

Working with CSS doesn't have to make you cry

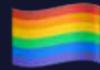
By [Chen Hui Jing](#) / [@hj_chen](#)

🇲🇾 Surname First name 🤖

| | | |
|------|-----|------|
| 陈 | 慧 | 晶 |
| Chen | Hui | Jing |



@hj_chen



Cascading Style Sheets

is a simple mechanism for adding style (e.g., fonts, colors, spacing) to Web documents.

Source: [W3C Cascading Style Sheets home page](#)

Patent No. 64453

Photographic Device

Nobuo Morisawa, the patent owner and inventor

Mokichi Ishii, the patent owner

第一号特許公報

特許第六四四五三號

〔大正十四年公告第三六六八號〕

第二類 一、寫眞撮影装置

出願 大正十三年七月二十四日
公告 大正十四年三月十二日
特許 大正十四年六月二十二日

兵庫縣保田村東保村三百五十五番地
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東京府北豊島郡王子町大字堀之内五百十六番地
特許權者 石 井 茂
代理人 辨理士 馬 場 二 吉 夫

明細書

寫眞装置

發明ノ性質及目的ノ要領

本發明ニ依レル装置ハ機臺上ヲ左右ニ移動シ得クセル非桁狀機枠ニ底部ヲ嵌入シ前後ニ摺動ス可キ二個ノ直立機翼ノ上部ニ於テ内部ニ「ノイアル」板ヲ收蔵セル暗箱ヲ装着シ其底部ニ一長方形口ヲ設ケ暗箱直下ニ直立セル中空管ニ該長方形口ヲ貫通シ其上端ニ「ノイアル」板直下ニ開口シ其下端ハ機臺面ニ近接シテ開口シ内部ニ「レンズ」ヲ收蔵セル機臺面上ニ一適當ナル方法ヲ以テ光線ノ通過ニ得ヘクナシタル數多ノ文字ヲ配列シタル文字板ヲ水平ニ裝設シ其下方ニ光源ヲ設置シ前記直立中空管ヲ前後左右ニ移動セシメ文字板上所要ノ文字上ニ直立セシメ之ヲ「フィルム」板ニ撮影シ顯微所要ノ文章ヲ撮影シタル機「フィルム」ヲ取出シ之ヲ現像シ直ニ「照相板」ニ焼付ケ以テ印刷用照相板トナスモノニシテ其目的トセル所ハ從來ノ印刷方法ノ如キ活字ノ製造、文據及種字作業ノ如キ極メテ繁雜ナル諸工程ヲ全ク除去シ即チ活字ヲ使用スル事ナク印刷作業ヲ爲シ時間及經費ノ激減ヲ得セシメ時代ノ要求ニ適應シタル印刷作業ヲナサシメントスルニアリ

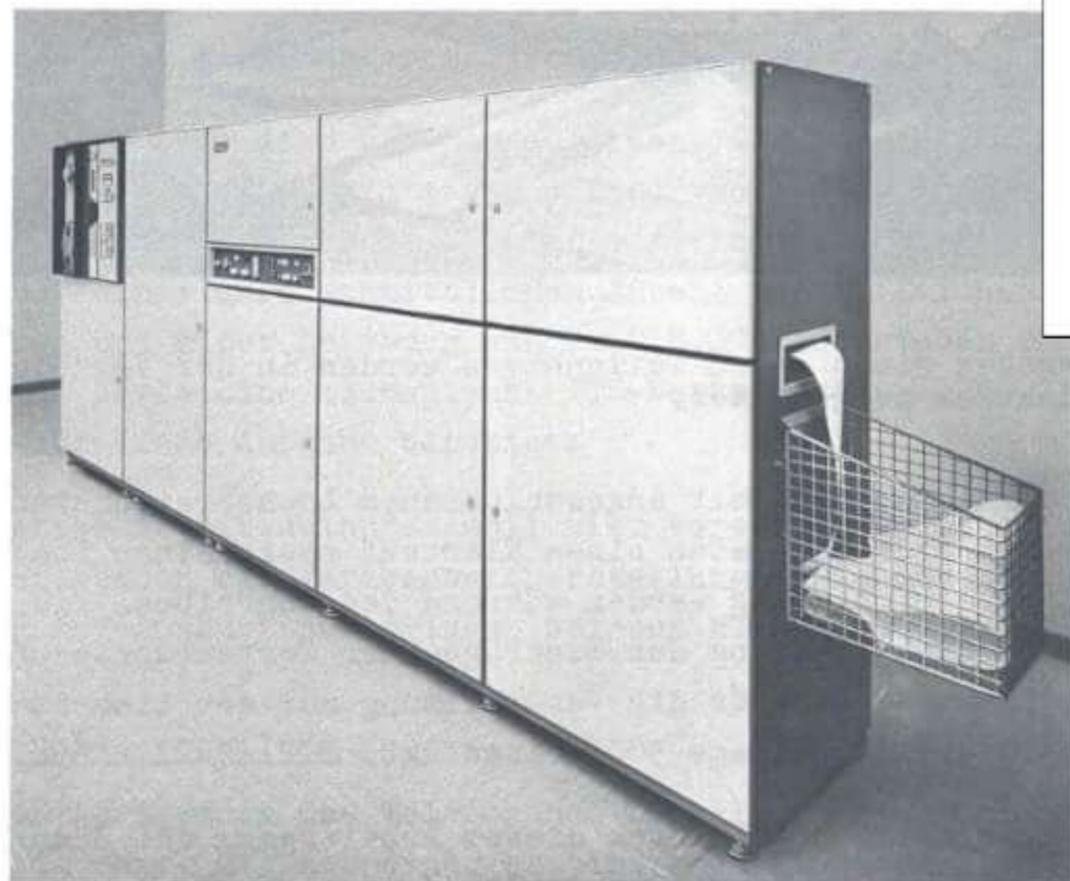
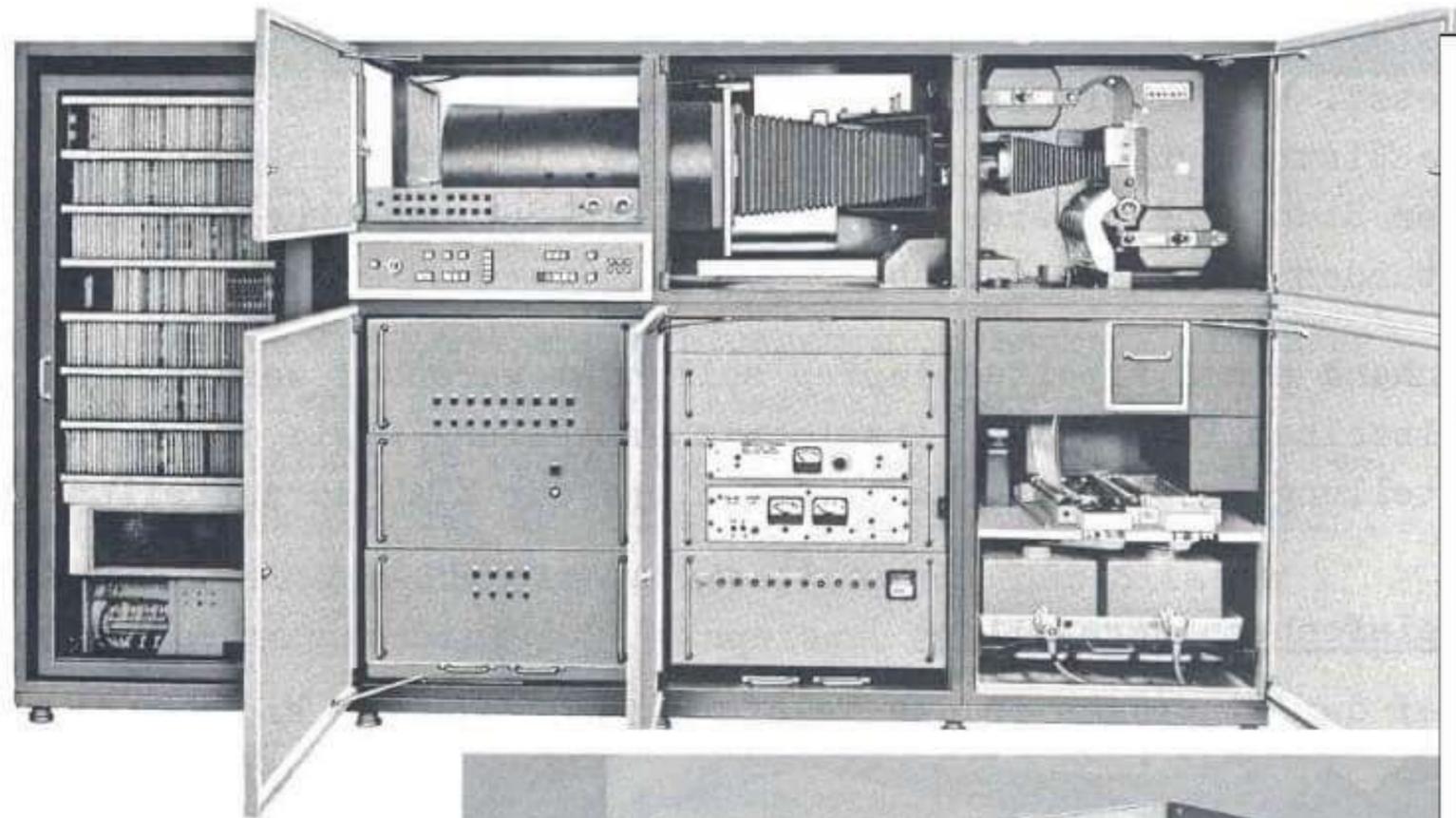
圖面ノ略解

1924
大正13年

“ *I had a hard time making Univers too. To think of the sort of aberrations I had to produce in order to see a good result on Lumitype! V and W needed huge crotches in order to stay open.*

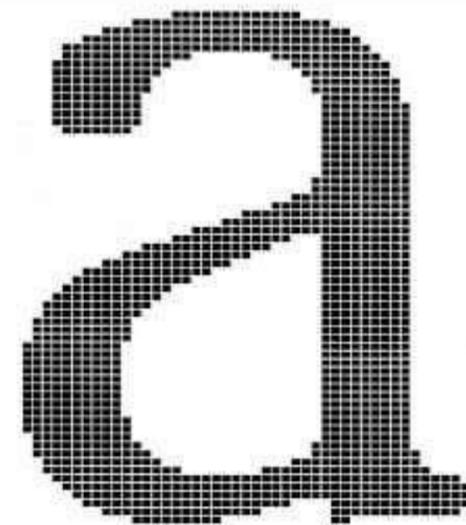
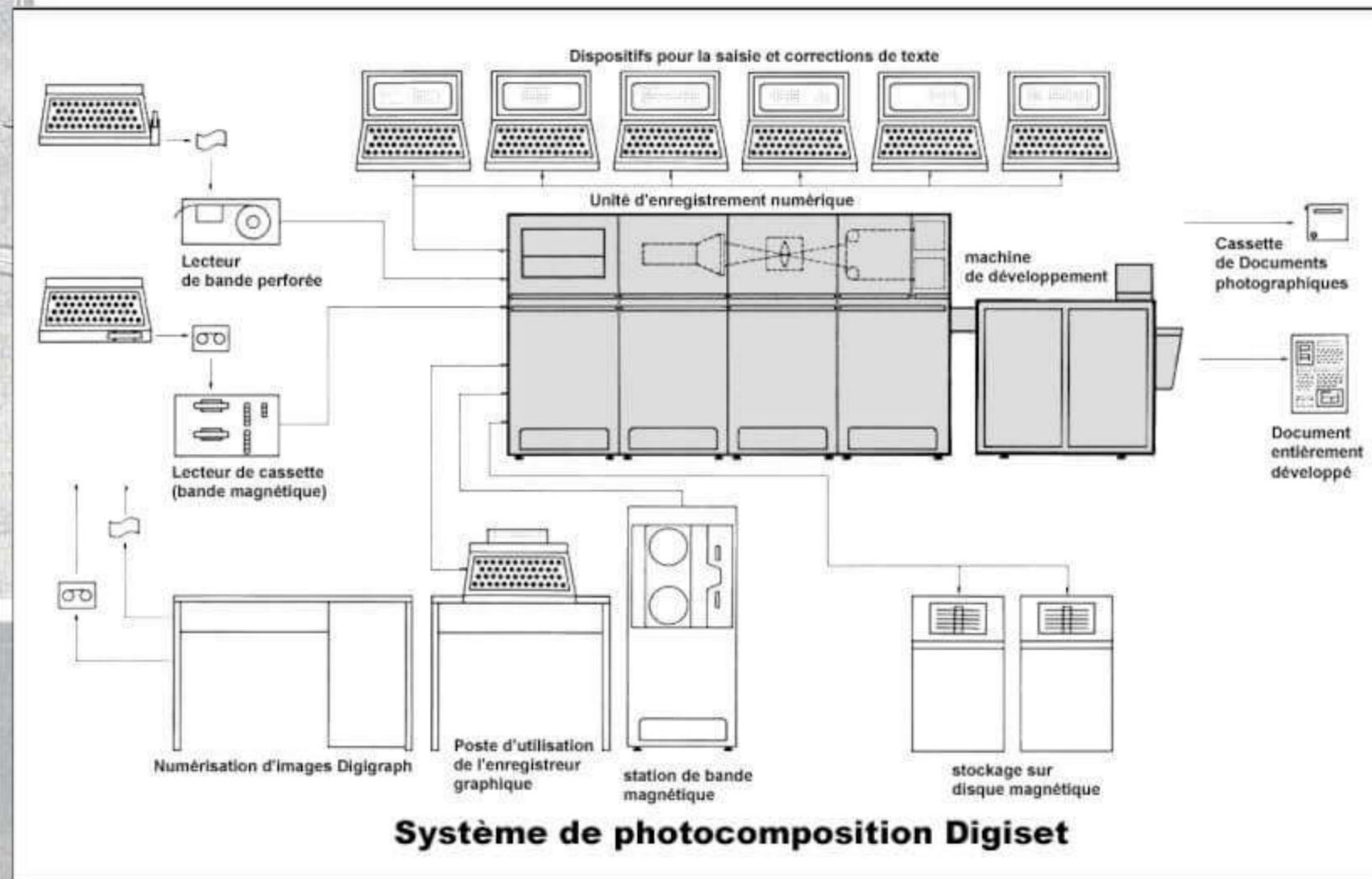
Adrian Frutiger – Typefaces: The Complete Works

”

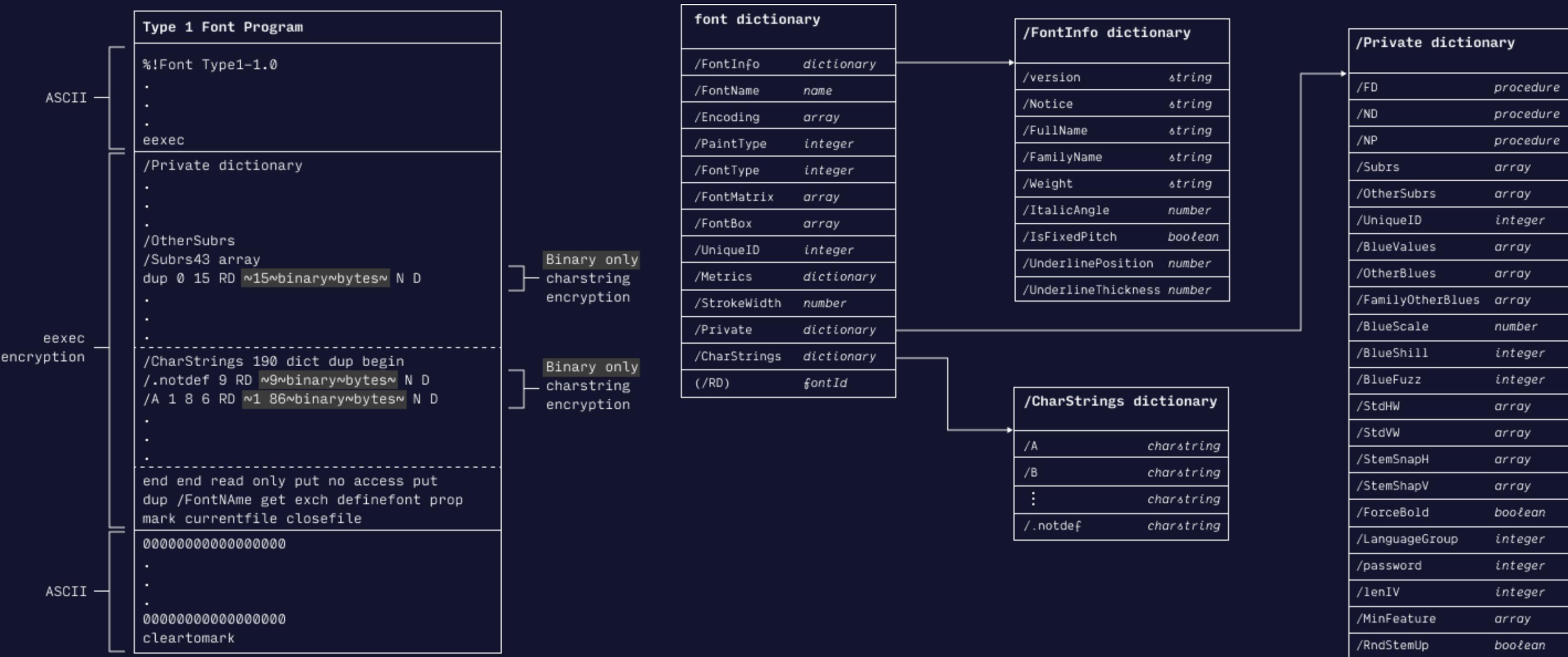


Digiset 50 T1, geöffnete (links), Kathodenstrahl (rechts oben), Entwicklung

Die Lichtsetzanlage Digiset 50 T1 hat sich bei den Herstellern von Telefonbüchern bewährt.



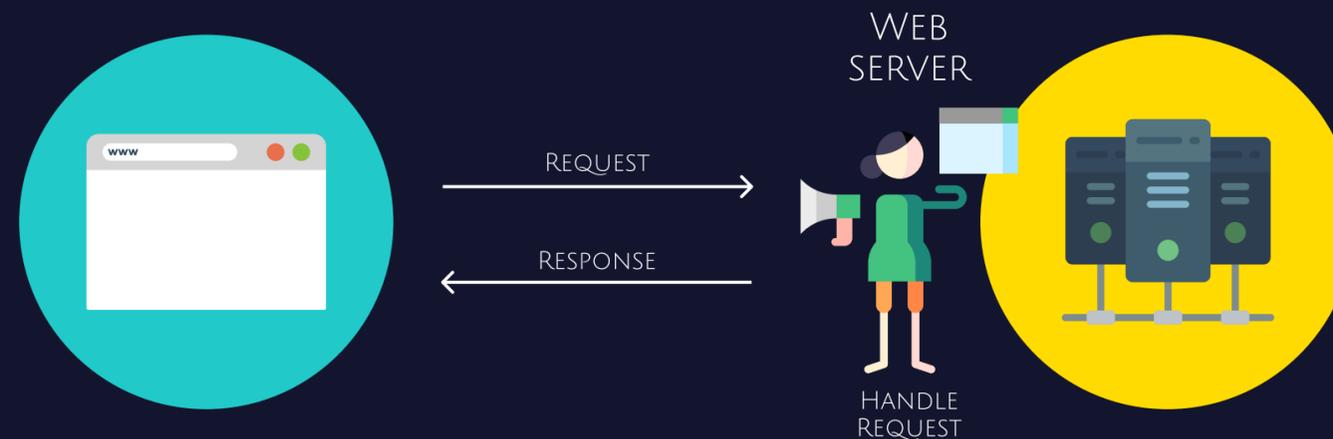
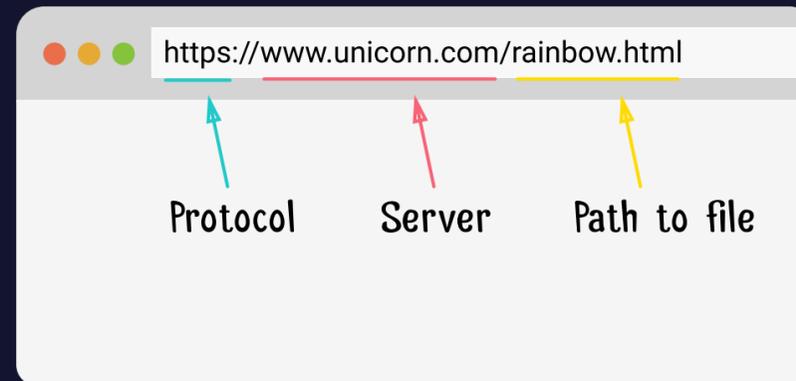
Lowercase letter 'a' of Gerard Unger's typeface *Demos*, decomposed of several hundred bitmaps, to be used for typesetting on the Hell Digiset, a CRT composing machine. (Visible Language, vol. 13, no. 2, Cleveland/OH 1978, p. 137, with kind permission from the collection of Gerard Unger, Bussum)



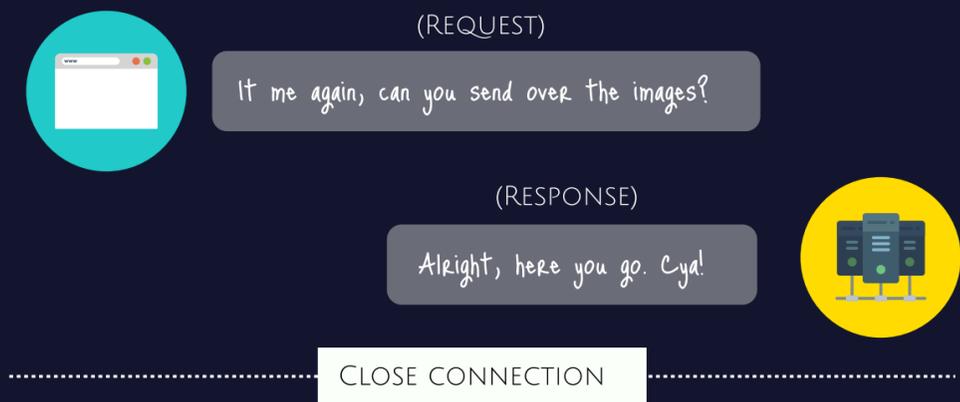
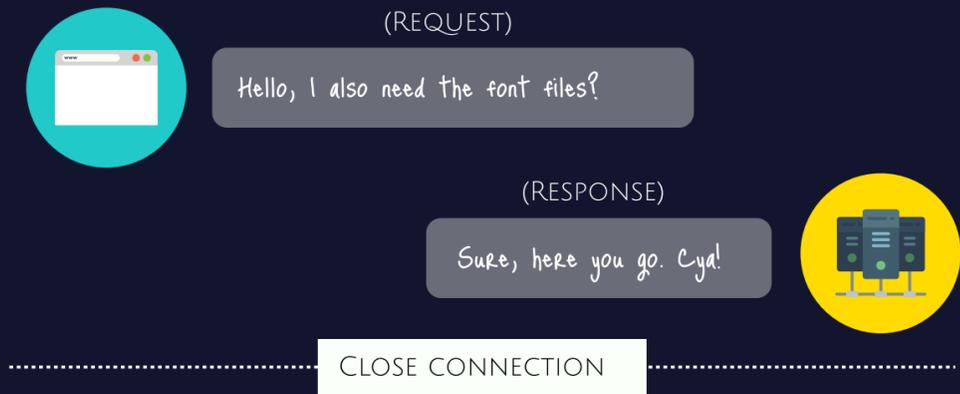
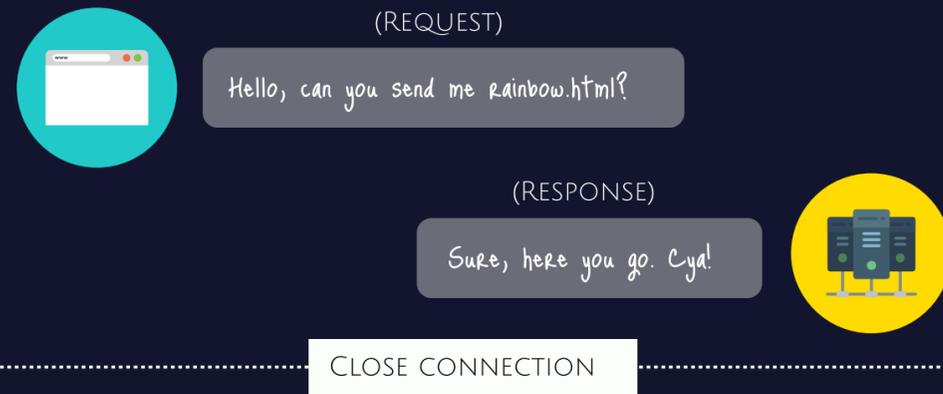
Font formats for web use

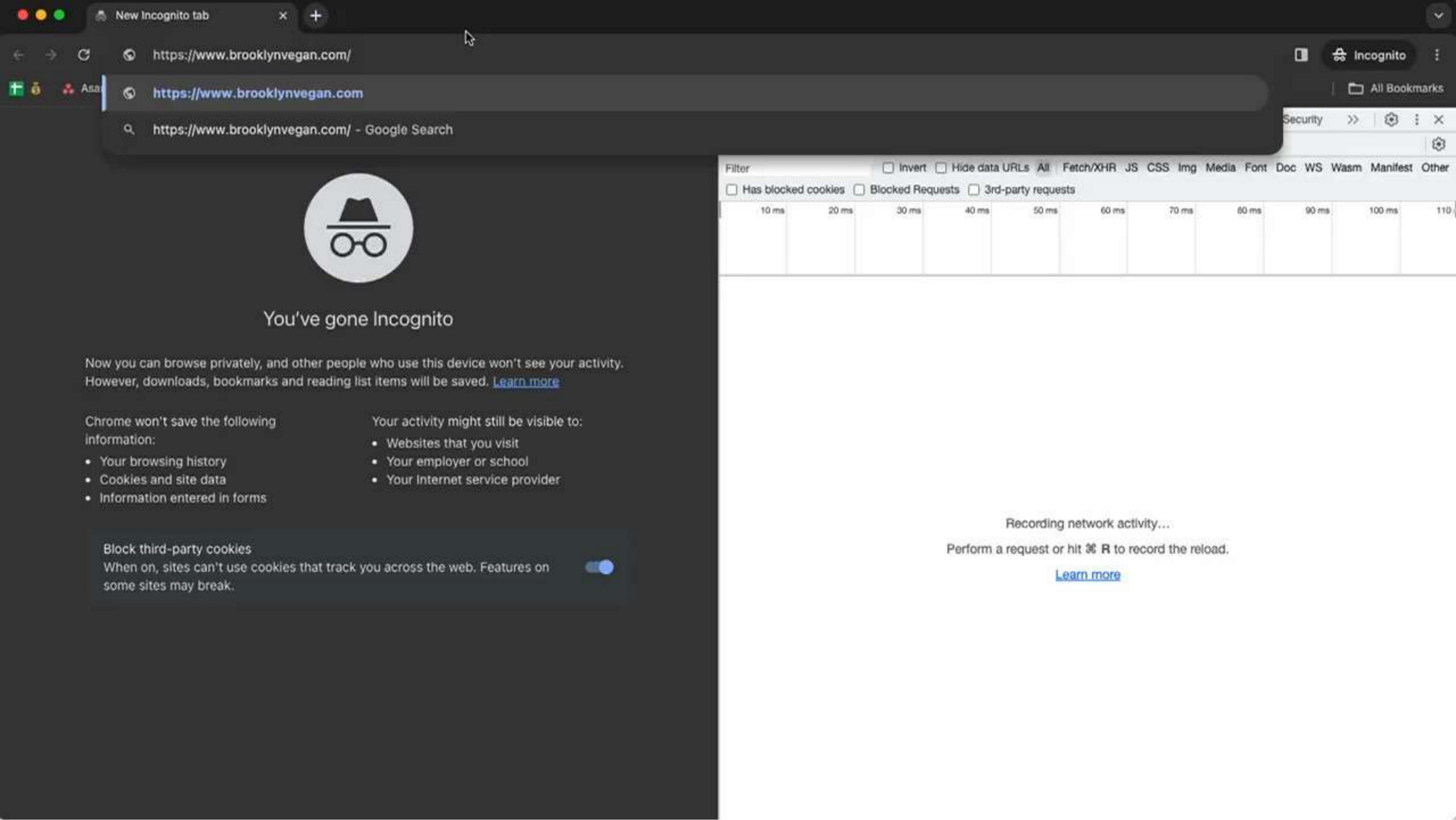
| | | | |
|--------------------------------|---|--|---|
| WOFF2 (Web Open Font Format 2) |  Microsoft |  |  Opera |
| WOFF (Web Open Font Format) |  Microsoft |  |  Opera |
| OTF (OpenType) |  Microsoft |  Adobe | |
| TTF (TrueType) |  Microsoft |  | |
| EOT (Embedded Open Type) |  | | |
| SVG (Scalable Vector Graphics) |   | | |

Abridged explanation of the web (1)



Abridged explanation of the web (2)





You've gone Incognito

Now you can browse privately, and other people who use this device won't see your activity. However, downloads, bookmarks and reading list items will be saved. [Learn more](#)

Chrome won't save the following information:

- Your browsing history
- Cookies and site data
- Information entered in forms

Your activity might still be visible to:

- Websites that you visit
- Your employer or school
- Your Internet service provider

Block third-party cookies

When on, sites can't use cookies that track you across the web. Features on some sites may break.



Recording network activity...

Perform a request or hit ⌘ R to record the reload.

[Learn more](#)

Subsetting web fonts

The screenshot shows the Font Squirrel website's 'Webfont Generator' page. At the top, there's a navigation bar with 'FAQ' and 'Contact'. Below it is the 'FONT SQUIRREL' logo. A search bar is labeled 'SEARCH FONTS & FOUNDRIES'. A menu includes 'Hot', 'Recent', 'Top Font Deals', 'Swag', 'Generator' (highlighted), 'Font Identifier', 'Font Talk', and 'Blog'. The main heading is 'Webfont Generator'. Below it, a 'Usage' note says: 'Click the "Upload Fonts" button, check the agreement and download your fonts. If you need more fine-grain control, choose the Expert option.' There is an 'UPLOAD FONTS' button. A message states 'You currently have no fonts uploaded.' Three options are available: 'BASIC' (Straight conversion with minimal processing), 'OPTIMAL' (Recommended settings for performance and speed), and 'EXPERT...' (You decide how best to optimize your fonts). An 'Agreement' section has a checkbox for 'Yes, the fonts I'm uploading are legally eligible for web embedding.' and a note: 'Font Squirrel offers this service in good faith. Please honor the EULAs of your fonts.'

Font Squirrel

The screenshot shows the FontPlop website. At the top right is a 'Tweet' button. The main logo is a blue circle containing the letters 'FP'. Below the logo is the name 'fontplop'. There are three buttons: 'Download', 'Donate', and 'Github'. The text describes fontplop as an OSX/macOS application that takes 'ttf' and 'otf' files and outputs a webfont bundle: 'woff2', 'woff', 'ttf', 'svg', and 'eot'. It is described as the simpler, faster, free successor to 'FontPrep', which is no longer maintained. At the bottom, it says 'Crafted by the Gonzalez Bro's (Brian and Matthew)'.

FontPlop

The screenshot shows the fontSPIDER website. At the top right are links for '特性', '安装', '使用', and '源码'. The main heading is 'fontSPIDER'. Below it are five stylized Chinese characters in white on a red background. The text below the characters says '字蛛是一个中文字体压缩器' and '让网页自由引入中文字体成为可能'. There is a screenshot of a terminal window showing the command 'fontspider' being used to generate webfont bundles for 'zi1' and 'zi2' fonts. Below the terminal screenshot, the text says: '字蛛通过分析本地 CSS 与 HTML 文件获取 WebFont 中没有使用的字符，并将这些字符数据从字体中删除以实现压缩，同时生成跨浏览器使用的格式。'

Font Spider

Variable fonts

WORKING WITH CSS



Space



Weight

Incremental Font Transfer

“*Incremental transfer allows clients to load only the portions of the font they actually need which speeds up font loads and reduces data transfer needed to load the fonts. A font can be loaded over multiple requests where each request incrementally adds additional data.*

—*Incremental Font Transfer W3C Working Draft*

”

Add Text Content

YGLF Vilnius { ^ _ ^ } /

Add Text

Add Latin 1

Add Latin 2

Add Latin 3

Add Latin 4

Add Cyrillic 1

Add Cyrillic 2

Add Vietnamese 1

Add Vietnamese 2

Add Japanese 1

Add Japanese 2

Add Arabic 1

Add Arabic 2

Add Devanagari 1

Add Devanagari 2

Transfer Options

NOTE: all options other than incremental transfer break layout features across segments. In reality this forces the use of large blocks in many scenarios (Arabic, Indic, many latin cases, etc).

17 codepoints in Demo Content

Options:

A) What Google Fonts would send today, Σ size 21.2 KB:

[21.2 KB latin]

B) woff2 of each segment, Σ segments 4.3 KB:

[4.3 KB woff2]

C) Incremental Transfer. Σ patches 4.3 KB:

[4.3 KB patch]

D) Optimal, woff2 of the exact subset:

[4.3 KB woff2]

Demo Content

0:00 / 0:12



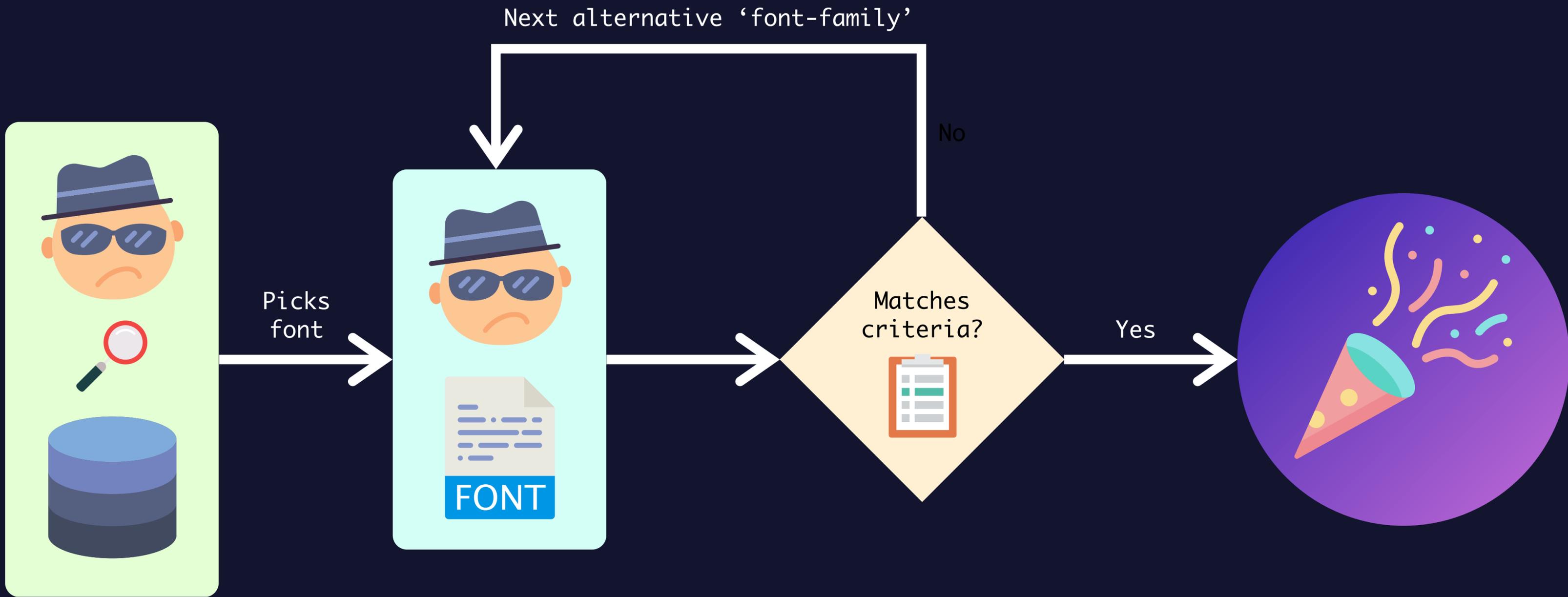
@font-face rule

1. Declare the font

```
@font-face {  
  font-family: 'Magnetic Pro';  
  src: url('../fonts/magnetic-pro-regular.woff2') format('woff2');  
}  
  
@font-face {  
  font-family: 'Magnetic Pro';  
  src: url('../fonts/magnetic-pro-italic.woff2') format('woff2');  
  font-style: italic;  
}  
  
@font-face {  
  font-family: 'Magnetic Pro';  
  src: url('../fonts/magnetic-pro-bold.woff2') format('woff2');  
  font-weight: bold;  
}
```

2. Use the font

```
h1 {  
  font-family: 'Magnetic Pro', Helvetica, sans-serif;  
}
```



0205884 (0x3243c) U+3243C "u3243C" Unencoded Unicode

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 032490 | 032491 | 032492 | 032493 | 032494 | 032495 | 032496 | 032497 | 032498 | 032499 | 03249A | 03249B | 03249C | 03249D | 03249E | 03249F | 0324A0 | 0324A1 | 0324A2 | 0324A3 | 0324A4 | 0324A5 | 0324A6 | 0324A7 | 0324A8 | 0324A9 | 0324AA | 0324AB | 0324AC | 0324AD | 0324AE | 0324AF | 0324B0 | 0324B1 | 0324B2 | 0324B3 | 0324B4 | 0324B5 | 0324B6 | 0324B7 | 0324B8 | 0324B9 |
| 0324BA | 0324BB | 0324BC | 0324BD | 0324BE | 0324BF | 0324C0 | 0324C1 | 0324C2 | 0324C3 | 0324C4 | 0324C5 | 0324C6 | 0324C7 | 0324C8 | 0324C9 | 0324CA | 0324CB | 0324CC | 0324CD | 0324CE | 0324CF | 0324D0 | 0324D1 | 0324D2 | 0324D3 | 0324D4 | 0324D5 | 0324D6 | 0324D7 | 0324D8 | 0324D9 | 0324DA | 0324DB | 0324DC | 0324DD | 0324DE | 0324DF | 0324E0 | 0324E1 | 0324E2 | 0324E3 |
| 0324E4 | 0324E5 | 0324E6 | 0324E7 | 0324E8 | 0324E9 | 0324EA | 0324EB | 0324EC | 0324ED | 0324EE | 0324EF | 0324F0 | 0324F1 | 0324F2 | 0324F3 | 0324F4 | 0324F5 | 0324F6 | 0324F7 | 0324F8 | 0324F9 | 0324FA | 0324FB | 0324FC | 0324FD | 0324FE | 0324FF | 032500 | 032501 | 032502 | 032503 | 032504 | 032505 | 032506 | 032507 | 032508 | 032509 | 03250A | 03250B | 03250C | 03250D |
| 03250E | 03250F | 032510 | 032511 | 032512 | 032513 | 032514 | 032515 | 032516 | 032517 | 032518 | 032519 | 03251A | 03251B | 03251C | 03251D | 03251E | 03251F | 032520 | 032521 | 032522 | 032523 | 032524 | 032525 | 032526 | 032527 | 032528 | 032529 | 03252A | 03252B | 03252C | 03252D | 03252E | 03252F | 032530 | 032531 | 032532 | 032533 | 032534 | 032535 | 032536 | 032537 |
| 032538 | 032539 | 03253A | 03253B | 03253C | 03253D | 03253E | 03253F | 032540 | 032541 | 032542 | 032543 | 032544 | 032545 | 032546 | 032547 | 032548 | 032549 | 03254A | 03254B | 03254C | 03254D | 03254E | 03254F | 032550 | 032551 | 032552 | 032553 | 032554 | 032555 | 032556 | 032557 | 032558 | 032559 | 03255A | 03255B | 03255C | 03255D | 03255E | 03255F | 032560 | 032561 |
| 032562 | 032563 | 032564 | 032565 | 032566 | 032567 | 032568 | 032569 | 03256A | 03256B | 03256C | 03256D | 03256E | 03256F | 032570 | 032571 | 032572 | 032573 | 032574 | 032575 | 032576 | 032577 | 032578 | 032579 | 03257A | 03257B | 03257C | 03257D | 03257E | 03257F | 032580 | 032581 | 032582 | 032583 | 032584 | 032585 | 032586 | 032587 | 032588 | 032589 | 03258A | 03258B |
| 03258C | 03258D | 03258E | 03258F | 032590 | 032591 | 032592 | 032593 | 032594 | 032595 | 032596 | 032597 | 032598 | 032599 | 03259A | 03259B | 03259C | 03259D | 03259E | 03259F | 0325A0 | 0325A1 | 0325A2 | 0325A3 | 0325A4 | 0325A5 | 0325A6 | 0325A7 | 0325A8 | 0325A9 | 0325AA | 0325AB | 0325AC | 0325AD | 0325AE | 0325AF | 0325B0 | 0325B1 | 0325B2 | 0325B3 | 0325B4 | 0325B5 |
| 0325B6 | 0325B7 | 0325B8 | 0325B9 | 0325BA | 0325BB | 0325BC | 0325BD | 0325BE | 0325BF | 0325C0 | 0325C1 | 0325C2 | 0325C3 | 0325C4 | 0325C5 | 0325C6 | 0325C7 | 0325C8 | 0325C9 | 0325CA | 0325CB | 0325CC | 0325CD | 0325CE | 0325CF | 0325D0 | 0325D1 | 0325D2 | 0325D3 | 0325D4 | 0325D5 | 0325D6 | 0325D7 | 0325D8 | 0325D9 | 0325DA | 0325DB | 0325DC | 0325DD | 0325DE | 0325DF |
| 0325E0 | 0325E1 | 0325E2 | 0325E3 | 0325E4 | 0325E5 | 0325E6 | 0325E7 | 0325E8 | 0325E9 | 0325EA | 0325EB | 0325EC | 0325ED | 0325EE | 0325EF | 0325F0 | 0325F1 | 0325F2 | 0325F3 | 0325F4 | 0325F5 | 0325F6 | 0325F7 | 0325F8 | 0325F9 | 0325FA | 0325FB | 0325FC | 0325FD | 0325FE | 0325FF | 032600 | 032601 | 032602 | 032603 | 032604 | 032605 | 032606 | 032607 | 032608 | 032609 |
| 03260A | 03260B | 03260C | 03260D | 03260E | 03260F | 032610 | 032611 | 032612 | 032613 | 032614 | 032615 | 032616 | 032617 | 032618 | 032619 | 03261A | 03261B | 03261C | 03261D | 03261E | 03261F | 032620 | 032621 | 032622 | 032623 | 032624 | 032625 | 032626 | 032627 | 032628 | 032629 | 03262A | 03262B | 03262C | 03262D | 03262E | 03262F | 032630 | 032631 | 032632 | 032633 |
| 032634 | 032635 | 032636 | 032637 | 032638 | 032639 | 03263A | 03263B | 03263C | 03263D | 03263E | 03263F | 032640 | 032641 | 032642 | 032643 | 032644 | 032645 | 032646 | 032647 | 032648 | 032649 | 03264A | 03264B | 03264C | 03264D | 03264E | 03264F | 032650 | 032651 | 032652 | 032653 | 032654 | 032655 | 032656 | 032657 | 032658 | 032659 | 03265A | 03265B | 03265C | 03265D |
| 03265E | 03265F | 032660 | 032661 | 032662 | 032663 | 032664 | 032665 | 032666 | 032667 | 032668 | 032669 | 03266A | 03266B | 03266C | 03266D | 03266E | 03266F | 032670 | 032671 | 032672 | 032673 | 032674 | 032675 | 032676 | 032677 | 032678 | 032679 | 03267A | 03267B | 03267C | 03267D | 03267E | 03267F | 032680 | 032681 | 032682 | 032683 | 032684 | 032685 | 032686 | 032687 |
| 032688 | 032689 | 03268A | 03268B | 03268C | 03268D | 03268E | 03268F | 032690 | 032691 | 032692 | 032693 | 032694 | 032695 | 032696 | 032697 | 032698 | 032699 | 03269A | 03269B | 03269C | 03269D | 03269E | 03269F | 0326A0 | 0326A1 | 0326A2 | 0326A3 | 0326A4 | 0326A5 | 0326A6 | 0326A7 | 0326A8 | 0326A9 | 0326AA | 0326AB | 0326AC | 0326AD | 0326AE | 0326AF | 0326B0 | 0326B1 |
| 0326B2 | 0326B3 | 0326B4 | 0326B5 | 0326B6 | 0326B7 | 0326B8 | 0326B9 | 0326BA | 0326BB | 0326BC | 0326BD | 0326BE | 0326BF | 0326C0 | 0326C1 | 0326C2 | 0326C3 | 0326C4 | 0326C5 | 0326C6 | 0326C7 | 0326C8 | 0326C9 | 0326CA | 0326CB | 0326CC | 0326CD | 0326CE | 0326CF | 0326D0 | 0326D1 | 0326D2 | 0326D3 | 0326D4 | 0326D5 | 0326D6 | 0326D7 | 0326D8 | 0326D9 | 0326DA | 0326DB |
| 0326DC | 0326DD | 0326DE | 0326DF | 0326E0 | 0326E1 | 0326E2 | 0326E3 | 0326E4 | 0326E5 | 0326E6 | 0326E7 | 0326E8 | 0326E9 | 0326EA | 0326EB | 0326EC | 0326ED | 0326EE | 0326EF | 0326F0 | 0326F1 | 0326F2 | 0326F3 | 0326F4 | 0326F5 | 0326F6 | 0326F7 | 0326F8 | 0326F9 | 0326FA | 0326FB | 0326FC | 0326FD | 0326FE | 0326FF | 032700 | 032701 | 032702 | 032703 | 032704 | 032705 |



HJ Chen
@hj_chen

on a semi-unrelated note...ah
excessively aggressive subsetting,
@Medium I can relate
#typography

Phil Püčkthun

FRP, React, RxJS & the likes •



Phil Püčkthun

FRP, React, RxJS &

@reactivate_ldn •

Apr 29 • 7 min read

10:36 AM - 9 Aug 2018



Add another Tweet



Vadim Makeev @pepelsbey_ · 9 Aug 2018

Replying to @hj_chen @Medium

Yep, they don't care about Cyrillic too, though it's not lethal when you don't have mixed words, but still ugly.

CSS: НОВЫЙ ВИД JavaScript



Dovilė Pakutinskaitė in Trys kubai
Nov 30, 2018 · 1 min read



Konferencija Lietuvos nacionalinėje Martyno Mažvydo bibliotekoje

Lietuvos nacionalinėje Martyno Mažvydo...

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Algirdas Žilėdas
Jan 5, 2016 · 2 min read

Šiauliai — 2017 metų (ne)kultūros sostinė

Kaip ir kiekvienais metais Lietuvoje yra renkama Lietuvos kultūros sostinė. Šių metų kultūros sostinė tapo Telšiai. Pernai kultūros renginius turėjo garbės organizuoti Žagarės miestelis, o prieš du metus — Danavėžys.

The screenshot shows a web browser window displaying a slide titled "backdrop". The slide content is: "The backdrop is the content behind the element and is what the element is composited with." The word "backdrop" is in a colorful, multi-colored font. To the left of the text is a vertical bar with a rainbow gradient. A small blue logo is in the bottom right corner of the slide.

Overlaid on the right side of the browser is the Chrome DevTools Fonts panel. The "Fonts Used" section lists "Gilbert" and "Gilbert Color". The "Size" is set to 42 px, "Line Height" to 1.3, "Spacing" to normal, and "Weight" to 400. The "All fonts on page" section shows "Gilbert" and "Gilbert Color" with their respective font preview text and "Abc" samples.

Slides for *This world mixed and blended* by Gao Wei.

Raleway

Multiple Designers (18 styles)

This font does not
support Cyrillic
characters



Comfortaa

Johan Aakerlund, Cyreal (5 styles)

Этот шрифт
поддерживает
СИМВОЛЫ
КИРИЛЛИЦЫ



```
@font-face {
  font-family: 'Raleway';
  src: url('fonts/raleway-regular.woff2') format('woff2');
  /* no range specified, defaults to entire range */
}

@font-face {
  font-family: 'Raleway';
  src: url('fonts/comfortaa_regular.woff2') format('woff2');
  unicode-range: U+0400–U+04FF; /* Unicode range for Cyrillic characters */
}
```

The Ukrainian word for
“Thank You” is Дякую

Composite font

https://huijing.github.io/demos/composite-fonts/

Inspector Console Debugger

Search HTML

```
<!DOCTYPE html>
<html lang="en">
  <head>...</head>
  <body class="vsc-initialized"> flex
    <p>
      The Ukrainian word for "Thank You" is
      <span lang="uk">Дякую</span>
    </p>
  </body>
</html>
```

html > body.vsc-initialized > p

Rules Layout Computed Changes Compatibility **Fonts**

Fonts Used Raleway
Raleway Regular, Comfontaa Regular

Size 4 em

Line Height normal

Spacing normal

Weight 400

Italic

All Fonts on Page

Typesetting on the web

“ *Authors should language-tag their content accurately for the best typographic behaviour.*

—CSS Text Module Level 3

”

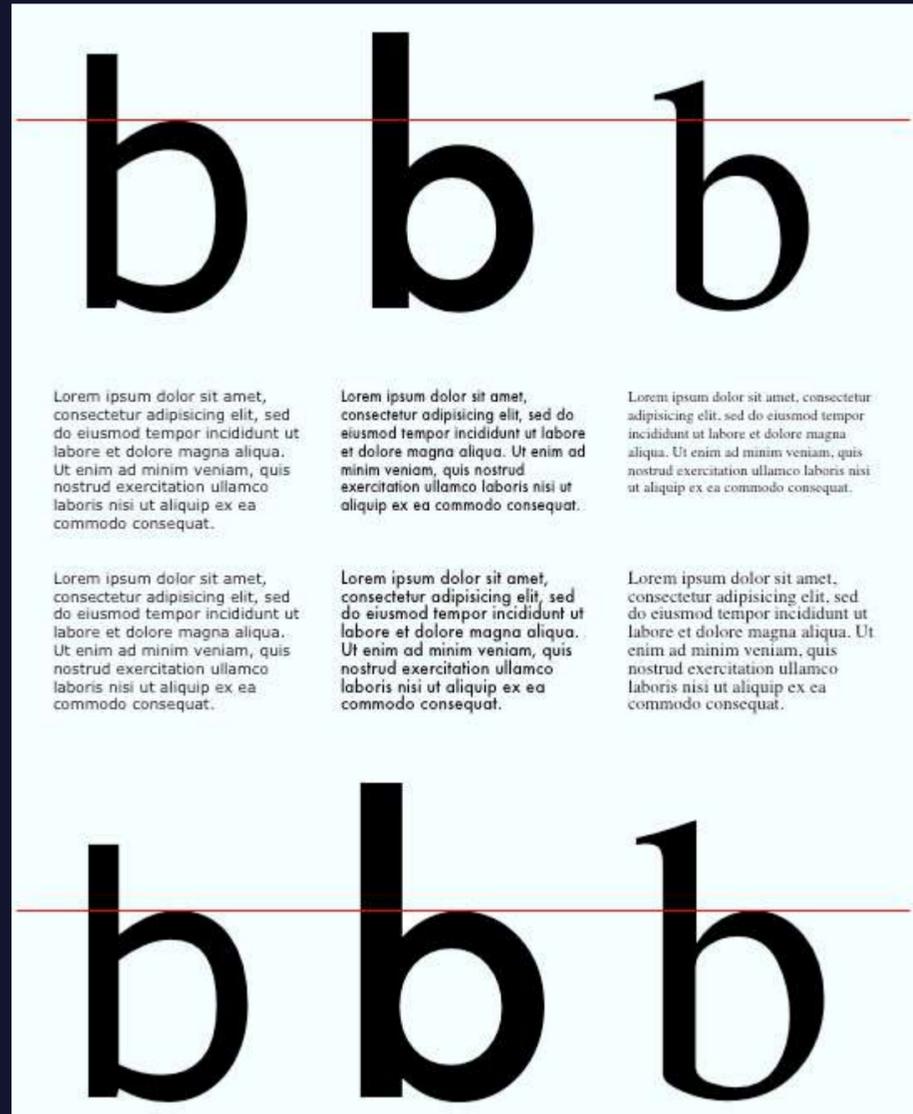
```
<!doctype html>  
<html lang="en">
```

```
<p>비비는 오는 24일 오후 1시 더블 싱글 형태로 '모토스피드  
24시(<span lang="en">Motospeed 24</span>)'와  
'불륜(<span lang="en">Sweet Sorrow of  
Mother</span>)' 2곡을 공개한다.</p>
```

CSS font properties

| | |
|-------------------------------|---|
| <code>font-family</code> | specifies a prioritized list of one or more font family names and/or generic family names for the selected element. |
| <code>font-size</code> | Indicates the desired height of the glyphs. Takes absolute or relative values. |
| <code>font-weight</code> | Specifies the weight of the glyphs in the font. Can use keywords or numerical values. |
| <code>font-style</code> | Allows italic or oblique faces to be selected. |
| <code>font-stretch</code> | Selects a normal, condensed or expanded face from a font family. Range spans over 9 keywords. |
| <code>font-size-adjust</code> | Adjusts the font-size to preserve the x-height of the first choice font. |
| <code>font-synthesis</code> | Controls whether user agents are allowed to synthesize bold or oblique font faces when missing. |

font-size-adjust



```
HTML SCSS JS Result EDIT ON

@import url('https://fonts.googleapis.com/css?
family=Merriweather');

body {
  padding: 1em;
}

@supports not (font-size-adjust: 0.5) {
  body::before {
    content: 'If you see this message, it means the
demo is not working as the browser you are using does
not support font-size-adjust.';
    display: block;
    background-color: coral;
    padding: 0.5em;
    margin-bottom: 1em;
  }
}

div {
  padding: 1em;
  line-height: 1.5;
}

.intro {
  border: 0.25em dotted;
}

p:not(:last-of-type) {
  margin-bottom: 1em;
}

Resources View Compiled 1x 0.5x 0.25x Rerun
```

font-synthesis

Minion Pro

afwn

Roboto

afwn

Minion Pro

afeunyi

Minion Pro Faux Bold

afwn

Roboto Faux Bold

afwn

Minion Pro Faux Italic

afeunyi

Minion Pro Bold

afwn

Roboto Bold

afwn

Minion Pro Italic

afeunyi

Image credit: Piotr Grochowski

font-synthesis

We use *italics* to emphasise words in English, 但是中文则是用着重号.

```
.faux em:lang(zh) {  
  font-synthesis: auto;  
}
```

OpenType features

- aalt
- abvf
- abvm
- abvs
- afrc
- akhn
- blwf
- blwm
- blws
- calt
- case
- ccmp
- cfar
- cjct
- clig
- cpct
- csp
- csw
- curs
- cv01 – cv99
- c2pc
- c2sc
- dist
- dlig
- dnom
- dtls
- expt
- falt
- fin2
- fin3
- fina
- flac
- frac
- fwid
- half
- haln
- halt
- hist
- hkna
- hlig
- hngl
- hojo
- hwid
- init
- isol
- ital
- jalt
- jp78
- jp83
- jp90
- jp04
- kern
- lfb
- liga
- ljmo
- lnum
- locl
- ltra
- ltrm
- mark
- med2
- medi
- mgrk
- mkmk
- mset
- nalt
- nlck
- nukt
- numr
- onum
- opbd
- ordn
- ornm
- palt
- pcap
- pkna
- pnum
- pref
- pres
- pstf
- psts
- pwid
- qwid
- rand
- rclt
- rkrf
- rlig
- rphf
- rtbd
- rtle
- rtlm
- ruby
- rvrn
- salt
- sinf
- size
- smcp
- smpl
- ss01
- ss02
- ss03
- ss04
- ss05
- ss06
- ss07
- ss08
- ss09
- ss10
- ss11
- ss12
- ss13
- ss14
- ss15
- ss16
- ss17
- ss18
- ss19
- ss20
- ssty
- stch
- subs
- sup
- swsh
- titl
- tjmo
- tnam
- tnum
- trad
- twid
- unic
- valt
- vatu
- vert
- vhal
- vjmo
- vkna
- vkrn
- vpal
- vrt2
- vrtr
- zero

Font feature properties

font-kerning

AV Wa

No kerning

AV Wa

Kerning applied

font-variant-position

C₁₀ H₁₆ N₅ O₁₃ P₃
C₁₀ H₁₆ N₅ O₁₃ P₃

font-variant-position-ligatures

fi ▶ fi tʒ ▶ ʒ
WORDS ▶ WORDS
labor of love ▶ labor of love

font-variant-numeric

| | | |
|---|---------|-----------|
| 1st 17th 2a ▶ 1 st 17 th 2 ^a | | |
| 2 1/3 ▶ 2 ¹ / ₃ | Lining | Old-Style |
| 4000 ▶ 4000 | 409,280 | 409,280 |
| | 367,112 | 367,112 |
| | 155,068 | 155,068 |
| 2 1/3 ▶ 2 ¹ / ₃ | 171,792 | 171,792 |

font-variant-caps

The DOM, the HTML syntax, and the XHTML syntax cannot all represent the same content. For example, namespaces cannot be represented using the HTML syntax, but they are supported in the DOM and in the XHTML syntax.

font-variant-alternates

Jesuits ▶ Jefuits
quick ▶ quick Quick ▶ Quick
incroyable ▶ incroyable
• ▶ ❁ ❂ ❃ ❄ 519 ▶ ⑤①⑨

`font-variation-settings`

Working with CSS



Optical Sizing



Softness

CSS for controlling line breaks

| | |
|----------------------------|---|
| <code>line-break</code> | allows choosing various levels of “strictness” for line breaking restrictions |
| <code>word-break</code> | controls what types of letters are glommed together to form unbreakable “words”, causing CJK characters to behave like non-CJK text or vice versa |
| <code>hyphens</code> | controls whether automatic hyphenation is allowed to break words in scripts that hyphenate |
| <code>overflow-wrap</code> | allows the UA to take a break anywhere in otherwise-unbreakable strings that would otherwise overflow |

[Line breaking](#) by Florian Rivoal @ dotCSS

The complexity of line-breaking

Cats use their long tails to balance themselves when they're jumping or walking along narrow ledges.

고양이는 좁은 가장자리를 따라 달리거나 걸을 때 균형을 잡기 위해 긴 꼬리를 사용합니다.

当猫在狭窄的壁架上跳跃或行走时，它们会用长尾巴来平衡自己。

Katzen nutzen ihren langen Schwanz, um beim Springen oder Laufen über schmale Felsvorsprünge das Gleichgewicht zu halten.

```
.linebox p {  
  word-break: normal;  
  hyphens: manual;  
  overflow-wrap: normal;  
  width: initial;  
}
```

New CSS: text-wrap

Cats use their long tails to balance themselves when they're jumping or walking along narrow ledges.

고양이는 좁은 가장자리를 따라 달리거나 걸을 때 균형을 잡기 위해 긴 꼬리를 사용합니다.

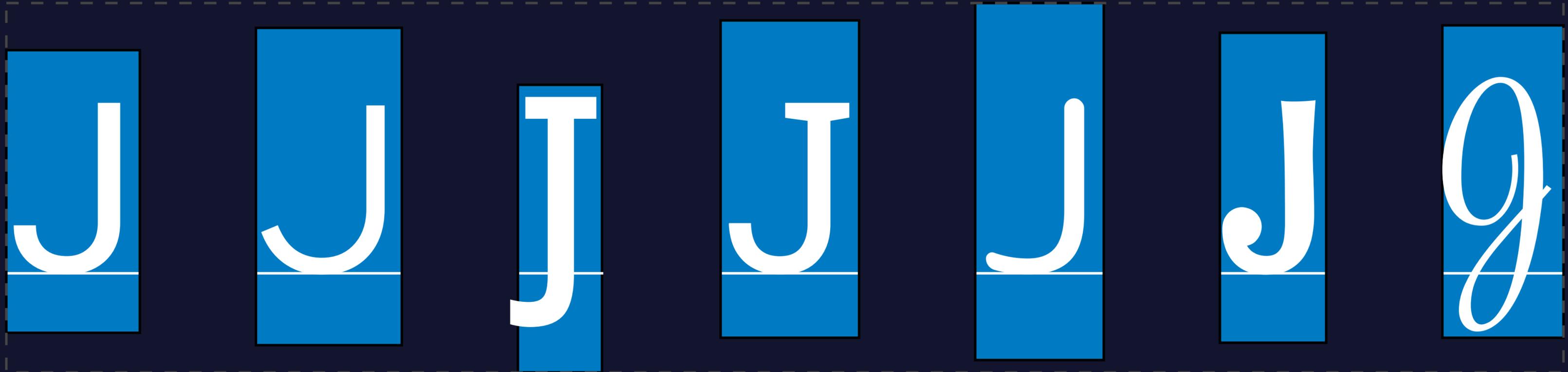
当猫在狭窄的壁架上跳跃或行走时，它们会用长尾巴来平衡自己。

Katzen nutzen ihren langen Schwanz, um beim Springen oder Laufen über schmale Felsvorsprünge das Gleichgewicht zu halten.

```
.textwrap p {  
  text-wrap: wrap;  
}
```

“ Websites do NOT have to look the same in every browser. ”

The leading problem



New CSS: text-box-*

Cats use their long tails to balance themselves when they're jumping or walking along narrow ledges.

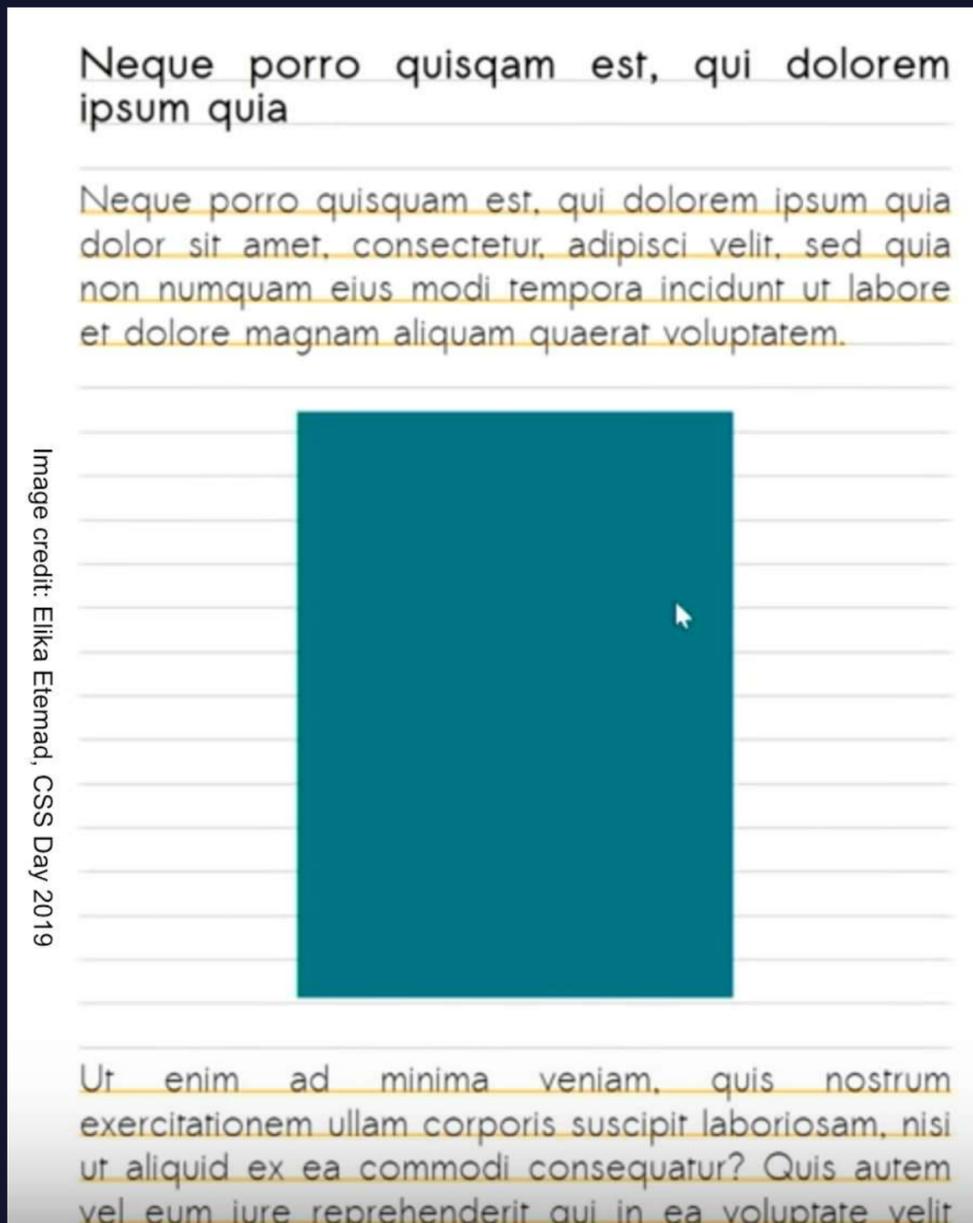
고양이는 좁은 가장자리를 따라 달리거나 걸을 때 균형을 잡기 위해 긴 꼬리를 사용합니다.

当猫在狭窄的壁架上跳跃或行走时，它们会用长尾巴来平衡自己。

Katzen nutzen ihren langen Schwanz, um beim Springen oder Laufen über schmale Felsvorsprünge das Gleichgewicht zu halten.

```
.textbox p {  
  text-box-edge: leading;  
  text-box-trim: none;  
}
```

The interruption problem





References

- [W3C CSS homepage](#)
- [Adrian Frutiger – Typefaces: The Complete Works](#)
- [Digiset 50 T 1](#)
- [A brief overview of developments in digital type design](#)
- [Fundamentals of modern photo-composition](#)
- [The Adobe Originals Silver Anniversary Story: Typographic Tales from Japan](#)
- [Line breaking by Florian Rivoal @ dotCSS](#)
- [Leading-Trim: The Future of Digital Typesetting](#)
- [CSS Text Box Trim examples](#)
- [CSS Line Layout and Vertical Rhythm by Erika J. Etemad @ dotCSS](#)
- [CSS working group discussion threads](#)

Thank you



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Font is *Work Sans* by Wei Huang and *Bagnard* by Sebastien Sanfilippo.