# Annapurna SIL OpenType features

OpenType features are used by OpenType engines to render the proper shaping of Devanagari characters. However, there are some glyph variations in some majority (Nepali) and minority languages. Some applications let the user control certain features to render variant characters. Below are variants in Annapurna SIL.

## Stylistic Sets

For applications which support OpenType Stylistic Sets, such as InDesign CS 4+, the Stylistic Set number is chosen. In InDesign, from the "Character" palette select "OpenType / Stylistic Sets" and then choose the Set you want to apply to the text you have selected. The default character should change to the variant character. You can also set your Stylistic Set preference in paragraph and character styles. It is recommended to have "[No language]" selected if there is no Devanagari based language available.
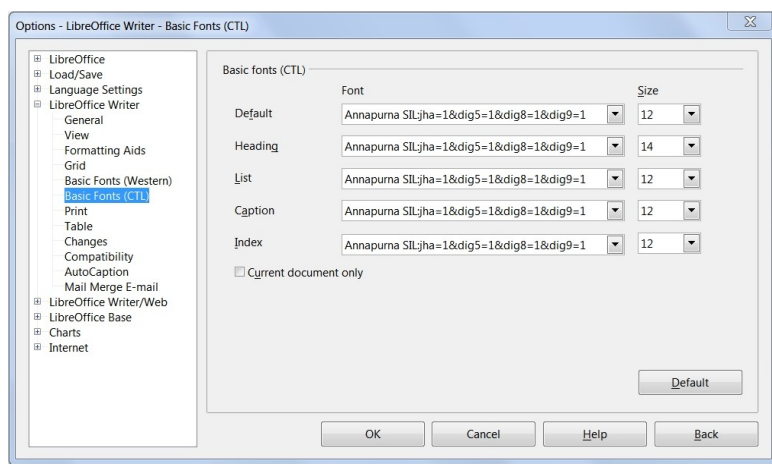
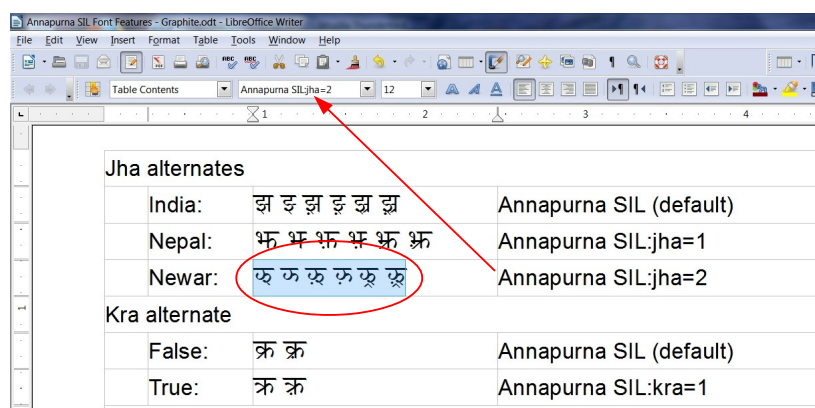| Character variant | Stylistic Set | Default characters | Variant characters |
|---|---|---|---|
| Jha alternate 1 | set 1 | झ इ झ़ इ़ झ्म झ्र | भ भ भ़ भ़ भ्म भ्र |
| Jha alternate 2 | set 2 | झ इ झ़ इ़ झ्म झ्र | फ फ फ़ फ़ फ्म फ्र |
| Kra alternate | set 3 | क्र क्र | क्र क्र |
| Tra alternate | set 4 | त्र त्र | त्र त्र |
| Shra alternate | set 5 | श्र श्र | श्र श्र |
| Ukar nukta position | set 6 | कु कू क्कु क्कू | कु कू क्कु क्कू |
| Ekar nukta position | set 7 | के | के |
| Digit five alternate | set 8 | ५ | ५ |
| Digit eight alternate | set 9 | ८ | ८ |
| Digit nine alternate 1 | set 10 | ९ | ९ |
| Digit nine alternate 2 | set 11 | ९ | ८ |
| Visarga with bar | set 12 | ः | ः |
| Glottal stop - no bar | set 13 | ऽ | ऽ |
| Dya alternates | set 14 | द्य द्र्य द्य्म द्र्य् द्य्र द्य्र | दय दर दयम दरय दयर दयर |
| Hya alternates | | ह्य ह्र्य ह्य्म ह्र्य् ह्य्र ह्य्र | हय हर हयम हरय हयर हयर |
| Archaic forms | set 15 | अ आ ओ औ ण ण क्ष क्ष | म्र म्रा म्रो म्रौ ण ण त्त द्द |
| not used | set16 | | |
| not used | set 17 | | |
| not used | set 18 | | |
| not used | set 19 | | |
| not used | set 20 | | |

# Annapurna SIL Graphite features

Graphite features are used by the Graphite engine to render the proper shaping of Devanagari characters. However, some applications let the user control which features to use. Here is a list of some found in Annapurna SIL.

## How to access Graphite features

When Annapurna SIL is used in applications that support Graphite, and that provide an appropriate user interface, various user-controllable font features are available that allow access to variant glyphs that might be preferable for use in some contexts. In the Graphite version of LibreOffice 3.4[1] and OpenOffice 3.2[2] the font features can be turned on by choosing the font (e.g. Annapurna SIL), followed by a colon, followed by the feature ID, and then followed by the feature setting. So, for example, if the Nepali Jha alternates are desired, the font selection would be "Annapurna SIL:jha=1". If you wish to apply two (or more) features, you can separate them with an "&". Thus, "Annapurna SIL:jha=1&dig5=1" would apply Nepali "Jha alternates" plus the "Digit five alternate" features. In the charts on the next page, the first in the list is the default (0) followed by ID=1 and if available, followed by ID=2.

One way to do this is to choose Tools (on the menu bar) > Options > [3]Writer > Basic Fonts (CTL) and after Annapruna SIL, type in the feature(s) desired. The illustration above enables the Nepal version of Jha alternates and digits five, eight and nine (Form 2) alternates. This method applies the features to the whole document.

If you only want to apply the feature(s) to part of the text, select the desired text (shown circled) and then type in the desired feature ID(s) in the font box (where the arrow is pointing).

The next page gives the list of feature IDs.

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[1]  Download here: http://www.libreoffice.org/. (This application has the faster graphite2 rendering engine.)

[2]  Download here: http://www.openoffice.org/.

[3]  *Either* OpenOffice.org Writer *or* LibreOffice Writer

# List of Graphite features

Jha alternates

| | | |
|---|---|---|
| India: | झ इ झ इ झ झ | Annapurna SIL (default) |
| Nepal: | भ भ भ भ भ भ | Annapurna SIL:jha=1 |
| Newar: | ऊ ऊ ऊ ऊ ऊ ऊ | Annapurna SIL:jha=2 |

Kra alternate

| | | |
|---|---|---|
| False: | क्र क्र | Annapurna SIL (default) |
| True: | क्र क्र | Annapurna SIL:kra=1 |

Tra alternate

| | | |
|---|---|---|
| False: | त्र त्र | Annapurna SIL (default) |
| True: | त्र त्र | Annapurna SIL:tra=1 |

Shra alternate

| | | |
|---|---|---|
| False: | श्र श्र | Annapurna SIL (default) |
| True: | श्र श्र | Annapurna SIL:shra=1 |

Dya and hya alternates

| | | |
|---|---|---|
| False: | द्य द्र्य द्य द्र्य द्य द्य्र<br>ह्य ह्र्य ह्य ह्र्य ह्य ह्य्र | Annapurna SIL (default) |
| True: | द्य द्र्य द्य द्र्य द्य द्य्र<br>ह्य ह्र्य ह्य ह्र्य ह्य ह्य्र | Annapurna SIL:dyah=1 |

Ukar nukta position

| | | |
|---|---|---|
| Inside: | कु कू कु कू | Annapurna SIL (default) |
| Outside: | कु कू कु कू | Annapurna SIL:ukar=1 |

Ekar nukta position

| | | |
|---|---|---|
| Low: | के | Annapurna SIL (default) |
| High: | के | Annapurna SIL:ekar=1 |

Digit five alternate

| | | |
|---|---|---|
| False: | ५ | Annapurna SIL (default) |
| True: | ५ | Annapurna SIL:dig5=1 |

Digit eight alternate

| | | |
|---|---|---|
| False: | ८ | Annapurna SIL (default) |
| True: | ८ | Annapurna SIL:dig8=1 |

Digit nine alternate

| | | |
|---|---|---|
| Form 1 | ९ | Annapurna SIL (default) |
| Form 2 | ९ | Annapurna SIL:dig9=1 |
| Form 3 | ९ | Annapurna SIL:dig9=2 |

Visarga connecting bar

| | | |
|---|---|---|
| False: | ः | Annapurna SIL (default) |
| True: | ः | Annapurna SIL:vbar=1 |

Limbu glottal stop connecting bar

| | | |
|---|---|---|
| True: | ? | Annapurna SIL (default) |
| False: | ? | Annapurna SIL:gbar=1 |

Archaic forms

| | | |
|---|---|---|
| False: | अ आ ओ औ ण ए क्ष ह्र | Annapurna SIL (default) |
| True: | अ आ ओ औ ण ए क्ष ह्र | Annapurna SIL:arch=1 |

# Annapurna SIL common font features

Many font features in Annapurna SIL are common to both OpenType and Graphite rendering engines to render the proper shaping of Devanagari characters. Other features are used to create a more pleasing look. In Graphite and Uniscribe applications, these features are always "on". In Adobe CS4, these features (Fractions and Contextual Alternates) are user selectable through the OpenType selection list.

## Fractions

| | |
|---|---|
| No OpenType (Fractions and Ligatures off) | १/२ १/४ ३/४ |
| **Fractions** OpenType and Graphite feature | ½ ¼ ¾ |
| **Ligatures** OpenType feature* | ½ ¼ ¾ |

\* The Ligatures feature is included in the font since applications using Uniscribe use it instead of the Fractions feature.

## Contextual Alternates

### Latin punctuation

The Latin characters in Annapurna SIL are derived from the Charis SIL font. However, the exclamation and question marks were redrawn to fit the style of the Annapurna Devanagari glyphs and are used by default. However, they will switch to the Charis style when preceded by a Latin character. This is accomplished by use of the Contextual Alternates OpenType feature.

| | |
|---|---|
| No OpenType (Contextual Alternates off) | test? test! (Annapurna style) |
| **Contextual Alternates** OpenType feature | test? test! (Charis style) |
| Example (Contextual Alternates on) | क्या तुम ठीक हो? kyā tum ṭhīk ho? |

### Stacking conjunct compression

If there is a matra below a stacking conjunct, this feature compresses the conjunct which raises the matra above the descender height line. Otherwise, they could clash with matras or signs above the bar on the following line.

| | |
|---|---|
| No OpenType (Contextual Alternates off) | कृ कु कू कृ कॄ |
| **Contextual Alternates** OpenType feature | कृ कु कू कृ कॄ |

## Variations controlled with ZWJ

These are not font features as such but are variations that can be controlled by the use of ZWJ (U+200D).

| | |
|---|---|
| Ra halant / Ra nukta halant | र् ऱ् |
| Ra halant ZWJ / Ra nukta halant ZWJ | ╴ ╴ |

Some variations below are used by minority languages.

| | |
|---|---|
| Ru/Ruu ligatures | रु रू रु रू रू रू रू |
| Ru/Ruu with ZWJ before matra | रु रू रु रू रू रू रू |