ADVANCED TECHNOLOGY

A-9N Quick Start Guide
Fanless Edge Computing Controller

Ver:1.02_202403

A-9N setup steps: update wire or wireless correctly in order to login in Node-RED develop interface

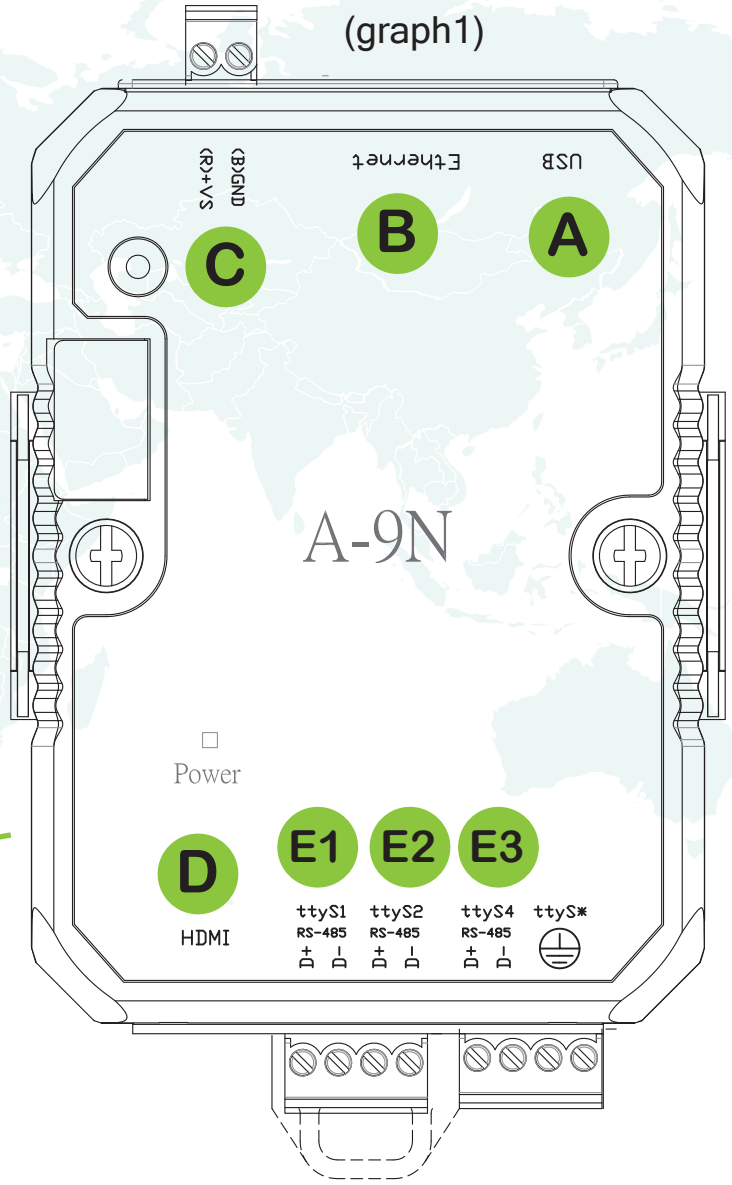
CONTENTS OF LIST

your PC is in the same domain network:192.168.5.xx

from port 1880

A	USB/USB hub(external power supply) for mouth and keyboard USB dongle for WIFI(2.4G) wireless network connection
B	Ethernet(RJ45) for local wire network connection
C	External power supply
D	“Micro” HDMI port for monitor display
E1	Extended RS485 slave (such as ATC A-10x/12x/51x/52x/53x)
E2	Extended RS485 slave (such as ATC A-10x/12x/51x/52x/53x)
E3	Extended RS485 slave (such as ATC A-10x/12x/51x/52x/53x)

(graph1)



```
debian@A9N:~$
```

- - - Wait 2 minutes for the boot until appear the device name: A9N

- - - key in Linux command "sudo reboot" then press enter to reboot the device

```
debian@A9N:~$ ip a
1: lo: <LOOPBACK, UP, LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default qlen 1000
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
    inet 127.0.0.1/8 scope host lo
       valid_lft forever preferred_lft forever
    inet6 ::1/128 scope host
       valid_lft forever preferred_lft forever
2: eth0: <NO-CARRIER,BROADCAST,MULTICAST,UP> mtu 1500 qdisc mq state DOWN group default qlen 1000
    link/ether de:ad:be:ef:ca:fa brd ff:ff:ff:ff:ff:ff permaddr e0:ff:f1:9e:a7:c2
    inet 192.168.5.201/24 brd 192.168.5.255 scope global dynamic eth0
       valid_lft 30658sec preferred_lft 30658sec
3: usb0: <NO-CARRIER,BROADCAST,MULTICAST,UP> mtu 1500 qdisc pfifo_fast state DOWN group default qlen 1000
    link/ether e0:ff:f1:9e:9a:45 brd ff:ff:ff:ff:ff:ff
4: usb1: <NO-CARRIER,BROADCAST,MULTICAST,UP> mtu 1500 qdisc pfifo_fast state DOWN group default qlen 1000
    link/ether e0:ff:f1:9e:9a:47 brd ff:ff:ff:ff:ff:ff
5: can0:<NOARP, ECHO> mtu 16 qdisc noop state DOWN group default qlen 10
    link/can
6: can1:<NOARP, ECHO> mtu 16 qdisc noop state DOWN group default qlen 10
    link/can
7: wlan0: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc mq state UP group default qlen 1000
    link/ether c4:6e:1f:10:fd:91 brd ff:ff:ff:ff:ff:ff
    inet 192.168.5.86/24 brd 192.168.5.255 scope global dynamic wlan0
       valid_lft 73795sec preferred_lft 73795sec
    inet6 fe80::c66e:1fff:fe10:fd91/64 scope link
       valid_lft forever preferred_lft forever
debian@A9N:~$
```

- - - key in command "ip a" then press enter to get initial internet parameters

- - - you could find the Ethernet ip is 192.168.5.201

- - - you could find the WIFI ip is 192.168.5.86

```
debian@A9N:~$ sudo nano /etc/systemd/network/eth0.network
```

- - - key in Linux command " sudo nano /etc/systemd/network/eth0.network" then press enter
to get initial Ethernet parameters(go inside to page 5/9), need to reboot system to active the update.
initial password for default account(debian) is: temppwd

GNU nano 5.4 /etc/systemd/network/eth0.network

```
[Match]
Name=eth0
Type=ether

[Link]
RequiredForOnline=yes

[Network]
##DHCP
DHCP=ipv4
##STATIC IP
# Address=192.168.5.251/24
# Gateway=192.168.5.1
# DNS=192.168.5.1
```

- - -initial is DHCP(white letters), please add “#” in front these four white lines and remove”#” in front these six blue lines, then save to change to static address(below is the example)

```
[Match]
Name=eth0
Type=ether

[Link]
RequiredForOnline=yes

[Network]
##DHCP
#DHCP=ipv4
##STATIC IP
Address=192.168.5.251/24
Gateway=192.168.5.1
DNS=192.168.5.1
```

- - -How to save?

use Ctrl+X to exit, and will ask you if save or not, press Y to save and N to not save

[Read 14 lines]

^G Help	^O Write Out	^W Where Is	^K Cut	^T Excute	^C Location	M-U Undo	M-A Set Mark	M-J To Bracket	M-Q Previous
^X Exit	^R Read File	^\ Replace	^U Paste	^J Justify	^_ Go to Line	M-E Redo	M-6 Copy	^Q Where Was	M-W Next

```
debian@A9N:~$ sudo nano /etc/wpa_supplicant/wpa_supplicant-wlan0.conf
```

- - - key in command " sudo nano /etc/wpa_supplicant/wpa_supplicant-wlan0.conf" then press enter to get inital WIFI parameters(go inside to page 7/9), need to reboot system to active the update. initial password for default account(debian) is: temppwd

GNU nano 5.4 /etc/wpa_supplicant/wpa_supplicant-wlan0.conf

```
ctrl_interface=DIR=/run/wpa_supplicant GROUP=netdev
update_config=1
p2p_disabled=1

#country=US

network={
        ssid="A9N"
        psk="szatc803"
}
```

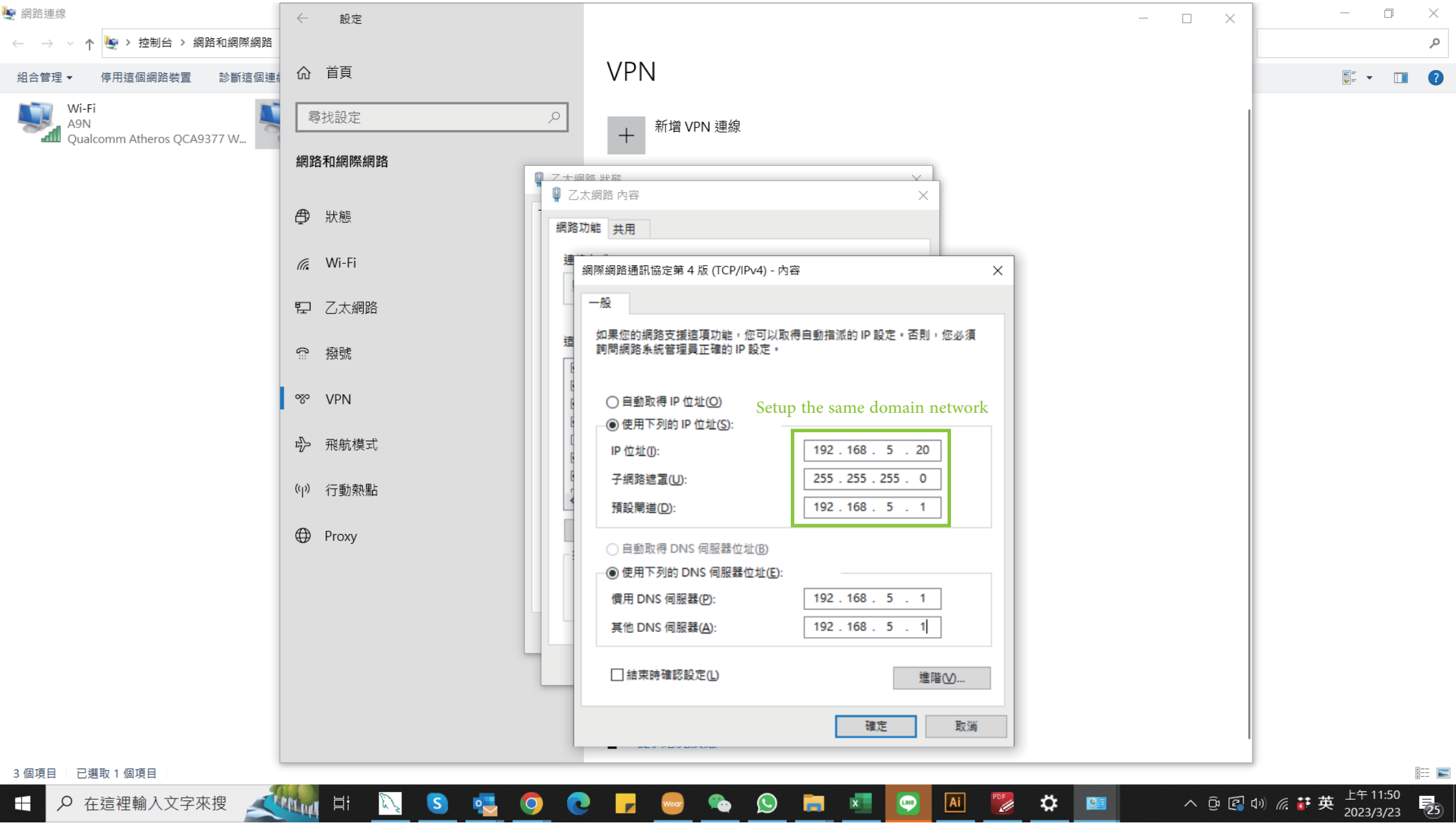
- - -initial SSID is A9N(white letters)
- - -initial password is szatc803(white letters),
- - -replace your real SSID and Password then save to update (below is the example)

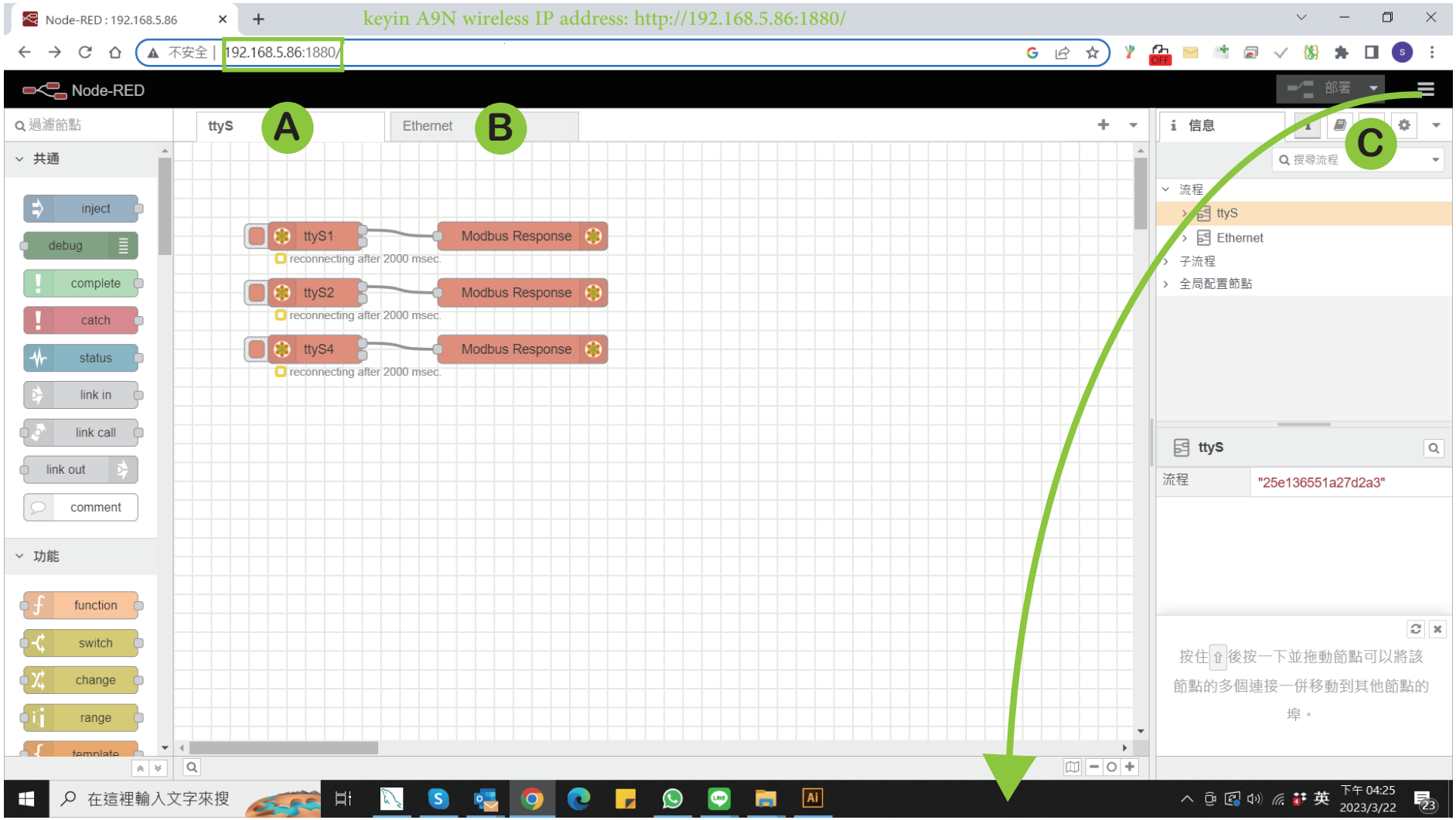
```
ctrl_interface=DIR=/run/wpa_supplicant GROUP=netdev
update_config=1
p2p_disabled=1

#country=US

network={
        ssid="your real SSID"
        psk="your real password"
}
```

- - -How to save?
use Ctrl+X to exit, and will ask you if save or not, press Y to save and N to not save

[Read 9 lines]

^G Help ^O Write Out ^W Where Is ^K Cut ^T Excute ^C Location M-U Undo M-A Set Mark M-J To Bracket M-Q Previous
^X Exit ^R Read File ^\ Replace ^U Paste ^J Justify ^_ Go to Line M-E Redo M-6 Copy ^Q Where Was M-W Next


網路連線
控制台 › 網路和網際網路
組合管理
停用這個網路裝置
診斷這個連線
Wi-Fi
A9N
Qualcomm Atheros QCA9377 W...
設定
首頁
尋找設定
網路和網際網路
狀態
Wi-Fi
乙太網路
撥號
VPN
飛航模式
行動熱點
Proxy
VPN
新增 VPN 連線
乙太網路 內容
網路功能
共用
網際網路通訊協定第 4 版 (TCP/IPv4) - 內容
一般
如果您的網路支援這項功能，您可以取得自動指派的 IP 設定。否則，您必須詢問網路系統管理員正確的 IP 設定。
自動取得 IP 位址(O)
使用下列的 IP 位址(S):
Setup the same domain network
IP 位址(I):
192 . 168 . 5 . 20
子網路遮罩(U):
255 . 255 . 255 . 0
預設閘道(D):
192 . 168 . 5 . 1
自動取得 DNS 伺服器位址(B)
使用下列的 DNS 伺服器位址(E):
慣用 DNS 伺服器(P):
192 . 168 . 5 . 1
其他 DNS 伺服器(A):
192 . 168 . 5 . 1
結束時確認設定(L)
進階(V)...
確定
取消
3 個項目
已選取 1 個項目
在這裡輸入文字來搜
英
上午 11:50
2023/3/23



A	Demo code for Modbus RTU
B	Demo code for Modbus TCP/IP
C	Node-Red website to get all documents

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