Regression Testing of GUI's

by Atif Memon, Mary Soffa

This paper describes a technique developed by the authors to repair unusable test cases after the components of a GUI have changed. When a GUI changes it is inevitable that some tests will become unusable because the chain of events that occur for interactions with the GUI will change. Normally, these unusable tests would have to be regenerated, but GUI test case generation is expensive. It has become increasingly necessary that test cases be usable across versions of the GUI's life. To accomplish this the authors developed a technique based on modeling the GUI's events and components in a control-flow graph and a call tree. By comparing the original and modified versions of these models, they are able to automatically detect unusable test cases and repair the ones that can be.

This paper gives a great blueprint for how to accomplish the automated regression testing described. ISVis isn't quite ready for these techniques since there are no test cases related to the GUI yet and the GUI is not in a rapid state of change.

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