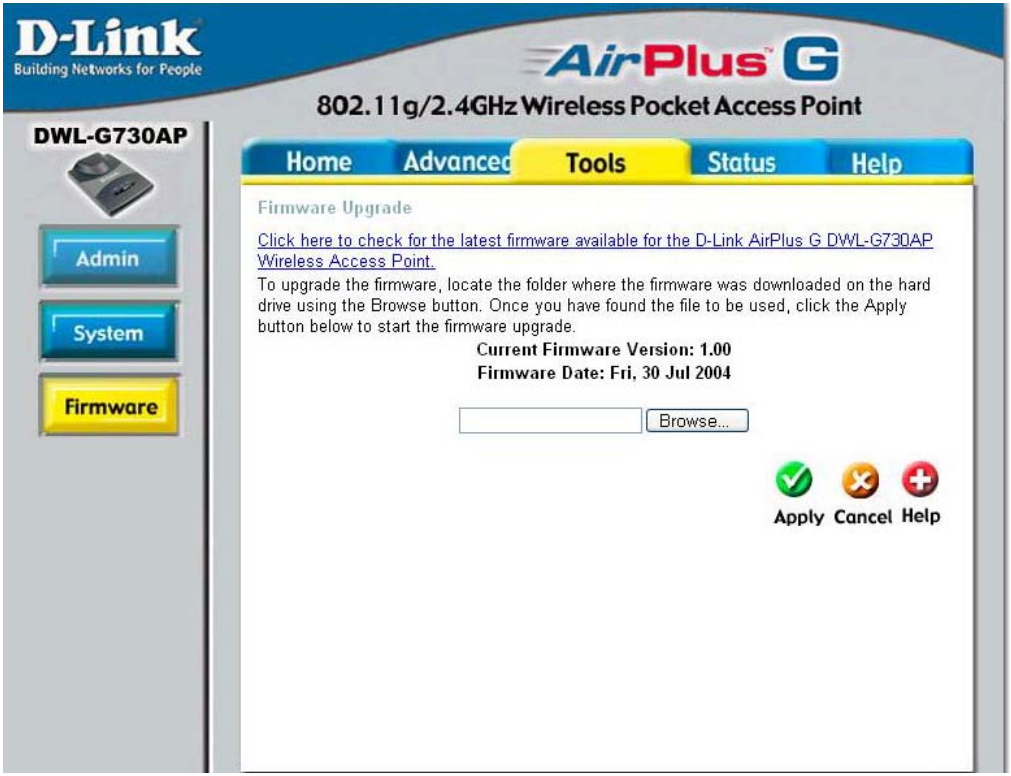
Using the Configuration Utility in AP Client Mode (continued)

Tools > Firmware



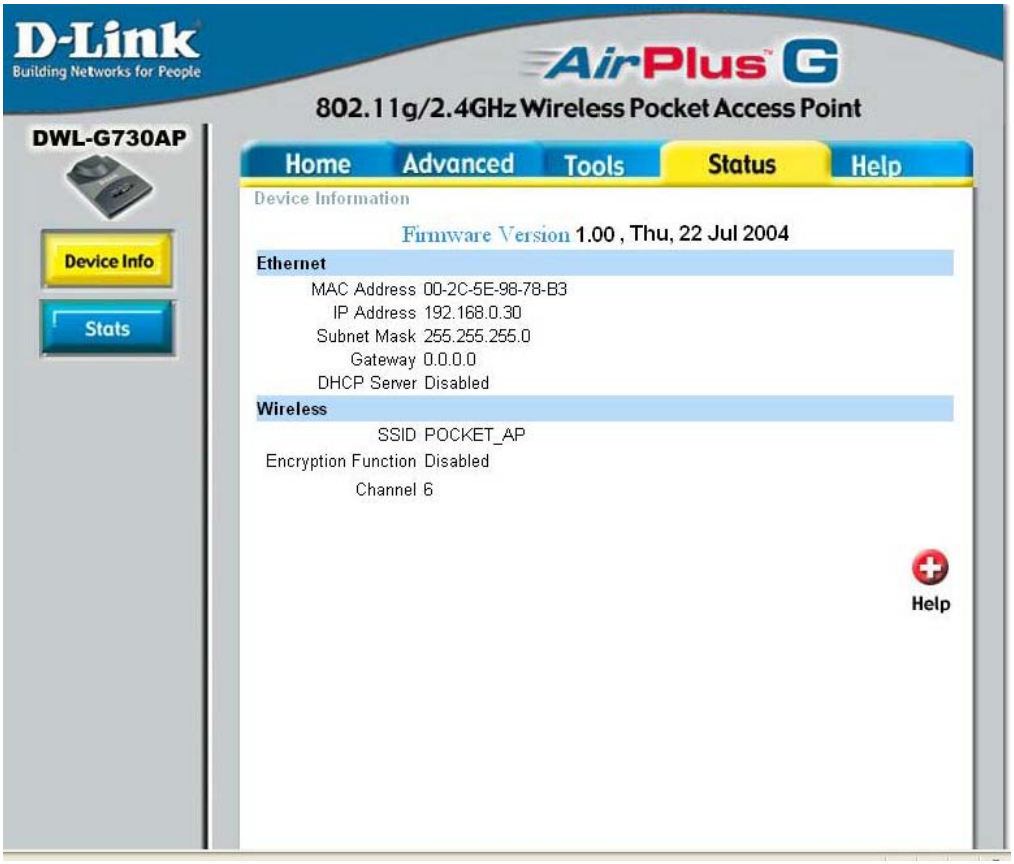
You can upgrade the firmware of the router here. Make sure the firmware you want to use is on the local hard drive of the computer. Check the D-Link support site for firmware updates at http://support.dlink.com and download firmware upgrades to your hard drive. After you have downloaded the firmware upgrade to your hard drive, click **Browse** to browse the local hard drive and locate the firmware to be used for the update.

Firmware Upgrade- Click on the link in this screen to find out if there is 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 Utility in AP Client Mode (continued)

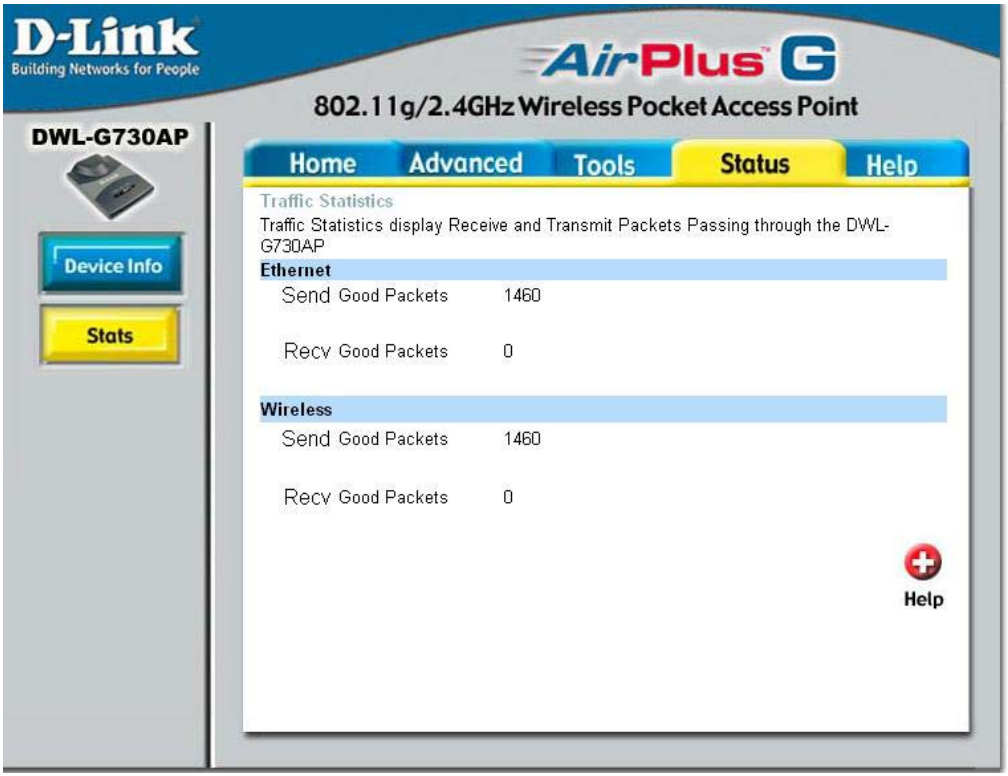
Status > Device Info



This screen displays the current firmware version, and the current wireless and Ethernet settings of the DWL-G730AP.

Using the Configuration Utility in AP Client Mode (continued)

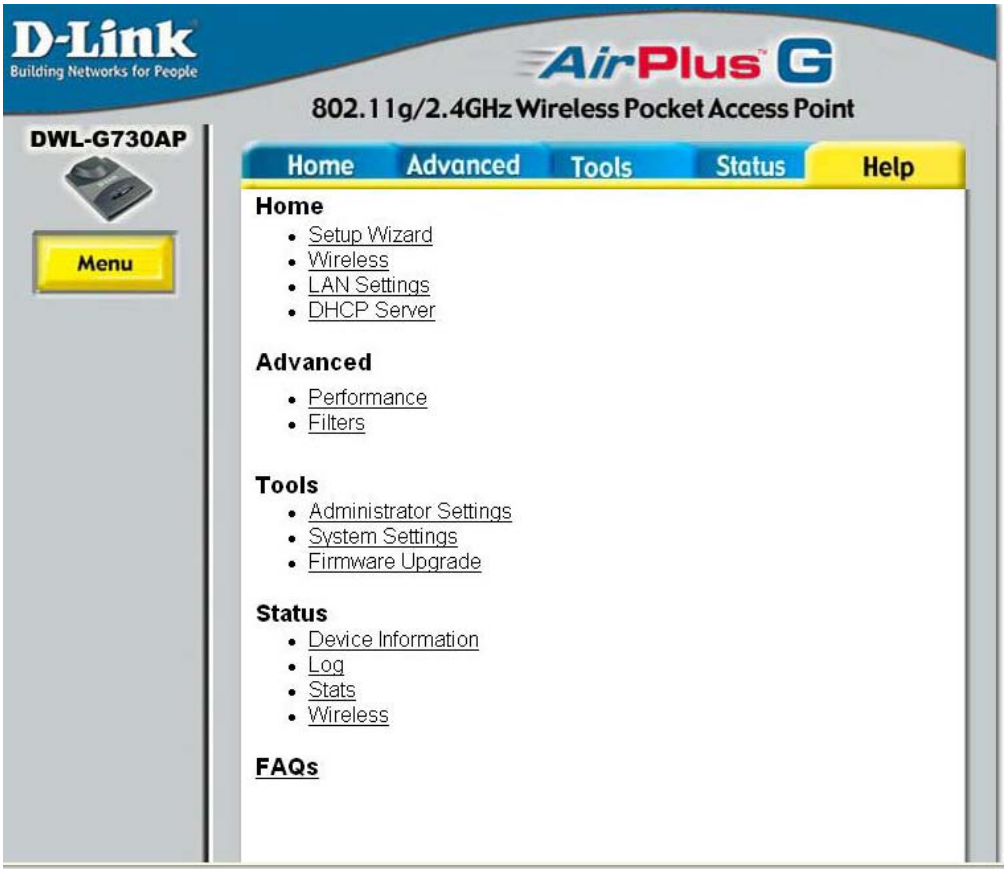
Status > Stats



This screen displays theTraffic Statistics. Here you can view the amount of packets that pass through the DWL-G730AP on both the Ethernet and the wireless networks. The traffic counter will reset if the device is rebooted.

Using the Configuration Utility in AP Client Mode (continued)

Help



The Help menu is displayed here. Click on a topic to learn more about it.

Using the Configuration Utility in Router Mode

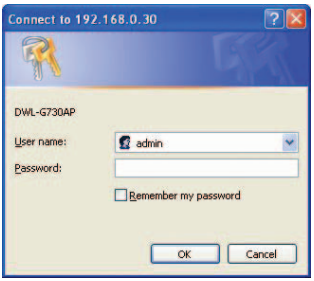
To configure the DWL-G730AP in Router mode, you must be connected to the router via a wireless network adapter. The LAN Port on the unit functions as a WAN port when the DWL-G730AP is operating in Router mode. To run the setup wizard, establish a wireless connection with the DWL-G730AP and follow the steps below.

To use the DWL-G730AP as a router, toggle the switch on the back of the unit.

- Open the Web browser
- Type in the **IP address** of the router (http://192.168.0.30)

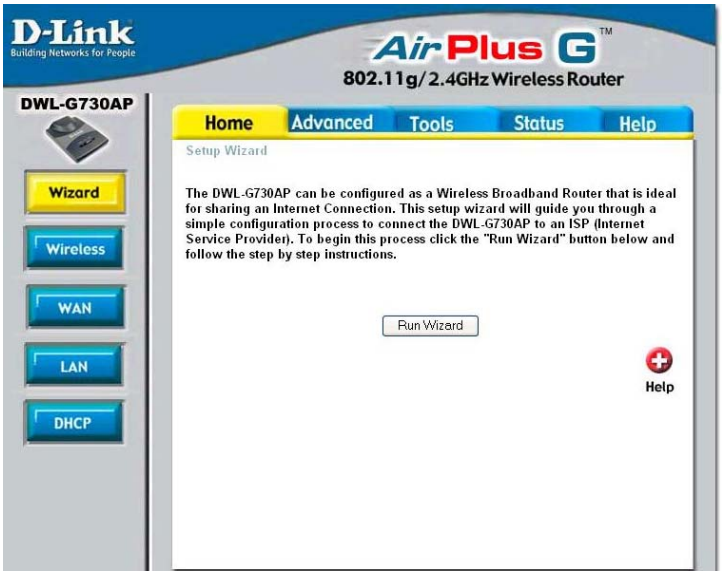
Note: if you have changed the default IP address assigned to the DWL-G730AP, make sure to enter the correct IP address.

- Type **admin** in the **User Name** field
- Leave the **Password** blank
- Click **OK**



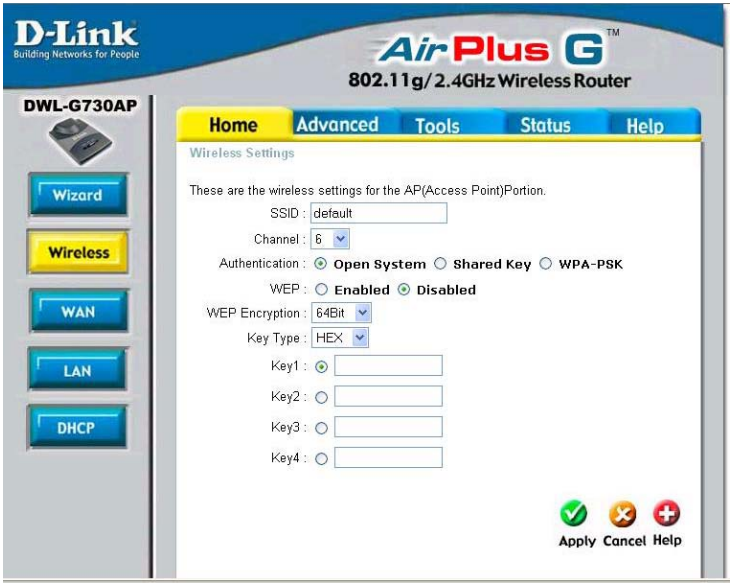
Home > Wizard

The Home>Wizard screen will appear. Please refer to the *Quick Installation Guide* for more information regarding the Setup Wizard.



Using the Configuration Utility in Router Mode (continued)

Home > Wireless



SSID-

Service Set Identifier (SSID) is the name designated for a specific wireless local area network (WLAN). The SSID's factory default setting is **default**. The SSID can be easily changed to connect to an existing wireless network or to establish a new wireless network.

Channel- **6** is the default channel. All devices on the network must share the same channel.

Authentication- Select **Open System** to communicate the key across the network.

Select **Shared Key** to limit communication only to those devices that share the same WEP settings.

Select **WPA-PSK** to select *Wi-Fi Protected Access* without a RADIUS server.

WEP- Wired Equivalent Privacy (WEP) is a wireless security protocol for Wireless Local Area Networks (WLAN). WEP provides security by encrypting the data that is sent over the WLAN. Select **Enabled** or **Disabled. Disabled** is the default setting.

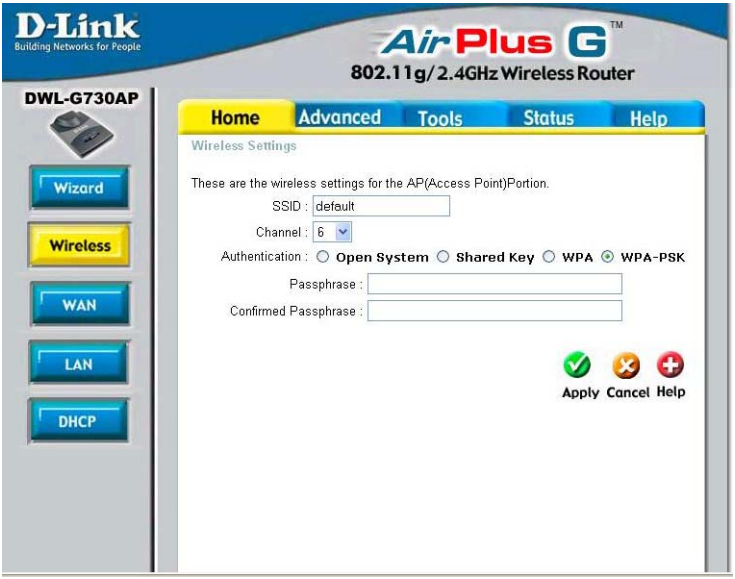
WEP Encryption- Select the level of encryption desired: 64-bit, or 128-bit.

Key Type- Select **HEX** or **ASCII.**

Keys 1-4- Input up to 4 WEP keys; select the one you wish to use.

Using the Configuration Utility in Router Mode (continued)

Home > Wireless > WPA-PSK



SSID: (Service Set Identifier) default is the default setting. The SSID is a unique name that identifies a network. All devices on a network must share the same SSID name in order to communicate on the network. If you choose to change the SSID from the default setting, input your new SSID name in this field.

Channel: Channel **6** is the default channel. Input a new number if you want to change the default setting. All devices on the network must be set to the same channel to communicate on the network.

Authentication:

When **WPA-PSK** is selected fill in the following fields:

Passphrase: Enter the Passphrase here.

Confirmed Passphrase: Confirm the Passphrase here.

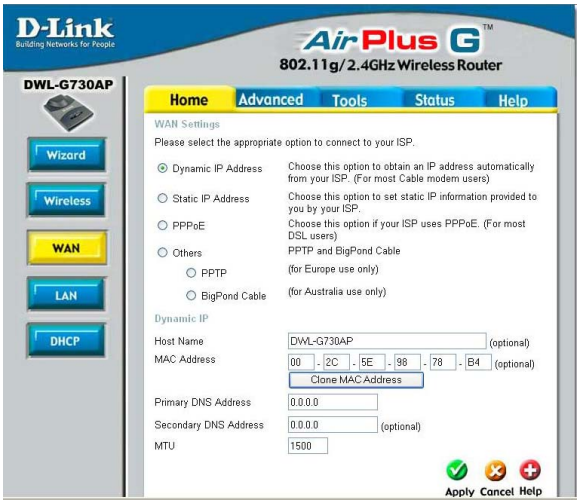
Apply: Click **Apply** to apply the changes.

Using the Configuration Utility in Router Mode (continued)

Home > WAN > Dynamic IP Address

Dynamic IP Address is selected here.

Other options include: **Static IP Address** (if your ISP provides you with a static IP address), **PPPoE** (for most DSL users), **PPTP** (for Europe) and **BigPond Cable** (for Australia).



Dynamic IP Address- Choose **Dynamic IP Address** to obtain an IP address automatically.

Host Name- The Host Name is optional but may be required by some ISPs. The default host name is the device name of the router and may be changed.

MAC Address- The default MAC address is set to the WAN's physical interface MAC address on the router. It is not recommended that you change the default MAC address unless required by your ISP.

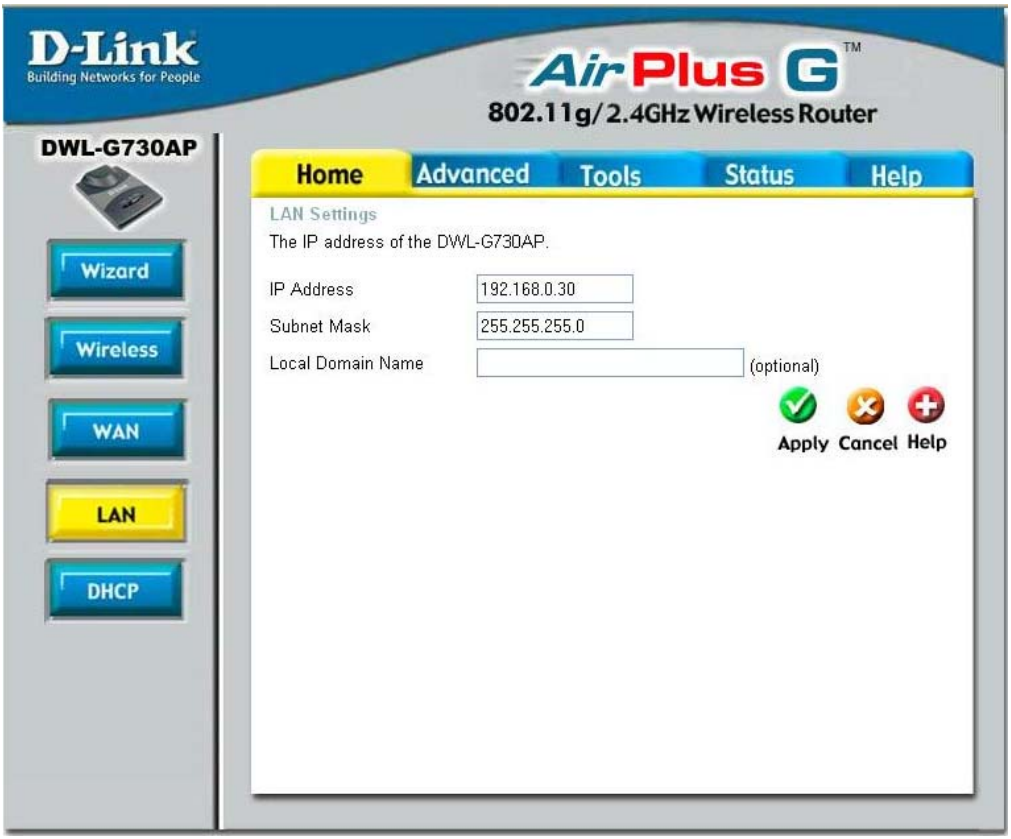
Clone MAC Address- The default MAC address is set to the WAN's physical interface MAC address on the router. You can use the "Clone MAC Address" button to copy the MAC address of the Ethernet Card installed by your ISP and replace the WAN MAC address with the MAC address of the router. It is not recommended that you change the default MAC address unless required by your ISP.

Primary/ Secondary DNS Address- Enter a DNS address if you do not wish to use the one provided by your ISP.

MTU- Maximum Transmission Unit-1500 is the default setting- Enter an MTU value only if required by your ISP. Otherwise, leave it at the default setting.

Using the Configuration Utility in Router Mode (continued)

Home > LAN



LAN is short for Local Area Network. This is considered your internal network. These are the IP settings of the LAN interface for the DWL-G730AP. These settings may be referred to as Private settings. You may change the LAN IP address if needed. The LAN IP address is private to your internal network and cannot be seen on the Internet.

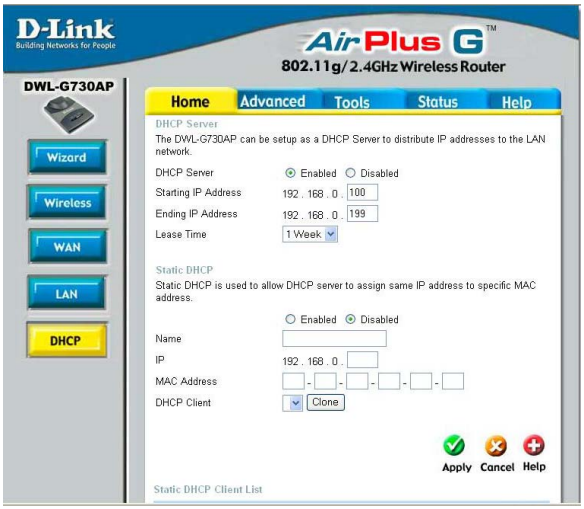
IP Address- The IP address of the LAN interface. The default IP address is: **192.168.0.30**

Subnet Mask- The subnet mask of the LAN interface. The default subnet mask is **255.255.255.0**

Local Domain- This field is optional. Enter in the local domain name.

Using the Configuration Utility in Router Mode (continued)

Home > DHCP



DHCP stands for *Dynamic Host Control Protocol*.

The DWL-G730AP 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 DWL-G730AP. 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.

DHCP Server- Select **Enabled** or **Disabled.** The **default** setting is **Enabled.**

Starting IP Address- The starting IP address for the DHCP server's IP assignment.

Ending IP Address- The ending IP address for the DHCP server's IP assignment.

Lease Time- The length of time for the IP lease. Enter the Lease time. The default setting is one hour.

Static DHCP is used to allow the DHCP server to assign some Static IP addresses via specific MAC addresses.

Static DHCP- Select **Enabled** or **Disabled**.

Name- Enter a name here.

IP- Enter the last digits of the IP address here.

MAC Address- Enter the MAC address of the computer that will be assigned the Static DHCP IP address.

DHCP Client- Use this pull-down list to list DHCP clients on your network. To copy the MAC address into the MAC address section above, simply select the client from the pull-down list and click the **Clone** button.

Using the Configuration Utility in Router Mode (continued)

Advanced > Virtual Server

The DWL-G730AP can be configured as a virtual server so that remote users accessing Web or FTP services via the public IP address can be automatically redirected to local servers in the LAN (Local Area Network).

The DWL-G730AP firewall feature filters out unrecognized packets to protect your LAN network so all computers networked with the DWL-G730AP are invisible to the outside world. If you wish, you can make some of the LAN computers accessible from the Internet by enabling *Virtual Server.* Depending on the requested service, the DWL-G730AP redirects the external service request to the appropriate server within the LAN network.

The DWL-G730AP is also capable of port-redirection meaning incoming traffic to a particular port may be redirected to a different port on the server computer.

Each virtual service that is created will be listed at the bottom of the screen in the Virtual Servers List. There are pre-defined virtual services already in the table. You may use them by enabling them and assigning the server IP to use that particular virtual service.

Using the Configuration Utility in Router Mode (continued)

Advanced > Virtual Server (continued)

Virtual Server- Select **Enabled** or **Disabled.**

Name- Enter the name referencing the virtual service.

Private IP- The server computer in the LAN (Local Area Network) that will be providing the virtual services.

Protocol Type- The protocol used for the virtual service.

Private Port- The port number of the service used by the Private IP computer.

Public Port- The port number on the WAN (Wide Area Network) side that will be used to access the virtual service.

Schedule- The schedule of time when the virtual service will be enabled. The schedule may be set to **Always**, which will allow the particular service to always be enabled. If it is set to **From**, select the time frame for the service to be enabled. If the system time is outside of the scheduled time, the service will be disabled.

Example #1: If you have a Web server that you wanted Internet users to access at all times, you would need to enable it. Web (HTTP) server is on LAN (Local Area Network) computer 192.168.0.25. HTTP uses port 80, TCP.
Name: Web Server
Private IP: 192.168.0.25
Protocol Type: TCP
Private Port: 80
Public Port: 80
Schedule: always

Using the Configuration Utility in Router Mode (continued)

Advanced > Virtual Server (continued)

Virtual Servers List

	Name	Private IP
☒	Virtual Server HTTP	192.168.0.25

Click on this icon to edit the virtual service

Click on this icon to delete the virtual service

Example #2:

If you have an FTP server that you wanted Internet users to access by WAN port 2100 and only during the weekends, you would need to enable it as such. FTP server is on LAN computer 192.168.0.30. FTP uses port 21, TCP.

Name: FTP Server
Private IP: 192.168.0.30
Protocol Type: TCP
Private Port: 21
Public Port: 2100

Schedule: From: 01:00AM to 01:00AM, Sat to Sun

All Internet users who want to access this FTP Server must connect to it from port 2100. This is an example of port redirection and can be useful in cases where there are many of the same servers on the LAN network.

Using the Configuration Utility in Router Mode (continued)

Advanced > Applications

Some applications such as Internet gaming, video conferencing, Internet telephony and others, require multiple connections. These applications save difficulties working through NAT (Network Address Translation). Special Applications makes some of these applications work with the DWL-G730AP. If you need to run applications that require multiple connections, specify the port normally associated with an application in the "Trigger Port" field, select the protocol type as TCP or UDP, then enter the public ports associated with the trigger port to open them for inbound traffic.

Note! *Only one PC can use each Special Application tunnel.*

Name: This is the name referencing the special application.

Trigger Port: This is the port used to trigger the application. It can be either a single port or a range of ports.

Trigger Type: This is the protocol used to trigger the special application.

Public 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.

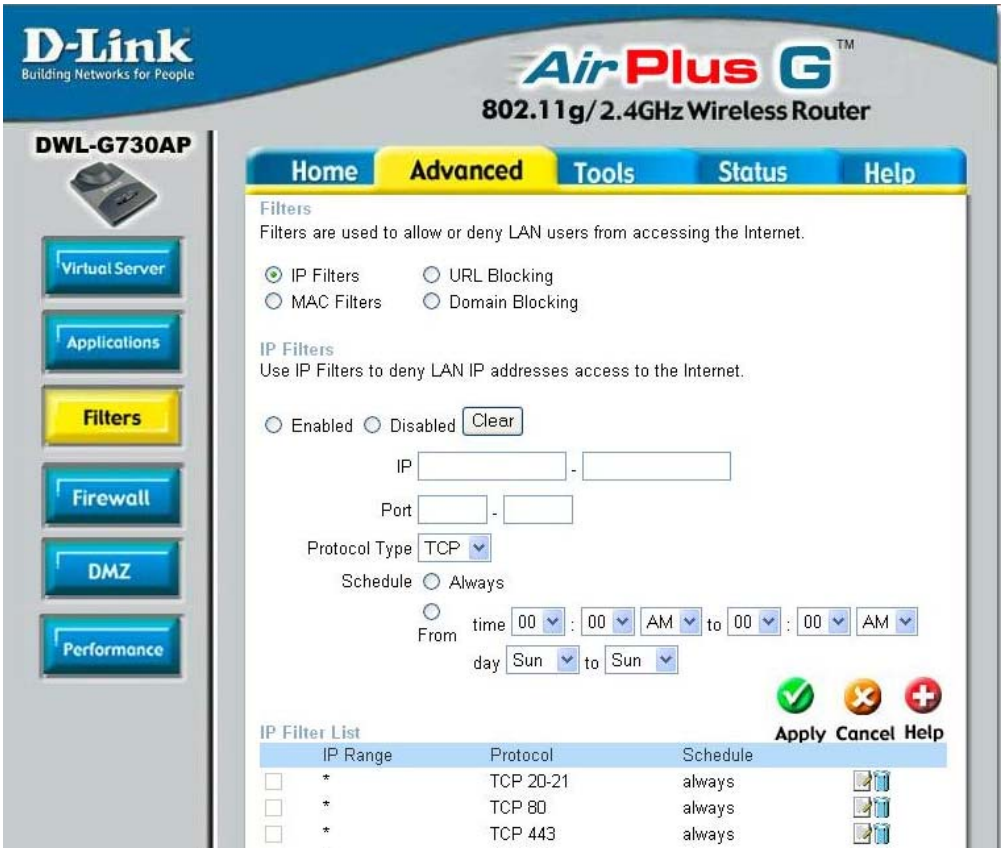
Public Type: This is the protocol used for the special application.

Special Applications List

The DWL-G730AP provides some predefined applications in the table on the bottom of the Web page. Select the application you want to use and enable it.

Using the Configuration Utility in Router Mode (continued)

Advanced > Filters > IP Filters



Filters are used to deny or allow LAN (Local Area Network) computers from accessing the Internet. The DWL-G730AP can be setup to deny internal computers by their IP or MAC addresses. The DWL-G730AP can also block users from accessing restricted web sites.

IP Filters: Use IP Filters to deny LAN IP addresses from accessing the Internet. You can deny specific port numbers or all ports for the specific IP address.

IP: The IP address of the LAN computer that will be denied access to the Internet.

Port: The single port or port range that will be denied access to the Internet.

Protocol Type: Select the protocol type

Schedule: This is the schedule of time when the IP Filter will be enabled.

Using the Configuration Utility in Router Mode (continued)

Advanced > Filters > URL Blocking

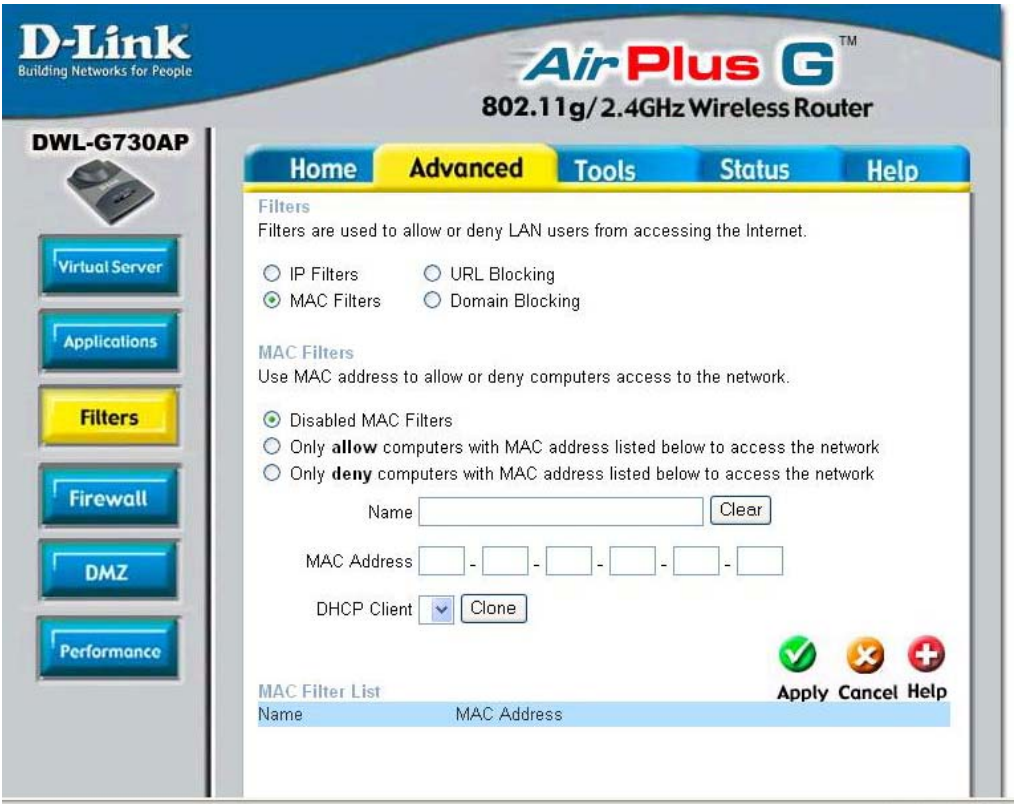
URL Blocking: Select **Enable** or **Disable**. Enter the words or word contained in the URL that you wish to block. Click **Apply** to activate the URL blocking.

Delete: Select **the URL block that you want to delete. Click Delete.**

Apply: Click **Apply** to save changes.

Using the Configuration Utility in Router Mode (continued)

Advanced > Filters > MAC Filters



Disable MAC Filters: Click to **Disable** MAC Filters.

Allow: Allow only those devices with the listed MAC addresses access to the network**.**

Deny: Deny the devices that are listed from accessing the network.

Name: Enter a name for the device.

Clear: Click Clear to erase the name.

MAC Address: Enter the MAC address manually.

Clone: Select the **DHCP Client** from the pull-down list and click **Clone** to enter the MAC address into the list.

Apply: Click Apply to save the changes.

Using the Configuration Utility in Router Mode (continued)

Advanced > Filters > Domain Blocking

Disable: Click **Disable** to disable domain blocking.

Allow: Click **Allow** to allow access to all domains except **Blocked Domains**.

Deny: Click **Deny** to deny access to all domains except **Permitted Domains**.

Permitted Domains: Enter the permitted domains here. Click **Apply**.

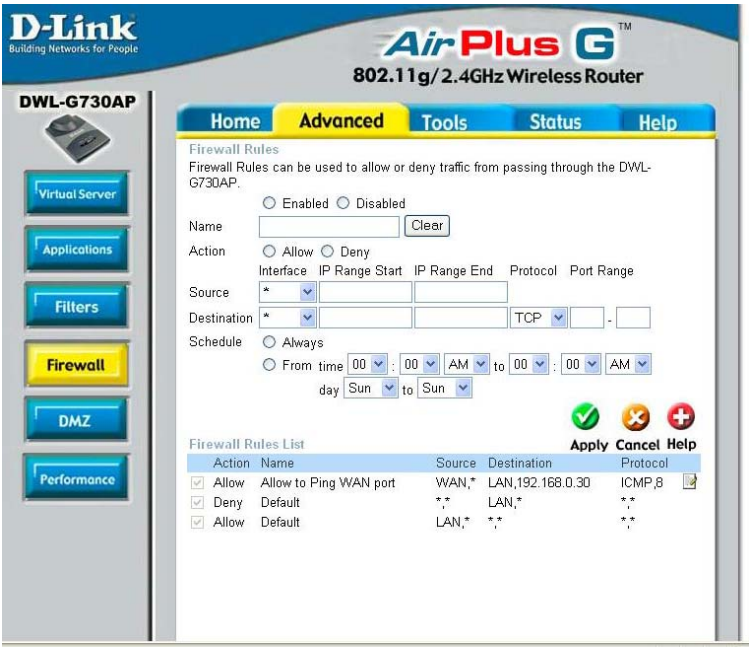
Blocked Domains: Enter the blocked domains here. Click **Apply**.

Delete: Select a domain from either the permitted or blocked domain list, and click **Delete** to delete this domain.

Using the Configuration Utility in Router Mode (continued)

Advanced > Firewall

Firewall Rules is an advanced feature used to deny or allow traffic from passing through the DWL-G730AP. It works in the same way as IP Filters with additional settings. You can create more detailed access rules for the DWL-G730AP. 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).



Note:
The DWL-G730AP 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**

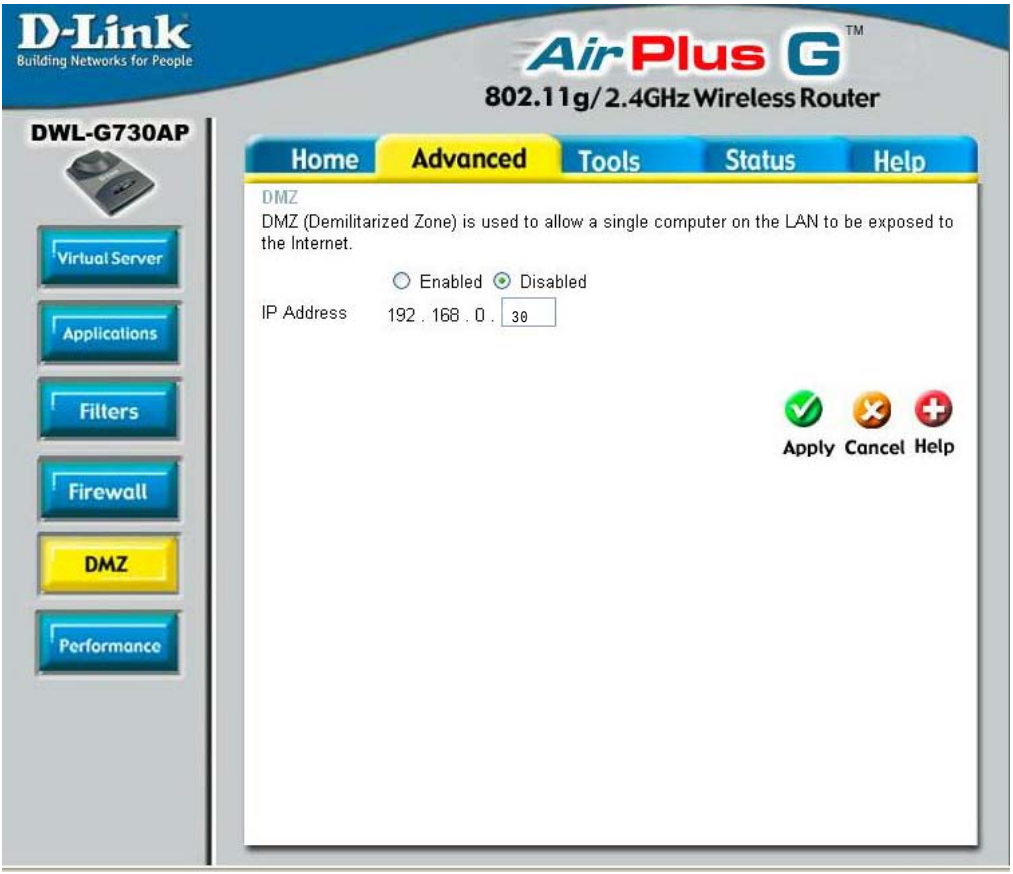
Destination- Enter the **IP Address range**; the **Protocol**; and the **Port Range**

Schedule- Select **Always** or enter the **Time Range**.

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

Using the Configuration Utility in Router Mode (continued)

Advanced > DMZ



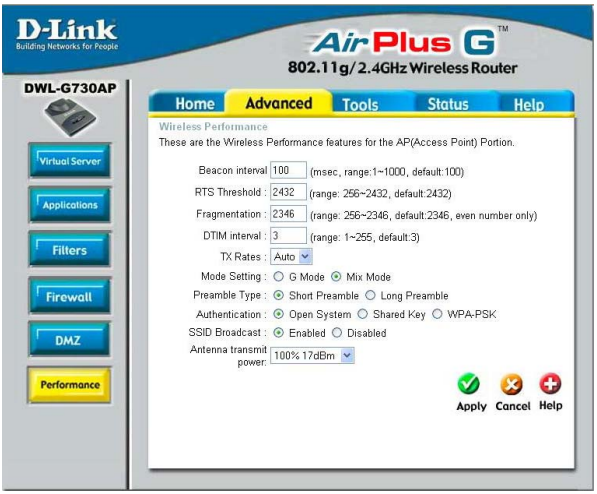
If you have a client PC that cannot run Internet applications properly from behind the DWL-G730AP, then you can set the client up for unrestricted Internet access. Allowing a computer to be exposed to the Internet, this feature is useful for gaming purposes. Enter the IP address of the internal computer that will be the DMZ host. Using the DMZ (Demilitarized Zone) feature 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 Utility in Router Mode (continued)

Advanced > Performance



Beacon Interval: Beacons are packets sent by an access point to synchronize a wireless network. Specify a beacon interval value. Default (100) is recommended.

RTS Threshold: This value should remain at its default setting of 2432. If you encounter inconsistent data flow, only minor modifications to the value range between 256 and 2432 are recommended.

Fragmentation: This value should remain at its default setting of 2346. If you experience a high packet error rate, you may slightly increase your fragmentation threshold within the value range of 256 to 2346. Setting the fragmentation threshold too low may result in poor performance.

DTIM Interval (Beacon Rate): (Delivery Traffic Indication Message) Enter a value between 1 and 255 (default is 3) for the Delivery Traffic Indication Message (DTIM.) A DTIM is a countdown informing clients of the next window for listening to broadcast and multicast messages.

TX Rates: Select the transmission rate for the network. The default setting is Auto.

Mode Setting: For utmost speed, select **G Mode** to include only 802.11g devices in your network. Select **Mix Mode** to include 802.11g and 802.11b devices in your network.

Preamble: **Short Preamble** is the default setting. (High traffic networks should use the shorter preamble type.) The preamble defines the length of the CRC block (Cyclic Redundancy Check is a common technique for detecting data transmission errors) used in communication between the access point and the wireless network adapters.

Authentication:

Select **Open System** to communicate the key across the network.

Select **Shared Key** to limit communication only to those devices that share the same WEP settings.

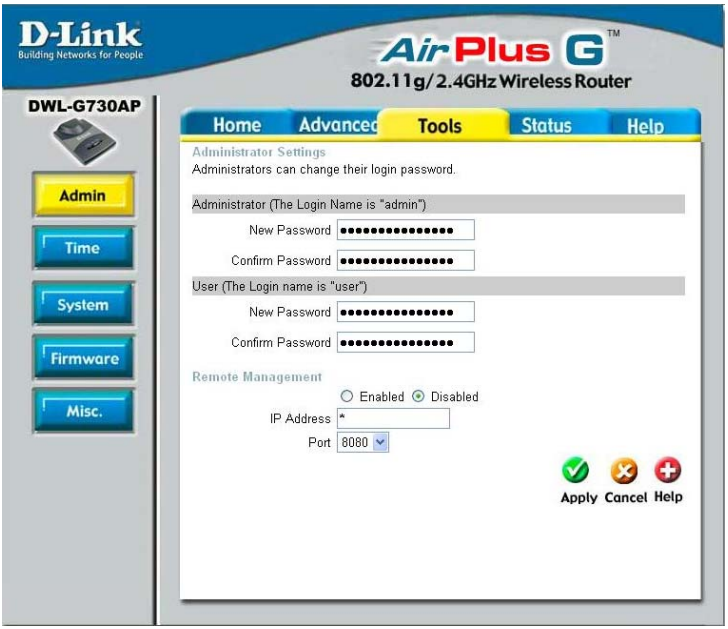
Select **WPA-PSK** to select *Wi-Fi Protected Access* without a RADIUS server.

SSID Broadcast: (Service Set Identifier) Enable or Disable (default) the broadcast of the SSID name across the network. SSID is a name that identifies a wireless network. All devices on a network must use the same SSID to establish communication.

Antenna Transmit Power: Select the transmission power of the antenna. Limiting antenna power can be useful for security purposes.

Using the Configuration Utility in Router Mode (continued)

Tools > Admin



At this page, the DWL-G730AP administrator can change the system password. There are two accounts that can access the router's Web-management interface. They are **admin** and **user**. **Admin** has read/write access while **user** has read-only access. The **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 DWL-G730AP 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.

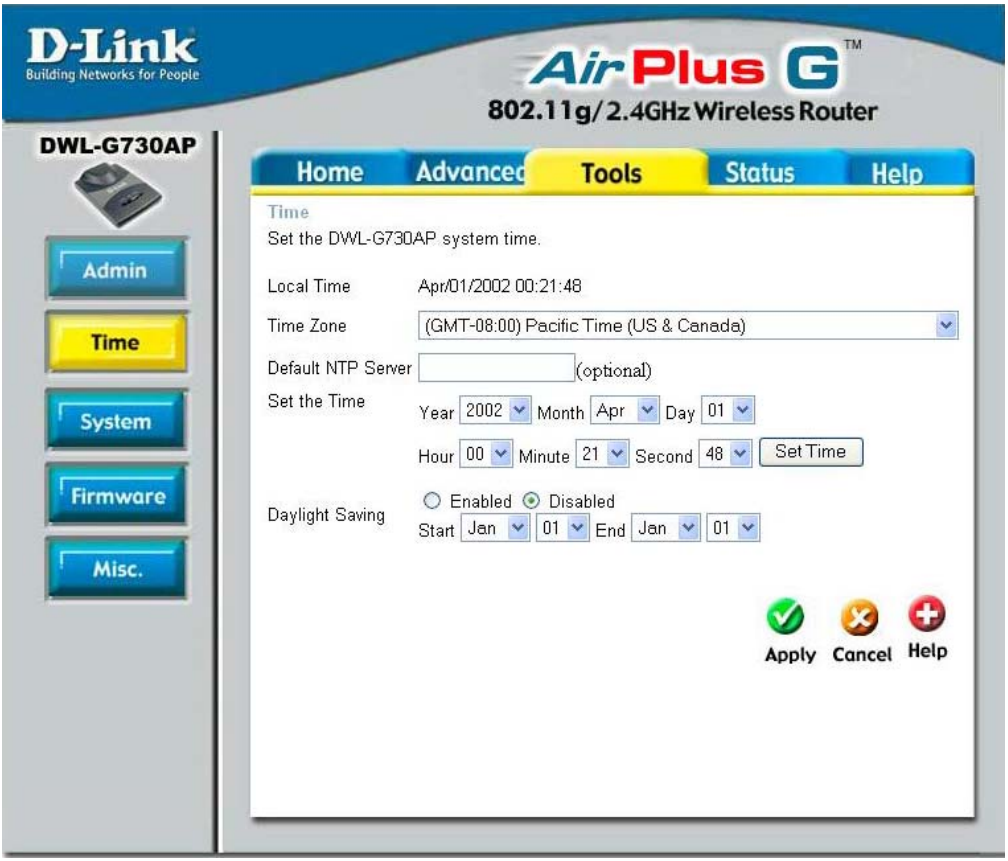
IP Address- The Internet IP address of the computer that has access to the router. If you input an asterisk (*) into this field, then any computer will be able to access the router. Putting an asterisk (*) into this field would present a security risk and is not recommended.

Port- The port number used to access the router.

Example- http://x.x.x.x:8080 where x.x.x.x is the WAN IP address of the router and 8080 is the port used for the Web-mangement interface.

Using the Configuration Utility in Router Mode (continued)

Tools > Time



Time Zone- Select the time zone from the pull-down menu.

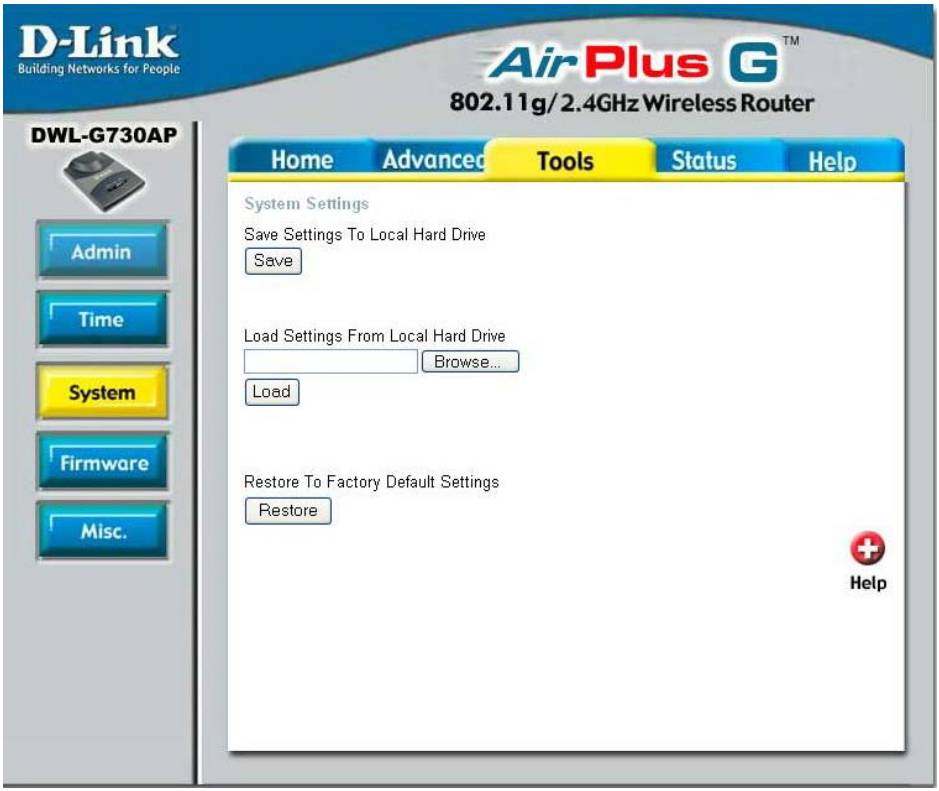
Default NTP Server- NTP is short for *Network Time Protocol.* NTP synchronizes computer clock times in a network of computers. This field is optional.

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 Utility in Router Mode (continued)

Tools > System



The current system settings can be saved as a file onto the local hard drive. To reload a system settings file, click on **Browse** to browse the local hard drive and locate the system file to be used.

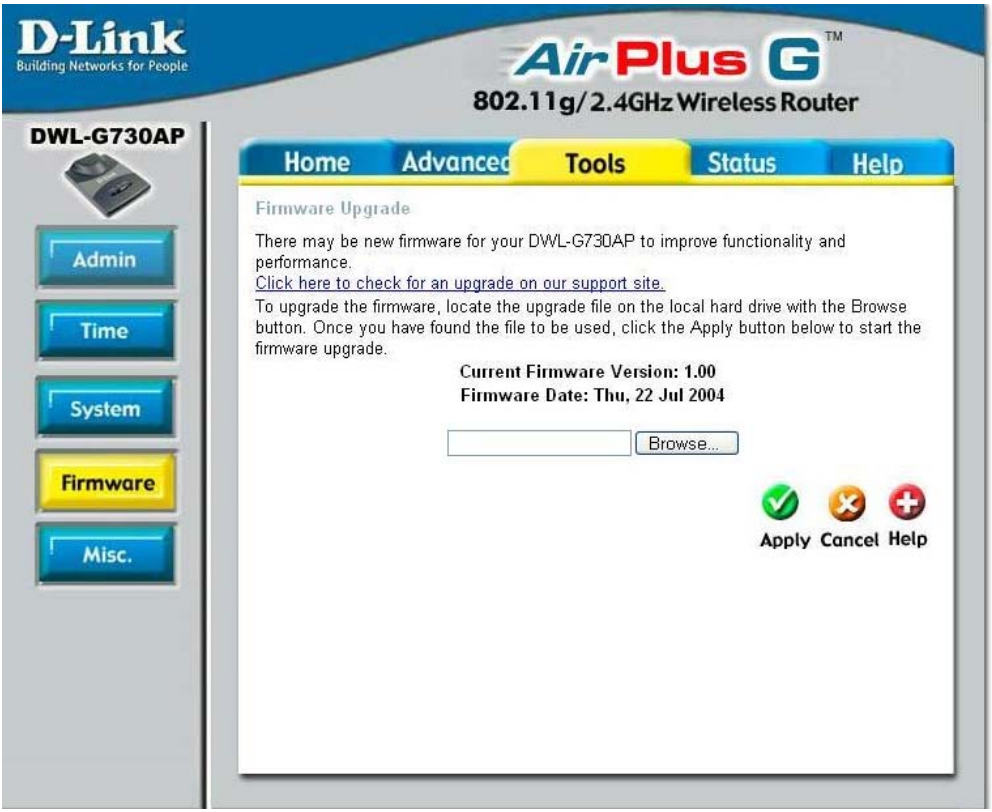
Save Settings to Local Hard Drive- Click **Save** to save the current settings to the local hard drive

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 Utility in Router Mode (continued)

Tools > Firmware



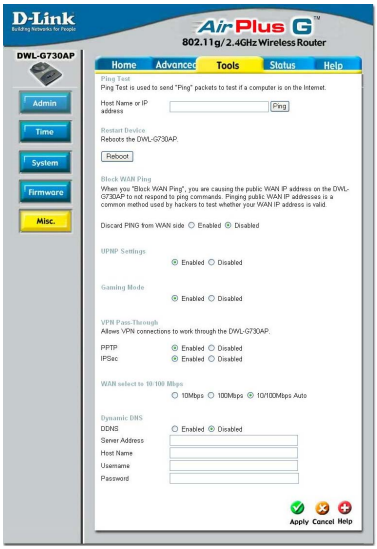
You can upgrade the firmware of the router here. Make sure the firmware you want to use is on the local hard drive of the computer. Please check the D-Link support site for firmware updates at http://support.dlink.com. You can download firmware upgrades to your hard drive from the D-Link support site.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

Firmware Upgrade- Click on the link in this screen to find out if there is 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 Utility in Router Mode (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 DWL-G730AP.

Block WAN Ping- If you choose to block WAN ping, the WAN IP address of the DWL-G730AP 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.

VPN Pass Through- The DWL-G730AP 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 DWL-G730AP. This is useful when you have many VPN clients on the LAN network.

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

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

WAN select to 10/100Mbps- Select the data rate : 10Mbps, 100Mbps or 10/100Mbps Auto.

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. Enter the IP address and Host Name of the Domain Name Server. Enter your Username and Password.

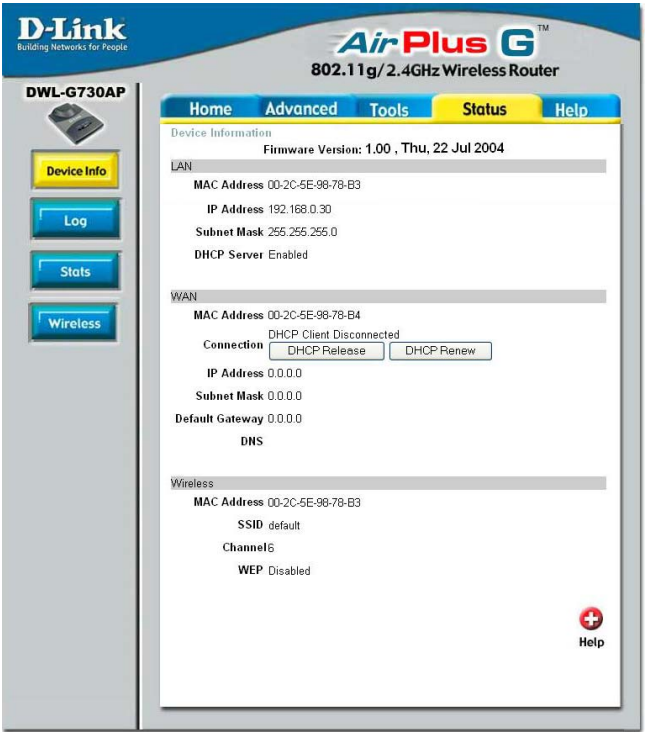
Apply- Click **Apply** to save the changes.

Status > Device Info

This page displays the current information for the DWL-G730AP. 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 display the following settings:

LAN

MAC address of the DWL-G730AP
IP Address: LAN/Private IP address of the DWL-G730AP
Subnet Mask: LAN/Private subnet mask
DHCP Server (Enabled or Disabled)

WAN

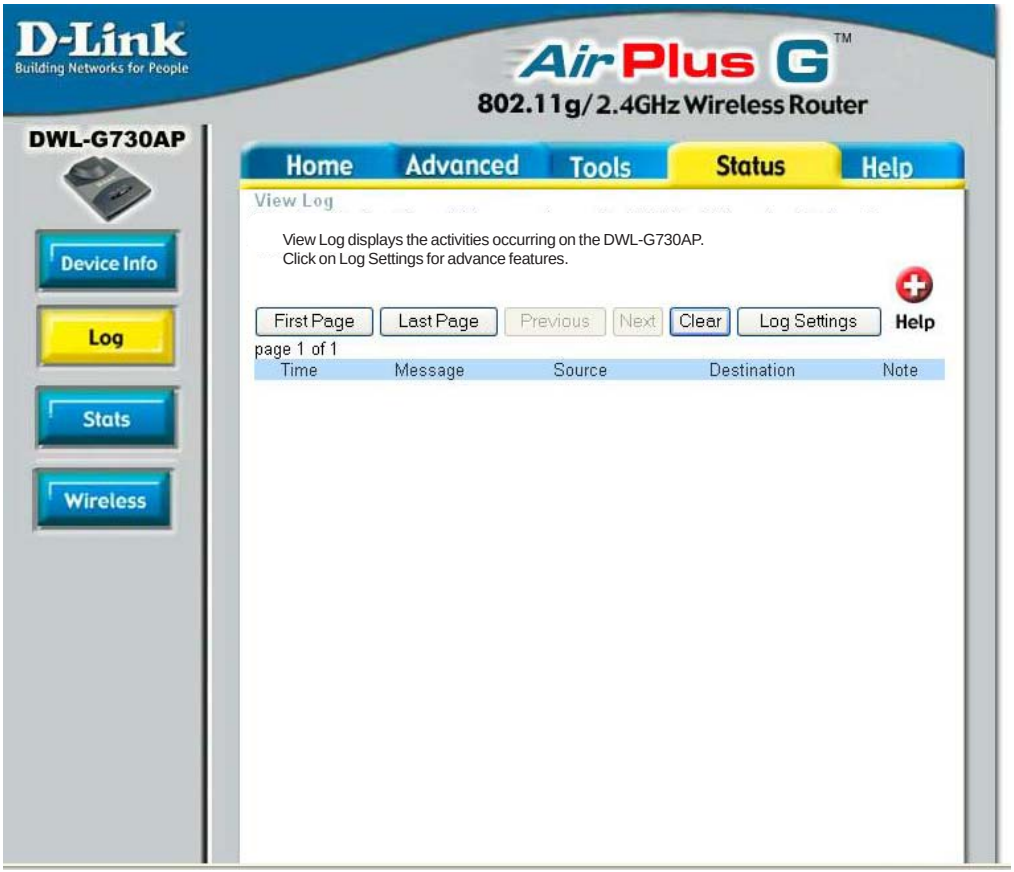
MAC address of the DWL-G730AP
Client connection (DHCP or PPoE client status)
IP address: WAN/Public IP address
Subnet Mask: WAN/Public subnet mask
Gateway: WAN/Public Gateway IP address
Domain Name Server: WAN/Public DNS IP address

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 Utility in Router Mode (continued)

Status > Log



The DWL-G730AP keeps a running log of events and activities. If the device is rebooted, the logs are automatically cleared. You may save the log files under Log Settings.

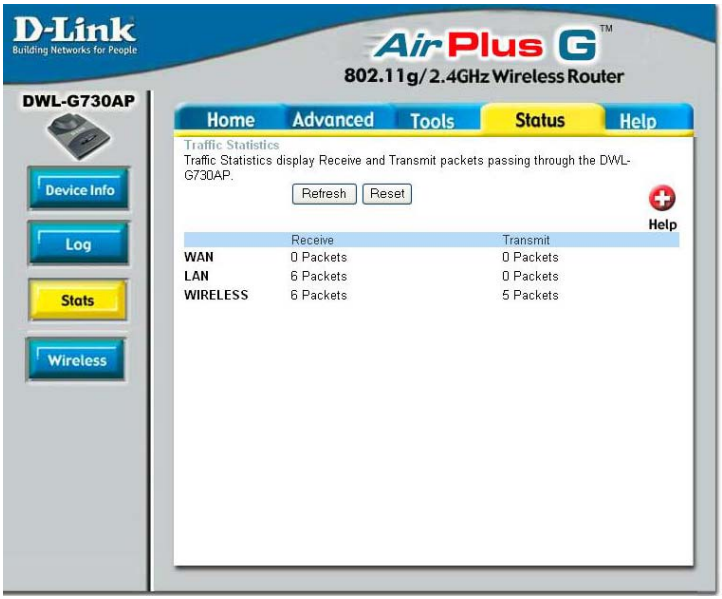
View Log-

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 Utility in Router Mode (continued)

Status > Stats

This screen displays theTraffic Statistics. Here you can view the amount of packets that pass through the DWL-G730AP on both the WAN and the LAN ports.
The traffic counter will reset if the device is rebooted.
Click **Refresh** to view the latest statistics.
Click **Reset** to reset.



Status > Wireless

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.

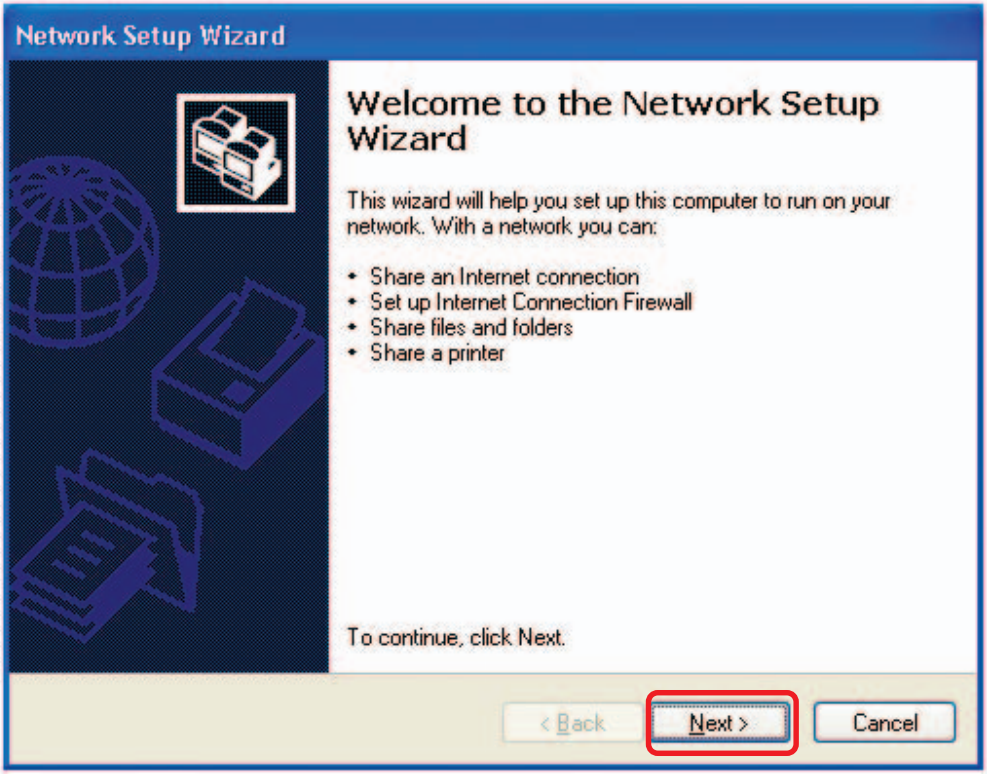
Networking Basics

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.**

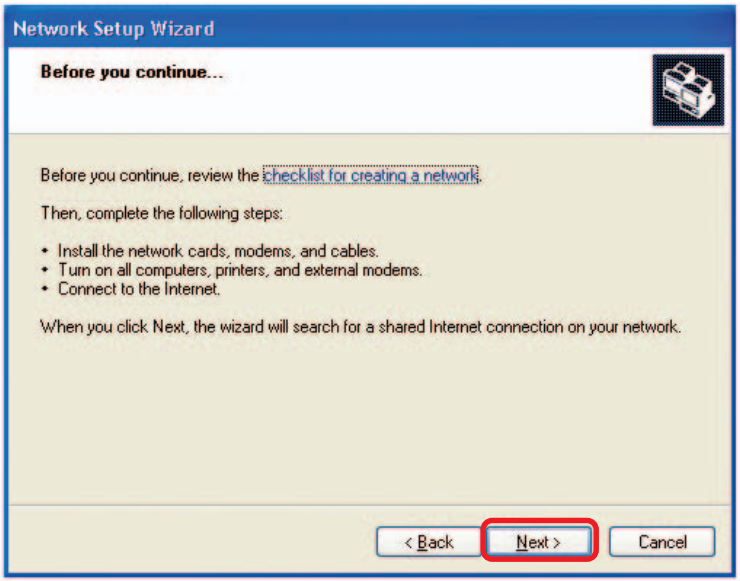
Note: Please refer to websites such as http://www.homenethelp.com and http://www.microsoft.com/windows2000 for information about networking computers using Windows 2000, Me or 98SE.

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



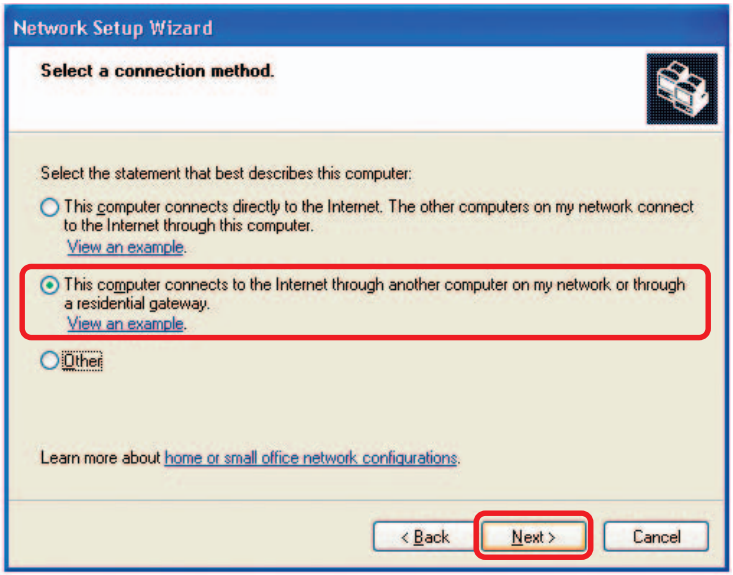
When this screen appears, click **Next.**

Please follow all the instructions in this window:



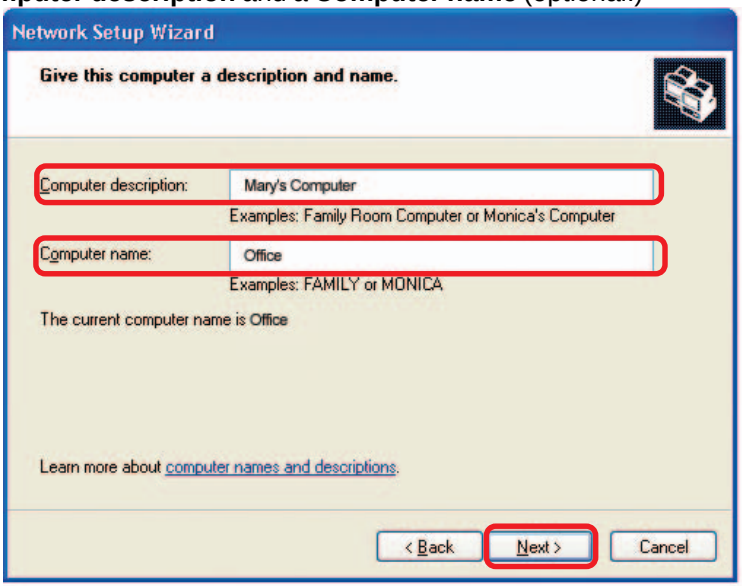
Click **Next.**

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.



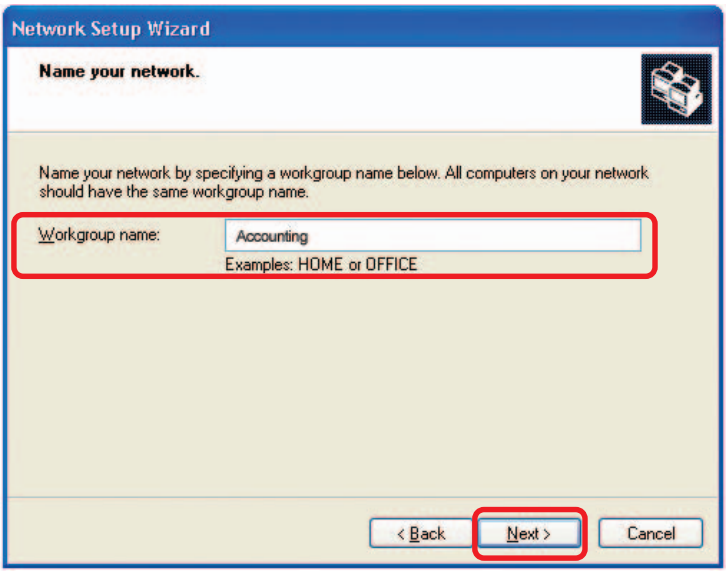
Click **Next.**

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



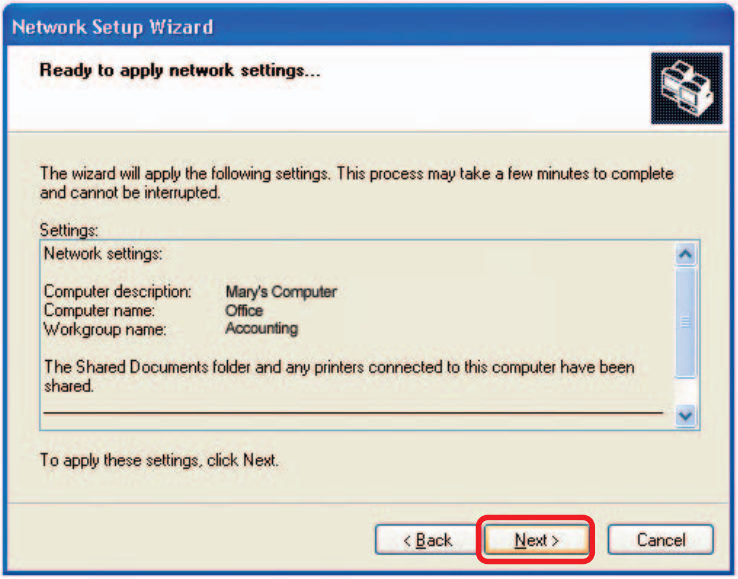
Click **Next.**

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



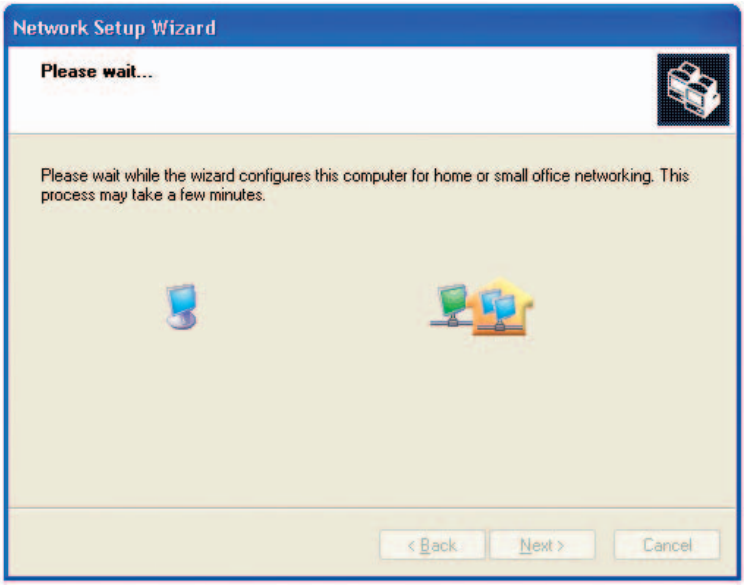
Click **Next.**

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

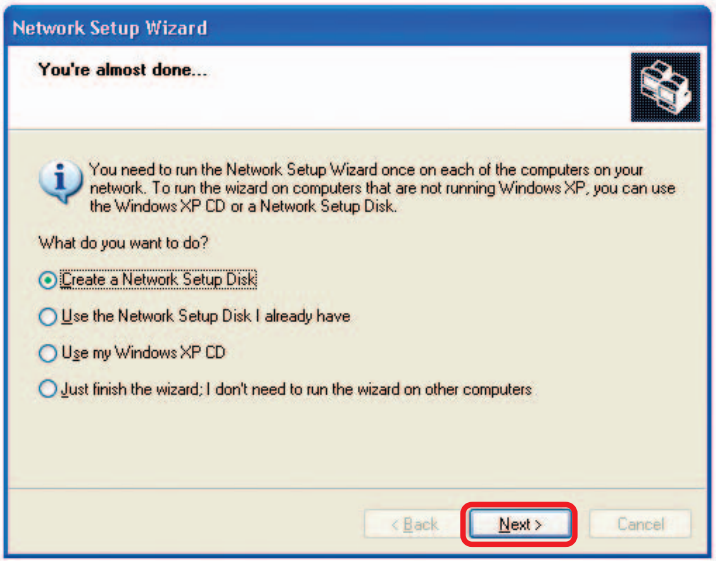


When the changes are complete, click **Next**.

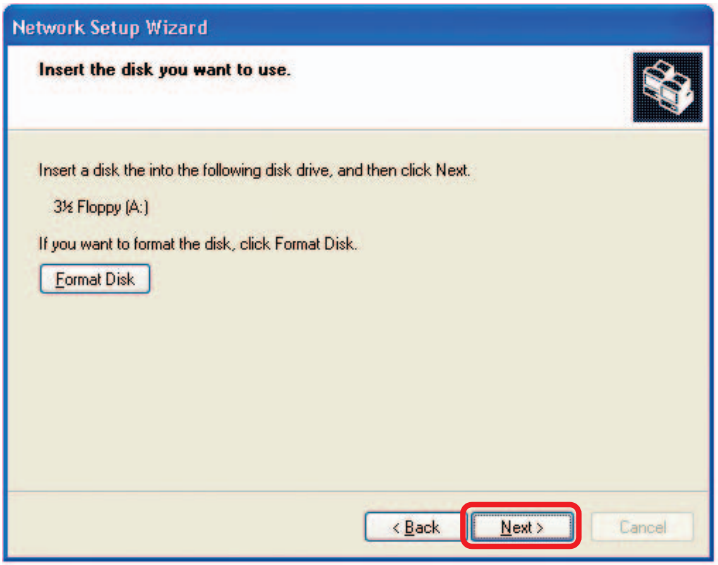
Please wait while the **Network Setup Wizard** configures the computer. This may take a few minutes.



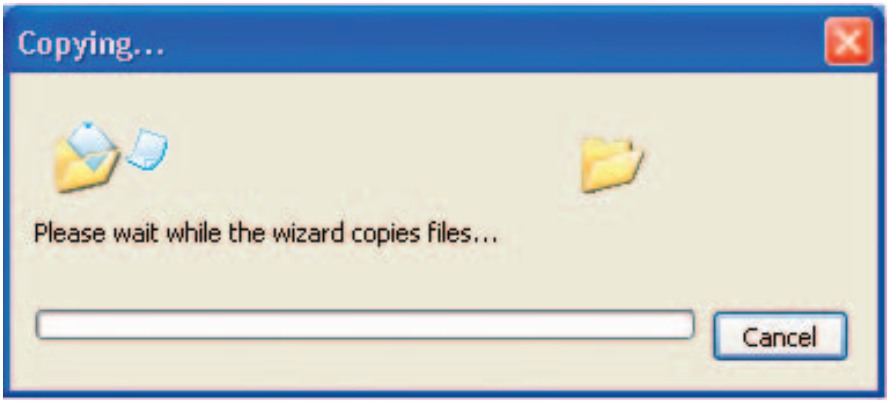
In the window below, select the option that fits your needs. In this example, **Create a Network Setup Disk** has been selected. You will run this disk on each of the computers on your network. Click **Next**.



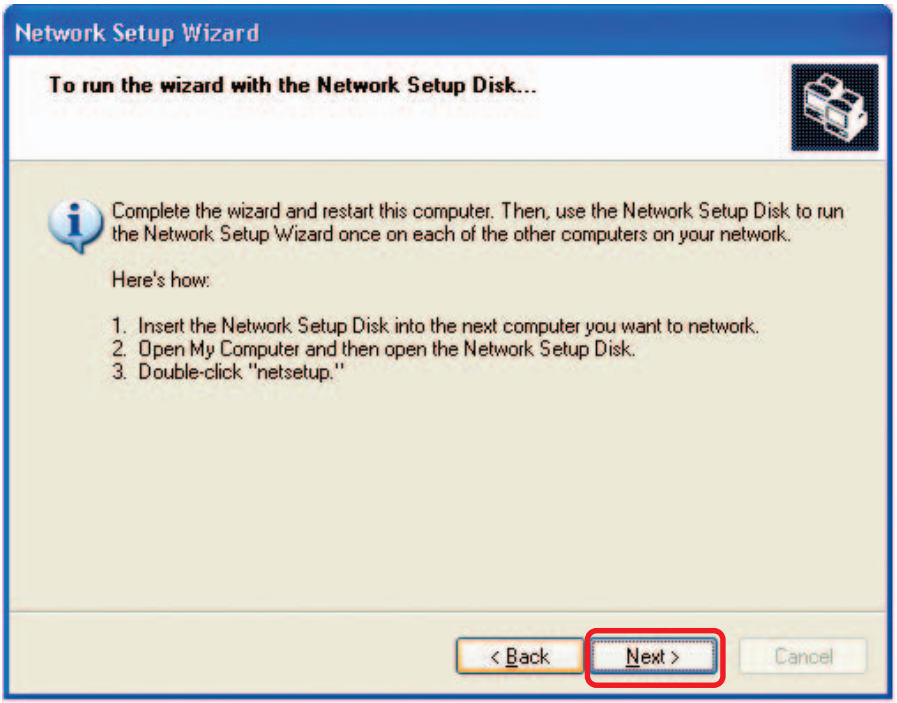
Insert a disk into the Floppy Disk Drive, in this case drive **A.**



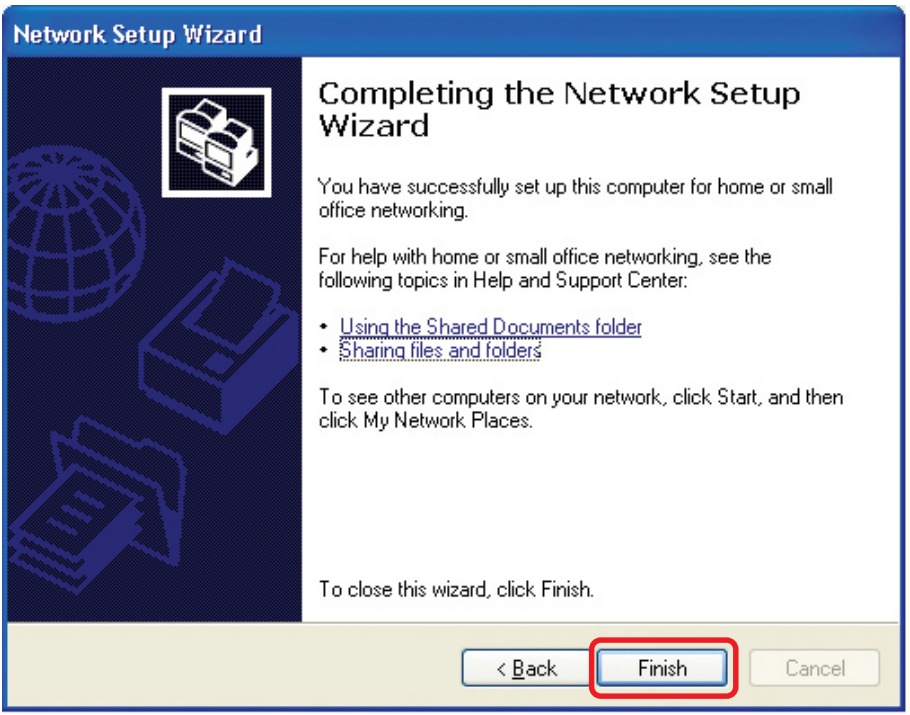
Please wait while the **Network Setup Wizard** copies the files.



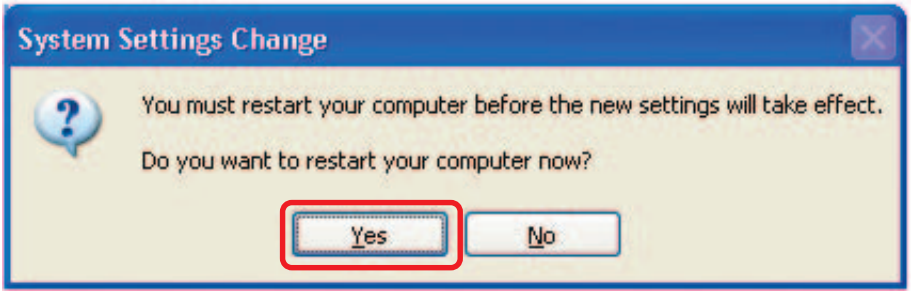
Please read the information under **Here's how** in the screen below. After you complete the **Network Setup Wizard** you will use the **Network Setup Disk** to run the **Network Setup Wizard** once on each of the computers on your network. To continue click **Next.**



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.

Naming your Computer

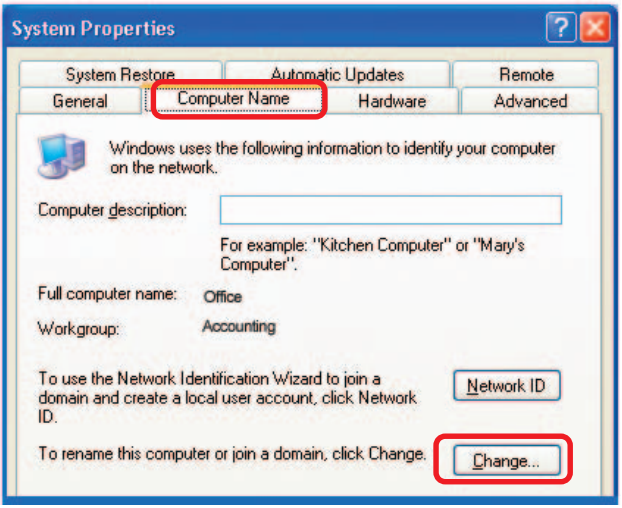
To name your computer, please follow these directions:In **Windows XP**:

- 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.

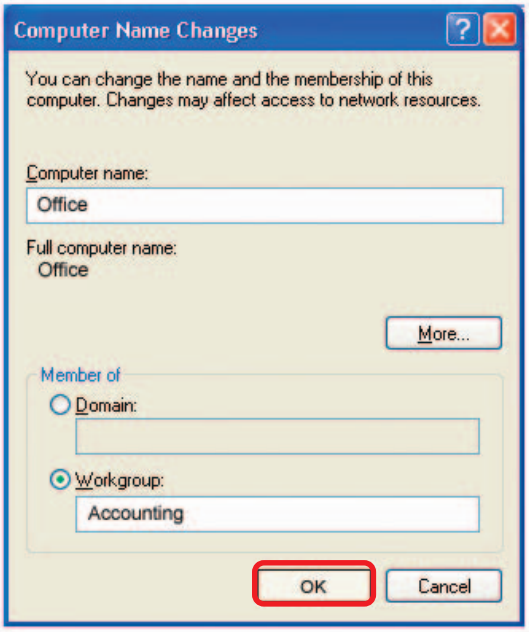
- You may enter a **Computer Description** if you wish; this field is optional.

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



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

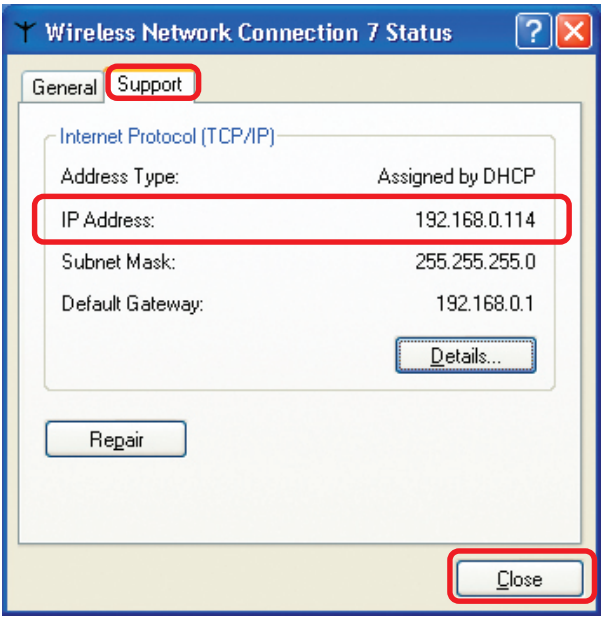
The wireless adapter-equipped computers in your network must be in the same IP Address range (see Getting Started in this manual for a definition of IP Address Range.) To check on the IP Address of the adapter, please do the following:

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

Checking the IP Address in Windows XP

This window will appear.

- Click the **Support tab.**
- Click **Close.**

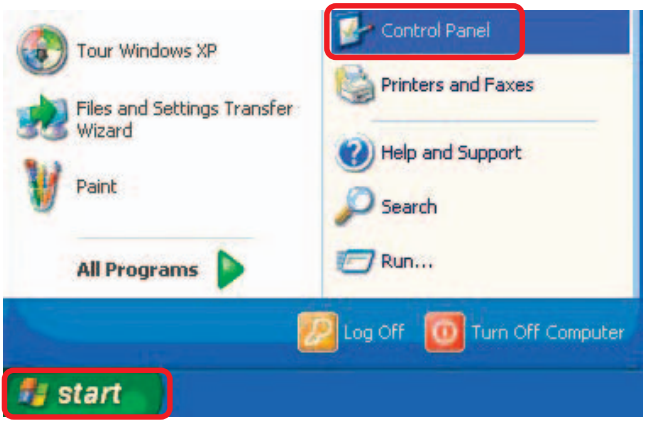


Assigning a Static IP Address in Windows XP/2000

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.

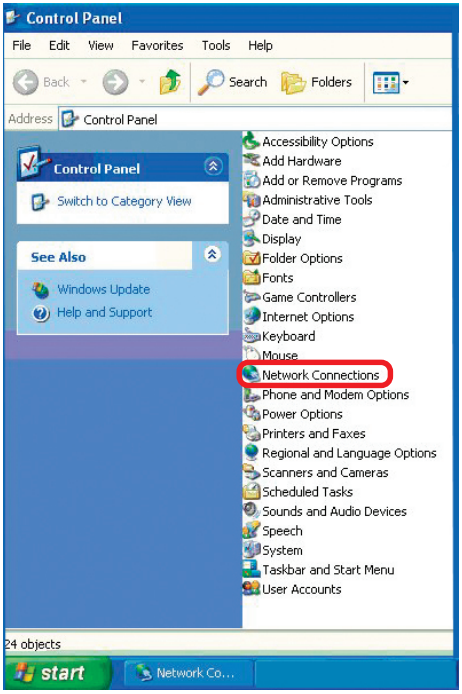
If you are not using a DHCP capable Gateway/Router, or you need to assign a Static IP Address, please follow these instructions:

- Go to **Start.**
- Double-click on **Control Panel.**



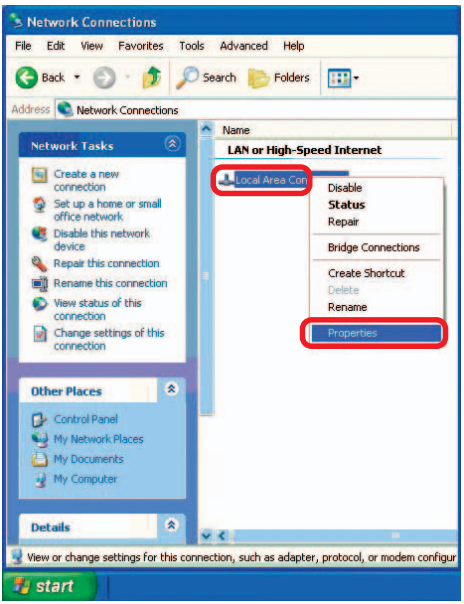
Assigning a Static IP Address in Windows XP/2000

- Double-click on **Network Connections.**



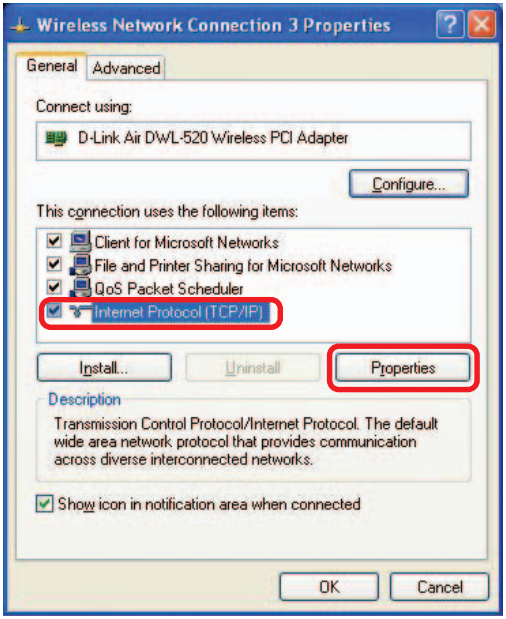
- Right-click on **Local Area Connections.**

- Double-click on **Properties.**



Networking Basics (continued)

Assigning a Static IP Address in Windows XP/2000



- Click on **Internet Protocol (TCP/IP).**
- Click **Properties.**

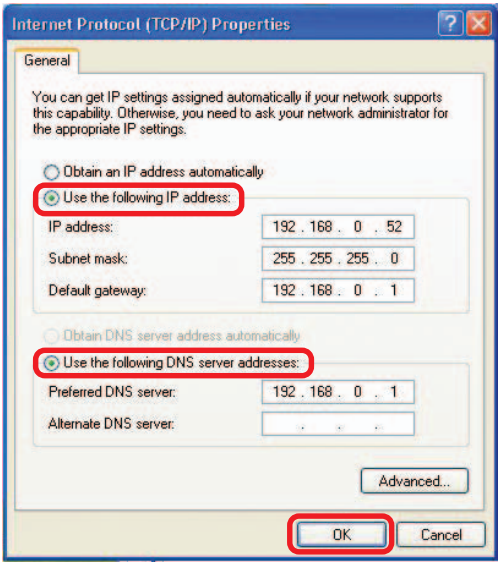
Select Use the following IP address in the **Internet Protocol (TCP/IP) Properties** window *(shown below)*

- In the window below, select **Use the following IP address**. 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.)

IP Address:
e.g., 192.168.0.2

Subnet Mask:
255.255.255.0

Default Gateway:
Enter the LAN IP address of the wireless router. (D-Link wireless routers have a LAN IP address of 192.168.0.1)

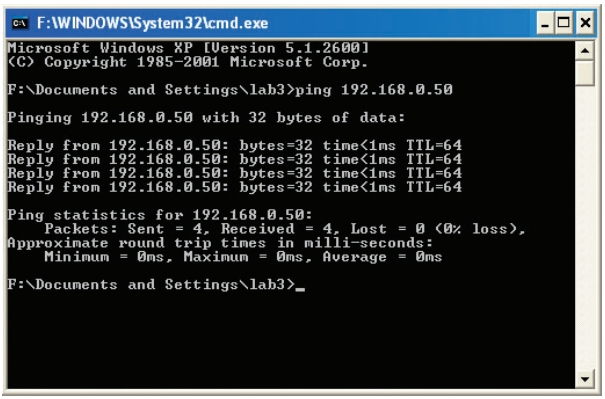


- Select **Use the following DNS server address**. Enter the LAN IP address of the wireless router. (D-Link wireless routers have a LAN IP address of 192.168.0.1)
- Click **OK.**

You have completed the assignment of a static IP address. (You do not need to assign a static IP address if you have a DHCP-capable router.)

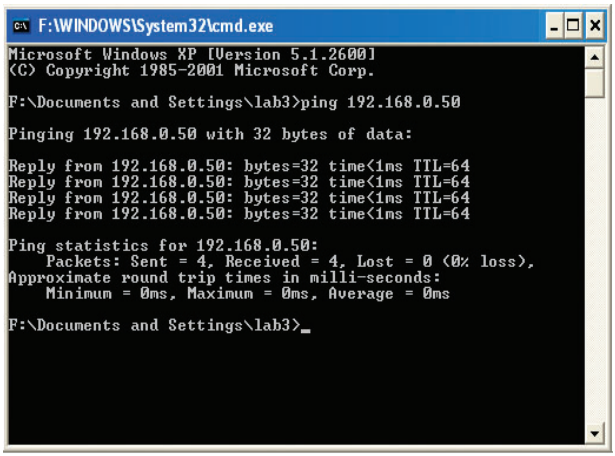
Checking the Wireless Connection by Pinging in Windows XP/2000

- Go to **Start** > **Run** > type **cmd**. A window similar to this one will appear. Type **ping xxx.xxx.xxx.xxx**, where **xxx** is the **IP address** of the wireless router or access point. A good wireless connection will show four replies from the wireless router or access point, as shown.



Checking the Wireless Connection by Pinging in Windows Me /98SE

- Go to **Start** > **Run** > type **command**. A window similar to this will appear. Type **ping xxx.xxx.xxx.xxx** where **xxx** is the **IP address** of the wireless router or access point. A good wireless connection will show four replies from the wireless router or access point, as shown.



Technical Specifications

Standards
• IEEE 802.11b
• IEEE 802.11g
• IEEE 802.3
• IEEE 802.3u

Device Management
• Web-Based – Internet Explorer v6 or later; Netscape Navigator v7 or later; or other Java-enabled browsers.

Data Rate
For 802.11g:
• 54, 48, 36, 24, 18, 12, 9 and 6Mbps
For 802.11b:
• 11, 5.5, 2, and1Mbps

Security
• 64-, 128-bit WEP
• WPA – Wi-Fi Protected Access
• MAC Address Filtering
• SSID Broadcast Disable

Wireless Frequency Range
• 2.412GHz to 2.462GHz

Wireless Operating Range*
802.11g (Full Power with internal antenna)
Outdoors:
• 164ft (50m) @ 54Mbps
• 492ft (150m) @ 11Mbps
• 656ft (200m) @ 6Mbps

Power
• External Power Supply: DC 5V/1.2A

* Environmental factors may adversely affect wireless range

Technical Specifications (continued)

Radio and Modulation Type
For 802.11g:
OFDM:
• BPSK @ 6 and 9Mbps
• QPSK @ 12 and 18Mbps
• 16QAM @ 24 and 36Mbps
• 64QAM @ 48 and 54Mbps
DSSS:
• DBPSK @ 1Mbps
• DQPSK @ 2Mbps
• CCK @ 5.5 and 11Mbps
For 802.11b:
DSSS:
• DBPSK @ 1Mbps
• DQPSK @ 2Mbps
• CCK @ 5.5 and 11Mbps

Wireless Transmit Power
Typical RF Output Power at each Data Rate
For 802.11g:
• 31mW (15dBm) @ 54Mbps
• 40mW (16dBm) @ 48Mbps
• 40mW (16dBm) @ 36, 24, 18, 12, 9, and 6Mbps
For 802.11b:
• 50mW (17dBm) @ 11, 5.5, 2, and 1Mbps

Receiver Sensitivity
For 802.11g:
• 6Mbps: -87dBm
• 9Mbps: -85dBm
• 12Mbps: -82dBm
• 18Mbps: -81dBm
• 24Mbps: -80dBm
• 36Mbps: -79dBm
• 48Mbps: -71dBm
• 54Mbps: -69dBm
For 802.11b:
• 1Mbps: -90dBm
• 2Mbps: -90dBm
• 5.5Mbps: -86dBm
• 11Mbps: -85dBm

Technical Specifications (continued)

LEDs
- Power
- LAN
- WLAN

Temperature
- Operating: 32ºF to 131ºF (0ºC to 55ºC)
- Storing: -4ºF to 149ºF (-20ºC to 65ºC)

Humidity
- Operating: 10%~90% (non-condensing)
- Storing: 5%~95% (non-condensing)

Certifications
- FCC
- CE

Dimensions
- L = 3.15 inches (80mm)
- W = 2.36 inches (60mm)
- H = 0.67 inches (17mm)

Weight
- 0.11 lbs (50g)

Warranty
- 1 Year

Technical Support

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

D-Link provides free technical support for customers within the United States and within Canada for the duration of the warranty period on this product.

U.S. and Canadian customers can contact D-Link technical support through our website, or by phone.

Tech Support for customers within the United States:

D-Link Technical Support over the Telephone:
(877) 453-5465
24 hours a day, seven days a week.

D-Link Technical Support over the Internet:
http://support.dlink.com
email:support@dlink.com

Tech Support for customers within Canada:

D-Link Technical Support over the Telephone:
(800) 361-5265
Monday to Friday 7:30am to 12:00am EST

D-Link Technical Support over the Internet:
http://support.dlink.ca
email:support@dlink.ca

Subject to the terms and conditions set forth herein, D-Link Systems, Inc. ("D-Link") provides this Limited warranty for its product only to the person or entity that originally purchased the product from:

- D-Link or its authorized reseller or distributor and
- Products purchased and delivered within the fifty states of the United States, the District of Columbia, U.S. Possessions or Protectorates, U.S. Military Installations, addresses with an APO or FPO.

Limited Warranty: D-Link warrants that the hardware portion of the D-Link products described below will be free from material defects in workmanship and materials from the date of original retail purchase of the product, for the period set forth below applicable to the product type ("Warranty Period"), except as otherwise stated herein.

1-Year Limited Warranty for the Product(s) is defined as follows:

- Hardware (excluding power supplies and fans) One (1) Year
- Power Supplies and Fans One (1) Year
- Spare parts and spare kits Ninety (90) days

D-Link's sole obligation shall be to repair or replace the defective Hardware during the Warranty Period at no charge to the original owner or to refund at D-Link's sole discretion. Such repair or replacement will be rendered by D-Link at an Authorized D-Link Service Office. The replacement Hardware need not be new or have an identical make, model or part. D-Link may in its sole discretion replace the defective Hardware (or any part thereof) with any reconditioned product that D-Link reasonably determines is substantially equivalent (or superior) in all material respects to the defective Hardware. Repaired or replacement Hardware will be warranted for the remainder of the original Warranty Period from the date of original retail purchase. If a material defect is incapable of correction, or if D-Link determines in its sole discretion that it is not practical to repair or replace the defective Hardware, the price paid by the original purchaser for the defective Hardware will be refunded by D-Link upon return to D-Link of the defective Hardware. All Hardware (or part thereof) that is replaced by D-Link, or for which the purchase price is refunded, shall become the property of D-Link upon replacement or refund.

Limited Software Warranty: D-Link warrants that the software portion of the product ("Software") will substantially conform to D-Link's then current functional specifications for the Software, as set forth in the applicable documentation, from the date of original retail purchase of the Software for a period of ninety (90) days ("Warranty Period"), provided that the Software is properly installed on approved hardware and operated as contemplated in its documentation. D-Link further warrants that, during the Warranty Period, the magnetic media on which D-Link delivers the Software will be free of physical defects. D-Link's sole obligation shall be to replace the non-conforming Software (or defective media) with software that substantially conforms to D-Link's functional specifications for the Software or to refund at D-Link's sole discretion. Except as otherwise agreed by D-Link in writing, the replacement Software is provided only to the original licensee, and is subject to the terms and conditions of the license granted by D-Link for the Software. Software will be warranted for the remainder of the original Warranty Period from the date or original retail purchase. If a material non-conformance is incapable of correction, or if D-Link determines in its sole discretion that it is not practical to replace the non-conforming Software, the price paid by the original licensee for the non-conforming Software will be refunded by D-Link; provided that the non-conforming Software (and all copies thereof) is first returned to D-Link. The license granted respecting any Software for which a refund is given automatically terminates.

Non-Applicability of Warranty: The Limited Warranty provided hereunder for hardware and software of D-Link's products will not be applied to and does not cover any refurbished product and any product purchased through the inventory clearance or liquidation sale or other sales in which D-Link, the sellers, or the liquidators expressly disclaim their warranty obligation pertaining to the product and in that case, the product is being sold "As-Is" without any warranty whatsoever including, without limitation, the Limited Warranty as described herein, notwithstanding anything stated herein to the contrary.

Submitting A Claim: The customer shall return the product to the original purchase point based on its return policy. In case the return policy period has expired and the product is within warranty, the customer shall submit a claim to D-Link as outlined below:

- The customer must submit with the product as part of the claim a written description of the Hardware defect or Software nonconformance in sufficient detail to allow D-Link to confirm the same.

- The original product owner must obtain a Return Material Authorization ("RMA") number from the Authorized D-Link Service Office and, if requested, provide written proof of purchase of the product (such as a copy of the dated purchase invoice for the product) before the warranty service is provided.

- After an RMA number is issued, the defective product must be packaged securely in the original or other suitable shipping package to ensure that it will not be damaged in transit, and the RMA number must be prominently marked on the outside of the package. Do not include any manuals or accessories in the shipping package. D-Link will only replace the defective portion of the Product and will not ship back any accessories.

- The customer is responsible for all in-bound shipping charges to D-Link. No Cash on Delivery ("COD") is allowed. Products sent COD will either be rejected by D-Link or become the property of D-Link. Products shall be fully insured by the customer. D-Link will not be held responsible for any packages that are lost in transit to D-Link. The repaired or replaced packages will be shipped to the customer via UPS Ground or any common carrier selected by D-Link, with shipping charges prepaid. Expedited shipping is available if shipping charges are prepaid by the customer and upon request.

- Return Merchandise Ship-To Address
  USA: 17595 Mt. Herrmann, Fountain Valley, CA 92708
  Canada: 2180 Winston Park Drive, Oakville, ON, L6H 5W1 (Visit http://www.dlink.ca for detailed warranty information within Canada)

D-Link may reject or return any product that is not packaged and shipped in strict compliance with the foregoing requirements, or for which an RMA number is not visible from the outside of the package. The product owner agrees to pay D-Link's reasonable handling and return shipping charges for any product that is not packaged and shipped in accordance with the foregoing requirements, or that is determined by D-Link not to be defective or non-conforming.

What Is Not Covered: This limited warranty provided by D-Link does not cover: Products, if in D-Link's judgment, have been subjected to abuse, accident, alteration, modification, tampering, negligence, misuse, faulty installation, lack of reasonable care, repair or service in any way that is not contemplated in the documentation for the product, or if the model or serial number has been altered, tampered with, defaced or removed; Initial installation, installation and removal of the product for repair, and shipping costs; Operational adjustments covered in the operating manual for the product, and normal maintenance; Damage that occurs in shipment, due to act of God, failures due to power surge, and cosmetic damage; Any hardware, software, firmware or other products or services provided by anyone other than D-Link; Products that have been purchased from inventory clearance or liquidation sales or other sales in which D-Link, the sellers, or the liquidators expressly disclaim their warranty obligation pertaining to the product. Repair by anyone other than D-Link or an Authorized D-Link Service Office will void this Warranty.

Disclaimer of Other Warranties: EXCEPT FOR THE LIMITED WARRANTY SPECIFIED HEREIN, THE PRODUCT IS PROVIDED "AS-IS" WITHOUT ANY WARRANTY OF ANY KIND WHATSOEVER INCLUDING, WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NON-INFRINGEMENT. IF ANY IMPLIED WARRANTY CANNOT BE DISCLAIMED IN ANY TERRITORY WHERE A PRODUCT IS SOLD, THE DURATION OF SUCH IMPLIED WARRANTY SHALL BE LIMITED TO NINETY (90) DAYS. EXCEPT AS EXPRESSLY COVERED UNDER THE LIMITED WARRANTY PROVIDED HEREIN, THE ENTIRE RISK AS TO THE QUALITY, SELECTION AND PERFORMANCE OF THE PRODUCT IS WITH THE PURCHASER OF THE PRODUCT.

Limitation of Liability: TO THE MAXIMUM EXTENT PERMITTED BY LAW, D-LINK IS NOT LIABLE UNDER ANY CONTRACT, NEGLIGENCE, STRICT LIABILITY OR OTHER LEGAL OR EQUITABLE THEORY FOR ANY LOSS OF USE OF THE PRODUCT, INCONVENIENCE OR DAMAGES OF ANY CHARACTER, WHETHER DIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL (INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF GOODWILL, LOSS OF REVENUE OR PROFIT, WORK STOPPAGE, COMPUTER FAILURE OR MALFUNCTION, FAILURE OF OTHER EQUIPMENT OR COMPUTER PROGRAMS TO WHICH D-LINK'S PRODUCT IS CONNECTED WITH, LOSS OF INFORMATION OR DATA CONTAINED IN, STORED ON, OR INTEGRATED WITH ANY PRODUCT RETURNED TO D-LINK FOR WARRANTY SERVICE) RESULTING FROM THE USE OF THE PRODUCT, RELATING TO WARRANTY SERVICE, OR ARISING OUT OF ANY BREACH OF THIS LIMITED WARRANTY, EVEN IF D-LINK HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. THE SOLE REMEDY FOR A BREACH OF THE FOREGOING LIMITED WARRANTY IS REPAIR, REPLACEMENT OR REFUND OF THE DEFECTIVE OR NON-CONFORMING PRODUCT. THE MAXIMUM LIABILITY OF D-LINK UNDER THIS WARRANTY IS LIMITED TO THE PURCHASE PRICE OF THE PRODUCT COVERED BY THE WARRANTY. THE FOREGOING EXPRESS WRITTEN WARRANTIES AND REMEDIES ARE EXCLUSIVE AND ARE IN LIEU OF ANY OTHER WARRANTIES OR REMEDIES, EXPRESS, IMPLIED OR STATUTORY.

Governing Law: This Limited Warranty shall be governed by the laws of the State of California. Some states do not allow exclusion or limitation of incidental or consequential damages, or limitations on how long an implied warranty lasts, so the foregoing limitations and exclusions may not apply. This limited warranty provides specific legal rights and the product owner may also have other rights which vary from state to state.

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CE Mark Warning: This is a Class B product. In a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures.

FCC Statement: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communication. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures**:**

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Caution:

The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment; such modifications could void the user's authority to operate the equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

For detailed warranty outside the United States, please contact corresponding local D-Link office.

Register your D-Link product online at http://support.dlink.com/register/

(08/10/04)