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## Description and objectives

Multitrans Online Client is a program that connects to the web-sites multitrans.ru and multitrans.com, loads local Stardict dictionaries 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 (for web-sites).

Free space: 32 Mb (Windows build)

Free RAM: 30 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 (in the .exe format in Windows and as AppImage in Linux) or the script (source code) itself. The build does not require installation, just copy it in some directory of your choice. AppImage: allow execution (chmod +x \*.AppImage) and start as a common program. To start the script itself, install Python 3 and all corresponding modules.

Additional software that may be required:

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

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-latin 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 six python3-xlib`

Linux (build): Setup FUSE. Launch AppImage.

### Usage and functionality

You need the Internet to work with online sources. 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 accessibility of sites (`multitrans.ru`, etc.). If the Internet is up and stable – do not worry, the Multitrans 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 Multitrans will automatically select the necessary declension and number. Thus, if you enter "colorants", then the Multitrans 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
<b>Program</b>			
Ctrl-q, Alt-F4, F10	click X	quit the program	bind_quit
Esc	click MMB	minimize the window	
F1	Button "About"	program info	bind_show_about
<b>Navigation</b>			
←	point at a cell	go to the nearest cell to the left	
→	point at a cell	the nearest cell to the right	
↑	point at a cell	the previous cell of the current column	
↓	point at a cell	the following cell of the current column	
Home	point at a cell	the first cell of the current line	
End	point at a cell	the last cell of the current line	
Ctrl-Home	use the mouse wheel to go to the 1 <sup>st</sup> page, point at a term, use LMB	the first cell of the article	
Ctrl-End	use the mouse wheel to go to the last page, point at a	the last cell of the article	


	term, use LMB		
PageUp	wheel up	the preceding page	
PageDown	wheel down	the following page	
<b>Article</b>			
F2, Ctrl-s	Button 	save or copy	bind_save_article, bind_save_article_alt
F3	-	search down	bind_search_article_forward
Shift-F3	-	reverse search	bind_search_article_backward
Ctrl-F3	Button 	new search	bind_re_search_article
F5, Ctrl-r	Button 	reload	bind_reload_article, bind_reload_article_alt
F6, Alt-v	Button 	toggle the article view mode	bind_toggle_view, bind_toggle_view_alt
F7, Ctrl-b	Button 	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 the current term	bind_define
Shift-F7	-	copy the URL of the current term to clipboard	bind_copy_url
Control-F7	-	copy the URL of the article to clipboard	bind_copy_article_url
<b>Translation</b>			
Enter (basic or expanded keyboard)	Use LMB	Translate the current selected cell	
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
	Button 	Translate a word or a phrase from the clipboard by capturing Ctrl-c-c or Ctrl-Ins-Ins from a third-party application.	
<b>Search field</b>			
Enter	point at the “Search” button, use LMB	translate manually input terms	
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 	copy the last request to	repeat_sign


		clipboard and paste it in the search field	
!!	Button 	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 	Paste a special symbol	bind_spec_symbol
<b>History</b>			
F4, Ctrl-h	Button 	show/hide the history	bind_toggle_history, bind_toggle_history_alt
Ctrl-Shift-Del	Use RMB button  on the	clear the history	bind_clear_history
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	


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. L is capital in the table above just to avoid confusion.

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. Owing to the specifics of multitran.ru, Russian-Kazakh and Kazakh-Russian pairs are implemented as separate.


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 . 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 . 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.

Press the button  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 .

In order to get a definition of the current term, press the button . Please note that this button provides the definition only for the article title, whereas the Ctrl- combination (the *bind\_define* key) provides the definition for the current selected term.

The program currently supports 2 interface languages – Russian and English. The interface language is determined automatically on the basis of the system language.

In order to look up the copyright information, press .

To exit the program, close all its windows or press .

### Configuration file

You can adjust your settings in the configuration file **mclient.cfg**, which must be located in C:\users\<USER>\Application Data\mclient (Windows) or \$HOME/.config/mclient (Linux). If the configuration file is missing then it will be created.

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).

When editing **mclient.cfg** manually, you should ensure that the text editor does not set the BOM mark. The standard Windows editor notepad.exe is not suitable for editing the configuration file. We suggest using Akelpad or the like.

### 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 in the configuration file. Spaces just before or after the equal sign are allowed. Colors of prioritized and blocked dictionaries depend on a color of the column where these dictionaries are indicated. The color of the prioritized dictionary is more saturated and the color of the blocked dictionary is less saturated than the color of the column where these dictionaries are indicated.

### **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). The majority of default images have been taken from the Oxygen collection.

### **Issues**

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”.

### **Potential enhancements**

Add new dictionary sources.

### **To developers**

The program is distributed on the terms of GPL v.3. The program interface is translated (resources/locale) into Russian and English, but you can add your own translations.