Ethernet Module Manual

- INNOVATIVE & COMPACT
- EASY TO PROGRAM
- LOW COST FACTOR

CE

User Manual

Ethernet Module

U p d a t e d: April 15, 2 0 10

DDS xLogic SuperRelay is an
Easy Electronic Co., Ltd
Manufactured product.

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xLogic SuperRelay Ethernet module (ELC-Ethernet)

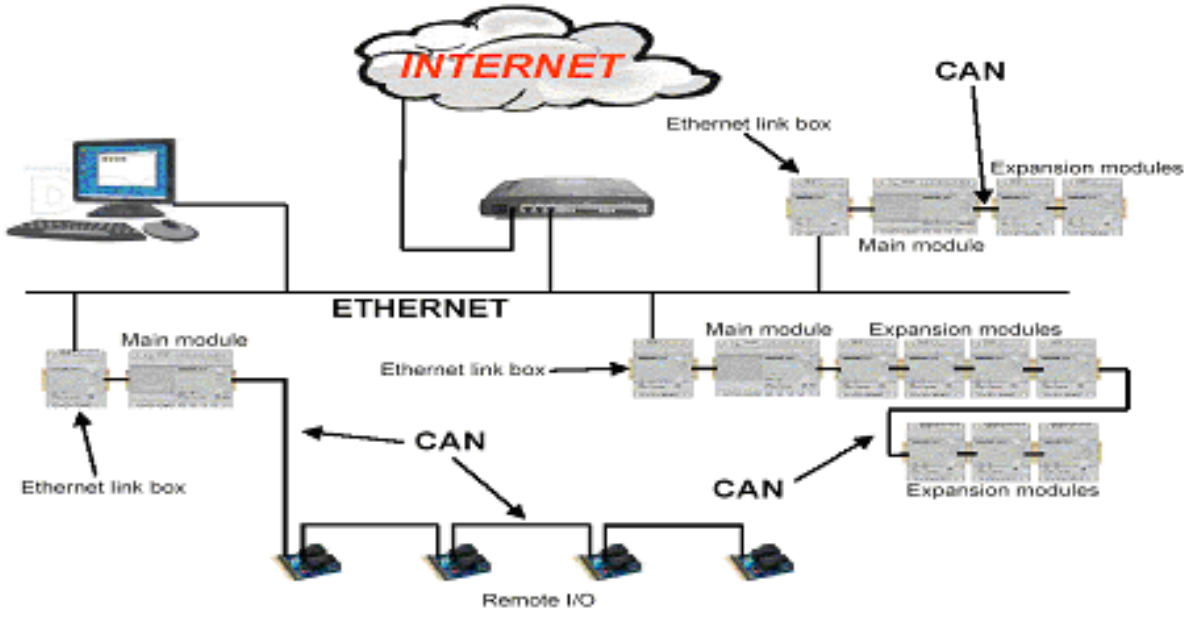
Brief introduction

ELC-Ethernet

It is called Ethernet module and is used to connect ELC main modules in different places to Ethernet networks to buildup a large distributed monitoring and control system .The ELC-Ethernet module can be divided into two types, the ELC-Ethernet-AC type and ELC-Ethernet-DC type.

Ethernet network

If the application requires a system where more than one main module is needed and these main modules have to communicate with each other, then each main module can be connected to an Ethernet Module and to the Ethernet network. The project down/upload to and from the main modules and the communication between the main modules happens over the Ethernet network. Furthermore the visualization of the whole system is possible and easy to achieve via a personal computer.



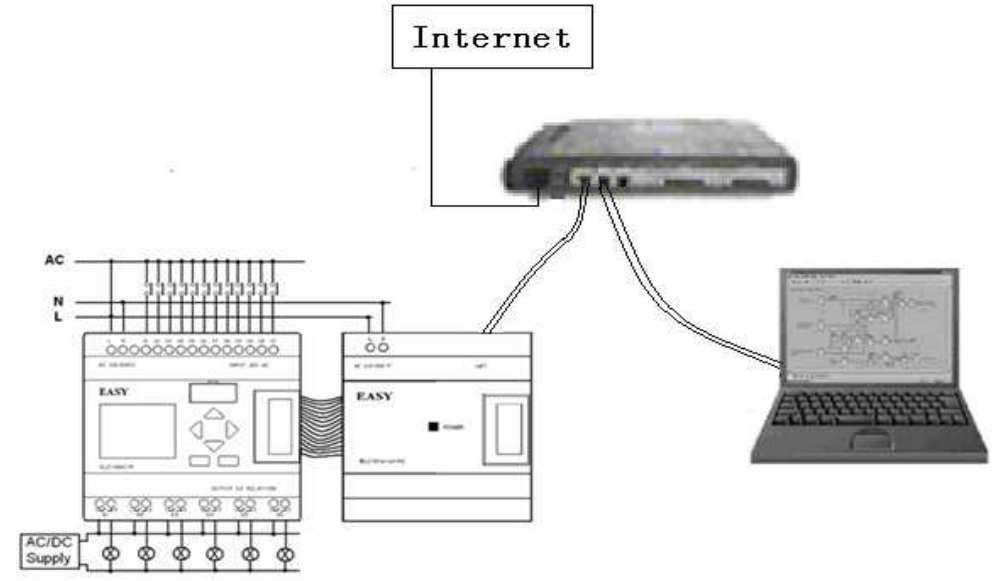
Hardware connection:

Net Port Diagram:

How to connect hardware before Ethernet module running?

1. Set ELC-Ethernet IP address. (Refer to software first part)
2. Link the ELC-Ethernet to the xLogic SuperRelay system (which must contain an ELC-18 CPU module)
3. Link the ELC-Ethernet to internet/network using CAT5 Ethernet cable, then use PC or other monitor device for monitoring or download/upload of users' programs.
4. Power on all devices in accordance with their voltage class.
5. Set communication parameter by xLogicsoft. (Page 12)

Sketch map:



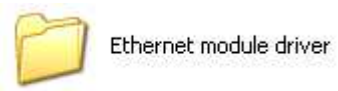
Software part:

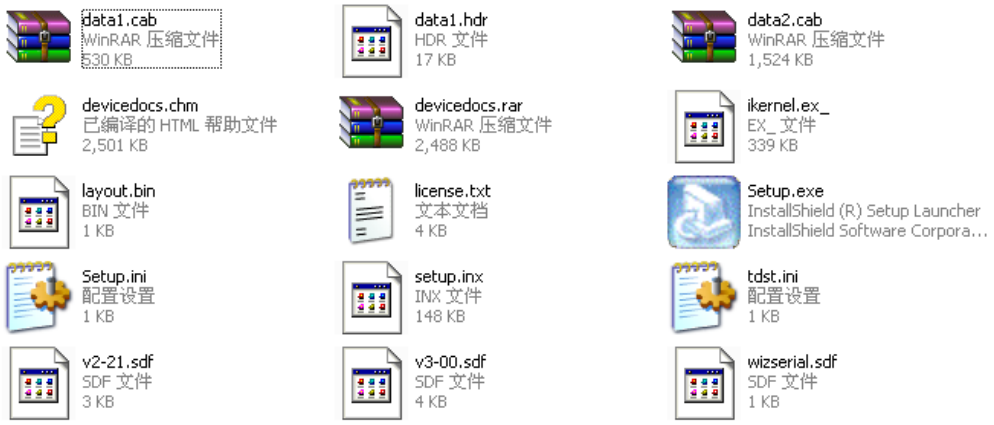
First part: Set or modify IP address, port number with "serial" software.

How to configure Ethernet module IP address?

1. Install Ethernet module IP address configuration software.

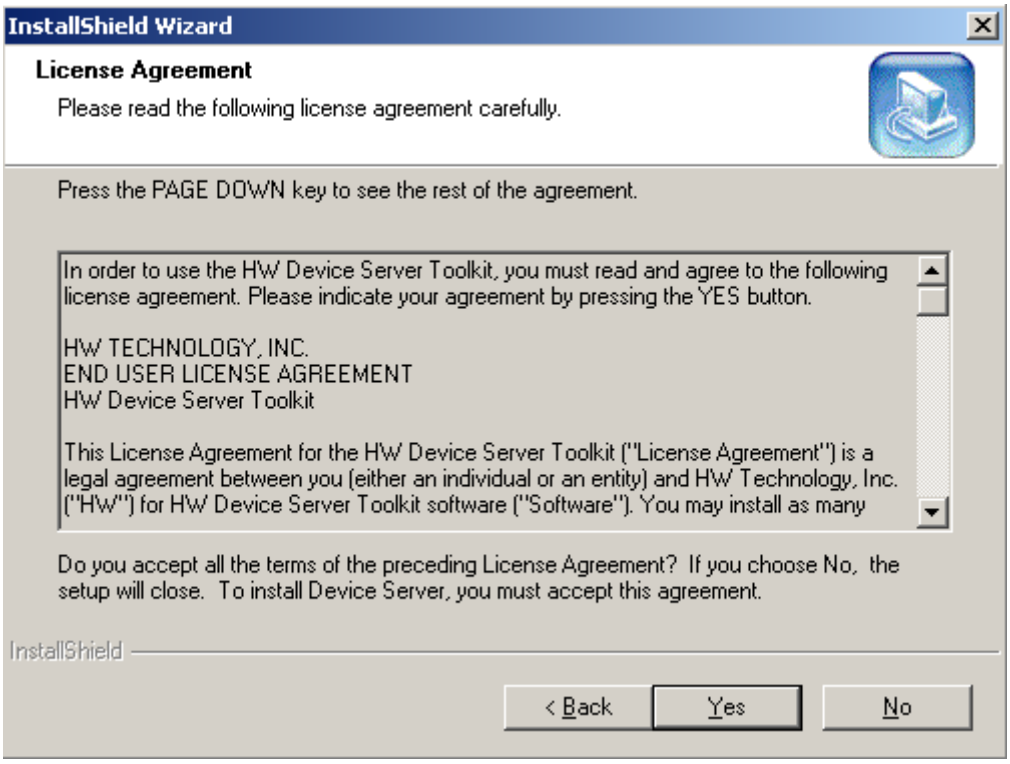
Step one: Double click the file "driver" in CD and then the following contents will be shown:



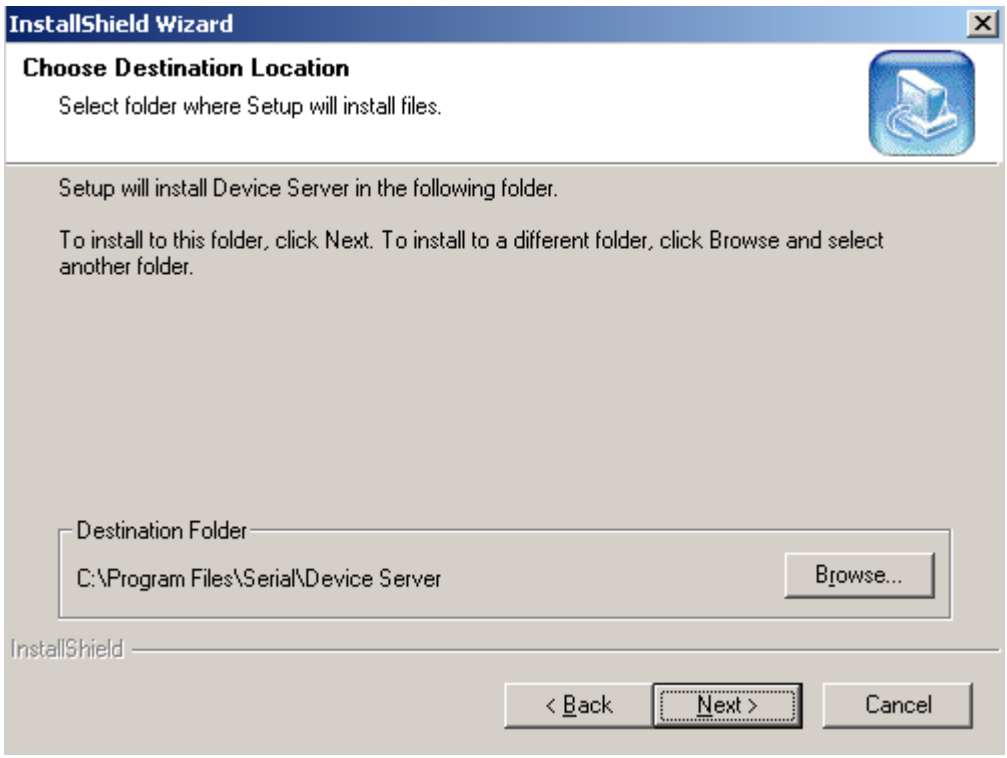


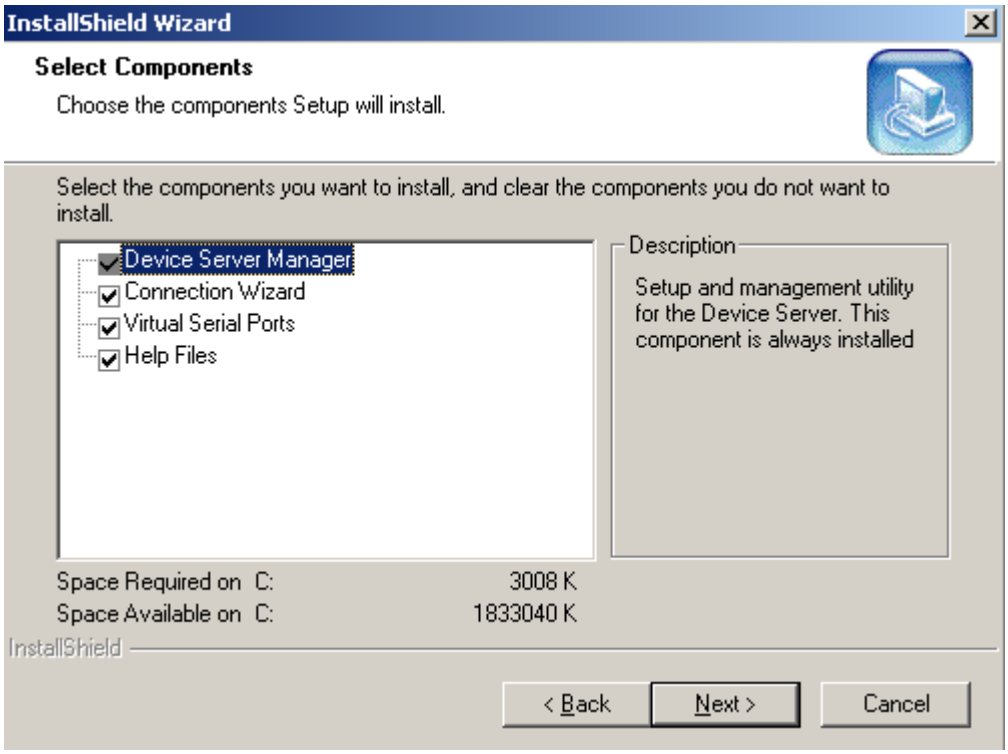
Step two: Select "Setup.exe" file, and install it by double-clicking the left mouse key.

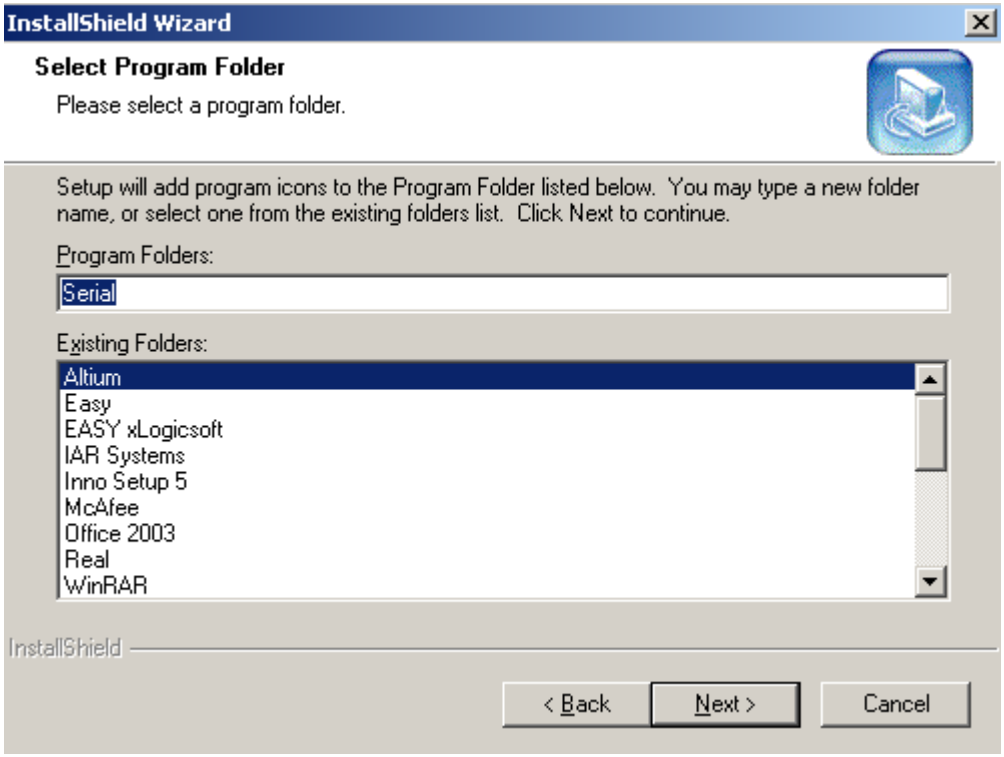
Click "Next".

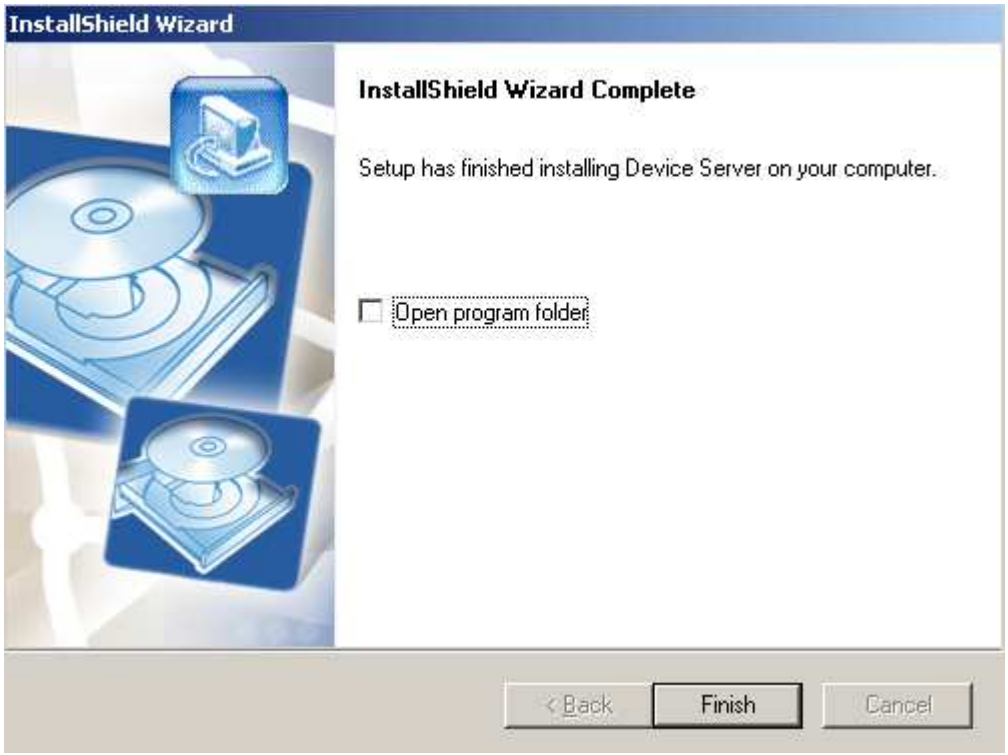


Click "Yes" to continue the next step.


InstallShield Wizard
Choose Destination Location
Select folder where Setup will install files.
Setup will install Device Server in the following folder.
To install to this folder, click Next. To install to a different folder, click Browse and select another folder.
Destination Folder
C:\Program Files\Serial\Device Server
Browse...
InstallShield
< Back
Next >
Cancel


InstallShield Wizard
Select Components
Choose the components Setup will install.
Select the components you want to install, and clear the components you do not want to install.
Device Server Manager
Connection Wizard
Virtual Serial Ports
Help Files
Description
Setup and management utility for the Device Server. This component is always installed
Space Required on C: 3008 K
Space Available on C: 1833040 K
InstallShield
< Back
Next >
Cancel

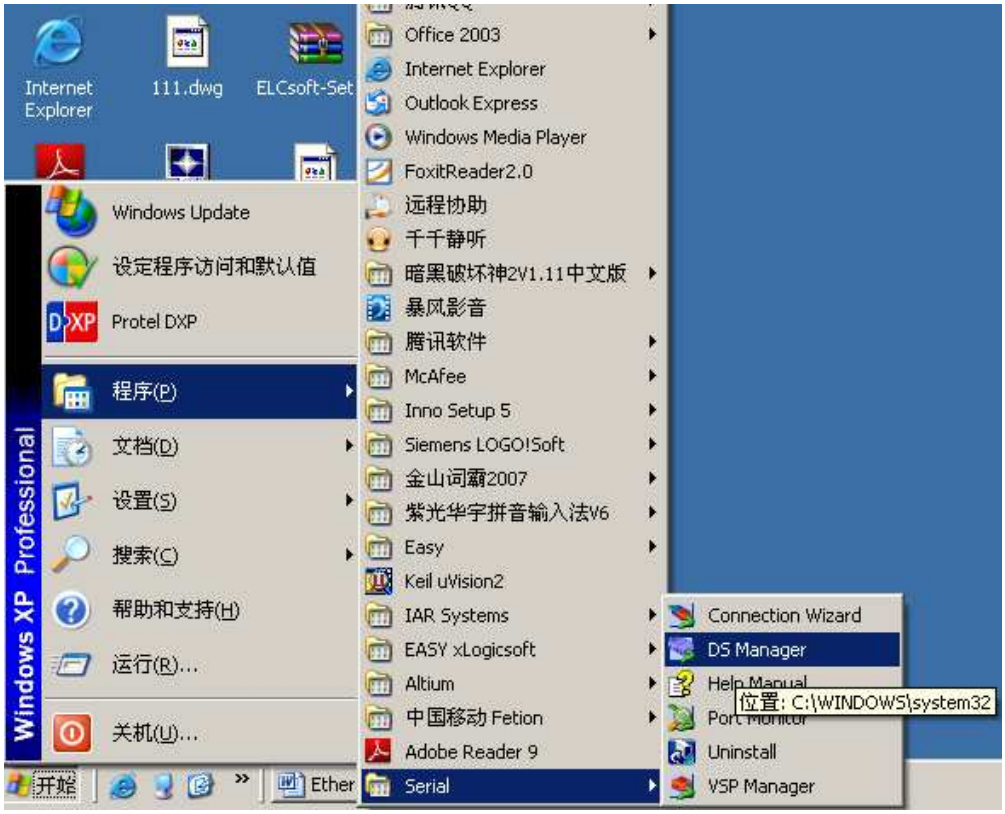


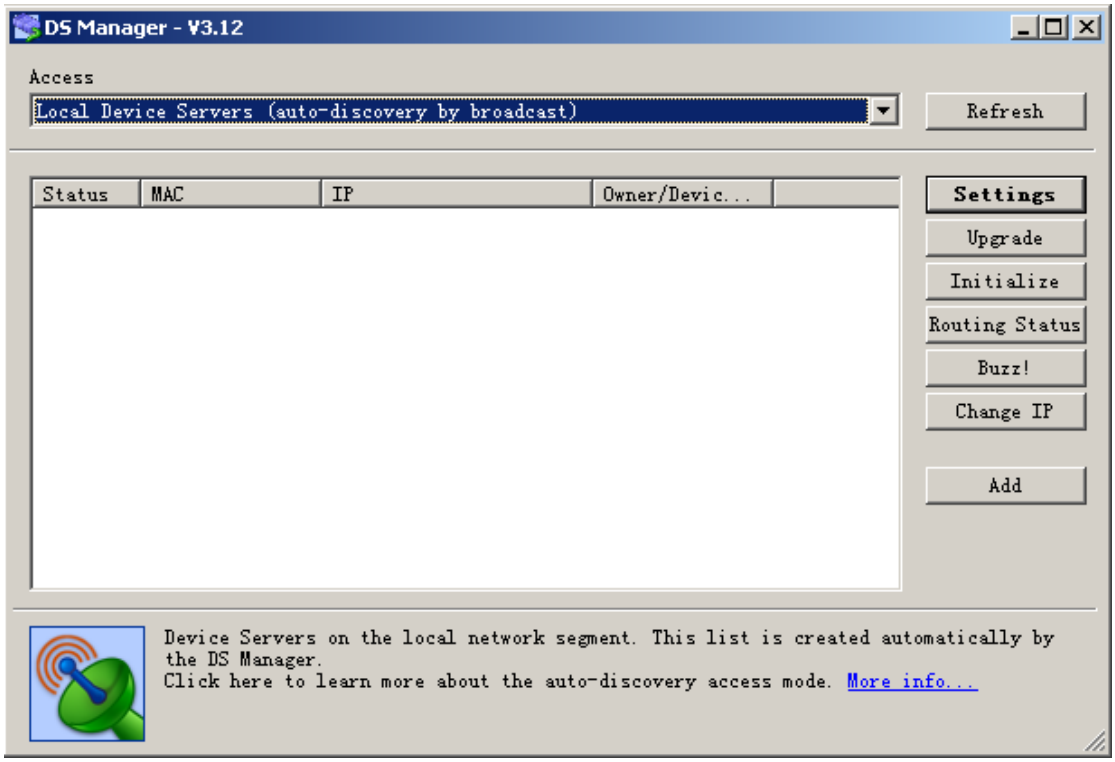


Click "Finish" button.

2. Startup the configuration IP address as follow:

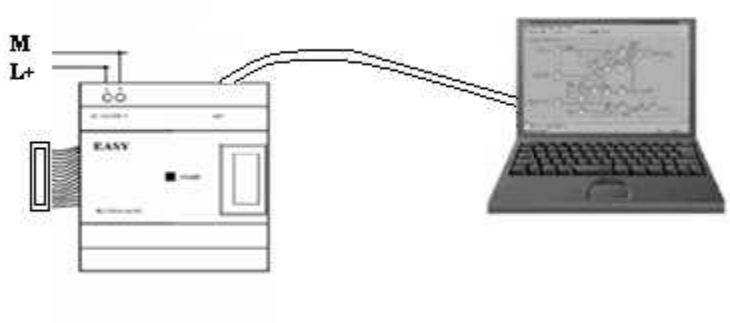
Select the program fold "Serial->DS Manager" and click to open.





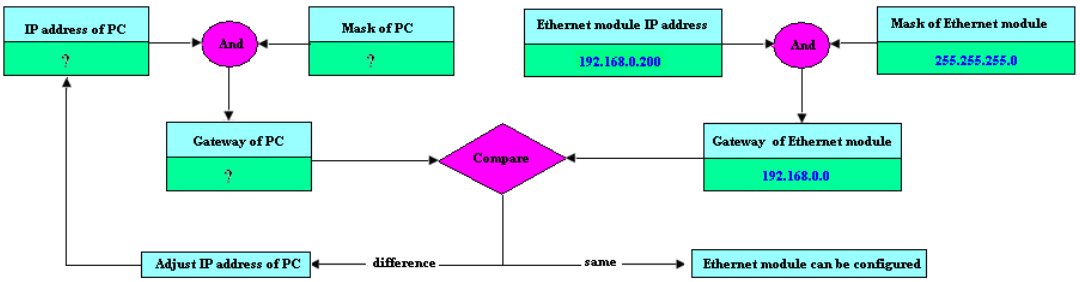
In order to enable your Ethernet module to link to an Ethernet network, you are required to connect your Ethernet module (ELC-Ethernet-DC/AC) to your computer or other monitor device by the CAT5 cable. Let's take computer as an example:

Connect diagram:

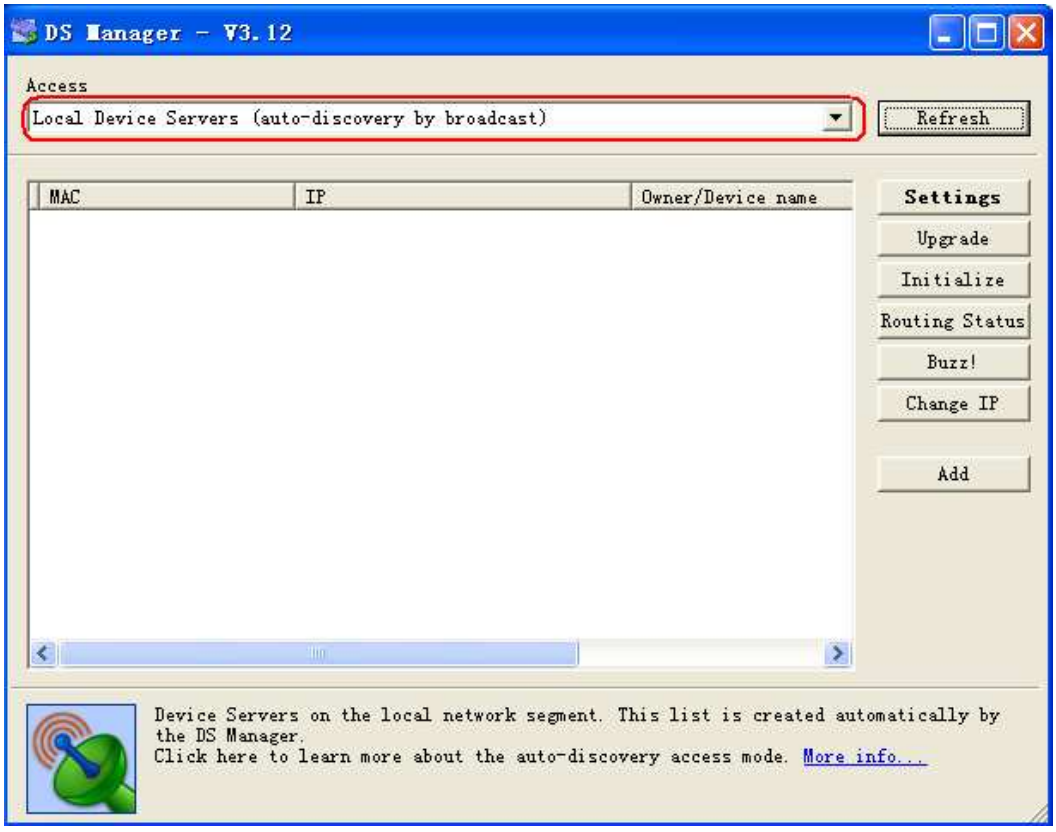


You are required to set in the following way, otherwise the Ethernet module may fail to work. Please take some time to study the following instructions carefully:

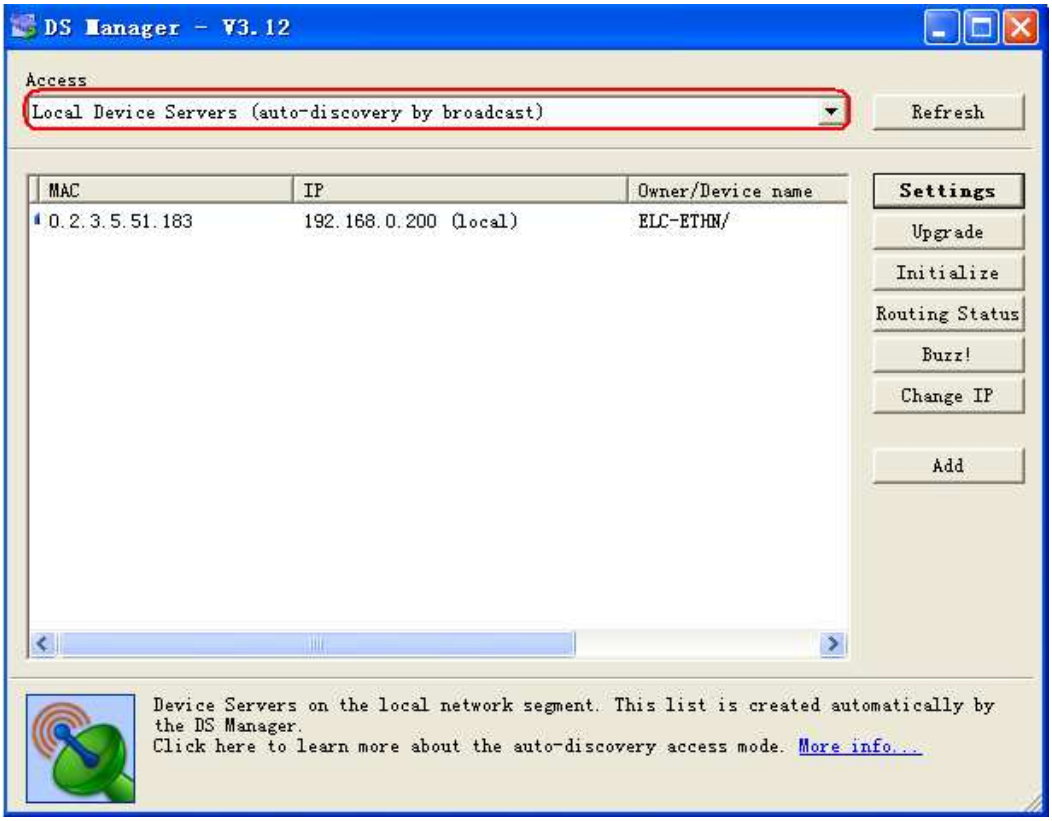
At first, you would make sure the PC and the Ethernet module are in one net segment. The initial IP of the Ethernet module is “ “192.168.0.200” . If they are not in one net segment you can change the IP of your pc.



Note: All the contents in the red frame region cannot be adjusted. That’s to say, you must select the items as follows in red circle.



Power on ELC-Ethernet-DC module and click "Refresh" button.

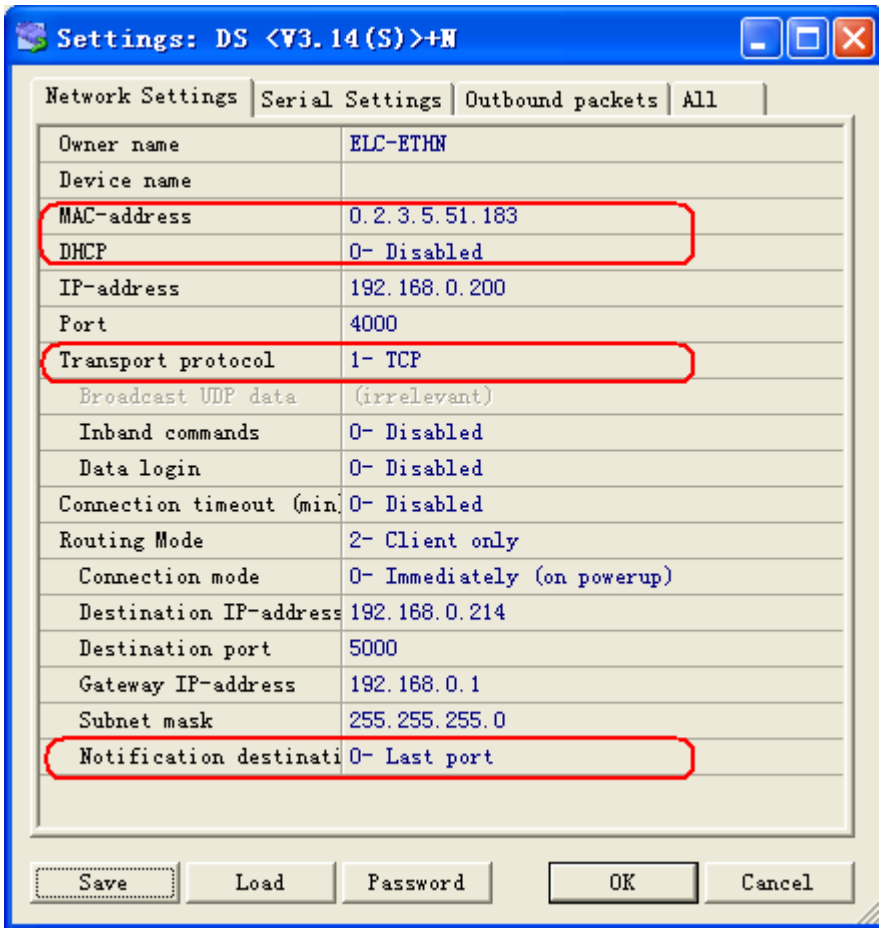


The object module appears as above window shows; it includes "Linking Status", "MAC", "IP", "Owner/Device name"

Option 1: ELC-Ethernet unit as client, xLogicsoft software as Server.

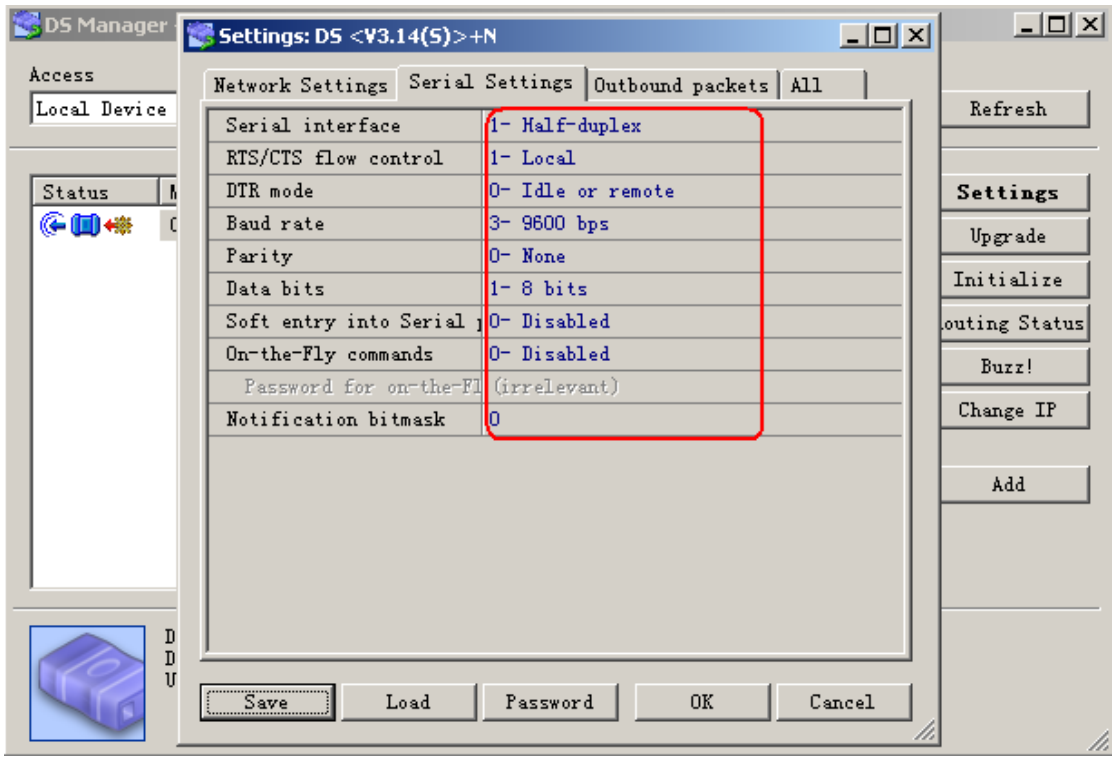
Click "Settings" button to modify IP address.

"Network Settings" tab shows:

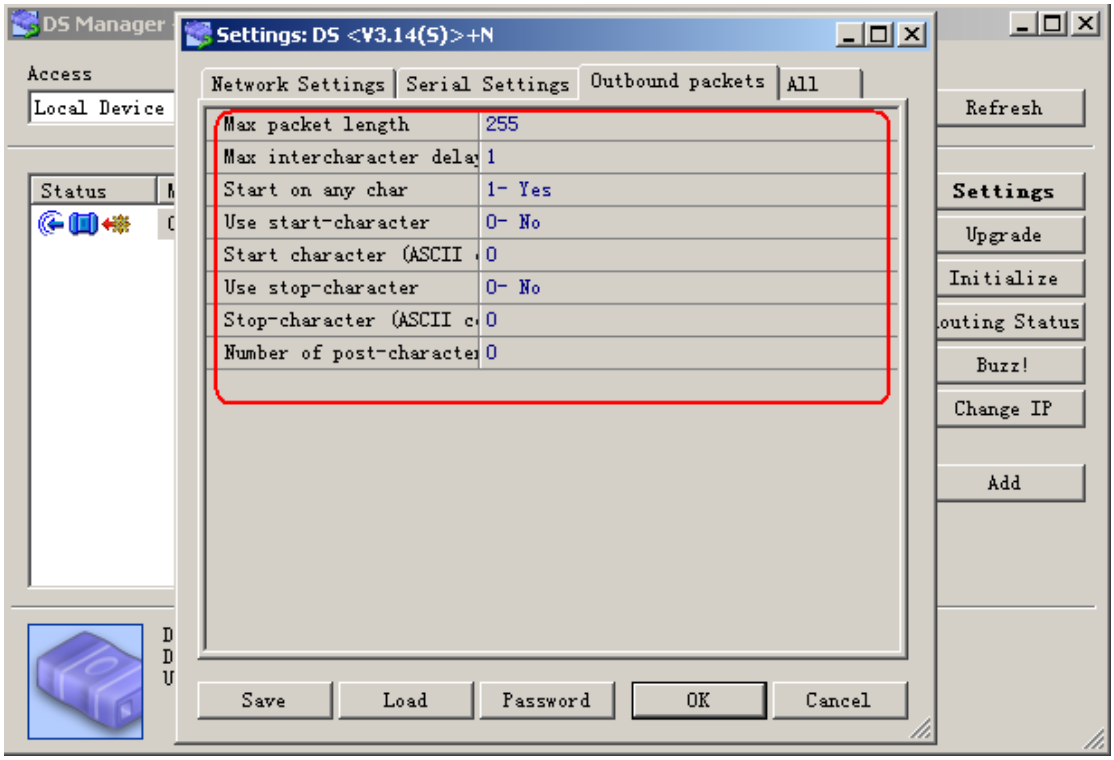


Note: Just as above figure shows, parameters in "Destination IP-address, Gateway IP-address and Subnet mask" must be adjusted to be exactly same as those in your PC. However, "IP-address" and "Port" in above configure shows can be adjusted as you like.

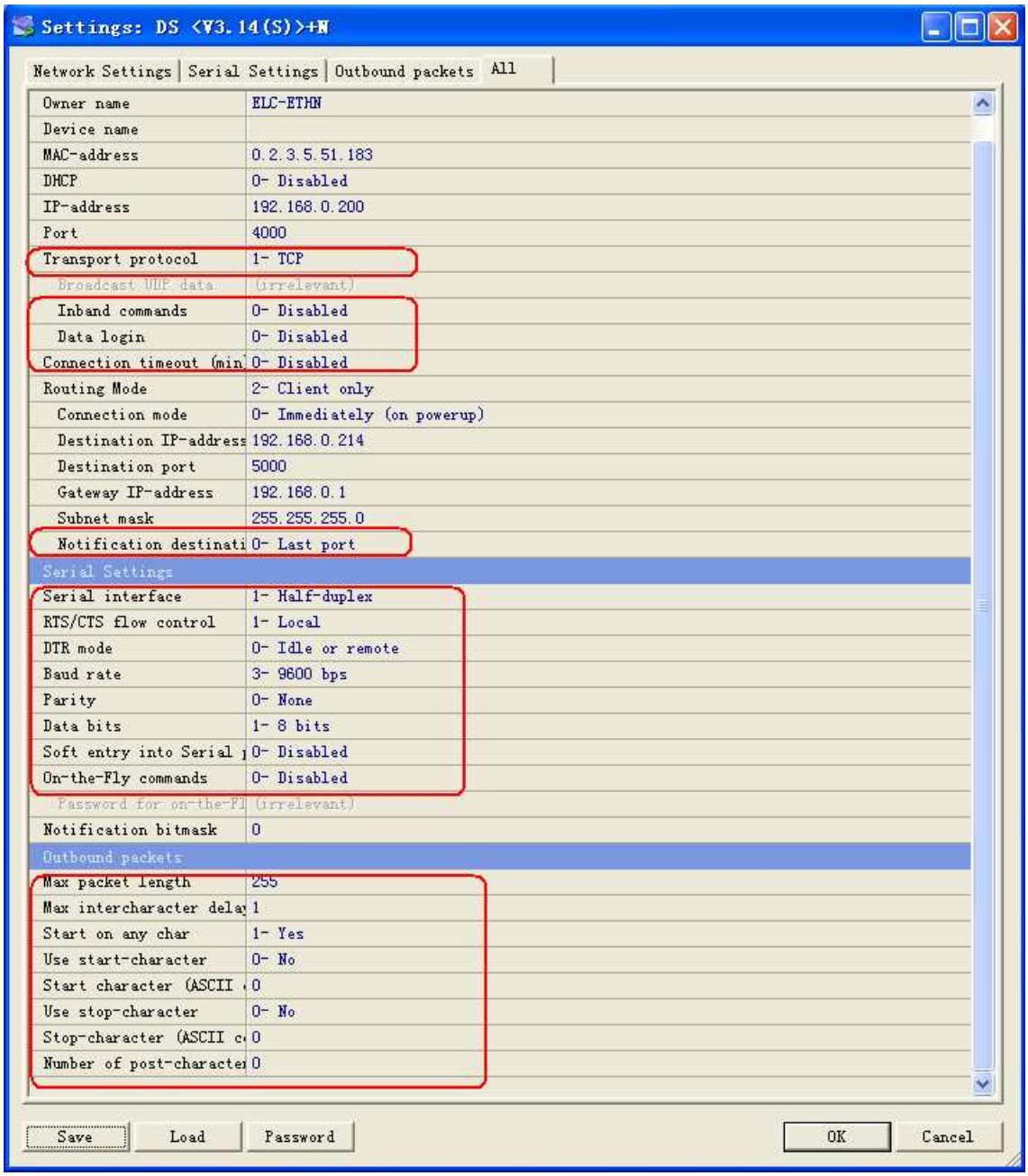
"Serial Settings" tab shows:



"Outbound packets" tab shows:



"All" tab shows the following configuration:



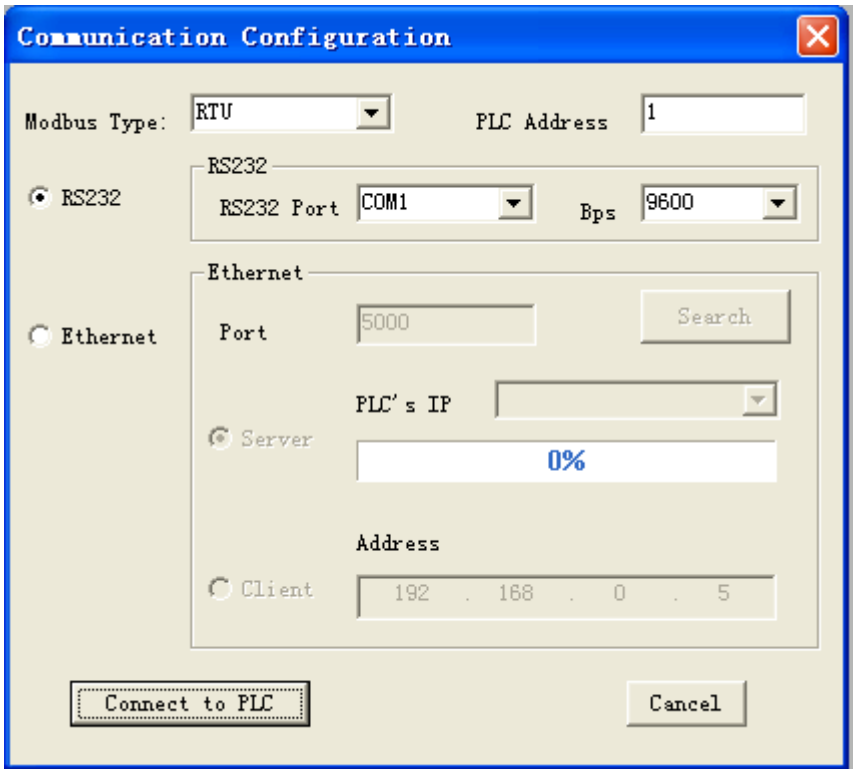
Confirm your settings by clicking "OK". You also can save your settings for loading next time.

Second part: Communication and monitor with xLogicSoft software.

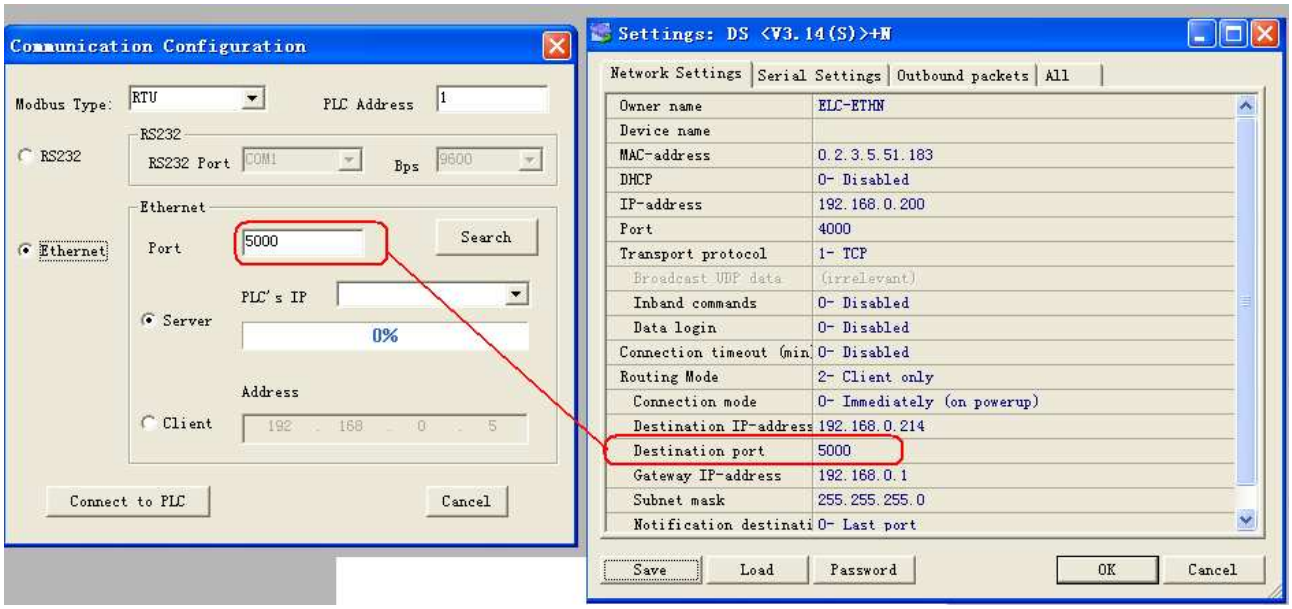
1.Link ELC-Ethernet to ELC-18 CPU module

2. Here are two options to open "COM PORT":

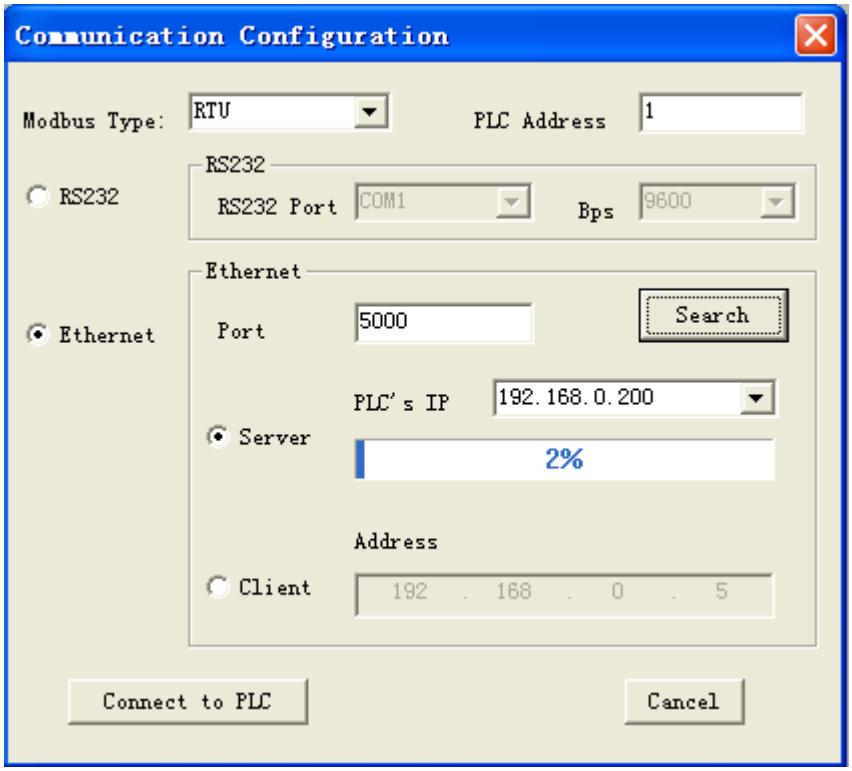
A. click  symbol B. select menu Tools->Configuration



3.Select "Ethernet" option



4. To search “PLC’s IP” click “Search” button



When the “PLC’s IP” has been found, you can do the following.

5. Click "Connect to PLC" button, and then the Ethernet module and PC will be linked.

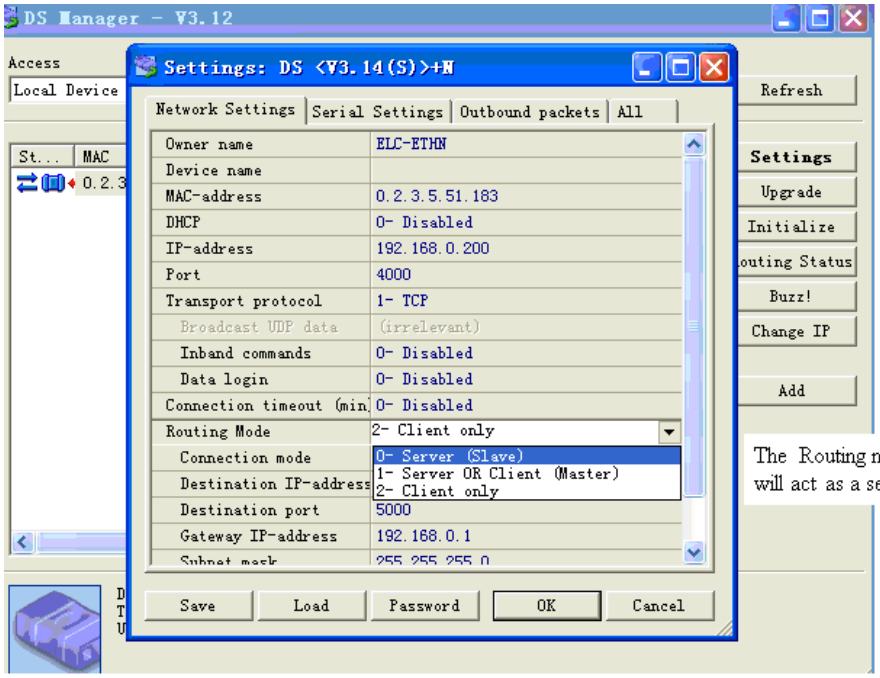
After the Ethernet module and PC are linked, many features are available, e.g. Downloading user program into xLogic CPU module, uploading program into PC and online monitor (monitor real time status of xLogic IO) can be done, herewith Ethernet module just plays the role of ELC-RS232/USB programming cable.

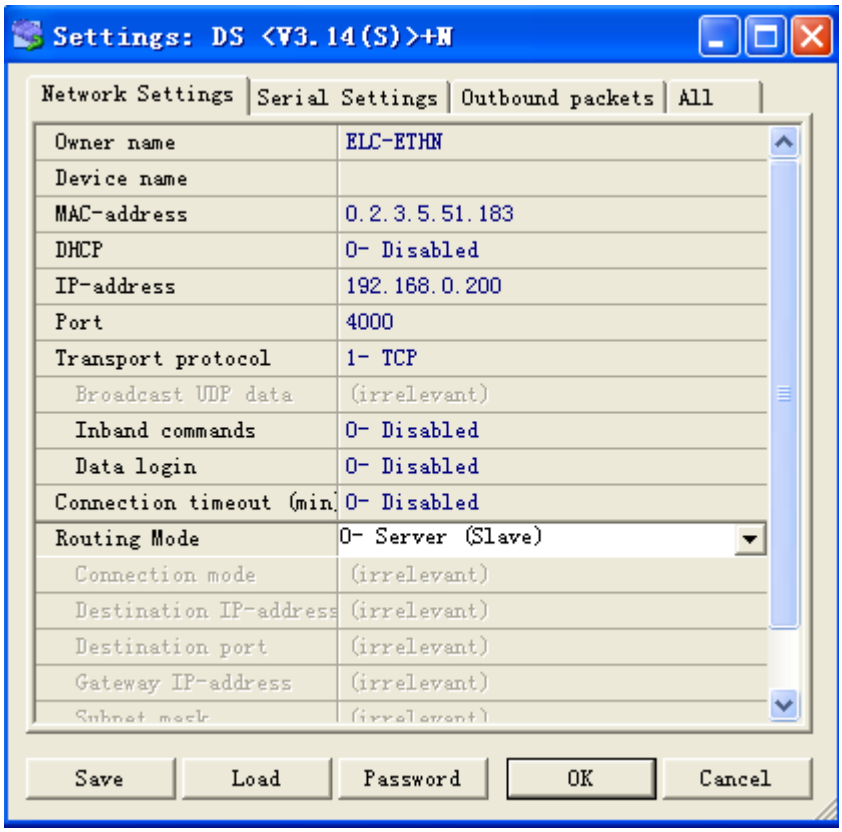
A. Upload program: click 

B. Download program: click 

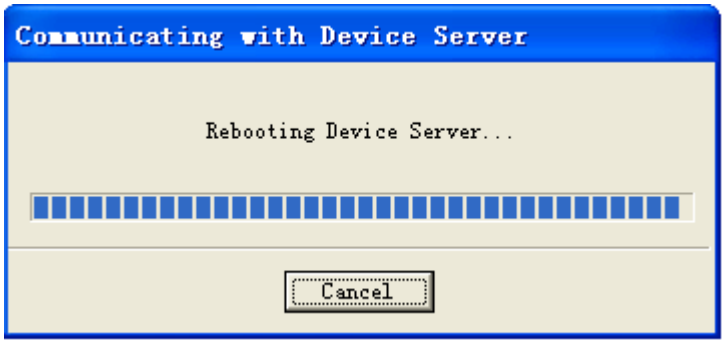
C. Monitor program run status: click 

Option 2: ELC-Ethernet unit as server (Slave), xLogicsoft software as Client.

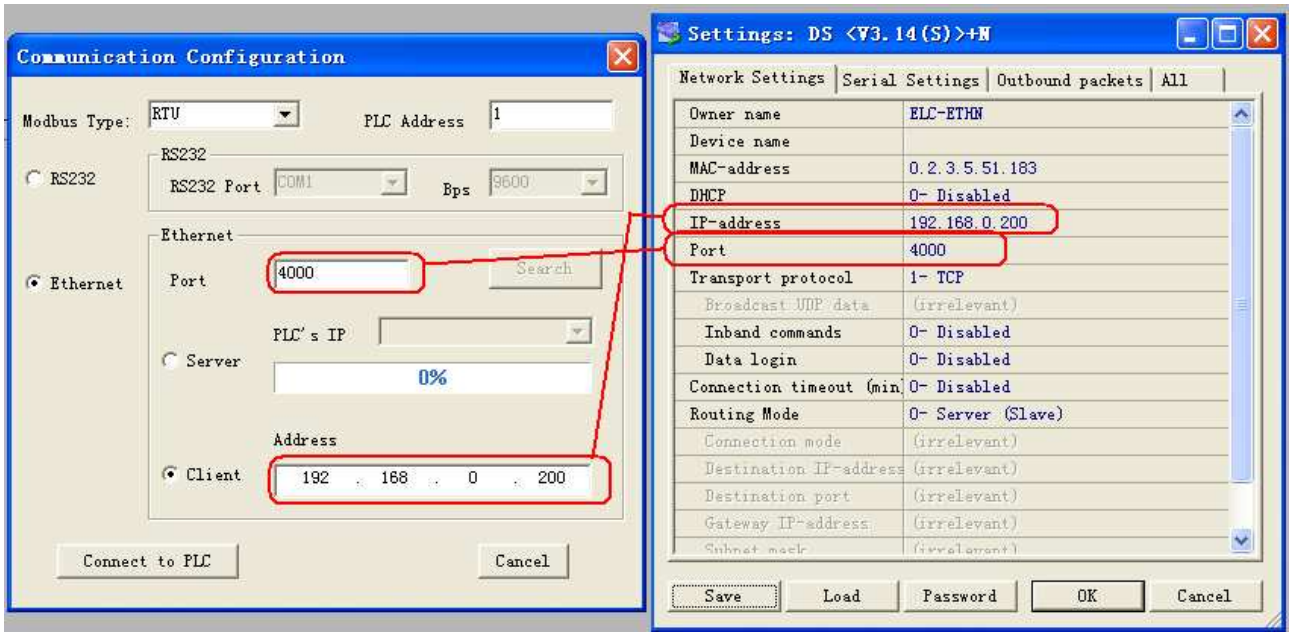




Confirm your settings by clicking "OK".



xLogicsoft communication configuration as follows:

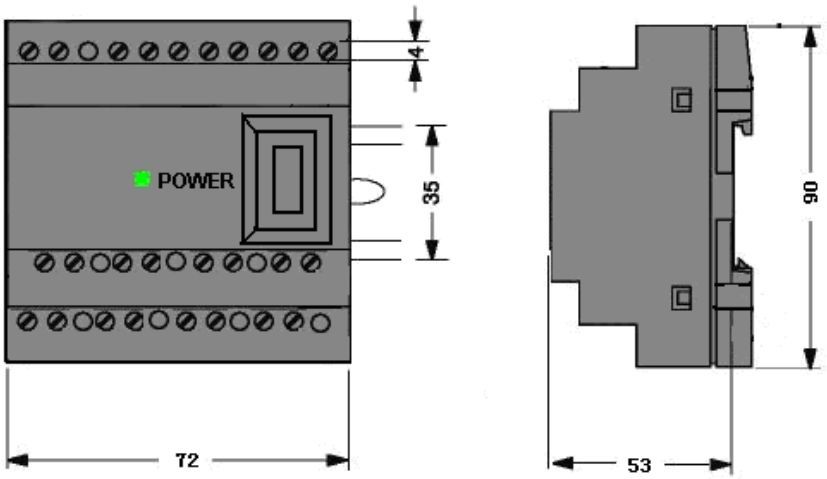


Click "Connect to PLC" button, and then the Ethernet module and PC will be linked.

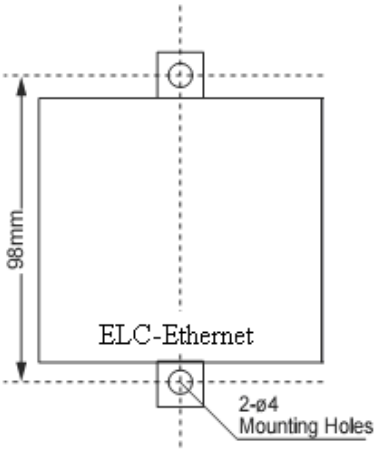
In addition, if more than one CPU module is required in certain application/project system, then communication between those CPU modules has to be done via Ethernet module. To achieve this, please note that each CPU module must require one Ethernet module to be linked to. In other words, one Ethernet module can ONLY be used to link with ONE CPU module.

Note: MODBUS RTU is the communication protocol between the Ethernet module and any other device. Such communication protocol would be available if required.

Dimension:



Mounting Hole Layout



Model	ELC-Ethernet-DC	ELC-Ethernet-AC
Supply Voltage	DC 12-24V	AC 110-240V