

Description and objectives

Multitran Online Client is a program that connects to the web-site multitran.ru and returns translation of words entered by a user. The objective of this program is to ensure an instant access to translations and also to provide some additional functionality.

System requirements

OS: Windows XP and later, Linux

Mac OS X was not tested, however, it is possible to launch the program in this OS.

An Internet connection is required.

Free space: 20 Mb (Windows build)

Free RAM: 20 Mb (Windows build)

Screen resolution: greater than 1024x758, at 1024x758 or less buttons may overlap.

The program can work on slow computers, however, on fast computers its speed will be limited only by the Internet connection.

Installation

You can start the build or the script (source code) itself. The build does not require installation, just copy it in some directory of your choice. To start the script itself, install Python 3 and all corresponding modules.

Additional software that may be required:

Windows (the build): Microsoft Visual C++ 2010 Redistributable Package (x86) (vcredist_x86.exe) (otherwise, you can receive a warning about missing msvcr100.dll)

Linux (the build): xclip

The script: Python 3, an additional installation of html.parser and pyperclip, as well as other modules indicated in the import section, may be required.

In case of starting the program in Linux terminal an error message can appear of that the config file was not found. In this situation, cd to a directory with the script (in case of running the script), or to a directory with the build (in case of running the build). You can also move the build to a separate directory, for example, /opt/mclient, and create a symbolic link in /usr/local/bin or /usr/bin to such script:

```
#!/bin/sh
```

```
cd /opt/mclient/
```

```
./mclient
```

Usage and functionality

You need the Internet to work with this program. If the program is unable to get an article from the web-site, the corresponding warning will be shown. You will need to check the Internet connection and multitran.ru accessibility. If the Internet is up and stable - do not worry, the Multitran will be accessible soon. It is often enough to press "OK" button just after receiving this warning message.

Both one or several words may be requested. If the requested phrase is not found with the current declension or grammatical number, the Multitran will automatically select the necessary declension and number. Thus, if you enter "colorants", then the Multitran will show the article "colorant".

The program properly processes such symbols as á, ß, è, etc.

Titles of dictionaries from which terms are selected are highlighted in green. The current selected term is highlighted in blue. Comments, user names are highlighted in gray. The space between adjacent terms is highlighted in yellow. End dictionary links are processed as they were terms.

After the article is downloaded, the program title changes to the text of your request. If the program has just started, the title shows the program title and build date.

Hotkeys / Mouse gestures

Abbreviations: LMB - left mouse button, RMB - right mouse button, MMB - middle mouse button (pressing mouse wheel)

| Hotkeys | Mouse | Action | Config Key |
|-------------------|-----------------|--|----------------------|
| Program | | | |
| Ctrl-Q | click X | quit the program | bind_quit_now |
| Alt+F4 | MMB or click X | close the window (in the Clipboard mode) | bind_close_top |
| Navigation | | | |
| ← | point at a term | go to the nearest term to the left | bind_move_left |
| → | point at a term | the nearest term to the right | bind_move_right |
| ↑ | point at a term | the first term of the preceding dictionary | bind_move_up |
| ↓ | point at a term | the first term of the following dictionary | bind_move_down |
| Home | point at a term | the first term of the current dictionary | bind_move_line_start |
| End | point at a term | the last term of the current dictionary | bind_move_line_end |
| Ctrl-Home | use the mouse | the first term of the | bind_move_text_start |

| | | | |
|---|--|--|--|
| | wheel to go to the 1 st page, point at a term, use LMB | article | |
| Ctrl-End | use the mouse wheel to go to the last page, point at a term, use LMB | the last term of the article | bind_move_text_end |
| Shift-Home | point at a term | the first term of the current page | bind_move_page_start |
| Shift-End | point at a term | the first term of the current page | bind_move_page_end |
| PageUp | wheel up | the first term of the preceding page | bind_move_page_up |
| PageDown | wheel down | the first term of the following page | bind_move_page_down |
| Translation | | | |
| Shift-Enter (basic or expanded keyboard) | use LMB | translate the current selected term | bind_go_url, bind_go_url_alt, bind_go_url_alt2 |
| Ctrl-Enter | use RMB | Copy the current selected term. The program window will minimize and show a window of a program where the copied term can be inserted. | bind_copy_sel, bind_copy_sel_alt, bind_copy_sel_alt2 |
| Search field | | | |
| Enter | point at the “Search” button, use LMB | translate manually input terms | bind_go_search, bind_go_search_alt |
| Ctrl-V | press the mouse wheel | clear the search field, paste the clipboard contents | bind_paste_search_field |
| Backspace | use RMB | clear the search field | bind_clear_search_field |
| History | | | |
| | use RMB | clear the history | bind_clear_history |

| | | | |
|--------|------------|--|-------------------|
| Alt- ← | - | go to the preceding article in the History | bind_go_back |
| Alt- → | - | go to the following article in the History | bind_go_forward |
| Enter | Double LMB | go to the History entry | bind_get_history |
| | RMB | copy the History entry | bind_copy_history |

You can change key/mouse bindings in the configuration file. Key bindings are given [here](#). LMB is indicated as <ButtonRelease-1>, MMB – <ButtonRelease-2>, RMB – <ButtonRelease-3>. Bindings should be embraced with “>”, “<”, for example: <Control-F10>; <ButtonRelease-1>.

The language pair can be selected on the drop-down list. All language pairs currently present on the Multitran are supported. Please note that, if, for example, the English-Russian language pair is selected, you do not have to switch to the Russian-English pair (not counting the keyboard layout), because the Multitran can automatically determine the language of the term entered by you.

In order to switch between buttons using keyboard, press Tab and Shift-Tab. A button can be activated by the left mouse button click, Enter (on the basic or expanded keyboard) or Space.

You can enable/disable the history of requests by pressing the button "History". Requests are sorted from the newest to the oldest. You can repeat a request by clicking the required term once in the history field. You can scroll the history field using the mouse wheel.

Use the function "Clipboard" to translate terms from the clipboard. The language pair, as always, is determined by the value provided by the drop-down list. After you have pressed the button "Clipboard", the current window will be closed and a small window with the title 'Change clipboard...' will show up. Since that the program with 1 second delay will check whether the clipboard has changed. After the clipboard has changed, the program will load the new article

correspondingly to the value stored in the clipboard. Please note: in a normal mode closing the article window will cause the program to exit. However, in the "Clipboard" mode after the article window has shown up, you will have to close it manually (pressing Alt-F4 or clicking "X"). The clipboard will be checked only when the current article window is closed. Please note that it is necessary to close the current article window in the "Clipboard" mode by pressing Alt-F4 or clicking "X", and not the "Exit" button, because pressing this button will cause the program to exit even in the "Clipboard" mode.

If the "Clipboard" mode is activated, then the text of the corresponding button becomes red. You can disable the clipboard scanning by pressing the corresponding button again. Please note that if the "Clipboard" mode is enabled, translating terms not by means of the clipboard but using the search, article or history fields will automatically disable this mode. This is the normal behavior and is reasoned by the logic of priorities used in the program.

In order to open the current article in a default browser, press the button "In a browser".

The program currently supports 2 interface languages - Russian and English. In order to switch between them, press buttons 'In English' and 'На русском' correspondingly.

In order to look up the copyright information, press "About".

To exit the program, close the current window or press "Exit". Please note that in the "Clipboard" mode closing the current window will not cause the program to close. To exit the program in this mode press "Exit".

Configuration file

You can adjust your settings in the configuration file **main.cfg**, which must be located either in the same directory with the program (in case of a build), or in the directory /usr/local/bin (a Linux script).

The configuration file must have the following sections (in square brackets):

[Linux settings], [Windows settings], [Mac settings], [Variables], [Integer Values], [Floating Values], [Boolean]

and the following keys:

In the section [Variables]:

color_terms, color_terms_sel, color_dics, color_comments, color_borders,
font_history, font_terms, font_terms_sel, font_dics, font_comments, window_size,
icon_mclient, bind_get_history, bind_copy_history, bind_clear_search_field,
bind_paste_search_field, bind_go_back, bind_go_forward, bind_move_left,
bind_move_right, bind_move_down, bind_move_up, bind_move_line_start,
bind_move_line_end, bind_move_text_start, bind_move_text_end,
bind_move_page_start, bind_move_page_end, bind_move_page_up,
bind_move_page_down, bind_go_url, bind_go_url_alt, bind_go_url_alt2,
bind_copy_sel, bind_copy_sel_alt, bind_copy_sel_alt2, bind_go_search,
bind_go_search_alt, bind_clear_history

In the section [Integer Values]:

pixel_hack

In the section [Boolean]:

ShowWallet, TermsColoredSep, AlwaysMaximize, mclientSaveTitle

Adjustable parameters are set after the equal sign. They should not be used inside quotation marks. Spaces inside parameters are allowed.

In order to ignore certain lines of the configuration file (comments, examples, etc.), put # at the beginning of a line. Such lines will not be loaded.

The [Boolean] section allows only the following parameters: True or 1 (an option is enabled), False or 0 (an option is disabled).

Colors

You can select a desirable color by consulting an image “color chart.png” in the ZIP archive containing the program. Set the necessary color name after the equal sign. Spaces just before or after the equal sign are allowed.

Fonts

In Windows: Open the directory C:\WINDOWS\Fonts and get the short name of a desirable font. For example, Times New Roman is designated as TIMES, Segoe UI – as SEGOEUI. Set this short title (case-insensitive) after the equal sign.

In Linux: Open a directory with fonts, for example, /usr/share/fonts, then find the necessary font (for example, truetype/ttf-dejavu/DejaVuSansMono.ttf) and extract the title (for example, DejaVuSansMono). Set this title (also case-insensitive) after the equal sign.

After you have indicated a font title, put the space and a point size (for example, 14) and then put the space and a font attribute, for example, underline, **bold** or *italic*. You can combine underline, bold and italic. As a result, you must get, for example, the following: **font_dics=Arial 12 bold italic underline**

Parameters

At the moment, you can adjust the following parameters:

color_terms

Section: [Variables]

Meaning: A font color of terms

Example: color_terms=black

color_terms_sel

Section: [Variables]

Meaning: A background color of the selected (current) term

Example: color_terms_sel=cyan

color_dics

Section: [Variables]

Meaning: A font color of dictionary titles

Example: color_dics=light blue

color_comments

Section: [Variables]

Meaning: A font color of commentaries and user names

Example: color_comments=gray

color_borders

Section: [Variables]

Meaning: A terms delimiting color

Example: color_borders=khaki

font_history

Section: [Variables]

Meaning: A font of a text in the History area

Example: font_history=ARIAL 12

font_terms

Section: [Variables]

Meaning: A font of terms

Example: font_terms=Times 14

font_terms_sel

Section: [Variables]

Meaning: A font of the selected (current) term

Example: font_terms_sel=Times 14 bold italic

font_dics

Section: [Variables]

Meaning: A font of dictionary titles

Example: font_dics = Sans 14 bold underline

font_comments

Section: [Variables]

Meaning: A font of commentaries

Example: font_comments = Sans 14 italic

window_size

Section: [Variables]

Meaning: Force a window size (works only when AlwaysMaximize=False)

Example: window_size=1024x768

icon_mclient

Section: [Variables]

Meaning: Indicate a program icon. The icon file must be GIF and be located in the same directory as the program. An image used by default is a converted image /usr/share/icons/oxygen/64x64/apps/accessories-dictionary.png from Crunchbang.

Example: icon_64x64_mclient.gif

pixel_hack

Section: [Integer Values]

Meaning: Set a number of pixels from window borders, within which text is not readable. To disable, set to 0.

Example: pixel_hack=18

AlwaysMaximize

Section: [Boolean]

Meaning: Maximize a new window (True, 1) or not (False, 0)

Example: AlwaysMaximize=1

TermsColoredSep

Section: [Boolean]

Meaning: Use color `color_borders` to separate terms; if False, then use a semicolon

Example: `TermsColoredSep=0`

mclientSaveTitle

Section: [Boolean]

Meaning: Always show only the client title and version in the window title (True, 1), or show a current request (False, 0); at the first request the client title and version is always shown

Example: `mclientSaveTitle=0`

Known issues

Sometimes an HTML code fragment, particularly, a URL fragment, can be witnessed. If you notice that the program window lacks some text fragments or, vice versa, excessive fragments have been added, open the page in the browser and send me an address (URL) of this page. You can send me an e-mail in the window "About".

If you have discovered that the program has "crashed", firstly check the list of running applications by pressing Alt-Tab. Sometimes the window shows behind windows of other applications and not above them. If you have discovered that the program permanently crashes when loading a certain page, please e-mail me the URL of this page.

User comments are not shown inside other user comments if there is no tag before the comment.

Too great value of pixel_hack freezes the program.

Scrollbar needs to be fixed, especially, on Windows.

Linux uses 2 clipboards, thus, double paste can occur when using MMB for pasting into the search field.

Potential enhancements

Eliminate the revealed bugs.

Assign F1-F12 keys to the program buttons.

Save web-page on a hard drive.

Do not use pixel_hack.

Use URL, not strings, when navigating to preceding/following page.

Use a more modern localization technique.

To developers

The program is distributed on the terms of GPL v.3. The program interface is translated into Russian (mes_ru.py) and English (mes_en.py), but you can add your own translations. Please note that these files store all messages used by me in various projects, not only in this one. Comments in the source code are mainly in Russian - sorry. If you decide to fork this program, you may want to contact me first in order not to duplicate efforts.