

## **I-7188E Getting Started Primer (For any ICPI I-7188E Module)**

### **1.0 INTRODUCTION**

This document provides additional instructions beyond what is found in the ICP Hardware and Software Manuals to help you to get started with the I-7188E Ethernet to Serial series Converters and to eliminate hunting for information between the two manuals. These steps take you through the basic configuration and test steps. At that point you should be familiar enough with the module to apply it in your application.

### **2.0 GOALS**

There are two goals:

- 1 - To configure your I-7188E module.

This involves assigning it an IP address to your module and configuring its COM ports to match the serial devices you want to communicate to. If the module will be on an in-house network, get a range of IP addresses from your network administrator that you can assign to your module(s). You will need one address per module. Also ask for the Mask and Gateway values.

- 2 - To setup Virtual COM Ports in your PC.

Create Virtual Com ports in your PC that are then mapped to the COM ports in your I-7188E module so that you can talk to your serial device(s)

### **3.0 INSTALLING THE SOFTWARE**

Use the MiniOS7 Utility in a PC with a WIN98-XP operating system to configure your I-7188E module. The recommendation is to obtain the latest version of the MiniOS7 Utility from the ICP FTP site. There is an older copy on the enclosed CD.

**Internet** <http://www.icpdas.com/download/minios7.htm>

The ftp download link is at the bottom of the page. Download the file to your download or temp directory, unzip it and run the .exe file to install the MiniOS7 Utility on your PC.

**CD-ROM** Navigate from Toolkits > MiniOS7 > Utility > MiniOS7utility > MiniOS7utility.exe.

Run the .exe file to install the MiniOS7 Utility on your PC.

Use the VxComm Driver to create and map the virtual COM ports in your PC to the I-7188E's COM ports. Again the recommendation is to obtain the latest version of VxCOMM from the ICP FTP site. There is also a copy on the attached CD.

**Internet** <http://www.icpdas.com/products/software/vxcomm.htm>

Click on the Driver ftp link and download the latest driver for your operating system. Do not download the Vxcomm Server. Run the .exe file to install the VxComm Driver on your PC.

**CD-ROM** Navigate from Browse > Napdos > 7188E > TCP > VxComm > driver >

Select the latest driver for your operating system. Run the .exe file to install the VxComm Driver on your PC.

Let your PC reboot and then ignore the VxComm setup window when the PC restarts.

## 4.0 WIRING THE MODULE

Temporarily connect the included open-end RS-232 Cable to the unit as shown in paragraph 3.2 (page 29) of the I-7188E Series Hardware Manual. Put a short (1 inch) bare wire (like a paperclip) in the INIT terminal. Jumper the RTS to CTS terminals. Connect the dashed white lead of the ICS Power Adapter to the +Vs terminal. Connect the black wire to GND. Use a clip lead to jumper the INIT terminal to the GND terminal.

Plug the RS-232 Cable into a COM port on your PC.

## 5.0 SETTING THE MODULE'S IP ADDRESS

Run the MiniOS7 Utility by navigating from Start > Programs > 7188E > MiniOS7\_utility > MiniOS7utility. Follow the instructions on its popup window to power on the I-7188E module and to select the COM port you plugged the RS-232 cable into. Leave the baud rate at 115200. Click Next to close the yellow information window.

Click the blue Configuration button to open the Configuration Window. Enter and Set the IP Address, Mask and Gateway values for the module. Enter and set the serial settings for the module's COM ports. Click OK when done.

Click Exit to quit the MiniOS7 utility.

## 6.0 CHANGE SETUP

Power the I-7188E module off and remove the Init jumper. Use a short Ethernet cable to connect the module to an open hub port on your network

## 7.0 CONFIGURE THE VXCOMM DRIVER

Run the VxComm Driver by navigating from Start > Programs > 7188E > VxComm > VxComm utility. Enter the I-7188E's IP address in the IP: window and click Add Server. The I-7188E module should appear in the VXComm Devices list on the left and its COM ports should appear on the right. Highlight a COM port 1 and click on Port in the Menu bar and select Port Mapping. Select an unused COM port number in your PC as the virtual COM port number. Make any changes you need to the port settings and click Okay. Repeat for any remaining ports. Click Exit to save your settings. VxComm is now active.

## 8.0 TESTING THE SERIAL I/O

You can run two instances of Hyperterminal to test your serial connections. Set the Hyperterminal baud rates to match the module's port settings. Open one terminal for the physical COM port connected to the module's RS-232 Cable and the second terminal at the new virtual COM port assigned to the Port 1 of the module. It has the RS-232 Cable connected to it. Type 'Hello' on one terminal and see it appear on the second terminal window. Type on the second window to test the reverse direction

If you have any problems, the VxComm Utility Help has some debugging ideas and SendTCP can be used to directly address the module and bypass VxComm. ICSDDataCom's RS-232 Troubleshooter can be used to show you the state of the serial lines and you can visually see the data flow. When in doubt, jumper RTS to CTS and DSR to DCD to DTR.

## 8.0 ADDITIONAL INFORMATION

Checkout the PDF files in the Toolkits section of the included CD-ROM for basic information and advanced usage ideas. I-7188E users should navigate from Toolkits/Manuals > 7188E > Introduction.PDF. Read the Introduction PDF for an overview of how to use the I-7188E modules.