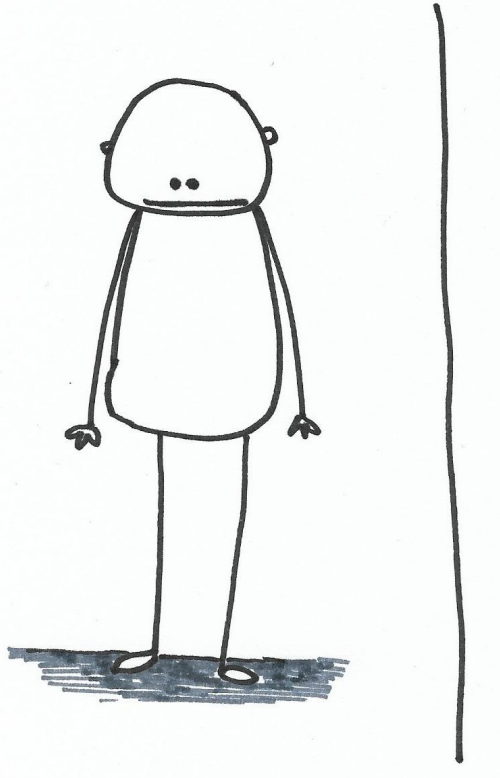


FOINT TOOLS

What is FontTools

- Python library for *dealing with* OpenType fonts.
- Font engineers' calculator.
- Started in 1999ish by Just van Rossum.
- I picked up maintaining it in 2013.
- Passed on to Cosimo Lupo last year.
- Active community of contributors.

Updates from Last Year



2017: FontTools

- GPOS merging
- varLib.interpolatable

Remaining:

- avar generation
- MVAR generation
- STAT generation
- Feature variations
- CFF2 generation



2018: FontTools

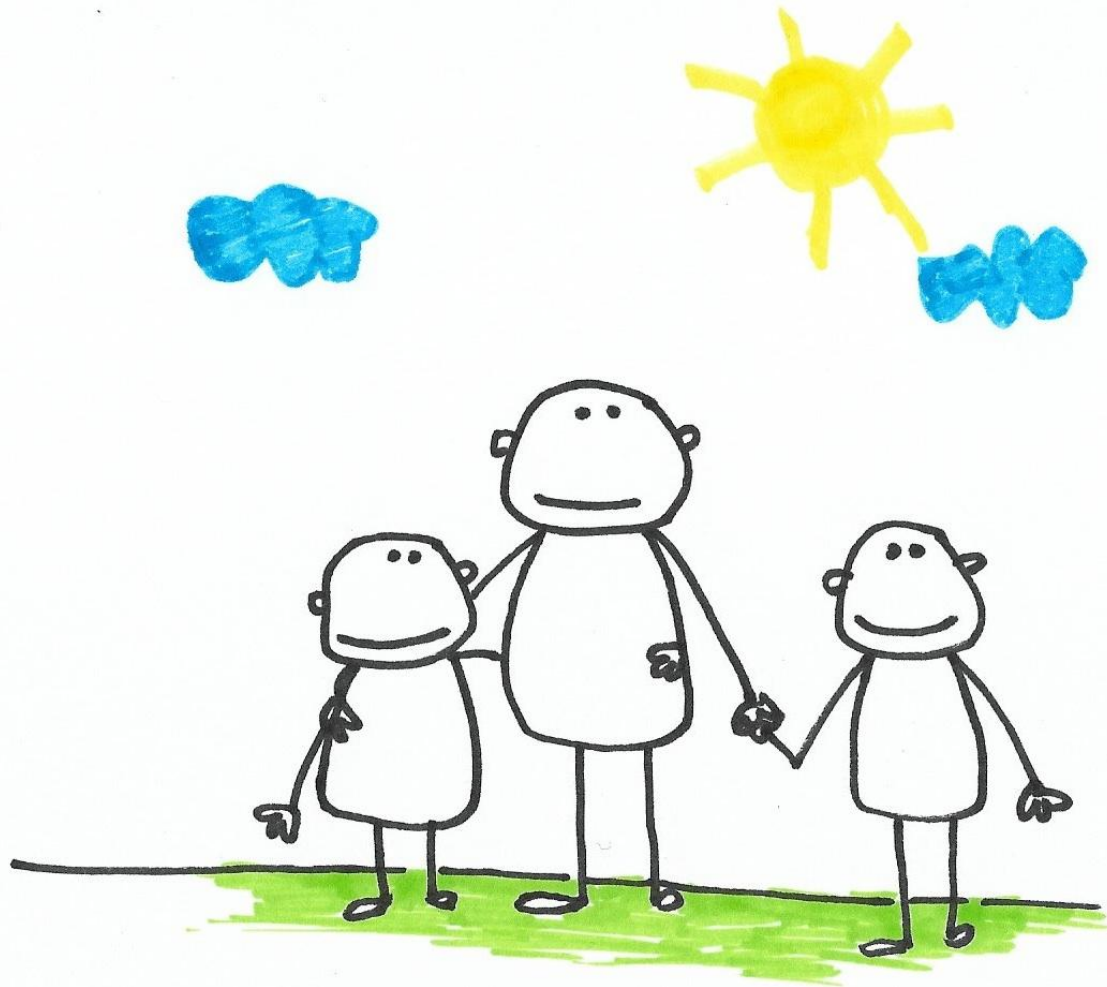
- GPOS merging
- avar generation
- MVAR generation

Partial:

- STAT generation
- CFF2 generation

Remaining:

- Feature variations



2017: GPOS merging

- Merge exception subtables
- Combine exception subtables
- Merge class-based subtables
- Classify differing class groups
- Recombine split subtables

Remaining:

- Unwrap Extension subtables



2018: GPOS merging

- Merge exception subtables
- Combine exception subtables
- Merge class-based subtables
- Classify differing class groups
- Recombine split subtables
- Unwrap Extension subtables



fvar / avar generation

```
<axes>
```

```
  <axisname="weight" tag="wght">
```

```
    labelname="Weight"
```

```
    minimum="100"
```

```
    default="400"
```

```
    maximum="1000"/>
```

```
  <labelname xml:lang="en">Weight</labelname>
```

```
  <labelname xml:lang="fa-IR">وزن</labelname>
```

```
  <map input="100" output="26"/>
```

```
  <map input="400" output="90"/>
```

```
  <map input="700" output="151"/>
```

```
  <map input="1000" output="190"/>
```

```
</axis>
```

```
<axes>
```



Feature Variations

Remaining:

- Designspace rules

```
<rules>
```

```
  <rule name="named.rule.1">
```

```
    <condition maximum="250" minimum="750" name="weight" />
```

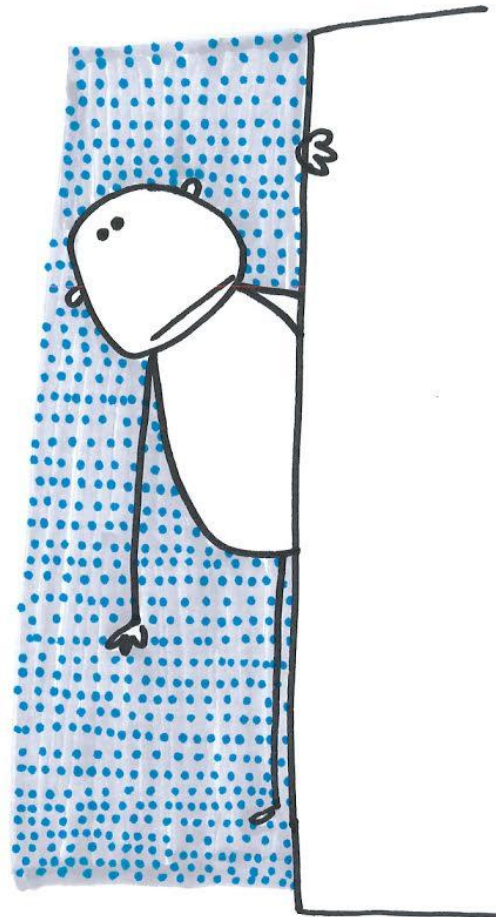
```
    <condition maximum="1000" minimum="500" name="width" />
```

```
    <sub name="dollar" byname="dollar.alt"/>
```

```
  </rule>
```

```
</rules>
```

- What else?

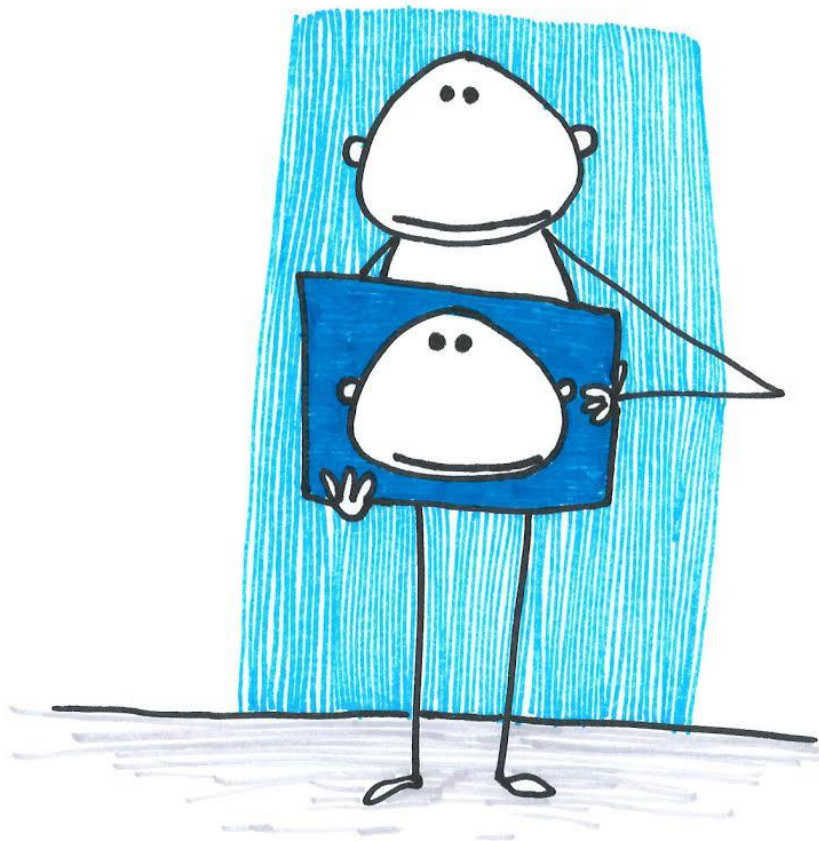


CFF2 generation

- Clean up CFF code

Remaining:

- Implement varLib
- Implement CFF→CFF2
- Implement in subsetter
- Implement in compreffor
- Implement in fontmake



Adrien Tétar (3)	Denis Moyogo Jacquerye (15)	Masaya Nakamura (15)
Andreas Rammhold (1)	Erik van Blokland (106)	Masayuki Takeda (1)
Andy Clymer (2)	Gustavo Ferreira (2)	Miguel Sousa (43)
Andy Zickler (1)	Hugo Giraudel (1)	ReadRoberts (25)
Behdad Esfahbod (251)	Jany Belluz (18)	Rob McKaughan (5)
Bill Amidei (7)	Jens Kutilek (38)	Santhosh Thottingal (5)
Chris Simpkins (6)	Just van Rossum (19)	Sascha Brawer (67)
Cosimo Lupo (398)	Khaled Hosny (11)	Yao Wei (魏銘廷) (1)
Dave Crossland (1)	Martin Hosken (16)	derwind (5)

github.com/fonttools/fonttools



What's new?

- New features
- New font tables implemented
- New libraries
- New optimizations
- New variation model

New features

- `TTCollection()`
- `varLib.mutator` complete: MVAR, IUP (Thanks Jens Kutilek)
- Subsetting varfonts correctly prunes `ItemVariationStores`.
- `feaLib`: Character Variants and misc syntax (Miguel Sousa)

New tables

- AAT: morx (Sascha Brawer)
- Graphite: Silf/Sill/Glat/Gloc/Feat (Martin Hosken)

New libraries: fontTools.*

- svgLib; also svgPen (Cosimo Lupo; Khaled Hosny)
- designspaceLib (Erik van Blokland; Jany Belluz)

Future:

- ufoLib
- kernLib
- colorLib

New optimizations

- `varLib.iup`
- `varLib.varStore`: optimal storage. 1MB->57KB
- `cffLib.specializer`
- `cffLib.width`

New variation model

- `varLib.models`
- `varLib.plot`

New variation model

DEMO

