

The Metrics of fonts

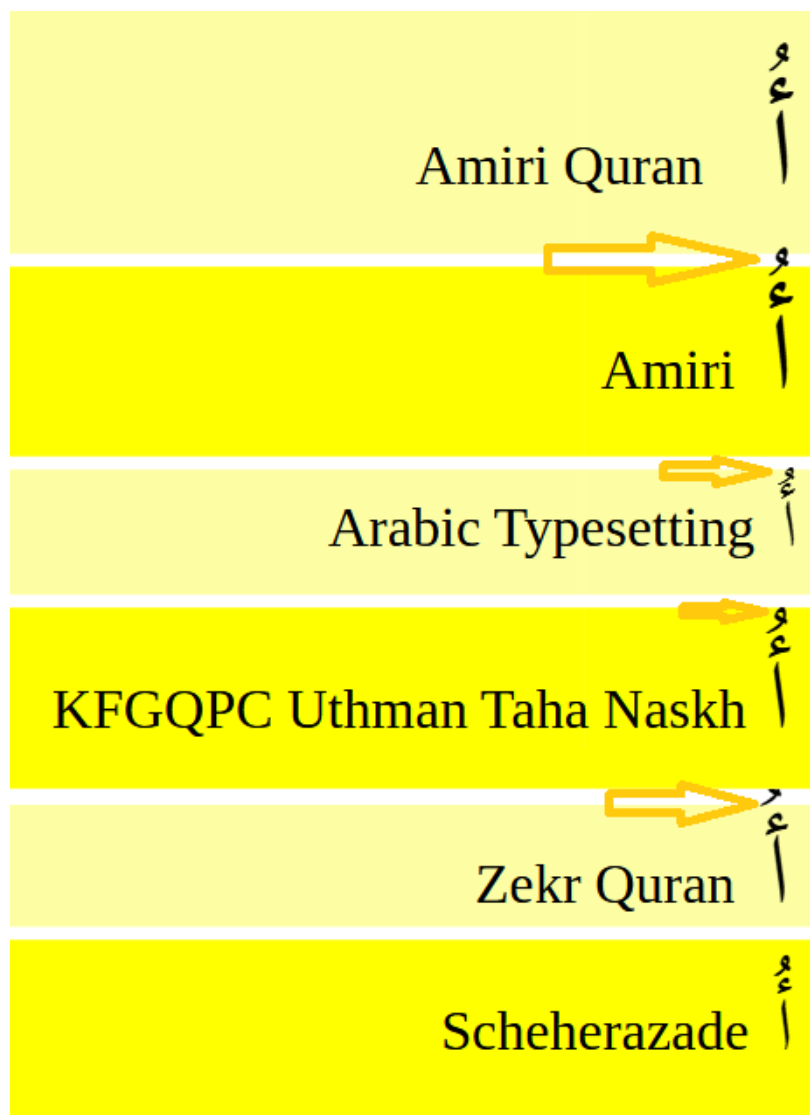
Kamil Landa

as comment for https://bugs.documentfoundation.org/show_bug.cgi?id=113102

I have some experience with font making, but I'm not any profound font specialist :-). So I'm sorry if there are some inaccuracies or mistakes in the text.

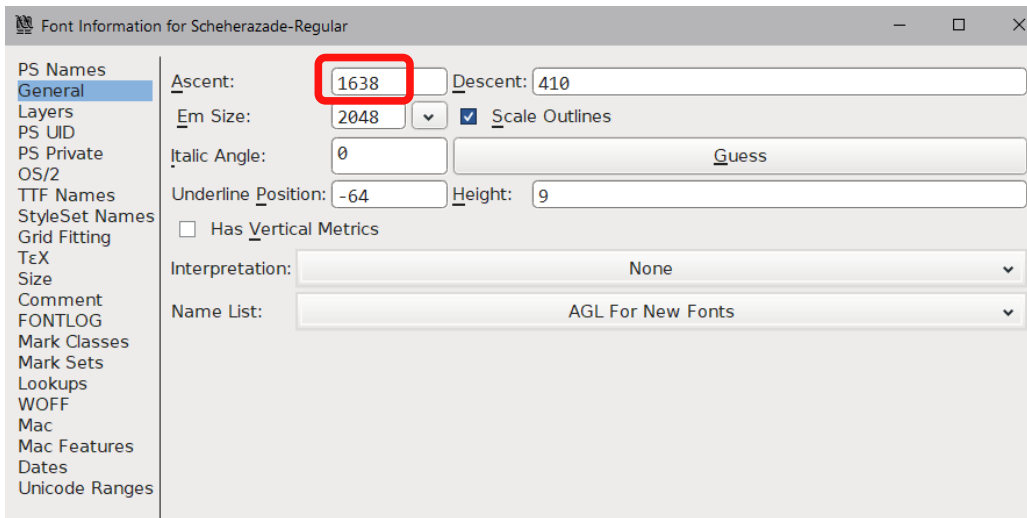
Example for hamza with damma. Every fonts in example have 20pt height. More fonts have not enough value in font metrics and it is reason the marks are cropped.

The good metrics for many characters have fonts **Amiri Quran** and **Scheherazade**. But you can see the difference, **Amiri Quran** have bigger characters with bigger margins, and **Scheherazade** has smaller characters.

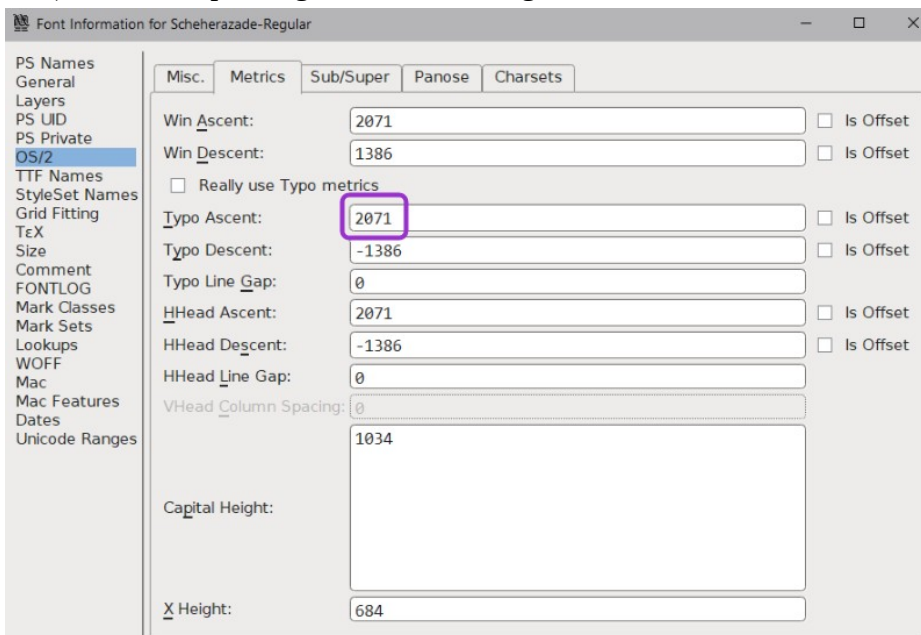


Next prinscreens are from the font editor **FontForge**.

Main metrics is set in menu **Element/ Font Info/ General** → **Ascent**, and it is base height of character from base line in Writer. In this example for font Scheherazade it is **1638**.



Next settings of metrics are specified in **Element/ Font Info/ OS/2** → **Metrics**, and the **Typo Ascent** (here **2071**) means the prolongation of base height.



Details for Scheherazade.

Font Information for Scheherazade-Regular

PS Names
General
Layers
PS UID
PS Private
OS/2
TTF Names
StyleSet Names
Grid Fitting
TeX
Size
Comment
FONTLOG
Mark Classes
Mark Sets

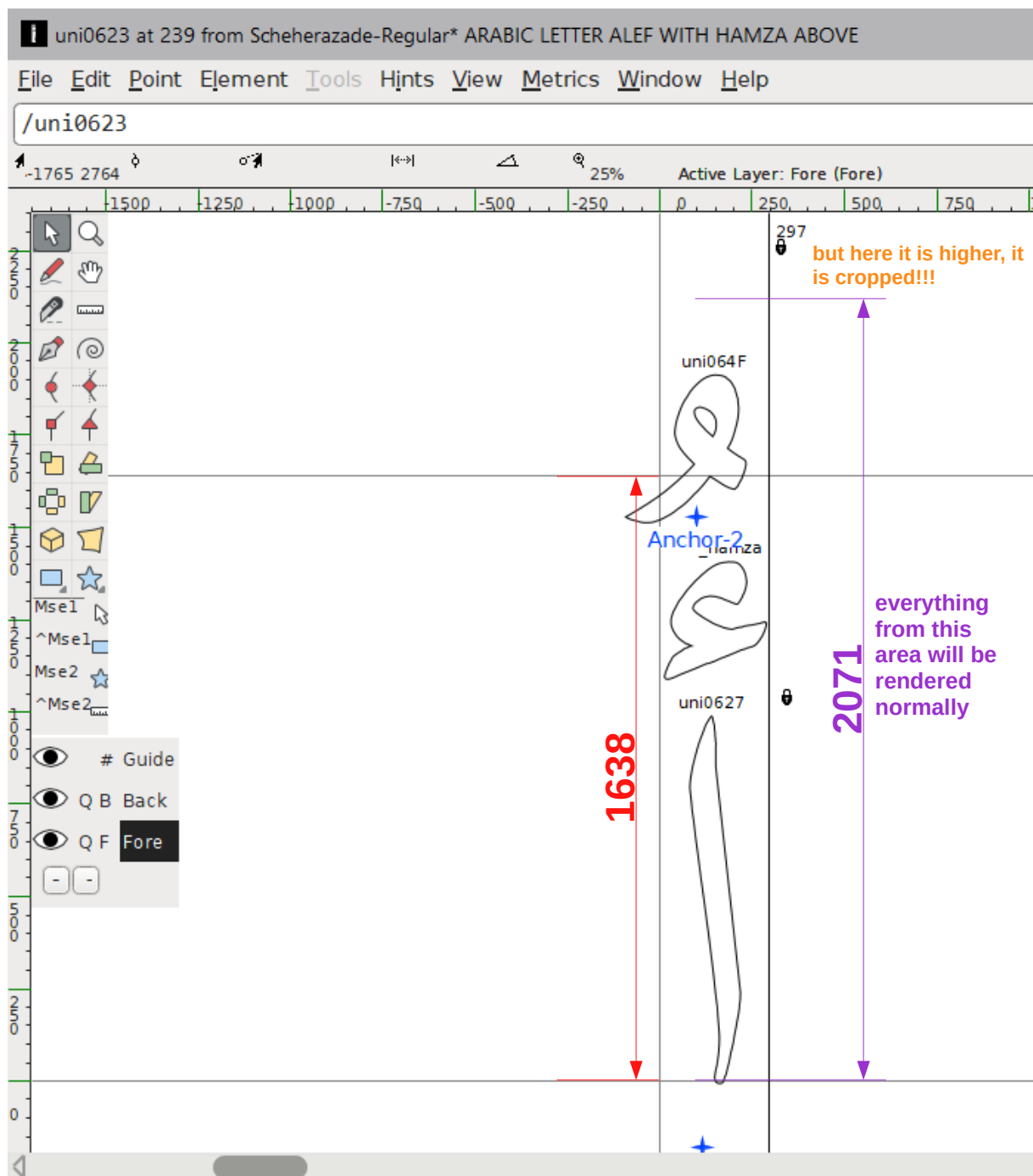
Ascent: **1638** Descent: 410
Em Size: 2048 ☒ Scale Outlines
Italic Angle: 0
Underline Position: -64 Height: 9
☐ Has Vertical Metrics
Interpretation: None
Name List: AGL For New

Font Information for Scheherazade-Regular

PS Names
General
Layers
PS UID
PS Private
OS/2
TTF Names
StyleSet Names
Grid Fitting
TeX
Size
Comment
FONTLOG

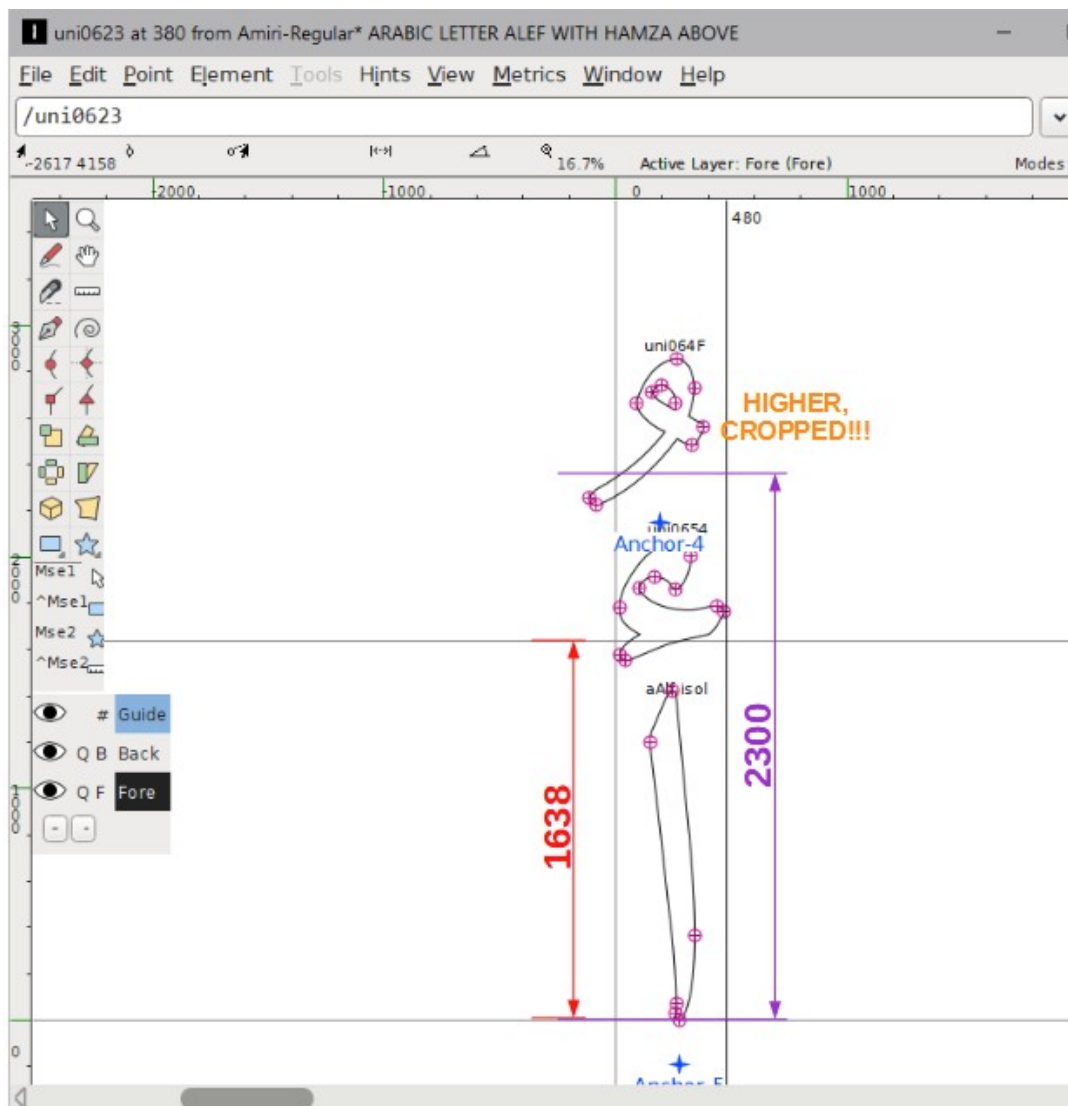
Misc. Metrics Sub/Super Panose Char

Win Ascent: 2071
Win Descent: 1386
☐ Really use Typo metrics
Typo Ascent: **2071**
Typo Descent: -1386
Typo Line Gap: 0

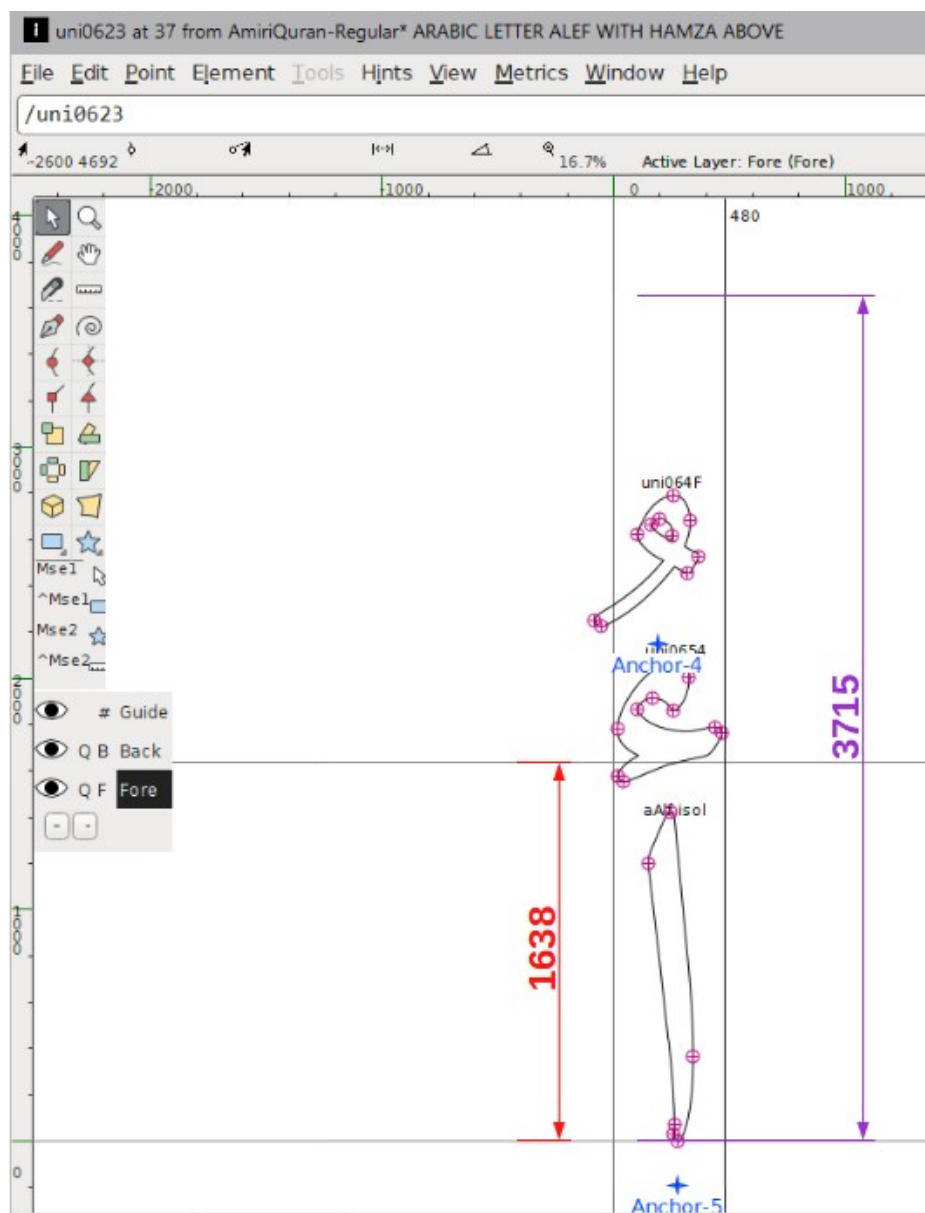
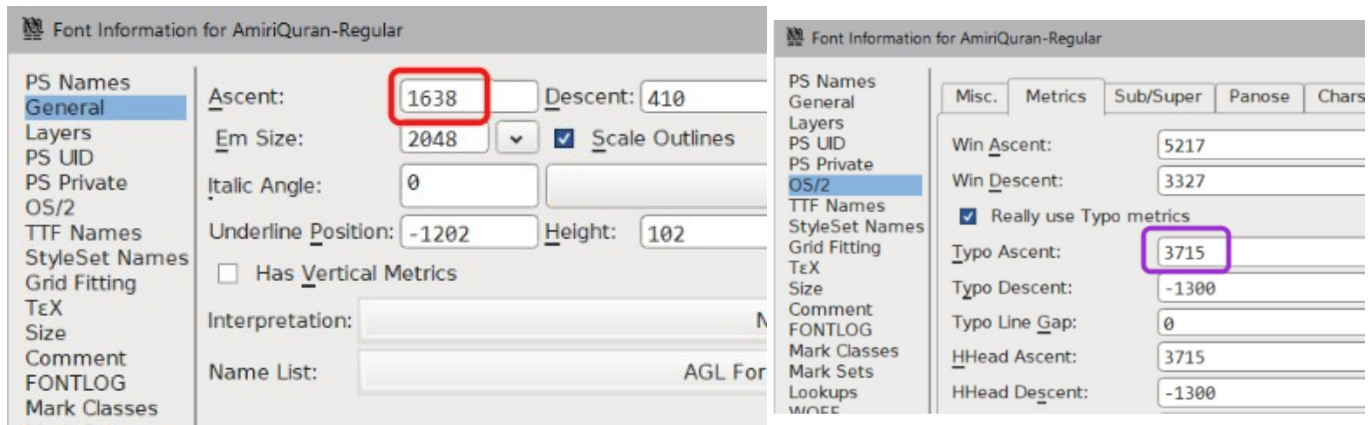


Details for Amiri.

Font Information for Amiri-Regular		Font Information for Amiri-Regular	
PS Names	Ascent: 1638 Descent: 410	PS Names	Misc. Metrics Sub/Super Panose Chars
General	Em Size: 2048 <input checked="" type="checkbox"/> Scale Outlines	General	Win Ascent: 5217
Layers	Italic Angle: 0	Layers	Win Descent: 3343
PS UID	Underline Position: -1202 Height: 102	PS UID	<input checked="" type="checkbox"/> Really use Typo metrics
PS Private	<input type="checkbox"/> Has Vertical Metrics	PS Private	Typo Ascent: 2300
OS/2	Interpretation: Nor	OS/2	Typo Descent: -1300
TTF Names	Name List: AGL For Ne	TTF Names	Typo Line Gap: 0
StyleSet Names		StyleSet Names	HHead Ascent: 2300
Grid Fitting		Grid Fitting	HHead Descent: -1300
TeX		TeX	
Size		Size	
Comment		Comment	
FONTLOG		FONTLOG	
Mark Classes		Mark Classes	
Mark Sets		Mark Sets	
		Lookups	



Details for Amiri Quran.



To make a really errorless nice calligraphic arabic font is very difficult. It is possible to make a bigger distances like in **Amiri Quran** to show all signs without cropping → but there will be big spaces between lines.

Or do a smaller consonants like in **Schererazade**, but then it need bigger font size for good reading, so it also isn't optimal.