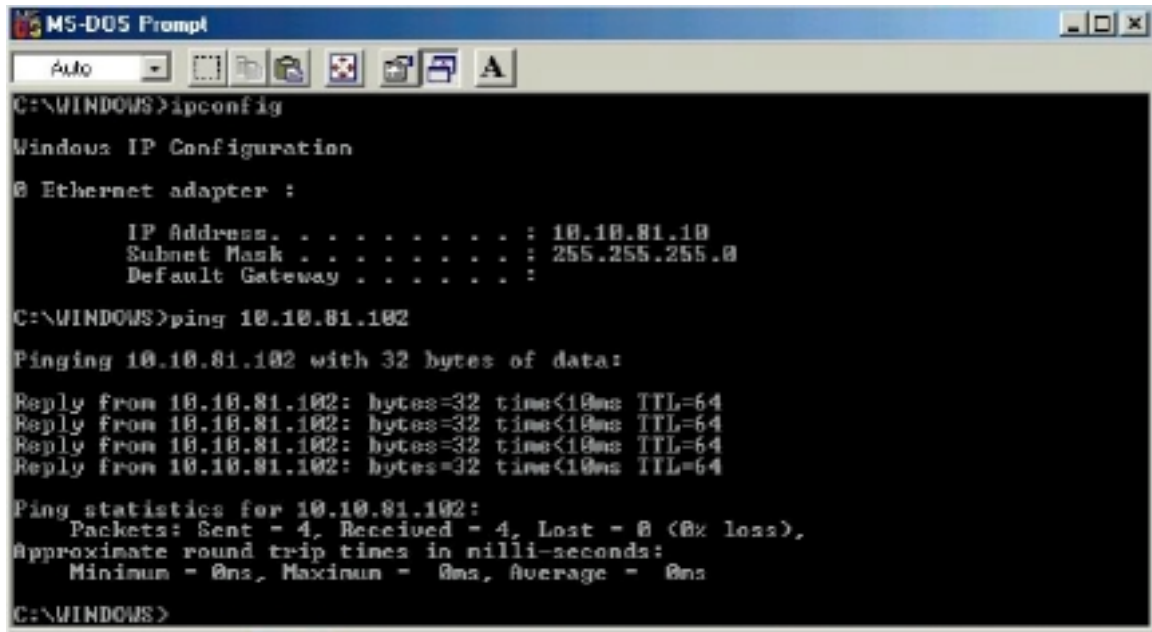
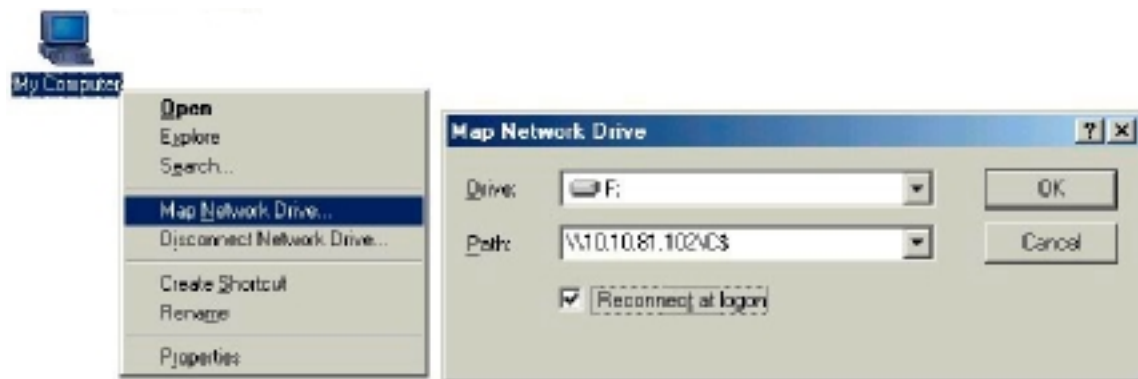


- Click "Start," "Programs," "Accessories," and "Command Prompt" to open the DOS command prompt window. Type "ipconfig" to determine if the TCP/IP configuration has taken effect. To test IP connectivity in ad hoc or infrastructure mode, use the "ping <ipaddress>" command. When a TCP/IP connection is established, the LinkMon utility (see Section 6) can be used to monitor the 802.11a Wireless LAN Network Adapter operating status.



- To map the drive on another machine to your computer, right-click "My Computer" and click "Map Network Drive...." Specify the path of a network-shared folder.



- After mapping the drive, you can perform file transfers, video streaming, and all other network data transfers that are normally performed with wired 10/100 Ethernet connections.

## 4 Windows 98 Second Edition

### 4.1 Driver installation

Atheros recommends that you remove any existing 802.11a NDIS driver on the PC system before installing Version 1.2 release of the NDIS driver. See Section 4.2 for the instructions on how to remove previous driver releases. When the system no longer has the 802.11a NDIS driver installed, insert the Wireless LAN Network Adapter into a 32-bit CardBus slot, and follow these steps to install the NDIS driver:

1. Wait for the following dialog box to appear, and click Next to continue.



2. Choose "Search for the best driver for your device (Recommended)," and click Next.



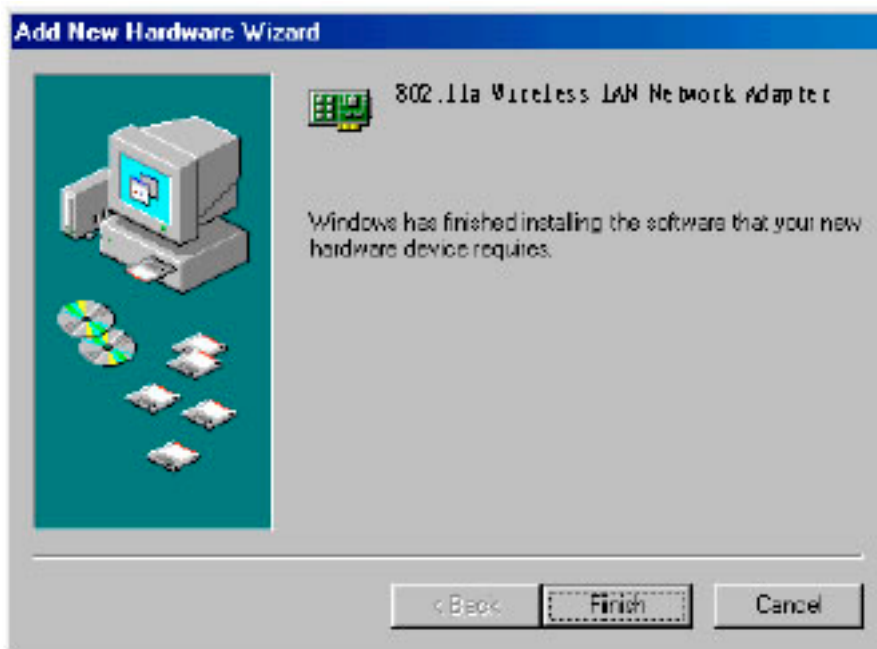
3. Insert the 802.11a Software Release CD in your CD-ROM drive. Choose "Specify a location" and browse to the location where the NDIS driver is located. The default folder is D:\ndis\bin\production (assuming D: is the CD-ROM drive). Click Next to continue.



4. When the 802.11a driver installation file (802\_11a.inf) has been found, click Next to continue.



5. Click Finish to continue.



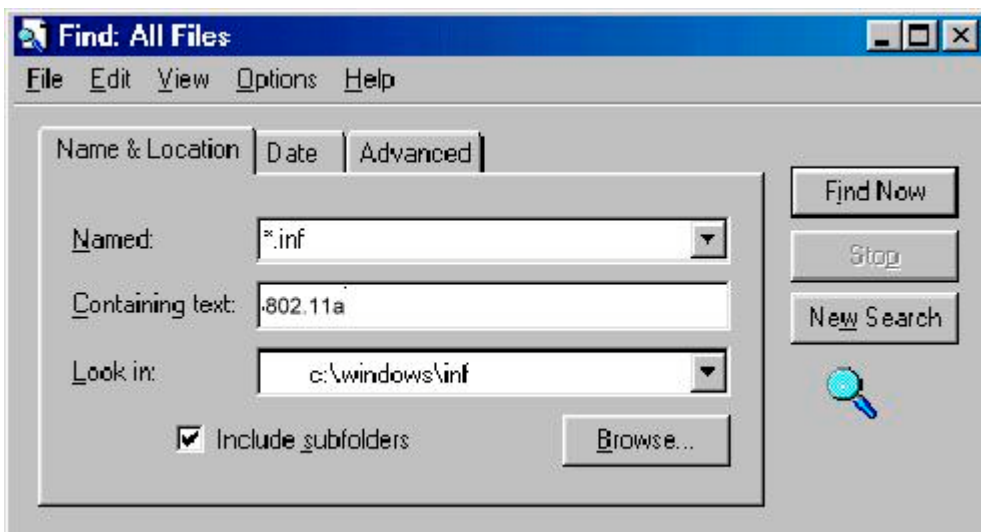
6. Click Yes to restart the system and complete driver installation. See Section 4.3 for device configuration.



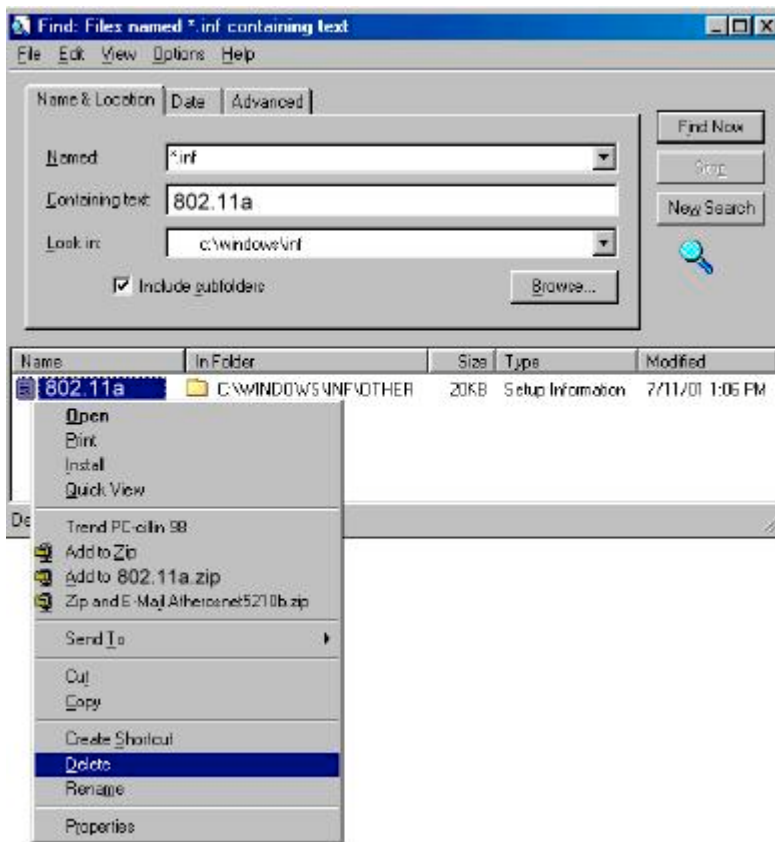
#### 4.2 Driver Uninstallation

This section provides uninstallation procedures for removing the 802.11a NDIS driver from the system. Uninstallation is recommended for upgrading the NDIS driver from previous 802.11a driver releases.

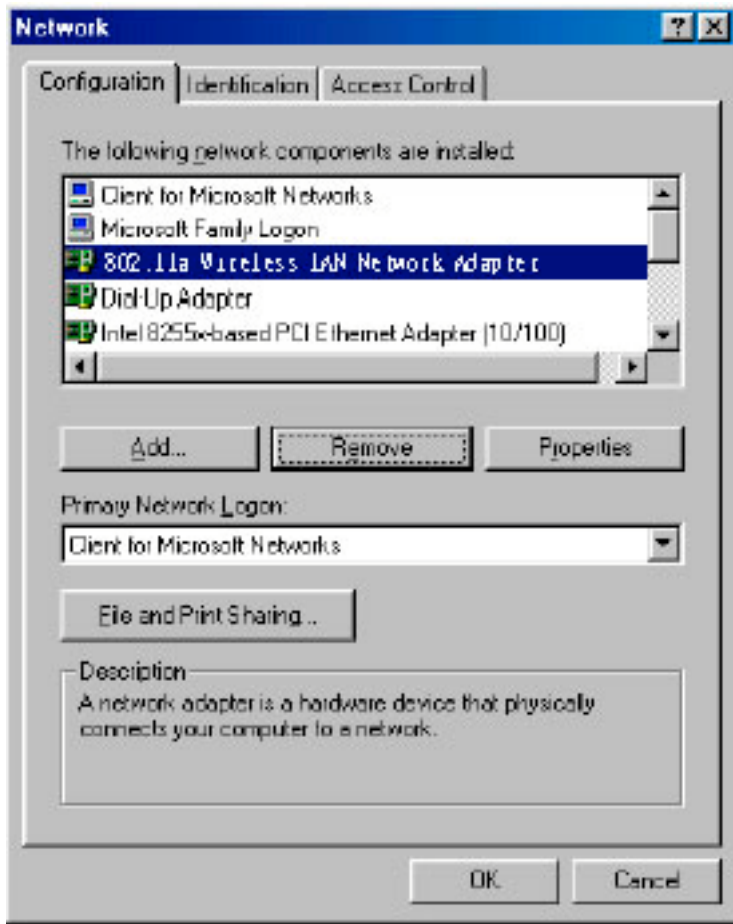
1. To remove the NDIS driver from the OS, go to "Start Menu" → "Search" → "Find Files or Folders...", and search for the INF file containing the "802\_11a" text string under the WINDOWSINF folder. Be sure to include subfolders in the search criteria.



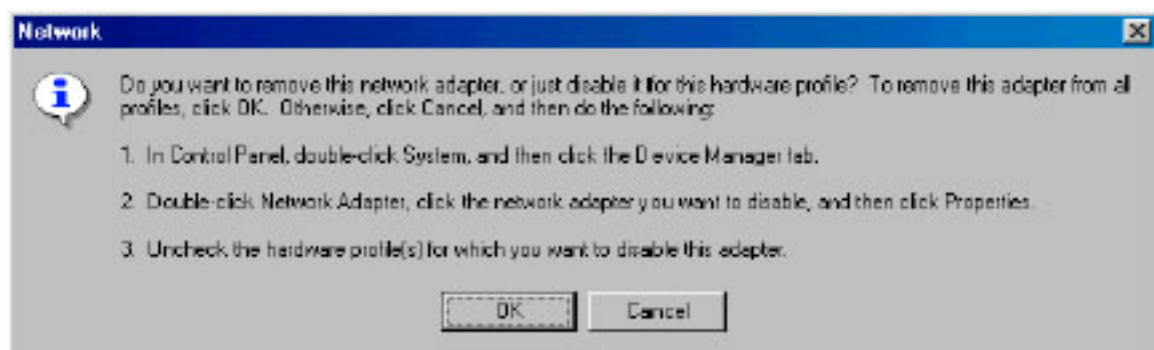
2. When "802\_11a.inf" has been found, delete it by right-clicking the file and choose "Delete."



3. From Control Panel, launch the Network properties window. Select "802.11a Wireless LAN Network Adapter" from the list, and click Remove to uninstall the device.



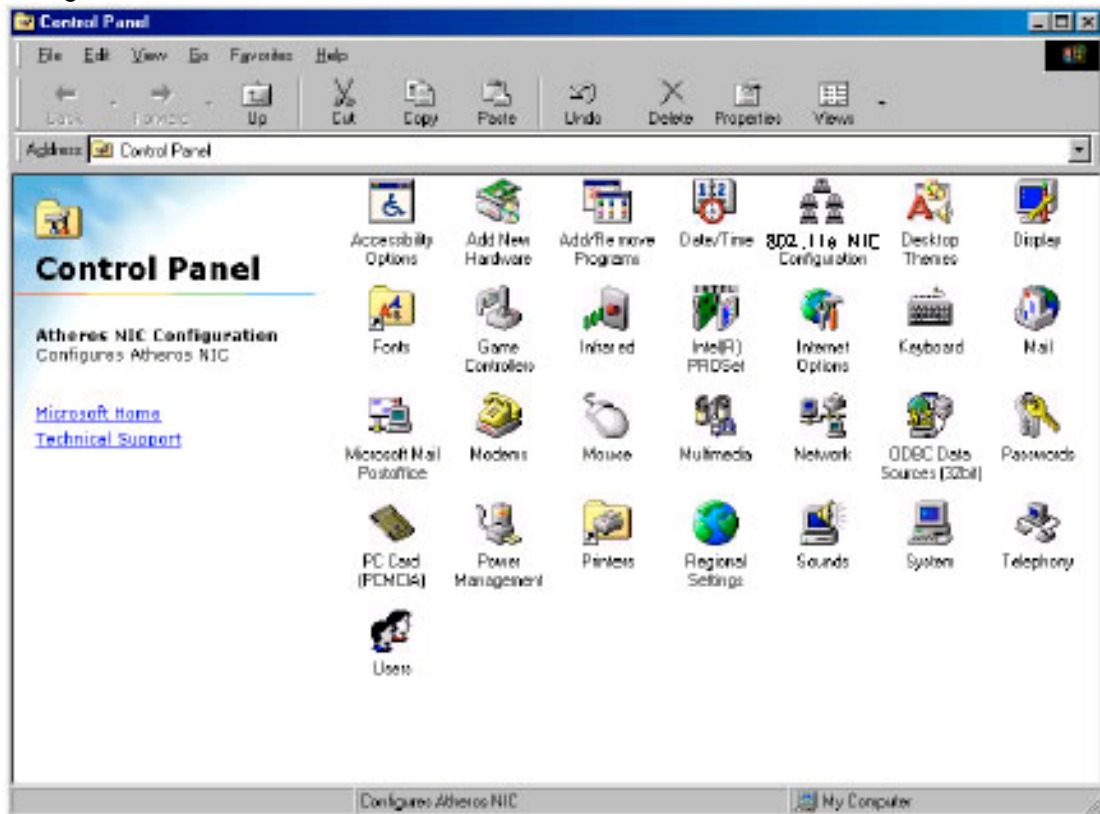
4. Click OK to confirm the removal of the device. Restart the system to complete uninstallation.



### 4.3 Device Configuration

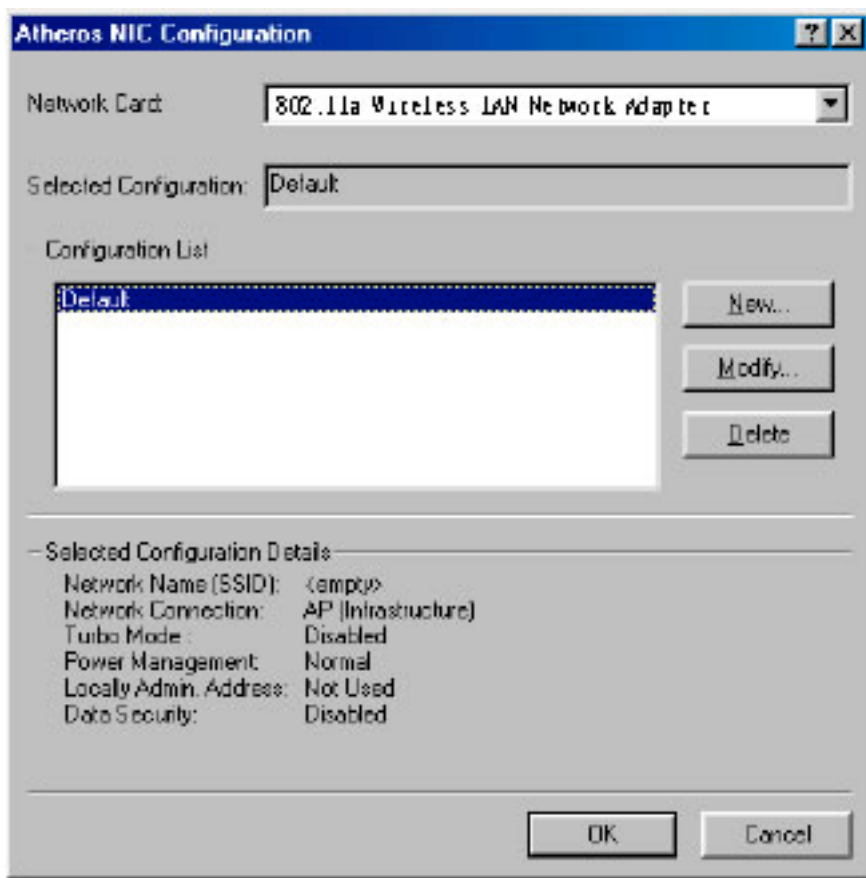
Configuration of the 802.11a Wireless LAN Network Adapter can be done through the 802\_11a NIC Configuration utility found in the Windows Control Panel. Similar to Windows 2000 the device can be set to work in one of two modes: infrastructure mode or ad hoc mode. Please refer to Section 2.5 for more details on these network connection types.

To launch the configuration utility, go to Control Panel and double-click on the 802\_11a NIC Configuration icon.



The configuration utility allows addition, modification, and deletion of the configuration profiles. Select one of the existing configuration profiles under the configuration list to modify or click New to add a new configuration profile. Follow Section 4.3.1 and Section 4.3.2 to set up the station to work in infrastructure mode and ad hoc mode.

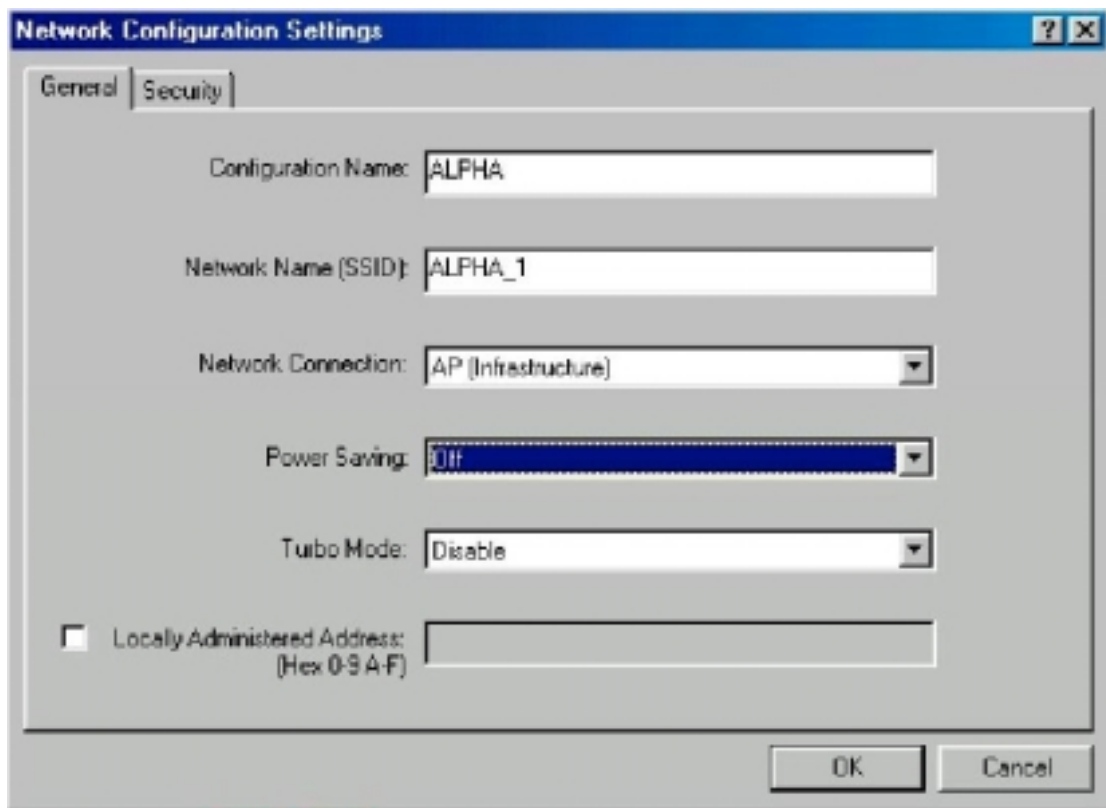




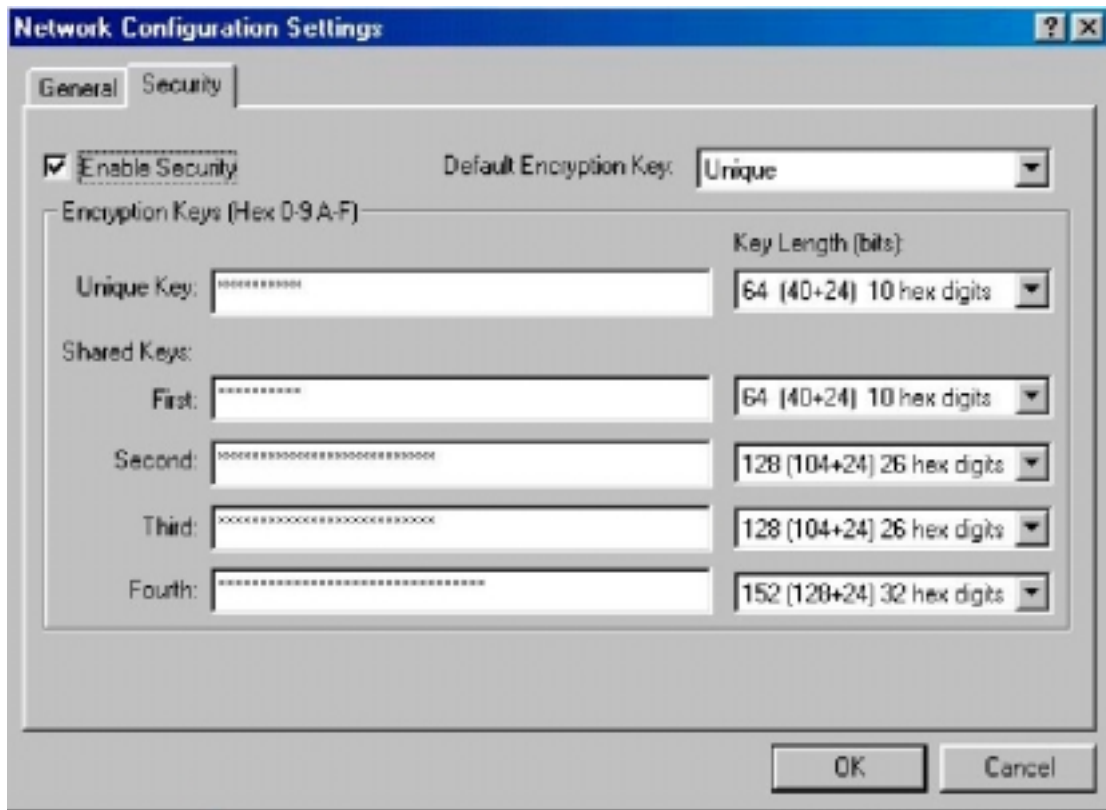
#### 4.3.1 Infrastructure Mode

This section defines the process of configuring an 802.11a Wireless LAN Network Adapter in infrastructure mode. See Section 2.4 for detailed descriptions of each option in the Network Configuration Settings.

1. Under the "General" tab, make sure the "Locally Administered Address" checkbox is unchecked. Use the following information as a guideline to choose the values of each field in the configuration window:
  - Configuration Name: This field identifies the configuration. This name must be unique. Configuration names are case insensitive.
  - Network Name (SSID): This is the name of the IEEE 802.11a Wireless LAN Network. This field has a maximum limit of 32 characters. If this field is left blank, the STA connects to the AP with the best signal strength.
  - Network Connection: AP (Infrastructure)
  - Power Saving: This field allows the configuration of power management options. The options are Off, Normal, and Maximum.
  - Turbo Mode: This field enables or disables 802.11a turbo mode.



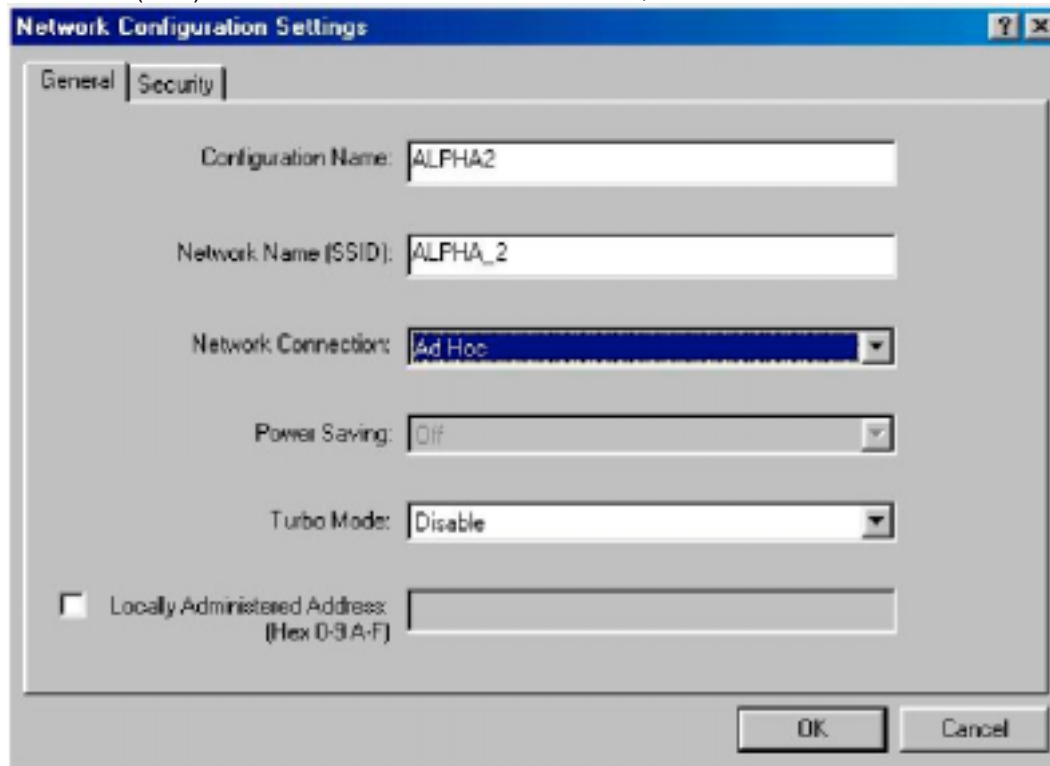
2. Usually, infrastructure mode is used in an enterprise environment where APs are installed and maintained by corporate IT staff. Much of the data in the enterprise network is confidential. It is important to configure security to make sure only stations with appropriate keys can receive sensitive data. The 802.11a Wireless LAN Network Adapter and NDIS driver support key lengths of 40 bits, 104 bits and 128 bits. Typically, the appropriate encryption and decryption keys are supplied by the corporate IT staff.



### 4.3.2 Ad Hoc Mode

This section defines the process of configuring an 802.11a Wireless LAN Network Adapter in ad hoc or IBSS mode. See Section 2.4.2 for descriptions of ad hoc operation.

1. Similar to the setup of the AP infrastructure mode described in the previous section, ad hoc mode is also configured by changing the Network Configuration Settings of the 802\_11a NIC Configuration utility. Use the following information as a guideline to choose the values of each field in the configuration window:
  - Configuration Name: This field identifies the configuration. This name must be unique. Configuration names are case insensitive.
  - Network Name (SSID): A Network Name is mandatory for ad hoc mode. The SSID for all stations in a single ad hoc network must be the same.
  - Network Connection: Ad Hoc.
  - Power Saving: Power saving mode is not currently supported in an ad hoc network.
  - Turbo Mode: All stations participating in the ad hoc network must have the same rate setting.
  - Locally Administered Address: This field defines the locally administered MAC address (LAA). To enter a value in the address field, the check box needs to be selected.

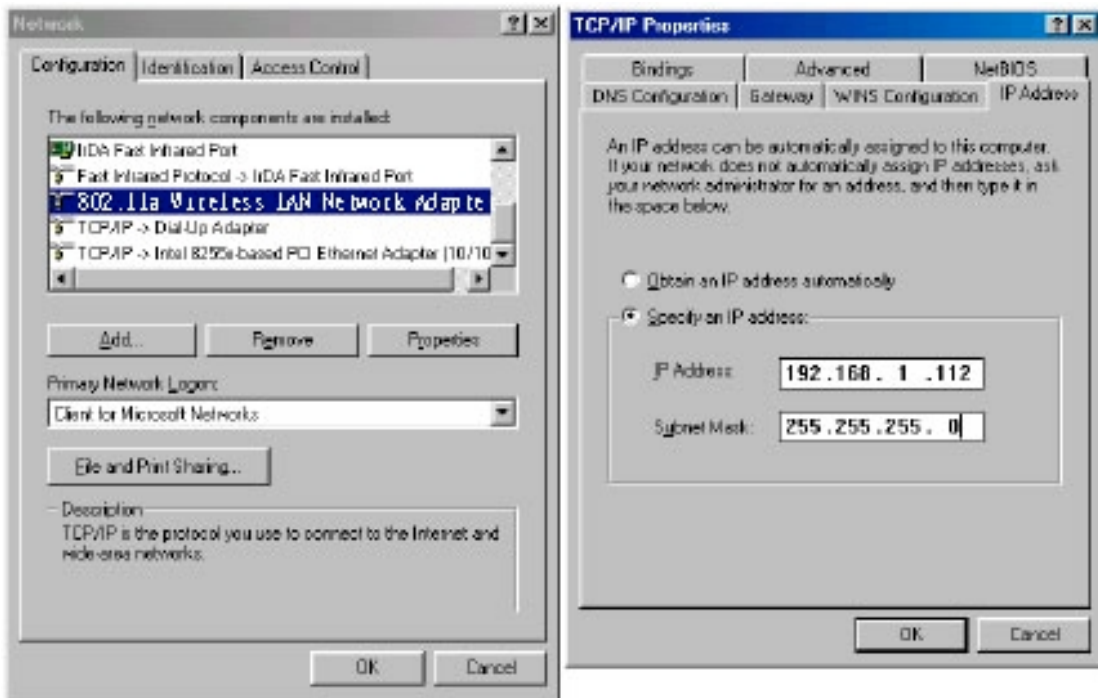


2. You can optionally set up other properties, but because the duration of the ad hoc network tends to be limited, Power Saving and Security features are not typically a requirement. For ad hoc network activity, the Power Saving and Security features can be disabled. Currently, shared key security is supported in ad hoc mode. Future 802.11a software implementations will provide unique key support.
3. Click OK when the properties are set correctly. The system needs to reboot in order for the changes to take effect.

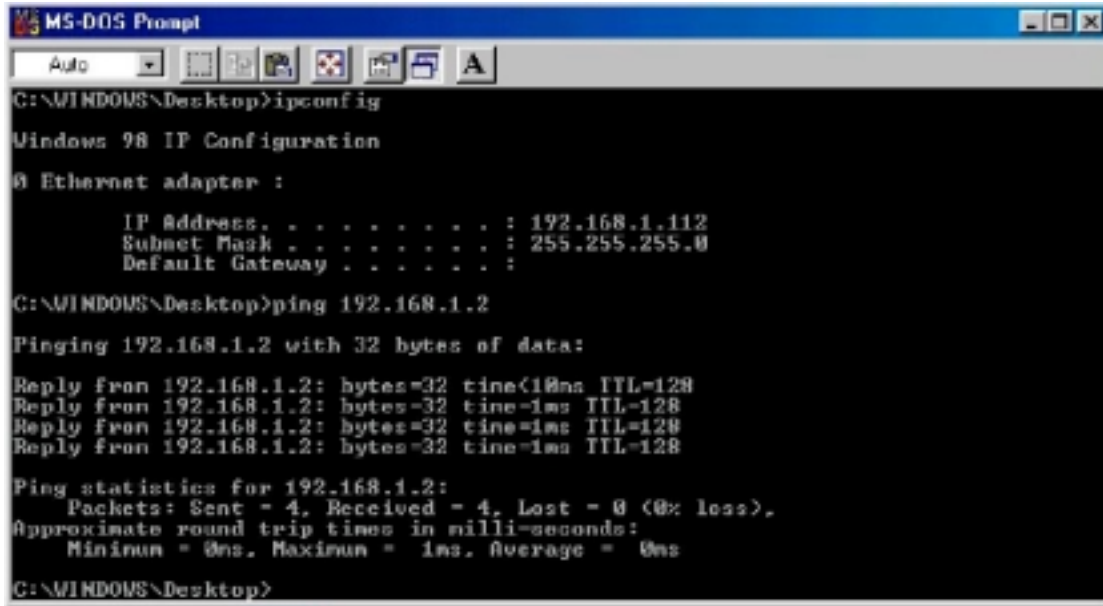
### 4.3.3 TCP/IP Setup

After configuring the 802.11a Wireless LAN Network Adapter network adapter properties, the TCP/IP address for the network device needs to be configured.

1. From Control Panel, launch the Network properties window. Select "TCP/IP → 802.11a Wireless LAN Network Adapter" and click Properties. Depending on the type of network the station connects to, Gateway and DNS Configuration information can also be required. IP configuration information (DHCP or assigned IP address Gateway and DNS server IP addresses) is usually obtained from the corporate IT staff. For a simple demonstration, the station is assigned a static IP address. From "TCP/IP Properties," choose "IP Address" and select "Specify an IP address." Input an IP address and subnet mask. Assigning an IP address and Subnet mask allows the station to interact with the AP or other stations in the same IP subnet. Click OK to complete the TCP/IP configuration, and restart the system for the changes to take effect.

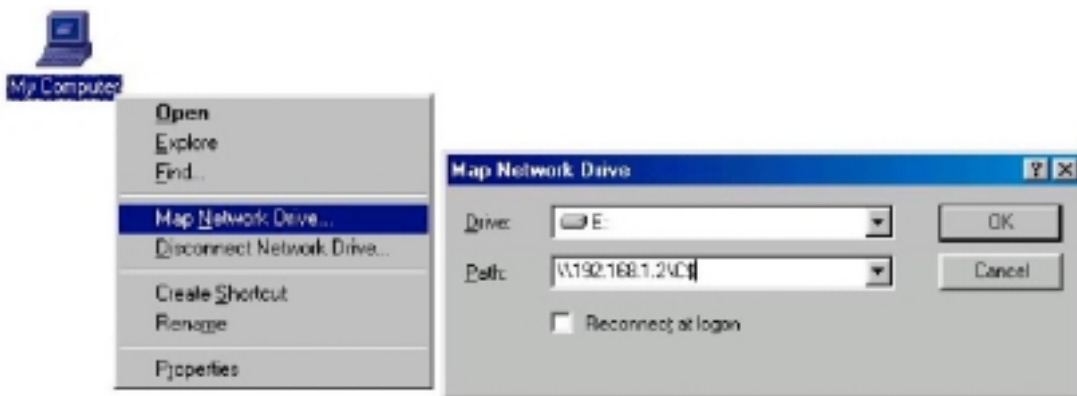


2. Click "Start," "Programs," "Accessories," and "Command Prompt" to open the DOS command prompt window. Type "ipconfig" to determine if the TCP/IP configuration has taken effect. To test IP connectivity in ad hoc or infrastructure mode, use the "ping <ipaddress>" command. When a TCP/IP connection is established, the LinkMon utility (see Section 6) can be used to monitor the 802.11a Wireless LAN Network Adapter operating status.



```
MS-DOS Prompt
C:\WINDOWS\Desktop>ipconfig
Windows 98 IP Configuration
Ethernet adapter :
    IP Address. . . . . : 192.168.1.112
    Subnet Mask . . . . . : 255.255.255.0
    Default Gateway . . . . . :
C:\WINDOWS\Desktop>ping 192.168.1.2
Pinging 192.168.1.2 with 32 bytes of data:
Reply from 192.168.1.2: bytes=32 time<10ms TTL=128
Reply from 192.168.1.2: bytes=32 time=1ms TTL=128
Reply from 192.168.1.2: bytes=32 time=1ms TTL=128
Reply from 192.168.1.2: bytes=32 time=1ms TTL=128
Ping statistics for 192.168.1.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 1ms, Average = 0ms
C:\WINDOWS\Desktop>
```

3. To map the drive on another machine to your computer, right-click "My Computer" and click "Map Network Drive...." Specify the path of a network-shared folder.



4. After mapping the drive, you can perform file transfers, video streaming, and all other network data transfers that are normally performed with wired 10/100 Ethernet connections.

## 5 Windows XP

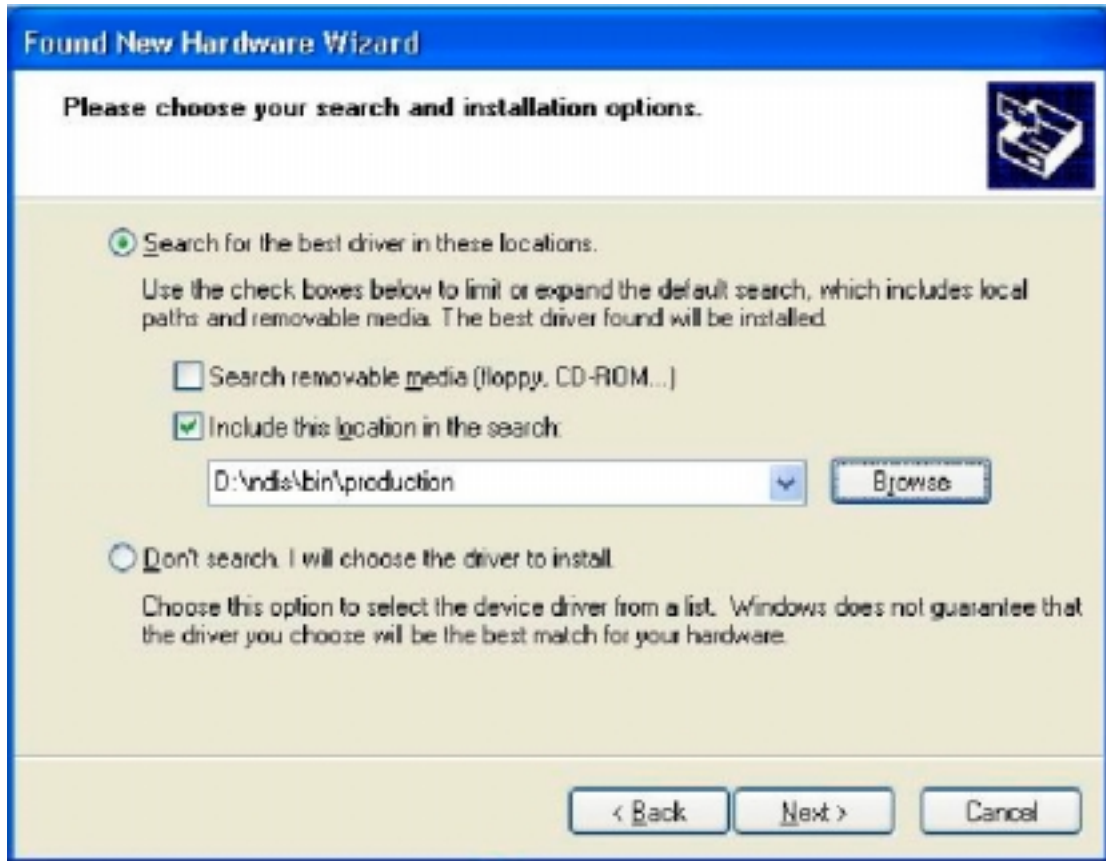
### 5.1 Driver Installation (First-time Install)

We recommends that you remove any existing 802.11a drivers on the PC system before installing Version 1.2 release of the NDIS driver. See Section 5.2 for the instructions on how to remove previous driver releases. With no existing 802.11a NDIS driver installed, insert the 802.11a Wireless LAN Network Adapter into a 32-bit CardBus slot, and follow these steps to install the NDIS driver:

- 1 Wait for the following dialog box to appear. Choose "Install from a list or specific location (Advanced)," and click Next to continue.



2. Under “Search for the best driver in these locations,” choose “Include this location in the search” and click Browse to find the location of the NDIS driver. When the driver location has been identified, click Next to continue.





3. The 802.11a NDIS evaluation driver currently does not have a digital signature from Microsoft. Therefore, Windows XP shows a warning message. Click Continue Anyway to proceed with driver installation.



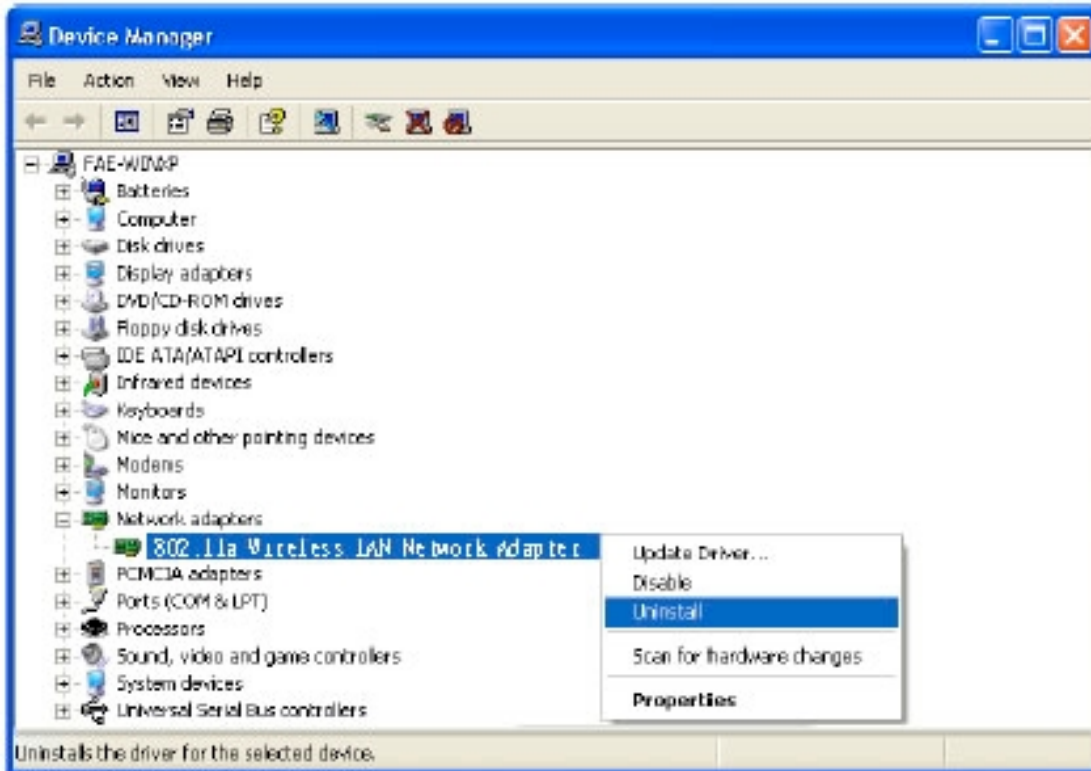
4. Click Finish to complete driver installation, and refer to Section 5.3 for device configuration.



## 5.2 Driver Uninstallation

This section provides uninstallation procedures for removing the 802.11a NDIS driver from the system. Uninstallation is recommended for upgrading the NDIS driver from previous 802.11a driver releases.

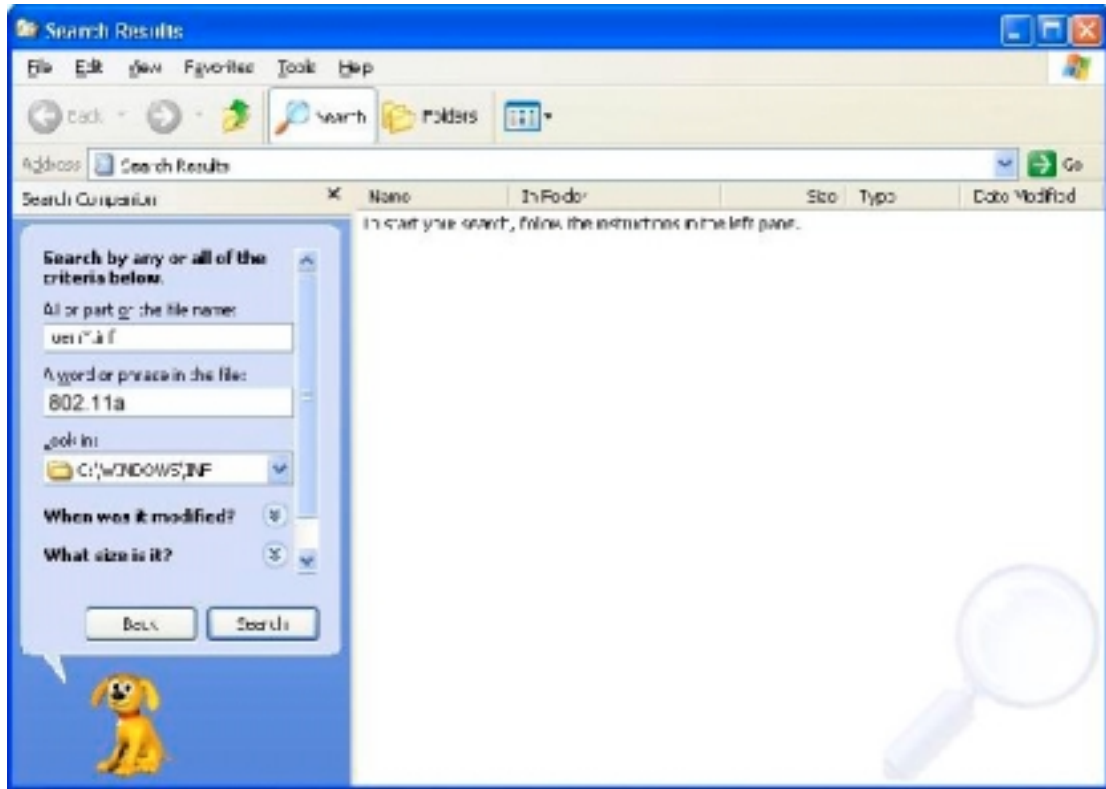
1. To remove the NDIS driver from the OS, go to Device Manager, right click "802.11a Wireless LAN Network Adapter," and choose Uninstall.



2. Click OK to uninstall the device.



- When the device is uninstalled from Device Manager, search for and delete the driver installation file that resides in the system. To do so, go to "Start" and choose "Search" → "All files and folder," enter "oem\*.inf" in the "All or part of the file name" field, and enter "802\_11a" in the "A word or phrase in the file" field. Enter "C:\WINDOWS\INF" in the "Look in" field, where C: is the drive letter of where Windows XP is installed. Click Search to find the driver installation file.



- A file matching the search criteria is displayed. Choose this file and delete it from the system.

