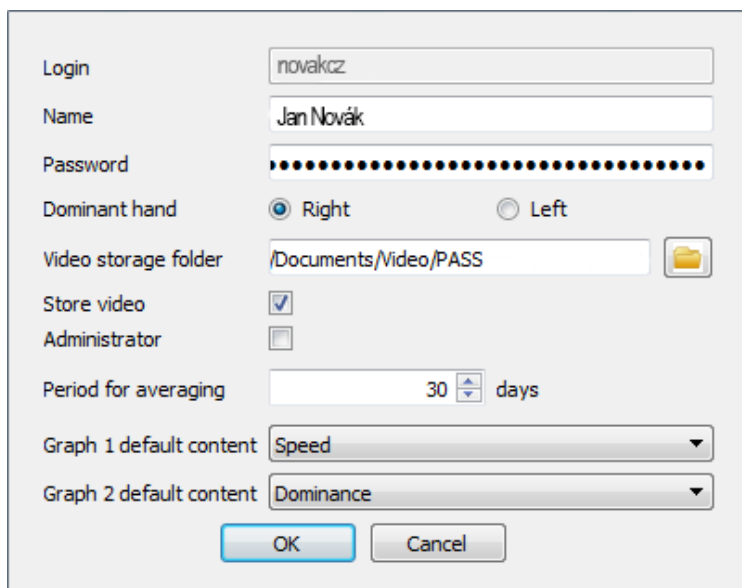


Dear Sir or Madam,

Thank you very much for purchasing the HELAGO; C laparoscopic trainer with the Performance ASsessment Software (PASS). We believe that PASS will become an effective tool for developing your competence in laparoscopic surgery in an enjoyable way. The following text will lead you through the basic instructions for the use of PASS.

1. PASS is designed for multiple users. New users may be added by the administrator. The default user name and password for the administrator are **admin**.

For each user a unique user name and password are entered by the administrator. In this step the administrator also enters the value for the user's dominant hand and makes the setting of the storage folder for recorded videos and the period of time for which values will be used for determination of the best and average values. In the default setting the reference period is 30 days.

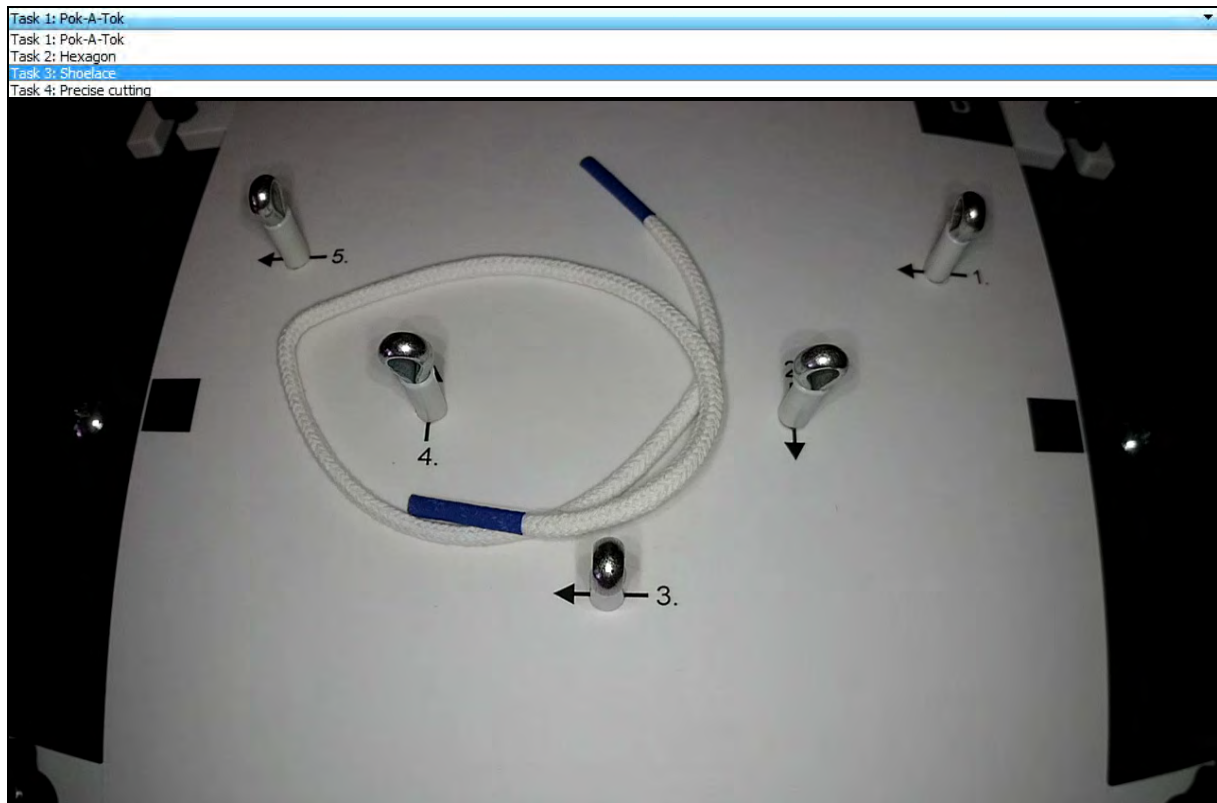
A screenshot of a user configuration dialog box for the PASS software. The dialog has a light gray background and contains the following fields and controls:

- Login:** A text box containing "novakcz".
- Name:** A text box containing "Jan Novák".
- Password:** A text box filled with 12 black dots.
- Dominant hand:** Two radio buttons, "Right" (selected) and "Left".
- Video storage folder:** A text box containing "/Documents/Video/PASS" and a folder icon button to its right.
- Store video:** A checked checkbox.
- Administrator:** An unchecked checkbox.
- Period for averaging:** A spin box set to "30" with "days" to its right.
- Graph 1 default content:** A dropdown menu showing "Speed".
- Graph 2 default content:** A dropdown menu showing "Dominance".
- At the bottom, there are "OK" and "Cancel" buttons.

Note: The trainee always has to operate the instrument marked red with the dominant hand!

2. At the beginning of each training session the trainee logs into PASS using his or her own user name and password. Without logging in, PASS runs in so called "Guest mode" without saving measured values and recording videos.

After logging in, the trainee selects the appropriate task from the list of tasks in the top-right corner of the main window. In the default setting the list contains four tasks included in the Skills set that is supplied with the trainer.



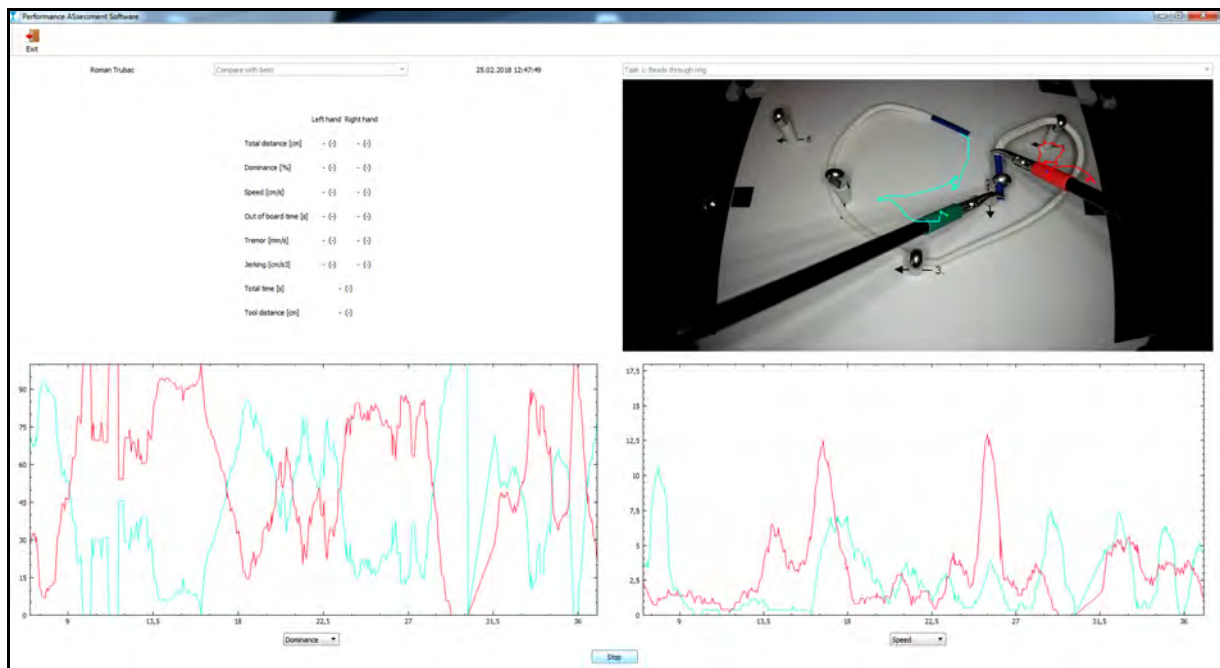
3. Each attempt begins with clicking on the Start button at the bottom of the main window. Before that both instruments must be placed outside the operating field. It is advisable to use the hooks on both sides of the task board for “parking” of the instruments.



Measuring starts after both instruments have entered the operating field.

During measuring the screen in the top-right corner of the main window provides a live view of the operating field with the tracks of both instruments. Colours of the tracks correspond with the marking of the instruments.

Two graphs at the bottom of the main window show real time curves for two preselected parameters. This setting may be modified at any time.



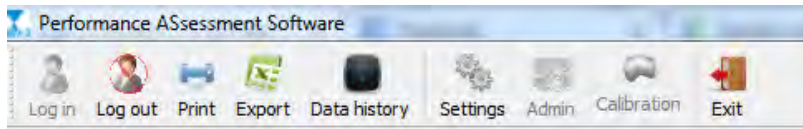
Measuring stops after both instruments have left the operating field. For correct completion of measurement it is necessary to click on the Stop button at the bottom of the main window.

After completing the attempt the trainee is provided with a list of measured values of the performance parameters. The first figure always shows the last measured value while the second figure in the brackets shows the reference value. The measured value may be marked green or red. Green stands for better value while red stands for worse value in comparison with the reference value. The trainee may select from two sets of reference values, i.e. either the average or the best values for the reference period of time.

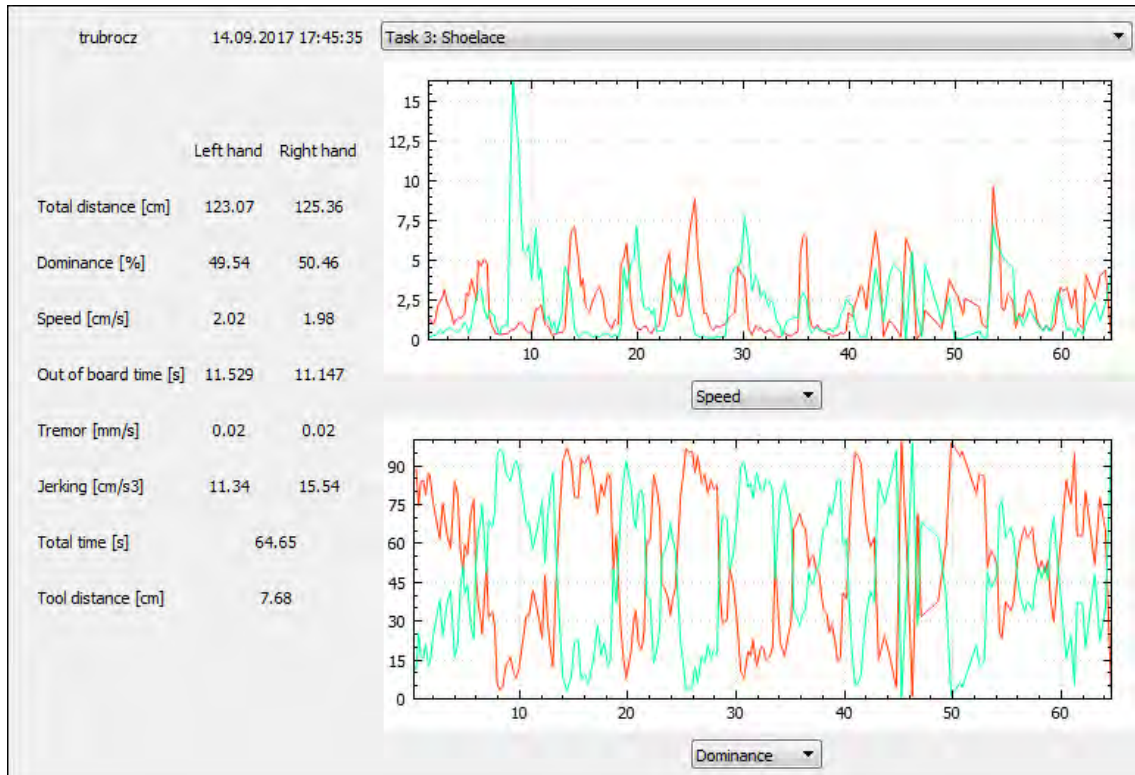
	Left hand		Right hand	
Total distance [cm]	153.11	(982.757)	125.26	(181.079)
Dominance [%]	55	(70.7856)	45	(29.2144)
Speed [cm/s]	3.26	(22.98)	2.96	(5.905)
Out of board time [s]	0.69	(1.38375)	5.78	(2.58313)
Tremor [mm/s]	1.37	(15.2044)	1.52	(3.05687)
Jerking [cm/s ³]	4698	(64189.8)	5090	(11634.8)
Total time [s]		52.569		(63.3806)
Tool distance [cm]		7.7		(12.5187)

4. At the end of each session the user has to click on the Log out button and then the Exit button.

5. Through the menu at the top of the main window the user may access additional functions of PASS, i.e. print and export the results and review the data history.



6. After clicking on the Data history button a subwindow opens that enables to review records of different attempts for each task. It is possible to view either the table listing of measured values or the complete window showing both the table and the graphs for selected attempt.



Records of several attempts may be viewed at the same time which enables to follow the development of trainee's competence over a period of time.

The administrator is allowed to view records of all trainees in his or her group.

For more information, please also visit our website www.helago.cz

Good luck! 😊