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ELIAS
USB Wireless LAN Stick
EW-100U

Quick Start Guide

Version 2.1   (March, 2003)

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*I*NTRODUCTION

Congratulation on purchasing the **Elias USB Wireless LAN Stick** (EW-100U)! In today's rapid growing network environment, the EW-100U provides you an innovative solution that lets you to connect to your business network without any limitation. This Quick Start Guide provides a brief introduction on the features and advantages of the EW-100U, and takes you through the basic steps necessary to install and configure your EW-100U and establish a connection from your computer to the network.

For naming convention, the **Elias Wireless LAN EW-100U** is referred to as the EW-100U throughout this guide.

Features and Advantages

The EW-100U provides comprehensive features for a wireless network environment:

Innovative design

- The USB interface allows you plugging into the USB port directly, without a cable connection indeed.
- Rotating joint lets you adjust the EW-100U's position freely, and save desk space.

Wireless LAN connection

- No need of RJ-45 cable, you can save your cost and effort when building networks.
- Compliant with IEEE 802.11b standard, which provides you up to 11Mbps data transmission.
- Supports both Ad-Hoc (Peer-to-peer) and infrastructure (station-to-AP) networking modes, you can communicate in any method you like.

Easy to use

- Plug & Play, no need to configure.
- Built-in antenna; with the Power and Linkage LED on the panel.
- Friendly GUI user interface to manage and monitor the status.

Security

- 64/128-bit WEP (Wired Equivalent Privacy), helps protect your privacy.

Elias Technology, Inc.

System Requirements

Before you use the EW-100U, please check the hardware, software and operating system requirements first.

- ■ Connector: USB port
- ■ Operating System: Windows 98/Me/2000/XP
- ■ 2X or higher speed CD-ROM drive
- ■ At least 4MB disk space needed for installation of the driver and software application

Package Contents

Unpacking the box, and you should find the following items:

- ♦ Elias USB Wireless LAN Stick (1)
- ♦ USB Cable (1)
- ♦ Software driver CD-ROM
- ♦ This *Quick Start Guide*

Inspect all the items carefully. If any item is missing or damaged, please contact your local dealer for assistance. Also, keep the box and packing materials in case you need to ship or store the unit in the future.

2

*I*NSTALLATION

This chapter explains how to install your EW-100U and connect it to the network.

Hardware Installation

This section provides you a basic installation, including how to install and remove the EW-100U.

Connecting the EW-100U

1. Locate the USB port on the PC/notebook.
2. Plug the EW-100U into the USB port directly, with the upward and horizontal position by the rotation mechanism of EW-100U .
3. Adjust the rotating joint to receive the strongest signal.

Removing the EW-100U

The EW-100U can be removed under Windows 98/Me/2000/XP, without shutting down the system. The EW-100U supports the hot-plug function.

NOTE: Do not remove the EW-100U while transferring data. Please close the communication program or stop the transmitting task before removing the EW-100U.
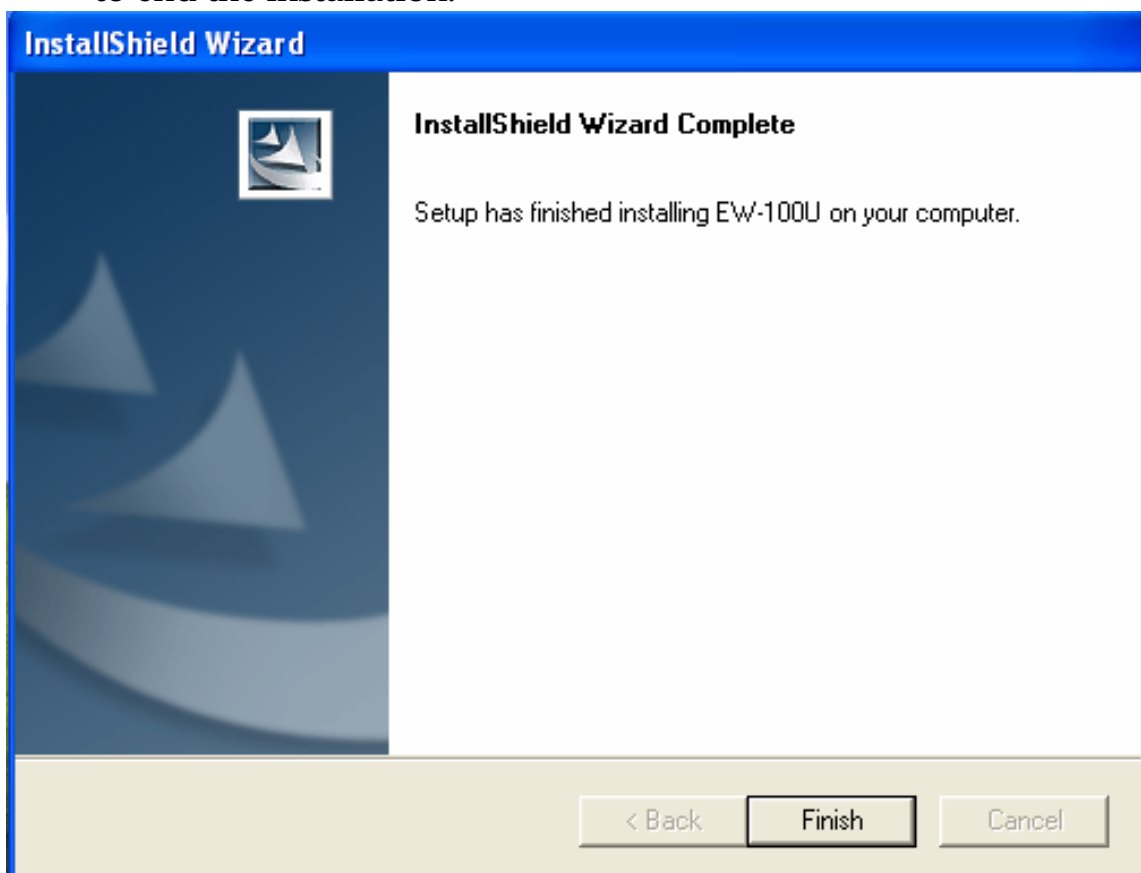
LED Indicator

When the EW-100U is connected to the PC/notebook correctly, the Power LED (Green) and Linkage LED (Orange) lights indicate that the device is ready for operation.

Software Installation

Follow the instructions below to set up the EW-100U, including how to install the driver, and how to set up the configuration under different networking modes.

Installation the Driver for WinXP

1. Remove your EW-100U from your computer and insert the software driver CD-ROM into the CD-ROM drive of your PC/notebook and execute the setup program **Setup.exe** located in the folder of EW-100U.
2. An installation wizard appears on the screen to guide you completely through the installation step by step. Click the "**Next**" button.
3. Wait a few minutes for copying files into XP, and click "**Finish**" to end the installation.

4. Reboot your computer and plug-in EW-100U.
5. A window of "**Find New Hardware**" appears beneath. Double click the icon to initialize "Find New Hardware Wizard." And click "Next"

6. Wait a few minutes and press "**Continue Anyway**". DO NOT press "Stop Installation" because this will result in the installation failure.
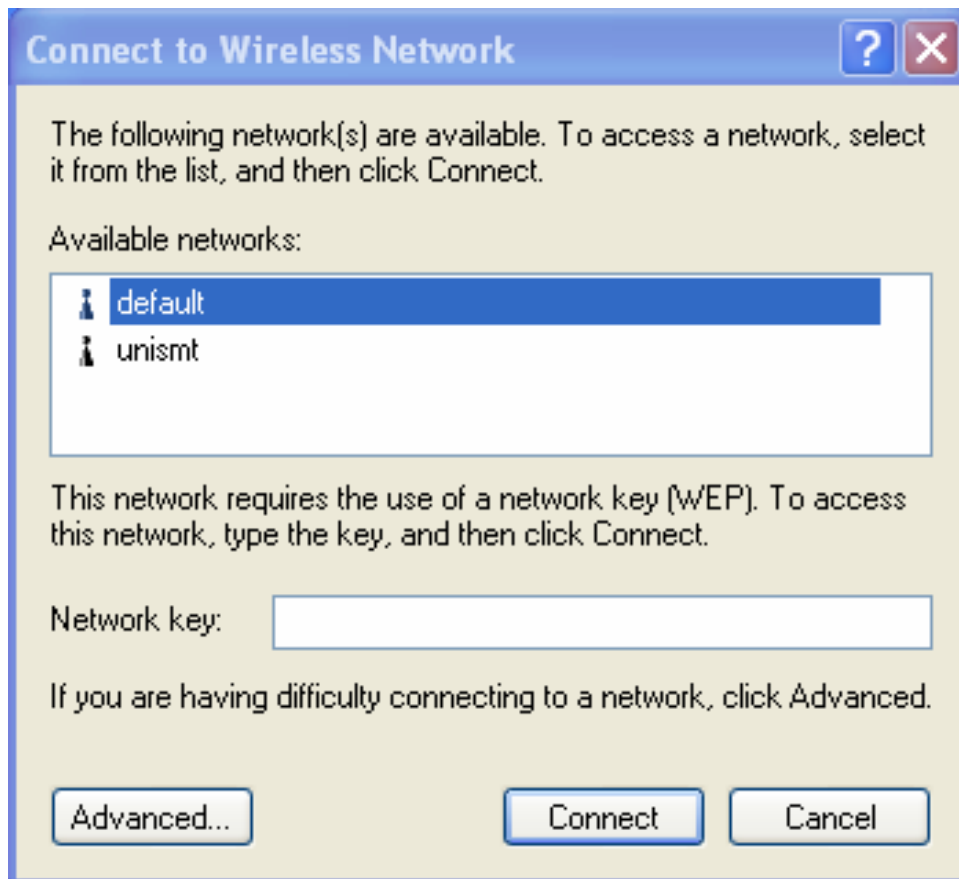

7. Press "**Finish**."

Important Notice!: In Win XP, you will find no Utility software provided by ELIAS, because Win XP has its own Utility software. Therefore, you can configure the settings only in Win XP Wireless Utility.

8. After all step, you will a window beneath, saying "Wireless connection unavailable." That is because the Utility software of Win XP needs you to choose the AP that you like to associate, and key in the WEP key, if necessary in Win XP Utility. Double click the networking icon beneath and configure you settings in

the "Connect to Wireless Network" window.

Installing the Driver for Win 98/Me/2000

1. Remove your EW-100U from your computer and insert the software driver CD-ROM into the CD-ROM drive of your PC/notebook and execute the setup program **Setup.exe** located in the folder of EW-100U.

2. An installation wizard appears on the screen to guide you completely through the installation step by step. Click the "**Next**" button.

3. You can install the driver in the default directory by clicking "**Next**" button in the "**Choose Destination Location**" window. Otherwise, you can install the driver in another directory by clicking "**Browse**", and locating the preferred directory. Then, click the "**Next**" button.

4. The installation program will add an icon to the sidebar beneath. When you plug in your EW-100U, the icon will appear on the right side of the sidebar.

5. Click the "**Finish**" button to complete the installation and exit the wizard.

6. You do not need to restart the computer to begin use. However, you do have to configure your networking settings, such as the TCP/IP setting.
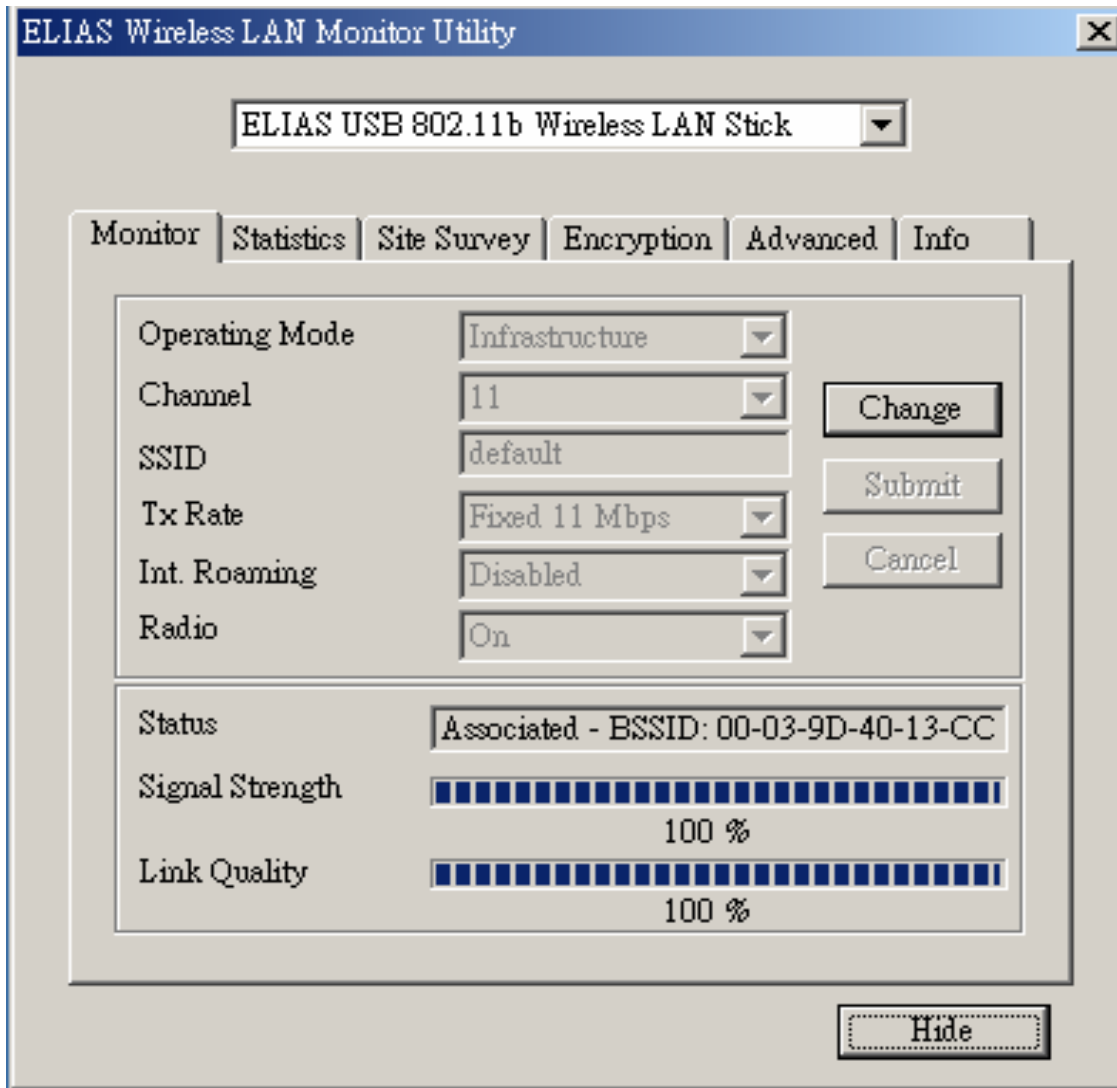
Un-installation

To proceed with un-installation, remove the Elias USB Wireless LAN Stick using the Add/Remove Programs in the MS Windows "Control Panel."

Functions

The utility software included with EW-100U allows you to reconfigure the wireless stick, monitor the strength of the Wireless signals and choose a proper wireless device to start communication.

Monitor

Ad-Hoc Mode

When you choose Ad-Hoc mode, the driver will scan for approximately 5 seconds for an existing device or an existing Ad Hoc network; both of which use the *SAME* SSID.

Configuration of Ad-Hoc Mode

With Ad-Hoc mode, your computer can communicate directly with any computer installed with an 802.11b wireless LAN adapter.

1. Click the "**Change**" button; set the "**Operating Mode**" to "**Ad-Hoc**", and assign the same SSID for all computers.
2. Click the "**Submit**" button to confirm the setting change and finish the configuration.

Infrastructure Mode

When you choose Infrastructure Mode, the driver will keep scanning all available channels until one or more Access Points are found that matches its SSID. When you choose the Access Point that you like to establish communication, the driver will try to authenticate and associate with the Access Point.

Configuration of Infrastructure Mode

With Infrastructure mode, there should be an Access Point working within the network. Your computer can communicate with any computers in the network through an Access Point.

1. Click the "**Change**" button; set the "**Operating Mode**" to "**Infrastructure**", and assign SSID as same as the Access Point.
2. Click the "**Submit**" button to confirm the setting change and finish the configuration.

Channel

This field shows the current radio channel used when an active connection is established.

SSID

Service Set Identity

Tx Rate

This field shows the current transmit rate when an active connection is established.

Status

In this field, the driver indicates the current state of the driver. If the state reveals "Associated", it means that Infrastructure mode is being used. That is, the PC is already connected to an access point and BSSID is also shown in the form of hex digits. At this time, the network is available for the device.

If you see the driver in the "Scanning" state, it means that the node cannot detect the SSID to locate an access point within range and is searching for an available access point. Moreover, if the driver fails to initialize for unknown reasons, this field will display an error message.
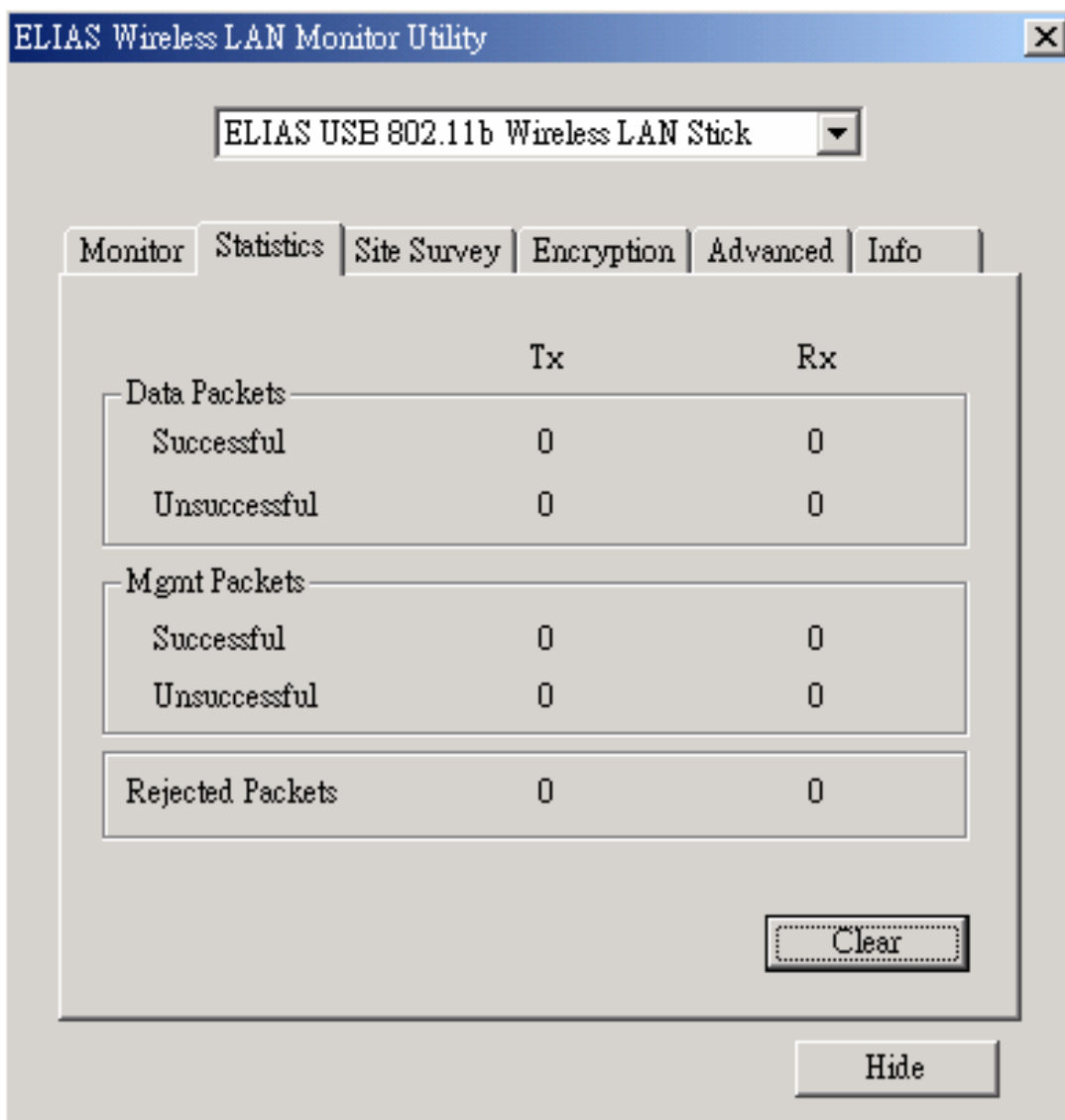
Signal Strength

The Signal Strength bar graph becomes active only when the node is in Infrastructure Mode. This bar graph shows the normalized signal strength as reported by the radio.
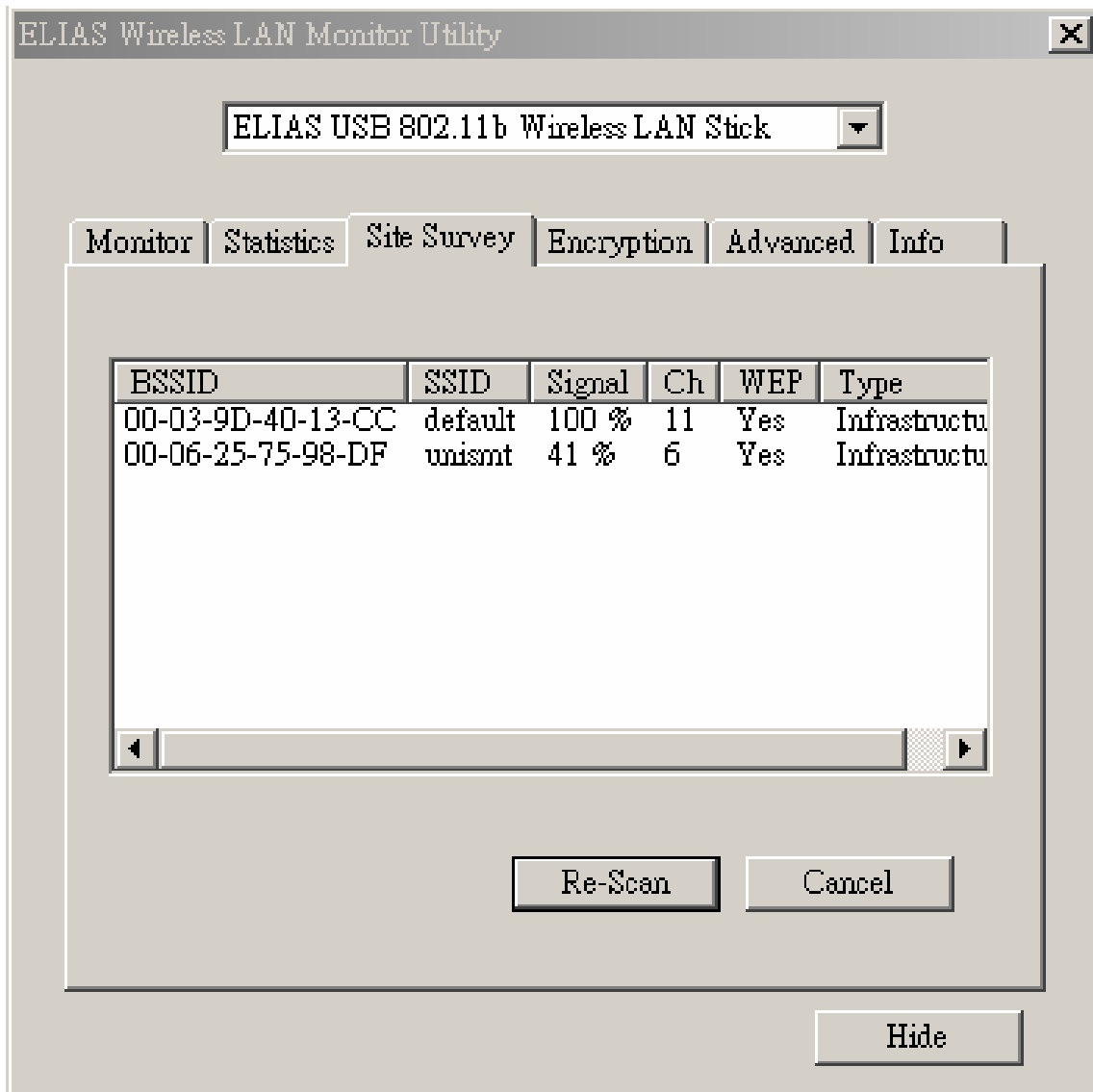
Link Quality

The quality of the current connection is shown on this field. Only when the node is set in Infrastructure Mode does the Link Quality bar graph becomes active. The bar graph shows the linkage quality between the node and the chosen Access Point.

Statistics

The Statistics page displays the counts of packets transmitted (Tx) and received (Rx). Press the Clear button to re-set these numbers to zero.
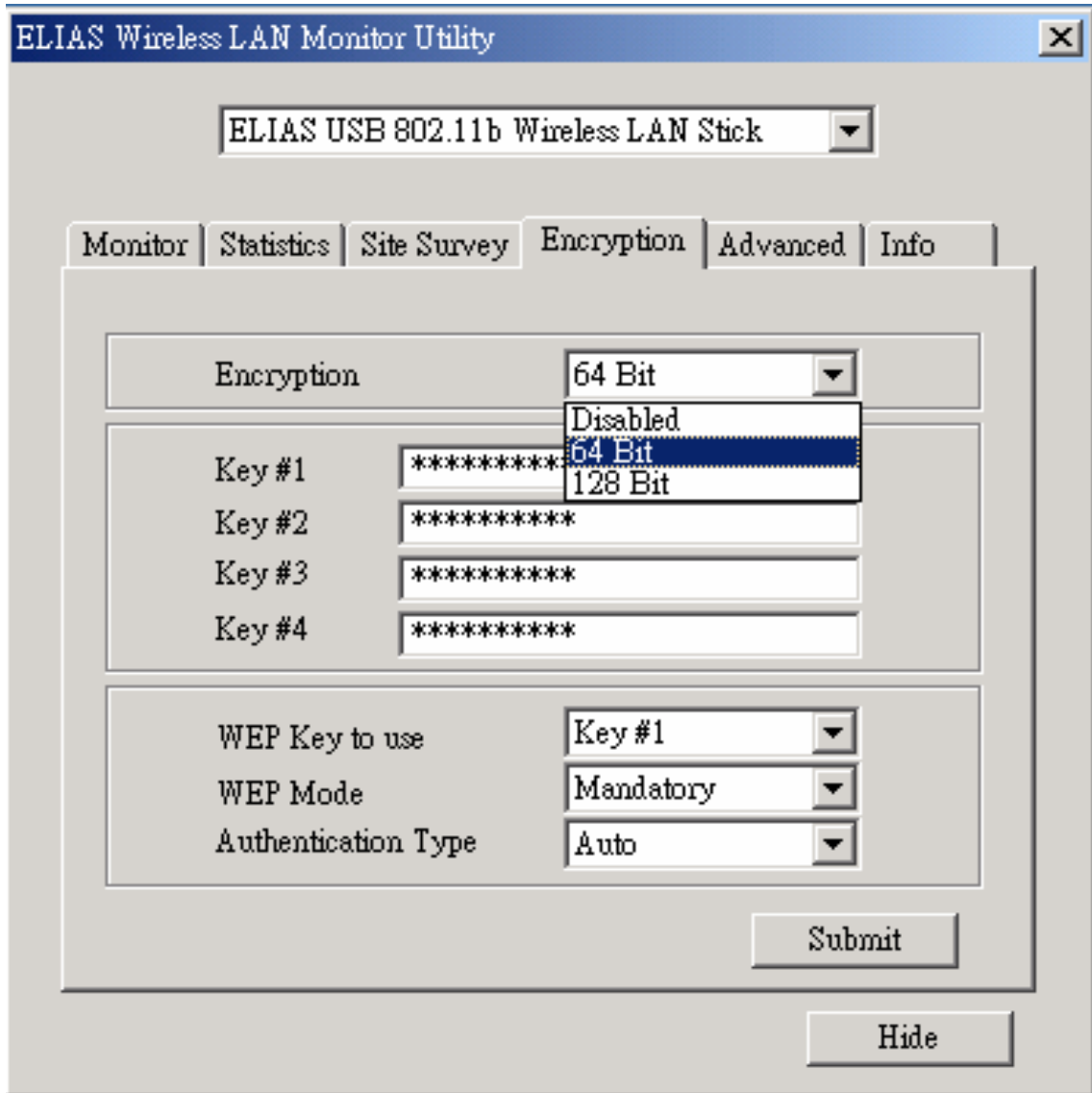
Site Survey

The Site Survey page displays the list of the APs nearby. You can double click on the BSSID area to choose the AP which you want to connect. This action is called "Associating". Also, if you like to re-scan APs nearby, just press the "**Re-Scan**" button to renew the list.

Encryption

While the WEP function is selected, this panel allows the entry of the
64-bit and the 128-bit encryption keys. Each key consists of hex digits
to be written to the driver and registered. This means that only digit
0-9 and letters A-F are valid. 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

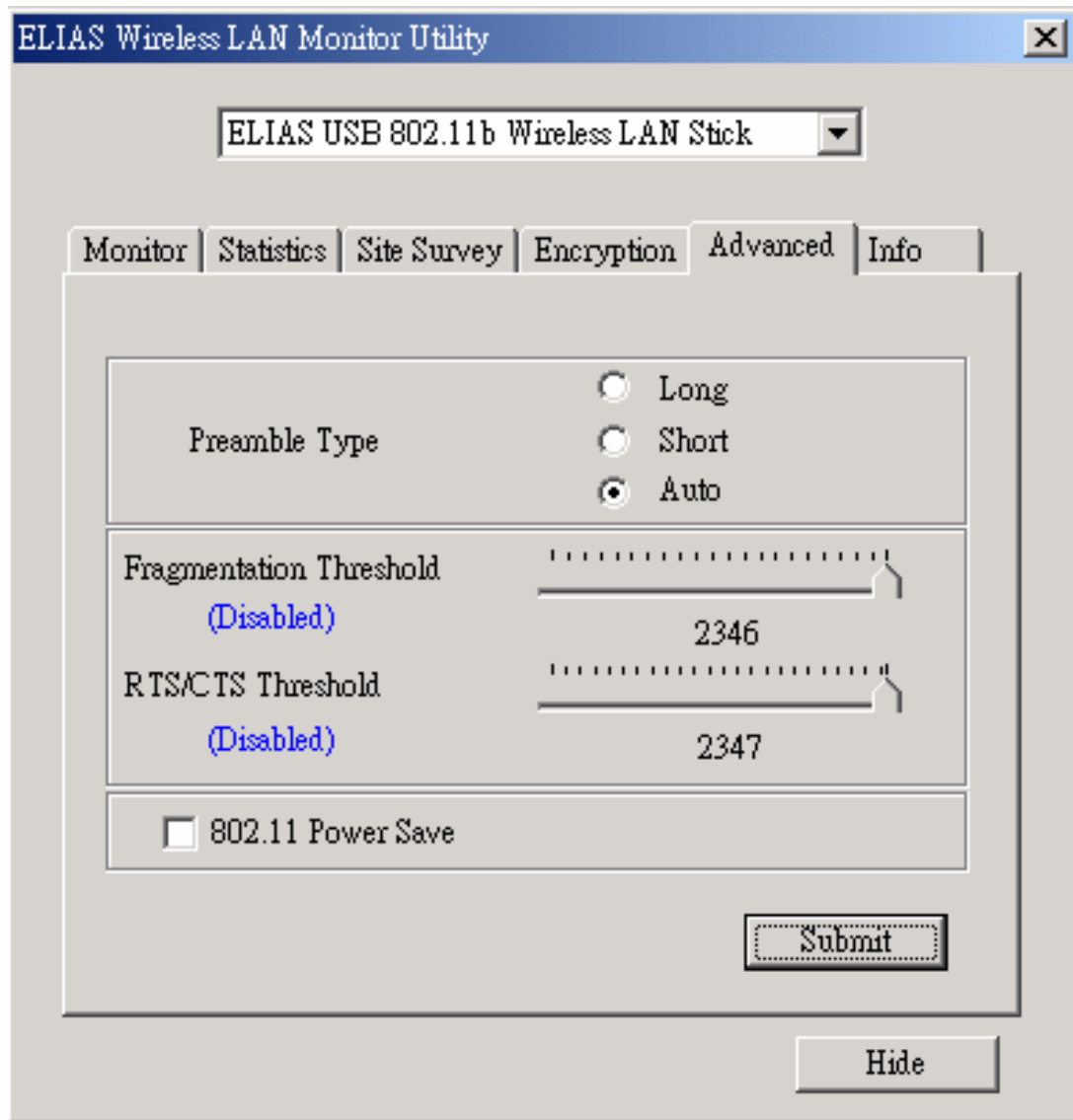Select WEP mode – Mandatory or Optional

Authentication Type

Select Open System type or Shared Key type. If you cannot decide which seems better, you can choose "Auto", and the driver will decide which type. The default is also Auto type.

Advanced

This panel "Advanced" allows you to configure the preamble type and threshold of fragmentation and RTS/CTS. Press the Submit button to apply your changes.

Use of EW-100U Cradle

The cradle is the creative design from the Elias. With the cradle, you can place your EW-100U on the table very steadily. Moreover, the cradle helps the stick "sit up", to give you better performance when using your EW-100U.

How to use your EW-100U cradle?

Assemble your cradle with the USB extension cable

- Turn the USB connector and make the USB Interface symbol face you (USB Interface symbol is up)
- Place the USB connector into the cavity of the cradle.
- Press the cable down into opening on the edge of the cradle to clamp the cable in the right position

Connect your Elias EW-100U to the cradle with USB extension cable

- Please make sure that the USB Interface symbol on the Wireless LAN stick is on the same side as that of the cradle when you inset your stick into the cradle.

Contact

If you need any further support, please contact support@elaistech.com.tw or, you can go to our web site at: www.eliastech.com.tw . You should find the answers that you need in one of these areas.

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SPECIFICATION

Compliance	✸ 802.11b
Network Ports	✸ USB1.1
OS Support	✸ Microsoft Windows 98/Me/2000/XP
Site Survey Tool	✸ Remote AP search ✸ Signal indicator and Quality indicator
Network Architecture	✸ Supports both Ad-Hoc and Infrastructure Modes
Frequency Range	✸ 2.400 ~ 2.4835 GHz
Modulation	✸ Direct Sequence Spread Spectrum (DSSS)
Operating Voltage	✸ DC 5V
Power Consumption	✸ <500mA
Antenna	✸ Dual Internal patch antenna supporting diversity
LED Indicator	✸ Power LED, Linkage Status LED
Range Coverage	✸ Open space: 100m – 400m ✸ Indoor space: 30m –100m
Dimensions	✸ 72*28*19.6(L*W*H)mm
Warranty	✸ One-year limited

✸ Specifications are subject to change without notice.

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trademarks are the properties of their respective owners.

Supplement

FCC REGULATORY STATEMENT

15.19(a)(3)

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference.

(2) This device must accept any interference received, including interference that may cause undesired operation.

15.21

CAUTION: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Federal Communications Commission (FCC) Requirements, Part 15

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.

Regulatory information / Disclaimers

Installation and use of this Wireless LAN device must be in strict accordance with the instructions included in the user documentation provided with the product. Any changes or modifications (including the antennas) made to this device that are not expressly approved by the manufacturer may void the user's authority to operate the equipment. The manufacturer is not responsible for any radio or television interference caused by unauthorized modification of this device, or the substitution of the connecting cables and equipment other than manufacturer specified. It is the responsibility of the user to correct any interference caused by such unauthorized modification, substitution or attachment. Manufacturer and its authorized resellers or distributors will assume no liability for any damage or violation of government regulations arising from failing to comply with these guidelines.

CAUTION: To maintain compliance with FCC's RF exposure guidelines, this equipment should be installed and operated with minimum distance 2.5cm between the radiator and your body. Use on the supplied antenna. Unauthorized antenna, modification, or attachments could damage the transmitter and may violate FCC regulations.

MPE Statement (Safety Information)

Your device contains a low power transmitter. When device is transmitted it sends out Radio

Frequency (RF) signal.

Safety Information

In order to maintain compliance with the FCC RF exposure guidelines, this equipment should be installed and operated with minimum distance 2.5cm between the radiator and your body. Use only with supplied antenna. Unauthorized antenna, modification, or attachments could damage the transmitter and may violate FCC regulations.