

PS2EPS+

A PostScript conversion utility

Version 1.0 1995-03-19

1. Introduction

What is it

PS2EPS+ is a Macintosh program that can generate visible pictures from single page PostScript files. The primary usage of this program is to generate Encapsulated PostScript files (EPS) from plain PostScript (PS) text files. Both Macintosh and Microsoft-Windows EPS files can be generated. The program can also save the pictures in the following formats: PICT, TIFF, PCX and Macintosh startup screen.

The conversion of PostScript files into visible pictures is done by a Macintosh version of Ghostscript, a freeware (originally UNIX) program from the Free Software Foundation. PS2EPS+ acts as a front program for Ghostscript. Note however that PS2EPS+ is NOT Ghostview (for those who know what that is). It only accepts single page PostScript files which have a DSC bounding box comment.

I wrote this program several years ago, but after following the Usenet news group comp.lang.postscript for some time and seeing many people looking for an utility like this, I decided to distribute it as a freeware program.

Requirements

PS2EPS+ should be able to run on any Macintosh with color QuickDraw and MultiFinder or System 7. At least 1 MB of memory is required but a more realistic value is 4 MB. In order to generate color pictures the Macintosh must have a color graphics card. The program is a 68K executable as I neither own nor have access to a Power-Macintosh.

Installation

Just unpack the archive onto your hard disk. The folder hierarchy must be maintained, i.e. the folder GS and its subfolders must reside in the same folder as the PS2EPS+ program.

About Ghostscript

Ghostscript is a freeware PostScript interpreter from the Free Software Foundation. The program is distributed through the GNU general public license. A copy of this license can be found in the GS folder.

Ghostscript is a wonderful piece of software written by Peter Deutsch and others. It originates from UNIX but has been ported to almost every other platform.

I have made my own Macintosh port of Ghostscript using version 2.3 of the source code. Today this is quite an old version by I think it is sufficient for the usage together with PS2EPS+.

2. Program menus

PS2EPS+ has only a few menus and is quite straightforward and easy to use.

File menu

Open

Use this entry to open a PostScript file. All files of type TEXT, EPSF and EPSP can be opened. TEXT is the normal type for plain PostScript files, EPSF are Macintosh Encapsulated PostScript files and EPSP are ditto for Microsoft-Windows. If the selected file is a TEXT or EPSP the program starts generating a picture from the PostScript code immediately. When the generation has completed the picture is shown within a window representing the file. If the generation failed for some reason an error message will be shown and the file is closed. The generation can be stopped at any time by pressing the command key and the period key simultaneously.

If the file is of type EPSF with a preview already present in the file, the preview will be shown within the file window and no generation is made. A new picture can however be made through the command regenerate, see below.

Open the files in the samples folder to see how it all works. The samples are from the Ghostscript distribution.

Close

Closes the file window. If the file has not been saved a save prompt will be shown.

Save

Saves the file as a Macintosh Encapsulated PostScript file, i.e. the original PostScript code and a screen preview.

Save As...

Saves the file as a Macintosh Encapsulated PostScript file with a new name.

Save A Copy As...

This entry can be used to save the picture in another format than Macintosh EPS. The save file dialog contains a popup menu in which the desired format can be selected.

Page Setup...

Just the normal print selection dialog.

Print...

Print the front file window. If the selected printer is a PostScript printer the PostScript code will just be downloaded to the printer. When a non PostScript printer is selected the screen picture will be sent instead.

Preferences...

Displays a dialog box that controls how the picture conversion is made. The following options are available:

Generate color picture: When PS2EPS+ generates a picture it uses the current settings of the active graphics card i.e. the settings made in the monitor control panel. In order to force black and white pictures on a color display this check box should be unchecked.

Picture resolution: The program can generate pictures with resolutions between 18 and 300 dpi. Resolutions above 72 dpi is only meaningful if the picture should be saved as TIFF or PCX. Lower resolutions can be used to minimize picture memory requirements.

PICT content: When saving the picture in PICT format (PICT or Mac EPS) the content can be either raster or objects. The latter normally requires less memory but gives a slower screen update when an EPS file is used within a document.

Compress TIFF: Check this box in order to get compressed TIFF files (TIFF and PC EPS) . The compression method used is PackBits.

Save: Make current setting permanent (used in subsequent runs of the program).

Quit

Guess what.

Edit menu

The edit menu has the normal expected behavior. Note however that it is possible to paste any picture from the clipboard into an EPS file. It is of course also possible to copy a generated picture to the clipboard.

Change menu

This menu can be used to modify the current picture.

Regenerate

When the preferences has been changed, this command can be used to update the current picture according to the new settings. It can also be used to change the picture when an EPS file with an existing preview has been opened.

Raster picture

Can be used to generate a raster picture when an object picture was generated without having do redo the PostScript conversion.

Reshape EPS...

Use this entry to change the size and or rotation of a picture

3. Appendixes

Technical information

As stated before PS2EPS+ uses Ghostscript to generate a picture from PostScript code. PS2EPS+ launches Ghostscript and provides the necessary information about the conversion in a parameter file. My Macintosh Ghostscript driver generates a PICT picture. This picture is put on the clipboard when Ghostscript terminates and it is then retrieved by PS2EPS+. The conversion from PICT to other formats are made within PS2EPS+ by my own algorithms and not in a Ghostscript driver.

The Ghostscript program is located in the folder GS and can be launched by itself from the Finder but the usage of this is quite limited. The program prompts for a PostScript file and if none is given the standard UNIX command line is presented. Any generated picture is just shown in a window. One possible usage of the standalone Ghostscript program is for PostScript debugging.

The Ghostscript port is written in Think C 6.0 for Macintosh.

PS2EPS+ is written in Think C 6.0 for Macintosh using the Think Class Library TCL.

The default memory settings for PS2EPS+ is 1 MB. When converting large PostScript files it might be necessary to increase this value. This is done in the normal way from within the Macintosh Finder. As PS2EPS+ and Ghostscript are two separate programs both programs must have a sufficient amount of memory when treating large PostScript files. It is however only necessary to modify the memory settings for PS2EPS+. Whenever PS2EPS+ is started it modifies Ghostscript memory setting to be the same. This behavior might upset some virus detectors I guess.

PS2EPS+ uses the current monitor settings for colors when generating a picture i.e. maximum number of colors should be set in the Macintosh monitor control panel to obtain high quality pictures.

The fonts in Ghostscript has somewhat limited quality, but should be sufficient for screen previews. I have only included the most basic fonts.

PS2EPS+ can also handle PostScript files generated by the Macintosh Laserwriter printer driver. It applies a patch to the standard Apple dictionary which makes it possible to use these files as EPS-files. This was quite a good idea at time of printer driver 7.X and earlier but after the introduction of Laserwriter 8.0, which can generate EPS files directly, this function is of course of limited interest.

Distribution

PS2EPS+ is freeware i.e. you can use it free of charge. If you however find any use for this program it would be interesting for me to know. Please send a mail to one of the addresses listed below or preferably send a nice postcard of your home town.

Even though PS2EPS+ is freeware, it is not in the public domain, I reserve all rights to the code I have written myself.

Parts of PS2EPS+ is copyright by Symantec Corporation, 10201 Torre Avenue, Cupertino, CA 95014-2132

Ghostscript is copyright by Free Software Foundation, Inc. 675 Mass Ave, Cambridge, MA 02139, USA

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You are not allowed to make any profit on the distribution of PS2EPS+.

The program may not be bundled with any kind of commercial products without a written consent from me.

Distribution on the Info-Mac CD is permitted.

Disclaimer

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Use PS2EPS+ at your own risk. The author claims no liability for data loss or other problems caused directly or indirectly by PS2EPS+.

A disclaimer for Ghostscript can be found in the license file in the folder GS.

Trademarks

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