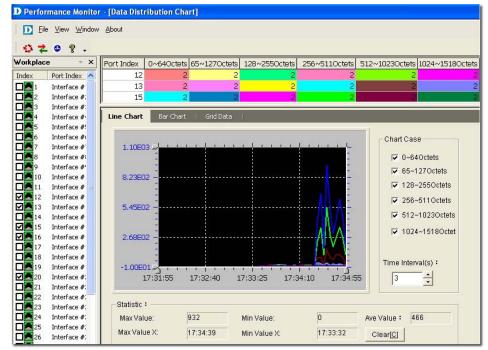


Figure 123: Performance Monitor: Data Distribution Chart screen

- 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.

### **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

displays. D Performance Monitor - [Port Flow Data] D Eile ⊻iew Window About 4 2 0 9 . Workplace т X Port Index Octets Packets BroadcastPkts MulticastPkts Index Port Index 🔥 12 13 Interface # Interface #: 15 Interface # Interface #-Line Chart Bar Chart | Grid Data Interface #! Interface # Chart Case Interface # 400 0 Interface # ✓ Octets Interface # Packets Interface # 298 I BroadcastPkts Interface # Interface # MulticastPkts 195 Interface # Interface # Interface # Interface # 93 Interface # Interface # Time Interval(s) : Interface # 17:33:40 Interface # 17:34:25 17:35:10 17:35:55 17:36:40 3 -Interface #: Interface # Statistic : Interface #: Interface #: Max Value 247 Min Value: 0 Ave Value : 123 Interface #: Max Value X: 17:36:06 Min Value X 17:35:51 Clear[C] Interface #:

Figure 124: 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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You can find software updates and user documentation on the D-Link website.

#### Tech Support for customers in

#### Australia:

Tel: 1300-766-868 Monday to Friday 8:00am to 8:00pm EST Saturday 9:00am to 1:00pm EST http://www.dlink.com.au E-mail: support@dlink.com.au

#### India:

Tel: 1800-222-002 Monday to Friday 9:30AM to 7:00PM http://www.dlink.co.in/support/productsupport.aspx

#### Indonesia, Malaysia, Singapore and Thailand:

Tel: +62-21-5731610	(Indonesia)
Tel: 1800-882-880	(Malaysia)
Tel: +65 66229355	(Singapore)
Tel: +66-2-719-8978/9	(Thailand)

Monday to Friday 9:00am to 6:00pm http://www.dlink.com.sg/support/ E-mail: support@dlink.com.sg

#### Korea:

Tel: +82-2-890-5496 Monday to Friday 9:00am to 6:00pm http://www.d-link.co.kr E-mail: <u>lee@d-link.co.kr</u>

#### New Zealand:

Tel: 0800-900-900 Monday to Friday 8:30am to 8:30pm Saturday 9:00am to 5:00pm http://www.dlink.co.nz E-mail: support@dlink.co.nz

You can find software updates and user documentation on the D-Link website.

#### Tech Support for customers in

#### Egypt:

Tel: +202-2919035 or +202-2919047 Sunday to Thursday 9:00am to 5:00pm http://support.dlink-me.com E-mail: <u>amostafa@dlink-me.com</u>

#### Iran:

Tel: +98-21-88822613 Sunday to Thursday 9:00am to 6:00pm http://support.dlink-me.com E-mail: <u>support.ir@dlink-me.com</u>

#### Israel:

Tel: +972-9-9715701 Sunday to Thursday 9:00am to 5:00pm http://www.dlink.co.il/support/ E-mail: <u>support@dlink.co.il</u>

#### Pakistan:

Tel: +92-21-4548158 or +92-21-4548310 Sunday to Thursday 9:00am to 6:00pm http://support.dlink-me.com E-mail: <u>support.pk@dlink-me.com</u>

#### South Africa and Sub Sahara Region:

Tel: +27-12-665-2165 08600 DLINK (for South Africa only) Monday to Friday 8:30am to 9:00pm South Africa Time http://www.d-link.co.za

#### Turkey:

Tel: +90-212-2895659 Monday to Friday 9:00am to 6:00pm http://www.dlink.com.tr E-mail: turkiye@dlink-me.com E-mail: support@d-link.co.za

#### U.A.E and North Africa:

Tel: +971-4-391-6480 (U.A.E) Sunday to Wednesday 9:00am to 6:00pm GMT+4 Thursday 9:00am to 1:00pm GMT+4 http://support.dlink-me.com E-mail: support@dlink-me.com

### Техническая поддержка

Обновления программного обеспечения и документация доступны на Интернет-сайте D-Link.

D-Link предоставляет бесплатную поддержку для клиентов в течение гарантийного срока.

Клиенты могут обратиться в группу технической поддержки D-Link по телефону или через Интернет.

> Техническая поддержка D-Link: +495-744-00-99

**Техническая поддержка через Интернет** http://www.dlink.ru E-mail: support@dlink.ru

# Asistencia Técnica

D-Link Latin América pone a disposición de sus clientes, especificaciones, documentación y software mas reciente a través de nuestro Sitio Web www.dlinkla.com

El servicio de soporte técnico tiene presencia en numerosos países de la Región Latino América, y presta asistencia gratuita a todos los clientes de

D-Link, en forma telefónica e internet, a través de la casilla

#### soporte@dlinkla.com

Soporte Técnico Help Desk Argentina: TTeléfono: 0800-12235465 Lunes a Viernes 09:00 am a 22:00 pm Soporte Técnico Help Desk Chile: Teléfono: 800 8 35465 Lunes a Viernes 08:00 am a 21:00 pm Soporte Técnico Help Desk Colombia: Teléfono: 01800-9525465 Lunes a Viernes 07:00 am a 20:00 pm Soporte Técnico Help Desk Ecuador: Teléfono: 1800-035465 Lunes a Viernes 07:00 am a 20:00 pm Soporte Técnico Help Desk El Salvador: Teléfono: 800-6335 Lunes a Viernes 06:00 am a 19:00 pm Soporte Técnico Help Desk Guatemala: Teléfono: 1800-8350255 Lunes a Viernes 06:00 am a 19:00 pm Soporte Técnico Help Desk Panamá: Teléfono: 00800 0525465 Lunes a Viernes 07:00 am a 20:00 pm Soporte Técnico Help Desk Costa Rica: Teléfono: 0800 0521478 Lunes a Viernes 06:00 am a 19:00 pm Soporte Técnico Help Desk Perú: Teléfono: 0800-00968 Lunes a Viernes 07:00 am a 20:00 pm Soporte Técnico Help Desk México: Teléfono: 001 800 123-3201 Lunes a Viernes 06:00 am a 19:00 Soporte Técnico Help Desk Venezuela: Teléfono: 0800-1005767 Lunes a Viernes 08:00 am a 21:00 pm

# Suporte Técnico

Você pode encontrar atualizações de software e documentação de usuário no site da D-Link Brasil www.dlinkbrasil.com.br.

A D-Link fornece suporte técnico gratuito para clientes no Brasil durante o período de vigência da garantia deste produto.

### Suporte Técnico para clientes no Brasil:

#### Telefone

São Paulo +11-2185-9301 Segunda à sexta Das 8h30 às 18h30 Demais Regiões do Brasil 0800 70 24 104

E-mail: E-mail: suporte@dlinkbrasil.com.br

# D-Link 友訊科技 台灣分公司 技術支援資訊

如果您還有任何本使用手冊無法協助您解決的產品相關問題,台灣 地區用戶可以透過我們的網站、電子郵件或電話等方式與D-Link台灣

地區技術支援工程師聯絡。

#### D-Link 免付費技術諮詢專線

0800-002-615

服務時間:週一至週五,早上8:30 到 晚上9:00

(不含周六、日及國定假日)

網 站:http://www.dlink.com.tw

電子郵件:dssqa\_service@dlink.com.tw

如果您是台灣地區以外的用戶,請參考D-Link網站 全球各地 分公司的聯絡資訊以取得相關支援服務。

產品保固期限、台灣區維修據點查詢,請參考以下網頁說明:

http://www.dlink.com.tw

產品維修:

使用者可直接送至全省聯強直營維修站或請洽您的原購買經銷商。

# Dukungan Teknis

Update perangkat lunak dan dokumentasi pengguna dapat diperoleh pada situs web D-Link.

### Dukungan Teknis untuk pelanggan:

Dukungan Teknis D-Link melalui telepon: Tel: +62-21-5731610

#### Dukungan Teknis D-Link melalui Internet: Email : support@dlink.co.id

Website : http://support.dlink.co.id

You can find software updates and user documentation on the D-Link websites. If you require product support, we encourage you to browse our FAQ section on the Web Site before contacting the Support line. We have many FAQ's which we hope will provide you a speedy resolution for your problem.

### For Customers within

### The United Kingdom & Ireland:

D-Link UK & Ireland Technical Support over the Internet:

http://www.dlink.co.uk ftp://ftp.dlink.co.uk

#### D-Link UK & Ireland Technical Support over the Telephone:

08456 12 0003 (United Kingdom) +1890 886 899 (Ireland) Lines Open 9:00 am - 06:00 pm Mon-Fri 10:00am - 02:00 pm Sat

Closed on Sun

### For Customers within Canada:

D-Link Canada Technical Support over the Telephone:

1-800-361-5265 (Canada) Mon to Fri: 7:30AM to 9:00PM EST

D-Link Canada Technical Support over the Internet:

http://support.dlink.ca

E-mail: support@dlink.ca

# Technische Unterstützung

Aktualisierte Versionen von Software und Benutzerhandbuch finden Sie auf der Website von D-Link.

D-Link bietet kostenfreie technische Unterstützung für Kunden innerhalb Deutschlands, Österreichs, der Schweiz und Osteuropas.

Unsere Kunden können technische Unterstützung über unsere Website, per E-Mail oder telefonisch anfordern.

Web: http://www.dlink.de E-Mail: support@dlink.de Telefon: +49 (1805)2787

0, 12€/Min aus dem Festnetz der Deutschen Telekom.

Telefonische technische Unterstützung erhalten Sie Montags bis Freitags von 09.00 bis 17.30 Uhr.

Unterstützung erhalten Sie auch bei der Premiumhotline für D-Link Produkte unter der Rufnummer 09001-475767 Montag bis Freitag von 6-22 Uhr und am Wochenende von 11-18 Uhr.

1,75€/Min aus dem Festnetz der Deutschen Telekom.

Wenn Sie Kunde von D-Link außerhalb Deutschlands, Österreichs, der Schweiz und Osteuropas sind, wenden Sie sich bitte an die zuständige Niederlassung aus der Liste im Benutzerhandbuch.

# Assistance technique

Vous trouverez la documentation et les logiciels les plus récents sur le site web D-Link.

Vous pouvez contacter le service technique de **D-Link** par notre site internet ou par téléphone.

### Support technique destiné aux clients établis en France:

Assistance technique D-Link par téléphone:

0820 0803 03

N° INDIGO - 0,12€ TTC/min\*

\*Prix en France Métropolitaine au 3 mars 2005

Du lundi au samedi – de 9h00 à 19h00

Assistance technique D-Link sur internet:

http://www.dlink.fr

E-mail: support@dlink.fr

### Support technique destiné aux clients établis au Canada:

Assistance technique D-Link par téléphone: (800) 361-5265 Lun.-Ven. 7h30 à 21h00 HNE. Assistance technique D-Link sur internet: http://support.dlink.ca E-mail: support@dlink.ca

# Asistencia Técnica

Puede encontrar las últimas versiones de software así como documentación técnica en el sitio web de **D-Link**.

**D-Link** ofrece asistencia técnica gratuita para clientes residentes en España durante el periodo de garantía del producto.

Asistencia Técnica de D-Link por teléfono: +34 902 30 45 45 Lunes a Viernes de 9:00 a 14:00 y de 15:00 a 18:00

Asistencia Técnica de D-Link a través de Internet: <u>http://www.dlink.es/support/</u> E-mail: <u>soporte@dlink.es</u>

# Supporto tecnico

Gli ultimi aggiornamenti e la documentazione sono disponibili sul sito D-Link.

Supporto tecnico per i clienti residenti in Italia

**D-Link Mediterraneo S.r.L.** Via N. Bonnet 6/B 20154 Milano

Supporto Tecnico dal lunedì al venerdì dalle ore 9.00 alle ore 19.00 con orario continuato Telefono: 199 400057 URL: <u>http://www.dlink.it/supporto.html</u> Email: tech@dlink.it

You can find software updates and user documentation on the D-Link website. D-Link provides free technical support for customers within Benelux for the duration of the warranty period on this product.

Benelux customers can contact D-Link technical support through our website, or by phone.

### Tech Support for customers within the Netherlands:

D-Link Technical Support over the Telephone: 0900 501 2007

Monday to Friday 9:00 am to 10:00 pm

D-Link Technical Support over the Internet: www.dlink.nl

### Tech Support for customers within Belgium:

D-Link Technical Support over the Telephone:

070 66 06 40 Monday to Friday 9:00 am to 10:00 pm

D-Link Technical Support over the Internet: www.dlink.be

### Tech Support for customers within Luxemburg:

D-Link Technical Support over the Telephone: +32 70 66 06 40 Monday to Friday 9:00 am to 10:00 pm

D-Link Technical Support over the Internet: www.dlink.be

# Pomoc techniczna

Najnowsze wersje oprogramowania i dokumentacji użytkownika można znaleźć w serwisie internetowym firmy D-Link.

D-Link zapewnia bezpłatną pomoc techniczną klientom w Polsce w okresie gwarancyjnym produktu.

Klienci z Polski mogą się kontaktować z działem pomocy technicznej firmy D-Link za pośrednictwem Internetu lub telefonicznie.

Telefoniczna pomoc techniczna firmy D-Link: 0 801 022 021

Pomoc techniczna firmy D-Link świadczona przez Internet: URL: http://www.dlink.pl E-mail: dlink@fixit.pl

# Technická podpora

Aktualizované verze software a uživatelských příruček najdete na webové stránce firmy D-Link.

D-Link poskytuje svým zákazníkům bezplatnou technickou podporu

Zákazníci mohou kontaktovat oddělení technické podpory přes webové stránky, mailem nebo telefonicky

Web: http://www.dlink.cz/suppport/

E-mail: support@dlink.cz Telefon: 224 247 503

Telefonická podpora je v provozu: PO- PÁ od 09.00 do 17.00

# Technikai Támogatás

Meghajtó programokat és frissítéseket a **D-Link** Magyarország weblapjáról tölthet le. Telefonon technikai segítséget munkanapokon hétfőtől-csütörtökig 9.00 – 16.00 óráig és pénteken 9.00 – 14.00 óráig kérhet a **(1) 461-3001** telefonszámon vagy a <u>support@dlink.hu</u>

emailcímen.

Magyarországi technikai támogatás :

### **D-Link Magyarország**

1074 Budapest, Alsóerdősor u. 6. – R70 Irodaház 1 em.

Tel: 06 1 461-3001 Fax: 06 1 461-3004 Email: <u>support@dlink.hu</u> URL: <u>http://www.dlink.hu</u>

# **Teknisk Support**

Du kan finne programvare oppdateringer og bruker dokumentasjon på D-Links web sider.

D-Link tilbyr sine kunder gratis teknisk support under produktets garantitid.

Kunder kan kontakte D-Links teknisk support via våre hjemmesider, eller på tlf.

### Teknisk Support:

D-Link Teknisk telefon Support: 800 10 610 (Hverdager 08:00-20:00)

D-Link Teknisk Support over Internet: http://www.dlink.no

# **Teknisk Support**

Du finder software opdateringer og brugerdokumentation på D-Link's hjemmeside.

D-Link tilbyder gratis teknisk support til kunder i Danmark i hele produktets garantiperiode.

Danske kunder kan kontakte D-Link's tekniske support via vores hjemmeside eller telefonisk.

D-Link teknisk support over telefonen:

Tlf. 7026 9040

Hverdager: kl. 08:00 - 20:00

#### D-Link teknisk support på Internettet:

http://www.dlink.dk

# Teknistä tukea asiakkaille

### Suomessa:

D-Link tarjoaa teknistä tukea asiakkailleen. Tuotteen takuun voimassaoloajan. Tekninen tuki palvelee seuraavasti:

Arkisin klo. 9 - 21

numerosta

#### 0800-114 677

Internetin kautta Ajurit ja lisätietoja tuotteista. http://www.dlink.fi

Sähköpostin kautta voit myös tehdä kyselyitä.

# **Teknisk Support**

På vår hemsida kan du hitta mer information om mjukvaru uppdateringar och annan användarinformation.

D-Link tillhandahåller teknisk support till kunder i Sverige under hela garantitiden för denna produkt.

Teknisk Support för kunder i Sverige:

D-Link Teknisk Support via telefon:

0770-33 00 35

Vardagar 08.00-20.00

D-Link Teknisk Support via Internet:

http://www.dlink.se

# Suporte Técnico

Você pode encontrar atualizações de software e documentação de utilizador no site de D-Link Portugal <u>http://www.dlink.pt</u>.

A D-Link fornece suporte técnico gratuito para clientes no Portugal durante o período de vigência de garantia deste produto.

Suporte Técnico para clientes no Portugal:

Assistência Técnica:

E-mail: soporte@dlink.es

http://www.dlink.pt/support/

ftp://ftp.dlink.es

# Τεχνική Υποστήριξη

Μπορείτε να βρείτε software updates και πληροφορίες για τη χρήση των προϊόντων στις ιστοσελίδες της D-Link

> Η D-Link προσφέρει στους πελάτες της δωρεάν υποστήριξη στον Ελλαδικό χώρο

Μπορείτε να επικοινωνείτε με το τμήμα τεχνικής υποστήριξης μέσω της ιστοσελίδας ή μέσω τηλεφώνου

### Για πελάτες εντός του Ελλαδικού χώρου:

Τηλεφωνική υποστήριξη D-Link :

Τηλ: 210 86 11 114 Φαξ: 210 86 53 172 (Δευτέρα-Παρασκευή 09:00-17:00)

E-mail: support@dlink.gr

Τεχνική υποστήριξη D-Link μέσω Internet:

http://www.dlink.gr

ftp://ftp.dlink.it