

Networking Setup for the 8200 Control

Access the network setup screen by pressing [F7] Paramtrs - [F1] Setup. A green "Supervisor Login" screen appears in the User Info area in the lower left part of the screen. Enter "PROTO3" in the User field. Then enter "3" for password. The setup parameter choices will appear. Press [F7] Network for the network setup page. The screen will look like this:

	Current	Target	Distance
X	+10.0000	+10.0000	+00.0000
Y	+10.0000	+10.0000	+00.0000
Z	+14.5650	+14.5650	+00.0000

Network Settings

SERVER INFORMATION:

SERVER: 10.110.40.99

SHARE NAME: ENGINE

USER NAME: PETERSTL

PASSWORD: *****

MACHINE INFORMATION:

DEVICE: eth0

TYPE: Static

MACHINE IP: 10.110.100.220

GATEWAY: 10.110.10.1

SUBNET MASK: 255.0.0.0

By default, the CNC sees letters entered at the front panel as upper case. To get a lower case letter, hold down <Shift> then <Space> then press the letter. Release <Shift> and <Space>, then repeat the sequence for the next lower case letter. Using an external keyboard, to get lower case letters, hold down <Shift> then press the letter.

SERVER: This is the IP address of the host computer where the network share is located, for example "10.100.40.99". The share may be on the network server, but it doesn't have to be. The IP address is available from the server itself. On the server, from the Start menu, choose Run. Type "cmd" and <Enter>, which produces a DOS-style command prompt. At the prompt type "ipconfig" and <Enter>. The resulting list includes the IP address of the server. If the server is a "DNS" server then the server name can be used rather than the address.

SHARE NAME: The name of the directory on the server where part programs are stored, designated for sharing with network clients (the CNC8000 is a network client). For example "CNC Parts". The Share Name is case sensitive.

USER NAME: User name of any authorized network user. For example "JVENTURA". The User Name is case sensitive. Even if the shop network does not have user names and passwords, the 8200 network setup interface still requires a user name. Make something up.

PASSWORD User's password. For example "TheBody123". The password is case sensitive. If a shop network does not have user names and passwords, no password entry is required.

***** MACHINE INFORMATION *****

DEVICE: Toggle choices are "eth0", "eth1", and "--". Use "eth0".

TYPE: Toggle choices are "Static", "Dynamic", and "None".

Dynamic: Activates DHCP. The machine requests a temporary IP address from the network DHCP server and no further information is needed. No other network entries will be displayed.

Static: A specific static IP address is assigned to the machine. This method is used by many shops and requires further information.

MACHINE IP: The static IP assigned to the network port. For example, "10.110.100.218". The IP address of the network port may be verified on the 8200 side at the Linux console. At the console prompt execute the command "ip addr" to see data associated with each of network ports.

GATEWAY: Ask the shop network person. An example would be "10.110.10.1". The default gateway is also available from the shop network server. On the server, from the Start menu, choose Run. Type "cmd" and <Enter>, which produces a DOS-style command prompt. At the prompt type "ipconfig" and <Enter>. The resulting list includes the default gateway.

It is also okay simply to use the machine's own static IP address as the gateway address. The 8200 network setup page will be satisfied with that value and the machine will not have a path out to the Internet, which is probably good.

SUBNET MASK: Ask the shop network person. An example would be "255.255.0.0". The subnet mask is also available from the shop network server. On the server, from the Start menu, choose Run. Type "cmd" and <Enter>, which produces a DOS-style command prompt. At the prompt type "ipconfig" and <Enter>. The resulting list includes the subnet mask.

After filling in fields in the network setup page, **press F1 (Save)** to save them. Escape back up to the main screen. Cycle the power on the machine to allow the CNC8000 to see the network settings.

Additional 8200 Networking Information

Ping

A successful ping means your hardware connection is good. Pinging is an important first step, but it doesn't necessarily mean you will be able to see the files you want to see.

For example, on the engineering machine, setting the server address as 10.110.100.1 and setting DHCP, the network assigns an IP address to the machine. The machine pings successfully with other computers on the network. It does not see the Engine drive.

Setting the server address as 10.110.40.99 and setting DHCP, the network assigns the same IP address to the machine (!). The machine pings successfully with other computers on the network, and it does see the Engine drive.

Ping is executed from the command line. To get to a command line, open a console window by doing Util -> Console. The control prompts for a username and password. For highest privilege, username is "SU" and password is "CENT8". Sometimes when exploring at the system level it is better to plug in a keyboard and exit the cnc entirely by doing Ctrl-Alt-Backspace. Then ping as follows:

`ping -c 3 xxx.xxx.xxx.xxx` for example `ping -c 3 10.110.70.40`

Network Setup

Type: The customer may not know if his shop machines are networked dynamically (using DHCP) or statically. If the customer does not know, then a workaround is to go to any other computer on that same network to see how it is set up. To investigate how a computer is set up on the network, sit down at that computer and go to Start -> Control Panel -> Network Connections. If there is more than one network connection listed, identify the active one and double-click on it. Then click Properties and scroll down to Internet Protocol (TCP/IP) and highlight it. Then click Properties. If the radio button labeled "Obtain an IP address automatically" is filled in, then the network supports DHCP. If the radio button labeled "Use the following IP address" is filled in, then the shop uses static IP addresses.

Gateway: This is the path from the machine out to the Internet. A value for Gateway is obtainable from the host computer, but it is okay, and perhaps better, to use the same value in Gateway as in static IP. The 8200 network setup page will be satisfied with that value and the machine will not have a path out to the Internet, which is probably good.

Subnet Mask: Obtained from the host computer.