System Requirements for Running GibbsCAM 2027
Revised: October 27, 2026

A computer that meets or exceeds the following requirements will run GibbsCAM satisfactorily. Please note that the larger or more complex your parts are, the more demands GibbsCAM will place on your system.

Recommended System

- Windows 11 or Windows Server 2022 (both are requirements)
- Intel Xeon, Core i9, or Core i7 with four or more cores, or AMD Ryzen or Threadripper
- Minimum 16 GB RAM; 32 GB or more recommended for complex parts, large models, or multitasking with other software (e.g., CAD applications)
- A quality NVIDIA graphics card with 4+ GB of video memory and the latest drivers installed (e.g., GeForce RTX series or Quadro P4000/P5000) *)
- 2 GB of available disk space (for virtual memory and temporary file storage)

**) Recommended to install on your workstation:* Nvidia App for Enterprise *which is an app that automatically updates the Nvidia driver.*
https://www.nvidia.com/en-us/software/nvidia-app-enterprise/

Avoid low-budget graphics cards. Integrated Intel graphics perform particularly poorly with GibbsCAM and are commonly found in lower-cost systems.

SLI Mode - Running newer systems in SLI mode with GibbsCAM may result in poor performance and is not recommended.

GPU:
Should I choose a gaming graphics card or a workstation graphics card?

Should I look at gaming GPUs (NVIDIA GeForce RTX series and AMD Radeon RX series) or workstation GPUs (NVIDIA Quadro and AMD Radeon Pro series)?

If your only concern is GibbsCAM performance, there is no reason to choose a workstation graphics card. However, if you require workstation driver features, need certification for your CAD system, or have other workstation-related requirements, there is nothing wrong with using workstation GPUs with GibbsCAM.

Does NVIDIA stand out compared to other brands?
We do not recommend any specific graphics card. Historically, however, we have experienced significantly fewer issues with NVIDIA cards than with other brands.

GibbsCAM is highly graphics-intensive and makes heavy use of the graphics card. If you want to build the optimal system for running GibbsCAM, you should invest in the best graphics card your budget allows. A quality GeForce or Quadro card will be sufficient, but more powerful cards will provide better performance. The choice depends on how much you are willing to spend relative to the performance gain achieved.

Is there any advantage to using two graphics cards?
Not at this time.

CPU:
Is there any benefit to using a Threadripper PRO instead of an Intel Core i9-14900K?

Fructus Data AB performed a benchmark comparison between an HP Z2 equipped with an Intel Core i9-14900K and an HP Z6 equipped with an AMD Ryzen Threadripper PRO 7985WX 64-Core processor. The results showed comparable performance in toolpath calculation, part simulation, and machine simulation. The significant difference was that the Z6 was approximately 75% faster in toolpath calculation within the Advanced 3D module.

Our conclusion is that if you do not make extensive use of Advanced 3D, a Threadripper-based workstation is generally not worth the additional investment.

Many time-sensitive tasks in GibbsCAM, including rendering of machined parts, are memory-bound. This means that the most important performance metric is total memory bandwidth.

Threadripper PRO and many Xeon processors use multi-channel memory architectures that can significantly increase available memory bandwidth. This benefit was also demonstrated in testing performed by Gibbs several years ago. However, more recent workstation-platform benchmarks have not been conducted. It is also worth noting that lower memory clock speeds commonly found in workstation systems can reduce the real-world advantage, while aggressively tuned memory in a properly configured desktop system can offset much of the bandwidth difference.

Previously, Core i9 processors were specifically recommended because they offered a broader memory architecture without the substantial price premium associated with workstation CPUs. However, recent generations no longer provide this advantage. Core i9 13900 and 14900 processors use dual-channel memory, just like lower-tier consumer CPUs.

Be aware that Xeon processors vary greatly in capability across the product line, even between similarly named models. It is important to review the specifications for the exact SKU you are considering. Intel publishes these specifications on its website, and the key specification in this context is Maximum Memory Bandwidth.

AMD's product lineup is simpler:
All Threadripper PRO CPUs use 8-channel memory controllers
Threadripper CPUs use 4-channel memory controllers
Ryzen CPUs use dual-channel memory controllers
Core Clock Speed vs. Core Count

Toolpath generation typically uses only a single processor core for a given operation. This is because the toolpath calculation must know where it has previously been before it can continue calculating the next segment, making effective parallelization difficult.

Multiple cores can be utilized when calculating several unrelated toolpaths simultaneously that do not depend on information from previous operations (for example, when using Stock-Only calculations). As a result, core clock speed is generally more important than the total number of cores.

For additional questions, please contact Fructus Support at support@fructus.se
or call +46 8 594 11 630.