CSS Typography Condensed

Typefaces, Fonts, & Formatting

R. Scott Granneman & Jans Carton

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Scott Granr …in a Web development company in St. Louis, Missouri. Scott has written six books, contributed … SecurityFocus and *Linux Magazine*. He is an Adjunct Professor at Washington University in St. Louis … technology, security, web development, & the Internet. As a Principal of WebSanity, he plans, devel… states using an open source, UNIX-based content management system. He has given presentatio… peaking to people.

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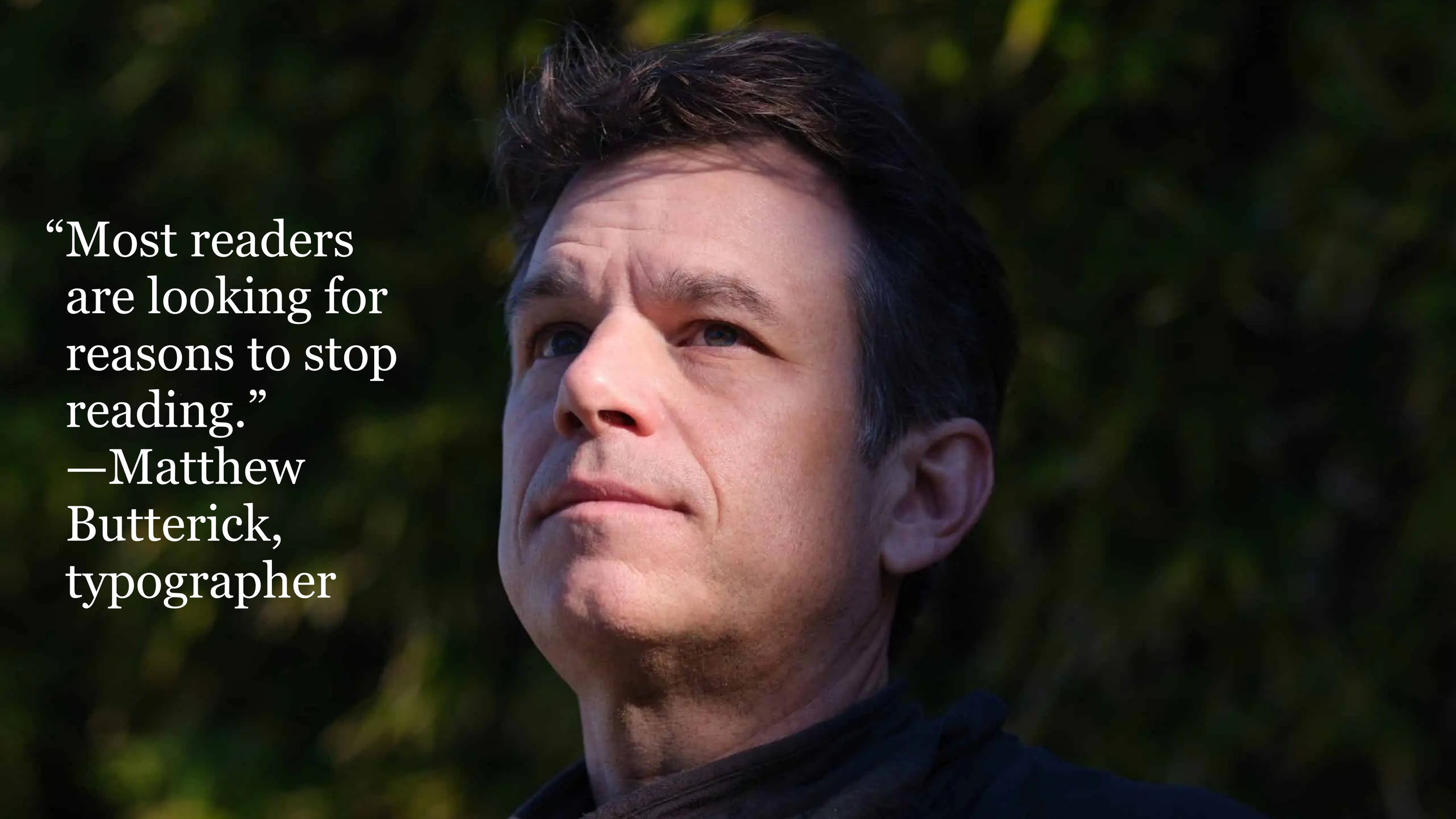
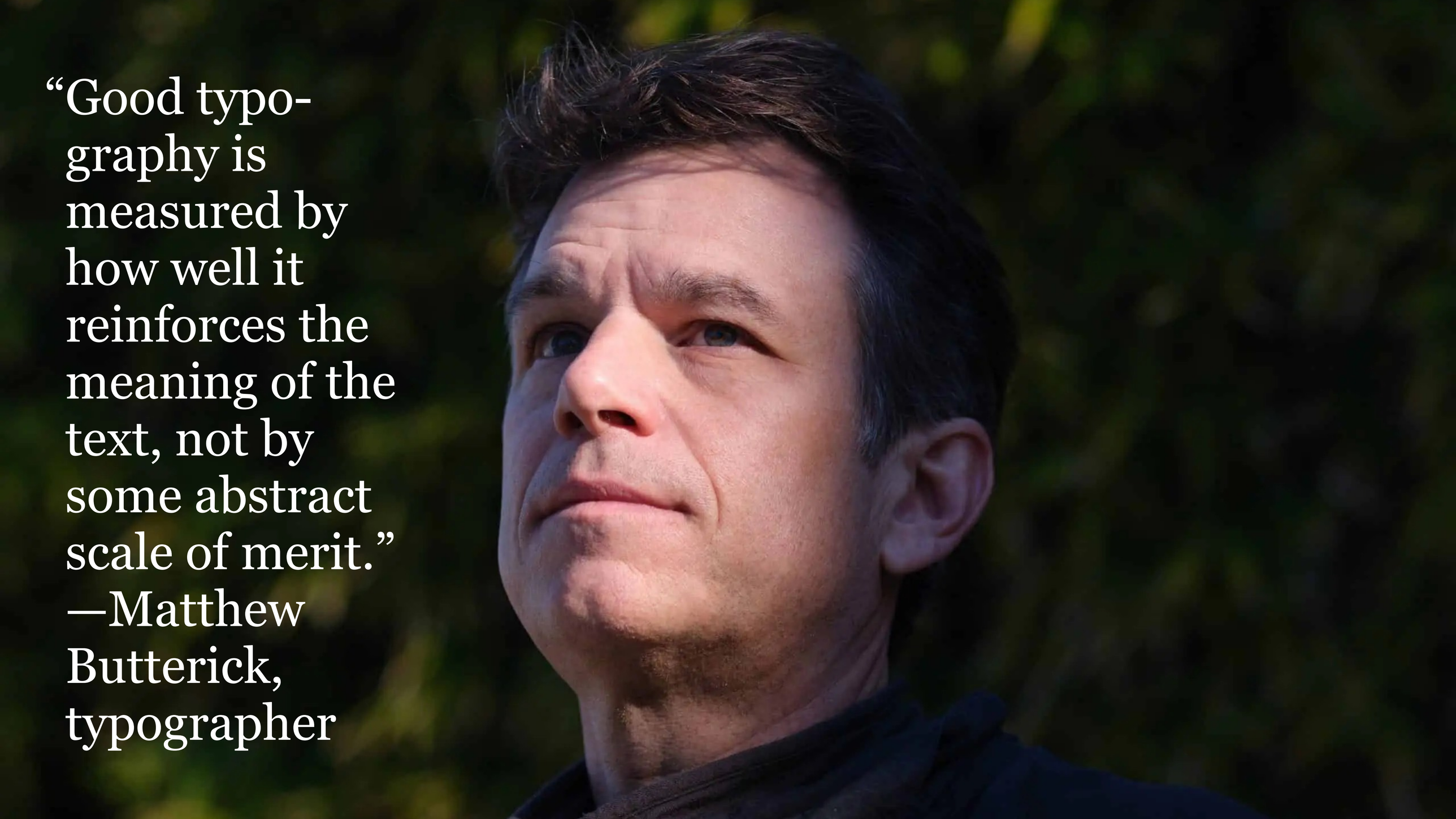
Why?

“Perfect typography is certainly the most elusive of all arts. Sculpture in stone alone comes near it in obstinacy.” —Jan Tschichold, calligrapher, typographer, & book designer


“Most readers are looking for reasons to stop reading.”
—Matthew Butterick, typographer



“Good typography is measured by how well it reinforces the meaning of the text, not by some abstract scale of merit.”
—Matthew Butterick, typographer

“95% of the information on the web is written language. It is only logical to say that a web designer should get good training in the main discipline of shaping written information, in other words: Typography.” —iA (Information Architects Inc.)

First Big Bank of America

First Big Bank of America

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Basics

Typefaces, Fonts, Glyphs, & Characters

Character: individual letters, numbers, & symbols (`S`, `$`, `!`, & `7`) that collectively form words, sentences, formulas…

Glyph: specific appearance of a character

Font: physical embodiment of a collection of glyphs; e.g., metal movable type or a computer file

Typeface: the design of the collection; the way it looks

Glyphs

A *glyph* describe a specific visual appearance or shape of a character

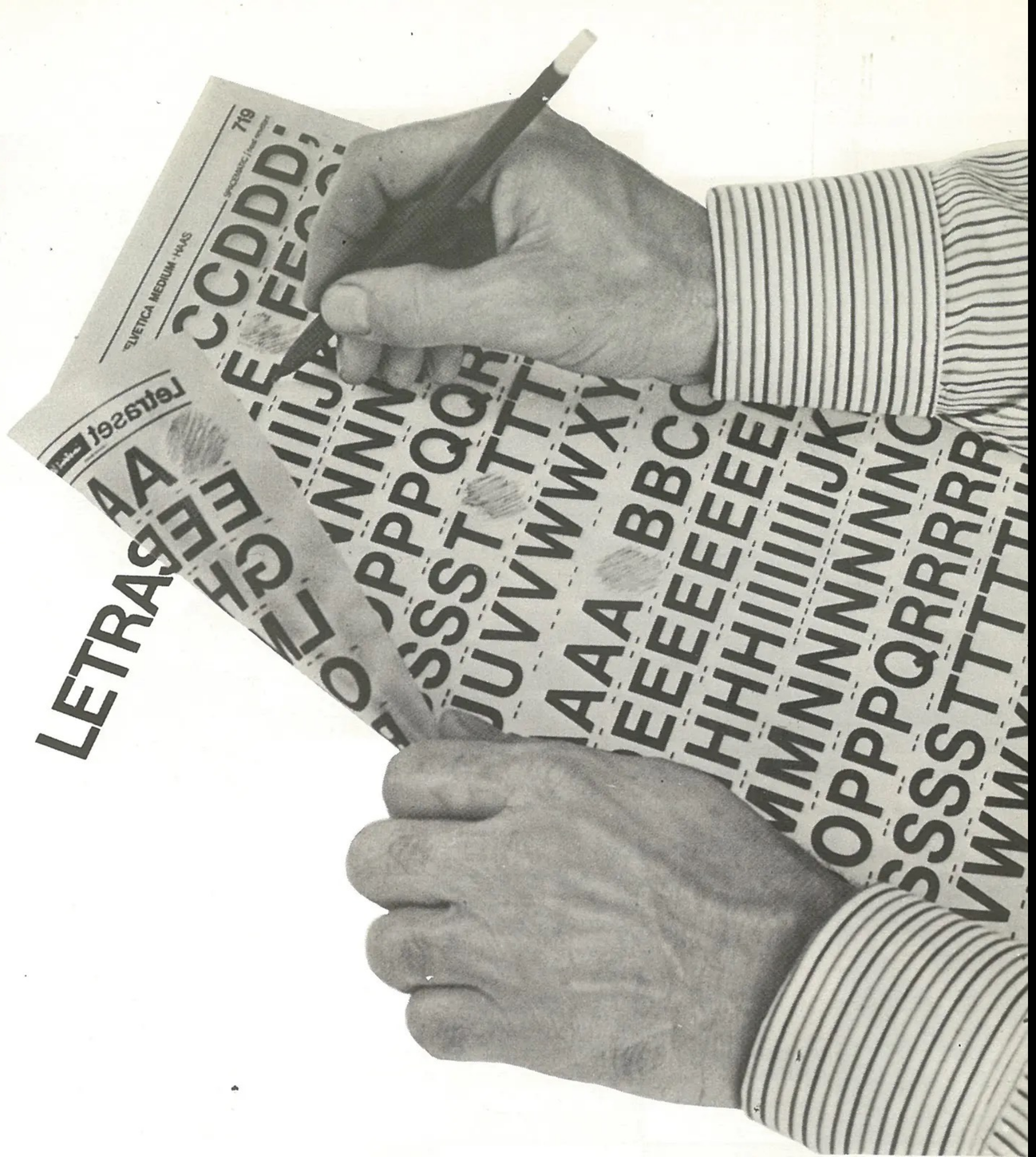
Zapfino variations of d, 4, & z

Fonts

“*font* is what you use, and *typeface* is what you see.”
—Norbert Florendo

Fonts as wood letterpress blocks, standard from 15c to 19c

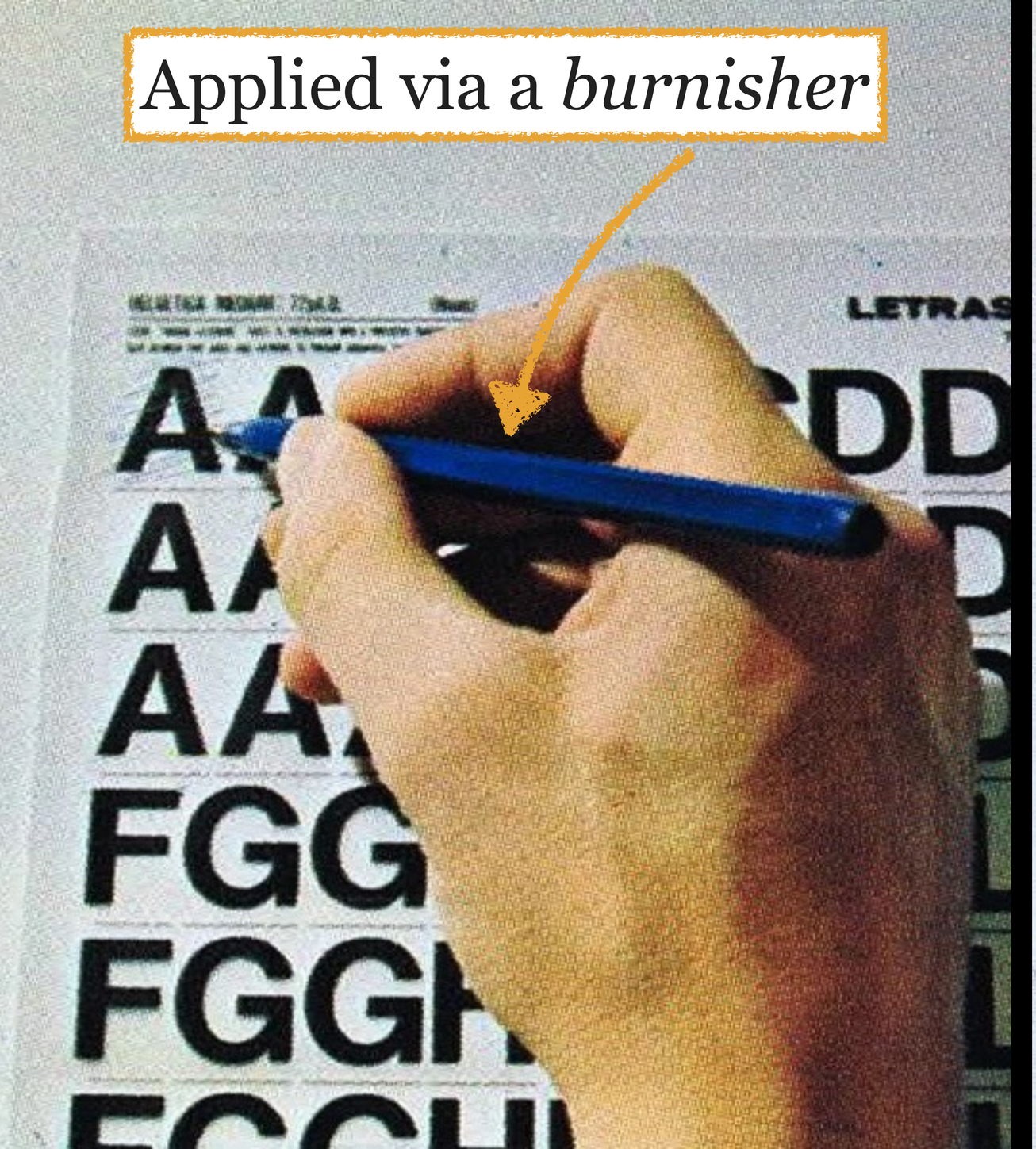
Fonts as metal movable type

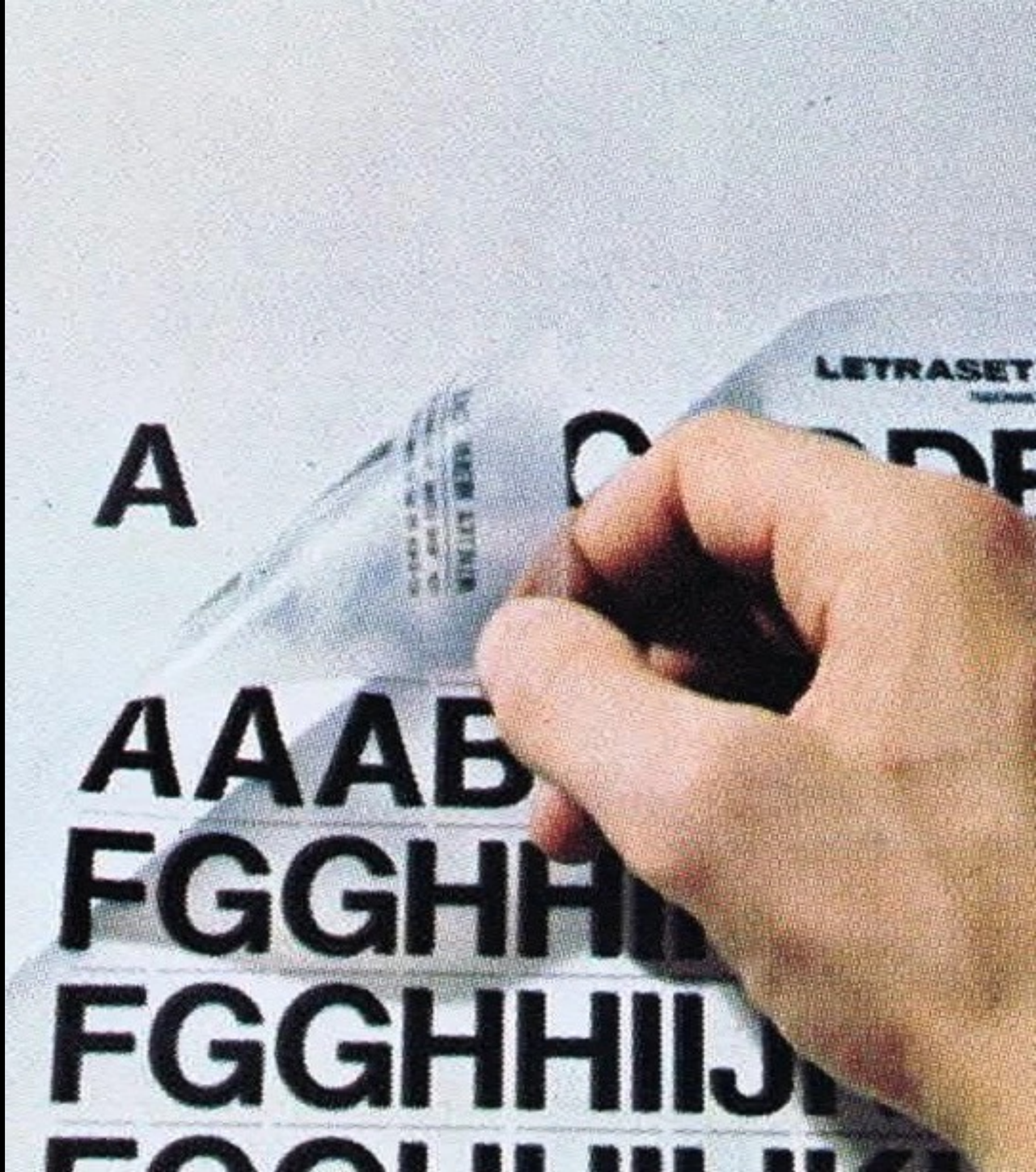


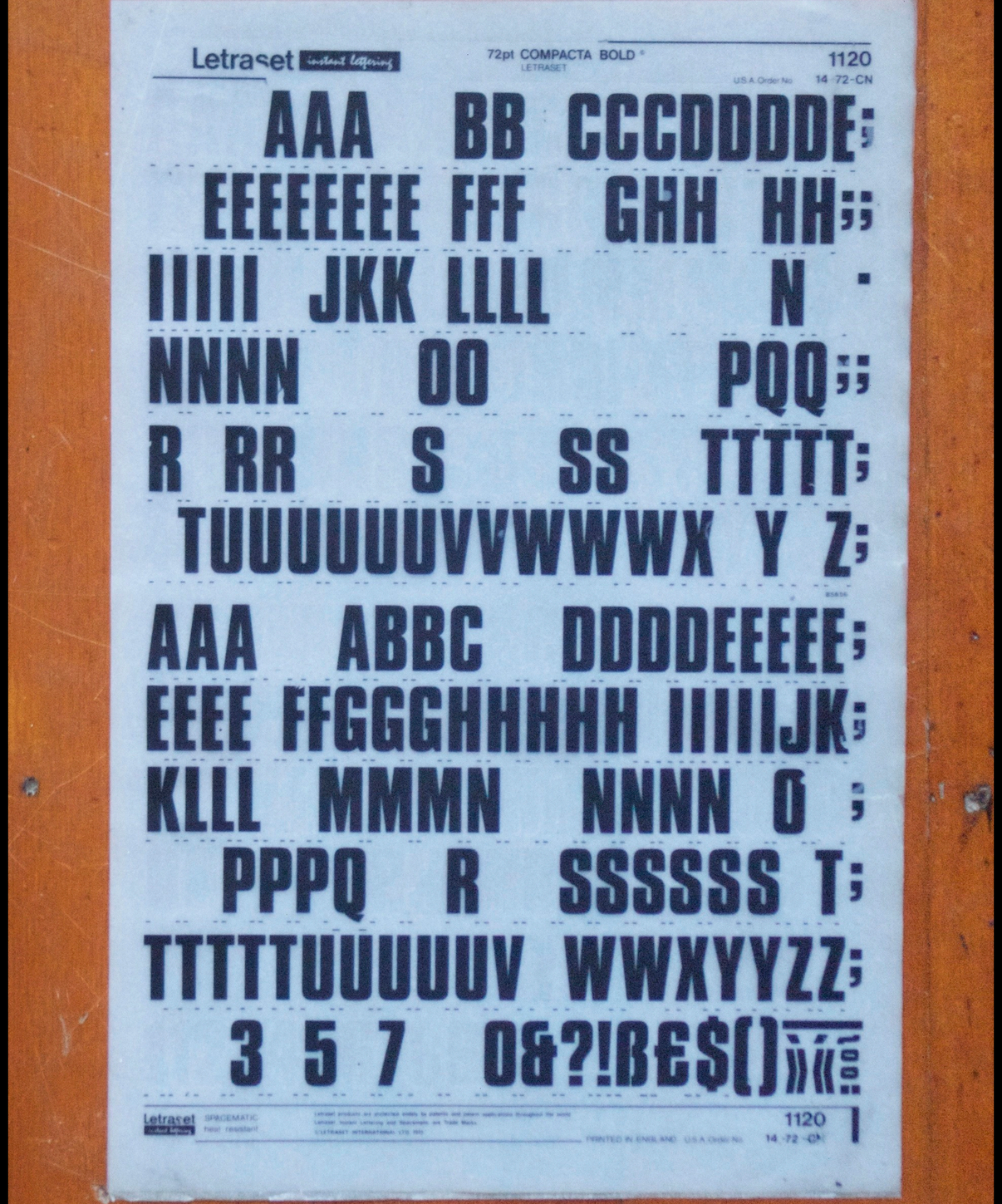
Letraset was a company that sold sheets of typefaces & symbols (fonts!) that were applied using *dry-transfer lettering*

1961–1990s

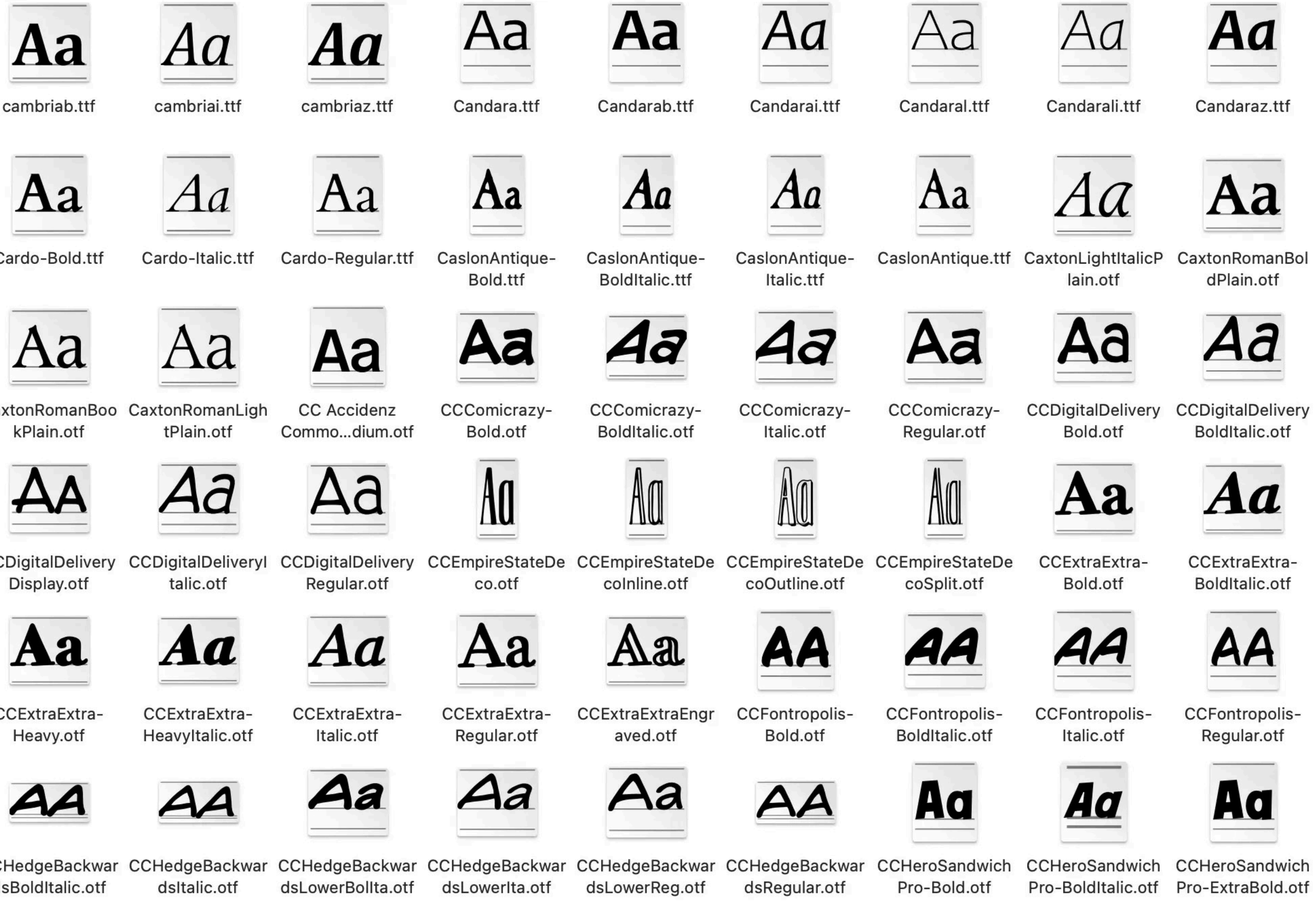
Applied via a *burnisher*



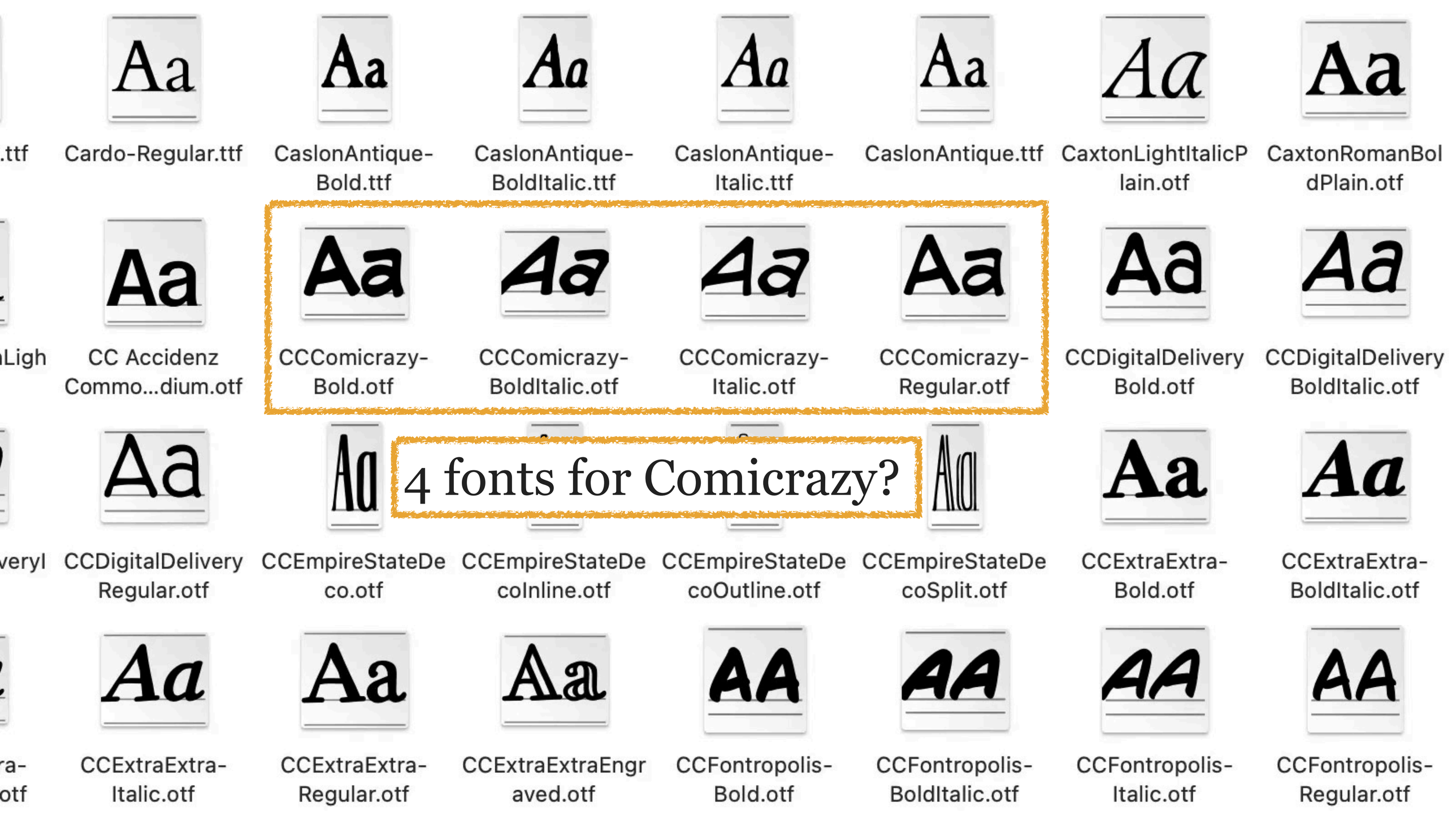




Over time, a sheet would have fewer & fewer characters on it



Some TTF & OTF font files on my Mac


.ttf
Cardo-Regular.ttf
CaslonAntique-Bold.ttf
CaslonAntique-BoldItalic.ttf
CaslonAntique-Italic.ttf
CaslonAntique.ttf
CaxtonLightItalicPlain.otf
CaxtonRomanBoldPlain.otf
nLigh
CC Accidenz Commo...dium.otf
CCComicrazy-Bold.otf
CCComicrazy-BoldItalic.otf
CCComicrazy-Italic.otf
CCComicrazy-Regular.otf
CCDigitalDelivery Bold.otf
CCDigitalDelivery BoldItalic.otf
veryI
CCDigitalDelivery Regular.otf
CCEmpireStateDeco.otf
CCEmpireStateDecoInline.otf
CCEmpireStateDecoOutline.otf
CCEmpireStateDecoSplit.otf
CCExtraExtra-Bold.otf
CCExtraExtra-BoldItalic.otf
ra-otf
CCExtraExtra-Italic.otf
CCExtraExtra-Regular.otf
CCExtraExtraEngraved.otf
CCFontropolis-Bold.otf
CCFontropolis-BoldItalic.otf
CCFontropolis-Italic.otf
CCFontropolis-Regular.otf
4 fonts for Comicrazy?

Weight: thickness of the strokes that make up the letters, numbers, etc. of the typeface (e.g., *light*, *normal*, *bold*, *black*)

Font Name	CSS Value	CSS Keyword
Thin	100	
Extra-light, Ultra-light	200	
Light	300	
Normal, Regular, Book	400	normal
Medium	500	
Semi-bold, Demi-bold	600	
Bold	700	bold
Extra-bold, Ultra-bold	800	
Black, Heavy	900	

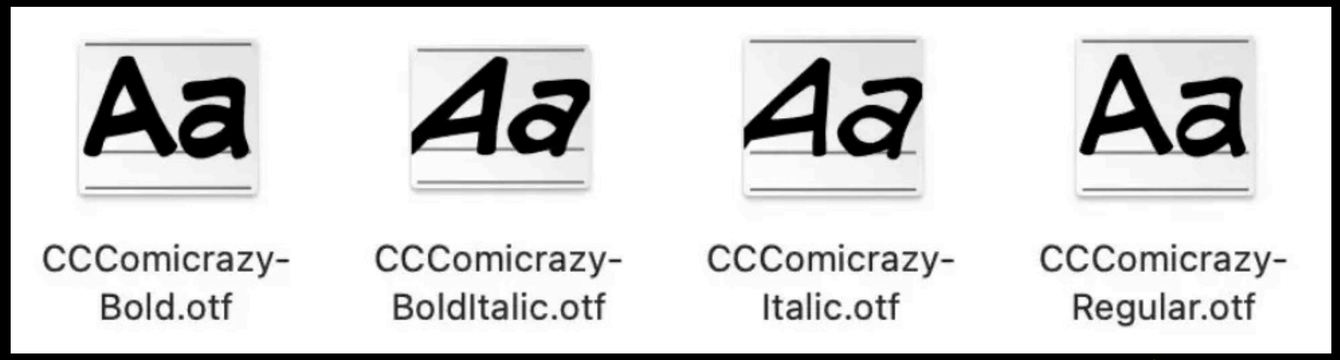
Style: distinct design variations within a typeface family (*italic*, *condensed*, etc.)

Italic characters are often very different
Italic characters are often very different

Condensed characters are narrower & taller
Condensed characters are narrower & taller
Condensed characters are narrower & taller

All examples use Georgia Pro, except for Oswald at the end

Comicrazy fonts & their meanings



400

400 Italic

700 Italic

700

Typefaces

A *typeface* (AKA *font family*) is a collection of fonts (composed of glyphs, which represent characters) that share common design features, including…

- weight
- style
- width
- slope or slant
- optical size
- stroke
- designer or foundry

SHROPSHIRE.

VALUABLE

FREEHOLD ESTATE,

BELONGING TO

The Coalbrookdale Company, Limited,

Situate in the PARISHES OF WELLINGTON and DAWLEY.

Messrs. BARBER & SON

Are honoured with instructions to Sell the above Valuable Property by Auction, at

THE TOWN HALL, WELLINGTON,

On WEDNESDAY, THURSDAY, & FRIDAY, OCTOBER 19th, 20th, & 21st, 1910,

At 2-30 p.m. punctually each day, subject to Conditions, in

232 LOTS.

The ESTATE is entirely FREEHOLD, and has an area of about

900 ACRES.

IT COMPRISES—

Several conveniently arranged FARMS,

Many different typefaces in this 1910 poster

Proxima Nova Thin & *Italic*

Proxima Nova Light & *Italic*

Proxima Nova Regular & *Italic*

Proxima Nova Medium & *Italic*

Proxima Nova Semibold & *Italic*

Proxima Nova Bold & *Italic*

Proxima Nova Extrabold & *Italic*

Proxima Nova Black & *Italic*

100 Proxima Nova Thin & *Italic*

300 Proxima Nova Light & *Italic*

400 Proxima Nova Regular & *Italic*

500 Proxima Nova Medium & *Italic*

600 Proxima Nova Semibold & *Italic*

700 **Proxima Nova Bold & *Italic***

800 **Proxima Nova Extrabold & *Italic***

900 **Proxima Nova Black & *Italic***

100 Proxima Nova Thin & *Italic*

300 Proxima Nova Light & *Italic*

400 Proxima Nova Regular & *Italic*

500 Proxima Nova Medium & *Italic*

600 Proxima Nova Semibold & *Italic*

700 Proxima Nova Bold & *Italic*

800 Proxima Nova Extrabold & *Italic*

900 Proxima Nova Black

200 Extra-Light? ☹️

Georgia Pro

20 fonts: $560.00

by Ascender

♥ Album ▼ Buying choices

buying choices from **$40.00**

About this font family

Originally designed in 1996 by Matthew Carter and hand-tuned for the screen by Tom Rickner. The Georgia typeface family received a major update in 2010 by Monotype, The Font Bureau and Matthew Carter. More...

See a typo? Edit the description!

Designers: Matthew Carter, Steve Matteson

Design date: 2010

Publisher: Ascender

Design owner: Font Bureau

MyFonts debut: May 7, 2012

More fonts like this

view all 273 fonts

Tags

public tags

capital sharp s
versal eszett

your public tags

(none)

your private tags

(none)

Tag it

Pangrams ▼ Enter your own text A A fit to width

Georgia Pro Light

$40.00 ♥ Album ▼ Buying choices

When we go back to Ju

Georgia Pro Light

$40.00 Album ▾ Buying choices

300

When we go back to Ju

Georgia Pro Light Italic

$40.00 Album ▾ Buying choices

Turgid saxophones ble

Georgia Pro

$40.00 Album ▾ Buying choices

400

Mix Zapf with Veljovic

Georgia Pro Italic

$40.00 Album ▾ Buying choices

Jaded zombies acted

Georgia Pro SemiBold

$40.00 Album ▾ Buying choices

600

Suez sailor vomits ja

Related albums

Johan's Album
A long read
serifs to use
Jane Louie Logo
BB
Georgia Pro for Gourmet
cambria
Logo
CCL Blog fonts
laura selis

No 100 Thin,
200 Extra-Light,
or 500 Medium

Georgia Pro SemiBold Italic

$40.00 Album ▾ Buying choices

Queen Elizabeth's pr

Georgia Pro Bold

$40.00 Album ▾ Buying choices

700

Viewing quizzical a

Georgia Pro Bold Italic

$40.00 Album ▾ Buying choices

Was there a quoru

Georgia Pro Black

$40.00 Album ▾ Buying choices

900

Alfredo just must

Georgia Pro Black Italic

$40.00 Album ▾ Buying choices

Would you please

No
800 Extra-Bold

Georgia Pro Condensed Light

$40.00 Album ▾ Buying choices

300

Murky haze enveloped a c

Georgia Pro Condensed

Georgia Pro Condensed Light Italic

$40.00 Album ▾ Buying choices

Astronaut Quincy B. Zac

Georgia Pro Condensed

$40.00 Album ▾ Buying choices

400

Fred specialized in the j

Georgia Pro Condensed Italic

$40.00 Album ▾ Buying choices

A large fawn jumped qu

Georgia Pro Condensed SemiBold

$40.00 Album ▾ Buying choices

600

Jeb quickly drove a few

Georgia Pro Condensed SemiBold Italic

$40.00 Album ▾ Buying choices

The quick brown fox j

Georgia Pro Condensed Bold

$40.00 Album ▾ Buying choices

700

Five big quacking zep

Georgia Pro Condensed Bold Italic

$40.00 Album ▾ Buying choices

Blowzy red vixens fi

Georgia Pro Condensed Black

$40.00 Album ▾ Buying choices

900

Jail zesty vixen who

Georgia Pro Condensed Black Italic

$40.00 Album ▾ Buying choices

Sexy diva Jennifer

Types

Serif, from Dutch *schreef*

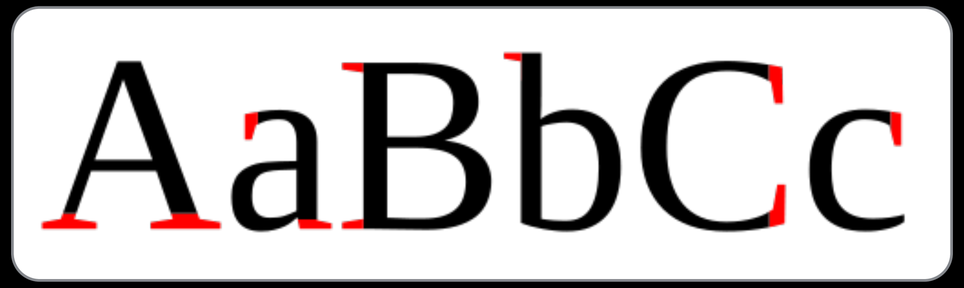
Sans-serif aka *grotesque*

`Monospace/Monospace`

Most basic types of fonts

Serif font

Serifs in red



Sans-serif font

Monospaced typefaces can be either serif (`01amT`) or sans-serif (`01amT`)

Often needed for presenting columns of numbers

Remember, `<pre>` uses a monospaced typeface by default (& is perfect for presenting columns of numbers)

Serif for headings

Sans-serif for body copy.
Ph’nglui mglw’nafh Cthulhu
R’lyeh wgah’nagl fhtagn!

Sans-serif for headings

Serif for body copy.
Ph’nglui mglw’nafh
Cthulhu R’lyeh wgah’nagl
fhtagn!

The simplest but still effective design trick for typography: contrasting basic types of fonts for headings & body copy

Measure

Measure

Length of a line of text

Measure should be pleasing to the eye & facilitate reading

Too short!

I developed a queer fear of seeing my own form, as if my eyes would find it something utterly alien and inconceivably abhorrent.

I developed a queer fear of seeing my own form, as if my eyes would find it s o m e t h i n g u t t e r l y a l i e n a n d inconceivably abhorrent.

Why justifying text is usually a very bad idea

Too long!

They did not call the condition true insanity, but classed it rather among neurotic disorders. My course in trying to track down and analyze it, instead of vainly seeking to dismiss or forget it, they heartily endorsed as correct according to the best psychological principles. I especially valued the advice of such physicians as had studied me during my possession by the other personality.

Ahhhh!

They did not call the condition true insanity, but classed it rather among neurotic disorders. My course in trying to track down and analyze it, instead of vainly seeking to dismiss or forget it, they heartily endorsed as correct according to the best psychological principles. I especially valued the advice of such physicians as had studied me during my possession by the other personality.

Shoot for between 40-80 characters, including spaces

~ 65 characters is ideal

This becomes more difficult with Responsive Web Design

Leading

Leading

Space between lines of type

Very important for readability

The longer the measure, the *more* leading is needed

The larger the font, the *less* leading is needed

Too small!

Leading of 0.9

There was, too, a feeling of profound and inexplicable horror concerning myself. I developed a queer fear of seeing my own form, as if my eyes would find it something utterly alien and inconceivably abhorrent.

Too much!

Leading of 1.7

There was, too, a feeling of profound and inexplicable horror concerning myself. I developed a queer fear of seeing my own form, as if my eyes would find it something utterly alien and inconceivably abhorrent.

Ahhhh!

Leading of 1.2

There was, too, a feeling of profound and inexplicable horror concerning myself. I developed a queer fear of seeing my own form, as if my eyes would find it something utterly alien and inconceivably abhorrent.

`line-height` CSS property sets leading

Default is `line-height: normal`

“Tells user agents to set the used value to a ‘reasonable’ value based on the font of the element. … We recommend a used value for `normal` between 1.0 to 1.2.” —W3C

“Desktop browsers (including Firefox) use a default value of roughly 1.2, depending on the element’s font-family.” —Mozilla Developer Network

Rough rule of thumb: using the `line-height` property, set leading between 1.3 to 1.5 times your font size

```
line-height: 1.4;
```

No units after the value!

Scale

Do not size text arbitrarily

Use a scale for your fonts

6 7 8 9 10 11 12 14

16 18 21 24 36 48 60 72

The Classical Scale, developed in the 16th century

The W3C provides a standard scale that is very usable & sane

<absolute-size>	Scaling Factor	Percent	HTML hx
xx-large	2/1	200%	<h1>
x-large	3/2	150%	<h2>
large	6/5	120%	<h3>
medium	1	100%	<h4> (& <p>)
small	8/9	89%	<h5>
x-small	3/4		
xx-small	3/5	60%	<h6>

```
body {font: 1em/1.3 "Lucida Grande";}
h1, h2, h3, h4, h5, h6 {font-family: Georgia;}
h1 {font-size: 200%;}
h2 {font-size: 150%;}
h3 {font-size: 120%;}
h4 {font-size: 100%;}
h5 {font-size: 89%;}
h6 {font-size: 60%;}
```

Heading Level 1 Lorem Ipsum

Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat.

Heading Level 2 Lorem Ipsum

Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat.

Heading Level 3 Lorem Ipsum

Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat.

Heading Level 4 Lorem Ipsum

Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat.

Heading Level 5 Lorem Ipsum

Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat.

Heading Level 6 Lorem Ipsum

Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat.

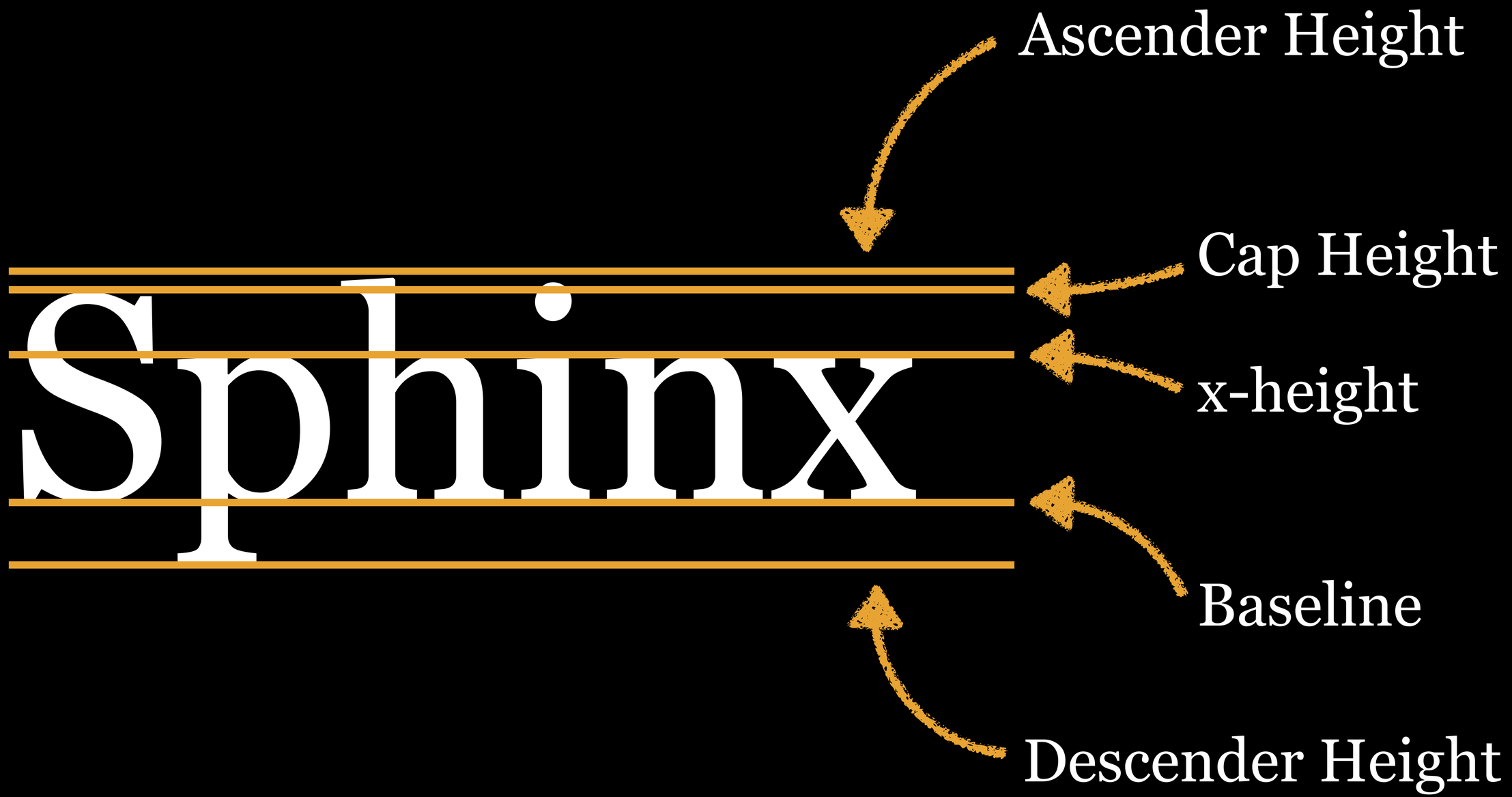
Terminology

Sphinx
Baseline

Sphinx
Baseline
Descender Height

Sphinx
x-height
Baseline
Descender Height

Sphinx
Cap Height
x-height
Baseline
Descender Height


Ascender Height
Cap Height
Sphinx
x-height
Baseline
Descender Height

Common Fonts & Defaults

Microsoft's Core Fonts for the Web

Provided by Microsoft royalty-free 1996–2002

Still legally available all over the Web & on all Macs

Andalé Mono • Arial • **Arial Black** • *Comic Sans MS* • Courier New • Georgia • **Impact** • Times New Roman • Trebuchet MS • Verdana • (Webdings)

Sans-serif fonts

Arial

Aa Ee Rr

Aa Ee Rr

a

Deliverable

abcdefghijklm
nopqrstuvwxyz
0123456789

Verdana

Aa Ee Rr

Aa Ee Rr

a

Sylvestris

abcdefghijklm
nopqrstuvwxyz
0123456789

Trebuchet

Aa Qq Rr

Aa Qq Rr

a

Portmanteau

abcdefghijklm
nopqrstuvwxyz
0123456789

Arial

Aa Ee Rr

Aa Ee Rr

a

Deliverable

abcdefghijklm
nopqrstuvwxyz
0123456789

"Arial is just an ugly bastard son of Helvetica." —King Sidharth

"I try to keep the litmus tests to a minimum, but this must be one: you cannot create good typography with Arial." —Matthew Butterick, typographer & author of *Butterick's Practical Typography*

Verdana

Aa Ee Rr

Aa Ee Rr

a

Sylvestris

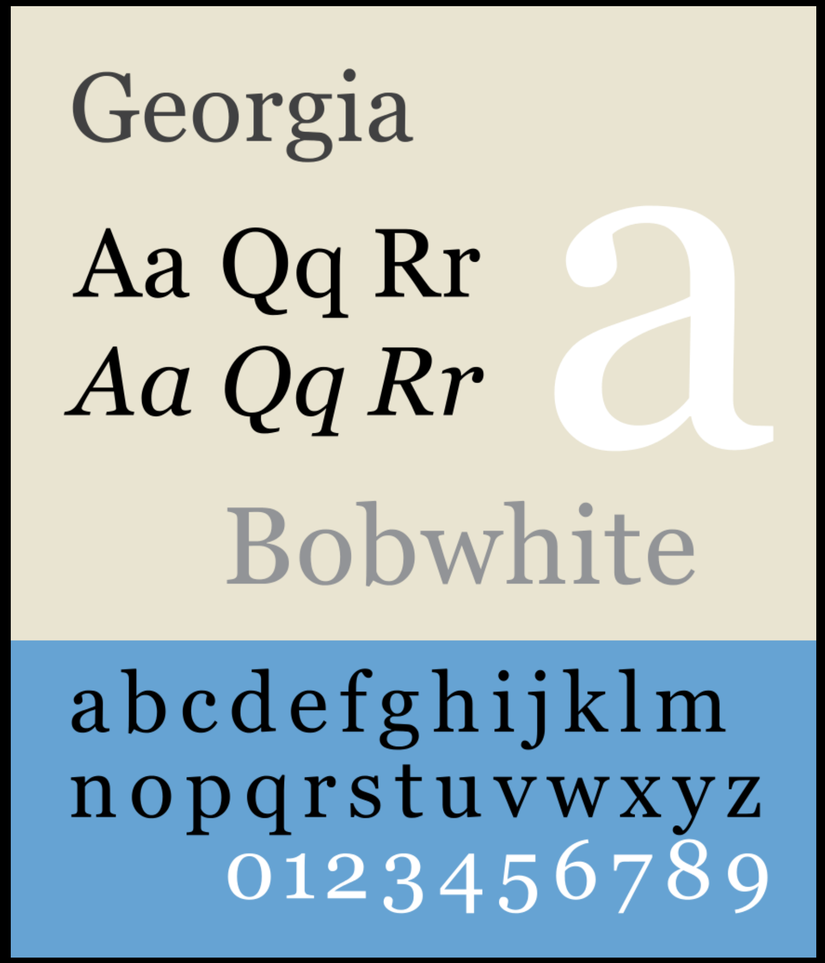
abcdefghijklm
nopqrstuvwxyz
0123456789

Verdana designed in 1993 by Matthew Carter as sans-serif companion to serif Georgia

Intended to be pleasing, clear, & legible even at small sizes

Serif fonts

Times New Roman
Aa Ee Rr
Aa Ee Rr
a
Publisher
abcdefghijklm
nopqrstuvwxyz
0123456789


Georgia
Aa Qq Rr
Aa Qq Rr
a
Bobwhite
abcdefghijklm
nopqrstuvwxyz
0123456789

Times New Roman

Aa Ee Rr

Aa Ee Rr

a

Publisher

abcdefghijklm
nopqrstuvwxyz
0123456789

“When Times New Roman appears in a book, document, or advertisement, it connotes apathy. It says, ‘I submitted to the font of least resistance.’ Times New Roman is not a font choice so much as the absence of a font choice, like the blackness of deep space is not a color. To look at Times New Roman is to gaze into the void.” —Matthew Butterick

Georgia

Aa Qq Rr

Aa Qq Rr

a

Bobwhite

a b c d e f g h i j k l m
n o p q r s t u v w x y z
0 1 2 3 4 5 6 7 8 9

Georgia designed in 1993 by Matthew Carter as serif companion to sans-serif Verdana, with name referring to a tabloid headline: “Alien heads found in Georgia”

Monospace

Andalé Mono

Aa Ee Qq
Rr Tt Zz

a

Calibrate

abcdefghijklm
nopqrstuvwxyz
0123456789

Courier New

Aa Ee Qq
Aa Ee Qq

a

Think.

abcdefghijklm
nopqrstuvwxyz
0123456789

Courier New

Aa Ee Qq

Aa Ee Qq

a

Think.

abcdefghijklm
nopqrstuvwxyz
0123456789

“The golden age of mono-spaced fonts was probably the 1950s, when IBM led the typewriter industry and released a series of great monospaced designs. One of these was Courier, de-signed by Howard Kettler. But the system font Courier New is a beastly imitation of the original: spindly, lumpy, and just plain ugly.”
—Matthew Butterick

ABCDEFGabcdefg012345: Courier

ABCDEFGabcdefg012345: Courier New

Comic Sans

Aa Bb Cc

Aa Bb Cc

a

Kidz Korner

a b c d e f g h i j k l m

n o p q r s t u v w x y z

0 1 2 3 4 5 6 7 8 9

Still included in Windows

Never use Comic Sans

DAVID KADAVY IS AUTHOR OF THE #18 AMAZON BEST-SELLER,
DESIGN FOR HACKERS

Follow @kadavy 14K followers

Why You Hate Comic Sans

JANUARY 25 2011 - 10:00AM

Everyone loves to hate Comic Sans. The child-like handwriting font is so infamous, there is a movement to try to ban it. Mention its name to the common layman (aside from a preschool teacher), and you will likely get a chuckle, mention it to a trained designer, and you'll get a look of disgust. But what exactly makes Comic Sans so horrible?

“childish and inappropriate … for most purposes”

“much-maligned” … “much-mocked and widely-reviled”

“the favored font of middle-school breakup letters everywhere”

“analogous to showing up for a black tie event in a clown costume”

“…probably the worst font ever to grace the computer screen. Normally a staple among six year old[s] and grandmothers”

“oh-so-mockable … Unless you’re a fourth-grader, or being ironic, or the author of a comic book, or on vacation from the 1990s, never use that typeface.”

Just imagine! 🤮

Real, yet inappropriate or wrong, uses of Comic Sans

PLATTEVILLE
EMERGENCY MEDICAL SERVICE
AMBULANCE
Supported By
& Serving
Townships of:
Elkgrove
Ellenboro
Lima
Smelser
Platteville
Belmont
Harrison
& the
City of Platteville
231

ELEGANT
Rs.99.00

ADULT PROBATION & PAROLE

Sex Offender Registration Office

Offices are open 8:00 a.m. - 5:00 p.m.
unless otherwise noted.

South Salt Lake P.D.
2835 S. Main St.
South Salt Lake, Utah 84115

West Jordan P.D.
8000 S. Redwood Rd.
West Jordan, Utah 84088

SURREY
POLICE
With you, making
Surrey safer

IF YOU HAVE BEEN THE SUBJECT OF A RAPE OR SERIOUS SEXUAL ASSAULT AND WOULD LIKE TO MAKE A DECISION ABOUT WHAT YOU CAN DO

We accept most major health plans like our other pharmacy locations. Also, if you are a [redacted] employee or retiree and have Hea[redacted]t, B[redacted]s, or C[redacted]a insurance for yourself and your immediate family, you may obtain a 90-day supply of **most** prescriptions for the price of 2 copays.

Please notify your prescriber if you would like to pick up your medications here at our "Internal [redacted] Pharmacy." We look forward to serving you.

THE LAW OFFICES OF DONALD E. GREEN

"Serious Injuries Require Serious Attorneys"

With 30 years experience, we concentrate in Personal Injury Matters,
Wrongful Death, Medical and Dental Malpractice, Pharmaceutical Negligence,
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Call Attorney Don or Attorney Annette Green 617-442-0050 or Toll Free 877- DON-GREEN,
dgreen@donaldegreen.com, agreen@donaldegreen.com or visit us at www.donaldegreen.com

Conveniently located in Boston, on the South Shore and in Dudley Square

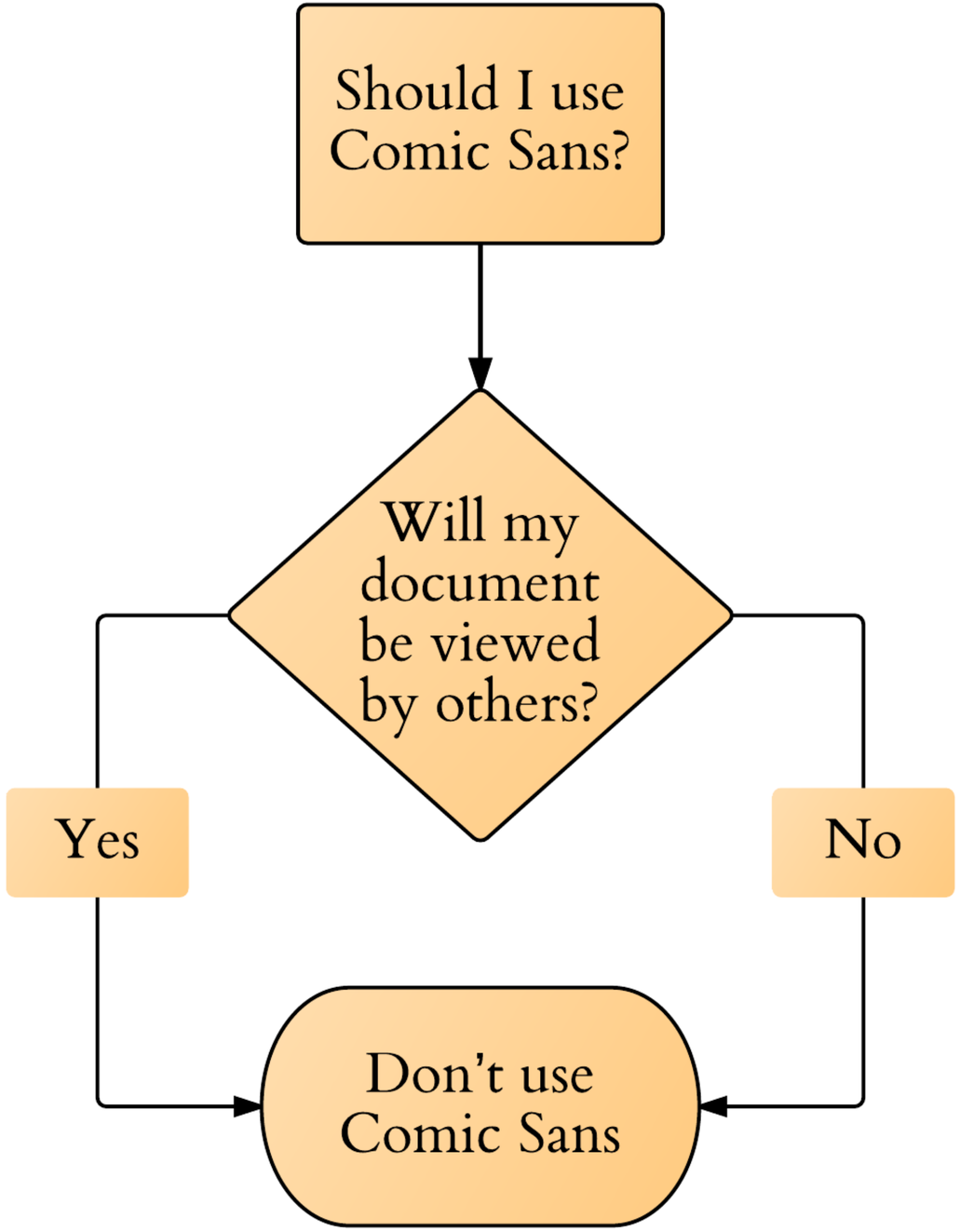
* 2235 Washington St., Roxbury (walk-ins welcome)
* Braintree (by appointment only)
* Boston (by appointment only)

Don Green

We provide home and Hospital visits
Weekend and Evening Appointments are also Available
For all your legal needs, call the Law Offices of Donald E. Green
We speak Spanish, Portuguese, Haitian Creole, Chinese and Cape Verdean

Annette Hill Green

ANTIQUES
Keep Portland Independent!
Buy Local.
Judy Pascal


Should I use Comic Sans?
Will my document be viewed by others?
Yes
No
Don't use Comic Sans

Filters

Comic sans alternative Fonts

Related | Heading | Casual | Playful | Decorative | Comic | Kids | Brush | Rounded | Retro | Casual Script | Handwritten | Comic Fonts | Comic Text

Type your own text | 48px | Reset | Images | Relevance

Comic Mode 19 styles · By 38-lineart

From $24.00 USD Get this font →

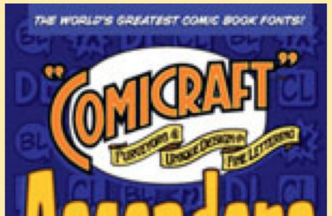
The quick brown fox jumps over the laz...

THE QUICK BROWN FOX JUMPS ...
The quick brown fox jumps over the l...
The quick brown fox jumps over ...
The quick brown fox jumps over the laz...

THE WORLD'S GREATEST COMIC BOOK FONTS!

SINCE 1995

HEY, KIDS! NEW FONTS!



Most Popular

Every one's a winner but some fonts get heavier leading than others... here are our top-selling, high kerning fonts this past month...

Sort By: Title | Search Within | GO

20 per page | Page 1 of 1

Compare

Battle Cry

Price: $39.00

Compare

Chills

Price: $29.00

Compare

Excalibur Sword

Price: $59.00

Compare

NEW! Hero Sandwich Combos

Price: $49.00

Compare

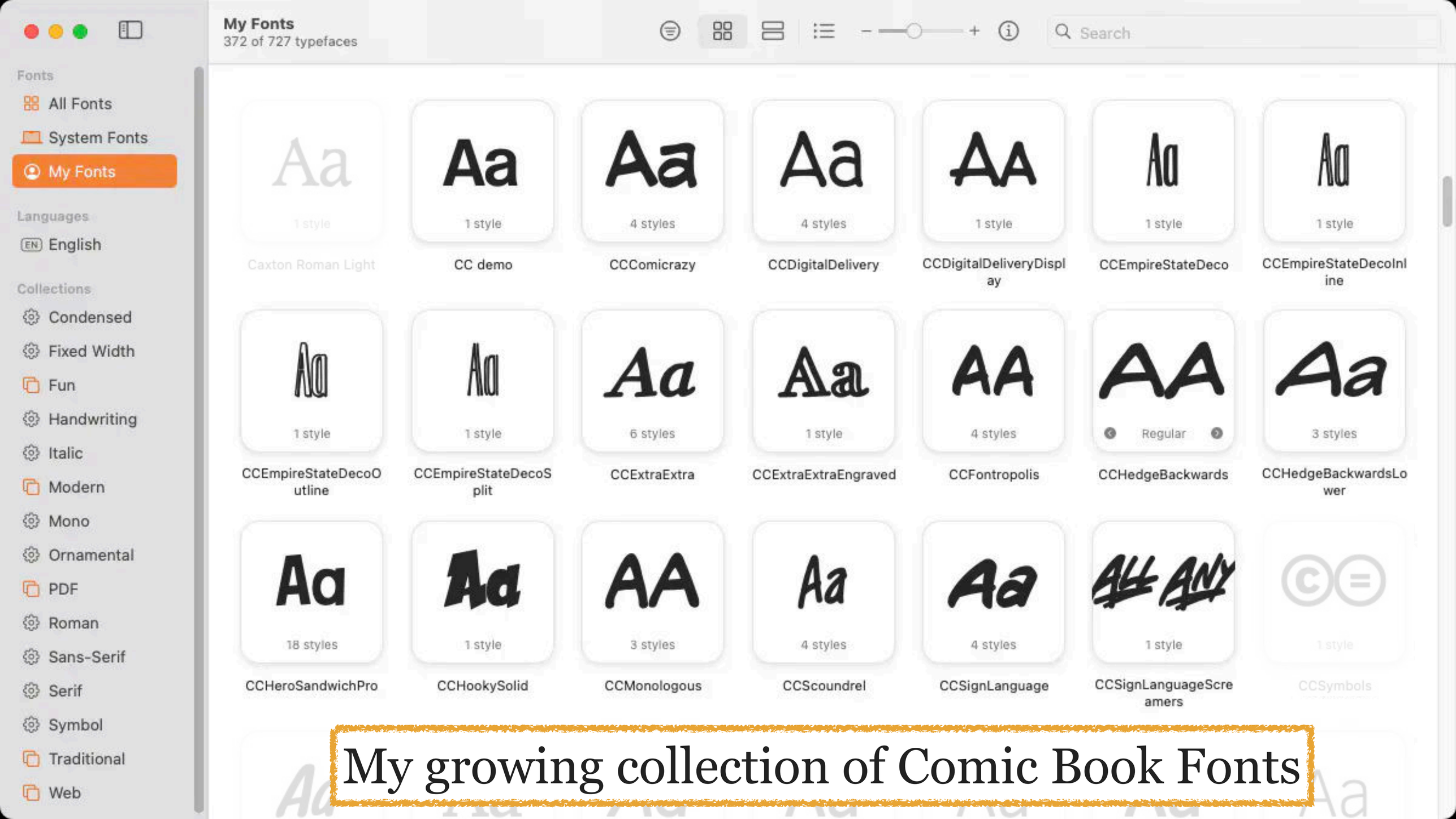
Mild Mannered

Price: $129.00

On January 1 every year, most fonts at Comic Book Fonts are priced to match the year

2023 → $20.23
2024 → $20.24
…

Set an alarm!


My Fonts
372 of 727 typefaces
Search
Fonts
All Fonts
System Fonts
My Fonts
Languages
English
Collections
Condensed
Fixed Width
Fun
Handwriting
Italic
Modern
Mono
Ornamental
PDF
Roman
Sans-Serif
Serif
Symbol
Traditional
Web
Caxton Roman Light
CC demo
CCComicrazy
CCDigitalDelivery
CCDigitalDeliveryDisplay
CCEmpireStateDeco
CCEmpireStateDecoInline
CCEmpireStateDecoOutline
CCEmpireStateDecoSplit
CCExtraExtra
CCExtraExtraEngraved
CCFontropolis
CCHedgeBackwards
CCHedgeBackwardsLower
CCHeroSandwichPro
CCHookySolid
CCMonologous
CCScoundrel
CCSignLanguage
CCSignLanguageScreamers
CCSymbols
My growing collection of Comic Book Fonts

$20.25 is a *great* price for a nice font

Some fonts, though, are a *lot* more expensive

Ruse 060 (Single user license, OpenType) 782.00 USD

OpenType format; for Macintosh and Windows

Add to cart

Ruse 070 (Single user license, OpenType) 782.00 USD

OpenType format; for Macintosh and Windows

Add to cart

Ruse 080 (Single user license, OpenType) 782.00 USD

OpenType format; for Macintosh and Windows

Add to cart

Ruse 090 (Single user license, OpenType) 782.00 USD

OpenType format; for Macintosh and Windows

Add to cart

Ruse 100 (Single user license, OpenType) 782.00 USD

OpenType format; for Macintosh and Windows

Add to cart

Ruse family bundle (Single user license, OpenType) 4,528.00 USD

OpenType format; for Macintosh and Windows

Add to cart

Lexicon No.1 Roman F (Single user license, OpenType) 391.00 USD

OpenType format; for Macintosh and Windows

Add to cart

Lexicon No.2 ADF bundle (Single user license, OpenType) 1,874.00 USD

OpenType format; for Macintosh and Windows

Add to cart

Lexicon No.2 Italic A (Single user license, OpenType) 391.00 USD

OpenType format; for Macintosh and Windows

Add to cart

Lexicon complete family bundle (Single user license, OpenType) 4,996.00 USD

OpenType format; for Macintosh and Windows

Add to cart

Lexicon No.1 Italic F (Single user license, OpenType) 391.00 USD

OpenType format; for Macintosh and Windows

Add to cart

Lexicon No.1 Roman A (Single user license, OpenType) 391.00 USD

OpenType format; for Macintosh and Windows

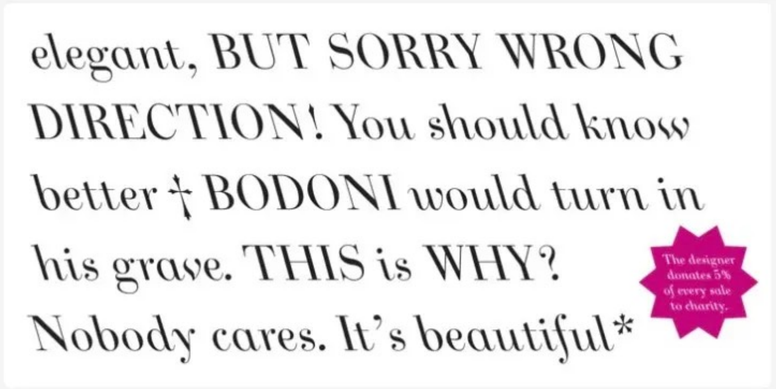
Add to cart

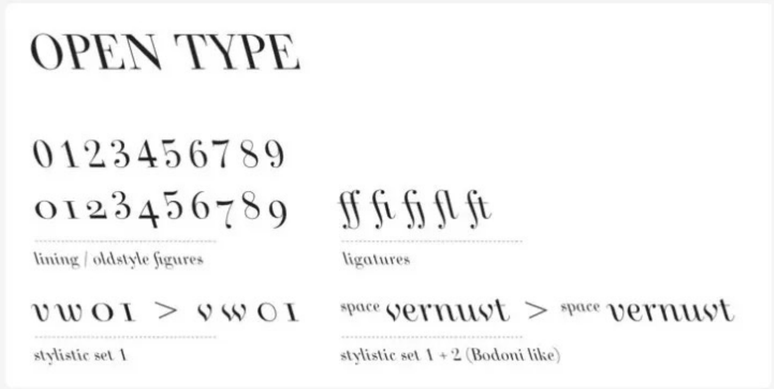
Lexicon No.1 Roman B (Single user license, OpenType) 391.00 USD

JHA Bodoni Ritalic

Individual Styles from $5,000.00

JHA Bodoni Ritalic by JHA





JHA Bodoni Ritalic Font Family was published by JHA. JHA Bodoni Ritalic contains 1 styles. More about this family

Aa GLYPHS | Individual Styles | Tech Specs | Licensing

Add to Album

Enter your own text

A — A

Reset

Licensing Options

Webfonts

JHA Bodoni Ritalic

Individual Styles from $5,000.00

JHA Bodoni Ritalic by JHA

elegant, BUT SORRY WRONG DIRECTION! You should know better † BODONI would turn in his grave. THIS is WHY? Nobody cares. It's beautiful*

The designer donates 5% of every sale to charity.

OPEN TYPE

0123456789
0123456789
lining / oldstyle figures

ff fi fj fl ft
ligatures

vwo1 > vwo1
stylistic set 1

space vernust > space vernust
stylistic set 1 + 2 (Bodoni like)

JHA Bodoni Ritalic Font Family was published by JHA. JHA Bodoni Ritalic contains 1 styles. More about this family

Aa GLYPHS

Individual Styl

Why would an organization spend $5,000 (or even more) for a font?!

Add to Album

Enter your own text

A A

ff

Reset

Licensing Options

Webfonts

✏️ SIDE NOTE

As of Windows 10, you can download & install good (or at least decent) full-featured font families for free

- Arial Nova (12 weights & styles)
- Georgia Pro (20!)
- Gill Sans Nova (16)
- Neue Haas Grotesk Text Pro (6)
- **Rockwell Nova** (14)
- Verdana Pro (20!)

✏️ SIDE NOTE

Look in the Microsoft Store for the fonts & install them (links in the Notes)

✏️ SIDE NOTE

Or…

Start > Settings > Apps > Apps & features > Manage optional features

Select *Pan-European Supplemental Fonts*

Microsoft ClearType Font Collection

Introduced in 2007 with:

» Windows Vista
» Office 2007 for Windows
» Office 2008 for macOS

Calibri • Cambria • Candara • Consolas • Constantia • Corbel • (Cariadings)

Calibri

Aa Ee Gg

Aa Ee Gg

a

Eiganes

a b c d e f g h i j k l m
n o p q r s t u v w x y z
0 1 2 3 4 5 6 7 8 9

Calibri
ABCDEFGHIJKLM
NOPQRSTUVWXYZ
abcdefghijklm
nopqrstuvwxyz
0123456789
!@#$%^&*()+-=?/
<>;:“”‘’|

Calibri

Aa Ee Gg

Aa Ee Gg

Eiganes

a b c d e f g h i j k l m
n o p q r s t u v w x y z
0 1 2 3 4 5 6 7 8 9

Default body typeface in Word, Excel, PowerPoint, & Outlook since Office 2007

Cambria

Aa Ee Rr

Aa Ee Rr

a

Doppelgänger

a b c d e f g h i j k l m
n o p q r s t u v w x y z
0123456789

Cambria
ABCDEFGHIJKLM
NOPQRSTUVWXYZ
abcdefghijklm
nopqrstuvwxyz
0123456789
!@#$%^&*()+-=?/
<>;:“”‘’|

Cambria

Aa Ee Rr

Aa Ee Rr

a

Doppelgänger

a b c d e f g h i j k l m
n o p q r s t u v w x y z

0123456789

Default heading typeface in Word, Excel, PowerPoint, & Outlook since Office 2007

Consolas

Aa Kk Jj

Aa Kk Jj

Registration

abcdefghijklm
nopqrstuvwxyz
0123456789

Consolas
ABCDEFGHIJKLM
NOPQRSTUVWXYZ
abcdefghijklm
nopqrstuvwxyz
0123456789
!@#$%^&*()+-
=?/<>;:“”‘’|

Consolas

Aa Kk Jj

Aa Kk Jj

Registration

abcdefghijklm
nopqrstuvwxyz

0123456789

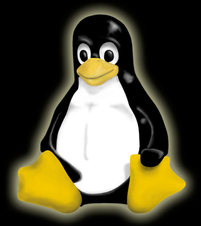
Monospaced font
that’s popular with
some developers

O0
Il1
,.;:

Web Browser Defaults

OS	Browser	Sans-Serif	Serif	Monospace
		Arial	Times New Roman Batang*	Courier New
		Arial	Times New Roman	Consolas

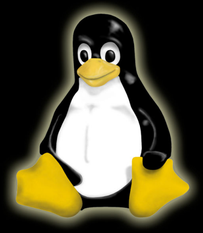
* IE 9 & 10; 11 switches back to Times New Roman

OS	Browser	Sans-Serif	Serif	Monospace
		Arial	Times New Roman	Courier New
		Helvetica	Times	Courier
		sans-serif	serif	monospace

* IE 9 & 10; 11 switches back to Times New Roman

OS	Browser	Sans-Serif	Standard	Fixed-Width
		Helvetica San Francisco	Times	`Courier`

Since Safari 6, user stylesheets are the *only* way for users to change defaults

OS	Browser	Sans-Serif	Serif	Mono
		Arial	Times New Roman	Courier New Consolas*
		Helvetica	Times	Courier
		sans	serif	monospace

* Windows 7 & up

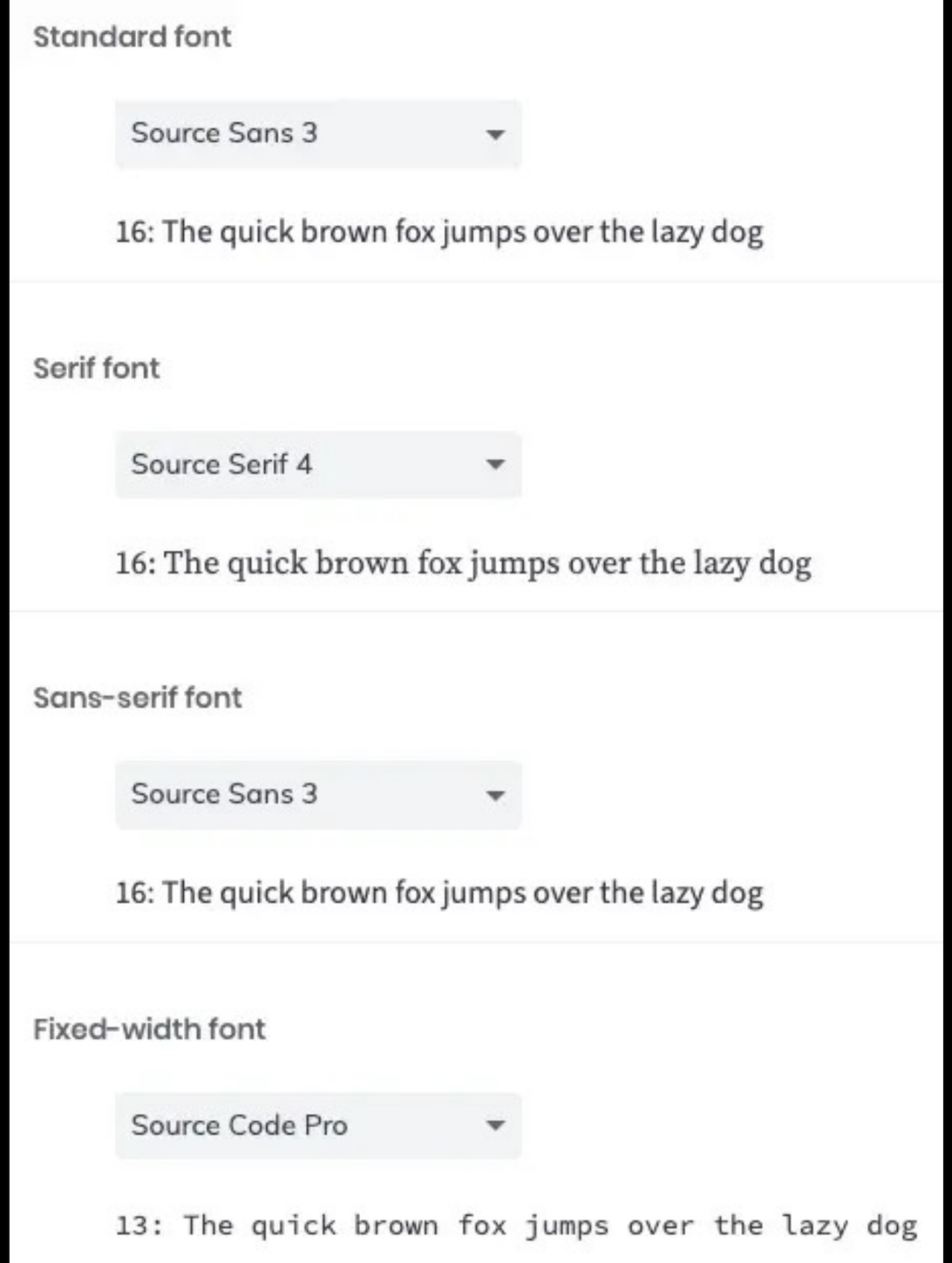
Other browsers based on Chromium share the same typeface defaults, e.g.:

- Brave
- Edge
- Opera
- Vivaldi

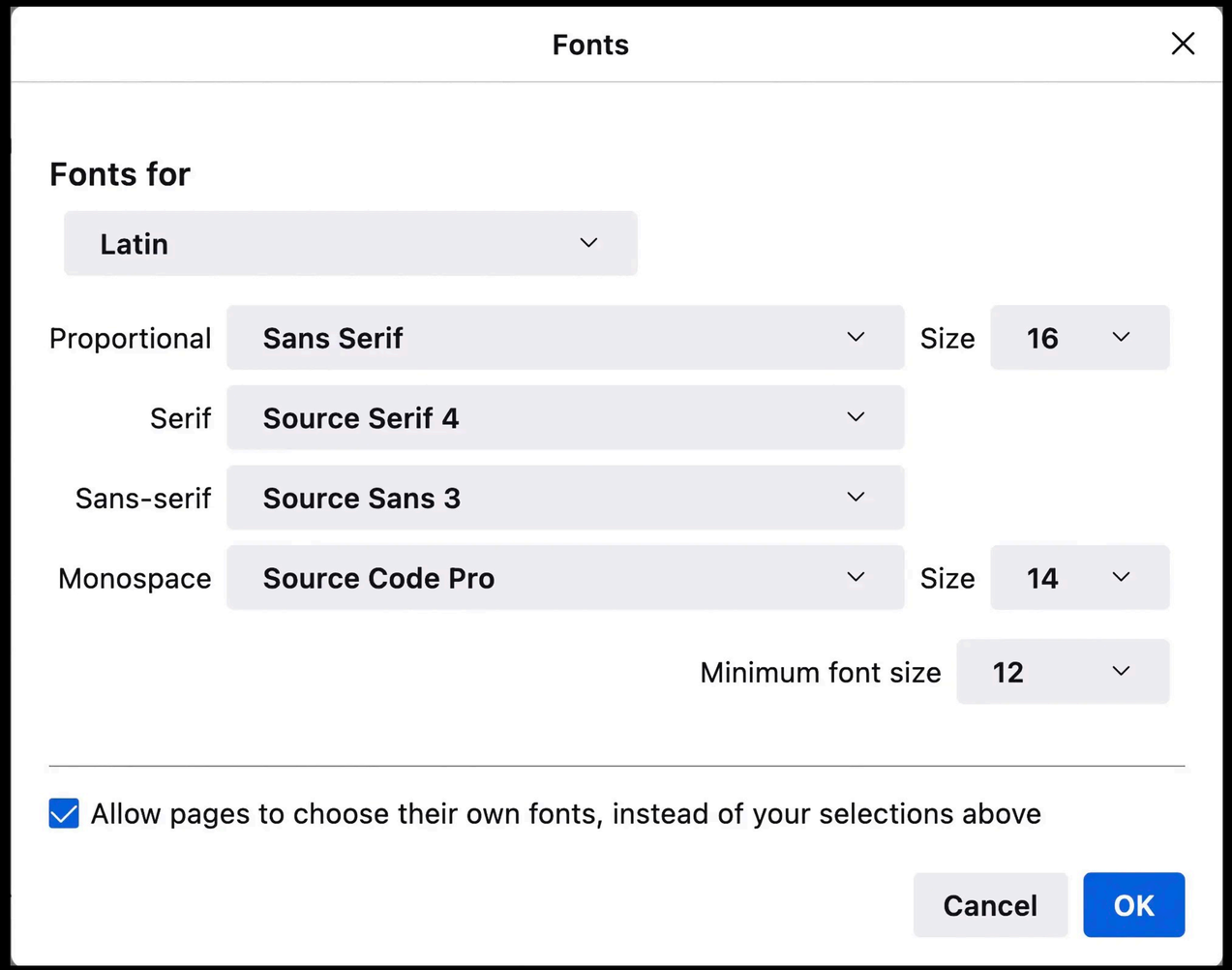
OS	Browser	Sans-Serif	Serif	Mono
iOS		Helvetica (1–8) San Francisco (9+)	Times	Courier
		Droid Sans	Droid Serif	Droid Sans Mono

Sans-serif	Serif	Monospace
Source Sans	Source Serif	`Source Code Pro`
Avenir Next	Georgia Pro	`Courier`
`system-ui` SF Pro Text	New York	`SF Mono`

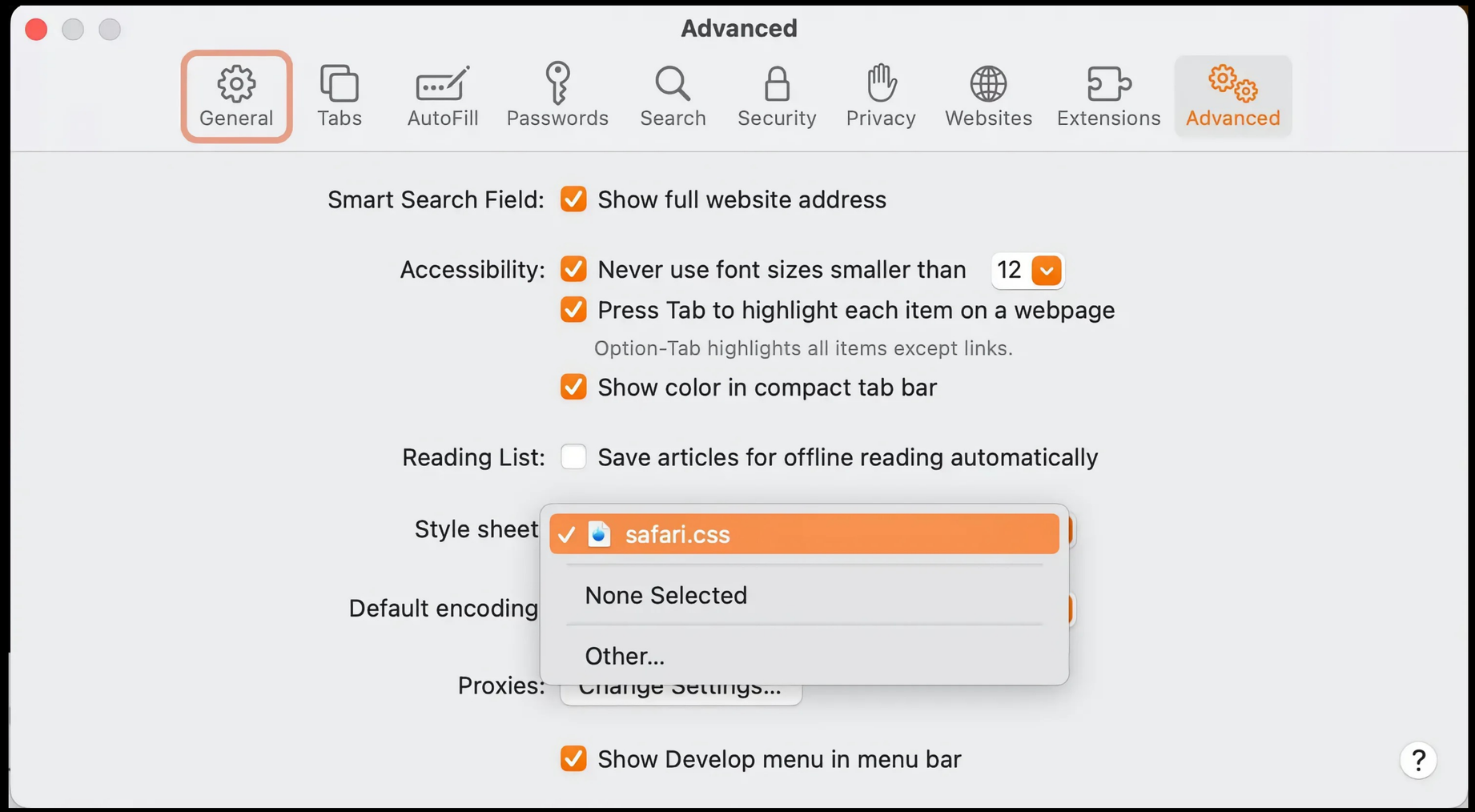
My web browser defaults at various times



Chromium-based browsers (e.g., Chrome, Brave, Vivaldi): Settings > Appearance > Customize Fonts...



Firefox: Preferences > General > Fonts > Advanced...



Safari: Preferences > Advanced > Style Sheet

Pre-Chromium Edge: *No way* to set your own default fonts!

Pre-Chromium Edge: *No way* to set your own default fonts!

Installing Fonts

The following example uses fonts downloaded from Google Fonts, but the methods apply to any fonts

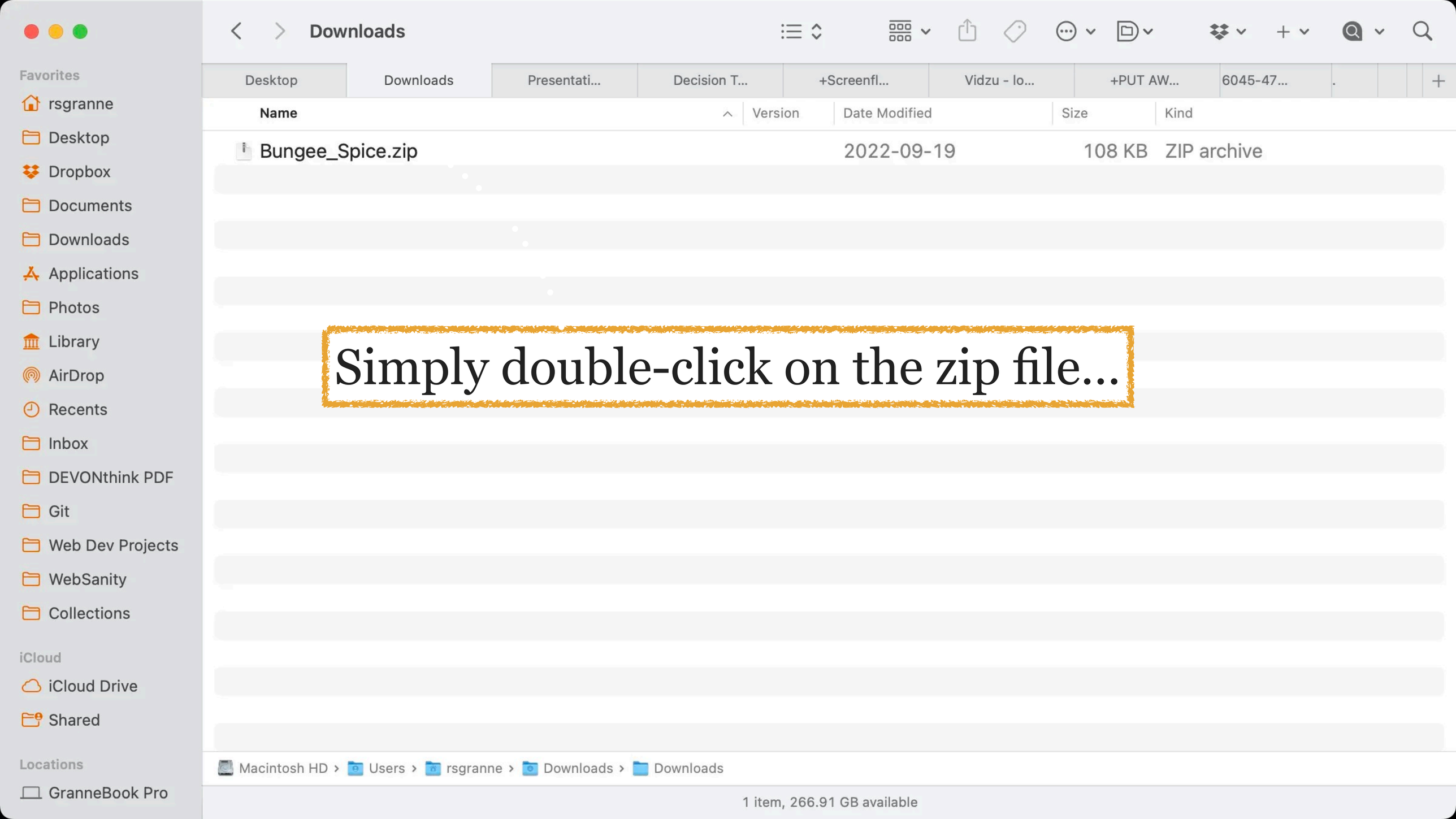
Bungee Spice

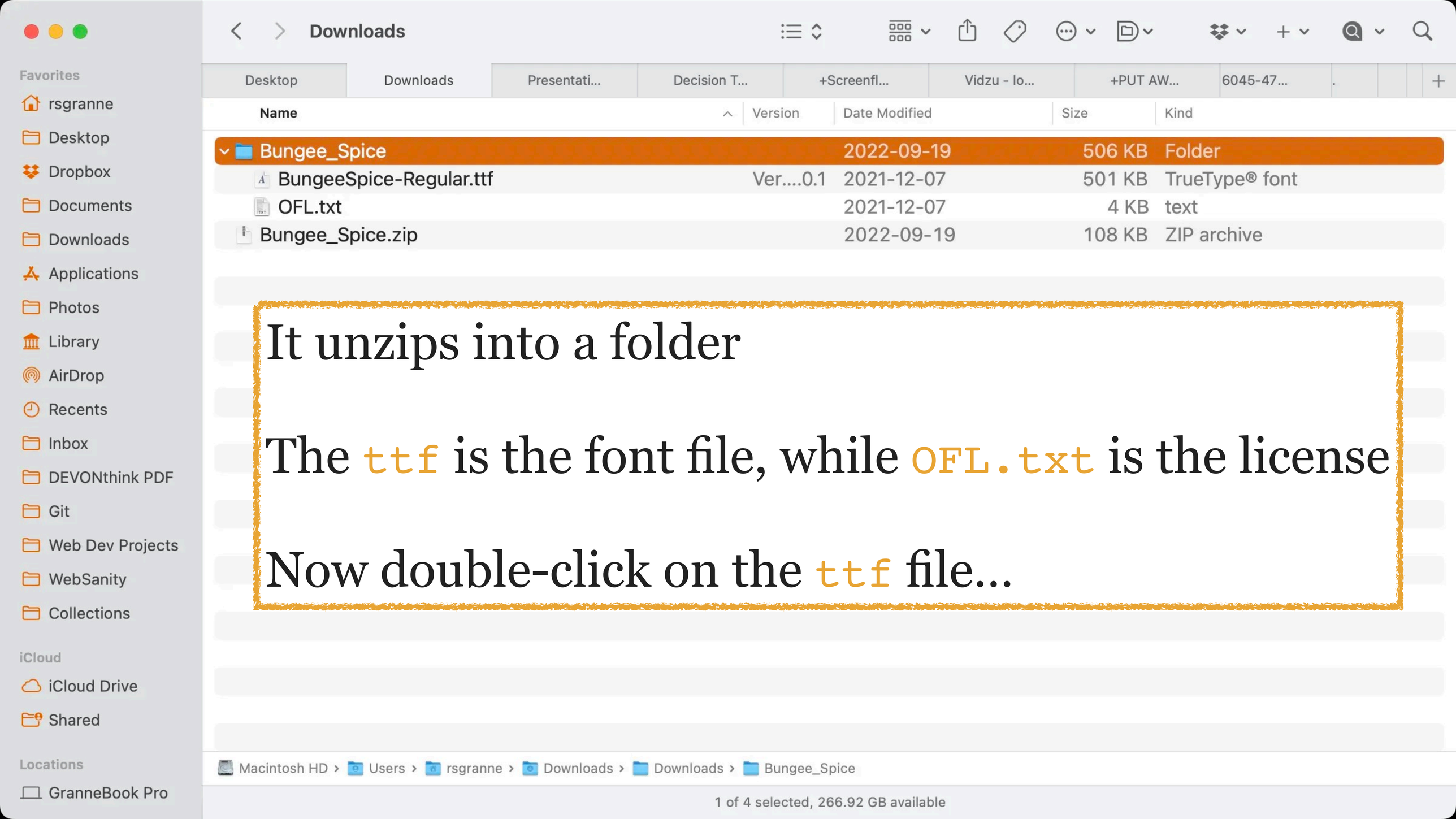
Designed by David Jonathan Ross

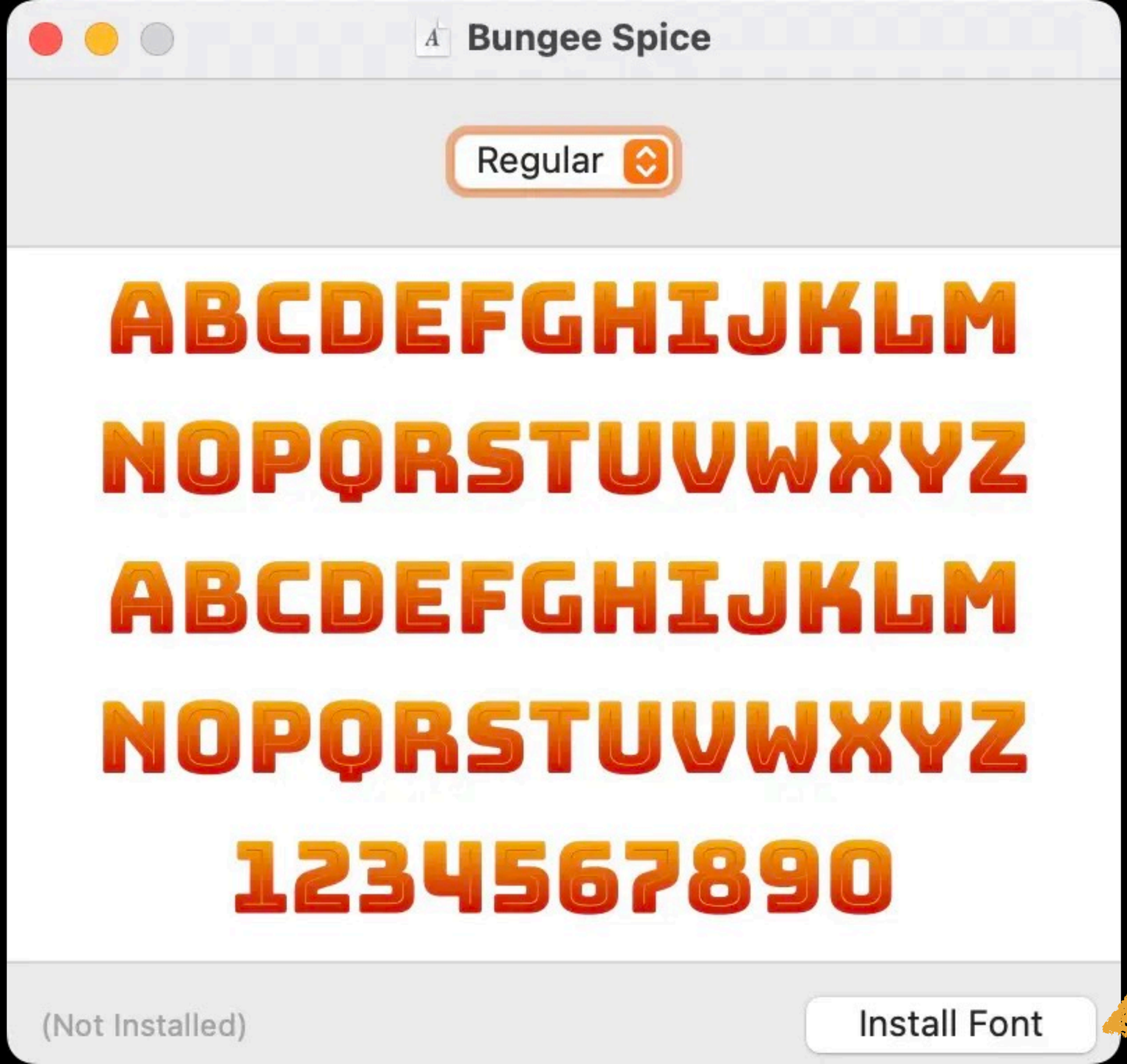
Bungee Spice

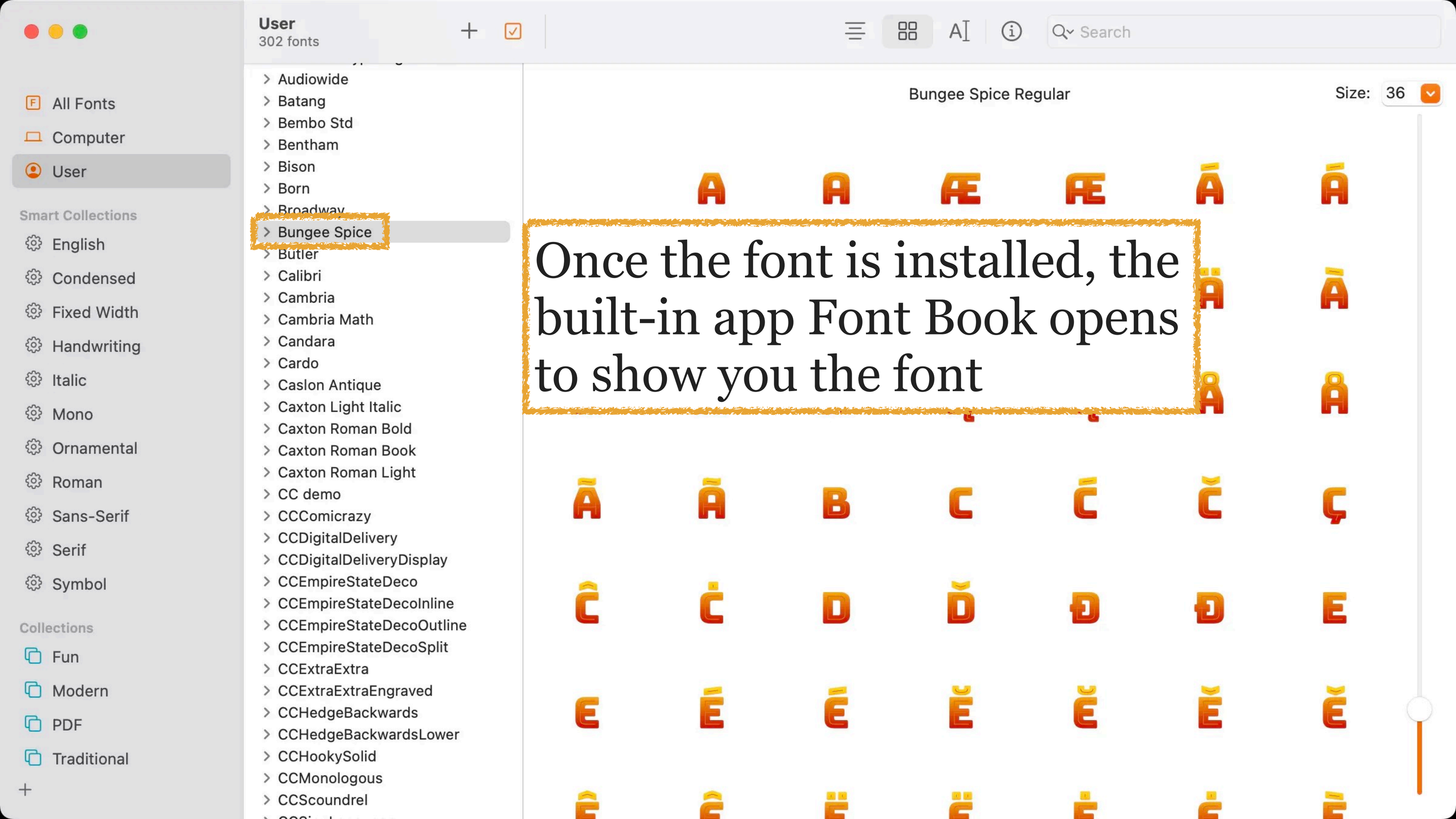
Designed by David Jonathan Ross

KU AYANA TIMBANGAN
YEN NGALELEWODEHKEUN
KATUT NGANGGAP ENTENG

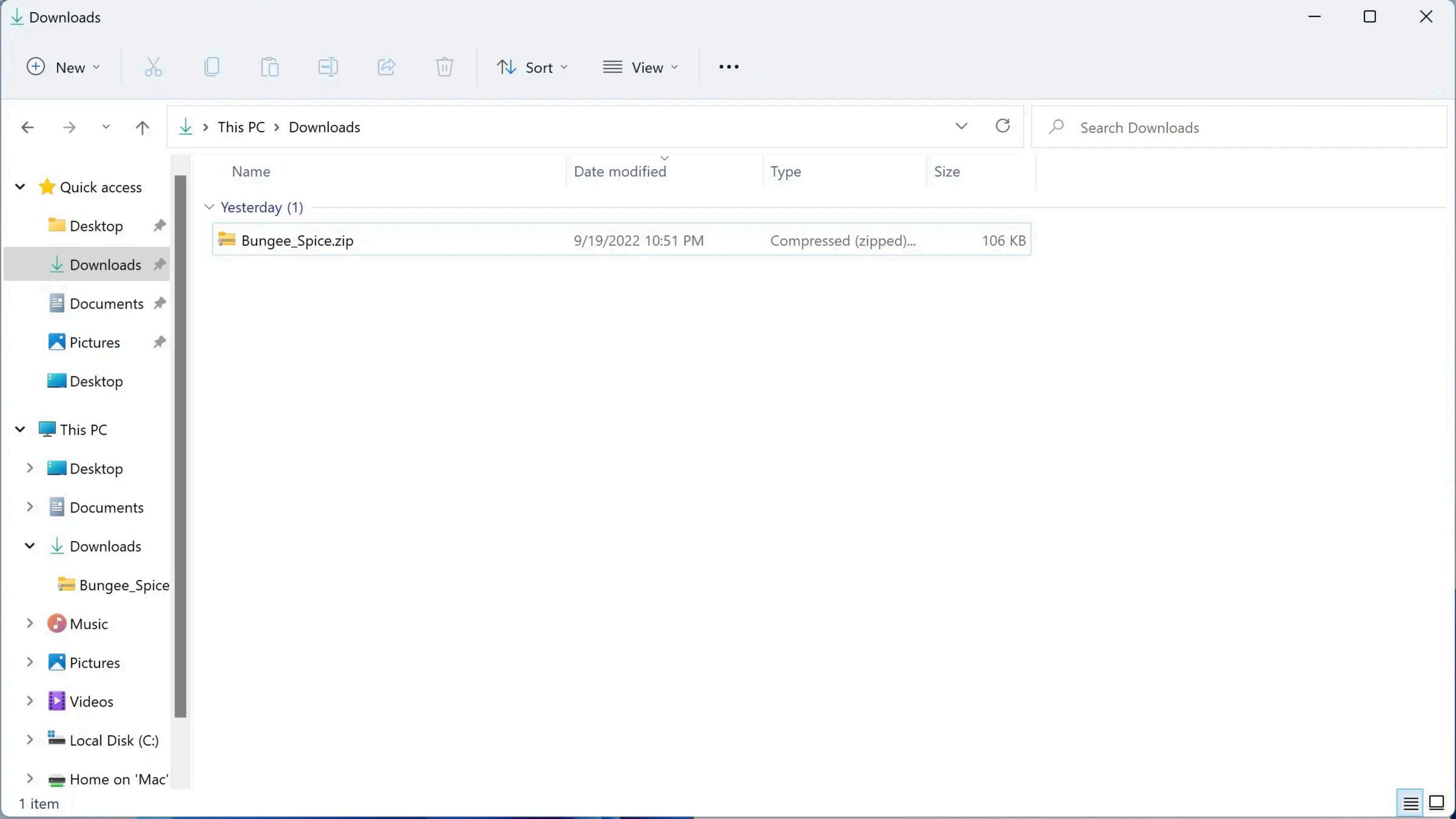

Downloads
Favorites
rsgranne
Desktop
Dropbox
Documents
Downloads
Applications
Photos
Library
AirDrop
Recents
Inbox
DEVONthink PDF
Git
Web Dev Projects
WebSanity
Collections
iCloud
iCloud Drive
Shared
Locations
GranneBook Pro
Desktop
Downloads
Presentati...
Decision T...
+Screenfl...
Vidzu - lo...
+PUT AW...
6045-47...
Name
Version
Date Modified
Size
Kind
Bungee_Spice.zip
2022-09-19
108 KB
ZIP archive
Simply double-click on the zip file...
Macintosh HD › Users › rsgranne › Downloads › Downloads
1 item, 266.91 GB available

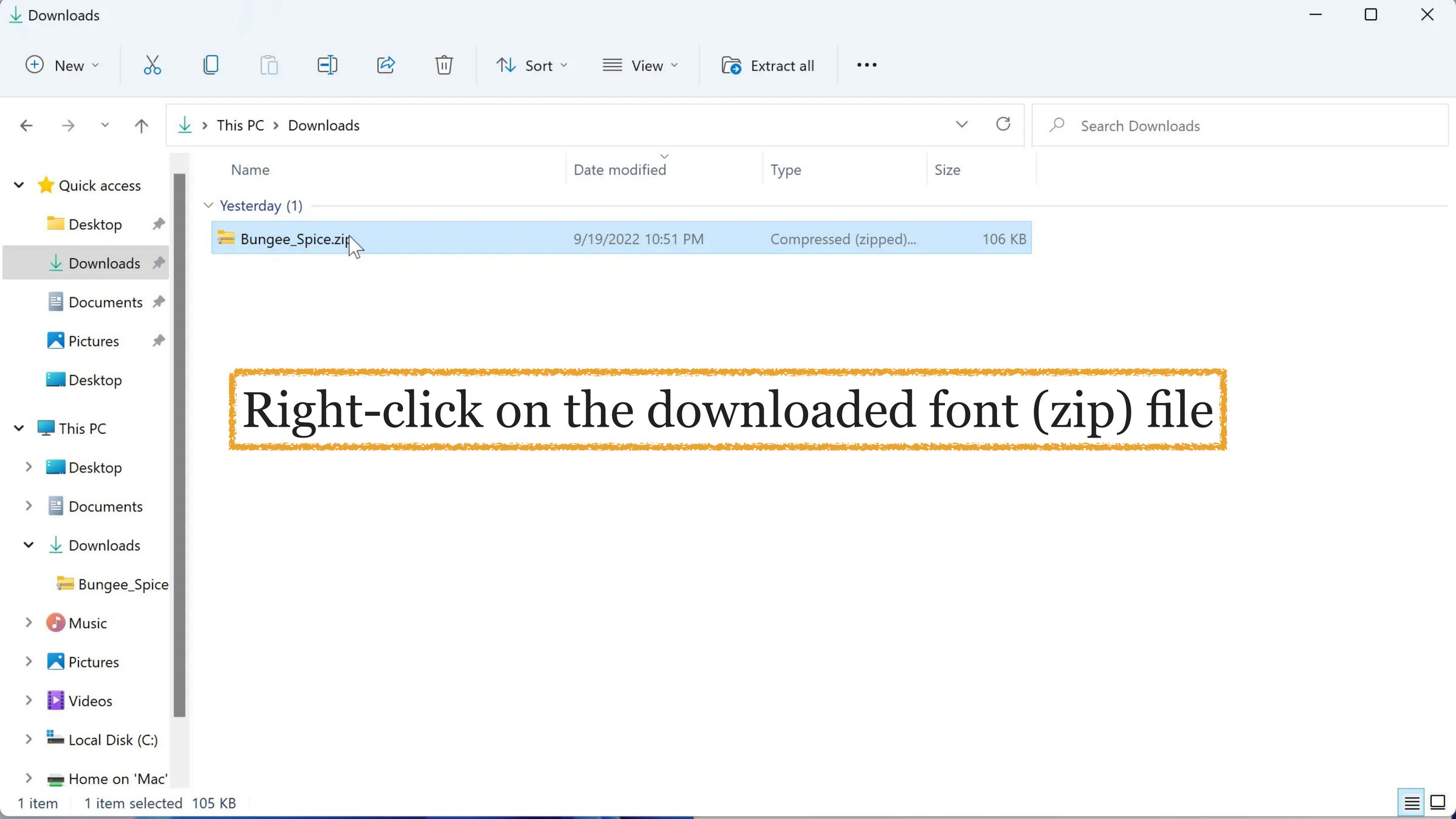

Downloads
Favorites
rsgranne
Desktop
Dropbox
Documents
Downloads
Applications
Photos
Library
AirDrop
Recents
Inbox
DEVONthink PDF
Git
Web Dev Projects
WebSanity
Collections
iCloud
iCloud Drive
Shared
Locations
GranneBook Pro
Desktop
Downloads
Presentati...
Decision T...
+Screenfl...
Vidzu - lo...
+PUT AW...
6045-47...
Name
Version
Date Modified
Size
Kind
Bungee_Spice 2022-09-19 506 KB Folder
BungeeSpice-Regular.ttf Ver....0.1 2021-12-07 501 KB TrueType® font
OFL.txt 2021-12-07 4 KB text
Bungee_Spice.zip 2022-09-19 108 KB ZIP archive
It unzips into a folder
The ttf is the font file, while OFL.txt is the license
Now double-click on the ttf file...
Macintosh HD › Users › rsgranne › Downloads › Downloads › Bungee_Spice
1 of 4 selected, 266.92 GB available

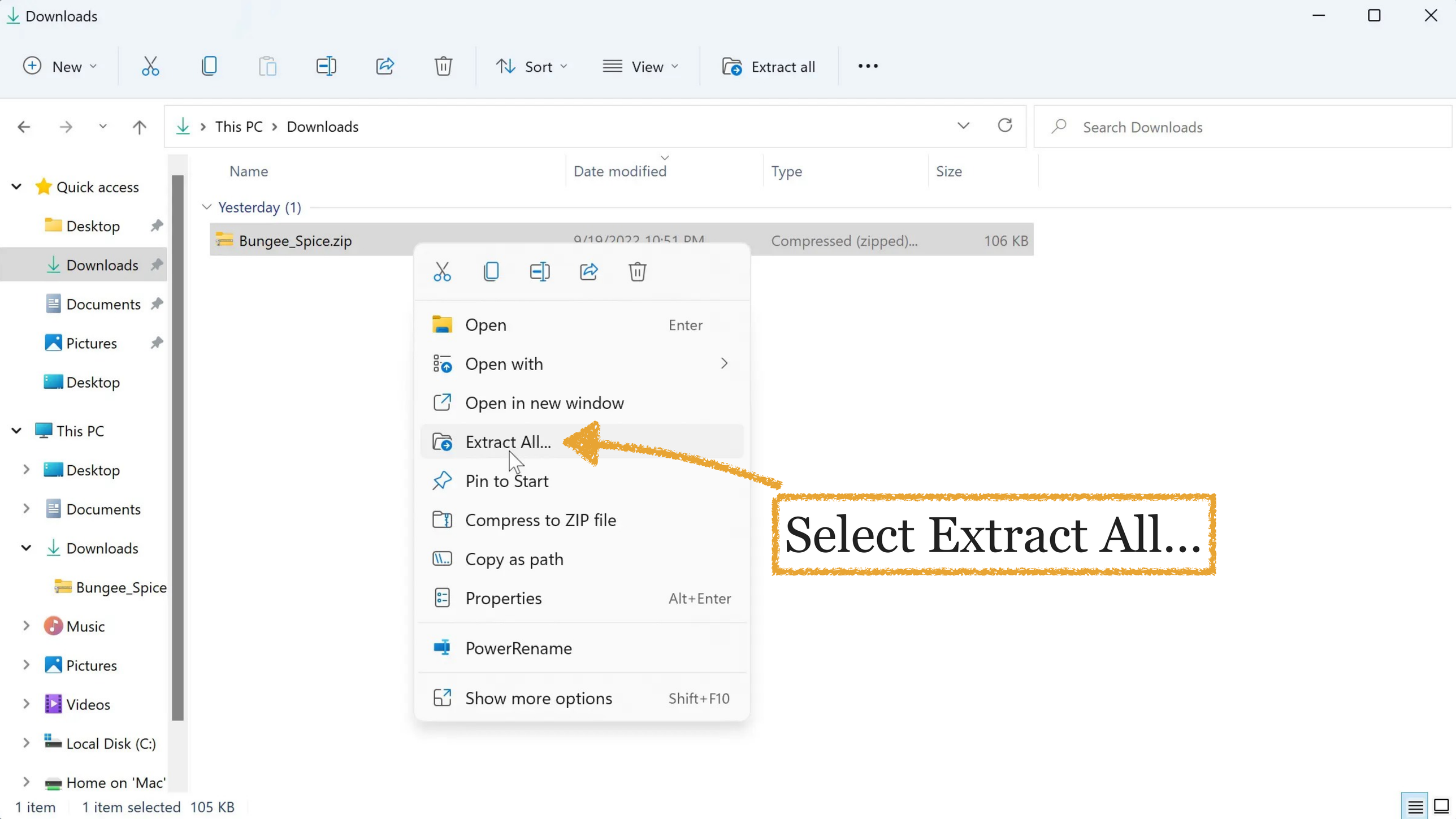

Bungee Spice
Regular
ABCDEFGHIJKLM
NOPQRSTUVWXYZ
ABCDEFGHIJKLM
NOPQRSTUVWXYZ
1234567890
(Not Installed)
Install Font
Click here

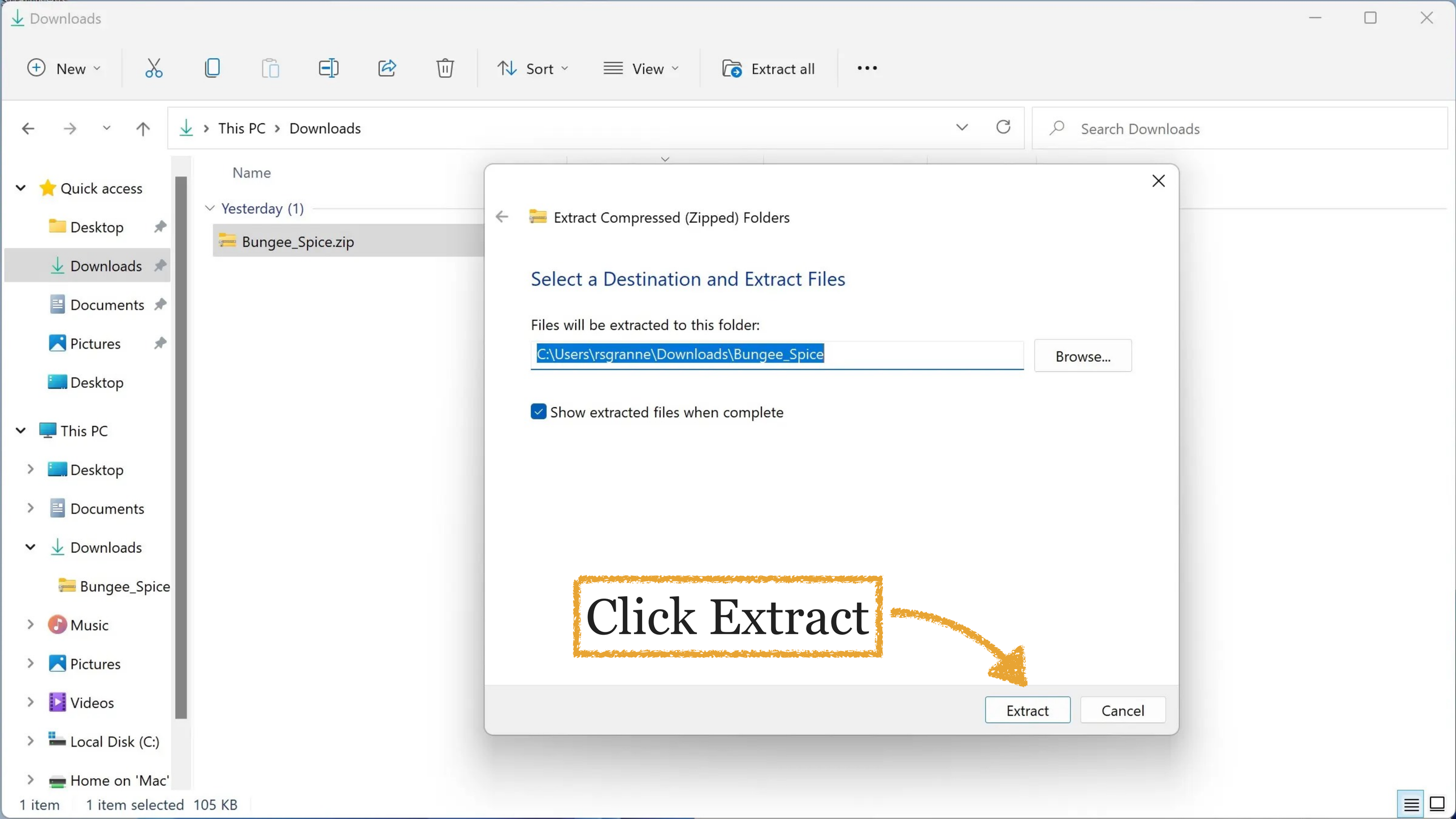

User
302 fonts
Search
All Fonts
Computer
User
Smart Collections
English
Condensed
Fixed Width
Handwriting
Italic
Mono
Ornamental
Roman
Sans-Serif
Serif
Symbol
Collections
Fun
Modern
PDF
Traditional
Audiowide
Batang
Bembo Std
Bentham
Bison
Born
Broadway
Bungee Spice
Butler
Calibri
Cambria
Cambria Math
Candara
Cardo
Caslon Antique
Caxton Light Italic
Caxton Roman Bold
Caxton Roman Book
Caxton Roman Light
CC demo
CCComicrazy
CCDigitalDelivery
CCDigitalDeliveryDisplay
CCEmpireStateDeco
CCEmpireStateDecoInline
CCEmpireStateDecoOutline
CCEmpireStateDecoSplit
CCExtraExtra
CCExtraExtraEngraved
CCHedgeBackwards
CCHedgeBackwardsLower
CCHookySolid
CCMonologous
CCScoundrel
Bungee Spice Regular
Size:
36
Once the font is installed, the built-in app Font Book opens to show you the font

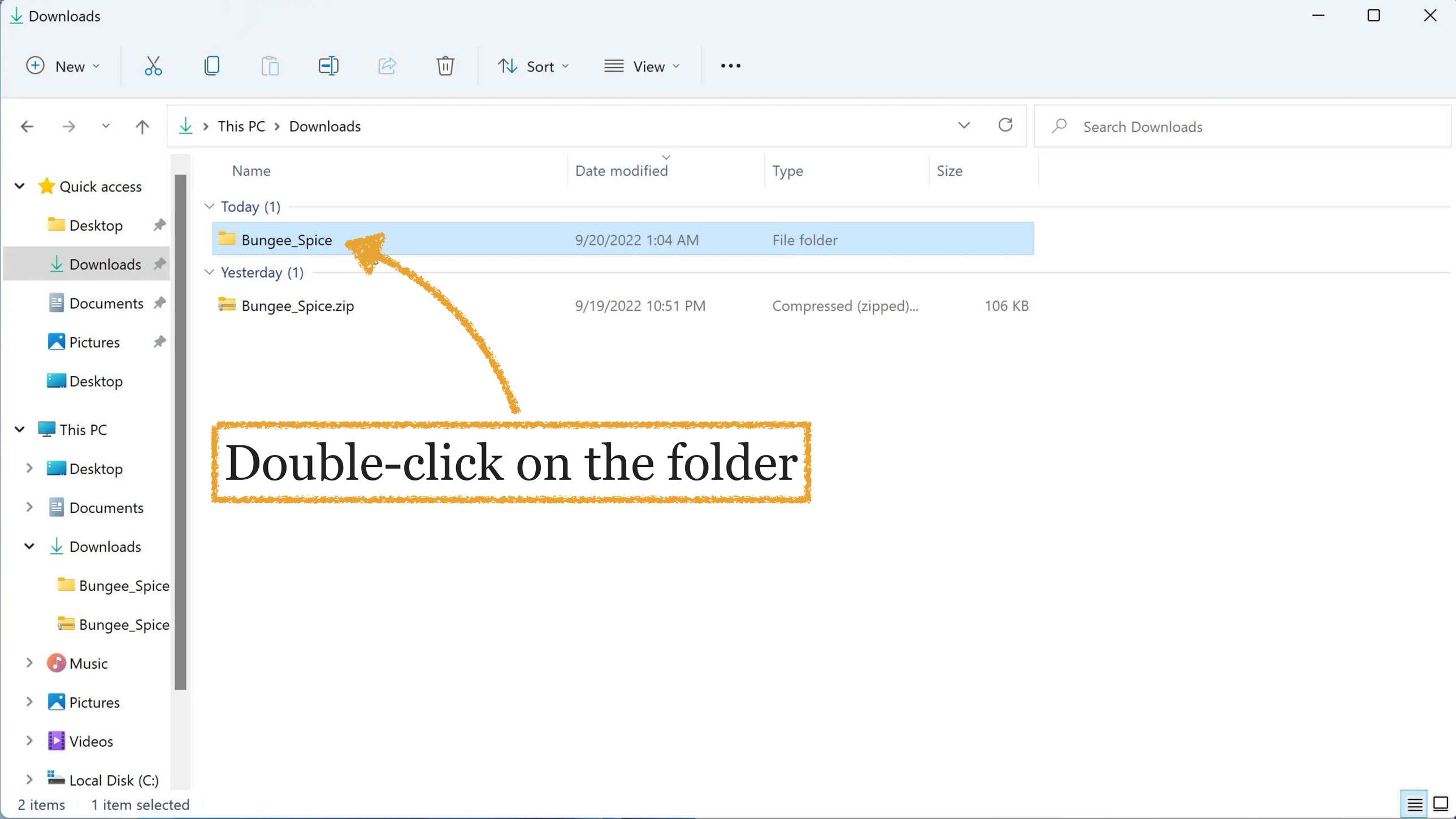
Installing fonts on Windows takes a lot more steps, so buckle up

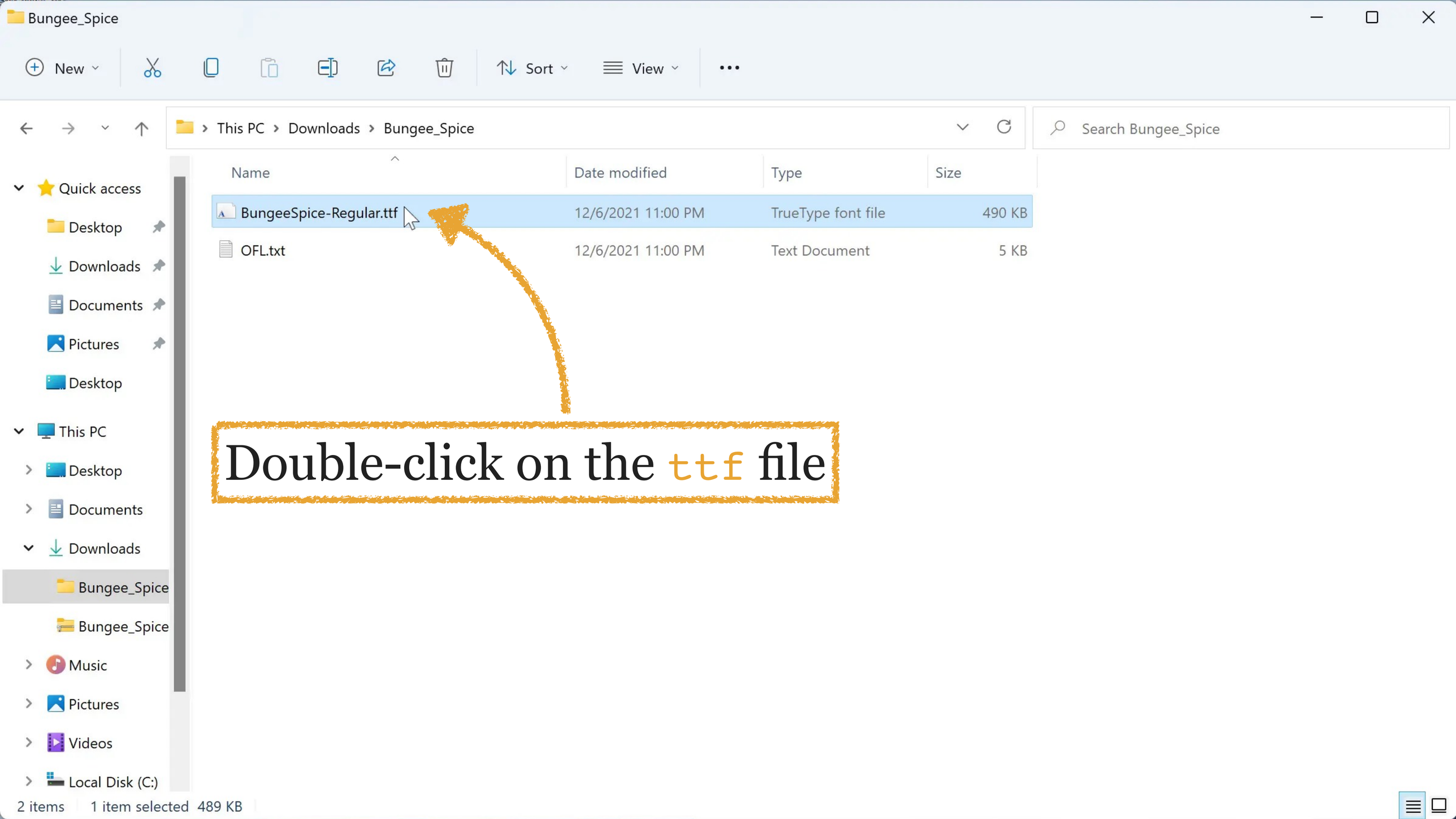

Downloads
New
Sort
View
This PC
Downloads
Search Downloads
Quick access
Desktop
Downloads
Documents
Pictures
Desktop
This PC
Desktop
Documents
Downloads
Bungee_Spice
Music
Pictures
Videos
Local Disk (C:)
Home on 'Mac'
Name
Date modified
Type
Size
Yesterday (1)
Bungee_Spice.zip
9/19/2022 10:51 PM
Compressed (zipped)...
106 KB
1 item

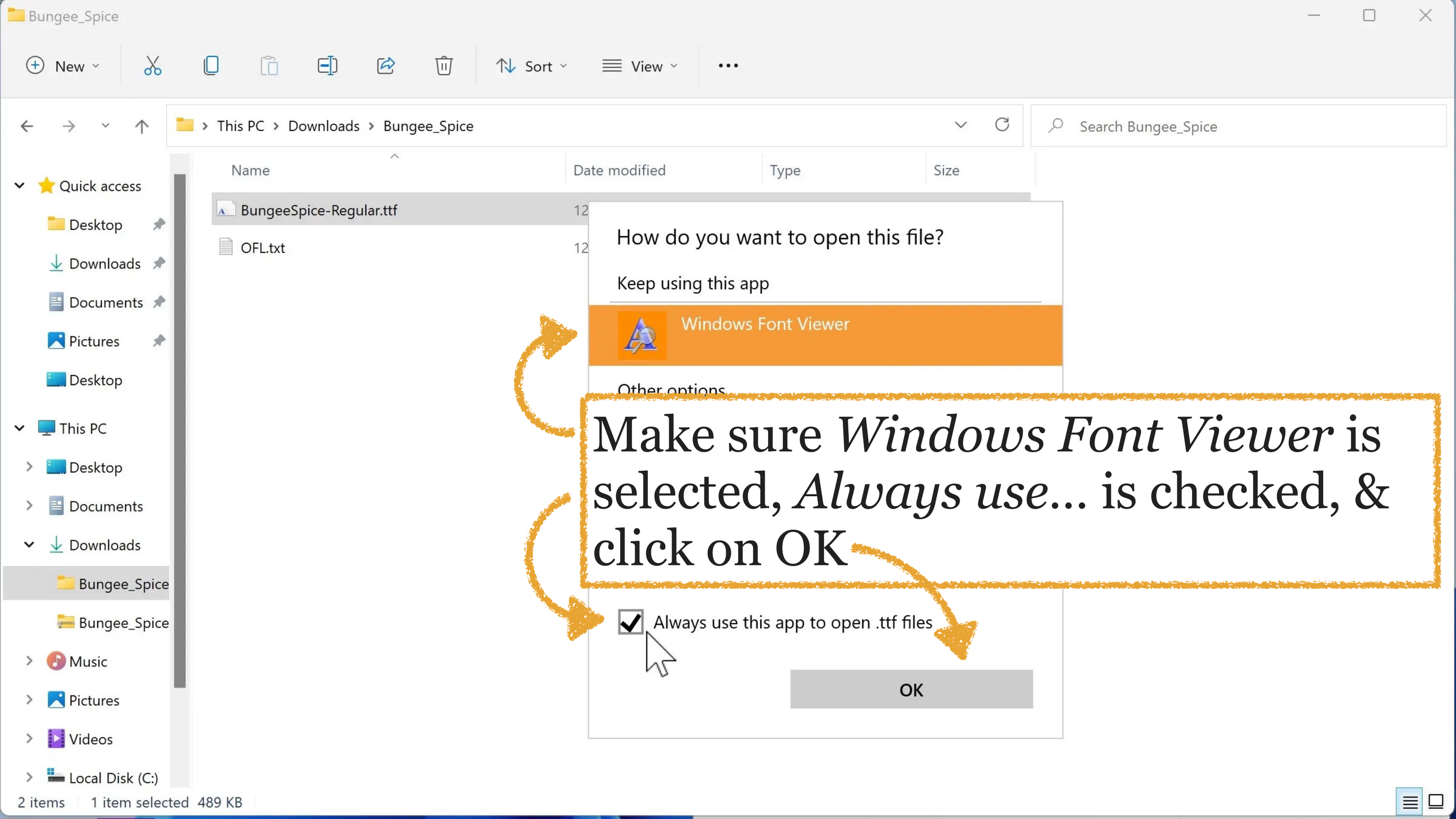

Downloads
New
Sort
View
Extract all
This PC
Downloads
Search Downloads
Name
Date modified
Type
Size
Quick access
Desktop
Downloads
Documents
Pictures
Desktop
This PC
Desktop
Documents
Downloads
Bungee_Spice
Music
Pictures
Videos
Local Disk (C:)
Home on 'Mac'
Yesterday (1)
Bungee_Spice.zip
9/19/2022 10:51 PM
Compressed (zipped)...
106 KB
Right-click on the downloaded font (zip) file
1 item
1 item selected 105 KB

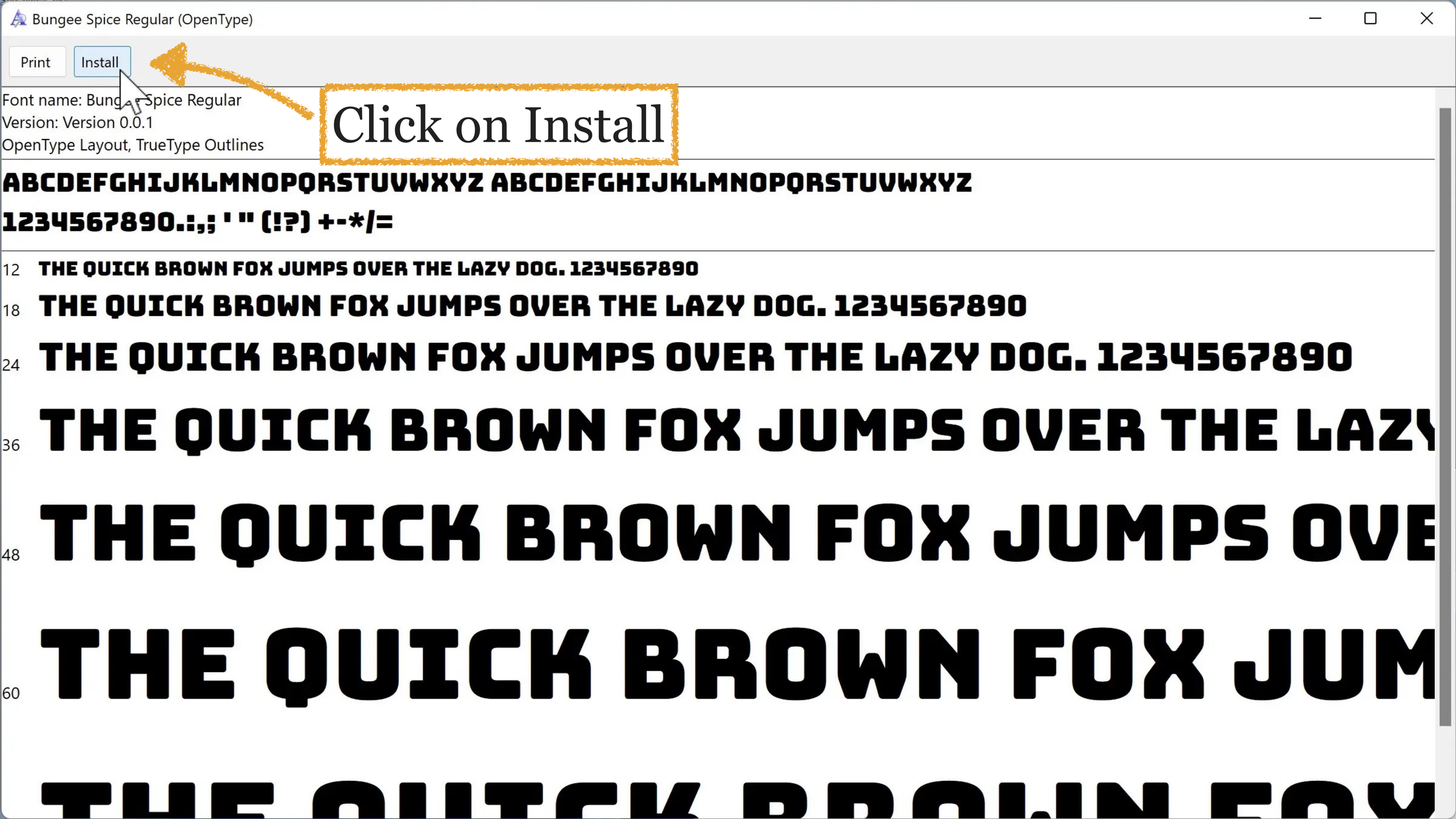

Downloads
New
Sort
View
Extract all
This PC
Downloads
Search Downloads
Name
Date modified
Type
Size
Quick access
Desktop
Downloads
Documents
Pictures
Desktop
This PC
Desktop
Documents
Downloads
Bungee_Spice
Music
Pictures
Videos
Local Disk (C:)
Home on 'Mac'
Yesterday (1)
Bungee_Spice.zip
Compressed (zipped)...
106 KB
Open
Enter
Open with
Open in new window
Extract All...
Pin to Start
Compress to ZIP file
Copy as path
Properties
Alt+Enter
PowerRename
Show more options
Shift+F10
Select Extract All...
1 item
1 item selected 105 KB

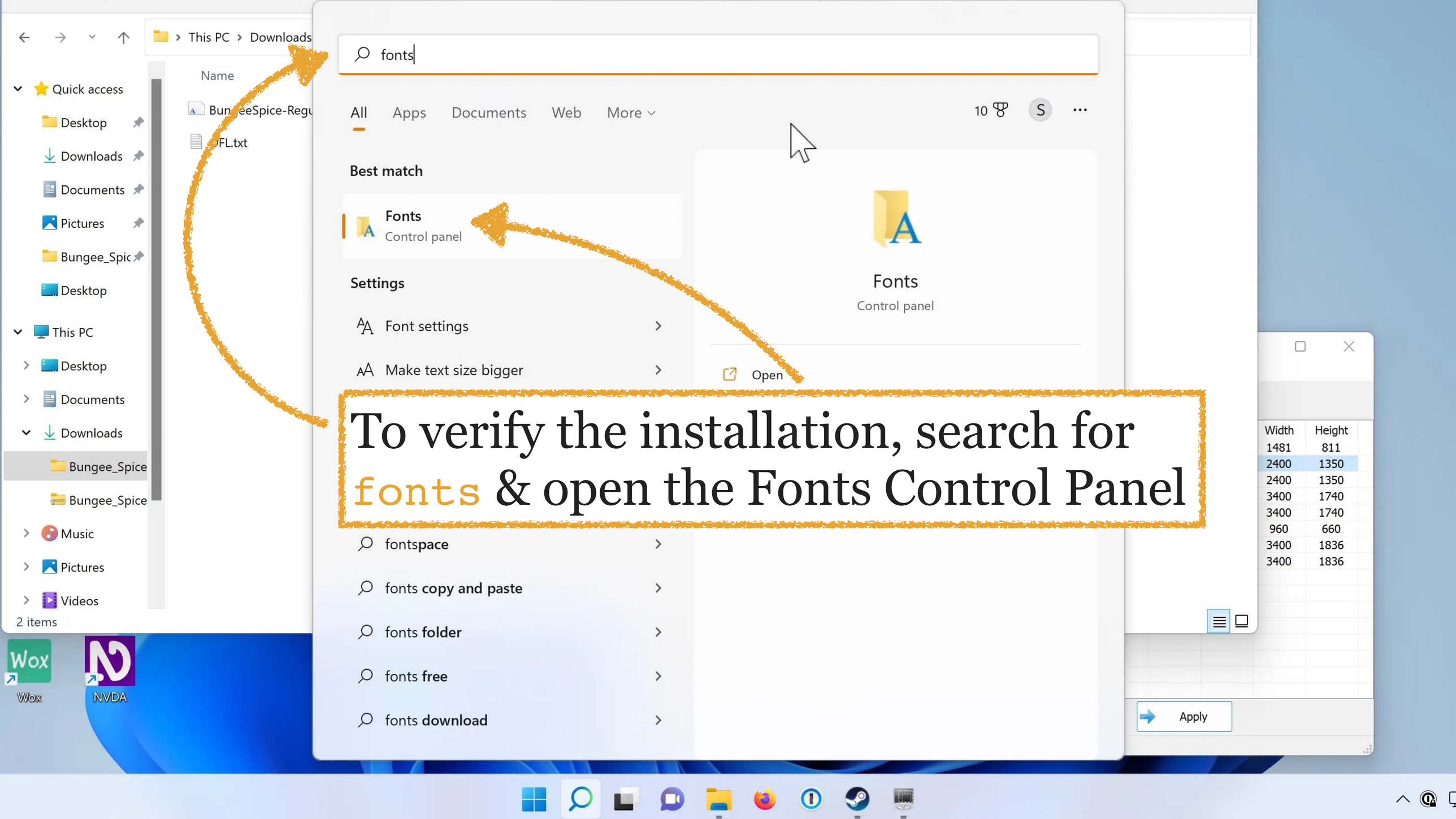

Downloads
New
Sort
View
Extract all
This PC
Downloads
Search Downloads
Quick access
Desktop
Downloads
Documents
Pictures
Desktop
This PC
Desktop
Documents
Downloads
Bungee_Spice
Music
Pictures
Videos
Local Disk (C:)
Home on 'Mac'
Name
Yesterday (1)
Bungee_Spice.zip
Extract Compressed (Zipped) Folders
Select a Destination and Extract Files
Files will be extracted to this folder:
C:\Users\rsgranne\Downloads\Bungee_Spice
Browse...
Show extracted files when complete
Click Extract
Extract
Cancel
1 item
1 item selected 105 KB

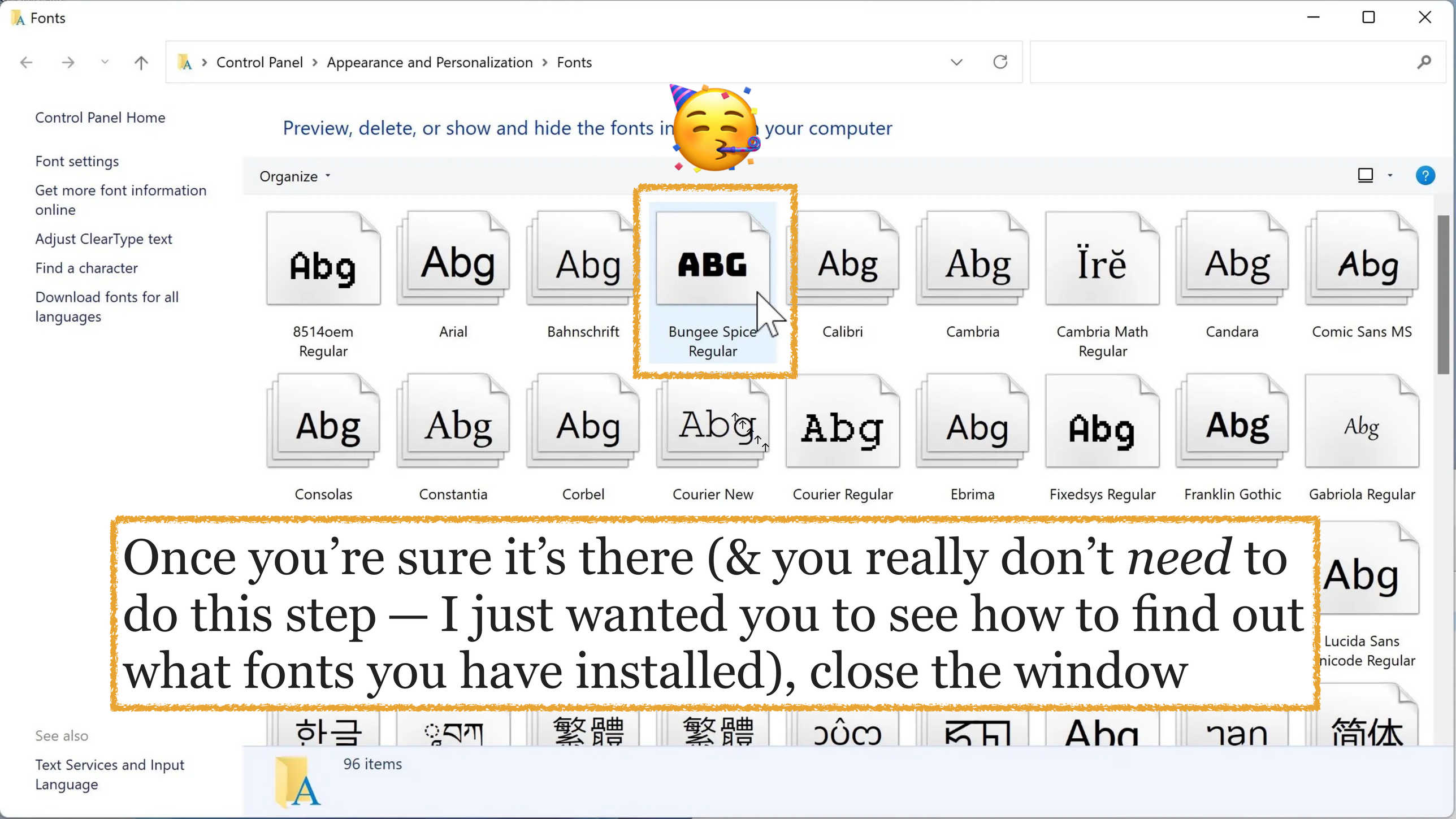

Downloads
New
Sort
View
This PC
Downloads
Search Downloads
Quick access
Desktop
Downloads
Documents
Pictures
Desktop
This PC
Desktop
Documents
Downloads
Bungee_Spice
Bungee_Spice
Music
Pictures
Videos
Local Disk (C:)
Name
Date modified
Type
Size
Today (1)
Bungee_Spice
9/20/2022 1:04 AM
File folder
Yesterday (1)
Bungee_Spice.zip
9/19/2022 10:51 PM
Compressed (zipped)...
106 KB
Double-click on the folder
2 items
1 item selected


Bungee_Spice
New
Sort
View
This PC › Downloads › Bungee_Spice
Search Bungee_Spice
Quick access
Desktop
Downloads
Documents
Pictures
Desktop
This PC
Desktop
Documents
Downloads
Bungee_Spice
Bungee_Spice
Music
Pictures
Videos
Local Disk (C:)
Name
Date modified
Type
Size
BungeeSpice-Regular.ttf
12/6/2021 11:00 PM
TrueType font file
490 KB
OFL.txt
12/6/2021 11:00 PM
Text Document
5 KB
Double-click on the ttf file
2 items
1 item selected 489 KB

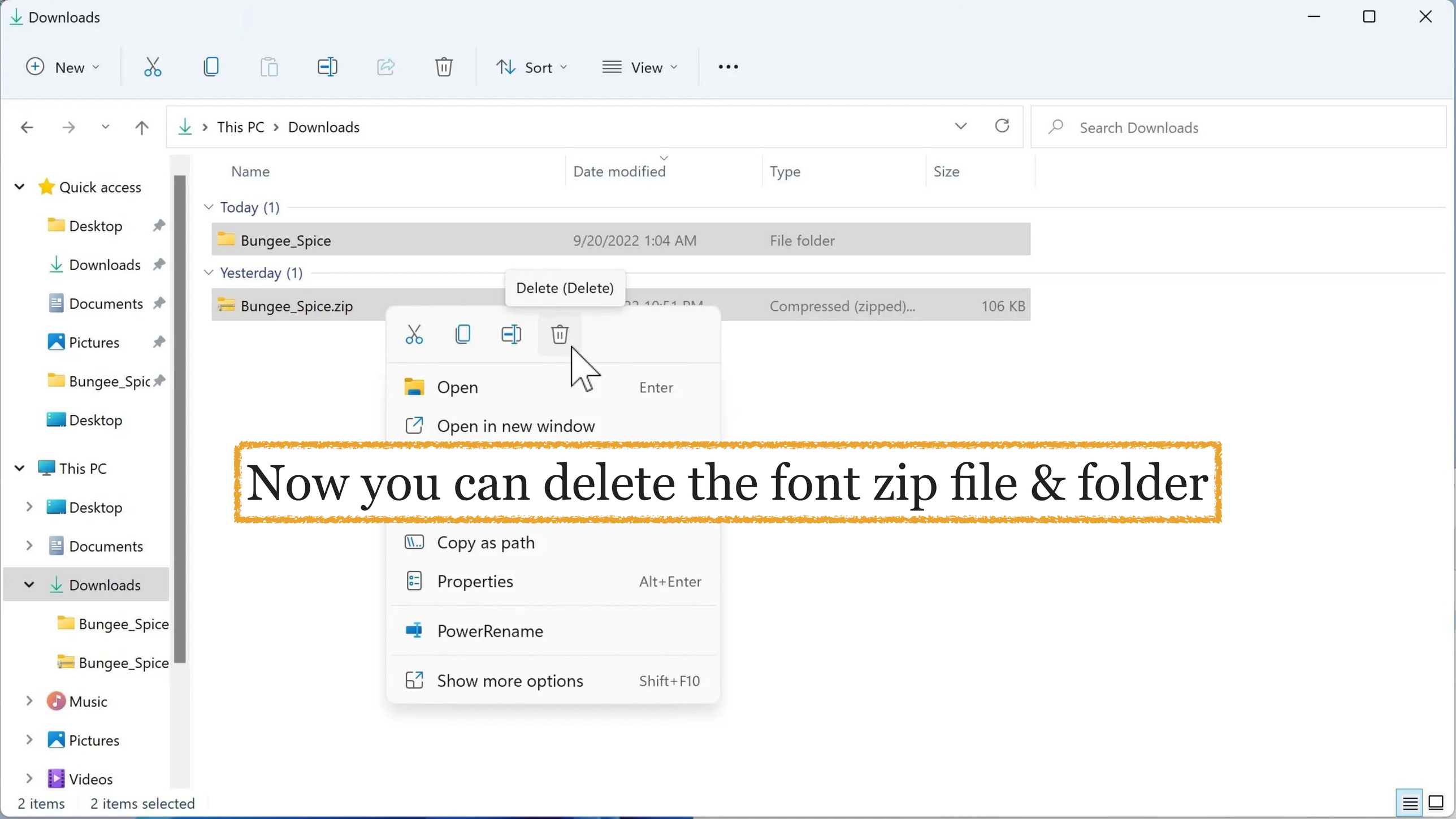

Bungee_Spice
New
Sort
View
This PC
Downloads
Bungee_Spice
Search Bungee_Spice
Quick access
Desktop
Downloads
Documents
Pictures
Desktop
This PC
Desktop
Documents
Downloads
Bungee_Spice
Bungee_Spice
Music
Pictures
Videos
Local Disk (C:)
Name
Date modified
Type
Size
BungeeSpice-Regular.ttf
OFL.txt
How do you want to open this file?
Keep using this app
Windows Font Viewer
Other options
Make sure *Windows Font Viewer* is selected, *Always use...* is checked, & click on OK
Always use this app to open .ttf files
OK
2 items
1 item selected 489 KB


Bungee Spice Regular (OpenType)
Print
Install
Click on Install
Font name: Bungee Spice Regular
Version: Version 0.0.1
OpenType Layout, TrueType Outlines
ABCDEFGHIJKLMNOPQRSTUVWXYZ ABCDEFGHIJKLMNOPQRSTUVWXYZ
1234567890.:,; ' " (!?) +-*/=
12 THE QUICK BROWN FOX JUMPS OVER THE LAZY DOG. 1234567890
18 THE QUICK BROWN FOX JUMPS OVER THE LAZY DOG. 1234567890
24 THE QUICK BROWN FOX JUMPS OVER THE LAZY DOG. 1234567890
36 THE QUICK BROWN FOX JUMPS OVER THE LAZ
48 THE QUICK BROWN FOX JUMPS OVE
60 THE QUICK BROWN FOX JUM


This PC › Downloads
Quick access
Desktop
Downloads
Documents
Pictures
Bungee_Spic
Desktop
This PC
Desktop
Documents
Downloads
Bungee_Spice
Bungee_Spice
Music
Pictures
Videos
2 items
Name
fonts
All
Apps
Documents
Web
More
10
S
Best match
Fonts
Control panel
Settings
Font settings
Make text size bigger
Fonts
Control panel
Open
fontspace
fonts copy and paste
fonts folder
fonts free
fonts download
To verify the installation, search for fonts & open the Fonts Control Panel
Width
Height
1481
811
2400
1350
2400
1350
3400
1740
3400
1740
960
660
3400
1836
3400
1836
Apply
Wox
NVDA



Once you're sure it's there (& you really don't *need* to do this step — I just wanted you to see how to find out what fonts you have installed), close the window


Downloads
New
Sort
View
This PC
Downloads
Search Downloads
Quick access
Desktop
Downloads
Documents
Pictures
Bungee_Spic
Desktop
This PC
Desktop
Documents
Downloads
Bungee_Spice
Bungee_Spice
Music
Pictures
Videos
Name
Date modified
Type
Size
Today (1)
Bungee_Spice
9/20/2022 1:04 AM
File folder
Yesterday (1)
Bungee_Spice.zip
Compressed (zipped)...
106 KB
Delete (Delete)
Open
Enter
Open in new window
Copy as path
Properties
Alt+Enter
PowerRename
Show more options
Shift+F10
Now you can delete the font zip file & folder
2 items
2 items selected

Font Properties

`font-size`

`line-height`

`font-style`

`font-variant` ← See Bonus

`font-stretch` ← See Bonus

`font-weight`

`font-family` ← See Font Stacks

font-size

And finally you will read this

This is the first thing you will read

You will read this afterward

And then you will read this

And finally you will read this

This is the first thing you will read

You will read this afterward

And then you will read this

And finally you will read this

This is the first thing you will read

You will read this afterward

And then you will read this

`font-size`

Sets *size of fonts*

Values

» Absolute size keywords
» Relative size keywords
» `<length>` data type
» `<percentage>` data type

Absolute size	Scaling Factor	Percent	HTML `hx`
`xx-large`	2/1	200%	`<h1>`
`x-large`	3/2	150%	`<h2>`
`large`	6/5	120%	`<h3>`
`medium`	1	100%	`<h4>` (& `<p>`)
`small`	8/9	89%	`<h5>`
`x-small`	3/4		
`xx-small`	3/5	60%	`<h6>`

Relative size

`larger`
`smaller`

Don’t use those — not precise enough

`<length>`

Represents *distance measurements*: a `<number>` immediately followed by a unit

Units

» Absolute

» Relative (font-relative or viewport-percentage)

Absolute `<length>`

`px`	96 pixels per inch
`cm`	1 centimeter = 96px/2.54
`mm`	1 millimeter = 1/10 of 1cm
`Q`	1 quarter-millimeter = 1/40 of 1cm
`in`	1 inch = 2.54 cm = 96px
`pc`	1 pica = 1/6 of 1in = 12 pt
`pt`	1 point = 1/72 of 1in

★	`px`	96 pixels per inch
	`cm`	1 centimeter = 96px/2.54
	`mm`	1 millimeter = 1/10 of 1cm
	`Q`	1 quarter-millimeter = 1/40 of 1cm
	`in`	1 inch = 2.54 cm = 96px
	`pc`	1 pica = 1/6 of 1in = 12 pt
★	`pt`	1 point = 1/72 of 1in

My advice

Use `px` where appropriate (that's coming up!)

Use `12pt` when printing because that's the standard (more on that later in *CSS Media-Specific Styles*)

Font-Relative `<length>`

`ch` ← See *Bonus*

`ex` ← See *Bonus*

`em` & `rem`

`cap` ← See *Bonus*

`ic` ← See *Bonus*

`lh` & `rlh` ← See *Bonus*

`em`

Originally width of capital M

Now the *calculated font-size* of an element, in other words, the total height of a font from descender to ascender, *inherited from the parent element*

`1em` is the height of a font, so if your font is set to be `16px` tall, then `1em = 16px`

HTML

```
<ul class="parent-relative">
  <li>Foo</li>
  <li>Bar
    <ul>
      <li>Baz
        <ul>
          <li>Qaz</li>
          <li>Tub</li>
        </ul>
      </li> <!-- /Baz -->
      <li>Alf</li>
    </ul>
  </li> <!-- /Bar -->
  <li>Pru</li>
</ul>
```

CSS

```
.parent-relative li {
  font-size: .8em;
}
```

JS

em units are parent-relative

- Foo
- Bar
  - Baz
    - Qaz
    - Tub
  - Alf
- Pru

`em` sizing is compounded!

`rem`

Always based on the `font-size` of the *root element* (`<html>`), which defaults to `16px` in all Web browsers

Great for creating perfectly scalable layouts

HTML

```
<ul class="root-relative">
  <li>Foo</li>
  <li>Bar
    <ul>
      <li>Baz
        <ul>
          <li>Qaz</li>
          <li>Tub</li>
        </ul>
      </li> <!-- /Baz -->
      <li>Alf</li>
    </ul>
  </li> <!-- /Bar -->
  <li>Pru</li>
</ul>
```

CSS

```
.root-relative li {
  font-size: .8rem;
}
```

JS

em units are parent-relative

- Foo
- Bar
  - Baz
    - Qaz
    - Tub
  - Alf
- Pru

rem units are root-relative

- Foo
- Bar
  - Baz
    - Qaz
    - Tub
  - Alf
- Pru

`rem` sizing is consistent

					iOS		
ch	9	12	4	7	7.1	27	4.4
ex	5.5	12	1	1	1	1	1
em	5.5	12	1	1	1	1	1
rem	9	12	3.6	4.1	4	4	2.1

Viewport-Percentage

`<length>`

`vh`	1% of the viewport's height
`vw`	1% of the viewport's width
`vmin`	1% of `vh` or `vw` — whichever is smaller
`vmax`	1% of `vh` or `vw` — whichever is larger

The only one to worry about for typography is `vw` if you'd like to scale your font along with the size of the screen

This is covered in *CSS Data Types*

`<percentage>`
Relative to calculated font size

```
150%
```

Similar to `em` — `1.2em` is equivalent to `120%`

`<percentage>` is ambiguous — whenever possible, use another, less ambiguous alternative

Our recommendation

`px` for `<html>`

`rem` for regions (landmarks or sectioning elements like `<aside>` & `<div>`) in which you want all the text to zoom uniformly

`em` for actual text elements (`<h2>` & `<p>`) & non-inherited properties (e.g., `margin` & `padding`)

HTML

```html
<section>
  <h1>Heading Level 1 Lorem Ipsum</h1>
  <p>
    Lorem ipsum dolor sit amet, per choro veritus forensibus ut. Ea vel autem salutatus. Pro in dico vitae audire. In case ipsum aeterno vel, ex vis dico audiam. Eirmod legimus ut per, ut vim clita primis.
  </p>
  <h2>Heading Level 2 Lorem Ipsum</h2>
  <p>
    Lorem ipsum dolor sit amet, per choro veritus forensibus ut. Ea vel autem salutatus. Pro in dico vitae audire. In case ipsum aeterno vel, ex vis dico audiam. Eirmod legimus ut per, ut vim clita primis.
  </p>
  <h3>Heading Level 3 Lorem Ipsum</h3>
  <p>
    Lorem ipsum dolor sit amet, per choro veritus forensibus ut. Ea vel autem salutatus. Pro in dico vitae audire. In case ipsum aeterno vel, ex vis dico audiam. Eirmod legimus ut per, ut vim clita primis.
```

CSS

JS

Heading Level 1 Lorem Ipsum

Lorem ipsum dolor sit amet, per choro veritus forensibus ut. Ea vel autem salutatus. Pro in dico vitae audire. In case ipsum aeterno vel, ex vis dico audiam. Eirmod legimus ut per, ut vim clita primis.

Heading Level 2 Lorem Ipsum

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Heading Level 3 Lorem Ipsum

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Heading Level 4 Lorem Ipsum

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Heading Level 3 Lorem Ipsum

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HTML

```
  </p>
</section>
<aside>
  <h1>Heading Level 1 Lorem Ipsum</h1>
  <p>
    Lorem ipsum dolor sit amet, per
    choro veritus forensibus ut. Ea vel
    autem salutatus. Pro in dico vitae
    audire. In case ipsum aeterno vel,
    ex vis dico audiam. Eirmod legimus
    ut per, ut vim clita primis.
  </p>
  <h2>Heading Level 2 Lorem Ipsum</h2>
  <p>
    Lorem ipsum dolor sit amet, per
    choro veritus forensibus ut. Ea vel
    autem salutatus. Pro in dico vitae
    audire. In case ipsum aeterno vel,
    ex vis dico audiam. Eirmod legimus
    ut per, ut vim clita primis.
  </p>
  <h3>Heading Level 3 Lorem Ipsum</h3>
  <p>
    Lorem ipsum dolor sit amet, per
    choro veritus forensibus ut. Ea vel
    autem salutatus. Pro in dico vitae
    audire. In case ipsum aeterno vel,
```

CSS

JS

Heading Level 1 Lorem Ipsum

Lorem ipsum dolor sit amet, per choro veritus forensibus ut. Ea vel autem salutatus. Pro in dico vitae audire. In case ipsum aeterno vel, ex vis dico audiam. Eirmod legimus ut per, ut vim clita primis.

Heading Level 2 Lorem Ipsum

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Heading Level 4 Lorem Ipsum

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HTML

CSS

```
/* Root font size set in pixels */
html {
  font: 16px/1.3 "Lucida Grande", sans-serif;
}

/* Adjust text size in regions using rem */
aside {
  font-size: .9rem;
}

/* Set text sizes using em */
h1, h2, h3, h4, h5, h6 {
  font-family: Georgia, serif;
}
h1 {
  font-size: 2em;
}
h2 {
  font-size: 1.5em;
}
h3 {
  font-size: 1.2em;
}
h4 {
  font-size: 1em;
```

Let's break this down

JS

Heading Level 1 Lorem Ipsum

Lorem ipsum dolor sit amet, per choro veritus forensibus ut. Ea vel autem salutatus. Pro in dico vitae audire. In case ipsum aeterno vel, ex vis dico audiam. Eirmod legimus ut per, ut vim clita primis.

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Heading Level 4 Lorem Ipsum

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HTML

CSS

```
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}
h1 {
  font-size: 2em;
}
h2 {
  font-size: 1.5em;
}
h3 {
  font-size: 1.2em;
}
h4 {
  font-size: 1em;
```

JS

Heading Level 1 Lorem Ipsum

Lorem ipsum dolor sit amet, per choro veritus forensibus ut. Ea vel autem salutatus. Pro in dico vitae audire. In case ipsum aeterno vel, ex vis dico audiam. Eirmod legimus ut per, ut vim clita primis.

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HTML

CSS

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  font-family: Georgia, serif;
}
h1 {
  font-size: 2em;
}
h2 {
  font-size: 1.5em;
}
h3 {
  font-size: 1.2em;
}
h4 {
  font-size: 1em;
}
```

No `font-size` for `<section>`? We're using the default!

JS

Heading Level 1 Lorem Ipsum

Lorem ipsum dolor sit amet, per choro veritus forensibus ut. Ea vel autem salutatus. Pro in dico vitae audire. In case ipsum aeterno vel, ex vis dico audiam. Eirmod legimus ut per, ut vim clita primis.

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html {
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}

/* Adjust text size in regions using rem */
aside {
  font-size: .9rem;
}

/* Set text sizes using em */
h1, h2, h3, h4, h5, h6 {
  font-family: Georgia, serif;
}
h1 {
  font-size: 2em;
}
h2 {
  font-size: 1.5em;
}
h3 {
  font-size: 1.2em;
}
h4 {
  font-size: 1em;
```

Heading Level 1 Lorem Ipsum

Lorem ipsum dolor sit amet, per choro veritus forensibus ut. Ea vel autem salutatus. Pro in dico vitae audire. In case ipsum aeterno vel, ex vis dico audiam. Eirmod legimus ut per, ut vim clita primis.

Heading Level 2 Lorem Ipsum

Lorem ipsum dolor sit amet, per choro veritus forensibus ut. Ea vel autem salutatus. Pro in dico vitae audire. In case ipsum aeterno vel, ex vis dico audiam. Eirmod legimus ut per, ut vim clita primis.

Heading Level 3 Lorem Ipsum

Lorem ipsum dolor sit amet, per choro veritus forensibus ut. Ea vel autem salutatus. Pro in dico vitae audire. In case ipsum aeterno vel, ex vis dico audiam. Eirmod legimus ut per, ut vim clita primis.

Heading Level 4 Lorem Ipsum

Lorem ipsum dolor sit amet, per choro veritus forensibus ut. Ea vel autem salutatus. Pro in dico vitae audire. In case ipsum aeterno vel, ex vis dico audiam. Eirmod legimus ut per, ut vim clita primis.

Heading Level 1 Lorem Ipsum

Lorem ipsum dolor sit amet, per choro veritus forensibus ut. Ea vel autem salutatus. Pro in dico vitae audire. In case ipsum aeterno vel, ex vis dico audiam. Eirmod legimus ut per, ut vim clita primis.

Heading Level 2 Lorem Ipsum

Lorem ipsum dolor sit amet, per choro veritus forensibus ut. Ea vel autem salutatus. Pro in dico vitae audire. In case ipsum aeterno vel, ex vis dico audiam. Eirmod legimus ut per, ut vim clita primis.

Heading Level 3 Lorem Ipsum

Lorem ipsum dolor sit amet, per choro veritus forensibus ut. Ea vel autem salutatus. Pro in dico vitae audire. In case ipsum aeterno vel, ex vis dico audiam. Eirmod legimus ut per, ut vim clita primis.

HTML

CSS

```
/* Root font size set in pixels */
html {
  font: 16px/1.3 "Lucida Grande", sans-serif;
}

/* Adjust text size in regions using rem */
aside {
  font-size: .9rem;
}

/* Set text sizes using em */
h1, h2, h3, h4, h5, h6 {
  font-family: Georgia, serif;
}
h1 {
  font-size: 2em;
}
h2 {
  font-size: 1.5em;
}
h3 {
  font-size: 1.2em;
}
h4 {
  font-size: 1em;
```

Heading Level 1 Lorem Ipsum

Lorem ipsum dolor sit amet, per choro veritus forensibus ut. Ea vel autem salutatus. Pro in dico vitae audire. In case ipsum aeterno vel, ex vis dico audiam. Eirmod legimus ut per, ut vim clita primis.

Heading Level 2 Lorem Ipsum

Lorem ipsum dolor sit amet, per choro veritus forensibus ut. Ea vel autem salutatus. Pro in dico vitae audire. In case ipsum aeterno vel, ex vis dico audiam. Eirmod legimus ut per, ut vim clita primis.

Heading Level 3 Lorem Ipsum

Lorem ipsum dolor sit amet, per choro veritus forensibus ut. Ea vel autem salutatus. Pro in dico vitae audire. In case ipsum aeterno vel, ex vis dico audiam. Eirmod legimus ut per, ut vim clita primis.

Heading Level 4 Lorem Ipsum

Lorem ipsum dolor sit amet, per choro veritus forensibus ut. Ea vel autem salutatus. Pro in dico vitae audire. In case ipsum aeterno vel, ex vis dico audiam. Eirmod legimus ut per, ut vim clita primis.

Heading Level 1 Lorem Ipsum

Lorem ipsum dolor sit amet, per choro veritus forensibus ut. Ea vel autem salutatus. Pro in dico vitae audire. In case ipsum aeterno vel, ex vis dico audiam. Eirmod legimus ut per, ut vim clita primis.

Heading Level 2 Lorem Ipsum

Lorem ipsum dolor sit amet, per choro veritus forensibus ut. Ea vel autem salutatus. Pro in dico vitae audire. In case ipsum aeterno vel, ex vis dico audiam. Eirmod legimus ut per, ut vim clita primis.

Heading Level 3 Lorem Ipsum

Lorem ipsum dolor sit amet, per choro veritus forensibus ut. Ea vel autem salutatus. Pro in dico vitae audire. In case

line-height

`line-height`

Specifies the *minimal height of line boxes* within block box elements

Values

» `normal`: Desktop browsers use a default value of roughly `1.2`
» `<number>`: unitless number (e.g., `1.4`) is the preferred method
» `<length>`: `em` in particular may be problematic
» `<percentage>`: may be very problematic

HTML

```
</p>
<p class="lh-14">
  <i>The Shadow Over Innsmouth</i> (line-height: 1.4): All at once I began dreading to look at them as they passed. I saw the close moonlit space where they would surge by, and had curious thoughts about the irredeemable pollution of that space.
</p>
<p class="lh-16">
  <i>The Call of Cthulhu</i> (line-height: 1.6): He talked of his dreams in a strangely poetic
```

CSS

```
.lh-14 {
  line-height: 1.4;
}

.lh-16 {
  line-height: 1.6;
}
```

JS

From Beyond (line-height: 1): “Do you know what that is?” he whispered, “That is ultra-violet.” He chuckled oddly at my surprise. “You thought ultra-violet was invisible, and so it is — but you can see that and many other invisible things now.”

The Dunwich Horror (line-height: 1.2): There was a brief silence, and in that pause the scattered senses of poor Curtis Whateley began to knit back into a sort of continuity; so that he put his hands to his head with a moan. Memory seemed to pick itself up where it had left off, and the horror of the sight that had prostrated him burst in upon him again.

The Shadow Over Innsmouth (line-height: 1.4): All at once I began dreading to look at them as they passed. I saw the close moonlit space where they would surge by, and had curious thoughts about the irredeemable pollution of that space.

The Call of Cthulhu (line-height: 1.6): He talked of his dreams in a strangely poetic fashion; making me see with terrible vividness the damp Cyclopean city of slimy green stone — whose *geometry*, he oddly said, was *all wrong* — and hear with frightened expectancy the ceaseless, half-mental calling from underground: “*Cthulhu fhtagn*”,

font-style

`font-style`

Selects *italic or oblique* face for the selected font

Values

- `italic`: Specially designed by typographers to complement the upright (*roman*) font
- `oblique`: Slanted version of the roman font (ugly, so avoid)
- `normal`: Not italic or oblique

HTML

```
<h2>
  Italic
</h2>
<p>
  Italic (not oblique) fonts are specially designed by typographers to complement the upright (<i>roman</i>) font.
```

CSS

```
.italic {
  font-style: italic;
}

.ssp {
  font-family: "Source Serif Pro", Adamina;
}

.oblique {
  font-style: oblique;
}
```

JS

Italic

Italic (not oblique) fonts are specially designed by typographers to complement the upright (*roman*) font.

Iowan Old Style (or Georgia, if you don't have it) has a very nice italic.

Iowan Old Style (or Georgia, if you don't have it) has a very nice italic, as you can see.

Oblique

Oblique (not italic) fonts are just slanted versions of the upright (*roman*) font.

Source Serif Pro (or Adamina, if you don't have it) does not have an italic font.

Source Serif Pro (or Adamina, if you don't have it) does not have an italic font, so this is oblique.

font-weight

`font-weight`

Specifies the *weight—or boldness*—of the font

Values

» `100`–`900`: Numeric weights from lightest to darkest
» `normal`: Same as `400`
» `bold`: Same as `700`
» `bolder`: 1 font weight darker than parent
» `lighter`: 1 font weight lighter than parent

This assumes the font supports those weights!

Font Name	CSS Value	CSS Keyword
Thin	100	
Extra-light, Ultra-light	200	
Light	300	
Normal, Regular, Book	400	normal
Medium	500	
Semi-bold, Demi-bold	600	
Bold	700	bold
Extra-bold, Ultra-bold	800	
Black, Heavy	900	

A A A A A A A A A
100 200 300 400 500 600 700 800 900

Proxima Nova Light

Effort affiliate final Lorem ipsum dolor sit amet, consectetur adipisici elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.

Proxima Nova Regular

Effort affiliate final Lorem ipsum dolor sit amet, consectetur adipisici elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.

Proxima Nova Semibold

Effort affiliate final Lorem ipsum dolor sit amet, consectetur adipisici elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.

Proxima Nova Bold

Effort affiliate final Lorem ipsum dolor sit amet, consectetur adipisici elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.

Proxima Nova Extrabold

Effort affiliate final Lorem ipsum dolor sit amet, consectetur adipisici elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.

Proxima Nova Black

Effort affiliate final Lorem ipsum dolor sit amet, consectetur adipisici elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.

Text Properties

color

text-shadow

letter-spacing
word-spacing

text-decoration
text-decoration-skip-ink

text-transform

text-indent
hanging-punctuation

white-space
word-break

direction

overflow-wrap (word-wrap)
text-overflow
line-clamp

color

`color`

Specifies *foreground color of text* using `<color>` data type

Should really be `text-color`, but it's too late to change now

Descriptor	Value
Keywords	`magenta`
RGB 6-character hexadecimal	`#FF0033`
RGB 3-character hexadecimal	`#F03`
RGB functional notation (integer)	`rgb(255,0,51)`
RGB functional notation (%)	`rgb(100%,0%,20%)`
Red-Green-Blue-Alpha	`rgba(255,0,51,0.7)`
Hue-Saturation-Lightness	`hsl(348,100%,50%)`
Hue-Saturation-Lightness-Alpha	`hsla(348,100%,50%,0.7)`

letter-spacing

`letter-spacing`

Add additional *spacing between adjacent characters* (like part of *kerning*)

`word-spacing`

Add additional *spacing between words*

Do not use either property, as browser support is poor & the effects are crude & ugly

text-decoration

`text-decoration`

Insert or remove lines above, below, & through text

Values

» `underline`: draws a line under text (do not use)
» `overline`: draws a line above text
» `underline overline`: draws lines under & above text
» `line-through`: draws line through text (like `<s>`)
» `none`: removes lines (from `<a>` in particular, but be careful with this!)

HTML

CSS

```css
.under {
  text-decoration: underline;
}

.over {
  text-decoration: overline;
}

.underover {
  text-decoration: underline overline;
}

.strike {
  text-decoration: line-through;
}

.none {
  text-decoration: none;
}

/* Uninteresting stuff below here */

html {
  font-size: 24px;
  font-family: "Iowan Old Style", Georgia, serif;
}
```

JS

underline

Ph’nglui mglw’nafh Cthulhu R’lyeh wgah’nagl fhtagn!

overline

Ph’nglui mglw’nafh Cthulhu R’lyeh wgah’nagl fhtagn!

underline overline

Ph’nglui mglw’nafh Cthulhu R’lyeh wgah’nagl fhtagn!

line-through

~~Ph’nglui mglw’nafh Cthulhu R’lyeh wgah’nagl fhtagn!~~

none

Ph’nglui mglw’nafh Cthulhu R’lyeh wgah’nagl fhtagn!

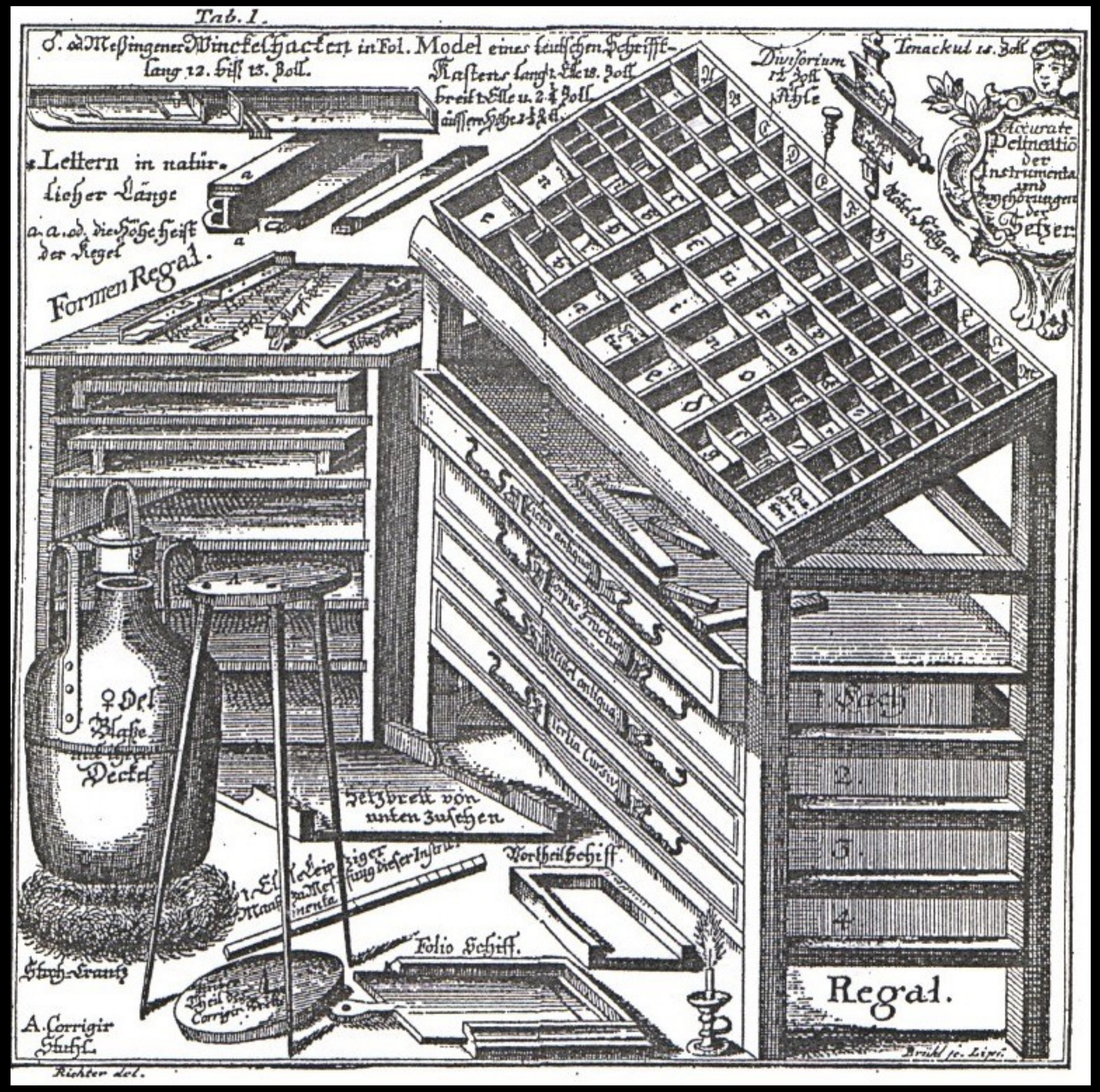
text-transform

`text-transform`

Specifies *capitalization*

Values

» `capitalize`: capitalize every word (headline case)
» `uppercase`: capitalize every letter (all caps)
» `lowercase`: lowercase every letter
» `none`: do not change capitalization



Typesetter's sorting case

Capital letters were stored in a separate drawer/case located *above* the case holding the other letters

Hence *uppercase* & *lowercase*

HTML

CSS

```css
.cap {
  text-transform: capitalize;
}

.upper {
  text-transform: uppercase;
}

.lower {
  text-transform: lowercase;
}

.none {
  text-transform: none;
}

/* Uninteresting stuff below here */

html {
  font-size: 24px;
  font-family: "Iowan Old Style", Georgia, serif;
}

h3:first-of-type {
  margin-top: 0;
}
```

JS

Default

Ph’nglui mglw’nafh Cthulhu R’lyeh wgah’nagl fhtagn!

`capitalize`

Ph’nglui Mglw’nafh Cthulhu R’lyeh Wgah’nagl Fhtagn!

`uppercase`

PH’NGLUI MGLW’NAFH CTHULHU R’LYEH WGAH’NAGL FHTAGN!

`lowercase`

ph’nglui mglw’nafh cthulhu r’lyeh wgah’nagl fhtagn!

`none`

Ph’nglui mglw’nafh Cthulhu R’lyeh wgah’nagl fhtagn!

text-indent

`text-indent`

Specifies how much horizontal space should be before the beginning of the first line of the text

Values

» `<length>` data type
» `<percentage>` data type

Default is `0` — do not indent

HTML

```
<p>
  During the winter of 1927–28 officials of the Federal government made a strange and secret investigation of certain conditions in the ancient Massachusetts seaport of Innsmouth. The public first learned of it in February, when a vast series of raids and arrests occurred, followed by the deliberate burning and dynamiting—under suitable precautions—of an enormous number of crumbling, worm-eaten, and supposedly empty houses along the abandoned waterfront. Uninquiring souls let this occurrence pass as one
```

CSS

```
p:first-child {
  text-indent: 2em;
}
```

JS

During the winter of 1927–28 officials of the Federal government made a strange and secret investigation of certain conditions in the ancient Massachusetts seaport of Innsmouth. The public first learned of it in February, when a vast series of raids and arrests occurred, followed by the deliberate burning and dynamiting—under suitable precautions—of an enormous number of crumbling, worm-eaten, and supposedly empty houses along the abandoned waterfront. Uninquiring souls let this occurrence pass as one of the major clashes in a spasmodic war on liquor.

Keener news-followers, however, wondered at the prodigious number of arrests, the abnormally large force of men used in making them, and the secrecy surrounding the disposal of the prisoners. No trials, or even definite charges, were reported; nor were any of the captives seen thereafter in the regular gaols of the nation.

No need to indent on the Web — just use the default *block style* for paragraphs

✏️ SIDE NOTE

EM
IDEOGRAPHIC
FIGURE
EN
PUNCTUATION
THREE-PER-EM
NORMAL
MEDIUM MATHEMATICAL
NARROW NO-BREAK
THIN
SIX-PER-EM
HAIR

25 different whitespace characters are defined in UTF-8

✏️ SIDE NOTE

Unicode	Name	HTML	Notes
`0009`	Tab	`&tab;`	
`0020`	Word space	`␣`	Space bar
`00A0`	No-break space	` `	
`2002`	En space	` `	AKA *nut*
`2003`	Em space	` `	AKA *mutton*
`2004`	3-per-em space	` `	AKA *thick space*
`2008`	Punctuation space	` `	After punctuation
`2009`	Thin space	` `	1/5 of `1 em`

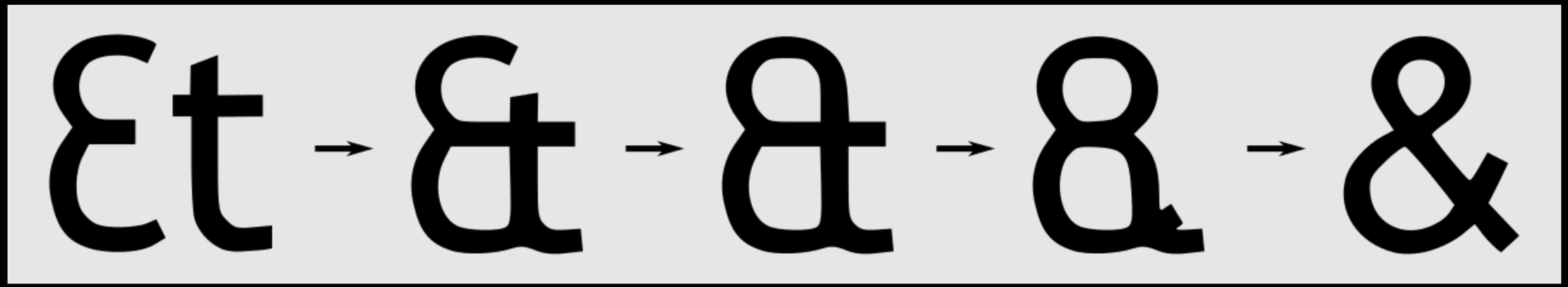
✏️ SIDE NOTE

Some like to do this—`—`—and leave out spaces around the em dash (—)

Others like to do this — `␣—␣` — and put a full space on each side of the em dash (too much space!)

I like to use this — ` — ` — which I think looks very nice (& is typographer approved 😀)

✏️ SIDE NOTE



My favorite punctuation mark is the *ampersand*

Et is Latin for *and*

Starting in ancient Rome, writers combined the letters of *et* together as a ligature & it became the ampersand

✏️ SIDE NOTE

Typographers have fun with ampersands & it’s always interesting to see how they design them for a particular typeface

✏️ SIDE NOTE

& Adobe Caslon Pro • & Avant Garde • & Avenir Next • & Baskerville • & Bodoni 72 • & Calibri • & CCExtraExtra • & Courier • & Crimson Text • & Didot • & Futura • & Georgia Pro • & Gill Sans • & Harrington • & Helvetica Neue • & Hoefler Text • & Iowan Old Style • & Myriad Pro • & Noto Sans • & Oswald • & Palatino • & Proxima Nova • & San Francisco • & Snell Roundhand • & Source Sans Pro • & Times • & Univers • & Verdana

Line Box Properties

`text-align`

Specifies how inline content is aligned in its parent block element

Values

» `left`: align left (default)
» `right`: align right
» `center`: center content
» `justify`: left & right edges of content line up to left & right edges of container (do not use!)

“Justifying text can present problems for people with Dyslexia … Another user group affected by text justification is screen magnification users. … The Web Content Accessibility Guidelines (WCAG) 2.0 recommend that text be left-justified…”

HTML

CSS

```css
.left {
  text-align: left;
}

.right {
  text-align: right;
}

.center {
  text-align: center;
}

.justify {
  text-align: justify;
}

/* Uninteresting stuff below here */

html {
  font-size: 24px;
  font-family: "Iowan Old Style", Georgia, serif;
}
```

JS

Cthulhu to the left

Yog-Sothoth to the right

Nyarlathotep in the center

My knowledge of the thing began in the winter of 1926-27 with the death of my great-uncle, George Gammell Angell, Professor Emeritus of Semitic Languages in Brown University, Providence, Rhode Island. Professor Angell was widely known as an authority on ancient inscriptions, and had frequently been resorted to by the heads of prominent museums; so that his passing at the age of ninety-two may be recalled by many.

Font Stacks

font-family

`font-family`

Prioritized list of font family names and/or generic family names for the selected element

Values

» `<family-name>`: name of a font family, e.g., `Lato` or `"Iowan Old Style"` (quotation marks if spaces!)

» `<generic-family>`: name of a generic fallback font family

`<generic-family>` can be:

`serif`
`sans-serif`
`cursive`
`fantasy`
`monospace`

font-family: cursive

Savoye LET

Snell Roundhand

font-family: fantasy

Party LET

Chalkduster

Playbill

Jazz LET

Harrington

A *font stack* lists fonts in the order you want them to be used: ideal, alternative, common, generic

```
font-family: "DejaVu Serif", Constantia,
Georgia, serif;
```

With font embedding (coming later!), this list has gotten shorter

```
font-family: Lato, Verdana, sans-serif;
```

A great rule of thumb

Serifs for headings & sans-serifs for body

OR

Sans-serifs for headings & serifs for body

Serif

The Call of Cthulhu- A Lovecraftian Tale

Arnold Khan Follow
Apr 29 · 5 min read ★

Serif

A hidden and forgotten research. Mysterious links to dreams and rituals. An interconnecting tale to the rise of an ancient one. A journey to the very edge of the Earth. Another great Lovecraft story. One of his most well-known material.

Sans-serif

Great Uncle's Death and Notes

My uncle passed away. He was 92. He was a leading archaeologist or paleontologist. An eminent professor. I was cleaning up his room, when I came across some archival material. It turned out to be a research of a global phenomenon, analysing rituals of various tribes and customs.

“Bird Box” taps into a Lovecraftian horror tradition rising from the deep

Sans-serif

January 9, 2019

By **Adam Epstein**
Entertainment reporter

Last month, Netflix claimed that 45 million people had watched its horror-thriller *Bird Box*. Yesterday Nielsen confirmed that the film is indeed a hit: 26 million people in the US alone watched *Bird Box* in the week after its Dec. 21 release, according to the audience measurement firm. That’s nearly the number of Americans who bought a ticket to see *Aquaman*, one of the highest-grossing films of 2018.

Serif

Businessweek | Solutions/Prognosis

The 6-Feet Rule Will Guide Architects in a Post-Covid World

Sans-serif

Past pandemics also forced a rethinking of physical space.

By Kristen V Brown
July 17, 2020, 10:00 AM UTC

Six feet. As Covid-19 has torn through the world, that distance has come to define daily life. Six feet is how far we stand from other shoppers or the space we try to maintain while catching up with a friend.

Serif

It's painfully clear that our world has been constructed for a reality that no longer exists. Crowded subway cars, packed restaurants, and bustling sidewalks all pose a threat every time someone nearby sneezes, talks, or even just breathes.

Businessweek | Solutions/Prognosis

The 6-Feet Rule Will Guide Architects in a Post-Covid World

BW Haas Grotesk Web 75 Bold

Past pandemics also forced a rethinking of physical space.

BW Haas Grotesk Web 55 Roman

By Kristen V Brown

July 17, 2020, 10:00 AM UTC

Six feet. As Covid-19 has torn through the world, that distance has come to define daily life. Six feet is how far we stand from other shoppers or the space we try to maintain while catching up with a friend.

It's painfully clear that our world has been constructed for a reality that no longer exists. packed restaurants, and bustling threat every time someone nearby sneezes, talks, or even just breathes.

Publico Text Web Roman

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COMMENT JULY 27, 2020 ISSUE

JOHN LEWIS'S LEGACY AND AMERICA'S REDEMPTION

The civil-rights leader, who died Friday, acknowledged the darkest chapters of the country's history, yet insisted that change was always possible.

By David Remnick
July 18, 2020

Sans-serif

Serif

Sans-serif

Serif

John Robert Lewis was born in 1940 near the Black Belt town of Troy, Alabama. His parents were sharecroppers, and he grew up spending Sundays with a great-grandfather who was born into slavery, and hearing about the lynchings of Black men and women that were still a commonplace in the region. When Lewis was a few months old, the manager of a chicken farm named Jesse Thornton was lynched about twenty miles down the road, in the town of Luverne. His offense was referring to a police officer by his first

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COMMENT JULY 27, 2020 ISSUE

JOHN LEWIS'S LEGACY AND AMERICA'S REDEMPTION

The civil-rights leader, u
country's history, yet insis

Neutraface New Yorker Web SemiBold

By David Remnick
July 18, 2020

Graphik

John Robert Lewis was born in 1940 near the Black Belt town of Troy, Alabama. His parents were sharecroppers, and he grew up spending Sundays with a great-grandfather who was born into slavery, and hearing about the lynchings of Black men and women that were still a commonplace in the region. When Lewis was a few months old, the manager of a chicken farm named Jesse Thornton was lynched about twenty miles down the road, in the town of Luverne. His offense was referring to a police officer by his first

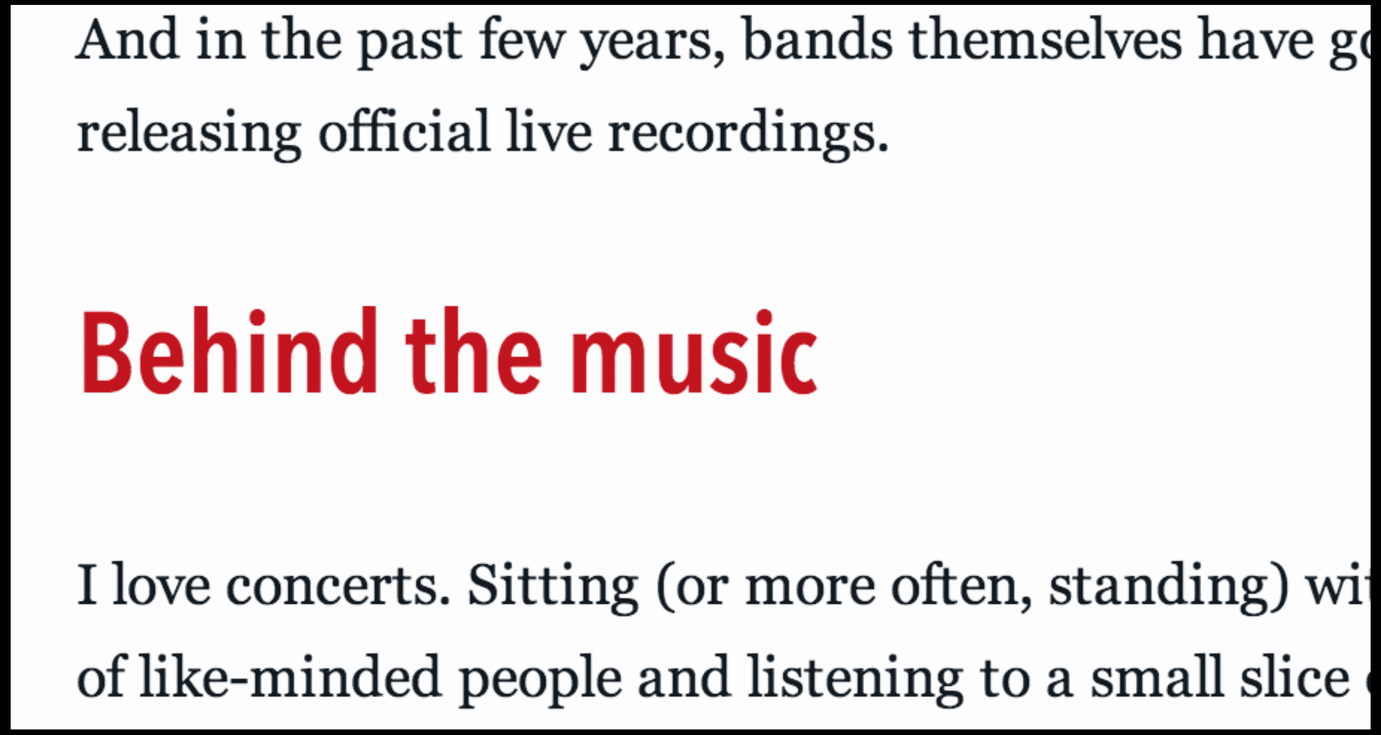
TNYAdobeCaslonPro

Don’t just focus on serif or sans-serif

Also look at width: wide (large *x-height*) & narrow (small *x-height*)

Try to group fonts in your stack by x-height for unity

Narrow sans-serif heading font stack



Marco Arment's The Magazine

```
"Avenir Next Condensed", "Helvetica Neue
Condensed", "Arial Narrow", Avenir, "Helvetica
Neue", sans-serif;
```

Wide serif body font stack

I love concerts. Sitting (or more often, standing) with hundreds or thousands of like-minded people and listening to a small slice of music history has always excited me. Recordings of live shows are obviously not the same, but they do give me similar pleasure. There's just something ineffable about hearing a band as they were on a particular date, warts and all, including the stage banter, flubs, and musical selection.

Marco Arment's The Magazine

```
"Minion Pro", Georgia, serif;
```

It can be hard to pick a good font stack

Here’s a website that can help you: Modern Font Stacks

Modern Font Stacks

System font stack CSS organized by typeface classification for every modern OS

The fastest fonts available. No downloading, no layout shifts, no flashes — just instant renders.

Try Font Stacks | GitHub

FONT STACKS

FONT SIZE: 2em

FONT WEIGHT: 400

Type something to preview text...

How to Use: Copy & Paste `font-family` declaration into your CSS

Key: Currently In Use | Available | Unavailable

System UI

ABCDEFGHIJKLM
NOPQRSTUVWXYZ
abcdefghijklm
nopqrstuvwxyz
1234567890

100 200 300 400 500 600 700 800 900

```
font-family: system-ui, sans-serif;
font-weight: normal;
```

Transitional

ABCDEFGHIJKLM
NOPQRSTUVWXYZ
abcdefghijklm
nopqrstuvwxyz
1234567890

100 200 300 400 500 600 700 800 900

```
font-family: Charter, 'Bitstream Charter',
'Sitka Text', Cambria, serif;
font-weight: normal;
```

Old Style

ABCDEFGHIJKLM
NOPQRSTUVWXYZ
abcdefghijklm
nopqrstuvwxyz
1234567890

100 200 300 400 500 600 700 800 900

```
font-family: 'Iowan Old Style', 'Palatino
Linotype', 'URW Palladio L', P052, serif;
font-weight: normal;
```

Humanist

ABCDEFGHIJKLM
NOPQRSTUVWXYZ

Geometric Humanist

ABCDEFGHIJKLM
NOPQRSTUVWXYZ

Classical Humanist

ABCDEFGHIJKLM
NOPQRSTUVWXYZ

Displays the following font stacks:

System UI • Transitional • Old Style • Humanist • Geometric Humanist • Classical Humanist • Neo-Grotesque • Monospace Slab Serif • Monospace Code • Industrial • Rounded Sans • Slab Serif • Antique • Didone • Handwritten

System UI

ABCDEFGHIJKLM
NOPQRSTUVWXYZ
abcdefghijklm
nopqrstuvwxyz
1234567890

100 200 300 400 500 600 700 800 900

```
font-family: system-ui, sans-serif;
font-weight: normal;
```

Transitional

ABCDEFGHIJKLM
NOPQRSTUVWXYZ
abcdefghijklm
nopqrstuvwxyz
1234567890

100 200 300 400 500 600 700 800 900

```
font-family: Charter, 'Bitstream Charter',
'Sitka Text', Cambria, serif;
font-weight: normal;
```

Old Style

ABCDEFGHIJKLM
NOPQRSTUVWXYZ
abcdefghijklm
nopqrstuvwxyz
1234567890

100 200 300 400 500 600 700 800 900

```
font-family: 'Iowan Old Style', 'Palatino
Linotype', 'URW Palladio L', P052, serif;
font-weight: normal;
```

Humanist

ABCDEFGHIJKLM
NOPQRSTUVWXYZ

Geometric Humanist

ABCDEFGHIJKLM
NOPQRSTUVWXYZ

Classical Humanist

ABCDEFGHIJKLM
NOPQRSTUVWXYZ

Old Style

Old Style typefaces are characterized by diagonal stress, low contrast between thick and thin strokes, and rounded serifs, and were developed in the Renaissance period. One of the most famous examples of an Old Style typeface is Garamond.

CSS Font Stack

```
font-family: 'Iowan Old Style', 'Palatino Linotype', '
```

Iowan Old Style macOS 10.9+, iOS 7+	The quick brown fox jumps over the lazy dog 123456789!
Palatino Linotype Windows XP+	The quick brown fox jumps over the lazy dog 123456789!
URW Palladio L Linux	The quick brown fox jumps over the lazy dog 123456789!
P052 Linux	The quick brown fox jumps over the lazy dog 123456789!
Noto Serif Android	The quick brown fox jumps over the lazy dog 123456789!

System UI | Transitional | Old Style | Humanist | Geometric Humanist | Classical Humanist | Neo-Grotesque

Monospace Slab Serif | Monospace Code | Industrial | Rounded Sans | Slab Serif | Antique | Didone

Handwritten

Alice's Adventure in Wonderland

by Lewis Carroll

CHAPTER 1

Down the Rabbit-Hole

Alice was beginning to get very tired of sitting by her sister on the bank, and of having nothing to do. Once or twice she had peeped into the book her sister was reading, but it had no pictures or conversations in it, "and what is the use of a book," thought Alice, "without pictures or conversations?"

System UI | Transitional | Old Style | Humanist | Geometric Humanist | Classical Humanist | Neo-Grotesque

Monospace Slab Serif | Monospace Code | Industrial | Rounded Sans | Slab Serif | Antique | Didone

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Monospace Slab Serif | Monospace Code | Industrial | Rounded Sans | Slab Serif | Antique | Didone

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Native Font Stacks

Specifying a font stack can be problematic

What if users don’t have the fonts you want?

Font embedding solves that problem but introduces new ones

What to do?

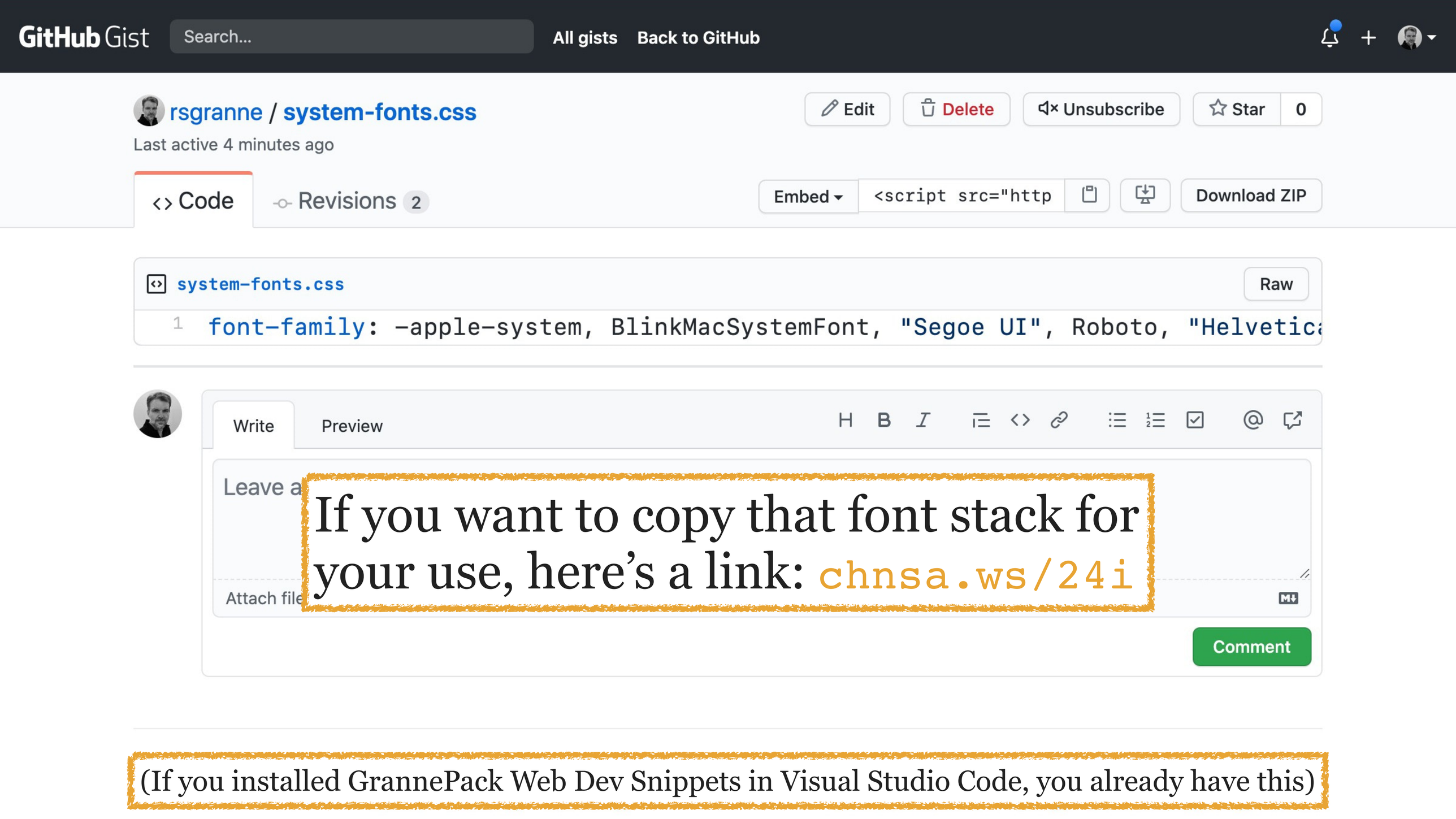
Bootstrap, other frameworks, & many developers now use *native font stacks*

```
font-family: system-ui, -apple-system,"Segoe UI", Roboto, "Helvetica Neue", "Noto Sans", "Liberation Sans", Arial, sans-serif, "Apple Color Emoji", "Segoe UI Emoji", "Segoe UI Symbol", "Noto Color Emoji";
```

Let’s break that down…

Bootstrap 5.2.2 native font stack

```
font-family: system-ui, /* Cross-platform default */
  -apple-system, /* Safari on  (San Francisco) */
  "Segoe UI", /* ⊞ */
  Roboto, /* 🤖 */
  "Helvetica Neue" /* Older  */
  "Noto Sans", "Liberation Sans", /* 🐧 */
  Arial, /* Basic fallback */
  sans-serif, /* Generic fallback */
  "Apple Color Emoji", "Segoe UI Emoji", "Segoe UI
Symbol", "Noto Color Emoji"; /* Emoji */
```


GitHub Gist
Search...
All gists
Back to GitHub
rsgranne / system-fonts.css
Last active 4 minutes ago
Edit
Delete
Unsubscribe
Star
0
Code
Revisions 2
Embed
<script src="http
Download ZIP
system-fonts.css
Raw
1 font-family: -apple-system, BlinkMacSystemFont, "Segoe UI", Roboto, "Helvetica
Write
Preview
Leave a
Attach file
Comment
If you want to copy that font stack for your use, here's a link: chnsa.ws/24i
(If you installed GrannePack Web Dev Snippets in Visual Studio Code, you already have this)

Embedded Fonts

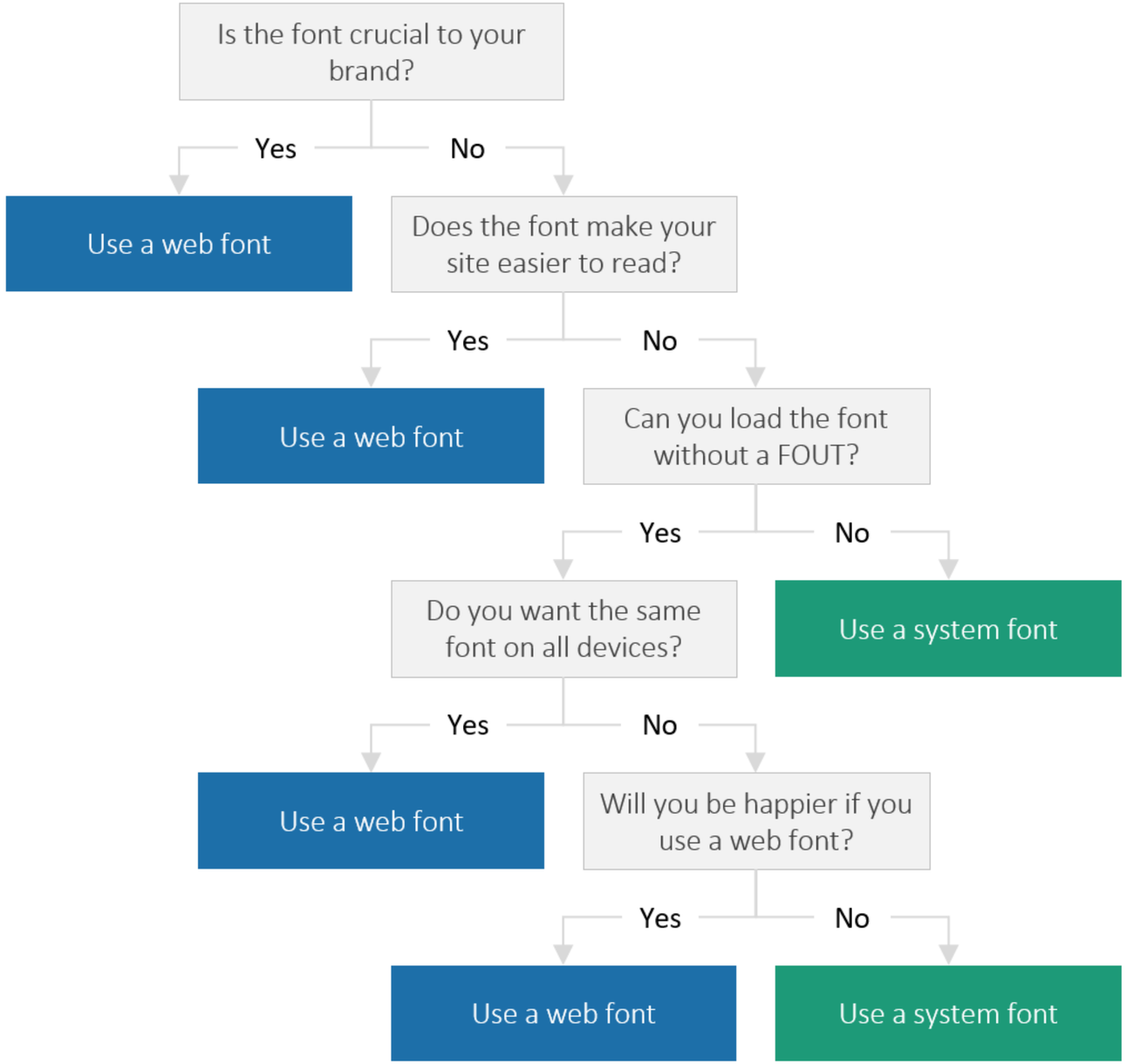
What if you don’t want to use native font stacks?

What if your client has a specific typeface it uses with its brand?

What if the designer insists on using a specific typeface?

Wouldn’t it be nice if you could reference specific typefaces (*web fonts*) & users could automatically download & use them?

Should I use a web font?



Formats

TTF: *TrueType Fonts*

Font standard released by Apple in 1991

Standard on macOS & Windows

On the Web, simply link to TTF file — but professional font foundries hate this, because users can copy & save the font

OTF: *Open Type Fonts*

Developed by Microsoft & Adobe & now an open standard as of 2007 called *Open Font Format*

Best format for installing fonts on macOS or Windows

On the Web, simply link to OTF file — but professional font foundries hate this, because users can copy & save the font

EOT: *Embedded OpenType*

Designed by Microsoft for embedding on webpages while making font foundries happy

DRM used to prevent fonts from being copied & used without a license

Submitted to W3 for consideration, but rejected

☠️ Do not use! Only supported by IE 6–11!

WOFF: *Web Open Font Format*

Developed during 2009 by Mozilla

Wrapper containing fonts in various formats (e.g., TrueType or OpenType) encoded with ZIP compression

Only stored in RAM, so no way to copy & save the font — so font foundries are happy!

W3 Recommendation as of 2012

WOFF2: *Web Open Font Format 2.0*, AKA *WOFF Ultra Condensed*

Developed by Google Web Fonts team

30% better compression than WOFF 1

W3 Recommendation as of March 2018

					iOS		
EOT	4	–	–	–	–	–	–
TTF	–	12	3.5	3.1	4.3	4	10
OTF	–	12	3.5	3.1	4.3	4	10
WOFF	9	12	3.6	5.1	5.1	6	11.1
WOFF2	–	14	39	10*	10.2	36	24
SVG†	–	–	–	3.2	3.2	4–37	3–4.4

* macOS 10.12 Sierra & up † Removed from SVG 2 with browser support removed

@font-face

```
@font-face {
  font-family: <font-name>;
  src: <source>, <source>;
}


.class {
  font-family: <font-name>, generic;
}
```

`src`

Location of font

Can be local or remote

```
@font-face {
  font-family: Foobar;
  src: local(Foobar.ttf);
}

p {
  font-family: Foobar, sans-serif;
}
```

Can use any name (value) for `font-family` you want

Local font on user's device

```
@font-face {
  font-family: Foobar;
  src: url(http://www.fonts.com/foobar.woff);
}

p {
  font-family: Foobar, sans-serif;
}
```

Remote font downloaded onto user's device

```
@font-face {
  font-family: Foobar;
  src: local(Foobar.ttf),
       url(http://www.fonts.com/foobar.woff);
}

p {
  font-family: Foobar, sans-serif;
}
```

Local AND remote covers all bases—but don’t use `local`!

Why don’t we use `src: local(Foobar.ttf)`?

Font names aren’t copyrighted, so anyone can create a font called Caslon or Caslon

Therefore, one user’s Caslon might look different from another user’s Caslon

Use a `font-family` name that is descriptive of its purpose; e.g., `Heading`, `Body`, `Code`, `Footer`

```
@font-face {
  font-family: Heading;
  src: url(http://www.fonts.com/foobar.woff);
}

h1, h2, h3, h4, h5, h6 {
  font-family: Heading, sans-serif;
}
```

Licensing

Problem: unauthorized copying, which type foundries do not want

Solution:

» Open, free fonts
» Licensed fonts

Open, Free Fonts

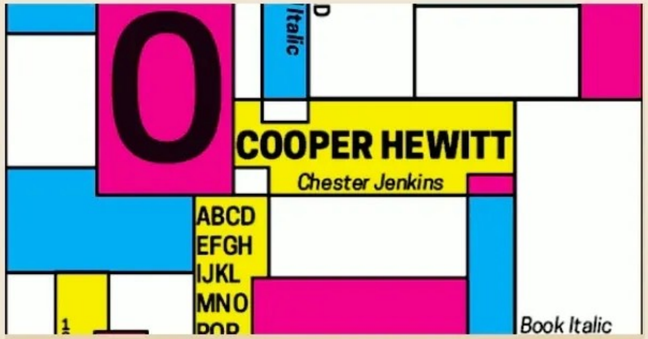
FEATURED FONTS

DATALEGREYA | COOPER HEWITT | JELLEE TYPEFACE | AVARA | FANTASQUE SANS MONO

Cooper Hewitt: The Typeface

Cooper Hewitt · Village Type and Design LLC

NEMOY



COOPER HEWITT

GIDOLE REGULAR

AVARA

CATEGORIES

Sans-serif · 435
Serif · 427
Display · 212
Handwriting · 125
Monospaced · 103
Dingbat · 53
Blackletter · 37

LANGUAGES

Arabic, Cyrillic, Euro, Hebrew, Greek, Thai, Turkish, Vietnamese, Western European

View complete language list

THE LEAGUE OF MOVEABLE TYPE

The original, the first, *the open-source* font foundry.

OPEN-SOURCE FONTS • EST. 2009 • TRUSTED & USED BY

WIRED MAGAZINE

.NET MAGAZINE

DISCOVERY CHANNEL

Search fonts | Sentence | Type something | 40px

Categories | Language | Font properties | Show only variable fonts | Show only color fonts

1451 of 1451 families

About these results | Sort by: Trending

Roboto
Christian Robertson
12 styles

Whereas recognition of the inherent dignity

Reem Kufi Ink
Khaled Hosny
1 style

لمّا كان الاعتراف بالكرامة المتأصلة
في جميع

Reem Kufi Fun
Khaled Hosny, Santiago Orozco
Variable

Bungee Spice
David Jonathan Ross
1 style

“All of the fonts are Open Source… You can even customize them for your own use… And you can use them in every way you want, privately or commercially —in print, on your computer, or in your websites.”
—Google Fonts in 2015

Sort & filter results

Google Fonts

Fonts | Icons | Knowledge | FAQ

Search fonts | Sentence | Type something | 40px

Categories | Language | Font properties | Show only variable fonts | Show only color fonts

1451 of 1451 families

About these results | Sort by: Trending

Trending
Most popular
Newest
Name

Roboto
Christian Robertson
12 styles

Whereas recognition of the inherent dignity

Reem Kufi Fun
Khaled Hosny, Santiago Orozco
Variable

لما [illegible] اف بالكرامة المتأصلة في جميع

Reem Kufi Ink
Khaled Hosny
1 style

Bungee Spice
David Jonathan Ross
1 style

Google Fonts

Fonts | Icons | Knowledge | FAQ

Search fonts | Sentence | Type something | 40px

Custom
Sentence
Alphabet
Paragraph
Numerals

Categories | Language | Font pr | Show only variable fonts | Show only color fonts

1451 of 1451 families

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Bungee Spice
David Jonathan Ross
1 style

Google Fonts

Fonts | Icons | Knowledge | FAQ

Search fonts | Sentence | Type something | 40px

Categories | Language | Font properties | Show only variable fonts | Show only color fonts

- [x] Serif
- [x] Sans Serif
- [x] Display
- [x] Handwriting
- [x] Monospace

Reset

About these results | Sort by: Trending

12 styles

s recognition of the inherent dignity

Reem Kufi Fun
Khaled Hosny, Santiago Orozco
Variable

لما كان الاعتراف بالكرامة المتأصلة في جميع

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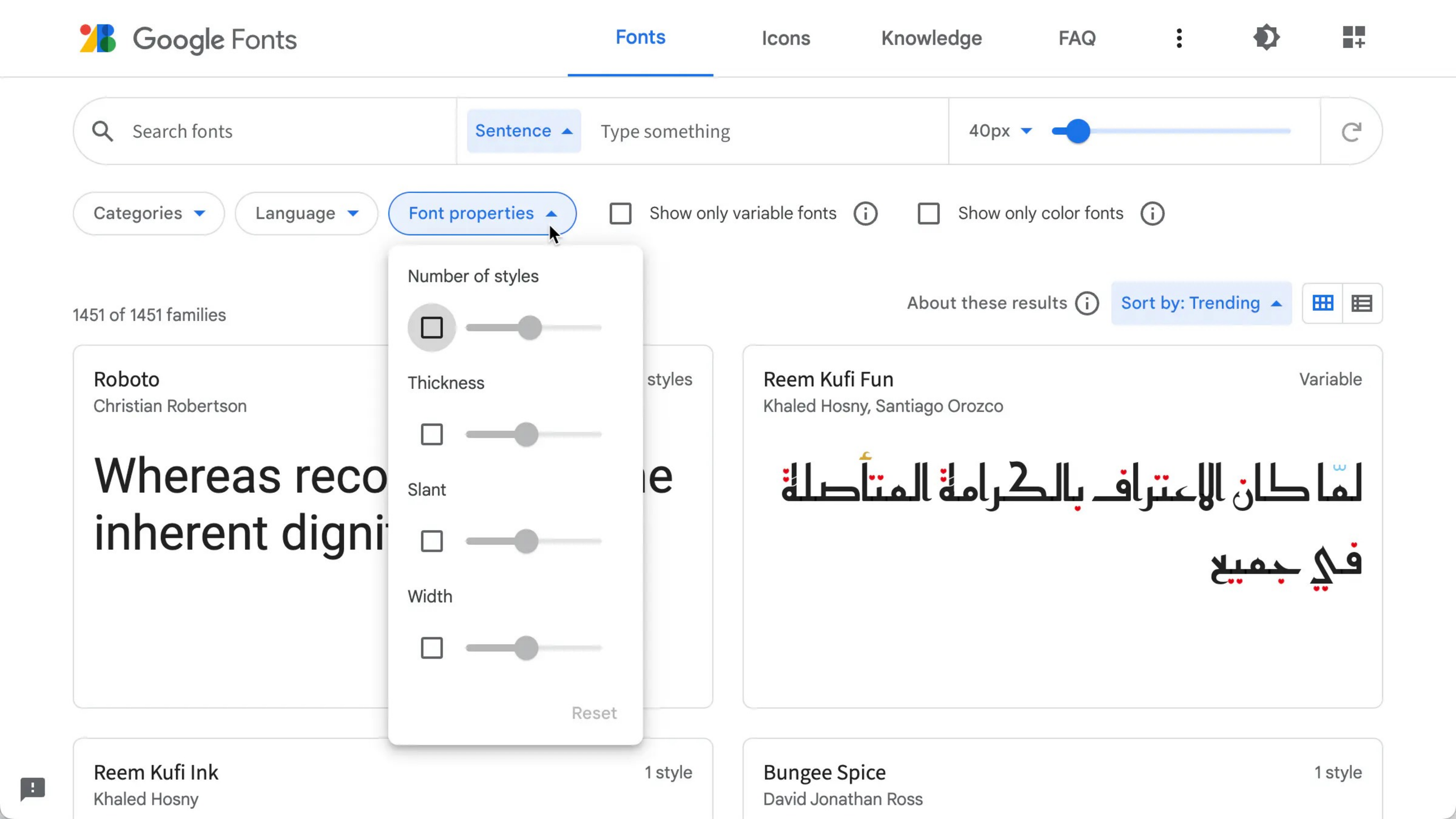
1 style

Bungee Spice
David Jonathan Ross
1 style


Google Fonts
Fonts
Icons
Knowledge
FAQ
Search fonts
Sentence
Type something
40px
Categories
Language
Font properties
Show only variable fonts
Show only color fonts
Number of styles
Thickness
Slant
Width
Reset
1451 of 1451 families
About these results
Sort by: Trending
Roboto
Christian Robertson
styles
Whereas reco
inherent digni
ne
Reem Kufi Fun
Khaled Hosny, Santiago Orozco
Variable
لما كان الاعتراف بالكرامة المتأصلة
في جميع
Reem Kufi Ink
Khaled Hosny
1 style
Bungee Spice
David Jonathan Ross
1 style

Embedding

Google Fonts the Google Way

(Don’t do this)

Time to pick out a nice font…

Oswald

Download family

Select styles | Glyphs | About | License | Pairings

Light 300

Almost before we knew it, we had left the ground.

Remove this style

Regular 400

Almost before we knew it, we had left the ground.

+ Select this style

Medium 500

Almost before we knew it, we had left the ground.

+ Select this style

Semi-bold 600

Almost before we knew it, we had left the ground.

+ Select this style

Bold 700

Almost before we knew it, we had left the ground.

+ Select this style

Variable weight axis

Selected family

Review | Embed

Oswald

Light 300

Add more styles | Remove all

Download family

Oswald

Download family

Select styles | Glyphs | About | License | Pairings

Almost before we knew it, we had left the ground.

Light 300

Almost before we knew it, we had left the ground.

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Regular 400

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Almost before we knew it, we had left the ground

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Variable weight axis

Selected family

Review | Embed

Oswald

Light 300

Regular 400

Bold 700

Add more styles | Remove all

Download family

Oswald

Download family

Select styles | Glyphs | About | License | Pairings

Almost before we knew it, we had left the ground.

Light 300

Almost before we knew it, we had left the ground.

Remove this style

Regular 400

Almost before we knew it, we had left the ground.

Medium 500

Almost before we knew it, we had left the ground.

+ Select this style

Semi-bold 600

Almost before we knew it, we had left the ground.

+ Select this style

Bold 700

Almost before we knew it, we had left the ground.

Remove this style

Variable weight axis

Don’t do this

Selected family

Review | Embed

To embed a font, copy the code into the <head> of your html

<link> @import

```
<link href="https://fonts.googleapis.com/css2?family=Oswald:wght@300;400;700&display=swap" rel="stylesheet">
```

CSS rules to specify families

```
font-family: 'Oswald', sans-serif;
```

API docs

```
/* latin-ext */
@font-face {
  font-family: 'Oswald';
  font-style: normal;
  font-weight: 300;
  font-display: swap;
  src: url(https://fonts.gstatic.com/s/oswald/v53/TK3iWkUHHAIjg752Fz8Gl-1PK62t.woff2) format('woff2');
  unicode-range: U+0100-02AF, U+0304, U+0308, U+0329, U+1E00-1E9F, U+1EF2-1EFF, U+2020, U+20A0-20AB, U+20AD-20CF, U+2113, U+2C60-2C7F, U+A720-A7FF;
}
/* latin */
@font-face {
  font-family: 'Oswald';
  font-style: normal;
  font-weight: 300;
  font-display: swap;
  src: url(https://fonts.gstatic.com/s/oswald/v53/TK3iWkUHHAIjg752GT8Gl-1PKw.woff2) format('woff2');
  unicode-range: U+0000-00FF, U+0131, U+0152-0153, U+02BB-02BC, U+02C6, U+02DA, U+02DC, U+0304, U+0308, U+0329, U+2000-206F, U+2074, U+20AC, U+2122,
U+2191, U+2193, U+2212, U+2215, U+FEFF, U+FFFD;
}
/* cyrillic-ext */
@font-face {
  font-family: 'Oswald';
  font-style: normal;
  font-weight: 400;
  font-display: swap;
  src: url(https://fonts.gstatic.com/s/oswald/v53/TK3iWkUHHAIjg752FD8Gl-1PK62t.woff2) format('woff2');
  unicode-range: U+0460-052F, U+1C80-1C88, U+20B4, U+2DE0-2DFF, U+A640-A69F, U+FE2E-FE2F;
}
/* cyrillic */
@font-face {
  font-family: 'Oswald';
  font-style: normal;
  font-weight: 400;
  font-display: swap;
  src: url(https://fonts.gstatic.com/s/oswald/v53/TK3iWkUHHAIjg752HT8Gl-1PK62t.woff2) format('woff2');
  unicode-range: U+0301, U+0400-045F, U+0490-0491, U+04B0-04B1, U+2116;
}
/* vietnamese */
@font-face {
  font-family: 'Oswald';
  font-style: normal;
```

Let’s see it in action

DEMO!

Serving Google Fonts Locally

(Do this)

If you embed the Google way, many website visitors will never see your chosen Google Fonts

- Most ad- & tracking-blockers filter out access to third-party fonts by default
- Google serves different fonts to users depending upon their operating systems

In order to provide a consistent set of fonts that all users can view, you should locally host selected Google Fonts

1570 fonts by famil

google-webfonts-helper
Get eot, ttf, svg, woff and woff2 + CSS

Star 11,570 Sponsor @majodev

- ABeeZee sans-serif
- Abel sans-serif
- Abhaya Libre serif
- Aboreto display
- Abril Fatface display
- Abyssinica SIL serif
- Aclonica sans-serif
- Acme sans-serif
- Actor sans-serif
- Adamina serif
- ADLaM Display display
- Advent Pro sans-serif
- Agdasima sans-serif
- Aguafina Script handwriting
- Akatab sans-serif
- Akaya Kanadaka

google-webfonts-helper

A Hassle-Free Way to Self-Host Google Fonts

by Mario Ranftl

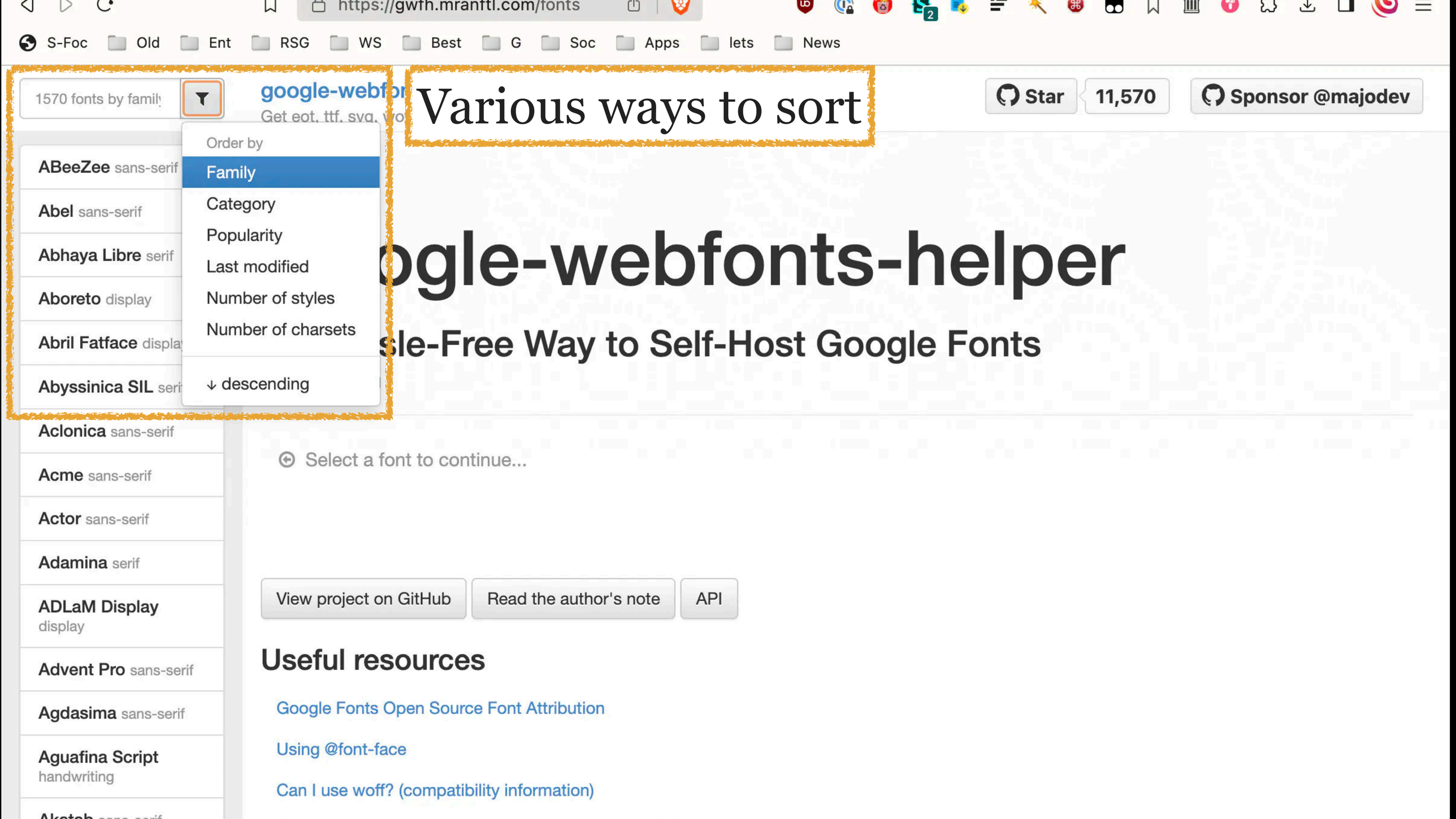
Select a font to continue...

https://chnsa.ws/gwh

View project on GitHub | Read the author's note | API

Useful resources

- Google Fonts Open Source Font Attribution
- Using @font-face
- Can I use woff? (compatibility information)
- WOFF 2.0 – Learn more about the next generation Web Font Format
- Sample MIME server config (Apache, Nginx, IIS)


https://gwfh.mranftl.com/fonts
S-Foc
Old
Ent
RSG
WS
Best
G
Soc
Apps
lets
News
1570 fonts by family
Order by
Family
Category
Popularity
Last modified
Number of styles
Number of charsets
↓ descending
Various ways to sort
Star
11,570
Sponsor @majodev
ABeeZee sans-serif
Abel sans-serif
Abhaya Libre serif
Aboreto display
Abril Fatface
Abyssinica SIL
Aclonica sans-serif
Acme sans-serif
Actor sans-serif
Adamina serif
ADLaM Display display
Advent Pro sans-serif
Agdasima sans-serif
Aguafina Script handwriting
ogle-webfonts-helper
le-Free Way to Self-Host Google Fonts
Select a font to continue...
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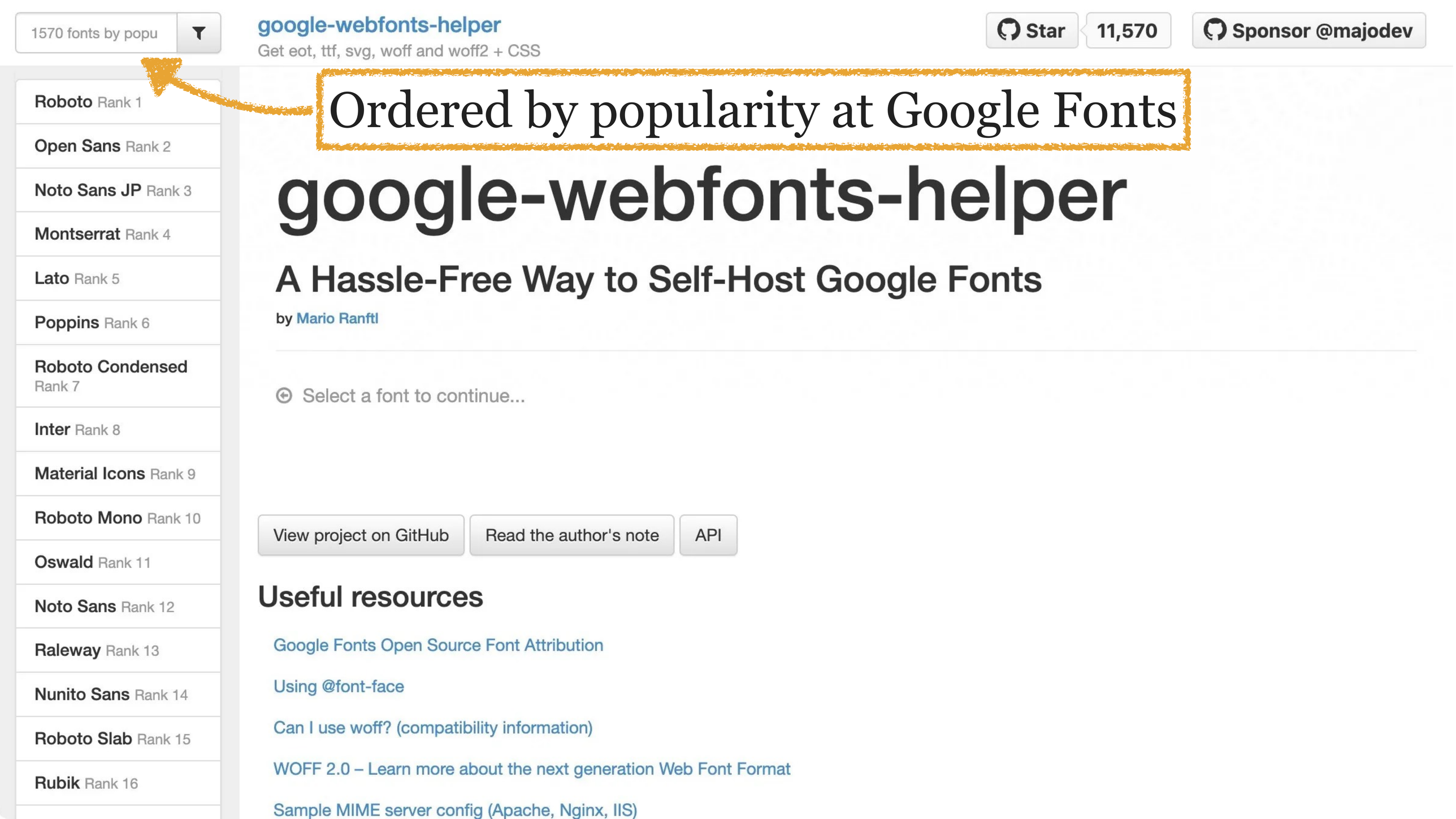
1570 fonts by popu
google-webfonts-helper
Get eot, ttf, svg, woff and woff2 + CSS
Star 11,570
Sponsor @majodev
Ordered by popularity at Google Fonts
Roboto Rank 1
Open Sans Rank 2
Noto Sans JP Rank 3
Montserrat Rank 4
Lato Rank 5
Poppins Rank 6
Roboto Condensed Rank 7
Inter Rank 8
Material Icons Rank 9
Roboto Mono Rank 10
Oswald Rank 11
Noto Sans Rank 12
Raleway Rank 13
Nunito Sans Rank 14
Roboto Slab Rank 15
Rubik Rank 16
google-webfonts-helper
A Hassle-Free Way to Self-Host Google Fonts
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Select a font to continue...
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Google Fonts Open Source Font Attribution
Using @font-face
Can I use woff? (compatibility information)
WOFF 2.0 – Learn more about the next generation Web Font Format
Sample MIME server config (Apache, Nginx, IIS)

Ordered by number of styles (fonts)

Advent Pro 18 styles

Albert Sans 18 styles

Aleo 18 styles

Alumni Sans 18 styles

Anybody 18 styles

Archivo 18 styles

Asap 18 styles

Azeret Mono 18 styles

Barlow 18 styles

Barlow Condensed 18 styles

Barlow Semi Condensed 18 styles

Be Vietnam Pro 18 styles

Bitter 18 styles

Chivo 18 styles

Chivo Mono 18 styles

google-webfonts-helper

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Select a font to continue...

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Sample MIME server config (Apache, Nginx, IIS)

sour

google-webfonts-helper
Get eot, ttf, svg, woff and woff2 + CSS

Star 11,570 Sponsor @majodev

Source Code Pro monospace

Source Sans 3 sans-serif

Source Serif 4 serif

Filter typefaces by name

google-webfonts-helper

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Select a font to continue...

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Can I use woff? (compatibility information)

WOFF 2.0 – Learn more about the next generation Web Font Format

Sample MIME server config (Apache, Nginx, IIS)

arimo

google-webfonts-helper

Get eot, ttf, svg, woff and woff2 + CSS

Star 11,570 Sponsor @majodev

Arimo sans-serif

Arimo

sans-serif

8 styles regular, italic, 500, 500italic, 600, 600italic, 700, 700italic

8 charsets cyrillic, cyrillic-ext, greek, greek-ext, hebrew, latin, latin-ext, vietnamese

Rank 45 in popularity of 1570 fonts in total

Last modified 2023-05-02 (v28)

1. Select charsets: (default is `latin`)

☐ cyrillic ☐ cyrillic-ext ☐ greek ☐ greek-ext ☐ hebrew ☑ latin ☐ latin-ext ☐ vietnamese

2. Select styles: (default is `regular`)

Preview size 16 px - + Sample text editable.

☑ regular The quick brown fox jumps over the lazy dog.

☐ italic *The quick brown fox jumps over the lazy dog.*

☐ 500 The quick brown fox jumps over the lazy dog.

☐ 500italic *The quick brown fox jumps over the lazy dog.*

☐ 600 **The quick brown fox jumps over the lazy dog.**

☐ 600italic ***The quick brown fox jumps over the lazy dog.***

☐ 700 **The quick brown fox jumps over the lazy dog.**

☐ 700italic ***The quick brown fox jumps over the lazy dog.***

arimo

google-webfonts-helper

Get eot, ttf, svg, woff and woff2 + CSS

Star 11,570 Sponsor @majodev

Arimo sans-serif

Arimo

sans-serif

8 styles regular, italic, 500, 500italic, 600, 600italic, 700, 700italic

8 charsets cyrillic, cyrillic-ext, greek, greek-ext, hebrew, latin, latin-ext, vietnamese

Rank 45 in popularity of 1570 fonts in total

Last **ed 2023-05-02** (v28)

1. Select charsets: (default is `latin`)

☐ cyrillic ☐ cyrillic-ext ☐ greek ☐ greek-ext ☐ hebrew ☑ latin ☐ latin-ext ☐ vietnamese

2. Select styles: (default is `regular`)

Preview size 16 px - + Sample text editable.

☑ regular The quick brown fox jumps over the lazy dog.

☐ italic *The quick brown fox jumps over the lazy dog.*

☐ 500 The quick brown fox jumps over the lazy dog.

☐ 500italic *The quick brown fox jumps over the lazy dog.*

☐ 600 **The quick brown fox jumps over the lazy dog.**

☐ 600italic ***The quick brown fox jumps over the lazy dog.***

☐ 700 **The quick brown fox jumps over the lazy dog.**

☐ 700italic ***The quick brown fox jumps over the lazy dog.***

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Get eot, ttf, svg, woff and woff2 files + CSS snippets

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Arimo 4 styles

Arimo

sans-serif

4 styles regular, 700, italic, 700italic

8 charsets cyrillic, cyrillic-ext, greek, greek-ext, hebrew, latin, latin-ext, vietnamese

Rank 41 in popularity of 999 fonts in total

Last modified 2019-07-22 (v13)

1. Select charsets: (default is `latin`)

☐ cyrillic ☐ cyrillic-ext ☐ greek ☐ greek-ext ☐ hebrew ☑ latin ☑ latin-ext ☐ vietnamese

2. Select styles: (default is `regular`)

Preview size | 16 | px | - | + Sample text editable.

☑ regular	The quick brown fox jumps over the lazy dog.
☐ 700	**The quick brown fox jumps over the lazy dog.**
☐ italic	*The quick brown fox jumps over the lazy dog.*
☐ 700italic	***The quick brown fox jumps over the lazy dog.***

3. Copy CSS: (default is `Best Support`)

Best Support | Modern Browsers

✏️ SIDE NOTE

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
U+010x	Ā	ā	Ă	ă	Ą	ą	Ć	ć	Ĉ	ĉ	Ċ	ċ	Č	č	Ď	ď
U+011x	Đ	đ	Ē	ē	Ĕ	ĕ	Ė	ė	Ę	ę	Ě	ě	Ĝ	ĝ	Ğ	ğ
U+012x	Ġ	ġ	Ģ	ģ	Ĥ	ĥ	Ħ	ħ	Ĩ	ĩ	Ī	ī	Ĭ	ĭ	Į	į
U+013x	İ	ı	Ĳ	ĳ	Ĵ	ĵ	Ķ	ķ	ĸ	Ĺ	Í	Ļ	ļ	Ľ	ľ	Ŀ
U+014x	ŀ	Ł	ł	Ń	ń	Ņ	ņ	Ň	ň	ʼn	Ŋ	ŋ	Ō	ō	Ŏ	ŏ
U+015x	Ő	ő	Œ	œ	Ŕ	ŕ	Ŗ	ŗ	Ř	ř	Ś	ś	Ŝ	ŝ	Ş	ş
U+016x	Š	š	Ţ	ţ	Ť	ť	Ŧ	ŧ	Ũ	ũ	Ū	ū	Ŭ	ŭ	Ů	ů
U+017x	Ű	ű	Ų	ų	Ŵ	ŵ	Ŷ	ŷ	Ÿ	Ź	ź	Ż	ż	Ž	ž	ſ

Latin Extended-A: Unicode block for Latin, Czech, Dutch, Polish, & Turkish alphabets

✏️ SIDE NOTE

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
U+018x	ƀ	Ɓ	Ƃ	ƃ	Ƅ	ƅ	Ɔ	Ƈ	ƈ	Ɖ	Ɗ	Ƌ	ƌ	ƍ	Ǝ	Ə
U+019x	Ɛ	Ƒ	ƒ	Ɠ	ƔƔ	ƕ	Ɩ	Ɨ	Ƙ	ƙ	ƚ	ƛ	Ɯ	Ɲ	ƞ	Ɵ
U+01Ax	Ơ	ơ	Ƣ	ƣ	Ƥ	ƥ	Ʀ	Ƨ	ƨ	Ʃ	ƪ	ƫ	Ƭ	ƭ	Ʈ	Ư
U+01Bx	ư	Ʊ	Ʋ	Ƴ	ƴ	Ƶ	ƶ	Ʒ	Ƹ	ƹ	ƺ	ƻ	Ƽ	ƽ	ƾ	ƿ
U+01Cx	ǀ	ǁ	ǂ	ǃ	DŽ	Dž	dž	LJ	Lj	lj	NJ	Nj	nj	Ǎ	ǎ	Ǐ
U+01Dx	ǐ	Ǒ	ǒ	Ǔ	ǔ	Ǖ	ǖ	Ǘ	ǘ	Ǚ	ǚ	Ǜ	ǜ	ǝ	Ǟ	ǟ
U+01Ex	Ǡ	ǡ	Ǣ	ǣ	Ǥ	ǥ	Ǧ	ǧ	Ǩ	ǩ	Ǫ	ǫ	Ǭ	ǭ	Ǯ	ǯ
U+01Fx	ǰ	DZ	Dz	dz	Ǵ	ǵ	Ƕ	Ƿ	Ǹ	ǹ	Ǻ	ǻ	Ǽ	ǽ	Ǿ	ǿ
U+020x	Ȁ	ȁ	Ȃ	ȃ	Ȅ	ȅ	Ȇ	ȇ	Ȉ	ȉ	Ȋ	ȋ	Ȍ	ȍ	Ȏ	ȏ
U+021x	Ȑ	ȑ	Ȓ	ȓ	Ȕ	ȕ	Ȗ	ȗ	Ș	ș	Ț	ț	Ȝ	ȝ	Ȟ	ȟ
U+022x	Ƞ	ȡ	Ȣ	ȣ	Ȥ	ȥ	Ȧ	ȧ	Ȩ	ȩ	Ȫ	ȫ	Ȭ	ȭ	Ȯ	ȯ
U+023x	Ȱ	ȱ	Ȳ	ȳ	ȴ	ȵ	ȶ	ȷ	ȸ	ȹ	Ⱥ	Ȼ	ȼ	Ƚ	Ⱦ	ȿ
U+024x	ɀ	ɁɁ	ɂ	Ƀ	Ʉ	Ʌ	Ɇ	ɇ	Ɉ	ɉ	Ɋ	ɋ	Ɍ	ɍ	Ɏ	ɏ

Latin Extended-B: Africa, Pan-Nigerian, Americanist, Khoisan, Pinyin, & Romanian alphabets

733 fonts by family

google-webfonts-helper

Get eot, ttf, svg, woff and woff2 files + CSS snippets

- **ABeeZee** sans-serif
- **Abel** sans-serif
- **Abril Fatface** display
- **Aclonica** sans-serif
- **Acme** sans-serif
- **Actor** sans-serif
- **Adamina** serif
- **Advent Pro** sans-serif
- **Aguafina Script** handwriting
- **Akronim** display
- **Aladin** handwriting
- **Aldrich** sans-serif
- **Alef** sans-serif
- **Alegreya** serif
- **Alegreya Sans** sans-serif
- **Alegreya Sans SC**

Arimo

sans-serif

4 styles regular, italic, 700, 700italic

8 charsets latin, cyrillic-ext, hebrew, vietnamese, cyrillic, latin-ext, greek, greek-ext

Rank 17 in popularity of 733 fonts in total

Last modified 2016-02-23 (v9)

1. Select charsets: (default is `latin`)

☐ cyrillic ☐ cyrillic-ext ☐ greek ☐ greek-ext ☐ hebrew ☑ latin ☐ latin-ext ☐ vietnamese

2. Select styles: (default is `regular`)

Preview size 16 px - + Sample text editable.

- ☑ regular — The quick brown fox jumps over the lazy dog.
- ☑ italic — *The quick brown fox jumps over the lazy dog.*
- ☑ 700 — **The quick brown fox jumps over the lazy dog.**
- ☐ 700italic — ***The quick brown fox jumps over the lazy dog.***

Choose styles (fonts)

3. Copy CSS: (default is `Best Support`)

Best Support | Modern Browsers

arimo

google-webfonts-helper

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Arimo 4 styles

3. Copy CSS: (default is `Best Support`)

Best Support | Modern Browsers

Choose `Best Support` if old browsers still need to be supported. Formats in this snippet: `[eot,woff,woff2,ttf,svg]`

```
/* arimo-regular - latin-ext_latin */
@font-face {
  font-family: 'Arimo';
  font-style: normal;
  font-weight: 400;
  src: url('../fonts/arimo-v13-latin-ext_latin-regular.eot'); /* IE9 Compat Modes */
  src: local('Arimo Regular'), local('Arimo-Regular'),
       url('../fonts/arimo-v13-latin-ext_latin-regular.eot?#iefix') format('embedded-opentype'), /* IE6-IE8 */
       url('../fonts/arimo-v13-latin-ext_latin-regular.woff2') format('woff2'), /* Super Modern Browsers */
       url('../fonts/arimo-v13-latin-ext_latin-regular.woff') format('woff'), /* Modern Browsers */
       url('../fonts/arimo-v13-latin-ext_latin-regular.ttf') format('truetype'), /* Safari, Android, iOS */
       url('../fonts/arimo-v13-latin-ext_latin-regular.svg#Arimo') format('svg'); /* Legacy iOS */
}
/* arimo-700 - latin-ext_latin */
@font-face {
  font-family: 'Arimo';
  font-style: normal;
  font-weight: 700;
  src: url('../fonts/arimo-v13-latin-ext_latin-700.eot'); /* IE9 Compat Modes */
  src: local('Arimo Bold'), local('Arimo-Bold'),
       url('../fonts/arimo-v13-latin-ext_latin-700.eot?#iefix') format('embedded-opentype'), /* IE6-IE8 */
       url('../fonts/arimo-v13-latin-ext_latin-700.woff2') format('woff2'), /* Super Modern Browsers */
       url('../fonts/arimo-v13-latin-ext_latin-700.woff') format('woff'), /* Modern Browsers */
       url('../fonts/arimo-v13-latin-ext_latin-700.ttf') format('truetype'), /* Safari, Android, iOS */
```

arimo

google-webfonts-helper

Get eot, ttf, svg, woff and woff2 files + CSS snippets

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Arimo 4 styles

3. Copy CSS: (default is `Best Support`)

Best Support | Modern Browsers

Choose `Modern Browsers` if supporting old browsers is not relevant. Formats in this snippet: `[woff,woff2]`

```
/* arimo-regular - latin-ext_latin */
@font-face {
  font-family: 'Arimo';
  font-style: normal;
  font-weight: 400;
  src: local('Arimo Regular'), local('Arimo-Regular'),
       url('../fonts/arimo-v13-latin-ext_latin-regular.woff2') format('woff2'), /* Chrome 26+, Opera 23+, Firefox 39+ */
       url('../fonts/arimo-v13-latin-ext_latin-regular.woff') format('woff'); /* Chrome 6+, Firefox 3.6+, IE 9+, Safari 5.1+ */
}
/* arimo-700 - latin-ext_latin */
@font-face {
  font-family: 'Arimo';
  font-style: normal;
  font-weight: 700;
  src: local('Arimo Bold'), local('Arimo-Bold'),
       url('../fonts/arimo-v13-latin-ext_latin-700.woff2') format('woff2'), /* Chrome 26+, Opera 23+, Firefox 39+ */
       url('../fonts/arimo-v13-latin-ext_latin-700.woff') format('woff'); /* Chrome 6+, Firefox 3.6+, IE 9+, Safari 5.1+ */
}
/* arimo-italic - latin-ext_latin */
@font-face {
```

arimo

Arimo 4 styles

google-webfonts-helper

Get eot, ttf, svg, woff and woff2 files + CSS snippets

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```
       url('../fonts/arimo-v13-latin-ext_latin-700.woff2') format('woff2'), /* Chrome 26+, Opera 23+, Firefox 39
+ */
       url('../fonts/arimo-v13-latin-ext_latin-700.woff') format('woff'); /* Chrome 6+, Firefox 3.6+, IE 9+, Saf
ari 5.1+ */
}
/* arimo-italic - latin-ext_latin */
@font-face {
  font-family: 'Arimo';
  font-style: italic;
  font-weight: 400;
  src: local('Arimo Italic'), local('Arimo-Italic'),
       url('../fonts/arimo-v13-latin-ext_latin-italic.woff2') format('woff2'), /* Chrome 26+, Opera 23+, Firefox
39+ */
       url('../fonts/arimo-v13-latin-ext_latin-italic.woff') format('woff'); /* Chrome 6+, Firefox 3.6+, IE 9+,
 Safari 5.1+ */
}
```

Customize folder prefix (optional): ../fonts/

Click on code to select all statements, then copy/paste it into your own CSS fil

I don't want to use `../fonts/` with `..` at the start

4. Download files:

Your generated archive for **Arimo** with charsets `[latin-ext,latin]` and styles `[700,regular,italic]` includes the formats `[woff,woff2]`.

arimo-v13-latin-ext_latin.zip

Fonts are copyright of their respective authors.

See Google Fonts Open Source Font Attribution to find out the specific license that this font uses.

arimo

Arimo 4 styles

google-webfonts-helper

Get eot, ttf, svg, woff and woff2 files + CSS snippets

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```
       url('/fonts/arimo-v13-latin-ext_latin-700.woff2') format('woff2'), /* Chrome 26+, Opera 23+, Firefox 39+
 */
       url('/fonts/arimo-v13-latin-ext_latin-700.woff') format('woff'); /* Chrome 6+, Firefox 3.6+, IE 9+, Safar
i 5.1+ */
}
/* arimo-italic - latin-ext_latin */
@font-face {
  font-family: 'Arimo';
  font-style: italic;
  font-weight: 400;
  src: local('Arimo Italic'), local('Arimo-Italic'),
       url('/fonts/arimo-v13-latin-ext_latin-italic.woff2') format('woff2'), /* Chrome 26+, Opera 23+, Firefox 3
9+ */
       url('/fonts/arimo-v13-latin-ext_latin-italic.woff') format('woff'); /* Chrome 6+, Firefox 3.6+, IE 9+, Sa
fari 5.1+ */
}
```

Customize folder prefix (optional): /fonts/

Click on code to select all statements, then copy/paste it into your own

The correct path is `/fonts/` (assuming CSS in `/css` & fonts in `/fonts`)

4. Download files:

Your generated archive for **Arimo** with charsets `[latin-ext,latin]` and styles `[700,regular,italic]` includes the formats `[woff,woff2]`.

arimo-v13-latin-ext_latin.zip

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arimo

Arimo 4 styles

google-webfonts-helper

Get eot, ttf, svg, woff and woff2 files + CSS snippets

Star 6,770

```
       url('/fonts/arimo-v13-latin-ext_latin-700.woff2') format('woff2'), /* Chrome 26+, Opera 23+, Firefox 39+
 */
       url('/fonts/arimo-v13-latin-ext_latin-700.woff') format('woff'); /* Chrome 6+, Firefox 3.6+, IE 9+, Safar
i 5.1+ */
}
/* arimo-italic - latin-ext_latin */
@font-face {
  font-family: 'Arimo';
  font-style: italic;
  font-weight: 400;
  src: local('Arimo Italic'), local('Arimo-Italic'),
       url('/fonts/arimo-v13-latin-ext_latin-italic.woff2') format('woff2'), /* Chrome 26+, Opera 23+, Firefox 3
9+ */
       url('/fonts/arimo-v13-latin-ext_latin-italic.woff') format('woff'); /* Chrome 6+, Firefox 3.6+, IE 9+, Sa
fari 5.1+ */
}
```

Customize folder prefix (optional): /fonts/

Click on code to select all statements, then copy/paste it into your own CSS file.

4. Download files:

Your generated archive for **Arimo** with charsets `[latin-ext,latin]` and styles `[700,regular,italic]` includes the formats `[woff,woff2]`.

arimo-v13-latin-ext_latin.zip

Click to download fonts

Fonts are copyright of their respective authors.
See Google Fonts Open Source Font Attribution to find out the specific license that this font uses.

arimo

google-webfonts-helper

Get eot, ttf, svg, woff and woff2 files + CSS snippets

Star 6,770

Arimo 4 styles

```
       url('/fonts/arimo-v13-latin-ext_latin-700.woff2') format('woff2'), /* Chrome 26+, Opera 23+, Firefox 39+ */
       url('/fonts/arimo-v13-latin-ext_latin-700.woff') format('woff'); /* Chrome 6+, Firefox 3.6+, IE 9+, Safari 5.1+ */
}
/* arimo-italic - latin-ext_latin */
@font-face {
  font-family: 'Arimo';
  font-style: italic;
  font-weight: 400;
  src: local('Arimo Italic'), local('Arimo-Italic'),
       url('/fonts/arimo-v13-latin-ext_latin-italic.woff2') format('woff2'), /* Chrome 26+, Opera 23+, Firefox 39+ */
       url('/fonts/arimo-v13-latin-ext_latin-italic.woff') format('woff'); /* Chrome 6+, Firefox 3.6+, IE 9+, Safari 5.1+ */
}
```

Customize folder prefix (optional): /fonts/

Click on code to select all statements, then copy/paste it into your own CSS file.

Click anywhere in gray box to select all the CSS, then copy & paste into your CSS

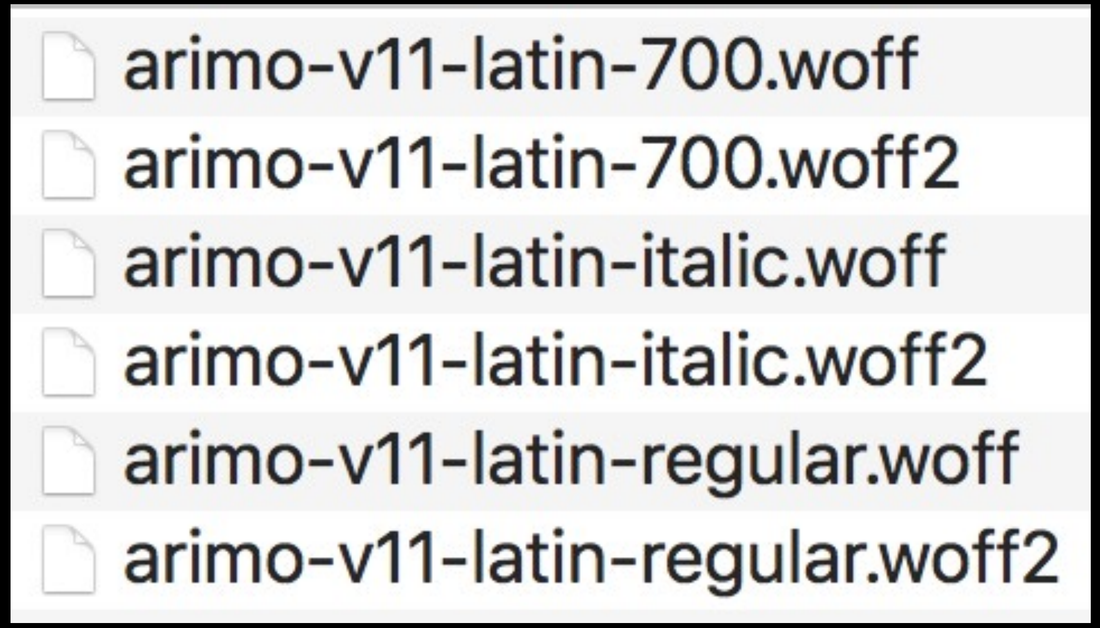
4. Download files:

Your generated archive for **Arimo** with charsets `[latin-ext,latin]` and styles `[7`

arimo-v13-latin-ext_latin.zip

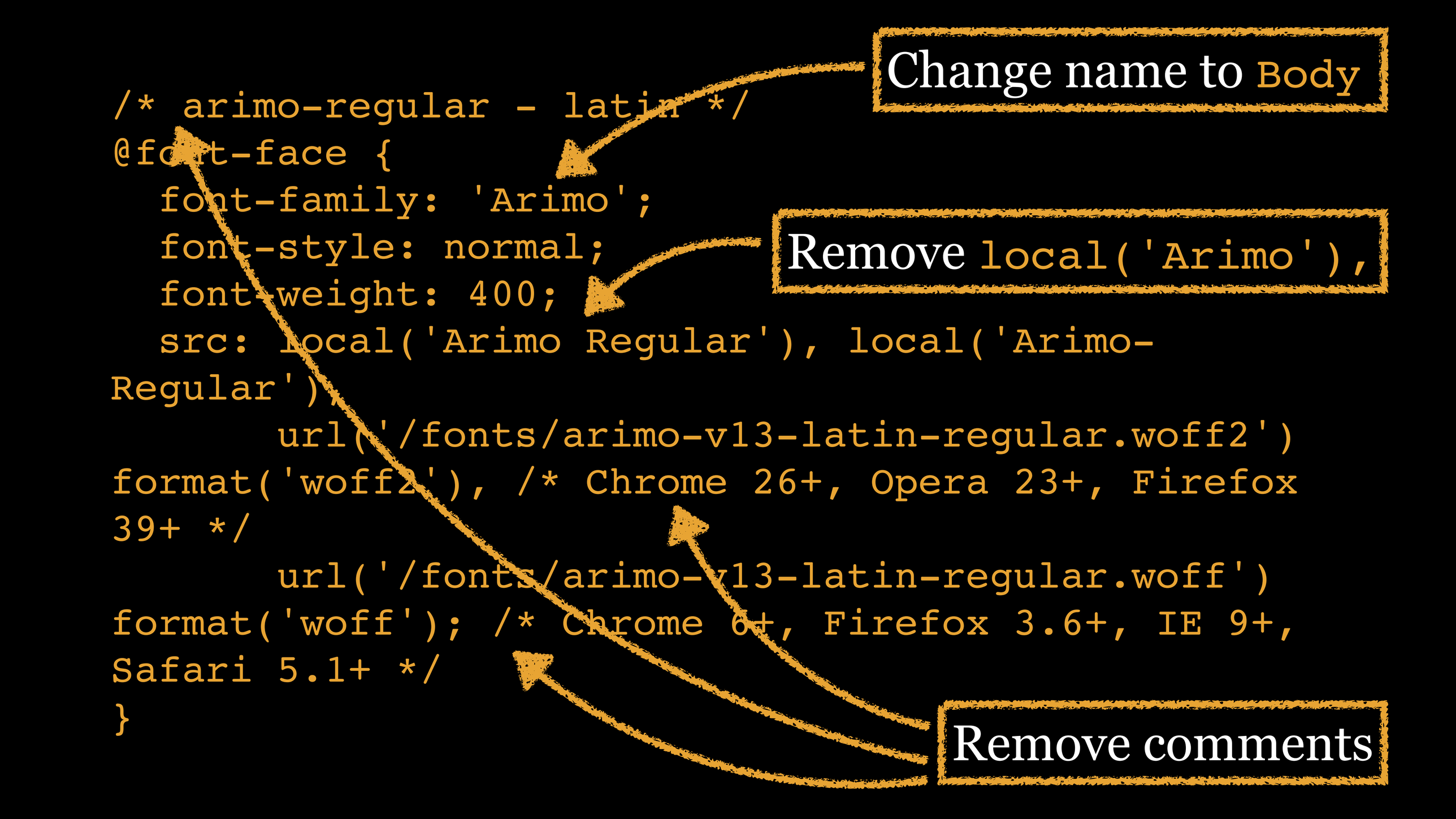
Fonts are copyright of their respective authors.

See Google Fonts Open Source Font Attribution to find out the specific license that this font uses.



After unzipping `arimo-v11-latin-ext_latin.zip`, (or whatever it's named) move the font files into your project's `fonts` folder

Now let’s correct the CSS…


/* arimo-regular - latin */
@font-face {
font-family: 'Arimo';
font-style: normal;
font-weight: 400;
src: local('Arimo Regular'), local('Arimo-Regular'),
url('/fonts/arimo-v13-latin-regular.woff2') format('woff2'), /* Chrome 26+, Opera 23+, Firefox 39+ */
url('/fonts/arimo-v13-latin-regular.woff') format('woff'); /* Chrome 6+, Firefox 3.6+, IE 9+, Safari 5.1+ */
}
Change name to Body
Remove local('Arimo'),
Remove comments

```
@font-face {
  font-family: 'Body';
  font-style: normal;
  font-weight: 400;
  src: url('/fonts/arimo-v13-latin-regular.
woff2') format('woff2'),
       url('/fonts/arimo-v13-latin-regular.
woff') format('woff');
}
```

Much better!

```
@font-face {
  font-family: 'Arimo';
  font-style: normal;
  font-weight: 400;
}

@font-face {
  font-family: 'Arimo';
  font-style: italic;
  font-weight: 400;
}

@font-face {
  font-family: 'Arimo';
  font-style: normal;
  font-weight: 700;
}

@font-face {
  font-family: 'Source Serif Pro';
  font-style: normal;
  font-weight: 700;
}
```

Change all `Arimo` to `Body`
& `Source Serif Pro` to `Heading`
& get rid of all useless `'`

```
@font-face {
  font-family: 'Body';
  font-style: normal;
  font-weight: 400;
  src: …
}
@font-face {
  font-family: 'Arimo';
  font-style: italic;
  font-weight: 400;
  src: …
}
```

```
@font-face {
  font-family: 'Arimo';
  font-style: normal;
  font-weight: 700;
  src: …
}
@font-face {
  font-family: 'Source Serif Pro';
  font-style: normal;
  font-weight: 700;
  src: …
}
```

Change `Arimo` to `Body` & `Source Serif Pro` to `Heading`

```
@font-face {
  font-family: 'Body';
  font-style: normal;
  font-weight: 400;
  src: …
}
@font-face {
  font-family: 'Body';
  font-style: italic;
  font-weight: 400;
  src: …
}
```

```
@font-face {
  font-family: 'Body';
  font-style: normal;
  font-weight: 700;
  src: …
}
@font-face {
  font-family: 'Heading';
  font-style: normal;
  font-weight: 700;
  src: …
}
```

Since our `font-family` is 1 word, get rid of all useless `'`

```
@font-face {
  font-family: Body;
  font-style: normal;
  font-weight: 400;
  src: …
}
@font-face {
  font-family: Body;
  font-style: italic;
  font-weight: 400;
  src: …
}
```

```
@font-face {
  font-family: Body;
  font-style: normal;
  font-weight: 700;
  src: …
}
@font-face {
  font-family: Heading;
  font-style: normal;
  font-weight: 700;
  src: …
}
```

The browser knows when to use `400`, `400 italic`, `700`, …

Typography is a fascinating subject

Have fun with fonts on the Web, but always put the user’s needs first

Typeface colophon

Georgia Pro • Adobe Caslon Pro • Andalé Mono • Apple Color Emoji • Arial • Arial Black • Arial Nova • Avant Garde • Avenir • Avenir Next • Baskerville • Batang • Bodoni 72 • Calibri • Cambria • Candara • Cariadings • Caxton Roman Book • CCExtraExtra • CCExtraExtraEngraved • Chalkboard • CMU Serif • CMU Serif Upright Italic • Comic Sans MS • Coming Together • Consolas • Constantia • Corbel • Courier •

Courier New • Crimson Text • DejaVu Sans • DejaVu Sans Mono • DejaVu Serif • Didot • Droid Sans • Droid Sans Mono • Droid Serif • Futura • Futura Std • Georgia • Georgia Pro Condensed • Gill Sans • Gill Sans Nova • Harrington • Helvetica • Helvetica Neue • Hoefler Text • Impact • Iowan Old Style • Jazz LET • Linux Libertine • Lucida Handwriting • Menlo • Myriad Pro • Neue Haas Grotesk Text Pro • Noto Sans • Oswald • Palatino

Party LET • Perpetua Titling MT • Playbill • Proxima Nova • Rockwell Nova • SF Pro Text • Savoye LET • Snell Roundhand • Source Code Pro • Source Sans Pro • Source Serif Pro • Times • Times New Roman • Trebuchet MS • Univers • Verdana • Verdana Pro • Webdings • Zapfino • _P22 Franklin Caslon Italic • _P22 Franklin Caslon Regular

79 total

Thank you!

scott@granneman.com
granneman.com
@scottgranneman@mastodon.social

jans@websanity.com
websanity.com

Slides

granneman.com/downloads/web-dev/CSS-Typography-Condensed.pdf

chnsa.ws/css-typo-condensed-slides

Notes

granneman.com/downloads/web-dev/CSS-Typography-Condensed.txt

chnsa.ws/css-typo-condensed-notes

All of my presentations

granneman.com/presentations/all-presentations

chnsa.ws/all-presentations

Bonus

The following slides contain extra, bonus information that we don’t have time to cover in class

Why?

“[T]ypography is important for one reason: because it is the primary way that designers can communicate with readers…

When it comes to web design, typography … is the art of dividing up bundles of information in such a way that the reader will have a good chance of finding what is of interest to him…” —Arfa Mirza

"From a child I was fond of Reading, and all the little Money that came into my Hands was ever laid out in Books. … Often I sat up in my Room reading the greatest Part of the Night, when the Book was borrow'd in the Evening and to be return'd early in the Morning lest it should be miss'd or wanted." —*The Autobiography of Benjamin Franklin*

Basics

Typefaces, Fonts, Glyphs, & Characters

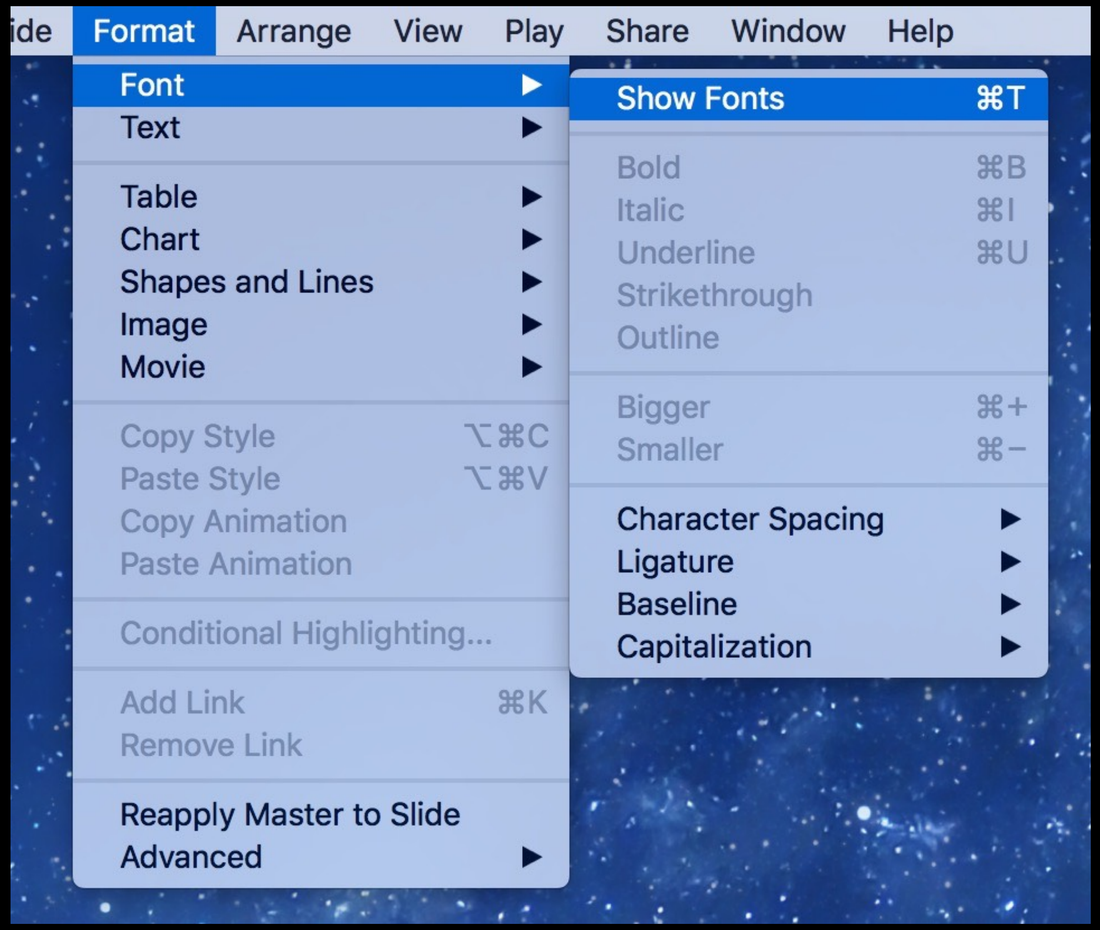
Characters

In linguistics, a *grapheme* is the smallest unit of a writing system of a language: `f` `&` `5` `?` `+` `漢` `ی` `ç` `И` `Ш`

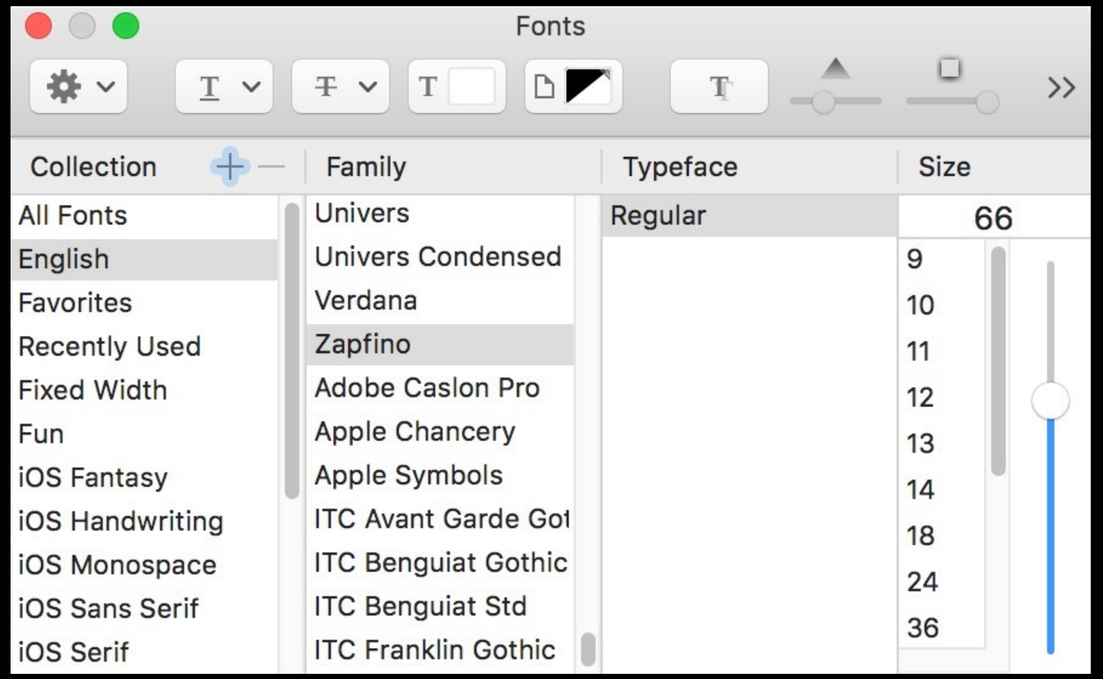
(A *phoneme* is a unit of sound: `/b/` for the grapheme `b`, or `/ʃ/` for the grapheme `sh`)

In typography, a *character* is roughly similar to a grapheme

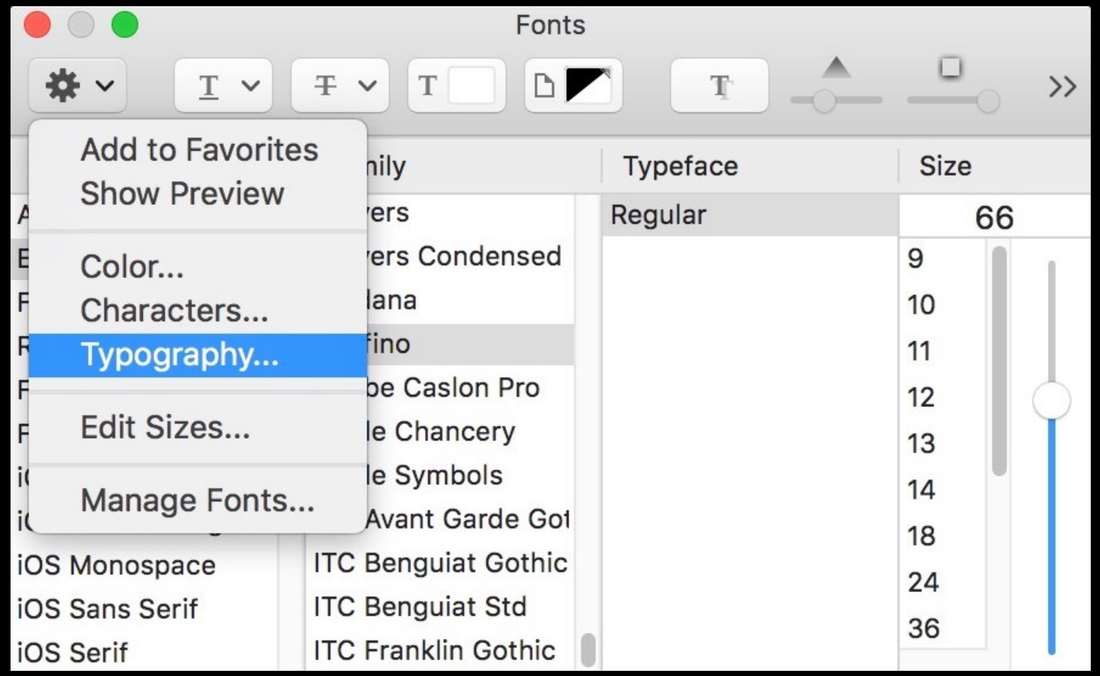
Glyphs



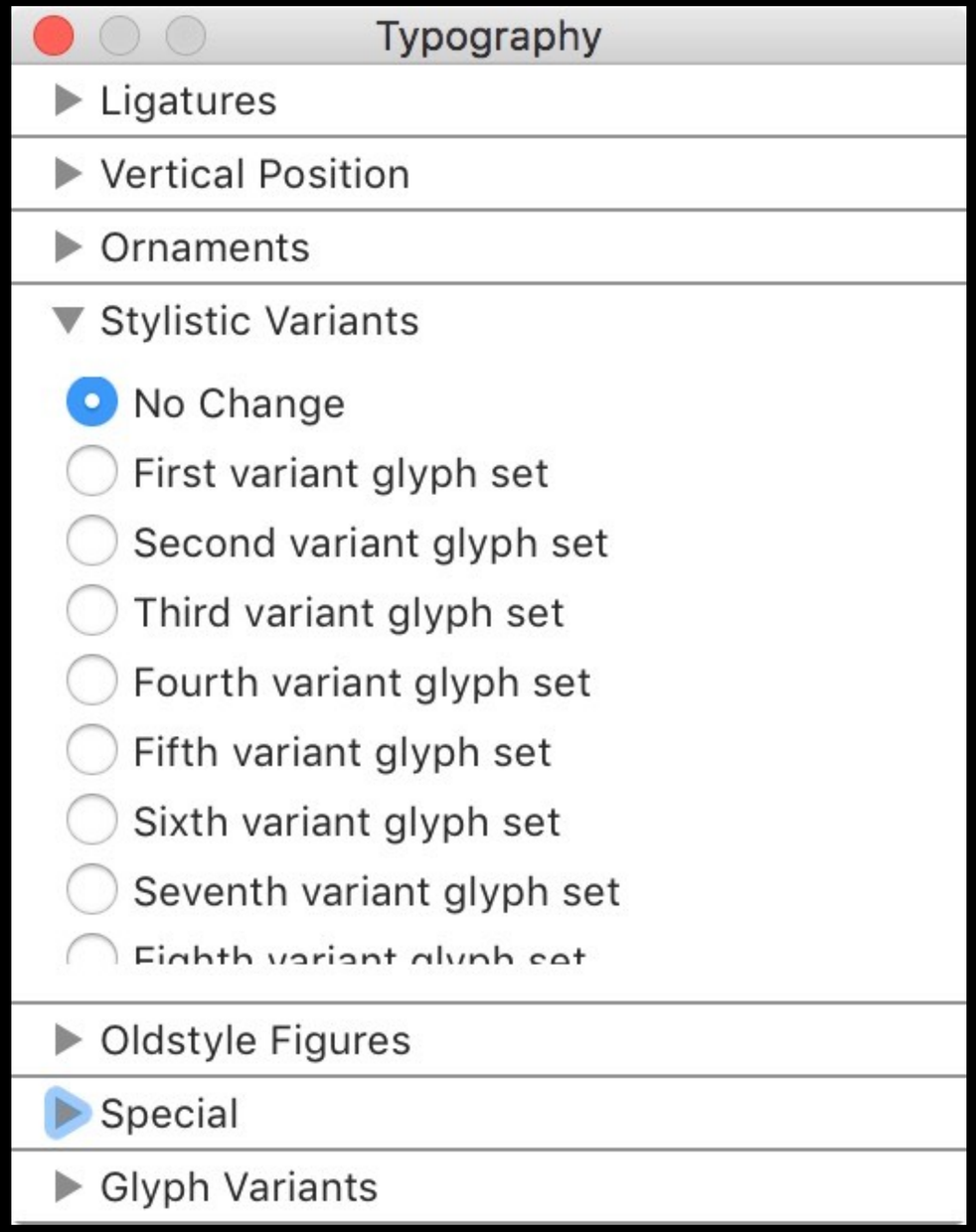
To access font variants on a Mac, start by selecting text & then select Format > Font > Show Fonts



In the Fonts window, select the Family & Typeface



Select the Action Menu > Typography



Expand Stylistic Variants & make your selection(s)

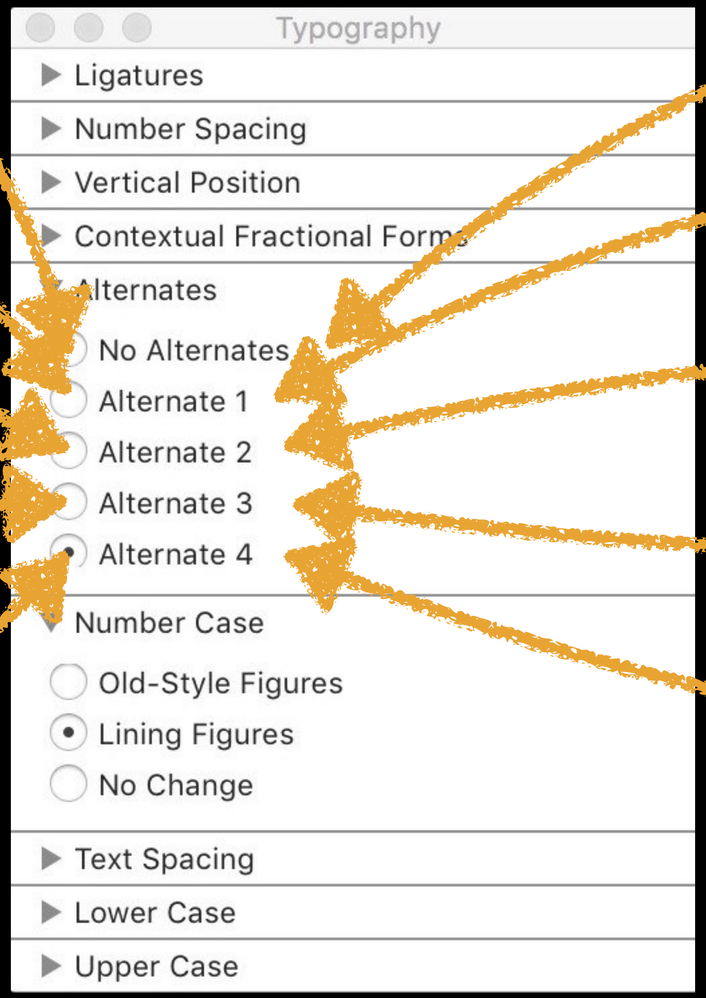
1234567890

1234567890

1234567890

1234567890

1234567890



Digit

Superscript

Subscript

Old Style

Lining

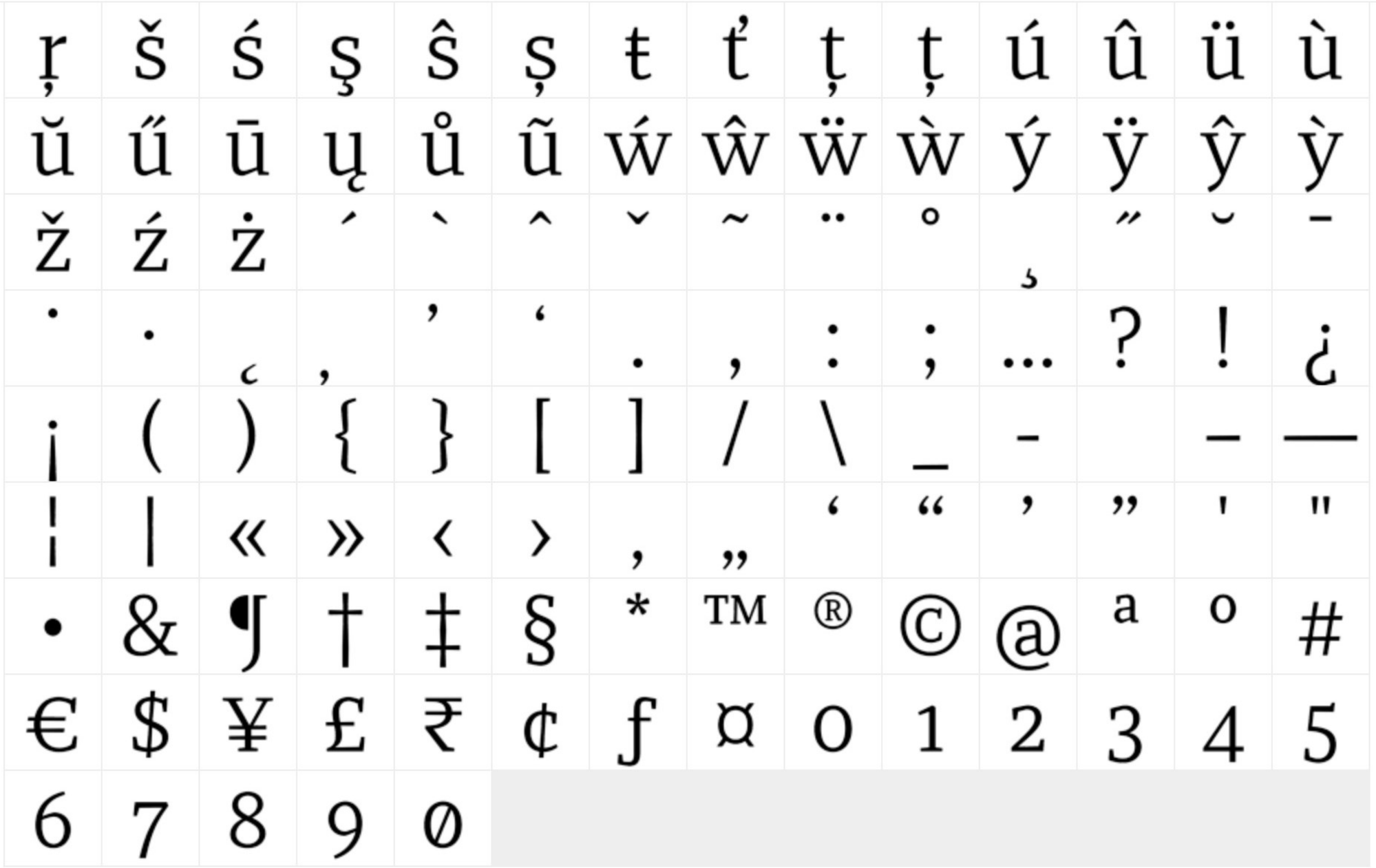
Noto has ~64,000 glyphs because it's trying to eventually cover all 128,000 characters in Unicode 9

Georgia Pro (the font you're seeing here) has 857 glyphs

Recia contains 516 glyphs

A	B	C	D	E	F	G	H	I	J	K	L	M	N
O	P	Q	R	S	T	U	V	W	X	Y	Z	Æ	Œ
Ł	Ø	Đ	Þ	a	b	c	d	e	f	g	h	i	j
k	l	m	n	o	p	q	r	s	t	u	v	w	x
y	z	æ	œ	ł	ø	ð	þ	ß	ı	ȷ	fi	fl	ff
fb	fh	fj	fk	ffi	ffl	ffb	ffh	ffj	ffk	Th	Á	Â	Ä
À	Ă	Ã	Ă	Ā	Ą	Ç	Ć	Č	Ĉ	Ċ	Ď	Đ	É
Ê	Ë	È	Ĕ	Ě	Ė	Ē	Ę	Ğ	Ĝ	Ģ	Ġ	Ħ	Ĥ
Í	Î	Ï	Ì	Ǐ									

İ	Ī	Į	Ĩ	Ĵ	IJ	Ķ	Ĺ	Ľ	Ļ	Ŀ	Ñ	Ń	Ň
Ņ	Ó	Ô	Ö	Ò	Õ	Ǒ	Ő	Ō	Ŕ	Ř	Ŗ	Š	Ś
Ş	Ŝ	Ș	Ŧ	Ť	Ţ	Ț	Ú	Û	Ü	Ù	Ŭ	Ű	Ū
Ų	Ů	Ũ	Ẃ	Ŵ	Ẅ	Ỳ	Ý	Ÿ	Ŷ	Ỳ	Ž	Ź	Ż
á	â	ä	à	å	ã	ă	ā	ą	ç	ć	č	ĉ	ċ
ď	đ	é	ê	ë	è	ĕ	ě	ė	ē	ę	ğ	ĝ	ģ
ġ	ħ	ĥ	í	î	ï	ì	ĭ	i	ī	į	ĩ	ĵ	ij
ķ	Í	ľ	ļ	l·	ñ	ń	ň	ņ	ó	ô	ö	ò	õ
ŏ	ő	ō	ŕ	ř									


ţ š ś ş ŝ ș ŧ ť ț ţ ú û ü ù
ŭ ű ū ų ů ũ ẃ ŵ ẅ ẁ ý ÿ ŷ ỳ
ž ź ż ´ ` ^ ˇ ~ ¨ ° ˛ ˝ ˘ ¯
· . ‚ , ’ ‘ . , : ; … ? ! ¿
¡ ( ) { } [ ] / \ _ - – —
¦ | « » ‹ › , „ ‘ “ ’ ” ' "
• & ¶ † ‡ § * ™ ® © @ a o #
€ $ ¥ £ ₹ ¢ ƒ ¤ 0 1 2 3 4 5
6 7 8 9 ø

#	€	$	¥	£	₹	¢	0	1	2	3	4	5	6
7	8	9	0	0	1	2	3	4	5	6	7	8	9
0	o	1	2	3	4	5	6	7	8	9	0	#	€
$	¥	£	₹	¢	o	1	2	3	4	5	6	7	8
9	0	°	%	‰	/	/	0	1	2	3	4	5	6
7	8	9	1/2	1/4	3/4	1/3	2/3	1/8	3/8	5/8	7/8	1/5	2/5
3/5	4/5	1/6	5/6	1/7	2/7	3/7	4/7	5/7	6/7	1/9	2/9	4/9	5/9
7/9	8/9	0	1	2	3	4	5	6	7	8	9	0	1
2	3	4	5	6									

RECIA COMPLETE (10 fonts)

240.00 USD

Back (94 Fonts)

Numbers are often either *modern* or *old style*

0123456789 or 0123456789

Modern figures 0123456789

» AKA *lining* or *titling* figures
» All numbers are same height as uppercase letters
» Great for math & science, but not as attractive in text

Old style figures 0123456789

- AKA *text*, *non-lining*, *lowercase*, *ranging*, *hanging*, *medieval*, *billing*, or *antique* figures
- Varying heights to fit in more with text, with ascenders & descenders
- Great for text, as they fit in more with letters & are easier to read

Types

There are many ways to characterize typefaces

Google Fonts

Fonts | Icons | Knowledge | FAQ

Search fonts | Sentence | Type something | 40px

Categories | Language | Font properties | Show only variable fonts | Show only color fonts

- [x] Serif
- [x] Sans Serif
- [x] Display
- [x] Handwriting
- [x] Monospace

Reset

About these results | Sort by: Trending

12 styles

s recognition of the inherent dignity

Reem Kufi Fun
Khaled Hosny, Santiago Orozco
Variable

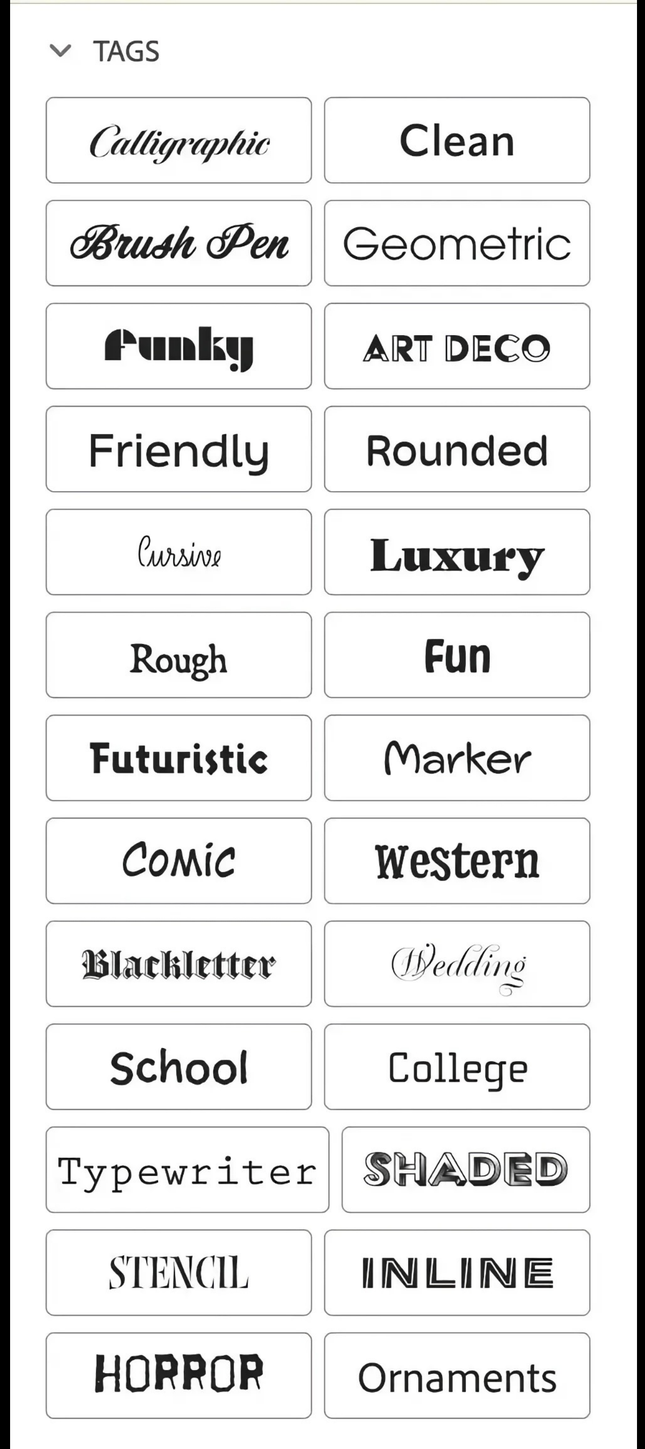
لما كان الاعتراف بالكرامة المتأصلة في جميع

Reem Kufi Ink
Khaled Hosny
1 style

Bungee Spice
David Jonathan Ross
1 style

CLASSIFICATION
M
M
Sans Serif
Serif
M
M
Slab Serif
Script
M
M
Mono
Hand

Adobe Fonts


TAGS
Calligraphic
Clean
Brush Pen
Geometric
Funky
ART DECO
Friendly
Rounded
Cursive
Luxury
Rough
Fun
Futuristic
Marker
Comic
Western
Blackletter
Wedding
School
College
Typewriter
SHADED
STENCIL
INLINE
HORROR
Ornaments

Adobe Fonts

Serif (Minion Pro)

- Old Style (Adobe Jenson Pro)
- Transitional (ITC New Baskerville)
- Modern (Bodoni)

Slab Serif (Clarendon)

Sans serif (Myriad)

Script (Coronet)

Blackletter (Teutonic No. 1)

DISPLAY (LiquidCrystal)

Monospaced (Courier)

✤✻■✳❁❁▼ (ITC Zapf Dingbats)

(Dingbat)

Wikipedia

More from Wikipedia:

Serif (Old Style, Transitional, Didone, & Slab serif) & Sans-serif • Blackletter • Gaelic • Monospaced (usually sans-serif or slab serif) • CJK/Chinese, Japanese, & Korean (Mincho, Gothic, & Maru) • Display (Script, Ethnic, Reverse-contrast, Effect, & Small print) • Ornamental • Symbol/dingbat • Emoji • Music

Leading

```
* {
  font-family: Helvetica, sans-serif;
  font-size: 1em;
  line-height: 1.3;
}
```

Same as:

```
* {
  font: 1em/1.3 Helvetica, sans-serif;
}
```

Scale

8 13 21 34 55 89

Fibonacci sequence scale

Base Size

16 px = 1em

Scale

1.333 — Perfect Fourth

Preview Text

A Visual Type Scale

Google Fonts Find a Font

Libre+Baskerville

Font Family

'Libre Baskerville', serif

Weight

400

Permalink

http://type-scale.com/?size=16&scale=1.333&text=A Visual

3.157em	A Visual Type Scale
2.369em	A Visual Type Scale
1.777em	A Visual Type Scale
1.333em	A Visual Type Scale
1em	A Visual Type Scale
0.75em	A Visual Type Scale
0.563em	A Visual Type Scale
0.422em	A Visual Type Scale

Grab the CSS

Edit on CodePen

Base Size

16 px = 1em

Scale

1.200 — Minor Third

Preview Text

A Visual Type Scale

Google Fonts Find a Font

Libre+Baskerville

Font Family

'Libre Baskerville', serif

Weight

400

Permalink

http://type-scale.com/?size=16&scale=1.200&text=A Visual

2.074em	A Visual Type Scale
1.728em	A Visual Type Scale
1.44em	A Visual Type Scale
1.2em	A Visual Type Scale
1em	A Visual Type Scale
0.833em	A Visual Type Scale
0.694em	A Visual Type Scale
0.579em	A Visual Type Scale

Grab the CSS

Edit on CodePen

Mor

One
Wo

From t
horribl
little he
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ready t

His ma
waved
though
little to

One

From t
horribl
little he
into sti

Base Size

16 px = 1em

Scale

1.200 — Minor Third

Preview Text

A Visual Type Scale

Google Fonts Find a Font

Libre+Baskerville

Font Family

'Libre Baskerville', serif

Weight

400

Permalink

http://type-scale.com/?size=16&scale=1.200&text=A Visual

2.074em A Visual Type Scale

1.728em A Visual Type Scale

1.44em A Visual Type Scale

1.2em A Visual Type Scale

1em A Visual Type Scale

0.833em A Visual Type Scale

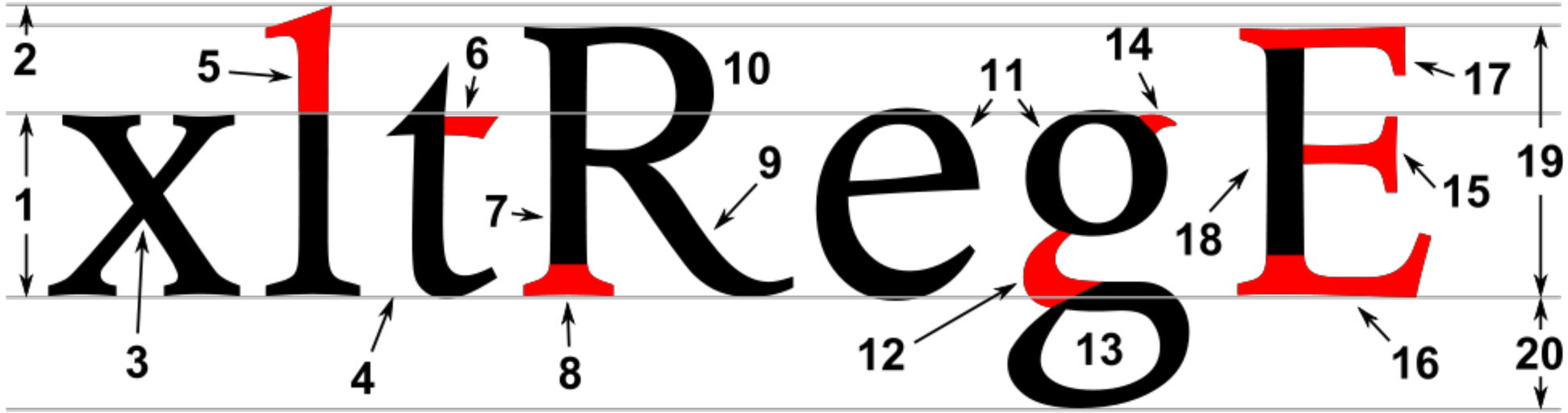
0.694em A Visual Type Scale

0.579em A Visual Type Scale

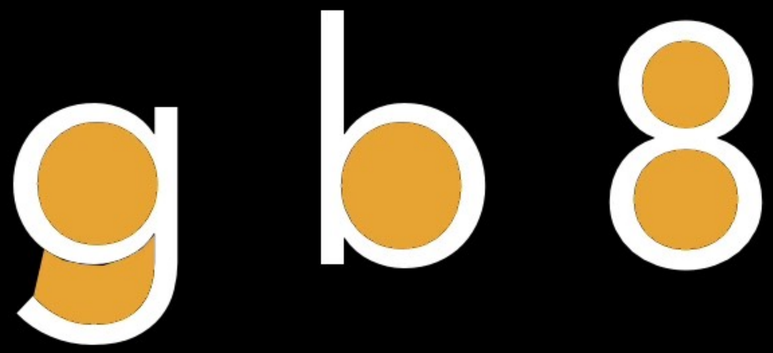
✖ Grab the CSS | Edit on CodePen

```
html {font-size: 1em;}

body {
  background-color: white;
  font-family: 'Libre Baskerville', serif;
  font-weight: 400;
  line-height: 1.45;
  color: #333;
}

p {margin-bottom: 1.3em;}
```

Terminology



6 crossbar
7 stem
8 **serif**
9 leg
10 bowl
11 **counter**
17 arm
18 vertical bar
19 **cap height**
20 **descender line**



Counter: area of a letter or number that is entirely (*closed*, like a lake) or partially (*open*, like a bay) enclosed

Counter: area of a letter or number that is entirely (*closed*) or partially (*open*) enclosed

Bowl: curved stroke that creates a counter (bottom bowl of g is aka a *loop*)

Counter: area of a letter or number that is entirely (*closed*) or partially (*open*) enclosed

Bowl: curved stroke that creates a counter (bottom bowl of g is a *loop*)

Aperture: opening between an open counter & the outside of the letter

Closed counters

A B D O P Q R a b d e g o p q
A B D O P Q R a b d e g o p q
0 4 6 8 9 • 0 6 8 9

Open counters

C G S a c h m n s u v w x y z
C G S a c g h m n s u v w y z
2 3 5 6 9 • 4 • 2 3 4 5 6 9

g	single-story g	1 closed counter & 1 open counter (& therefore 1 aperture)
g	double-story g	2 closed counters

The lowercase g is interesting!

Testing

Typographers have certain words & phrases they use to test their fonts

Xiite

Tobias Frere-Jones
Futura Std

HAMBURGFONTSIV

Jesse Ragan
Caxton Roman Book

zwyłły

Verena Gerlach

Avenir Next

minimom

Matteo Bologna

Didot

Högertrafikomläggningen

Jackson Cavanaugh

Source Serif Pro

Handgloves

Erik Spiekermann

CMU Serif

Château d’Yquem

Malou Verlomme

Oswald

difficult waffles

Berton Hasebe
Adobe Caslon Pro

Common Fonts & Defaults

Microsoft's Core Fonts for the Web

Sans-serif fonts

Arial

Aa Ee Rr

Aa Ee Rr

a

Deliverable

abcdefghijklm
nopqrstuvwxyz
0123456789

Verdana

Aa Ee Rr

Aa Ee Rr

a

Sylvestris

abcdefghijklm
nopqrstuvwxyz
0123456789

Trebuchet

Aa Qq Rr

Aa Qq Rr

a

Portmanteau

abcdefghijklm
nopqrstuvwxyz
0123456789

Arial

Aa Ee Rr

Aa Ee Rr

a

Deliverable

abcdefghijklm
nopqrstuvwxyz
0123456789

"Arial is just an ugly bastard son of Helvetica." —King Sidharth

"I try to keep the litmus tests to a minimum, but this must be one: you cannot create good typography with Arial." —Matthew Butterick, typographer & author of *Butterick's Practical Typography*

Helvetica was designed for traditional print originally

Arial was designed for laser printers & computer screens

“Helvetica is a sharper, crisper design with more stylish details and a slightly more rectangular (or, less rounded) appearance. … Arial is the more rounded of the two designs, with softer, fuller curves, and more open counters. It has an overall less elegant, blander appearance that reproduces well in lower resolutions environments.” —Ilene Strizver

Helvetica: GRQat

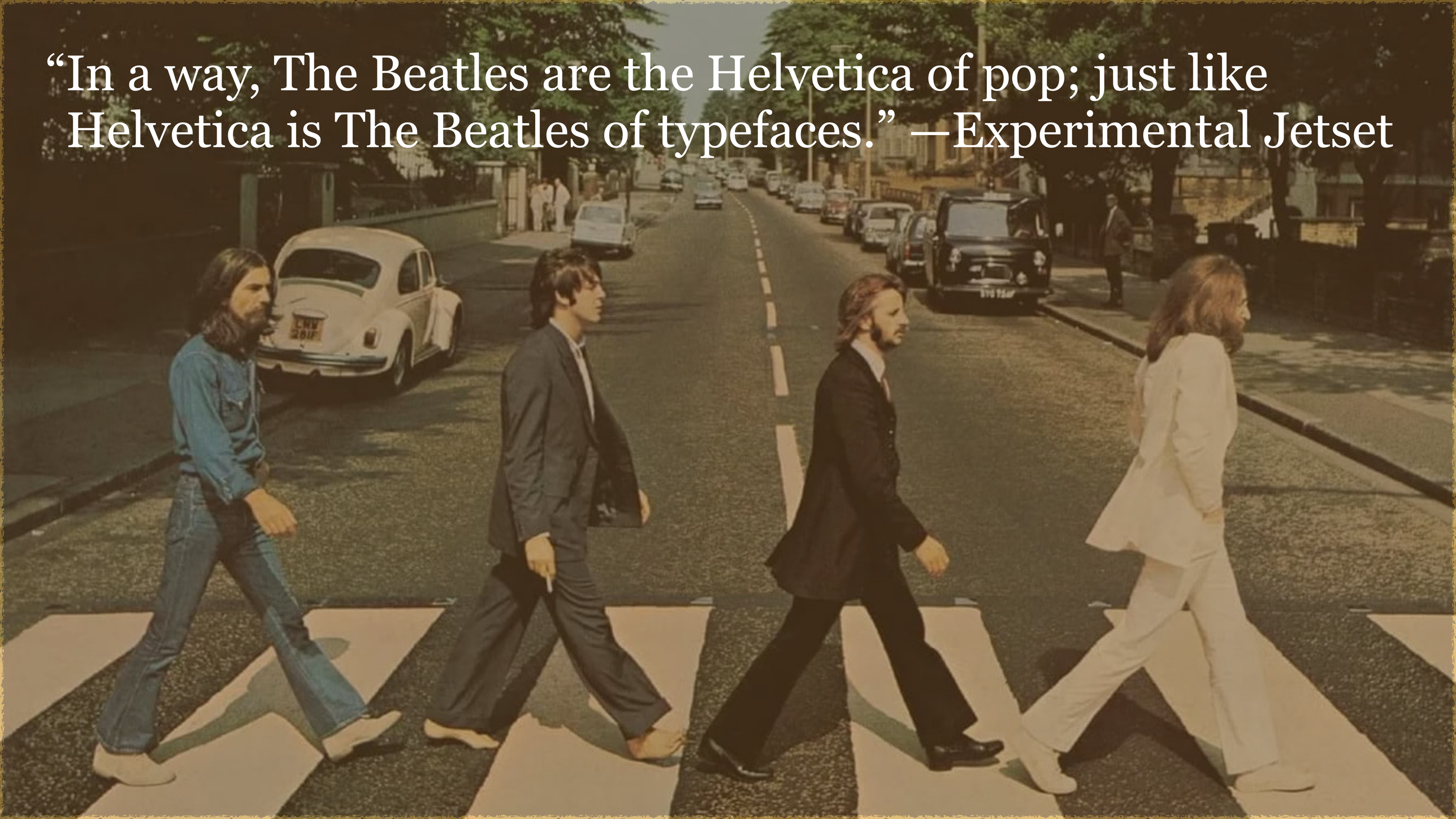
Arial: GRQat

Helvetica: Cefrgi

Arial: Cefrgi

Helvetica: 123&%

Arial: 123&%


“In a way, The Beatles are the Helvetica of pop; just like Helvetica is The Beatles of typefaces.” —Experimental Jetset

Trebuchet

Aa Qq Rr
Aa Qq Rr

a

Portmanteau

abcdefghijklm
nopqrstuvwxyz
0123456789

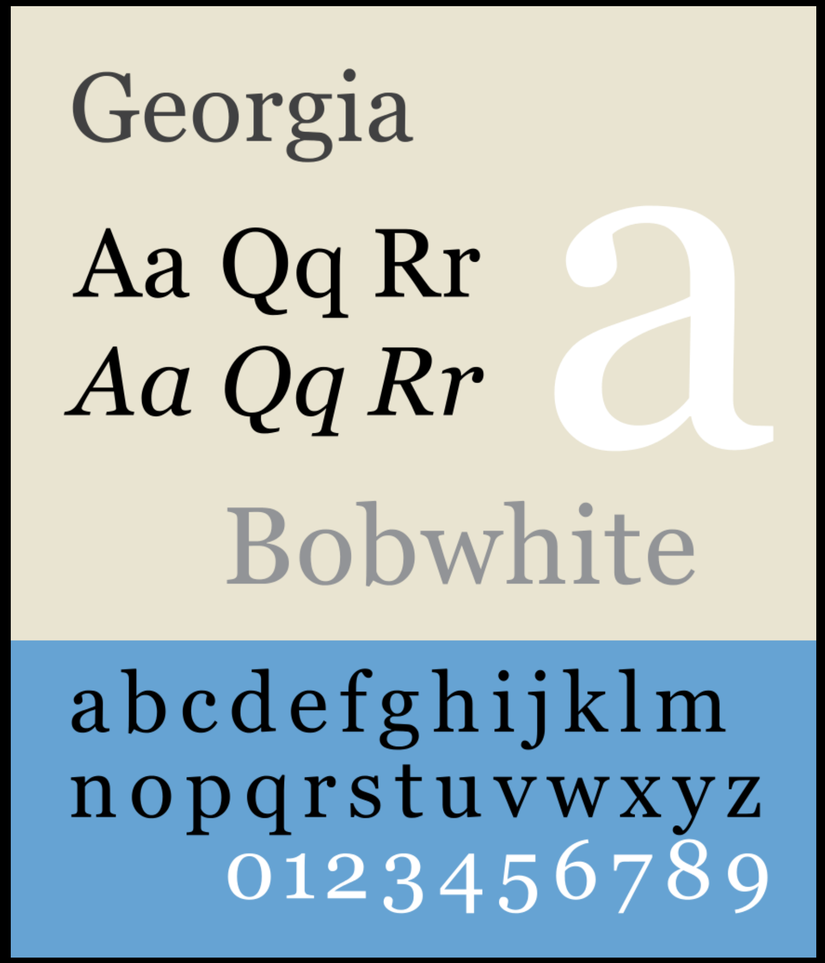
A *trebuchet* is a type of medieval catapult

Trebuchet was the font's name because it "launches words across the Internet"

Interesting glyphs:
A Q e g i j l $! &

Serif fonts

Times New Roman
Aa Ee Rr
Aa Ee Rr
a
Publisher
abcdefghijklm
nopqrstuvwxyz
0123456789


Georgia
Aa Qq Rr
Aa Qq Rr
a
Bobwhite
abcdefghijklm
nopqrstuvwxyz
0123456789

Georgia

Aa Qq Rr

Aa Qq Rr

a

Bobwhite

a b c d e f g h i j k l m
n o p q r s t u v w x y z
0 1 2 3 4 5 6 7 8 9

Georgia designed in 1993 by Matthew Carter as serif companion to sans-serif Verdana, with name referring to a tabloid headline: “Alien heads found in Georgia”

Georgia is intended to be elegant but legible when printed at small sizes or on low-resolution monitors by using large x-heights, fewer fine details, & thicker thin strokes

Bold is very bold, almost black

Georgia Pro released in 2013 & includes:

» Additional weights, including condensed
» Specialized small caps
» Extensions to character sets
» Extensions to kerning
» Ligatures 🥳
» Lining figures

That’s the typeface I use in all my presentations

Impact

Aa Gg Xx

(16½”)

YELL!

Am lautesten

a b c d e f g h i j k l m
n o p q r s t u v w x y z

[0123456789]

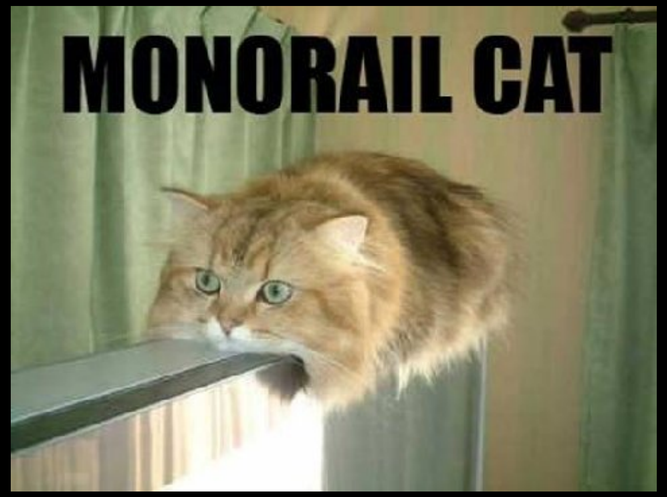
A condensed, bold, “industrial” sans-serif font that dates back to Geoffrey Lee’s original design in 1965

Used widely in memes

DO NOT WANT.

INVISIBLE BIKE

WE HAZ A
BIZNESS PLAN


MONORAIL CAT

LOLCats

INVASION KITTIES
ACCEPT YOUR OFFERING
FOUND ON KATURDAY.COM

I IZ NOT IN TEH HOLIDAY SPIRIK

Comic Sans

Aa Bb Cc

Aa Bb Cc

a

Kidz Korner

a b c d e f g h i j k l m

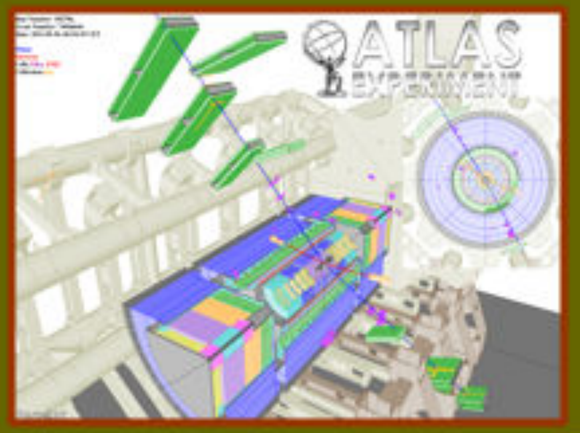
n o p q r s t u v w x y z

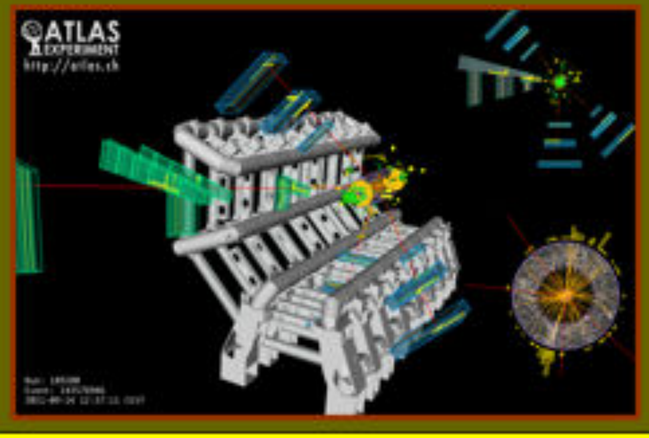
0 1 2 3 4 5 6 7 8 9

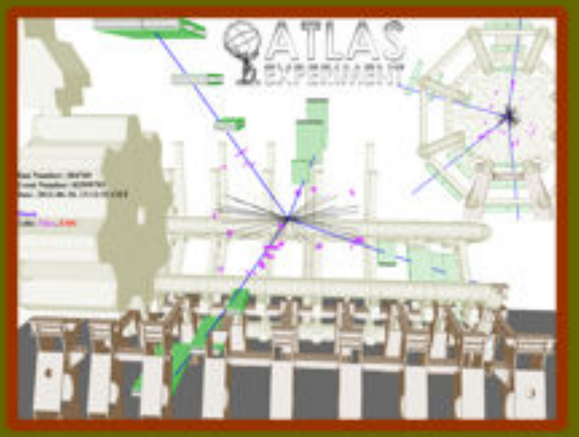
Still included in Windows

Never use Comic Sans

Real, yet inappropriate or wrong, uses of Comic Sans



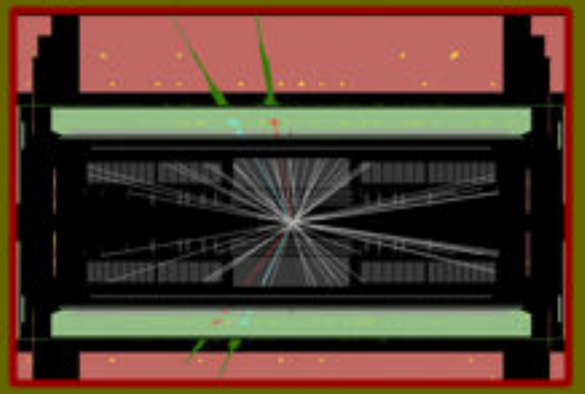


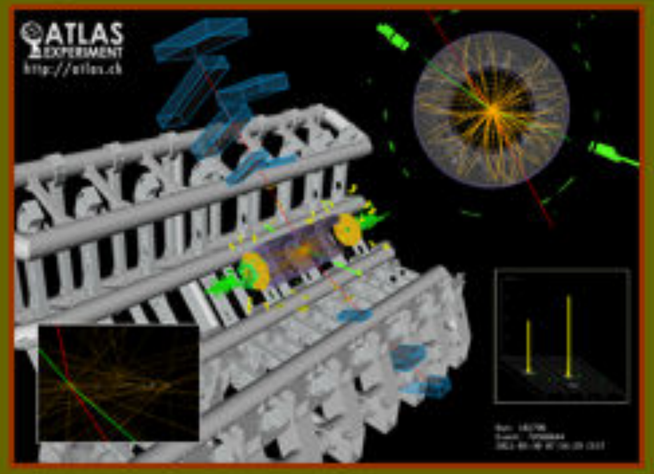


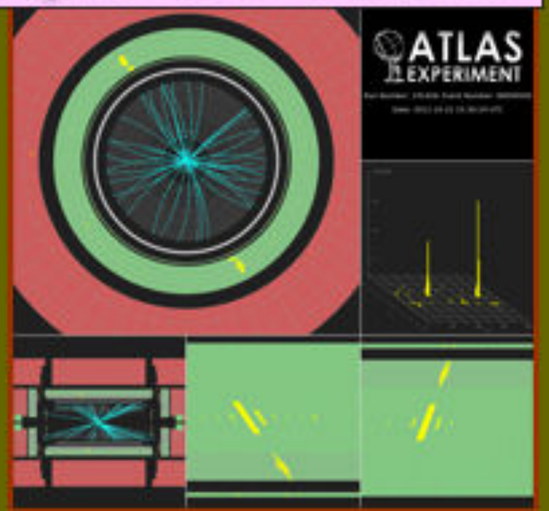
Status of Standard Model Higgs searches in ATLAS

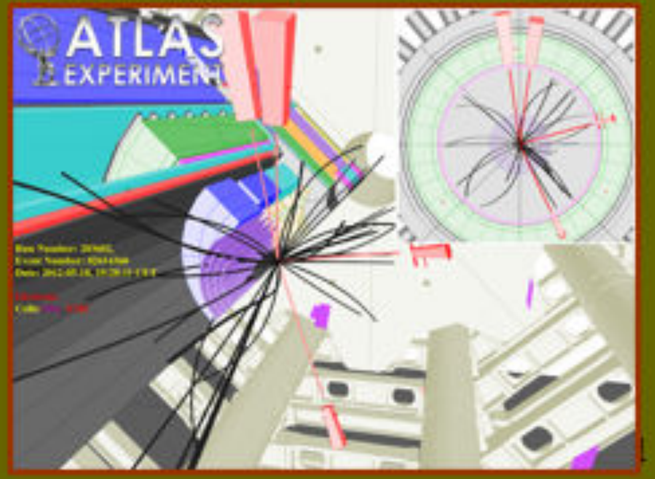
Using the full datasets recorded in 2011 at $\sqrt{s}$= 7 TeV and 2012 at $\sqrt{s}$=8 TeV: up to 10.7 fb^{-1}

Fabiola Gianotti (CERN), representing the ATLAS Collaboration





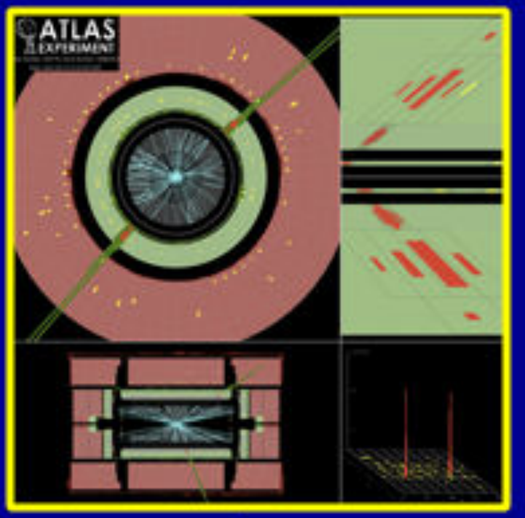




$H \rightarrow \gamma\gamma$

$110 \leq m_H \leq 150$ GeV

$\sigma \times BR \sim 50$ fb $m_H \sim 126$ GeV



- Simple topology: two high-p_T isolated photons
  $E_T(\gamma_1, \gamma_2) > 40, 30$ GeV
- Main background: $\gamma\gamma$ continuum (irreducible, smooth, ..)

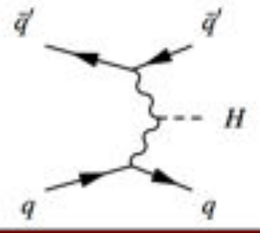
To increase sensitivity, events divided in 10 categories based on γ rapidity, converted/unconverted γ: p_{Tt} ($p_T^{\gamma\gamma}$ perpendicular to $\gamma\gamma$ thrust axis); 2jets

Main improvements in new analysis:
- 2jet category introduced → targeting VBF process
- γ identification (NN used for 2011 data) and isolation

→ Expected gain in sensitivity: + 15%

Background fit procedure also improved

σ_{SM} (VBF) ~7%



2 jets with
$p_T > 25$-30 GeV
$|\eta| < 4.5$
$|\Delta\eta|_{jj} > 2.8$
$M_{jj} > 400$ GeV
$|\Delta\varphi|$ ($\gamma\gamma$-jj) > 2.6

Expected gain in sensitivity: 5%

After all selections, expect (10.7 fb^{-1}, $m_H \sim 126$ GeV)
- ~ 170 signal events (total signal efficiency ~ 40%)
- ~ 6340 background events in mass window

→ S/B ~ 3% inclusive (~ 20% 2jet category)

Crucial experimental aspects:
- excellent $\gamma\gamma$ mass resolution to observe narrow signal peak above irreducible background
- powerful γ identification to suppress γj and jj background with jet → π^0 → fake γ

(cross sections are 10^4-10^7 larger than $\gamma\gamma$ background)

The next steps …

ATLAS plans to submit a paper based on the data presented today at the end of July, at the same time as CMS and to the same journal

$H \rightarrow WW^{(*)} \rightarrow l\nu l\nu$ channel: plan is to include results in the July paper

$H \rightarrow \tau\tau$, $W/ZH \rightarrow W/Z\,b\bar{b}$: first results with 2012 data expected later in the Summer

MORE DATA will be essential to:

- Establish the observation in more channels, look at more exclusive topologies
- start to understand the nature and properties of the new particle

This is just the BEGINNING !

We are entering the era of "Higgs" measurements

First question: is the observed excess due to the production of a SM Higgs boson ?

Note:

- we have only recorded ~ 1/3 of the data expected in 2012
- the LHC and experiments have already accomplished a lot and much faster than expected

Microsoft ClearType Font Collection

Candara

Aa Ee Xx

Aa **Gg** **Xx**

Bildersturm

a b c d e f g h i j k l m

n o p q r s t u v w x y z

0123456789

Candara

ABCDEFGHIJKLM

NOPQRSTUVWXYZ

abcdefghijklm

nopqrstuvwxyz

0123456789

!@#$%^&*()+-=?/

<>;:“”‘’|

Constantia
ABCDEFGHIJKLM
NOPQRSTUVWXYZ
abcdefghijklm
nopqrstuvwxyz
0123456789
!@#$%^&*()+-=?/
<>;:“”‘’|

Corbel

Aa Bb Cc

Aa Bb Cc

a

On-screen

abcdefghijklm
nopqrstuvwxyz
0123456789

Corbel
ABCDEFGHIJKLM
NOPQRSTUVWXYZ
abcdefghijklm
nopqrstuvwxyz
0123456789
!@#$%^&*()+-=?/
<>;:'"\|

Web Browser Defaults

✏️ SIDE NOTE

Adobe makes 3 excellent fonts available that are open source & free

- ~~Source Sans Pro~~ Source Sans
- ~~Source Serif Pro~~ Source Serif
- Source Code Pro

Here’s how to download them

Adobe Fonts

437 followers

github.com/adobe-fonts

Follow

Overview | Repositories 38 | Projects | Packages | People 4

Pinned

source-serif Public

Typeface for setting text in many sizes, weights, and languages. Designed to complement Source Sans.

CSS 2k 157

source-sans Public

Sans serif font family for user interface environments

CSS 3.2k 231

source-code-pro Public

Monospaced font family for user interface and coding environments

CSS 18.8k 1.6k

source-han-serif Public

Source Han Serif | 思源宋体 | 思源宋體 | 思源宋體香港 | 源ノ明朝 | 본명조

Shell 6.9k 655

People

Top languages

PostScript Shell CSS

Python HTML

Most used topics

opentype otf font fonts

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People

Top languages

PostScript Shell CSS

Python HTML

Most used topics

opentype otf font fonts

release | Go to file | Add file | Code

frankrolf Update font files to version 4.005 ... on Jan 20 **40**

OTF	Update font files to version 4.005	2 months ago
TTF	Update font files to version 4.005	2 months ago
VAR	Update font files to version 4.005	2 months ago
WOFF	Update font files to version 4.005	2 months ago
WOFF2	Update font files to version 4.005	2 months ago
demo	Updated styles.css - normal font is 400	2 years ago
.gitignore	Add .gitignore	2 months ago
LICENSE.md	Update LICENSE.md	2 months ago

About

Typeface for setting text in many sizes, weights, and languages. Designed to complement Source Sans.

adobe-fonts.github.io/source-se...

fonts | otf | afdko | opentype-fonts | variable-fonts | ttf-fonts

Readme

OFL-1.1 license

2k stars

95 watching

release | Go to file | Add file | Code

frankrolf Update font files to version 4.005 ... on Jan 20 **40**

OTF	Update font files to version 4.005	2 months ago
TTF	Update font files to version 4.005	2 months ago
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Readme

OFL-1.1 license

2k stars

95 watching

Fonts version 4.005 (OTF, TTF, WOFF, WOFF2, Variable)

Compare

Latest

frankrolf released this Jan 20 · 4.005R · 2823e99

Technical update – the CFF2 variable fonts (.otf) are now hinted.

⚠️ CAUTION:
Windows 10 and 11 currently have a major bug handling CFF2 variable fonts that could result in text corruption; we recommend using the TTF files on Windows machines until Microsoft addresses this. Microsoft is aware of the issue.

▾ Assets 5

source-serif-4.005_Desktop.zip	16.8 MB	Jan 20
source-serif-4.005_WOFF.zip	13.9 MB	Jan 20
source-serif-4.005_WOFF2.zip	11.1 MB	Jan 20
Source code (zip)		Jan 20

Fonts version 4.005 (OTF, TTF, WOFF, WOFF2, Variable)

Latest

Compare

frankrolf released this Jan 20 · 4.005R · 2823e99

Technical update – the CFF2 variable fonts (.otf) are now hinted.

⚠️ CAUTION:
Windows 10 and 11 currently have a major bug handling CFF2 variable fonts that could result in text corruption; we recommend using the TTF files on Windows machines until Microsoft addresses this. Microsoft is aware of the issue.

▾ Assets 5

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source-serif-4.005_WOFF.zip	13.9 MB	Jan 20
source-serif-4.005_WOFF2.zip	11.1 MB	Jan 20
Source code (zip)		Jan 20

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source-han-serif Public

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People

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opentype otf font fonts

release | Go to file | Add file | Code

frankrolf Update npm package ... on Sep 7, 2021 56

OTF	Updates all compiled fonts to version 3.046.	2 years ago
TTF	Updates all compiled fonts to version 3.046.	2 years ago
VAR	Updates all compiled fonts to version 3.046.	2 years ago
WOFF	Updates all compiled fonts to version 3.046.	2 years ago
WOFF2	Updates all compiled fonts to version 3.046.	2 years ago
LICENSE.md	Updates all font files + CSS files. Updates y...	3 years ago
README.md	Update README.md	2 years ago
package.json	Update npm package	2 years ago

About

Sans serif font family for user interface environments

adobe-fonts.github.io/source-sa...

fonts | otf | afdko | opentype-fonts | variable-fonts | ttf-fonts

Readme

OFL-1.1 license

3.2k stars

142 watching

231 forks

release | Go to file | Add file | Code

frankrolf Update npm package ... on Sep 7, 2021 56

OTF	Updates all compiled fonts to version 3.046.	2 years ago
TTF	Updates all compiled fonts to version 3.046.	2 years ago
VAR	Updates all compiled fonts to version 3.046.	2 years ago
WOFF	Updates all compiled fonts to version 3.046.	2 years ago
WOFF2	Updates all compiled fonts to version 3.046.	2 years ago
LICENSE.md	Updates all font files + CSS files. Updates y...	3 years ago
README.md	Update README.md	2 years ago
package.json	Update npm package	2 years ago

About

Sans serif font family for user interface environments

adobe-fonts.github.io/source-sa...

fonts | otf | afdko | opentype-fonts | variable-fonts | ttf-fonts

Readme

OFL-1.1 license

3.2k stars

142 watching

231 forks

README.md

Source Sans 3

Source Sans is a set of OpenType fonts that have been designed to work well in user interface (UI) environments.

Open source files

The fonts' source files and build instructions are available in the repository's `master` branch.

Getting involved

Open an issue or send a suggestion to Source Sans' designer Paul D. Hunt, for consideration.

Releases

- Latest release
- All releases

+ 14 releases

Packages

No packages published

Used by 125

+ 117

Contributors 3

miguelsousa Miguel Sousa

pauldhunt Paul D. Hunt

frankrolf Frank Grießhammer

Environments 1

README.md

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pauldhunt Paul D. Hunt

frankrolf Frank Grießhammer

Environments 1

Fonts version 3.046 (OTF, TTF, WOFF, WOFF2, Variable)

Latest

Compare

pauldhunt released this Jul 14, 2021 · 1 commit to release since this release 3.046R c1a1caa

Corrects copyright notice. (GitHub issue #223)

Assets 7

OTF-source-sans-3.046R.zip	1.97 MB	Jul 14, 2021
TTF-source-sans-3.046R.zip	2.02 MB	Sep 7, 2022
VAR-source-sans-3.046R.zip	769 KB	Jul 14, 2021
WOFF-source-sans-3.046R.zip	4.01 MB	Jul 14, 2021
WOFF2-source-sans-3.046R.zip	3.23 MB	Jul 14, 2021
Source code (zip)		Jul 14, 2021
Source code (tar.gz)		Jul 14, 2021

Fonts version 3.046 (OTF, TTF, WOFF, WOFF2, Variable)

Compare

Latest

pauldhunt released this Jul 14, 2021 · 1 commit to release since this release 3.046R c1a1caa

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WOFF-source-sans-3.046R.zip	4.01 MB	Jul 14, 2021
WOFF2-source-sans-3.046R.zip	3.23 MB	Jul 14, 2021
Source code (zip)		Jul 14, 2021
Source code (tar.gz)		Jul 14, 2021

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Shell 6.9k 655

People

Top languages

PostScript Shell CSS

Python HTML

Most used topics

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Shell 6.9k 655

People

Top languages

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Python HTML

Most used topics

opentype otf font fonts

release | Go to file | Add file | Code

punchcutter Update README.md ... on Jan 20 29

OTF	Source Code Pro, version 2038 (roman), ver...	2 years ago
TTF	Source Code Pro, version 2038 (roman), ver...	2 years ago
VAR	Source Code Pro, version 2038 (roman), ver...	2 years ago
WOFF	Source Code Pro, version 2038 (roman), ver...	2 years ago
WOFF2	Source Code Pro, version 2038 (roman), ver...	2 years ago
LICENSE.md	Remove executable bit from non-executable...	3 years ago
README.md	Update README.md	2 months ago
package.json	Update package.json	2 years ago

About

Monospaced font family for user interface and coding environments

adobe-fonts.github.io/source-co...

fonts | otf | afdko | opentype-fonts | variable-fonts | ttf-fonts

Readme

OFL-1.1 license

18.8k stars

613 watching

1.6k forks

release | Go to file | Add file | Code

punchcutter Update README.md ... on Jan 20 29

OTF	Source Code Pro, version 2038 (roman), ver...	2 years ago
TTF	Source Code Pro, version 2038 (roman), ver...	2 years ago
VAR	Source Code Pro, version 2038 (roman), ver...	2 years ago
WOFF	Source Code Pro, version 2038 (roman), ver...	2 years ago
WOFF2	Source Code Pro, version 2038 (roman), ver...	2 years ago
LICENSE.md	Remove executable bit from non-executable...	3 years ago
README.md	Update README.md	2 months ago
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Readme

OFL-1.1 license

18.8k stars

613 watching

1.6k forks

README.md

Source Code Pro

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Releases

- Latest release
- All releases

+ 12 releases

Packages

No packages published

Used by 463

+ 455

Contributors 6

Environments 1

github-pages Active

README.md

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Packages

No packages published

Used by 463

+ 455

Contributors 6

Environments 1

github-pages Active

Roman fonts version 2.038, Italic fonts version 1.058 and VAR fonts version 1.018 (OTF, TTF, WOFF, WOFF2)

Compare

Latest

pauldhunt released this Jan 14, 2021 · 2 commits to release since this release · 2.038R-ro/1.0... · 678cc31

Resolves issue with faulty style linking in variable fonts. (issue #256)

▾ Assets 7

OTF-source-code-pro-2.038R-ro-1.058R-it.zip	1.11 MB	Jan 14, 2021
TTF-source-code-pro-2.038R-ro-1.058R-it.zip	919 KB	Jan 14, 2021
VAR-source-code-var-1.018R.zip	376 KB	Jan 14, 2021
WOFF-source-code-pro-2.038R-ro-1.058R-it.zip	2.24 MB	Jan 14, 2021
WOFF2-source-code-pro-2.038R-ro-1.058R-it.zip	1.89 MB	Jan 14, 2021

Roman fonts version 2.038, Italic fonts version 1.058 and VAR fonts version 1.018 (OTF, TTF, WOFF, WOFF2)

Compare

Latest

pauldhunt released this Jan 14, 2021 · 2 commits to release since this release · 2.038R-ro/1.0... · 678cc31

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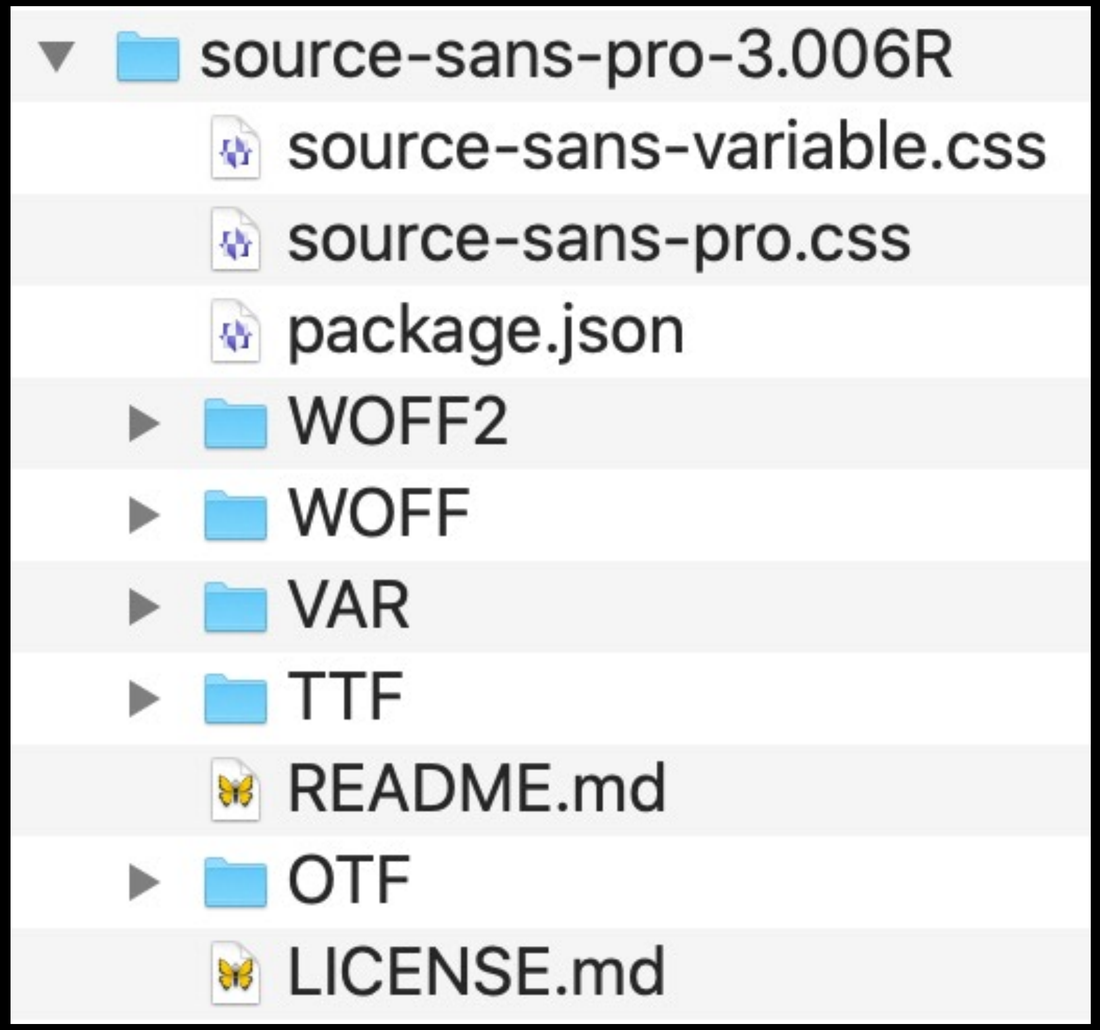
TTF-source-code-pro-2.038R-ro-1.058R-it.zip	919 KB	Jan 14, 2021
VAR-source-code-var-1.018R.zip	376 KB	Jan 14, 2021
WOFF-source-code-pro-2.038R-ro-1.058R-it.zip	2.24 MB	Jan 14, 2021
WOFF2-source-code-pro-2.038R-ro-1.058R-it.zip	1.89 MB	Jan 14, 2021

You should have 3 files in Downloads (of course, you'll see different versions):

- `OTF-source-code-pro-2.038R-ro-1.058R-it.zip`
- `OTF-source-sans-3.046R.zip`
- `source-serif-4.005_Desktop.zip`

Unzip them



Open each folder & you'll see an OTF folder

The files in the OTF folder are what you want to install

HTML

```
<div class="serif">
  <h2>Serif</h2>
  <p>↔</p>
</div>

<div class="sans-serif">
  <h2>Sans-Serif</h2>
  <p>↔</p>
</div>

<div class="monospace">
  <h2>Monospace</h2>
  <p>↔</p>
</div>
```

CSS

```
.serif {
  font-family: serif;
}

.sans-serif {
  font-family: sans-serif;
}

.monospace {
  font-family: monospace;
}
```

JS

Serif

This is your default serif font. ABCDEFGHIJKLMNOPQRSTUVWXYZ abcdefghijklmnopqrstuvwxyz 0123456789

Sans-Serif

This is your default sans-serif font. ABCDEFGHIJKLMNOPQRSTUVWXYZ abcdefghijklmnopqrstuvwxyz 0123456789

Monospace

This is your default monospace font. ABCDEFGHIJKLMNOPQRSTUVWXYZ abcdefghijklmnopqrstuvwxyz 0123456789

Check out your browser defaults

Typography & the Web

Operating System Defaults

WINDOWS 95

Fonts

Arial
Arial Bold
Arial Bold Italic
Arial Italic
Courier
Courier New
Courier New Bold
Courier New Bold Italic
Courier New Italic
Modern
MS Sans Serif
MS Serif
Small Fonts
Symbol
Times New Roman
Times New Roman Bold
Times New Roman Italic
Times New Roman Bld Italic
Wingdings

WINDOWS 98

New Fonts

Abadi MT Condensed Light
Aharoni Bold
Arial Black
Book Antiqua
Calisto MT
Century Gothic
Century Gothic Bold
Century Gothic Bold Italic
Century Gothic Italic
Comic San MS
Comic San MS Bold
Copperplate Gothic Bold
Copperplate Gothic Light
Impact
Lucida Console
Lucida Handwriting Italic
Lucida Sans Italic
Lucida Sans Unicode
Marlett
Matisse ITC
News Gothic MT
News Gothic MT Bold
News Gothic MT Italic
OCR A Extended
Tahoma
Tahoma Bold
Tempus Sans ITC
Verdana
Verdana Bold
Verdana Bold Italic
Verdana Italic
Webdings
Westminster

WINDOWS 2000

New Fonts

Comic Sans MS
Comic Sans MS Bold
Georgia
Georgia Bold
Georgia Bold Italic
Georgia Italic
Impact
Mangal
Microsoft Sans Serif
Palatino Linotype
Palatino Linotype Bold
Palatino Linotype Bld Italic
Palatino Linotype Italic
Roman
Script
Trebuchet MS
Trebuchet MS Bold
Trebuchet MS Bold Italic
Trebuchet MS Italic
Wingdings

WINDOWS XP

New Fonts

Estrangelo Edessa
Franklin Gothic Medium
Franklin Gothic Med. Italic
Gautami
Kartika
Latha
Lucida Console
Lucida Sans Demibold
Lucida Sans Demibold Italic
Lucida Sans Unicode
Modern
Mv Boli
Plantagenet Cherokee
Raavi
Script
Shruti
Sylfaen
Tunga
Vrinda
WST_Czec
WST_Engl
WST_Fren
WST_Germ
WST_Ital
WST_Span
WST_Swed

WINDOWS Vista

New Fonts

Cambria
Calibri
Candara
Consolas
Constantina
Corbel
Nyala
Segoe UI

NOTE:
The new Vista fonts are the newer cleartype format designed for the new Vista display technology. Microsoft designed these to become replacements for:

Cambria = Georga and Times New Roman

Calibri = Arial

Candara = Trebuchet MS and Helvetica

Consolas = Lucidia Console and Courier New

Constantia = Georga and Palatino

Corbel = Verdana

WINDOWS 7

New Fonts

Gabriola
Segoe Print
Segoe Print Bold
Segoe Script
Segoe Script Bold
Segoe UI Light
Segoe UI Semibold
Segoe UI Symbol

Provided by:

XP	133
Vista	191
7	235
8	278

10.5 Leopard	160
10.6 Snow Leopard	248
10.7 Lion	225
10.8 Mountain Lion	242
10.9 Mavericks	247

iOS

	iPhone	iPad
3	44	—
4	41	67
5	57	57
6	61	61
7	71	71

1-3	3
4	6

7	25
8	37

Font Properties

font-size

Font-Relative `<length>`

`ch`

Width (actually, the *advance measure*) of *0 (zero) character*

Only font-relative length based on width instead of height

Great for usage with monospaced fonts

On non-monospaced fonts, 1 `ch` is 15–30% larger than the width of other glyphs

✏️ SIDE NOTE

The *advance measure* of a glyph is width or height, depending upon the element's inline axis

- If inline axis of text is horizontal, it's width
- If vertical, it's height

✏️ SIDE NOTE

Advance measure depends upon properties that affect glyph orientation

- `direction: ltr` or `direction: rtl`
- `writing-mode`: specifies if lines of text are laid out horizontally or vertically
- `text-orientation`: orientation of text characters in a line, but only if `writing-mode` is vertical
- `font-size`, `font-stretch`, `font-variant`, etc.
- `text-transform`: `capitalize`, `uppercase`, `lowercase`, `full-width`

HTML

```
<img
src="https://upload.wikimedia.org
/wikipedia/commons/archive/0/02/2
0140831135344%21Elder_sign.jpg"
alt="Elder Sign">
<p>
  At noon he walked through the
one broad high street of Nir,
which he had once visited and
which marked his farthest former
travels in this direction; and
soon afterward he came to the
great stone bridge across the
Skai, into whose central piece
the masons had sealed a living
human sacrifice when they built
it thirteen-hundred years before.
```

CSS

```
img {
  float: left;
  margin: .5ch 1ch .5ch 0;
}

```

JS

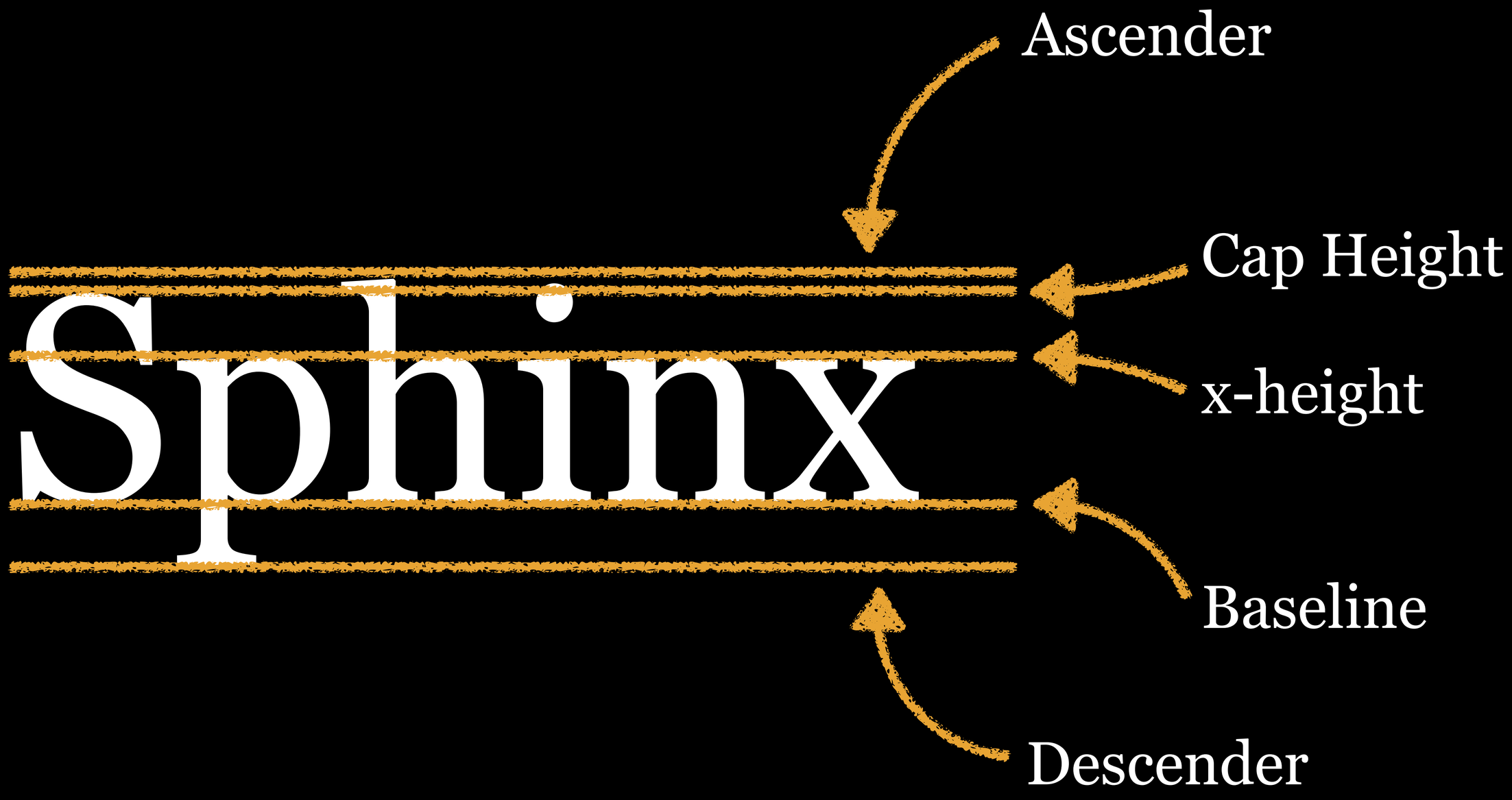
At noon he walked through the one broad high street of Nir, which he had once visited and which marked his farthest former travels in this direction; and soon afterward he came to the great stone bridge across the Skai, into whose central piece the masons had sealed a living human sacrifice when they built it thirteen-hundred years before. Once on the other side, the frequent presence of cats (who all arched their backs at the trailing Zoogs) revealed the near neighborhood of Ulthar; for in Ulthar, according to an ancient and significant law, no man may kill a cat. Very pleasant were the suburbs of Ulthar, with their little green cottages and neatly fenced farms; and still pleasanter was the quaint town itself, with its old peaked roofs and overhanging upper stories and numberless chimney-pots and narrow hill streets where one can see old cobbles whenever the graceful cats afford space enough.

If 0 cannot be measured, it is assumed to be 0.5em wide by 1em tall

`ex`

x-height of font

If `x` cannot be measured, it is assumed to be `0.5em`


Ascender
Cap Height
Sphinx
x-height
Baseline
Descender

					iOS		
ch	9	12	4	7	7.1	27	4.4
ex	5.5	12	1	1	1	1	1
em	5.5	12	1	1	1	1	1
rem	9	12	3.6	4.1	4	4	2.1

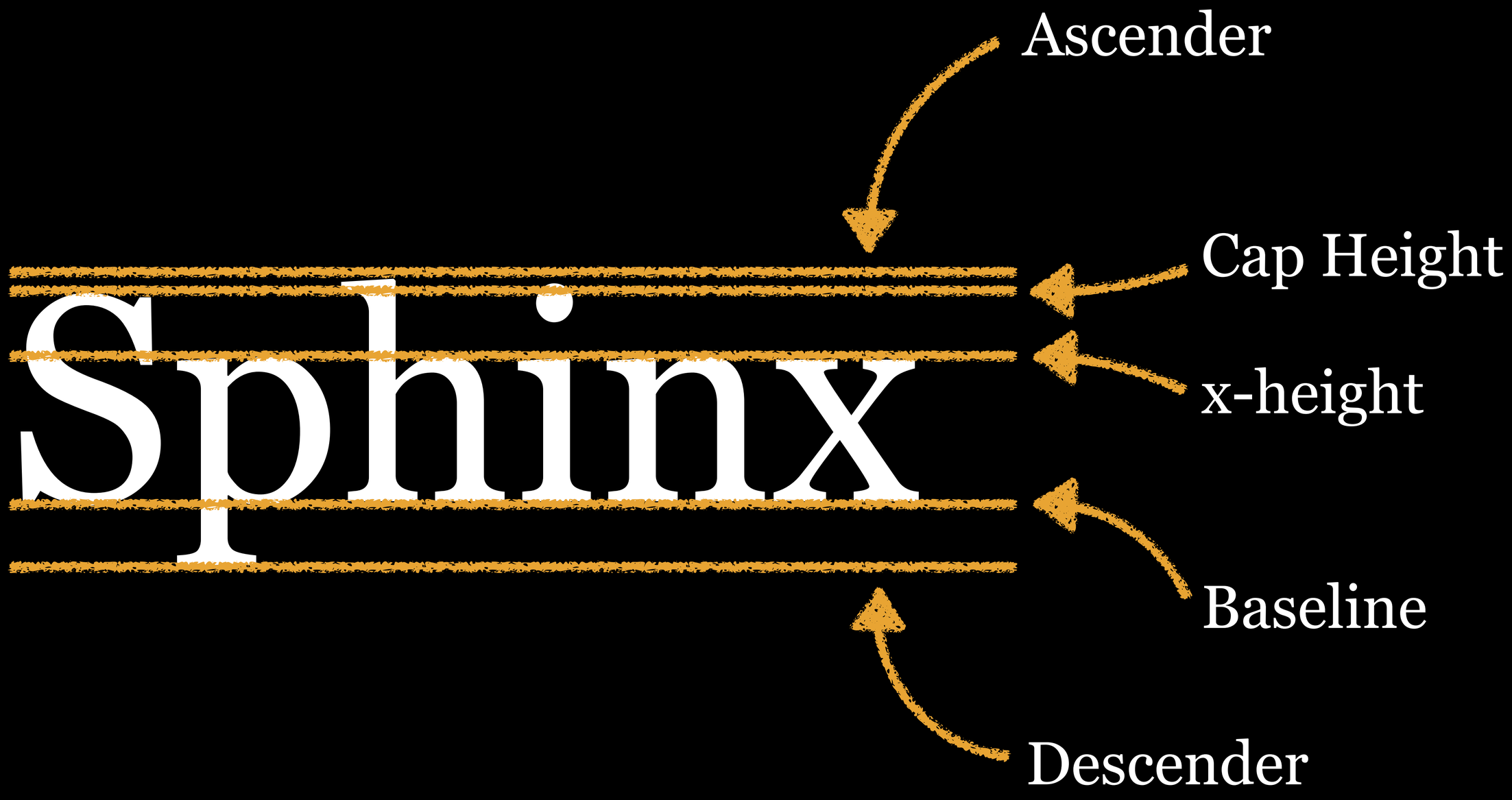
`cap`

Equals the *cap-height of the font* (height of capital letters)

✏️ SIDE NOTE

What if the font doesn’t contain Latin characters? The rendering engine can still figure out a cap-height by progressing through the following list

1. Look in the font’s metadata
2. Look at the height of an uppercase glyph
3. If it’s still not clear, use the font’s ascender


Ascender
Cap Height
Sphinx
x-height
Baseline
Descender

`ic`

Ideograph count representing the *advance measure of the CJK ideograph for water*: 水

If inline axis of text is horizontal, `ic` is width; if vertical, `ic` is height

Eastern equivalent of `ch`

`lh`

Computed value of line-height property of the element

`rlh`

Computed value of line-height property on the root element, `<html>`

cap	–	–	97	–	–	–	–
ic	–	–	97	15.4	15.4	–	–
lh	–	–	–	–	–	–	–
rlh	–	–	–	–	–	–	–

Viewport-Percentage

`<length>`

`vi`	1% of the initial containing block, in the direction of the root element's *inline* axis
`vb`	1% of the initial containing block, in the direction of the root element's *block* axis

W3C Working Draft

CSS Values and Units Module Level 4

W3C Working Draft, 18 December 2023

▼ **More details about this document**

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Feedback:

CSSWG Issues Repository

Inline In Spec

Editors:

Tab Atkins (Google)

Elika J. Etemad / fantasai (Apple)

Suggest an Edit for this Spec:

For more on `<length>` & other units…

font-style

Italic typefaces…

- are usually cursive in nature
- use less horizontal space than their unstyled counterparts
- are specifically created by the typographer so they look different from their upright versions

Oblique typefaces usually do not involve any character substitution at all

If `font-style: italic` is chosen & is not available, an *oblique* version is used instead

If `font-style: oblique` is chosen & is not available, an *italic* version is used instead

If neither italic or oblique version is available, the computer *dynamically create an oblique font by slanting* the roman font, which looks hideous

font-variant

`font-variant`

Changed between CSS 2 & CSS 3

In CSS 2, selects *normal or small cap letters* for lower case characters

In CSS3, it still supports what it does in CSS 2, but it is also *shorthand for several longhand properties*

Values for `font-variant`:

- `normal`: Normal glyphs (default)
- `small-caps`: Small capital letters specially designed by the typographer; if none exist, browser just reduces capital letters, which is ugly

Georgia Pro	`normal`	Charles Dexter Ward
	`small-caps`	Charles Dexter Ward
Calibri	`normal`	Charles Dexter Ward
	`small-caps`	Charles Dexter Ward
Hoefler Text	`normal`	Charles Dexter Ward
	`small-caps`	Charles Dexter Ward

✏️ SIDE NOTE

On Google Fonts, you can use Spectral as a standard serif typeface & Spectral SC for small caps

`font-variant` CSS3 values are shorthand for these longhand properties:

- `font-variant-caps`
- `font-variant-numeric`
- `font-variant-alternates`
- `font-variant-ligatures`
- `font-variant-east-asian`

`font-variant-caps`

Alternate versions of small capital letters specially designed by the typographer

Normally *small capitals* are `1ex`, the height of the `x` in the typeface, but they may be taller

Petite capitals are always `1ex`; in which case, small caps are the larger variant

Titling capitals are designed for headings & titles, with reduced stroke widths

Values for `font-variant-caps`

- `normal`: no small caps
- `small-caps`: use small capitals
- `all-small-caps`: use small capitals for upper & lowercase letters
- `petite-caps`: use petite capitals
- `all-petite-caps`: use petite capitals for upper & lowercase letters
- `unicase`: use small capitals for uppercase letters & normal lowercase letters
- `titling-caps`: use titling capitals

`font-variant-numeric`

Alternate versions of numbers, fractions, & ordinal markers specially designed by the typographer

Alternate fractions would be 1⁄4 & 3⁄4 instead of 1/4 & 3/4

Alternate ordinals would be 1st & 3rd instead of 1st & 3rd

Values for `font-variant-numeric`:

- `normal`: no alternate numbers, fractions, & ordinals
- `ordinal`: use ordinal markers, like 1st & 3rd
- `slashed-zero`: use `0` with a slash, e.g., 0̸
- `<numeric-figure-values>`: use lining or old style numbers
- `<numeric-spacing-values>`: use numbers that are or are not the same size, e.g., `12345` or 12345
- `<numeric-fraction-values>`: use a `/` or a – between numerators & denominators, e.g., 1/4 or $\frac{1}{4}$

`<numeric-figure-values>`: use lining (`lining-nums`) or old style numbers (`oldstyle-nums`)

`<numeric-spacing-values>`: use numbers that are the same size (`tabular-nums`) or are not the same size (`proportional-nums`)

`<numeric-fraction-values>`: use a `/` (`diagonal-fractions`) or a — (`stacked-fractions`) between numerators & denominators

`font-variant-alternates`

Alternate glyphs, such as swashes, ornaments, or annotations

Values for `font-variant-alternates`:

- `normal`: deactivates alternate glyphs
- `historical-forms`: enables formerly common glyphs not widely used today, e.g., Profeffor Aſtwood
- `stylistic()`: stylistic alternates for individual characters
- `styleset()`: stylistic alternatives for sets of characters
- `character-variant()`: specific stylistic alternatives for characters
- `ornaments()`: ornaments, e.g., ❖
- `annotation()`: annotations, e.g., like ② or 🅗🅟🅛 (inverted)
- `swash()`: swash glyphs, e.g., *Quyagen Quyagen Quyagen*

`font-variant-ligatures`

Ligatures & contextual forms

Ligatures combine 2 or more letters into a single glyph

Without ligatures	With ligatures
office	office
floor	floor
Thus	Thus
stairs	stairs
loft	loft
archaeology	archæology
foetus	fœtus

`font-variant-east-asian`

Alternate glyphs for East Asian scripts like Chinese, Japanese, & Korean

					iOS		
`font-variant*`	6	12	2	3.1	3.2	4	2.1
`font-variant†`	–	79	34	9.1	9.3	52	Y

* CSS 2 support for `small-caps` & `normal`
† CSS 3 support as shorthand for other `font-variant-*` properties

font-variant-*					iOS		
alternates	–	–	34	9.1	9.3	–	–
caps	–	79	34	–	–	52	Y
east-asian	–	79	34	–	–	63	63
emoji	–	–	–	–	–	–	–
ligatures	–	79	34	9.1	9.3	34	4.4.4
numeric	–	79	34	9.1	9.3	52	Y
position	–	–	34	–	–	–	–

font-stretch

`font-stretch`

Specify *normal, condensed, or expanded* face for fonts in `@font-face`

Values:

» keywords
» percentage between 50% & 200%

50%	ultra-condensed	112.5%	semi-expanded
62.5%	extra-condensed	125%	expanded
75%	condensed	150%	extra-expanded
87.5%	semi-condensed	200%	ultra-expanded
100%	normal		

Keywords correspond to percentages

If a font doesn’t exactly matches a value…

» values <100% map to a narrower face
» values ≥100% map to a wider face

Keep in mind, the font must have condensed or expanded faces, or `font-stretch` has no effect

Can also use 2 values to specify a range; e.g.,

```
» 90% 150%
» semi-expanded extra-expanded
```

💡 PRO TIP

When using `font-stretch` with `@font-face` (more on that in *Embedded Fonts*) with Chrome, you must include `font-stretch` in both `@font-face` and in the rule set; e.g.:

```
@font-face {
  …
  font-stretch: 1% 500%; /* required by Chrome */
}

.foo {
  font-stretch: 125%;
}
```

					iOS		
font-stretch	9	12	9	11	–	48	81
<percentage>	–	18	61	11.1	11.3	62	81

As of July 2020

Text Properties

color

text-shadow

letter-spacing
word-spacing

text-decoration
text-decoration-skip-ink

text-transform

text-indent
hanging-punctuation

white-space
word-break

direction

overflow-wrap (word-wrap)
text-overflow
line-clamp

`font-size`, `font-weight`, `font-family`, but also `text-decoration`, `text-transform`, & `text-indent`?

Why the split between `font-` & `text-`?

`font-` defines the *shapes* of typefaces on the screen

`text-` defines *positioning* or *visual* changes to already-drawn characters, independent of typeface

text-shadow

`text-shadow`

Adds *shadow(s) or glow effects* to text — use sparingly!

Values:

» `<offset-x>`: `<length>` of shadow's horizontal offset from text
» `<offset-y>`: `<length>` of shadow's vertical offset from text
» `<blur-radius>`: `<length>` of blur (optional)
» `<color>` data type (optional)

Order must always be `<offset-x> <offset-y> <blur-radius>`, where `<blur-radius>` is optional

`<color>` can go before or after, so any of these are valid:

- `<color> <offset-x> <offset-y> <blur-radius>`
- `<offset-x> <offset-y> <blur-radius> <color>`
- `<offset-x> <offset-y> <blur-radius>`
- `<offset-x> <offset-y> <color>`
- `<color> <offset-x> <offset-y>`
- `<offset-x> <offset-y>`

`<offset-x>` & `<offset-y>` values are required

- Specify shadow's distance from text
- If negative `<length>` is used, `<offset-x>` is to left of text & `<offset-y>` is above text
- If both are `0`, shadow is behind text (may still be seen due to `<blur-radius>`

`<blur-radius>` is optional

» Default is `0` — no blur
» Larger value makes the blur wider & lighter

`<color>` is optional; if unspecified, the user agent chooses the value

» Firefox uses the element's `<color>`
» Safari makes the shadow transparent

You can provide more than one shadow; e.g.:

```
text-shadow: 1px 1px 2px black, 0 0 1em blue,
0 0 0.2em blue;
```

Multiple shadows are applied in order, from front to back, with first-specified shadow on top

HTML

```
R'lyeh wgah'nagl fhtagn!
</p>

<p class="orange">
  Ph'nglui mglw'nafh Cthulhu
R'lyeh wgah'nagl fhtagn!
</p>

<p class="blue">
  Ph'nglui mglw'nafh Cthulhu
R'lyeh wgah'nagl fhtagn!
</p>
```

CSS

```
.orange {
  text-shadow: orange 0 -2px;
}

.blue {
  text-shadow: 1px 1px 2px black,
0 0 1em blue, 0 0 0.2em blue;
  color: white;
}
```

JS

Ph'nglui mglw'nafh Cthulhu R'lyeh wgah'nagl fhtagn!

Ph'nglui mglw'nafh Cthulhu R'lyeh wgah'nagl fhtagn!

Ph'nglui mglw'nafh Cthulhu R'lyeh wgah'nagl fhtagn!

				iOS		
`text-shadow`	10	3.5	4	3.2	4	2.1

text-indent

`text-indent`

Specifies how much horizontal space should be before the beginning of the first line of the text

You really do not need to ever use this

Values

» `<length>` data type
» `<percentage>` data type

HTML

```
<p>
  During the winter of 1927–28 officials of the Federal government made a strange and secret investigation of certain conditions in the ancient Massachusetts seaport of Innsmouth. The public first learned of it in February, when a vast series of raids and arrests occurred, followed by the deliberate burning and dynamiting—under suitable precautions—of an enormous number of crumbling, worm-eaten, and supposedly empty houses along the abandoned waterfront. Uninquiring souls let this occurrence pass as one
```

CSS

```
p:first-child {
  text-indent: 2em;
}
```

JS

During the winter of 1927–28 officials of the Federal government made a strange and secret investigation of certain conditions in the ancient Massachusetts seaport of Innsmouth. The public first learned of it in February, when a vast series of raids and arrests occurred, followed by the deliberate burning and dynamiting—under suitable precautions—of an enormous number of crumbling, worm-eaten, and supposedly empty houses along the abandoned waterfront. Uninquiring souls let this occurrence pass as one of the major clashes in a spasmodic war on liquor.

Keener news-followers, however, wondered at the prodigious number of arrests, the abnormally large force of men used in making them, and the secrecy surrounding the disposal of the prisoners. No trials, or even definite charges, were reported; nor were any of the captives seen thereafter in the regular gaols of the nation.

white-space

`white-space`

Specifies how whitespace inside an element is handled

Is whitespace collapsed?

How are newline characters in source treated?

Is text wrapped?

Values	Whitespace	Newlines	Wrapping
`normal`	Collapse	Collapse	Wrap
`nowrap`	Collapse	Collapse	No wrap
`pre`	Preserve	Preserve	No wrap
`pre-wrap`	Preserve	Preserve	Wrap
`pre-line`	Collapse	Preserve	Wrap

`font`
Shorthand Property

CSS *shorthand properties* allow you to set the values of multiple, related properties in one declaration

This is a lot of CSS:

```
font-size: 1.25em;
line-height: 1.5;
font-weight: 300;
font-style: italic;
font-variant: small-caps;
font-family: "Georgia Pro", serif;
```

Using CSS *shorthand properties*, we can do this:

```
font: 300 italic small-caps 1.25em/1.5 "Georgia
Pro", serif;
```

The `font` property *must* contain `font-size` & `font-family`

`font` can also contain:

- `font-style`
- `font-variant`
- `font-weight`
- `line-height`

A few rules about `font`:

- `font-style` (e.g., `italic`), `font-variant`, & `font-weight` must come before `font-size`
- `line-height` must immediately follow `font-size`, separated by `/`, e.g., `16px/1.5`
- `font-variant` may only specify `normal` or `small-caps` as values
- `font-family` must be the last value specified

Correct examples

```
font: 1.1em "Adobe Caslon Pro";

font: 1.1em/1.4 "Adobe Caslon Pro";

font: italic 300 1.1em/1.4 "Adobe Caslon Pro";
```

Special Cases

Printing

```
:first

:left

:right

:blank

@page
```

Terms

First page is easy

Left page or *right page*?

If the first page's writing direction is…

» left-to-right: it's a `:right` page
» right-to-left: it's a `:left` page

`:first`

Selects the *1st page when printing* a document

`:left`

Selects any *left page when printing* a document

`:right`

Selects any *right page when printing* a document

Why `:left` & `:right`?

Because the W3C is helping you create a printed book,
& you want to change the right margin on the left page,
& the left margin on the right page

Outer Margin

Top Margin

Outer Margin

earliest printed document relating to medicine is the unique "Purgation-Calendar" (*Laxierkalender*) of 1457, printed in the type of Guttenberg's 36-line Bible,[1] and contained (a sheet of paper only) in the Bibliothèque nationale at Paris. A unique copy of a "Calendar for Blood-Letting" (*Aderlasskalender*), printed at Mainz in 1462,[1] is one of the treasures of the Fürstenberg Library at Donaueschingen (Baden). These popular almanacs, consisting of loose leaves or broadsides, printed on one side only, show the hold which judicial astrology (the *Lasstafelkunst*) had taken upon the people. In some of them, a special figure, the "zodiac-man" (*Tierkreiszeichenmann*), indicates, as in drug-store almanacs of more recent date, the parts of the body influenced by the different planetary conjunctions the

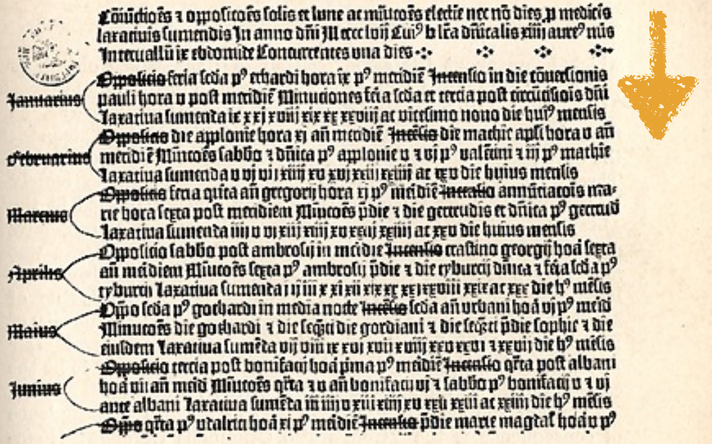
Left (Verso) Page

Zodiac-man. Miniature, from a blood-letting calendar by Johann Nider von Gmünd (Vienna), painted at Braunau in 1470. Courtesy of Professor Karl Sudhoff, Leipzig, Germany.

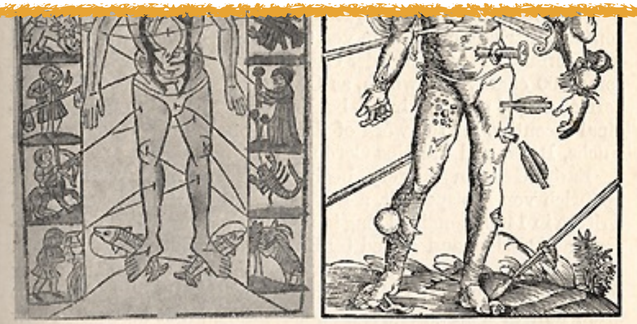
to befall humanity under different ascendancies and conjunctions of the planets. More scientific interest attaches to the *Regiment der jungen Kinder* of Bartholomæus Metlinger (Augsburg, 1473), a little book on infant hygiene, which would be the first Renaissance contribution to pediatrics had it not been preceded by Paolo Bagellardo's *De ægritudinibus infantum* (Padua, 1472).

The *Arztneibuch* of **Ortollf of Bavaria** (Nuremberg, 1477) was an important German text of popular medicine in its day, followed, about 1500, by Ortollf's quaint little *Frauenbüchlein*, or popular handbook for lying-in women. A few years later (in 1513) there appeared, at Worms, the *Rosegarten* of Eucharius **Röslin,** a work

[1] For a facsimile of either, see Sudhoff's interesting "Lasstafelkunst in Drucken des 15. Jahrhunderts," in his Arch. f. Gesch. d. Med., Leipzig, 1907, S, i, pp. 223 and 227 and p. 135 (opposite).



Right (Recto) Page



Specimens of the *Lasstafelkunst* (Horoscopic Medicine or Judicial Astrology). (By kind permission of Professor Karl Sudhoff, University of Leipzig.) A: Fragment of Purgation Calendar (*Laxierkalender*), printed with the types of Guttenberg's 36-line Bible (1457), and discovered by Professor Sudhoff in the Bibliothèque nationale, Paris. B: Blood-letting man (*Aderlassmann*), from the Calendar of Regiomontanus (1475), showing the points of election for blood-letting under the signs of the Zodiac. C: Wound-man (*Wundenmann*), from Gersdorff's *Feldtbuch* (1517), showing the sites for ligation of the different arteries or for blood-letting. C is a later evolutionary form of the old zodiacal diagrams, which combined an exposition of planetary influences with schemata of the viscera (B).

Inner Margins

Bottom Margin

`@page`

Modifies some CSS properties when printing a document:

» `margin`: absolute `<length>` units only
» `orphans`
» `widows`
» `page-break-after`, `page-break-before`, & `page-break-inside`

Can modify only the page box, not the document content!

```
@page :first {
  margin: 2in 3in;
}
```

`:first`	8	–	6	6	18	4.4
`:left`	8	–	5.1	6	6	Y
`:right`	8	–	5.1	6	6	Y
`@page`	8	19	–	–	4	Y

As of July 2020

Font Stacks

Don’t just focus on serif or sans-serif

Also look at width: wide (large *x-height*) & narrow (small *x-height*)

Try to group fonts in your stack by x-height for unity

Sans serif	
Wide	Narrow
Verdana	Futura
Trebuchet MS	Helvetica
	Arial
	Avenir

Serif	
Wide	Narrow
Georgia	Times New Roman
Iowan Old Style	Times
Palatino	Baskerville
Superclarendon	Cochin

Monospace	
Wide	Narrow
Courier	Andale Mono
Courier New	Menlo
American Typewriter	

Native Font Stacks

GitHub native font stack

```
font-family: -apple-system,
BlinkMacSystemFont, "Segoe UI", "Noto Sans",
Helvetica, Arial, sans-serif, "Apple Color
Emoji", "Segoe UI Emoji"
```

Punctuation

Generated Content

`quotes`

Specifies how rendering engines should render quotation marks

Only works with…

» Elements that already generate quotation marks (`q`)
» Quotation marks generated with `::before` & `::after`

HTML

```html
<p>Lorem ipsum <q>dolor sit</q> amet.</p>

<p>Lorem ipsum <q lang="fr">dolor
sit</q> amet.</p>

<p>Lorem ipsum <q>dolor <q>Lorem
ipsum</q> sit</q> amet.</p>

<p lang="fr">Lorem ipsum <q>dolor
<q>Lorem ipsum</q> sit</q> amet.</p>

<p lang="en">Lorem ipsum <q>dolor
<q>Lorem ipsum</q> sit</q> amet</p>
```

CSS

```css
/* These are default values set by the
user agent (browser) */

[lang|=fr] {
  quotes: "«" "»" "‹" "›"
}

[lang|=en] { /* Needed for Safari */
  quotes: "‘" "’" "“" "”"
}

/* Not part of the lesson */
```

JS

Lorem ipsum “dolor sit” amet.

Lorem ipsum «dolor sit» amet.

Lorem ipsum “dolor ‘Lorem ipsum’ sit” amet.

Lorem ipsum «dolor ‹Lorem ipsum› sit» amet.

Lorem ipsum “dolor ‘Lorem ipsum’ sit” amet

HTML

```html
<p>Lorem ipsum <q>dolor sit</q> amet.</p>

<p>Lorem ipsum <q lang="fr">dolor sit</q> amet.
</p>

<p>Lorem ipsum <q>dolor <q>Lorem ipsum</q>
sit</q> amet.</p>

<p lang="fr">Lorem ipsum <q>dolor <q>Lorem
ipsum</q> sit</q> amet.</p>

<p lang="en">Lorem ipsum <q>dolor <q>Lorem
ipsum</q> sit</q> amet</p>
```

CSS

```css
/* These are default values set by the user
agent (browser) */

[lang|=fr] {
  quotes: "«" "»" "‹" "›"
}

[lang|=en] { /* Needed for Safari */
  quotes: "“" "”" "‘" "’"
}

/* Not part of the lesson */
```

JS

Lorem ipsum "dolor sit" amet.

Lorem ipsum «dolor sit» amet.

Lorem ipsum "dolor 'Lorem ipsum' sit" amet.

Lorem ipsum «dolor ‹Lorem ipsum› sit» amet.

Lorem ipsum “dolor ‘Lorem ipsum’ sit” amet

Embedded Fonts

Formats

SVG: *Scalable Vector Graphics*

XML-based file format describing 2D vector graphics, both static & dynamic

Open standard developed by W3C since 1999

Warning! SVG was not designed for displaying fonts, so it does a horrible job with multi-line text

If you’re to use it for a word (like a logo), use SVG, not SVG fonts

💡 PRO TIP

Server admins should disable GZIP compression for WOFF files, because WOFF is already compressed

@font-face

CSS2 introduced `@font-face`

```
@font-face {
  font-family: MyHelvetica;
  src: local("Helvetica Neue Bold.ttf"),
    local("HelveticaNeue-Bold.ttf"),
    url(“http://www.foobar.com/
      MgOpenModernaBold.ttf");
}
```

`local` & `url` don’t have to point to same font!

Licensing

Open, Free Fonts

Search fonts | Sentence | Type something | 40px

Categories | Language | Font properties | Show only variable fonts | Show only color fonts

1451 of 1451 families

About these results | Sort by: Trending

Roboto
Christian Robertson
12 styles

Whereas recognition of the inherent dignity

Reem Kufi Ink
Khaled Hosny
1 style

لمّا كان الاعتراف بالكرامة المتأصلة
في جميع

Reem Kufi Fun
Khaled Hosny, Santiago Orozco
Variable

Bungee Spice
David Jonathan Ross
1 style

View extensive info about individual typefaces

Source Sans Pro

Designed by Paul D. Hunt

Whereas disregard and contempt for human rights have resulted

Select preview text: Americas English

View all styles

Regular 400 | Italic

Regular 400 at 48px

Whereas a common understanding of these rights and freedoms is

Regular 400 at 36px

No one shall be held in slavery or servitude; slavery and the slave trade shall be prohibited in all their forms.

Regular 400 at 21px

No one shall be subjected to arbitrary arrest, detention or exile. Everyone is entitled in full equality to a fair and public hearing by an independent and impartial tribunal, in the determination of his rights and obligations and of any criminal charge against him. No one shall be subjected to arbitrary interference with his privacy, family, home or correspondence, nor to attacks upon his honour and reputation. Everyone has the right to the protection of the law against such interference or attacks.

Regular 400 at 16px

Everyone has the right to freedom of thought, conscience and religion; this right includes freedom to change his religion or belief, and freedom, either alone or in community with others and in public or private, to manifest his religion or belief in teaching, practice, worship and observance. Everyone has the right to freedom of opinion and expression; this right includes freedom to hold opinions without interference and to seek, receive and impart information and

Styles

Type here to preview text

Whereas recognition of the inherent dignity

64px

ExtraLight 200

Whereas recognition of the inherent

ExtraLight 200

ExtraLight 200 Italic

Whereas recognition of the inherent

ExtraLight 200 Italic

Light 300

Whereas recognition of the inherent

Light 300

Light 300 Italic

Whereas recognition of the inherent

Light 300 Italic ⊕

Regular 400

Whereas recognition of the inheren

Regular 400 ⊕

Regular 400 Italic

Whereas recognition of the inheren

Regular 400 Italic ⊕

SemiBold 600

Whereas recognition of the inhere

SemiBold 600 ⊕

SemiBold 600 Italic

SemiBold 600 Italic

Bold 700

Bold 700 Italic

Black 900

Black 900 Italic

Source Sans Pro

Designed by Paul D. Hunt

Select preview text: Americas English

Heading − 48px + Regular 400

Whereas recognition of the inherent dignity

No one shall be subjected to arbitrary arrest, detention or exile.Everyone is entitled in full equality to a fair and public hearing by an independent and impartial tribunal, in the determination of his rights and obligations and of any criminal charge against him.No one shall be subjected to arbitrary interference with his privacy, family, home or correspondence, nor to attacks upon his honour and reputation. Everyone has the right to the protection of the law against such interference or attacks.

Source Sans Pro

Designed by Paul D. Hunt

Only a subset of all the glyphs are shown here. Download the font to view the full set.

Latin Lowercase

a	á	à	ă	ắ	ằ	ẵ	ẳ
â	ấ	ầ	ẫ	ẩ	ǎ	å	ä
ã	ą	ā	ả	ạ	ặ	ậ	æ
ǽ	ǣ	b	ḃ	ḇ	ƀ	β	c

a

Latin Uppercase

Greek Lowercase

Greek Uppercase

Greek

Cyrillic Lowercase

Cyrillic Uppercase

Numbers

Common Latin

Spacing Modifiers

Arrows

Math Operators

Punctuation

Language support

310 languages available

Africa
78 Languages

Americas
37 Languages

Asia
62 Languages

Europe
110 Languages

Oceania
23 Languages

Source Sans Pro

Designed by Paul D. Hunt

About

Source® Sans Pro, Adobe's first open source typeface family, was designed by Paul D. Hunt. It is a sans serif typeface intended to work well in user interfaces.

Designer

Paul D. Hunt
Principal design

License

These fonts are licensed under the Open Font License.

You can use them in your products & projects – print or digital, commercial or otherwise.

This isn't legal advice, please consider consulting a lawyer and see the full license for all details.

Usage

Have feedback on Source Sans Pro?

Principal design

Have feedback on Source Sans Pro?

Usage

5.11 billion

Number of times Google Fonts API served Source Sans Pro over the last week. Source Sans Pro is featured in more than 19,000,000 websites.

Top countries

United States	2,117,005,722
Turkey	386,698,612
Poland	212,826,610
Philippines	3,677,170
Netherlands	7,862,261

There are over 1,450 fonts at Google Fonts

To save time, see what others have said are the best fonts

best google fonts

Images Videos News

Send feedback

A Curated Collection of the 30 **Best Google Fonts** ... - Typewolf

A collection of the absolute **best** free **fonts** available on **Google Fonts** in 2016—open-source and 100% free for commercial use.

typewolf.com/open-source-web-fonts

Google Fonts

Google Fonts

google.com/fonts

The 10 **best Google Fonts** for print, web and mobile | Creative ...

Google Fonts make it quicker and easier for everyone to use web **fonts**, including professional designers and developers. All of the **fonts** are Open Source, which mean ...

creativebloq.com/typography/10-best-google-fonts-print-web...

20 **Best** Web **Fonts** from **Google** Web **Fonts** and @**font**-face

At the moment there are several ways to use non-system **fonts** on a website. We will focus on the two least complicated, least expensive systems, **Google** Web **Fonts** and ...

awwwards.com/20-best-web-fonts-from-google-web-fonts-a...

Beautiful web type — the **best** typefaces from the **Google** web ...

Beautiful W eb Type A showcase of the **best** typefaces from the **Google** web **fonts** directory. There are over 600 typefaces in the **Google** web **fonts** directory.

hellohappy.org/beautiful-web-type/

The 10 **Best** Script and Handwritten **Google** Web **Fonts**

Beautiful Web Type Combinations

A showcase of great typeface combinations from the Google web fonts directory.

There are so much typefaces in the Google web fonts directory. Many of them are awful. But there are also high-quality typefaces that deserve a closer look. Below are examples of these typefaces in action. Hover for name of typeface and click the texts of examples to get the typeface from the Google web fonts directory.

462 Google Web Fonts Families

Because web designers want font families, not just fonts.

Albert Sans

100, 200, 300, 400, 500, 600, 700, 800, 900,
100 Italic, 200 Italic, 300 Italic, Italic, 500 Italic,
600 Italic, 700 Italic, 800 Italic, 900 Italic

Alumni Sans

100, 200, 300, 400, 500, 600, 700, 800, 900, *100 Italic, 200 Italic,*
300 Italic, Italic, 500 Italic, 600 Italic, 700 Italic, 800 Italic,
900 Italic

Anybody

100, 200, 300, 400, 500, 600, 700, 800, 900,
100 Italic, 200 Italic, 300 Italic, Italic, 500 Italic,
600 Italic, 700 Italic, 800 Italic, 900 Italic

Archivo

100, 200, 300, 400, 500, 600, 700, 800, 900,
100 Italic, 200 Italic, 300 Italic, Italic, 500 Italic,
600 Italic, 700 Italic, 800 Italic, 900 Italic

Azeret Mono

100, 200, 300, 400, 500, 600, 700, 800,
900, *100 Italic, 200 Italic,*
300 Italic, Italic, 500 Italic,
600 Italic, 700 Italic, 800 Italic,
900 Italic

Barlow

100, *100 Italic,* 200, *200 Italic,* 300, *300 Italic,* 400,
Italic, 500, *500 Italic,* 600, *600 Italic,* 700,
700 Italic, 800, ***800 Italic,*** 900, ***900 Italic***

Barlow Condensed

100, *100 Italic,* 200, *200 Italic,* 300, *300 Italic,* 400, *Italic,* 500,
500 Italic, 600, *600 Italic,* 700, *700 Italic,* 800, *800 Italic,*
900, ***900 Italic***

Barlow Semi Condensed

100, *100 Italic,* 200, *200 Italic,* 300, *300 Italic,* 400, *Italic,*
500, *500 Italic,* 600, *600 Italic,* 700, *700 Italic,* 800,
800 Italic, 900, ***900 Italic***

Be Vietnam Pro

100, *100 Italic,* 200, *200 Italic,* 300, *300 Italic,*
400, *Italic,* 500, *500 Italic,* 600, *600 Italic,*
700, *700 Italic,* 800, *800 Italic,* 900,
900 Italic

Bitter

Epilogue

Exo

Five Fresh Headline & Body Text Pairings on Google Fonts

BY JEREMIAH SHOAF OCTOBER 12, 2016

The recent relaunch of Google Fonts prompted me

Typewolf

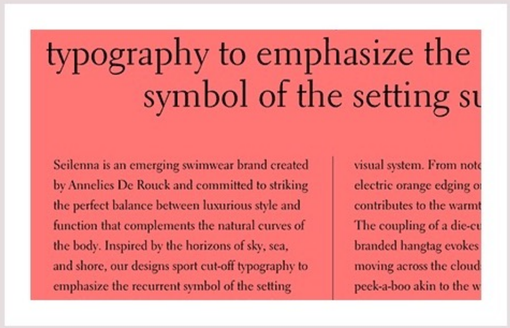
WHAT'S TRENDING IN TYPE

Web Fonts in the Wild | Font Recommendations & Lists | Guides & Resources | Blog | About

Karl Anders

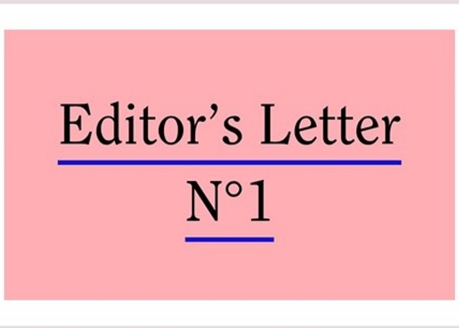
Unsere Arbeiten wu
nationalen und inte
Magazinen und Blo

Favorites Lists



Top 10 Favorite Body Text Fonts

Top 10 Favorite Fonts That Are Underused



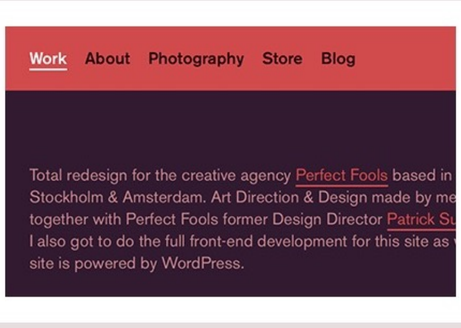
Top 30 Favorite Sites

Top 10 Favorite Typekit Font Combinations

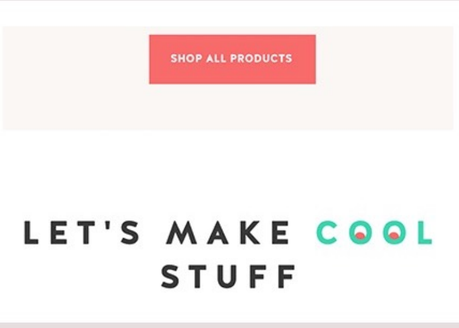
Alternative Lists

Top 10 Helvetica Alternatives

Top 10 Futura Alternatives

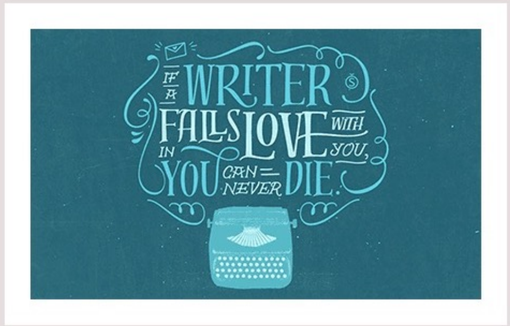


Top 10 Proxima Nova & Gotham Alternatives



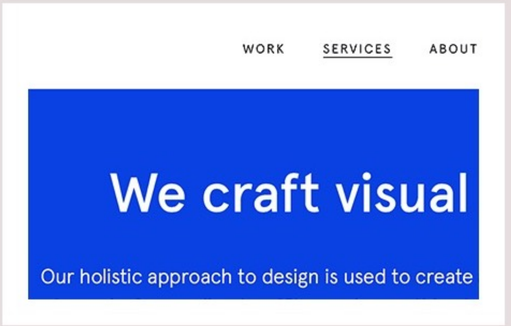
Top 10 Brandon Grotesque Alternatives

Fun Lists



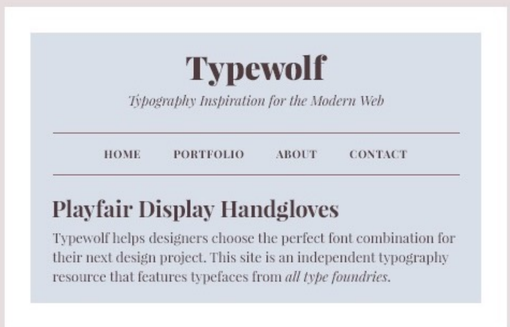
Top 10 “Hipster” Fonts

Top 10 1970s Album Cover Fonts



Top 10 Quirky Grotesque Fonts

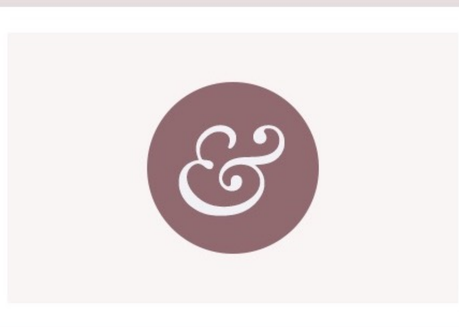
Free Font Lists



Top 40 Google Fonts

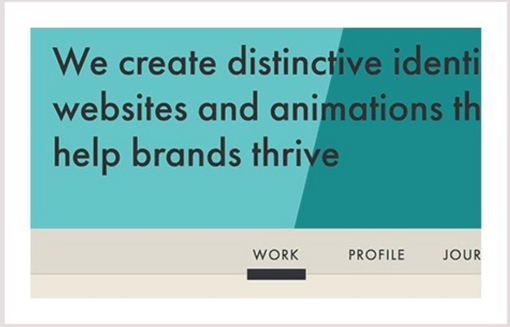
Top 10 Free “Hipster” Fonts

Top 10 Serif + Sans-Serif Font Combos on Google Fonts



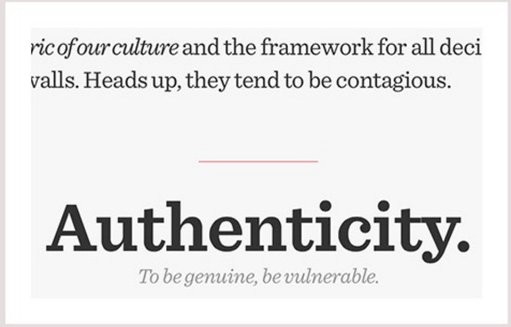
Top 10 Free Fonts That Aren’t on Google Fonts

Classification Lists



Top 10 Sans-Serif Fonts

Top 10 Serif Fonts



Top 10 Slab Serif Fonts

Top 10 Humanist Sans-Serif Fonts

Top 10 Monospaced Fonts

Top 10 Rounded Fonts

The Most Popular Fonts on Typewolf

1) Futura | 2) Apercu | 3) Proxima Nova | 4) Brandon Grotesque | 5) Avenir | 6) Gotham | 7) Circular | 8) GT Walsheim | 9) Caslon

10) Georgia | 11) Garamond | 12) Franklin Gothic | 13) Neuzeit | 14) Freight Text | 15) Sentinel | *View More →*

Search

Search is coming soon. For now, just Google “typewolf” followed by the name of a font.

Font Recommendations

Top 40 Google Fonts

Top 10 “Hipster” Fonts

Top 10 Helvetica Alternatives

Guides & Resources

Typography Cheatsheet

The Definitive Guide to Free Fonts

Typography Resources

Popular Blog Posts

The Ten Most Popular Web Fonts of 2015

Will Google Fonts Ever Be Shut Down?

Industry-Leading Designers Share Their 3 Favorite Typefaces

How to Support Typewolf

Typewolf is an independent typography resource created by Jeremiah Shoaf. The site gets over 1,000,000 pageviews a month; running it is expensive and time-consuming. If you find Typewolf useful, please consider supporting the site to help make it a sustainable and ad-free side project.

Monthly Typography News Roundup

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Brandon Grotesque

Released in 2010, Brandon Grotesque is a geometric sans-serif typeface designed by German type designer Hannes von Döhren of HVD Fonts. The design was heavily influenced by the geometric typefaces that originated in the 1920s, taking a little more influence from Erbar rather than the more well-known design from that time period, Futura. It's a font that seems to be much more popular on the web than in print, in contrast to the similar design, Neutraface, which is extremely popular in the print world but seldom used on the web. Brandon Grotesque is available in six weights—thin, light, regular, medium, bold and black—each with matching italics. There is also a text version available called *Brandon Text* that features a larger x-height, making it more suitable for body copy.

Download Brandon Grotesque →

Brandon Grotesque Specimen

Handgloves

Similar Fonts

Top 10 Brandon Grotesque Alternatives

MTT Milano

Halis Rounded

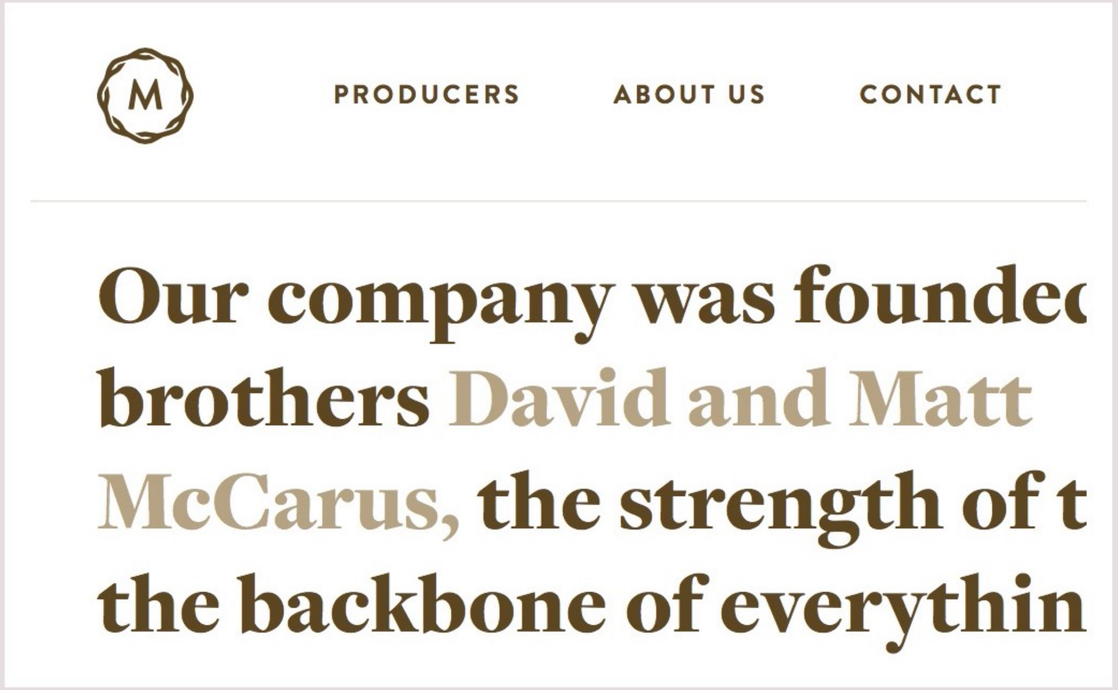
Suggested Font Pairing

Brandon Grotesque + Ambroise

Closest Free Alternative on Google Fonts

See my PDF guide →

Brandon Grotesque Font Pairings

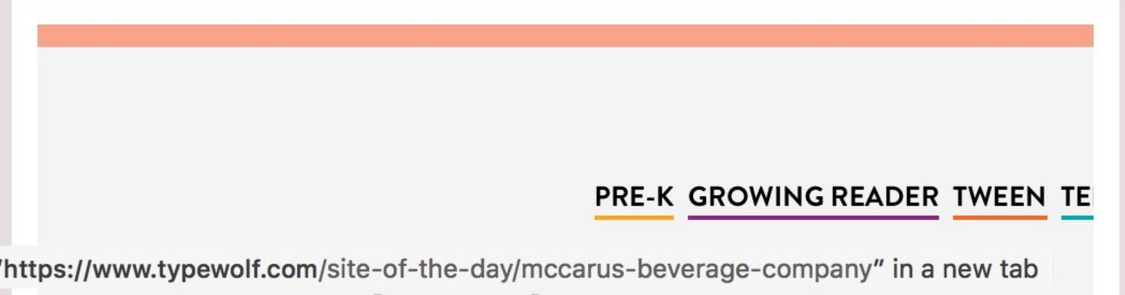


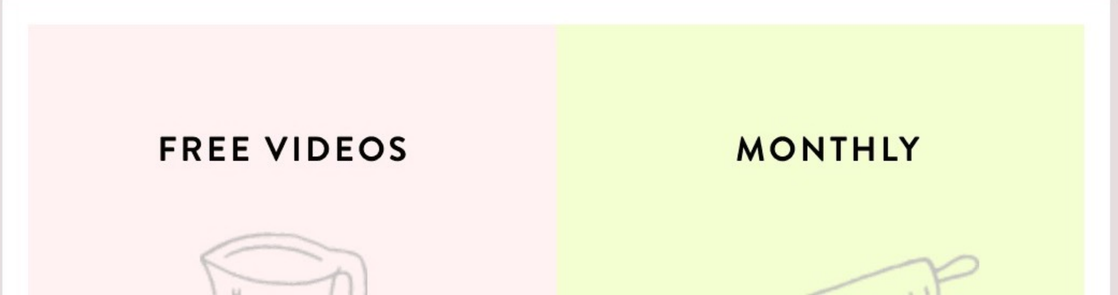
McCarus Beverage Company Aug 6, 2016

Fonts—Freight Display, Brandon Grotesque, Plantin

Gallantry Jul 23, 2016

Fonts—Brandon Grotesque, Montserrat, Proxima Nova, Abolition





Open “https://www.typewolf.com/site-of-the-day/mccarus-beverage-company” in a new tab

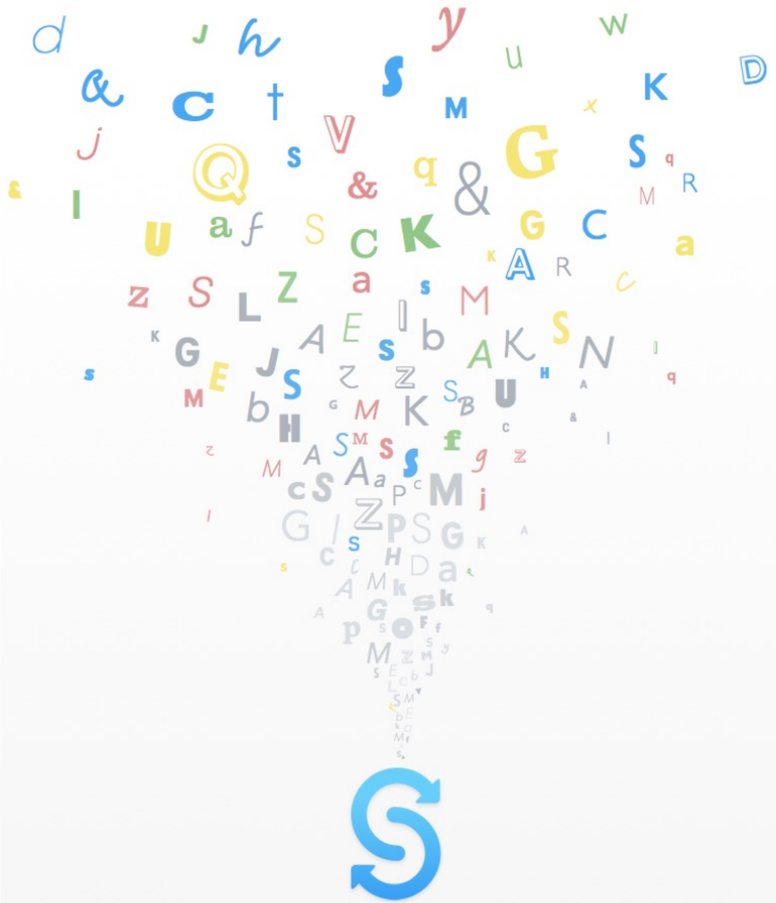
Google Fonts

Sync Google Fonts to your Desktop with SkyFonts.

Install SkyFonts
Browse Google Fonts

FREE WEB FONTS

Your fonts



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View Google Fonts

fonts.com

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GOOGLE FONTS

GOOGLE

The use of these fonts are governed by the Google Fonts EULA

1753 fonts

Fonts will be installed through the SkyFonts client and are free to use. If you have a Fonts.com Web Fonts subscription, using these fonts will not count against your subscription desktop font allowance.

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

BATCH INSTALL the top 10 | 20 | 50 Google font families.

ABEEZEE REGULAR

The quick brown fox jumps over the lazy d

Google Fonts SkyFonts

ABEEZEE ITALIC

The quick brown fox jumps over the lazy d

Google Fonts SkyFonts

ABEL REGULAR

The quick brown fox jumps over the lazy dog. The qui

Google Fonts SkyFonts

ABHAYA LIBRE REGULAR

The quick brown fox jumps over the lazy dog. The

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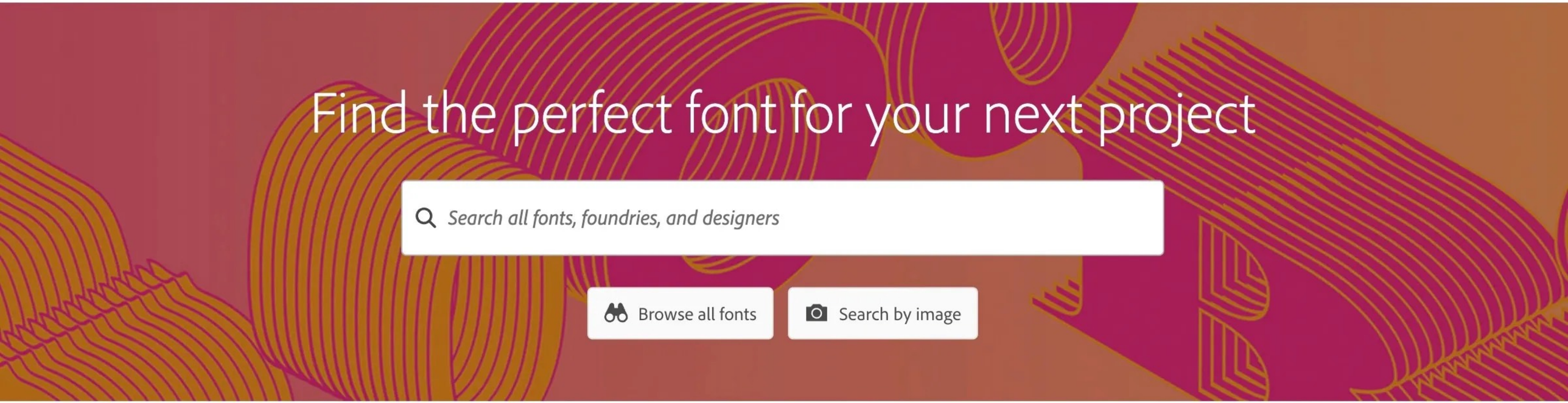
ABHAYA LIBRE 500

Google Fonts SkyFonts

FREE WEB FONTS

Commercial fonts



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ADOBE EXPRESS

Adobe Express includes access to the Adobe Fonts library at no additional cost

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TAGS

- Calligraphic
- Clean
- Brush Pen
- Geometric
- Funky
- ART DECO
- Friendly
- Rounded
- Cursive
- Luxury
- Rough
- Fun
- Futuristic
- Marker
- Comic
- Western
- Blackletter
- Wedding
- School
- College
- Typewriter
- SHADED
- STENCIL
- INLINE
- HORROR
- Ornaments

CLASSIFICATION

- Sans Serif
- Serif
- Slab Serif
- Script
- Mono
- Hand

PROPERTIES

Number of fonts in family: 1 - 25+

- Weight
- Width
- x-Height
- Contrast
- Standard or Caps Only
- Default Figure Style

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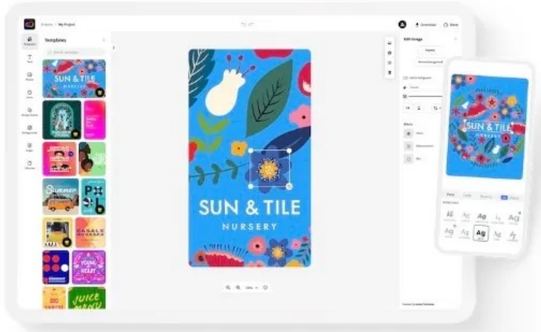

See plans

Sign up for a **free** Adobe ID and try out our basic library of over 1,000 fonts

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typography.com 19 September 2022

Sans Serif Symbols

In each of its ten weights, our *Decimal*

https://www.typography.com/fonts/operator/overview

```
45  const styles = require('./Selector.css');
46  const toggleClasses = classNames({
47      [styles.Base]: true,
48      [styles['Base--isOpen']]: isOpen,
49      [styles['Base--isSet']]: isDisabled || items.l
50  });
51
52  return (
53      <div className={baseClasses} ref="selector" on
54          <div className={styles.Wrapper} onMouseDow
55              { currentFont || labelValue }
56          </div>
57          {this.state.isOpen && <ClickOutHandler onC
58          <div className={styles.Wrapper} onMouseDow
59              <figure className={styles.Figure}>
60                  <img src={image} width="375" heigh
61              </figure>
62              <div className={styles.Content}>
63                  <h1 className={headlineClasses} in
64                  <div className={bodyClasses} inner
65                  <div className={styles.CTA}>
66                      { buttonLabel ? <span classNam
67                      <Button
```

A Font for Developers

The screen-optimized *Operator Mono Screen Smart* is designed for

A fond farewell to The Quick Brown Fox

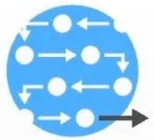
Why 26-letter "pangrams" make every

Cloud-Hosted Web Fonts

Designed for developers, Cloud.typography is a subscription service that lets you use the *entire* H&Co font library on the websites you create, all delivered using a world-class CDN. Plans start at $199/year for 250,000 monthly pageviews.

The whole H&Co library

Access the more than 1,500 fonts in our continuously growing collection



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Configure and manage your site's typography directly from the browser

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Avoid third-party integrations by serving fonts directly from your own hardware

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from $159

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Apps...

A A

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- ( ) **Gotham Office** for business

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Gotham Thin

Gotham Thin Italic. From these
Gotham Thin Italic

Gotham Extra Light. New York
Gotham Extra Light

Gotham Extra Light Italic. Thes

No Computers

Websites with 1 million pageviews/month
One-year license to self-host web fonts

Apps...

A A

PACKAGES AVAILABLE:

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Gotham Thin

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DISPLAY	HANDWRITTEN	Script

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- → **Access for 1 user**
- → **1,000,000 monthly web page views**

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Individual Standard

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→ **Unlimited prototyping with 30,000+ fonts**
→ **Access for 1 user**

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FONT SQUIRREL

100% Free For Commercial Use.

FREE FONT UTOPIA

Free fonts have met their match. We know how hard it is to find quality freeware that is licensed for commercial work. We've done the hard work, hand-selecting these typefaces and presenting them in an easy-to-use format. Here are some of our favorites:

Source Sans Pro AaBbCcDdEeFfGgHhI

Source Sans Pro | Adobe | 12 Styles | DOWNLOAD TTF

Source Code Pro AaBbCcDdEe

Source Code Pro | Adobe | 7 Styles | DOWNLOAD OTF

Fira Sans AaBbCcDdEeFfGgHhIiJjKk

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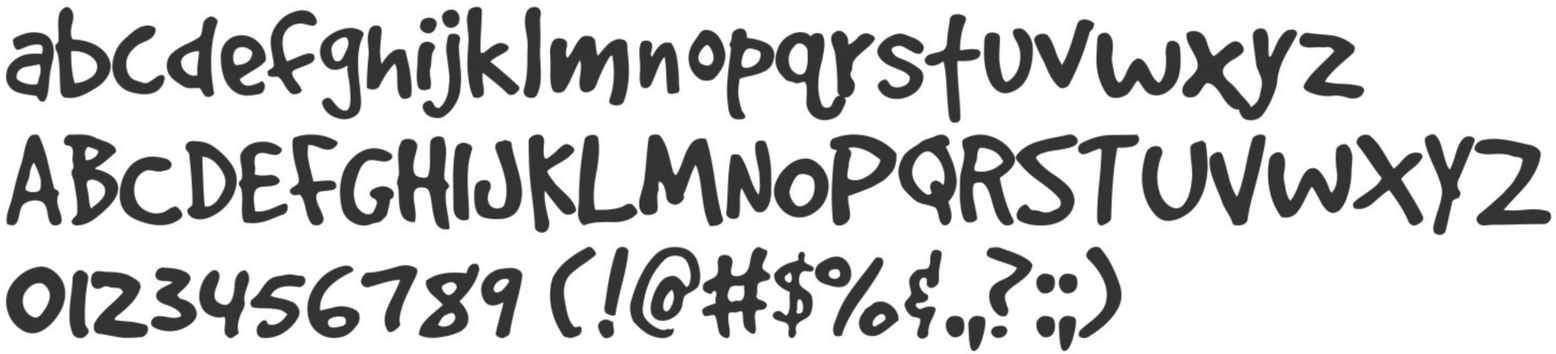

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FIND FONTS

CLASSIFICATIONS

Display	264
Sans Serif	199
Serif	114
Handdrawn	56
Script	53
Retro	35
Slab Serif	35

TAGS

Paragraph	357
Display	237
Oblique	130
Headings	116
Casual	110
Sans Serif	108
Calligraphic	80

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Webfont Kit

This font's license appears to allow you to use @font-face css embedding!

Choose a Subset:

Western Latin (Default)

Choose Font Formats:

☑ TTF ☑ EOT ☑ WOFF ☑ SVG

DOWNLOAD @FONT-FACE KIT

Subsetting:

Subsetting reduces the number of glyphs in the font to make a smaller file. If the font supports a particular language, it will appear in the menu.

Formats:

TTF - Works in most browsers except IE and iPhone.
EOT - IE only.
WOFF - Compressed, emerging standard.
SVG - iPhone/iPad.

FONTS

GoodDog AaBbCcDdEeFfGgHhIiJjKkLlMmNn

GoodDog Regular | 158 Glyphs

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FIND FONTS

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	Straight conversion with minimal processing.	Recommended settings for performance and speed.	You decide how best to optimize your fonts.

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Variable Fonts

Variation	Example	CSS
weight	`Univers-Bold.ttf`	`font-weight: bold;`
width	`UniversCond.ttf`	`font-stretch: condensed;`
style	`UniversCond-BoldIt.ttf`	`font-style: italic;`

Currently you have a different font file for each weight, style, & width variation of a typeface, along with the appropriate CSS

That’s a lot of files potentially to manage

And, if you embed the fonts, visitors need to download every file individually, leading to multiple server calls

For instance, Oswald consists of 6 different fonts:

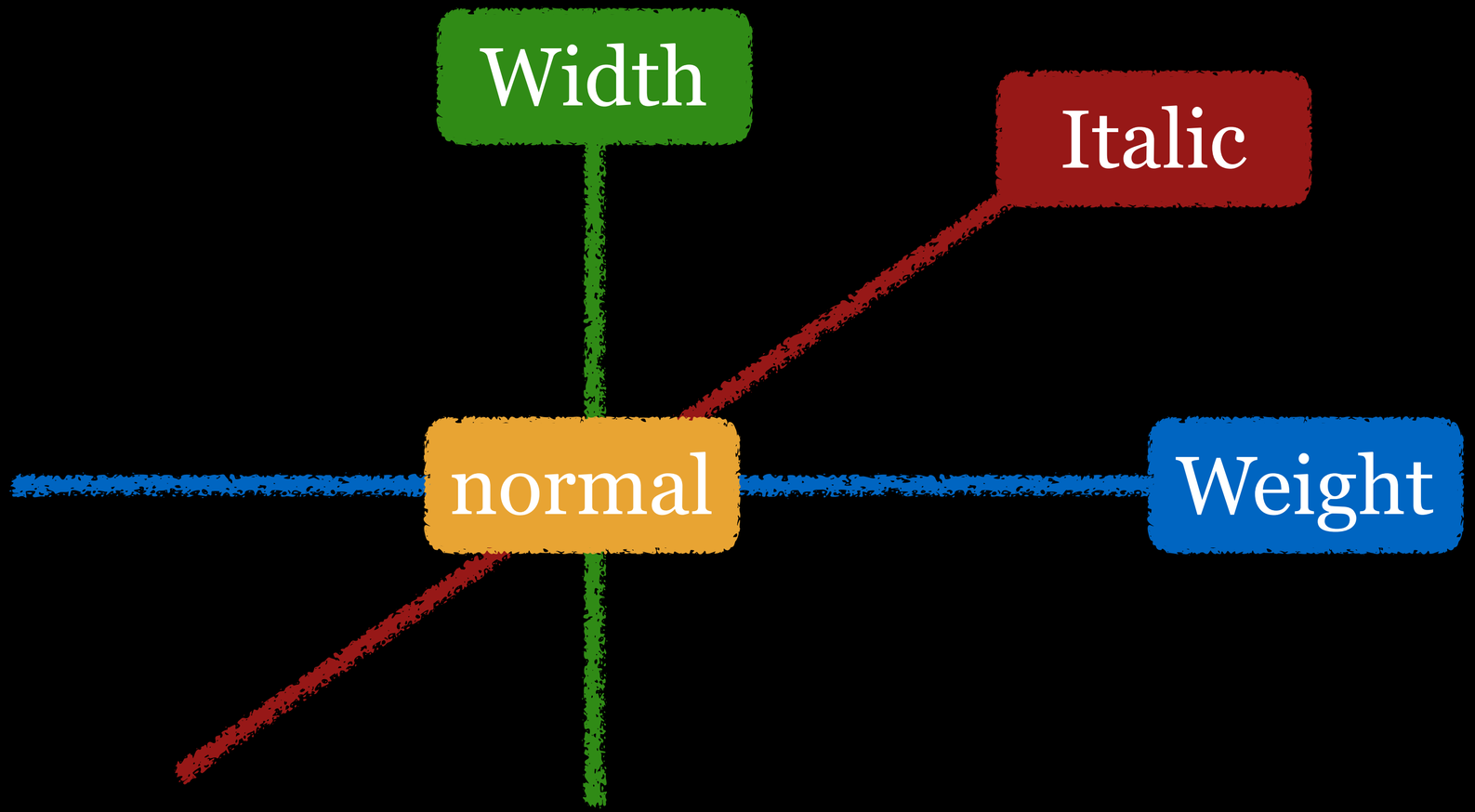
`Oswald-Bold.ttf` (89.5 KB)
`Oswald-ExtraLight.ttf` (89.2 KB)
`Oswald-Light.ttf` (89.3 KB)
`Oswald-Medium.ttf` (89.5 KB)
`Oswald-Regular.ttf` (89.2 KB)
`Oswald-SemiBold.ttf` (89.5 KB)

Total: 536.2 KB

Variable fonts combine all of those variations into a single file; e.g., `CrimsonPro-VariableFont_wght.ttf`

Oswald's 6 different fonts totaled 536.2 KB

`Oswald-VariableFont_wght.ttf` is 149.5 KB!



There is one central default master (usually equivalent to `font-style: normal`) & 1 or more *axes of variation* which tie the central default master to other masters that define design aspects of the font

Each axis of variation provides an allowable range for that aspect of the typeface design, labeled using a 4-letter tag; e.g., weight (`wght`) or width (`wdth`)

Instances are the individual styles located along particular axes; e.g.:

```
font-variation-settings: 'wght' 375, 'wdth'
85;
```

2 kinds of axis:

» *registered*: 5 common axes standardized by the W3C
» *custom*: axes created by the typeface designer

Some custom axes may become so common that the W3C eventually adds them to the registered group

Registered axes must use lowercase tags, while custom axes must use uppercase tags

```
font-variation-settings: 'wght' 475, 'GRAD'
88;
```

Registered Axes of Variation

The 5 registered axes:

1. Weight
2. Width
3. Italic
4. Slant
5. Optical Size

Weight

Weight goes from thin to thick, from light to heavy

W3C sets range between `1–1000`

Tag: `wght`

```
font-weight: 575;
font-variation-settings: 'wght' 575;
```

Width

Width goes from narrow to wide, from condensed to extended

W3C sets range between `50–200%`, but commonly set between `75–125%`

Tag: `wdth`

```
font-stretch: 85%;
font-variation-settings: 'wdth' 85;
```
(note: no `%` here)

The W3C range of `50–200%` means the following:

- `50%` is ultra-condensed
- `100%` is normal
- `200%` is ultra-expanded

Italic

Italic is either off or on

W3C sets values to either `0` (off) or `1` (on)

Tag: `ital`

```
font-style: italic;
font-variation-settings: 'ital' 1;
font-synthesis: none;
```

✏️ SIDE NOTE

`font-synthesis`

Tells browsers if they can *create bold or italic typefaces on the fly* if they are missing

Values:

- `weight`: create bold if needed
- `style`: create italic if needed
- `weight style`: create both bold & italic if needed (default)
- `none`: create neither bold nor italic

					iOS		
font-synthesis	–	97	34	9	9	97	97

Slant

Slant changes the angle the typeface leans

W3C sets range between `-90–90°`, but commonly set between `0–20°`

Tag: `slnt`

```
font-style: oblique 14deg;
font-variation-settings: 'slnt' 14;
```
(note: no `deg` here)

✏️ SIDE NOTE

For centuries, typographers have used *optical sizing* to make text look better at different sizes, for legibility or aesthetic reasons

Optical sizing varies the overall stroke thickness of glyphs based on how big they are

✏️ SIDE NOTE

For example:

- If the size was small (e.g., `10px` or `12px`), characters have a thicker stroke & larger serifs for better readability
- If the size was larger (e.g., `48px` or `60px`), characters vary thick & thin strokes

Before variable fonts, we had to try to do everything with `font-size`, but now we have more control

✏️ SIDE NOTE

`font-optical-sizing`

Created to support variable fonts & specifies whether text rendering is optimized for viewing at different sizes

Values:

- `none`: browser *will not* modify glyph shapes for optimal viewing
- `auto`: browser *will* modify glyph shapes for optimal viewing

✏️ SIDE NOTE

Obviously `font-optical-sizing` only works for fonts that have a variation axis for *optical size* (coming up!)

					iOS		
font-optical-sizing	–	17	66	11	11	79	79

✏️ SIDE NOTE

Note that `font-optical-sizing` is limited to on (`auto`) or off (`none`), but what if you want to be more specific?

Use `font-variation-settings` with the `opxz` tag

Optical Size

Optical size specifies a numeric value for font size

Normally the same number as `font-size` property, but you can provide a different number if it is necessary to override the default

Tag: `opxz`

```
font-optical-sizing: auto;
font-variation-settings: 'opsz' 36;
```

Custom Axes of Variation

Grade

Grade (`'GRAD'`) is widely used & may become registered, as it has been used in typography historically

Grade refers to the relative weight or density of the typeface

When a typeface's *weight* changes, the physical space taken up by the text changes too, which also changes the layout of the text & the elements around it

When a typeface's *grade* changes, the physical space taken up by the text does *not* change, so it does *not* change any layout

Grade can therefore be used to vary or animate text without causing reflow of the layout

```
font-variation-settings: 'GRAD' 88;
```

Finding Out a Font's Axes of Variation

Axes have very broad ranges; e.g., `wght` can be anywhere from `1–1000` & `wdth` can be anywhere from `50–200%`

Most typographers set smaller ranges than those, however!

But how do you find out what the ranges are for a specific font?

fonttools 4.10.2

```
pip install fonttools
```

Latest version

Released: May 20, 2020

Tools to manipulate font files

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Release history

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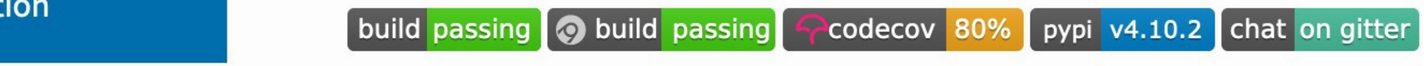
Project links

Project description



What is this?

fontTools is a library for manipulating fonts, written in Python. The project includes the TTX tool, that can convert TrueType and OpenType fonts to and from an XML text format, which is also called TTX. It supports TrueType, OpenType, AFM and to an extent Type 1 and some Mac-specific formats. The project has an MIT open-source licence. Among other things this means you can use it free of charge.

User documentation <https://fonttools.readthedocs.io/en/latest/> and *developer documentation*

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build passing build passing codecov 80% pypi v4.10.2 chat on gitter

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User documentation <https://fonttools.readthedocs.io/en/latest/> and *developer documentation*

> “fontTools is a library for manipulating fonts, written in Python. The project includes the TTX tool, that can convert TrueType and OpenType fonts to and from an XML text format, which is also called TTX. ... The project has an MIT open-source licence.”

To install fonttools, install Python (already installed on macOS & Linux) & then `pip install fonttools`

On my Mac, I installed Homebrew (see brew.sh) & then ran `brew install fonttools`

Once installed, I wanted to see the axes available in Oswald-VariableFont.ttf

```
$ ttx Oswald-VariableFont.ttf
Dumping "Oswald-VariableFont.ttf" to "Oswald-
VariableFont.ttx"...
Dumping 'GlyphOrder' table...
Dumping 'head' table...
…
Dumping 'glyf' table...
Dumping 'name' table...
Dumping 'post' table...
Dumping 'gasp' table...
Dumping 'GDEF' table...
Dumping 'GPOS' table...
…
Dumping 'fvar' table...
Dumping 'gvar' table...
```

24 tables were dumped

`Oswald-VariableFont.ttx` was 88,248 lines!

Instead use the `-t` option, which lets you specify a table to dump

```
$ ttx -t fvar CrimsonPro-Italic-
VariableFont.ttf
Dumping "CrimsonPro-Italic-VariableFont.ttf"
to "CrimsonPro-Italic-VariableFont.ttx"...
Dumping 'fvar' table...
```

```
<?xml version="1.0" encoding="UTF-8"?>
<ttFont sfntVersion="\x00\x01\x00\x00" ttLibVersion="4.10">

  <fvar>

    <!-- Weight -->
    <Axis>
      <AxisTag>wght</AxisTag>
      <Flags>0x0</Flags>
      <MinValue>200.0</MinValue>
      <DefaultValue>200.0</DefaultValue>
      <MaxValue>900.0</MaxValue>
      <AxisNameID>256</AxisNameID>
    </Axis>

  </fvar>

</ttFont>
```

Only 1 axis: `wght`

Values range from `200` to `900`, defaulting to `200`

Let’s try a different font

```
$ ttx -t fvar Amstelvar-Roman.ttf
Dumping "Amstelvar-Roman.ttf" to "Amstelvar-
Roman.ttx"...
Dumping 'fvar' table...
```

```
<?xml version="1.0" encoding="UTF-8"?>
<ttFont sfntVersion="\x00\x01\x00\x00"
ttLibVersion="4.10">

  <fvar>

    <!-- wght -->
    <Axis>
      <AxisTag>wght</AxisTag>
      <Flags>0x0</Flags>
      <MinValue>100.0</MinValue>
      <DefaultValue>400.0</DefaultValue>
      <MaxValue>900.0</MaxValue>
      <AxisNameID>256</AxisNameID>
    </Axis>
```

wght: 100–900, defaulting to 400

```
<!-- wdth -->
 <Axis>
   <AxisTag>wdth</AxisTag>
   <Flags>0x0</Flags>
   <MinValue>50.0</MinValue>
   <DefaultValue>100.0</DefaultValue>
   <MaxValue>125.0</MaxValue>
   <AxisNameID>257</AxisNameID>
 </Axis>

 <!-- opsz -->
 <Axis>
   <AxisTag>opsz</AxisTag>
   <Flags>0x0</Flags>
   <MinValue>8.0</MinValue>
   <DefaultValue>14.0</DefaultValue>
   <MaxValue>144.0</MaxValue>
   <AxisNameID>258</AxisNameID>
 </Axis>
```

`wdth`: `50`—`125`, defaulting to `100`

`opsz`: `8`—`144`, defaulting to `14`

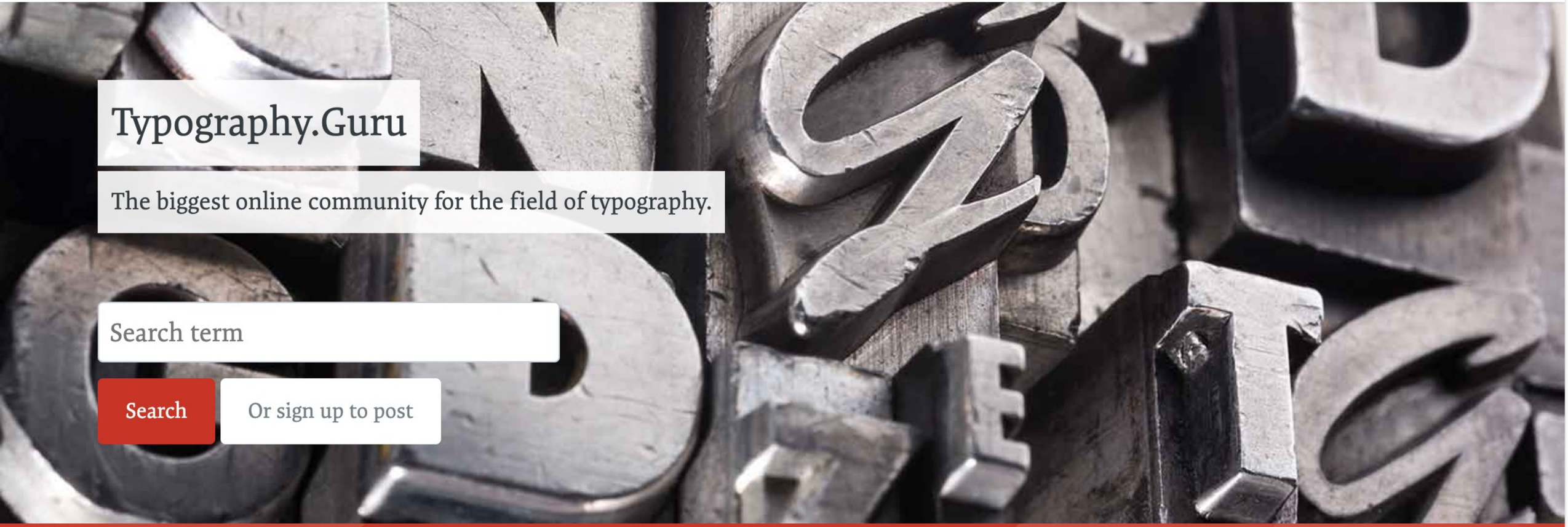
```
    <!-- GRAD -->
     <Axis>
       <AxisTag>GRAD</AxisTag>
       <Flags>0x0</Flags>
       <MinValue>-1.0</MinValue>
       <DefaultValue>0.0</DefaultValue>
       <MaxValue>1.0</MaxValue>
       <AxisNameID>259</AxisNameID>
     </Axis>

     …

   </fvar>

</ttFont>
```

GRAD: -1.0—1.0, defaulting to 0

	IE	Edge	Firefox	Safari	iOS	Chrome	Android
`font-variation-settings`	–	17	62	11	11	62	62
`font-variation-settings` in `@font-face`	–	–	62	–	–	–	–
Variable Fonts	–	17	71*†	13*	13	67	81

* Requires macOS 10.15 Catalina & up † Requires Windows 10 1709 & up

Learn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Typefaces, Fonts, & Formatting

R. Scott Granneman & Jans Carton

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Changelog

2025-01-20 3.7: Added slides showing Modern Font Stacks site to *Font Stacks*; updated theme to Granneman 1.13; minor fixes; better slide for my browser’s font settings; added lots of citations

Changelog

2024-07-27 3.6: Added citations to words & phrases typographers use to test typefaces in Bonus

2024-04-02 3.5: Added images of wood, metal, Letraset, & computer fonts; added more info to *Fonts* & *Typefaces*; added slide re: contrasting headings & body copy with serif & sans-serif fonts; changed Twitter to Mastodon; added screenshot showing my installed Comic Book Fonts; introduced expensive fonts & asked why buy them

Changelog

2024-01-17 3.4: Updated `em` & `rem`; added citations; added QR codes; moved typeface colophon to main slides

2023-10-24 3.3: Added default for `text-indent` is `0`; minor wording fixes; added detail about ampersands; added citations to compatibility chart & formats for Web fonts

Changelog

2023-09-21 3.2: Added two quotations by Matthew Butterick to *Why?*; updated `text-indent`; more details about word origins of *serif* & *sans-serif*; added detail to *Google Fonts the Google Way*; upgrade theme to Granneman 1.11; minor formatting fixes; updated list of typefaces used

2023-04-06 3.1: Removed *Appendix A*; added slide about January 1 sale at Comic Book Fonts

Changelog

2023-03-30 3.0: Removed lots of stuff to rename to Condensed; moved lots more stuff into *Bonus* at end; added slides of expensive fonts; moved `font-family` to *Font Stacks*; better definition of font stack; added note not to use worry about `text-indent`; made example for ` — `; labeled serif & sans-serif examples in *Font Stacks*; intro slide for *Native Font Stacks*; added slide explaining why you should avoid `@src local()`; added ending slide

Changelog

2023-03-16 2.8: Moved *Font Stacks* in front of *Embedded Fonts*; rewrote slide justifying embedding fonts; moved “Should I use a web font?” to the beginning of *Embedded Fonts*

2023-03-12 2.7: Updated screenshots & citations for Adobe Source fonts; moved “Should I use a web font?” to *Native Font Stacks*

Changelog

2022-09-21 2.6: Updated theme to Granneman 1.7; fixed any errors; improved & cited Core Fonts for the Web & ClearType Font Collection, including screenshots; added more ways to characterize typefaces; new screenshots for settings web browser fonts; added section *Installing Fonts*; added citations everywhere; updated several browser compatibility charts; tons of fixes & improvements!

2021-11-20 2.5: Updated native font stack; added free pro fonts that Windows can download

Changelog

2021-07-02 2.4: Added examples under `font-size`; updated links in `font-size`

2020-08-31 2.3: Lovecraft-ized sample text in *Measure* & *Leading*; added slide about Beatles & Helvetica; added Steve Jobs example of hanging punctuation; took slides out of *Types* in *Basics* to create new sub-section *Terminology*; added slides in *Basics* about counters, bowls, & apertures

Changelog

2020-07-28 2.2: Updated & improved all screenshots & explanations for Google Webfonts Helper; added *Learn* section with Typography.Guru

2020-07-18 2.1: Added CodePen slide for showing default browser fonts; added screenshots for mixing serifs & sans-serifs; added Side Note on ampersands; removed URLs from slides since they’re already in the Notes

Changelog

2020-07-16 2.0: Added *Printing* from *Media-Specific Styles*; added quotation by Jan Tschichold; moved almost everything about `color` into *CSS Data Types*; updated compatibility tables; lots more about `font-variant`; nice compare/contrast of ligatures; more on `font-stretch`; added example for `text-indent`; added *Special Cases* section with sub-section on *Printing*; added very complete *Variable Fonts* section; so many changes I bumped it up to 2.0!

Changelog

2020-06-10 1.23: Added Edge to, & cleaned up, *Browser Defaults*; detailed how to install Adobe Source fonts; added `font-stretch`; lots more on `text-shadow`

2018-11-08 1.22: Added San Francisco to list of iOS defaults; added arrows to `em`/`rem`; moved `white-space` back under *Text Properties* & added details re Unicode; added note re: `<percentage>` like `em` & avoiding its use; changed hex values to `code style` & then colorized; added screenshot of CSS Values & Units

Changelog

2018-11-06 1.21: Completely removed localfont.com info; removed bad `currentcolor` example; fixed minor formatting issues; better intro to native font stacks; added & cited content in `<length>`: viewport-percentage, font-length, font-relative (more on `ch`; added *advance measure*, better `em` & `rem` screenshots); moved Multi-Column Layout to CSS Layout slide deck; updated icons & column order in compatibility table

Changelog

2018-06-21 1.20: Removed unneeded animation & improved text in `@font-face`/`src`; moved TTF & OTF from Bonus back up to Embedded Fonts/Formats & added details re font foundries; WOFF2 now a W3C Recommendation; added A Visual Type Scale screenshot; added detail on `font-style`; re-did slides showing font scales; fixed the Classical Scale; added slide on traditional point-size names

Changelog

2017-12-16 1.19: Added better explanation & example of `font-variant`, but then hid it; fixed minor wording; added `line-height` example; added native font stacks; minor formatting fixes; updated font formats compatibility table; changed “Mac OS X” to “macOS”; better screenshots for Google Webfonts Helper; changed theme to 1.4 & fixed formatting issues; better presentation of Microsoft ClearType Font Collection; better slide on serif, sans-serif, & monospace; re-did terms in Types; added typographer test words to Bonus

Changelog

2017-06-11 1.18: Changed Body font style (Georgia Pro) to use all ligatures & old style numbers; better example of `font-weight` using CodePen; added section on Typefaces, Fonts, Glyphs, & Characters; replaced example for `text-indent` with CodePen example; added browser defaults & example re: `line-height`; added examples of serif & sans-serif mono fonts; much improved `font-size` recommendation examples; added better explanation & example of `font-style`

Changelog

2016-10-31 1.17: Changed & added a huge amount about Google Fonts; added Typewolf

2016-10-13 1.16: Added slide re: when web fonts get downloaded, except for IE; improved typography terms slides; tweaked recommendation for leading (`line-height`); improved W3 scale table; added slide for monospaced typefaces; added my web browser default fonts & how to set them; fixed formatting; brought back localfont with caveats & added slides; better Comic Sans flowchart

Changelog

2016-04-16 1.15: Added slide showing search results for “best google fonts”; added Seurat example to pixels; added note on meaning of *resolution*; added explanation of *Latin Extended*; deprecated localfont & added Google Webfonts Helper

2016-01-20 1.14: Added mosaics to illustrate pixels

2015-11-23 1.13: Removed Font Deck (shut down); changed the Google Fonts/Firefox slide(s); added slides showing localfont.com process

2015-08-10 1.12: Added slide about justified text & accessibility; added quote from Kanye West

Changelog

2015-10-13 1.11: Added more detail & citations to Web Browser Defaults section; added quote about Arial; added Comic Sans examples; changed subtitle by adding Typefaces

2015-06-06 1.10: Added “Why” section to beginning; switched over theme to use Georgia Pro instead of Georgia; better formatting of Microsoft ClearType Fonts; fixed Web Browser Defaults tables to show fonts & look better; fixed slides that were formatted wrong & did a lot of clean up work; removed slide in `font-family` that showed order

Changelog

2015-05-27 1.9: Moved `<length>` data type from Data Types presentation to here; added browser support chart for viewport-percentage `font-size`; added chart info for `em` & `ch`; added slide about typography terms with important terms bolded; added note about overshoots on the e in the initial diagram

2015-05-09 1.8: Added info about Google Fonts adjusting font format depending upon browser; added info about WOFF 2; added info about Font Deck; added slide showing Presentations on granneman.com

Changelog

2015-04-27 1.7: Fixed some `font-weight` names; added examples of font weights using Proxima Nova

2015-01-15 1.6: Rearranged Text Properties properties; added `letter-spacing` & `word-spacing`; minor fixes; moved a few things from Bonus back into main presentation; added `text-shadow`

2014-10-23 1.5: Removed & added some fantasy fonts; added `column-rule`; minor fixes

Changelog

2014-08-11 1.4: Added details on colors & `currentcolor`

2014-08-03 1.3: Moved bonus stuff to Extras section at end; fixed typos; added more detail on `<color>`; difference between `font-` & `text-`; better screenshot for columns

2014-07-30 1.2.2: Added more on Comic Sans

2014-07-27 1.2.1: Added more to `color` property

2014-07-23 1.2: Shortened

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