

Ethernet Head Configuration Guide

Document revisions

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About this document

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1 INTRODUCTION

This document describes network setup of the 1071/1171 Ethernet sonar head and the Windows PC to communicate with these heads.

The examples used in this document are based on Windows XP Pro and Windows 7 Pro Operating Systems.

2 HOW AN ETHERNET HEAD WORKS WITH A WINDOWS XP PC

2.1 Ethernet head IP address sections

Each Ethernet head has 2 factory-programmed sections:

- IP addresses section: This is the IP address of the Ethernet head. The default factory-programmed IP addresses is 192.168.0.254
- Remote Host IP address section: This is the IP address of the MS1000 Windows PC. Once the Ethernet head is powered up, it will keep issuing connection request to this Remote Host IP address to establish a TCP/IP connection. The default factory-programmed “Remote Host IP address” is 192.168.0.1.

2.2 Connect the Ethernet head

There are two options to connect the Ethernet digital sonar head to the MS1000 software:

2.2.1 Option 1: Set the MS1000 Windows PC IP address

Set the MS1000 Windows PC IP address to 192.168.0.1. This is applicable to:

- The MS1000 Windows PC is a stand-alone computer which does not have an IP address.
- The MS1000 Windows PC is a stand-alone computer has an IP address which is not 192.168.0.1

Step 1: On a MS1000 Windows XP Pro computer, go to “Control Panel” and double click “Network Connections” See Fig. 2.1



Figure 2-1

Step 2: Right click the Ethernet interface (Local Area Connection “n”) that you wish to connect with the Ethernet head, and select properties. See Fig. 2.2



Figure 2-2

Step 3: Double click “Internet Protocol (TCP/IP)” in the “Local Area Connection Properties” page to set up the IP address. See Fig. 2.3

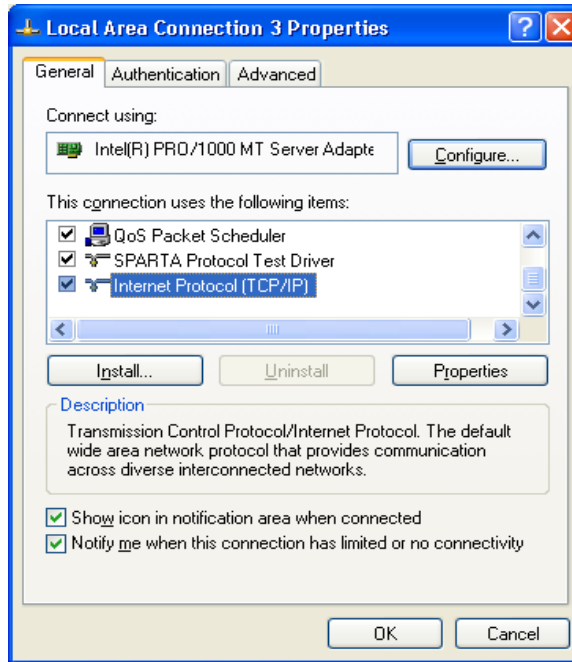


Figure 2-3

Step 4: In the “Internet Protocol (TCP/IP) Properties” dialog box, select “Use the following IP address:” type in “192.168.0.1” for IP address and “255.255.255.0” for Subnet mask. Leave the rest of the fields empty and click OK to accept changes. E.g. Fig. 2.4

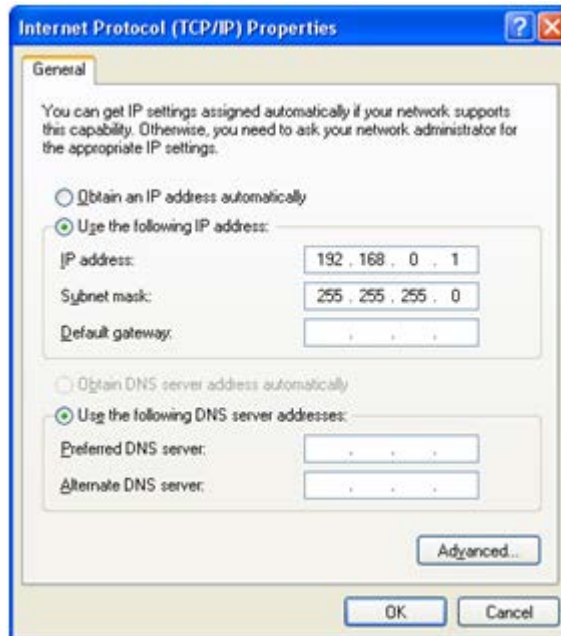


Figure 2-4

2.2.2 Option 2: Configure the Ethernet head

Use "ConfigE.exe" utility to configure the Ethernet head. "ConfigE.exe" is installed in the MS1000 installation folder during the MS1000 installation. This is applicable to:

- The MS1000 Windows PC is part of the network with specific IP address (other than 192.168.0.1), and is not allowed to be changed.
- There are more than one Ethernet digital sonar head on the network which they all have the same IP address from the factory.

Configure the Ethernet head can be done through a Windows PC on the same subnet or on a different subnet.

2.2.2.1 Assign Ethernet head IP addresses from a Windows PC on the same subnet.

- Step 1: Power on the Ethernet head, and connect it to the network.
- Step 2: Run "ConfE.exe" from the MS1000 installation directory. Click the "Search" button. The Ethernet heads (e.g. 192.168.0.254) will be displayed under the IP address of the Windows PC (e.g. 192.168.0.1).

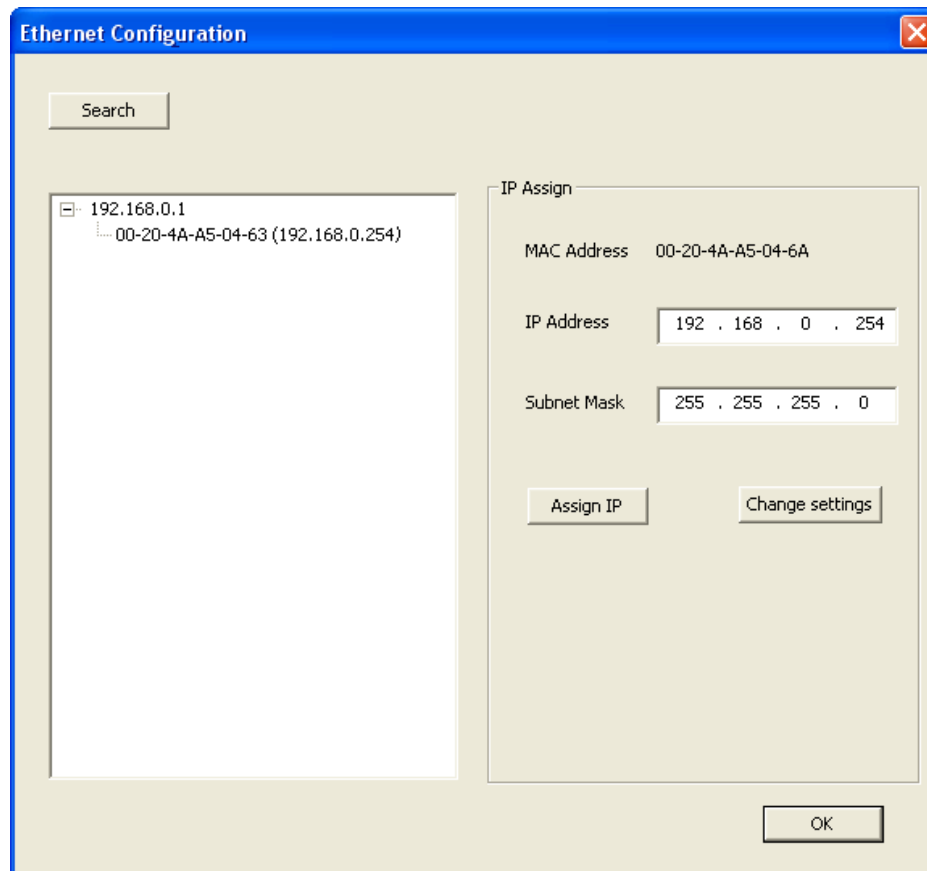


Figure 2-5

- Step 3: Change the IP address of the port to a new IP address within the same subnet. E.g. in Fig. 2.6, change IP address 192.168.0.254 to a new IP address 192.168.0.253

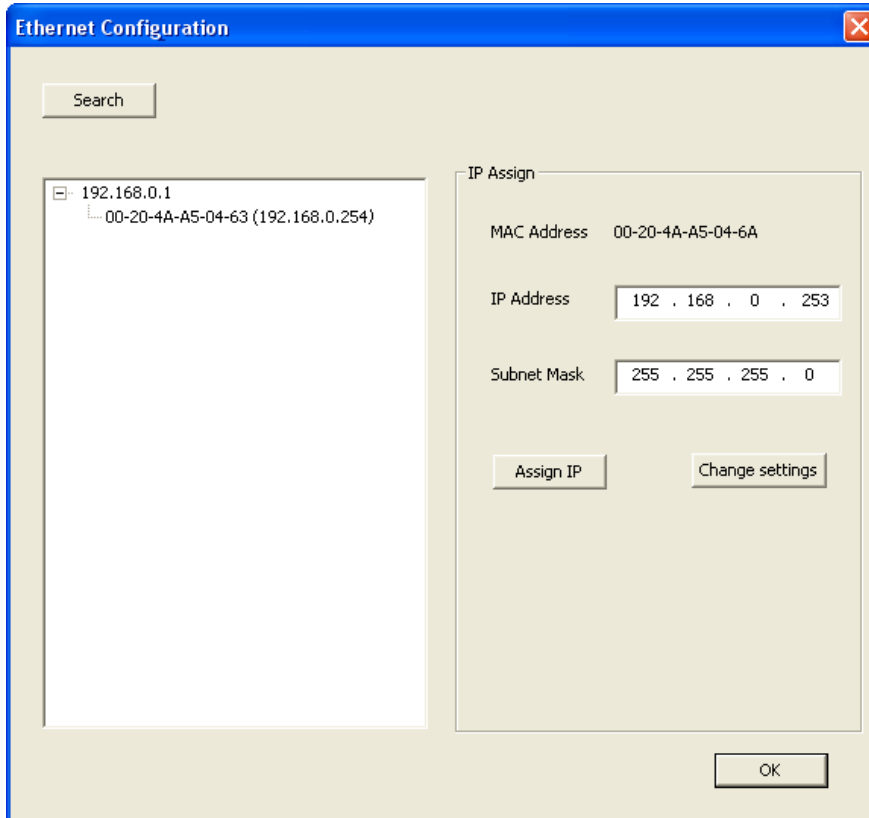


Figure 2-6

- Step 4: Click the “Assign IP” button. The Ethernet head port settings dialog will pop up after the new IP address has been assigned. E.g. Fig. 2.7

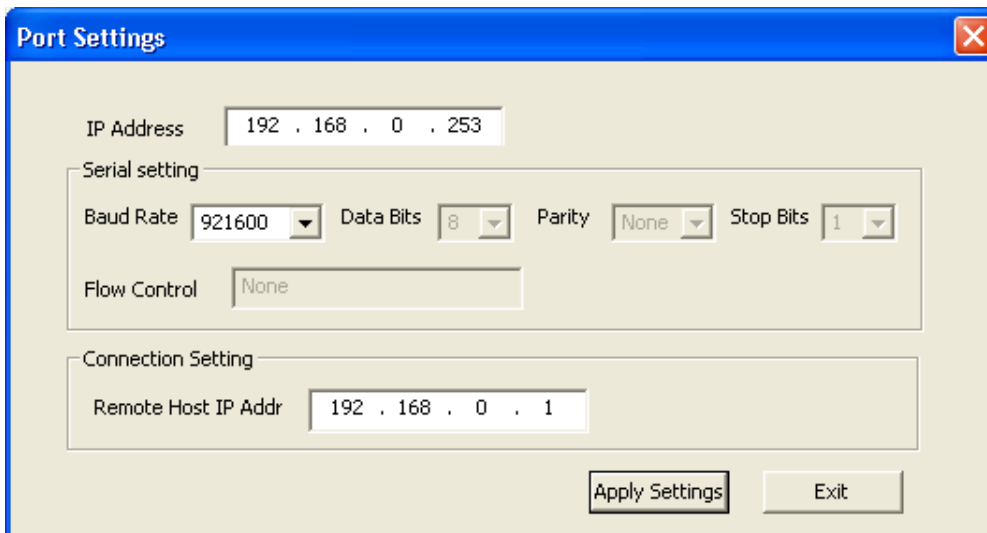


Figure 2-7

- Step 5: Verify Ethernet head Port Settings
 - IP Address: IP address shows the IP address of the Ethernet head.
 - Serial settings: The serial settings section displays the serial protocol, flow control, baud rate, data bits, and parity and stop bits. The serial settings should not be changed.
 - Remote Host IP Addr: This should be set to the IP address of the MS1000 Windows PC (e.g. 192.168.0.1)
 - Apply settings: Click "Apply Settings" to continue or click "Exit" to cancel.

2.2.2.2 Assign Ethernet head IP addresses from a Windows PC on a different subnet.

- Step1: Power on the Ethernet head, and connect it to the network.
- Step 2: Run "ConfE.exe" from the MS1000 installation directory. Click the "Search" button. The Ethernet head will be displayed under the IP address of the Windows PC (e.g. 10.0.0.2), and shows IP on different subnet.

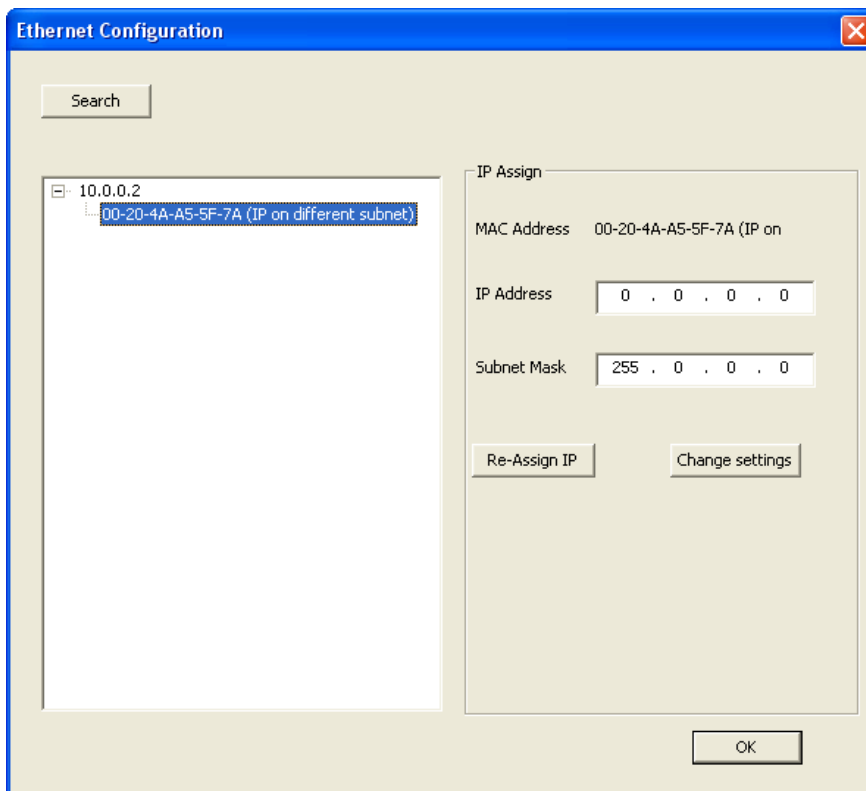


Figure 2-8

- Step 3: Select a port and type in an IP address within the same subnet. E.g. Fig 2.9

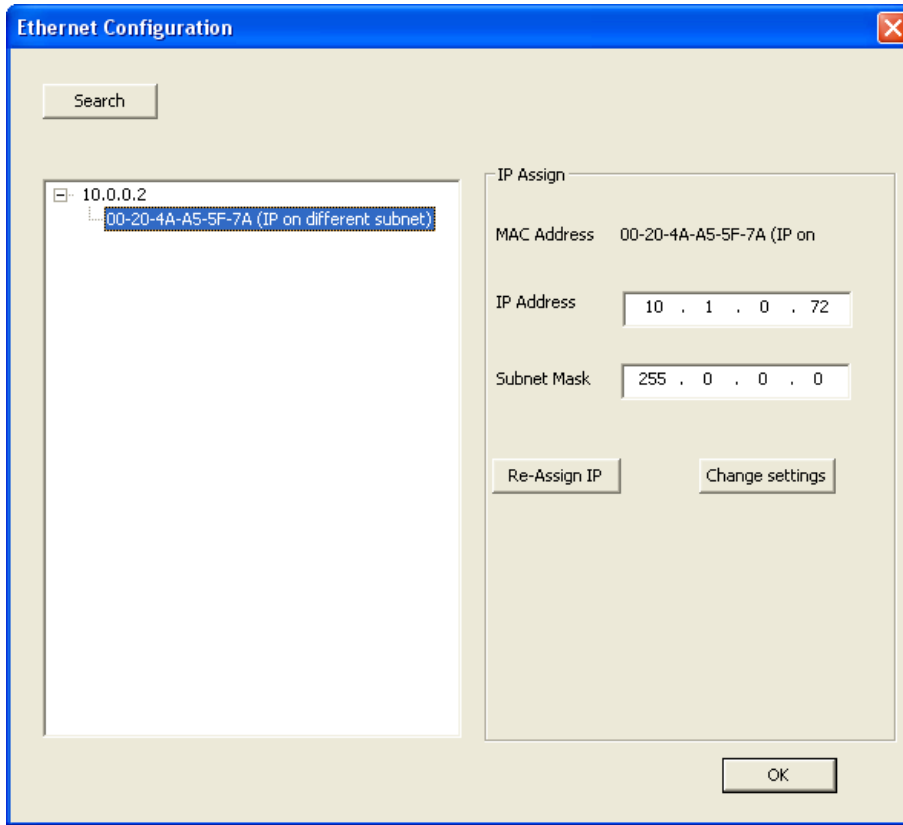


Figure 2-9

- Step 4: Click the “Assign IP” button. The Ethernet head port settings dialog box will pop up after the new IP address has been assigned. E.g. Fig. 2.10

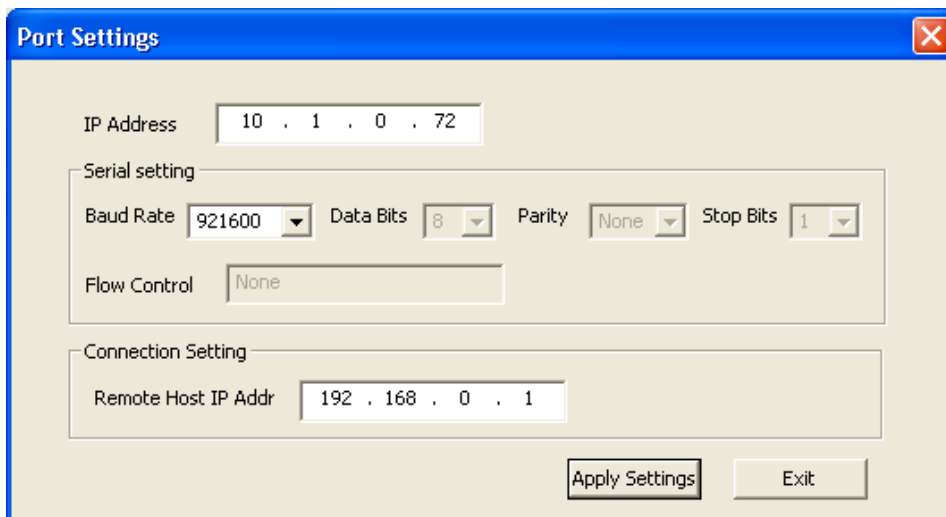


Figure 2-10

- Step 5: Change the “Remote Host IP Addr” to the MS1000 Windows computer IP address. E.g. Fig. 2.11, the current computer (10.0.0.2) will be used to run MS1000.

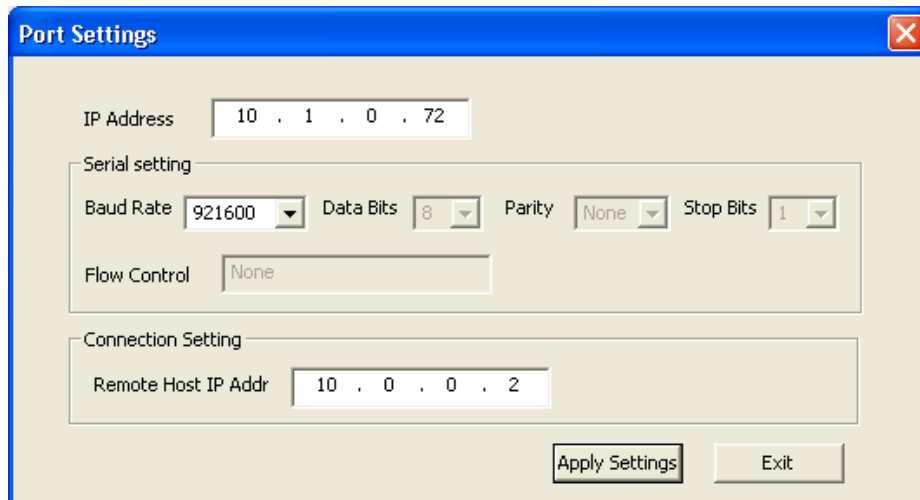


Figure 2-11

Fig. 4.4

- Step 6: Click “Apply Settings” button.

3 HOW AN ETHERNET HEAD WORKS WITH A WINDOWS 7 PC

3.1 Ethernet head IP address sections

Each Ethernet head has 2 factory-programmed sections:

- IP addresses section: This is the IP address of the Ethernet head. The default factory-programmed IP addresses is 192.168.0.254
- Remote Host IP address section: This is the IP address of the MS1000 Windows PC. Once the Ethernet head is powered up, it will keep issuing connection request to this Remote Host IP address to establish a TCP/IP connection. The default factory-programmed “Remote Host IP address” is 192.168.0.1.

3.2 Connect the Ethernet head

There are two options to connect the Ethernet digital sonar head to the MS1000 software:

3.2.1 Option 1: Set the MS1000 Windows PC IP address

Set the MS1000 Windows PC IP address to 192.168.0.1. This is applicable to:

- The MS1000 Windows PC is a stand-alone computer which does not have an IP address.
- The MS1000 Windows PC is a stand-alone computer has an IP address which is not 192.168.0.1

Step 1: On a MS1000 Windows 7 Pro computer, go to “Control Panel” select “Network and Internet”

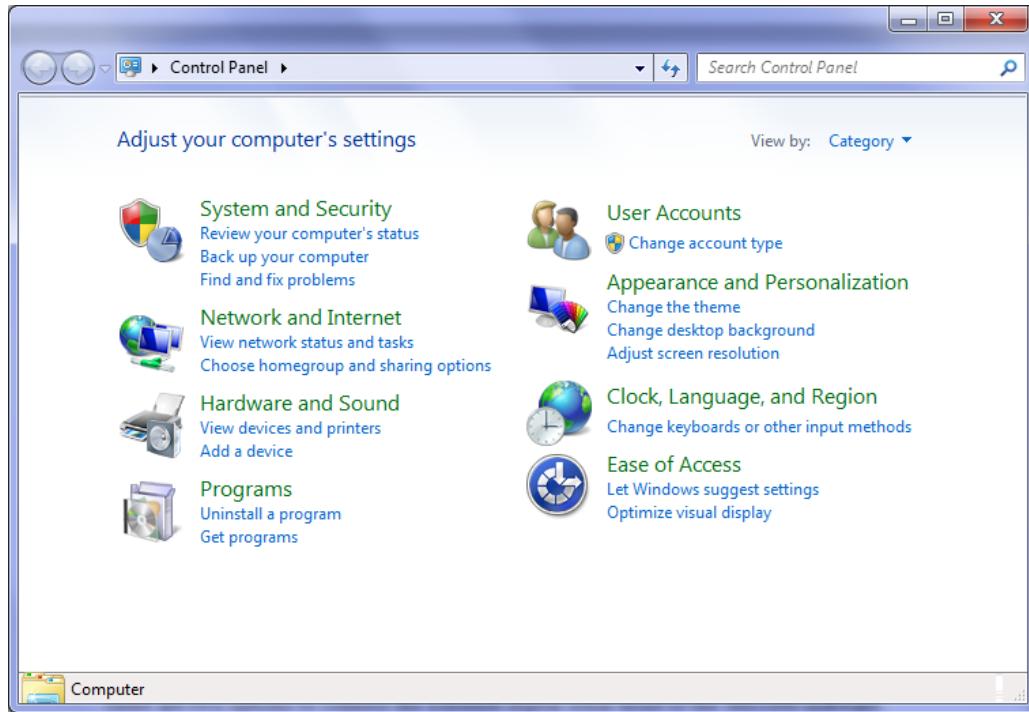
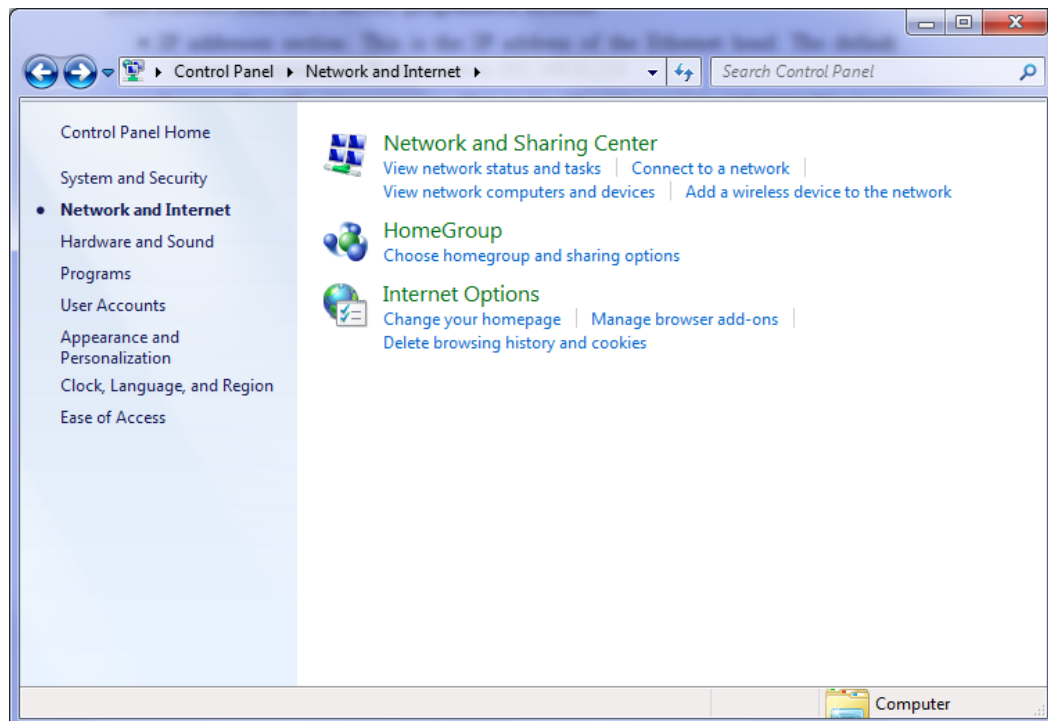


Figure 3-1

Step 2: Select “Network and Sharing Center”



Step 3: Select “Change adapter settings”

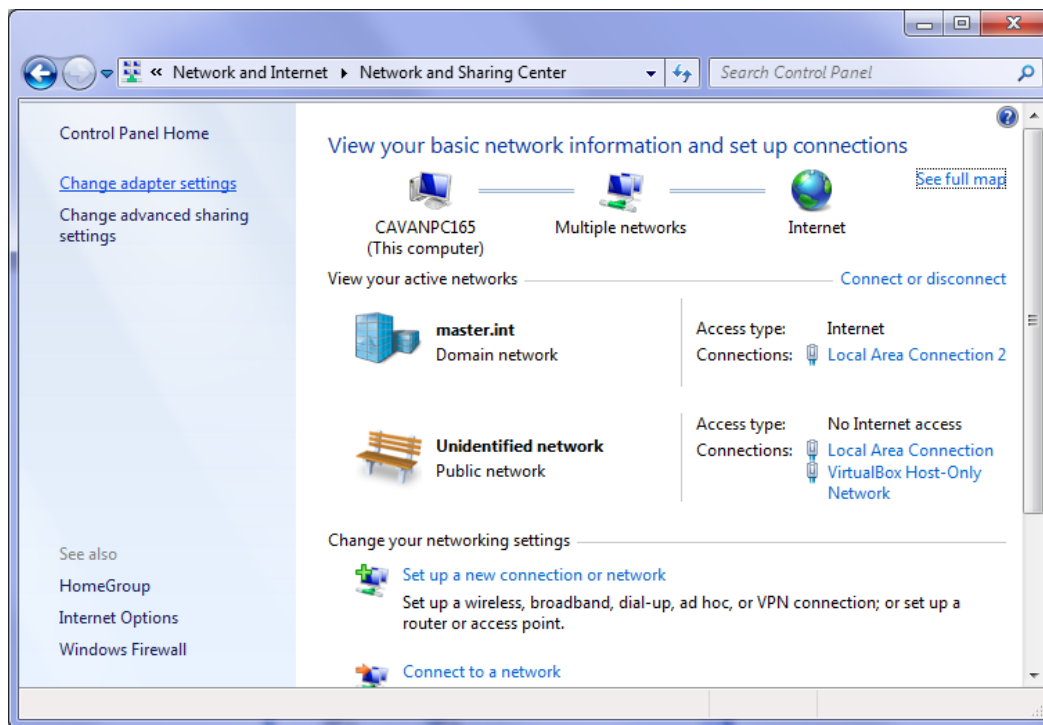


Figure 3-2

Step 4: Right click the Ethernet interface (Local Area Connection “X”) that you wish to connect with the Ethernet head, and select properties.

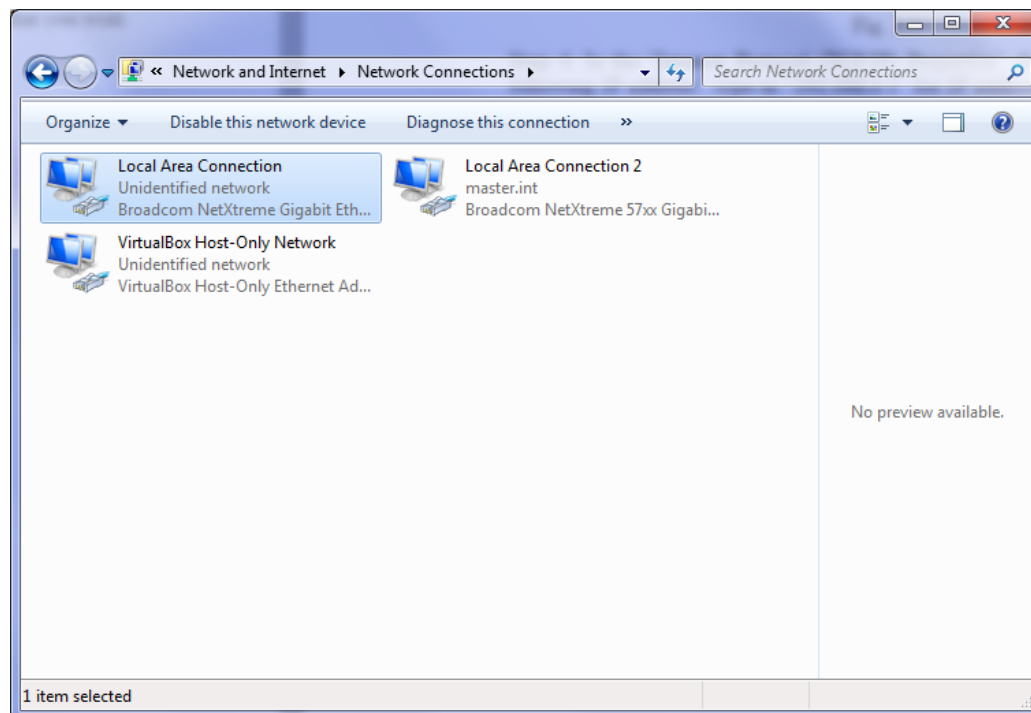


Figure 3-3

Step 3: Double click “Internet Protocol Version 4(TCP/IP)” in the “Local Area Connection Properties” page to set up the IP address.

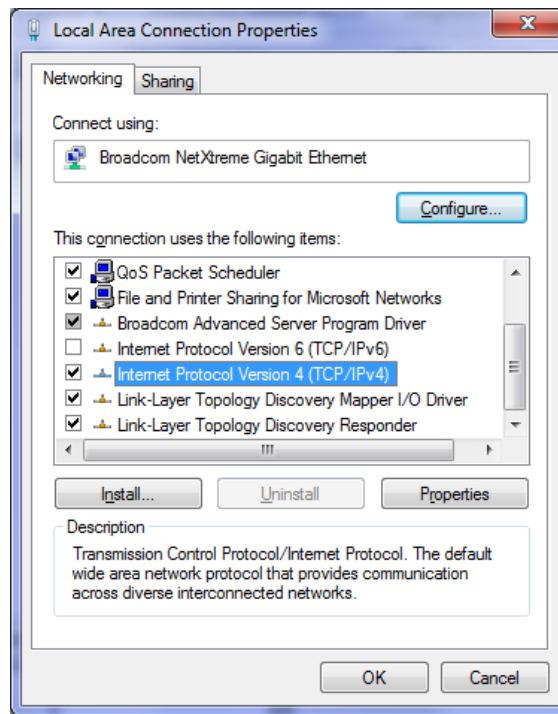


Figure 3-4

Step 4: In the “Internet Protocol (TCP/IP) Properties” dialog box, select “Use the following IP address:” type in “192.168.0.1” for IP address and “255.255.255.0” for Subnet mask. Leave the rest of the fields empty and click OK to accept changes.

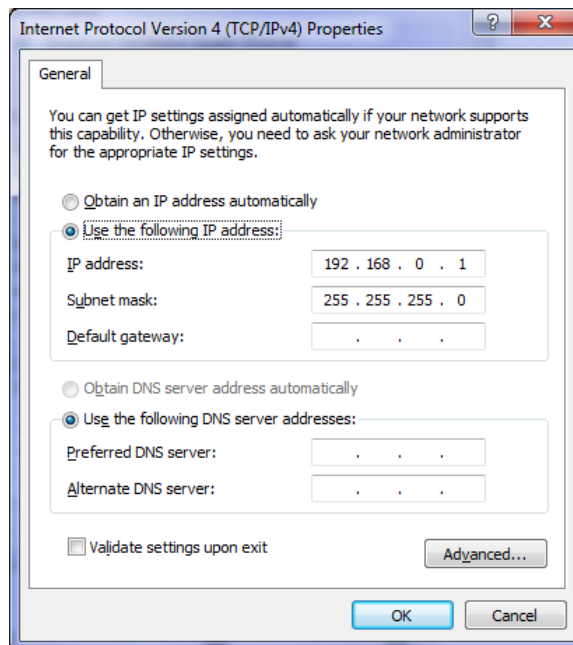


Figure 3-5

3.2.2 Option 2: Configure the Ethernet head

Use "ConfigE.exe" utility to configure the Ethernet head. "ConfigE.exe" is installed in the MS1000 installation folder during the MS1000 installation. This is applicable to:

- The MS1000 Windows PC is part of the network with specific IP address (other than 192.168.0.1), and is not allowed to be changed.
- There are more than one Ethernet digital sonar head on the network which they all have the same IP address from the factory.

Configure the Ethernet head can be done through a Windows PC on the same subnet or on a different subnet.

3.2.2.1 Assign Ethernet head IP addresses from a Windows PC in the same subnet.

- Step 1: Power on the Ethernet head, and connect it to the network.
- Step 2: Run "ConfE.exe" from the MS1000 installation directory. Click the "Search" button. The Ethernet heads (e.g. 192.168.0.254) will be displayed under the IP address of the Windows PC (e.g. 192.168.0.1).

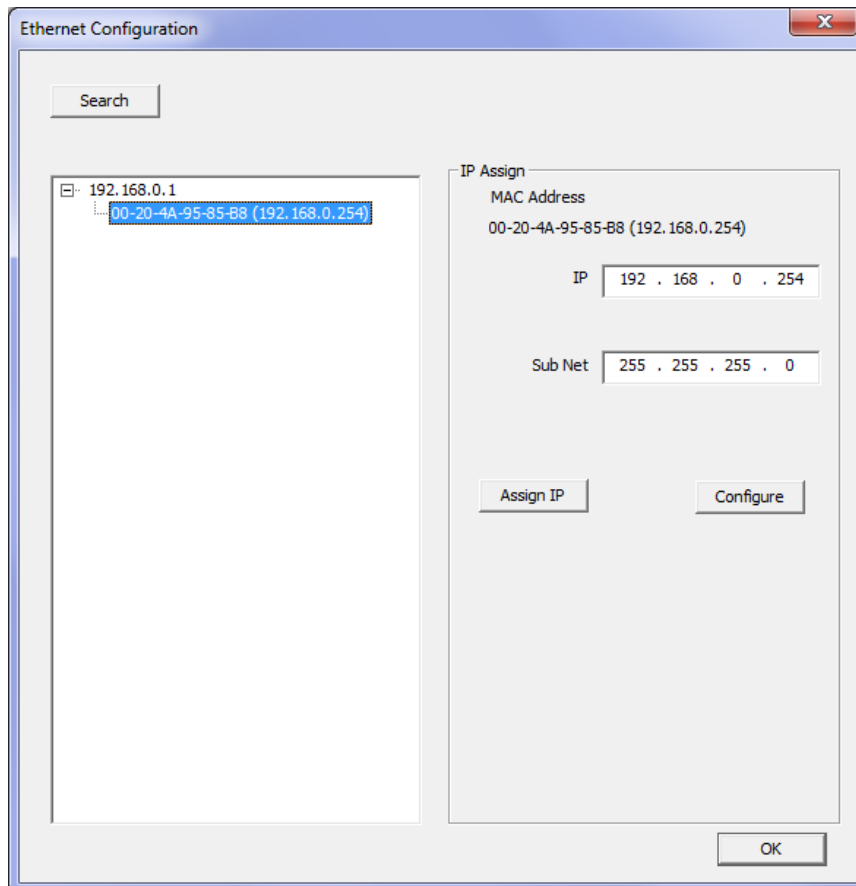


Figure 3-6

- Step 3: Change the IP address of the port to a new IP address within the same subnet. E.g. in Fig. 3.7, change IP address 192.168.0.254 to a new IP address 192.168.0.253

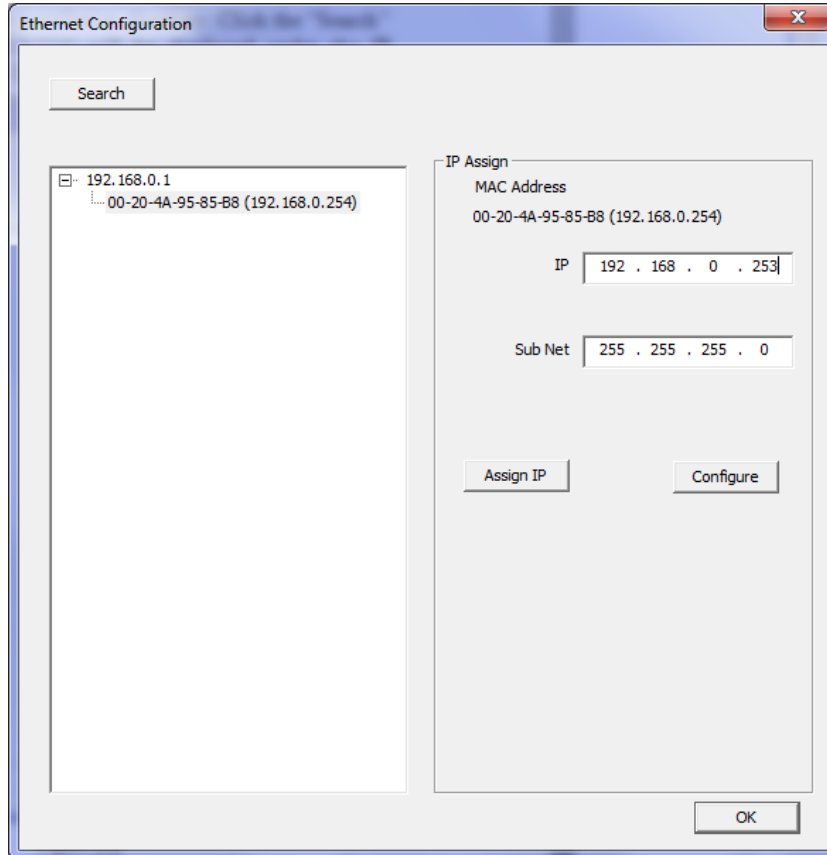


Figure 3-7

- Step 4: Click the “Assign IP” button. The Ethernet head port settings dialog will pop up after the new IP address has been assigned.

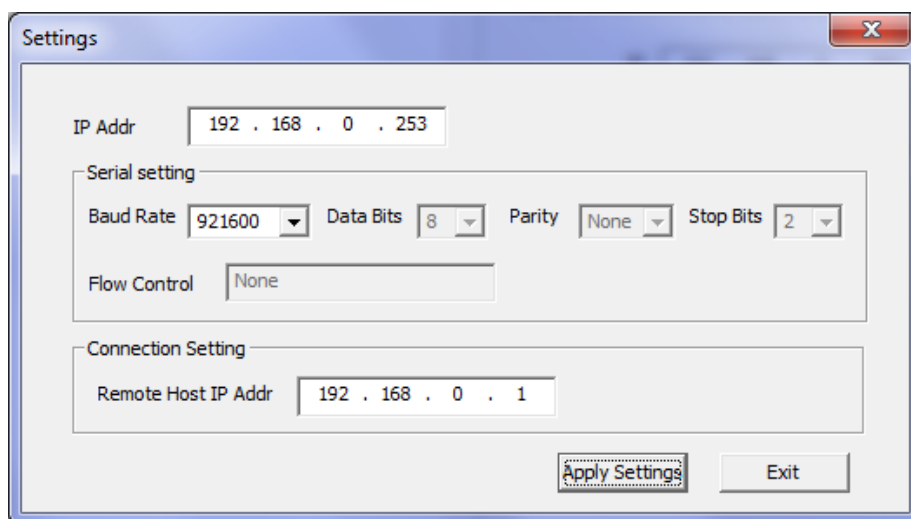


Figure 3-8

- Step 5: Verify Ethernet head port settings
 - IP Address: IP address shows the IP address of the Ethernet head.
 - Serial settings: The serial settings section displays the serial protocol, flow control, baud rate, data bits, and parity and stop bits. The serial settings should not be changed.
 - Remote Host IP Addr: This should be set to the IP address of the MS1000 Windows PC (e.g. 192.168.0.1)
 - Apply settings: Click "Apply Settings" to continue or click "Exit" to cancel.

3.2.2.2 Assign Ethernet head IP addresses from a Windows PC on a different subnet.

- Step1: Power on the Ethernet head, and connect it to the network.
- Step 2: Run "ConfE.exe" from the MS1000 installation directory. Click the "Search" button. The Ethernet head will be displayed under the IP address of the Windows PC (e.g. 10.0.0.2), and shows IP on different subnet.

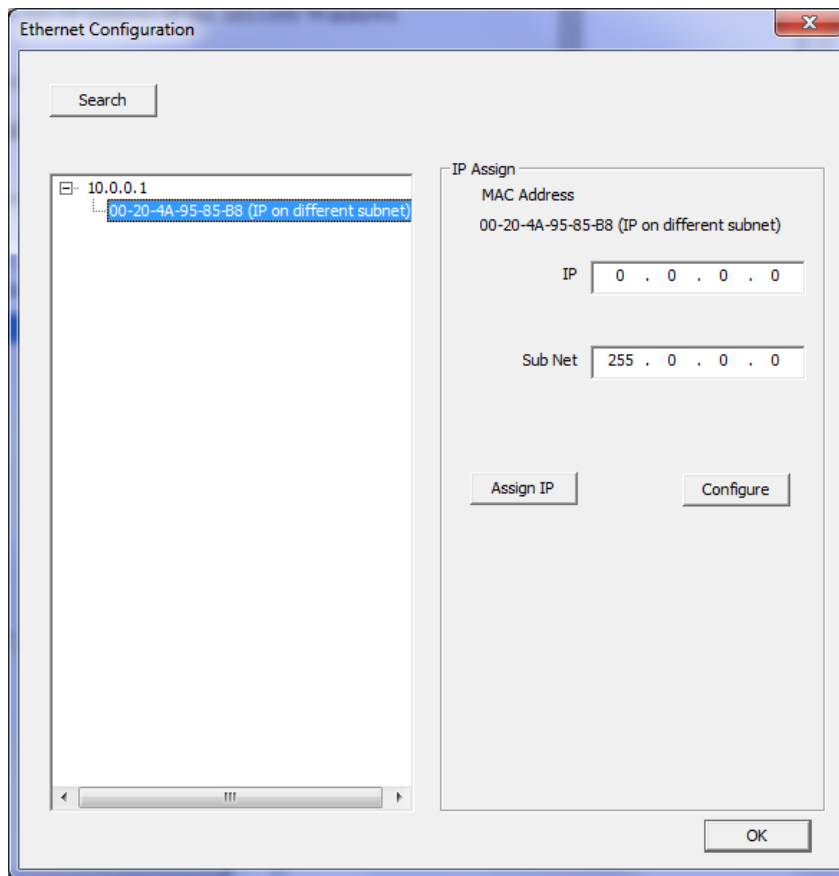


Figure 3-9

- Step 3: Select a port and type in an IP address within the same subnet.

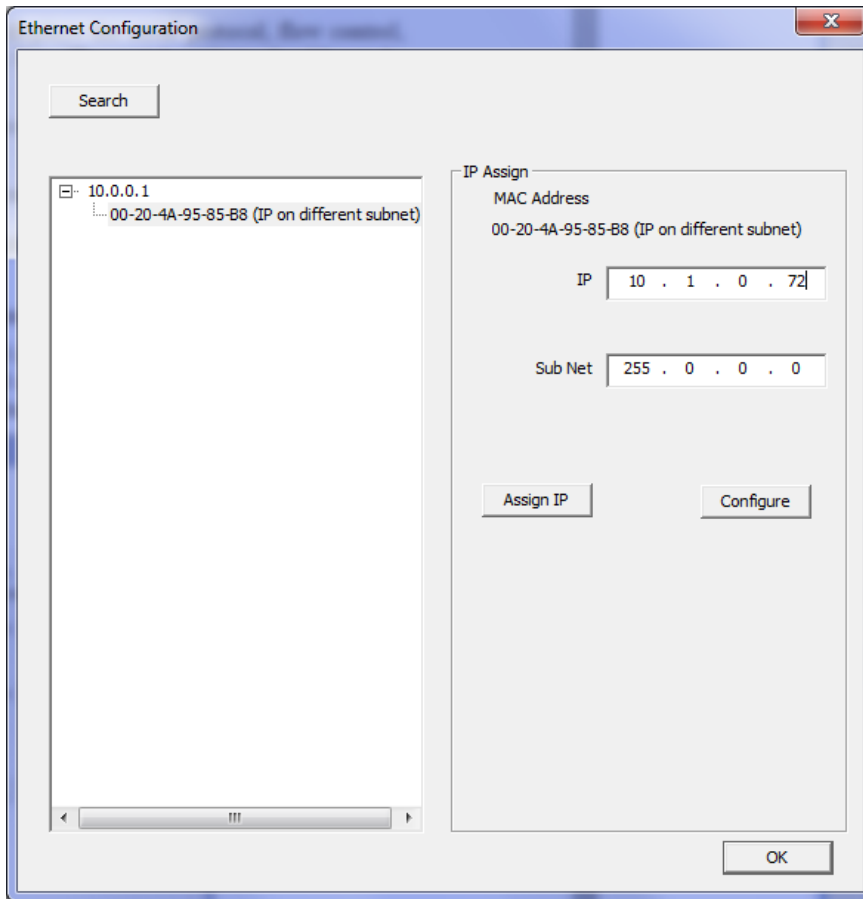


Figure 3-10

- Step 4: Click the “Assign IP” button. The Ethernet head port settings dialog box will pop up after the new IP address has been assigned.

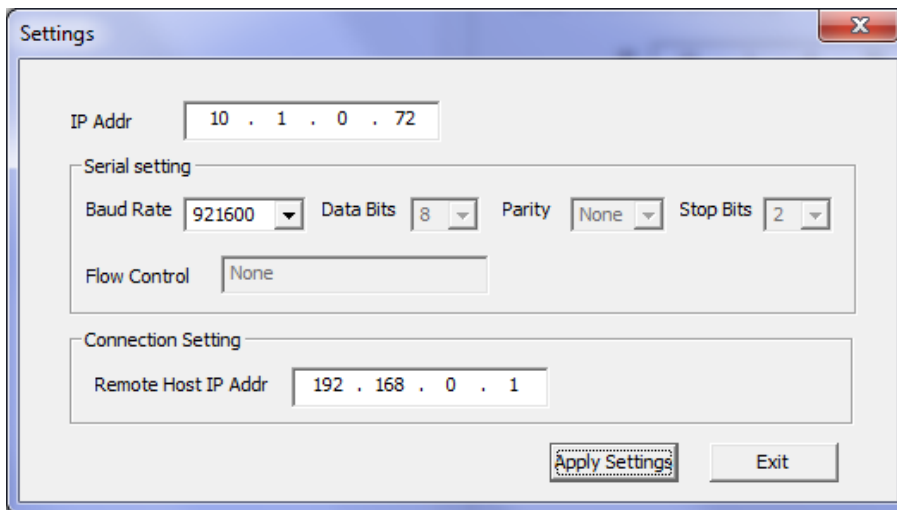


Figure 3-11

- Step 5: Change the “Remote Host IP Addr” to the MS1000 Windows computer IP address. E.g. Fig. 3.12, the current computer (10.0.0.1) will be used to run MS1000.

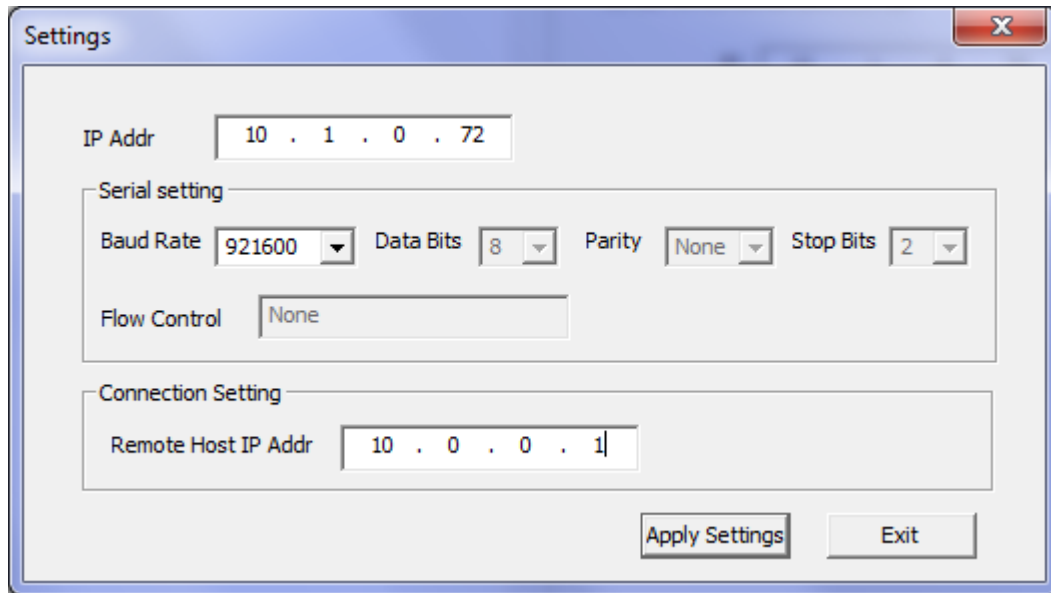


Figure 3-12

- Step 6: Click “Apply Settings” button.