

A Mechanism of Reusable, Portable, and Reliable Script Generator on Android

Authors : Kuei-Chun Liu, Yu-Yu Lai, Ching-Hong Wu

Abstract : A good automated testing tool could reduce as much as possible the manual work done by testers. Traditional record-replay testing tool provides an automated testing solution by recording mouse coordinates as test scripts, but it will be easily broken if any change of resolutions. Therefore, more and more testers design multiple test scripts to automate the testing process for different devices. In order to improve the traditional record-replay approach and reduce the effort that the testers spending on writing test scripts, we propose an approach for generating the Android application test scripts based on accessibility service without connecting to a computer. This approach simulates user input actions and replays them correctly even at the different conditions such as the internet connection is unstable when the device under test, the different resolutions on Android devices. In this paper, we describe how to generate test scripts automatically and make a comparison with existing tools for Android such as Robotium, Appium, UIAutomator, and MonkeyTalk.

Keywords : accessibility service, Appium, automated testing, MonkeyTalk, Robotium, testing, UIAutomator

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