

# WIZSmartScript Description

(Version 1.0)



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# Document Revision History

Date	Revision	Changes
2011-06-03	V1.0	Official Release

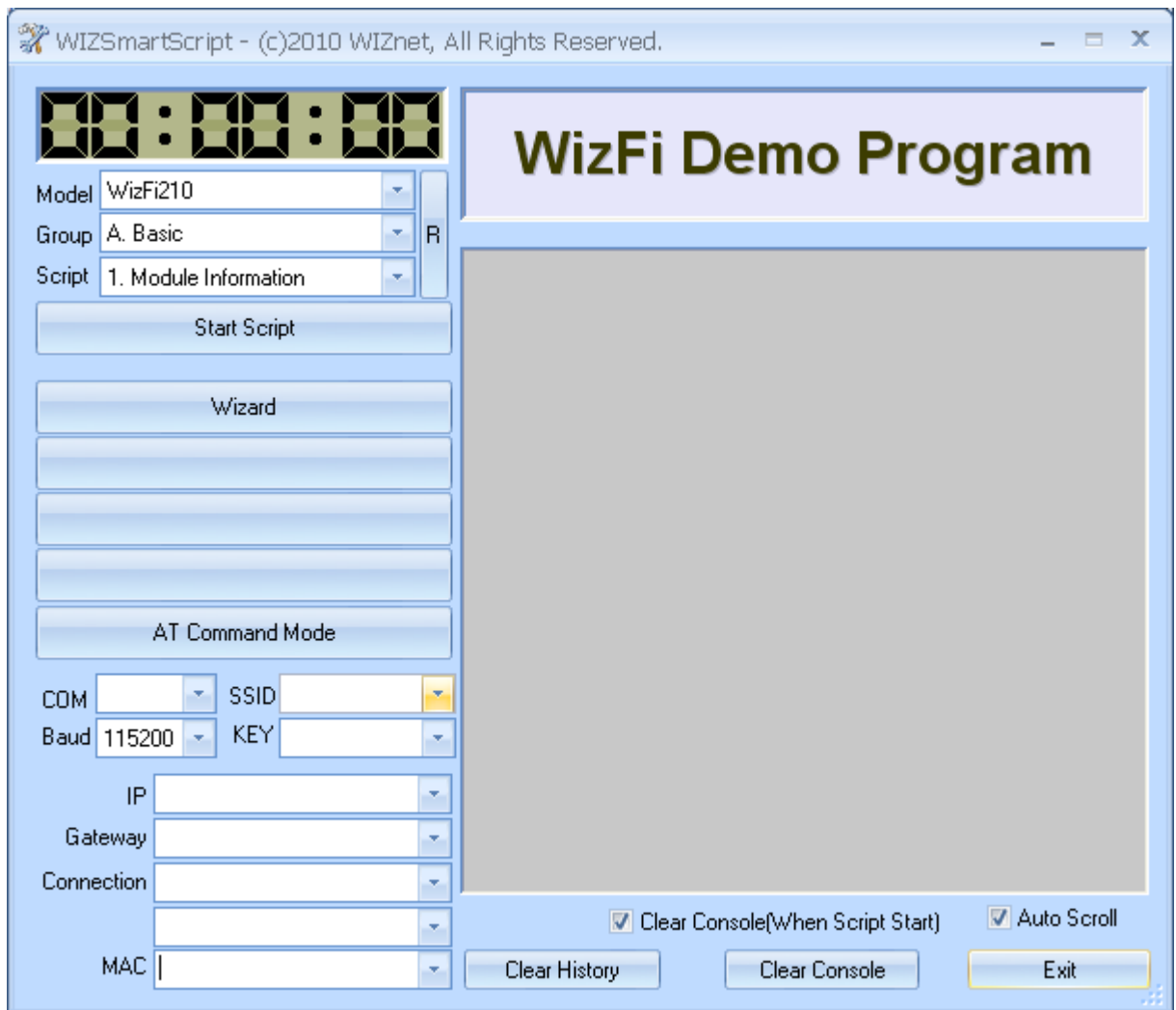
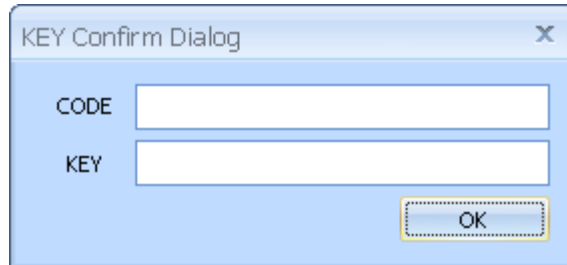
# <Contents>

1. Basic Mode
  - 1-1) Run Program
  - 1-2) Check basic information
  - 1-3) Scan AP
  - 1-4) Associate to AP with DHCP
  - 1-5) Associate to AP with Static IP
  - 1-6) Launch Auto Connection (1/2)
  - 1-7) Launch Auto Connection (2/2)
2. Wizard Mode
  - 2-1) Run Wizard
  - 2-2) Step 1 : Find WizFi
  - 2-3) Step 2 : AP Scan
  - 2-4) Step 3 : WiFi Security
  - 2-5) Step 4 : WiFi Network
  - 2-6) Step 5 : Serial Port
  - 2-7) Step 6 : S2W Channel
  - 2-8) Step 7 : Save Option
  - 2-9) Step 8 : Finish (Save Script)
  - 2-10) Execute Script
3. Firmware Upgrade
  - 3-1) Check Old Version
  - 3-2) Copy Firmware Files
  - 3-3) Switch to Program Mode
  - 3-4) Flash Write
  - 3-5) Switch to Run Mode
  - 3-6) Factory Default
  - 3-7) Check New Version

# 1. Basic Mode

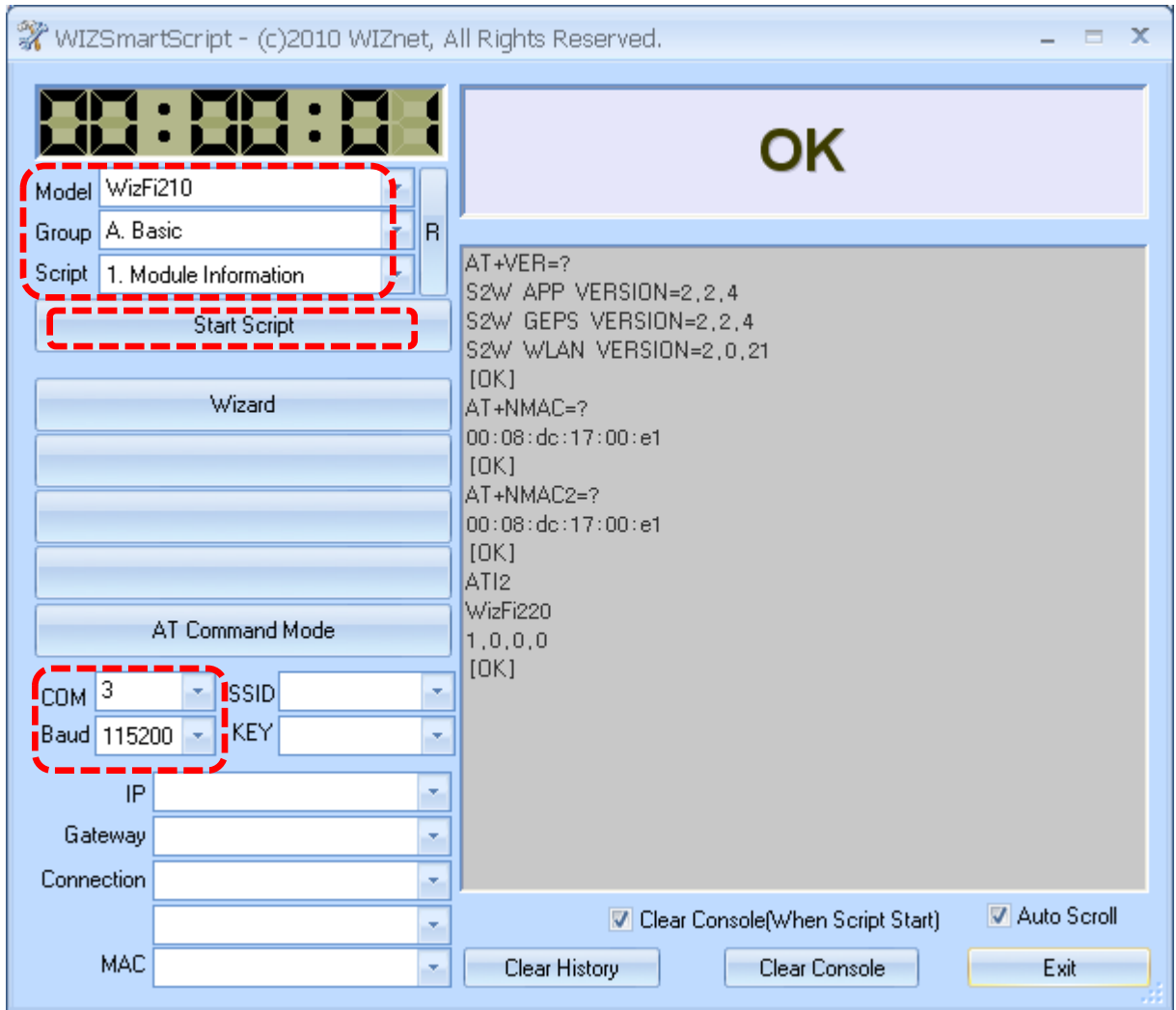
## 1-1) Run Program

1. If you run the WIZSmartScript program, you can see the KEY Confirm Dialog as shown below.
2. If you enter the received CODE and KEY, you can operate the program in normal mode.



# 1-2) Check basic information

1. Input the COM port of PC and baud rate. (Default Baud Rate : 115200)
2. Select "WizFi210" for Model, "A. Basic" for Group and "1. Module Information" for Script.
3. If you click "Start Script", you can see the basic information of WizFi210 as below.



# 1-3) Scan AP

1. Select "WizFi210" for Model, "B. Function" for Group and "1. AP Scan" for Script.
2. If you click "Start Script", you can see the neighboring AP list.

The screenshot shows the WIZSmartScript application window. The title bar reads "WIZSmartScript - (c)2010 WIZnet, All Rights Reserved." The interface is divided into several sections:

- Top Left:** A digital clock displays "00:00:02".
- Top Center:** A large "OK" button is visible.
- Left Panel:** Configuration options for the script:
  - Model: WizFi210
  - Group: B. Functions
  - Script: 1. AP ScanA "Start Script" button is located below these options. Below the configuration is a "Wizard" section with several empty input fields. At the bottom of the left panel is an "AT Command Mode" section with fields for CDM (set to 3), Baud (set to 115200), SSID, KEY, IP, Gateway, Connection, and MAC.
- Right Panel:** A console window titled "AT+WS" displays the results of the scan:

```
AT+WS
BSSID          SSID          Channel Type  RSSI Security
00:24:73:67:01:c0, Anymobi      , 02,  INFRA , -67 , WPA2-PERSONAL
00:01:36:26:42:c8, myLGNet      , 02,  INFRA , -80 , WEP
08:10:74:c2:26:1e, zio          , 03,  INFRA , -25 , NONE
08:10:75:0b:e7:2e,              , 06,  INFRA , -87 , WEP
00:23:69:c8:f4:f5, WizFiDemoAP  , 06,  INFRA , -23 , WPA2-PERSONAL
02:e0:66:f3:ab:f7, portthru    , 10,  ADHOC , -54 , NONE
00:08:9f:52:47:60, WIZ_AP2     , 11,  INFRA , -66 , WPA2-PERSONAL
No. Of AP Found: 7
[OK]
```
- Bottom Right:** Checkboxes for "Clear Console(When Script Start)" and "Auto Scroll" are checked. Below them are "Clear History", "Clear Console", and "Exit" buttons.

# 1-4) Associate to AP with DHCP

1. Select "C. Association" and "1. WPA, DHCP".
2. Enter the valid value into the SSID and Key field.
3. If you click "Start Script", WizFi210 will associate to the AP with DHCP and you can see the process as below.

The screenshot shows the WIZSmartScript application window. The title bar reads "WIZSmartScript - (c)2010 WIZnet, All Rights Reserved." The interface is divided into several sections:

- Top Left:** A digital clock displays "00:00:13".
- Configuration Panel (Left):** Contains dropdown menus for "Model" (WizFi210), "Group" (C. Association), and "Script" (1. WPA, DHCP). Below these are buttons for "Start Script", "Wizard", and "AT Command Mode". At the bottom, there are fields for "COM" (3), "Baud" (115200), "IP", "Gateway", "Connection", and "MAC". The "SSID" field is set to "WizFiDemoAP" and the "KEY" field is set to "12345678".
- Right Panel:** A large text area displays the execution output of the script. The output includes commands like "AT+WD", "AT+WM=0", "AT+WPA=12345678", "AT+NDHCP=1", and "AT+WA=WizFiDemoAP". It also shows network configuration details: "IP 192,168,3,106", "SubNet 255,255,255,0", and "Gateway 192,168,3,1". The status is "WSTATE=CONNECTED MODE=AP".
- Bottom Right:** Checkboxes for "Clear Console(when Script Start)" and "Auto Scroll" are checked. Buttons for "Clear History", "Clear Console", and "Exit" are present.

# 1-5) Associate to AP with Static IP

1. Select "C. Association" and "2. WPA, Static IP".
2. Enter the valid value into the SSID and Key field.
3. Enter the valid value into the IP and Gateway field.
4. If you click "Start Script", WizFi210 will associate to the AP with static IP and you can see the process as below.

The screenshot shows the WIZSmartScript application window. The title bar reads "WIZSmartScript - (c)2010 WIZnet, All Rights Reserved." The interface is divided into several sections:

- Top Left:** A digital clock displays "00:00:13".
- Configuration Panel (Left):** Contains dropdown menus for "Model" (WizFi210), "Group" (C. Association), and "Script" (2. WPA, Static IP). Below these are buttons for "Start Script", "Wizard", and "AT Command Mode". At the bottom, there are fields for "COM" (3), "Baud" (115200), "SSID" (WizFiDemoAP), "KEY" (12345678), "IP" (192.168.3.201), "Gateway" (192.168.3.1), "Connection", and "MAC".
- Right Panel:** A large text area displays the AT command execution log. The log shows the device successfully connecting to the AP and configuring static IP settings. The output includes:

```
AT+WM=0
[OK]
AT+WPA=12345678
[OK]
AT+NDHCP=0
[OK]
AT+NSET=192,168,3,201,255,255,255,0,192,168,3,1
[OK]
AT+WA=WizFiDemoAP
IP SubNet Gateway
192,168,3,201: 255,255,255,0: 192,168,3,1
[OK]
AT+NSTAT=?
MAC=00:08:dc:17:00:e1
WSTATE=CONNECTED MODE=AP
BSSID=00:23:69:c8:f4:f5 SSID="WizFiDemoAP" CHANNEL=6 SECURITY=WPA
IPAddr=192,168,3,201 SubNet=255,255,255,0 Gateway=192,168,3,1 DNS1=0
RxCount=2090 TxCount=6438562
[OK]
```
- Bottom Right:** Checkboxes for "Clear Console(When Script Start)" and "Auto Scroll" are checked. Below them are buttons for "Clear History", "Clear Console", and "Exit".



# 1-6) Launch Auto Connection (1/2)

1. Select "D. Auto Connection" and "1. WPA, Static IP, Raw Option".
2. Enter the valid value into the SSID and Key field.
3. Enter the valid value into the IP and Gateway field.
4. Enter the connection type into the Connection field.
5. If you click "Start Script", WizFi210 will associate to the AP with static IP and prepare the serial-to-wifi channel. (TCP, Server, Port 5000)

The screenshot shows the WIZSmartScript application window. The title bar reads "WIZSmartScript - (c)2010 WIZnet, All Rights Reserved." The interface includes a digital clock at the top left showing "00:00:12". A large "OK" button is visible in the upper right. The configuration panel on the left has several dropdown menus: "Model" is set to "WizFi210", "Group" is "D. Auto Connection", and "Script" is "1. WPA, Static IP, Raw Optic". Below these is a "Start Script" button. Further down are "Wizard" and "AT Command Mode" buttons. At the bottom left, there are fields for "COM" (3), "Baud" (115200), "SSID" (WizFiDemoAP), "KEY" (12345678), "IP" (192.168.3.201), "Gateway" (192.168.3.1), "Connection" (1,1,,5000), and "MAC". A red dashed box highlights the "Model", "Group", "Script", "IP", "Gateway", and "Connection" fields. The terminal window on the right displays the following text:

```
[Insert static ip address into UserData1 and gateway into UserData2. (e
[Insert raw nauto option into UserData3. (ex:0,1,192,168,3,101,5000)]
<Type>,<Protocol>,<Destination IP>,<Destination Port>
Type(0:Client, 1:Server) Protocol(0:UDP, 1:TCP)
AT+WD
[OK]
AT+WwWPA=12345678
[OK]
AT+NDHCP=0
[OK]
AT+NSET=192,168,3,201,255,255,255,0,192,168,3,1
[OK]
AT+WAUTO=0,WizFiDemoAP,,0
[OK]
AT+NAUTO=1,1,,5000
[OK]
ATA
IP          SubNet      Gateway
192,168,3,201: 255,255,255,0: 192,168,3,1
[OK]
```

At the bottom right of the terminal area, there are checkboxes for "Clear Console(When Script Start)" and "Auto Scroll", both of which are checked. Below the terminal are "Clear History", "Clear Console", and "Exit" buttons.

## <Examples of Connection Type>

1,1,,5000 : Server, TCP, Listen Port 5000  
1,0,,5000 : Server, UDP, Listen Port 5000  
0,1,192.168.3.100,5000 : Client, TCP, Connect to 192.168.3.100:5000

# 1-7) Launch Auto Connection (2/2)

1. Run the serial terminal program and connect to the COM port.
2. Run the TCP client program and connect to the WizFi210.  
(192.168.3.201:5000)
3. Confirm the two-way data communication with the programs.

```
COM3 Ready!  
1234567890
```

Serial Terminal Program

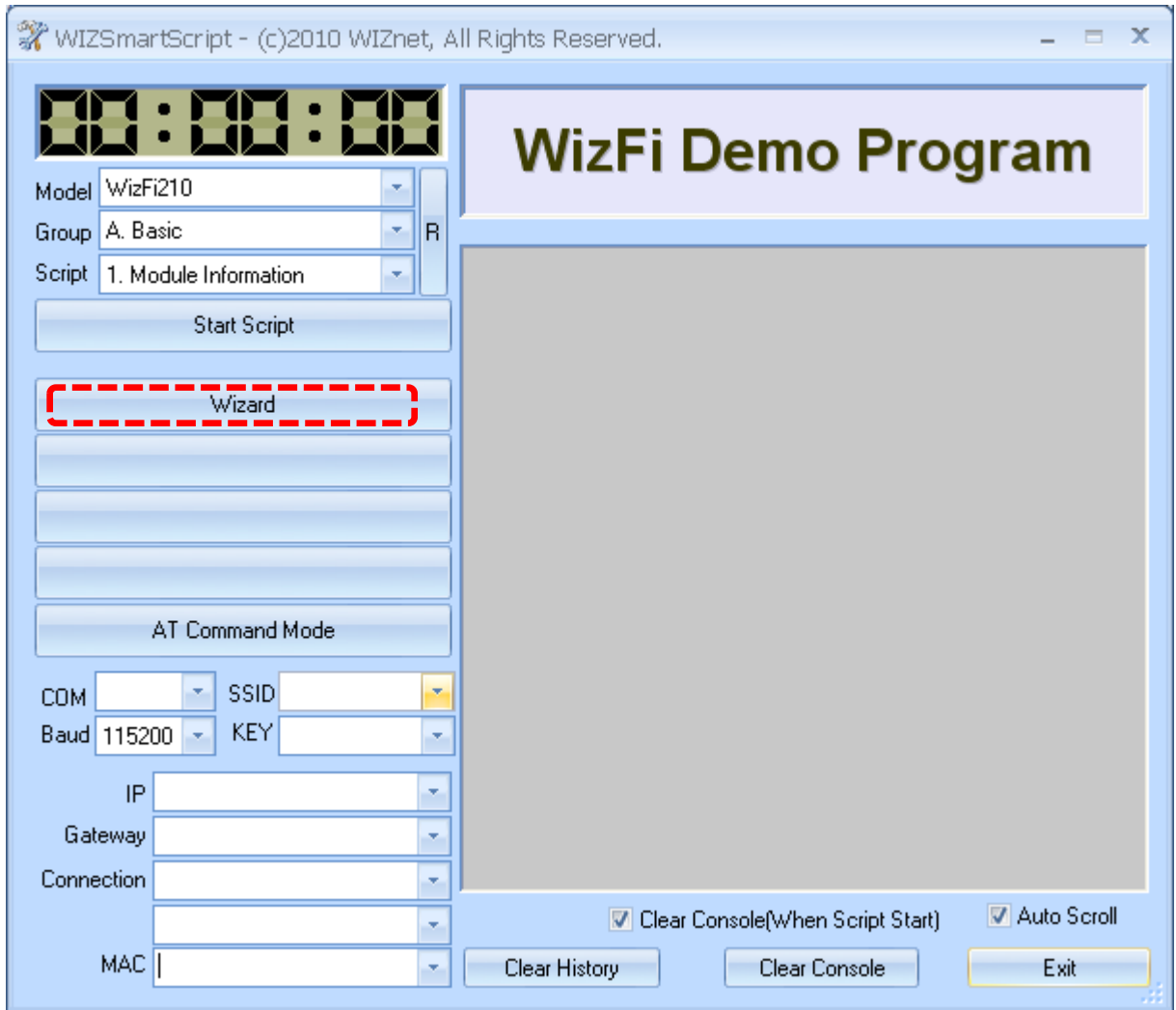
```
Trying 192.168.3.201 (PORT:5000)...  
Connected to 192.168.3.201...  
abcdefgh
```

Telnet Client Program

# 2. Wizard Mode

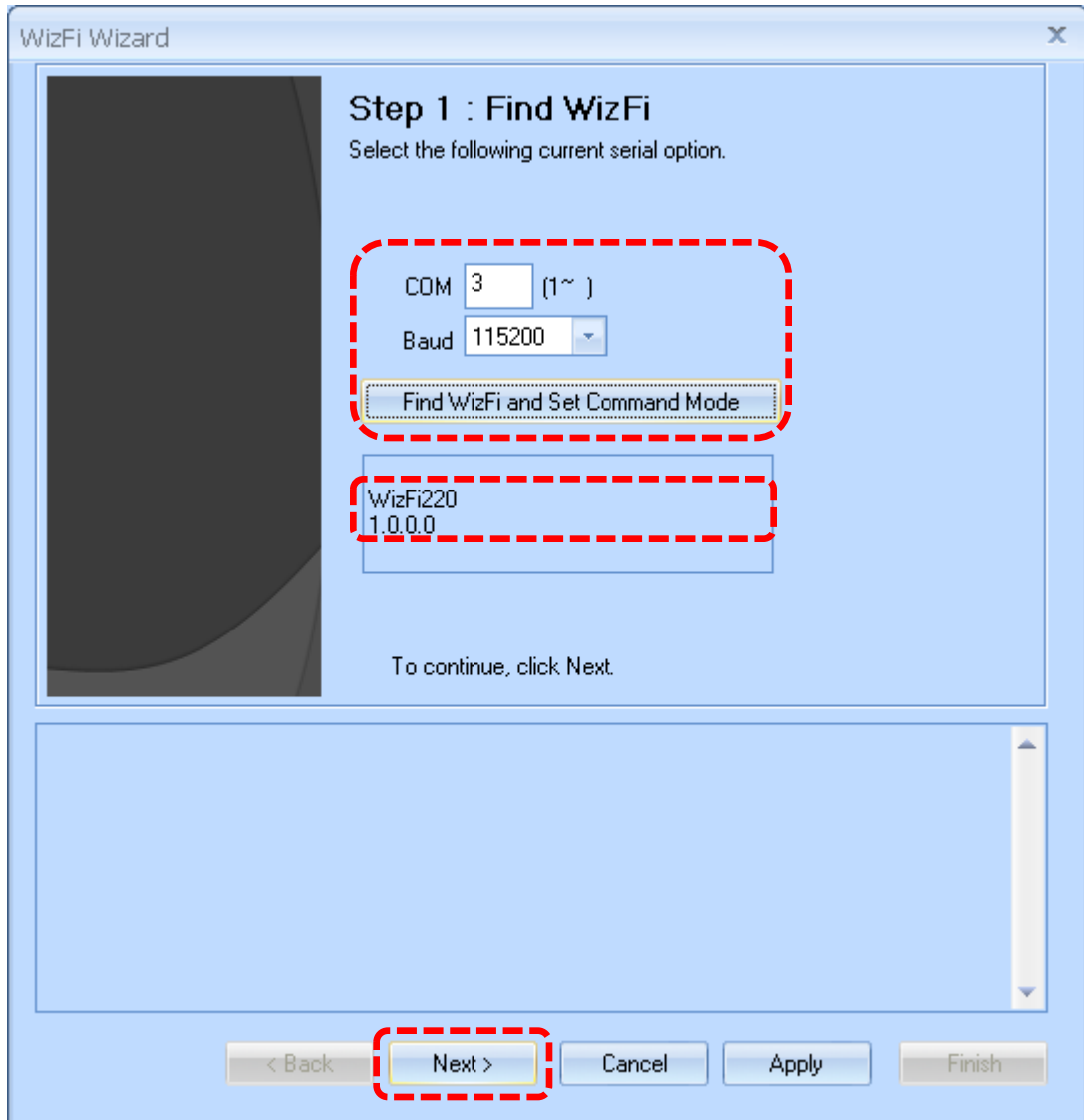
## 2-1) Run Wizard

1. If you click "Wizard" button, Wizard mode of WIZSmartScript will launch.



## 2-2) Step 1 : Find WizFi

1. Turn on the WizFi210 and connect the serial cable to the PC.
2. Enter the valid value into the COM and Baud field and click "Find WizFi and Set Command Mode" button.
3. If there is no error, you can see the WizFi model name and version of WizFi210(or WizFi220) as shown below.
4. Click "Next" button for next step.



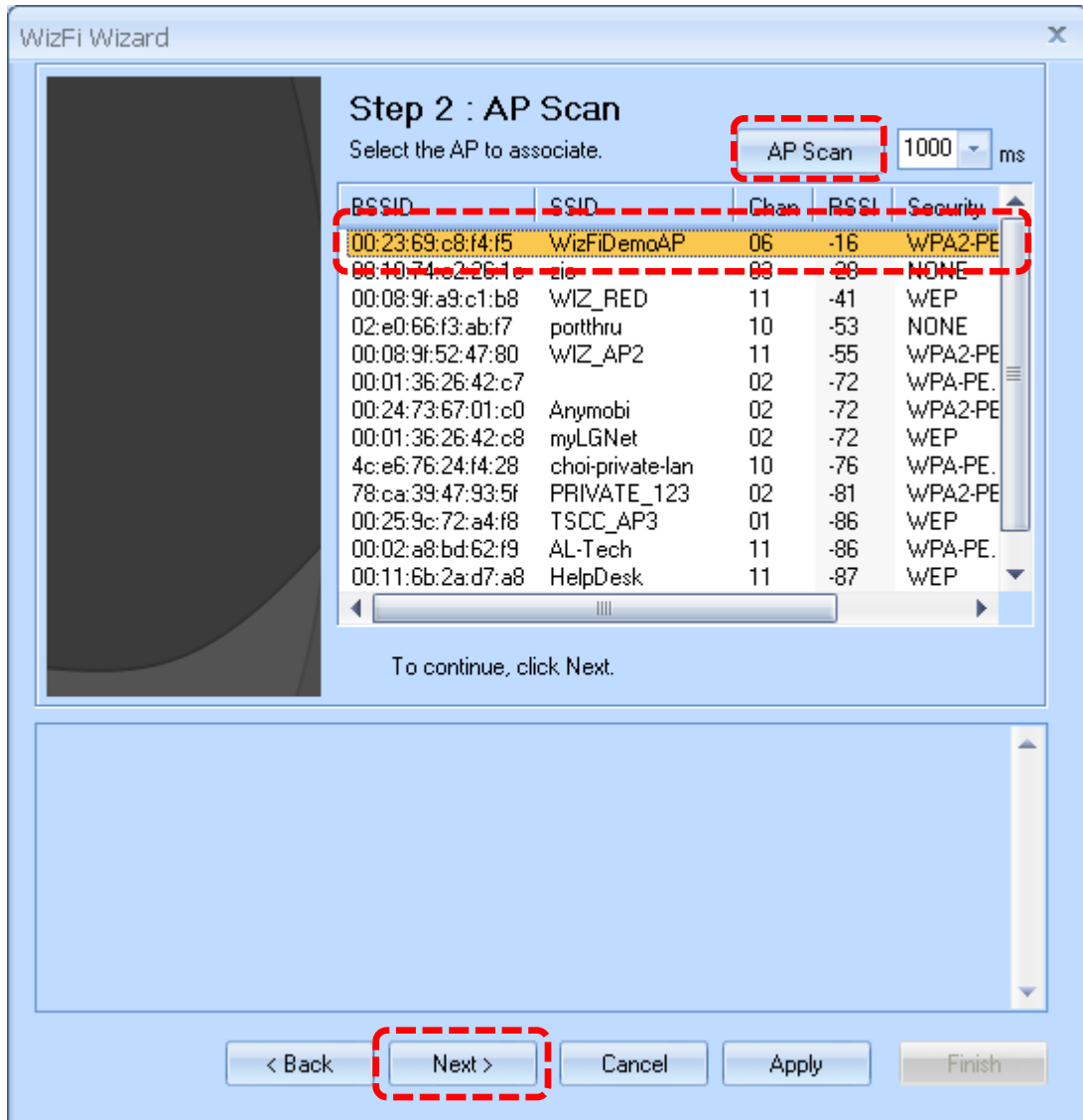
The screenshot shows the 'WizFi Wizard' window at 'Step 1 : Find WizFi'. The window title is 'WizFi Wizard' and it has a close button (X) in the top right corner. The main area contains the following elements:

- Step 1 : Find WizFi**  
Select the following current serial option.
- COM field: 3 (1~ )
- Baud field: 115200 (dropdown menu)
- Button: Find WizFi and Set Command Mode
- Result box: WizFi220  
1.0.0.0
- Text: To continue, click Next.

At the bottom of the window, there are five buttons: < Back, Next >, Cancel, Apply, and Finish. The 'Next >' button is highlighted with a red dashed box.

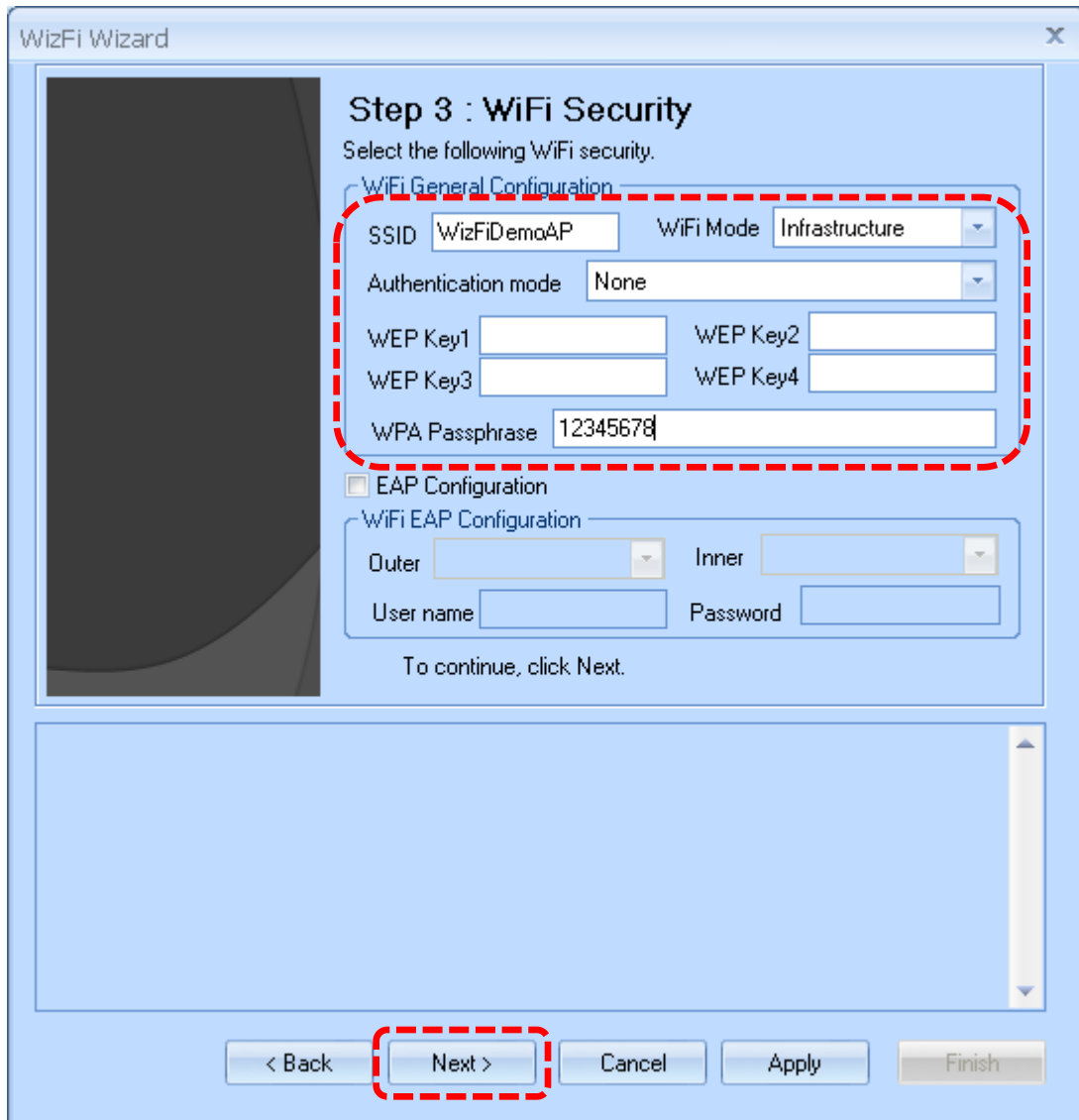
## 2-3) Step 2 : AP Scan

1. Click "AP Scan" button for searching the neighboring APs.
2. Select a AP to connect to.
3. Click "Next" button for next step.



## 2-4) Step 3 : WiFi Security

1. Enter the valid value into the WiFi security field.
2. If needed, check the EAP Configuration.
3. Click "Next" button for next step.



The screenshot shows the 'WizFi Wizard' window at 'Step 3 : WiFi Security'. The window title is 'WizFi Wizard' and it has a close button (X) in the top right corner. The main content area is titled 'Step 3 : WiFi Security' and contains the instruction 'Select the following WiFi security.' Below this, there are two sections: 'WiFi General Configuration' and 'WiFi EAP Configuration'. The 'WiFi General Configuration' section is highlighted with a red dashed border and contains the following fields: SSID (WizFiDemoAP), WiFi Mode (Infrastructure), Authentication mode (None), WEP Key1, WEP Key2, WEP Key3, WEP Key4, and WPA Passphrase (12345678). The 'WiFi EAP Configuration' section is unchecked and contains fields for Outer, Inner, User name, and Password. At the bottom of the window, there are five buttons: '< Back', 'Next >', 'Cancel', 'Apply', and 'Finish'. The 'Next >' button is highlighted with a red dashed border. The text 'To continue, click Next.' is located below the EAP Configuration section.

WizFi Wizard

### Step 3 : WiFi Security

Select the following WiFi security.

WiFi General Configuration

SSID: WizFiDemoAP    WiFi Mode: Infrastructure

Authentication mode: None

WEP Key1:    WEP Key2:    WEP Key3:    WEP Key4:

WPA Passphrase: 12345678

EAP Configuration

WiFi EAP Configuration

Outer:    Inner:    User name:    Password:

To continue, click Next.

< Back    Next >    Cancel    Apply    Finish

## 2-5) Step 4 : WiFi Network

1. Configure IP address of WizFi210.(DHCP or Static IP)
2. Click "Next" button for next step.

The screenshot shows the 'WizFi Wizard' window at 'Step 4 : WiFi Network'. The window title is 'WizFi Wizard' and it has a close button (X) in the top right corner. The main content area is light blue and contains the following elements:

- A dark grey vertical bar on the left side.
- The title 'Step 4 : WiFi Network' and the instruction 'Select the following WiFi network.'
- Two radio buttons: 'DHCP' (unselected) and 'Static IP' (selected).
- Three input fields for static IP configuration:
  - IP Address: 192.168.3.203
  - Subnet Mask: 255.255.255.0
  - Gateway: 192.168.3.1
- The instruction 'To continue, click Next.'

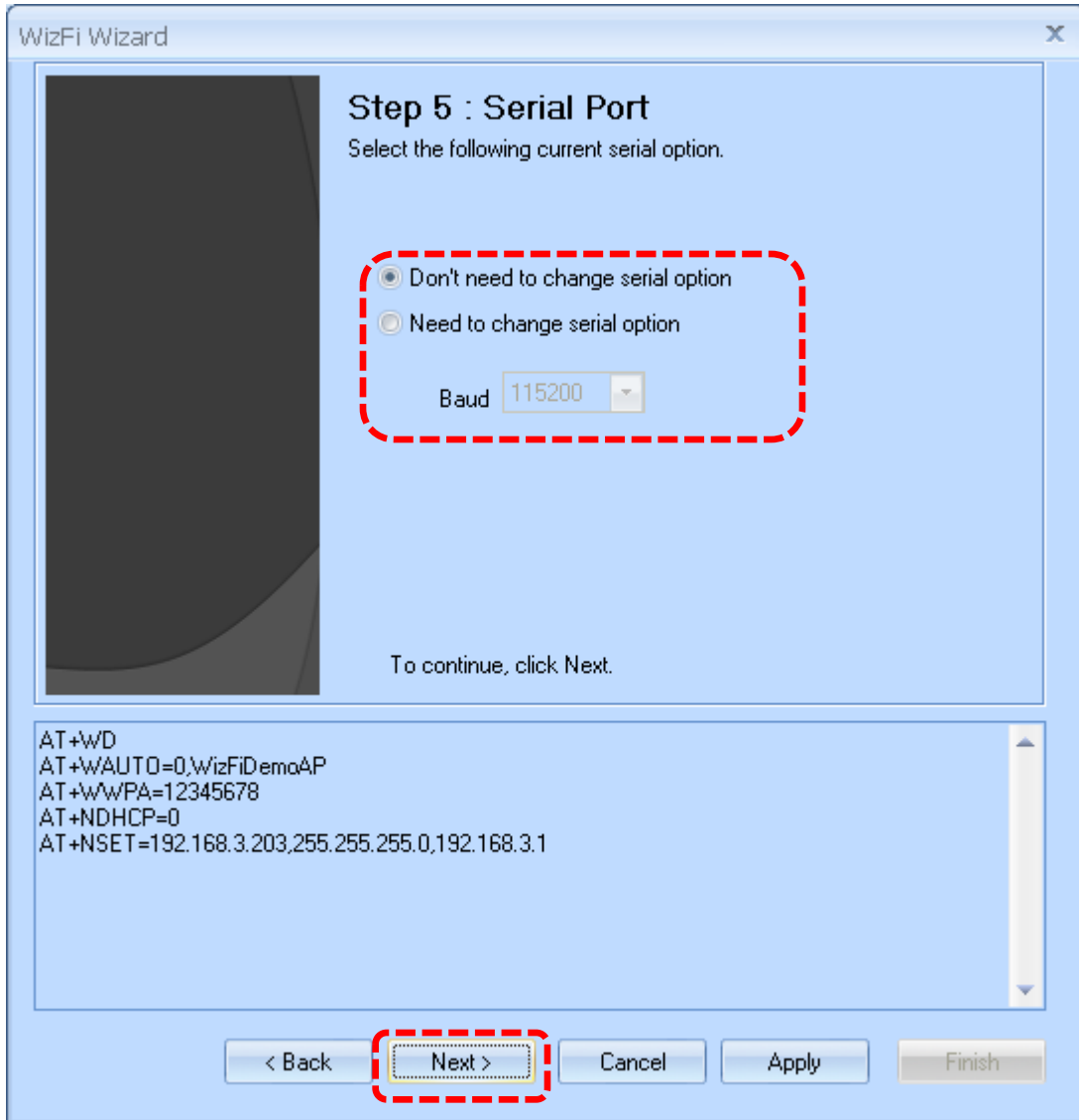
At the bottom of the window, there is a scrollable text area containing the following AT commands:

```
AT+WD
AT+WAUTO=0,WizFiDemoAP
AT+WPA=12345678
```

Below the text area are five buttons: '< Back', 'Next >', 'Cancel', 'Apply', and 'Finish'. The 'Next >' button is highlighted with a red dashed border.

## 2-6) Step 5 : Serial Port

1. If needed, Change the baud rate of WizFi210.
2. Click "Next" button for next step.



The screenshot shows the 'WizFi Wizard' window at 'Step 5 : Serial Port'. The window title is 'WizFi Wizard' and it has a close button (X) in the top right corner. The main content area is light blue and contains the following text: 'Step 5 : Serial Port' and 'Select the following current serial option.' Below this, there are two radio button options: 'Don't need to change serial option' (which is selected) and 'Need to change serial option'. A 'Baud' dropdown menu is set to '115200'. A red dashed box highlights the radio buttons and the Baud dropdown. Below the options, it says 'To continue, click Next.' At the bottom of the window, there is a command list: 'AT+WD', 'AT+WAuto=0,WizFiDemoAP', 'AT+WwPA=12345678', 'AT+NDHCP=0', and 'AT+NSET=192.168.3.203,255.255.255.0,192.168.3.1'. At the very bottom, there are five buttons: '< Back', 'Next >', 'Cancel', 'Apply', and 'Finish'. The 'Next >' button is highlighted with a red dashed box.

WizFi Wizard

**Step 5 : Serial Port**  
Select the following current serial option.

Don't need to change serial option  
 Need to change serial option

Baud 115200

To continue, click Next.

AT+WD  
AT+WAuto=0,WizFiDemoAP  
AT+WwPA=12345678  
AT+NDHCP=0  
AT+NSET=192.168.3.203,255.255.255.0,192.168.3.1

< Back   **Next >**   Cancel   Apply   Finish



## 2-7) Step 6 : S2W Channel

1. Configure serial-to-wifi channel option. (protocol, mode, IP and port)
2. Click "Next" button for next step.

The screenshot shows the 'WizFi Wizard' window at 'Step 6 : S2W Channel'. The window title is 'WizFi Wizard' and it has a close button 'x' in the top right corner. The main content area is light blue and contains the following elements:

- Step 6 : S2W Channel**  
Select the following Serial-to-WiFi channel.
- A red dashed box highlights the configuration options:
  - Protocol:  TCP,  UDP
  - Mode:  Server,  Client
  - Destination IP: [text input field]
  - Port: [text input field]
  - Local: [text input field]
  - Port: [text input field with value '4000']
- Text: "To continue, click Next."

Below the main content area is a scrollable text box containing AT commands, also highlighted with a red dashed box:

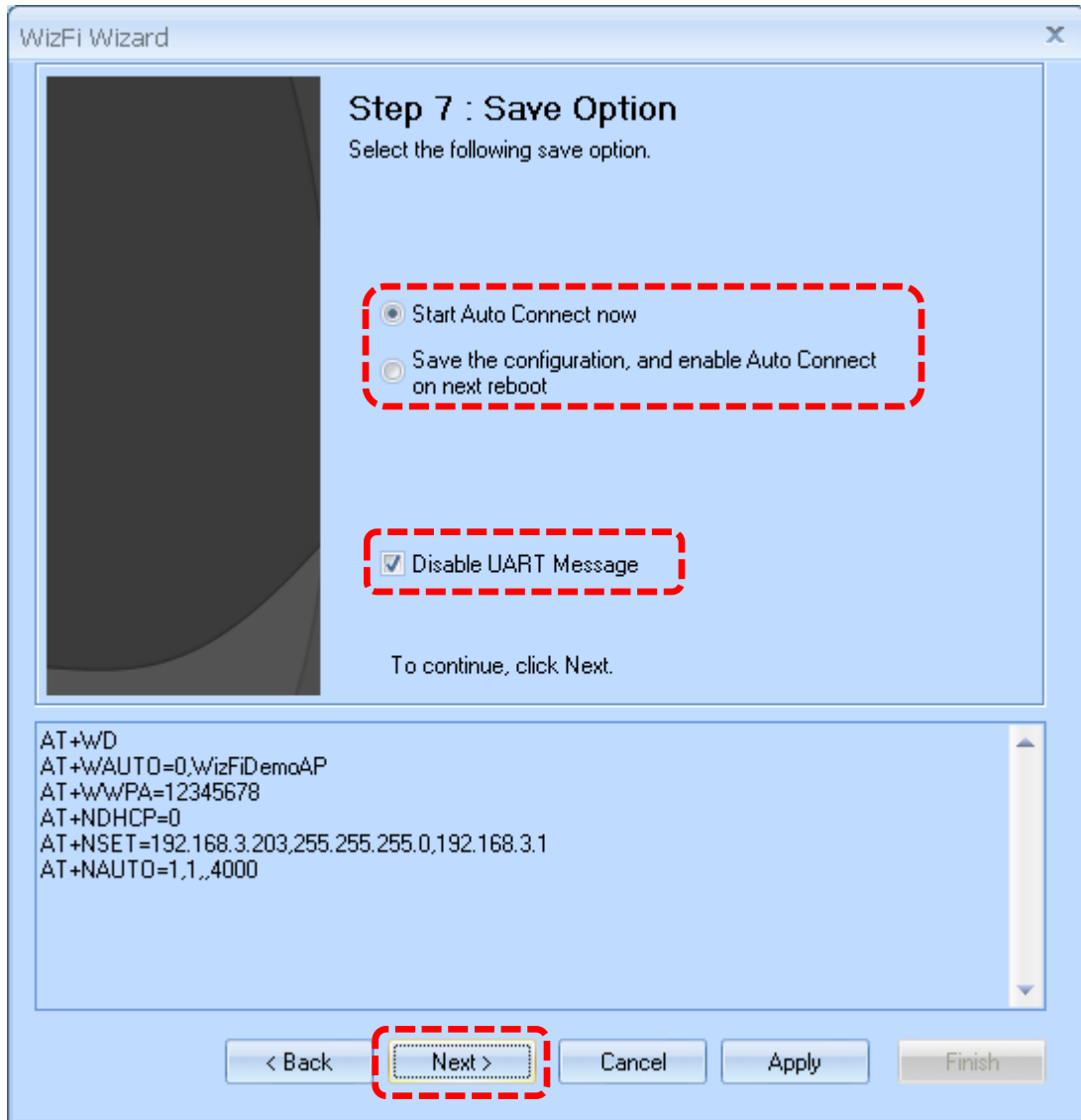
```
AT+WD
AT+WAuto=0,WizFiDemoAP
AT+WwPA=12345678
AT+NDHCP=0
AT+NSET=192.168.3.203,255.255.255.0,192.168.3.1
```

At the bottom of the window are five buttons: "< Back", "Next >", "Cancel", "Apply", and "Finish". The "Next >" button is highlighted with a red dashed box.

If you click "Apply" button, you could see how to use AT commands instantly.

## 2-8) Step 7 : Save Option

1. Choose whether to establish s2w channel instantly or save the configuration to the flash memory for next reboot.
2. Choose whether to send debug messages into the UART or not.
3. Click "Next" button for next step.

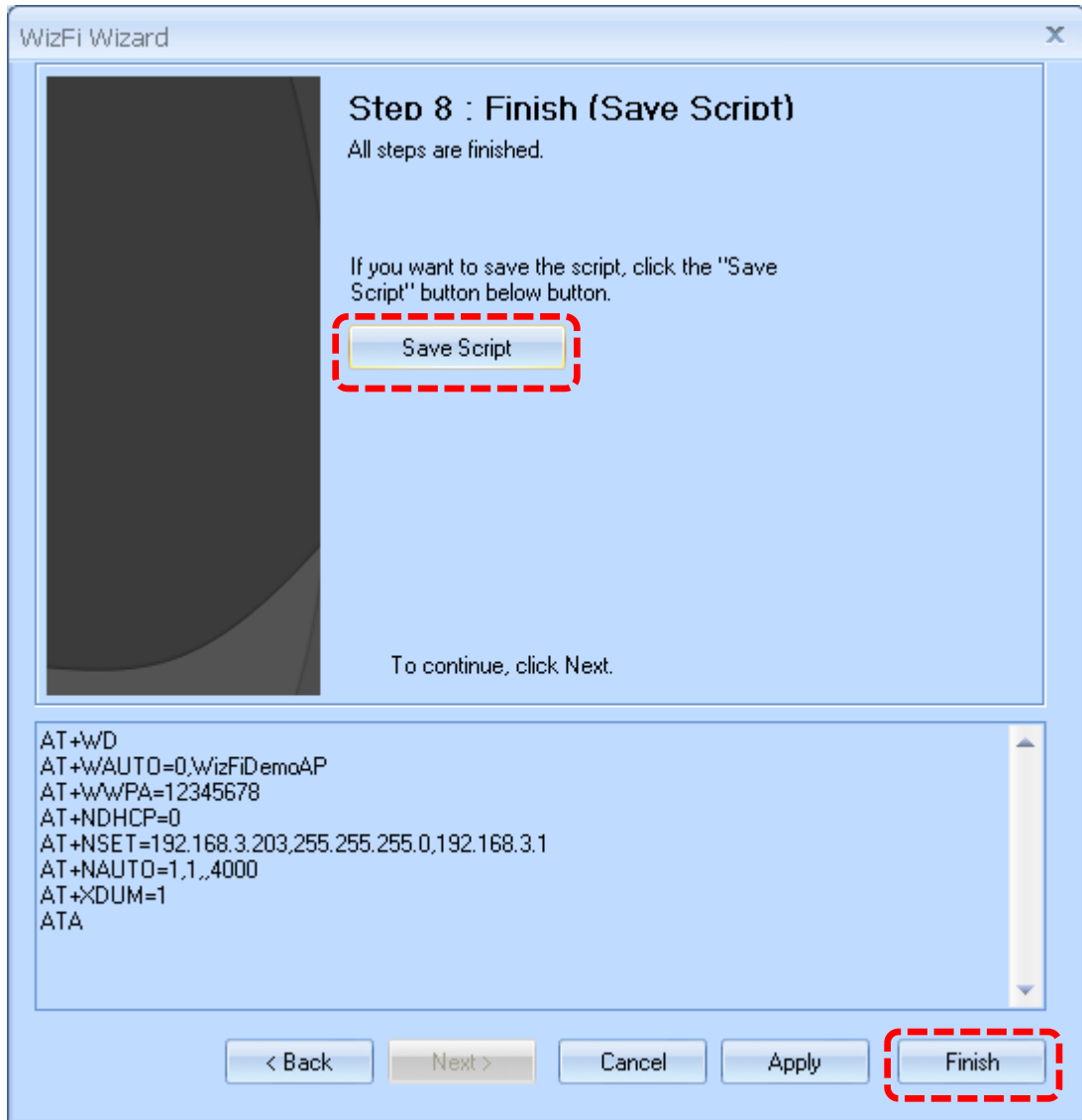


The screenshot shows a window titled "WizFi Wizard" with a close button (X) in the top right corner. The main area is titled "Step 7 : Save Option" and contains the instruction "Select the following save option." There are three radio button options: "Start Auto Connect now" (selected), "Save the configuration, and enable Auto Connect on next reboot", and "Disable UART Message" (checked). Below these options is the text "To continue, click Next." At the bottom of the window, there are five buttons: "< Back", "Next >" (highlighted with a red dashed box), "Cancel", "Apply", and "Finish". A scrollable text area at the bottom left contains the following AT commands:

```
AT+WD
AT+WAuto=0,WizFiDemoAP
AT+WwPA=12345678
AT+NDHCP=0
AT+NSET=192.168.3.203,255.255.255.0,192.168.3.1
AT+NAUTO=1,1,,4000
```

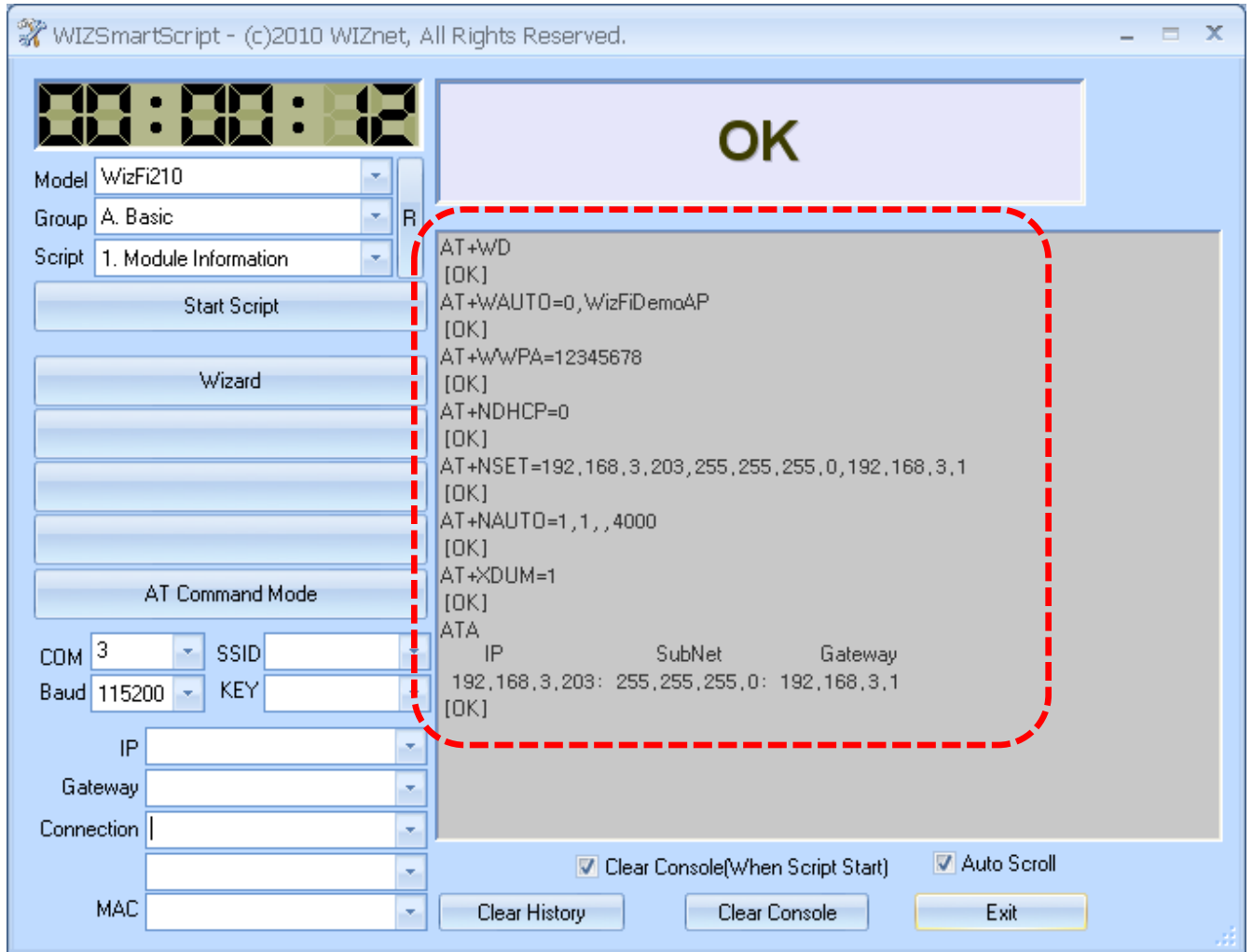
## 2-9) Step 8 : Finish (Save Script)

1. If you want to save the AT commands, click the "Save Script" button.
2. At last, click the "Finish" button.



## 2-10) Execute Script

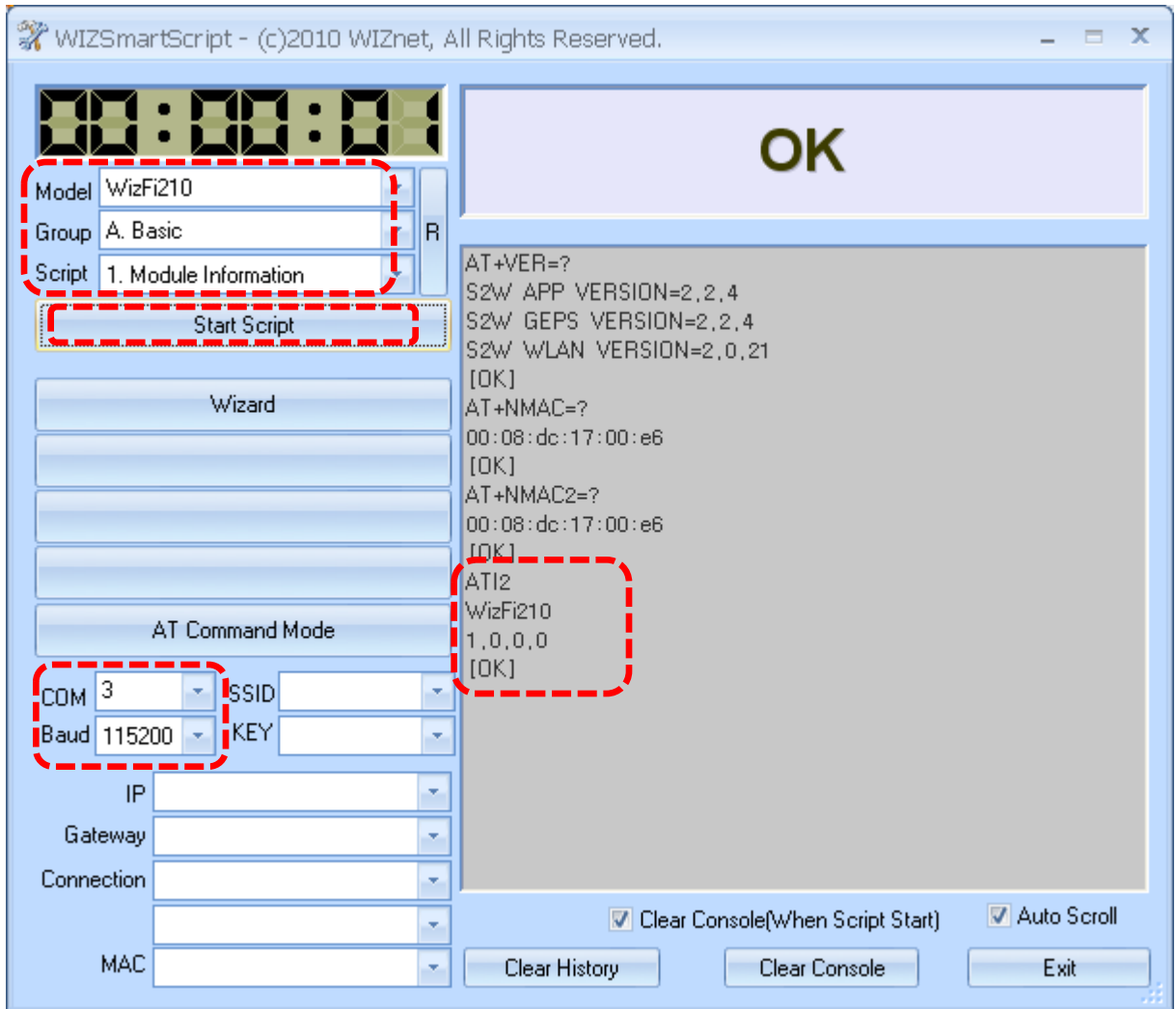
You can see the process of the commands execution created in wizard mode.



# 3. Firmware Upgrade

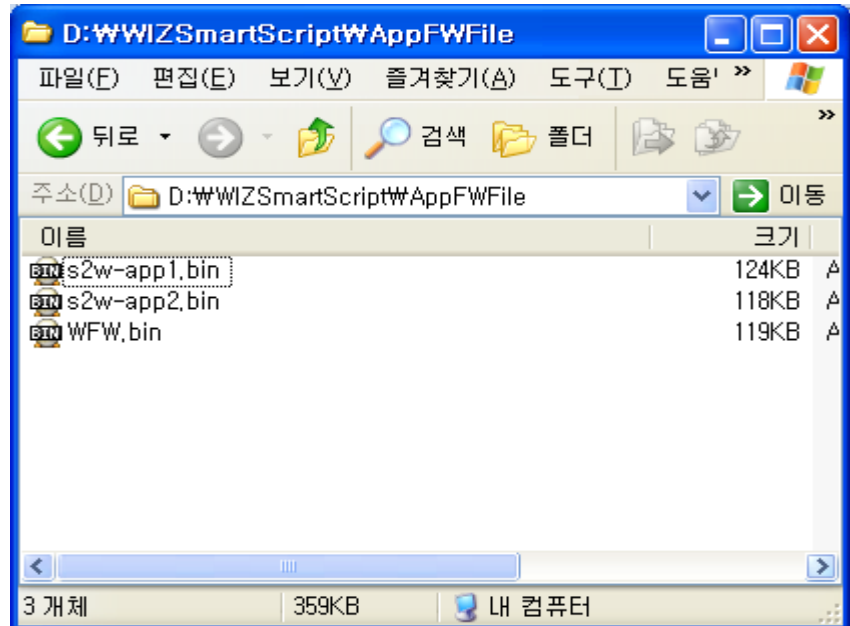
## 3-1) Check Old Version

1. Input the COM port of PC and baud rate. (Default Baud Rate : 115200)
2. Select "WizFi210" for Model, "A. Basic" for Group and "1. Module Information" for Script.
3. If you click "Start Script", you can see the version of WizFi210.
4. The version of this WizFi210 is [1.0.0.0] as shown below.



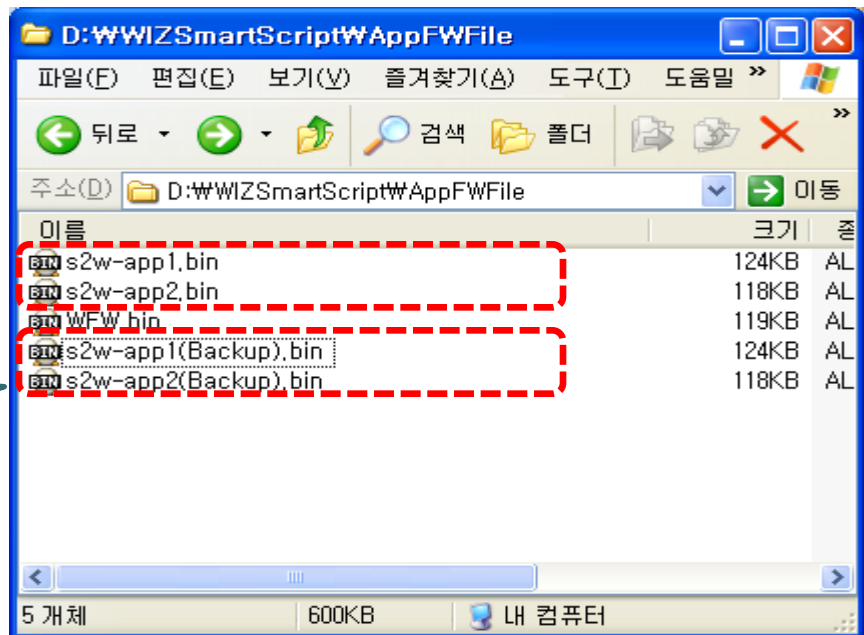
## 3-2) Copy Firmware Files

1. Rename the old firmware files.
2. Copy the new firmware files to "WIZSmartScript/AppFWFile" folder.



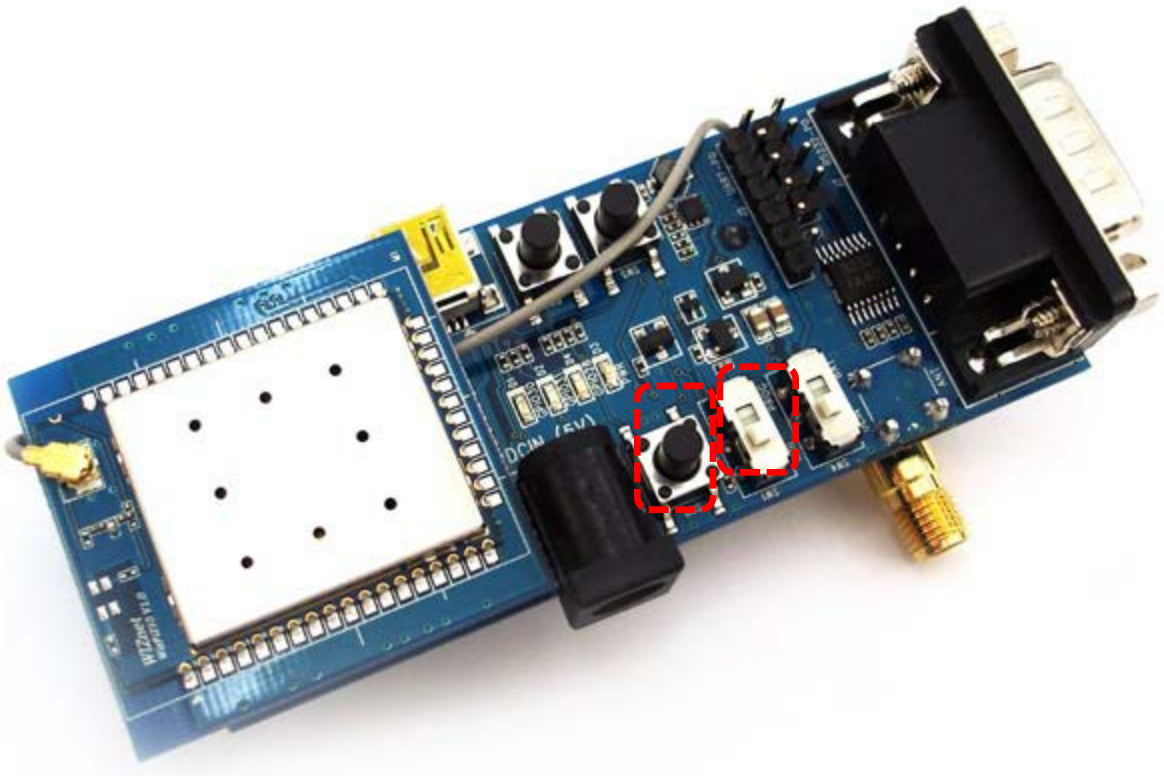
New Firmware Binary Files

Old Firmware Binary Files



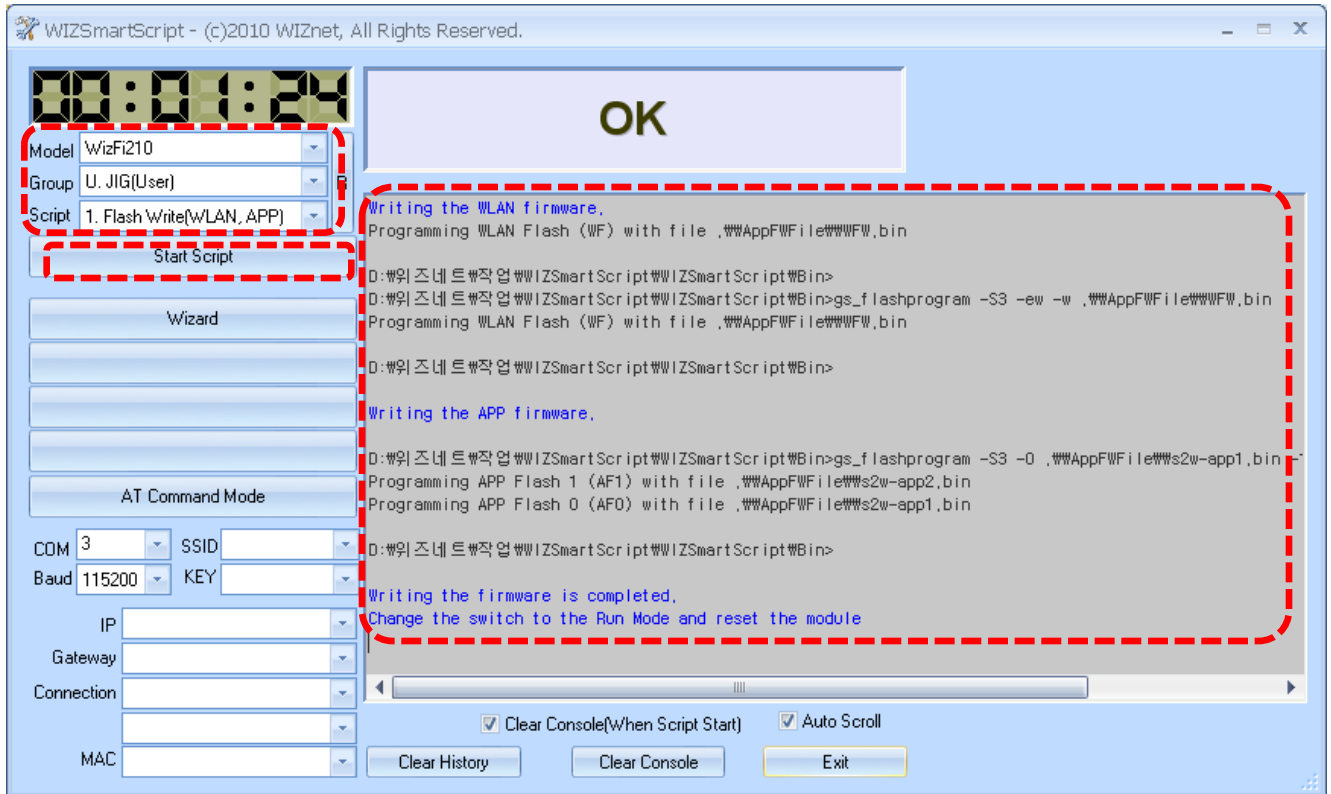
## 3-3) Switch to Program Mode

1. Switch to "Program Mode" with SW1 [Run/PROG ].
2. Reset the WizFi210 with SW2 [RESET].



# 3-4) Flash Write

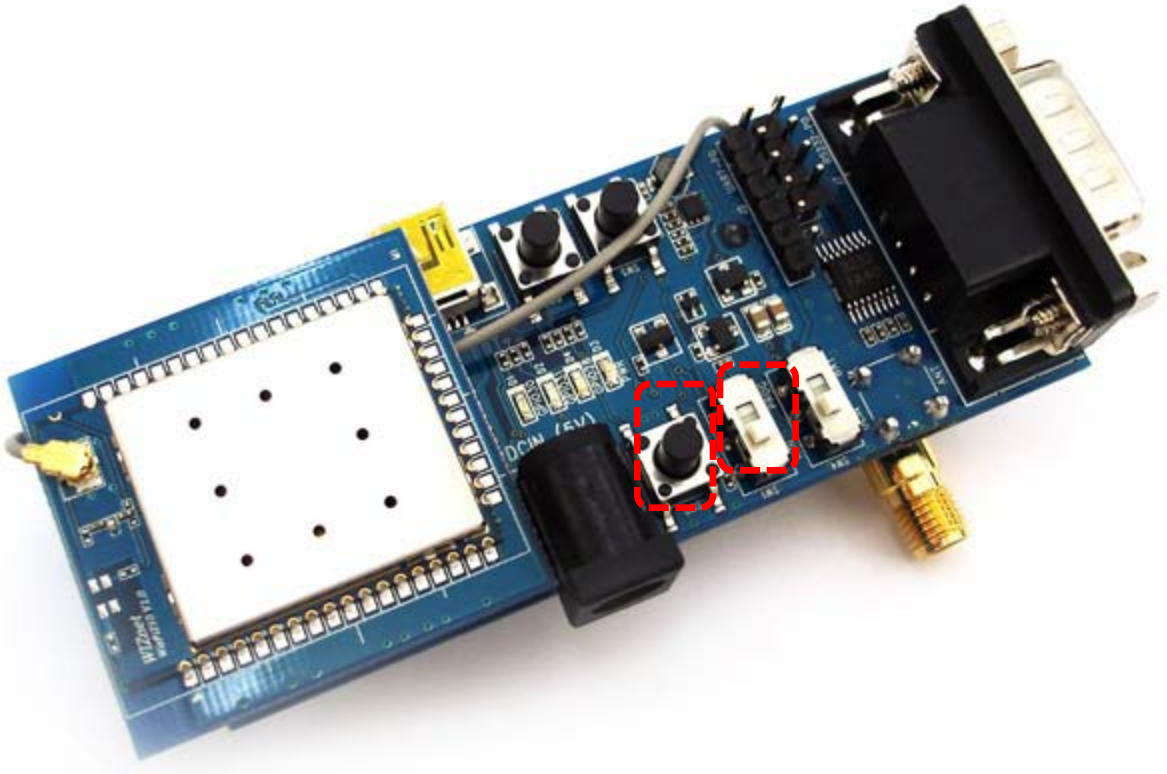
1. Select "WizFi210" for Model, "U. JIG" for Group and "1. Flash Write(WLAN, APP)" for Script.
2. If you click "Start Script" button, the new firmware files will be written to the flash.
3. It normally takes 60~90 seconds to upgrade the firmware.





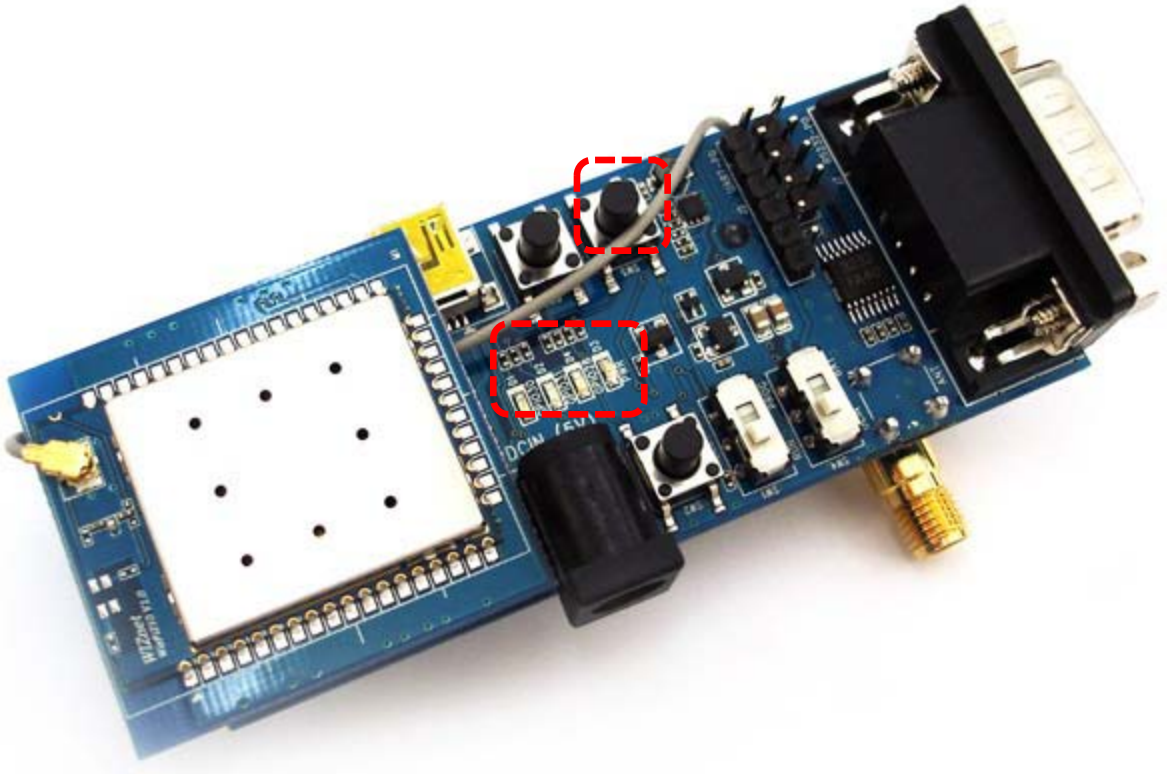
## 3-5) Switch to Run Mode

1. Switch to "Run Mode" with SW1 [Run/PROG ].
2. Reset the WizFi210 with SW2 [RESET].



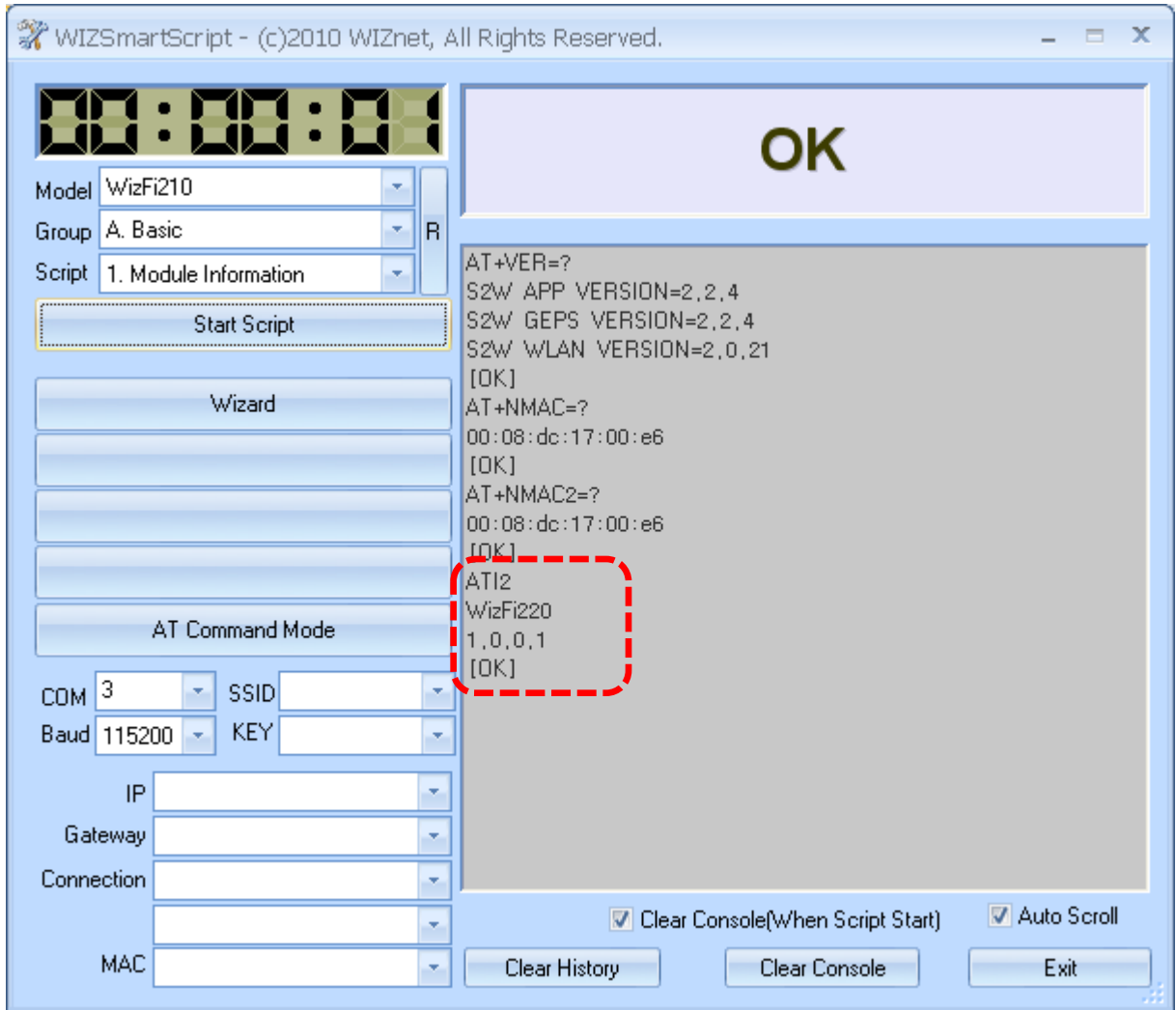
## 3-6) Factory Default

1. After reboot in "Run Mode", click SW5 [GPIO10] button two times continuously for factory default.
2. LEDs (such as D1-GPIO30, D2-GPIO31 and D4-GPIO28) will blink two times when factory default is done.
3. Reset the WizFi210 with SW2 [RESET].



# 3-7) Check New Version

1. Check the version of Wizfi210 in same way as <1. Check Old Version>
2. Confirm the new version of WizFi210 as shown below.



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