

Installing free PostScript and PDF viewers*

Wayne M. Itano
Time and Frequency Division
National Institute of Standards and Technology
Boulder, CO 80303
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The problem: Many useful documents are available on the Internet in formats, such as PostScript or Adobe Acrobat (PDF), which are not directly viewable by a Web browser, such as Netscape Navigator. These are recognizable by the file extensions .ps and .pdf respectively. The Optical Society of America plans to distribute its on-line journals as PDF files.

The solution: Free viewers for these file formats are available on the Internet. There are versions for the Macintosh and for various versions of Microsoft Windows and UNIX. They can be used as independent programs or installed as “helper” applications for a Web browser.

[PostScript files are often compressed with either the UNIX “compress” program or with “gzip.” Also, the “tar” program is sometimes used to package several files into one, in order to simplify file transfer. Thus, a publication in PostScript format, including PostScript figures, might be made available as a file named like “mypaper.tar.gz,” which must be uncompressed and separated into the different PostScript files. Space does not permit a full discussion of this process here. It might be included in a future column. Some helpful information on this topic is available at the URL (Uniform Resource Locator) “<http://xxx.lanl.gov/help/utilities>.”]

Warnings: The specific steps detailed below apply to my own home computer, which runs under Windows 95 and uses a 33 600 bit per second modem. I have not tried the versions for other operating systems. I used Netscape Navigator 3.0 as a Web browser and a commercial ISP (Internet Service Provider). The installation described was carried out in April 1997. By the time this appears in print, directories and filenames may have changed.

Installing the Adobe Acrobat Reader

I dialed my ISP, started Netscape Navigator, and went to the URL “<http://www.adobe.com/prodindex/acrobat/readstep.html>.” A form appeared, asking for

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the software version, operating system, and language. I chose "Version 3 with Search," "Win 95," and "English" and clicked on the "Download button." Another page appeared. I clicked on the "DOWNLOAD rs32e30.exe" button. I was prompted for a directory into which to put the file. I chose "c:\tmp" and started downloading. This file was over 5 megabytes in size, and it took almost an hour and a half to download.

After the download finished, I opened up the "Windows Explorer" program, found the file "rs32e30.exe" and double-clicked on its icon. This caused the file to unpack itself into many installation files. I double-clicked on the icon for the file "setup.exe" and chose all of the defaults. The program installed itself in a program group called "Adobe Acrobat." I tested the program by double-clicking on the icon for "Acrobat Reader 3.0," going to "File," then "Open," and then double-clicking on "acrobat.pdf." A document describing the Adobe Acrobat program appeared.

Finally, I installed the Acrobat Reader program as a "helper" application for Netscape Navigator, so it is started automatically when a PDF file is opened. The method of installing helper applications depends on the Web browser you use. Information is available at "<http://www.adobe.com/acrobat/moreinfo>."

Installing Ghostscript

I then went to the URL "<http://www.cs.wisc.edu/~ghost/>," the home page for Ghostscript, a free program for displaying and printing PostScript files. I clicked on the link "Obtaining Aladdin Ghostscript 4.03." Installation files are available for various computer platforms. For my Win 95 system, I downloaded the four files "gsview21.zip," "gs403ini.zip," "gs403w32.zip," and "gs403fn1.zip" into an empty directory. The total size of these files was about 3.5 megabytes, but this time the link was faster, and it took only 25 minutes.

Files having a .zip extension are in "pkzip" (not gzip) format. They can be expanded with the program "pkunzip.exe" from PKWARE, Inc. A free alternative is "unzip.exe." To obtain it, go to the URL "http://wuarchive.wustl.edu/systems/ibmpc/gnuish/dos_only/." Click on the link to the file "unzi512x.exe" to download it. Open the Windows Explorer and double-click on the icon of "unzi512x.exe" to separate it into its component files, one of which is "unzip.exe."

I executed the command "unzip gsview21.zip" in an MS-DOS window. (Substitute "pkunzip" for "unzip" if you have pkunzip installed.) Then I opened the Windows Explorer and double-clicked on "setup.exe," one of the files generated by unzipping gsview21.zip. I chose all of the defaults and let the program install itself. The setup file takes care of unzipping the other three .zip files. I double-clicked on the icon for the file "c:\gstools\gsview\gsview32.exe" to start the program for the first time. I went to "File," then to "Open," and double-clicked on "c:\gstools\gs4.03\tiger.ps," to test the program. A color picture of a tiger appeared on the screen. Instructions for installing Ghostscript

as a helper application with various Web browsers are available on the Ghostscript home page.

Try them out

To see some examples of electronic publications in PostScript, gzipped PostScript, and PDF format, go to “<http://www.bldrdoc.gov/timefreq/ions.htm>,” the Website of the research group to which I belong. There you will find articles on various topics, including sum-frequency mixing, atomic frequency standards, quantum computation, and the quantum Zeno effect.