7. The Setup Wizard will ask you to review your settings before it starts to install files. Click **Next** if you are satisfied with your settings, or click **Back** to change any settings.

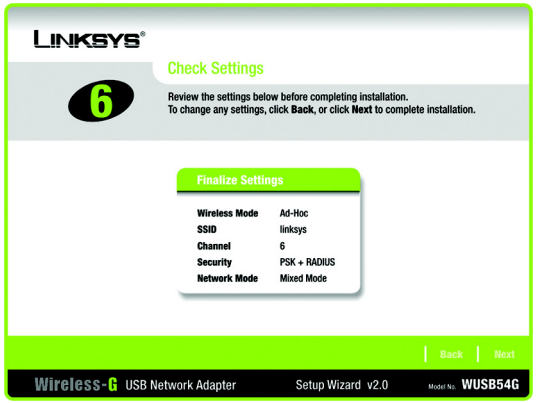

Figure 4-13: Setup Wizard's Check Settings Screen

8. At this point, you may see a *Digital Signature Not Found* screen indicating that a digital signature was not found. The Adapter's software has been tested and found to work successfully with Windows 2000. Click the **Yes** button to continue.

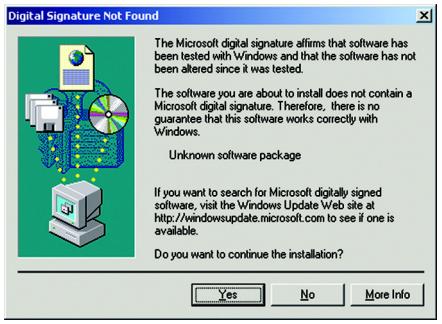

Figure 4-14: Digital Signature Not Found Screen

9. After the software has been successfully installed, the *Congratulations* screen will appear. Click the **Exit** button.

Proceed to "Chapter 5: Connecting the Wireless-G USB Network Adapter."

Figure 4-15: Setup Wizard's Congratulations Screen

Chapter 5: Connecting the Wireless-G USB Network Adapter

NOTE: You must run the Setup Wizard before connecting the Adapter.

Connecting the Adapter

1. Connect one end of the included USB cable to the Adapter's USB port.
2. Connect the other end of the cable to one of the USB ports on your computer.
3. The Power LED should light up when the Adapter is plugged in.
4. When Windows 2000 begins installing the Adapter's driver, a *Digital Signature Not Found* screen may appear, indicating that a digital signature was not found. This driver has been tested and found to work properly with Windows 2000. Click the **Yes** button to continue the installation.
5. Raise the antenna. Make sure the antenna points straight up into the air, at a 90º angle from the Adapter. This will ensure optimum wireless operating range and performance.

NOTE: If you want to attach the Adapter to your wall, go to the next section, "Using the Adapter's Wall Mount," before proceeding to "Chapter 6: Using the Wireless Network Monitor."

Congratulations! The installation of the Wireless-G Network Adapter is complete.

If you want to check the link information, search for available wireless networks, or make additional configuration changes, go to "Chapter 6: Using the Wireless Network Monitor."

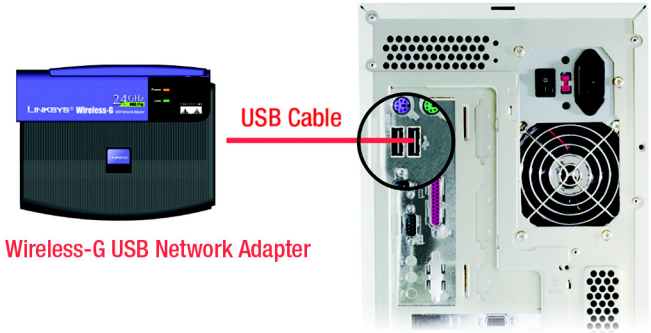

Figure 5-1: How the Adapter Connects to Your PC

Figure 5-2: Adapter's USB Port

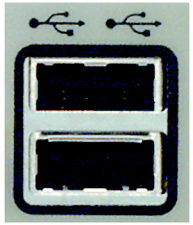

Figure 5-3: PC's USB Ports

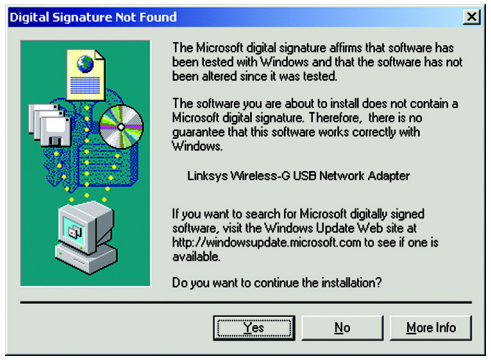

Figure 5-4: Digital Signature Not Found Screen

Using the Adapter's Wall Mount

The Adapter's Wall Mount allows you to easily attach the Adapter to your wall for better reception and more convenient placement.

1. Attach the separate adhesive strip of velcro to the wall where you will be mounting the Adapter.
2. To attach the Wall Mount to the Adapter, slide the Wall Mount into the grooves on the back panel of Adapter, as shown in Steps A, B, and C.
3. Using the velcro strip on the Adapter's Wall Mount, attach the Adapter to the velcro strip on your wall.

Congratulations! The installation of the Wireless-G Network Adapter is complete.

If you want to check the link information, search for available wireless networks, or make additional configuration changes, go to "Chapter 6: Using the Wireless Network Monitor."

Figure 5-5: Using the Wall Mount - Step A

Figure 5-6: Using the Wall Mount - Step B

Figure 5-7: Using the Wall Mount - Step C

Chapter 6: Using the Wireless Network Monitor

Use the Wireless Network Monitor to check the link information, search for available wireless networks, or create profiles that hold different configuration settings.

Using the Wireless Network Monitor Icon

After installing the Adapter, the Wireless-G USB Network Adapter Wireless Monitor icon will appear in your system tray. If the Wireless Network Monitor is enabled, then the icon will be green. If the Wireless Network Monitor is disabled or the Adapter is not connected, then the icon will be gray.

Figure 6-1: Wireless Network Monitor Icon

If you right-click the icon, you will see these choices:

- About - Click **About** to view the version information for the driver and Wireless Network Monitor.
- Use Windows XP Wireless Configuration (Windows XP only) - If your computer is running Windows XP, then this choice will be available. If you want to use Windows XP Wireless Zero Configuration to control the Adapter—instead of using the Wireless Network Monitor—then select **Use Windows XP Wireless Configuration**.

  If you want to switch back to the Wireless Network Monitor, right-click the **Wireless Network Monitor** icon, and select **Use Linksys Wireless Network Monitor**.

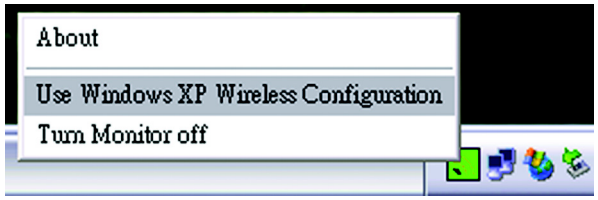

Figure 6-2: Windows XP - Use Windows XP Wireless Configuration

NOTE: For more information about Wireless Zero Configuration, refer to Windows Help.

- Turn Monitor on - Select **Turn Monitor on** to enable the Wireless Network Monitor.
- Turn Monitor off - Select **Turn Monitor off** to disable the Wireless Network Monitor.

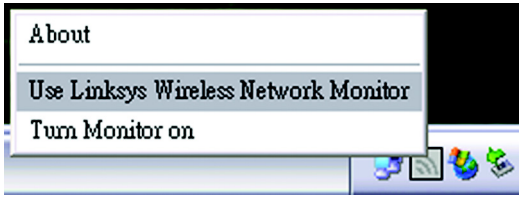

Figure 6-3: Windows XP - Use Linksys Wireless Network Monitor

Accessing the Wireless Network Monitor

Besides selecting *Turn on* when you right-click the icon, you can also double-click the **Wireless Network Monitor** icon to activate the Wireless Network Monitor. Then the *Link Information* screen will appear. From this screen, you can find out how strong the current wireless signal is and how good the connection's quality is. You can also click the **More Information** button to view additional status information about the current wireless connection. To search for available wireless networks, click the **Site Survey** tab. To perform configuration changes, click the **Profiles** tab.

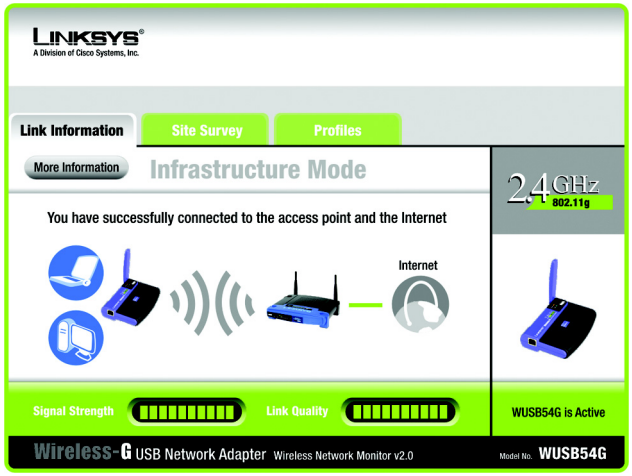

Figure 6-4: Link Information

Link Information

The *Link Information* screen displays network mode, signal strength, and link quality information about the current connection. It also provides a button to click for additional status information.

Ad-Hoc Mode or **Infrastructure Mode** - The screen indicates whether the Adapter is currently working in ad-hoc or infrastructure mode.

Signal Strength - The Signal Strength bar indicates signal strength.

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

Click the **More Information** button to view additional information about the wireless network connection.

Clicking the **More Information** button displays the *Wireless Network Status* screen, which displays more information about the Adapter's connection.

Wireless Network Status

The *Wireless Network Status* screen provides information on your current network settings.

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 - This is the channel to which the wireless network devices are set.

Security - The status of the wireless security feature is displayed here.

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

IP Address - The IP Address of the Adapter is displayed here.

Subnet Mask - The Subnet Mask of the Adapter is shown here.

Default Gateway - The Default Gateway address of the Adapter is displayed here.

DNS - This is the DNS address of the Adapter.

DHCP Client - This displays the Adapter's status as a DHCP client.

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

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 **Statistics** button to go to the *Wireless 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 settings to a profile.

Figure 6-5: More Information - Wireless Network Status

Wireless Network Statistics

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

Transmit Rate - This is 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 - This is the rate at which 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 Statistics* 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 Statistics* 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 Statistics* 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 Statistics* button was last pressed.

Noise Level - This shows the level of background noise affecting the wireless signal. A lower reading translates into a higher quality signal.

Signal Strength - This is the intensity of the wireless signal received by the Adapter.

Up Time - This indicates the length of the most recent connection to a wireless network.

Total Up Time - This indicates the cumulative total of the Adapter's connection time.

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 *Wireless Network Status* screen. Click the **Save to Profile** button to save the currently active connection settings to a profile. Click the **Refresh Statistics** button to update or reset the statistics. The Wireless Network Monitor will update the Transmit Rate, Receive Rate, Noise Level, and Signal Strength statistics. At the same time, the Packets Received and Transmitted counts, Bytes Received and Transmitted counts, and Up Time statistic will be reset to zero. (The Total Up Time statistic will not be reset.)

Figure 6-6: 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 left. 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 is displayed here.

CH - This is the channel setting that the network uses.

Signal - This is the percentage of signal strength, from 0 to 100%.

Site Information

For each network selected, the following settings are listed:

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

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

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

Security - The status of the wireless security feature is displayed here.

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

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. If the network has encryption enabled, then you will see a new screen appear.

From the *Security* drop-down menu, select the network's encryption method, **WEP** or **PSK**.

If you selected WEP, then you will see the *WEP Key Needed for Connection* screen. Select the appropriate level of WEP encryption, **64-bit** or **128-bit**. Then enter the network's Passphrase or WEP Key. Click the **Connect** button. To cancel the connection, click the **Cancel** button.

If you selected PSK, then you will see the *PSK (Pre-Shared Key) Needed for Connection* screen. Select the appropriate encryption type, **TKIP** or **AES**. Then enter the network's Passphrase or Pre-Shared Key in the *Passphrase* field. Then click the **Connect** button. To cancel the connection, click the **Cancel** button.

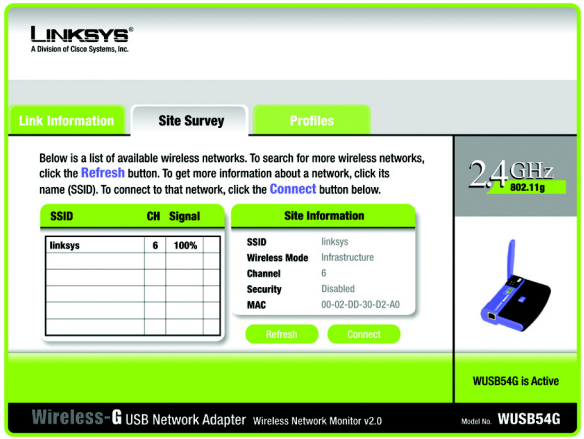

Figure 6-7: Site Survey

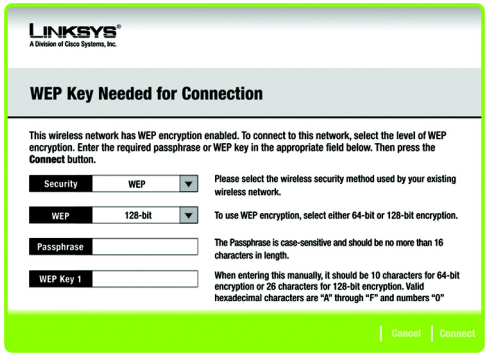

Figure 6-8: WEP Key Needed for Connection

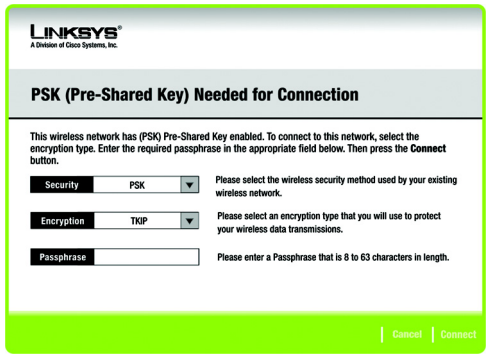

Figure 6-9: PSK (Pre-Shared Key) Needed for Connection

Profiles

The *Profiles* screen lets you save different configuration profiles for different network setups. The table on the left 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.

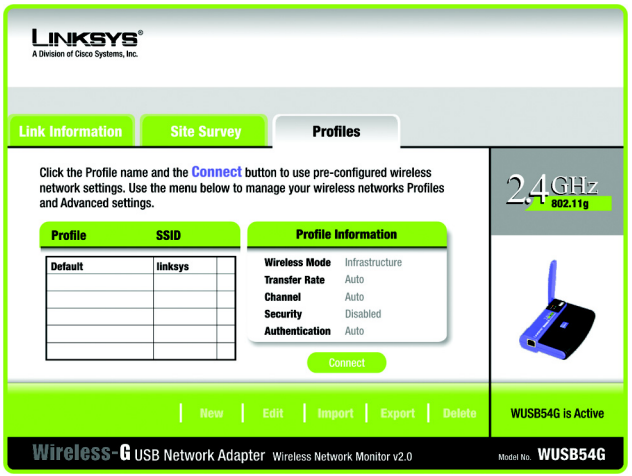

Figure 6-10: Profiles

Profile Information

For each profile selected, the following are listed:

Wireless Mode - This is 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 - This is the channel to which the wireless network devices are set.

Security - The status of the wireless security feature is displayed here.

Authentication - The authentication setting for the network is shown here.

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.

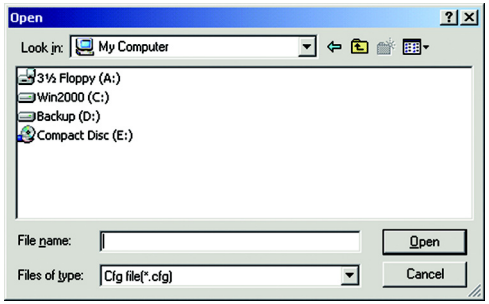

Figure 6-11: Import a Profile

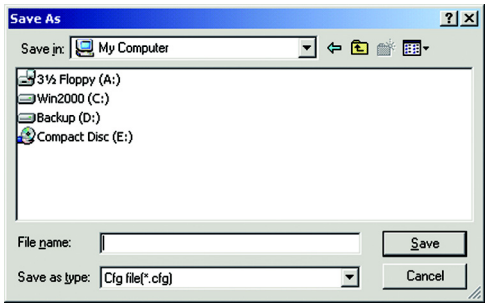

Figure 6-12: Export a Profile

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

Creating a New Profile

1. On the *Profiles* screen, click the **New** button to create a new profile.

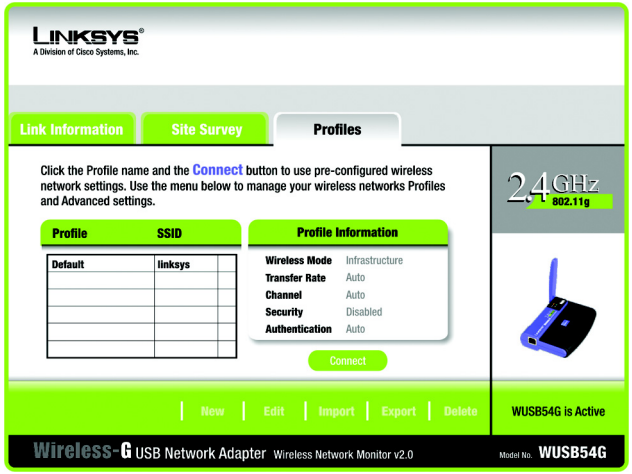

Figure 6-13: Create a New Profile

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 6-14: Enter Profile Name

3. The *Network Settings* screen will appear. If your network has a router or other DHCP server, click the radio button next to **Obtain network settings 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 network settings**. Enter an IP Address, Subnet Mask, Default Gateway, and DNS address 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.

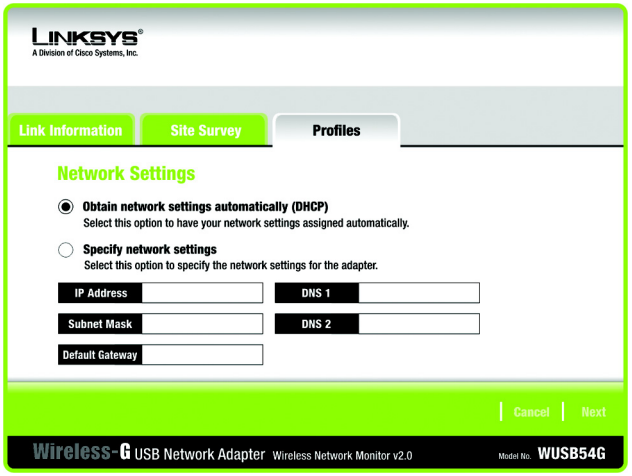

Figure 6-15: Network Settings for New Profile

4. 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 - This is 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.

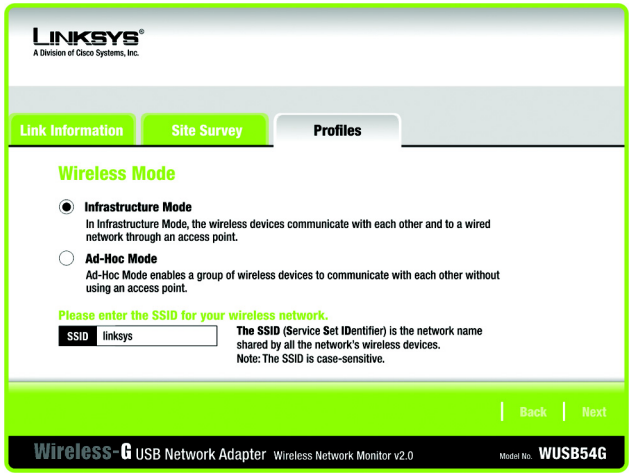

Figure 6-16: Wireless Mode for New Profile

5. The *Ad-Hoc Mode Settings* screen will appear. If you chose Infrastructure Mode, go to Step 6 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 6. 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.

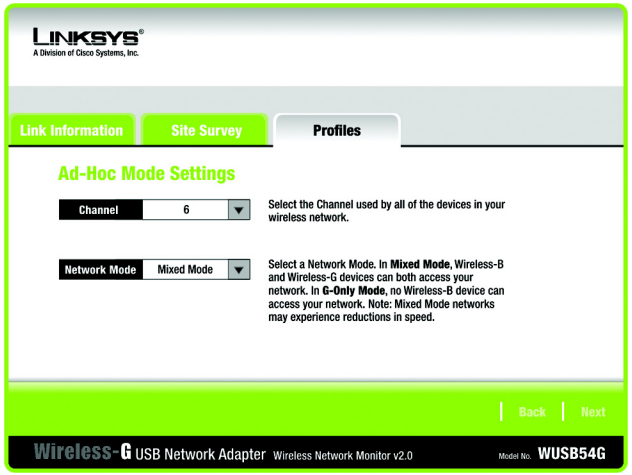

Figure 6-17: Ad-Hoc Mode Settings for New Profile

6. Select the method of security you want to use: **WEP**, **PSK**, **PSK + RADIUS**, or **RADIUS**. WEP stands for Wired Equivalent Privacy, and PSK stands for Pre-Shared Key. RADIUS stands for Remote Authentication Dial-In User Service.

NOTE: If your network is using WPA-Personal or WPA-PSK security, then select **PSK**. If your network is using WPA-Enterprise or WPA-RADIUS security, then select **PSK + RADIUS**.

If you don't want to use encryption, select **Disabled** and then click the **Next** button to continue. Proceed to Step 8.

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

7. Proceed to the appropriate section for your security method: WEP, PSK, PSK-RADIUS, or RADIUS.

WEP

WEP - Select **64-bit** or **128-bit** encryption from the drop-down menu, and enter a passphrase or WEP key.

Passphrase - 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.)

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

Advanced Users
TX 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 *TX Key* drop-down box.

Authentication -The default is set to **Auto**, so it will auto-detect for **Shared Key** or **Open System** authentication. For Shared Key authentication, both the sender and the recipient share a WEP key for authentication. For Open System authentication, the sender and the recipient do not share a WEP key for authentication. If you are not sure which authentication method to select, keep the default, **Auto**.

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

Figure 6-18: Wireless Security for New Profile

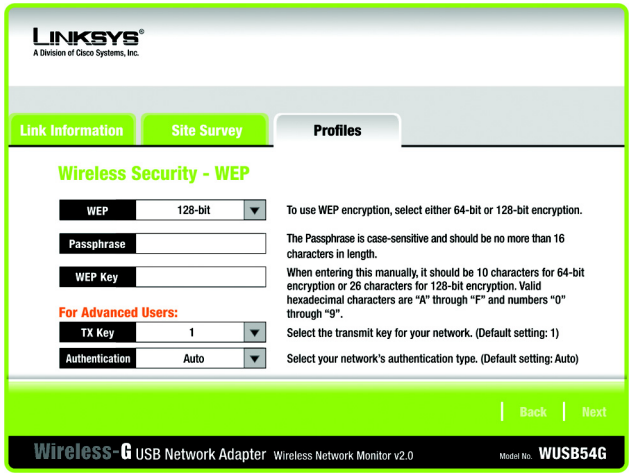

Figure 6-19: Wireless Security - WEP for New Profile