Calculator test report

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1. Introduction

Application tested is a calculator version 1.7z. The main purpose of the test is a check the following application functionality: calculation the nth element of the Fibonacci sequence, calculation the median of the set of numbers, write to the operation history file + recreate any history. The secondary purpose is make a list of observations and improvements to the application. The report was created based on the specification of version 1.0.2 dated by 01.05.2017r written by M. Kowalski.

2. Errors list

No	Error Title	Error Description	Error Essence	Error Category
1	Delete button is not responding	Steps to reproduce - Enter some numbers/characters - Click delete button Expected result - Deletion of last entered number / character Current result - Button is not responding	important	functionality
2	Delete button is not responding	Steps to reproduce - Enter some numbers/characters - Click clear button Expected result - Deletion all of entered number / character Current result - Button is not responding	important	functionality
3	No possibility subtract from the previous result	Steps to reproduce - Enter the equation - Click counting button - Click minus button Expected result - As a result will show minus Current result - The display is cleared	important	utility
4	No ability to restore any history operation	Steps to reproduce - Enter the equations - Click counting button - Click operation record Expected result - Ability to open any operation history Current result - Only previous session available	critical	functionality

5	No history saved to file	Steps to reproduce - Open the calculator file Expected result - Will be fount operation history Current result - No history record in the file	critical	functionality
6	Fibonacci sequence formula does not provide any results	Steps to reproduce - Click function button "F" - Enter the number - Click counting button Expected result - Give nth number of the Fibonacci string Current result - By click counting button the display is cleaned	critical	utility
7	Median does not provide results	Steps to reproduce - Click function button "M" - Enter the numbers - Click counting button Expected result - Give median result Current result - By click counting button the display is cleaned	critical	utility
8	In case of an error, it is not always displayed. Sometimes the calculator force of the application	Steps to reproduce - Enter the abnormal equation - Click counting button Expected result -Display error in messages -Possibility to fault correction Current result -Application causes an error -No possibility to error correct	important	functionality
9	When you turn off option "all on a date, you can enter a retrograde date	Steps to reproduce - Disable "all" on date options -Turn on the calendar -Choose any date Expected result - Only show current history Current result - Unlock the calendar window -No action during date selection	important	User Interface

3. Observation list

No	ObservationTitle	Observation Description	Observation Essence	Observation Category
1	The history operation window back only to the previous session	Steps to reproduce -Clicking the transaction log -Expand the old action tab Expected result -Access to the last few sessions Current result - Only last session	not important	functionality
2	Advanced settings disable only parentheses and quotes. If it is not scaled, it can be removed	Steps to reproduce - Click advanced options Expected result - Include options to advanced calculations Current result - Include brackets and quotes	not important	User Interface
3	Button counting when not entering characters clears the display	Steps to reproduce - Enter the number - Click counting button Expected result - In the message window should appear information about the error Current result - By click counting button the display is cleaned	not important	functionality
4.	In the current form, the message window is redundant because only the error is displayed together with the external application alert	Steps to reproduce - Enter the abnormal equation - Click counting button Expected result - The message window gives the exact error information Current result - Display show only word "error"	not important	User Interface

4. List of proposed improvements

No	Improvements Title	Improvements Description	Improvements Essence	Improvements Category
1	Advanced settings could be developed with a scientific calculator	Steps to reproduce - Click advanced options Expected result - Access to advanced mathematical operations	not important	User Interface
2	You can add a function to store the result in memory	Steps to reproduce - Enter the equation - Click counting button - Click memory button Expected result - Adding earlier results to current equations	not important	functionality

5. Quality indicators summary

5.1. Functionality

The calculator successfully counts simple mathematical operations and functions. However, it can not lead to more complex mathematical operations. Some of the basic functions do not respond or run erratically which makes it a non-functional application.

5.2. Failure

Entering incorrect values or functions results a error message, which often ends with the application being shut down, because this is the only way to conduct the next action. In addition, some of the non-functioning functions, such as the Median and the Fibonacci Series, do not generate any errors or messages. Basic functions like Clear and Delete do not work at all.

5.3 Utility

With current errors limiting the functionality and capabilities of the calculator for basic mathematical operations, it does not classify applications as useful because it is lower than analogue calculators.

5.4 Correct user interface

Interface designed in a clear and easy way to use and clarity of available functions.
The intuitive layout of the interface makes it easy to use the application.

5.5 Compliance with specifications

The calculator does not have standard functionality due to a non-functioning basic function. In additional specifications are not fulfilled: the enumeration of the nth element of the Fibonacci sequence, median enumerate given set of numbers, write to the history file of operations and be able to recreate any history.

6. Quality check

After testing the capabilities of the calculator, it does not meet the main specification requirements and parts of the basic functions. In its current state it is not suitable for presentation to the customer due to the above errors. In order to improve the quality of the application and enable the client to present the present, it is necessary to improve: the operation of the delete and clear faction, the possibility of subtracting from the previous result, correcting errors related to recording and reproduction of operations, Fibonacci and Median sequences, correction of errors related to messages and incorrect mathematical formulas and assigning a date to history. After fixing these errors, you can raise the software quality rating enough to present the results to the customer.