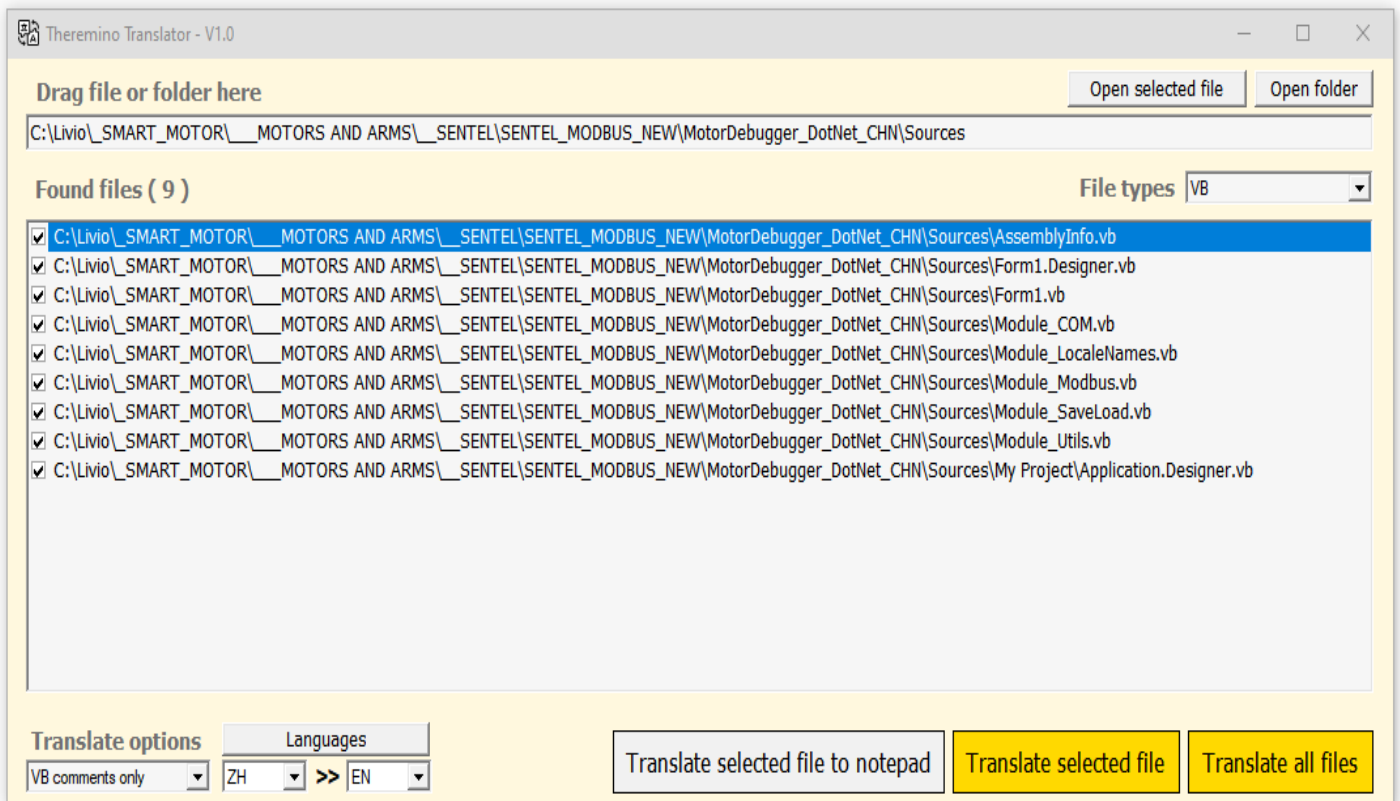


# theremino System



# Theremino Translator V1.0

## General index

<a href="#">Premises.....</a>	<a href="#">3</a>
<a href="#">Before starting, read here.....</a>	<a href="#">4</a>
<a href="#">How to get started with Theremino Translator.....</a>	<a href="#">4</a>
<a href="#">The application commands.....</a>	<a href="#">5</a>
<a href="#">Test on individual files.....</a>	<a href="#">7</a>
<a href="#">Inspect the original files.....</a>	<a href="#">7</a>
<a href="#">Chinese characters on non-UTF8 files.....</a>	<a href="#">8</a>
<a href="#">Convert files to UTF8.....</a>	<a href="#">8</a>
<a href="#">Translate comments.....</a>	<a href="#">9</a>
<a href="#">Translate the strings.....</a>	<a href="#">9</a>
<a href="#">Correct errors caused by translation.....</a>	<a href="#">10</a>
<a href="#">Translate Visual Basic applications.....</a>	<a href="#">11</a>
<a href="#">Translate C and CPP applications.....</a>	<a href="#">12</a>
<a href="#">Translate JavaScript and Python applications.....</a>	<a href="#">12</a>
<a href="#">Translate other languages and file types.....</a>	<a href="#">12</a>

# Premises

This is an exceptionally useful application for programmers.

Currently (early 2014) there is nothing similar, neither to be performed locally nor to be used online.

We searched for a long time but there are only applications for translating documents and they are all unsuitable for those who work with software.



Several times we had to work on programs with thousands of comments in Chinese and we spent entire days copying and pasting strings onto the Google Translator page and then again to the right places in the program.

Translating software is a stressful operation, all you need to do is lose concentration for a moment and you can change something important and ruin the functioning of the program.

So in the end we decided to write this application and it wasn't easy because you have to perform delicate surgical operations on the files without missing a single character.

All it takes is one misplaced semicolon or quotation mark to prevent the program from working.

# Before starting, read here

## Make a copy before you start.

Make a copy of the entire folder containing the files and work on the copy. So if something goes wrong you can delete everything and start over from the original versions.

## Do not translate books or documents!!!

This application is made to operate on programs. For books and Word, OpenOffice or PDF documents use [this web page](#).

If you translate thousands of pages it could also happen that Google puts you on its blacklist. It has never happened to us but perhaps if we exaggerate it could happen.

# How to get started with Theremino Translator

Now we can quickly translate applications consisting of dozens of files and a large number of Chinese comments.

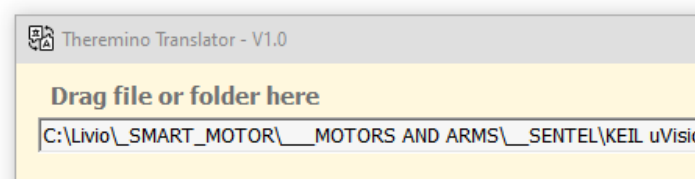
And the Chinese will also be happy, as well as the inhabitants of the most remote nations in the world, who they will be able to translate the comments of all our applications into their language.

In [This Page](#) you will find an index of the (almost two hundred) applications of our system, all of them **free** and **Open Source**.

But don't expect this application to do everything by itself, you have to be careful and it takes experience.

Must choose which files to edit and how to edit them. Must check them before and after and know what you want to achieve.

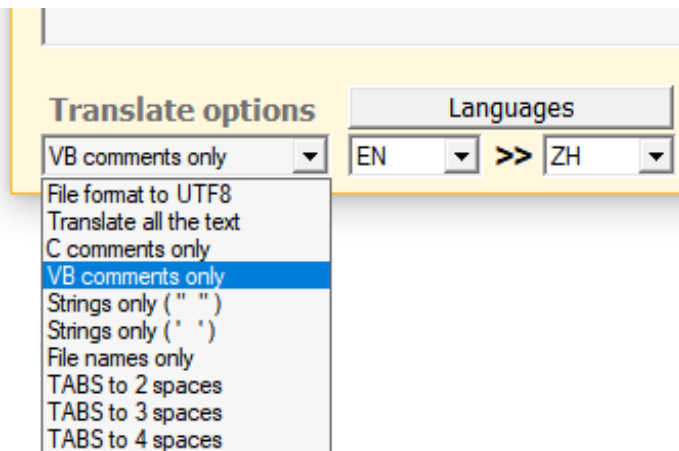
# The application commands



In this area you write, or paste, the name of a folder that contains the files to be translated, or the name of a single file.



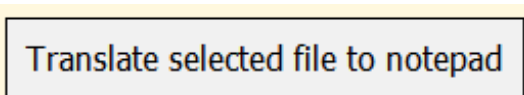
With the first button you open the selected file (blue background) with Notepad. The second opens the folder containing the files.



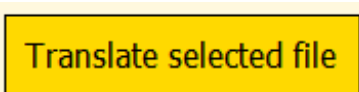
These are the translation options and choice of languages. With the "Languages" button you can add new languages.

The first option is not a real translation, it is used preventively to recover Chinese characters from ANSI files.

The last three options are used to transform TABs into spaces and can improve alignment on some editors.



This button doesn't actually translate the file, it just does a test and sends it to Notepad.



This button translates the selected file (with the blue background) and after translating it writes it over the original. So be careful not to make mistakes.



This button translates all files and writes to the original files. Be careful and do some tests first, so as not to make mistakes.

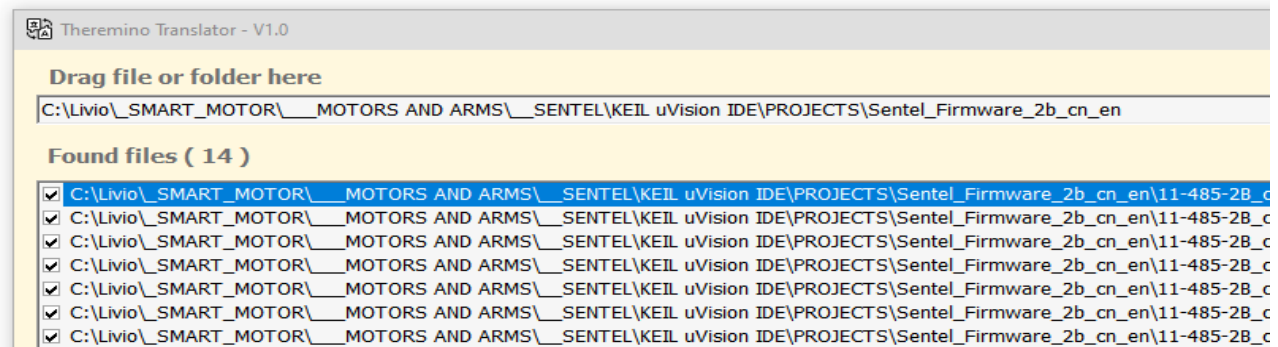


The **Translate all files** button only acts on files that have the checkbox.

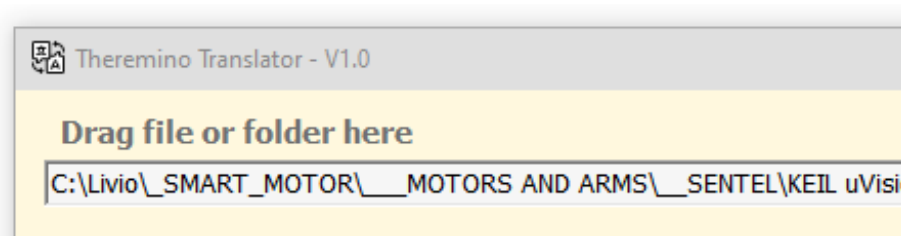
To modify the file enabling boxes, click on the selected file with the left mouse button, or click with the right mouse button and use the menu to modify all or part of them.

# The list of files

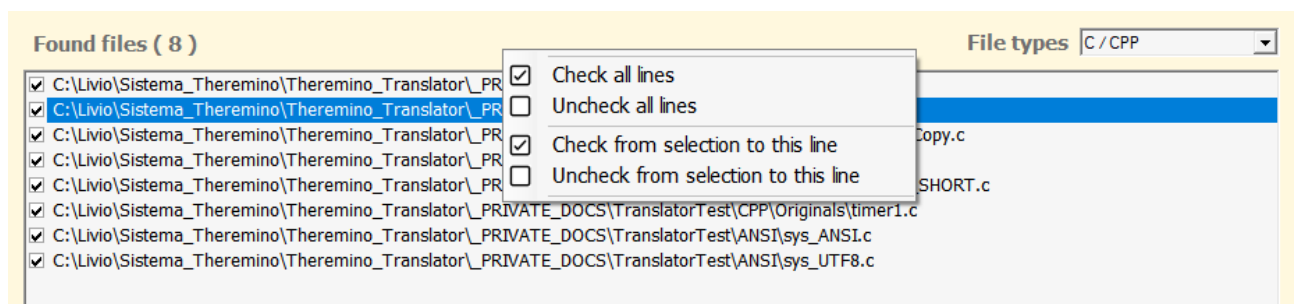
In the list you see files that are possible candidates for translation operations.



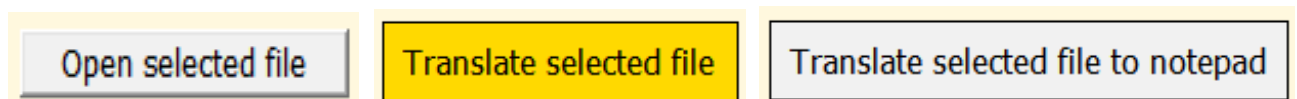
To fill this list, drag a folder onto this application or copy and paste its path onto the first line at the top.



In the file list, the boxes indicate which files are enabled when you use the translate all files button.

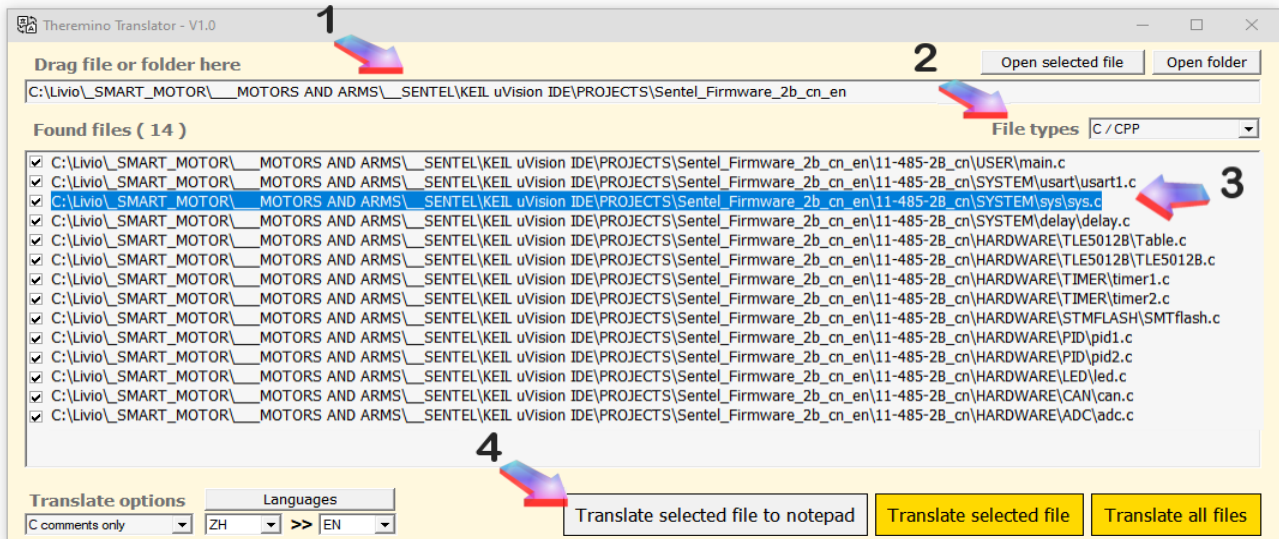


The line highlighted in blue indicates the selected file, which is used by the following three buttons.



# Test on individual files

Before translating entire projects with dozens of VB, C, CPP, H or HPP files, it is a good idea to test with individual files, without actually modifying them, but sending the translation to Notepad.



- Drag a single file or folder to the top row.
- If it was a folder select the file types you want to see.
- Select a file in the list by clicking with the mouse.
- Click on the gray button **Translate selected file to notepad**

# Inspect the original files

To compare and check how the modification turned out, you can view the original files with the button **Open selected file**

## Chinese characters on non-UTF8 files

It is not certain that Chinese characters (or other oriental languages) are readable because some applications, especially if they were created by Chinese, may have files in ANSI (8-bit ASCII) format.

In these files there are Chinese characters but they are encoded in the "GB2312" or "GB18030" formats and normal applications such as Notepad, NotePad++ and Word cannot understand which format they should use.

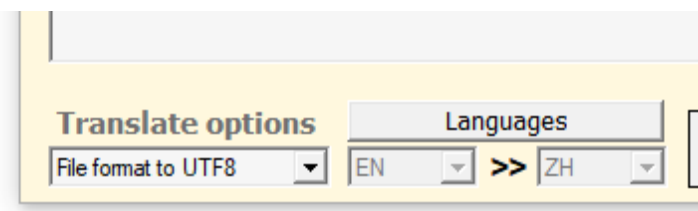
So before starting, try opening the files with Notepad using the button **Open selected file**.

The file will open and Notepad at the bottom right may say UTF8 or ANSI.

- If the file is UTF8 then the Chinese characters should be visible as in this example: 设置向量表偏移地址
- However, if the file is ANSI you will see it like this: ÉèÖÃïòÁ¿±íÆ«ÒÆµØÖ·ÖÃĬ and it will not be possible to translate them into other languages.

## Convert files to UTF8

To translate ANSI files and make them UTF8, choose "File format to UTF8" in the "Translate options" box and then use the "Translate" buttons.



During this operation the chosen languages do not count for anything and their boxes are disabled.



## Translate comments

Usually this translation does not cause problems.

In rare cases it may happen that the translated program no longer works well and therefore you will have to manually correct some lines.

To correct errors that prevent you from compiling the program or that occur during execution, see the advice on the next page.

## Translate the strings

Translating program strings can be useful for changing the user interface language but it can easily generate problems.

We therefore recommend translating strings only in some files.

In VbNet and Basic programs we recommend translating only the files that deal with the user interface, therefore Form.vb and FormDesigner.vb

In C and CPP files it depends on the type of project, you need to know it and have some experience to decide what to translate.

The strings also contain the names of the graphic controls and other sensitive parts of the program that easily generate errors.

Some typical errors could be:

- The period translated with the Chinese period, for example "." becomes "。
- Application names, such as "Notepad" becoming "记事本"

If the translated program no longer works, you will have to manually correct the parts that have been damaged.

To correct errors that prevent you from compiling the program or that occur during execution, see the advice on the next page.

# Correct errors caused by translation

## Compilation errors

If the translated program produces compilation errors:

- Locate the line corresponding to the error indicated by the compiler and compare it with the untranslated version.
- If you can't understand what happened, copy the entire line from the untranslated version.
- If you can't even do that, to correct the error copy the entire file from the untranslated version.

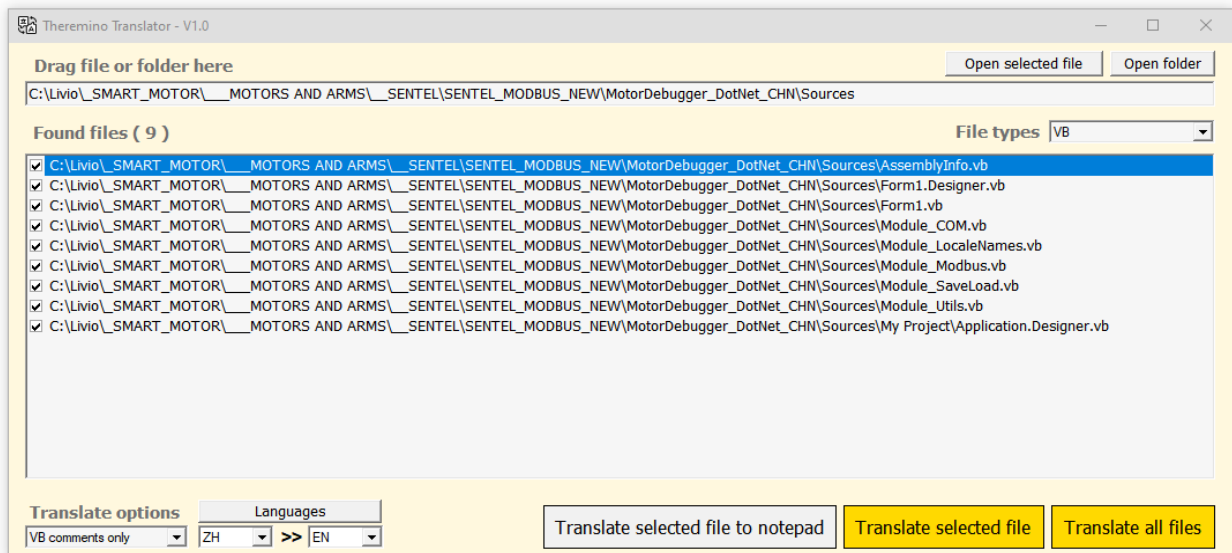
## Errors during execution

If the translated program fails during execution:

- Recompile the program in Debug and run it.
- Go to the error line and compare it to the untranslated version.
- If you can't understand what happened, copy the entire line from the untranslated version.
- If you can't fix the error even this way, copy the entire file from the untranslated version.

# Translate Visual Basic applications

With the following configuration you can translate all comments of a VbNet application from Chinese to English.



In this case we chose:

- File types = VB
- Translate Options = VB comments only
- Languages = ZH >> EN
- And finally you press the button **Translate all files**

As usual, before doing the translation it is a good idea to copy the entire program folder and then do the translation on the copied folder.

## Translate C and CPP applications

Which files to translate in C and CPP applications depends on the type of project, you need to know it and have some experience to decide what to translate.

## Translate JavaScript and Python applications

We have never tried to translate applications into languages other than Basic and C, but it is certainly possible given that the syntax of these languages is similar to C

## Translate other languages and file types

You can translate any type of file but:

- As already written in the first pages **DO NOT translate documentation and books, there are specific applications for doing this.**
- Do not translate executable (HEX) files and all other file types that do not contain text.