**Project Fandol: GPL fonts for
Chinese typesetting**

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1 Fonts in Chinese typography

The most important issue of typography is about
fonts. Fonts in alphabetic languages only need hun-
dreds of glyphs. But in CJK languages, we need
many thousands of glyphs.

In written Chinese, 6,762 Hanzi（汉字）are re-
quired. Furthermore, traditional typography requires
four basic styles: Song（宋）, Kai（楷）, Fang（仿）, and
Hei（黑）. The Song style is used in text, and acts like
the roman style in western language. The Kai style's
role in Chinese typography is more like italics in west-
ern typography. The Fang style is used in section
titles or authors' names in contemporary Chinese
magazines. The Hei style is used for emphasis.

2 Project Fandol and Chinese fonts

There are quite a few free Chinese fonts in the open
source community. In most GNU/Linux systems,
people use WenQuanYi（文泉驿）[1] fonts to display
CJK glyphs. The Android platform uses Droid Sans
Fallback [2] for this. These fonts are designed for
screen display, and not for high quality typesetting.
Arphic Technology has released two TrueType fonts
(in Kai and Song styles) to the open source commu-
nity in 2010 [3]. But these two fonts are not sufficient
for the tradition of Chinese typography.

In the Chinese TEX community, many people
need a set of free and open source Chinese font to
typeset theses, reports, etc. To fill this need, Project
Fandol [4] was established in 2012, with the goal of
designing a set of high quality Chinese fonts which
is released under the GNU General Public License
with the font exception [6]. The current members of
the project are Clerk Ma and Jie Su.

So far, we have developed six CID-keyed Open-
Type fonts in four styles. A CID-keyed font is only
suitable to a particular language; we use Adobe-
GB1-5 [5] to organise our fonts. We released ver-
sion 0.2 to CTAN in August 2013. Here is a list of
the fonts:

- FandolSong-Regular: 我能吞下玻璃而不伤身体
- FandolSong-Bold: **我能吞下玻璃而不伤身体**
- FandolHei-Regular: 我能吞下玻璃而不伤身体
- FandolHei-Bold: **我能吞下玻璃而不伤身体**
- FandolFang-Regular: 我能吞下玻璃而不伤身体
- FandolKai-Regular: 我能吞下玻璃而不伤身体

The glyphs in the current version of Fandol fonts
cover four main categories:

- Kana (169): あいうえ
- Bopomofo (38): ㄅㄆㄇㄈ
- Hanzi (6,762): 天地玄黄
- Yi (1,132): ꀀꀁꀂꀃ

The alphabetic part of Fandol fonts are merged
from Computer Modern Unicode [7]. In general,
matching a western font with a Chinese font is a
difficult task. Our current matching is shown below:

FandolSong-Regular: CMU Serif Roman

FandolSong-Bold: CMU Serif Roman Bold
    Nonextended

FandolHei-Regular: CMU Sans Serif

FandolHei-Bold: CMU Sans Serif Demi Condensed

FandolFang-Regular: CMU Concrete Roman

FandolKai-Regular: CMU Serif Upright Italic

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