
Clipper User Manual

300Mbps Wireless USB Adaptor

Version: 1.0
2009. May

No part of this publication may be reproduced, transmitted, transcribed, stored in a retrieval system, or translated into any language or computer language, in any form or by any means, electronic, mechanical, magnetic, optical, chemical, manual or otherwise, without the prior written permission of this company.

This company makes no representations or warranties, either expressed or implied, with respect to the contents hereof and specifically disclaims any warranties, merchantability or fitness for any particular purpose. Any software described in this manual is sold or licensed "as is". Should the programs prove defective following their purchase, the buyer (and not this company, its distributor, or its dealer) assumes the entire cost of all necessary servicing, repair, and any incidental or consequential damages resulting from any defect in the software. Further, this company reserves the right to revise this publication and to make changes from time to time in the contents hereof without obligation to notify any person of such revision or changes.

The software and specifications are subject to change without notice. All right reserved including all brand and product names mentioned in this manual are trademarks and/or registered trademarks of their respective holders.

Index

1. Product Information	3
1.1 Introduction and safety information	3
1.2 System Requirements	3
1.3 Package Contents.....	4
2. Driver Installation and Configuration	5
2.1 Network Card Installation.....	5
2.2 Connection to Wireless Devices	10
2.3 Profile Management.....	23
2.4 Advanced Settings	25
2.5 View Network Statistics	27
2.6 WMM Settings.....	28
2.7 WPS Configuration	30
2.8 Radio On/Off	32
2.9 About.....	32
2.10 On-line Help	33
3. Specification	34

1. Product Information

1.1 Introduction and safety information

Thank you for purchasing this high-speed wireless network card! This wireless network card supports the common 802.11b/g wireless standards. In addition, this network card is also able to access 802.11n wireless networks – with a data transfer rate of 300Mbps. That is nearly six times faster than an 802.11g wireless network.

With easy-to-install USB 2.0 interface - a very common expansion port of computers – plug this wireless network card into any empty USB port of your computer, just that simple!

■ Main features

1. Compatible with wireless IEEE 802.11n standard with data rates up to 300Mbps
2. Complies with wireless 802.11a/b/g standards
3. Supports 1T2R MIMO architecture
4. Increases wireless coverage 6 times further*
5. Supports USB 2.0/1.1 interface
6. Supports WMM, WMM-PS (IEEE 802.11e QoS standard)
7. Supports 64/128-bit WEP, WPA (TKIP with 802.1x), WPA2 (AES with IEEE 802.1x) for high security level
8. Operating system supports for: Windows 2000/XP/Vista, MAC 10.4.x and above & Linux

*Maximum performance may vary depending on network conditions and environmental factors.

1.2 System Requirements

1. CPU: Pentium III 1G above or similar
2. Memory size: 256MB RAM
3. One CD-ROM drive
4. Hard disk: more than 100MB available space
5. One available USB 2.0 port (USB 1.0 port will largely degrade the performance)
6. Operating system: Windows 2000/XP/Vista, MAC 10.4.x and above & Linux

1.3 Package Contents

1. Clipper 802.11a/b/g/n USB adaptor x 1
2. USB Y-cable x 1
3. CD-ROM x 1 (driver and user manual)
4. Antenna x 1

2. Driver Installation and Configuration

2.1 Network Card Installation

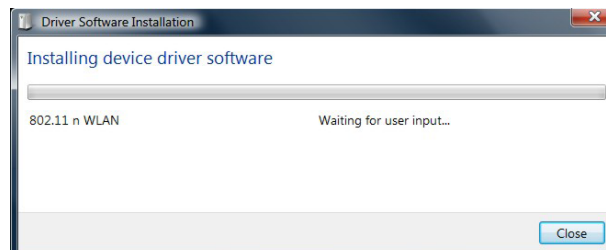
Please follow these instructions to install your new wireless network card:

1. Insert the USB cable into an empty USB 2.0 port of your computer after the computer is switched on. Never use force to insert the cable. If there is difficulty inserting the cable, flip it over and try again.
2. The following message will appear on your computer, click 'Cancel / Close'.

Under Windows XP



Under Windows Vista

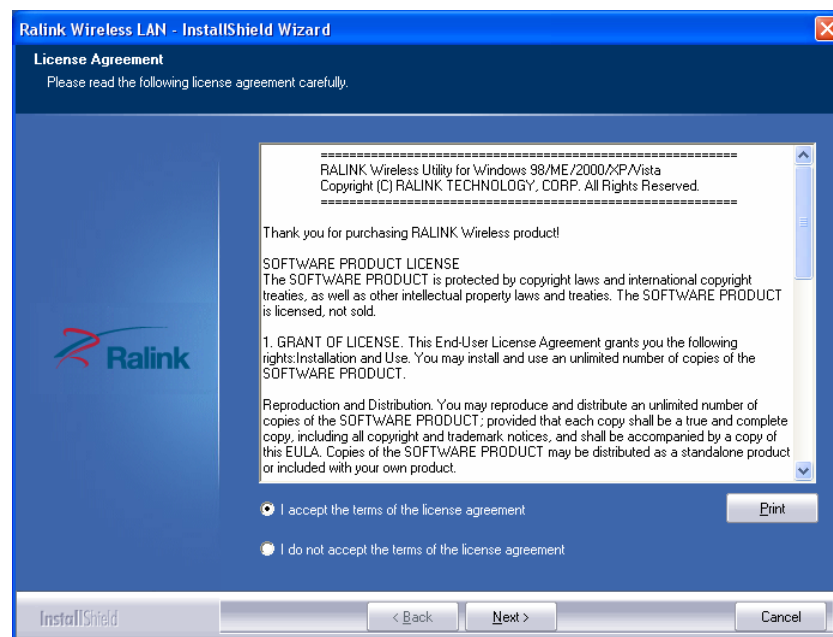


3. Software Installation. This autorun wizard can be run in Windows 2000/XP/Vista. The procedures shown are for a Windows XP installation. You can install the Wireless Adapter using the Setup Wizard on the CD-ROM included in the package. The wizard is an easy and quick configuration tool for internet connection with step-by-step process.

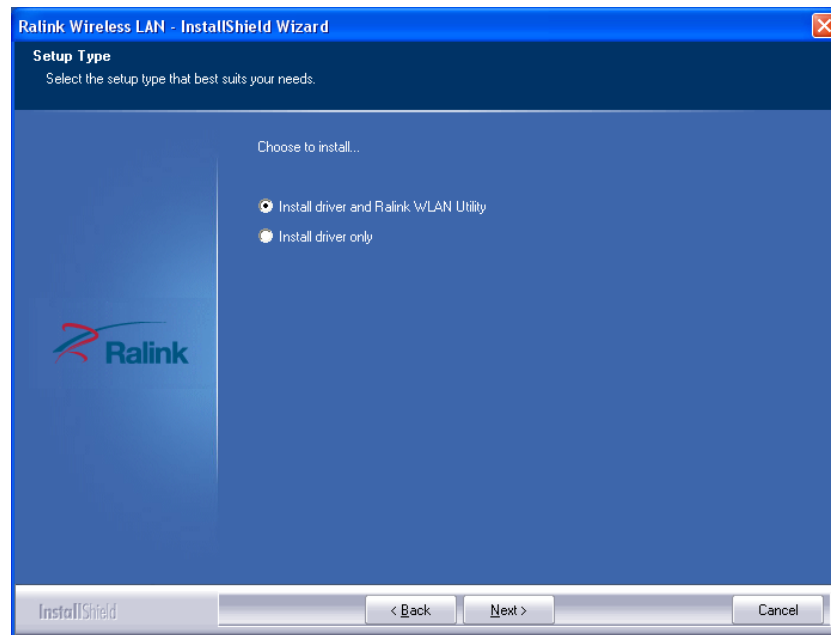
When you start the Setup Wizard, you will get the following welcome screen. Please choose the language to start the configuration. The wizard will guide you to finish your network connection. We will not provide any instruction for the Setup Wizard here.



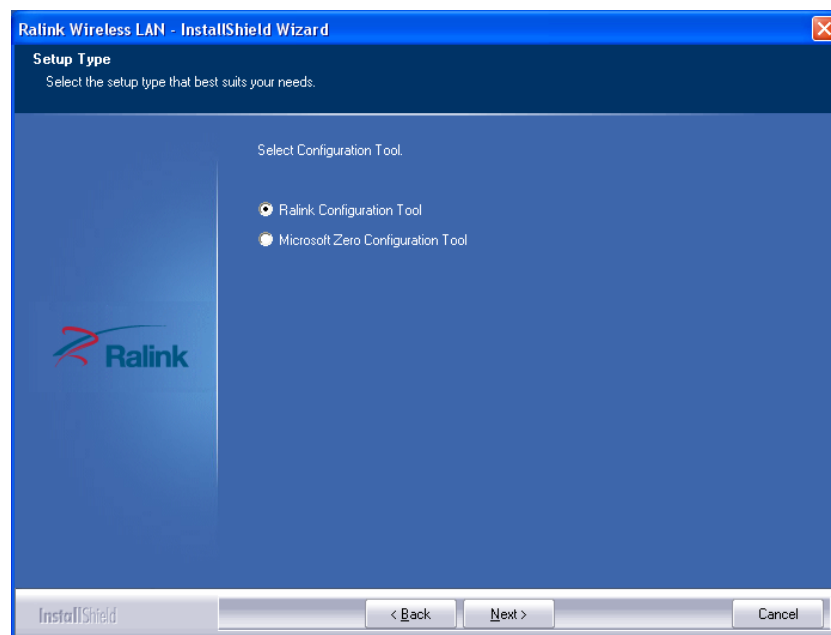
4. Select the desired installation language in the auto-run menu window, and the programs will appear. Please read the end user license agreement and click 'I accept the terms of the license agreement' then click 'Next' button, to accept license agreement.



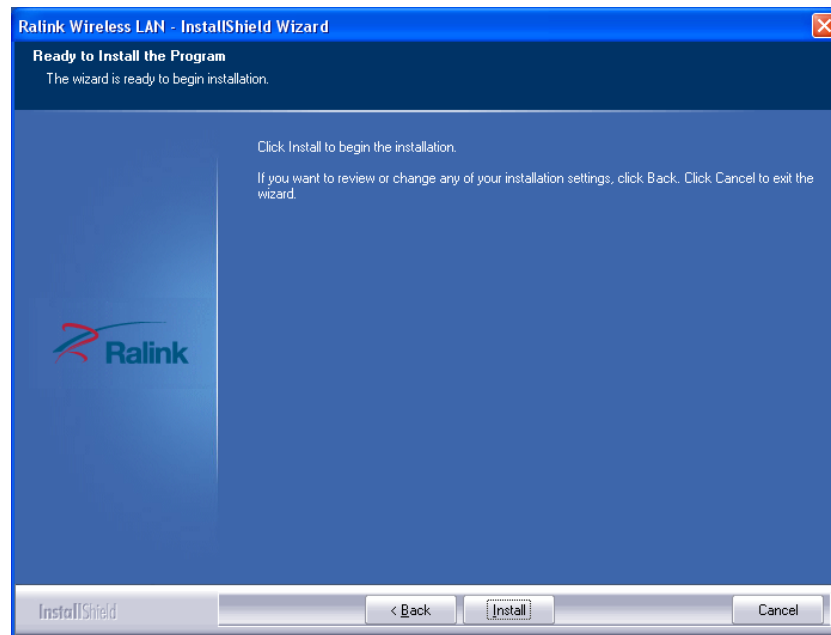
5. It is recommended to install the driver and utility if the device is installed for the first time. If you want to update the driver only, choose 'Install driver only'. Click 'Next' to continue.



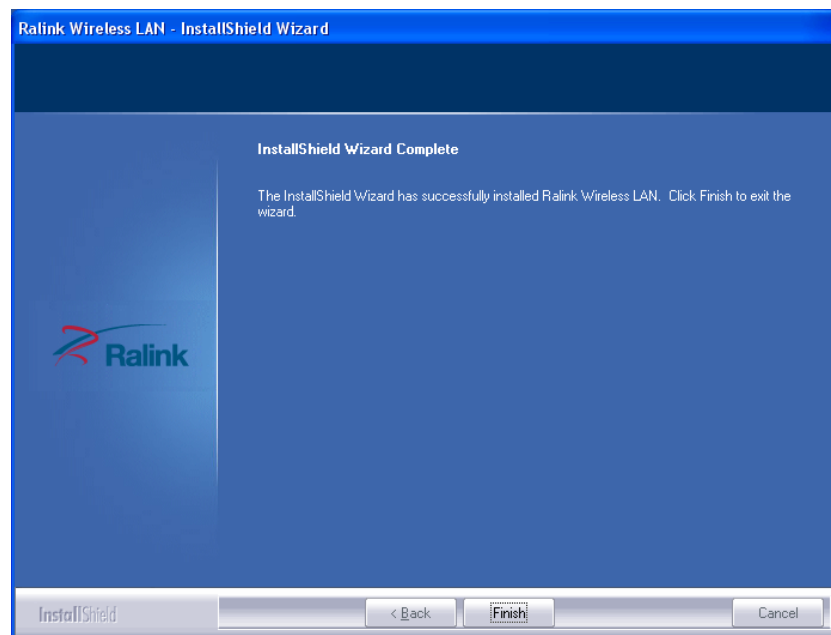
6. You can choose the configuration tool used to configure the wireless network card here. It's recommended to select 'Ralink Configuration Tool', which provides fully access to all functions of this wireless network card. If you prefer to use the wireless configuration tool provided by Windows XP or Vista, please select 'Microsoft Zero Configuration Tool' then click 'Next'.



7. Now you'll see the following message, please click 'Install' to start utility installation. **If you see 'Found New Hardware' message again, please ignore it and wait.**



8. Please wait while the install procedure is running. When you see this message, please click 'Finish' to complete the driver installation process.



9. After installation is complete, a wireless configuration utility will be shown in the desktop of your computer automatically. You will also see an icon at the lower-right corner of your windows system. If you put the mouse cursor on the icon, the status of wireless card will be displayed as a popup balloon.

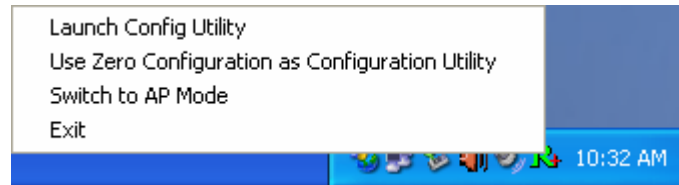


When the wireless adaptor is inserted into the USB port, the icon becomes green.



10. When you want to configure your wireless connection, please right click on this icon, and a popup menu will appear. You can click 'Launch Config Utility' to start configuration program.

If you want to close the configuration utility, please click 'Exit'.



11. Please note that if you stopped config utility using the 'Exit' function, you'll not be able to maintain the wireless link to the access point you wish to use. In this case, you can start config utility again by clicking 'Ralink Wireless Utility' icon from 'Start' -> 'All Programs' -> 'Ralink Wireless', as shown below.

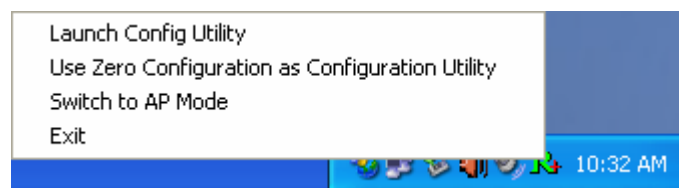


2.2 Connection to Wireless Devices

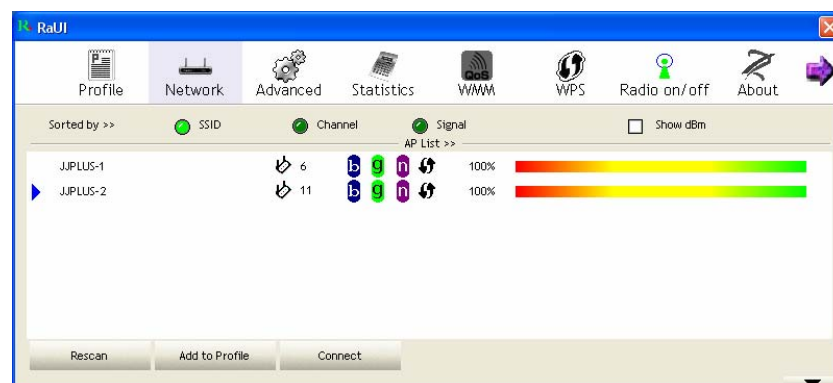
After the driver is correctly installed, it will try to connect to any unencrypted wireless access point automatically. If you want to connect to a specific wireless access point, or the access point you wish to connect uses encryption, you have to configure the wireless USB adaptor and input the required parameters.

To configure the wireless network card for connection with an access point, the configuration utility can be launched for parameter settings.

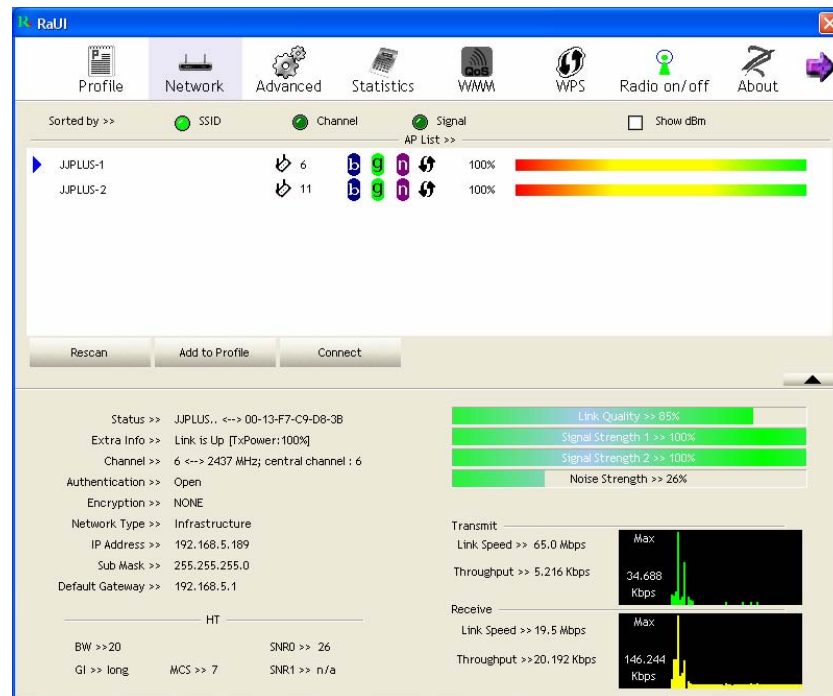
1. Right-click the configuration utility icon located at lower-right corner of computer desktop and then click 'Launch Config Utility'.



The setup utility (RaUI) will launch, and begin to scan for all wireless access points automatically.



RaUI consists two parts: a menu and setup area. You can select a setup function (Profile, Network, etc.) from menu, and the corresponding setup items will be displayed in the setup area. Some function includes more information, and can not be fitted in setup area. In this case, you can click 'More / less' button to expand the setup utility window, to display more information:



You can click 'More / Less' button again, and setup utility window will return to its original size.

2.2.1 Network Card Installation

There are two kinds of wireless connection modes: Infrastructure and Ad-Hoc. Infrastructure mode is used by wireless access points which establish wireless connections for you and other wireless / wired network clients.

Ad-Hoc mode is also known as 'point-to-point' mode, and in this mode, wireless devices such as computer or PDA will not be capable to establish wireless connection with more than one wireless device, and is suitable for establishing a one-to-one wireless connection between two wireless devices.

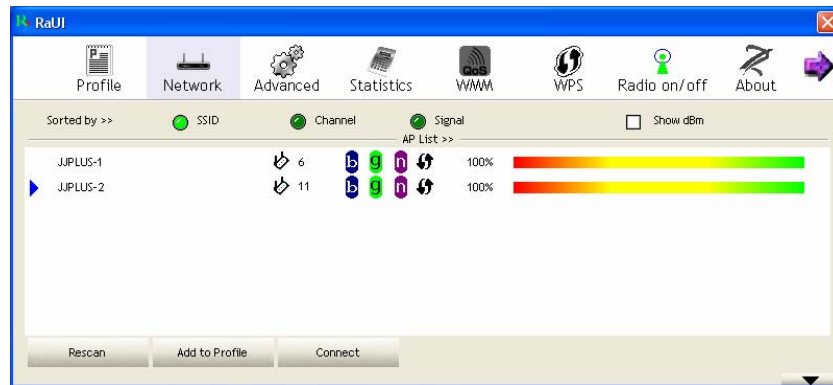
Before you can connect to any wireless access point or device by infrastructure or Ad-Hoc mode, there are two things you must know:

- a. The SSID of a Wireless device (Service Set Identifier, also known as the 'access point's name').

You can scan for the SSID of other wireless devices nearby, but if the SSID of the wireless device you wish to connect is hidden, you must know the exact SSID before you can establish connection with it.

- b. If the wireless device which you wish to connect uses encryption, you must know its encryption key.

Please launch the setup utility and it will scan for wireless access points near by:



Scan results will be displayed here. Please check here for the SSID of the wireless device (access point or another computer) you wish to connect to.

Scan result includes 6 types of information, they are:

- a. The SSID (Service Set Identifier) of wireless device. If nothing is displayed here, it means the SSID of this wireless device is hidden.

If a symbol appears in front of the name of wireless device, means you've established connected with that wireless device.

- b. The type of this wireless device and the channel number of this wireless device.
- c. The wireless standards supported by this access point. 'n' for 802.11n , 'g' for 802.11g , and 'b' for 802.11b . WPS icon will appear when the access point supports WPS. If the access point uses encryption, a key icon will appear.

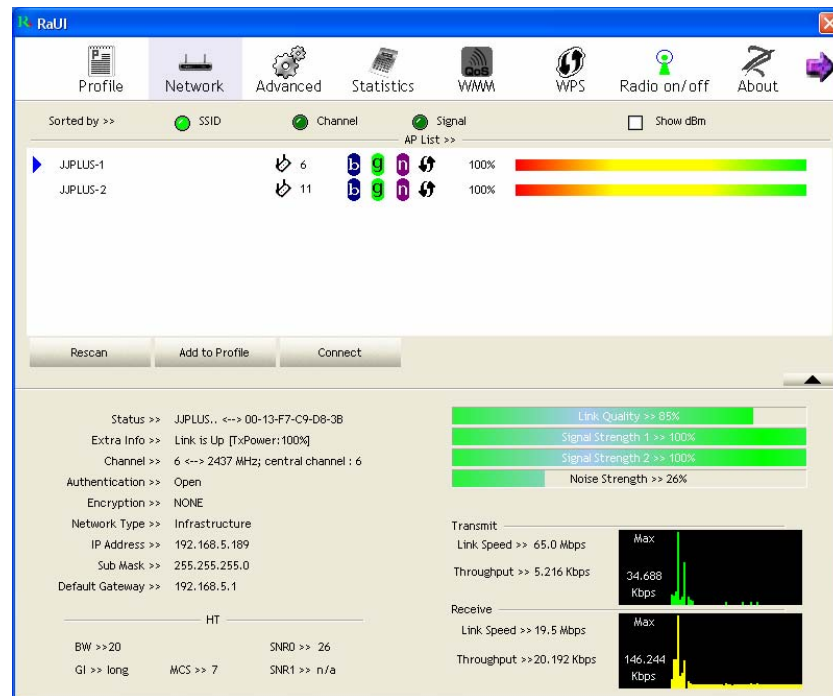
Note: When the access point supports WPS and the WPS icon is appeared, you will not see the key icon here even through the access point uses encryption.

- d. Shows the signal strength of access point as a percentage.
- e. Shows the bar graph of the signal strength.

If you cannot see the access point you wish to connect to here, please click 'Rescan' button to scan for access point again, until the one you preferred is displayed. If you cannot see the access point you wish connect to, please click 'Rescan' button again until the one you prefer is displayed. You may have to click 'Rescan' more than two times before the preferred access point appears.

If you still can not see the access point you wish to use after clicking 'Rescan' for more than five times, please move your computer closer of the location.

If you wish to see detailed information for a specific access point, please double-click on it, and you'll be provided with its detailed information.



There are 4 types of technical information:

General: Displays basic information about this access point, such as SSID, MAC address, authentication / encryption type, channel etc.

WPS: If this access point supports WPS (Wi-Fi Protected Setup), related information will be displayed here.

CCX: If this access point supports CCX (Cisco Compatible extension), related information will be displayed here.

802.11n: If this access point complies with 802.11n draft specifications, the related information will be displayed here.

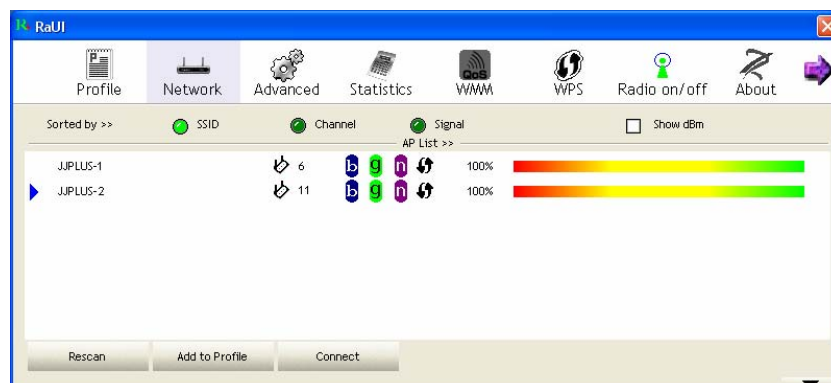
Descriptions of all the item in setup area:

Item Name	Description
Sorted by >>	You can decide how to sort all listed access point by 'SSID', 'Channel', or 'Signal' (signal strength).
Show dBm	Check this box to show the signal strength of the access point, instead of percentage.
Rescan	Click this button to rescan access points. You can click this button several times if the access point you wish to use does not show in the list.
Add to Profile	<p>You can store a specific access point to a profile. A profile will store the authentication keys. All future connections to that access point will be made automatically without reentering the authentication key.</p> <p>To add an access point to profile, you have to select an access point from the list first, then click 'Add to Profile' button. Detailed instructions will be given below.</p>
Connect	Connect to a selected access point you wish to connect to is found, and you can establish a connection to it by clicking the 'Connect' button.

2.2.2 Scan for an Access Point

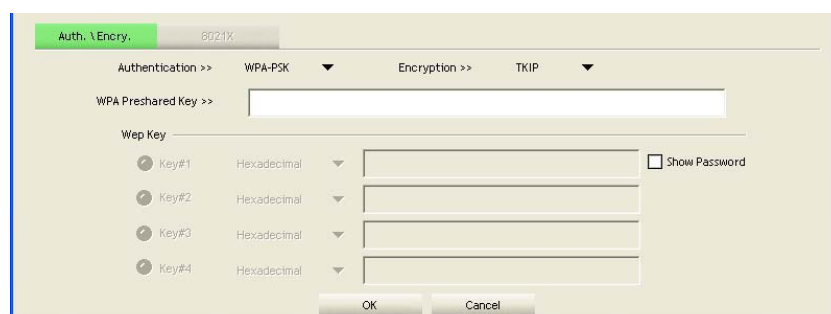
If the wireless access point you wish to connect is found, you can establish connection with it by clicking 'Connect' button. Instructions will be given as follow:

1. Click the wireless access point or network device you wish to connect, it will be highlighted, then click 'Connect'.



If the access point you selected does not use encryption, you'll be connected to this wireless access point within one minute. If the access point you selected uses encryption, please proceed to step 3.

2. If the wireless access point does not have a SSID, you'll be prompted to input it now. Please ask the owner of wireless access point for the exact SSID and input it here, then click 'OK' when ready. If the SSID you provided here is wrong, you'll not be able to connect to this access point.
3. If the wireless access point uses encryption, you will be prompted to input its WEP key or WPA pre-shared key.



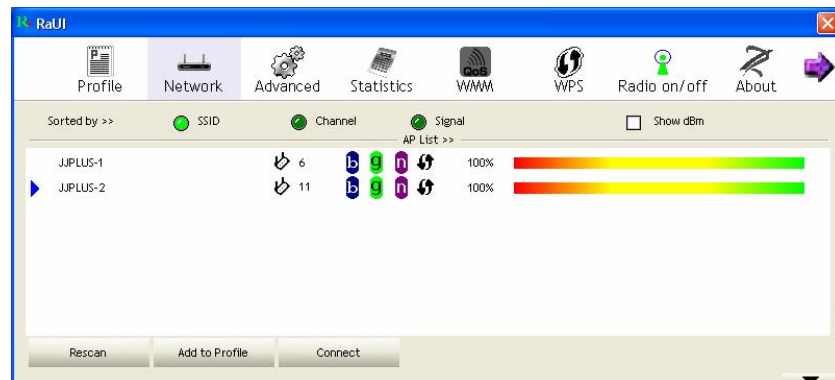
4. Please ask the owner of the wireless access point you want to connect, and input the correct key here and then click 'OK'. By checking the 'Show Password' box, the encryption key you entered here will be displayed.

If the value you inputted here is wrong, you will not be able to connect to this wireless access point.

The Authentication type is set by the access point automatically, please don't change it.

However, if you're connecting to an access point uses 802.1x authentication, you have to check '802.1x' box and input related information. Instructions for 802.1x authentication will be given later.

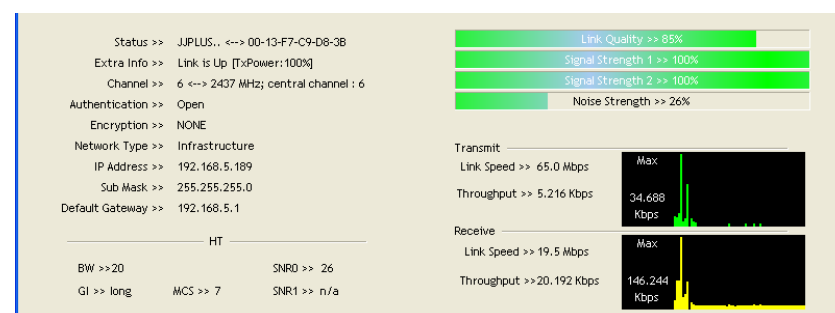
5. If the connection to the wireless access point is successful, you'll see an icon appear to the left of the name of wireless device.



You can put the mouse cursor over the configuration utility icon, and the brief information about link status and signal strength of current wireless connection will be shown as a popup balloon.



You can also click More / Less button to see detailed information about the connected access point:

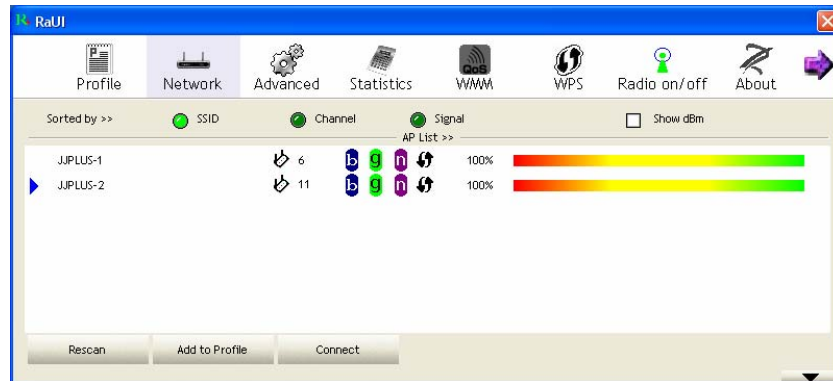


2.2.3 Add an Access Point to a Profile

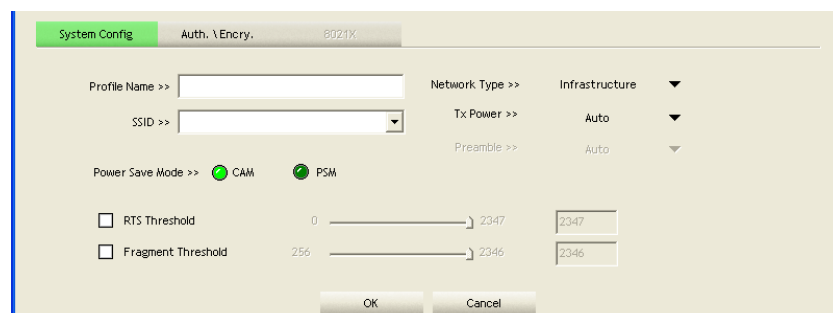
If you will be connecting to specific wireless access points frequently, you can add their information to the profile. Just like the telephone directory, the profile saves all information of access points, and you can recall them anytime you wish to establish connection.

You can add a found access point to profile, or input all information of an access point by yourself.

You can add an access point in the list to a profile, or enter all the information for an access point connection manually. To add an access point from the list to a profile, please highlight the access point in the list and click the 'Add to Profile' button. To enter the information manually, please go to the 'Profile' drop down menu and click the 'Add' button



The setup utility will expand:



Here are descriptions of every setup item:

Item Name	Description
Profile Name	You can give this profile a name. Every profile needs a unique name.
SSID	Please input the SSID of this access point. If you selected an access point from the list, and its SSID is not hidden, the SSID will be entered automatically; however, you can edit the SSID by yourself.
Network Type	<p>Please select the network type: Ad hoc or Infrastructure. If you're connecting to an access point, please select 'Infrastructure'; for point-to-point wireless connection (i.e. connecting to another computer using Ad Hoc mode), please select Ad hoc here.</p> <p>If you selected an access point from the list above, please keep this field unchanged.</p>
Tx Power	<p>You can select the wireless output power here. If you're not too far from access point (good signal reception), you can select a lower output power to save energy; for a distant access point, you can select a higher output power.</p> <p>It's suggested to select 'Auto' to let setup utility decide the best output power for you.</p>
Preamble	Select the preamble for Ad hoc mode here. Available options are 'Auto' and 'Long'. It's suggested to select 'Auto' to let setup utility decide the preamble for you.
Channel	You can select the radio channel number for Ad-Hoc mode here.
Power Save Mode	<p>Please select CAM (constantly awake mode, keep wireless radio activity even when not transferring data), or PSM (Power saving mode, switches radio off when not transferring data).</p> <p>It's recommended to choose 'PSM' if you're using this network card with notebook computer to help the battery live longer.</p>
RTS Threshold	<p>Check this box to set the RTS threshold by yourself. You can drag the slider to set the threshold value, or input the value in the box located at right.</p> <p>It's recommended to keep this value untouched unless you know the effect of changing this value.</p>

Fragment Threshold	<p>Check this box to set the packet fragment threshold by yourself. You can drag the slider to set the threshold value, or input the value in the box located at right.</p> <p>It's recommended to keep this value untouched unless you know the effect of changing this value.</p>
--------------------	---

To set authentication / encryption information for the access point. Please click 'Auth. \ Encry.' tab:

Here are descriptions of every setup item:

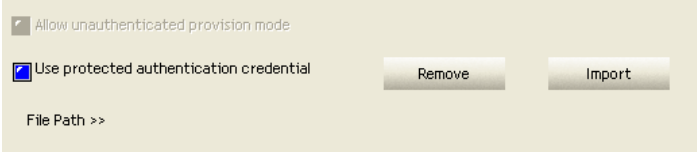
Item Name	Description
Authentication	<p>Select the authentication type of the wireless access point or wireless device you wish to connect. When you're adding a profile from an existing access point or wireless device, authentication type 25 will be selected automatically, and please do not change it.</p> <p>If you select 'LEAP', you'll be prompted to input LEAD specific settings:</p> <p>Please input LEAP identity, password, domain name, and select encryption type. You can check 'Show Password' box so the password you inputted will be displayed as you type, but not replace by asterisk.</p>
Encryption	<p>Select the encryption type of the wireless access point or wireless device you wish to connect. When you're adding a profile from an existing access point or wireless device, the encryption type will be selected automatically, and please do</p>

	not modify it.
WPA Preshared Key	Input WPA preshared key here. If encryption is not enabled, or you select 'WEP' as encryption type, this field will be disabled and grayed out.
WEP Key	<p>You can select key type (Hexadecimal or ASCII) and input WEP key here. If encryption is not enabled, or you select 'WPA' as encryption type, this field will be disabled and grayed out. You can set up to 4 WEP keys here.</p> <p>There are two types of WEP key: Hexadecimal and ASCII. For Hexadecimal key, you can input number 0-9 and alphabet a-f; for example, '123456abcdef'; For ASCII key, you can input number 0-9 and alphabet a-z; for example, 54321mywepkey.</p> <p>The length of WEP key depends on the type of WEP key you selected. You can input 10 or 26 hexadecimal characters and 5 or 13 ASCII characters as WEP key.</p>
Show Password	Check this box and all passphrases or security keys you inputted will be displayed as you type, but not replace your input with asterisk.
Use 802.1x	If the access point you wish to connect requires 802.1x authentication, please click on 'Use 802.1x' box, then click '802.1X' tab to set 802.1x parameters.

To set 802.1x authentication for the access point. Please click '802.1x' tab:

The screenshot shows a configuration window for 802.1X authentication. The main tabs are 'System Config', 'Auth. \ Encry.', and '802.1X'. The '802.1X' tab is active. Below it, there are sub-tabs: 'ID \ PASSWORD', 'Client Certification', and 'Server Certification'. The 'ID \ PASSWORD' sub-tab is selected. It contains several input fields: 'Identity >>', 'Password >>', 'Domain Name >>', 'Tunnel ID >>', and 'Tunnel Password >>'. There is also a checkbox labeled 'Show Password'. At the top right, there are dropdown menus for 'EAP Method >>' (set to PEAP) and 'Tunnel Authentication >>' (set to EAP-MSCHAP v2), and a checked checkbox for 'Session Resumption'. At the bottom are 'OK' and 'Cancel' buttons.

Here are descriptions of every setup item:

Item Name	Description
EAP Method	Select 802.1x EAP method from dropdown menu. Please ask the administrator of the access point you wish to connect to select a correct EAP method
Tunnel Authentication	<p>Select 802.1x tunnel authentication type from dropdown menu. Please ask the administrator of the access point you wish to connect to select a correct tunnel authentication method. This pull down menu is only available when authentication type you use is 'PEAP', 'TLS / Smart Card', or 'TTLS'.</p> <p>When you use 'EAP-FAST' as authentication type, the protocol setting is always 'Generic Token Card' and can not be changed. You also need to select 'Soft Token' or 'Static Password' as password in 'ID \ Password' setting.</p> <p>'EAP Fast' authentication type also have a sub-menu to set EAPfast-specific parameters:</p>  <p>If you need to use protected authentication credential, check 'Use protected authentication credential' box, and click 'Import' to load .pac credential file; to remove a loaded credential file, click 'Remove'.</p>
Session Resumption	You can enable or disable session resumption here. If you don't know if you should enable session resumption or not, please ask your 802.1x authentication administrator.
ID \ Password tab	Input 802.1x username (ID) and password and other information if it is required here. Click 'Show Password' to show the password you typed.
Client Certification tab	Use this tab to select a local certificate from dropdown menu. If the access point you wish to connect required a specific client certificate, the certificate must be installed on your computer, and you can select the certificate here.
Server Certification tab	Use this tab to use server-based certification. Please select a CA (Certificate Authority) from dropdown menu. If intermediate certificates are allowed, please select 'Allow intermediate certificates'. Also, if you need to specify CA server's name, you can specify it in 'Server name' field. You can select 'Server name must match', so the CA server's name must be the same with the value you set in 'Server

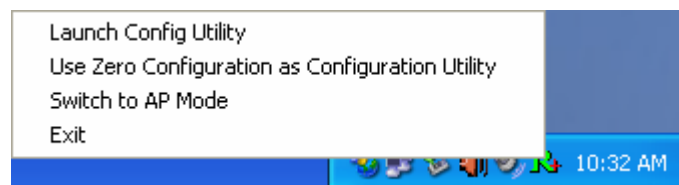
	name' field; If only the domain name part of full server name must the same with the value you set in 'Server name' field, select 'Domain name must end in specified name'.
--	---

After you complete all information related to the access point, click 'OK' to save the profile, or click 'cancel' to cancel adding a new profile.

If the profile is created, you will see the information in the Profile List.

2.3 Profile Management

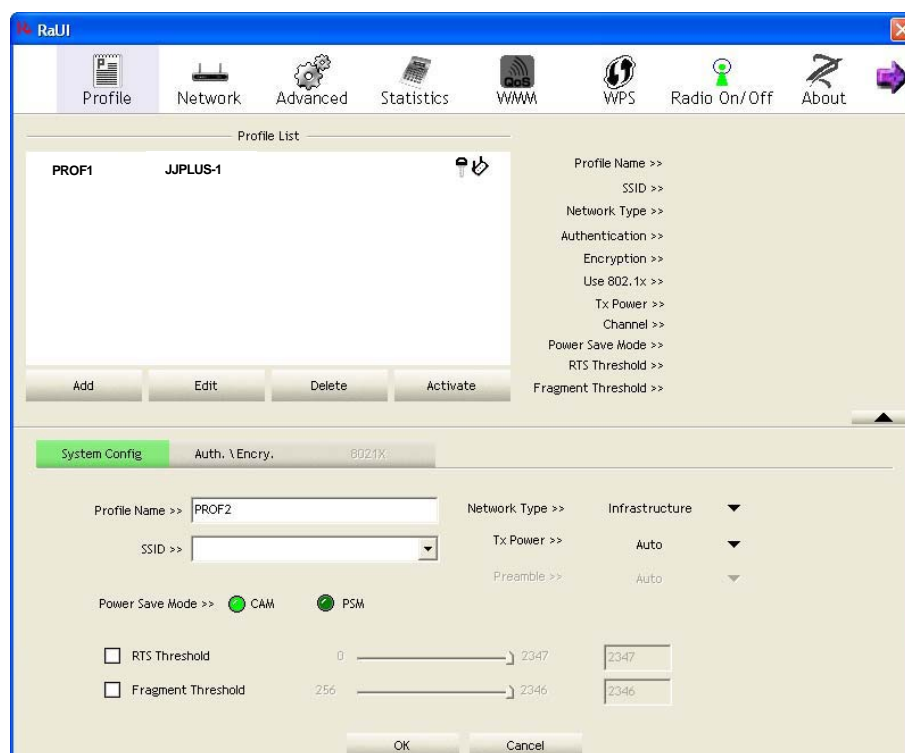
If you need to connect to different wireless access points at different time, like of access point of your home, office, cybercafe, or public wireless service, you can store the connection parameters (encryption, passphrase, security etc, etc.) as a profile for every access point, so you don't have to input these parameters every time when you want to connect to a specific wireless access point. To manage profiles, right-click the configuration utility icon located at lower-right corner of computer desktop, then click 'Launch Config Utility'.



Click the 'Profile' menu. All profiles will be listed in 'Profile List', and you can select a profile from the list, all information about selected profile will be listed.

2.3.1 Add a profile

If you want to click new profile, click 'Profile' menu, then click 'Add' button. You'll be prompted to input detailed information of access point, as described in Section 2-2-1-3.



2.3.2 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 click 'Cancel' to discard changes.

2.3.3 Delete an existing profile

If you no longer need a profile, you can delete it. Select the profile you wish to delete from the list, and click 'Delete' button to delete it.

2.3.4 Activate a profile

When you want to connect to a specific wireless device in the profile list, you can select it and click 'Activate' button, to establish connection with it.

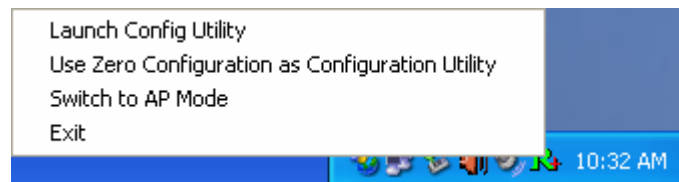
When you selected a profile and click 'Activate' button to activate the profile, an icon will be displayed in front of the profile to show that the connection is failed; When the connection is successfully established, a icon will be displayed.

2.4 Advanced Settings

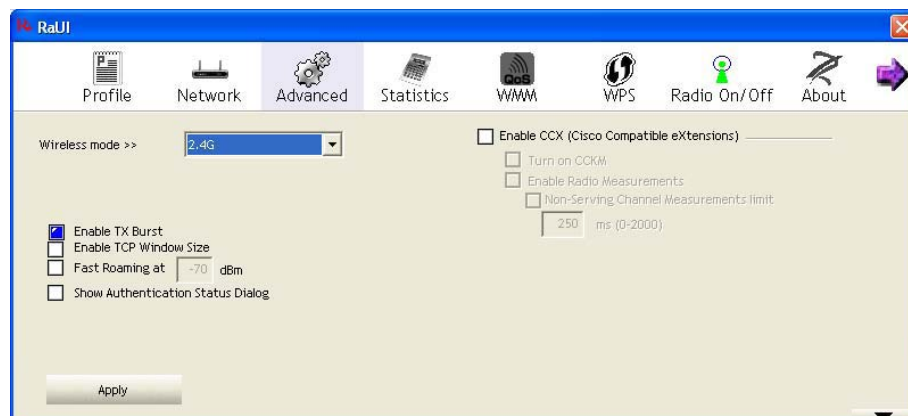
This wireless network card provides several advanced settings for experienced wireless users. You can change these settings to increase data transfer performance, or change operation mode.

Please follow the following instructions to set advanced wireless settings:

1. Right-click the configuration utility icon located at lower-right corner of computer desktop and then click 'Launch Config Utility'.



2. Click 'Advanced' menu, and the following settings will appear:



Here are descriptions of every setup item:

Item Name	Description
Wireless mode	Display the wireless operation mode of the network card.
Enable Tx Burst	Check this box to accelerate the data transmit rate. It may not work with all wireless access point and wireless devices.
Enable TCP Window Size	Check this box and the configuration utility will adjust TCP window size automatically to get better performance. It should be safe for most of wireless environments, but if you found some problem on data transfer, uncheck this box.
Fast Roaming	Check this box and you can control the threshold that the wireless network card should switch to another wireless access point with better signal quality. Only adjust value when you understand what it means and you need to roam between multiple access points.
Show Authentication Status Dialog	When your computer is being authenticated by wireless authentication server, a dialog window with the process of authentication will appear. This function is helpful to find out the problem when you can not be authenticated, and you can provide this information to authentication server's administrator for debugging purpose.
Enable CCX	<p>Enable Cisco Compatible eXtensions. CCX is a wireless feature developed by Cisco used to improve the wireless performance with CCX compatible wireless devices. Check this box if you need to connect to CCX-compatible wireless devices. When you enabled CCX, the following setup items will become available:</p> <p>Turn on CCKM: Check this box to enable CCKM (Cisco Centralized Key Management), which enables wireless clients to roam between CCKM-enabled access points in very short time.</p> <p>Enable Radio Measurements: When you're connecting to CCX-compatible access point, check this box to enable radio measurement function to improve wireless connectivity.</p> <p>Non-Serving Channel Measurements Limit: When you're connecting to CCX-compatible access point, check this box to enable measurement on unused radio channels to improve wireless connectivity.</p>

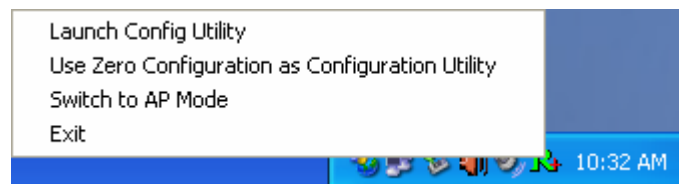
After you finish the settings, click 'Apply' to apply new settings.

2.5 View Network Statistics

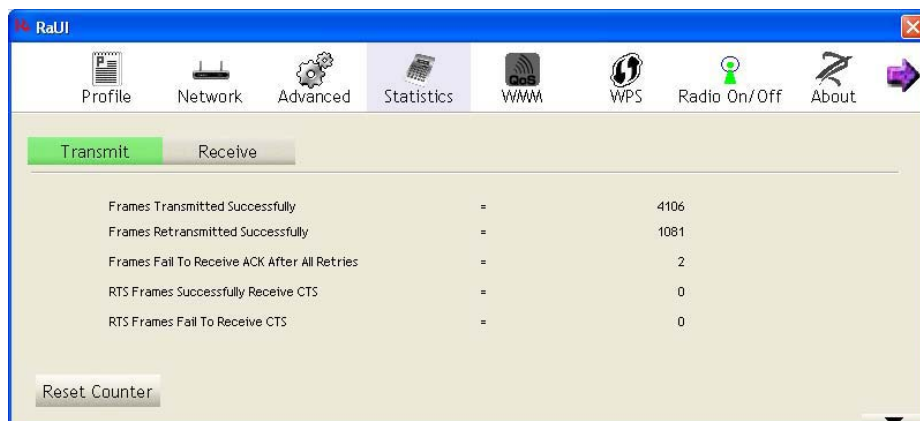
The configuration utility provides information about network statistics and link status. If you want to know how your wireless network card works, you can use these functions to get detailed information about the wireless connection you're using.

Please follow the following instructions to check network statistics:

1. Right-click the configuration utility icon located at lower-right corner of computer desktop and then click 'Launch Config Utility'.



2. Click 'Statistics' menu and the statistics of wireless connection will be displayed:



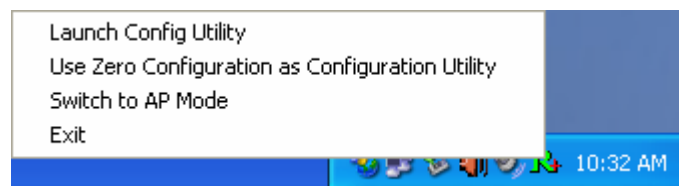
All connection-related statistics is displayed here. You can click 'Transmit' or 'Receive' tab, to view the statistics of transmitted or received packets. You can also click 'Reset Counter' button, to reset the statistics of all items back to 0.

2.6 WMM Settings

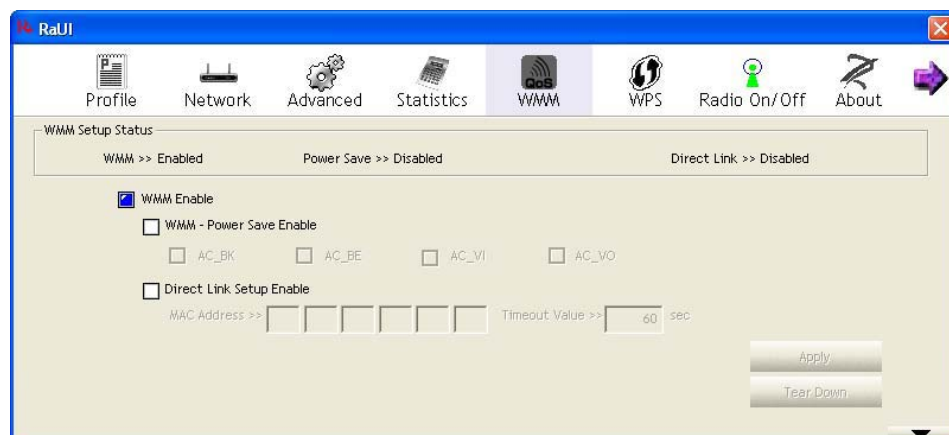
This wireless network card provides WMM (Wi-Fi Multimedia) function, which can improve the performance of certain network applications, like audio/video streaming, network telephony (VoIP), and others. When you enable the WMM function of this network card, you can define the priority of different kinds of data, to give higher priority to applications which require instant responding. Therefore you can improve the performance of such network applications.

Please follow the following instructions to set advanced wireless settings:

1. Right-click the configuration utility icon located at lower-right corner of computer desktop and then click 'Launch Config Utility'.



2. Click 'WMM' menu, and the following settings will appear:



In 'WMM Setup Status' block, current WMM settings will be displayed. And here are descriptions of every setup item:

Item Name	Description
WMM Enable	Check this box to enable WMM function. Please click 'Apply' button on the right of this check box after you check or uncheck this box, so corresponding settings in this window will be activated or deactivated respectively.
WMM-Power Save Enable	<p>Check this box to enable WMM power saving mode to save energy, and let your computer's battery live longer.</p> <p>You also have to select WMM power save modes here:</p> <p>AC_BE: Best Performance</p> <p>AC_BK: Worst Performance</p> <p>AC_VI: Video data has priority</p> <p>AC_VO: Voice data has no priority</p>
Direct Link Setup Enable	<p>If you have another WMM-enabled wireless device, you can enter its MAC address here, then click 'Apply' button, and this network card will establish a direct link to the wireless device you specified here.</p> <p>You also have to specify the timeout value of this directly-linked wireless device. Valid values are from 1 to 65535 (seconds), and input '0' for infinity.</p> <p>If you want to remove a specific wireless device from direct link table, select the device and click this button to remove it.</p>

2.7 WPS Configuration

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 card, 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!

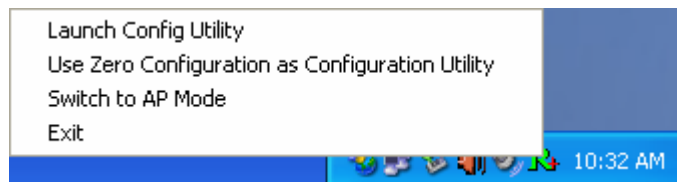
For older wireless access points, it's possible to perform a firmware upgrade to become a WPS-enabled access point. Since they may not have a hardware button to press for WPS setup, you can use an alternative WPS setup method - input the pin code. Every WPS-compatible wireless network card support pin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

This wireless network card is compatible with WPS. To use this function, the wireless access point you wish to connect to must support WPS function too. Now, please follow the following instructions to establish secure connection between WPS-enabled wireless access point and your wireless network card.

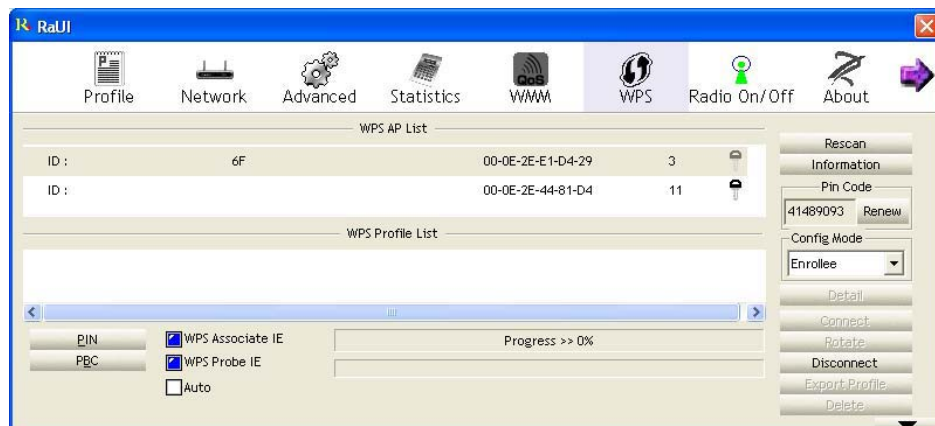
2.7.1 WPS Setup – PIN

If the wireless access point you wish to connect supports PIN, please follow the following instructions to establish connection to it:

1. Right-click the configuration utility icon located at lower-right corner of computer desktop and then click 'Launch Config Utility'.

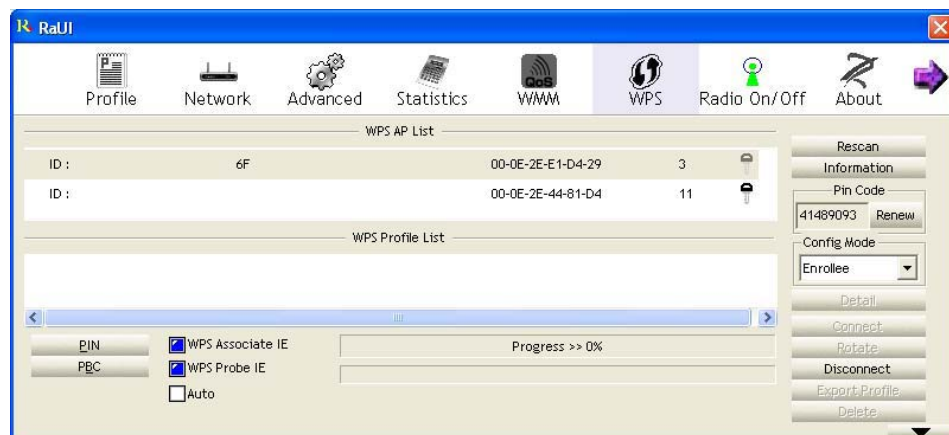


2. Click 'WPS Configuration' menu, and the following settings will appear.



3. The PIN code of your wireless network card is an eight-digit number located at the upper-right position of configuration utility. Remember it, and input the number to your wireless access point as the WPS PIN code (Please refer to the user manual of your wireless access point for instructions about how to do this).
4. Click 'PIN' button now, and wait for few seconds to one minute. If a wireless access point with correct PIN code is found, you'll be connected to that access point.
5. You may have to click 'PIN' for few more times to try again. If you still can not connect to access point by this way, please make sure the PIN code you provided to access point is correct.

There are also some options available for WPS configuration:



WPS associate IE: Check this box to send the association request with WPS IE during WPS setup. This is optional and you can use default value if you don't know what will be affected.

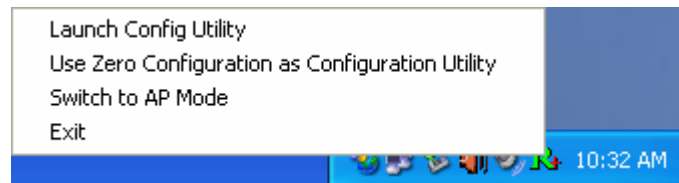
WPS probe IE: Check this box to send the WPS probe request with WPS IE during WPS setup. This is optional and you can use default value if you don't know what will be affected.

Auto: When in PIN mode, wireless access point to be connected will be selected automatically if this box is checked.

2.8 Radio On/Off

You can switch the wireless radio transceiver on and off by the utility, so if you want to disable wireless network function, you don't have to remove the network card physically.

1. Right-click the configuration utility icon located at lower-right corner of computer desktop and then click 'Launch Config Utility'.



2. To switch wireless radio on/off, please click 'Radio On/Off' button.

 Radio On/Off Wireless radio is on (Green)

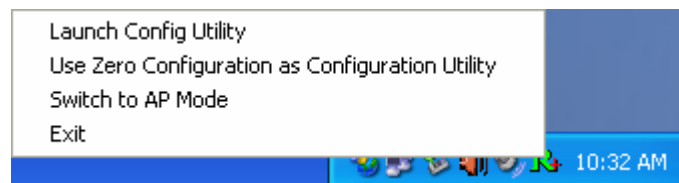
 Radio On/Off Wireless radio is off (Red)

2.9 About

The 'About' tab provides you the information about version number of the configuration utility, driver, and other important information about your wireless network card.

Please follow the following instructions to see the information:

1. Right-click the configuration utility icon located at lower-right corner of computer desktop and then click 'Launch Config Utility'.



2. Click 'About' tab, and the following information will appear.



2.10 On-line Help

If you need to know the directions of how to use specific function in the utility, please click 'Help' button. On-line help documents will be presented in Windows help format.



Help

Click this button to view on-line help documents.

3. Specification

- Standards: IEEE 802.11a/b/g/n
- Interface: USB 2.0 (USB 1.1 Compatible)
- Frequency Band: 2.4000~2.4835GHz (ISM Band)
- Frequency Band: 5.180~5.320GHz; 5.745~5.825GHz (ISM Band)
- Data Rate:
 - 11a: 6 / 9 / 12 / 18 / 24 / 36 / 48 / 54 Mbps
 - 11b: 1 / 2 / 5.5 / 11Mbps
 - 11g: 6 / 9 / 12 / 18 / 24 / 36 / 48 / 54 Mbps
 - 11n (20MHz): MCS0-7 (up to 150Mbps)
 - 11n (40MHz): MCS0-7 (up to 300Mbps)
- Securities: WEP 64/128, WPA, WPA2, Cisco CCX Support
- Antenna: External dipole antenna
- Driver: Windows 2000/XP/2003/Vista; Linux; MAC
- Temperature: 0~70°C
- Certification: FCC