

AírData 150 míní USB

11n Wireless USB Adapter



Manual

Version 1.0

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1. Introduction

Crypto's Airdata 150 mini USB is the smallest wireless USB adapter! Its compact design allows any user to carry it in his pocket and gain access to any available wireless network at speeds of up to 150 Mbps. Just plug this wireless mini USB adapter to any laptop or desktop and you are ready to browse the Internet wirelessly! Users can connect to any form of wireless networks since it is IEEE 802.11n compliant and is backward compatible with previous versions of the IEEE 802.11 standards (b/g). Meanwhile, it supports the major security features such as WEP, WPA and WPA2 encryption that guarantees the best security for users improving reliability in data transfers. Furthermore with the WPS configuration feature, connecting to a wireless network has never been easier. You do not have to be an experienced technician to utilize wireless networks!

Features

High-efficiency antenna expands the scope of your wireless network.

High-speed data transfer rate - Up to 150Mbps.

WMM function: control the bandwidth required for different applications.

Works with 802.11b/g/Draft-N wireless networks.

Supports major encryption methods like WEP, WPA, and WPA2 encryption.

WPS configuration - You don't need an experienced computer technician to help you to get connected. Utilizing the software program of the card, you can get your computer connected by pushing a button or entering an 8-digit code. You can also activate the WPS connection by pressing the WPS button.

USB 2.0 interface - you can get it installed on your computer in just few seconds!

LED Indicator

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

Package Contents

One Airdata Wireless USB Adapter (1) One USB Extension Cable (2) QIG and Warranty (3) One Installation CD (Drivers, Utility, User's Manual) (4)





Minimum System Requirements

Computer with: An empty USB 2.0 port Windows XP or Vista operating system A CD-ROM drive At least 100MB of available disk space



Familiarize your self with your new wireless network adapter

- 1. USB Connector
- 2. Link/Activity LED
- 3. WPS Button



LED	Light Status	Description
Radio Off	Off	Wireless LAN function is disabled.
Radio On	Off	No link to wireless AP or Router
(No Link)	Flashing	Transmitting management information.
Radio On	On	Link to wireless AP or Router
(Link to AP or	F1 1 '	
Router)	Flashing	Transmitting data or management information.



2. Installation Procedure

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

Windows XP and Vista

Insert the CD in the CD-ROM drive and plug in the Airdata 150 mini USB to one available USB slot. The Found New Hardware Wizard below will appear after the USB adapter is installed. Please click Cancel to continue.





Insert the Installation CD into your CD-ROM drive and execute the Airdata 150 mini USB setup.exe file. The following window will appear. 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



It is recommended to install the driver and the utility if you use the network adapter for the first time. If you just want to update the driver only, choose "Install driver only" Click Next to continue.





In Windows XP, there is a Windows Zero Configuration Tool for you to setup the 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.





The following message will appear at your screen, please click 'Install' to begin the installation. If the 'Found New Hardware' message appears again, please ignore it and wait for the installation to begin.



Please wait, while the adapter is configuring your new software installation. After the setup wizard has successfully installed wireless LAN, click Finish to exit the wizard.





To check if the adapter is properly installed, you can right-click My Computer \rightarrow choose Properties \rightarrow Hardware 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-clicking on the icon. Right-click the icon, there are some items for you to use the configuration utility, Launch Config Utilities \rightarrow Select this option to open the Configuration Utility tool. Use Zero Configuration as Configuration utility \rightarrow Select this option to use Windows XP built-in wireless configuration utility (Windows Zero Configuration) to configure the card.

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

[Use WZC to configure wireless adapter]

The first time you will connect the device and there are available wireless networks

in range, a notification window will appear as shown in the following picture.



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



Select "View Available Wireless Networks" and the following window will appear as shown below.



Select the intended AP and click "Connect" as shown below, then click "Connect

Anyway".



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AP1 is successfully connected. In the example above the wireless network has no security features.

((†)) Wireless Network Connect	ion	
Network Tasks	Choose a wireless network	
🛃 Refresh network list	Click an item in the list below to connect to a <u>w</u> ireless network in rang information.	e or to get more
Set up a wireless network for a home or small office	((o)) ^{AP1}	Connected 👷 🔷
	Unsecured wireless network	= 0000
Related Tasks	((Q)) ²⁴²	
 Learn about wireless 	Gecurity-enabled wireless network (WPA)	000s
	((Q)) ²⁰²	
preferred networks	Unsecured wireless network	
Change advanced	((ወ)) ^{AP}	
settings	🕴 😚 Security-enabled wireless network (WPA)	
	((Q)) ²¹⁹	
	🕴 Becurity-enabled wireless network (WPA)	
	((Q)) Baron_PC_AP4	
	Security-enabled wireless network	• • 000 👱
		Connect

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



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Choose "Wireless Networks" tab.

General	Wireless Networks	Advance	d
🔽 Use	Windows to configur	e my wirele	ess network settings
Avail	able networks:		
Toc	onnect to, disconnect	from, or fin	d out more information
abou	(WIEIESS NELWOIKS IN	range, cilo	K trie Dutton Delow.
Prefe	rred networks:	vailable ne	tworks in the order listed
Prefe Autor belov	rred networks: matically connect to a v: AP1 (Automatic)	vailable ne	tworks in the order listed
Prefe Autor belov	rred networks: matically connect to a v. AP1 (Automatic)	vailable ne	tworks in the order listed Move up Move down
Prefe Autor belov	rred networks: matically connect to a v. AP1 (Automatic) Add <u>R</u> emo	vailable ne	tworks in the order listed Move up Move down Properties

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



Association	Authentication	Connection	
Network <u>n</u> a	ime (SSID):	AP1	
Wireless	network key	L	
This netv	vork requires a k	ey for the following:	
Network	Authentication:	Open	~
<u>D</u> ata end	cryption:	Disabled	*
Network	<u>k</u> ey:		
C <u>o</u> nfirm n	etwork key:		
Key inde	(advanced):	1	
⊡ T <u>h</u> e k	ey is provided fo	r me automatically	
This is a	i computer-to-co points are not us	mputer (ad hoc) network; ed	wireless

After filling the desired value, click the "OK" button. The following notification will appear as shown below.



[Use RaUI to configure wireless adapter]

By clicking the Ralink's icon will bring up the RaUI main window. The user can find the surrounding APs in the list. The current connected AP will also be shown with the green icon indicated as shown in the screen below. The user may use the available tabs to configure more advanced features provided by the Airdata 150 mini USB adapter.



Airdata 150 mini USB 11n Wireless Adapter

🖥 RaUI							
Profile	لمطلق Network	کی Advanced) Statistics	WAWA	Ø WPS	Radio On/Off	About
Sorted by >> (SSID	Channe	i 🥝) Signal		Show dBm	
			AP Lis	st >>			
		1	D 🛛 🗍 🗍	76% 📶			
		1 0	6907	94% 📰			
		1 /3	13 <mark>13 1</mark>	91%			
mySSID		11	b g	94%			
SMC		10	Bg f	86%			-
WLAN SW		109		100%			
Status >>	WLAN_SW <>	Had to Frome			E Link Ö	uality >> 100%	
Extra Info >>	Link is Up [TxPowe	er:100%]				ength 1 >> 100%	
Channel >>	9 <> 2452 MHz			1		ength 2 >> 100%	100
Authentication >>	WPA-PSK			125	Noise St	trength >> 26%	
Encryption >>	ткір						
Network Type >>	Infrastructure			Transmi	it		
IP Address >>	192.168.10.47			Link	k Speed >> 48.0 Mb	ops Max	W .
SUD Mask >>	255.255.255.0 197 168 10 1			Thro	oughput >> 17.088	Kbps 19.968	
Default Gatering 22	HT			_		Kbps	
DW		CNIDO		Receive	k Speed ss 54 0 MF	Max	
ow >> n/a GI >> n/a	MCS >> n/a	SNR1 >> n/a SNR1 >> n/a		Thro	oughput >> 486.420) Kbps 547.860 Kbps	

When starting RaUI, the system will connect to the AP with the best signal strength without setting a profile or matching the profile setting. It will issue a scan command to wireless NIC. After two seconds, the AP list will be updated with the result of BSS list scan. The AP list includes the 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.





🖥 RaUI							
Profile	LLL Network	Advanced) Statistics	www.	Ø WPS	Radio On/Off	About
iorted by >> 🕜	SSID	🙆 Channe	l 🥥	Signal		Show dBm	
		ሌ.		7/07			
		10 I		/5%			
		U 10		94%			
		63	090	91%			
mySSID		U 11	P a	94%			
SMC		1 0	b 9 🕈	86%			
WLAN_SW		16 9	69 🕈	100%			
Status >> W	IAN SW <>				- Link	Quality Sy 400%	
Extra Info >> Lir	nk is Up (TxPowe	er:100%]				trength 1 >> 100%	
Channel >> 9	<> 2452 MHz					trength 2 >> 100%	100
Authentication >> W	PA-PSK			63	Noise	Strength >> 26%	
Encryption >> TK	IP						
Network Type >> In	frastructure			Transmi	t		
IP Address >> 19	2.168.10.47			Link	< Speed >> 48.0 /	Mbps Max	W
Sub Mask >> 25	5.255.255.0			Thro	ughput >> 17.08	8 Kbps 19.968	1 I I
Default Gateway >> 19	2.168.10.1					Kbps	
				Receive			
BW >> n/a		SNRO >> n/a		Link	<pre>speed >> 54.07 uabout >> 494.4</pre>	Abps Mex	14.
GI>> n/a	MC2 >> n/a	SNR1 >> n/a		Inro	ugnput >> 400.4	547.860 Kbps	a day

4. Connect to Wireless Access Point

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

NOTE: In Windows Vista, the network card will not connect to any unencrypted wireless access point automatically.



The current status of wireless connection will be displayed by the Ralink configuration utility icon:

R Wireless connection is established, good signal reception.

R+ Wireless connection is established, normal signal reception.



R+ Wireless connection is established, weak signal reception.



K Connection is not established yet.

Wireless network card is not detected.

There are two ways you can configure your wireless network device to connect to a wireless access point: using the Ralink configuration utility and using the built-in windows zero configuration utility.



4.1 Using Ralink Utility

Please follow the instructions below to use Ralink configuration utility to connect to a wireless access point.

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

	Laurah Carlin Hilbu	
******	Launch Conng Utility	
	Use Zero Configuration as Configuration Utility	
	Switch to AP Mode	
	Exit	
		40,

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

	<u></u>	<u> </u>	<u>I</u>	Gos	Ø	8	R	Menu
Profile	Network	Advanced	Statistics	WWW	WPS	Radio On/Off	About	
Sorted by >>	O SSID	🎱 Cha	annel 🥝	Signal		Show dBm		
		1 03	6000	39%				
		101	690	24%				Setup
Ē		\$ 6	6907	81%			- 10	Area
								7 II Cu
								_
Rescan	Add to Prof	ile Cor	nnect					More / 2
	And the other designation of the other designa	PROFESSION PROFESSION					-	button

RaUI consists of two parts: Menu and setup area. You can select a setup function (Profile, Network, etc.) from menu, and corresponding setup items will be displayed at setup area.



Some functions include more information, and can not be fitted in the setup area. In this case, you can click 'More / less' button to expand the setup utility window, to display more information:

10000000				<u></u>	25.0	1	
Profile	Network	Advanced	Statistics	www.	Ø WPS	Radio On/Off	About
Sorted by >>	SSID	🙆 Cha	annel 🥝	Signal		Show dBm	
		Юз		70%			
		101	Baff	29%			
		ъ.		70%			
Rescan	Add to Profile	Cor	nnect				
Rescan	Add to Profile	Cor	nnect				-
Rescan Status >>	Add to Profile	Cor	nnect		Link	Quality >> 96%	_
Rescan Status >> Extra Info >>	Add to Profile	Cor	nnect		Link Signal Si	Quality >> 96% trength 1 >> 79%	
Rescan Status >> Extra Info >> Channel >>	Add to Profile	Cor ower: 100%] z; central chann	nnect nel : 6		Link Signal S Noise S	Quality >> 96% trength 1 >> 79% Strength >> 26%	-
Rescan Status >> Extra Info >> Channel >> Authentication >>	Add to Profile Link is Up [TxPc 6 <> 2437 MHz WPA-PSK	Cor ower:100%] z; central chanr	nnect nel : 6		Link Signal S Noise S	Quality >> 96% trengttut >> 79% Strength >> 26%	
Rescan Status >> Extra Info >> Channel >> Authentication >> Encryption >>	Add to Profile Link is Up [TxPo 6 <> 2437 MHz WPA-PSK TKIP	Cor ower:100%) z; central chanr	nnect nel : 6		Linka Stgmat S Noise S	Quality >> 96% trength 1 >> 79% Strength >> 26%	
Rescan Status >> Extra Info >> Channel >> Authentication >> Encryption >> Network Type >>	Add to Profile Link is Up [TxPo 6 <> 2437 MHz WPA-PSK TKIP Infrastructure	Cor ower:100%] z; central chann	nnect	Transmit —	Linka Stgnal St Noise S	Quality >> 96% trength 1 >> 79% Strength >> 26%	
Rescan Status >> Extra Info >> Channel >> Authentication >> Encryption >> Network Type >> IP Address >>	Add to Profile	Cor ower: 100%] z; central chann	nnect	Transmit — Link Speed >>	Linka Stgnal St Noise S 65:0 Mbps	Quality >> 96% trength 1 >> 79% Strength >> 26%	
Rescan Status >> Extra Info >> Channel >> Authentication >> Encryption >> Network Type >> IP Address >> Sub Mask >>	Add to Profile	Cor ower:100%] z; central chann	nnect	Transmit — Link Speed >> Throughput >	Link a Stgnal S Noise S > 65:0 Mbps > 0.000 Kbps	Quality >> 96% trength 1 >> 79% Strength >> 26%	
Rescan Status >> Extra Info >> Channel >> Authentication >> Encryption >> Network Type >> IP Address >> Sub Mask >> Default Gateway >>	Add to Profile	Cor ower: 100%] z; central chann	nnect	Transmit — Link Speed >> Throughput >>	Link 3 Stgnal 3 Noise 5 > 65.0 Mbps > 0.000 Kbps	Quality >> 96% trength 1 >> 79% Strength >> 26%	
Rescan Status >> Extra Info >> Channel >> Authentication >> Encryption >> Network Type >> IP Address >> Sub Mask >> Default Gateway >>	Add to Profile Link is Up [TxPo 6 <> 2437 MH; WPA-P5K TKIP Infrastructure 192.168.168.11 255.255.255.0 192.168.168.1	Cor ower: 100%] z; central chann	nnect	Transmit Link Speed >> Throughput >> Receive	Link 3 Stgnal 3 Noise 5 > 65.0 Mbps > 0.000 Kbps	Quality >> 96% trength 1 >> 79% Strength >> 26%	
Rescan Status >> Extra Info >> Channel >> Authentication >> Encryption >> Network Type >> IP Address >> Sub Mask >> Default Gateway >>	Add to Profile Link is Up [TxPo 6 <> 2437 MH: WPA-PSK TKIP Infrastructure 192.168.168.11 255.255.255.0 192.168.168.1 HT	Cor ower: 100%] z; central chann	nnect	Transmit Link Speed >> Throughput >> Receive Link Speed >	Link 3 Stgnal 3 Noise 5 > 65.0 Mbps > 0.000 Kbps > 39.0 Mbps	Quality >> 96% trength 1 >> 79% Strength >> 26% Max 56.912 Kbps L.	
Rescan Status >> Extra Info >> Channel >> Authentication >> Encryption >> Network Type >> IP Address >> Sub Mask >> Default Gateway >> BW >>20	Add to Profile	Cor ower:100%] z; central chann 17 SNRD >> 0	nnect	Transmit — Link Speed >> Throughput >> Receive — Link Speed > Throughput >>	Link 3 Stgnal 3 Noise 5 > 65.0 Mbps > 0.000 Kbps > 39.0 Mbps > 39.0 Mbps	Quality >> 96% trength 1 >> 79% Strength >> 26% Max 56.912 Kbps I.	

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

Tip: If a setup item requires more information to complete the setup procedure, the setup utility window will expand automatically.



4.1.1 Scan for Other Wireless Devices

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

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

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

Firstly you need to know the Wireless device's 'SSID' (Service Set IDentifier, someone will call it the 'access point's name') and secondly the encryption key in case the wireless network is secured.

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

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

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



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		(j ^e		Qos	0	8	R
Profile	Network	Advanced	Statistics	WWW	WPS	Radio On/Off	About
Sorted by >>	OI25	🙆 Cha	nnel 🥝) Signal		Show dBm	
		0.03	AP L	ist >>			
		1 /23	b 9 n Ø	39%			
		101	bgn	24%			
		6	B9n7	81%			-

Scan results will be displayed here, please check if the wireless device (access point or another computer) with the SSID you wish to connect is shown here.

Scan result includes 6 types of information. These information's are:

•	ゆ3 ゆ1 	6904) 690 6907	39% 24% 81%	
А	В	С	D	E

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

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

B The type of this wireless device and the channel number of this wireless device.

Means this wireless device is an access point

Means this wireless device is a computer (Ad-Hoc mode, point-to-point connection)

C The wireless standard supported by this access point is displayed here.

'n' for 802.11n , 'g; for 802.11g , and 'b' for 802.11b .



WPS icon \mathfrak{G} will appear when the access point supports WPS. If the access point uses encryption, a key icon \mathfrak{T} will appear. Note: When the access point supports WPS and WPS icon \mathfrak{G} is appeared, you will

note: when the access point supports wPS and wPS icon \checkmark is appeared, you will not see the key icon \clubsuit here even through the access point uses encryption.

D Shows the signal strength of the access point by percentage.

E Shows the bar graph of the signal strength.

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

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

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



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P	يلط	<u>_</u>	A	<u></u>	A	•	Z
Profile	Network	Advanced	Statistics	WWW	WPS	Radio On/Off	About
Sorted by >>	O SSID	🙆 Cha	innel	Signal		Show dBm	
		6 3	B9D9	55%		_	
default		11	600	55%			
		1	690	44%			
		\$ 6	12 🖸 🗍 🕈	86%			
Rescan	Add to Profi	ile Cor	nnect				
Rescan General	Add to Profi	ile Cor	nnect CX	802.11n			_
Rescan General	Add to Profi	ile Cor	nnect CX	802.11n			
Rescan General MAC -	Add to Profi WPS SSID >> KEN Address >> 00-1	lle Cor C C-10-AA-FE-0D	nnect CX	802.11n	enal Strength >	> 86%	
Rescan General MAC - Authenticati	Add to Profi WPS SSID >> KEN Address >> 00-1 on Type >> WPA	lle Cor C C-10-AA-FE-0D -PSK	CX	802.11n	gnal Strength >	> 86%	
Rescan General MAC Authenticati Encrypti	Add to Profi WPS SSID >> KEN Address >> 00-1 on Type >> WPA on Type >> TKIP	lle Cor C C-10-AA-FE-0D -PSK	CX	802.11n Str Legacy Supp 6, 9, 11, 12,	gnal Strength > prted Rates (MI 18, 24, 36, 48,	> 86%	
Rescan General MAC . Authenticati Encrypti	Add to Profi WPS SSID >> KEN Address >> 00-1 on Type >> WPA on Type >> TKIP Channel >> 6 <	lle Cor C C-10-AA-FE-0D -PSK -> 2437 MHz	nnect CX	802.11n 5i Legacy Suppi 6, 9, 11, 12, 802.11n Max	gnal Strength > orted Rates (MI 18, 24, 36, 48, . Supported Rat	> 86% ops): 1, 2, 5.5, 54 :es (Mbps):	
Rescan General MAC Authenticatio Encryptio	Add to Profi W/PS SSID >> KEN Address >> 00-1 on Type >> WPA on Type >> TKIP Channel >> 6 < rk Type >> Infra	lle Cor C-10-AA-FE-OD -PSK > 2437 MHz astructure	CX	802.11n St Legacy Suppi 6, 9, 11, 12, 802.11n Max 130.0	enal Strength > prted Rates (Mi 18, 24, 36, 48, . Supported Rat	> 86% ops): 1, 2, 5.5, 54 :es (Mbps):	
Rescan General MAC Authenticati Encrypti Netwo Beacon	Add to Profi	ile Cor C C-10-AA-FE-OD -PSK -> 2437 MHz astructure	CX	802.11n Legacy Supp 6, 9, 11, 12, 802.11n Max 130.0	enal Strength > orted Rates (MI 18, 24, 36, 48, . Supported Rat	> 86% pps): 1, 2, 5.5, 54 res (Mbps):	

There are 4 types of technical information:

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

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

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

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

Here are descriptions of every setup item in setup area:



Item Name	Description
Sorted by >>	You can decide how to sort all listed access point by
	'SSID', 'Channel', or 'Signal' (signal strength).
Show dBm	Check this box to show the signal strength of access point,
	instead of percentage.
Rescan	Click this button to rescan access points. You can click this
	button for several times, if the access point you wish to use
	does not show in the list.
Add to Profile	You can store a specific access point to profile, so you can
	link to that access point directly next time, without
	inputting authentication key again.
	To add an access point to profile, you have to select an
	access point from the list first, then click 'Add to Profile'
	button. Detailed instructions will be given below.
Connect	Connect to a selected access point. You have to select an
	access point from the list first and then click 'Connect' to
	connect to the selected access point.



4.1.2 Connect to an Access Point

If the wireless access point you wish to connect is found, you can establish a connection with it by clicking 'Connect' button. Please follow the instructions below to connect to an a access point.

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



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

If the wireless access point does not have SSID, you'll be prompted to input it now. Please ask the owner of the wireless access point for the exact SSID and input it here, then click 'OK' when ready. If the SSID you provided here is wrong, you'll not be able to connect to this access point.



(727707)		~					-
P	<u></u>	(j ^e		Gos	0	8	R
Profile	Network	Advanced	Statistics	WWW	WPS	Radio On/Off	About
Sorted by >>	SSID	🥝 Cha	annel 🥝) Signal ist >>		Show dBm	
		11	6969	55%			
		6 3	B9n <i>9</i>	60%			
		1 /2	B90	39%			
		1 /26	1 <mark>59</mark> 🗊 🕈	76%			
Rescan	Add to Prof	ile Cor	nnect				
Rescan	Add to Prof	ile Cor	nnect				_
Rescan	Add to Prof	ile Cor	nnect				
Rescan	Add to Prof	ile Cor	nnect				_
Rescan	Add to Prof	ile Cor	nnest				
Rescan	Add to Prof	ile Cor Please enter SSI	D				_
Rescan	Add to Prof	ile Cor Please enter SSI	D		_		_
Rescan	Add to Prof	ile Cor Please enter SSI	D		_		
Rescan	Add to Prof	ile Cor Please enter SSI	D OK	Cancel	_		
Rescan	Add to Prof	ile Cor Please enter SSI	D OK	Cancel	_		-
Rescan	Add to Prof	ile Cor	D OK	Cancel			

If the wireless access point uses encryption, you will be prompted to input its WEP

key or WPA preshared key.

Authentication >>	WPA-PSK	•	Encryption >>	TKIP	•
WPA Preshared Key >>					
Wep Key					
Key#1	Hexadecimal	-			Show Password
🙆 Key#2	Hexadecimal				
🙆 Key#3	Hexadecimal	- T			
Key#4	Hexadecimal	- F			

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

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



Authentication type will be selected by the authentication type of the access point automatically, please don't change it.

However, if you're connecting to an access point that uses 802.1 x authentications, you will have to check the '802.1x' box and input the related information.

If the wireless access point is successfully connected, a symbol \triangleright will appear in front of the name of the wireless device.

+ Re	ıUı								
	Profile	Network	ر Advanced	Statistics	waxa WAWA	Ø WPS	Radio On/Off	About	
:	Sorted by >>	🥝 SSID	🙆 Cha	nnel 🥥	Signal		Show dBm		
			1¢3 ⊮⊳	b9n Ø	39%				
	:		6 6	<u>6</u>60 8 0	24%				
	••••••								
and a second	Rescan	Add to Profi	le Cor	nect					
	A DE LE COMPANY DE LE COMPANY DE		Real Property lies and the local division of						-

You can place the mouse cursor over the Ralink configuration utility icon, and a brief information popup balloon window regarding the link status and the signal strength of current wireless connection will appear.



You can also click the More / Less button (_____) to see detailed information of

the connected access point:

Status >>			Link C	Juality >> 79%
Extra Info >>	Link is Up [Tx	Power:100%]	Signal St	rength 1 >> 73%
Channel >>	6 <> 2437 M	Hz; central channel : 6	Noise S	trength >> 26%
Authentication >>	WPA-PSK			
Encryption >>	TKIP			
Network Type >>	Infrastructur	re	Transmit	
IP Address >>	192.168.168.	117	Link Speed >> 65.0 Mbps	Max
Sub Mask >>	255.255.255.	0	Throughput >> 1.648 Kbps	242.240
Default Gateway >>	192.168.168.	1		Kbps
	117		Receive	
	— ni —		Link Speed >> 39.0 Mbps	Max
BW >>20		SNR0 >> 27	Thusunebook +	-22.244
GI >> long	MCS >> 7	SNR1 >> n/a	Throughput >>26.472 Kbps	-22,244 Hbps



4.1.3 Add an Access Point to Profile

If you want to connect to a specific wireless access point frequently, you can add the access point information to the profile section. Just like the telephone directory, the profile saves all the information of the access point, and you can recall them anytime you wish to establish a connection.

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

To add a new found access point to the profile, please select the new access point first (to make it highlighted), then click 'Add to Profile' button; to input the information of the access point by yourself, please go to 'Profile' menu and click the 'Add' button.





The setup utility will expand:

System Config Auth. \ Encry.	8021X			
Profile Name >> PROF2		Network Type >>	Infrastructure	•
SSID >> KEN	•	Tx Power >>	Auto	•
Power Save Mode >> 🕜 CAM	PSM	Preamble >>	Auto	▼
RTS Threshold	0	2347	2347	
Fragment Threshold	256	2346	2346	
	ОК	Cancel		

Here are the descriptions of every setup item:

Item Name	Description
Profile Name	You can give this profile a name. Every profile needs a
	unique name.
SSID	Please input the SSID of this access point. If you selected
	an access point from the list, and its SSID is not hidden,
	the SSID will be filled automatically; however, you can
	modify the SSID by yourself.
Network Type	Please select the network type: Ad hoc or Infrastructure. If
	you're connecting to an access point, please select
	'Infrastructure'; for point-to-point wireless connection (i.e.
	connecting to another computer using Ad Hoc mode),
	please select Ad hoc here.
	If you selected an access point from the list above, please
	keep this field unchanged.
Tx Power	You can select the wireless output power here. If you're
	not too far away from the access point (hence you have a
	good signal reception), you can select a lower output
	power to save energy; for a distant access point, you can
	select a higher output power.
	It's suggested to select 'Auto' to let the setup utility to
	decide the best output power for you.



Preamble	Select the preamble for Ad hoc mode here. Available
	options are 'Auto' and 'Long'.
	It's suggested to select 'Auto' to let setup utility decide the
	preamble for you.
Channel	You can select the radio channel number for AdHoc mode
	here.
Power Save Mode	Please select CAM (constantly awake mode, keep wireless
	radio activity even when not transferring data), or PSM
	(Power saving mode, switches radio off when not
	transferring data).
	It's recommended to choose 'PSM' if you're using this
	network adapter with a notebook computer to help the
	battery live longer.
RTS Threshold	Check this box to set the RTS threshold manually. You can
	drag the slider to set the threshold value, or input the value
	in the box located at right.
	It's recommended to keep this value untouched unless you
	know the effect of changing this value.
Fragment Threshold	Check this box to set the packet fragment threshold
	manually. You can drag the slider to set the threshold
	value, or input the value in the box located at right.
	It's recommended to keep this value untouched unless you
	know the effect of changing this value.



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

System Config Auth. \ F	incry.	8021X				
Authentication >>	WPA-PSK	•	Encryption >>	ткір 🔻		
WPA Preshared Key >>						
Wep Кеу ————						
O Key#1	Hexadecimal	-			Show Passu	word
🖉 Key#2	Hexadecimal	-				
Key#3	Hexadecimal	-				
Key#4	Hexadecimal	-				
		ок	Cancel			

Here are the descriptions of every setup item:

Item Name	Description					
Authentication	Select the authentication type of the wireless access point or wireless					
	device you wish to connect. When you're adding a profile from an					
	existing access point or wireless device, authentication type will be					
	selected automatically, and please do not change it.					
	If you select 'LEAP', you'll be prompted to input LEAD specific settings:					
	Identity >>					
	Password >>					
	Domain Name >>					
	🕗 WEP 🙆 WPA-TKIP 🥥 WPA2-AES					
	Please input LEAP identity, password, domain name, and select					
	encryption type. You can check 'Show Password' box so the password					
	you inputted will be displayed as you type, but not replace by asterisk.					
Encryption	Select the encryption type of the wireless access point or wireless					
	device you wish to connect. When you're adding a profile from an					
	existing access point or wireless device, the encryption type will be					
	selected automatically, and please do not modify it.					



WPA Preshared	Input WPA preshared key here. If encryption is not enabled, or you			
Key	select 'WEP' as encryption type, this field will be disabled and grayed			
	out.			
WEP Key	You can select key type (Hexadecimal or ASCII) and input WEP key			
	here. If encryption is not enabled, or you select 'WPA' as encryption			
	type, this field will be disabled and grayed out. You can set up to 4 WEP			
	keys here.			
	There are two types of WEP key: Hexadecimal and ASCII. For			
	Hexadecimal key, you can input number 0-9 and alphabet a-f; for			
	example, '001122aabbcc'; For ASCII key, you can input number 0-9			
	and alphabet a-z; for example, mywepkey12345.			
	The length of WED have dependence the type of WED have you calented			
	The length of wEP key depends on the type of wEP key you selected.			
	You can input 10 or 26 hexadecimal characters and 5 or 13 ASCII			
	characters as WEP key.			
Show Password	Check this box and all passphrases or security keys you inputted will be			
	displayed as you type, but not replace your input with asterisk.			
Use 802.1x	If the access point you wish to connect requires 802.1x authentication,			
	please click on 'Use 802.1x' box, then click '802.1X' tab to set 802.1x			
	parameters.			

To set an 802.1x authentication for the access point, please click the '802.1X' tab:

AP Method >> PEAP	▷ ▼ Tunnel Authentication >> EAP-MSCHAP v2 ▼ 🦳 Session Resumption
ID \ PASSWORD	Client Certification Server Certification
Authentication ID / Pas	ssword
Identity >>	Password >> Domain Name >>
Tunnel ID / Password	, , ,
Tunnel ID >>	Tunnel Password >>
,	_



Here are the descriptions of every setup item:

Item Name	Description				
EAP Method	Select 802.1x EAP method from the dropdown menu. Please ask the				
	administrator of the access point you wish to connect, to select a correct				
	EAP method.				
Tunnel	Select the 802.1x tunnel authentication type from the dropdown r				
Authentication	Please ask the administrator of the access point you wish to connect				
	select a correct tunnel authentication method. This pull down menu is				
	Smart Card', or 'TTLS'.				
	When you use 'EAP-FAST' as the authentication type, the protocol setting is always 'Generic Token Card' and can not be changed. You also need to select 'Soft Token' or 'Static Password' as password in 'ID \setminus Password' setting.				
	'EAP Fast' authentication type also has a sub-menu to set EAP fast-specific parameters:				
	Allow unauthenticated provision mode				
	Use protected authentication credential Remove Import				
	File Path >>				
	If you need to use protected authentication credential, check 'Use protected authentication credential' box, and click 'Import' to load .pac credential file: to remove a loaded credential file, click 'Remove'.				
Session	You can enable or disable session resumption here. If you don't know if				
Resumption	you should enable session resumption or not, please ask your 802.1x				
	authentication administrator.				
ID \ Password	Input the 802.1x username (ID) and password and other information if				
lad	typed.				
Client	Use this tab to select a local certificate from the dropdown menu. If the				
Certification tab	access point you wish to connect required a specific client certificate,				
	the certificate must be installed on your computer, and you can select				
	the certificate here.				



Server	Use this tab to use server-based certification. Please select a CA				
Certification tab	(Certificate Authority) from the dropdown menu. If intermediate				
	certificates are allowed, please select 'Allow intermediate certificates'.				
	Also, if you need to specify CA server's name, you can specify it in				
	'Server name' field. You can select 'Server name must match', so				
	CA server's name must be the same with the value you set in 'Server				
	name' field; If only the domain name part of full server name must be				
	the same with the value you set in 'Server name' field, select 'Domain				
	name must end in specified name'.				

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

🔖 RaUI P= **Ø** WPS R About 68 9 Radio On/Off Profile Advanced Statistics Network WWW Profile List Profile Name >> PROF1 70 SSID >> Network Type >> Infrastructure Authentication >> WPA-PSK Encryption >> TKIP Use 802.1x >> NO Tx Power >> Auto Channel >> Auto Power Save Mode >> CAM RTS Threshold >> 2347 Delete Add Edit Activate Fragment Threshold >> 2346

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



4.2 Using Windows Zero Configuration

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

Right-click Ralink configuration utility icon and select 'Use Zero Configuration as Configuration utility'.



Right click Windows Zero Configuration icon and select 'View Available Wireless Networks'.



Click 'Start' button, click 'Control Panel', then click 'Network and Internet Connections' in the Control Panel.

🛃 Control Panel		
Eile Edit View Favorites Iools	Help	A
🔇 Back - 🕥 - 🏂 🔎 Se	arch 😥 Folders 💷 🗸	
Address 📴 Control Panel		💌 🄁 Go
Control Panel	Pick a category	
See Also	Appearance and Themes	Printers and Other Hardware
 Windows Update Help and Support 	Network and Internet Connections	User Accounts
	Podd or Remove Programs	Date, Time, Language, and Regional Options
	Sounds, Speech, and Audio Devices	Accessibility Options
	Performance and Maintenance	Security Center



Click 'Network Connections'.



Right-click 'Wireless Network Connection' (it may have a number as suffix if you have more than one wireless network card, please make sure you right-click the 'Ralink 802.11n Wireless LAN Card), then select 'View Available Wireless Networks'.

(P) Wireless Network Connection 2	LAN or High-Sp Not connec	ted, Firewalled:
Local Area Connection L 1394 Connection	Disable View Available Wireless Networks Status Repair	Firewalled Firewalled
	Bridge Connections	
-	Create Shortcut Delete	
-	Properties	-

All wireless access points in proximity will be displayed here. If the access point you want to use is not displayed here, please try to move your computer closer to the access point, or you can click 'Refresh network list' scan for wireless access points. Click the access point you want to use if it's shown, then click 'Connect'.




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

If the access point you selected does not use encryption, you'll not be prompted for security key or passphrase.

Wireless Network C	onnection	×
The network 'default' re network key helps preve	quires a network key (also called a WEP key or WPA key). A ent unknown intruders from connecting to this network.	
Type the key, and then	click Connect.	
Network <u>k</u> ey:	Ĩ.	
Confirm network key:		
	<u>Connect</u> Cancel	



If you can see 'Connected' message, the connection between your computer and wireless access point is successfully established.





4.3 Profile Management

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

CONTRACTOR OF THE OWNER	
Launch Config Utility	1
Use Zero Configuration as Configuration Utility	
Switch to AP Mode	
Exit	
	4 0,

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

Re RaU									
	Profile	Network	ر Advanced	Statistics	NAM	Ø WPS	Radio On/Off	About	
		Pro	file List ———		-				
PRC	F1			Ţ.	2 F	Profile Name s SSID Network Type Authentication Encryption Use 802.1x Tx Power Channel Power Save Mode BTS Threshold	>> PROF1 >> >> Infrastructure >> WPA-PSK >> TKIP >> NO >> Auto >> Auto >> CAM >> 23d7		
	Add	Edit	Delete	Activate	Fra	gment Threshold	>> 2346		_



4.3.1 Add a profile

If you want to add a new profile, click 'Profile' menu, then click 'the Add' button. You'll be prompted to input detailed information of the access point.

N4 RaUI							X
Profile	Lage Network	ر Advanced	Statistics	NAMA NA	Ø WPS I	Radio On/Off	X About
	Prot	ile List					
PROF1	KEN Edit	Delete	Activate	Pi B Frag	Profile Name >> SSID >> Network Type >> Authentication >> Encryption >> Use 802.1x >> Tx Power >> Channel >> Dwer Save Mode >> RTS Threshold >> gment Threshold >>		•
System Confi Profile Power	Ig Auth, (Enci Name >> PROF2 SSID >> Save Mode >> O Co RTS Threshold Fragment Threshold	ам о рям 256 —	21X	Vetwork Type > Tx Power > Preamble > 2347	 > Infrastruct Auto Auto 2347 2346 	ure 🔻	
			ок	Cancel			



4.3.2 Edit an existing profile

If you have added a profile before, and you wish to change the content of the profile, you can use this function. Please select a profile from the list first, then click the 'Edit' button. You'll be provided with the contents of the selected profile, and you can edit them. Click 'OK' to save any changes, or click 'Cancel' to discard changes.

Na RaUI								×
Profile	↓ ⊥⊥ Network	ر Advanced	Statistics	www.	Ø WPS	Radio On/Off	About	
-	Pro	file List						
PROF1 Add System Config	KEN Edit	Delete ry. 80	Activat 21%	Po e Frag	Profile Name >> SSID >> Network Type >> Authentication >> Encryption >> Use 802.1x >> Tx Power >> Channel >> wer Save Mode >> RTS Threshold >> ment Threshold >>	PROF1 KEN Infrastructure WPA-PSK TKIP NO Auto Auto CAM 2347 2346		
Profile Na S Power Sa	ame >> PROF1 ISID >> KEN ave Mode >> 🕐 C	am 🕐 psm	×	Network Type >> Tx Power >> Preamble >>	Infrastruc Auto	sture		
🗌 RT	S Threshold agment Threshold	0 – 256 –	ок) 2347] 2346 Cancel	2347			



4.3.3 Delete an existing profile

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

800							
Polie	Network	Advanced	and the second s	A NY	Ø WPS	Padio Onv Off	X About
	Pro	Me List					
FR.3*1	NZH	.	•	i A Pos	Profile Hense + SSID >> Interact: Type >> Interkisekisn >> Enaryption >> Uss BCC, Tk >> Tx Poeer +> Channel +> ar Save Hoole >>	FROM HEAL Hinheat nucleurs HINH-FSK FIDD HIN Auto Kuto Kuto Kuto Kuto	
Add Swstem CorrAg	Auth. \ Enc	Dainta	Activate	right fright	RTS Thrachold » ant Thrachold »	- 2542	
Add System Config Profile N	Arth. \Ene	Date 19		kstavork Type to	RTS Threadwald >> and Threadwald >> indvastru	- 2345 - 2346 - 3146	
Add System Config Profile N	Antha Alere Antha Alere Ane PROP1	ry. *****		istavorik Type im Tx Pawer im	ent Threaduald as int Threaduald as Indivestiva Auto	- 2947 - 2946 	
Add System Config Profile N	Arth \Ere are >> PRC*1	() () () () () () () () () () () () () (estavork Type io- Tic Power io- Presentate re-	RTS Threachaid >> and Threachaid >> Indeastru Auto Auto	atura v	
Add System Config Profile N Passer 1 Passer 1	Arth. \Ere Arth. \Ere are Vete >> 0 0 3Thmetel	(), () () () () () () () () () () () () ()		estavorik Type so Tx:Power so Presentes ro	ETS Thruschald >> ant Thruschald >> Indvastru Auto Auto	2507 • 2546 • 001001 • •	
Kdd System Config Profile N Power 3 ro ro Fr	Arth \ Ere Arth \ Ere bro + PRCP1 CE + C cen Koth >> O C S Threshold Ingerek Threshold	Control (7)		istherik Type is TxPater is Promitin re 2246	RIS Threadwald w and Threadwald w Indeestru Auto Auto Saut7 2016	- 294 - 294 - 1 	

4.3.4 Activate a profile

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



Airdata 150 mini USB 11n Wireless Adapter

N4 RaUI								
Profile	L_L Network	Advanced) Statistics		Ø WPS	Radio On/Off	About	
	Pro	file List						
PROF1 Add System Config	KEN East Auth. \ Enc	Delate ay. 800	Activat	Po Prop	Profile Name >> SSID >> Network Type >> Authentication >> Encryption >> Use 802.1x => Tx Power >> Channel >> wer Save Mode >> RTS Threshold >> ment Threshold >>	PROF1 NEN Infrastructure WPA-PSK TKIP NO Auto Auto CAM 2247 2346		•
Profile N	artie >> PROF1			Network Type >:	> infrastru	cture 🔻		
s	SID >>		*	Tx Power >>	Auto			
Power S	ove Hode >> 🙆 C	AN 🥝 PSW		Preamitie >>	Acto	~		
E RT	5 Threshold	0 =) 2347	2347]		
E Fr	agment Threshold	256 -) 2346	2346			
			OK.	Cancel				

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

4.4 Advanced Settings

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

Please follow the instructions below to set advanced wireless settings:

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





Click 'Advanced' menu, and the settings below will appear:

RaUI									×
	Profile	Hetwork	Advanced	Statistics	www.	Ø WPS	Radio On/Off	R About	
Wirele	ess mode >> Enable TX Bursi Enable TCP Win Fast Roaming a Show Authentic	t Idow Size t -70 dBm cation Status Dialo	g		Enable CCX Turn or Enable Non- 25	(Cisco Compati n CCKM Radio Measurer -Serving Chann 90 ms (0-200	ble eXtensions) nents el Measurements limit D)		
-	Apply							_	-



Here are the descriptions of every setup item:

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



connectivity.
Non-Serving Channel Measurements Limit: When you're
connecting to CCX-compatible access point, check this
box to enable measurement on unused radio channels to
improve wireless connectivity.

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



4.5 View Network Statistics

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

Please follow the instructions below to check network statistics:

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



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

	P	<u></u>	<u>E</u>	<u>M</u>	Gos	Ø	Ŷ	R	
	Profile	Network	Advanced	Statistics	WWW	WPS	Radio On/Off	About	
Tr	ransmit	Receive							23
	Frames 1	Fransmitted Succe	ssfully		-		4106		
	Frames F	Retransmitted Suc	cessfully		-		1081		
	Frames F	Fail To Receive ACI	K After All Retries		-		2		
	RTS Fram	nes Successfully Re	eceive CTS		-		0		
	RTS Fram	nes Fail To Receive	CTS		=		0		
_									
Rese	et Counter	() () () () () () () () () ()							

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



4.6 WMM Setting

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

Please follow the instructions below to set advanced wireless settings:

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



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

🔒 RaUI									×
	Profile	Network	ر Advanced	Statistics	WAWA	Ø WPS	Radio On/Off	About	
WMM	Setup Status -								
	WMM >> E	nabled	Power Save >	> Disabled		D	irect Link >> Disabled		
	ww.	M Enable							
		WMM - Power Sav	e Enable						
		AC_BK	AC_BE	AC_VI	AC_VO				
		Direct Link Setup	Enable						
		MAC Address >>			Timeout Value >>	60 SE			
							App		
							Tearl	Jown	
							Tear	200011	
									-

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



Item Name	Description
WMM Enable	Check this box to enable the WMM function. Please click
	the 'Apply' button on the right of this check box after you
	check or uncheck this box, so corresponding settings in
	this window will be activated or deactivated respectively.
WMM - Power Save	Check this box to enable WMM power saving mode to
Enable	save energy, and let your computer's battery live longer.
	You also have to select WMM power save modes here:
	AC_BE: Best Performance
	AC_BK: Worst Performance
	AC_VI: Video data has priority
	AC_VO: Voice data has priority
Direct Link Setup	If you have another WMM-enabled wireless device, you
Enable	can enter its MAC address here, then click the 'Apply'
	button, and the network adapter will establish a direct link
	to the wireless device you specified here.
	You also have to specify the timeout value of this directly-linked wireless device. Valid values are from 1 to 65535 (seconds), and input '0' for infinity. If you want to remove a specific wireless device from direct link table, select the device and click this button to
	remove it.



4.7 WPS Configuration

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

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

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



4.7.1 WPS Setup - PBC (Push-Button Configuration)

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



Click 'WPS' menu and the following settings will appear.

R4 RaUI	l							
	Profile	↓ ⊥↓ Network A	dvanced) Statistics	Cos WWWW	Ø WPS	Radio On/(Off About
			WP	S AP List			,	
ID :		6F				3	9	Rescan Information
ID :						11	-	Pin Code
			WDC	Drofilo List				41489098 Renew
				Profile List			, in the second s	Config Mode
							•	Enrollee
								Detail
<							>	Connect
	PIN	WPS Associate IE			Progress >> 0	%		Rotate
Nonconcerning of the local division of the l	PBC	🖊 WPS Probe IE						Disconnect
		Auto	1					Export Profile
								Delete

Set 'Config Mode' to 'Enrollee', and then push the 'WPS' button on your wireless access point (the button used to activate WPS standby mode may have another name), or use another way to start WPS PBC standby mode following the instructions given by your wireless access point's user manual.

You can also set 'Config Mode' to 'Registrar'. In this mode, this wireless network card will wait for other WPS-enabled access points to send WPS pairing requests. Please refer to the instruction given by your wireless access point's user manual to understand how to send WPS requests.



Before you start to establish the wireless connection by using WPS, you can click 'Rescan' button to search for WPS-enabled access points near you again, to make sure the WPS function of your access point is activated.

R4 RaUI	
Profile Network Advanced Statist	cs WWW WPS Radio On/Off About
ID : 6F	3 en Rescan
ID :	11 Pin Code
	41489093 Renew
WPS Profile List	Config Mode
	Enrollee
	Detail
<u><</u>	Connect
PIN PIN PIN	Progress >> 0% Rotate
PBC WPS Probe IE	Disconnect
Auto	Export Profile
	Delete

All access points with WPS function enabled will be displayed here. Please make sure that the access point you wish to connect to is displayed. If not, please click 'Rescan' few more times. You can also click the 'Information' button to see the detailed information about the selected access point.

Start the PBC pairing procedure at the access point side (please refer to the instructions given by your access point's manufacturer), then click the 'PBC' button in the wireless configuration utility to start to establish a wireless connection by WPS. (This may require several seconds to one minute to complete). When you see that the 'WPS status message is connected successfully' this means that the connection between this wireless network adapter and the access point is successfully established by WPS, and the information about the access point you are connected to will be displayed.



You can click the 'Detail' button to see detailed information of the connected access point. If you wish to save this connection as a profile, you can click 'Export Profile' button, and this connection will be saved. You can find this connection in 'Profile' tab in a later time.

Sometime WPS may fail (In the following picture, WPS pairing is failed because no WPS-enabled access point is found):

R+ RaU										
	Profile	Left Network	Advanced	Statistics	wawa	Ø WPS	Rac	₽ Jio On/()ff Abo	y ut
			WI	PS AP List				-	Resc	an
ID :		6F					3	T	Informa	ation
ID :							11	Ţ	Pin C 41489093	Renew
			WPS	Profile List ——					Config Mod	ie
									Enrollee	•
									Deta	eil
<u><</u>									Conne	ect
and the second se	PIN	WPS Associate	E		Progress >> 1	0%			Rota	te
Noncomoli I	PBC	🔁 WPS Probe IE							Discon	nect
		Auto							Export P	Profile
									Dele	te
										ALCONOMIC CONTRACTOR

You can click 'PBC' button few more times to try again. When an access point is connected, you can click 'Disconnect' to disconnect your wireless network adapter from a connected access point, or select another WPS-enabled wireless access point, then click 'Connect' to establish a connection to the selected access point, if there are more than one WPS-enabled access point near by You can also click the 'Rotate' button, and the next available access point on the list will be selected to establish a connection.

If you want to delete a new access point from the list, select it and click the 'Delete' button.



4.7.2 WPS Setup - PIN

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

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

Launch Config Utility	1
Use Zero Configuration as Configuration Utility	
Switch to AP Mode	
Exit	
	4 0,

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

R4 RaUI								
	Profile	LLL Network A	dvanced	Statistics	www.	Ø WPS	Radio On/	Off About
				S AP List				
ID :		6F				3	-	Rescan Information
ID :						11	9	Pin Code
			WPS F	Profile List				Config Mode
<							>	Connect
and an other states	PIN	WPS Associate IE			Progress >> 0	%		Rotate
	PBC	🔁 WPS Probe IE						Disconnect
		Auto						Export Profile
								Delete

The PIN code of your wireless network card is an eight-digit number located at the upper-right position of the configuration utility. Remember it, and input the number to your wireless access point as the WPS PIN code (Please refer to the user manual of your wireless access point for instructions on how to do this).

Click the 'PIN' button now, and wait for few seconds to one minute. If a wireless access point with correct PIN code is found, you'll be connected to that access point.



You may have to click 'PIN' for few more times to try again. If you still can not connect to the access point by this way, please make sure the PIN code you provided to access point is correct.

14 RaUI								
	Profile	Network A	ر dvanced	Statistics	www.	Ø WPS	Radio On/	Off About
			WP	S AP List				
ID :		6F				3	9	Rescan Information
ID :						11	9	Pin Code 41489093 Renew
			WPS F	Profile List				Config Mode
								Enrollee
								Detail
<							<u> </u>	Connect
and the second second	PIN	WPS Associate IE			Progress >> 0	%		Rotate
No.	PBC	WPS Probe IE					:	Disconnect
		Auto						Export Profile
	:							Delete

There are also some other options available for WPS configuration:

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

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

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



4.8 Radio On/Off

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

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

Launch Config Utility	1
Use Zero Configuration as Configuration Utility	1
Switch to AP Mode	
Exit	
	×9 ,

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

+ RaUI									
Ρ	rofile	Land Hetwork	ر Advanced	Statistics		Ø WPS	Radio On/Off	About	
		Prot	file List					•	
PROF1		KEN			6	Profile Name	>> PROF1		
						SSID) >> KEN		
						Network Type	e >> Infrastructure		
						Authentication	n >> WPA-PSK		
						Encryption	n >> TKIP		
						Use 802.1×	< >> NO		
						Tx Power	r >> Auto		
						Channe	l >> Auto		
						Power Save Mode	>> CAM		
						RTS Threshold	i >> 2347		
Ado		Edit	Delete	Activate	Fr	agment Threshold	1>> 2346		
Description of the second second									_



Radio On/Off Wireless radio is off (Red)



4.9 About

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

Please follow the instructions below to see this information:

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



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

🔀 RaUI	- 🛛
Profile Network Advanced Statistics WMM WPS Radio On/Off About	r it
(c) Copyright 2008, Ralink Technology, Inc. All rights reserved.	
RaConfig Version >> 2.1.5.100 Date >> 06-24-2008	
Driver Version >> 1.2.0.0 Date >> 06-10-2008	
Phy_Address >>	
WWW.RALINKTECH.COM	



5 Soft-AP Function

Except from being a wireless client to other wireless access points, this wireless network adapter can also work as a wireless access point. You can switch the operating mode of the Airdata 150 mini USB to AP mode to simulate the function of a real wireless access point by software. In this way computers and other wireless devices can connect to your computer wirelessly and you can share your interent connection.

Please follow the instructions below to use the AP function of your wireless card.

5.1 Switch to AP Mode and Basic Configuration

The operating mode of the wireless card is 'Station Mode' (becoming a client of other wireless access points) by default. If you want to switch to AP mode, please right-click Ralink utility icon, and select 'Switch to AP Mode'.



After you select 'Switch to AP Mode', the Ralink utility icon will be changed to:



Which indicated the wireless card is operating in AP mode now. If you want to switch the wireless card back to station mode (become a client of other wireless access points), click 'Switch to Station Mode'.

	Launch Config Utilities	
	Switch to Station Mode	
•••	Exit	
		5 19



A configuration window will appear after you switch the operation mode to 'AP', which asks you to assign an existing network card with internet connection.

🔄 Internet Connection Sharing with SoftAP						
Please select a network card which had Internet access(WAN)						
Name	▼					
Description						
MAC Address						
IP						
<u>Enable ICS</u>	Not enable ICS					

If your computer has another network card which is connected to the Internet, please select it from the 'Name' dropdown menu, and click 'Enable ICS'; If your computer does not have another network card with Internet connection, please click 'Not enable ICS'.

After you click 'Enable ICS' or 'Not enable ICS', you'll see the basic configuration menu of the AP function.



🖡 Ralink Wireless Utility	X
Config Access Control Mac Table Event Log	Statistics About
SSID SoftAP-08 (Wireless Mode 2.4G	Channel 1 💌 <- Use Mac Address Security Setting
Country Region Code 11 B/G 0: CH1-11	 No forwarding among wireless clients Hide SSID Allow BW 40 MHz
Beacon (ms) 100	✓ TxBURST
TX Power 100 % ▼ Idle time(60 - 3600)(s) 300	
	Default Cancel Apply
	Help

Here are the descriptions of every setup item:



Item Name	Description			
SSID	Please input the SSID (the name used to identify			
	this wireless access point) here. Up to 32 numerical			
	characters can be accepted here, except space.			
Channel	Please select the wireless channel you wish to use. The			
	number of channels available here will vary depending on			
	the setting of 'Country Region Code'.			
Wireless Mode	Select the operation mode of the access point here.			
Use Mac Address	Click this button to use the MAC address of the wireless			
	card as SSID. A prefix 'AP' will be added automatically.			
Security Setting	Set the security options (wireless data encryption).			
Country Region Code	Please select the country code of the country or region you			
	live. Available options are 0-7, which will affect the			
	available wireless channels you can use:			
	0: FCC (US, Canada, and other countries uses FCC radio			
	communication standards)			
	1: ETSI (Europe)			
	2: SPAIN			
	3: FRANCE			
	4: MKK			
	5: MKKI (TELEC)			
	6: ISRAEL (Channel 3 to 9)			
	7: ISRAEL (Channel 5 to 13)			
	Please note that you only have to change the country			
	code if you are in a different country. For example:			
	when operating this product in US, channels 1~11 can			
	be operated.only Selection of other channels is not			
	permitted under FCC regulations.			
No forwarding among	Check this box and wireless clients will not be able to			
wireless clients	share data with each other.			
Hide SSID	Check this box and the SSID will not be broadcasted to the			
	public. Your wireless clients must know the exact SSID to			
	be able to connect to your computer. This option is useful			
	to enhance security level.			
Allow BW 40 MHz	Check this box to allow BW 40MHz capability.			



Tx BURST	Check this box to accelerate the data transmit rate. It may			
	not work with all wireless access point and wireless			
	devices.			
Beacon(ms)	You can define the time interval that a beacon signal			
	should be send. Default value is 100. Do not modify this			
	value unless you know what will be affected.			
TX Power	You can select the wireless output power here. Please			
	select a proper output power setting according to your			
	actual needs. You may not need 100% of output power if			
	other wireless clients are not far from you.			
Idle Time	Select the idle time for the wireless access point. Default			
	value is 300. Do not modify this value unless you know			
	what will be affected.			

To save the changes, click the 'Apply button. Or you can click the 'Default' to reset to factory default values.



5.2 Security Setting

This wireless card supports wireless encryption in AP mode, which will encrypt the data being transferred over the air to enhance data security level. It's recommended to enable data encryption unless you wish to open your computer (and its internet connection) to the public.

When you click 'Security Setting' in the utility, the following window will appear:

Security Setting
Authentication Type Open Encryption Type Not Use
WPA Pre-shared-Key
Group Rekey Interval 60 10 seconds
Wep Key Key#1 Hex Key#2 Hex Key#3 Hex Key#4 Hex 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
Cancel



Here are the descriptions of every setup item:

Item Name	Description			
Authentication Type	Please select a wireless authentication type you wish to			
	use. Available options are 'Open', 'Shared', WPA-PSK',			
	'WPA2-PSK', and 'WPA-PSK / WPA2-PSK'. If you want			
	to disable wireless data encryption, you must select			
	'Open'.			
Encryption Type	Please select an encryption mode. The available options in			
	this setting item will vary depending on the authentication			
	type you select. If you select 'Not Use', data will not be			
	encrypted and people with some networking knowledge			
	will be able to read the data you transfer with proper tool.			
WPA Pre-shared Key	Please input the WPA pre-shared key here. Only clients			
	with the same pre-shared key you inputted here will be			
	able to connect to your computer. This setting is only			
	available when you select one of WPA encryptions.			
Group Rekey Interval	You can specify the time interval to re-issue the key to			
	your wireless clients here. You can click the button '10			
	seconds' or 'Kpackets' to change the unit of time interval.			
	(every 10 seconds or a thousand data packets times the			
	value you specified in 'Group Rekey Interval' field).			
Wep Key	Please input the WEP encryption key here when you select			
	'WEP' as encryption type. There are 2 types of WEP key:			
	Hex (number 0 to 9, and ASCII characters A to F) and			
	ASCII (all alphanumerical characters plus symbols).			
	Please select the type of WEP key first, and then input the			
	WEP key according to the type of WEP key you selected.			
	If you want to use WEP 64 bits encryption, please input 10			
	characters if you select HEX, or input 5 characters if you			
	select ASCII. If you want to use WEP 128bits encryption,			
	please input 26 characters if you select HEX, or input 13			
	characters if you select ASCII. 128 bits encryption is safer			
	then 64 bits, but the data transfer speed will be slightly			
	reduced.			
Show Password	Check this box and the WPA pre-shared key or WEP key			
	you inputted will be shown, but not replaced by asterisk			
	(*).			



When you finish with setting and want to save the changes, click 'the OK' button, or click 'Cancel' to discard all the changes you made.

5.3 Access Control

If you're not going to open your computer and wireless resources to the public, you can use MAC address filtering function to enforce your access control policy, so only wireless clients with MAC address you defined by this function can be connected to your software access point.

🔓 Ralink Wireless	s Utility	×
Config Access Con	ntrol Mac Table Event Log Statistics About	
Access Policy	Disable 🔽	
MAC Address	Access List	
	A did	
	Delete	
	Remove All	
	Apply	
	Help	



Here are the descriptions of every setup item:

Item Name	Description				
Access Policy	Select the policy type of your access rule.				
	Disable: Allow any wireless client with proper				
	authentication settings to connect to this access point.				
	Allow All Only allow window clients with MAC address				
	Anow An. Only anow whereas chefts with MAC address				
	listed here to connect to this access point.				
	Reject All: Reject wireless clients with MAC address listed				
	here to be connected to this access point.				
MAC address	Input the MAC address of the wireless client you wish to				
	allow or reject here. No colon (:) or hyphen (-) required.				
Add	Add the MAC address you inputted in 'MAC address' field				
	to the list.				
Delete	Please select a MAC address from the list, then click				
	'Delete' button to remove it.				
Remove All	Delete all MAC addresses in the list.				

When you finish with setting and want to save the changes, click the 'Apply' button.



5.4 Connection Table

If you want to see the list of all wireless clients connected to this access point, please select the 'Mac Table' tab from the utility.

		31003
	No No	Rate = 24.00 B: Rate = 11.00
<		



Here are the descriptions of every field:

Item Name	Description		
MAC Address	Displays the MAC address of this wireless client.		
AID	The serial number of this wireless connection.		
Power Saving Mode	Displays the capability of power-saving function of this		
	wireless client.		
Status	Displays additional information of this wireless		
	Connection, like current wireless operating mode and data		
	transfer rate.		



5.5 Event Log

This software access point will log all wireless-related activities as a log. Click 'Event Log' tab, and the event log will be displayed.

📕 Ralink Wireless Utility					
Config Access Control Mac Table Event Log Statistics About					
Event Time (yy/mm/dd-hh:mm:ss)	Message				
2007 / 04 / 16 - 14 : 00 : 20 2007 / 04 / 16 - 14 : 00 : 55 2007 / 04 / 16 - 14 : 02 : 50 2007 / 04 / 16 - 14 : 06 : 11	associated left this BSS associated associated				
		Clear			
		Help			

You can click 'Clear' to remove all entries in the log.



5.6 Statistics

If you want to know detailed information about how your software access point works, click the 'Statistics' tab, and the event log will be displayed.

👗 Ralink Wireless Utility		X
Config Access Control Mac Table Event Log	Statistics About	
Transmit Statistics		
Frames Transmitted Successfully	=	23078
Frames Fail To Receive ACK After All Retries	=	127
RTS Frames Successfully Receive CTS	=	0
RTS Frames Fail To Receive CTS	=	0
Frames Transmitted Successfully After Retry	=	1184
Receive Statistics		
Frames Received Successfully	=	187
Frames Received With CRC Error	=	8383
Frames Dropped Due To Out-of-Resource	=	0
Duplicate Frames Received	.=	0
		RESET COUNTERS
		Help

You can click the 'RESET COUNTERS' button to reset all counters to zero.



5.7 About

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

🕌 Rali	🕻 Ralink Wireless Utility 🛛 🔀					
Config	Config Access Control Mac Table Event Log Statistics About					
WWW.BALINKTECH.COM						
	(c) Copyright 2008, R	alink Technology, Ir	nc. All rights reserved.			
	Utility Version :	2.0.5.0	Date :	06-16-2008		
	Driver Version :	1.2.0.0	Date :	06-10-2008		
	EEPROM Version :	0.1	Firmware Version :	0.10		
	IP Address :	192.168.123.1	Phy_Address :			
	Sub Mask :	255.255.255.0	Default Gateway :			
					Help	



6 Technical Support

For technical information and support please contact us:

Web Site: www.crypto.gr

E-mail: support@crypto.gr



Disposal of old electrical and electronic equipment



If you see this symbol on the product or on its packaging, you should hand the product over to the applicable collection point for the recycling of electrical and electronic equipment. Do not throw it away with household wastes.

The improper disposal of these products may have negative consequences for the environment and human health.

For more information about the recycling of this product, please contact your local city office, your household waste disposal service or the shop where you purchased it.

