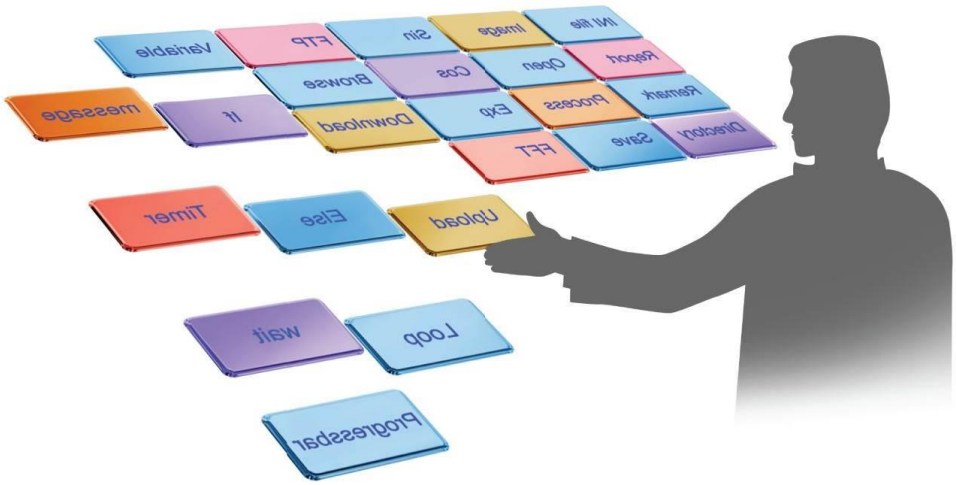
2023



OTM User Manual

OTM Version 2.41.0.0

June 2023

Support: +972-9-7454172, +972-50-6870011

Orion
SOFTWARE SOLUTIONS

Contents

1 Introduction

OTM is a codeless application software that allows non-developer users to develop, execute, and archive tests.

1.1. Preface

The OTM is a codeless Test Manager.

Each test consists of test steps that represent the individual actions a user must take to complete the test. These steps are written in the OTM.

Each step invokes a C# DLL function.

The OTM has built-in frequently-used steps such as delay, message boxes, mathematical functions, and string functions.

The OTM also has built-in flow control structures like IF and WHILE.

Each execution is automatically inserted into the database as raw data and can be located using one or more filters.

The OTM generates a report of the execution in **PDF** format.

The highlighted features of the OTM are as follows:

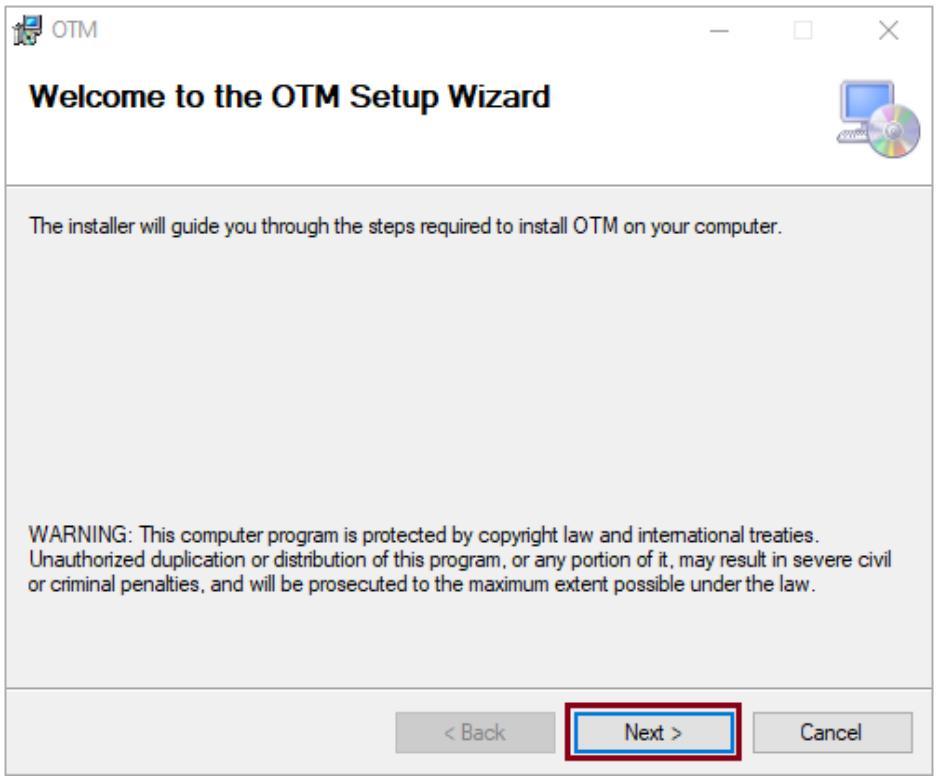
- Write tests in minutes – no compilation required.
- Execute and debug tests with just a few clicks.
- Database logging.
- Built-in Report Generator.
- Concurrent UUT execution.
- User-Friendly interface.

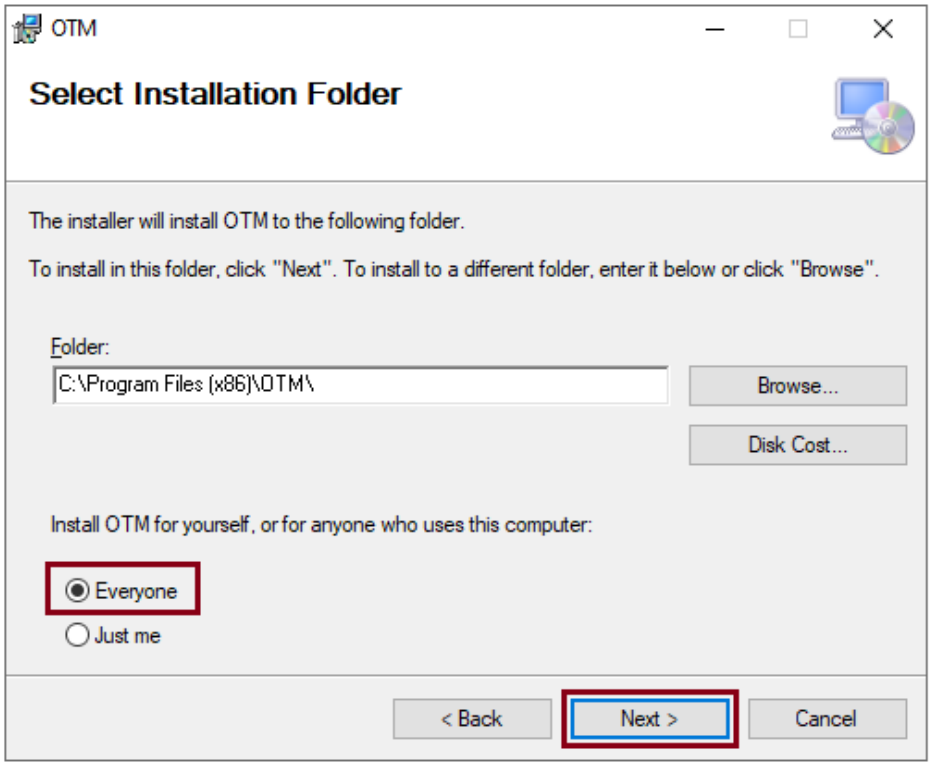
1.2. General Terms

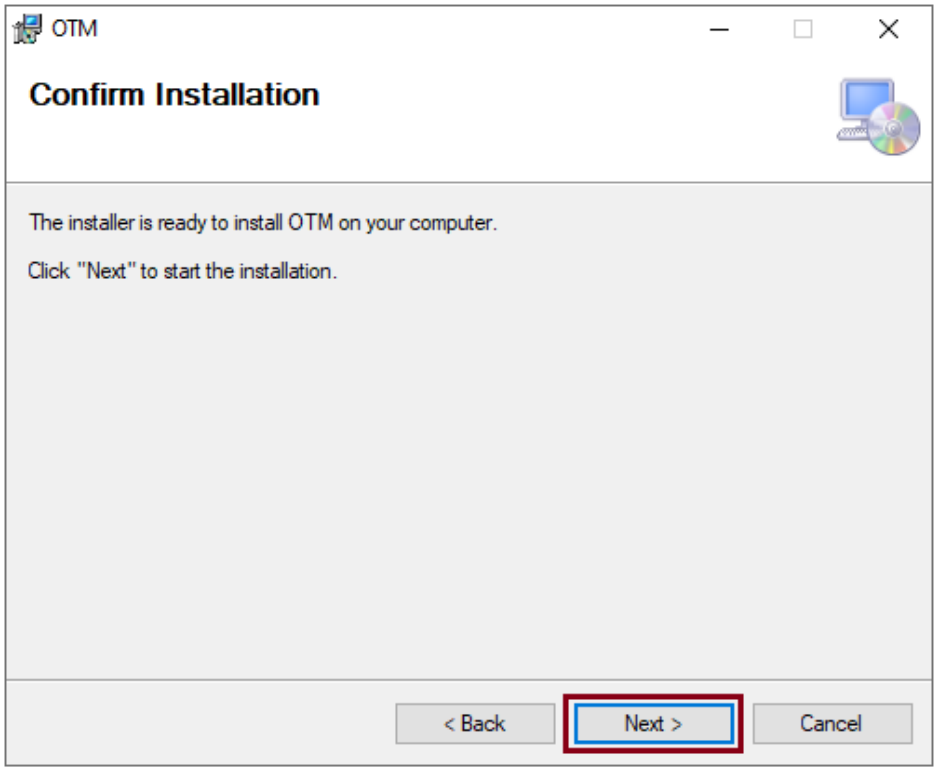
- UUT - Unit Under Test
- Test – A set of individual actions that the user must take.
- Step – An action performed within a test.
- Sequence – A specific order of tests that comprise a UUT procedure or run.

2 OTM Installation

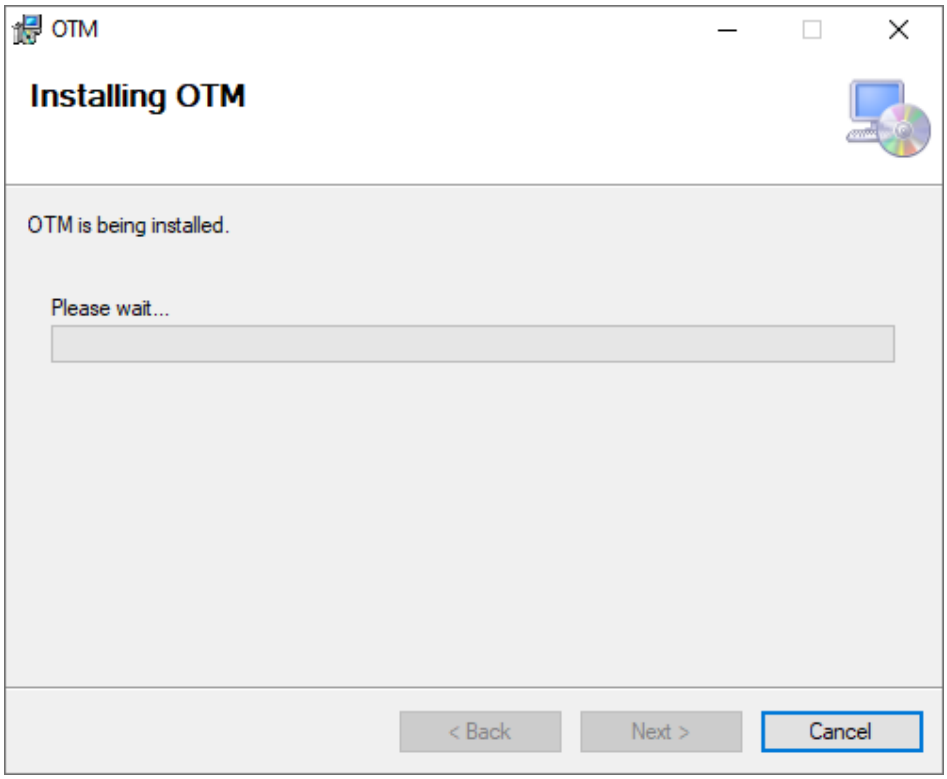
1. Open the OTM package.
2. Go to the **Setup** folder and click on the **setup.exe** file**.**
3. The OTM Setup Wizard will open. Follow the setup instructions to install the OTM:

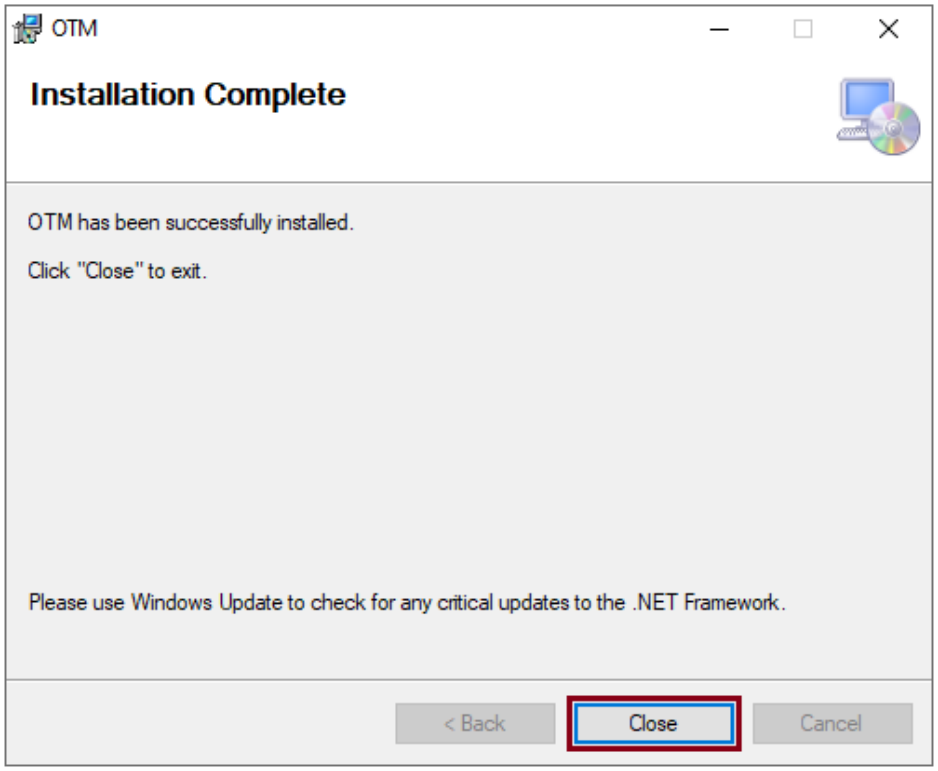






Wait for the installation process to complete.





4. Copy the DLL files used by the OTM drivers to the following locations:
   - For **Windows XP & windows 7 32**-bit: C:\Program Files\OTM\Programs.
   - For **Windows 7 & Windows 10 64**-bit: C:\Program Files(X86)\OTM\Programs.

   For example, if the OTM drivers are using the NI drivers, you should copy the files: NationalInstruments.Common.dll and NationalInstruments.DAQmx.dll to the 'Programs' folder mentioned above.

5. Install Adobe Reader.

6. Activate your OTM license.

   6.1. Launch the OTM application  .
   The Registration dialog will open and the OTM will generate a machine code (Fig 2-1 **A**).

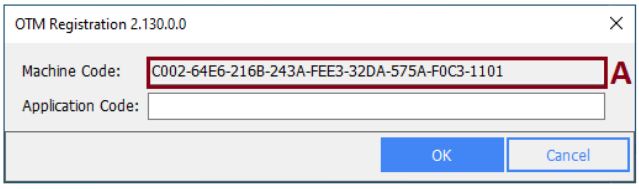
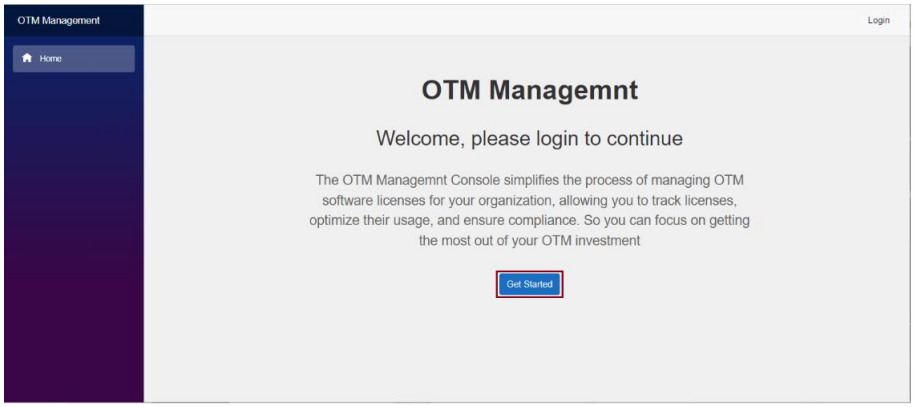


Fig 2-1 **OTM Registration** dialog

   6.2. Click on the following link to enter your license details:

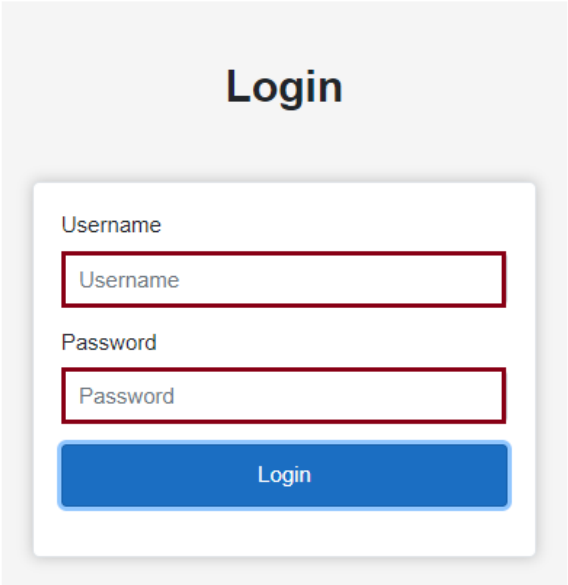
/https://otm-management.azurewebsites.net

The OTM management page will open.



6.3. Select 'Get Started' or 'Login'.

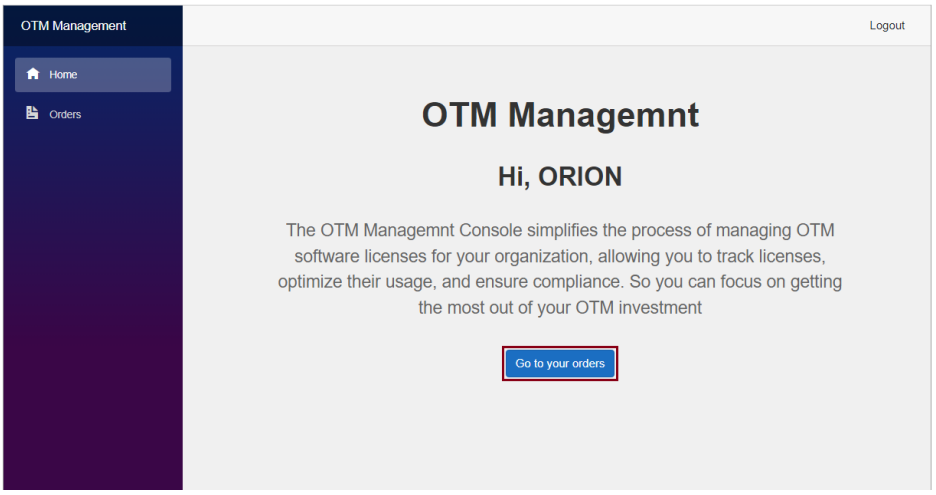
Login screen will be displayed.



6.4. Enter your username and password (you will receive them by email) and click **Login**.

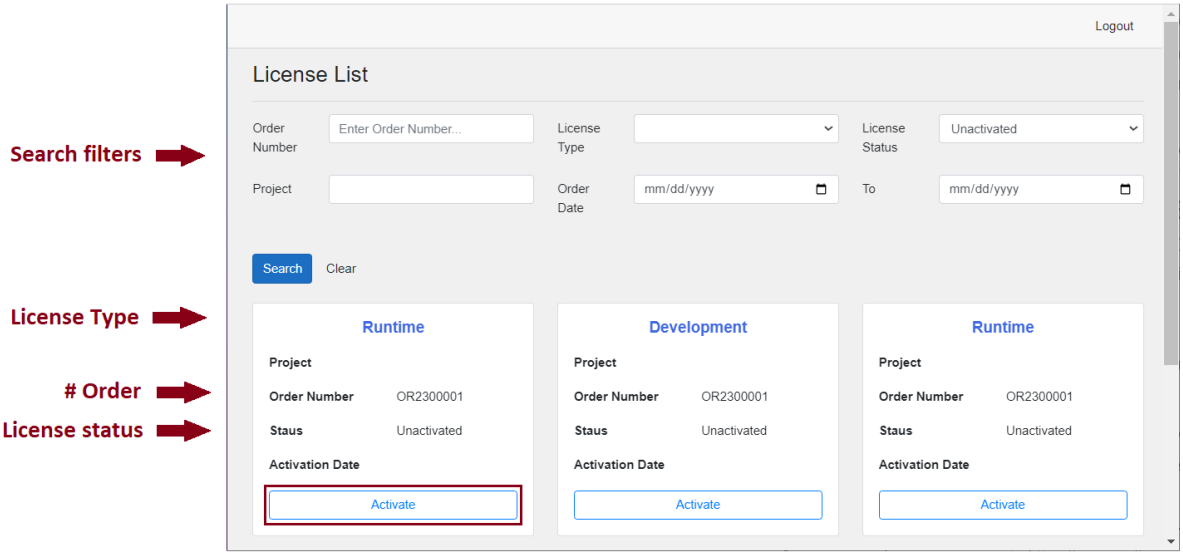
If you haven't receive your username & password, send a request to email address: ronen@orion-software.co.il .

Welcome page will open.



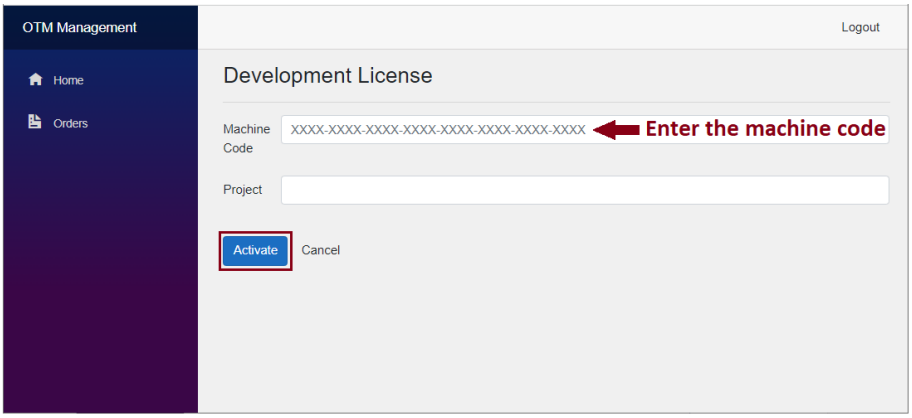
6.5. Click on 'Go to your orders' or 'Orders'.

The License List screen will open.



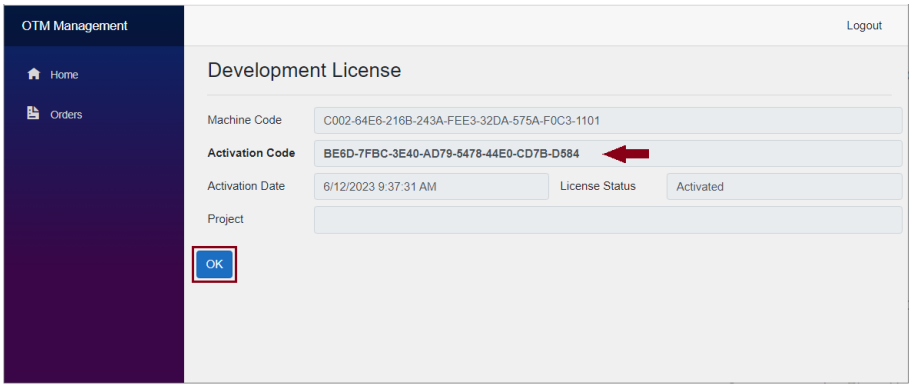
6.6. Find the license you want to activate and click the 'Activate' button.

The following screen will open:



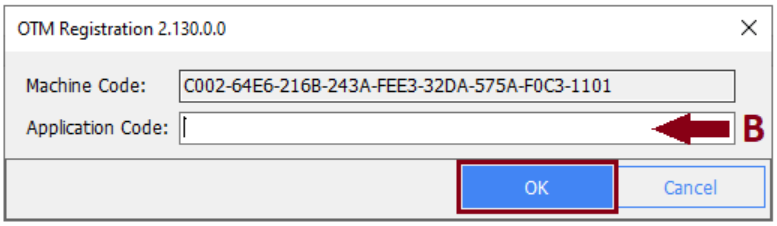
6.7. Enter the machine code from the OTM Registration dialog (Fig 2-1 **A**) – refer to paragraph 6.1 above, and click **Activate**.

The following screen will open:



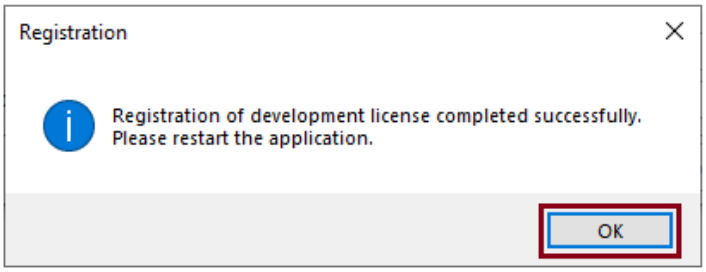
An 'Activation code' license is returned.

6.8. Copy the activation code and return to OTM Registration dialog.



Paste the code in the 'Application code' field (**B**) and click OK.

The following message is displayed:



6.9. Click OK to complete the registration.

Click Logout to exit from OTM management.

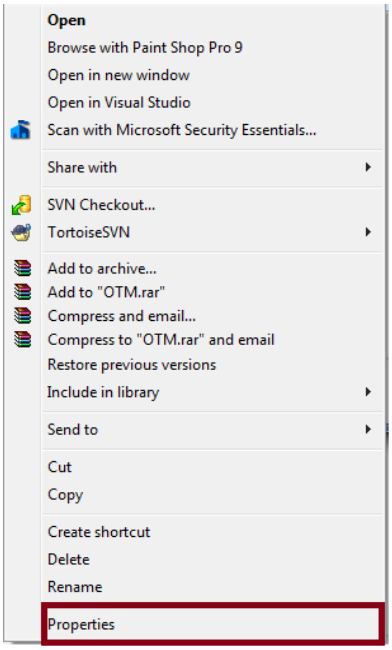
Before logging in, please check the security.

7. Security check.

7.1. Go to C:\ProgramData\Orion\OTM.

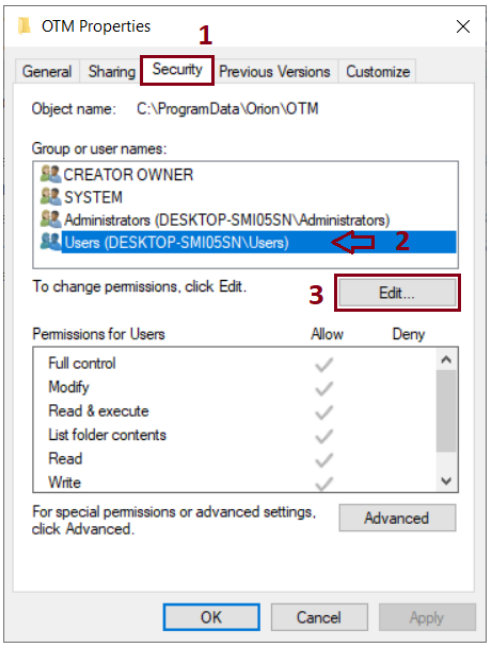
7.2. Highlight the OTM folder and right-click the mouse.

From the popup menu, select **Properties**.



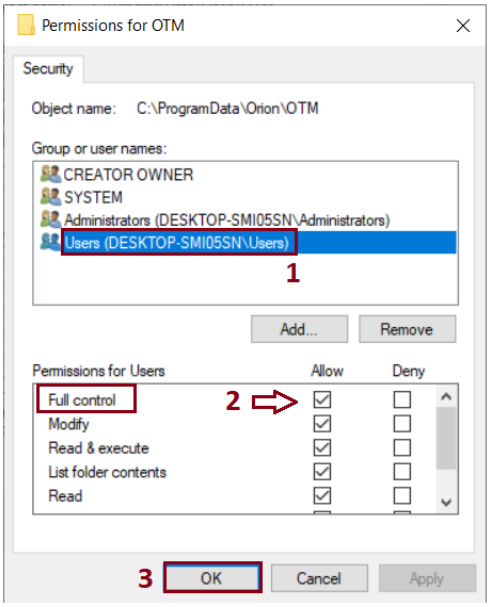
7.3. **OTM Properties** will open.

- Click on the **Security** tab (1).
- Select the login user from **Users** (2).
- Click on **Edit** (3).



7.4. The **Security** page will open.

- Select the login user from **Users** (1).
- Check that the user permission "Full control" is enabled (2).
- Click **OK** (3).



To Login to the OTM, please refer to the detailed login process provided in the next chapter.

3 Login

In this chapter, we will discuss the process of logging in to OTM.

3.1. Login to the OTM

1. Select the OTM icon 

from the desktop.

   The OTM login window will open.

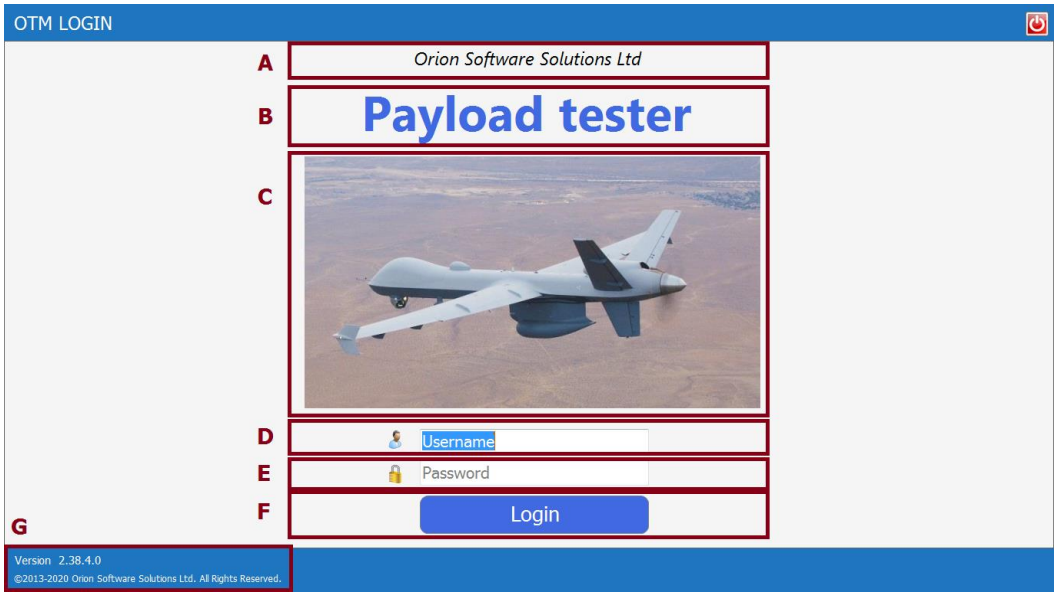


   Fig 3-1 **Login** window

   For more information, refer to paragraph 3.2 below.

2. Set your username (D) and the password (E):

   2.1. Enter the username and password provided by your your administrator.

   2.2. Alternatively, you can use the default values:

   - Username: ORION
   - Password: 1234

3. Click on the '**Login**' button.
4. Once you have logged into OTM, you will see the main window (Fig 4-1).

3.2. Login window

Fig 3-1	Description	Note
A	Company Name	Fig 4-7 (**B**) – Para 4.1 on page 31
B	Project Name	Fig 4-7 (**A**) – Para 4.1 on page 31
C	Project Picture	Fig 4-7 (**E**) - Para 3.1 on page 32
D	Username	Para 2 on page 24
E	Password	Para 2 on page 24
F	Login	After entering the username and password click the **Login** button to launch the OTM application.
G	Info row	The OTM version

4 Main Window

After logging into OTM, the Main window is the first page that is displayed.

The display of Main window is affected by the pre-defined UUT.

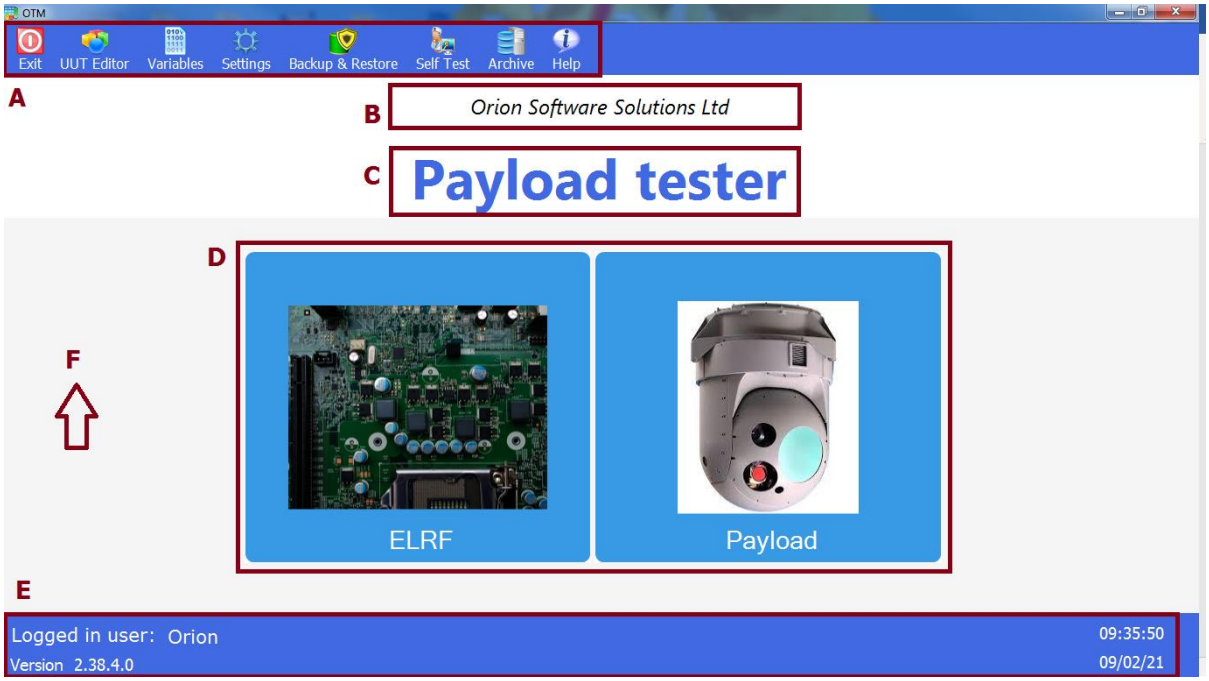
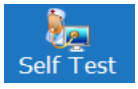
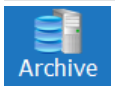


Fig 4-1 **Main** window

Fig 4-1	Description	Details
A	Toolbar	Click on the toolbar icons for quick access to common tasks. 4.1 below
B	Company Name	From Fig 4-7 (**B**) – Para 4.1 on page 31
C	Project Name	From Fig 4-7 (**A**) – Para 4.1 on page 31
D	UUT section	It displays the pre-defined UUTs. Details in para 5.2 on page 77
E	Info row	▪ Login user ▪ OTM version ▪ Current Time ▪ Current Date
F	Main window Background	Described in para 4.6 on page 48

4.1. Main Window Toolbar

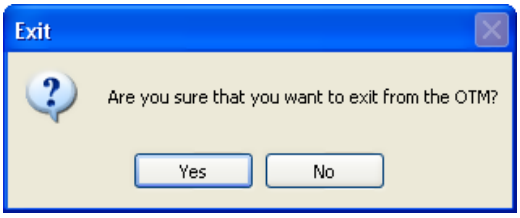
The Main window toolbar provides easy access to the most commonly used functions.

Button	Function	Description	Details
	Exit	Exit the OTM	4.1.1 below
	UUT Editor	▪ Create, edit, or save UUTs ▪ Set UUT version	4.1.2 below
	Variables	To edit variables or import or export them.	4.1.3 below
	Settings	Set OTM's general settings: ▪ Security Manager ▪ Users – definition with security level ▪ External Applications ▪ Advanced settings: Project, Database, properties, Reports, Performance, and Backgrounds	4.1.4 below Para 1 on page 19 0Para 2 on page 24 Para 3 on page 27 Para 4 on page 30
	Backup & restore	To backup or restore the database	Para 4.1.5 on page 50
	Self-Test	To display pre-defined self-test UUT.	Para 4.1.6 on page 57
	Archive	For managing previous report files	Para 4.1.7 on page 58
	Help	General information about the OTM and DLL	Para 4.1.8 on page 59

4.1.1. Exit the program

- Click on 

from the toolbar
- An Exit confirmation message will be displayed.



- Click on **Yes** to confirm OTM's exit.

4.1.2. UUT Editor

Here, the user defines and designs the UUT.

Click on 

to open the UUT Editor.

The UUT Editor allows you to:

- Create UUT - described in paragraph 5.2 on page 77
- Edit UUT - described in paragraph 5.4 on page 79.
- Copy UUT - described in paragraph 5.5 on page 80.
- Set UUT's version - described in paragraph 5.6 on page 80.

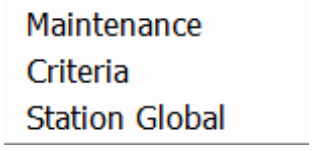
4.1.3. Variables

You can edit, import, or export pre-defined maintenance, criteria or station global variable.

1. Click on 

from the toolbar.

   The variables sub-menu will be displayed.



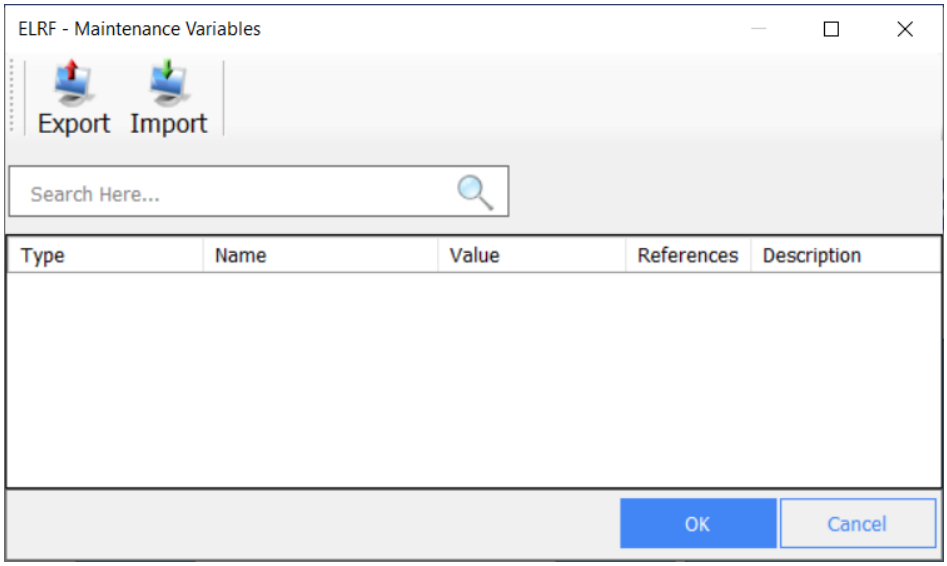
2. Select the variable type you wish to manage: **Maintenance/Criteria/Station Global.**

3.1. If a single UUT is defined, skip to the next step.

The **UUT Selection** page will open, displaying the defined UUTs.

- Select a UUT.

3.2. The variable window will open.



Select an action to perform from the following:

3. To edit a variable:
   - Select the variable you want to edit by double-clicking it.

     The Variable Definition page will open.
   - Make the desired changes.
   - Click the **OK** button.
4. To import variables:

   4.1. Click the **Import** button 

   .

   The **Open** page will open.

   4.2. Locate and select the file (XML) that contains the variables you want to import.

   4.3. Click **Open**.

   4.4. The imported variables for the UUT will be displayed on the variable page.
5. To export variables:

   5.1. Click the **Export** button 

   The **Save as** page will open.

   5.2. Navigate and select the folder where you want to create the exported file.

   Enter the name of the export file.

   5.3. Click **Save**.

   The variables are exported to the file you specified.

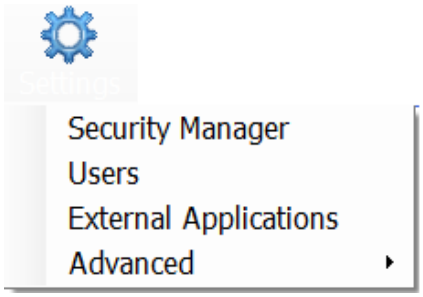
4.1.4. Settings

You can define OTM's general settings.

Step 1 - Click 

from the toolbar.

The **Settings** sub menu displays.



Step 2 – Select from the sub menu options:

Menu Option	Description	Paragraph
Security manager	Allows the authorized user to add, delete and edit a security level	Para 0 below1 below
Users	Allows the authorized user to define and remove users.	Para 2 on page 24
External Applications	The user can connect an external application to the OTM.	Para 3 on page 27
Advanced	For various settings: **Project Properties**, **Reports**, **Database**, **Performance, Backgrounds** and **License**.	Para 4 on page 30

1. Security Manager

Allows the administrator to restrict user's access to OTM's mechanisms.

1.1. Security Level dialog box

Navigate to Main page > **Settings** > **Security Manager**

The Security level window will open.

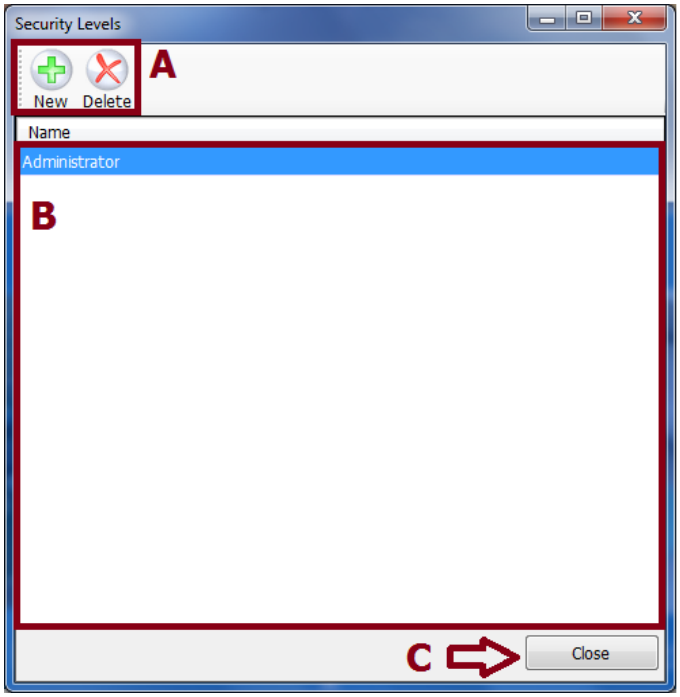


Fig 4-2 **Security level** box

	Description
A	Add or delete a security level
B	The security levels list area
C	Closing the window

1.2. Security Level Definition dialog box

To open the Security level definition dialog:

From the Main page, select **Settings**>**Security Manager**, then click **New** button.

- Or -

Under the security level list area (**B**), double-click the security level you want to open.

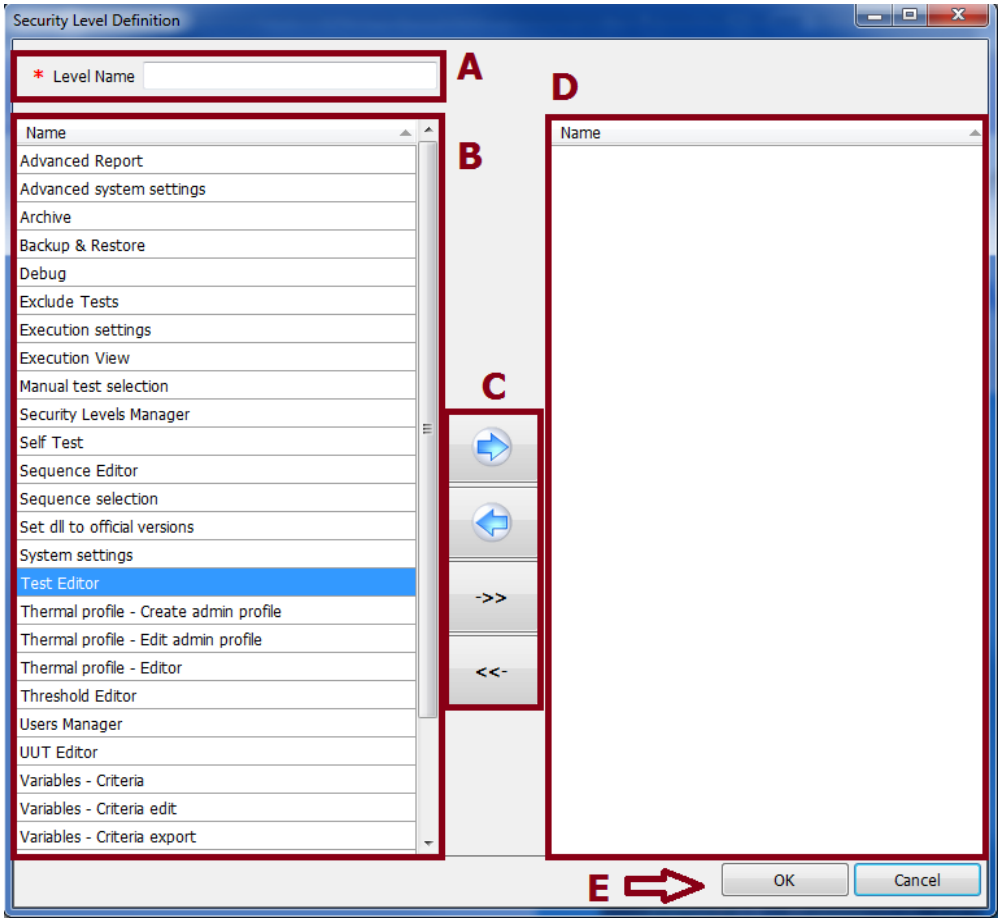


Fig 4-3 **Security Level Definition**

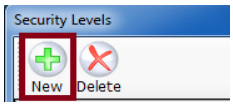
	Description	Details
A	Security level name	
B	The OTM's mechanisms list	
C	Use the arrow keys to transfer the OTM's mechanisms to the designated security level.	Adds the selected mechanism from B to D Removes the selected mechanism from D Adds all the mechanisms to D. Removes all the mechanisms from D.
D	The current security level mechanisms	
E	OK/Cancel buttons	

1.3. Adding a security level

1. From the **Main** page, select **Settings>Security Manager**.

   The **Security Level** window will open.

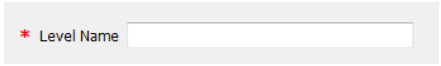
2. Click on **New**.



Security Level Definition box will open (see Fig 3-4).

3. In the **Security Level Definition** dialog box:

3.1. Enter the security level name (Required) – **A**



3.2. Select the mechanism(s) to add to the new security level.

To select mechanism(s), choose the best option:

Action	Description
Add selected mechanism(s)	1. Under the mechanisms area (B), choose the mechanism(s) you wish to add. 2. Use the arrow (C) to move them to the new security level mechanism area (D).
Add all mechanisms	Click >> button (C) to select all mechanisms.
Remove selected mechanism(s)	1. Under new security level mechanism area (D), choose the mechanism(s) you wish to remove. 2. Use the arrow (C) to remove them from the selected mechanism area (D).
Remove all mechanisms	Click << button (C) to delete all mechanisms from the selected mechanism area (D).

The selected mechanisms are displayed in the area shown in Fig 3-4 (D).

3.3. Click **OK**

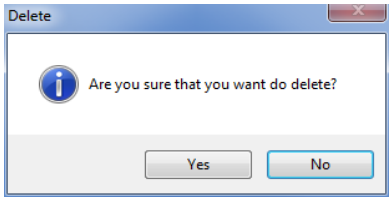
The **Security level** window will appear, displaying the security level you have created.

Mechanisms list:
Advanced Report, Advanced system settings, Archive, Backup & Restore, Debug, Exclude Tests, Execution settings, Execution View, Manual test selection, Security Levels Manager, Self Test, Sequence Editor, Sequence selection, Set DLL to official versions, System Settings, Test Editor, Thermal profile - Create admin profile, Thermal profile - Edit admin profile, Thermal profile - Editor
Threshold Editor, Users Manager, UUT Editor, Variables – Criteria, Variables - Criteria edit, Variables - Criteria export, Variables - Criteria import, Variables – Maintenance Variables - Maintenance edit, Variables - Maintenance export and Variables - Maintenance import.

1.4. Deleting a security level

1. From the **Main** page, select **Settings>Security Manager**.
   The **Security Level** box will open.
2. Under the security levels list area Fig 4-2 (**B**), highlight the security level you wish to delete.
3. Click **Delete**.

4. The Delete confirmation dialog box will appear.



Button	Description
Yes	To continue with the security level deletion process
No	To cancel the security level delete deletion process

1.5. Editing security level

To edit a Security level:

1. Navigate to the **Security Level** box by going to the **Main** page >then selecting **Settings>Security Manager**.

2. Double-click on the security level you want to edit.
   This will open the **Security Level Definition** box.
3. Make the desired changes.
4. Click OK to save the changes and close the Security Level Definition box.

2. Users

The **Users** section is where administrators or authorized users can add, delete, and configure users,including their passwords and security levels.

2.1. Users window

To open **Users** window, navigate to the **Main** window and select **Settings** > **Users**.

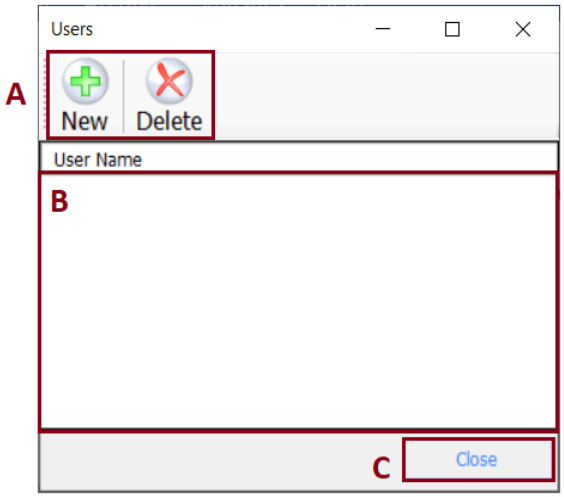


Fig 4-4 **Users** window

	Description
A	Add or delete a user
B	The users list area
C	Closing the window

2.2. User box

To open the User dialog:

From the Main window, select **Settings**>**Users** and click **New.**

- Or -

Under the users list area (**B**), double-click the user you want to open.

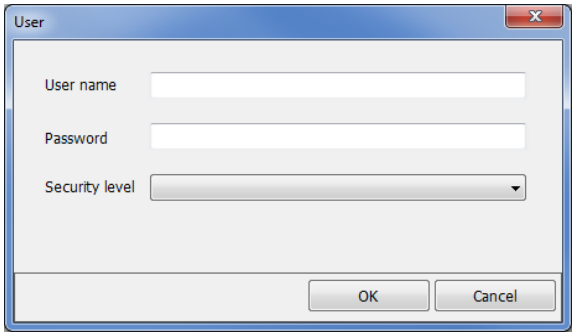


Fig 4-5 User dialog

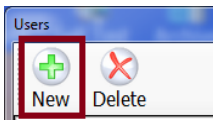
	Description	Notes
User name	The user-name	▪ The user-name is used in the Login window Fig 3-1 (**D**). ▪ The user-name appears in the Main window Fig 4-1 (**E**).
Password	User's password	▪ The user's password is used in the Login window Fig 3-1 (**E**).
Security level	User's security level	For the definition of security levels, refer to paragraph 1.3 on page 22
OK/Cancel buttons		

2.3. Adding User

1. From the **Main** window, select **Settings**>**Users**.

   The **Users** window will open.

2. Click on **New**.



   The **User** dialog box will open (see Fig 4-5).

3. In the **User** dialog box:

   3.1. Enter the new user's name (Required).

   3.2. Enter the new user's password (Required).

   3.3. Choose the user's level of security from a list (Required).

   3.4. Click **OK** to save the user and exit.

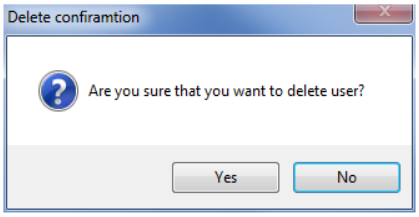
The **Users** window will appear, where you can see the user you have created.

2.4. Deleting User

1. From the **Main** window, select **Settings**>**Users**.

   The **Users** window will open.
2. In users list area (B in Fig 4-4), select the user you wish to delete.
3. Click on **Delete**.

4. A Delete confirmation dialog box will appear.



Button	Description
Yes	To continue with the user deletion process.
No	To cancel the user deletion process.

5. Click **Close** to exit from this screen.

2.5. Editing User

To edit a user:

1. From the **Users** window (Main window >Settings>Users), double-click the user you want to edit (B in Fig 4-4).

   The **User** dialog box will open (Fig 4-5).
2. Make the desired edits to any of the user options.
3. Click on **OK** when all the options are set as desired.

3. External Applications

This feature is used to insert other applications into the OTM.

3.1. External Application window

From the Main window, select **Settings** > **External Applications** to open the **External Applications** window.

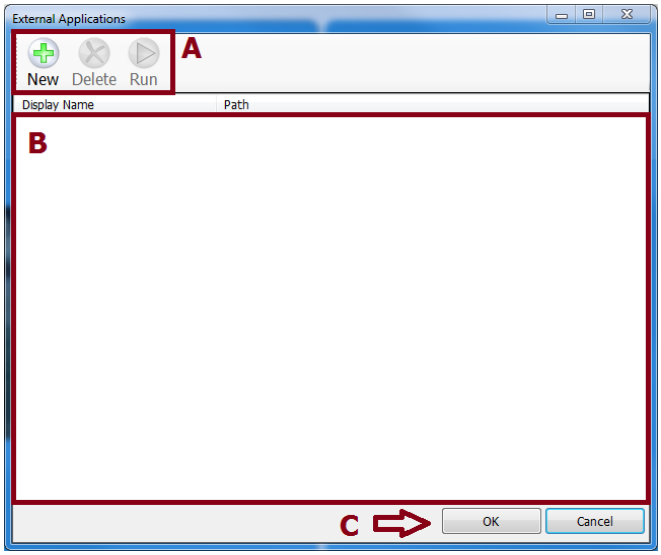


Fig 4-6 **External Applications** window

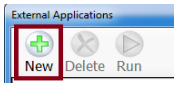
	Description
A	You can perform actions such as adding or removing or running application
B	The applications list area
C	OK/Cancel buttons

3.2. Adding Application

1. From the **Main** window, select **Settings**> **External Applications**.

   The **External Applications** window will open.

2. Click on **New** (**A**).



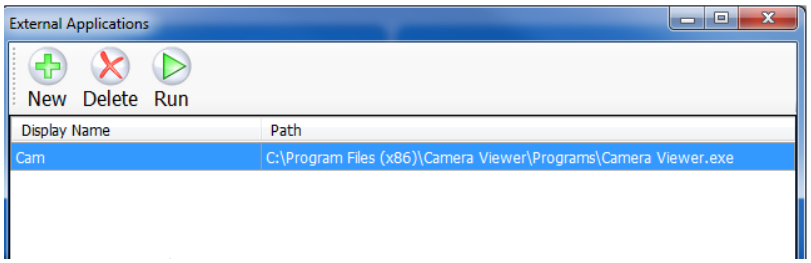
   A new row is displayed in the applications list area (see Fig 4-6, **B**).

3. Fill in the data below by double-clicking and typing in the specified cell:

   3.1. **Display name**: the application title in the toolbar (Required).

   3.2. **Path**: the executable (exe) file path of the application, including the exe file (Required).

See the following example:



External Applications example.

Click the *Run* button Run for application preview.

4. Click:

Button	Description
OK	Click **OK** to: ▪ Save the external application and exit. ▪ Complete the process. Restart the OTM by exiting and logging back in. After re-entering the main screen, the new ruler is added in the upper menu.
Cancel	Click to abort the process of adding the external application

3.3. Deleting Application

1. From the **Main** window, select **Settings**> **External Applications**.

   The **External Applications** window will open.

2. In the applications list area (B in Fig 4-6), highlight the application you want to delete.

3. Click on **Delete** button.

The application will be removed from the External Applications window.

4. Click:

Button	Description
OK	▪ To finalize the application deletion process, you need to restart the OTM. Follow these steps:

	1. Exit the OTM 2. Log in to the OTM again. 3. The deleted application will no longer be available in the main window.
Cancel	Click to abort the external application delete process.

3.4. Editing Application

To edit an application:

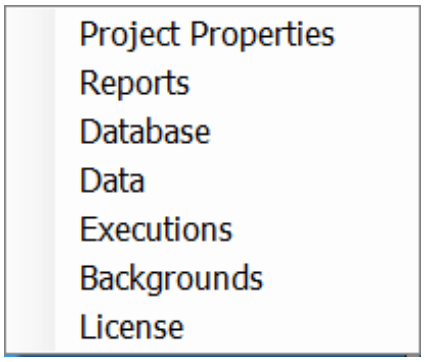
1. From the **Main** window, select **Settings**> **External Applications**, double-click on the application you want to edit (B in Fig 4-6).
2. Make any desired changes to the application options.
3. Click **OK** when all the options are set as desired.

4. Advanced

You can define project's properties.

Step 1 – From the **Main** window, select **Settings**>**Advanced**.

The **Advanced** sub menu displays



Step 2 – Select from the sub menu options:

Menu Option	Description	Paragraph
Project Properties	Allows you to define general project details: ▪ Project name ▪ Company name ▪ Project picture and remark for the project.	Para 4.1 below
Reports	You can define the report settings and configuration	Para 4.2 on page 33
Database	Allows you to define the report storage settings	Para 4.3 on page 45
Data	You can change the data storage folder	Para 0 on page 46
Executions	Allows you to define general execution settings.	Para 4.5 on page 47
Backgrounds	Allows you to define the **Main** window Background	Para 4.6 on page 48 The background display: Fig 4-1 (**F**)
License	The user can disable the dongle	Para 4.7 on page 49

4.1. Project properties

There are a number of properties you can set or customize for your project, the Name, the Company, the Picture and remark.

1. Project properties dialog box

Select Main page > **Settings** > **Advanced > Project properties** to open Project properties window.

4.1

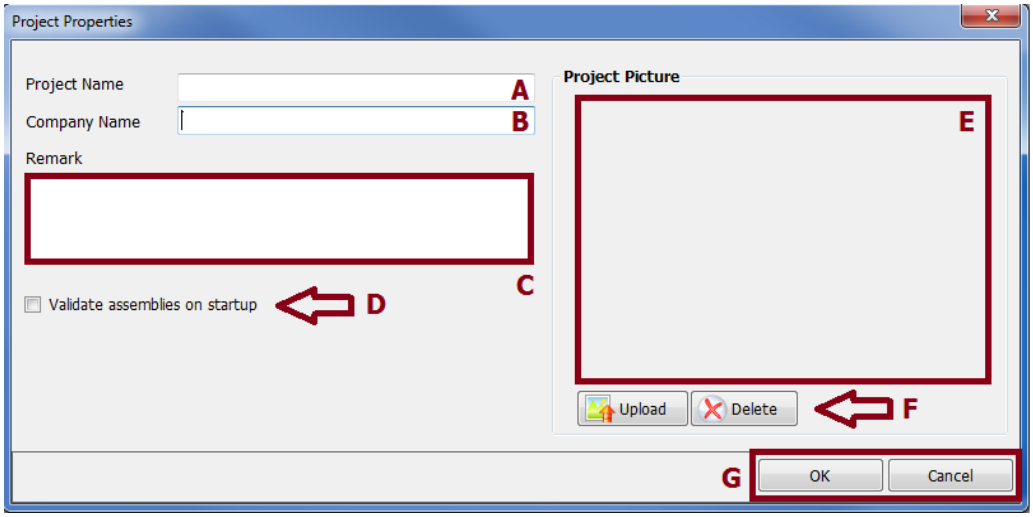


Fig 4-7 **Project Properties** window

	Description
A	Project name
B	Company name
C	Project's remark
D	Validate assemblies on startup checkbox
E	Project picture area
F	Project picture buttons
G	OK/Cancel buttons

2. Fill in Project properties.

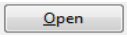
In the **Project properties** dialog box:

Action (optional)	Description	Remark
Add project name	Enter the project's name to field **A**	Appears in: Main window - Fig 4-1 (**C**) Login window - Fig 3-1 (**B**)
Add company name	Enter the company name to field **B**	Appears in: Main window - Fig 4-1 (**B**) Login window - Fig 3-1 (**A**)
Add remark	Enter the project's remark to field **C**	
Add project picture	To add picture follow para 3.1 below	
Validate assemblies	To validate assemblies version on startup – select checkbox **D**	Once logged in the OTM, the **Assemlies Version Compatibility** screen will open. Paragraph 1.2 on page 59
OK/Cancel	▪ Click OK to apply the modifications ▪ Click **Cancel** to discard modifications	Fig 4-7 (**G**)

3. Project picture

3.1. Adding picture:

- Click the button 

(F), to open the **Open** screen.
- Navigate to the location of the picture file and mark it.
- Click 

button

  -or-

  double click the picture file

  The picture is displayed in window **E**

The selected picture appears in the Login window - Fig 3-1 (**C**)

3.2. Deleting picture:

From the Project picture buttons **F**, click  button**.**

The project's picture is cleared from the *Project Picture* window **E**.

The default picture is the OTM's picture

4.2. Reports

OTM allows you to customize any report that you generate.

You can customize the report's settings and logo.

You can also add or remove information on the header&approval list and even personalize the report's colors.

4.2.1. Reports Settings dialog box

Select Main page > **Settings** > **Advanced > Reports** to open Reports settings window.

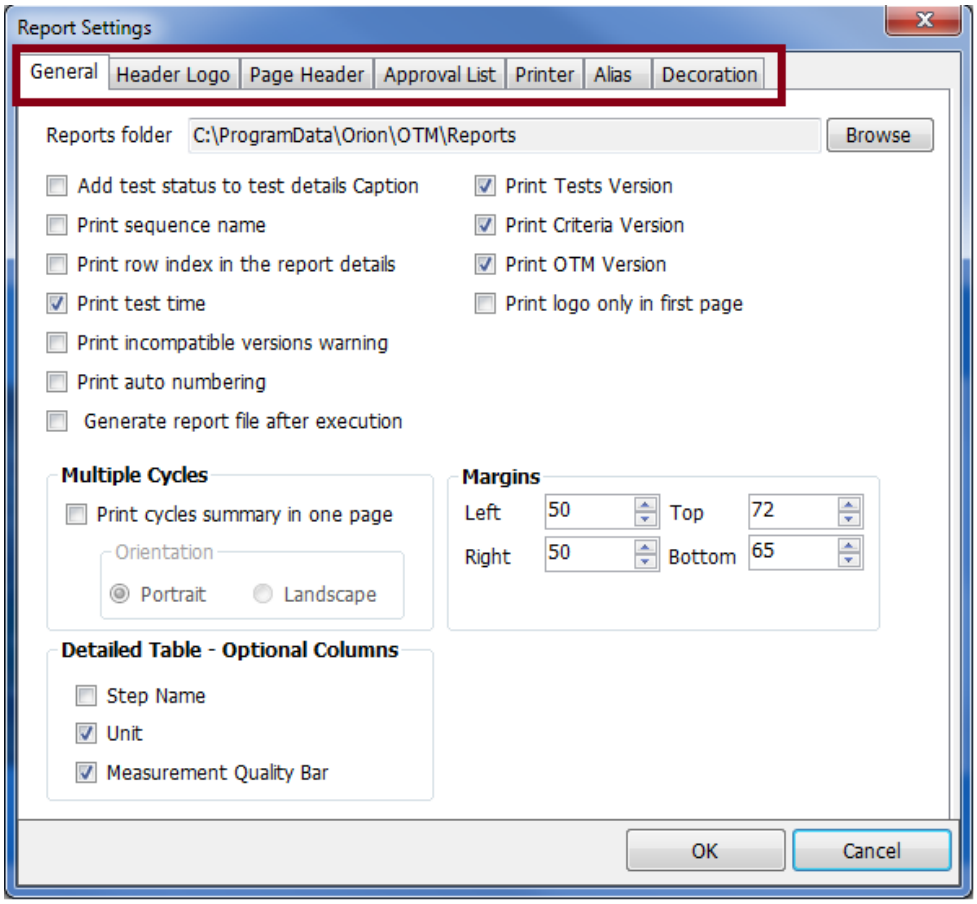


Fig 4-8 **Reports settings** window

Reports settings window tabs:

Tab	Description	Paragraph
General	Allows you to define the report general settings	4.2.2 below
Header logo	Allows you to define the report logo	Para 4.2.3 on page 37

Page header	You can define the report header table.	Paragraph 4.2.4 on page 38
Approval list	Allows you to define the report approval list.	Paragraph 4.2.5 on page 40
Printer	You can define printer	Paragraph 4.2.6 on page 42
Alias	Allows you to define alias	Paragraph 4.2.7 on page 42
Decoration	You can define the report colors	Paragraph 4.2.8 on page 44

4.2.2. General tab

The general tab is the default tab in the **Reports settings** window.

Select **Main page** > **Settings** > **Advanced** > **Reports** to open Reports settings window – the General tab is displayed.

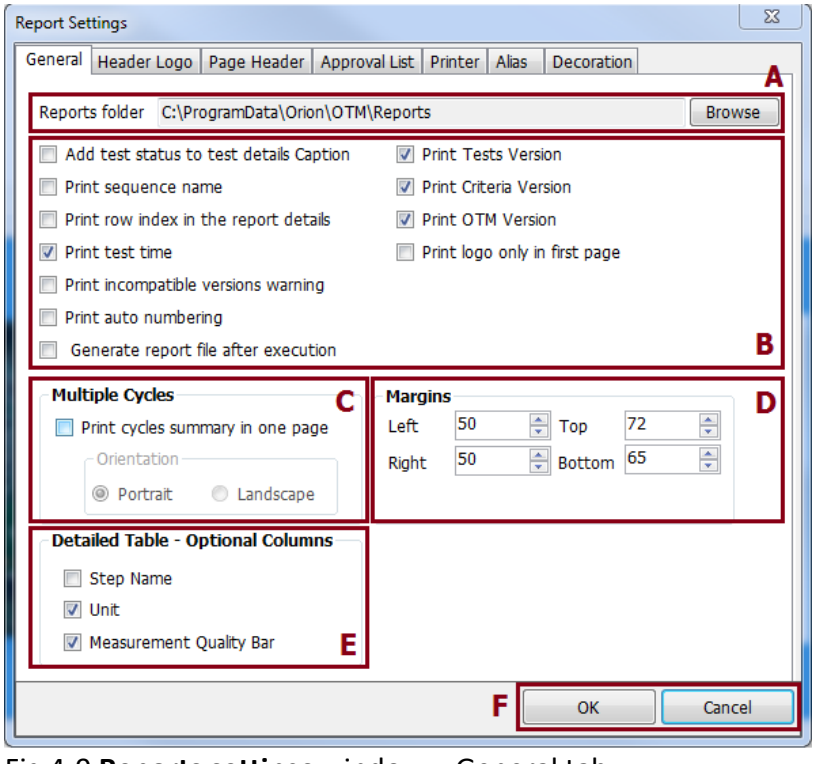


Fig 4-9 **Reports settings** window – General tab

Action (optional)	Description	Note
Reports folder	▪The report's storage location ▪To change the default storage location refer to paragraph 1	**A**

☐ Add test status to test details caption	Check the checkbox to add status (passed, failed, error, abort) to the report's caption	**B**
☐ Print sequence name	Check the checkbox to add the sequence name to the report's title	**B**
☐ Print row index in the report details	Check the checkbox to add sequential number for each row in the report.	**B**

This feature helps you navigate a multi-page report

☐ Print Test Time	Check the checkbox to	**B**
☐ Print incompatible versions warning	Check the checkbox to	**B**
☐ Print Auto Numbering	Check the checkbox to	**B**
☐ Generate report file after execution	Check the checkbox to create report automatically just after the execution ends	**B**
☐ Print Tests Version	Check the checkbox to add the test Version to the report's UUT table	**B**

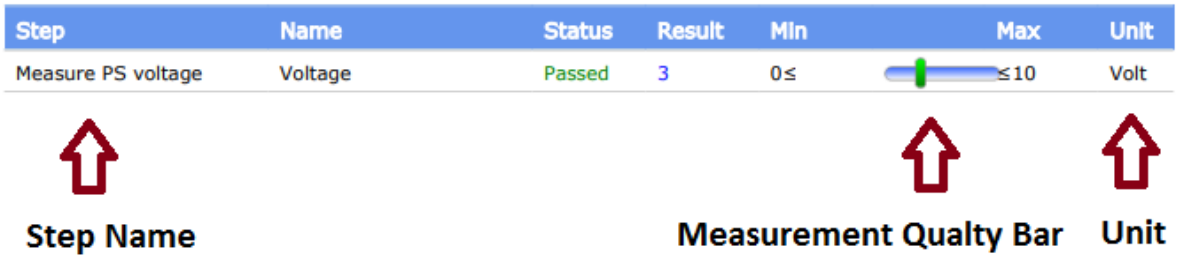
ELRF Report	
S\N	
P\N	
Tests Version	1.0.0.0.0
OTM Version	2.51.0.0
Pre-Execution Remark:	

☐ Print Criteria Version	Check the checkbox to add the criteria version to the report's table.	**B**
☐ Print OTM Version	Check the checkbox to add the OTM Version to the report's UUT table	**B**

ELRF Report	
S\N	
P\N	
Tests Version	1.0.0.0.0
OTM Version	2.51.0.0
Pre-Execution Remark:	

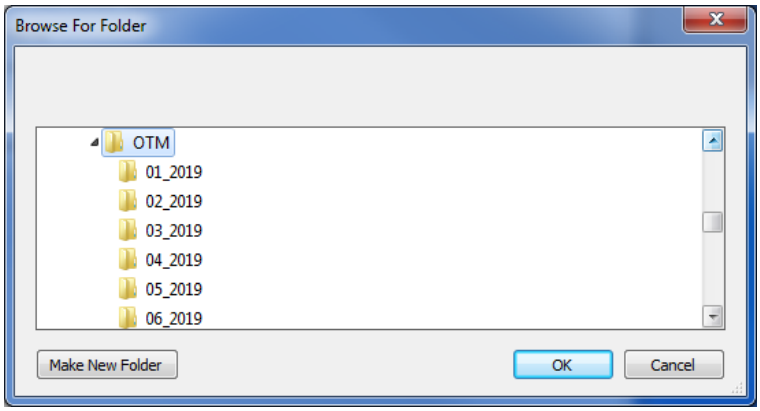
☐ Print logo only in first page	Check the checkbox to add the logo only to the report's first page	**B**
Multiple Cycles ☐ Print cycles summary in one page	In case of several cycles: Check the checkbox to print the cycles summery in one page, afterwords you can define the report's page	**C**

	orientation: Portrait or Landscape.	
Margins	Allows you to set the left, right, top and bottom margins of the report Enter any margin value directly into the rubric cell	**D**
Detailed Table – Optional Columns ☐ Step Name ☐ Unit ☐ Measurement Qualty Bar	Allows you to add Columns, to the test results in the report ▪ Check the checkbox to add step name. column ▪ Check the checkbox to add unit column. ▪ Check the checkbox to add bar column.	**E**
OK/Cancel	▪ Click OK to apply the modifications ▪ Click **Cancel** to discard modifications	**F**



1. To define report's storage location:

   ▪ Click Browse button, Fig 4-9 (**A**),the **Browse For Folder** screen will open.



   ▪ Navigate to the location of the folder where you want the OTM to store the report file.

   -or-

   Define new folder:

- Navigate to the target folder.
- Click the Make New Folder button.
- Enter the new folder name.

- Click **OK** to apply the modifications or Cancel to discard them.

4.2.3. Header Logo tab

You have the option to place company logo in the report.

Select **Main window** > **Settings** > **Advanced** > **Reports** to open Reports settings window – select the Header Logo tab.

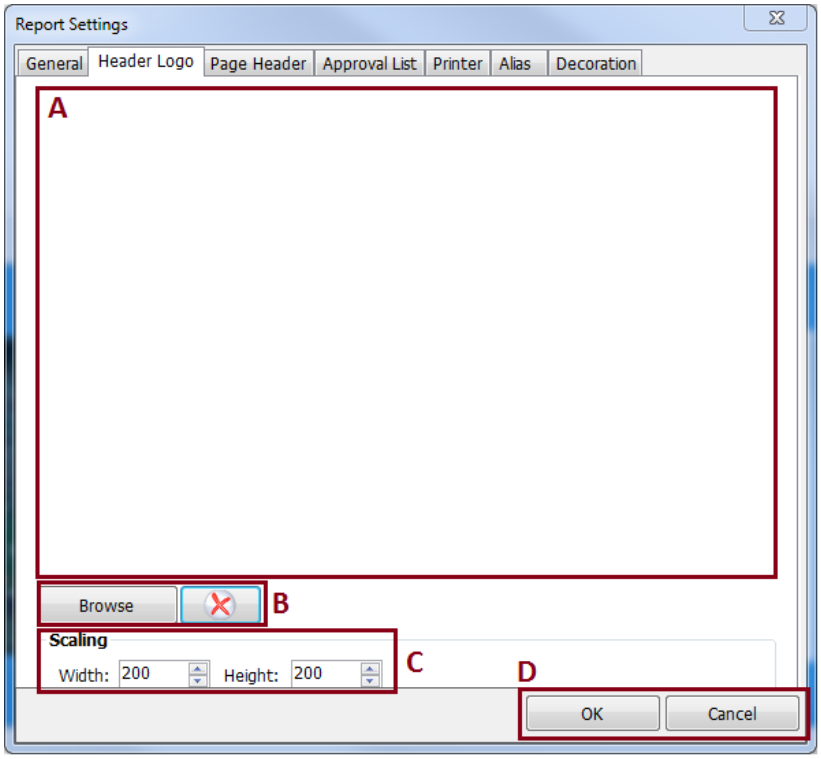


Fig 4-10 **Reports settings** window – Header Logo tab

1. Adding Logo:

1.1. Click the Browse button (**B**), the **Open** screen will open.

1.2. Navigate to the location of the logo file and and mark it,
Click Open button
-or-
Double click the picture file
The logo is displayed in window **A**

1.3. For picture scaling detailed in para 3

1.4. Click **OK** to apply the modifications or Cancel to discard them.

2. Deleting Logo:

2.1. Click  button (**B**)

The logo is deleted from the preview window **A**

2.2. Click **OK** to apply the modifications or Cancel to discard them.

3. Scalling Logo:

Allows you to resize the logo picture

3.1. In section **C**, enter the new width and height values directly into the cells (size in pixels).

3.2. Click **OK** to save the modifications or **Cancel** to discard them.

4.2.4. Page Header tab

Enables you to add information to the report header and create a unique header for each UUT.

Select **Main page** > **Settings** > **Advanced > Reports** to open Reports settings window – select the Page Header tab.

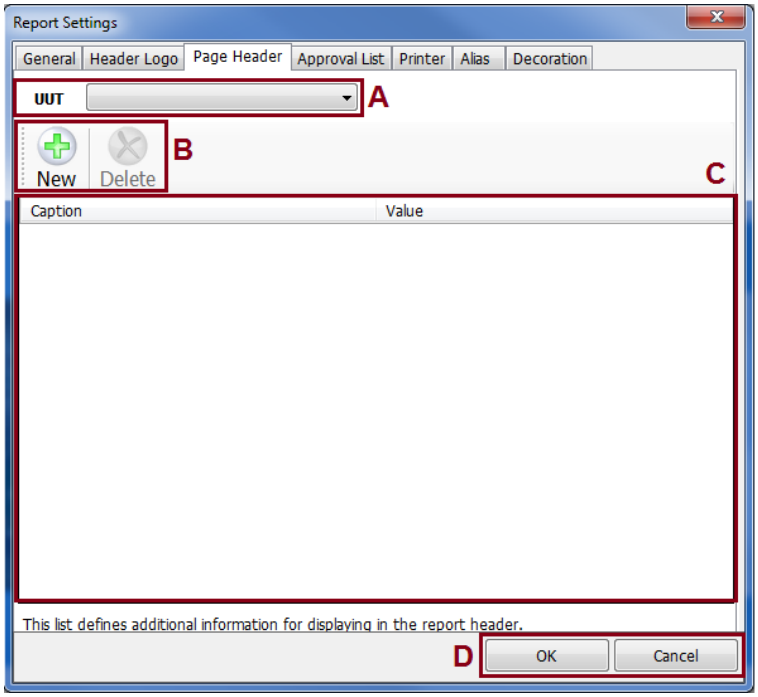
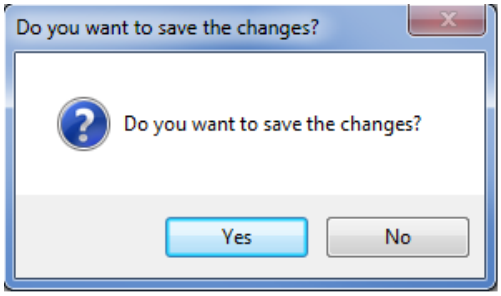


Fig 4-11 **Reports settings** window – Page Header tab

1. UUT selection

1.1. Click the combo box (**A**) arrow to display a list of UUTs, and then select the UUT from the list by clicking it.

Confirmation message appears:



1.2. Click Yes to save the changes or No to discard them.

Once you have selected the UUT you can add or remove page header items.

2. Adding Page header item

2.1. Click the New button (**B**).

This action will add a new empty row in field **C**

2.2. The row has two columns: ***Caption*** and ***Value***.

Fill in the data below by double clicking and typing in the specified cell:

- The **caption** – the header title.
- The compliance value.

2.3. Click **OK** to apply the modifications or Cancel to discard them.

See the following example:

Example: the user added column "Rev" and value "1" in field **C**:

Caption	Value
Rev	1

The new page header in the report:

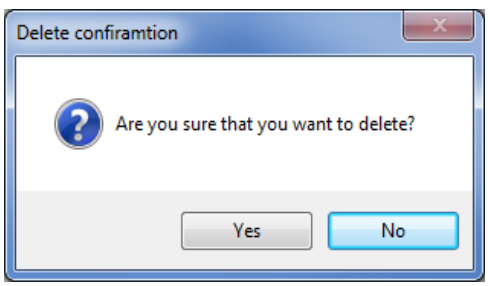
Issue Date	Page	Of	Rev
24/06/21 12:49	1	3	1

3. Deleting Page header item

3.1. Under area C, highlight the page header you wish to delete.

3.2. Click the Delete button (**B**).

The Delete confirmation dialog box is displayed.



1. Click **Yes** to confirm the delete process or **No** to terminate it.
   The page header is deleted from the page header window **C**
2. Click **OK** to apply the modifications or Cancel to discard them.

4. Editting Page header item

4.1. Select the column you wish to edit by double-clicking it.

4.2. Set any desired changes.

4.3. Click **OK** to apply the modifications or Cancel to discard them.

4.2.5. Approval List tab

This tab enables you to define a list of approvers.

To access the Approval List tab, select **Main page** > **Settings** > **Advanced >** **Reports** to open Reports settings window, and choose the Approval List tab.

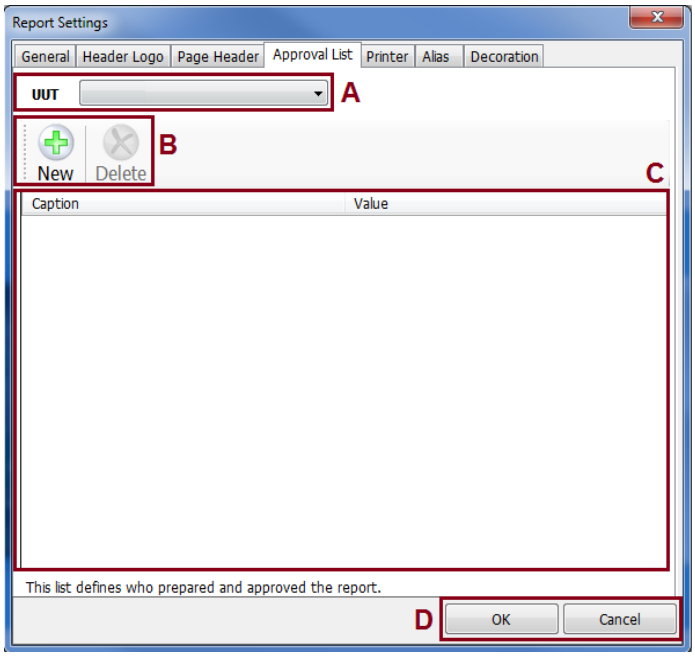
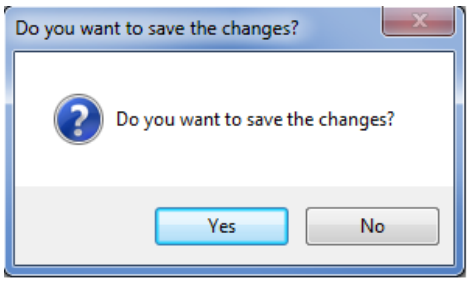


Fig 4-12 **Reports settings** window – Approval List tab

1. UUT selection

1.1. Click the combo box (**A**) arrow to display a list of UUTs and then select the UUT from the list by clicking on it.
A Confirmation message will appear:



1.2. Click **Yes** to save the changes or **No** to discard them.

Once you have selected the UUT, you can add or remove approval list items.

2. Adding Approval list item

2.1. Click the 

button (**B**).

This action will add a new empty row in field (**C**).

2.2. The row has two columns: ***Caption*** and ***Value***.

Fill in the data below by double-clicking on the specified cell and typing.

1. The **caption** – the title of the new approval list item.
2. The compliance value.

2.3. Click on **OK** to apply the modifications or Cancel to discard them.

See the following example:

Example: The user added the column "Designer" and its value "David H" and the second caption "Manager" and its value "John C." in field **C**:

Caption	Value
Designer	David H.
Manager	John C.

The new approval items in the report:

	Name	Sign	Date
Designer	David H.		
Manager	John C.		

Note: The example provided demonstrates the display of the data for the approval list.

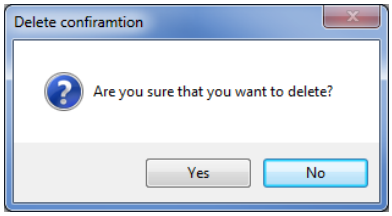
3. Deleting Approval list item

3.1. Under area C, highlight the approval list item you wish to delete.

3.2. Click the 

button (**B**).

The Delete confirmation dialog box will be displayed.



- Click **Yes** to confirm the delete process or **No** to terminate it.

  The approval list item will be deleted from the approval list window (**C**).

- Click **OK** to apply the modifications or Cancel to discard them.

4. Editing Approval list item

4.1. Select the column you wish to edit by double-clicking it.

4.2. Make the desired changes by typing.

4.3. Click **OK** to apply the modifications or Cancel to discard them.

4.2.6. Printer tab

You can specify the default printer for printing a report.

1. Go to **Main page** > **Settings** > **Advanced > Reports** to open Reports settings window, and then select the Printer tab.

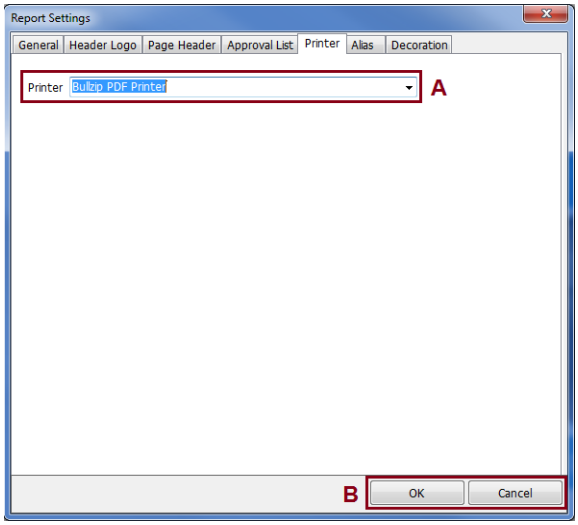


Fig 4-13 **Reports settings** window – Printer tab

2. Printer selection

2.1. Click the combo box (**A**) arrow to display a list of printers, and then select the default printer from the list by clicking on it.

2.2. Click **OK** to apply the modifications or Cancel to discard them.

4.2.7. Alias tab

This tab enables you to define an alias.

Go to **Main page** > **Settings** > **Advanced > Reports** to open Reports settings window, and then select the Alias tab.

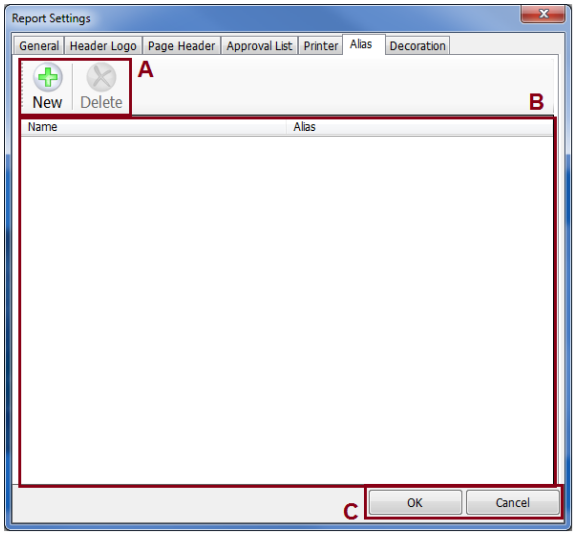


Fig 4-14 **Reports settings** window – Alias tab

1. Adding alias item

   1.1 Click the New button (**A**).

   This action will add a new empty row in field (**B**).

   1.2 The row has two columns: **Name** and **Alias**.

   Fill in the data below by double-clicking on the specified cell and typing:

   1. **Name** – the original name recorded for the report.
   2. **Alias** – The alias name printed on the report.

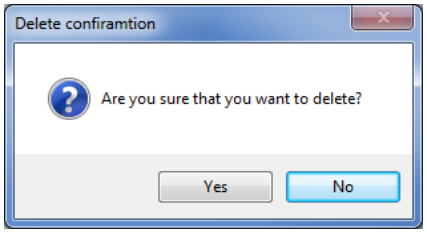
   1.3 Click **OK** to apply the modifications or Cancel to discard them.

2. Deleting alias item

   2.1. Under area B, highlight the page alias you wish to delete.

   2.2. Click the Delete button (**A**).

   The Delete confirmation dialog box will be displayed.



   2.3. Click **Yes** to confirm the delete process or **No** to terminate it.

   The alias will be deleted from the alias window (**B**)**.**

   2.4. Click **OK** to apply the modifications or Cancel to discard them.

3. Editing alias item

   3.1. Select the column you wish to edit by double-clicking it.

   3.2. Make the desired changes.

3.3. Click **OK** to apply the modifications or Cancel to discard them.

4.2.8. Decoration tab

This tab enables you to specify a selected color used in your report.

To access it, select **Main page** > **Settings** > **Advanced > Reports** to open the **Reports settings** window, and then choose the decoration tab.

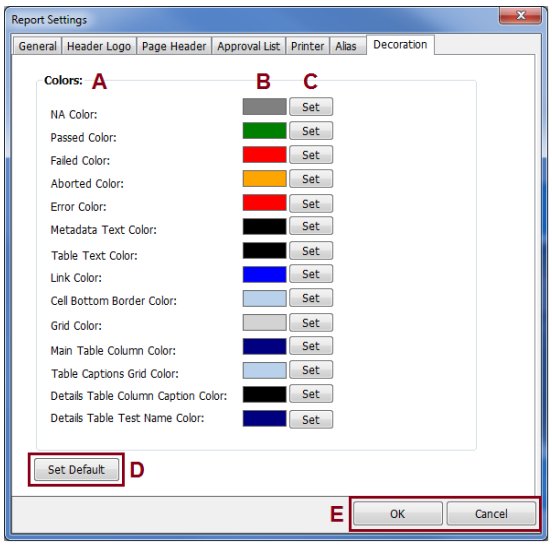


Fig 4-15 **Reports settings** window – Decoration tab

1. Editing report item color

1.1. Find the color you wish to edit from column **A**.

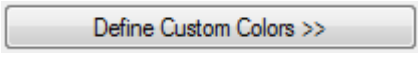
The current color is displayed in the compatible column **B.**

Click the **Set** button next to the color.

The **Color** dialog box will open.

1.2. Change the color by selecting a color from the displayed colors.

-Or-

By clicking 

button for custom color selection, the selected color will be displayed in column **B**.

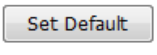
1.3. Click **OK** to apply the modifications or Cancel to discard them.

2. Setting report default colors

Allows you to reset the report's colors to their default settings.

2.1. Go to **Main page** > **Settings** > **Advanced** > **Reports** to open the Reports settings window.

2.2. Select the decoration tab.

2.3. Click on the 

button – Fig 4-15 (**D**).

The default colors will be displayed in column **B**.

2.4. Click **OK** to apply the modifications or Cancel to discard them.

4.3. Database

This section allows you to define the report storage settings.

Go to **Main page** > **Settings** > **Advanced > Database** to open Database settings window.

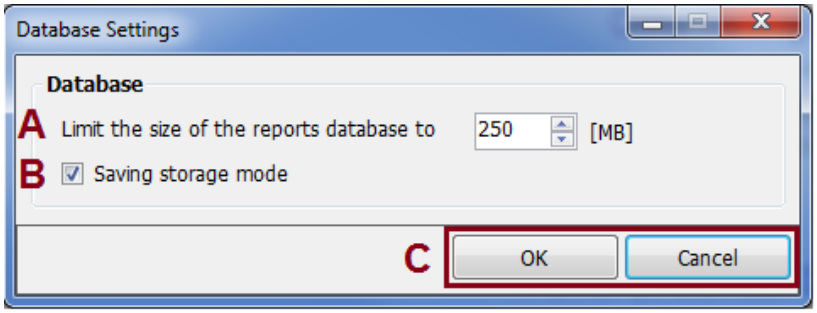


Fig 4-16 **Database settings** window

Action	Description	Note
Limit the size of the reports database to ____ in [MB]	This feature allows you to limit the size of the report database: Enter value directly/use the up and down arrows. This value represents the maximum size of the report database.	**A** The default is 250 MB
☐ Saving storage mode	Check the checkbox to allow the OTM to save all the outputs. The OTM will save all the outputs, regardless or whether the record checkbox is selected or not.	**B**
OK/Cancel	Click OK to apply the modifications -Or- **Cancel** to discard them.	**C**

4.4. Data

This option allows you to define the data storage location.

Go to **Main page** > **Settings** > **Advanced > Data Settings** to open Data settings window.

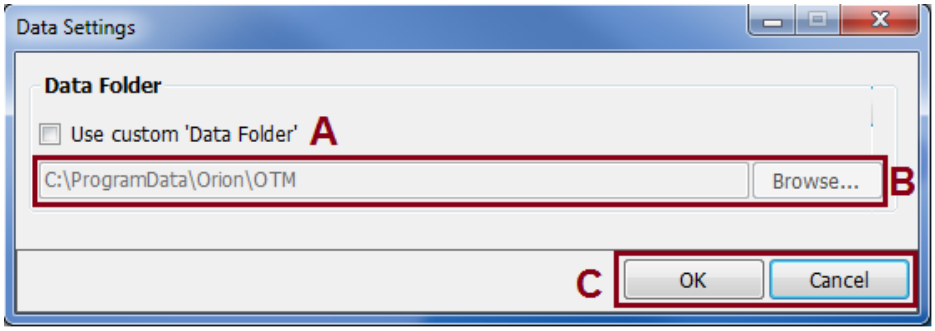


Fig 4-17 **Data settings** window

1. Define the data storage folder

To define a data folder other than the default:

1.1. Check the ☐ Use custom 'Data Folder' checkbox (**A**).
The data storage location field (**B**) will become enabled.

1.2. Click the Browse button (**B**), and the **Browse For Folder** screen will open.

1.3. Navigate to the desired directory for saving data, select it and click the OK button.
The new data storage location will be displayed in field **B**.

1.4. Click **OK** to apply the modifications or Cancel to discard them.

2. Default storage folder

To return data folder to the default definition:

2.1. Clear the ☐ Use custom 'Data Folder' checkbox (A).
The data storage location will return to the default value in field (**B**).

2.2. Click **OK** to apply the modifications or Cancel to discard them.

4.5. Execution settings

This option allows you to define general execution settings.

Go to **Main page** > **Settings** > **Advanced > Executions** to open Execution settings window.

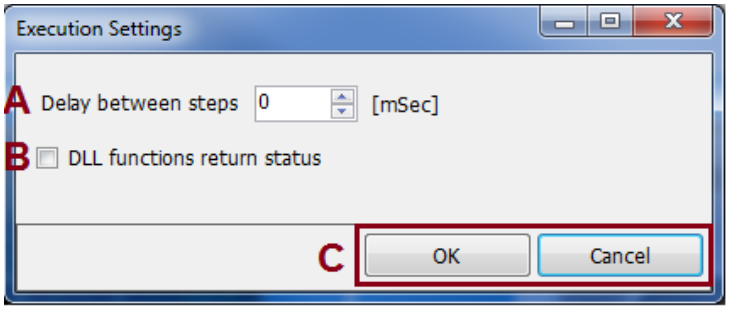


Fig 4-18 **Execution settings** window

Action	Description	Note
Delay between steps ____ [mSec]	Allows you to set a constant delay between execution steps: ▪ Enter the value directly. -Or- ▪ Use the up and down arrows.	**A** The default is 0 [mSec]
☐ DLL functions return status	Check the checkbox to display the status of the DLL's functions.	**B**
OK/Cancel	Click OK to apply the modifications -Or- **Cancel** to discard them.	**C**

4.6. Backgrounds

This option allows you to set a custom background.

Go to **Main page** > **Settings** > **Advanced > Backgrounds** to open Backgrounds window.

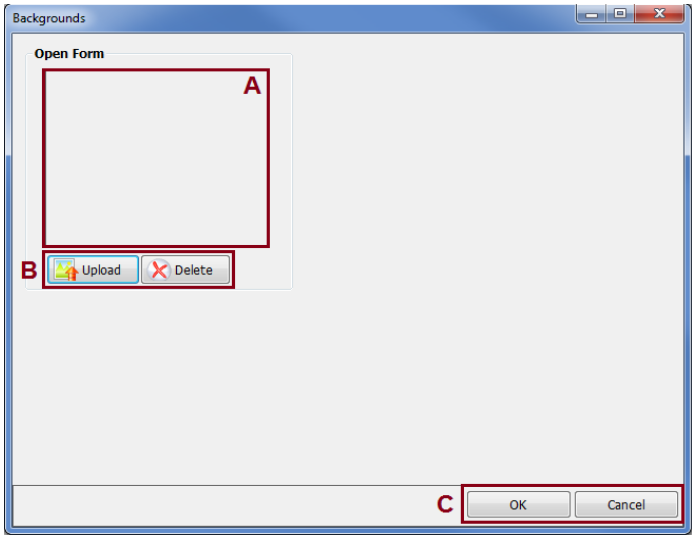


Fig 4-19 **Backgrounds** window

1. Add picture:

- Click the Upload button (**B**), and the **Open** screen will open.
- Navigate to the location of the background picture file and select it.
- Click the Open button.

  -or-

  Double-click the picture file.

  The picture will be displayed in the preview window (**A**).
- Click **OK** to apply the modifications or Cancel to discard them.

The selected background picture will appear in the Main window - Fig 4-1- (**F**)

2. Delete picture:

- From the Project picture buttons (**B**), click the button.

  The background picture will be cleared from the background preview window (**A**).
- Click **OK** to apply the modifications or Cancel to discard them.

  The background picture I will be cleared from the Main window - Fig 4-1 (**F**).

4.7. License

This option allows you to disable the dongle license.

Navigate to **Main window** > **Settings** > **Advanced > License** to open the License window.

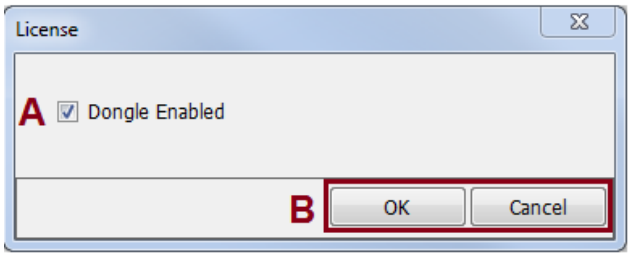


Fig 4-20 **License** window

1. Disable Dongle license.
   - Clear the checkbox (**A**) to disable the dongle license.
   - Click **OK** to apply the modifications or Cancel to discard them (**B**).

     The OTM activation will be according to the installed license type: runtime or development.

2. Enable Dongle license (default).
   - Check the checkbox (**A**) to enable the dongle license.
   - Click **OK** to apply the modifications or Cancel to discard them (**B**).

   The dongle license will be activated.

4.1.5. Backup & Restore

This option allows you to save the current database (backup) and restore a previously saved backup.

Step 1 – From the **Main window**, click on **Backup & Restore** in the the toolbar.

The **Backup & Restore** sub menu will be displayed.

Step 2 – Select on of the options from the sub-menu:

Menu Option	Description	Paragraph
Backup	To save a snapshot of your current Database	Para 1 below
Restore	To load a backup of the OTM database	Para 2 on page 53

1. Backup

This option allows you to save your database in its present condituion.
The database files will be backed up and compressed into a single ZIP file.
It is recommended to save a database backup before making major design changes, so that you can restore the backup if needed.

1.1. Creating a backup

1. Go to **Main window** > click on **Backup & Restore** in the toolbar.

2. Select **Backup** from the dropdown menu.

The **Backup Manager** window will open.

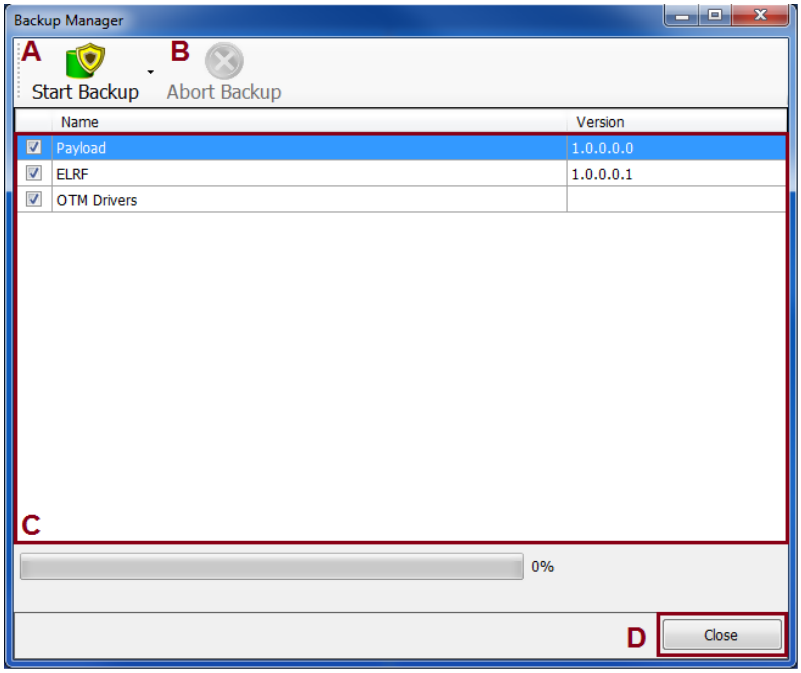


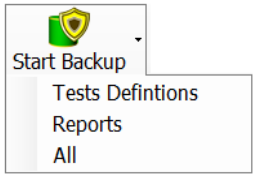
Fig 4-21 **Backup Manager** window

All the targeted items for a backup will be displayed in area C (UUTs & OTM drivers).

3. Check the checkboxes next to the items you wish to include in your backup.

4. Click the 

button.

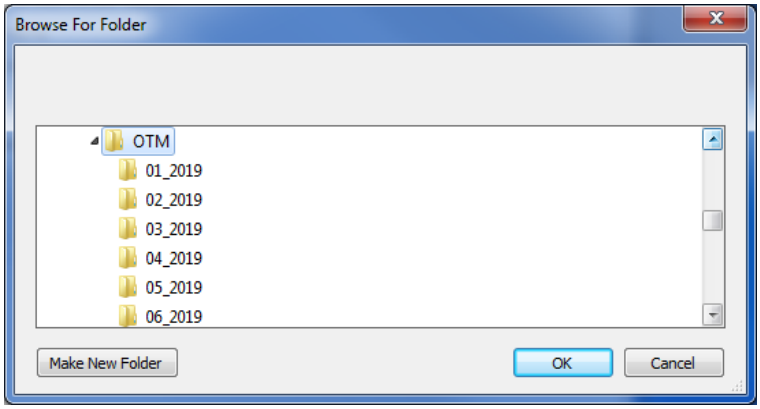


A sub-menu will be displayed with tgree types of backups: Tests definitions, Report, and all.

- **Tests Definitions -** this type only backs up the UUT(s) test definitions**.**
- **Report –** this type only backs up the UUT(s) reports.
- **ALL** – This is a full backup including both test definitions and reports.

5. Select the desired backup type by clicking on it.

The **Browse for Folder** screen will open.



6. Navigate to the location where you want the OTM to store the backup file.

   -or-

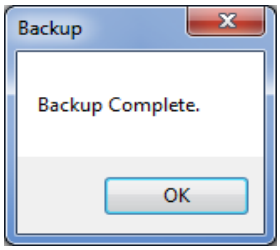
   Define a new folder:

   - Navigate to the target folder.
   - Click the Make New Folder button.
   - Enter the new folder name.

7. Click **OK** to apply the modifications or Cancel to discard them.
8. After selecting the storage location, the backup process will start,

   wait for the backup process to complete.

   Once the backup process is completed, a confirmation message will be displayed:



   Click **OK**.

The database backup, zip file, is created in the target backup directory.

1.2. Abort backup

This option allows you to terminate the backup process.

The **Abort Backup** button will become enabled only after the backup process begins.

- Click the Abort Backup button.

  A confirmation message will appear:

Click **OK**.

The backup operation has been canceled.

2. Restore

You can restore a previously archived database to the OTM.

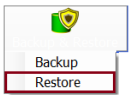
Before restoring a backup database, note the following remarks:

- This section assums that the OTM database was previously backed up.
- The restoration process will overwrite your entire database with the restored backup.
- It is recommended to save a database backup before making major changes so that you can restore the backup if needed.

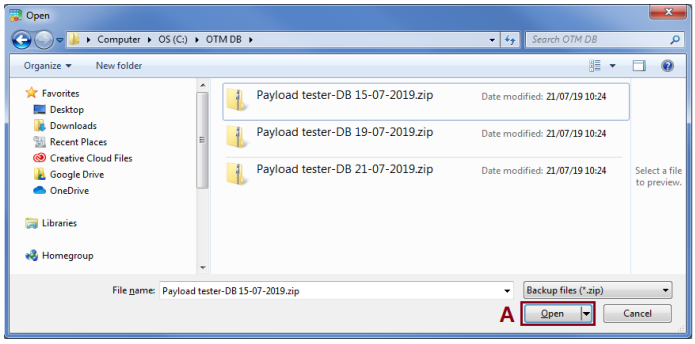
2.1. Restoring the database

1. Go to **Main window** > click on **Backup & Restore** in the toolbar.

2. Select **Restore** from the dropdown menu.



The **Open** window will will open.



3. Navigate to the location where the database backup is stored.

Make sure that the database version you are restoring is the correct backup

4. Select the backup file (Zip file) that you wish to restore, and then click the **Open** button (**A**).

   - OR –

   Double-click the backup file.

   The **Restore Manager** screen will open.

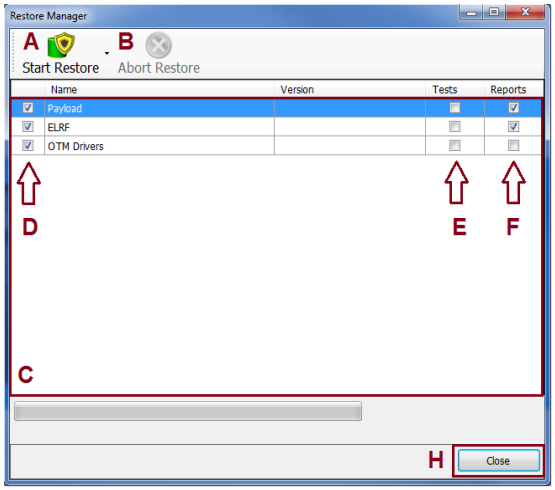


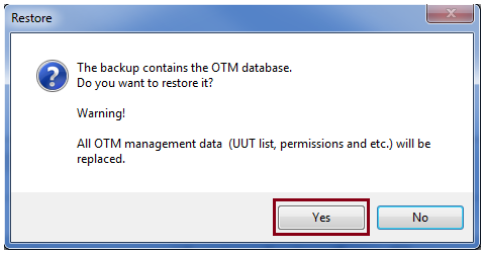
Fig 4-22 **Restore Manager** window.

The **Restore Manager** screen will display the content of the backup file (**C**).

5. Use the checkboxes (**D**) to select the items (UUT/OTM drivers) you want to restore.
   - For each item, choose whether to restore its tests (E), its reports (F) or both, by selecting the corresponding checkbox.
6. Click the **Start Restore** button ().

   A warning dialog box will be displayed indicating that the restoration process will overwrite the current OTM management data with the restored backup.

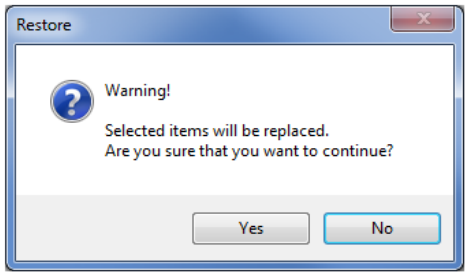
Restoring the database is permanent action and cannot be undone. Once the restoration process is performed, the OTM database cannot be retrieved and is permanently gone.
Therefore, it is highly recommended to save a database backup before making any major changes.



7. Click

Button	Description
Yes	▪ Click it if this is the the first database. ▪ To to perform the restore process and overwrite the OTM database (OTM.mdb) and the OTM management data.
No	To continue the restore process without replacing the OTM database (OTM.mdb) and the OTM management data.

A second warning dialog box will be displayed to emphasize that the restoration process will overwrite the current OTM database.

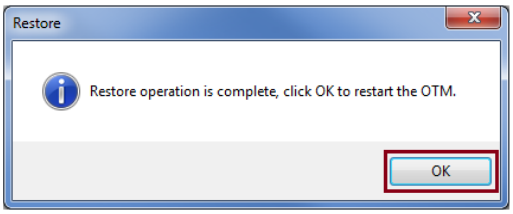


8. Click

Button	Description
Yes	▪ Click it if this is the the first database. ▪ To Start the restore process.
No	To cancel the restore process.

8.1. **Yes**:

1. Wait for the restore process to complete.
   Once the restore process is completed, a confirmation message will be displayed:



2. Click **OK**
   The OTM application will restart automatically.

Once logged in, the OTM's Main Screen will open and display the restored database.

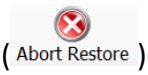
8.2. **No**:

1. The message box will be automatically closed.
2. Alternatively, you can click **Close** to exit the window or repeat the restore process.

2.2. Abort restore

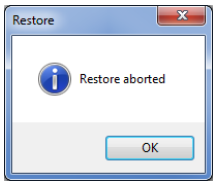
This option allows you to terminate the restore process.

The **Abort Restore** button will became enabled only after the restore process begins.

- Click the **Abort Restore** button (

).

A confirmation message will appear:



Click **OK**.

The restore operation has been canceled.

4.1.6. Self Test

This feature allows you quick access to self-test UUT.

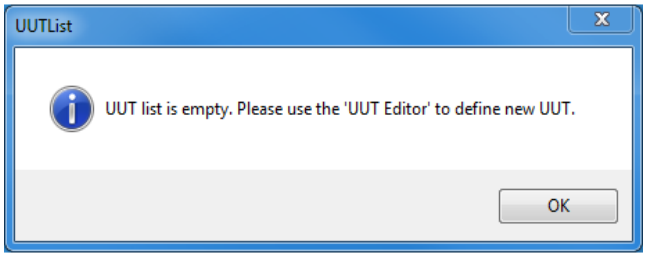
A self-test is a set of automatic tests that can detect any malfunction or problems.

1. Loading Self test

Step 1 - Go to the **Main** window and click on the 

button in the toolbar.

1.1. If no self-test is defined, the following message will be displayed:



- Click **OK**.
- Refer to paragraph 2 below for instructions on creating UUT's self-test.
- Go to the **Main** window> click on **Self Test**.

  The execution window will open and display the defined Self-test.

1.2. If the UUT's self-test is already defined:

The execution window will open and display the Self-test.

2. Create self-test UUT.

2.1. Go to the **Main** window > click on **UUT Editor**

The **UUT Editor** window will open**.**

2.2. Click the **New** button (

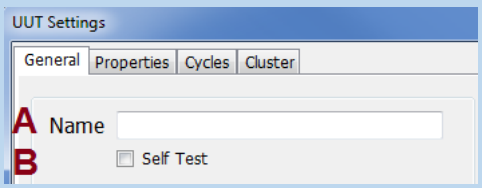
).

The **UUT Settings** window will open**.**

2.3. Complete the UUT's parameters as described in paragraph 5.1.2 on page 66.

Make sure that you fill in all the required feilds for the self-test UUT:

- UUT's Name (**A**)
- Check the Self Test checkbox (**B**).



Click **OK** to finalize the self-test UUT definition.

3. Changing self-test UUT definition:

Clear the “Self-Test” checkbox (**B**) to change the UUT from a self-test to a regular UUT.

4. Editing self-test

4.1. Go to the **Main** window > click on **UUT Editor**

Double-click on the self test UUT

-Or-

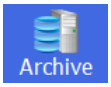
Select the self-test UUT and click the **Edit** button (

).

The **UUT Settings** window will open**.**

4.2. Make any desired edits.

4.3. Click **OK** to apply the modifications or Cancel to discard them.

4.1.7. Archive 

The Archive feature allows you to view execution history of the UUT.

The archive window enables you to create, update, and view report preferences for the selected execution.

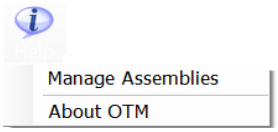
For more details, refer to paragraph 11.3 on page 200.

4.1.8. Help 

The OTM provides general information about the OTM/DLL.

Step 1 – Go to the **Main** window > click on the  button in the toolbar.

The help sub-menu will be displayed.



Step 2 – Select from the sub-menu options:

Menu Option	Description	Paragraph
Manage Assemblies	Allows you to set or compare the versions of assemblies	1 below
About OTM	To view general information about OTM	Para 2 on page 63

1. Manage Assemblies

Each assembly has a version as part of its identity.

This section allows you to track incompatibility between file versions.

1.1. Checking the assembly's version

1. Go to the **Main** window > click on **Help**

2. From the dropdown menu, select **Manage Assemblies**.

   The **Assemblies Version Compatibility** window will open, displaying the list of assemblies in the assembly area Fig 4-23 **(C)** along with their compliance status.

   Follow the next paragraph to choose your preferences.

1.2. **Assemblies Version Compatibility** window

Navigate to the **Main window** > **Help** > **Manage Assemblies** to open **Assemblies Version Compatibility** window Fig 4-23.

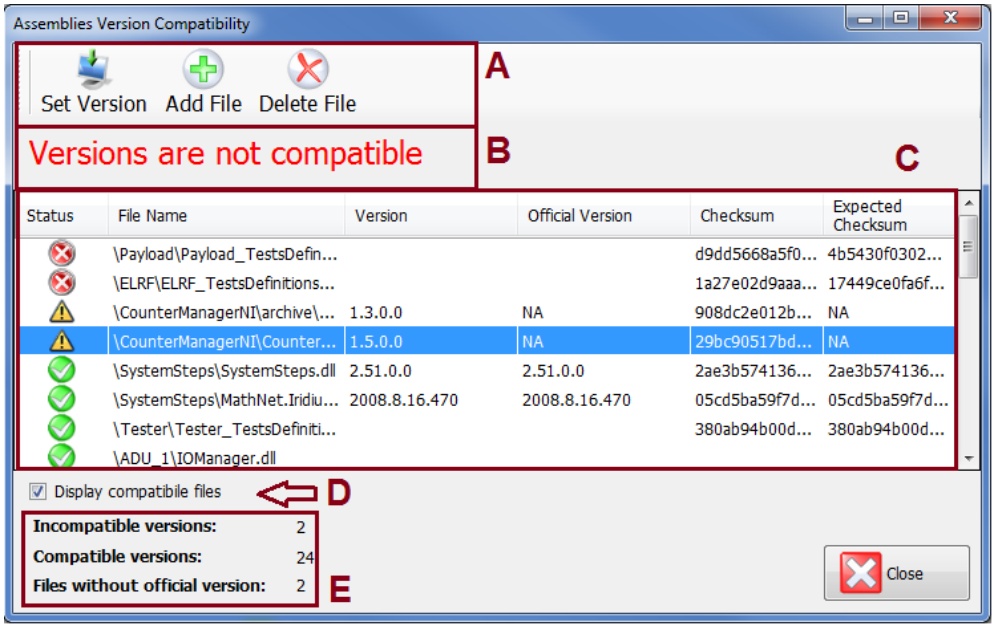


Fig 4-23 **Assemblies Version Compatibility** window

	Description	**Fig 4-23**	**Note**
Set Version	To set the version of assemblies	**A**	1.3 below
Add File	To add a file to the assemblies list	**A**	1.4 below
Delete File	To delete file from the assemblies list	**A**	1.5 below
Version compstibility result	The version compatibility check result	**B**	1.6 below
Assemblies list	Displays the list of assemblies and their parameters for comparison	**C**	1.7 below
Display compatibile files	Use the checkbox to display or clear the compatible files from the assemblies list	**D**	1.8 below
Version summary	The summary of the version check results	**E**	1.9 below
Close	To return to the **Main** window		

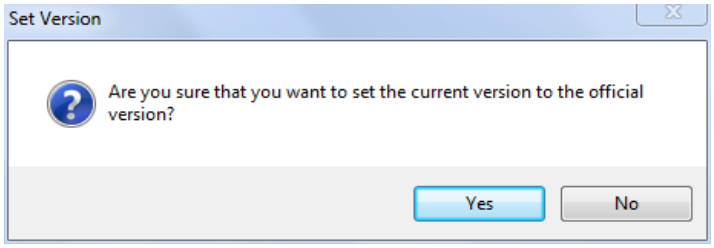
1.3. Set version 

This feature allows the user to resolve version mismatches, by setting the current version as the official version.

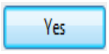
To set the version:

1. Click the  button.

   A confirmation message will appear.

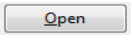


2. Click

Button	Description	Details
Yes	To set the current version as the official version.	▪ Click the  button ▪ Ensure that all files are marked with a checkmark  . ▪ Verify that the version compstibility result changes to"Versions are compatible"
No	To cancel the process of setting the version.	The previous official version will remain unchanged.

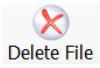
1.4. Add file 

1. Click on  , and the **Open** screen will appear.

2. Navigate to the location of the file you want to add and select it. Then, Click on  button.

   Alternatively, you can double-click the file.

   The new file will be displayed in the assemblies list Fig 4-23 (**C**).
3. Follow the instructions in paragraph 1.3 above to set the official version of the assemblies.

1.5. Delete file 

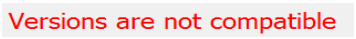
1. Under the assemblies list Fig 4-23 (**C**), select the file you wish to delete.
2. Click the 

button- Fig 4-23 (**A**).
   The file will be deleted.


OTM system file can't be deleted.

1.6. Version compstibility result

1. 

- the versions are compatible.
2. 

- there is an incompatibility between the file versions.

1.7. Assemblies list

1. Status – the comparison result between the current version and the official version is presented in the status, indicated as follows:
    - file version is compatible.
    - file version is missing.
    - file version is not compatible.
2. File name – The name of the file, including its file path.
3. Version – Shows the current version of the file.
4. Official version – Displays the official version of the file.
5. Checksum – The checksum value of the file.
6. Expected checksum – Indicates the expected checksum value of the file.

1.8. 

The checkbox allows you to show or hide the compatible files in the assemblies list Fig 4-23 (**C**).

1.9. Version summary

- Incompatible versions – Indicates the number of files that are not compatible with their official version.
- Compatible versions - Indicates the number of files that are compatible with their official version.
- Files without official version - Indicates the number of files that do not have an official version assigned.

2. About OTM

This section provides general information about the OTM.

2.1. Viewing OTM's general information

1. Navigate to the **Main** window > click on **Help**

2. Select **About OTM** from the dropdown menu.

   The **About OTM** window will open.

   Refer to the following paragraph for more details.

2.2. About OTM window

1. Navigate to the **Main** window > **Help** > **About OTM** to open the **About OTM** window Fig 4-24.

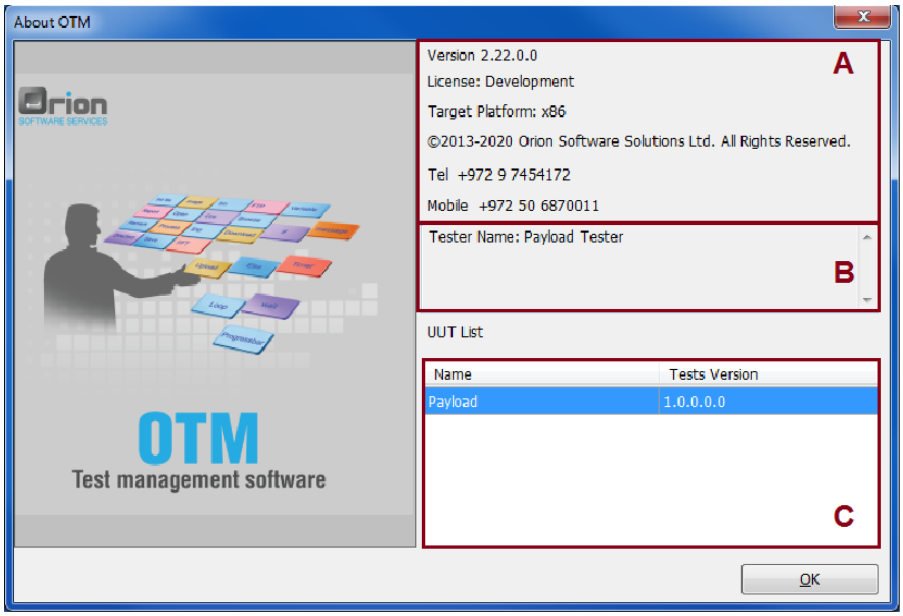
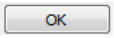


Fig 4-24 **About OTM** window

Target Platform: Specifies the framework version on which OTM is built to run.

Fig 4-24	Description	Details
A	General information	▪ Version – Indicates the version of OTM. ▪ License – Displays the license type (development/runtime). ▪ Target platform – Specifies the framework version on which OTM is built to run.

		▪ Contact information
B	Tester Name	Displays the project name
C	UUT List	Displays all the defined UUTs and their respective versions.
		To return to the **Main** window

5 UUT Management

Unit Under Test (UUT) refers to the object that is being tested. It is a collection of tests designed to validate the functionality of the unit being developed.

To define UUT, there are two windows available: UUT Editor and UUT settings.

5.1. UUT Editor

Step 1: Navigate to the **Main** window > select **UUT Editor**.

The **UUT Editor** window will open, allowing you to define and configure the UUT for testing purposes.

5.1.1. UUT Editor window

This window allows you to add, edit, remove UUT or set its version.

Navigate to **Main window** > **UUT Editor** to open **UUT Editor** window Fig 5-1.

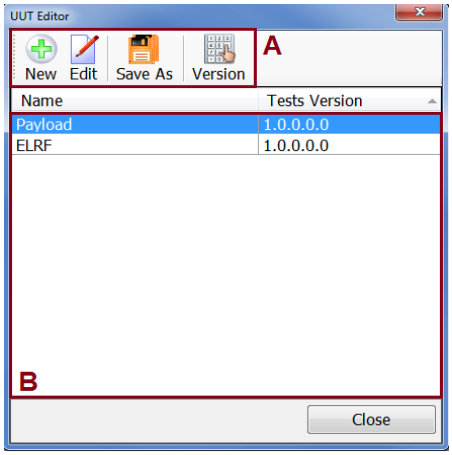


Fig 5-1 **UUT Editor** window

	Description	Fig 5-1	Details
	To add UUT	**A**	Paraghraph 5.2.2 (on page77)
	To edit the settings of a UUT	**A**	Paraghraph 5.4 (on page 79)
	To copy a UUT	**A**	Paraghraph 5.5 (on page 80)
	To set the version of a	**A**	Paraghraph 5.6 (on page 80)

	UUT	
UUT list area	Displays all the defined UUTs and their corresponding versions.	**B**
Close	To return to the **Main** window	

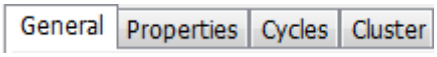
5.1.2. UUT Settins window

The UUT Settings window provides options to configure the required settings of the UUT.

Navigate to the **Main** window > select **UUT Editor** > click on New/Edit/Save as to open the **UUT Settings** window.

1. UUT settings window – tabs

The UUT settings window consists of four tabs: General, Properties, Cycles and, Cluster.



Each tab offers specific options and configurations related to the UUT.

Tab	Description	Details
General	Allows you to configure the general settings of the UUT	Paraghraph 2 below
Properties	Enables you to add, delete or modify UUT Properties.	Paraghraph 3 below
Cycles	Gives you the ability to set the number of test cycles for the UUT.	Paraghraph 4 below
Cluster	Allow you to define a cluster	Paraghraph 5 below

2. General Tab

The general tab provides options for adjusting the UUT's general settings.

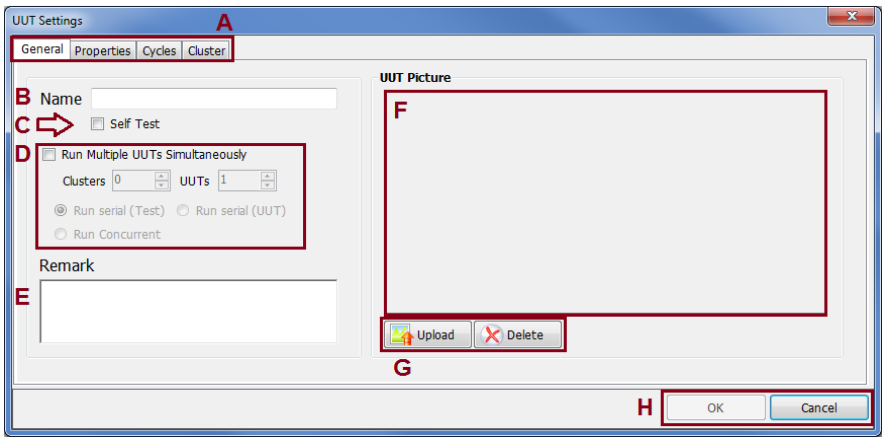


Fig 5-2 **UUT Settings** window **– general tab**

	Description	**Fig 5-2**	**Note**
UUT's settings tabs	Select the tab to access its settings.	**A**	See 1 above
UUT Name	Insert the UUT's name here	**B**	**Required**
Self Test	To set the UUT as a self-test UUT	**C**	Paragraph 4.1.6 on page 57
Run Multiple UUTs Simultaneously	Select the checkbox to initiate the execution of multiple UUTs	**D**	Paragraph 3 below
Remark	Add a comment for the UUT	**E**	Insert the remark by typing it in the provided text box
UUT picture area	The UUT's picture preview	F	
UUT picture buttons	To add/Remove picture	**G**	
OK/Cancel	Click OK to apply the modifications -Or- **Cancel** to discard them.	**H**	

2.1. In the **UUT Settings** window – general tab, follow these steps:

1. Enter the UUT name (**B**). This field is required

Ensure you provide a name for the UUT - Fig 5-2 (**B**).
All other settings are optional.

Other Optional settings:

2. Self-test - Fig 5-2 (**C**).

   Check the 'Self Test' checkbox to designate the UUT as a self-test.

   The Self-test is detailed in paragraph 4.1.6 on page 57.

3. Run multiple UUTs - Fig 5-2 (**D**).

   Use this option when testing multiple units simultaneously.

Run Multiple UUTs Simultaneously - this checkbox is cleared by default.

Clusters 0 UUTs 1 - the clusters and UUTs default settings.

In case of multiple UUTs:

3.1. Select the Run Multiple UUTs Simultaneously checkbox - Fig 5-2 (**D**).
Enabling this checkbox enables all the multiple UUT settings, and the number of UUTs will change to '2'.

3.2. Enter the number of clusters and the number of UUTs.

3.3. Choose the execution of the units by selecting the appropriate button  .
There are three options:

3.3.1. **Run Serial (Test)** – Runs tests one after the other for each UUT.
Tests are executed sequentially for each UUT, starting with Test #1 for all UUTs, following by Test #2 for all UUTs, and so on.

3.3.2. **Run Serial (UUT)** – runs a set of tests one after the other.
UUTs are executed sequentially, starting with UUT #1 for all tests, following by UUT #2 for all the tests, and so on.

3.3.3. **Run Concurrent** – Executes multiple units simultaneously (in parallel).

4. Adding UUT's Remark.

   Enter the remark by typing it in the provided field - Fig 5-2 (**E**).

5. UUT's picture

5.1. Adding UUT's picture

- Click the Upload button - Fig 5-2 (**G**), to open the **Open** screen.
- Navigate to the location of the UUT's picture file and select it.
- Click the Open button

  -Or-

  Double-click the picture file.
- Click OK to apply the modifications or **Cancel** to discard them.

The UUT's picture appears in the Main window - Fig 4-1 (**D**)

5.2. Deleting UUT's picture

From the picture buttons Fig 5-2 (**G**), click the Delete button**.**

The UUT's picture is cleared from the UUT picture area Fig 5-2 (**F**).

The UUT's picture is cleared from the Main window - Fig 4-1 (**D**).

2.2. Click the other tabs (Properties/Cycles/Cluster) if you want to configure other settings, as detailed in the following paragraphs.

-Or-

Click OK, when all the settings are set as desired.

3. Properties Tab

The properties tab allows you to manage UUT's properties.

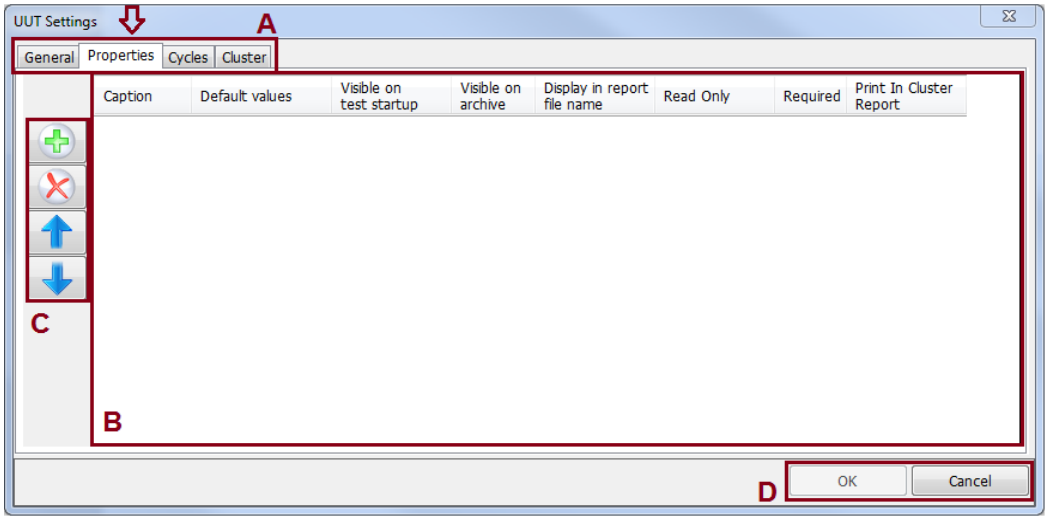


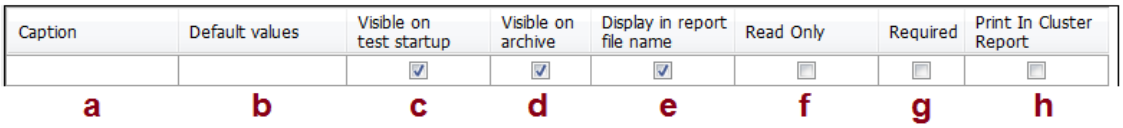
Fig 5-3 **UUT Settings** window **– properties tab**

	Description	Fig 5-3	Note
UUT's settings tabs	Select a tab to access and configure its settings	**A**	See 1 above
Property area	Enables you to define the settings of the property	**B**	
Property buttons	Provide options to add, delete or change UUT Properties	**C**	
OK/Cancel	Click **OK** to apply the modifications -Or- **Cancel** to discard them.	**D**	

3.1. Adding property

Navigate to the **Main window** > **UUT Editor** Fig 5-1> select the UUT and click on 'Edit'> the **UUT Settings** window Fig 5-3 will open> select the **properties** tab.

1. Click the  button Fig 5-3 (**C**). This action will add a new empty row in the field Fig 5-3 (**B**).



2. Fill in the required and optional columns as follows:

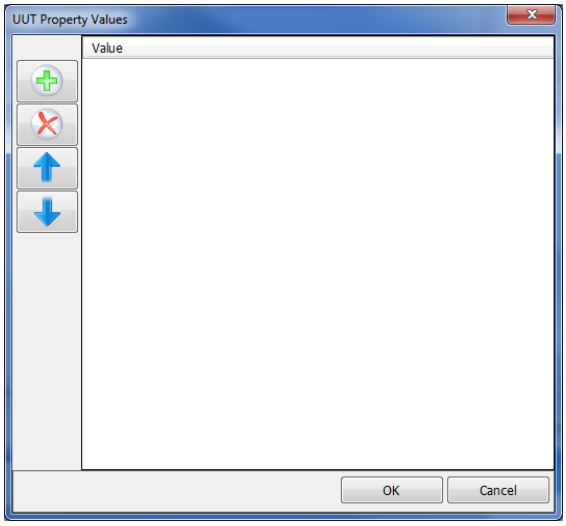
2.1. Caption - Property's Caption (**a**):

Click the cell under 'Caption' and enter the required caption for the property.

Other Optional settings:

2.2. Default values - Property's default value (**b**)

- Double-click the new cell under 'Default value'. This action will open the **UUT Property Values** window.



UUT Property Values window

Button	Description	Details
	To add the default value for the property	▪ Click the  button. This action will add a new empty row. ▪ Click the cell and type the value for the property.
	To delete the value for the property	▪ Highlight the value that you wish to delete. ▪ Click the  button. This action will delete the value of the property.
	To define the order of the property's value.	▪ Select the value of the property. ▪ Click  to move the value up ▪ Click  to move the value down
OK/Cancel	Click OK to apply the modifications -Or- **Cancel** to discard them.	

2.3. ☐ Visible on test startup screen (**c**)

By default, the checkbox is selected.

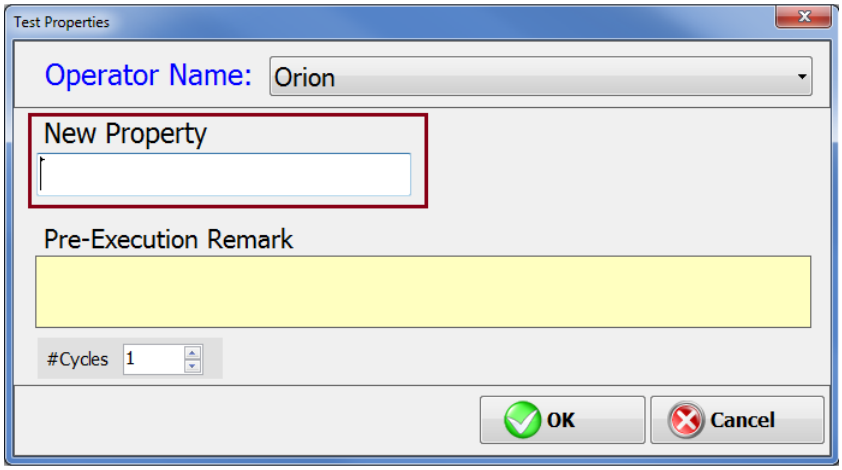
2.3.1. When the checkbox is selected, the new property will be shown in the Test Properties dialog (refer to the dialog below).

2.3.2. Test startup dialog:

To access the **Test properties** dialog:

- Navigate to the **Main** window.
- Select the desired **UUT.** The Execution screen will open.
- Once the execution list is defined on the Execution window, click the 

button to open the **Test Properties** dialog.



2.4. ☐ Visible on archive (**d**)

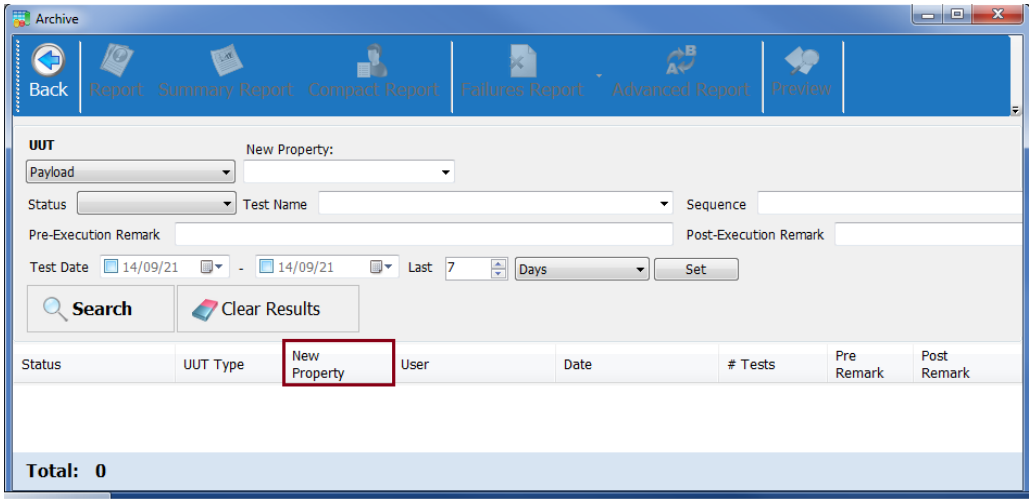
The checkbox is checked by default.

2.4.1. When the checkbox is selected, the new property will be displayed in the Archive window (as shown below).

2.4.2. Archive window:

To access the Archive window, you can use either of the following methods:

- Go to the **Main** window > select **Archive.**
- Go to the **Main** window > Select the **UUT** > (Execution screen will open) → Click the **Archive** button in the upper menu.



2.5. ☐ Display in report file name (**e**)

The checkbox is selected by default.

- When the checkbox is selected, the new property will be displayed in the generated report (as shown below).

Payload Report	
Passed	
New Property	
Tests Version	1.0.0.0.0
OTM Version	2.54.0.0
Pre-Execution Remark:	

2.6. ☐ Read Only (**f**)

When the checkbox is selected, the new property becomes read-only.

2.7. ☐ Required (**g**)

When the checkbox is selected, the new property becomes required.

2.8. ☐ Print In Cluster Report (**h**)

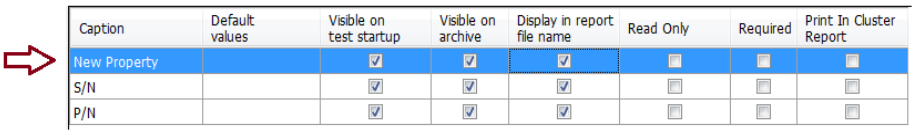
When the checkbox is selected, the new property will be included only in the cluster report.

3. Click **OK** to confirm the addition of the property or **Cancel** to discard any modifications Fig 5-3 (**D**).

3.2. Deleting a property

1. In the Property area Fig 5-3 (**B**), select the property item you wish to delete.

   For example:



Caption	Default values	Visible on test startup	Visible on archive	Display in report file name	Read Only	Required	Print In Cluster Report
New Property		☑	☑	☑	☐	☐	☐
S/N		☑	☑	☑	☐	☐	☐
P/N		☑	☑	☑	☐	☐	☐

2. Click the  button Fig 5-3 (**C**).
3. Click **OK** to confirm the deletion of the property or **Cancel** to cancel the operation Fig 5-3 (**D**).

3.3. Setting the property order

To specify the order of the property:

Within the Property area Fig 5-3 (**B**), select the desired property.

- Click  to move the property up.
- Click  to move the property down.

3.4. Editing property

1. Navigate to the **Main** window > **UUT Editor** and double click on the property's UUT.
   - Alternatively, select the UUT and click the 

button.

   The UUT Settings window will open.
2. Select the **Properties** tab.
3. Make any desired edits:
   3.1. Edit the property's Caption - click on the **Caption** cell and enter the new caption.
   3.2. Property's default value – refer to paragraph 2.2 above.
   3.3. Select or deselect the checkboxes as desired.

3.5. Completing the property settings

Click **OK** to apply the modifications or **Cancel** to discard them.

4. Cycles Tab

The Cycles tab enables you to specify multiple executions for the UUT.

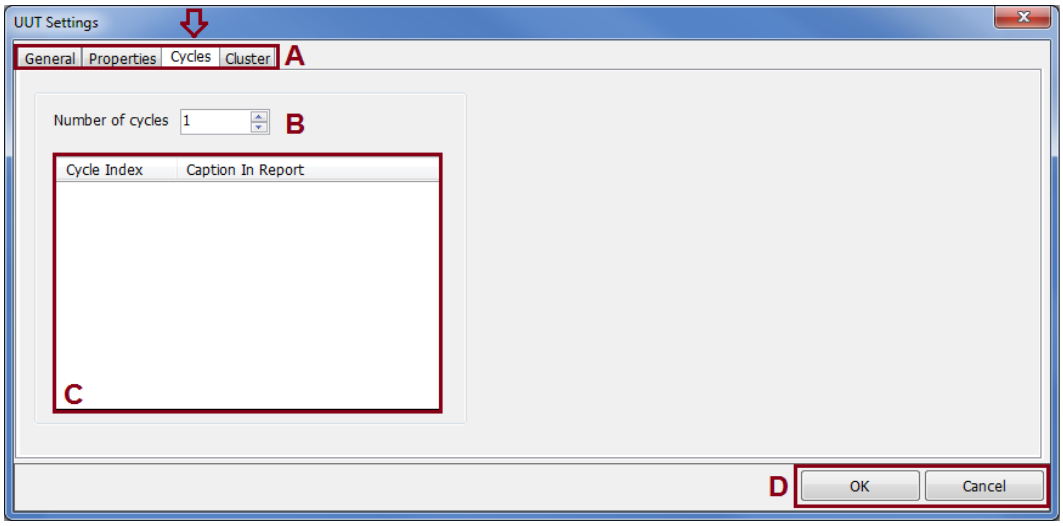


Fig 5-4 **UUT Settings** window **– Cycles tab**

	Description	Fig 5-4
UUT's settings tabs	Select a tab to access its specific settings	**A**
Number of cycles	Allow to define the number of times that the UUT will be executed.	**B**
Cycles area	Shows the cycles list and their captions	**C**
OK/Cancel	Click **OK** to apply the modifications -Or- **Cancel** to discard them.	**D**

4.1. Adding cycles

1. Specify the number of cycles Fig 5-4 (**B**):
   - Enter the value directly.
   - Alternatively, use the up and down arrows

   If there are multiple cycles, they will be displayed in the cycles area - **C**.
2. Modify cycle caption– Optional.

   In the cycles area (**C**), select the caption you want to modify and enter the new caption.
3. Click **OK** to save the changes or **Cancel** to discard them Fig 5-4 (**D**).

The updated caption for the cycle will be displayed in the report.

4.2. Deleting cycles

- Reduce the number of cycles Fig 5-4 (**B**)
- If there are multiple cycles, they will be displayed in the cycles area - **C**.
- Click **OK** to save the changes or **Cancel** to discard them Fig 5-4 (**D**).

5. Cluster Tab

If the UUT is part of a cluster, the cluster tab enables you to define the cluster caption.

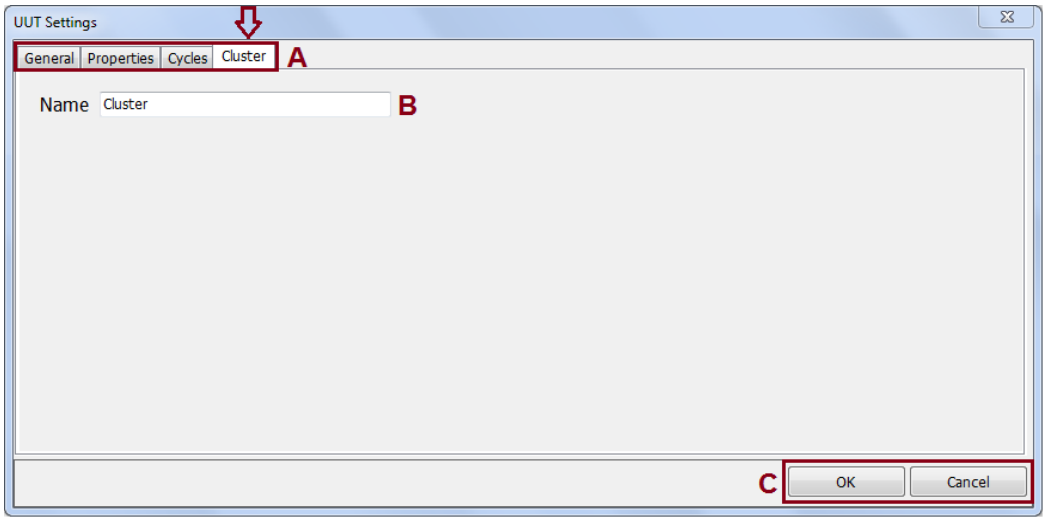


Fig 5-5 **UUT Settings** window **– Cluster tab**

5.1. Defining a cluster name

1. Select the cluster name Fig 5-5 (**B**) - and enter the new name.
2. Click **OK** to save the changes or **Cancel** to discard them Fig 5-5 (**C**).

6. Completing the UUT definition

Click **OK** to apply the changes. Alternatively, click **Cancel** to discard the changes and close the window Fig 5-5 (**C**).

5.2. Creating UUT

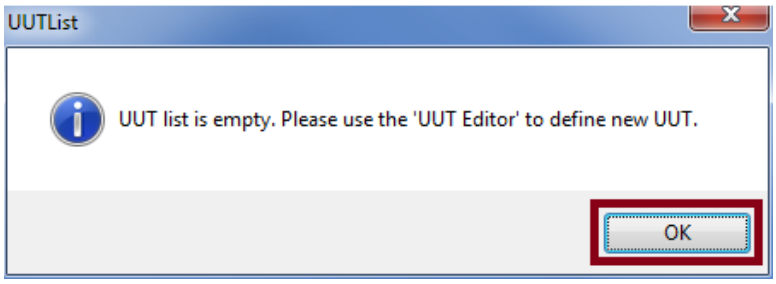
OTM provides the option to create a new UUT or restore an existing one.

The following steps outline the process for creating a UUT.

5.2.1. First UUT

If no-UUT is defined.

1. After logging in (refer to paragraph 3 on page 13), the Main window will open and display the following message.

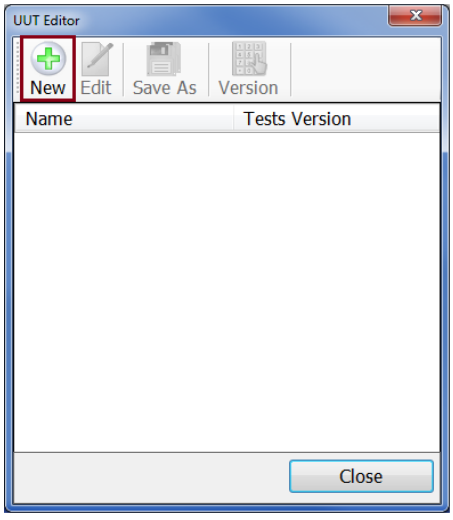


2. Click **OK** and continue to the next paragraph for instructions on how to add a new UUT.

5.2.2. Adding UUT

1. Go to the **Main** window and select **UUT Editor**

The **UUT Editor** window will open**.**

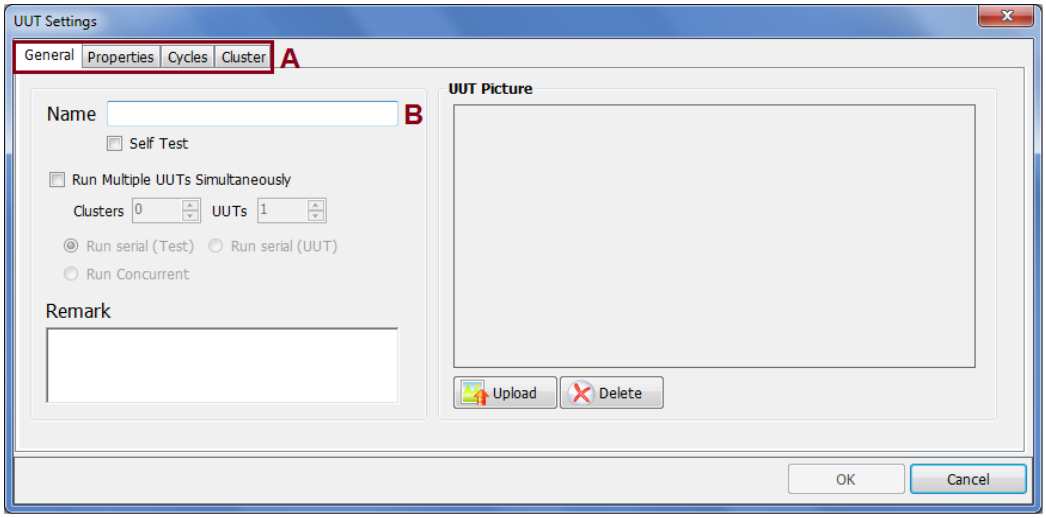


2. Click the 

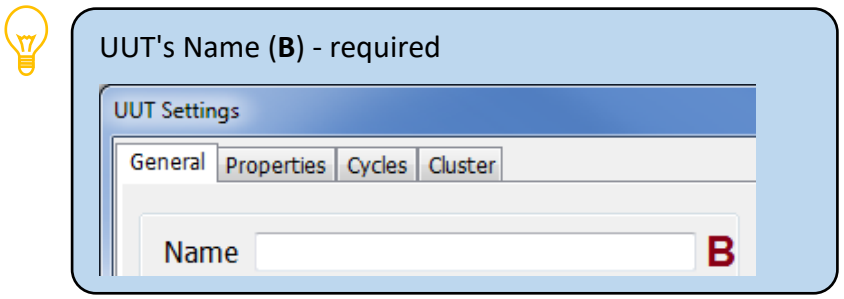
button.

This will open the **UUT Settings** window - Fig 5-2**.**

3. Provide the required information in the **UUT Settings** window:



3.1. Enter the UUT name.



3.2. All other fields are optional:

3.2.1. General tab – as described in paragraph 2.1 above, on page 68.

3.2.2. Properties tab – as described in paragraph 3.1 above, on page 70.

3.2.3. Cycles tab – as described in paragraph 4.1 above, on page 75.

3.2.4. Cluster tab – as described in paragraph 5 on page 76.

Configure the desired settings.

4. Click **OK** to create the new UUT.

The new UUT will be displayed under **UUT Editor** in the UUT list area Fig 5-1 (**B**).

The new UUT button will appear in the main window.

To complete the UUT definition, you need to create tests for the UUT – refer to section 7.4 on page 127.

5.3. Restoring UUT

OTM provides the option to load a previously saved OTM database file.

1. Go to the **Main** window and Select **Backup & Restore**.

2. To complete the **Restore** process, refer to pharagraph 2.1 on page 53.

The OTM application will automatically restart.

Once logged in, the OTM's Main Screen will open, displaying the restored database.

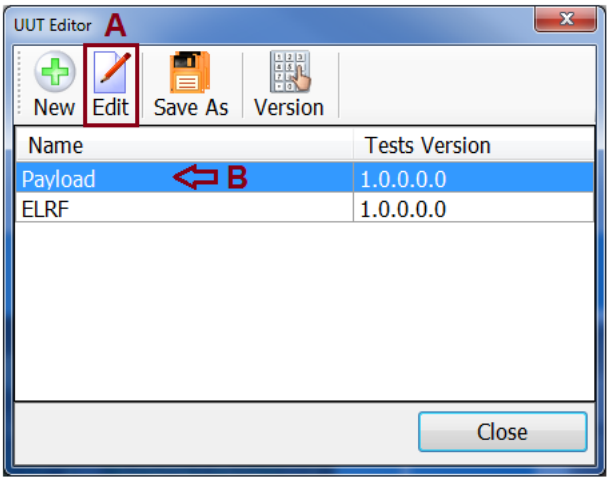
5.4. Editing UUT

To edit a UUT:

1. Go to the **Main** window and select **UUT Editor.**

Once logged in, the OTM Main Screen will open, displaying the restored database.

The **UUT Editor** window will open, showing the list of UUTs.



2. Choose the UUT you want to edit by double-clicking on it (refer to **B** in the example above) or select the UUT and click the 

button (**A**).

The **UUT Settings** window will open, presenting the properties of the selected UUT.

Make any desired edits.

3. Click **OK** to apply the modifications or Cancel to discard them.

5.5. Copying UUT

To create a copy of a UUT:

1. Go to the **Main** window and select **UUT Editor.**

The **UUT Editor** window will open, displaying the list of UUTs.

2. Select the UUT you want to copy and click the 

button.

3. The **UUT Settings** window will open:

3.1. Enter the name for the copied UUT – required.

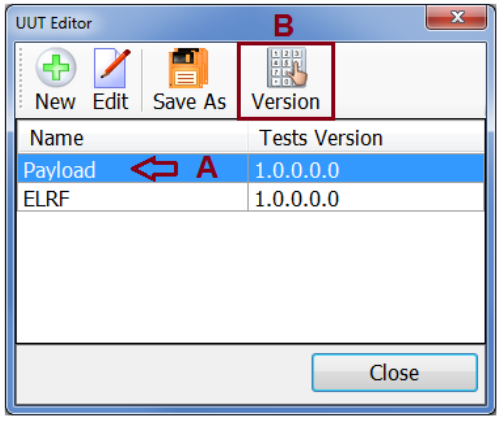
3.2. All properties and settings will be the same as the original UUT and can be edited (as described in 5.4 above).

4. Click **OK** to create the UUT.

5.6. Setting UUT Version

1. Go to the **Main** window and select **UUT Editor**

The **UUT Editor** window will open.



Once the UUT is defined and displayed in the UUT list:

2. Select the UUT item for which you want to set its version (**A** in the example above) and click the 

button or double-click the Tests version column of the UUT.
This will open the **Payload Version** window.

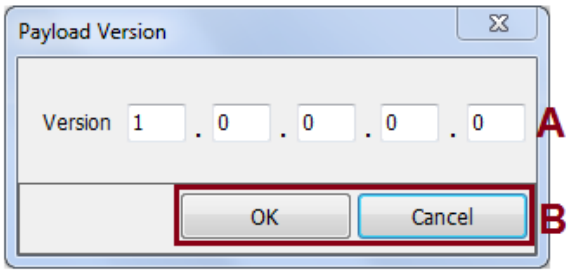


Fig 5-6 **Payload Version** window

3. Enter the version of the UUT in the corresponding field Fig 5-6 (**A**).
4. Click **OK** to apply and set the version value.

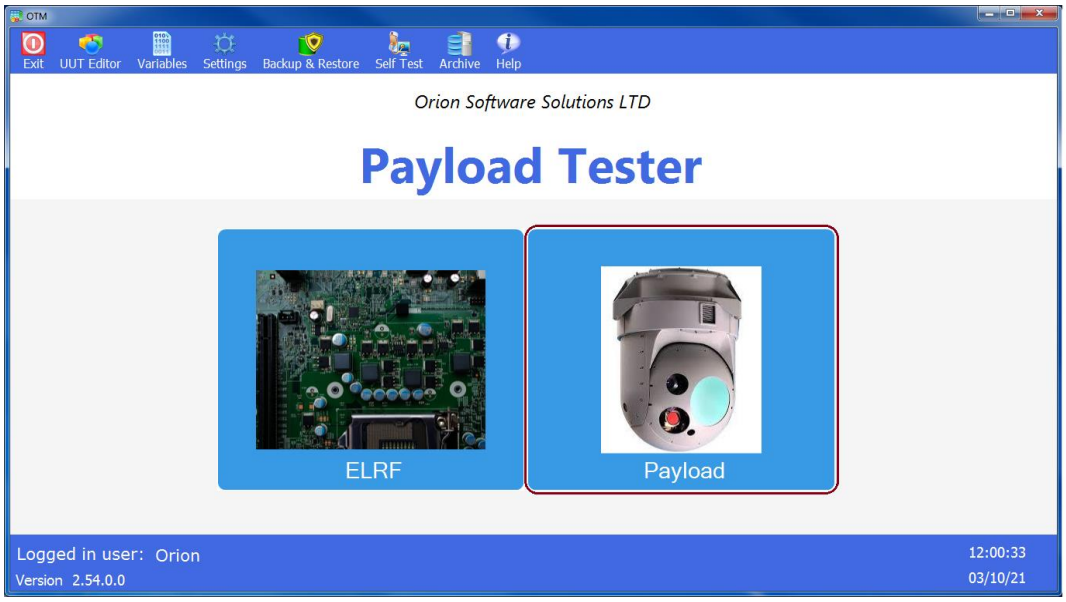
The default version is 1.0.0.0.0

5.7. UUT Selection

The UUTs are shown on the Main screen.

Select a UUT by clicking on its corresponding button.

In the example screenshot below, the **Payload** UUT is selected.



After selecting the UUT, the **Execution** window will open. For detailed information, refer to paragraph 6.16.1 below.

6 UUT Execution

This section enables you to organize and prepare the execution list for the UUT.

Step 1: Create or load the Execution list – refer to paragraph 6.2 on page 85.

Step 2: Run the Execution list – refer to paragraph 6.4 on page 97.

6.1. Execution window

To open **Execution editor** window:

Navigate to the **Main** window and select **UUT** (**Execution** window will open).

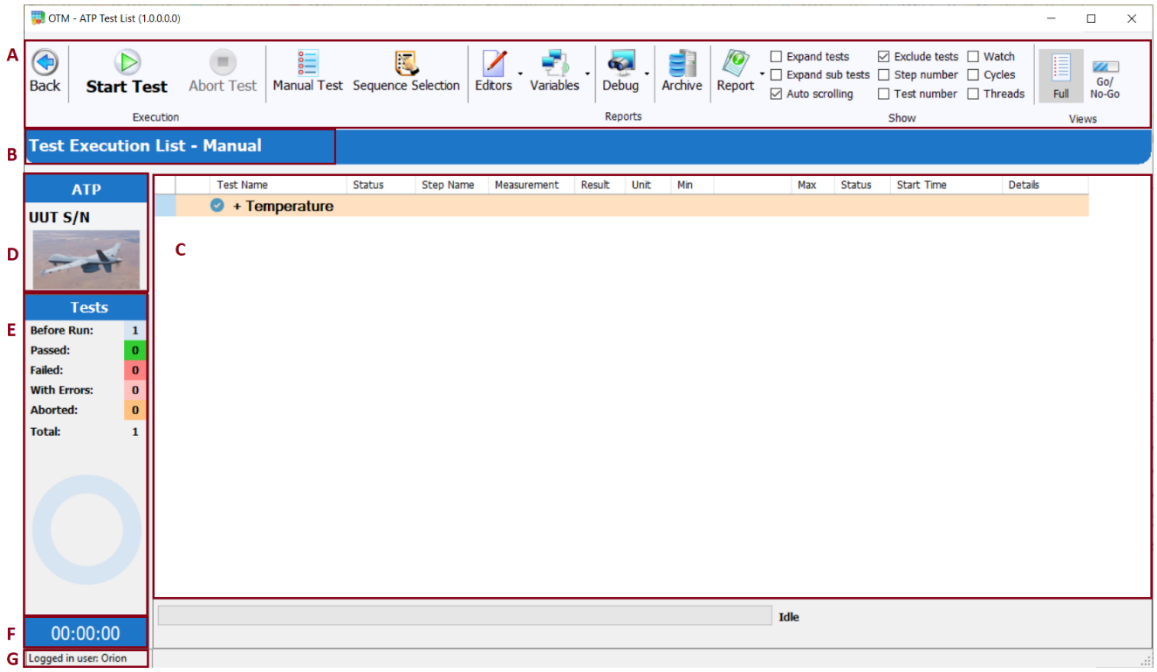
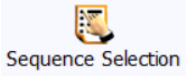
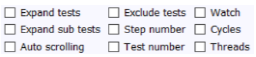


Fig 6-1 **Execution** window

	Fig 6-1	Description	Details
Back	**A**	Back key	To return to the **Main** window.
Start Test	**A**	Execution key	Press to start the execution.
Abort Test	**A**	Abort test	Use to halt the execution. For more detailed information, refer to paragraph 6.6 on page 99
Manual Test	**A**	Manual test	Direct selection of the execution list. Refer to paragraph 6.2.2 on page 85

	**A**	Sequence selection	Load execution list from a sequence, as described in paragraph 6.2.3 below.
	**A**	Editors	Mange the test, sequence, thermal profile, and criteria. Refer to paragraph 6.1.1 below for more details.
	**A**	Variables	Manage global, maintenance, criteria, or station global variables. Refer to paragraph 6.1.2 below for more details.
	**A**	Execution debug tools	Debug execution. For more detailed information, refer to paragraph 6.7 on page 100 for more details.
	**A**	Archive key	Enables you to access reports generated by the OTM. For more detailed information, refer to paragraph 4.1.7 on page 58.
	**A**	Report key	Click the **Report** button to generate a report for the current execution.
	**A**	Execution configuration checkboxes	Enable you to define the execution configuration. For more detailed information, refer to paragraph 6.3 on page 90.
 	**A**	Execution display	Full display (detailed) Pass/Fail display
Test Execution List	**B**	Test execution list source	Manual/Sequence (name), ect.
Execution list area	**C**	The execution tests & steps	Detailed execution list.
UUT	**D**		The UUT ‘s name and picture.

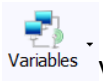
Execution summary	**E**	For more detailed information, refer to paragraph 6.1.3 on page 84.
Timer	**F**	Measures the execution time
Logged in user	**G**	

6.1.1.  Editors

To access the **Editors** , select **Editors** from the menu.

The Editors sub-menu will open.

1. Test editor – For more details, refer to paragraph 7.1 on page 106.
2. Sequence editor - For more details, refer to paragraph 9.1 on page 173.
3. Thermal profile editor – For more details, refer to paragraph 10.1 on page 186.
4. Criteria editor

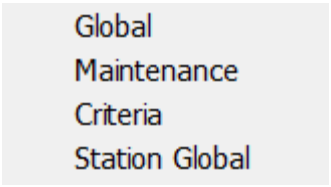
6.1.2.  Variables

You have the ability to add, edit, import or export variables such as global, maintenance, criteria or station global. Additionally, you can find their referances.

To perform these actions:

1. Choose **Variables** from the menu.

   The **Variable** sub-menue will appear.

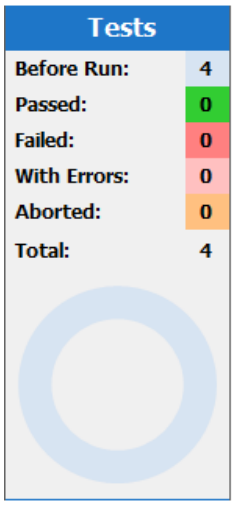
   

2. Click on the specific variable you wish to manage.

   The **Variable** window will open – For more details, refer to paragraph 8.1 (on page 148).

6.1.3. Execution summary

The Exexcution summary provides a visual representataion of the test execution status.



It displays the status of the test execution list in a summary table, with each status indicated by a distinct color.

Status title	Description
Before Run	Tests that have not been run yet.
Passed	Tests that have been executed successfully.
Failed	Tests that have at least one result that falls outside of its criteria
With errors	Tests that encountered an error during the execution.
Aborted	Tests that have been aborted.
Total	The total quantity of tests.
Summary ring	A dynamic pie chart representing the execution status.

6.2. Execution test list

The execution list is a collection of tests that are executed together.

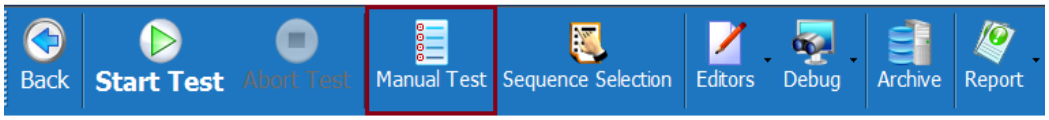
6.2.1. Execution list -Automatic

When a startup sequence is defined, the **Execution** window will open and display the automatic execution list after you have selected the UUT (as described in paragraph 5.7 above).

6.2.2. Execution list - Manual Selection

This option allows you to create an execution list by directly choosing individual tests.

1. Go to the **Main** window > select the desired **UUT** (this will open the **Execution** window), and choose the **Manual Test**.



The **Test Selection** window will open, displaying the list of available tests.

2. **Test Selection** window:

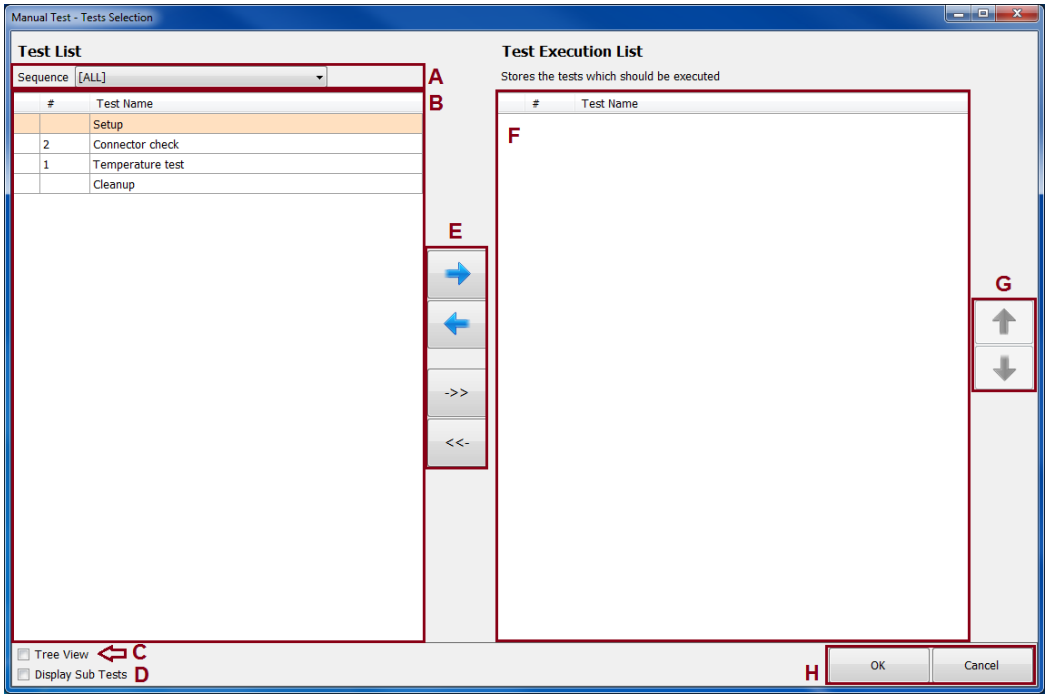


Fig 6-2 **Test Selection** window

Fig 6-2	Description	Details
A	Select sequence	The source of the test list. Refer to paragraph 3 below for more details.
B	Test list area	Displays the selected test list (based on the selection made in **A**)
C	Tree View	Enable the checkbox to view the tests and their references in hierarchical format.
D	Display Sub Tests	Check the checkbox to include sub-tests in the test list.
E	Use the arrow keys to move tests back and forth between the test list and the	Adds the selected tests from B to F. Removes the selected tests from F. Adds all the tests to F.

	execution list.	Removes all the tests from F.
F	Test Execution List	A test suite comprising a group of tests that are executed together.
G	Use the up and down arrows keys to modify the test order.	Select a test and click the button: ▪ to move the test up. ▪ to move the test down.
H	OK/Cancel buttons	Click OK to apply the modifications. -Or- **Cancel** to discard them.

3. Define the test list.

   You can select the tests to be displayed.

   You have the option to select the tests that you want to be displayed.

   In the **Test selection** window Fig 6-2 (**A**), you have the following options:

   3.1. **[All]** – This is the default option, which will show all the tests in the selected UUT.

   3.2. Tests from a sequence.

   If you prefer to display tests from a specific sequence, follow these instructions:

   a. Click the arrow Fig 6-2 (**A**) to expand the list of available sequences.

   b. Select the desired sequence by clicking on it.

   The selected test list will be shown in the Test list area Fig 6-2 (**B**).

   You can use the optional checkboxes (**C** and **D**) – as described earlier.

4. Choose the test(s) you want to add to the execution list.

   There are different ways to select tests:

Action	**Description**
Add selected test(s)	1. In the test list area (**B**), highlight the test(s) you want to add to the execution list. 2. Use the arrow button (**E**) to move the selected test(s) to the Test Execution List (**F**).
Add all tests	To select all tests, click the button (**E**).
Remove selected test(s)	1. In the Test Execution List area (**F**), highlight the test(s) you want to remove.

2. Use the arrow button  (**E**) to remove the selected test(s) from the Test Execution List area (**F**).

Remove all test(s)	To delete all tests from the Test Execution List area (**F**), click the button  (**E**).

The tests you have selected are now part of the test execution list and are displayed in area (**F**).

Optionally, you can modify the order of the tests using the instructions provided in item **G** of the table on page 87.

5. Click the **OK** button Fig 6-2 (**H**)

   After creating the Test Execution List, it will be shown in the Execution screen. To proceed with the execution, refer to paragraph 6.4 on page 97 for detailed instructions on how to run the execution.

6.2.3. Sequence/Thermal profile Selection

A sequence is a collection of test steps organized in a hierarchical structure. In the OTM, you have the option to use predefined sequences or create new ones.

1. Predefined Sequence/Thermal profile

If one or more sequences are defined:

1.1. If startup sequence is defined – The sequence tests load automatically when the **Execution** window opens.

1.2. Non startup sequence:

After selecting the UUT, the Sequence Selection screen will appear in the Execution window, allowing you to choose the desired sequence.

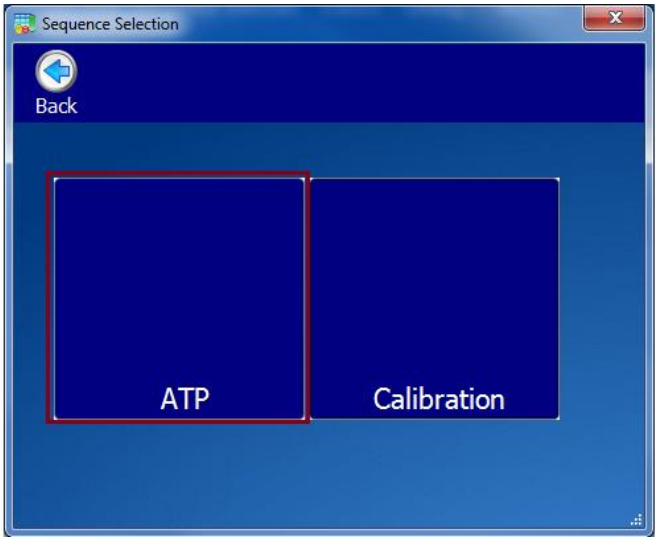


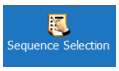
Fig 6-3 **Sequence selection** screen

- Select the desired sequence from the sequence selection screen.
  In the given example, the sequence “ATP” was selected.
  The tests included in the selected sequence will be displayed in the Execution screen.

2. New Sequence/ Thermal profile

2.1. To create a sequence, refer to paragraph 9.4 on page 182.
Once the new sequence is defined, you can proceed to step 2.3.

2.2. To create a thermal profile, refer to paragraph 10.2 on page 195.
Please note that you can execute a thermal profile only if the checkbox 'Display in the sequence selection' - Fig 10-2 (**C**) is selected during its definition.

2.3. Click the **Sequence Seclection** button 

This will open the **Sequence selection** screen, where you can see all available sequences and thermal profiles, including the one you just created.

2.4. From the **Sequence Seclection** screen, select the desired new sequence or thermal profile.
The tests included in the selected sequence/thermal profile will be displayed in the **Execution** screen.

To start the execution, refer to the instructions provided in the following paragraph 6.3.

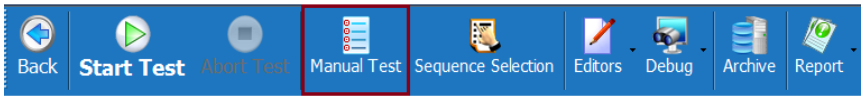
6.2.4. Creating Execution List - Summary.

There are two methods to create an execution list: automatic or manual selection.

1. Automatic - Startup Sequence
   - Create a sequence and select the startup sequence checkbox Fig 9-3 (**C**).
   - Refer to paragraph 9.4 on page 182 for more details.
2. Manual
   - 2.1. Sequence/Thermal profile selection

     If a sequence or thermal profile is defined:
     - After selecting the UUT, the Sequence Selection screen will appear.
     - Choose the desired sequence/thermal profile from the screen.
   - 2.2. Test selection

     Go to the **Execution** window and select '**Manual Test**'.



The **Test Selection** window will open, displaying the test list.

- 2.2.1. Select the tests you want to include in the Test Execution List Fig 6-2 (**B**).

  For more information, refer to paragraph 3 on page 87.
- 2.2.2. Move the selected tests to the **Test Execution List** area Fig 6-2 (**F**), using the arrow buttons  or  Fig 6-2 (**E**).

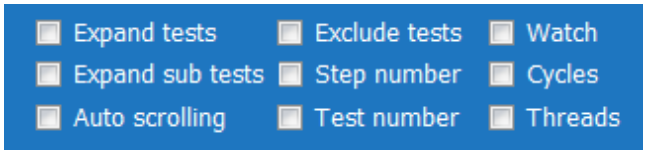
  For more details, refer to paragraph 4 on page 87.
- 2.2.3. Optionally, you can adjust the order of the tests in the execution list using the up and down arrows  Fig 6-2 (**G**).

Once you have finished creating the execution list, click **OK** to finalize it - Fig 6-2 (**H**).

6.3. Execution Configuration

In this section, you can customize the execution screen by selecting or deselecting the checkboxes below.

Use the checkboxes to configure the desired settings for the execution screen as required.



	Description
☑ Expand tests	By selecting the checkbox, you can display the execution list in step level.
☑ Expand sub tests	By selecting the checkbox, you can display the sub-tests in step level.
☑ Auto scrolling	To show a pointer to the current execution line, check the checkbox. The **Auto scrolling** checkbox is selected by default.
☑ Exclude tests	To exclude tests directly from the execution screen, you can use the following steps: 1. Enable the checkbox to activate the feature. Once the execution list is displayed in the execution window, the mark will be added next to the title of each test (excluding setup and cleanup tests). By default, all tests with the mark will be executed by the OTM. 2. To exclude a specific test from the execution: ▪ Click on the mark next to the test you wish to execlude. The mark will change to , indicating that the test has been excluded. The excluded test will not be executed when the execution runs.
☑ Step number	By selecting the checkbox, you can add the step number to the execution area.
☑ Test number	By selecting the checkbox, you can add the test number to the execution area.
☑ Watch	To view the UUT's variables values during the execution, select the checkbox and refer to paragraph 1 on page 92 for instructions.
☑ Cycles	To add a cycle section to the execution window, select the checkbox and refer to paragraph 2 on page 93 for instructions.
☑ Threads	To watch thread(s) during the execution, select the checkbox and refer to paragraph 3 on page 94 for instructions.

1. Watch

To watch the variables values, follow these steps:

1.1. Check the checkbox next to “watch”.

The Watch screen will open.

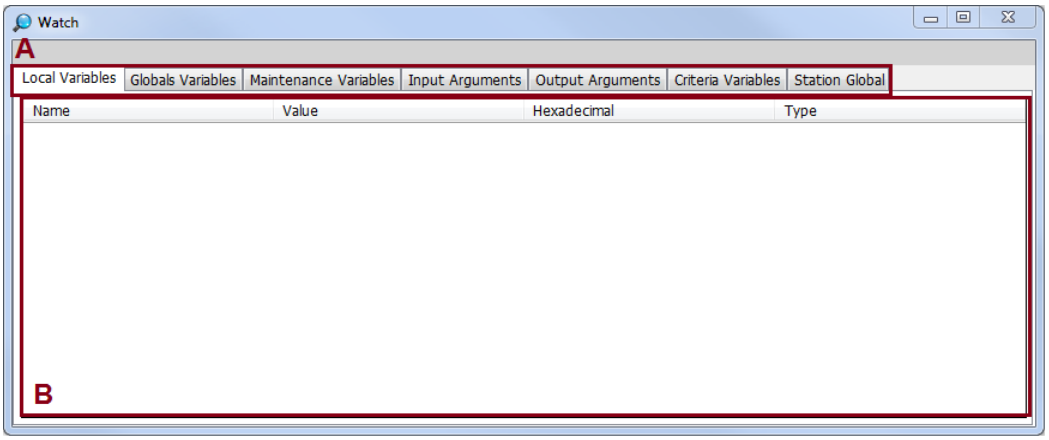


Fig 6-4 **Watch** screen

Fig 6-4	Description	Details
A	Variables tabs	▪ click on the tab corresponding to the variable type you wish to monitor. ▪ The available variable types for monitoring are as follows: Local, global, maintenance, input, output, criteria and station global.
B	Variables area	Shows the variables of the selected variable type.

1.2. To display the desired variable type tab, select the corresponding tab (Fig 6-4 **-A**).

You can change the display at any time by selecting a different variable type tab. Simply click on the tab of your choice.

Once the execution begins, the **Watch** screen will show the variable data, including:

- Name - the name of the variable.
- Value – the current value of the variable.
- Hexadecimal – the value represented in hexadecimal format (if applicable).
- Type – the data type of the variable (int, string, double, etc.).

During the execution, you can monitor real-time values of the variable.

1.3. To close the **Watch** screen, deselect the checkbox.

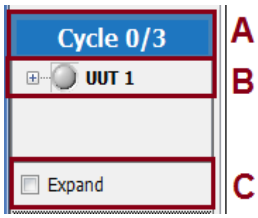
2. Cycles

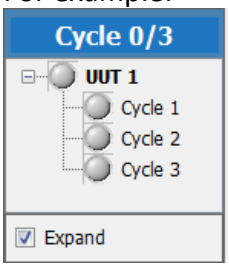
To include the cycle section in the execution window:

2.1. Select the checkbox.

Once selected, a cycle's section will be displayed in the left side of the execution window (between D and E), as shown in Fig 6-1.

For example:



	Description
A	Displays the current cycle, which dynamically changes during execution.
B	The cycle's display is at the UUT level.
C	Expand - Enable the checkbox to view the cycle level information. Selecting the checkbox, allows you to monitor the cycle's status during the execution. For example:  The LED statuses indicate the following: - UUT/Cycle's test passed. - UUT/Cycle's test failed or produced an error. - UUT/Cycle's test run was aborted.

2.2. To remove the cycle section, uncheck the checkbox.

3. Threads

To monitor the theard(s):

3.1. Go to the **Execution window** Fig 6-1(**A**) and select the **Thread** checkbox.

The **Thread list** window will open.

Here you can observe a specific thread during the execution and perform debugging tasks.

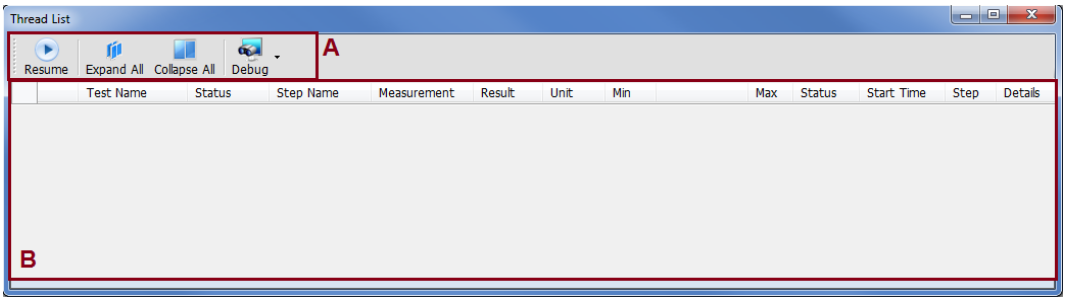


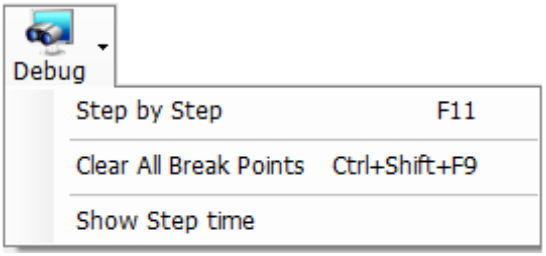
Fig 6-5 **Thread list** screen

Button	Description	Note
Resume	**Resume** – enables the thread to continue its execution until it reaches the next breakpoint or completes its execution.	**A**
Expand All	**Expand All** – Click this button to view the threads in step level, providing a detailed view of their execution.	**A**
Collapse All	**Collapse All** - Click this button to view the threads in test level, providing a summerized view of their execution.	**A**
Debug	**Debug** – This option enables you to monitor the thread execution in detail. For more information, refer to paragraph 3.3 below	**A**
	Thread area - This section shows the thread display. Any selection made in section A will be shown in section B.	**B**

3.2. To close the threads screen, uncheck the checkbox.

3.3. Thread Debugging:

Step 1 - Click the arrow next to the Debug button to display the Debug sub-menu.



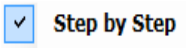
Menu Option	Description	Paragraph
Step by step	Choose this option to examine the thread's execution one step at a time.	1 below
Clear All Break Points	To remove all the breakpoints	2.3 on page 96

Step 2 – Select one of the following options from the sub-menu:

1. **Step by step** debugging:

   With this option, the OTM will pause at each step during thread execution, allowing you to inspect it closely.

1.1. Choose "**Step by step**" from the sub-menu.

Once selected, a checkmark will apprear 

, and the **Debug** button's color will change to 

, indicating that the **Step by step** mode is active.

1.2. Once you choose the Step by step option, the thread's execution will pause, and the next step won't be executed automatically. At this point, you can resume the thread execution by clicking the Resume button 

.

1.3. To exit "Step by step" mode, follow these steps:

- Click the arrow in the Debug button to open the Debug sub-menu.
- Unselect "Step by step" from the sub-menu.

  The "Step by step" mode will be deactivated, and the checkmark as well as the yellow color on the **Debug** button will disappear.

2. **Breakpoints**

   Breakpoints serve to pause program execution at specific steps. If you want to stop program execution until a particular point or location is reached, you can set a breakpoint in the execution You have the flexibility to set breakpoints at any desired moment during the execution process.

2.1. Setting a breakpoint

2.1.1. To set a breakpoint, click on the gray area to the left of the step where you want the execution to pause. Once the breakpoint is set, you will see a breakpoint mark appear on the left side of that step. When the OTM reaches a breakpoint during execution, it will pause, allowing you to inspect and analyze the execution process.

2.1.2. Once the thread execution is paused at a breakpoint, you can resume it by clicking the resume button in the Thread list screen Fig 6-5 (A). When you resume the execution, the test will continue running until one of the following events occurs:

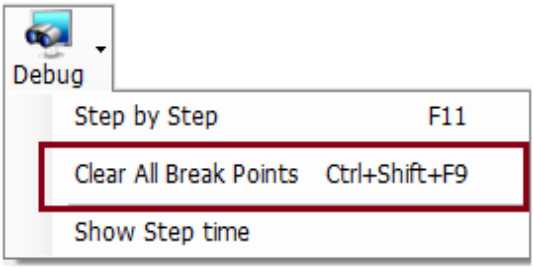
- The execution reaches its end.
- An active breakpoint is encountered.
- An exeception is encountered.
- Execution suspends due to the thread is waiting for user input/output.

2.2. Removing a breakpoint

To delete a single breakpoint, click on the breakpoint icon you want to remove. The breakpoint mark will vanish, and the breakpoint will be deleted.

2.3. Removing All Breakpoints

To remove all breakpoints, navigate to the thread list screen Fig 6-5 (A), and click the down arrow in the Debug button to opent the sub-menu. Then, select '**Clear All Break points**'.



This action will remove all breakpoints from the execution window, and they will no longer be displayed.

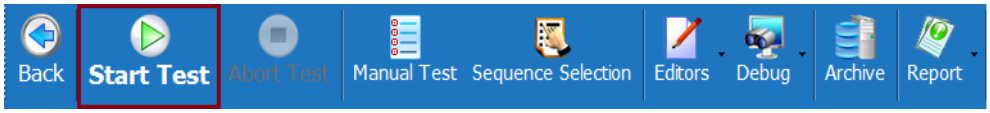
6.4. Running the Execution

Once you have set up the execution list, follow these steps to start the execution:

1. Configure the execution (optional) – as described in pharagraph 6.3 on page 90.

   If you have configured the execution settings as desired, proceed to the next step.

2. Click on '**Start Test**' in the top menu of the Execution window Fig 6-1 (**A**) to begin the execution.



   The Test Properties screen will appear.

3. **Test Properties** screen:

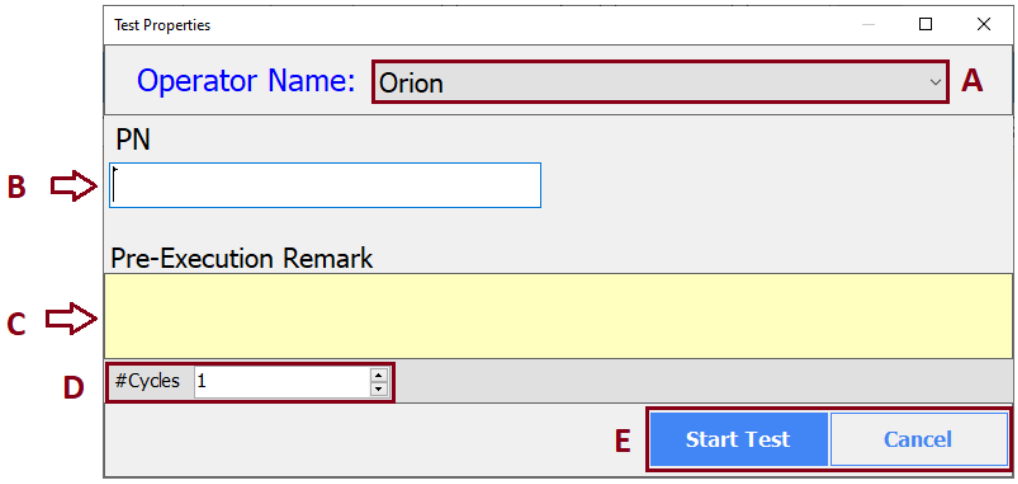


Fig 6-6 **Test Properties**

Fig 6-6	Description	Details
A	Operator Name	▪ Allows you to choose a user from the provided list. ▪ The user displayed is the one currently logged in ▪ For more details, refer to pharagraph 2 on page 24.
B	UUT's properties (Only if applicable)	▪ Enables you to enter the UUT's specific properties. ▪ For detailed instructions, refer to paragraph 3.1 on page 70. The example 'PN' is provided for reference.

C	Pre-Execution Remark	You can add a pre-execution remark to the current execution. ▪The remark will be displayed in the report file as shown in Fig 11-4 (**G**).
D	Cycles	Enables you to specify the number of times the exeution will repeat itself.
E	OK/Cancel buttons	Click **OK** to apply the changes and to start the Execution. Alternatively, you can click Cancel to cancel the execution process**.**

Fill in the necessary information as per the instructions given above.

4. Click **OK** to start the execution.

   Once the execution is completed, the Execution Result screen will appear, showing the execution results and summary table. For more details, refer to paragraph 6.5 below.

5. To generate a report for the current execution, click the **Report** button.

6.5. Execution Result window

Upon completion of the execution, the Execution Result window will be presented.

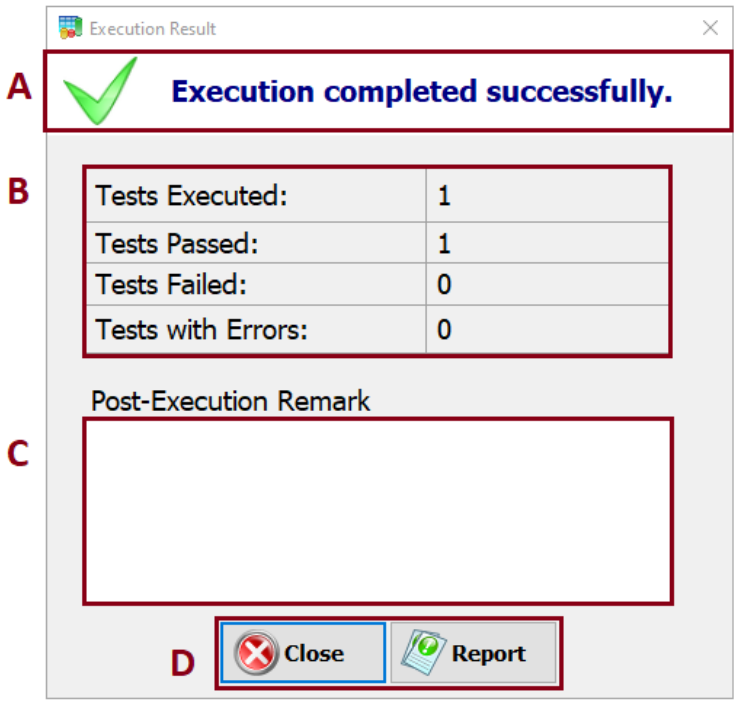


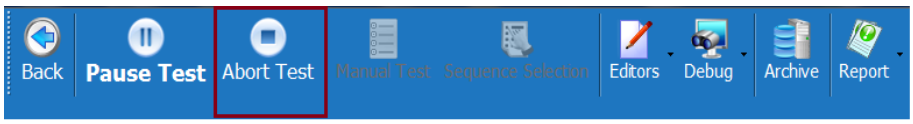
Fig 6-7 **Execution result** form

Fig 6-7	Description	Details
A	Execution result	There are four options: **Execution completed successfully.** **Execution completed with failure(s).** **Execution aborted.** **Execution completed with error(s).**
B	Execution summary	Summary of the final status of tests.
C	Post-Execution Remark	Provides the option to add a final remark to the current execution. ▪This remark will be displayed in the report file (refer to Fig 11-4 [**G**]).
D	Close Report	Click to exit the form. To generate a report for the current execution, click the 'report' button.

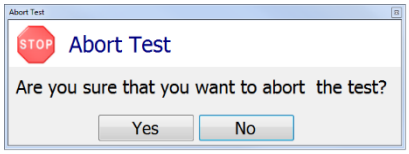
6.6. Abort Execution

If you need to stop the execution process in the OTM, you can use the 'Abort Test' operation. Follow these steps:

1. Click on the '**Abort Test'** button located on the toolbar.



The **Abort Test** dialog will then appear, allowing you to stop the execution.



2. Click

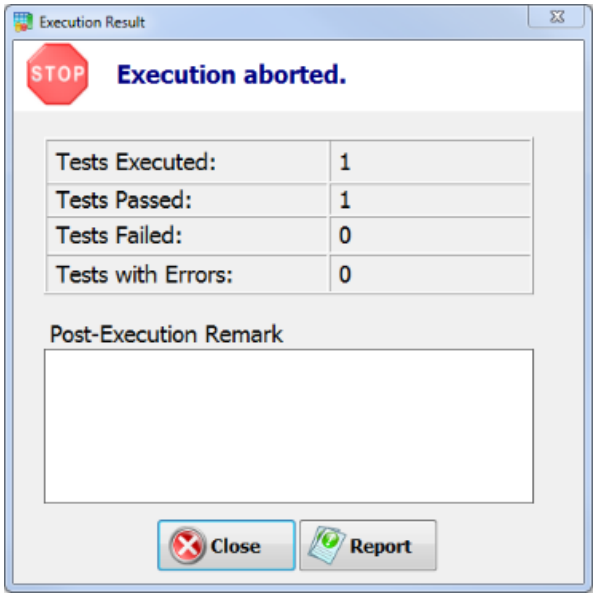
Button	Description	Details
Yes	To terminate the execution	Refer to Paragraph 2.1 below
No	To continue the execution	The execution will continue running until it reches the end.

2.1. If you selected '**Yes**':

Wait for the abort process to finish.

After the abort process is completed, the **Execution Result** dialog will appear.

Here is an example screenshot of the window:



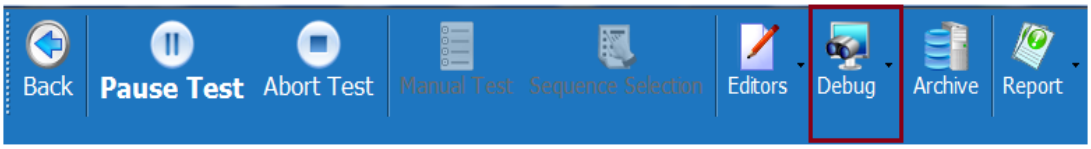
Button	Description
Close	Click **'Close'** to abort the execution without generating a report.
Report	Click **'Report'** to generate a report for the current execution.

6.7. Debug Execution

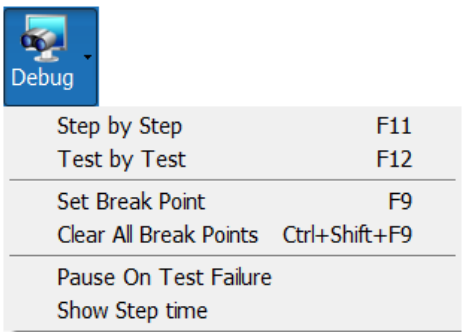
Debugging enables you to navigate through the test's execution and inspect its state. You can use keyboard shortcuts, debug commands, breakpoints, and other features to facilitate the process.

To debug the execution:

Step 1 – Go to the execution screen Fig 6-1 and click on the '**Debug**' button in the menu bar.



The Debug sub-menu will appear.



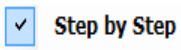
Menu Option	Description	Shortcut key	Paragraph
Step by step	Choose this option to examine the execution one step at a time.	F11	1 below
Test by Test	Enables you to halt the execution at the start of each test.	F12	2 below
Set Break Point	Enables you to set a breakpoint at a specific step during the execution to pause the process.	F9	3 below
Clear All Break Points	To remove all the breakpoints	Ctrl+Shift+F9	4 below4 below
Pause On Test Failure	By choosing this option, the execution will pause when a test fails.		5 below
Show Step time	Enables displaying the step time in milliseconds		6 below

Step 2 – Choose one of the following sub-menu options:

1. **Step by step** debugging

   With this option, when the execution begins, the OTM pauses on each step.

   1.1. Choose Step by step from the sub-menu.

   After selecting it, a checkmark will appear 

and the Debug button will turn yellow 

, indicating that Step by step mode is activated.

1.2. After choosing 'step by step' from the sub-menu, the execution will come to a halt, and the '**Resume Test**' button  will begin blinking, indicating that the next step will not be executed.

1.3. When the execution stops, you can choose from two options:

1. To resume the execution, click the '**Resume Test**' button  .
2. To abort the execution, click the **'Abort Test**' button  .

For more details, refer to paragraph 6.6 on page 99.

1.4. Disable Step by step debug mode.

To disable the 'Step by step' debug mode, perform the following steps:

- Click the arrow in the Debug button to open the Debug sub-menu.
- Choose 'Step by step' from the sub menu.

The 'step by step' mode will be deactivate, and both the checkmark and the yellow color on the **Debug** button will vanish.

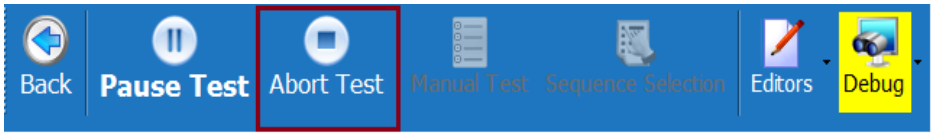
2. **Test by test** debugging

With this option, you have the ability to debug the execution on a test-by-test basis.

2.1. Choose 'Test by test' from the sub-menu.

After selecting it, a checkmark will appear  and the Debug button will turn yellow  , indicating that '**Test by test**' mode is activated.

2.2. To abort the execution, click the **Abort Test** button.



For more details, refer to paragraph 6.6 on page 99.

2.3. Disable Test by test debug mode.

To disable the 'Test by test' debug mode, perform the following steps:

- Click the arrow in the Debug button to open the Debug sub-menu.
- Choose 'Test by test' from the sub-menu.

The 'Test by test' will be deactivate, and both the checkmark and the yellow color on the **Debug** button will vanish.

3. **Setting breakpoints**

A breakpoint is a point in the execution where you can pause the program to inspect its state. This feature is helpful when you want to examine specific steps during the execution.

You can set breakpoints at any time during the execution process.

3.1. Setting a breakpoint

3.1.1. In the Debug sub-menu:

- Mark the step where you want to set the breakpoint.
- Select '**Set break point**' from the **Debug** sub-menu.

F9 is the **Set break point** shortcut key.

3.1.2. Alternatively, you can directly set a breakpoint:

- By Clicking on the gray area to the left of the desired step in the execution screen.

  This action will place a breakpoint mark  on the left side of the step. When the OTM encounters a breakpoint during execution, it pauses, giving you the opportunity to examine the execution. Afterwards, you can choose to Resume the execution (as described in the next paragraph) or Abort it (refer to paragraph 6.6 on page 99).

3.2. Resuming the execution

Click on the 'Resume Test' button 

to continue the execution.

The test will proceed until one of the following conditions is met:

- The executionreachesits end.
- An active breakpoint is encountered.
- An exeception occurs.
- The Execution is suspended as the thread is waits for user input/output.

3.3. To remove a single breakpoint, you have two options:

3.3.1. From the sub menu:

- First, select the step that has the breakpoint you want to delete.
- Next, choose "Set break point" from the **Debug** sub-menu or simply press F9

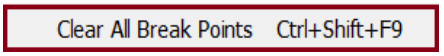
3.3.2. Directly:

- On the execution screen, click on the breakpoint  you wish to remove.

The breakpoint mark will disappear, and the breakpoint will be deleted.

4. **To remove all the breakpoints at once**, follow these steps:

   ▪ Click the arrow ▼ in the Debug button to open the Debug sub-menu.

   ▪ Select 

from the sub-menu.

   Ctrl+Shift+F9 is the **Clear All Break Points** shortcut

   Once you clear all the breakpoints, the breakpoint marks will be removed from the execution window.

5. **Pause on test failure.**

   When a test fails during execution, this feature causes the OTM to pause the execution immediately after detecting the failure.

   To enable **Pause on test failure** feature, do the following:

   ▪ Click on the arrow ▼ in the *Debug* button.

   ▪ Choose 

from the sub-menu.

   A check mark √ will appear next to the option, indicating that it is now active.

   ▪ Execute the tests. If any of the tests fails, the execution will automatically pause.

6. **Show Step time.**

   To enable the display of step time on the execution window, follow these steps:

   ▪ Click the arrow ▼ in the Debug button to open the Debug sub-menu.

   ▪ Select 

from the sub-menu.

   This will add a new column labled '**Step Time [mSec]**' to the Execution screen, showing the time for each step in milliseconds.

6.8. UUT Execution summary

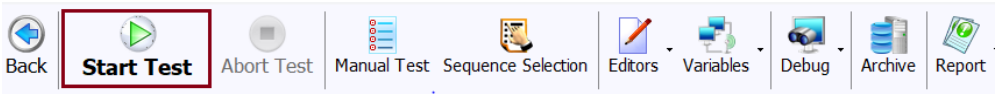
The following is a summary of the UUT (Unit Under Test) execution process:

1. Start by defining the test execution list. For detailed instructions, please see paragraph 6.2.4 on page 90.

   Optional settings include:

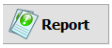
   - Configuring the execution - Refer to paragraph 6.3 on page 90 for further details.
   - Setting breakpoints and other debugging options – Explore paragraph 6.7 on page 100 for more information.

2. Initiate the execution by clicking the "Start Test" button, following the steps in paragraph 6.4 on page 97.



   - If needed, you have the option to abort the test. Learn more in paragraph 6.6 on page 99.

3. After the execution is complete, the **Execution Result** window will open automatically Fig 6-7. Refer to paragraph 6.5 on page 98 for additional insights.

4. To generate a report, click on the 

button. For specific instructions on report generation, see paragraph 11.4 on page 209.

7 Tests & Steps

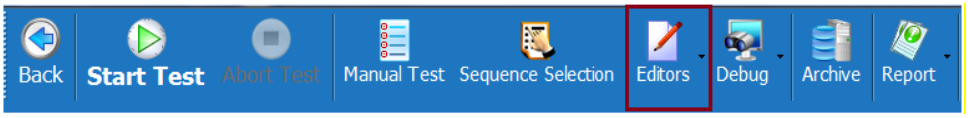
In this section, we will explore the process of creating a test. A test consists of a series of steps or tasks necessary to validate its intended purpose.

7.1. Test Editor

After defining the Unit Under Test (UUT), you can proceed to create tests using the Test Editor window. Once you launch the UUT, the execution window will appear automatically.

To access the Test Editor, follow these steps:

1. Click on the '**Editors**' option from the menu.



The Editors sub-menu will appear, where you can there select **Test Editor.**

The shortcut key for accessing the **Test Editor** is **F7**

The **Test List** window will open.

7.2. Test List Window

The Test List Window offers various commands and tools to edit tests effectively.

To open the **Test list** window (Fig 7-1), go to **Execution** window > select **Editors**, and then click on '**Test Editor**'.

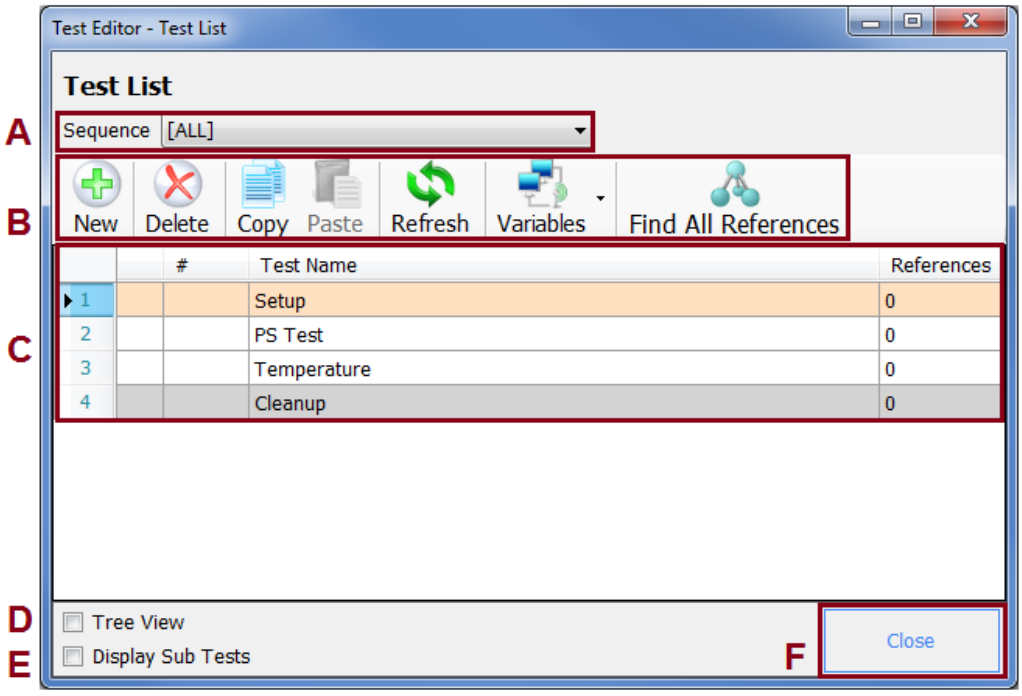
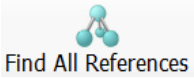
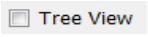
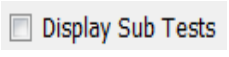
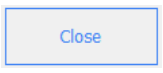


Fig 7-1 **Test List** window

	Description	Fig 7-1	Details
Sequence	To generate a test list based on sequences.	**A**	Section 1 below
	To create a new test	**B**	Section 7.4 (on page 127)
	To delete a test from the Test List window	**B**	Section 7.6 (on page 129)
	To copy a test from the Test List window	**B**	Section 2 below
	To paste the copied test in the Test List window	**B**	1. Ensure that you have already copied a test. 2. Select the '**Paste**' button. The copied test will now be pasted into the Test list area Fig 7-1 (**C**).
	To refresh the screen.	**B**	Click the 'Refresh' button
	Manage global, maintenance, or criteria variables.	**B**	Section 3 on page 108
	To search for all the occurrences of the selected test.	**B**	Section 4 on page 109
Test list area	Shows the list of tests along with their respective references.	**C**	
	Select the checkbox to display the test list and their references in a hierarchical view.	**D**	
	Select the checkbox to include the sub tests in the test list.	**E**	
	To go back to the **Execution** window	**F**	

1. Selecting tests from a sequence to create a test list.

   To create a test list from a sequence, follow these steps:

   1.1. Click the combo box arrow (A) to reveal the options.

   1.2. Choose from the following options:

   a. [All] – the default option –displays all the tests in the test list area (**C**).

   b. Select a specific sequence from the list by clicking on it.

   The corresponding tests will now be shown in the test list area (**C**).

2. Copying a test

   2.1. Highlight the test(s) you wish to copy from the Test list area Fig 7-1 (**C**).

   2.2. Click the 

button - Fig 7-1 (**B**).

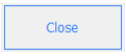
   2.3. To paste the copied test:

   2.3.1. For Current UUT:

   - Click the 

button, to insert the copied test(s).

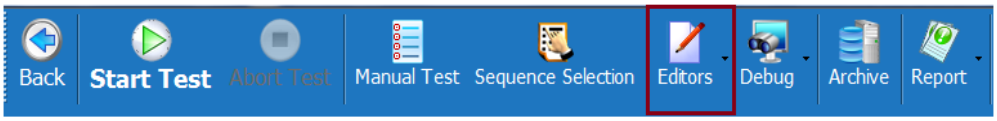
   2.3.2. For Other UUTs:

   - Click the 

button - Fig 7-1 (**F**).
   - From the **Execution window**'s upper menu, click the 

button to Return to Main Window'.
   - In the main window, you'll see the list of defined UUTs. Choose a UUT by clicking on it.

     The Execution window for the selected UUT will open.
   - From the menu, select '**Editors**'.



   - Choose 

from the sub-menu.

     The **Test Editor – Test list** will open.
   - Click the 

button to insert the copied test(s).

   The copied tests will now appear in the test list area Fig 7-1 (**C**).

3. **Variables**

   In this section, you can add, edit, import, or export variables of different types such as global, maintenance, criteria, or station global. Additionally, you can find their references.

To perform these actions:

3.1. Click the button 

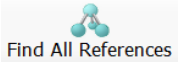
on the toolbar to access the variables sub-menu.

The variables sub-menu will be displayed:

3.2. Choose the specific variable you want to manage.

3.3. The Variable window will open, presenting the relevant details based on the selected variable type.

3.4. For more detailed information about the **Variable** window, refer to section 8.1 (on page 148).

4. 

Find all References

To locate the references for a specific test, follow these steps in the **Test List** window (Fig 7-1 **C**):

4.1. Select the test you wish to find references for.

4.2. Click the **Find all References** button.

The references related to the selected test will be shown at the bottom of the **Test List** window.

4.3. To view a reference's occurrence, double-click on it.

7.3. Test Editor Window

The Test Editor Window offers various tools for test management.

7.3.1. To access the **Test editor** window:

1. Go to the **Main window** > select the **UUT,** which will open the **Execution** window (Fig 6-1).
2. Click on Editors in the menu > choose **Test editor** from the sub-menu, or press F7.
   The **Test List** window will appear.
3. In the Test List window, you can either click the New button (Fig 7-1 **B**) or double-click on the test's caption in the Test list area (Fig 7-1 **C**).
   This will open the **Test Editor** window, where you can manage the selected test.

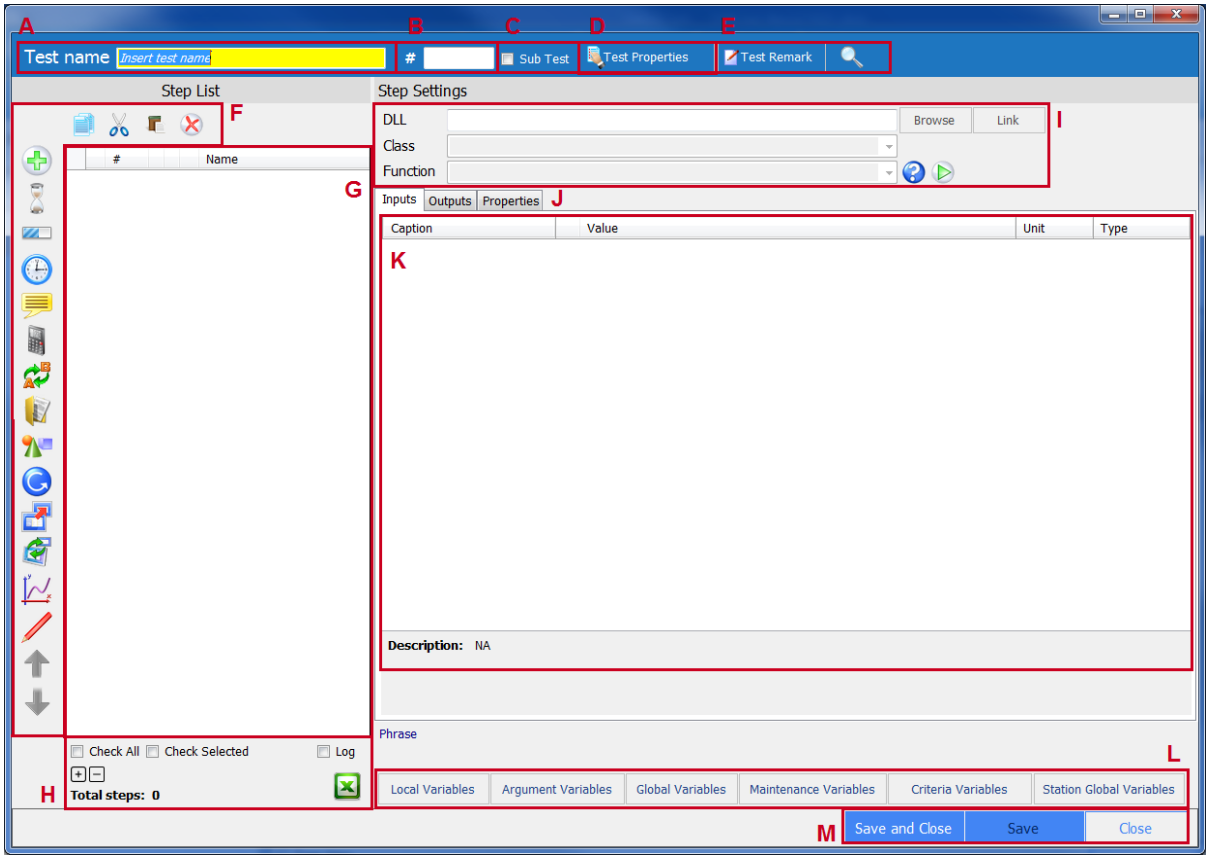
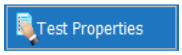
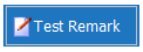
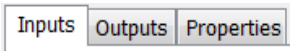
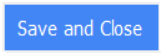


Fig 7-2 **Test Editor** window

	Description	*Fig 7-2*	Note
Test name	Enter the test name	**A**	**Required**
#	Enter the test number	**B**	
	Check the checkbox to designate the test as a sub-test.	**C**	
 Test properties	Enable you to specify general properties for a test.	**D**	Refer to section 7.3.3 (on page 112)
 Test remark	Provides the option to add a remark to the test.	**E**	Type and click OK.
 Search	Enables you to search within step inputs/outputs or test steps.	**E**	Refer to section 7.3.4 (on page 117)
Step menu	Enables you to handle step definitions and actions.	**F**	Refer to section 7.3.5 (on page 117)
Step list area	Displays the steps of the test.	**G**	Refer to section 7.3.6 (on page 118)
Step list actions	Provide options for managing the steps in the list.	**H**	Refer to section 7.3.7 (on page 119)
Step settings	Enable you to manage the settings of the selected step, including DLL/Class/Function configurations.	**I**	Refer to section 7.3.8 (on page 120)
 Step tabs	The step tabs, which include: 'Input'/'Output' and 'properties'.	**J**	Refer to section 7.3.9 (on page 121)
Step area	Allows you to manage the parameters, input/output, and properties of the step.	**K**	Refer to section 2.3 (on page 122)
Variables buttons	Allow you to manage different types of variables, including Local, Global, Maintenance, Arguments, Criteria, and Station Global.	**L**	Refer to section 7.3.10 (on page 125)
	**Save and Close** – this option saves the test and returns to the Execution window.	**M**	

Save	**Save** – this option saves the modifications without closing the window.
Close	**Close** – allows you to return to the Execution window without saving any changes.

7.3.2. In the **Test editor** window (Fig 7-2), you need to provide the following information:

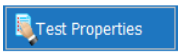
1. Enter the test name (highlighted in yellow rubric) Fig 7-2 (**A**) – this is a required field.

> Make sure that you fill in the test name in the **Test editor** window - Fig 7-2 (**A**)
> All other settings are optional.

2. Define the test' steps (refer to section 7.7 on page 130)
3. Optional settings:
   - 3.1. Set the test number by typing it - Fig 7-2 (**B**).
   - 3.2. Define the test as a sub test by selecting the checkbox - Fig 7-2 (**C**).
   - 3.3. Set the test properties - Fig 7-2 (**D**), refer to section 7.3.3
   - 3.4. Add a remark to the test - Fig 7-2 (**E**).
   - 3.5. Perform a search on steps - Fig 7-2 (**E**).
   - 3.6. Mange the step list - Fig 7-2 (**F/G/H**).
   - 3.7. Mange the step's settings - Fig 7-2 (**I/J/K**).
   - 3.8. Define variables: local, global, maintenance, criteria, arguments and station global Fig 7-2 (**L**).
4. Click either **Save** or **Save and Close** (Fig 7-2 - **M**) to save the test settings.

7.3.3. Test properties

You may define the test's general info.

1. Click 

button - Fig 7-2 (**D**).

The Test Properties screen will open.

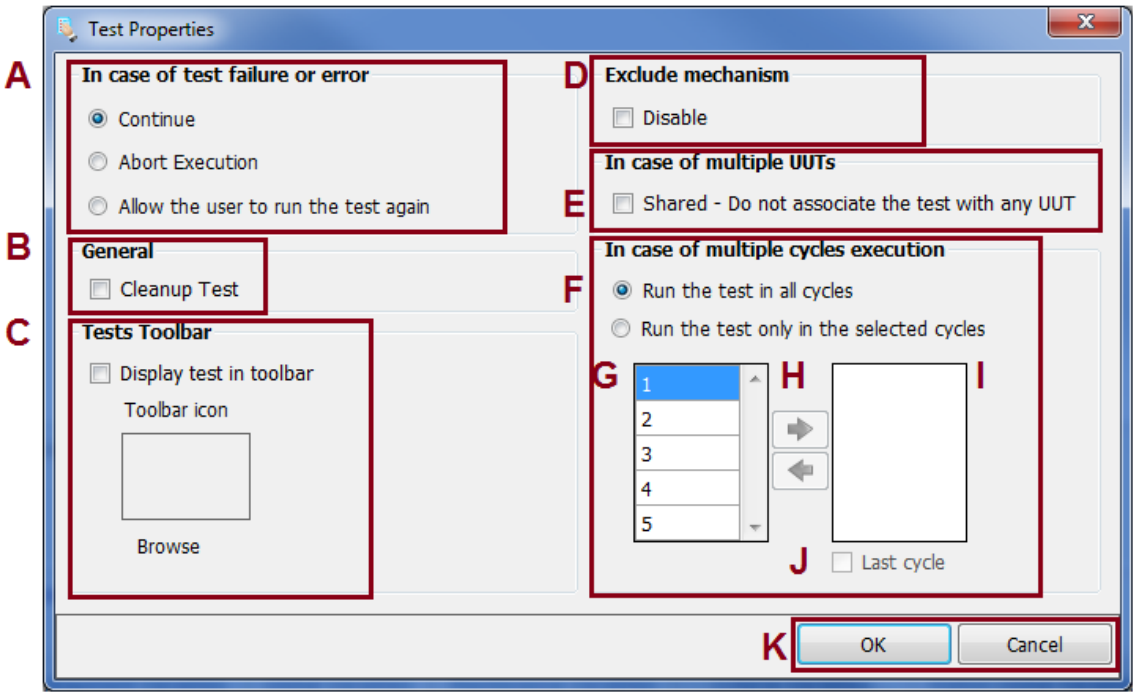


Fig 7-3 **Test Properties** window

	Fig 7-3	Description	Note
In case of test failure or error	**A**	Allows you to manage the test in case of test failure or error.	refer to section 2.1 (on page 114)
General - ☑ Cleanup Test	**B**	Select the checkbox to define the test as a cleaup test.	
Tests Toolbar	**C**	Allows you to define the test as a dedicated process that You can execute quickly.	refer to section 2.2 (on page 114)
Exclude mechanism - ☑ Disable	**D**	Select the checkbox to disable the user's ability to exclude test from the execution. The test is displayed without the exclude mark .	
In case of multiple UUTs ☑ Shared - Do not associate the test with any UUT	**E**	Select the checkbox to separate the test from the UUTs The test run as an independent. ▪ In case of number of units being tested at the same	

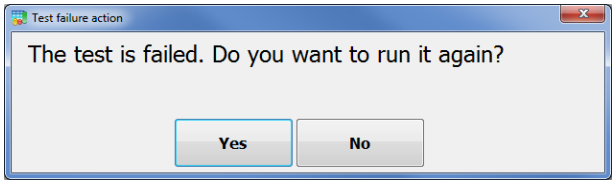
		execution. ▪ The checkbox is cleared by default.	
In case of multiple cycles execution	**F**	Manage the test execution in case of multicycle execution.	refer to section 2.3 (on page 116)
OK/Cancel buttons	**K**	Click OK to applythe modifications modifications. -Or- **Cancel** to discard them	

2. Provide the necessary details in the **Test properties** window as outlined below:

2.1 **In case of test failure or error** Fig 7-3 (**A**):

When a failure or an error occurs, select the test action from the following options:

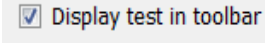
- **Continue** – the test's execution will run until the end.
  The **Continue** option is selected by default.
- **Abort Execution** – when the OTM reaches a failure or an error the OTM stops the execution (even if there are other tests to execute).
  If cleanup test is defined, the OTM jumps directly to it.
- **Allow the user to run the test again** – the OTM allows you to run the test again.
  When the OTM reaches a failure or an error, the OTM's test failure action dialog will be displayed:



Button	Description
Yes	To run the test again
No	The current test execution is finished. If applicable, continues to the next test.

2.2 Tests Toolbar - Fig 7-3 (**C**):

To define the test as a dedicated process:

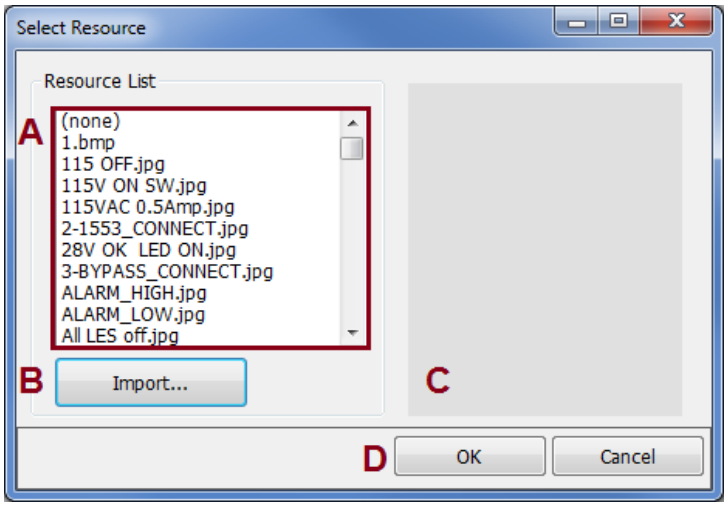
2.2.1. Select the checkbox 

.

2.2.2. Set toolbar icon – optional.

1. Click the **Browse** button.

The **Select Resource** dialog will open.



2. Select an icon

- Directly

  From the current resource list (**A**), Mark the icon you wish to set.

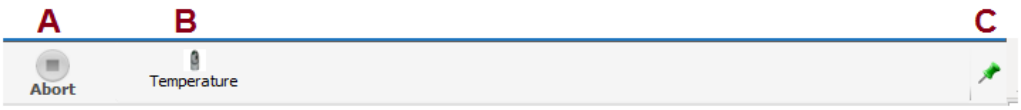
- Via **Open** window
  - Click the **Import** button (**B**).
  - The **Open** window will open.
  - **N**avigate to the location of the icon file, select the icon file, and then click the **Open** button.

  The selected icon is displayed in preview window (**C**).

  Click the **OK** button (**D**), to complete the icon selection.

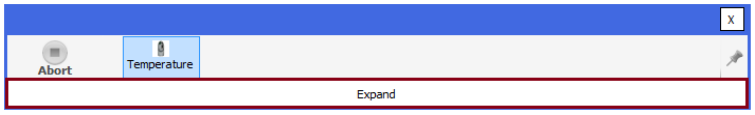
3. The icon picture is displayed in the toolbar icon window Fig 7-3 (**C**)

The selected icon is displayed in the execution window, below the upper toolbar - B



2.2.3. Click the test icon (**B**) to run the test process.

1. To watch the test execution, Click **C** + Expand



2. To abort the test execution - Click **A**

Button	Description
A	To run the test again
B	The current test execution is finished. If applicable, continues to the next test.

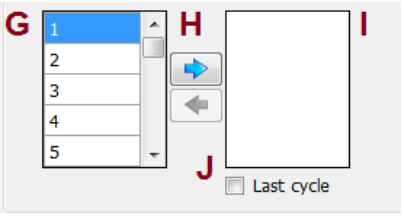
2.3 In case of multiple cycles execution - Fig 7-3 (**F**):

The OTM allows you to manage a specific test execution in multicycles execution.

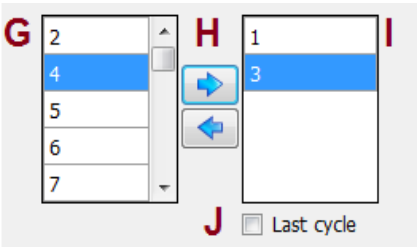
2.3.1. Run the test in all cycles -the default – the test runs in all cycles.

2.3.2. Run the test only in the selected cycles – to run the test in selected cycle.

1. Cycle selection
   - Under the cycles area (**G**), mark the cycle/s for the test to run.



   - Use the arrow (**H**) to move the cycles to selected cycles area (**I**). The test runs in the selected cycles.
2. Delete selected cycle
   - Under the selected cycles area (**I**), choose the cycle you wish to remove.



   - Use the arrow (**H**) to remove it from the selected cycles area the (**I**).

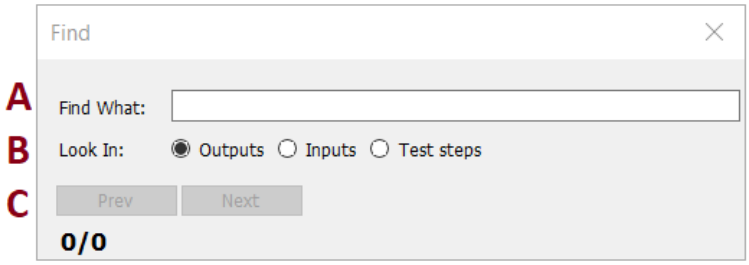
3. Last cycle - Select the checkbox to run the test in the last cycle (regardless of the number of cycles)

7.3.4.  Search - Fig 7-2 (**E**)

Select the **Search** button - to search the step Input/Output or test steps.

The Find dialog will open.

- Type the search value – A.



- Choose the seach area – B.
- Navigate between the results using the Prev/Next buttons - C

7.3.5. Step menu - Fig 7-2 (**F**)

Button	Function	Description	Details
	Delete step	To delete a step(s)	
	Paste step	To paste a step(s)	
	Cut step	To cut step(s)	
	Copy step	To copy a step(s)	
	Add new step	To add step based on user's DLL	Refer to section 7.7.1 (on page 130)
	Wait step	To define delay	Refer to section 1 on page 132
	Progressbar step	To add aprogressbar	Refer to section 2 on page 132
	Timer step	To set/read timer	Refer to section 3 on page 132

	Message step	To add info/input message	Refer to section 4 on page 133
	Arithmetic step	To add a mathematical expression.	Refer to section 5 on page 133
	String step	To add a string step	Refer to section 6 on page 135
	Directory or File step	To add a directory or file step	Refer to section 7 on page 137
	Advanced step	To add an advanced step	Refer to section 8 on page 138
	Flow control step	To add a flow control step: If/while /else/break.	Refer to section 9 on page 141
	Call to sub test step	To add a sub test	Refer to section 10 on page 143
	Threads step	To start/abort thread	Refer to section 11 on page 144
	Graph step	Allows you to manage graph actions.	Refer to section 12 on page 144
	Comment step	To add a comment	Refer to section 13 on page 146
	Move step	Use the up and down arrows keys to modify the steps order.	Select a step and click the button: ▪  to move the step up ▪  to move the step down

7.3.6. Step lis t area - Fig 7-2 (**G**)

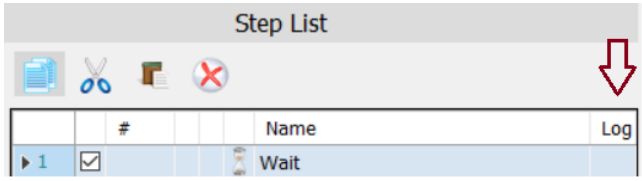
Shows all steps in a test, in this section you can perform all the step actions.

Actions in the step list area:

1. Edit the step's caption by double clicking the caption and entering the new caption.

2. Add a step number by double clicking in the # column in the step row and entering a number.
3. Disable or enable step by selecting or clearing the step's checkbox.

7.3.7. Step list actions - Fig 7-2 (**H**)

	Description
☐ Check all	Select the checkbox to activate all the test's steps.
☐ Check Selected	To select a specific steps: ▪ Mark the steps you wish to select and select the checkbox.
	Expand all – allows you to view all steps
	Collapse all – allows you to collapse flow control steps
Total Steps	Steps counter
	Allows you to save step execution log to a log file. ▪ Select the check box, a new column, **Log** is displayed in the step list area.  ▪ Mark the step you wish save it's log, by clicking the log column (in the step row). The log icon  is displayed. ▪ Mark the step you wish save it's log, by clicking the log The OTM GenerateS log folder after execution, under ProgramData\Orion\OTM\Logs
	Allows you to the test's step list to a save csv file. ▪ Click the button, the **Save as** on page will open. ▪ Navigate to the folder where you want to save the csv file and click **Save**.

7.3.8. Step settings - Fig 7-2 (**I**)

View/set the specific details of the step.

	Description
DLL	The step DLL
Add DLL	1. Click Browse The **File selection** window will open. 2. Navigate to the location of the DLL file, mark it and click OK. The DLL is displayed in the DLL section.
Add a Linked DLL	1. Click Link The **Link a DLL from your PC** window will open. 2. Navigate to the location of the DLL file, mark it and click Open button -or- double click the DLL file The selected DLL is displayed in the DLL section
Class	The step Class
Select class	1. Click the arrow in the **Class** section. The DLL's classes are displayed. 2. Select a class. The selected Class is displayed in the class section.
Function	The step Function.
Select function	1. Click the arrow in the **Function** section. The DLL's functions are displayed. 2. Select a function. The selected function is displayed in the function section.
Function documentation 	1. Click the button, the function documentation page will open. The function's summary, input and output parameters are shown (in details).
Preview 	Once the input parameter is defined, click the Button to preview the step's result.

7.3.9. Step Inputs/Outputs/Properties- Fig 7-2 (**J**)

In this section, you should complete the step content, which includes input, output, and properties if applicable.

	Description
Input	Manage the step input parameter/s.
Output	Manage the step output parameter/s.
Properties	Define the actions in case of step error or failure

Once the step is defined, mark it and click on the chosen tab.

1. Step inputs

   This tab allows you to manage Step input parameters.

   Enter the step inputs:

   1.1 Click on the Input tab.

   The step input table is displayed.

   This table contains the parameter(s) to pass when invoking the function.

   1.2 Set the parameter value.

   - Double click it, and one of the input screens will open: value, message, etc. (depends on the step type).

     Enter the required inputs.
   - In the bottom of the step area Fig 7-2 (**K**), view the **description** of the step-input.

2. Step ouputs

   This tab allows you to manage Step output parameters.

   Click on the Output tab, and the specific step output view appears.

   The step output table contains the parameter(s) that can be returned when invoking the function.

   2.1. To manage output parameter, double click it.

   The **result** form will open:

   For Numeric - refer to paragraph 8.5 on page 159.

   For String – refer to paragraph 8.6 on page 163

   2.2. You may fill the optional fields:

   - Paramerter caption

- Criteria
- Save the result in variable.

Click **OK** to apply the settings.

The settings are displayed in the step area Fig 7-2 (**K**).

2.3. step area Fig 7-2 (**K**):

	Description
Caption	The output parameter caption. ▪ Use result form to define it. ▪ The caption will be displayed in the report.
Report actions	Manage the output parameter record.
☐ **Full Report**	Select the checkbox to save the result in a regular report.
☐ **Compact Report**	Select the checkbox to save the result in the Compact version of the report.
☐ **Record only on failure**	Select the checkbox to save the result to the report only on Result's Failure. You must select Full report or Compact report checkbox, to enable this feature.
☐ **Status Report**	Select the checkbox to save the result's status to the report. You must also select Full report or Compact report checkbox, to enable this feature. You must select Full report or Compact report to enable this feature.
☐ **Visible**	Select the checkbox to view the result in the execution screen.
Criteria	The output parameter criteria. ▪ Use result form to define it.

Unit	The output parameter's unit. ▪ Use result form to define it.
Type	The output parameter's result type
Save the result in ▪ Local Var/ Global Var/ Argument Var	Allows you to save the result in selected variable. To save the result in local/ global var/ Output argument. Use result form to define it.

2.4. Output parameter actions:

This section allows you to preform action on the step output parameters, at the buttom of the step area Fig 7-2 (**K**).

	Description
☐ **Full Report all**	Select the checkbox to record all the step results in the standart report.
☐ **Compact Report all**	Select the checkbox to record all the step results in the compact version of the report.
☐ **Visible all**	Select the checkbox to view all the results in the execution screen.
☐ **Expand**	Select the checkbox to display all the output parameters.
☐ **Show Active Variables**	Select the checkbox to display only the enabled output parameters.

3. Step properties

This tab allows you to manage the actions in case of step error or failure.

	Description
☐ **Repeat step until receiving 'Pass' or 'Done' status**	Select the checkbox to repeat the step until receiving 'Pass' or 'Done' status.
# Repeatitions 1	Allows you to limit the number of repetitions

Repeat Interval 0.1000 [Sec] — Allows you to set the time between the step repetitions.

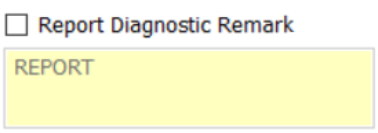
☐ **Consider step 'Error' as 'Done'** — Select the checkbox to exclude Error status. 'Error' status will be marked as 'Done'.

In case of step failure — Allows you to Manage the OTM action in case of step failure.

- **Continue execution** — when one of the steps fails the execution will continue. This is the **default** option.
- **Abort test** — when one of the steps fails the current test execution stops.
- **Abort Execution** — when step fails the whole execution stops.
- **Abort UUT execution (Multiple UUT mode)** — when one of the steps fails all the UUTs executions stops.
- **Display message to operator:** — Allow you to manage a failure message.

- Enter the message that will be displayed in case of a failure.
- ☐ User remark - Check the box to enable the user to add a remark.
- Action Buttons:
  Continue/Repeat step/ Repeat Test/Abort test/Abort execution.
  Select the optional actions in case of test failure.

- Add a link to information file.
  Insert the file full path (include the file name and exetention).



- Check the box to enable the user to add a diagnostic remark.

Type the remark that will be included in the report.

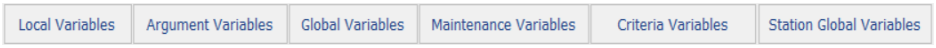
7.3.10. Variables buttons - Fig 7-2 (**L**)

This section allows you to define variables and arguments.

Variables: Local, Global, Maintenance, Criteria, Station Global and input and output arguments.

1. Create a variable

1.1 Select variable type Fig 7-2 (**L**)



1.1.1. Local variable

A local variable is a variable that is given a local scope.

The local variable is created when the test is enterd and the variable will be destroyed once it exits the test.

1.1.2. Argument variable

The arguments variable has two types: ***Inputs*** and ***Outputs***.

Input arguments are used for imported values for the test.

Output arguments used for exporting values from the test.

1.1.3. Global variable

A global variable is created as execution starts and is lost when the program ends.

Global variable provides data sharing, you can use them in the entire UUT.

1.1.4. Maintenance variable

A maintenance variable is a constant variable used in a specific UUT.

Maintenance variables are read only variables.

1.1.5. Criteria variable

Criteria variable is a validation variable, with the criteria variable, you can set a criterion validity expression, that shows you how well a step is correilates with an established standard.

1.1.6. Station Global

A station global variable is variable specific for OTM station.

Station Global variable provides data sharing between UUTs.

Any change in this variable will effact immidiantly on the entire UUTs.

1.2 Click on the variable button

The variable screen will open (As described in section 8.1 on page 148).

- In case of arguments variable: select argument (tab): Inputs or Outputs.

1.3 Click the New button 

.

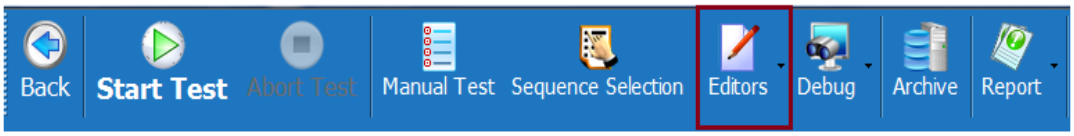
The **Variable Definition** window will open.

1.4 Complete the **Variable Definition** window (as detailed in section 8.2 on page 152).

1.5 Click OK to create the new variable.

7.4. Create a Test

Step 1: Navigate to **Execution window** > select **Editors**

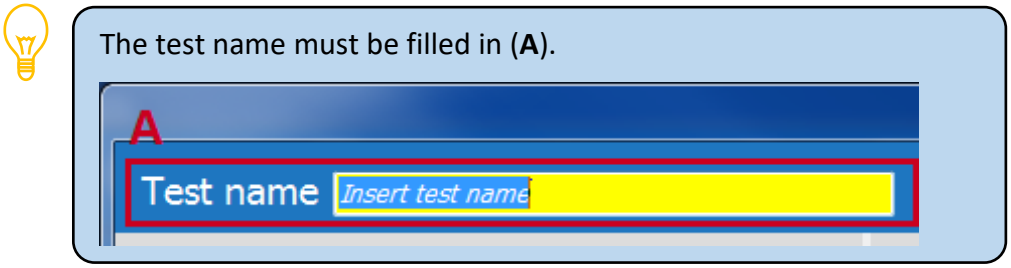


Step 2: Select  from the sub menu or press F7.

The **Test Editor – Test list** will open. Click the  button - Fig 7-1 (**B**).

1. The **Test Editor** window will open – Fig 7-2.
2. Complete the **Test Editor** window, for more information, refer to paragraph 7.3.2 on page 112

   2.1. Test Name - Enter the Test name.



   2.2. Test Number/properties - optional

   2.3. For sub test, refer to section 7.5 below

   2.4. Define steps, refer to section 7.7 on page 130.

3. Click **Save** or **Save and close** to create the new test.

   The new test is displayed under **Test Editor** - **Test List** in the Test list area – Fig 7-1 (**C**).

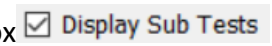
7.5. Create a Sub Test

A sub test is a set or collection of steps used to repeat in the tests or UUT.

1. Navigate to **Execution window** > select **Editors** > Test Editor.
2. Enter the Test name.
3. Select the Sub test checkbox.

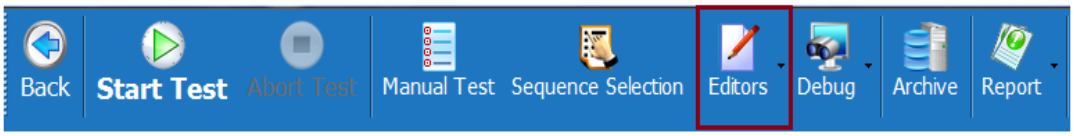
4. Finish filling out the **Test Editor** window, for additional details, see section 7.3.2 on page 112.

- The Sub test uses Input arguments to set values and Output arguments to export values.
  Set the arguments definition with the ***Arguments*** button.
- To call a sub test, Click  button - Fig 7-2 (**F**).

5. Click **Save** or **Save and close** to create the new sub test.
   Under **Test Editor** - **Test List**, select the checkbox  to display the new sub test.

7.6. Delete a Test

Step 1: Navigate to **Execution window** > select **Editors**



Step 2: Select 

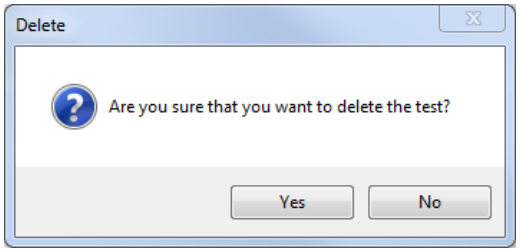
from the sub menu or press F7.

The **Test Editor – Test list** will open (Fig 7-1).

1. Under Test list area Fig 7-1 (**C**), highlight the test(s) you wish to delete.
2. Click the 

button - Fig 7-1 (**B**).

   The Delete confirmation dialog box is displayed:

3. Click **Yes** to confirm the delete process or **No** to terminate it.

   The test is deleted from the test list area Fig 7-1 (**C**).

7.7. Add a Step

A test is a collection of steps action/measurement ect.

Each step calls a C# DLL function.

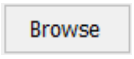
There are two ways to define step: Step based on DLL (refer to section 7.7.1) or built-in step (refer to section 7.7.2)

7.7.1. To add a Step based on DLL:

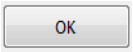
Navigate to **Execution window** > select **Editors** > Test Editor.

1. From the **Test Editor** window, at the step menu Fig 7-2 (**F**), click  .
2. Set the step caption by double clicking and typing in the specified cell (under the step list area Fig 7-2 -**G**).
3. Set the step's DLL by:

3.1. Select DLL

- Click  - Fig 7-2 (**I**)

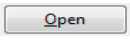
  The **File selection** window will open

- Navigate to the location of the DLL file, mark it and click  .

3.2. Add a Linked DLL

- Click  - Fig 7-2 (**I**)

The Link a DLL from your PC window will open.

- Navigate to the location of the DLL file and mark it.
- Click  button.

  -or-

  double click the DLL file

The selected DLL is displayed in the DLL section Fig 7-2 (**I**)

4. Choose a class

- Click the arrow in the **Class** combo box to display the available classes in the DLL.
- Click the required class.

The selected Class is displayed in the class section Fig 7-2 (**I**)

5. Select a function

- Click the arrow in the **Function** combo box to display the available functions in the DLL's selected class.
- Click the required function.

  The selected function is displayed in the function section Fig 7-2 (**I**).

  Function selection populates (if applicable) the DLL's input and output tables.

6. Complete the input, output, and properties sections with the required information, if applicable.

6.1. The function's input parameters

- Click the **Input** tab Fig 7-2 (**J**).
- Enter the step's input parameters, for more details, refer to section 1 on page 121.

6.2. The function's output parameters

- Click the **Output** tab Fig 7-2 (**J**).
- Enter the step's output parameters, for more details, refer to section 2 on page 121.

6.3. Properties

Defines the OTM action in case of step failure/error

- Click the **Properties** tab Fig 7-2 (**J**).
- For more details, refer to section 3 on page 123.

7. Click **Save** or **Save and Close** (Fig 7-2 -**M**) to save the step.

7.7.2. To add built-in DLL:

Navigate to **Execution window** > select **Editors** > Test Editor.

1. Click one of the steps types icons – from the left menu bar - Fig 7-2 (**F**).

For more details, refer to section 7.3.5 on page 117.

2. Complete the input, output, and properties sections with the required information, if applicable - Fig 7-2 (**J**).
   - Click the tab **Input/output/properties** Fig 7-2 (**J**).
   - Enter the step's parameters, for more details, refer to section 7.3.9 on page 121.
   - Properties
3. Click **Save** or **Save and Close** (Fig 7-2 -**M**) to save the step.

7.8. Built in Step

1. **Wait step** – to define time interval in seconds.

   1.1 Click the step button .

   1.2 Provide the required details in the Inputs table:

   - IntervalSec - The **default** is 1 second.

     Double click the value of the time interval to change it. The intervalSec screen will open (**Value** form type, refer to paragraph 8.4 on page 157), mark the value and type the new interval.

     Caption - The **default** is wait.

     Double click the caption value to change it. The string form will open (string form type - refer to paragraph 8.3 on page 153), mark the caption and type the new caption.

2. **Progressbar step** – add a progressbar to the test.

   2.1. Click on the step button .

   2.2. A sub menu will open, with 4 options:

   - Display – Displays progress form.

     Defines the form caption, massage, and maximum value of the progressbar and font size.

   - SetValue – Sets the value of the progressbar.

     This value will be pressented in the progressbar relative to the max value.

     Double click the value row to set the value. The value screen will open (***Value form*** type, refer to paragraph 8.4 on page 157).

   - SetMassage – Set a message to the progressbar form.
   - Close – Closes the progressbar form.

     For the progressbar step to perform correctly, you must define all the sub menu options (display, setValue and close) in the test.

3. **Timer step** – a step for measuring execution time.

   3.1. Click on the step button .

   3.2. A sub menu will open, with two options:

   - Set Timer - Start timer with specified ID.

- Read Timer - Read timer with specified ID in seconds.

4.  **Message step** – a step for adding a message.
   - Click on the step button  .
   - In the drop down menu, with five different message types:
     - InfoMessage - Displays info message.
     - NumericInputMessage - Displays message which lets you insert a numeric value.
     - MultipleNumericInputMessage - Displays message which lets you insert multiple numeric values.
     - StringInputMessage - Displays message which lets you insert a string value.
     - SelectionMessage – Displays message with selection buttons.

   Choose one of the messages listed above and enter the necessary information accordingly.

5.  **Arithmetic step** – a step for adding mathematical expression.
   - Click on the step button.
   - A sub menu will open with a formula on the top and a list of arithmetic steps below.

   5.1. **Formula** – for creating a complex mathematical expression.
   1. Select Formula from the sub menu.
   2. Under the *Inputs* tab – double click the value column. The **Formula Generator** screen will open (for detailes refer to paragraph 8.7 on page 166).
      Define the formula in the *Formula Generator* and click OK.
   3. *Outputs* tab – In case you want to define an action on the formula's result.
      - You can insert the formula's result into a variable.
      - For more details, refer to paragraph 8.5 on page 159- **Result** form.

   5.2. **Simple arithmetic**:
   Select an arithmetic action (organized in alphabetical order) from the sub menu, as follows:
   1. ABS – Returns the Absolute value of a value.
   2. Acos - Returns the angle whose cosine is the specified number.
   3. Add - Returns value1+value2.
   4. And - The bitwise AND assignment operator.
   5. Asin - Returns the angle whose sine is the specified number.
   6. Atan - Returns the angle whose tangent is the specified number.

7. CalcAverage - Calculates the average of the buffer.
8. CalculateRaiseFallTime - Calculates the rise and fall time of measured buffer.
9. ConvertDeg2Mil - Converts value in degrees to mil.
10. ConvertDeg2Minutes - Converts value in degrees to minutes.
11. ConvertDeg2Sec - Converts value in degrees to seconds.
12. ConvertDegToMRad - Converts value from degrees to mRadian.
13. ConvertDegToRad - Converts value from degrees to radian.
14. ConvertMil2MRad - Converts value in mill to mRad.
15. ConvertMRad2Mil - Converts value in mRad to mil.
16. ConvertMRadToDeg - Converts value from mRadian to degrees.
17. ConvertRadToDeg - Converts value from radian to degrees.
18. Cos - Returns the cosine of the specified angle.
19. Cosh - Returns the hyperbolic cosine of the specified angle.
20. Div - Returns value/divisor
21. Exp - Returns e raised to the specified power.
22. FFT_Tranforml - Executes the FFT algorithm and returns the Real part of complex number of the result.
23. FFTMainSpectralComponent
24. GetAngleDiffMil - Returns (angle1-angle2) in MIL.
25. GetAngleDiffMinutes – Returns (angle1-angle2) in minutes.
26. GetAngleDiffSec - Returns (angle1-angle2) in seconds.
27. GetValue - Returns the value which stored in the value.
28. Log - Returns the logarithm of a specified number in a specified base.
29. Log10 - Returns the base 10 logarithm of a specified number.
30. LogNatural - Returns the natural (base e) logarithm of a specified number.
31. Max - Returns the larger of two double-precision floating-point numbers.
32. MaxArray - Returns the larger number in the buffer.
33. Median - Returns the value separating the higher half of a data sample, a population, or a probability distribution, from the lower half.
34. Min - Returns the smaller of two double-precision floating-point numbers.
35. MinArray - Returns the smallest number in the buffer.
36. Mod - Computes the remainder after dividing its first operand by its second

37. MovingAverage - Scans the buffer and replaces each item with the average of the previous 'n' items.
38. Mul - Calculates: Value1*Value2.
39. NormalizeTo_0_360Deg – If value is smaller than 0, then adds 360 to it.
40. OR - The bitwise OR assignment operator.
41. Pow - Returns a specified number raised to the specified power.
42. Round - Rounds a double_precision floating_point value to a specified number of fractional digits.
43. SetValue - Sets the specified numeric value to result.
44. Sin - Returns the sine of the specified angle.
45. Sinh - Returns the hyperbolic sine of the specified angle.
46. Sqrt - Returns the square root of a specified number.
47. STD - Calculates the standard deviation of the elements of the data.
48. Sub - Returns value1-value2.
49. SubAbs - Returns Absolute value of Subtraction operation.
50. Tan - Returns the tangent of the specified angle.
51. Tanh - Returns the hyperbolic tangent of the specified angle.
52. Word2BCDString - Converts word to BCD format.

Fill the inputs and outputs (if necessary) as specified in the math action.

Define the chosen arithmetic action, as detailed above.

6.  **String step** – adding a string step.

6.1. Click on the step button  .

6.2. A sub menu will open with a list of string action steps:

- CompareStr - Compares substrings of two specified Strings, ignoring or honoring their case, and returns an integer that indicates their relative position in the sort order.
- Concatenate - Concatenates two strings.
- ConcatenateArray - Concatenates two strings.
- ContainsStr - Returns a value indicating whether the specified String occurs within this string.
- ConvertToDouble - Converts string to double.
- ConvertToInt - Converts string to Int32.
- ConvertToUInt - Converts string to UInt32.
- Copy - Creates a new instance of String with the same value as a specified string.

- EndsWith - Determines whether the end of this string instance matches the specified string.
- EqualsSTR - Determines whether two specified Strings have the same value.
- EqualsStrings - Determines whether two specified Strings have the same value.
- GetHashcodeStr - Gets the hash code for this string.
- GetLength - Gets the number of characters in the current String.
- GetValueFromBuffer - Extracts string from buffer of strings.
- IndexOf - Reports the index of the first occurrence of the specified string in this instance.
- Insert – Inserts a specified instance of String at a specified index position in this instance.
- Intern – Retrieves the system's reference to the specified String.
- IsInternedStr – Retrieves a reference to a specified String.
- IsNormalized – Indicates whether this string is in Unicode normalization form C.
- Join – Concatenates all the elements of a string array, using the specified separator between each element.
- LastIndexOf – Reports the index position of the last occurrence of a specified string within defined string instance.
- PadLeft – Returns a new string that right-aligns the characters in this instance by padding them with spaces on the left.
- PadRight - Returns a new string that left-aligns the characters in this string by padding them with spaces on the right.
- ReadSubstringInDelimitedString - Splits the string using the 'separator' and returns the sub string that is stored in the 'index' position.
- Remove - Deletes a specified number of characters from defined string ,beginning at a specified position.
- Replace – Returns a new string in which all occurrences of a specified string in the current instance are replaced with another specified string.
- Split - Returns a string array that contains the substrings in this string that are delimited by a separator.
- StartsWith - Determines whether the beginning of defined string matches the specified string.
- Substring - Retrieves a substring from this instance. The substring starts at a specified character position and has a specified length.
- ToLowerInvariant - Returns a copy of this string object converted to lowercase using the casing rules of the invariant culture.

- ToUpperInvariant - Returns a copy of this string object converted to uppercase using the casing rules of the invariant culture.
- Trim - Removes all leading and trailing white-space characters from the current system.
- UNSHORT2Hex - Converts unsigned short value to hexadecimal string.

7.  **Add Directory or File step** – adding directory or file step

7.1. Click on the step button  .

7.2. A sub menu will open with 3 options: Files, Directory and Drive.

7.2.1. **Files**:

1. Click *Files* on sub menu.
2. The sub menu will open with a list of file actions:
   - *CompareFiles* - Compares two files.
   - *CopyFile* - Copies an existing file to a new file.
   - *DeleteFile* - Deletes the specified file.
   - *DisplayDelimitedTextFile* - Will open the text file, parses it by the delimiter specified and displays it on a grid.
   - *DisplayFile* – Will open file with the default application.
   - *FileExists* - Determines whether the specified file exists.
   - *GetFiles* - Returns the names of files in the specified directory that match the specified search pattern.
   - *LoadNumericColumnFromDelimitedTextFile* – Loads a column from text file with delimiter.
   - *LoadTextFile* - Will open text file and return the file content.
   - *MoveFile* - Moves a specified file to a new location, providing the option to specify a new file name.
   - *OpenFileDialog* - Prompts you to open a file.
   - *ProduceTimeFileName* - Produces file name based on the current time in the following format: YY_MM_DD_HH_MM_SS.
   - *ReadIni* - Reads value from INI file.
   - *ReadXMLAttribute* - Reads XML node attribute.
   - *ReadXmlNodeText* - Read XNL node text.
   - *WriteDelimitedTextFile* - Produces delimited text file.
   - *WriteIni* - Writes value to INI file.
   - *WriteTextFile* - Will open text file and set its content.
   - *WriteXMLAttribute* - Updates XNL node attribute.
   - *WriteXmlNodeText* - Update XNL node text.

7.2.2. **Directory**:

1. Click *Directory* on the sub menu.
2. A new Sub menu will open with a list of directory actions:
   - *CopyDirectory* - Copies an existing directory to a new directory.
   - *CreateDirectory* - Creates all directories and subdirectories as specified by path.
   - *DeleteDirectory* - Deletes an empty directory from a specified path.
   - *DeleteFiles* - Delete all files in the specified folder.
   - *DirectoryBrowser* - Display directory browser.
   - DirectoryExist - Determines whether the given path refers to an existing directory on disk.
   - *DisplayDirectory* - Will open directory using the windows explorer.
   - GetFolders - Returns the names of files in the specified directory that match the specified search pattern.
   - *MoveDirectory* - Moves a file or a directory and its contents to a new location.
   - SetSyncronizationContext – The Syncronization Context lets the user to show non modal form (using the GUI thread).
   - WindowsDirectoryBrowser - Prompts the user to select a folder.

7.2.3. **Drive**:

1. Click *Drive* on the sub menu.
2. A new Sub menu will open, with a list of directory actions:
   - *GetDriveInfo* - Returns drive info of the specified drive.

Fill the inputs and outputs (if necessary) as specified in the step.

8. **Advanced step -** add an unusual step: processManager, screenManager, report, execution, arrays, vars and API.

8.1. Click on the step button .

8.2. Sub menu will open with 5 options, ProcessManager/ScreenManager/ Report/Execution/Arrays/Vars/API.
Select one of the following options:

8.2.1. **ProcessManager**:

In general, advanced step used to execute application, process actions, reports and windows settings.

1. Click *ProcessManager* on the sub menu.
2. Sub menu will open with a list of process actions:

- *ExecuteApplication* - Execute application/process and wait until it terminated or timeout occurred.
- *ExecuteApplicationWithArguments* - Execute application with arguments and wait until it terminated or timeout occurred.
- *ExecuteProcess* - Execute process and return the process handle.
- *GetAssemblyInfo* - Gets the the creation and modifed dates of the file.
- *GetAssemblyVersion* - Return the version information associated with the specified file.
- *GetClassInstant* - Return instant of class which is already used during the OTM execution.
- *GetProcessExitCode* - Gets the value that the associated process specified when it terminated.
- *KillProcess* - Kill process.
- *ProcessExist* - Check if process is running.
- *SendKeyStrokes* - Sends the given keys to the active application, and then waits for the messages to be processed.
- *SetWindowsMaximize* - Set windows to maximize.
- *SetWindowsMinimize* - Set windows to minimize.
- *SetWindowTopMost* - Set windows to topmost or non-topmost.

8.2.2. **ScreenManager**:

This advanced step lets you save the screen as a snapshot.

1. Click *ScreenManager* on the sub menu.
2. Sub menu will open with CaptureWindow.
   - *CaptureWindow* - Save a snapshot of the screen to a file.

8.2.3. **Report**:

This advanced step used to add special additions to the report.

1. Click *Report* on the sub menu.
2. Sub menu will open with a list of report actions:
   - *AddCSV* - Add CSV to the report.
   - *AddPicture* - Add picture to the report.
   - *AddRemark* - Include a remark in the report. The remark will appear in the details section of the test.
   - *AddStepCaption* - Add caption to the report. The caption displayed in the report.
   - *AddTextFile* - Add text file to the report.
   - *SetCycleCaption* - Set the cycle caption in the report.

- *SetReportFolderPath* **-** Sets the folder path where the report will be created for the current UUT.

8.2.4. **Execution**:

In general, this advanced step used to manage executions.

1. Click *Execution* on the sub menu.
2. Sub menu will open with a list of execution actions:
   - *AbortExecution* - Aborts the execution.
   - *AbortTest* - Aborts the execution of the current test (skip to the next test).
   - *AbortUUTExecution* - Abort execution of the specified UUT.
   - *DeletTestResultsFromArchiveByName* - Deletes results of all executed tests (in the current cycle) with the specified name.
   - *ExcludeUUTExecution* – A
   - bort execution of the specified UUT and delete it from UUT list.
   - *GetCycleIndex* - Returns the current executed cycle index.
   - *GetOutputDetails* - Gets detailed results of last out value.
   - *GetStepStatus* - Returns the previous step status.
   - *GetTestStatusByName* - Gets test status by its name.
   - *GetUUTIndex* - Returns the executed UUT index.
   - *GetUUTProperty* - Gets specific UUT property value by its name.
   - *GoToTestByName* - Skips to the beginning of the first test in the current with the name 'testName'.
   - *GetUUTIndex* - Return the executed UUT index (used in case of simultaneous UUT execution).
   - *SetTestName* - Set name of the current executed test.
   - *SetUUTProperty* - Sets UUT property value of the current executed UUT.
   - *UUTIsAborted* - Check if the specified UUT is aborted.
   - *UUTIsActive* - Checks if the specified UUT was selected in the UUT list.

8.2.5. **Arrays**:

This advanced step used to mange arrays.

1. Click *Arrays* on the sub menu.
2. Sub menu will open with a list of array actions:
   - *Add* (sub menu with multiple types) - Add a new item to the array.
   - *AddRange* (sub menu with multiple types) - Add new items to the array.
   - *Average* - Returns the average value in a sequence.

- *GetArrayLength* - Return the total number of elements in the array. Return the total number of elements in the array.
- *GetValue* (sub menu with multiple types) - Gets value from the array.
- *Init* (sub menu with multiple types) - Initilaize array.
- *Max* (sub menu with multiple types) - Returns the maximum value in a sequence of values.
- *Min* (sub menu with multiple types) - Returns the maximum value in a sequence of values.
- *SetValue* (sub menu with multiple types) - Sets value in the array.
- *Sort* (sub menu with multiple types) - Sort the inputs array

8.2.6. **Vars**:

This advanced step used to mange vars.

8.2.7. **API**:

This advanced step used to mange API.

1. Click *API* on the sub menu.
2. Sub menu will open with SendBroadcastMessage:
   - *SendBroadcastMessage* - Broadcasts a message to all the OTM's clients. Works only in remote mode.

8.3. Select one of the options above, by clicking its title from the sub menu list.

8.4. Fill the inputs and outputs (if necessary) as specified in the step.

9. **Flow control step -** add an If, While, for, break, Setup or Cleanup step.

9.1. Click on the step button .

9.2. A list of flow steps appears with the following options: If, Else, While, For, Break, Setup, Cleanup.

9.2.1. **If**: The if statement checks for a condition and executes the proceeding statement or set of statements if the condition is 'true'.

1. Select *If* from the sub menu.
2. In the step list section, 2 rows are added: "If<Double click to insert condition>" and "End if".
   - *If<Double click to insert condition>* - double click on this row. *If Condition Builder* will open (refer to paragraph 8.8 on page 169).). Define the if expression in the *If Condition Builder* and click OK.
   - Between the *If* and the *End if* – insert the step(s) that will be executed if the if condition is true.

- *End if* – indicates the end of the if condition.

9.2.2. **Else**: for a more complex if expression. The Else option is activated when the If condition is false.

1. The 'Else' **must** be located after the '*If* ' (condition = true) step(s), and before the end if.
2. Select *Else* from the sub menu.
   In the step list section, a new row *Else*, appears.
3. Between the *Else* and the *End if* – insert the step(s) that will be executed if the if condition is false.

9.2.3. **While**:

A while loop repeatedly executes a target statement as long as a given condition is true.

1. Select *While* from the sub menu.
2. In the step list section, the following row are added: "While<Double click to insert condition>" and "End while".
   - *While<Double click to insert condition>* - double click on this row.
     The *While Condition Builder* will open (***If Condition Builder*** type, refer to paragraph 8.8 on page 169).
     Define the while expression in the *While Condition Builder* and click OK.
   - Between the *While* and the *End while* – define the step(s) that will be executed repeatedly, as long as the while condition is true.
   - *End while* - mark the end of the while statement set.

9.2.4. **For**:

The for loop is used to run a block of steps for a certain number of times.

1. Select *For* from the sub menu.
2. In the step list section, the following rows are added: "For (From 0 To 1) " and "End For".
   - For (From 0 To 1) - select this row.

   From - define the start value - the default is 0.

   To – define the last value- the default is 1.

   Increment – define increment value- the default is 1.
   - Between the *For* and the *End For* – define the step(s) that will be run repeatedly until a certain condition has been satisfied.
   - *End For* - mark the end of the block of steps.

9.2.5. **Break**:

The break step 'jumps out' of a loop.

9.2.6. **Setup –** a set of preparation actions before the specific test is activated.

1. Select *Setup* from the sub menu.
2. In the step list section, the following rows are added: “Test Setup” and “Test End Setup”.
   - *Test Setup* - marks the beginning of the setup steps.
   - Between the *Test Setup* and the *Test End Setup* – define the preparation step(s) that will be executed before running the test.
   - *Test End Setup* - marks the end of the preparation action/s.

9.2.7. **Cleanup –** a set of actions for closing the test execution. The cleanup placed after the test's set of steps.

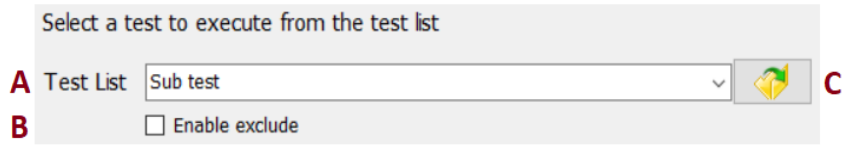
1. Select *Cleanup* from the sub menu.
2. In the step list section, the following rows are added: "Test Cleanup" and "Test End Cleanup".
   - *Test Cleanup* - marks the beginning of the cleanup steps.
   - Between the *Test Cleanup* and the *Test End Cleanup*, define the actions for closing the test execution.
   - *Test End Cleanup* - marks the end of the action(s) for closing the test execution.

10. **Call to sub step -** Add a sub test.

10.1. Click on the step button .

The new sub test is displayed under the step list area.

10.2. Select the sub test and complete the step settings.



10.2.1 Click the arrow in the Test list section (**A**).

The sub tests list is displayed.

Select sub test from the list.

- Enable exclude - Select the checkbox (**B**) to enable the user to exclude the sub test from the execution.
- - Click (**C**) to open the sub test (test editor window).

10.2.2 Input/Output/Properties

- ***Input*** - displays the sub test input arguments (if applicable).
- ***Output*** - displays the sub test output arguments (if applicable).

- ***Properties*** - the action to take in case of test error or failure (refer to paragraph 3 on page 123).

11. **Thread step**

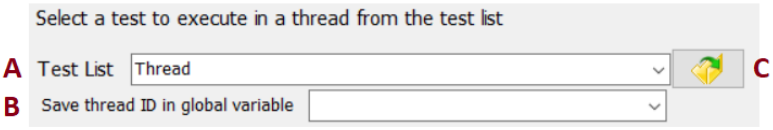
11.1. Click on the step button .

11.2. A sub menu will open with two options: 'Start thread' and 'Abort thread'.

11.2.1. Start thread - Start thread with specified ID.

The new thread test is displayed under the step list area.

1. Select the thread and complete the step settings.



2. Click the arrow in the Test list section (**A**).

   The threads (sub tests) list is displayed.

   - Select thread (sub test) from the list.
   - - Click (**C**) to open the thread (test editor window).

3. **Save thread ID in global variable -** saves the thread ID in a global variable.
   - Click the arrow (**B**) to display the global variables, select variable from the list.
4. Input/Output/Properties
   - ***Input*** - displays the thread input arguments (if applicable).
   - ***Output*** - displays the thread output arguments (if applicable).
   - ***Properties*** - the action to take in case of thread test error or failure (refer to paragraph 3 on page 123).

11.2.2. Abort thread - terminates thread test with specified ID.

12. **Graph step**

12.1 Click on the step button .

12.2 A sub menu will open with a list of execution actions:

1. AddXY - Adds a point on the graph, two types:
   - AddXY(System.String, Double[], Double[], UInt32)
   - AddXY(System.String, Double, Double, System.String, Int32, UInt32)
2. AddY - Add array of points to the graph.
3. ClearSeries - Clears the series in the graph.
4. Close - Closes the specified graph.

5. CloseAllGraphs - Closes all the graphs that have been opened.
6. EnableClosingNonModalGraphs - Non modal graphs cannot be closed manually. Use this function to enable it.
7. InitGraph - Creates the graph.
8. SaveAsImage - Captures a jpeg picture of the current state of the specified graph.
9. SaveToReport - Adds a photo of the current state of the specified graph to the report.
10. Show - Shows the form as modal or not by the Id.

12.3 Create graph:

12.3.1. InitGraph - creates the graph:

1. Inputs tab:
   - GraphType – to define the graph type (line (3) is the default).
   - Series – you must define the function and its description to display on the graph.
   - You may fill or change all of the optional input parameters.
2. Outputs tab: the function output is the graph ID. To perform the action, you must save the ID to a variable.

12.3.2. Add point(s) to the graph:

1. AddXY - adds a point on the graph

   Inputs tab:
   - Id - the ID of the graph from the InitGraph step output.
   - x - X value.
   - y - Y value.
   - seriesIndex - Index of series (starts with 0 for series 1 etc.)
2. AddY - add array of points
   - Id - the ID of the graph from the InitGraph step output.
   - Y – array of Y values.
   - SeriesIndex - Index of series (starts with 0)

12.3.3. Other optional features:

1. Show - Shows the graph (by the ID).
   - Id - the ID of the graph from the InitGraph step output.
2. ClearSeries - clears the series in the graph.
   - Id - the ID of the graph from the InitGraph step output.

- Index - The index of series to be cleared (starts with 0 for series 1, etc.)

3. SaveToReport – adds a photo of the current state of the specified graph to the report.
   - Id - the ID of the graph from the InitGraph step output.
   - ScaleWidth - Picture width to display in the report.
   - ScaleHeight - Picture height to display in the report.
   - HorizontalMargin.
   - VerticalMargin.
   - Remark – Use the 'Remark' field to display a remark below the picture.
4. SaveAsImage - Captures a jpeg picture of the current state of the specified graph.
   - Id - the ID of the graph from the InitGraph step output.
   - Path - Full file path without extension.
5. EnableClosingNonModalGraphs - Non modal graphs cannot be closed manually. Use this function to enable it.

12.3.4. Close graph

1. Close - Closes the selected graph.
   - Id - the ID of the graph from the InitGraph step output.
2. CloseAllGraphs - Closes all the open graphs.

13.  **Add comment step** – enables you to include a remark or text within the test.

13.1. Click on the step button  .

13.2. In the step list area, a new row **Comment** appears.

- Double click it.
- Enter the comment.

- For each step, ensure to enter the required inputs and outputs (if applicable).
- Define the step and Click **Save** or **Save and Close** (Fig 7-2 -**M**) to save the step.

7.9. Step actions

Action	Description	Details
	Copy steps	To copy steps: 1. Select the step(s) you want to copy. 2. Click the Copy button  . 3. Click the new location. 4. Use the *paste* button  to paste the content to its new location.
	Cut steps	To cut steps: 1. Select the step(s) you want to cut. 2. Click the Cut button  . 3. Click the new location. 4. Use the *paste* button  to paste the content to its new location.
	Paste step ▪ After cutting or copying, you can then use the paste function to move the step(s) to the new location.	To paste steps: 1. Click where you want to insert the steps. 2. Click the paste button  . The steps should be pasted into the new location
	Delete step	1. Select the step(s) you want to delete. 2. Click the delete button  . 3. A delete message is displayed: ▪ Click *Yes* to confirm that you want to permanently delete the steps. ▪ Click *No* to cancel the delete action.
	Move step up/down ▪ You can arrange the order of the steps.	1. Select the step(s) you wish to move. 2. Click  to move the step up Click  to move the step down

8 Addional forms and windows

8.1. Variable window

This window allows you to manage variables.

8.1.1. To open **Variable** window:

1. Navigate to **Main window**:

1.1. Select **UUT** to open the **Execution** window Fig 6-1

1.2. Select 

> Select variable **Global/Maintenance/Criteria/Station Global** from the sub menu.

The **Variable** window will open.

-Or-

2. Navigate to **Test editor window**:

- Select one of the Variables buttons - Fig 7-2 (**L**)

The **Variable** window will open.

8.1.2. **Variable** window

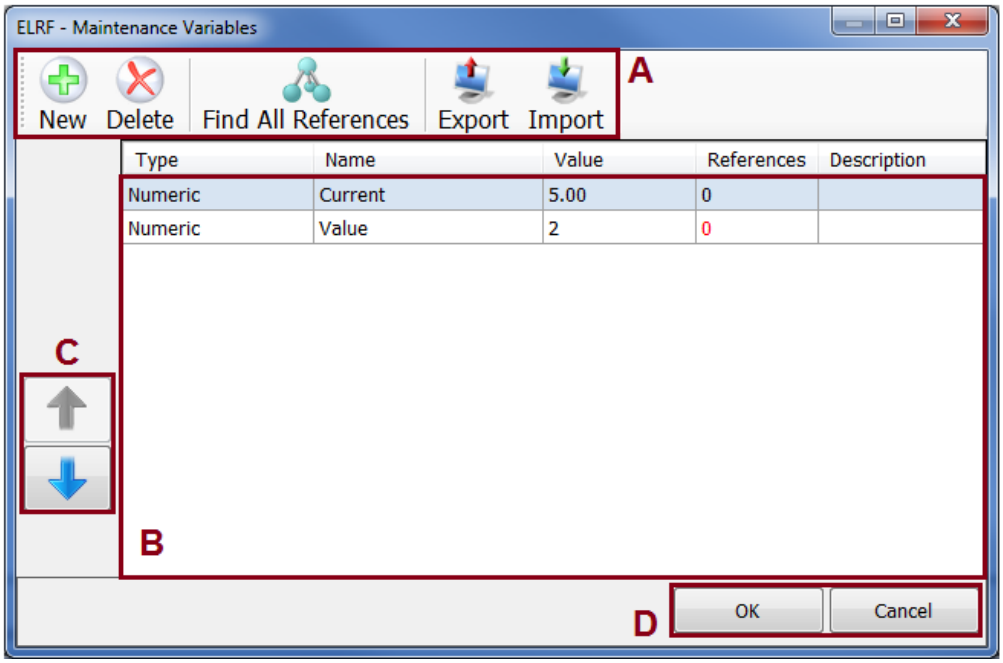
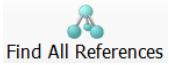


Fig 8-1 **Variable** window

	Description	Fig 8-1	Note
	To add a variable	**A**	section 8.1.3
	To delete a variable	**A**	section 8.1.5

	To search for a variable in the entire project.	**A**	section 8.1.6
	To export the variables to OTM variables file.	**A**	section 8.1.7
	To import variables from OTM variables file.	**A**	section 8.1.8
Result area	Displays the chosen type variables.	**B**	
	Use the up and down arrows keys to modify the variable order.	**C**	Select a variable and click the button: ▪  to move the test up ▪  to move the test down.
OK/Cancel	Click **OK** to accept the modification. -Or- **Cancel** to discard them	**D**	

8.1.3. Adding variable.

To open **Variable** window refer to paragraph 8.1.1 above.

1. Click  button - Fig 8-1 (**A**).
   The **Variable Definition** window will open**.**
2. Finish filling out the variable details – see section 8.2 (on page 152).
3. Click **OK** to accept the modification
   -Or-
   Click **Cancel** to discard them.

8.1.4. Editing variable.

From the **Variable** window, under the result area Fig 8-1 (**B**).

1. Select the variable you want to edit by double clicking it.
2. The **Variables Definition** window will open Fig 8-2, displaying the selected variable definitions.

Make the desired changes.

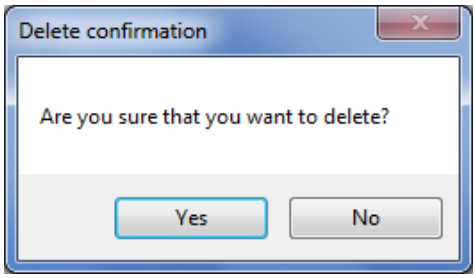
3. Click **OK** to apply the modifications or Cancel to discard them.

8.1.5. Deleting variable.

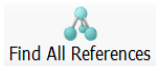
From the **Variable** window, under the result area Fig 8-1 (**B**).

1. Mark the variable you want to delete.
2. Click the 

button.
3. A delete confirmation dialog will be displayed.



4. Click **Yes** to confirm that you want to permanently delete the variable.
   Click **No** to abort the variable delete process.

8.1.6. 

Find all References

From the **Variable** window, under the result area Fig 8-1 (**B**).

1. Select the variable you want to find its references.
2. Click the **Find all References** button.
   The selected variable references appear at the bottom of the **Variable** window.
3. Double click a reference to find its occurrence location in the UUT.

8.1.7. To Export variables

1. Click the **Export** button 

- Fig 8-1 (**A**).
   The **Save as** page will open.
2. Navigate and select the folder where you want to create the exported file, enter the name of the variable file and click **Save**.
   The variables are exported to the file you specified.

8.1.8. To Import variables

1. Click the **Import** button 

- Fig 8-1 (**A**).
   The **Open** page will open.
2. Locate and select the file (xml) which contains the variables you want to import.
3. Click **Open**

4. The UUT's imported variables will be displayed under the result area Fig 8-1 (**B**).

8.2. Variable Definition window

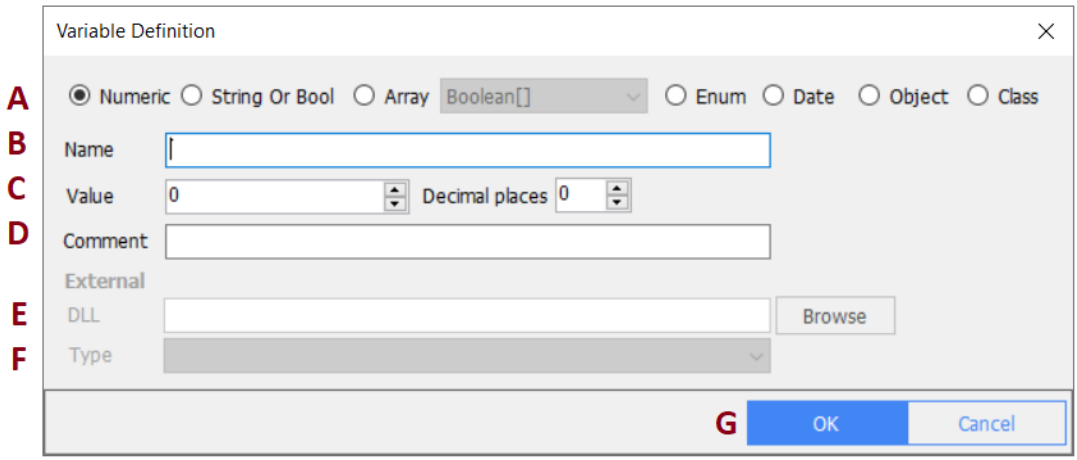


Fig 8-2 **Variable Definition** window

Fig 8-2	Description	Details
A	Data type	▪ Specify the variable's data type by selecting the button . ▪ Select one of the following types: numeric/ string or bool/ arrays/ enum/ date/ object/ class.
B	Name	Enter the new variable name - required
C	Value Dechimal places	▪ Allows you to assign value to the variable. ▪ You MAY enter the number of decimal places that you want to display
D	Comment	
E	Dll	Only for enum and class types. Those types must be imported from external dll. ▪ Click the Browse button Browse. ▪ Navigate to the location of the DLL file and mark it. ▪ Click Open button. ▪ The selected DLL is displayed in the DLL section.
G	Type	▪ Click the arrow and select enum/class from the displayed list. ▪ Click the required enum/class. The selected enum/class are displayed in the type section.

8.3. String form

This form allows you to insert string parameters to the DLL input.

8.3.1. **String** form

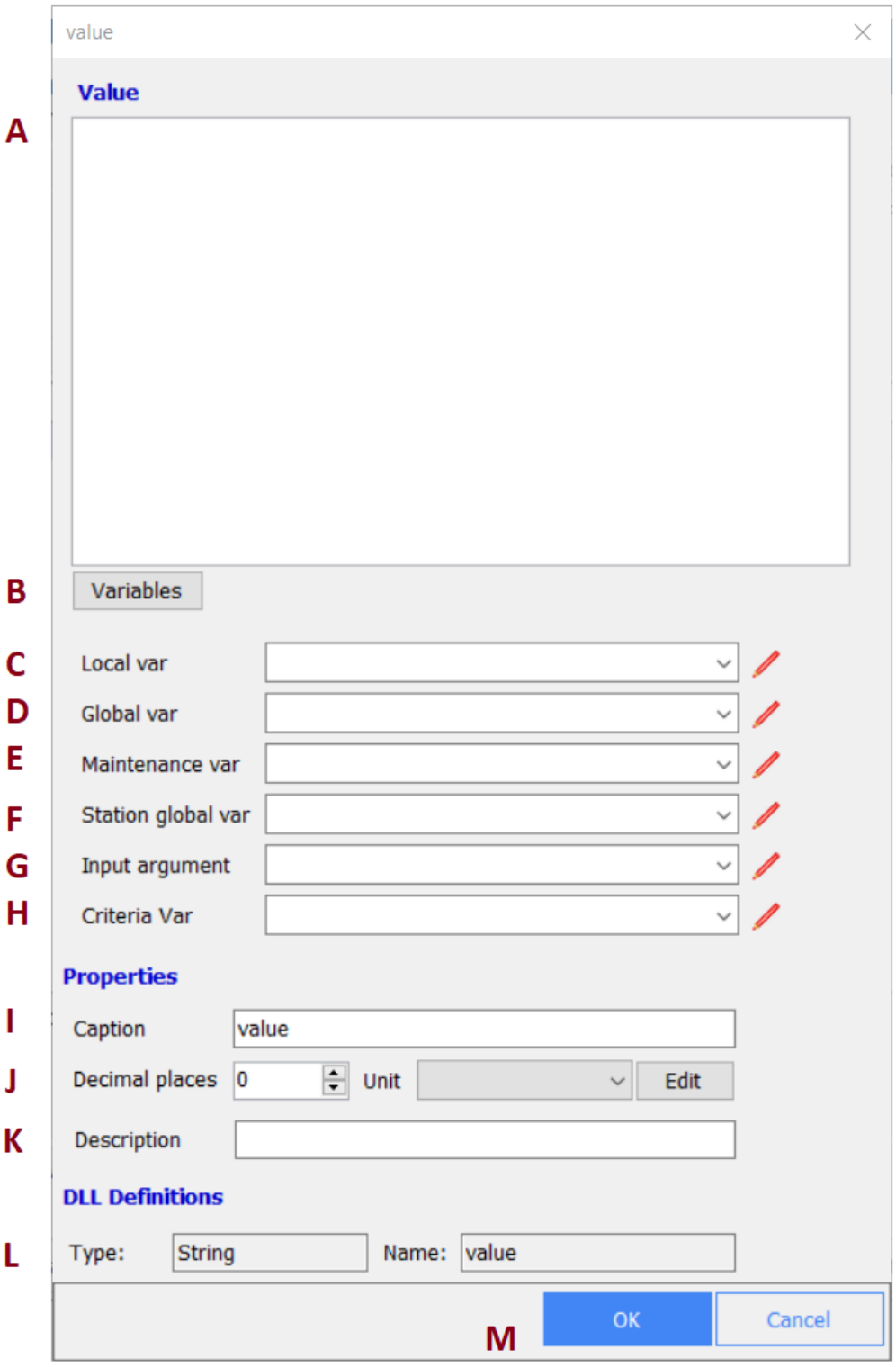


Fig 8-3 **String** form

Fig 8-3	Description	Details
A	The string value. Free text	Type the string value
B	The string value. Value from variable	Insert the value from one of the defined variables (local, global, maintenance, input argument or criteria)
C **D** **E** **F** **G** **H**	The string value from local var The string value from global var The string value from maintenance var The string value from station global var The string value from input argument var The string value from criteria var	
I	Caption	▪ The string caption.
J	Dechimal places Unit	▪ Allows you to enter the number of decimal places that you want to display ▪ Allows you to set the parameter's unit.
K	Description	▪ Allows you to view the string description.
L	DLL Definitions	The string definition in the DLL.
M	OK/Cancel	Click OK to apply the modification. -Or- **Cancel** to discard them

8.3.2. Complete the **string** form with the following information:

1. **Value** – the string value (see section 8.3.3 below).
2. **Properties** – the string's properties (see section 8.3.4 below).

8.3.3. **String value**

You can insert a string in two ways:

1. Free text value – Fig 8-3 (**A**).

Insert the string value by typing.

2. Value from variable

   Select one of the following options:

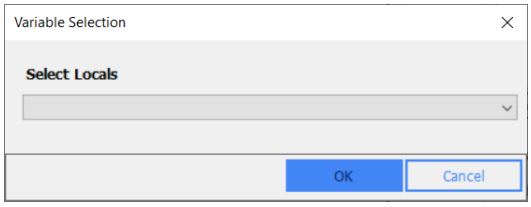
   2.1. Variables button – Fig 8-3 (**B**).

      1. Click the **Variables** button.

         A sub menu will open with the following options: Local, Global, Maintenance, Input argument or Criteria variables.

      2. Select a variable type from the sub menu.

         A selection window will open, for example:



      3. Click the arrow

         Select variable from the displayed list.

   2.2. Select variable type - Fig 8-3 (**C/D/E/F/G/H**).

      1. Click the arrow to display the variable list.
      2. Select a variable from the displayed list.

8.3.4. String properties

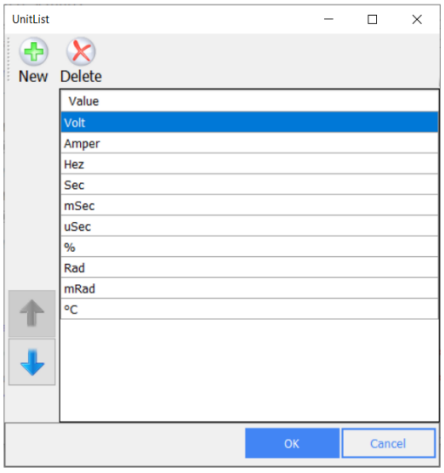
1. Caption – allows you to set the string caption.
2. Dechimal places – Enter the number of dechiml places or use the arrows.
3. Unit

   3.1. Click the arrow and select unit from the displayed list.

   If you don't see the unit in the list, click the Edit button.

   The Unit screen will open.

   3.2. **Unit screen**



1. Add a unit value.

   1.1 Click 

   A new row is added to the unit list.

   1.2 Complete the details for the new unit.

   1.3 Click OK.

   The new value is displayed in the list.

2. Delete a unit value.

   2.1. Mark the unit value you want to delete.

   2.2. Click 

   2.3. Click OK.

8.4. Value form

This form allows you to insert numeric values to the DLL input.

8.4.1. **Value** form

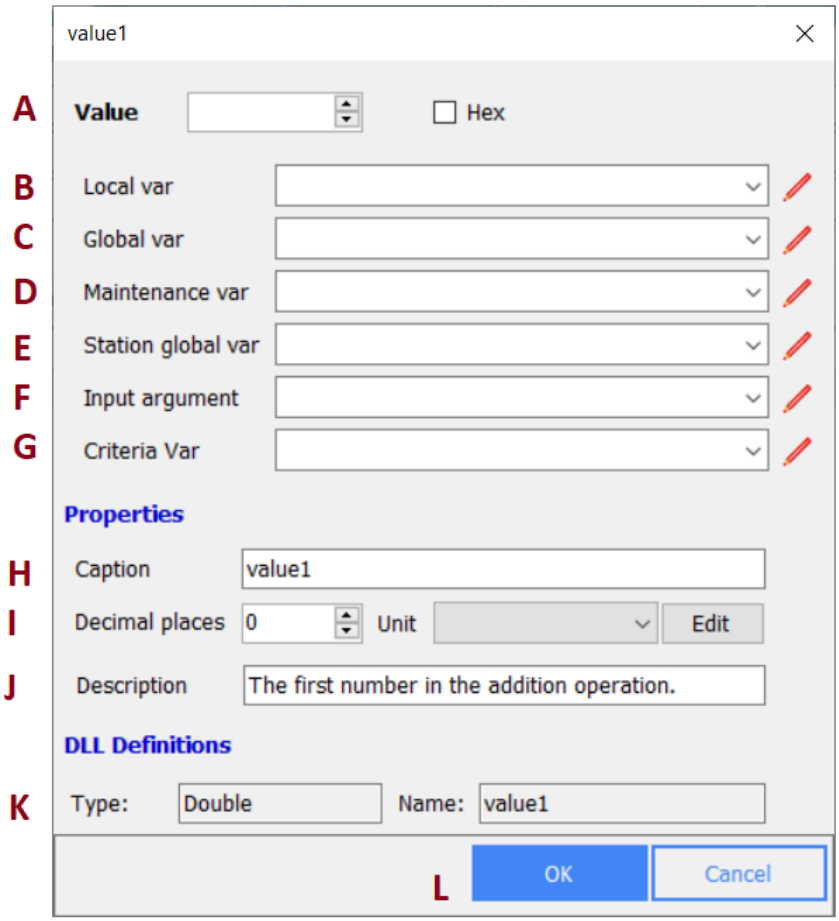


Fig 8-4 **Value** form

Fig 8-4	Description	Details
A	The numeric value.	Section 8.4.3
B	The numeric value from local var	
C	The numeric value from global var	
D	The numeric value from maintenance var	
E	The numeric value from station global var	
F	The numeric value from input argument var	
G	The numeric value from criteria var	
H	Caption	▪ The numeric value caption.
I	Dechimal places	▪ Allows you to enter the number of decimal

		places that you want to display.
J	Unit Description	▪ Allows you to set the parameter's unit. ▪ Allows you to view the numeric value description.
L	DLL Definitions	The numeric value definition in the DLL.
M	OK/Cancel	Click OK to apply the modification. -Or- **Cancel** to discard them

8.4.2. Enter the required information in the **value** form as follows:

1. **Value** – fill in the numeric value (see section 8.4.3).
2. **Properties** – enter the numeric value properties (see section 8.4.4).

8.4.3. **Numeric value** – Fig 8-4 (**A**).

Set the value in one of the following ways:

1. Insert the numeric value by typing

   - or-

   Use the arrows.

   ▪ Hex - Select the checkbox to enter a hexadecimal value.

2. Value from variable

2.1. Select variable type - Fig 8-4 (**B/C/D/E/F/G**).

2.2. Click the arrow to display the variable list.

2.3. Select a variable from the displayed list.

8.4.4. **Numeric value properties**

1. Caption – allows you to set the numeric value caption.
2. Dechimal places – Enter the number of dechiml places or use the arrows.
3. Unit

   Click the arrow and select unit from the displayed list.

   If you don't see the unit in the list, click the Edit button.

   The Unit screen will open, for more details, refer to section 3.2 (on page 155).

8.5. Result form (Numeric)

This form is used for setting result value (numeric) definitions and actions, checking the result in defined limits, saving the result to a variable, etc.

8.5.1. **Result** form (numeric)

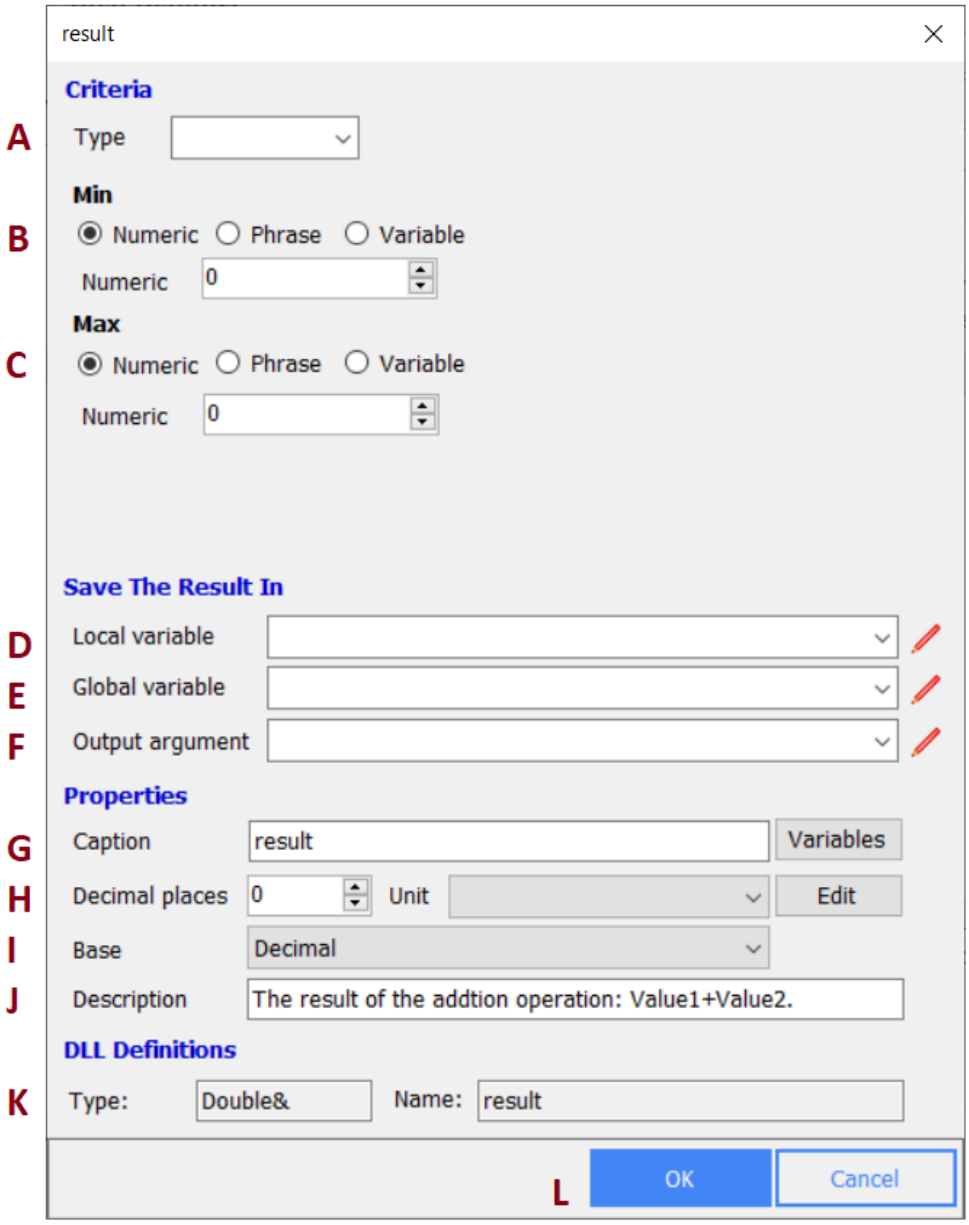


Fig 8-5 **Result** form (Numeric)

Fig 8-5	Description	Details
A	Criteria - **Compare type**	Section 8.5.3
B	Criteria – minimum value	
C	Criteria – maximum value	

D **E** **F**	To store the result in a local variable To store the result in a global variable To store the result in an output argument.	Section 8.5.4
G	Caption	▪ The result caption. Section 8.5.5
H	Dechimal places	▪ Allows you to enter the number of decimal places that you want to display.
	Unit	▪ Allows you to set the result unit.
I	Base	▪ Allows you to change the Result base.
J	Description	To view the result description.
K	DLL Definitions	The result definition in the DLL.
L	OK/Cancel	Click OK to apply the modification. -Or- **Cancel** to discard them

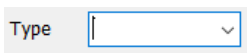
8.5.2. Enter the required information in the **result** form as follows:

1. **Criteria** – checks if the result is within specified criteria (see section 8.5.3).
2. **Save the result in** - allows you to save the result in selected variable (see section 8.5.4 on page 161).
3. **Properties** – the result properties (see section 8.5.5 on page 161).

8.5.3. **Criteria**

1. Add Criteria:

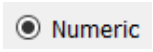
1.1. Set **Compare type** Fig 8-5 **(A)**



Select the compare type by clicking the arrow and selecting the desired expression (≤x≤, <x<, <x≤, ≤x<, x<, x≤, x≥, x>, x=, x<>).

1.2. Insert **Min/Max** value Fig 8-5 **(B/C)**, in compatibility with the selected expression, in one of the following options:

1.2.1. **Numeric**

- Select 
- Enter the minimum and maximum valus.

1.2.2. **Phrase**

Insert the value by adding a phrase.

- Select 

- Click 

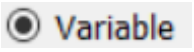
The formula generator will open Fig 8-7.

Define the formule, for more details, refer to section 8.7.2 on page 167.

- Click  to clear the formula.

1.2.3. **Variable**

Insert the value from a criteria variable (Fig 8-1).

- Click 

- Click the arrow and select a criteria variable from the displayed list.

The OTM will compare the received result value to the relational expression and display **Passed** or **Failed**.

2. Delete Criteria:
   - Mark and delete the 'Compare type' content Fig 8-5 **(A)**.

8.5.4. **Save the result in** Fig 8-5 **(D/E/F)**

Allows you to save the result in Local/Global variable or Output argument.

- Click the arrow and select a variable from the displayed list.

8.5.5. **Properties**

Define tne numeric result properties.

1. Caption Fig 8-5 **(G)**

   Allows you to set the numeric result title, Select one of the following options:

   1.1. Free text value

   Insert the string value by typing.

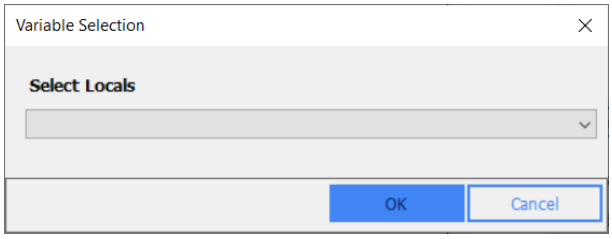
   1.2. Value from a variable

Variables button – Fig 8-3 (**B**).

- Click the **Variables** button.

  Sub menu will open with the following options: Local, Global, Maintenance, Input argument or Criteria variables.
- Select a variable type from the sub menu.

  A selection window will open, for example:



- Click the arrow and select variable from the displayed list.

The caption will be displayed in the report (if applicable).

2. Dechimal places Fig 8-5 **(H)** – Enter the number of dechiml places or use the arrows.
3. Unit Fig 8-5 **(H)**
   - Click the arrow and select unit from the displayed list.
   - If you don't see the unit in the list, click the Edit button.

     Fill in the Unit screen (details can be found in section 3.2 - on page 155).
4. Base Fig 8-5 **(I) –** allows you to change the result base to Hexadecimal.

   Base Decimal

   Click the arrow and select Hexadecimal from the list.

8.5.6. **OK/Cancel** Fig 8-5 **(L)**

Click **OK** to save your settings and exit.

Click **Cancel** to discard them.

8.6. Result form (String)

This form is used for setting result value (string) definitions and actions, checking the result in defined limits, saving the result to a variable, etc.

8.6.1. **Result** form (string)

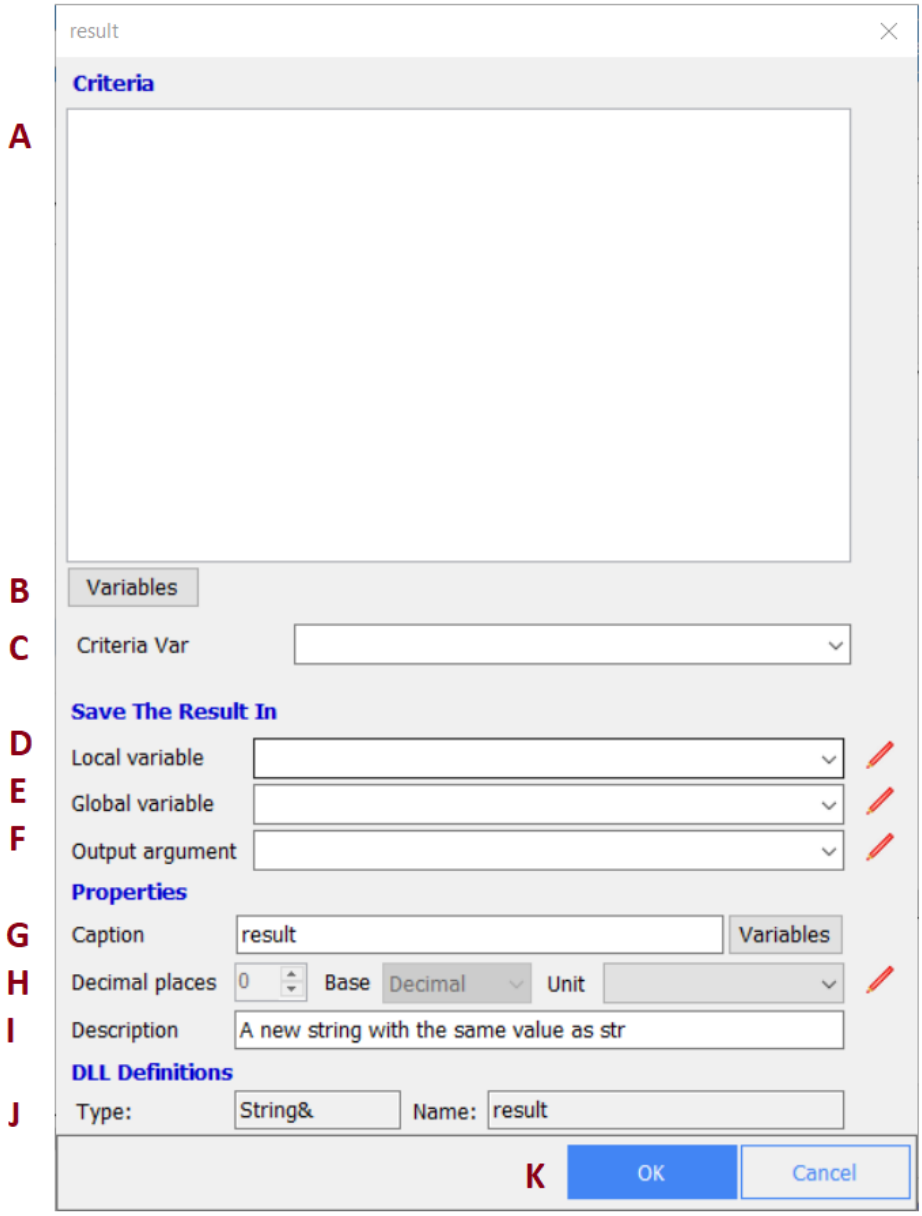


Fig 8-6 **Result** form (String)

Fig 8-6	Description	Details
A	String criteria value. Free text	Type the string criteria value
B	String criteria value from a variable	From a variable: local, global, maintenance, input argument or criteria.

C	String criteria value from a defined criteria variable	Click the arrow and select from the displayed list.
D **E** **F**	To store the result in a local variable To store the result in a global variable To store the result in an output argument.	See section 8.6.4
G	Caption	▪ The result caption. See section 8.6.5
H	Dechimal places Unit Base	NA NA NA
I	Description	To view the result description.
J	DLL Definitions	The result definition in the DLL.
K	OK/Cancel	Click OK to apply the modification. -Or- **Cancel** to discard them

8.6.2. Enter the required information in the **result form (string)** as follows:

1. **Criteria** – checks if the result is within specified criteria (see section 8.6.3 below).
2. **Save the result in** - allows you to save the result in selected variable (see section 8.6.4 on page 165).
3. **Properties** – the result properties (see section 8.6.5 on page 165).

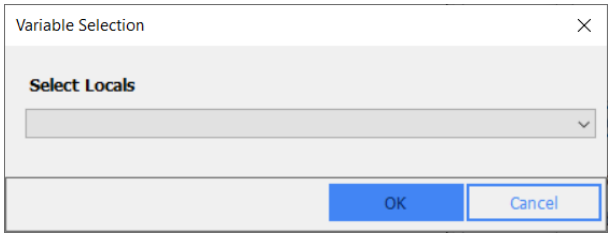
8.6.3. **Criteria**

- Select one of the following options:
  1. Free text value Fig 8-6 **(A)**

     Insert the string crityeria value by typing.
  2. Variables button Fig 8-6 **(B)**
     - Click the **Variables** button.

       Sub menu will open with the following options: Local, Global, Maintenance, Input argument or Criteria variables.
     - Select a variable type from the sub menu.

       A selection window will open:



- Click the arrow and select variable from the displayed list.

3. Criteria variable Fig 8-6 **(C)**

   Click the arrow and select a criteria variable from the displayed list.

8.6.4. **Save the result in** Fig 8-6 **(D/E/F)**

Allows you to save the result in Local/Global variable or Output argument.

- Click the arrow and select a variable from the displayed list.

8.6.5. Caption Fig 8-6 **(G)**

Allows you to set the string result title, select one of the following options:

1. Free text value

   Insert the string value by typing.

2. Value from a variable

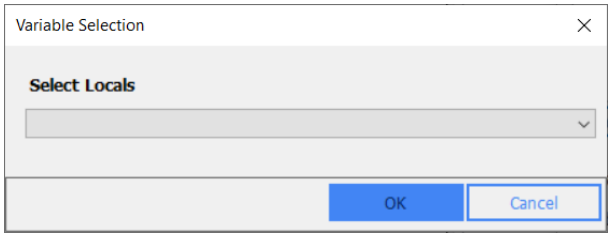
   Variables button – Fig 8-3 (**B**).

   - Click the **Variables** button.

     Sub menu will open with the following options: Local, Global, Maintenance, Input argument or Criteria variables.

   - Select a variable type from the sub menu.

     A selection window will open:



   - Click the arrow and select variable from the displayed list.

8.6.6. **OK/Cancel** Fig 8-6 **(K)**

Click **OK** to save your settings and exit.

Click **Cancel** to discard them.

8.7. Formula Generator

This form is used for creating a complex mathematical expression (Formula).

8.7.1. **Formula generator** form

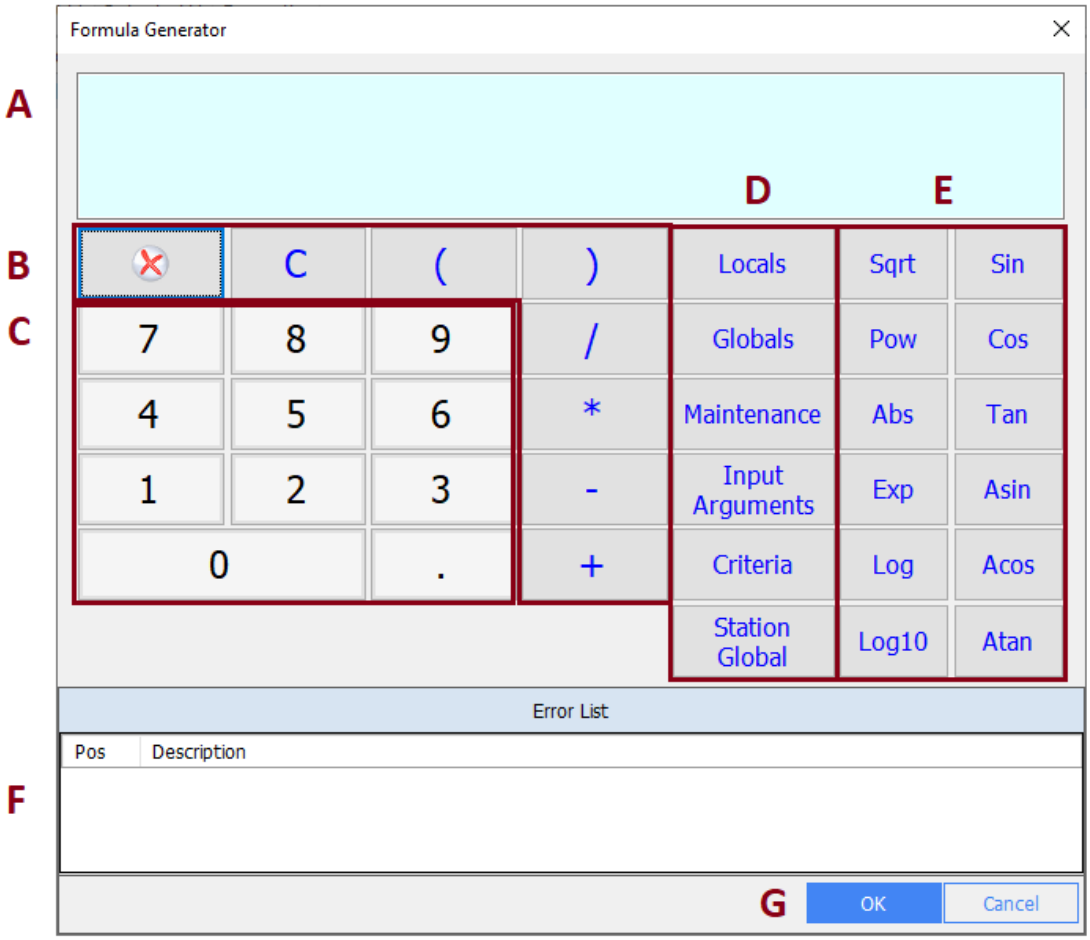


Fig 8-7 **Formula generator** form

Fig 8-7	Description	Details
A	Formula area	Shows the formula
B	Basic mathematical operations	⌫ - delete key C - all clear key ( ) - parenthesis / * - + - basic operation keys
C	Number keys	
D	Variable keys	Allows to use values stored in

		variables within a formula
E	Function keys	For more complicated calculations
F	Error area	Displays the errors in the formula definition (if applicable)
K	OK/Cancel	Click OK to apply the modification. -Or- **Cancel** to discard them

8.7.2. **Add a formula.**

You can create your own formula using mathematical symbols or comparison operators, or to perform calculations using the data from variables. You can also use any of the functions to perform calculation, retrieve information, and manipulate data.

Select from the following options, or combine them:

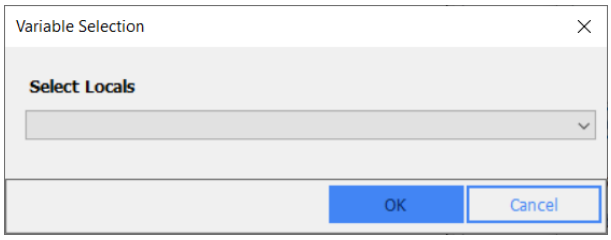
1. Add a number.

   Use the buttons Fig 8-7 (**B**/**C**) to add numbers and basic mathematical operations to the formula.

2. Add a variable.

   2.1. Select variable type – Locals/Globals/Maintenance/Input Arguments/Criteria/Station global Fig 8-7 (**D**).

   A selection window will open:



   2.2. Click the arrow and select a variable from the displayed list.

   2.3. Click OK.

   The variable appears in the formula area Fig 8-7 (**A**).

3. Add a function.

   3.1. Select a function Fig 8-7 (**D**).

   3.2. Complete the function and, if applicable, include a closing parenthesis ")" to finalize your formula.

Continue adding operators and arguments until your formula is complete.

8.7.3. **Delete a formula.**

Click the delete key  Fig 8-7 (**B**) – for deleting single element.

-Or-

Click the all clear key  Fig 8-7 (**B**) – for deleting the whole formula.

8.7.4. Fig 8-7 (**G**)

Click **OK** when you're done, to save your settings and exit.

Click **Cancel** to discard them.

8.8. If/While Conditioin Builder

This form is used to define the If/While condition.

8.8.1. **If/While condition builder** form

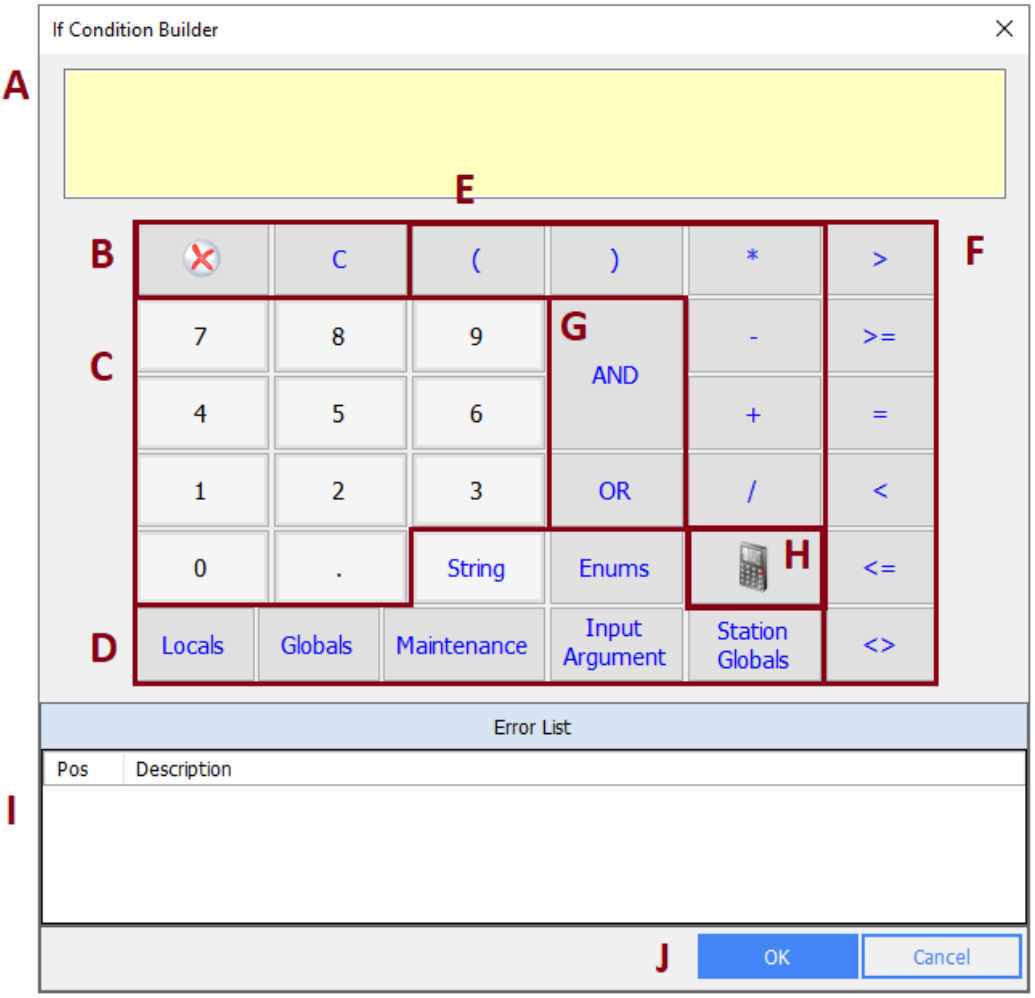


Fig 8-8 **If/While condition builder** form

Fig 8-8	Description	Details
A	If/While condition area	Shows the If/While condition
B	Delete - delete key C - all clear key	For deleting single element For deleting the whole formula
C	Number keys	
D	Variable keys	Allows to use stored values (variables). See section 1.2 on page 171

E	Basic mathematical operations	( ) - parenthesis / * - + - basic operation keys
F	Comparison operator	> >= = < <= <>
G	AND/OR keys	See section 3 on page 172 AND OR
H	Arithmetic keys	For more complicated calculations.  See section 1.3
I	Error area	Displays the errors in the If/While condition definition.
J	OK/Cancel	Click **OK** to save the If/While condition and exit -Or- **Cancel** to close the screen without saving any changes.

8.8.2. **Create IF/While condition.**

Allows you to make a logical comparison between a value and what you expect.

In this form there are three main parts:

1. Insert first statement value.

Set the statment of the if/while condition, using:

-  The number buttons 1.1).

-  Arithmetic action (Para 1.3).
- 

Variable/Enums/String buttons (Para 1.2).
- 

Mathematical operations.
- 

Parenthesis.

Select from the options above or combine them.

1.1 Add a number.

Use the buttons Fig 8-8 (**C**) to create the condition.

The value can involve mathematical objects other than numbers.

1.2 Add a variable/Enum/String.

1.2.1. Variable

- Select variable type – Locals/Globals/Maintenance/Input Arguments/ Station global Fig 8-8 (**D**).

  A selection window will open:

- Click the arrow  and select a variable from the displayed list.
- Click OK.

The variable appears in the condition area Fig 8-8 (**A**).

1.2.2. Enum

- Select 

button Fig 8-8 (**D**)

  A selection window will open.

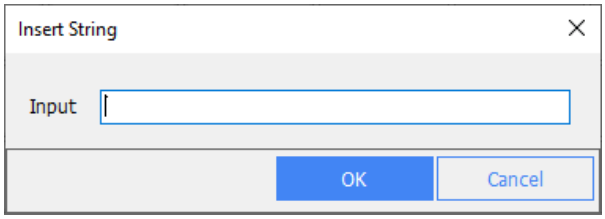
- Click the arrow and select Enum from the displayed list.

1.2.3. String

- Select 

button Fig 8-8 (**D**)

  A string window will open.



- Insert the string value by typing and click OK.

1.3 Add a mathematical function.

- Select  button Fig 8-8 (**H**).
  Sub menu will open.
- Select one of the following function: Sqrt, Pow, Abs, Exp, Log, Log10, Sin, Cos, Tan, Asin, Acos or Atan.

Complete (if applicable) the right parenthesis).

1.4 Mathematical operations (optional)

You can combine a several mathematical operations in a single condition.

The If/While condition requires a comparison operator.

1. Add a conditional operator from the comparison buttons Fig 8-8 (**F**).

2. Insert second statement value.
   The same way as the first statement see 1 above.

3. Multiple conditions
   If you need to test multiple conditions, Select one of the following:

   AND - all conditions need to be True or False 

   OR - only one condition needs to be True or False 

9 Sequence

This section describes how to create a sequence using the sequence editor.

A sequence consists of tests arranged in hierarchy.

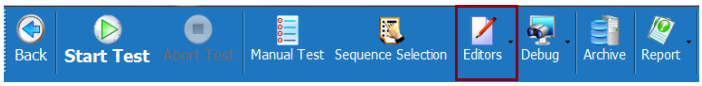
9.1. Sequence Editor

Once the test(s) are defined, you can define sequence using the *Sequence Editor* window.

9.1.1. Navigate to **Main window** > select **UUT** (the **Execution** window will open).

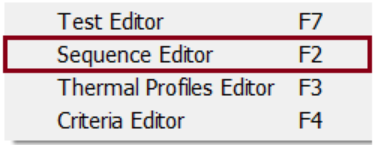
9.1.2. On the **Execution** window > select **Editors** 

.



The Editors sub menu displays.

9.1.3. Select **Sequence Editor** from the sub menu or press F2.



The **Sequence Editor** window will open.

9.2. Sequence List window

This window allows you to add, edit or remove sequence.

Navigate to **Main window** > select **UUT** (the **Execution** window will open) > select **Editors** from the upper menu (sub menu will open) > select **Sequence Editor**.

The **Sequence Editor** window will open.

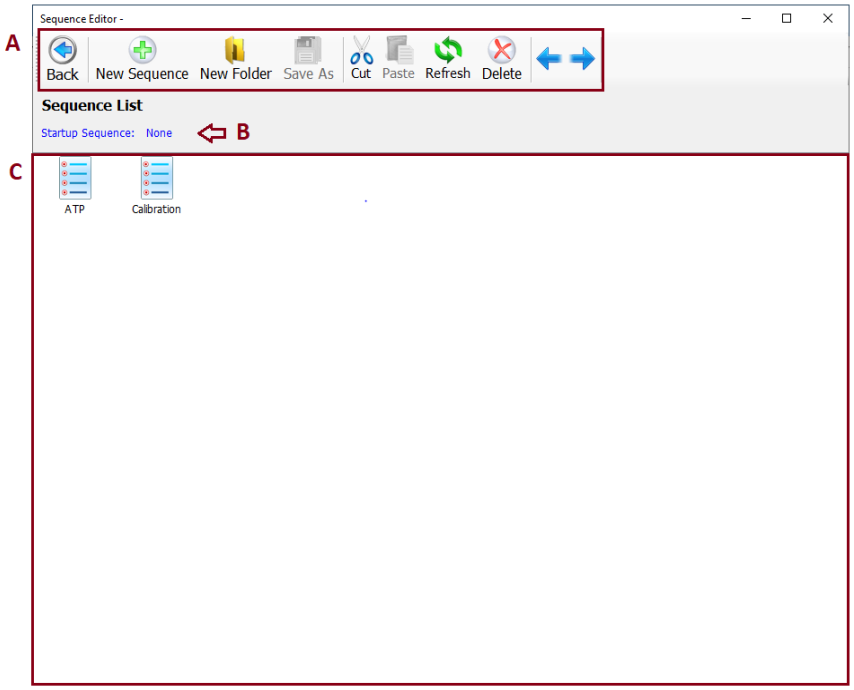
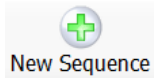
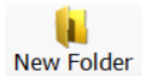


Fig 9-1 **Sequence list** window

	Description	Fig 9-1	Details
	Back key	**A**	To return to **Execution** window.
	To add sequence	**A**	See section 9.4 on page 182
	To add new folder	**A**	
	To copy sequence	**A**	Mark the sequence you wish to copy and click the  button.
	Cut key	**A**	To cut sequence: 1. Select the sequence you want to cut. 2. Click the Cut button  . 3. Click the new location - Fig 9-1 (**C**). 4. Use the *paste* button  to paste the content to its new location.
	Paste key After cutting or copying, you can then use the paste function to move the sequence to the new location.	**A**	To paste: 1. Click where you want to insert the sequence. 2. Click the paste button  .
	Refresh key	**A**	
	To delete sequence	**A**	1. Select the sequence you want to delete. 2. Click the delete button  . A delete message is displayed. ▪ Click *Yes* to confirm that you want to permanently delete the sequence. ▪ Click *No* to cancel the delete action.

	Move Left/Right keys Use the left and right arrows keys to rearrange the order of the sequences.	**A**	Select sequence, and then: ▪ Click ← to move the sequence left ▪ Click → to move the sequence right.
Start sequence	Displays the start sequence name	**B**	☑ Startup sequence Fig 9-3 (**C**) is selected.
Sequence list area	Displays the sequence list	**C**	Displays all the defined sequences.

9.3. Sequence Editor window

This window allows you to set the required settings of the sequence.

9.3.1. To open **Sequence editor** window:

1. Navigate to **Main window** > **UUT** (the **Execution** window will open):

   ▪ Press F2 to open **Sequence Editor** > click New Sequence/Save as.

   -Or-

   ▪ Select Editors from the upper menu (sub menu will open) > select **Sequence Editor** > click New Sequence /Save as.

   -Or-

   ▪ Double click a sequence from the sequence list area Fig 9-1 (**C**).

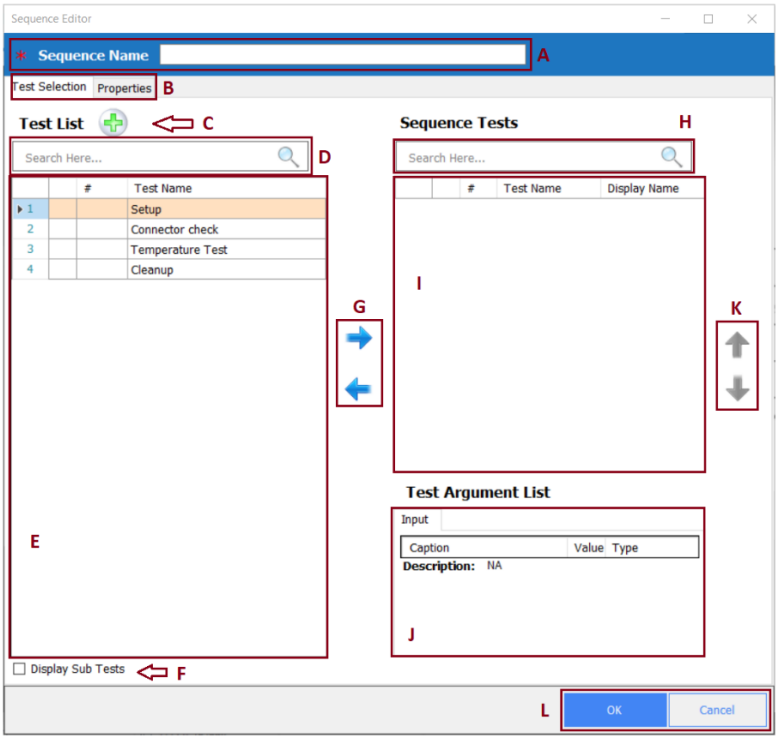
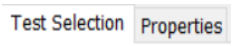


Fig 9-2 **Sequence Editor** window

	Description	Fig 9-2	Note
Sequence name	Insert the sequence name	**A**	**Required**
Sequence Editor tabs 	Select a tab to access and configure its settings	**B**	See section 9.3.2 below
 New Test button	To add a new test	**C**	▪ Click  button. **Test Editor** window ▪ Enter the required information in the window (for more details, refer to section 7.3 on page 110 ▪ Click OK
Test Search	To search the test list	**D**	Type to search.
Test list area	The test list	**E**	
	Display sub test	**F**	Select the checkbox to display the sub test under the test list area Fig 9-2 (**E**)
 	Move test keys. Use the arrow keys to move tests back and forth between the test list Fig 9-2 (**E**) and the sequence tests area Fig 9-2 (**I**)	**G**	▪  Adds the selected tests from Fig 9-2 (**E**) to (**I**) ▪  Removes the selected tests from Fig 9-2 (**I**)
Search sequence test	To search the sequence test list	**H**	Type to search.
Sequence test area	The sequence's test list	**I**	
 	Move sequence's test keys. Use the up and down arrows keys to modify the sequence's tests order Fig 9-2 (**I**)	**K**	In the sequence tests area Fig 9-2 (**I**): ▪ Click  to move the selected test up. ▪ Click  to move the selected test down.

Test argument	Displays the selected test input arguments	**J**	See section 1.4 below
OK/Cancel	Click **OK** to save the sequence and exit. -Or- **Cancel** to close the screen without saving any changes	**L**	

9.3.2. Sequence Editor window – tabs Fig 9-2 (**B**)

In this window there are 2 tabs: Test selection and Properties.

Tab	Description	Details
Test selection	Allows you to group tests together	See section 1 below
Properties	Allows you to define sequence properties	See section 2 (on page 178)

1. **Test Selection tab**

In the **Sequence Editor** window – Test Selection tab:

1.1. Enter the sequence name (Required) - **A**.

You must provide a sequence name - Fig 9-2 (**A**)

and sequence's test list (refer to paragraphgraph 1.3.11.3 below)

1.2. Select Test Selection tab - Fig 9-2 (**B**)

1.3. Select sequence tests:

The OTM allows you to select predefined tests or create a new one.

1.3.1. Add sequence test(s)

1. Under the test list area Fig 9-2 (**E**), select the test(s) you wish to add to the sequence tests.
   - To display sub test, select the checkbox, Fig 9-2 (**F**).
2. Use the arrow  (**G**) to move them to the sequence tests area (**I**).

1.3.2. Create a new test for the sequence.

1. Click  Fig 9-2 (**C**)

2. The Test editor window will open.

   Complete the test definitions as described in paragraph 7.3.27.3 on page 112.

3. The new test is displayed in the test list area Fig 9-2 (**E**).
4. Select the test from the test list area (**E**)
5. Use the arrow (**G**) to move the new test to the sequence tests (**I**).

1.3.3. Remove test(s) from the sequence.

1. Under the sequence tests area Fig 9-2 (**I**), select the test(s) you wish to remove.
2. Use the arrow (**G**) to remove them from the sequence tests area (**I**).

▪ To change the order of the tests in the sequence, you can use the arrows button .

Fig 9-2 (**K**).

1.4. Input variable Fig 9-2 (**J**)

Optionally, if input variable is defined you may modify it.

To set input parameter value:

▪ Double click the parameter you wish to modify.

The **Value** dialog will open.

▪ Enter the new value

Click the **Properties** tab, if you want to cofigure other settings, as detailed in the next paragraph.

-Or-

Click **OK**, when all the settings are set as desired.

2. **Properties tab**

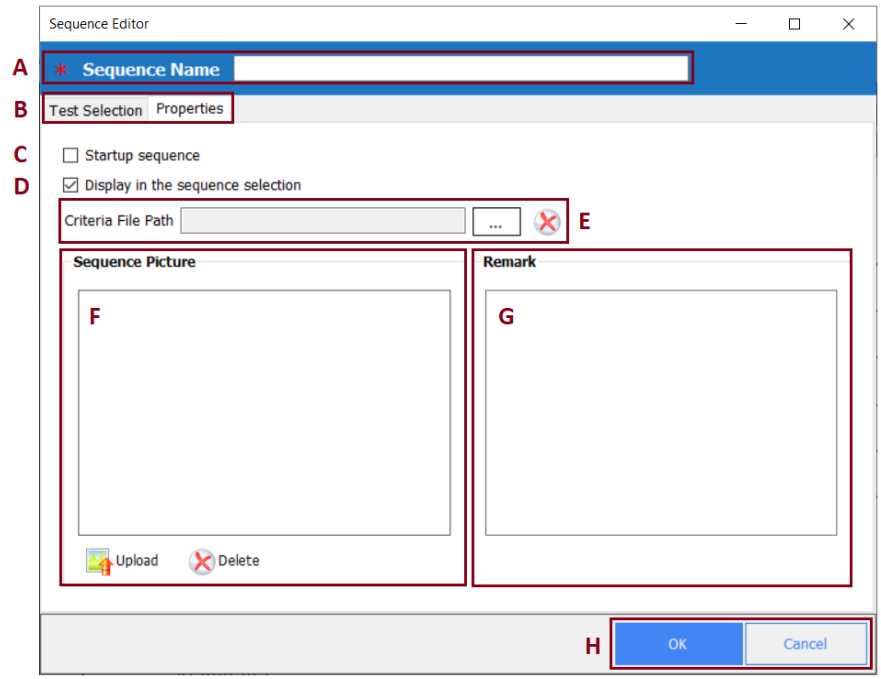


Fig 9-3 **Sequence Editor** window – Properties tab

	Description	**Fig 9-3**	**Note**
Sequence name	Insert the sequence name	**A**	**Required**
Sequence Editor tabs Test Selection Properties	Select a tab to access and configure its settings	**B**	See section 9.3.2 above
☑ Startup sequence	Select the checkbox to set the sequence as a startup sequence.	**C**	Once the execution window will open, the sequence will be loaded automatically.
☑ Display in the sequence selection	Select the checkbox to display the sequence selection window	**D**	
Criteria file	To add a criteria variables from external file	**E**	See section 2.5 below
Sequence picture	To add sequence picture	**F**	See section 2.6 below
Remark	enables you to include a	**G**	

	remark or text within the the sequence	
OK/Cancel	Click **OK** to save the sequence and exit. -Or- **Cancel** to close the screen without saving any changes	**H**

In the **Sequence Editor** window – properties tab:

2.1. Enter the sequence name (Required) - if it is not already defined - Fig 9-3 (**A**).

2.2. Select Properties tab - Fig 9-3 (**B**)

Other Optional settings:

2.3. Startup sequence – Select the checkbox to set the sequence as a startup sequence - Fig 9-3 (**C**)

2.4. Display in sequence selection.

Select the checkbox (Fig 9-3- **D**) to display the sequence in the sequence selection window Fig 6-3.

2.5. Load criteria variables from file.

1. Click ... (Fig 9-3 - **E**)
2. Navigate to the location of the criteria file and mark it.

Click Open button.

The criteria file is displayed in the rubric (Fig 9-3 - **E**)

- To delete the selected criteria file, click button.

2.6. Sequence picture

1. Add sequence picture
   - Click Upload button - Fig 9-3 (**F**), the **Open** screen will open.
   - Navigate to the location of the sequence's picture file and mark it.
   - Click Open button.

   -Or-

   Double click the picture file

   The picture is displayed in preview window Fig 9-3 (**F**)

2. Delete sequence picture

   From the picture buttons Fig 9-3 (**F**), click Delete.

   The sequence picture is cleared from sequence selection window

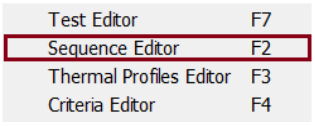
Fig 9-3.

2.7. Click **OK**, when all the settings are set as desired.

9.4. Create sequence

1. Navigate to **Main window** > select **UUT** (the **Execution** window will open) >

   Select **Editors** 

   and select **Sequence Editor** 

   from the sub menu.

F2 is the **Sequence Editor** shortcut key

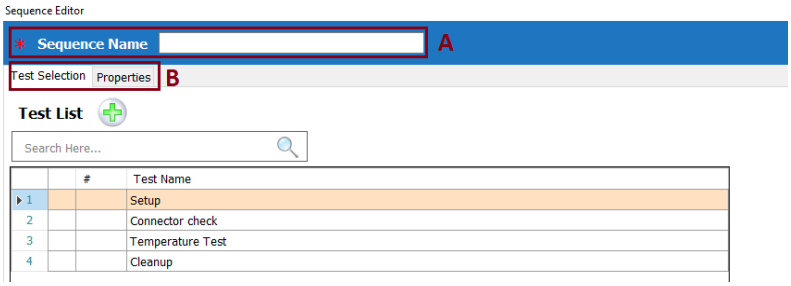
   The **Sequence List Editor** will open.

2. Click 

   button.

   The Sequence Editor window will open.

3. Enter the required information in the **Sequence Editor** window as follows:



   3.1. Enter the sequence name (**A**) – **required.**

   3.2. Define the sequence's tests, use the arrows.

   3.3. All other fields are optional:

   3.3.1. Test Selection tab (**B**) – as described in paragraph 1 (on page 177)

   3.3.2. Properties tab (**B**) - as described in paragraph 2 (on page 178)

   - Startup sequence – Select the checkbox (Fig 9-3- **C**) to set the sequence as a startup sequence.
   - Display in sequence selection – Select the checkbox (Fig 9-3- **D**) to display the sequence in the sequence selection window Fig 6-3.

   Set the desired defintions.

4. Click **OK** to create the new sequence.

The new sequence is displayed under **Sequence Editor** in the sequence list area Fig 9-1 (**C**).

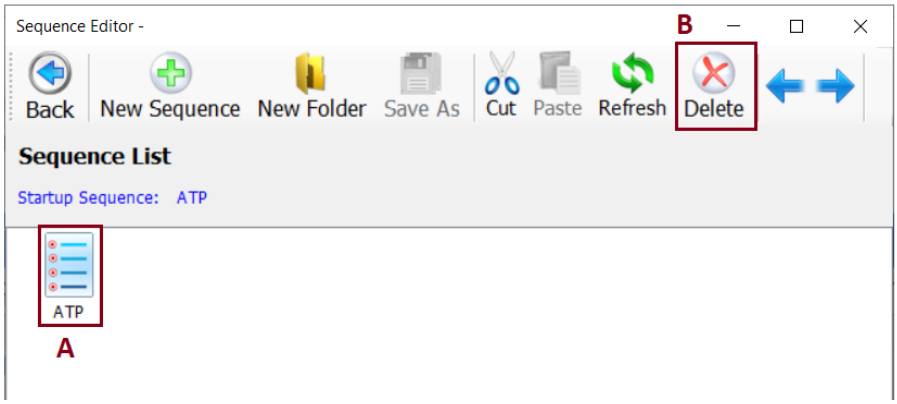
9.5. Delete sequence

1. From the **Main window** > select **UUT** (the **Execution** window will open) > Select **Editors** and select **Sequence Editor** from the sub menu.

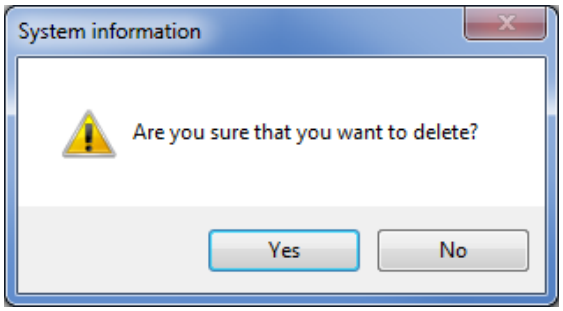
> **F2** is the **Sequence Editor** shortcut key

The **Sequence Editor** will open.

2. Under the sequence list area, mark the sequence you wish to delete.
   In the example below, sequence **ATP** is selected.



3. Click Delete button (**B**).
4. A delete confirmation dialog box appears.



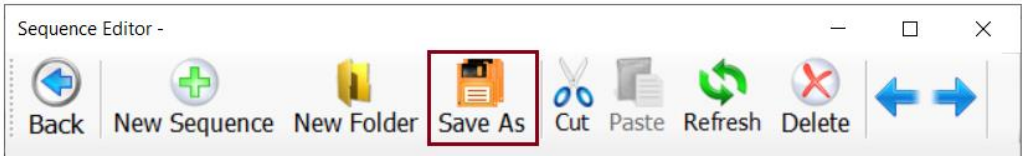
Button	Description
Yes	To confirm that you want to permanently delete the sequence
No	To cancel the sequence delete process

5. Click Yes to complete the sequence deleting operation.
   The sequence is deleted.

9.6. Copy sequence

To copy sequence:

1. Navigate to **Main window** > select **UUT** (the **Execution** window will open) > press F2 or select **Editors** and select **Sequence Editor** from the sub menu. The **Sequence Editor** will open, displaying the sequence list.
2. Mark the sequence you wish to copy and click the **Save As** button.



3. Enter the copied sequence name – required.
4. All the properties and settings are the same as the original sequence and can be edited.
5. Click **OK** to create the sequence.

9.7. Edit sequence

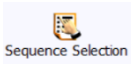
To edit sequence:

1. From the **Main window** > select **UUT** (the **Execution** window will open) > press F2 or select **Editors** and select **Sequence Editor** from the sub menu. The **Sequence Editor** will open.
2. Select the sequence you want to edit by double clicking it.
3. The **Sequence Editor** window will open, displaying the sequence definitons. Make the desired changes.
4. Click **OK** to apply the modifications or Cancel to discard them.

9.8. Sequence Selection and Execution

Once the sequence is defined, you can select it from the **sequence selection** window.

From the **Main window** > select **UUT** (the **Execution** window will open):

1. Select Sequence selection button 

2. The Sequence Selection window will open, displaying the defined sequences. For example:

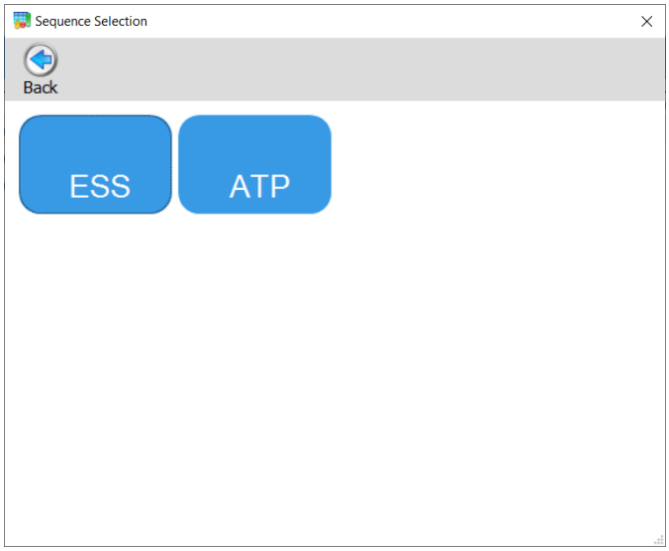
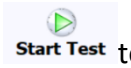


Fig 9-4 **Sequence selection** window – example

3. Select sequence by clicking its button.
4. The sequence content (test Execution List) is displayed in the execution screen.
5. Click 

to start the execution.

10 Thermal Profiles

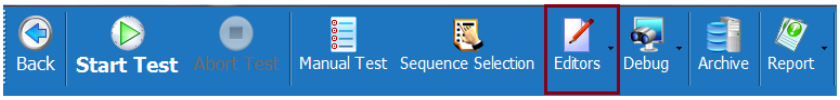
A thermal profile is composite collection of time-temperature data.

10.1. Thermal Profiles Editor

You can define thermal profile using the *Thermal profile screen*.

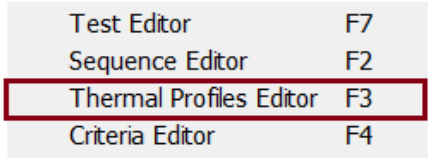
10.1.1. To open **Termal profile editor** window:

1. Navigate to **Main window** > select **UUT** (the **Execution** window will open)
2. On the **Execution** window > select **Editors** 



The Editors sub menu displays.

3. Select **Thermal profiles Editor** from the sub menu or press F3.



The **Thermal profiles Editor** window will open.

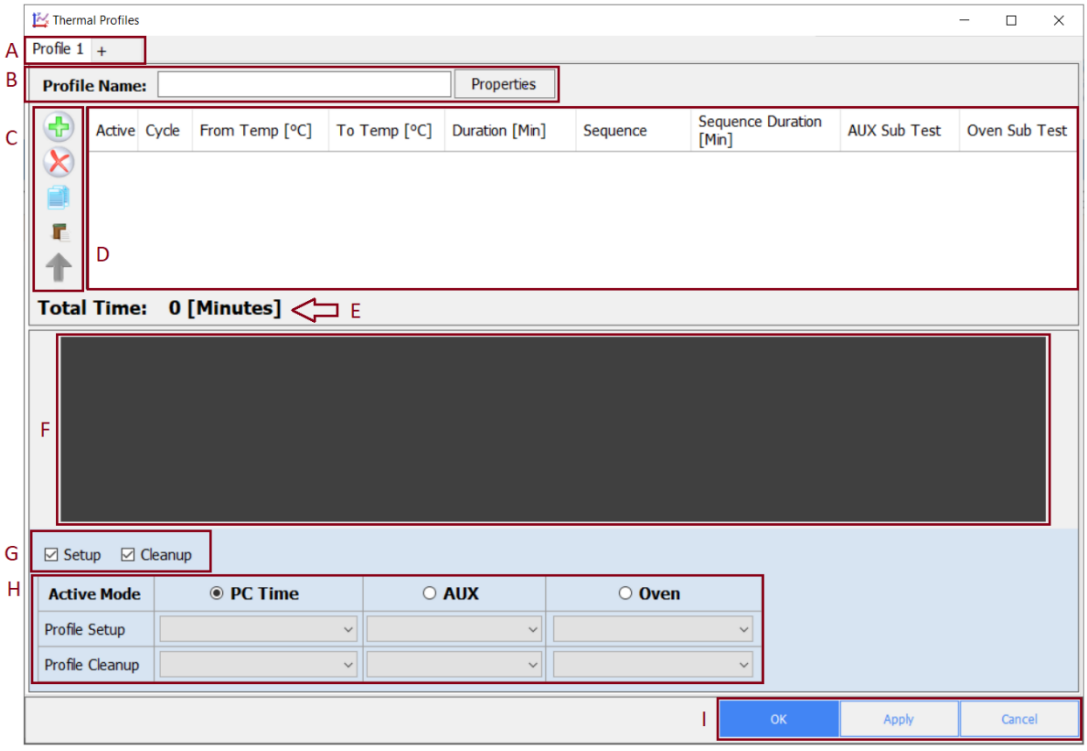


Fig 10-1 **Thermal profile editor** window

	Description	Fig 10-1	Note
Thermal profile Editor tabs 	To add/manage thermal profile	**A**	▪ The "+" tab adds a new profile. ▪ Other tabs are defined profiles See section 10.2.2 on page 195
Thermal Profile name Thermal profile properties 	Insert the Thermal Profile name. Allows you to set the thermal profile properties	**B**	**Required** See section 10.1.2 on page 188
Thermal profile step buttons		**C**	
	New thermal profile step (temperature or cycle)		See section 1 (on page 191)
	Delete step		See section 2 (on page 193)
	Copy step		See section 3 (on page 193)
	Paste step		Click the button to paste the copied step(s).
	Move step up/down You can arrange the order of the steps		See section 5 (on page 193)
Thermal profile step area	Displays the thermal profile steps	**D**	
Total time		**E**	In active mode: ▪ "PC Time" – the total duration time. ▪ "AUX" or "Oven" – an estimation of the total duration time.
Thermal profile preview	Allows you to graphically view the thermal profile	**F**	▪ The graph shows the temperature rise as a function of time.

			▪ The graph is divided into cycles. ▪ The preview is displayed on the execution window.
☑ Setup ☑ Cleanup	To add an external setup & cleanup (UUT level)	**G**	▪ ☑ Setup Select the checkbox to execute the external setup. ▪ ☑ Cleanup Select the checkbox to execute the external cleanup.
Active mode	Set the thermal profile active mode	**H**	See section 1 on page 194
Profile Setup	Internal Setup		See section 2 on page 194
Profile Cleanup	Internal Cleanup		See section 3 on page 194
OK APPLY Cancel	To save changes and exit To save the changes without closing the screen. To close the screen without saving any changes.	**I**	

10.1.2. **Thermal profile** properties Fig 10-1 (**B**)

1. Click the Properties button [Properties]

   The Profile Properties screen will open.

   In this window there are 2 tabs: General and Advanced.

   General | Advanced

Tab	Description	Details
General	Allows you to define general properties for sequence	See section 2 below

Advanced	handels multiple UUTs case	Refer to paragraph 23 on page 190

2. **Profile Properties – General tab**

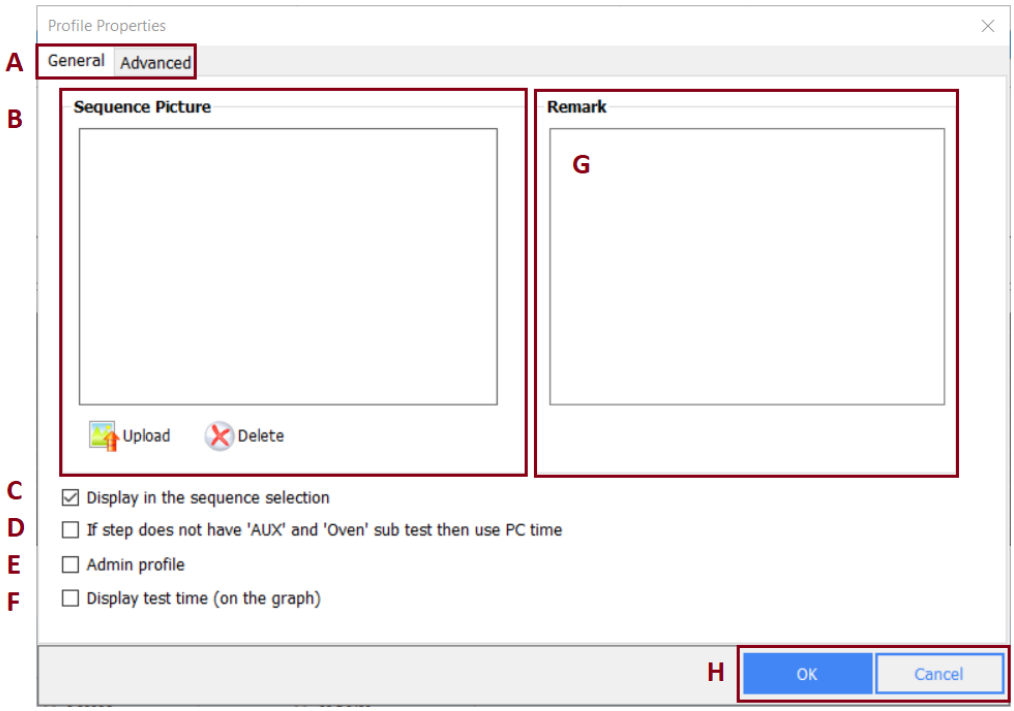
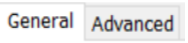
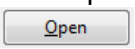


Fig 10-2 **Profile Properties – General tab** screen

Fig 10-2 Description

Profile properties tabs 	**A**	Select a tab (General) to access and configure its settings
Sequence Picture	**B**	Allows you to define profile picture to themal profile. (Applicable, if the thermal profile is a sequence)
		Add sequence picture. To add picture: ▪ Click  button. The **Open** screen will open. ▪ Navigate to the location of the sequence picture file and mark it. Click  button.
		Delete sequence picture. ▪ To delete sequence picture:

		Click Delete
☑ Display in the sequence selection	**C**	Select the checkbox to display the thermal profile in the sequence selection window Fig 9-4 Required for thermal profile execution.
☑ If step does not have 'AUX' and 'Oven' sub test then use PC time	**D**	Select the checkbox to use PC time (in case that no AUX/Oven sub test is assigned to the step)
☑ Admin profile	**E**	Select the checkbox to allow only the admin to update the thermal profile
☑ Display test time (on the graph)	**F**	Select the checkbox to view the actual test time. Displayed on the graph in the thermal profile area Fig 10-1 (**F**)
OK/Cancel	**G**	Click **OK** to save the properties and exit. -Or- **Cancel** to close the screen without saving any changes.

3. **Profile Properties – Advanced tab**

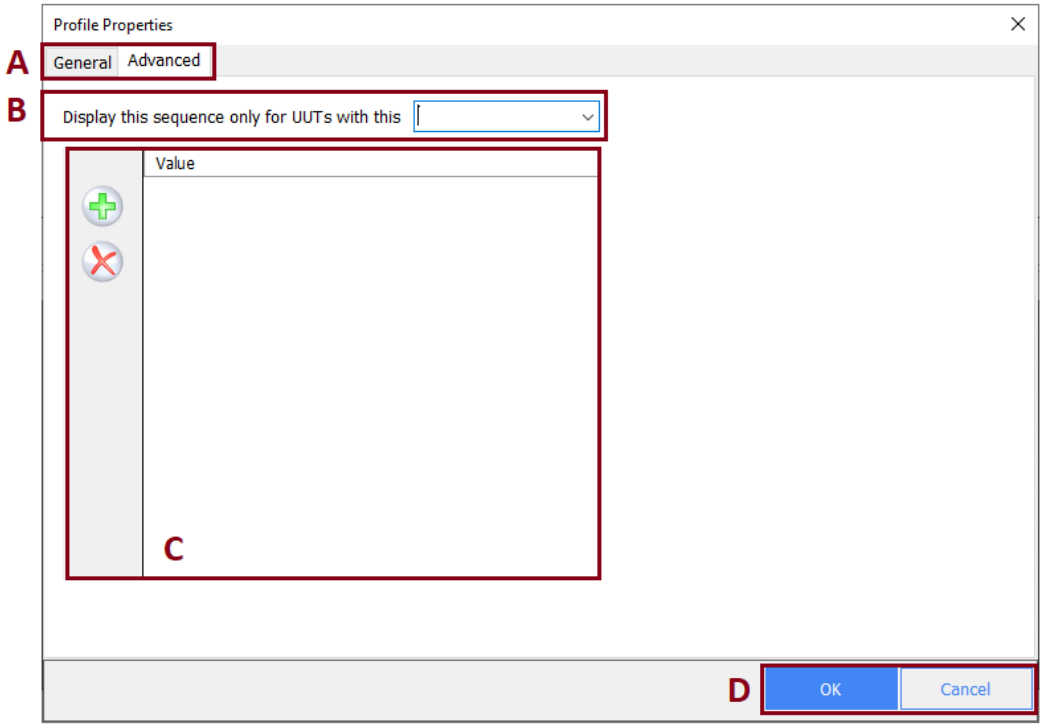
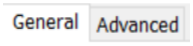


Fig 10-3 **Profile Properties – Advanced tab** screen

	Description	Fig 10-3	Note
Profile properties tabs 	Select a tab (Advanced) to access and configure its settings	**A**	
Display this sequence only for UUTs with this_____	In case of multiple UUTs, allows to display the current sequence only for selected UUTs	**B**	See section 3.1 below
Properties value area		**C**	
OK/Cancel	Click **OK** to save the properties and exit. -Or- **Cancel** to close the screen without saving any changes	**D**	

3.1. Display this sequence only for UUTs with this  - Fig 10-3 (**B**)

1. Select the UUTs by their property.
   - Click the arrow and select property from the displayed list.

2. Insert value

   2.1. Click 

   A new row is added to the properties value area Fig 10-3 (**C**).

   2.2. Enter the property value.

   This value distinct the desired UUT.

   2.3. Click OK to complete the definition.

3. Delete value

   3.1. Mark the property value you want to delete.

   3.2. Click 

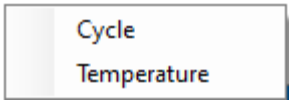
10.1.3. Thermal profile step buttons

1.  New

   Allows you to add a new thermal profile step, temperature or cycle.

1.1. Click 

Sub menu will open:

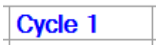


1.2. Select Cycle/Temperature

1.2.1 Cycle step - **Required**.

The thermal cycle (followed by temperature steps collection).

Must be defined first.

- Select Cycle
- The cycle caption  appears under the Thermal profile step area Fig 10-1 (**D**), starts with index 1.

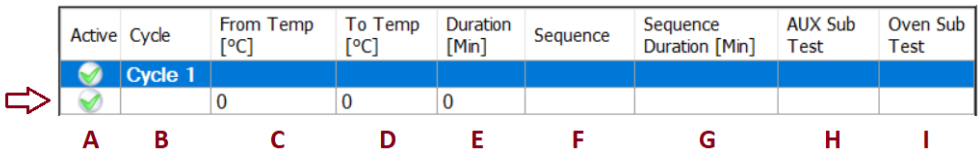
1.2.2 Temperature step

Temperature range, details and actions.

- Select Temperature

A new row is added to the the Thermal profile step area Fig 10-1 (**D**)

- Provide the temperature definitions as follows:



		Description	Note
Active	**A**	Themal step status	To exclude step from the themal profile: Click on the mark  next to the step. The mark changes to  and the step is excluded from the thermal profile.
Cycle	**B**	The temperature cycle	
From Temp [°C]	**C**	The initial temperature	
To Temp [°C]	**D**	The target temperature	
Duration [MIN]	**E**	Estimation of the time to reach the target temperature.	Displayed in the preview section Fig 10-1 (**F**)

Sequence	**F**	Select sequence (to be execute)	Once the target temperature was reached, the selected sequence will be executed.
Sequence Duration [MIN]	**G**	Estimation of the time to execute the sequene.	Displayed in the preview section Fig 10-1 (**F**)
Aux Sub Test	**H**	**Required:** Active mode = 'Aux' Select sub test to execute while waiting.	Aux sub test will be executed first (before the sequence)
Oven Sub Test	**I**	**Required:** Active mode = 'Oven' Select sub test to execute while waiting.	Oven sub test will be executed first (before the sequence)

Set all the thermal profile cycles and temperatures.

2. Delete

   To delete thermal profile step:

   2.1. Select the step you want to delete from Fig 10-1 (**D**).

   2.2. Click the delete button .

3. Copy

   To copy thermal profile steps:

   3.1. Select the step(s) you want to copy from Fig 10-1 (**D**).

   3.2. Click the Copy button .

   3.3. Click the new location.

   3.4. Use the *paste* button to paste the steps to the new location.

4. Paste

   Click the button to paste the copied step(s).

5. Move step up/down

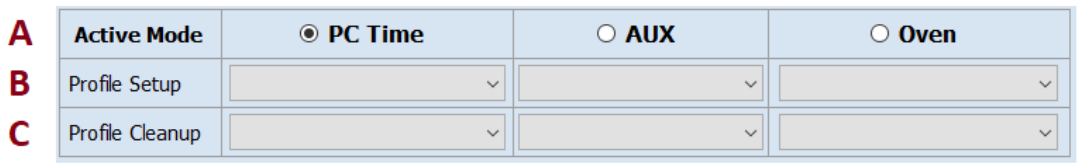
   5.1. Select the step(s) you want to move from Fig 10-1 (**D**).

   5.2. Click to move the step.

   Click to move the step down.

10.1.4. Thermal profile active mode&internal setup/cleanup

You can define internal setup/cleanup for each active mode in the thermal profile.



1. Set the thermal profile active mode (**A**) - required.
   Select one of the following active modes:
   1.1 PC Time - synchronization with the oven clock is performed against the clock of the PC (oven and PC clock are independent).
   1.2 AUX - the oven sets the time for starting the test and communicates with the PC via AUX cable (direct communication with the oven).
   1.3 Oven - the PC sets the profile (no direct communication with the oven).

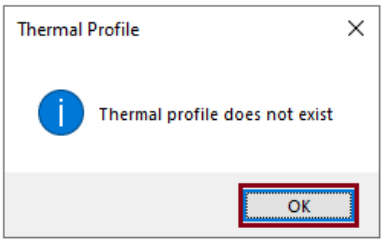
2. Set the thermal profile setup (**B**)
   Set a sub test as a setup
   - Click the cell, in the Profile Setup row, under the selected active mode column.
   - Select the setup sub test from the displayed list.

3. Set the thermal profile cleanup (**C**)
   Select a sub test as a cleanup.
   - Click the cell, in the Profile Cleanup row (**C**), under the selected active mode column.
   - Select the cleanup sub test from the displayed list.

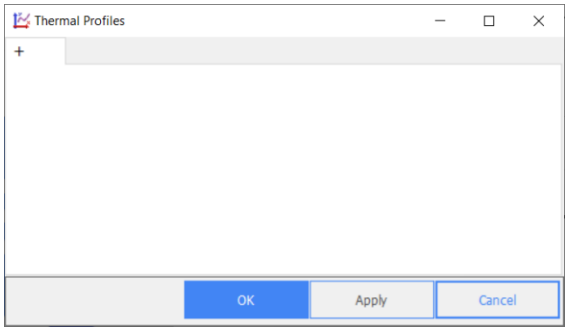
10.2. Create Thermal profile

10.2.1. First thermal profile

1. Navigate to **Main window** > select **UUT** (**Execution** window > **Editors**) Select **Thermal profiles Editor**.
2. The Thermal profile screen will open and displaying the following message:

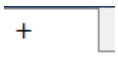


3. Click **OK.**
4. The Thermal Profile screen loaded empty.



Proceed to the following paragraph for instructions on adding a new thermal profile.

10.2.2. Add thermal profile

1. Navigate to **Main window** > select **UUT** (**Execution** window > **Editors**) Select **Thermal profiles Editor**.
2. Click the "+" tab 
3. The Thermal Profile screen will open Fig 10-1.
4. Complete the **Thermal Profile** screen with the following information:
   - 7.1. Enter the Thermal Profile name Fig 10-1 (**A**) - required**.**
   - 7.2. Provide the required details for thermal profile steps, cycles, and temperature as shown in Fig 10-1 (**C/D**).
     Cycles – as described in para 1.2.1 (on page 192)
     Temperature - as described in para 1.2.2 (on page 192)
   - 7.3. Set thermal profile active mode Fig 10-1 (**H**) – required.
     PC Time is the default.
   - 7.4. All other fields are optional:

7.4.1. Thermal profile properties Fig 10-1 (**B**) - section 10.1.2 on page 188

- To display the thermal profile in the Sequence Selection window - select the checkbox 'Display in the sequence selection' - Fig 10-2 (**C**)

7.4.2. Thermal profile setup and cleanup - optional:

1. External setup and cleanup - Fig 10-1 (**G**).
2. Internal setup and cleanup Fig 10-1 (**H**) - refer to section 2/3 on page 194.

7.4.3. The thermal profile grafic display Fig 10-1 (**F**)

The Thermal Profile screen will open Fig 10-1.

5. To Finish the thermal profile definition Fig 10-1 (**I**):
   - Click on the **APPLY** button to save changes without closing this screen.
   - Click on the **OK** button to save changes and exit.
   - Click on the **CANCEL** button to close this screen without saving any changes.

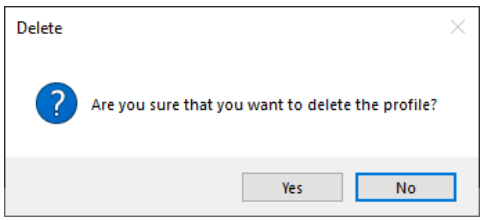
10.3. Delete Thermal profile

1. Open **Thermal profiles Editor**:
   Navigate to **Main window** > select **UUT** (**Execution** window > **Editors**) Select **Thermal profiles Editor**.
   The **Thermal profiles Editor** window will open.

2. On the upper menu of the Thermal Profile:
   2.1. Set the cursor's position on the profile tab ("Profile 2" in the example below)
   2.2. Right click the mouse.

   2.3. Click the 'Delete Profile' from the displayed menu.

3. Delete confirmation dialog is displayed.



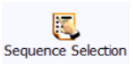
Button	Description
Yes	To confirm that you want to permanently delete the profile
No	To abort the delete profile process

10.4. Edit Thermal profile

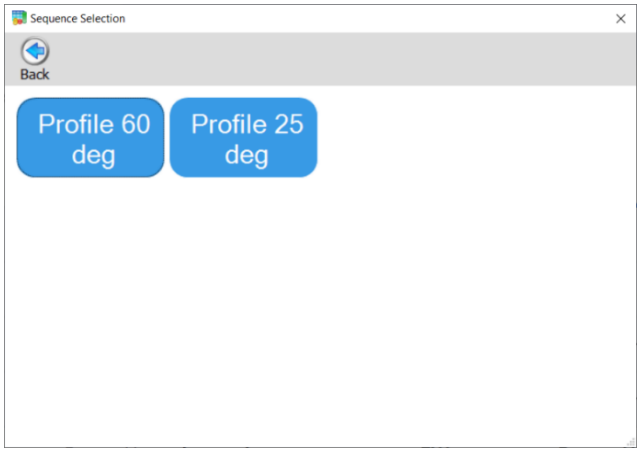
1. Open **Thermal profiles Editor**:
   Navigate to **Main window** > select **UUT** (the **Execution** window will open) Select **Thermal profiles Editor**.
2. Select the thermal profile you want to edit by double clicking its tab Fig 10-1 (**A**).
3. The Thermal profile editor window will open, displaying the profile definitons. Make the desired changes.
4. Click **OK** to apply the modifications or Cancel to discard them.

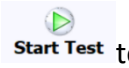
10.5. Thermal profile execution

You can execute thermal profile only if the checkbox 'Display in the sequence selection' - Fig 10-2 (**C**) is selected in its definition.

1. Go to **Main window** > select **UUT** (the **Execution** window will open).
2. Select the Sequence selection button 

   The Sequence Selection window will open, displaying the defined sequences and thermal profiles.
   For example:



3. Select thermal profile by clicking its button.
4. The selected thermal profile is displayed in the execution screen.
5. Click 

to start the execution.

11 Reports

After you have run the execution and viewed the results, you can generate a report.

The report is generated in PDF format.

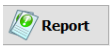
The report types: standart (the default), compact, advanced, summary, failure and go/no go report.

11.1. Current execution report

There are two ways to generate current execution report.

After the UUT's execution:

1. The Execution Result window will open Fig 6-7.

   Click the 

button to generate a report for the current execution**.**

2. From the Execution window Fig 6-1, click **Report**.

   The report will be generated.

You can generate this report as long as no other execution have taken place and you didn't leave the Test execution window.

11.2. Execution report archive

To generate a reports from historical executions:

1. Open the Archive window Fig 11-1:
   - **Main window** > Archive
   - **Main window** > Select **UUT** > (Execution screen) → Click the **Archive** button, from the upper menu.
2. Find the execution using the search filter(s) (refer to paragraph 11.3.3 on page 201) and click the Search button Fig 11-1 (**G**).
3. Under the result area Fig 11-1 (**H**), Select the execution row and click the 

button Fig 11-1 (**A**).

   The report of selected execution is displayed.

11.3. Archive window

Archive enables you to manage the UUT's execution report history.

The archive allows you to create, update, and view your report preferences for the selected execution.

11.3.1. Archive window - view

To access the Archive window, navigate to:

- **Main window** > click Archive 

-Or-

- **Main window** > Select **UUT** > (Execution screen) → Click the **Archive** button, from the upper menu.

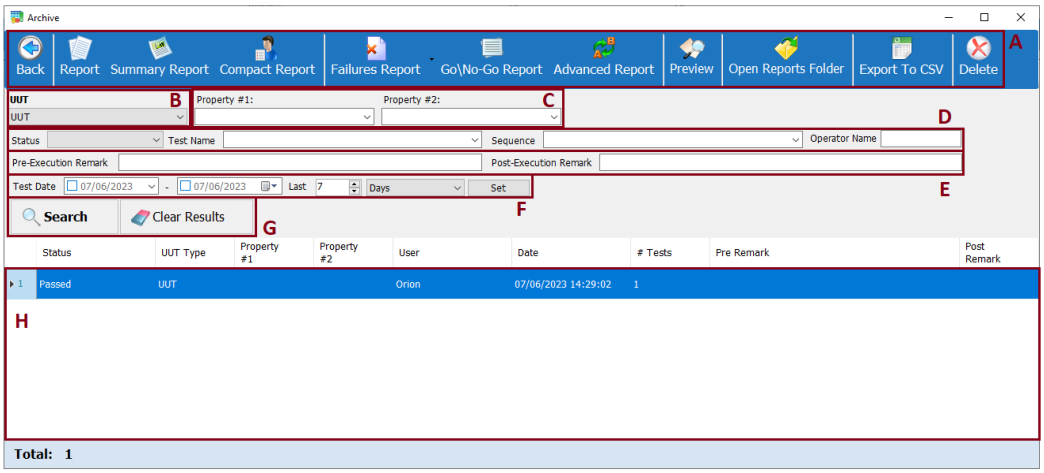
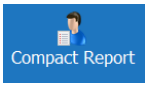
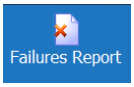
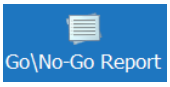
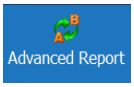
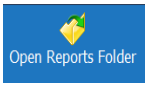
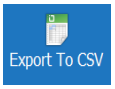


Fig 11-1 **Archive** window

	Description
A	Toolbar
B	UUT list
C	Properties filter
D	Search filters
E	Remark filters
F	Time filters
G	Archive display buttons
H	Results area

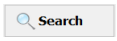
11.3.2. Upper Toolbar Fig 11-1 (**A**)

Button	Function	Description
	Back	Click this button to return to the previous window
	Report	To generate a report from the archive.
	Summary Report	To open the report's summary from the source report
	Compact Report	To open the compact version of the report
	Failures Report	To generate a report that includes only steps that failed.
	Go/No-Go Report	To generate a report that includes only step status pass/fail
	Advanced Report	To merge execution result of the same UUT
	Preview	To view the selected execution results
	Open Report Folder	To open the storage location of the selected execution report
	Export to CSV	To export the execution list to CSV file
	Delete	To delete a selected execution from the result area

11.3.3. Perform archive search

If you wish to searh the archive:

- Select UUT – paragraph 1
- Add filters (optional) – paragraph 2

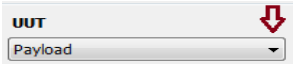
- Select **Search** button –  - paragraph 4

1. Select UUT

   Select the UUT you wish to manage its archive.

- UUT is required.
- The first UUT from the UUT list is displayed Fig 11-1 (**B**)

1.1. Click the arrow to display the list of UUTs.



A list of UUTs appears.

1.2. Select UUT from the list.

1.3. You can set search filters (see below).

-Or-

Click the Search button to retrieve UUT's results.

To help you find exactly what you need, you can sort and filter your search results.

2. Additional option - Search filters

You can use the following search filters to narrow down your search results.

You can use one or multiple combination filters.

Filter	Description	Fig 11-1
Properties	If applicable – displays only pre-defined properties To set properties filter: ▪ Click the arrow ▼ to display the list of the selected property values and choose a specific value by clicking it. -Or- Insert the value by typing	**C**
Status	Filters by execution status. ▪ Click the arrow ▼ to display the status list: passed, failed, aborted, error. ▪ Select status from the list.	**D**
Test name	Filters by test name ▪ Click the arrow ▼ to display the tests of the selected UUT. ▪ Select test from the list	**D**
Sequence	Filters by sequence name ▪ Click the arrow ▼ to display the sequences of the Selected UUT. ▪ Select sequence from the list	**D**

Operator Name	Filters by operator name ▪ Insert the value by typing	**D**
Pre-Execution Remark	Filters by remark that was written before the execution. ▪ Insert the value by typing	**E**
Post-Execution Remark	Filters by remark that was written after the execution. ▪ Insert the value by typing	**E**
Test Date	To view executions between a start date and end date.	**F**

You have two options to set the date filter:

1. Enter the dates

   Double click the day/month/year and type

   -Or-

   Click the calendar icon to open the calendar and select a date.

2. Enter time period

   Set a date that is n (**C**) days/weeks/month/years (**D**) from current date.

   2.1. Enter a number (**C**)

   2.2. Select a unit of time (**D**):

   - Click the arrow to display the time unit list.

     Days
     Weeks
     Months
     Years

   - Select from the list

   2.3. Click the **Set** button (**E**) to complete the settings.

   The compliance dates are displayed in **A** + **B**

3. To disable filter:

   Clear the filter's rubric.

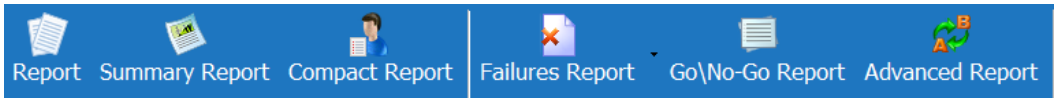
4. Select the **Search** button (**G**) - Search - to search the archive.

   When the search is complete, applicants who match your search filters are displayed in the Result area Fig 11-1 **(H)**.

   The results will be displayed in the Result area.

5. Select **Clear Reasults** button (**G**) - Clear Results - to clear the search results and start over.

11.3.4. Generate Reports



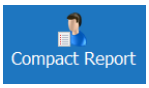
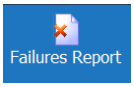
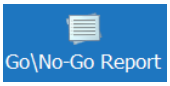
You can view an archived execution and generate differnt types of reports.

4.1. **Archive** window, once your search results are displayed:

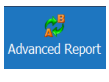
Hover over the executions (Fig 11-1 - **H**) and select execution.

For advanced report refer to para 4.3 below

4.2. From the upper menu (**A**), click on one of the following report's type.

Button	Report type	Description
	Report	To generate a standard report from the archive. The default.
	Summary Report	To generate a report, that summarizes the status of the execution's tests.
	Compact Report	To generate a compact report from the archive. To save result in compact report: Navigate to Test editor Fig 7-2 → outputs tab (**J**) and select the checkbox 
	Failures Report	To generate a failed steps report, steps with status failed/error.
	Go/No-Go Report	To generate a report that includes only step status pass/fail

The OTM will generate a report, of the selected execution, in PDF format.

4.3. Generate an **Advaced Report** 

To merge execution result to merge execution results into a single report. All the executions must be of the same UUT, with the same serial number and part number.

From the **Archive** window, once your search results are displayed:

1. Hover over the executions (Fig 11-1 - **H**) and select the executions to be merged into the advanced report. Press and hold Ctrl to select more than one execution.

2. From the upper menu (**A**), click on **Advaced Report** 

button.
The **Report Wizard – Test Selection** window will open.

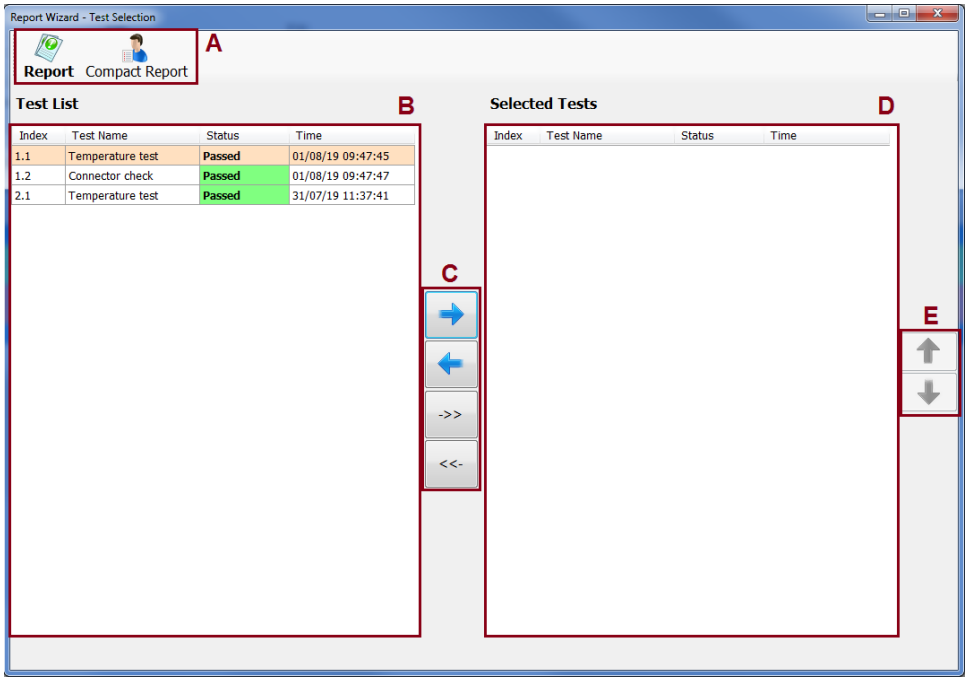


Fig 11-2 **Report Wizard – Test Selection** window

Fig 11-2	Description	Details
A	Report type	To define advanced report type
B	Test list area	The selected executions tests.
C	Use the arrow keys to transfer tests into the advanced report tests area.	Adds the selected test from B→D. Removes the selected test from D. Adds all the tests to D. Removes all the tests from D.
D	The selected tests area	The advanced report tests
E	Use the up and down arrows keys to modify the tests order.	Select a test and click the button: ▪ to move the test up ▪ to move the test down

The selected executions tests are displayed in Test list area (Fig 11-2→ **B**).

3. Select the tests to add to the advanced report.

Each test has an index number with the template X.Y:
X - the execution number.
Y - the test number (test ID)
For example: index 1.2 - execution #1 test #2.

To select an advanced report tests use the arrows Fig 11-2→ **C** (details in the table above).

The selected tests are displayed in area (Fig 11-2→D).

You can arrange the order of the tests using the up and down arrows (Fig 11-2→E).

4. Click

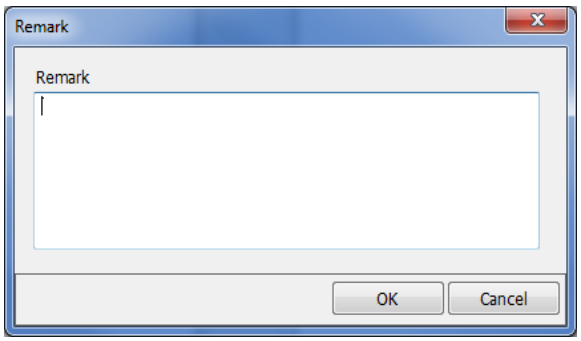
Button	Description
Report	To generate an advanced report in standard format
Compact Report	To generate an advanced report in compat format

The **Remark** dialog box will open.

5. Add remark

Optionally, enter remark.

The remark will be displayed in the advanced report, under the title Post-Execution Remark.



Click **OK** to generate the advanced report.

Click **Cancel** to return to the previous window.

The OTM will generate the chosen version of the report in PDF format.

11.3.5. Preview 

Select preview to view the selected execution results.

Preview procedure:

Once your search results are displayed (as described in para 11.3.3 on page 201).

1. From the Result area Fig 11-1 **(H)**, select the execution you wish view.
2. Click the **Preview** button - 

.

The **Test Result** window will open, displaying the execution results.

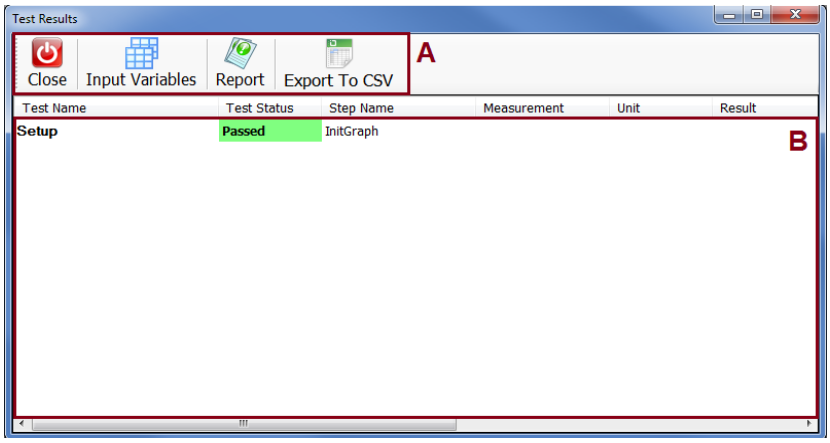
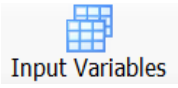


Fig 11-3 **Test Result** window

Alternatively, you can preview execution results by double-clicking the selected test (under the result area Fig 11-1 – H).

	Description	Fig 11-3	Note
 Close	To return to the **Archive** window	**A**	
 Input Variables	Allows to preview selected test input variables	**A**	2.1 below**2.3 below**
 Report	Generates a standard report from the archive	**A**	2.2 below

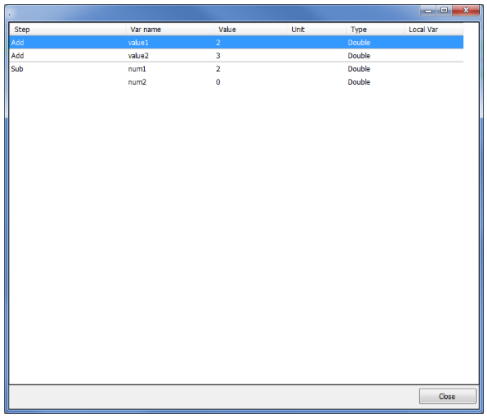
Export To CSV	To export the execution result to csv file	**A**	2.3 below
Result area	Displays the chosen execution results	**B**	

2.1. View test's input variables

1. Under Result area Fig 11-3 (**B**), select test.
2. Click the **Input variables** button - Input Variables

A pop-up window appears displaying the test's input variables.

For example:



3. Click **Close.**

2.2. Generate report

- Cilck Report

The OTM will generate a report, of the selected execution, in PDF format.

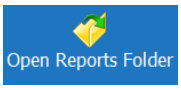
2.3. Export to CSV file

1. Click Export To CSV

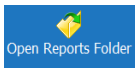
   The **Save As** window will open.
2. Navigate to the location of the folder where you want the OTM to store the CSV file, and then type the CSV file name.
3. Click

Button	Description
Save	To create the execution results CSV file and exit
Cancel	To return to the **Test result** window and close the **Save As** window without saving any changes.

3. Click  to exit the **Test Result** window and return to the **Archive** window.

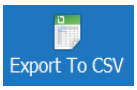
11.3.6. Open Reports Folder 

Allows you to easily access the reports storage location.

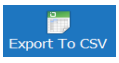
- Click 

  An Explorer window appears displaying the report's storage folder.

- To define the report's storage location follow paragraph 4.2->1 in page 136.

11.3.7. Export to CSV 

Allows you to export the archive search results to CSV file.

1. Click 

   The **Save As** window will open.
2. Navigate to the location of the folder where you want the OTM to store the CSV file, and then type the CSV file name.
3. Click

Button	Description
Save	To create the archive search CSV file and exit
Cancel	To Close the **Save As** window and return to the **Archive** window.

11.4. Report structure

11.4.1. Report's first page

The report's first page gives you the general info.

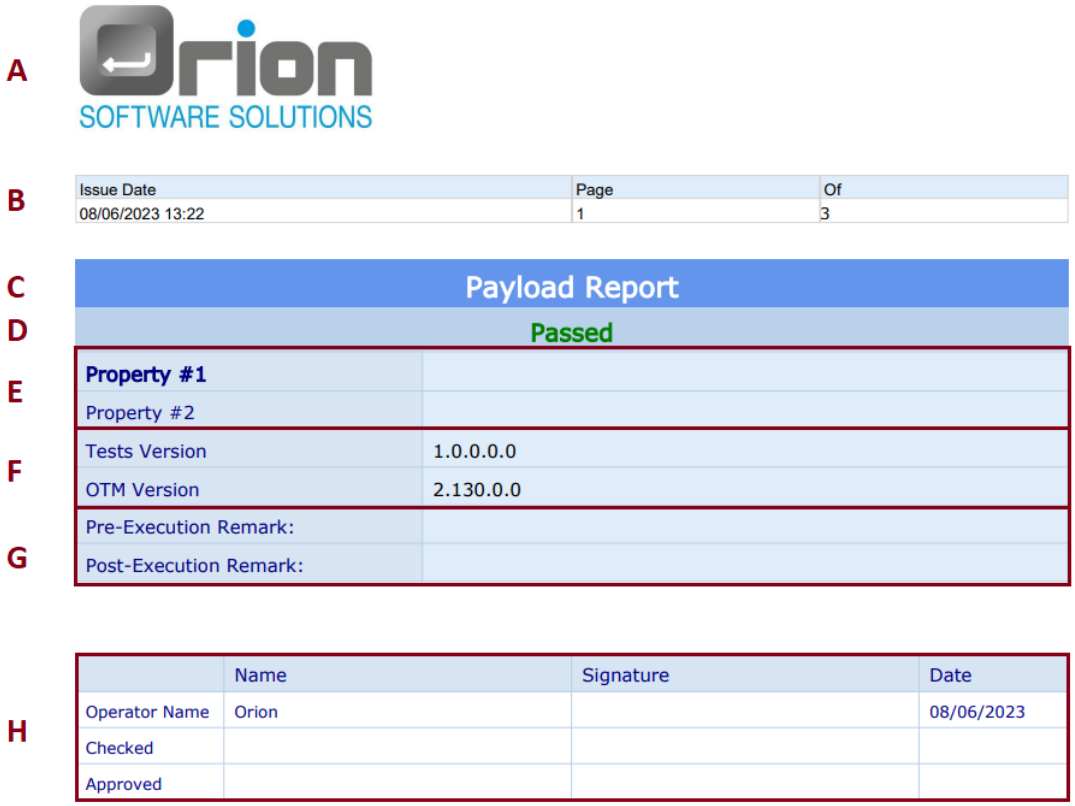
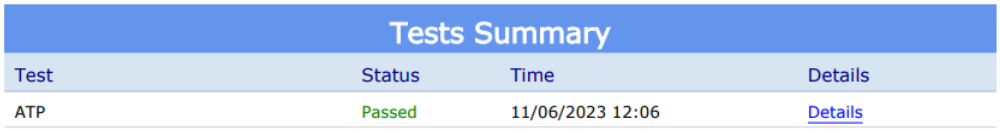


Figure 11.4: Report - first page example

Fig 11-4	Description	
A	The report's logo	To add a logo: refer to paragraph 4.2.3 on page 37.
B	The report's header	For more details, refer to paragraph 4.2.4 on page 38 Issue Date - the date and time of the execution.
C	The report's caption	The UUT's name
D	The execution status	
E	UUT's properties (if applicable)	
F	Tests Version	the UUT's Version
	OTM Version	The installed OTM version
G	Pre execution remark	A comment that is added before the execution starts.

	Post execution remark (if applicable)	Final remark
H	Approval list	▪ Operator name ▪ Checked ▪ Approved

11.4.2. Tests summary



Tests Summary			
Test	Status	Time	Details
ATP	Passed	11/06/2023 12:06	Details

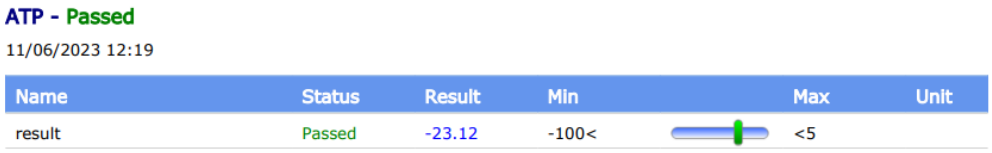
Figure 11.5: Report – tests summary example

The execution summary table that displays for each test that was executed:

- Test name
- Status – the test's execution status result.
- Time – date and time of the test execution finished.
- Details – reference to the detailed execution test result.

  Click on "Details" to jump directly to the test.

11.4.3. Test result



ATP - Passed

11/06/2023 12:19

Name	Status	Result	Min		Max	Unit
result	Passed	-23.12	-100<		<5	

Figure 11.6: Report – test result example

The result format of the test execution:

- Name - the step caption .
- Status – the step's execution status.
- Min – the minimum value limitation – if defined in the criteria.
- Result – the actual execution result.
- Max – the maximum value limitation– if defined in the criteria.
- Unit – the unit type – if defined.
- Bar – a bar display of the result, only if the minimum and the maximum limitation were defined as a criteria.

12 DLL Prototype

In the OTM, you can utilize functions stored in a .NET DLL using the following format:

The return value can be any primitive type or a class of primitive types.

Input parameters can be of any primitive type or a class of primitive types.

Output parameters can be any primitive type or a class of primitive types.

The OTM takes care of handling exceptions in this process.

Example:

```
/// <summary>
///  Calculates the sum of the specified numbers
/// </summary>
/// <param name="value1">The first number in the addition operation</param>
/// <param name="value2">The second number in the addition operation</param>
/// <param name="result">Result of Value1+Value2</param>
public void Add(double value1, double value2, out double result)
{
    result = value1 + value2;
    return 0;
}
```