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# Relief SingleLine

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## Font formats

OTF(-SVG), SVG, TTF, OTF, WOFF2

## Designers

François Chastanet, Noëlie Dayma, Élisabeth Garzelli

## Designers URL

<https://github.com/isdat-type/Relief-SingleLine>

## Manufacturer

institut supérieur des arts et du design Toulouse / isdaT  
(<https://www.isdat.fr/>)

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Font Description

\*Relief SingleLine\* is a versatile sans serif “single-line” font with open paths oriented towards CNC (Computer Numerical Control) engraving and fab labs environments. \*Relief SingleLine\* with its skeletal logic and parametric thickness can also be useful in print and web experiments. The structure of this alphabet is influenced by Adrian Frutiger’s little known and underrated \*Vectora\* typeface. \*Relief SingleLine\* has several stylistic sets, proposing lowercases alternates g, l, y and a punctuation variant for small size inscriptions (period and related signs).

\*Relief SingleLine\* provides a single-line path for a pen, laser, or milling tool to follow for an efficient and clean looking typographical rendering. \*Relief SingleLine\* allows the user to drastically reduce the machining time while offering a quality Bézier curves rendering. \*Relief SingleLine\* is the first single-line font running Adobe apps (CC 2019 and above) with kerning and opentype features.

\*Relief SingleLine\* project explores different font formats: open paths (OTF-SVG for Adobe, SVG for Inkscape + Hershey Text Extension, TTF for CAD softwares, UFO for coding experiments on [Drawbot](<https://www.drawbot.com/>)) and closed outlines (OTF, WOFF2).

\*Relief SingleLine\* typeface is an open-source project distributed under the Open Font License ([OFL](<https://scripts.sil.org/ofl>)) and available for download at isdaT-type \*Relief SingleLine\* Github [repository](<https://github.com/isdat-type/Relief-SingleLine>)

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License

This Font Software is licensed under the SIL Open Font License, Version 1.1. This license is available with a FAQ at:

License info URL

<https://scripts.sil.org/ofl>

Copyright

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# How to use the Open Paths?

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## Adobe CC ≥2019: OpenType-SVG color font method

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## →fonts/open\_otf-svg/

As this project is primarily focusing on graphic user interface solutions opened the largest possible audiences, \*Relief SingleLine\* typeface is distributed as an OpenType-SVG color font format in order to simplify the layout process for the 2D fab lab community, i.e. having a single-line font editable in popular vector graphics and typographic composition softwares such as Illustrator or Indesign. OpenType-SVG technology represents an interesting alternative to permit single-line fonts wider distribution and easier use. To our knowledge, \*Relief SingleLine\* is the first single-line font working in Adobe apps (CC 2019 and above), opening new perspectives for makers worldwide. Fab lab users oriented towards 2D graphic practices can now easily access quality Bézier curves, kerning and OpenType features in their single-line typographical layouts!

Simply install the "Relief SingleLine-Regular\_svg.otf" on your system (or directly in the /Fonts subfolder of Illustrator or Indesign), open Illustrator or Indesign, compose your paragraphs and titlings; when the layout is finished, duplicate it and just use the /Text /Vectorize function to obtain a single-line design to export as PDF or SVG file to engrave through your favorite CNC machine (pen plotters, laser cutting or milling machine).

\*Relief SingleLine\* export as OpenType-SVG format was made possible thanks to [Frederik Berlaen](https://typemytype.com/)’s \*otf-svgMaker\* Python script for [Robofont](https://robofont.com/). This script permits to export any skeletal UFO-based font project towards a single-line OTF-SVG font. \*otf-svgMaker\* uses [roundingPen](https://github.com/typemytype/outlineRoboFontExtension/blob/master/Outliner.roboFontExt/lib/outlinePen.py) script by Frederik Berlaen. \*otf-svgMaker\* script will be soon available on \*Relief SingleLine\* Github repository.

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## CAD softwares: "closed" TTF towards open paths method

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## →fonts/open\_ttf/

By definition, a TTF export is based on closed vector paths. Nevertheless [Rhinoceros 3D](https://www.rhino3d.com/) and some other CAD softwares are able to use "closed" TTF single-line fonts by opening the closed letters’ structure the right way in their design interfaces with multiple views. When previewing a closed TTF file in your system you will get a triangular surfaces kind of display, no worries, the CAD software should correctly interprets it as a single-line typeface with open paths.

When operating the text tool dialog box, one can find a special feature to tick that permits single-line fonts usage (Windows version only in Rhinoceros 3D), then select the desired closed TTF. But composing paragraphs is often not possible, you can just write some words aligned on the same baseline (no line breaks depending on softwares), so limited to basic titling usages only.

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## Drawbot + UFO method

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## →sources/Relief-SingleLine.ufo

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If you have some Python coding skills, you can play around with \*Relief SingleLine\* main .ufo source in [Drawbot](https://www.drawbot.com/) to export toward PDF or SVG textual vector patterns to engrave. UFO ([Unified Font Objects](https://unifiedfontobject.org/)) is a cross-platform, cross-application, human readable format for storing font data.

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## ## Inkscape + Hershey Text Extension SVG fonts method

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## →fonts/open\_svg/

First install ReliefSingleLineOutline-Regular.otf on your system; then copy ReliefSingleLine-Regular.svg there:

- (macOS) ``/Applications/Inkscape.app/Contents/Resources/share/inkscape/extensions/svg_fonts``
- (Windows) ``C:\Program Files\Inkscape\share\inkscape\extensions\svg_fonts``

Only for Windows users: if you can not use Relief-SingleLine-Regular.svg even if effectively copied in the /svg\_fonts folder, try:

right-click on ReliefSingleLine-Regular.svg then select Properties/Security/Unlock/Apply

Compose your layout in [Inkscape](<https://inkscape.org/>) using ReliefSingleLineOutline-Regular.otf, launch [Hershey Text Extension](<https://www.evilmadscientist.com/2019/hershey-text-v30/>) (now available by default) to render your text blocks as single-line letters: go to Extension/Text/Hershey Text

Then, in font select \*Other\* (bottom of the list after the existing Hershey fonts) and type ReliefSingleLine-Regular in the next field of the dialog box as a path-name, then apply rendering.

Beware to first copy your source text blocks: after the Hershey Text Extension rendering process, texts are becoming not editable. Hershey Text Extension unfortunately apparently disables the kerning values even if truly embedded in the SVG font.

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## Process to export towards (old) SVG format with open paths:

- Open a skeletal UFO file in [FontForge](<https://fontforge.org/>)
- File/Generate fonts/Select SVG font format
- Rename your font as simple as possible to have a short path-name when using Hershey Text Extension (important: no space in the name)
- Generate
- Open the SVG file in a text editor (such as Sublime Text) and run two find and replace actions:
  - find z" / replace by " /
  - find zM replace by M
- Save as a new SVG file.

## Glyph map



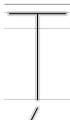
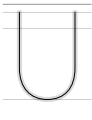
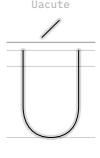
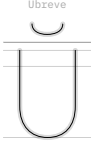
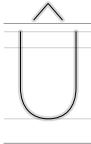
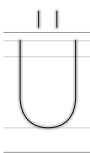
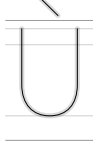
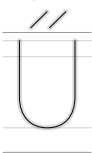

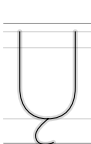
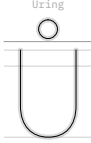


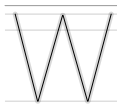


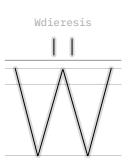
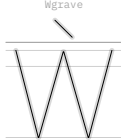


















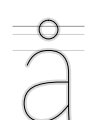








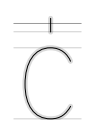
563 glyphs

## Vertical metrics

	SingleLine	Outline
Units perEm	1000	1000
yMax lacute	980	1000
yMin Gcommaaccent	-240	-260
Ascender	745	765
Caps Height	680	700
xHeight	555	575
Descender	-190	-210
Underline Position	-200	-200
Underline Thickness	0	40

<p>A</p> <p>70 70</p> <p>676</p>	<p>Aacute</p> <p>70 70</p> <p>676</p>	<p>Abreve</p> <p>70 70</p> <p>676</p>	<p>Acircumflex</p> <p>70 70</p> <p>676</p>	<p>Adieresis</p> <p>70 70</p> <p>676</p>	<p>Agrave</p> <p>70 70</p> <p>676</p>
<p>Amacron</p> <p>70 70</p> <p>676</p>	<p>Aogonek</p> <p>70 34</p> <p>676</p>	<p>Aring</p> <p>70 70</p> <p>676</p>	<p>Atilde</p> <p>70 70</p> <p>676</p>	<p>AE</p> <p>45 90</p> <p>919</p>	<p>B</p> <p>140 100</p> <p>634</p>
<p>C</p> <p>95 85</p> <p>665</p>	<p>Cacute</p> <p>95 85</p> <p>665</p>	<p>Ccaron</p> <p>95 85</p> <p>665</p>	<p>Ccedilla</p> <p>95 85</p> <p>665</p>	<p>Ccircumflex</p> <p>95 85</p> <p>665</p>	<p>Cdotaccent</p> <p>95 85</p> <p>665</p>
<p>D</p> <p>140 84</p> <p>693</p>	<p>Eth</p> <p>45 84</p> <p>713</p>	<p>Dcaron</p> <p>140 84</p> <p>693</p>	<p>Dcroat</p> <p>45 84</p> <p>713</p>	<p>E</p> <p>140 90</p> <p>591</p>	<p>Eacute</p> <p>140 90</p> <p>591</p>
<p>Ebreve</p> <p>140 90</p> <p>591</p>	<p>Ecaron</p> <p>140 90</p> <p>591</p>	<p>Ecircumflex</p> <p>140 90</p> <p>591</p>	<p>Edieresis</p> <p>140 90</p> <p>591</p>	<p>Edotaccent</p> <p>140 90</p> <p>591</p>	<p>Egrave</p> <p>140 90</p> <p>591</p>
<p>Emacron</p> <p>140 90</p> <p>591</p>	<p>Eogonek</p> <p>140 90</p> <p>591</p>	<p>F</p> <p>140 70</p> <p>551</p>	<p>G</p> <p>95 110</p> <p>676</p>	<p>Gbreve</p> <p>95 110</p> <p>676</p>	<p>Gcircumflex</p> <p>95 110</p> <p>676</p>
<p>uni0122</p> <p>95 110</p> <p>676</p>	<p>Gdotaccent</p> <p>95 110</p> <p>676</p>	<p>H</p> <p>140 140</p> <p>706</p>	<p>Hbar</p> <p>40 40</p> <p>706</p>	<p>Hcircumflex</p> <p>140 140</p> <p>706</p>	<p>I</p> <p>140 140</p> <p>280</p>
<p>Iacute</p> <p>72 73</p> <p>280</p>	<p>Ibreve</p> <p>20 20</p> <p>280</p>	<p>Icircumflex</p> <p>29 29</p> <p>280</p>	<p>Idieresis</p> <p>69 69</p> <p>280</p>	<p>Idotaccent</p> <p>140 140</p> <p>280</p>	<p>Igrave</p> <p>72 73</p> <p>280</p>

<p>Imacron</p> <p>29 30</p> <p>280</p>	<p>Iogonek</p> <p>42 99</p> <p>280</p>	<p>Itilde</p> <p>1 1</p> <p>280</p>	<p>J</p> <p>50 130</p> <p>361</p>	<p>uni004A0301</p> <p>50 63</p> <p>361</p>	<p>Jcircumflex</p> <p>50 19</p> <p>361</p>
<p>K</p> <p>140 50</p> <p>577</p>	<p>uni0136</p> <p>140 50</p> <p>577</p>	<p>L</p> <p>140 50</p> <p>508</p>	<p>Lacute</p> <p>140 50</p> <p>508</p>	<p>Lcaron</p> <p>140 50</p> <p>508</p>	<p>uni0138</p> <p>140 50</p> <p>508</p>
<p>Ldot</p> <p>140 50</p> <p>508</p>	<p>Lslash</p> <p>50 50</p> <p>523</p>	<p>M</p> <p>140 140</p> <p>862</p>	<p>N</p> <p>140 140</p> <p>748</p>	<p>Nacute</p> <p>140 140</p> <p>748</p>	<p>Ncaron</p> <p>140 140</p> <p>748</p>
<p>uni0145</p> <p>140 140</p> <p>748</p>	<p>Eng</p> <p>140 140</p> <p>748</p>	<p>Ntilde</p> <p>140 140</p> <p>748</p>	<p>O</p> <p>95 95</p> <p>716</p>	<p>Oacute</p> <p>95 95</p> <p>716</p>	<p>Obreve</p> <p>95 95</p> <p>716</p>
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<p>Racute</p> <p>140 85</p> <p>684</p>	<p>Rcaron</p> <p>140 85</p> <p>684</p>	<p>uni0156</p> <p>140 85</p> <p>684</p>	<p>S</p> <p>95 90</p> <p>566</p>	<p>Sacute</p> <p>95 90</p> <p>566</p>	<p>Scaron</p> <p>95 90</p> <p>566</p>
<p>Scedilla</p> <p>95 90</p> <p>566</p>	<p>Scircumflex</p> <p>95 90</p> <p>566</p>	<p>uni0218</p> <p>95 90</p> <p>566</p>	<p>uni1E9E</p> <p>140 70</p> <p>624</p>	<p>T</p> <p>40 40</p> <p>520</p>	<p>Tbar</p> <p>40 40</p> <p>520</p>










<p>Tcaron</p>  <p>40 40</p> <p>520</p>	<p>uni0162</p>  <p>40 40</p> <p>520</p>	<p>uni021A</p>  <p>40 40</p> <p>520</p>	<p>U</p>  <p>130 130</p> <p>694</p>	<p>Uacute</p>  <p>130 130</p> <p>694</p>	<p>Ubreve</p>  <p>130 130</p> <p>694</p>
<p>Ucircumflex</p>  <p>130 130</p> <p>694</p>	<p>Udieresis</p>  <p>130 130</p> <p>694</p>	<p>Ugrave</p>  <p>130 130</p> <p>694</p>	<p>Uhungarumlaut</p>  <p>130 130</p> <p>694</p>	<p>Umacron</p>  <p>130 130</p> <p>694</p>	<p>Uogonek</p>  <p>130 130</p> <p>694</p>
<p>Uring</p>  <p>130 130</p> <p>694</p>	<p>Utilde</p>  <p>130 130</p> <p>694</p>	<p>V</p>  <p>70 70</p> <p>641</p>	<p>W</p>  <p>80 80</p> <p>910</p>	<p>Wacute</p>  <p>80 80</p> <p>910</p>	<p>Wcircumflex</p>  <p>80 80</p> <p>910</p>
<p>Wdieresis</p>  <p>80 80</p> <p>910</p>	<p>Wgrave</p>  <p>80 80</p> <p>910</p>	<p>X</p>  <p>70 70</p> <p>607</p>	<p>Y</p>  <p>50 50</p> <p>575</p>	<p>Yacute</p>  <p>50 50</p> <p>575</p>	<p>Ycircumflex</p>  <p>50 50</p> <p>575</p>
<p>Ydieresis</p>  <p>50 50</p> <p>575</p>	<p>Ygrave</p>  <p>50 50</p> <p>575</p>	<p>Z</p>  <p>110 100</p> <p>609</p>	<p>Zacute</p>  <p>110 100</p> <p>609</p>	<p>Zcaron</p>  <p>110 100</p> <p>609</p>	<p>Zdotaccent</p>  <p>110 100</p> <p>609</p>
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<p>amacron</p>  <p>90 120</p> <p>561</p>	<p>aogonek</p>  <p>90 79</p> <p>561</p>	<p>aring</p>  <p>90 120</p> <p>561</p>	<p>atilde</p>  <p>90 120</p> <p>561</p>	<p>ae</p>  <p>90 85</p> <p>908</p>	<p>b</p>  <p>140 90</p> <p>613</p>
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d	eth	dcaron	dcroat	e	ecacute
90 140 613	110 80 592	90 -10 613	90 45 610	90 85 561	90 85 561
ebreve	ecaron	ecircumflex	edieresis	edotaccent	egrave
90 85 561	90 85 561	90 85 561	90 85 561	90 85 561	90 85 561
emacron	eogonek	f	g	gbreve	gcircumflex
90 85 561	90 85 561	50 5 333	90 135 608	90 135 608	90 135 608
uni0123	gdotaccent	h	hbar	hcircumflex	i
90 135 608	90 135 608	140 135 608	48 135 608	140 135 608	140 140 280
dotlessi	iacute	ibreve	icircumflex	idieresis	i.loclTRK
140 140 280	72 73 280	20 20 280	29 29 280	69 69 280	140 140 280
igrave	imacron	iogonek	itilde	j	uni0237
72 73 280	29 30 280	42 99 280	1 1 280	0 135 293	0 135 293
uni006A0301	jcircumflex	k	uni0137	l	lacute
0 60 293	0 24 293	140 50 528	140 50 528	135 55 307	134 38 307
lcaron	uni013C	ldot	lslash	m	n
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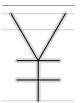
























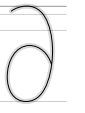


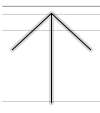

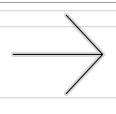
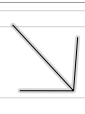

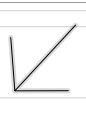
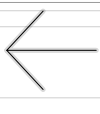

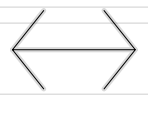
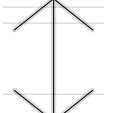

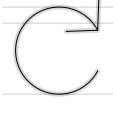
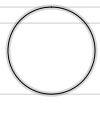
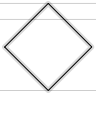
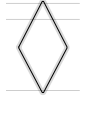
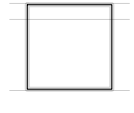
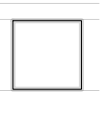
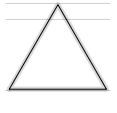

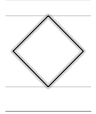
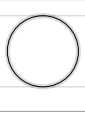




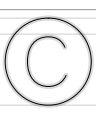





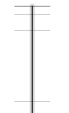

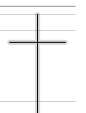

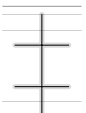
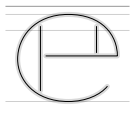





<p>acute</p> <p>140 135</p> <p>608</p>	<p>ncaron</p> <p>140 135</p> <p>608</p>	<p>uni0146</p> <p>140 135</p> <p>608</p>	<p>eng</p> <p>140 135</p> <p>608</p>	<p>ntilde</p> <p>140 135</p> <p>608</p>	<p>o</p> <p>90 90</p> <p>592</p>
<p>oacute</p> <p>90 90</p> <p>592</p>	<p>obreve</p> <p>90 90</p> <p>592</p>	<p>ocircumflex</p> <p>90 90</p> <p>592</p>	<p>odieresis</p> <p>90 90</p> <p>592</p>	<p>ograve</p> <p>90 90</p> <p>592</p>	<p>ohungarumlaut</p> <p>90 90</p> <p>592</p>
<p>omacron</p> <p>90 90</p> <p>592</p>	<p>oslash</p> <p>90 90</p> <p>592</p>	<p>otilde</p> <p>90 90</p> <p>592</p>	<p>oe</p> <p>90 85</p> <p>973</p>	<p>p</p> <p>140 90</p> <p>613</p>	<p>thorn</p> <p>140 90</p> <p>613</p>
<p>q</p> <p>90 140</p> <p>613</p>	<p>r</p> <p>140 56</p> <p>394</p>	<p>racute</p> <p>140 56</p> <p>394</p>	<p>rcaron</p> <p>123 49</p> <p>394</p>	<p>uni0157</p> <p>61 56</p> <p>394</p>	<p>s</p> <p>90 85</p> <p>521</p>
<p>sacute</p> <p>90 85</p> <p>521</p>	<p>scaron</p> <p>90 85</p> <p>521</p>	<p>scedilla</p> <p>90 85</p> <p>521</p>	<p>scircumflex</p> <p>90 85</p> <p>521</p>	<p>uni0219</p> <p>90 85</p> <p>521</p>	<p>germandbls</p> <p>140 85</p> <p>594</p>
<p>t</p> <p>50 60</p> <p>387</p>	<p>tbar</p> <p>50 60</p> <p>387</p>	<p>tcaron</p> <p>50 60</p> <p>387</p>	<p>uni0163</p> <p>50 60</p> <p>387</p>	<p>uni021B</p> <p>50 60</p> <p>387</p>	<p>u</p> <p>135 140</p> <p>603</p>
<p>uacute</p> <p>135 140</p> <p>603</p>	<p>ubreve</p> <p>135 140</p> <p>603</p>	<p>ucircumflex</p> <p>135 140</p> <p>603</p>	<p>udieresis</p> <p>135 140</p> <p>603</p>	<p>ugrave</p> <p>135 140</p> <p>603</p>	<p>uhungarumlaut</p> <p>135 140</p> <p>603</p>
<p>umacron</p> <p>135 140</p> <p>603</p>	<p>uogonek</p> <p>135 99</p> <p>603</p>	<p>uring</p> <p>135 140</p> <p>603</p>	<p>utilde</p> <p>135 140</p> <p>603</p>	<p>v</p> <p>60 60</p> <p>539</p>	<p>w</p> <p>70 70</p> <p>817</p>






































<p>wacute</p>	<p>wcircumflex</p>	<p>wdieresis</p>	<p>wgrave</p>	<p>x</p>	<p>y</p>
<p>yacute</p>	<p>ycircumflex</p>	<p>ydieresis</p>	<p>ygrave</p>	<p>z</p>	<p>zacute</p>
<p>zcaron</p>	<p>zdotaccent</p>	<p>g.ss01</p>	<p>gbreve.ss01</p>	<p>gcircumflex.ss01</p>	<p>uni0123.ss01</p>
<p>gdotaccent.ss01</p>	<p>l.ss02</p>	<p>lacute.ss02</p>	<p>lcaron.ss02</p>	<p>uni013C.ss02</p>	<p>ldot.ss02</p>
<p>lslash.ss02</p>	<p>y.ss03</p>	<p>yacute.ss03</p>	<p>ycircumflex.ss03</p>	<p>ydieresis.ss03</p>	<p>ygrave.ss03</p>
<p>fi</p>	<p>fl</p>	<p>fl.ss02</p>	<p>ordfeminine</p>	<p>ordmasculine</p>	<p>Delta</p>
<p>pi</p>	<p>Omega</p>	<p>zero</p>	<p>one</p>	<p>two</p>	<p>three</p>
<p>four</p>	<p>five</p>	<p>six</p>	<p>seven</p>	<p>eight</p>	<p>nine</p>

<p>zero.zero</p>  <p>90 90</p> <p>622</p>	<p>zero.osf</p>  <p>90 90</p> <p>620</p>	<p>one.osf</p>  <p>95 150</p> <p>443</p>	<p>two.osf</p>  <p>85 90</p> <p>570</p>	<p>three.osf</p>  <p>65 105</p> <p>551</p>	<p>four.osf</p>  <p>60 60</p> <p>567</p>
<p>five.osf</p>  <p>105 94</p> <p>566</p>	<p>six.osf</p>  <p>90 80</p> <p>572</p>	<p>seven.osf</p>  <p>40 60</p> <p>495</p>	<p>eight.osf</p>  <p>90 90</p> <p>559</p>	<p>nine.osf</p>  <p>80 90</p> <p>572</p>	<p>zero.osf.zero</p>  <p>90 90</p> <p>620</p>
<p>zero.subs</p>  <p>45 45</p> <p>311</p>	<p>one.subs</p>  <p>35 80</p> <p>224</p>	<p>two.subs</p>  <p>32 42</p> <p>275</p>	<p>three.subs</p>  <p>37 55</p> <p>283</p>	<p>four.subs</p>  <p>32 30</p> <p>285</p>	<p>five.subs</p>  <p>47 45</p> <p>279</p>
<p>six.subs</p>  <p>45 30</p> <p>276</p>	<p>seven.subs</p>  <p>20 25</p> <p>248</p>	<p>eight.subs</p>  <p>45 44</p> <p>279</p>	<p>nine.subs</p>  <p>29 44</p> <p>275</p>	<p>zero.dnom</p>  <p>45 45</p> <p>311</p>	<p>one.dnom</p>  <p>35 80</p> <p>224</p>
<p>two.dnom</p>  <p>32 42</p> <p>275</p>	<p>three.dnom</p>  <p>37 55</p> <p>283</p>	<p>four.dnom</p>  <p>32 30</p> <p>285</p>	<p>five.dnom</p>  <p>47 45</p> <p>279</p>	<p>six.dnom</p>  <p>45 30</p> <p>276</p>	<p>seven.dnom</p>  <p>20 25</p> <p>248</p>
<p>eight.dnom</p>  <p>45 44</p> <p>279</p>	<p>nine.dnom</p>  <p>29 44</p> <p>275</p>	<p>zero.numr</p>  <p>45 45</p> <p>311</p>	<p>one.numr</p>  <p>35 80</p> <p>224</p>	<p>two.numr</p>  <p>32 42</p> <p>275</p>	<p>three.numr</p>  <p>37 55</p> <p>283</p>
<p>four.numr</p>  <p>32 30</p> <p>285</p>	<p>five.numr</p>  <p>47 45</p> <p>279</p>	<p>six.numr</p>  <p>45 30</p> <p>276</p>	<p>seven.numr</p>  <p>20 25</p> <p>248</p>	<p>eight.numr</p>  <p>45 44</p> <p>279</p>	<p>nine.numr</p>  <p>29 44</p> <p>275</p>
<p>uni2070</p>  <p>45 45</p> <p>311</p>	<p>uni00B9</p>  <p>35 80</p> <p>224</p>	<p>uni00B2</p>  <p>32 42</p> <p>275</p>	<p>uni00B3</p>  <p>37 55</p> <p>283</p>	<p>uni2074</p>  <p>32 30</p> <p>285</p>	<p>uni2075</p>  <p>47 45</p> <p>279</p>

<p>uni2076</p>	<p>uni2077</p>	<p>uni2078</p>	<p>uni2079</p>	<p>fraction</p>	<p>onehalf</p>
<p>uni2153</p>	<p>uni2154</p>	<p>onequarter</p>	<p>threequarters</p>	<p>zero.subs.zero</p>	<p>zero.dnom.zero</p>
<p>zero.numr.zero</p>	<p>uni2070.zero</p>	<p>period</p>	<p>comma</p>	<p>colon</p>	<p>semicolon</p>
<p>ellipsis</p>	<p>exclam</p>	<p>exclamdown</p>	<p>question</p>	<p>questiondown</p>	<p>periodcentered</p>
<p>bullet</p>	<p>asterisk</p>	<p>uni2042</p>	<p>numbersign</p>	<p>slash</p>	<p>backslash</p>
<p>periodcentered.loclCAT.case</p>	<p>periodcentered.loclCAT</p>	<p>periodcentered.loclCAT.ss02</p>	<p>parenleft</p>	<p>parenright</p>	<p>braceleft</p>
<p>braceright</p>	<p>bracketleft</p>	<p>bracketright</p>	<p>hyphen</p>	<p>uni00AD</p>	<p>endash</p>
<p>emdash</p>	<p>underscore</p>	<p>quotesinglbase</p>	<p>quotedblbase</p>	<p>quotedblleft</p>	<p>quotedblright</p>

<p>quoteleft</p>  <p>60 80</p> <p>218</p>	<p>quoteright</p>  <p>80 60</p> <p>218</p>	<p>guillemotleft</p>  <p>60 100</p> <p>540</p>	<p>guillemotright</p>  <p>100 60</p> <p>540</p>	<p>guilsingleft</p>  <p>60 100</p> <p>320</p>	<p>guilsingright</p>  <p>100 60</p> <p>320</p>
<p>quotedbl</p>  <p>80 60</p> <p>393</p>	<p>quotesingle</p>  <p>80 60</p> <p>218</p>	<p>parenleft.dnom</p>  <p>50 35</p> <p>150</p>	<p>parenright.dnom</p>  <p>35 50</p> <p>150</p>	<p>period.dnom</p>  <p>55 55</p> <p>151</p>	<p>parenleft.numr</p>  <p>50 35</p> <p>150</p>
<p>parenright.numr</p>  <p>35 50</p> <p>150</p>	<p>period.numr</p>  <p>55 55</p> <p>151</p>	<p>parenleft.subs</p>  <p>50 35</p> <p>150</p>	<p>parenright.subs</p>  <p>35 50</p> <p>150</p>	<p>period.subs</p>  <p>55 55</p> <p>151</p>	<p>parenleft.sups</p>  <p>50 35</p> <p>150</p>
<p>parenright.sups</p>  <p>35 50</p> <p>150</p>	<p>period.sups</p>  <p>55 55</p> <p>151</p>	<p>.notdef</p>  <p>140 140</p> <p>670</p>	<p>cent</p>  <p>90 85</p> <p>531</p>	<p>currency</p>  <p>100 100</p> <p>660</p>	<p>dollar</p>  <p>95 90</p> <p>566</p>
<p>Euro</p>  <p>60 70</p> <p>652</p>	<p>florin</p>  <p>30 30</p> <p>549</p>	<p>sterling</p>  <p>100 70</p> <p>562</p>	<p>yen</p>  <p>70 70</p> <p>564</p>	<p>uni2219</p>  <p>110 110</p> <p>320</p>	<p>plus</p>  <p>85 85</p> <p>635</p>
<p>minus</p>  <p>85 85</p> <p>635</p>	<p>multiply</p>  <p>80 80</p> <p>540</p>	<p>divide</p>  <p>85 85</p> <p>635</p>	<p>equal</p>  <p>100 100</p> <p>554</p>	<p>notequal</p>  <p>100 100</p> <p>574</p>	<p>greater</p>  <p>100 100</p> <p>652</p>
<p>less</p>  <p>100 100</p> <p>652</p>	<p>greaterequal</p>  <p>110 110</p> <p>618</p>	<p>lessequal</p>  <p>110 110</p> <p>618</p>	<p>plusminus</p>  <p>100 100</p> <p>665</p>	<p>approxequal</p>  <p>100 100</p> <p>610</p>	<p>asciitilde</p>  <p>100 100</p> <p>645</p>
<p>logicalnot</p>  <p>100 100</p> <p>664</p>	<p>asciicircum</p>  <p>60 60</p> <p>438</p>	<p>infinity</p>  <p>100 100</p> <p>870</p>	<p>integral</p>  <p>60 60</p> <p>420</p>	<p>product</p>  <p>70 70</p> <p>728</p>	<p>summation</p>  <p>60 40</p> <p>531</p>

radical  624	uni00B5  608	partialdiff  564	percent  717	perthousand  1637	arrowup  772
uni2197  746	arrowright  919	uni2198  746	arrowdown  772	uni2199  746	arrowleft  919
uni2196  746	arrowboth  1179	arrowupdn  793	uni27F2  866	uni27F3  866	circle  840
uni25C7  780	lozenge  576	uni25A1  940	uni25FB  815	uni25B3  819	uni25B5  665
uni25E3  669	uni26AA  715	at  862	ampersand  685	paragraph  582	section  552
copyright  862	registered  862	trademark  873	degree  389	minute  14	second  291
bar  280	brokenbar  280	dagger  596	uni2113  466	daggerdbl  620	estimated  969
plus.dnom  332	minus.dnom  332	multiply.dnom  270	equal.dnom  317	plus.numr  332	minus.numr  332

<p>multiply.numx</p> <p>40  40</p> <p>270</p>	<p>equal.numx</p> <p>70  70</p> <p>317</p>	<p>plus.subs</p> <p>42  57</p> <p>332</p>	<p>minus.subs</p> <p>42  57</p> <p>332</p>	<p>multiply.subs</p> <p>40  40</p> <p>270</p>	<p>equal.subs</p> <p>70  70</p> <p>317</p>
<p>plus.sups</p> <p>42  57</p> <p>332</p>	<p>minus.sups</p> <p>42  57</p> <p>332</p>	<p>multiply.sups</p> <p>40  40</p> <p>270</p>	<p>equal.sups</p> <p>70  70</p> <p>317</p>	<p>uni0308</p> <p>10  10</p> <p>162</p>	<p>uni0307</p> <p>40  40</p> <p>8</p>
<p>gravecomb</p> <p>10  10</p> <p>155</p>	<p>acutecomb</p> <p>10  10</p> <p>155</p>	<p>uni030B</p> <p>10  10</p> <p>294</p>	<p>uni030C.alt</p> <p>50  30</p> <p>13</p>	<p>uni0302</p> <p>10  10</p> <p>242</p>	<p>uni030C</p> <p>10  10</p> <p>242</p>
<p>uni0306</p> <p>10  10</p> <p>260</p>	<p>uni030A</p> <p>10  10</p> <p>167</p>	<p>tildecomb</p> <p>10  10</p> <p>298</p>	<p>uni0304</p> <p>10  10</p> <p>241</p>	<p>uni0312</p> <p>10  10</p> <p>9</p>	<p>uni0326</p> <p>10  10</p> <p>9</p>
<p>uni0327</p> <p>10  10</p> <p>165</p>	<p>uni0328</p> <p>10  10</p> <p>159</p>	<p>dieresis</p> <p>10  10</p> <p>164</p>	<p>dotaccent</p> <p>40  40</p> <p>8</p>	<p>grave</p> <p>10  10</p> <p>155</p>	<p>acute</p> <p>10  10</p> <p>14</p>
<p>hungarumlaut</p> <p>10  10</p> <p>294</p>	<p>circumflex</p> <p>10  10</p> <p>242</p>	<p>caron</p> <p>10  10</p> <p>242</p>	<p>breve</p> <p>10  10</p> <p>260</p>	<p>ring</p> <p>10  10</p> <p>167</p>	<p>tilde</p> <p>10  10</p> <p>298</p>
<p>macron</p> <p>10  10</p> <p>241</p>	<p>cedilla</p> <p>10  10</p> <p>165</p>	<p>ogonek</p> <p>10  10</p> <p>159</p>	<p>caron.alt</p> <p>50  30</p> <p>13</p>		

## OpenType features	OTF-SVG for Adobe	For details about OpenType Layout Features see the <a href="#">OpenType Layout tag registry</a> .
## Substitution features	aalt Access All Alternates ccmp Glyph Composition/Decomposition locl Localized Forms subs Subscript sinf Scientific Inferiors supr Superscript numr Numerators dnom Denominators frac Fractions ordn Ordinals lnum Lining Figures onum Oldstyle Figures case Case-Sensitive Forms dlig Discretionary Ligatures liga Standard Ligatures zero Slashed Zero ss01 Stylistic Set 1 g ss02 Stylistic Set 2 l, fl ss03 Stylistic Set 3 y ss04 Stylistic Set 4 Dot Default style for Rhino (TTF) ss05 Stylistic Set 5 Dot	
## Positioning features	Kerning	
## Contributors	<p>Élisa Garzelli &amp; Noëlie Dayma, isdaT Graphic Design Department students.</p> <p>[François Chastanet](<a href="http://francoischastanet.com/">http://francoischastanet.com/</a>), isdaT Graphic Design Department teacher in typography and type design, general design and project coordination.</p> <p>[Tanguy Vanlaeys](<a href="https://vnls-tanguy.tumblr.com/">https://vnls-tanguy.tumblr.com/</a>), research on CNC type started at [ANRT](<a href="https://anrt-nancy.fr/">https://anrt-nancy.fr/</a>), advices on Inkscape + Hershey Text Extension usages and open paths (old) SVG fonts export tricks, TTF exports, illustrations and type specimen layouts.</p> <p>[Frederik Berlaen](<a href="https://typemytype.com/">https://typemytype.com/</a>), *otf-svgMaker* Python script for [RoboFont](<a href="https://robofont.com/">https://robofont.com/</a>) exporting from any skeletal UFO source an OTF-SVG color font permitting editable single-line typographic layouts in the Adobe CC environment (CC 2019 and above).</p>	



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## 210 latin languages supported

Abenaki	Frisian	Makhuwa	Silesian
Afaan Oromo	Friulian	Malay	Slovak
Afar	Gagauz	Maltese	Slovenian
Afrikaans	Galician	Manx	Slovio
Albanian	Ganda	Maori	Somali
Alsatian	Genoese	Marquesan	Sorbian Lower
Amis	German	Meglenoromanian	Sorbian Upper
Anuta	Gikuyu	Meriam Mir	Sotho Northern
Aragonese	Gooniyandi	Mirandese	Sotho Southern
Aranese	Greenlandic	Mohawk	Spanish
Aromanian	Guadeloupean	Moldovan	Sranan
Arrernte	Gwichin	Montagnais	Sundanese
Arvanitic	Haitian Creole	Montenegrin	Swahili
Asturian	Han	Murrinhpatha	Swazi
Atayal	Hawaiian	Nagamese Creole	Swedish
Aymara	Hiligaynon	Ndebele	Tagalog
Bashkir	Hopi	Neapolitan	Tahitian
Basque	Hotcak	Ngiyambaa	Tetum
Belarusian	Hungarian	Niuean	Tok Pisin
Bemba	Icelandic	Noongar	Tokelauan
Bikol	Ido	Norwegian	Tongan
Bislama	Ilocano	Novial	Tshiluba
Bosnian	Indonesian	Occidental	Tsonga
Breton	Interglossa	Occitan	Tswana
Cape Verdean	Interlingua	Oshiwambo	Tumbuka
Catalan	Irish	Ossetian	Turkish
Cebuano	Istroromanian	Palauan	Turkmen
Chamorro	Italian	Papiamento	Tuvaluan
Chavacano	Jamaican	Piedmontese	Tzotzil
Chichewa	Javanese	Polish	Ukrainian
Chickasaw	Jerriais	Portuguese	Uzbek
Cimbrian	Kala Lagaw Ya	Potawatomi	Venetian
Cofan	Kapampangan	Qeqchi	Vepsian
Corsican	Kaqchikel	Quechua	Volapuk
Creek	Karakalpak	Rarotongan	Voro
Crimean Tatar	Karelian	Romanian	Wallisian
Croatian	Kashubian	Romansh	Walloon
Czech	Kikongo	Rotokas	Waraywaray
Danish	Kinyarwanda	Sami Inari	Warlpiri
Dawan	Kiribati	Sami Lule	Wayuu
Delaware	Kirundi	Sami Northern	Welsh
Dholuo	Klingon	Sami Southern	Wikmungkan
Drehu	Kurdish	Samoan	Wiradjuri
Dutch	Ladin	Sango	Wolof
English	Latin	Saramaccan	Xavante
Esperanto	Latino Sine	Sardinian	Xhosa
Estonian	Latvian	Scottish Gaelic	Yapese
Faroese	Lithuanian	Serbian	Yindjibarndi
Fijian	Lojban	Seri	Zapotec
Filipino	Lombard	Seychellois	Zulu
Finnish	Low Saxon	Shawnee	Zuni
Folkspraak	Luxembourgish	Shona	
French	Maasai	Sicilian	

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## Credit

A part of the layout was generated through a script based on  
[Font to PDF repository] (<https://github.com/loicsander/Font2PDF>)  
– update with fontparts – from Loïc Sander with DrawBot.