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GeoTeric is supported on the following 64bit platforms:

Windows 7 and 10

RHEL6, minimum update level of 3

Recommended & Minimum Requirements for GPU Hardware

GeoTeric makes intensive use of the graphics and system hardware it is run on. Choosing the right combination of system components to best avoid bottlenecks is important. Combining that with the right GPU configuration GeoTeric users can get the best from the software in terms of Performance, Interactivity and Visualisation Quality

The following GPU configurations are **highly recommended** to get the best out of GeoTeric.

Desktop Workstation Windows

Primary GPU: Quadro P6000

Secondary GPU: Tesla K20c

We recommend a dual GPU configuration but a single GPU configuration is supported.

Supported NVIDA Graphics cards					Tesla Cards
*Quadro P6000	Quadro M6000	Quadro K5200	Quadro K6000	Quadro 6000	K20c
*Quadro P5000	Quadro M5000	Quadro K4200	Quadro K5000	Quadro 5000	C2075
*Quadro P4000	Quadro M4000	Quadro K2200	Quadro K4000	Quadro 4000	C2070
*Quadro P2000	Quadro M2000		Quadro K2000	Quadro 2000	C2050

Certified graphics driver version: Windows 10:   391.58

Window 7:   391.58

Linux: 378.13

* Pascal cards on Linux will require driver version: 387.34

 Note the minimum certified graphics driver version which needs to be installed is:

Windows 10:   377.11

Windows 7:   377.11

Linux: 378.13

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According to NVIDIA, after release 375, any subsequent Windows driver release starting with release 378 will cease to support the following NVIDIA Quadro products:

Quadro	Quadro Blade/Embedded	Quadro Notebook
Quadro Plex 7000	Quadro 4000M	Quadro 5010M
Quadro 6000	Quadro 3000M	Quadro 5000M
Quadro 5000	Quadro 500M	Quadro 4000M
Quadro 4000	Quadro 100M	Quadro 3000M
Quadro 2000		Quadro 2000M
Quadro 2000D		Quadro 1000M
Quadro 600		

The NVIDIA support team will continue to address critical driver issues for these products in Release 375 through March 1, 2018. However, future enhancements and optimizations in driver releases after Release 375 will not support these products. We will continue to support until further notice.

If your card is not in this list or driver version is below the minimum certified version please contact GeoTeric Support who will be able to give you more details regarding your card. (support@GeoTeric.com)

TCC mode:

GeoTeric supports Tesla Compute Cluster (TCC) mode. More information can be found here: https://docs.nvidia.com/gameworks/content/developertools/desktop/nsight/tesla_compute_cluster. htm

Remote Virtualisation Support

Graphics Cards and CUDA Processing

GeoTeric will work in a virtual desktop infrastructure (VDI) environment when configured correctly. GeoTeric requires GPU Passthrough to be able to run CUDA processes. If you have GPU Passthrough enabled, GeoTeric will be able to detect a CUDA capable GPU and this will be shown in Tools > Options > Accelerated Computing.

In GPU Passthrough mode, an entire physical GPU is directly assigned to one Virtual Machine (VM), bypassing the NVIDIA Virtual GPU Manager. The GPU is then accessed exclusively by the NVIDIA driver running in the VM to which it is assigned. The GPU is not shared among other VMs.

We do not support the use of Mirror Drivers as they take precedence over NVIDIA drivers and have shown to be unstable when processing. You can check that NVIDIA drivers are being used by checking the Device Manager or the GeoTeric Support Info tool which can be found in Help > Support Info - NVIDIA drivers and their details will be listed when the system is configured correctly.

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While we are unable to provide specific hardware and configuration support for VDI systems, GeoTeric has been tested and used successfully on correctly-configured solutions provided by Cegal, Citrix, Azure and AWS.

Licensing and environment

Check that the MAC address isn't going to change, especially if using a node-locked license. If the MAC address isn't static then it is possible to run a floating license type setup locally.

Avoid using clear down scripts when users log off as GeoTeric settings are stored against user profiles.

Additional Notes

GeoTeric will always perform best when running on a local workstation with a dedicated GPU. Bandwidth, latency and network quality can impact the performance of VDI solutions.

Project Storage

The amount of disk space a GeoTeric project requires increases in direct relation to the size of the source data volume loaded.

For example: If the source data is 10GB then GeoTeric will need 10GB + 1.8GB for its display file. This means a total of 11.8GB in space (internal or external) is needed to load and visualise the source volume.

If any processing is to be carried out on the volume, the same amount of space is needed again for the resulting volume and display file. Once the project contains 10 volumes, 118GB will be required.

RAID

- RAID 0 or non-RAIDED disks are the best performing configuration for GeoTeric.
- Certain other RAID configurations can have a very negative impact on performance. Please contact Geoteric support for further information if you think this is the case.

GeoTeric Temporary Folder

The location of the GeoTeric temp folder has an impact on performance and is an important consideration. Ideally this folder should be set to reside on a fast local hard drive such as an SSD with plenty of space available (see below).

- The 'temp' directory is specified on setup (though it can be changed from within the GeoTeric options at any time) and is the target for all temporary files.
- Temp disk space: GeoTeric requires a certain amount of temporary disk space to use during volume processing. Once processing is complete all temp files are deleted.
- We recommend that a large amount of disk space is reserved for temporary files, though this value depends on the size of your data. We recommend around 3-4 times the size of your data in free space. E.g. if your data is 10Gb, the drive housing your GeoTeric temp folder should have at least 30Gb of free space to ensure GeoTeric can process your data.

System Tweaks

Drives:

- For optimal performance we recommend turning off the Windows write-cache buffer as this is known to improve disk performance.
- When using an SSD, a proportion of the maximum disk space should be allocated to be used by the disks' controllers. As per manufacturer's recommendations, a partition of at

least 10% of the disk should be left as unallocated space when initially formatting the drive for use. Failure to do this will result in reduced performance when writing to the disk.
- All non-SSD hard drives slow down considerably as they become more full. If the drive where your GeoTeric projects are stored, or where GeoTeric is installed is close to being full then consider deleting any unnecessary files and free up some space on the drive, then perform a defragmentation on the drive to optimise the data (see below).
- Disk fragmentation – Windows only. We would always recommend that the computer running GeoTeric is regularly defragmented to increase the performance.

Network:

- If your GeoTeric projects are stored on a network drive you can check if network issues are causing a drop in performance by performing a ping –t trace to the machine where the projects are stored to look at the response times and for any data packet loss.

Antivirus & Other Software:

- We recommend that you add the GeoTeric program folder (and the entire contents) to your antivirus exceptions whitelist.
- You should also ensure that the GeoTeric temp folder and the projects folders are not being scanned by your antivirus whilst they're in use.
- Ensure that any backup or indexing software is not actively running on your machine whilst you're using Geoteric as this would noticeably impact performance.

GPU & Drivers:

- In a multi GPU system we recommend dedicating one card to screen rendering and the other to processing. The settings for this are in GeoTeric and can be found in the Options dialog in the Tools menu.
- Ensure that your Nvidia driver is up-to-date. Recent drivers should work in most cases however please contact GeoTeric support for specific recommended drivers.

System specification

CPU	**Minimum:** Single 4 core CPU **Recommended:** Dual 8 core CPU **Notes:** Parts of GeoTeric are multithreaded and performance increases will be seen if a multiprocessor/core system is chosen.
Memory	**Minimum:** 32 GB
	Recommended: 128 GB
Internal hard disks	**Drive type**: SATA, SAS, SSD **Capacity**: We recommend systems have a minimum 1.5TB of internal hard disk space. An example configuration would be: 1. Primary drive: 500GB (HDD or SSD) for OS and software 2. Additional high capacity (1TB+) drives for GeoTeric projects and temporary files. However, the more internal hard disk space the better.
External storage	We highly recommend using either eSATA or USB3 enabled hardware or drives with fast SCSI connection. iSCSI network drives are supported - please consult your IT department with regards to available bandwidth for this connectivity. *Drives with USB2.0 and FireWire interfaces can be used but with lesser performance.* **Note: use of USB 1.1 devices is not recommended.**

For further information please contact support