

# eps2pdf v3.0 for Windows \*

Nikola Jakšić

Faculty of Mechanical Engineering, University of Ljubljana Ljubljana, SI - Slovenia

`nikola.jaksic@fs.uni-lj.si`

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## Abstract

The **eps2pdf** is GUI shell that eases conversion of the EPS file(s) into the PDF one(s). The actual conversion is carried out with the **GhostScript**.

The **eps2pdf** can be found at the *download* pages of Laboratory for dynamics of machines and structures: <http://www.fs.uni-lj.si/ladisk/>

The **eps2pdf** has been tested on Win 98 SE, Win Me, Win NT4.0 SP6, Win 2000 SP2, Win XP, with **GhostScript** 6.50 and 7.00.

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## 1 Introduction

If you would like to compile the same  $\text{\LaTeX}$  code with  $\text{\LaTeX}$  or  $\text{PDF\LaTeX}$  compiler, it is good idea to include pictures with the command

```
\includegraphics{xyz}
```

where `xyz` is the picture's file name without extension. The  $\text{\LaTeX}$  compiler will look for the EPS extension and the  $\text{PDF\LaTeX}$  will look for the PDF extension. Following that rule, you need one  $\text{\LaTeX}$  code and all pictures saved in EPS and PDF format. The problem arise, when the EPS file(s) are to be converted into the PDF one(s). There are several ways to do just that:

**Adobe Destiler** It is Adobe converter in form of "almost everything" into the PDF. It is not free distributed software.

**GhostScript** The driver and converter for PostScript (PS), Encapsulated PostScript (EPS) and Portable Document Format (PDF). It is free under the GNU licence. The **GhostScript** cannot convert files with space ( ) in the path or file name, e.g:

```
c:\my files\my picture.eps
```

**GhostView** The viewer for PS, EPS and also PDF files that comes with the **GhostScript**. It enables one to convert a whole page or number of pages of PS or EPS into the PDF.

**epstopdf** Converter written in perl by Sebastian Rahtz, available on <http://tug.org/applications/pdftex/epstopdf>.

**epstopdf** The command prompt program written in C that also needs **GhostScript**'s converting capabilities and is based on Rahtz's **epstopdf**. Written by Kong Hoon Lee, konghoon@hyowon.cc.pusan.ac.kr, changed by Juergen Bausa, Juergen.Bausa@Online.de and bugfixed by Pascal Perichon, Pascal.Perichon@u-bourgogne.fr

**eps2pdf** This GUI shell, written in Delphi. It bases on work of authors of both **epstopdfs**.

## 2 How does the eps2pdf work?

It works like the perl script without perl but requires **GhostScript** and is capable of converting a list of selected files. This program invokes **gswin32c.exe** with the selected parameters.

There are two major steps in processing a EPS file:

1. Creating an temporary EPS file in order to shift the coordinate system of the figure inside of the EPS file to cause the BoundingBox's lower left corner to be placed in the coordinate origin.
2. Calling the **gswin32c.exe** with the selected parameters to do the actual conversion.

### 2.1 The creation of the temporary file

The **eps2pdf** searches for `%%BoundingBox:` string in the EPS file. Then it moves the coordinate system's origin in a way to cause the BoundingBox's lower left corner to be placed in the coordinate origin. In order to achieve this, a existing bounding box is replaced by the new one and two lines of code are added, see example.

The few first lines of the original file:

```
\%!PS-Adobe-3.0 EPSF-3.0
%%Title: WMF2EPS 1.2 : WMF->EPS conversion for clip000.emf
%%Creator: Pscript.dll Version 5.0
%%CreationDate: 4/13/2001 13:40:47
%%For: Nikola
%%BoundingBox: 56 56 399 333
%%Pages: 1
%%Orientation: Portrait
```

The few first lines of the created temporary file:

```
\%!PS-Adobe-3.0 EPSF-3.0
%%Title: WMF2EPS 1.2 : WMF->EPS conversion for clip000.emf
%%Creator: Pscript.dll Version 5.0
%%CreationDate: 4/13/2001 13:40:47
%%For: Nikola
%%BoundingBox: 0 0 343 277
<< /PageSize [343 277] >> setpagedevice
gsave -56 -56 translate
%%Pages: 1
%%Orientation: Portrait
```

The temporary file is created in the same directory as the EPS one and under the name of **eps2pdf.tmp-of-eps**. There are two different ways of creating the temporary file according to the size of the EPS file. The EPS files of 10 Mb or less are read into the RAM, updated there and saved as temporary file on the disk. Bigger EPS files are read, updated and saved as temporary file in blocks of 1kb. The **eps2pdf** assumes that the bounding box is stored within first 1024 bytes of the EPS file (which is rarely not true!).

## 2.2 The conversion of the temporary file

The conversion is done by invoking the **gswin32c.exe** with the selected parameters. The path to the **gswin32c.exe** may be added to the Windows system's PATH variable. Better way of handling this is to determine the path to the **gswin32c.exe** in the **eps2pdf** configuration utility, see the Manual section. The parameters can also be configured there. The default set of parameters are:

```
-q -dNOPAUSE -dBATCH -dDOINTERPOLATE -dUSEFLATECOMPRESSION=TRUE -sDEVICE=pdfwrite -r600
```

and can be changed and saved for subsequent use. Keep in mind that the input and output file names are added automatically to any set of parameters. For example:

```
-sOUTPUTFILE=xyz.pdf -f eps2pdf.tmp-of-eps
```

where xyz is the name of the original EPS file and **eps2pdf.tmp-of-eps** the name of the temporary file.

## 3 Manual

This manual is a substitute for non-existent help. The meanings of the commands are given according to the window of appearance. The windows are listed in logical sequence.

The configurations can be saved in **\*.config** files. The **eps2pdf.config** file is read when starting the application. So, it is a good idea to save configuration you most frequently use under this file name in the **eps2pdf** home directory.

### 3.1 Main window

Application's main window controls operations, file list and configuration. It harbors list of EPS files, line with current file name, some Checkbox controls, a Button, Main menu, and Popup menu over the list. The sum of operations is as follows:

- *When done* group settings:
  - Beep** If checked, beeps when all conversions are finished.
  - Exit** If checked, closes the application when all conversions are finished.
- *Show* group settings:
  - Finding results** If checked, shows how many EPS files has been found in each step of EPS-file searching.
  - Confirmations** If checked, the (annoying) confirmation requests upon deleting files from the list, searching the EPS files... appears.
- *File's attribute* group settings:
  - Preserve attributes of a EPS in the PDF file** If checked, the EPS file's attributes are copied to the PDF file. If not so, only the archive attribute is set on.
- Button action:
  - Convert files in the list** Button does just that. The conversion starts with showing the Convert window.
- Main menu actions:
  - **Select**
    - Files** The open file dialog is opened, which allows manual search and selection of EPS files on disk drives. The selected files are added to the EPS file list. This procedure may be repeated over and over again.
    - Directory** The Select directory window is invoked. After selecting directory, **eps2pdf** searches for EPS files in chosen directory and in its sub-directories if told so.
    - Include sub-dirs** If checked, then **eps2pdf** searches for EPS files in the selected directory's sub-directories.
  - **List**
    - Convert** Converts files in the list. The conversion starts with showing the convert window.
    - Remove file** Removes current file from the list.
    - Remove checked files** Removes all checked files from the list.
    - Clear** Clears the list.
  - **Configuration** See Configuration window subsection.
    - New** Shows the Configuration window in NEW mode in order to input and/or save a new configuration.
    - Open** Shows the Configuration window in OPEN mode in order to open and/or edit and/or save an existing configuration.
    - View** Shows the Configuration window in VIEW mode in order to review current configuration.
  - **Help**
    - Help** Sorry, no help is available at the moment.
    - About** Shows the comment about the application with author's e-mail and **eps2pdf** download page.
  - **Exit** Exits the application.
- Popup menu actions (on the list control only):
  - Remove file** Removes current file from the list.
  - Remove checked files** Removes all checked files from the list.
  - Clear** Clears the list.

### 3.2 Configuration window

There are three different modes (new, open, save) of configuration window defined.

**New** New mode is meant for inputing a new configuration. Only saving new configuration under a new name and searching capabilities (searching for **GhostScript**) are enabled. The window in this mode is shown at launching the **eps2pdf** if the configuration file **eps2pdf.config** can not be found.

**Open** Open mode enables user to use full capabilities of Configuration window.

**View** View mode is meant to review current configuration. Everything else is disabled.

The sum of operations possible in the windows are:

- Main menu actions:
  - **Configuration**
    - Open** The open file dialog is opened that allows manual search and selection of the configuration files on disk drives.
    - Save** The configuration is saved in the current configuration file.
    - Save as** The configuration is saved into user defined file.
  - **GhostScript**
    - Browse** The open file dialog is opened allowing manual search of the **GhostScript**'s execute file **gswin32c.exe**.
    - FindIt** The Searching for GhostScript window is invoked, which searches for the **GhostScript**'s execute file **gswin32c.exe** on all local hard disk drives.
- Button actions:
  - Default** Rewrite current parameters with the default ones.
  - ...** The open file dialog is opened allowing manual search of the **GhostScript**'s execute file **gswin32c.exe**.
  - >>** The Searching for GhostScript window is invoked, which searches for the **GhostScript**'s execute file **gswin32c.exe** on all local hard disk drives.
  - Accept** Accept the configuration! It is not saved!
  - Close** Don't accept the configuration, neglect the changes!

#### 3.2.1 Searching for GhostScript window

The window shows the search progress when searching for **gswin32c.exe**. The click on Stop button will interrupt the search.

### 3.3 Select directory window

The Select directory window enables you to select the directory on local hard disk drives where you intent to search for EPS files.

### 3.4 Convert window

The window shows the conversion progress. The click on Cancel button will interrupt conversion.

## 4 Acknowledgement

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