

AP Suite Data Analysis Computer Requirements

Description

This document describes the minimum computer configuration required to run AP Suite Data Analysis software on a data analysis workstation PC. CAMECA atom probe systems (LEAP® platform systems, Invizo® platform systems, and EIKOS™ platform systems) are capable of data collection rates of greater than one million ions per minute. The large data sets obtained contain a wealth of information but also increase the computational requirements for the hardware platform used.

The recommended configuration presented below is based on currently shipping computer systems and was arrived at by balancing cost, performance, quality of design, and warranty/technical support. Contact CAMECA for the latest recommended configuration.

Desktop Workstation Minimum Requirements

- Windows 10®/Windows 11® Professional x64 English
- US region settings
- Core i7-12700 12 core processor
- 32 GB of RAM
- NVIDIA Quadro® P4000 or newer class
- 1TB SSD, M.2 2280, Gen 4 PCIe (2TB or more recommended for local data storage)
- A suitable PDF reader for viewing the AP Suite User Guide

Laptop Workstation Minimum Requirements

- Windows 10®/Windows 11® Professional x64 English
- US region settings
- Core i7-10700 8 core processor
- 16 GB of RAM
- NVIDIA Quadro® T1000 or newer class
- 500GB SSD, M.2 2280, Gen 4 PCIe (1TB or more recommended for local data storage)
- A suitable PDF reader for viewing the AP Suite User Guide

Video Card Requirements

AP Suite will only run with full functionality when a computer has a separate video card (i.e., not ‘integrated video’). NVIDIA cards are the only validated video cards. Video cards must use validated drivers to work; other drivers may cause unexpected results. Please contact CAMECA Service if you have questions about other video drivers.

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Operating System Requirements

AP Suite will only run with full functionality on a 64-bit OS. Windows 10 and Windows 11 are the supported OSes.

Upgrades

More RAM will improve speed and reliability of AP Suite when working with large data sets, and increasing RAM is the most important computer upgrade for AP Suite performance. Faster and more CPUs may also improve performance. Fast hard drives, especially SSDs (required for best performance), and/or network connections are also recommended. Using AP Suite over a VPN connection is not recommended.

Computers Running Under Minimum Requirements

Although it is not recommended, AP Suite can be run with systems that do not meet the minimum requirements, but significant problems can occur:

- Analysis limited to smaller datasets (e.g., less than 10M ions).
- Analysis proceeds much more slowly.
- Analysis can exceed physical memory or speed requirements which may result in program or operating systems failures.
- Failures and error messages cannot be repeated with a CAMECA system and cannot be diagnosed.

CAMECA supplies preconfigured and tested desktop and laptop AP Suite workstations as well as data storage solutions. Contact CAMECA Sales for more information or to obtain a quotation. Additional information can also be found at www.atomprobe.com.