9. The *Mode Setting* screen will appear. Click the **Infrastructure** radio button if you want the Camera to communicate using an access point or wireless router. Click the **Ad-Hoc** radio button if you want the Camera to communicate without using an access point or wireless router. Click the **Next** button.

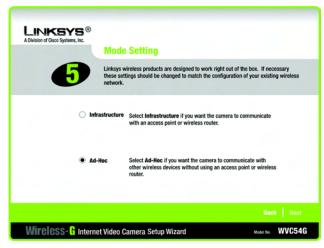


Figure 5-8: Mode Settings Screen

- 10. The Wireless Settings screen will appear, so you can change the wireless settings. Enter your wireless network's SSID or network name. If you chose Ad-Hoc mode, select the channel at which the network broadcasts its wireless signal.
 - SSID. The SSID must be identical for all devices in a wireless network. It is case-sensitive and should
 have 32 alphanumeric characters or fewer. (You can use any keyboard character, but do not use any
 spaces.)
 - Channel. If you set the Camera to Ad-Hoc mode, select the appropriate channel from the drop-down
 menu. All devices in your wireless ad-hoc network must use the same channel in order to function
 correctly.

Then click the **Next** button.



Figure 5-9: Wireless Settings Screen

- 11. The Security Settings screen will appear. If your network has WEP encryption enabled, then select the level of WEP encryption and enter a Passphrase. If you want to manually enter a WEP key, leave the Passphrase field blank, and enter the WEP key in the Key 1 field. If your network doesn't have WEP encryption disabled, keep the default, Disabled.
 - WEP. To enable WEP encryption, select **64-Bit Keys** or **128-Bit Keys** from the drop-down menu. Then enter a Passphrase. If you want to manually enter a WEP key, leave the *Passphrase* field blank.
 - Passphrase. If you enabled WEP encryption, you can enter a Passphrase, so a WEP key will be
 automatically generated. If you want to manually enter a WEP key, leave the *Passphrase* field blank. The
 Passphrase is case-sensitive and should have 16 alphanumeric characters or fewer. It must match the
 passphrase of your wireless network and is compatible with Linksys wireless products only. (You will
 have to enter the WEP key(s) manually on any non-Linksys wireless products.)
 - Key 1. If you want to manually enter a WEP key, complete this field. 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 26 hexadecimal characters. Valid hexadecimal characters are "0" through "9" and "A" through "F".

Click the Next button.

12. Review your settings before the Setup Wizard starts to copy your files. Click the **Next** button to continue.

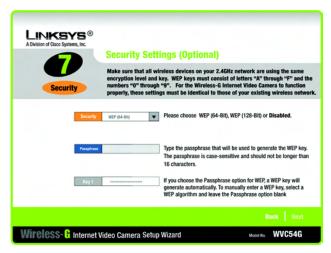


Figure 5-10: Security Settings Screen

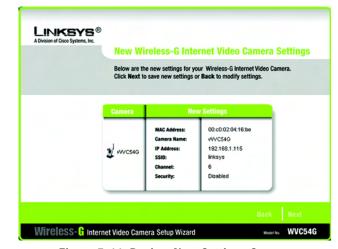


Figure 5-11: Review New Settings Screen

13. If you want to save the new settings, click the **OK** button. If you want to cancel your changes, click the **Cancel** button.



Figure 5-12: Confirmation Screen

- 14. After the files have been successfully copied, the *Congratulations* screen will appear.
 - Install Viewer & Recorder Utility. Click this button to install the Camera's Utility on your PC.
 - Setup SoloLink DDNS Service. Click the Setup SoloLink DDNS Service button to set up and configure the Linksys Dynamic Domain Name System (DDNS) service.
 - Exit. Click the Exit button if you want to install the Camera's Utility later.

Go to the "Placement Options" section.



Figure 5-13: Congratulations Screen

Placement Options

There are three ways to place the Camera. The first way is to place the Camera horizontally on a surface, so it sits on four small rubber feet. The second way is to stand the Camera vertically on a surface (see Figure 5-14). The third way is to hang the Camera on a wall (see Figure 5-16). The second and third options are explained in further detail below.

Stand Option

- 1. The Camera includes a Camera Desktop Stand. Insert the bottom end into the Stand.
- 2. Place the Camera, and adjust its aim and focus accordingly.

Wall Mount Option

The Camera has two wall-mount slots on its back panel. The distance between the slots is 80 mm (3.15 inches).

- 1. Determine where you want to mount the Camera. Attach two screws to the wall, so that the Switch's wall-mount slots line up with the two screws.
- 2. Maneuver the Camera so the screws are inserted into the two slots.
- 3. Adjust the Camera's aim and focus accordingly.

Proceed to the next section, "Audio Option."

Audio Option

If you want to use your own microphone instead of the Camera's built-in microphone, then follow these instructions:

- 1. Connect the 2.5 mm input jack of your microphone to the Camera's MIC IN port on its bottom panel. The built-in microphone will automatically be disabled.
- 2. Place the external microphone in an appropriate location.

The installation of the Wireless-G Internet Video Camera is complete. Go to "Chapter 6: Installing the Wireless-G Internet Video Camera Viewer & Recorder Utility."

If advanced users wish to access the Camera through its Web-based Utility, then proceed to "Chapter 8: Using the Wireless-G Internet Video Camera Web-based Utility."



Figure 5-14: Stand Option



Figure 5-15: Camera Desktop Stand



Figure 5-16: Wall Mount Option



Figure 5-17: Wall-Mount Slots

Chapter 6: Installing and Using the Wireless-G Internet Video Camera Viewer & Recorder Utility

Overview

This chapter will instruct you on how to install and use the Wireless-G Internet Video Camera Viewer & Recorder Utility on your PC. The Utility allows you to easily view and record the Camera's video.

If the Wireless-B Internet Video Camera Viewer & Recorder Utility has already been installed on your PC, Linksys recommends that you uninstall it before you install the Wireless-G Internet Video Camera Viewer & Recorder Utility (this Utility will also work with Wireless-B Internet Video Cameras).



NOTE: To view video using a web browser, you must use Internet Explorer version 5.5 or higher. The View Video feature will not work with Netscape. Netscape users should use the Viewer & Recorder Utility instead.

Installing the Viewer & Recorder Utility

- 1. On the *Welcome* or *Congratulations* screen of the Setup Wizard, click the **Install Viewer & Recorder Utility** button.
- 2. The *Welcome* screen will appear. Click the **Next** button to proceed.



Figure 6-1: Install Viewer & Recorder Utility Screen



Figure 6-2: Install Viewer & Recorder Utility - Welcome Screen

- The Choose Destination Location screen will appear. To install the Viewer & Recorder Utility files in the default folder, click the Next button. To select a different folder, click the Browse button and follow the on-screen directions.
- 4. The Select Program Folder screen will appear. To add program icons to the default folder, click the **Next** button. If you wish, you can rename the default folder. To add program icons to an existing folder, select one from the Existing Folders listed, and then click the **Next** button.
- 5. After the OCX plug-in for video streaming has been installed, the screen shown in Figure 6-5 will appear. Click the **OK** button.
- 6. When the setup is complete, click the **OK** button.

To learn how to use the Viewer & Recorder Utility, proceed to the next section, "Using the Viewer & Recorder Utility."

To set up the Linksys SoloLink Service, go to "Chapter 7: Setting up the Linksys SoloLink DDNS Service."

Advanced users: If you want to use the Camera's Web-based Utility, go to "Chapter 8: Using the Wireless-G Internet Video Camera Web-based Utility."



Figure 6-3: Choose Destination Location Screen



Figure 6-4: Select Program Folder Screen



Figure 6-5: OCX Plug-in Screen



Figure 6-6: Setup Complete Screen

Using the Viewer & Recorder Utility

After the Viewer & Recorder Utility has been installed, the Viewer & Recorder Utility icon will be displayed in two locations, one on your desktop and one in the system tray of your desktop's taskbar.

There are two ways to open the Viewer & Recorder Utility:

- Double-click the icon on your desktop (the icon acts as a shortcut)
- · Right-click the icon in the system tray, and then click Main Program.

You will see the Utility's main screen (see Figure 6-8).

It is divided into two sections, *Cameras* and *Scheduled Recordings in progress*. From this screen, you can control Cameras, view video, and schedule recordings.

To minimize any of the Utility's screens, click the X button in the upper right-hand corner. To request help information, click the ? button in the upper right-hand corner. To close the Utility, right-click the Viewer & Recorder Utility icon in your desktop's system tray. Then click Exit.



NOTE: This Viewer & Recorder Utility is backward-compatible with the Wireless-B Internet Video Camera, so you can use this Utility to control Wireless-G and Wireless-B Internet Video Cameras on your network.

Cameras

From the Cameras section, you can find or delete Cameras, change Camera settings, and view current video.

Camera List

Default ID. The identification name of the Camera used by the Camera and the Utility to exchange data.

Camera Name. The name you gave to the Camera.

Status. The status of the Camera.



Figure 6-7: Viewer & Recorder Utility Icon

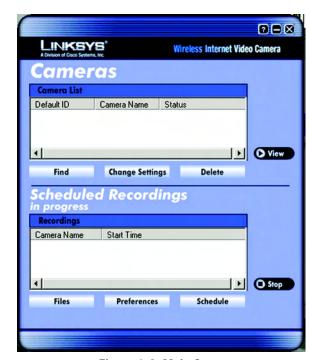


Figure 6-8: Main Screen

Find

To find a Camera on your local network or the Internet, click the **Find** button. There will be two tabs available, LAN and Internet.

LAN

The *LAN* screen shows the Cameras found on your local area network, along with the status information for each Camera.

Cameras on LAN

The Utility will search for Cameras on the local area network and display a list in the *Cameras on LAN* box. To run a new search, click the **Refresh** button.

For the Camera whose name is currently selected in the *Cameras on LAN* box, the following information will be displayed:

Camera Info

Camera Name. The name you gave to the Camera.

Description. The information about the Camera that you entered.

Address. The Camera's IP address.

Port Number. The port number the Camera uses for communication.

Login. If you set up the Camera with a name and password, then you will need to enter them here in order to access the Camera.

Name. Enter the login Name.

Password. Enter the login Password.

To add a Camera to the Utility's list, select the Camera you wish to add by clicking its name in the *Cameras on LAN* box. Then click the **Add** button. You will be notified when the Camera has been added. Click the **OK** button.



Figure 6-9: Find Camera from LAN Screen



Figure 6-10: Camera Added Successfully Screen

Internet

The Internet screen shows the Camera found on the Internet, along with the status information for it.

Test Results

First, go to the *Camera Info* section. Enter the Camera's Address, Port Number, and login information (if required). Then click the **Test** button to find the Camera. The following information will be displayed:

Camera Info

Camera Name. The name you gave to the Camera.

Description. The information about the Camera that you entered.

Address. The Camera's IP address or SoloLink DDNS address.

Port Number. The port number the Camera uses for communication.

Login. If you set up the Camera with a name and password, then you will need to enter them here in order to access the Camera.

Name. Enter the login Name.

Password. Enter the login Password.

To add the Camera to the Utility's list, click the Add button. If you wish to clear a Camera, click the Clear button.

Change Settings

To modify a Camera's settings, select its name in the *Camera List* box, and click the **Change Settings** button.

Test Results

First, make your changes to the Camera's *Address* and *Port Number* fields as needed. If you set up the Camera with a name and password, then you will need to enter them in the *Name* and *Password* fields in order to access the Camera. Click the **Save** button to save your changes.

Click the **Test** button to make sure the Utility is able to find the Camera using the new information.

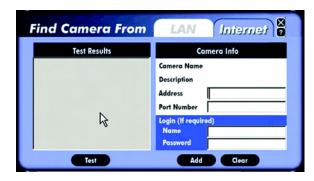


Figure 6-11: Find Camera from Internet Screen



Figure 6-12: Change Settings Screen

For the selected Camera, the following information will be displayed:

Camera Info

Camera Name. The name you gave to the Camera.

Description. The information about the Camera that you entered.

Address. The Camera's IP address or your SoloLink DDNS address.

Port Number. The port number the Camera uses for communication.

Login. If you set up the Camera with a name and password, then enter them here to access the Camera.

Name. Enter the login Name.

Password. Enter the login Password.

If you want to save any changes, click the **Save** button.

Delete

To delete a Camera from the list, select the Camera by clicking its name in the *Camera List* box, and then click the **Delete** button. When asked to confirm the deletion, click the **Yes** button.

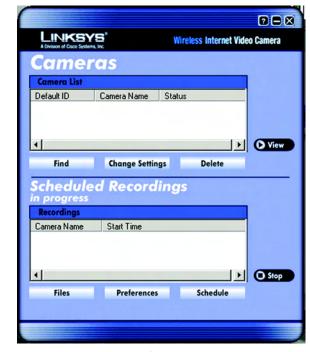


Figure 6-13: Delete Camera Screen

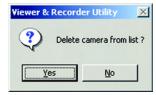


Figure 6-14: Confirm Deletion of Camera Screen

View

To view the video seen by a Camera, select the Camera by clicking its name in the *Camera List* box, and then click the **View** button. You will see a screen similar to the one shown in Figure 6-15.

If you want to view video from a different Camera, return to the Utility's main screen. Select this Camera from the Camera List, and click **View**. Repeat this step for all the Cameras whose video you wish to view.

This screen provides six buttons:

- Play button (triangle) Click this button to view video.
- Record button (circle) Click this button to record the video. (You will see a rotating recording icon, which
 alternates between blue and green, in the desktop's system tray, as shown in Figure 6-16.)
- Stop button (square) Click this button to stop recording or stop the video.
- Snapshot button (camera) Click this button to take a snapshot of the current image.
- Audio button (speaker) Audio is enabled by default. Click this button to disable it. When audio is disabled, then a red dash will appear on this button. If you have disabled audio through the Web-based Utility, then audio will not be available, and a red X will appear on this button.



NOTE: If you are monitoring multiple Cameras and want to hear the audio from a single Camera, then disable the audio from the other Cameras.

• Magnification button (2X) - Click this button to view the video at twice its size. (This digital zoom feature is only available for 320 x 480 and 160 x 128.)



Figure 6-15: View Video Screen



Figure 6-16: Recording Icon Screen

You may find it helpful to know how much memory is required to hold a video recording. The following tables list estimated bit rates and file sizes for a recording at each available resolution and video. The first table shows estimates for a typical video recording, while the second table shows estimates for an audio/video recording.

Estimated Hard-Drive Memory Space Required for Video Recording per Hour

| Resolution | Quality Level | Bit Rate | File Size |
|------------|---------------|----------|-----------|
| 640 x 480 | Very High | 900kbps | 270MB |
| 640 x 480 | High | 700kbps | 190MB |
| 640 x 480 | Normal | 500kbps | 130MB |
| 640 x 480 | Low | 200kbps | 117MB |
| 640 x 480 | Very Low | 40kbps | 105MB |
| 320 x 240 | Very High | 900kbps | 430MB |
| 320 x 240 | High | 500kbps | 330MB |
| 320 x 240 | Normal | 300kbps | 240MB |
| 320 x 240 | Low | 120kbps | 230MB |
| 320 x 240 | Very Low | 40kbps | 225MB |
| 160 x 120 | Very High | 800kbps | 380MB |
| 160 x 120 | High | 400kbps | 270MB |
| 160 x 120 | Normal | 200kbps | 230MB |
| 160 x 120 | Low | 100kbps | 220MB |
| 160 x 120 | Very Low | 40kbps | 210MB |



NOTE: The maximum length of a recording file is one hour. If a recording is more than one hour long, then multiple files will be saved.

Estimated Hard-Drive Memory Space Required for Audio/Video Recording per Hour

| Resolution | Quality Level | Bit Rate | File Size |
|------------|---------------|----------|-----------|
| 640 x 480 | Very High | 900kbps | 340MB |
| 640 x 480 | High | 700kbps | 210MB |
| 640 x 480 | Normal | 500kbps | 160MB |
| 640 x 480 | Low | 200kbps | 140MB |
| 640 x 480 | Very Low | 40kbps | 130MB |
| 320 x 240 | Very High | 900kbps | 480MB |
| 320 x 240 | High | 500kbps | 380MB |
| 320 x 240 | Normal | 300kbps | 270MB |
| 320 x 240 | Low | 120kbps | 240MB |
| 320 x 240 | Very Low | 40kbps | 230MB |
| 160 x 120 | Very High | 800kbps | 460MB |
| 160 x 120 | High | 400kbps | 300MB |
| 160 x 120 | Normal | 200kbps | 260MB |
| 160 x 120 | Low | 100kbps | 250MB |
| 160 x 120 | Very Low | 40kbps | 240MB |



NOTE: The maximum length of a recording file is one hour. If a recording is more than one hour long, then multiple files will be saved.

Scheduled Recordings in Progress

From the *Scheduled Recordings in progress* section, you can schedule recordings, alter the recording preferences, and access recording files.

Recordings

The recordings listed here are scheduled ones that are currently in progress.

Camera Name. The name you gave to the Camera doing the recording.

Start Time. The time the recording began.

Files

To play, delete, or explore recording files, click the **Files** button.

The *Files* screen shows two choices. Click the **Recorded Videos** button if you want to browse for video recordings. Click the **Snapshot Pictures** button if you want to browse for images.

Recorded Files

The Recorded Files screen shows the recordings available and their respective information.

Name. The name of the file. It begins with "Ir" if it was an instant recording. It begins with "Sr" if it was a scheduled recording. The name ends with the date of the recording.

Camera Name. The name of the Camera.

Start Time. The time the recording began.

End Time. The time the recording ended.

Play

To play a recording file, select it by clicking its Name, and then click the Play button.



Note: Use Windows Media Player 7 or higher to view your recordings.

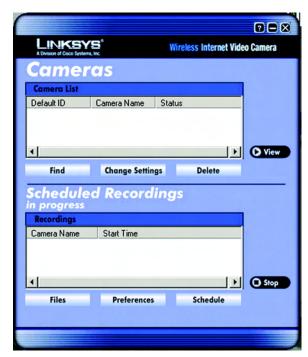


Figure 6-17: Scheduled Recordings in Progress Screen



Figure 6-18: Files Screen



Figure 6-19: Recorded Files Screen

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Delete

To delete a recording file, select it by clicking its Name, and then click the **Delete** button.

Explore

If the recording file you want is not listed, click the **Explore** button to find the file.

To rename a recording file, click the Explore button. After you have found the file, you can rename it.

Snapshots

A window similar to the one shown in Figure 6-20 displays the available SnapShot folders. The name of each folder is the MAC address of the Camera that took that folder's snapshots. Double-click a folder to see a list of its images.

Preferences

To designate the folder where recording files are saved, click the **Preferences** button. You can also customize the time limit for unscheduled or instant recordings on the *Preferences* screen.

Recorded File Location

This shows the location where recording files are saved. You can enter a new location, or click the **Browse** button to look for one.

Time limit for unscheduled recordings

You can customize the maximum amount of time an instant or unscheduled recording is allowed. Select the appropriate amount of time from the drop-down menu. The default is one minute.

To save your changes, click the **Save** button.

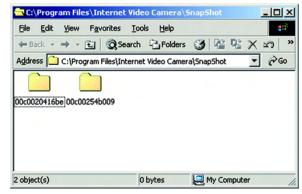


Figure 6-20: Window Showing SnapShot Folders



Figure 6-21: Preferences Screen

Schedule

To view or modify the recording schedule, click the **Schedule** button.

The Recording Schedule screen shows the current recording schedule and each recording's information.

Camera Name. The name of the Camera.

Date. The date of the recording.

Time. The start time of the recording.

Frequency. How often the recording will occur.

Add

To schedule a new recording, click the **Add** button.

Camera. Select the Camera you want for this recording.

Frequency. Select how often you want this recording to be made.

Start Date. Enter the date you want this recording to start.

Start Time. Enter the time you want this recording to start.

Duration. Enter the number of hours and minutes you want this recording to last.

When you are finished, click the **Save** button.

Modify

To modify a scheduled recording, select the recording by clicking its Camera Name, and then click the **Modify** button.

Camera. This indicates the Camera that was selected for this recording.

Frequency. Alter how often you want this recording to be made.

Start Date. Alter the date you want this recording to start.

Start Time. Alter the time you want this recording to start.



Figure 6-22: Recording Schedule Screen



Figure 6-23: Add to Recording Schedule Screen

Duration. Alter the number of hours and minutes you want this recording to last.

When you are finished, click the **Save** button.

Delete

To delete a scheduled recording, select it by clicking its Camera Name, and then click the **Delete** button.

Stop

To terminate a scheduled recording that is currently in progress, select it by clicking its Camera Name, and click the **Stop** button.

If you want to restart the scheduled recording, select the Camera you want by clicking its name in the *Camera List* box, and click the **View** button. You will see a screen similar to the one shown in Figure 6-25. Click the button with the circle to record the video. To stop recording, click the button with the square.

To set up the Linksys SoloLink Service, go to "Chapter 7: Setting up the Linksys SoloLink DDNS Service."

If you want to use the Camera's Web-based Utility, go to "Chapter 8: Using the Wireless-G Internet Video Camera Web-based Utility."

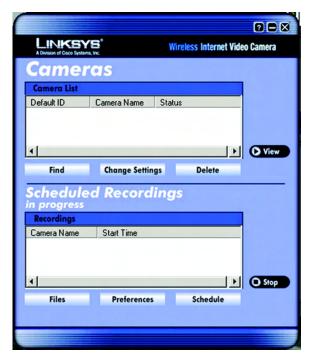


Figure 6-24: Stop Scheduled Recording Screen



Figure 6-25: View Video Screen

Chapter 7: Setting up the Linksys SoloLink™ DDNS Service

Overview

This chapter will briefly discuss the Linksys SoloLink DDNS Service, explain how to set up your SoloLink account, and describe how to register additional Cameras on your SoloLink account. You need only one SoloLink account. Once you have set up your account, you can register additional Cameras, one at a time, through each Camera's Web-based Utility. This way each Camera can take advantage of the SoloLink DDNS Service.

Introduction

The SoloLink DDNS (Dynamic Domain Name System) Service lets you assign a fixed host and domain name to a dynamic Internet IP address. The instructions in this chapter will guide you through the setup needed for use of the SoloLink DDNS Service. For the most current information about the SoloLink DDNS Service, visit www.linksys.com/sololink. For a free, 90-day trial period of your SoloLink account, use the Access ID Card included with the Camera.

You may want to use the Linksys SoloLink DDNS Service if one of the following applies to you:

Dynamic IP Address - Your Internet service assigns you a dynamic IP address. Many Internet service providers (ISPs) assign a new IP address to your connection from time to time (for security purposes), or whenever you disconnect and reconnect. The SoloLink service keeps track of your network's address, even when it changes, so you can "find" the Camera.

Convenience - There are a couple of ways the SoloLink service can be convenient. If you have a static IP address, you can use the SoloLink service to enter a "name" and port number for remote access of the Camera via the Internet. There's no need to type an entire IP address. For example, you can give a Camera a "name" such as cam1.myhouse.ourlinksys.com.

Also, some DDNS services require your PC to continuously run software that lets them keep track of your IP address. If your PC isn't powered on when your IP address changes, you won't be able to find the Camera on the Internet. The SoloLink service keeps track of where the Camera is.

Setup Wizard for the SoloLink DDNS Service

1. On the *Welcome* or *Congratulations* screen of the Setup Wizard, click the **Setup SoloLink DDNS Service** button.



Figure 7-1: SoloLink Service



Figure 7-2: SoloLink Welcome Screen

2. The screen shown in Figure 7-3 explains why you would want to use the SoloLink DDNS Service if your network is using a dynamic IP address. Click the **Next** button.



Figure 7-3: SoloLink for Dynamic IP Address Screen

3. The screen shown in Figure 7-4 explains why you would find the SoloLink DDNS Service convenient if you would prefer to access the Camera using a name rather than a series of numbers (its IP address). Click the **Next** button.

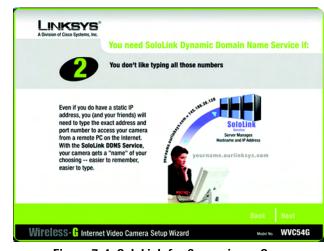


Figure 7-4: SoloLink for Convenience Screen

4. Make sure your network has an active Internet connection. Verify that your PC and Camera are connected to the network and the Camera is configured properly. Click **Next**.

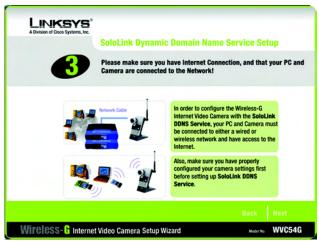


Figure 7-5: Check Connections Screen

5. The screen shown in Figure 7-6 will display a list of Wireless-G Internet Video Cameras on your network and their status information. In the *Selection* box, click the name of the Camera you are currently setting up. Click **Next**.



Figure 7-6: Cameras Found Screen

6. To ensure security, you will be asked to enter a user name and password before you can access the Camera. If you have not changed the Camera's user name and password, then enter **admin** in the *User name* and *Password* fields (**admin** is the default). Then click **OK**.

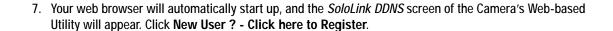




Figure 7-7: Login Screen



Figure 7-8: SoloLink DDNS Screen

8. The screen shown in Figure 7-9 will ask you to make sure your network has an active Internet connection. Click **Continue**.

Wireless-G Internet Video Camera

| Home | View Video | Same | Linksys WEB | Help | Exit
| Basic | Image | Password | Users | Stafus | Options
| New User Registration | Your Camera and PC need to be connected to the Internet to Sign up. Please confirm that you are connected to the Internet before continuing.
| Confinue | Back | B

Figure 7-9: Confirm Active Internet Connection Screen

9. On the Welcome to the SoloLink DDNS Service screen, click Set up a NEW Account.



Figure 7-10: Welcome to the SoloLink DDNS Service Screen

10. On the *Sign Up* screen, enter the Access ID for your free trial offer. It is provided on the Promotion Card included with the Camera. (If you don't have an Access ID, then leave the *Access ID* field blank.)

Then enter your account and user information. Enter a Username and Password for your account. Enter the Password again in the *Confirm Password* field.

Complete the following required fields: *First Name, Last Name, Phone,* and *Email.* You can also enter your postal address and choose to receive updates by e-mail. Then click **Continue**.

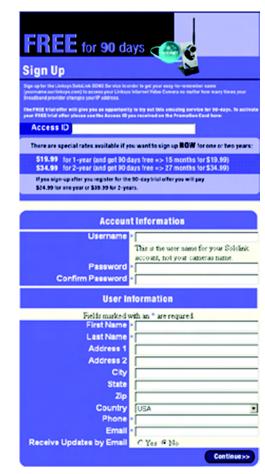


Figure 7-11: Sign Up Screen

11. Review your information on the *Confirmation* screen. If the new settings are correct, click **Continue**.



Figure 7-12: Confirmation of New Settings Screen

12. On the *Select a Location ID* screen, enter a Location ID, which can be a name describing your network's location. It will be combined with the Camera's Device Name and *ourlinksys.com* to create a convenient URL you can use to access the Camera. Click **Continue**.



Figure 7-13: Select a Location ID Screen

13. On the Confirm your Location ID screen, verify that the Location ID is correct. Then click Continue.

14. On the *Payment* screen, choose one of two payment plans, **Bill me now** or **Bill me later**. (If you did not enter an Access ID, then you have one choice, **Bill me now**.)

If you click Bill me later, go to step 15.

If you click *Bill me now*, you will see a screen asking for billing information. Follow the on-screen instructions and then go to step 15.

15. Read the Terms of Service agreement on the *Verification* screen. Click **Create Account** to accept the terms of service.



Figure 7-14: Confirm Your Location ID Screen



Figure 7-15: Payment Screen

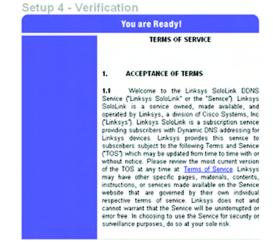


Figure 7-16: Verification Screen