

# Using the Lucida fonts with $\LaTeX$

$\TeX$  Users Group  
<http://tug.org/lucida>

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## 1 Introduction

This document contains examples of the Lucida fonts available through TUG. They are divided into two sets, *basic* and *complete*, as displayed in the following sections.

For more information about Lucida and  $\TeX$ , and an order form for the fonts, please see <http://tug.org/lucida>.

## 2 $\LaTeX$ macro support for Lucida

The Lucida support primarily consists of two packages: `lucidabr` and `lucbmath`. The former changes both running text and math to use Lucida, whereas the latter only changes the math font setup in case you want to use a different text font with the Lucida math fonts.

You may already have the macro packages installed as they are part of most  $\TeX$  distributions—try running the example below.

If it complains that `lucidabr.sty` is not found, you must install the package; it's available on CTAN in <http://www.ctan.org/tex-archive/macros/latex/contrib/psnfssx/lucidabr>, and (of course) also included in the TUG distribution when you order the fonts.

### 2.1 Basic example

The packages do *not* support  $\LaTeX$ 's (and  $\TeX$ 's) default encoding (OT1). Supported encodings are T1, LY1, and TS1 (partial). What this means is that you have to use the `fontenc` package to switch the default.

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<sup>®</sup> Lucida is a trademark of Bigelow & Holmes Inc. registered in the U.S. Patent & Trademark Office and other jurisdictions.

Here's a small example:

```
\documentclass{article}
\usepackage[T1]{fontenc}
\usepackage{textcomp}
\usepackage{lucidabr}
\begin{document}
Here's some text. And here's some math:
\[
\phi(x)=\int_{-\infty}^x e^{-x^2/2}
\]
Euro and copyright symbols are available:
\texteuro \textcopyright \textbullet.
\end{document}
```

This results in the following output:

Here's some text. And here's some math:

$$\phi(x) = \int_{-\infty}^x e^{-x^2/2}$$

Euro, copyright, and bullet symbols are available: €©•.

## 2.2 More details

If the example runs ok, but produces no output, try refreshing the “file-name database” (e.g., run `mktexlsr`). Also, of course, you must actually purchase the fonts! (All the metrics and support files are on CTAN, but not the `.pfb` files containing the actual outlines.)

It's best to load the `textcomp` package with `lucidabr`, or some symbols, notably `\textcopyright`, will be synthesized instead of coming from the fonts. We don't load `textcomp` automatically, since loading such fundamental packages behind the scenes can cause hard-to-debug trouble.

Furthermore, the default `\textbullet` is quite small; the more normal one above is generated by specifying the `albullet` option when loading `lucidabr`.

By default, `oldstyle` figures from the `textcomp` package, accessed with the `\oldstylenums` command, are disabled for the Lucida fonts

since they do not exist in all shapes. In order for `\oldstylenums` to work, you must add the line

```
\DeclareEncodingSubset{TS1}{hjh}{1}
```

to your preamble *after* loading the `textcomp` package. The font family `hjh` provides the oldstyle figures by default but there exists no bold italic version of these figures and the italic versions are only available if you buy the complete font set.

Now, let's take a more systematic look at the fonts.

### 3 The basic font set

The basic set of fonts contains all the math fonts (shown in the accompanying `lucida-amsmath` document), a set of text fonts with accompanying small caps, and a monospaced font for code examples. The idea is that this is sufficient for mathematical papers and typical text usage.

The roman text font is Lucida Bright. It comes with small caps and oldstyle figures only in the upright shapes:

LucidaBright	For £45, almost anything can be found floating in fields. — ¿But aren't Kafka's Schloß and Æsop's Œuvres often naïve vis-à-vis the dæmonic phoenix's official rôle in fluffy soufflés? SPHINX OF BLACK QUARTZ, JUDGE MY VOW. 0123456789.
LucidaBright-Italic	<i>For £45, almost anything can be found floating in fields. — ¿But aren't Kafka's Schloß and Æsop's Œuvres often naïve vis-à-vis the dæmonic phoenix's official rôle in fluffy soufflés?</i>
LucidaBright-Oblique	<i>For £45, almost anything can be found floating in fields. — ¿But aren't Kafka's Schloß and Æsop's Œuvres often naïve vis-à-vis the dæmonic phoenix's official rôle in fluffy soufflés?</i>
LucidaBright-Demi	<b>For £45, almost anything can be found floating in fields. — ¿But aren't Kafka's Schloß and Æsop's Œuvres often naïve vis-à-vis the dæmonic phoenix's official rôle in fluffy soufflés? SPHINX OF BLACK QUARTZ, JUDGE MY VOW. 0123456789.</b>
LucidaBright-Demitalic	<i><b>For £45, almost anything can be found floating in fields. — ¿But aren't Kafka's Schloß and Æsop's Œuvres often naïve vis-à-vis the dæmonic phoenix's official rôle in fluffy soufflés?</b></i>

The basic set also contains Lucida Sans Typewriter in various shapes and series:

LucidaSans- Typewriter	For £45, almost anything can be found floating in fields. -- ¿But aren't Kafka's Schloß and Æsop's Œuvres often naïve vis-à-vis the dæmonic phœnix's official rôle in fluffy soufflés?
LucidaSans- Typewriter Oblique	<i>For £45, almost anything can be found floating in fields. -- ¿But aren't Kafka's Schloß and Æsop's Œuvres often naïve vis-à-vis the dæmonic phœnix's official rôle in fluffy soufflés?</i>
LucidaSans- Typewriter Bold	<b>For £45, almost anything can be found floating in fields. -- ¿But aren't Kafka's Schloß and Æsop's Œuvres often naïve vis-à-vis the dæmonic phœnix's official rôle in fluffy soufflés?</b>
LucidaSans- Typewriter BoldOblique	<b><i>For £45, almost anything can be found floating in fields. -- ¿But aren't Kafka's Schloß and Æsop's Œuvres often naïve vis-à-vis the dæmonic phœnix's official rôle in fluffy soufflés?</i></b>

#### 4 The complete font set

The complete font set includes (naturally) all the basic fonts, and assorted other text font variations, starting with the full sans serif variant, Lucida Sans:

LucidaSans	For £45, almost anything can be found floating in fields. — ¿But aren't Kafka's Schloß and Æsop's Œuvres often naïve vis-à-vis the dæmonic phœnix's official rôle in fluffy soufflés?
LucidaSans- Italic	<i>For £45, almost anything can be found floating in fields. — ¿But aren't Kafka's Schloß and Æsop's Œuvres often naïve vis-à-vis the dæmonic phœnix's official rôle in fluffy soufflés?</i>
LucidaSans- Demi	<b>For £45, almost anything can be found floating in fields. — ¿But aren't Kafka's Schloß and Æsop's Œuvres often naïve vis-à-vis the dæmonic phœnix's official rôle in fluffy soufflés?</b>
LucidaSans- DemiItalic	<b><i>For £45, almost anything can be found floating in fields. — ¿But aren't Kafka's Schloß and Æsop's Œuvres often naïve vis-à-vis the dæmonic phœnix's official rôle in fluffy soufflés?</i></b>

LucidaSans also exists in an ultra bold version, which you have to select manually with `\fontseries{ub}\selectfont`.

LucidaSans-  
Bold

**For £45, almost anything can be found floating in fields. — ¿But aren't Kafka's Schloß and Æsop's Œuvres often naïve vis-à-vis the dæmonic phœnix's official rôle in fluffy soufflés?**

LucidaSans-  
BoldItalic

***For £45, almost anything can be found floating in fields. — ¿But aren't Kafka's Schloß and Æsop's Œuvres often naïve vis-à-vis the dæmonic phœnix's official rôle in fluffy soufflés?***

A second, seriffed, typewriter font is included as well. By default the `lucidabr` package chooses Lucida Sans Typewriter for typewriter but you can change that by giving the option `serifft`, as in:  
`\usepackage[serifft]{lucidabr}`

Lucida  
Typewriter

For £45, almost anything can be found floating in fields. -- ¿But aren't Kafka's Schloß and Æsop's Œuvres often naïve vis-à-vis the dæmonic phœnix's official rôle in fluffy soufflés?

Lucida  
Typewriter  
Oblique

*For £45, almost anything can be found floating in fields. -- ¿But aren't Kafka's Schloß and Æsop's Œuvres often naïve vis-à-vis the dæmonic phœnix's official rôle in fluffy soufflés?*

Lucida  
Typewriter  
Bold

**For £45, almost anything can be found floating in fields. -- ¿But aren't Kafka's Schloß and Æsop's Œuvres often naïve vis-à-vis the dæmonic phœnix's official rôle in fluffy soufflés?**

Lucida  
Typewriter  
BoldOblique

***For £45, almost anything can be found floating in fields. -- ¿But aren't Kafka's Schloß and Æsop's Œuvres often naïve vis-à-vis the dæmonic phœnix's official rôle in fluffy soufflés?***

Lucida Fax is a complete text font. By giving the option `fax` to `lucidabr` this becomes the default roman font. There are no small caps or oldstyle figures for this font.

LucidaFax	For £45, almost anything can be found floating in fields. — ¿But aren't Kafka's Schloß and Æsop's Œuvres often naïve vis-à-vis the dæmonic phœnix's official rôle in fluffy souf- flés?
LucidaFax-Italic	<i>For £45, almost anything can be found floating in fields. — ¿But aren't Kafka's Schloß and Æsop's Œuvres often naïve vis-à-vis the dæmonic phœnix's official rôle in fluffy souf- flés?</i>
LucidaFax-Bold	<b>For £45, almost anything can be found floating in fields. — ¿But aren't Kafka's Schloß and Æsop's Œuvres of- ten naïve vis-à-vis the dæmonic phœnix's official rôle in fluffy soufflés?</b>
LucidaFax- BoldItalic	<b><i>For £45, almost anything can be found floating in fields. — ¿But aren't Kafka's Schloß and Æsop's Œuvres of- ten naïve vis-à-vis the dæmonic phœnix's official rôle in fluffy soufflés?</i></b>

Lucida Casual exists in two versions only: medium upright and medium italic. You can still make it the default text font by giving the option `casual` to `lucidabr`.

LucidaCasual	For £45, almost anything can be found floating in fields. — ¿But aren't Kafka's Schloß and Æsop's Œuvres often naïve vis-à-vis the dæmonic phœnix's official rôle in fluffy souf- flés?
LucidaCasual- Italic	<i>For £45, almost anything can be found floating in fields. — ¿But aren't Kafka's Schloß and Æsop's Œuvres often naïve vis-à-vis the dæmonic phœnix's official rôle in fluffy soufflés?</i>

Finally, three more esoteric fonts are included. Lucida Calligraphy contains italic oldstyle figures, which are used if available when selecting `\oldstylenums` for Lucida Bright. If you choose the option `calligraphic` for `lucidabr`, Lucida Calligraphy will be the default roman font. A similar option `handwriting` makes Lucida Handwriting the default roman font.

LucidaCalligraphy- Italic	<i>For £45, almost anything can be found floating in fields. — ¿But aren't Kafka's Schloß and Æsop's Œuvres of- ten naïve vis-à-vis the dæmonic phœnix's official rôle in fluffy soufflés?</i>
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LucidaHandwriting- Italic	<i>For £45, almost anything can be found floating in fields. — ¿But aren't Kafka's Schloß and Aesop's Œuvres often naïve vis-à-vis the dæmonic phœnix's official rôle in fluffy soufflés?</i>
Lucida Blackletter	for £45, almost anything can be found floating in fields. — ¿But aren't Kafka's Schloß and Aesop's Œuvres often naïve vis-à-vis the dæmonic phœnix's official rôle in fluffy soufflés?

This is all the Lucida fonts available with T<sub>E</sub>X support. For more information about Lucida and T<sub>E</sub>X, and an order form for the fonts, please see <http://tug.org/lucida>, and thanks.