



DNC-System-requirements

The following details are suggested system requirements to achieve maximum “DNC system” up-time. These recommendations should be considered a minimum set of requirements:

NOTE: The effectiveness of a DNC system is directly related to the components in the “chain” from where the data is stored (Network File Server), to where it is retrieved from (DNC-Max Server PC), and what hardware is used for distribution to and from the CNC equipment on the shop floor. Any weak link in the system can cause undesirable results negatively affecting the performance of the DNC system.

I. COMPANY NETWORK VS. DEDICATED NETWORK

When you deploy a DNC system one of the most important decisions you will make is whether to utilize your existing network backbone or creating a dedicated network for your DNC system. To determine which option you should choose you need to ask yourself this single question – **Am I confident enough in my existing company network and the stability of that network to trust it for communications to and from all of the machines on my shop floor?**

While utilization of an existing network backbone is inexpensive (you are sharing some of the costs of the network “TCO – total cost of ownership” now with a DNC system) you must realize that your network speed and stability will impact the performance and reliability of your DNC system. If your existing network exhibits any of the following characteristics you should not use it:

- 1) Your existing network is periodically or intermittently down for back-ups and/or maintenance
- 1) 2) Upgrades or maintenance of your network can take your “network” offline for extended periods of time
- 3) Your existing network is often “slow” – meaning, sometimes you notice that files take longer to copy across the network

Again, if you answered NO to any of the above three questions you should implement or deploy a dedicated network for your DNC System. A dedicated network consists of the following:

1. DNC Server PC (two NIC/network cards; one to tie the PC to the company network, one to run to a dedicated or separate network Hub or Switch)
2. 10/100/1000, 4-Port or 8-Port (or appropriate) Hub or Switch for connecting your Ethernet Serial Device Servers to your DNC-Max Server PC



With this configuration, even if your company network goes down you will be able to send and receive CNC programs to and from your CNC machine equipment. If the files are not located on the DNC Server PC you can copy them from the File Server to your DNC Server PC via ZIP Disk, CD/DVD ROM, USB Memory/Portable Drive, or floppy disk.

Most companies opt for a Dedicated Network to minimize downtime and ensure maximum system reliability and performance.

IMPORTANT: Latency, or the time it takes for network components to communicate with one another, can be affected by all the hardware components in your network from your NIC cards to your hubs and switches. Therefore, it is important to make sure that all your connections for your DNC network are configured for optimal speed with as few external operations (including file transfers) occurring as possible. This is another reason to go with a Dedicated Network – to minimize the impact of traffic between other PCs on your network and the DNC System.

II. FILE ACCESS

Another important consideration is where your CNC programs and associated production documents (setup sheets, quality/inspection notes, drawings, details, images, and notes) reside – either on a File Server or on the physical DNC Server PC hard drive.

IMPORTANT: IT/IS MUST give you full read/write privileges to the drives and directories/folders where your CNC programs are stored. Additionally, all users of DNC-Max must have Read/Write access to the CIMCO directories/folders on the DNC Server PC. When DNC-Max is launched and closed various configuration files are opened and updated. If Read/Write access is not available this can cause DNC-Max to take an extended period of time to launch.

III. PC HARDWARE REQUIREMENTS



DNC-Max will run on older Pentium PCS running Windows 95 and 98SE. However, we recommend that you deploy a PC robust enough that you are comfortable that you are using a high quality, reliable device as your DNC Server. With this in mind, we recommend you purchase a PC with components and an OS that is both current and cost effective. Accordingly, we recommend a BRAND name PC with the following specifications:

CPU: 2 GHZ Pentium CPU or Greater
OS: Windows XP Pro
RAM: 512MB
NIC: 10/100 Network Card x2 (with 2 network cards installed)

IV. OTHER CONSIDERATIONS

The PCs running DNC-Max Clients and NC-Base Clients require access to the DNC-Max Server and/or NC-Base database in order to communicate with those applications/data. For additional and specific File Access and PC requirements see below:

DNC-Max Client – must be able to “see” the DNC-Max Server on the network, requires a minimum PC setup with Windows 9x/NT/2000/XP OS

NC-Base Client (CIMCO Edit Database) – must be able to “see” the NC-Base Server and must have Read/Write permissions to the database and file drives/directories – including the NC-Base application directories/folders

CIMCO Edit – requires a minimum PC setup with Windows 9x/NT/2000/XP, video adapter of appropriate type and RAM memory supporting OpenGL for using the integrated graphical backplotter functionality (32MB min recommended), requires read/write access to CNC program drives/directories

For additional information please email support@cimco-software.com

