Common network utilities   Appendix C

Common network utilities

Some common network utilities can help you verify that your server exists at the specified address.

Utility	Description
Ping	This utility lets you send out a packet of data from a client to see if it can find your server, which then sends the packet back. You must enter a specific IP address to see if the address exists. This utility is available on most computers with Windows 95/98 or NT/2000.
	At the MS-DOS prompt, enter PING N where N equals the IP address or the machine name of your server (for example, 100.100.100.1).
MPing	Apple's utility for pinging the server on a Mac OS computer.
Mac TCPwatcher	A shareware utility for pinging the server on a Mac OS computer.
Winipcfg	(Windows 95/98 only.) This utility tells you the server's IP address. At the MS-DOS prompt, enter WINIPCFG.
IPConfig	(Windows 98 and NT/2000 only.) This utility tells you the server's IP address. At the MS-DOS prompt, enter IPCONFIG.
Tracert	This utility tells you every hop along the route. At the MS-DOS prompt, enter TRACERT N where N equals the IP address for your server (for example, 100.100.100.1).

Using Ping to establish communications

After you set up your networking software, you can make sure that your server computer and each client computer can actually communicate over the network. To see whether connectivity has been established between two computers, you can use a utility called Ping.

Ping sends a signal over the network from your current computer to the computer whose IP address you enter. If the signal bounces back (having found the computer whose address you entered), then you know that the two computers can communicate.

Pinging on a Windows computer

The Ping utility is available with all Windows operating systems and is run at the computer's MS-DOS prompt. Before you use the Ping utility, you must know the IP address of the computer you want to connect with.

Note: The directions below describe how to view an IP address on Windows 95/98. When viewing an IP address on Windows NT/2000, additional/modified steps may be required.

To view a computer's IP address

1 Click the **Start** button and choose **Settings** > **Control Panel**.

2 Click the **Network** icon.

3 In the Network window, select **TCP/IP** from the list of installed network components, then click **Properties**.

4 In the TCP/IP Properties window, click the **IP Address** tab to see the IP address number.

To ping on a Windows computer

1 Click the **Start** button and choose **Programs** > **MS-DOS Prompt**. The MS-DOS Prompt window opens.

2 Type *PING XXX.XXX.XXX.XXX* (where the X'S represent the numbers of the IP address for the computer you want to locate) and press the **Enter** key.

If connectivity is established, the screen displays a message such as the following:

Reply from 204.169.204.19: bytes=32 time<10ms TTL=32

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Reply from 204.169.204.19: bytes=32 time<10ms TTL=32

If pinging is not successful, the screen displays a message such as "Request timed out" or "Bad IP address."

3 Close the MS-DOS Prompt window by clicking the close box in the upper right corner of the window.

Pinging on a Macintosh computer

To ping on the Mac OS, you must use either MPing or MacTCP Watcher. Before you ping, you have to know the IP address of the computer you want to connect with.

To view a computer's IP address (Macintosh)

1 On your server computer, from the **Apple** menu, choose **Control Panels** > **TCP/IP** (or **TCPHP**). The TCP/IP (or TCPHP) window opens and displays the IP address. Write this number down so you can refer to it when you're setting up the Spectrum Communications Setup program.

2 To close the window, click the close box in the upper left corner of the window.

When pinging on a Mac OS computer

When you successfully ping another computer on a Macintosh (showing that connectivity is established), the ping program displays a message such as the following:

```
Reply from 204.169.204.19: bytes=32 time<10ms TTL=32
Reply from 204.169.204.19: bytes=32 time<10ms TTL=32
Reply from 204.169.204.19: bytes=32 time<10ms TTL=32
Reply from 204.169.204.19: bytes=32 time<10ms TTL=32
```