IEEE 802.11n Wireless USB Adapter

User's Manual

July 2008

FCC Warning

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 communication. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which

- Consult the dealer or an experienced radio/TV technician for help. the receiver is connected.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment. This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

NOTE: All Telecom and safety Tests only include this content hardware device only.

You are cautioned that changes or modifications not expressly approved by the party responsible for compliance could void your authority to operate the equipment.

FCC RF Radiation Exposure Statement: This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This Transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

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IMPORTANT NOTE:

In the event that these conditions cannot 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 cannot 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.

Revision History

Revision V2.0 History Second release

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1. Introduction

This is a wireless 11n USB Adapter that provides unsurpassed wireless performance for your Desktop PC or Notebook. It complies with IEEE 802.11n draft 2.0 wireless standard and is backward compatible with IEEE 802.11b/g. This USB adapter provides better wireless reception and up to 150/300Mbps (depend on model) data transfer rates in 11n mode. With this adapter, you can easily upgrade your Desktop PC or Notebook wireless connectivity. Once connected, to access the network with high-speed Internet connection while sharing photos, files, music, video, printers, and storage. Get a better Internet experience with a faster wireless connection so you can enjoy smooth digital phone calls, gaming, downloading, and video streaming.

The Wireless USB adapter provides peer-to-peer communication among any compatible wireless client users and no Access Point required. It also supports WEP, WPA, WPA2, WPS, 802.1x high-level WLAN security features that guarantee the best security for users..

1.1 Features

- Complies with draft IEEE 802.11n standard
- Up to 150/300Mbps (depend on model) data transfer rates in IEEE 802.11n mode
- Backward compatible with IEEE 802.11b/g
- Legacy and High Throughput Modes
- Supports 64/128-bit WEP Data Encryption
- Supports WPA, WPA2 (802.11i), WPS, 802.1x advanced security
- Supports Quality of Service (QoS) WMM, WMM-PS
- Supports both Infrastructure and Ad-Hoc Networking Modes
- Supports Multiple BSSID
- Simple user setup and diagnostics utilities

1.2 LED Indicator

LED	Light Status	Description
ACT	Blinking	Data is being transmitted or received

1.3 Package Contents

- One Wireless USB Adapter
- One USB A-type Extension Cable
- One Installation CD (Drivers, Utility, User's Manual)

1.4 Minimum System Requirements

Computer with:

- 300MHz processor and minimum 64MB RAM
- Windows 2000, XP or Vista
- A CD-ROM Drive
- An available USB 2.0 port

2. Installation Procedure

Note: If you have installed the Wireless Adapter driver & utility before, please uninstall the old version first.

2.1 For Windows XP and 2000

STEP1: The **Found New Hardware Wizard** below will appear after the USB adapter is installed. Please click **Cancel** to continue.



(For Windows XP)

Found New Hardware Wizard
Install Hardware Device Drivers A device driver is a software program that enables a hardware device to work with an operating system.
This wizard will complete the installation for this device:
2 802.11 n WLAN
A device driver is a software program that makes a hardware device work. Windows needs driver files for your new device. To locate driver files and complete the installation click. Next.
What do you want the wizard to do?
 Search for a suitable driver for my device (recommended)
Display a list of the known drivers for this device so that I can choose a specific driver
< <u>Back</u> <u>Next</u> > Cancel

(For Windows 2000)

STEP2: Insert Installation CD into CD-ROM drive, windows below will appear. Click **Install Driver & Utility** to begin device driver installation.



STEP3: Please read the following license agreement. Use the scroll bar to view the rest of this agreement. Select **I accept the terms of the license agreement** and click **Next** to continue.

Ralink Wireless LAN Install License Agreement Please sead the following license		8
Ralink	ALINK Wiedess Utility for Windows SRINE/2000/PP/Vira Compiler (CI RALINK TECHNOLOGY, CORP. All Rights Reserved. Thank you for purchasing RALINK Wiedess product! SOFTWARE PRODUCT LCENSE Toolses, as well as other intelectual property lows and international coppright testes, as well as other intelectual property lows and testes. The SOFTWARE PRODUCT to correct, not acid. 1. BRANT OF LICENSE. The End/Law License Agreement gants you for following spitschristalism and Usits You may initial and use an unimited number of copies of the SOFTWARE PRODUCT. Magnetiction and Distribution, You may instead and use an unimited number of copies of the SOFTWARE PRODUCT. Magnetiction and Distribution, You may instead and use an unimited number of copies of the SOFTWARE PRODUCT. Insteaded with you can product. I second the SOFTWARE PRODUCT is provided that each copp shall be a true and sorted to EULA. Copies of the SOFTWARE PRODUCT is provided that each copp shall be a standard or pro- to EULA. Copies of the SOFTWARE PRODUCT is provided that each copy shall be a standard or pro- to EULA. Copies of the SOFTWARE PRODUCT is provided that each copy shall be a standard or pro- set EULA. Copies of the SOFTWARE PRODUCT is provided that each copy shall be a standard or pro- to EULA. Copies of the SOFTWARE PRODUCT is provided that each copy shall be a standard or pro- set EULA. Copies of the SOFTWARE PRODUCT is provided that each copy shall be a standard or pro- set EULA. Copies of the SOFTWARE PRODUCT is provided that each copy shall be a standard or pro- set EULA. Copies of the SOFTWARE PRODUCT is provided that each copy shall be a standard or pro- set EULA. Copies of the SOFTWARE PRODUCT is provided that each copy shall be a standard or pro- set EULA. Copies of the SOFTWARE PRODUCT is provided that each copy shall be a standard or pro- set EULA. Copies of the SOFTWARE PRODUCT is provided that each copy shall be a standard or pro- set EULA. Copies of the SOFTWARE PRODUCT is provided that each copy shall be a stan	kte X
lestal (in)	(Beck [Bed)]	ancal.

STEP4: In Windows XP, there is a **Windows Zero Configuration Tool** for you to setup wireless adapter. You can choose to configure the adapter through the **Microsoft Zero Configuration Tool** or the **Ralink Configuration Tool**. It is recommended to choose the **Ralink Configuration Tool** for the adapter. Click **Next** to continue.

Ralink Wireless LAN Insta	IShield Wizard		8
Setup Type Select the setup type that best	tuts pou needs.		
	Select Configuration Tool		
	 Microsoft Zero Configuration To 		
RRalink			
kestal/1714	Gack	Ned 3	Cancel

STEP5: If you need the adapter to operate with better performance, place choose Optimize for performance mode to enable the Tx Burst mode. Or you can choose Optimize for WiFi mode to run in standard wireless network.

Ralink Wireless LAN - InstallShield Wizard			8
Setup Type Select the setup type that best	nuða your needa.		
Ratink	Choose Conliguation Tailuari or W Diprimes for Withmode Diprimes for performance mode		
lextrafficied	< Back	Net>	Cancel

STEP6: Click **Install** to begin the installation.

Ralink Wireless LAN – Install Ready to Install the Program The waard is ready to begin ind	
	Click Instal to begin the installation. If you want to review or change any of your installation settings, clicit. Each. Clicit. Cancel to eait the world.
RRalink	
lextal Webs	(Back judal Cancel

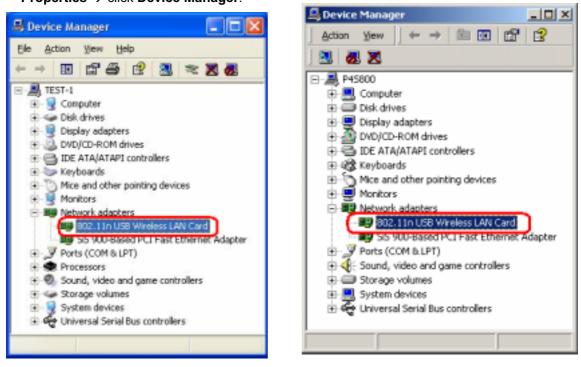
STEP7: Please wait for a while during the adapter is configuring your new software installation.

Ralink Wireless LAN - Install5	ihield Wizard 🛛 🕅
Setup Status	
	The InstallSheld Wicard is installing Flaink: Wireless LAN
	Installing
15	
Ralink	
lental Triled	Cancel

STEP8: After the setup wizard has successfully installed wireless LAN, click **Finish** to exit the wizard.

Ralink Wireless LAN - Install5	hield Wizard
Ralink	InstallShield Wizard Complete The InstallShield Wizard has auccentually installed Raink Wiseless LAN. Click Frish to end the excerd
textsf521-d	c Back

To check if the adapter is properly installed, you can right-click **My Computer** \rightarrow choose **Properties** \rightarrow click **Device Manager**.



(For Widows XP)

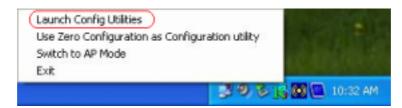
(For Widows 2000)

The Configuration Utility appears as an icon on the system tray of Windows while the adapter

is running. You can open the utility by double-click on the icon.

Right-click the icon, there are some items for you to operate the configuration utility,

- Launch Config Utilities \rightarrow Select this option to open the Configuration Utility tool.
- Use Zero Configuration as Configuration utility → Select this option to use Windows XP built-in wireless configuration utility (Windows Zero Configuration) to configure to card.
- Switch to AP Mode \rightarrow Select this option to change to AP mode.
- **Exit** \rightarrow Select **Exit** to close the Configuration Utility tool.



2.2 For Vista

STEP1: The **Found New Hardware Wizard** below will appear after the USB adapter is installed. Please click **Cancel** to continue.

Found New Hardware
Windows needs to install driver software for your 802.11 n WLAN
Locate and install driver software (recommended) Windows will guide you through the process of installing driver software for your device.
Ask me again later Windows will ask again the next time you plug in your device or log on.
Don't show this message again for this device Your device will not function until you install driver software.
Cancel

STEP2: Insert Installation CD into CD-ROM drive, windows below will appear. Click **Install Driver & Utility** to begin device driver installation.



STEP3: Please read the following license agreement. Use the scroll bar to view the rest of this agreement. Select **I accept the terms of the license agreement** and click **Next** to continue.

Ralink Wireless LAN - InstallShie	eld Wizard	×
License Agreement Please read the following licen	se agreement carefully.	
Ralink	ALINK Weeless Utility for Windows SR/ME/2000/P/Mata Copyright [C] RALINK TECHNOLOGY, CORP. All Rights Reserved. Thank you for purchasing RALINK Wireless product! SOFTWARE PRODUCT LICENSE The SOFTWARE PRODUCT LICENSE The SOFTWARE PRODUCT LICENSE The SOFTWARE PRODUCT LICENSE In GRANT OF LICENSE. This End-User License Agreement grants you the following right-Installation and Use. You may install and use an unlimited number of copies of the SOFTWARE PRODUCT. Beproduction and Distribution. You may reproduce and distributes an unlimited number of copies of the SOFTWARE PRODUCT. Beproduction and Distribution. You may reproduce and distributes an unlimited number of copies of the SDFTWARE PRODUCT: provided that each copy shall be a true and completes online SDFTWARE PRODUCT. Beproduction and Distribution. You may reproduce and distributes an unlimited number of copies of the SDFTWARE PRODUCT provided that each copy shall be a true and completes online SDFTWARE PRODUCT. Beproduction and Distribution. You may reproduce and distributes an unlimited number of copies of the SDFTWARE PRODUCT. Beproduction and Distribution. You may reproduce and distributes an unlimited number of copies of the SDFTWARE PRODUCT. Beproduction and Distribution. Beproduction and beproduct. Beproduction and Distribution. Beproduction and Beproduct. Beproduction and Distribution. Beproduction and Beproduction. Beproduction and Beproduction. Beproduction and Beproduction. Beproduction and Beproduction. Beproduction and Beproduction. Beproduction and Beproduction. Beproduction an	
InstallShield	< Back Cane	al

STEP4: Click **Install** to begin the installation.

Ralink Wireless LAN - InstallShield	Wizard
Ready to Install the Program The wizard is ready to begin insta	llation.
Ralink	Click Install to begin the installation. If you want to review or change any of your installation settings, click Back. Click Cancel to esit the weard.
InstallStrid	< Back Instal Cancel

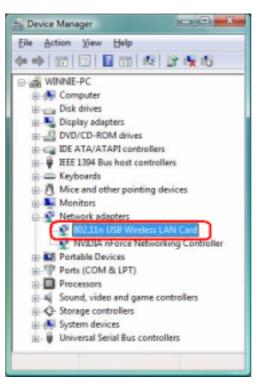
STEP5: Please wait for a while during the adapter is configuring your new software installation.

Ralink Wireless LAN - InstallShield	Wizard
Setup Status	The bort Right Strate is installed Rabib Mindaes I AN
Ralink	The InstallShield Wizard is installing Raink Wireless LAN Installing C: VPtogram Files/RALINK/RT2870 Wireless LAN Card/Driver/Rainst.exe
Install Stridd	Cancel

STEP8: After the setup wizard has successfully installed wireless LAN, click **Finish** to exit the wizard.

Ralink Wireless LAN - InstallShield	Wizard
	InstallShield Wizard Complete
Ralink	The InstallShield Wizard has successfully installed Palink Wireless LAN. Click Finish to exit the wizard.
InstallSifeld	< Back Finish Cancel

To check if the adapter is properly installed, you can right-click **My Computer** \rightarrow choose **Properties** \rightarrow click **Device Manager**.



The Configuration Utility appears as an icon on the system tray of Windows while the adapter

is running. You can open the utility by double-click on the icon.

			1				
SSID	BSSID	Phy	Signal			Authentic	Network Ty.
Belkin_N1	00-17-3F-5A-8E-AD	N	76%	1	None	Unknown	Infrastructure
many_test	00-06-4F-5B-13-2F	N	96%	3	None	Unknown	Infrastructure
	00-05-4F-43-CF-8F	G	55%	6	None	Unknown	Infrastructure
_	00-06-4F-33-44-66	N	20%	6	None	Unknown	Infrastructure
WLAN_SW	00-07-40-F1-99-42	G	100%	9	ткар	WPA-PSK	Infrastructure
MISO mySSID	00-06-4F-1F-34-A6 00-03-7F-FE-00-02	G	86% 96%	10	None	Unknown	Infrastructure
+ Disconnected		_	m	Rescan	[Add to Profi	

Ralink wireless utility needs to cooperate with Microsoft AutoConfig service in order to perform scanning and connecting actions, so the AutoConfig service should be enable beforehand.



Control Menu \rightarrow Once Ralink wireless utility is minimized, the user can click the Ralink icon on the taskbar to bring up the control menu.

- Launch Config Utilities \rightarrow Restore Ralink wireless utility window.
- Switch to AP Mode \rightarrow Select this option to change to AP mode.
- **Exit** \rightarrow Select **Exit** to close the Configuration Utility tool.

3. Wireless Network Configuration Utility

3.1 For Windows XP & 2000

The Configuration Utility is a powerful application that helps you to configure the Wireless LAN adapter and monitor the link status and statistics during the communication process. When the adapter is installed, the configuration utility will be displayed automatically. This adapter will auto connect to wireless device which has better signal strength and no wireless security setting.

In Windows XP, it provides wireless configuration utility named "Windows Zero configuration" which provides basic configuration function for Ralink Wireless NIC, Ralink's Utility (RaUI) provides WPA supplicant functionality. To make it easier for user to select the correct utility, RaUI will let user make the selection when it first runs after windows XP boots.

RaUI can co-exist with **WZC** (**Windows Zero Configuration**). When coexisting with WZC, RaUI only provides monitoring function, such as link status, network status, statistic counters, advance feature status, WMM status and WPS status. It won't interfere with WZC's configuration or profile functions. Please see below picture: To select WZC or RaUI



If "**Use Zero Configurations as Configuration utility**" is selected, please continue on the section. Below picture shows that the RaUI status when WZC is active as main control utility.

Profile	Network	Advanced) Statistics		U VVPS	Radio On/Off	R	
forted by >>	QR2	 Channel 	e List	Signal		Show dBr	n	
123		101		100%	-			
123		101		100%	-			
8651C		10%		366	_			
agapha_01		30	80 .	20%	_			
Default_11N		100		100%	-			
GRI		101		246	-			
RTL865s-GW		611		76%	-			
RTRYWLAN		08	80	100%	_			
textext		101		100%	-			11
WRS14VN_FTP	Server	101	090-	100%	-			۰.
Rescan	Connect	Add to Profile						
Statu	>> Default_11N>1	00-06-47-59-10-32			10	NUMBER OF STREET		
	>> Link Is Up (TxPow							
Authentication	1 2 2 9 c- x 2452 Witt; 0	central chennel 7				Constanting of Autor		
Encryption					140	te Strength >> 26%		
	>> Infrastructure			7	ansmit			
IP Address	++ 192.168.1.100			1	Link Speed +> 15	0.0 Alters No.		
	++ 255.255.255.0				Throughput >> 0.1	940 Kbps 83.4		
Default Gateway	** 192.168.1.1					Khp		
	нт			FI	cerive			
EW >> 40		3980 +> 21			Link Speed >> 30	000000		
GI >> short	MCS >> 7	ShR1 +> 2118223	19e		Throughput >> 24	-252 K006 350 A	84	

When activating WZC, there are couple different on RaUI status compare to the without WZC running:

- (1) **Profile** button will be gray, profile function is removed since the NIC is controlled by WZC.
- (2) The **connect** and **add profile** function will be gray. The reason is same as the first difference.

[Use WZC to configure wireless adapter]

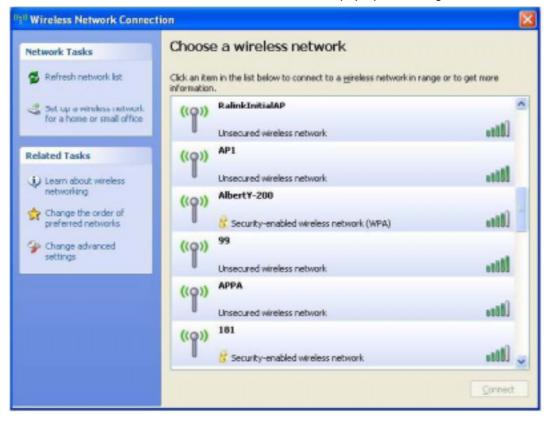
STEP1: If connection is lost or not connected, the status prompt as below will pop up.



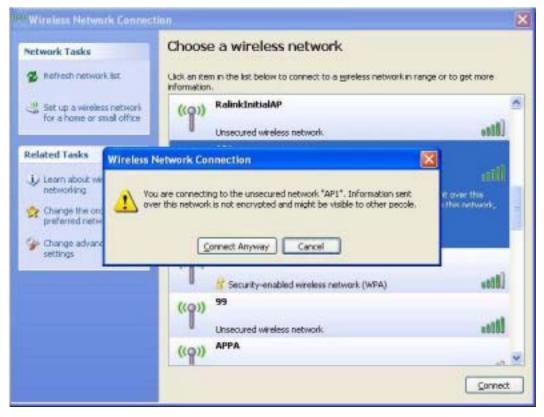
STEP2: Right-click the network connection icon in the task bar.



STEP3: Select "View Available Wireless Networks" will pop up the dialog shown as below.



STEP4: Select intended AP and click "**Connect**" shown as below, then click "**Connect Anyway**".



STEP5: AP1 is successfully connected.

⁰¹⁰ Wireless Network Connect	ion	×
Network Tasks	Choose a wireless network	
Set up a wireless network for a hone or small office	Cick an item in the list below to connect to a wireless network in range or to get more information.	^
Related Tasks	((p)) 242 C Security-enabled wireless network (WPA)	
change the order of preferred networks	((p)) 202 Unsecured wireless network	
Grange advanced settings	((p)) AP Security-enabled wireless network (WPA)	
	((p)) 219 <u>8</u> Security-enabled wireless network (WPA)	
	((p)) Baron_PC_AP4 8 Security-enabled wireless network	×
	Corner	t



STEP6: If you want to modify information about AP, click "Change advanced settings"

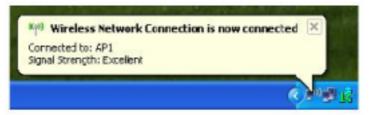
STEP7: Choose "Wireless Networks" tab.

	And a start and a start and a start			
eneral	Wireless Networks	Advance	d	
✓ Use	Windows to configur	e my wirek	sss network	settings
Avail	able getworks:			
	annect to, disconnect t wireless networks in			
		6	View Wirele	ss Network
P		Manabie m	etworks in th	Move yp
	w.	ManaLard Fre	stworks in th	
	w.	rvanaure n	tworks in th	
	w.	wallable re	tworks in th	Move yp
	w.		Properties	Move yp
Learn	AP1 (Automatic)	we	Properties	Move yp
Learn	x: AP1 (Automatic) Add about setting up wire	we	Properties	Move yp Move <u>dow</u>

STEP8: Click "Properties" and then click "OK" button.

P1 proper	ties	2
Association	Authentication	Connection
Network na	ame (SSID):	AP1
Wireless	network key	
This netv	vork requires a ke	ey for the following:
Network	Authentication:	Open 👻
<u>D</u> ata end	cryption	Disabled 🖌
Network	key:	
Confirm r	etwark key:	
Key inde	g (advanced):	1
The k	ey is provided fo	r me-automatically
	s computer-to-cor points are not us	mputer (ad hoc) network; wireless ed

STEP9: After filling appropriate value, click "**OK**" button. And the status will prompt up as below.



STEP10: Click the Ralink's icon will bring up RaUI main window. User can find the surrounding APs in the list. The current connected AP will also shown with the green icon indicated as below screen. User may user the available tab to configure more advanced features provided by Ralink's wireless NIC.

RaUI									. 8
	Profile	Network	Advanced	Statistics		() WPS	Radio On/Off	R	
orted	by >>	📀 59D	 Channel 		Signal		Show dân		
				AP List	3.9				
123			101	89	100%				• •
123			101	09	100%				•
B651	c		69	8907	366 💼				
NEND	ha_01		\$6	89 7	208				
Defa	ult_11N		30	890	100X 💼				. 1
GRI			101		246				
RTLS	965x-GW		611	0.000	76.8				
RTR	YWLAN		\$8	80	100%				
test	test		101	Buffe	100%	_			11
WRS	ANN_FTP_	Server	101	090-	100%				
Re	IN DOM	Connect	Add to Profile						
	Statur	·· Default_11N ·····	00-06-47-59-13-32				Contraction of the second		
	Extra Info	>> Link is Up (TxPow	er: 10016			212	Harden I I I I I I I I I I I I I I I I I I I		
		× 9 ↔ × 2452 ₩45;	central channel i 7				Section 11 April 19		
1000		>> Unknown				Note	Strength >> 26%		
	Encryption :	>> Nore >> Infrastructure							
		+ 192,168,1,100			Transmi	rt. A. Speed +> 150.0	Alexand Mark		
		+ 255.255.255.0				sughput >> 0.840	Andre Contraction		
Defau	t Cateway	++ 192.168.1.1			1104	and the second second	83,948 Kbes		
		нт			Receive			-	
EW.			3980 >> 21		LT	k Speed >> 300.0	Hops Max		
	+ shart	ACS >> 7	SNR1 ++ 2118222	0e	Theo	Nighout >> 24.25	2 Kops 250,954		

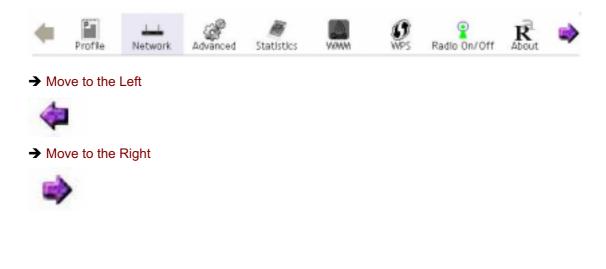
3.1.1 Start

When starting RaUI, system will connect to the AP with best signal strength without setting profile or matching profile setting. It will issue a scan command to wireless NIC. After two seconds, the AP list will updated with the result of BSS list scan. The AP list include most used fields, such as SSID, network type, channel used, wireless mode, security status and signal percentage. The arrow icon indicates the connected BSS or IBSS network.

Profile	Network	Advanced 5) Statistics		Ø WPS	Radio On/Off	R	
iorted by >> (590	Channel		Signal		🔲 Show dân		
123		101	AP List	1005				
123		101		1005				
B651C		5.		346	_			
agapha_01		5.		208	_			
Default_11N		5.		1008				. 1
GRI GRI		51		246	_			1
RTL865s-GW		611		768				
RTRYWLAN		08		100%				
testtest		51		100%	_			17
WR514VN_FTP_Set	O.M.F.	51		100%				
Report	Connect.	Add to Profile						1
TO A COMPANY OF THE OWNER OWNER OF THE OWNER OWNE								
NEW YORK	Darfor ett. antik an and						_	
Status ++	Default_11N> 0							Í
Status ++ Extra Info ++	Default_11N> 0 Link Is Up (TxPowe 9> 2452 WHz; c	HT 10010						
Status ++ Extra Info ++	Link is Up (TxPowe 9	HT 10010						
Status ++ Extra Info ++ Channel ++	Link is Up (TxPowe 9 «—» 2452 Wilts o Unknown	HT 10010						
Status >> Extra Info >> Channel >> Authentication >> Encryption >> Network Type >>	Link is Up (TxPowe 9	HT 10010		Transm	Note	Strength >> 26%		
Status ++ Extra Info ++ Channel ++ Authentication ++ Encryption ++ Network Type ++ IP Address ++	LINA IS Up (TxPowe 9	HT 10010		11	Note Note	Strength >> 26%		
Status >> Extra Info >> Channel >> Authentication >> Encryption >> Network Type >> IP Address >> Sub Mask >>	LINK IS Up (TxPowe 9	HT 10010		11	Note	a Atapa Atapa Napa Atapa Atapa Atapa Atapa Atapa Atapa		
Status ++ Extra Info ++ Channel ++ Authentication ++ Encryption ++ Network Type ++ IP Address ++	LINK IS Up (TxPowe 9	HT 10010		11 11v	Note NT na Speed ++ 1937 Sugtput ++ 0.84	Strength >> 26K		
Status >> Extra Info >> Channel >> Authentication >> Encryption >> Network Type >> IP Address >> Sub Wask. >>	Link I: Up (TxPove 9 2052 Web; o Unknown Norm Hitractructure 192, 168, 1, 100 255, 255, 255, 0 192, 168, 1, 1	HT 10010		Li The Recent	Note NT na Speed ++ 1937 Sugtput ++ 0.84	s Atapa Atapa Atapa Atapa Atapa Atapa		

There are three sections in RaUI. These sections are briefly described as below.

- Button Section: include Profile page, Network page, Advanced page, Statistics page, WMM page, WPS page, About button, Radio On/Off button and Help button.
- → Button Section



Function Section: Corresponding button

-	Profile Pag	е			
	Prof	lle List			
				Profile Name >>	
				SSID >>	
				Network Type >>	
				Authentication >>	
				Encryption >>	
				Use 002.1x >>	
				Channel >> Power Save Mode >>	
				Tx Power >>	
				RTS Threshold >>	
				Fragment Threshold >>	
Add	Edit		Activate		
100	- Luc	and the second	10010310		

➔ Network Page

arted by >> 🔵 SSID	Channel	AP List >>	Show dBr	h
_Shlang_2860.4P	沙口 💈	9 🛐 81% 📕		<u>^</u>
333	43 🖪	9 🕈 55%		
AlbertY-200	\$6 🖪	9 9 76%		
AP	炒1 🚦	9 🕈 55% 🖠		
AP1	\$6 🖪	100%		
арра	\$6 🖪	9 🗊 70% 🚦		
8545	10 th	g 81%		-
Broadcom	10 II 🕒	9 81%		-
Buffalo 54	1011 🖪	76%		
Cobra	106 🖪	9 9 348		~
Resoan Connect	Add to Profile	-		

➔ Advanced Page

Wireless mode >>	802.11 B/G/N mtx	•	Enable CCX (Cisco Compatible eXtensions)
			Turn on CORM
			Enable Radio Measurements
Drable TX Burst			Non-Serving Channel Measurements limit 250 ms (D-2007)
Enable TCP Windo	w Size		
Fast Poarning at	-70 dBm		
Show Authenticat	ton Status Dialog		
Select You	ar Country Region Code		
118/G >> 0	OH1-11	*	
Apply			

➔ Statistics Page

Transmit	Receive	
Franes Transmitte	d Successfully	1402
Franes Retransmit	ted Successfully	4
Frames Fail To Rece	elve AOK After All Retries	σ
RTS Frames Succes	rfully Receive CTS	0
RTS Frames Fail To I	Receive CTS	a

Reset Counter

→ WMM Page

WMM Enable				
WAM - Power Save Er	able			
AC_BX	AC_BE	AC_M	AC_VD	
Direct Link Setup En	ble			
MAC Address >>		Thread, Val	M 22 60 SHC	40039
				Tear Down

→ WPS Page

D Unknown	hsinchuf	00-11-26-71-27-68	6	-	Rescan
					Information.
					Pin Code
					64093945 Renew
		WPS Profile List			Canfig Hode
					Ervolee 💌
					Dest.
					(sever)
					Fritate
					Disconnect.
PR I	WPS Accordate IE	Progress >> 0%		-	in faunt horte.
PBC	WPS Probe IE				24qte

(c) Copyright 2007, Ralink Technology, Ir	nc. All rights reserved.
ReConfig Version >> 2.0.3.0	Date ++ 00-02-2007
Driver Version >> 1.0.4.0	Date ++ 07-28-2007
EEPROM Version >> 134.0	
Firmware Version >> 0.4	
Ptry_Address >> 00-06-4F-55-60-77	

 Status Section: Include Link Status, Authentication Status, AP's information, Configuration and retrying the connection when authentication is failed.

Channel : Authentication :			Signal Strangth 1 Signal Strangth 2 Noise Strangth (se 100N
IP Address	>> Infrestructure >> 192.168.1.100 >> 255.255.255.0		Transmit Link Speed >> 150.0 Mbps Througtput >> 0.840 Kbps Becetve	Max 80,948 Kbps
BW >> 4D GI >> short	WCS >> 7	5NR0 >> 25 5NR1 >> 2118223%	Link Speed >> 300.0 Wbps Throughput >> 24.252 Kbps	Max 350,984 Rbos

➔ Authentication Status

→ Link Status

Card Name >> Ralink 8	02.11n Wireless LAN Card	Connected by manual
16:37:25.062	Starting network connection	
16:37:25.171	Network is connecting	
16:37:25.281	PEAP Authenticating	
16:37:28.375	Wireless client is authenticated.	

→ AP's Information

General	WPS	X30	
	SSID >> AP1		
HAC AD	dress >> 00-00-7F-00-07-44	i i	Aged Strength + + +014
Authentication	Type ++ Unknown		Supported Rates (Hbps)
Encryption	Type >> None		1, 2, 5, 5, 11, 6, 12, 24, 36, 9, 18, 48, 54
o	ennel >> 6 <> 2437000 KH	2	
Network	Type >> Infractructure		
	terval >> 100		
			OK

→ Retry the Connection

			-	
Profile Name >> PROF1		Pacsword >	*	
Hessage >> invalid identity or password				
	ОК	Cancel		

→ Configuration

Syste	m Config	Auth. \ Encry.	802	1X		
,	uthentication >>	WPA 🔻		Encryption >>	тюр 🔻	
	WPA Preshared N	ay >>				
Wep Ke	η					
0	Key#1	Hexadectinal	- F			
0	Key#2	Hexadecimal	*			
0	Key#3	Hexadecinal	-			
0	Keyd14	Hexadecinal	- I			Show Password
				ок	Cancel	

At the mean time of starting RaUI, there is also a small Ralink icon appears within windows taskbar as below. You may double click it to bring up the main menu if you selected to close RaUI menu earlier. You may also use mouse;s right button to close RaUI utility.



- Besides, the small icon will change color to reflect current wireless network connection status. The status indicates as follow:
 - → 11/15 -- indicate Connected and Signal Strength is Good.
 - → III -- indicate Connected and Signal Strength is Normal
 - → INS -- indicate Wireless NIC is not connected yet
 - → M -- indicate Wireless NIC is not detected
 - ➔ K -- indicate Connected and Signal Strength is Weak

3.1.2 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.



[Definition of each field]

Profile Name: Name of profile, preset to PROF* (* indicate 1,2,3,...)

SSID: AP or Ad-Hoc name

Network Type: Network's type, including infrastructure and Ad-Hoc.

Authentication: Authentication mode

Encryption: Encryption Type

Use 802.1x: Whether or not use 802.1x feature

Channel: channel in use for Ad-Hoc mode

Power Save Mode: Choose from CAM (Constantly Awake Mode) or Power Saving Mode.

Tx Power: Transmit power, the amount of power used by a radio transceiver to send the signal out.

RTS Threshold: User can adjust the RTS threshold number by sliding the bar or key in the value directly.

Fragment Threshold: User can adjust the Fragment threshold number by sliding the bar or key in the value directly.

[Icons and buttons]

- → indicate connection is successful on currently activated profile
- ► → indicate connection is failed on currently activate profile
- \checkmark \rightarrow indicate network type is infrastructure mode
- Indicate network type is Ad-Hoc
- Indicate security-enabled wireless network

Add	→ Add a new profile
Edit	→ Edit an existing profile
Delete	➔ Delete an existing profile
Activate	→ Activate selected profile

 \blacksquare Show the information of Status Section

▲ → Hide the information of Status Section

3.1.2.1 Add/Edit Profile

There are 3 methods to open Profile Editor form:

- → You can open it from "Add to Profile" button in Site Survey function
- → You can open it form "Add" button in Profile function
- → You can open it from "Edit" button in Profile function

Profile Name >>	PROFI		Network Type >>	Infrastructure	•
MID >>	AP1	-	Tx Power >>	Auto	•
Power Save Wode >>	CAN @ PSM		Presentate av-	4.61	Ŧ
] RTS Threshold			-) 200	23-97.)	

Authentication		Encryption ** Non	e 🔹	B02.1K	
WPA Preshare	d Key >>				
ep Key					
Sey#1	Hexadecimal 👻 🗌			6	
Sey#2	Hexadecimal 👻 🗌				
Key#3	Hexadectmal 👻 🗌				
O NEVEL	Hexadecimal 💌] Show Parsword

Profile Name: User can chose name for this profile, or use default name defined by system.SSID: User can key in the intended SSID name or use pull down menu to select from available APs.

Power Save Mode: Choose from CAM [Constantly Awake Mode] or Power Saving Mode.

Network Type: There are two types, infrastructure and 802.11 Ad-Hoc mode. 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 be available for setup in Ad-Hoc mode.

RTS Threshold: User can adjust the RTS threshold number by sliding the bar or key in the value directly. The default value is 2347.

Fragment Threshold: User can adjust the Fragment threshold number by sliding the bar or key in the value directly. The default value is 2346.

Channel: Only available for setting under Ad-Hoc mode. User can choose the channel frequency to start their Ad-Hoc network.

Authentication Type: There are 7 type of authentication modes supported by RaUI. They are Open, Shared, LEAP, WPA, WPA-PSK, WPA2, WPA2-PSK.

Encryption 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.

802.1x Setting: It is an authentication for WPA and WPA2 certificate to server.

WPA Pre-Shared Key: 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.

WEP Key: Only valid when using WEP encryption algorithm. The key must matched AP's key. There are several formats to enter the keys:

- → Hexadecimal 40bits: 10 Hex characters
- → Hexadecimal 128bits: 26 Hex characters.
- → ASCII 40bits: 5 ASCII characters
- → ASCII 128bits: 13 ASCII characters