



## Recommended PC Configuration

For the ParCAM, EXT, and PT Family of Software Products

For best performance, MicroCraft recommends that the hardware and software configurations of your machine meet, or exceed, the following system specifications. Generally, performance is affected by the following items. When purchasing new hardware, you may want to allocate spending according to the types of jobs you typically process.

- Processor
- Memory – Amount and Speed
- Network Speed
- CPU Cache Size per Core
- Hard Drive Speed
- BUS Speed

### Operating System

- Microsoft Windows 10 Professional 64-bit is recommended
- Windows 7 is still supported, but on a best effort basis
- Home editions are only supported on a best effort basis

### Processor

- Intel® Core™ i7 or Xeon® or better is recommended
- A higher frequency (GHz) processor is generally more important than number of cores (many single threaded commands capitalize on processor speed only, whereas a few multi-threaded commands capitalize on both).

### Memory

- 16 gigabyte of RAM minimum for 64-bit OS
- 4 gigabyte RAM for 32-bit OS
- Fast memory is recommended, especially for large data

### Disk

- 2 gigabyte free disk space always
- For large jobs, more free space is recommended
- Solid State Drive (SSD) is recommended, 256 GB minimum, 512 GB or greater recommended

### Display

- Display settings: 100% size is recommended. Anything over 125% may result in problems displaying dialogs and controls. Where to find this setting:
  - W10 Windows Settings > System > Display > Scale and Layout
  - W7 Control Panel > Appearance and Personalization > Display
- Multi-Screen setups can help productivity.
- Video Adapter specification is not critical for the software. There is slight preference for nVidia video adapters over AMD\* but integrated video adapters generally work well.

\*There have been known issues with AMD graphics cards, running their Desktop Manager, which can affect some software dialogs. It is recommended that customers with AMD graphics cards, and the Catalyst Control Center turn off all Desktop Manager settings.

### Additional Considerations for Maximizing Performance

Significant performance enhancements may be realized for large data when using a 64-bit operating system.

Processor cache size can significantly affect processing times. Typically, the larger the cache size per core, the better.

Running on a Solid-State Drive (SSD) may increase the overall speed many software processes by 25% or more, especially on large jobs when the Operating System, Software, Scratch folder, and the Data Files are on a high-performance SSD. For this case, a 500 GB minimum SSD is recommended. If the pnl job directory is to be stored there as well, consider a 1 TB SSD drive.

## Networks

Network performance will also affect software performance, when the pnl directory is shared over the network.

The following recommendations outline some specific technical details for Optimum performance.

- General setup: homogenous Gigabit Ethernet setup, where all systems have a Gigabit network card and connect directly to a high-speed switch using Cat5e or better wiring.
- The use of hubs is discouraged whenever possible. Hubs can severely degrade overall performance and their use in data intensive applications across the network is not recommended.
- High-speed switch: an auto-sensing Gigabit switch that has at least a switch fabric capacity of 48.0 Gbps and a minimum forwarding rate of 35 Mbps.
- Data Location Strategy: All systems moving large amounts of data should all be on the same side of a gateway.
- A good archive strategy is recommended for completed jobs. When attempting to access the Family/Job structure via a network or a VPN, the number of Families and Jobs can severely impact start-up performance, especially across a VPN. Therefore, it is recommended that when a job is completed, it be archived with the Delete Job After Archive option turned on. Ask us about improving your archive and job management strategy.

## Technical Support/Sales

Have questions about this document? We can work with you to quickly assess and solve issues.

Contact Technical Support through the Minnesota Software Center.

### U.S. Headquarters

USA MicroCraft, Inc.  
1247 N Tustin Ave  
Anaheim, CA 92807

Phone: 714.482.2550

E-mail: [software@usamicrocraft.com](mailto:software@usamicrocraft.com)

### Minnesota Software Center

USA MicroCraft, Inc.  
2405 Annapolis Ln N Suite 220  
Plymouth, MN 55441

Phone: 612.721.6280

E-mail: [software@usamicrocraft.com](mailto:software@usamicrocraft.com)

If you are unable to reach us during business hours, please leave a message with your daytime phone number and a someone will return your call.