

CAN WE TALK?

By Don Angel, Applications Engineer

Issue: Your new Murata Turret Punch Press is being installed and you need to get NC programs from your computer loaded into the machines memory. What are your options?

Solution: Although you can always manually program the machine at its control, this is very cumbersome except for the simpler programs. Most companies will use a software (CAM) system that allows parts to be easily programmed and NC code generated. There are several options for getting these NC programs downloaded to the Fanuc program memory of the turret punch press.

1. **Memory Card.** The current Fanuc 18iPB controls come with a PCMCIA card slot next to the CRT on the control panel. This slot allows a CompactFlash memory card mounted in an adapter to be plugged in. From the Program Edit screen, the files on the memory card can be displayed and downloaded. Programs can also be run directly from the memory card.
2. **DNC.** The term DNC (Direct Numerical Control) is a fairly generic term we use for all styles of RS232 communications to the Fanuc control. All Fanuc controls come with an RS232 communications port. By connecting directly to the Comm port on your computer or via a variety of cabling methods, the control will allow data files to be read directly into its memory. There are a large number of software products that can be used on your computer to transmit the NC text files.
3. **Fanuc Ethernet.** Fanuc offers its own high speed Ethernet board for interface to the control. This option requires the PC to use FTP Server software to communicate with the machine control. After configuring the interface parameters on the control and within the FTP Server, the machine operator can view a folder on the PC, select a file and download it.
4. **Calmotion Ethernet.** This option is actually a combination of an Ethernet connection and an RS232 connection. The Calmotion unit is installed on the machine tool. It contains its own FTP software and allows you to access it as a shared device from the PC using software like Windows Explorer or Internet Explorer.

From the PC, the NC file is copied to an SD memory card in the Calmotion unit using the Ethernet connection. The operator, using a simple menu system at the machine, will download the file from the SD card into the machine control using the RS232 interface.



Memory Card



Direct Numerical Control



Fanuc Ethernet



Calmotion Ethernet