2.4G 54Mbps

Wireless Ethernet Bridge

Quick Installation Guide

Version 2.0

FCC Warning

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. 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. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

You are cautioned that changes or modifications not expressly Bridge proved by the party responsible for compliance could void your authority to operate the equipment.

FCC Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment and should be installed and operated with minimum distance 20cm between the radiator & your body.

Contain TX FCC ID: N89-WA638I

CE Marking Warning

This is a Class B product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

CyberTAN declared that WA638-I is limited in CH1-CH11 by specified firmware controlled in USA.

Table of Contents

1. Introduction

Thank you for purchasing the WS638 Wireless Ethernet Bridge. This Ethernet Bridge provides you with an innovative wireless networking solution. The WS638 is easy to set up and use. With this innovative wireless technology, you can share files and network resources on the network—without inconvenient wires!

The Wireless Ethernet Bridge Features

Wireless Features

- **11g Standards Compliant** – The Ethernet Bridge complies with IEEE802.11g standard, and it is interoperable with IEEE802.11g-Compliant Equipment
- **Interoperable with IEEE802.11b** – Backward compatible with IEEE802.11b equipments
- **Data Rate Auto Fall-Back** - Provides 54, 48, 36, 24,12, 11, 9, 6, 5.5, 2 and 1Mbps wireless data rate shifting dynamically between 11g and 11b to guarantee availability and reliability of wireless connections
- **Roaming** – Provides seamless roaming within 802.11g and 802.11b wireless LAN infrastructure.
- **Long Distance Reach** – Support 80M indoor and 300M outdoors long operating distance under normal environment condition.

LAN Features

- **DHCP Client** – Enable the Ethernet Bridge to act as a DHCP client to receive IP address from DHCP Server in the wired Ethernet LAN.
- **Built-in 10/100M LAN Port** – It designed to connect the Ethernet Bridge with any Ethernet-ready devices, such as desktop PC, printer server, and network printer/scanner.

Configuration & Management

- **Easy to Setup** – With windows-based Wireless Navigator Utility, user can easily setup the IP address of this Ethernet Bridge, and upgrade the firmware.
- **Easy to manage** – User can use any WEB browser from anywhere on the wired or wireless LAN to configure the Ethernet Bridge easily.

Security

- **Configuring Protection** – Provides password protection to prevent unauthorized users from changing the configuration

- **Wireless LAN Security** - Provide 64-bit & 128-bit Wired Equivalent Privacy encryption to protect the wireless data transmissions.

Package Contents

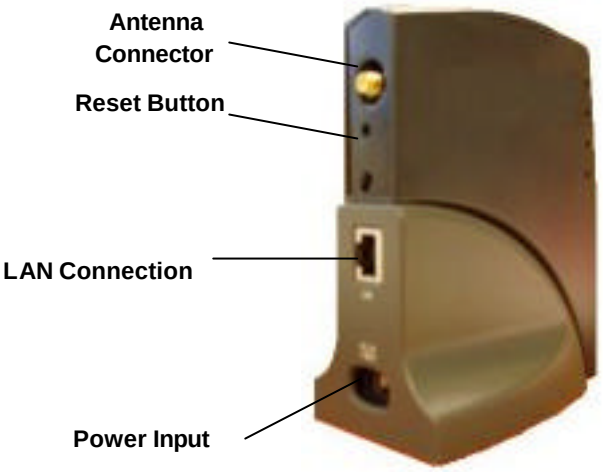
- One 54Mbps Wireless Ethernet Bridge with dipole antenna connected
- One CD-ROM (Wireless Navigator utility software & user's manual included)
- One RJ-45 straight LAN Cable
- One Power Ethernet Bridge
- One Quick Installation Guide

If any of the above items are damaged or missing, please contact your dealer immediately.

2.Hardware Installation

Physical Details

Rear Panel



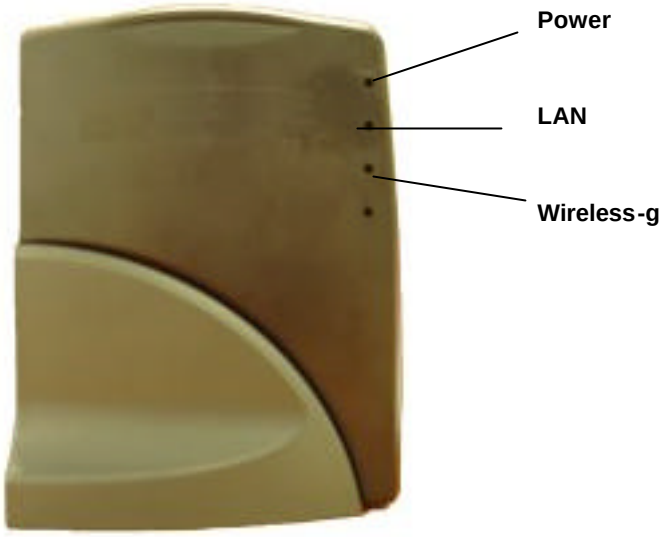
Reset Button **"Reset"** mean "Initiation". While pressing the button, the Ethernet Bridge will reboot and reset current configurations to factory default settings. The left indicator "DIAG" on Ethernet Bridge will be off and then begin blinking. Then this initiation action will be completed when the indicator "DIAG" is always green instead of blinking.

LAN Cable Selection **"Auto MDIX",** no mater that plug-in the RJ-45 port Tx and Rx lines are reversed or normal, it will auto select the proper mode to connect to PC or Hub/Switch.

Power Input Use Only the power Ethernet Bridge supplied with the Ethernet Bridge

LAN Connection Use standard Ethernet cable (RJ-45 connector) to connect your PC, hub/switch or broadband router/modem to this LAN port.

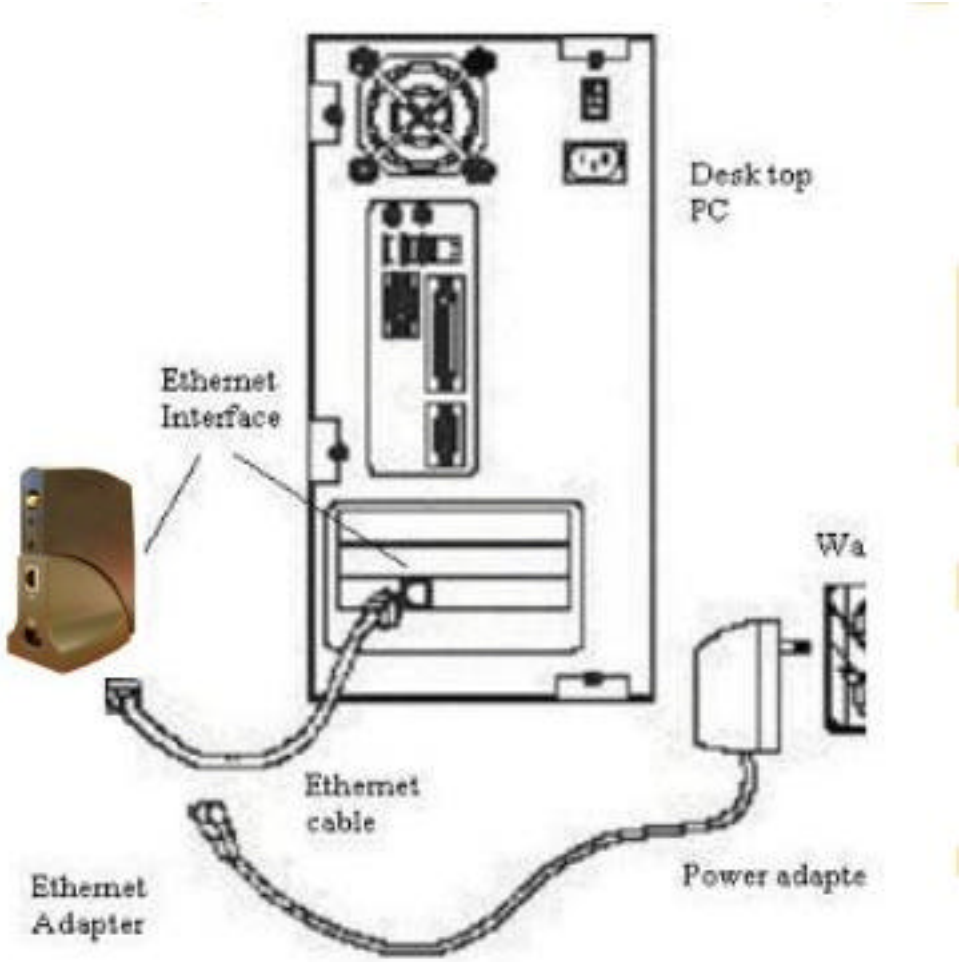
LED Indications



LED	Color	Status	Description
Power	Green	ON	Power on
		OFF	Power off
		Blinking	Initial
	Orange	ON	Hardware Error
LAN	Green	ON	LAN port is connected.
		OFF	No connection and neither data forwarding from LAN ports.
		Blinking	LAN is connected and data is sending or receiving via LAN port
Wireless	Green	ON	Wireless port is connected with another wireless device.
		OFF	Wireless port is not connected to any device.
		Blinking	Wireless is connected and data is sending or receiving via wireless port.

Hardware Installation

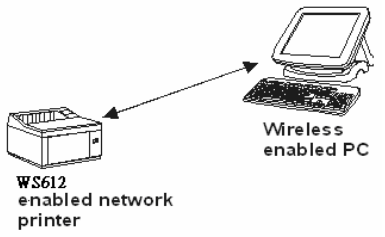
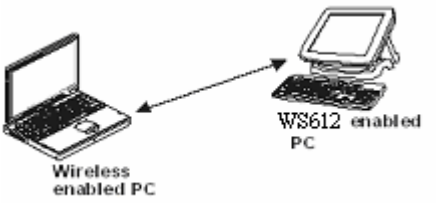
Following illustration is an example showing how to install Ethernet Bridge with your PC. Be sure to use the supplied power Ethernet Bridge.

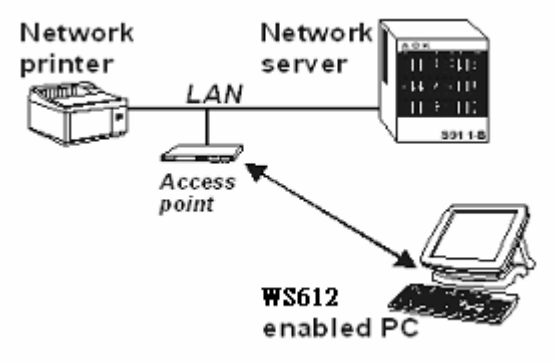
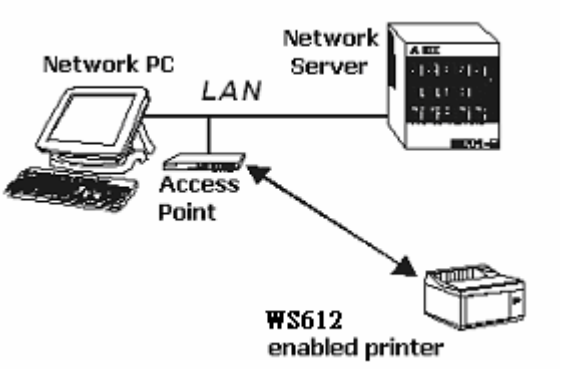


Note!	*You may also connect the Ethernet Bridge to other Ethernet-ready device, such as printer server.*

Connecting the Ethernet Bridge to Your Network

There are two network scenarios as below:

Ad-hoc Networking	Also known as a **peer-to-peer** network, an ad-hoc network is one that allows all workstations and computers in the network to act as servers to all other users on the network. Users on the network can share files, print to a shared printer, and access the Internet with a shared modem. However, with ad-hoc networking, users can only communicate with other wireless LAN computers that are in the same wireless LAN workgroup, and are within range. **<PC to Network Printer>**  **<PC to PC >** 
Infrastructure Networking	Infrastructure networking differs from ad-hoc networking in that it includes an access point. Unlike the ad-hoc structure where users on the LAN contend the shared bandwidth, on an infrastructure network, the access point can manage the bandwidth to maximize bandwidth utilization. Additionally, the access point enables users on a wireless LAN to access an existing wired network, allowing wireless users to take advantage of the wired networks resources, such as Internet, email, file transfer, and printer sharing. Infrastructure networking has the following advantages over ad-hoc networking: **Extended range:** each wireless LAN computer within the range of the access point can communicate with other wireless LAN computers within range of the access point. **Roaming:** the access point enables a wireless LAN computer to move through a building and still be connected to the LAN.

	Wired to wireless LAN connectivity: the access point Ethernet Bridges the gap between wireless LANs and their wired counterparts. **<PC to LAN>**  **<Printer to LAN>** 

In the next charter, you will be guided to how to connect the Ethernet Bridge to wireless LAN

3. Wireless Navigator Installation

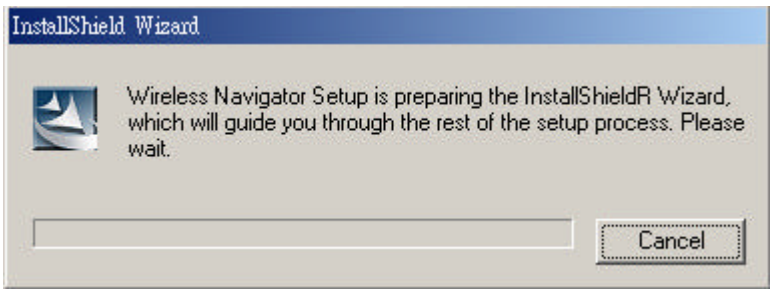
Install the Wireless Navigator

The Wireless Navigator Utility is provided to allow user easily to configure the Ethernet Bridge through any Windows-based PC. This section describes procedures for installing the Wireless Navigator Utility to PC.

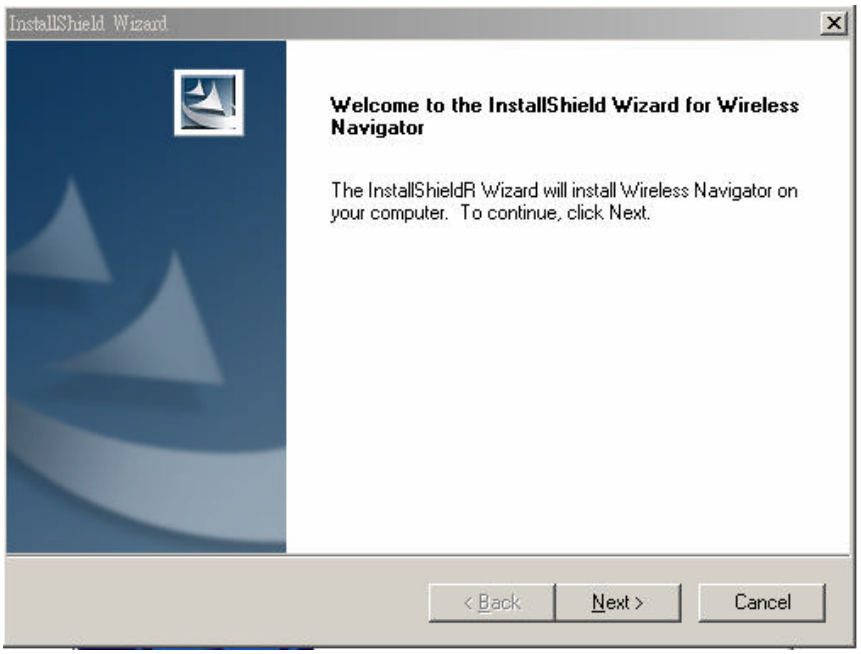
Note!	*Please make sure that your PC already has TCP/IP protocol installed. If not, please contact your administrator for details if you have problems of setting up this TCP/IP protocol in your PC.*

Note!	*Even your Ethernet Bridge is not connected with PC, but other Ethernet device, such as printer server. You still can install the Wireless Navigator in any PC located in the same IP subnet with the Ethernet Bridge. This utility can search the Ethernet Bridge via both wired and wireless Ethernet so that you still manage the Ethernet Bridge remotely.*

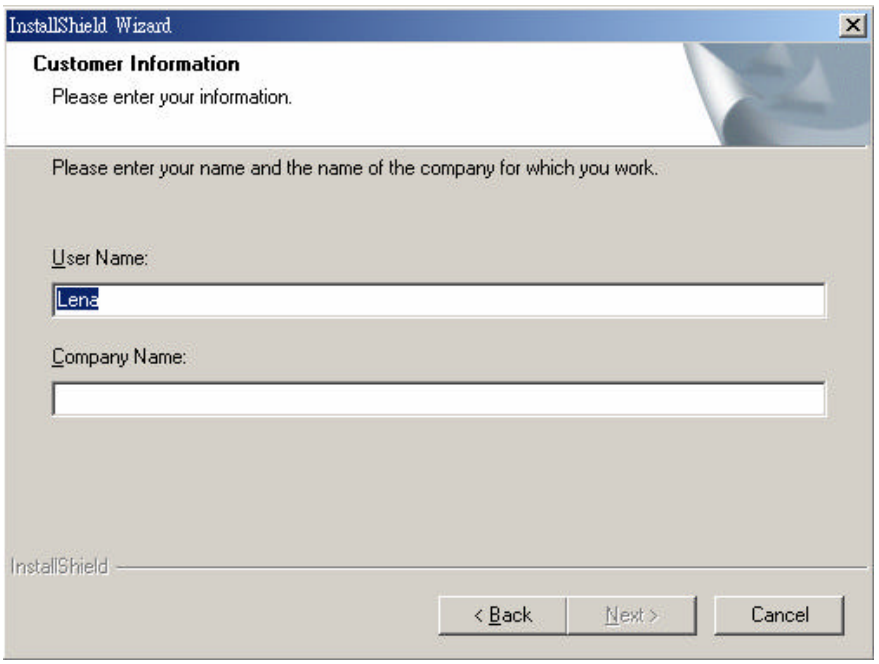
Step 1: Insert the installation CD-ROM into the CD-ROM drive. Run SETUP.EXE program on the CD-ROM. The following window will be shown automatically.



Step 2: After InstallShield Wizard preparation finished, the following window will be shown. Click the **Next** button to continue.

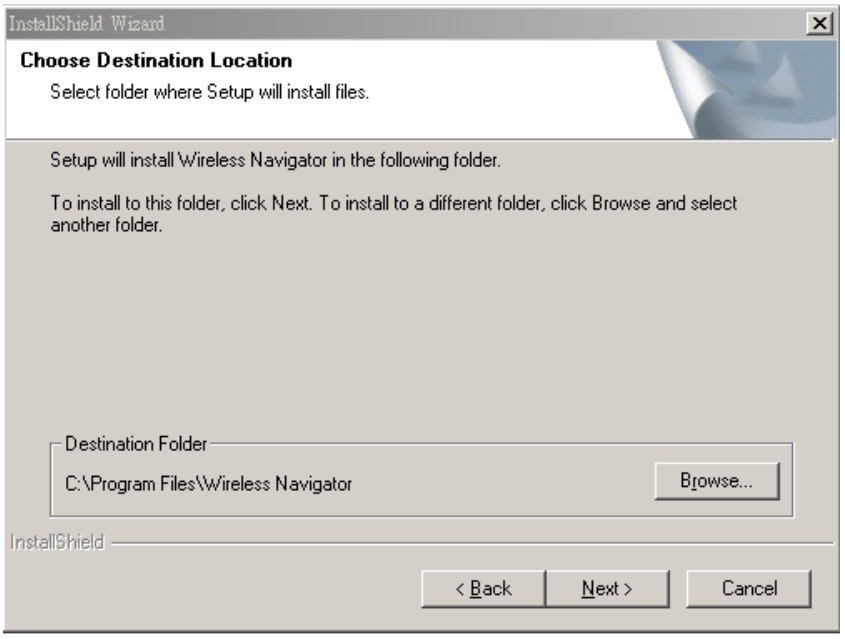


Step 3: Key in your User Name and Company Name, and click **Next** button to continue.

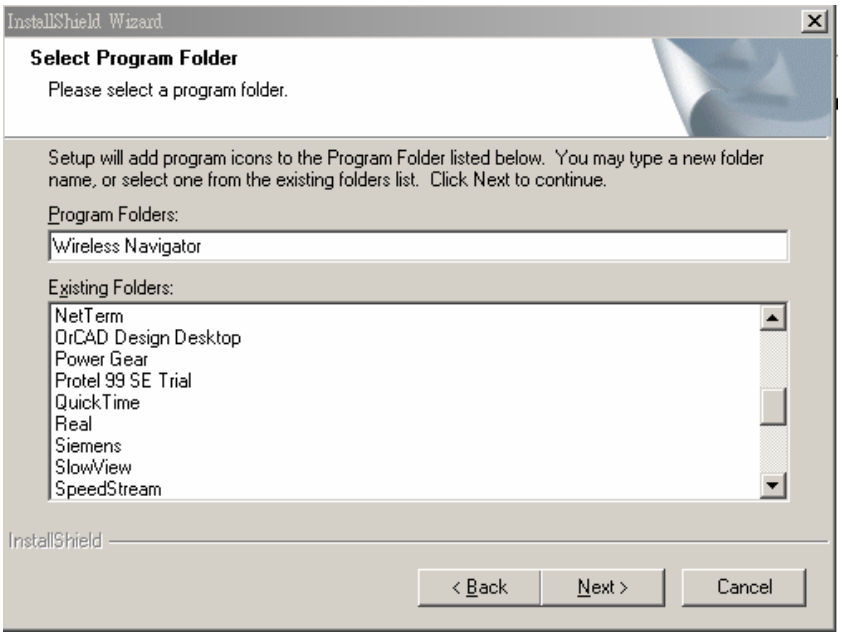


Step 4: The screen will show you the default destination chosen by the utility. If you want to install the Wireless Navigator in another location, click the **Browse** button and select

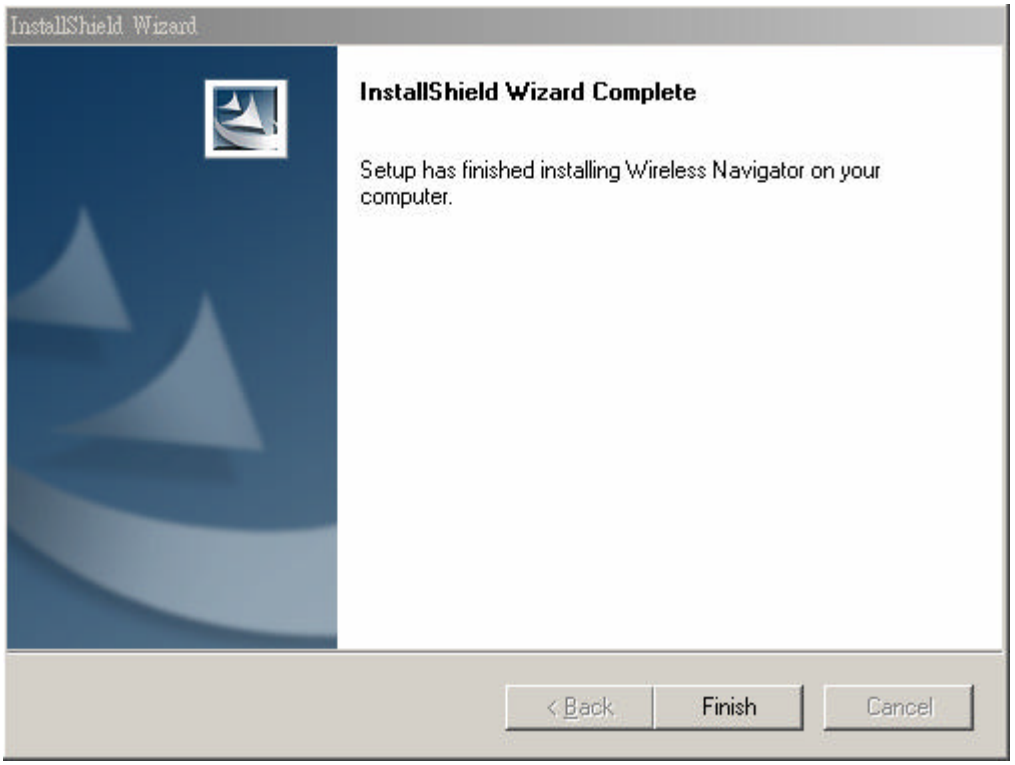
an alternate destination. Click the **Next** button, when you are ready to continue. The setup program will then begin to install the programs into the destination folder.



Step 5: The screen will show you the Program Folder that the utility will use. You may type a new folder name to create a new program folder, or select one from the existing folder list, and click **Next** button to continue.



Step 6: The Wireless Navigator has been installed now. Please click the **Finish** button to complete installation.



Note!	*To remove Wireless Navigator Utility, click the **Start** button, and select **Programs**, **Wireless Navigator**, and **Uninstall**, and then follow the instruction on screen.*