System Test Report

(Systemtestbericht)

(TINF20C, SWE I Praxisprojekt 2021/2022)

Project: **Standalone Modelling Wizard for Devices**

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Version	Date	Author	Comment
0.1	24.04.2022	Linus Eickhoff	Created

Contents

1. Scope

The STR (System Test Report) documents the results of tests derived from the STP (System Test Plan). It contains the test cases specified in the STP combined with their actual results from executing the test plan.

2. Definitions

TC   Testcase
TS   Testsuite
GUI   Graphical User Interface

3. Test Objects

The following test objects must be verified:

Ref.-Id.	Product Number	Product Name	Product Description
1	Build v1.0	Standalone Modelling Wizard for Devices GUI	Windows standalone application with a GUI

4. Test Equipment

The following equipment must be available for testing:

- A computer with Windows 10 or higher
- The standalone Device Modelling Wizard software

5. References / Standards

[1] SRS TINF20C Device Modelling Wizard

6. Testcases

6.1. Testsuite <TS-001 File operations>

6.1.1. <TC-001-001> (Loading of a valid file with validation)

Testcase ID:	TC-001-001

Testcase Name:	Loading of a valid file with validation
Req.-ID:	LF10, LF20, LF30
Description:	The test case verifies that it recognizes if a valid file has been loaded.

Test Steps			
Step	Action	Expected result	Actual result
1	Open Application.exe from Binary Folder	Application starts without problems.	Application starts fast and without problems.
2	Select a valid input file for the validation, by selecting "File" and then "Open" and choose file in explorer	The validation is executed successfully, and the conversion is completed correctly without error message.	File is being selected as intended without any problems or errors.
3	Check if Data was interpreted correctly in "Attributes", "Generic Information", "Interfaces"	Should have all valid data in readable format.	Data is displayed fully in Attributes, Generic Information and Interfaces.

Testdata:	TD-001-001			
Dataset	File	Validation	Permission Input	Permission Output
1	Balluff_ProductLibrary_CAEX3_221020.amlx	valid	given	given
2	Balluff-BNI_PNT-507-005-Z040-20201208.amlx	valid	given	given

Tester	Linus Eickhoff	
Date	24.04.2022	
Testcase result	Dataset 1	Pass
	Dataset 2	Pass

6.1.2. <TC-001-002> (Loading of an invalid file with validation)

Testcase ID:	TC-001-002

Testcase Name:	Loading of an invalid file with validation
Req.-ID:	LF10, LF20, LF30
Description:	The test case verifies that errors are detected during the validation of the input file and a corresponding error message is displayed with a description of the error and line details in the log.

Test Steps			
Step	Action	Expected result	Actual Result
1	Open Application.exe from Binary Folder	Application starts without problems.	
2	Select an invalid input file for the validation, by selecting "File" and then "Open" and choose file in explorer	The validation is executed successfully, without crashing.	
3	Check if error message is displayed to the user.	The Application displays the error when the file is invalid.	

Testdata:	TD-001-002			
Dataset	File	Validation	Permission Input	Permission Output
1	Balluff_ProductLibrary_CAEX3_221020.amlx (manipulated to be invalid)	invalid	given	given

Tester	Florian Kaiser		
Date			
Testcase result	Dataset 1		Pass

6.1.3. <TC-001-003> (Export of a valid device to file with validation)

Testcase ID:	TC-001-003
Testcase Name:	Export of a valid device to file with validation
Req.-ID:	LF20, LF30, LF80

Description:	The test case verifies that a correctly formatted device can be validated and exported to a file

Test Steps			
Step	Action	Expected result	Actual result
1	Open Application.exe from Binary Folder.	Application starts without problems.	
2	Select a valid input file for editing, by selecting "File" and then "Open" and choose file in explorer.	The validation is executed successfully without crashing and the data is read and displayed correctly.	
3	Edit the File, by changing its attributes and adding new data to empty attribute fields.	Attributes are changed correctly.	
4	Click on "File" and select "Save", select location in the file explorer and save file.	Valid file can be saved without errors and filename is generated automatically.	
5	Open File again in Application and check if Changes were applied and file is still valid.	Changes like changes in Attributes are displayed correctly.	

Testdata:	TD-001-003			
Dataset	File	Validation	Permission Input	Permission Output
1	Balluff_ProductLibrary_CAEX3_221020.amlx	valid	given	Given

Tester	Linus Eickhoff	
Date	24.04.2022	
Testcase result	Dataset 1	Pass

6.1.4. <TC-001-004> (Export of an invalid device to file with validation)

Testcase ID:	TC-001-001
Testcase Name:	Export of an invalid device with validation
Req.-ID:	LF10, LF20, LF30

Description:	The test case verifies that errors are detected during the validation of the exported device.

Test Steps			
Step	**Action**	**Expected result**	**Actual result**
1	Open Application.exe from Binary Folder.	Application starts without problems.	
2	Select a valid input file for editing, by selecting "File" and then "Open" and choose file in explorer.	The validation is executed successfully, without crashing and the data is read and displayed correctly.	
3	Edit the File, by changing its attributes with invalid data.	Invalid Inputs to attributes are recognized when exporting the device. Error message is displayed.	

Testdata:	TD-001-004			
Dataset	**File**	**Validation**	**Permission Input**	**Permission Output**
1	Balluff-BNI_PNT-507-005-Z040-20201208.amlx	Valid (before editing)	given	given

Tester	Florian Kaiser	
Date		
Testcase result	Dataset 1	

6.2. Testsuite <TS-002 GUI>

6.2.1. <TC-002-001> (Add interface and attachment to device)

Testcase ID:	TC-002-001		
Testcase Name:	Add interface and attachment to device		
Req.-ID:	LF40, LF60		
Description:	Run application and try if interfaces and attachments can be added to an device		
Test Steps			
Step	Action	Expected result	Actual result
1	Open Application.exe from Binary Folder.	Application starts without problems.	Application starts without problems.
2	Drag Interface from "Interface Class Library" to "Interfaces" Window	The dragged Interface should be added to the device, indexed in order.	Drag and Drop works without problems.
3	Add Attachment (e.g. "ComponentPicture") and click "select File"	File Explorer should open to select the right file.	File explorer opens correctly, file is selectable.
4	Select File from explorer.	See if path is displayed in "Attachments" correctly.	Added Attachment is added and Path is displayed correctly (used PNG for "ComponentIcon")

Tester	Linus Eickhoff	
Date	24.04.2022	
Testcase result	(No Dataset required)	Pass

6.2.2. <TC-002-002> (GUI Load file via file explorer)

Testcase ID:	TC-002-002		
Testcase Name:	GUI Input file selection via file explorer		
Req.-ID:	LF10, LF20, LF40, LF50		
Description:	The test case verifies that only the permitted file formats can be selected as input via file explorer. Afterwards, the device from the file has to be displayed correctly in the GUI. Permitted file formats: .xml		
Test Steps			
Step	Action	Expected result	Actual result

1	Open Application.exe from Binary Folder.	Application starts without problems.	Application starts without problems.
2	Click on "File" and "Open"	The file explorer opens in a new window.	The file explorer opens in a new window.
3	Search for file to load	A drop-down menu opens showing that only .amlx Files are allowed.	Drop down menu shows that only AML Files are allowed
4	Double click on the file to select and load it.	File is loaded correctly if valid	File is loaded correctly

Testdata:	TD-002-002				
Dataset	**Input File**	**Validation**	**Permission Input**	**Permission Output**	**Output File**
1	Balluff-BNI_PNT-507-005-Z040-20201208.amlx	valid	given	given	-

Tester	Linus Eickhoff
Date	24.04.2022

Testcase result	Dataset 1		Pass

6.2.3. <TC-002-003> (GUI Creation and editing of a new device)

Testcase ID:	TC-002-003	
Testcase Name:	GUI Creation and editing of a new device	
Req.-ID:	LF40, LF60, LF70	
Description:	The test case verifies whether a new, empty device can be created and edited in the editor.	
	Test Steps	
Step	**Action**	**Expected result**	**Expected result**
1	Open Application.exe from Binary Folder.	Application starts without problems.	Application starts without problems.
2	Go to "File" and select "new" to start creating new device.	All Fields are reset correctly.	All Fields are reset correctly.
3	Edit and fill attribute and interface data	All fields are edited correctly.	All fields are edited correctly (No field checking).

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Tester	Linus Eickhoff	
Date	24.04.2022	
Testcase result	(No Dataset required)	Pass

6.2.4. <TC-002-004> (GUI Export of a loaded device)

Testcase ID:	TC-002-004		
Testcase Name:	GUI Export of a loaded device		
Req.-ID:	LF40, LF80		
Description:	The test case verifies whether a loaded device in the application can be exported and saved as a file.		

	Test Steps		
Step	Action	Expected result	Actual Result
1	Open Application.exe from Binary Folder.	Application starts without problems.	
2	Select a valid input file for editing, by selecting "File" and then "Open" and choose file in explorer.	Device is loaded correctly and file validation is successful.	
3	Change data, like attributes and click on "File" and then on "Save".	File Explorer is opened and Filename autogenerated but editable.	
4	Choose saving location for file and save.	File is saved and exported correctly without errors	

Testdata:	TD-002-004	
Dataset	Input File	Output File
1	Balluff-BNI_PNT-507-005-Z040-20201208.amlx	
2	Balluff-BNI_PNT-508-105-Z015-CAEX3-20201207.amlx	

Tester	Florian Kaiser	
Date		
Testcase result	Dataset 1	Pass
	Dataset 2	Pass

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