ECT
MORSE

ECTmorse Pro
User's Manual

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About ECTmorse

ECTmorse (EyeComTec Morse) is a program which was developed to allow users to type text with universal Morse code.

It can be used as an assistive technology for patients with various forms of paralysis. It is also useful for people with diseases which can significantly reduce motor activity. Due to its low technical requirements, the program can be launched on virtually any personal computer or laptop. Furthermore, the **ECTmorse program** is portable, meaning that it can be launched from any external data storage device without a long installation procedure.

The program is intuitive and very easy to use. **ECTmorse** can be controlled with one single button. The usage of one controlling channel makes it possible to offer this program to fully paralyzed patients, who have eye movement only. In such cases, an eye-tracking device or specialist equipment for eyelid- tracking is required. The typed information is shown in the main window of the program, in form of a text file or in Morse code, making it possible to check its accuracy.

The program has a very convenient interface, providing a wide choice of settings and parameters. Users can set the volume and frequency of sounds to play, time intervals for any action, and define special controlling commands, which are performed after predefined periods of idle time or while holding down a key.

The ECTmorse program has several language settings installed, which make it easy and convenient for users from various parts of the world. This program works in English by default.

Main advantages of ECTmorse

ECTmorse has several significant advantages, distinguishing it favorably from any other applications with similar functionality:

- **Price**. **ECTmorse** is freely available and can be used on a free basis for personal non-commercial purpose. Users can download the program from the www.eyecomtec.com website and can start to use it immediately after downloading.
- **Accessibility**. The program has incredibly low technical requirements, and can thus belaunched on any laptop or personal computer. The small size of **ECTmorse** allows users to download it even with very slow internet connection speed .
- **Portability**. **ECTmorse** can be stored on any portable device together with the user data and all settings, and can be executed from any device. There's no need to install it on the computer of the user or copy any files.
- **Versatility**. The program is totally flexible. The user can change time intervals, specify any desired signal frequency and volume, as well as changing the location of custom files. The user can totally change the Morse code vocabulary by adding new symbols or commands. Such an approach gives each user their own personal settings profile, which totally satisfies his or her needs and physical abilities.
- **One key control!** The existence of only one controlling channel makes it possible to use this program with eye-tracking devices, as well as various manipulators or pedals for patients with reduced motor activity
- **Unlimited amount of user profiles**. Each user of **ECTmorse** can have one or several personal profiles, which contain all the settings, including even full paths to alternative Morse code vocabularies. Such profiles can be easily switched and transferred from one computer to another.
- **Fast work**. All the main elements of the program are assigned with shortcut 'hot keys', which can be set up in a couple of minutes. The fact that the user can change the telegraph speed with one single parameter also significantly increases the overall speed of the program operation.
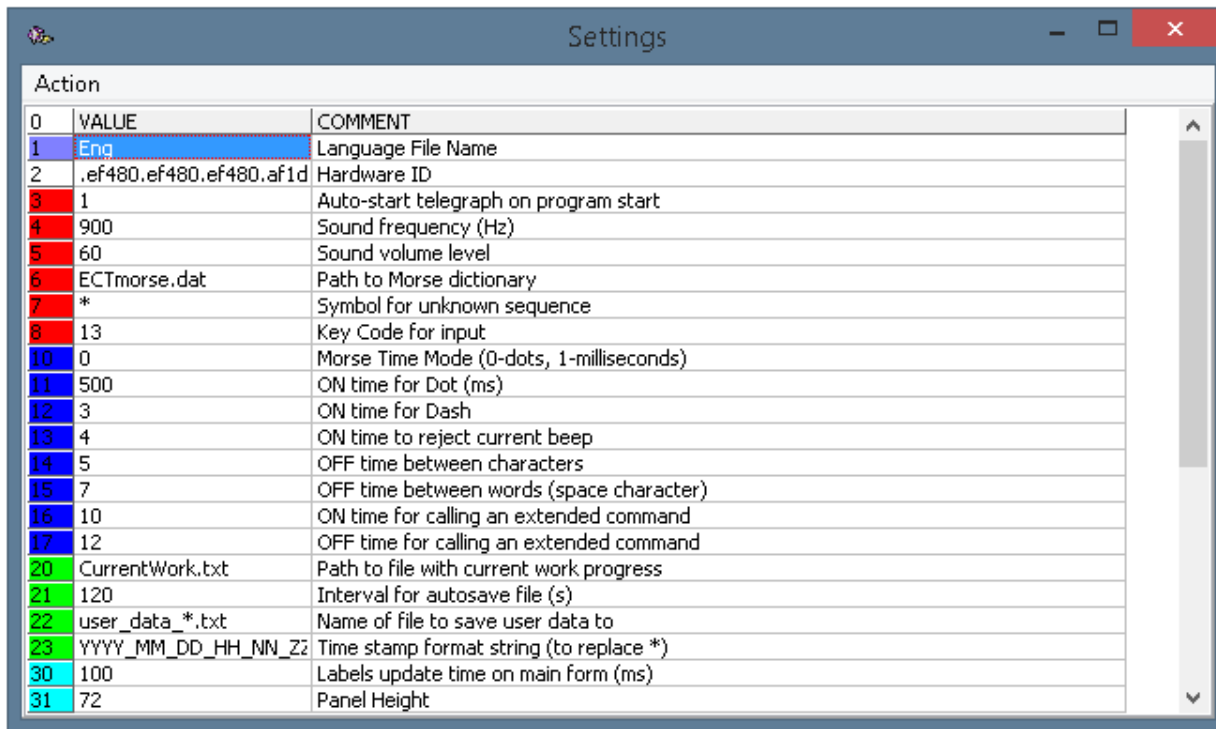
All these features make **ECTmorse** incredibly easy to use, yet an astonishingly convenient software solution, which can be used as at home, as well as in special medical institutions and rehabilitation centers.

First launch of ECTmorse. Getting started

ECTmorse is ready to operate immediately after downloading. There's no need to install the program, it simply launches itself via ECTmorse.exe. The user can change several general parameters when it's necessary, to:

- choose the working mode of the program;
- set the key code, which is used to hold the telegraph key;
- select the location of the Morse code vocabulary;
- set the volume and frequency of the program's 'beep' sound;
- select the name of the file for automatic text saving;
- enable or disable the automatic start of the telegraph after the program execution.

In order to access the additional settings of the program, the user needs to select '**Settings**' – '**Show Settings Form**' items of the main menu, or to press the **F3** key (see fig. 1).

Settings		
Action		
0	VALUE	COMMENT
1	Eng	Language File Name
2	.ef480.ef480.ef480.af1d	Hardware ID
3	1	Auto-start telegraph on program start
4	900	Sound frequency (Hz)
5	60	Sound volume level
6	ECTmorse.dat	Path to Morse dictionary
7	*	Symbol for unknown sequence
8	13	Key Code for input
10	0	Morse Time Mode (0-dots, 1-milliseconds)
11	500	ON time for Dot (ms)
12	3	ON time for Dash
13	4	ON time to reject current beep
14	5	OFF time between characters
15	7	OFF time between words (space character)
16	10	ON time for calling an extended command
17	12	OFF time for calling an extended command
20	CurrentWork.txt	Path to file with current work progress
21	120	Interval for autosave file (s)
22	user_data_*.txt	Name of file to save user data to
23	YYYY_MM_DD_HH_NN_Z2	Time stamp format string (to replace *)
30	100	Labels update time on main form (ms)
31	72	Panel Height

(Fig. 1. ECTmorse settings panel)

ECTmorse supports two working modes.

In the first mode, the user specifies the time-interval required to write 'dots', while all other time intervals are multiples of that value. Therefore, it is possible to change all the intervals at once by changing only one parameter of the program.

The second mode allows the user to set each interval manually, accurate to the millisecond, but such operation is not necessary for the vast majority of situations.

The working mode of the program can be selected by changing parameter 10 on the settings panel of the program. A value of '0' will make all the interval multiples from the interval required to write 'dots' (the multiplication ratio can also be changed). A value of '1' allows the user to set all the intervals in milliseconds independently from each other.

The next very important parameter is the key code, which is used to hold the telegraph key. It can be selected through parameter 8. By default, the telegraph key is held with the **Enter** button, but the user can select any desired and convenient button.

Parameter 6 specifies the location of the Morse vocabulary. The default vocabulary includes capital and lower case English letters, numbers and special symbols, as well as several additional commands. When necessary, the user can specify a full path to an alternative Morse vocabulary, which the program will use thereafter.

The program can reproduce the text typed by the user by using Morse code signals. Users can increase or decrease the volume of the Morse code playback and select the frequency and pitch of the sounds. Parameter 4 of the settings panel is for changing the frequency, while Parameter 5 allows the user to change the volume.

The text typed by the user is saved in files. Using parameter 22, the user can specify the name of these files. Parameter 23 allows the the user to select the interval of seconds between automatic saving.

Once all the settings are correct and satisfy the user, it is recommended to enable automatic telegraph start with each launch of **ECTmorse**. To do so, the user needs to change the value of parameter 3. When it is set to to '1', the telegraph starts automatically. However when it's equal to '0', the automatic start of the telegraph is disabled.

Important information! In order to save all parameters changes, it is necessary to select '**Action**' – '**Set Current**' items in the settings panel of the program (see fig. 2).
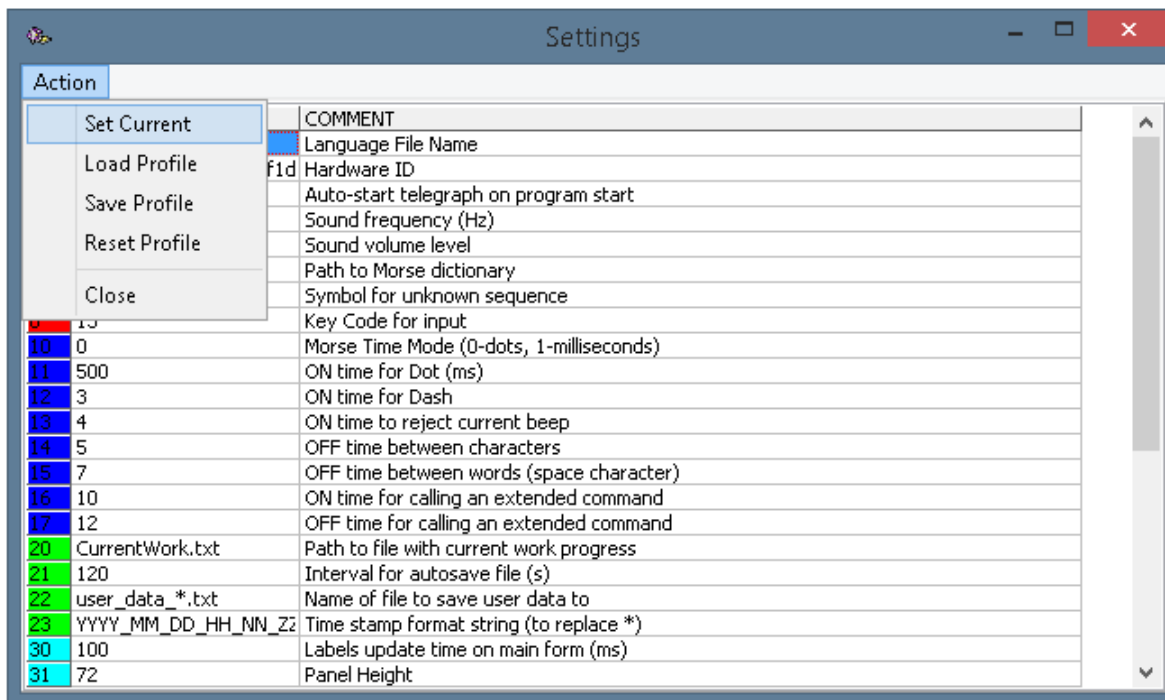

(Fig. 2. Applying new parameters)

settings for individual users can be saved as a separate user profile. This can be done using the '**Action**' – '**Save Profile**' items on the **ECTmorse** settings panel menu. The program allows the user to save an unlimited amount of user profiles, which can be used to change the settings in a couple of seconds.

Once all these steps are completed, the initial user settings procedure of ECTmorse is concluded. The program is now ready to use. To do so, first select '**Start**' on the main menu of the program or press the **F2** button.

More information about the functionality and settings of **ECTmorse** can be found in the 'Main menu and functionality of **ECTmorse**' and 'Settings and additional parameters of **ECTmorse**' chapters of this manual.

Main menu and functionality of ECTmorse

The main window of **ECTmorse** contains text typed by the user. An image of the telegraph is located in the upper left part of the window, while the symbol currently being typed is located to its right (see fig. 3).
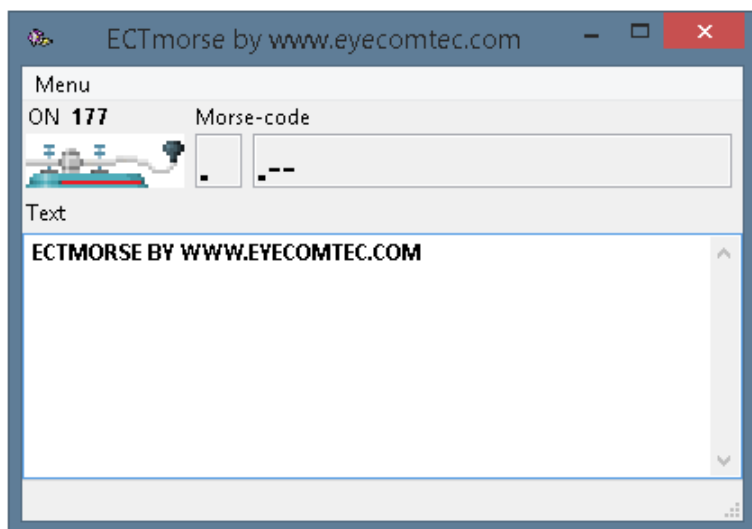

(Fig. 3. The main window of ECTmorse)

All the main actions in the program can be completed by using the main menu (see fig. 4). The user can:

- start or stop the telegraph;
- display typed text in Morse code and reproduce it in the form of sequences of short and long signals called 'dots' and 'dashes';
- clear the text field;
- open the help section of the program and change additional parameters.

All the control elements of the program are grouped in categories, while the most frequently used parameters are assigned with instant short-cut 'hot keys'. The menu can be opened with a left-click on the Menu item.
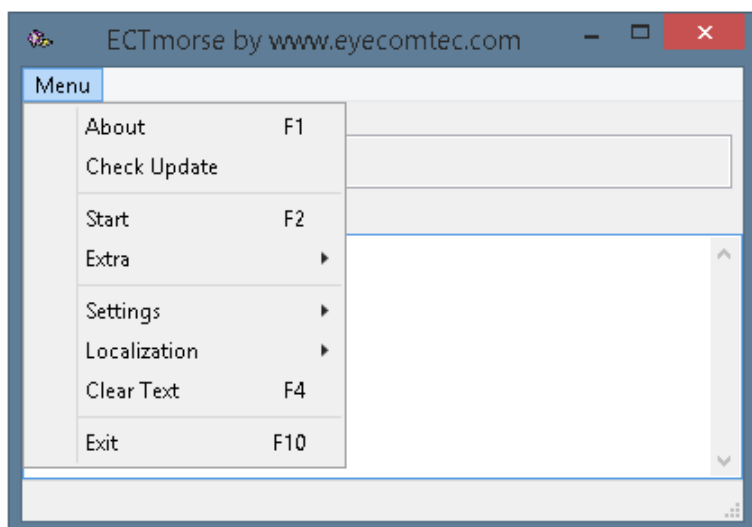

(Fig. 4. The main menu of ECTmorse)

About: **F1** button. This menu item allows the user to open a window with information about **ECTmorse,** which contains information about the current version of the program, developers and licensing (see fig. 5).
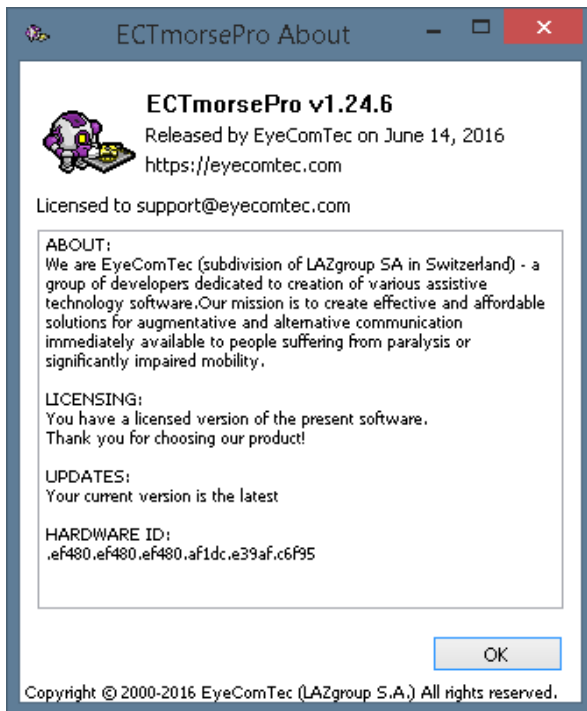

(Fig. 5. 'About' window of the program)

'Check Update'. This allows the user to check for updated versions of the program on the developer's website. In case of a new version being available, the user will see a window with information about the latest version of the program (see fig. 6). If the user already has the newest version, the user will also see a notification (see fig. 7). In the case that it is impossible to connect to servers (no internet connection, no response from the server, or a firewall is blocking connections) the user will see the following message 'Error in Connection' (see fig. 8).
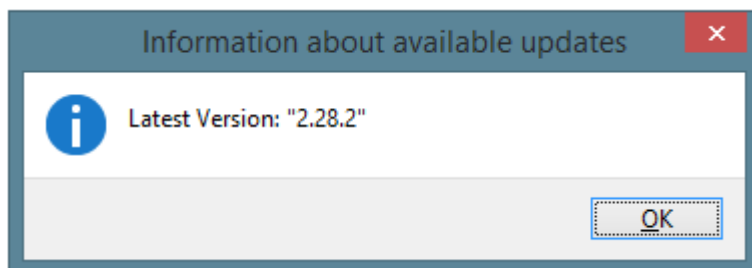
(Fig. 6. Information about available updates of the program)
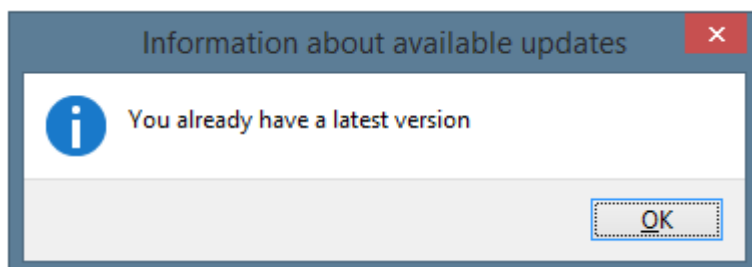
(Fig. 7. Window, which is shown if there are no updates)
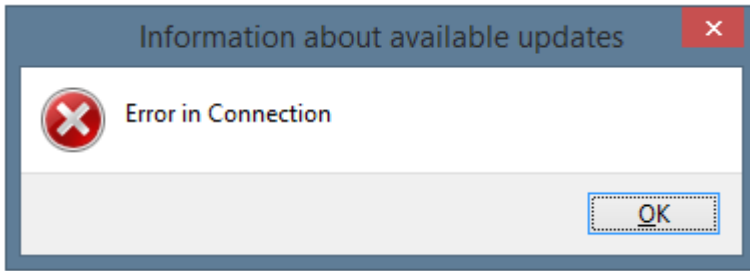
(Fig. 8. Window, which is if it is impossible to check for updates)

The '**Start**' or '**Stop**', **F2** button. This item of the menu allows the user to start or stop the telegraph. When the telegraph is enabled, the user can press a predefined key and hold it for a certain period of time, while **ECTmorse** will register the sequence of 'dots' and 'dashes', transforming them into letters as the user types. When the telegraph is disabled, the user can enter text into the main window of the program directly from the keyboard.

'**Clear Text**', **F4** button. This erases all the text which was typed by the user into the main window of the program. This feature can be used before a new work session or when it's necessary to start typing newtext .

'**Exit**', **F10** button. Stops the telegraph and terminates **ECTmorse**.

'Extra' submenu

This submenu allows the user to convert text typed in the text field of the program into Morse code symbols and vice versa, as well as transforming such text into sequences of short ('dots') and long ('dashes') signals (see fig. 9).
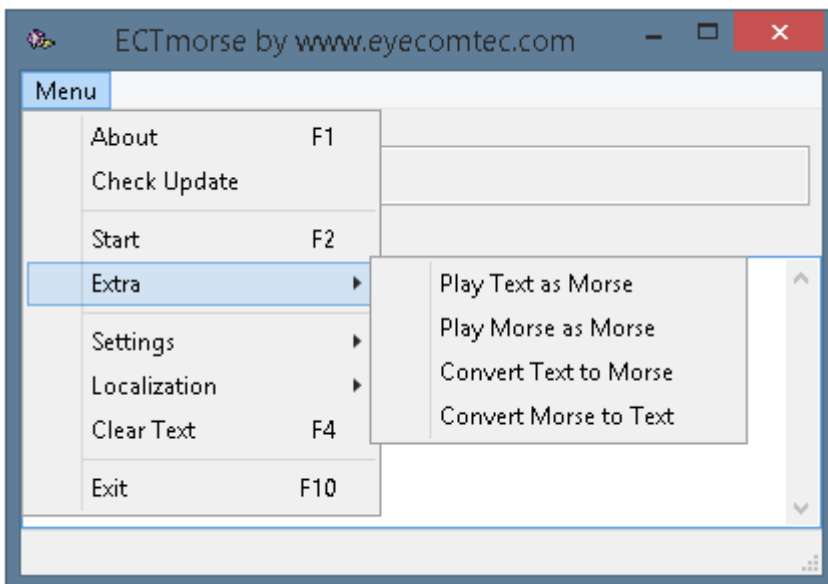
(Fig. 9. Additional 'Extra' menu)

PRO'**Play Text as Morse**'. This allows the user to transform text in the main window of the program into sequences of short and long signals.

PRO'**Play Morse as Morse**'. This allows the user to play the sequence of Morse code symbols in the main window of the program as a sequence Tec of long and short signals.

'**Convert Text to Morse**'. This transforms the text in the main window of the program into a Morse code symbols sequence.

'**Convert Morse to Text**'. This transforms the Morse code symbol sequence in the main window of the program into text.

'Settings' submenu

This submenu allows the user to change the program settings and work with profiles (see fig. 10).
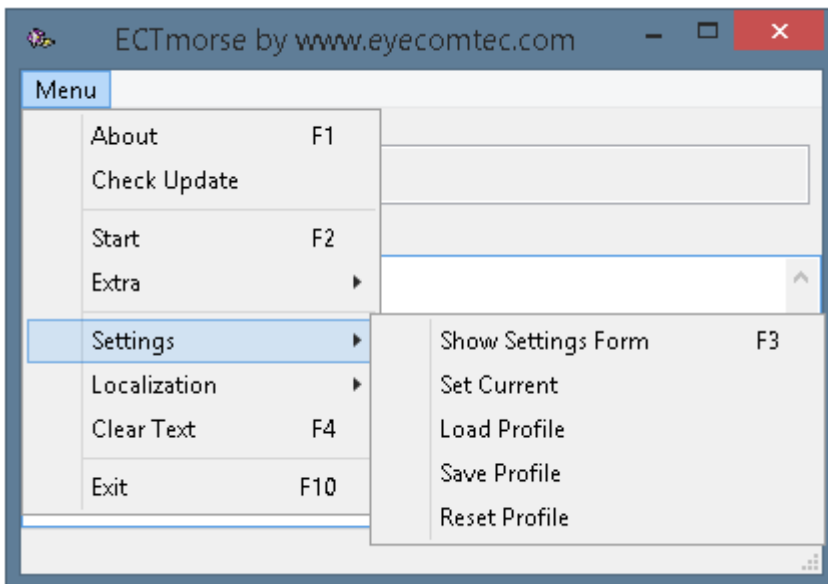
(Fig. 10. Additional 'Settings' menu)

'**Show Settings Form**', **F3** button. The settings panel of **ECTmorse** contains more than 30 changeable parameters. Such parameters allow the user to change the working modes of the program, select time intervals, specify saved file names, enter additional commands and corresponding Morse code symbols etc. More information about program settings can be found in the 'Settings and additional parameters of **ECTmorse**' chapter of this manual.

'**Set Current**'. This item of the menu saves and makes effective all the changes which were made in the settings panel.

'**Load Profile**'. This item of the menu allows the user to choose and load previously saved user profiles, which contains information about time intervals, names and locations of files, volume and frequency of sounds and additional controlling commands. User profiles also contains information about the **ECTmorse** windows layout, as well as many other important parameters.

'**Save Profile**'. This item of the menu allows the user to save all their individual settings of the program into a separate user profile. Items such as the main window, the information window and the settings panel positions are also saved in the profile. Such an approach is useful for situations when the program is used

interchangably by several users who each require different settings (i.e. volume, time intervals, windows layout). It also provides a fast settings transfer in circumstances when it's necessary to move **ECTmorse** to any other computer or laptop.

'**Reset Profile**'. This menu item restores all the default settings (including the windows layout).

'Localization' submenu

In order to provide more flexibility and make working with the program more convenient, the program supports several localizations, i.e. different languages, for the interface and description of the parameters. Currently the program supports English, French and Russian.
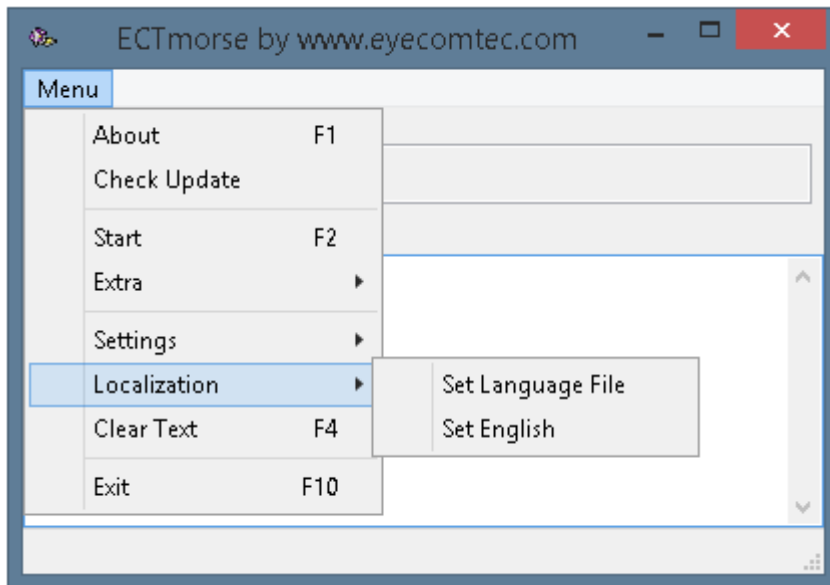
(Fig. 11. Additional 'Localization' menu)

'**Set Language File**', **Ctrl+F2** key combination. When the user selects this menu item, a dialog box of the OS is shown, allowing the user to select one of the language files in *.lng format. Program language can also be selected in the 2nd row of the settings form of the program.

'**Set English**', **Ctrl+F3** key combination. Immediately changes **ECTmorse** language to English without showing any additional dialog boxes.

'About' window

When launching a non-activated copy of EyeComTec programs (ECTcamera, ECTtracker, ECTkeyboard, ECTmouse, ECTlistener and ECTmorse), the user will see the **About** window, which contains additional blocks of information (see fig. 12).
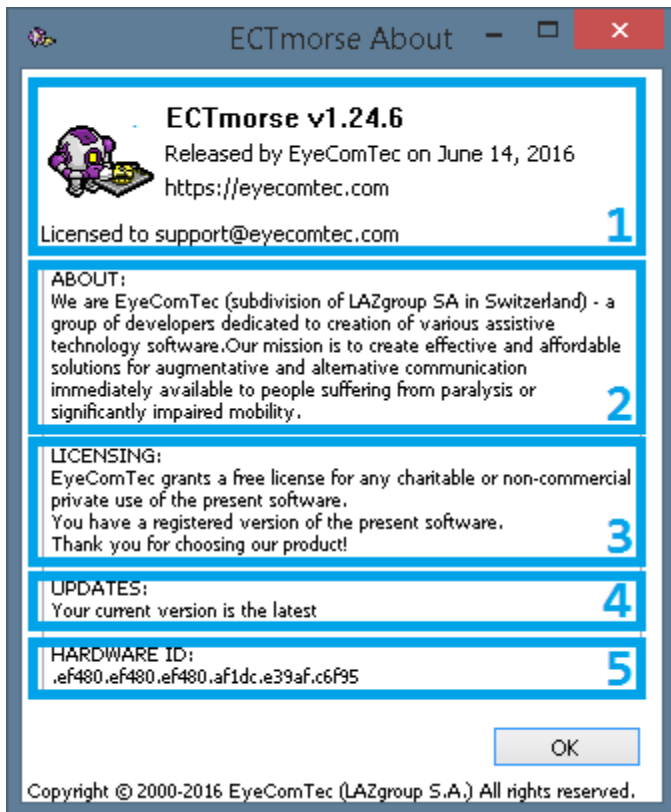
(Fig. 12. An updated About window of the **ECTmorse** program)

On the image above, various information blocks are marked with numbers:

1. The number and the date of the release, the company's website address. For activated versions, this block also includes an e-mail address of the user registered to this copy of the program.
2. The **About** section, which contains the information about the EyeComTec Company.
3. The **Licensing** section, which indicates the license type of the current copy of the program (paid commercial or free non-commercial license);
4. The **Updates** section, which shows if there's an updated version of the program on the developer's website);
5. The **Hardware ID** section, which indicates the hardware code of the computer used to launch the program.

The appearance of the **About** window is different for paid commercial programs (Pro version) and free versions for non-commercial use (see fig. 13).
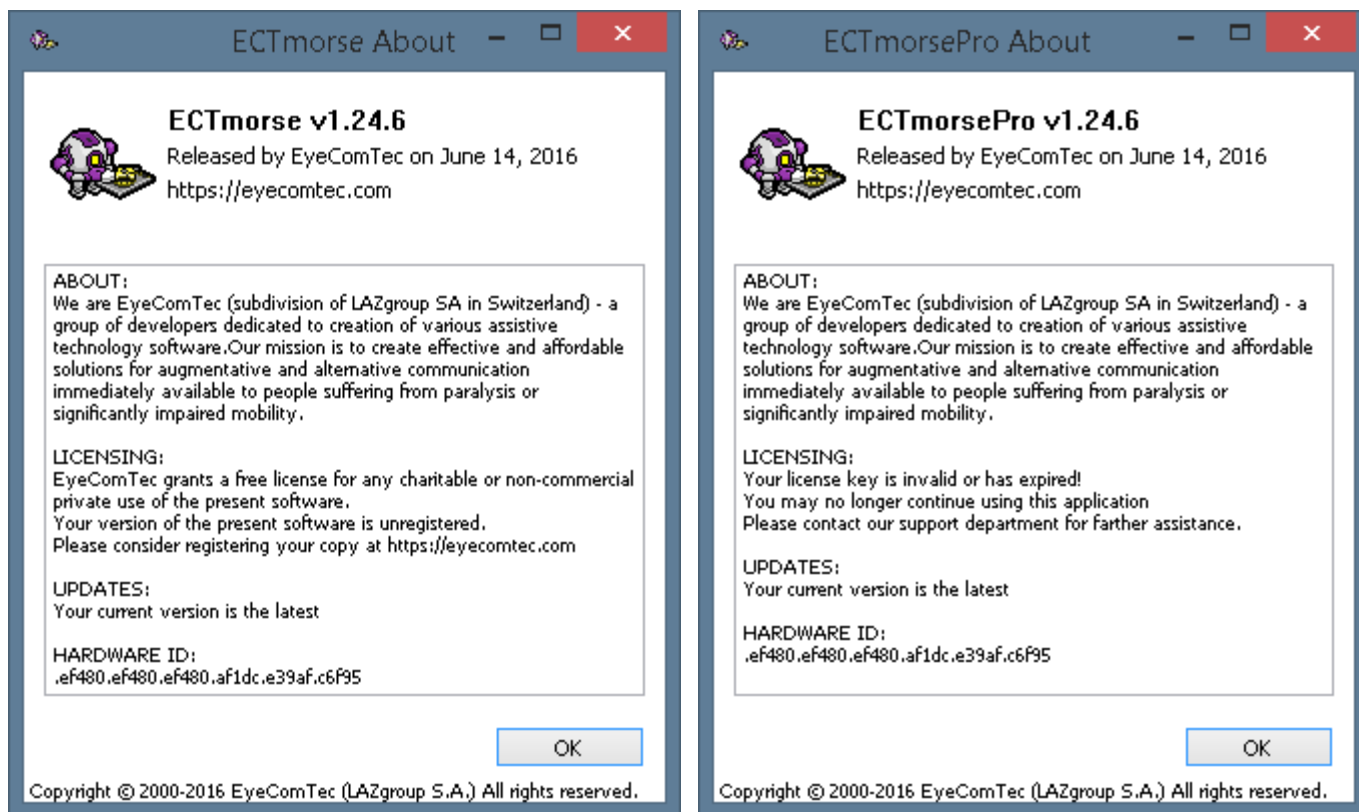
(Fig. 13. The About window for non-activated versions of the program. Left: free license for non-commercial use; Right: paid commercial license)

The user will see the main window of the program after pressing the **OK** button and closing the **About** window in a program with the free type of the license. The non-activated version of the program with a commercial license will not be launched until the user purchases (or prolongs if the license expired) a license and creates a new key file in the program's folder.

All the programs with free licenses are intended for people with a real physical need for assistive technologies from the EyeComTec Company. The registration process is not compulsory in such cases, but the company kindly recommends that our customers do register in order to gain the full benefits e.g. updates and customer support. Free versions of our software products can also be used by non-commercial and charitable organizations. These organizations must register for a licence.

Registration on the company's website and the following activation of the program are compulsory for Pro versions of software.

After completing the activation, the **About** window will not be shown during every launch of the program. The user can open it by using the **About** menu item, or by pressing the **F1** hot key (see fig. 14). There is sometimes a short delay when opening the **About** window, as every time it is opened, the program will check for updates on the EyeComTec website.
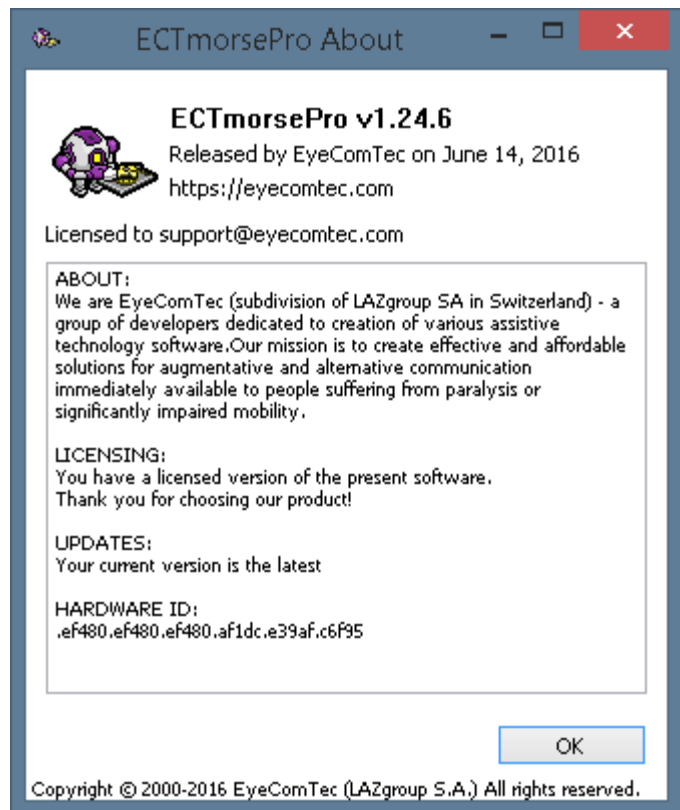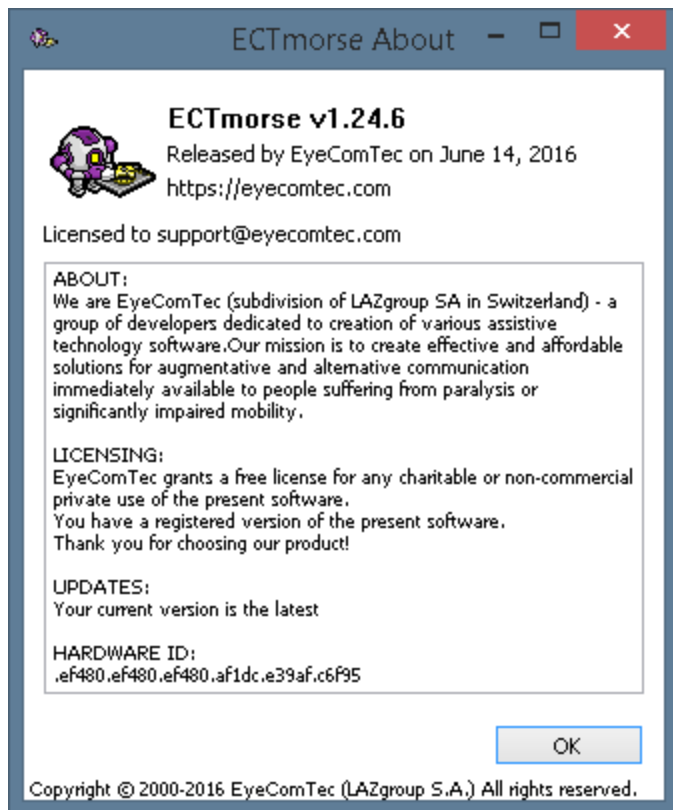
(Fig. 14. The About window for activated versions of the program. Left: free license for non-commercial use; Right: paid commercial license)

Settings and additional parameters of ECTmorse

ECTmorse provides the user with 37 changeable parameters. These parameters can be accessed through **'Settings' – 'Show Settings Form'** menu items or by pressing F3 hotkey. To enable more convenient working, the different groups of parameters on the settings panel are color-coded. (see fig. 15).

0	VALUE	COMMENT
1	Eng	Language File Name
2	.ef480.ef480.ef480.af1dc.	Hardware ID
3	1	Auto-start telegraph on program start
4	900	Sound frequency (Hz)
5	60	Sound volume level
6	ECTmorse.dat	Path to Morse dictionary
7	*	Symbol for unknown sequence
8	13	Key Code for input
10	0	Morse Time Mode (0-dots, 1-milliseconds)
11	500	ON time for Dot (ms)
12	3	ON time for Dash
13	4	ON time to reject current beep
14	5	OFF time between characters
15	7	OFF time between words (space character)
16	10	ON time for calling an extended command
17	12	OFF time for calling an extended command
20	CurrentWork.txt	Path to file with current work progress
21	120	Interval for autosave file (s)
22	user_data_*.txt	Name of file to save user data to
23	YYYY_MM_DD_HH_NN_ZZZ	Time stamp format string (to replace *)
30	100	Labels update time on main form (ms)
31	72	Panel Height
32		Path to file with skin
33	0	Corner of skin for transparency (0-not used, 1-top l
40	1	Wait for program completion (0-continue to work, 1-
41		Extended Command to execute with ON
42		Extended Command to execute with OFF
43		Extended overload code 1
44		Extended overload command 1
45		Extended overload code 2
46		Extended overload command 2
47		Extended overload code 3
48		Extended overload command 3
49		Extended overload code 4
50		Extended overload command 4
51		Extended overload code 5
52		Extended overload command 5

(Fig. 15. Groups of parameters on the settings panel of ECTmorse)
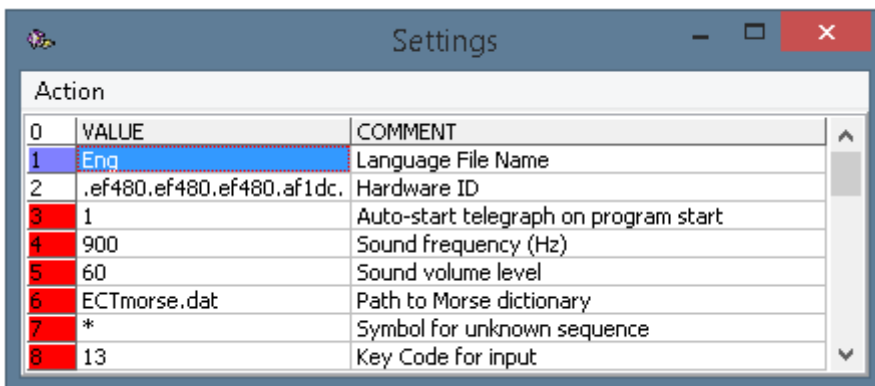
The settings panel of the program has its own **'Action'** menu (see fig. 16). It contains the same items as 'Settings' submenu.
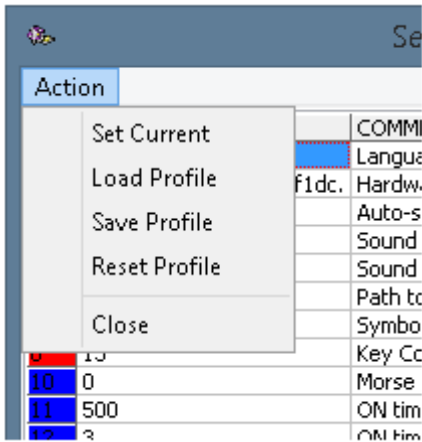
(Fig. 16. 'Action' menu of the settings panel of the program)

The user can change each parameter by modifying its value in the second column of the table. When work using the program is terminated, all changes are automatically saved in a configuration .ini file. The program automatically loads them during the following launch. Such a configuration file is created during the very first start of the program and after each termination of the program.

Let's look closer at the parameters of the settings panel of **ECTmorse**.

(Fig. 17. The settings panel of the program, parameters 1-8)

   1 – **Language File Name**. This field allows the user to manually set the full path to a localization file for the program.

   2 – **Hardware ID**. This field is used to save information about the hardware code of the system, which the program runs in. This parameter is necessary for activation of **ECTmorse**.

   3 – **Auto-start telegraph on program start**. This parameter can have two different values: 0 and 1. If it's equal to 0, the automatic telegraph start during **ECTmorse** launch is disabled. If it's equal to 1, the automatic start is enabled. It is recommended to use automatic telegraph start in situations when all settings are correct and no additional adjustments are required. The default value of this parameter is 1.

   4 – **Sound frequency (Hz). This** allows the user to select a comfortable and convenient signal frequency. The default value of this parameter is 900Hz.

5 – **Sound volume level.** This allows the user to select a comfortable and convenient signal volume as a percentage: (0 = silence, 100 = maximum volume). The default value of this parameter is 60.

6 – **Path to Morse dictionary.** This parameter allows the user to specify the location of an alternative Morse code vocabulary. It can be used in situations when the user requires several different vocabularies, or when **ECTmorse** is used by more than one user and each of them requires different vocabulary settings.

7 – **Symbol for unknown sequence**. This specifies the symbol, which is used when an entered sequence of dots and dashes is not found in the current Morse code vocabulary. The default value of this parameter is '*'.

8 – **Key Code for input**. This parameter specifies the key which is used to control the telegraph. The default value of this parameter is 13 (Enter key). It is not necessary to remember all the key codes to change this parameter in the settings panel of the program. The user can double click on this parameter cell and select any desired value in the most right drop-down menu (see fig. 18).
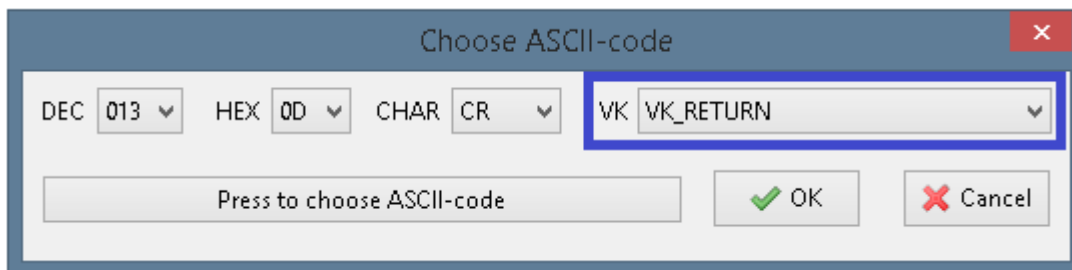
(Fig. 18. Selecting a key to control the telegraph)
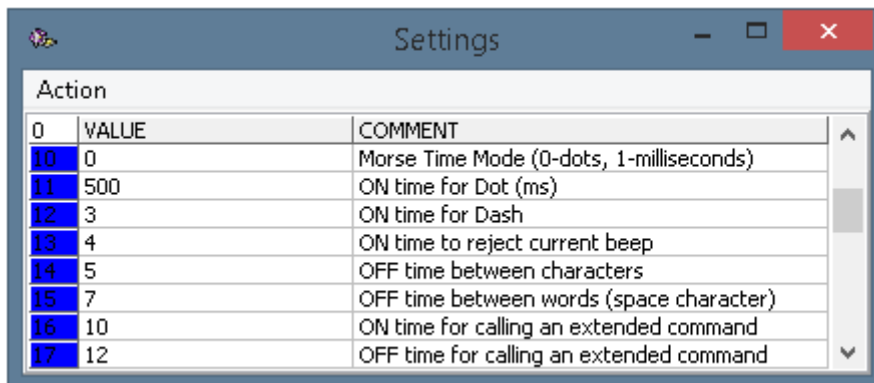
(Fig. 19. The settings panel of the program, parameters 10-17)

10 – **Morse Time Mode (0-dots, 1-milliseconds).** This parameter is incredibly important, because it allows the user to choose the working mode of **ECTmorse**. If it's equal to 0, the user has to specify time in milliseconds only for 'dot' printing (parameter 11). All other parameters of this group (12-17) are set as multiples of parameter 11. Thus, in order to increase or decrease the speed of the telegraph, the user can change only parameter 11, while all other parameters will be automatically changed by the program. In case of this parameter value being equal to 1, the user has to specify time in milliseconds for each parameter (11-17) manually. The default value of this parameter is 0 ('Multiplicity' mode)

11 – **ON time for Dot (ms)**. This parameter specifies the time, in milliseconds, that the controlling key needs to be held down in order to type a 'dot'. <u>This parameter is always set in milliseconds!</u> The default value of this parameter is 500 milliseconds (half a second).

12 – **ON time for Dash**. This parameter specifies the time to hold the controlling key required to type a 'dash'. The default value of this parameter is 3 (time required to type 'dot', multiplied by 3).

13 – **ON time to reject current beep**. This parameter specifies the time limit the controlling key needs to be held down, after which the program cancels the current input. The default value of this parameter is 4 (time required to type 'dot', multiplied by 4).

14 – **OFF time between characters**. This parameter specifies the period of idle time, which is required to transform a code into a symbol. The default value of this parameter is 5 (time required to type 'dot', multiplied by 5).

15 – **OFF time between words (space character)**. This parameter specifies the period of idle time which is required to complete the current word (and put a space symbol at the end of it). Thus, it is not necessary to enter a sequence of 'dots' and 'dashes' in order to divide words with spaces. The default value of this parameter is 7 (time required to type 'dot', multiplied by 7).

16 – **ON time for calling an extended command**. This parameter specifies the time of holding down the controlling key required to launch an extended command. Any third party application can be used as the extended command (e.g. medical personnel sound notification application). The default value of this parameter is 10 (time required to type 'dot', multiplied by 10).

17 – **OFF time for calling an extended command**. This parameter specifies the maximum period of idle time which is required to launch the extended command. Different extended commands can be used for parameters 16 and 17. The default value of this parameter is 12 (time required to type 'dot', multiplied by 12).
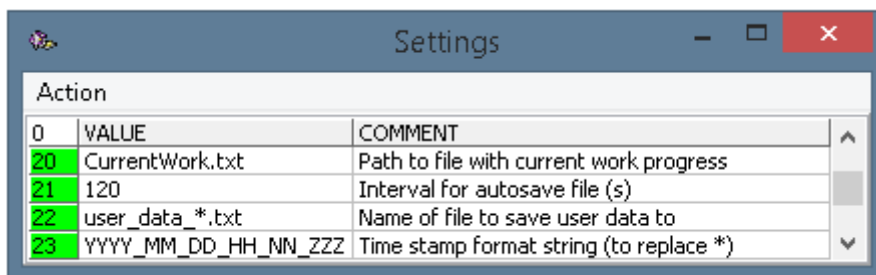
(Fig. 20. The settings panel of the program, parameters 20-23)
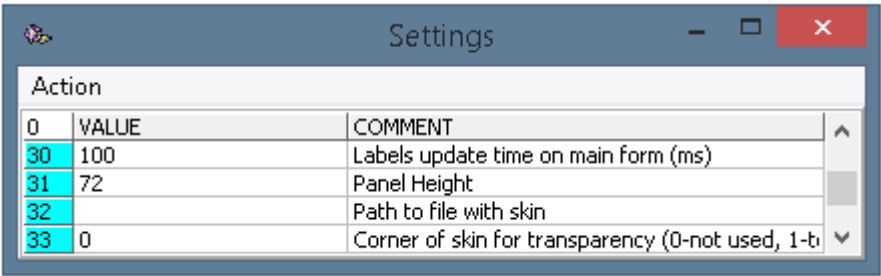
20 – **Path to file with current work progress**. The text, which the user inputs in the main window of the program, is saved into a file. This text is saved when the user opens the settings panel, exports or imports user profiles or terminates the program. During the following launch of **ECTmorse,** that text will be loaded into the main window of the program. This parameter allows the user to specify the full path and name for this file, which saves current work progress. The default value of this parameter is 'CurrentWork.txt'.

21 – **Interval for autosave file (s).** The text that the user inputs in the main window of the program is also repeatedly saved into separate files within certain intervals. This secures current work progress in case of

any software/hardware failure. This parameter allows the user to specify a period in seconds between each automatic file saving. The default value of this parameter is 120 seconds.

22 – **Name of file to save user data to**. This parameter makes it possible to specify the name template for all files with the user's text. The default value of this parameter is user_data_*.txt. '*' The symbol in the name of the file will be replaced with the current date and time, and its format can be specified in the parameter 23.

23 – **Time stamp format string (to replace *).** This allows the user to specify the time and date format, which is used in the names of files with the user's text. The default value of this parameter is YYYY_MM_DD_HH_NN_ZZZZ (current year in full format, month, day, hours, minutes, seconds and milliseconds).

(Fig. 21. The settings panel of the program, parameters 30-33)

PRO 30 – **Labels update time on main form (ms).** This parameter specifies the key status update interval in the main window of the program (labels on the main window). The default value of this parameter is 100 milliseconds.

PRO 31 – **Panel Height**. This parameter specifies the height of the main window of the program above the text field. The default value of this parameter is 72. The value of this parameter can be increased in situations when the skin of the telegraph key has significant vertical size.

32 – **Path to file with skin**. This allows the user to specify a full path to a file with a telegraph skin. The skin of the telegraph key is shown in the main window of the program above the text field (see fig. 22).
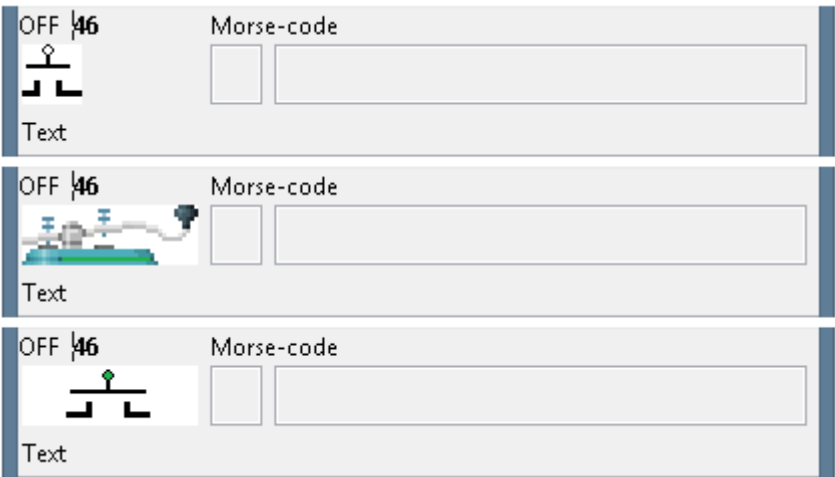
(Fig. 22. Various skins for the telegraph-key ECTmorse)

33 – **Corner of skin for transparency (0-not used, 1-top left, 2-top right, 3-bottom left, 4-bottom right).**
This parameter allows the user to specify a the color of a pixel to be used as a transparent color for the telegraph key skin. The default value of this parameter is 0 (no transparent color).

(Fig. 23. The settings panel of the program, parameters 40-52)
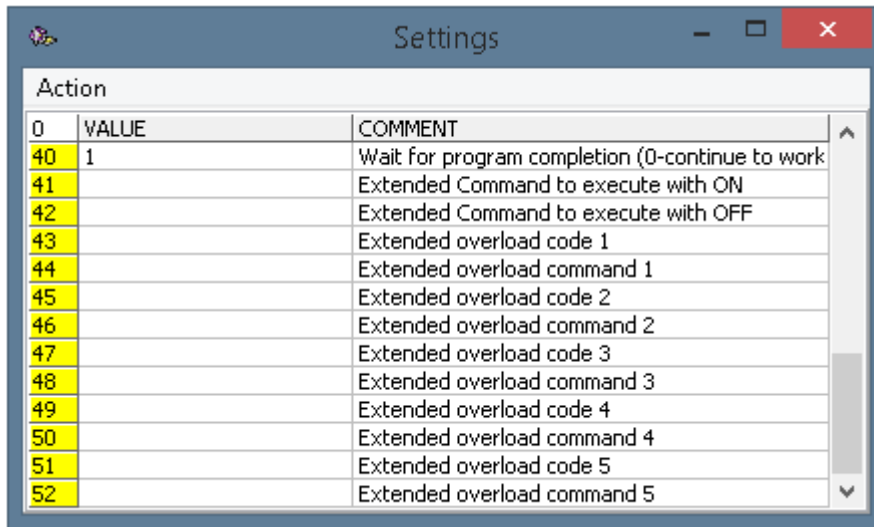
40 – **Wait for program completion (0-continue to work, 1 =wait).** This parameter is used for all external commands (applications and programs). The default value of this parameter is 1. In other words, when the user executes any extended command, **ECTmorse** is paused until the user terminates such applications or programs.

41 – **Extended Command to execute with ON.** This parameter allows the user to specify any external application which will be executed after holding the telegraph key for a period of time, indicated in the parameter 16.

42 – **Extended Command to execute with OFF**. This parameter allows the user to specify any external application, which will be executed after the period of user inactivity indicated by parameter 17. It is recommended to avoid using this parameter without real need.

43 – **Extended overload code.** This group of parameters allows the user to specify a unique sequence of 'dots' and 'dashes', which will execute an external application or program, when entered successively.

44 – **Extended overload command.** This group of parameters specifies exact application to be executed with 'codes' from the previous group of parameters.

PRO 45 – **(47, 49, 51) Extended overload code.** This group of parameters allows the user to specify a unique sequence of 'dots' and 'dashes', which will execute an external application or program, when entered successively.

PRO 46 – **(48, 50, 52) Extended overload command.** This group of parameters specifies exact application to be executed with 'codes' from the previous group of parameters.

Downloads

The latest version of the program is available to download on the EyeComTec website:
https://eyecomtec.com/ECTmorse.zip

Registration and activation of EyeComTec software products

In order to complete the registration process, it's required to fill in a short form, which contains contact information and reasons to use assistive technologies.

- [The registration form for private users (non-commercial use). For people having a physical need for our products](#)*
- [The registration form for medical companies (commercial and non-commercial organizations: hospitals, rehabilitation centers and doctors)](#)**
- [The registration form for commercial customers from non-medical fields (involved in the processes of production, assembling, quality control and manufacturing)](#)**

The registration is not obligatory for private users, however, it's still recommended.
** *The registration is obligatory for any legal entities and commercial customers.*

Attention! *Free licenses for EyeComTec software products may be issued for customers with a real physical need of assistive technologies of this type (to get more information, please check the '**Free license**' section of the '**License agreement**' chapter). The more information is provided about a disease that caused full or partial loss of mobility, the higher the chances of getting approval and receiving a free license for EyeComTec products. All the information received from customers is thoroughly checked by our staff, thus all application forms with no information about the disease of the patient (C1 and C2) will be rejected.*

The registration form contains several blocks with various questions:

A. Information about the patient: the full name, an e-mail address, a phone number, a country and a city of residence;
B. Information about an assistant or a caregiver of the patient: a full name, an e-mail address and a phone number;
C. Information about the disease or situation that caused reduced mobility. It's recommended to use the C2 field to provide some additional information (e.g. possible reasons of the disease, current state of the patient, chances for rehabilitation and so on);
D. Additional information: the date of birth of the patient, sex, native language (if the patient knows any other language, it can be indicated in the D3 field);
E. In this section the customer has to select one or several EyeComTec program products required for the patient;
F. Feedback section. In case the customer had already used EyeComTec program products, he or she is offered the chance to evaluate their usability. The customer can also indicate how they first heard about the EyeComTec Company, as well as provide us with any other information that is considered important according to the user.

It's recommended to fill in all the fields of the form.

Registration verification

After submitting all the information into the registration form and providing all required data, the customer will receive a verification request to the e-mail address that was indicated on the registration form.

Attention! *It's required to confirm this verification request; otherwise the registration process will be stopped.*

After completing the verification process, the EyeComTec staff will check the completeness and accuracy of the provided information. After that, the customer will receive a serial number for the required software to the e-mail address that was indicated on the registration form.

Serial number activation and key obtaining

It's required to activate the received serial number. In order to do that, the user has to follow the following link: https://eyecomtec.com/25-Activation.

A page with the activation form will be opened. The user has to indicate:

- User Name – the full name of the user (this name can be different than the name of the serial number owner);
- User E-Mail – an email address, which will be used to link the license;
- Serial Number – the serial number that was received by the e-mail address indicated during the registration process;
- Hardware ID – a hardware code, which can be obtained directly in the program.

Attention! It's really important to indicate a correct and working main e-mail address, because all technical support will be provided exclusively to this address. We kindly recommend you to check all the provided information. Mistakes in the e-mail address can be changed only once and such a change will be considered as a hardware change (in order to get more information, please check the 'License hardware linking' section).

Attention! In case an expected email from EyeComTec hasn't arrived within a reasonable period of time (usually up to 48 hours), it is recommended that users check their 'Spam' folder, as the email might have been directed there in error.

Attention! Only Latin symbols can be used in order to fill this form in (A...Z, a...z)! All non-Latin symbols will be automatically filtered. E.g. the user has to write 'Strasse' instead of 'Straße', or 'Michele' instead of 'Michèle' and so on.

In versions of programs that were published starting from July 2016, the hardware code can be found in the **About** window, within the **Hardware ID** section.

Attention! The user has to check the hardware code by launching the program only on the very same computer and hard disk partition where the user is going to launch the program in future. If the user performs the activation on one computer, but wants to work on another, all program copies will work as non-registered applications and won't be considered as properly licensed software!

After filling in all the fields of the activation form, the user has to press the button to submit the information. A new page with a key code will appear. An email containing this code will also be sent to the e-mail address that was indicated during the registration process. The user has to copy this code and save it to the folder of the program. The name of the key file has to be the same as the name of the main file of the program with the .key extension (e.g. the key for the **ECTkeyboard** application has to be saved as ECTkeyboard.key).

In versions of programs that were published starting from July 2016, the user has a more convenient way of key adding. The user can just copy the key code (including the following symbols ' === '), paste it into a text

field of the About window and press OK. The program will automatically save the key file in its folder. After that, the user has to restart the program.

Attention! *If there is an old key in the program folder, it's going to be removed and replaced with the new one. A copy of the old key will be saved as a backup file with the .bak extension. The name of this file will contain the name of the program and the date and time of saving in the YYYYMMDD-HHMMSS format (e.g. ECTkeyboard.key_20160615-130722.bak).*

The registration of the user and program activation processes are considered as completed at this stage.

License hardware linking

A free license for a program is valid for 1 year from the moment of activation. The user has the possibility of re-activating the license in case of a hardware or hard disk failure. Such re-activation can be done only once. To do that, the user has to contact the technical support of the EyeComTec Company, indicating the reason of the required license re-activation. The user can also contact technical support in order to change mistakes in the e-mail address that was indicated during the activation of the program, however, in that case the user won't be able to re-activate the program in case of a hardware failure. In both cases, such requests will be processed by the company's staff on a first-come first-served basis.

In case the user is trying to activate one serial number on a different computer, an error window is going to be shown.

The EyeComTec Company issues various types of software licenses. Depending on the license type, there can be the following options of the software use:

1. A license is linked to the serial number of the C: partition of a hard disk, the processor identification number, the computer name and the user name. This license has the strictest type of license hardware linking. It doesn't support the transfer of the program not only to any other computer, but even to a different partition of a hard disk. This type of license is offered for all patients who have a real physical need for EyeComTec assistive technologies.
2. A license is linked to the serial number of a hard disk and the processor identification number. This license type allows the user to transfer the program to any partition of the hard disk in the boundaries of only one computer.
3. A license is linked to the serial number of the storage device that was used during activation process. This option allows the user to link a program to a portable storage device and use it on various computers.
4. A partner license. In that case, the license is not linked to any computer parameters. Such programs will be considered and work as properly licensed on any equipment. There's no need to re-activate it. EyeComTec issues this type of license only for partners who are responsible for the safety of the license key and can guarantee impossibility of its compromising.

License agreement

General terms

This license agreement establishes substantive provisions, as well as describes the permitted and prohibited ways of use of the software developed by EyeComTec. The licensee has the right to use software products of EyeComTec only under the conditions described in this License Agreement.

All the software and all related intellectual assets (copyrights, algorithms, source code and technical documentation) are fully owned by the EyeComTec (LAZgroup SA) company. EyeComTec can provide a free exclusive and non-transferable license to any entities which are involved in charity or non-profit activities. In order to use software for commercial purposes, such a company has to contact EyeComTec directly and purchase a license. Any commercial use (with pecuniary interest) of the software developed by EyeComTec without license is strictly prohibited.

During the determination of the conditions and restrictions of use, the copyright holder provided all the information on a limited warranty basis as well as provided the rejection of any liability. This project is totally voluntary, and the parent company is not liable for any issued support packs or updates in front of those users who use software products of EyeComTec free of charge.

All users are obligated to observe and follow the requirements of this License Agreement.

Restrictions on use

The end user is not allowed to use or permit the use of EyeComTec software products in any manner that may affect their functionality, including: modification of program binary source code, or participation in any operation that aimed at reverse engineering (decompilation) of software for personal or professional gain.

Also, the end user of the software under no circumstances has the right to change copyright information or use the names of software products in an inappropriate manner in order to obtain financial or material benefits. The user has no right to change, make copies of, sell, sublicense, advertise or distribute EyeComTec software products in any manner that is not allowed by this license agreement. As a charitable gesture from the company, all users are allowed to share EyeComTec software product installation packages amongst themselves and with other people.

Upon receipt of the license, the user does not receive any right to own copies of the software, and the copyright holder may prohibit subsequent sales.

All licensees have no right to re-pack the software and distribute it by including the software in a huge variety of installation packages that contain malicious programs or advertisement in any form.

User registration

The registration of EyeComTec program products is mandatory for commercial customers and legal entities. Programs can be purchased directly from EyeComTec, as well as from partner companies. When the customer completes payment for software products, the company sends separate serial numbers for each copy of the purchased software. In case there are advanced versions available, the customer also receives links to download such versions.

Those users who have a physical need for EyeComTec assistive technologies can also complete the registration process. In that case, they can receive license keys for free versions of programs (to get more information, please check the '**Free license**' section of the '**License agreement**' chapter).

Private users can work with published versions of EyeComTec programs without registration or obtaining a license key. But in that case, such customers won't be able to use the technical support of the company. Furthermore, the 'About' window with various information will be shown during every launch of the program, offering the user to complete the registration process.

EyeComTec can issue free licenses for private or charity non-commercial use. Such companies are required to complete the registration process and indicate information about the planned use of the program products (field of use, aims and goals).

Any commercial use of published software without obtaining a license will be considered as an infringement of the User Agreement (to get more information, please check the '**Restrictions on use**' and '**Paid commercial license**' sections of the '**License agreement**' chapter).

User registration is the easy and safe way to provide feedback between the development company and consumers: patients and medical centers.

Collection of such statistical data is extremely important for EyeComTec, because it allows the company to get detailed information about the needs of specific users, and improve the software in accordance with these needs. The program complex is developed continuously and many features of current versions were invented due to feedback from users.

In addition, a database of contacts allows for informing patients promptly about new and yet unpublished software products and updates of the EyeComTec program complex. Furthermore, users are able to receive information on the functionality of basic and advanced versions in a timely manner.

Differentiation of commercial and noncommercial licenses

1. Noncommercial License

1.A. Noncommercial license for clients with physical needs.

(this type of license does not apply to customers, who are undergoing a paid rehabilitation course – see section 2.2, paragraph A)

EyeComTec software products are provided free of charge to all people who are experiencing a physical need in the use of such a category of programs. This group of people includes all those patients who suffer from various forms of paralysis or other muscular activity restrictions. All software products are free for non-

commercial use. E.g. when the patient uses our software for text typing, he or she is not obligated to purchase a commercial license.

1. B. Noncommercial license for charitable organizations.

Charity companies and rehabilitation centers can use all EyeComTec software products free of charge if they provide their services to patients on a free basis.

2. Paid commercial License

2.A. Commercial license for paid clinics and rehabilitation centers.

A commercial license for program products of EyeComTec is necessary in any case of paid services provided by medical companies or rehabilitation centers. Such a commercial license is required for each separate copy of the program in use. Only one copy of each licensed program may run at the same period of time.

All the assistants and third-party specialists who provide paid services to their patients and involve EyeComTec software products in their work are also obligated to purchase a commercial license.

In any case where the user is undergoing paid treatment, involved in a rehabilitation program in a commercial institution or uses the paid services of any third-party medical specialist, he or she is not allowed to use a personal non-commercial license. The user is strictly not allowed to use any EyeComTec software product to communicate directly with any paid healthcare specialist or representative of a commercial establishment. In such cases, the rehabilitation facility or attending specialist are obligated to use and provide to the patient their own commercially licensed copy of the software. This restriction extends over the entire period of treatment or rehabilitation of the patient.

2.B. Commercial license for software integrators and resellers.

All the companies and experienced specialists who provide paid services for the installation and integration of EyeComTec software products to third parties, as well as maintenance and technical support for such programs, are obligated to purchase a commercial license. The sale of software products to customers with a physical need of them is strictly prohibited (see section 2.1, paragraph A).

2.C. Commercial license for extended program versions that are intended to use in a non-medical environment.

The EyeComTec Company developed extended versions of their programs (in particular, ECTtracker), which are successfully used in factories, shops, automated assembly lines and quality control systems. Such program versions are distributed on individual licenses and are not intended for public distribution. In order to get the full information about features of programs, a full quotation including price of purchase and support, as well as the cost of specialist training, please contact the EyeComTec Company.

Furthermore, our company developed various additional applications that can significantly enhance the functionality of our programs. When such applications are in use with extended versions of our programs, they can be used for additional automation of analyzing and controlling manufacturing processes.

Specialists from the EyeComTec Company are ready to create an individual system that is best suited for your needs. The system is going to be created on software modules that were created taking into account all the distinctive features of the processes.