

## **Description and objectives**

Multitran Online Client is a program that connects to the web-site [multitran.ru](http://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
<b>Program</b>			
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
<b>Navigation</b>			
←	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 <sup>st</sup> 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
<b>Translation</b>			
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
<b>Search field</b>			
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, MBSysEnabled
Backspace	use RMB	clear the search field	bind_clear_search_field
<b>History</b>			
	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

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]:

MBSysEnabled, 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

### **MBSysEnabled**

Section: [Boolean]

Meaning: If paste by MMB works on the system level (True, 1), disable paste by MMB in the program

Example: MBSysEnabled=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.

### **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.