



SmartE SMART ENERGY FOR YOUR HOME ACCEPTANCE TEST PLAN

Version 1.1.2

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Acceptance Plan Document	Date: 2016-1-13

Revision History

Date	Version	Description	Author
2015-11-29	0.1	Initial Draft	Nathan Chape
2015-12-30	0.2	3.2. Test cases added	Elena Kyorova
2015-12-31	0.3	Add Acceptance tests	Eugen Družin
2015-12-31	0.4	Introduction, Test plan	Nathan Chape
2015-12-31	0.5	Add Acceptance tests	Eugen Družin
2015-12-31	1.0	First version completed.	Nathan Chape
2016-13-01	1.1	Update	Nathan Chape
2016-13-01	1.1.1	Add new Acceptance tests - 6, 7	Eugen Družin
2016-13-01	1.1.2	Update Acceptance tests - 2, 5	Eugen Družin

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1 Introduction

1.1 Purpose of this document

The purpose of this document is to outline the acceptance test procedure for the SmartE product. It contains the test plan, testing items, testing environment and acceptance tests. These tests will be used to verify that the product meets the requirements as outlined in the RSD.

1.2 Document organization

The document is organized as follows:

- Section 1, *Introduction*, describes contents of this guide, used documentation during developing process etc.
- Section 2, *Test Plan*, describes the testing process and environment.
- Section 3, *Acceptance Tests*, describes the test cases.

1.3 Intended Audience

- SmartE Development Team
- Supervisors
 - Abhilash Thekkilakattil
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1.4 Scope

The scope of this document is limited to the testing procedures and process for the SmartE product.

1.5 Definitions and acronyms

1.5.1 Definitions

Keyword	Definitions
SmartE	Name of the SE4YH product.
SmartE User	The user who will use SmartE application
openHab	Framework for working smart devices.

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1.5.2 Acronyms and abbreviations

Acronym or abbreviation	Definitions
FER	Faculty of Electrical Engineering and Computing, University of Zagreb
MDH	Mälardalen Högskola, Sweden

1.6 Documents

[PPD]	Project Plan document
[DD]	Design Description document
[RSD]	Requirements Specification document

2

Test

Plan

2.1 Test items

The items that will be tested:

- Client application
The user will solely be using the client application for testing.

2.2 Features to be tested

The features that will be tested:

- **Login:**
 - The user will test the login features.
- **Add device:**
 - The user will test whether they can add a new device to the SmartE application.
- **List devices:**
 - The user tests whether they can see a list of devices - or not, if there are no devices available.
- **Selection of device:**
 - The user tests whether they can select a device from the list.
- **Perform action with device:**
 - The user tests whether valid actions (of a selected device) are presented and can be performed.
- **Create rule:**
 - The user tests whether they can create a rule and apply it to one or more devices.

A more detailed description of the testing procedure pertaining these features can be found in *Section 3 Acceptance tests*.

2.3 Test deliverables

The following items must be delivered in order to perform the acceptance test.

- Acceptance test plan
- Client application

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2.4 Testing tasks

The tasks that are required for testing are:

- Installation of client application
- Acceptance test list:
 - The user performs the tests as listed in *Section 3 Acceptance tests*
- Acceptance test report:
 - The users uses the “Actual Result” row for collecting the test results,

2.5 Environmental needs

The environmental needs are as follows:

- an android platform (preferably a smart phone) on which to install the client
- link to the simulators for device state tracking: 46.101.237.168/sim/devices?test=true

2.6 Test case criteria

In *Section 3 Acceptance tests* each test has specific criteria which must be fulfilled in order for the test to be passed.

3 Acceptance tests

Test ID	1.0
Test Name	Login test
User Story ID	US1
Precondition	Application installed. User is not logged in.
Main Path	<ol style="list-style-type: none"> 1. Start Application 2. Type in a valid username 3. Type in a valid password 4. Enable automatic login (optional) 5. Click login button
Expected Result	As a user I can log in to the application.
Actual Result	

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Test ID	1.1
Test Name	Logout test
User Story ID	US1
Description	User wants to be able to log out from application.
Precondition	User is successfully logged in application.
Main Path	1. User chooses "Logout" section in navigation drawer
Expected Result	Client will show Login screen.
Actual Result	

Test ID	2.0
Test Name	Listing all groups
User Story ID	US14
Description	A user should be to see a list of all groups.
Precondition	User is successfully logged in application. At least one group is created
Main Path	1. User chooses "Group" section in navigation drawer
Expected Result	All groups are displayed in the list
Actual Result	

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Test ID	2.1
Test Name	Listing all groups (no groups to show)
User Story ID	US14
Description	A user should be to see a list of all groups.
Precondition	User is successfully logged in application. No groups.
Main Path	1. User chooses "Group" section in navigation drawer
Expected Result	Informative message is displayed stating that are no groups to show.
Actual Result	

Test ID	2.2
Test Name	Creating a group
User Story ID	US15
Description	A user should be to create a new group.
Precondition	User is successfully logged in application. At least one group is created.
Main Path	<ol style="list-style-type: none"> 1. User chooses "Group" section in navigation drawer 2. User clicks on add(+) button 3. User enters a group name 4. User clicks "Create group"
Expected Result	List of groups is refresh and created group is in the list.
Actual Result	

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Test ID	2.3
Test Name	Creating a group failed
User Story ID	UC15
Description	A user wants to create a rule without a name
Precondition	User is successfully logged in application. Creating a group without a name
Main Path	<ol style="list-style-type: none"> 1. User chooses "Group" section in navigation drawer 2. User clicks on add(+) button 3. User clicks "Create group"
Expected Result	Application demands a name to create a rule. Rule is not created.
Actual Result	

Test ID	2.4
Test Name	Deleting groups
User Story ID	UC17
Description	A user wants to be able to delete groups
Precondition	User is successfully logged in application. At least one group is created.
Main Path	<ol style="list-style-type: none"> 1. User chooses "Group" section in navigation drawer 2. User long press the lists 3. User selects rule(s) that he want to delete 4. User clicks on trash icon to delete rule(s)
Expected Result	Client will refresh list of rules. Delete groups will not be in the list.
Actual Result	

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Test ID	2.5
Test Name	Assign a device to a group
User Story ID	UC16
Description	A user wants to be able to assign device to a group
Precondition	User is successfully logged in application. At least one group is created.
Main Path	<ol style="list-style-type: none"> 1. User chooses "Group" section in navigation drawer 2. User click on wanted group 3. User clicks on edit button 4. User long press the list of all devices 5. User selects wanted devices 6. User clicks on confirm button
Expected Result	User will selected group with all assigned devices.
Actual Result	

Test ID	3.0
Test Name	Listing all devices
User Story ID	US4
Description	A user should be to see a list of all devices that are added and there are devices which are already added.
Precondition	User is successfully logged in application.
Main Path	<ol style="list-style-type: none"> 1. User chooses "Devices" section in navigation drawer
Expected Result	All devices from openHAB are displayed.
Actual Result	

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Test ID	3.1
Test Name	Listing all devices (no devices are presented)
User Story ID	US4
Description	A user should be to see a list of all devices that are added and there are no devices already added
Precondition	User is successfully logged in application. No devices on openHAB
Main Path	1. User chooses "Devices" section in navigation drawer
Expected Result	Informative message is displayed.
Actual Result	

Test ID	4.0
Test Name	See selected smart device details
User Story ID	US6
Description	A user should be able to see the details of a selected smart device.
Precondition	User is successfully logged in application.
Main Path	<ol style="list-style-type: none"> 1. User chooses "Devices" from the navigation drawer. 2. User chooses a device.
Expected Result	The chosen device details can be seen.
Actual Result	

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Test ID	5.0
Test Name	Perform an action
User Story ID	US7
Description	A user should be to see a list of all device details and items (for that device) that are editable
Precondition	User is successfully logged in application.
Main Path	<ol style="list-style-type: none"> 1. User chooses "Devices" from the navigation drawer. 2. User selects desired device 3. User changes values for editable items 4. User sends changed values by clicking on the <i>Send</i> button in the top right corner
Expected Result	Changed values are sent to the server and the view is refreshed with new values received from server in response.
Actual Result	

Test ID	5.1
Test Name	No action to perform
User Story ID	US7
Description	A user should be to see a list of all device details with no editable items
Precondition	User is successfully logged in application. User selected desired device.
Main Path	<ol style="list-style-type: none"> 1. User chooses "Devices" from the navigation drawer. 2. User selects desired device 3. User sees the device details
Expected Result	Device does not have any editable items so user can only see details and cannot perform any actions.
Actual Result	

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Test ID	6.0
Test Name	Create a rule
User Story ID	US8
Description	A user should be able to create a rule for a specific device
Precondition	User is successfully logged in application. At least one device is in system.
Main Path	<ol style="list-style-type: none"> 1. User chooses "Rule" section in navigation drawer 2. User clicks add button 3. User selects device to create rule 4. User defines a rule with given possibilities for different devices 5. User clicks create button
Expected Result	Server creates a rule, provides corresponding message and rule can be seen in list of rules.
Actual Result	

Test ID	6.1
Test Name	Create a rule failed
User Story ID	US8
Description	User wants to create a rule, but it fails because value is not inserted
Precondition	User is successfully logged in application. At least one device is in system.
Main Path	<ol style="list-style-type: none"> 1. User chooses "Rule" section in navigation drawer 2. User clicks add(+) button 3. User selects device to create rule 4. User defines a rule with given possibilities for different devices 5. User clicks create button
Expected Result	Client will show that value is not inserted and the rule cannot be created.
Actual Result	

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Test ID	6.2
Test Name	Edit a rule
User Story ID	US12
Description	User wants to edit created rule.
Precondition	User is successfully logged in application. Rule is created.
Main Path	<ol style="list-style-type: none"> 1. User chooses "Rule" section in navigation drawer 2. User clicks on wanted rule 3. User can edit value for selected rule 4. User clicks create button
Expected Result	Edited rule will have new values. User will see list of all rules.
Actual Result	

Test ID	6.3
Test Name	Edit rule failed
User Story ID	US12
Description	User wants to edit created rule without all values and it fails
Precondition	User is successfully logged in application. Rule is created.
Main Path	<ol style="list-style-type: none"> 1. User chooses "Rule" section in navigation drawer 2. User clicks on wanted rule 3. User can delete a value for selected rule 4. User clicks create button
Expected Result	Client will show that value is not inserted and the rule cannot be saved/edited.
Actual Result	

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Test ID	6.4
Test Name	Delete a rule(s)
User Story ID	US11
Description	User wants to delete a rule(s).
Precondition	User is successfully logged in application. At least one rule is created.
Main Path	<ol style="list-style-type: none"> 1. User chooses "Rule" section in navigation drawer 2. User long press the lists 3. User selects rule(s) that he want to delete 4. User clicks on trash icon to delete rule(s)
Expected Result	Client will refresh list of rules. Delete rules will not be in the list.
Actual Result	

Test ID	7.0
Test Name	Listing all rules
User Story ID	US13
Description	User wants to see list of all rules.
Precondition	User is successfully logged in application. At least one rule is created.
Main Path	<ol style="list-style-type: none"> 1. User chooses "Rule" section in navigation drawer
Expected Result	Client will see list of all rules.
Actual Result	

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Test ID	7.1
Test Name	Listing all rules - no rules
User Story ID	US13
Description	User wants to see list of rules but it is empty
Precondition	User is successfully logged in application. No rules.
Main Path	1. User chooses "Rule" section in navigation drawer
Expected Result	Client will see message that there is no rules.
Actual Result	