

user's guide



ConvertPS

version 4.5

CLASSIC · BATCH · BUTLER



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*Riemekestrasse 86 · 33102 Paderborn
Tel.: 05251-1668-0 · Fax: 05251-1668-29*

*e-Mail: convertps@hake-said.de
Internet: www.hake-said.de*

Contents

Introduction	8
What is ConvertPS?	8
Characteristics and areas of employment	10
Functionality	10
Innovations in the version 4.5	12
System requirements	13
Installation Instructions	14
Installation by CD-ROM or discs	14
CD-ROM with autorun	14
CD-ROM without autorun	14
Installation by disc	15
InstallShield Assistant	17
Welcome screen	17
User information	17
Confirmation of registration	18
Target path	18
Question	18
Choose components	19
Select program group	19
Setup	19
Standard PostScript directory	20
Question	20
De-installation (remove)	21
Install/de-install (add/remove)	21
Confirm file delete	21
Remove programs from the computer	21
ConvertPS Classic: menu "File"	22
Open	24
Open Metafile	25
Close	25
Close All	26



Save As	26
Print	27
Current Page	27
Print All	28
Preview	28
Page Setup	28
File Info	29
ConvertPS Batch	30
Exit	30
ConvertPS Classic : menu "Edit"	31
Copy Metafile	32
Cut	32
Extract Pages	33
ConvertPS Classic : menu "View"	35
Toolbar	37
Statusbar	37
Info Window	37
Current Page	37
First Page	38
Next Page	38
Previous Page	38
Page...	39
Cancel Conversion	40
Zoom	40
ConvertPS Classic : menu "Options"	41
General	43
Interpreter	44
Fonts	44
Font Explorer...	46
PostScript	52
General	53
Local memory	56
Output...	57
Vector Formats	58



General	58
Transform lines into paths	63
Insert PostScript comments	63
Further options for setting the parameters	68
DXF format coordinate system	69
Page format	70
Settings for file format DXF	75
Bitmap Formats	81
Set color resolution	83
Set compression	83
Set format	84
Default	85
EMF Mode	86
WMF Mode	86
Import	86
Export	86
ConvertPSClassic: Toolbar	87
ConvertPSClassic, -Butler: Statusbar	90
ConvertPS Batch	92
Converting in the Batch mode	92
ConvertPS Batch Editor	93
ConvertPS Batch: menu "File"	94
New	94
Open	94
Save	94
Save under	94
1, 2	94
End	94
ConvertPS Batch: menu "Edit"	95
New	95
Open	95
Cut out	95
Copy	95
Insert	96



Delete	96
Select all	96
Target folder	96
Target format	96
Start conversion	97
ConvertPS Batch: menu "View"	98
Toolbar	98
Statusbar	99
ConvertPS Batch: menu "Option"	99
The Batch mode:	100
Create a ConvertPS Batch list	100
Edit ConvertPS Batch lists	102
Selecting elements from the list	104
Converting ConvertPS Batch lists	104
ConvertPS Command Line	106
General	106
Command Line parameters	106
Examples:	109
General use	109
Specifying the target path	110
Conversion with 'wildcards'	110
Help of ConvertPS Command Line	111
Specifying the parameters for input and output	112
Change of interpreter settings	112
Change of output settings	112
Specifying the path for ConvertPS	112
Error messages	113
Unknown format	113
Not existing directory	114
File not found	115
Too many parameters	115
Invalid parameters	116
Error messages of the interpreter	116



ConvertPS Butler OLE: embedding	117
Object	117
create new	118
create from file	118
ConvertPS-Butler: Toolbar	119
ConvertPS Butler: menu structure	122
File	124
Insert new file	124
update nnn	124
Close	124
Edit	124
Copy metafile	124
ConvertPSClassic: File associations	125
ConvertPSClassic, -Batch, -Butler :	127
"Drag and Drop" capability	127
*.PS-, *.EPS-, *.AI	127
*.CBL	127
*.CPS	127
*.PS in any chosen application	128
ConvertPSClassic, -Butler:	129
Advice and Tips	129
The appropriate converting mode	129
Setting the page format	132
PostScript print	138
PostScript file is not displayed	139
Images look overlapped	140
Font presentation is too angular	142
PS error warning, aborting conversion	143
Various types of errors	144
Glossary	146
Index	157



Introduction

What is ConvertPS?

ConvertPS is a product family, designed to meet all requirements in PostScript interpretation and consists of **the four components**:

- **ConvertPS Classic**,
- **ConvertPS Batch**,
- **ConvertPS Butler**, and
- **ConvertPS Command Line**.

With the help of ConvertPS, PostScript files may be interpreted into more common Windows formats such as Windows metafiles or bitmaps and may be edited subsequently.

On the whole PostScript files may be created with any Clipart-, CAD- or drawing program. It makes no difference whether they were created on a personal computer, a Macintosh-, UNIX- or any other system. A PostScript page description can also be 'hand written' in the PostScript code, called „native PostScript“.

To sum up PostScript files may be divided into the following categories:

- Native PostScript code (PS)
- Encapsulated PostScript (EPS, EPSF, EPSI)
- Adobe Illustrator Format (AI)
- Printfiles (PRN), which are generated for the output on PostScript printers

Usually these kinds of formats cannot be imported in any other application for further editing.



This is where ConvertPS comes into play: ConvertPS converts the original PostScript code of the file in question into a Placeable Metafile, or another adequate vector format. The converted image can subsequently be edited by any application which can import Windows metafiles.

Furthermore ConvertPS supports QuickView for files of the formats .PS-, .EPS- and .AI. Forthwith the contents of all these files may be viewed directly from out of the Explorer.

In the ConvertPS family ConvertPS Classic represents the basic program.

ConvertPS Classic is an independent product with all necessary functions for interpreting single files. Converting large amounts of PostScript data is easily achieved with the help of ConvertPS Batch.

ConvertPS Batch converts the data in the batch mode automatically and interactive.

ConvertPS Butler is a supplementary module, which none the less enhances the product family with a couple of very interesting features.

These are, e.g. its function as OLE server and as importfilter for Microsoft Office as well as Adobe PageMaker.

With ConvertPS Command Line it is now possible to convert files in command prompt mode of Windows.



Characteristics and areas of employment

The following section gives a structured outline of all essential characteristics ConvertPS has to offer:

Input formats:

- Native or Generic PostScript (.PS)
- Encapsulated PostScript (.EPS or .EPSF).
The files may also include a preview section in the TIFF-, WMF-, or BMP format.
- Adobe Illustrator Format (.AI)
- ConvertPS also recognizes printer specific operators, so that most of the PostScript print files can be processed.

Output formats:

- Windows Metafile (WMF) or
- Placeable Windows Metafile (Aldus Placeable Metafile)
- Bitmap formats: BMP, GIF, PCX, and TIF
- Enhanced Metafile Format (EMF)
- Vector formats : DXF, SVG and PDF

Functionality

- Support of Adobe-Type 1 and Type 3 fonts in PostScript files or fonts installed externally on hard disc
- Support of TrueType fonts for use as PostScript substitute fonts
- Flexible font substitution by definition of alias names



- Predefined page formats (DIN A1 to DIN A5) and free to define page formats (any size)
- Echo mode, to enable the checking of PS files
- Automatical ascertainment of bounding box to the size of the converted image or adaptation of page format as bounding box.
- Transformation of text in the respective graphic format or in the according direct text output commands
- Flexible transformation of halftone images into a specific output format with support of internal bitmap structures of the output formats
- Full color support (RGB, HSB and CMYK in 24 Bit)
- Options to save the metafiles created by converting (.WMF), or copy them into the clipboard (= opportunity to edit files subsequently in other applications)
- Print output on all printers supported by Windows 95 or Windows NT
- Scaling of converted files to the respectively set print format (e.g. converting A3 with subsequent print output in A4 possible)
- Preview function with zoom option for converted images and existing WMF files
- Applicability as importfilter for all Office 97-compatible software products compatible with Office 97, capable of importing images (e.g.: Microsoft Word, PowerPoint or Excel)
- To sum up: ConvertPS offers the opportunity to view and control every PostScript file on screen, furthermore import the converted files into most Windows applications and allow subsequent editing and printouts.



As all the important characteristics may be configured to ones' needs, ConvertPS can be set to meet even individual requirements.

ConvertPS is suitable for the professional employment in documentation- and translation departments, as well as in the preprinting step stage of e.g. graphic- and exposure studios or publishers. Here, the interpreter can lead the way in preparing PostScript files for further processing, even enabling a file exchange between different operating systems such as Windows, Mac-OS and UNIX.

ConvertPS offers the none professional user the opportunity to put out PostScript files on various different systems, like e.g. on screen or on simple printers which need not be equipped with the usual PostScript implementations. This is especially useful when PostScript files contain obscure information or the original source files are not available any longer.

Innovations in the version 4.5

In its upgraded version 4.5 ConvertPS has advanced to a complete conversion system which can process a wide scope of input and output formats.

The most innovative new features in the version 4.5 are the support of the output formats DXF, SVG and PDF.

In addition it is now possible to convert in command prompt mode of Windows. On the whole the user will find more possibilities to convert PostScript files and complete file packages.



System requirements

The minimal requirements for optimum converting results on your system are:

- 486 system
- 16 Mbyte RAM
- 4 Mbyte available space on hard disk
- Windows 95 or Windows NT





Installation Instructions

We advise you urgently to follow the instructions on the installation and de-installation.

ConvertPS can be delivered on CD-ROM and on a set of discs.

Installation by CD-ROM or discs

The installation of ConvertPS can be achieved both by disc and by CD-ROM. The process itself is the same with both methods.

There is merely a difference in how to open the installation executable file (installer.exe with CD ROM or Setup.exe with discs)

Windows offers various possibilities for doing this. At first place your disc or CD-ROM in the according drive.

CD-ROM with autorun

If Your system is set to "autorun" when installing from CD-ROM, the Master Setup window will appear automatically. You can now start the installation immediately without opening the file "installer.exe" beforehand.

CD-ROM without autorun

Is the option "autorun" not available or not activated, or you are installing from disc, you can search for the executable file (Setup.exe, installer.exe) via the Microsoft Explorer or the run dialog in the Startup-bar. When you install by CD-ROM, open the directory of the CD-drive and simply click the file "installer.exe".

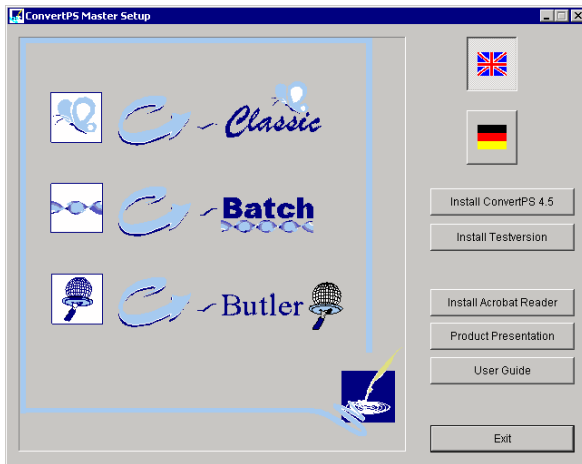


Installation by disc

When you install per disc, select the corresponding disc-drive on your system. You will find 3 folders named disc 1, disc 2 and disc 3.

The required "Setup.exe" is to be found in the folder called disc 1.

After that the ConvertPS Master Setup-window will appear



By choosing the particular flag you can either install the German or the English version. Additionally you are provided with the option to install the current version of the Acrobat Reader in order to read the user's guide available as a PDF document. Moreover there is a ConvertPS product presentation in Powerpoint offered





To continue with the installation, click the "Install ConvertPS" -button.

You can also directly select the folder with the desired language from the same directory. Each contains the folder

- ConvertPS_45
(containing the program installation files),
- Present
(containing the presentation in Powerpoint)
- ar302.exe
(the executable file for Acrobat Reader)
- the file proinfo.pdf
(product-information in the PDF-format).

Click the folder ConvertPS_45.

Inside you will find the same folders as on the discs 1, 2 and 3.

To start the installation of ConvertPS 4.5 call up the file "Setup.exe" in the folder named disc 1.

The following installation procedure is generally always the same and is not influenced by the previous operations.



General installation procedure

InstallShield Assistant

The installation procedure in general starts with the Setup of the InstallShield Wizard, which will lead you through the remaining installation procedure.

Welcome screen

After the Install-Shield Wizard has been set up the welcome screen appears automatically. Should you not be familiar with this dialog as yet read the information.

To carry on with the installation click "Next", to abort it click "Cancel".

User information

The next dialog to appear is the "user information" dialog: please enter the name and company name on which the program is supposed to be registered and along with that please enter the serial number too.

We would like to point out that many errors occur when entering the serial number due to mistaking various letters and numbers, such as "l" (capital letter "i"), "1" and "I" (small letter "L"). This can lead to entering a wrong serial number.

Following the entry of the required information, click "Next".





Confirmation of registration

Now you are required to confirm the registration. The details issued are once more presented and you are asked to check and confirm them. If the details are correct, click "Yes". Should you want to alter any of the details though, click "No" and the previous dialog appears once more.

Target path

The dialog following the confirmation of the registration details is called "target path". Select that particular directory in which the program files of ConvertPS 4.5 are supposed to be saved. Once you have appointed the optative target directory, click "Next".

Question

In the next window you can register ConvertPS as being the standard application for files of the type

- PostScript (PS)
- Encapsulated PostScript (EPS)
- Adobe Illustrator (AI).

This means that ConvertPS is automatically called up to open files of these particular formats. This option is activated by clicking the "Yes" button.



Choose components

The next dialog field issued is called "choose components". Here you may choose a selection of the various components offered by ConvertPS 4.0. Choose the desired components by clicking on them. They will then be marked by small hooks. If the selection completed, click "Next" once again.

Select program group

The following dialog "select program group" offers the option of listing the program ConvertPS under a chosen key word in the start bar. "ConvertPS" is the key word offered here, but you can choose any word you like and enter that or select any of the already existing programs from the list

Setup

When the necessary settings for the various components have been completed the setup will be initiated. A graphic depicting a progressbar shows the progress of the installation on screen. During the installation of the program files this process is intervened at a certain point by another window.





Standard PostScript directory

Select the directory in which to save all PostScript-files on your system by means of the offered up search mask.

Question

In the consecutive window you will be asked if you want to register ConvertPS as standard application for files of the type

Windows Metafile (WMF)

Enhanced Metafile (EMF)

That means ConvertPS is called up automatically for opening up files of this format.

Agree to the registration by clicking "Yes".

After the setup has finished installing the program files, the announcement of this must be confirmed by clicking "OK".

The installation screen is then closed and the desktop is available.

ConvertPS is now installed onto your system.



De-installation (remove)

The de-installation of ConvertPS is practised as usual on the Windows systems via the dialog window "add/remove program properties" in the control panel of the settings.

Note: It is not possible to remove ConvertPS by placing each of the single program folders into the recycle bin.



Install/de-install (add/remove)

Select that particular program you wish to remove from your system in the list, (here: "ConvertPS"). The button "add/remove" is now active. Click this button to resume the de-installation.

Confirm file delete

The window "Confirm file delete" requires your final confirmation to delete the selected application and the according components by clicking "Yes".

Remove programs from the computer

Consequently the Uninstallshield is opened and the program along with the according components are removed from the system.

Once the Uninstallshield has completed the deinstallation, acknowledge this by clicking the "OK"-button and thus leave the window "Remove programs from the computer" and also the Uninstallshield.

ConvertPS is now no longer on your system.



ConvertPS Classic: menu "File"

The menu "File" offers various functions which effect whole files when selected.



Open...

open the desired PS-, EPS- or AI file and display the first page of this file as metafile



Open Metafile...

open and display an available metafile

Close

close the currently opened PS-, EPS- or AI file

Close ALL

Close all currently opened PS-, EPS- or AI files



Save As...

save a chosen PostScript file as metafile



Print

set the following print options:

Current Page

print the presently converted page of the current PostScript file



Print All

print all pages of the current PostScript file

Preview

display a preview of the printout

Page Setup

change the settings of the default printer

Cancel Print

cancel the print job

File Info...

put out information concerning the opened PostScript file



ConvertPS Batch

call up the program ConvertPS Batch

ADSC-comments
see also p 58

Exit

end ConvertPS





Open

This function opens PostScript- and Encapsulated PostScript files (*.ps,*.eps).

When "Open" is selected, a dialog box of the same name appears with a selection list consisting of all files available for opening. By default setting the files on offer are reduced to those of the formats (*.ps), (*.eps) and (*.ai). Choose a different file format in the field "Type of Files "i.e. (*.ps), (*.eps), (*.ai) - for files of those formats, or "All Files (*.*)" - for all files available, no matter what format. You may open any file from the list you have chosen. Note though that ConvertPS can only work sensibly, with either PS- or EPS-files.

Some PostScript files include so-called ADSC-comments which give information on how many pages the PostScript file in question consists of. If ConvertPS has found such information (which do not necessarily go conform with reality) the amount of pages found is displayed in the statusbar. With this information and the control field "Page..." in the menu "View" you may display a specific page of the file.

By opening a PostScript- or Encapsulated PostScript file in ConvertPS the file will immediately be converted and the result displayed as metafile.

This is merely a proposed version though, which you may alter by choosing other settings and then converting the file anew. Save whatever converting result suits your purposes by clicking "Save As" in the same menu.

The converting process is displayed in a progress bar at the bottom of the main window.



Open Metafile



The function "Open Metafile" opens any particular metafile from the hard disk and views it in the graphic window of ConvertPS. This function is particularly useful for viewing metafiles that were converted in the batch mode.

ConvertPS offers the following options after loading an available metafile:

- checking the metafile with the zoom function ("View> Zoom")
- printing the metafile ("File > Print > Current Page")
- copying the metafile into the clipboard ("Edit > Copy Metafile")
- saving the metafile in another format, e.g. as bitmap ("File> Save As")

Close

The function "Close" closes the currently opened PostScript- or metafile.

ConvertPS has multi-document ability. Therefore it is possible to have a few files opened at the same time. It is not necessary to close one when another one is opened.

It is necessary to close a file when you want to open and edit it in another application though. This is because the file is engaged by ConvertPS. It is only released and thus available for another application when closed in ConvertPS.





Close All

If there is more than one file opened You can easily close all files by usage of the function "Close All". The program closes the files one after another. If changes have taken place, which have not yet been saved the usual question to save these changes will appear.

Save As

The function "Save As" saves the presently activated PostScript-, Encapsulated PostScript- or Adobe Illustrator file in any output format you choose from those provided by ConvertPS.

ConvertPS currently supports the output formats:

- Windows Metafile formats: EMF and WMF
- Encapsulated PostScript formats: EPS
- Bitmap formats: BMP, GIF, TIFF and PCX
- Vector formats: DXF, SVG and PDF

Name the file and add the respective file extension in the dialog box "Save As". Also check if the target folder is correct. Exit the dialog box by clicking "Save" in order to save the current file in the requested format or by clicking "Cancel" to abort the saving procedure.

When opening a PS- or EPS file with "File > Open" ConvertPS will interpret the file before displaying it. Save the result with "File > Save As" in the format of your choice. When saving a file in the bitmap format, the dialog box "Output settings" appears with the register card "BMP" in which you need to set the respective parameters.



Print



The menu "Print" offers the sub-menus

- Current Page
- Print All
- Printer Setup

Current Page

The function "Current Page" prints the metafile which ConvertPS has created from the latest opened PostScript- or Encapsulated PostScript file. As ConvertPS creates single metafiles from every single page within a multiple paged document, the latest metafile is the converted version of the current page.

Depending on the printer used, additional settings such as paper supply, size, memory, and format are required for printing the metafile. If the metafile is to be printed into a file, the target file name is also required. As for the numerous different printers on the market, it is not possible to describe the print out dialog in general. For help on the dialogs concerning the printing on your particular printer, refer to your printer manual or call up the Windows Online-help.

In any case you have the possibility to stop the printing of the metafile after the printing process was started. Click the "STOP" symbol in the toolbar or "Cancel" in the menu "Edit".



Print All

The function "Print All" prints all pages of the currently opened file. If necessary, remaining pages are converted so that all pages can be printed in the converted version.

ConvertPS will save these results in a cache. If any of the pages are called up afterwards, they need not to be converted again.

Note: The files in the cache are deleted when the program is closed, as they are not saved and stored. To do so, call the files up and save them as described in "Save as".



Preview

The function "Preview" enables you to view the results of the printout prior to printing.

Page Setup

The function "Page Setup" changes the various optional settings for the printer, such as the paper supply, the size and the format. The settings depend on the features of the employed printer and cannot be described in general. For help on this matter, refer to Your own printer manual or call up the Windows online-help.



Cancel Print

The "Cancel Print" function aborts the converting or printing process while in progress. You may also click the STOP symbol in the toolbar to achieve the same effect.

File Info



The function "File Info" supplies you with info on the currently opened PostScript file.

ConvertPS takes these information from the operating system or the PostScript file itself.

The details listed beneath ConvertPS file information are provided by the operating system:

- File Name
- Folder
- File Size
- File Date
- Number of Pages

The other details come from the opened PostScript- or Encapsulated PostScript file. They are voluntary entries within the file in question and therefore need not necessarily be correct. Often enough the according display is empty and no information is available, such as:

- Title
- Creator
- CreationDate
- BoundingBox
- Pages



ConvertPS Batch

This function opens the program ConvertPS Batch. ConvertPS Batch is an independent program for converting large amounts of PostScript data in the batch mode.

See also: ConvertPS Batch

Exit

The function "Exit" closes ConvertPS.



ConvertPS Classic : menu "Edit"

The menu "Edit" includes the following functions for editing the current documents:

Copy Metafile

copy the current metafile into the clipboard



Cut

display a selected rectangular cutout of the metafile in question



Extract Pages

save single pages from a multiple paged document into a separate file

note: the document must follow the ADOBE Document Structuring Conventions!





Copy Metafile

By clicking "Copy Metafile" the current metafile is copied into the clipboard. The image can be pasted into other applications and henceforth used and edited as required.



Cut

By clicking "Cut" the display of the currently visualized metafile is reduced to a selected cutout. This function is only available when the function "Clipping" is activated ("Clipping" is situated in "Output > Vector Formats" in the menu "Options").

- 1) Create a selection box around the detail you wish to cut out.
- 2) Do this by pointing the mousepointer to one of the corners of the intended selection rectangle.
- 3) Hold the left mouse button and by moving the cursor, you will automatically create a selection box.
- 4) It is important that you mark the exact part of the image you wish to cut out with this selection rectangle.
- 5) When you are satisfied with the selection let go of the mouse button.

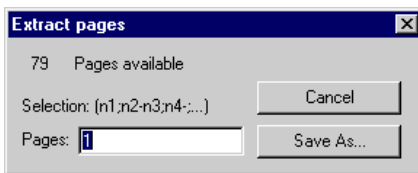
A dialog box will appear in which you may confirm your selection. In case you click "No", you may correct your selection directly.

Cutouts created this way may be saved in any of the output formats. They may be imported into other applications and edited subsequently.



Extract Pages

By clicking "Extract Pages", single pages extracted from a multiple paged document (which all follow the ADOBE Document Structuring Conventions) can be saved in a separate file. The document from which you would like to extract the pages, must be selected and opened (menu "File", option "Open"). By subsequently activating the function "Extract Pages" you are presented with the following dialog box:



Fill in the field "Pages:" with one of the following options

- choose a single page by entering the specific page number, e.g. "10"
- choose any number of consecutive pages by entering the first and last page number of that particular selection e.g. "15-20". If you leave out the last figure, then ConvertPS will automatically insert the last page number of the document.
- choose a variety of pages (i.e. a combination of the above possibilities) by separating the details with a semicolon (e.g. "10;15-20;25-")

The pages defined this way can be stored in a particular predefinable file in the same succession as laid down in the dialog "Save As". ConvertPS saves the pages by using the function box.



If e.g. the selection "20;10" was made, page 20 will be the first to be saved in the target file, only then to be followed by page 10.

When the first page number is higher than the last page number when defining consecutive pages, these pages will be saved in this, the reverse order:

e.g. if the figures "20-18" were set, then ConvertPS will save page 20 first, followed by page 19, followed by page 18.

Thus you can predetermine the structure of the target file by entering the selected pages respectively.

The separate file (target file) with the selected and converted extracts (single pages, selected range of pages) from a PostScript print file may be printed out. This way you can reduce the size of an otherwise massive print file to a print file that merely includes the desired pages.



ConvertPS Classic : menu "View"

The menu "View" contains various functions with which to view a particular page in the metafile format from the PostScript file currently in use. Most of the "View" functions commence the conversion. Therefore the function to "Cancel Conversion" was also situated within this menu.

Toolbar

display or hide the toolbar

Statusbar

display or hide the statusbar

Interpreter output

display the standard output window of the interpreter



Current Page

display the current page of the currently opened PostScript file in the EMF or WMF format



First Page

display first page of the currently opened PostScript file in the EMF or WMF format



Next Page

display the next page of the currently opened (multiple paged) PostScript file in the EMF or WMF format





Previous Page

display the previous page of the currently opened (multiple paged) PostScript file in the EMF or WMF format



Page...

display a particular page of the currently opened (multiple paged) PostScript file in the EMF or WMF format



note: this function is only available, when the document in question is structured according to the "ADOBE Document Structuring Conventions" (ADSC).



Cancel Conversion

abort the current conversion process



Zoom

zoom in the selected part of the currently displayed metafile



Toolbar

The function enables you to have the toolbar displayed or hidden as required.

Statusbar

The function enables you to have the statusbar displayed show or hidden as required.

Info Window

With the function "Info Window" the standard info window of the interpreter is activated. The information given in this window could be helpful in case an error occurs. All the standard outputs are listed here in chronological order from the opening of the program onwards.



Current Page

With the function "Current Page" the current page of the file is converted once more and displayed again. This might come in handy when e.g. you converted only part of the file by using the cutting tool and decide afterwards you rather had the whole file converted instead.





First Page

With the function "First Page" the first page of the PostScript file in question is converted and displayed. Hence the converting process starts at the beginning of the file and ends, i.e. is interrupted as soon as a page output command appears in the script (e.g. `showpage`) or the end of the file is reached. When the PostScript interpreter has arrived at the end of the first page (i.e. the page is converted and displayed) but not the end of the file, the file remains open and the function "Next Page" (or the equivalent symbol in the toolbar) is selectable.



Next Page

With the function "Next Page" ConvertPS is caused to proceed with converting the current PostScript file after the latest `showpage` command. Again ConvertPS will continue converting until the page is completed, which once more would be indicated by a new `showpage` tag or the end of the file.

The fact that there is still another page in the file to follow, is indicated by the ability to select the symbol "Next Page" in the toolbar or the equivalent function in the menu "View".



Previous Page

With the function "Previous Page" ConvertPS is caused to precede with the converting for the current PostScript file at the beginning of the previous page.



Again ConvertPS will continue converting until the page is completed, which once more is indicated by a new 'showpage'-tag in the PostScript script or the end of the file is reached.

The fact that there is a page previous to the one currently called up, is indicated by the ability to select the symbol "Previous Page" in the toolbar or the equivalent function in the menu "View".

Page...



The function "Page ..." enables the selection of a specific page from a multiple paged document. The document has to be in accordance with the "ADOBE Document Structuring Conventions" (ADSC) though. If it is not, the function is invalid for further procedures. If ConvertPS recognizes such a structure after opening the file, the number of pages found to which the structure applies, is displayed in the statusbar. Subsequently when the function "Page ..." is activated, the following option dialog will appear:



Now you can choose any page within the document. ConvertPS will go to the beginning of that particular page and convert it.





Cancel Conversion

The function "Cancel Conversion" enables you to interrupt and end the converting procedure, no matter which command initiated the conversion.

Those commands not applying to the current metafile initiate the converting of the page concerned and are also stopped when the conversion is aborted.



Zoom

With help of the zoom function you can enlarge details from a metafile:

- activate the zoom function in the menu "View" or by clicking the equivalent symbol in the toolbar.
- create a selection box around the detail you wish to zoom.
- do this by positioning the mousepointer in one of the corners of the intended selection rectangle.
- hold the left mouse button and move the cursor diagonally across - to the opposite corner.
- once you are satisfied with the selection, let go of the mouse button.

The selected part of the image will be displayed without distortion. The degree of the zoom depends hereby on the size of the selection box and the size of the window in which the metafile is displayed.

Press the right mouse button to return to the original size of the image. As long as the zoom is activated and has the shape of a magnifying glass, you may repeat the zoom function as described above as many times as you wish.



ConvertPS Classic : menu "Options"

The functions in the menu "Options" allow you to set important features in ConvertPS.

General...

set general parameters



Interpreter...

set parameters for the input



Fonts

determine font settings

Fonts Explorer

Fonts manager

PostScript

determine PostScript settings

Output

set parameters for the output



Vector Formats...

set parameters for the output of vector formats

Bitmap Formats...

set parameters for the output of bitmap formats

Default

set back to default settings

EMF Mode

switch to "EMF" mode

WMF Mode

switch to "WMF" mode

Import

import settings from .cps files

Export

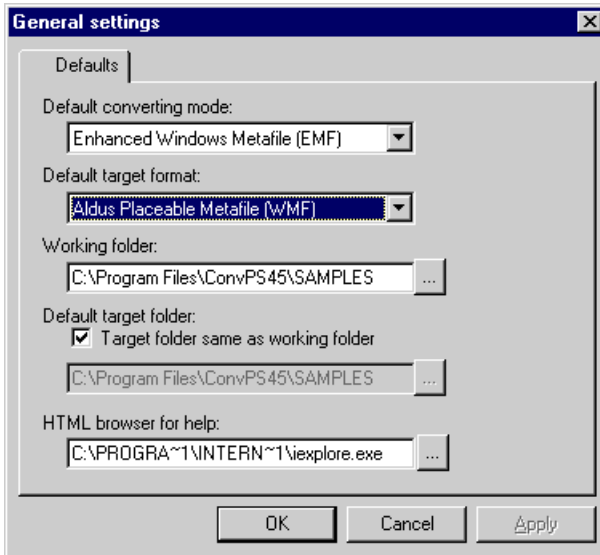
save settings as .cps file



General



In the menu "Option" you will find the selection field "General...". Here you can change 5 default settings, which apply to subsequent program starts.



The 5 default settings in detail:

Default converting mode

In this field you can decide upon the converting mode that is to be used when the program is started. You can find advice on choosing the most sensible converting mode for your intentions in "Advice..".



Default target format

In this field you may choose your own default target format for the function "Save As" in the "File" menu.

Working folder

Here you can establish, which working folder is opened by default in the dialog box "Open" in the "File" menu.

Default target folder

This control field enables you to use a target folder different from the working directory to store the finished target files. Usually the work is done within the same folder, therefore the default setting is "Target folder is working folder". To set a different target default folder, you need to deactivate this setting first

HTML browser for help

This selection field enables you to set your preferred browser to view the user's guide and help.



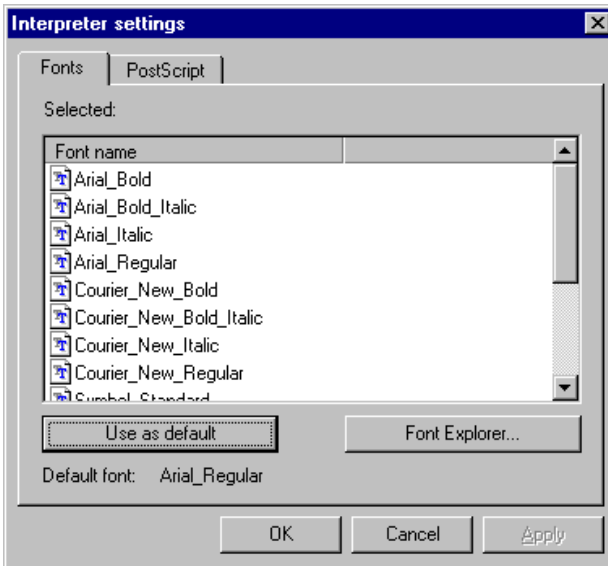
Interpreter

With this selection field the dialog box "Interpreter settings" with the register cards 'Fonts' and 'PostScript' is called up.

Fonts

The register card 'Fonts' consists of a selection window with all PostScript fonts currently installed for ConvertPS.





Meaning of icons:



TrueType Fonts



PostScript Fonts



Alias
(Font Substitution)

The currently selected PostScript font is displayed above the window. Beneath the font selection window there are the two buttons: "Use as Standard " and "Font Explorer...".

Use as Standard

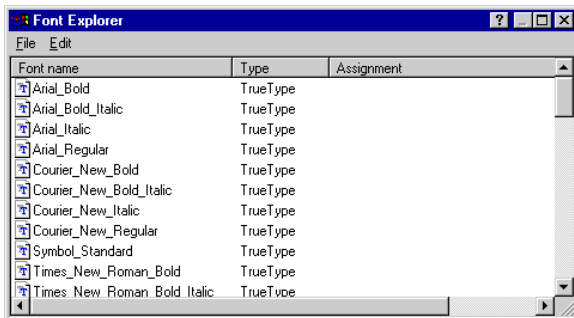
Standardize a font by selecting your choice from the range of fonts in the selection window and click "Use as Standard".

The name of the standard font currently in use is displayed at the bottom of the register card.



Font Explorer...

The dialog box 'Font Explorer' is called up by clicking the according button.



In the Font Explorer you can add or delete TrueType- or PostScript fonts. All PostScript fonts can be substituted by alias names.

The standard TrueType fonts are "Arial", "Courier New", "Times New Roman" and "Wingdings" in various different cuts. For every PostScript font an equivalent alias font is available.

The operations offered in the register card 'Fonts' are as follows:

- define new default-font
- install PostScript-font
- install TrueType-fonts
- delete fonts
- assign alias-names
- change alias assignment
- delete alias assignment



Define new default font

If a font cannot be defined over the installed fonts nor their alias names, ConvertPS will use the default font.

Change the default fonts as follows:

- choose the font you wish to standardize from the list of installed fonts in the selection window on the register card 'Fonts'.
- click the button "Use as default". The name of this font appears in the field "Default Font:".

Install PostScript font

How to add one or more PostScript fonts to the list of installed fonts:

- call up the Font Explorer, by clicking the according button on the register card 'Fonts'.
- when the Font Explorer is displayed, activate "PostScript" in "New" from the menu "Edit". the dialog window 'Add PostScript Fonts' appears. Choose that directory from which the intended PostScript fonts are stored on your system in the option field 'Look in:'.
- mark all those fonts you want to install in the window "PostScript Fonts:". If there is only one font activated, this font name will appear in the field 'File name:'.
- depending on whether or not your choice of selected fonts is final, leave the window 'Add PostScript Fonts' by clicking either "OK" or "Cancel". If you confirm your selection with "OK", ConvertPS will load every single one of those fonts. If a font is supposed to be loaded



although a font of the same name already exists ConvertPS will show a warning declaring the deletion of the old font by loading the new one. You may either agree with "Yes" or deny the loading with "No" (repeat the selecting process) or "Cancel" (abort the operation).

Install TrueType fonts

ConvertPS allows you to install TrueType fonts as substitute fonts for PostScript fonts. This is how to add a TrueType font to the list of installed fonts:

- Call up the Font Explorer by clicking the according button on the register card 'Fonts'.
- When the Font Explorer is displayed, activate "TrueType" in the menu "Edit > New".
The dialog window "TrueType Fonts" appears.
- Select a TrueType font in the selection window 'Font'. select a particular style (standard, italic, bold, bold-italic) for the font in question from the list 'Style'. check the currently selected font in its selected style in the field 'Sample'.
- Repeat these steps until you have found the desired font.



Note: every style of a font (standard, italic, bold, bold-italic) needs to be installed separately! As the TrueType fonts are employed as substitutes for PostScript fonts you should also take care that the TrueType font and its equivalent PostScript font have got as many characteristics in common as possible.



- leave the dialog box 'TrueType Fonts' by confirming your entries with "OK".

ConvertPS will then load the selected font. Click "Cancel" to abolish your entries.

Note: you will have realized that the name of the TrueType font created this way is made up directly from the chosen font and style. It is necessary to define alias names in case TrueType fonts are to substitute unavailable PostScript fonts. How to do so is describe in the section "Assign alias names"



Delete fonts

You have the possibility of deinstalling one or more of the fonts installed for ConvertPS. With deleting the font you will also delete the assignment between the font and the according alias name - provided such an alias name was defined.

Note: the operation to delete fonts has of course no effect on the font files they refer to.



How to delete one or more PostScript fonts:

- mark all PostScript fonts you wish to delete in the Font Explorer.
- activate "Edit > Delete" in the Font Explorer.
- all marked PostScript fonts will now be removed from the list. A dialog box might appear when you try to close the Font Explorer window, if the deletion in question muddled any of the assignments. The dialog box informs you that there are fonts with a faulty assignment and that this can result in converting



errors. If you wish to continue despite this warning, click "Yes". Click "No" to check the list again and correct it where necessary.

Assign alias names

Text included in PostScript files can only be put out if a PostScript font is designated to it. In many cases though these PostScripts fonts are either not available or have different names.

In the menu "Edit > New > Alias" you have the possibility to connect an alias name to every installed PostScript or TrueType font.

This is how to enter a new alias name:

- Select a PostScript- or TrueType font in the Font Explorer.
- Activate "Edit > New > Alias" in the menu.
(note: a doubleclick on the font in question has the same effect as these two first steps)
the dialog box 'Alias' appears, in which the name of the selected font is displayed. Enter the desired name into the entry field 'Alias name:'.
- Leave the dialog box 'Alias' with "OK", thereby confirming the new alias name or click "Cancel" to abolish it.

The new alias name appears on the alias list under 'Font name' in the Font Explorer with according counterpart registered under 'Assignment'.



Change alias assignment

how to change the assignment of a certain alias name to a specific PostScript font:

- Doubleclick the alias font of which you want to change the assignment in the Font Explorer.
- The dialog box 'Alias' appears, in which the selected font and its currently appointed TrueType- or PostScript font is presented. Change the alias assignment by selecting a different element from the list featured in the 'for font:' field.
- Leave the dialog box 'Alias' with "OK", thereby confirming the new alias name or click "Cancel" to abolish it.

The new alias name appears on the alias list under 'Font name' in the Font Explorer. The according counterpart is registered under 'Assignment'.

Delete an alias assignment

how to delete the assignment of an alias:

- Select the alias font in the Font Explorer of which you want the assignment deleted.
- Click "Edit > Delete" in the menu.

Note: this operation merely deletes the connection i.e. the alias font appointed by this connection. The TrueType- or PostScript font allocated to this alias name remains an installed font. If the option "Interpreter..." is selected, the register cards 'Fonts' and 'PostScript' will appear.

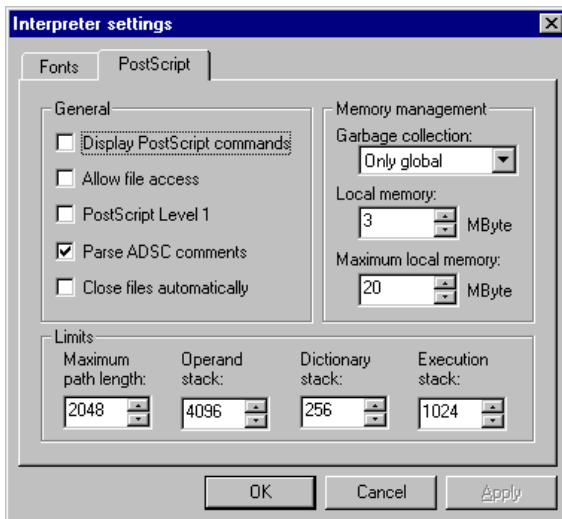


PostScript

In the register card 'PostScript' you can set all parameters that are relevant for the converting of PostScript. Please note, that all changes on the settings are stored directly in the registry of Windows 95 or Windows NT.

'PostScript' also offers various setting options which promise to be interesting especially for the PostScript experts amongst you:

Here you may adjust e.g. the interpreter settings in general, configure the memory management or predetermine special limits and values.



General

In the register card 'PostScript' offers the following interpreter settings in general:

Display PostScript commands

In case you want to see the PostScript commands read by ConvertPS on screen, then activate the option "Display PostScript commands" in the first control field. The PostScript commands will be displayed additionally to the standard output in the "Info Window".

The PostScript commands are usually invisible to the user. If an error causes the abortion of the interpretation it is important to be able to check out the PostScript commands in order to find the error.

Please note though that an activated display can reduce the performance of ConvertPS, even if the info window is not displayed on screen!

Allow file access

In the second control field you can activate or deactivate the option "Allow file access".

Note: Before activating this option you should be aware of the fact that the language of PostScript Level 2 also includes commands such as "Delete File" and "Rename File". Consequently the interpretation of a single PostScript file could destroy the complete file system of the computer. *"Allow file access" is not allowed as default setting.*



Emulate Level 1 PostScript interpreter

If you activate the control field "PostScript Level 1" the Level 2 PostScript interpreter will emulate the Level 1 PostScript interpreter. This way PostScript errors specific to Level 2 may be detected.

Parse ADSC comments

The control field "Parse ADSC comments" is activated by default. This setting is recommendable for all PostScript documents which answer the ADSC guidelines. These kinds of documents can be interpreted page independently, as all the globally used objects (e.g.fonts) need to be defined page overlapping.

Is the control field "Parse ADSC comments" activated, the interpretation of a multiple paged PostScript file is limited to the global definitions and otherwise only to the objects defined on the current page. For example: if you have a document consisting of three pages and have a font defined on page 2 which is also used on page 3, then this particular font on page 3 cannot be interpreted correctly.

Yet the correct interpretation can be ensured none the less by using this trick:

- deactivate "Parse ADSC comments"
- open the file anew and then interpret all three pages again one after the other. Thus the locally defined fonts from page 2 are still available on page 3.



When "Parse ADSC comments" is deactivated, it is not possible to visualize one page in particular, as details on page numbering are implied in the ADSC comments. But this is the only way to visualize multiple paged PostScript files with faulty ADSC comments at all.

Close files automatically

It might be sensible in some cases to activate the function "Close files automatically" when converting PostScript files. As soon as a new page from the currently opened PostScript document is displayed (and interpreted at the same time), the PS file is closed and reopened automatically. Imagine you have access to a PostScript file somebody else is working on at the same time: is the function "Close files automatically" activated, you will be updated on any alterations every time you change the page.

Note: This function cannot be activated for the currently opened document. If necessary open the current document anew.



Garbage collection

"Garbage collection" enables you to decide if, when and which storage areas are to be 'tidied up'.

The settings "On" and "Only global" activate the garbage collection when a certain percentage of virtual memory is occupied.



Local memory

In the field "Local memory" you can determine the initial size of the local memory between 2.500 KByte and 80.000 KByte. The prescribed size of the local memory is dynamically increased as required until the maximum size (set in the field "Maximum local memory") is reached. Should the allocated memory still not be enough for the conversion of a PostScript file, ConvertPS will abort the conversion with the error message "VMerror".

Maximum local memory

The maximum size of the local memory can be determined in the field "Maximum local memory". The size of the local memory cannot exceed this value dynamically. Should the error "VMerror" occur, you should increase this value. The maximum local memory can also reach 80.000 KByte at most.

Maximum path length

The paths used by PostScript for drawing and clipping are only supported up to a certain length in order to preserve resources. Should the error "Path overflow" occur you can increase the value for the maximum path length - in most cases this will solve the problem. You may enter a value between 2048 and 20480 in the field "Maximum path length".



Maximum stack size ('Limits')

By default the three stacks used by PostScript are supported only up to a stack-typical, sensible size in order to preserve memory. Should a "Stack overflow" error occur anyway, you may increase the maximum length of the operand-, the dictionary- and the execution-stacks in the fields of the equivalent names and thus solve the problem.

- The operand-stack
can consist of 2048 up to 7132 elements,
- the dictionary-stack
of 128 up to 384 elements and
- the execution-stack
between 512 and 1536 elements.

Output...



"Output..." in the menu "Options" offers you the choice of two dialog boxes in which to set the parameters for either the vector formats or the bitmap formats.

At present ConvertPS can create the output formats:

- EMF, WMF, EPS, DXF, SVG and PDF (vector)
- BMP, GIF, TIFF and PCX (bitmap)

(By clicking the "Output..." symbol in the toolbar you will receive a dialog box called "Output setting". This dialog box offers you register cards for each possible output format. There is no special classification in vector or bitmap formats.)



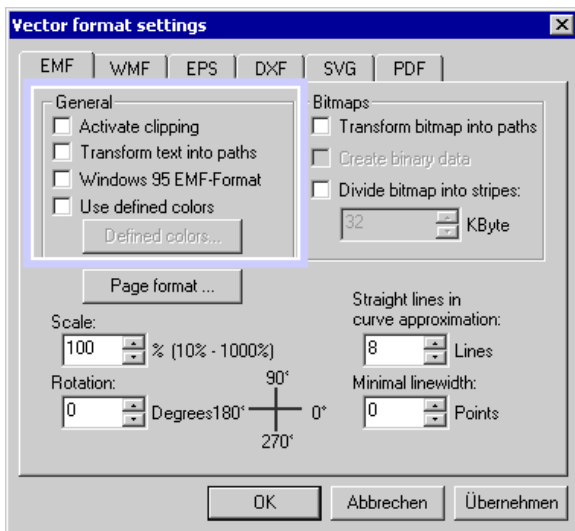
Vector Formats

If you choose the dialog box 'Vector Formats' after "Output" in the menu "Options" you will be presented the dialog box titled 'Vector format settings', with the register cards 'EMF', 'WMF' and 'EPS'.

The settings are all listed in the frames "General" or "Bitmaps". Beneath these frames you will find the remaining option as well as the keys for setting the pageformat.

General

The settings listed in the frame "General" are not the same or not available for all formats.



- "Activate clipping" applies to all 3 formats
- "Transform text into paths" only available for EMF, WMF, DXF, SVG and PDF.
- "Windows 95 EMF-format" is reduced to EMF the option for WMF here is "include PostScript".
- "Use defined colours" is only available for EMF and WMF.
- Using DXF You can choose, if You like to get a selection dialog and if lines shall be transformed into paths. Activated by default.
- With PDF You can choose, if You want to include PostScript comments. Deactivated by default.

Activate clipping

When the option "Activate clipping" is activated, ConvertPS will evaluate the clippaths of the PostScript file on converting and only then the 'initial clippath' will be included, too. The 'initial clippath' describes a virtual page format, which is prescribed to the interpreter. When "Activate clipping" is activated, this page and everything on it will be interpreted and displayed, everything else is left out.

Due to the fact that the evaluation of clippaths is a matter of intensive computing, it is sensible to deactivate this option at most times and renounce the results of the clipping.

"Activate clipping" is deactivated by standard default for all vector formats.



Transform text into paths

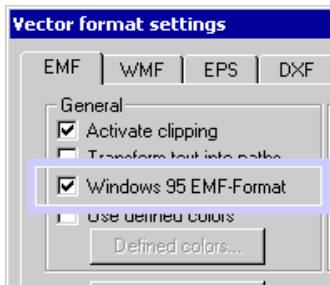
With the control field "Transform text into paths" you can determine whether you want to have the text transformed into paths (i.e. graphic image elements such as lines, filled polygons etc.) or into the text output commands specified by the WMF format.

Some applications can import WMF files but are not able to interpret metafile text output formats correctly.

For these applications the 'transformation of text into paths' is necessary. In general, this option is deactivated because the 'transformation of text into text output' command uses less memory and calculating time than the 'transformation into paths' command.

"Transform text into paths" is deactivated by standard default.

The third option for setting the parameters are different for each vector format:



- the settings for the EMF format offer the option called "Windows 95 EMF format".



- the alternative for WMF is "Include Post-Script".
- the only option available at all for EPS is "Activate clipping"
- If You use DXF, You can choose, if You want to get a selection dialog and if lines shall be transformed into paths. These two options are activated by default.

Windows 95 EMF format

"Windows 95 EMF format" is the option only available and useful for the EMF format.

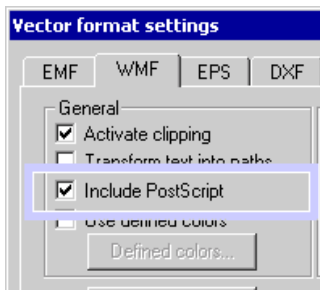
When converting PostScript files on an NT system, the files are generated for this operation system. These files are not Windows 95 conform. Windows 95 merely supports EMF to a certain extent, as EMF was not originally designed for this operation system. So in case you convert PostScript files to EMF files on an NT system and subsequently want to use them on a Windows 95 system, the conversion needs to be performed in favor of Windows 95. The option "Windows 95 EMF format" offers the opportunity to simulate Windows 95 on an NT system. Thus CovertPS will restrict the conversion to fit the capability of Windows 95 regarding EMF. EMF offers a lot of advantages and features which only those applications can make full use of, which support EMF in its entirety such as Windows NT. Yet due to the restriction of an EMF file owing to the nature of Win95, some of the EMF features are lost Windows NT. Hence the specific NT-capabilities for EMF cannot be applied any longer. Then again this option is the only possibility to view and use



EMF files on Windows 95 systems at all.

As this option is only needed for the specific purpose described above, this option is deactivated by default setting.

Include PostScript



When converting to WMF or EMF, the option "Include PostScript" enables you to embed the original PostScript code in either output format.

This function is most interesting, when images are supposed to be processed further. The converted file can be printed out on PostScript printers (the PostScript code is embedded) and also viewed in your application on screen (the application can display the format chosen for the conversion). This way you avoid losing any information by converting and have the greatest benefit from it.

"Include PostScript" is deactivated by standard default, simply to narrow down the size of the created file.



Transform lines into paths

Using this option in DXF format You can decide, if lines shall be transformed into paths in the currently opened file. This means, that by presentation of lines these shall be regarded as areas in respect to line thickness and if these lines shall be printed.

Insert PostScript comments

This option can be used in PDF format. It achieves the production of an index with help of the informations in the PDF-file. During the view of the file stored in pdf format with AcrobatReader an index with comments is available.

Use defined colors

The control field "Use defined colors" can be activated with either EMF or WMF as the chosen output format.

Is the option "Use defined colors" activated, ConvertPS will only use these for the output of the colors from the PostScript file but will seek out the one color from the defined palette which is closest to the original.

Currently up to 16 colors may be defined. Consequently the number of colors used is reduced down to 16 when creating a metafile. Depending on the color definition grey scale images or black-and-white images can be generated.

"Use defined colors" is deactivated by standard default.



Show defined colors

To view the userdefined colors :
 Activate the control field 'Use defined colors'.
 The button "Define colors" situated underneath
 can now be activated and the dialog box 'Color'
 will appear. You will find 16 color boxes beneath
 the heading "Custom colors".



Note: The color boxes are always filled, even if
 you have not yet defined any colors yourself. When
 you define your own colors you simply replace
 those in the color boxes by clicking the button
 "Define Custom Colors" .

On the right hand side a color matrix and a color
 bar is added to the dialog box. The color selected
 in "Custom colors" appears both in the color matrix
 and color bar and additionally in the field
 "Color|base".



Alter the color displayed in "Color|base" until it is to your satisfaction:

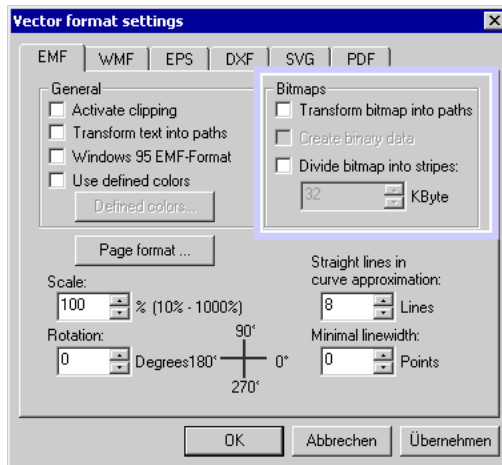
- You can create any color directly by entering the respective values for the additive color components (red, green, blue).
- You may also choose a color from the color matrix and the shade in the color bar.
- Furthermore you can choose a color from the palette offered under "Basic colors" and adjust it with the previously mentioned options.

When you have found the desired color, click "Add color", and this color will replace the one in the selected color box.

Repeat these steps until you have defined up to 16 colors. Click "OK" to confirm the new settings or "Cancel" to delete them.



Bitmaps



In the frame "Bitmaps" the options "Transform bitmaps into paths" and "divide Bitmaps into stripes" are available for all bitmap formats. Especially for the EPS format the option "create binary data" is available.

Transform bitmap into paths

"Transform bitmap into paths" enables you to convert bitmaps into paths i.e. bitmaps depicted onto filled polygons. The 'transformation into paths' is necessary in case the bitmap is to be altered by clipping in any way. The clipping only works with images made up of polygons, hence the bitmap needs to be transformed into a vector image i.e. paths. This transformation uses a great deal of memory and is time consuming. The resulting file itself is also very large. Therefore this option need



not be activated except for that specific purpose. Please remember to tick "Activate clipping" at the same time, otherwise there is no point in the transformation.

"Transform into paths" is deactivated by standard default as the use is limited to the specific purpose described above. The options are not available for the formats DXF, SVG and PDF.

Create binary-data

When setting the parameters for the output of EPS you can activate the control field "Create binary data". ConvertPS will then convert all the image data of the PostScript file from a hexadecimal to a binary presentation. If your print server supports binary coded image data, the amount of image data can be reduced by half.

"Create binary data" is deactivated by standard default, as the use limits the portability of the created file. The options are not available for the formats DXF, SVG and PDF.

Divide bitmap into stripes

The vector formats EMF, WMF and EPS may be divided into stripes by ticking the appropriate field: "Divide bitmap into stripes".

When you have activated this specific control field, ConvertPS will divide the PostScript file into stripes. Hence the conversion will take place stripe by stripe, enabling your system to digest even very large and computing intense bitmaps which would otherwise bust the graphical interface of the system.

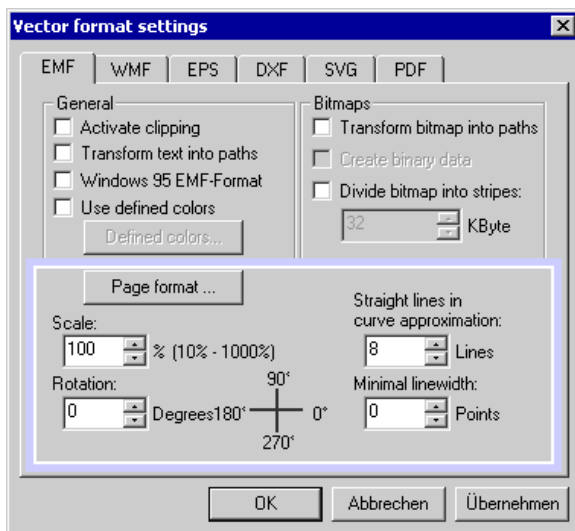


This setting is not necessary for smaller bitmaps
- on the contrary: it would increase the time needed for the whole procedure and should therefore be switched off.

In case you have activated "Divide bitmap into stripes" you may enter the width of the stripes (between 32 and 32.000 Kbyte) in the control field beneath.

The options are not available for the formats DXF, SVG and PDF.

Further options for setting the parameters



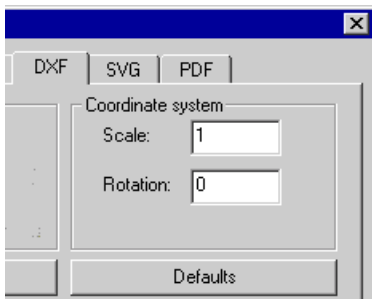
The remaining options for setting the parameters on the registercard refer to the way of displaying



the file in question. The options herefore are:

- page format (button for seperate window)
- scaling
- number of straight lines in curve approximation
- rotation
- minimal linewidth

DXF format coordinate system



On the register card for the DXF format the functions "Scaling" and "Rotation" are available. For Scaling You can specify the size of the represented picture. For example a setting of "2" provides an enlargement of the factor 2, the image will be of double size. The default setting is "1" to display the original size.

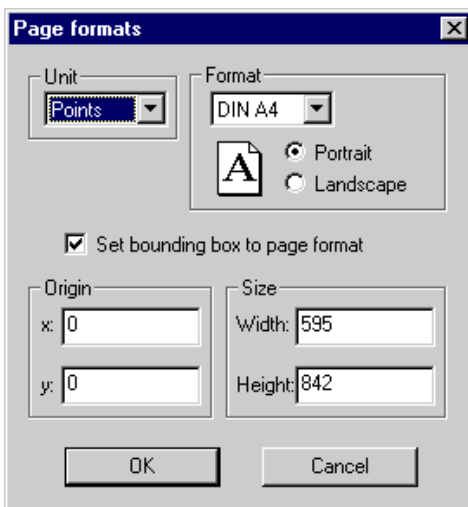
For Rotation of the objects You can set angles between 0° to 360° degrees. The default setting is 0° degrees to display a picture of the original.



Page format

You can set parameters for the page format for all vector formats.

ConvertPS uses the specified page format parameters for the converting of PS-files as well as for the creating of the metafiles. See below how to set the parameters for the page format:



Measuring unit

For "Unit" You can select the unit of measurement for the page format. You can chose between "mm", "cm", "Points" and "Inch".



Format

For "Format" You can chose between the different DIN-Formats, e. g. DIN A 1, DIN-A 4.

ConvertPS refreshes automatically the referring values according to "Width" and "Height". If you chose "Default" and the unit of measurement "Points", You get a coordinate system with the origin (-1000; 1000) and with height and width of 2000 points.

For the format "Printer" the page format settings will be automatically adjusted to the settings of the installed printer. You may also specify the values for "Height" and "Width" yourself. In this case "User" will be the selected format. Finally You can chose between the vertical or horizontal orientation of the page by activating "Portrait" or "Landscape".

The control field "Set bounding box to page format" is an additional function in ConvertPS.

This function enables you to define the bounding box yourself, by defining the page format. This is e.g. very useful when the positions of the contents of a PostScript file is unknown. Usually the bounding box presents the contents of a PostScript file to fit the box, i.e. the display window exactly. By setting the bounding box to the page format you decide on what the bounding box displays and define that particular area with the values set in "Origin" and "Size" (or opt for "Default" in "Format"). Thereby you can have the largest possible area displayed. Hence you can survey and locate the positions of each object that is included in the file. By setting new values for "Origin" and "Size"



relating to the previously set coordinate system you can work your way toward the desired object until you have targeted the specific cutout.

If this option deactivated, ConvertPS will calculate the bounding box itself. It is then sized down to the smallest possible rectangle to surround all objects. This bounding box is independent from any coordinate system as the objects in question are placed into the box instead of the box displaying a particular section of a coordinate system.

Should the settings in page format be ignored, it might be that the native PostScript code includes a 'setpagedevice' command. If such a command exists, the page format will be ignored and the values allocated to 'setpagedevice' applies. The information window will tell you if there is such a command and if so, what the parameters are.



Note: For the settings for the page format please be aware, that ConvertPS only converts the objects, that are placed in the chosen page format. For example by selecting the DIN A4 page format for a PS-File with a DIN A3 image ConvertPS converts only a part of this image - the part, that is placed on the DIN A4 format - and creates metafiles. In case the selected page format is larger than the source PS-object ConvertPS converts the image with a blank rim. ConvertPS stores the page format settings in the registry data base and uses these settings for the next program start. The default page format setting is DIN A4.

For additional information about page format settings see also "Tips".



Set scale factor

Just like the option page format You can specify the size of the graphic to be created of all vector formats except the DXF format, too. In the option "Scaling" You can set a scaling factor in percentage (%) according to the original size of the source document. With this You can minimize or maximize the measurements of the graphic to be created relating to the measurements of the original. The scaling factor effects the x-coordinate as well as the y-coordinate. For example the scaling factor 50 % reduces the graphic to be created to a quarter of its original size.

By default a scaling factor of 100 % is set to display the document in its original size.

Set straight lines in curve approximation

The field "Straight lines in curve approximation" allows you to set the number of straight lines that are to be used to depict a curve. Obviously the curve is smoother, the more straight lines are included in the approximation. Unfortunately the converting time rises proportionally with the number of lines used. Therefore it is up to you, to find a most suitable compromise between the smoothness of the curve and the converting time. Remember to take the resolution of the output device into account when deciding on the number of straight lines in the curve approximation.

The default setting of 8 straight lines has proved favorable for most PostScript files for both the screen display and the print.



Set rotation factor

For all vector formats You can set an angle of 0 degrees to 360° degrees in the option "Rotation". ConvertPS rotates the picture of a PS-file during converting. The rotation takes place counter-clockwise.

By default a rotation of 0° degrees is set (no rotation).

Set the minimal linewidth

For all three vector formats you can set the narrowest linewidth (in points) in the field "Minimal linewidth". This is the factor, ConvertPS is not to subside when creating a metafile. All lines that are thinner than the set value are depicted stronger.

By determining a relatively strong minimum linewidth, the quality of the display on screen e.g. can be improved in case of a relatively low screen resolution.

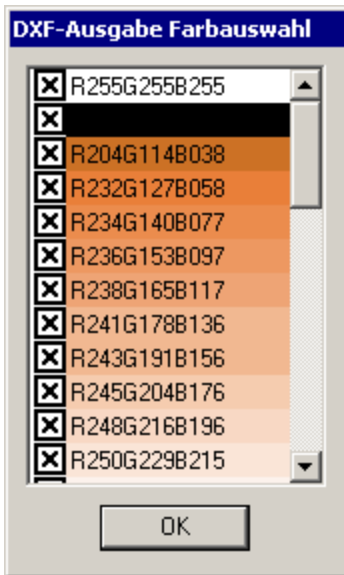
The default setting of the minimal linewidth is 0, so that all lines are put out unchanged.



Settings for file format DXF

Selection dialog

You can choose the DXF format register card under Options>Output>Vector formats. Click the button to activate the selection dialog in the field "General". If you want to save a file in the DXF format and have activated the selection dialog the following window appears:



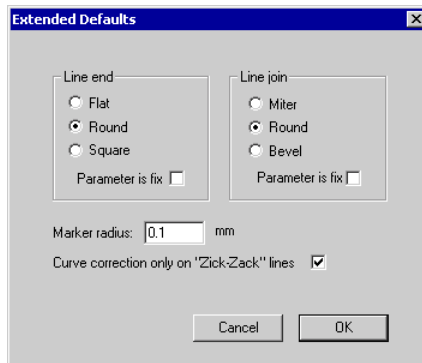
In this window all colors used in the current document are listed. On the left side the button ☒ appears. This symbol means, that the referring color shade will be considered for saving of the



file. You can deactivate the symbol with double-clicking on the symbol. Now the referring color will not be saved. With this selection of colors You can save parts of a document.

Default settings

If You click on the button "Default" the following dialog box appears:

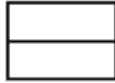


In this dialog box You can specify how You want to present line ends and line joins. Activate the options by clicking the referring buttons. For line ends You can chose between "cut", "round" or "quadratic". For line joins You can select "miter", "round" and "bevel".

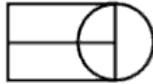


Line ends

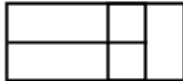
For selection of line ends three possibilities: cut round or quadratic. If You select "cut" the line will be cut off after the last point.



If You select "round" the area of a circle will be added to the line so that it gets a round appearance.



If You select "quadratic" there will be a square drawn around the last point of the line of which two opposite sides are parallel to the tangent to the line.



If You additionally activate the button "Settings for fix" these settings will not be changed by converting a new document. The setting "round" is activated by standard default.



Line joins

With this option You can determine the graphical presentation of the join of two lines. With the setting "miter" the outer border of two lines will be drawn on.



With the setting "round" the outer border of the line join of two lines will be rounded.



With the setting "bevel" the outer border of the line join of two lines will be cut off.



Here it is possible to click the "Settings for fix" button, too.



Marker radius

It can happen, that lines which occur in some documents do not pass into another continuously. ConvertPS smoothens this transition and shows You with a small circle the point at which the smoothing has taken place. This circle is called marker. The radius of this circle can be set here.

Maximum radius of curves

Every line is presneted graphically as a circle. Straight lines play a special role for their own presentation. Usually straight lines are defined as a circle with radius moving towards infinite. Since numbers against infinite are not presentable on computers the curve radius will be chosen as big as the presentation does not show any difference between a straight line and a circle line. These maximum radius can be set here, by standard a value of 25000 mm is set.

Curve correction

With Curve correction we describe the suppression of single deviations. In the text field "Curve correction up" You can determine from which value the curve correction will start for all deviations which deviate more than the entered value.

Set minimum line strength

See Chapter "Classic>Options - Set minimum line strength.



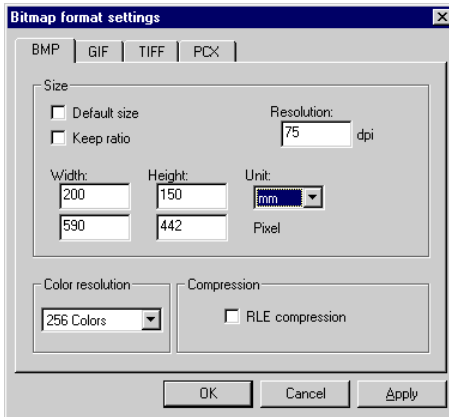
Curve approximation

Here You can determine the number of bases for curve approximation. The value shall be chosen high enough to ensure a most possible presentation of the curve. It shall be recognized, that the calculation time rises with increasing number of bases. The default set of 8 bases has proved favorable for most PostScript documents.



Bitmap Formats

If you choose the dialog box "Bitmap Formats" after "Output" in the menu "Options," you will be presented the dialog box titled 'Bitmap format settings' .with the register cards 'BMP', 'GIF', 'TIFF' and 'PCX'.



The register cards offer the following settings for the output of the bitmap formats:

Set size

The current size of the bitmap in question is displayed in the fields "Height" and "Width". This size derives from the format of the metafile (i.e. to suit the bounding box). You may change these figures according to your requirements but only if the option "Default size" is deactivated. The image that is to be created is then scaled to this size. Enter the required size in the spaces for the



"Width" and the "Height" or change the resolution (see control field top right). The size can be measured in "mm", "cm", "Points" or "Inches" (as offered in the control field 'Unit') or in pixel - depending in which line you fill in the spaces. The value of the other two spaces is calculated automatically in respect to the current value of the resolution. Correspondingly, the height in inch results from the height in pixel and the resolution (dpi = dots per inch).

If you want to preserve the ratio of the image, tick the option "Keep ratio". Depending on which value you set, the other will be calculated according to the ratio, i.e. when you set the width, the height will be adjusted automatically and vice versa.

If you want to go back to the original size, tick the option "Default Size". The default setting for both the height and the width of a bitmap is 1 inch. This accounts to the number of 75 pixel at a default resolution of 75 dpi.

The default screen resolution is 75 dpi. Should you require a higher resolution for the bitmap you want to create, you may raise this value to up to 500 dpi (a standard value is 300 dpi). Note that on the one hand, a higher resolution improves the display on screen but on the other hand uses up more memory (quadratic increase).



Set color resolution

The number of colors used to create the bitmaps can be set in the control field "Color resolution" for all bitmaps formats. the following options are on offer:

2 grey scales: monochrome (black/white image)

16 grey scales: change to 16 grey scales

256 grey scales: change to 256 grey scales

16 colors: reduce to 16 colors

256 colors: reduce to 256 colors

TrueColor: 16 Mio. colors (not in the GIF format!)

Note: the number of actually creatable different colors depends also on the current screen mode of your specific graphics card. If your screen mode only allows 16 different true colors, only max 16 colors can be set in the "Color resolution" option, i.e. the settings "256 Colors" and "True Colors" can only depict up to 16 colors. All other colors are simulated by dithering.



Set compression

When setting the parameters for the BMP-, the TIFF- and the PCX- formats, you have the possibility of reducing the required memory by compression.

This option is not available for the GIF format, simply because a conversion to GIF implies an efficient compression itself (LZW compression after Lempel Ziv Welch).

For the BMP- and the PCX format you may activate a so called "RLE compression". The RLE-



compression (Run Length Encoding) comprises successive points with equal color values. Depending on the color resolution either the RLE8- (8 Bit per pixel) or the RLE4- (4 Bit per pixel) method of compression is used.

For compressing the TIFF format the following alternatives are applicable:

- no compression
- Pack Bits: Run Length Encoding (equivalent to RLE compression)
- LZW: efficient compression after Lempel Ziv Welch

When compressing the TIFF format, the image data is saved in horizontal stripes, whereby each stripe -except for the last one- includes the same amount of image lines. Additionally to the type of compression, you may also set a value for the width of these stripes. Enter the desired value in kByte in the field "Stripe width".

Set format

The register card, on which you can control the settings for the GIF format, you will find the field 'Format' instead of 'Compression' as on the other register cards

Here you can choose the particular GIF version, "87A" or "89A". The GIF version GIF89A (introduced in July 1989) is compatible with version GIF87A (introduced in May 1987), but consists of additional i.e. extended graphic items.



As the GIF format can take in more than one image (not supported by this module), it is possible to arrange for a global palette for all included images. This technique is common with single images, too, and preferred to local tables. When you activate "Global color table", a global color table will be generated.

Another special feature provided by the GIF format is the ability to store images interlaced. This is done by ticking the box "Lines interlaced". The image is divided into 'leaps' of 8 lines each and then saved staggered. This method allows a relatively early preview of the complete image during its transmission, which is refined in the progression.

Default

When you activate "Default" in the menu "Options", all settings for the interpreter and the output formats are set back to the default settings.

These default settings have proved favorable for converting most PostScript files. At least they offer a good starting point for your own parameter settings.

You should also fall back on the default settings when you have received unwanted results with your own settings, especially if you cannot recognize a connection between them and the behavior of the interpreter.

When you activate "Default" a dialog box will appear in which you can either confirm the default settings or abort this procedure with "No".



EMF Mode

You activate the converting mode EMF by clicking "EMF Mode" in the menu "Options".

The chosen mode is then marked by a tick.

WMF Mode

You activate the converting mode WMF by clicking "WMF Mode" in the menu "Options".

The chosen mode is then marked by a tick.



Note: Advice on how to choose a converting mode can be found in the chapter "Advice...".

Import

This option enables you to open a file with predetermined settings. These files are created in "Export" and have the endings (.cps). By opening such a file, the saved settings for "General", "Interpreter" and "Output" are activated.

Export

This option enables you to save the certain settings for "General", "Interpreter" and "Output" in a file (.cps). Hence you can reactivate these settings any time you like. By the way you can also start ConvertPS by double-clicking a .cps file.

Moreover these files are compatible with both ConvertPS Batch and ConvertPS Classic.



ConvertPSClassic: Toolbar

ConvertPS offers a tool bar for even faster selection of various service functions.



The functions are represented by the following icons in the tool bar:

open a PS-, EPS- or AI-file for conversion



open and display an existing metafile



save a selected PostScript-file as metafile



print the converted page of the PostScript-file in question



display information on the presently opened PostScript file.



display the info window for the PostScript standard output.





zoom (i.e. enlarged) and display the selected part of the present metafile.



convert the selected PostScript-file and copy the thereby created metafile into the clipboard.



cut out the selected area from the current display (and repeat the conversion reduced to this cut-out. This option is only available with clipping)



update (renew) the display of the current page of the presently opened PostScript file in the EMF- or WMF format.



display the first page of the PostScript-file in question in the EMF- or WMF-format.



display the previous page of the PostScript-file in question in the EMF- or WMF-format (only with multiple paged documents).



abort the conversion or the current printing job



display the next page of the PostScript-file in question in the EMF- or WMF-format (only with multiple paged documents).



display a particular page of the PostScript-file in question in the EMF- or WMF-format



set the general parameters



set parameters for the input



set parameters for the output



info on the current ConvertPS version



ConvertPS Classic, -Butler: Statusbar

At the bottom of the active graphics window, ConvertPS Classic and ConvertPS Butler offer a statusbar, to give a quick survey of the current settings.



The items on the statusbar from left to right refer to the following settings:

to get help, press F1

short help on the objects beneath the mousepointer or buttons.

The remaining buttons show whether the according functions are switched on or off by the position they are in. The pressed-in position means the function is switched to "on".

EMF

image format (EMF or WMF) of the present image (EMF in this example)

Clipping

Clipping on or off
(switched to "off" in this example)

BBOX

set bounding box as the page
(switched to "on" in this example)



TEXT

direct text output
(switched to "on" in this example)

ADSC

parse ADSC comments
(switched to "on" in this example)

P 1

displays the page number of the current multiple
paged PostScript file

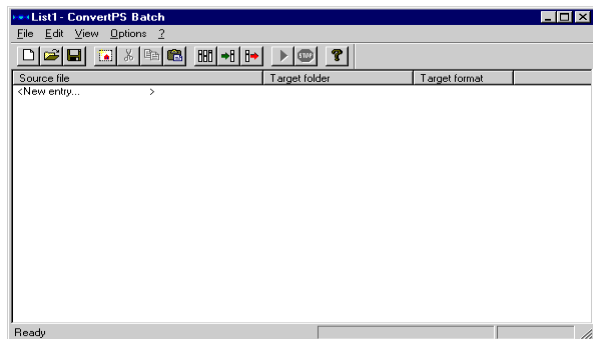


ConvertPS Batch

Converting in the Batch mode

ConvertPS offers the opportunity of converting PostScript files in the batch mode. The whole process of converting large amounts of PostScript data or a complete list of files is automatised, subsequently simplifying and reducing the workload for the user.

You can run ConvertPS in the batch mode by choosing the option "File>ConvertPS Batch" from the menu or by calling up ConvertPS Batch directly (i.e. instead of ConvertPS Classic). Consequently the ConvertPS Batch editor will be displayed:



ConvertPS Batch Editor

The main window of the ConvertPS Batch editor is set up like the explorer. The list presented is initially empty.

This list must be created first, i.e. filled with the PostScript files that are to be converted in the batch mode. The entries required include the source file and path of each entry, along with the target folder and target format.

How to proceed with creating such a list, editing it when necessary and finally converting it, is explained in the chapter "The Batch mode" following the description of the various menu options

- File
- Edit
- View
- Options

and their functions.



ConvertPS Batch: menu "File"

The options offered in the menu "File" within ConvertPS Batch are:

New

for opening an empty list in order to fill in all files that are to be converted.

Open

for opening Batch-lists with the acronym *.cbl.

Save

for saving Batch-lists as *.cbl-files

Save under

for selecting the folder under which to save the Batch-list as *.cbl-file.

1, 2

for opening the two most recently called up files anew by clicking either one listed here.

End

for closing down the program



ConvertPS Batch: menu "Edit"

The options offered up here all refer to either the list that is about to be created or the various entries.

New

This function refers to the entries in the list about to be created. In order to add a file to the list it has to be opened via this function. Hence the dialog "open", is opened in which the desired file can be selected. After confirmation of the selection with "OK" it is added to the list.

Open

This function refers to the opening of already saved Batch-lists (*.cbl). These can also easily be "dragged and dropped" from the Microsoft Explorer into the ConvertPS Editor where they open automatically.

Cut out

This function refers to the selected entries in the currently opened list. When this function is applied, the files selected in the list are cut out and placed into the clipboard.

Copy

This function refers to the selected entries in the currently opened list. When this function is applied



the files selected in the list are copied and placed into the clipboard.

Insert

This function refers to the selected entries previously cut out or to copied files. With this function these files are added to the list.

Delete

This function refers to the selected entries in the currently opened list. When this function is applied the files selected from the list are deleted and hence removed from the list.

Select all

This function automatically selects all files listed in the currently opened Batch list. Further advice on selecting files is given at the end of this chapter.

Target folder

This function sets the target folder for the selected PostScript file. Via the window "open folder" which is called up by this operator, you can choose that folder in which the file is to be saved as metafile.

Target format

With this function another pull-down-menu is opened, in which the available target formats are



recorded. The target format for selected files from the list, i.e. which they are supposed to be converted into, can be chosen from these available formats.

The formats are:

- EMF, WMF, EPS, DXF, SVG and PDF (vector)
- BMP, GIF, TIFF and PCX (bitmap)

Before any of the entries from the list can be converted, a target format must be allocated to each.

Start conversion

With this function the conversion process of the currently opened list is started. Each of the source files in the list must have an individual target format and target folder assigned to it. ConvertPS then commences with the automatical conversion of all files stated in the list: Each file converted to the individually assigned target format and then saved in the assigned target folder.














ConvertPS Batch: menu "View"

The menu "View" offers the options toolbar and statusbar, which can be displayed on screen by choosing them here.

Toolbar

By choosing this function the toolbar is displayed on screen. The icons and their equivalent functions on the toolbar are as follows:

	New (menu "file")
	Open (menu "file")
	Save (menu "file")
	New entry (menu "edit")
	Cut out (menu "edit")
	Copy (menu "edit")
	Insert (menu "edit")
	General (menu "options")
	Interpreter (menu "options")
	Output (menu "options")
	Start (menu "edit")





Abort



Info (menu "?")

Statusbar

By choosing this function the statusbar is displayed on screen. It shows information on the currently converted file, e.g. the filename and the page.

ConvertPS Batch: menu "Option"

The parameters in the menu "options" are identical to those offered in the program Classic.

Yet in contrast to the ConvertPS Classic menu the options offered in the ConvertPS Batch menu refer to CBL-files, i.e. lists of PostScript files and /or single elements of these lists and not to metafiles or the content of metafiles.



The Batch mode:

The following describes how to create, to edit and finally how to convert a list of files in ConvertPS Batch.

Create a ConvertPS Batch list

After starting ConvertPS Batch, the displayed list is initially empty. All the PostScript files due to be converted must be entered into the list. This is how to do so:

New list

Open the dialog box "Open" by activating "New" in the menu "Edit" or in the context menu (keep hold of right mouse button). You may also click the according icon in the toolbar or simply doubleclick "<New entry>" in the list.

Source file

Choose a folder in which PostScript files are kept on your system in the option field "Look in:". Now choose a PostScript file and open it with "Open". The dialog box is closed and the chosen file then appears as the last entry on the list. The current path of the according source file is registered under "Source file". The second column of the list shows the target folder in which ConvertPS Batch saves the created metafile when finished. At first ConvertPS will proposition the default target folder registered in "Options > General...". Choose a folder in the dialog window "find" in which PostScript-files are kept on your system. Now select a Post-Script-file within this directory



and leave this window via the "open" button. Hence the selected file will appear as the last element in the ConvertPS Batch list. The current path of the source file is stated in the column named "source file".

Target folder

Enter the name of the folder in which ConvertPS Batch is to save the created meta file in the column "target". First the standard-target folder will appear as registered under "options > general...". To set a different target folder, open the dialogbox "open directory", in which you select the belonging source file and then activate the function "target folder" either in the menu "edit" or in the context menu. You can also double-click on the name of the default target folder. Now select the desired directory from those listed in this dialogbox and confirm this choice with "OK".

Target format

In the column "target format" enter the format in which the created metafile is supposed to be saved. First the standard- target format will appear as registered under "options > general...". Continue as follows to set a different target format: select the belonging source file and then activate the function "target format" either in the menu "edit" or in the context menu. You can also doubleclick on the name of the currently set target format. Forthwith a selection box will be displayed in which you can set a different target format.



Now repeat the previous steps until all files that are to be converted are entered in the list with the according target folder and format.

Save the thus created list as CBL-file via the menu option "file > save under...".

Edit ConvertPS Batch lists

The currently displayed ConvertPS Batch List can be edited with the following operations:

Cut out elements:

by using the function "Cut out" on or more elements can be cut out, thereby placed into the clipboard and subsequently deleted from the list.

Copy elements:

by using the function "Copy" on or more elements can be copied into the clipboard.

Insert elements:

"Insert", any elements from the clipboard can be inserted anywhere into the list.

Delete elements:

by using "Delete", one or more elements can be deleted from the list.



Add elements:

by using the function "New Entry", a new element can be added to the end of the list. (see also point 1 and 2 of the section "Create a ConvertPS Batch list"!).

Change the target folder of an element:

by following the same guidelines as described in "Create a ConvertPS Batch list", the target folder allotted to the element in question can be changed.

Note: All editing-operations are offered both in the menu "Edit" as well as in the context menu. The context menu appears by clicking the right mouse-button.

Furthermore some of the functions can be activated via the toolbar.

(see also chapter ConvertPS Batch "Toolbar")



Selecting elements from the list

Before conducting any of the described operations on particular elements in the list, these elements have to be selected by mouseclick first.

If you want to select any elements listed directly beneath one another in the list, simply keep the shift key pressed while selecting both the first and the last of these elements. All the elements listed in between will be selected automatically too.

If you want to select various elements that are not listed directly beneath one another in the list, keep the CTRL key pressed while clicking those files you wish to select. This enables you to collect the files in question in one selection.

You can also undo the selection the same way: keep the CTRL key pressed whilst clicking each of the selected filenames you wish to remove from the selection.

Converting ConvertPS Batch lists

Proceed as follows to convert the currently displayed ConvertPS Batch list partially or completely:

First of all select all elements in the currently displayed ConvertPS Batch list you wish to convert by means of the batch mode.

For selecting numerous files use the Shift key or STRG key method as described in "Selecting elements from the list"



Now activate the menu option "Start conversion".
You can choose this option either in the menu
"Edit", or in the context menu (click right mouse-
button)

Another possibility is to click the "Start" icon in
the toolbar

ConvertPS Batch will then work its way along the list
in sequences. Single paged documents will be saved
in the allotted target format and under the designated
target folder.



ConvertPS Command Line

General

The ConvertPS Command Line program 'CPS.EXE' enables the conversion of PostScript files in the command prompt (DOS-Prompt, Shell) of Windows\NT -\9X. To use this You open the Windows command prompt, e.g. by clicking the 'START' button and then point to 'Programs'. Click 'Command Prompt' and change to the directory in which ConvertPS has been installed. Now You can convert PostScript files by entering the following text in the command prompt:

```
C:\Programme\ConvPS45>  
cps SOURCE /fFORMAT [/dZielpfad] [/o] [/i] [/?]
```

Command Line parameters

The parameters of ConvertPS Command Line 'CPS' mentioned above have got the following meaning:

SOURCE :

For SOURCE the following inputs can be made:

Specifying a single file:

name.ps	- the file 'name.ps'
tite.eps	- the file 'tite.eps'
example.ai	- the file 'example.ai'



Specifying files with wildcards:

- `abc*.ps` - all files beginning with the characters 'abc' and with file extension '.ps'.
- `*.ps` - all files with file extension '.ps'.
- `*.*` - all files in the current directory.
- `????*.ps` - all files with four characters and file extension '.ps'.
- `???yz.eps` - all files that names consist of five characters, end with yz and that got the file extension '.eps'.
- `gh?????.*` - all files that names consist of seven characters and begin with 'gh'.
- `qrs????.ai` - all files that names consist of seven characters, begin with 'qrs' and that got the file extension '.ai'.
- `qrs???yz.ps` - all files that names begin with 'qrs', end with 'yz', consist of eight characters and that got the file extension '.ps'.



Specifying files with path reference:

```
C:\PROGRAM FILES\CONVPS45\SAMPLES\test.ps  
D:\Data\PostScript\*.eps
```

/fFORMAT:

The file(s) SOURCE shall be converted to the referring format FORMAT. For FORMAT You can choose between the following formats:

WMF	- Windows Metafile
WMFA	- Windows Metafile Aldus placeable
EMF	- Enhanced Metafile
SVG	- Scaleable Vector Graphics
PDF	- Portable Document Format
DXF	- Drawing Exchange Format
EPS	- Encapsulated PostScript
BMP	- Windows Bitmap
GIF	- Graphics Interchange Format
TIF	- Tagged Image Format
PCX	- PC Paintbrush Format

/dDest. Path:

With the target path You can choose the directory where You want to save the converted file. The target path has only to be indicated if You do not want to store the file in the current directory.

/i:

With this option the dialog box with register cards for the settings of the interpreter of ConvertPS Batch will be opened. Here You can determine the standard fonts and settings for PostScript.



/o:

With this option the dialog box with the register cards for determining output parameters will be opened as described in ConvertPS Batch '>Options>Output'. You can specify the output parameters like rotation, colors, page format, clipping, etc. in accordance to the selected format. The conversion will be started after confirmation of the settings.

/?:

With this option the help text will be called. You get a short information about possibilities of conversion in Command Line mode. With this option no conversion will take place.

Examples:

General use

If You want to convert the file 'new.ps' in the GIF format and to save the converted file in the current directory so the input has to be:

```
cps new.ps /fGIF
```

The parameters 'SOURCE' and '/fFORMAT' are the only parameters that always have to be specified.



Specifying the target path

If the converted file shall be saved in another directory this can be made by referring to the optional parameter '`/dDest.path`':

```
cps new.ps /fGIF /dC:\Examples\Test
```

After the conversion of 'new.ps' the file 'new.gif' can be found in the directory 'C:\Examples\Test'. If the indicated target directory does not exist the conversion will be cancelled with a referring message (see below).

Conversion with 'wildcards'

If You enter:

```
cps *.ps /fEMF
```

Convert PS converts all files with the file extension '.PS' in the current directory in the EMF format. In case this is a large number of files You can direct the Command Line output in a file, e.g. by entering the following input:

```
cps *.ps /fEMF >error.log
```

After the conversion has taken place You will find all referring messages, particularly the error messages in the file error.log This file can be displayed e.g. with the text editor Notepad.



Help of ConvertPS Command Line

If You need information about the available parameters You can enter the following text in the command line mode:

```
cps /?
```

Then the following short help text will appear on the screen:

```
ConvertPS 4.5 - Command Line PostScript
Converter Copyright(c) 2000, Computer
Hake u. Said GmbH
Usage:
CPS SOURCE /fFORMAT [/dDest.path] [/o]
[/i] [/?]
SOURCE source files (wildcards are
possible)
/o,/O display the output option dialog
/i,/I display the interpreter option d.
/d,/D specify a path for destination files
/? this help screen
FORMAT:
WMF -> Windows Metafile
WMFA -> Aldus placeable Metafile
EMF -> Enhanced Metafile (default)
SVG -> Scaleable Vector Graphics
PDF -> Portable Document Format
DXF -> Drawing Exchange Format
EPS -> Encapsulated PostScript
BMP -> Windows Bitmap
GIF -> Graphic Interchange Format
TIF -> Tagged Image Format
PCX -> PC Paintbrush
```



Specifying the parameters for input and output

Change of interpreter settings

If You want to change the interpreter parameters for conversion You can activate the dialog box for the settings of interpreter options by adding '/' i'. For the conversion of the file 'new.ps' in the SVG format with preselection of the interpreter options the input has to be:

```
cps new.ps /fSVG /i
```

First the dialog box "Interpreter settings" appears. In this dialog box You can change the interpreter settings (see also chapter Options - Interpreter). After closing the dialog box the conversion will start with changed settings.

Change of output settings

Due to the interpreter settings You can change the settings for the output format prior to conversion, too. Therefore You add the option '/o':

```
cps new.ps /fGIF /o
```

Specifying the path for ConvertPS

If You want to start ConvertPS Command Line from any directory without entering always the entire program source path You should include CPS-installation directory in the environment variable



'PATH'. You can proceed this with following methods:

1. Enter in the command prompt window:

```
set path=%path%;C:\PROGRAM\CONVPS45
```

And the specification of the source path of ConvertPS is no longer needed. This setting is valid for the current window session and will be deleted after closing the command prompt window.

2. If You work with Windows/NT You can use the menu item "Start>Settings>Control Panel> System" and then include the directory of ConvertPS 4.5 in the environment variable 'PATH' under the item "environment". This setting will be activated by starting every new command prompt window.
3. If You work with Windows 95/98 You can configure easy access to the ConvertPS Command Line by adding the line:

```
set path=%path%;C:\PROGRAM\CONVPS45
```

Error messages

Unknown format

Example:

```
cps name.ps /fSVX
```

If You refer to a file format that is not known by



ConvertPS (e.g. SVX) the following message occurs on the screen:

```
ConvertPS 4.5 - Command Line PostScript
Converter Copyright© 2000, Computer Hake
u. Said GmbH
Unknown format: SVX
FORMAT:
WMF  -> Windows Metafile
WMFA -> Windows Metafile
EMF  -> Enhanced Metafile (default)
SVG  -> Scaleable Vector Graphics
PDF  -> Portable Document Format
DXF  -> Drawing Exchange Format
EPS  -> Encapsulated PostScript
BMP  -> Windows Bitmap
GIF  -> Graphic Interchange Format
TIF  -> Tagged Image Format
PCX  -> PC Paintbrush
```

Not existing directory

Example:

```
cps new.ps /fGIF /dC:\Beispiel\Test
```

If the directory 'C:\Examples\Test' does not exist and You enter the text above ConvertPS will provide the following error message:

```
ConvertPS 4.5 - Command line PostScript
Converter Copyright© 2000, Computer Hake
u. Said GmbH

Could not find the directory:
C:\Examples\Test
```



File not found

Example:

```
cps name.ps /fSVG
```

If ConvertPS cannot find the file 'name.ps' so the error message

```
ConvertPS 4.5 - Command Line PostScript  
Converter Copyright© 2000, Computer Hake  
u. Said GmbH
```

```
File(s) not found : name.ps
```

occurs. Verify the specification of the file and start the conversion again.

Too many parameters

If You enter too many parameters, e.g.

```
cps tiger.ps /fGIF /i /i
```

no conversion will take place and the error message:

```
ConvertPS 4.5 - Command Line PostScript  
Converter Copyright© 2000, Computer Hake  
u. Said GmbH
```

```
Too many parameters!
```

```
Usage: CPS SOURCE/fFORMAT [/dDest.path]  
      [/o] [/i] [/?]
```

occurs.



Invalid parameters

If You enter a parameter which ConvertPS does not use or forget the parameter input following the character "/" the error message

```
ConvertPS 4.5 - Command Line PostScript  
Converter Copyright© 2000, Computer Hake  
u. Said GmbH
```

```
Unknown option:/  
Aufruf: CPS SOURCE/fFORMAT [/dDest.path]  
      [/o] [/i] [/?]
```

occurs. Enter the slash with the correct parameter and start conversion again.

Error messages of the interpreter

If an error occurs in PostScript code of the file to be converted ConvertPS will provide the following error message during conversion of the damaged file 'bird.ps':

```
Converting bird.ps -> C:\PROGRAM\CONVPS$\  
SAMPLES\bird.emf  
Error: undefined near HALLO  
File : C:\PROGRAM\CONVPS45\SAMPLES\bird.ps  
Line : 8
```

An error exists in line 8 of the file 'bird.ps'. The command "HALLO" cannot be translated from the interpreter. The error messages issued here are standard PostScript error messages. For more information You should refer to corresponding PostScript manuals PostScript-Handbüchern nachzulesen.



ConvertPS Butler OLE: embedding

The procedure for embedding OLE-objects varies from application to application. The actual method though stays the same.

The procedures described here can therefore alter depending on the application used. That means names of the functions might vary, or the chain of operations. With Microsoft e.g. you will find "insert > object" whereas with other applications you might look for the function "insert object" in the menu "edit" (Adobe PageMaker).

On the whole all the single steps result in just the same outcome.

Insert new file

This functions enables the assignment of a PostScript file to an empty OLE object.

Via the operators "insert" and "object" you receive a dialog window with 2 register cards on screen

Object

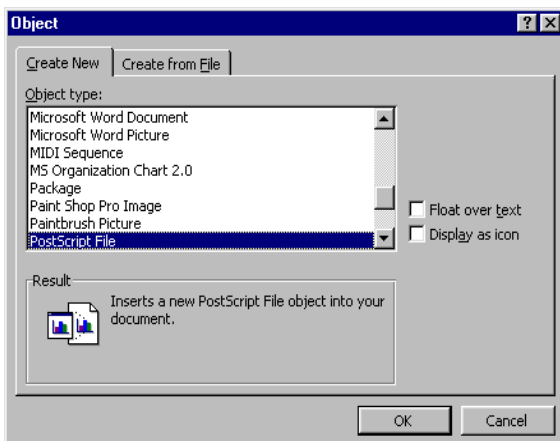
this dialog window offers two register cards for selecting the desired OLE object.

These are called

- create new and
- create from file



create new



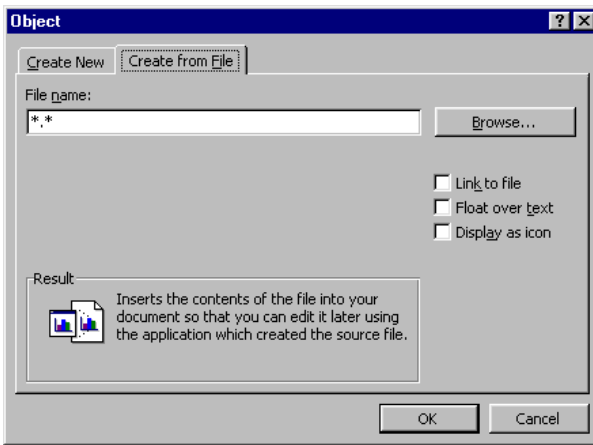
On the first register card called "create new" various object types can be selected from the list offered. Select the object type "PostScript files" by mouseclick.

create from file

If you already have a particular PostScript file saved on your system you can choose this via the registercard "Create from file".

Open this registercard by clicking the header of the same name and it will offer you a searchbar for finding and selecting the required Post-Script file in your system structure.





ConvertPS-Butler: Toolbar

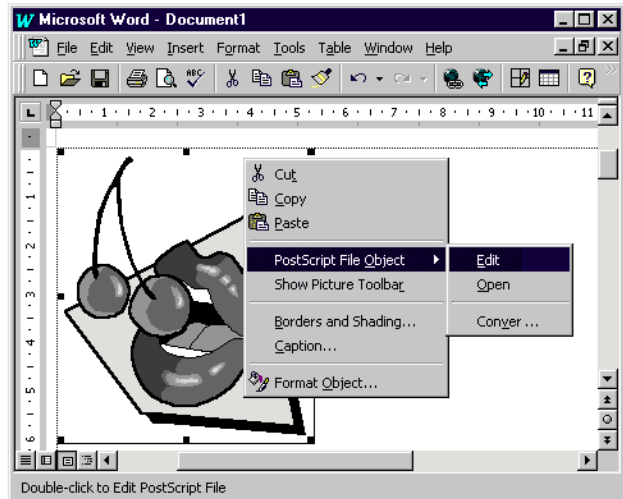
First an empty object-frame is displayed in your document and the toolbar of ConvertPS appears within the application used.



If you now activate the option "insert new file" in the menu "Edit" or click the button OLE INS, then the dialog window "Open" will show up on screen. Here you can select a particular file and confirm your choice by clicking "Open". This file will now be placed into the empty object-frame in your document. You can return to your initiating program by simply clicking onto your document next to the object-frame. Now you can continue with your work in your original program.



The ConvertPS OLE server is being loaded:

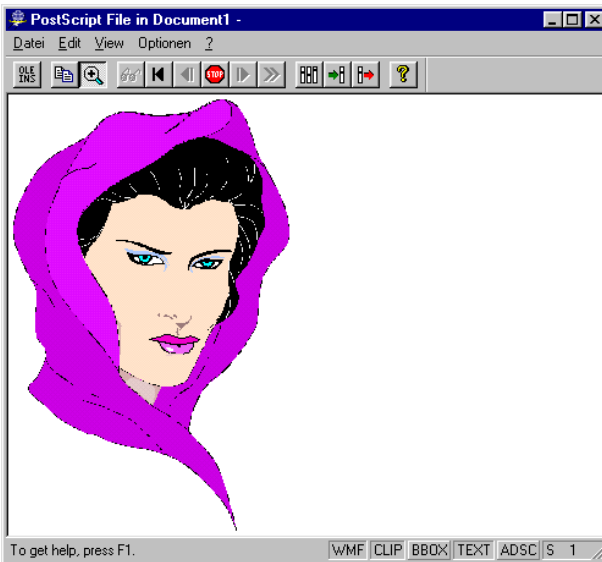


By selecting this function or by clicking the button "OLE-INS" in the toolbar any other PostScript-files can be assigned to the OLE frame.

In the example above, select the function "PostScript File object > Open" instead of "PostScript File object > Edit" and the interface of the ConvertPS OLE server is activated.

After that the OLE-object is displayed once again in a separate window with the title "PostScript File in nnn". ("nnn" stands for the name of the current document)





The interface of the OLE server offers a complete menu with ConvertPS own setting options concerning the PostScript-file. The OLE object can be e.g. exchanged by another here or changed in its settings. Some of the setting options equal those options offered in ConvertPS Classic.



ConvertPS Butler: menu structure

Alltogether the OLE server of ConvertPS Butler has the following menu structure with the following options and functions:

File

Insert new file

Update nnn

Close

Edit

Copy metafile

View

Current page

First page

Next page

Previous page

Page...

Abort conversion

Zoom



Options

General...

Interpreter

Output

EMF-conversion

WMF-conversion

Note:

The menu options "View" and "Options" are equivalent to the program ConvertPS Classic in both their menu structure as well as their functions and therefore will not be explained further here.

See chapter ConvertPSClassic: menu "View"

See chapter ConvertPSClassic: "Options"



File

Insert new file

see page 117

update nnn

With this function you can update the embedded PostScript object in the initiating application (e.g. WinWord). The head will read the name of the document opened in the original program instead of "nnn". You should use this function especially then when you assign a new or different PostScript file to the OLE-object with "Insert new file".

Close

With this function the interface of the ConvertPS Butler OLE server is closed. The OLE server is not shut down by this but continues to work in the background for the initiating application.

Edit

Copy metafile

With the function "Copy metafile" the current metafile is copied into the clipboard. This image can then be inserted into other user applications and can be used for further alterations and editing. At this point ConvertPS Butler also saves a copy of the PostScript file in the clipboard. This object can also be processed further in any other application with OLE support.



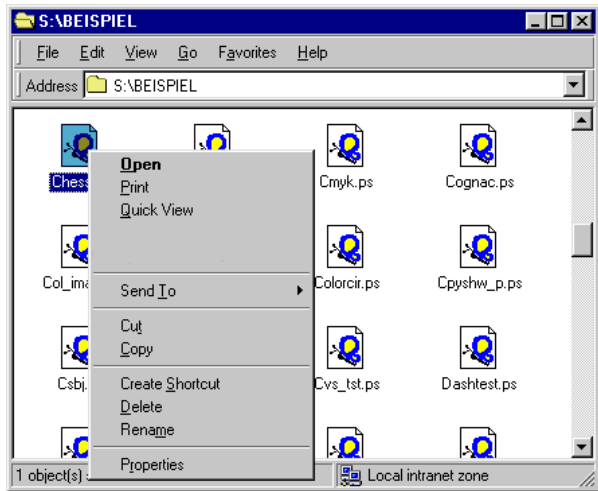
ConvertPSClassic: File associations

When ConvertPS is installed all .EPS, .AI and .PS files are automatically associated with ConvertPS. Because of this association you can open and display PostScript files with help of ConvertPS simply by double-clicking the name of a PostScript file in the Explorer. Consequently the following operations are performed automatically:

- ConvertPS is started.
- The PostScript file is opened by double-click.
- The first page of the opened file is displayed in the WMF or EMF format.

Furthermore you can have the PostScript file printed out with the help of ConvertPS, by selecting a PostScript file in the Explorer and activate the command "Print" in the context menu (press right mousebutton).





The following operations will thus be conducted:

- ConvertPS is startet.
- the selected PostScript file is opened by doubleclick.
- all pages of the presently opened file are converted and subsequently printed.
- ConvertPS is closed.



ConvertPSClassic, -Batch, -Butler :

"Drag and Drop" capability

"Drag and Drop" is a mechanism, with which objects (e.g.files) may be conveyed to other applications simply by "dragging" their symbol to the symbol or active window of an application and "dropped" there. (to drag: select the object in question and keep hold of the left mouse button; to let go of (drop) the object: let go of the mouse button).

ConvertPS understands this type of conveyance and carries out the following procedures, depending on the particular file endings::

***.PS-, *.EPS-, *.AI**

When one or more PS, EPS or AI files are moved over to ConvertPS Classic by "Drag and Drop", ConvertPS Classic will carry out the conversion of the file and display the first page.

***.CBL**

You may also deliver batch files (.CBL) -so called ConvertPS Batch lists- to ConvertPS Batch by "Drag and Drop".

***.CPS**

Both ConvertPS Classic and ConvertPS Batch can receive ConvertPS configuration files (*.cps) by "Drag and Drop".



***.PS in any chosen application**

PostScript files may be delivered furthermore to any other applications (like e.g. WinWord, Internet Explorer, etc.) by "Drag and Drop". As these applications usually support OLE, the ConvertPS Butler OLE server is thus activated automatically.

ConvertPS Butler will convert the PostScript file and display it within the application (e.g. in a WinWord document).



ConvertPSCClassic, -Butler:

Advice and Tips

To help you avoid mistakes and achieve better converting results, here some advice and useful information on setting various parameters and avoiding or eliminating occurring errors, illustrated by a few examples.

The appropriate converting mode

The WMF- and the EMF format are the conversion modes offered in the menu "Options". To take outmost advantage of the graphical abilities of PostScript, you should consider the following facts when choosing the conversion mode:

the WMF format

The WMF format is supported by most Windows applications. It is e.g. the only vector orientated format which Office 95 and FrameMaker can import without any problems.

Unfortunately the WMF format cannot realize all the graphical features which PostScript may include: clipping for example is one of them. Line attributes such as "LineCaps", "Dash" and "Linejoin" are not part of the WMF repertoire. The rotation of Bitmaps is only possible in steps of 90 degrees.

Another disadvantage is the fact that WMF only calculates absolute (16-Bit-) coordinates. When rotating an object, it is not possible to employ a



world transformation according to a transformation matrix that is applicable at all times. The coordinates of the intended rotation are dependent on the absolute coordinates. So, although PostScript works with the world transformation matrix, all rotation coordinates need to be calculated all over again to fit the 16 bit coordinates of WMF.



to sum up:

the WMF format might be supported by many Windows applications, but is not able to make full use of the graphical abilities PostScript has to offer.

the EMF-Format

Basically better results are achieved with the EMF format. The EMF format allows unrestricted bitmap rotation and supports world transformation.

If you work in the EMF mode, the quality of the conversion is strongly dependent on the type of your system:

- Windows 95 does not understand the line attributes "LineCaps", "Dash" and "Linejoin" - neither in EMF nor WMF.
- In contrast to WMF, the EMF mode allows limited clipping.
- Moreover EMF files converted with ConvertPS on NT are not conform with Windows 95.
- In case you convert *.PS files to *.EMF files on an NT system and subsequently want to use them on a Windows 95 system, the



conversion needs to be performed in favour of Windows 95. The option "Windows 95 EMF-Format" offered on the registercard for the output settings enables you to simulate Windows 95 on the NT system.

EMF files created this way are then available to Windows 95.

Consequently some of the EMF features are lost to both Windows 95 and WindowsNT: Windows95 in general does not support EMF completely. EMF files created to match Win95 are reduced to such an extent that the specific NT-capabilities for EMF cannot be applied any longer. The EMF Format was originally not created for Windows 95 directly, therefore it is not fully supported by this operating system.

Although the EMF format is the newer, improved format, it is only from a few applications supported completely. Lastly only these applications can benefit fully from the improvements and advantages this format offers - Windows NT is one of them.

to sum up:

That means the EMF offers better results in Windows 95, but is not fully up to the graphical capability of PostScript. If you want to make full use of the graphical capability of PostScript, you should work with the EMF mode on Win NT.

Windows NT is the most suitable for converting PostScript files in the EMF format because here the EMF format is used as the internal spool format.

It is recommended to always create bitmap

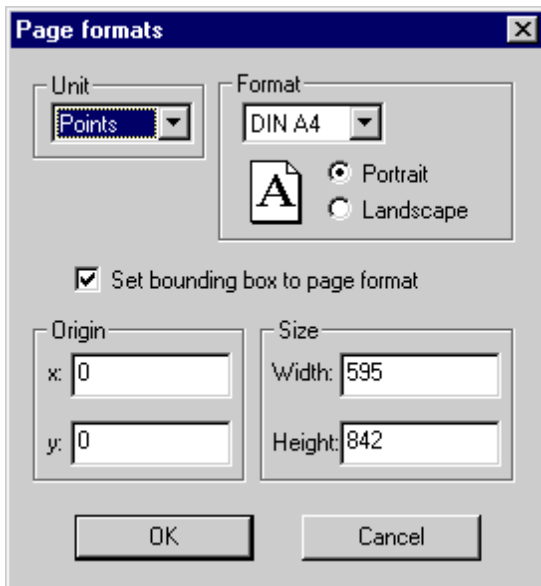


formats in the EMF mode under Windows NT, as all essential graphical possibilities of PostScript can then be realized to the full.

Setting the page format

When activating "Options > Vector Formats > Output", you can set the page formats for all vector formats. The settings layed down here can have widespreading effect on the output of the metafile. Some of these effects will also be unexpected, especially to the unexperienced user.

Therefore we would like to provide you with a couple of guidelines for setting the page format:

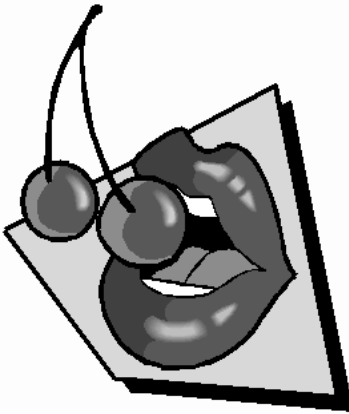


The dialog box depicted opposite shows all settings



relevant for setting the page format. The page format presents that part of the world coordination system that is visualised in the converting process. Hence the page format should always be set in accordance with the location and the size of the metafile about to be created.

Determine the page format so that the metafile is placed completely on the set page.



For this purpose find out the coordinates for the bounding box. These are given in the information window of "File Info" in the menu "File".

example:

The bounding box coordinates of the metafile presented above are (174; 303) and (377 ; 538). The "Page format" was set to a DIN A5- format with the origin (0 ; 0). Thus the page is bounded by the coordinates (0 ; 0) and (421 ; 595) (size of a DIN A5 page in points).



If the origin of the page is moved down 200 points (to the coordinates (0; 200)) and the other settings remain as before, the result is this:



Obviously the image was cut off at the bottom, as it could not be grasped completely by the page set in this way. In the extreme, it could even happen that the image is situated completely out of the range of the set page. Therefore it is vital to find the most appropriate settings for both the page format and the origin, considering the size of the image, so that the image is placed where you can see it and ideally, where you want it.

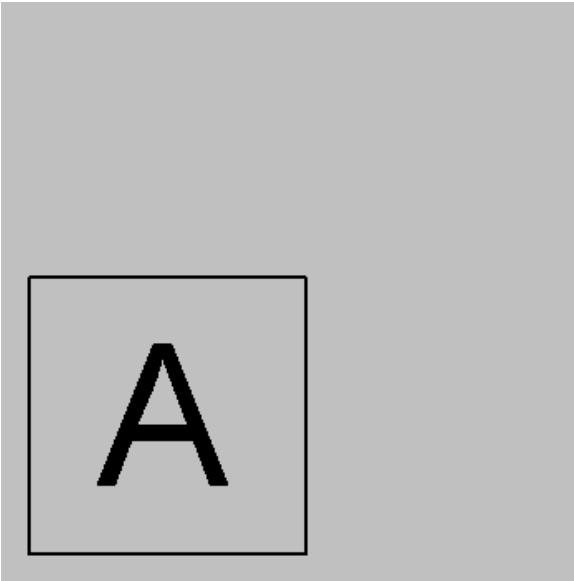
As the bounding box coordinates are voluntary entries in the PostScript file, it is also possible that they are either incorrect or non existent. Hence you might not detect any information concerning the coordinates in the info window, or the information given is not correct. In case the image is cut off by the page although the coordinates of the page were set equivalent to those of the bounding box, then they are unfortunately wrong and useless.



Now it is up to you to experiment, until the image is placed on the page completely. Also try to position the image sensibly on the page.

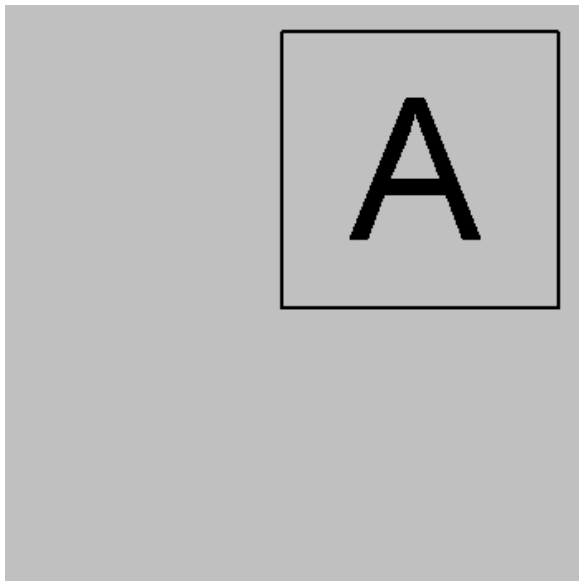
Determine the origin, so that the metafile is positioned on the set page as required

The following image depicts a page with a square page format-setting and an origin of (0;0).



With this setting, the framed "A" is located at the bottom left. If you want to have the "A" elsewhere on the same page, you have to leave the page format as it is, but change the origin.





This screenshot shows the same image with altered origin-coordinates. In this example the origin was changed to (90;90). Now the origin is located top right. As you can see, it is not always easy to set the page format in such a way that the metafile fits perfectly onto the page and is positioned as desired. Especially when there are no coordinates given for the bounding box, the matter becomes slightly tricky and requires a little patience and sensitive experimenting.



note:

the setting for the page format only has effect on the presentation of the metafile, when either "Set bounding box to page format" or "Activate clipping" (dialog box "Output") is activated.



When you deactivate the function "set page format as Bounding-Box", the bounding-Box of the PostScript objects is used as the output format for the metafile unless you have also activated the option "Clipping". If "Clipping" is switched on the set page format is used as the basic clip path. This will then effect the display of the metafile in question if it is not overwritten by any other clippath.

If the PostScript file includes a setpagedevice, the activated function "Set bounding box to page format" is overruled.

Finally it remains to be said that there is another rather simple possibility to set the page format, by using the "Cut" function in the menu "Edit".

In case you have activated the function "cut out", you can determines the pageformat by creating a selection box over the displayed metafile. The page format set with this method can not be overwritten, not even with a PostScript operator such as "setpagedevice".



PostScript print

When a PostScript file is to be converted, but shall also remain printable on a PostScript printer, the PostScript code needs to be embedded.

The file may be imported by applications unfit for PostScript, yet the PostScript code remains available for PostScript printers. If the embedded PostScript code includes commands that are prohibited in EPS files (e.g. 'showpage'), this could lead to faulty prints.

Usually the importfilter encapsulates the embedded PostScript code to such an extent that most of these commands show no further effect and the file consistency remains in its original (stacks, dictionaries, graphic status, etc.).

Unfortunately this cannot always be guaranteed and sometimes the print does not turn out as desired. In such a case you should simply refrain from embedding the PostScript code and be content with printing the metafile.

When the imported image includes a bitmap that was created with the PostScript operator 'colorimage', the according document can only be printed on PostScript color printers. If such a color printer is not available to you, leave out the embedded PostScript code. The PostScript print driver will turn the color image into a grey scale image.



PostScript file is not displayed

Various different reasons can cause a failure in displaying a PostScript file.

One possibility is that a metafile could not be created because the number of clippaths has exceeded the allowed maximum.

Instead of the metafile you will receive the message "A PostScript error has occurred". Which PostScript error, (in this case "Clippath overflow") is mentioned in the standard outputwindow, i.e. info window.

- Now you should increase the allowed value for the maximum path length in the register card "PostScript" which you find under "Interpreter..." in the menu "Options".
- Additionally you should decrease the number of straight lines used for the curve approximation. This is to be found in "Options > Output > Vector Formats".

Both of these measures simplify the calculation of the clippaths and can therefore prevent a "Clippath overflow".

But the longer the maximum path length and the smaller the number of straight lines used for the curve approximation, the worse the quality of the created metafile becomes.

When an empty display window appears, you can assume that the metafile was at least created.

In this case the problem often lies with the setting of the page format in the menu "Options > Output > Vector Formats...".

- It may be that the PS-object is located completely outside the range of the presently set page.



- It could also be that the PostScript file was converted with the "clipping" function activated and thus that part of the image was clipped by the clippath, but would have otherwise appeared on the displayed page.

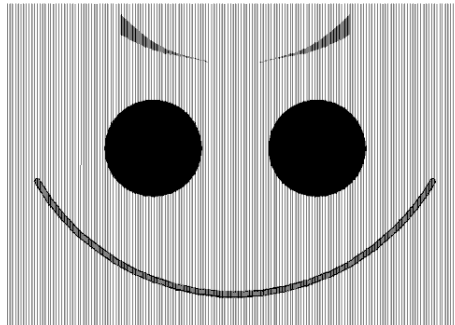
The created metafile cannot be displayed either, if the option "Set bounding box to page format" is activated, yet the page format was set in such a way that the image is not positioned on it.

Perhaps the size of the page was set too small, so that that part of the file, which is displayed in the window, is blank itself.

Whatever the case may be, check the setting for the page format and try various combinations.

Images look overlapped

When PostScript files are converted without clipping, although clippaths are included, the created images look strangely overlapped, e.g. the following image includes clippaths .



The first image was created with deactivated, the second image with activated clipping.



As you can see, the grey striped area is displayed in total, when the "clipping" is not active during the conversion. When the "clipping" is activated, the area is reduced and limited by the clippath which is included in the native PostScript.

On the whole it can be said:

if you suspect the result of the conversion to consist of various overlapping areas, check the setting of the "clipping" function.

Try repeating the conversion with the alternative setting for the "clipping" and compare the result.



Font presentation is too angular

When converting text in ConvertPS, it might be that the fonts presented look harsh and angular. The two examples shown below were both converted from the same PostScript file.

ConvertPS

When you compare the two scripts, you will notice that the top example looks a lot more angular, than the one below:

ConvertPS

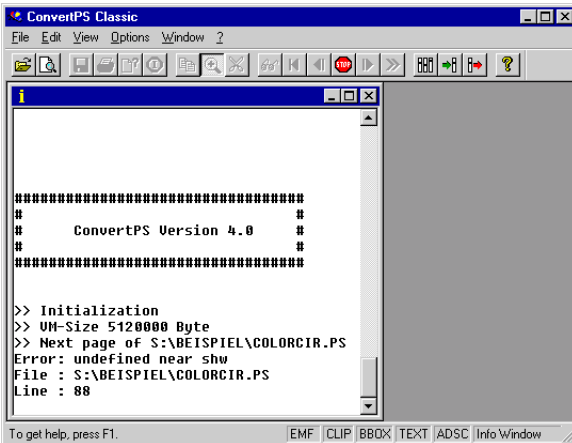
The reason for this lies in the different settings in the command "Transform text into paths" in the menu "Options > Output > Vector Formats". The writing at the top was converted with "Transform text into paths". The bottom example was converted without this command, i.e. the text was not transformed into paths. Although this option has this rather unsightly effect, especially on small character sizes, it is essential for certain other purposes like e.g. when using a character outline that includes an alias font as clippath!



PS error warning, aborting conversion

ConvertPS reports an error warning on screen, to state a fault in the converting process and ends the conversion. To receive a more precise definition of the error, take a look at the report of the standard output in the info window.

In the example below, the error "undefined" occurred.



The screenshot shows the 'ConvertPS Classic' application window. It has a menu bar (File, Edit, View, Options, Window, ?) and a toolbar with various icons. A smaller 'Info' window is open within the main window, displaying the following text:

```
#####
#                               #
#   ConvertPS Version 4.0     #
#                               #
#####

>> Initialization
>> VM-Size 5120000 Byte
>> Next page of S:\BEISPIEL\COLORCIR.PS
Error: undefined near shw
File : S:\BEISPIEL\COLORCIR.PS
Line : 88
```

At the bottom of the main window, there is a status bar with the text 'To get help, press F1.' and a series of tabs: EMF, CLIP, BBOX, TEXT, ADSC, and Info Window.

The error warnings issued by ConvertPS comply with the standard for PostScript interpreters.

To correct these errors, profound knowledge of the page description language PostScript is necessary. An exact description of these warnings would be too complex a matter to explain in this manual. Therefore we can only refer you to secondary literature concerning PostScript, in which all PostScript operators and their functionality are described precisely.



One the one hand, most of the PostScript errors are caused by faulty PostScript or Encapsulated PostScript files (e.g. "syntax error" or "undefined operator").

On the other hand, errors might occur due to or the PostScript limits are overstretched or broken (e.g. "stack overflow" or "VM Error"). These errors can be resolved by changing certain settings within

Various types of errors

possible causes and how to eliminate them:

- VM error
- pathoverflow/limitcheck
- stackoverflow

VMError:

this error occurs in connection with the memory management. This might be caused by ConvertPS not providing enough memory to conclude the conversion. In this case an increase of the "Maximum local memory" in the PostScript menu "Options > Interpreter" should resolve the problem.

path overflow / limitcheck:

The number of path elements in the PostScript path has exceeded the preset limits.

To preserve memory recources, the default setting for the maximum path length in ConvertPS is 2048. You can increase this value in the "PostScript" register card ("Options > Interpreter") up to 20480. Often an increase of one- to two



thousand is sufficient to eliminate this error. Another reason for a "path overflow" might be found in the settings for "straight lines in curve approximation" in the dialogbox "Vector format settings" ("Output" in the menu "Options"). The default setting here is "8", which has proved a sensible value, but may be increased up to 128. The more lines used to depict a curve, the smoother the curve gets, yet the amount of elements (each line = 1 element) is increased accordingly and with it, the memory used. Hence a high number of lines in the curve approximation might also lead to the error "path overflow".

stack overflow:

The number of stack elements in one of the three stacks has exceeded the set value. In order to preserve memory resources, the default settings for the various stacks are determined at a sensible maximum for the specific purposes. You may increase the values in the register card "PostScript" ("Options > Interpreter") to allow ConvertPS to use more memory and thus avoid this error.

Warnings concerning "missing fonts" or "automatically substituted fonts" can be avoided or resolved by varying the settings in the register card "Fonts" ("Options > Interpreter").



Glossary

AcrobatReader

AcrobatReader is a free available software application to visualize PDF-Files from Adobe Inc.

ADSC-Comments

Adobe Document Structuring Convention - PostScript documents can contain so-called ADSC-comments which inform the interpreter e.g. how many pages the referring PostScript file consists of.

AI-Format

Adobe Illustrator file format

Alias-Name

With an "Alias-Name" in ConvertPS another name for a PostScript-Font is defined. There can be multiple Alias-Names referring to a single PostScript-Font. During conversion ConvertPS uses the Alias-Name in order to emulate a not-existing PostScript-Font by an existing one.

Alias-Font

An Alias-Font is an additional writing type.

Aldus Placeable Metafile (APM)

If you save graphics as Windows Metafile (WMF) only the referring program knows the essential information to process in work on the file. Aldus, the producer of PageMaker has defined an expanded format: the



Aldus Placeable Metafile (APM). Here is additional scaling information included to ensure a successful reproducibility of vector graphics to other applications. This format is supported by some other applications beside PageMaker, such as e.g. Microsoft Word.

Batch

Batch-processing - automatic program control process of commands.

BMP

BMP stands for Bitmap. It is a standard for Windows picture formats (*.bmp) The picture format supports grey-scaled pictures and 24-bit RGB color pictures.

Bounding-Box

The "Bounding Box" defines the smallest rectangle to describe a shown object. There are the coordinates of the left upper and the right lower corner points given in points (1 point=1/72 Zoll, about 0.04 mm). This is one of the information which is stored in additional comment areas in (E)PS-files.

Cache

Serves for the storage of data in a buffer (background memory) and makes this data available very quickly.

CBL

ConvertPS batchlist - files, which are converted in batch-mode are added the suffix CBL.



Clipboard

Section of the working memory, which is used by applications and the operation system, to store data in between. It serves for copying and moving of data, programs, pictures, ... between different programs.

Clipping

With clipping we define the bordering of a picture area, of which graphics are given out.

CMYK

This abbreviation stands for "cyan, magenta, yellow, key color (blacky)" which is known as a subtractive color scheme and is used for color printing.

Compression

This means data compression. It is a method, that is made for the reduction of data size. There are different methods, one simple method is for example to reduce 100 equal letters (YYY...Y) and use the expression 100Y.

Converting

Transforming of data formats.

CPS

ConvertPS Settingfile - contains all ConvertPS parameters in file format.

Dictionary stack

In a dictionary Stack the necessary program libraries



are found, these are at least two, the system library and the user library. See also "Stack".

Dithering

Serves to emulate not-supported colors with a reduced color palette by using closely packed points of different colors out of the palette.

dpi

dpi means dots per inch. It is an old English metric measurement. The unit describes the number of points in a defined area and through that the quality of the picture. It applies for printing, scanning of graphics. On the screen there is a standard resolution of 72 dpi.

drag and drop

With the function drag and drop single parts of a document or the whole document itself can be marked and with the hold left mouse button moved within another window or taken into another application and dropped down there.

DSC-Convention

Data Structuring Conventions - contain information about the document like the number of pages, the colors, fonts, etc.

EMF

Encapsulated Metafile is a data format for graphics processing and belongs to vector formats.



EPS

Encapsulated PostScript - in contrast to simple PS-files the EPS-format contains additional information about the used fonts and the scaling of the described vector graphics, like e.g. the "bounding box". This information is located in the EPS-file in that way, that it refers to specific structure conventions. This allows text and graphics programs to enclose the EPS-file in a document and to print them with a PostScript Printer. Optionally a simplified preview (bitmap) of the graphics can be included. With this preview the applications can produce a picture of the graphics on the screen.

Execution stack

PS-interpreter - in the execution Stack the workable procedures inside of a PostScript-document are stored. See also "Stack".

Font

Different fonts are used to give a specific layout to characters. These fonts are a collection of letters, numbers and symbols and their appearance, like e.g. bold, italic, Times, Courier and a combination of these, like e.g. TimesNewRoman_BoldItalic. The fonts are defined by pixels or vectors.

Garbage collection

The garbage collection contains files that "steal" a lot of storage capacity and are no longer needed.



GIF

The "Graphics Interchange Format" has proved to be a system-wide exchange-format for pixel representation and was especially developed for this purpose. It is frequently used in the internet, because this format provides a good picture quality in respect to small file size.

Import filter

Program modules to transform unknown file formats in order to be usable and for example to include them in an existing document.

Interlaced

Method of saving pictures which allows pictures sent on the internet to impress sharper and sharper during construction of them.

Interpreter

Translator - program which converts data from one programming language into another.

LZW-Compression

Method of compression with the patented Lempel Ziv Welsh packing algorithm.

Marquise

As a marquee we call a marked screen part. Marquees are often rectangular, but they also can be of circular or elliptic shape.



MDI

Multidocument Interface - several files can be opened and edited at the same time.

Metafile

see also WMF, EMF.

OLE

Object Linking and Embedding,- data will be linked from a source document with data in a target document or the data will be embedded/integrated. If You mark the object in the target document the original source document will be opened again and can be edited.

Operanden Stack

PS-interpreter - in the operand stack you will find the information for processing PostScript-files, like e.g. numbers, letters and characters. See also "Stack".

Pack Bits

Method of compression which uses the bit level - analogous to RLE.

to parse

to parse means to split in parts (tokens) and to divide into numbers, operators, Strings ...

Path overflow

Path overflow describes an error message. If a path overflow occurs the maximum number of path elements is exceeded.



PCX

This is a pixel format and it is comparable to the BMP-format of Windows. PCX is mainly used in not-windows-based applications, for example MS-DOS applications.

PDF

Portable Document Format - Adobe defined this document format. This format displays system-wide all kinds of documents.

Pixel

A pixel is a single point of a picture and is the smallest unit in graphics processing.

Polygon

Geometric form which is composed by more than two line segments. It constructs triangles, rectangles, n-angles.

PostScript (PS)

PostScript is a language to describe pages, with which text, geometrical figures and raster graphics can be described tool-independently on a higher level. This objects can be rotated enlarged, made smaller and filled with patterns without losing quality. Applied to the PostScript fonts unique effects are made, which have lead to a quality symbol of PostScript. Today PostScript has made itself to a standard for page-describing languages and is used on different computer systems. PostScript is very often the only opportunity to exchange graphics or document's between different computer systems.



Raster graphics

With raster graphics all picture points are stored separately. The quality of the picture is defined by the number of picture points. Raster graphics need a lot of memory for storing, but use less CPU time.

RGB

RGB stands for red, green, blue. All colors to be displayed on the screen are composed by these three basic colors. It is also called an additive color system.

RLE-Compression

Run-Lengs-Compression, one of the easiest compression methods, which works with characters or dimension units. It serves very well for black/white pictures.

Scaling factor

The scaling factor reflects the relation between the referring axes on the screen and the size of the origin.

Source format

Source format is the format in which a file is stored electronically.

Stack

A stack is a heap memory. It can work with two different methods. With "last in first out" (lifo) the last stored element will be taken first, then the previous one etc. With "first in first out" (fifo) the first stored element will be taken first, then the second one etc.



Target directory

During the saving process the directory in the file tree is referred into which a file shall be saved. This directory is called target directory.

Target format

Target format is the format in which the file shall be saved.

TIFF/TIF

The Tagged Image Format is the most-known and varied graphics format for pixel representation. It has established into a standard for storing scanned and digitalized pictures. It does not support picture levels and cannot be taken for animation.

True-Type font

The True-Type Font is defined by Microsoft and Apple and is the basic font in the referring applications. It is defined through vectors and can be scaled without losing quality.

Vector graphics

In contrast to raster graphics with vector graphics not every single picture point is stored, only some predefined points are stored, which are linked later. They need less memory in comparison to raster graphics, but they need more CPU time.



Wildcards

Wildcards are characters which are used on the command line to define filename patterns. In these patterns the question-mark (?) stands for one arbitrary character and the asterisk (*) stands for any arbitrary - even empty - character sequence. Programs which are accepting wildcards work on all files whose names fit into the given pattern. For example, the command

```
copy a*.c c:\temp
```

copies all the files in the current directory whose names start with an 'a' and end with '.c' to the directory 'c:\temp'. This holds also for a file named 'a.c', if it exists.

WMF

Windows Metafile - Windows uses a specific data format to exchange graphics between applications: This format contains representations of internal graphics functions (GDI) of Windows and serves an easy way to store graphics from an application or to make them readable to others. For general processing of these graphics the Aldus Placeable Metafile format has pushed through. This format is accepting either pixel and vector-oriented data transfer.



Index

Symbole

*.AI 127
 *.CBL 127
 *.CPS 127
 *.EPS 127
 *.PS 127, 128

A

AcrobatReader 146
 Activate clipping 59, 136
 ADSC 39, 91
 ADSC-comments 24, 146
 AI-Format 146
 Alias font 142, 146
 Alias name 50, 146
 Assignment 50
 Change 51
 Delete 51
 Allow file access 53
 APM 146

B

Batch 147
 Batch list 100
 New list 100
 Source file 100
 Target folder 101

 Target format 101
 Batch mode 100
 BBOX 90
 Binary-data 67
 Bitmap formats 81
 Color resolution 83
 Compression 83
 Default 85
 Set format 84
 Set size 81
 Bitmaps 66
 BMP 147
 Bounding box
 11, 133, 134, 137, 147

C

Cache 147
 Cancel conversion 40
 CBL 147
 Change Alias font 51
 Clipboard 148
 Clippath overflow 139
 Clipping 90, 137, 148
 CMYK 148
 Color image 138
 Color resolution 83
 Color support 11



- Command Line
 - Error messages 113
 - General 106
 - Help 111
 - Input and output 112
 - Interpreter settings 112
 - Output settings 112
 - Parameters 106
 - Single file 106
 - Wildcards 107
- Compression 83, 148
- Converting 92, 148
- Converting mode 43, 129
- ConvertPS 8
 - Command Line 9
 - Functionality 10
 - Input formats 10
 - Output formats 10
- ConvertPS Batch 92
 - Edit 95
 - Editor 93
 - File 94
 - Options 99
 - Statusbar 99
 - Toolbar 98
 - View 98
- ConvertPS Butler OLE 117
 - Create new 118
 - Insert new file 117
 - Toolbar 119
 - Update nnn 124

- Copy metafile 32, 124
- CPS 106, 148
- Current page 37
- Curve approximation 73, 80
- Curve correction 79
- Curves radius 79

D

- Deinstallation 21
- Delete Alias font 51
- Delete fonts 49
- Dictionary stack 148
- Dithering 149
- Divide bitmap into stripes 67
- dpi 149
- Drag and drop 127, 149
- DSC-Conventionen 149
- DXF 69, 75
 - Coordinate system 69
 - Curve approximation 80
 - Curve correction 79
 - Curve radius 79
 - Default settings 76
 - Line ends 77
 - Line joins 78
 - Line strength 79
 - Marker radius 79
 - Selection dialog 75



E

- Edit 31, 124
 - Copy metafile 32, 124
 - Cut 32
 - Extract pages 33
- Edit Batch lists 102
 - Add elements 103
 - Copy elements 102
 - Cut out elements 102
 - Delete elements 102
 - Insert elements 102
 - Target folder 103
- EMF 90, 149
- EMF format 129, 130
- EMF mode 86
- EPS 150
- Error warning 143
- Execution stack 150
- Extract pages 33

F

- File 22
 - Cancel print 29
 - Close 25
 - Close all 26
 - Exit 30
 - File info 29
 - Open 24
 - Open metafile 25
 - Page setup 28

- Preview 28
- Print 27
 - Current page 27
 - Print all 28
 - Save as 26
- File associations 125
- File info 29
- File is not displayed 139
- First page 38
- Font, 150
 - Adobe-Typ - 10
 - TrueType - 10
- Font explorer 46
- Font presentation 142

G

- Garbage collection 55, 150
- GIF 151

H

- Halftone images 11
- HTML browser for help 44

I

- Image overlapped 140
- Import 86
- Importfilter 151
- Include PostScript 62
- Info window 37
- Input formats 10



Insert new file 117
Insert PS comments 63
Install PostScript font 47
Install TrueType font 48
Install TrueType fonts 48
Installation
 by CD-Rom 14
 by disc 15
Interlaced 151
Internet Explorer 128
Interpreter 151
Interpreter settings 44, 112

L

Line joins
 bevel 78
 miter 78
 round 78
Local memory 56
LZW-Compression 151

M

Marker radius 79
Maximum stack 57
MDI 152
Measuring unit 70
Metafile 25, 133, 140, 152
Minimal linewidth 74

N

New default font 47
Next page 38

O

Occurring errors 129
OLE 152
OLE object 117
OLE server 128
Open 24
Operanden stack 152
Options 41
 Garbage collection 55
 General 43
 Converting mode 43
 Help HTML browser 44
 Target folder 44
 Target format 44
 Working folder 44
Interpreter 44
 Assign Alias name 50
 Change alias font 51
 Delete Alias font 51
 Delete fonts 49
 Font 44
 Font explorer 46
 Install PS-font 47
 Install TrueT. font 48
 New default font 47
 Use as standard 45
Output 57



PostScript 52
Output 57, 86
 Bitmap 57
 Vector 57
Output formats 10
Output settings 112
P
P 1 91
Pack bits 152
Page 39
Page format 11, 70, 132
 Format 71
 Measuring unit 70
 Minimal linewidth 74
 Rotation factor 74
 Set scale factor 73
Parse ADSC-comments 54
Path overflow 144, 152
Path specification 108, 112
 Examples 109
PCX 153
PDF 153
Pixel 153
Polygon 153
PostScript 52, 153
 Allow file access 53
 Close files 55
 Commands 53
 Emulate 54
 Garbage collection 55
 Local memory 56
 Maximum stack 57
 Parse ADSC-comment 54
PostScript commands 53
Previous page 38
Print 125

R
Raster graphics 154
RGB 154
RLE-Compression 154
Rotation factor 74

S
Scaling factor 154
Set format 84
Setup 14, 15
Source format 154
Stack 154
Stack overflow 145
Statusbar 90
 F1 90
Syntax error 144

T
Target directory 155
Target folder 44
Target format 44, 155
Text 91



TIFF/TIF 155

to parse 152

Transform

 Bitmap into paths 66

 Lines into paths 63

 Text into paths 60

TrueType font 48, 155

U

Update nnn 124

Use as standard 45

V

Vector format 26, 58

 Activate clipping 59

 Create binary-data 67

 Divide into stripes 67

 DXF coordinate system 69

 General 58

 Include PostScript 62

 Page format 70

 Show defined colors 64

 Text into paths 60

 Use defined colors 63

 Win 95 EMF format 61

Vector graphics 155

View 35

 Cancel conversion 40

 Current page 37

 First page 38

 Info window 37

Next page 38

Page 39

Previous page 38

Zoom 40

VMerror 144

W

Wildcards 107, 110, 156

Windows 95 EMF format 61

WinWord 128

WMF 156

WMF format 129

WMF mode 86

Working folder 44

