Regulatory Notices

This product complies with the following standards:

Electromagnetic Emissions

- FCC Part 15 Subpart B Class A
- EN55022 Class A

Electromagnetic Immunity

- EN55024: 1998

Product Safety

UL 60950 3rd Ed.

CSA 22.2 No. 60950

Additional Safety Notices-see below:

The Digi One Single Port devices are intended to be powered by a Recognized or Listed power supply rated

Digi One Product	input
Digi One Single Port	5 v dc
Digi One IA	9-30 v dc
Digi One PE	30-60 v dc

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Digi One Single Port, IA, And PE Software Installation Card

Introduction

The following software installation guide is for the Digi One Single Port device server line including the Digi One Single Port, the Digi One IA (Industrial Automation) and the Digi One PE (Powered Ethernet). The software installation procedures are the same for all three device servers.

Note: Not all powered ethernet hubs are compatible with the Digi One PE. Please refer to the Digi website for hubs that are compatible at http://www.digi.com/.

Overview of the Installation Procedure

The Digi One Single Port device servers install on any Ethernet network. However, care should be taken to follow the installation procedures outlined in this documentation as these devices are not Plug and Play. The sequence of procedures in the installation is important for the proper functioning of the device server.

Below are the main steps involved in setting up the device servers.

- Set up the hardware as outlined on this installation card.
- Install the DGRARP software on your Microsoft operating system.
- Install the Administrator software package.
- Assign an IP address to the device server.
- Configure the serial port for the device server.

Supported Operating Systems

Digi One Single Port products support the following Microsoft operating systems:

- Microsoft Windows 2000 and Windows Xp
- Microsoft Windows NT 4.0
- Microsoft Windows 95/98/Me

Installing DGRARP Protocol

You need not install the DGRARP driver if your system already has a RARP server installed. If a RARP server is already installed, proceed to the section titled Installing the Digi Administrator Software.

Note: To install the DGRARP driver, use the procedures listed below or use the installation procedure from the Digi Access Resource CD.

Microsoft Windows 95/98/Me

Note: The installation screens might differ slightly among these three operating systems.

1. Go to Start > Settings > Control Panel > Network.
2. Choose Add > Protocol > Add > Have Disk.
3. Choose Browse and browse to the Digi installation CDROM.
4. Choose software > windows > w9598 > dgrarp > vdgrarp.inf > OK.
5. From Install from Disk, choose OK.
   The Digi RARP driver will be listed on your Select Network Protocol screen.
6. Choose OK > OK to finish the installation.
   Windows will automatically install files from the network or prompt you for the Windows installation CDROM.
7. Reboot the system when prompted.

Microsoft Windows NT 4.0

1. Go to Start > Settings > Control Panel > Network.
2. From the Network screen, choose Protocols, then Add > choose Have Disk.
3. Enter the path to the Digi installation CDROM:
   The path is: `d:\software\windows\nt\dgrarp`
   where d is the letter for the CDROM drive.
4. After the files are copied, the system displays NDIS 3.0 DGRarp driver’s name. Choose OK.
   The system will automatically install system files or request the Windows NT installation CDROM.
5. Reboot the system if prompted.

Microsoft Windows 2000 and Windows Xp

1. Go to Start > Settings > Control Panel > Network and Dial-up Connections.
2. Choose Local Area Connection > Properties.
3. Choose Install > highlight Protocol > Add > Have Disk.
4. Choose Browse and browse to the Digi installation CDROM.

5. Choose software > windows > w2k > dgrarp > dgrarp.inf and follow the prompts.
6. Choose OK at the Select Network Protocol screen. DGRARP Protocol driver should be highlighted.
   Windows will install files.
7. Follow the prompts to finish the installation procedure.

Installing the Administrator Software

1. Start the Digi Access Resource CD front end program.
2. Choose your Operating System > Hardware > Software > Install Software.
3. Choose to install the Digi Administrator program by choosing OK.
4. Follow the prompts. You might be prompted to install Sun Java VM (virtual machine) unless it is already installed on your system.
   Sun Java VM is needed by the Digi software driver.
5. At the Choose Install Set screen, choose Install Digi Administrator, DGRARP, and RemoteCOM.
6. Choose Install.
7. Reboot your system if prompted.

Setting up the Hardware

Do the following to set up the device server hardware:

1. Plug the serial device into the Digi device serial port.
2. Connect the Digi device to the network using an Ethernet cable.
3. Attach the ferrite to the RS-232 cable at the Digi product end (only on the Powered Ethernet product).
4. Connect the power supply cable to theDigi device. (This is not necessary with the Powered Ethernet unit.)

Assigning an IP Address with Digi Administrator

1. Start the Digi Administrator software program.
2. From the menu choose Admin > RARP Server > View.
3. Enter the IP address you want to assign the Digi One device server beside its corresponding MAC (Media Access Control) address. From the keyboard choose Enter after the IP address cell is filled.
   The MAC address for the Digi One device server is located on the underside of the unit.
4. Choose Start to start the RARP server.
   If Stop is the only option, choose Stop, then Start.
5. Unplug the power cable to the device server and then plug it back in again. The Link and Diag lights on the Digi device should flash momentarily and then stop.
6. To confirm the device server is connected to the network, ping the device's new IP address.

Configuring the Port

1. From the Administrator program choose Admin > RARP Server > View. Confirm the RARP server is started. Start will be grayed out if the RARP server is started.
   If the RARP server isn't started, choose Start.
2. From the menu choose RemoteCom > Add > choose a new COM port > choose the port > OK.
3. Choose Virtual COM > OK.
4. Assign the same IP address used with the MAC address.
5. Choose Telnet (RFC 2217) and enter `23` for the Telnet Port > OK.
6. From the RemoteCom menu, choose Service > Start.
   Note: If the only option is Stop, choose Stop, then reopen the window and choose Start. The serial port is configured.
7. Reboot the operating system if prompted.

LED Indicator Lights

Below are tables listing the Digi One device server LED indicator lights and their meaning.
Note: RX/TX and Serial Interface Signal LED's apply only to the Digi One IA version.

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	On Blinking Off	Bad Initialization of the Digi device Waiting for an IP address Digi device ready
RX/TX	Green	On Off	No network traffic detected Reception/transmission of IP frames
Serial Interface Signals*	Green	On Off	Signal status: low Signal status: high

*CD, RTS, CTS, DTR, DSR, RX, and TX

Using RFC 2217

The Digi One can be used without RemoteCOM. Reference the RFC 2217 documentation titled Telnet Com Port Control Option.

Digi One IA Switches and Pin-outs

Below is information necessary for correctly setting the Digi One IA dip switch. If the Digi One IA device is the last device of a multi-drop string, the termination position, #4, should be set in the ON position or up. If the Digi One IA device is not the last device on a multi-drop string, the #4 switch should be down.

See the following table for information on switch settings.

Function	Switch Settings			
	1	2	3	4
EIA-232	Up	Dn	Dn	Dn
EIA-422/485 Full-duplex	Dn	Up	Dn	If up, termination. If down, no termination
EIA-485 half-duplex	Dn	Dn	Up	

DB9 Pin Settings

The table below displays the pin settings for the DB9 cable.

DB9	RS232C	RS422/A485 full duplex	RS485 half duplex
2	RxD	RxD+	RxD+
3	TxD	TxD+	TxD+
7	RTS	RTS+	Not used
8	CTS	CTS+	Not used
5	Ground	GND	GND
6	DSR	RxD-	RxD-
4	DTR	RTS-	Not used
9	Not used	TxD-	Txd-