Makino Pro 5 Remote Machining Installation Procedure

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1. Network Configuration

1.1 Obtain Network Parameters
If the Makino Pro 5 Mill is already connected to the shop LAN and sharing files with computers or servers in the shop, proceed to section: 1.3. Determining Additional Network Parameters, otherwise proceed to the next section: 1.2. Choosing an IP address

1.2 Choosing an IP address
A valid IP address must be obtained from the customer. This address must be a valid for the Local Area Network in the shop and be a unique IP address not used by any other computer or machine on the network.
If the LAN uses DHCP it is important to obtain an address that is within the IP Scope but not included In the DHCP IP Address Pool. This will prevent the chosen address from being dynamically assigned to some other computer or device connected to the network.
Once an IP address is chosen, it important to ensure that it is not already being used on the network. This can be done by performing a PING. On any Windows 2000/XP/7 PC, click the Start Menu, Select Run; type cmd in the field and click OK or Run. In the window that opens, type:
    ping a.b.c.d (where a.b.c.d is the chosen IP address. Example: ping 192.168.1.10)
If the IP address is currently unused, you should receive 4 "Request timed out." messages.
If the address is already in use on the network, you will receive 4 "Reply from..." messages.

1.3 Determining Additional Network Parameters
In order to perform a complete network configuration you must obtain the network's Subnet Mask, Default Gateway and DNS Server. Only the Primary (1st) DNS Server is required.
It is easiest and most accurate to obtain these parameters from a Windows 2000/XP/7 PC already connected to the same network as the Makino Pro 5 Mill.
Click the Start Menu, select Run, type: cmd in the field and click OK or Run.
A command prompt window will open. On the new command line type: ipconfig/all and hit return or enter.
All the necessary network parameters will be shown in the displayed text. Example below:

```
Windows IP Configuration
        Host Name . . . . . . . . . . . . : windows-pc
        Primary Dns Suffix  . . . . . . . : mycompany.local
        Node Type . . . . . . . . . . . . : Hybrid
        IP Routing Enabled. . . . . . . . : No
        WINS Proxy Enabled. . . . . . . . : No
        DNS Suffix Search List. . . . . . : mycompany.local
                                            mycompany.local
Ethernet adapter Network Bridge:
        Connection-specific DNS Suffix  . : mycompany.local
        Description . . . . . . . . . . . : MAC Bridge Miniport
        Physical Address. . . . . . . . . : E2-88-39-5B-8E-1A
        Dhcp Enabled. . . . . . . . . . . : Yes
        Autoconfiguration Enabled . . . . : Yes
        IP Address. . . . . . . . . . . . : 192.168.1.101
        Subnet Mask . . . . . . . . . . . : 255.255.255.0
        Default Gateway . . . . . . . . . : 192.168.1.1
        DHCP Server . . . . . . . . . . . : 192.168.1.10
        DNS Servers . . . . . . . . . . . : 192.168.1.1
                                            192.168.1.10
        Primary WINS Server . . . . . . . : 192.168.1.10
        Lease Obtained. . . . . . . . . . : Wednesday, April 14, 2009 3:19:39 AM
        Lease Expires . . . . . . . . . . : Thursday, April 22, 2009 3:19:39 AM
```

After locating and noting Subnet Mask, Default Gateway and DNS Server parameters, type exit and hit return to close the command prompt.

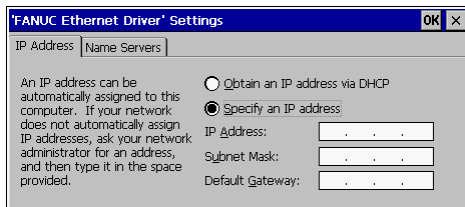## 2. Configuring Network Settings
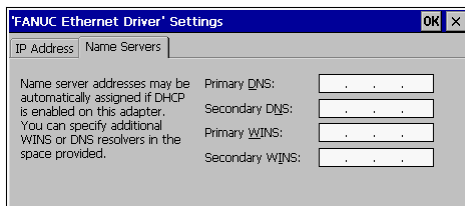
2.1 Windows Side

Click the [Start] Menu, Select Control Panel

Double-click to open the Network Icon in the Control Panel.

Network and
Dial-up
Connections

Locate and double-click to open the Fanuc1 network Adapter Icon

FANUC1

'FANUC Ethernet Driver' Settings [OK] [X]

IP Address | Name Servers

An IP address can be automatically assigned to this computer. If your network does not automatically assign IP addresses, ask your network administrator for an address, and then type it in the space provided.

○ Obtain an IP address via DHCP
● Specify an IP address

IP Address:
Subnet Mask:
Default Gateway:

Click the "Specify an IP address" button and enter the IP Address, Subnet Mask and Default Gateway numbers here.

'FANUC Ethernet Driver' Settings [OK] [X]

IP Address | Name Servers

Name server addresses may be automatically assigned if DHCP is enabled on this adapter. You can specify additional WINS or DNS resolvers in the space provided.

Primary DNS:
Secondary DNS:
Primary WINS:
Secondary WINS:

Click the Name Servers tab and enter the Primary DNS numbers here.
If you have a Secondary DNS enter it here.
All other entries may be left blank.

Click OK in the upper right-hand corner of the displayed window.

Close the Network Connections window by clicking the [X] in the upper-right hand corner.

Close the Control Panel by clicking the [X] in the upper-right hand corner.
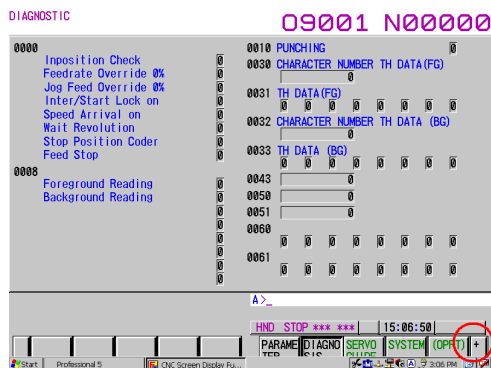
2.2 <u>Fanuc Side</u>
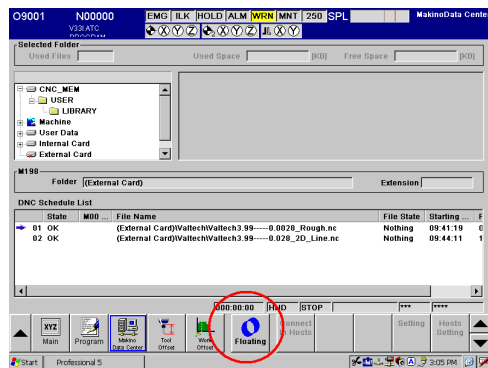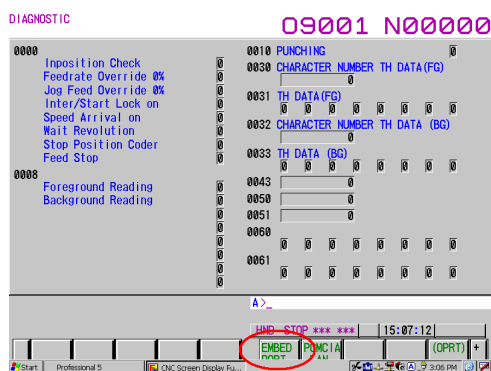

Press the floating key.

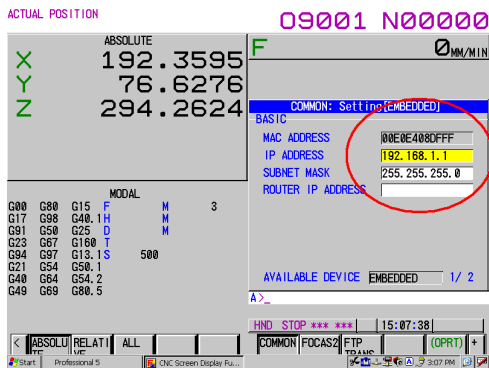Press the Fanuc floating screen button.

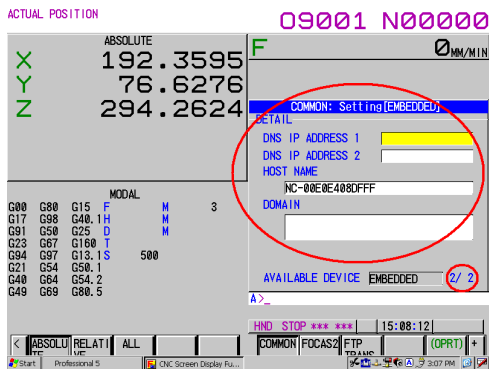Press the System hard button beside the key pad.

Press the + key until you see the embed key.

Press the embed key.

Enter the IP Address and Subnet Mask. The Router IP Address is the Default Gateway address.

Page down and enter the DNS and Host Name.
The Host Name must contain no spaces and should be representative of the name and/or model of the Mill (example: S56-1, V33i, a71, etc). Anything can be used to identify the specific mill. Particular care should be taken when selecting the name as to be clear and avoid confusion.
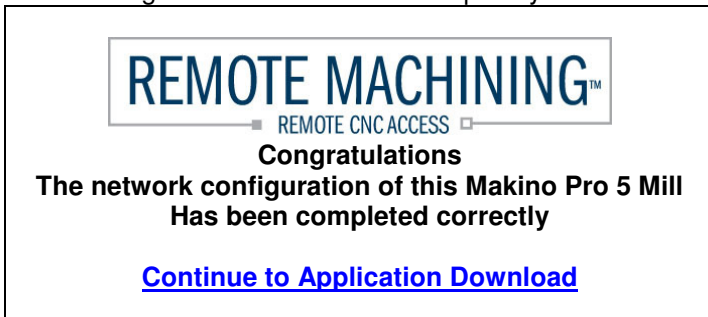
The network configuration is complete.

3**. Verifying Network Configuration**

Click ![Start] Menu, Programs, Internet Explorer. ![Internet Explorer icon]

In the Address field, enter: `oximf.cc` and hit the Input key.
If the configuration is correct and complete you will see the following web-site displayed:

REMOTE MACHINING™
— ▪ REMOTE CNC ACCESS ▫ —
Congratulations
The network configuration of this Makino Pro 5 Mill
Has been completed correctly

Continue to Application Download

The network configuration is verified.

4. Determine Processor Type

Double-click to open the System Icon in the Control Panel and the following will be displayed:
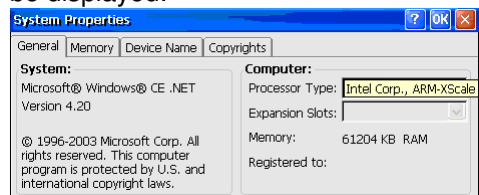
If the display is not as shown here, it may be necessary to click the General tab.
It may be also necessary to place and hold the stylus in the Processor Type field (shaded in yellow) in order to expand it so that the full text can be read.

The full name of Processor Type is displayed here. The name displayed will contain one of the following processor type keywords:
ARM, MIPS, SH3, SH4.
Take note of which one is present.
Click OK to close the Systems Properties window.
Click OK to close the Control Panel window.

Proceed to 5. Application Installation.

5. Application Installation

Within Internet Explorer, the following page should still be displayed:

Congratulations
The network configuration of this Makino Pro 5 Mill
Has been completed correctly

Continue to Application Download
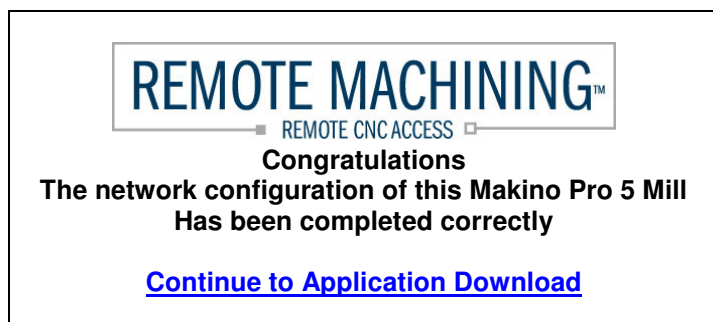
Click the Continue to Application Download link

The following page will be displayed:

Select your Processor type:
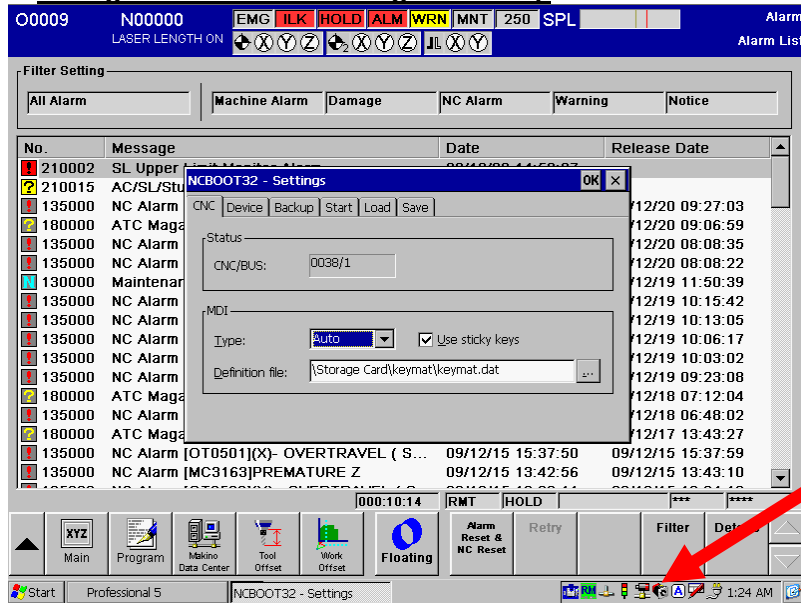
For Remote Machining:
MIPS SH4 SH3 ARM
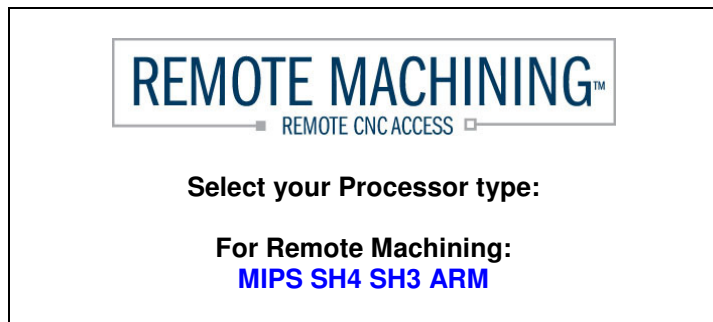
Under the For Remote Machining heading, click on the link as determined by the processor type you determined earlier.
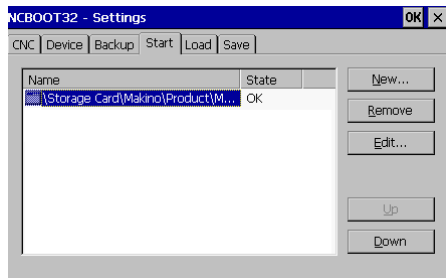
After selecting the link a new window will open. Within this new window select the Run or Open option and click OK.

Correct installation will be indicated by the [RM] icon in the lower right system tray area.

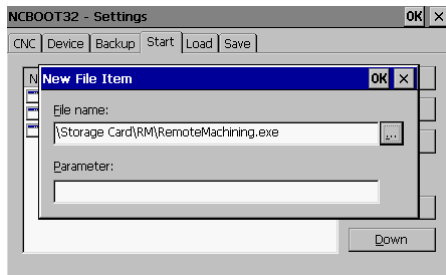## 6. Configure Remote Machining for Startup

Locate the NCBOOT icon in the lower right system tray area to open the NCBOOT configuration window.
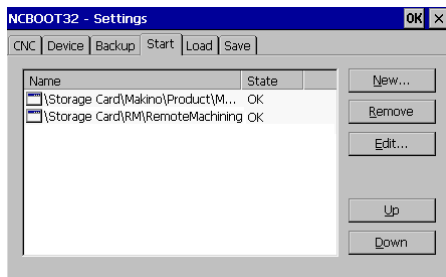

Click the Start tab.

Click the New button.

Use the browse button to navigate to the RemoteMachining.exe program in the RM folder on the Storage Card:
\Storage Card\RM\RemoteMachining.exe

After the correct path is displayed in the File Name field click OK.

Use the Up and Down buttons to assure that the Remote Machining entry is below the Makino entry as shown.

Click OK in the upper right hand corner of the NCBOOT32 Settings window to close it.

7. Complete Installation

The installation is complete. Shutdown and restart the Mill for all changes to take effect.