User's Guide » Fonts & Languages

# Choosing a configuration

(mPDF <= 4.6)

In mPDF there are a number of ways to configure your set-up. There is often a trade-off between file size, processing speed, appearance (support for different fonts), and reliability (i.e. ensuring that text is always displayed, at least in some form).

**Note:** The "codepage" referred to on this page refers to the internal codepage used by the PDF file. All input to mPDF should be UTF-8 encoded.

**Note:** From mPDF >=4.0 subsets of fonts can be embedded in the PDF file, allowing much smaller font files, whilst taking more time to process. This is enabled by starting mPDF with the suffix '-s' in any of the multibyte forms e.g.

new mPDF('UTF-8-s') but also 'ar-s', 'vi-s' etc.

#### Single language / codepage

Characters in your document	File size	Respect CSS font- family	Configuration	mPDF() language code [2]
Western European languages (English, Italian, German) win-1252 + Symbols + Dingbats	Smallest	NO <sup>[1]</sup>	new mPDF() \$mpdf->useOnlyCoreFonts=true	en, ca, cy, da, de, es, eu, fr, ga, fi, is, it, nl, no, pt, sv
Western European languages (English, Italian, German) win-1252 + Symbols + Dingbats	Small	Yes	new mPDF()	en, ca, cy, da, de, es, eu, fr, ga, fi, is, it, nl, no, pt, sv
Central and Eastern European (Polish, Croatian, Czech, Slovak, Slovenian, Serbian, and Hungarian) ISO-8859-2	Small	Yes	new mPDF('iso-8859-2')	cs, hr, hu, pl, ro, sk, sl
Cyrillic (Russian, Bulgarian, Serbian, Macedonian and Bulgarian) win-1251	Small	Yes	new mPDF('win-1251')	bg, mk, ru, sr, uk
<b>Baltic</b> (Estonian, Latvian, Lithuanian, Greenlandic) iso-8859-4	Small	Yes	new mPDF('iso-8859-4')	et, kl, lt, lv
<b>Greek</b> language (monotonic orthography) iso-8859-7	Small	Yes	new mPDF('iso-8859-7')	el
Latin-5 ( <b>Turkish</b> , <b>Kurdish</b> ) iso-8859-9	Small	Yes	new mPDF('iso-8859-9')	tr

- [1] Only uses Adobe core fonts: Helvetica, Times, Courier, Symbols and Dingbats.
- [2] Configured set-up for calling class by language code e.g. pdf = new mPDF(en') or mPDF(en-GB'). These are configurable in function GetCodepage() in  $config_pp.php$

#### Character (font) substitution

In all of these configurations other than the top 2 (win-1252), characters which are not included in the main codepage, but which are included in any of the core packages (win-1252, Symbols, Dingbats) will display, but characters in the higher part of win-1252 will be displayed used the core Helvetica/Times/Courier fonts and may appear 'odd'.

This "character (font) substitution" is set by default to be used, allowing a small file size, but making most characters at least readable. If appearance is more important than file size/speed, then consider using a UTF-8 output file.

#### Chinese-Japanese-Korean

Characters in your document	File size	Speed	Respect CSS font- family	Configuration	mPDF() language code <sup>[2]</sup>
Japanese SHIFT_JIS	Small		NO <sup>[1]</sup>	new mPDF('SJIS')	ja
Chinese - Simplified (People's Republic of China) GBK / CP936	Small		NO <sup>[1]</sup>	new mPDF('GBK')	zh, zh-CN
Chinese - Traditional (Taiwan, Hong Kong) Big-5	Small		NO <sup>[1]</sup>	new mPDF('BIG5')	zh-HK, zh- TW
Korean UHC / CP949	Small		NO <sup>[1]</sup>	new mPDF('UHC')	ko
Any CJK language	Small	Slow (if using lang)	Yes - but need to specify the font <sup>[3]</sup> or the language <sup>[4]</sup> for any text using a CJK codepage which wasn't initially set	[any of the above]	[any of the above]
Any CJK language + other languages	Large	Slow (if using lang)	Yes - but need to specify the font <sup>[3]</sup> or the language <sup>[4]</sup> for all CJK text <sup>[3]</sup>	new mPDF('UTF-8')	-
	Large	Slow	Yes (overridden for CJK text)	new mPDF('UTF-8') \$mpdf->SetAutoFont(AUTOFONT_ALL);	-

- [1] Uses the font of the appropriate codepage of the Adobe Asian font pack.
- [2] Configured set-up for calling class by language code e.g. \$mpdf = new mPDF('en') or mPDF('en-GB'). These are configurable in function GetCodepage() in htmltoolkit.php
- [3] For example ???????
- [4] For example p lang="zh-CN">???????

Font substitution occurs with CJK documents as described above.

The codepages/fonts that Adobe uses for CJK languages all support ASCII characters, and have variable coverage of win-1252, cyrillic, greek and other characters. Most English will be displayed without problem using CJK fonts only.

#### Thai and Vietnamese

Vietnamese and Thai languages are poorly covered by most of the available fonts, meaning that without some control, many characters may not be displayed correctly.

Characters to	File	Speed Respect CSS font- Configuration	mPDF()
show	size	family	language
			code

Vietnamese + Western European, Central and Eastern	Large		NO <sup>[1]</sup>	new mPDF('vi') <sup>[1]</sup>	vi
	Large	Slow	Yes (overridden for Vietnamese)	new mPDF('UTF-8') \$mpdf->SetAutoFont(AUTOFONT_THAIVIET);	-
European, Russian, Cyrillic, Baltic, Greek, Turkish and Kurdish languages, Symbols & Dingbats	Large	Slow	Yes (overridden for Vietnamese) but need to specify the language for all Vietnamese text [2]	new mPDF('UTF-8')	
Thai + Western	Large		NO <sup>[1]</sup>	new mPDF('th') <sup>[1]</sup>	th
European, Central and Eastern European,	Large	Slow	Yes (overridden for Thai)	new mPDF('UTF-8') \$mpdf->SetAutoFont( <b>AUTOFONT_THAIVIET</b> );	-
Russian, Cyrillic, Baltic, Greek, Turkish and Kurdish languages, Symbols & Dingbats	Large	Slow	Yes (overridden for Thai) but need to specify the language for all Thai text [3]	new mPDF('UTF-8')	-

<sup>[1]</sup> RestrictUnicodeFonts() is set automatically if the class mPDF is called by language code e.g. new mPDF('vi'). It forces the whole document to keep to a restricted set of font(s), thus ensuring that all characters are displayed.

- [2] For example Mô?t kha?o sa?t m??i cho biê?t

## RTL languages - Hebrew & Arabic

You need to download the additional font pack for Arabic fonts

Characters to show	File size	Speed	Document layout	Respect CSS font-family	Configuration	mPDF() language code
(+ Western European, Central and Eastern European, Russian, Cyrillic,	Large		RTL	Partial - but need to specify the language for any text which is not Hebrew	new mPDF('he'); <sup>[1]</sup>	he
	Large	Slower	RTL	Yes (overridden for Hebrew)	new mPDF('UTF-8') \$mpdf->SetDirectionality('rtl'); [1] \$mpdf->SetAutoFont(AUTOFONT_RTL);	-
languages, Symbols & Dingbats)	Large	Slower	RTL	Yes (overridden for Hebrew) but need to specify the language for all Hebrew text [2]	new mPDF('UTF-8') \$mpdf->SetDirectionality('rtl'); [1]	-

Persian/Farsi, Urdu, Pashto, Sindhi (+ Western European, Central and Eastern European, Russian, Cyrillic, Baltic, Greek, Turkish and	Large		RTL	Partial - but need to specify the language for any text which is not the initial specified language [2]	new mPDF('ar') or new mPDF('fa') or new mPDF('ps') or new mPDF('ur') or new mPDF('sd') <sup>[1]</sup>	ar, fa, ps, ur, sd
	Large	Slower	RTL	Yes (overridden for Arabic)	new mPDF('UTF-8') \$mpdf->SetDirectionality('rtl'); [1] \$mpdf->SetAutoFont(AUTOFONT_RTL);	-
Kurdish languages, Symbols & Dingbats)	Large	Slower	RTL	Yes (overridden for Arabic) but need to specify the language for all RTL text [2]	new mPDF('UTF-8') \$mpdf->SetDirectionality('rtl'); [1]	-

<sup>[1]</sup> SetDirectionality() and RestrictUnicodeFonts() are set automatically if the class mPDF is called by language code e.g. new mPDF('ar'). SetDirectionality() forces the whole document to a RTL layout. RestrictUnicodeFonts() forces the whole document to keep to the specified font(s), thus ensuring that all characters are displayed.

[2] For example p lang="ar">???????? ???????

File size is always large due to to Unicode fonts being used.

### Indic languages

You need to download the additional font pack for Indic fonts

Characters to show	File size	Speed	Document layout	Respect CSS font-family	Configuration	mPDF() language code
Bengali, Large Devanagari, Malayalam, Gujarati, Kannada, Oriya, Punjabi, Tamil, Telugu (+ Western		RTL	Partial but need to specify the language for any text not in the initial specified language [2]	new mPDF('xx') <sup>[1]</sup>	bn, hi, ml, gu, kn, or, pa, ta, te	
European, Central and Eastern	Large	Slower	RTL	Yes (overridden for Indic)	new mPDF('UTF-8') \$mpdf->SetAutoFont(AUTOFONT_INDIC);	-
European, Russian, Cyrillic, Baltic, Greek, Turkish and Kurdish languages, Symbols & Dingbats)	Large	Slower	RTL	Yes (overridden for Indic) but need to specify the language for all Indic text [2]	new mPDF('UTF-8')	-

<sup>[1]</sup> RestrictUnicodeFonts() is set automatically if the class mPDF is called by language code e.g. new mPDF('hi'). RestrictUnicodeFonts() forces the whole document to keep to the specified font(s), thus ensuring that all characters are displayed.

[2] For example ?????????

File size is always large due to to Unicode fonts being used.

## Multi-lingual documents

Characters to show	Speed	Respect CSS font-family	Configuration
Multi-lingual document including Western European, Central and Eastern European, Russian, Cyrillic, Baltic, Greek, Turkish and Kurdish languages, Symbols & Dingbats but NOT Thai, Vietnamese, Hebrew, Arabic, CJK or Indic languages	Speed	Yes	Configuration new mPDF('UTF-8')
Multi-lingual document including Thai, Vietnamese, Hebrew, Arabic, CJK or Indic languages	Slow	Yes - but <b>need to specify appropriate font-family</b> <sup>[1]</sup> <b>or language</b> <sup>[2]</sup> for Thai, Vietnamese, Hebrew, Arabic, CJK or Indic text	new mPDF('UTF-8')
	Slowest	Yes (overridden for Thai, Vietnamese, Hebrew, Arabic, CJK or Indic text)	new mPDF('UTF-8') \$mpdf->SetAutoFont( <b>AUTOFONT_ALL</b> );

- [1] For example ???????
- [2] For example ???????

File size is always large due to to Unicode fonts being used.

#### See Also

- RTL & Bidirectional text
- SetAutoFont() Automatically detect language in the input HTML text and use appropriate fonts
- useLang Specify whether to recognise/support HTML attribute lang
- useOnlyCoreFonts Forces mPDF to use the core Adobe fonts

There is a useful list of language/country codes at: http://www.i18nguy.com/unicode/language-identifiers.html.

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