Application:	Originator :	Version :	Dept.	Date :
PWC		1.2.2 ENG	PC/PE/ID/PM/QA	Jan . 07 th , 201 6

< PWC >

For:

NAUTIZ X4 NAUTIZ X8

<u>User's Guide</u>

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Chapter 1. Configuring the WLAN Connection

1-1 Introduction

This PM WLAN Client (PWC) User's Guide is relevant for fundamental WLAN connection of Point Mobile terminals.

Windows Mobile 6.5 Pro	Windows CE 6.0
NX4	
NX8	

The layout of the PWC application window differs slightly depending on the Windows operating system.

For example, on terminals running Windows CE, the access tabs for additional screens appear near the top of the window instead of near the bottom of the window for Windows Mobile device.

PWC 🛲 🚺 🖨 🏹 📢 🔁 10:12	ржс ОК 🗴
Channel Power On	Status Config IP Setting About
Band GHz RSSI dbm Connect	Channel Power On
	Band GHz Connect
Status Wireless LAN Turn off	
SSID	
BSSID	Status Wireless LAN Turn off
Authentication	SSID
Encryption	BSSID
IP Address	Authentication
	Encryption
Status Config IP Setting About	IP Address
(H) (OK)	🎒 🍪 🛛 🖓 😫 🗙 📶 🕨 12:19 РМ 💷 1

However, the content of the window is consistent for all supported OS versions unless otherwise noted.

1-2 Accessing the WLAN PWC

WLAN PWC icon displays on command bar. The shape of the icon matches the status displays on Status Tab of the WLAN PWC application window.

Note: To see the command bar and WLAN PWC status icon, you would need to change Home Screen setting for Windows Mobile. (Start -> Setting -> Home -> default check box disable)

1-2-1 PWC Tray Icon

Shape	Meaning	Matching Status
*	The radio is Disabled 	RADIO OFF
<u></u>	The radio is Idle Not connecting 	INACTIVE DISCONNECT SCANNING
• • •	The radio is Associating Authenticating 	ASSOCIATING AUTHENTICATING
~	The connection is authenticated with a valid DHCP address	COMPLETE

If you Tap PWC Tray Icon, PWC executes. (Double Tap for Windows CE)

1-2-2 PWC Supplicant Icon

Shape	Meaning
™	Disabled
and line	Searching
न्ता) न्ता) नारे	Connecting
	Connected
யு யு	(signal strength)

A radio signal strength indicator appears on command bar near the bottom of the screen. The quantity of bars highlighted indicates the strength of the signal when the radio is transmitting. If the radio is not transmitting, a small "x" appears over the bar.

1-3 Enabling the WLAN Radio Driver

The WLAN Driver must be enabled for the radio to transmit a signal. You cannot connect to a network unless the radio is enabled. There are two ways in order to enable WLAN Driver, Wi-Fi Turn on/off from command bar and from PWC Control.

1-3-1 OS Control

Windows CE 6.0	Tap upward arrow on command bar, and select Turn Wireless LAN On
Windows Mobile 6.5 Pro	Start -> Setting -> Connections -> Wireless Manager -> Select Wi-Fi





1-3-2 PWC Control

РЖС 🎹 1	# ど € 10:12
Channel	Power On
Band GH RSSI db	m Connect
Status W	ireless LAN Turn off
SSID BSSID	
Authentication	
IP Address	
Status Config IP	Setting About
	E OK

PWC		ок 🗙
Status Config	[IP]	Setting About
Channel		Power On
Band	GHz 🕻	Connect
RSSI	dbm	
Status	Wirel	ess LAN Turn off
SSID		
BSSID		
Authentication	1	
Encryption		
IP Address		

1-4 Establishing a Connection

 Tab Icon on command bar or Tap Start -> PWC (Double Tap for Windows CE)

- 2. Tab the Config Tab on PWC page
- 3. Tab NEW Button of Config Tab Window.

- 4. Type in SSID on Network Window.
- 5. Select a specific Security method from the drop-down list according to the Access Point (AP)
- 6. Select Encryption method according to Security setting
- 7. Tab OK after type in keys or passwords.



PWC	D 1	# ₽	.€@	12:46
NEW	CONNECT	DELE	ETTE	SETTING
SSID		СН	RSSI	Flag
Galmate	_IS	6	-51	[WP ::
PMSQA		4	-57	[WP
PMTest	1F	11	-68	[WP
UNICOR	N	6	-87	[WP a
PM_FTF)	5	-55	[WE
pointmobile		1	-56	[WE
		3	-60	[WE
PM_Thr	ough	6	-68	[WE_
PM_HW		2	-75	[WE
<[0	_	::		
Status Con	fig IP	Setting	About	
Re Re	fresh		Other	ОК



🗊 👖 🛱 🏹 € 🔁 12:47 PWC NEW CONNECT DELETE MODIFY CH RSSI Flag SSID 1: pwc Galmate_IS [WP 6 -51 PMSQA 4 -67 [WP cwit00 [WP -67 13 PMTest1F 11 -69 [WP cwit_mobile -72 [WP 1 BPOS_JK 1 -82 [WP DK SYSTECH ... 6 -84 [WP [WP~ SSLEE 7 -88 > < (= Status Config IP Setting About Refresh OK) H7) Other

PWC u	Ⅲ [] (•1	L 47 (2 10:14
Channel Band RSSI	GHz dbm	Power Off Disconnect
Status SSID BSSID Authenticatio Encryption IP Address	ASSC pwc	CIATING
Status Config	IP Se	etting About OK
Channel 1 Band 2.4 RSSI -54]] GHz] dbm	Power Off Disconnect
Status SSID BSSID Authenticatio Encryption IP Address	COMP pwc 00:1a: NWPA2 CCMP 192.10	LETED 70:d4:a4:42 -PSK 68.123.102
Status Config	s) al	etting About
	e	

- 8. You may find SSID appears on Config Tab list.
- 9. Select SSID from the list and tap Connect.

10. The Status Tab appears displaying the connection status.

1-5 Config Tab

You can manage connections and configurations of AP on the Config tab.

1-5-1 Using the Scan Feature

Activated the Config Tab queries for AP lists for devices in range of the terminal, and AP results appears on the Scan window with SSID, Channel, Signal Strength, Flags information.

1-5-2 Config Tab Columns

SSID	Displays the Name of the Access Point
Channel	Displays the operating channel number for Access Point
Signal Strength	Displays the current signal strength for Access Point
Flags	Displays the association mode and encryption required to connect to the device

1. Tap the Access Point after you've selected an item from the lists. "Setting" top menu appears; once you tap the menu, it opens the Network Window

2. If you select Access Point from queried lists, basic Security, Encryption will fill automatically with previous set AP information.

You can select/enter additional information and tap 'OK'.



PWC	圓 1		. €	12:48
NEW	CONNECT	DELE	ETTE	SETTING
SSID		CH	RSS	SI Flag:^
Galmate	IS	6	-52	2 [WP ::
PMTest1	lF	11	-64	4 [WP
cwit00		13	-67	7 [WP
DK SYS	TECH	6	-83	3 [WP
PMSQA		1	-83	3 [WP
		9	-84	4 [WP
TCT_W	IFI	13	-85	5 [WP
UNICOR	N	6	-85	5 [WP_
ROKIT 0	1	5	-85	5 [WP
<[=	_	::		
Status Conf	ig IP	Setting	Abo	out
Ref	resh 🖪		Other	r) OK



1-5-3 Activating the Configuration

 There will be a number appointed to Access Point which is already saved.
 Tap the AP, and tap 'connect' from the top menu to connect the saved AP.

2. You can tap the connected Access Point form SSID lists and tap 'Disconnect' from the top menu in order to disconnect.

3. When you tap the Access Point from the list, there are more functions you can use, such as Modify, Delete, Export, and Import

1-5-4 Config Tab Functions

New	Add new Access Point manually (Hidden AP)
Modify	Change settings for the selected AP
Delete	Delete the selected AP
Connect	Connect the selected AP
Disconnect	Disconnect the selected AP
Refresh	Scan AP in range of terminal and renew the information
Export	Save the AP information as a file
Import	Open the saved AP information as file.
Auto Profile	Enables to active or deactivate automatic profile selection as per its signal strength.

PWC	01	- 7		12:47
NEW	CONNECT	DELE	TE	MODIFY
SSID		СН	RSSI	Flag
1: pwc				
Galmat	e_IS	6	-51	[WP
PMSQA	λ	4	-67	[WP
cwit00		13	-67	[WP
PMTest1F		11	-69	[WP
cwit_m	nobile	1	-72	[WP
BPOS_	JK	1	-82	[WP
DK SYS	STECH	6	-84	[WP_
SSLEE		7	-88	[WP\
<[□	_			
Status Co	nfig IP	Setting	Abo	ut
	efresh		Other) ОК

PWC	1	<u>ዩ</u> • ፕ	.€@	12:49
NEW	DISCONNECT	DELE		SETTING
SSID		СН	RSSI	Flag
🗸 1: PMT	Fest1F	11	-66	[WP =
cwit00		13	-55	LWP
Galmat	e_IS	6	-56	[WP
N/A				
PMSQA		4	-80	[WP
cwit_n	nobile	1	-82	[WP
ROKIT	01	5	-82	[WP
DK SY	STECH	6	-83	[WP_
T wifi	home	6	-84	[WP
<	_	::		
Status Co	nfig IP	Setting	About	
	efresh		Other	ОК

PWC		₽ \$. - (+	10:49
NEW	CONNECT	DELE	TE	MODIFY
SSID		CH	RSS	I Flag
1: PMTe	est1F	11	-53	[WP. ::
2: Point	mobile_P	1	-74	[WE
3: PMSC	QA_A	157	-86	[WP.=
4: point	mobile			
Galmate	∋_IS	6	-55	[WP,
PM_FTF)}		(Q	[WP.
PM_SW	Expo	t	4	[WP.
PM_AP				[WP.
PMSQA	Tmpo		5	[WP.~
< [II	тшро	n		
Status Con	4			
	Auto	Profil	e) (ок)

1-6 Network Window

You can access the Network window by doing tapping 'New' from Config Tab, selecting an AP from SSID lists and tapping 'setting' from AP list pop-up menu, or selecting an existing configuration and tapping 'Modify'.

None	WPA-Enterprise(EAP)	WEP
PWC 🗰 🚹 🖨 🏹 帐 🏧 11:27	PWC 🗰 1 🗰 🏹 🕀 🗰 11:28	PWC 🗰 🚹 🗱 🏹 🗲 🎟 11:29
SSID test	SSID test	SSID test
Security Open	Security WPA-Enterprise (EA	Security Open 📧
Encryption None	Encryption TKIP	Encryption WEP
	EAP Method FAST-MSCHAPv2	Key 1
	Identity	Key 2
	Password	Key 3
	Anony ID	Key 4
	Verify Serv Certificate	Key Index 1
	Tunnel PAC	
	Machine PAC	
	Provisioning No provisioning	
	~	
	🕞 ОК 🗐 Сапсе) ОК	

1-6-1 Security

The security mode you select from the list. You can find the drop-down list by tapping arrow on right.

- 1. Open / Shared
- 2. <u>IEEE 802.1X</u>
- 3. WPA-Personal & WPA2-Personal
- 4. WPA-Enterprise & WPA2-Enterprise
- 5. WPA-CCKM & WPA2-CCKM
- 6. Ad-Hoc



1-6-1-1 Open / Shared

It is opened authentication method, there is no additional authentication necessary

Supported Encryption Methods

WEP

.

1-6-1-2 IEEE 802.1X

IEEE 802.1X supports the following EAP methods.

- 1. LEAP
- 2. PEAPv0-MSCHAPv2
- 3. PEAPv1-MSCHAPv2
- 4. PEAPv1-GTC
- 5. PEAPv1-TLS
- 6. FAST-MSCHAPv2
- 7. FAST-GTC
- 8. FAST-TLS
- 9. TLS
- 10. TTLS-MD5
- 11. TTLS-MSCHAPv2
- 12. TTLS-GTC
- Completing the EAP Fields





Field	Description
Identity	This is for Identity method. The identity value can be up to 63 ASCII characters.
Password	This is for Password method. It uses password to authorize the access.
Anonymous ID	This is for Tunnel Method. This creates a tunnel through which the real to pass through Tunnel.
Client Cert.	This is for a method which needs user certification. User certification file can be loaded
Tunnel PAC & Machine PAC	This is for EAP-FAST Method PAC Key can be loaded.
Provisioning	Provisioning refer to service activation of providing information. You may select which information to open with option.

Supported Encryption Methods

WEP

1-6-1-3 WPA-Personal & WPA2-Personal

The PSK field is where you put Pre-Shared Key. This field can be filled with either ASCII keys or hexadecimal keys. ASCII Key can be accepted between 8-63 characters long and a HEX key must be 64 characters long and can only accept hexadecimal digits. (A~F, 0~9)

Supported Encryption Methods TKIP AES TKIP+AES



1-6-1-4 WPA-Enterprise & WPA2-Enterprise

The following EAP methods are supported.

- 1. LEAP
- 2. PEAPv0-MSCHAPv2
- 3. PEAPv1-MSCHAPv2
- 4. PEAPv1-GTC
- 5. PEAPv1-TLS
- 6. FAST-MSCHAPv2
- 7. FAST-GTC
- 8. FAST-TLS
- 9. TLS
- 10. TTLS-MD5
- 11. TTLS-MSCHAPv2
- 12. TTLS-GTC

Note : For details, See Completing the EAP Fields. (page 11)

Supported Encryption Methods TKIP AES TKIP+AES



1-6-1-5 WPA-CCKM & WPA2-CCKM

The following EAP methods are supported as IEEE 802.1X and WPA-Enterprise. There are more various encryption methods including, CKIP, CMIC support.

- 1. LEAP
- 2. PEAPv0-MSCHAPv2
- 3. PEAPv1-MSCHAPv2
- 4. PEAPv1-GTC
- 5. PEAPv1-TLS
- 6. FAST-MSCHAPv2
- 7. FAST-GTC
- 8. FAST-TLS
- 9. TLS
- 10. TTLS-MD5
- 11. TTLS-MSCHAPv2
- 12. TTLS-GTC

Note : For details, see Completing the EAP Fields. (page 11)

PWC	▥▯;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;	33
SSID		
Security	WPA-CCKM	
Encryption	WEP 💽	
EAP Method	FAST-MSCHAPv2	
Identity	FAST-MSCHAPv2	
Password	FAST-TLS	
Anony ID	LEAP PEAPy0-MSCHAPy2	
	PEAPv1-MSCHAPv2	
Tunnel PAC	PEAPv1-GTC PEAPv1-TLS	
Machine PAC		
Provisioning	No provisioning	
Key 1		\sim
Cor	Cancel O	K)

Supported Encryption Methods

WEP CKIP CMIC CKIP+CMIC TKIP AES TKIP+AES

PWC	▥ 1 # 1⁄2 € @ 11:	33
SSID		\triangle
Security	WPA-ССКМ	**
Encryption	WEP 🗳	
EAP Method	WEP	
Identity	CKIP CMIC	
Password	CKIP+CMIC	
Anony ID	AES	
	TKIP+AES	
Tunnel PAC		
Machine PAC	····	
Provisioning	No provisioning	
Key 1		\sim
Ск	Cancel Of	9

1-7 Common Configurations

Common Configurations explains the most common network configuration in detail including:

<u>WEP</u> <u>PEAPv1-MSCHAPv2</u> <u>WPA-PSK</u>

1-7-1 WEP

When you select Open for Security, you can select WEP as Encryption, and when you select Shared for Security, WEP Encryption will be applied automatically.

1. Tap the PWC Icon from command bar.



- 2. Tap the Config Tab
- 3. Tap New or tap AP SSID which supports WEP Encryption

PWC	p 1	₩ Ъ	.€@	12:50
NEW	CONNECT	DELE		SETTING
SSID		CH	RSSI	Flag
Galmate	_IS	6	-53	[WP ::
cwit00		13	-63	[WP
PMTest	1F	11	-64	[WP
PMSQA		4	-66	[WP
cwit_mobile		1	-71	[WP
DK SYSTECH		6	-82	[WP
UNICORN		6	-84	[WP
TCT_W	IFI	13	-85	[WP_
SSLEE		7	-85	[WP
<		::		\geq
Status Con	fig IP	Setting	About	
Re Re	fresh		Other	OK

- 4. On the Network Window, type in the SSID
- 5. Select Open or Shred from Security.
- 6. If you set as Open, select Encryption method as WEP
- 7. Select Key Index, configure your Key(s)
 - A. 5, 10, 13, 26 digit numbers are supported as Key
 - B. 5, 13 digit numbers are ASCII key, 10, 26 digit numbers are HEX key.
- 8. Tap OK and screen goes back to Config Tab

9. Select AP from Config Tab and Tap Connect

- PWC 🎟 🔟 🗱 🎦 📢 🔁 10:23 SSID test Security Open Encryption WEP Key 1 Key 2 0123456789 Key 3 Key 4 Key Index 2



PWC	81	<u>- 7</u>	.€⊂	12:50
NEW	CONNECT	DELE	TE	MODIFY
SSID		СН	RSSI	Flag
1: test				
Galmat	e_IS	6	-53	LAAN
cwit00		13	-63	[WP a
PMTes	t1F	11	-64	[WP
PMSQA	1	4	-66	[WP
cwit_m	nobile	1	-71	[WP
DK SYS	5TECH	6	-82	[WP
UNICO	RN	6	-84	[WP_
TCT_V	/IFI	13	-85	[WP~
<[=				
Status Co	nfig IP	Setting	About	t j
	efresh		Other	ОК

PWC	▥ 1 ♀• Ҡ € € 9:04
Channel 1 Band 2.4 RSSI -55	GHz dbm
Status SSID BSSID Authenticatio Encryption IP Address	COMPLETED test 00:1a:70:d4:a4:42 NONE WEP-40 192.168.123.102
Status Config	IP Setting About

11. Status Tab appears displaying the result

network.

10. The screen goes to Status Tab and tries to connect the

1-7-2 PEAPv1-MSCHAPv2

When you select 802.1X or WPA/WPA2-Enterprise for Security, EAP Method appears. You can select among EAP Methods.

1. Tap the PWC Icon from command bar



PWC	01	₩Ъ	.€@	12:46
NEW	CONNECT	DELE	TTE	SETTING
SSID		CH	RSSI	Flag
Galmate	e_IS	6	-51	[WP ::
PMSQA		4	-57	[WP
PMTest	1F	11	-68	[WP
UNICORN		6	-87	[WP ::
PM_FTP		5	-55	[WE
pointmobile		1	-56	[WE
		3	-60	[WE
PM_Through		6	-68	[WE_
PM_HW		2	-75	[WE
<[0		::		
Status Con	fig IP	Setting	About	
Re	fresh		Other	ОК



- 2. Tap the Config Tab
- 3. Tap New or tap AP SSID which supports PEAPv1-MSCHAPv2 Method

- 4. On the Network Window, type in the SSID.
- 5. Select 802.1X or WPA/WPA2-Enterprise from Security
- 6. Select PEAPv1-MSCHAPv2 from EAP Method
- 7. Type in Identity and Password
- 8. Type in Anonymous ID
- Note : If you select Verify Server Certificate Check Box, PWC verifies authentication from Server.

- 9. You are use the File system or MS certificate store, when select to Certificate.
- 10. The MS certificate store is use the all certificate verify or specific certificate.

11. Select the AP from Config Tab AP and tap Connect

- 12. The screen goes to Status Tab and tries to connect the network.
- 13. Status Tab appears displaying the result



PWC	01	- ' ' ' '	.€0	12:50
NEW	CONNECT	DELE	ETTE	MODIFY
SSID		СН	RSSI	Flag
1: test				
Gaimat	e_IS	6	-53	LAND
cwit00		13	-63	[WP a
PMTest1F		11	-64	[WP
PMSQA		4	-66	[WP
cwit_mobile		1	-71	[WP
DK SYSTECH		6	-82	[WP
UNICO	RN	6	-84	[WP_
TCT_WIFI		13	-85	[WP
<[0		::		
Status Co	nfig IP	Setting	Abou	it
	efresh		Other) ОК

PWC	🎟 1 🗱 🏹 📢 🖻 9:03
Channel 1 Band 2.4 RSSI -55	GHz dbm
Status SSID BSSID Authentication Encryption IP Address	COMPLETED test 00:1a:70:d4:a4:42 IEEE 802.1X (no WPA) NONE 192.168.123.102
Status Config	IP Setting About

1-7-3 WPA-PSK

When you select WPA-Personal / WPA2-Personal for Security, PSK appears. You can select among TKIP, AES, TKIP-AES for Encryption

1. Tap PWC Icon from command bar

- 2. Tap the Config Tab
- 3. Tap New or tap AP setting which supports PSK Encryption.

- 4. On the Network Window, type in SSID
- 5. Select WPA/WPA2-Personal from Security
- 6. Select Encryption method from drop-down list (TKIP, AES, TKIP+AES)
- 7. Type in PSK
- 8. Tap OK then the screen goes back to the Config Tab



PWC	D 1	<u>₩</u> Ъ	.∉⊡	12:46
NEW	CONNECT	DELE	TTE	SETTING
SSID		CH	RSSI	Flag
Galmate	e_IS	6	-51	[WP ::
PMSQA		4	-57	[WP
PMTest	1F	11	-68	[WP
UNICORN		6	-87	[WP ::
PM_FTF	0	5	-55	[WE
pointm	obile	1	-56	[WE
		3	-60	[WE
PM_Th	rough	6	-68	[WE_
PM HW	1	2	-75	[WE~
< [0				$\left \right\rangle$
Status Con	ifig IP	Setting	About	
Re Re	:fresh		Other	ОК





9. Select the AP from Config Tab and tap Connect.

PWC	01	** ```	.€@	12:50
NEW	CONNECT	DELE	ETE	MODIFY
SSID		СН	RSSI	Elag
1: test				
Galmat	e_IS	6	-53	LAAL
cwit00		13	-63	[WP a
PMTest1F		11	-64	[WP
PMSQA	λ	4	-66	[WP
cwit_m	nobile	1	-71	[WP
DK SYSTECH		6	-82	[WP
UNICORN		6	-84	[WP_
TCT_WIFI		13	-85	[WP
Status Cor	nfig IP	Setting	Abou	t
	efresh		Other) ОК

- 10. The screen goes to Status Tab and tries to connect the network.
- 11. Status Tab appears displaying the result

.



1-8 Static IP

PWC doesn't not support fixed IP directly. You can type in fixed IP from Driver Adaptor, then you can have fixed AP through PWC.

Windows Mobile Windows CE

1-8-1 Setting up a Static IP on Windows Mobile-based Devices (PM40, PM60)

 Once you have AP connection, check Default gateway from IP Tab and disconnect communication with AP

- 2. Tap Start -> Settings -> Connections -> Wi-Fi.
- 3. Select Driver Adapter, the name of the driver is PWC Intermediate Miniport.

PWC Ⅲ 1 ♀• 丫 ◀ Ⅲ 11:53
Channel 9 Band 2.4 GHz RSSI -55 dbm Disconnect
StatusCOMPLETEDSSIDPMTest1FBSSID00:26:66:5e:2d:20AuthenticationWPA-PSKEncryptionTKIPIP Address192.168.0.11
Status Confic IP Setting About
Network Adapters
My network card Connects to:
The Internet
Tap an adapter to modify settings:
PWC Intermediate Miniport
tiwlnapi1 🔢
Moschip Usb to Ethernet
SMSC9500 USB2.0 FAST Ethernet Drive
NE2000 Compatible Ethernet Driver
Edit OK

- 4. Select Use specific IP address and type in numbers accordingly.
 - A. Type in IP address
 - B. Type in Subnet mast
 - C. Type in Default gateway
 - D. Type in DNS on Name Server Tab
- 5. Tap OK, once you are done
- 6. Execute the PWT, and configure the wireless connection.
- 7. Confirm fixed IP and related informations

letwork Card 🏢	1 # 丫	4.36
lame Se 🕻 IP	Address	> Name Se
dBP Intermediat	e Miniport	
O Use server-a	ssigned IP a	address
Use specific	IP address	
IP address:	192.168	.0 .229
Subnet mask:	255.255	.255 .0
Default gateway:	192.168	.0 .1
Cancel		OK

PWC 1	🖩 1 와 🏹 帐 🎟 11:54
Channel 9 Band 2.4 RSSI -58	GHz dbm
Status SSID BSSID Authenticatic Encryption IP Address	COMPLETED PMTest1F 00:26:66:5e:2d:20 n WPA-PSK TKIP 192.168.0.229
Status Config	IP Setting About

1-8-2 Setting up a Static IP on Windows CE-based Devices (PM251)

 Once you have connected with AP and check Default Gateway, then disconnect communication with AP.



- 2. Tap Start -> Control Panel -> Network and Dial-up Connections
- 3. Select Driver Adapter, the name of the driver is DSFLTR_TIWLNAPI1.

	Connection
My Device pwc	💆 🕼 🔁
	Make New USB Serial DSFLTR_TI Connection WLNAPI1
Recycle Bin	
🛅 Programs 🔹	
👷 Favorites 🔹 🕨 Embedded CE 6.0	
(El Documents N	-
Control Panel	
🔇 🍋 Network and Dial-up Connections	
🛙 🛃 Taskbar and Start Menu	
Suspend	J
🎒 🍫 🛛 🗶 🖓 👷 🖘 7:18 РМ 🖽 🛊	🎥 🍫 🛛 🏨 🗑 🔿 🎁 🕨 4:34 РМ 🔛 🛊

- 4. Select an Specify IP address, type in numbers accordingly.
 - A. Type in IP address.
 - B. Type in Subnet mast
 - C. Type in Default gateway
 - D. Type in DNS on Name Server Tab
- 5. Tap OK, once you are done



- 6. Execute PWC, and configure the wireless connection
- 7. Confirms fixed IP and related informations.



1-9 Status Tab

The Status tab displays the current connection status.

1-9-1 Power On/Off

Power On/Off button activate/deactivate Wi-Fi power.

PWC	PWC 🖩 👖 🛱 🏹 🗲 🔁 11:23
Channel Power On BandGHz Connect	Channel Power Off Band GHz RSSI dbm Connect
Status Wireless LAN Turn off SSID	Status INACTIVE SSID
Status Config IP Setting About	Status Config IP Setting About

1-9-2 Connect / Disconnect

If there is connected AP currently, you can disconnect with the Disconnect button, and if there is configured AP you can reconnect with Connect button.

PWC 🗰 1	<u>9</u> +	PWC	🎟 1 📰	x € 🖸 11:22
Channel 9 Band 2.4 GHz RSSI -58 dbm	Power Off Disconnect	Channel Band RSSI	GHz -66 dbm	Power Off Connect
Status COI SSID PM BSSID 00: Authentication WP Encryption TKI IP Address 1102	MPLETED Test1F 26:66:5e:2d:20 PA-PSK IP 2 168.0.60	Status SSID BSSID Authenti Encryptio IP Addres	DISCON	
Status Config IP	Setting About	Status Con	fig JP Settin	ng About

1-9-3 Status

PWC 🎟 1 🚛	Y _x € 🔁 11:15
Channel	Power On
Band GHz RSSI dbm	Connect
Status Wirele	ess LAN Turn off
SSID	
BSSID	
Authentication	
Encryption	
IP Address	
Status Config IP Se	tting About
3	OK

Wi-Fi Power is turned off.

PWC 🛄	1 # T _x € € 11:22
Channel Band RSSI	GHz dbm
Status SSID BSSID Authentication Encryption IP Address	
Status Config IF	Setting About
H	(III) (IV)

The radio connection is disconnected.

PWC 🔤 1 🗱 🏹 🕀 🔁 11:23

Channel Band RSSI	GHz dbm
Status SSID BSSID Authentication Encryption IP Address	INACTIVE
Status Config IP	Setting About

There is either no profile or no activated profiles.

Channel Band	GHz	Power Off
RSSI	dbm	Disconnect
Status	ASSO	CIATING
SSID	РМТе	st1F
BSSID		
Authenticatio	in	
Encryption		
IP Address		
tatus Config	IP Se	tting About

The terminal connection is associating.

PWC III	1	¶x € ፼ 11:16
Channel Band RSSI	GHz dbm	Power Off Connect
Status SSID BSSID Authentication Encryption IP Address	SCAN	NING
Status Config IP	Se	tting About
\bigcirc		ОК

The PWC is searching for AP in range of the terminal.

PWC ⊞ 1 🛱 🏹 📢 🔁 11:23 Channel Power Off Band GHz Disconnect RSSI dbm Status COMPLETED SSID PMTestIF BSSID 00:26:66:5e:2d:20 Authentication WPA-PSK Encryption TKIP IP Address Status Config IP Setting About (F) ок

The connection is associated, authentication completed successfully, and active.

SSID:	This is the name of AP.
BSSID:	This is the MAC address for AP.
Authentication:	This is AP authentication method.
Encryption:	This is AP encryption method.
IP Address:	This is IP address for AP.
Channel:	This is the operating channel number for AP.
Band:	This is the operating band width for AP
RSSI:	This is the signal strength for AP

Chapter 2. Working in AD-Hoc Mode

2-1 Introduction

AD-Hoc allows to communicate directly more than one devices without AP.

2-2 Requirements

Create Static IPs with the same Default Gateway on both peer devices. Create AD-Hoc with Profile with same SSID, then both peer devices connects each other..

2-3 Setting up a Static IP





2-4 Initiating an AD-Hoc Connection

- 1. Create a Default gateway for a device and type in Static IP.
- 2. Type in same Default gateway for the other device and Static IP for the device.



- 3. Execute PWC, tap New on Config Tab in order to select AP.
- 4. Put SSID, and change Security to Ad-hoc
- 5. In order to tighten srcyrity set Encryption.
- 6. Tap OK to save AP Setting
- 7. Connect to the AP on Config Tab.

PWC	81	₩ ₹	. (0	12:50	PWC	🌐 1 📇	' 🏹 📢 🔁 2:1	15	PWC		1	Σ€	2:43
NEW	CONNECT	DELE	TTE	SETTING	SSID Security	adhoc Ad hoc			NEW	CONNECT	DELE	TE	MODIFY
SSID		CH	RSSI	Flag	Encryption	None	¥.		SSID		СН	RSSI	Elag: 🔨
Galmat	te_IS	6	-53	[WP ::					1: adh	0C			
cwit00)	13	-63	[WP					Galmat	e_IS	6	-53	[WP
PMTes	st1F	11	-64	[WP a					PMSQ/	A Contraction of the second se	4	-59	[WP
PMSQ/	A	4	-66	[WP					PMTes	t1F	11	-61	[WP
cwit_r	nobile	1	-71	[WP					cwit00		13	-63	[WP
DK SY	STECH	6	-82	[WP					U+Net	CE5B	8	-85	[WP
UNICO	RN	6	-84	[WP					ROKIT	01	5	-85	[WP
TCT_\	NIFI	13	-85	[WP_					TCT_V	VIFI	13	-86	[WP_
SSLEE		7	-85	[WP					PM_FT	P	5	-45	[WE
 < [□	_								<[=	_		_	
Status Co	nfig IP	Setting	About						Status Co	nfig IP	Setting	Abou	t i i i
	efresh		Other	OK			Cancel OK	9		efresh		Other) ОК

- 8. Search the SSID from the other device.
- 9. Select the SSID and set AP

10. If you have set up Encryption then put the information that you have set up

- 11. Put OK to AP
- 12. Connect to AP from Config Tab.

Р₩С	ок 🗙	Add/Edit Network	ок ×	Р₩С	ок 🗙
Status Config IP	Setting About	SSID adhoc		Status Config IP	Setting About
		Security Ad hoc Encryption None	•		DELETE
SSID	CH RSSI Fl;▲			SSID	CH RSSI E
jinbk	13 -79 [V			4: adhoc	11 -45 [1
KimC	11 -80 [V			Galmate_IS	- 6 - 45 [V
PMSQA_A	149 -86 [V			PMTest1F	11 -52 [V
PM_Software	11 -45			PMSQA	4 -54 [V
adhoc	11 -45 [I	Input Panel	×	cwit00	13 -68 [V
CEADHOC	11 -62 [N	Esc 1 2 3 4 5 6 7 8 9	0 - = ◆	cwit_mobile	1 -68 [V
anncoffee	11 -78	Tab q w e r t y u i		SK WIEID58E	6 <u>-77 [\</u> ▲
Refresh	Other	Shift z x c y b n m Cti áŭ ` \	, , / ← , , / ← [↓ ↑ ← →	Refresh	Other
🥙 🧇 🍬 🕫 👌	🚺 • 10:07 PM 🔛 🛊	🥙 🍫 🔌 🛱 🖓 📶 > 10:0	07 PM 💬 靠	🥙 🧐 🧶 🖗 🕅	🚮 🕨 10:08 PM 💯 靠

13. Check network connection on Status Tab and confirms Static IP displayed

PWC	РЖС ОК >
Channel 11 Band 2.4 GHz RSSI 45 dbm	Status Config IP Setting About Channel 11 Band 2.4 GHz Disconnect
Status COMPLETED SSID adhoc	RSSI 45 dbm
BSSID 02:00:00:28:00:09 Authentication NONE	Status COMPLETED SSID adhoc
Encryption NONE IP Address 192.168.0.3	Authentication NONE
Status Config IP Setting About	IP Address 192.168.0.2
	🦺 🏟 💷 🛱 🗸 👘 7:32 РМ 💬

14. Confirms Default gateway which you typed in IP Tab



15. Tap Start -> Demo -> Ping Demo and you can type in the other device's Static IP and confirms the connection.

Ping 🗰 1 👷 🏹 📢 🕑 9:25	Ping 🗙
192.168.0.2 Start	Option
Pinging Host 192.168.0.2 192.168.0.2: time=14ms Echo size=3 192.168.0.2: time=6ms Echo size=32 192.168.0.2: time=6ms Echo size=32 192.168.0.2: time=7ms Echo size=32	192.168.0.3 Start Pinging Host 192.168.0.3 192.168.0.3: 192.168.0.3: time=6ms Echo size=32 192.168.0.3: time=10ms Echo size=32 192.168.0.3: time=19ms Echo size=32 192.168.0.3: time=109ms Echo size=32 192.168.0.3: time=109ms Echo size=32 192.168.0.3: time=109ms Echo size=32
	↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓

Chapter 3. Administrative Tools

3-1 Overview

The PWC offers a number of tools to provide convenience for users except basic AP connection function.

3-2 Config Tab

3-2-1 Export

Export function transforms pre-shared AP information to a file on Config Tab.

PWC 🗊 1	ያ• ጜ	.€@	12:54	PWC	D 1	१ • २ ◀	🤁 3:30
NEW	DELE		SETTING	NEW	DISCONNECT	DELETE	SETTING
SSID	CH	RSSI	Flag:	SSID			Flag
I: PMTest1F Galmate_IS PMSQA cwit00 cwit_mobile DK SYSTECH UNICORN U+zone	6 4 13 1 6 6	-55 -63 -67 -72 -80 -83 -83	EWP [WP [WP [WP [WP [WP [WP [WP	1 If you N, that G will t PI Doci DI you CV SI	ou use the tion, " <s! has Profil be created uments\" want to c</s! 	e export SID>.pro" fi e informatio d in "\My folder. Do continue? Cancel	Iwo = n [wo [wo [wo [wo [wo
OABC	Ir	nport	P	ROKIT (01	5 -86	<u>[₩</u> ~ >
Status Config IP	g H	kport		Status Con	fig IP fresh	Setting Abo	out OK

Note: If you tap OK, the Profile will be named as ID+SSID of the AP. (ex, 2n PMTest1F.pro)

3-2-2 Import

Import function loads the AP information file which was created by Export function.



Note: Once a file is selected, AP is set according to the file.

If you have already set up the AP on Config Tab list, then the same SSID can't be Imported.

3-2-1 Auto Profile

Enable all profiles on Config Tab to make automatic Network connect as per its strength.

PWC	·	₽.	ζ ι € α	10:49	PWC		x 🕂 🖃 10:49	PWC	🎟 🔶 와	¶ (∎ 10:49
NEW	CONNECT	DELE	TE	MODIFY	 ✓ 1: PMTe ✓ 2: Point ✓ 3: PMSe 	est1F tmobile_Public OA A		Channel 11 Band 2.	1 4 GHz	Power Off
SSID		CH	RSSI	Flag:	✔4: point	tmobile		RSSI -5	5 dbm	Disconnect
1: PMT	est1F	11	-53	[WP.::	L		J			
2: Point	tmobile_P	1	-74	[WE						
3: PMS	QA_A	157	-86	[WP.				Status	COMPL	ETED
4: point	tmobile							SSID	PMTes	t1F
Galmat	e_IS	6	-55	[WP/				BSSID	00:26:	66:5e:2d:20
PM_FTI	P2	3	-60	[WP				Authenticati	on WPA-P	SK
PM_SW	^{/3} Expo	rt	4	[WP				Encryption	TKIP	
PM_AP			P	[WP.				IP Address	192.16	8 0 238
PMSQA	Impo	rt		[WP.∽		ОК	Cancel		152.10	0.0.230
Status Cor	nf		ut					Status Config	IP Setti	ing About
R	Auto	Profil	e) ОК			ОК			ОК

Note : Current network will be disconnected, and it will attempt to connect among activated profiles as per its strength.

3-4 Setting Tab

You can either check or change value of each items

3-4-1 Roaming Trigger

Roaming Trigger indicates signal strength which PWC attempts to change AP from one to the other.

3-4-2 BGScan Trigger

The Background scan runs in order to discover and track APs with the same SSID and insert them into AP neighbor list.

3-4-3 Roaming Interval

Length of the time to wait before roaming as a result of low conn -ection quality.

This interval prevents back-and-forth roaming events when the device is in a place where the RSSI is not stable.

3-4-4 CCX Enable

CCX Enable controls the availability of CCX (Fast Roam) function.

3-4-5 Power Mode

Power Mode controls the power supplying amount to WLAN. (Max Power consumes more power than default setting)

3-4-6 Control 802.11d

Control 802.11d controls the availability of Regulatory Domain function.

3-4-7 Control 802.11h

Control 802.11h controls interference with other devices which uses 5GHz frequency and related functions.

3-4-8 Prevent Auto Suspend

Prevent Auto Suspend controls will not use the auto-suspend function, during connecting to AP.

3-4-9 Tx Power

Tx Power controls transmit max performance with connected AP.

3-4-10 Save

When the setting is done, the system saves the value change, also the device attempts to reboot the system in order to apply the setting change with a pop-up menu. (The changed value applies after system reboot)



Status Config IP

Setting About

3-5 About Tab

3-5-1 Application Version

Current PWC Version will be displayed.

3-5-2 File Version

Supplicant Version information which PWC is currently using, will be on screen.

3-5-3 Firmware Version

Current WLAN Firmware Version information is available,

Version	:	1. 7. 7
dsfilter.dll	:	4.3.0.9002
wpasvc.dll	:	4.3.0.9006
Firmware	:	6.1.5.10.69

OK

(H)

PWC 🗊 🚹 👷 🏹 📢 🔁 12:55

3-6 Technical Assistance

3-6-1 Technical support office:

3-6-2 Online Technical Assistance