WU1112

User Manual
Version: 1.00

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Chapter 1 INTRODUCTION

1.1 Feature

- 2.4Ghz ISM unlicensed band.
- Compliant with IEEE 802.11n, IEEE 802.11g & IEEE 802.11b
- Provides USB1.1/2.0 interface
- Provides 150Mbps Uplink and 150Mbps Downlink data rate
- Supports 20MHz/40MHz frequency width
- Auto-detects and changes network transmission rate
- Supports 64/128-bit WEP, WPA, WPA2 encryption methods and 802.1x security authentication standard
- Supports WMM for seamless voice and video transmission
- Supports Windows XP, 2000, Vista & MAC etc.

1.2 Deployment

WU1112 Wireless USB Adapter offers a fast, reliable and cost-effective solution for wireless access. Deployment as follows:

1. For company personnel who require wireless mobility and access to network anywhere in the organization.

2. Enterprise or residential users who would like to convert from wired to wireless network.

3. Limited budgets for cabling and particular locations such as hotels or conference rooms where wired networking is not handy.

1.3 Package Contents

Please check the content of package for items described below:

- One WU1112

- One CD-ROM

If any of listed items are missing or damaged, please contact the reseller or distributor from whom you purchased for replacement immediately.

1.4 System Requirements

    CPU : Pentium III 1G above or similar

    Memory size : 256MB RAM

    One CD-ROM Driver

    Hard Disk : At least 100MB available space

    One available USB 2.0 port (May not work on USB 1.1 port , and performance will be greatly reduced)

    Operation System : Windows 2000/XP/Vista/Win 7 ,Mac 10.4.x and above or Linux.

Chapter 2 Installation Guide

This chapter will assist you in using the included CD-ROM for driver and configuration utility installations. While installing the configuration utility, the driver program will install automatically.

The following installation steps were based on Windows XP. Installation steps on other operating systems please refer to the User Guide and the instructions on OS to follow.

1. Insert the wireless USB adapter into the USB interface of your computer.

2. "Found New Hardware" system dialogue appears, and selects "Cancel".

3. Insert the included CD-ROM into the CD-ROM drive of your computer, and the Welcome screen appears. (If not appear, double click the "Setup.exe" icon.)
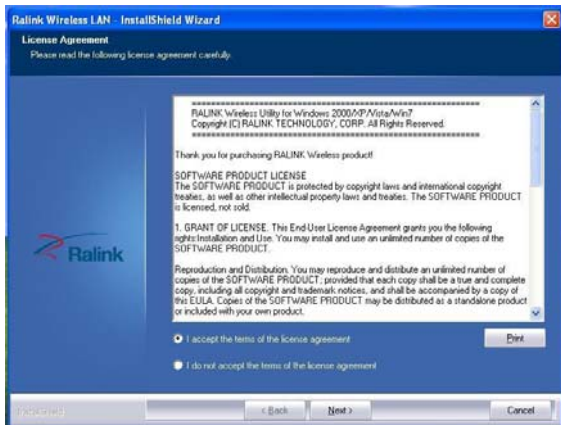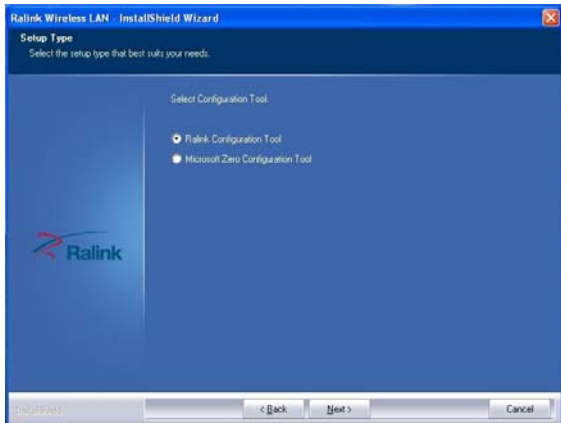
4. If there is no wireless USB adapter or incorrect connection, the following window will appear. Click "Yes" to connect the wireless USB adapter mentioned step 1.

5. Click "Install driver and Ralink WLAN Utility", and then click "next" to continue.
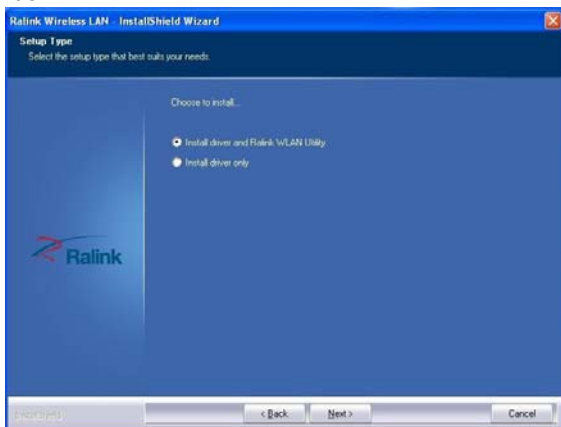
6. Click "Ralink Configuration Tool" or Click "Microsoft Zero Configuration Tool", and then click on "Next" to continue.
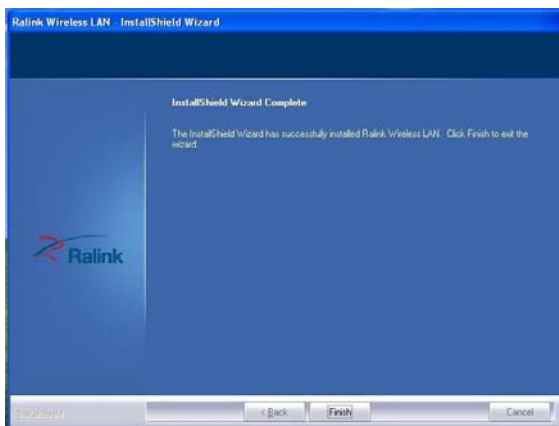

7. Click "Install" to start the installation.

8. During the installation, the following dialogue maybe appears. Click the "Continue Anyway" to continue. There is no security threat to your computer.

9. Click "Finish" to complete the installation.

10. Right-Click on the "R" button and select "Launch Config Utility" to start the software.

Chapter 3 How to Use the Wireless Utility Interface (Client Mode)

This Utility Interface is provides basic configuration functions to WU1112 Wireless USB Adapter management. If the UI does not appear automatically, please select from the CD to run the application.

3.1 Profile Management

◆ **Profile List**

Profile can book keeping your favorite wireless setting among your home, office, and other public hot-spot. You may save multiple profiles, and activate the correct one at your preference in the profile list.
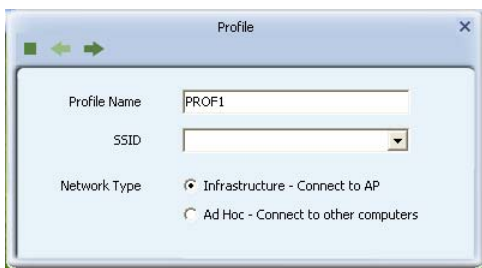
◆ **Add:**

1.   Click "Add" below the Profile List.

2.   The "Add Profile" will appear.

3.   Specify a Profile Name. Select an AP from the SSID drop-down list. The AP list from the last Network.

4.   Now the profile which the user set appears in the profile list. Click "Activate".
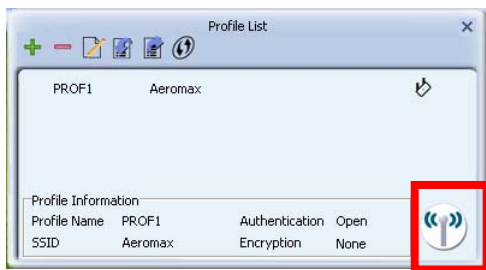
Network

The system will display the information of local APs from the last scan result as part of the Network section. The Listed information includes the SSID, MAC Address, Signal, Channel, Encryption algorithm, Authentication and Network type.
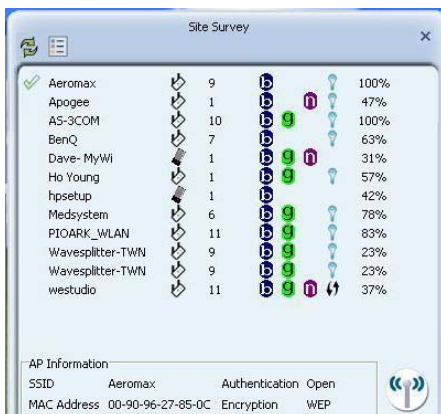
Definition of each field :

1. SSID: Name of BSS or IBSS network.

2. Network Type: Network type in use, Infrastructure for BSS, Ad-Hoc for IBSS network.

3. Channel: Channel in use.

4. Wireless Mode: AP support wireless mode. It may support 802.11a, 802.11b, 802.11g or 802.11n
wireless mode.

5. Security-Enable: Indicates if the AP provides a security-enabled wireless network.

6. Signal: Receive signal strength of the specified network.

Icons and buttons :

Indicates that the connection is successful.

Indicates the network type is in infrastructure mode.

Indicates the network type is in Ad-hoc mode.

Indicates that the wireless network is security-enabled.

Indicates 802.11a wireless mode.

Indicates 802.11b wireless mode.

g Indicates 802.11g wireless mode.

n Indicates 802.11n wireless mode.

Sorted by SSID
Sorted by Channel
Sorted by Signal Strength Indicates that the AP list is sorted by SSID, Channel or Signal.

Issues a rescan command to the wireless NIC to update information on the surrounding wireless network.

Adds the selected AP to the Profile setting. It will bring up a profile page and save the user's setting to a new profile.

Button to connect to the selected network.

Advanced

1. Wireless mode: Select wireless mode. 2.4GHz, 5GHz and 2.4GHz+5GHz are supported.

2. Wireless Protection: Users can choose from Auto, On, and Off. (This is not supported by 802.11n adapters.)

1. Auto: STA will dynamically change as AP   announcement.
2. On: The frames are always sent with protection.
3. Off: The frames are always sent without protection.

3. TX Rate: Manually select the transfer rate. The default setting is auto. (802.11n wireless cards do not allow the user to select the TX Rate.)
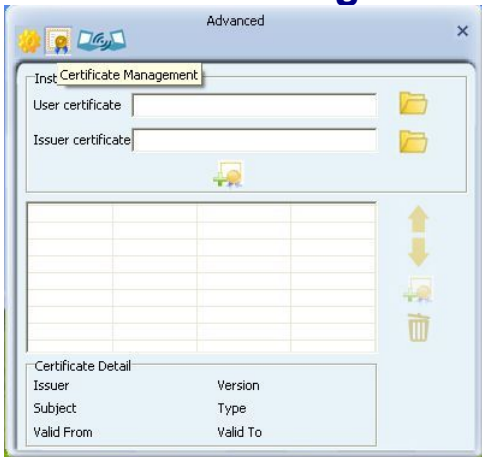
4. Select Your Country Region Code: There are eight countries to choose from in the country channel list. (11A ListBox only shows for 5G adapter.)

5. Apply the above changes.

Certificate Management

1. Install Certificate :
Need to install user certificate and issuer certificate for the authentication.

2. Icons and buttons :

Indicates to browser the file.

Indicates to install the certificate.

Certificate List :
Show all installed certificates. There are ordered property.

Icons and buttons :

Move up the selected certificate.

Move down the selected certificate.

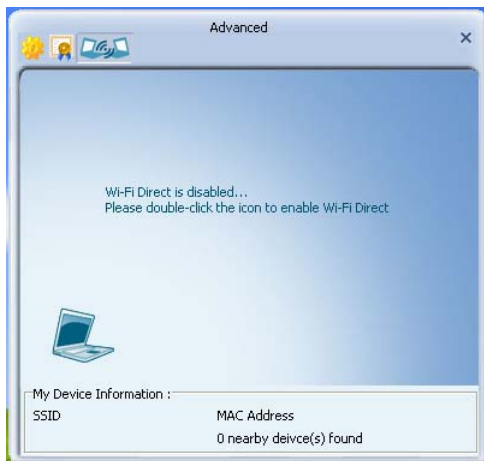Install AS certificate for the selected certificate.

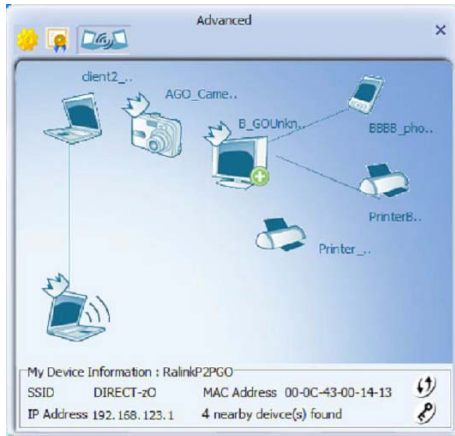Delete the selected certificate.

Wi-Fi Direct

Enable Wi-Fi Direct :

1. Need to double-click the notebook icon.

2. Specify the name of Wi-Fi Direct Device :

3. Ralink UI is able to discover other WiFi Direct topologies nearby

 GO AP- like.

 GO with clients in the same group

 Set WPA2PSK AES key

 configure WPS for GO

Appendix One : Glossary

WLAN	Wireless Local Area Network
802.11	A family of specifications developed by the IEEE for WLAN technology.
802.11a	An extension to 802.11 WLAN standard that provides up to 54 Mbps transmission in the 5 GHz UNI radio band.
802.11b	An extension to 802.11 WLAN standard that provides up to 11 Mbps transmission in the 2.4 GHz ISM radio band. 802.11b uses DSSS modulation.
802.11g	An extension to 802.11 WLAN standard that provides up to 54 Mbps transmission in the 2.4 GHz ISM radio band. 802.11b uses OFDM modulation and is backwards compatible with 802.11b.
Ad-Hoc	A group of computers each with wireless adapters, connected as an independent WLAN.
AES	Advanced Encryption Standard
BSSID	Basic Service Set ID
DHCP	Dynamic Host Configuration Protocol
DSSS	Direct Sequence Spread Spectrum. DSSS is one of two types of spread spectrum radio. The other is frequency-hopping spread spectrum(FHSS).
QoS	Quality of Service
OFDM	Orthogonal Frequency Division Multiplexing
RADIUS	Remote Authentication Dial In User Service
RTS	Request to Send
SSID	Service Set Identifier. A 32-character unique identifier attached to the header of packets sent

	over a WLAN that acts as a password when a mobile device tries to connect to the BSS.
TCP/IP	Transmission Control Protocol/Internet Protocol
TKIP	Temporal Key Integrity Protocol
WDS	Wireless Distribution System
WEP	Wired Equivalent Privacy. A security protocol for WLANs defined in the IEEE 802.11 standard.
WPA	Wi-Fi Protected Access
WPA2	Wi-Fi Protected Access 2. The next generation of Wi-Fi security, based on the 802.11i standard.
WPA2-PSK	Wi-Fi Protected Access 2-Pre-shared Keys
WPA-PSK	Wi-Fi Protected Access-Pre-shared Keys

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

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

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.

FCC RF Radiation Exposure Statement:
1. This Transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.
2. This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. To maintain compliance with FCC RF exposure compliance requirements, avoid direct contact to the transmitting antenna during transmitting.