

# Support for the Lucida OpenType fonts from TUG

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## 1 Introduction

This document contains examples of the Lucida OpenType fonts available through TUG. They can be used with any OpenType-aware application, including the Lua $\TeX$  and  $\text{\XeTeX}$  extensions of  $\text{\TeX}$  (but not pdf $\text{\TeX}$ ).

A brief overview:

- Math fonts: Lucida Bright Math and Lucida Bright Math Demi, extended OpenType versions of the original Type 1 Lucida math fonts.
- Three text families (regular, italic, bold, bold italic) also coming from the original Type 1 distribution: Lucida Bright, Lucida Sans, and Lucida Sans Typewriter.
- Three specialized fonts from the original Type 1 distribution: Blackletter, Calligraphy, and Handwriting.
- Two additional monospaced font families (same four variants): Lucida Grande Mono DK and Lucida Console DK. These have O (oh), and Q glyphs modified to a somewhat squarish shape, and the 0 (zero) glyph open rather than slashed, as preferred by Don Knuth. As usual, Lucida ConsoleDK has shorter capitals than Grande Mono, among

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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.

other smaller changes. (If you don't have the DK fonts and want to remake this document as a test, you'll need to remove the references to them.)

The package `lucida-otf` supports all families with specific optional arguments:

<i>name</i>	<i>meaning</i>
RM	Lucida Bright (Roman)
SS	Lucida Sans
TT	Lucida Sans Typewriter
GTT	Lucida GrandeDK
CTT	Lucida ConsoleDK
MM	Lucida Math
MMbold	Lucida Boldmath
BL	Lucida Blackletter
CAL	Lucida Calligraphy
HW	Lucida Handwriting
DefaultFeatures	for all font styles

Except math all fonts are preset with `Scale=0.92`. For this documentation we use instead:

```
\usepackage[TT={Scale=0.88,FakeStretch=0.9},
             SS={Scale=0.9},
             RM={Scale=0.9},
             DefaultFeatures={Ligatures=TeX}]{lucida-otf} % support opentype lucida fonts
```

The standard font families `rm`, `sf`, and `tt` can be used as usual for any  $\text{\LaTeX}$  engine. The other specific Lucida fonts can be used by one of the macros `\LucidaBlackletter`, `\LucidaCalligraphy`, `\LucidaHandwriting`, `\LucidaGrandeMonoDK`, and `\LucidaConsoleDK`. They are defined as:

```
% The specialized one-off fonts:
\newfontface\LucidaBlackletter{Lucida Blackletter OT}[\lucidaBL@features]
\newfontface\LucidaCalligraphy{Lucida Calligraphy OT Italic}[\lucidaCAL@features]
\newfontface\LucidaHandwriting{Lucida Handwriting OT Italic}[\lucidaHW@features]
%
% GrandeMono and Console fonts for an example:

\newfontfamily\LucidaGrandeMonoDK{LucidaGrandeMonoDK}[
  \lucidaGrandeTT@features,
  ItalicFont = * Italic,
```

```

        BoldFont = * Bold,
        BoldItalicFont = * Bold Italic
]
%
\newfontfamily\LucidaConsoleDK{LucidaConsoleDK}[%
    \lucidaConsoleTT@features,
        ItalicFont = * Italic,
        BoldFont = * Bold,
        BoldItalicFont = * Bold Italic
]

```

By default the fonts are defined by their symbolic name. As an alternative you can load the package with the option `usefilenames`.

```

\usepackage[usefilenames,
    TT={Scale=0.88,FakeStretch=0.9},
    SS={Scale=0.9},
    RM={Scale=0.9},
    DefaultFeatures={Ligatures=TeX}]{lucida-otf} % support opentype math fonts

```

Then all definitions uses the extension `.otf` and the filename of the fonts:

```

% The specialized one-off fonts:
\newfontface\LucidaBlackletter{LucidaBlackletterOT}[Extension=.otf,\lucidaBL@features]
\newfontface\LucidaCalligraphy{LucidaCalligraphyOT-Italic}[Extension=.otf,\lucidaCAL@features]
\newfontface\LucidaHandwriting{LucidaHandwritingOT-Italic}[Extension=.otf,\lucidaHW@features]
%
% GrandeMono and Console fonts for an example:

\newfontfamily\LucidaGrandeMonoDK{LucidaGrandeMonoDK}[
    Extension = .otf,
    \lucidaGrandeTT@features,
        ItalicFont = *-Italic,
        BoldFont = *-Bold,
        BoldItalicFont = *-BoldItalic
]
%
\newfontfamily\LucidaConsoleDK{LucidaConsoleDK}[%
    Extension = .otf,
    \lucidaConsoleTT@features,
        ItalicFont = *-Italic,
        BoldFont = *-Bold,

```

BoldItalicFont = \*-BoldItalic  
 ]

## 2 Text examples

The basic text family is LucidaBrightOT, with the usual four variants—regular, italic, bold, and bold italic, all with oldstyle figures; small caps are available in the upright shapes:

For £45, almost anything can be found floating in fields. ;THE DAZED BROWN FOX QUICKLY GAVE 12345-67890 JUMPS! — ;But aren't Kafka's Schloß and Æsop's Œuvres often naïve vis-à-vis the dæmonic phœnix's official rôle in fluffy soufflés? SPHINX OF BLACK QUARTZ, JUDGE MY VOW. 0123456789.	LucidaBrightOT
<i>For £45, almost anything can be found floating in fields. ;THE          DAZED BROWN FOX QUICKLY GAVE 12345-67890 JUMPS! —          ;But aren't Kafka's Schloß and Æsop's Œuvres often naïve          vis-à-vis the dæmonic phœnix's official rôle in fluffy soufflés?          0123456789.</i>	LucidaBrightOT-Italic
<b>For £45, almost anything can be found floating in fields.          ;THE DAZED BROWN FOX QUICKLY GAVE 12345-67890          JUMPS! — ;But aren't Kafka's Schloß and Æsop's Œuvres          often naïve vis-à-vis the dæmonic phœnix's official rôle in          fluffy soufflés? SPHINX OF BLACK QUARTZ, JUDGE MY VOW.          0123456789.</b>	LucidaBrightOT-Demi
<b><i>For £45, almost anything can be found floating in fields.          ;THE DAZED BROWN FOX QUICKLY GAVE 12345-67890          JUMPS! — ;But aren't Kafka's Schloß and Æsop's Œuvres          often naïve vis-à-vis the dæmonic phœnix's official rôle in          fluffy soufflés? 0123456789.</i></b>	LucidaBrightOT-DemiItalic
For £45, almost anything can be found floating in fields. ;THE DAZED BROWN FOX QUICKLY GAVE 12345-67890 JUMPS! — ;But aren't Kafka's Schloß and Æsop's Œuvres often naïve vis-à-vis the dæmonic phœnix's official rôle in fluffy soufflés? For £45, almost anything can be found floating in fields. ;THE	LucidaSansOT
DAZED BROWN FOX QUICKLY GAVE 12345-67890 JUMPS! — ;But aren't Kafka's Schloß and Æsop's Œuvres often naïve vis-à-vis the dæmonic phœnix's official rôle in fluffy soufflés? For £45, almost anything can be found floating in fields. ;THE	LucidaSansOT-Italic

For £45, almost anything can be found floating in fields.  
 ¡THE DAZED BROWN FOX QUICKLY GAVE 12345-67890  
 JUMPS! — ¿But aren't Kafka's Schloß and Æsop's Œuvres  
 often naïve vis-à-vis the dæmonic phœnix's official rôle in  
 fluffy soufflés?

LucidaSansOT-Demi

*For £45, almost anything can be found floating in fields.*  
*¡THE DAZED BROWN FOX QUICKLY GAVE 12345-67890*  
*JUMPS! — ¿But aren't Kafka's Schloß and Æsop's Œuvres*  
*often naïve vis-à-vis the dæmonic phœnix's official rôle in*  
*fluffy soufflés?*

LucidaSansOT-DemiItalic

For £45, almost anything can be found floating in fields.  
 ¡THE DAZED BROWN FOX QUICKLY GAVE 12345-67890 JUMPS! –  
 ¿But aren't Kafka's Schloß and Æsop's Œuvres often naïve  
 vis-à-vis the dæmonic phœnix's official rôle in fluffy  
 soufflés?

LucidaSansTypewriterOT

*For £45, almost anything can be found floating in fields.*  
*¡THE DAZED BROWN FOX QUICKLY GAVE 12345-67890 JUMPS! –*  
*¿But aren't Kafka's Schloß and Æsop's Œuvres often naïve*  
*vis-à-vis the dæmonic phœnix's official rôle in fluffy*  
*soufflés?*

LucidaSansTypewriterOT-Oblique

**For £45, almost anything can be found floating in fields.**  
**¡THE DAZED BROWN FOX QUICKLY GAVE 12345-67890 JUMPS! –**  
**¿But aren't Kafka's Schloß and Æsop's Œuvres often naïve**  
**vis-à-vis the dæmonic phœnix's official rôle in fluffy**  
**soufflés?**

LucidaSansTypewriterOT-Bold

***For £45, almost anything can be found floating in fields.***  
***¡THE DAZED BROWN FOX QUICKLY GAVE 12345-67890 JUMPS! –***  
***¿But aren't Kafka's Schloß and Æsop's Œuvres often naïve***  
***vis-à-vis the dæmonic phœnix's official rôle in fluffy***  
***soufflés?***

LucidaSansTypewriterOT-BoldOblique

For £45, almost anything can be found floating in  
 fields. ¡THE DAZED BROWN FOX QUICKLY GAVE  
 12345-67890 JUMPS! – ¿But aren't Kafka's Schloß  
 and Æsop's Œuvres often naïve vis-à-vis the  
 dæmonic phœnix's official rôle in fluffy  
 soufflés?

LucidaGrandeMonoDK

*For £45, almost anything can be found floating in fields. ;THE DAZED BROWN FOX QUICKLY GAVE 12345-67890 JUMPS! – ;But aren't Kafka's Schloß and Æsop's Œuvres often naïve vis-à-vis the dæmonic phœnix's official rôle in fluffy soufflés?*

LucidaGrandeMonoDK-Italic

**For £45, almost anything can be found floating in fields. ;THE DAZED BROWN FOX QUICKLY GAVE 12345-67890 JUMPS! – ;But aren't Kafka's Schloß and Æsop's Œuvres often naïve vis-à-vis the dæmonic phœnix's official rôle in fluffy soufflés?**

LucidaGrandeMonoDK-Bold

***For £45, almost anything can be found floating in fields. ;THE DAZED BROWN FOX QUICKLY GAVE 12345-67890 JUMPS! – ;But aren't Kafka's Schloß and Æsop's Œuvres often naïve vis-à-vis the dæmonic phœnix's official rôle in fluffy soufflés?***

LucidaGrandeMonoDK-BoldItalic

For £45, almost anything can be found floating in fields. ;THE DAZED BROWN FOX QUICKLY GAVE 12345-67890 JUMPS! – ;But aren't Kafka's Schloß and Æsop's Œuvres often naïve vis-à-vis the dæmonic phœnix's official rôle in fluffy soufflés?

LucidaConsoleDK

*For £45, almost anything can be found floating in fields. ;THE DAZED BROWN FOX QUICKLY GAVE 12345-67890 JUMPS! – ;But aren't Kafka's Schloß and Æsop's Œuvres often naïve vis-à-vis the dæmonic phœnix's official rôle in fluffy soufflés?*

LucidaConsoleDK-Italic

**For £45, almost anything can be found floating in fields. ;THE DAZED BROWN FOX QUICKLY GAVE 12345-67890 JUMPS! – ;But aren't Kafka's Schloß and Æsop's Œuvres often naïve vis-à-vis the dæmonic phœnix's official rôle in fluffy soufflés?**

LucidaConsoleDK-Bold

*For £45, almost anything can be found floating in fields. ¡THE DAZED BROWN FOX QUICKLY GAVE 12345-67890 JUMPS! — ¿But aren't Kafka's Schloß and Æsop's Œuvres often naïve vis-à-vis the dæmonic phœnix's official rôle in fluffy soufflés?*

LucidaConsoleDK-BoldItalic

for £45, almost anything can be found floating in fields. ¡THE DAZED BROWN FOX QUICKLY GAVE 12345-67890 JUMPS! — ¿But aren't Kafka's Schloß and Æsop's Œuvres often naïve vis-à-vis the dæmonic phœnix's official rôle in fluffy soufflés?

LucidaBlackletterOT

*For £45, almost anything can be found floating in fields. ¡THE DAZED BROWN FOX QUICKLY GAVE 12345-67890 JUMPS! — ¿But aren't Kafka's Schloß and Æsop's Œuvres often naïve vis-à-vis the dæmonic phœnix's official rôle in fluffy soufflés?*

LucidaCalligraphyOT

*For £45, almost anything can be found floating in fields. ¡THE DAZED BROWN FOX QUICKLY GAVE 12345-67890 JUMPS! — ¿But aren't Kafka's Schloß and Æsop's Œuvres often naïve vis-à-vis the dæmonic phœnix's official rôle in fluffy soufflés?*

LucidaHandwritingOT

### 3 Math examples

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

```
\[
\phi(x)=\int_{-\infty}^xe^{-x^2/2}
\]
```

And now bold math:

```
\boldmath
\[
\phi(x)=\int_{-\infty}^xe^{-x^2/2}
\]
\unboldmath
```

Euro and copyright symbols are available: `\texteuro` `\textcopyright`.

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

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

And now bold math:

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

Euro and copyright symbols are available: € ©.

## 4 Closing

If you have questions or problems regarding installation or use, please email [lucida@tug.org](mailto:lucida@tug.org); this is an open and publicly archived list for Lucida discussion; you can subscribe on the web at <http://lists.tug.org/lucida>. On the other hand, questions or problems related to ordering or licensing should go to [lucida-admin@tug.org](mailto:lucida-admin@tug.org).

Finally, B&H's web site for Lucida is <http://lucidafonts.com>, and the home page for Lucida and T<sub>E</sub>X is <http://tug.org/lucida>.

The font list of this documentation is:

name	type	encoding	emb	sub	uni	object	ID
IVITZF+LucidaBrightOT	CID Type 0C	Identity-H	yes	yes	yes	8	0
SNTCWI+LucidaBrightOT-Demi	CID Type 0C	Identity-H	yes	yes	yes	10	0
DMZJZK+LucidaSansTypewriterOT	CID Type 0C	Identity-H	yes	yes	yes	12	0
QTPVMR+LucidaBrightOT-Italic	CID Type 0C	Identity-H	yes	yes	yes	18	0
JKNIKI+LucidaSansTypewriterOT-Oblique	CID Type 0C	Identity-H	yes	yes	yes	19	0
SVRAUY+LucidaBrightOT-DemiItalic	CID Type 0C	Identity-H	yes	yes	yes	30	0
HELSND+LucidaSansOT	CID Type 0C	Identity-H	yes	yes	yes	31	0
TSYNBM+LucidaSansOT-Italic	CID Type 0C	Identity-H	yes	yes	yes	32	0
SSDRLG+LucidaSansOT-Demi	CID Type 0C	Identity-H	yes	yes	yes	33	0
QSVGQZ+LucidaSansOT-DemiItalic	CID Type 0C	Identity-H	yes	yes	yes	38	0
XULIVE+LucidaSansTypewriterOT-Bold	CID Type 0C	Identity-H	yes	yes	yes	39	0
RCJVJU+LucidaSansTypewriterOT-BoldOblique	CID Type 0C	Identity-H	yes	yes	yes	40	0
AHHNBA+LucidaGrandeMonoDK	CID Type 0C	Identity-H	yes	yes	yes	41	0
NIAALZ+LucidaGrandeMonoDK-Italic	CID Type 0C	Identity-H	yes	yes	yes	42	0
CGHAFT+LucidaGrandeMonoDK-Bold	CID Type 0C	Identity-H	yes	yes	yes	47	0
QRPBBK+LucidaGrandeMonoDK-BoldItalic	CID Type 0C	Identity-H	yes	yes	yes	48	0
BBEZKA+LucidaConsoleDK	CID Type 0C	Identity-H	yes	yes	yes	49	0
ZJFTAW+LucidaConsoleDK-Italic	CID Type 0C	Identity-H	yes	yes	yes	50	0
UBFFLP+LucidaConsoleDK-Bold	CID Type 0C	Identity-H	yes	yes	yes	51	0
DTAMTW+LucidaConsoleDK-BoldItalic	CID Type 0C	Identity-H	yes	yes	yes	52	0
FOWDUC+LucidaBlackletterOT	CID Type 0C	Identity-H	yes	yes	yes	58	0
BRNAUX+LucidaCalligraphyOT-Italic	CID Type 0C	Identity-H	yes	yes	yes	59	0
GSIBVZ+LucidaHandwritingOT-Italic	CID Type 0C	Identity-H	yes	yes	yes	60	0
YBYGGX+LucidaBrightMathOT	CID Type 0C	Identity-H	yes	yes	yes	62	0
FKKOND+LucidaBrightMathOT	CID Type 0C	Identity-H	yes	yes	yes	63	0
IJDQZC+LucidaBrightMathOT	CID Type 0C	Identity-H	yes	yes	yes	64	0
XVGNVQ+LucidaBrightMathOT-Demibold	CID Type 0C	Identity-H	yes	yes	yes	65	0
MVXVTK+LucidaBrightMathOT-Demibold	CID Type 0C	Identity-H	yes	yes	yes	66	0
TRUGVI+LucidaBrightMathOT-Demibold	CID Type 0C	Identity-H	yes	yes	yes	67	0



## References

- [1] Bigelow & Holmes. *Lucida<sup>®</sup> Fonts – Exclusive Styles & Weights*. *Typographic Facts*. URL: <http://lucidafonts.com/pages/facts> (visited on 03/24/2017).
- [2] Charles Bigelow and Kris Holmes. “The design of Lucida: an integrated family of types for electronic literacy”. In: *Text Processing and Document Manipulation*. Proceedings of the International Conference. Ed. by J. C. van Vliet. Cambridge: Cambridge University Press, Apr. 14, 1986, pp. 1-17. ISBN: 0-521-32592-7.
- [3] freedesktop.org. *Fontconfig. A library for configuring and customizing font access*. June 15, 2016. URL: <https://www.freedesktop.org/wiki/Software/fontconfig/> (visited on 03/18/2017).
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