

## **- RT-Executor -**

### **User Manual**

#### ***RT-Executor system overview***

Main task of RT-Executor is to execute test cases which are stored in database. Test cases are organized inside test plans. Each test plan comprising test cases, description about devices used in process of testing etc.

RT-Executor contains two sub-modules: graphical user interface (GUI) and a core part. GUI is realized as executable file and core is realized as dynamic link library (dll).

#### ***Starting RT-Executor***

After successful installation of RT-Executor, shortcut to application will appear on user desktop. Double click on shortcut to open RT-Executor.

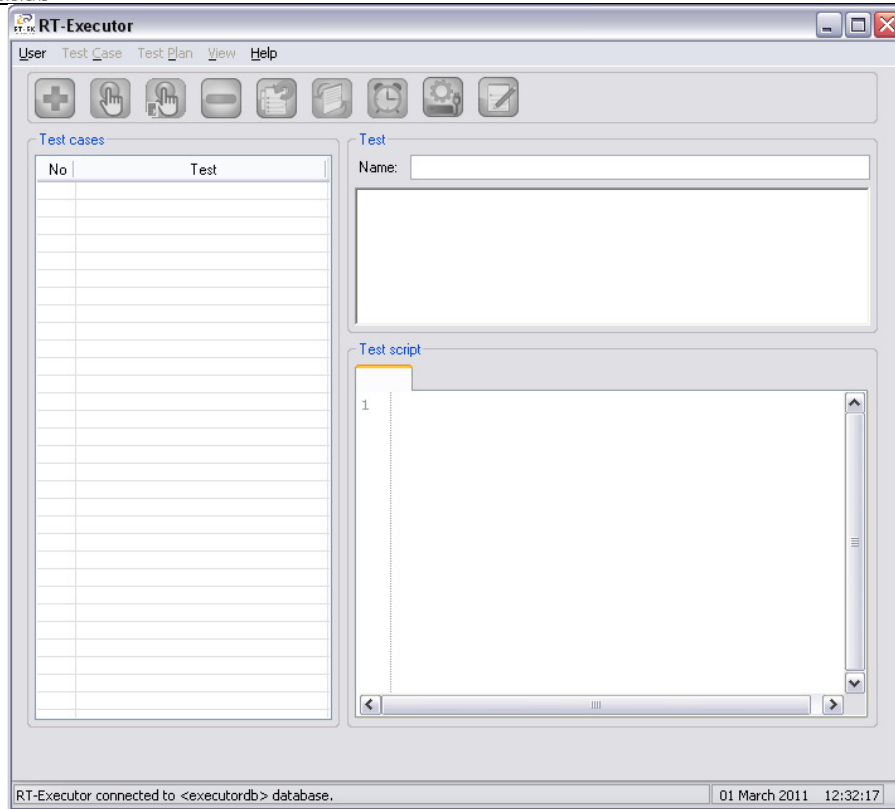
For purpose of logging application on to database, connection string is required. This string is stored inside **ExecutorGUI.exe.config** file. It's necessary to obtain that those parameters inside this file are correct. In opposite, application will fail to login and it will expect to connection parameters be entered manually. If connection string inside configuration file is correct, application will successfully connect on to database and on screen Picture 1 will appear, in opposite Picture 2 will appear. It's important to mention that application can not be used if it is not connected on to database.

#### ***RT-Executor startup requirement***

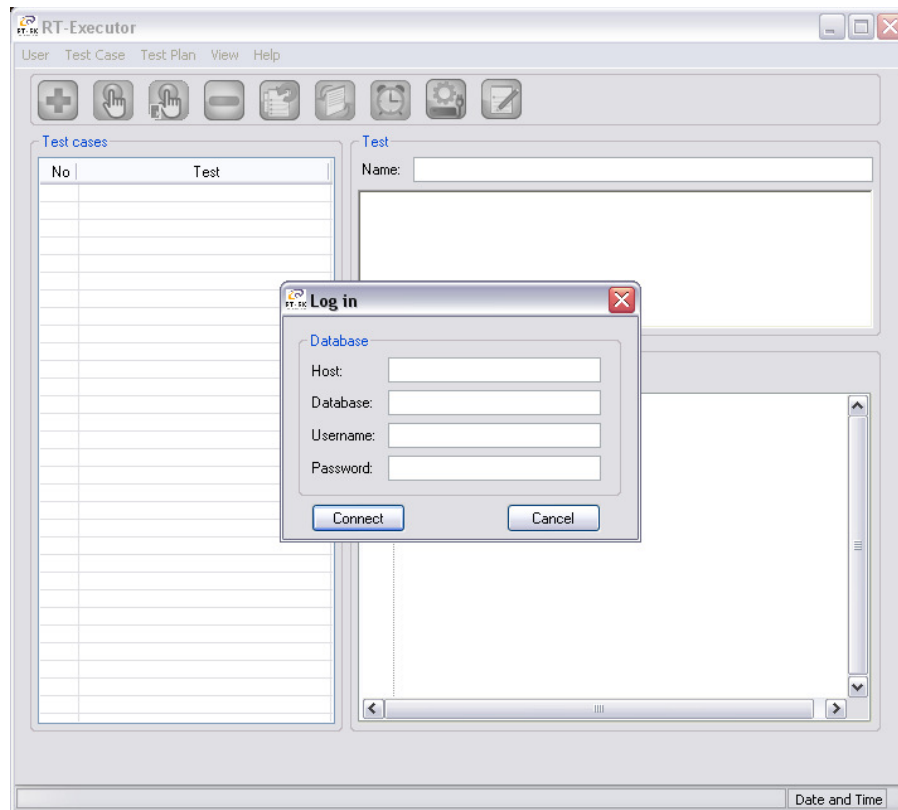
Before test case execution starting, user must verify that specific information is entered in to database. This information is necessary in process of test case execution. This data must be entered for reason to activate specific features.

First of all, in order to log in properly, user must be entered in TUSER table. Also, root paths for the test scripts must be defined in TROOTPATHS table.

All this data are entered with RT-Executor Database administration tool.

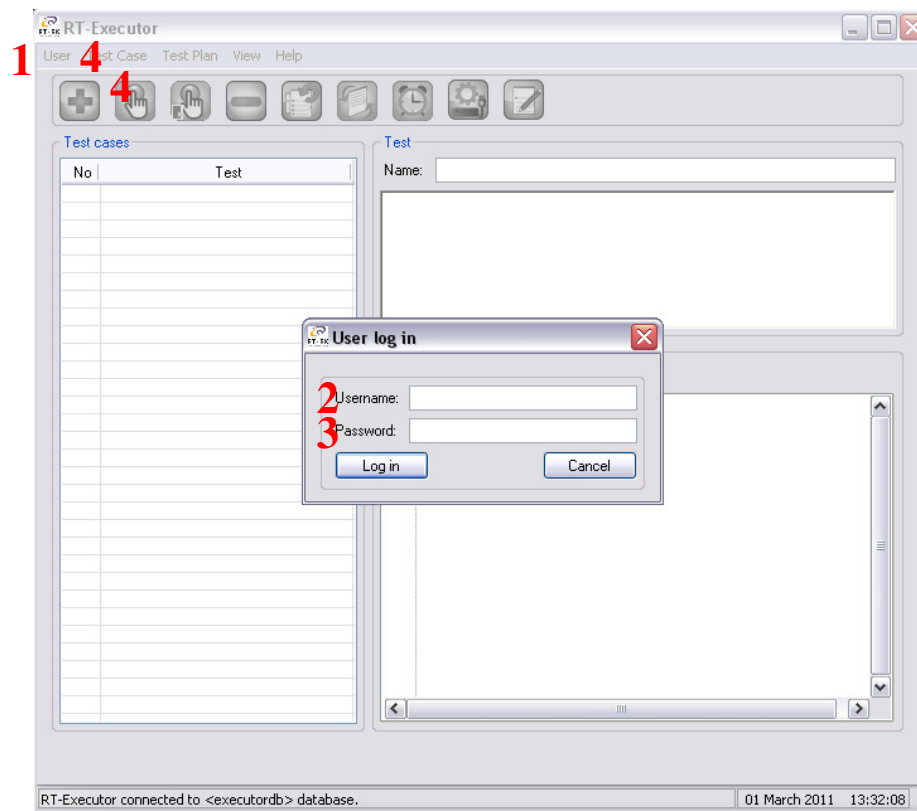


**Picture 1: RT-Executor started with regular connection string**



**Picture 2: RT-Executor started with wrong connection string**

## Logging user on to application

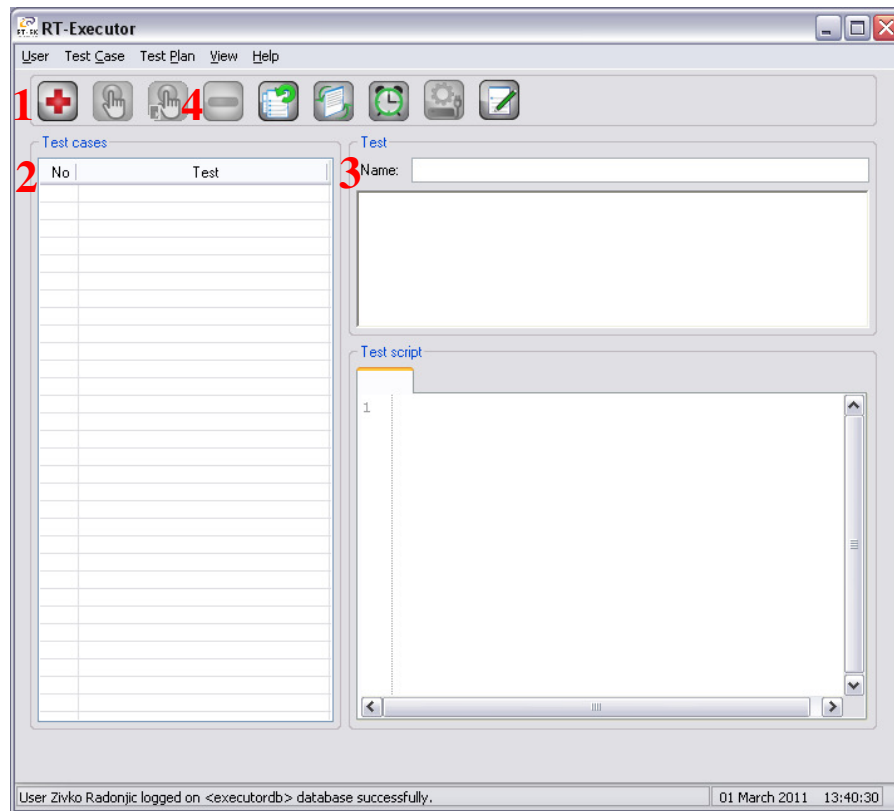


Picture 3: RT-Executor user log in

To start using application, user needs to be authenticated. Process of user login comprising following steps (please look Picture 3):

1. Select item from menu **User - > Log in**
2. Form **User log in** will appear where username and password need to be entered
3. Enter valid user name and password and click **Log in**. After successful logging, form will disappear and module is ready to be used
4. To log of user from module, select item from menu **User - > Log off**.

## Execution test plan loading

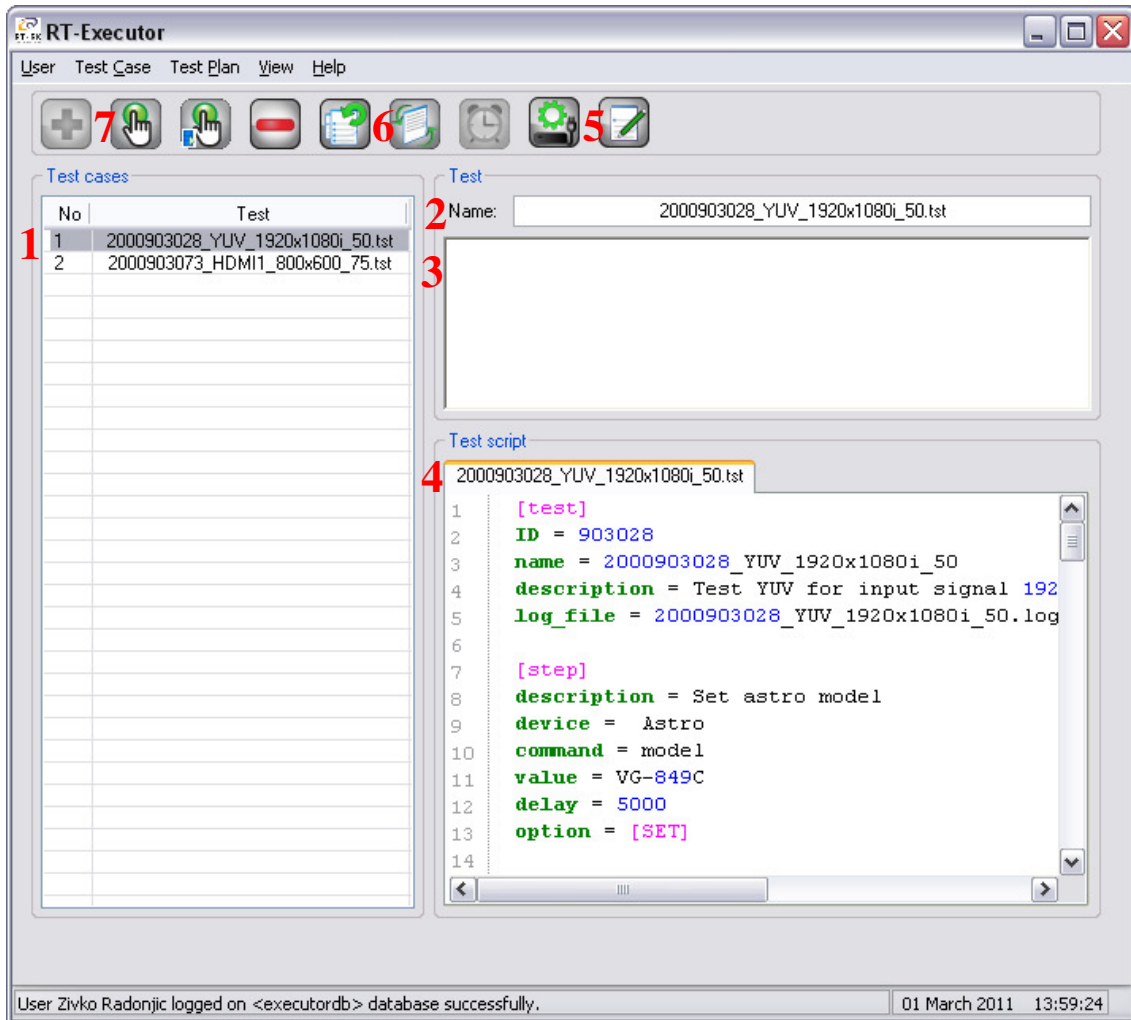


Picture 4: RT-Executor test plan loading

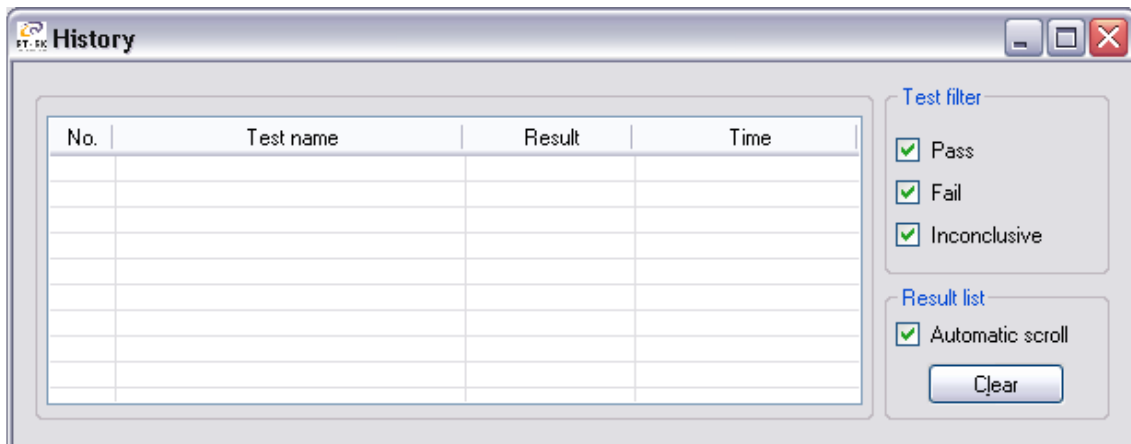
To execute test cases, appropriate test plan needs to be loaded. To load test plan, follow further steps:

1. Click on icon '**Load test plan**' or select item from menu **Test Plan - > Load (Ctrl+V)**. **Open File Dialog** will appear. Select desired test plan.
2. For currently selected test plan, test cases are shown in **Test Cases** list box.
3. For selected test case, name and description are shown inside **Test** group box.
4. To close loaded test plan, click on icon '**Close test plan**' or select item from menu **Test Plan - > Close (Ctrl+B)**.

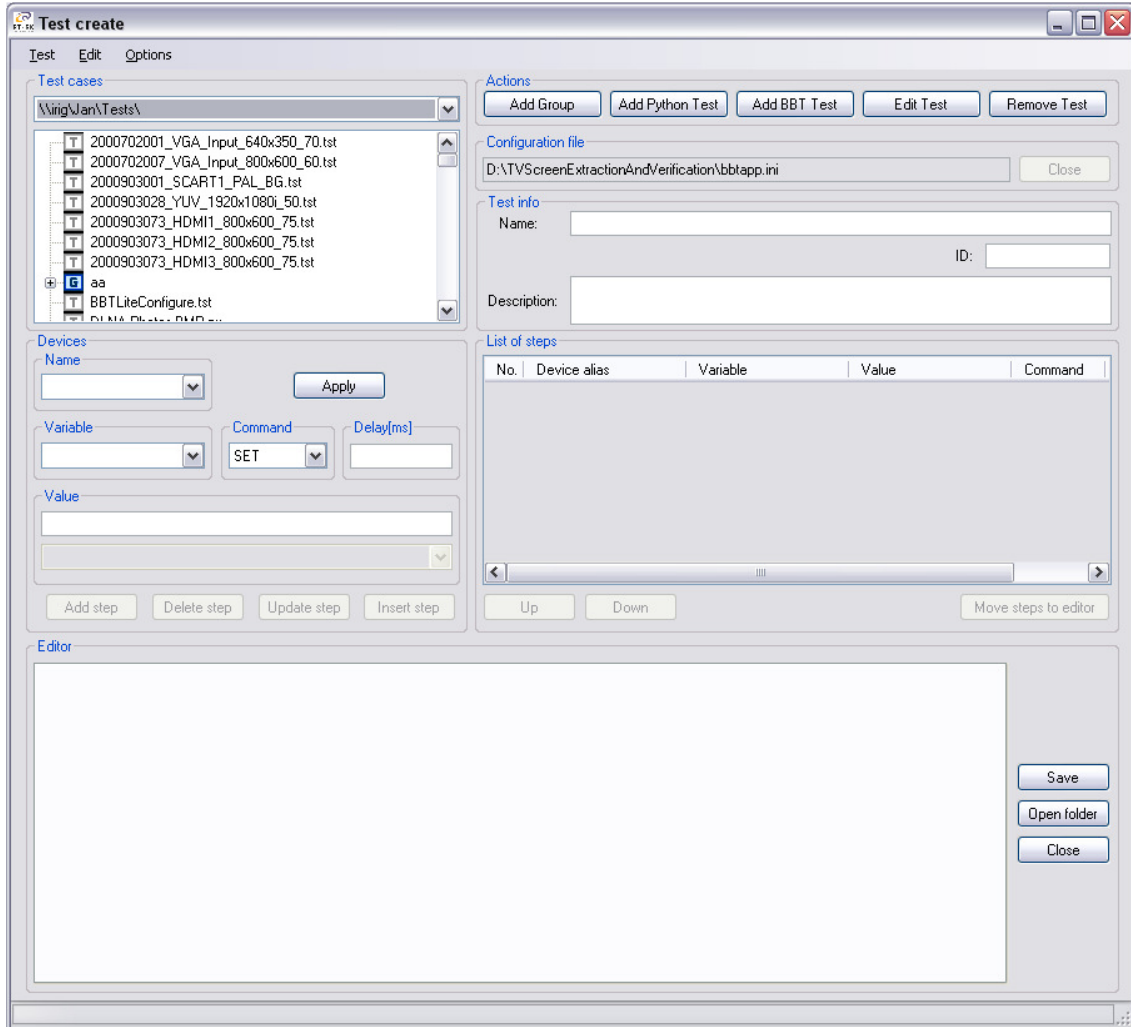
## Test plan execution



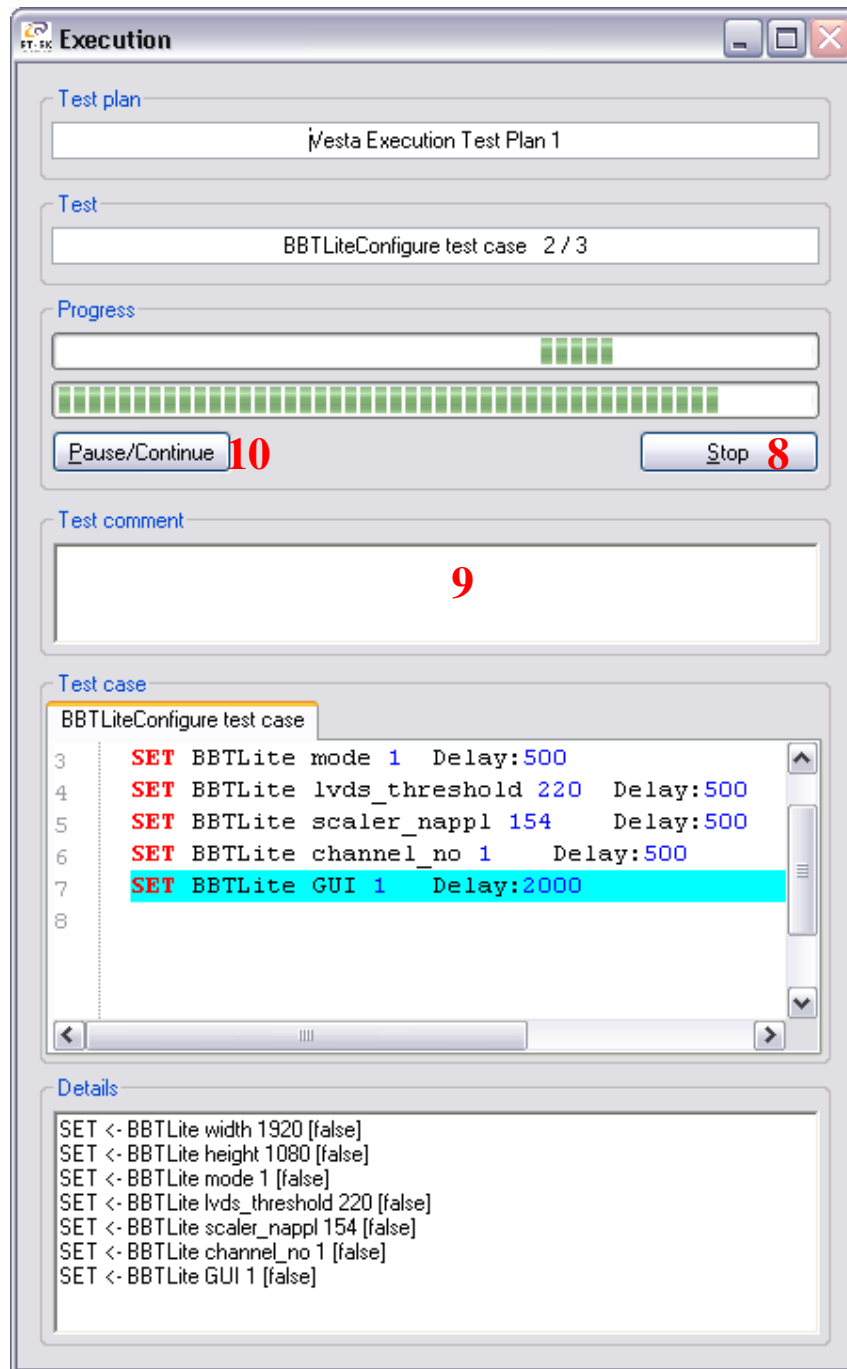
Picture 5: RT-Executor test plan execution



Picture 6: RT-Executor history



**Picture 7: RT-Executor new test case form**



Picture 8: RT-Executor execution form

After successful load of test plan, RT-Executor is capable to execute test cases comprising loaded test plan. Following steps in details describes process of test case execution:

1. List with test cases comprising loaded test plan.
2. Text box with name for currently selected test case.
3. Text box with description for currently selected test case.
4. Text box with content of main script for currently selected test case.
5. Click on icon '**Show history**' or select item from menu **View - > History** to show form (Picture 6) with list of previously executed test cases.
6. Click on icon '**Create new test case**' or select from menu **Test Case - > Create (Ctrl+C)** to show form (Picture 7).
7. Click on icon '**Execute test plan**' or select item from menu **Test Plan - > Execute (Ctrl+E)** to execute currently loaded test plan. There is possibility for test results of executed test cases to be stored or not to database, so choose the wanted action. After selection, Execution form (Picture 8) is shown, where user can track process of test case execution. Test cases are executed one after the other as they appear in list. If user wants to execute only one test case, it just needs to double click on wanted test case in list.
8. Click on **Stop** button on execution form to stop test plan execution.
9. Text box for purpose if user need to add comment to executed test case. Comment will be added to database with test case result together
10. If user wants to temporary pause execution of test case, click on **Pause/Continue** button will provide this function.

## ***Test create***

One of features that Executor module has is test creator. Using this tool user can create new test cases and also can edit already existing test cases. Two types of tests are supported:

- BBT tests
- Python tests

It's straight forward to create test case. It's important to say that tool contain reviewer of test case currently being write. Also reviewer is supporting Highlighting strategy, so key words are easily recognized, both BBT and Python words. BBT tests files using this reviewer can be only read, but for Python tests cases, this reviewer enable to fully write this type of test (editor). As additional feature, it contain button, where pressing it, it will insert in to Python file command which is referring device included in to Execution test plan.

To create or edit test, appropriate device configuration must be loaded. Device configuration can be loaded in two ways:

- Device configuration loaded by loaded test plan
- Device configuration loaded by configuration file

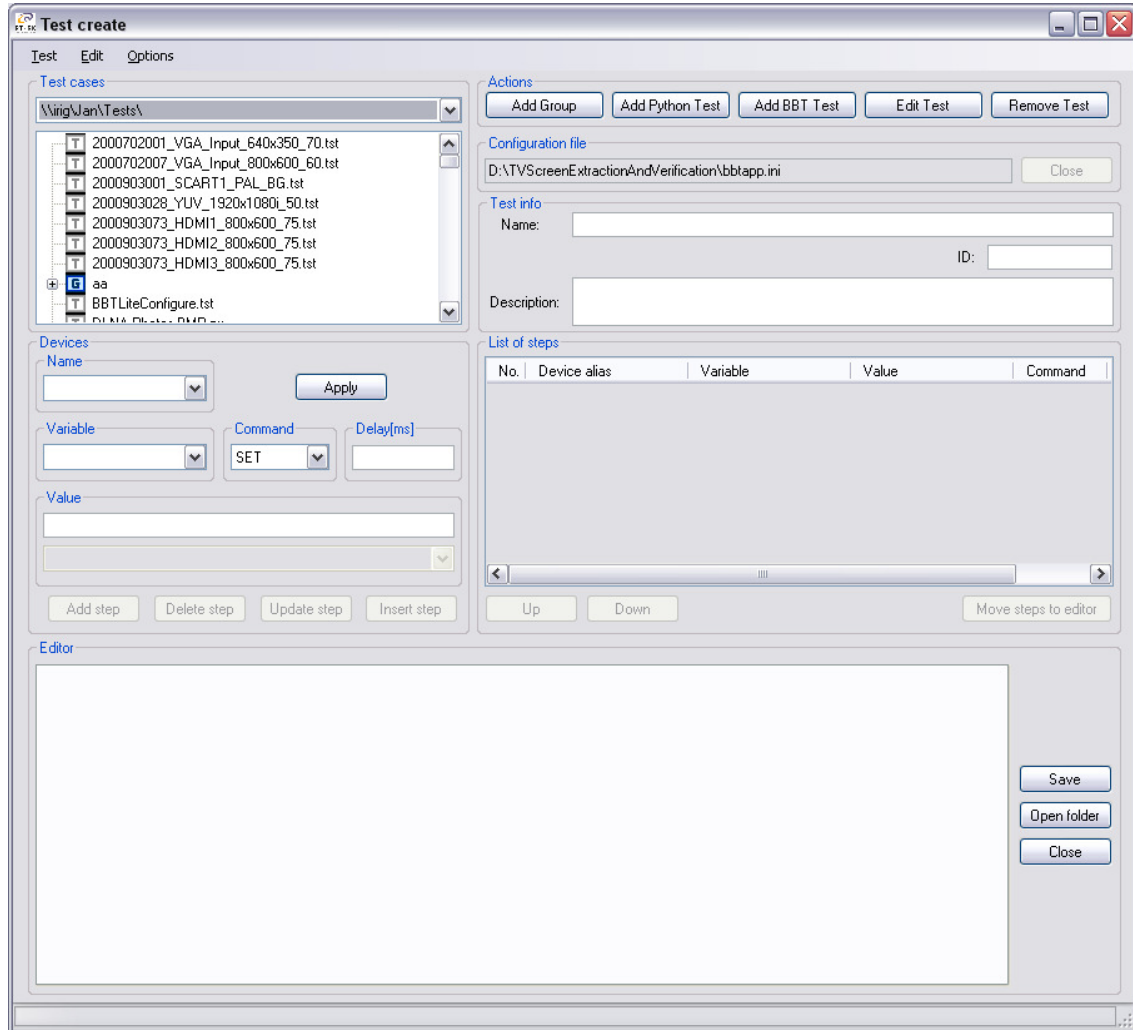
To load device configuration by test plan, before starting to create or edit test cases, appropriate test plan needed to be loaded. Till end of test creation, user can use only devices comprising loaded test plan. On main RT-Executor form click '**Create new test case**' button or select item from menu **Test Case - > Create (Ctrl+C)** to show form for test create (Picture 9). Click on **Test cases** combo box to select default test directory.

If user wants to load device configuration by configuration file, neither one test plan cant be loaded. Directly after user login on to application, user needs to load configuration file. On main RT-Executor form click '**Create new test case**' button or select item from menu **Test Case - > Create (Ctrl+C)** to show form for test create (Picture 10). Click on **Load** button to load device configuration. After loading device configuration, form for test creation is as on Picture 9. Click on **Test cases** combo box to select default test directory. Content example of device configuration file is shown bellow:

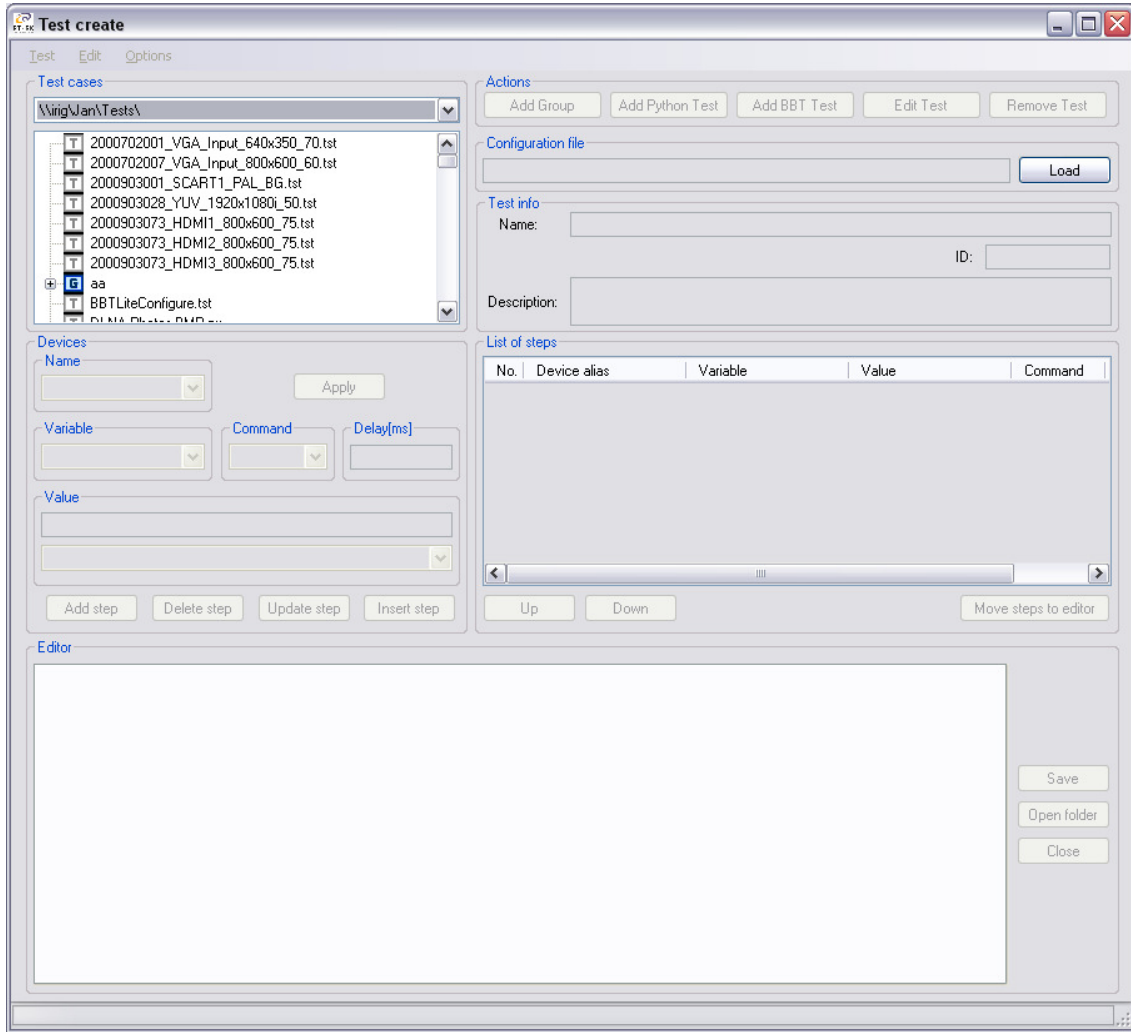
```
// Define interface devices
[interface]
alias = COM1
name = SERIAL
port = 1
baud = 9600
parity = N
length = 8
stop = 0

// Defines devices
[device]
alias = PSNR
name = PSNRBLOCK
```

```
[device]
alias = Fluke
name = FLUKE
interface = COM1
config = configfluke_ext.ini
```

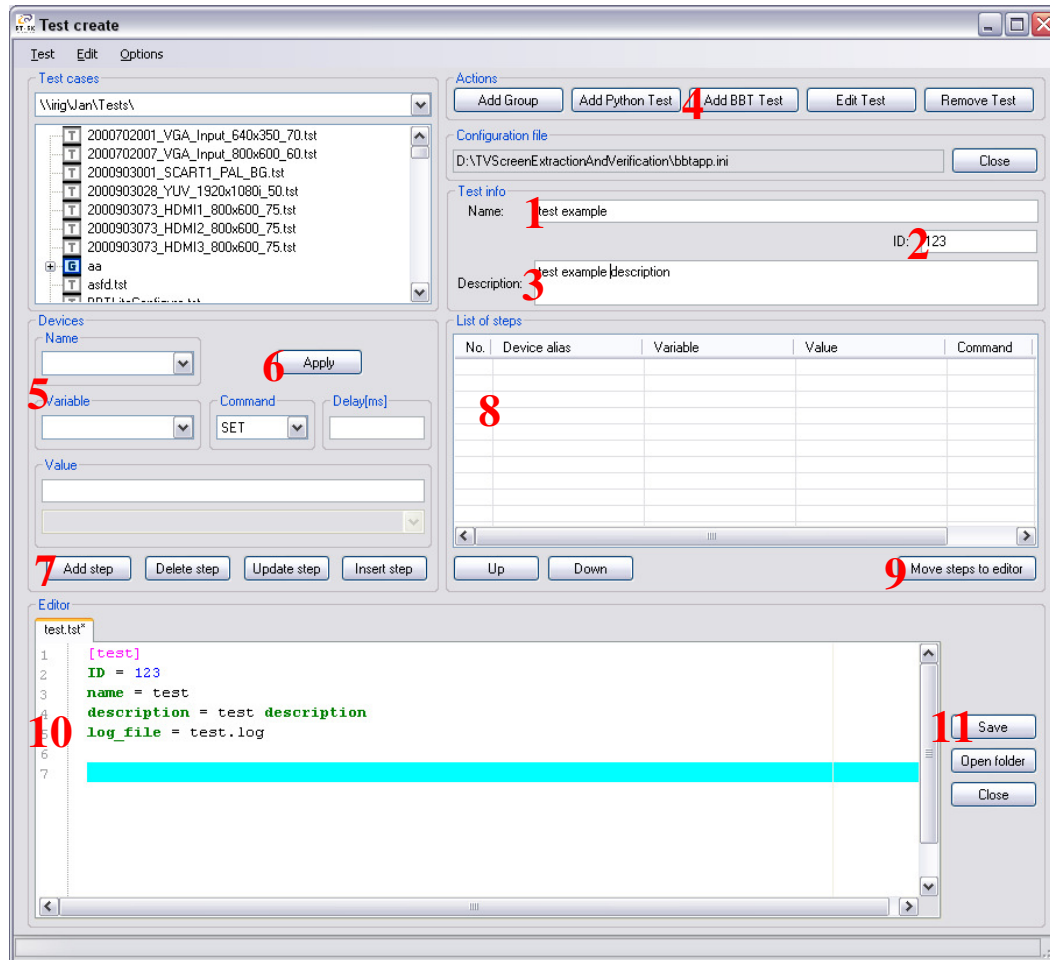


Picture 9: Create test form after loading device configuration by the test plan



**Picture 10: Create test form before loading device configuration by the configuration file**

## BBT test create

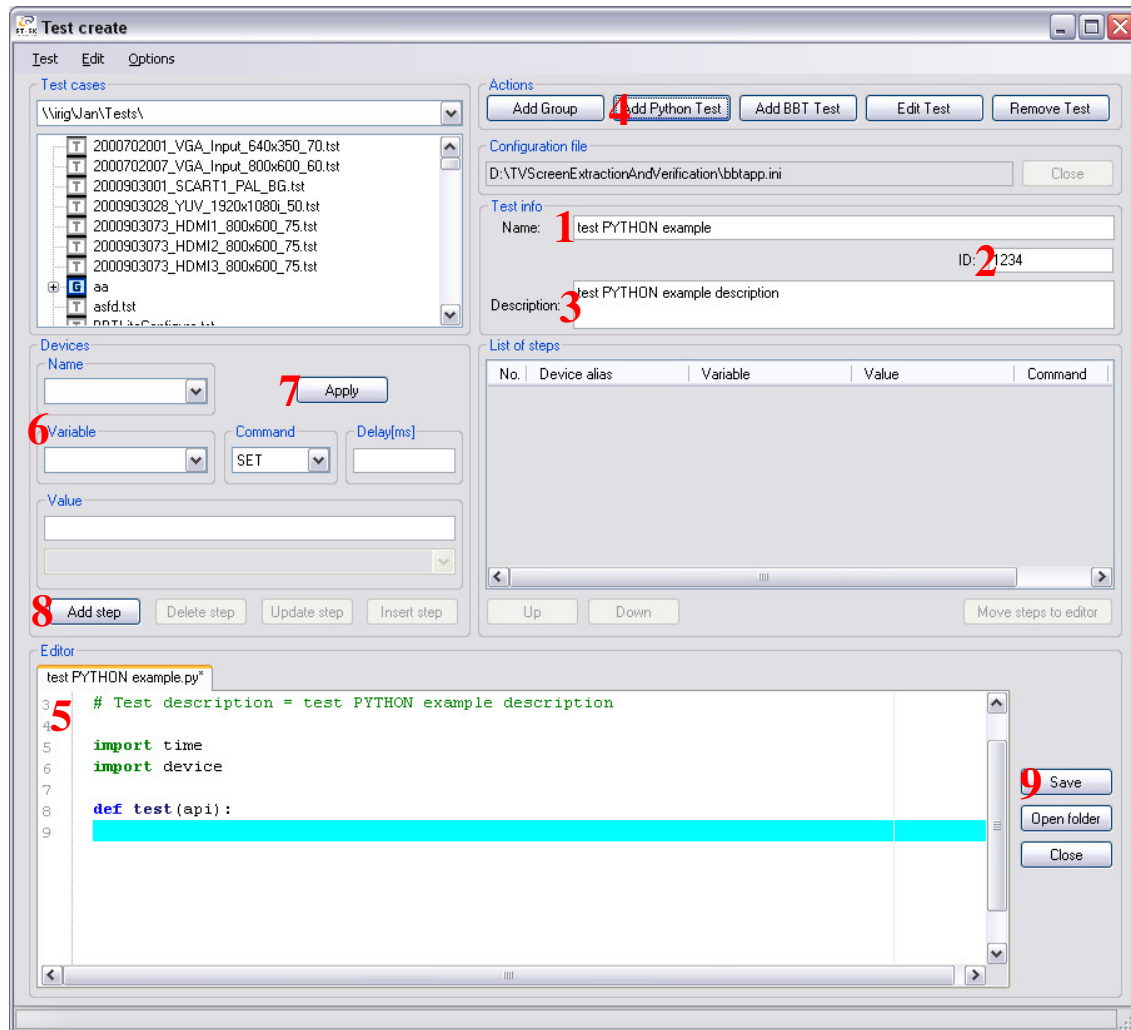


Picture 7: Test create form for BBT test creation

To create BBT test case follow next steps:

1. Enter name for new test
2. Enter ID for new test
3. Enter description for new test
4. Click **Test -> Add -> BBT (Ctrl+B)** or press **Add BBT Test** button
5. Select desired device you want to add, choose variable, value, command and delay
6. If you want to test selected device step, press **Apply** button
7. Press **Add step** button to add device step in to **List of steps**. Also you can use buttons **Delete step**, **Update step** and **Insert step** to manage steps in **List of steps**
8. If you want to change order of steps in **List of steps**, select appropriate item and press button **Up** or **Down** to move steps
9. To move all device steps from **List of steps** to editor, press button **Move steps to Editor**. It's important to say that for BBT test cases, **Editor** can be used only for preview of test case. Until end of test creation return to step 5
10. Appropriate test case header with device steps inside **List of steps** can be previewed in **Editor**
11. To save test case click button **Save**. If you want to open test case folder press **Open folder** button. To close current test case press **Close** button.

## Python test create

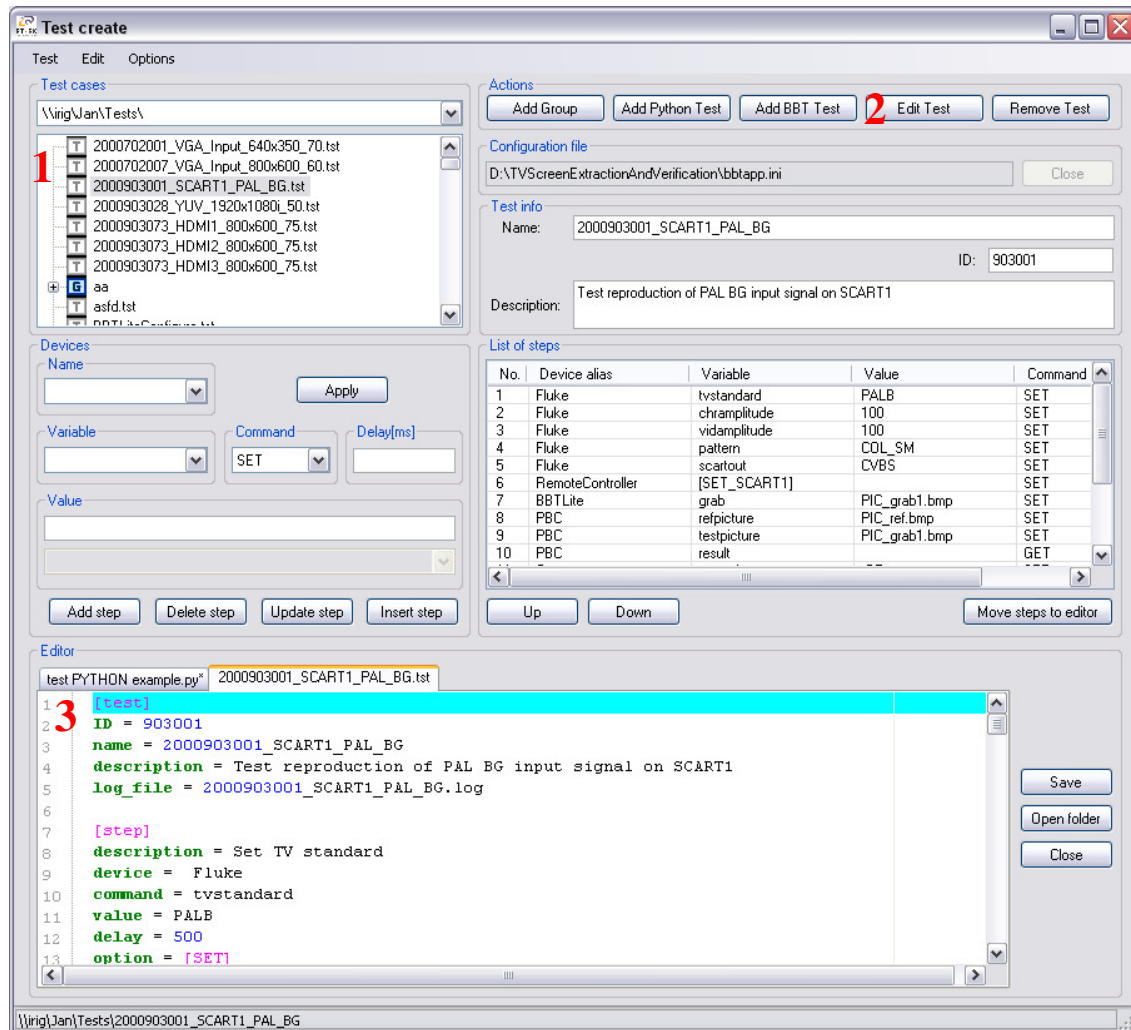


Picture 8: Test create form for Python test creation

To create Python test case follow next steps:

1. Enter name for new test
2. Enter ID for new test
3. Enter description for new test
4. Click **Test -> Add -> Python (Ctrl+P)** or press **Add Python Test** button.
5. Type Python script in **Editor**. If you want to add device command step, in **Editor** click on position where you want to insert step
6. For step you want to insert, select desired device you want to add, choose variable, value, command and delay
7. If you want to test selected device step, press **Apply** button
8. Press **Add step** button to insert device step in to **Editor**. Until end of test creation return to step 5
9. To save test case click button **Save**. If you want to open test case folder press **Open folder** button. To close current test case press **Close** button.

## Load BBT or Python test



Picture 9: Test create form in editing process

To open already existing test case follow next steps:

1. Select test case from the list of created test cases.
2. Press **Edit Test** button.
3. Content of opened test case file will be showed in **Editor**. All features described in process of test creation can be used for editing of BBT and Python tests.