

Program `luafindfont`

—

0.07 (May 1, 2022)

Herbert Voß
hvoss@tug.org

Contents

1	Introduction	2
1.1	Syntax	3
2	How it works	3
2.1	Fontname	3
2.2	Option <code>-o</code>	4
2.3	Option <code>-i</code>	5
2.4	Option <code>-x</code>	5
3	Examples	6
4	List of all fonts	9

Thanks to:
Gerhard Bachmaier; Rolf Niepraschk;

1 Introduction

The Lua program `luafindfont` is a program for searching installed fonts which are usable for `LuaTeX` and `XYTeX`. 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
H-MacBook:~ voss$
H-MacBook:~ voss$ luaotfload-tool --find=times
luaotfload | resolve : Font "times" found!
luaotfload | resolve : Resolved file name "/System/Library/Fonts/Times.ttc", subfont nr. 0
H-MacBook:~ voss$
H-MacBook:~ voss$ luaotfload-tool --fuzzy --find="times new roman"
luaotfload | resolve : Font "times new roman" found!
luaotfload | resolve : Resolved file name "/System/Library/Fonts/Supplemental/Times New Roman.ttf"
H-MacBook:~ voss$
```

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
bash-3.2$ luafindfont times
We are using Lua 5.3
Check for file /usr/local/texlive/texmf-var/luatex-cache/generic/names/luaotfload-names
```

Nr.	Fontname	Symbolic Name	Path
1.	Times New Roman Bold Italic.ttf	timesnewroman	/Users/voss/Library/Fonts/Times/
2.	Times New Roman Bold Italic.ttf	timesnewroman	/System/Library/Fonts/Supplemental/
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	/System/Library/Fonts/Supplemental/
6.	Times New Roman Italic.ttf	timesnewroman	/Users/voss/Library/Fonts/Times/
7.	Times New Roman.ttf	timesnewroman	/System/Library/Fonts/Supplemental/
8.	Times New Roman.ttf	timesnewroman	/Users/voss/Library/Fonts/Times/
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
parameter handling	
-h,--help	
-o,--otfinfo (default 0)	
-i,--info (default 0)	
-x,--xetex	
-n,--nosymbolicnames	
-v... Verboosity output	
-m,--max_string (default 90)	
 (string)	

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^T_EX. 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.

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!

The possible options are (i is the default):

	<code>otfinfo</code>
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"
bash-3.2$ luafindfont -o 2f "myriad & semibold"
```

We are using Lua 5.3

Looking for font "myriad & semibold"

Check for file `/usr/local/texlive/2021/texmf-var/luatex-cache/generic/names/luatofload-names`

No.	Fontname	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/

Run `otfinfo -f: 2`

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

aalt	Access All Alternates
case	Case-Sensitive Forms
csp	Capital Spacing
dnom	Denominators
fin	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
sup	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.

```

bash-3.2$ luafindfont -i 4 "myriad & semibold"
We are using Lua 5.3
Looking for font "myriad & semibold"
Check for file /usr/local/texlive/2021/texmf-var/luatex-cache/generic/names/luatload-names
No.          Fontname 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_YTeX 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_EX distribution in the usual way by running `texhash` or via a menu entry if using a file manager.

```

bash-3.2$ ./luafindfont.lua -x PStricksdotfont
We are using Lua 5.3
Looking for font "pstricksdotfont"
No.          Fontname  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 Examples

The font myFont.otf is found by Lua \TeX but not by X \TeX .

3 Examples

```
bash-3.2$ luafindfont segoe
```

We are using Lua 5.3

Check for file /usr/local/texlive/2021/texmf-var/luatex-cache/generic/names/luatload-names

1.	Segoe UI Symbol.ttf	segoeuisymbol	/Users/voss/Library/Fonts/Segoe/Segoe UI Symbol.ttf
2.	Segoe_Print.ttf	segoeprint	/Users/voss/Library/Fonts/Segoe/Segoe_Print.ttf
3.	Segoe_Print_Bold.ttf	segoeprint	/Users/voss/Library/Fonts/Segoe/Segoe_Print_Bold.ttf
4.	Segoe_Script.ttf	segoescript	/Users/voss/Library/Fonts/Segoe/Segoe_Script.ttf
5.	Segoe_Script_Bold.ttf	segoescript	/Users/voss/Library/Fonts/Segoe/Segoe_Script_Bold.ttf
6.	Segoe_UI.ttf	segoeui	/Users/voss/Library/Fonts/Segoe/Segoe_UI.ttf
7.	Segoe_UI_Bold.ttf	segoeui	/Users/voss/Library/Fonts/Segoe/Segoe_UI_Bold.ttf
8.	Segoe_UI_Bold_Italic.ttf	segoeui	/Users/voss/Library/Fonts/Segoe/Segoe_UI_Bold_Italic.ttf
9.	Segoe_UI_Italic.ttf	segoeui	/Users/voss/Library/Fonts/Segoe/Segoe_UI_Italic.ttf

```
bash-3.2$ luafindfont -m 40 libertineus
```

We are using Lua 5.3

Check for file /usr/local/texlive/2021/texmf-var/luatex-cache/generic/names/luatload-names

1.	LibertinusKeyboard-Regular.otf	libertinuskeyboard	/usr/local/texlive/2021/te...Regular.otf
2.	LibertinusMath-Regular.otf	libertinusmath	/usr/local/texlive/2021/te...Regular.otf
3.	LibertinusMono-Regular.otf	libertinusmono	/usr/local/texlive/2021/te...Regular.otf
4.	LibertinusSans-Bold.otf	libertinussans	/usr/local/texlive/2021/te...ns-Bold.otf
5.	LibertinusSans-Italic.otf	libertinussans	/usr/local/texlive/2021/te...-Italic.otf
6.	LibertinusSans-Regular.otf	libertinussans	/usr/local/texlive/2021/te...Regular.otf
7.	LibertinusSerif-Bold.otf	libertinusserif	/usr/local/texlive/2021/te...if-Bold.otf
8.	LibertinusSerif-BoldItalic.otf	libertinusserif	/usr/local/texlive/2021/te...dItalic.otf
9.	LibertinusSerif-Italic.otf	libertinusserif	/usr/local/texlive/2021/te...-Italic.otf
10.	LibertinusSerif-Regular.otf	libertinusserif	/usr/local/texlive/2021/te...Regular.otf
11.	LibertinusSerif-Semibold.otf	libertinusserif	/usr/local/texlive/2021/te...emibold.otf
12.	LibertinusSerif-SemiboldItalic.otf	libertinusserif	/usr/local/texlive/2021/te...dItalic.otf
13.	LibertinusSerifDisplay-Regular.otf	libertinusserifdisplay	/usr/local/texlive/2021/te...Regular.otf
14.	LibertinusSerifInitials-Regular.otf	libertinusserifinitials	/usr/local/texlive/2021/te...Regular.otf

```
bash-3.2$ luafindfont -i 9 sego
```

We are using Lua 5.3

Check for file /usr/local/texlive/2021/texmf-var/luatex-cache/generic/names/luatload-names

1.	Segoe UI Symbol.ttf	segoeuisymbol	/Users/voss/Library/Fonts/Segoe/Segoe UI Symbol.ttf
2.	Segoe_Print.ttf	segoeprint	/Users/voss/Library/Fonts/Segoe/Segoe_Print.ttf
3.	Segoe_Print_Bold.ttf	segoeprint	/Users/voss/Library/Fonts/Segoe/Segoe_Print_Bold.ttf
4.	Segoe_Script.ttf	segoescript	/Users/voss/Library/Fonts/Segoe/Segoe_Script.ttf
5.	Segoe_Script_Bold.ttf	segoescript	/Users/voss/Library/Fonts/Segoe/Segoe_Script_Bold.ttf
6.	Segoe_UI.ttf	segoeui	/Users/voss/Library/Fonts/Segoe/Segoe_UI.ttf
7.	Segoe_UI_Bold.ttf	segoeui	/Users/voss/Library/Fonts/Segoe/Segoe_UI_Bold.ttf
8.	Segoe_UI_Bold_Italic.ttf	segoeui	/Users/voss/Library/Fonts/Segoe/Segoe_UI_Bold_Italic.ttf
9.	Segoe_UI_Italic.ttf	segoeui	/Users/voss/Library/Fonts/Segoe/Segoe_UI_Italic.ttf

Font: segoeui

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

8

```
bash-3.2$ luafindfont -o 6 arial
```

We are using Lua 5.3

Check for file /usr/local/texlive/2021/texmf-var/luatex-cache/generic/names/luatofload-names

1.	Arial Black.ttf	arialblack	/System/Library/Fonts/Supplemental/Arial Black.ttf
2.	Arial Bold Italic.ttf	arial	/System/Library/Fonts/Supplemental/Arial Bold Italic.ttf
3.	Arial Bold.ttf	arial	/System/Library/Fonts/Supplemental/Arial Bold.ttf
4.	Arial Italic.ttf	arial	/System/Library/Fonts/Supplemental/Arial Italic.ttf
5.	Arial Narrow Bold Italic.ttf	arialnarrow	/System/Library/Fonts/Supplemental/Arial Narrow Bold Italic.ttf
6.	Arial Narrow Bold.ttf	arialnarrow	/System/Library/Fonts/Supplemental/Arial Narrow Bold.ttf
7.	Arial Narrow Italic.ttf	arialnarrow	/System/Library/Fonts/Supplemental/Arial Narrow Italic.ttf
8.	Arial Narrow.ttf	arialnarrow	/System/Library/Fonts/Supplemental/Arial Narrow.ttf
9.	Arial Rounded Bold.ttf	arialroundedmtbold	/System/Library/Fonts/Supplemental/Arial Rounded Bold.ttf
10.	Arial Unicode.ttf	arialunicodems	/Library/Fonts/Arial Unicode.ttf
11.	Arial Unicode.ttf	arialunicodems	/System/Library/Fonts/Supplemental/Arial Unicode.ttf
12.	Arial.ttf	arial	/System/Library/Fonts/Supplemental/Arial.ttf
13.	Arial.ttf	arial	/Users/voss/Library/Fonts/Arial/Arial.ttf
14.	ArialHB.ttc	arialhebrew	/System/Library/Fonts/ArialHB.ttc
15.	ArialHB.ttc	arialhebrewdeskinterface	/System/Library/Fonts/ArialHB.ttc
16.	ArialHB.ttc	arialhebrewscholar	/System/Library/Fonts/ArialHB.ttc
17.	ArialHB.ttc	arialhebrew	/System/Library/Fonts/ArialHB.ttc

Run otfinfo:6

```
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
```


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!

We are using Lua 5.3

Looking for font "*"

Check for file /usr/local/texlive/texmf-var/luatex-cache/generic/names/luatofload-names

Nr.	Fontname	Path
1.	Aboensis-Regular.otf	/usr/local/texlive/texmf-dist/fonts/opentype/public/aboensis/
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/

4 List of all fonts

```
bash-3.2$ luafindfont -n minion
```

We are using Lua 5.3

Looking for font "minion"

Check for file /usr/local/texlive/2021/texmf-var/luatex-cache/generic/names/luatofload-names

Nr.	Fontname	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/