LaoScript 10 Add-In for Microsoft Word

Version 10.20

Overview

Microsoft Windows remains limited in its support for Lao language. The **LaoScript 10 Add-In for Microsoft Word** provides methods to check for unidentified words and insert or remove visible or hidden breaks between words, using a dictionary of Lao words including both simplified and classical (pre-1960) spelling conventions and names or loan words transliterated from other languages. The Add-In also supports conversion of Lao text from old (obsolete) 8-bit coding into Unicode-coded Lao text, substituting the old font by a Unicode font with similar appearance where possible.

Using the Add-In

Download the Add-In zip package from the laoscript.net download page and install it according to the instructions at the <u>end of this document</u>. After the Add-In has been installed, whenever a Word document is opened, a new **LaoScript10** ribbon tab will be visible:



Checking Lao Spelling

To check the spelling of Lao text in a document, select the text range to be checked and click **Check Lao**. Unidentified Lao words will be highlighted. For example, when the following text from a recent news article¹ is checked, it appears as:

ຫົວຂໍ້ຂ່າວສຳຄັນສຳລັບແລງມື້ນີ້ ມີດັ່ງນີ້: ອະດີດສະມາຊິກສະພາແຫ່ງຊາດຂອງກຳປູເຈຍ ຖືກຍິງເສຍຊີວິດຢູ່ ບາງກອກ, ສະມາຊິກລັດ<mark>ຖະ</mark>ສະພາສະຫະລັດ ຍ້ອງຍໍປະທານາທິບໍດີ ຈິ<mark>ມ</mark>ມີ ຄາ<mark>ຣ</mark>໌ເຕີ ໃນຫໍ Rotunda ຂອງຫໍ ລັດ<mark>ຖະ</mark>ສະພາສະຫະລັດ, ແລະ ເກົາຫຼີເໜືອໄດ້ທົດລອງລູກສອນໄຟຂີປະນາວຸດໄລຍະກາງທີ່ມີຄວາມໄວເກີນ ສຽງແນ່ໃສ່ເປົ້າໝາຍໃນເຂດປາຊີ<mark>ຟິກ.</mark>

The highlighted characters indicate a word or part of a word that is not found in the Lao dictionary, often a loan word transliterated from English or another language, or a misspelling.

Spelling Conventions

Any word may be included in the dictionary and accepted as correctly spelled, whether it uses the current simplified spelling convention or the older, 'classical' pre-1960 way of spelling, or even if a transliterated name or loan word that follows neither convention.

However, a word written with a 'digraph' initial consonant ຫນ, ຫມ or ຫລ will always be stored using the (more correct) ligature form ໝ, ໝ or ຫຼ unless it is ambiguous². Similarly, a word containing SALA AM (ໍາ) that has been entered as two separate components (ໍ+ າ) will be stored using the single code (ໍາ = U+0EB3) and any tone-mark re-ordered as necessary. However, all forms of a word are accepted when checking spelling unless accept digraph forms has been disabled by a User Setting.

¹ https://lao.voanews.com/a/voa-lao-radio-on-tv-live-streaming/7929403.html

² In a few single-syllable words with prefix vowels, the second consonant could be either initial or final.

Dr. John Durdin, Version 10.20, February 2025, https://laoscript.net/

Break Insertion

Until fairly recently hidden breaks³ were often inserted between Lao words to allow the text to wrap correctly. This is rarely needed any more as most operating system platforms now wrap Lao text at word boundaries more or less correctly. However, for some texts (especially if including old Lao spellings or Lao-Pali words) it may still be useful, and either hidden or visible word breaks may be inserted during checking (see <u>User Settings</u>).

If the visible breaks option is selected, the above paragraph when checked appears as:

ຫົວຂໍ້·ຂ່າວ·ສຳຄັນ·ສຳລັບ·ແລງ·ມື້ນີ້ ມີ·ດັ່ງນີ້: ອະດີດ·ສະມາຊິກ·ສະພາ·ແຫ່ງ·ຊາດ·ຂອງ·ກຳປູເຈຍ ຖືກ·ຍິງ·ເສຍ· ຊີວິດ·ຢູ່·ບາງກອກ, ສະມາຊິກ·ລັດ·<mark>ຖະ</mark>ສະພາ·ສະຫະລັດ ຍ້ອງຍໍ·ປະທານາທິບໍດີ ຈິ·<mark>ມ</mark>ມີ ຄາ·<mark>ຣ</mark>໌ເຕີ ໃນ·ຫໍ Rotunda ຂອງ·ຫໍ·ລັດ·<mark>ຖະ</mark>ສະພາ·ສະຫະລັດ, ແລະ ເກົາຫຼີ·ເໜືອ·ໄດ້·ທົດ·ລອງ·ລູກ·ສອນ·ໄຟ·ຂີ·ປະ·ນາ·ວຸດ· ໄລຍະ·ກາງ·ທີ່·ມີ·ຄວາມ·ໄວ·ເກີນ·ສູງງ·ແນ່·ໃສ່·ເປົ້າ·ໝາຍ·ໃນ·ເຂດ·ປາ·ຊີ-<mark>ຟິກ.</mark>

If hidden breaks are inserted, they can be made visible by clicking \P "Show marks" button (on the ribbon menu Home tab)⁴.

Words or names that have not been identified may be added to the dictionary (see below) and the text checked again or else the unidentified words may just be ignored by clicking **Clear highlights** to remove all error marking from the selected text. Inserted hidden or visible breaks may also be removed from selected text by clicking **Remove breaks**.

Different user settings allow different categories of Lao words to be used when identifying words in a text. More accurate word identification is possible if the properties of the Lao text are considered.

Lao words included in the dictionary always use the ligature forms ໝ, ໝ and ຫຼ of certain highclass consonants but both ligature and digraph forms (ຫມ, ຫມ, ຫລ) are normally recognized when identifying words. Similarly, words containing sala am (e.g. ກໍາ) may be written, and will be recognized, whether sala am is entered as a single character (ໍາ) or as two separate characters (ໍ + າ) but will be stored in the dictionary using the standard form.

When checking scientific, technical, legal or other texts that include very specific terminology, or texts with many (transliterated) names, it is helpful to include additional lists of word not in the regular dictionary. Such lists can be imported into the dictionary and assigned a category name, allowing them to be included or excluded as appropriate when checking Lao texts.

The spelling convention for most Lao words entered in the dictionary follows current usage in Lao PDR ('simplified' spellings). However, the dictionary also includes many older ('classical') spellings since they occur frequently in older texts (and also in Lao texts authored by expatriate Lao). Some examples of words with different classical and simplified spellings are shown in the following table.

Simplified	Classical
ຕະຫຼາດ (ຕະຫລາດ)	ຕລາດ
ຄຳພີ	ຄັມພີ
ຄັບພະ	ຄັພ
ລັດຖະບານ	ຣັຖບານ

When a classically-spelled word is added to the dictionary, the corresponding simplified spelling should be added to a field provided for that purpose so that the word can be ordered consistently according to the phonetic ordering convention most commonly used in Lao dictionaries.

³ Typically the zero-width space character U+200B.

⁴ Or the shortcut combination Ctrl-Shift-8 is entered.

Dr. John Durdin, February 2025, <u>https://laoscript.net/</u>

The Lao Dictionary

The Lao dictionary provides for words to be treated as a single category or to be divided into two or more categories, any or all of which can be included when checking spelling. The same word may be entered in different categories but a word cannot be entered more than once twice in the same category. Word categories are included or excluded for spell-checking, and added, renamed or deleted from the <u>User Settings</u> form.

The Lao dictionary has two modes of use, <u>Simple</u> and <u>Extended</u>. Click **More...** to change from *Simple* to *Extended* mode, or **Less...** to change from *Extended* to *Simple* mode.

Simple Mode

The dictionary form in **Simple Mode** allows Lao words to be looked up, modified or deleted, or added to the default category or to another selected category.

Words may be selected by typing Lao in the *Select Lao word…* text box or by selecting from the drop-down list. When entering text in the text box, the Lao keyboard will automatically be selected.

The list of words displayed may be either for a single category (e.g. the 'Main list' as shown in this image) or may include words from all categories (in which case there may sometimes be more than one entry for a word).

When a word is selected, three buttons will be visible, allowing that word to be modified or deleted, or a different word to be added to the dictionary:

Lao Dictionary \times
Word categories to show
Main list 👻 More
Select Lao word
ກະເກນ 👻
Add Modify Delete
Add Modify Delete

Correct or change spelling

Click **Modify** to correct or change the spelling for a word. A separate input form will then be shown:

Click **Change** to save the new spelling or click **Cancel** to keep the original spelling. If the new spelling is an existing word in the currently selected category, a message will be displayed and the change will not be saved.

l	ao Dictionary X
	Word categories to show
	Main list
	Select Lao word
	າະເກນ 🝷
	ກະເກນ 📥
L	ມະນໃກ
	ກະຂອງວ່າ
	ກະຈະ
	ກະຈາ
	ກະແຈະ
	ກະແຈ
	ກະແຈດານ _

Change spelling of word in dictionar	y X
Current spelling	
ກະເກນ	Change
New spelling	Cancel
ກະແກນ	

 \times

More...

Delete a word	LaoScript10 Add-In for Word	
Click Delete to remove a word from		
for confirmation before the word is	Delete ກະເກນ from Main list?	
actually removed:	Yes No	

Lao Dictionary

All words

Word categories to show

Adding a new word

To add another word to the dictionary, enter the word to be added then click **Add**. The **Add** button will not be enabled if the word is already included or is less than two characters long. You will be prompted to confirm the addition:

You will be prompted to confirm the addition:	Select Lao word		
LaoScript10 Add-In for Word X	ຢູເຄຣນ 🗸		
Add ຢູເຄຣນ to dictionary?	Add Modify Delete		
Yes No	h		

Click **Yes** to add the word to the dictionary in the currently selected (or default) word category.

Extended Mode

In Extended mode, additional information about each word in the dictionary can be seen and edited:

Lao Dictionary		\times
Word categories to show All words Less	Word category Main list	Save
Select Lao word	Hyphenated word (Sort as)	Undo
ຢູເຄຣນ -	ຢູ-ເຄຣນ	Export
	Gloss	
Add Modify Delete	-	Import

The category can be changed, the suggested hyphenation changed or a gloss added. After making any change, click **Save** to keep the changed data, for example:

Lao Dictionary		\times
Word categories to show All words Less	Word category Names	Save
Select Lao word	Hyphenated word (Sort as) 🗶	Undo
	Gloss	Export
Add Modify Delete	Ukraine	Import

Hyphenated word (Sort as...)

A suggested hyphenation is added and will be used when checking Lao text to allow a word to be split discretionary hyphens if the hyphenation option is selected. The hyphenated word will only be used if it is identical with the original word apart from the inserted hyphens.

Ordering Lao words

For the purpose of checking spelling, the order of listed Lao words is unimportant. However, for words to be correctly listed in alphabetical order, they must be divided correctly into syllables according to the pronunciation of the word, which is not always possible from the written form of a word, especially if it uses classical spelling or a loan word.

For such words, the Hyphenated word (Sort as...) item has a different purpose, allowing a phonetically consistent spelling of the word to be entered to determine how the word would be inserted in an alphabetically ordered list. This affects the drop-down list of words in the dictionary form and also sorting when columns of Lao words are sorted alphabetically but does not affect spell-checking. For example, consider the word \mathfrak{EUU} . To ensure that it appears immediately after the corresponding simplified spelling, the simplified spelling ຂະຫຍັບ is entered in the Hyphenated word (Sort as...) text box, and the dictionary entry then appears as:

Lao Dictionary		\times
Word categories to show All words Less	Word category Old spelling	Save
Select Lao word 🥚	Hyphenated word (Sort as) 🗙	Undo
Add Modify Delete	Gloss	Export

The orange flag indicates that the alternate text box is used to manage ordering of the word, not hyphenation. If a word is entered that cannot be split into valid syllables, the automatically-generated hyphenated word will be flagged with the string [?] and the entry will also be shown with a red circle unless an alternative spelling is provided:

Lao Dictionary		\times
Word categories to show All words Less	Word category Main list	Save
Select Lao word	Hyphenated word (Sort as)	Undo
Add Modify Delete	Gloss	Export

Exporting Dictionary Entries

Click **Export...** on the (*Extended Mode*) dictionary form to export all words in the currently selected category or all words in the dictionary. The exported list will be a tab-separated UTF-8 text file with columns as shown in this segment:

Word	Hyphenated	Gloss	Category
ກະ	ກະ	-	-
ກະເຣເຕ	ກະ-ເຣ-ເຕ	Crete	Names
ກະກຸສັນໂທ	ກະ-ກຸ-ສັນ-ໂທ	-	-
ກະກຸສົນ	ກະ-ກຸ-ສົນ	-	-
ກະກຸທະພັນ	ກະ-ກຸ-ທະ-ພັນ	-	-
ກະກຽມ	ກະ-ກຽມ	prepare	-
ກະຂອງວ່າ	ກະ-ຂອງ-ວ່າ	-	-
ກະແຈະ	ກະ-ແຈະ	-	-
ກະແຈ	ກະ-ແຈ	key, lock	-
ກະແຈດານ	ກະ-ແຈ-ດານ	-	-
ກະແຈມື	ກະ-ແຈ-ມີ	-	-
ກະເຈາະກະຈອກ	ກະ-ເຈາະ-ກະ-ຈອກ	-	-
ກະເຈິກະເຈີກ	ກະ-ເຈິ-ກະ-ເຈີກ	-	-
ກະຈົວະກະຈວກ	ກະ-ຈົວະ-ກະ-ຈວກ	-	-
ກະຈົກ	ກະ-ຈົກ	-	-
ກະຈາຍ	ກະ-ຈາຍ	scatter	-
ກະຈາຍສຽງ	ກະ-ຈາຍ-ສຽງ	-	-
ກະເຈັຍກະຈຽກ	ກະ-ເຈັຍ-ກະ-ຈງກ	-	-
ກະເຈັຍະກະຈຽກ	ກະເຈັຍກະຈຽກ	-	Old spelling
ກະຈັດ	ກະ-ຈັດ	-	-
ກະຈັດກະຈາຍ	ກະ-ຈັດ-ກະ-ຈາຍ	scatter, scattered	-

The default (Main list) category and undefined glosses are exported as single hyphens.

The highlighted row shows an example of a word that does not follow standard Lao spelling conventions so has an alternate spelling added for the sake of ordering. However, the (unhyphenated) original spelling will always be retained when text with this word is spell-checked.

Note that when any category of words is deleted (using the <u>User Settings</u> form) those words will automatically be exported before being removed from the dictionary database.

Importing Dictionary Entries

To import a word list, click **Import...** on the *Extended Mode* dictionary form. A file-picker browser will be displayed allowing the import file to be selected:

Select file to import word list	from			×
$\leftarrow \rightarrow \checkmark \uparrow$	LaoScri > 10.2	∨ C Sea	arch 10.2	م
Organize New folder			≣ ▪	
Name	Date modified	Туре	Size	
LaoWordList_Names_202	30/01/2025 4:46 PM	Text Document	1 KB	
周 LaoWordList_2025-01-30	30/01/2025 4:22 PM	Text Document	736 KB	
			- · · ·-	
File name: L	aoWordList_Names_2025	-01-30 ~ Te	xt Files	~
		Tools 🔻	ОК	Cancel

Duplicated entries will not be imported, and words being imported will have their spelling standardized before being inserted in the dictionary.

The word list being imported can be either a previously exported list or any suitably structured list of Lao words. See <u>Appendix: Lao Word List Import Specifications</u> for details.

For each Lao word imported, sorting keys will be calculated and added to the entry together with a hyphenated copy of the word (unless that was included with the entry in the imported text).

Importing entries from a prior database

When upgrading to a newer version of the Add-In, any existing dictionary database will be backed up then replaced by the most recent version. The dictionary import feature includes an alternative mode:

Select file to import word list	from			×
$\leftarrow \rightarrow \vee \uparrow$	LaoScri > 10.2	∨ C Searc	h 10.2	م
Organize New folder			≣ •	
Name	Date modified	Туре	Size	
LaoScript10	30/01/2025 9:45 PM	Microsoft Access	6,820 KB	
된 LaoScript10_2025-01-30	30/01/2025 9:18 PM	Microsoft Access	3,348 KB	
<u> </u>				
File name: L	.aoScript10_2025-01-30	✓ LaoS	cript10 Databases	~
		Tools Tools	Files cript10 Databases	

The purpose of this feature is to ensure that any words that have been added by a user can be transferred to a new version when the Add-In is updated if wanted. It cannot be used to import word lists from non-LaoScript10 dictionary databases.

Converting text in documents with old (8-bit) Lao fonts

Most older Word documents with Lao text encoded for non-standard 8-bit-coded fonts (such as *Saysettha Lao, alice_5, etc.*) may be processed to convert the text to use a Unicode font. If a similar-looking Unicode font exists, that font may be used for the converted text.

To convert text in a Lao document, open the document, select the text to be converted, then click **To Unicode**. If no text is selected, all Lao text in the document will be converted. A <u>User Setting</u> allows text in headers and footers to also be converted when the entire document is converted.

A list of known Lao 8-bit fonts is included in the LaoScript10.accdb database that is installed with the app. The list may be viewed, modified or extended by clicking **Font list**. The following form will be shown:

Lao Code Conversion - Old	l Code Font List			\times
Font name	Code convention	Unicode font substitute	Scale	
Alice3 2000	Lao 2000	Alice3 MX	100 🔺	Add
Alice3 95	Lao 95	Alice3 MX	100	
Alice3 Lao	LSWin	Alice3 MX	100	Modify
Alice4 2000	Lao 2000	Alice4 MX	100	
Alice4 95	Lao 95	Alice4 MX	100	Delete
Alice4 Lao	LSWin	Alice4 MX	100	
Alice5 2000	Lao 2000	Alice5 MX	100	Clear
Alice5 95	Lao 95	Alice5 MX	100	
Alice5 Lao	LSWin	Alice5 MX	100	
Alice5b Lao	LSWin	Alice5 MX	100	Reset
Bubble 95	Lao 95	Saysettha OT	100	
Bubble Lao	LSWin	Saysettha OT	100	
Chantabouli 95	Lao 95	Saysettha OT	100	
Chantabouli Lao	LSWin	Saysettha OT	100	
Hollow 95	Lao 95	Saysettha OT	100	
Hollow Lao	LSWin	Saysettha OT	100	Close
Lao Light	Alice	Saysettha OT	100	
LaoPlangMai23	Alice	Saysettha OT	100	
LaoPlangMai27	Alice	Saysettha OT	100	
Saysettha 2000	Lao 2000	Saysettha OT	100	
Saysettha 95	Lao 95	Saysettha OT	100	
Saysettha Lao	LSWin	Saysettha OT	100	
Saysettha LS	IBM-STENO	Saysettha OT	100	
SengChanh	SengChanh	Saysettha OT	70 💌	
Saysettha 95	✓ Lao 95	✓ Saysettha OT	▼ 100	

For each listed font, the coding convention used for the font, a Unicode replacement font, and a scale factor will be specified.

Coding conventions

The following (common but non-standard) 8-bit conventions are currently recognized:

Coding convention	Example font
LSWin	Saysettha Lao
Lao 95	Saysettha 95
Lao 2000	Saysettha 2000
Alice	alice_5
SengChanh	SengChanh
Sengchanh US	SengChanh US
Sayawath	Xayawath
IBM-STENO	Saysettha LS

If you have a document with a font that uses one of the above coding conventions, but is not listed in the table, click **Clear**, then enter the font name in the text box below the list of font names. Change the code convention, replacement font and scale factor if necessary then click **Add** to include the font in the list of fonts for which text must be converted.

If you have a document with Lao text that used an 8-bit coded font that is not following one of the conventions currently listed, please contact me via <u>https://laoscript.net/support/contact.php</u>. It may be possible to add the coding convention to allow text using fonts with that convention to be converted.

Lao text using an uninstalled 8-bit Lao font will not be displayed correctly until it is converted to an installed Unicode font, but it is not necessary to install the old font (which may not even be available).

Replacement fonts

A standard list of known Lao Unicode fonts is included with the app, but the list of Lao Unicode fonts available for substitution will also include any other installed fonts that support Lao Unicode.

Scale factor

The scale factor property specifies the percentage by which the text-size for text in an original 8bit font should be rescaled when converted to Unicode. For most fonts, no rescaling should be needed, so the scale factor should be left at 100 (%), but some older fonts used character sizes that were a much smaller proportion of the font's cell-size than is currently used, so need to be rescaled when converting.

The selected code convention, replacement font and scale factor may be modified for any listed font by selecting that font, correcting the properties as wanted, then clicking **Modify**. A font may also be removed from the list by selecting it then clicking **Delete**. The list may be restored to the default list by clicking **Reset**.

Conversion Issues

Some complex older documents that include fields, graphics or other non-text objects embedded in the text can be difficult to fully convert successfully to Unicode Lao. Where an issue has been detected, but code-conversion has apparently succeeded, the affected text will be highlighted in yellow. If the conversion was unsuccessful, the text (still with old codes) will be highlighted in red. In either case, the highlighted text should be compared with the original document, if possible, in case any embedded objects have been lost during the conversion process.

User Settings

The **User Settings** form allows users to manage how the Add-In is used and appears as follows:

Lao text processing and dictio	nary settings	\times
Processing options		
Include headers, foot ranges when process Process contiguous L	ers and other story ing complete docume ao as a single string	nt
Check for old code te	xt before processing	
Word identification a	nd dictionary opt	tions
Word breaks None	Mark unknown Lao Highlight	I
🗹 Hyphenate Lao betwee	en syllables	
Allow digraph spelling	s (HM,HN,HL) of Lao v	words
Word Categories	Compact databa	ise

Processing options

Include headers, footers...

Text processing (checking Lao spelling, clearing highlighting or breaks, or converting from old codes) is applied to the current selection, but if no text is selected, it will be applied to the Main story of the document. If there are page headers or footers or other story ranges such as footnotes that also need to be checked or converted, this option should be checked when processing the entire document.

Process contiguous Lao...

For word lists and similar texts, it may be preferable to test if each entry is a listed dictionary word, instead of splitting it into two or more words if no dictionary entry is found. To do this, check this option before processing the selection or document.

Check for old-code text...

If you have documents containing old-coded Lao text, check this option to avoid accidentally corrupting the old-coded Lao when spell-checking. If all your documents use standard, Unicode-coded Lao, leave that option unchecked. (Checking for old-coded Lao can take several seconds for a large document.)

Word identification and dictionary options

Word breaks

After checking and identifying Lao words, the words may be left unseparated or be separated by visible or hidden break codes. By default, they will not be separated, since in most cases Windows will wrap Lao text adequately without needing inserted breaks⁵.

Mark unknown Lao

Unknown or incorrectly spelled Lao words will be identified when Lao spell-checking is used and typically highlighted in yellow. However, if highlighting is used for other purposes in a document, the identified errors can be shown with wavy red underlining instead of (or as well as) highlighting. If unknown words or spelling errors are not relevant but text is processed just to add discretionary hyphens and/or hidden or visible break codes, any identified errors can be left unmarked by selecting **Do not mark**.

Hyphenate Lao...

When text is spell-checked, discretionary hyphens may optionally be inserted between syllables, allowing lines to be wrapped at syllable boundaries, as is typically done for text in other languages. For each word, the syllable boundaries are determined automatically when a word is added to the dictionary but may be overridden by editing the <u>Hyphenated word</u> field in the dictionary entry for the word. If the hyphenated word field contains anything other than a hyphenated spelling of the Lao word, it will not be used during spell-checking, but only to provide an alternative way to order the word in alphabetically ordered lists. (See <u>Ordering Lao words</u>.)

Allow digraph spellings ...

It is usually best to accept digraph forms of high-class consonants (ຫນ, ຫມ, ຫລ) as well as the standard ligature forms (ໝ, ໝ, ຫຼ), but if it is important to observe the (stricter) current Lao spelling conventions and minimize ambiguities, this option can be unchecked.

Word categories

Clicking this button opens a form that allows dictionary word categories to be added, deleted or renamed, and included or excluded when spell-checking Lao text. The form also displays the number of dictionary entries for each category.

To rename a category, select the category, change the name, and click **Apply**. The **Main list** category cannot be renamed (and should not normally be deleted).

To add a new category, select the **(New category)** and rename it appropriately and click **Apply**.

Category	Include	Count
Main list	Yes	15439
Old spelling (New category)	Yes	869
Main list	Apply	Undo Dele

To delete a category, select the category and click **Delete**.

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⁵ This may not be true for Word documents using the old **.doc** rather than the current **.docx** structure.

Warning: Deleting any word category will remove all words in that category from the dictionary.

Compact database

If many changes are made to the dictionary, especially if new word lists are imported and merged with the existing list, the database may increase in size and slow down spell-checking or accessing the dictionary form.

If this happens, the **Compact dictionary** button will be enabled, and when clicked will remove most unused space from the database file by copying dictionary entries to a copy of the empty template dictionary database that is installed with the Add-In.

The existing dictionary will be renamed and, as a precaution, saved in the current folder when this is done.

Note that this method of compacting the database is limited. A more effective way to compact the LaoScript10 database is to open it in **Microsoft Access** (if installed) and select **Compact and Repair Database** found in the **File – Info** or the **Database Tools** menus.

Installing the Add-In

- 1. Download the Add-In from https://laoscript.net/download/laoscript10.14.zip
- 2. Unblock the downloaded file. Open **File Properties** (in the right-click menu for the entry in your downloads folder) and check **Unblock**:

-	laoscript10.14	
Type of file:	Compressed (zipped) Folder (zip)	
Opens with:	Windows Explorer Change	
Location:	Downloads	
Size:	1.50 MB (1.580,928 bytes)	
Size on disk:	1.50 MB (1,581,056 bytes)	
Created:	Thursday, 9 January 2025, 5:58:27 PM	
Modified:	Thursday, 9 January 2025, 5:58:28 PM	
Accessed:	Today, 9 January 2025, 5:58:28 PM	
Attributes:	Read-only Hidden Advanced	
Security:	This file came from another computer Unblock and might be blocked to help protect this computer.	

- 3. Use **Extract all...** (in the right-click menu) to unpack the contents of the archive into the suggested folder (or any other folder that is not read-only).
- 4. Double-click LaoScript10.install.dotm and click Enable Content⁶:



⁶ Whether this warning or a different security warning is shown, it will always be necessary to enable the macros in the installation template to run in order to install the Add-In.

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5. If you do not see this Security Notice or the prompt to install the Add-In that will normally be shown next, you may have not unblocked the file or you may need to change your macro security settings in **Trust Center** to allow the installation to continue. The recommended setting is **Disable all macros with notification**:

Trust Center	
Trusted Publishers	Macro Settings
Trusted Locations	O Disable all macros without notification
Trusted Documents	Disable all macros with notification
Trusted App Catalogs	 Disable all macros except digitally signed macros
Add-ins	Enable all macros (not recommended; potentially dangerous code can run)
ActiveX Settings	Developer Macro Settings
Macro Settings	Trust access to the VBA project object model
Protected View	

6. You will then be prompted to confirm installation:

LaoScript	10 Add-In Install	er X
Do you want t	to install 'LaoScrip	ot10' Add-In ?
	Yes	No

Updating the Add-In

To update to a newer version, download and unpack the new version according to the instructions above, and double-click the new installation template **LaoScript10.install.dotm**.

Uninstalling the Add-In

To uninstall the Add-In, double-click installation template **LaoScript10.install.dotm** again. You will be prompted whether or not to continue with uninstalling and asked whether or not to retain the user dictionary and settings. If the dictionary has been modified, you may want to keep a copy of it for reference or future use.

Appendix: Lao Word List Import Specifications

Any tab-separated or comma-separated UTF-8 text file with a list of Lao words in one to four columns per line may be added to the dictionary database if it is structured as follows:

With header line

The columns of text are identified by the column captions as follows:

Column	Caption
Lao word	Lao, Word, Laoword <i>or</i> Lao Word
Gloss	Gloss <i>or</i> English
Category	Category <i>or</i> Group
Hyphenated	Hyphenated, Alternate, Split or Altsplit

(Capitalization of column captions is not required and is ignored.)

Without header line

If the first line of the imported text includes Lao it will be assumed to be an entry, not a header line. In this case columns are assumed to be as follows:

Column Count	Columns
1	Lao word
2	Lao word, Gloss
3	Lao word, Gloss, Category
4	Lao word, Gloss, Category, Hyphenated

Further Notes

If a file is comma-separated, glosses cannot contain commas.

If a file with a header line does not include the Category (or Group) caption, or a file with no header line has less than three columns, you will be prompted to specify a category for all words to be added to.