Manual for Char2eps v1.0

Dirk Bächle

Table of Contents

1.	Requirements	2
2.	Copyrights	2
3.	Starting the program	2
4.	Converting fonts	2
5.	Font definition file (FED)	4

1. Requirements

Char2eps relies heavily on the fixed Postscript output format, as produced by FontForge [http://fontforge.sf.net]. So you need to install this program too, and convert your TTF fonts (or any other format supported by *FontForge*) to Postcript "Type 3" with it.

2. Copyrights

Right at the start, an important note:

Please, do not violate copyrights! Respect your local laws when using characters of a font in your artwork, and give proper credits to the original author and copyright holder, respectively.

3. Starting the program

Starting *Char2eps* is as simple as saying

char2eps Strenuous3D.pt3 Strenuous3D.ced

where the file "Strenuous3D.pt3" is a Postscript font in "Type 3" format. Please note that **no other** font types are supported as input to *Char2eps*!

The second file "Strenuous3D.ced" is a special font definition file, containing infos about how big the resulting EPS files should get in size. Its complete syntax is explained in more detail in the section "Font Definition File" below.

The call of *Char2eps* will convert all glyphs/characters in the font and writes the resulting EPS files to the current directory.

So it's a good idea to create a separate folder, copy the .pt3 and .ced file there, and then call *Char2eps* from inside this directory.

4. Converting fonts

Start the program FontForge and select a font to open.

🗽 Open Fon	t 9	
A	example	t
	ious3D.pt3 ous3d.ttf	
strenuo	us3d.ttf	
Force glyph	names to: No Rename —	
<u> </u>	<u>Filter</u> <u>N</u> ew	Cancel

ſ	👔 Strenuous3D strenuous3d.ttf (UnicodeBmp) 🎱 📃 🗆 🗙								X																					
<u>F</u> il	<u>File Edit Element Hints Encoding View Metrics CID MM Window Help</u>																													
	_		0	0	3	D	C	D	F	R	a	TT	т	т	V	т	74	ħŢ		п		D	C	T	TT	17	ЪŢ	37	v	
<u><</u> ख	-	8	8	e Q	A	B	Ö	Ð	E	1 I	ि ि	$\ddot{\Box}$	Π.	л Л	<u>^</u>				0	Ď	Õ		s S	$\dot{\overline{\mathbf{r}}}$	Ū	$\overline{\mathbf{v}}$	$\overline{\mathbf{m}}$	⊼ ∑7	Ť	F
Z		-	0F	Š	لمنك	ن آ	Э а	b	с С	ur d	e e	لى f	g	h	i	L i	لسا k	1	m	n	ঁ	p q	с q	r	S	t	ա	44 V	v	4
Ž	ĥ	Ň	ĥ	\bigtriangledown		0	ā	Ð	õ	Đ	ě	Ē	Ğ		â	A.	X	Ĺ	Ē	\sim	ŏ	Ď	Q	Ŕ	ŝ	Ť	Ū	$\overline{\mathbf{v}}$	Ū	
X	U V	N Z	4	\cap		~	•	0	9		9			<u> </u>		U	22		ш	<u> </u>	9	~	9				9	<u> </u>	9	H
X	ý	Ž	ì	n i	Ń	9	Ň	\bigtriangledown	\sim	\sim	\sim	\sim	$\overline{\mathbf{x}}$	$\overline{\mathbf{X}}$	$\overline{\mathbf{X}}$	\sim	\sim	$\overline{\mathbf{X}}$	\sim	\bigtriangledown	\bigtriangledown	\sim	$\overline{\mathbf{X}}$	\sim	\sim	$\overline{\mathbf{X}}$	\sim	\sim	\smallsetminus	
<u> </u>			<u>ر</u>	L A	J	-	\sim	\frown	\frown	\sim		¢	£	a	¥		s	÷	G	<u>a</u>	<u>«</u>	_	-	®	-		${\pm}$	2	3	8
\mathbf{X}	\sim	\mathbf{X}	\times	\mathbf{X}	\times	$\mathbf{\mathbf{x}}$	$\mathbf{\times}$	\times	\times		8	Ò	Ē	e	$\overline{\mathbf{T}}$	$\mathbf{\mathbf{x}}$	Ň	\mathbf{X}	9	\times	\$	\times	•		\times	0	$\overline{\mathbf{X}}$	$\mathbf{\times}$	\mathbf{X}	
8	μ	I	$\overline{\cdot}$	<u> </u>	1	2	»	1/4	1/2	3⁄4	u د	À	Á	Â	Ã	Ä	Å	Æ	ç	È	É	Ê	Ë	Ì	Í	Î	Ï	Ð	Ñ	1
\times	\mathbb{X}	\mathbb{X}	\times	X	\times	\times	3	\times	\times	\times	3	Δ	A	Â	Δ	Ä	Δ	Æ	9	g	E	8	Ë	Ŋ	Ũ	Ĵ	Ũ	D	ũ	
Ò	Ó	Ô	Ő	Ö	×	ø	Ù	Ú	Û	Ü	Ý	Þ	ß	à	á	â	ã	ä	å	æ	ç	è	é	ê	ë	ĩ	í	î	ï	
6	0	Ô	õ	Ö	83	\odot	Ũ	Ũ	Ū	Ũ	g	Ð	B	6	ଶି	ව්	ව්	වී	ð	2	Ģ	Q	Q	Q	Ö	Ĵ	Ũ	Ĵ	Ũ	
ð	ñ	ò	ó	Ô	õ	ö	÷	ø	ù	ú	û	ü	Ý	þ	ÿ	Ā	ā	Ă	ă	Ą	ą	ć	ć	Ĉ	ĉ	Ċ	Ċ	Č	č	
୭	۱Ũ	0	٥	0	õ	Õ	Х	\odot	Ũ	Ū	Û	Ũ	Ð	Ð		Δ	වි	Δ	ð	Δ	ව	Q	Q	Х	Х	Х	Х	õ	Q	
Ď	d	Ð	đ	Ē	ē	Ĕ	ĕ	Ė	ė	Ę	ę	Ě	ě	Ĝ	ĝ	Ğ	ğ	Ġ	ġ	Ģ	ģ	Ĥ	ĥ	Ħ	ħ	Ĩ	ĩ	Ī	ī	
Б	ð	${}^{\diamond}$	${}^{\bigcirc}$	3	Q	\times	\times	Ê	ů	ĝ	Ĝ	ğ	õ	\times	\times	\times	Θ	\times	\times	Ģ	Ģ	\times	\times	\times	\times	\times	\times		Π	
Ĭ	Ĭ	Į	į	İ	1	I	ij	Ĵ	Ĵ	Ķ	ķ	к	Ĺ	ĺ	Ļ	ļ	Ľ	ĺ	Ŀ	ŀ	Ł	ł	Ń	ń	Ņ	ņ	Ň	ň	'n	
\ge	\times	Ĵ	ĝ			\times	Х	imes	imes	Ţ?	Ţ?	\times	Ц	Ц	Ļ	Ļ	B	B	\times	\times	3	3	Ш	ũ	ų	Û	ũ	ũ	\times	
Ŋ	ŋ	ġ	ğ	Ŏ	ŏ	Ő	Ő	Œ	œ	Ŕ	ŕ	Ŗ	ŗ	Ř	ř	Ś	Ś	Ŝ	ŝ	Ş	ş	Š	Š	Ţ	ţ	Ť	ť	Ŧ	ŧ	
Ž	\times	ō	ō	Ŵ	X	Õ	٥	ख	ভ	2نا	ß	Ŝ	13	Ĩ	Ĩ	S	ŝ	X	X	Ş	Ş	Ē	ğ	J	J	Ť	Ť	X	X	
Ű	ű	Ŭ	ū T	Ŭ	ŭ	Ů	ů	Ü	ű	Ų	ų	Ŵ	Ŵ	Ŷ	Ŷ	Ϋ́	Ź	ź	Ż	Ż	Ž	Ž	T	Ъ	В	Б	Б	Ь	Ъ	
$ \ge$	Ķ	U	Ū	\square	Ā	Ŭ	U	U	U	Ų	Õ	$^{\times}$	X	X	Ă	Ü	Z	2	Ż	Ż	Z	Z	$^{\times}$	$^{\times}$	$^{\times}$	$^{\times}$	$^{\times}$	Δ	${ imes}$	
D	IC.	ď	Ð	D	Е	В	Q	Е	Ð	3	F	f	G	Ϋ́	h	11	Ŧ	K	k	ł	Ă	W	N	η	Θ	Ø	0	0	ឲា	

After the import you should see the overview of defined glyphs for your current font.

Now, choose the entry "Generate Fonts" from the "File" menu. In the appearing dialog, ensure that "Postscript Type 3" is selected as output format.

🐲 Generate For	nts 🥑		
	examp	le 💷	E
 E ☑ Strenuous ☑ Strenuous ☑ strenuous 	s3D.pt3		
Strenuous	3D.pt3		
PS Ty	ре 3 🖂	No Bitmap	Fonts 💷
Options			
Force glyph na	mes to:	No Rena	ime 💷
Save	New 🗅	<u>F</u> ilter	<u>C</u> ancel

Ignore the warnings about a too large encoding

😸 Encoding Too Large 🎱	
Your font has a 2 byte encoding, but save it in a format that only supports This means that you won't be able to the first 256 characters without reen	one byte encodings. access anything after
Do you want to procede anyway?	
Yes	Cancel

and proceed with "Yes". That's it!

5. Font definition file (FED)

An FED file has to start with the lines

```
%Char2eps Postscript font definition file
%Version: 1.0
%BEGIN FontInfo
```

Then the single values follow, where each key has the form

BEGIN key	
value	
END key	

The values are read as strings and can span multiple lines, for texts like the "FontDescription". Three different types of values are supported:

Text	Normal text, which may span several lines.
------	--

Double A floating point number like "2.4", "1.3e2" or "4".

Length A Double (see above), which is interpreted as a length given in Postscript units. You can also append a unit specifier "cm", "mm" or "in" to the number, e.g. "2.7in".

The available keys are:

FontName	Text, name of the font.
FontVersion	Text, version of the font.
FontAuthor	Text, the author/copyright holder of the font.
SquareWidth	Double, width of the design square for the font.
SquareHeight	Double, height of the design square for the font.
SquareDepth	Double, depth of the design square for the font.
EpsScalingFactor	Double, if specified, the single chars are scaled in size by this factor.
EpsCharHeight	Length, if specified, the single chars are scaled such that they have the given final size.
EpsDefaultLineWidth	Length, the Postscript line width, used for the strokes.
EpsLeftMargin	Length, adds a left margin.

EpsRightMargin	Length, adds a right margin.
EpsTopMargin	Length, adds a Top margin.
EpsBottomMargin	Length, adds a Bottom margin.