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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: 1024x758 or greater.

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

Windows (script): Install Python 3. Execute: pip install tkinterhtml

Install the required versions of pywin32 and pyHook from this site.

Note that the original pyHook has a bug that causes the program to crash if taking focus at a window with non-lating symbols in its heading. pyHook must be rebuilt in order to eliminate the bug, The

rebuilt library is available in the Windows build. Note that the library must be rebuilt using the Python version that is currently used. mclient for Windows was built using Python 3.4.

In order to rebuild, modify cpyHook.i such that the win_name variable (used several times) would not cause the bug, for example, assign a constant to it. Later, follow [instructions on how to build pyHook](.).

Attention: Python 3.5 supports OSes that are newer than XP. If you need XP, use Python 3.4.

Antiviruses may warn about a keylogger, since *mclient* captures keypresses in other applications in order to monitor clipboard. Data on keypresses is not stored anywhere and is not sent anywhere. If Ctrl-c-c and Ctrl-Ins-Ins hotkeys do not work, whitelist *mclient* in antiviruses and turn off clipboard managers (if any).

Linux (script): Install Python 3. Execute: pip install tkinterhtml python3-xlib

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.

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 requsted. 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.

Hotkeys / Mouse gestures

Abbreviations: LMB – left mouse button, RMB – right mouse button, MMB – middle mouse button

Hotkeys	Mouse	Action	Config Key
Program			
Ctrl-q, Alt-F4	click X	quit the program	bind_quit_now
Esc	click MMB	minimize the window	bind_iconify
F1	Button "About"	program info	bind_show_about
Navigation			
←	point at a cell	go to the nearest cell to the left	bind_move_left
→	point at a cell	the nearest cell to the right	bind_move_right
↑	point at a cell	the previous cell of the current column	bind_move_up
↓	point at a cell	the following cell of the current column	bind_move_down

Home	point at a cell	the first cell of the current line	bind_move_line_start
End	point at a cell	the last cell of the current line	bind_move_line_end
Ctrl-Home	use the mouse wheel to go to the 1st page, point at a term, use LMB	the first cell of the article	bind_move_text_start
Ctrl-End	use the mouse wheel to go to the last page, point at a term, use LMB	the last cell of the article	bind_move_text_end
PageUp	wheel up	the preceding page	bind_move_page_up
PageDown	wheel down	the following page	bind_move_page_down
F6	click the search field	activate the search field	bind_search_field
Article			
F2, Ctrl-s	Button "Save"	save or copy	bind_save_article, bind_save_article_alt
F3	-	search down	bind_search_article_forward
Ctrl-F3	Button "Search"	new search	bind_re_search_article
F5, Ctrl-r	Button "Reload"	reload	bind_reload_article, bind_reload_article_alt
F6, Ctrl-Shift-v	Button "Toggle view"	toggle the article view mode	bind_toggle_view, bind_toggle_view_alt
F7, Ctrl-b	Button "Browse"	open the current article in a browser	bind_open_in_browser, bind_open_in_browser_alt
F8, Ctrl-L	LMB on a pull-down menu	select the next language pair	bind_next_pair, bind_next_pair_alt
Shift-F8, Ctrl-Shift-L	LMB on a pull-down menu	select the previous language pair	bind_prev_pair, bind_prev_pair_alt
Ctrl-d	Button "Define"	define the current term	bind_define
Control-F7	-	copy the URL of the current term to clipboard	bind_copy_url
Shift-F7	-	copy the URL of the article to clipboard	bind_copy_article_url
Control-Delete	-	delete the current cell	bind_delete_cell
Control-Insert	-	add an empty cell before the current one	bind_add_cell
Translation			
Enter (basic or expanded keyboard)	use LMB	translate the current selected cell	bind_go_url
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
	Button "Clipboard"	Translate a word or a phrase from the clipboard by	

		capturing Ctrl-c-c or Ctrl-Ins-Ins from a third-party application.	
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
!	Button "Paste current request"	copy the last request to clipboard and paste it in the search field	repeat_sign
!!	Button "Paste previous request"	copy the next-to-last request to clipboard and paste it in the search field	repeat_sign2
Ctrl-a	-	select all text	-
Ctrl-e	Button "Symbols"	Paste a special symbol	bind_spec_symbol
History			
F4, Ctrl-h	Button "History"	show/hide the history	bind_toggle_history, bind_toggle_history_alt
Ctrl-Shift-Del	use RMB on the "History" button, use LMB on the "Clear History" button	clear the history	bind_clear_history, bind_clear_history_alt
Alt-←	Button "←"	go to the preceding article in the History	bind_go_back
Alt-→	Button "→"	go to the following article in the History	bind_go_forward
↑, ↓	LMB	go to the History entry	-
	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>. Capital letters in a hotkey mean pressed Shift, for example, <Control-V> means Ctrl-Shift-v.

The language pair can be selected on the drop-down list. 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.

In order to paste a symbol missing on your keyboard, press the button "Symbols". You can delete or add symbols (see the *spec_syms* key in the configuration file).

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 Ctrl-c-c or Ctrl-Ins-Ins combination is captured in any application that supports copying by Ctrl-c/Ctrl-Ins, *mclient* will load the new article correspondingly to the value stored in the clipboard.

If the "Capture Ctrl-c-c and Ctrl-Ins-Ins" mode is activated, then the color of the corresponding button becomes blue. You can disable Ctrl-c-c/Ctrl-Ins-Ins scanning by pressing the corresponding button again.

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

In order to get a definition of the current term, press the button "Define". Please note that the button "Define" provides the definition only for the article title, whereas the Ctrl-d combination (the *bind_define* key) provides the definition for the current selected term.

The program currently supports 2 interface languages – Russian and English. In order to switch between them, set ui_lang key value (*ru* or *en*) in a configuration file.

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

To exit the program, close the current window or press "Exit".

Configuration file

You can adjust yourt settings in the configuration file **mclient.cfg**, which must be located either in the same directory with the program (in case of a build), or in a directory with the source code.

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.

As a result, you must get, for example, the following:

font_comments_family=Mono

font_comments_size=3

Buttons

Button images can be set individually. These images must be in a GIF format, be present in the *resources* directory and their height and width must be the same and equal to *default_button_size* (36 by default). Paths to buttons are set in the corresponding keys (icon_*) of the configuration file. The majority of default images have been taken from the Oxygen collection.

Sample configuration file

```
[Boolean]
# Possible values in this section: 0 (False) or 1 (True)
# Hide the special symbol window after pasting the 1st symbol
AutoCloseSpecSymbol=1
# Copy terms only (True) or copy the entire cell contents (False)
CopyTermsOnly=1
# Show a translation of the last word of a phrase that was not found
ExploreMismatch=0
# Miminize the window after some operations, for example, copying
Iconify=1
# Select terms only
SelectTermsOnly=1
# Do not duplicate requests in the History
ShortHistory=1


[Integer Values]
# (Experts only) A height/width of a square button
default_button_size=36
# A tooltip border width (set to 0 to disable)
default_hint_border_width=1
# A delay before a tooltip shows up, milliseconds
default_hint_delay=800
# A height of a tooltip in pixels
default_hint_height=40
# A width of a tooltip in pixels
default_hint_width=280
# A font size of comments
```

```
font_comments_size=3
# A font size of dictionary titles
font_dics_size=4
# A font size of part-of-speech sections
font_speech_size=4
# A font size of terms
font_terms_size=4


[Variables]
# Attention: some combinations, for example, <Button-1> and <Double-Button-1>
may conflict. Reassign them carefully.
# Hotkeys or mouse buttons for actions:
# Add a cell
bind_add_cell=<Control-Insert>
# Clear the history ("Show the History" button)
bind_clear_history=<ButtonRelease-3>
# Clear the history
bind_clear_history_alt=<Control-Shift-Delete>
# Clear the search field
bind_clear_search_field=<ButtonRelease-3>
# Copy the URL of the current article
bind_copy_article_url=<Shift-F7>
# Copy a history item
bind_copy_history=<ButtonRelease-3>
# Copy the current selection from a article (combination 1)
bind_copy_sel=<Control-Return>
# Copy the current selection from a article (combination 2)
bind_copy_sel_alt=<Control-KP_Enter>
# Copy the current selection from a article (combination 3)
bind_copy_sel_alt2=<ButtonRelease-3>
# Copy the URL of the selected term
bind_copy_url=<Control-F7>
# Delete a cell
bind_delete_cell=<Control-Delete>
# Open a webpage with a definition of the current term
bind_define=<Control-d>
# Go to the preceding article
bind_go_back=<Alt-Left>
# Go to the following article
bind_go_forward=<Alt-Right>
# Search the selected term online using the search field (combination 1)
```

```
bind_go_search=<Return>
# Search the selected term online using the search field (combination 2)
bind_go_search_alt=<KP_Enter>
# Go to the URL of the current selection in the article (combination 1)
bind_go_url=<Button-1>
# Minimize the window
bind_iconify=<ButtonRelease-2>
# Go to the following cell of the current column
bind_move_down=<Down>
# Go to the preceding term
bind_move_left=<Left>
# Go to the last cell of the current line
bind_move_line_end=<End>
# Go to the first cell of the current line
bind_move_line_start=<Home>
# Page down
bind_move_page_down=<Next>
# Page up
bind_move_page_up=<Prior>
# Go to the following term
bind_move_right=<Right>
# Go to the last cell of the current article
bind_move_text_end=<Control-End>
# Go to the first cell of the current article
bind_move_text_start=<Control-Home>
# Go to the previous cell of the current column
bind_move_up=<Up>
# Select the next language pair (combination 1)
bind_next_pair=<F8>
# Select the next language pair (combination 2)
bind_next_pair_alt=<Control-l>
# Paste clipboard contents into the search field (hardcoded combination:
Ctrl-V)
bind_paste_search_field=<ButtonRelease-2>
# Select the previous language pair (combination 1)
bind_prev_pair=<Shift-F8>
# Select the previous language pair (combination 2)
bind_prev_pair_alt=<Control-L>
# Quit the program (combination 1)
bind_quit_now=<Control-q>
# Quit the program (combination 2)
```

```
bind_quit_now_alt=<F10>
# Open the current article in a browser (combination 1)
bind_open_in_browser=<F7>
# Open the current article in a browser (combination 2)
bind_open_in_browser_alt=<Control-b>
# Reload the current article (combination 1)
bind_reload_article=<F5>
# Reload the current article (combination 2)
bind_reload_article_alt=<Control-r>
# Start a new search in the terms of the current article
bind_re_search_article=<Control-F3>
# Save or copy the current article (combination 1)
bind_save_article=<F2>
# Save or copy the current article (combination 2)
bind_save_article_alt=<Control-s>
# Search the article backward
bind_search_article_backward=<Shift-F3>
# Search the article forward
bind_search_article_forward=<F3>
# About the program
bind_show_about=<F1>
# Paste a special symbol
bind_spec_symbol=<Control-e>
# Show/hide the history (combination 1)
bind_toggle_history=<F4>
# Show/hide the history (combination 2)
bind_toggle_history_alt=<Control-h>
# Toggle the current article view (combination 1)
bind_toggle_view=<F6>
# Toggle the current article view (combination 2)
bind_toggle_view_alt=<Control-V>
# A font color of user names and comments
color_comments=gray
# A font color of dictionary titles
color_dics=cadet blue
# A font color of parts of speech
color_speech=red
# A font color of terms
color_terms=black
# A background color of the current (selected) term
color_terms_sel_bg=cyan
```

```
# A foreground color of the current (selected) term
color_terms_sel_fg=black
# A background color for a tooltip. Human-readable names, such as 'yellow', are
also supported
default_hint_background=#ffffe0
# Set whether a tooltip should appear above a button ('top') or beneath it
('bottom')
default_hint_direction=top
# A tooltip border color
default_hint_border_color=navy
# A font of user comments and names
font_comments_family=Mono
# A font of dictionary titles
font_dics_family=Arial
# A font of a text in the history field
font_history=Arial 12
# A font of parts of speech
font_speech_family=Arial
# A GUI font
font_style=Sans 14
# A font of terms
font_terms_family=Serif
# A font of the selected (current) term
font_terms_sel=Sans 14
# A path to images in a GIF format (pictograms and buttons)
# A button to clear the history
icon_clear_history=icon_36x36_clear_history.gif
# A button to clear the search field
icon_clear_search_field=icon_36x36_clear_search_field.gif
# A button to define a term
icon_define=icon_36x36_define.gif
# A button to go to the preceding article
icon_go_back=icon_36x36_go_back.gif
# A button to go to the preceding article (inactive)
icon_go_back_off=icon_36x36_go_back_off.gif
# A button to go to the following article
icon_go_forward=icon_36x36_go_forward.gif
# A button to go to the following article (inactive)
icon_go_forward_off=icon_36x36_go_forward_off.gif
# A button to send a request from the search field to the server
icon_go_search=icon_36x36_go_search.gif
```

```
# A pictogram of mclient
icon_mclient=icon_64x64_mclient.gif
# A button to open the current article in a browser
icon_open_in_browser=icon_36x36_open_in_browser.gif
# A button to paste clipboard in the search field
icon_paste=icon_36x36_paste.gif
# A button to quit mclient
icon_quit_now=icon_36x36_quit_now.gif
# A button to reload the current article
icon_reload=icon_36x36_reload.gif
# A button to paste the last history item in the the search field
icon_repeat_sign=icon_36x36_repeat_sign.gif
# A button to paste the last history item in the the search field (inactive)
icon_repeat_sign_off=icon_36x36_repeat_sign_off.gif
# A button to paste the last but one history item in the the search field
icon_repeat_sign2=icon_36x36_repeat_sign2.gif
# A button to paste the last but one history item in the the search field
(inactive)
icon_repeat_sign2_off=icon_36x36_repeat_sign2_off.gif
# A button to save or copy the current article
icon_save_article=icon_36x36_save_article.gif
# A button to search in the current article
icon_search_article=icon_36x36_search_article.gif
# A button to show the information about the program
icon_show_about=icon_36x36_show_about.gif
# A button to paste a special symbol
icon_spec_symbol=icon_36x36_spec_symbol.gif
# A button to toggle the history field
icon_toggle_history=icon_36x36_toggle_history.gif
# Buttons to toggle the current article view
icon_toggle_view_hor=icon_36x36_toggle_view_hor.gif
icon_toggle_view_ver=icon_36x36_toggle_view_ver.gif
# A button to capture Control-c-c (inactive)
icon_watch_clipboard_off=icon_36x36_watch_clipboard_off.gif
# A button to capture Control-c-c (active)
icon_watch_clipboard_on=icon_36x36_watch_clipboard_on.gif
# A search field contents to paste the last history item there
repeat_sign=!
# A search field contents to paste the last but one history item there
repeat_sign2=!!
# Symbols to paste to the search field
```

Actual version: 4.7.1

```
spec_syms=àáâäãæßćĉçèéêēëëəɾĝǵĥìíîïīĵķļñņòóôõöōœøšùúûūŭūüýÿžӿӿқнəⴻγɣÀÁÂÄÃÆSSĆĈÇ
ÈÉÊĒËËƎⲄĜĢĤÌÍÎÏĪĴĶĻÑŅÒÓÔÕÖŌŒØŠÙÚÛŪŬŪÜÝŸŽӾӾҚHⴻY¥
# The interface language (ru, en)
ui_lang=ru
# A URL fragment to enable search on the Internet
web_search_url=http://www.google.ru/search?
ie=UTF-8&oe=UTF-8&sourceid=navclient=1&q=%%s
#web_search_url=http://www.bing.com/search?
ie=UTF-8&oe=UTF-8&sourceid=navclient&gfns=1&q=%%s
# (Experts only) Multitran encoding
win_encoding=windows-1251
```

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".

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

Potential enhancements

Eliminate the revealed bugs.

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.

Actual version: 4.7.1