If you chose **Automatically assign a network key**, this screen will appear with your automatically generated key. Please print this out or record this information in a safe place and then click **Save** to continue.

The router will save your new settings and reboot. After rebooting, you will be returned to the Internet Setup screen.

If you chose **Manually enter a network key**, this screen will appear. Enter a network key and click **Next**.

If you chose **WEP**, the network key must be exactly 5 or 13 characters long, or 10 to 26 characters using 0-9 or A-F only (hexidecimal). Longer network keys will be more secure.

If you chose **WPA**, the network key must be between 8 and 63 characters long, or exactly 64 characters using 0-9 or A-F only (hexidecimal). Longer network keys will be more secure.

After clicking Next, this screen will appear with your wireless settings. Please print this out or record this information in a safe place and then click **Save** to continue.

The router will save your new settings and reboot. After rebooting, you will be returned to the Internet Setup screen.



Wireless Setup (Manual)

If you clicked the **Manual Wireless Connection Setup** button, this screen will appear, allowing you to manually configure your wireless settings.

Wi-Fi Protected To implement Wi-Fi protection, or WCN 2.0, tick the Enable Setup: checkbox, click either Generate New PIN or Reset PIN to Default, and then configure the Wi-Fi settings below. Please see the Setting Up Wi-Fi Protection (WCN 2.0 in Windows Vista) section later in this manual for detailed configuration information.

Enable: Check the box to enable wireless. If you do not want to use **Wireless:** wireless, uncheck the box to disable all wireless functions.

Wireless Service Set Identifier (SSID) is the name of your wireless Network Name: network. Create a name using up to 32 characters. The SSID is case-sensitive.

Wireless Indicates the channel setting for the DIR-400. By default the **Channel:** channel is set to 6. The wireless channel can be changed to fit the channel setting for an existing wireless network or to customize the wireless network. The **Auto Channel Selection** setting can be selected to allow the DIR-400 to choose the channel with the least amount of interference.



Super G Mode: You can enable a Super G Mode to allow the router to communicate with other D-Link 108 G products at boosted transmission rates.

Choosing *Super G without Turbo* allows you to have enhanced transfer speeds through use of Dynamic Packet Bursting, Fast Frames and Hardware Encryption and Compression.

Choosing *Super G with Dynamic Turbo* allows the router to use two channels to double the data transfer rate in addition to Dynamic Packet Bursting, Fast Frames and Hardware Encryption and Compression. However, all wireless clients must be Turbo capable for this function to work. If a non-Turbo wireless client connects to the network, all devices on the wireless network will transfer data at normal rates.

- Transmission Use the drop-down menu to select the appropriate TransmissionRate: Rate in Mbits per second. Many users will want to use the default setting, *Best (automatic)*.
- WMM Enable: Enable WMM (Wi-Fi Multimedia) to enjoy basic quality of service features. WMM prioritizes traffic according to four access categories: voice, video, best effort, and background.
- Enable Hidden Wireless: Check this option if you would not like the SSID of your wireless network to be broadcasted by the router. If this option is checked, the SSID of the DIR-400 will not be seen by wireless network finding utilities, so your wireless clients will have to know the SSID of your DIR-400 in order to connect to it.



Enabling WEP Wireless Security

Security Mode:

- To enable wireless security on the router, use the drop-down menu to select the desired option. To enable WEP, select *Enable WEP Wireless Security (basic)*.
- 2. Next to Authentication, select either Open or Shared Key. Shared Key provides greater security.
- **3.** Select either *64Bit* or *128Bit* encryption from the drop-down menu next to **WEP Encryption**.
- 4. Next to **Default Key Type**, select *WEP Key 1* and enter a WEP key that you create. Make sure you enter this key exactly on all your wireless devices. You may enter up to four different keys either using *Hex* or *ASCII*. *Hex* is recommended (letters A-F and numbers 0-9 are valid). In *ASCII* all numbers and letters are valid.
- 5. Click Save Settings to save your settings. If you are configuring the router with a wireless adapter, you will lose connectivity until you enable WEP on your adapter and enter the same WEP key as you did on the router.

NOTE: It is recommended to enable encryption on your wireless router before your wirel	reless network adapters. Please
establish wireless connectivity before enabling encryption. Your wireless signal may de	grade when enabling encryption
due to the added overhead.	

	Security Mode :	Enable WEP Wirele	ess Security (basic)	•
WEP:				
WEP is the wireles router and the wireles box. For 128 bit k number from 0 to authentication typ You may also ente hexadecimal key u be entered for 64	es encryption standa reless stations. For 6 eys you must enter 9 or a letter from A be to "Shared Key" v er any text string int sing the ASCII value bit keys, and a max	rd. To use it you r 4 bit keys you mu 26 hex digits into to F. For the mos when WEP is enab o a WEP key box, is of the character imum of 13 charac	nust enter the same key st enter 10 hex digits int each key box. A hex digi t secure use of WEP set led. in which case it will be co s. A maximum of 5 text of ters for 128 bit keys.	(s) into the o each key t is either a the onverted int characters ca
	Authentication : WEP Encryption :	Open 🔽		
	Default WEP Key :	WEP Key 1 💌		
	WEP Key :	000000000	(5 ASCII or 10 HEX)	

Enabling WPA, WPA2, WPA/WPA2 Wireless Security

- **1.** To enable WPA, WPA2, or WPA/WPA2, select either *Enable WPA Only Wireless Security* (*enhanced*), *Enable WPA2 Only Wireless Security* (*enhanced*), or *Enable WPA/WPA2 Wireless Security* (*enhanced*).
- 2. Next to Cipher Type, select *TKIP*, *AES*, or *Both*.
- 3. Next to **PSK/EAP**, select *PSK*.
- **4.** Next to **Network Key**, enter a passphrase. The key is an alpha-numeric password between 8 and 63 characters long. The password can include symbols (!?*&_) and spaces. Make sure you enter this key exactly the same on all other wireless clients.
- 5. Click Save Settings to save your settings. If you are configuring the router with a wireless adapter, you will lose connectivity until you enable WPA, WPA2, or WPA/WPA2 (whichever of the three options you have selected above) on your adapter and enter the same network key as you did on the router.

WIRELESS SECURITY MODE :
Security Mode : Enable WPA Only Wireless Security (enhanced)
WPA ONLY :
WPA Only requires stations to use high grade encryption and authentication.
Cipher Type : TKIP • PSK / EAP : PSK • Network Key : FF23D35E79B0019FF442904CE04EAAF6BC1! (8~63 ASCII or 64 HEX)
Save Settings Don't Save Settings
WIRELESS SECURITY MODE : Security Mode : Enable WPA2 Only Wireless Security (enhanced)
WPA2 ONLY :
WPA2 Only requires stations to use high grade encryption and authentication.
Cipher Type : TKIP • PSK / EAP : PSK • Network Key : FF23D35E79B0019FF442904CE04EAAF6BC1! (8~63 ASCII or 64 HEX)
Save Settings Don't Save Settings
WIRELESS SECURITY MODE :
Security Mode : Enable WPA / WPA2 Auto Wireless Security (enhanced) 💌
WPA / WPA2 AUTO :
WPA2-PSK auto requires stations to use high grade encryption and authentication.
Cipher Type : TKIP • PSK / EAP : PSK • Network Key : FF23D35E79B0019FF442904CE04EAAF6BC1! (8~63 ASCII or 64 HEX)
Saus Sattings Dan't Saus Sattings

Enabling WPA, WPA2, WPA/WPA2 Wireless Security for a RADIUS Server

- 1. To enable WPA, WPA2, or WPA/WPA2 for a RADIUS server, next to **Security Mode**, select *Enable WPA Only Wireless Security (enhanced), Enable WPA2 Only Wireless Security (enhanced), or Enable WPA/WPA2 Wireless Security (enhanced).*
- 2. Next to Cipher Type, select TKIP, AES, or Auto.
- 3. Next to **PSK/EAP**, select *EAP*.
- 4. Next to **RADIUS Server 1** enter the **IP Address** of your RADIUS server.
- **5.** Next to **Port**, enter the port you are using with your RADIUS server. *1812* is the default port.
- 6. Next to Shared Secret, enter the security key.
- 7. If you have a secondary RADIUS server, enter its IP address, port, and secret key.
- 8. Click Save Settings to save your settings.
- Note: When using EAP mode, you cannot have WPS enabled.

		abe mgn groot and	
	Cipher Type	: TKIP 🔽	
	PSK / EAP	EAP 💌	
802.1X			
	RADIUS Server 1 :	IP	
		Port	1812
		Shared Secret	
	RADIUS Server 2 :	IP	
		Port	1812
		Shared Secret	

Adding a Wireless Device through WPS

You can add WPS (Wi-Fi Protected Setup) compatible devices with the help of a wizard by clicking the **Add Wireless Device with WPS** button.



If you have not already enabled WPS, this message will appear. Click **Yes** to enable WPS.

Product Page: D	IR-400	Firmware Version: 1.00
DI	**1* ¹	
	ADD WIRELESS DEVICE WITH WPS	
	The WPS Function is currently set to disable. Please click "Yes" to enable it or "No" to exit the wizard.	
	(Tes) (No)	
WIRELE	55	
	Copyright © 2006 D-Link Corporation.	

Adding a Wireless Device through WPS (Wi-Fi Protected Setup)

On this screen, select **Automatic** if your wireless device supports WPS and you want to use those features to help configure it. Click **Next**.

Select **Manual** if your device does not support WPS, or if you want to configure your device manually. Clicking **Next** will show your router's SSID and encryption information, which you can use to configure your wireless device. For more help on configuring your wireless device, consult the owner's manual for that device.

Product Page: DIR-400	Firmware Version: 1.00
D T to 12	
D'LINK	
ADD WIRELESS DEVICE WITH WPS(WI_FI PROTECTED SETUP)	
Please select on of the following configuration methos and click next to continue.	
O Auto Select this option if your wireless device supports WPS (Wi-Fi Protected Setup)	
O Manual Select this option will display the current wireless settings for you to configure the wireless dev manually	ice
Next Cancel	
WIRELESS	
Copyright © 2006 D-Link Corporation.	

Product Page: DIR-400 Firmw	vare Version: 1.00
D-Link	\prec
ADD WIRELESS DEVICE WITH WPS(WI-FI PROTECTED SETUP)	
Please enter the following settings in the wireless device that you are adding to your wireless network and keep a note of it for future reference.	
SSID: dlink16d3	
Security Mode: Auto (WPA or WPA2) - PSK	
Cipher Type: AUTO	
Pre-shared Key: FF23D35E79B0019FF442904CE04EAAF68C15698AC6329743BCD172C28CAD09D3	
(CK)	
WIRELESS	
Copyright © 2006 D-Link Corporation.	

Adding a Wireless Device through WPS (PIN)

Here, you can add a device by using a PIN number, or by using Push Button Configuration (PBC). Connecting using a PIN number is more secure, while PBC is much easier to use.

If you chose to add your device by PIN number, click the circle next to **PIN** and enter the PIN number of your device. Click **Connect**.

Press the PBC Connect button on your device within 2 minutes to automatically configure that device's wireless connection.

After 2 minutes, you will be taken back to the Wireless Setup screen. If no devices were connected during that time, a screen will appear allowing you to retry device connection.

Product Page: D	R-400	Firmware Version: 1.00
DJ 4	ntr	
	ADD WIRELESS DEVICE WITH WPS(WI-FI PROTECTED SETUP)	
	There are two ways to add wireless device to your wireless network:	
	-PIN (Personal Identification Number)	
	-PBC (Push Button Configuration)	
	O PIN : Plase enter the PIN from your wireless device and click the below "Connect" button	
	○ РВС	
	Please press the push button on your wireless device and press the "Connect" button below within 120 seconds	
	Prev Connect	
WIRELES	55	

Product Page: DIF	R-400	Firmware Version: 1.00
D T 2	ta 1 c	
	USING PIN NUMBER	
	Please start WPS on the wireless device you are adding to your wireless network within 116 seconds .	
WIRELES	s	
	Copyright © 2006 D-Link Corporation.	

Adding a Wireless Device through WPS (PBC)

If you selected PBC, you will need to press the WPS push button on your device within 2 minutes, and the device's wireless connection will automatically be configured.

After 2 minutes, you will be taken back to the Wireless Setup screen. If no devices were connected during that time, a screen will appear allowing you to retry device connection.

Product Page: DIR-400		Firmware Version: 1.00
D-Link		
VIRTUAL PUSH BUTT	FON	
Plea dev	ise press down the Push Button (physical or virtual) on the wireless ice you are adding to your wireless network within 114 seconds	
WIRELESS		
	Copyright © 2006 D-Link Corporation.	

LAN Setup

This section will allow you to change the local network settings of the router and to configure the DHCP settings.

Router IP Enter the IP address of the router. The default IP address **Address:** is 192.168.0.1.

If you change the IP address, once you click **Apply**, you will need to enter the new IP address in your browser to get back into the configuration utility.

- **Default Subnet** Enter the Subnet Mask. The default subnet mask is **Mask:** 255.255.255.0.
- Local Domain Enter the Domain name (Optional). Name:
 - Enable DNS Check the box to transfer the DNS server information fromRelay: your ISP to your computers. If unchecked, your computers will use the router for a DNS server.

Refer to the next page for DHCP settings.

Provide Section to configure the internal network settings of your router and also to configure the fiber of the Section to configure the P. Address hee, you may need to adjust your Configure the internal network again. The Section to configure the internal network settings of your router and also to configure the internal network again.	//	SETUP	ADVAN		MAINTE	NANCE	STATI	JS	HEL
<text><text><text><text><text></text></text></text></text></text>		NETWORK SETT	INGS :						Helpful Hints.
<text></text>	et	Use this section to the built-in DHCP S Address that is con management interf network settings t Please note that settings here to Save Settings ROUTER SETTIO	configure the inte erver to assign IP : figured here is the face. If you change o access the networ this section is of get your networ Don't Save Settir	rnal network IP Address to IP Address t a the IP Addr ork again. Ptional and k up and ru	settings of the comput hat you use ess here, yo you do no nning.	your rout ters on yo a to acces ou may ne t need t	ter and also to con our network. The is ss the Web-based eed to adjust your o change any of	figure PC's the	If you alread DHCP server or network or references on devices on you uncheck Enable Server to disa feature. In order to e devices on you are always ass same IP addret DHCP Reserve each device.
<form></form>		Use this section to is configured here interface. If you ch settings to access	configure the inte is the IP Address tl ange the IP Addre the network again.	rnal network hat you use t sss here, you	settings of to access th may need t	your rout e Web-ba to adjust	ter. The IP Addres ased management your PC's network	s that	
DHCP SERVER SETTINGS : Use this secton to configure the built-in DHCP Server to assign IP addresses to the computers on your network. Enable DHCP Server : DHCP IP Address Range : 100 to 199 (addresses within the LAN subnet). DHCP PIP Address Time : 10000 (minutes) DHCP CLEENT LIST : Expired Time 006955PC/WIRKP2 192.168.01:00 00:19:b9:43:71:10 Thu Jun 14 14:20:17 2007 25 - DHCP RESREVATION : Remaining number of clearts that can be configured : 25 Computer Name IP Address MAC Address SC computer Name IP Address Computer Name IP Address MAC Address Computer Name IP Address Computer Name IP Address MAC Address Computer Name IP Address Computer Name IP Address MAC Address Computer Name IP Address Computer Name IP Address MAC Address Computer Name IP Address Computer Name IP Address MAC Address Computer Name IP Address Computer Name IP Address MAC Address Computer Name IP Address Computer Name IP Address Computer Name IP Address <td></td> <td>R Defa LOI</td> <td>outer IP Address : ault Subnet Mask : cal Domain Name : Enable DNS Relay :</td> <td>192.168.0. 255.255.25</td> <td>1 5.0</td> <td></td> <td></td> <td></td> <td></td>		R Defa LOI	outer IP Address : ault Subnet Mask : cal Domain Name : Enable DNS Relay :	192.168.0. 255.255.25	1 5.0				
Enable DHCP Server : DHC P Address Range : DC Less Time : DOE Case Time : DOE Case Time : DOE Case Time : Dec Server : <tr< td=""><td></td><td>DHCP SERVER : Use this section to on your network.</td><td>SETTINGS : configure the built</td><td>t-in DHCP Ser</td><td>ver to assig</td><td>n IP addr</td><td>esses to the comp</td><td>uters</td><td></td></tr<>		DHCP SERVER : Use this section to on your network.	SETTINGS : configure the built	t-in DHCP Ser	ver to assig	n IP addr	esses to the comp	uters	
DHCP CLEENT LIST : Host Hame IP Address Despectively 192.168.0.100 DISPECTIVE 192.168.0.100 DISPECTIVE Thu Jun 14 14:20:17 2007 DISPECTIVE Remaining number of clients that can be configured : 25 Computer Name IP Address MAC Address Computer Name Image: Computer Name Image: Computer Name Image: Computer Name		Ena DHCP I C	ble DHCP Server : P Address Range : DHCP Lease Time :	✓ 100 to 10080 (i	199 (add minutes)	lresses wi	thin the LAN subn	et)	
MAC Address EXPRed Ime 00955FCWINDF2 192.168.010 00119:b943:71:10 Thu Jun 14 14:20:17 2007 25 Image: Computer Name Image: Computer Name Image: Computer Name Image: Computer Name Image: Computer Name Image: Computer Name Image: Computer Name Image: Computer Name Image: Computer Name Image: Computer Name Image: Computer Name Image: Computer Name Image: Computer Name Image: Computer Name Image: Computer Name Image: Computer Name Image: Computer Name Image: Computer Name Image: Computer Name Image: Computer Name Image: Computer Name Image: Computer Name Image: Computer Name		DHCP CLIENT L	IST :						
25 - DHCP RESREVATION : Remaining number of dants that can be configured : 25 Computer Name P Address MAC Address Computer Name		06955PCWINXP2	192.168.0.100	00:19:b9:4	55 43:71:1e	Thu Jun	14 14:20:17 200	7	
Remaining number of clents that can be configured : 25 Omputer Name Image: Ima		25 – DHCP RES	REVATION :						
Computer Name IP Address MAC Address Image: Ima		Remaining number	of clients that can	be configure	d : 25				
Image: Computer Name		Computer I	Name IP Add	dress	MAC Addre	ss	2		
Computer Name •							Computer Name	•	
Image: Second							Computer Name	-	
Image: State							Computer Name	-	
Computer Name							Computer Name	-	
Computer Name Computer Name Computer Name Computer Name Computer Name More							Computer Name	- -	
Computer Name Computer Name Computer Name More							Computer Name		
Computer Name							Computer Name		
Corputer Name							Computer Name		
							Computer Name	•	
								More	

DHCP Server Settings

DHCP stands for Dynamic Host Control Protocol. The DIR-400 has a built-in DHCP server. The DHCP Server will automatically assign an IP address to the computers on the LAN/private network. Be sure to set your computers to be DHCP clients by setting their TCP/IP settings to "Obtain an IP Address Automatically." When you turn your computers on, they will automatically load the proper TCP/ IP settings provided by the DIR-400. The DHCP Server will automatically allocate an unused IP address from the IP address pool to the requesting computer. You must specify the starting and ending address of the IP address pool.

Enable DHCP Check the box to enable the DHCP server function **Server:** on your router. Uncheck to disable this function.

DHCP IP Enter the starting and ending IP addresses for the **Address Range:** DHCP server's IP assignment.

DHCP Lease The length of time for the IP address lease. Enter Time: the lease time in minutes.

DHCP SERVER SETTINGS :

Use this section to on your network.	configure the built	-in DHCP Server to assig	n IP addresses to the computers
Enal	ble DHCP Server :		
DHCP IP	Address Range :	100 to 199 (add	dresses within the LAN subnet)
D	HCP Lease Time :	10080 (minutes)	
DHCP CLIENT L	IST :		
Host Name	IP Address	MAC Address	Expired Time
06955PCWINXP2	192.168.0.100	00:19:b9:43:71:1e	Thu Jun 14 14:20:17 2007

DHCP Reservation

DHCP Reservation lets you manually assign IP addresses for computers connected to your network. It allows you to reserve an IP to be used for a particular computer only. This is useful when also using other network management features, such as firewall rules and port forwarding.

After entering a reservation, click on **Save Settings** to save your changes.

Computer Enter a name for the computer you want to reserve **Name:** an IP for.

IP Address: Enter the IP you wish to assign to the computer.

MAC Address: Enter the MAC address of the computer you want to reserve an IP for. To find the MAC address on a computer, please refer to the Networking Basics section in this manual.

You can also use the dropdown box (Computer Name) to automatically enter the Computer Name, current IP Address, and MAC Address of a computer currently connected to the router. To do so, select a computer from the dropdown box, then click the << button.

25 - DHCP RESREVATION :

Remaining number of clients that can be configured : 25							
	Computer Name	IP Address	MAC Address				
				<< Computer Name			
				<< Computer Name			
				<< Computer Name			
				<< Computer Name			
				<< Computer Name			
				<< Computer Name			
				<< Computer Name 🗨			
				<< Computer Name 🗨			
				<			
				Computer Name			

More...

Save Settings Don't Save Settings

Time and Date

This section will allow you to configure, update, and maintain the correct time on the router's internal system clock.

Time Zone: Select your Time Zone from the drop-down menu.

Enable Ticking this checkbox enables Daylight Saving **Daylight** time. Click **Sync. your computer's time settings Saving:** to copy your PC's time settings.

NTP Tick the "Automatically synchronize with D-Link's
 Server Internet time server" checkbox and then use the
 Used: drop-down menu to select an NTP Server. NTP is short for Network Time Protocol. NTP synchronizes computer clock times in a network of computers.

Manual: To manually input the time, enter the values in these fields for the Year, Month, Day, Hour, Minute, and Second. Click **Save Settings**.



Parental Control

This feature allows you to create a list of websites that you want to either allow or deny users access to.

Configure Select *Turn Parental Control OFF*, *Turn Parental* **Parental** *Control ON and ALLOW computers access to* **Control:** *ONLY these sites*, or *Turn Parental Control ON and DENY computers access to ONLY these sites*.

- Website URL: Enter the keywords or URLs that you want to block (or allow). Any URL with the keyword in it will be blocked (or allowed).
 - Schedule: The schedule of time when the parental control rule will be enabled. The schedule may be set to Always, which will allow the particular service to always be enabled, or you can create your own schedule in the Maintenance > Schedules section.

Product Page: DIR-400					Firmware Version: 1.00		
D-Tim1	-						
DIR-400 ///	SETUP	ADVANCED	MAINTENANCE	STATUS	HELP		
nternet Setup	PARENTAL CONTR	OL RULES :			Helpful Hints		
Nireless Setup AN Setup Fime and Date	Oreate a Parental Control provides the useful tools for restricting Internet access. Website URL allows you to quickly create a list of all web sites that you wish to allow or deny users from accessing. Schedule allows you to control when clients or PCs connected to Router are allowed to access the Internet.						
ogout	Save Settings	Don't Save Settings			Keywords can be entered in this list in order to block any URL containing the keyword		
Offine Reboot	25 – PARENTAL C Configure Parental Co Turn Parental Control O Remaining number of		entered.				
		Website URL	Sche	dule			
			Always 💌	Add New			
			Always 💌	Add New			
			Always 🔽	Add New			
			Always 💌	Add New			
			Always 💌	Add New			
			Always 💌	Add New			
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			Always 💌	Add New			
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			Always 💌	Add New			

Port Forwarding

This will allow you to open a single port or a range of ports. This may be necessary for some online applications, such as online gaming. Check with your software's technical support site to see if your software requires port forwarding.

Rule: Check the box to enable the rule.

Name: Enter a name for the rule.

You can also use the dropdown box (Application Name) to automatically enter the Name, Ports and Traffic Type for common applications such as FTP, Telnet, and more. To do so, select an application from the dropdown box, then click the << button.

IP Address: Enter the IP address of the computer on your local network that you want to allow the incoming service to.

You can also use the dropdown box (Computer Name) to automatically enter the IP address of a computer currently connected to the router. To do so, select a computer from the dropdown box, then click the << button.

- **Port:** Enter the port or ports that you want to open for both Public Ports(WAN ports) and Private Ports(LAN ports). You can open a range of ports by entering the starting port in the first box and the ending port in the second box. If you want to open a single port, enter the same port number in both boxes.
- **Traffic Type:** Select what kind of traffic to allow through the ports: TCP, UDP, or Any.



Application Rules

Some applications require multiple connections, such as Internet gaming, video conferencing, Internet telephony and others. These applications may have difficulty working through NAT (Network Address Translation) functions of a router. Application Rules help these applications work through the DIR-400.

Rule: Check the box to enable the rule.

Name: Enter a name for the rule.

You can also use the dropdown box (Application Name) to automatically enter the Name, Ports and Traffic Type for common applications such as FTP, Telnet, and more. To do so, select an application from the dropdown box, then click the << button.

- **Trigger Port:** This is the port used to trigger the rule. It can be either a single port or a range of ports.
- Firewall Port: This is the port number on the WAN side that will be used to access the application. You may define a single port or a range of ports. You can use a comma to add multiple ports or port ranges.
- Traffic Type: Select what kind of traffic to control: TCP, UDP, or Any.

Product Page: DIR-400					Firmware Version: 1.00			
D-Lin	K							
DIR-400	SETUP	ADVANCED	MAINTENANCE	STATUS	HELP			
Port Forwarding	APPLICATION	RULE			Helpful Hints			
Application Rules Access Control Firewall & DMZ Advanced Wireless Advanced Network Routing	The Application Rules option is used to open single or multiple ports in your firewall when the application Rules option is used to open single or multiple ports in your firewall when the router senses data sent to the Internet on a outgoing "Trigger" port or port range. Special Applications rules apply to all computers on your internal network. Save Settings Don't Save Settings							
Logout								
25 - APPLICATION RULES Internet Offline Remaining number of rules that can be created: 25								
Report			Port	Traffic Type				
(LECOT)			Trige 0	ger TCP -				
			Firev					
			Trig	ger TCP 💌				
			Firev					
			Trige 0	ger TCP 🔹				
			Firev					
		(<) Application Mar	Trige 0	ger TCP -				
			Firev					

Access Control

Use MAC (Media Access Control) Filters to allow or deny LAN (Local Area Network) computers from accessing the Network based on their MAC addresses. You can either manually add a MAC address or select the MAC address from the list of clients that are currently connected to the router.

- **Configure MAC** Here, you have three options: Select *Turn MAC* **Filter:** *Filtering OFF, Turn MAC Filtering ON and ALLOW computers listed to access the network, or Turn MAC Filtering ON and DENY computers listed to access the network.*
- MAC Address: Enter the MAC address you would like to filter. To find the MAC address on a computer, please refer to the Networking Basics section in this manual.
 - DHCP Client You can use the dropdown box (Computer Name) List: to automatically enter the MAC address of a computer currently connected to the router. To do so, select a computer from the dropdown box, then click the << button.</p>
 - Schedule: This selects which schedule will be used to determine when the MAC filter will be enabled. The schedule may be set to Always, which will allow the particular service to always be enabled.

Clicking on **Add New** will allow you to make a new schedule. You can view current schedule settings in the **Maintenance** > **Schedules** section.

Product Page: DIR-400 Firmware Version: 1.00									
D T Sa	1-0								
DIR-400	SE	TUP	ADVANCED	MAINTENANCE	STATUS	HELP			
Port Forwarding	MACE					Helpful Hints			
Application Rules						Create a list of MAC			
Access Control	The MA	The MAC (Media Access Controller) Address filter option is used to control network access							
Firewall & DMZ	the man	the manufacturer of the network adapter. This feature can be configured to ALLOW or DENY							
Advanced Wireless	eless obtained an IP address								
Advanced Network	_					from the router's DHCP server will be in the DHCP			
Routing	Save Settings Don't Save Settings Clent List. Select a de from the drop down m								
Logout	25 – M	25 - MAC FILTERING RILLES							
Marinet	Configu	re MAC Filtering belo	w:			list.			
Offline	Turn MAC Filtering OFF					 Use the check box on the left to either enable or 			
Report									
Kebbor	Remainin	Remaining number of rules that can be created: 25							
		MAC Address		DHCP Client List	Schedule	previously defined a			
		00:00:00:00:00:00	<<	Computer Name 💽	Always 💌 Add New	not, dick on the Add New button to add one.			
		00:00:00:00:00:00	<<	Computer Name 💌	Always - Add New				
		00:00:00:00:00:00	<<	Computer Name 💽	Always 🗸 Add New				
		00:00:00:00:00:00	<	Computer Name 💽	Always Add New				
		00:00:00:00:00:00	<	Computer Name	Always - Add New				
		00:00:00:00:00:00	<	Computer Name	Always - Add New				
		00:00:00:00:00:00	<	Computer Name	Always - Add New				
		00:00:00:00:00:00	<	Computer Name	Always - Add New				
		00:00:00:00:00:00	 <<	Computer Name	Always - Add New				
		00:00:00:00:00:00	 <<	Computer Name	Always - Add New				

Firewall & DMZ - DMZ Host

This section will allow you to set up a DMZ host.

If you have a client PC that cannot run Internet applications properly from behind the DIR-400, then you can set the client up for unrestricted Internet access. It allows a computer to be fully exposed to the Internet. This feature is useful for some applications such as gaming. Note that adding a client to the DMZ (Demilitarized Zone) may expose your local network to a variety of security risks, so only use this option as a last resort.

DIR

Port Appl Acce Firev Adva Rout

Enable SPI: Check this to enable SPI (Stateful Packet Inspection).

Enable DMZ Check this box to enable the DMZ Host feature. Host:

DMZ IP Enter the IP address of the computer you would like **Address:** to open all ports to (the DMZ Host).

uct Page: DIR-400					Firmware Version: 1.00
	Č				
400 //	SETUP	ADVANCED	MAINTENANCE	STATUS	HELP
orwarding	FIREWALL & DMZ	Helpful Hints			
ation Rules scontrol all & DMZ need Wireless need Network	Firewall rules can be us single port by utilizing t boxes. DMZ means "Demilitaria accessible to Internet others.	• DHZ: Only enable the DMZ option as a last resort. If you are having trouble using an application from a computer behind the router, first try opening ports associated with the application in the Virtual Server or Port Forwarding sections.			
ıt	Save Settings	• Firewall:			
Internet Offine Reboot	FIREWALL SETTIN Enabl DMZ HOST The DMZ (Demilitarized your network outside applications successful for unrestricted Intern Note: Putting a compu	advance feature used to deny or allow traffic from passing through the device. You can create detailed rules for the device. Please refar to the manual for more details and examples.			
	Use of this option is or	nly recommended as a las	t resort.		
	DMZ IP Add	Iress : 0.0.0.0	< Computer Name		
	50 - FIREWALL R				
	Remaining number of o	clients that can be config	ured : 50		
		Interface	IP Address	Schedule	
	Name	Source 💌	Protoco	Schedule	
	Action Allow	Dest 💌	Port Ra	nge Add New	
	Name	Source 💌	Protoco(al	Schedule	
	Action Allow	Dest 💌	Port Ra	Add New	

Firewall & DMZ - Firewall Rules

This section will allow you to set up firewall rules.

Firewall Rules allow you to specifically allow or deny traffic to and from specific IPs and ports between your network and the internet.

Name: Choose a name for the firewall rule.

- Action: Select to *Allow* or *Deny* transport of the data packets according to the criteria defined in the rule.
- **Source/Dest:** The Source/Destination is the TCP/UDP port on either the LAN (local network) or WAN (Internet) side.
- **IP Address:** Enter a beginning and ending IP address. If you only want to affect a single IP address, enter the same IP address in both boxes.
 - **Protocol:** Select the transport protocol that will be used for the filter rule.
- **Port Range:** Enter the desired port range for the filter rule. If you only want to affect a single port, enter the same port in both boxes.
 - Schedule: This selects which schedule will be used to determine when the firewall rule will be enabled. The schedule may be set to Always, which will allow the particular service to always be enabled.

Clicking on **Add New** will allow you to make a new schedule. You can view current schedule settings in the **Maintenance** > **Schedules** section.

50 - FIREWALL RULES

Remaining number of clients that can be configured : 50



Advanced Wireless

This window allows you to change the behavior of the 802.11g wireless radio from the standard settings. Please be aware that any changes to the factory default settings may adversely affect the behavior of your network.

Transmit Power: Set the transmit power of the antennas.

- **Beacon interval:** Beacons are packets sent by an Access Point to synchronize a wireless network. Specify a value. *100* is the default setting and is recommended.
- **RTS Threshold:** This value should remain at its default setting of *2346*. If inconsistent data flow is a problem, only a minor modification should be made.
- **Fragmentation:** The fragmentation threshold, which is specified in bytes, determines whether packets will be fragmented. Packets exceeding the 2346 byte setting will be fragmented before transmission. *2346* is the default setting.



DTIM Interval: A DTIM (Delivery Traffic Indication Message) is a countdown

informing clients of the next window for listening to broadcast and multicast messages. 1 is the default setting.

- **Preamble Type:** Select Short or Long Preamble. The Preamble defines the length of the CRC block (Cyclic Redundancy Check is a common technique for detecting data transmission errors) for communication between the wireless router and the roaming wireless network adapters. Auto is the default setting. Note: High network traffic areas should use the shorter preamble type.
 - CTS Mode: CTS (Clear To Send) is a function used to minimize collisions among wireless devices on a wireless local area network (LAN). CTS will make sure the wireless network is clear before a wireless client attempts to send wireless data. Enabling CTS will add overhead and may lower wireless throughput. None: CTS is typically used in a pure 802.11g environment. If CTS is set to "None" in a mixed mode environment populated by 802.11b clients, wireless collisions may occur frequently. Always: CTS will always be used to make sure the wireless LAN is clear before sending data. Auto: CTS will monitor the wireless network and automatically decide whether to implement CTS based on the amount of traffic and collisions that occurs on the wireless network.

802.11g Only Tick this checkbox to restrict access to 802.11g devices only. **Mode:**

Advanced Network

This window allows you to change the LAN settings. Please be aware that any changes from the factory default settings may affect the behavior of your network.

Enable UPnP: To use the Universal Plug and Play (UPnP[™]) feature tick this checkbox. UPNP provides compatibility with networking equipment, software and peripherals.

Enable WAN Unchecking the box will not allow the DIR-400 **Ping Respond:** to respond to ping requests. Blocking pings may provide some extra security from hackers. Tick this checkbox to allow the WAN port to be "Pinged".

- WAN Port You may set the port speed of the WAN port to **Speed:** *10Mbps, 100Mbps,* or *10/100Mbps Auto.* Some older cable or DSL modems may require you to set the port speed to 10Mbps.
- Enable Gaming Gaming mode allows a form of pass-through Mode: for certain internet games. If you are using an XBox/XBox 360, Playstation 2/Playstation 3, Nintendo Wii or a PC, make sure you are using the latest firmware and Gaming Mode is enabled. To utilize Gaming Mode, tick this checkbox. If you are not using an online gaming application, it is recommended that you disable Gaming Mode by leaving the checkbox unticked.



Routing

This option allows you to define fixed routes to defined destinations.

- **Enable:** Tick this checkbox to enable or disable fixed routes to defined destinations.
- Interface: Use the drop-down menu to choose which interface, WAN or WAN (Physical Port), the IP packet must use to transit out of the router.
- **Destination:** The IP address of the packets that will take this route.
- Subnet Mask: The subnet of the IP address of the packets that will take this route.
 - Gateway: Specifies the next hop to be taken if this route is used.



Device Administration

This window will allow you to change the Administrator password. You can also enable Remote Management from this screen.

Administrator Enter a new Login Name for the Administrator Login Name: account. The default Login Name is *admin*. Note that the Login Name is case-sensitive, e.g. *admin* would be a different Login Name than *Admin*.

Administrator Enter a new password for the Administrator Login Password: Name and then retype the new password in the Confirm Password textbox. The administrator can make changes to the settings.

Enable Remote Remote management allows the DIR-400 Management: to be configured from the Internet through a web browser. The Administrator Login Name and Password are still required to access the web management interface. Normally, only a member of your network can browse the built-



in web pages to perform Administrator tasks. This feature enables you to perform Administrator tasks from a remote (Internet) host.

- IP Allowed to The Internet IP address of the computer that has access to the router. If you input an asterisk (*) into this field, then any Access: computer will be able to access the router. Putting an asterisk (*) into this field would present a security risk and is not recommended.
 - Port: The port number used to access the DIR-400. For example: http://x.x.x.x8080, where x.x.x.x is the WAN IP address of the DIR-400 and *8080* is the port used for the web management interface.

Save and Restore

This window allows you to save your configuration file to a hard drive, load configuration settings from a hard drive, and restore the router's factory default settings.

Save Settings Use this option to save the current router to Local Hard configuration settings to a file on the hard disk of Drive: the computer you are using. First, click the Save button. You will then see a file dialog, where you can select a location and file name for the settings.

Load Settings Use this option to load previously saved router from Local configuration settings. First, use the Browse Hard Drive: control to find a previously save file of configuration settings. Then, click the Upload Settings button to transfer those settings to the router.

Restore to This option will restore all configuration settings Factory Default back to the default settings that the router came Settings: with. Any settings that have not been saved will be lost, including any rules that you have created. If you want to save the current router configuration settings, use the Save button above.

Reboot: Click the **Reboot** button on the left side of the window to restart the router.



Firmware Update

You can upgrade the firmware of the router here. Make sure the firmware you want to use is on the local hard drive of the computer. Click on **Browse** to locate the firmware file to be used for the update. Please check the D-Link support site for firmware updates at http://support.dlink.com. You can download firmware upgrades to your hard drive from the D-Link support site.

- **Firmware** Click the **Check Now** button (or the link at the top **Upgrade:** of the window) to find out if there is an updated firmware; if so, download the new firmware to your hard drive.
- Browse: After you have downloaded the new firmware, click Browse in this window to locate the firmware update on your hard drive. Click Save Settings to complete the firmware upgrade.



DDNS Settings

The router supports DDNS (Dynamic Domain Name Service). The Dynamic DNS feature allows you to host a server (Web, FTP, game server, etc.) using a domain name that you have purchased or reserved (www.yourdomain.com). Many ISPs assign public IP addresses using DHCP, this can make it difficult to locate a specific host on the Internet using standard DNS as the IP keeps changing. Using the DDNS feature with a DDNS service provider allows you to use a host name that connects to your server no matter what your IP address is. Using the DDNS feature requires that an account be setup with one of the supported DDNS providers.

Enable DDNS: Tick the Enable DDNS checkbox to enable support for DDNS.

- Server Address: Select one of the DDNS registration organizations form those listed in the pull-down menu. Available servers include *dlinkddns.com(Free)*, *DynDns. org(Custom)*, *Dyn.Dns.org(free)*, and *Dyn.Dns. org(Static)*.
 - Host Name: Enter the host name of the DDNS server.
 - Username: Enter the username given to you by your DDNS server.
 - **Password:** Enter the password or key given to you by your DDNS server.



System Check

This tool is used to verify physical connectivity on both the LAN and the WAN interfaces. The Ping Test can be used to test the status of the Internet.

- Virtual Cable VCT is an advanced feature that integrates a LAN Tester (VCT) cable tester on every Ethernet port on the router. Info: Through the graphical user interface (GUI), VCT can be used to remotely diagnose and report cable faults such as opens, shorts, swaps, and impedance mismatch. This feature significantly reduces service calls and returns by allowing users to easily troubleshoot their cable connections. Click on **More Info** to find out more information about a particular connection.
 - **Ping Test:** The Ping Test is used to send ping packets to test if a computer is on the Internet. Enter the Host Name or IP Address that you wish to ping, and click **Ping**.

