
Abstract

The graphical user interface is one of the important parts of software, because users interact with software through widgets such as buttons, text fields, and image buttons which was found on graphical user interfaces. Building a graphical user interface required a lot of source code in accordance with the needs of the interface that was built, thus causing errors in the graphical user interface. One of the errors in the graphical user interface was incorrect state of widgets. Incorrect state of widgets errors caused the state and response of widgets to differ from the expected results. This error would also have a negative impact on application users. Therefore, the developer needed to do one of the important stages in the software life cycle, namely testing. To do the test, a test case was needed. This study aimed to build a tool that could generate test cases automatically to overcome incorrect state of widgets in the graphical user interface. The proposed method was model-based testing. The test case results which was obtained through the tool would be evaluated by using the exploratory testing manual method. The results of the evaluation carried out stated that the results of the tool test case were better to be used in testing the graphical user interface, because the obtained test cases almost covered all parts of the widget and condition in the application interface.

Keywords : Graphical User Interface (GUI), android, test case generator, manual exploratory testing, incorrect state of widgets
