System Test Report

(Systemtestbericht)

(TINF19C, SWE I Praxisprojekt 2020/2021)

Project: Modelling Wizard

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Version	Date	Author	Comment
0.1	22.10.2020	Jakob Schmidt	Created
0.2	21.04.2021	Jakob Schmidt	First draft
1.1	24.04.2021	Jakob Schmidt	Added more tests
1.2	28.04.2021	Jakob Schmidt	Added delete tests
1.3	08.05.2021	Jakob Schmidt	Final Version

Content

1 Scope

The STR (System Test Report) is a document derived from the STP (System Test Plan) [1]. It contains the tests specified in the STP and documents the actual results of testing.

2 Definitions

AML AutomationML
TS Testsuite
TC Testcase

3 Test Objects

The following test objects must be verified.

Ref.-Id.	Product Number	Product Name	Product Description
1	Version 2.0	Modelling Wizard	Plugin for AutomationML to create devices

4 Test Equipment

The following equipment must be available for testing:

- A computer with Windows 7 or higher
- Installed AutomationML Editor (Downloadlink)
- Installed Modelling Wizard software

The “Test Data” folder from the git repository [2]

5 References

[1] „STP,“ [Online]. Available: https://github.com/DekaAthlos/TINF19C-ModellingWizard/wiki/4.-Systemtestplan.

[2] „Test Data,“ [Online]. Available: https://github.com/DekaAthlos/TINF19C-ModellingWizard/tree/master/PROJECT/Test%20Data.

[3] „BUG130: saving clears added "Role Class Libraries",“ [Online]. Available: https://github.com/DekaAthlos/TINF19C-ModellingWizard/issues/46.

6 Testcases

6.1 Test suite <TS-001 Basic functionality>

6.1.1 Testcase <TC-001-001> (Create device)

Testcase ID	**TC-001-001**		
Testcase Name	Create device		
Req.-ID.	LF10		
Description	This testcase verifies that a device can be created and saved.		
Test Steps			
Step	Action	Expected Result	Actual Result
1	Select the “File” dropdown and click on “new”.	A new empty Modelling Wizard window opens.	A new empty Modelling Wizard window opens.
2	Fill “Vendors Name” and “Device Name” in the top navbar, with data from TD-001-001.	Data is entered and automatically filled into the attributes below	Data is entered and automatically filled into the attributes below
	Fill the red marked entries in the “Attributes” table at the bottom of the screen with data from TD-001-001.	Data is entered.	Data is entered.
	Click on a free spot on the GUI	The current selected field in the table gets deselected (and the value is saved)	The current selected field in the table gets deselected
	Select the “File” dropdown and click on “save”.	A dropdown of the explorer opens, and the name of the file can be chosen.	A dropdown of the explorer opens, and the name is prefilled.
	Enter a name and click “save”.	A popup opens and informs about the correct creation and the path of the file.	A popup opens and informs about the correct creation and the path of the file.
	Confirm the message.	The popup closes.	The popup closes.

	Open the file in AutomationML and verify that all data is saved.	The file gets opened and under Attributes all data can be found.	The file gets opened and under Attributes all data can be found.
Tester	Jakob Schmidt		
Date	28.04.2021		
Testcase Result	Test data 1	Pass	
	Test data 2	Pass	
	Test data 3	Pass	
	Test data 4	Pass	
	Test data 5	Pass	

6.1.2 Testcase <TC-001-002> (Open device, save changes)

Testcase ID	**TC-001-002**
Testcase Name	Open device, save changes
Req.-ID.	LF10
Description	This testcase verifies that a device can be loaded with its data, that the data can be changed and that it can be saved again.

Test Steps

Step	Action	Expected Result	Actual Result
1	Select the “File” dropdown and click on “open”.	The explorer opens, and the file can be chosen.	The explorer opens, and the file can be chosen.
	Choose the test file from TD-001-002 and click “open”	“Vendor Name” and “Device Name” gets filled. The Name of the file will be displayed in the top right corner. All generic data, interfaces and attachments will be accessible over their tabs. (If the Modelling Wizard cannot read the file an error message will be shown, and no file will be opened.)	“Vendor Name” and “Device Name” are filled. The Name of the file is displayed in the top right corner. The tabs are accessible.
	Fill the red marked entries with data from TD-001-002.	Data is overwritten.	Data is overwritten.
	Click on a free spot on the GUI	The current selected field in the table gets deselected (and the value is saved)	The current selected field in the table gets deselected
	Select the “File” dropdown and click on “save”.	A dropdown of the explorer opens, and the name of the file can be chosen.	A dropdown opens and the name is prefilled.
	Enter a name and click “save”.	A popup opens and informs about the correct creation and the path of the file.	A popup opens and informs about the correct creation and the path of the file.

		If the name already the explorer will ask for confirmation of the saving.	If the name already the explorer will ask for confirmation of the saving.
	Confirm the message.	The popup closes.	The popup closes.
	Open the file in AutomationML and verify that all data is saved.	The file gets opened and under Attributes all data can be found.	The file gets opened and under Attributes all data can be found.

Tester	Jakob Schmidt	
Date	28.04.2021	
Testcase Result	Test data 1	Pass
	Test data 2	Pass
	Test data 3	Pass
	Test data 3	Pass

6.1.3 Testcase <TC-001-003> (Load standard libraries)

Testcase ID	**TC-001-003**
Testcase Name	Load standard libraries
Req.-ID.	LF10
Description	This testcase verifies that the standard libraries can be loaded into the Modelling Wizard.

Test Steps

Step	Action	Expected Result
1	Select the “Standard Libraries” dropdown in the top navbar.	A dropdown of the libraries opens, and one can be chosen.
	Choose one library that is not already loaded.	The library will be loaded and can be found on the right sight under “Role Class Library” or “Interface Class Library”

Tester	Jakob Schmidt
Date	28.04.2021
Testcase Result	Pass

6.2 Test suite <TS-002 Generic data>

6.2.1 Testcase <TC-002-001> (Create device with attributes)

Testcase ID	**TC-002-001**
Testcase Name	Create device with attributes
Req.-ID.	LF20
Description	This testcase verifies that a device with data in the attributes and the header of “Generic Data” can be created and saved.

Test Steps			
Step	Action	Expected Result	Actual Result
1	Select the “File” dropdown and click on “new”.	A new empty Modelling Wizard window opens.	A new empty Modelling Wizard window opens.
2	Fill “Vendors Name” and “Device Name” in the top navbar, with data from TD-002-001.	Data is entered.	Data is entered.
	Fill the entries with data from TD-002-001	Data is entered.	Data is entered.
	Click on “Header” besides “Attributes”	The “Header” table opens	The “Header” table opens
	Fill the entries with data from TD-002-001	Data is entered	Data is entered
	Click on a free spot on the GUI	The current selected field in the table gets deselected (and the value is saved)	The current selected field in the table gets deselected
	Select the “File” dropdown and click on “save”.	A dropdown of the explorer opens, and the name of the file can be chosen.	A dropdown of the explorer opens, and the name is prefilled.
	Enter a name and click “save”.	A popup opens and informs about the correct creation and the path of the file. If the name already the explorer will ask for confirmation of the saving.	A popup opens and informs about the correct creation and the path of the file.
	Confirm the message.	The popup closes.	The popup closes.

	Open the file in AutomationML and verify that all data is saved.	The file gets opened and under Attributes all data can be found.	The file opens and under Attributes all data can be found.
Tester	Jakob Schmidt		
Date	28.04.2021		
Testcase Result	Test data 1	Pass	
	Test data 2	Pass	

6.2.2 Testcase <TC-002-002> (Create device with role classes)

Testcase ID	TC-002-002
Testcase Name	Create device with role classes
Req.-ID.	LF20
Description	This testcase verifies that a device with loaded classes from “Role Class Library” can be created and saved.

Test Steps

Step	Action	Expected Result	Actual Result
1	Select the “File” dropdown and click on “new”.	A new empty Modelling Wizard window opens.	A new empty Modelling Wizard window opens.
2	Fill “Vendors Name” and “Device Name” in the top navbar, with data from TD-002-002.	Data is entered.	Data is entered.
	Fill the red marked entries in the “Attributes” table at the bottom of the screen with data from TD-002-002.	Data is entered.	Data is entered.
	Click on the library “Library Name” (Data from TD-002-001) on the right side under “Role Class Library”	The entry gets highlighted.	The entry gets highlighted.
	Drag and drop the library onto the “Generic Information” table.	The library gets added at the last position.	The library gets added at the last position.
	Click on the library in the “Generic Information” table.	The entry gets highlighted. A label with the entry name appears underneath the table.	The entry gets highlighted. A label with the entry name appears underneath the table.
	Click on the new label.	The label gets highlighted.	The label gets highlighted.
	Double click on the label.	Underneath the label the “Attributes” table opens. If the class consists of sub classes, these are displayed as indented labels.	Underneath the label the “Attributes” table opens. If the class consists of sub classes, these are displayed as indented labels.

	Fill the entries with data from TD-002-002	Data is entered.	Data is entered.
	Click on the label of the subclass.	The label gets highlighted.	The label gets highlighted.
	Double click on the subclass.	Underneath the label the “Attributes” table for the specific subclass opens.	Underneath the label the “Attributes” table for the specific subclass opens.
	Fill the entries with data from TD-002-002	Data is entered	Data is entered
	Click on a free spot on the GUI	The current selected field in the table gets deselected (and the value is saved)	The current selected field in the table gets deselected.
	Select the “File” dropdown and click on “save”.	A dropdown of the explorer opens, and the name of the file can be chosen.	A dropdown of the explorer opens, and the name is prefilled.
	Enter a name and click “save”.	A popup opens and informs about the correct creation and the path of the file. If the name already the explorer will ask for confirmation of the saving.	A popup opens and informs about the correct creation and the path of the file.
	Confirm the message.	The popup closes.	The popup closes.
	Open the file in AutomationML and verify that all data is saved.	The file gets opened and under Attributes all data can be found.	The file gets opened and under Attributes all data can be found.

Tester	Jakob Schmidt	
Date	28.04.2021	
Testcase Result	Test data 1	Fail [3]
	Test data 2	Fail [3]

6.2.3 Testcase <TC-002-003> (Open device, delete data)

Testcase ID	**TC-002-003**
Testcase Name	Open device, delete data
Req.-ID.	LF20
Description	This testcase verifies that attributes and “Role Class Libraires” can be deleted from a device.

Test Steps

Step	Action	Expected Result	Actual Result
1	Select the “File” dropdown and click on “open”.	The explorer opens, and the file can be chosen.	The explorer opens, and the file can be chosen.
	Choose the test file from TD-002-003 and click “open”	“Vendor Name” and “Device Name” gets filled. The Name of the file will be displayed in the top right corner. All generic data, interfaces and attachments will be accessible over their tabs.	“Vendor Name” and “Device Name” gets filled. The Name of the is displayed in the top right corner. All tabs are accessible.
	Clear the attributes listed in “Delete Attributes” (Data from TD-002-003)	Data is overwritten.	Data is overwritten.
	Repeat the following two step one time for each entry listed in “Delete Library” (Data from TD-002-003)		The two steps are repeated once for every entry
	Select the library in the “Generic Information” table, which is listed in “Delete Library” (Data from TD-002-003)	The library gets selected in the “Generic Information” table	The library gets selected in the “Generic Information” table
	Press the “Delete” button in the top right corner of the table.	The library gets deleted	The library gets deleted
	Select the “File” dropdown and click on “save”.	A dropdown of the explorer opens, and the name of the file can be chosen.	A dropdown of the explorer opens, and the name of the file can be chosen.
	Enter a name and click “save”.	A popup opens and informs about the correct	A popup opens and informs about the correct

		creation and the path of the file. If the name already the explorer will ask for confirmation of the saving.	creation and the path of the file. If the name already the explorer will ask for confirmation of the saving.
	Confirm the message.	The popup closes.	The popup closes.
	Open the file in AutomationML and verify that all data is saved.	The file gets opened and under Attributes all data can be found.	The file gets opened and under Attributes all data can be found.

Tester	Jakob Schmidt	
Date	28.04.2021	
Testcase Result	Test data 1	Pass
	Test data 2	Fail [3]

6.3 Test suite <TS-003 Interfaces>

6.3.1 Testcase <TC-003-001> (Create device with interfaces)

Testcase ID	**TC-003-001**
Testcase Name	Create device with interfaces
Req.-ID.	LF30
Description	This testcase verifies that a device with additional interfaces can be created and saved.

Test Steps

Step	Action	Expected Result	Actual Result
1	Select the “File” dropdown and click on “new”.	A new empty Modelling Wizard window opens.	A new empty Modelling Wizard window opens.
2	Fill “Vendors Name” and “Device Name” in the top navbar, with data from TD-003-001.	Data is entered.	Data is entered.
	Fill the red marked entries in the “Attributes” table at the bottom of the screen with data from TD-003-001.	Data is entered.	Data is entered.
	Click on the “Interfaces” tab below the top navbar.	The interface view opens.	The interface view opens.
	Click on the interface “Interface Name” (Data from TD-003-001) on the right side under “Interface Class Library”	The entry gets highlighted.	The entry gets highlighted.
	Drag and drop the interface onto the “Interfaces” table.	The interface gets added at the last position.	The interface gets added at the last position.
	Click on the interface in the “Interfaces” table.	The entry gets highlighted. A label with the entry name appears underneath the table.	The entry gets highlighted. A label with the entry name appears underneath the table.
	Click on the new label.	The label gets highlighted.	The label gets highlighted.
	Double click on the label.	Underneath the label the “Attributes” table opens.	Underneath the label the “Attributes” table opens.

	Fill the entries with data from TD-003-001.	Data is entered.	Data is entered.
	Select the “File” dropdown and click on “save”.	A dropdown of the explorer opens, and the name of the file can be chosen.	A dropdown of the explorer opens, and the name is prefilled.
	Enter a name and click “save”.	A popup opens and informs about the correct creation and the path of the file. If the name already the explorer will ask for confirmation of the saving.	A popup opens and informs about the correct creation and the path of the file.
	Confirm the message.	The popup closes.	The popup closes.
	Open the file in AutomationML and verify that all data is saved.	The file gets opened and under Attributes all data can be found.	The file gets opened and under Attributes all data can be found.

Tester	Jakob Schmidt	
Date	28.04.2021	
Testcase Result	Test data 1	Pass
	Test data 2	Pass
	Test data 3	Pass

6.3.2 Testcase <TC-003-002> (Open device, delete interfaces)

Testcase ID	**TC-003-002**
Testcase Name	Open device, delete interfaces
Req.-ID.	LF30
Description	This testcase verifies that interfaces can be deleted from a device.

Test Steps

Step	Action	Expected Result	Actual Result
1	Select the “File” dropdown and click on “open”.	The explorer opens, and the file can be chosen.	The explorer opens, and the file can be chosen.
	Choose the test file from TD-003-002 and click “open”	“Vendor Name” and “Device Name” gets filled. The Name of the file will be displayed in the top right corner. All generic data, interfaces and attachments will be accessible over their tabs.	“Vendor Name” and “Device Name” gets filled. The Name of the file will be displayed in the top right corner. All tabs are accesible
	Click on the “Interfaces” tab below the top navbar.	The Interfaces view opens.	The Interfaces view opens.
	Repeat the following two step one time for each entry listed in “Delete Interface” (Data from TD-003-002)		The two steps are repeated once for every entry
	Select the interface in the “Interfaces” table, which is listed in “Delete Interface” (Data from TD-003-002)	The interface gets selected in the “Interfaces” table	The interface gets selected in the “Interfaces” table
	Press the “Delete” button in the top right corner of the table.	The interface gets deleted	The interface gets deleted
	Select the “File” dropdown and click on “save”.	A dropdown of the explorer opens, and the name of the file can be chosen.	A dropdown of the explorer opens, and the name is prefilled
	Enter a name and click “save”.	A popup opens and informs about the correct creation and the path of the file.	A popup opens and informs about the correct creation and the path of the file.

		If the name already the explorer will ask for confirmation of the saving.	
	Confirm the message.	The popup closes.	The popup closes.
	Open the file in AutomationML and verify that all data is saved.	The file gets opened and under Attributes all data can be found.	The file gets opened and under Attributes all data can be found.

Tester	Jakob Schmidt
Date	28.04.2021
Testcase Result	Pass

6.4 Test suite <TS-004 Attachments>

6.4.1 Testcase <TC-004-001> (Create device with attachments)

Testcase ID	**TC-004-001**
Testcase Name	Create device with attachments
Req.-ID.	LF40
Description	This testcase verifies that a device with attachments can be created and saved.

Test Steps			
Step	Action	Expected Result	Actual Result
1	Select the “File” dropdown and click on “new”.	A new empty Modelling Wizard window opens.	A new empty Modelling Wizard window opens.
2	Fill “Vendors Name” and “Device Name” in the top navbar, with data from TD-004-001.	Data is entered.	Data is entered.
	Fill the red marked entries in the “Attributes” table at the bottom of the screen with data from TD-004-001.	Data is entered.	Data is entered.
	Click on the “Attachments” tab below the top navbar.	The attachment view opens.	The attachment view opens.
	Click on the “Add” button in the upper left corner.	A dropdown list opens.	A dropdown list opens.
	Choose the “Dropdown” (Data from TD-004-001).	The name gets added to the two text fields underneath.	The name gets added to the two text fields underneath.
	Click “Select File” button	An explorer opens.	An explorer opens.
	Search the test File (Data from TD-004-001) and click open	The “Element Name” and the “File Path” in the “Attachable Information” table get filled with the test data.	The “Element Name” and the “File Path” in the “Attachable Information” table get filled with the test data.
	Click on the “Add” button in the upper left corner.	A dropdown list opens.	A dropdown list opens.

	Choose the “Dropdown2” (Data from TD-004-001).	The name gets added to the two text fields underneath.	The name gets added to the two text fields underneath.
	Paste the “Test Path” (Data from TD-004-001) into the text field besides the “Add Path” button	The path is pasted.	The path is pasted.
	Click “Add Path” button	The “Element Name” and the “File Path” in the “Attachable Information” table get filled with the test data.	The “Element Name” and the “File Path” in the “Attachable Information” table get filled with the test data.
	Select the “File” dropdown and click on “save”.	A dropdown of the explorer opens, and the name of the file can be chosen.	A dropdown of the explorer opens, and the name of the file can be chosen.
	Enter a name and click “save”.	A popup opens and informs about the correct creation and the path of the file. If the name already the explorer will ask for confirmation of the saving.	A popup opens and informs about the correct creation and the path of the file. If the name already the explorer will ask for confirmation of the saving.
	Confirm the message.	The popup closes.	The popup closes.
	Open the file in AutomationML and verify that all data is saved.	The file gets opened and under Attributes all data can be found.	The file gets opened and under Attributes all data can be found.

Tester	Jakob Schmidt	
Date	28.04.2021	
Testcase Result	Test data 1	Pass
	Test data 2	Pass
	Test data 3	Pass

6.4.2 Testcase <TC-004-002> (Open device, delete Attachments)

Testcase ID	**TC-004-002**		
Testcase Name	Open device, delete interfaces		
Req.-ID.	LF40		
Description	This testcase verifies that interfaces can be deleted from a device.		
Test Steps			
Step	Action	Expected Result	Expected Result
1	Select the “File” dropdown and click on “open”.	The explorer opens, and the file can be chosen.	The explorer opens, and the file can be chosen.
	Choose the test file from TD-004-002 and click “open”	“Vendor Name” and “Device Name” gets filled. The Name of the file will be displayed in the top right corner. All generic data, interfaces and attachments will be accessible over their tabs.	“Vendor Name” and “Device Name” gets filled. The Name of the file will be displayed in the top right corner. All tabs are accessible.
	Click on the “Attachments” tab below the top navbar.	The attachment view opens.	The attachment view opens.
	Repeat the following two step one time for each entry listed in “Delete Attachments” (Data from TD-004-002)		The two steps are repeated once for every entry
	Select the interface in the “Attachables Information” table, which is listed in “Delete Attachments” (Data from TD-004-002)	The interface gets selected in the “Attachables Information” table	The interface gets selected in the “Attachables Information” table
	Press the “Delete” button in the top right corner of the table.	The attachment gets deleted	The attachment gets deleted
	Select the “File” dropdown and click on “save”.	A dropdown of the explorer opens, and the name of the file can be chosen.	A dropdown of the explorer opens, and the name is prefilled.
	Enter a name and click “save”.	A popup opens and informs about the correct	A popup opens and informs about the correct

		creation and the path of the file. If the name already exists the explorer will ask for confirmation of the saving.	creation and the path of the file.
	Confirm the message.	The popup closes.	The popup closes.
	Open the file in AutomationML and verify that all data is saved.	The file gets opened and under Attributes all data can be found.	The file gets opened and under Attributes all data can be found.

Tester	Jakob Schmidt
Date	28.04.2021
Testcase Result	Pass