

EKI-6332 & EKI-136x- AE_VCOM application setup example

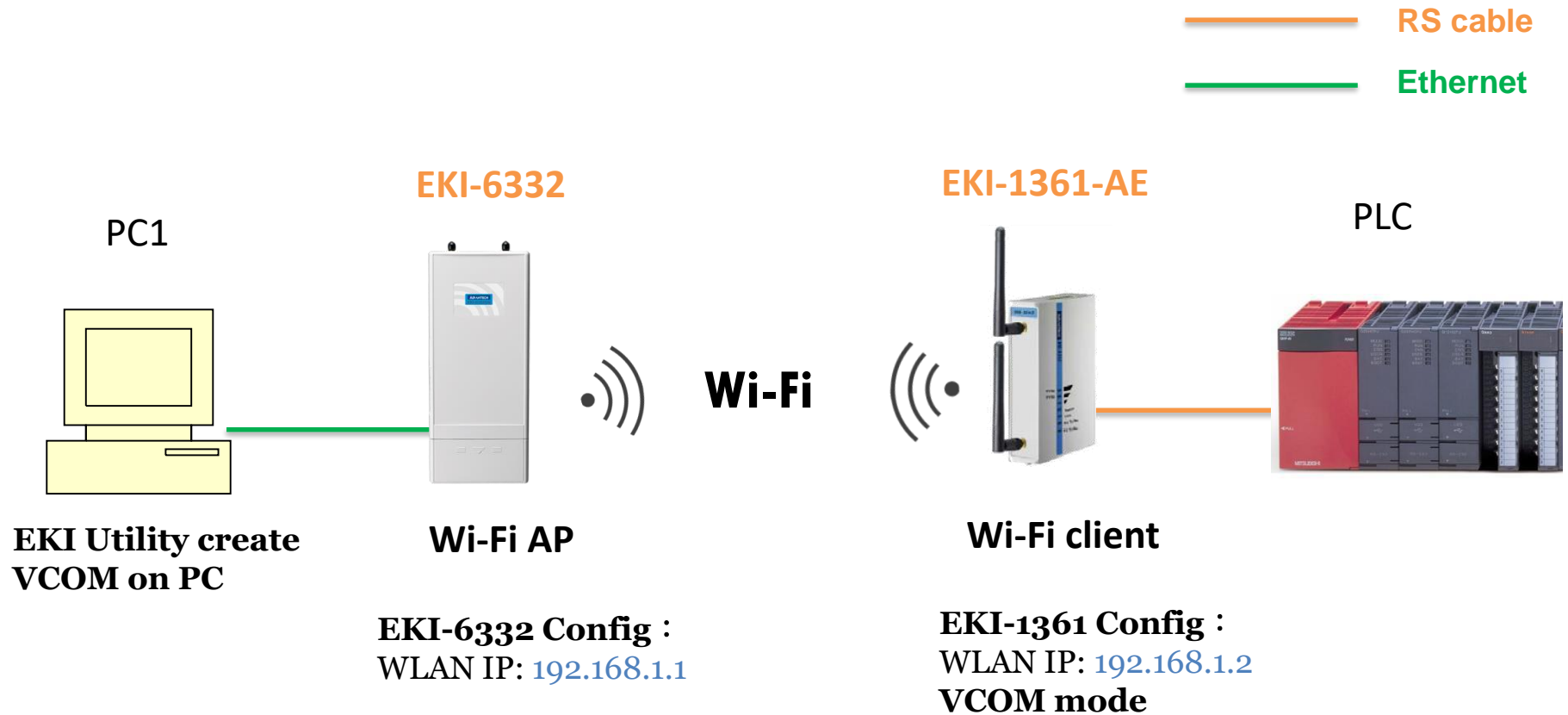
Revision Date	Revision	Description	Author
April/2018	V1.0	Initial release	ICG AE Jacky.Lin

Abstract

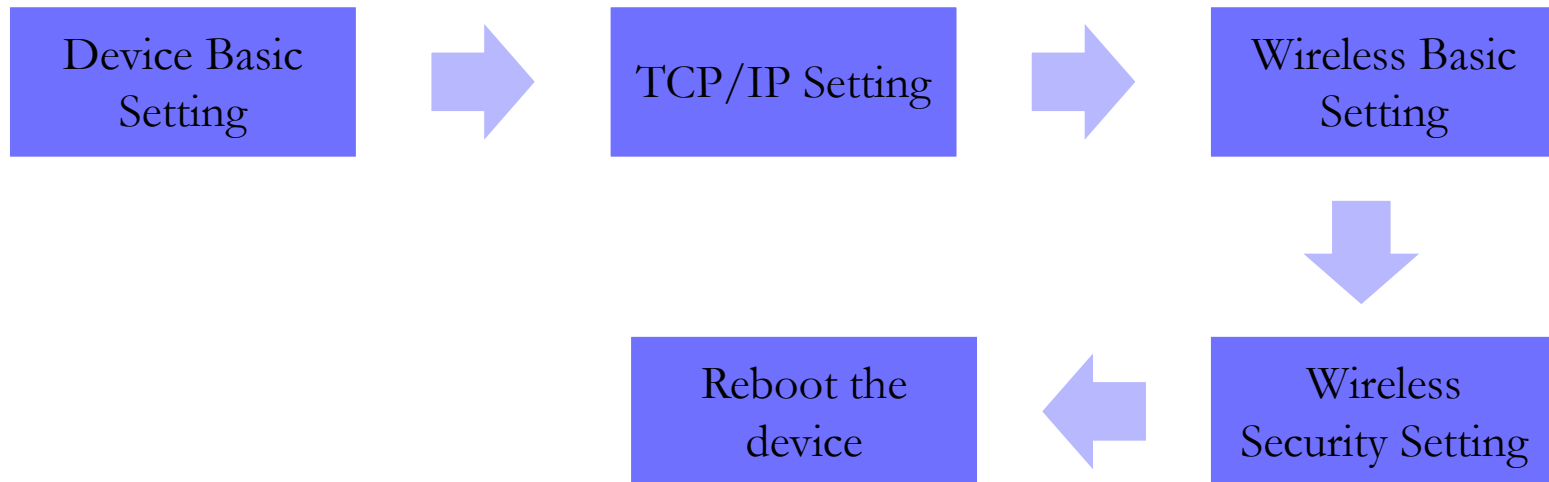
- ❖ **This SOP explains how to configure the EKI-6332 & EKI-136x-AE to build up the wireless connection and set the VCOM mode on EKI-136x-AE for collecting data from the SCADA PC**
- ❖ **Related products:**
EKI-6331, EKI-6332, EKI-136x-AE
- ❖ **Requirement:** EKI-6332 & EKI-136x-AE, PC install EKI utility



Topology



EKI-6332GN Configuration Flow chart



Device Basic Setting

ADVANTECH Industrial Wireless EKI-6332GN-AE

Status

System

Wireless

Management

Tools

Basic Settings

Network Settings

Time Settings

RADIUS Settings

Network Settings

This page configures the IP address, subnet mask, DHCP, and other parameters for your local area network that is connected to the LAN port of the device.

Basic Settings

Network Mode:

Bridge

Spanning Tree:

☐ Enabled ☒ Disabled

STP Forward Delay:

1 (1~30 seconds)

☐ Enable 802.1Q VLAN

Management VLAN ID:

0 (0~4094)

Use Default "Bridge" mode

IP Address Assignment

☐ DHCP Client

☒ Static IP

IP Address:

192.168.1.1

Subnet Mask:

255.255.255.0

Gateway IP Address:

0.0.0.0

TCP/IP Setting

ADVANTECH Industrial Wireless EKI-6332GN-AE

Status

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Time Settings

RADIUS Settings

Basic Settings

Network Mode:

Spanning Tree: ☐ Enabled ☒ Disabled

STP Forward Delay: (1~30 seconds)

☐ Enable 802.1Q VLAN

Management VLAN ID: (0~4094)

IP Address Assignment

☐ DHCP Client

☒ Static IP

IP Address:

Subnet Mask:

Gateway IP Address:

DNS 1:

DNS 2:

IP Setting

Apply

Cancel

Wireless Basic Setting

ADVANTECH Industrial Wireless EKI-6332GN-AE

Status

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Basic Settings

Profile Settings

Advanced Settings

Traffic Shaping

Access Control

WDS Settings

Basic Settings

Use this page to change the wireless mode as well as configure any associated wireless network parameters.

☐ Disable Wireless LAN Interface

Operation Mode:

AP

Site Survey

Set to AP mode
Give SSID

SSID:

abcde

(more...)

Broadcast SSID:

☒ Enabled

☐ Disabled

802.11 Mode:

802.11B/G/N

Channel Mode:

20 MHz

Channel:

2462MHz (11)

Select channel based on site
survey result.

Extension Channel:

None

Data Rate:

Auto

HT Protect:

☐ Enabled

☒ Disabled

Antenna Gain:

0

3

0

dBi

Adjust the value as
same as your Antenna
gain
(default antennas 5dBi)

Output Power:

12

15

15

dBm

Adjust the output power

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Wireless Basic Setting

ADVANTECH Industrial Wireless EKI-6332GN-AE

Status

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Basic Settings

Profile Settings ✕

Advanced Settings

Traffic Shaping

Access Control

WDS Settings

Profile Settings

Define each VAP's attribute.

Select the security profile

#	Enabled	Profile Name	SSID	Security	VLAN ID
1	<input checked="" type="checkbox"/>	Profile1	abcde	WPA2-PSK	0
2	<input type="checkbox"/>	Profile2	Wireless	Open System	0
3	<input type="checkbox"/>	Profile3	Wireless	Open System	0
4	<input type="checkbox"/>	Profile4	Wireless	Open System	0
5	<input type="checkbox"/>	Profile5	Wireless	Open System	0
6	<input type="checkbox"/>	Profile6	Wireless	Open System	0
7	<input type="checkbox"/>	Profile7	Wireless	Open System	0
8	<input type="checkbox"/>	Profile8	Wireless	Open System	0

Apply

Reset

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Security Setting

ADVANTECH Industrial Wireless EKI-6332GN-AE

Status

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Profile Settings ✕

Advanced Settings

Traffic Shaping

Access Control

WDS Settings

Define the VAP's basic settings and security settings.

Basic Settings

Profile Name:

SSID:

Broadcast SSID: ☒ Enabled ☐ Disabled

Wireless Separation: ☐ Enabled ☒ Disabled

WMM Support: ☒ Enabled ☐ Disabled

IGMP Snooping: ☒ Enabled ☐ Disabled

☐ Max. Station Num: (1-32)

Kick STA RSSI: (1~96)

Security Settings

Network Authentication:

Data Encryption:

WPA Passphrase:

Security setting

Reboot the Device

AP_192.168.1.1

Status

System

Wireless

Management

Tools

Password Settings

Firmware Upgrade

Configuration File

User Certificates

Remote Services

SNMP Settings

Configuration File

This page allows you to save current settings to a file or load the settings from the file which was saved previously. You may also reset the current configuration to factory default or reboot the device.

Save Settings to File:

Save...

Load Settings from File:

選擇檔案

未選擇任何檔案

Reset Settings to Default:

Reset

Reboot The Device:

Reboot

**Reboot the device
and wait for starting
the WiFi service**

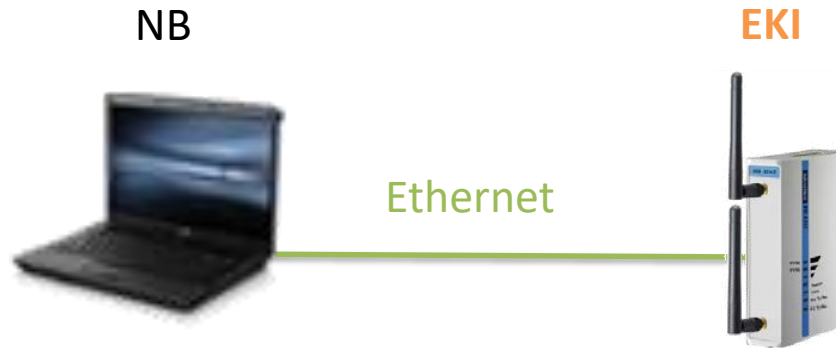
Youtube 登入 Google 地圖 Facebook ICIBA Advantech AD employee AD mail Yahoo 奇摩 Agile Product Lifec...

This device has been reboot, you have to login again.
Please wait for 36 seconds before attempting to access the device again...

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EKI Setting flow chart



Step 1 :Connect the EKI-136x via Ethernet cable to configure EKI
Step 2 : follow the flow chart to set up EKI step by step.

LAN/WLAN Port
Configuration



Wireless Setting



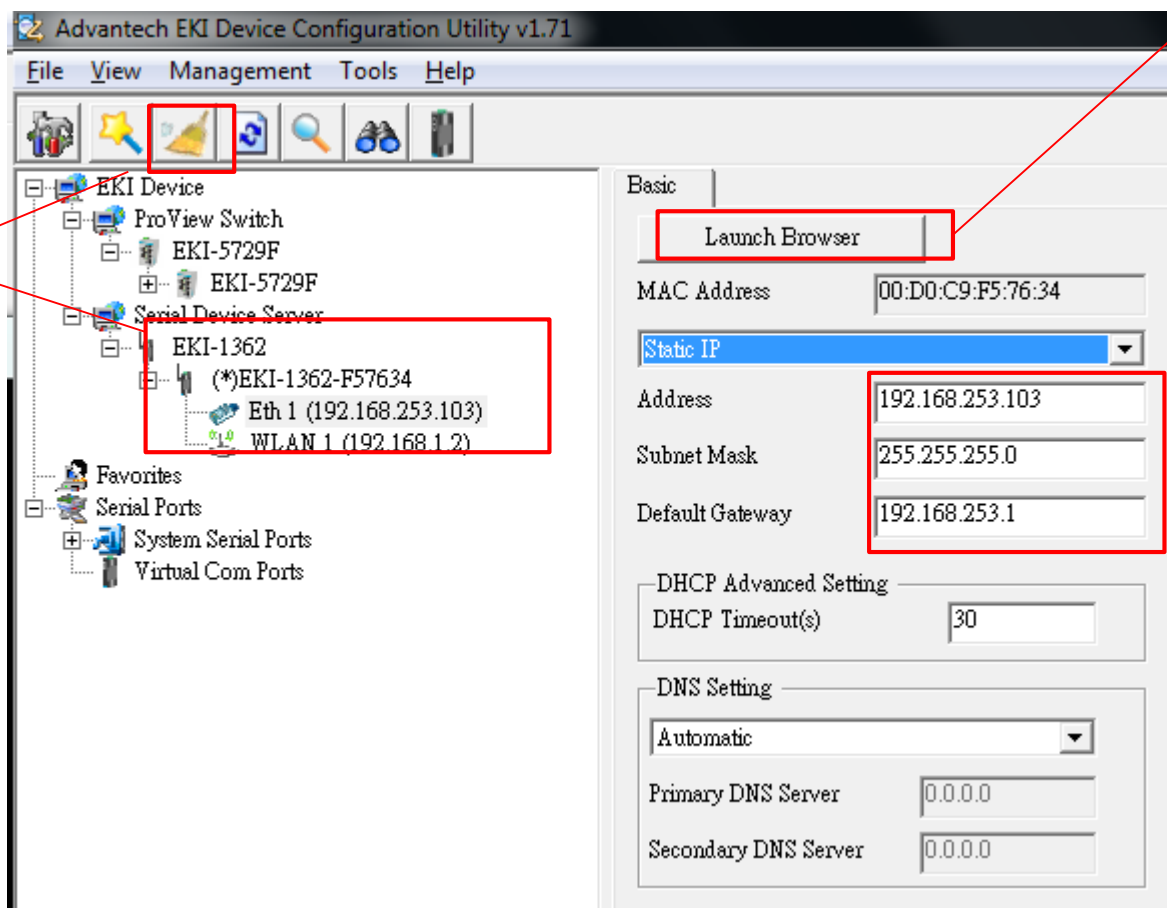
Serial Port Setting



Serial Port
Operation Mode

LAN port configuration

1. EKI Utility will be able to scan the EKI-136x



3. Click on Launch browser after "reboot". To Enter port configuration

2. Config LAN IP to be the same subnet as the PC.

Wireless LAN (WLAN) Configuration

ADVANTECH ICom

www.advantech.com

Home

- System
- Ethernet Configuration
 - Eth 1
 - Wlan 1
- Wireless Configuration
 - Wlan 1
- Port Configuration
- Monitor
- Alarm
- Tools
- Management

Wlan1 Configuration

Mode	Static IP
MAC Address	00-D0-C9-F5-76-35
IP Address	192.168.1.2
Subnet Mask	255.255.255.0
Default Gateway	
DNS	<input checked="" type="radio"/> Automatic <input type="radio"/> Specific
Current Status	
IP 1	192.168.1.2

Save

Set static IP for the WLAN interface

Click save on every config change,
Note: config will only be activated after device reboot

Wireless setting (1/2)

ADVANTECH iCom

Wireless Configuration

1. Configuration

2. Site survey

3. Pop up this window, Please choose and apply the "SSID" what you are using.

Mode	SSID	Country code	Channel	Encryption
<input checked="" type="radio"/> Client <input type="radio"/> Ad-hoc	Site survey	United States	11 - 2.462 GHz	WPA/WPA2-Personal

	MAC	Channel	Power	Encryption	
<input type="radio"/>	00:3a:9a:3c:ab:d6	11	-76 dBm	WPA-personal	
<input type="radio"/>	Advantecher	00:22:90:50:89:49	1	-88 dBm	WPA-enterprise
<input type="radio"/>	00:22:55:f3:74:36	6	-74 dBm	WPA-personal	
<input type="radio"/>	WiFi	00:22:55:f3:74:32	6	-61 dBm	Open
<input type="radio"/>	Signage	00:3a:9a:3c:ab:d7	11	-74 dBm	Open
<input type="radio"/>	BUFFALO-E9B620	10:6f:3f:e9:b6:22	11	-73 dBm	WPA-personal
<input type="radio"/>	00:22:55:ed:ea:46	11	-67 dBm	WPA-personal	

Apply Close

Wireless setting (2/2)

ADVANTECH iCom

Home
System
Ethernet Configuration
Eth 1
Wlan 1
Wireless Configuration
Wlan 1
Port Configuration
Port 1
Port 2
Monitor
Alarm
Syslogd
Tools
Management

Wireless Configuration

Mode	<input checked="" type="radio"/> Client <input type="radio"/> Ad-hoc
SSID	<input type="text"/> Site survey
Country code	United States ▾
Channel	11 - 2.462 GHz ▾
Encryption	WPA/WPA2-Personal ▾
WPA key	12345678

Advanced Wireless Setting

RTS threshold	2347
Fragment threshold	2346
Preamble	<input checked="" type="radio"/> Short <input type="radio"/> Long
Roaming	<input type="radio"/> Enable <input checked="" type="radio"/> Disable

Save

Make sure the SSID is as same as AP

4. Fill in the AP's "Password" if you have configured.

5. Save it

COM Port Basic setting

ADANTECH iCom

Home
System
Ethernet Configuration
Wireless Configuration
Port Configuration
Port 1
Port 2
Monitor
Alarm
Syslogd
Tools
Management

Port 1 configuration

Basic	Operation	Advanced
Type	RS232 ▼	
Baud Rate	9600 ▼	
Parity	None ▼	
Data Bits	8 ▼	
Stop Bits	1 ▼	
Flow Control	None ▼	

Save Remember to save it.

Com port setting

COM Port Operation setting

ADANTECH iCom

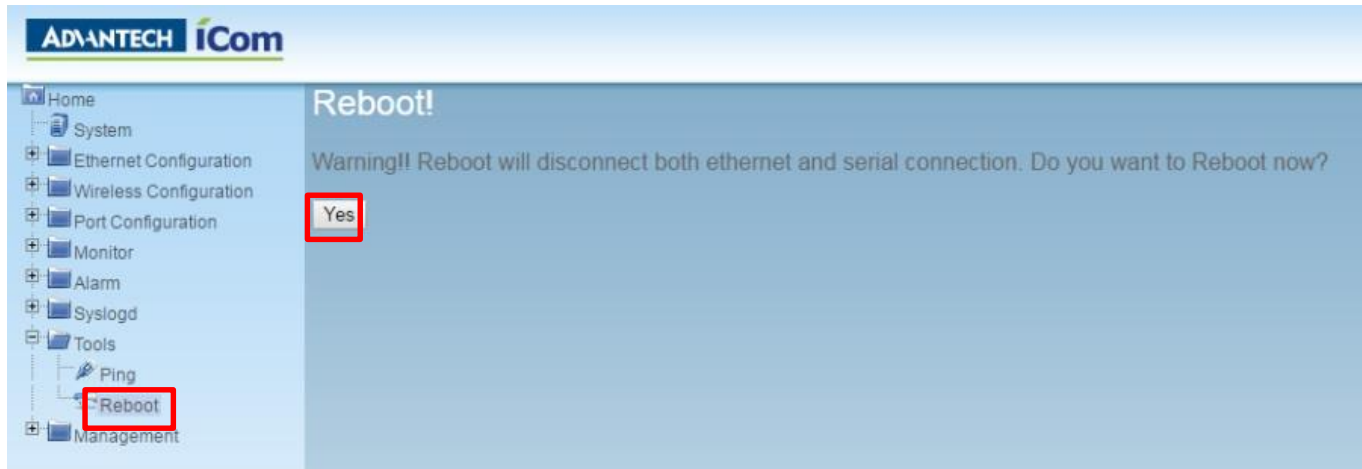
Home
System
Ethernet Configuration
Wireless Configuration
Port Configuration
 Port 1
 Port 2
Monitor
Alarm
Syslogd
Tools
Management

Port 1 configuration

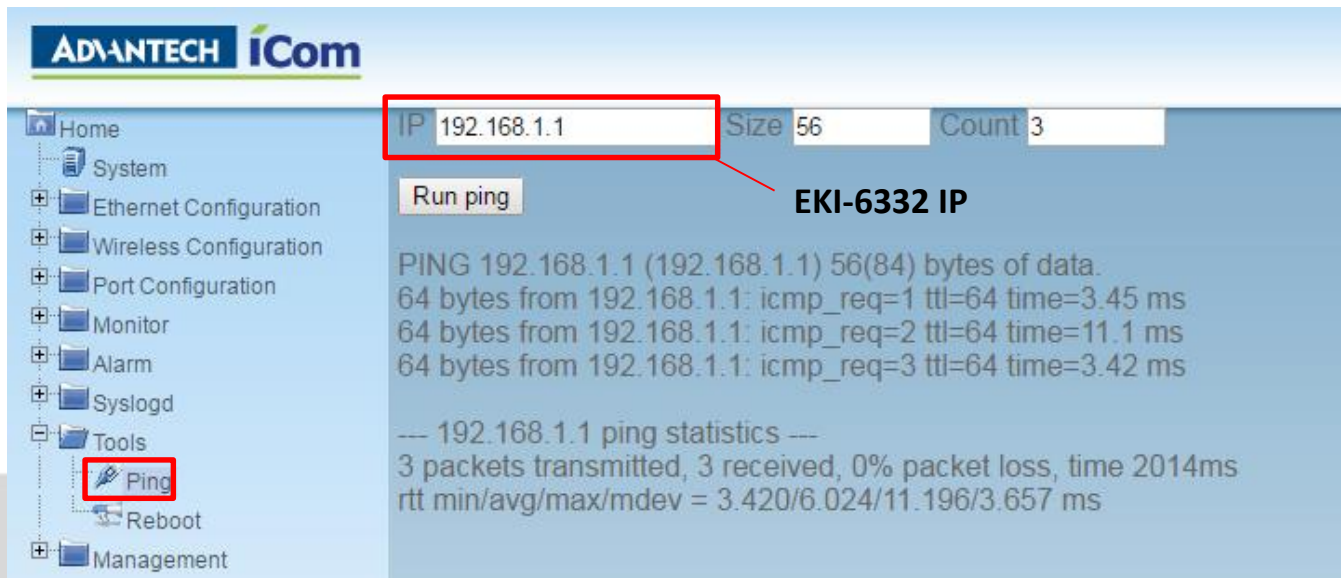
Basic	Operation	Advanced
Mode		Virtual COM Mode ▼
Host Idle Timeout(s)		60
Response Timeout(ms)		0
Frame Break(ms)		0
Pack conditions (Pack sent immediately when reach 1024 Bytes)		
<input type="checkbox"/> By size		Bytes(1 ~ 1024 Bytes)
<input type="checkbox"/> By interval		ms(1 ~ 60000 ms)
<input type="checkbox"/> By end-character		Char Format HEX ▼ Char Value
RVCOM Extra Options		
RVcom Number		0 ▼
Port Data Buffering		
Media		NONE ▼
When Data Full		Stop ▼
Save		

Reboot and Run the ping test

Step 1 :Reboot device after all setting done



Step 2 : ping EKI-6332 to make sure the wireless connection is established



Check wireless connection

You may also check the Wi-Fi signal for AP/client on Web GUI

EKI-6332

System **Wireless** **Management** **Tools**

Information
Connections
Statistics
ARP Table
Bridge Table

Association List

This table shows the MAC Address, 802.11 Mode, Signal Strength and Connected Time for each associated device(s).

#	Interface	MAC Address	802.11 Mode	Signal Strength	Connected Time	Action
1	VAP1	00:d0:c9:f7:48:f0	802.11B/G/N	-32 dBm	24m:49s	Kick

EKI-1361

Home
System
Ethernet Configuration
Wireless Configuration
Wlan 1
Port Configuration
Port 1
Monitor
Port 1
Wlan 1
Alarm
Syslogd
Tools
Management

Wireless Status

Setting **Statistic**

Wireless

Mode	Client
SSID	testing
BSSID	00:19:70:C1:1E:5C
Channel/Frequency	2.437 GHz (Channel 6)
Bitrate	72.2 Mbps
Tx power	18
Signal Level	-28
RSSI	82

WLAN status

IP address	192.168.1.2
Tx packets	814
Tx bytes	66626
Rx packets	1106
Rx bytes	119449

VCOM Mapping via EKI Utility

Topology

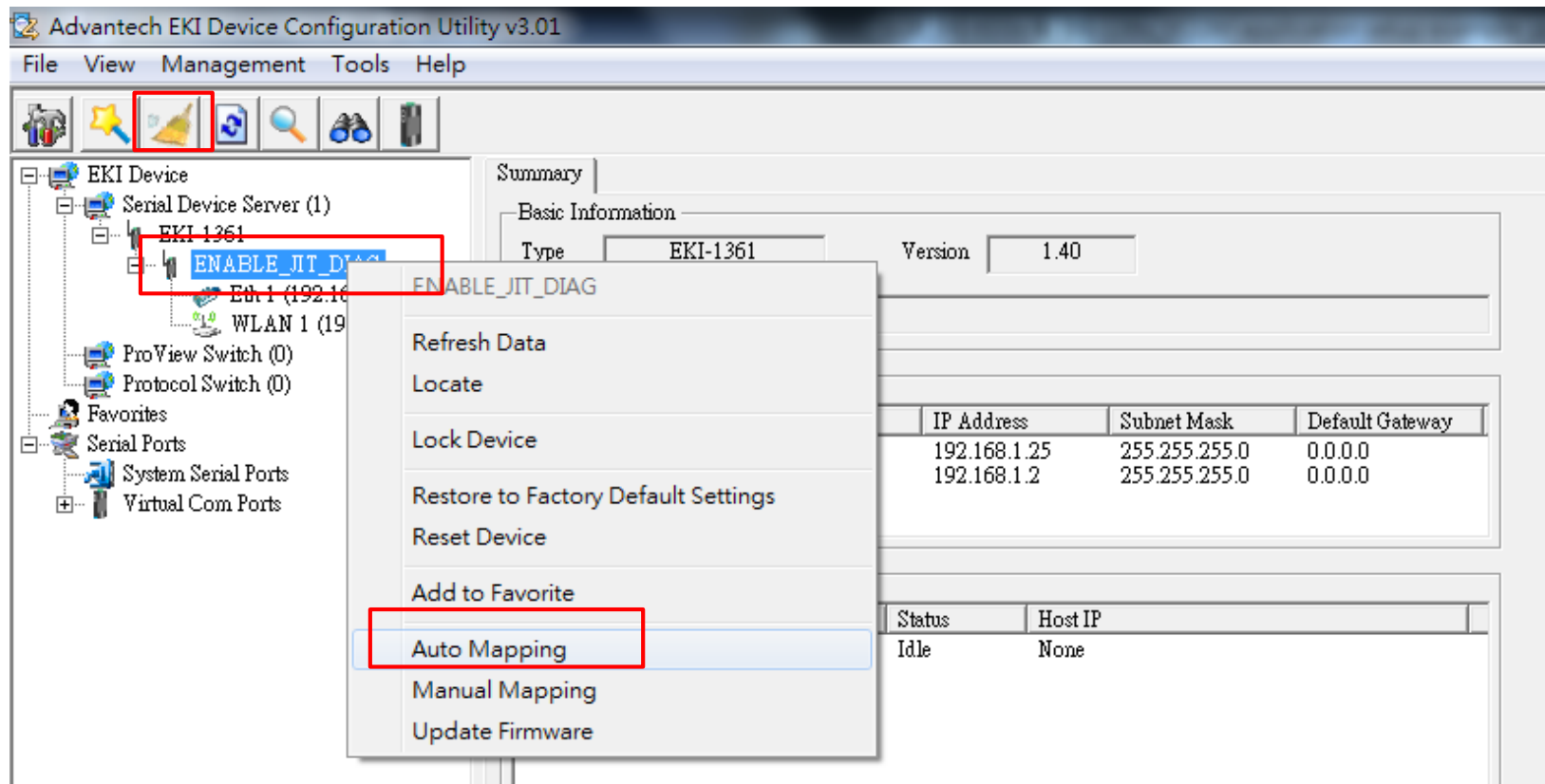


Mapping the VCOM on PC1



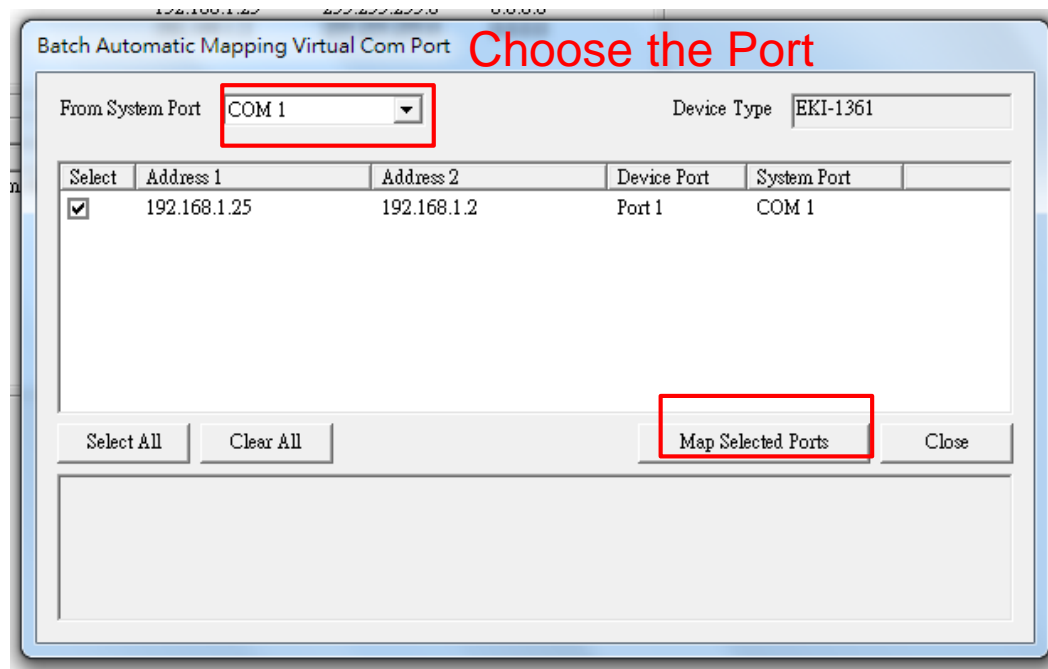
Step 1 :Run the EKI utility on PC1 to scan the EKI-1361.

Step 2 :Right click the device and press “**auto mapping**”.



Mapping the VCOM on PC1 (2/2)

- Choose the VCOM port and click “Map Select Ports”



Double check the VCOM information

- If the VCOM is mapping successfully, you can see the VCOM port on Utility.
 - Click the COM port to double check the VCOM information

Advantech EKI Device Configuration Utility v3.01

File View Management Tools Help

EKI Device

- Serial Device Server (1)
 - EKI-1361
 - ENABLE_JIT_DIAG
 - Eth 1 (192.168.1.25)
 - WLAN 1 (192.168.1.2)
- ProView Switch (0)
- Protocol Switch (0)
- Favorites
- Serial Ports
 - System Serial Ports
 - Virtual Com Ports
 - COM1

Basic Com Port Information

Name	COM1
Friendly Name	EDG VCOM Port 1 (COM1)
Manufacture	Advantech Co., Ltd
Hardware ID	AESPV2XP001
Service	AESPV2X

Virtual Com Port Information

Model Name	EKI-1361
Address 1	192.168.1.25
Address 2	192.168.1.2
Remote COM Port	Port1
Auto Reconnect	Enable
TCP Timeout	3000
Baud Rate	9600
Parity	None
Data Bits	8
Stop Bits	1
Flow Control	None
Ignore Purge	Disable

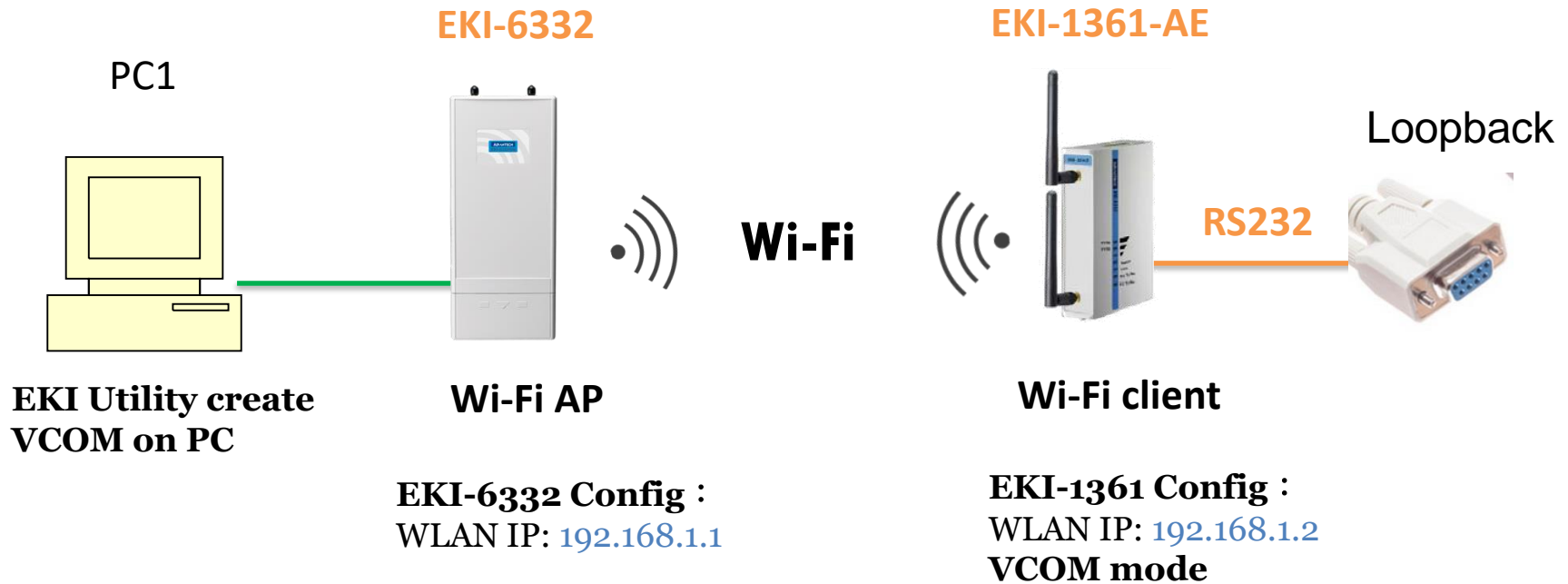
Update

See the VCOM port in utility

Double check the VCOM information

Test VCOM Mode by TestView

Topology

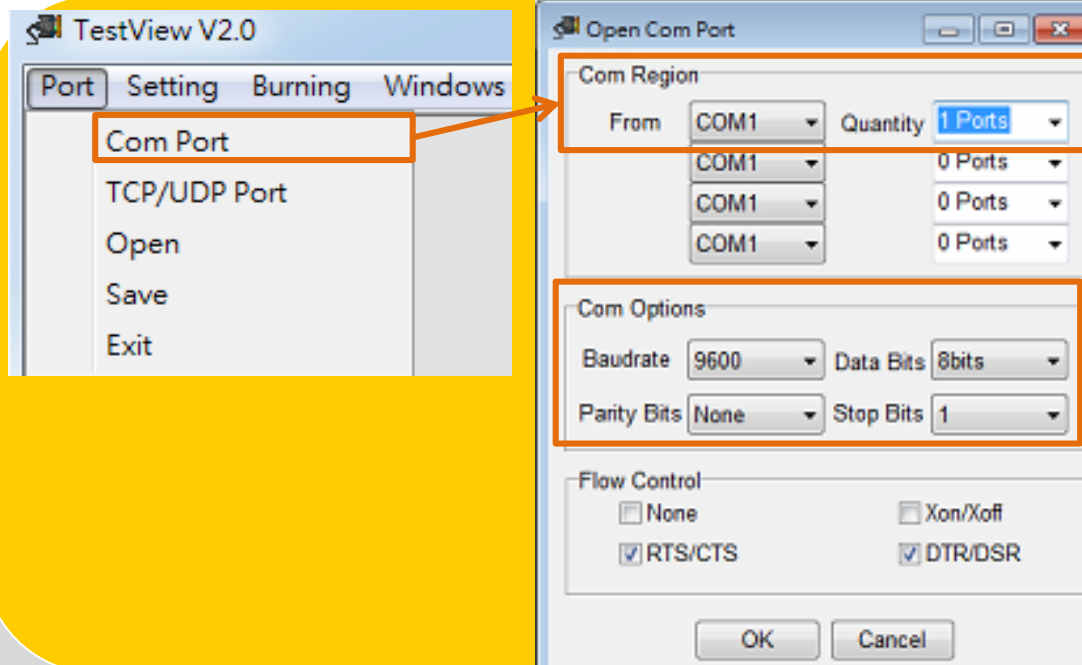


This is very important test way to check your device can work or not !!!

Connect the com port which you are mapping to and connected with **loopback connector** with the WLAN Device Server

Test Tool: Testview

- Simulate COM Port mode of the EKI device server.

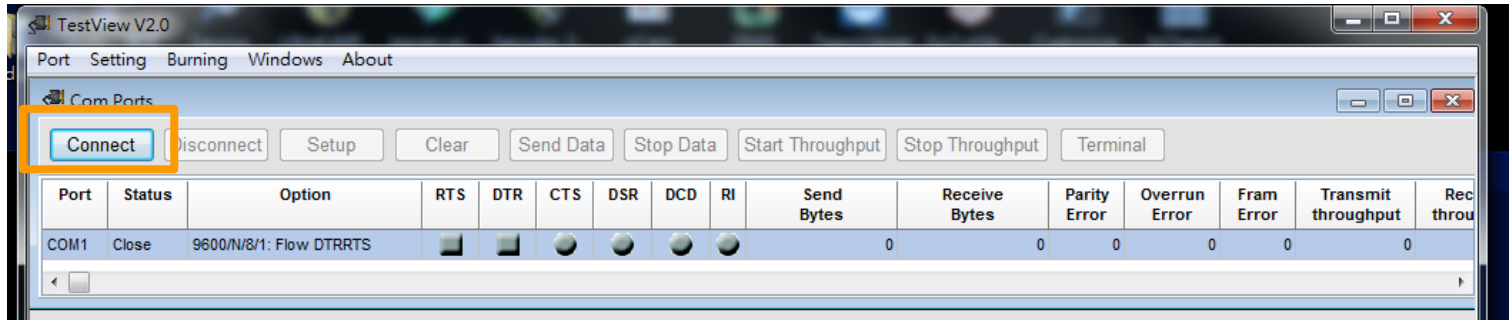


Step by Step

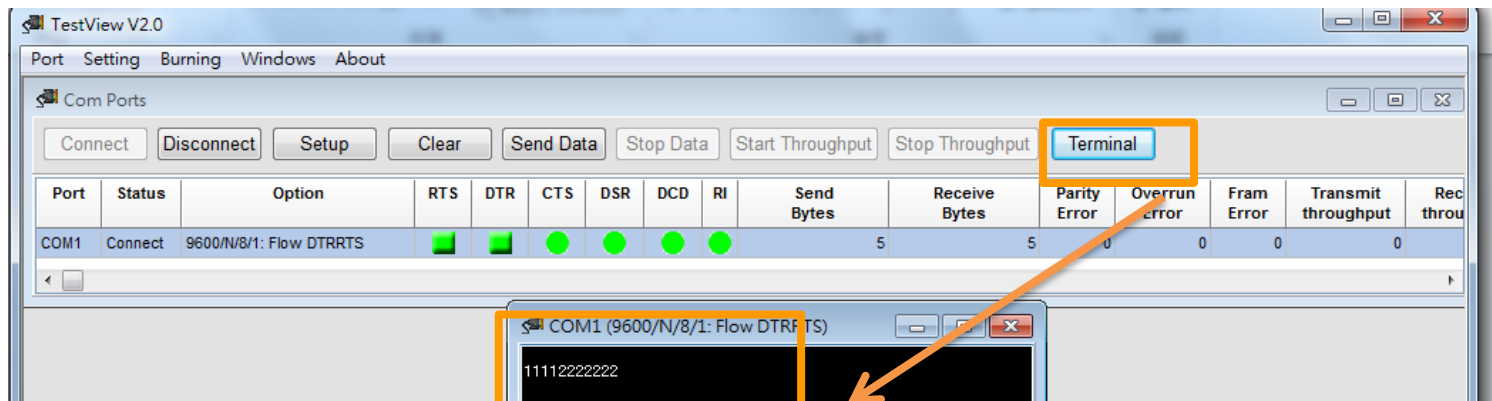
- Click Port -> Com Port to Open Com Port
- Set up your serial setting
- Select to the connected COM Port and set up option

Test Tool: Testview

4. Click **Connect** to enable VCOM Port



5. Click **Terminal** to send data. See the receive data in Terminal as well.



Send the data and see the receive data



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