PLANET
Networking & Communication

User's Manual

300Mbps 802.11n Wireless Micro-Size USB Adapter

► WNL-U556M

www.PLANET.com.tw

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Federal Communication Commission Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of 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:

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

FCC Caution

To assure continued compliance. (Example - use only shielded interface cables when connecting to computer or peripheral devices). Any changes or modifications not expressly approved by the party responsible for compliance could void the user's 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.

Federal Communication Commission (FCC) Radiation Exposure Statement

This equipment complies with FCC radiation exposure set forth for an uncontrolled environment. In order to avoid the possibility of exceeding the FCC radio frequency exposure limits, human proximity to the antenna shall not be less than 20 cm (8 inches) during normal operation.

CE mark Warning

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

R&TTE Compliance Statement

This equipment complies with all the requirements of DIRECTIVE 1999/5/CE OF THE EUROPEAN PARLIAMENT AND THE COUNCIL OF 9 March 1999 on radio equipment and telecommunication terminal Equipment and the mutual recognition of their conformity (R&TTE). The R&TTE Directive repeals and replaces in the directive 98/13/EEC (Telecommunications Terminal Equipment and Satellite Earth Station Equipment) As of April 8, 2000.

Safety

This equipment is designed with the utmost care for the safety of those who install and use it. However, special attention must be paid to the dangers of electric shock and static electricity when working with electrical equipment. All guidelines of this and of the computer manufacture must therefore be allowed at all times to ensure the safe use of the equipment.

EU Countries Intended for Use

The ETSI version of this device is intended for home and office use in Austria Belgium, Denmark, Finland, and France (with Frequency channel restrictions). Germany, Greece, Ireland, Italy, Luxembourg .The Netherlands, Portugal, Spain, Sweden and United Kingdom.
The ETSI version of this device is also authorized for use in EFTA member states Iceland, Liechtenstein, Norway and Switzerland.

WEEE regulation

To avoid the potential effects on the environment and human health as a result of the presence of hazardous substances in electrical and electronic equipment, end users of electrical and electronic equipment should understand the meaning of the crossed-out wheeled bin symbol. Do not dispose of WEEE as unsorted municipal waste and have to collect such WEEE separately.

CONTENTS

Chapter 1. PRODUCT INTRODUCTION

1.1 Package contents

The following items should be contained in the package:

▶ WNL-U556M (300Mbps 802.11n Wireless Micro-Size USB adapter)

▶ Quick Installation Guide

▶ CD (includes driver/utility/user's manual)

Note If there is any item missed or damaged, please contact the seller immediately.

1.2 Product Description

Ultra Mini Size Portable USB Adapter Boost 11n Performance

The PLANET WNL-U556M is specially designed for users who need high mobility and provides 300Mbps 802.11n high speed wireless transmission. The ultra mini size compact design of WNL-U556M is convenient to carry for all mobile users. Users will not need to remove it from the laptop anymore, no matter operating, moving, or even put the laptop back to the briefcase. It is just like a part of the laptop or PC and hidden very well once it is plugged into USB port.
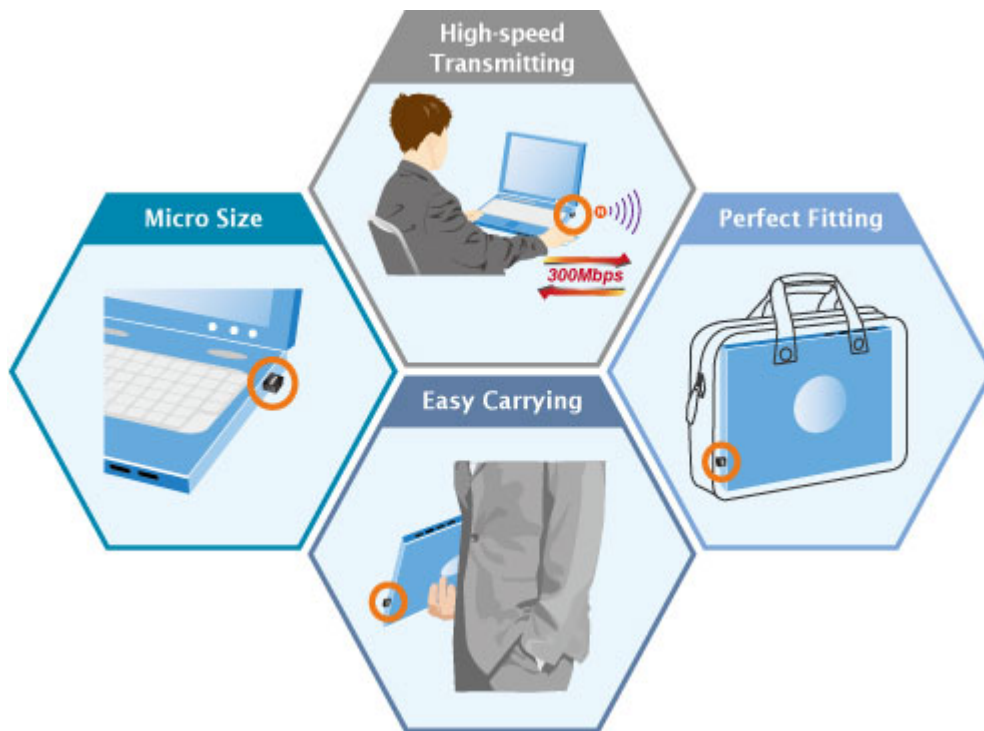
High Speed 802.11n Wireless Experience

The WNL-U556M offers a reliable and cost effective wireless extending solution. It adopts IEEE 802.11n technology and is backward compatible with IEEE 802.11b and 802.11g. The WNL-U556M supports USB 2.0 interface that integrates with one transmit channel and one concurrent receive channel to enable the speed up to 300Mbps for both data upload and download.
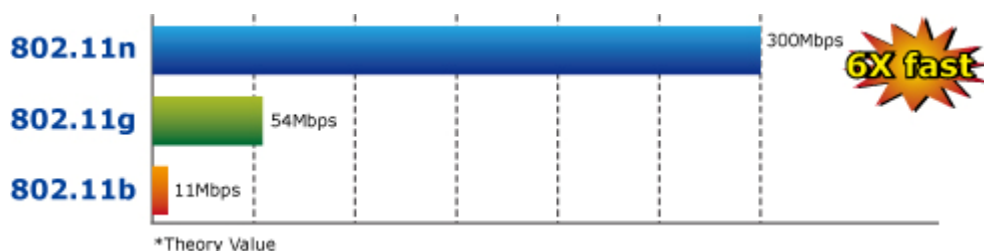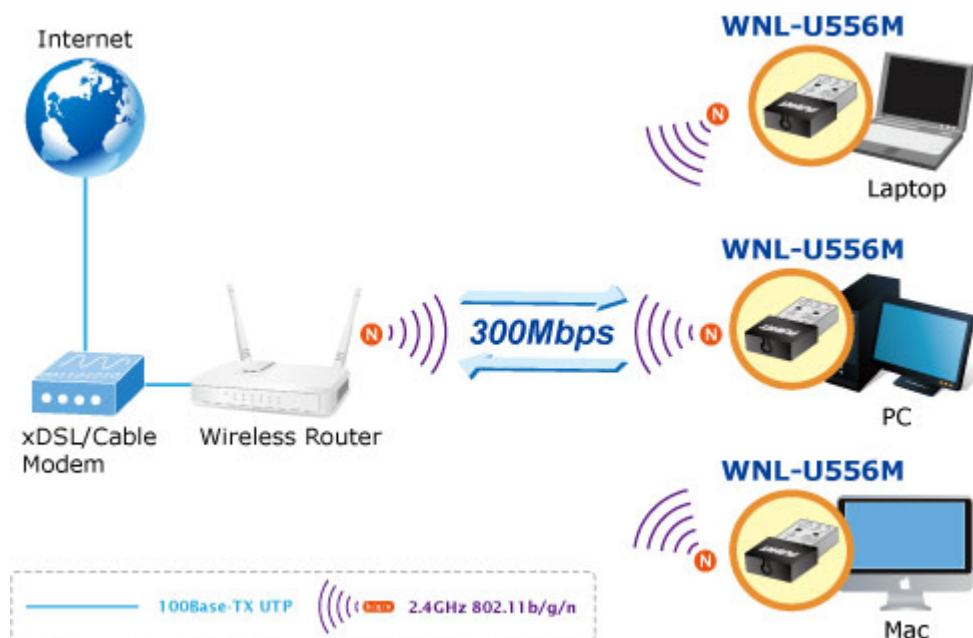
Advanced Wireless Security

The WNL-U556M provides advanced security features including 64/128-bit WEP, WPA / WPA2 and WPA-PSK / WPA2-PSK with TKIP/AES encryption. Furthermore, in order to simplify the security configurations, WPS (Wi-Fi Protected Setup) function is included to offer a convenient and fast connection method for users as well.

WPS (Wi-Fi Protected Setup)
Quick & Easy Wireless Connection
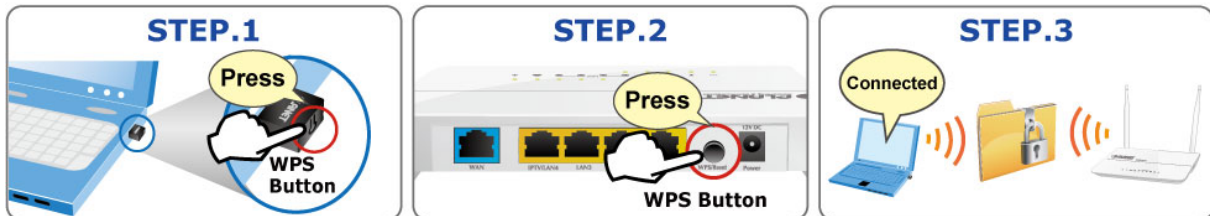
Multiple OS Compliant

The WNL-U556M supports most popular operating systems including Windows 2000, XP, Vista, Win7, Linux, and MAC OS X. With high speed capability, users can have higher wireless transmission speed anywhere and anytime.

Software Access Point Function for Wireless Connection Sharing

More than just being an adapter for PC and laptop connecting to high speed wireless network, the WNL-U556M can also become a wireless access point. By applying the USB Wireless LAN Utility included in the package, users can switch the WNL-U556M operation mode between Station mode and Access Point mode. When the WNL-U556M is in the Access Point mode, it turns to a Wi-Fi Hotspot. The Wi-Fi supported devices such as iPhone / Android / Symbian / Windows Phone / iPod Touch / iPad / NDS / PSP can connect to it and share the wireless access easily. Therefore, travelers would then be worry free to connect to Internet wirelessly via the WNL-U556M when there is only wired Internet available anywhere.
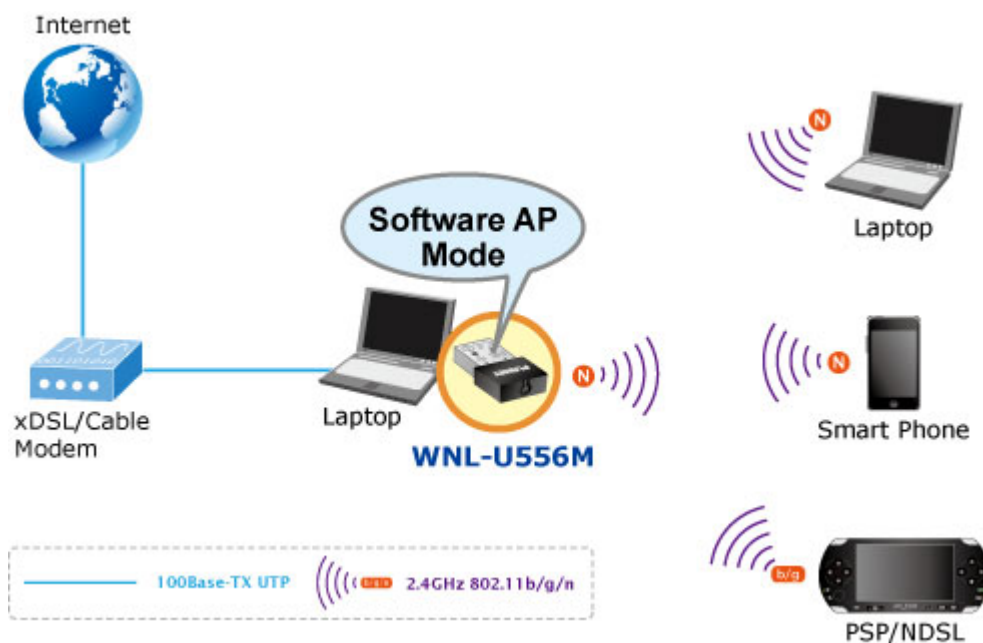
Easy Installation Wizard

The WNL-U556M provides an easy installation wizard in 35 languages. It guides users step by step to easily complete the product installation through the whole process.

1.3 Product Features

- 2.4GHz ISM band, unlicensed operation
- Compliant with IEEE 802.11b/g/n
- Provides up to 300Mbps download and 300Mbps upload data rate
- Wi-Fi Protected Setup (WPS) support
- Supports WEP 64/128-bit, WPA / WPA2, WPA-PSK / WPA2-PSK (TKIP/AES encryption)
- Supports Software AP mode
- Supports Wireless QoS (WMM)
- Adjustable Transmit Power
- USB 2.0 attached interface
- Compact-size Design
- Supports most popular operating systems including Windows 2000, XP, Vista, Win 7, Linux, and MAC OS X.

1.4 Hardware Description

■ **Case Outlook**

Front Side   **Back Side**

Top Side
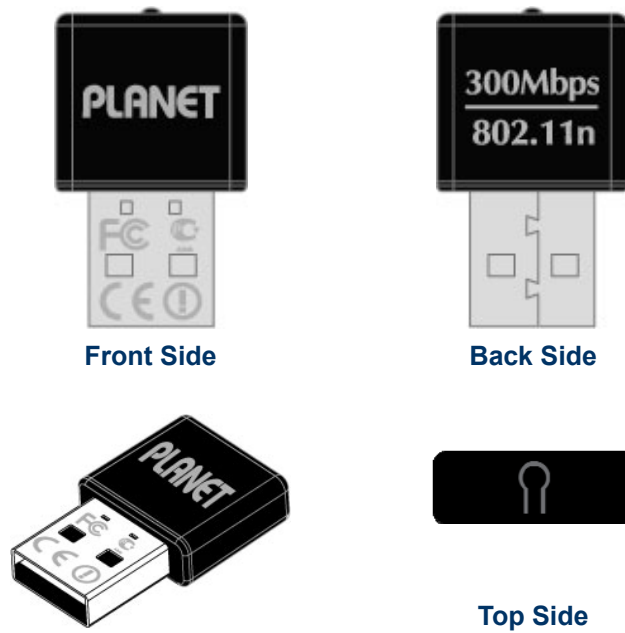
■ **LED definition**

There is a LED equipped on the wireless adapter. When the data is transmitting, the LED will be flashing.

LED Indicator
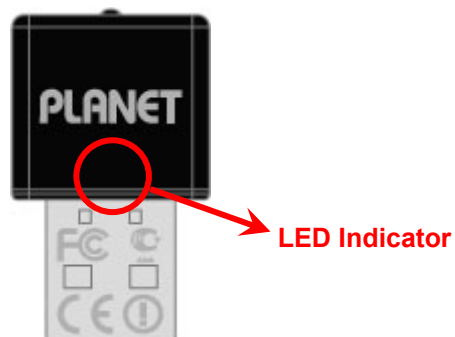
LED	Description
Flashing Slow	The USB adapter has been installed but no data is being transmitted or received.
Flashing Quickly	Data transmitting or receiving
Off	The USB adapter has not been installed or the radio of the wireless USB adapter has been disabled from wireless utility

■ **WPS(WiFi Protected Setup) Button**

Press and hold the WPS button on the side of the adapter for 2 seconds to enable the WPS connection

WPS button

Chapter 2. INSTALLATION

2.1 Microsoft Windows Driver Installation

Before installing the driver and utility of wireless adapter, do not insert the device into the USB port of your computer.
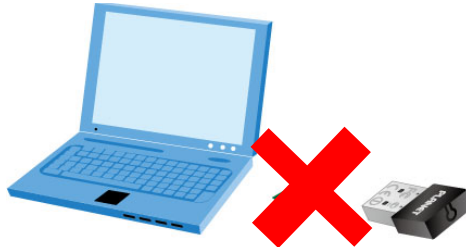
	1. If you had ever installed other wireless adapters before, please uninstall the existed drivers and utilities first.
Note	2. The following installation is performed in Windows XP. The procedures in other OS are similar.

Please follow the instructions below to install the USB Wireless Adapter:

Step 1. Insert the bundled CD into the CD-ROM drive.

CD in the package

Step 2. Then a webpage will appear. Click the "**Windows Utility (Driver)**" hyperlink to initiate the installing wizard.

Step 3. Click "Next" button to start installing the driver and utility.
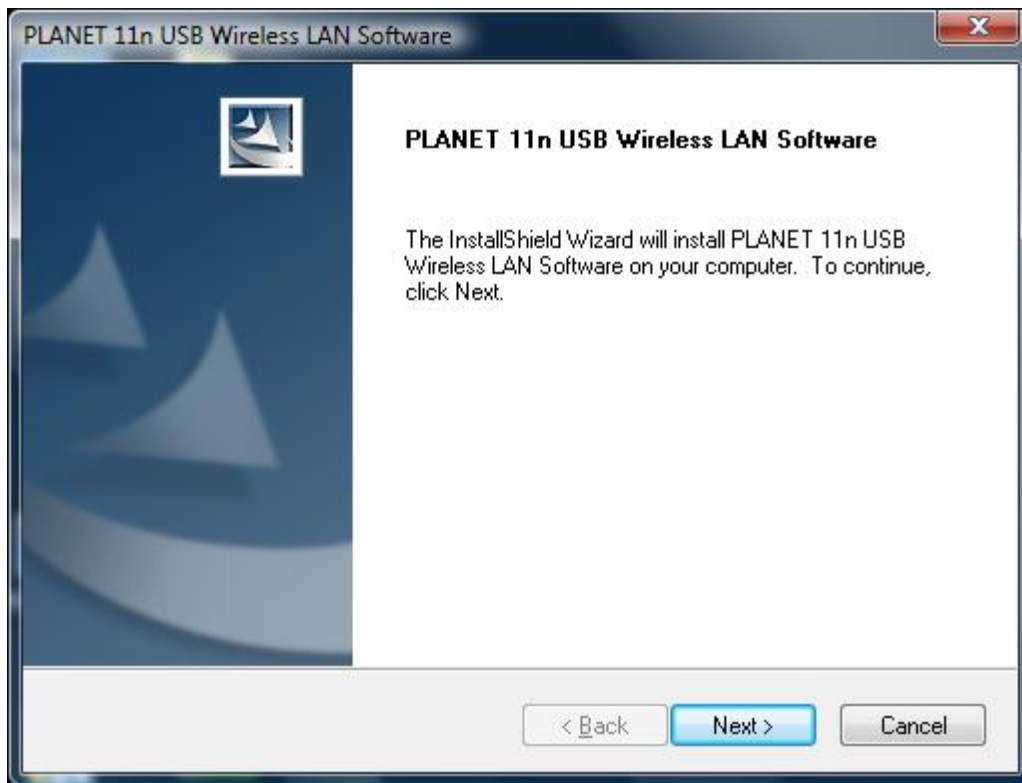
If the screen below appears during installation, please click "**Continue Anyway**" button to continue.
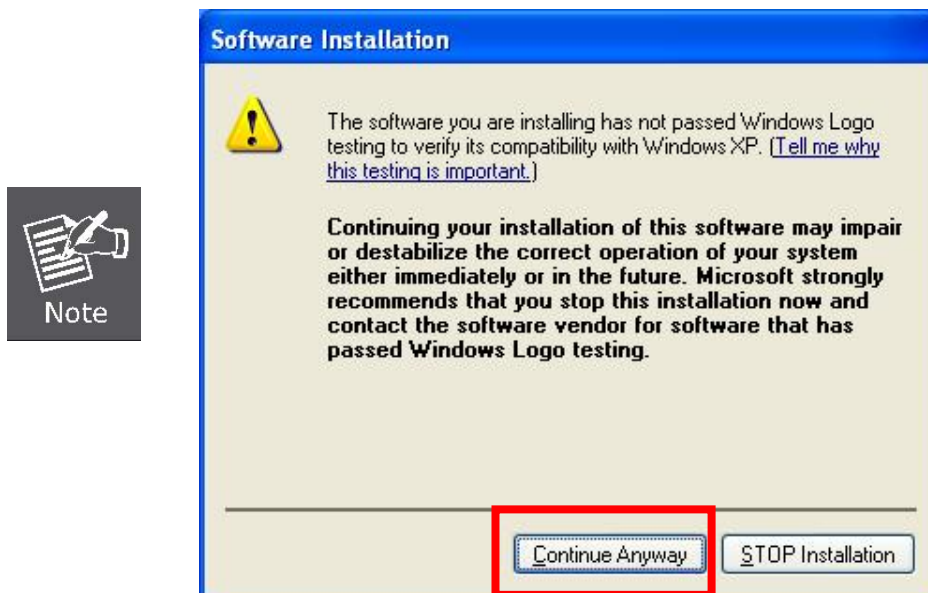
Step 4. After the software has been installed successfully, choose "**Yes, I want to restart my computer now.**" and click "Finish" button to restart your computer.
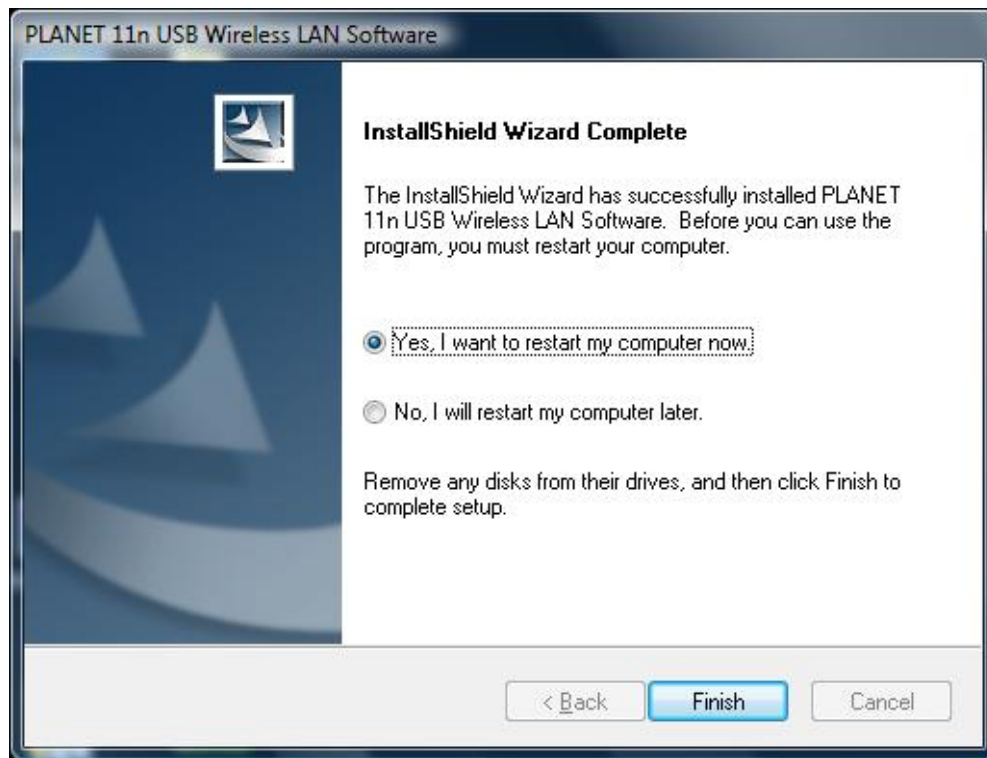
Step 5. After restarting the computer, **insert the wireless USB adapter** into an empty USB port of your computer. Never force to insert the adapter if you feel it get stuck. Flip the adapter over and try again.
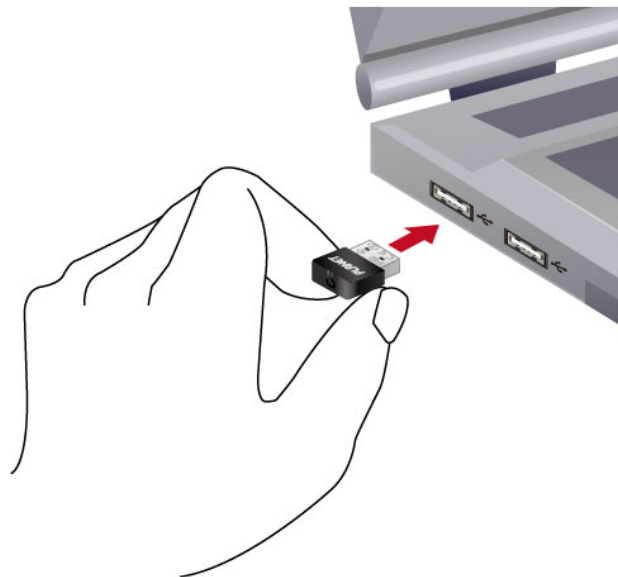
Then you'll see the following message pop-up at lower-right corner of the screen.
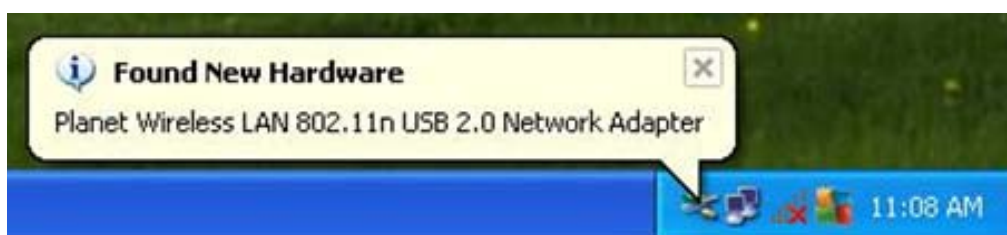
Step 6. The following window will be pop-up. Choose "**No, not this time**" and click "Next" button to continue.

Step 7. Choose "**Install the software automatically (Recommended)**", and click "Next" button to install the driver.

If the screen below appears during installation, please click "**Continue Anyway**" button to continue.

Note

Hardware Installation

The software you are installing for this hardware:

Planet Wireless LAN 802.11n USB 2.0 Network Adapter

has not passed Windows Logo testing to verify its compatibility with Windows XP. (Tell me why this testing is important.)

Continuing your installation of this software may impair or destabilize the correct operation of your system either immediately or in the future. Microsoft strongly recommends that you stop this installation now and contact the hardware vendor for software that has passed Windows Logo testing.

Continue Anyway   STOP Installation

Step 8.   Once the installation is finished, click "Finish" button.

Found New Hardware Wizard

Completing the Found New Hardware Wizard

The wizard has finished installing the software for:

Planet Wireless LAN 802.11n USB 2.0 Network Adapter

Click Finish to close the wizard.

< Back   Finish   Cancel

After the driver of wireless adapter has been installed successfully, you'll see another message pop-up at lower-right corner of the screen. And there is also a new icon appeared on the system tray.
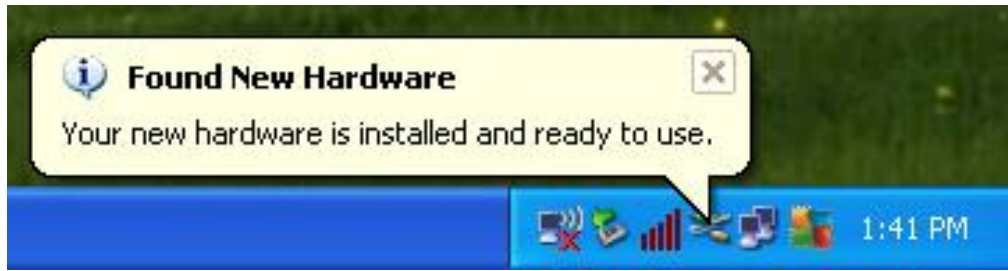
Left-click the new icon will launch PLANET 11n USB Wireless LAN Utility, and right-click the icon will show the quick menu of configuration utility. This icon also uses different colors to show the status of wireless connection:

 Wireless connection is established, good signal reception.

 Wireless connection is established, weak signal reception.

 Connection is not established yet.

 Wireless network card is not detected.

2.2 MAC OS X 10.x Driver Installation

The WNL-U556M supports MAC OS X 10.4 / 10.5 / 10.6 / 10.7. To install in MAC OS X operation system, please follow the instructions below to install the USB Wireless Adapter:

Step 1. Unzip the driver package, and then click the "**Installer.pkg**".

Step 2. It will pop up a window "**Welcome to the Wireless USB Adapter Driver Installer**", please click "**Continue**".

Step 3. After read the important information, please click "**Next**" in the following steps.
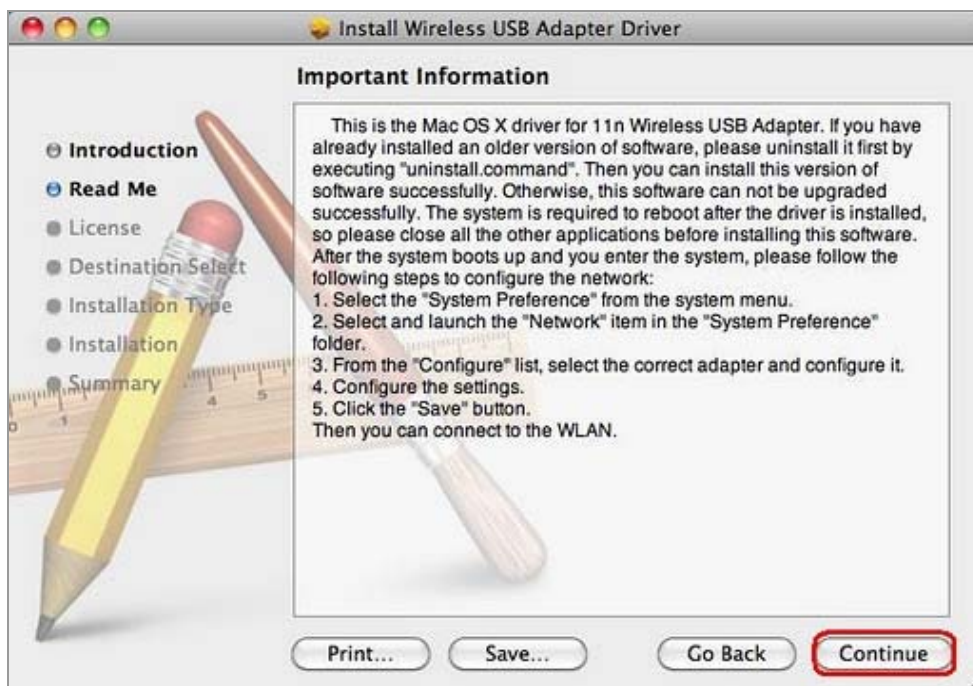
Step 4. Select the language, and click "**Continue**".

Step 5. Click "**Agree**" and then click "**Continue**".
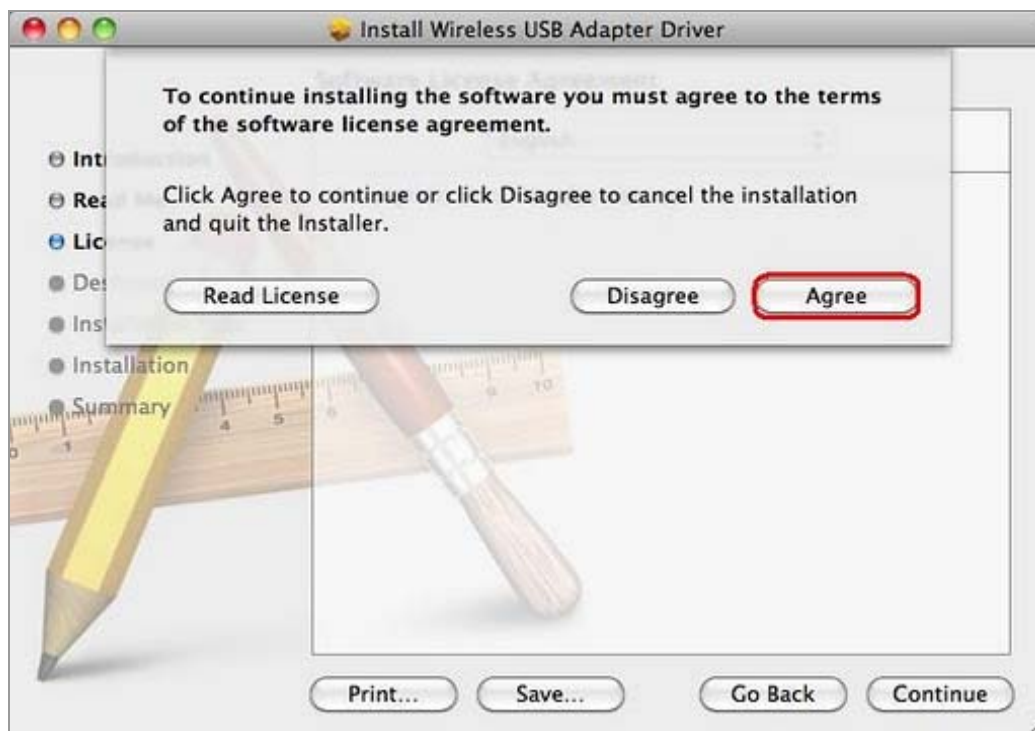
Step 6. Click "**Install**".
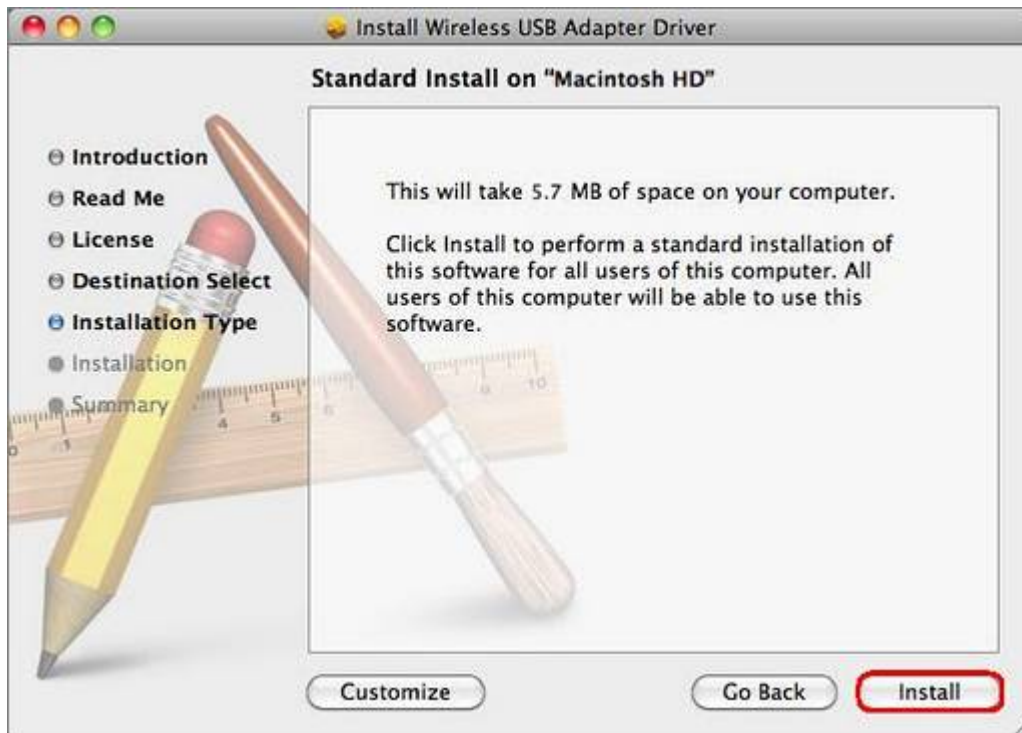
Step 7. Enter your Username and Password of the System. Then, click "**OK**".

Step 8. The window pops up the notice to remind you that computer will restart while finishing the installing. Please click "**Continue Installation**".

Step 9. When the installation was successful, click"**Restart**"to restart your computer.
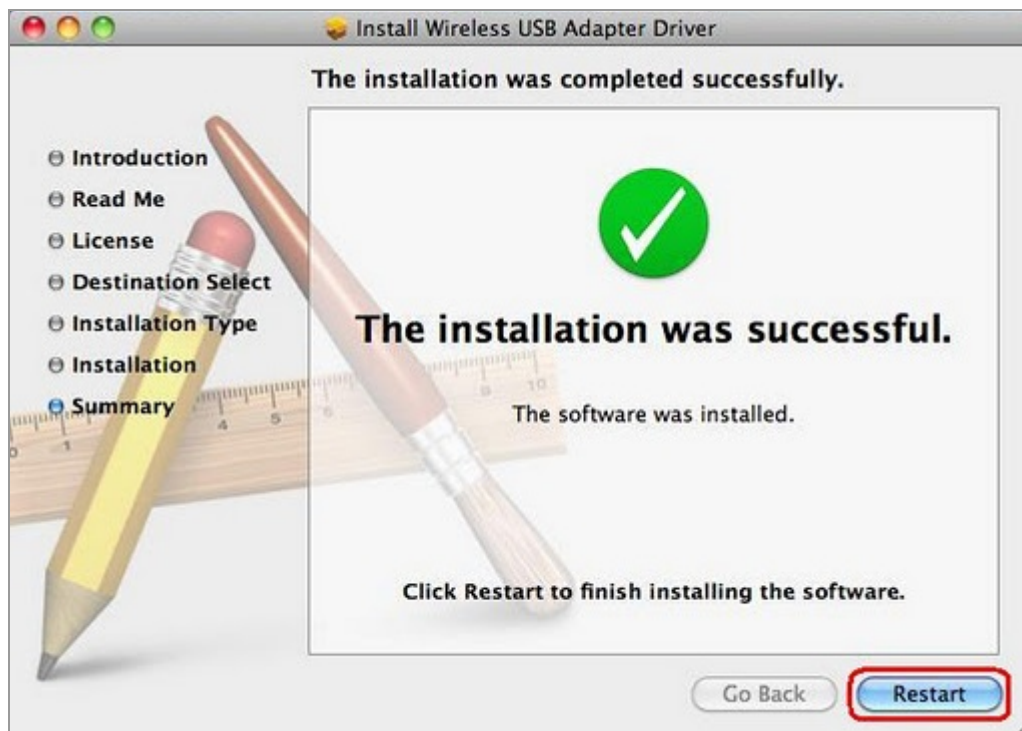
Step 10. After restart the computer, plug the wireless adapter into the USB port on your computer.

Step 11. Go to the administrator's folder. Click "**Applications**". Then, click "**Wireless Network Utility**".

Step 12. Click "**Available Network**". Choose the AP you would like to connect. Then, click "**Add to Profile**".
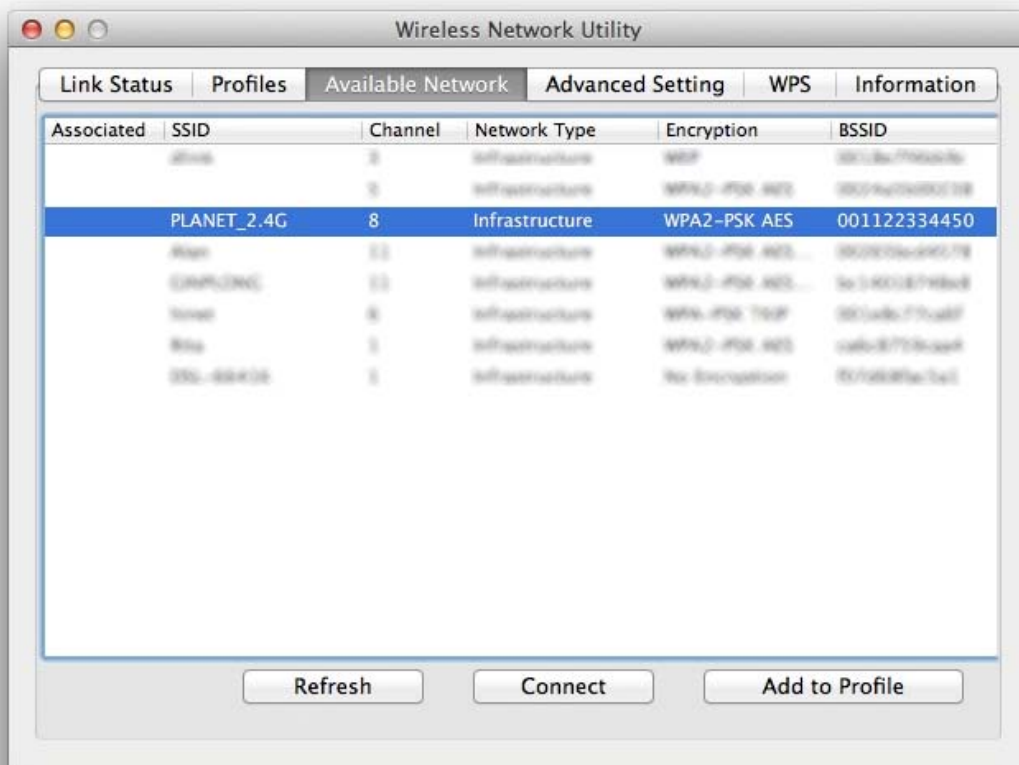
Step 13. Select the encryption type of the AP that you connected and fill in encryption key. Click "**OK**", and finish the installation and configuration of the wireless adapter!
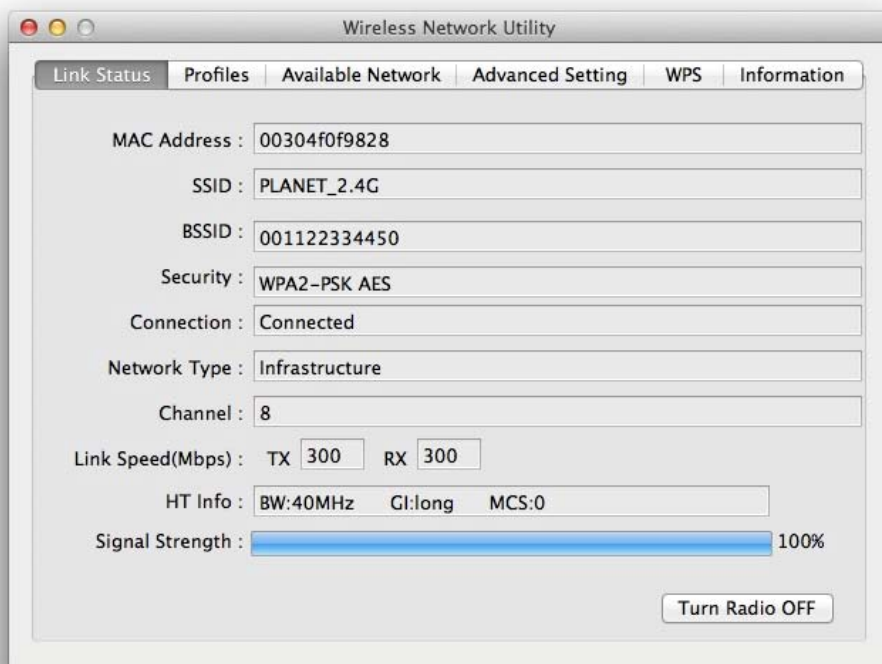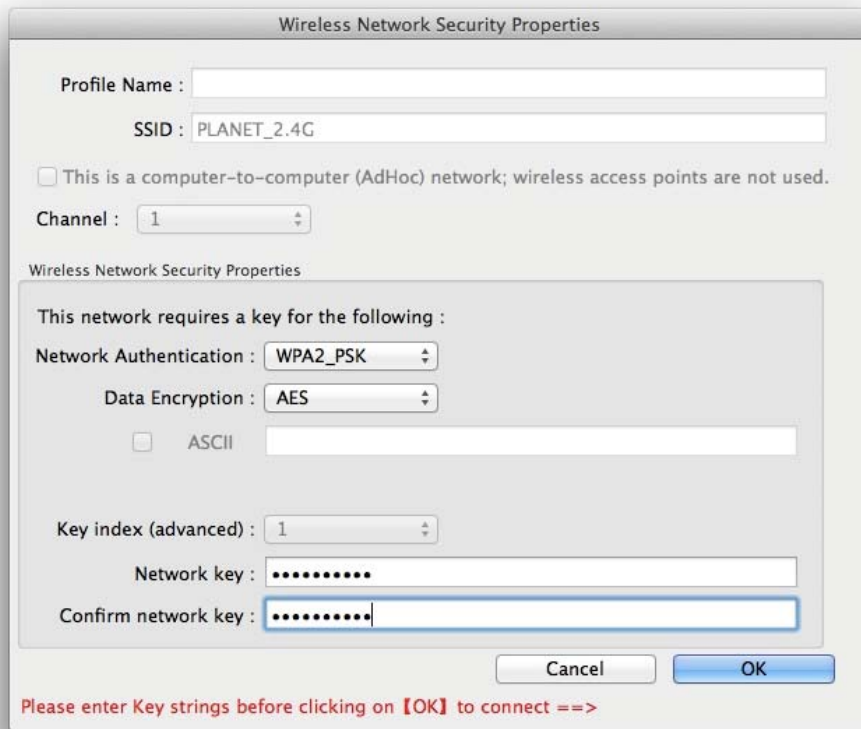
2.3 Linux Driver Installation

The WNL-U556M supports following Linux platform:

- **Linux Kernel 2.6.18~2.6.38**
- **Linux Kernel 3.0.8**

To install in Linux operation system, please refer to the **README** text file in the Linux_Driver folder included in the bundled CD. And also under the /**Linux_Driver/document/** folder, the following documents are included:

- Quick_Start_Guide_for_Driver_Compilation_and_Installation.pdf
- Quick_Start_Guide_for_Station_Mode.pdf
- wpa_cli_with_wpa_supplicant.pdf
- HowTo_support_more_VidPids.pdf
- Wireless_tools_porting_guide.pdf
- HowTo_enable_driver_to_support_WIFI_certification_test.pdf
- HowTo_enable_the_power_saving_functionality.pdf
- Quick_Start_Guide_for_SoftAP.pdf
- SoftAP_Mode_features.pdf
- linux_dhcp_server_notes.txt
- Quick_Start_Guide_for_Bridge.pdf
- RTK_Wi-Fi_Direct_Programming_guide.pdf

Note	Obtain the Linux driver source code from the bundled CD, and build the driver for the Linux OS that you are using.

Chapter 3. CONNECTING TO WIRELESS NETWORK

To use wireless network, you have to connect to a wireless access point first. You can either use **PLANET 11n USB Wireless LAN Utility** (comes with network adapter), or **Windows Zero Config utility** (comes with Windows operating system).

3.1 PLANET 11n USB Wireless LAN Utility

Please follow the instructions below to connect the wireless access point via PLANET 11n USB Wireless LAN Utility.

Step 1. Left-click the **PLANET Wireless Utility** icon located at lower-right corner of the screen, and configuration menu will appear:

Step 2. Click "**Available Network**" label. Please wait for a while, and all wireless access points nearby which can be reached by the wireless 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 to the access point.
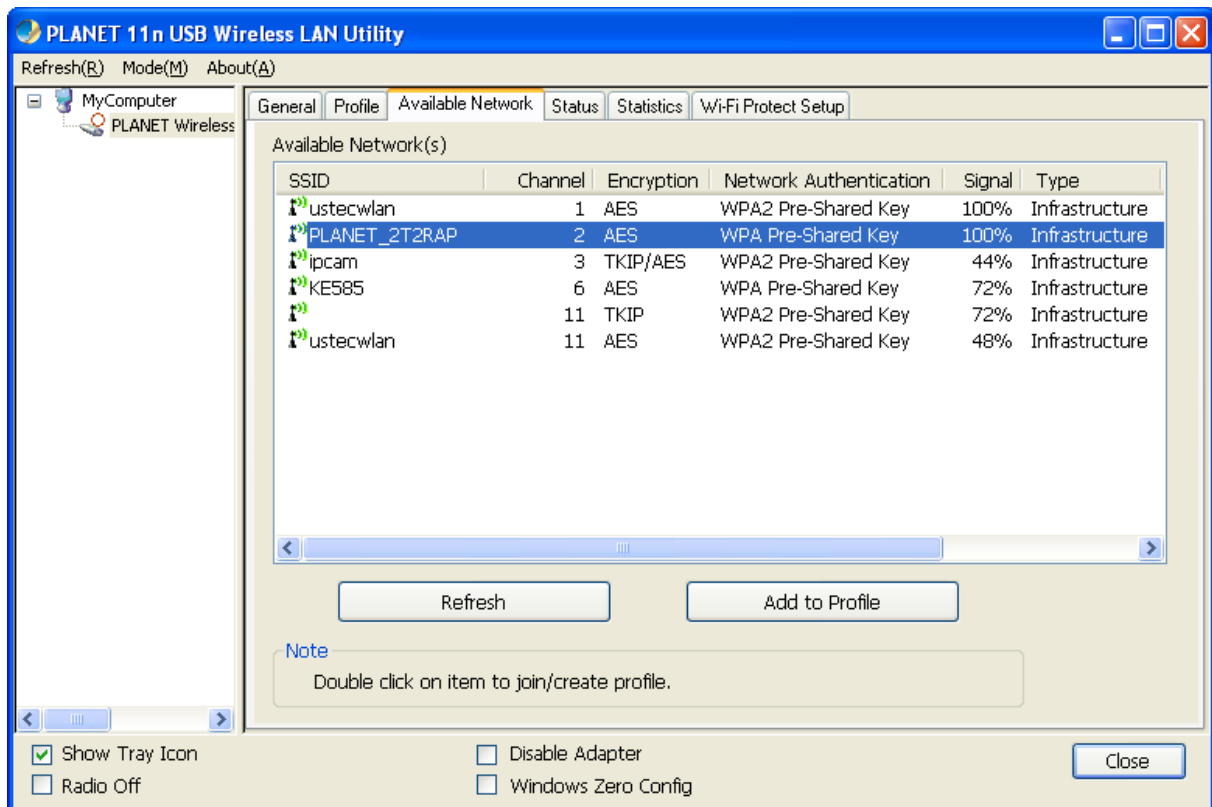
Step 3. When the access point you're looking for is on the list, left-click it and then double click it or click "**Add to Profile**".

Step 4. If a password (Network Key) is required to access the wireless access point, please input it in "**Network key**" field, and input it again in "**Confirm network key**" field for confirmation. Click "**OK**" after the password is already properly inputted.

Network security option ("**Network Authentication**" and "**Data encryption**") will be selected automatically based on the security setting of the wireless access point you selected. It's not necessary to change these settings by your own self.

All options in this page will be filled automatically according to the access point you wish to add to profile. However, you can still modify any of them to meet your requirement.

Object	Description
• **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 field will be filled as the access point you selected when SSID is not hidden and grayed out. If SSID is hidden, you

	have to input correct SSID you yourself.
• 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 with to connect.
• Data encryptio	Select the data encryption type from drop-down menu. This setting must be identical with the setting of wireless access point you with 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 with 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.

Please click "**OK**" when ready.

Step 5. Wireless adapter will attempt to connect to access point; this may require few seconds to minutes. When the "**Status**" become "**Associated**", your computer is connected to access point you selected. Click "**Close**" to close configuration window.
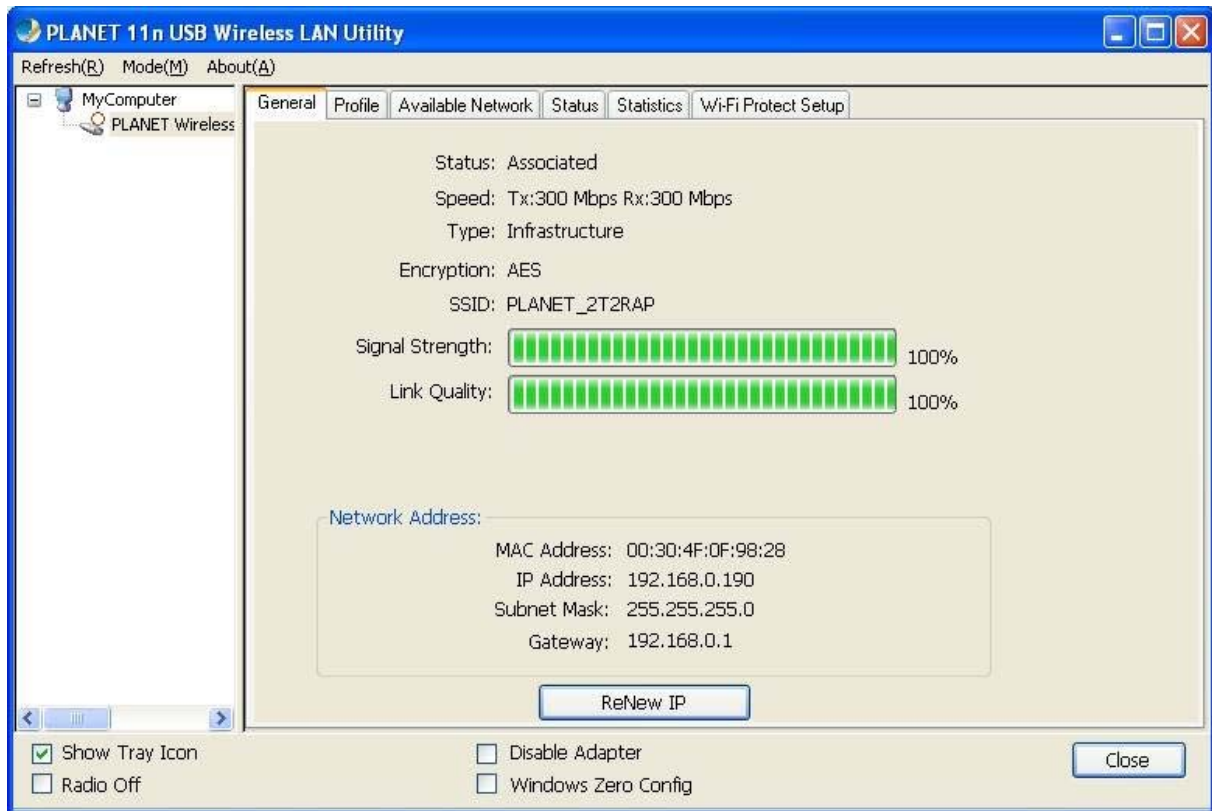
	If you connected to an access point but the connection was dropped soon, please check security settings and re-check password spelling.
Note	

3.2 Windows Zero Configuration

Windows XP / Vista / 7 has a built-in wireless network configuration utility, called as "**Windows Zero Configuration**" (WZC). You can also use WZC to configure your wireless network parameter:

Step 1. Right-click PLANET Wireless Utility icon, and click "**Open Config Utility**".

Step 2. Check "**Windows Zero Config**" box.
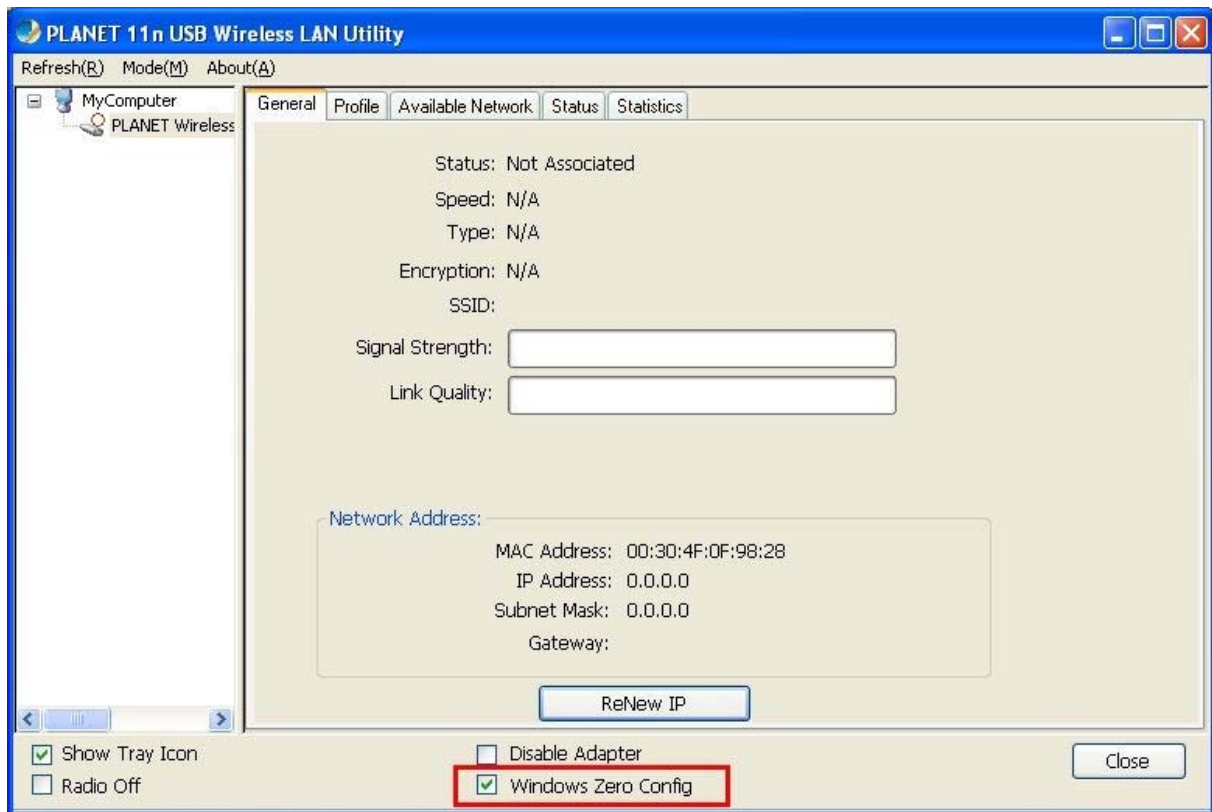
Step 3. There is message appeared indicating that you've been already switched to Windows Zero Config mode.

Note	To return to use PLANET wireless utility, uncheck "**Windows Zero Config**" box.

3.2.1 Windows XP - Use Windows Zero Configure

Step 4. Click "**Start**" button (should be located at the bottom-left corner of windows desktop), click "**Control Panel**", then click "**Network and Internet Connections**" in Control Panel.
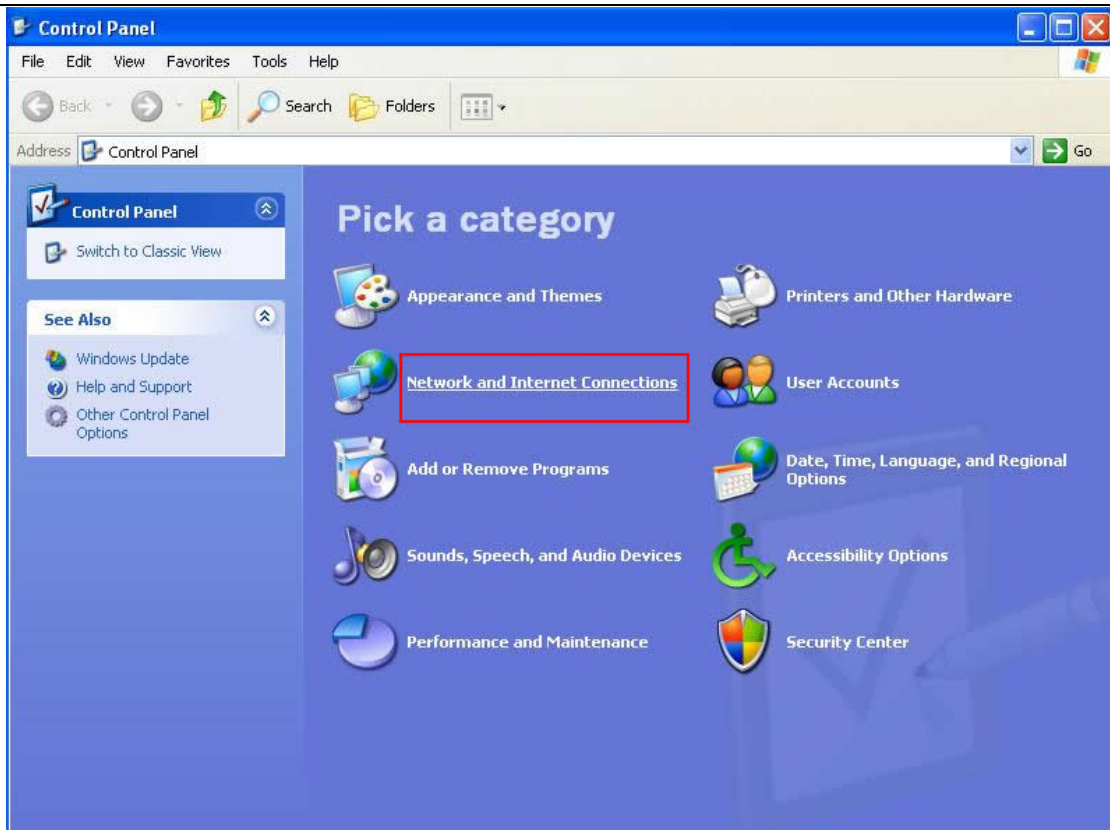
Step 5. Double click "**Network Connections**".
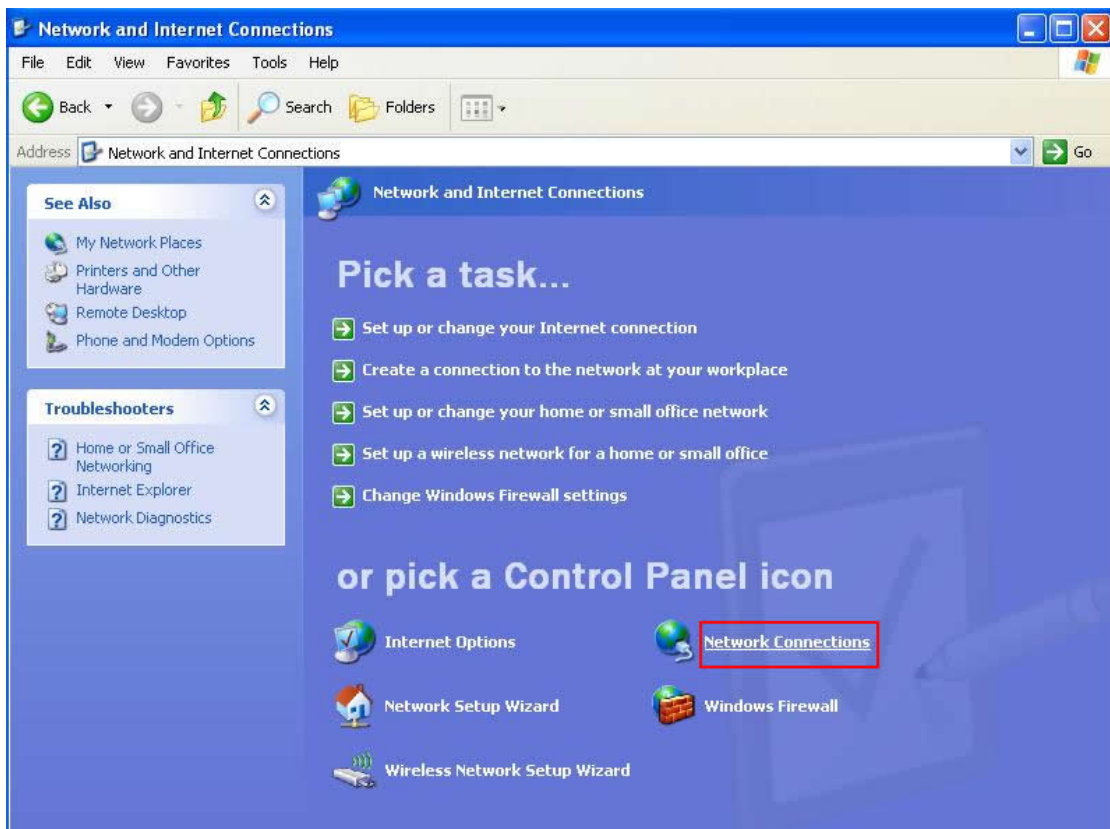
Step 6. Right-click "**Wireless Network Connection**" (it may have a number as suffix if you have more than one wireless network adapter, please make sure you right-click the **PLANET Wireless LAN 802.11n USB Network Adapter**), then select "**View Available Wireless Networks**".
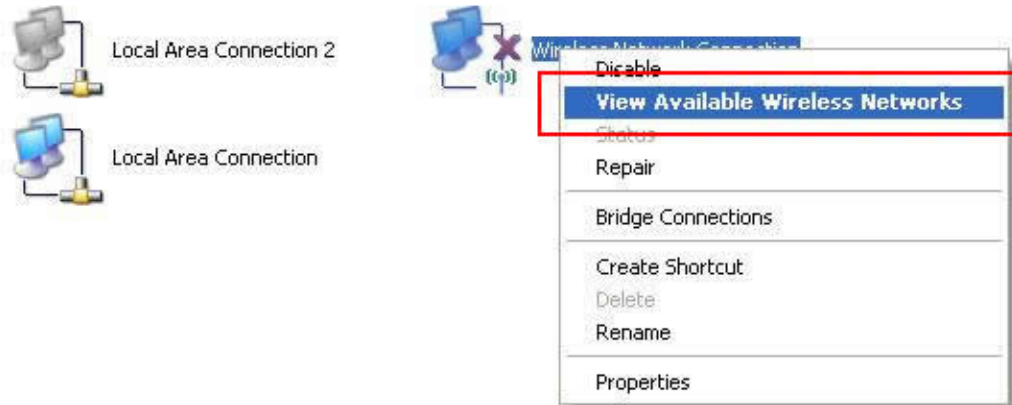
Step 7. All wireless access points in proximity will be displayed here. If the access point you want to use is not displayed here, please try to move your computer closer to the access point, or you can click "**Refresh network list**" to rescan access points. Click the access point you want to use if it's shown, then click "**Connect**".
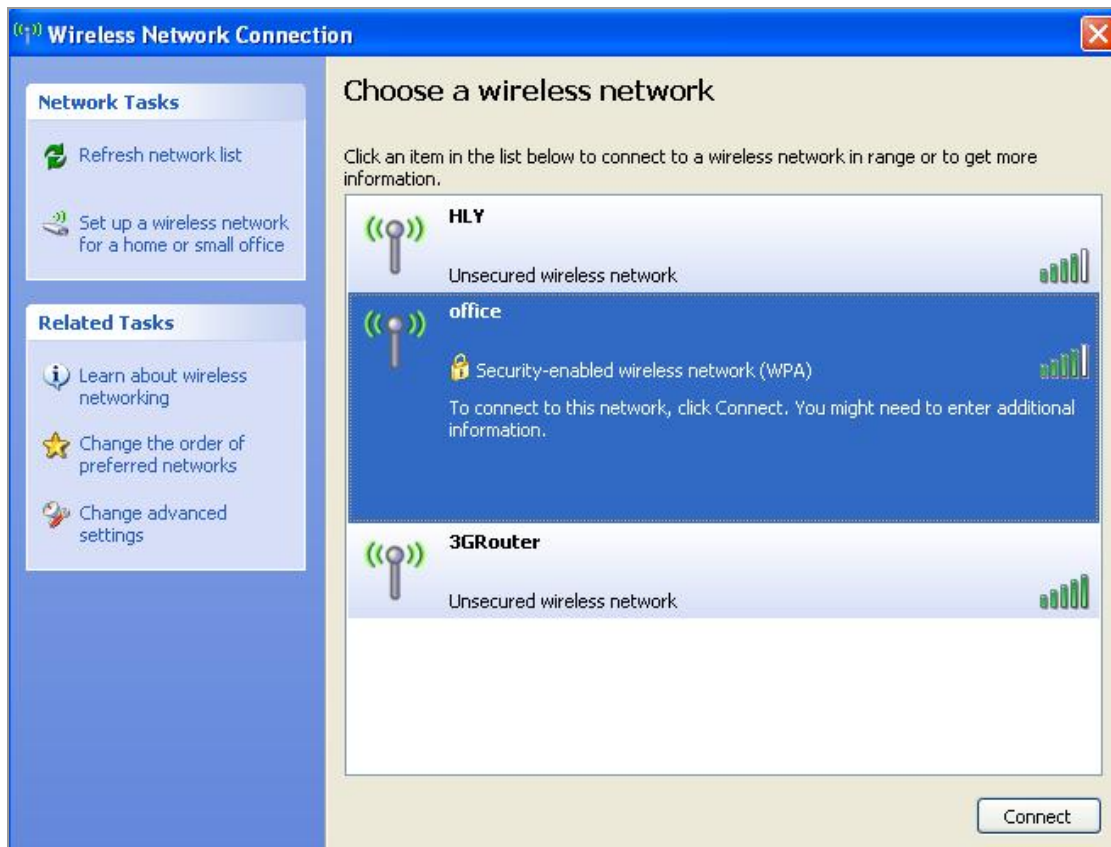
Step 8. If the access point is protected by encryption, you have to input its Network key or passphrase here. It must match the encryption setting on the access point. If the access point you selected does not use encryption, you'll not be prompted for network key or passphrase.
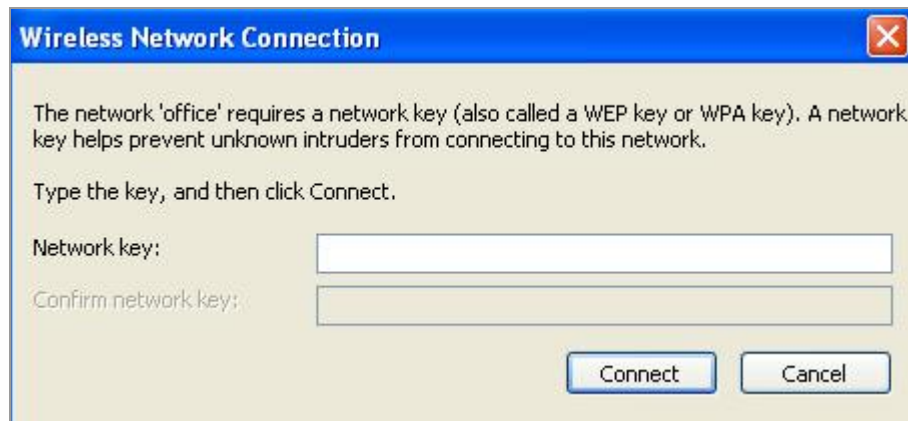
Step 9. If you can see "**Connected**" message, the connection between your computer and wireless access point you selected is successfully established.
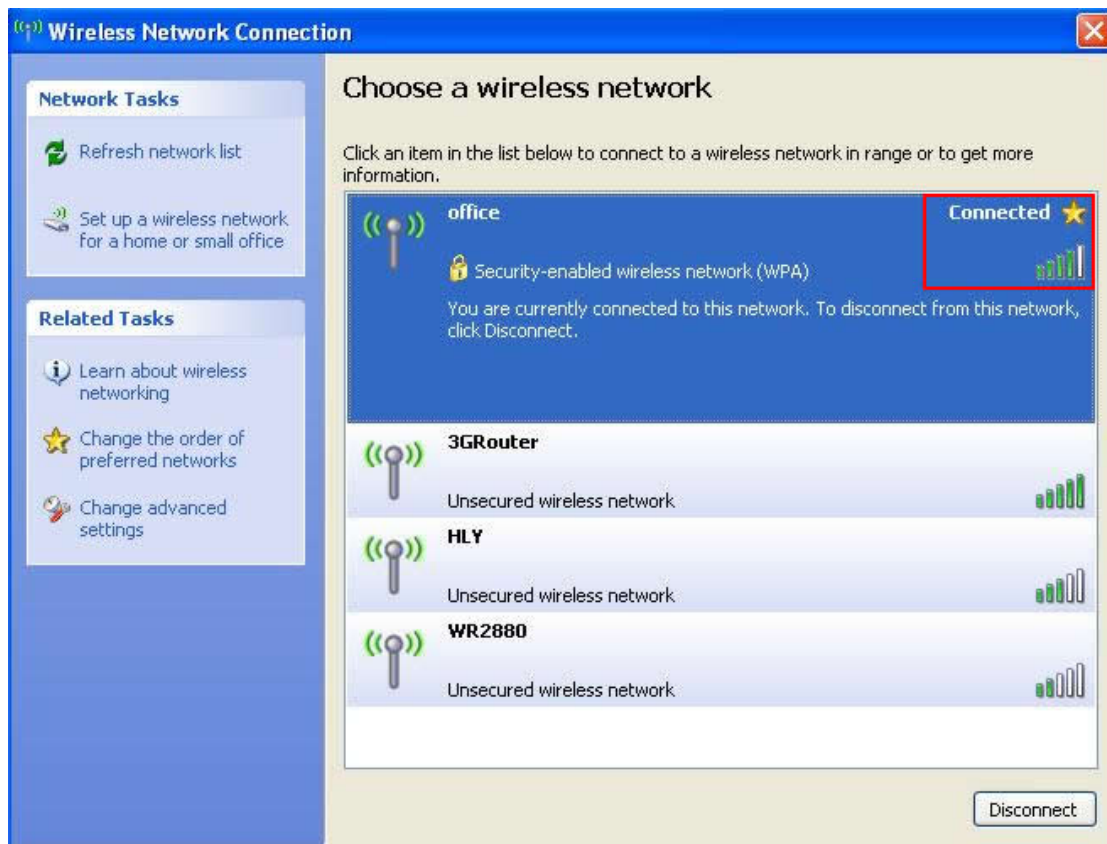
3.2.2 Windows 7 - Use Windows 7 WLAN AutoConfig

WLAN AutoConfig service is built-in in Windows 7 that can be used to detect and connect to wireless network. This built-in wireless network connection tool is similar to wireless zero configuration tool in Windows XP.

Step 1: Right-Click on the **network icon** displayed in the system tray

Step 2: Highlight and select the wireless network (**SSID**) to connect.
    (1) All wireless access points in proximity will be displayed here. If the access point you want to use is not displayed here, please try to move your computer closer to the access point, or you can click "**Refresh network list**" to rescan access points.
    (2) Click the access point you want to use if it's shown, then click "**Connect**".

| Note | If you will be connecting to this Wireless Router in the future, checking [**Connect automatically**]. |

Step 4: Enter the **network security key** of the wireless access point.

    (1) The Connect to a Network box will appear

    (2) Enter the **security key**

         If the access point is protected by encryption, you have to input its Network key or passphrase here. It must match the encryption setting on the access point.

    (3) Click the [**OK**] button
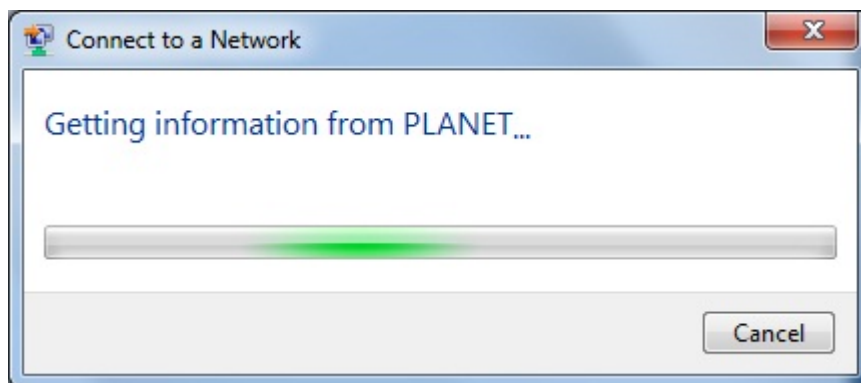
Step 5: Check if "**Connected**" is displayed

Chapter 4. PLANET USB WIRELESS LAN UTILITY

4.1 Connection Profile Management

If you need to connect to different wireless access points at different time, like access point at home, office, cyber-cafe, or public wireless service, you can save the connection parameters (encryption, passphrase, security, etc.) as profiles for every access point, so you don't have to input these parameters every time when you want to connect to the specific wireless access point.

To manage profiles, right-click the PLANET wireless utility icon located at lower-right corner of the screen, then click "**Open Config Utility**".

Click the "**Profile**" label.
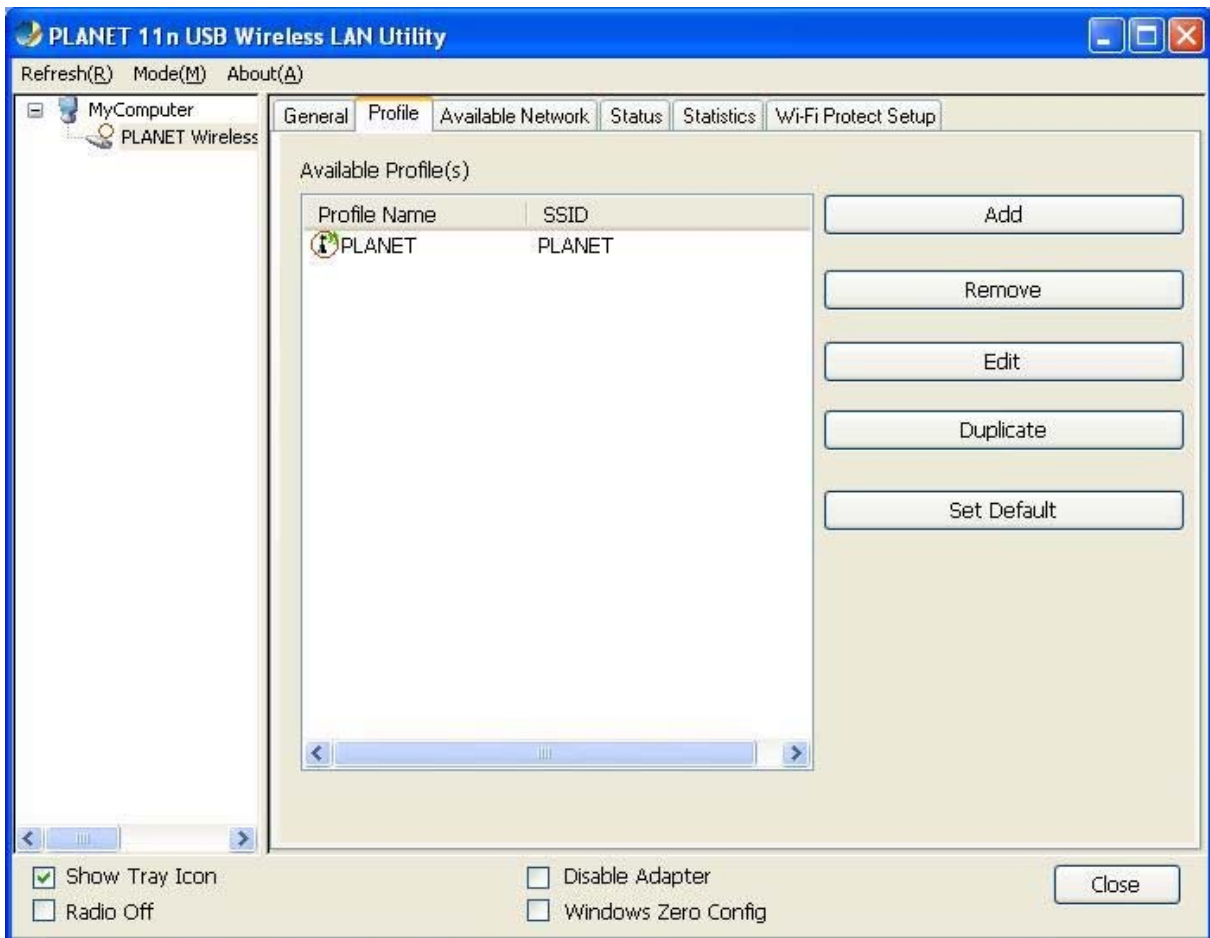
4.1.1 Add a new profile

You can setup the connection parameters for the specific wireless access point in advance. If you want to create a new profile, click "**Add**" button.

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

Required parameters are as follows:

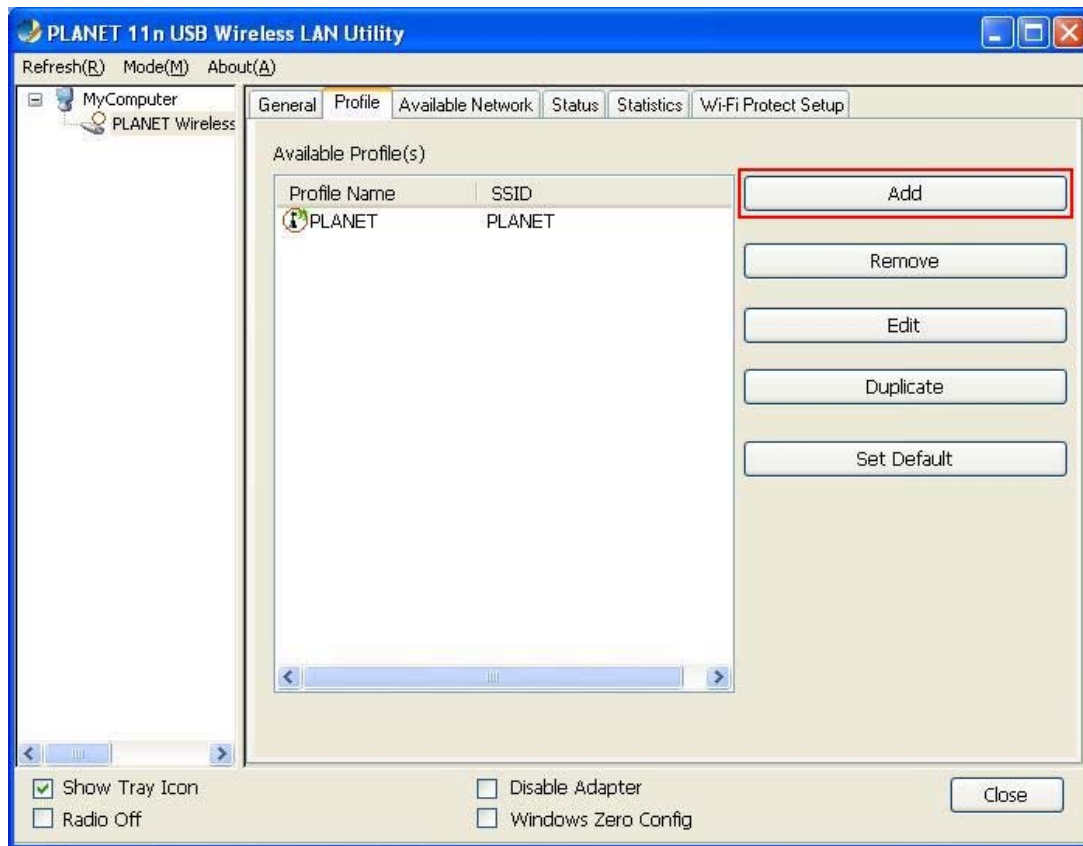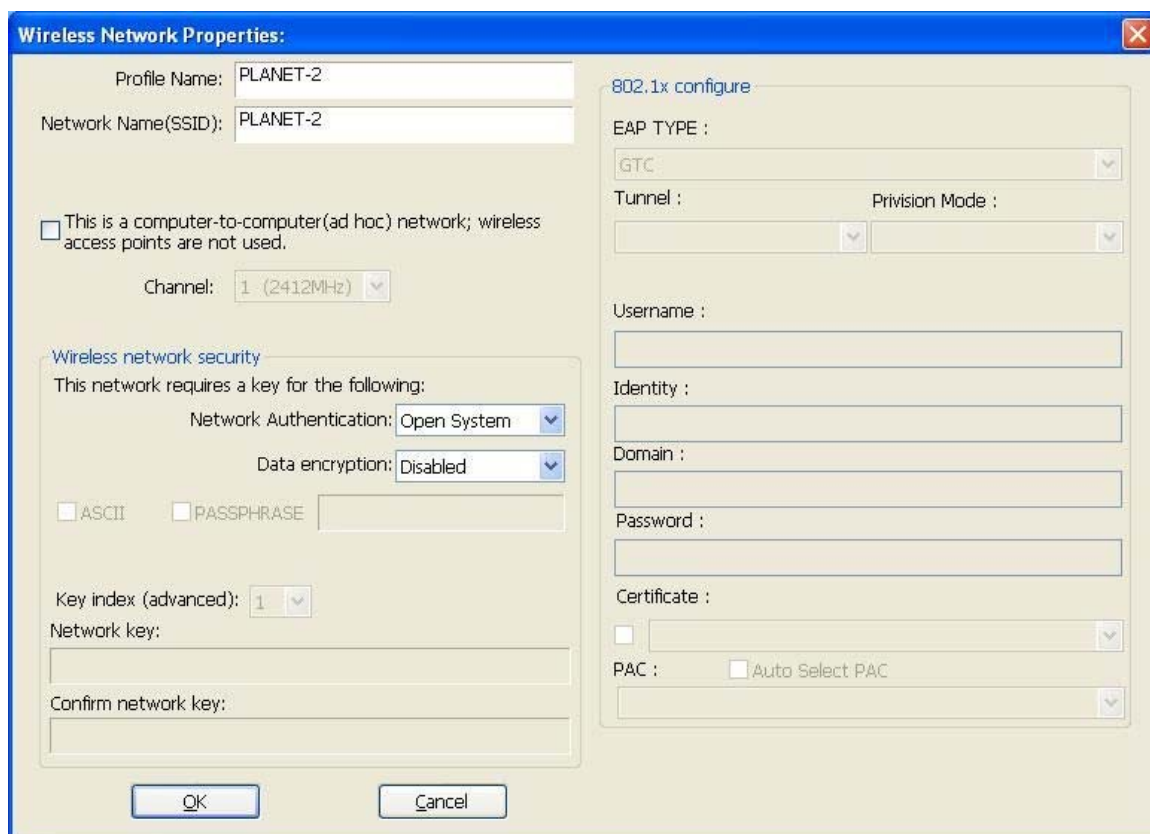| Object	Description
• **Profile name**	You can give a name to this profile, so you can remember its purpose easily. It can be any phrase to help you remember.
• **Network Name (SSID)**	The **SSID** (Service Set IDentifier, i.e. access point's name). This field will be filled as the access point you selected when SSID is not hidden and grayed out. If SSID is hidden, you have to input correct SSID you yourself.
• **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 with to connect.
• **Data encryptio**	Select the data encryption type from drop-down menu. This setting must be identical with the setting of wireless access point you with 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 with 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.

When all required parameters are set, click "**OK**" to create and save a new profile.

4.1.2 Remove an existing profile

If you want to remove a profile no longer needed, click "**Profile**" label, then select the existing profile you wish to remove, and click "**Remove**" button.
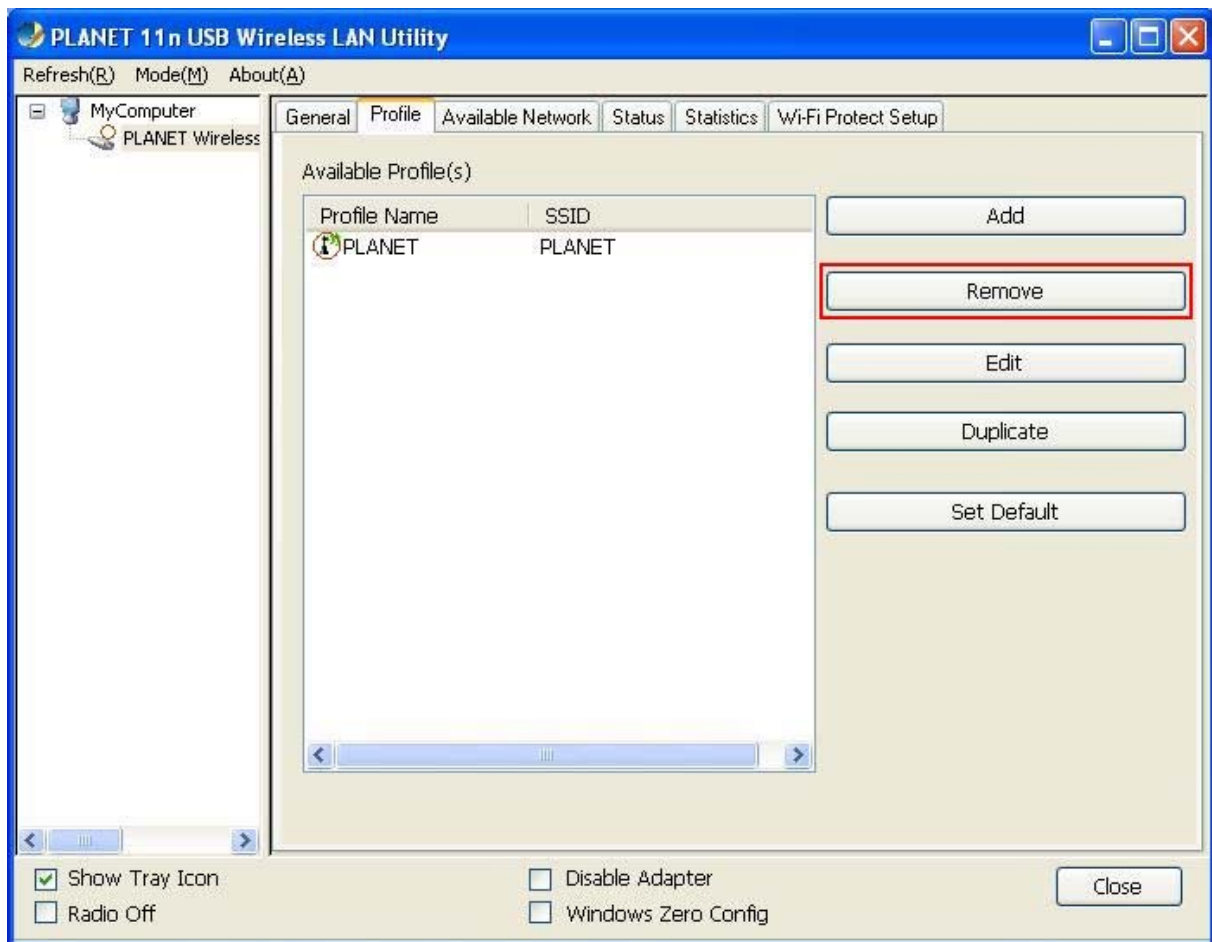
4.1.3 Edit an existing profile

If you have added a profile before, and now you wish to change the settings of the profile, you can use this function. Please select the profile from the list first, then click "**Edit**" button. The contents of the selected profile will appear. After editing them, you can click "**OK**" to save changes, or click "**Cancel**" to discard changes.
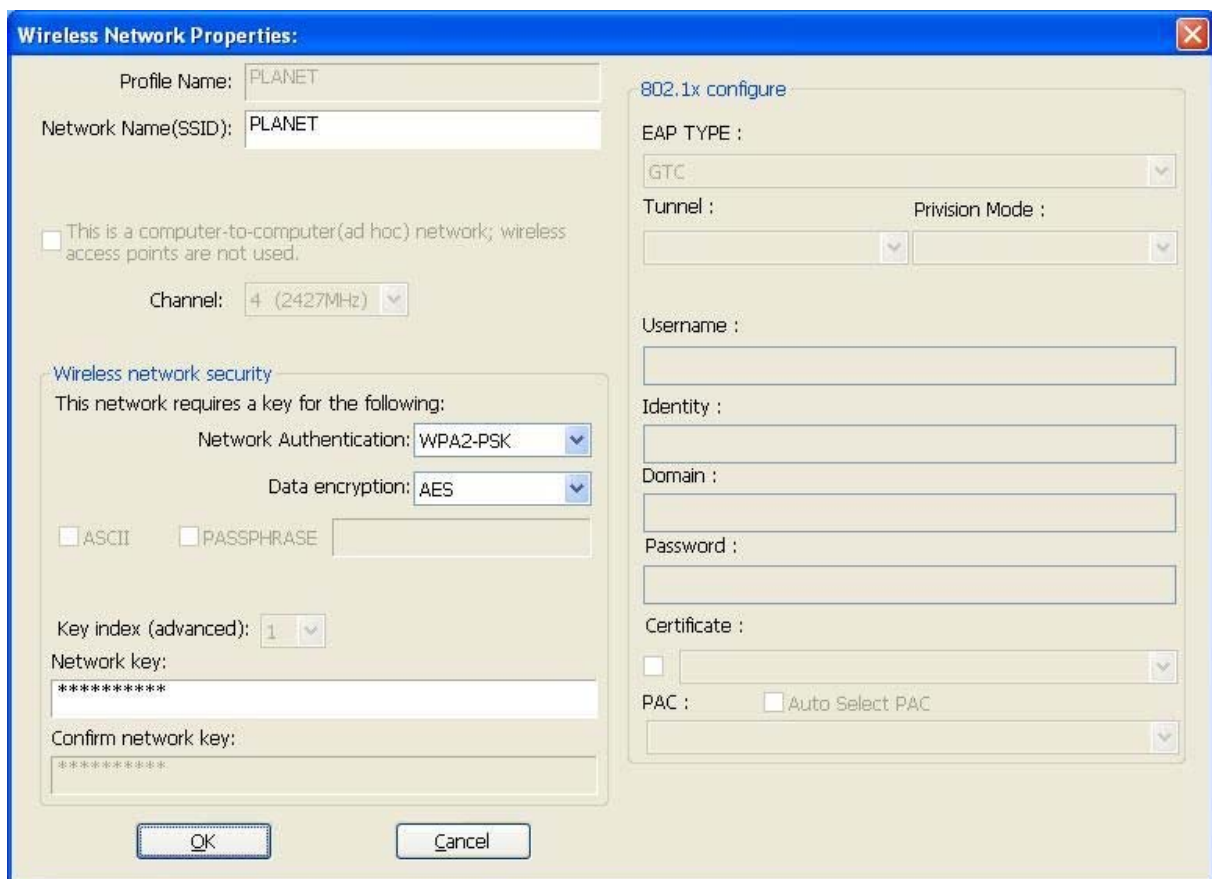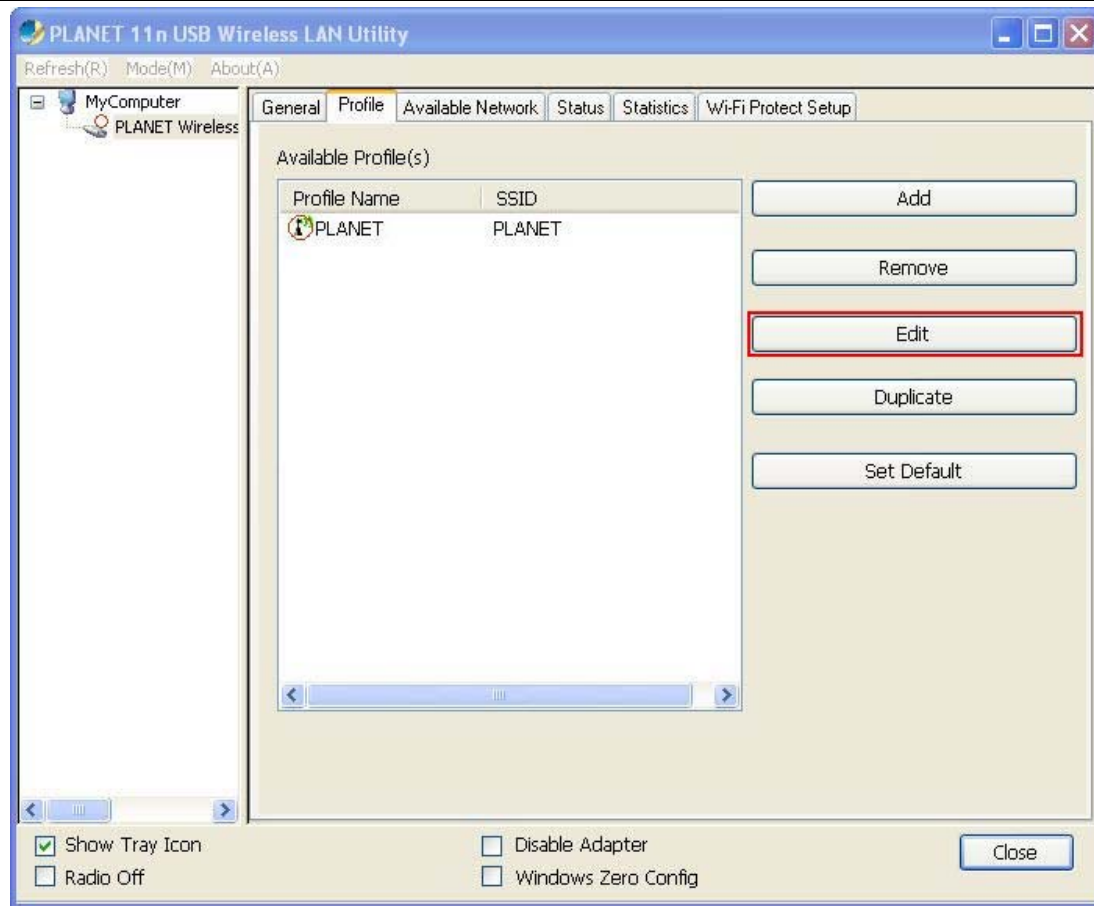
4.1.4 Make a copy of existing profile

If you need to create a new profile which parameters are similar to any existing profile, you can make a copy of a specific profile and edit the copy to save as a new profile.
To do this, select an existing profile, then click "**Duplicate**" button.
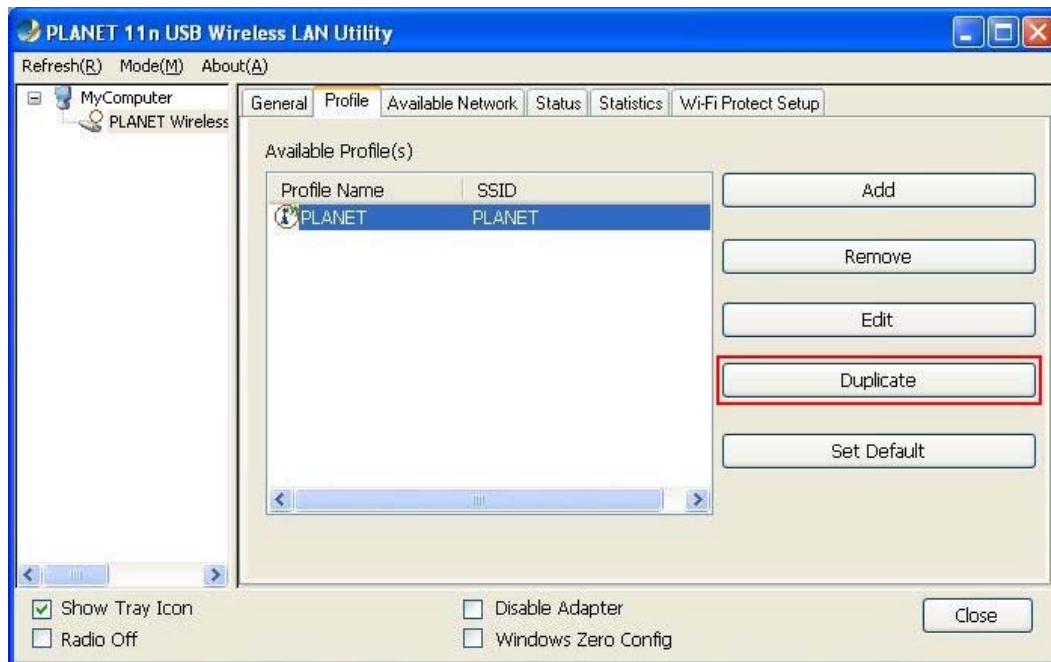
You'll be prompted to input a new profile name. Please use an identical name that does not exist in the profile list.

4.1.5 Set as the default profile

If you wish to use a specific profile as the default wireless connection, you can select the profile in the list, and click "**Set Default"**. The selected profile will become default selection and PLANET wireless utility will attempt to connect to the selected access point.
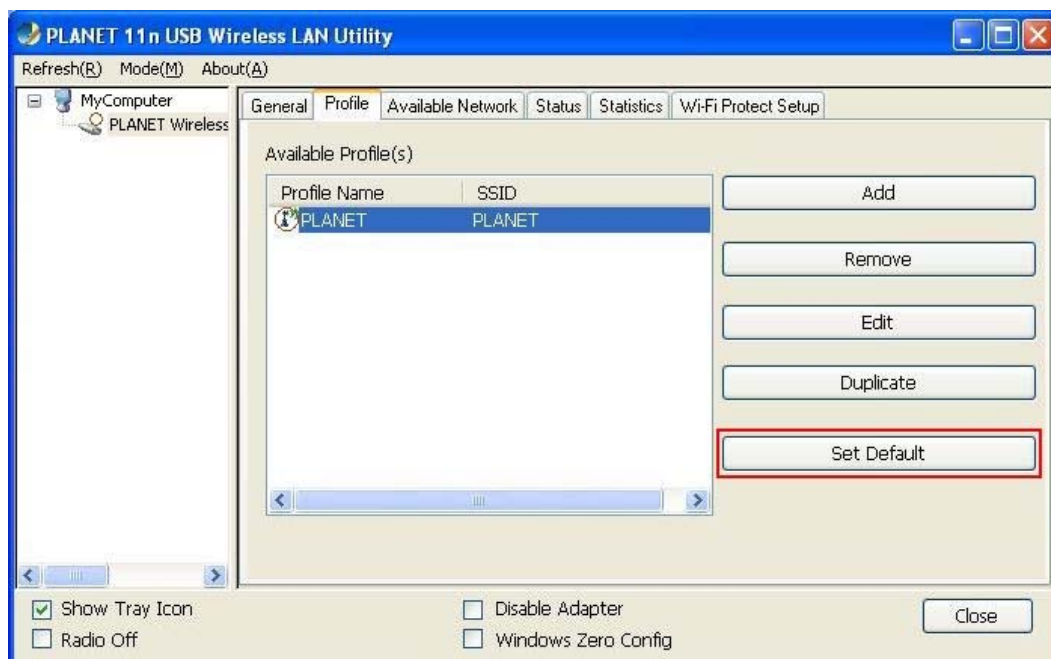
4.2 General Information, Status, and Network Statistics

The PLANET wireless utility provides the detailed information about the wireless connection you're using.

4.2.1 General Information

If you want to know the general information of the access point you're connecting to, click "**General**" label:
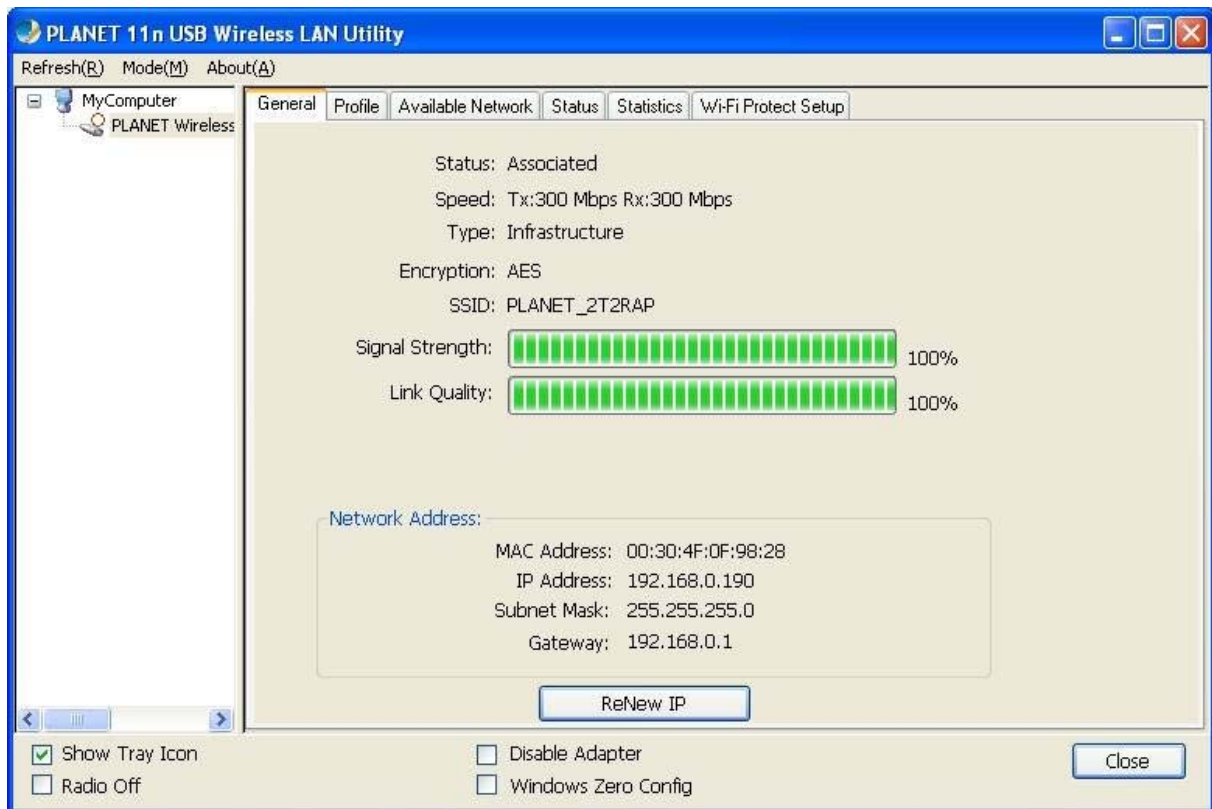
All general information like signal strength and link quality will be displayed here. The information is very useful when you encounter some problems in connecting to access point.

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

4.2.2 Status

If you want to know the status of your wireless network card, click "**Status**" label:
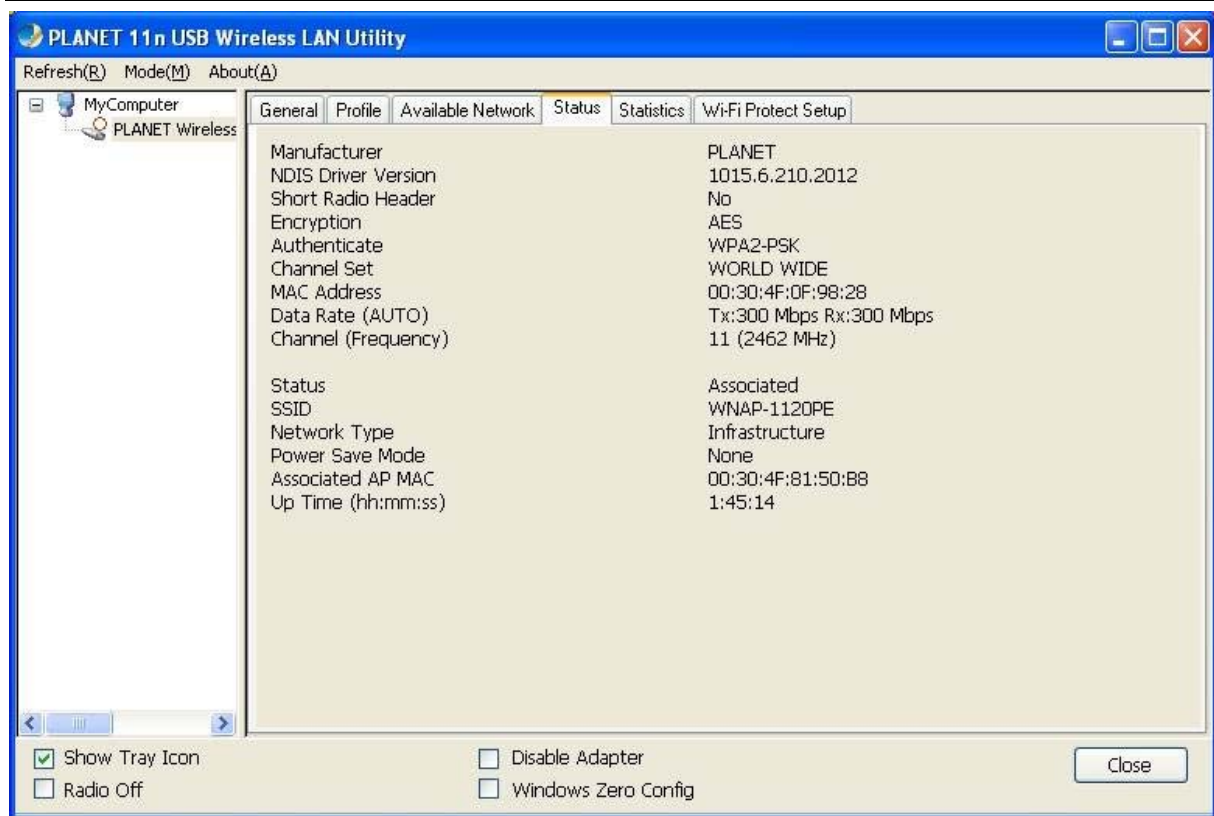
4.2.3 Network Transmission Statistics

To view the statistical data of wireless adapter, click "**Statistics**" label, and the statistics of wireless connection will be displayed:
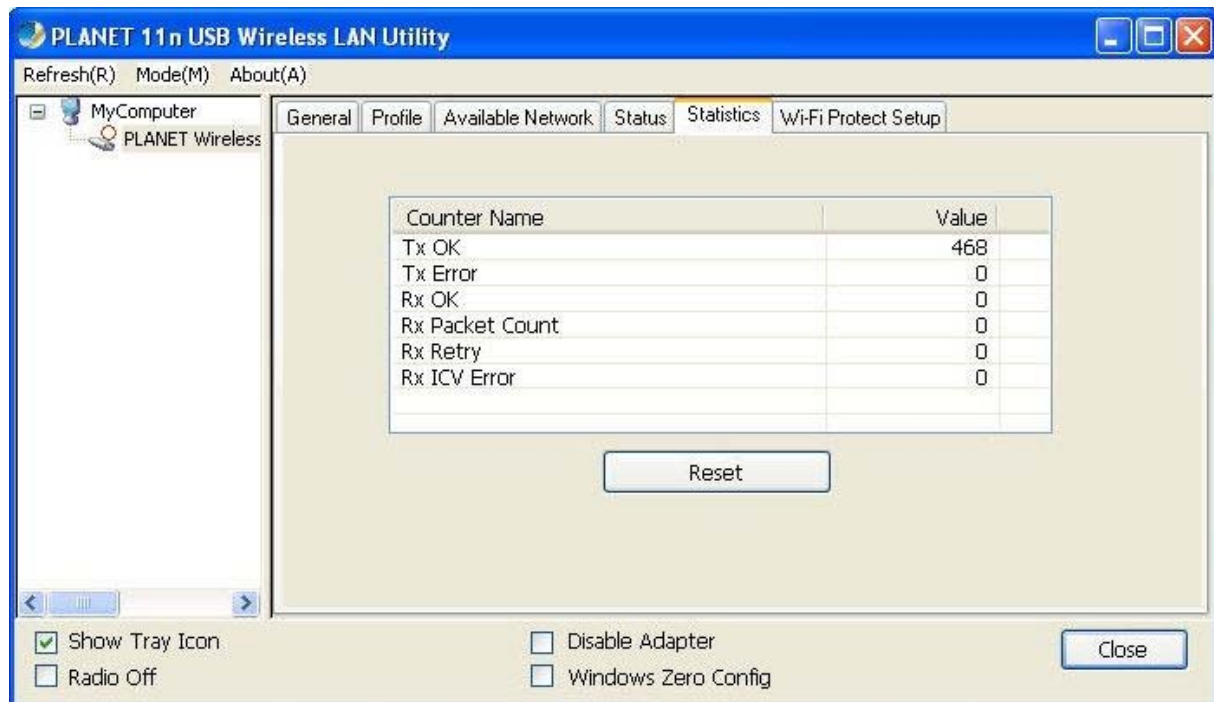
All connection-related statistics is displayed here. You can click "**Reset**" button to reset the statistics of all items back to 0.

4.3 Miscellaneous Settings

There are some other functions provided by PLANET wireless utility, and you can access these functions from the bottom of configuration window:
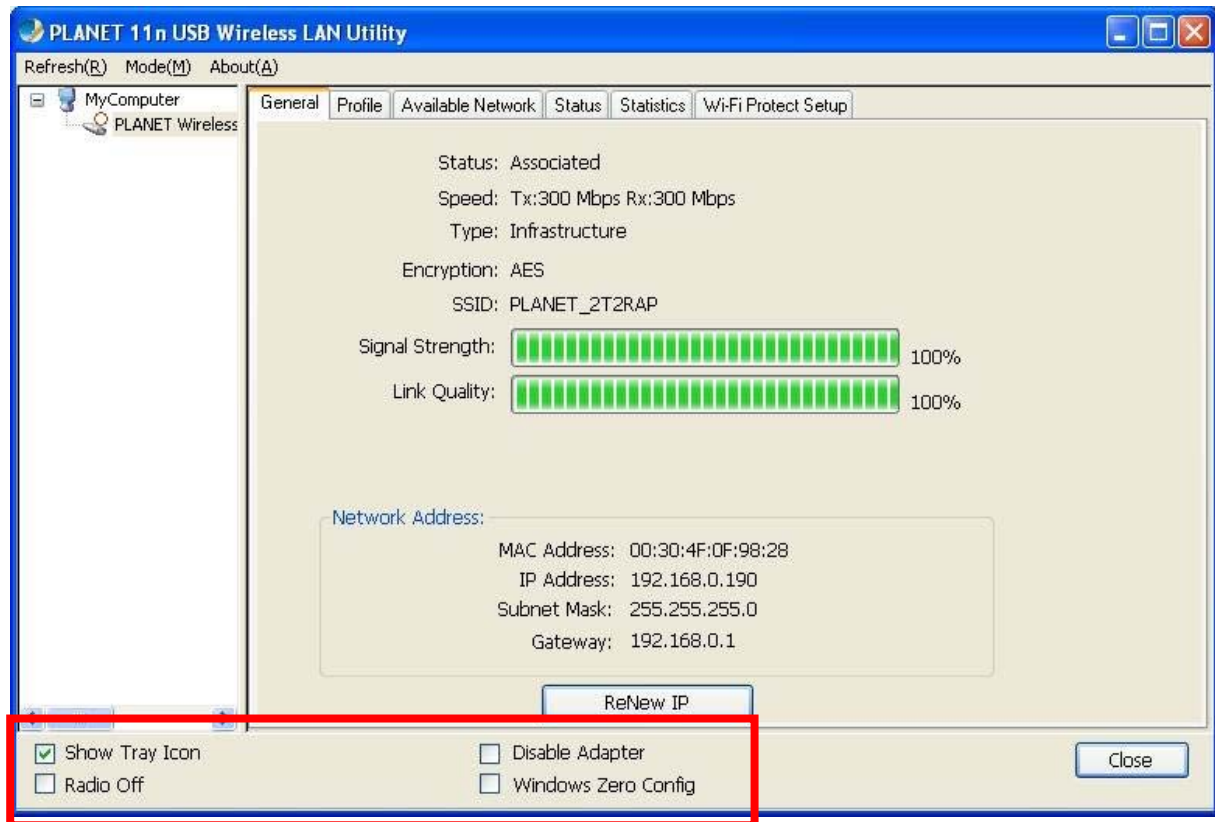
The descriptions of the function are listed as follow:

Object	Description
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 adapter. All functionalities of configuration menu will disappear. To resume, uncheck "**Disable Adapter**".
Windows Zero Config	Use Windows Zero Configuration to manage wireless connections. See **Chapter 3.2**.

4.4 Wi-Fi Protected Setup (WPS)

Wi-Fi Protected Setup (WPS) is the latest wireless network technology which makes setting up wireless network more quickly and easily. If you have WPS-supported 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 your own self.
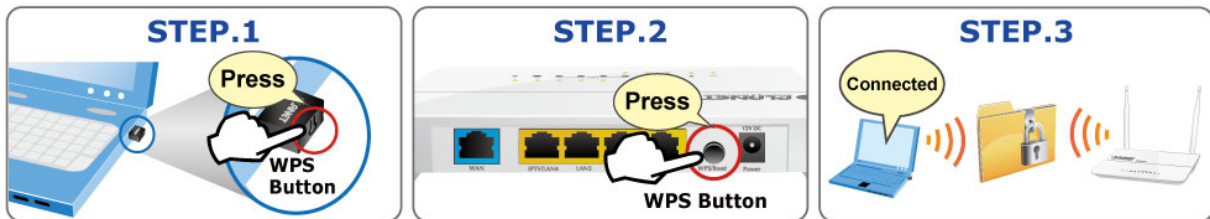
The PLANET Wireless LAN Utility supports two kinds of WPS method, "**PIN Input Config (PIN)**" and "**Push Button Config (PBC)**". Please follow the instructions below to establish the secure connection between WPS-supported wireless access point and the PLANET wireless adapter.

Step 1. Right-click PLANET wireless utility icon, and click "**Open Config Utility**".

Step 2. Click "**Wi-Fi Protect Setup**" label.

Step 3. You can choose which WPS method to use, **PIN Input Config (PIN)** or **Push Button Config (PBC)**, and WPS-supported wireless access point must use the same method. See the next two chapters for detailed instructions of each WPS method.

4.4.1 Push Button Config (PBC)

This is the easiest way to establish secure connection by WPS, but if there're more than one WPS-supported access point using Push-Button config, please use **PIN** Input Config (PIN) instead.

Step 4. Please click "**Push Button Config (PBC)**" button.
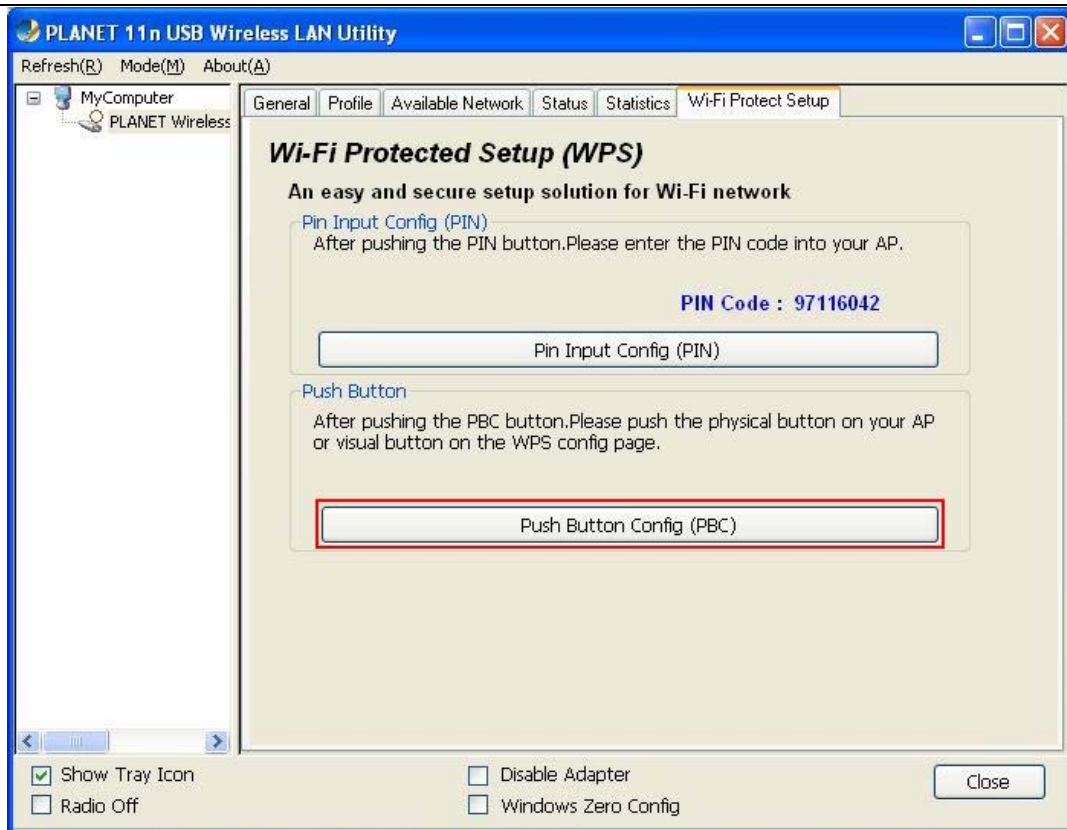
Then a message window will appear:
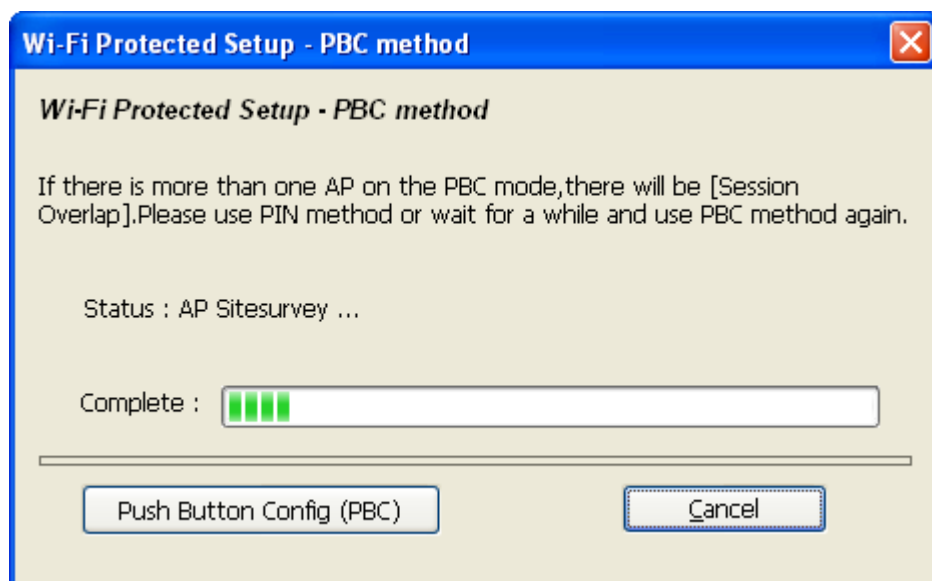
Step 5. After pushing the PBC button. Please **push the physical button** on your wireless access point or virtual button on the WPS configuration page.

Step 6. After activate WPS function of wireless access point, the secure connection between wireless adapter and the WPS-supported access point will be established automatically.

4.4.2 PIN Input Config (PIN)

Step 4. Please click "**Pin Input Config (PIN)**" button:
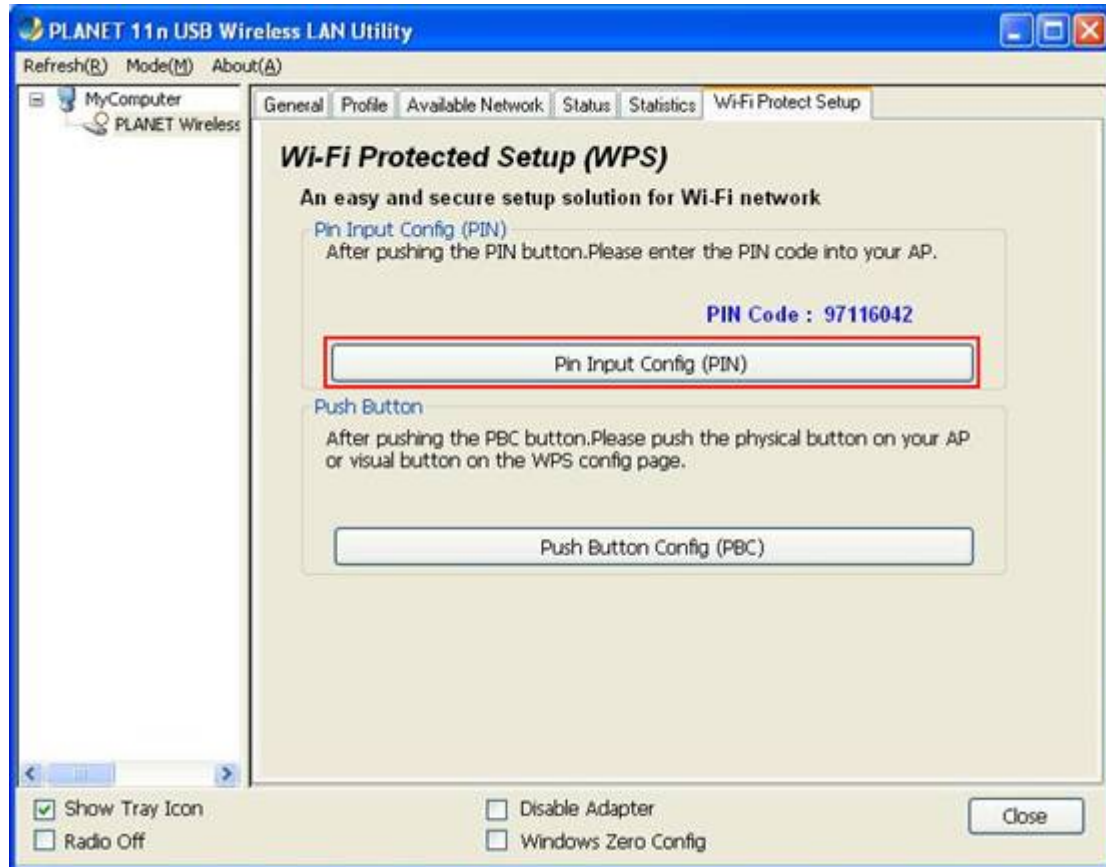
You'll be prompted to select an access point you wish to connect. If you know its SSID, click "**Yes**", otherwise click "**No**".
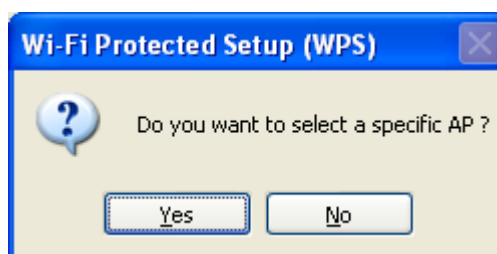
Step 5. If you select "**Yes**", a list of all WPS-supported AP nearby will be displayed. You can click "**Refresh**" button to rescan. Click an access point you want to connect and click "**Select**" button.
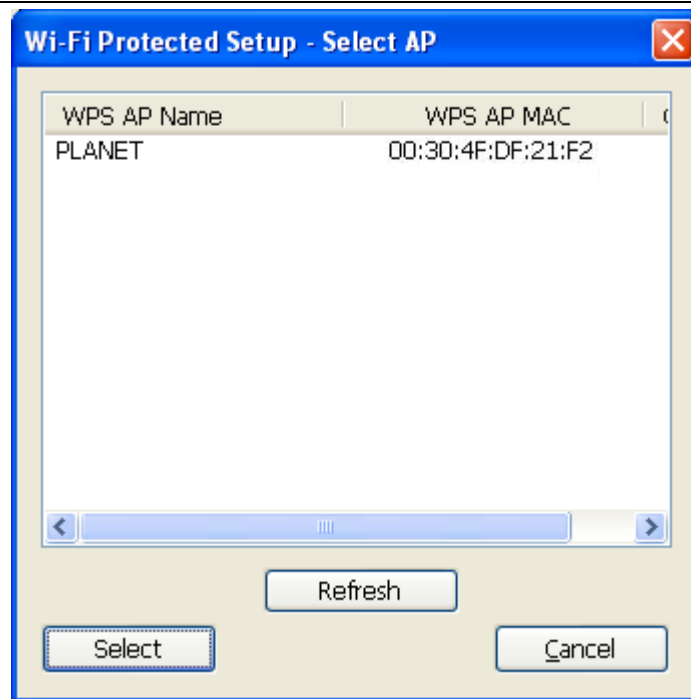
If you select "**No**", wireless adapter will prompt you to enter 8-digit PIN code into your access point, without selecting an access point in advance.

Step 6. After you select "**Yes**" or "**No**" in previous step, wireless adapter will attempt to connect to WPS-supported access point, and an 8-digit number will appear.
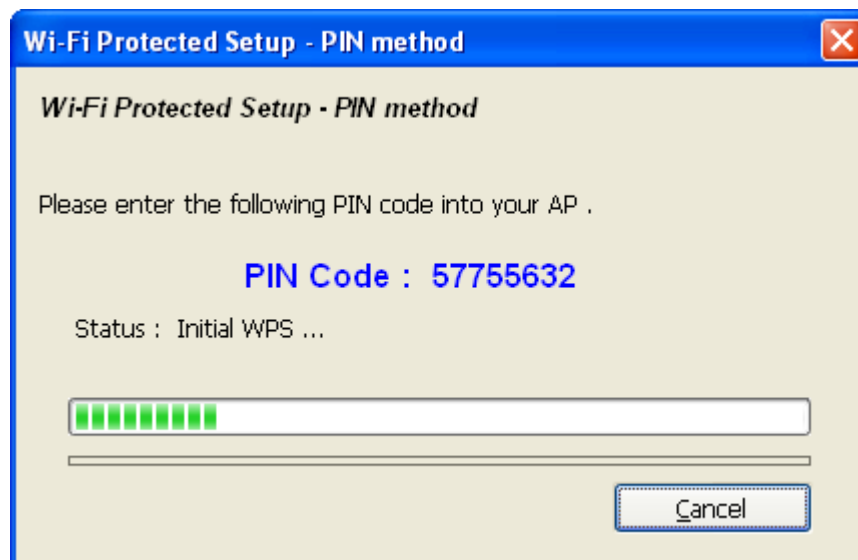
Step 7. Please input this number to the configuration of the access point within 2 minutes, and the secure connection between wireless adapter and the WPS-supported access point will be established automatically.

To stop this procedure before connection is established, click "**Cancel**" button.

Chapter 5. SOFT ACCESS POINT MODE

Excepting be a wireless client of other wireless access points, the PLANET wireless adapter can also act as a wireless service provider. You can switch the operation mode of wireless adapter to "**Access Point**" mode to simulate the function of a real wireless access point by software. And all other computers and Wi-Fi supported devices can connect to your computer wirelessly, even share your internet connection service.

■ **Application: Software AP Mode with xDSL/Cable Internet Connection**
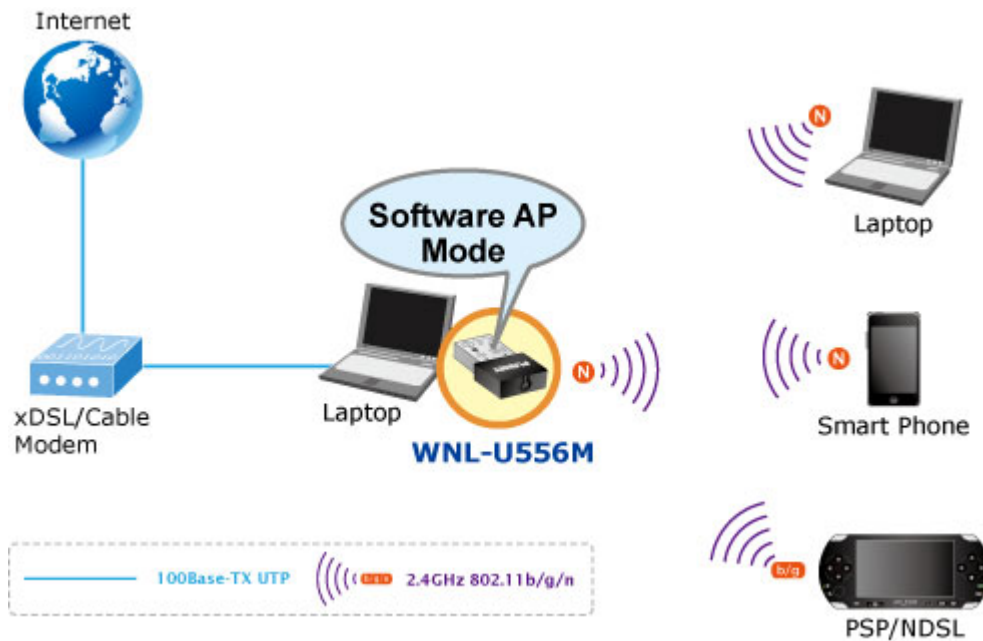
■ **Application: Software AP Mode with 3G/LTE Internet Connection**
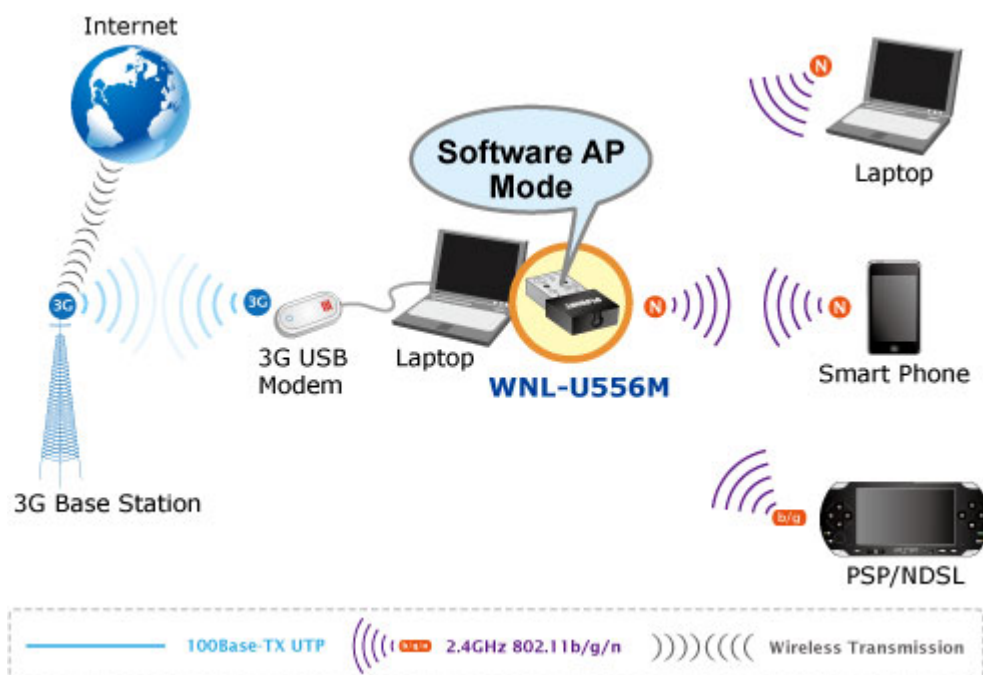
5.1 Switch between Access Point Mode and Station Mode

The default operating mode of the wireless adapter is "**Station Mode**" (being a client of other wireless access points).

Please follow the instructions below to switch to Access Point mode:

Step 1. Right-click PLANET wireless utility icon, and click "<u>**Open Config Utility**</u>".

Step 2. Select "**Mode(M)**", and then click "**Access Point**".
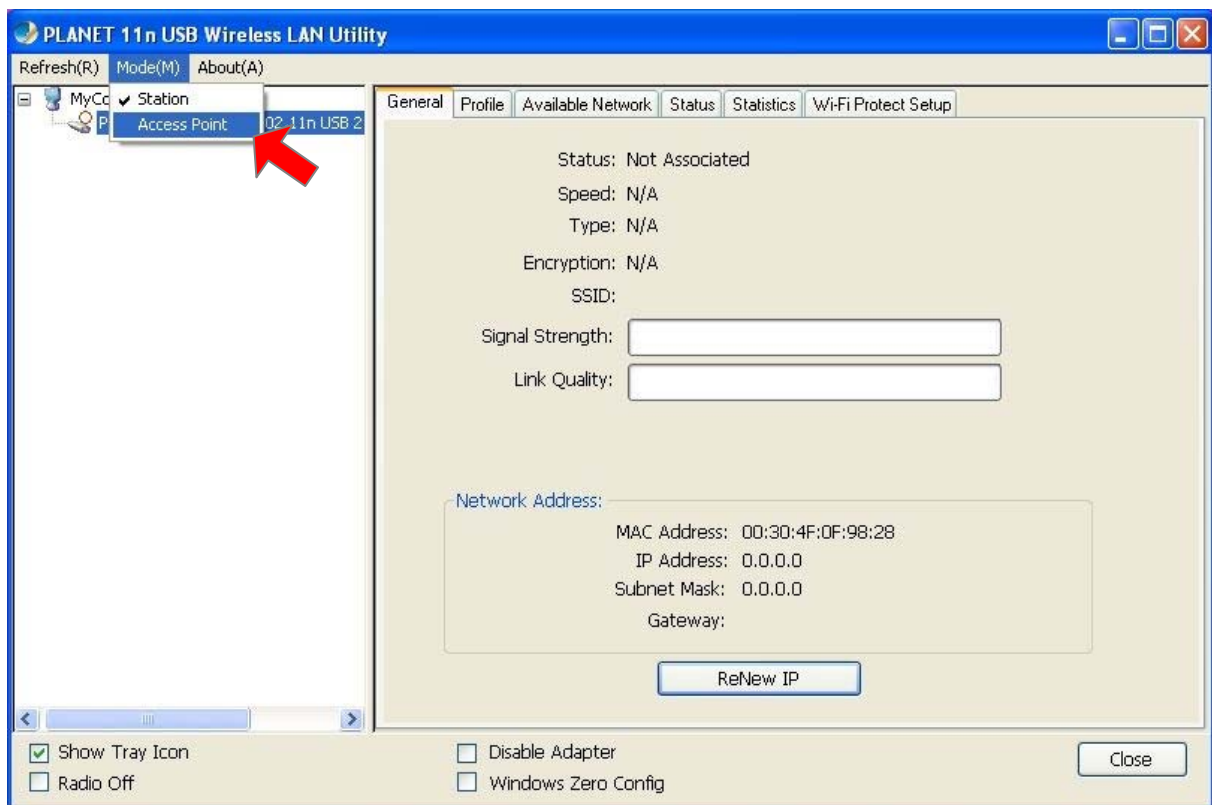
It requires few seconds to switch mode.
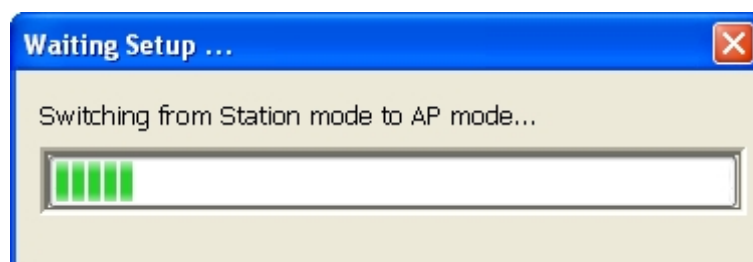
After the mode switch is complete, the window of general information about software access point will appear, includes SSID, IP address of the Soft AP and connected wireless clients.
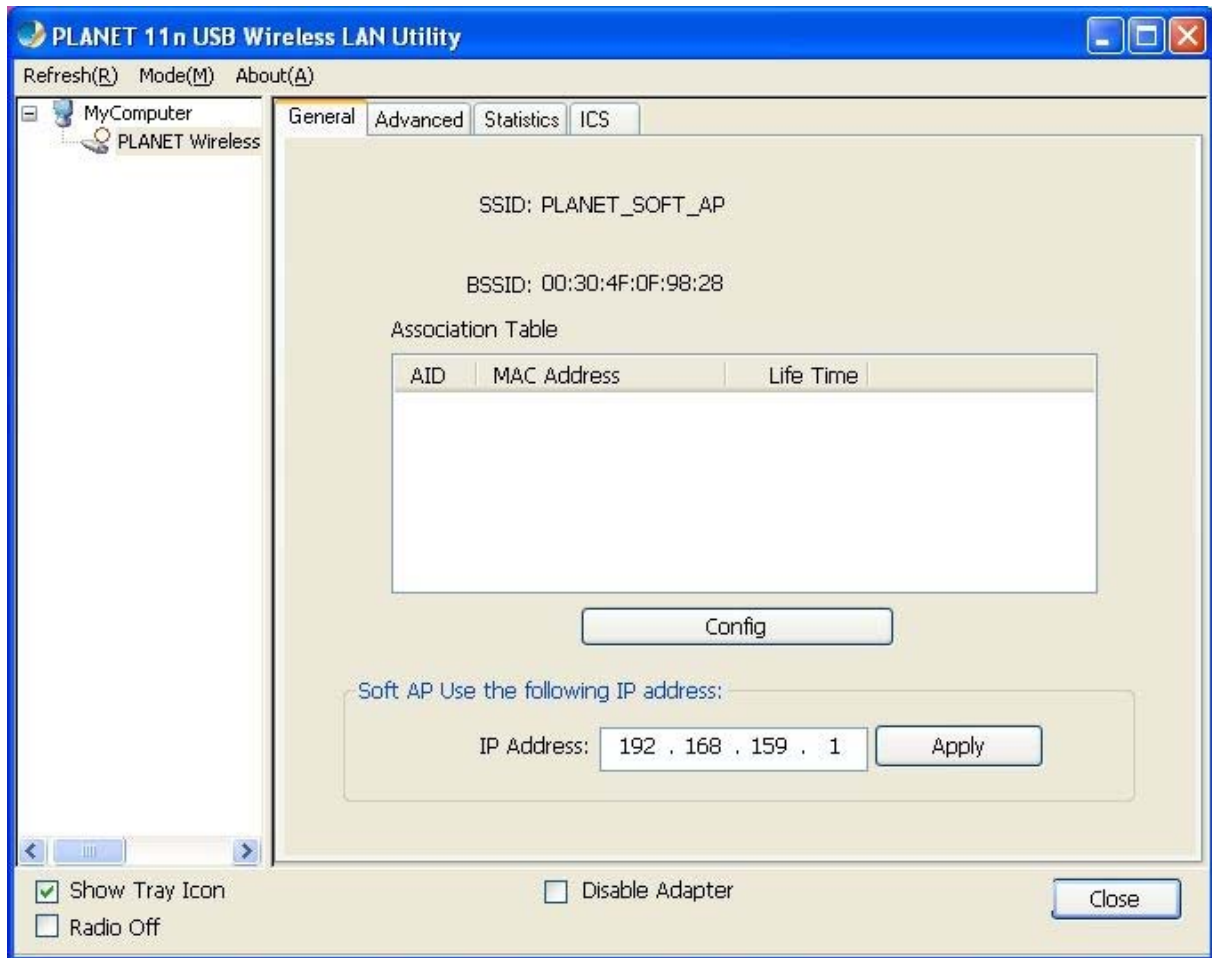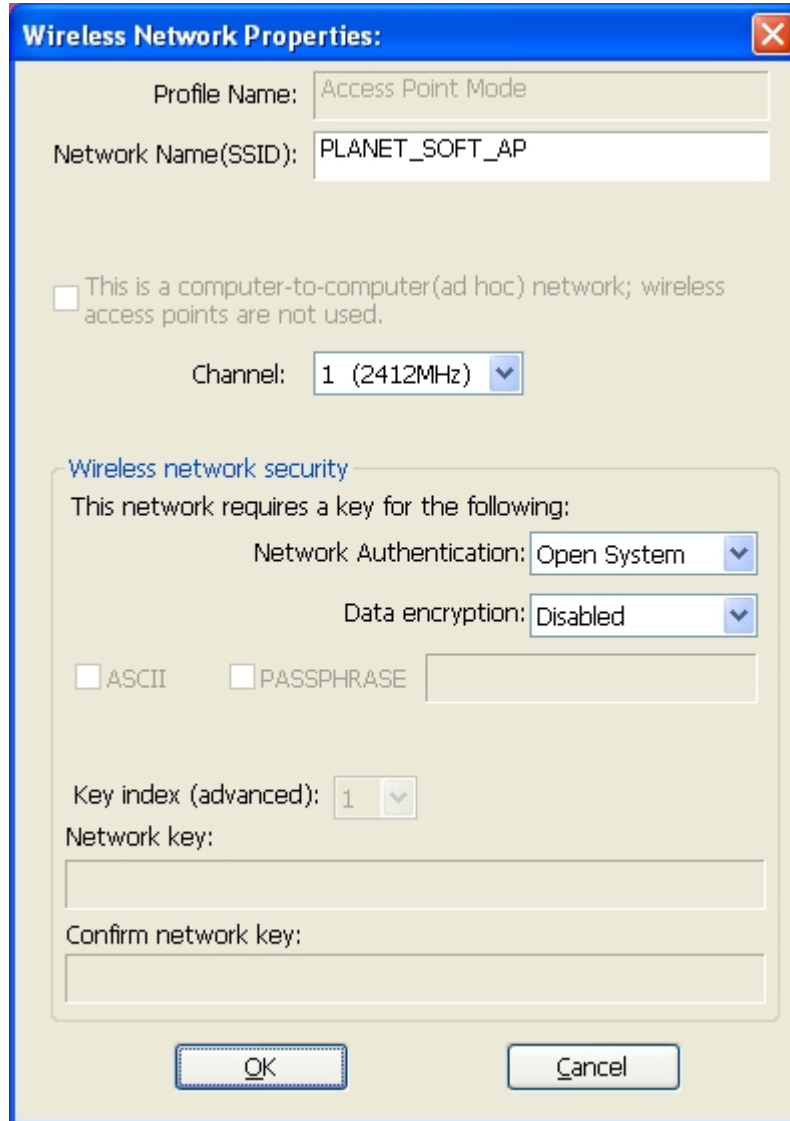
Also the wireless LAN Utility icon in you system tray (lower-right conner) be changed to another icon.

Station mode icon:

Access Point icon:

5.1.1 Configure SSID and Channel

To configure software Access Point, click "**Config**" button, and the "**Wireless Network Properties**" will be displayed.

Please note that Ad-Hoc mode is not available when the wireless adapter is in Access Point mode. The setup options are listed below:

Object	Description
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.

To save changes, click "**OK**"; otherwise click "**Cancel**" to discard changes.

5.1.2 Soft Access Point Security

To setup security options for Soft Access Point, configure "**Wireless Network Security**" as follows:

The setup items about wireless security are listed below:

Object	Description
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.

To save changes, click "**OK**"; otherwise click "**Cancel**" to discard changes.

5.2 Advanced Settings

Click "**Advanced**" label to setup advanced settings of software access point. If you don't know the meaning and affects of these settings, please keep them as default.
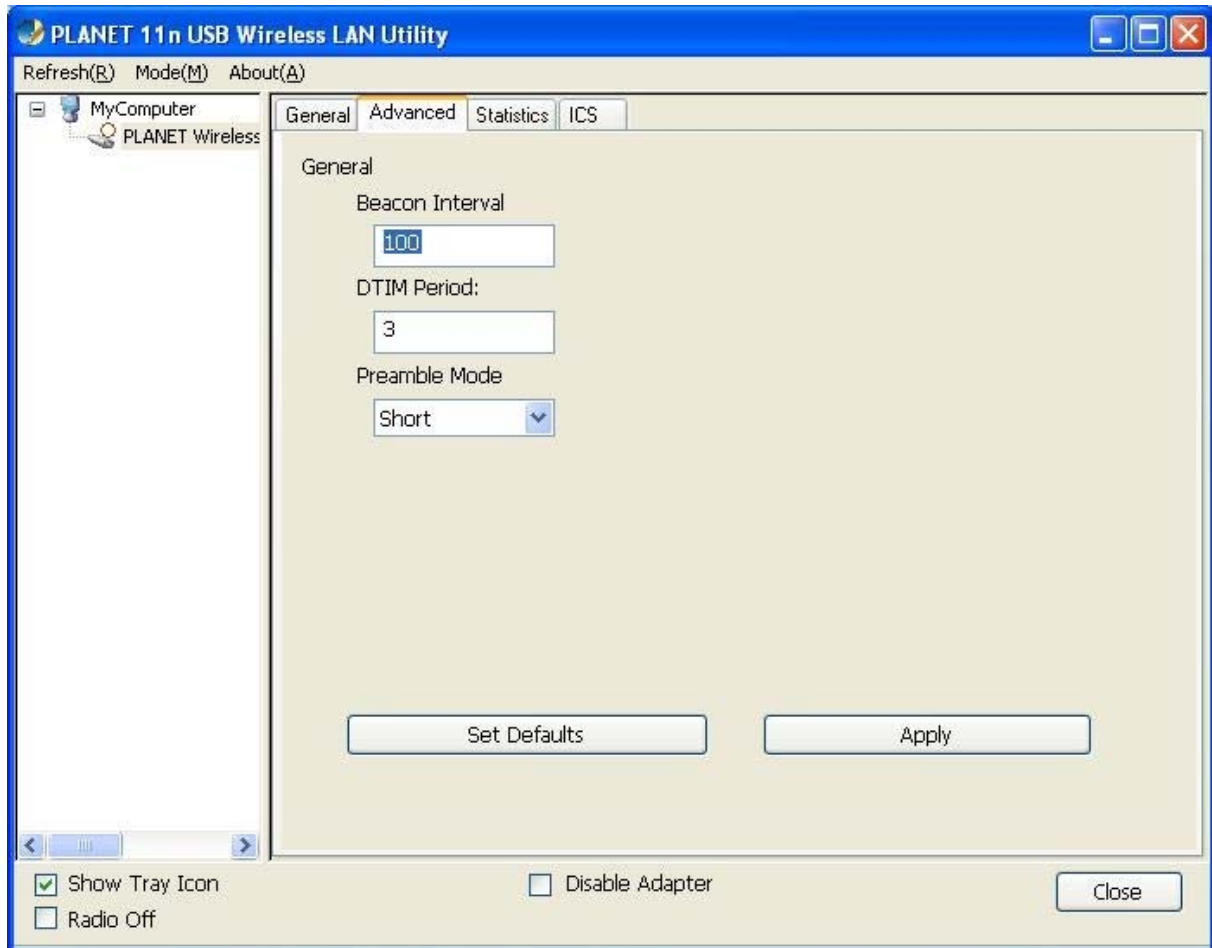
The setup items are listed below:

Object	Description
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 some problem on communicating with wireless clients, click "**Set Defaults**" to reset all settings back to default settings.

5.3 Wireless Transmission Statistics

Click "**Statistics**" label and the data statistics about software access point will be displayed.
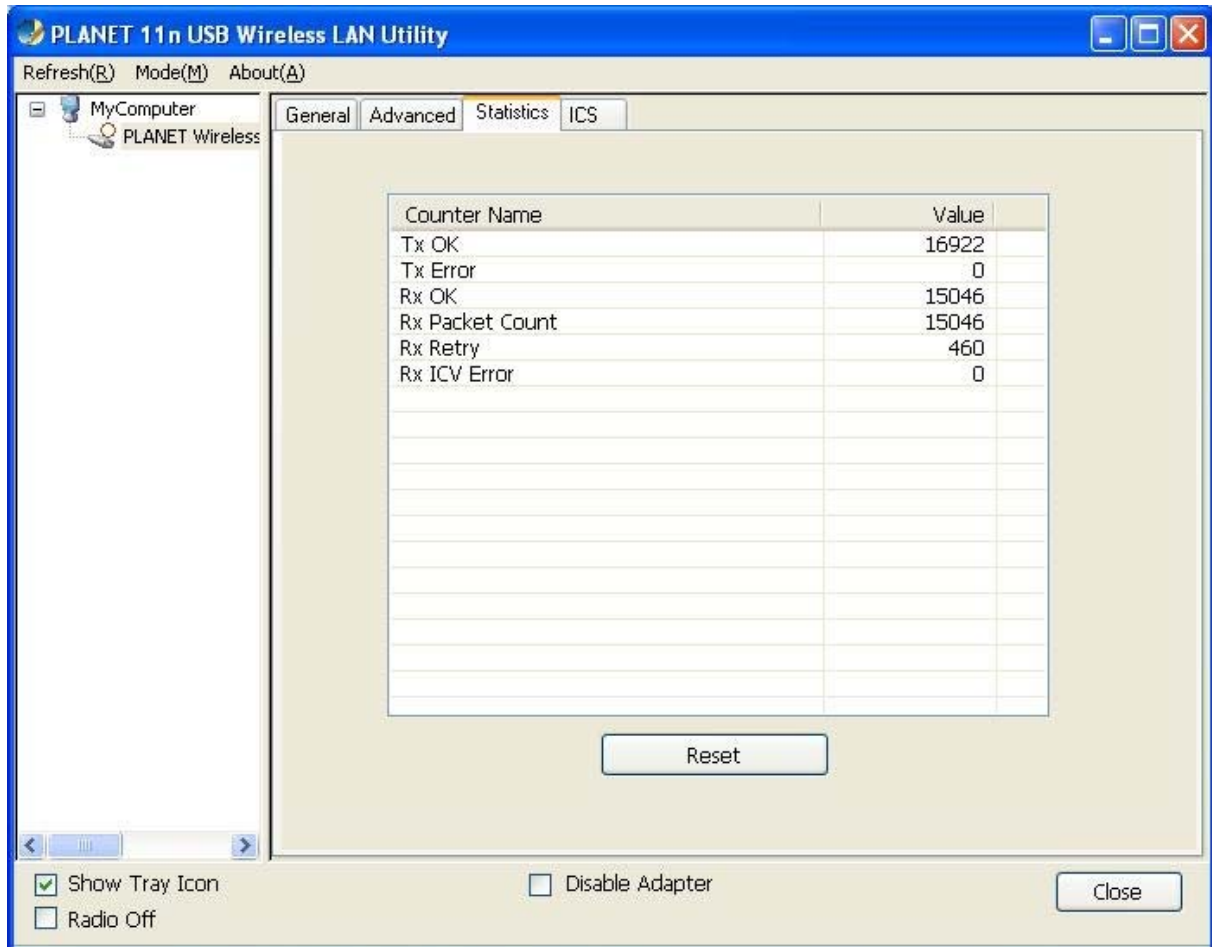
Click "**Reset**" button to reset the value of every item back to "0".

5.4   Internet Connection Sharing (ICS)

You can assign a network adapter on your computer as the path for all wireless clients to get connected to Internet.
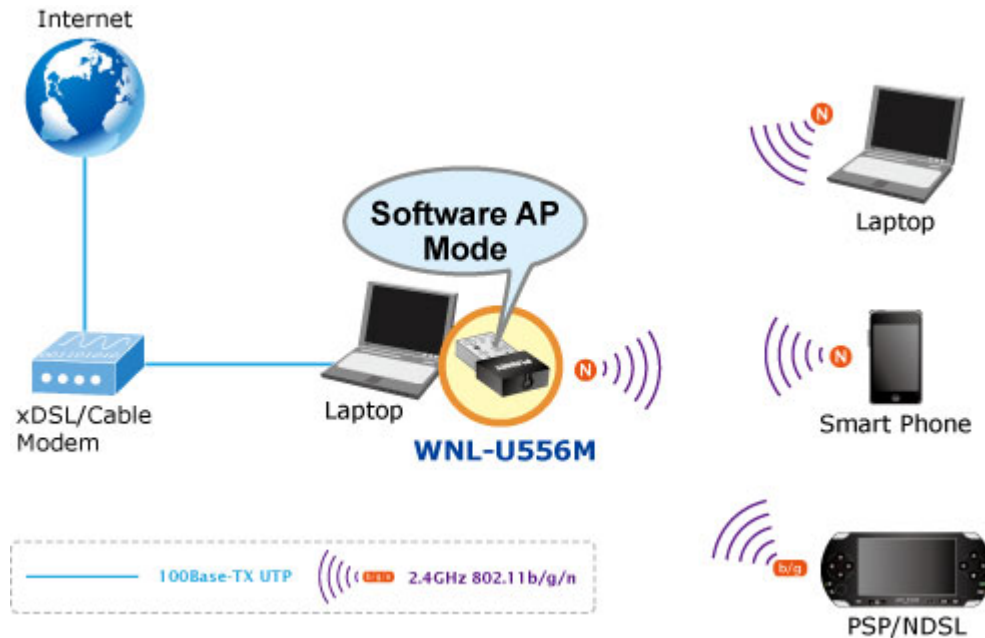
If you have only one network adapter (except the software access point), you don't have to select network adapter here.
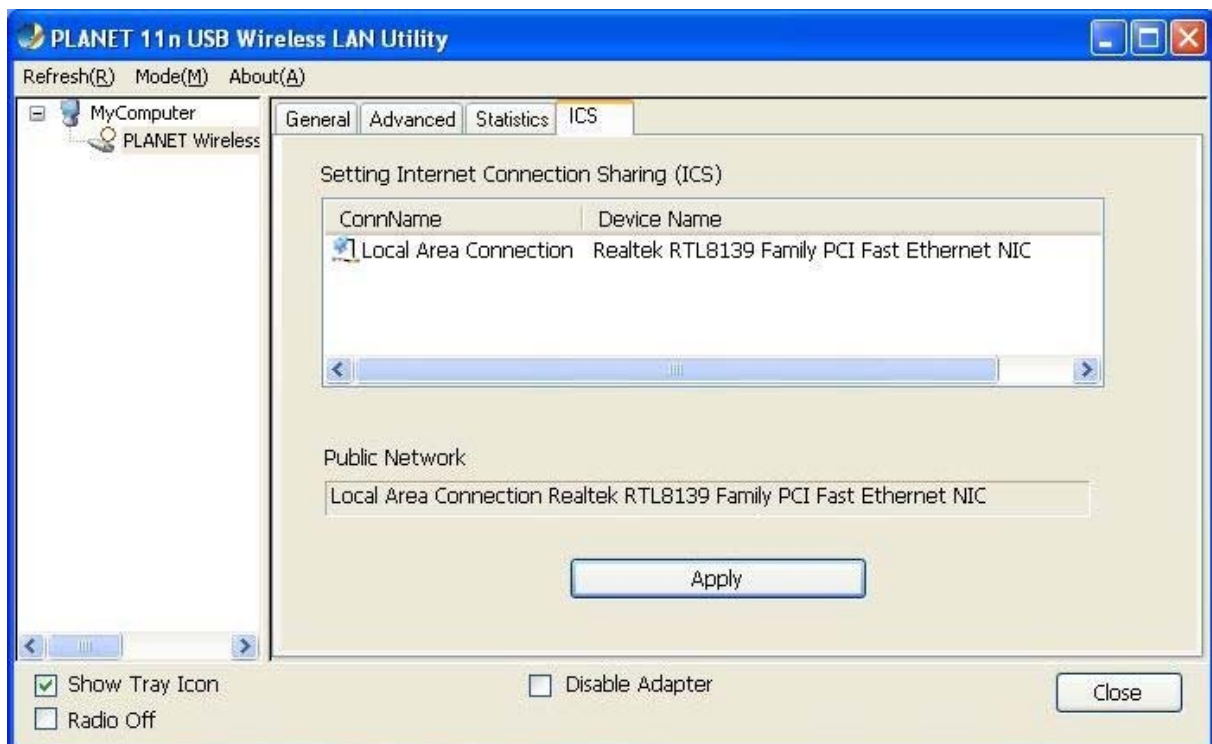
Click "**Apply**" button to save changes ("**Apply**" button is grayed out when no changes are made in this label).

If you have more than one network adapter, select the one you wish to be used as Internet gateway.

For example, the 3G USB dongle is connected to the laptop for internet access. The other portable wireless devices can enjoy the internet surfing through the software AP and 3G connection sharing.
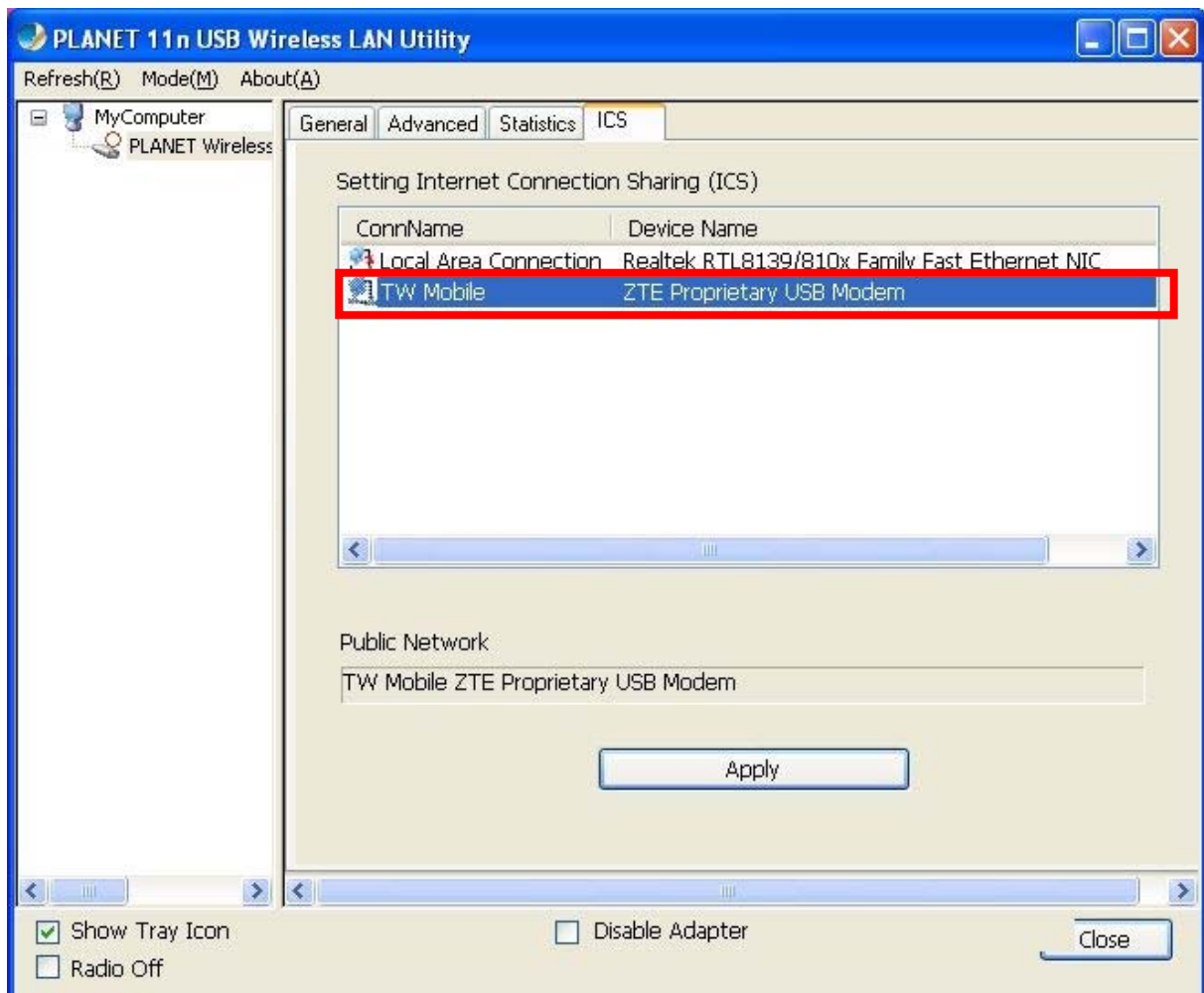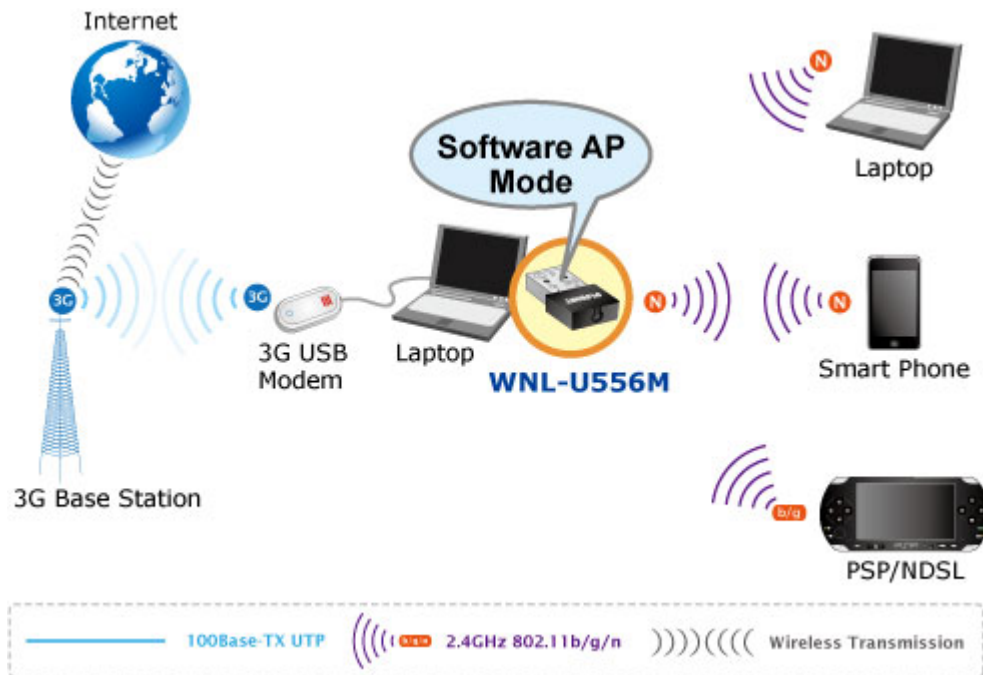
Appendix: Specifications

Product	300Mbps 802.11n Wireless Micro-size USB Adapter
Model	WNL-U556M
Hardware Specification	
Interface	USB 2.0, Type-A
Antenna Type	Internal Omni-directional PIFA Antenna
Antenna Gain	2dBi
Button	WPS Push Button (PBC mode) to launch WPS connection
LED	1 x Link / Active (Green)
Operation Voltage	5V DC, power input from USB port
Dimension	29 x 14.4 x 6mm
Wireless Specification	
Standards Conformance	IEEE 802.11n standard compliant IEEE 802.11b/g backwards compatible
RF Modulation	DBPSK,DQPSK,CCK, OFDM
Frequency Band	2.4-2.4835 GHz
Opt. Channel	America/ FCC: 2.414~2.462GHz (11 Channels) Europe/ ETSI: 2.412~2.472GHz (13 Channels) Japan/ TELEC: 2.412~2.484GHz (14 Channels)
Data Rate	802.11b: 11, 5.5, 2 and 1 Mbps with auto-rate fall back 802.11g: 54, 48, 36, 24, 18, 12, 9 and 6Mbps 802.11n (20MHz): up to 144.4Mbps 802.11n (40MHz): up to 300Mbp
Wireless Transmit Power (EIRP)	802.11b: 18 ± 1dBm 802.11g: 15 ± 1dBm 802.11n: 13 ± 1dBm
Receiver Sensitivity	IEEE 802.11b: -85dBm IEEE 802.11g: -70dBm IEEE 802.11n: -68dBm
Operating Mode	Ad-Hoc / Infrastructure, Soft AP
Encryption Security	WEP 64/128-bit WPA / WPA2 (TKIP/AES) WPA-PSK / WPA2-PSK (TKIP/AES)
Wireless Advanced	Supports 802.11e WMM (Wi-Fi Multimedia) Supports Software/Hardware WPS (Wi-Fi Protected Setup)
Management	The utility included in the package or Windows XP Zero Configuration utility

Operating systems	Windows 2000/XP (x86/x64) / VISTA (x86/x64) / Win7 (x86/x64)
	Linux Kernel 2.4 /2.6
	Macintosh 10.4/10.5/10.6
Effective Distance	12 meters
Certification	
Emission	CE, FCC
Environment	
Operating Temperature	0°C~40°C (32°F~104°F)
Humidity	10% ~ 90%, non condensation
Package Content	■ WNL-U556M(300Mbps 802.11n Wireless Micro-Size USB adapter)
	■ Quick Installation Guide
	■ CD (includes driver/utility/user's manual)

Appendix: Troubleshooting

Symptom :	The LED is off.
Remedy :	Make sure the PC Card is inserted properly. Otherwise contact your vendor.
Symptom :	**The LED is always on not blinking.**
Remedy :	Make sure that you have installed the driver from attached CD. Otherwise contact your vendor.
Symptom :	The LED is blinking but the PC Card icon does not appear in your icon tray.
Remedy :	Make sure that you have installed the Utility from the attached CD.
Symptom :	The PC Card is linking, but can't share files with others.
Remedy :	Make sure the **file and printer sharing** function is enabled. You can enable the function by checking the icon of **My Computer -> Control Panel -> Network -> file and printer sharing -> I want to be able to give others to access to my files**.
Symptom :	Slow or poor performance under AP mode
Remedy :	Try to select another channel for the communicating group or move your device closer to the Access Point.

Appendix: Glossary

1. IEEE 802.11 Standard

The IEEE 802.11 Wireless LAN standards subcommittee, which is formulating a standard for the industry.

2. Access Point

An internetworking device that seamlessly connects wired and wireless networks together.

3. Ad Hoc

An Ad Hoc wireless LAN is a group of computers, each with a WLAN adapter, connected as an independent wireless LAN

Ad Hoc wireless LAN is applicable at a departmental scale for a branch or SOHO operation.

4. BSSID

A specific Ad Hoc LAN is called a Basic Service Set (BSS). Computers in a BSS must be configured with the same BSSID.

5. DHCP

Dynamic Host Configuration Protocol - a method in which IP addresses are assigned by server dynamically to clients on the network. DHCP is used for Dynamic IP Addressing and requires a dedicated DHCP server on the network.

6. Direct Sequence Spread Spectrum

This is the method the wireless cards use to transmit data over the frequency spectrum. The other method is frequency hopping. Direct sequence spreads the data over one frequency range (channel) while frequency hopping jumps from one narrow frequency band to another many times per second.

7. ESSID

An Infrastructure configuration could also support roaming capability for mobile workers. More than one BSS can be configured as an Extended Service Set (ESS). Users within an ESS could roam freely between BSSs while served as a continuous connection to the network wireless stations and Access Points within an ESS must be configured with the same ESSID and the same radio channel.

8. Ethernet

Ethernet is a 10/100Mbps network that runs over dedicated home/office wiring. Users must be wired to the network at all times to gain access.

9. Gateway

A gateway is a hardware and software device that connects two dissimilar systems, such as a LAN and a mainframe. In Internet terminology, a gateway is another name for a router. Generally a gateway is used as a funnel for all traffic to the Internet

10. IEEE

Institute of Electrical and Electronics Engineers Infrastructure. An integrated wireless and wired LAN is called an Infrastructure configuration. Infrastructure is applicable to enterprise scale for wireless access to central database, or wireless

11. ISM Band

The FCC and their counterparts outside of the U.S. have set aside bandwidth for unlicensed use in the so-called ISM (Industrial, Scientific and Medical) band. Spectrum in the vicinity of 2.4 GHz, in particular, is being made available (Industrial, Scientific and Medical) band. Spectrum in the vicinity of 2.4 GHz, in particular, is being made available of users around the globe.

12. Local Area Network (LAN)

A LAN is a group of computers, each equipped with the appropriate network adapter card connected by cable/air, that share applications, data, and peripherals. All connections are made via cable or wireless media, but a LAN does not use telephone services. It typically spans a single building or campus.

13. Network

A network is a system of computers that is connected. Data, files, and messages can be transmitted over this network. Networks may be local or wide area networks.

14. Protocol

A protocol is a standardized set of rules that specify how a conversation is to take place, including the format, timing, sequencing and/ or error checking.

15. SSID

A Network ID unique to a network. Only clients and Access Points that share the same SSID are able to communicate with each other. This string is case-sensitive.

16. Static IP Addressing

A method of assigning IP addresses to clients on the network. In networks with Static IP address, the network administrator manually assigns an IP address to each computer. Once a Static IP address is assigned, a computer uses the same IP address every time it reboots and logs on to the network, unless it is manually changed.

17. Temporal Key Integrity Protocol (TKIP)

The Temporal Key Integrity Protocol, pronounced tee-kip, is part of the IEEE 802.11i encryption standard for wireless LANs. TKIP is the next generation of WEP, the Wired Equivalency Protocol, which is used to secure 802.11 wireless LANs. TKIP provides per-packet key mixing, a message integrity check and a re-keying mechanism, thus fixing the flaws of WEP.

18. Transmission Control Protocol / Internet Protocol (TCP/IP)

TCP/IP is the protocol suite developed by the Advanced Research Projects Agency (ARPA). It is widely used in corporate Internet works, because of its superior design for WANs. TCP governs how packet is sequenced for transmission the network. The term "TCP/IP" is often used generically to refer to the entire suite of related protocols.

19. Transmit / Receive

The wireless throughput in Bytes per second averaged over two seconds.

20. Wi-Fi Alliance

The Wi-Fi Alliance is a nonprofit international association formed in 1999 to certify interoperability of wireless Local Area Network products based on IEEE 802.11 specification. The goal of the Wi-Fi Alliance's members is to enhance the user experience through product interoperability. The organization is formerly known as WECA.

21. Wi-Fi Protected Access (WPA)

The Wi-Fi Alliance put together WPA as a data encryption method for 802.11 wireless LANs. WPA is an industry-supported, pre-standard version of 802.11i utilizing the Temporal Key Integrity Protocol (TKIP), which fixes the problems of WEP, including using dynamic keys.

22. Wide Area Network (WAN)

A WAN consists of multiple LANs that are tied together via telephone services and / or fiber optic cabling. WANs may span a city, a state, a country, or even the world

23. Wired Equivalent Privacy (WEP)

Now widely recognized as flawed, WEP was a data encryption method used to protect the transmission between 802.11 wireless clients and APs. However, it used the same key among all communicating devices. WEP's problems are well-known, including an insufficient key length and no automated method for distributing the keys. WEP can be easily cracked in a couple of hours with off-the-shelf tools.

24. Wireless LAN (WLAN)

A wireless LAN does not use cable to transmit signals, but rather uses radio or infrared to transmit packets through the air. Radio Frequency (RF) and infrared are the commonly used types of wireless transmission. Most wireless LANs use spread spectrum technology. It offers limited bandwidth, usually under 11Mbps, and users share the bandwidth with other devices in the spectrum; however, users can operate a spread spectrum device without licensing from the Federal Communications Commission (FCC).

25. Fragment Threshold

The proposed protocol uses the frame fragmentation mechanism defined in IEEE 802.11 to achieve parallel transmissions. A large data frame is fragmented into several fragments each of size equal to fragment threshold. By tuning the fragment threshold value, we can get varying fragment sizes. The determination of an efficient fragment threshold is an important issue in this scheme. If the fragment threshold is small, the overlap part of the master and parallel transmissions is large.

This means the spatial reuse ratio of parallel transmissions is high. In contrast, with a large fragment threshold, the overlap is small and the spatial reuse ratio is low. However high fragment threshold leads to low fragment overhead. Hence there is a trade-off between spatial re-use and fragment overhead. Fragment threshold is the maximum packet size used for fragmentation. Packets larger than the size programmed in this field will be fragmented If you find that your corrupted packets or asymmetric packet reception (all send packets, for example). You may want to try lowering your fragmentation threshold. This will cause packets to be broken into smaller fragments. These small fragments, if corrupted, can be resent faster than a larger fragment. Fragmentation increases

overhead, so you'll want to keep this value as close to the maximum value as possible.

26. RTS(Request To Send) Threshold

The RTS threshold is the packet size at which packet transmission is governed by the RTS/CTS transaction. The IEEE802.11-1997 standard allows for short packets to be transmitted without RTS/CTS transactions. Each station can have a different RTS threshold. RTS/CTS is used when the data packet size exceeds the defined RTS threshold. With the CSMA/CA transmission mechanism, the transmitting station sends out an RTS packet to the receiving station, and waits for the receiving station to send back a CTS (Clear to Send) packet before sending the actual packet data. This setting is useful for networks with many clients. With many clients, and a high network load, there will be many more collisions. By lowering the RTS threshold, there may be fewer collisions, and performance should improve. Basically, with a faster RTS threshold, the system can recover from problems faster. RTS packets consume valuable bandwidth, however, so setting this value too low will limit performance.

27. Beacon Interval

In addition to data frames that carry information from higher layers, 802.11 includes management and control frames that support data transfer. The beacon frame, which is a type of management frame, provides the "heartbeat" of a wireless LAN, enabling stations to establish and maintain communications in an orderly fashion. Beacon Interval represents the amount of time between beacon transmissions. Before a station enters power save mode, the station needs the beacon interval to know when to wake up to receive the beacon (and learn whether there are buffered frames at the access point).

28. Preamble Type

There are two preamble types defined in IEEE 802.11 specification. A long preamble basically gives the decoder more time to process the preamble. All 802.11 devices support a long preamble. The short preamble is designed to improve efficiency (for example, for VoIP systems). The difference between the two is in the Synchronization field. The long preamble is 128 bits, and the short is 56 bits.

29. WPA2

It is the second generation of WPA. WPA2 is based on the final IEEE 802.11i amendment to the 802.11 standard.

30. Temporal Key Integrity Protocol (TKIP)

The Temporal Key Integrity Protocol, pronounced tee-kip, is part of the IEEE 802.11i encryption standard for wireless LANs. TKIP is the next generation of WEP, the Wired Equivalency Protocol, which is used to secure 802.11 wireless LANs. TKIP provides per-packet key mixing, a message integrity check and a re-keying mechanism, thus fixing the flaws of WEP.

31. 802.1x Authentication

802.1x is a framework for authenticated MAC-level access control, defines Extensible Authentication Protocol (EAP) over LANs (WAPOL). The standard encapsulates and leverages much of EAP, which was defined for dial-up authentication with Point-to-Point Protocol in RFC 2284. Beyond encapsulating EAP packets, the 802.1x standard also defines EAPOL messages that convey the shared key information critical for wireless security.

32. Advanced Encryption Standard (AES)

Security issues are a major concern for wireless LANs, AES is the U.S. government's next-generation cryptography algorithm, which will replace DES and 3DES.

Appendix: FAQ

1. **What is WMM?**

Wi-Fi Multimedia (WMM), a group of features for wireless networks that improve the user experience for audio, video and voice applications. WMM is based on a subset of the IEEE 802.11e WLAN QoS draft standard. WMM adds prioritized capabilities to Wi-Fi networks and optimizes their performance when multiple concurring applications, each with different latency and throughput requirements, compete for network resources. By using WMM, end-user satisfaction is maintained in a wider variety of environments and traffic conditions. WMM makes it possible for home network users and enterprise network managers to decide which data streams are most important and assign them a higher traffic priority.

2. **What is WMM Power Save?**

WMM Power Save is a set of features for Wi-Fi networks that increase the efficiency and flexibility of data transmission in order to conserve power. WMM Power Save has been optimized for mobile devices running latency-sensitive applications such as voice, audio, or video, but can benefit any Wi-Fi device. WMM Power Save uses mechanisms included in the IEEE 802.11e standard and is an enhancement of IEEE 802.11 legacy power saves. With WMM Power Save, the same amount of data can be transmitted in a shorter time while allowing the Wi-Fi device to remain longer in a low-power "dozing" state.

3. **What is GI?**

GI stands for Guard Interval. It's a measure to protect wireless devices from cross- interference. If there are two wireless devices using the same or near channel, and they are close enough, radio interference will occur and reduce the radio resource usability.

4. **What is STBC?**

STBC stands for Space-Time Block Coding, which is a technique used to transfer multiple copies of data by multiple antenna, to improve data transfer performance. By using multiple antennas, not only data transfer rate is improved, but also the wireless stability.

PLANET
Networking & Communication

EC Declaration of Conformity

For the following equipment:

*Type of Product : 300Mbps 802.11n Wireless Micro-Size USB Adapter
*Model Number : WNL-U556M

* Produced by:
Manufacturer's Name : **Planet Technology Corp.**
Manufacturer's Address: 10F., No.96, Minquan Rd., Xindian Dist.,
New Taipei City 231, Taiwan (R.O.C.)

is herewith confirmed to comply with the requirements set out in the Council Directive on the Approximation of the Laws of the Member States relating to 99/5/EC R&TTE.
For the evaluation regarding the R&TTE the following standards were applied:

EN 300 328 V1.7.1	(2006-10)
EN 301 489-1 V1.8.1	(2008-04)
EN 301 489-17 V2.1.1	(2009-05)
EN 60950-1	(2006 + A11:2009 + A1:2010)

Responsible for marking this declaration if the:

☒ **Manufacturer** ☐ **Authorized representative established within the EU**

Authorized representative established within the EU (if applicable):

Company Name: **Planet Technology Corp.**

Company Address: **10F., No.96, Minquan Rd., Xindian Dist., New Taipei City 231, Taiwan (R.O.C.)**

Person responsible for making this declaration

Name, Surname **Kent Kang**

Position / Title : **Product Manager**

__Taiwan__ **5th Nov., 2012**
Place *Date* *Legal Signature*

PLANET TECHNOLOGY CORPORATION

EC Declaration of Conformity

English	Hereby, **PLANET Technology Corporation,** declares that this **802.11n Wireless USB Adapter** is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.	**Lietuviškai**	Šiuo **PLANET Technology Corporation,,** skelbia, kad **802.11n Wireless USB Adapter** tenkina visus svarbiausius 1999/5/EC direktyvos reikalavimus ir kitas svarbias nuostatas.
Česky	Společnost **PLANET Technology Corporation,** tímto prohlašuje, že tato **802.11n Wireless USB Adapter** splňuje základní požadavky a další příslušná ustanovení směrnice 1999/5/EC.	**Magyar**	A gyártó **PLANET Technology Corporation**, kijelenti, hogy ez a **802.11n Wireless USB Adapter** megfelel az 1999/5/EK irányelv alapkövetelményeinek és a kapcsolódó rendelkezéseknek.
Dansk	**PLANET Technology Corporation,** erklærer herved, at følgende udstyr **802.11n Wireless USB Adapter** overholder de væsentlige krav og øvrige relevante krav i direktiv 1999/5/EF	**Malti**	Hawnhekk, **PLANET Technology Corporation,** jiddikjara li dan **802.11n Wireless USB Adapter** jikkonforma mal-ħtiġijiet essenzjali u ma provvedimenti oħrajn relevanti li hemm fid-Dirrettiva 1999/5/EC
Deutsch	Hiermit erklärt **PLANET Technology Corporation,** dass sich dieses Gerät **802.11n Wireless USB Adapter** in Übereinstimmung mit den grundlegenden Anforderungen und den anderen relevanten Vorschriften der Richtlinie 1999/5/EG befindet". (BMWi)	**Nederlands**	Hierbij verklaart , **PLANET Technology orporation,** dat **802.11n Wireless USB Adapter** in overeenstemming is met de essentiële eisen en de andere relevante bepalingen van richtlijn 1999/5/EG
Eesti keeles	Käesolevaga kinnitab **PLANET Technology Corporation,** et see **802.11n Wireless USB Adapter** vastab Euroopa Nõukogu direktiivi 1999/5/EC põhinõuetele ja muudele olulistele tingimustele.	**Polski**	Niniejszym firma **PLANET Technology Corporation,** oświadcza, że **802.11n Wireless High Power USB Adapter** spełnia wszystkie istotne wymogi i klauzule zawarte w dokumencie „Directive 1999/5/EC".
Ελληνικά	*ΜΕ ΤΗΝ ΠΑΡΟΥΣΑ ,* **PLANET Technology Corporation,** *ΔΗΛΩΝΕΙ ΟΤΙ ΑΥΤΟ* **802.11n Wireless USB Adapter***ΣΥΜΜΟΡΦΩΝΕΤΑΙ ΠΡΟΣ ΤΙΣ ΟΥΣΙΩΔΕΙΣ ΑΠΑΙΤΗΣΕΙΣ ΚΑΙ ΤΙΣ ΛΟΙΠΕΣ ΣΧΕΤΙΚΕΣ ΔΙΑΤΑΞΕΙΣ ΤΗΣ ΟΔΗΓΙΑΣ 1999/5/ΕΚ*	**Português**	**PLANET Technology Corporation**, declara que este **802.11n Wireless USB Adapter** está conforme com os requisitos essenciais e outras disposições da Directiva 1999/5/CE.
Español	Por medio de la presente, **PLANET Technology Corporation,** declara que **802.11n Wireless USB Adapter** cumple con los requisitos esenciales y cualesquiera otras disposiciones aplicables o exigibles de la Directiva 1999/5/CE	**Slovensky**	Výrobca **PLANET Technology Corporation,** týmto deklaruje, že táto **802.11n Wireless USB Adapter** je v súlade so základnými požiadavkami a ďalšími relevantnými predpismi smernice 1999/5/EC.
Français	Par la présente, **PLANET Technology Corporation,** déclare que les appareils du **802.11n Wireless USB Adapter** sont conformes aux exigences essentielles et aux autres dispositions pertinentes de la directive 1999/5/CE	**Slovensko**	**PLANET Technology Corporation, s tem potrjuje,** da je ta **802.11n Wireless USB Adapter** skladen/a z osnovnimi zahtevami in ustreznimi določili Direktive 1999/5/EC.
Italiano	Con la presente , **PLANET Technology Corporation,** dichiara che questo **802.11n Wireless USB Adapter** è conforme ai requisiti essenziali ed alle altre disposizioni pertinenti stabilite dalla direttiva 1999/5/CE.	**Suomi**	**PLANET Technology Corporation,** vakuuttaa täten että **802.11n Wireless USB Adapter** tyyppinen laite on direktiivin 1999/5/EY oleellisten vaatimusten ja sitä koskevien direktiivin muiden ehtojen mukainen.
Latviski	Ar šo **PLANET Technology Corporation,** apliecina, ka šī **802.11n Wireless USB Adapter** atbilst Direktīvas 1999/5/EK pamatprasībām un citiem atbilstošiem noteikumiem.	**Svenska**	Härmed intygar, **PLANET Technology Corporation,** att denna **802.11n Wireless USB Adapter** står i överensstämmelse med de väsentliga egenskapskrav och övriga relevanta bestämmelser som framgår av direktiv 1999/5/EG.