FPC

funTEST

User Manual

Revision 2013.6.4

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1 Introduction

FunTEST is intended to control ICT testing and functional testing using standard PC. User manual for funTEST contains basic information for using funTEST. For more information please contact us:

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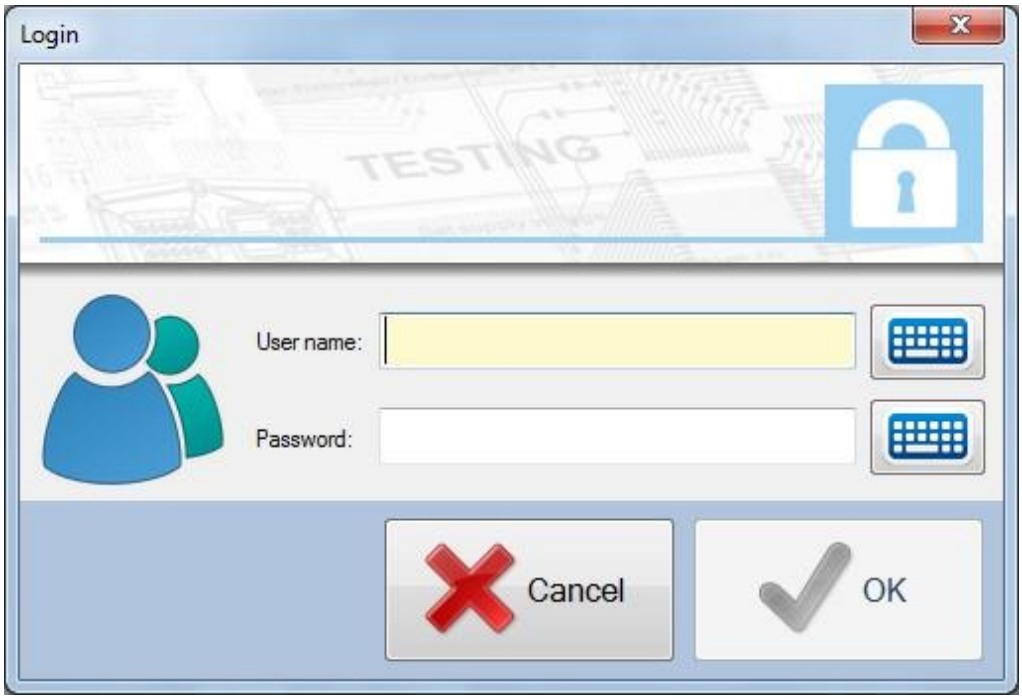
2 Working with funTEST

2.1 Starting and login

Use the "funTEST"

icon on the desktop to start funTEST.

After funTEST starts, logon screen will show. You can login using keyboard or touch screen.



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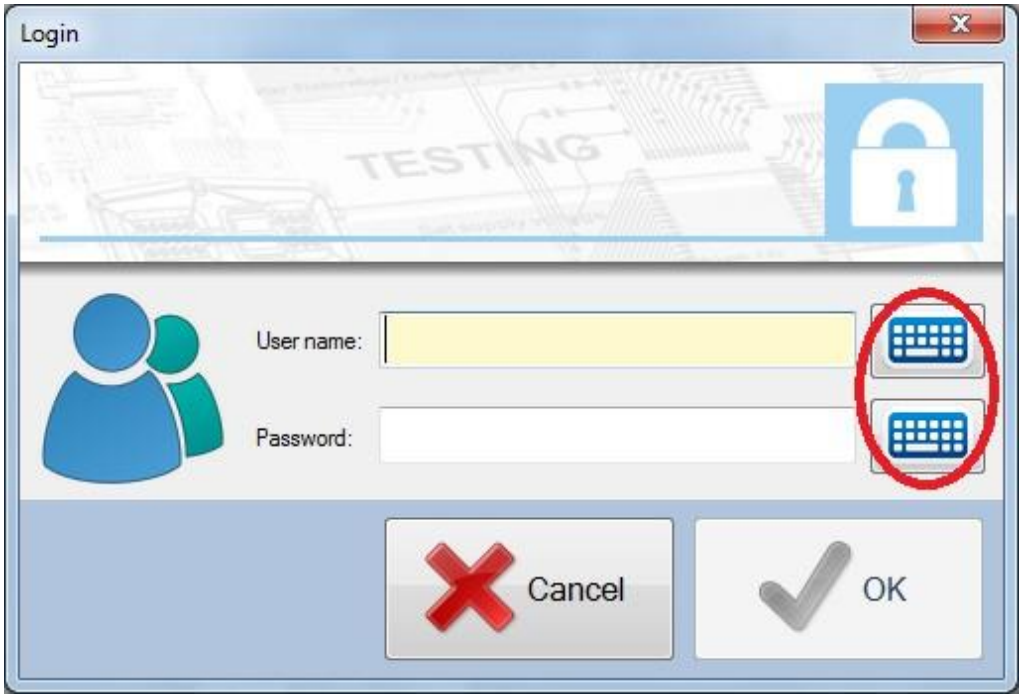
Enter username and password to login.
Use marked buttons on touch screen for opening virtual keyboard.



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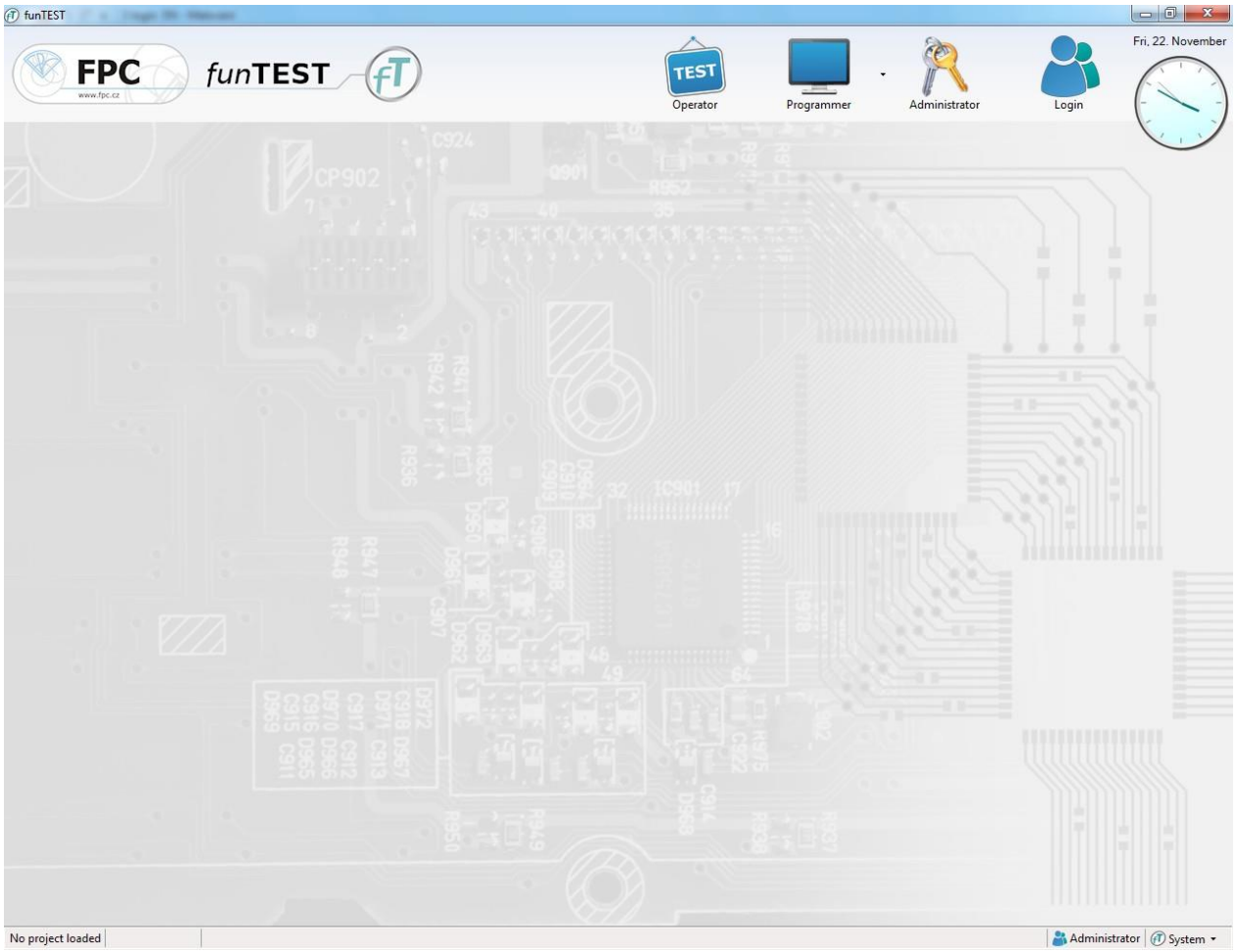
2.2 Main screen



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Main screen contains upper menu and bottom menu. Individual parts of menus are available according to rights of logged user.

2.2.1 Upper menu

Upper menu consists of following icons:
1) **Operator -** start testing
2) **Programmer -** opens test program for edit
3) **Administrator -** settings of test station, users, etc.
4) **Login**

2.2.1.1 Operator

Use the „**Operato**r“ button to start test. If project consists of more test programs, **dialog window for selecting test program** will appear before test starts.

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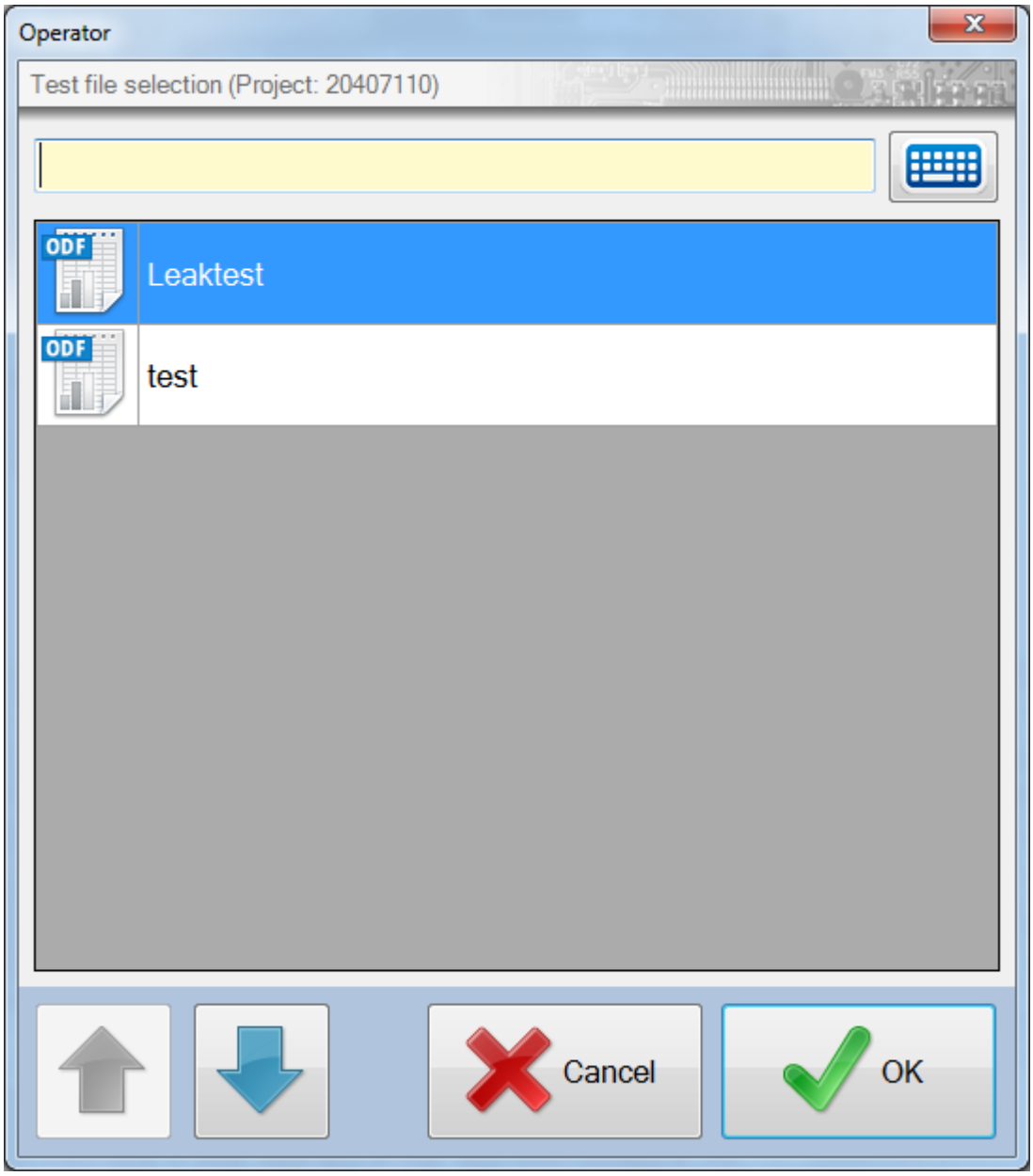

After confirming of selected test program, funTEST will start this test program (that means program loading, initialization of all devices, which are used in project).

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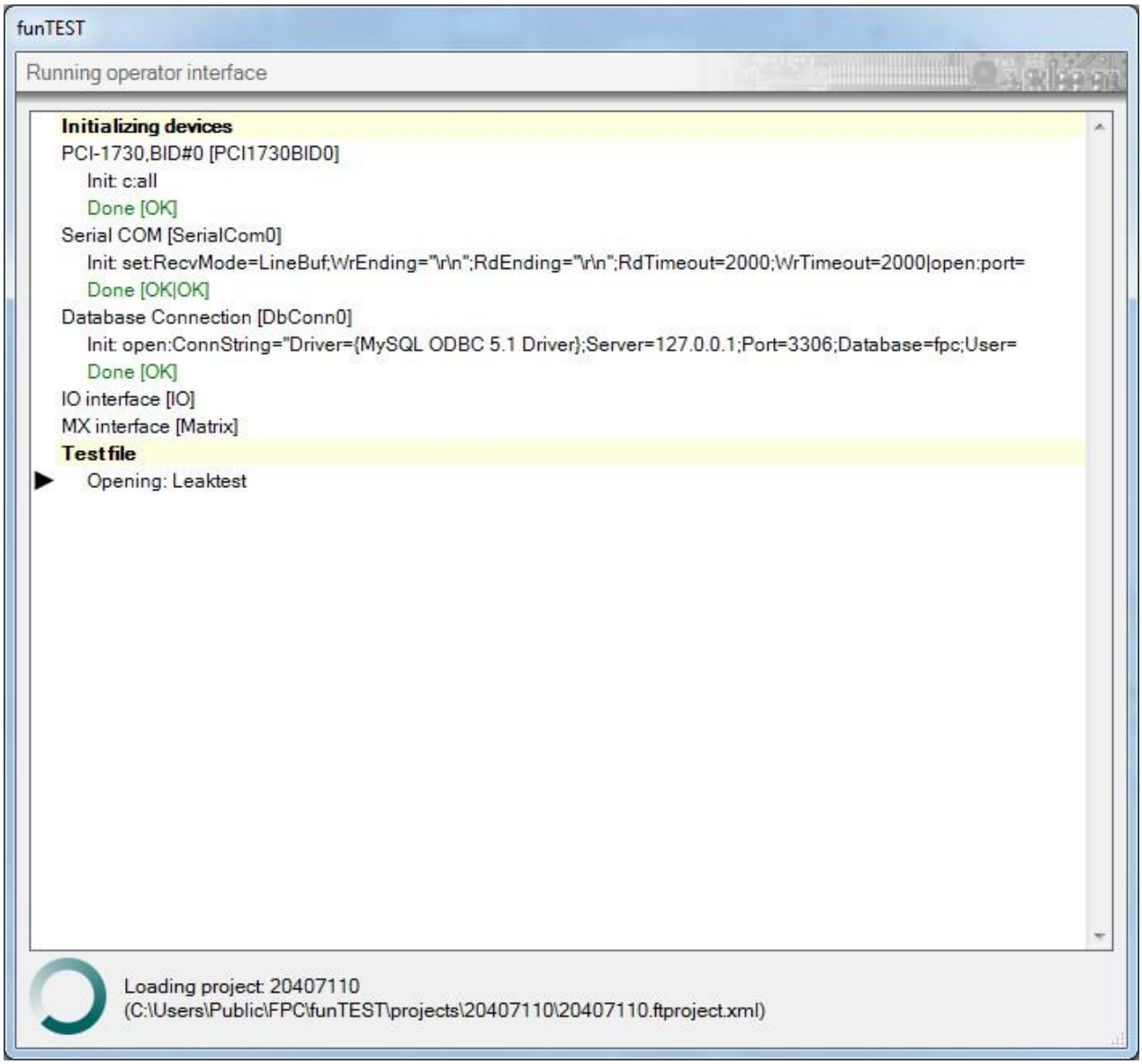

As soon as these actions are finished, window will be automatically closed and test will start. If any error occurs, window is still open with error message.

2.2.1.2 Programmer

Use button "**Programmer**" to open test program for edit. Second function of button "Programmer" is to start debug mode. The debug mode means, that all devices are initialized, test is started and test program is opened for editing. In debug mode it is possible to execute test steps in any order and edit them during run.

List of commands and their detailed description is in programmer's manual.

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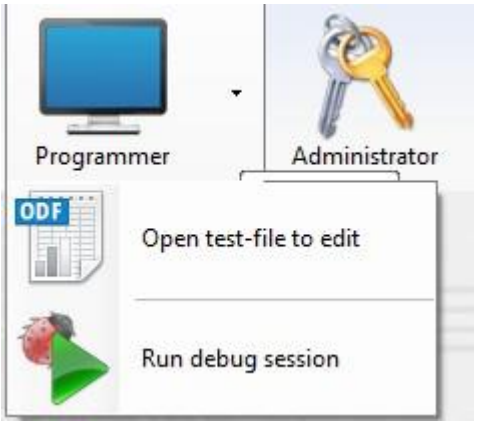
"**Programmer**" menu on the main screen offers **programming mode** and **debug mode**:



"Open test-file to edit" offers programming mode, "Run debug session" offers debug mode.

2.2.1.3 Administrator

Button "**Administrator**" opens administrator menu. In administrator menu, following is possible: test station settings, test program settings, user settings, language settings, etc.. After clicking this icon, **Administration window** will appear:

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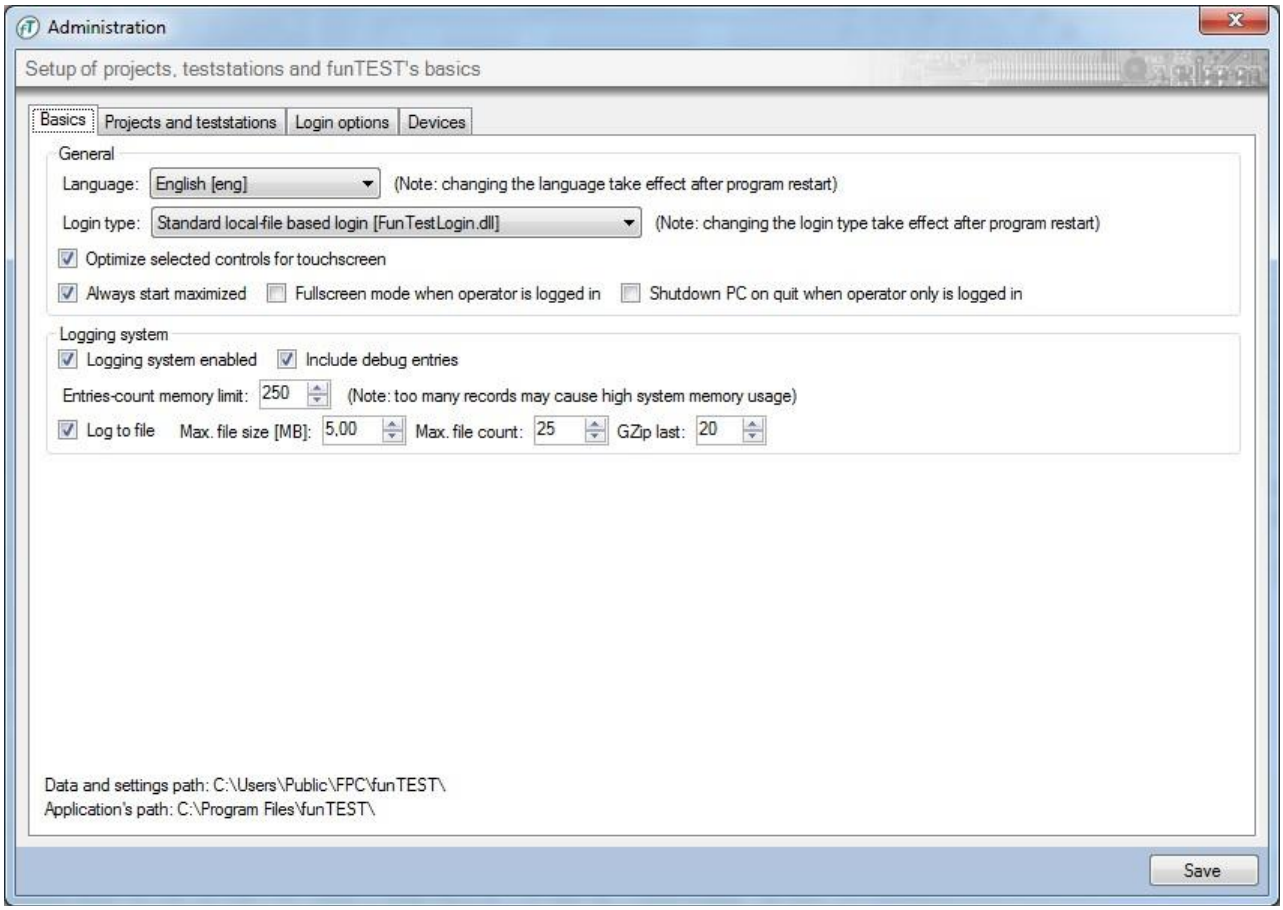

This window contains these tabs (from the left side):

1) **Basic -** basic settings
2) **Projects and test stations -** settings of test files, devices, etc..
3) **Login options -** advanced login options
4) **Devices -** display of available devices

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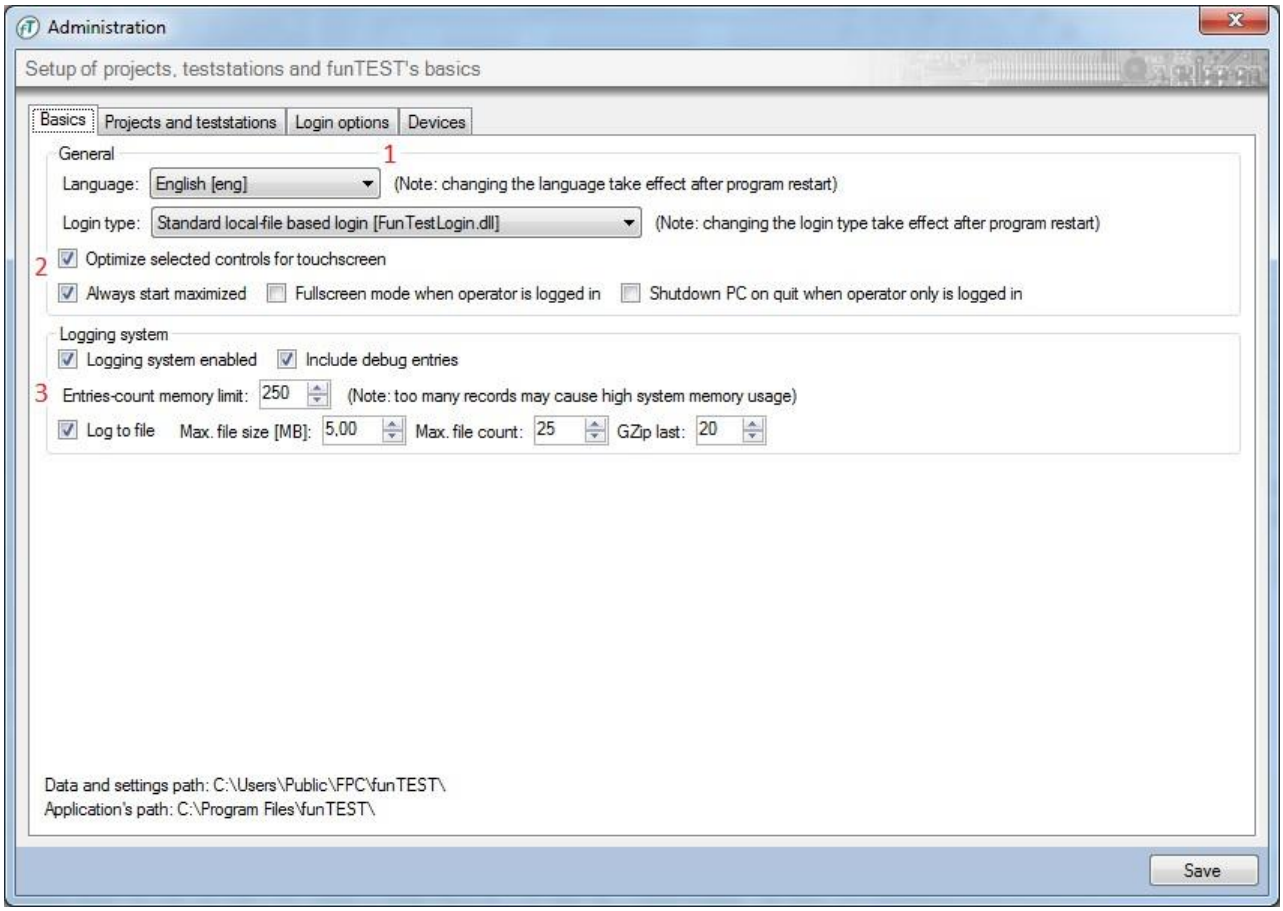
2.2.1.3.1 tab "Basic"



1- **Language settings of funTEST**. Languages available: czech, english, german, polish. FunTEST must be restarted to change take effect.
2- **Graphic options** - it is possible to set graphics customized to touch screen.
3- **Settings of funTEST logging system** - we recommend keep default settings.

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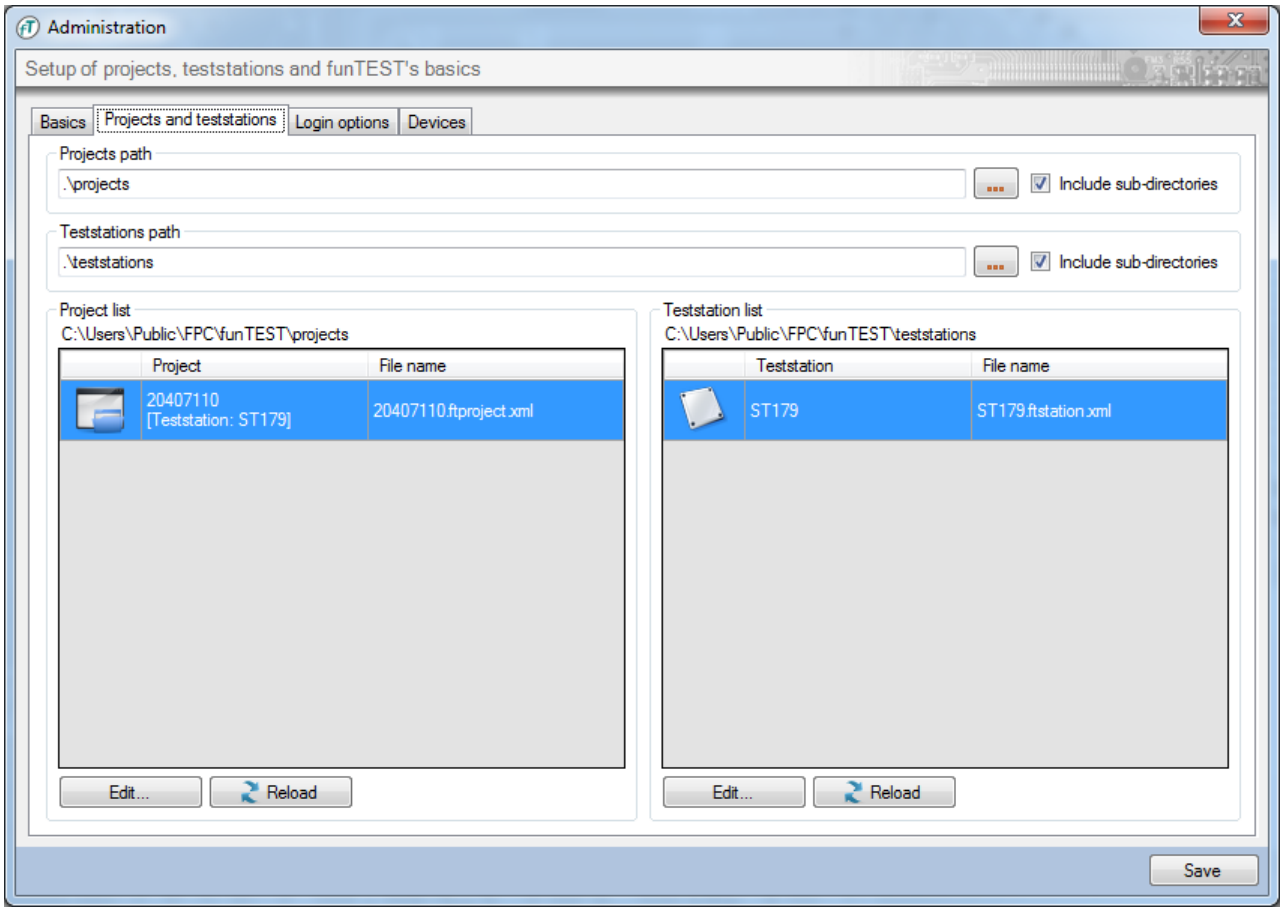
2.2.1.3.2 tab "Projects and teststations"



This tab is offering **settings of projects and settings of test stations**.
In left window is a **list of projects with edit option**, in right window is **list of test stations with edit option**. Edit option will show after clicking button "**Edit**" in both cases.

2.2.1.3.2.1 Test station settings

Test station defines used devices. It is possible to have more then one test stations, usual setting is one test station. More then one test stations will be used in the case one computer is used to control different device sets.

Test station edit

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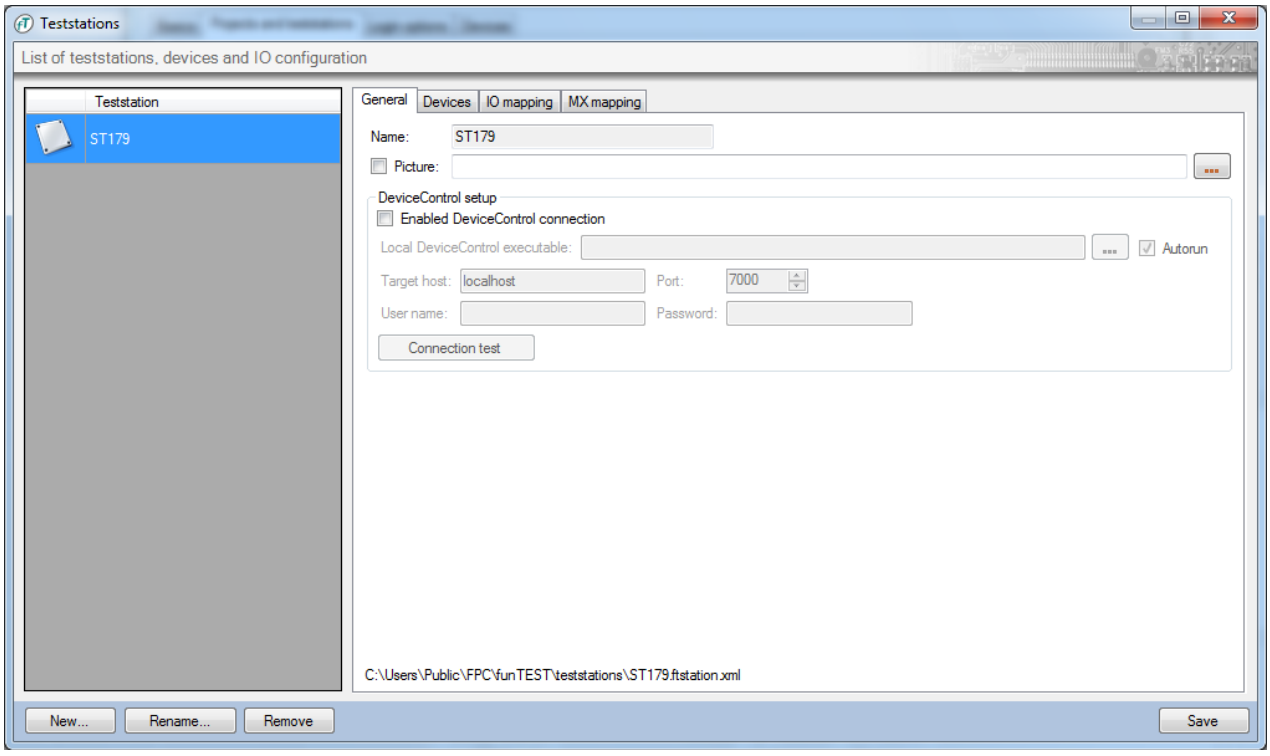
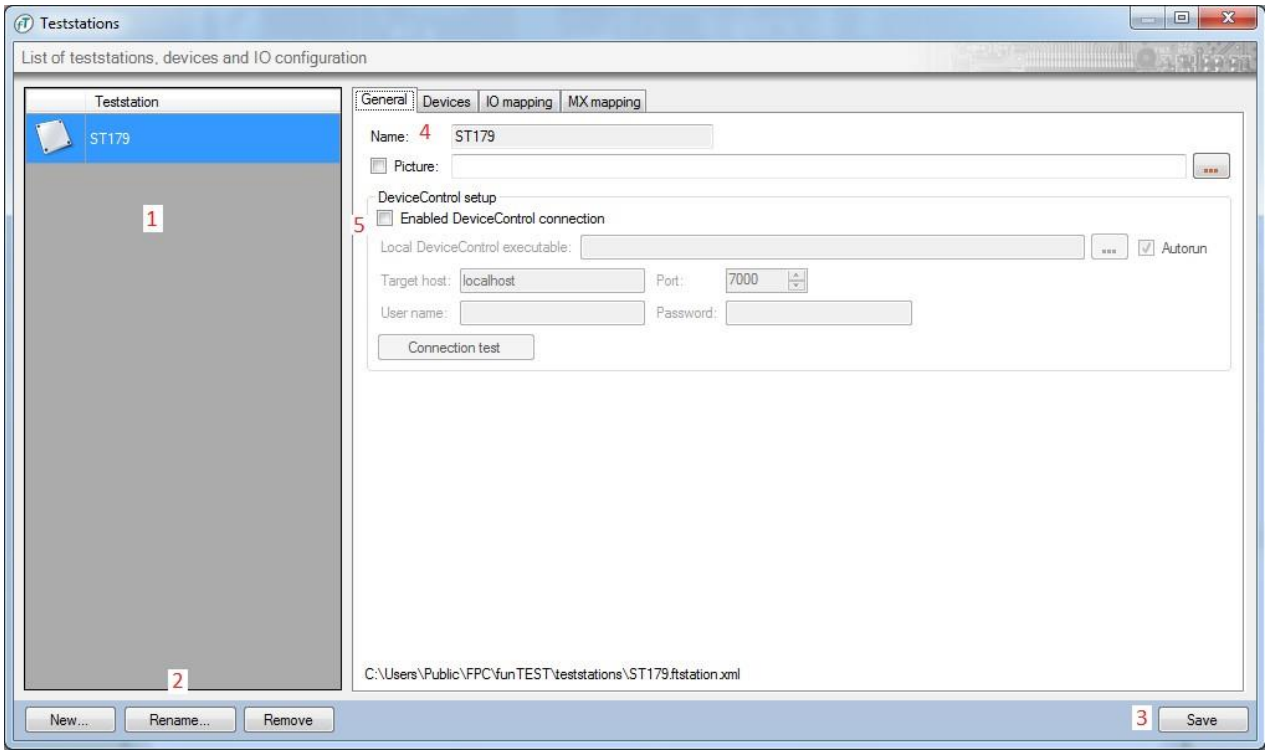


This window contains 4 tabs:
1) **General** - basic information and settings
2) **Devices** - settings of devices
3) **IO mapping** - settings of IO devices
4) **MX mapping** - settings of switching matrices



1- **List of test stations**.
2- **Add of new test station, rename of existing test station, remove existing test station**.
3- **Save** – after making changes it must be saved to changes take effect.
4- **Name of selected test station**. Under the name of test station is option for add picture to test station

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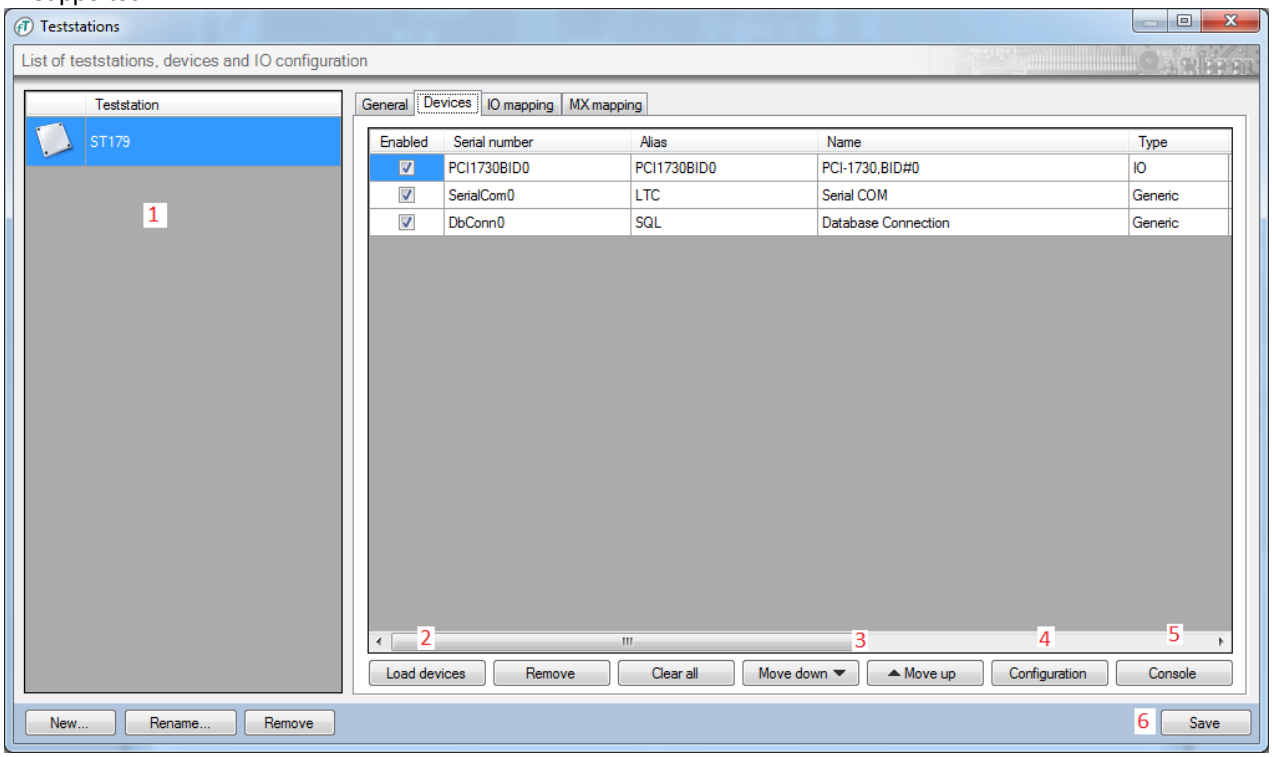
(checkbox + setting path to picture file).

5- **Setting communication with external program** DeviceControl. In default setting, devices connected to test station are controlled by funTEST. It is possible to use DeviceControl instead of funTEST (for controlling devices, for all other things is still used funTEST). DeviceControl was used in the past and this option is still supported.



1- **List of test stations** - on the right side are shown devices for the test station, which is selected in the list.

2- Button "**Load devices**" - it is used to load all devices. First, device must be configured in plug-in manager and then it can be loaded to this list.

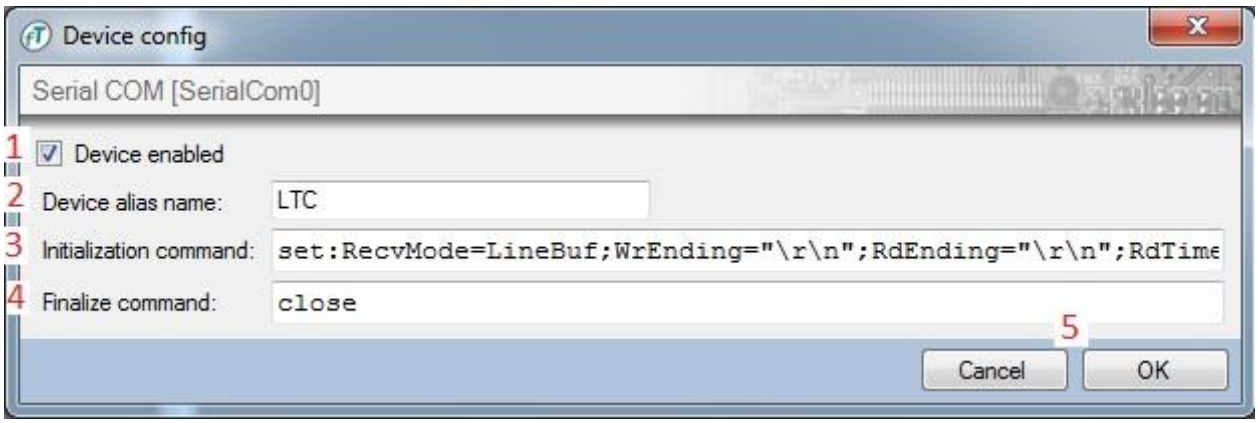
3- **Move device down or up**.

4- **Configuration** - configuration for selected device will be shown in separate window.

5- **Console** – separate window of console will be shown. In this window it is possible to communicate with selected device. You can communicate with devices using commands, which are available in manuals for this devices. Often used command is: *idn? . Device will answer its identification data (if this command is supported by the device).

6- Button for **save** changes.

Configuration



1- **Enable or disable device**.

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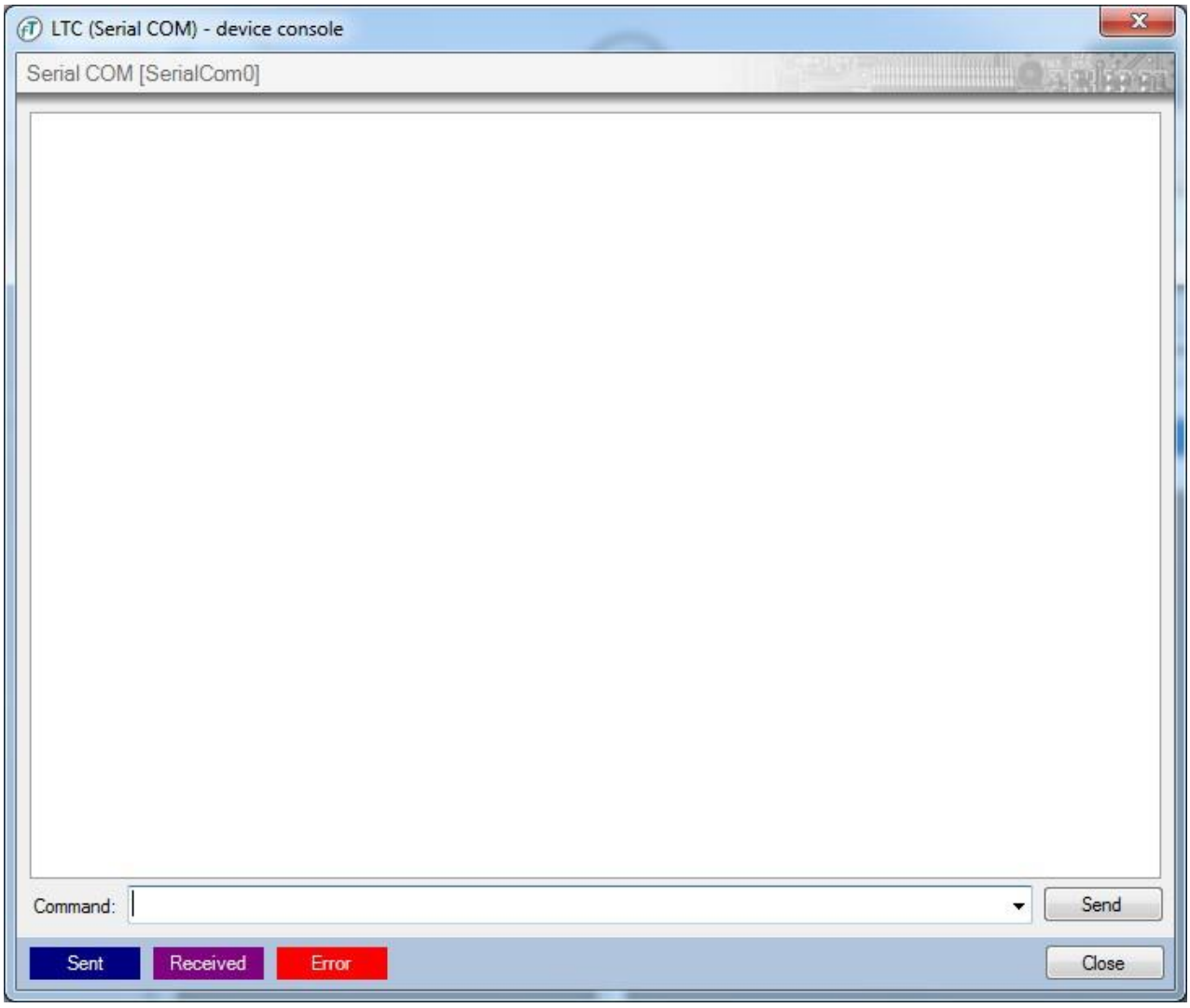
2- **Device Alias** – device is used in test program with this alias.
3- **Initialization commands** - commands, which are executed during loading the test program. It is possible to use commands which are supported by devices. For example Serial COM - it is possible to open COM port for communication and set parameters of communication. For other devices you can use switching of outputs (IO cards), set device to measure mode etc..
4- **Finalize commands** - it is possible for example close COM port, use switching of outputs etc..
5- **Buttons for confirm or cancel changes**.

Console



Separate window "**Console**" for communication with devices using commands.

Tab devices - settings of devices

Enabled	Serial number	Alias	Name	Type	Connection	Identification
☑	PCI1730BID0	PCI1730BID0	PCI-1730,BID#0	IO	Plug-in system	FPC s.r.o.,PCI-1730_BID#0,PCI1730E
☑	SerialCom0	LTC	Serial COM	Generic	Plug-in system	FPC s.r.o.,Serial COM,SerialCom0,1.1.
☑	DbConn0	SQL	Database Connection	Generic	Plug-in system	FPC s.r.o.,Database Connection,DbCo

Enabled – enable or disable device - according to this, device will be initialized or not during start of test

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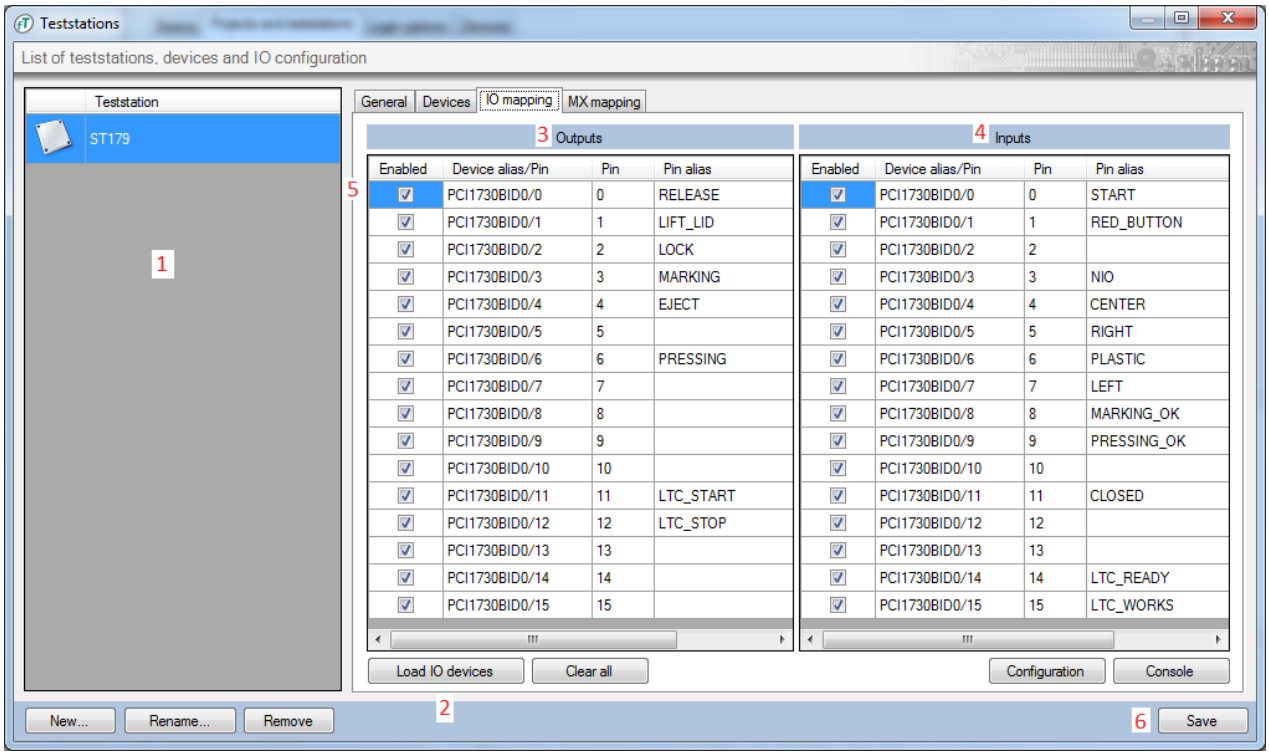
program.
Serial number - serial number of device.
Device Alias – alias is used in test program (if you want to send command to the device, its alias must be used as the device name).
Name – physical name of the device.
Type – device type.
Connection – connection of device – first, device must be configured in plug-in manager.
Identification – identification of device.



1- **Column for selecting test station**.
2- Button **Load devices** – after clicking this button, inputs and outputs of all IO devices are loaded. First, these devices must be configured in plug-in manager and then configured in tab devices in test station settings.
3- **Outputs** of all I/O devices.
4- **Inputs** of all I/O devices.
5- **Separate row for setting of one input/output**.
6- Button for **save** changes.

One row - detail

Enabled	Device alias/Pin	Pin	Pin alias	Segment
☑	PCI1730BID0/0	0	RELEASE	

Enabled – enable or disable using input/output.
Device alias/pin – type of device (16I16O, Matrix box, …) and its input/output .
Pin – number of a pin.
Pin alias – alias of the pin may be renamed at this place. This alias is used in test program.

2.2.1.3.2.2 Project settings

It is possible to have more than one project. More projects may be used for example for different products. Then, test programs are variants of these products.

Project edit

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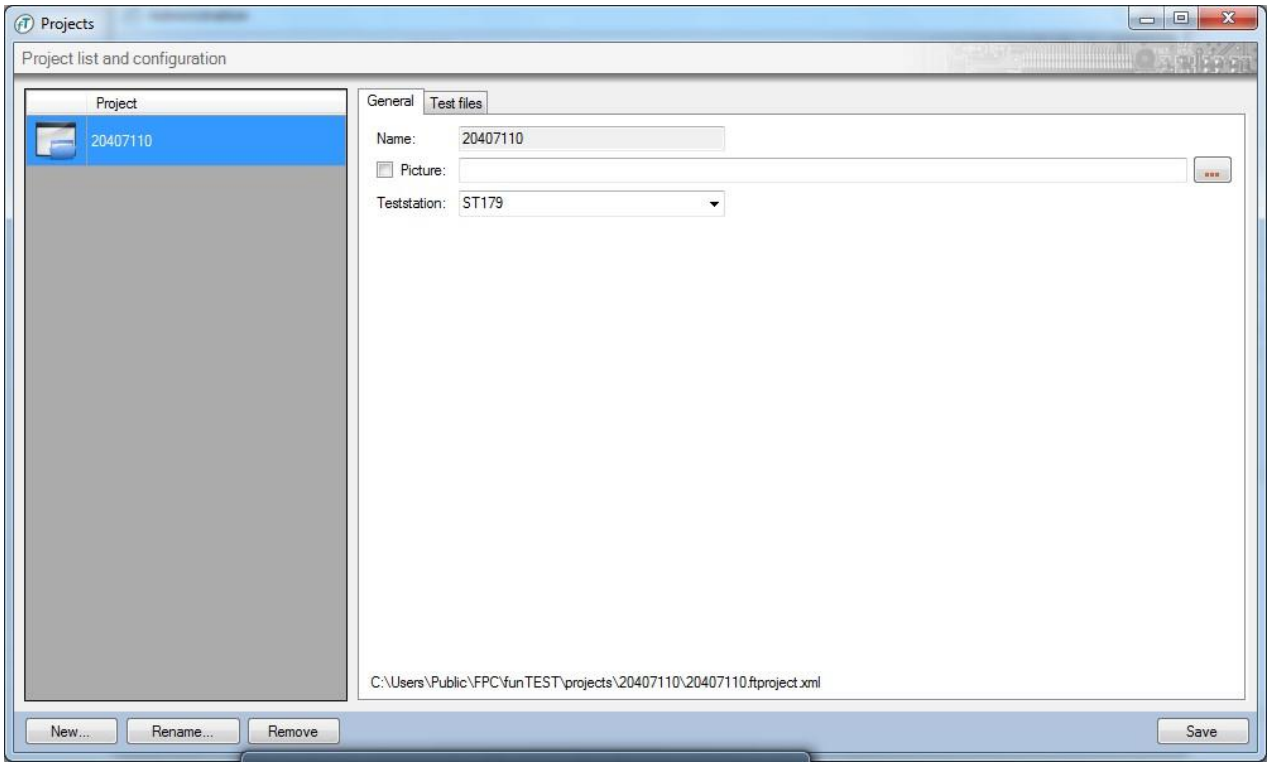
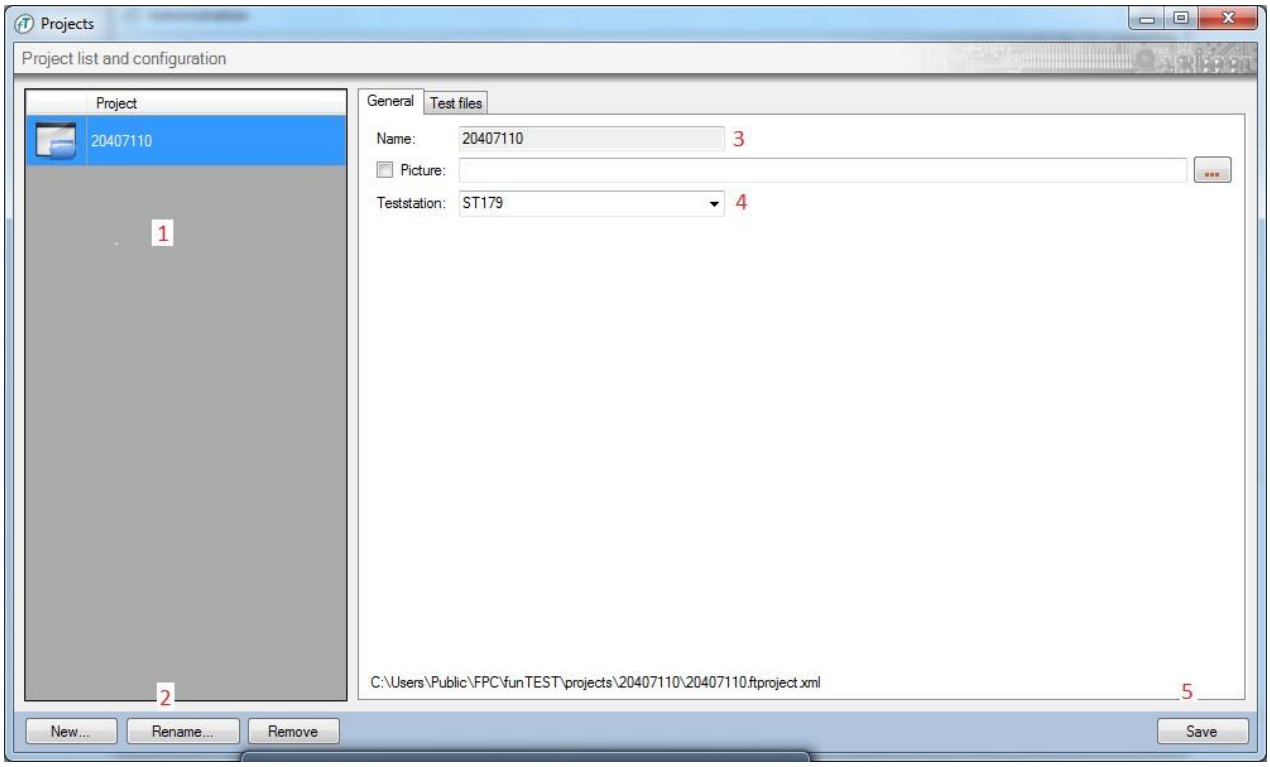


This window contains 2 tabs:
1)**General**
2)**Test Files**



1- **Project list**.
2- **Buttons for create, rename or remove project**.
3- **Name of actual selected project**, under this row there is row for adding picture for this project (checkbox + enter path to picture file).
4- **Test station** - adding of project to existing test station.

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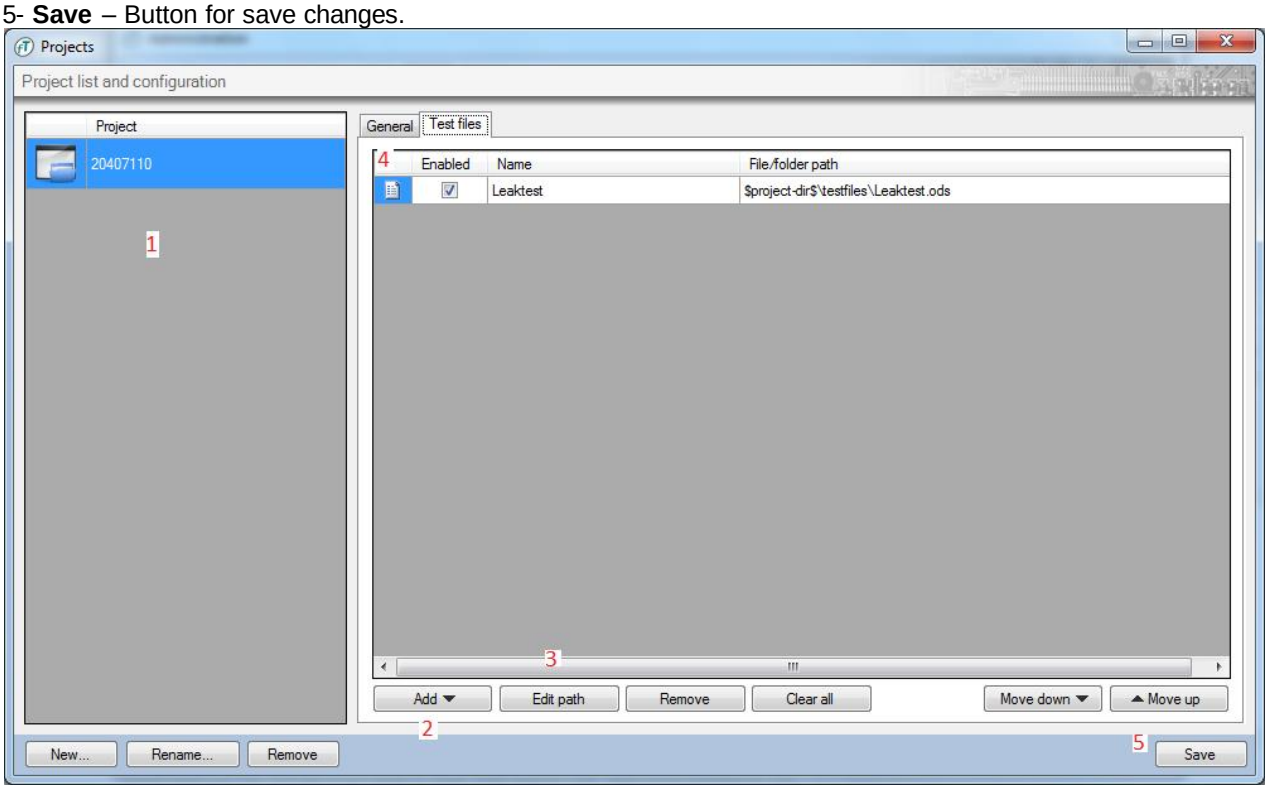
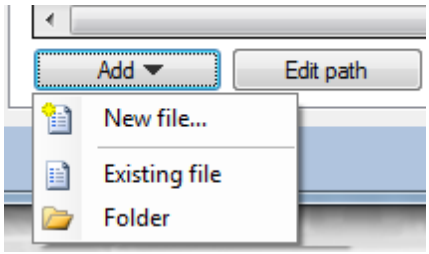
5- **Save** – Button for save changes.



1- **Projects list**.
2- **Add button** - add button for adding new test program to selected project.
3- **Buttons to set the path to project, removing project**.
4- **List of test programs**.
5- **Save**.

"Add" button



After extracting, options for adding new test program or adding existing test program will be shown.

Test programs list

	Enabled	Name	File/folder path
	☑	Leaktest	$project-dir$\testfiles\Leaktest.ods
	☑	test	$project-dir$\testfiles\test.ods

Enabled – Enable/disable using of test program (if it is disabled, then test program will not be shown in lists for selecting programs).
Name – name of test program.
File/folder path – path to test program files.

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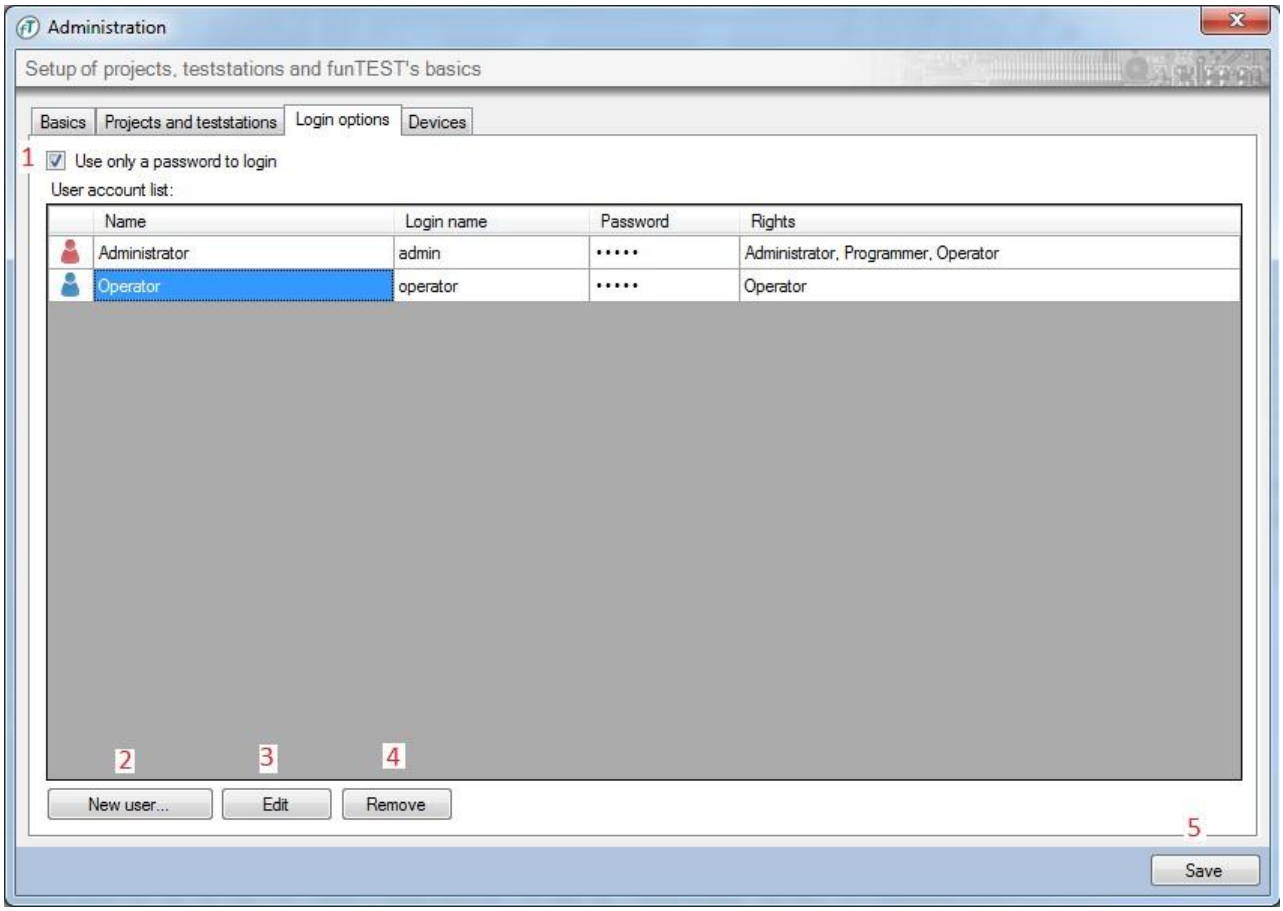
2.2.1.3.3 tab "Login options"

In this tab are shown users. Users with administrator rights may edit this tab.



1- Option for **logging only with entering password** (passwords must be then different for all users). User then enters only password to login.
2- **Adding of new user**.
3- **Edit of existing user**.
4- **Remove of existing user**.
5- **Save**.

procedure - adding of a new user

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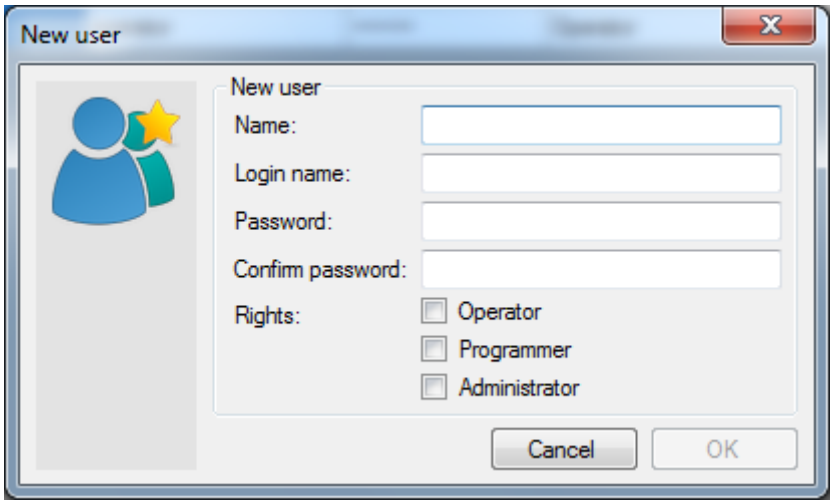

For adding user you must enter name, login, password, confirm of password, user rights .Edit of user works the same way. Operator may only work on operator screen. Programmer may do the same as operator + he may do changes to test program. Administrator has no limitations.

User list

User account list:

	Name	Login name	Password	Rights
	Administrator	admin	•••••	Administrator, Programmer, Operator
	Operator	operator	•••••	Operator

In this list is shown name of user, login and user rights. Example is on the picture above.

2.2.1.3.4 tab "Devices"

All devices, which are configured in **Plug-in manager** are shown in this tab. Everything is shown(doesn't matter on test stations or projects).

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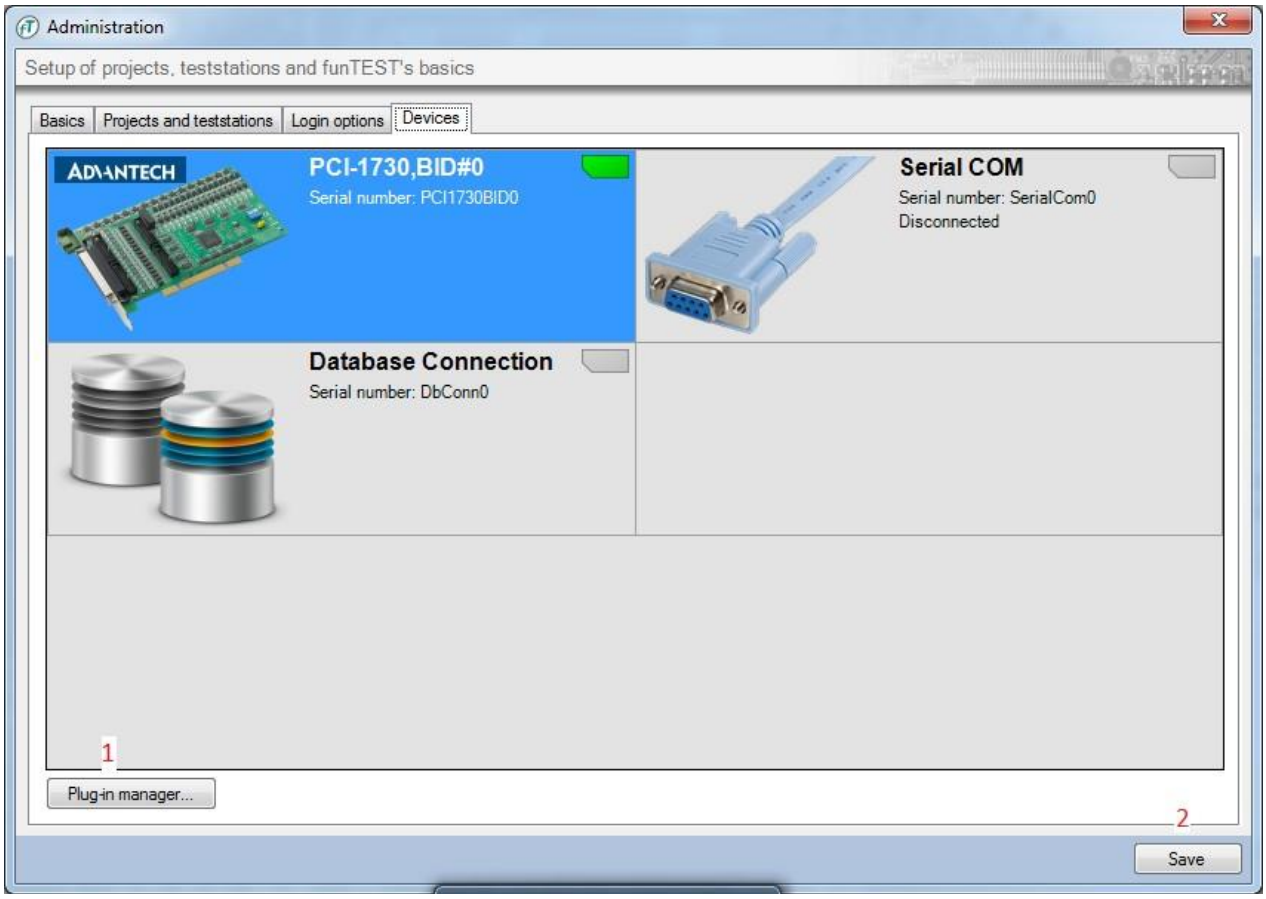

1- **Opens Plug-in manager**.
2- **Save**.

If you double click to device icon, **advanced options** will appear.

For example for serial port, next window is shown. In this window, you can communicate via serial port, make advanced settings (this window is something like Windows hyperterminal).

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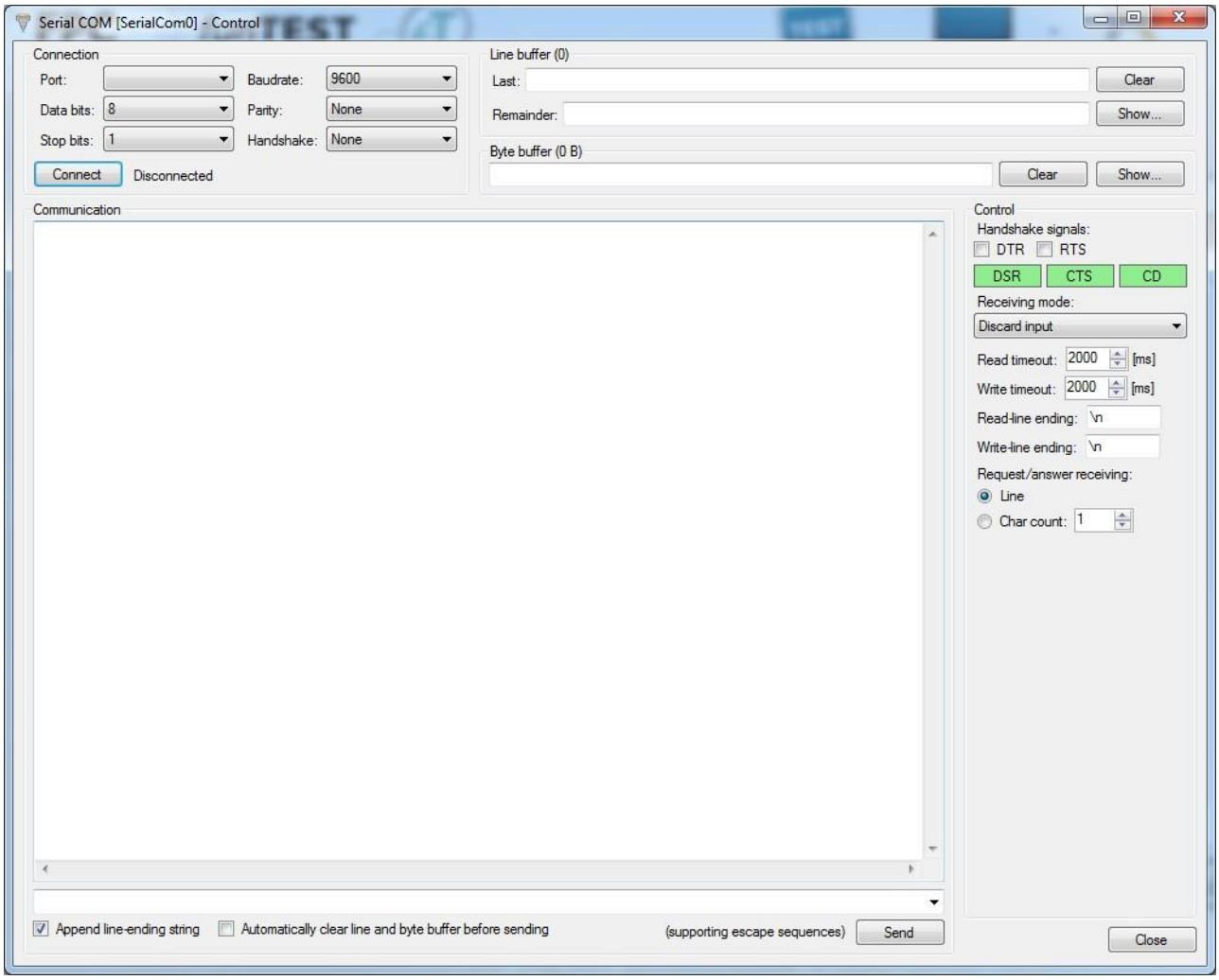
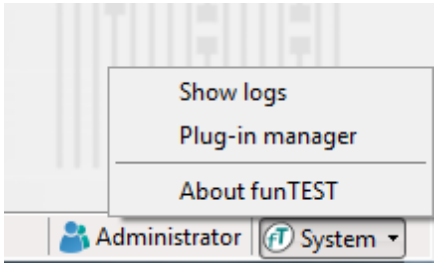


Different options for different devices are shown - manual output settings for I/O cards, manual switching for Matrix Box, voltage settings for power sources, etc..

2.2.2 Bottom menu



In the down right corner is menu "**System**", which contains following options:

1) **Access to funTEST logging system**.
2) **Access to plug-in manager**.
3) Opens window with **information about funTEST version**.

Individual options are available according to rights of logged user.

About funTEST – Shows version of funTEST and licence information.

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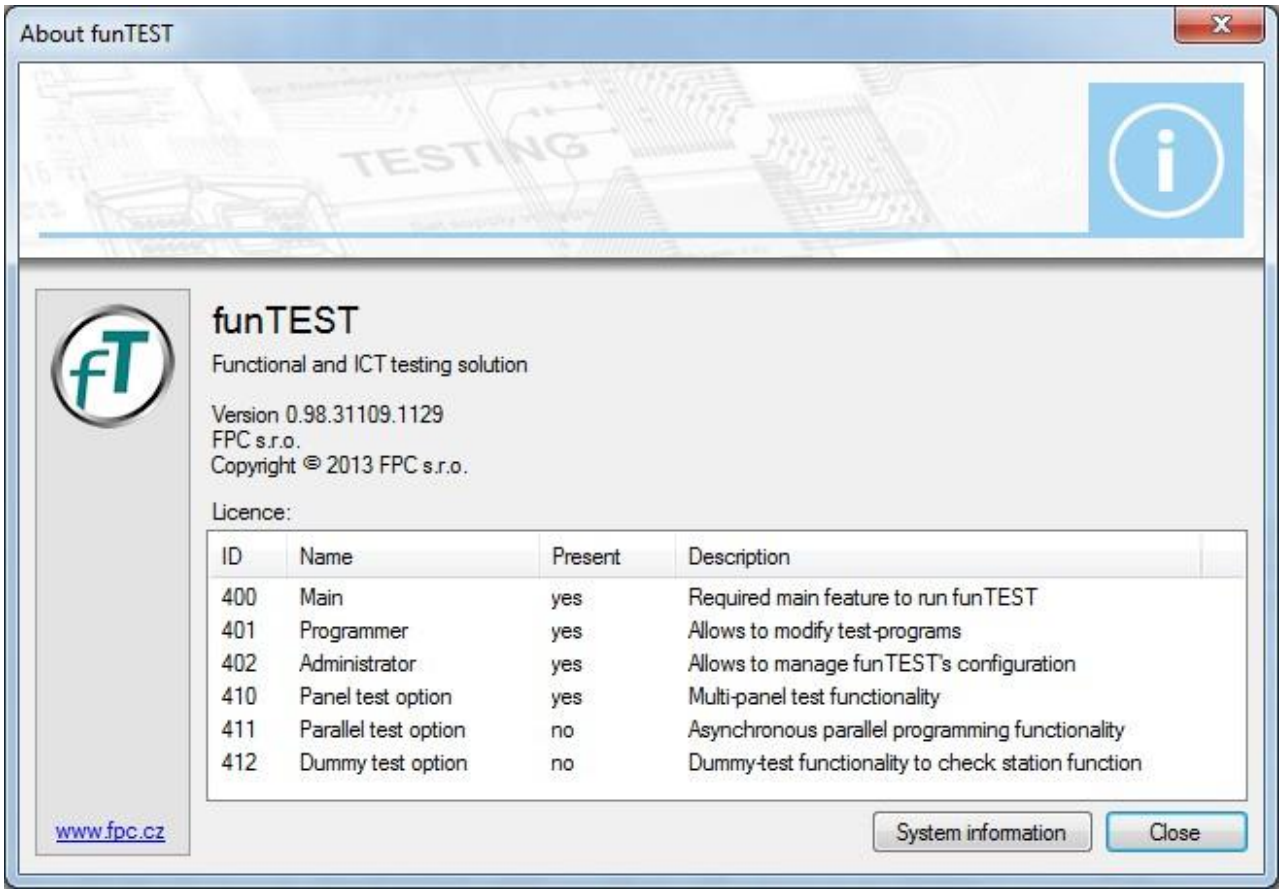

2.2.2.1 Plug-in manager

Plug-in manager is interface of funTEST for communication with connected devices. Every device which communicates with funTEST is communicating using plug-in, which is intended for this type of device (or type of communication).

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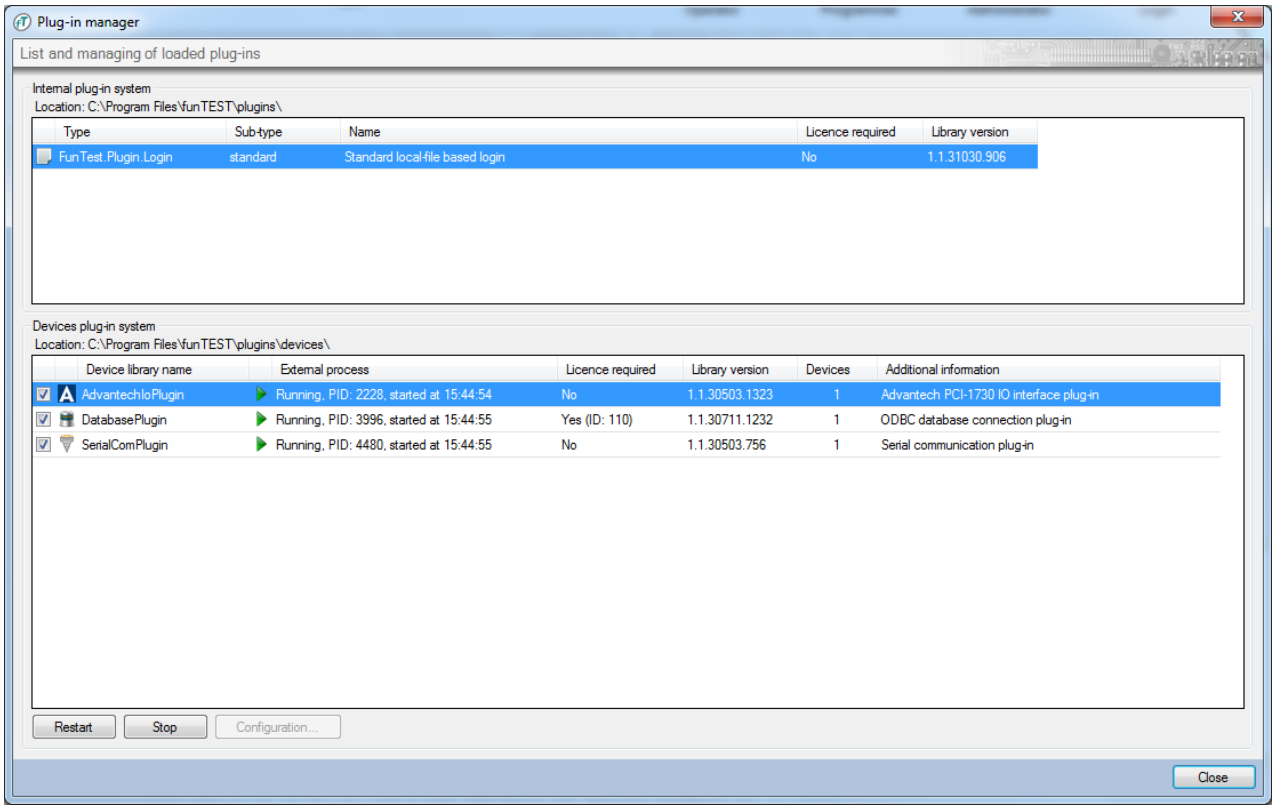
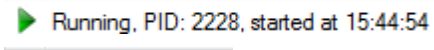


Plug-in manager offers these options: switch on plug-in, switch off plug-in, restart and configure. State of plug-in is next to it:

- **plug-in is switched on**: 

-**plug-in is switched off**:

Example of **plug-in configuration** - setting of count of COM ports for funTEST:

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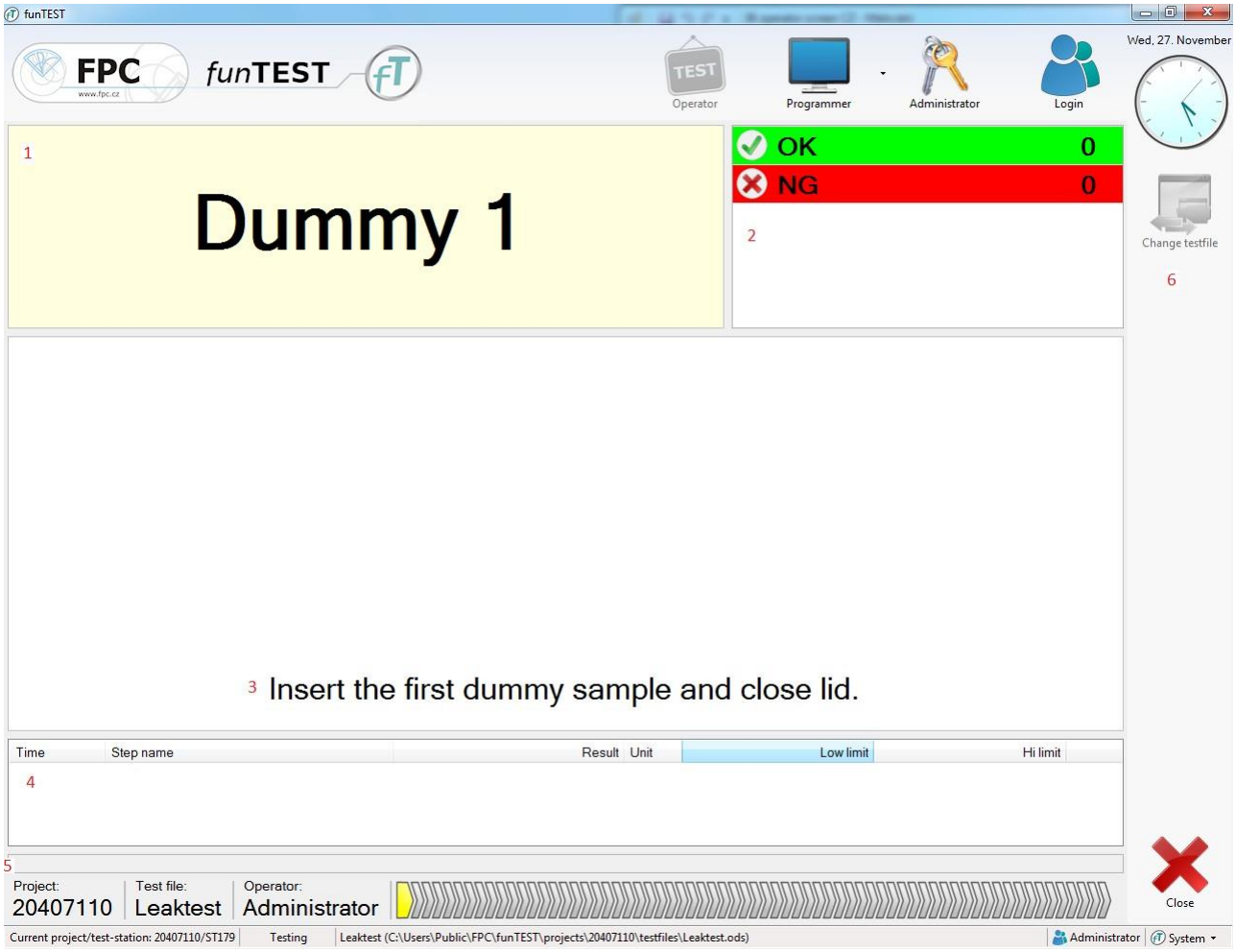
2.3 Operator screen

Operator screen (**operator mode**) is accessible after double click to icon : on the main screen (and after program selection if more programs exist).



1- **Status of test station**. Status is changing according to state of test station. It may change for example to ready, testing, pass, fail, ...
2- **Counter**. Usually are used counters of OK and NG parts, but any counter may be used (it depends on test program).
3- **Window for showing messages**. Messages and requirements to operator are shown in this window (for example requirement: insert part).
4- **Window for showing results**. Measured results are shown in this window. Results are shown in this format: time of measurement, name of test step, result, units of measurement, lower limit, upper limit.
5- **Bottom toolbar**. Here are shown : selected project, selected test program, logged operator. Next to it is a visualization of good and wrong tests.
6- **Menu on the right side**. This menu offers: change of test program - button "Change test file", quit testing - button "Close". Next buttons may be added (in test program), function of these buttons is programmable.

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3 funTEST files

FunTEST is located in folder: C:\Program Files\funTEST .

Test programs and statistics are saved in : C:\Users\Public\FPC . The paths to the directories may differ according to used operating system. These paths are valid for Windows 7.

Folder FPC contains folder "projects". Folder "projects" contains folders for projects (one folder for one project). In folder of some project (it has the same name as project name) are folders "testfiles" and "statfiles". In folder "testfiles" are placed test programs, in folder "statfiles" are placed statistic files.
For each day is created new statistic file.

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4 Notes

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