mPDF

Fonts in mPDF Version 5.x

mPDF version 5 supports Truetype fonts, reading and embedding directly from the .ttf font files. Fonts must follow the Truetype specification and use Unicode mapping to the characters. Truetype collections (.ttc files) and Opentype files (.otf) in Truetype format are also supported.

Easy to add new fonts

1. Upload the Truetype font file to the fonts directory (/ttfonts)
2. Define the font file details in the configuration file (config_fonts.php)
3. Access the font by specifying it in your HTML code as the CSS font-family

These are some examples of Windows fonts:

Arial - The quick, sly fox jumped over the lazy brown dog.
Comic Sans MS - The quick, sly fox jumped over the lazy brown dog.
Trebuchet - The quick, sly fox jumped over the lazy brown dog.
Calibri - The quick, sly fox jumped over the lazy brown dog.
QuillScript - The quick, sly fox jumped over the lazy brown dog.
`Lucidaconsole - The quick, sly fox jumped over the lazy brown dog.`
Tahoma - The quick, sly fox jumped over the lazy brown dog.
AlbaSuper - The quick, sly fox jumped over the lazy brown dog.

Full Unicode support

The DejaVu fonts distributed with mPDF contain an extensive set of characters, but it is easy to add fonts to access uncommon characters.

Georgian (DejaVuSansCondensed)
ᲝᲧᲢᲝᲩᲮᲫᲬᲭᲨᲯᲰᲱᲲᲳᲴᲵᲶᲷ
Cherokee (Quivira)
□□□□□□□□□□□□□□□□□□□□□□□□□□
Runic (Junicode)
□□□□□□□□□□□□□□□□□□□

Complex scripts

Although all characters may be displayed, there are various reasons why a script may not appear as expected.

Right-to-left languages (Hebrew, Arabic etc.)

Arabic languages and Hebrew are written in a right-to-left direction (RTL). mPDF recognises both Arabic and Hebrew languages and reverses text direction automatically.

ألسّلام عليكم שלום

Arabic languages (but not Hebrew) also change the form of the letter depending on its position in the text e.g. these are the initial, medial, final, and isolated forms of arabic letter 'ain':

ع ـع ـعـ ـع

The isolated characters are contained in the Unicode block 'Arabic' U+0600 - U+06FF.
The initial, medial and final forms are contained in Unicode Blocks 'Arabic Presentation Forms' A and B (U+FB50 - U+FDFF, U+FE70 - U+FEFE). Note that quite a large number of fonts contain the isolated characters but not the presentation forms. Fonts used with mPDF must contain the 'Arabic Presentation Forms' in order to display arabic text correctly. mPDF automatically converts letters to their initial/medial/final forms in several languages: arabic, persian/farsi, urdu, sindhi and pashto.

Arabic text is used for many different languages e.g. persian/farsi, urdu, pashto etc. These languages often contain letters unique to that language. 'Arabic' fonts do not always contain the full set of arabic charcters necessary for all languages.

Other RTL languages (using other alphabets) are reversed in order, but not otherwise processed, by mPDF e.g. Syriac, Thaana, N'Ko, and Samaritan.

Indic languages

Indic languages are also complex scripts which require some processing of characters before display. For example some vowels consist of 2 characters, to be placed before and after the adjacent consonant e.g.

U+0D1C + U+0D4C [vowel AU] = [written together as ജൌ]

ജ + ൊ ൗ = ജൗ

Consonant conjuncts are where two adjacent characters are written as a single 'conjunct' form e.g.

प + ॡ = प्ॡ

mPDF can support some of these languages, but requires specially prepared font files that are unique to mPDF.
Supported languages: Bengali, Devanāgarī, Gujarāti, Gurmukhi, Kannada, Malayalam, Oriya, Tamil, Telugu

আসসালামু আলাইকুম નમસ્તે നമസ്കാരം नमस्ते வணக்கம்!

Complex scripts **not** supported: Khmer, Sinhala, Tibetan, Myanmar (Burmese), Balinese

Vertical writing

Vertical writing is not supported by mPDF (e.g. Mongolian and Phags-pa) although the individual characters can be displayed using suitable fonts.

Combining diacritics

In Unicode, letters with diacritics (e.g. ÁáȦȧÄä) are usually represented as a single character e.g. Unicode U+0196 is an A Umlaut. There are 4 blocks in Unicode of diacritics or 'marks' which can be used to combine with adjacent letters: Combining Diacritical Marks (U+0300 - U+036F), Combining Diacritical Marks Supplement (U+1DC0 - U+1DFF), Combining Marks for Symbols(U+20D0 - U+20FF) and Combining Half Marks (U+FE20 - U+FE2F).

Software applications use special positioning information stored in OpenType font files to resposition the diacritic/mark depending on the context. mPDF does not support this repositioning and is dependent on the font design and original placement of the diacritic:

Á á Ȧ ȧ Ä ä ï (Precomposed characters: DejaVu Sans Condensed)
Á́ á Ȧ́ ȧ Ä́ ä ̈ï (Using diacritics: DejaVu Sans Condensed)
Á́ á Ȧ́ ȧ Ä́ ä ̈ï (Arial Unicode MS)
Á́ á Ȧ́ ȧ Ä́ ä ̈ï (Times New Roman)
A´ a´ A˙ a˙ A¨ a¨ i¨ (Courier New)

It is recommended to use precomposed characters whenever possible with mPDF.

Unicode Supplementary Planes

The original Unicode allocated characters between x0000 and xFFFF (65,536 characters). This 'Basic Multilingual Plane' supported most characters in common use, including a large number of Unified Chinese-Japanese-Korean characters (CJK). Later the Unicode standard was extended to 16 Planes.

The first plane (plane 0), the Basic Multilingual Plane (BMP), is where most characters have been assigned so far.

Plane 1, the Supplementary Multilingual Plane (SMP), is mostly used for historic scripts such as Linear B, but is also used for musical and mathematical symbols.

Plane 2, the Supplementary Ideographic Plane (SIP), is used for about 40,000 Unified Han (CJK) Ideographs.

mPDF version 5 supports fonts containing characters from all Unicode Planes. By choosing the correct font, almost every single character from Unicode 5 can be displayed in a PDF file.

Unicode Supplementary Multilingual Plane (SMP or Plane 1) U+10000 - U+1FFFF

Gothic text

This paragraph shows Gothic text. These characters lie in the Unicode Supplementary Multilingual Plane U+10330 - U+1034F.

𐌰𐌱𐌲𐌳𐌴𐌵𐌶𐌷𐌸𐌹𐌺𐌻𐌼𐌽𐌾𐌿𐍀𐍁𐍂𐍃𐍄𐍅

Font: MPH2BDamase (damase_v.2.ttf) available from: http://www.wazu.jp/gallery/views/View_MPH2BDamase.html

Egyptian Hieroglyphics

This paragraph shows Egyptian Hieroglyphics. These characters lie in the Unicode Supplementary Multilingual Plane U+13000 - U+1342F.

𓀀𓀁𓀂𓀃𓀄𓀅𓀆𓀇𓀈𓀉𓀊𓀋𓀌𓀍𓀎𓀏𓀐𓀑

Font: Aegyptus.otf available from: http://users.teilar.gr/~g1951d/

SMP contains mainly ancient scripts - see http://mpdf1.com/manual/index.php?tid=451 for full list.

mPDF uses a different method to embed fonts in the PDF file if they include characters from SMP or SIP, because the characters cannot be represented by a 4 character hex code 0000-FFFF. This method is less eficient than the default method, and it can be suppressed by adding the font name to the array 'BMPonly' in the config_fonts.php configuration file.

Note that the DejaVu fonts distributed with mPDF and (GNU)FreeSans and FreeSerif fonts do contain a few characters in the SMP plane, but most users will not require them and by default they have been added to the array 'BMPonly'.

CJK CHARACTERS

Below are examples of all the CJK Unicode blocks contained in the Basic Multilingual Plane and Supplemental Ideographic Plane

Plane 0 (BMP)

CJK Radicals Supplement

⺀⺁⺂⺃⺄⺅⺆⺇⺈⺉⺊⺋⺌⺍⺎⺏⺐⺑⺒⺓⺔⺕⺖⺗⺘⺙⺚⺛

Kangxi Radicals

⼀⼁⼂⼃⼄⼅⼆⼇⼈⼉⼊⼋⼌⼍⼎⼏⼐⼑⼒⼓⼔⼕⼖⼗⼘⼙⼚⼛

Ideographic Description Characters

⿰⿱⿲⿳⿴⿵⿶⿷⿸⿹⿺⿻

CJK Symbols and Punctuation

、。〃〄々〆〇〈〉《》「」『』【】〒〓〔〕〖〗〘〙〚〛〜〝〞〟〠〡〢〣〤〥〦〧〨〩〪〭〮〯〫〬

Hiragana

ぁあぃいぅうぇえぉおかがきぎくぐけげこごさざしじすずせぜそぞただちぢっつづてでとどなにぬねのはばぱひびぴふぶぷへべぺほぼぽまみむめもゃやゅゆょよらりるれろゎわゐゑをんゔゕゖ゗゘゙゚゛゜ゝゞゟ

Katakana

゠ァアィイゥウェエォオカガキギクグケゲコゴサザシジスズセゼソゾタダチヂッツヅテデトドナニヌネノハバパヒビピフブプヘベペホボポマミムメモャヤュユョヨラリルレロヮワヰヱヲンヴヵヶヷヸヹヺ・ーヽヾヿ

Bopomofo

ㄅㄆㄇㄈㄉㄊㄋㄌㄍㄎㄏㄐㄑㄒㄓㄔㄕㄖㄗㄘㄙㄚㄛㄜㄝㄞㄟㄠㄡㄢㄣㄤㄥㄦㄧㄨㄩ

Hangul Compatibility Jamo

ㅏㅐㅑㅒㅓㅔㅕㅖㅗㅘㅙㅚㅛㅜㅝㅞㅟㅠㅡㅢㅣㅤㅥㅦㅧㅨㅩㅪㅫㅬㅭㅮㅯㅰㅱㅲㅳㅴㅵㅶㅷㅸㅹㅺㅻㅼㅽㅾㅿㆀㆁㆂㆃㆄㆅㆆㆇㆈㆉㆊㆋㆌㆍㆎ

Kanbun

㆐㆑㆒㆓㆔㆕㆖㆗㆘㆙㆚㆛㆜㆝㆞㆟

Bopomofo Extended

ㆠㆡㆢㆣㆤㆥㆦㆧㆨㆩㆪㆫㆬㆭㆮㆯ

Katakana Phonetic Extensions

ㇰㇱㇲㇳㇴㇵㇶㇷㇸㇹㇺㇻㇼㇽㇾㇿ

Enclosed CJK Letters and Months

㈀㈁㈂㈃㈄㈅㈆㈇㈈㈉㈊㈋㈌㈍㈎㈏㈐㈑㈒㈓㈔㈕㈖㈗㈘㈙㈚㈛㈜㈝㈞㈟㈠㈡㈢㈣㈤㈥㈦㈧㈨㈩㈪㈫㈬㈭㈮㈯㈰㈱㈲㈳㈴㈵㈶㈷㈸㈹㈺㈻㈼㈽㈾㈿㉀㉁㉂㉃㉄㉅㉆㉇㉈㉉㉊㉋㉌㉍㉎㉏

CJK Compatibility

㌀㌁㌂㌃㌄㌅㌆㌇㌈㌉㌊㌋㌌㌍㌎㌏㌐㌑㌒㌓㌔㌕㌖㌗㌘㌙㌚㌛㌜㌝㌞㌟㌠㌡㌢㌣㌤㌥㌦㌧㌨㌩㌪㌫㌬㌭㌮㌯㌰㌱㌲㌳㌴㌵㌶㌷㌸㌹㌺㌻㌼㌽㌾㌿㍀㍁㍂㍃㍄㍅㍆㍇㍈㍉㍊㍋㍌㍍㍎㍏㍐㍑㍒㍓㍔㍕㍖㍗㍘㍙㍚㍛㍜㍝㍞㍟㍠㍡㍢㍣㍤㍥㍦㍧㍨㍩㍪㍫㍬㍭㍮㍯㍰㍱㍲㍳㍴㍵㍶㍷㍸㍹㍺㍻㍼㍽㍾㍿㎀㎁㎂㎃㎄㎅㎆㎇㎈㎉㎊㎋㎌㎍㎎㎏㎐㎑㎒㎓㎔㎕㎖㎗㎘㎙㎚㎛㎜㎝㎞㎟㎠㎡㎢㎣㎤㎥㎦㎧㎨㎩㎪㎫㎬㎭㎮㎯㎰㎱㎲㎳㎴㎵㎶㎷㎸㎹㎺㎻㎼㎽㎾㎿㏀㏁㏂㏃㏄㏅㏆㏇㏈㏉㏊㏋㏌㏍㏎㏏㏐㏑㏒㏓㏔㏕㏖㏗㏘㏙㏚㏛㏜㏝㏞㏟㏠㏡㏢㏣㏤㏥㏦㏧㏨㏩㏪㏫㏬㏭㏮㏯㏰㏱㏲㏳㏴㏵㏶㏷㏸㏹㏺㏻㏼㏽㏾㏿

CJK Unified Ideographs Extension A

㐀㐁㐂㐃㐄㐅㐆㐇㐈㐉㐊㐋㐌㐍㐎㐏㐐㐑㐒㐓㐔㐕㐖㐗㐘㐙㐚㐛㐜㐝㐞㐟㐠㐡㐢㐣㐤㐥㐦㐧㐨㐩㐪㐫㐬㐭㐮㐯㐰㐱㐲㐳㐴㐵㐶㐷㐸㐹㐺㐻㐼㐽㐾㐿㑀㑁㑂㑃㑄㑅㑆㑇㑈㑉㑊㑋㑌㑍㑎㑏㑐㑑㑒㑓㑔㑕㑖㑗㑘㑙㑚㑛㑜㑝㑞㑟㑠㑡㑢㑣㑤㑥㑦㑧㑨㑩㑪㑫㑬㑭㑮㑯㑰㑱㑲㑳㑴㑵㑶㑷㑸㑹㑺㑻㑼㑽㑾㑿㒀㒁㒂㒃㒄㒅㒆㒇㒈㒉㒊㒋㒌㒍㒎㒏㒐㒑㒒㒓㒔㒕㒖㒗㒘㒙㒚㒛㒜㒝㒞㒟㒠㒡㒢㒣㒤㒥㒦㒧㒨㒩㒪㒫㒬㒭㒮㒯㒰㒱㒲㒳㒴㒵㒶㒷㒸㒹㒺㒻㒼㒽㒾㒿㓀㓁㓂㓃㓄㓅㓆㓇㓈㓉㓊㓋㓌㓍㓎㓏㓐㓑㓒㓓㓔㓕㓖㓗㓘㓙㓚㓛㓜㓝㓞㓟㓠㓡㓢㓣㓤㓥㓦㓧㓨㓩㓪㓫㓬㓭㓮㓯㓰㓱㓲㓳㓴㓵㓶㓷㓸㓹㓺㓻㓼㓽㓾㓿㔀㔁㔂㔃㔄㔅㔆㔇㔈㔉㔊㔋㔌㔍㔎㔏㔐㔑㔒㔓㔔㔕㔖㔗㔘㔙㔚㔛㔜㔝㔞㔟㔠㔡㔢㔣㔤㔥㔦㔧㔨㔩㔪㔫㔬㔭㔮㔯㔰㔱㔲㔳㔴㔵㔶㔷㔸㔹㔺㔻㔼㔽㔾㔿㕀㕁㕂㕃㕄㕅㕆㕇㕈㕉㕊㕋㕌㕍㕎㕏㕐㕑㕒㕓㕔㕕㕖㕗㕘㕙㕚㕛㕜㕝㕞㕟㕠㕡㕢㕣㕤㕥㕦㕧㕨㕩㕪㕫㕬㕭㕮㕯㕰㕱㕲㕳㕴㕵㕶㕷㕸㕹㕺㕻㕼㕽㕾㕿㖀㖁㖂㖃㖄㖅㖆㖇㖈㖉㖊㖋㖌㖍㖎㖏㖐㖑㖒㖓㖔㖕㖖㖗㖘㖙㖚㖛㖜㖝㖞㖟㖠㖡㖢㖣㖤㖥㖦㖧㖨㖩㖪㖫㖬㖭㖮㖯㖰㖱㖲㖳㖴㖵㖶㖷㖸㖹㖺㖻㖼㖽㖾㖿㗀㗁㗂㗃㗄㗅㗆㗇㗈㗉㗊㗋㗌㗍㗎㗏㗐㗑㗒㗓㗔㗕㗖㗗㗘㗙㗚㗛㗜㗝㗞㗟㗠㗡㗢㗣㗤㗥㗦㗧㗨㗩㗪㗫㗬㗭㗮㗯㗰㗱㗲㗳㗴㗵㗶㗷㗸㗹㗺㗻㗼㗽㗾㗿㘀㘁㘂㘃㘄㘅㘆㘇㘈㘉㘊㘋㘌㘍㘎㘏㘐㘑㘒㘓㘔㘕㘖㘗㘘㘙㘚㘛㘜㘝㘞㘟㘠㘡㘢㘣㘤㘥㘦㘧㘨㘩㘪㘫㘬㘭㘮㘯㘰㘱㘲㘳㘴㘵㘶㘷㘸㘹㘺㘻㘼㘽㘾㘿㙀㙁㙂㙃㙄㙅㙆㙇㙈㙉㙊㙋㙌㙍㙎㙏㙐㙑㙒㙓㙔㙕㙖㙗㙘㙙㙚㙛㙜㙝㙞㙟㙠㙡㙢㙣㙤㙥㙦㙧㙨㙩㙪㙫㙬㙭㙮㙯㙰㙱㙲㙳㙴㙵㙶㙷㙸㙹㙺㙻㙼㙽㙾㙿㚀㚁㚂㚃㚄㚅㚆㚇㚈㚉㚊㚋㚌㚍㚎㚏㚐㚑㚒㚓㚔㚕㚖㚗㚘㚙㚚㚛㚜㚝㚞㚟㚠㚡㚢㚣㚤㚥㚦㚧㚨㚩㚪㚫㚬㚭㚮㚯㚰㚱㚲㚳㚴㚵㚶㚷㚸㚹㚺㚻㚼㚽㚾㚿㛀㛁㛂㛃㛄㛅㛆㛇㛈㛉㛊㛋㛌㛍㛎㛏㛐㛑㛒㛓㛔㛕㛖㛗㛘㛙㛚㛛㛜㛝㛞㛟㛠㛡㛢㛣㛤㛥㛦㛧㛨㛩㛪㛫㛬㛭㛮㛯㛰㛱㛲㛳㛴㛵㛶㛷㛸㛹㛺㛻㛼㛽㛾㛿㜀㜁㜂㜃㜄㜅㜆㜇㜈㜉㜊㜋㜌㜍㜎㜏㜐㜑㜒㜓㜔㜕㜖㜗㜘㜙㜚㜛㜜㜝㜞㜟㜠㜡㜢㜣㜤㜥㜦㜧㜨㜩㜪㜫㜬㜭㜮㜯㜰㜱㜲㜳㜴㜵㜶㜷㜸㜹㜺㜻㜼㜽㜾㜿㝀㝁㝂㝃㝄㝅㝆㝇㝈㝉㝊㝋㝌㝍㝎㝏㝐㝑㝒㝓㝔㝕㝖㝗㝘㝙㝚㝛㝜㝝㝞㝟㝠㝡㝢㝣㝤㝥㝦㝧㝨㝩㝪㝫㝬㝭㝮㝯㝰㝱㝲㝳㝴㝵㝶㝷㝸㝹㝺㝻㝼㝽㝾㝿㞀㞁㞂㞃㞄㞅㞆㞇㞈㞉㞊㞋㞌㞍㞎㞏㞐㞑㞒㞓㞔㞕㞖㞗㞘㞙㞚㞛㞜㞝㞞㞟㞠㞡㞢㞣㞤㞥㞦㞧㞨㞩㞪㞫㞬㞭㞮㞯㞰㞱㞲㞳㞴㞵㞶㞷㞸㞹㞺㞻㞼㞽㞾㞿㟀㟁㟂㟃㟄㟅㟆㟇㟈㟉㟊㟋㟌㟍㟎㟏㟐㟑㟒㟓㟔㟕㟖㟗㟘㟙㟚㟛㟜㟝㟞㟟㟠㟡㟢㟣㟤㟥㟦㟧㟨㟩㟪㟫㟬㟭㟮㟯㟰㟱㟲㟳㟴㟵㟶㟷㟸㟹㟺㟻㟼㟽㟾㟿㠀㠁㠂㠃㠄㠅㠆㠇㠈㠉㠊㠋㠌㠍㠎㠏㠐㠑㠒㠓㠔㠕㠖㠗㠘㠙㠚㠛㠜㠝㠞㠟㠠㠡㠢㠣㠤㠥㠦㠧㠨㠩㠪㠫㠬㠭㠮㠯㠰㠱㠲㠳㠴㠵㠶㠷㠸㠹㠺㠻㠼㠽㠾㠿㡀㡁㡂㡃㡄㡅㡆㡇㡈㡉㡊㡋㡌㡍㡎㡏㡐㡑㡒㡓㡔㡕㡖㡗㡘㡙㡚㡛㡜㡝㡞㡟㡠㡡㡢㡣㡤㡥㡦㡧㡨㡩㡪㡫㡬㡭㡮㡯㡰㡱㡲㡳㡴㡵㡶㡷㡸㡹㡺㡻㡼㡽㡾㡿㢀㢁㢂㢃㢄㢅㢆㢇㢈㢉㢊㢋㢌㢍㢎㢏㢐㢑㢒㢓㢔㢕㢖㢗㢘㢙㢚㢛㢜㢝㢞㢟㢠㢡㢢㢣㢤㢥㢦㢧㢨㢩㢪㢫㢬㢭㢮㢯㢰㢱㢲㢳㢴㢵㢶㢷㢸㢹㢺㢻㢼㢽㢾㢿㣀㣁㣂㣃㣄㣅㣆㣇㣈㣉㣊㣋㣌㣍㣎㣏㣐㣑㣒㣓㣔㣕㣖㣗㣘㣙㣚㣛㣜㣝㣞㣟㣠㣡㣢㣣㣤㣥㣦㣧㣨㣩㣪㣫㣬㣭㣮㣯㣰㣱㣲㣳㣴㣵㣶㣷㣸㣹㣺㣻㣼㣽㣾㣿㤀㤁㤂㤃㤄㤅㤆㤇㤈㤉㤊㤋㤌㤍㤎㤏㤐㤑㤒㤓㤔㤕㤖㤗㤘㤙㤚㤛㤜㤝㤞㤟㤠㤡㤢㤣㤤㤥㤦㤧㤨㤩㤪㤫㤬㤭㤮㤯㤰㤱㤲㤳㤴㤵㤶㤷㤸㤹㤺㤻㤼㤽㤾㤿㥀㥁㥂㥃㥄㥅㥆㥇㥈㥉㥊㥋㥌㥍㥎㥏㥐㥑㥒㥓㥔㥕㥖㥗㥘㥙㥚㥛㥜㥝㥞㥟㥠㥡㥢㥣㥤㥥㥦㥧㥨㥩㥪㥫㥬㥭㥮㥯㥰㥱㥲㥳㥴㥵㥶㥷㥸㥹㥺㥻㥼㥽㥾㥿㦀㦁㦂㦃㦄㦅㦆㦇㦈㦉㦊㦋㦌㦍㦎㦏㦐㦑㦒㦓㦔㦕㦖㦗㦘㦙㦚㦛㦜㦝㦞㦟㦠㦡㦢㦣㦤㦥㦦㦧㦨㦩㦪㦫㦬㦭㦮㦯㦰㦱㦲㦳㦴㦵㦶㦷㦸㦹㦺㦻㦼㦽㦾㦿㧀㧁㧂㧃㧄㧅㧆㧇㧈㧉㧊㧋㧌㧍㧎㧏㧐㧑㧒㧓㧔㧕㧖㧗㧘㧙㧚㧛㧜㧝㧞㧟㧠㧡㧢㧣㧤㧥㧦㧧㧨㧩㧪㧫㧬㧭㧮㧯㧰㧱㧲㧳㧴㧵㧶㧷㧸㧹㧺㧻㧼㧽㧾㧿㨀㨁㨂㨃㨄㨅㨆㨇㨈㨉㨊㨋㨌㨍㨎㨏㨐㨑㨒㨓㨔㨕㨖㨗㨘㨙㨚㨛㨜㨝㨞㨟㨠㨡㨢㨣㨤㨥㨦㨧㨨㨩㨪㨫㨬㨭㨮㨯㨰㨱㨲㨳㨴㨵㨶㨷㨸㨹㨺㨻㨼㨽㨾㨿㩀㩁㩂㩃㩄㩅㩆㩇㩈㩉㩊㩋㩌㩍㩎㩏㩐㩑㩒㩓㩔㩕㩖㩗㩘㩙㩚㩛㩜㩝㩞㩟㩠㩡㩢㩣㩤㩥㩦㩧㩨㩩㩪㩫㩬㩭㩮㩯㩰㩱㩲㩳㩴㩵㩶㩷㩸㩹㩺㩻㩼㩽㩾㩿㪀㪁㪂㪃㪄㪅㪆㪇㪈㪉㪊㪋㪌㪍㪎㪏㪐㪑㪒㪓㪔㪕㪖㪗㪘㪙㪚㪛㪜㪝㪞㪟㪠㪡㪢㪣㪤㪥㪦㪧㪨㪩㪪㪫㪬㪭㪮㪯㪰㪱㪲㪳㪴㪵㪶㪷㪸㪹㪺㪻㪼㪽㪾㪿㫀㫁㫂㫃㫄㫅㫆㫇㫈㫉㫊㫋㫌㫍㫎㫏㫐㫑㫒㫓㫔㫕㫖㫗㫘㫙㫚㫛㫜㫝㫞㫟㫠㫡㫢㫣㫤㫥㫦㫧㫨㫩㫪㫫㫬㫭㫮㫯㫰㫱㫲㫳㫴㫵㫶㫷㫸㫹㫺㫻㫼㫽㫾㫿㬀㬁㬂㬃㬄㬅㬆㬇㬈㬉㬊㬋㬌㬍㬎㬏㬐㬑㬒㬓㬔㬕㬖㬗㬘㬙㬚㬛㬜㬝㬞㬟㬠㬡㬢㬣㬤㬥㬦㬧㬨㬩㬪㬫㬬㬭㬮㬯㬰㬱㬲㬳㬴㬵㬶㬷㬸㬹㬺㬻㬼㬽㬾㬿㭀㭁㭂㭃㭄㭅㭆㭇㭈㭉㭊㭋㭌㭍㭎㭏㭐㭑㭒㭓㭔㭕㭖㭗㭘㭙㭚㭛㭜㭝㭞㭟㭠㭡㭢㭣㭤㭥㭦㭧㭨㭩㭪㭫㭬㭭㭮㭯㭰㭱㭲㭳㭴㭵㭶㭷㭸㭹㭺㭻㭼㭽㭾㭿㮀㮁㮂㮃㮄㮅㮆㮇㮈㮉㮊㮋㮌㮍㮎㮏㮐㮑㮒㮓㮔㮕㮖㮗㮘㮙㮚㮛㮜㮝㮞㮟㮠㮡㮢㮣㮤㮥㮦㮧㮨㮩㮪㮫㮬㮭㮮㮯㮰㮱㮲㮳㮴㮵㮶㮷㮸㮹㮺㮻㮼㮽㮾㮿㯀㯁㯂㯃㯄㯅㯆㯇㯈㯉㯊㯋㯌㯍㯎㯏㯐㯑㯒㯓㯔㯕㯖㯗㯘㯙㯚㯛㯜㯝㯞㯟㯠㯡㯢㯣㯤㯥㯦㯧㯨㯩㯪㯫㯬㯭㯮㯯㯰㯱㯲㯳㯴㯵㯶㯷㯸㯹㯺㯻㯼㯽㯾㯿㰀㰁㰂㰃㰄㰅㰆㰇㰈㰉㰊㰋㰌㰍㰎㰏㰐㰑㰒㰓㰔㰕㰖㰗㰘㰙㰚㰛㰜㰝㰞㰟㰠㰡㰢㰣㰤㰥㰦㰧㰨㰩㰪㰫㰬㰭㰮㰯㰰㰱㰲㰳㰴㰵㰶㰷㰸㰹㰺㰻㰼㰽㰾㰿㱀㱁㱂㱃㱄㱅㱆㱇㱈㱉㱊㱋㱌㱍㱎㱏㱐㱑㱒㱓㱔㱕㱖㱗㱘㱙㱚㱛㱜㱝㱞㱟㱠㱡㱢㱣㱤㱥㱦㱧㱨㱩㱪㱫㱬㱭㱮㱯㱰㱱㱲㱳㱴㱵㱶㱷㱸㱹㱺㱻㱼㱽㱾㱿㲀㲁㲂㲃㲄㲅㲆㲇㲈㲉㲊㲋㲌㲍㲎㲏㲐㲑㲒㲓㲔㲕㲖㲗㲘㲙㲚㲛㲜㲝㲞㲟㲠㲡㲢㲣㲤㲥㲦㲧㲨㲩㲪㲫㲬㲭㲮㲯㲰㲱㲲㲳㲴㲵㲶㲷㲸㲹㲺㲻㲼㲽㲾㲿㳀㳁㳂㳃㳄㳅㳆㳇㳈㳉㳊㳋㳌㳍㳎㳏㳐㳑㳒㳓㳔㳕㳖㳗㳘㳙㳚㳛㳜㳝㳞㳟㳠㳡㳢㳣㳤㳥㳦㳧㳨㳩㳪㳫㳬㳭㳮㳯㳰㳱㳲㳳㳴㳵㳶㳷㳸㳹㳺㳻㳼㳽㳾㳿㴀㴁㴂㴃㴄㴅㴆㴇㴈㴉㴊㴋㴌㴍㴎㴏㴐㴑㴒㴓㴔㴕㴖㴗㴘㴙㴚㴛㴜㴝㴞㴟㴠㴡㴢㴣㴤㴥㴦㴧㴨㴩㴪㴫㴬㴭㴮㴯㴰㴱㴲㴳㴴㴵㴶㴷㴸㴹㴺㴻㴼㴽㴾㴿㵀㵁㵂㵃㵄㵅㵆㵇㵈㵉㵊㵋㵌㵍㵎㵏㵐㵑㵒㵓㵔㵕㵖㵗㵘㵙㵚㵛㵜㵝㵞㵟㵠㵡㵢㵣㵤㵥㵦㵧㵨㵩㵪㵫㵬㵭㵮㵯㵰㵱㵲㵳㵴㵵㵶㵷㵸㵹㵺㵻㵼㵽㵾㵿㶀㶁㶂㶃㶄㶅㶆㶇㶈㶉㶊㶋㶌㶍㶎㶏㶐㶑㶒㶓㶔㶕㶖㶗㶘㶙㶚㶛㶜㶝㶞㶟㶠㶡㶢㶣㶤㶥㶦㶧㶨㶩㶪㶫㶬㶭㶮㶯㶰㶱㶲㶳㶴㶵㶶㶷㶸㶹㶺㶻㶼㶽㶾㶿㷀㷁㷂㷃㷄㷅㷆㷇㷈㷉㷊㷋㷌㷍㷎㷏㷐㷑㷒㷓㷔㷕㷖㷗㷘㷙㷚㷛㷜㷝㷞㷟㷠㷡㷢㷣㷤㷥㷦㷧㷨㷩㷪㷫㷬㷭㷮㷯㷰㷱㷲㷳㷴㷵㷶㷷㷸㷹㷺㷻㷼㷽㷾㷿㸀㸁㸂㸃㸄㸅㸆㸇㸈㸉㸊㸋㸌㸍㸎㸏㸐㸑㸒㸓㸔㸕㸖㸗㸘㸙㸚㸛㸜㸝㸞㸟㸠㸡㸢㸣㸤㸥㸦㸧㸨㸩㸪㸫㸬㸭㸮㸯㸰㸱㸲㸳㸴㸵㸶㸷㸸㸹㸺㸻㸼㸽㸾㸿㹀㹁㹂㹃㹄㹅㹆㹇㹈㹉㹊㹋㹌㹍㹎㹏㹐㹑㹒㹓㹔㹕㹖㹗㹘㹙㹚㹛㹜㹝㹞㹟㹠㹡㹢㹣㹤㹥㹦㹧㹨㹩㹪㹫㹬㹭㹮㹯㹰㹱㹲㹳㹴㹵㹶㹷㹸㹹㹺㹻㹼㹽㹾㹿㺀㺁㺂㺃㺄㺅㺆㺇㺈㺉㺊㺋㺌㺍㺎㺏㺐㺑㺒㺓㺔㺕㺖㺗㺘㺙㺚㺛㺜㺝㺞㺟㺠㺡㺢㺣㺤㺥㺦㺧㺨㺩㺪㺫㺬㺭㺮㺯㺰㺱㺲㺳㺴㺵㺶㺷㺸㺹㺺㺻㺼㺽㺾㺿㻀㻁㻂㻃㻄㻅㻆㻇㻈㻉㻊㻋㻌㻍㻎㻏㻐㻑㻒㻓㻔㻕㻖㻗㻘㻙㻚㻛㻜㻝㻞㻟㻠㻡㻢㻣㻤㻥㻦㻧㻨㻩㻪㻫㻬㻭㻮㻯㻰㻱㻲㻳㻴㻵㻶㻷㻸㻹㻺㻻㻼㻽㻾㻿㼀㼁㼂㼃㼄㼅㼆㼇㼈㼉㼊㼋㼌㼍㼎㼏㼐㼑㼒㼓㼔㼕㼖㼗㼘㼙㼚㼛㼜㼝㼞㼟㼠㼡㼢㼣㼤㼥㼦㼧㼨㼩㼪㼫㼬㼭㼮㼯㼰㼱㼲㼳㼴㼵㼶㼷㼸㼹㼺㼻㼼㼽㼾㼿㽀㽁㽂㽃㽄㽅㽆㽇㽈㽉㽊㽋㽌㽍㽎㽏㽐㽑㽒㽓㽔㽕㽖㽗㽘㽙㽚㽛㽜㽝㽞㽟㽠㽡㽢㽣㽤㽥㽦㽧㽨㽩㽪㽫㽬㽭㽮㽯㽰㽱㽲㽳㽴㽵㽶㽷㽸㽹㽺㽻㽼㽽㽾㽿㾀㾁㾂㾃㾄㾅㾆㾇㾈㾉㾊㾋㾌㾍㾎㾏㾐㾑㾒㾓㾔㾕㾖㾗㾘㾙㾚㾛㾜㾝㾞㾟㾠㾡㾢㾣㾤㾥㾦㾧㾨㾩㾪㾫㾬㾭㾮㾯㾰㾱㾲㾳㾴㾵㾶㾷㾸㾹㾺㾻㾼㾽㾾㾿㿀㿁㿂㿃㿄㿅㿆㿇㿈㿉㿊㿋㿌㿍㿎㿏㿐㿑㿒㿓㿔㿕㿖㿗㿘㿙㿚㿛㿜㿝㿞㿟㿠㿡㿢㿣㿤㿥㿦㿧㿨㿩㿪㿫㿬㿭㿮㿯㿰㿱㿲㿳㿴㿵㿶㿷㿸㿹㿺㿻㿼㿽㿾㿿䀀䀁䀂䀃䀄䀅䀆䀇䀈䀉䀊䀋䀌䀍䀎䀏䀐䀑䀒䀓䀔䀕䀖䀗䀘䀙䀚䀛䀜䀝䀞䀟䀠䀡䀢䀣䀤䀥䀦䀧䀨䀩䀪䀫䀬䀭䀮䀯䀰䀱䀲䀳䀴䀵䀶䀷䀸䀹䀺䀻䀼䀽䀾䀿䁀䁁䁂䁃䁄䁅䁆䁇䁈䁉䁊䁋䁌䁍䁎䁏䁐䁑䁒䁓䁔䁕䁖䁗䁘䁙䁚䁛䁜䁝䁞䁟䁠䁡䁢䁣䁤䁥䁦䁧䁨䁩䁪䁫䁬䁭䁮䁯䁰䁱䁲䁳䁴䁵䁶䁷䁸䁹䁺䁻䁼䁽䁾䁿䂀䂁䂂䂃䂄䂅䂆䂇䂈䂉䂊䂋䂌䂍䂎䂏䂐䂑䂒䂓䂔䂕䂖䂗䂘䂙䂚䂛䂜䂝䂞䂟䂠䂡䂢䂣䂤䂥䂦䂧䂨䂩䂪䂫䂬䂭䂮䂯䂰䂱䂲䂳䂴䂵䂶䂷䂸䂹䂺䂻䂼䂽䂾䂿䃀䃁䃂䃃䃄䃅䃆䃇䃈䃉䃊䃋䃌䃍䃎䃏䃐䃑䃒䃓䃔䃕䃖䃗䃘䃙䃚䃛䃜䃝䃞䃟䃠䃡䃢䃣䃤䃥䃦䃧䃨䃩䃪䃫䃬䃭䃮䃯䃰䃱䃲䃳䃴䃵䃶䃷䃸䃹䃺䃻䃼䃽䃾䃿䄀䄁䄂䄃䄄䄅䄆䄇䄈䄉䄊䄋䄌䄍䄎䄏䄐䄑䄒䄓䄔䄕䄖䄗䄘䄙䄚䄛䄜䄝䄞䄟䄠䄡䄢䄣䄤䄥䄦䄧䄨䄩䄪䄫䄬䄭䄮䄯䄰䄱䄲䄳䄴䄵䄶䄷䄸䄹䄺䄻䄼䄽䄾䄿䅀䅁䅂䅃䅄䅅䅆䅇䅈䅉䅊䅋䅌䅍䅎䅏䅐䅑䅒䅓䅔䅕䅖䅗䅘䅙䅚䅛䅜䅝䅞䅟䅠䅡䅢䅣䅤䅥䅦䅧䅨䅩䅪䅫䅬䅭䅮䅯䅰䅱䅲䅳䅴䅵䅶䅷䅸䅹䅺䅻䅼䅽䅾䅿䆀䆁䆂䆃䆄䆅䆆䆇䆈䆉䆊䆋䆌䆍䆎䆏䆐䆑䆒䆓䆔䆕䆖䆗䆘䆙䆚䆛䆜䆝䆞䆟䆠䆡䆢䆣䆤䆥䆦䆧䆨䆩䆪䆫䆬䆭䆮䆯䆰䆱䆲䆳䆴䆵䆶䆷䆸䆹䆺䆻䆼䆽䆾䆿䇀䇁䇂䇃䇄䇅䇆䇇䇈䇉䇊䇋䇌䇍䇎䇏䇐䇑䇒䇓䇔䇕䇖䇗䇘䇙䇚䇛䇜䇝䇞䇟䇠䇡䇢䇣䇤䇥䇦䇧䇨䇩䇪䇫䇬䇭䇮䇯䇰䇱䇲䇳䇴䇵䇶䇷䇸䇹䇺䇻䇼䇽䇾䇿䈀䈁䈂䈃䈄䈅䈆䈇䈈䈉䈊䈋䈌䈍䈎䈏䈐䈑䈒䈓䈔䈕䈖䈗䈘䈙䈚䈛䈜䈝䈞䈟䈠䈡䈢䈣䈤䈥䈦䈧䈨䈩䈪䈫䈬䈭䈮䈯䈰䈱䈲䈳䈴䈵䈶䈷䈸䈹䈺䈻䈼䈽䈾䈿䉀䉁䉂䉃䉄䉅䉆䉇䉈䉉䉊䉋䉌䉍䉎䉏䉐䉑䉒䉓䉔䉕䉖䉗䉘䉙䉚䉛䉜䉝䉞䉟䉠䉡䉢䉣䉤䉥䉦䉧䉨䉩䉪䉫䉬䉭䉮䉯䉰䉱䉲䉳䉴䉵䉶䉷䉸䉹䉺䉻䉼䉽䉾䉿䊀䊁䊂䊃䊄䊅䊆䊇䊈䊉䊊䊋䊌䊍䊎䊏䊐䊑䊒䊓䊔䊕䊖䊗䊘䊙䊚䊛䊜䊝䊞䊟䊠䊡䊢䊣䊤䊥䊦䊧䊨䊩䊪䊫䊬䊭䊮䊯䊰䊱䊲䊳䊴䊵䊶䊷䊸䊹䊺䊻䊼䊽䊾䊿䋀䋁䋂䋃䋄䋅䋆䋇䋈䋉䋊䋋䋌䋍䋎䋏䋐䋑䋒䋓䋔䋕䋖䋗䋘䋙䋚䋛䋜䋝䋞䋟䋠䋡䋢䋣䋤䋥䋦䋧䋨䋩䋪䋫䋬䋭䋮䋯䋰䋱䋲䋳䋴䋵䋶䋷䋸䋹䋺䋻䋼䋽䋾䋿䌀䌁䌂䌃䌄䌅䌆䌇䌈䌉䌊䌋䌌䌍䌎䌏䌐䌑䌒䌓䌔䌕䌖䌗䌘䌙䌚䌛䌜䌝䌞䌟䌠䌡䌢䌣䌤䌥䌦䌧䌨䌩䌪䌫䌬䌭䌮䌯䌰䌱䌲䌳䌴䌵䌶䌷䌸䌹䌺䌻䌼䌽䌾䌿䍀䍁䍂䍃䍄䍅䍆䍇䍈䍉䍊䍋䍌䍍䍎䍏䍐䍑䍒䍓䍔䍕䍖䍗䍘䍙䍚䍛䍜䍝䍞䍟䍠䍡䍢䍣䍤䍥䍦䍧䍨䍩䍪䍫䍬䍭䍮䍯䍰䍱䍲䍳䍴䍵䍶䍷䍸䍹䍺䍻䍼䍽䍾䍿䎀䎁䎂䎃䎄䎅䎆䎇䎈䎉䎊䎋䎌䎍䎎䎏䎐䎑䎒䎓䎔䎕䎖䎗䎘䎙䎚䎛䎜䎝䎞䎟䎠䎡䎢䎣䎤䎥䎦䎧䎨䎩䎪䎫䎬䎭䎮䎯䎰䎱䎲䎳䎴䎵䎶䎷䎸䎹䎺䎻䎼䎽䎾䎿䏀䏁䏂䏃䏄䏅䏆䏇䏈䏉䏊䏋䏌䏍䏎䏏䏐䏑䏒䏓䏔䏕䏖䏗䏘䏙䏚䏛䏜䏝䏞䏟䏠䏡䏢䏣䏤䏥䏦䏧䏨䏩䏪䏫䏬䏭䏮䏯䏰䏱䏲䏳䏴䏵䏶䏷䏸䏹䏺䏻䏼䏽䏾䏿䐀䐁䐂䐃䐄䐅䐆䐇䐈䐉䐊䐋䐌䐍䐎䐏䐐䐑䐒䐓䐔䐕䐖䐗䐘䐙䐚䐛䐜䐝䐞䐟䐠䐡䐢䐣䐤䐥䐦䐧䐨䐩䐪䐫䐬䐭䐮䐯䐰䐱䐲䐳䐴䐵䐶䐷䐸䐹䐺䐻䐼䐽䐾䐿䑀䑁䑂䑃䑄䑅䑆䑇䑈䑉䑊䑋䑌䑍䑎䑏䑐䑑䑒䑓䑔䑕䑖䑗䑘䑙䑚䑛䑜䑝䑞䑟䑠䑡䑢䑣䑤䑥䑦䑧䑨䑩䑪䑫䑬䑭䑮䑯䑰䑱䑲䑳䑴䑵䑶䑷䑸䑹䑺䑻䑼䑽䑾䑿䒀䒁䒂䒃䒄䒅䒆䒇䒈䒉䒊䒋䒌䒍䒎䒏䒐䒑䒒䒓䒔䒕䒖䒗䒘䒙䒚䒛䒜䒝䒞䒟䒠䒡䒢䒣䒤䒥䒦䒧䒨䒩䒪䒫䒬䒭䒮䒯䒰䒱䒲䒳䒴䒵䒶䒷䒸䒹䒺䒻䒼䒽䒾䒿䓀䓁䓂䓃䓄䓅䓆䓇䓈䓉䓊䓋䓌䓍䓎䓏䓐䓑䓒䓓䓔䓕䓖䓗䓘䓙䓚䓛䓜䓝䓞䓟䓠䓡䓢䓣䓤䓥䓦䓧䓨䓩䓪䓫䓬䓭䓮䓯䓰䓱䓲䓳䓴䓵䓶䓷䓸䓹䓺䓻䓼䓽䓾䓿䔀䔁䔂䔃䔄䔅䔆䔇䔈䔉䔊䔋䔌䔍䔎䔏䔐䔑䔒䔓䔔䔕䔖䔗䔘䔙䔚䔛䔜䔝䔞䔟䔠䔡䔢䔣䔤䔥䔦䔧䔨䔩䔪䔫䔬䔭䔮䔯䔰䔱䔲䔳䔴䔵䔶䔷䔸䔹䔺䔻䔼䔽䔾䔿䕀䕁䕂䕃䕄䕅䕆䕇䕈䕉䕊䕋䕌䕍䕎䕏䕐䕑䕒䕓䕔䕕䕖䕗䕘䕙䕚䕛䕜䕝䕞䕟䕠䕡䕢䕣䕤䕥䕦䕧䕨䕩䕪䕫䕬䕭䕮䕯䕰䕱䕲䕳䕴䕵䕶䕷䕸䕹䕺䕻䕼䕽䕾䕿䖀䖁䖂䖃䖄䖅䖆䖇䖈䖉䖊䖋䖌䖍䖎䖏䖐䖑䖒䖓䖔䖕䖖䖗䖘䖙䖚䖛䖜䖝䖞䖟䖠䖡䖢䖣䖤䖥䖦䖧䖨䖩䖪䖫䖬䖭䖮䖯䖰䖱䖲䖳䖴䖵䖶䖷䖸䖹䖺䖻䖼䖽䖾䖿䗀䗁䗂䗃䗄䗅䗆䗇䗈䗉䗊䗋䗌䗍䗎䗏䗐䗑䗒䗓䗔䗕䗖䗗䗘䗙䗚䗛䗜䗝䗞䗟䗠䗡䗢䗣

Using CJK fonts in mPDF

Fonts containing CJK characters are large files, typically 10-30MB. Adobe provides a free download of an 'Asian font pack' allowing you to create PDF files without including (embedding) the font information in the file. This keeps the file size to a minimum and minimises resource usage on your website generating the PDF file. However, users will have to download the Adobe font packs to read the file, and other PDF software will not display the text correctly.

mPDF allows you to embed subsets of CJK fonts keeping file size down, although there is increased memory usage to generate these files.

Some CJK fonts are broken up into 2 files because of the size of the files. One freely available font with almost complete coverage of all CJK characters (in both BMP and SIP) is 'Sun' available from Alan Wood's excellent website: http://www.alanwood.net/unicode/fonts-east-asian.html. This comes as 2 files, Sun-ExtA and Sun-ExtB (both about 20MB in size) containing the characters from BMP and SIP respectively.

mPDF allows you to treat these as one font by defining the second file as an SIP-extension of the first in the config_fonts.php configuration file. The following text includes random characters from the BMP and SIP mixed together:

```
𪜀𪜔𪜗𪜟𪜯𪜳𪜹𪜽𪜾𪝅𪝇𪝉𪝋𪝍𪝏𪝑𪝔𪝖𪝘𪝛𪝝𪝟𪝢𪝤𪝦𪝩𪝫𪝭𪝰𪝲𪝴𪝶𪝹𪝼
```

This is the entry in the config_fonts.php configuration file:

```
$this->fontdata = array(
...
      "sun-exta" => array(
            'R' => "Sun-ExtA.ttf",
            'sip-ext' => 'sun-extb',
      ),
      "sun-extb" => array(
            'R' => "Sun-ExtB.ttf",
      ),

...
);
```

This is the HTML code - note only the sun-exta font-family needs to be referenced:

```
<div style="font-family:sun-extA;"> &#40706; &#40712; &#40727; &#x2320f; &#x23225; &#40742;
&#40743; &#x2322f; &#x23231; &#40761; &#40772; &#x23232; &#x23233; &#40773; &#40784; &#x23234;
&#x23256; &#40787; &#40794; &#x23262; &#x23281; &#40802; &#40809; &#x23289; &#x2328a; </div>
```

NB You may also need to edit the value $this->useAdobeCJK=false in config.php or use new mPDF('-aCJK'), and edit the config_cp.php configuration file.

TrueType Collections

TrueType Collections (.ttc files) contain more than one font. mPDF treats each font separately by defining the TTCfontID array in the config_fonts.php configuration file.

This example uses the Windows MingLiU fonts, which consist of 2 files containing 6 fonts (note that mingliub is not a Bold variant):

Font collection file (mingliu.ttc) contains the following fonts:
[1] MingLiU (mingliu) Regular
[2] PMingLiU (pmingliu) Regular (Proportional)
[3] MingLiU_HKSCS (mingliu_hkscs) Regular

Font collection file (mingliub.ttc) contains the following fonts:
[1] MingLiU-ExtB (mingliu-extb) Regular
[2] PMingLiU-ExtB (pmingliu-extb) Regular (Proportional)
[3] MingLiU_HKSCS-ExtB (mingliu_hkscs-extb) Regular

The following text includes characters from both BMP and SIP:

```
□□□□□□□□
□□□□□□□□
□□□□□□□□
```

This is the entry in the config_fonts.php configuration file:

```
$this->fontdata = array(
...
      "mingliu" => array(
            'R' => "mingliu.ttc",
            'TTCfontID' => array (
                'R' => 1,
            ),
            'sip-ext' => 'mingliu-extb',
      ),
      "pmingliu" => array(
            'R' => "mingliu.ttc",
            'TTCfontID' => array (
                'R' => 2,
            ),
            'sip-ext' => 'pmingliu-extb',
      ),
      "mingliu_hkscs" => array(
            'R' => "mingliu.ttc",
            'TTCfontID' => array (
                'R' => 3,
            ),
            'sip-ext' => 'mingliu_hkscs-extb',
      ),
      "mingliu-extb" => array(
            'R' => "mingliub.ttc",
            'TTCfontID' => array (
                'R' => 1,
            ),
      ),
      "pmingliu-extb" => array(
            'R' => "mingliub.ttc",
            'TTCfontID' => array (
                'R' => 2,
            ),
```

```
      ),
      "mingliu_hkscs-extb" => array(
            'R' => "mingliub.ttc",
            'TTCfontID' => array (
                'R' => 3,
            ),
      ),

...
);
```

This is the HTML code:

```
<div style="font-family:mingliu;"> &#40706; &#40742; &#40772; &#40784; &#40802; &#40809;
&#x23289; &#x2328a; </div>
<div style="font-family:mingliu_hkscs;"> &#40706; &#40742; &#40772; &#40784; &#40802; &#40809;
&#x23289; &#x2328a; </div>
<div style="font-family:pmingliu;"> &#40706; &#40742; &#40772; &#40784; &#40802; &#40809;
&#x23289; &#x2328a; </div>
```