

Lao Sorting Extension for LibreOffice/OpenOffice Calc (Version 1.2.1)

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<https://laoscript.net>

Neither *Microsoft Windows* nor *macOS* provide any way of sorting Lao text according to the standard Lao dictionary order. Linux-based apps and LibreOffice sort Lao word lists orthographically, similar to the method used for sorting Thai word lists, but no convention for orthographically sorting Lao has been generally accepted. Lao dictionaries¹ have traditionally sorted Lao words *phonetically by syllables*, most often prioritizing syllable-final consonants over the phonetic vowel. This method of sorting requires words to be split into syllables and transliterated phonetically before being ordered.

The **SortLao** extension for *LibreOffice/OpenOffice* provides a way to split words into syllables and correctly sort columns of Lao words alphabetically according to Lao dictionary order.

Installing the Extension

Before installing the **SortLao** extension (or any extension with Javascript macros) on **Windows**, you must install **Java Runtime Engine (JRE)** - see <https://www.java.com/en/download/manual.jsp>. Then **Unblock**² and double-click the extension file **SortLao-1.2.1.oxt** to install it. If installing on **macOS**, first install the appropriate version of **Java Development Kit (JDK)** - see [Java Downloads | Oracle](#) (instead of JRE).

Using the SortLao Extension

After installing the extension, when opening any Calc spreadsheet a new top-level menu **SortLao** will be visible:

To sort a column of Lao text, select a range of cells or the entire column and click the **Sort** menu item. If the selection includes additional columns to the right of the Lao text, those columns will be re-ordered together with the Lao text cells in the primary (left-most) column.

For multi-level or other complex sorting requirements, select the columns that will be used for sorting and click **Add sort keys**. This will add a (Latin script) alphabetic string to the start of each cell. Then sort the entire block of cells on the worksheet using the standard method for sorting cells by one or more fields. Then after sorting, select the sorted block of cells and click **Remove keys and breaks** to leave only the (re-ordered) Lao text. This approach also allows keys to be corrected individually for entries that do not conform to standard Lao syllable rules.

Zero-width line-break characters (ZWSP=U+200B) may be inserted between syllables for selected cells by using the menu entry **Insert breaks between syllables**. These break characters are always hidden when printed but may appear on-screen in LibreOffice documents as a thin grey bar between syllables, depending on the current View options. Since LibreOffice normally breaks lines between Lao syllables anyway, insertion of syllable breaks is usual; only needed for sorting Lao text entries. Use **Remove keys and breaks** to remove all inserted breaks and error marks.

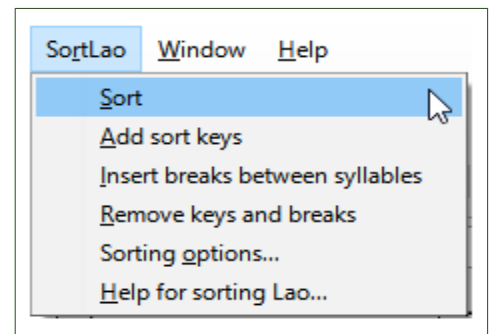
Methods for sorting Lao

Each Lao word normally consists of one or more syllables, each syllable having four components:

- the syllable-initial consonant or consonant cluster,
- the vowel, which consists of one or more characters, before and/or the syllable-initial consonant,
- the syllable-final consonant (if any),
- the tone mark (if any).

All methods for sorting Lao give the highest priority to the initial consonant or consonant cluster but different methods prioritize the remaining components differently. The standard method for sorting Lao words sorts according to **Initial Consonant – Final Consonant – Vowel – Tone**, while a commonly used alternative orders syllables by **Initial Consonant – Vowel – Final Consonant – Tone**. Select **Sorting options...** from the menu to display the method being currently used or change to the alternative method.

- For example, ວັຈນານຸກົມພາສາລາວ ໂດຍ ມະຫາ ສີລາ ວິຣະວົງສ໌ (ສະບັບປັບປຸງໃໝ່ ພ.ສ. 2549) or LAO-ENGLISH DICTIONARY by Allen D Kerr (Catholic University of America, 1972).
- Using **File – Properties** on Windows. If the downloaded file is blocked on macOS, you may need to set the appropriate gate-keeper option to enable it to be installed.



Note that words with irregular syllable patterns cannot always be ordered consistently.

Orthographic sorting (as currently used when using LibreOffice's Sort function) also orders words primarily by initial consonant, but secondary ordering follows the written characters regardless of syllable boundaries.

Sorting Example

The following table illustrates how the same list of words will be ordered by each of the three methods of sorting Lao:

Standard	Vowel priority	Orthographic
ກ	ກ	ກ
ກະ	ກະ	ກໍ
ແກະ	ເກກ	ກວກ
ໄກະ	ເກງ	ກວງ
ກໍ	ເກດ	ກວຍ
ເກີ	ແກະ	ກອກ
ເກີ	ແກງ	ກອງ
ກົວ	ແກດ	ກອຍ
ເກກ	ໄກະ	ກອດ
ກົກ	ກົກ	ກະ
ໄກກ	ກົງ	ກົກ
ກອກ	ກົດ	ກົງ
ກວກ	ໄກກ	ກົດ
ເກງ	ໄກງ	ກົວ
ແກງ	ໄກດ	ກຽງ
ກົງ	ກໍ	ເກກ
ໄກງ	ກອກ	ເກງ
ກອງ	ກອງ	ເກດ
ກຽງ	ກອຍ	ເກີ
ກວງ	ກອດ	ເກີ
ກອຍ	ເກີ	ແກງ
ກວຍ	ເກີ	ແກດ
ເກດ	ກຽງ	ແກະ
ແກດ	ກົວ	ໄກກ
ກົດ	ກວກ	ໄກງ
ໄກດ	ກວງ	ໄກດ
ກອດ	ກວຍ	ໄກະ