

OPENTYPE FEATURES

FONT-FORMATE

TRUETYPE (.TTF)

OPENTYPE (.TTF, .OTF)

EOT, WOFF, WOFF 2

VARIABLE FONTS

```
@font-face
{
    font-family: 'What The Font';
    font-weight: normal;
    font-style: normal;
    src: url('wtf.eot');
    src:
        url('wtf.eot?#iefix') format('embedded-opentype'),
        url('wtf.woff2') format('woff2'),
        url('wtf.woff') format('woff'),
        url('wtf.ttf') format('truetype'),
        url('wtf.svg#wtf') format('svg')
}
```

WOFF

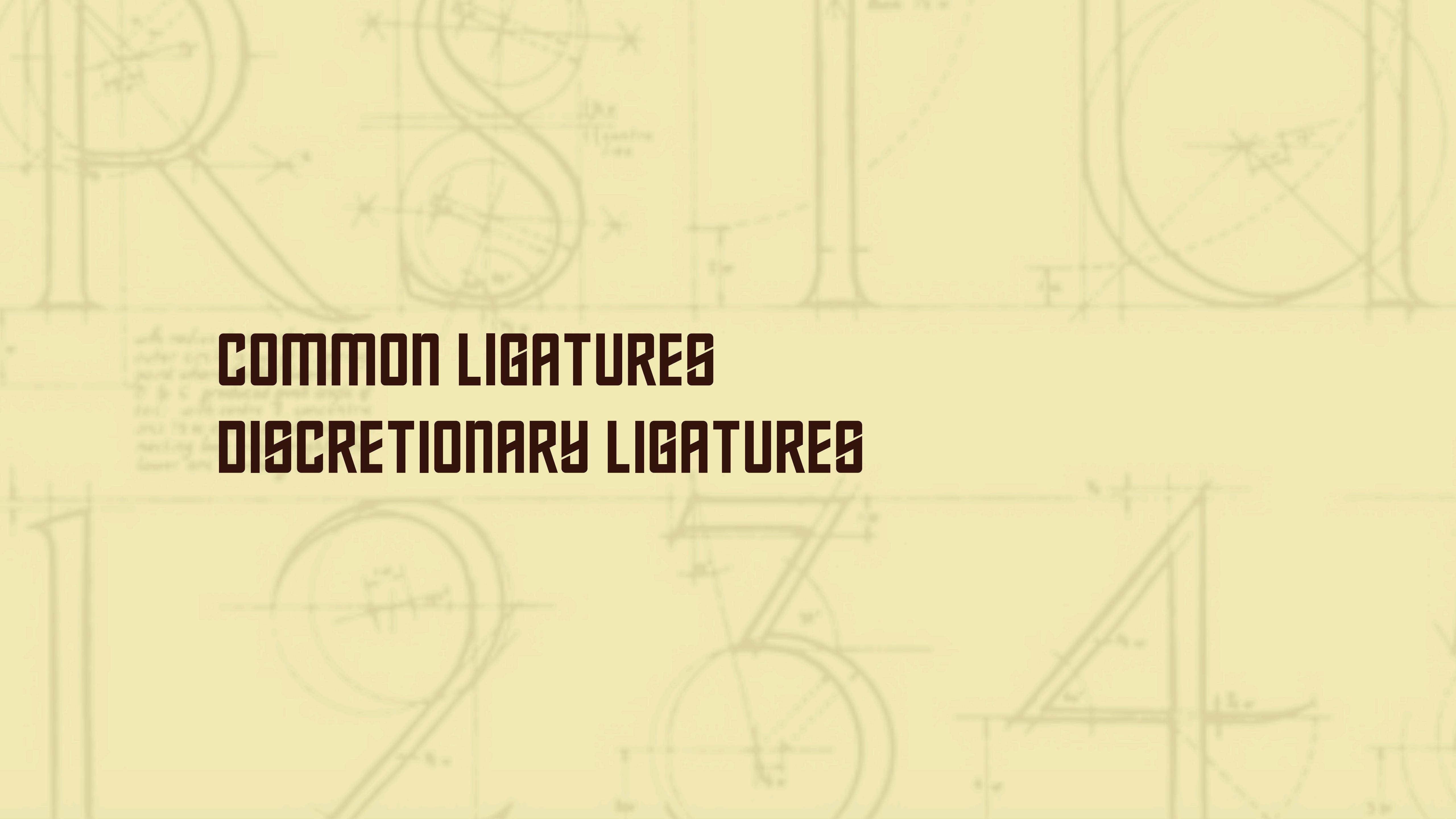
Weg mit den
ollen Font-Formaten!

Amstelvar

Weight:	100	900
Width:	35	100
Optical Size:	10	72
x opaque:	5	500
x transparent:	42	402
y opaque:	4	85
lc y transparent:	445	600
Serif height:	0	48
Grade:	25	150
x transparent Chinese:	800	1200
y transparent Chinese:	800	1200
y transparent ascender:	650	850
y transparent descender:	150	350
y transparent uppercase:	650	950
y transparent:	800	1200

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 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 个 久 以 前 在 大 征 很 我
星 是 海 的 系 辰 远 途 遥

LIGATUREN



COMMON LIGATURES
DISCRETIONARY LIGATURES

liga, dlig - OpenType features ↗

Gunnar Bittersmann



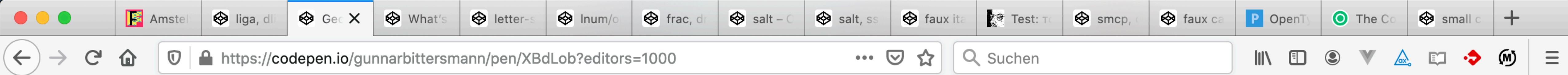
HTML

CSS

```
1 ▾ p {  
2   font-family: var(--font);  
3   font-size: 5em;  
4   font-feature-settings: 'liga', 'dlig';  
5 ▾ /* font-variant-ligatures: common-ligatures  
   discretionary-ligatures; */  
6 }
```

Spock, first officer

JS



Georgia ligatures? ✎

Gunnar Bittersmann



HTML

```
1 ▼ <figure>
2 ▼   <figcaption>no ligatures, boo</figcaption>
3 ▼   <p>fire flame</p>
4 </figure>
5 ▼ <figure>
6 ▼   <figcaption>hack, also boo</figcaption>
7 ▼   <p>
8 ▼     <span class="visually-hidden">fire</span><span aria-hidden="true">fire</span>
9 ▼     <span class="visually-hidden">flame</span><span aria-hidden="true">flame</span>
10    </p>
11 </figure>
```

no ligatures, boo

fire flame

hack, also boo

fire flame

 CSS

A small icon representing JavaScript, consisting of a gear and the letters 'JS'.

What's wrong? ✎

Gunnar Bittersmann



HTML

```
1 ▼ <main lang="de">
2 ▼   <p>Kauf&zwnj;&shy;leute</p>
3 ▼   <p>Straf&zwnj;&shy;justiz</p>
4 ▼   <p>Impf&zwnj;&shy;termin</p>
5 ▼   <p>Haus&zwnj;&shy;tür</p>
6 ▼   <p>Lackmus&zwnj;&shy;test</p>
7   </main>
```

Kaufleute

Strafjustiz

Impftermin

Haustür

Lackmustest

 CSS

 JS

letter-spacing and ligatures

Gunnar Bittersmann



Save



Change View



HTML

```
1<|p lang="en" style="--font: Abril  
Text">Spock, first officer</p>  
2<p lang="de" style="--font: Kleist-  
Fraktur">Spock, erster Offizier</p>
```

Spock, first officer

CSS

```
1p {  
2  font-family: var(--font);  
3  font-size: 5em;  
4  letter-spacing: 0.1em;  
5/* font-feature-settings: 'dlig'; */  
6}
```

Spock, erster Offizier

JS

1

Die Fraktur ist eine gebrochene Schrift.

Bei gebrochenen Schriften werden im Deutschen die Zwangsligaturen ch, ck, ft und tz sowie der Buchstabe ß nicht aufgelöst. (Wikipedia: Sperrsatz)

ZAHLEN

oldstyle vs. lining

proportional vs. tabular

ordinal

fractions

subscripts

slashed zero

font-family: Abril Text

2781

font-family: Abril Text;
font-variant-numeric:
lining-nums tabular-nums

2781

font-family: Abril Display;
font-variant-numeric:
lining-nums tabular-nums

2781

T-Mobile.pl

08:53

TAGESSPIEGEL
CHECKPOINT

Tagesspiegel Checkpoint
@TspCheckpoint

Könnte Kunst sein, ist aber ein
technischer Fehler. BER count
up - Tage seit nicht Eröffnung:
2608

Teilen:

BER count Up - T
seit nicht Eröffnun



Twittere deine Antwort



Inum/onum, pnum/tnum, ordn - OpenType features ↗

Gunnar Bittersmann



HTML

CSS

```
1  body {  
2    margin: 1em;  
3    font: 1.5em/1.5 Abril Text;  
4    font-feature-settings: 'lnum';  
5    /* font-variant-numeric: lining-nums; */  
6  }  
7  
8  .ordinal {  
9    font-feature-settings: 'lnum', 'ordn';  
10   /* font-variant-numeric: lining-nums ordinal; */  
11  }  
12  
13 table {  
14   font-feature-settings: 'lnum', 'tnum';  
15   /* font-variant-numeric: lining-nums tabular-  
16     nums; */  
17  
18blockquote, figure {  
19  .
```

JS

Star Trek: The Next Generation is an American science fiction television series created by Gene Roddenberry. It originally aired from September 28th, 1987, to May 23rd, 1994, in syndication, spanning 178 episodes and over 7 seasons. The 3rd series in the *Star Trek* franchise, it is the 2nd sequel to *Star Trek: The Original Series*. Set in the 24th century, when Earth is part of the United Federation of Planets, it follows the adventures of a Starfleet starship, the USS *Enterprise* (NCC-1701-D), in its exploration of the Milky Way galaxy.

NCC-1701-D *Enterprise*

NCC-2893 *Stargazer*

frac, dnom, subs, zero – OpenType features ✎

Gunnar Bittersmann



HTML

css

```
1  body {  
2      margin: 1em;  
3      max-width: 26em;  
4      font: 1.5em/1.5 Abril Text, Source Serif Pro;  
5      font-feature-settings: 'lnum', 'frac', 'dnom' 0,  
6      'subs' 0, 'zero';  
7      /* font-variant-numeric: lining-nums diagonal-  
8         fractions; */  
9  }  
10 .subs {  
11     font-feature-settings: 'lnum', 'frac', 'dnom' 0,  
12     'subs', 'zero';  
13  }  
14 blockquote {  
15      margin: 1.5em 0;  
16  }
```

JS

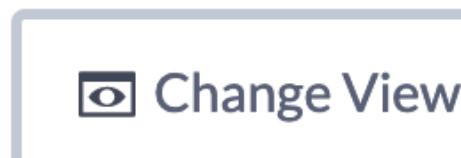
Eine Studie vom Januar 2021 hatte der Corona-Pandemie sogar $\frac{2}{3}$ der Einsparungen an CO₂ zugeschrieben. Experten warnen, dass die Emissionen steigen werden, wenn die Wirtschaft wieder anzieht.

STILISTISCHE & LOKALE VARIANTEN

Stylistic alternates & stylesets

Swashes

Localized forms



HTML

CSS

```
1 body {  
2   font: 6em Source Sans Pro;  
3 }  
4  
5 td {  
6   padding: 0 0.5em;  
7 }  
8  
9 tr:last-child {  
10   font-feature-settings: 'salt';  
11 /* font-variant-alternates deprecated */  
12 }  
13
```

JS

salt, ss... - OpenType features ↗

Gunnar Bittersmann

HTML

```
1<p>Grand Nagus, leader of the Ferengi  
Alliance</p>  
2<p><i class="faux">Grand Nagus, leader  
of the Ferengi Alliance</i></p>  
3<p><i>Grand Nagus, leader of the  
Ferengi Alliance</i></p>
```

CSS

```
1p {  
2  font-family: Source Sans Pro;  
3  font-size: 3em;  
4  font-feature-settings: 'salt' 0;  
5}  
6  
7i.faux {  
8  display: inline-block;  
9  font-style: normal;  
10 transform: skewX(-10deg);  
11}  
12
```

JS

Suchen



Save



Change View



Grand Nagus, leader of the Ferengi Alliance

Grand Nagus, leader of the Ferengi Alliance

Grand Nagus, leader of the Ferengi Alliance

faux italic, corrected ✎

Gunnar Bittersmann

... Save

HTML

```
1 <figure>
2   font: 2em var(--font, Source Sans Pro);
3 }
4
5 .faux-italic {
6   display: inline-block;
7   font-style: normal;
8   transform: skewX(-10deg);
9 }
10
11 .faux-italic.corrected {
12   font-feature-settings: 'ss02', 'ss03';
13   letter-spacing: -.02em;
14 }
15
16 figcaption {
17   font: 1rem Source Sans Pro;
18 }
19
```

CSS

Grand Nagus

Source Sans Pro, normal

Grand Nagus

Source Sans Pro, faux italic 😱

Grand Nagus

Source Sans Pro, faux italic, glyphs and letter spacing corrected

Grand Nagus

Source Sans Pro, italic

Grand Nagus

Source Serif Pro, normal

Grand Nagus

Source Serif Pro, faux italic 😱

Grand Nagus

```
@font-face
{
    font-family: 'What The Font';
    font-weight: normal;
    font-style: normal;
    src: url('wtf.woff2') format('woff2');
}
```

```
@font-face
{
    font-family: 'What The Font';
    font-weight: normal;
    font-style: italic;
    src: url('wtf-italic.woff2') format('woff2');
}
```

ERWERBSREGEL 3:

**Gib niemals mehr für einen Erwerb aus
als es unbedingt sein muss.**

ERWERBSREGEL 239:
Hab keine Angst davor,
ein Produkt falsch zu etikettieren.

PROGRESSIVE ENHANCEMENT ROCKS!!

GUNNAR BITTERSMANN, 26 JUNE 2016
@G16N #UXCE16

PROGRESSIVE ENHANCEMENT ROCKS!!

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PROGRESSIVE
ENHANCEMENTS
ROCKS!!

GUNAR BITTERSMAN, 26 JUNE 2016
@G16N #UXCE16

CUSTOM PROPERTIES

sind mehr als bloß

CSS-VARIABLEN



тёплая вода

серла wòda

цёплая вада

ciepła woda

teplá voda

тепла вода

topla voda

топла вода

śopła wóda
ćopła woda

norma

ТОПЛА ВОДА

`lang="sr"`

топла вода

lang="bg"

монла Бога

топла вода rendered in Source Serif – without and with language declaration

Serbian/Bulgarian

italic

топла вода

шоула вога

топла вода



Foto: Bratkrk CC BY-SA 3.0

Polish Diacritics

how to?

[Introduction] [Kropka] [Kreska] [Ogonek] [Stroke]

kreska

not exactly acute

You might have heard that the *acute* accent is used in Polish language. Wrong! The Polish **kreska** in a 8 point face seems similar to acute but if you look closer, you'll discover that a Polish kreska, when designed according to the requirements of Polish typography, is differently shaped and placed than the usual acute.

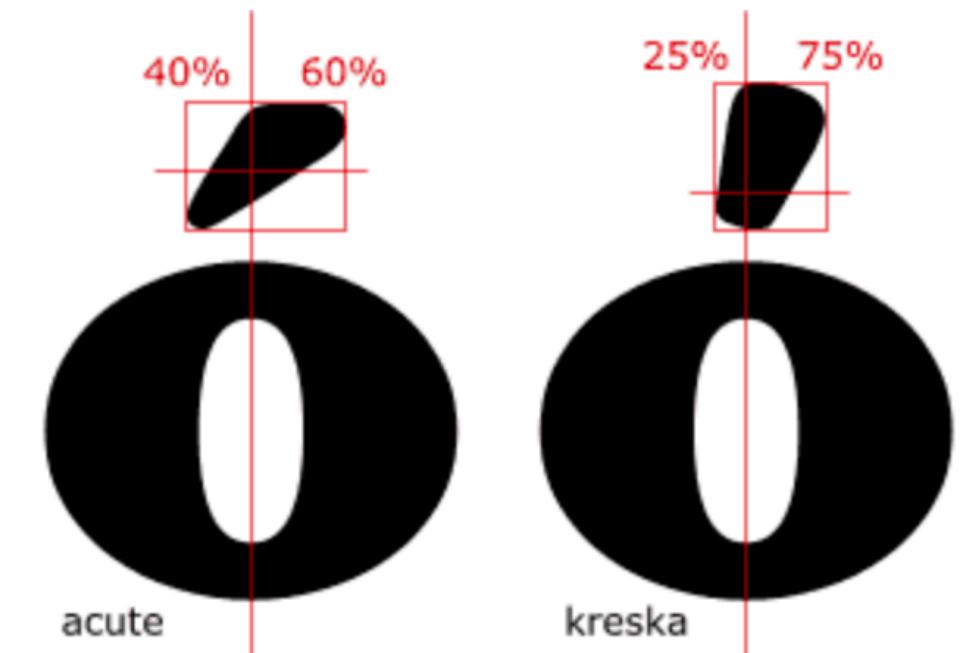
The Polish accent is mostly known as *kreska* or *kreseczka*, yet having no "official" name. The word *kreska* means *stroke*. *Kreseczka* is a diminutive, meaning *little stroke*.

The Polish kreska runs steeper and is shifted more to the right rather than centered above the base glyph. The middle of its "impact" resides lower than that of the acute.

The obvious problem visible here is the problem of two glyphs for the same character. The Unicode standard and all other encoding tables usually identify the Polish accents as acutes, there's *cacute*, *nacute*, *sacute*, *zacute* and -- of course -- *oacute*. While the designer might try to draw the accent above the Polish soft consonants differently (as these characters don't appear in other languages), he still has to cope with the problem: where to put the "Western" oacute and the "Polish" oacute.

áéíóú
ćńósź

ITC Souvenir Bold



ITC Souvenir Bold



Gunnar Bittersmann @g16n · May 1

...

The [#OpenType](#) feature `locl` would allow for more vertical kreski for Polish. preusstype.com/techdata/otf_l...

Are there fonts that support this feature? Is this a thing in Polish
[#typography](#)? /cc [@ancymonic](#) [@lukdziedzic](#)



Łukasz Dziedzic @lukdziedzic · May 1

...

I know nothing about fonts supporting this feature. Personally I don't care.



前五譜

三
前
諸
前
五
前
一
前

```
<html lang="ja">
:
਀;ઞ
```

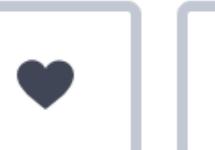
```
<html lang="zh-Hans">
:
ઞ਀
```

HAPITÄL CHEN

CAPS TO SMALL CAPS

smcp, c2sc - OpenType features ↗

Gunnar Bittersmann



HTML

CSS

```
1  body {  
2    font: 1.2em/1.5em Source Serif Pro;  
3  }  
4  
5  blockquote {  
6    max-width: 72ch;  
7  }  
8  
9  .person-name {  
10 /* text-transform: uppercase; */  
11   font-feature-settings: 'smcp';  
12 /* font-variant-caps: small-caps; */  
13 }  
14  
15 .all-caps {  
16   font-feature-settings: 'smcp', 'c2sc';  
17 /* font-variant-caps: all-small-caps; */  
18 }
```

JS

Im Mittelpunkt der Handlung steht die Sternenfлотten-Offizierin MICHAEL BURNHAM. BURNHAM wurde nach dem Tod ihrer Eltern auf Vulkan großgezogen und ausgebildet. Ihre Pflegeeltern sind SAREK, ein bedeutender Vulkanier und dessen menschliche Ehefrau AMANDA GRAYSON, ihr Adoptivbruder ist SPOCK. Zu Beginn der Serie ist BURNHAM seit sieben Jahren auf der USS *Shenzhou* (mit der Registriernummer NCC-1227) tätig. Bei einer Forschungsmission löst sie einen Zwischenfall mit Klingonen aus, der in einen Krieg mündet. Auf Grund unterschiedlicher Auffassungen, wie mit der Bedrohung durch die Klingonen umzugehen ist, versucht sich BURNHAM über ihren Captain PHILIPPA GEORGIOU hinwegzusetzen und einen Präventivschlag gegen den klingonischen Schlachtkreuzer durchzuführen. Im Laufe des Raumgefechts wird die *Shenzhou* zerstört, deren Captain stirbt. BURNHAM wird wegen Meuterei zu lebenslanger Haft verurteilt.

Während eines Gefangenentransportes wird BURNHAM von der USS *Discovery* (NCC-1031) aufgegriffen, die geheime Experimente mit einem biologischen Antriebssystem durchführt. Deren Captain GABRIEL LORCA weiß um ihre Fähigkeiten und bittet BURNHAM, Teil seiner Crew zu werden.

faux caps vs. real caps ↗

Gunnar Bittersmann



HTML

CSS

```
1 body {  
2   font: 2em/1.5em Source Serif Pro;  
3 }  
4  
5 .person-name {  
6   font-variant-caps: small-caps;  
7   /* font-feature-settings: 'smcp'; */  
8 }  
9  
10 .all-caps {  
11   font-variant-caps: all-small-caps;  
12   /* font-feature-settings: 'smcp', 'c2sc'; */  
13 }  
14  
15 .faux-caps {  
16   text-transform: uppercase;  
17   font-size: 0.8em;  
18   letter-spacing: 0.1em;  
19 }
```

JS

Commander MICHAEL BURNHAM, USS *Discovery*

Commander MICHAEL BURNHAM, USS *Discovery*

PREUSS TYPE

Home Font Library ▾ Font Info ▾ Information ▾ P View Shopping Cart

[Home](#) > [Font Info](#) > [OpenType Features](#) > liga - Standard Ligatures

Feature: liga - Standard Ligatures



Replaces a sequence of glyphs with a single glyph which is preferred for typographic purposes. This feature covers the ligatures which the designer/manufacturer judges should be used in normal conditions.

Example:

pfiffig ruft ➤ pfiffig ruft



This feature replaces a sequence of glyphs with a single glyph, called a ligature, which is preferred for typographic purposes. When enabled, this feature inserts the ligatures which the designer/manufacturer judges should be used in normal conditions.

DEFAULT

+ Featured Fonts

Different first Afliction affidavit There

Different first Afliction affidavit There

```
.of-liga--off { font-feature-settings: "liga" 0, "clig" 0; }
.of-liga { font-feature-settings: "liga", "clig"; }
```

small caps und ß ✎

Gunnar Bittersmann

HTML

CSS

```
1 p {  
2   font: 5em Source Serif Pro;  
3   font-feature-settings: 'smcp';  
4 }
```



GROSSER NAGUS

JS

Console

Assets

Comments

⌘ Keys

Last saved 5/16/2021 12:00:00 AM



Add to Collection



Embed

Export

Share



über das große β
TIL



photo: Yevgeny Khaldei, source: mil.ru, CC BY 4.0

