Geospatial Modeling & Visualization

A Method Store for Advanced Survey and Modeling Technologies

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Computer Requirements for PhotoScan and PhotoScan Pro

Computer requirements for software can change quickly. We recommend you visit the PhotoScan Wiki and especially the Tips and Tricks page for more, up-to-date information on this topic.

Basic Requirements

Because of the wide range of potential images used, the minimum computer requirements for using PhotoScan will depend heavily on the number and size of the images being processed. According to the PhotoScan Help Files, system requirements are:

Operating System:
Windows XP or later (32 or 64 bit) / Mac OS X Snow Leopard or later / Debian/Ubuntu (64 bit)

Processor:
Minimum Intel Core 2 Duo / Recommended Core i7
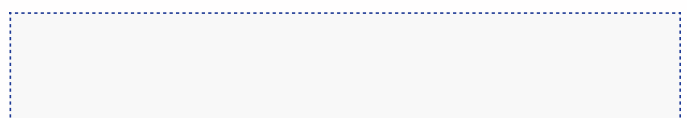
RAM:
Minimum of 2GB of RAM / Recommended 12GB

Typical Machine/Project setup

A typical desktop at CAST now has Windows 7 64 bit, Core i7 3.4 GHz processor, 8-12GB of RAM, and an NVidia Quadro or GTX series graphics card. We also have a number of larger machines with dual quad-core processors and ca. 28GB of RAM. It has been our experience that projects involving up to 15-20 images from a Canon 5D Mark II (21.1 megapixel) can be processed (with PhotoScan settings set for maximum resolution) on a machine with the typical setup (8-12GB RAM). Projects involving more than 20 images require the bigger machines (28GB RAM).

According to PhotoScan, a machine with 12GB of RAM can potentially process 200-300 images in the 10 megapixel range. For projects involving multiple (more than 2-3) medium format images (e.g. modern aerial imagery or historic aerial photography scanned at 1200dpi or higher) will likely require a well-built machine with a significant amount of RAM (i.e. 56 to 128GB).

OpenCL

PhotoScan and PhotoScan Pro use OpenCL for portions of the meshing process. OpenCL allows the user to deactivate one or more CPU cores and activate one or more GPU cores using the "Preferences" dialog found through the "Tools" menu. It has been our experience that some video cards will appear in the OpenCL Devices list even though they are not properly supported by OpenCL. Check the PhotoScan Help to find a list of support GPU model video cards. NVidia Quadro graphics cards are not on this list (as of July 2012).

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