# 802.11b/g Mini Wireless LAN USB 2.0 Adapter

**User's Manual** 

## **REGULATORY STATEMENTS**

#### **FCC Certification**

The United States Federal Communication Commission (FCC) and the Canadian Department of Communications have established certain rules governing the use of electronic equipment.

#### Part15, Class B

This device complies with Part 15 of FCC rules. Operation is subject to the following two conditions:

- 1) This device may not cause harmful interface, and
- 2) This device must accept any interface received, including interface that may cause undesired operation. This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy, and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

Reorient or relocate the receiving antenna.

Increase the distance between the equipment and receiver.

Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

#### **CAUTION:**

- To comply with FCC RF exposure compliance requirements, a separation distance of at least 20 cm must be maintained between the antenna of this device and all persons.
- 2) This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

This device is intended only for OEM integrators under the following conditions:

1) The antenna must be installed such that 20 cm is maintained between the antenna and users. For laptop installations, the antenna must be installed to ensure that the proper spacing is maintained in the event the users places the device in their lap during use (i.e. positioning of antennas must be placed in the upper portion of the LCD panel only to ensure 20 cm will be maintained if the user places the device in their lap for use) and

2) The transmitter module may not be co-located with any other transmitter or antenna.

As long as the 2 conditions above are met, further transmitter testing will not be required. However, the OEM integrator is still responsible for testing their end-product for any additional compliance requirements required with this module installed (for example, digital device emissions, PC peripheral requirements, etc.).

IMPORTANT NOTE: In the event that these conditions can not be met (for example certain laptop configurations or co-location with another transmitter), then the FCC authorization is no longer considered valid and the FCC ID can not be used on the final product. In these circumstances, the OEM integrator will be responsible for re-evaluating the end product (including the transmitter) and obtaining a separate FCC authorization. End Product Labeling

This transmitter module is authorized only for use in devices where the antenna may be installed such that 20 cm may be maintained between the antenna and users (for example access points, routers, wireless ASDL modems, certain laptop configurations, and similar equipment). The final end product must be labeled in a visible area with the following: "Contains TX FCC ID: {INSERT FCC ID HERE}".

#### RF Exposure Manual Information That Must be Included

The users manual for end users must include the following information in a prominent location "IMPORTANT NOTE: To comply with FCC RF exposure compliance requirements, the antenna used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter."

Additional Information That Must be Provided to OEM Integrators

The end user should NOT be provided any instructions on how to remove or install the device.

# **Table of Contents**

NTRODUCTION1
FEATURES1
Vindows 2000/XP Installation2
INSTALL THE SOFTWARE
INSTALL THE HARDWARE
Vindows Vista Installation7
INSTALL THE SOFTWARE7
INSTALL THE HARDWARE
Verification9
IP Address10
tility Configuration for Windows 2000/XP11
tility Configuration for Windows 2000/XP
STATION MODE

About
UTILITY MENU LIST
SOFT AP MODE
Config
Access Control
MAC Table
Event Log
Statistics41
About
Utility Configuration for Windows Vista
STATION MODE
Profile43
Network
Link Status
Statistics
WMM / QoS
WPS
Radio On/Off59
About
UTILITY MENU LIST60
SOFT AP MODE61
Config61
Access Control

UNINSTALLATION FOR WINDOWS VISTA	72
UNINSTALLATION FOR WINDOWS 2000/XP	
About	68
Statistics	67
Event Log	66
MAC Table	65

# **INTRODUCTION**

The **802.11b/g High Gain Wireless LAN USB Adapter** is designed for a USB type A port of a laptop or desktop computer for creating a wireless workstation. It is USB 2.0 compliant, which connects to any available USB port on a notebook or desktop computer.

The **802.11b/g High Gain Wireless LAN USB Adapter** complies with **IEEE 802.11g** standard that offers a data rate up to **54Mbps** in a wireless LAN environment. It is backward compliant with IEEE 802.11b specification. The high-speed wireless network card can plug into your notebook or desktop PC and accesses to the LAN or peer-to-peer networking easily without wires or cables. Whether you're at your desk or in the boardroom, it allows you to share printers, files, and other network resources.

## **Features**

- > Complies with IEEE 802.11g standard for 2.4GHz Wireless LAN
- ➤ USB 2.0 compliant
- ▹ USB Plug & Play
- > Interoperable with existing network infrastructure
- Secure information transmission
- > Freedom to roam while staying connected
- > Compatible with specialty wireless products and services
- > Up to 54 Mbps data rate
- > Antenna is built in the card with LED indication
- Low power consumption
- > Easy to install and configure

- 1 -

# Windows 2000/XP Installation

# **Install the Software**

Do not insert the wireless LAN adapter into your computer until the procedures in "Driver& Utility Installation" have been performed.

- 1. Insert the included CD-ROM into the CD-ROM drive of your computer.
- 2. When the Main Menu screen appears, click "Driver & Utility Installation" to start the software installation.



- 2 -

3. When the License Agreement screen appears, please read the contents and select "I accept the terms of the license agreement " then click Next to continue.



- 4. Select the check box to choose a **Configuration Tool** from the listed two choices.
  - **Configuration Tool**: Choose to use our configuration utility.
  - Microsoft Zero Configuration Tool: Choose to use Windows XP's

built-in Zero Configuration Utility (ZCU).

Click Next to continue.

- 3 -



5. There are two modes for you to choose in this screen, either choose Optimize for WiFi mode or Optimize for performance mode (Tx Burst mode). This mode selection screen is set for the default mode shown in the utility screen; you can still change its mode later in the utility screen. Click Next to continue.

- 4 -



6. When you are prompted the following message, please click **Install** to begin the installation.

Intelligent wireless card - Ir	istallShield Wizard	×
Ready to Install the Program The wizard is ready to begin installation.		
	Click Install to begin the installation. If you want to review or change any of your installation settings, click Back. Click Cancel to exit the wizard	
InstallShield	< Back [instal] Cancel	]

- 5 -

7. When the following screen appears, click **Finish** to complete the software installation.



# Install the Hardware

**Note**: Insert the Wireless USB card when you finished your software installation.

Insert the USB Adapter into the USB Port of your computer. The system will automatically detect the new hardware.

- 6 -

# **Windows Vista Installation**

# Install the Software

Do not insert the wireless LAN adapter into your computer until the procedures in "Driver& Utility Installation" have been performed.

- 1. Insert the included CD-ROM into the CD-ROM drive of your computer.
- 2. When the Main Menu screen appears, click "Driver & Utility Installation" to start the software installation.
- 3. When the License Agreement screen appears, please read the contents and select "I accept the terms of the license agreement " then click Next to continue.

Intelligent wireless card - Instal License Agreement Please read the following loser	Thank you for purchasing Wieless product SOFTWARE PRODUCT LICENSE The SOFTWARE PRODUCT is protected by copylight laws and international copylight is SOFTWARE PRODUCT is protected by copylight laws and international copylight is contrast, and the software product and beates. The SOFTWARE PRODUCT is licensed, not sold. 1. GRANT OF LICENSE. This End-User License Agreement grants you the following might initializion and Use. You may instal and use an unimited number of copies of the PRODUCT. provide the each copy shall be a unimited number of copies of the SOFTWARE PRODUCT. provide the each copy shall be a use and complete copy, including all copylight and tasteman incluses, and shall be accompared by a copy of the ELLA Closes of the SOFTWARE PRODUCT. provide the place be distributed as a temp poduce or included with you are product.	
	Locate the terms of the license agreement     Locate the terms of the license agreement     Locate the terms of the license agreement	
InstallShield	< Back Next> Care	:el

- 7 -

4. When you are prompted the following message, please click **Install** to begin the installation.



5. When the following screen appears, click **Finish** to complete the software installation.



- 8 -

# Install the Hardware

**Note:** Insert the Wireless USB card when you finished your software installation.

Insert the USB Adapter into the USB Port of your computer. The system will automatically detect the new hardware.

#### Verification

To verify if the device exists in your computer and is enabled, go to **Start** > **Control Panel** > **System** (> **Hardware**) > **Device Manager**. Expand the **Network Adapters** category. If the **802.11b/g Mini Wireless LAN USB 2.0 Adapter** is listed here, it means that your device is properly installed and enabled.



- 9 -

#### **IP Address**

Note: When assigning IP Addresses to the computers on the network, remember to have the IP address for each computer set on the same subnet mask. If your Broadband Router use DHCP technology, however, it won't be necessary for you to assign Static IP Address for your computer.

- 1. To configure a dynamic IP address (i.e. if your broadband Router has the DHCP technology), check the **Obtain an IP address automatically** option.
- 2. To configure a fixed IP address (if you broadband Router is not DHCP supported, or when you need to assign a static IP address), check the Use the following IP address option. Then, enter an IP address into the empty field, for example, enter 192.168.1.1 in the IP address field, and 255.255.255.0 for the Subnet mask.

Internet Protocol (TCP/IP) Properties	PX	Internet Protocol (TCP/IP) Pro	operties 🤶	$ \times $
General Alternate Configuration		General		
You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.	red automatically if your network supports need to ask your network administrator for this capability. Utherwise, you need to ask your network administrator for the appropriate IP settings.			
Obtain an IP address automatically		Obtain an IP address automat	tically	
Use the following in address.		<ul> <li>Use the following IP address:</li> </ul>		
IP address:		IP address:	192.168.1.1	
Subnet mask:		Subnet mask:	255 . 255 . 255 . 0	
Default gateway:		Default gateway:		
Obtain DNS server address automatically		Obtain DNS server address a	utomatically	
Use the following DNS server addresses:		<ul> <li>Use the following DNS server</li> </ul>	addresses:	
Preferred DNS server:		Preferred DNS server:		
Alternate DNS server:		Alternate DNS server:		
Advanced Advanced		Advanced		
OK Canc	el		OK Cancel	

- 10 -

# Utility Configuration for Windows 2000/XP

After the Wireless adapter has been successfully installed, users can use the included Configuration Utility to set their preference.

Go to Start→ (All) Programs→Intelligent Wireless → Intelligent Wireless Utility



You can also open the Configuration Utility by double clicking the icon or right clicking to select **Launch Config Utilities**.



- 11 -

# **Station Mode**

## Profile

Profile can book keeping your favorite wireless setting among your home, office, and other public hot-spot. You may save multiple profiles, and activate the correct one at your preference. The Profile manager enables you to **Add, Edit, Delete** and **Activate** profiles.



Click this button to show the information of Status Section.

Click this button to hide the information of Status Section.



Profile Tab	
Profile Name	You may enter a distinctive name of profile in this column. The default is PROF# (# 1, #2, #3)
SSID	The <b>SSID</b> is the unique name shared among all points in your wireless network.
Network Type	Shows the network type of the device, including infrastructure and Ad-Hoc.
Authentication	Shows the authentication mode.
Encryption	Shows the encryption type.
Use 802.1x	Whether use 802.1x feature or not.

- 12 -

Tx Power	Transmit power, the amount of power used by a radio transceiver to send the signal out.
Channel	Shows the selected channel that is currently in use. (There are 14 channels available, depending on the country.)
Power Save Mode	Choose from CAM (Constantly Awake Mode) or Power Saving Mode.
RTS Threshold	Shows the RTS Threshold of the device.
Fragment Threshold	Shows the Fragment Threshold of the device.
Add	Click to add a profile from the drop-down screen. System Configuration tab: Intelligent Wireless Utility Profile Network Advanced Statistics Profile Network Profile Network Type Profile Network
	<ul> <li>Profile Name: User can enter profile name, or use default name defined by system. The default is PROF# (# 1, #2, #3).</li> <li>SSID: The SSID is the unique name shared among all points in your wireless network. The name must be identical for all devices and points attempting to connect to the same network. User can use pull-down menu to select from available APs.</li> </ul>



<ul> <li>Power Save Mode:</li> <li>CAM (Constantly Awake Mode): When this mode is selected, the power supply will be normally provided even when there is no throughput.</li> <li>PSM (Power Saving Mode): When this mode is selected, this device will stay in power saving mode even when there is high volume of throughput.</li> </ul>
Network Type: There are two types, Infrastructure and
Ad hoc modes. Under Ad hoc mode, user can also choose
the preamble type, the available preamble type includes
Auto and Long. In addition to that, the channel field will
<ul> <li>be available for setup in Ad-hoc mode.</li> <li>The Infrastructure is intended for the connection between wireless network cards and an Access Point. With the wireless adapter, you can connect wireless LAN to a wired global network via an Access Point.</li> <li>The Ad hoc lets you set a small wireless workgroup easily and quickly. Equipped with the wireless adapter, you can share files and printers between each PC and laptop.</li> </ul>
Tx Power: Select the Tx power percentage from the pull-down list including Auto, 100%, 75%, 50%, 25%, 10% and Lowest.
<b>Preamble</b> : A preamble is a signal used in wireless environment to synchronize the transmitting timing including Synchronization and Start frame delimiter. Select from the pull-down menu to change the Preamble type into <b>Auto</b> or <b>Long</b> .
RTS Threshold: User can adjust the RTS threshold
number by sliding the bar or key in the value directly. The
default value is 2347. RTS/CTS Threshold is a mechanism
implemented to prevent the "Hidden Node" problem. If
the "Hidden Node" problem is an issue, users have to
specify the packet size. The RTS/CTS mechanism will be
<u>activated if the data size exceeds the value you set.</u> This value should remain at its default setting of 2347. Should you encounter inconsistent data flow, only minor

- 14 -

modifications of this value are recommended. <b>Fragment Threshold:</b> User can adjust the Fragment threshold number by sliding the bar or key in the value directly. The default value is 2346. The mechanism of Fragmentation Threshold is used to improve the efficiency when high traffic flows along in the wireless network. If your Wireless LAN Adapter often transmits large files in wireless network, you can enter new Fragment Threshold value to split the packet. The value can be set from 256 to 2346.
Authentication and Encryption tab:
V A
Profile Network Advanced Statistics WWW WPS Radio On/Off About
Profile List         Profile List            Proof 002,1fg.u0
System Config Auth. L Encry. 8021X  Authentitication >> Open  Encryption >> Nove  Encr
<ul> <li>Authentication Type: There are seven type of authentication modes including Open, Shared, Leap, WPA, WPA-PSK, WPA2 and WPA2-PSK.</li> <li>Open: If your access point/wireless router is using "Open" authentication, then the wireless adapter will need to be set to the same authentication type.</li> </ul>



• <b>Shared</b> : Shared Key is when both the sender and the recipient share a secret key.
• <b>LEAP:</b> Light Extensible Authentication Protocol. It is an EAP authentication type used primarily in Cisco Aironet WLANs. It encrypts data transmissions using dynamically generated WEP keys, and supports mutual authentication (only with CCX mode enabled.)
• WPA-PSK: WPA-PSK offers two encryption methods, TKIP and AES. Select the type of algorithm, TKIP or AES and then enter a WPA Shared Key of 8-63 characters in the WPA Pre-shared Key field.
<b>Encryption</b> Type: For Open and Shared authentication mode, the selection of encryption type are None and WEP. For WPA, WPA2, WPA-PSK and WPA2-PSK authentication mode, the encryption type supports both TKIP and AES.
<b>WPA Pre-shared Key</b> : This is the shared secret between AP and STA. For WPA-PSK and WPA2-PSK authentication mode, this field must be filled with character longer than 8 and less than 32 lengths.
<ul> <li>WEP Key: Only valid when using WEP encryption algorithm. The key must match with the AP's key. There are several formats to enter the keys.</li> <li>Hexadecimal (40bits): 10 Hex characters.</li> <li>Hexadecimal (128bits): 32Hex characters.</li> <li>ASCII (40bits): 5 ASCII characters.</li> <li>ASCII (128bits): 13 ASCII characters.</li> </ul>
Show Password: Check this box to show the password you entered.
<b>802.1x Setting</b> : When user use radius server to authenticate client certificate for WPA authentication mode

- 16 -

- 17 -

	encrypted channel. Unlike EAP-TLS, EAP-TTLS requires only server-side certificates.
•	<b>EAP-FAST</b> : Flexible Authentication via Secure Tunneling. It was developed by Cisco. Instead of using a certificate, mutual authentication is achieved by means of a PAC (Protected Access Credential) which can be managed dynamically by the authentication server. The PAC can be provisioned (distributed one time) to the client either manually or automatically. Manual provisioning is delivery to the client via disk or a secured network distribution method. Automatic provisioning is an in-band, over the air, distribution. For tunnel authentication, only support "Generic Token Card" authentication now.
•	<b>MD5-Challenge</b> : Message Digest Challenge. Challenge is an EAP authentication type that provides base-level EAP support. It provides for only one-way authentication - there is no mutual authentication of wireless client and the network.
г	'unnel Authentication:
•	<b>Protocol</b> : Tunnel protocol, List information including <b>EAP-MSCHAP v2</b> , <b>EAP-TLS/Smart card</b> , and <b>Generic Token Card</b> .
•	Tunnel Identity: Identity for tunnel.
•	Tunnel Password: Password for tunnel.
	ession Resumption: User can click the box to enable or isable this function.
I	D\PASSWORD tab:

- 18 -



- 19 -

	System Config Auth. \ Encry. 8021X				
	EAP Method >> PEAP  Tunnel Authentituation >> EAP-MCOMP v2  Session Resumption				
	ID \ PASSWORD Client Certification Server Certification				
	Use certificate chain - Any Trusted CA -				
	Allow intermidiate certificates				
	Server name nust match				
	Domain name must end in specified name				
	CH Cancel				
	<b>Use Certificate chain</b> : Choose use server that issuer of certificates.				
	Allow intimidate certificates: It must be in the server certificate chain between the server certificate and the server specified in the certificate issuer must be field.				
	Server name: Enter an authentication sever root.				
	<b>Server name must match:</b> Click to enable or disable this function.				
	<b>Domain name must end in specified name:</b> Click to enable or disable this function.				
	<b>OK</b> : Click to save settings and exit this page.				
	<b>Cancel:</b> Click to call off the settings and exit.				
Delete	Click to delete an existing profile.				
Edit	Click to edit a profile.				
Activate	Click to make a connection between devices.				

## Network

The Network page displays the information of surrounding APs from last scan result. The tab lists the information including SSID, Network type, Channel, Wireless mode, Security-Enabled and Signal.

- 20 -

Profile	LLL Network	Advanced	) Statistics	<b>NAMA</b>	<b>Ø</b> WPS	Radio On/Off	About
Sorted by >>	SSID	O Cha	nnel (	Signal		Show dBm	
3312_TEST		67	<b>Bg e</b>				
Abocom-Wireless		6	Bg	81%			
skl		<b>1</b> 0	<b>b</b> g	50%			
Rescan	Add to Prof		nect				

Network Tab				
Sorted by	Indicate that AP list are sorted by SSID, Channel or Signal.			
Show dBm	Check the box to show the dBm of the AP list.			
SSID	Shows the name of BSS network.			
Network Type	Network type in use, Infrastructure for BSS, Ad-Hoc for IBSS network.			
Channel	Shows the currently used channel.			
Wireless mode	AP support wireless mode. It may support 802.11b or 802.11g wireless mode.			
Encryption	Shows the encryption type currently in use. Valid value includes WEP, TKIP, AES, and Not Use.			
Signal	Shows the receiving signal strength of specified network.			
Rescan	Click to refresh the AP list.			
Connect	Select an item on the list and then click to make a connection.			
Add to Profile	Select an item on the list and then click to add it into the profile list.			

- 21 -

### **AP** information

When you double click on the intended AP, you can see AP's detail information that divides into three parts. They are General, WPS, CCX information. The introduction is as following:

General	General         WPS         CCX           150 >> 802.11g.4P         Separate Researce (Researce Active Researce (Researce (Researc
	Rates.         Close: Click this button to exit the information screen.
WPS	General         WPS         CCX           Authentication Type >> Ukinown         State >> Ukinown           Encryption Type >> Nime         Version >> Ukinown           Conflig Methods >> Ukinown         AP Setup Looded >> Ukinown           Device Plassword ID >>         UUDE >> Ukinown           Selected Registrar >> Ukinown         AP Bends >> Ukinown           Selected Registrar >> Ukinown         AP Bends >> Ukinown
	WPS information contains Authentication Type, Encryption Type, Config Methods, Device Password ID, Selected Registrar, State, Version, AP Setup Locked, UUID-E and RF Bands.
	Authentication Type: There are four types of authentication modes supported by RaConfig. They are open, Shared, WPA-PSK and WPA system.
	<b>Encryption Type</b> : For open and shared authentication mode, the selection of encryption type are None and WEP.

- 22 -

	<ul> <li>For WPA, WPA2, WPA-PSK and WPA2-PSK authentication mode, the encryption type supports both TKIP and AES.</li> <li>Config Methods: Correspond to the methods the AP supports as an Enrollee for adding external Registrars.</li> <li>Device Password ID: Indicate the method or identifies the specific password that the selected Registrar intends to use.</li> <li>Selected Registrar: Indicate if the user has recently activated a Registrar to add an Enrollee. The values are "TRUE" and "FALSE".</li> <li>State: The current configuration state on AP. The values</li> </ul>				
	are "Unconfigured" and "Configured". Version: WPS specified version. AP Setup Locked: Indicate if AP has entered a setup				
	<b>UUID-E</b> : The universally unique identifier (UUID) element generated by the Enrollee. There is a value. It is 16 bytes.				
	<b>RF Bands</b> : Indicate all RF bands available on the AP. A dual-band AP must provide it. The values are "2.4GHz" and "5GHz". <b>Close</b> : Click this button to exit the information screen.				
CXX	General WPS CCX COM >> FALE CME >> FALE CME >> FALE CME >> FALE				
	CCX information contains CCKM, Cmic and Ckip information. Close: Click this button to exit the information screen.				
	Close. Click this button to exit the information screen.				

- 23 -

## **Link Status**

Click the triangle button at the right corner of the windows to expand the link

status. The link status page displays the detail information of current connection.

Click this button to show the information of Status Section.



Extra Info

Click this button to hide the information of Status Section.

Intelligent wireless	Utility						
Profile	<b>⊥⊥</b> Network	Advanced	Statistics	WAWA	<b>Ø</b> WPS	Radio On/Off	About
Sorted by >>	SSID	🙆 Cha		) Signal List >>		Show dBm	
3312_TEST		107	<b>Bg P</b>	100%			
Abocom-Wireless		6	Bg	81%			
ski		10	bg	50%			
Rescan Status >> Extra Info >> Channel >> Authentication >> Encryption >>	<ul> <li>Link is Up [Tx</li> <li>7 &lt;&gt; 2442 M</li> <li>WPA-PSK</li> </ul>	-> 00-E0-98-88-88 Power: 100%]	-02		Signal S	Quality >> 100% trength 1 >> 100% Strength >> 70%	-(
Network Type >>		e		Transmit —			
IP Address >>	192.168.1.33			Link Speed >	> 54.0 Mbps	Max	
	255.255.255.			Throughput >	> 0.000 Kbps	2.480	
Default Gateway >>	192.168.1.25	4		Receive		Kbps	
				Link Speed >	> 54.0 Mbps	Max	
				Throughput :	>> 13.588 Kbps	74.916	
				in cogipar.		Kbps education	
	<b>-</b> 1						
Link Statu	is lab						
Status		Shows the current connection status. If there is no connection existing, it will show Disconnected.					

- 24 -

Shows the link status.

5					
Channel	Shows the current channel in use.				
Authentication	Authentication mode used within the network, including Unknown, WPA-PSK, WPA2-PSK, WPA and WPA2.				
Encryption	Shows the encryption type currently in use. Valid value includes WEP, TKIP, AES, and Not Use.				
Network Type	Network type in use, Infrastructure for BSS, Ad-Hoc for IBSS network.				
IP Address	Shows the IP address information.				
Sub Mask	Shows the Sub Mask information.				
Default Gateway	Shows the default gateway information.				
Link Quality	Shows the connection quality based on signal strength and TX/RX packet error rate.				
Signal Strength 1	Shows the Receiving signal strength, you can choose to display as percentage or dBm format.				
Noise Strength	Shows the noise signal strength.				
Transmit	Shows the current Link Speed and Throughput of the transmit rate.				
Receive	Shows the current Link Speed and Throughput of receive rate.				
Link Speed	Shows the current transmitting rate and receiving rate.				
Throughput	Shows the transmitting and receiving throughput in the unit of K bits/sec.				

- 25 -

## Advanced

This Advanced page provides advanced and detailed settings for your wireless network.

🖌 Intelligent wireless Utility					
Profile Network	Advanced Statistics WMM WPS Radio On/Off About				
Wireless mode >>     802.118/G mix       Wireless Protection     AUTO       Tx Rate >>     Auto       Enable TX Burst     Enable TCP Window Size       Fast Roaming at0 dBm     Show Authentication Status Diak       118/G >>     0: CH1-11       Apply     Addvanced Tab					
Wireless mode	Select wireless mode. There are two modes, 802.11B/C mix and 802.11B only supported. Default mode i 802.11B/G mix.				
Wireless Protection	There are three modes can be selected. AUTO, ON and OFF.				
Tx Rate	Select the transmitting rate you preferred. Default is Auto.				
Enable TX Burst	Check this box to enable this function.				
Enable TCP Window Size	Check to increase the transmission quality.				
Fast Roaming at	Check to set the roaming interval, fast to roaming, setup by transmits power.				
Show Authentication Status Dialog	When you connect AP with authentication, choose whether show "Authentication Status Dialog" or not. Authentication Status Dialog displays the process about 802.1x authentications.				
Select Your Country Region Code	Select your country region code from the pull-down menu.				

- 26 -

Enable CCX (Cisco Compatible extensions)	<ul> <li>Check to enable the CCX function.</li> <li>Turn on CCKM</li> <li>Enable Radio Measurements: Check to enable the Radio measurement function.</li> <li>Non-Serving Measurements limit: User can set channel measurement every 0~2000 milliseconds. Default is set to 250 milliseconds.</li> </ul>
Apply	Click to apply above settings.

# **Statistics**

The Statistics screen displays the statistics on your current network settings.

Profile	Land Network	Advanced	Statistics	WMM	<b>Ø</b> WPS	Radio On/Off	About
ransmit	Receive						
Frames	Transmitted Succe	essfully				194	
Frames	Retransmitted Suc	cessfully				2	
Frames	Fail To Receive AC	K After All Retries			0		
RTS Frames Successfully Receive CTS				0			
RTS Frames Fail To Receive CTS				-		0	
set Counter							

Frames Transmitted Successfully	Shows information of frames successfully sent.
Frames Retransmitted Successfully	Shows information of frames successfully sent with one or more reties.
Frames Fail To Receive ACK After All Retries	Shows information of frames failed transmit after hitting retry limit.
<b>RTS Frames Successfully Receive</b>	Shows information of successfully receive

- 27 -

CTS	CTS after sending RTS frame
RTS Frames Fail To Receive CTS	Shows information of failed to receive CTS after sending RTS.
Reset Counter	Click this button to reset counters to zero.

ntelligent wireles	s Utility							
Profile	LLL Network	Advanced	) Statistics	Gos WAVM	<b>Ø</b> WPS	Radio On/Off	About	
Transmit 🕻	Receive							
Frames Received Successfully		,			95			
Frames Received With CRC Error				50	5339			
Frames Dropped Due To Out-of-Resource				0				
Duplicate Frames Received			= 0		0			
Reset Counter								
								-

Receive Statistics Tab					
Frames Received Successfully	Shows information of frames Received Successfully.				
Frames Received With CRC Error	Shows information of frames received with CRC error.				
Frames Dropped Due To Out-of-Resource	Shows information of frames dropped due to resource issue.				
Duplicate Frames Received	Shows information of duplicate received frames.				
Reset Counter	Click this button to reset counters to zero.				

WMM / QoS

- 28 -

The WMM page shows the Wi-Fi Multi-Media power save function and Direct Link Setup that ensure your wireless network quality.



WMM/QoS Tab					
WMM Enable	Check the box to enable Wi-Fi Multi-Media function.				
WMM- Power Save Enable	Select which ACs you want to enable.				
Direct Link Setup Enable	Check the box to enable Direct Link Setup.				
MAC Address	<ul> <li>The setting of DLS indicates as follow :</li> <li>Fill in the blanks of Direct Link with MAC Address of STA, and the STA must conform to two conditions:</li> <li>Connecting with the same AP that supports DLS feature.</li> <li>DSL enabled.</li> </ul>				
Timeout Value	Timeout Value represents that it disconnect automatically after few seconds. The value is integer that must be between 0~65535. It represents that it always connects if the value is zero. Default value of Timeout Value is 60 seconds.				
Apply	Click this button to apply the settings.				

- 29 -

Tear Down	Select a direct link STA, then click "Tear Down"
	button to disconnect the STA.

## **WPS**

The primary goal of Wi-Fi Protected Setup (Wi-Fi Simple Configuration) is to simplify the security setup and management of Wi-Fi networks. The STA as an Enrollee or external Registrar supports the configuration setup using PIN (Personal Identification Number) configuration method or PBC (Push Button Configuration) method through an internal or external Registrar.

P	1	200		Mic	1	•	A	
Profile	Network	Advanced	Statistics	WMM	WPS	Radio On/Off	Abou	Jt
			PS AP List				_	
						in the second se	Resca	
						1	Pin Co	
						77	756725	Rene
		WPS	Profile List				onfig Mode	,
						Er	nrollee	
							Deta	il
							Conne	
RIN	WPS Associate	IE		Progress >> 0	%		Rotat	
PBC	WPS Probe IE						Export P	0.000
	Automatically s	elect the AP					Delet	

WPS Tab	
WPS AP List	Display the information of surrounding APs with WPS IE from last scan result. List information included SSID, BSSID, Channel, ID (Device Password ID), Security-Enabled.
Rescan	Issue a rescan command to wireless NIC to update information on surrounding wireless network.
Information	Display the information about WPS IE on the selected network. List information included Authentication Type, Encryption Type, Config Methods, Device Password ID, Selected Registrar, State, Version, AP Setup Locked,

- 30 -

	UUID-E and RF Bands.
PIN Code	8-digit numbers. It is required to enter PIN Code into Registrar using PIN method. When STA is Enrollee, you can use "Renew" button to re-generate new PIN Code.
Config Mode	Our station role-playing as an Enrollee or an external Registrar.
Detail	Information about Security and Key in the credential.
Connect	Command to connect to the selected network inside credentials. The active selected credential is as like as the active selected Profile.
Rotate	Command to rotate to connect to the next network inside credentials.
Disconnect	Stop WPS action and disconnect this active link. And then select the last profile at the Profile Page. If there is an empty profile page, the driver will select any non-security AP.
Export Profile	Export all credentials to Profile.
Delete	Delete an existing credential. And then select the next credential if exist. If there is an empty credential, the driver will select any non-security AP.
PIN	Start to add to Registrar using PIN (Personal Identification Number) configuration method. If STA Registrar, remember that enter PIN Code read from your Enrollee before starting PIN.
PBC	Start to add to AP using PBC (Push Button Configuration) method.
WPS Associate IE	Send the association request with WPS IE during WPS setup. It is optional for STA.
WPS Probe IE	Send the probe request with WPS IE during WPS setup. It is optional for STA.
Automatically	Check this box the device will connect the AP


select the AP	automatically.
Progress Bar	Display rate of progress from Start to Connected status.
Status Bar	Display currently WPS Status.

## Radio On/Off

Click this button to turn on or off radio function.



## About

This page displays the information of the wireless card including, RaConfig Version/ Date, Driver Version/ Date, EEPROM Version, Firmware Version and Phy\_Address.

Profile	Lange Street Network	Advanced	Statistics	WAM	() WPS	Radio On/Off	About
Prome	Network	Advanced	Statistics	00/0001	VVP 3	Radio Olivoli	ADOUL
	RaCon	fig Version >>	2.0.4.0	Da	te >>	11-13-2007	
	Driv	er Version >>	1.2.3.0	Da	te >>	10-01-2007	
	EEPRO	OM Version >>	1.0	Firmware Versi	on >>	2.2	
	Ph	iy_Address >>	00-E0-98-25-73-02				

- 32 -

## **Utility Menu list**

To access the utility menu list, please right click the utility icon on the task bar.



- Launch Config Utilities: Select to open the utility screen.
- Use Zero Configuration as Configuration utility: Select to use the Window XP built-in utility (Zero configuration utility).
- Switch to AP Mode: Select to make your wireless USB adapter act as a wireless AP.
- **Exit**: Select to close the utility program.

- 33 -

# Soft AP mode

When device be switched to soft AP mode, the following screen will pop up, please select **Enable ICS** to enter soft AP configuration.

	≬ Internet Connection Sharing with SoftAP 💦 🔀
	Please select a network card which had Internet $\operatorname{access}(\operatorname{WAN})$
	Name
	Description
	MAC Address
	IP Address
(	Enable ICS <u>N</u> ot enable ICS

## Config

🎦 Intelligent Wirels	ss Utility 🛛 🗙
Config Access Contro	Mac Table Event Log Statistics About
SSID	SoftAP-02 TX Rate : Auto 💌 Channel 1 💌
Wireless Mode	802 11 B/G Mixed 🗸 <- Use Mac Address Security Setting
Country Region Cod	I IND TORWarding among wireless clients
Beacon (ms)	100
TX Power	100%
Idle time(60 - 3600)(s)	300
Wireless Protection	Auto
	Default Apply

- 34 -

Config		
SSID	AP name of user type. User also can click <b>Use Mac</b> <b>Address</b> button to display it. System default is SoftAP-02.	
TX Rate	Select the transmitting rate you preferred. Default is Auto.         Manually force the AP using the channel. The system default is CH 1.	
Channel		
Wireless mode	Select wireless mode. 802.11B/G Mixed, 802.11B only and 802.11G only modes are supported. System default is 802.11B/G Mixed.	
Use Mac Address	Click this button to replace SSID by MAC address.	
Security Setting	Authentication mode and encryption algorithm used within the AP. The system default is no authentication and encryption.	
	Authentication Type       Image: Comparison Type       Not Use         WPA Pre-shared-Key       Image: Comparison Type       Not Use         Wrand Use       Image: Comparison Type       Not Use         Image: Comparison Type       There are five type of authentication modes including Open, Shared, WPA-PSK, WPA2-PSK, and WPA2-PSK.	

- 35 -

	authentication mode, the selections of encryption type are Not Use and WEP. For WPA-PSK, WPA2-PSK, and WPA-PSK/ WPA2-PSK authentication mode, the encryption type supports both TKIP and AES. WPA Pre-shared Key: This is the shared secret between AP and STA. For WPA-PSK and WPA2-PSK and WPA-PSK/ WPA2-PSK authentication mode, this field must be filled with character longer than 8 and less than 32 lengths. Group Rekey interval: Only valid when using WPA-PSK, WPA2-PSK, and WPA-PSK/ WPA2-PSK authentication mode to renew key. User can set to change by seconds or packets. Default is 600 seconds. WEP Key: Only valid when using WEP encryption algorithm. The key must match with the AP's key. There are several formats to enter the keys. • Hexadecimal (64bits): 10 Hex characters. • ASCII (64bits): 5 ASCII characters. • ASCII (64bits): 13 ASCII characters. Show Password: Check this box to show the password you entered.
Country Region Code	Eight countries to choose. Country channel list: Classification Range 0: CH1 ~11 1: CH1 ~13 2: CH10 ~11 3: CH10 ~13 4: CH14 5: CH1 ~14 6: CH3 ~9 7: CH5 ~13
Beacon (ms)	The time between two beacons. The system default is 100 ms.
TX Power	Manually force the AP transmits power from the pull down list 100%, 75%, 50%, 25% and Lowest.

- 36 -

	The system default is 100%.
Idle time(60-3600)(s)	It represents that the AP will idle after few seconds. The time must be set between 60~3600 seconds. Default value of idle time is 300 seconds.
No forwarding among wireless clients	No beacon among wireless client, clients can share information each other. The system default is no forwarding.
Hide SSID	Do not display AP name. System default no hide.
Default	Use the system default value.
Apply	Click to apply the above settings.

- 37 -

### **Access Control**

oning Access Cona	ol   Mac Table   Event Log   Statistics   About	1
Access Policy	Disable	-
MAC Address	Access List	
	Add	
	Delete	
	Remove All	
	1101040-201	
		Apply

Access Control	
Access Policy	User chooses whether AP start the function or not. System default is Disable.
MAC Address	Manually force the Mac address using the function. Click Add and the MAC address will be listed in the Access List pool.
Access List	Display all MAC Address that you have set.
Add	Add the MAC address that you would like to set.
Delete	Delete the MAC address that you have set.
Remove All	Remove all MAC address in the Access List.
Apply	Apply the above changes.

- 38 -

## MAC Table

MAC Address	AID	Po	Status

MAC Table	
MAC Address	The station Mac address of current connection.
AID	Raise value by current connection.
Power Saving Mode	The station of current connect whether it have to support.
Status	The status of current connection.

- 39 -

## Event Log

Event Time (yy/mm/dd-hh:mm:ss)	Message
2007 / 11 / 06 - 16 : 20 : 41	Restart Access Point
2007 / 11 / 06 - 16 : 20 : 42	Restart Access Point
2007 / 11 / 06 - 16 : 20 : 44	Restart Access Point
	Cle

Event Log	
Event Time (yy/mm/dd-hh:mm:ss)	Records the event time.
Message	Records all the event messages.

- 40 -

### **Statistics**

ics About	
-	1424
=	3
=	0
=	0
=	30
-	1251
-	26803
=	0
-	0
	RESET COUNTERS
	-

Transmit Statistics					
Frames Transmitted Successfully	Frames successfully sent.				
Frames Fail To Receive ACK After All Retries	Frames failed transmit after hitting retry limit.				
<b>RTS Frames Successfully</b> <b>Receive CTS</b>	Successfully receive CTS after sending RTS frame				
<b>RTS Frames Fail To Receive</b> CTS	Failed to receive CTS after sending RTS.				
Frames Transmitted Successfully After Retry	Frames successfully sent with one or more reties.				

- 41 -

Receive Statistics						
Frames Received Successfully	Frames Received Successfully					
Frames Received With CRC Error	Frames received with CRC error.					
Frames Dropped Due To Out-of-Resource	Frames dropped due to resource issue					
Duplicate Frames Received	Duplicate received frames.					
Reset Counter	Reset counters to zero.					

#### About

This page displays the wireless card and driver version information.

<mark>≜°</mark> Inte	elligent Wireless Ui	tility		X
Config	] Access Control   Ma	c Table   Event Log	Statistics About	l
	Utility Version :	1.2.1.0	Date :	11-13-2007
	Driver Version :	1.2.3.0	Date :	10-01-2007
	EEPROM Version :	1.0	Firmware Version :	2.2
	IP Address :	0.0.0.0	Phy_Address :	00-E0-98-25-73-02
	Sub Mask :	0.0.0.0	Default Gateway :	

- 42 -

# Utility Configuration for Windows Vista

## **Station Mode**

#### **Profile**

Profile can book keeping your favorite wireless setting among your home, office, and other public hot-spot. You may save multiple profiles, and activate the correct one at your preference. The Profile manager enables you to **Add, Edit, Delete** and **Activate** profiles.



Click this button to show the information of Status Section.



Profile Netw	ork Statistics	WMM	<b>Ø</b> WPS	Radio On/Off	About		
	Profile List						
PROF1 Add	Arthur218 Edit Dr	tiete	<b>b</b> Activate	SSID >> Network Type >> Authentication >> Encryption >> Use 802.1x >> Tx Power >>			
Status >>	Arthur218 <> 00-19-CE	3-16-53-01		ы	nk Quality >> 91%		
Extra Info >>	Link is Up [TxPower:100	196]		Sign	al Strength 1 >> 79%		
Channel >>	11 <> 2462 MHz			No	ise Strength >> 3%		
Authentication >>	Open						
Encryption >>	NONE						
Network Type >>	Infrastructure		Tra	nsmit		_	
IP Address >>	192.168.10.39		Lin	k Speed >> 54.0 Mbps	Max		
Sub Mask >>	255.255.255.0		Th	oughput >> 0.000 Kbps	4.168		
Default Gateway >>	192.168.10.218				4.168 Kbps		
				eive nk Speed >> 48.0 Mbps	Hav	al I	

- 43 -



- 44 -

Netwo Ad ho • The bet Wi LA • The ease add PC Tx Pe pull-de 10% a Authe	from a ork Ty oc mode e Infra ween w th the N to a e Ad h sily an apter, y and lap ower: own lisund Low	<b>pe:</b> These, <b>astruct</b> vireless wireless wireless wireless wireless wireless wireless <b>ad</b> qui ou can ptop. Select tt inclu <b>west</b> .	ture s netvess ad globa s you ckly. share the ading	is inte work c: apter, l netwo set a Equij e files Tx po <b>Auto,</b>	nded fo ards and you can ork via ar small wa pped w and prin wer per <b>100%</b> , '	Infrastruct or the cor an Access connect y n Access P ireless wo ith the ters betwe centage fi <b>75%, 50%</b>	nnection s Point wireles 'oint. rkgroup wireles sen each rom th <b>6, 25%</b>
Profile	Network	Statistics		<b>O</b> WPS	Radio On/Off	About	<b>1</b>
PROF1	Arthur	— Profile List —		b	Network Typ Authenticatio Encryptio Use 802.1	D >> Arthur218 e >> Infrastructure m >> Open m >> None	
Add	Eat	De	elete	Activate			
	Config Auth Authentication NPA Preshared Key Wep Key Wep Key	o Open	•	Encryption >	None 🖣	Show Passwo	rd

- 45 -

• <b>Open</b> : If your access point/wireless router is using " <b>Open</b> " authentication, then the wireless adapter will need to be set to the same authentication type.
• <b>Shared</b> : Shared Key is when both the sender and the recipient share a secret key.
• WPA-PSK: WPA-PSK offers two encryption methods, TKIP and AES. Select the type of algorithm, TKIP or AES and then enter a WPA Shared Key of 8-63 characters in the WPA Pre-shared Key field.
<b>Encryption</b> Type: For Open and Shared authentication mode, the selection of encryption type are None and WEP. For WPA, WPA2, WPA-PSK and WPA2-PSK authentication mode, the encryption type supports both TKIP and AES.
<b>WPA Pre-shared Key</b> : This blank is the shared secret between AP and STA. For WPA-PSK and WPA2-PSK authentication mode, this field must be filled with character longer than 8 and less than 32 length.
<ul> <li>WEP Key: Only valid when using WEP encryption algorithm. The key must match with the AP's key. There are several formats to enter the keys.</li> <li>Hexadecimal (40bits): 10 Hex characters.</li> <li>Hexadecimal (128bits): 32Hex characters.</li> <li>ASCII (40bits): 5 ASCII characters.</li> <li>ASCII (128bits): 13 ASCII characters.</li> </ul>
Show Password: Check this box to show the password you entered.
<b>802.1x Setting</b> : When user use radius server to authenticate client certificate for WPA authentication mode. When the profile being active with 802.1x security the wireless network properties screen will pop-up for setting.

- 46 -

Connection Tab:
Arthur218 Wireless Network properties
Connection Security
Name: Arthur218 SSID: Arthur218 Network Type: Access point Network Availability: Me only
[2] Connect automatically when this network is in range
Connect to a more greferred network if available Connect even if the network is not broadcasting
Name: The connected AP profile name. SSID: The SSID is the unique name shared among all points in your wireless network. Network Type: The network type of the connected device. Network Availability: Shows the connected access point is available for the certificated device only. * You can check the following three boxes to enable the functions that you preferred.

- 47 -

	Security Tab:
	Arthur218 Wireless Network properties
	Connection Security
	Sgcurity type: WPA-Enterprise
	Eggryption type: TKIP
	Choose a network authentication method: Smart Card or other certificate
	Security Type: Select the security type form the
	pull-down menu, No authentication (Open), Shared, WPA2-Personal, WPA-Personal, WPA2-Enterprise,
	WPA-Enterprise and 802.1X. Encryption Type: For Open and Shared authentication
	For WPA, WPA2, WPA-PSK and WPA2-PSK authentication mode, the encryption type supports both TKIP and AES.
	<b>Choose a network authentication method:</b> Select from pull-down menu, either <b>Smart Card or other certificate</b> or <b>Protected EAP (PEAP).</b>
	<b>Settings:</b> Click the settings button to set up further configuration management. <b>OK:</b> Click to save settings and exit this page.
	Cancel: Click to call off the settings and exit.
Delete	Click to delete an existing profile.
Edit	Click to edit a profile.
Activate	Click to make a connection between devices.

- 48 -

#### Network

The Network page displays the information of surrounding APs from last scan result. The tab lists the information including SSID, Network type, Channel, Wireless mode, Security-Enabled and Signal.

Profile	لملے Network	Statistics		as MM	4	<b>Ø</b> WPS	Radio On/Off	About	
Sorted by >>	0	SSID	Cha	nnel	AP L	) Signal .ist >> —		Show dBm	
3089AP			1011	bg	•	65%			
3090_richard	in_2		102	bg	-	65%			
Abocom-Wirel	ess		13	Ъg		2.4%			-
airlive_pano			46	bg		65%			
Arthur218			1011	bg		76%			
corega_terry			1011	bg		100%			
Hughes_Test			101	69	9	39%			
Rescan	Add	to Profile							

Network Tab	
Sorted by	Indicate that AP list are sorted by SSID, Channel or Signal.
Show dBm	Check the box to show the dBm of the AP list.
SSID	Shows the name of BSS network.
Network Type	Network type in use, Infrastructure for BSS, Ad-Hoc for IBSS network.
Channel	Shows the currently used channel.
Wireless mode	AP support wireless mode. It may support 802.11b or 802.11g wireless mode.
Encryption	Shows the encryption type currently in use. Valid value includes WEP, TKIP, AES, and Not Use.
Signal	Shows the receiving signal strength of specified network.
Rescan	Click to refresh the AP list.
Add to Profile	Select an item on the list and then click to add it into the profile list.

- 49 -

#### **AP** information

When you double click on the intended AP, you can see AP's detail information that divides into three parts. They are General, WPS, CCX information. The introduction is as following:

General	General         WPS         CCX           550 % arthwart         550 % arthwart         550 % arthwart           MAC Address % 00 % 4% d% % 30 %         60 % 4% d% % 30 %         56 %           Authentistication type %         Inner         56 %         56 %           Channels %         11 ~ ~ 2 462 %         12 % 55 %         12 % 56 %           Beack intervent % %         100         12 % 55 %         10 %
	General information contain AP's SSID, MAC address, Authentication Type, Encryption Type, Channel, Network Type, Beacon Interval, Signal Strength and Supported Rates. Close: Click this button to exit the information screen.
WPS	General         WPS         CCX           Authentication Type >> Unknown         State >> Unknown           Brorystein Type >> None         Version >> Unknown           Config Wethods >> Unknown         Af Setup Locked >>           Device Plasmost ID >>         UUD E >> Unknown           Sencited Registrary Unknown         Af Bands >> Unknown
	WPS information contains Authentication Type, Encryption Type, Config Methods, Device Password ID, Selected Registrar, State, Version, AP Setup Locked, UUID-E and RF Bands.
	Authentication Type: There are four types of authentication modes supported by RaConfig. They are open, Shared, WPA-PSK and WPA system.
	<b>Encryption Type</b> : For open and shared authentication mode, the selection of encryption type are None and WEP. For WPA, WPA2, WPA-PSK and WPA2-PSK

- 50 -

	authentication mode, the encryption type supports both TKIP and AES.					
	<b>Config Methods</b> : Correspond to the methods the AP supports as an Enrollee for adding external Registrars.					
	<b>Device Password ID</b> : Indicate the method or identifies the specific password that the selected Registrar intends to use.					
	<b>Selected Registrar</b> : Indicate if the user has recently activated a Registrar to add an Enrollee. The values are "TRUE" and "FALSE".					
	<b>State</b> : The current configuration state on AP. The valare "Unconfigured" and "Configured".					
	Version: WPS specified version.					
	<b>AP Setup Locked</b> : Indicate if AP has entered a setup locked state.					
	<b>UUID-E</b> : The universally unique identifier (UUID) element generated by the Enrollee. There is a value. It is 16 bytes.					
	<b>RF Bands</b> : Indicate all RF bands available on the AP. A dual-band AP must provide it. The values are "2.4GHz" and "5GHz".					
	<b>Close</b> : Click this button to exit the information screen.					
CXX	General WPS CCX CCM++ FALSE Cnt++> FALSE Cnt					
	Copy Frank					
	CCX information contains CCKM, Cmic and Ckip information.					
	<b>Close</b> : Click this button to exit the information screen.					

- 51 -

#### **Link Status**

Click the triangle button at the right corner of the windows to expand the link

status. The link status page displays the detail information of current connection.



Click this button to show the information of Status Section. Click this button to hide the information of Status Section.

Intelligent wireless Utilit	/					
Profile Netwo	rk Statistics	Qos WMM	<b>Ø</b> WPS	Radio On/Off	About	
Sorted by >>	SSID	Channel	Signal AP List >>		Show dBm	
3089AP		11 <b>B</b> g	9 65%	-		l
3090_richardlin_2		Ø₂ <mark>bg</mark>	65%			
Abocom-Wireless		b3 🗗	24%			
airlive_pano		Ø6 B9	65%			
Arthur218		1011 Bg	76%	-		
corega_terry		10 11 Bg	100%			
Hughes_Test		b1 bg	9 39%	-		
Rescan	Add to Profile					6
						( _ <b>^</b>
Status >> Extra Info >> Channel >>	Arthur218 <> 00-19- Link is Up [TxPower:10 11 <> 2462 MHz			Signa	nk Quality >> 91% al Strength 1 >> 78% ise Strength >> 3%	
Authentication >>	Open				-	
Encryption >>	NONE					
Network Type >>	Infrastructure		Tra	nsmit		
IP Address >>	192.168.10.39		Lin	k Speed >> 54.0 Mbps	Max	
	255.255.255.0		Thr	oughput >> 0.000 Kbps	9.560	
Default Gateway >>	192.168.10.218		121		Kbps	
				eive nk Speed >> 48.0 Mbps	Max	
			Th	oughput >> 29,288 Kbp	os 1.129 Mbps	
Link Statu	s Tab					
C4a4ma	C	horrs the	annaat	aannaation	status. If th	ana ia n
Status	~				w Disconnecte	

- 52 -

Y	
Extra Info	Shows the link status.
Channel	Shows the current channel in use.
Authentication	Authentication mode used within the network, including Unknown, Open, WPA-PSK, WPA2-PSK, WPA and WPA2.
Encryption	Shows the encryption type currently in use. Valid value includes WEP, TKIP, AES, and Not Use.
Network Type	Network type in use, Infrastructure for BSS, Ad-Hoc for IBSS network.
IP Address	Shows the IP address information.
Sub Mask	Shows the Sub Mask information.
Default Gateway	Shows the default gateway information.
Link Quality	Shows the connection quality based on signal strength and TX/RX packet error rate.
Signal Strength 1	Shows the Receiving signal strength, you can choose to display as percentage or dBm format.
Noise Strength	Shows the noise signal strength.
Transmit	Shows the current Link Speed and Throughput of the transmit rate.
Receive	Shows the current Link Speed and Throughput of receive rate.
Link Speed	Shows the current transmitting rate and receiving rate.
Throughput	Shows the transmitting and receiving throughput in the unit of K bits/sec.

- 53 -

#### **Statistics**

Successfully

CTS

CTS

After All Retries

**Reset Counter** 

Frames Fail To Receive ACK

**RTS Frames Fail To Receive** 

**RTS Frames Successfully Receive** 

The Statistics screen displays the statistics on your current network settings.

Intelligent wireless Utility			
Profile Network Statistics WMM	<b>Ø</b> WPS	Radio On/Off	About
Transmit Receive			
Frames Transmitted Successfully	-		765
Frames Retransmitted Successfully	=		100
Frames Fail To Receive ACK After All Retries			21
RTS Frames Successfully Receive CTS	-		0
RTS Frames Fail To Receive CTS	-		0
Reset Counter			
ransmit Statistics Tab			
rames Transmitted Successfully	Shows is sent.	information	of frames successful
rames Retransmitted	Shows	information	of frames successful

sent with one or more reties.

transmit after hitting retry limit.

CTS after sending RTS frame

after sending RTS.

Shows information of frames failed

Shows information of successfully receive

Shows information of failed to receive CTS

Click this button to reset counters to zero.

- 54 -

Profile	لطے Network	Statistics	WMM	WPS	Radio On/Off	About	
т							
Transr	nit Re	ceive					
F	rames Received Su	ccessfully			d	25076	
F	rames Received Wi	th CRC Error		-	11	16815	
	rames Dropped Due	To Out-of-Resourc	e	-		0	
F				-		0	
	uplicate Frames Re	ceived		-			

<b>Receive Statistics Tab</b>	
Frames Received Successfully	Shows information of frames Received Successfully.
Frames Received With CRC Error	Shows information of frames received with CRC error.
Frames Dropped Due To Out-of-Resource	Shows information of frames dropped due to resource issue.
Duplicate Frames Received	Shows information of duplicate received frames.
Reset Counter	Click this button to reset counters to zero.

## WMM / QoS

The WMM page shows the Wi-Fi Multi-Media power save function and Direct Link Setup that ensure your wireless network quality.

- 55 -



WMM/QoS Tab	
WMM Enable	Check the box to enable Wi-Fi Multi-Media function.
WMM- Power Save Enable	Select which ACs you want to enable.
Direct Link Setup Enable	Check the box to enable Direct Link Setup.
MAC Address	<ul> <li>The setting of DLS indicates as follow :</li> <li>Fill in the blanks of Direct Link with MAC Address of STA, and the STA must conform to two conditions:</li> <li>Connecting with the same AP that supports DLS feature.</li> </ul>
	<ul> <li>DSL enabled.</li> </ul>
Timeout Value	Timeout Value represents that it disconnect automatically after few seconds. The value is integer that must be between 0~65535. It represents that it always connects if the value is zero. Default value of Timeout Value is 60 seconds.
Apply	Click this button to apply the settings.
Tear Down	Select a direct link STA, then click "Tear Down" button to disconnect the STA.

- 56 -

## **WPS**

The primary goal of Wi-Fi Protected Setup (Wi-Fi Simple Configuration) is to simplify the security setup and management of Wi-Fi networks. The STA as an Enrollee or external Registrar supports the configuration setup using PIN (Personal Identification Number) configuration method or PBC (Push Button Configuration) method through an internal or external Registrar.

			۲	A	
Profile Network	Statistics WMM	WPS	Radio On/Off	About	
	WPS AP L WPS Profile				Rescan Information Pin Code 05006656 Renew Config Mode
P <u>B</u> C WPS Pr	m sociate IE	Pr	ogress >> 0%	•	Detail Connect Rotate Disconnect Export Profile Delete
	from last s	can resul Channel,	t. List info	mation ir	ncluded SSI
WPS Tab WPS AP List Rescan	from last s BSSID, Security-Er Issue a re	can resul Channel, abled. scan com	t. List info ID (De	rmation ir vice Pa vireless N	IC to upda

mormation	Display the information about WPS IE on the selected
	network. List information included Authentication Type,
	Encryption Type, Config Methods, Device Password ID,
	Selected Registrar, State, Version, AP Setup Locked,
	UUID-E and RF Bands.
PIN Code	8-digit numbers. It is required to enter PIN Code into
	Registrar using PIN method. When STA is Enrollee, you
	can use "Renew" button to re-generate new PIN Code.

- 57 -

Config Mode	Our station role-playing as an Enrollee or an external Registrar.
Detail	Information about Security and Key in the credential.
Connect	Command to connect to the selected network inside credentials. The active selected credential is as like as the active selected Profile.
Rotate	Command to rotate to connect to the next network inside credentials.
Disconnect	Stop WPS action and disconnect this active link. And then select the last profile at the Profile Page. If there is an empty profile page, the driver will select any non-security AP.
Export Profile	Export all credentials to Profile.
Delete	Delete an existing credential. And then select the next credential if exist. If there is an empty credential, the driver will select any non-security AP.
PIN	Start to add to Registrar using PIN (Personal Identification Number) configuration method. If STA Registrar, remember that enter PIN Code read from your Enrollee before starting PIN.
PBC	Start to add to AP using PBC (Push Button Configuration) method.
WPS Associate IE	Send the association request with WPS IE during WPS setup. It is optional for STA.
WPS Probe IE	Send the probe request with WPS IE during WPS setup. It is optional for STA.
Progress Bar	Display rate of progress from Start to Connected status.
Status Bar	Display currently WPS Status.

- 58 -

### Radio On/Off

Click this button to turn on or off radio function.



### About

This page displays the information of the wireless card including, RaConfig Version/ Date, Driver Version/ Date, EEPROM Version and Phy\_Address.

Intelligent w	vireless Utility						6
Profile	Network	Statistics	WMM	() WPS	Radio On/Off	About	
		RaConfig Version >>	2.0.4.0		Date >>	11-13-2007	
		Driver Version >>	3.1.1.0		Date >>	09-24-2007	
		EEPROM Version >>	1.0				
		Phy_Address >>	00-E0-98-25-	73-02			

- 59 -

## Utility Menu list

To access Windows Vista utility menu list, please right click the utility icon on

the task bar.



- Launch Config Utilities: Select to open the utility screen.
- Switch to AP Mode: Select to make your wireless USB adapter act as a wireless AP.
- **Exit**: Select to close the utility program.

- 60 -

# Soft AP mode

When device be switched to soft AP mode, the following screen will pop up, please click **OK** to enter soft AP configuration.

Notice: This screen shows up in Windows Vista 32-bit Operating System only.

ICS Select WAN Adatpter	
WAN Adapter Name:	Ethernet adapter Local Area Connection 💌
LAN Adapter Name:	Wireless LAN adapter Wireless Network Connection

## Config

SSID SoftAP	-02		
Channel 1	•	<- Use Mac Address	Security Setting
Beacon (ms)		100	
TX Power	100 %	•	
Idle time(60 - 3600)(s)		300	
No forwarding amon Hide SSID	g wireless clients		

- 61 -

A S Channel N Use Mac Address C Security Setting A v a	AP name of user type. User also can click <b>Use Mac</b> Address button to display it. System default is SoftAP-02. Manually force the AP using the channel. The system default is CH 1. Click this button to replace SSID by MAC address. Authentication mode and encryption algorithm used within the AP. The system default is no authentication and encryption.
Use Mac Address C Security Setting A vv a	system default is CH 1. Click this button to replace SSID by MAC address. Authentication mode and encryption algorithm used within the AP. The system default is no authentication and encryption.
Security Setting A wa	Authentication mode and encryption algorithm used within the AP. The system default is no authentication and encryption.
w a	within the AP. The system default is no authentication and encryption.
	Authentication Type Open    Encryption Type Not Use
	WPA Pre-shared-Key
	Group Rekey Interval 0 10 seconds
	r Wep Key
	€ Key#1 Hex ▼
	С Кеу#2 Нех 🔽
	C Key#3 Hex 💽
	C Key#4 Hex 💌
	* WEP 64 Bits Encryption: Please Keyin 10 HEX characters or 5 ASCII characters * WEP 128 Bits Encryption: Please Keyin 26 HEX characters or 13 ASCII characters
	Show Password
	OK

- 62 -

	between AP and STA. For WPA-PSK and WPA2-PSK and WPA-PSK/ WPA2-PSK authentication mode, this field must be filled with character longer than 8 and less than 32 lengths. <b>Group Rekey Interval</b> : Only valid when using WPA-PSK, WPA2-PSK, and WPA-PSK/ WPA2-PSK authentication mode to renew key. User can set to change by seconds or packets. Default is 10 seconds. <b>WEP Key</b> : Only valid when using WEP encryption algorithm. The key must match with the AP's key. There are several formats to enter the keys. • Hexadecimal (64bits): 10 Hex characters. • Hexadecimal (128bits): 26 Hex characters. • ASCII (64bits): 13 ASCII characters. <b>Show Password</b> : Check this box to show the password you entered.
Beacon (ms)	The time between two beacons. The system default is 100 ms. Manually force the AP transmits power from the
	pull down list 100%, 75%, 50%, 25% and Lowest. The system default is 100%.
Idle time(60-3600)(s)	It represents that the AP will idle after few seconds. The time must be set between 60~3600 seconds. Default value of idle time is 300 seconds.
No forwarding among wireless clients	No beacon among wireless client, clients can share information each other. The system default is no forwarding.
Hide SSID	Do not display AP name. System default no hide.
Default	Use the system default value.
Apply	Click to apply the above settings.

- 63 -

### **Access Control**

Intelligent Wireless U			
oning Access Connor	Mac lable   Event L	og   Statistics   About	
Access Policy		Disable	<b>_</b>
MAC Address		Access List	
	Add		
	Delete		
	Remove All		
	1		
		1	
			Apply

Access Control		
Access Policy	User chooses whether AP start the function or not. System default is Disable.	
MAC Address	Manually force the Mac address using the function. Click Add and the MAC address will be listed in the Access List pool.	
Access List	Display all MAC Address that you have set.	
Add	Add the MAC address that you would like to set.	
Delete	Delete the MAC address that you have set.	
Remove All	Remove all MAC address in the Access List.	
Apply	Apply the above changes.	

- 64 -

## **MAC** Table

MAC Address	AID	Power Saving Mode	Status	
•		III		÷

MAC Table	
MAC Address	The station Mac address of current connection.
AID	Raise value by current connection.
Power Saving Mode	The station of current connect whether it have to support.
Status	The status of current connection.

- 65 -

## Event Log

Event Time (yy/mm/dd- hh:mm:ss)	Message
2007 / 11 / 14 - 16 : 04 : 04 2007 / 11 / 14 - 16 : 04 : 22 2007 / 11 / 14 - 16 : 04 : 22	Restart Access Point Restart Access Point Restart Access Point
	Clear

Event Log	
Event Time (yy/mm/dd-hh:mm:ss)	Records the event time.
Message	Records all the event messages.

- 66 -

### **Statistics**

Transmit Statistics Frames Transmitted Successfully	=	4409
Frames Fail To Receive ACK After All Retries	=	24
RTS Frames Successfully Receive CTS	=	0
RTS Frames Fail To Receive CTS	=	0
Frames Transmitted Successfully After Retry	=	310
Receive Statistics		
Frames Received Successfully	=	56483
Frames Received With CRC Error	=	337477
Frames Dropped Due To Out-of-Resource	=	0
Duplicate Frames Received	=	0

Transmit Statistics		
Frames Transmitted Successfully	Frames successfully sent.	
Frames Fail To Receive ACK After All Retries	Frames failed transmit after hitting retry limit.	
RTS Frames Successfully Receive CTS	Successfully receive CTS after sending RTS frame	
RTS Frames Fail To Receive CTS	Failed to receive CTS after sending RTS.	
Frames Transmitted Successfully After Retry	Frames successfully sent with one or more reties.	

- 67 -

Receive Statistics			
Frames Received Successfully	Frames Received Successfully		
Frames Received With CRC Error	Frames received with CRC error.		
Frames Dropped Due To Out-of-Resource	Frames dropped due to resource issue		
<b>Duplicate Frames Received</b>	Duplicate received frames.		
Reset Counter	Reset counters to zero.		

#### About

This page displays the wireless card and driver version information.

Utility Version :	1.0.4.0	Date :	11-13-2007
Driver Version :	3.1.1.0	Date :	09-24-2007
EEPROM Version :	1.0	Firmware Version :	2.2
IP Address :	192.168.123.1	Phy_Address :	00-E0-98-25-73-02
Sub Mask :	255.255.255.0	Default Gateway :	0.0.0

- 68 -

# UNINSTALLATION FOR WINDOWS

# 2000/XP

In case you need to uninstall the utility and driver, please refer to below steps. (As you uninstall the utility, the driver will be uninstalled as well.)

1. Go to Start → All Programs →Intelligent Wireless → Uninstall – Wireless card.



- 69 -

2. Select **Remove all** button and click **Next** to start uninstalling.



3. Click **Yes** to complete remove the selected application and all of its features.

Intelligent wireless card - InstallShield Wizard		
Do you want to completely remove the selected application and all of its features?		

- 70 -

4. Select "**Yes**, **I want to restart my computer now**" and then click **Finish** to complete the uninstallation.



- 71 -

# UNINSTALLATION FOR WINDOWS

# VISTA

4 Back

Start Search

In case you need to uninstall the utility and driver, please refer to below steps. (As you uninstall the utility, the driver will be uninstalled as well.)

- 🗑 Default Programs 2 🥭 Internet Explorer 🔝 Windows Calendar 📧 Windows Contacts Dog Windows Defender 😤 Windows Live Messenger Download Documents 📑 Windows Mail 🚺 Windows Media Player Pictures 🔮 Windows Meeting Space 📓 Windows Movie Maker Music 🛅 Windows Photo Gallery 🦉 Windows Update Search Accessories Extras and Upgrades **Recent Items** Games 🎉 Intelligent Wireless Computer Intelligent Wirel 🛃 Uninstall - Wireless card Network Maintenance Connect To Startup **Control Panel** Default Programs
- 1. Go to Start →All Programs →Intelligent Wireless → Uninstall Wireless card.

- 72 -

ntitled - Pa

Q

Help and Support

2. Select **Remove all** button and click **Next** to start uninstalling.



3. Click **Yes** to complete remove the selected application and all of its features.



- 73 -

4. Select "**Yes**, **I want to restart my computer now**" and then click **Finish** to complete the uninstallation.



- 74 -