

The fbb package—a Bembo-like font

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I The Package

The fbb package offers a family of Bembo-like fonts derived from Cardo in the usual four styles. Text figures may be selected from four types:

- Proportional lining (TLF), selected by option `lining`;
- Tabular lining (LF), selected by options `lining`, `tabular`;
- Proportional oldstyle (OsF), selected by option `oldstyle`;
- Tabular oldstyle (TOsF), selected by options `oldstyle`, `tabular`.

The package also defines five macros that allow you use alternate figure styles locally:

```
\textlf{97} % print 97 in proportional lining figures
\texttlf{97} % print 97 in tabular lining figures
\textosf{97} % print 97 in proportional oldstyle figures
\texttosf{97} % print 97 in tabular oldstyle figures
\textsu{97} % print 97 in superior figures
```

There is a scaled option (*e.g.*, `scaled=.97`) that allow you to adjust the text size against, say, a math package. This text package works well with `newtxmath` with the `libertine` option, because the latter has italics of the same italic angle as fbb and of very similar xheight and weight. The suggested invocation is:

```
\usepackage[lining,tabular]{fbb} % so math uses tabular lining figures
\usepackage[scaled=.95]{cabin} % a nice sans serif
\usepackage[varqu,varl]{zi4}% typewriter
\usepackage[T1]{fontenc} % LY1 also works
\usepackage{textcomp} % to get the right copyright, etc.
\usepackage[libertine,cmbraces]{newtxmath}
\usepackage[cal=boondoxo,bb=boondox,frak=boondox]{mathalfa}
\useosf % change normal text to use proportional oldstyle figures
%\usetosf would provide tabular oldstyle figures in text
```

Here is a short sample based on this preamble:

The typeset math below follows the ISO recommendations that only variables be set in italic. Note the use of upright shapes for d , e and π . (The first two are entered as `\mathrm{d}` and `\mathrm{e}`, and in fonts derived from `newtxmath` or `mtpro2`, the latter is entered as `\uppi`.)

Simplest form of the *Central Limit Theorem*: *Let X_1, X_2, \dots be a sequence of iid random variables with mean 0 and variance 1 on a probability space $(\Omega, \mathcal{F}, \mathbb{P})$. Then*

$$\mathbb{P}\left(\frac{X_1 + \dots + X_n}{\sqrt{n}} \leq y\right) \rightarrow \mathfrak{N}(y) := \int_{-\infty}^y \frac{e^{-t^2/2}}{\sqrt{2\pi}} dt \quad \text{as } n \rightarrow \infty,$$

or, equivalently, letting $S_n := \sum_1^n X_k$,

$$\mathbb{E}f(S_n/\sqrt{n}) \rightarrow \int_{-\infty}^{\infty} f(t) \frac{e^{-t^2/2}}{\sqrt{2\pi}} dt \quad \text{as } n \rightarrow \infty, \text{ for every } f \in \text{bC}(\mathbb{R}).$$

2 Background

Humanist scholar Pietro Bembo, a seminal figure in literature and music of the Italian Renaissance, who later became Cardinal Bembo, wrote an essay in the last decade of the 15th century about his travels to Mt. Aetna, which work was published by the Venetian printer Aldus Manutius (whose name gave us *Aldine*) using a new Roman font designed by his punch-cutter, Francesco Griffo that improved on the earlier efforts of Jenson, another printer in Venice. That font seems to have played a similarly seminal rôle in typography. It was the direct progenitor of the many Garamond fonts, and has seen numerous modern revivals whose names make use of every known historical connection to the figures named above, such as those of Bembo’s lover for a time, Lucrezia Borgia.

The metal form of the Bembo font developed by Stanley Morison for English Monotype in the 1920’s was widely used in book printing due to its handsome appearance and readability. Commercial digital versions have not had much love from critics until recently. Adobe’s MinionPro and WarnockPro arguably deserve the prizes for the best modern revivals of oldstyle fonts not too distant from Bembo. (Both lack Bembo’s tall ascenders and its characteristic overarching f.)

To my knowledge, there is currently only one free source for a Bembo-like font family, that being David Perry’s *Cardo* (a contraction of *Cardinal Bembo*), which is not readily accessible to L^AT_EX users and which lacks Bold Italic as well as a full range of Small Caps and figure styles.

This package is named for its Berry form *fbf*, with *f* denoting free (*i.e.*, public) and *bb* the Berry abbreviation for Bembo. It is derived from *Cardo*, with significant modifications. Where *Cardo* is intended primarily for scholars of ancient languages, those features are removed from *fbf* and issues of more modern concern are added. The package contains the usual four styles (regular, italic, bold, bold italic), each with small caps and figures in tabular lining, proportional lining, tabular oldstyle and proportional oldstyle, as well as superior and inferior figures. The f-ligatures have been revised/added so as to function better with L^AT_EX, and other glyphs have been changed as necessary to suit the demands of *FontForge*. A kerning table was added to Regular upright weight—a serious omission in the original. The Bold Italic weight was created algorithmically from Italic, but the result required much intervention by human hand. Small Caps were created for all styles other than regular, which was already present in *Cardo*.

On screen and paper, *fbf* appears close in weight to *Libertine*, though of larger xheight, a bit softer and slightly less plain. The following two sentences are written in *fbf* and *Libertine* respectively. The third example sentence is written using *garamondx*, whose natural xheight is comparable to *Libertine*, but which should normally be scaled down to resemble more familiar Garamonds. Perhaps *fbf* will be prove to be more suitable for older eyes.

COMPARISON BETWEEN *FBB* AND *LIBERTINE*:

Both *fbf* and *Libertine* are highly readable fonts in their standard Roman forms, each has a wide range of figures and small caps, but *Libertine* has the advantage in the number of supported scripts and the variety of weights.

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SAME SENTENCE IN *GARAMONDx*:

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