



If you are interested in the Passive Software Testing, please contact Nancy Saucier, Director of New Venture Development at Nancy_Saucier@uml.edu or 978-934-3212.

Passive Software Testing

Software

Status: Technology Identified; Alpha available for customer exploration

This passive software testing technology was developed by Dr. Guanling Chen, a computer science professor at UMass Lowell. It is a coarse-grained modeling method for automated GUI testing of context-aware android applications. This technology offers a fast delivery mode (produces values in a very short time), lack of cost-effective testing solutions (extent of automation, ability to find bugs), and unique characteristics of mobile applications (context-based execution behaviors). This technology differentiates itself from other current technologies such as:

- Random GUI testing (Monkey)
- Record-and-Replay
- Script-based (Robotium framework, Monkeyrunner and many other tools)
- Model-based testing (construction of GUI model takes a long time)

The passive software testing competitive advantages include:

- It describes the GUI state from an interaction perspective, considering only the group constitution of a given GUI
- It can handle scaling issues when constructing the GUI model, so it is fast to run and scale
- It creates the possibility for further model aggregation processes

These advantages differ greatly from current sources of software testing. NVI will assist Dr. Chen and Jing Xu in:

- Furthering market research
- Identification of testing partners
- Funding further testing
- Identification of potential operations and market mentors