

Hardware Requirements

Computer configuration required for working with PHOTOMOD system depends significantly on type and volume of tasks which are supposed to be solved. Generally recommended configuration for comfortable work are described in the following table:

System component	Recommended
CPU	Intel Core i7
Memory (RAM)	32 GB (min 2)
Graphics card	Based on NVIDIA Quadro K2000
Display	Professional stereomonitors or supporting nVidia 3D Vision Ready. Stereoglasses nVidia 3D Vision.
HDD/SDD	4 TB
Operating system	Microsoft Windows 7, 8.1, 10 x64

USB port should be available for hard lock key (for local PHOTOMOD version), or network connection to a server where the key is installed if network PHOTOMOD version is being used.

Depending on kinds of applications that PHOTOMOD is planned to be used for there are different requirements for computer components that are noted below. Please note that all requirements concern workstations, and remarks considering server for data storage are given in the section [Resources system](#). Please note also that for maximum system reliability and performance the computers must be setup by qualified specialists, otherwise even the most expensive and perfect hardware components would be useless and unjustified.

Central processor (CPU)

CPU productivity is generally not the most critical factor for the majority of operations in PHOTOMOD. Still, if you are going to create many terrain models (TIN, DEM) using correlator you should choose faster model since the speed of pickets calculation is roughly proportional to CPU frequency. For most other tasks it is recommended to use systems based on Intel Core i7 operating at frequencies 2.66 GHz or similar and pay more attention to other system components according to further notes below.

System memory (RAM)

RAM volume is a critical parameter for the majority of tasks. For comfortable work with the average data volumes it is recommended to have at least **2 GB** installed (the system would operate with less RAM volume, however many disk operations with Windows swap file decrease processing speed significantly). If you are going to work with quite big DTMs containing million elements (pickets) or more, it is highly recommended 2 GB for 32Win and 4 GB for 64Win RAM at least.

Hard disk drive (HDD)

Hard disk speed is not vital and correct setup of operating system may give better result than just changing to the nominally faster hard drive.

It is recommended to use SCSI-devices, RAID-arrays, etc. only if you have qualified specialist for their setup and maintenance. Otherwise there will be likely more troubles than advantages.

Since PHOTOMOD system supports automatic distribution of project data on several disks, it is recommended to use several hard disks of average volume (~500 GB), rather than less number of bigger disks. If it is supposed to process projects with more than 500 — 1000 GB of data volume please consult with our [Technical Support](#) service.

Network adapter

For networking (particularly, for work with projects placed on remote computer) a network connection with at least 100 Mbit/s bandwidth is required. If you plan to work simultaneously from more than 10 workstations with a single server, it is recommended to connect server to hub using a 1 Gbit/s network interface at least.

Graphics adapter, monitor and stereo glasses

The list of recommended adapters is provided below.

Nvidia Quadro 6000
Nvidia Quadro 5000
Nvidia Quadro 4000
Nvidia Quadro 2000
Nvidia Quadro 600
Nvidia Quadro K6000
Nvidia Quadro K5000
Nvidia Quadro K4000
Nvidia Quadro K2000
Nvidia Quadro K600

Since different shutter glasses models can be connected to computer in different ways, and some graphics adapters cannot be used with some models of glasses, you should pay attention to the compatibility of the graphic card and the glasses. The table below contains information on some compatible combinations. In case of any doubts, please consult with our [Technical Support Service](#).

Stereomodes	Graphics adapter	Monitor/Glasses
Anaglyph	Any	Any monitor / any anaglyph glasses red-blue
Page-flipping	Any from the list	Stereomonitor PLANAR or StereoPixel / polarization glasses nVidia 3D Vision Ready monitors / nVidia 3D Vision glasses

Mice and 3D manipulators

PHOTOMOD system supports work with usual mice together with special 3D-manipulators. The latter provide higher accuracy of marker positioning (particularly along Z axis) and are equipped with additional buttons set which could be employed instead of frequently used keyboard shortcuts. It is recommended to use conventional five-button mouse along with one of the following devices:

- ④ **“Stealth 3D Mouse”** by ABC Software Developers (USA). The manipulator is connected to a computer via USB or PS/2 interface and is equipped with 10 programmable buttons.



Operating system

Microsoft Windows Vista, Windows XP, Windows 7, 8.1, 10.