



Wireless LAN USB Stick

AWL-400

User Manual

Version 1.1
June 2002





Notice I

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Notice II

FCC Warning

The AWL-400 complies with Part 15 of the FCC rules.

Operation is subject to the following two conditions.

- () This device may not cause harmful interference.
- () This device must accept any interference received, including interference that may cause undesired operation.

Note:

The AWL-400 has been tested and found to comply with the limits for a Class B digital device and a low power transmitter, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a residential environment. 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 communications. However, there is no guarantee that interference will not occur in a particular installation.

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Chapter 1. Introduction

Thank you for purchasing a BenQ AWL400 Wireless LAN USB Stick. The AWL400 Wireless LAN USB Stick lets you connect to your network and the Internet without needing to be tethered to a fixed location by a physical cable, while still getting the same data transfer rates as with traditional Ethernet. You can use it with any desktop or notebook PC with a USB port. In addition to allowing you to enjoy the wonders of wireless networking, the AWL400 provides two operating modes—ad-hoc mode (peer-to-peer) and infrastructure mode (station-to-AP)—to meet to your varying needs at different purposes.



Product Kit

Before installation, make sure that you have the following items:

- ◆ AWL400 Wireless LAN USB Stick
- ◆ USB cable
- ◆ Software CD containing user manual and utility
- ◆ Quick Start Guide
- ◆ Warranty card

1-2 System Requirements

Before using your AWL 400, please check that you have the following required items:

- ◆ PC/Notebook with USB port and CD-ROM drive
- ◆ Microsoft Windows 98SE/ME/2000/XP operating system

1-3 Mechanical Description

Top panel of the Access Point

The following table provides an overview of each LED activity:

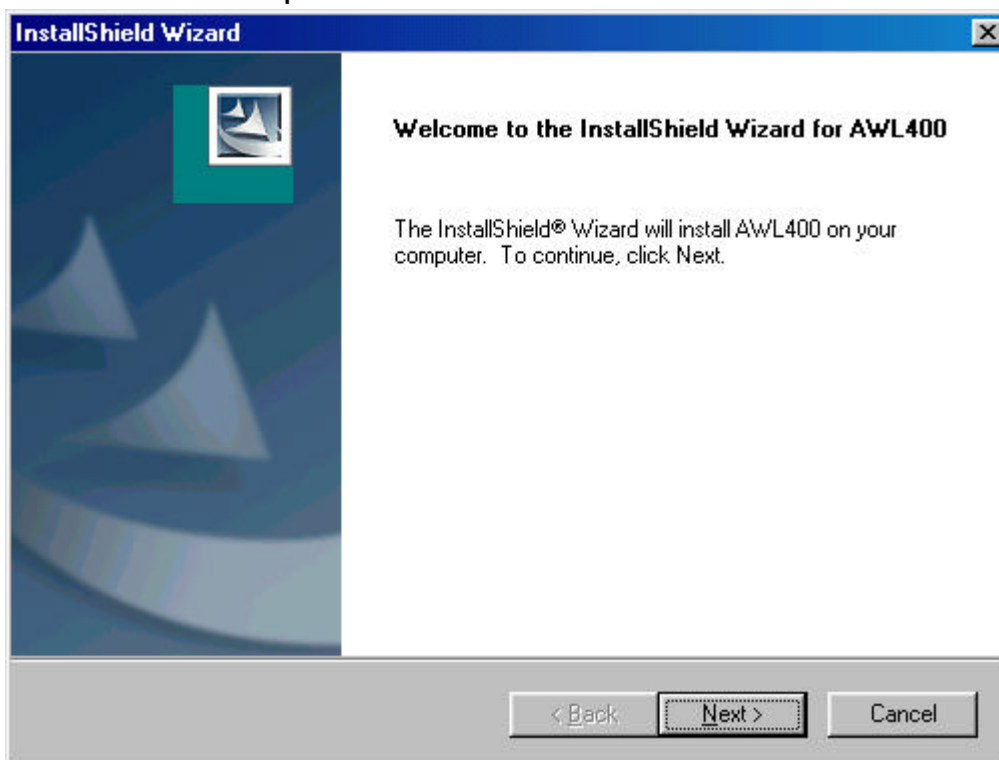


Activity		Description
PWR	Steady Blue	When connecting to PC

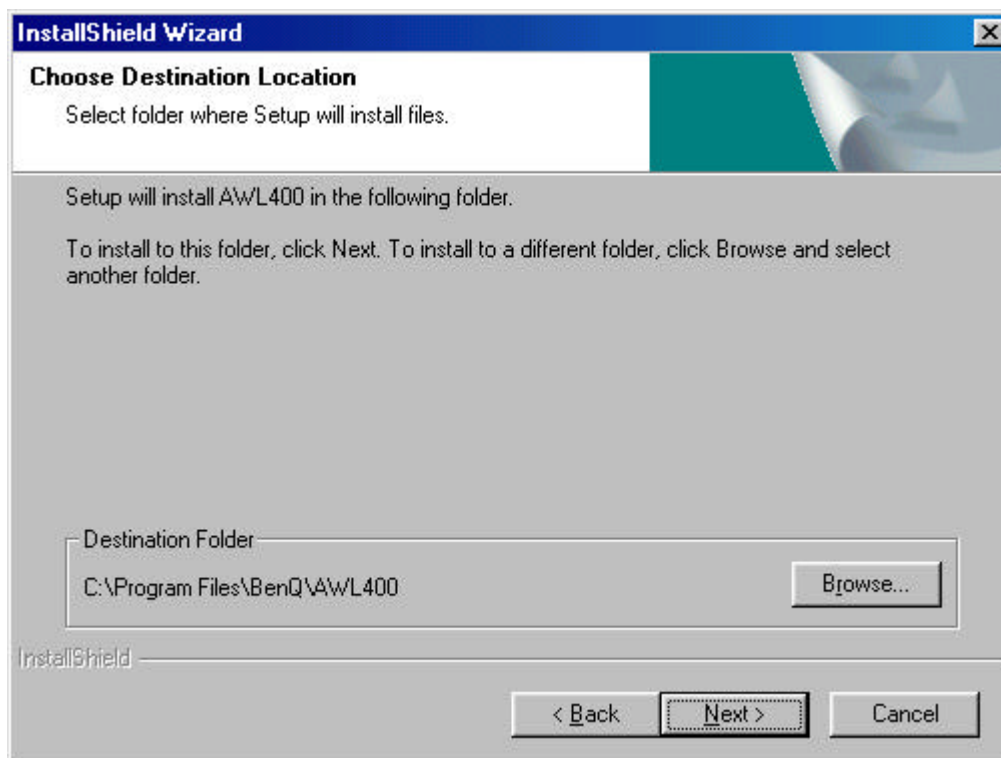
Chapter 2. Installation

2.1 Installation for Win98/WinME/Win2000

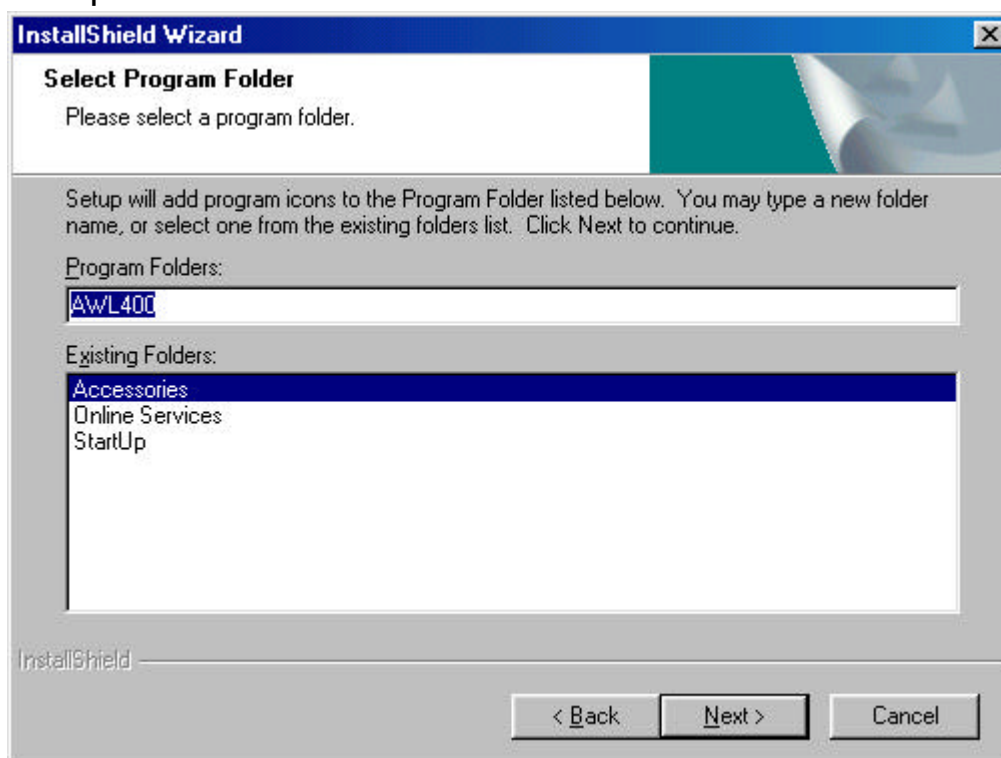
Execute Setup.exe in the AWL400 directory in BENQ Wireless LAN CD. For example, if your CD-ROM has a drive D, please execute D:\AWL400\Setup.exe.



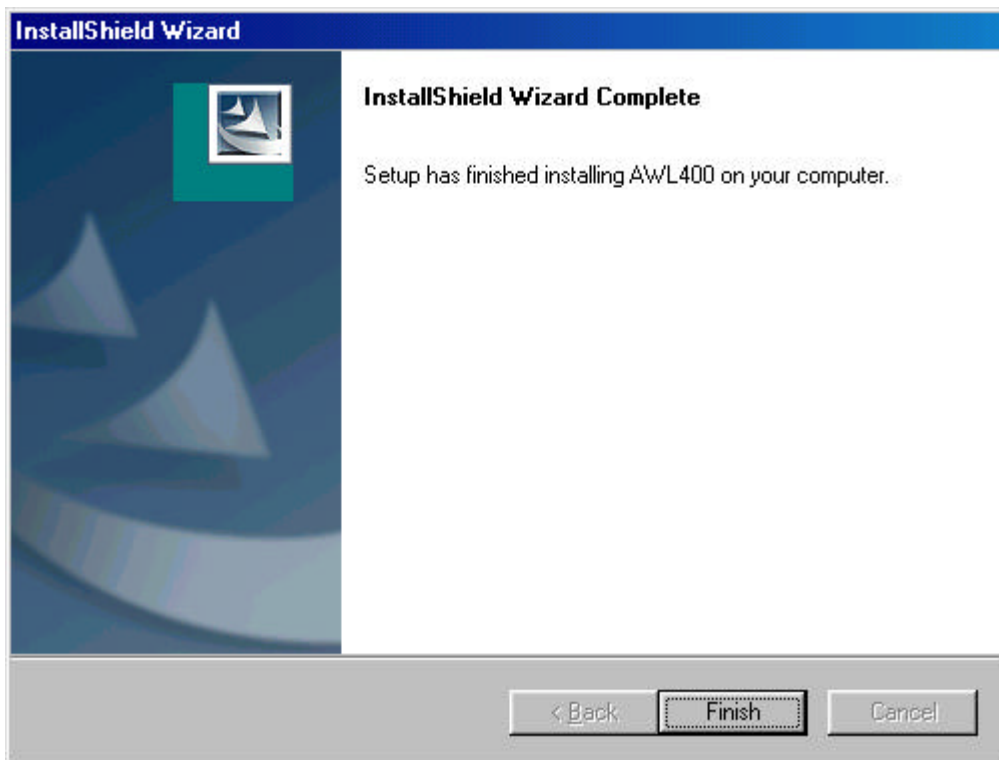
Press Next button



Press Browse, if you want to change destination location of applications, and then press Next button.

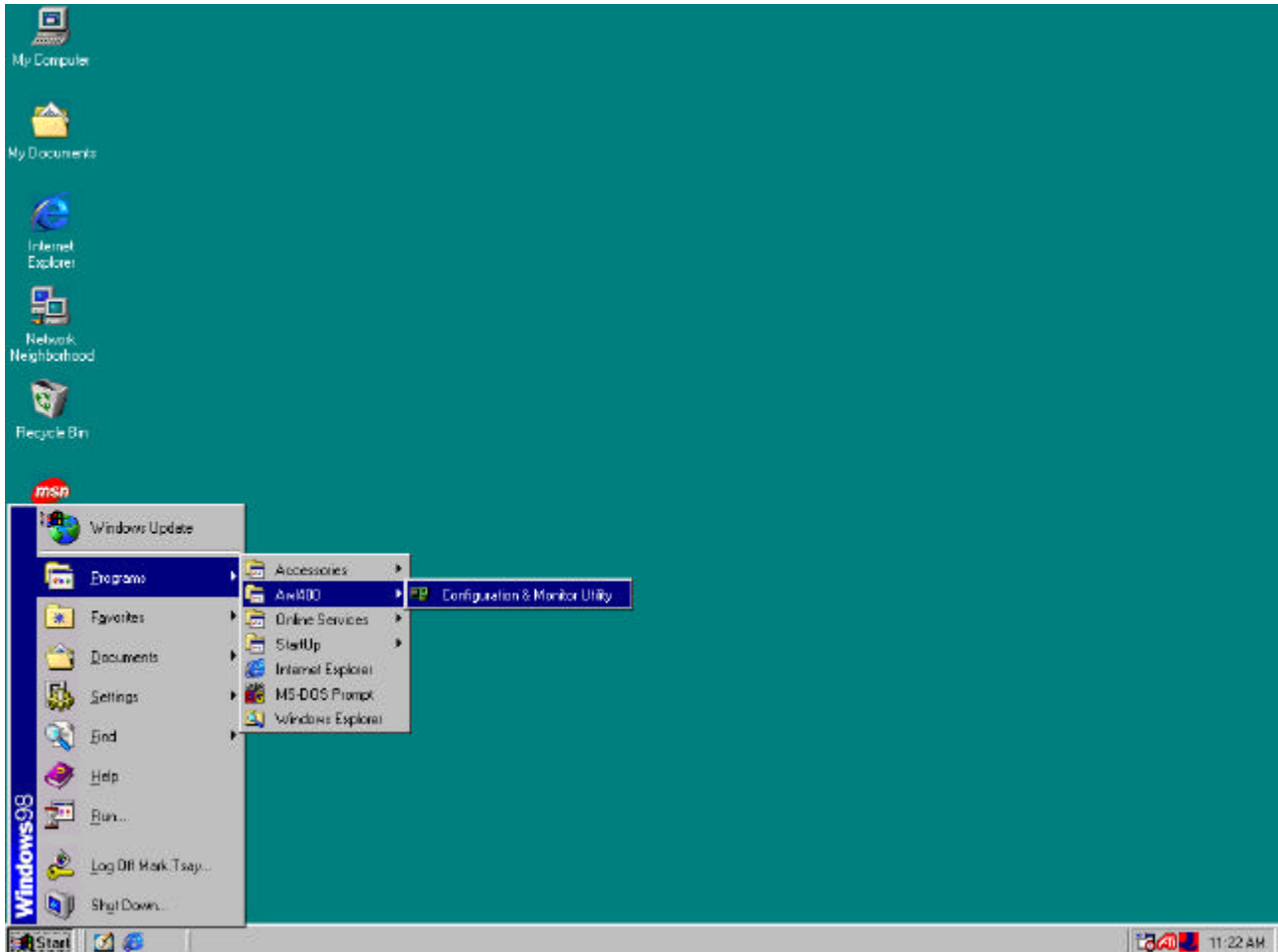


The folder name will be AWL400. Press Next button if you don't want to change it.



Press Finish and restart your computer.

After complete installation, you will get the following icon in your PC Start Menu.

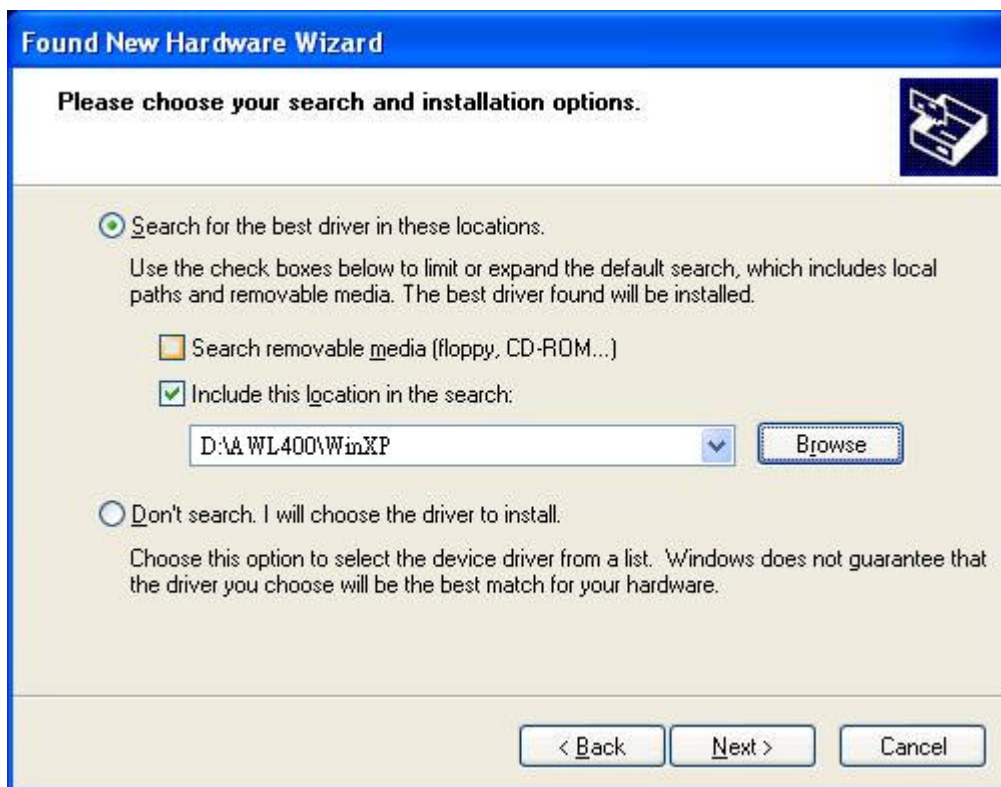


2.2 Installation for WinXP

Insert AWL400 USB Stick into your PC, and then Windows will show the dialog – ‘ Found New Hardware Wizard’ .



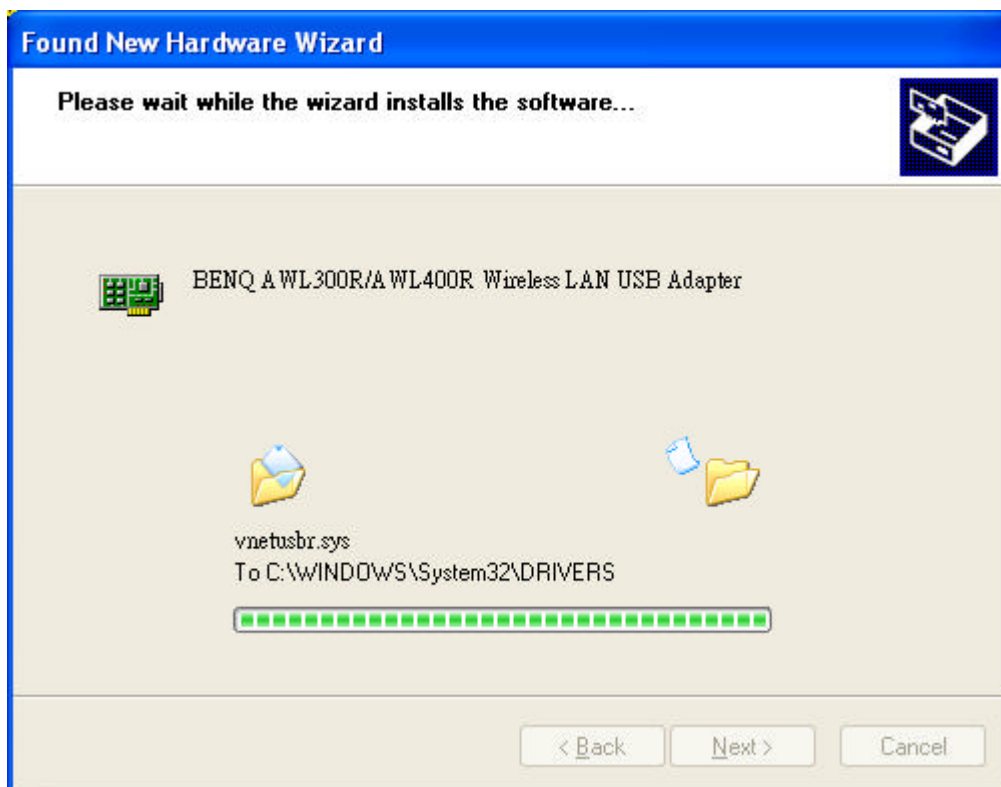
Select ‘ **Specify the location of the driver**’ and press Next button.



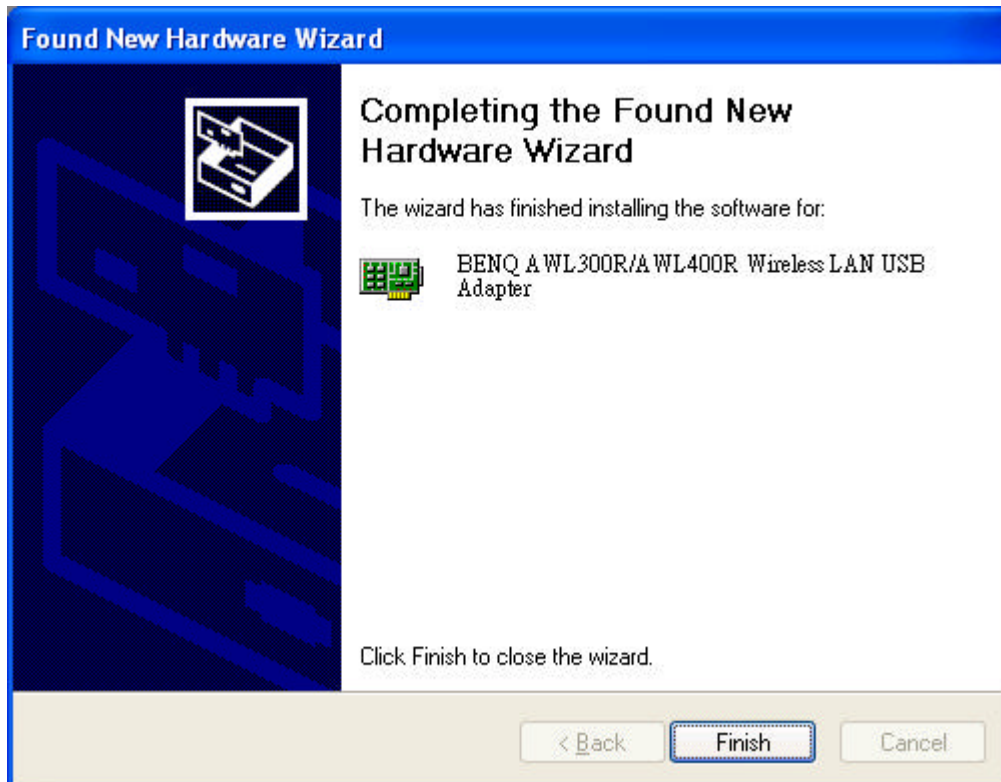
Select 'Specify a location' and browse the BENQ Wireless LAN CD to find AWL400. For example, if your CD-ROM is drive D, the location is D:\AWL400\WinXP.



Press Continue Anyway



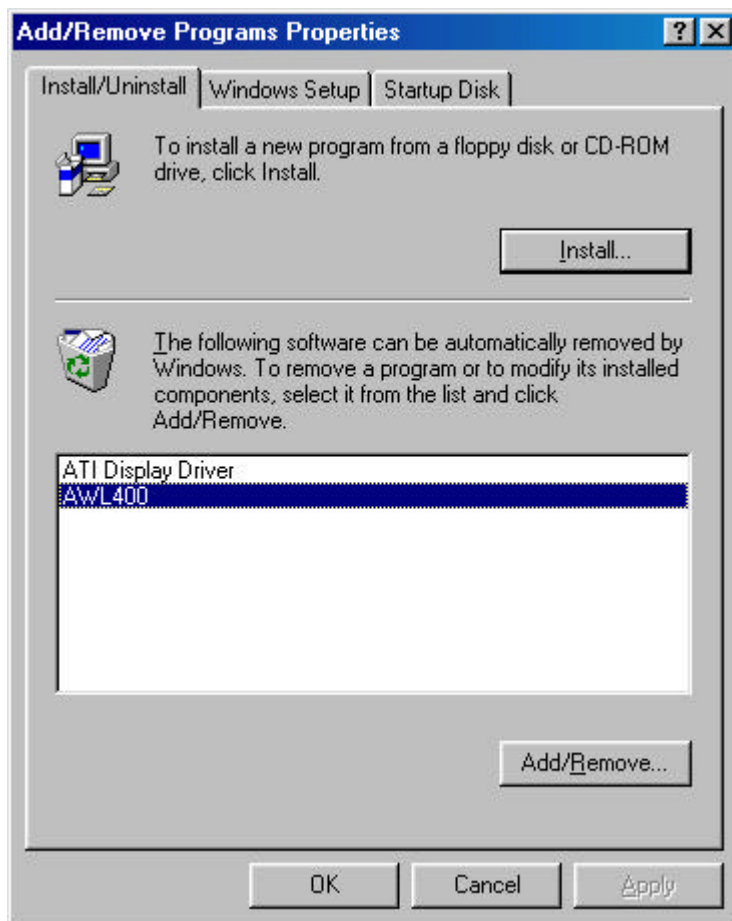
Please wait while coping files.



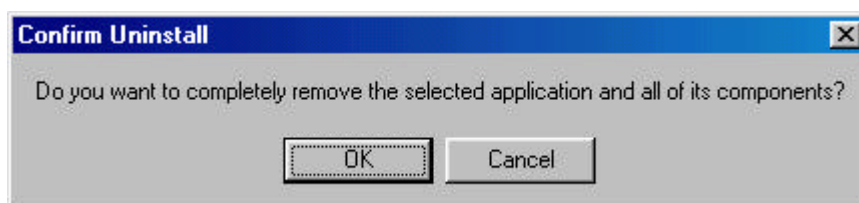
Press Finish.

Chapter 3. Uninstallation

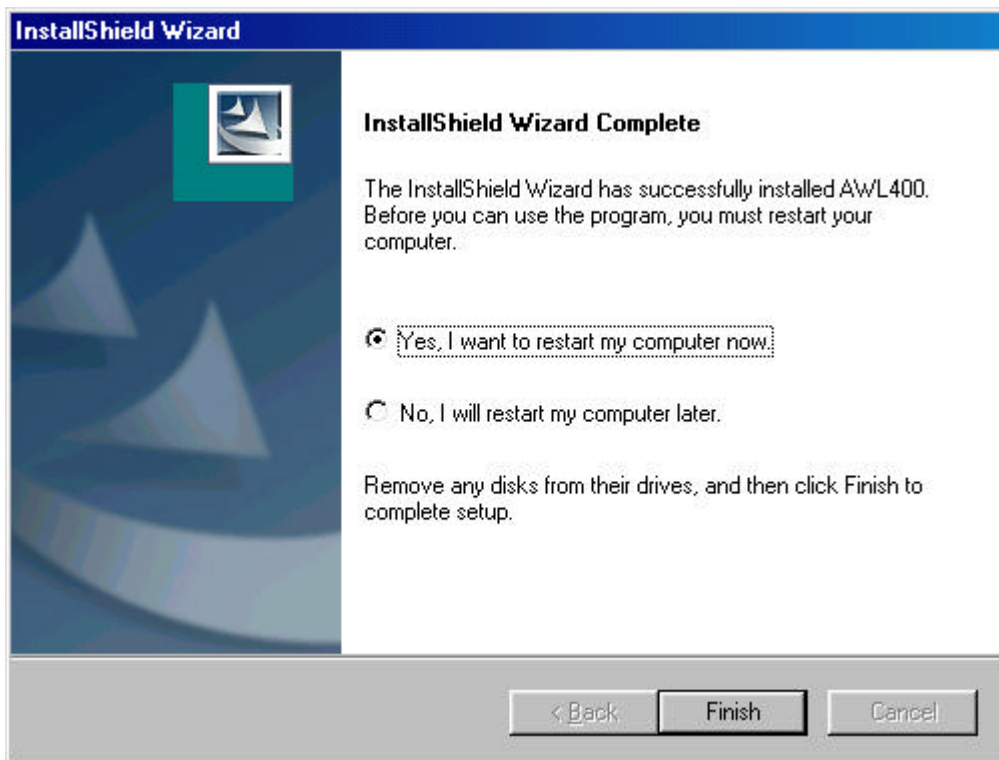
To uninstall AWL400, you can remove AWL400 from Add/Remove Programs Properties in Control Panel as the following figure.



Press Add/Remove



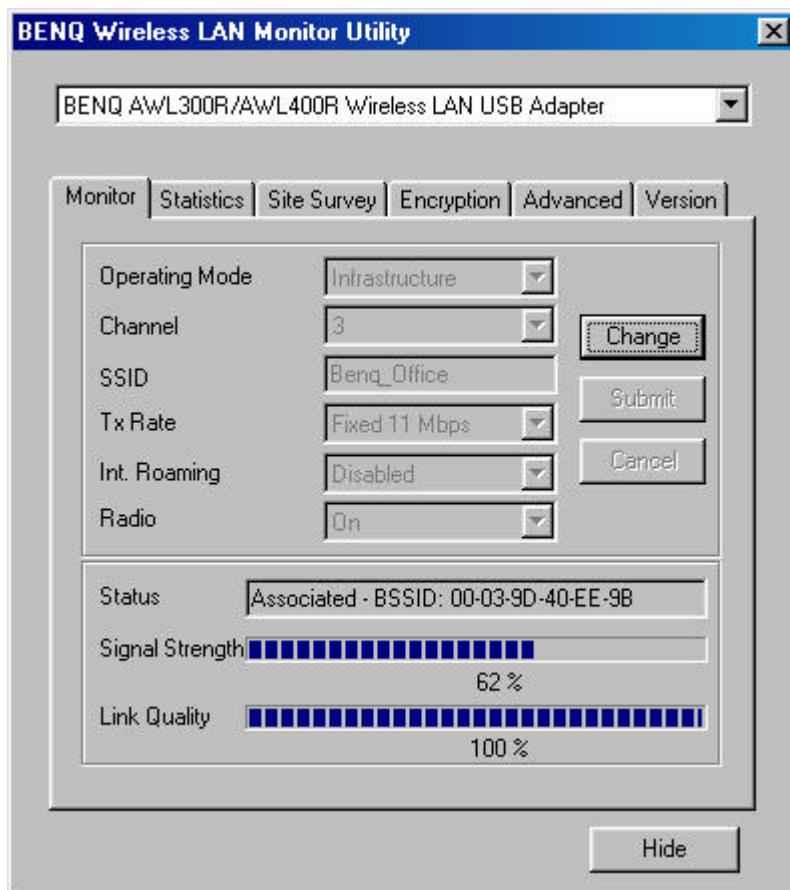
Press OK if you really want to remove AWL400.



Press Finish when uninstall successfully completed and then you must restart your computer.

Chapter 4. Configuration & Monitor Utility

4.1 Monitor



Operating Mode

Infrastructure Mode

In this mode, the driver will scan all available channels continuously until one or more Access Points are found that matches its SSID. When it gets to that point, it will try to authenticate and associate with the Access Point.



Ad Hoc Mode

In this mode, the driver will scan for 5 seconds to look for an existing Ad Hoc network, which uses the same SSID.

Channel

This field shows the current radio channel used for an active connection.

SSID

Service Set Identity

Tx Rate

This field shows the current transmit rate which are being used for an active connection.

Int. Roaming (not supported by this model, AWL400)

Radio (not supported by this model, AWL400)

Status

The current state of the driver is displayed in this field. If the state reveals “Associated,” it means that the normal flow of operation is in Infrastructure mode. This shows that the PC is already connected to access point and BSSID is also shown in the form of hex digits. At the same time, the networking is available for the device.

In “Scanning” state, it means that the node cannot detect the SSID to get an access point within range and is searching for an available access point. Also, if the driver failed to initialize for some unknown reasons, this field will display an error message.

Link Quality

This field reveals the quality of the current connection. Only when the node is in Infrastructure Mode does the Link Quality bar graph become active. The bar graph displays the link quality between the node and its Access Point.

Signal Strength

The Signal Strength bar graph becomes active only when the node is in Infrastructure Mode does. This bar graphic shows normalized signal strength

as reported by the radio, averaged over all frames over 100 bytes long received from the Access Point.

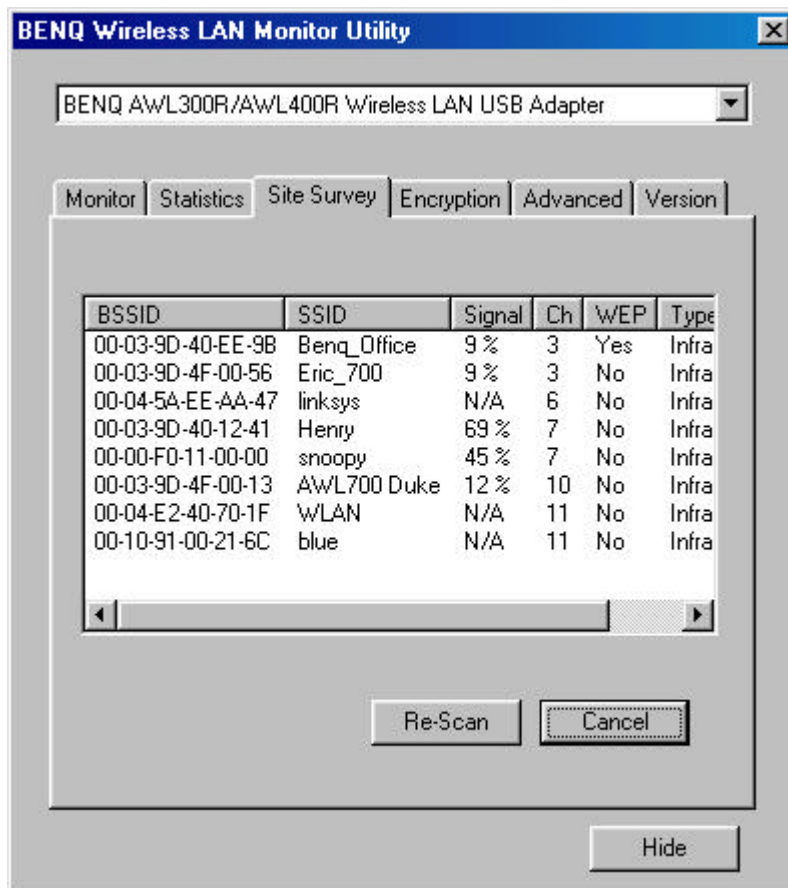
4.2 Statistics

The screenshot shows the 'BENQ Wireless LAN Monitor Utility' window. At the top, a dropdown menu displays 'BENQ AWL300R/AWL400R Wireless LAN USB Adapter'. Below this is a tabbed interface with 'Monitor', 'Statistics', 'Site Survey', 'Encryption', 'Advanced', and 'Version'. The 'Statistics' tab is active, showing a table of packet counts. The table has two columns: 'Tx' (Transmitted) and 'Rx' (Received). It is divided into three sections: 'Data Packets', 'Mgmt Packets', and 'Rejected Packets'. Each section has rows for 'Successful' and 'Unsuccessful' counts. A 'Clear' button is located at the bottom right of the table area, and a 'Hide' button is at the very bottom of the window.

	Tx	Rx
Data Packets		
Successful	34	7
Unsuccessful	0	0
Mgmt Packets		
Successful	4	693
Unsuccessful	0	880
Rejected Packets		
	0	0

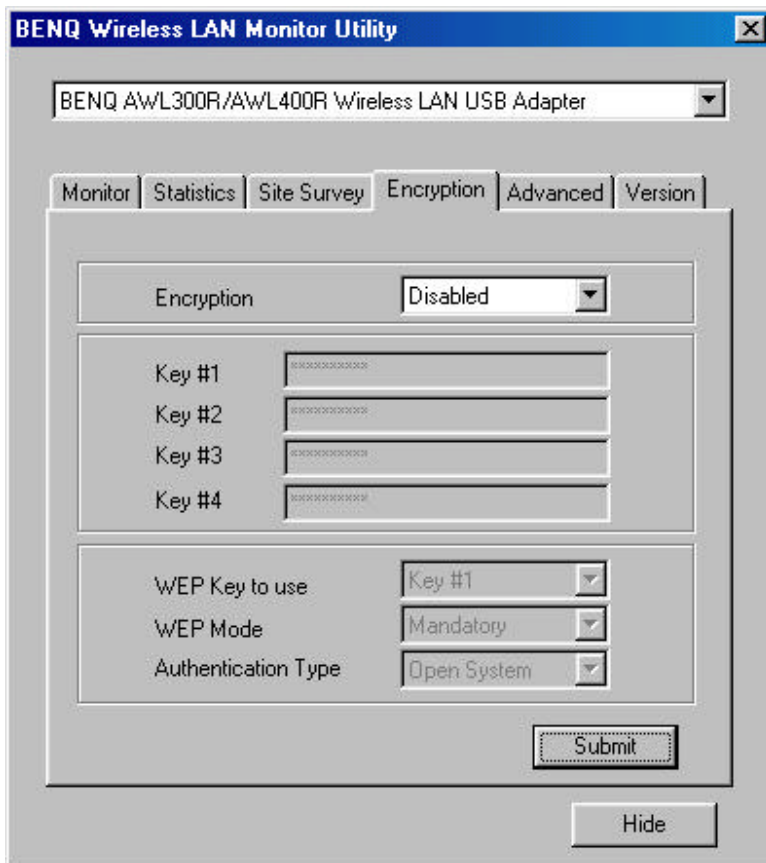
The Statistics Page shows the counts of packets transmitted and received. Press Clear button to set these numbers to zero.

4.3 Site Survey



The Site Survey Page shows the APs nearby. After pressing “**Re-Scan**” button to search APs nearby., users can double click on the SSID area to associate with the AP which user want to connect.

4.4 Encryption



According to WEP function select, this panel allows the entry of 64-bit encryption and 128-bit key. Each key must consist of hex digits to be written to the driver and registry. This means that only digit 0-9 and letters A-F are valid entries. Therefore, if entered incorrectly, the program will not write keys to a driver.

Encryption

Disabled – Disable WEP function

64 Bit – Enable WEP with 64 bit Key

128 Bit – Enable WEP with 128 bit Key

WEP Key to use

Select one of these four keys.

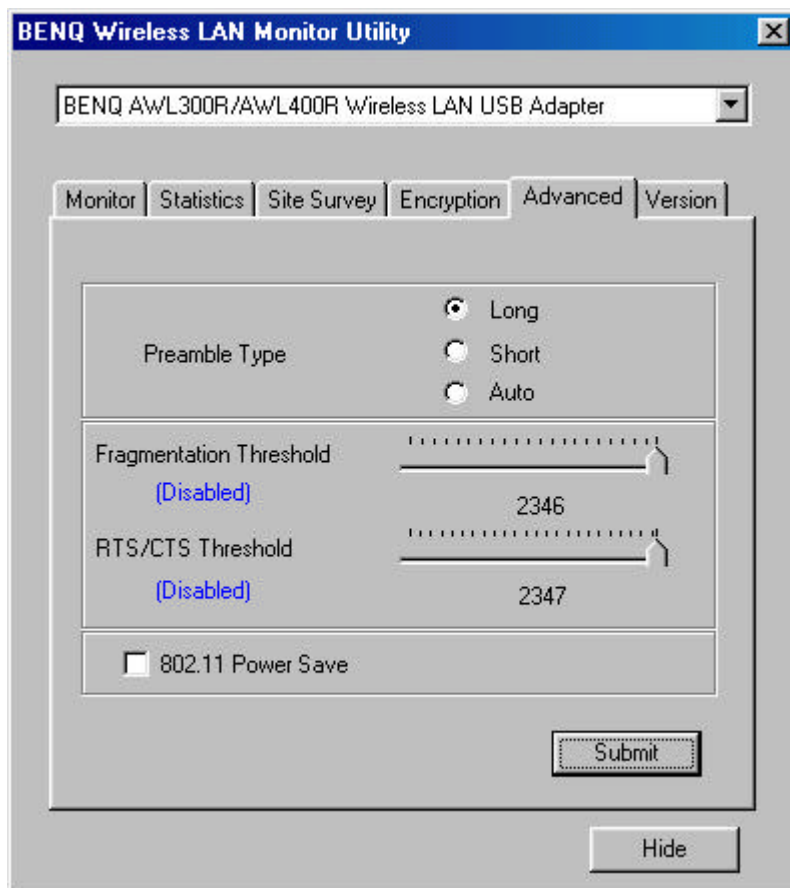
WEP Mode

Select WEP mode – Mandatory or Optional

Authentication Type

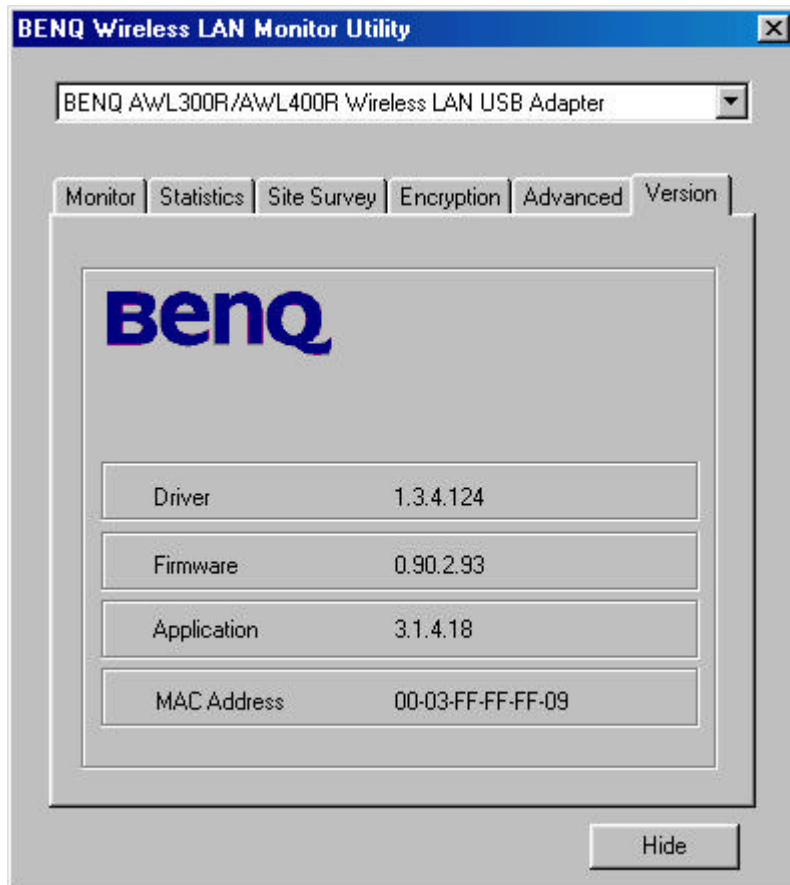
Select Open System type or Shared Key type

4.5 Advanced



The Advanced Page sets the preamble type and threshold of fragmentation and RTS/CTS. Press Submit button to apply your changes

4.6 Version



You may learn the product version including the detail of Driver, Firmware, Application, and MAC Address from this “Version” tab. When users wish to report their problems to technical support, they must have this version number.