Serial Parameters Table

Use this table to set the serial parameters at the S> prompt during the configuration of the Digi One Single Port. A six digit number must be entered with each digit representing one of the six parameters listed below. The six parameters must be in the following order: Speed-Bits-Flow Control-Parity-Stop Bits-Timeout. Use the digit from the **Number column** at the left side of the table below to represent each of the six parameters. You must enter only a six digit number!

An example is the six digit number 532106 which corresponds to the following parameters, highlighted in bold, in the table below. The Speed is 9600 bps which will be represented by the number 5. You will see the number 5 in the Number column to the immediate left of 9600 bps. The next parameter is Bits, and I've highlighted 8 bits in the table. Following the same row across to the Number column, you will find the number 3. So the second number is 3. The third parameter is Flow Control and I've highlighted rts/cts. Following the same row across to the Number column, you will find the number 2. When you do this for all six parameters, you will get the six digit number 532106. If you want to use different parameters, it might be a good idea to circle the parameters and then follow them across to the Number column to find your six digit parameter setting..

5 3 2 1 0 6

Number	Speed	Bits	Flow Control	Parity	Stop	Timeout
0	Not Available	5	None	None	1	2 ms
1	115200 bps	6	xon/xoff (software)	even	2	3 ms
2	57600 bps	7	rts/cts (hardware)	odd		5 ms
3	38400 bps	8	dtr/dsr (hardware)			10 ms
4	19200 bps					21 ms
5	9600 bps					42 ms
6	4800 bps					84 ms
7	2400 bps					168 ms
8	1200 bps					
9	600 bps					
A	300 bps					

A document with screenshots titled **Setting up the Digi One Single Port TCP Server**, will be of further help. It is necessary to do a search on the Digi website at http://support.digi.com for the document.

Digi One Single Port TCP and UDP Versions Setup Guide

Digi

Connectware™

Introduction

The Digi One Single Port with TCP or UDP version device servers are designed to connect any serial network device over Ethernet with TCP or UDP. The Digi device server can permanently store its IP settings.

Requirements

Before you begin the installation and configuration procedure for the Digi device, you should have:
- A terminal or terminal emulation program setup on your system.
  A simple terminal emulation program called Tera Term can can be downloaded from the Internet. It is located by a simple web search or found at one of the popular download sites. It works well with all Microsoft Windows operating systems.
- Converted the serial port parameters into a six digit number format before configuring the device's serial port. Refer to the Serial Parameters Table before starting the configuration process.
- Converted the IP settings to be assigned the Digi device into a hexadecimal format.
- Attached the appropriate cable to a terminal or your computer system's serial port.
  Note: A null modem serial cable with two db-9 female ends works well in attaching one end to one of your system's serial ports and the other to the Digi device.
- Attached the Digi device to the network with an Ethernet cable.
- Determined whether you have the Client or the Server version of the Digi One Single Port TCP. The underside of the device has a label listing the version. The TCP Client and Server have different configuration setup procedures. The UDP version is configured using the Client version procedure only.

LED Indicator Lights

LED	Color	Status	Meaning
Power	Green	On Off	Power detected No power detected
Link	Red	On Off	No physical network detected Physical network detected
Diag	Red	Blinking Off	Waiting to be configured Digi device ready

Configuring the Serial Port Parameters for Terminal Emulation

Note: Some terminal emulation programs do not work well for configuring the Digi One Single Port device server, particularly HyperTerminal.
1. Start the terminal emulation program and locate the Settings menu.
2. Choose your COM port, set the baud rate to 9600, data bits to 8, parity to none, stop bits to 1, and flow control to none. These are the port default settings.
3. Choose OK.

Converting Decimal to Hexadecimal

There are several ways to obtain the hexadecimal equivalents for your decimal IP settings.
- Consult the enclosed Decimal to Hexadecimal Conversion Chart.
- Use the Calculator found in the Accessories section of any Microsoft Windows Programs menu. Choose Calculator > Scientific > Dec > enter the first octet of your IP settings > choose the Hex radio button. This will display the hexadecimal conversion of the decimal number you entered. Add a zero in front of any single characters.
  An example is the decimal number 12 will be converted to 0C (zero C). Hexadecimal characters 0 through F need a zero placed in front of them.
- Use a calculator.

Configuring the Serial Parameters and IP Settings for the Digi One Single Port

If during the configuration of the IP settings you get an ER (error) message at the prompt, you must start the configuration process over by recycling the power to the Digi device. UNIX users must use uppercase while Microsoft Windows users can use either upper or lowercase letters. The procedure below assumes you have properly configured and attached a terminal or terminal emulation program to the Digi device. Serial parameters for the Digi device server and the peripheral must match.

Note: If you are unable to get a connection to the device, you might need to disable FIFO on the computer serial port. You can do this on all Microsoft Windows operating systems. With Microsoft NT/95/98/Me go to the Control Panel > Ports > Settings > Advanced and uncheck the FIFO setting. On Microsoft 2000/XP systems go to Control Panel > System > Hardware > Device Manager > Ports > expand the ports listing and select your port. From the Port Settings tab select Advanced and uncheck FIFO.

During the configuration of the serial parameters you will be prompted to enter a 6 digit number representing the serial parameter settings. Consult the Serial Parameters Table on the reverse side of this document for the correct digits to enter.

Note: Configure UDP device servers using the Client Version procedure.

Server Version
1. Plug in the power to the Digi device or recycle the power to the device.
2. Enter +++ within 5 seconds to obtain the S> prompt.
   At the S> prompt enter the **6 digits** representing Speed, Bits, Flow control, Parity, and Timeout. See the **Serial Parameters Table** for help.
   An example is *532007*: meaning 9600 bps, 8 bits, rts/cts flow control, no parity, 1 stop bit, and 168 ms.
3. At the I> prompt enter the 8 character hexadecimal IP address.
   An example is: *8FBF9B07* which is the hexadecimal equivalent of 143.191.155.7.
4. At the P> prompt enter the 4 character hexadecimal port number.
   An example is: Port 23 is 0017 in hexadecimal. Two zeros were added to attain the 4 characters. See **Converting Decimal to Hexadecimal** for additional information.
   Note: The TCP port setting accepts a 4-digit hex value, allowing 0001-FFFF (1-65535).

When all parameters have been entered, the final prompt <> is displayed signaling the configuration is terminated. The Digi device then automatically reboots and permanently stores the settings.

Client Version
1. Plug in the power to the Digi device or recycle the power to the device.
2. Enter +++ within 5 seconds to obtain the S> prompt.
   At the S> prompt enter the **6 digits** representing Speed, Bits, Flow control, Parity, and Timeout. See the Serial Parameters Table for help.
   An example is *532007*: meaning 9600 bps, 8 bits, rts/cts flow control, no parity, 1 stop bit, and 168 ms.
3. At the I> prompt enter the 8 character hexadecimal IP address.
   An example is: *8FBF9B07* which is the hexadecimal equivalent of 143.191.155.7. The number 0 (zero) must precede any single character.
4. At the H> prompt enter the 8 character hexadecimal IP address for the host server.
5. At the P> prompt enter the 4 character hexadecimal port number.
   An example is: Port 23 is 0017 in hexadecimal. Two zeros were added to attain the 4 characters. See **Converting Decimal to Hexadecimal** for additional information.
   Note: The TCP port setting accepts a 4-digit hex value, allowing 0001-FFFF (1-65535).
6. At the M> prompt enter the 8 character hexadecimal subnet mask setting.
   An example is: *FFFFFF00* representing the decimal setting 255.255.255.0.
7. At the G> prompt enter the 8 character hexadecimal gateway address setting.
   An example is: *C8B100A0* which is the hexadecimal equivalent for 200.177.0.160.

When all parameters have been entered, the final prompt <> is displayed signaling the configuration is terminated. The Digi device then automatically reboots and permanently stores the settings.