

Using the Configuration Menu (continued)

Advanced > Filters > Domain Blocking

The screenshot shows the configuration interface for a D-Link DI-524 AirPlus G 802.11g/2.4GHz Wireless Router. The left sidebar contains navigation buttons for Virtual Server, Applications, Filters (highlighted), Firewall, DMZ, and Performance. The main content area is titled 'Advanced' and shows the 'Filters' section. Under 'Filters', there are radio buttons for IP Filters, URL Blocking, MAC Filters, and Domain Blocking (which is selected). Below this, the 'Domain Blocking' section has radio buttons for Disabled, Allow users to access all domains except "Blocked Domains" (selected), and Deny users to access all domains except "Permitted Domains". There are two text input fields: 'Permitted Domains' with 'www.dlink.com' entered and a 'Delete' button, and 'Blocked Domains' which is empty with a 'Delete' button.

Domain Blocking is used to allow or deny LAN (Local Area Network) computers from accessing specific domains on the Internet. Domain blocking will deny all requests to a specific domain such as http and ftp. It can also allow computers to access specific sites and deny all other sites.

Filters-

Select the filter you wish to use; in this case, **Domain Blocking** was chosen.

Domain Blocking-

Disabled-

Select **Disabled** to disable **Domain Blocking**.

Allow-

Allows users to access all domains except **Blocked Domains**.

Deny-

Denies users access to all domains except **Permitted Domains**.

Permitted Domains-

Enter the **Permitted Domains** in this field.

Blocked Domains-

Enter the **Blocked Domains** in this field.

Using the Configuration Menu (continued)

Advanced > Firewall

D-Link
Building Networks for People

AirPlus G™
802.11g/2.4GHz Wireless Router

DI-524

Home Advanced Tools Status Help

Firewall Rules
Firewall Rules can be used to allow or deny traffic from passing through the DI-524.

Enabled Disabled

Name

Action Allow Deny

Interface IP Range Start IP Range End Protocol Port Range

Source *

Destination * TCP

Schedule Always

From time : : AM to : : AM
day Sun to Sun

Firewall Rules List

Action	Name	Source	Destination	Protocol	
<input checked="" type="checkbox"/>	Allow	Allow to Ping WAN port	WAN,*	LAN,192.168.0.1	ICMP,8
<input checked="" type="checkbox"/>	Deny	Default	**	LAN,*	IP (0),*
<input checked="" type="checkbox"/>	Allow	Default	LAN,*	**	IP (0),*

Firewall Rules is an advanced feature used to deny or allow traffic from passing through the DI-524. It works in the same way as IP Filters with additional settings. You can create more detailed access rules for the DI-524. When virtual services are created and enabled, it will also display in Firewall Rules. Firewall Rules contain all network firewall rules pertaining to IP (Internet Protocol).

In the Firewall Rules List at the bottom of the screen, the priorities of the rules are from top (highest priority) to bottom (lowest priority.)

Note:

The DI-524 MAC Address filtering rules have precedence over the Firewall Rules.

Firewall Rules-

Enable or disable the Firewall.

Name-

Enter the name.

Action-

Allow or Deny.

Source-

Enter the IP Address range.

Destination-

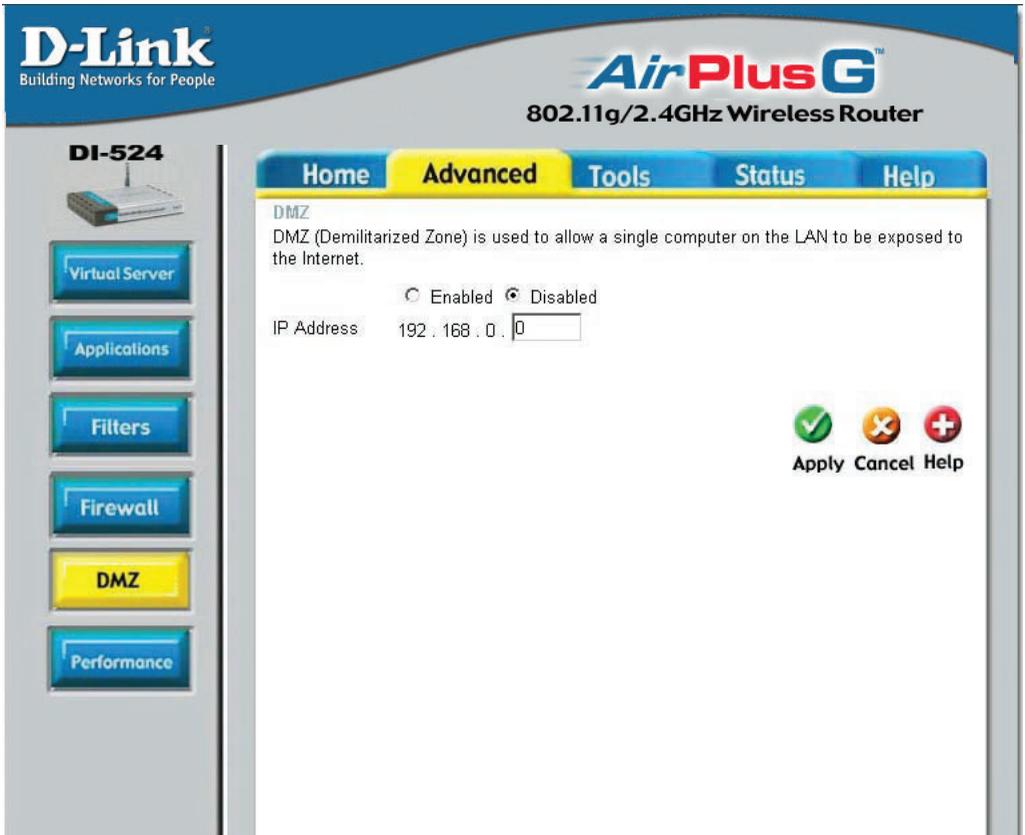
Enter the IP Address range, the Protocol, and the Port Range.

Schedule-

Select Always or enter the Time Range.

Using the Configuration Menu (continued)

Advanced > DMZ



If you have a client PC that cannot run Internet applications properly from behind the DI-524, then you can set the client up for unrestricted Internet access. It allows a computer to be exposed to the Internet. This feature is useful for gaming purposes. Enter the IP address of the internal computer that will be the DMZ host. 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.

DMZ-

Enable or **Disable** the DMZ. The DMZ (Demilitarized Zone) allows a single computer to be exposed to the internet. By **default** the DMZ is **disabled**.

IP Address-

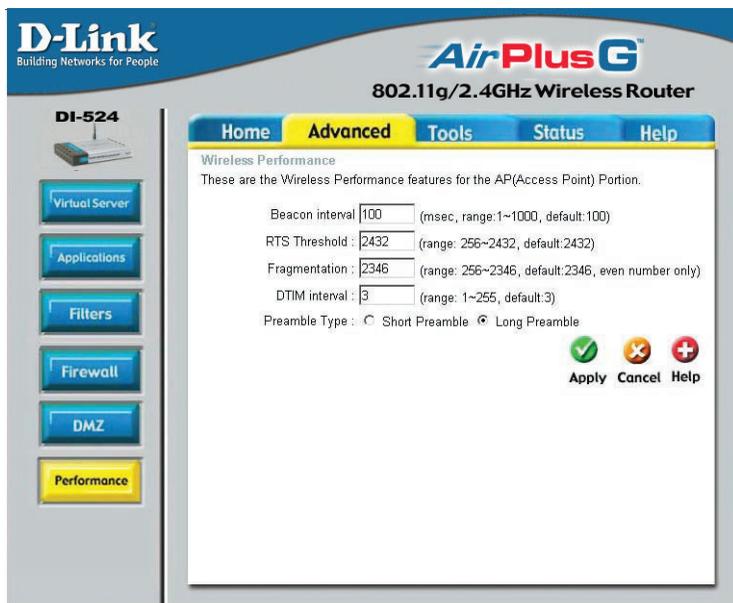
Enter the **IP Address** of the computer to be in the **DMZ**.

Using the Configuration Menu (continued)

Advanced > Performance

Wireless Performance-

Displayed in this window are the Wireless Performance features for the Access Point portion of the DI-524.



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 2432. 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.

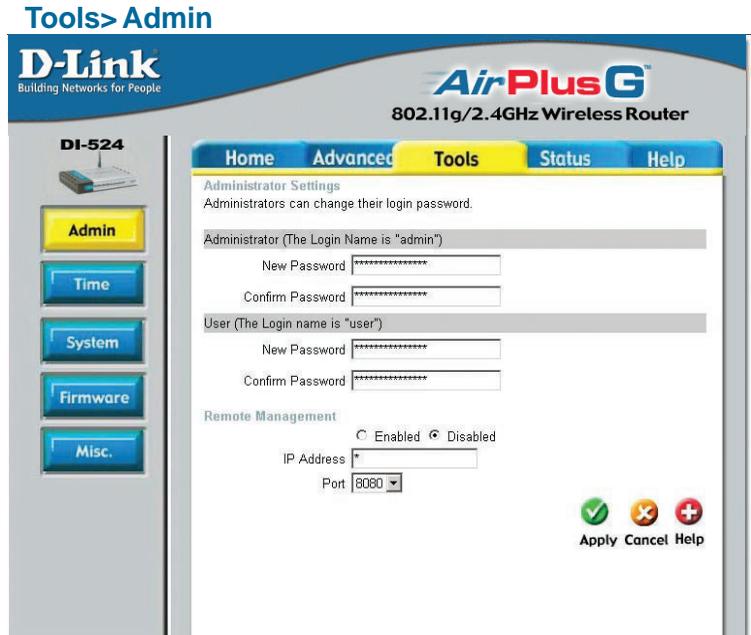
DTIM interval-

(Delivery Traffic Indication Message) 3 is the default setting. A DTIM is a countdown informing clients of the next window for listening to broadcast and multicast messages.

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.*

Using the Configuration Menu (continued)



At this page, the DI-524 administrator can change the system password. There are two accounts that can access the Broadband Router's Web-Management interface. They are admin and user. Admin has read/write access while user has read-only access. User can only view the settings but cannot make any changes.

Administrator- **admin** is the **Administrator login name**.

Password- Enter the password and enter again to confirm.

User- **user** is the **User login name**.

Password- Enter the password and enter again to confirm.

Remote Management- Remote management allows the DI-524 to be configured from the Internet by a web browser. A username and password is still required to access the Web-Management interface. In general, 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 the remote (Internet) host.

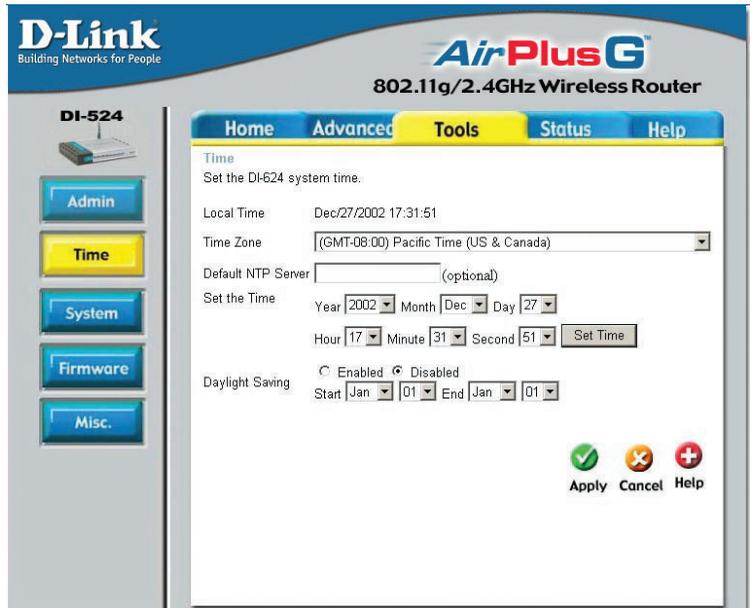
IP Address- The Internet IP address of the computer that has access to the Broadband Router. If you input an asterisk (*) into this field, then any computer will be able to access the Router. Putting an asterisk (*) into this field would present a security risk and is not recommended.

Port- The port number used to access the Broadband Router.

Example- <http://x.x.x.x:8080> where x.x.x.x is the WAN IP address of the Broadband Router and 8080 is the port used for the Web-Management interface.

Using the Configuration Menu (continued)

Tools > Time



Time Zone-

Select the Time Zone from the pull-down menu.

Default NTP Server-

NTP is short for *Network Time Protocol*. NTP synchronizes computer clock times in a network of computers. This field is optional.

Set the Time-

To manually input the time, enter the values in these fields for the Year, Month, Day, Hour, Minute, and Second. Click **Set Time**.

Daylight Saving-

To select Daylight Saving time manually, select **enabled** or **disabled**, and enter a start date and an end date for daylight saving time.

Using the Configuration Menu (continued)

Tools > System

The screenshot shows the D-Link configuration interface for an AirPlus G 802.11g/2.4GHz Wireless Router. The top navigation bar includes 'Home', 'Advanced', 'Tools' (highlighted in yellow), 'Status', and 'Help'. On the left sidebar, there are buttons for 'Admin', 'Time', 'System' (highlighted in yellow), 'Firmware', and 'Misc.'. The main content area is titled 'System Settings' and contains three sections: 'Save Settings To Local Hard Drive' with a 'Save' button; 'Load Settings From Local Hard Drive' with a text input field, a 'Browse' button, and a 'Load' button; and 'Restore To Factory Default Settings' with a 'Restore' button. A red 'Help' icon is located in the bottom right corner of the main content area.

The current system settings can be saved as a file onto the local hard drive. The saved file or any other saved setting file can be loaded back on the Broadband Router. To reload a system settings file, click on **Browse** to browse the local hard drive and locate the system file to be used. You may also reset the Broadband Router back to factory settings by clicking on **Restore**.

Save Settings to Local Hard Drive-

Click **Save** to save the current settings to the local Hard Drive.

Load Settings from Local Hard Drive-

Click **Browse** to find the settings, then click **Load**.

Restore to Factory Default Settings-

Click **Restore** to restore the factory default settings.

Using the Configuration Menu (continued)

Tools > Firmware

The screenshot shows the D-Link configuration interface for a DI-524 router. The top navigation bar includes 'Home', 'Advanced', 'Tools' (highlighted in yellow), 'Status', and 'Help'. The main content area is titled 'Firmware Upgrade' and contains the following text: 'There may be new firmware for your DI-524 to improve functionality and performance. [Click here to check for an upgrade on our support site.](#) To upgrade the firmware, locate the upgrade file on the local hard drive with the Browse button. Once you have found the file to be used, click the Apply button below to start the firmware upgrade.' Below this text, it displays 'Current Firmware Version: 1.00' and 'Firmware Date: Tue, 24 Dec 2002'. There is an empty text input field followed by a 'Browse' button. At the bottom right, there are three buttons: 'Apply' (with a green checkmark icon), 'Cancel' (with a red X icon), and 'Help' (with a red plus icon). On the left side of the interface, there is a sidebar with a 'DI-524' label, a small image of the router, and a vertical menu with buttons for 'Admin', 'Time', 'System', 'Firmware' (highlighted in yellow), and 'Misc.'.

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 browse the local hard drive and locate the firmware 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 Upgrade- Click on the link in this screen 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 **Apply** to complete the firmware upgrade.

Using the Configuration Menu (continued)

Tools > Misc

Ping Test-

The Ping Test is used to send Ping packets to test if a computer is on the Internet. Enter the IP Address that you wish to Ping, and click **Ping**.

Restart Device-

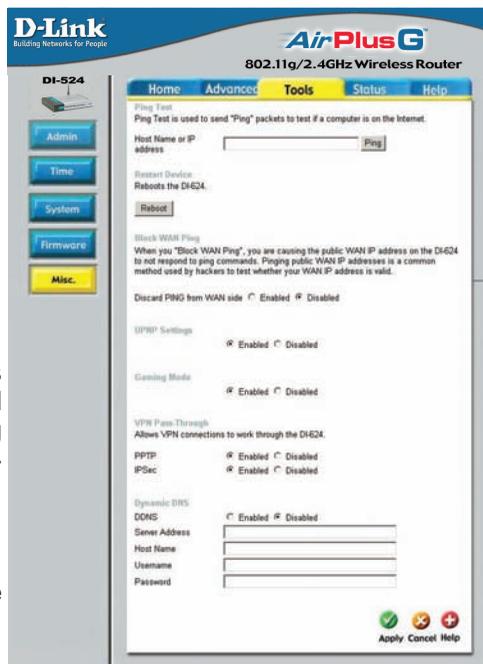
Click **Reboot** to restart the DI-524.

Block WAN Ping-

If you choose to block WAN Ping, the WAN IP Address of the DI-524 will not respond to pings. Blocking the Ping may provide some extra security from hackers.

Discard Ping from WAN side-

Click **Enabled** to block the WAN ping.



UPNP-

To use the *Universal Plug and Play* feature click on **Enabled**. UPNP provides compatibility with networking equipment, software and peripherals of the over 400 vendors that cooperate in the Plug and Play forum.

Gaming Mode-

Gaming mode allows a form of pass-through for certain Internet Games. If you are using Xbox, Playstation2 or a PC, make sure you are using the latest firmware and Gaming Mode is enabled. To utilize Gaming Mode, click **Enabled**. If you are not using a Gaming application, it is recommended that you **Disable** Gaming Mode.

Dynamic DNS-

Dynamic Domain Name System is a method of keeping a domain name linked to a changing IP Address. This is a useful feature since many computers do not use a static IP address.

VPN Pass Through-

The DI-524 supports VPN (Virtual Private Network) pass-through for both PPTP (Point-to-Point Tunneling Protocol) and IPSec (IP Security). Once VPN pass-through is enabled, there is no need to open up virtual services. Multiple VPN connections can be made through the DI-524. This is useful when you have many VPN clients on the LAN network.

PPTP- select **Enabled** or **Disabled**

IPSec- select **Enabled** or **Disabled**

Using the Configuration Menu (continued)

Status > Device Info

The screenshot shows the D-Link configuration interface for a DI-524 router. The top navigation bar includes 'Home', 'Advanced', 'Tools', 'Status', and 'Help'. The 'Status' tab is selected. The main content area is titled 'Device Information' and shows the following details:

- Firmware Version:** 1.00, Tue, 24 Dec 2002
- LAN:**
 - MAC Address: 00-03-2F-FF-F0-85
 - IP Address: 192.168.0.1
 - Subnet Mask: 255.255.255.0
 - DHCP Server: Enabled
- WAN:**
 - MAC Address: 00-03-2F-FF-F0-86
 - Connection: DHCP Client Connected (with 'DHCP Release' and 'DHCP Renew' buttons)
 - IP Address: 10.80.1.94
 - Subnet Mask: 255.0.0.0
 - Default Gateway: 10.10.10.100
 - DNS: 10.10.10.41, 10.10.10.45, 192.152.81.1
- Wireless 802.11g:**
 - MAC Address: 00-60-B3-06-00-32
 - SSID: GiGi

This page displays the current information for the DI-524. It will display the LAN, WAN, and MAC address information.

If your WAN connection is set up for a **Dynamic IP address** then a **Release** button and a **Renew** button will be displayed. Use *Release* to disconnect from your ISP and use *Renew* to connect to your ISP.

If your WAN connection is set up for **PPPoE**, a **Connect** button and a **Disconnect** button will be displayed. Use *Disconnect* to drop the PPPoE connection and use *Connect* to establish the PPPoE connection.

This window will show the DI-524's working status:

LAN-

IP Address: LAN/Private IP Address of the DI-524
Subnet Mask: LAN/Private Subnet Mask of the DI-524

WAN-

IP Address: WAN/Public IP Address
Subnet Mask: WAN/Public Subnet Mask
Gateway: WAN/Public Gateway IP Address
Domain Name Server: WAN/Public DNS IP Address
WAN Status: WAN Connection Status

Wireless-

MAC Address: Displays the MAC address
SSID: Displays the current SSID
Channel: Displays the current channel
WEP: Indicates whether WEP is enabled or disabled

Using the Configuration Menu (continued)

Status > Log

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802.11g/2.4GHz Wireless Router

DI-524

Device Info
Log
Stats
Wireless

Home Advanced Tools **Status** Help

View Log
View Log displays the activities occurring on the DI-524. Click on Log Settings for advance features.

First Page Last Page Previous Next Clear Log Settings Help

page 1 of 1

Time	Message	Source	Destination	Note
Dec/27/2002 17:09:11	DHCP Request success			10.80.1.94
Dec/27/2002 17:09:11	DHCP Request			10.80.1.94
Dec/27/2002 17:09:11	DHCP Discover			
Dec/27/2002 17:09:07	System started			
Dec/27/2002 17:09:07	DHCP Discover			

The Broadband Router keeps a running log of events and activities occurring on the Router. If the device is rebooted, the logs are automatically cleared. You may save the log files under Log Settings.

View Log-

First Page - The first page of the log.

Last Page - The last page of the log.

Previous - Moves back one log page.

Next - Moves forward one log page.

Clear - Clears the logs completely.

Log Settings - Brings up the page to configure the log.

Using the Configuration Menu (continued)

Status > Log > Log Settings

The screenshot shows the web interface of a D-Link DI-524 wireless router. The top navigation bar includes 'Home', 'Advanced', 'Tools', 'Status' (highlighted), and 'Help'. The main content area is titled 'Log settings' and contains the following elements:

- A note: "Logs can be saved by sending it to an admin email address."
- Input fields for "SMTP Server / IP Address" and "Email Address".
- A "Send Mail Now" button.
- A "Log Type" section with the following checked options:
 - System Activity
 - Debug Information
 - Attacks
 - Dropped Packets
 - Notice
- At the bottom right, three icons: a green checkmark (Apply), an orange 'X' (Cancel), and a red plus sign (Help).

Not only does the Broadband Router display the logs of activities and events, it can setup to send these logs to another location.

SMTP Server/ IP Address -

The address of the SMTP server that will be used to send the logs.

Email Address -

The email address to which the logs will be sent.
Click on **Send Mail Now** to send the email.

Using the Configuration Menu (continued)

Status > Stats

The screenshot shows the configuration page for a D-Link AirPlus G 802.11g/2.4GHz Wireless Router. The page is titled "DI-524" and has a navigation menu with "Home", "Advanced", "Tools", "Status", and "Help". The "Status" menu item is highlighted. The main content area is titled "Traffic Statistics" and contains the text: "Traffic Statistics display Receive and Transmit packets passing through the DI-524." Below this text are "Refresh" and "Reset" buttons. A "Help" icon (a red circle with a white plus sign) is located to the right of the text. The statistics are presented in a table with three columns: "WAN", "LAN", and "WIRELESS 11g". Each column has two sub-columns: "Receive" and "Transmit".

	Receive	Transmit
WAN	3964 Packets	277 Packets
LAN	1317 Packets	2321 Packets
WIRELESS 11g	963 Packets	0 Packets

The screen above displays the Traffic Statistics. Here you can view the amount of packets that pass through the DI-524 on both the WAN and the LAN ports. The traffic counter will reset if the device is rebooted.

Status > Wireless

The screenshot shows the configuration page for a D-Link AirPlus G 802.11g/2.4GHz Wireless Router. The page is titled "DI-524" and has a navigation menu with "Home", "Advanced", "Tools", "Status", and "Help". The "Status" menu item is highlighted. The main content area is titled "Connected Wireless Client List" and contains the text: "The Wireless Client table below displays Wireless clients Connected to the AP (Access Point)." Below this text is a table with three columns: "Connected Time", "MAC Address", and "Mode". A "Help" icon (a red circle with a white plus sign) is located to the right of the text.

Connected Time	MAC Address	Mode
----------------	-------------	------

The wireless client table displays a list of current connected wireless clients. This table also displays the connection time and MAC address of the connected wireless client.

Click on **Help** at any time, for more information.

Networking Basics

Using the Network Setup Wizard in Windows XP

In this section you will learn how to establish a network at home or work, using **Microsoft Windows XP**.

Note: Please refer to websites such as <http://www.homenethelp.com> and <http://www.microsoft.com/windows2000> for information about networking computers using Windows 2000, ME or 98.

Go to **Start>Control Panel>Network Connections**
Select **Set up a home or small office network**



When this screen appears, **Click Next**.

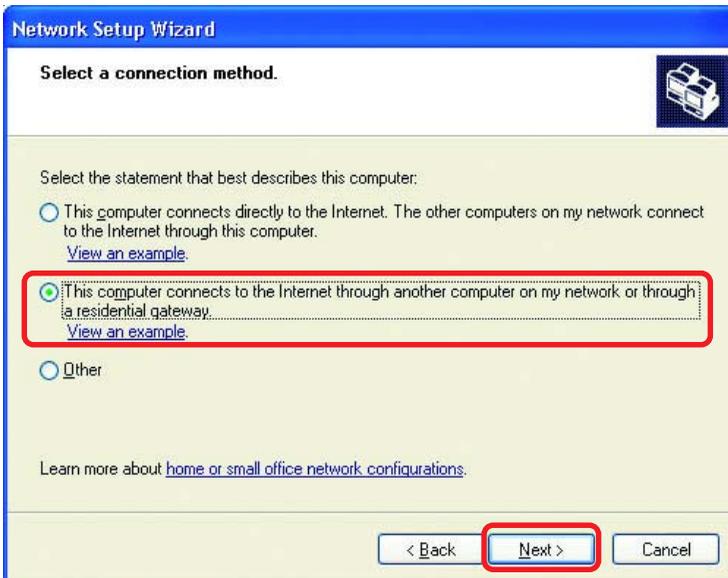
Networking Basics

Please follow all the instructions in this window:



Click **Next**

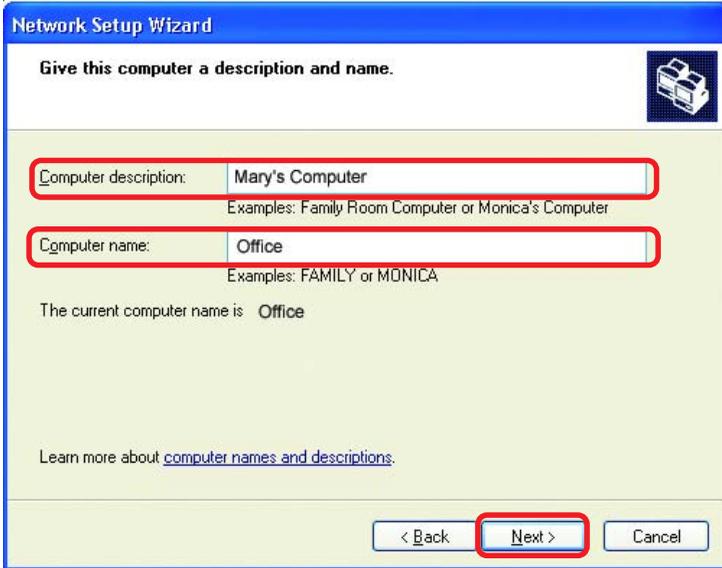
In the following window, select the best description of your computer. If your computer connects to the internet through a gateway/router, select the second option as shown.



Click **Next**

Networking Basics

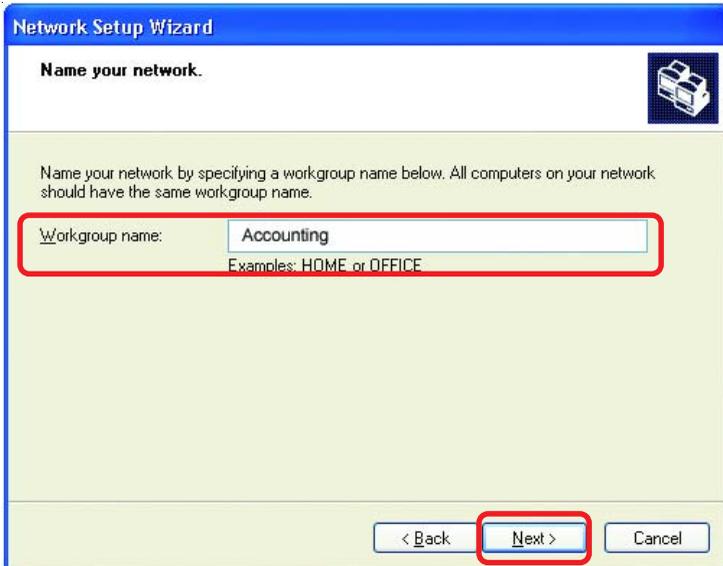
Enter a **Computer description** and a **Computer name** (optional.)



The screenshot shows the 'Network Setup Wizard' dialog box with the title 'Give this computer a description and name.' The dialog has a blue header and a light green body. At the top right is a printer icon. There are two text input fields: the first is labeled 'Computer description:' and contains the text 'Mary's Computer'; the second is labeled 'Computer name:' and contains the text 'Office'. Below the first field are examples: 'Examples: Family Room Computer or Monica's Computer'. Below the second field are examples: 'Examples: FAMILY or MONICA'. Below the fields, it says 'The current computer name is Office'. At the bottom, there are three buttons: '< Back', 'Next >', and 'Cancel'. The 'Next >' button is highlighted with a red rectangle.

Click **Next**

Enter a **Workgroup** name. All computers on your network should have the same **Workgroup** name.

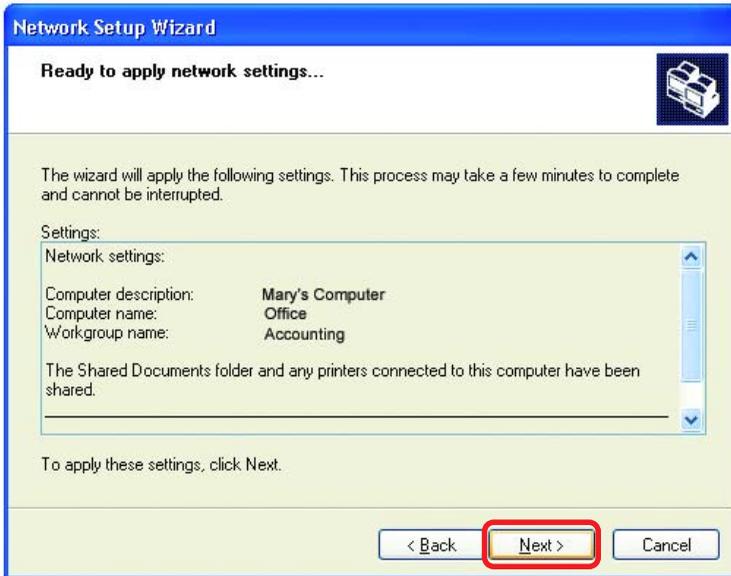


The screenshot shows the 'Network Setup Wizard' dialog box with the title 'Name your network.' The dialog has a blue header and a light green body. At the top right is a printer icon. The text says 'Name your network by specifying a workgroup name below. All computers on your network should have the same workgroup name.' There is one text input field labeled 'Workgroup name:' containing the text 'Accounting'. Below the field are examples: 'Examples: HOME or OFFICE'. At the bottom, there are three buttons: '< Back', 'Next >', and 'Cancel'. The 'Next >' button is highlighted with a red rectangle.

Click **Next**

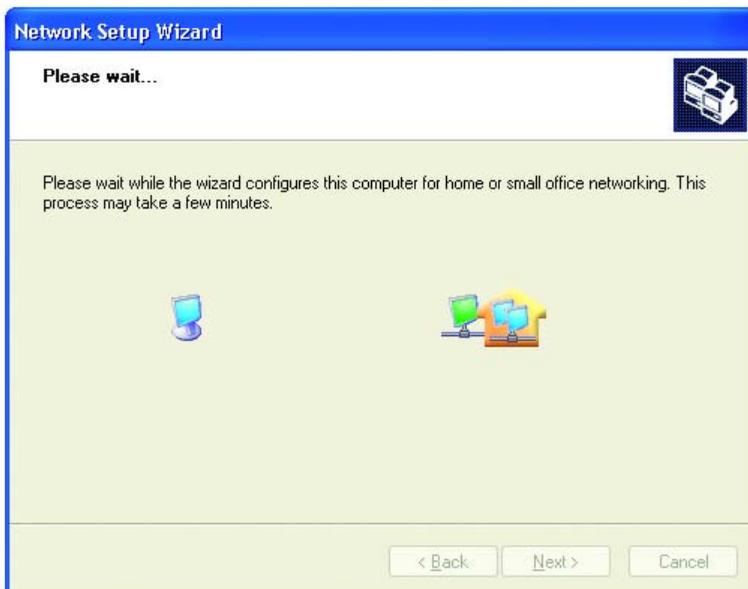
Networking Basics

Please wait while the **Network Setup Wizard** applies the changes.



When the changes are complete, click **Next**.

Please wait while the **Network Setup Wizard** configures the computer. This may take a few minutes.



Networking Basics

In the window below, select the option that fits your needs. In this example, **Create a Network Setup Disk** has been selected. You will run this disk on each of the computers on your network. Click **Next**.



Insert a disk into the Floppy Disk Drive, in this case drive **A**.



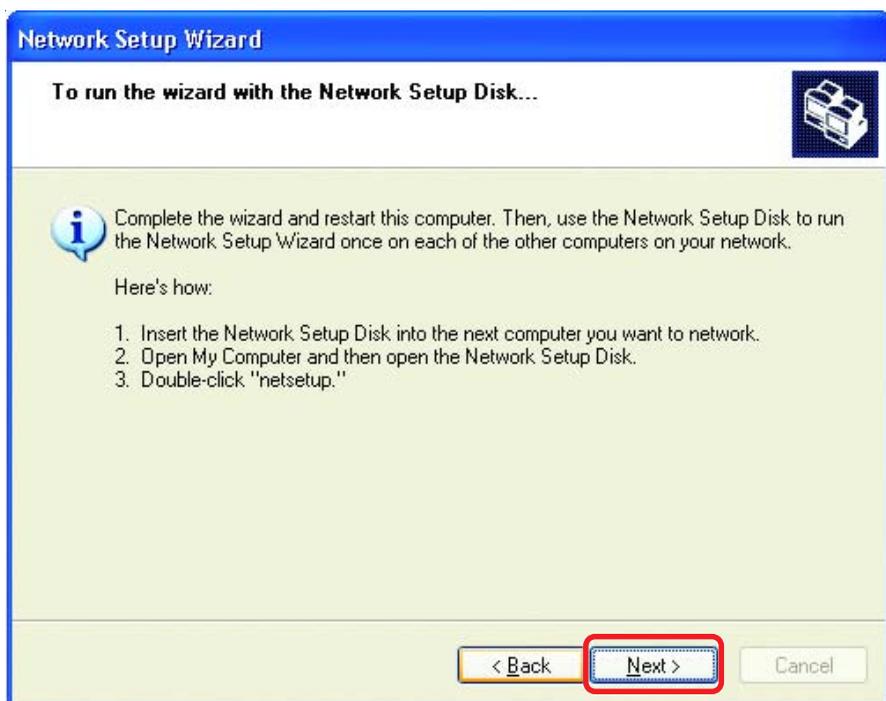
Click **Next**.

Networking Basics

Please wait while the **Network Setup Wizard** copies the files.



Please read the information under **Here's how** in the screen below. After you complete the **Network Setup Wizard** you will use the **Network Setup Disk** to run the **Network Setup Wizard** once on each of the computers on your network. To continue click **Next**.



Networking Basics

Please read the information on this screen, then click **Finish** to complete the **Network Setup Wizard**.



The new settings will take effect when you restart the computer. Click **Yes** to restart the computer.



You have completed configuring this computer. Next, you will need to run the **Network Setup Disk** on all the other computers on your network. After running the **Network Setup Disk** on all your computers, your new wireless network will be ready to use.

Networking Basics

Naming your Computer

To name your computer, please follow these directions: In **Windows XP**:

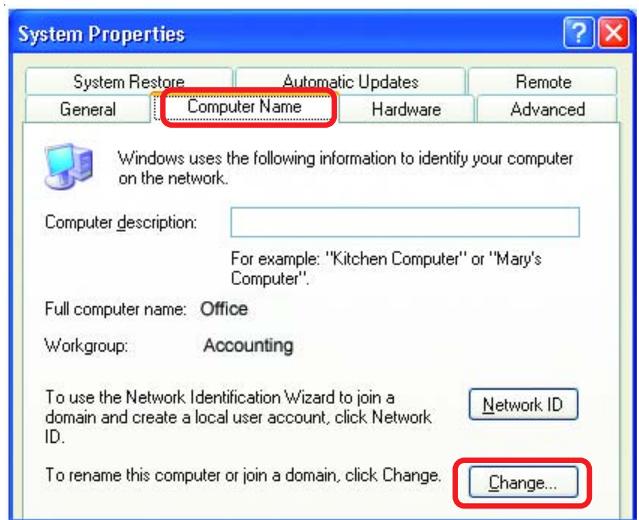
- Click **Start** (in the lower left corner of the screen).
- **Right-click** on **My Computer**.
- Select **Properties** and click.



- Select the **Computer Name Tab** in the System Properties window.

- You may enter a **Computer Description** if you wish; this field is optional.

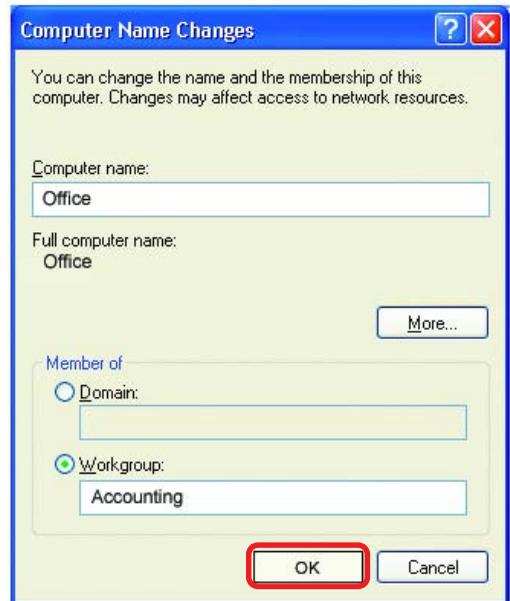
- To rename the computer and join a domain, Click **Change**.



Networking Basics

Naming your Computer

- In this window, enter the **Computer name**.
- Select **Workgroup** and enter the name of the **Workgroup**.
- All computers on your network must have the same **Workgroup** name.
- Click **OK**.



Checking the IP Address in Windows XP

The wireless adapter-equipped computers in your network must be in the same IP Address range (see Getting Started in this manual for a definition of IP Address Range.) To check on the IP Address of the adapter, please do the following:

- Right-click on the **Local Area Connection icon** in the task bar.
- Click on **Status**.



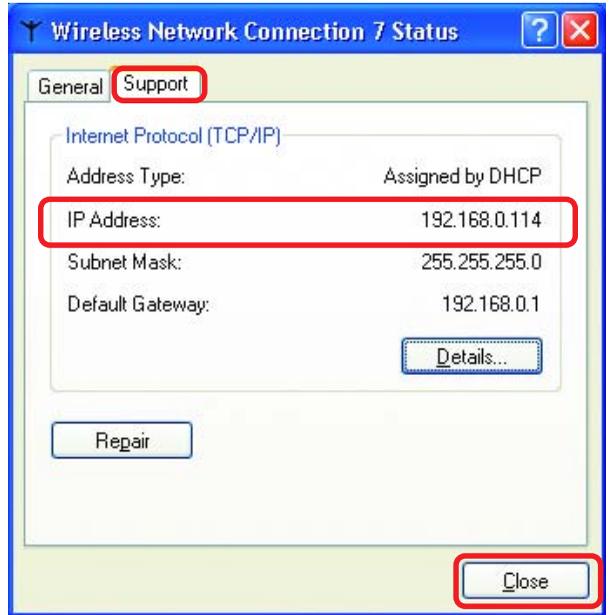
Networking Basics

Checking the IP Address in Windows XP

This window will appear.

- Click the **Support** tab

- Click **Close**



Assigning a Static IP Address in Windows XP/2000

Note: Residential Gateways/Broadband Routers will automatically assign IP Addresses to the computers on the network, using DHCP (Dynamic Host Configuration Protocol) technology. If you are using a DHCP-capable Gateway/Router you will not need to assign Static IP Addresses.

If you are not using a DHCP capable Gateway/Router, or you need to assign a Static IP Address, please follow these instructions:

- Go to **Start**

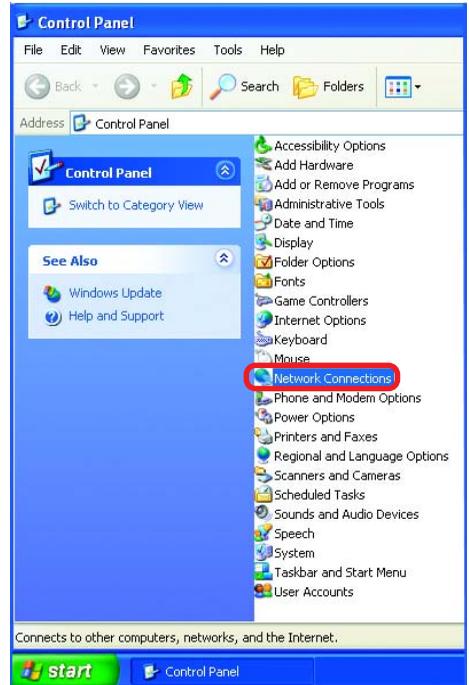
- Double-click on **Control Panel**



Networking Basics

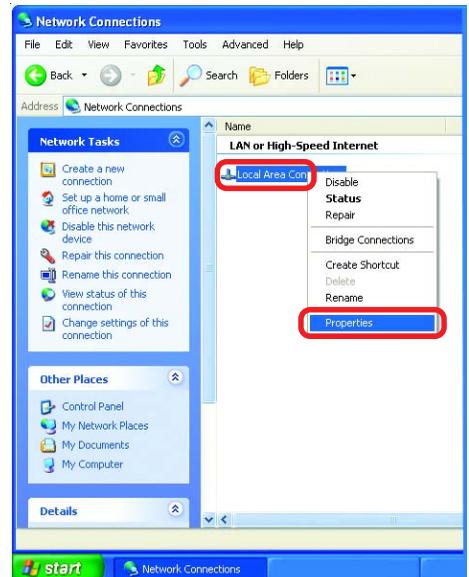
Assigning a Static IP Address in Windows XP/2000

- Double-click on **Network Connections**



- Right-click on **Local Area Connections**

- Double-click on **Properties**



Networking Basics

Assigning a Static IP Address in Windows XP/2000

- Click on **Internet Protocol (TCP/IP)**
- Click **Properties**
- Input your **IP address and subnet mask**. (The IP Addresses on your network must be within the same range. For example, if one computer has an IP Address of 192.168.0.2, the other computers should have IP Addresses that are sequential, like 192.168.0.3 and 192.168.0.4. The subnet mask must be the same for all the computers on the network.)
- **Select Use the following IP address** in the **Internet Protocol (TCP/IP) Properties** window (*shown below*)
- Input your **DNS server addresses**. (Note: If you are entering a DNS server, you must enter the IP Address of the **Default Gateway**.)

The DNS server information will be supplied by your ISP (Internet Service Provider.)

- Click **OK**

