

## Blackbox/UI Stress Testing

Note: These tests were conducted in addition to the tests outlined in our testing document submitted with the requirements specification and are designed to target extreme and boundary test cases from the user's perspective from within the UI. Forcing the application to handle situations most likely to cause it to crash. The original testing document, on the other hand, focuses on core functionality.

Test Number	Test Description	Expected Result	Actual Result	Pass/Fail	Corrective Action
1.	Attempt to load the app without WIFI/3G/4G enabled.	The user will be told to enable WIFI.	The app did not open, and the user receives a message to enable WIFI.	Pass.	
2.	Attempt to add a location to the map outside of Newcastle.	The user will be unable to do this.	The location is not added, and message sent informs user location is outside the range of the sensors.	Pass.	
3.	Attempt to add a location on top of a current location.	The user will be unable to do this.	The UI does not allow the user to physically click on top of a current location.	Pass.	
4.	Attempt to add a location with special characters in the name.	The user will be able to do this.	The app accepts the name with special characters without issue.	Pass.	
5.	Attempt to add an extremely long location name (50 characters)	The user will be unable to do this.	The app accepted the extremely long name, which subsequently distorted the UI in a significant way. Making it difficult for the user to see important information on the screen.	1 <sup>st</sup> time: Fail. 2 <sup>nd</sup> time: Pass.	We modified the code to refuse any location name over 15 characters. Which we boundary test in the following tests.
6.	Attempt to add a location	The user will be	The user is unable to do this and	Pass.	

	name with 15 characters	unable to do this.	informed that the name is too long.		
7.	Attempt to add a location with 14 characters	The user will be able to do this.	The location is added without issue.	Pass.	
8.	Adding two locations each with 10 characters.	The text of the two location names may overlap.	The text of the two names overlapped, but only slightly. Not distorting the UI in any significant way, but making the location not currently being selected difficult to read.	Fail.	It would require significant UI redesign to fix this minor issue. Partially fixed following test 5 so the user can not add extremely long names which significantly distort the UI.
9.	Adding two locations each with 9 characters.	The text of the two locations may overlap	The text does not overlap, 9 characters is the maximum length of a location that does not cause any overlap with other location names.	Pass.	
10.	Attempt to select an extremely large update interval in the settings menu.	The user will not be able to do this.	The UI limits the user to select a maximum update interval of 10 minutes and 59 seconds.	Pass.	
11.	Select the maximum allowable update interval in the settings menu (10 minutes and 59 seconds).	The app will update every 10 minutes and 59 seconds.	The app updates automatically after the correct amount of time has elapsed.	Pass.	
12.	Select an extremely	The user will not be	The app limits the user to select a	Pass.	

	short update interval in the settings menu.	able to do this.	minimum update interval of 15seconds, which is short but not extremely so.		
13.	Select the minimum allowable update interval in the settings menu (15 seconds)	The app will update every 15 seconds.	The app updates automatically after the correct amount of time has elapsed.	Pass.	