

Fonts from *Lao Script for Windows*

Overview

Many fonts have been developed and distributed by *Lao Script for Windows* since 1992 . This document describes five related, OpenType, Unicode font families, developed or revised in 2020-21 and now available from the download links at <https://laoscript.net/download/>:

- **Saysettha¹** is based on the widely used fonts *Saysettha Lao* and *Saysettha OT*. Those fonts have Lao characters originally drawn (in 1990) by Mr Silvain Dupertuis and made available for adaptation to Windows and distribution in Lao PDR.

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- **SaysetthaMai** is based on *Saysettha*, but with mainly straight strokes (“*schoolbook*” style) in the Lao characters.

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- **SengBuhan** is also based on *Saysettha*, but has character shapes with a more traditional, curved style. It also has a more complete set of Lao Pali characters (some not yet adopted by Unicode) for use when transcribing Lao Buhan texts.

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- **SengPathom** is a variant of *SengBuhan* with some simplified character shapes, closely resembling the style taught in primary schools.

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- **KhamBuhan** is another variant of *SengBuhan* but with characters having loops rather than cusps wherever possible, following the handwritten style of old documents.

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All five fonts are available in Plain and Italic styles, with stroke weights from Thin (100) to Black (900) and widths from 50% to 200% of normal (Ultra Condensed to Ultra Expanded). They are also available with the same ranges of stroke weight and character width and slant angle from 0° to 30° as three-axis variable fonts for web use and in apps such as *Adobe InDesign* that support the use of variable fonts.

¹ The description here of **Saysettha** font applies to **Version 2.2** or later.

Languages and Character Set

The fonts described in this document have the full range of Lao characters specified in **Unicode 13**, including the following Kmhmu, Pali Lao² and Sanskrit characters (added for **Unicode 12**):

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ກ | ຢ | ພ | ຊ | ຊ | ຍ | ຍ | ຸ | ຫ | ຜ | ຜ | ຜ | ຜ | ຜ | ຜ | ຜ | . |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

The last cell contains LAO VIRAMA, a subscript dot (more correctly called PHINTHU).

The fonts (except *SaysetthaMai*) include two glyphs for LAO SEMIVOWEL SIGN NYO³ (U+0EBD), a wrap-around, long-tail form (as in *Saysettha OT*) and an alternate, full-width, version of the character. The alternate glyph is included since in Kmhmu language the character is used as a consonant, not a vowel, and may be followed by a subscript vowel which would collide with the long tail. The full-width form of the character is automatically selected in any context where it is clearly used as a consonant, for example: ແຽ, ຽອງ, ຽາຣ (Kmhmu) but ຊຽວ, ອຽນ (Lao). (*SaysetthaMai* has only the full-width form of U+0EBD.)

The Pali Lao consonants added for **Unicode 12** are not currently managed correctly by *Microsoft Word* or other *Microsoft* apps on *Windows*, which do not correctly anchor diacritic vowels or tone marks with respect to the base consonants⁴, for example:

Standard Lao consonant: ທູ ທັ ທີ້ ທົ້ນ

Pali Lao consonant: ທູ ທັ ທີ້ ທົ້ນ.

However, Pali Lao text with those consonants is displayed and printed correctly if the same document is opened by *LibreOffice Writer* (<https://www.libreoffice.org>) on *Windows*. *LibreOffice Writer* is a free, open source alternative to *Microsoft Word*.

SengBuhan (and the derived fonts **SengPathom** and **KhamBuhan**) also includes additional Lao Pali characters needed for transcribing some old texts but not yet incorporated in Unicode:

| | | | | | | | | | |
|------|------|------|------|------|------|------|------|------|---|
| ຂ | ຮ | ງ | ຊ | ຸ | ຫ | ຜ | ຜ | ຜ | ຜ |
| 0E83 | 0E85 | 0EA4 | 0EA6 | 0ECE | F001 | F002 | F003 | F004 | |

Codes assigned to these characters in the fonts are shown above but *they are not standard Unicode assignments* and the positioning of diacritics following any of these consonants (on any platform) by most apps will not be completely correct.

² The Lao Pali sign LAO YAMAKKAN, adopted by Unicode in 2021 as U+0ECE, is also included.

³ Usually known as NYO FEUANG.

⁴ Some earlier versions of *Saysettha* (and many other fonts that include Pali Lao) displayed the “missing base” (dotted circle) before any diacritic mark after any Pali Lao consonant.

OpenType Features

Canonical Composition/Decomposition (**ccmp** – always enabled)

The *Canonical Composition/Decomposition* feature implements character substitutions needed for Lao text to be rendered correctly.

Mark-to-Base (**mark** – always enabled if included in font)

The *Mark-to-Base* feature anchors diacritic marks correctly with respect to the base consonant.

Mark-to-Mark (**mkmk** – always enabled if included in font)

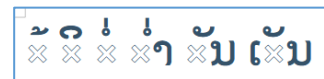
The *Mark-to-Mark* feature is often used to adjust the relative position of adjacent marks but is not used for *Saysettha*, which uses the **ccmp** feature instead to select diacritic composite glyphs, since the **mkmk** feature is not yet correctly supported on all platforms (especially for variable fonts).

Stylistic Set Features

Stylistic Set features are not enabled by default but may be applied by the user to selected text⁵.

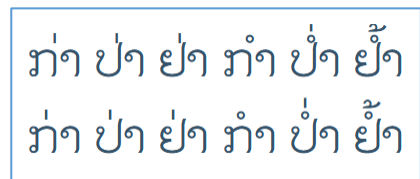
Stylistic Set 01 (**ss01**)

Enabling feature *Stylistic Set 01* causes **k-kai** to be replaced by a base consonant placeholder for use in primers and other teaching materials:



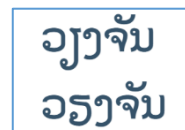
Stylistic Set 02 (**ss02**)

Saysettha OT and most Lao fonts designed in Lao PDR in the last thirty years have positioned MAI EEK and the ring component in SALA AM above the right hand side of the corresponding base consonant, but traditionally both marks were usually centred above the consonant. Enable **ss02** to centre those marks above the corresponding consonant.



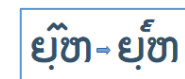
Stylistic Set 03⁶ (**ss03**)

Stylistic Set 03 replaces the default form **J** of LAO SEMIVOWEL SIGN NYO by a full-width form **ᨾ** in all contexts. (See also *Languages and Character Set* above.)



Stylistic Set 04⁶ (**ss04**)

Stylistic Set 04 replaces the default form of LAO YAMAKKAN by the alternate form:



Stylistic Set 05 (**ss05** font *Saysettha* only)

The space character in *Saysettha* is much narrower than the space character in the older *Saysettha OT* font. If wider spaces are preferred, enable feature *Stylistic Set 05*.



Stylistic Set 05 (**ss05**: font *SengBuhan* only)

Use simplified characters (exactly as in font *SengPathom*).

Stylistic Set 06 (**ss06**: font *SengBuhan* only)

Use looped characters wherever possible (exactly as in font *KhamBuhan*).

⁵Microsoft Word does not correctly support the use of *Stylistic Sets* for non-Latin scripts, and only *Stylistic Set 01* can be applied for text formatted with *Saysettha* font. Any or all of the *Stylistic Sets* described above can be applied when using *LibreOffice Writer*, *Adobe InDesign*, etc.

⁶Stylistic Sets 3 and 4 are not applicable for font *SaysetthaMai*.

Note on Relative Character Sizes

Choosing the relative size of numerals and characters in the Latin, Lao and punctuation character sets is often difficult. The principle followed in the design of the Saysettha fonts has always been to optimize the choice for the majority of expected users, for whom Lao orthography is more familiar than Latin text. For this reason, the Latin text characters are larger (relative to the Lao) than might be expected, and the numerals and punctuation adjusted in size for conformity with the Lao text. The Latin character set is included in the font for convenience to avoid ‘falling back’ to a font which is visually unmatched to the Lao text, but for large sections of non-Lao text it is usually better to use a standard Latin-script font such as *Calibri*, *Arial* etc.

Sample text

Some styles available are shown here. The [Font Selector Add-In](#) for *Microsoft Word* (described [here](#)) simplifies choosing and applying a font style to selected text.

Saysettha

| | Condensed (75%) | Normal | Extra Expanded Italic (150%) |
|---------|-------------------------|-------------------------|--------------------------------|
| Light | ພາສາລາວງາມອີ່ຫຼີ | ພາສາລາວງາມອີ່ຫຼີ | <i>ພາສາລາວງາມອີ່ຫຼີ</i> |
| Regular | ພາສາລາວງາມອີ່ຫຼີ | ພາສາລາວງາມອີ່ຫຼີ | <i>ພາສາລາວງາມອີ່ຫຼີ</i> |
| Black | ພາສາລາວງາມອີ່ຫຼີ | ພາສາລາວງາມອີ່ຫຼີ | <i>ພາສາລາວງາມອີ່ຫຼີ</i> |

SengBuhan

| | Ultra Condensed (50%) | Italic | Ultra Expanded (200%) |
|---------|-------------------------|--------------------------------|-------------------------|
| Light | ພາສາລາວງາມອີ່ຫຼີ | <i>ພາສາລາວງາມອີ່ຫຼີ</i> | ພາສາລາວງາມອີ່ຫຼີ |
| Regular | ພາສາລາວງາມອີ່ຫຼີ | <i>ພາສາລາວງາມອີ່ຫຼີ</i> | ພາສາລາວງາມອີ່ຫຼີ |
| Black | ພາສາລາວງາມອີ່ຫຼີ | <i>ພາສາລາວງາມອີ່ຫຼີ</i> | ພາສາລາວງາມອີ່ຫຼີ |

SaysetthaMai

| | Condensed (75%) | Normal | Expanded (125%) |
|--------|-------------------------|-------------------------|-------------------------|
| Thin | ພາສາລາວງາມອີ່ຫຼີ | ພາສາລາວງາມອີ່ຫຼີ | ພາສາລາວງາມອີ່ຫຼີ |
| Medium | ພາສາລາວງາມອີ່ຫຼີ | ພາສາລາວງາມອີ່ຫຼີ | ພາສາລາວງາມອີ່ຫຼີ |
| Bold | ພາສາລາວງາມອີ່ຫຼີ | ພາສາລາວງາມອີ່ຫຼີ | ພາສາລາວງາມອີ່ຫຼີ |