

TB030 (Rev1) - RS232 / Connecting PC to Centroid Control

For CNC7 (DOS):

Overview

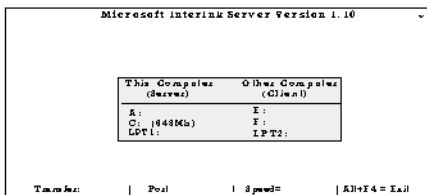
The DOS-based programs *Interlink.exe* and *Intersvr.exe* (Note: *Interlink* and *Intersvr* only work with **Windows 95,98 and ME**) enable the transfer of files from one computer to another by using a NULL MODEM RS232 CABLE that connects the serial port of the control to a second computer (PC) serial port. In order to establish a connection, you must first designate the PC as the "server". The control is already configured as the "client" upon boot-up. While the PC (server) is running *Intersvr.exe*, no other functions will be able to be performed until the connection is terminated by pressing Alt+F4 on the PC. Once the connections are established between the PC and the control, the PC (server) will display information about the redirected drives and printer ports that the control (client) has access to.

Step 1: At the root directory (C:> prompt) of the PC, type the following: C:> **cd\dos** C:>DOS> **intersvr**

Note: If "file not found" error occurs, you will need to copy the intersvr program from the Centroid Control to a 3 1/2" floppy as described below, and from the floppy to your computer. For Windows 95 users, this program can be placed on the desktop.

- 1. From the main screen of the control; Press CTRL+ALT+X to exit CNC7.
- 2. Type the following: copy c:\dos\intersvr.exe a:\intersvr.exe ENTER.
- 3. You can run the program from the floppy disk or copy it to the hard drive.

*Your PC



Step 2:

From the control, press **F2 - Load** and **F3 - Remote**. You are now reading from the hard drive on your PC server and are able to load the files created on the off-line PC. The PC will display the redirected drive information as shown here. Terminate the connection by pressing **Alt+F4** at your PC.

Use the chart below to make your own RS232 Null Modem Cable.

9 pin	25 pin	25 pin	9 pin	
2	3	2	3	RX - TX
3	2	3	2	TX - RX
4	20	6	6	DTR - DSR
5	7	7	5	GND - GND
6	6	20	4	DSR - DTR
7	4	5	8	RTS - CTS
8	5	4	7	CTS - RTS

The path that the control uses is E:\cnc7\ncfiles by default. You can change the path that the control uses in the control configuration menu (F3 - Config, F1 - Control)

For CNC10 (Linux):

Overview

Linux-based controls with software version 1.20 have serial file transfer built into the **F2 - Load menu**. Setting the serial communication COM Port parameter (P180) will enable and display the **F6 - Download** and **F7 - Upload** buttons in the Load Menu. This will enable the transfer of files from the control to another computer by using a NULL MODEM RS-232 CABLE (Figure 1) that connects the serial port of the control to a second computer (PC) serial port.

Parameter	Description	Default
180	File transfer COM Port	0
181	File transfer baud rate*	19.2
182	File transfer data, stop and parity bits*: 1's digit = stop bit; - 1 or 2 stop bits 10's digit = parity ; 0 none, 1 even 2 odd 100's digit = data bits; 5-8 bits accepted	801
183	File transfer flow control*: 0 = no flow control 1 = software flow control (XON/XOFF) 2= Hardware flow control (CTS/RTS)	0
184	File transfer time out (6-600sec)	10sec
185	File Transfer option Bit 0: Ignore CR on download 1- yes, 0- no Bit 1: Translate NL to CR on upload 2- yes , 0-no	0

File Transfer Parameters

***WARNING:** Parameter 181 -183 must match the COM Port settings for the software being used on the offline computer.

To load a file from the offline computer to the control:

- 1. On the Control Press **F2 - Load** and then **F6 - Download**
- 2. Start file transfer from offline computer. You have the time given in parameter 184 to start the file transfer.

To load a file from the control to the offline computer:

- 1. Start the Serial Communications software on the offline computer.
- 2. On the Control Press **F2 - Load** and then **F7 - Upload**

Use the chart and figure below to make your own RS232 Null Modem Cable.

9 pin	25 pin	25 pin	9 pin	
2	3	2	3	RX - TX
3	2	3	2	TX - RX
4	20	6	6	DTR - DSR
5	7	7	5	GND - GND
6	6	20	4	DSR - DTR
7	4	5	8	RTS - CTS
8	5	4	7	CTS - RTS

NOTES:

- If using Fanuc based programs, remove the "O" from the start of the file name or it wont work with the Centroid control.
- Those controls still running CNC7 version 8.23 and before (DOS), and want to use RS-232 can purchase CNC7DNC software.

Document History

Rev1 Created on **1999-08-24**