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Abstract

This is a help file for the Postscript mode in Alpha. This file should be located in the Help subfolder of Alpha's folder to show up automatically in the Help menu when Alpha is loaded. Version 0.5 (et sq.) requires Alpha 7.4 or greater.

1 Introduction

Postscript mode is a mode for the text editor Alpha: it is designed to facilitate editing, processing, viewing of internal commands for both PostScript (.ps) and Portable Document Format (.pdf) files. You can convert Postscript files to PDF format, manipulate and modify Postscript files with the PsUtils tools, convert Type 1 fonts with the T1Utils tools with all their options directly from Alpha. You can also easily edit and execute command lines with ghostscript.

Once you are in Postscript mode, there is a new menu (called PS) in the menu bar enabling all the features described below.

By default PostScript mode is designed to work together with the CMacTeX distribution's programs (ghostview, gs, psutils, t1utils) but this can be changed in the preferences. Version 3.5 of CMacTeX or greater is preferred (but not required; see below). CMacTeX's site is : <http://www.kiffe.com/cmactex.html>

Note that if you have CMacTeX 4.0 or greater, you will have to set different GhostScript and GhostView applications in the PostScript mode preferences. See the "Postscript Mode preferences" section below.

2 Installation

2.1 Automatic installation

Open the "OPEN TO INSTALL" file. Opening this file indicates to Alpha that a new package has to be installed : the procedure is automatic. Alpha knows where to store the different elements of your Postscript Mode package.

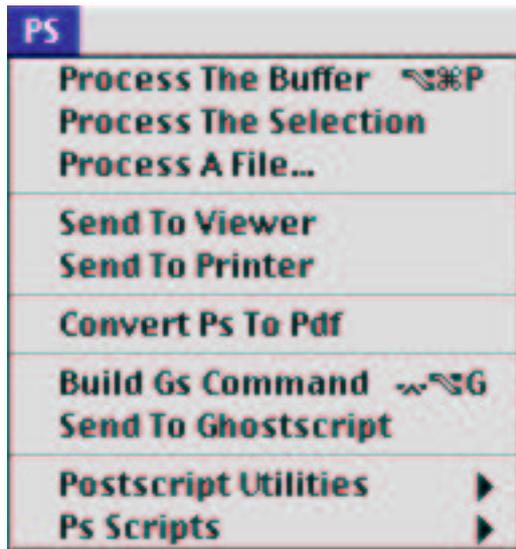
2.2 Manual installation

- put the "postscriptMode.tcl" file in the "Modes" subfolder of the "Tcl" folder which is located at the same level as your Alpha application
- put the "Postscript Help" file in the "Help" folder located at the same level as your Alpha application. Next time you launch Alpha, you will have a "Postscript Help" item in the Help menu to edit this file.
- launch Alpha. You have to rebuild the package indices and the Tcl ones. "Rebuild Package Indices" is in the Config-"Packages menu, and "Rebuild Tcl Indices" is in the Tcl menu.
- quit Alpha and relaunch it : that's all there is to it.

2.3 After installing

Have a look at the mode specific preferences : create or open any Postscript source file and choose "Preferences..." in the "Mode Prefs" submenu of the "Config" menu (or simply hit F12).

3 Description



Description of the Postscript Menu items :

3.1 Main menu

Process The Buffer Send a PostScript file to the ghostscript interpreter.

Process The Selection Send a selected region with PostScript code to the ghostscript interpreter.

Process A File... Open a Postscript file and send it to the ghostscript interpreter.

Send To Viewer View the current window. The proc distinguishes ps and pdf files : by default PostScript files are viewed with GhostView and pdf files with Acrobat Reader. This can be changed in the preferences.

Send To Printer Print the current "file" : if it is a PostScript file, the code is sent to the printer (you must have a PostScript printer of course). If it is a pdf file, it is sent to Acrobat Reader and printed from there.

Convert Ps To Pdf Just as it says.

Build Gs Command This items brings up a window and two floating palettes. You can write a Ghostscript command line : the long palette helps you to insert the options of your command line ; the short palette contains three buttons :

File Path Allows you to insert the complete path of a file in the command line.

Close Closes the 'Build Command' window and the two floating palettes.

Execute Sends the contents of the 'Build Command' window to Ghostscript. If a region is selected, only the selection is sent, otherwise the whole contents of the window are sent.

Send To Ghostscript This is the same as the "Execute" button above.

3.2 "Postscript Utilities" submenu

This submenu contains various utilities concerning PostScript files and PostScript fonts.

epstopdf Converts an encapsulated PostScript file to a Pdf file. Works with the 'epstopdf' included with CMacTeX.

afm2tfm Converts Adobe metrics files to Tex metrics files. Can be used also to build elementary virtual fonts.

3.2.1 psutils suite

The 'psutils' suite contains four programs designed to select, manipulate, rearrange the pages of a PostScript file. All these four items display a window in which you can easily specify any option. A default command line is written in the edit field in which you can make modification. Press OK to send the command from Alpha.

- psbook
- psnup
- psselect
- pstops

3.2.2 t1utils suite

The 'T1utils' suite contains six programs designed to convert PostScript font files. An Open Dialog Window asks you to locate an input file. The output file will be in the same folder as the input file.

- lwfn2pfa
- pfa2lwfn
- pfa2pfb
- pfb2pfa
- t1asm
- t1disasm

3.3 "Ps Scripts" submenu

This submenu will contain a list of PostScript files in a chosen folder. In the PostScript mode preferences, check the "Build Scripts List" flag and choose a folder with the "Scripts Folder" preference.

4 The Mark pop-up menu

Marking is different in PostScript source files and in AFM (Adobe Fonts Metrics) metrics files.

- in PostScript source files : mark the dictionaries declarations, the %%BeginFont and %%Page DSC (Document Structured Comments)
- in Adobe metrics files '.afm' : mark the main sections of the file (StartFontMetrics, StartCharMetrics, StartKernData, StartKernPairs, StartTrackKern) and all the characters whose metrics are defined.

If the 'Auto Mark' checkbox is checked in the Prefs, the file is automatically marked at opening.

5 The Functions pop-up menu

The "" pop-up menu (top right of your editing window) contains the 'def' statements in your source file.

WARNING: there are so many 'def' statements in a PostScript file that this functionality could possibly exceed Alpha's memory and cause a crash.

6 Command double clicking a word

If you Command-Double-Click on a keyword you access its definition. This procedure looks first for a definition in the current file itself, then in the list of Postscript primitives.

7 Option clicking the title bar

If you Option-Click on a the title bar, you get a list of all the 'ps' and 'pdf' files located :

- in the "local" folder (folder of your current window).
- in the "scripts" folder (selected in the preferences)

Selecting any item in this list will open it in a window or bring its window to front if it is already open.

8 Completions

There is a set of completion procedures in Postscript Mode. To enable them, you must activate the "elecCompletion" package (in "Config-" Preferences-" Features") and choose your completion key (default is F1).

There is a set of abbreviations. Just type the following abbreviations and hit the completion key to have them expanded to a complete structure :

```

def      /name proc def
for      start incr end  proc for
forall   obj  proc for
if       bool  proc if
ifelse   bool  procyes  procno  ifelse
loop     proc loop
repeat   number proc repeat

```

You can also type the first letters of a word and hit the completion key. If it is recognized as a keyword, it will be completed. If there are different possible completions, they will be listed in the status bar : hit the completion key again and you will have a list of all the possibilities from which you can select the one you want.

9 Key bindings

A few key bindings are defined in Postscript mode :

- "option-command-P" to process the current window.
- "control-option-G" to call the ghostscript command line window with the associated floating palettes.
- "command-return", "enter" and "command-enter" are bound to the execution of a Ghostscript command line.

10 Postscript Mode preferences

The "Preferences..." item in the "Mode Prefs" submenu of the "Config" menu allows you to edit specific preferences for the Postscript Mode. You can specify there :

- if the "Build Scripts List" checkbox is checked, the contents of the Scripts Folder will be listed in the "Ps Scripts" submenu.
- the "Scripts Folder" preference allows you to specify a folder containing ps files whose contents will be listed in the "Ps Scripts" submenu if the "Build Scripts List" preference is set on.
- the "Default Paper Size" is used by the -sPAPERSIZE option in Ghostscript command lines and by the "Ps To Pdf" item.
- various programs signatures.

"Sig Pdf Reader"	signature of the Pdf reader. Default : CARO
"Sig Afm2tfm"	signature of Afm2tfm. Default : CMTa
"Sig Epstopdf"	signature of Epstopdf. Default : CMTe
"Sig Ghostview"	signature of Ghostview. Default : CMTJ
"Sig Gs"	signature of Gs. Default : CMTA
"Sig Lwfn2pfa"	signature of Lwfn2pfa. Default : CMTD
"Sig Pfa2lwfn"	signature of Pfa2lwfn. Default : CMTD
"Sig Pfa2pfb"	signature of Pfa2pfb. Default : CMTD
"Sig Pfb2pfa"	signature of Pfb2pfa. Default : CMTD
"Sig Printps"	signature of Printps. Default : PSP*
"Sig Psbook"	signature of Psbook. Default : CMTo
"Sig Psnup"	signature of Psnup. Default : CMTo
"Sig Pselect"	signature of Pselect. Default : CMTo
"Sig Pstops"	signature of Pstops. Default : CMTo
"Sig Psutils"	signature of Psutils. Default : CMTo
"Sig T1asm"	signature of T1asm. Default : CMTD
"Sig T1disasm"	signature of T1disasm. Default : CMTD
"Sig T1utils"	signature of T1utils. Default : CMTD

Note that in versions of CMacTeX earlier than 3.5, all the Psutils and T1utils programs had different signatures. If you have one of them, you must set its signature accordingly in the PostScript mode preferences. Here is a table of the old signatures :

Program	old	new	
lwfn2pfa	CMTC	CMTD	
pfa2lwfn	CMTK	CMTD	
pfa2pfb	CMTD	CMTD	unchanged
pfb2pfa	CMTE	CMTD	
psbook	CMTp	CMTo	
psnup	CMTq	CMTo	
pselect	CMTo	CMTo	unchanged
pstops	CMTr	CMTo	
t1asm	CMTp	CMTD	
t1disasm	CMTN	CMTD	

The ghostscript (gs) and ghostview applications have changed since version 4.0 of CMacTeX. Ghostview is now called MacGhostView and its new signature is JTMC instead of CMTJ ; gs is now called macps2pdf and its new signature is TMCA instead of CMTA. If you are using this version of CMacTeX (or greater), you should change the "Gs Sig" and "Ghostview Sig" preferences accordingly.

11 Version History

- 0.3 01/03/31 The previous versions of PostScript mode contained only support for keyword coloring and completion. This new version introduces lots of new features : a PS menu, processing of Postscript code, Ps to Pdf, Ghostscript syntax, PsUtils tools, T1Utils tools, file marking, command-double-click, electric etc.

- 0.4 01/04/04 Two improvements from Craig (thanks) : sig prefs tupe changed from 'v' to 'sig' ; better handling of color prefs changes. Removed two unused signatures.
- 0.5 01/04/07 Minor change in MarkFile to mark pages with any pagination.
- 0.6 01/07/31 Added file extensions in the proc PS::fileToViewer. Modified the AE to convert ps to pdf. Enlarged field in psutils dialogs.

12 Known problems

- The Functions pop-up menu listing the 'def' statements can exceed Alpha's memory and cause a crash. Don't use it with a huge file.
- As a rule, the Apple Events with CMacTeX do not like spaces in the pathnames. Apparently there is nothing to do to work around this problem : so try to avoid using spaces in the names of your folders and files.

Please e-mail any problem or bug you encounter : berdesg@easynet.fr

Goto the Alpha utilities page :

<http://perso.easynet.fr/~berdesg/alpha.html>

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