Tube-U(G)s Long-Range
Outdoor IEEE 802.11g USB Adapter

User's Guide

Table of Content

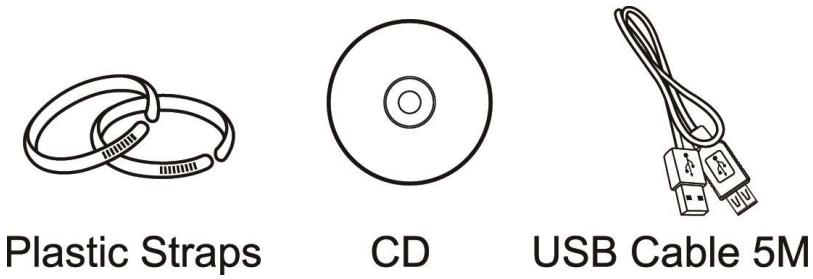
Overview

Thank you for purchasing this product. Please read this chapter to better understand your Tube-U(G)s Long Range Outdoor USB Adapter

Unpacking information

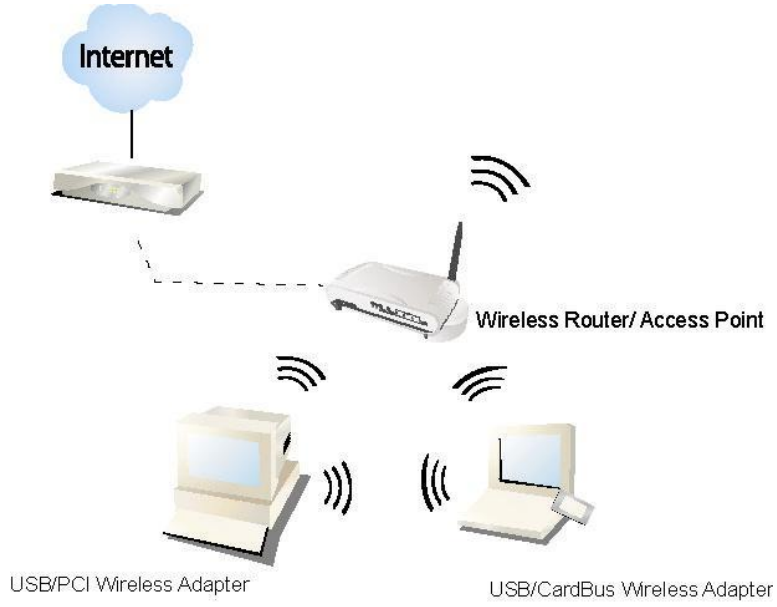
Before getting started, please verify that your package includes the following items:

1. Tube-U(G)s Long-Range 802.11g Outdoor USB Adapter
2. One Utility/ Manual CD
3. USB Cable
4. Plastic straps



Introduction to the Tube-U(G)s outdoor USB Adapter

The Tube-U(G)s IEEE 802.11g outdoor USB adapter provides users to launch IEEE 802.11g wireless network at 54 Mbps in the 2.4GHz frequency, which is also compatible with IEEE 802.11b wireless devices at 11Mbps. You can configure this adapter with AP mode to connect/share to other 2.4GHz wireless computers or with Infrastructure mode to connect to a wireless AP or router for accessing to Internet. This adapter includes a convenient Utility for scanning available networks and saving preferred networks that users are usually connected with. Security encryption can also be configured by this utility.



Key Features

- Complies with IEEE 802.11b/g wireless standard
- Support driver for Windows 98se, Me, 2000, XP,Vista, and Windows 7.
- Complies with Universal Serial Bus Rev. 1.0, 1.1 and 2.0 specifications.
- Supports auto-installation and diagnostic utilities.
- High Speed transfer data rate up to 54Mbps
- Support turbo mode for 72 Mbps data rate
- Support wireless data encryption with 64/128-bit WEP, WPA (TKIP with IEEE 802.1x), and AES functions.

Installation Guide

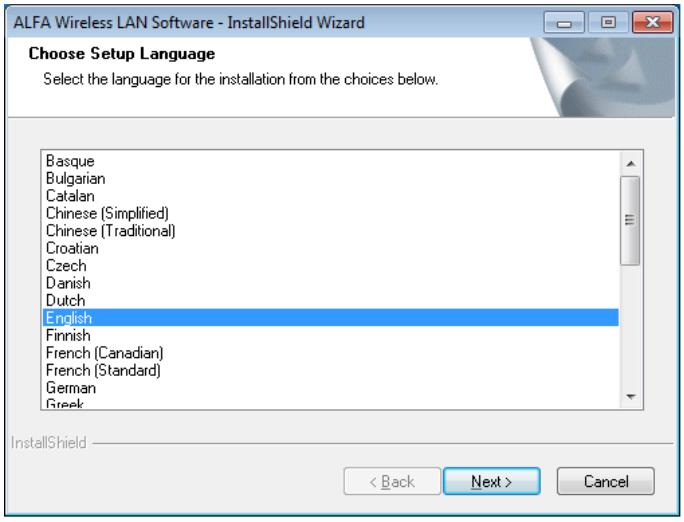
Software Installation

Note: The following driver installation guide uses Windows 7 as the presumed operation system. The procedures and screens in Windows 98se, 2000, XP are similar with Windows 7.

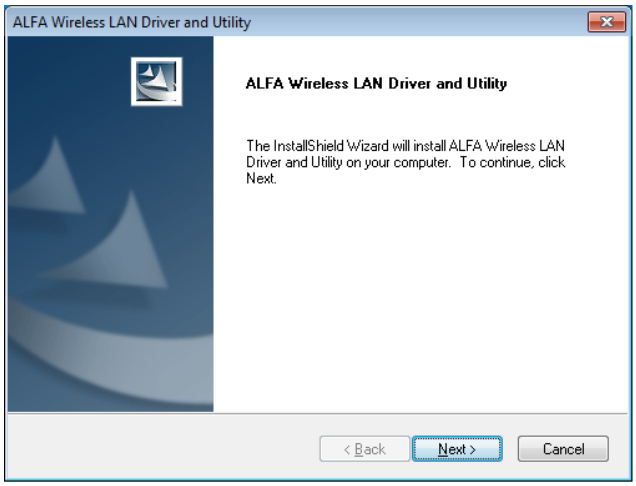
Insert the installation CD that came with this product to your CD-ROM drive. Please click the **"Windows 7/Vista/XP"** button from the popup menu for this product.

Note: If the CD-ROM fails to auto-run, please click on "**My Computer**"→ **your CD-ROM Drive** will then double-click the "**AutoRun.exe"** to start this menu.

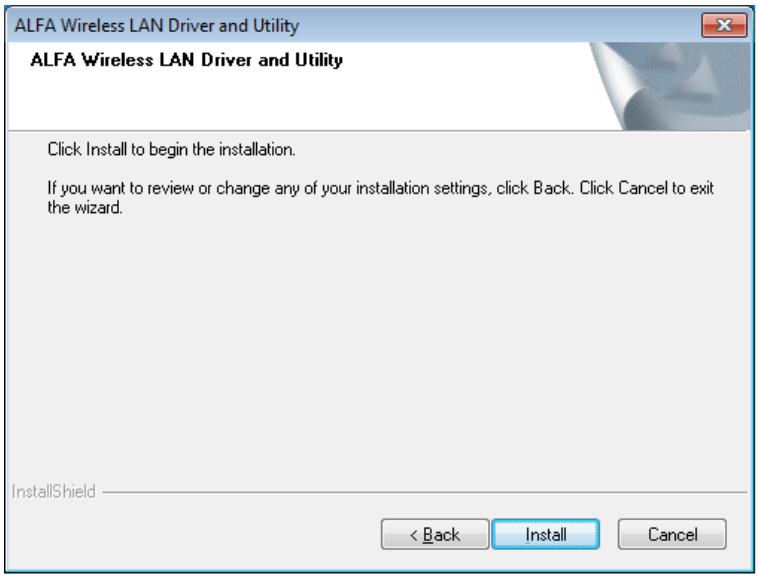
1. Select the language for the installation.



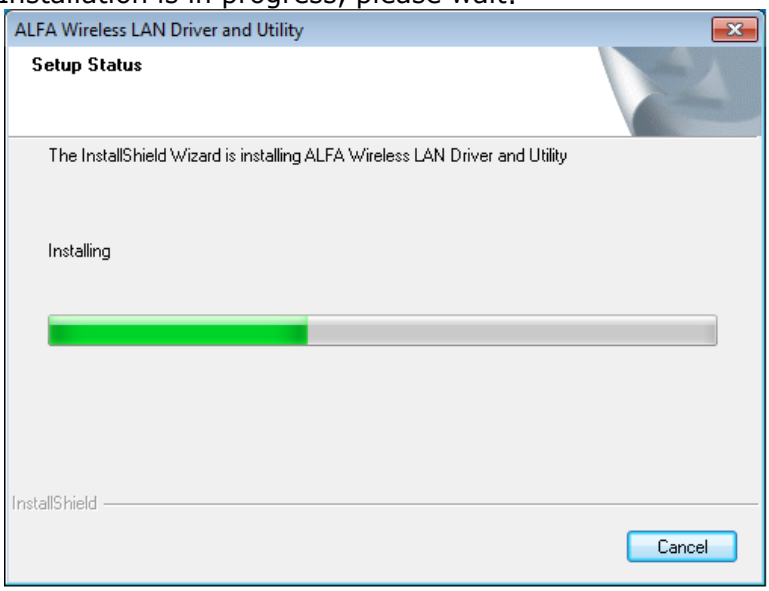
2. The welcome window will pop up. Click the **"Next"** button to proceed.



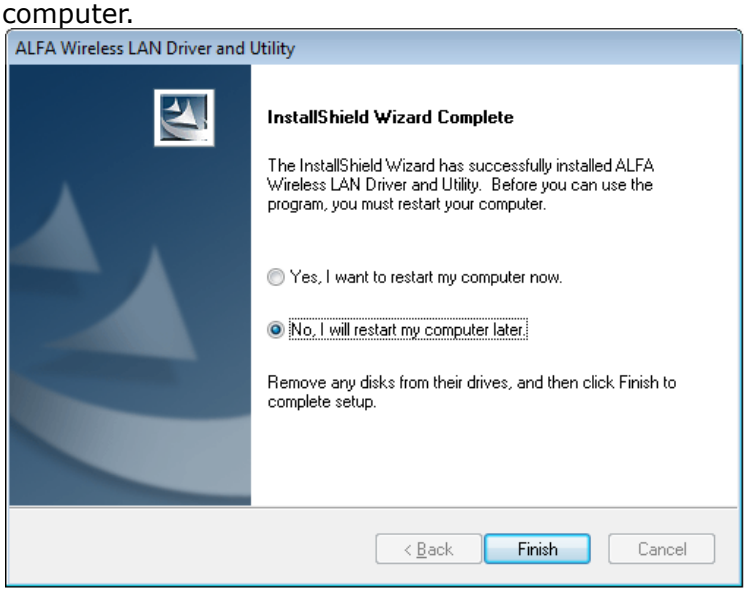
3. Click "**Install**" button to continue the installation.



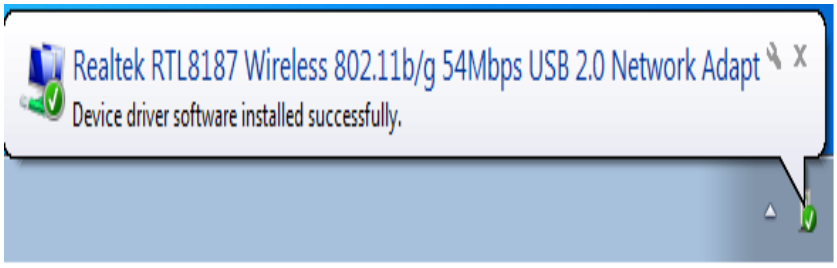
4. Installation is in progress, please wait.



5. Click the **"Finish"** button to complete driver and utility installation.
Note, please insert this USB wireless adapter to your computer if you're using Windows 7, Vista, XP, or Windows 2000. If you are using Windows 98se or ME, please restart the system first before connect this wireless adapter to your computer.



6. Windows 7 detects new hardware has been inserted and driver is installed.

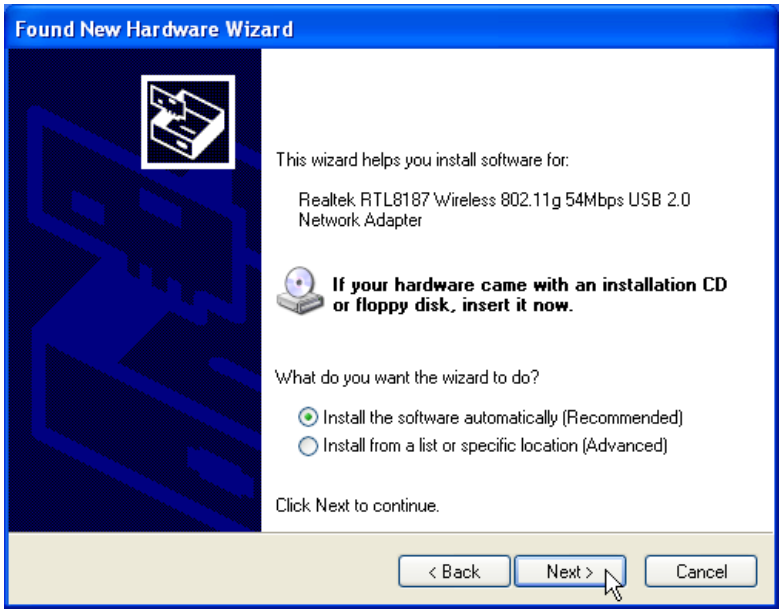


Found New Hardware Wizard in Windows XP, 2000, and Vista.

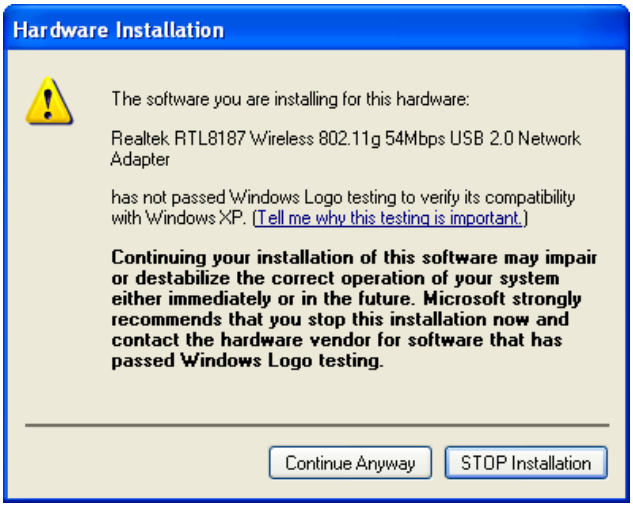
1. The **"Found New Hardware Wizard"** will pop up. (**Note:** This wizard won't pop up in Windows 98 and ME. The system finds the new hardware and installs the hardware automatically. Please skip the following steps)

2. Select **"No, not this time"** and click the **"Next"** button.

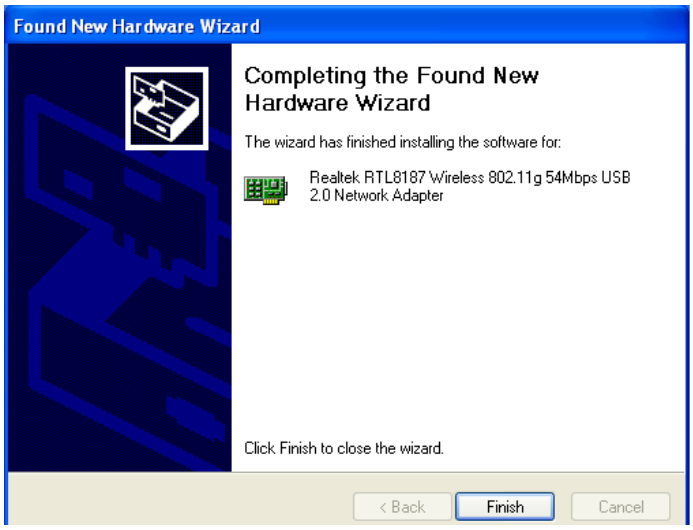
3. Select **"Install the software automatically"** and then click the **"Next"** button.



4. Please wait while installing the driver. The Windows logo testing warning message may pops up. Please click the "**Continue Anyway**" button to continue.



5. Click the **"Finish"** button to complete installation.



Management Guide

Please read this chapter to better understand the management interface of your Tube-U(G)s Long Range outdoor USB Adapter

Making a Basic Network Connection

Before You Start

In the following instructions for making a network connection, we use the utility we provided to configure your wireless network settings.

Note: For Windows XP users that want to configure your wireless network using this Utility, please perform the following procedures to disable your native Windows XP wireless support (Wireless Zero Configuration Service)

1. Double click the  icon on your desktop to start the utility.

2. Make sure that the **"Windows Zero Config"** checkbox is unchecked.

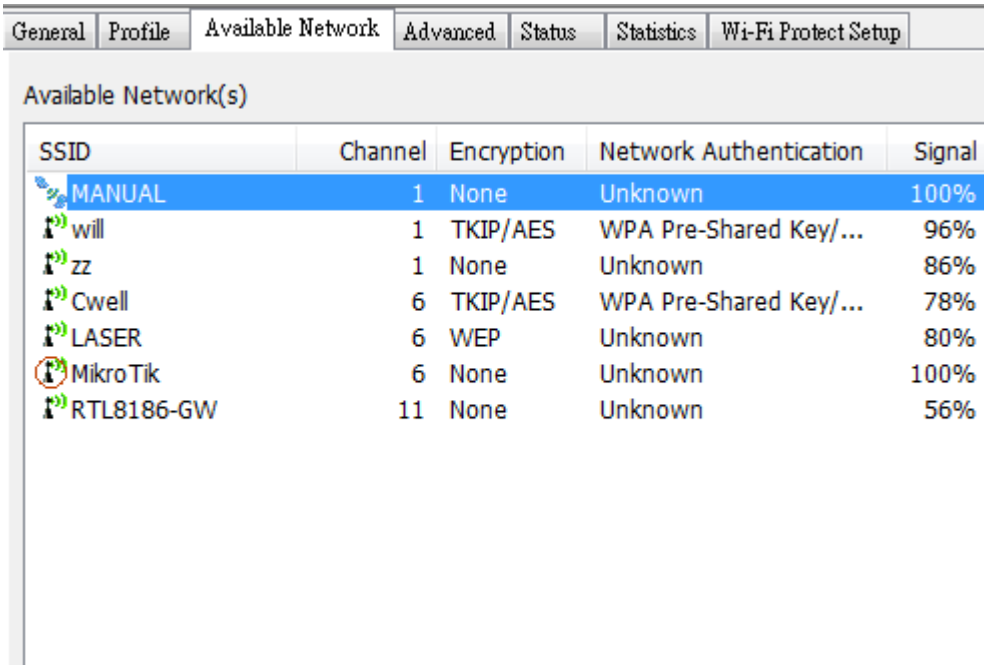
Ad-Hoc Mode

An Ad-Hoc mode wireless network connects two computers directly without the use of a router or AP. It is also known as a peer-to-peer network. For example, we can install this wireless adapter to two computers respectively. The communication between the two computers is an Ad-Hoc mode network.

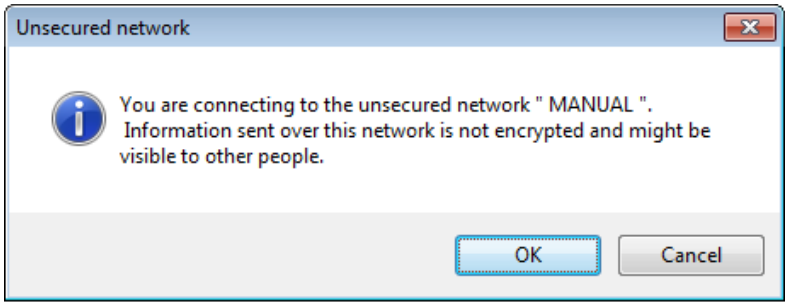
Ad-Hoc Mode

To use this adapter in Ad-Hoc Mode

1. Double click the  icon on your desktop.
2. Click the **"Available Network"** button to scan available wireless network adapters. Double click on the network adapter that you are going to connect to.

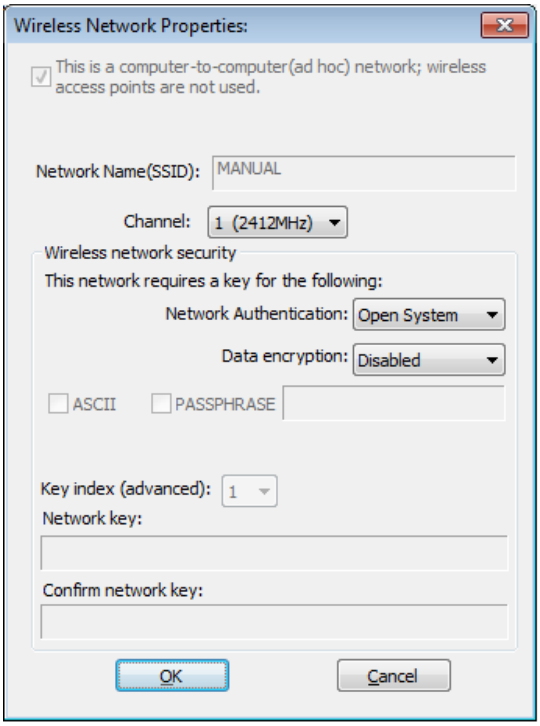


3. Click the OK button to confirm that you are connecting to an open wireless network.



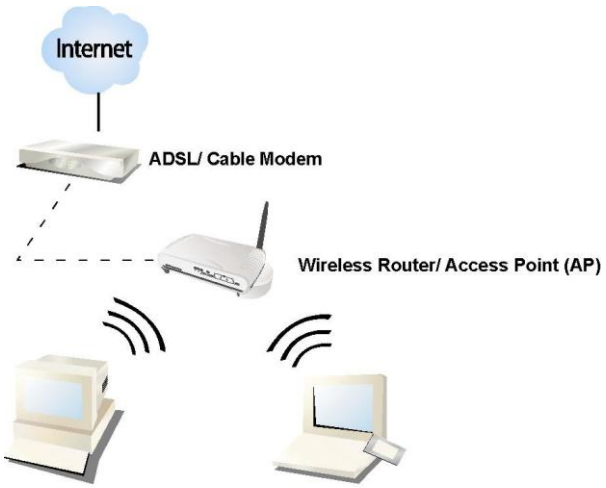
4. Click OK to add this network into the profile list.

Note: This example is an open wireless network. If you are going to connect to a Wireless adapter with security protection, you will have to configure the encryption settings in this profile to be corresponding to the other wireless adapter. Please click on the **"Network Authentication"** drop list to select an authentication method, and then select a **"Data encryption"** type. Fill in each required blanks and click **"OK"**.



Infrastructure mode

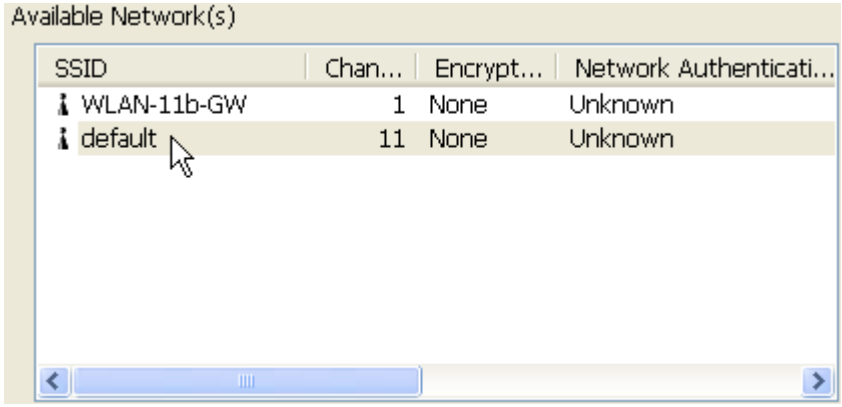
An Infrastructure Mode network contains at least one wireless client and one wireless AP or router. This client connects to Internet or intranet by communicating with this wireless AP.



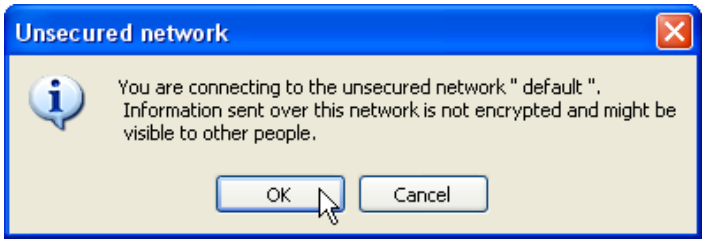
Infrastructure Mode

To use this adapter in Infrastructure Mode:

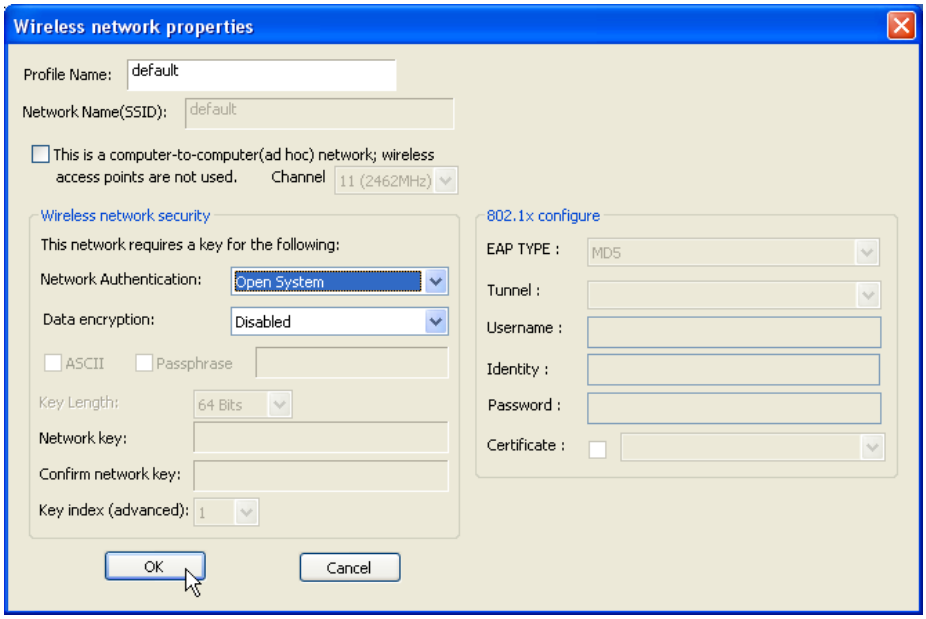
1. Double click the  icon on your desktop.
2. Click the **"Available Network"** button to scan available access points. Double click on the AP that you are going to connect to.



3. Click the OK button to confirm that you are connecting to an open wireless network.



4. Click **OK** to add this network into the profile list.



Note:

This example is an open wireless network. If you are going to connect to an AP with security protection, you will have to configure the encryption settings in this profile to be corresponding to your AP. Please click on the **"Network Authentication"** drop list to select an authentication method, and then select a **"Data encryption"** type. Fill in each required blanks and click **"OK"**.

Introduction to the Wireless LAN Utility

Note: This management instruction uses Windows 7 as the presumed operation system. Some functions are not supported in Windows 98se or Windows ME.

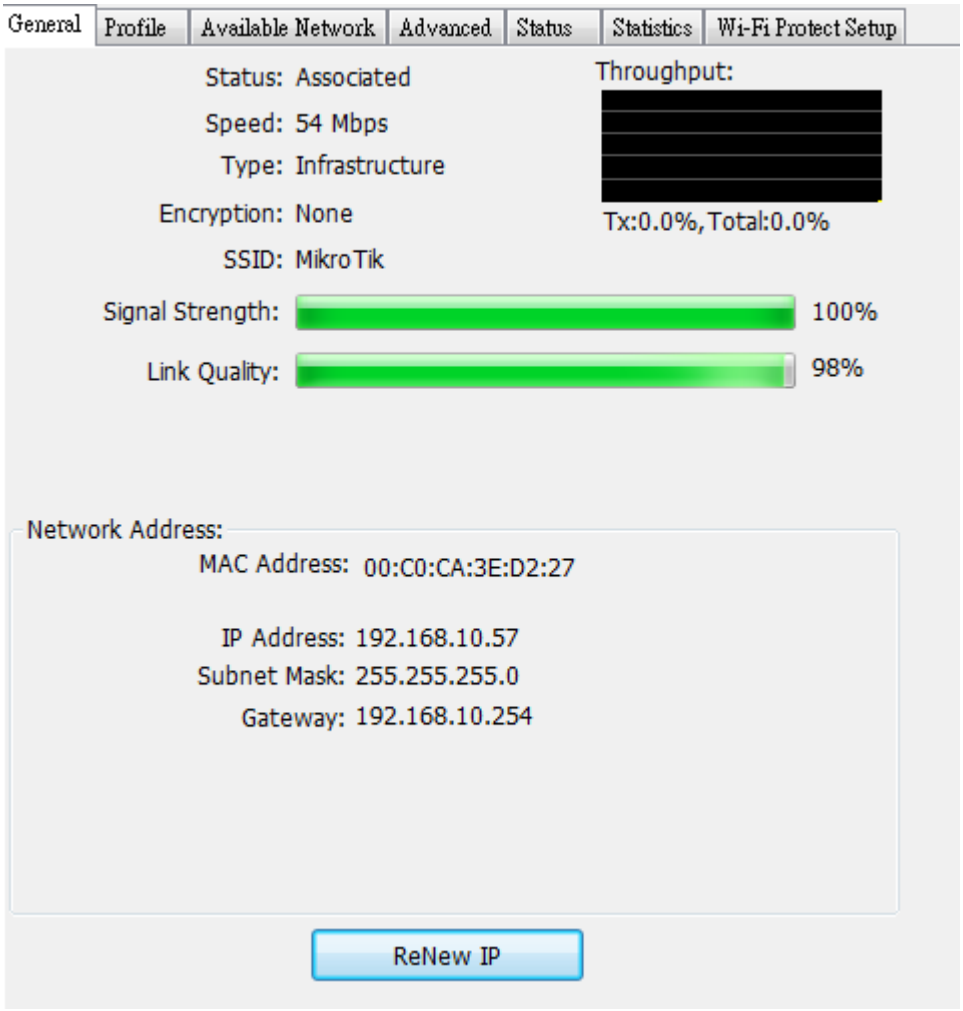
Starting the Wireless LAN Utility

Double click the  shortcut on your desktop. The Wireless LAN Utility will pop up. You may click on the tabs above to configure this adapter. The checkboxes below provide the following functions:

Show Tray Icon	Check this checkbox to show the utility icon on your system tray, which is in the notification area at the lower-right corner of the windows desktop. You may also uncheck it to remove the utility icon from system tray.
Windows Zero Config (on Windows XP)	Uncheck this checkbox to use native Windows XP wireless support (Wireless Zero Configuration Service) instead of using this utility to configure your wireless network.
Radio Off	Check this checkbox to prevent this adapter form transmitting or receiving signals. Uncheck it to communicate.
Disable Adapter	Check this checkbox to disable this wireless adapter.
Virtual Wifi Disallowed (on Windows 7)	Check this checkbox to disable the Virtual Wifi Adapter on Windows 7

General

After starting the utility, the general page pops up This **General** tab and provide the information of your current wireless network connection. You may click the **Renew** button to refresh those listed information.



Status: Check if the device associated to target network.

Speed: The current connection speed

Type: Infrastructure mode or Ad-Hoc mode.

Encryption: The performing encryption mode for connecting to current network profile.

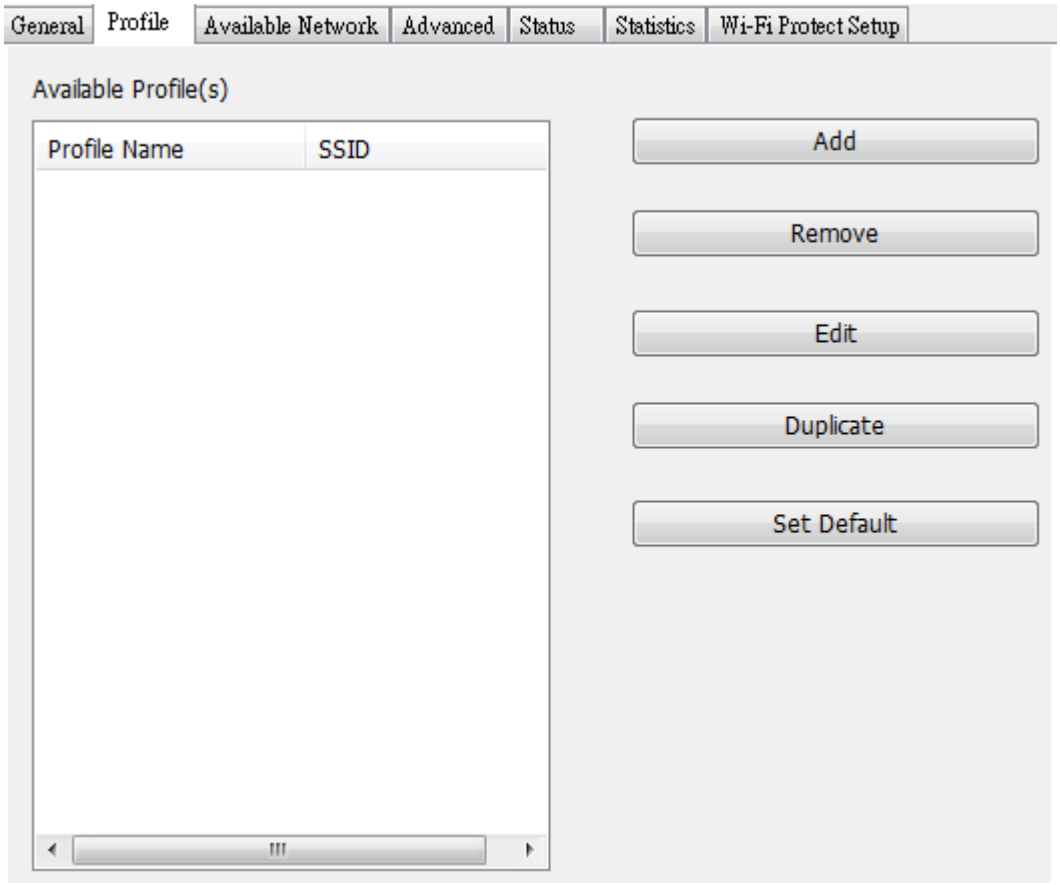
SSID: The SSID (network name) of the connected wireless network.

Signal Strength: Indicates the signal strength detected by this adapter.

Network Address: Shows the current IP addresses settings for this adapter.

Profile

The **Profile** tab lists the preferred connections. You can click the buttons on the right-hand side to configure each connection.



Add Click this button to add a connection profile for this adapter.

Remove To remove a connection profile, click this profile on the profile list and click this button to delete it.

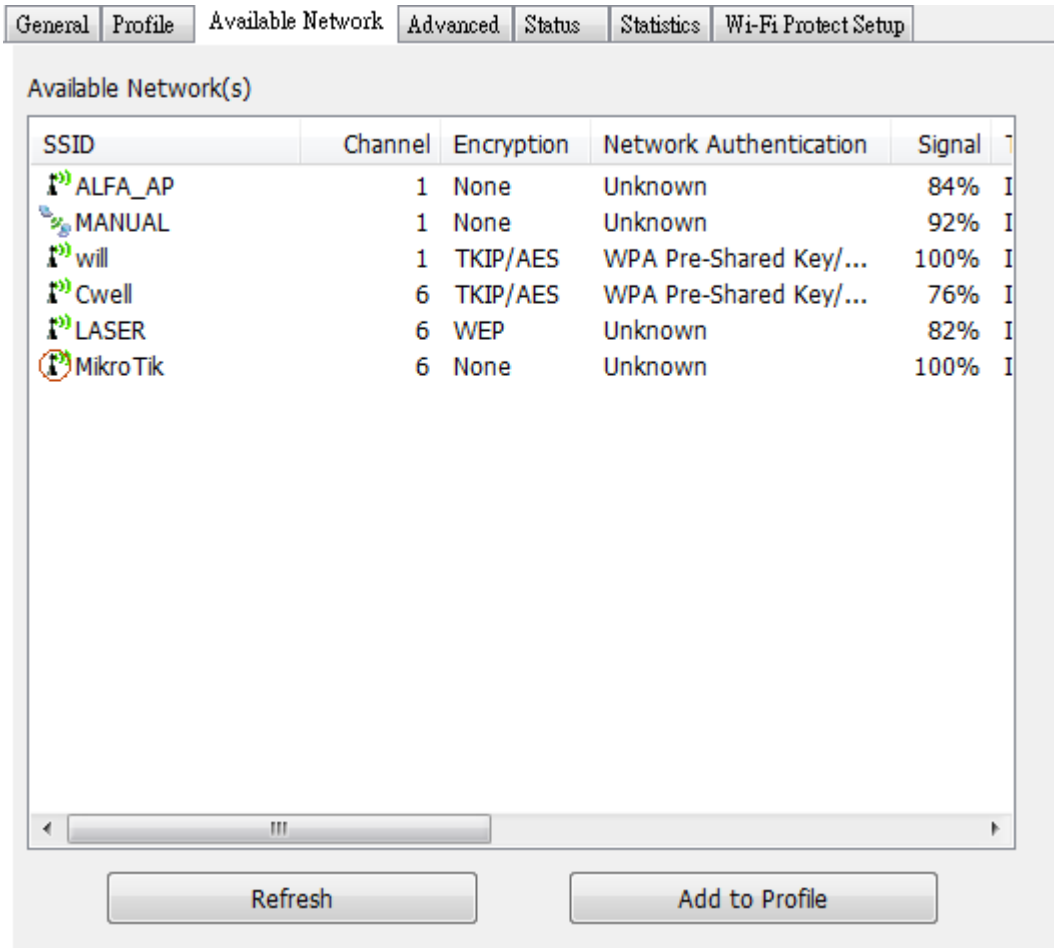
Edit To modify the configurations for a profile, click this profile on the profile list and click this button to edit.

Duplicate To make a copy of a profile, click the profile that you would like to have copied, and click this button to copy it.

Set Default To select a profile as your default wireless connection, select the profile on the list and click the Set Default button. You may also double click on each profile to select it as your default wireless connection.

Available Network

The available tab lists the reachable wireless network for the adapter.

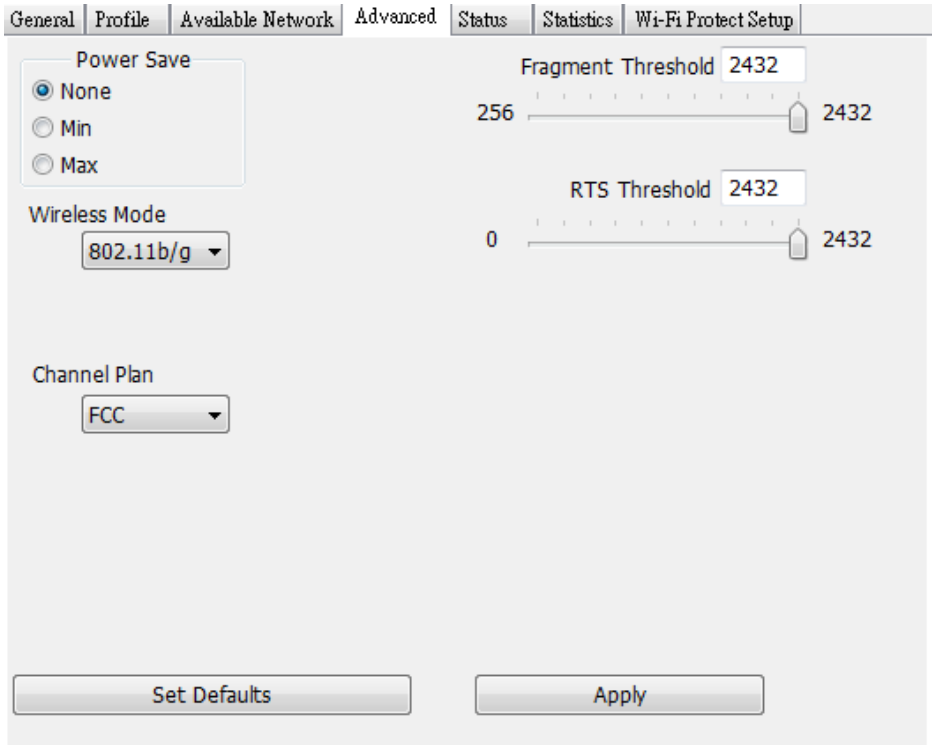


Refresh Click this button to rescan available networks around the adapter.

Add to Profile To add an available Network to your profile list, select an available network and click this button to add.

Advanced

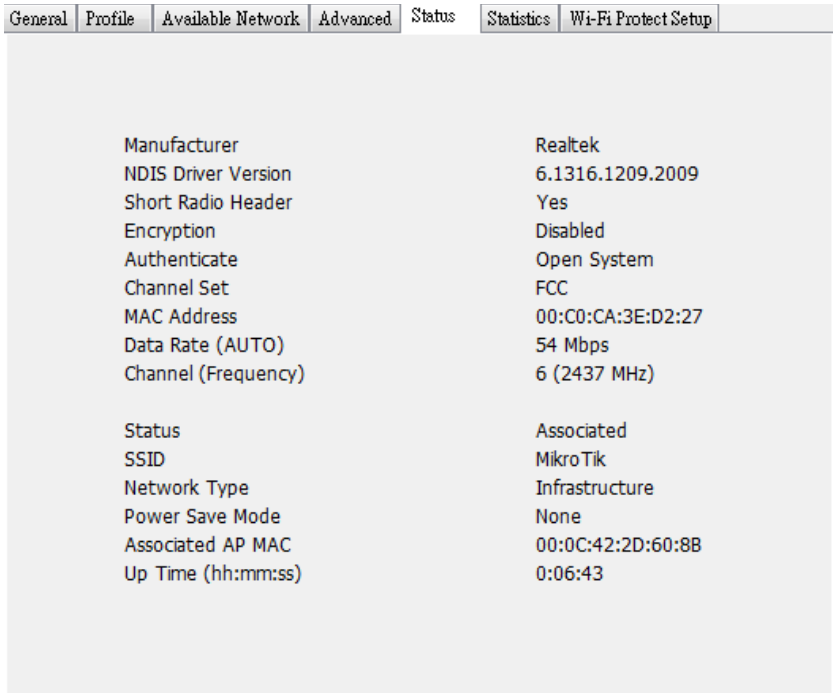
This Advanced tab provides advanced configurations to this adapter. Every modification in this tab will be performed after clicking the **Apply** button.
To restore the default settings of the advanced tab, click the **Set defaults** button to perform restoring.



Power Save	
None	Disable Power saving function.
Min	Minimum power consumption
Max	Maximum power consumption
Turbo Mode	
OFF	Disable turbo mode
ON	Enable turbo mode
AUTO	Enable or disable turbo automatically according to the detected environment
Fragment Threshold	
The maximum size of a packet that is going to be segmented and transmitted. Select the size from 256 to 2432(default) bytes.	
RTS Threshold	
Select the RTS Threshold form 0 to 2432(default)	
Wireless Mode	
802.11g/b	Connect to a 802.11g/b network (2.4GHz/54Mbps)
802.11b	Connect to a 802.11b network (2.4GHz/11Mbps)
Channel Plan	
ETSI	For European counties (CH1 ~ CH13)
MKK	For Japan (CH1 ~ CH 14)
FCC	(default value) CH1 ~ CH11

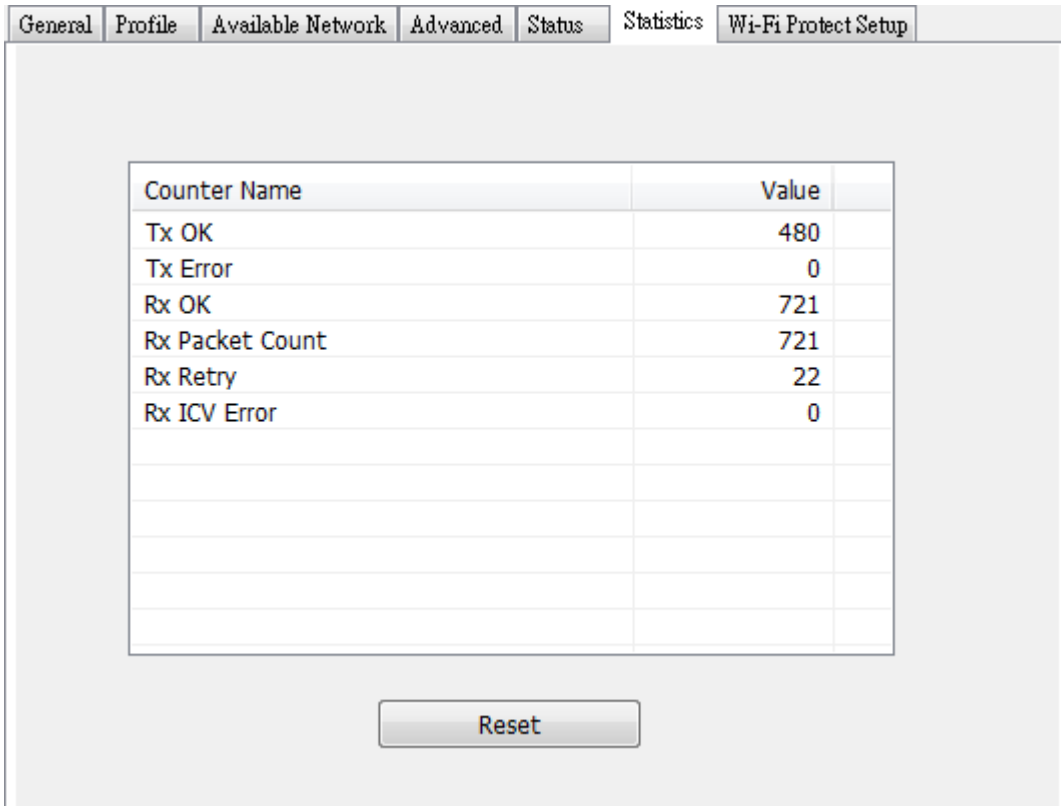
Status

This tab shows the current connection status of this adapter.



Statistics

See Statistics tab to show the transmission activity record. Clicking the **"Reset"** button recounts the values from zero.



Appendix

RT-Set Setup Wizard

For Windows 2000, XP, Vista users to connect to a wireless network easily, we also provide the RT-Set setup wizard to help users set their preferred wireless network step by step. You can configure your wireless network via this RT-Set setup wizard in the following three modes:

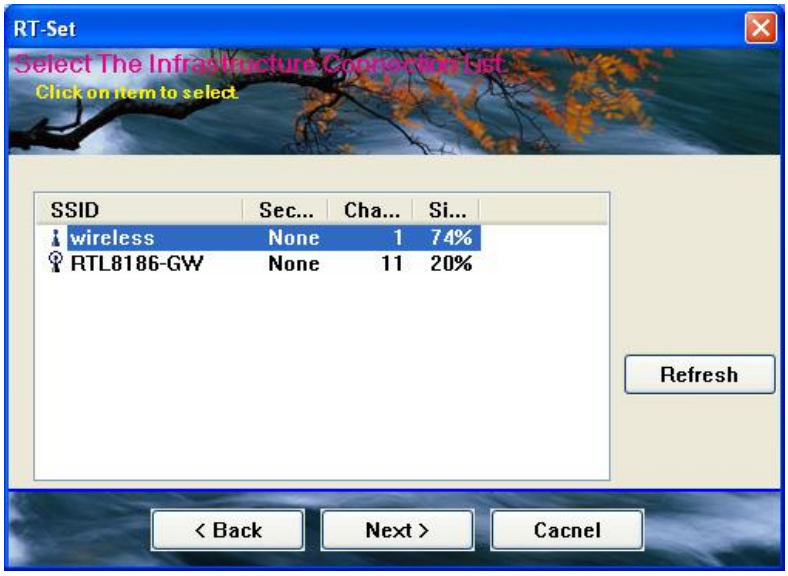
Station mode (infrastructure): Select this mode to connect to the AP (access point) in your LAN.
Station mode (ad hoc): Select this mode to connect to another wireless network adapter in your LAN.
AP mode: Select this mode to perform this adapter as an AP (access point).

To start the RT-Set Wizard, please click the **"RT-Set"** tab on the up-left corner of the window

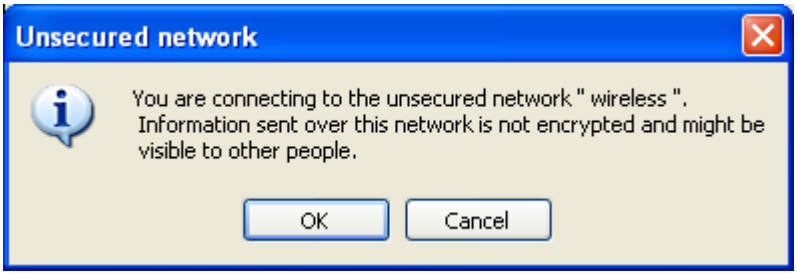
Connect to a wireless network in infrastructure mode

1. To connect this adapter to an AP, select the **"Station (infrastructure)"** mode and click the "Next" button to proceed.

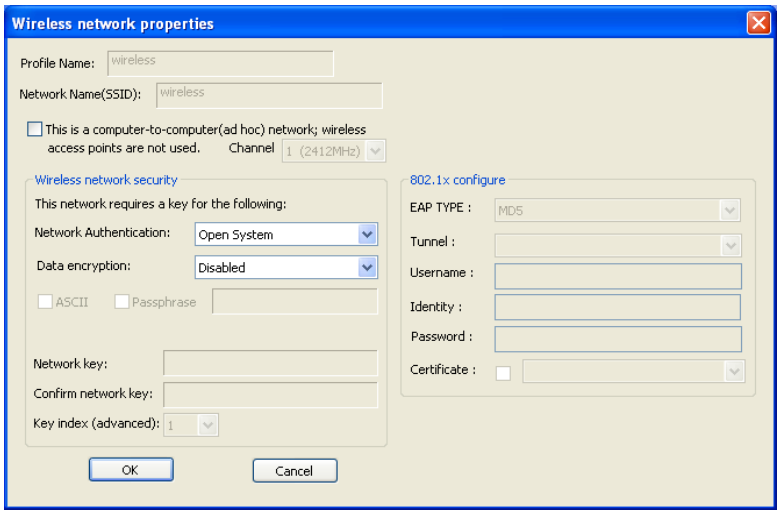
2. The RT-Set scans the available AP within your LAN. Those AP are listed with their SSID. Click the wireless AP that you are going to connect with and then click the **"Next"** button. You may also click the "Refresh" button to scan wireless AP again.



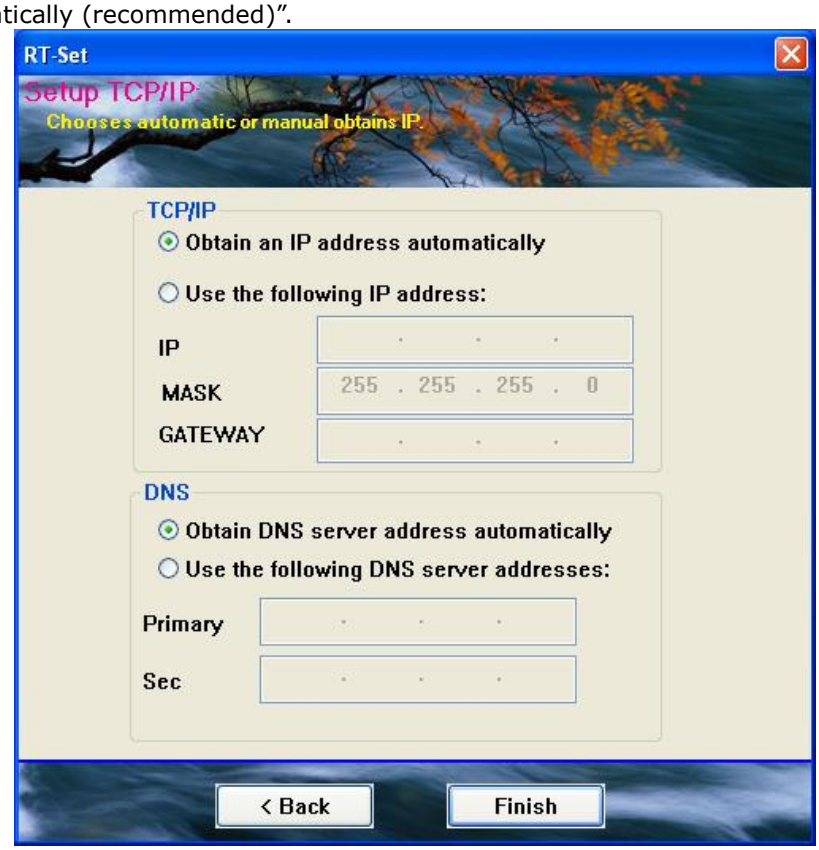
3. The "unsecured network" window may pop up if the AP you select doesn't use security encryption settings. Click the "OK" button after your confirmation.



4. Click "OK" after configuring the profile content to be corresponding to the AP that you are going to connect with. If you are connecting to an AP without security encryption, please click "OK" button without configuration.



5. Configure the IP address for the incoming connection. You may choose "Use the following IP address" to fill in IP addresses manually or choose "Obtain an IP address automatically (recommended)".

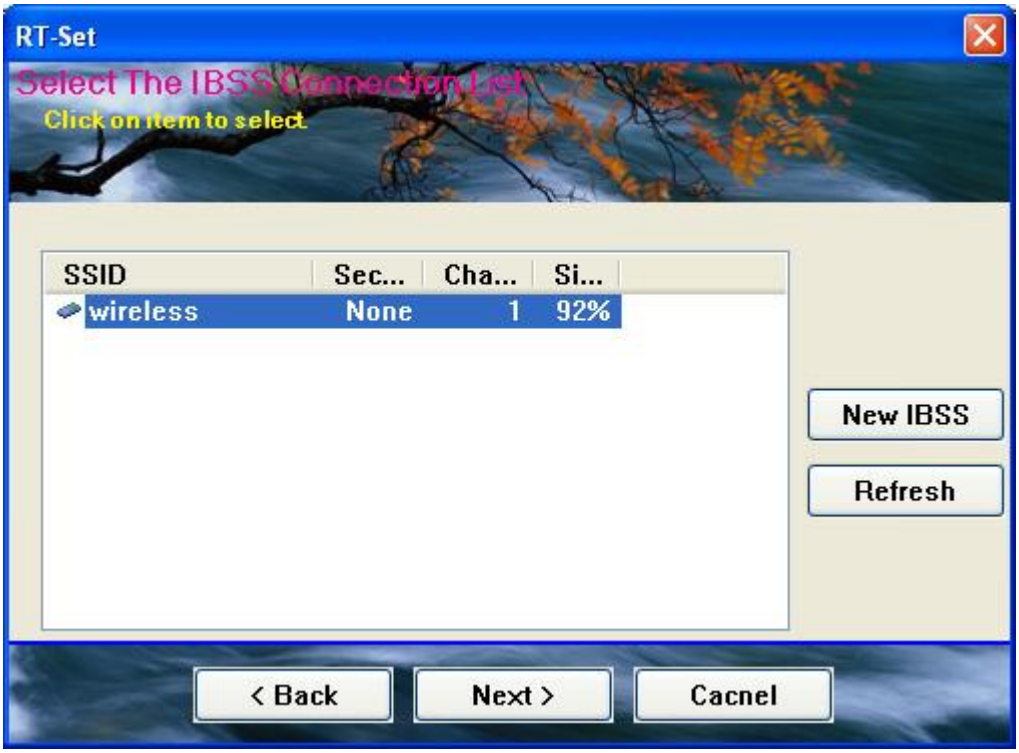


6. After configuring the IP addresses, click the "Finish" button to complete.

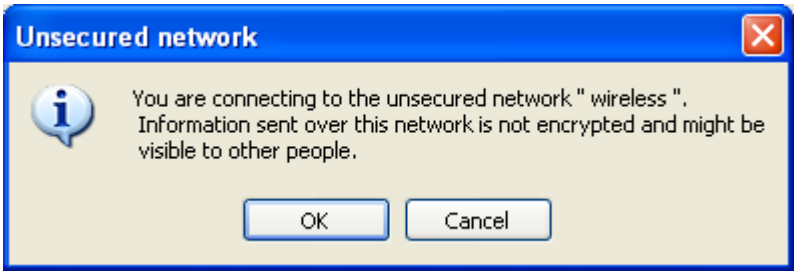
Connect to a wireless network in ad hoc mode

1. To connect this adapter to another computer, select the "Station (ad hoc)" mode and click the "Next" button to proceed.

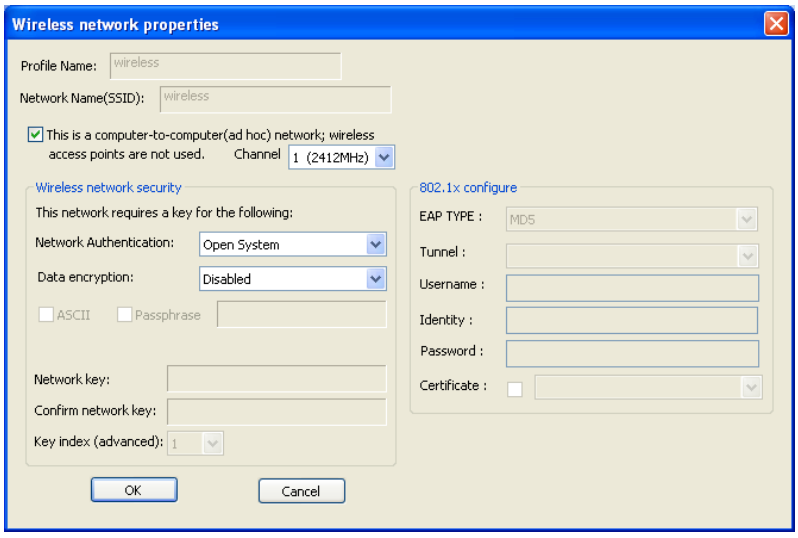
2. The RT-Set scans the available wireless adapters within your LAN. Those adapters are listed with their SSID. Click the one that you are going to connect with and then click the **"Next"** button. You may also click the **"Refresh"** button to scan the wireless adapter again.



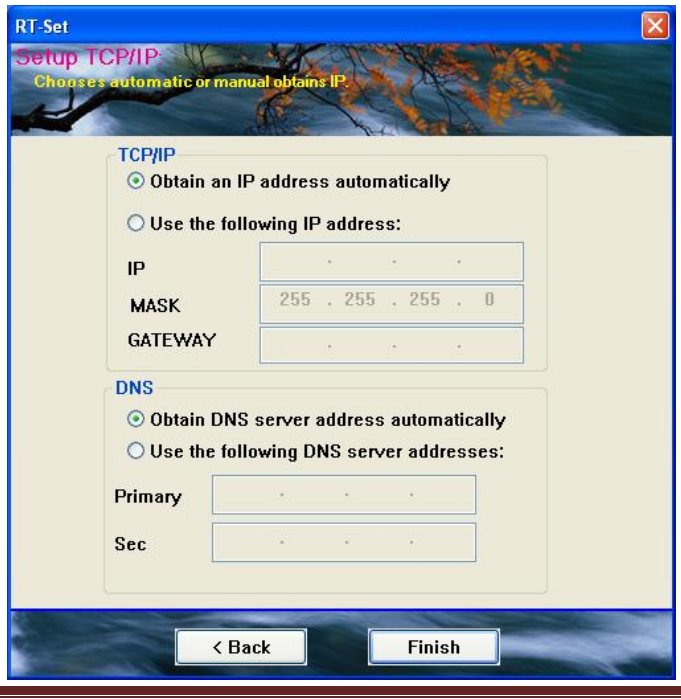
3. The “unsecured network” window may pop up if the adapter you select doesn’t use security encryption settings. Click the “OK” button after your confirmation.



4. Click “OK” after configuring the profile content to be corresponding to the wireless adapter that you are going to connect with. If you are connecting to a wireless adapter without security encryption, please click “OK” button without configuration.



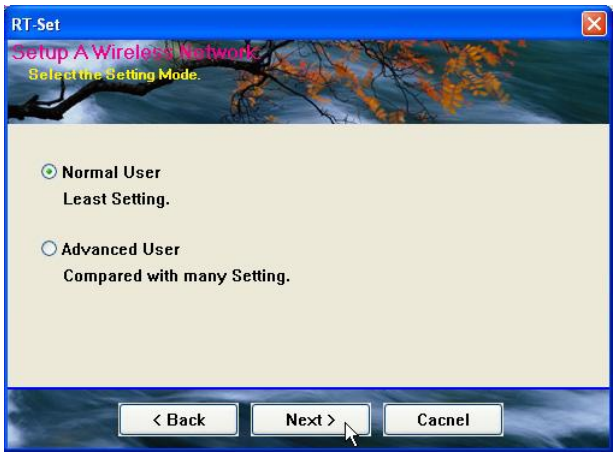
5. Configure the IP address for connecting to the wireless adapter. You may choose “Use the following IP address” to fill in IP addresses manually or choose “Obtain an IP address automatically”.



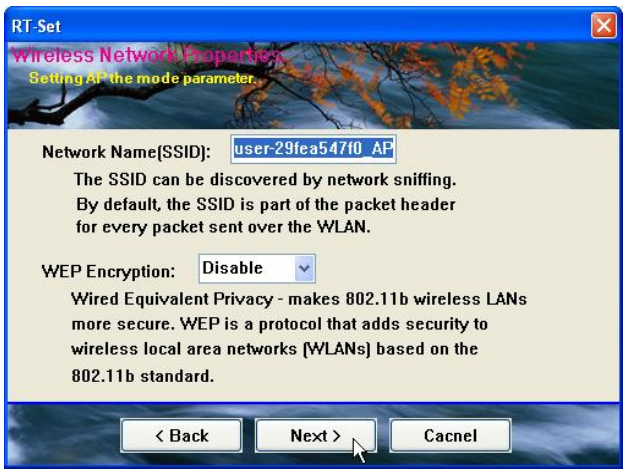
Use this adapter as an AP

1. To use this adapter as an AP (access point), select the "AP" mode and click the "Next" button to proceed.

2. Select "Normal User" (recommended) to make a step-by-step configuration. You may also select "Advanced Users" to configure this AP with more detail.

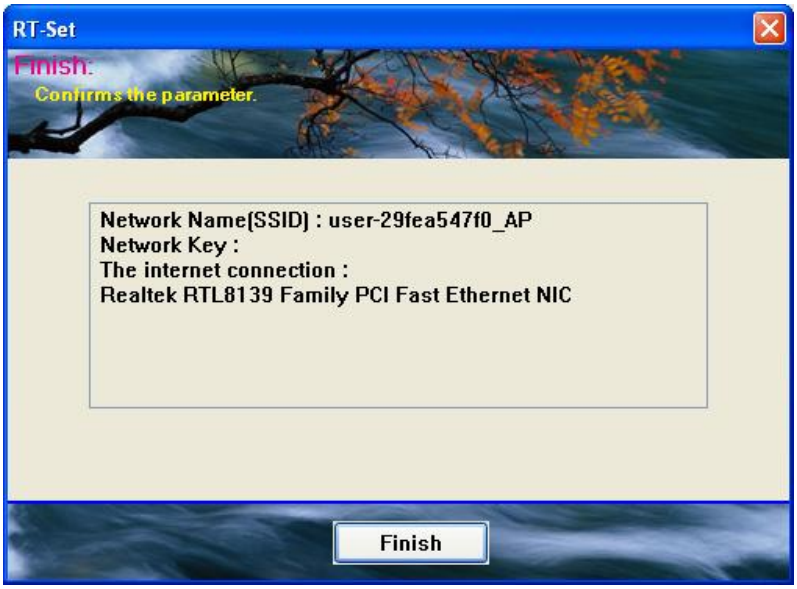


3. Assign an SSID for this AP, the name will be identified as your network while other wireless devices scan for available network. Choose to use WEP encryption or from the drop list and click "Next" to proceed.



4. Click the “Next” button after confirming the settings above.

5. Click “Finish” to complete setup.



AP mode management guide

General

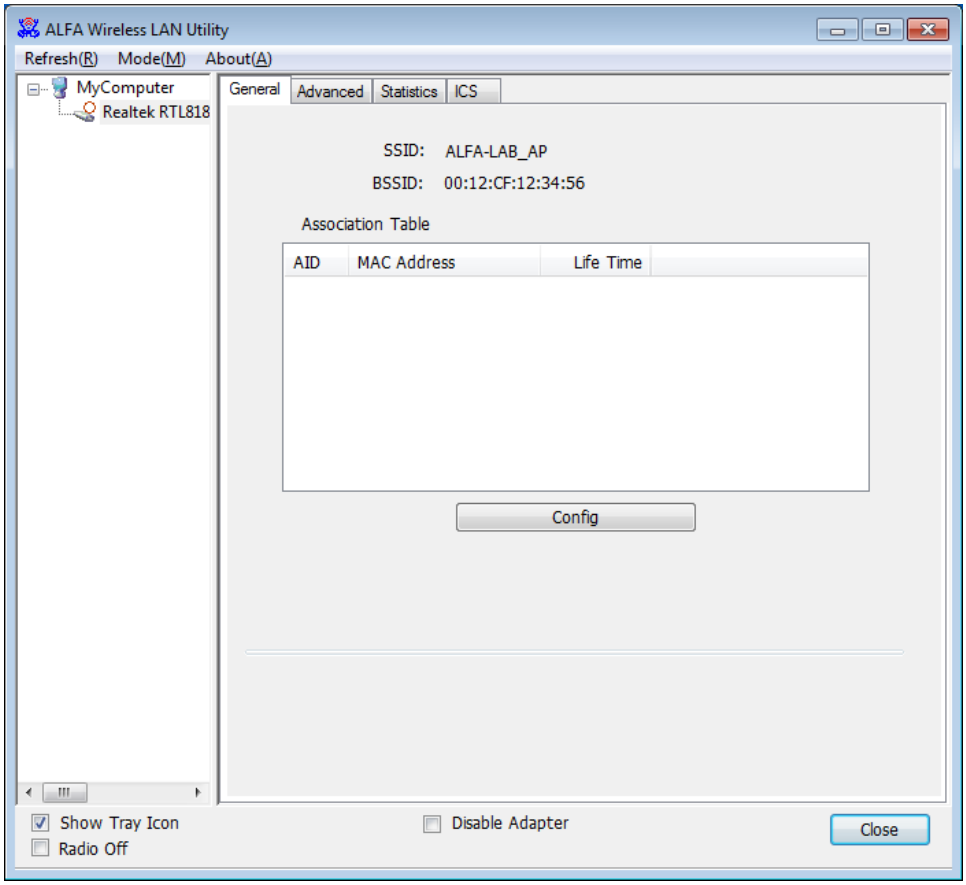
After configuring the adapter in AP mode, this "**General**" page shows up, which shows the general information of this AP.

SSID: The SSID (network name) of the wireless network constructed by this AP.

BSSID: The MAC address of this AP

Config: Click this button to change configurations to this AP

Association Table: Shows the information of the devices that connects to the AP including their MAC addresses and the time that they connected with this device.



Advanced

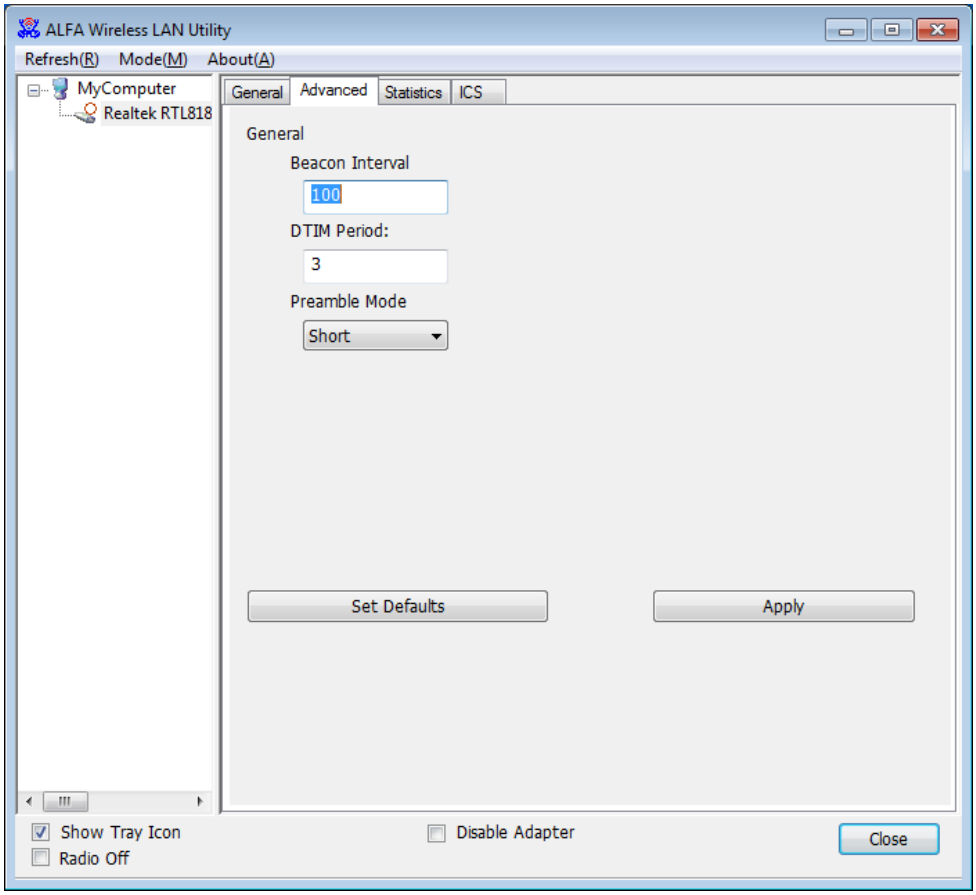
Beacon Interval: Define the interval between beacons from 20~1000

DTIM Period: Set the DTIM period between 1~255

Preamble Mode: Click the drop list to select the preamble to be long, short or auto

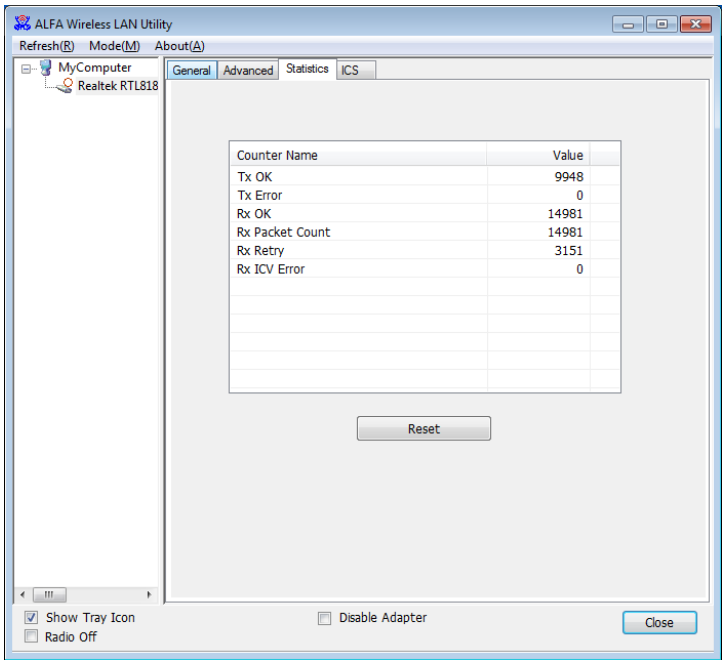
Set Defaults: Click this button to restore the settings above to default

Apply: Click this button to execute changes.



Statistics

The **"Statistics"** tab shows the transmission activity record. Clicking the **"Reset"** button and recounts the values from zero.



ICS (Internet Connection Sharing)

This page allows users to select the adapter to connect to the public network. Please click on the device that are used for connecting to the public network and click the "Select" button, and then click the "Apply" button to execute.