

# Program `luafindfont`

—

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# 1 Introduction

The Lua program `luaotfload` is a program for searching installed fonts which are usable for  $\text{Lua}\text{L}\text{A}\text{T}\text{E}\text{X}$  and  $\text{X}\text{L}\text{A}\text{T}\text{E}\text{X}$ . The already existing Lua program `luaotfload-tool` can also be used for searching, but the search-interface is somewhat cryptic and too complex for a user, who wants only to know if a font is present or not. And if present, where can it be found. For example:

```
luaotfload-tool --find=times
```

```
luaotfload | resolve : Font "times" found!
luaotfload | resolve : Resolved file name "/System/Library/Fonts/Times.ttc", subfont nr. 0
```

```
luaotfload-tool --fuzzy --find="times new roman"
```

```
luaotfload | resolve : Font "times new roman" found!
luaotfload | resolve : Resolved file name "/Users/voss/Library/Fonts/Times/Times New Roman.ttf"
```

But that are not *all* Times fonts. Compare it with the output of `luafindfont`, where the searchname *times* must only be a part of a longer name:

```
luafindfont times
```

No.	Filename	Symbolic Name	Path
1.	Times New Roman Bold Italic.ttf	timesnewroman	/System/Library/Fonts/Supplemental/
2.	Times New Roman Bold Italic.ttf	timesnewroman	/Users/voss/Library/Fonts/Times/
3.	Times New Roman Bold.ttf	timesnewroman	/System/Library/Fonts/Supplemental/
4.	Times New Roman Bold.ttf	timesnewroman	/Users/voss/Library/Fonts/Times/
5.	Times New Roman Italic.ttf	timesnewroman	/Users/voss/Library/Fonts/Times/
6.	Times New Roman Italic.ttf	timesnewroman	/System/Library/Fonts/Supplemental/
7.	Times New Roman.ttf	timesnewroman	/Users/voss/Library/Fonts/Times/
8.	Times New Roman.ttf	timesnewroman	/System/Library/Fonts/Supplemental/
9.	Times.ttc	times	/System/Library/Fonts/
10.	Times_Sans_Serif.ttf	timesansserif	/Users/voss/Library/Fonts/Times/
11.	TimesNewRomanMTStd-Bold.otf	timesnewromanmtstd	/Users/voss/Library/Fonts/Times/
12.	TimesNewRomanMTStd-BoldCond.otf	timesnewromanmtstd	/Users/voss/Library/Fonts/Times/
13.	TimesNewRomanMTStd-BoldIt.otf	timesnewromanmtstd	/Users/voss/Library/Fonts/Times/
14.	TimesNewRomanMTStd-Cond.otf	timesnewromanmtstd	/Users/voss/Library/Fonts/Times/
15.	TimesNewRomanMTStd-CondIt.otf	timesnewromanmtstd	/Users/voss/Library/Fonts/Times/
16.	TimesNewRomanMTStd-Italic.otf	timesnewromanmtstd	/Users/voss/Library/Fonts/Times/
17.	TimesNewRomanMTStd.otf	timesnewromanmtstd	/Users/voss/Library/Fonts/Times/
18.	TimesNewRomanPS-BoldItalicMT.otf	timesnewromanpsmt	/Users/voss/Library/Fonts/Times/
19.	TimesNewRomanPS-BoldMT.otf	timesnewromanpsmt	/Users/voss/Library/Fonts/Times/
20.	TimesNewRomanPSMT.otf	timesnewromanpsmt	/Users/voss/Library/Fonts/Times/
21.	TimesNewRomanPSStd-Bold.otf	timesnewromanpsstd	/Users/voss/Library/Fonts/Times/
22.	TimesNewRomanPSStd-BoldIt.otf	timesnewromanpsstd	/Users/voss/Library/Fonts/Times/
23.	TimesNewRomanPSStd-Italic.otf	timesnewromanpsstd	/Users/voss/Library/Fonts/Times/
24.	TimesNewRomanPSStd-Regular.otf	timesnewromanpsstd	/Users/voss/Library/Fonts/Times/

## 1.1 Syntax

The syntax is

```
luafindfont [...] <font>
```

where [...] are optional arguments, either in short or long form which, of course, can be mixed:

---

parameter handling	Parameter
-h,--help	
-o,--otfinfo (default 0)	
-i,--info (default 0)	
-x,--xetex	
-n,--no-symbolic-names	
-v... Verboosity output	
-m,--max_string (default 90)	
<(partial) fontname>	

---

For example:

```
luafindfont times
luafindfont palatino -o 3
luafindfont -i 3 -m 50 arial
```

1. `-m <columns>`: How many columns are used for the font with full path. This can be really long, but with e.g. `-m 50` the length is limited to 50 characters and in the middle of the long name there will be `...`, representing the missing characters.
2. `-o <number[character]>`: For the font with the given number from the font list the program `otfinfo` is called for some generell font informations. An additional optional argument for `otfinfo` (only one character) must follow directly the fontnumber (see also section [2.2](#))
3. `-i <number>`: For the font with the given number from the font list the existing other corresponding font styles are listed.

## 2 How it works

`luafindfont` uses the data file `luaotfloadtool-names.lua` which is created by Lua $\TeX$ . If it is missing it will be created by `luafindfont` itself. The name of the font should be in lowercase characters and must not be the complete name. A “time” for finding all fonts with “time” in its names is sufficient for searching “times new roman”.

### 2.1 Fontname

The fontname can only be a substring of the complete filename. It is not case sensitive, `Myriad` and `myriad` are the same. It is possible to combine two search strings which will act like a boolean and. A search with `"Myriad & bold"` (in quotes) will list all files which have `myriad` *and* `bold` in its name.

### 2.2 Option -o

This needs an installed program `otfinfo`, which should be the default for all  $\TeX$  distributions. This program lists some useful informations of a given fontnumber. The fontnumber can be combined by an additional character for different outputs. For example `-o 2f` lists the features of the font number 2 in the list. The order makes no difference: `-o f2` prints the same. If there is no output then the font has no such informations defined!

## 2 How it works

The possible options are (i is the default):

---

```
otfinfo
```

---

- s Report font's supported scripts.
- f Report font's GSUB/GPOS features.
- z Report font's optical size information.
- p Report font's PostScript name.
- a Report font's family name.
- v Report font's version information.
- i Report font's names and designer/vendor info.
- g Report font's glyph names.
- t Report font's OpenType tables.

---

```
luafindfont -o 2f "myriad & semibold"
```

No.	Filename	Symbolic Name	Path
1.	MyriadPro-Semibold.otf	myriadpro	/Users/voss/Library/Fonts/MyriadPro/
2.	MyriadPro-SemiboldCond.otf	myriadpro	/Users/voss/Library/Fonts/MyriadPro/
3.	MyriadPro-SemiboldCondIt.otf	myriadpro	/Users/voss/Library/Fonts/MyriadPro/
4.	MyriadPro-SemiboldIt.otf	myriadpro	/Users/voss/Library/Fonts/MyriadPro/
5.	MyriadPro-SemiboldSemiCn.otf	myriadpro	/Users/voss/Library/Fonts/MyriadPro/
6.	MyriadPro-SemiboldSemiCnIt.otf	myriadpro	/Users/voss/Library/Fonts/MyriadPro/
7.	MyriadPro-SemiboldSemiExt.otf	myriadpro	/Users/voss/Library/Fonts/MyriadPro/
8.	MyriadPro-SemiboldSemiExtIt.otf	myriadpro	/Users/voss/Library/Fonts/MyriadPro/

Running `otfinfo -f` on font no.2

```
otfinfo -f "/Users/voss/Library/Fonts/MyriadPro/MyriadPro-SemiboldCond.otf"
```

```
aalt Access All Alternates
case Case-Sensitive Forms
csp Capital Spacing
dnom Denominators
fina Terminal Forms
frac Fractions
kern Kerning
liga Standard Ligatures
lnum Lining Figures
numr Numerators
onum Oldstyle Figures
ordn Ordinals
pnum Proportional Figures
sinf Scientific Inferiors
sups Superscript
tnum Tabular Figures
zero Slashed Zero
```

if no parameter is given, then `-i` is assumed.

### 2.3 Option `-i`

For a given font number `luafindfont` will list the font styles which were found by the font search and which correspond to the font number. This is useful if a fontname doesn't has the style in its name or only in short form.

```
luafindfont -i 4 "myriad & semibold"
```

No.	Filename	Symbolic Name	Path
1.	MyriadPro-Semibold.otf	myriadpro	/Users/voss/Library/Fonts/MyriadPro/
2.	MyriadPro-SemiboldCond.otf	myriadpro	/Users/voss/Library/Fonts/MyriadPro/
3.	MyriadPro-SemiboldCondIt.otf	myriadpro	/Users/voss/Library/Fonts/MyriadPro/
4.	MyriadPro-SemiboldIt.otf	myriadpro	/Users/voss/Library/Fonts/MyriadPro/
5.	MyriadPro-SemiboldSemiCn.otf	myriadpro	/Users/voss/Library/Fonts/MyriadPro/
6.	MyriadPro-SemiboldSemiCnIt.otf	myriadpro	/Users/voss/Library/Fonts/MyriadPro/
7.	MyriadPro-SemiboldSemiExt.otf	myriadpro	/Users/voss/Library/Fonts/MyriadPro/
8.	MyriadPro-SemiboldSemiExtIt.otf	myriadpro	/Users/voss/Library/Fonts/MyriadPro/

Font: myriadpro

Fonttype otf(system) --> | Regular | Bold | Italic | BoldItalic |

For the font number 4 there also exists a Regular, Bold, and a Italic font. The font no 4 itself is a BoldItalic version.

## 2.4 Option -x

X<sub>Y</sub>TeX will find OpenType and TrueType fonts only, if they are part of the system fonts or found by kpsewhich by its filename. With the option -x you'll an additional column, which shows if the font is found by kpsewhich (1) or not (0). If not, then it is obvious, that you have to update the filename database of the T<sub>E</sub>X distribution in the usual way by running texhash or via a menu entry if using a file manager.

```
luafindfont -m 55 -x PStricksdotfont
```

No.	Filename	Symbolic Name	Path	X
1.	myFont.otf	pstricksdotfont	/usr/local/texlive/texmf-local/fonts/opentype/	0
2.	PStricksDotFont.otf	pstricksdotfont	/usr/local/texlive/texmf-local/fonts/opentype/	1
3.	PStricksDotFont.otf	pstricksdotfont	/usr/local/texlive/2022/te...entype/public/luapstricks/	1

The font myFont.otf is found by LuaT<sub>E</sub>X but not by X<sub>Y</sub>TeX.

## 3 Examples

```
luafindfont segoe
```

No.	Filename	Symbolic Name	Path
1.	Segoe UI Symbol.ttf	segoeuisymbol	/Users/voss/Library/Fonts/Segoe/
2.	Segoe_Print.ttf	segoeprint	/Users/voss/Library/Fonts/Segoe/
3.	Segoe_Print_Bold.ttf	segoeprint	/Users/voss/Library/Fonts/Segoe/
4.	Segoe_Script.ttf	segoescript	/Users/voss/Library/Fonts/Segoe/
5.	Segoe_Script_Bold.ttf	segoescript	/Users/voss/Library/Fonts/Segoe/
6.	Segoe_UI.ttf	segoeui	/Users/voss/Library/Fonts/Segoe/
7.	Segoe_UI_Bold.ttf	segoeui	/Users/voss/Library/Fonts/Segoe/
8.	Segoe_UI_Bold_Italic.ttf	segoeui	/Users/voss/Library/Fonts/Segoe/
9.	Segoe_UI_Italic.ttf	segoeui	/Users/voss/Library/Fonts/Segoe/

```
luafindfont -m 35 libertinus
```

### 3 Examples

No.	Filename	Symbolic Name	Path
1.	LibertinusKeyboard-Regular.otf	libertinuskeyboard	/usr/local/texlive/2022/te... fonts/
2.	LibertinusMath-Regular.otf	libertinusmath	/usr/local/texlive/2022/te... fonts/
3.	LibertinusMono-Regular.otf	libertinusmono	/usr/local/texlive/2022/te... fonts/
4.	LibertinusSans-Bold.otf	libertinussans	/usr/local/texlive/2022/te... fonts/
5.	LibertinusSans-Italic.otf	libertinussans	/usr/local/texlive/2022/te... fonts/
6.	LibertinusSans-Regular.otf	libertinussans	/usr/local/texlive/2022/te... fonts/
7.	LibertinusSerif-Bold.otf	libertinusserif	/usr/local/texlive/2022/te... fonts/
8.	LibertinusSerif-BoldItalic.otf	libertinusserif	/usr/local/texlive/2022/te... fonts/
9.	LibertinusSerif-Italic.otf	libertinusserif	/usr/local/texlive/2022/te... fonts/
10.	LibertinusSerif-Regular.otf	libertinusserif	/usr/local/texlive/2022/te... fonts/
11.	LibertinusSerif-Semibold.otf	libertinusserif	/usr/local/texlive/2022/te... fonts/
12.	LibertinusSerif-SemiboldItalic.otf	libertinusserif	/usr/local/texlive/2022/te... fonts/
13.	LibertinusSerifDisplay-Regular.otf	libertinusserifdisplay	/usr/local/texlive/2022/te... fonts/
14.	LibertinusSerifInitials-Regular.otf	libertinusserifinitials	/usr/local/texlive/2022/te... fonts/

```
luafindfont -i 9 sego
```

No.	Filename	Symbolic Name	Path
1.	Segoe UI Symbol.ttf	segoeuisymbol	/Users/voss/Library/Fonts/Segoe/
2.	Segoe_Print.ttf	segoeprint	/Users/voss/Library/Fonts/Segoe/
3.	Segoe_Print_Bold.ttf	segoeprint	/Users/voss/Library/Fonts/Segoe/
4.	Segoe_Script.ttf	segoescript	/Users/voss/Library/Fonts/Segoe/
5.	Segoe_Script_Bold.ttf	segoescript	/Users/voss/Library/Fonts/Segoe/
6.	Segoe_UI.ttf	segoeui	/Users/voss/Library/Fonts/Segoe/
7.	Segoe_UI_Bold.ttf	segoeui	/Users/voss/Library/Fonts/Segoe/
8.	Segoe_UI_Bold_Italic.ttf	segoeui	/Users/voss/Library/Fonts/Segoe/
9.	Segoe_UI_Italic.ttf	segoeui	/Users/voss/Library/Fonts/Segoe/

Font: segoeui  
Fonttype ttf(system) --> | Regular | Bold | Italic | BoldItalic |

```
luafindfont -o 6 arial
```

No.	Filename	Symbolic Name	Path
1.	Arial Black.ttf	arialblack	/System/Library/Fonts/Supplemental/
2.	Arial Bold Italic.ttf	arial	/System/Library/Fonts/Supplemental/
3.	Arial Bold.ttf	arial	/System/Library/Fonts/Supplemental/
4.	Arial Italic.ttf	arial	/System/Library/Fonts/Supplemental/
5.	Arial Narrow Bold Italic.ttf	arialnarrow	/System/Library/Fonts/Supplemental/
6.	Arial Narrow Bold.ttf	arialnarrow	/System/Library/Fonts/Supplemental/
7.	Arial Narrow Italic.ttf	arialnarrow	/System/Library/Fonts/Supplemental/
8.	Arial Narrow.ttf	arialnarrow	/System/Library/Fonts/Supplemental/
9.	Arial Rounded Bold.ttf	arialroundedmtbold	/System/Library/Fonts/Supplemental/
10.	Arial Unicode.ttf	arialunicodems	/Library/Fonts/
11.	Arial Unicode.ttf	arialunicodems	/System/Library/Fonts/Supplemental/
12.	Arial.ttf	arial	/Users/voss/Library/Fonts/Arial/
13.	Arial.ttf	arial	/System/Library/Fonts/Supplemental/
14.	ArialHB.ttc	arialhebrewscholar	/System/Library/Fonts/
15.	ArialHB.ttc	arialhebrewdeskinterface	/System/Library/Fonts/
16.	ArialHB.ttc	arialhebrew	/System/Library/Fonts/

```
Running otfinfo -i on font no.6
```

```
otfinfo -i "/System/Library/Fonts/Supplemental/Arial Narrow Bold.ttf"
```

```
Family: Arial Narrow
```

```
Subfamily: Bold
```

```
Full name: Arial Narrow Bold
```

```
PostScript name: ArialNarrow-Bold
```

```
Version: Version 2.38.1x
```

```
Unique ID: Arial Narrow Bold : 2007
```

```
Description: Monotype Drawing Office 1982. A contemporary sans serif design, Arial contains more humanist characteristics than many of its predecessors and as such
```

```
Designer: Robin Nicholas, Patricia Saunders
```

```
Manufacturer: The Monotype Corporation
```

```
Trademark: Arial is a trademark of The Monotype Corporation in the United States and/or other countries.
```

```
Copyright: © 2007 The Monotype Corporation. All Rights Reserved.
```

```
License Description: You may use this font to display and print content as permitted by the license terms for the product in which this font is included. You may only (i
```

```
Vendor ID: TMC
```

```
luafindfont --no-symbolic-names minion
```

No.	Filename	Path
1.	MinionMath-Bold.otf	/Users/voss/Library/Fonts/MinionMath/
2.	MinionMath-Regular.otf	/Users/voss/Library/Fonts/MinionMath/
3.	MinionPro-Bold.otf	/Users/voss/Library/Fonts/MinionPro/
4.	MinionPro-BoldCn.otf	/Users/voss/Library/Fonts/MinionPro/
5.	MinionPro-BoldCnIt.otf	/Users/voss/Library/Fonts/MinionPro/
6.	MinionPro-BoldIt.otf	/Users/voss/Library/Fonts/MinionPro/
7.	MinionPro-Capt.otf	/Users/voss/Library/Fonts/MinionPro/
8.	MinionPro-Disp.otf	/Users/voss/Library/Fonts/MinionPro/
9.	MinionPro-It.otf	/Users/voss/Library/Fonts/MinionPro/
10.	MinionPro-Medium.otf	/Users/voss/Library/Fonts/MinionPro/
11.	MinionPro-MediumIt.otf	/Users/voss/Library/Fonts/MinionPro/
12.	MinionPro-Regular.otf	/Users/voss/Library/Fonts/MinionPro/
13.	MinionPro-Semibold.otf	/Users/voss/Library/Fonts/MinionPro/
14.	MinionPro-SemiboldIt.otf	/Users/voss/Library/Fonts/MinionPro/
15.	MinionPro-Subh.otf	/Users/voss/Library/Fonts/MinionPro/

## 4 List of all fonts

This possible with the symbolic fontname "\*" instead of a real fontname:

```
bash-3.2$ luafindfont "*"
```

This list maybe really long and is shortend here!

Looking for font "\*"

Nr.	Filename	Path
1.	Aboensis-Regular.otf	/usr/local/texlive/texmf-dist/fonts/opentype/public/aboenis/
2.	academicons.ttf	/usr/local/texlive/texmf-dist/fonts/truetype/public/academicons/
3.	Academy Engraved LET Fonts.ttf	/System/Library/Fonts/Supplemental/
4.	ACaslonPro-Bold.otf	/Users/voss/Library/Fonts/Caslon/
5.	ACaslonPro-BoldItalic.otf	/Users/voss/Library/Fonts/Caslon/
6.	ACaslonPro-Italic.otf	/Users/voss/Library/Fonts/Caslon/
7.	ACaslonPro-Regular.otf	/Users/voss/Library/Fonts/Caslon/
8.	ACaslonPro-Semibold.otf	/Users/voss/Library/Fonts/Caslon/
9.	ACaslonPro-SemiboldItalic.otf	/Users/voss/Library/Fonts/Caslon/
10.	Acathist-Regular.otf	/usr/local/texlive/texmf-dist/fonts/opentype/public/fonts-churchslavonic/



11.	AccanthisADFStdNo3-Bold.otf	/usr/local/texlive/texmf-dist/fonts/opentype/arkandis/accanthis/
12.	AccanthisADFStdNo3-BoldItalic.otf	/usr/local/texlive/texmf-dist/fonts/opentype/arkandis/accanthis/
13.	AccanthisADFStdNo3-Italic.otf	/usr/local/texlive/texmf-dist/fonts/opentype/arkandis/accanthis/
14.	AccanthisADFStdNo3-Regular.otf	/usr/local/texlive/texmf-dist/fonts/opentype/arkandis/accanthis/
15.	ACE.ttc	/Users/voss/Library/Fonts/AppleSymbols/
16.	ACE.ttc	/Users/voss/Library/Fonts/AppleSymbols/
17.	AdineKirnberg-Script.otf	/Users/voss/Library/Fonts/AdineScript/
18.	AdobeArabic-Bold.otf	/Users/voss/Library/Fonts/Adobe/
19.	AdobeArabic-BoldItalic.otf	/Users/voss/Library/Fonts/Adobe/
[...]	[...]	[...]
6847.	□□_Pro.ttf	/Users/voss/Library/Fonts/KozukaPro/
6848.	□□□.ttf	/Users/voss/Library/Fonts/KozukaPro/
6849.	□□□.ttf	/Users/voss/Library/Fonts/KozukaPro/
6850.	□□□.ttf	/Users/voss/Library/Fonts/KozukaPro/