*laulu*kaskas Series 001

User-definable font changer and transliterator for multiple Unicode scripts in a document

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Purpose

For typesetting (short) passages, whether in one or more Unicode scripts, this template provides:

- Automatic change of fonts when typing in different scripts, with the font scheme(s) being user-definable as to glyphs and fonts (and font options).
- Ability to define one or more transliteration scheme(s), for example ASCII input to Lycian output, integrated with, or separate from, the font-changer.

Example

Lycian

Direct input
`\ftext[lyc]{𐊀𐊁𐊂}`
`\ftext` [⟨*fontscheme namespace*⟩]{⟨*text*⟩}, where ⟨*text*⟩ is direct glyph input.
𐊀𐊁𐊂

Transliterated input, current font
`{\nsl\trtext[lyc]{lyctran}{aeb}}`
⟨*font command*⟩ `\trtext` [⟨*transliteration namespace*⟩]{⟨*transliteration scheme*⟩}{⟨*text*⟩}, where ⟨*text*⟩ is the transliteration input.
𐊀𐊁𐊂

Transliterated input, designated font scheme
`\ftrtext[lyc][lyc]{lyctran}{a , e , b , ...}`

\ftrtext [⟨*fontscheme namespace*⟩][⟨*transliteration namespace*⟩]{⟨*transliteration scheme*⟩}{⟨*text*⟩}, where ⟨*text*⟩ is the transliteration input.

𐊀 , 𐊁 , 𐊂 , 𐊃 , 𐊄 , 𐊅 , 𐊆 , 𐊇 , 𐊈 , 𐊉 , 𐊊 , 𐊋 , 𐊌 , 𐊍 , 𐊎 , 𐊏 , 𐊐 , 𐊑 , 𐊒 , 𐊓 , 𐊔 , 𐊕 , 𐊖 , 𐊗 , 𐊘 , 𐊙 , 𐊚 , 𐊛 , 𐊜

Codepoint order

```
\printtrscheme[lyc][lyc]{lyctran}{lycian}
```

\printtrscheme [⟨*fontscheme namespace*⟩][⟨*transliteration namespace*⟩]{⟨*transliteration scheme*⟩}⟨*glyphset name*⟩, prints transliteration scheme in glyph Unicode codepoint order.

a = 𐊀, e = 𐊁, b = 𐊂, bh = 𐊃, g = 𐊄, d = 𐊅, i = 𐊆, w = 𐊇, z = 𐊈, th = 𐊉, j = 𐊊, k = 𐊋, q = 𐊌, l = 𐊍, m = 𐊎, n = 𐊏, mm = 𐊐, nn = 𐊑, u = 𐊒, p = 𐊓, kk = 𐊔, r = 𐊕, s = 𐊖, t = 𐊗, tt = 𐊘, an = 𐊙, en = 𐊚, h = 𐊛, x = 𐊜,

Transliteration order

```
\printtrscheme*[lyc][lyc]{lyctran}{lycian}
```

Starred (*) version, prints transliteration scheme in transliteration order.

bh = 𐊃, th = 𐊉, mm = 𐊐, nn = 𐊑, kk = 𐊔, tt = 𐊘, an = 𐊙, en = 𐊚, a = 𐊀, e = 𐊁, b = 𐊂, g = 𐊄, d = 𐊅, i = 𐊆, w = 𐊇, z = 𐊈, j = 𐊊, k = 𐊋, q = 𐊌, l = 𐊍, m = 𐊎, n = 𐊏, u = 𐊒, p = 𐊓, r = 𐊕, s = 𐊖, t = 𐊗, h = 𐊛, x = 𐊜,

Irish

```
\trtext{irtran}{Taa na mnaa ag ithe.}
```

Tá na mná ag ithe.

Method

Fontscheme: defines which glyphs print in which fonts. Multiple schemes for the same glyphs can be used in the same document through the use of namespaces.

For the glyphs in the fontscheme, list the glyphs as named ranges: ⟨*start codepoint*⟩; ⟨*finish codepoint*⟩; ⟨*range name*⟩.

```
\mfsloadaseq[lyc]{list2digits}{
32;99;Basic Latin
}
\mfsloadaseq[lyc]{list3digits}{
100;127;Basic Latin
}
\mfsloadaseq[lyc]{list5digits}{
66176;66207;Lycian
}
```

Group the named blocks into blocksets.

```
\mfsloadaprop[lyc]{block2blockset}{
Lycian=lycian
,Basic Latin=latin
}
```

Link a font name to each blockset name.

```
\mfsloadaprop[lyc]{blockset2font}{
lycian=Noto Sans Lycian
,latin=Noto Serif
}
```

(Optional) Link font option(s) to each blockset name, if required. The format is: ⟨*option name*⟩ `;` ⟨*option value*⟩ `-` ⟨*option name*⟩ `;` ⟨*option value*⟩ `-` , etc.

```
\mfsloadaprop[lyc]{blockset2fontoptions}{
lycian=Colour;blue-Scale;1.2}
```

Transliteration scheme: defines which input glyphs are replaced by which output glyphs.

Load the transliteration input/output pairings.

`\mfsloadaseq` [⟨*transliteration namespace*⟩]{⟨*transliteration scheme*⟩}{⟨*data*⟩}, where ⟨*data*⟩ is a record formatted as ⟨*input string*⟩ `;` ⟨*output glyph codepoint*⟩.

```
\mfsloadaseq[lyc]{lyctran}{
a;66176
,e;66177
...
,tt;66200
,an;66201
,en;66202
,h;66203
,x;66204
}
```

Sort by decreasing length of the input glyph string: longest strings are replaced first.

`\mfssortaseq` [⟨*transliteration namespace*⟩]{⟨*transliteration scheme*⟩}{⟨*direction*⟩}, where ⟨*direction*⟩ is either "`<`" (decreasing length of the first element of the record), or "`>`" (increasing length).

```
\mfssortaseq[lyc]{lyctran}{<}
```