

Hamlet

Wireless USB 600AC Dual Band USB Adapter



USER MANUAL

HNW600ACU

Rev. 2.0

www.hamletcom.com

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Visit www.hamletcom.com for complete information on all Hamlet products and to access downloads and technical support.

We inform You this product is manufactured with materials and components in compliance with RoHS Directives 2011/65/EU & 2015/863/EU, with WEEE Directive 2002/96/CE, 2003/108/EC Italian Legislative Decree 2005/151 and RED Directive 2014/53/EU for the following standards: EN 301 489-1 V2.2.3: 2019, EN 301 489-17 V3.2.4: 2020, EN 300 328 V2.2.2: 2019, EN 301 893 V2.1.1: 2017, EN 62311: 2008, EN 62368-1: 2014 + A11: 2017.

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1. Introduction

Hamlet Wi-Fi 600AC USB adapter upgrades your notebook or desktop to the standard 802.11ac, the next generation wireless technology that offers high speed and stability. The Dual Band support allows wireless connection speed up to 433Mbps on the 5GHz band, ideal for HD video streaming and online gaming, and up to 150Mbps on the 2.4GHz frequency for web surfing, providing the router supports such speeds too.

1.1 Product Features

- Complies with IEEE 802.11ac, IEEE 802.11a, IEEE 802.11n, IEEE 802.11g and IEEE 802.11b wireless standards
- Supports 5GHz and 2.4GHz frequency bands
- Wireless data rates: up to 433Mbps (5GHz); up to 150Mbps (2.4GHz)
- RTL8811CU chipset
- Wireless range: 15 m
- External omni-directional detachable Antenna (3dBi)
- Transmit Power (EIRP): 100mW
- USB 2.0 interface connection (480Mbps)
- Supports 20MHz/40MHz/80MHz frequency width
- Auto-detects and changes the network transmission rate
- Provides two work modes: Infrastructure and Ad-Hoc
- Supports Soft AP to establish your wireless LAN networking
- Supports 64/128-bit WEP, WPA, WPA2 encryption methods and 802.1x security authentication standard
- Supports WPS (Wi-Fi Protected Setup) encryption method
- Easy plug and play installation
- Dimensions (L x W x H): 47 × 19 × 12 mm (without antenna)
- Compatible with: Windows Vista/7/8 and 10, Mac OS X 10.4 or above*, Linux (Kernel 2.6.18 ~ 5.x)

1.2 Package contents

The Wireless USB Adapter package includes the following.

- Wireless USB Adapter
- Quick Installation Guide
- Driver CD

* Drivers for Mac OS X 10.4-10.8 are available on Hamlet website at www.hamletcom.com.

2. Wireless USB Adapter Installation

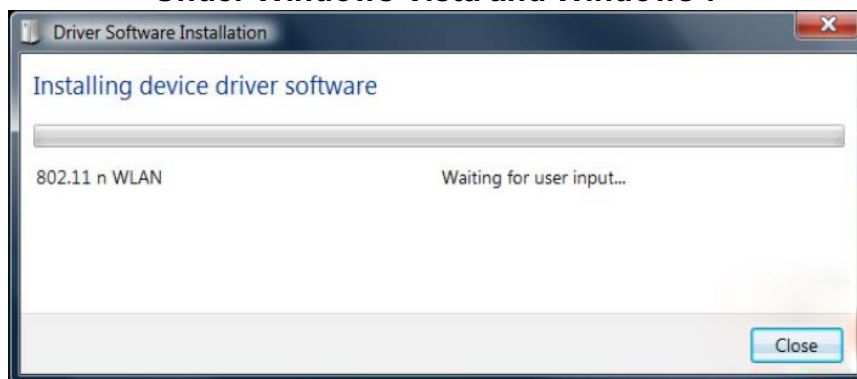
This chapter is to assist you how to use the included CD-ROM which comprises the Driver and the Client Utility Interface.

2.1 Driver Installation

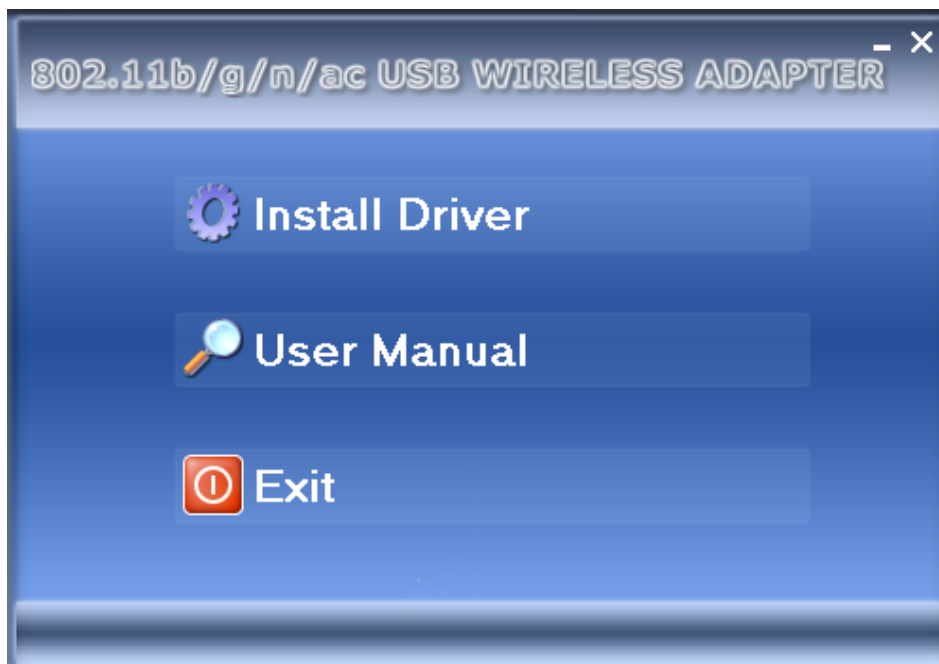
Please follow the following instructions to install your new wireless USB Adapter.

1. Insert the USB wireless network adapter into an empty USB 2.0 port of your computer when computer is switched on.
2. If the following message will appear on your computer, click **Cancel/Close**.

Under Windows Vista and Windows 7



3. Insert the driver CD into your CD-ROM. The autorun screen below will appear. if not, you can double click **autorun.exe** file on CD.



4. Click **Install Driver** to start the installation procedure.

5. Follow the installation wizard and if requested click **Next** to continue.
6. Once the installation is completed click **Finish** to exit.







After the installation the new icon of the wireless utility software will appear on the desktop and near the clock in the system tray.



Left-click the icon in the system tray will launch wireless network configuration utility, right-click the icon to open the quick menu of configuration utility.

This icon also uses different color to show the status of wireless connection:

-  Wireless connection is established, good signal reception.
-  Wireless connection is established, weak signal reception.
-  Connection is not established yet.
-  Wireless network adapter is not detected.

For detailed instructions of wireless network configuration utility, please see next chapter.

2.2 Connect to Wireless Access Point

To use wireless network, you have to connect to a wireless access point first. You can either use Client utility (comes with network adapter driver), or Windows Zero Config utility (comes with Windows operating system).

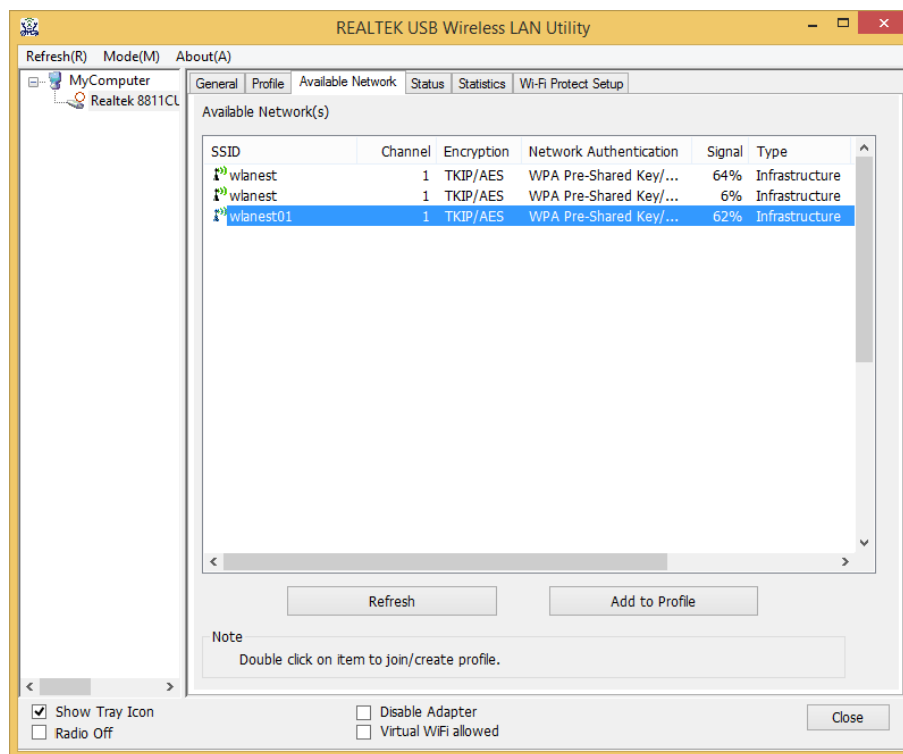
Using Client Wireless Utility

Please follow the following instructions to use Client configuration utility to connect to wireless access point.

1. Left-click the Client configuration utility icon located at lower-right corner of computer desktop, and Wireless LAN Utility will appear.



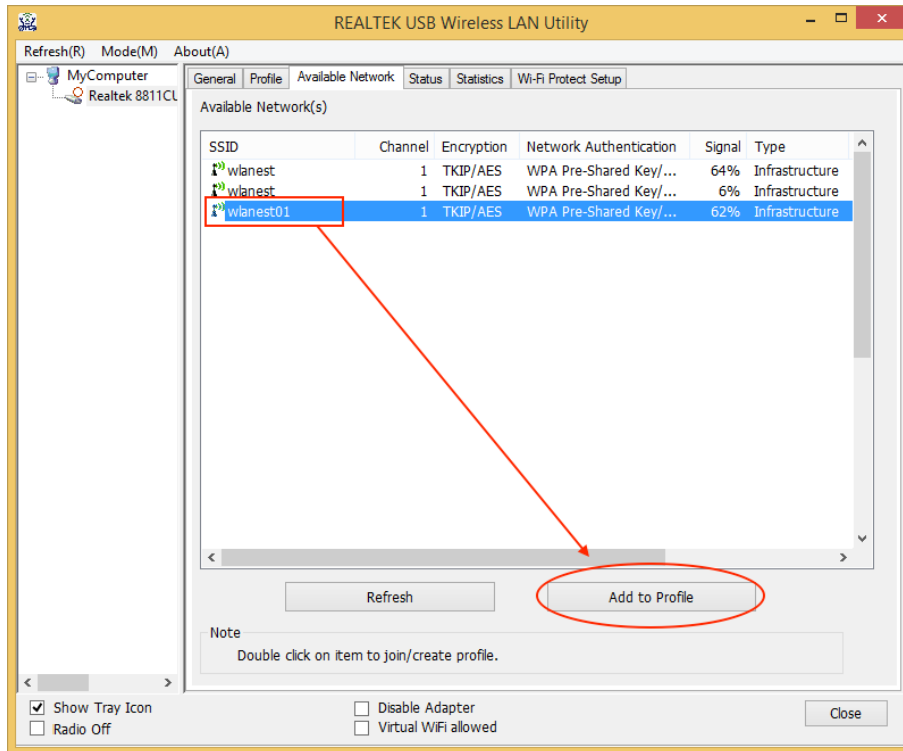
2. In the Wireless utility interface, click **Available Network** tab to search for wireless access points nearby.



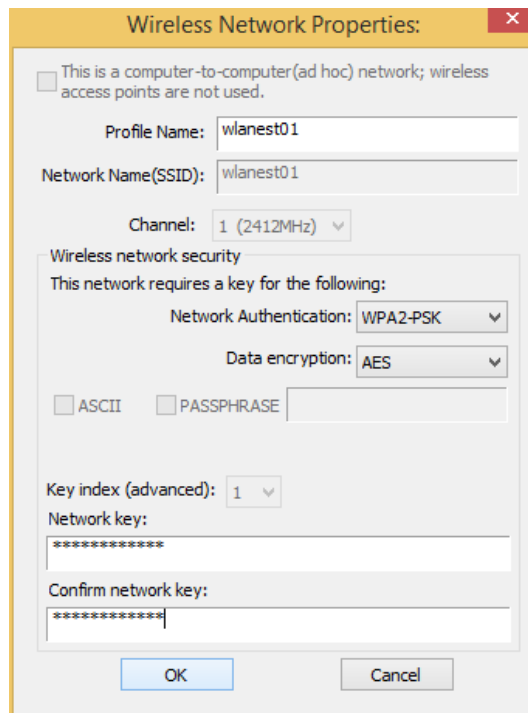
Please wait for a while, and all wireless access points which can be reached by this wireless network adapter will be displayed here.

If the wireless access point you wish to connect does not appear here, you can click **Refresh** button to scan for wireless access points again; if the wireless access point you're looking for still not appear, try to move the computer closer.

3. When the access point you're looking for is on the list, double click it or click **Add to Profile**.



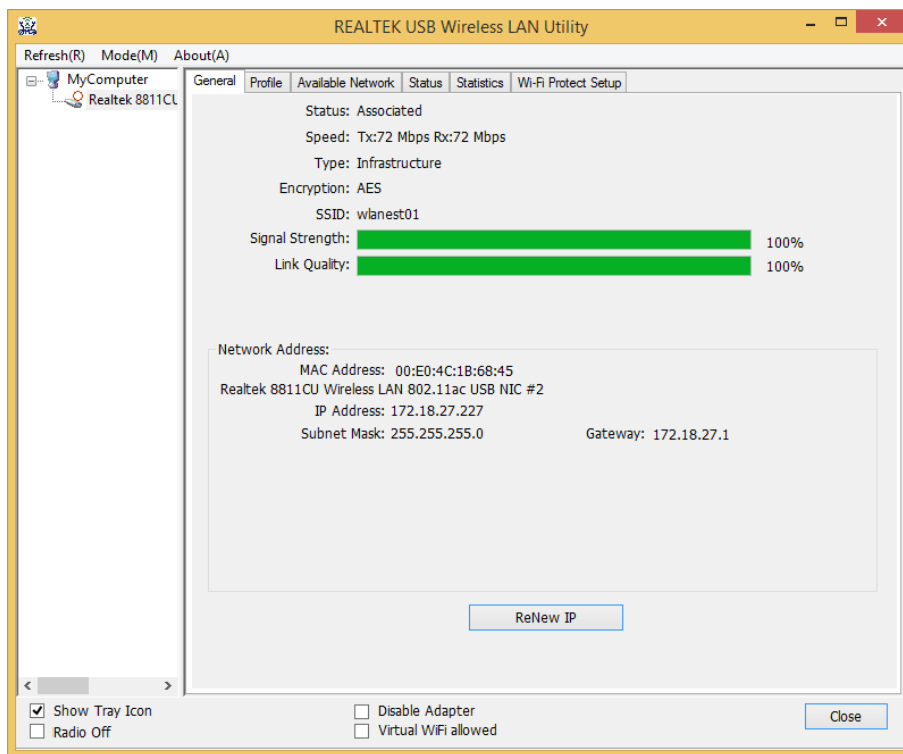
4. If a password ("Network Key") is required to access the wireless access point, please input it in **Network key** text field (and input it again in **Confirm network key** for confirmation).



NOTE: Network security type (**Network Authentication** and **Data encryption**) will be selected automatically based on wireless access point's security setting. It's not required to change these settings by yourself.

5. After the password is properly inserted, click **OK** to confirm.

The network adapter will attempt to connect to access point now, this may require few seconds to minutes. When the “Status” become “Associated”, your computer is connected to access point you selected and you can close the client configuration utility.



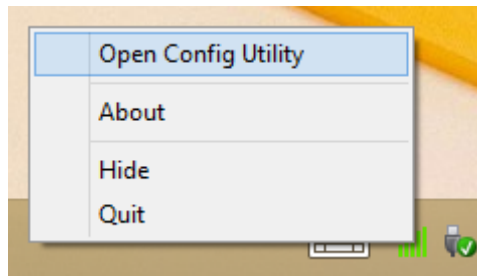
NOTE: If you connected to an access point but the connection has been dropped soon, please check security settings and re-check password spelling.

3. Client Utility

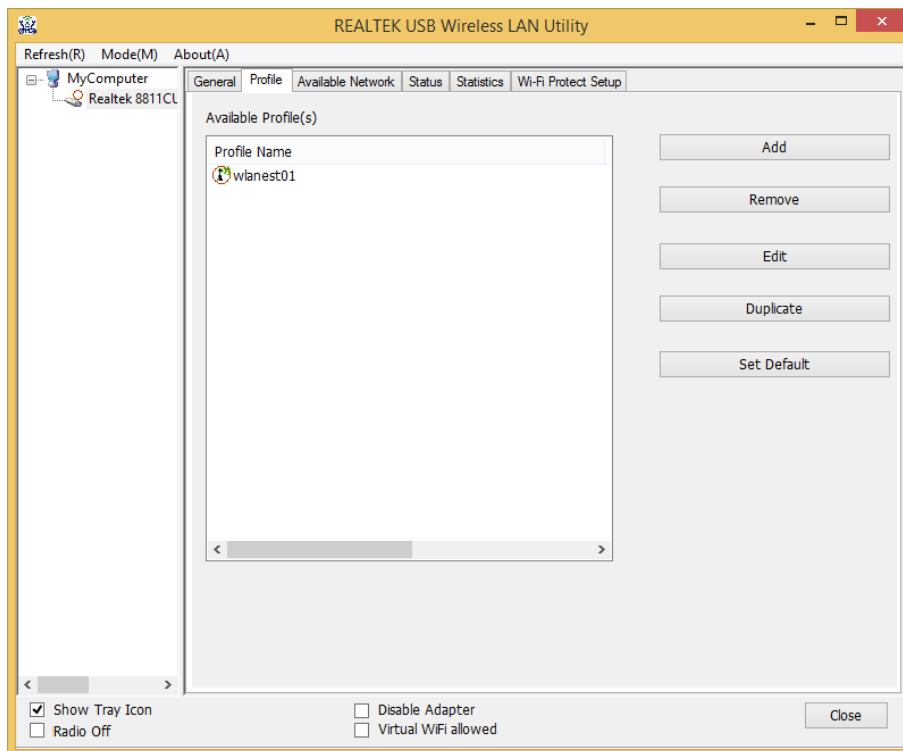
3.1 Connection Profile Management

If you need to connect to different wireless access points at different time, like access point of your home, office or public wireless service, you can store the connection parameters as a profile for every access point, so you don't have to input these parameters every time when you want to connect to a specific wireless access point.

1. To manage profiles, right-click the Client configuration utility icon located at lower-right corner of computer desktop, then click **Open Config Utility**.



2. Click the **Profile** tab in the main window of the configuration utility.

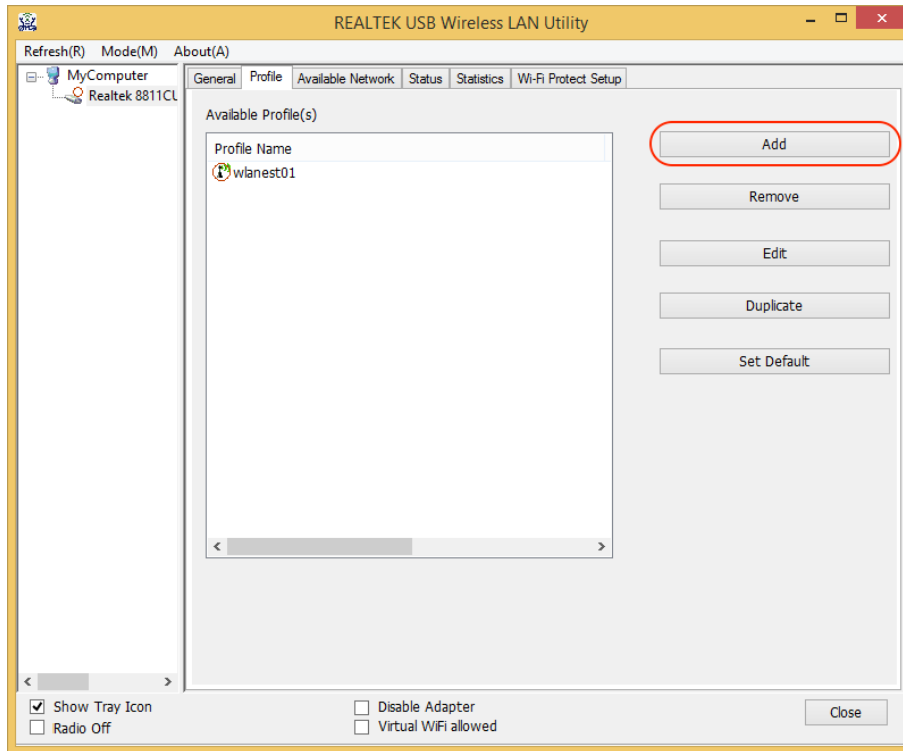


The “Available Profile” window displays the existing profiles and the buttons on the right side allow the user to manage and create new profiles for different networks configurations.

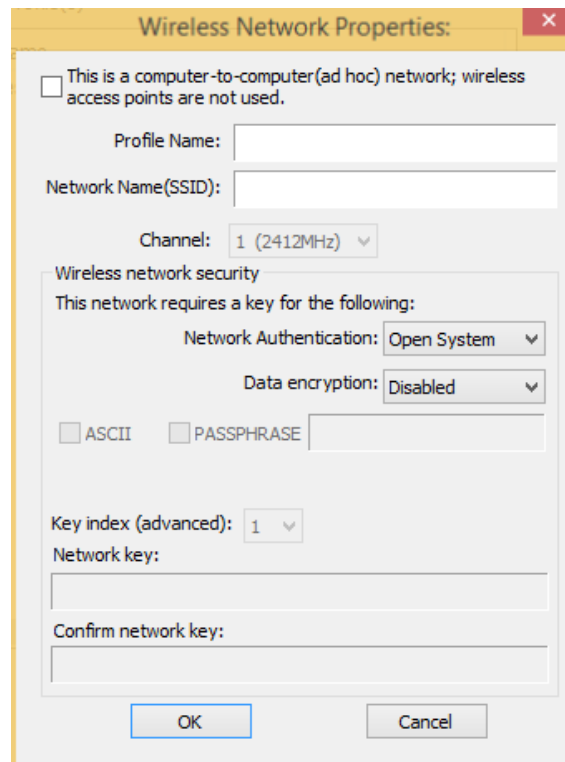
Add a new profile

By this function you can setup the connection parameters for a specific wireless access point in advance, without contacting it first.

1. If you want to create a new profile, click **Add** button in the “Profile” window.



2. You'll be prompted to input connection parameters for the wireless access point you wish to connect.



3. Fill in the required parameters, then click **OK** to create and save a new profile.

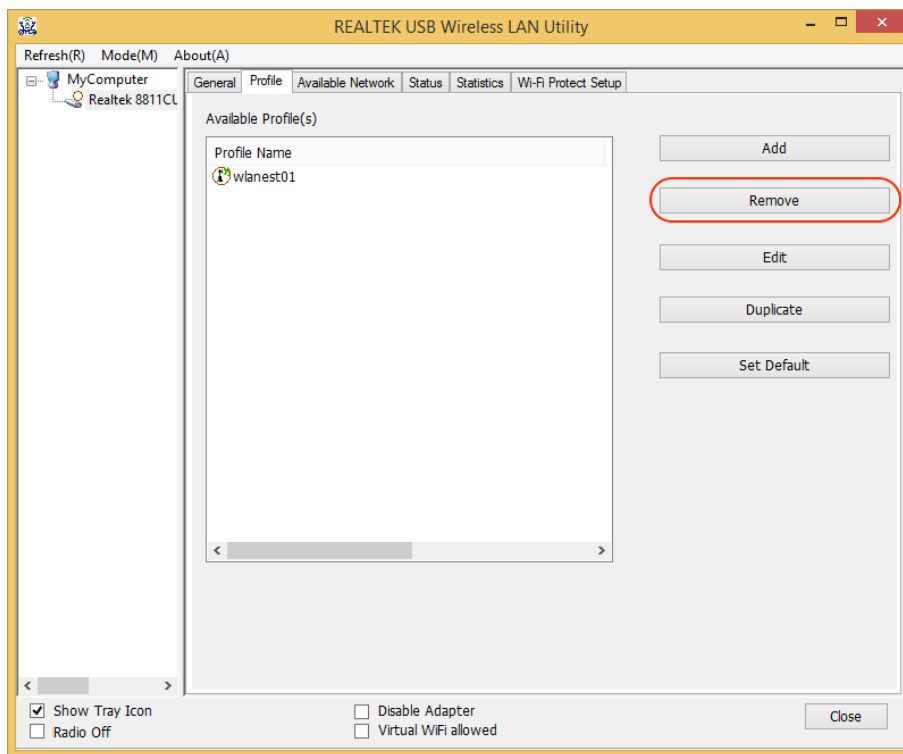
The following table describes the parameters that can be configured in the “Wireless Network Properties” window.

Profile name	You can give a name to this profile, so you can remember its purpose easily. It can be any phrase to help you remember.
Network Name (SSID)	The SSID (Service Set Identifier, i.e. access point’s name). This must be identical with the SSID of the access point you wish to connect.
This is a computer-to-computer (ad hoc) network	Check this box if you wish to connect to another computer / network device by ad hoc method. When not accessing to wireless access point, you have to check this box.
Channel	Select wireless channel for ad hoc connection. This option only appears when you’re using ad hoc connection.
Network Authentication	Select the network authentication type from drop-down menu. This setting must be identical with the setting of wireless access point you wish to connect.
Data encryption	Select the data encryption type from drop-down menu. This setting must be identical with the setting of wireless access point you wish to connect.
ASCII / PASSPHRASE	When the encryption type is “WEP”, it’s required to input a set of “passphrase” to connect to wireless access point. Check “ASCII” or “PASSPHRASE” depends on the security setting of access point, and input it in the box; if you select “PASSPHRASE” you also need to select the length of the key. The passphrase must be identical with the setting of wireless access point you wish to connect.
Key index	Select WEP key index. For most of access points you can select “1”, but please refer to the setting of the access point.
Network key / Confirm network key	When the encryption type is “WPA” or “WPA2-PSK”, it’s required to input a set of “passphrase” to connect to wireless access point. Please input the same passphrase in two boxes for confirmation.
EAP TYPE / Tunnel / Provision Mode	When authentication type is any of 802.1X, you have to select EAP type, tunnel, and provision mode from dropdown menu. This setting must be identical with your 802.1x authentication server.
Username / Identity / Domain / Password	Please input 802.1x related authentication information here.
Certificate	If certification is required to authenticate with 802.1x authentication server, please select a local certificate from dropdown list.
PAC	Check this box and PAC (Privilege Access Certificate) will be automatically selected.

Remove an existing profile

When you no longer need an existing profile, you can remove it.

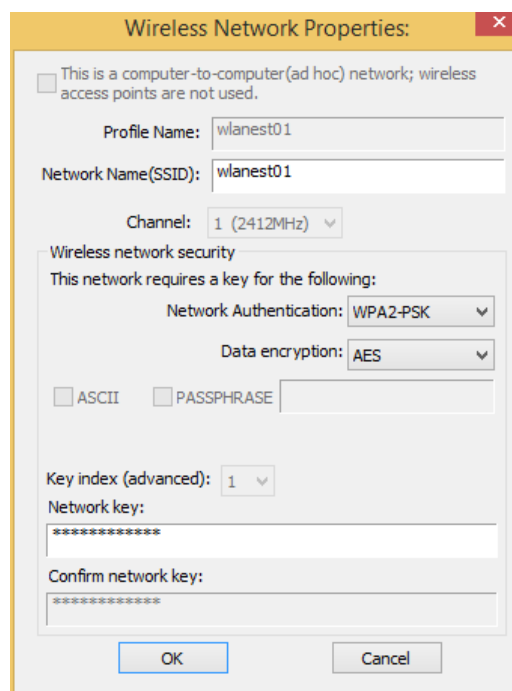
In the “Profile” window, select an existing profile you wish to remove then click **Remove** button.



Edit an existing profile

If you have added a profile before, and you wish to change the content of the profile, you can use this function. Please select a profile from the list first, then click **Edit** button.

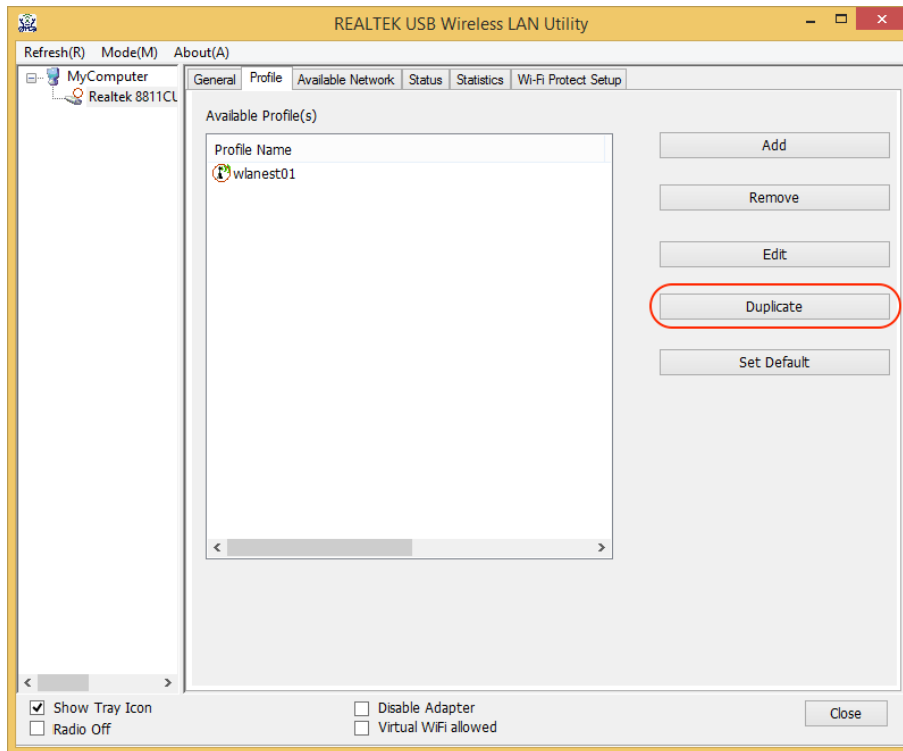
You'll be provided with the contents of selected profile, and you can edit them. Click **OK** to save changes or **Cancel** to discard them.



Make a copy of existing profile

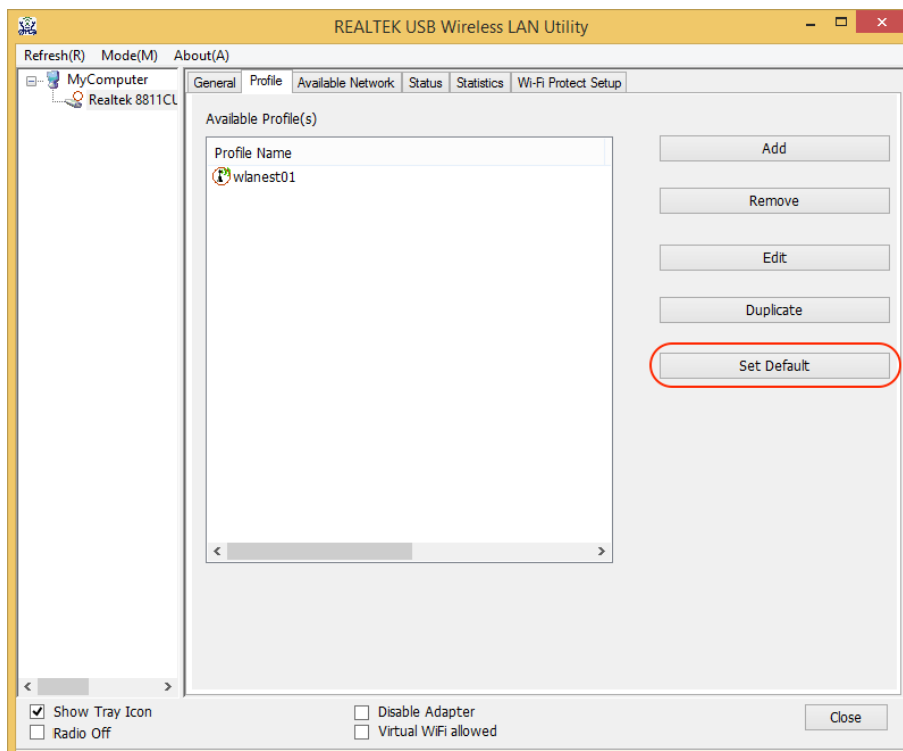
If you need to make a copy of a specific profile, you can use this function. This function is very convenient when you need to build a new profile which parameters are similar to any existing profile. Select an existing profile from the list, then click **Duplicate** button.

You'll be prompted to input a profile name, please use a name that does not exist in profile list.



Set as default profile

If you wish to use a specific profile as default connection, you can select a profile in the list, and click **Set Default**. Selected profile will become default selection and Client configuration utility will attempt to connect to selected access point.

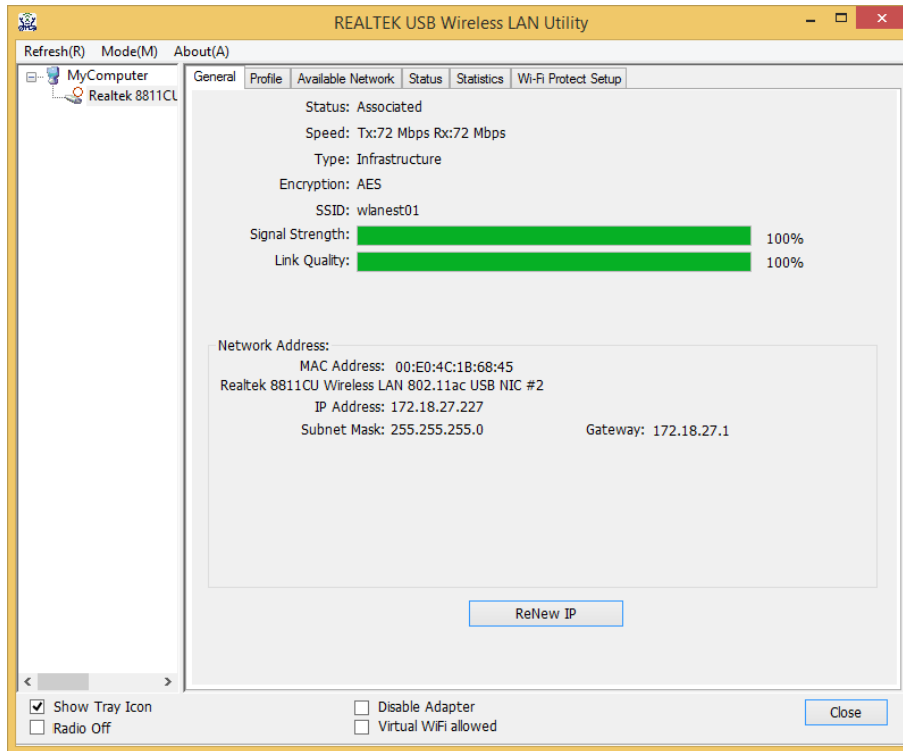


3.2 General Information, Status and Network Statistics

The wireless configuration utility provides information about network statistics and link status. If you want to know how your wireless network adapter works, you can use these functions to get detailed information about the wireless connection you're using.

General Information

If you want to know the general information of the access point you're connecting to, click on **General** menu tab.



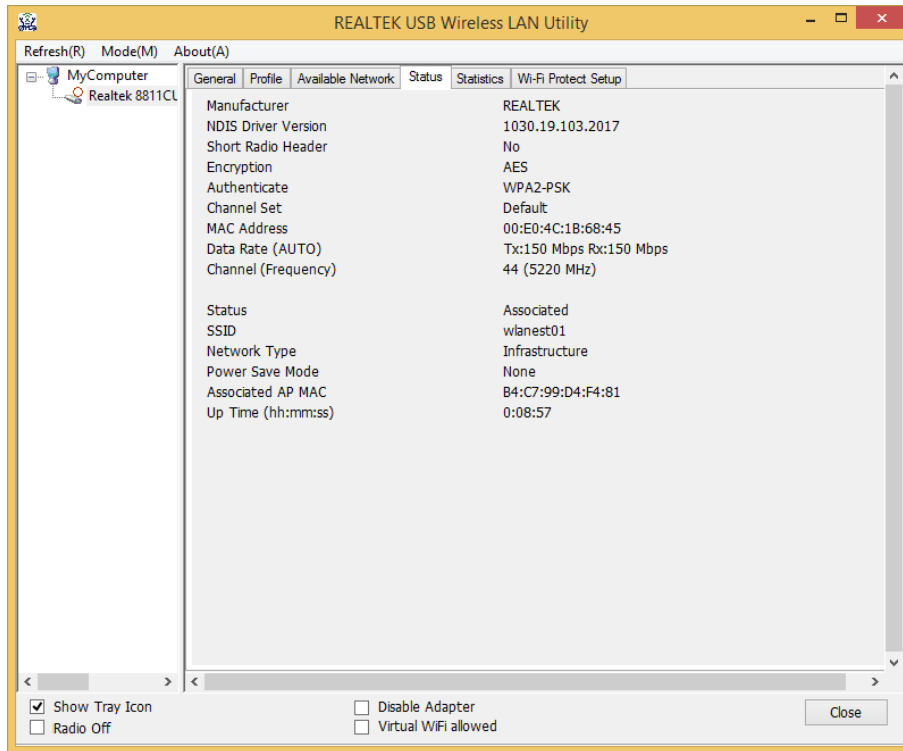
The information displayed here are described in the below table. These information are very useful when you encounter some problem on connecting to access point.

If you wish to get a new IP address from DHCP server, you can click **ReNew IP** button.

Status	Check if the device associated to target network.
Speed	The transmission (Tx) and receiving (Rx) speed of the current connection.
Type	Infrastructure or Ad-Hoc mode.
Encryption	The encryption mode for connecting to current network profile.
SSID	The SSID (network name) of the connected wireless network.
Signal Strength	Indicates the signal strength.
Link Quality	Indicates the link quality.
Network Address	Shows the current IP addresses settings.

Status

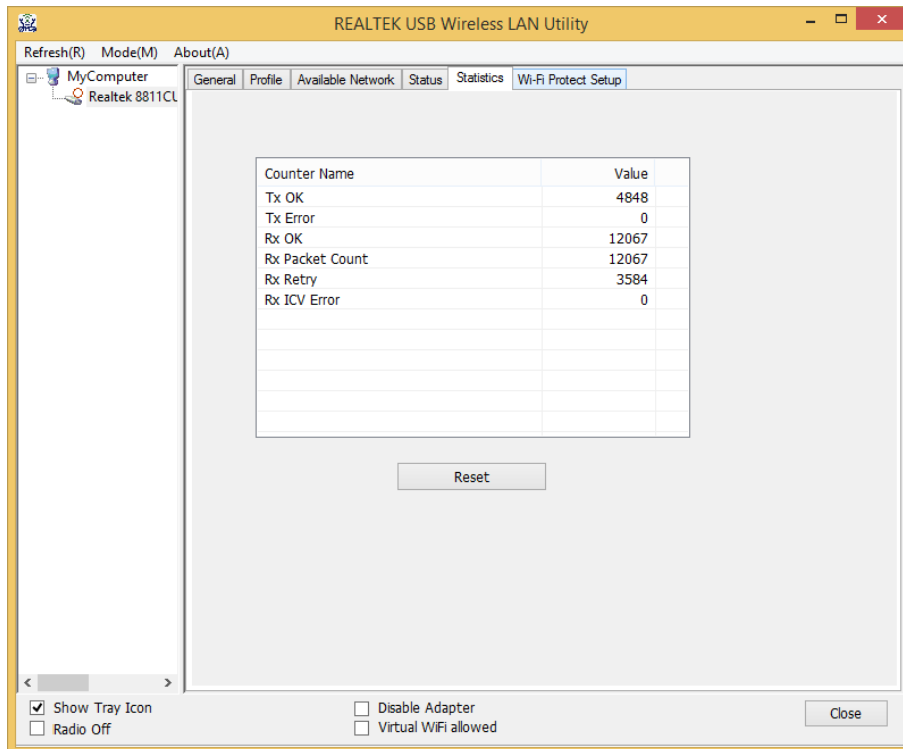
If you want to know the status of your wireless network adapter, click **Status** menu tab.



Network Statistics

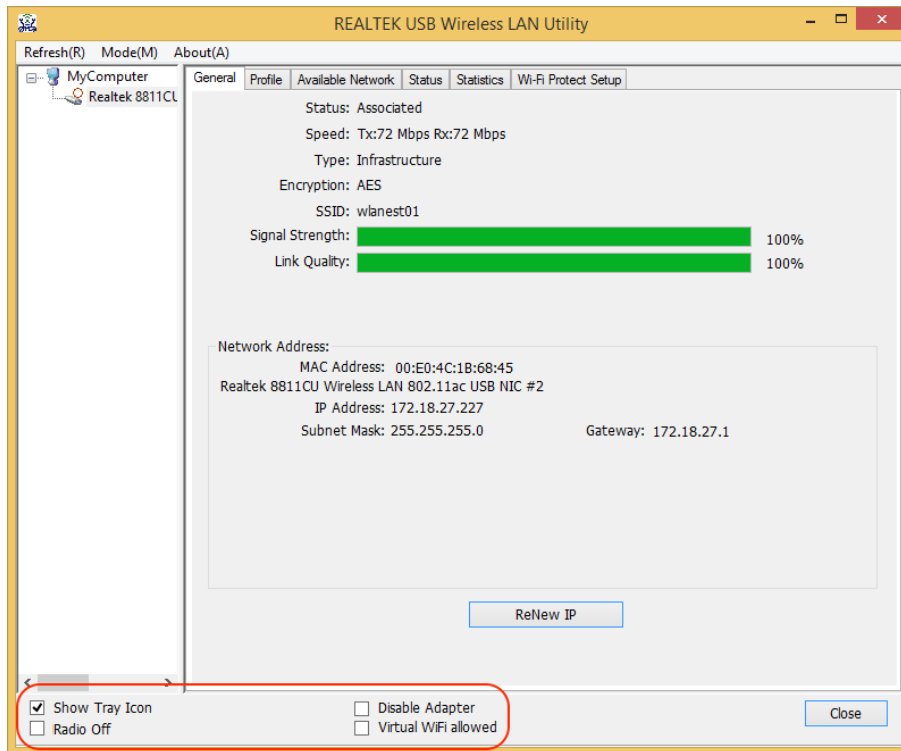
Click **Statistics** menu tab to view the statistical data of wireless adapter.

You can click **Reset** button to reset the statistics of all items back to 0.



3.3 Other Settings

There are few functions provided by Client configuration utility you can access from the bottom of utility interface.



The descriptions of these function are listed in the following table.

Show Tray Icon	Check this box to show an icon on system tray. Uncheck this box to hide it.
Radio Off	Switch wireless radio off. Wireless network functionalities are disabled.
Disable Adapter	Disable wireless network adapter. All functionalities of configuration menu will disappear. To resume, uncheck “Disable Adapter”.
Virtual WiFi allowed	Use this option to access Virtual WiFi Soft AP configuration menu tab.

3.4 Establish secure connection using WPS

Wi-Fi Protected Setup (WPS) is the latest wireless network technology which makes wireless network setup become very simple. If you have WPS-enabled wireless access point, and you want to establish a secure connection to it, you don't have to configure the wireless access point and setup data encryption by yourself. All you have to do is to go to the WPS setup page of this wireless adapter, click a button, and then press a specific button or enter a set of 8-digit code on the wireless access point you wish to establish a secure connection - just three simple steps!

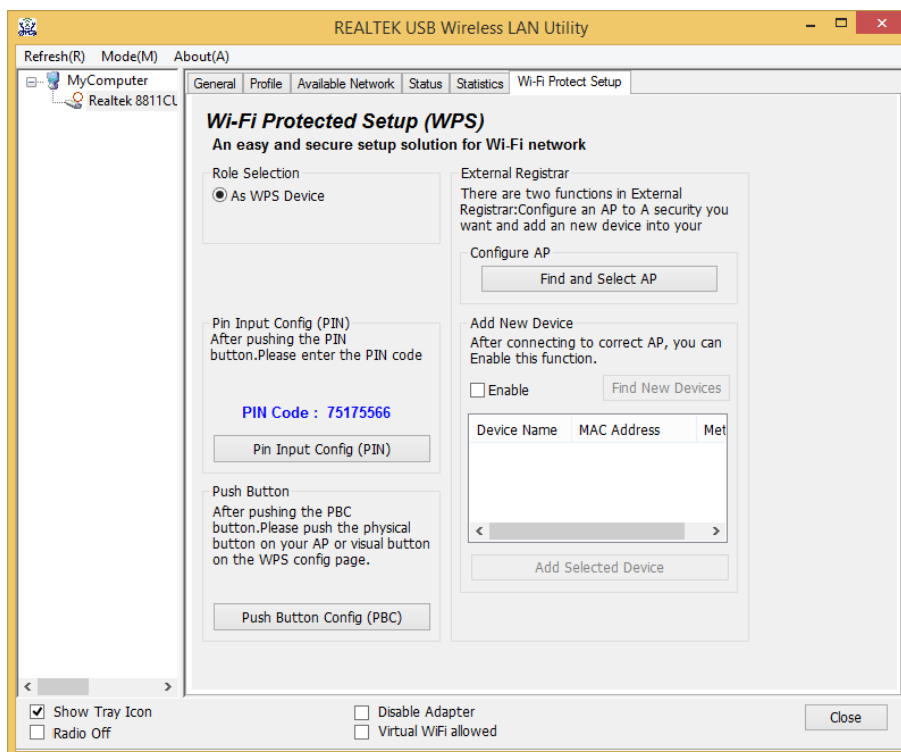
For older wireless access points, it's possible to perform a firmware upgrade to become a WPS-enabled access point. Since they may not have a hardware button to press for WPS setup, you can use an alternative WPS setup method - input the pin code. Every WPS-compatible wireless network adapter support pin code configuration method; you can just input the code to wireless access point, and the wireless access point and wireless network adapter will do the rest for you.

This wireless network adapter is compatible with WPS. To use this function, the wireless access point you wish to connect to must support WPS function too.

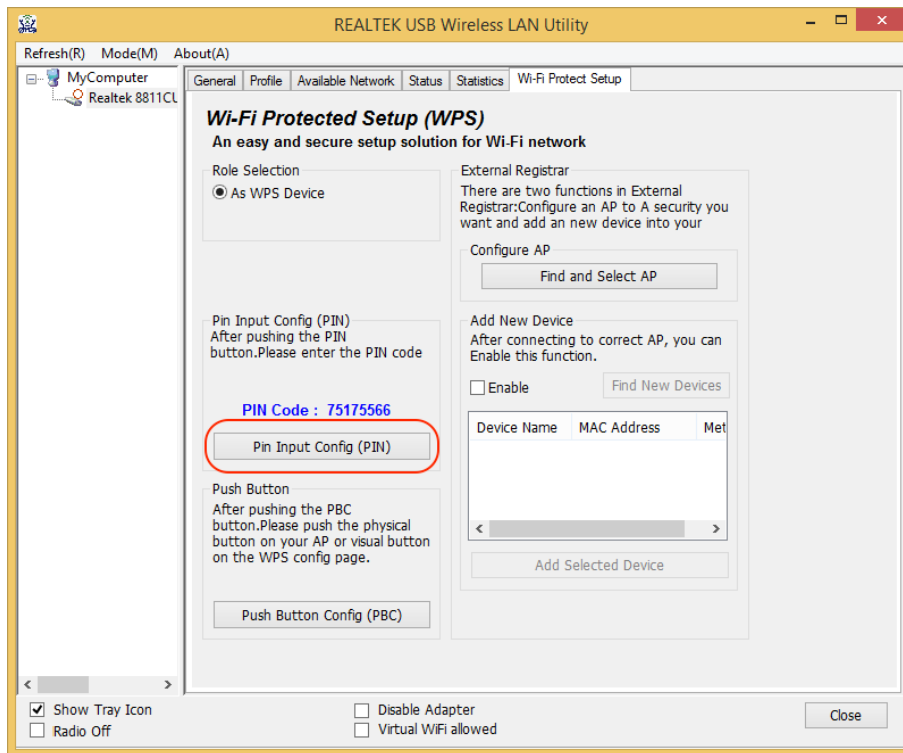
This wireless network adapter supports two kinds of WPS: **PIN code** and **Push Button Configuration (PBC)**. In the following pages are described the instructions to establish secure connection between WPS-enabled wireless access point and your wireless network adapter.

PIN Code

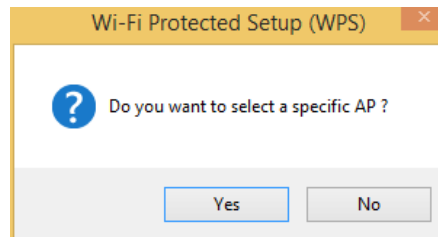
1. Open the Client configuration utility and click **Wi-Fi Protect Setup** tab.



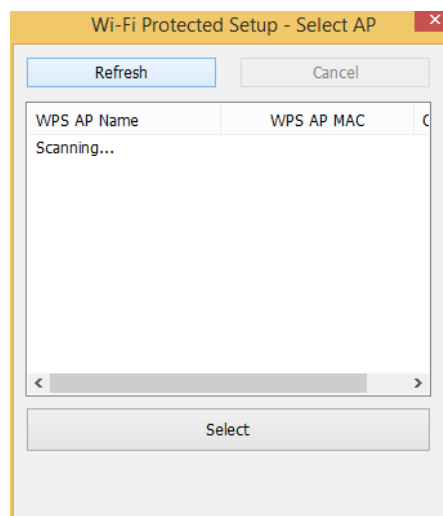
2. To use PIN Code, please click **Pin Input Config (PIN)** button:



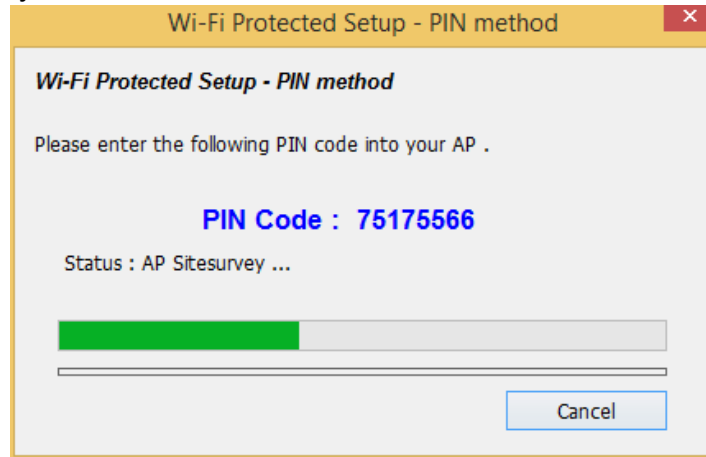
3. You'll be prompted to select an access point you wish to connect. If you know its SSID, click **Yes**, otherwise click **No**.



4. If you select **Yes**, a list of all WPS-compatible AP nearby will be displayed; you can click **Refresh** to rescan, then select an AP and click **Select** button.



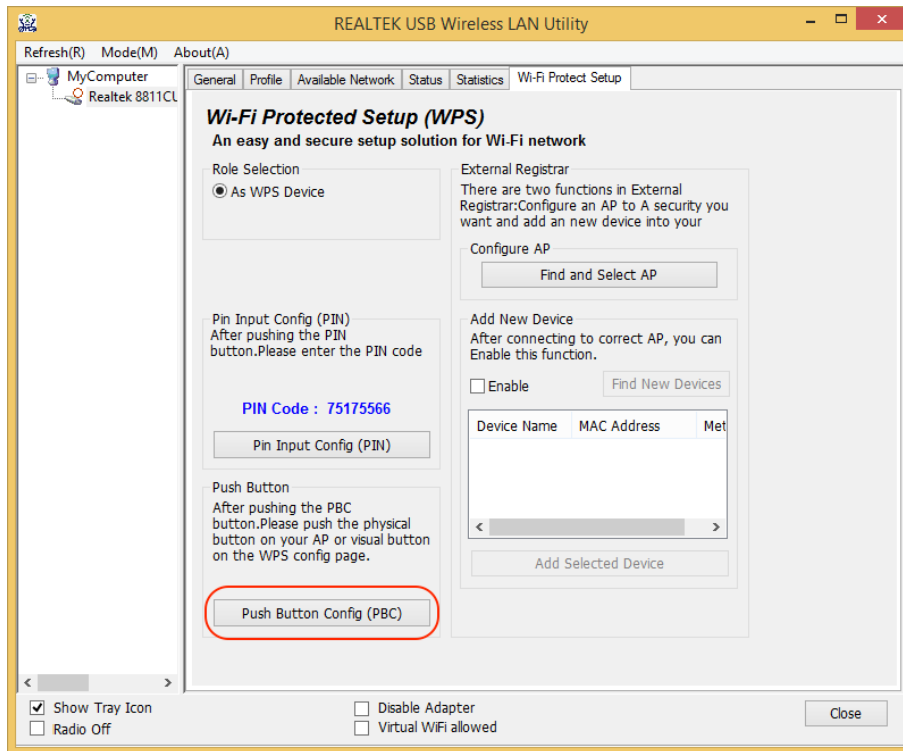
5. If you select **No**, wireless network adapter will prompt you to enter 8-digit PIN code into your AP, without selecting an AP in advance.
6. After you select **Yes** or **No** in previous step, network adapter will attempt to connect to WPS-compatible AP, and an 8-digit number will appear. Please input this number to AP's configuration menu within 2 minutes, and network adapter will establish secure connection with AP automatically.



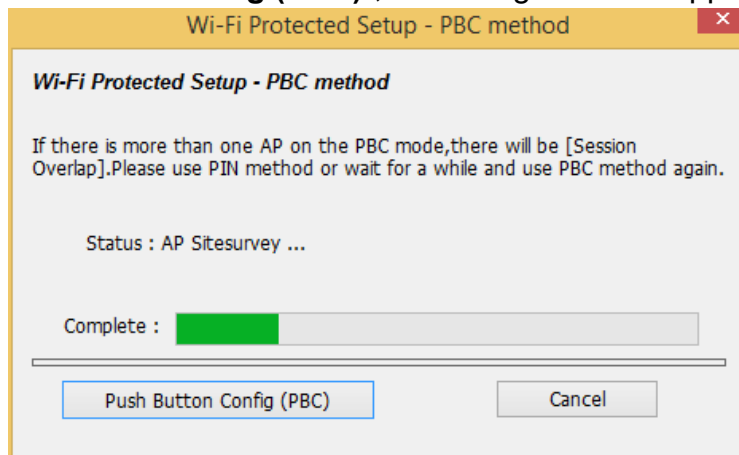
7. If you want to stop this procedure before connection is established, click **Cancel**.

Push Button

1. To use Push-Button WPS configuration, select the **Wi-Fi Protect Setup** tab of the configuration utility and click **Push Button Config (PBC)** button.



2. After you click “**Push Button Config (PBC)**”, a message box will appear.



3. Please activate Push Button function on wireless access point now, and wireless network adapter will establish secure connection with access point within one minute.

This is the easiest way to establish secure connection through WPS, but if there're more than one WPS-compatible AP using Push Button configuration, please use PIN Code instead.

4. Soft AP Function

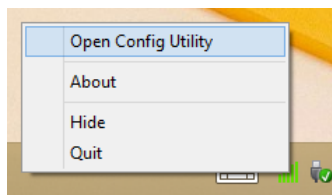
In Soft AP mode, this wireless adapter can act as a wireless Access Point. You can switch this wireless adapter's operating mode to "AP" mode to simulate the function of a real wireless access point by software, and all other computers and wireless devices can connect to your computer wirelessly and share the internet connection.

Please follow the instructions in following pages to use the AP function of your wireless adapter.

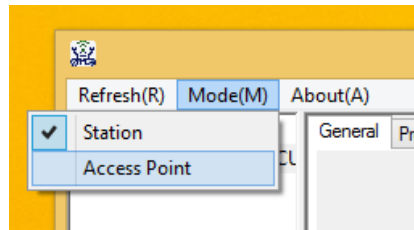
4.1 Switch to AP Mode and Station Mode

The default operating mode of the wireless adapter is "Station Mode" (becoming a client of other wireless access points). Follow the instructions below to switch to "AP (Access Point) mode".

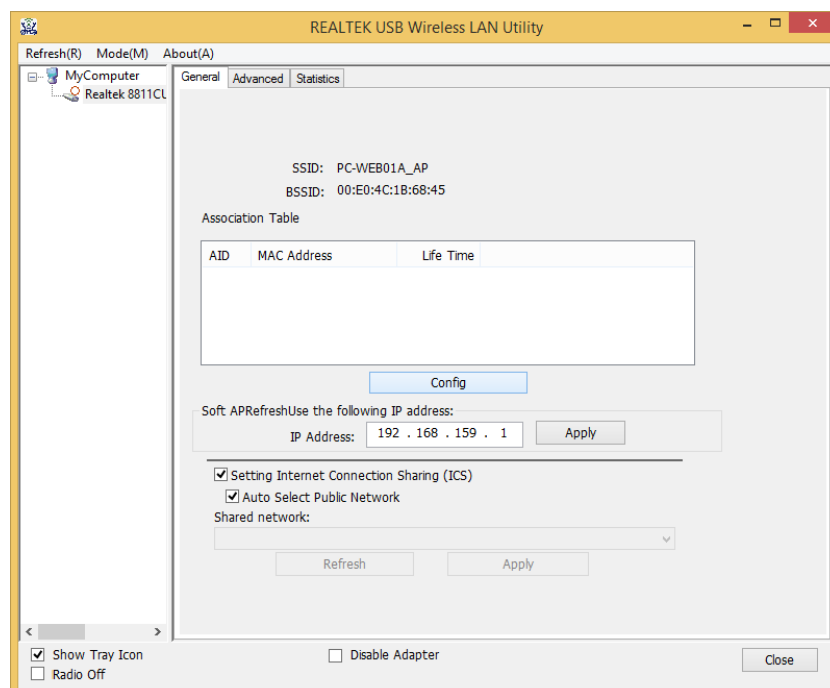
1. Right-click Client configuration utility icon, and click **Open Config Utility**.



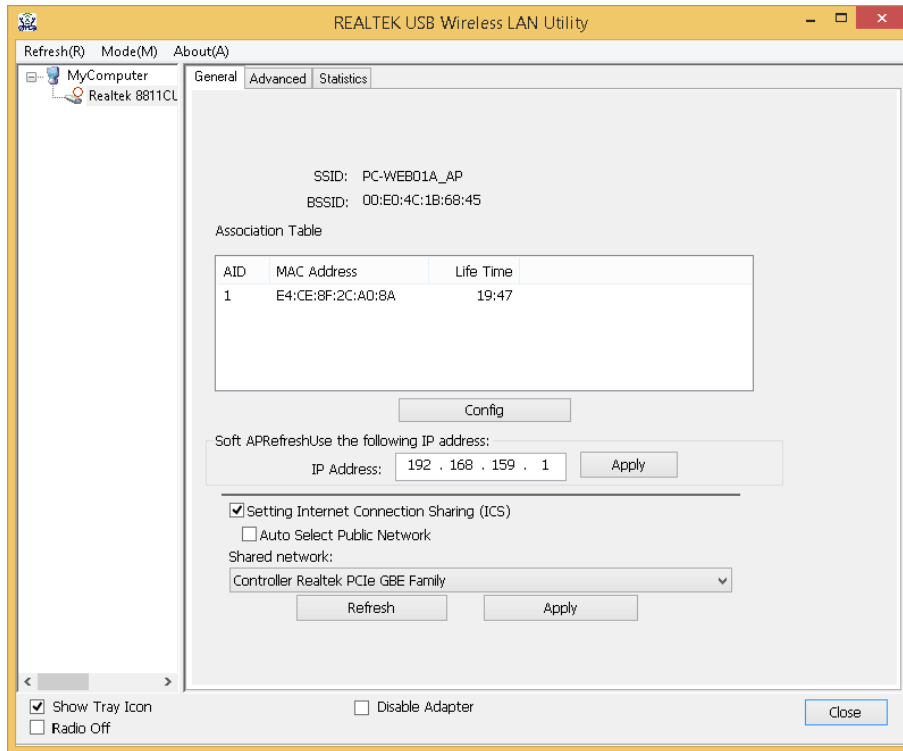
2. Select **Mode**, and then select **Access Point**.



3. It requires few seconds to switch to AP mode, please be patient.

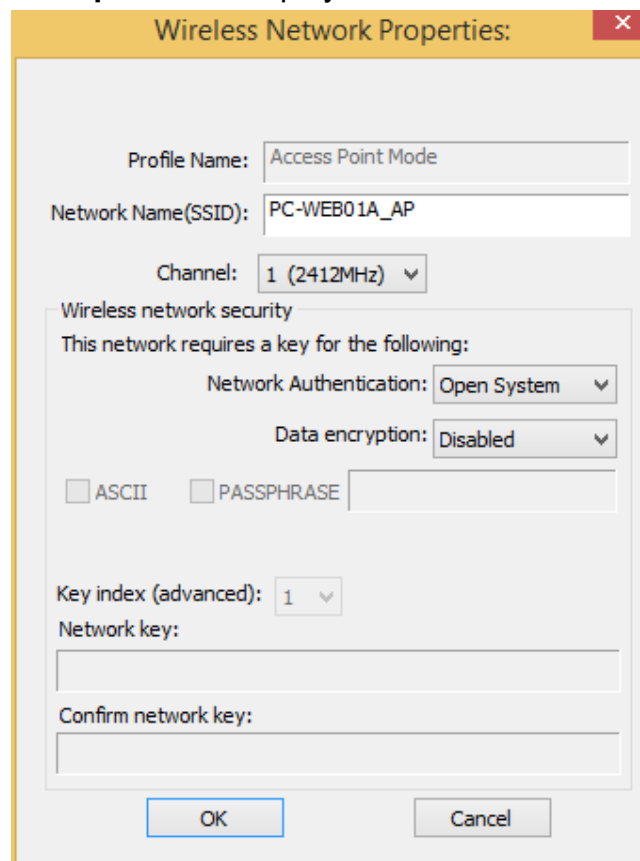


4. After mode switch is complete, you'll see general information of software AP, which shows AP's SSID and connected wireless clients.



Configure SSID and Channel

1. To configure software AP, click **Config** button in the "General" tab.
2. The **Wireless Network Properties** is displayed.



The description of major setup items are listed below.

Network Name (SSID)	Please input the SSID (the name used to identify this wireless access point) here. Up to 32 numerical characters can be accepted here, excepting space.
Channel	Please select the wireless channel you wish to use, from 1 to 13.

If you want to setup security options for Soft AP, configure “Wireless Network Security” section referring to the following items.

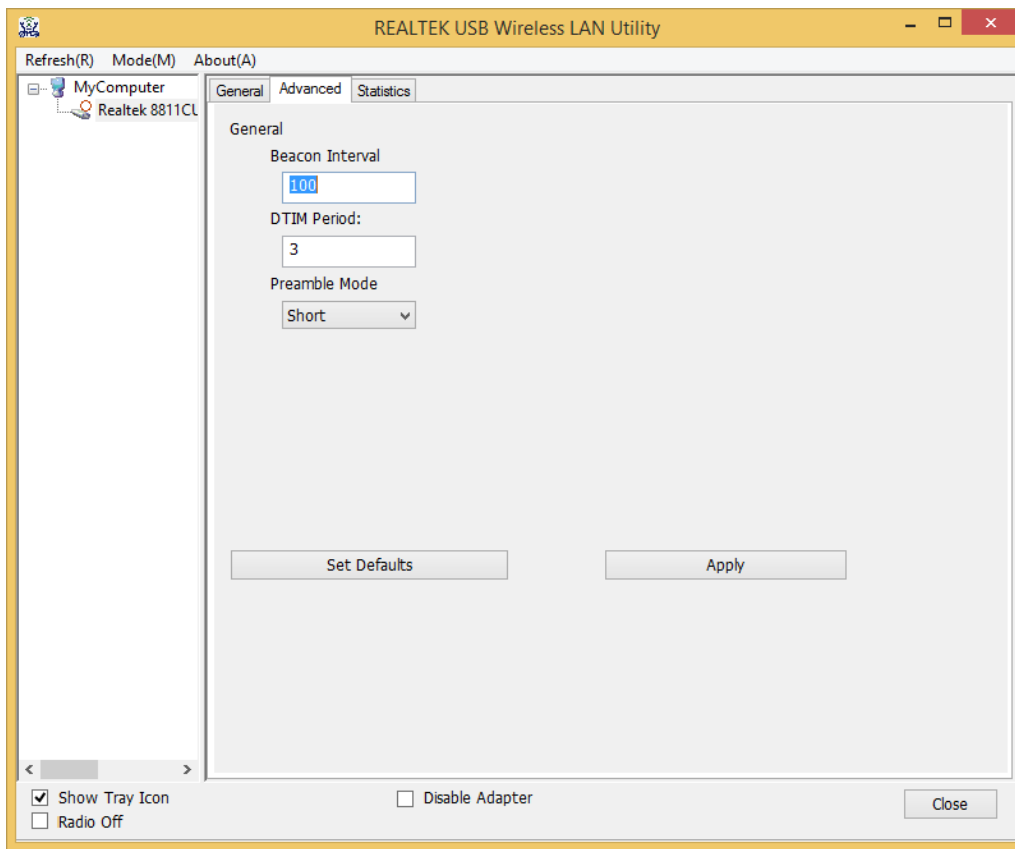
Network Authentication	Select network authentication mode from dropdown menu.
Data Encryption	Select data encryption method from dropdown menu.
ASCII / PASSPHRASE	If the encryption method is WEP, check either “ASCII” or “PASSPHRASE” box and input it in the box as WEP passphrase.
Key Index	Select WEP key index (1-4). If you don’t know which one you should use, select 1.
Network key / Confirm network key	IF network authentication mode is WPA, please input WPA passphrase in both box.

3. To save changes, click **OK**; otherwise click **Cancel** to leave this menu and keep settings untouched.

Please note that Ad-Hoc mode is not available when network adapter is in AP mode. The description of major setup items is listed below.

4.2 Advanced Settings

If you want to setup advanced settings of software access point, select **Advanced** menu. If you don't know the meaning and affects of these settings, keep them untouched.



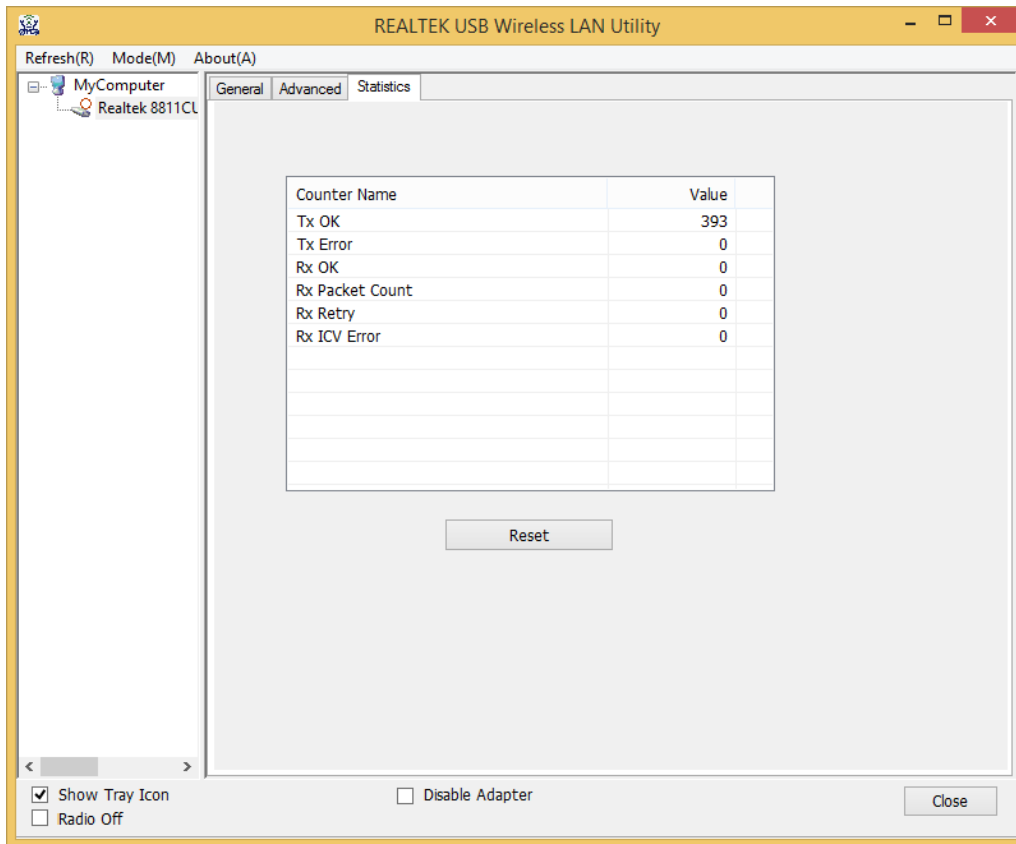
The description of all setup items are listed below.

Beacon Interval	Please input wireless beacon time interval here.
DTIM Period	Please input DTIM (Delivery Traffic Indication Message) here.
Preamble Mode	Select wireless frame preamble mode (long or short) from dropdown menu.
Set Defaults	Reset all settings back to factory default value.
Apply	Save changes.

If you changed any setting here and cause problem on communicating with wireless clients, click **Set Defaults** to reset all settings back to default setting.

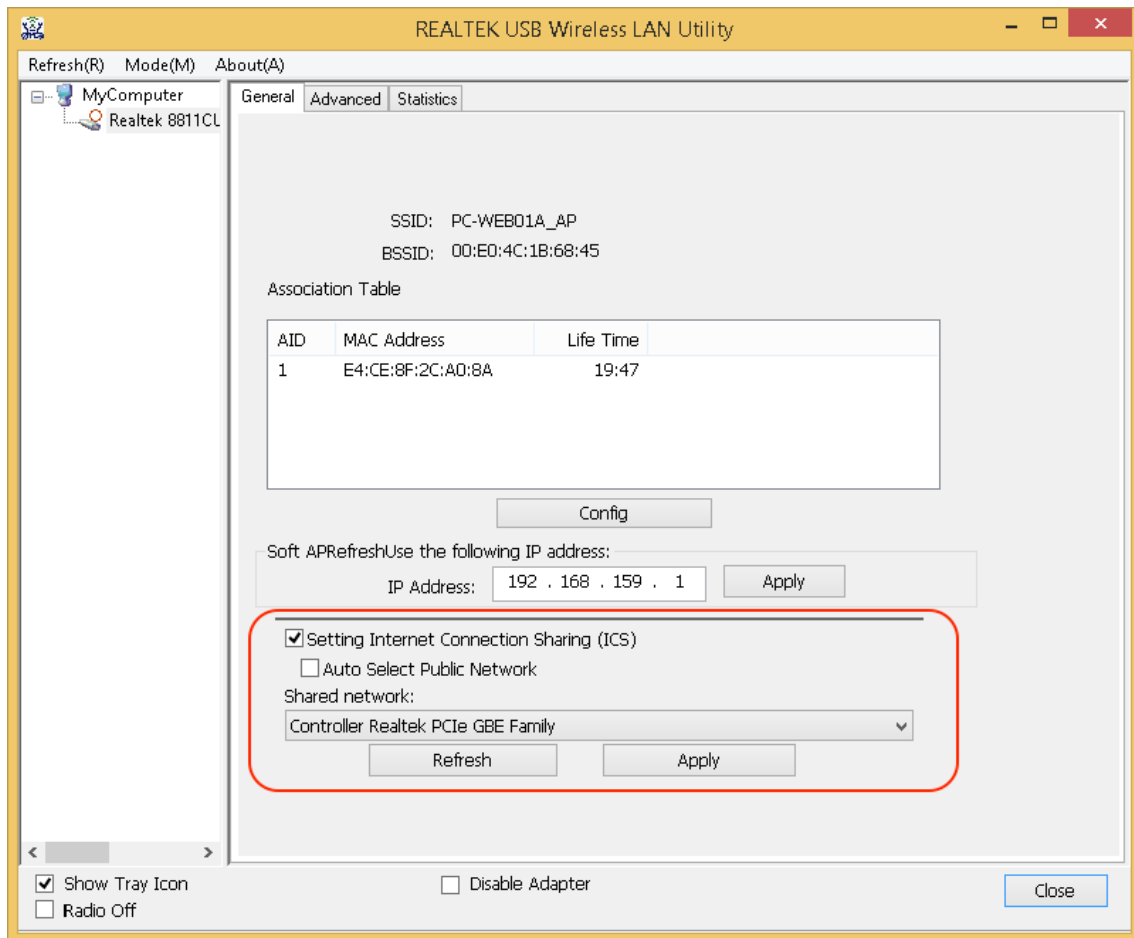
4.3 Wireless Statistics

Select **Statistics** tab and the data statistics about software access point will be displayed. Click **Reset** to reset the value of every item back to “0”.



4.4 Internet Connection Sharing (ICS)

In the “General” page, the **Internet Connection Sharing** option allows you to assign a network adapter on your computer as the path for all wireless clients to get connected to Internet.



If you have only one network adapter (except this software access point), you don't have to select network adapter here.

If you have more than one network adapter, select the one you wish to be used as Internet gateway from the drop down menu and Click **Apply** to save changes (**Apply** is grayed out when no changes are made in this page).

5. Troubleshooting

If you encounter any problem when you're using this wireless network adapter, please check this troubleshooting table, the solution of your problem could be very simple and you can solve the problem by yourself.

Scenario	Solution
<p>I can't find any wireless access point / wireless device in Site Survey function.</p>	<ol style="list-style-type: none"> 1. Click Rescan for few more times and see if you can find any wireless access point or wireless device. 2. Please move closer to any known wireless access point. 3. "Ad hoc" function must be enabled for the wireless device you wish to establish a direct wireless link. 4. Please adjust the position of network adapter (you may have to move your computer if you're using a notebook computer) and click Rescan button for few more times. If you can find the wireless access point or wireless device you want to connect by doing this, try to move closer to the place where the wireless access point or wireless device is located.
<p>Nothing happens when I click Open Config Utility</p>	<ol style="list-style-type: none"> 1. Please make sure the wireless network adapter is inserted into your computer's USB port. 2. Reboot the computer and try again. 3. Remove the adapter and insert it into another USB port. 4. Remove the driver and re-install. 5. Contact the dealer of purchase for help.
<p>I can not establish connection with a certain wireless access point</p>	<ol style="list-style-type: none"> 1. Click Add to Profile for few more times. 2. If the SSID of access point you wish to connect is hidden (nothing displayed in "SSID" field in Site Survey function), you have to input correct SSID of the access point you wish to connect. Please contact the owner of access point to ask for correct SSID. 3. You have to input correct passphrase / security key to connect an access point with encryption. Please contact the owner of access point to ask for correct passphrase / security key. 4. The access point you wish to connect only allows network adapters with specific MAC address to establish connection. Please go to Status menu and write the value of MAC Address down, then present this value to the owner of access point so he / she can add the MAC address of your network adapter to his / her access point's list.

<p>The network is slow / having problem when transferring large files</p>	<ol style="list-style-type: none">1. Move closer to the place where access point is located.2. There could be too much people using the same radio channel. Ask the owner of the access point to change the channel number. <p>Please try one or more solutions listed above.</p>
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