

Clicking the **More Information** button displays more information about the Adapter's connection, as shown below:

Wireless Network Status

The Networks Settings screen provides information on your current network settings.

Wireless Network Status

Status - The status of the wireless network connection.

SSID - This is the unique name of the wireless network.

Wireless Mode - The mode of the wireless network currently in use is displayed here.

Transfer Rate - The data transfer rate of the current connection is shown here.

Channel - The channel to which the wireless network devices are set.

Encryption - The status of the security feature.

Authentication - This is your wireless network's authentication method.

Network Mode - The wireless mode currently in use.

IP Address - The IP Address of the Adapter.

Subnet Mask - The Subnet Mask of the Adapter.

Default Gateway - The Default Gateway address of the Adapter.

DNS - The DNS address of the Adapter.

DHCP Client - This displays the status of the DHCP client.

MAC - The MAC address of the wireless network's access point.

Signal Strength - The Signal Strength bar indicates the signal strength.

Link Quality - The Link Quality bar indicates the quality of the wireless network connection.

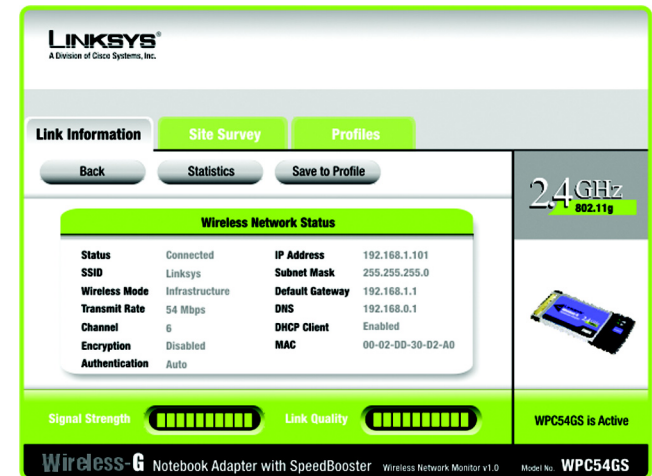


Figure 6-2: More Information-Network Settings

Click the **Statistics** button to go to the *Network Statistics* screen. Click the **Back** button to return to the initial *Link Information* screen. Click the **Save to Profile** button to save the currently active connection to a profile.

Wireless Network Statistics

The Networks Statistics screen provides statistics on your current network settings.

Transmit Rate - The data transfer rate of the current connection.(In Auto mode, the Adapter dynamically shifts to the fastest data transfer rate possible at any given time.)

Receive Rate - The rate that data is received.

Packets Received - This shows the packets received by the Adapter, in real time, since connecting to the Wireless Network or since the *Refresh* button was last pressed.

Packets Transmitted - This shows the packets transmitted from the Adapter, in real time, since connecting to the Wireless Network or since the *Refresh* button was last pressed.

Bytes Received - This shows the bytes received by the Adapter, in real time, since connecting to the Wireless Network or since the *Refresh* button was last pressed.

Bytes Transmitted - This shows the bytes transmitted from the Adapter, in real time, since connecting to the Wireless Network or since the *Refresh* button was last pressed.

Noise Level - This is your wireless network's authentication method.

Signal Strength - This shows the Adapter's IP Address.

Driver Version - This shows the version of the Adapter's driver.

Signal Strength - The Signal Strength bar indicates the signal strength.

Link Quality - The Link Quality bar indicates the quality of the wireless network connection.

Click the **Back** button to return to the initial *Link Information* screen. Click the **Status** button to go to the *Network Status* screen. Click the **Save to Profile** button to save the currently active connection to a profile. Click the **Refresh Stats** button to refresh the screen.

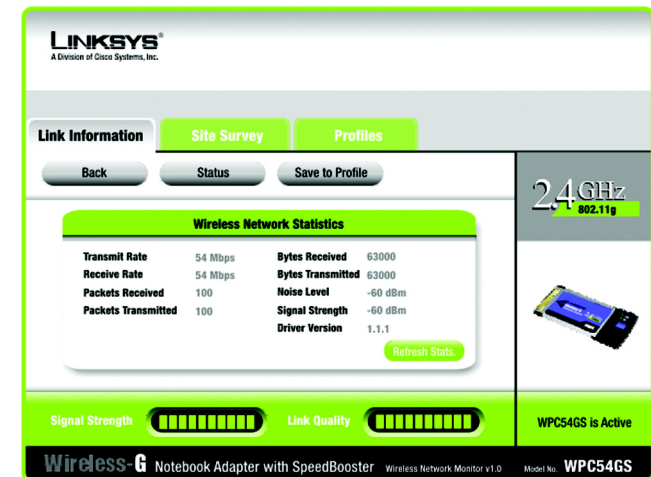


Figure 6-3: More Information-Network Statistics

Site Survey

The *Site Survey* screen displays a list of infrastructure and ad-hoc networks available for connection in the table on the right. This table shows the network’s SSID, Channel, and the quality of the wireless signal the Adapter is receiving. You may click **SSID**, **CH (Channel)**, or **Signal**, to sort by that field.

SSID - The SSID or unique name of the wireless network.

CH - The channel upon which the network broadcasts.

Signal - The percentage of signal strength, from 0 to 100%.

Site Information

For each network selected, the following settings are listed:

SSID - The SSID or unique name of the wireless network.

Wireless Mode - The mode of the wireless network currently in use.

Channel - The channel to which the wireless network devices are set.

Encryption- The status of the encryption security feature.

MAC - The MAC address of the wireless network’s access point.

Refresh - Click the Refresh button to perform a new search for wireless devices.

Connect - To connect to one of the networks on the list, select the wireless network, and click the Connect button.



Figure 6-4: Site Survey

Profiles

The *Profiles* screen lets you save different configuration profiles for different network setups. The table on the right displays a list of infrastructure and ad-hoc networks available for connection. This table shows the network's profile name and the wireless network's SSID, as set in the connection profile.

Profile Information

For each profile selected, the following are listed:

Wireless Mode - The mode of the wireless network currently in use.

Transfer Rate - The Adapter is set to Auto mode, so it will dynamically shift to the fastest data transfer rate possible at any given time.

Channel - The channel to which the wireless network devices are set.

Encryption - The status of the encryption security feature.

Authentication - The authentication setting for the network.

Connect - To connect to a wireless network using a specific profile, select the profile, and click the **Connect** button.

New - Click the New button to create a new profile. See the next section, "Creating a New Profile," for detailed instructions.

Edit - Select a profile, and click the Edit button to change an existing profile.

Import - Click the **Import** button to import a profile that has been saved in another location. Select the appropriate file, and click the **Open** button.

Export - Select the profile you want to save in a different location, and click the **Export** button. Direct Windows to the appropriate folder, and click the **OK** button.

Delete - Click the **Delete** button to delete a profile.



NOTE: If you want to export more than one profile, you have to export them one at a time.

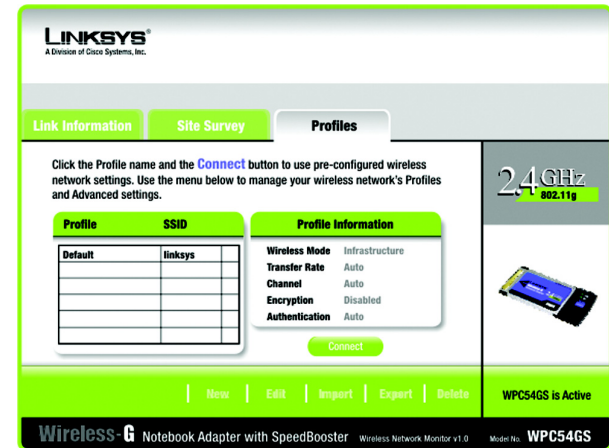


Figure 6-5: Profiles

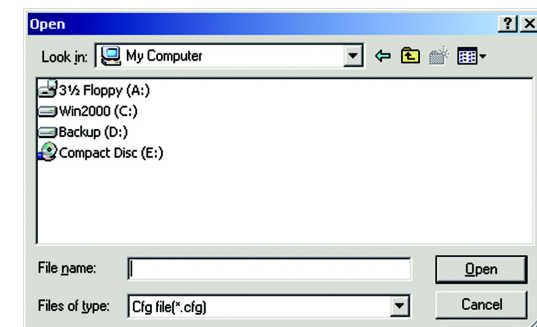


Figure 6-6: Importing a Profile

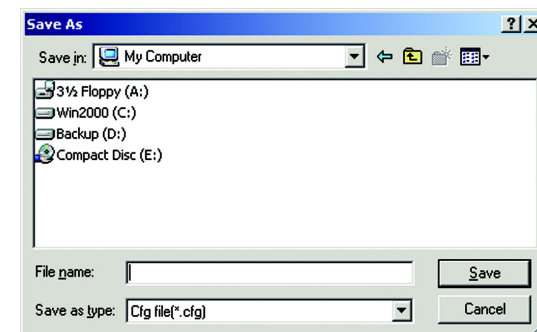


Figure 6-7: Exporting a Profile

Creating a New Profile

1. On the *Profiles* screen, click the **New** button to create a new profile.
2. Enter a name for the new profile, and click the **OK** button. Click the **Cancel** button to return to the Profiles screen without entering a name.

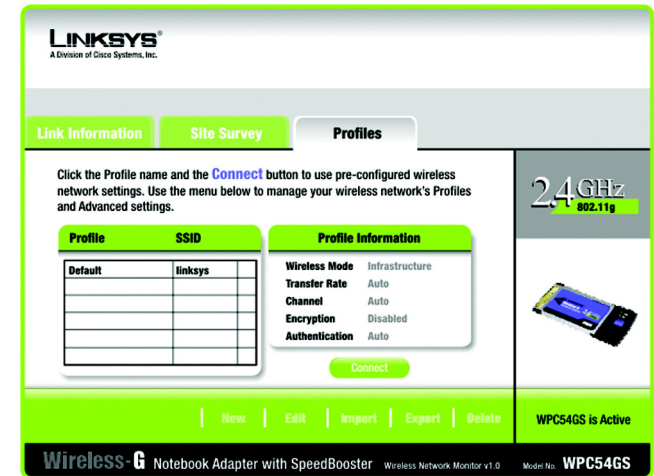


Figure 6-8: Creating a New Profile



Figure 6-9: Enter Profile Name

- The *Wireless Mode* screen shows a choice of two wireless modes. Click the **Infrastructure Mode** radio button if you want your wireless computers to communicate with computers on your wired network via a wireless access point. Click the **Ad-Hoc Mode** radio button if you want multiple wireless computers to communicate directly with each other. Enter the SSID for your network.

Click the **Next** button to continue or the **Back** button to return to the previous screen.

Infrastructure Mode - This mode allows wireless and wired networks to communicate through an access point.

Ad-Hoc Mode - This mode allows wireless-equipped computers to communicate directly with each other. No access point is used.

SSID - The network name. It must be used for all the devices in your wireless network. It is case sensitive. It should be a unique name to help prevent others from entering your network.

Figure 6-10: Wireless Mode for New Profile

- The *Ad-Hoc Mode Settings* screen will appear. If you chose Infrastructure Mode, go to Step 5 now. If you chose Ad-Hoc Mode, select the correct operating channel for your network from the Channel drop-down menu. Then, select the Network Mode from the drop-down menu. Click the **Next** button, and go to Step 5. Click the **Back** button to change any settings.

Channel - The channel you choose should match the channel set on the other devices in your wireless network. If you are unsure about which channel to use, select the default channel (Channel 6).

Network Mode - Select Mixed Mode, and both Wireless-G and Wireless-B computers will be allowed on the network, but the speed may be reduced. Select G-Only Mode for maximum speed, but no Wireless-B users will be allowed on the network. Select B-Only Mode for Wireless-B users only.

Figure 6-11: Ad-Hoc Mode Settings

- The *Network Settings* screen will appear next. If your network has a DHCP server, click the radio button next to **Obtain an IP address automatically (DHCP)**. Click the **Next** button to continue, or click the **Cancel** button to return to the *Profiles* screen.

If your network does not have a DHCP server, click the radio button next to **Specify the IP Setting**. Enter an IP Address, Subnet Mask, Default Gateway, and DNS appropriate for your network. You must specify the IP Address and Subnet Mask on this screen. If you are unsure about the Default Gateway and DNS address, leave these fields empty. Click the **Next** button to continue, or click the **Cancel** button to return to the *Profiles* screen.

IP Address - This IP Address must be unique to your network.

Subnet Mask - The Adapter's Subnet Mask must be the same as your wired network's Subnet Mask.

Default Gateway - Enter the IP address of your network's Gateway here.

DNS 1 and DNS 2 - Enter the DNS address of your (wired) Ethernet network here

The screenshot displays the 'Network Settings' window of the Linksys Wireless Network Monitor. At the top, there are three tabs: 'Link Information', 'Site Survey', and 'Profiles'. The 'Profiles' tab is active. Below the tabs, the 'Network Settings' section contains two radio buttons. The first, 'Obtain an network settings automatically (DHCP)', is selected. The second, 'Specify network settings', is unselected. Below the second option, there are five input fields: 'IP Address', 'Subnet Mask', 'Default Gateway', 'DNS 1', and 'DNS 2'. At the bottom of the window, there is a green bar with the text 'Wireless-G Notebook Adapter with SpeedBooster', 'Wireless Network Monitor v1.0', and 'Model No. WPC54GS'. To the right of this bar are 'Cancel' and 'Next' buttons.

Figure 6-12: Network Settings

6. The *Wireless Security* screen will appear. Select WEP, WPA-PSK, WPA Radius, or Radius for the Encryption Method. WEP stands for Wired Equivalent Privacy, WPA-PSK stands for Wi-Fi Protected Access Pre-Shared Key, which is a security standard stronger than WEP encryption, and RADIUS stands for Remote Authentication Dial-In User Service. If you don't want to use encryption, select **Disabled**. Then, click the **Next** button to continue or the **Back** button to return to the previous screen.

WEP

WEP - To use WEP encryption, select 64-bits or 128-bit characters from the drop-down menu, and enter a passphrase or key.

Authentication -The default is set to **Auto**, where it auto-detects for **Shared Key** or **Open** system. Shared Key is when both the sender and the recipient share a WEP key for authentication. Open key is when the sender and the recipient do not share a WEP key for authentication. All points on your network must use the same authentication type.

Passphrase - Instead of manually entering a WEP key, you can enter a passphrase in the Passphrase field, so a WEP key is automatically generated. It is case-sensitive and should not be longer than 16 alphanumeric characters. This passphrase must match the passphrase of your other wireless network devices and is compatible with Linksys wireless products only. (If you have any non-Linksys wireless products, enter the WEP key manually on those products.)

Transmit Key - The default transmit key number is 1. If your network's access point or wireless router uses transmit key number 2, 3, or 4, select the appropriate number from the *Transmit Key* drop-down box.

Key 1 - The WEP key you enter must match the WEP key of your wireless network. If you are using 64-bit WEP encryption, then the key must consist of exactly 10 hexadecimal characters. If you are using 128-bit WEP encryption, then the key must consist of exactly 26 hexadecimal characters. Valid hexadecimal characters are "0" to "9" and "A" to "F".

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Link Information Site Survey Profiles

Wireless Security

Encryption Method: **WEP** Choose the encryption method your network uses:

WEP is a basic encryption method. To use WEP, select a Default Transmit Key (choose which Key to use), and a level of WEP encryption, 64 bits: 10 hex digits or 128 bits: 26 hex digits. Then either generate a WEP key using the Passphrase or enter the WEP key manually.

Back Next

Wireless-G Notebook Adapter with SpeedBooster Wireless Network Monitor v1.0 Model No. WPC54GS

Figure 6-13: Wireless Security for New Profile

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Wireless Security

Security: **64 Bits** To use WEP encryption, select either 64-bit or 128-bit encryption.

Passphrase: The Passphrase is case-sensitive, and no more than 16 characters.

WEP Key: Please enter 10 characters for 64-bit and 26 characters for 128-bit encryption. Valid hexadecimal characters are "A" through "F" and numbers "0" through "9".

TX Key: **1** Transmit key for your network. (Default: 1)

Authentication: **Auto** The network's authentication method. (Default: Auto)

Help Back Next

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Figure 6-14: WEP Setting for New Profile

WPA-PSK

WPA-PSK offers two encryption methods, TKIP and AES, with dynamic encryption keys. Click the **Next** button to continue and the screen in Figure 6-17 appears. Click the **Back** button to return to the previous screen.

The screenshot shows the Linksys Wireless Security configuration page. At the top, there are three tabs: 'Link Information', 'Site Survey', and 'Profiles'. The 'Profiles' tab is selected. Below the tabs, the page is titled 'Wireless Security'. There is a dropdown menu for 'Encryption Method' set to 'WPA-PSK'. To the right of this menu is the text 'Choose the encryption method your network uses:'. Below this, a paragraph explains: 'WPA-PSK gives you two encryption methods, TKIP and AES, with dynamic encryption keys. Select the type of algorithm, TKIP or AES. Enter a WPA Shared Key of 8-63 characters. This key must be the same as other devices on your network.' At the bottom right of the main content area, there are 'Back' and 'Next' buttons. The footer of the page displays 'Wireless-G Notebook Adapter with SpeedBooster', 'Wireless Network Monitor v1.0', and 'Model No. WPC54GS'.

Figure 6-15: WPA-PSK Settings

Select the type of algorithm, **TKIP** or **AES**, for the *Encryption Type*. Enter a WPA Shared Key of 8-63 characters in the *Passphrase* field.

The screenshot shows the Linksys Wireless Security configuration page with the 'Encryption' dropdown set to 'TKIP'. The text 'Choose from either TKIP or AES.' is displayed. Below this, there is a 'Passphrase' text input field. To the right of the input field, the text reads: 'Please enter a passphrase consisting of any keyboard characters between the length of 8 and 63 characters.' The 'Back' and 'Next' buttons are at the bottom right. The footer is identical to Figure 6-15, showing 'Wireless-G Notebook Adapter with SpeedBooster', 'Wireless Network Monitor v1.0', and 'Model No. WPC54GS'.

Figure 6-16: TKIP Settings

WPA RADIUS.