



Quick Installation Guide for MPC-STD

The Thomson Technology MPC-STD is a multi-protocol converter. This Quick Installation Guide will describe the method to interface a PC to either a MEC 20 or TSC 800 controller over an RS 485/232 serial interface.

Check Components:

Qty	Description
1	MPC-STD protocol Converter
2	RJ45 to DB9M Converter
1	RJ45 to DB9F Converter
1	6ft Ethernet Cable (CAT5-STP)
1	10ft Ethernet Cable (CAT5-STP)
1	Software & Documentation CD-ROM*

*MPC Gateway Utility Software –Download from www.thomsontechnology.com

Customer Required Components:

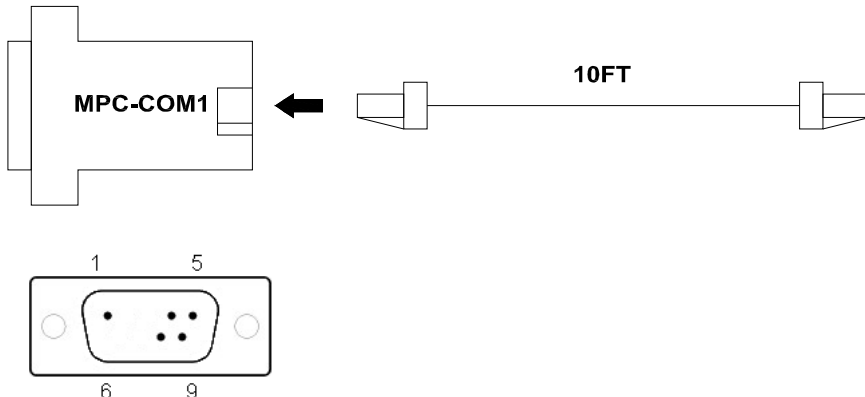
Qty	Description
1	24VDC power supply (min 12Vdc, max 30Vdc), 100mA max.

NOTE:

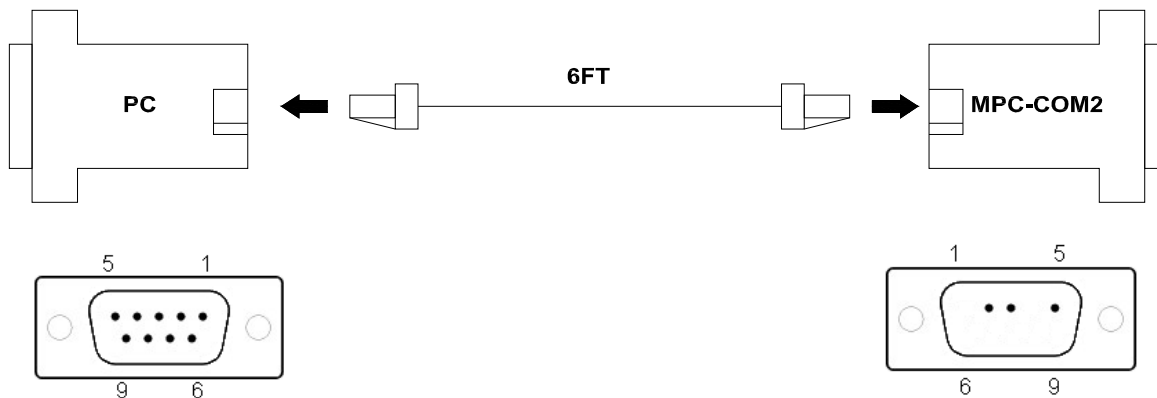
1. Modscan32 software is needed for Check/Verification of the MPC-STD setup. Download Modscan32 from the following link - <http://www.win-tech.com/html/demos.htm> - [ModScan32.zip \(851K\)](#). Follow the Setup Wizard for the installation of the Modscan32 Software.

Assemble Cables:

Cable 1: Insert one end of the 10ft Ethernet cable into the connector labeled MPC-COM1 (RS485).

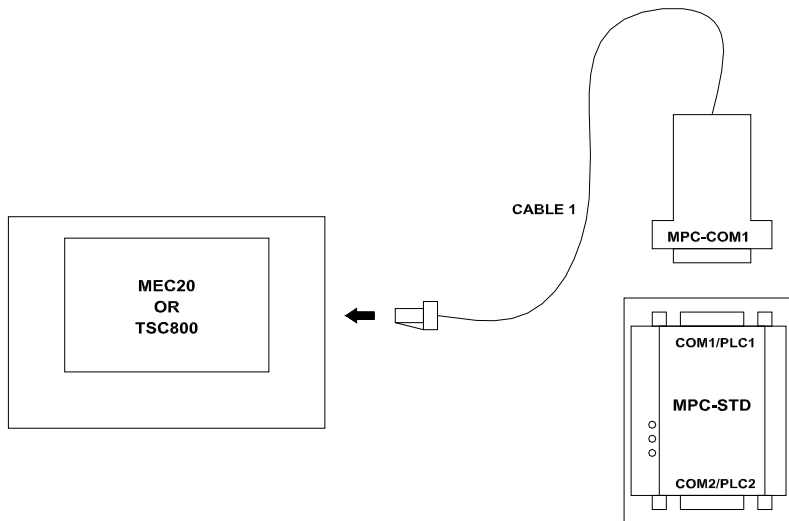


Programming Cable: Insert one end of the 6ft Ethernet cable into the connector labeled MPC-COM2 (RS232). Insert the other end of the 6ft Ethernet cable into the connector labeled PC.



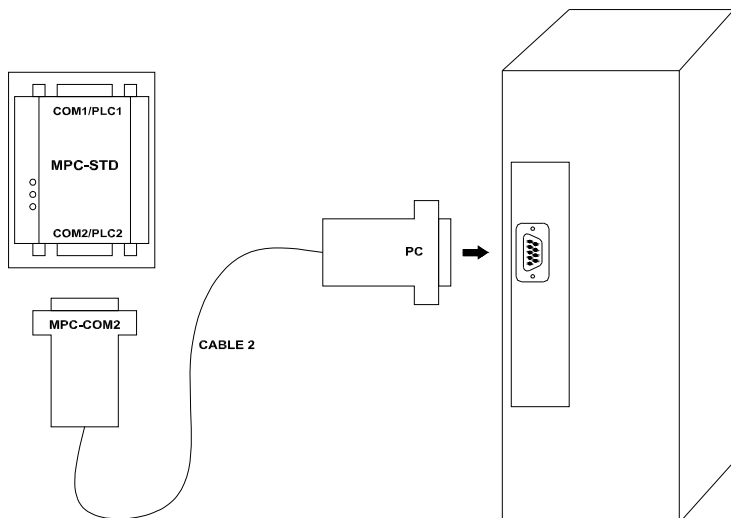
Connect MPC-STD to Controller/s:

1. Connect the RJ45 end of Cable 1 to the intended Thomson Technology controller. (i.e. MEC20 or TSC800)
2. Connect the MPC-COM1 end of Cable 1 to the MPC-STD port labeled COM1 / PLC1.



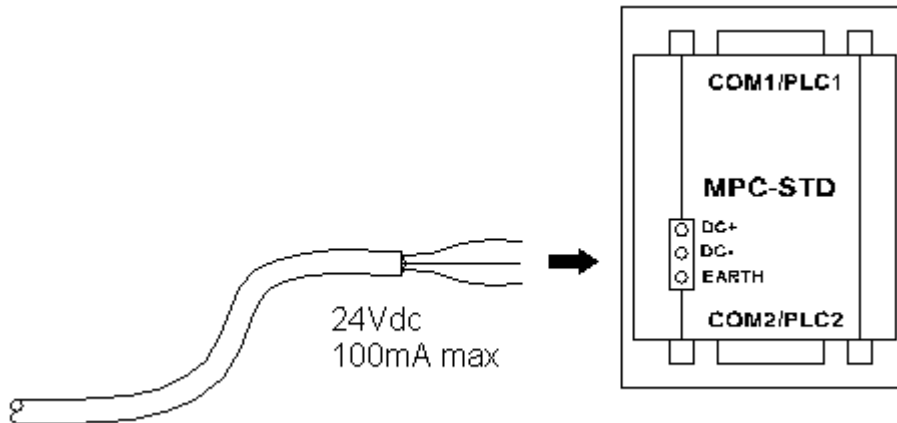
Connect MPC-STD to PC:

3. Connect the MPC-COM2 end of Cable 2 to the MPC-STD port labeled COM2 / PLC2.
4. Connect the PC end of Programming cable (Cable 2) to the serial port on the computer.



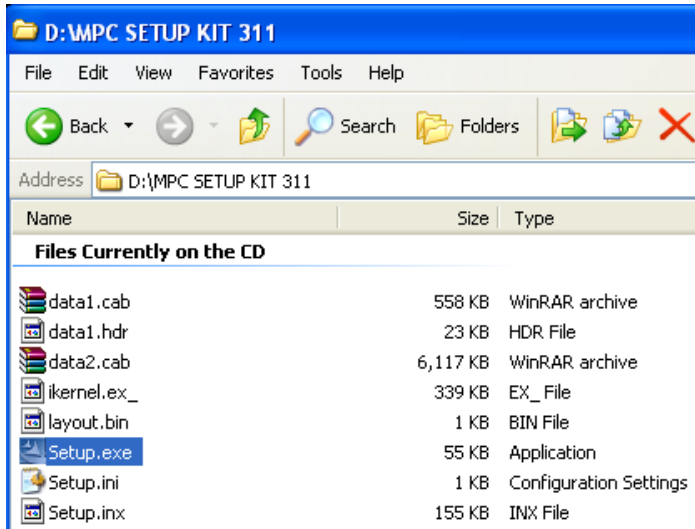
Start Up:

5. Connect 24VDC to the power input connector on the MPC-STD. Make sure that the Protective Earth of the power supply is connected to the Earth connection of the MPC-STD.
6. Power up the MPC-STD and start Modbus™ communications with the Thomson Technology device (i.e. MEC20 or TSC800).
7. Refer to the MPC-STD default Modbus™ map for MEC20/TSC800 parameter addresses.

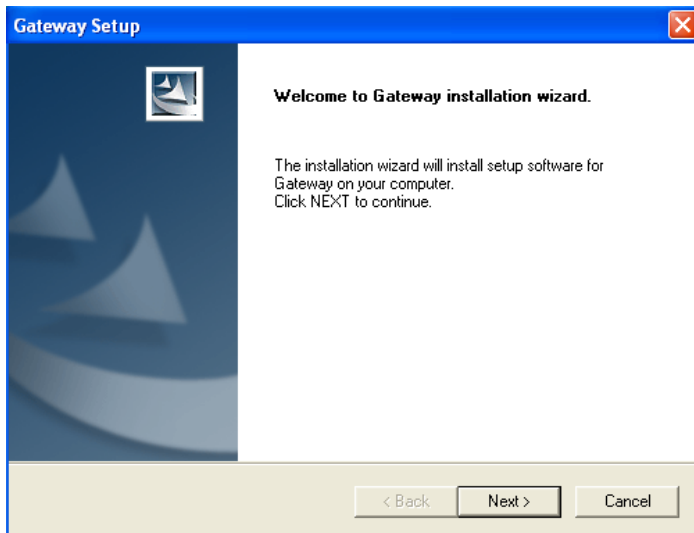


Optional: Changing the Modbus™ node address of the MPC-STD:

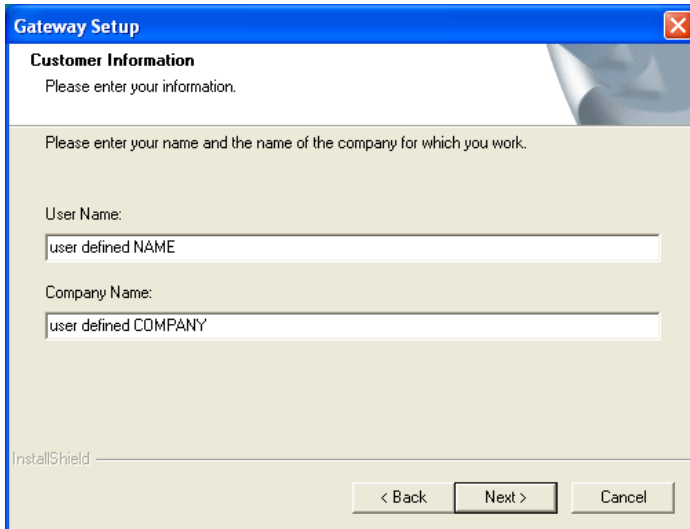
1. The Gateway 3.11 Utility Software provides access to the Modbus address of the MPC-STD. Install the software from the accompanying CD.



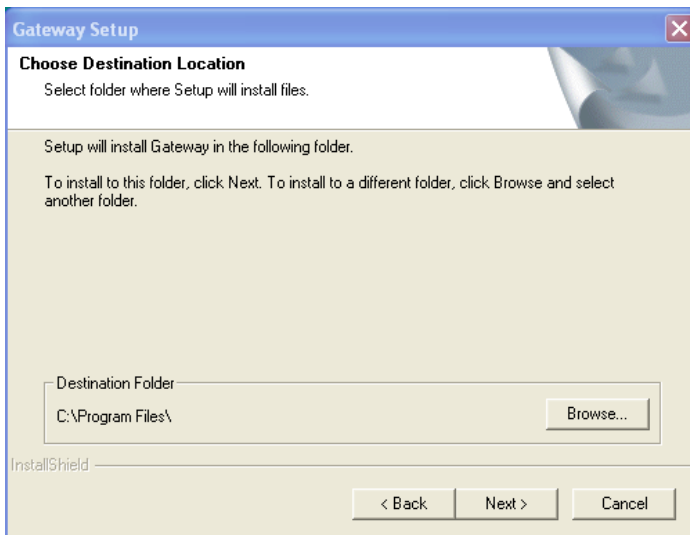
:MPC SETUP KIT
311\Setup.exe



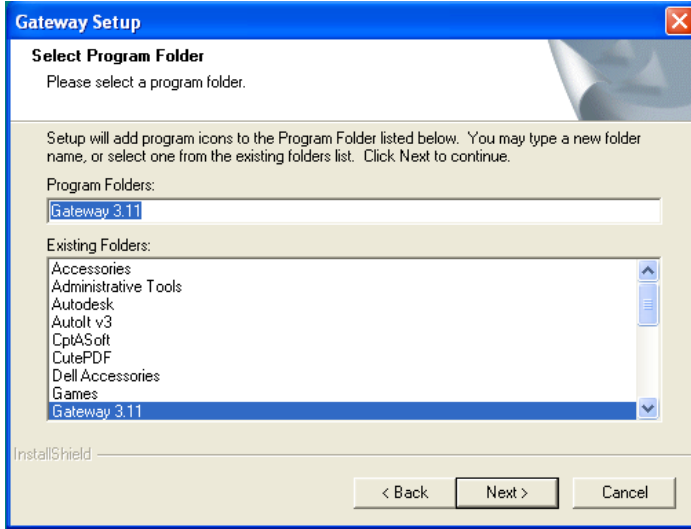
Installation Wizard will now start. Press the *NEXT* button to continue.



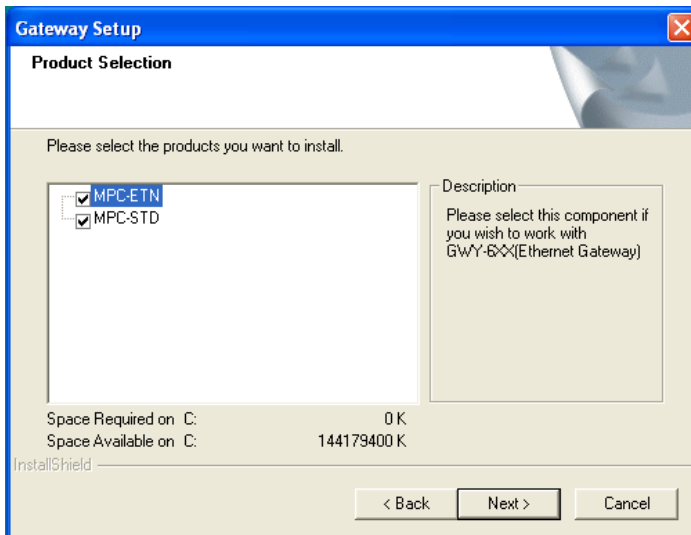
Enter desired 'User Name' and 'Company Name', and then Press the *NEXT* button.



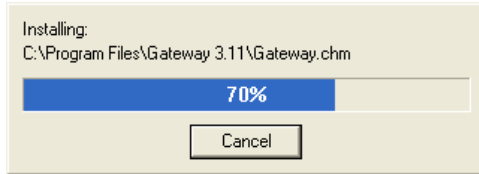
Select desired 'Destination Folder', then Press *NEXT* button.



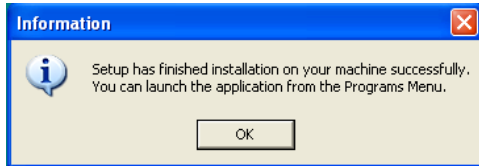
Press the *NEXT* button.



Mark both 'MPC-ETN' and 'MPC-STD' with a 'check mark', and then Press the *NEXT* button.



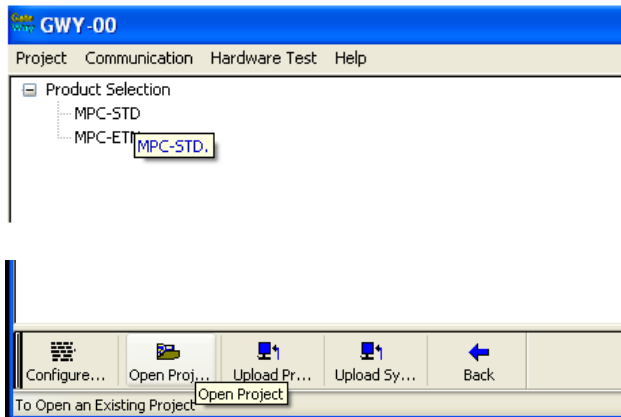
Program is now installing onto your computer.



Wait for installation to complete, then Press **OK** button.

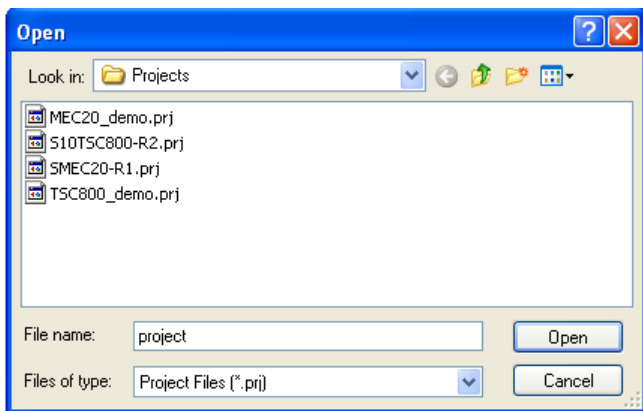
Gateway 3.11 Utility Software is now Complete.

2. Run the Gateway Utility Software.
3. Ensure that the MPC-STD is powered off and then jumper pins 3 & 4 of COM2 / PLC2, (paperclip jumper will work).
4. Power up the MPC-STD. After one second the green OK light will start blinking steadily. Remove the jumper from pins 3 & 4.
5. Connect the COM2 end of Programming cable to the serial port on the computer.
6. Open the required template project (MEC20 or TSC800) using the *Project->Open Project* menu.



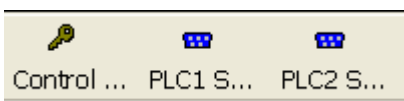
Select 'MPC-STD' found in the 'Product Selection' tree.

Click the 'Open Project' button found in the Tool Bar located at the bottom of the 'Gateway' software window.

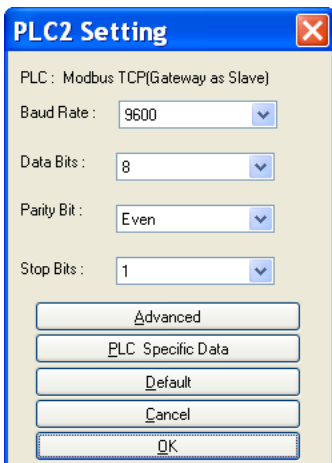


Select S5MEC20-R1.prj for MEC20 communication or S10TSC800-R2.prj for TSC800 communication, and then Press the *OPEN* button.

7. To change the default Modbus node.

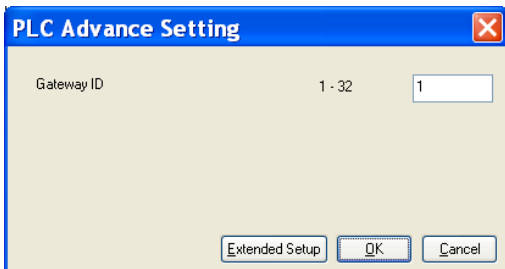


Press the *PLC2* button on the Gateway Utility Software toolbar.



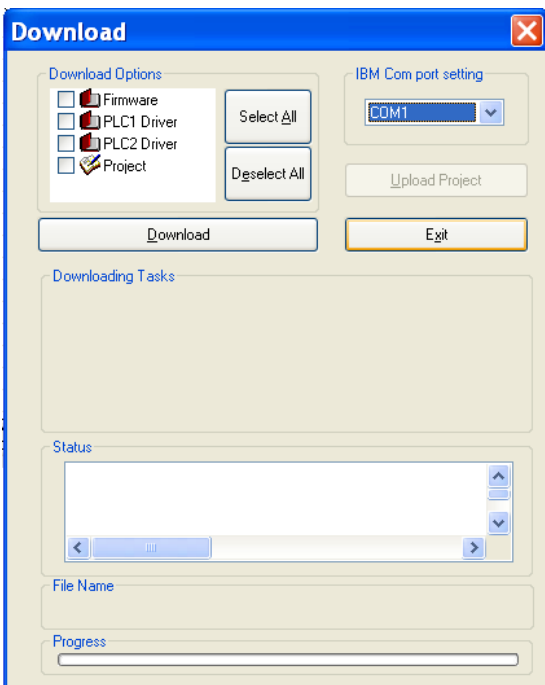
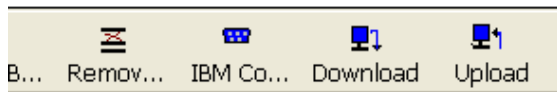
Amend the communication parameters to match the communication partner setting.

Click the *Advanced* button to open the Modbus node edit dialog box.



Enter the required Modbus Node number (the default node is 1).

8. Press the Download button of the Gateway Utility Software toolbar.



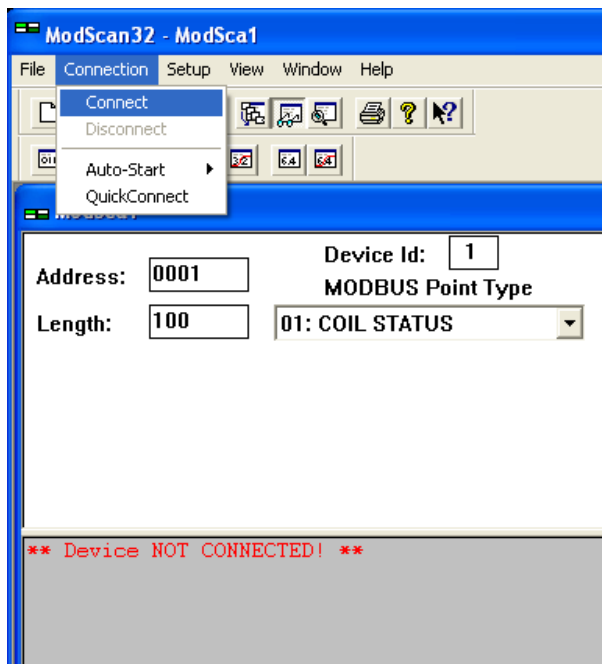
Select the appropriate COM port from the combo dropdown list. The green OK should be blinking steadily. This indicates that the MPC-STD is in upload/download mode. If the light stops blinking before an upload or a download is conducted then the power to the MPC-STD must be cycled while with a wire jumper from pins 3 & 4 on COM1 or 2 to put it back into upload/download mode.

Click the *Select All* button then *Download*.

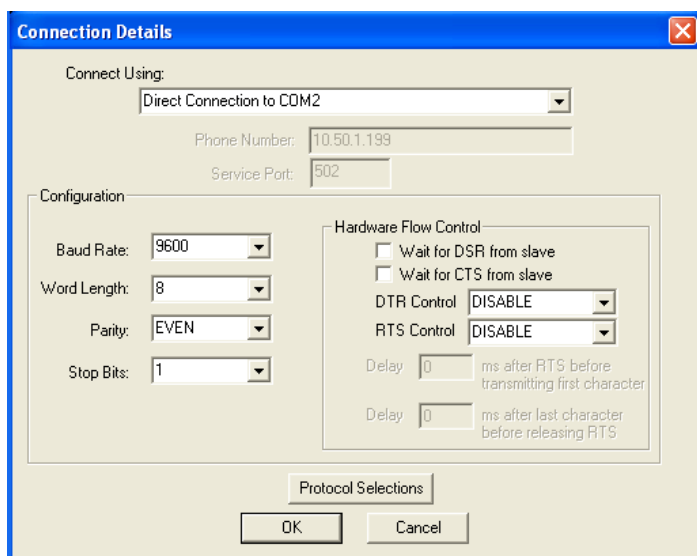
9. Once download is complete a confirmation will appear. Click OK to re-start the Gateway.
10. Set-up complete.

Check/Verify Communication to MPC-STD device:

1. Open 'Modscan32.exe' and follow the procedure below:

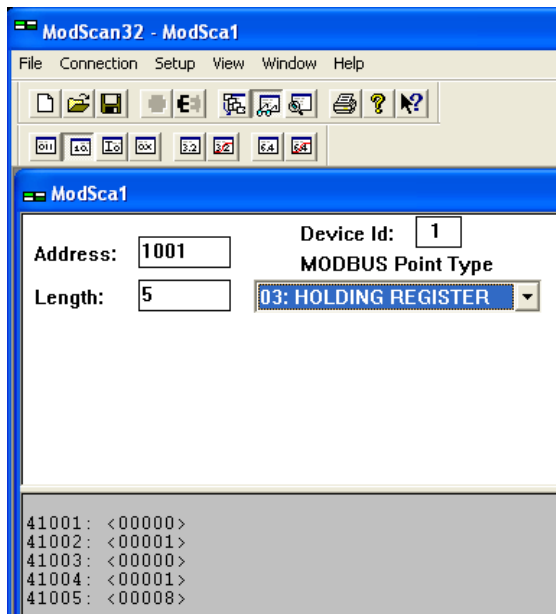


Select 'Connect' for the 'Connection' drop down menu.



Amend the 'Configuration' parameters to match the communication partner setting previously setup using the Gateway 3.11 Utility Software.

I.E.
 Baud Rate: 9600
 Word Length: 8
 Parity: EVEN
 Stop Bits: 1

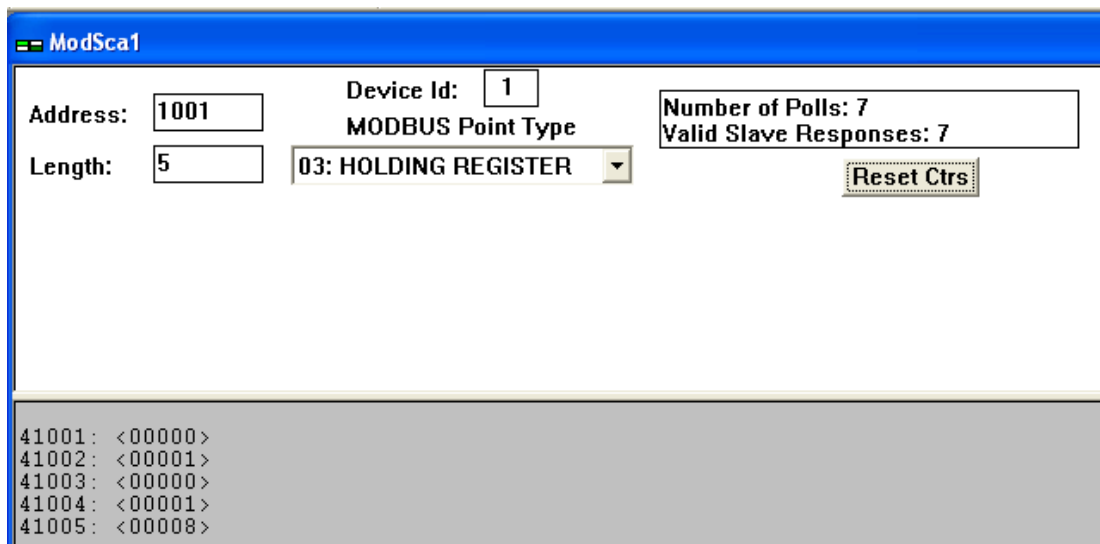


For MEC20 – Enter
Address: '1001'
Length: '5'
'03:HOLDING REGISTER'

For TSC800 – Enter
Address: '6001'
Length: '5'
'03:HOLDING REGISTER'

Enter the required Modbus
Node number (the default node
is 1).

I.E.
Device Id: 1



NOTE:

- When comm./setup/configuration is correct the program will increment both counters (Number of Polls and Valid Slave Responses) at the same rate. You may notice that the two numbers are at a different value but both will count up at the same time.
- If there is any issues with comm./setup/configuration, you may see the following messages
 - ****Data Un-Initialized****
 - ****Device NOT CONNECTED!****
 - ****MODBUS Message TIME-OUT****
 - ****MODBUS Exception Response from Slave Device****