# **Scheherazade New - Font Features**

Scheherazade New is an OpenType-enabled font family that supports the Arabic script. It includes a number of optional features that provide alternative rendering that might be preferable for use in some contexts. The sections below enumerate the details of these features. Whether these features are available to users will depend on both the application and the rendering technology being used. Some applications let the user control certain features such as Character Variants to turn on the rendering of variant characters. However, at this point, most applications do not make use of those features so another solution is needed to show the variant characters. For applications that do not make use of the OpenType Character Variants, you can now download fonts customized with the variant glyphs you choose. Read this document, visit TypeTuner Web, then choose the variants and download your font.

See Using Font Features. Although that page is not targeted at Arabic script support, it does provide a comprehensive list of applications that make full use of the OpenType font technology.

See also Arabic Fonts — Application Support. It provides a fairly comprehensive list of applications that make full use of the OpenType font technology.

This page uses web fonts (WOFF) to demonstrate font features and should display correctly in all modern browsers. For a more concise example of how to use Scheherazade New as a web font see *ScheherazadeNew-webfont-example.html* in the font package web folder.

If this document is not displaying correctly a PDF version is also provided in the documentation/pdf folder of the release package.

## **Complete feature list**

#### Language system tags

Affects: U+062F, U+0630, U+0688..U+068F, U+0690, U+06EE, U+0759, U+075A, U+08AE, U+0645, U+0765, U+0766, U+08A7, U+06BE, U+0626, U+06F4, U+06F5, U+06F6, U+06F7, U+0650, U+064F, U+064C, U+0657

Unfortunately, the UI needed to access the language-specific behavior is not yet present in many applications. LibreOffice and Microsoft Word 2016 support language-specific behavior for Kurdish, Sindhi and Urdu (but not Kyrgyz, Rohingya or Wolof). Some Harfbuzz-based apps, e.g., XeTeX, can access language-specific behavior. In the past, it was not always possible to override language-specific behavior in cases where the language-specific variants were undesirable but, as of version 4.300, the font now supports this possibility.

#### Kashmiri, Kurdish (Northern), Rohingya, Sindhi, Urdu

| Language              | Meem | Heh<br>Doachashmee<br>(06BE) | 4 | 6 | 7 | 0650/064E | 064C | 0652 | Feature<br>Setting |
|-----------------------|------|------------------------------|---|---|---|-----------|------|------|--------------------|
| Default               | ممم  | ههه                          | ķ | 9 | ٧ | بُّ       | ٿ    | بٌ   |                    |
| Kashmiri              | ممم  | ههه                          | ٣ | ٦ | 4 | بِ        | بث   | Ŷ    | lang='ks'          |
| Kurdish<br>(Northern) | ممم  | ه ههم                        | ۴ | ۶ | ٧ | بٌ        | بث   | ů    | lang='ku'          |
| Rohingya              |      | ه ههه                        | ٤ | ٦ | 4 | بِ        | بُ   | ů    | lang='rhg'         |

| Language | Meem     | Heh<br>Doachashmee<br>(06BE) | 4 | 6 | 7 | 0650/064E | 064C | 0652     | Feature<br>Setting |
|----------|----------|------------------------------|---|---|---|-----------|------|----------|--------------------|
|          | ممم      |                              |   |   |   |           |      |          |                    |
| Sindhi   | م<br>ممم | همهه                         | ķ | ٦ | 4 | ب         | بث   | <u>ث</u> | lang='sd'          |
| Urdu     | ممم      | ه ههه                        | ٣ | ٦ | 4 | بِ        | بْ   | بْ       | lang='ur'          |

## **Kyrgyz and Wolof**

| Language | Dal | 0626   | 0650/064E | 064F | 0657     | Feature<br>Setting |
|----------|-----|--------|-----------|------|----------|--------------------|
| Default  | د   | ئ ئئئ  | بِّ       | بُ   | <u>ب</u> |                    |
| Kyrgyz   | د   | ئى ئئى | بُّ       | بُ   | ب        | lang='ky'          |
| Wolof    | ٤   | ئ ئئئ  | بِ        | بُ   | بْ       | lang='wo'          |

### **Character variants**

There are some character shape differences in different languages which use the Arabic script. These can be accessed by using OpenType Character Variants, or through the language support mentioned above.

#### Dal

Affects: U+062F, U+0630, U+0688, U+0689, U+068A, U+068B, U+068C, U+068D, U+068E, U+068F, U+0690, U+06EE, U+0759, U+075A, U+08AE U+10EC2

| Feature   | Sample               | Feature setting |
|-----------|----------------------|-----------------|
| Standard  | دذڏډڊڋڌڍڎڐڎڋۮ۪ۮ۪     | cv12=0          |
|           | ې                    |                 |
| Alternate | ۮۮۮؙڿڋڋڐڍڎ۠ڐ۠ۮٞۮ۠ڋڿڿ | cv12=1          |
|           | ۲                    |                 |
| Simple    | دذڏډڊڋڌڍڎ۫ۮٚڐۮڋڋۮ۪   | cv12=2          |
|           | ې                    |                 |

#### Meem

Affects: U+0645, U+0765, U+0766, U+08A7

| Feature      | Sample                         | Feature setting |
|--------------|--------------------------------|-----------------|
| Standard     | م ممم م ممنم م ممبم م مثم      | cv44=0          |
| Sindhi-style | م ممم فر فمفر م ممم فر<br>شفقر | cv44=1          |
| Long-tail    | م ممم م منم م ممم م مثم        | cv44=2          |

#### Heh

Affects: U+0647

| Feature       | Sample | Feature setting |
|---------------|--------|-----------------|
| Standard      | aga o  | cv48=0          |
| Kurdish-style | ه ههم  | cv48=3          |
| Sindhi-style  | ه ههم  | cv48=1          |
| Urdu-style    | ه پیه  | cv48=2          |

#### **Heh Doachashmee**

Affects: U+06BE

| Feature       | Sample | Feature setting |
|---------------|--------|-----------------|
| Standard      | a agg  | cv49=0          |
| Knotted       | ه ههم  | cv49=1          |
| Bowtie        | ه ههه  | cv49=2          |
| Kurdish-style | ه ههم  | cv49=3          |

## Kyrgyz OE

Affects: U+06C5

| Feature | Sample | Feature setting |
|---------|--------|-----------------|
| Loop    | ð      | cv51=0          |
| Bar     | و      | cv51=1          |

#### Yeh Hamza

Affects: U+0626

| Feature     | Sample | Feature setting |
|-------------|--------|-----------------|
| Standard    | ئ ئ    | cv54=0          |
| Right hamza | ئى ئى  | cv54=1          |
| Mid hamza   | ئ ئ    | cv54=2          |

### Maddah

Affects: U+0622, U+0627, U+0653, U+0653

| Feature | Sample | Feature setting |
|---------|--------|-----------------|
| Small   | ៍រីរី  | cv60=0          |
| Large   | ៑៘     | cv60=1          |

## Shadda+kasra placement

Affects: U+064D, U+0650 with U+0651

| Feature | Sample           | Feature setting |
|---------|------------------|-----------------|
| Default | ٿِ ٿِ ٿِ         | cv62=0          |
| Lowered | ૻ <u>ૄ</u> ૻ ૢૻૻ | cv62=1          |
| Raised  | ٿِّ ٿِّ          | cv62=2          |

#### Damma

Affects: U+064F

| Feature | Sample | Feature setting |
|---------|--------|-----------------|
| Default | بُ ث   | cv70=0          |
| Filled  | ب ُ    | cv70=1          |
| Short   | بُ ث   | cv70=2          |
| Crossed | بُ ث   | cv70=3          |

#### **Dammatan**

Affects: U+064C

| Feature  | Sample     | Feature setting |
|----------|------------|-----------------|
| Standard | مع گ       | cv72=0          |
| Six-nine | <i>ٿ</i> ٿ | cv72=1          |
| Two-nine | ి చ        | cv72=2          |

#### **Inverted Damma**

Affects: U+0657

| Feature | Sample | Feature setting |
|---------|--------|-----------------|
| Default | بُ ث   | cv74=0          |
| Hollow  | بْ ث   | cv74=1          |
| Filled  | بُ ث   | cv74=2          |

### **Superscript Alef**

Affects: U+0670 on all yeh, sad and seen-like characters U+0620, U+0626, U+0633, U+0634, U+0635, U+0636, U+063D, U+063E, U+063F, U+0649, U+0649, U+064A, U+0678, U+069A, U+069B, U+069D, U+069E, U+06CC, U+06CD, U+06CE, U+06DD, U+06D1, U+06FA, U+06FB, U+075C, U+076D, U+0770, U+077D, U+077E, U+0775, U+0775, U+0777, U+08A8, U+08A9, U+08AF, U+08AF, U+08BA

| Feature | Sample  | Feature setting |
|---------|---|-----------------|
| Default | ك لها ئ ئى س ساس ش شش صل صل صل صل صل صل ضل كَ يُمْ يَ يَكُ يَ يَكُ عَ لَيْ يَكُ عَ لَيْ يَكُ عَلَى الله عَلَى الله عَلَى الله عَلَى الله عَلَى الله عَلَى الله الله الله الله الله الله الله الل  | cv76=0          |
| Large   | عُ الْهُ اللّٰ عَلَىٰ مَلَ سَلَّ اللّٰ اللللّٰ الللللّٰ الللللللللل | cv76=1          |
| Small   | ی پلی ی تئی سل سلسل شل ششل<br>صل صلصل ضل ضلضل کی کیلی ی<br>تیلی کی نیلی کی لیلی می تئی<br>بنل بنلبنل پسل سلسپل پشل پشاپشل<br>صل صلصل صل شطس کی لیلی کی  | cv76=2          |

| Sample                             | Feature setting  |
|------------------------------------|--|
| بہٰ کؑ کٰیٰ کٖ لہٰی کِ لپیٰ شِل    |  |
| شٰشِ ض خِلْضِ شَلْ شَلْسُلْ سُلْ   |  |
| ىنلىنى تىل تىلىنىل مىل مىلىكىل مىل |  |
| شٰشٰ یٰ لیٰ یَٰ لیٰی یٰ لیٰی یٰ    |  |
| أَيْ يَٰ نِي صِلْ صِلْ يُ آيَٰنِ   |  |
|                                    | بیلی کی کیلی کی لیلی شل<br>ششل خل خلیل شل شاشل منل<br>مناسل شل شاشل منل مناسل منل<br>شاشل کی کیلی کی لیجی کیا<br>استار کی کیلی کی لیجی کیا |

#### Sukun

Affects: U+0652

| Feature   | Sample     | Feature setting |
|-----------|------------|-----------------|
| Closed    | ံ          | cv78=0          |
| Open down | <i>ٛ</i> ب | cv78=1          |
| Open left | ئ ب        | cv78=2          |
| Closed    | ံ <i>ံ</i> | cv78=3          |

#### End of ayah

Affects: U+06DD

These alternates are also available using the Stylistic Alternates (salt) feature, but at this time we know of no OpenType-based applications that can access these.

Firefox allows you to use U+06DD followed by the digits and proper rendering occurs. Some applications require the following:

- precede the entire sequence (subtending mark plus following digits) with 202D LEFT-TO-RIGHT OVERRIDE
- follow the entire sequence with U+202C POP DIRECTIONAL FORMATTING.

Surrounding the sequence with U+202D and U+202C seems to give the most reliable results in different browsers. However, we have not found a solution that works in Internet Explorer/Edge.

In the example below, the following codepoints are used: U+202D U+06DD U+0031 U+0032 U+0033 U+202C U+202D U+06DD U+0611 U+0622 U+0663 U+202C.

| Feature      | Sample      | Feature setting |
|--------------|-------------|-----------------|
| Standard     | (123) (177) | cv80=0          |
| Simplified A | (123) (177) | cv80=1          |
| Simplified B | 123 177     | cv80=2          |

The DISPUTED END OF AYAH (U+08E2) is also now available in the font. It works in the same way as End of ayah.



## **Honorific ligatures**

Affects: U+FD40..U+FD4F, U+FDCF, U+FDFA..U+FDFB, U+FDFD..U+FDFF

| Feature      | Sample   | Feature<br>setting |
|--------------|--|--------------------|
| Calligraphic | عَلَيْهُ عَ<br>عَلَيْهُ عَلَيْهُ عَ   | cv81=0             |
| Simplified   | َ اللّٰهُ وَيَعَالَى النَّيْلِمُ عَلَيْكُمْ وَالْمَدِّى وَالنِّمْ عَلَيْهِمْ عَلَوْمِهُمْ عَلَوْمِهُمْ عَلَيْهِمْ عَلَيْهُمْ عَلَيْهُمْ عَلَيْهِمْ عَلَيْهُمْ عَلَيْهِمْ عَلَيْهِمْ عَلَيْهِمْ عَلَيْهِمْ عَلَيْهِمْ عَلَيْهُمْ عَلَيْهِمْ عَلَيْهُمْ عَلَيْهُمْ عَلَيْهُمْ عَلَيْهُمْ عَلَيْهُمْ عَلَيْهِمْ عَلَيْهُمْ عَلَيْهُمْ عَلَيْهُمْ عَلِيْهُمْ عَلَيْهُمْ عَلَيْهِمْ عَلَيْهُمْ عَلَيْهُمْ عَلَيْهِمْ عَلَيْهِمْ عَلَيْهِمْ عَلَيْهِمْ عَلَيْهِمْ عَلَيْهِمْ عَلَيْهُمْ عَلَيْهِمْ عَلَيْهِمْ عَلَيْهِمْ عَلَيْهِمْ عَلَيْهِمْ عَلَيْهِمْ عَلِيلِهُمْ عَلَيْهِمْ عَلَ | cv81=1             |

## **Eastern digits**

Affects: U+06F4, U+06F6, U+06F7

| Feature        | Sample | Feature setting |
|----------------|--------|-----------------|
| Standard       | 497    | cv82=0          |
| Sindhi-style   | 47<    | cv82=1          |
| Urdu-style     | 47<    | cv82=2          |
| Kurdish-style  | 441    | cv82=3          |
| Rohingya-style | ٤٦٤    | cv82=4          |
| Default        | 474    | cv82=5          |

#### Comma

Affects: U+060C, U+061B (This feature is not recommended for use. The Unicode Standard recommends the use of U+2E41 and U+204F instead.)

| Feature  | Sample | Feature setting |
|----------|--------|-----------------|
| Upward   | ٤ ،    | cv84=0          |
| Downward | ; ;    | cv84=1          |

#### **Decimal separator**

Affects: U+066B

| Feature   | Sample | Feature setting |
|-----------|--------|-----------------|
| Small reh | ر      | cv85=0          |
| Slash     | 1      | cv85=1          |

### Other user font features

#### Line spacing

This feature is only available in TypeTuner Web.

Allows for adjustment of the default line spacing in the font (values shown are ordered in increasing line spacing).

| Feature |  |  |  |
|---------|--|--|--|
| Tight   |  |  |  |
| Normal  |  |  |  |
| Loose   |  |  |  |

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