

CJK-Unifonts

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<http://www.freedesktop.org/wiki/Software/CJKUnifonts>

CJK-Unifonts Project

- Started in 2003
- Aims to provide a free set of Pan-CJK Unicode fonts
- 4 font styles:
 - Ming (明體)/Song (宋體) : Print style
 - Kai (楷體) : Brush stroke style
 - Hei (黑體) : Sans-serif style
 - Yuan (圓體) : Round, Gothic style

Current Status

- 2 fonts:
 - AR PL ShanHeiSun Uni (Ming/Song style)
 - AR PL ZenKai Uni (Kai style)
- License: Arphic Public License (APL)
- Each fonts comes in 2 flavors:
 - Uni
 - MBE (Modern Bopomofo Extensions)

Flavor Differences

- The Bopomofo Extended characters (U+31A0 ~ U+31B7)
 - Pronunciation alphabet used for Minnan and Hakka languages in Taiwan.
 - Characters are in CNS 11643 standard
 - Uni flavor: the glyph shapes are according to the Unicode and CNS 11643 publications
 - MBE flavor: the glyph shapes are according to dictionary and teaching material publications by Mr. Yang Qing-Chu (楊青矗)

Challenges

- Some glyphs have a different writing style in different CJK Regions
- Example: U+9AA8 (bone)



Hong Kong
Japan
Korea



China



Taiwan

Solution

- TrueType Collections (TTC)
 - one TTC file with multiple “virtual” fonts:
 - original and original Mono: the glyphs look like in the original Arphic fonts
 - CN and CN Mono: simplified style (China, Singapore)
 - HK and HK Mono: traditional style (Hong Kong, Macao)
 - JP and JP Mono: JISX0213:2004 style (Japan)
 - KR and KR Mono: Korea style
 - TW, TW MBE, TW Mono and TW MBE Mono: traditional style (Taiwan)

Caveats

- TTC only works with Pango/GTK2 and QT4 (>=4.3.0)
- KDE4 (scheduled for late October 2007) will also be able to use TTC fonts.
- CJK TeX users cannot use TTC fonts, Post Script fonts need to be used. Maybe PS CID fonts can be used here, needs to be tested.

Further TODO

- Sans serif CJK font: Heiti (黑體)
 - also in TTC format
 - stroke compatible with DejaVu Sans
 - only CJK related glyphs, no Latin glyphs
 - intended to be used together with DejaVu Sans
 - also contains glyph variants for different CJK regions
 - Open Font License (OFL)

Further TODO (contd.)

- Gothic style CJK font: Yuanti (圓體)
 - also in TTC format
 - CJK and Latin glyphs
 - also contains glyph variants for different CJK regions
 - Open Font License (OFL)

Build Sources (Heiti/Yuanti)

- Single.fnt taken from <http://zhongwen.tw> project
 - License needs to be discussed
 - text file with stroke positions for many CJK glyphs (Hanzi in Plane 0 are complete)
 - needs to be converted to fontforge format
 - can be used as a source for both Heiti and Yuanti style fonts