

Installing Networks On Centurion 6 Controls

CONFIGURING THE SOFTWARE

To install network software on machines with simdisks it is necessary to add a hard drive for the network software. The AUTOEXEC.BAT and CONFIG.SYS files cannot be modified on the simdisk. Systems that have both a simdisk and a hard drive have their drives assigned as follows:

A: ROM

This is where the autoexec.bat and the config.sys files are, as well as the CNC software.

B: RAM

This is the static RAM where machine parameters, tool offsets, etc. are.

C: HARD DRIVE

This is where the parts programs are.

D: FLOPPY DRIVE

E: RAMDRIVE

This is where the graphics file is.

There is a file called PATH.DAT in b:\ram that tells the control where each path points to. To check these paths from the main menu on the control type F10(Util)-F8(Info) and F4(Path). To change these paths from the main menu on the control type F8(Prog)-F1(Text)-F4(Any) then type PATH.DAT for the program name. After you change the PATH.DAT file it must be redisplayed "F10(Util)-F8(Info) and F4(Path)" to be activated. The path on systems with simdisks and hard drives is:

A:\ROM\	rom
B:\RAM\	ram
C:\PARTS\	parts
E:\	graphics
D:\	floppy

To execute the network software create a batch file INIT.BAT in the b:\ram directory. From the main menu on the control type F8(Prog)-F1(Text)-F4(Any) then type INIT.BAT for the program name. Install the network software on the hard drive. The INIT.BAT will be executed before the CNC is started. An example of a INIT.BAT file would be:

CALL C:\NET\STARTNET

Note: Some customers modify their PATH.DAT file so the floppy path points to a specific directory on the server.

There have been several complaints of the inability to modify our autoexec.bat and config.sys files on our simdisks. The problem is that they are unable to load their network software (or any other software) in upper memory. After loading their software there is very little memory (in some cases not enough) to run the CNC.

We modified the config.sys to load DOS and the ramdrive.sys file in high memory as well as including emm386. The ramdrive will not use any of the lower 1 MEG of memory so there should be more room for the end user to install there software. This change was released in version #6.110.

ALTERNATIVE SETUP PROCEDURE

It is possible to boot off the hard drive instead of the simdisk. This would allow network drivers, etc., to be loaded before executing the CNC software.

To boot off the hard drive, change the CMOS setup so that the boot sequence is C:A: instead of A:C:. After loading the network software, you must make the B:\RAM subdirectory the current subdirectory before executing the CNC. Execute the following sequence of commands:

Note: One potential problem you may run into with serial keyboards is that some of our motherboards use a mouse interface in the CMOS setup. The serial keyboard will go into a serial mode when entering the CMOS setup on these motherboards. If this becomes a problem you must disconnect the Com2 connector in the card cage.

B:
CD \RAM
A:\CNC\CNC

AVOIDING ADDRESSING AND INTERRUPT CONFLICTS

The CENT6 control and simdisk use the following resources that the network software and hardware must avoid using:

INTERRUPTS:

IRQ7

IRQ12 should be reserved for future purposes if at all possible.

I/O PORTS:

Port addresses 2C0h to 2C7h are used by the simdisk.

MEMORY:

Addresses 1A0h to 1AFh are used by the simdisk. These addresses correspond to the interrupt vector locations for interrupts 68h, 69h, 6Ah, and 6Bh, so other software should not use these interrupt numbers for software interrupts.

The control uses 4K of memory. The address range can be expressed in several formats:

as absolute addresses D0000 to D0FFF
or segment addresses D000:0000 to D000:0FFF
or segment addresses D000:0000 to D0FF:000F
or segment D000 up to but not including segment D100

Any software that uses the high memory area (HMA) must exclude these addresses.

Starting in version 6.110 of our software, the config.sys file includes the following line:

DEVICE=A:\EMM386.EXE NOEMS X=D000-D100