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| **Artifact Information** | | | | | | | | |
| **Artifact ID** | | **Artifact Title** | | | | | | |
| SVT-001 | | Software View Testing | | | | | | |
| **Capstone Team** | | | | **Revision** | | **Artifact Date** | | |
| Capstone Team 27 - Granustem | | | | 1.0 | | Feb 24, 2019 | | |
| **Prepared by** | | | | **Checked by** | | | | |
| Ben Alexander | | | | Tanner Gaskin | | | | |
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| 1.0 | Feb 24, 2019 | | Ben Alexander | | Tanner Gaskin | | Initial Version | Reese Bastian |

1. Purpose

The purpose of this artifact is to provide a framework to test the functionality of each view, as outlined in Artifact SFL-001. Assume that, for each test, the tester begins having already navigated to the view in question. Note that the views with “Success” appended to the section header represent tests that we’ve already implemented and that our design has passed.

2. Main Menu View – Success

* Assert that clicking the Settings button will navigate to the Settings View
* Assert that clicking the Testing button will navigate to the Testing View
* Assert that clicking the Live Feed button will navigate to the Live Feed View
* Assert that clicking the Exit button will navigate to the Exit View

3. Settings View – Success

* Assert that clicking the Height button will navigate to the Height View
* Assert that clicking the Plot button will navigate to the Plot View
* Assert that clicking the Operator button will navigate to the Operator View
* Assert that clicking the Folder button will navigate to the Folder View
* Assert that clicking the Notes button will navigate to the Notes View
* Assert that clicking the Back button will navigate back to the Main Menu View

4. Height View – Success

* Assert that clicking the Save button will save whatever value is currently written in the input text box to our settings file on the raspberry pi as the Height setting
  + Assert that, if the input text box is empty, the settings file will retain whatever Height setting was already set
  + Assert that clicking Save will ultimately navigate back to the Settings View
  + Assert that clicking the Cancel button will navigate back to the Settings View

5. Plot View – Success

* Assert that clicking the Save button will save whatever value is currently written in the input text box to our settings file on the raspberry pi as the Plot setting
  + Assert that, if the input text box is empty, the settings file will retain whatever Plot setting was already set
  + Assert that clicking Save will ultimately navigate back to the Settings View
* Assert that clicking the Cancel button will navigate back to the Settings View

6. Operator View – Success

* Assert that clicking the Save button will save whatever value is currently written in the input text box to our settings file on the raspberry pi as the Operator setting
  + Assert that, if the input text box is empty, the settings file will retain whatever Operator setting was already set
  + Assert that clicking Save will ultimately navigate back to the Settings View
* Assert that clicking the Cancel button will navigate back to the Settings View

7. Folder View – Success

* Assert that clicking the Save button will save whatever value is currently written in the input text box to our settings file on the raspberry pi as the Folder setting
  + Assert that, If the input text box is empty, the settings file will retain whatever Folder setting was already set
  + Assert that clicking Save will ultimately navigate back to the Settings View
* Assert that clicking the Cancel button will navigate back to the Settings View

8. Notes View – Success

* Assert that clicking the New Note button will navigate to the New Note View
* Assert that clicking the Back button will navigate back whatever view the application was in before navigating to the Notes View
* Assert that clicking the Make Pre-Test Note button will copy the selected note from the Notes Bank column into a note in the Pre-Test Notes column
* Assert that clicking the Make Post-Test Note button will copy the selected note from the Notes Bank column into a note in the Post-Test Notes column
* Assert that clicking the Delete Note button will delete the selected note from the Notes Bank column
* Assert that clicking the Remove Note button will remove the selected note from whichever column the note resides in

9. New Note View – Success

* Assert that clicking the Save button will save whatever value is currently written in the input text box to our settings file as a note in the Notes Bank
  + Assert that, if the input text box is empty, no new note will be created
  + Assert that clicking Save will ultimately navigate back to the Notes View
* Assert that clicking the Cancel button will navigate back to the Notes View

10. Testing View – Success

* Assert that clicking the Update Notes button will navigate to the Notes View
* Assert that clicking the Start button will navigate to the Test in Progress View
* Assert that clicking the Tests button will navigate to the Tests View
* Assert that clicking the Back button will navigate back to the Main Menu View

11. Test in Progress View – Success

* Assert that clicking the Stop button will navigate to the Testing Results View
  + Assert that all data from the test is stored in arrays in the program to await confirmation from the user before being written as a file to the specified Folder (as chosen from the Folder setting stored in the settings file)

12. Testing Results View - Success

* Assert that clicking the Update Notes button will navigate to the Notes View
* Assert that clicking the Break Height button will navigate to the Break Height View
* Assert that clicking the Save button will navigate to the Confirm Post Test Notes View
* Assert that clicking the Reject button will navigate back to the Testing View

13. Break Height View - Success

* Assert that clicking the Save button will save whatever value is currently written in the input text box to memory as the Break Height for the most recent test
  + Assert that, if the input text box is empty, no Break Height will be saved
  + Assert that clicking Save will ultimately navigate back to the Testing Results View
* Assert that clicking the Cancel button will navigate back to the Testing Results View

14. Tests View

* Assert that clicking the Back button will navigate back to the Testing View
* Assert that clicking the Remove All button will delete all tests from the specified Folder
* Assert that clicking the Export All button will export all tests to a USB that is plugged into the device
  + Assert that. if no USB is plugged in, nothing happens when Export All is clicked
* Assert that clicking the Details button will navigate to the Test Details View associated to the selected test

15. Test Details View

* Assert that clicking the Back button will navigate back to the Tests View
* Assert that clicking the Remove Test button will remove the specified test from the specified Folder
  + Assert that clicking Remove Test will navigate back to the Tests View
* Assert that clicking the Export Test button will export the specified test to a USB that is plugged into the device
  + Assert that, if no USB is plugged in, nothing happens when this button is clicked

16. Live Feed View – Success

* Assert that clicking the Back button will navigate back to the Main Menu View
* Assert that clicking the Start/Stop button toggles between the following states:
  + The data on the screen is constantly being updated based on sensor data being read in
  + The data on the screen is frozen and will not change, so as to allow for examination

17. Exit View – Success

* Assert that clicking the Back button will navigate back to the Main Menu View
* Assert that clicking the Exit button will navigate to the Desktop View (which is just the native Desktop for Raspbian)
* Assert that clicking the Restart button close the application, then restart it and navigate back to the Main Menu View
* Assert that clicking the Shut Down button will navigate to the Power Off View (which is just the device in a powered off state)

18. Desktop View – Success

* No tests for this view

19. Power Off View – Success

* No tests for this view