FREQUENTLY ASKED QUESTIONS

2572 and 505-CP2572 Ethernet Module

Setup

Q: How do I start to implement the 2572?

A: Before the 2572 can communicate on a TCP/IP network, you must establish the network parameters. These include an ***IP Address*** and ***Subnet Mask*** for the module, a ***TCP/UDP port number*** for the PLC Network Server function, and, if your network contains a router, the IP Address of the ***Default Router***. Refer to the CTI Application Note "**Getting Started with Networking and the 2572**". (Hot link to CTI Website location)

Q: I'm ready to set up my 2572 on the network, but I'm not sure what network parameters I need to use. How do I select the IP address and other parameters?

A: If you are connecting to an existing network, you must consult with the Network Administrator who is responsible for the network. He will assign an IP address and other network parameters for you to use. Also refer to the CTI Application Note **"IP Addressing and the 2572"**. (Hot link to CTI Web site)

If you are installing a standalone network, you may choose any set of IP addresses as long as they adhere to IP addressing conventions. Refer to the CTI Application Note **"IP Addressing and the 2572"**. (Hot link to CTI Web site)

Q: How do I configure the 2572 module with an IP address?

A: There are two methods for establishing the network parameters. One method allows you to load the information directly from data stored in EEPROM on the CP2572. Refer to the CTI Application Note "**Getting Started with Networking and the 505-CP2572**". (Hot link to CTI Web site)

The second method allows you to use the PLC program to set the IP address and other network parameters. When you use PLC logic to set the network parameters, you can ensure that the IP address is directly associated with the PLC and not the module. Refer to the CTI Application Note "**Starting the 2572 Network Server from PLC Logic**". (Hot link to CTI Web site)

Q: What additional hardware will I need to implement the 2572 in my application?

A: The minimum hardware required to connect a PC to the 2572 is:

1. A 3Com Etherlink or equivalent 802.3 10 megabit Ethernet card must be installed in PC.
2. A hub to hub 802.3 cable can be used for direct connection from the PC to the 2572 or an 802.3 10 megabit hub can be connected between them with standard 10BaseT cables.

Q: I plan on using an HMI on the network to read and write data to the PLC via the 2572 module. Do I need additional software to interface to the 2572?

A: Yes, you will need to obtain a specific software driver for your particular HMI. There are DDE servers available for most of the popular HMIs to interface with the 2572. There are also some OPC servers available. Check with your HMI supplier about a compatible software driver. Also refer to CTI's listing of **HMI Support for the 2572 Ethernet Adapter.**

General Troubleshooting

Q: Why is the Active LED flashing from Auto Start Mode selection?

A: The Active LED will flash at a rate of about once per second until the network server is started. After the network server is started, the Active LED should remain ON steady. When the Active LED continues to flash after power up, check the following items.

1. Ensure that the 2572 module is correctly logged in to the PLC I/O configuration.
2. Ensure that the Network Server Start Mode switch (Switch #4 of Switch Block 2) on the 2572 module is set to the ON position.
3. Using the IPSET utility software, verify that the network parameters have been correctly entered and written to the 2572 module's EEPROM.

Q: Why is the Active LED flashing from PLC Start Mode selection?

A: The Active LED will flash at a rate of about once per second until the network server is started. After the network server is started, the Active LED should remain ON steady. When the Active LED continues to flash after power up, it is an indication that the Network Server is not starting properly. Starting the Network Server from the PLC requires a V memory "command block" to be set up in the PLC and some ladder logic to control command execution. Refer to the CTI Application Note "**Starting the 2572 Network Server from PLC Logic**" for an example and troubleshooting guide. (Hot link to CTI Web site)

Q: Why don't I get a response from my 2572 when I try a "ping" to it from my PC?

A: The following troubleshooting guideline may help you determine where the problem is. Also, refer to the CTI Application Note "**Getting Started with Networking and the 2572**". (Hot link to CTI Website location)

1. Is the Active LED on the 2572 ON steady or flashing?

   If flashing, this indicates that the Network Server has not started correctly. Refer to the questions above concerning the flashing Active LED.

2. If you are connecting to the 10BaseT port on the 2572, is the yellow LB LED illuminated?

   When connected to the 10BaseT port, the LB LED should be ON and the AUI LED should be OFF. If the LB LED is not ON, this could indicate a faulty 10BaseT cable or the wrong type of cable. If you are connecting to a hub, you should use a "straight" 10BaseT cable. If you are connecting directly to the 2572 from your PC network card, you should use a "hub to hub" (crossover) cable. Check all your network connections from your PC to the 2572 module. Also, ensure that your PC network card and your hub are 10 megabit compatible.

3. Can you "ping" other network nodes from your PC?

   If the answer is YES, ensure that the IP address actually loaded in the 2572 module is the correct address that you are trying to "ping".

   If the answer is NO, check the network setup of your PC to ensure that it is on the same physical network as the 2572 module.

Using 2572 Client Commands

Q: How can I exchange data between two PLCs on the network using the 2572?

A: You can use Read Remote, Write Remote, or Memory Exchange client commands in one 2572 to initiate a transfer of V memory to or from a remote 2572 server. Ladder logic and V memory command blocks must be set up in the "client" PLC to control command execution of the 2572 module. Refer to the CTI Application Note "**Creating a Client/Server Memory Transfer between Two 2572 Modules**" for a detailed example. (Hot link to CTI Website location)

Q: I want to set up one PLC as a "client" to exchange data with multiple remote PLCs. How can I do this using the 2572 modules?

A: This can easily be done using the 2572 client commands and the UDP "Send To" feature. Refer to the CTI Application Note "**Using the 2572 "Send To" Feature to Exchange Memory with Multiple PLCs**" for a detailed example. (Hot link to CTI Website location)