The SAS® System
Release 6.12 (TS051)
Mac™ OS for PowerPC™

This document provides requirements for installing and running the SAS System for MacOS for PowerPC. You must update your system to meet the minimum requirements before running the SAS System. The major requirements listed in the document are:

- Software Requirements
- Hardware Requirements
- Space Requirements
- Specific Product Requirements
- Graphics Hardware and Software Compatibility

For additional information and to view the latest system requirements for your system, access the SAS Institute Web site at:

http://www.sas.com/software/enclosures/system_req.html

or contact SAS Institute Technical Support (refer to "Contacting SAS Institute Technical Support" in the installation instructions included in your package).

For information about Year 2000 compliance, see http://www.sas.com/techsup/download/technote/y2kcomp.html.

Software Requirements

**Operating System**

- System 7.5.3 or higher
Hardware Requirements

Machines Supported

- Release 6.12 of the SAS System only supports systems with a currently available PowerPC microprocessor. 680x0-based machines are no longer supported.

Media Supported

- CD-ROM

Memory Requirements

- 18 MB minimum
- 24 MB recommended

If you run out of memory when running the SAS System, we recommend that you increase the Preferred size memory requirement of the SAS application icon in 4-MB allocations. If you continue to exceed available physical memory, we recommend that you enable Virtual Memory.
Space Requirements

The media you received is customized for your site and contains all of the SAS software products for which you are licensed.

The following list contains space requirements in MB for all of the products available with this version of the SAS System for MacOS for PowerPC. Use this information to help you determine how much free disk space you must have available before you can install the SAS System.

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Specific Product Requirements

SAS/ACCESS Interface to ODBC Software

Products Required:

- Base SAS software
- SAS/ACCESS Interface to ODBC software

DBMS Products Required:

An ODBC driver for the data source from which you want to access data is required. These drivers are often available from the DBMS vendor and other third party ODBC driver developers. The driver you choose may require additional DBMS software in order to access the data.

- MacOS for PowerPC ODBC driver required
- Support for 680x0 Macintosh ODBC driver no longer available

SAS/AF Software

Products Required for Build Mode:

- Base SAS software
- SAS/AF software
- SAS/FSP software (to create and display SAS/FSP objects)
- SAS/GRAPH software (to create and display some graphics objects)
- Other products may be required depending on the application

Products Required for Run Mode:

- Base SAS software
- SAS/FSP software (to create and display SAS/FSP objects)
- SAS/GRAPH software (to display some graphics objects)
- Other products may be required depending on the application

Memory Required:

- 32 MB partition minimum
SAS/EIS Software

Products Required for Build Mode:

- Base SAS software
- SAS/AF software
- SAS/EIS software
- SAS/FSP software
- SAS/GRAPH software
- Other products may be required depending on the application

Products Required for Run Mode:

- Base SAS software
- SAS/GRAPH software
- SAS/EIS software
- Other products may be required depending on the application

Memory Required:

- 32 MB partition minimum
Graphics Hardware and Software Compatibility

Printers

SAS/GRAPH software provides device drivers for all Hewlett-Packard printers (and compatibles), and printers that support PostScript, HP-GL, HP PCL, and other printer languages.

Here is a partial list of printers that SAS/GRAPH software supports:

- CalComp ColorMaster, ColorMaster Plus, PlotMaster
- Canon Bubble Jet, Laser Shot
- Digital printers that support either SIXEL, HP PCL, Tektronix, or PostScript emulation modes
- Epson FX and LQ series printers (and all printers running in Epson emulation mode)
- Hewlett-Packard LaserJet, DeskJet, PaintJet, and DesignJet printers (and compatibles)
- IBM Graphics, Proprinter, and ColorJet printers
- PostScript printers (including color and gray-scale PostScript printers)
- QMS Colorgrafix with CGM interpreter
- QMS 800, 1200, 1500, 2200, and 2400 using QUIC or Tektronix emulation modes
- Talaris 800, 802, 1200, 1500, and 2400 using QUIC or Tektronix emulation modes
- Talaris printers using the EXCL language
- Tektronix Phaser printers (all models)
- Tektronix 4693 printers with Tektronix 4510 rasterizer
- Xerox 2700 and 4045 printers with a GRAPHX cartridge
- Xerox 3700 (with imaging board and at least 1 MB of memory)
- Xerox 4030 (contact Technical Support), 4213, 4235, and 4700
- Xerox 4700 printer
- Xerox 5775 color copier with an EFI Fiery attachment

SAS/GRAPH device drivers may also be available for additional printers not listed above and that do not support PostScript, HP-GL, or HP PCL. For additional information on these drivers, contact SAS Institute Technical Support.

Terminals and Displays

SAS/GRAPH software supports graphics display on graphics terminals from DEC, Tektronix, HP, and on X Windows terminals. SAS/GRAPH software also supports graphics emulators that emulate any of the above terminals. Note the use of the SAS/GRAPH graphics editor requires an X Windows display or X Windows emulation software.

Plotters

SAS/GRAPH software provides device drivers for all HP plotters supporting HP-GL or HP-GL/2, and plotters from other manufacturers that support the HP-GL or HP-GL/2 language. SAS/GRAPH software also supports Houston Instruments plotters using the DMPL language and ZETA plotters that support the GML language.
Film Recorders

SAS/GRAPH software provides device drivers that support the following film recorders:

Genigraphics Masterpiece Camera System with SCODL interface
Lasergraphics MPS 2000 film recorder with a Lasergraphics UI-100 or RASCOL rasterizer
Matrix QCR and PCR cameras with Matrix QVP, MVP, or Lasergraphics rasterizers
Polaroid Palette Cl-3000 and Cl-5000
Presentation Technologies Montage film recorder

Support may be available for other film recorders not listed here. For details, contact SAS Institute Technical Support.

Interfaces to Other Graphics Software

Included with SAS/GRAPH software is a series of drivers that can produce Computer Graphics Metafiles (CGM) in binary, character, and clear-text formats. These drivers can be used to transfer SAS/GRAPH output to other products that support CGM input, such as Word for Windows, WordPerfect for Windows, Harvard Graphics, and Lotus Freelance, or to devices that can process CGM input.

SAS/GRAPH software can also generate encapsulated PostScript vector files, which can be exported to word processing packages such as Microsoft Word, WordPerfect, and several others. Many other graphics and word processing applications can process files in Hewlett-Packard (HP-GL) format. The HPGL driver can be used to produce files that can be transferred to most applications that can process HP-GL files.

SAS/GRAPH software can also export graphics in the following formats:

BMP - Microsoft Windows Bitmap
EPS - Encapsulated PostScript
GIF - Graphics Interchange Format
PNG - Portable Network Graphics
PPM - Portable Pixmap
PS - PostScript Bitmap
TIF - Tagged Image File Format
XPM - X11 Pixmap
JPG - JPEG Files
XBM - X11 Bitmap

In addition, SAS/GRAPH software can import graphics in the following formats:

BMP - Microsoft Windows Bitmap
EPS - Encapsulated PostScript
GIF - Graphics Interchange Format
PBM - Portable Bitmap
PCD - Kodak Photo-CD
PCX - PC PaintBrush
PGM - Portable Graymap
PNG - Portable Network Graphics
PNM - Portable Anymap
PPM - Portable Pixmap
TGA - Targa format
TIF - Tagged Image File Format
XBM - X11 Bitmap
XPM - X11 Pixmap
XWD - X Window Dump
JPG - JPEG Files
Writing Your Own Device Driver

SAS Institute's Metagraphics driver facility can be used to develop driver support for virtually any device you choose. The Metagraphics driver facility is device-intelligent and supports most hardware features. A user-written program is required to translate the metafile into the appropriate graphics language recognized by the hardware. SAS/GRAPH software will, optionally, perform device I/O. For details, contact SAS Institute Technical Support.

The Macintosh Meta Application

The Macintosh Meta Application is a free program that can be installed on your Macintosh. A metafile produced by the SAS/GRAPH Metagraphics driver can be transferred to the Macintosh from your host system and viewed on the screen. Images can then be stored in PICT or clipboard format to be used by other applications or printed on an attached Apple LaserWriter (or compatible) printer. Images can be saved into the Macintosh clipboard and used by MacDraw and other Macintosh packages. For details, contact SAS Institute Technical Support.