



## Graphics cards and system recommendations

CET Designer comes with the exciting ability to accelerate interactive graphics by using the advanced hardware available in the later generations of graphics cards (GPUs).

Working interactively with a drawing consisting of several hundred workstations in real time requires a powerful computer. Table 1 below shows a quick overview of our recommendations.

	CPU	RAM	Graphics card
Desired	3 GHz	4 GB +	1 GB
Recommended	2.6 GHz	4 GB +	1 GB
Minimal	2.2 GHz	2 GB +	512 MB

**Table 1:** This is meant to serve as a guide, remember to always check the hardware manufacturer's requirements for power supply before buying a high end card or machine. A 64-bit Operating System, such as Windows 7 64-bit, is required to fully utilize RAM exceeding 3 GB.

The advanced graphics engine will work with lower specifications, but with greatly reduced speed. Graphics cards have been developing very rapidly, doubling their speed every 12 months. This means that, for instance, a 4 year old card has only 6% of the capacity of a new card.

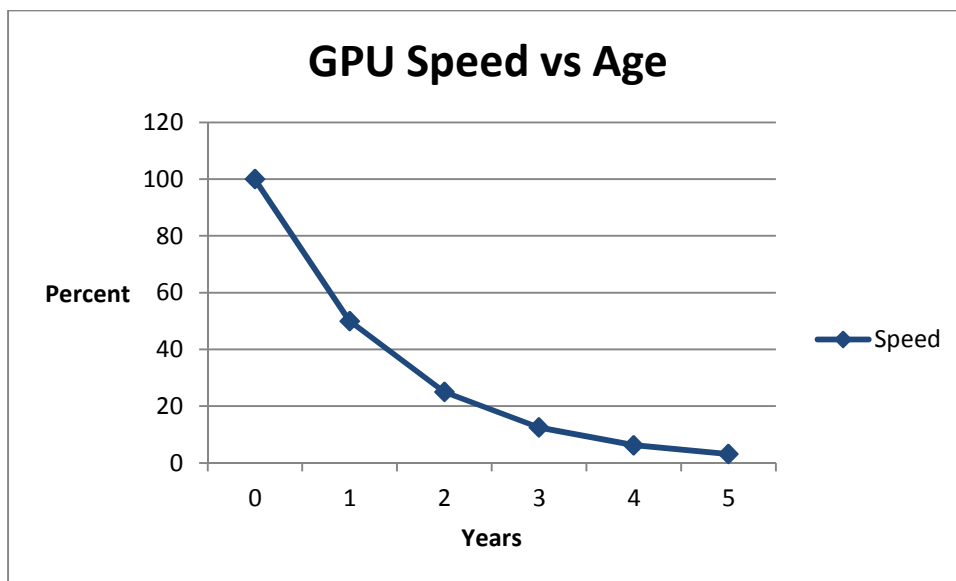


Figure 1: Relative speed over time.

**Note:** Please remember to always use the latest *recommended* drivers for your graphics card. Contact CET Support for recommendations on certified driver versions or information about known issues.

If you do not understand all the technical parameters necessary for a powerful PC, please do not hesitate to contact CET Support for assistance.



## Technical details

This is a detailed technical discussion about the specific recommendations for running CET Designer with the advanced graphics engine enabled.

There are four major recommendations to keep in mind when looking at a graphics card:

1. The card should be based on one of the following Nvidia chipsets: G80, G90, G200.
2. Run a fast 256 bit wide memory interface with at least 92 pixel pipes.
3. Carry 1 GB dedicated video memory (minimum of 512 MB).
4. It should not be an integrated card or “graphics accelerator”. Use of this type of graphics cards will cause a significant reduction in performance and may result in program related issues.

Following is a table containing examples of existing graphics cards that should be able to run the advanced graphics engine<sup>1</sup>. It is recommended to always look at the specifications of a card as they may differ from one manufacturer to another.

Nvidia	200 Series	9 Series <sup>2</sup>	8 Series	Quadro <sup>3</sup>
	GeForce GTX 295	GeForce 9800 GX2	GeForce 8800 GTS	FX 5800
	GeForce GTX 285	GeForce 9800 GTX+	GeForce 8800 GT	FX 5600
	GeForce GTX 280	GeForce 9800 GTX		FX 4800
	GeForce GTX 260	GeForce 9800 GT		FX 4700 x2
		GeForce 9600 GT		FX 4600

**Table 2:** Examples of Nvidia graphics cards that are compatible with the advanced graphics engine. Most of these cards have a mobile version for laptops, which is marked by the letter M after the model name.

<sup>1</sup> Please remember that this is not a specific endorsement of Nvidia, but merely a few examples. There is no direct or implied guarantee from Configura that our advanced graphics engine will work with the exemplified hardware. The graphics engine has been verified against the respective hardware accelerator chipsets, but individual combinations of operating systems, drivers, and hardware may render these tests invalid for reasons beyond the control of Configura Inc.

<sup>2</sup> At the moment, the GeForce-9 series is considered to be preferable, as their drivers are the most stable.

<sup>3</sup> For CET Designer, the Quadro cards are generally outperformed by all listed GeForce cards when using the advanced graphics engine, and tend to cost much more than the better-performing GeForce cards. As a result, the Quadro-line graphics cards are generally not preferred for working purely with CET Designer. However, when working in a “mixed environment” (for example using both CET Designer and AutoCAD on the same computer) you may notice a speed increase in AutoCAD performance with the Quadro cards.