ETH_100 Quick Demonstration Guidance V1.0

Revision on January,2013
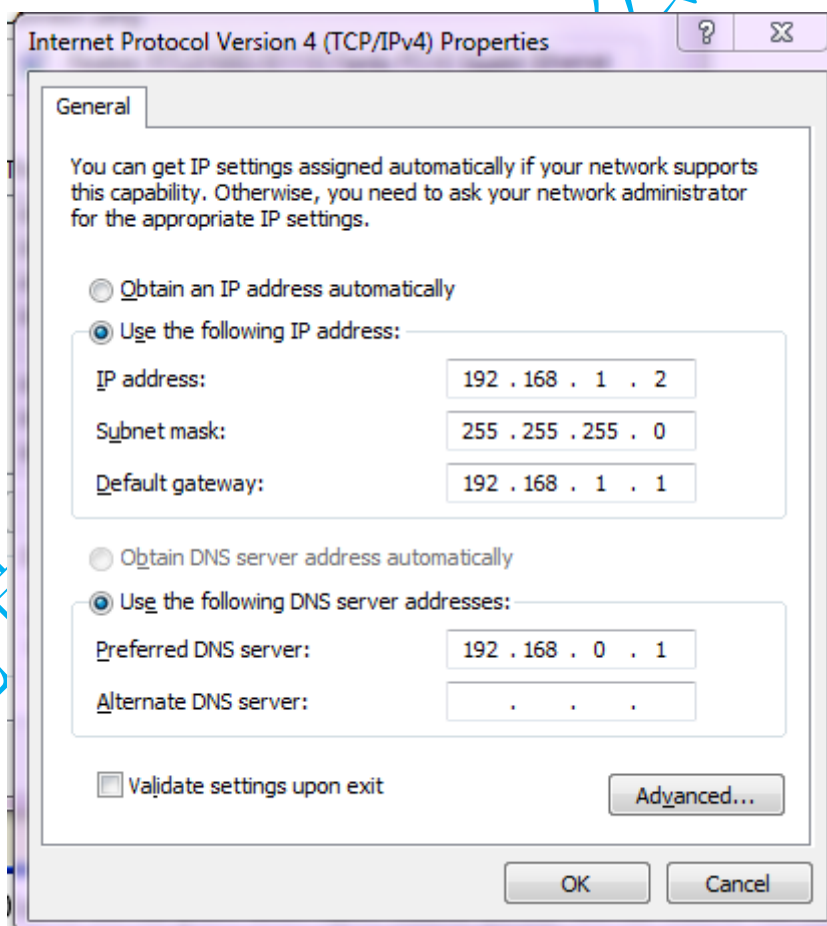
Amp Display Inc.

This document illustrates how to quickly demonstrate the network communication capabilities of ETH_100 for data transmitting via serial port to computer under TCP protocol.

1. Required tools and hardware:

✧ SSCOM32 Serial Debugging Assistant;
✧ TCP Debugging Assistant V1.11;
✧ ETH_100 software;
✧ ETH_100 board (with shielding case);
✧ Power (available for 6v-24v);
✧ Computer with USB-serial cable (or HDL661)

2. Connection preparation:

1. Connect the notebook computer with ETH_100 interface, and set the network configuration of the notebook computer as follows:
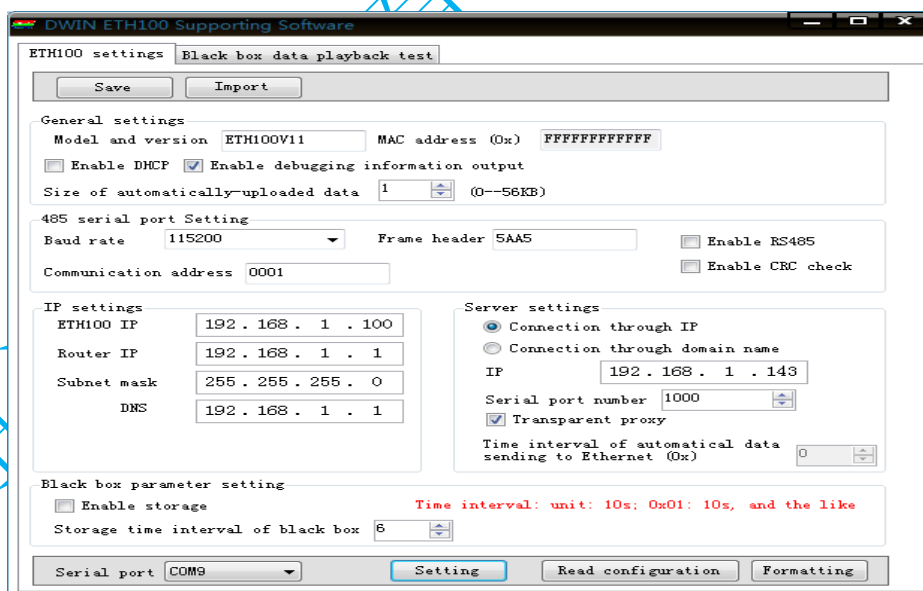
Internet Protocol Version 4 (TCP/IPv4) Properties

General

You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.

○ Obtain an IP address automatically
● Use the following IP address:

IP address: 192 . 168 . 1 . 2
Subnet mask: 255 . 255 . 255 . 0
Default gateway: 192 . 168 . 1 . 1

○ Obtain DNS server address automatically
● Use the following DNS server addresses:

Preferred DNS server: 192 . 168 . 0 . 1
Alternate DNS server: .   .   .

☐ Validate settings upon exit   Advanced...

OK   Cancel

2. Connect ETH_100 and serial port with 8pin cable (USB-serial cable for notebook computer).

    Important note: TXD and RXD of 8pin cable of ETH_100 are opposite to those of DGUS LCMs; therefore, exchange TXD and RXD when 8pin cable is used.
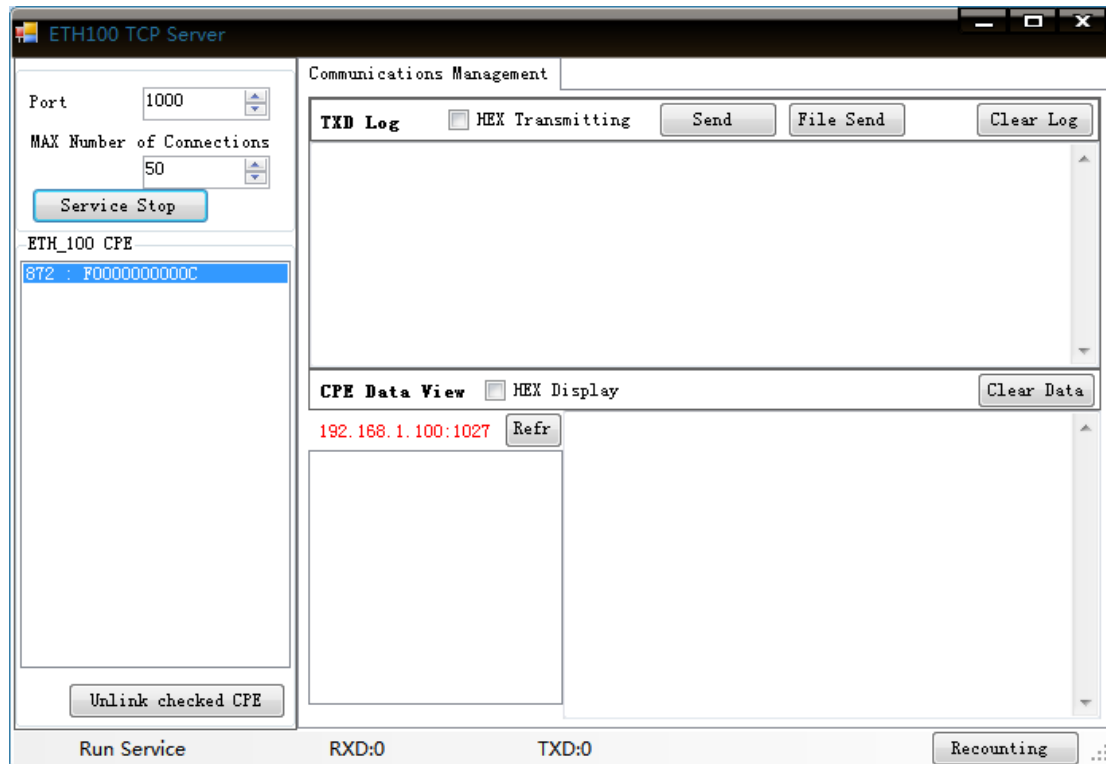

3. After boot, please make sure that ETH_100 board is under static mode (can be closed by DHCP), deselect the check box of "enable DHCP" with ETH_100 supporting software. Other parameters remain and follow default setting. Set IP of ETH_100 as 192.168.1.100, IP of target server as 192.168.1.2, and port number as 1000. Make sure the serial port number is correct during the setting.
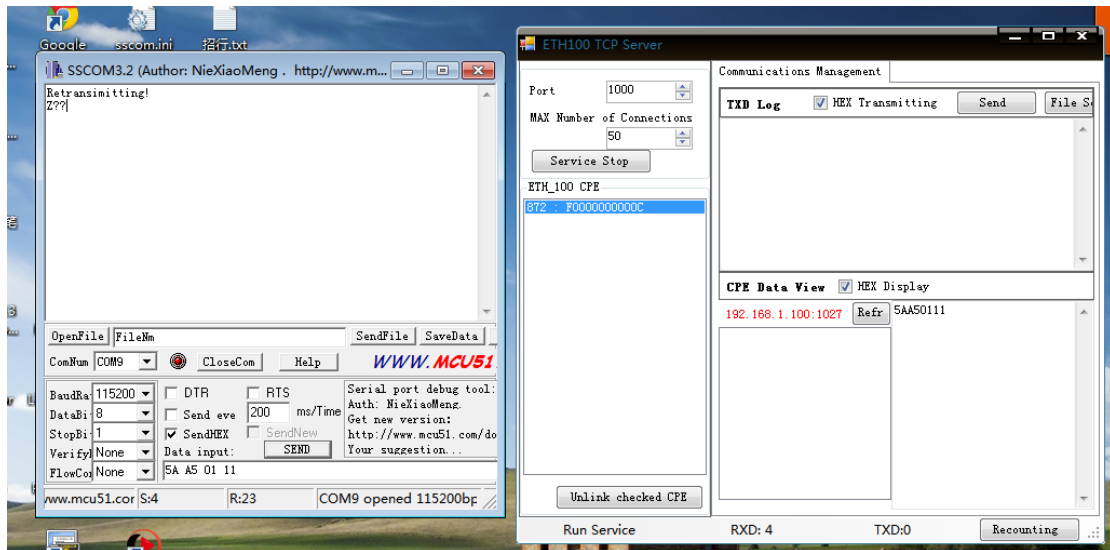

    If the setting is successful, the pop-up box of "Setting completed" will be displayed.

3. Start demonstration:

1. After the setting completed, the indicating lamp of ETH_100 will be flashing. Open "CTCPsvr.exe" ETH100 TCP Server software, set the notebook computer as TCP host and monitor port as 1000, and then click the button of "Service Startup".

2. If the above settings are correct, the indicating lamp of ETH_100 will quickly change from flash to always-on. This means ETH_100 has established TCP connection with the notebook computer through TCP protocol. Select "Hex Display" and "Hex Transmitting" in the software.

3. Demonstrate how ETH_100 sends received serial port data to the network: open the serial debugging assistant, and set baud rate as 115200bps. Input 5A A5 01 11 in the sending box, and hit the "send" button; TCP Debugging Assistant displays receipt of 5A A5 01 11, and we can see that ETH100 TCP Server receives 5A A5 01 11.

4. Demonstrate how ETH_100 sends data received from network to the user's serial
    port: input 5A A5 01 11 in TCP Debugging Assistant; and hit the button of "send";
    we can see that the serial debugging assistant receives 5A A5 01 11.