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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: 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): glibc 2.19-18

The script: Python 3, an additional installation of html.parser, 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 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.

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 adjacents 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	bind_close_top

		Clipboard mode)	
F1	Button "About"	program info	bind_show_about
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 wheel to go to the 1st page, point at a term, use LMB	the first term 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 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
F6	click the search field	activate the search field	bind_search_field
Article			
F2	Button "Save"	save or copy	bind_save_article
F3	-	search down	bind_search_article
Ctrl-F3	Button "Search in article"	new search	bind_re_search_article
F5	Button "Reload"	reload	bind_reload_article
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	bind_copy_sel, bind_copy_sel_alt, bind_copy_sel_alt2

		inserted.	
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
History			
	use RMB	clear the history	bind_clear_history
Alt-←	Button "Go to the preceding article"	go to the preceding article in the History	bind_go_back
Alt-→	Button "Go to the following article"	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 priotiries 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 yourt 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).

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

Buttons

Button images can be set individually. These images must be in a GIF format, 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

```
[Linux settings]

[Windows settings]

[Mac settings]

[Variables]
# Attention: some combinations, for example, <Return> and <Control-Return> may
conflict. Reassign them carefully.
# Hotkeys or mouse buttons for actions:
# Clear the history
bind_clear_history=<ButtonRelease-3>
# Clear the search field
bind_clear_search_field=<ButtonRelease-3>
# Close the current window (Clipboard Mode)
bind_close_top=<ButtonRelease-2>
# 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>
# Go to a history item
bind_get_history=<Double-Button-1>
# 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=<Shift-Return>
# Go to the URL of the current selection in the article (combination 2)
bind_go_url_alt=<Shift-KP_Enter>
# Go to the URL of the current selection in the article (combination 3)
bind_go_url_alt2=<Button-1>
# Go to the next line
bind_move_down=<Down>
# Go to the preceding term
bind_move_left=<Left>
# Go to the last term of the current dictionary
bind_move_line_end=<End>
# Go to the first term of the current dictionary
bind_move_line_start=<Home>
# Page down
bind_move_page_down=<Next>
# Go to the last term of the current page
bind_move_page_end=<Shift-End>
# Go to the first term of the current page
bind_move_page_start=<Shift-Home>
# Page up
bind_move_page_up=<Prior>
# Go to the following term
bind_move_right=<Right>
# Go to the last term of the current article
bind_move_text_end=<Control-End>
```

```
# Go to the first term of the current article
bind_move_text_start=<Control-Home>
# Go to the previous line
bind_move_up=<Up>
# Paste clipboard in the search field (internal combination: Ctrl-V)
bind_paste_search_field=<ButtonRelease-2>
# Quit the program (including the Clipboard Mode)
bind_quit_now=<Control-q>
# Reload the current article
bind_reload_article=<F5>
# Start a new search in the terms of the current article
bind_re_search_article=<Control-F3>
# Save or copy the current article
bind_save_article=<F2>
# Search the article backward
bind_search_article_backward=<Shift-F3>
# Search the article forward
bind_search_article_forward=<F3>
# Go to the search field
bind_search_field=<F6>
# About the program
bind_show_about=<F1>
# A color to separate terms (when TermsColoredSep=1)
color_borders=azure2
# 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 terms
color_terms=black
# A background color of the current (selected) term
color_terms_sel=cyan
# 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=Sans 12
# A font of dictionary titles
font_dics=Sans 14
# A font of a text in the history field
font_history=Arial 12
# A font of terms
font_terms=Sans 14
# 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 change the interface language (RU-EN)
icon_change_ui_lang=icon_36x36_change_ui_lang.gif
# 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 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
# Кнопка для перехода на последующую статью
# 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 the main program which comprises mclient
icon_main=icon_64x64_main.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 (including in the Clipboard Mode)
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 terms of 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 toggle the history field
icon_toggle_history=icon_36x36_toggle_history.gif
# A button to watch changes in the clipboard (the Clipboard Mode is off)
icon_watch_clipboard_off=icon_36x36_watch_clipboard_off.gif
# A button to watch changes in the clipboard (the Clipboard Mode is on)
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=!!
# A default window size (when AlwaysMaximize=0)
window_size=1024x768

[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=30
# A width of a tooltip in pixels
default_hint_width=280
# (Experts only) Text indentation
```

```
pixel_hack=18


[Floating Values]


[Boolean]
# Possible values in this section: 0 (False) or 1 (True)
# A window should always be maximized
AlwaysMaximize=1
# Show only a client title and version in the mclient window (True), or show the
current request (False). The client title and version are always shown after
loading.
mclientSaveTitle=0
# Show a donate button
ShowWallet=1
# Change a background of a space between terms to color_borders (True) or
separate the terms with a semicolon (False)
TermsColoredSep=0
# Always create text only buttons (True), or create buttons with graphics
(False)
TextButtons=0
# Create buttons for additional actions for which there are hotkeys already
UseOptionalButtons=1
```

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.

When saving an article on Windows, indicate an extension manually, otherwise the resulting file will have the extension ".htm" irrespective of its format.

When the article is loaded, changing window sizes is not taken into consideration.

Potential enhancements

Eliminate the revealed bugs.

Assign F1-F12 keys to the program buttons.

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.