

Project Proposal Final Version 1st Quarter 2008

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Period 1

Computer Systems Project Proposal - October 2008

1. Title:

Automated System Testing (AST)

2. Purpose:

Many companies require testing for various project. This process can take up to many hours of manual labor. The purpose of my project is to set a system in which one can test multiple applications on multiple systems from one computer. The project most likely will include three systems. One client system and two system that will have applications that will be tested from the client. The practical use of this project is to reduce the time spent on testing. My project should reduce the time spent on testing from hours to a couple of minutes.

3. Background and review of current literature/research in this area.

-A paper on Testing Large Software with Automated Software Evaluation Systems from 1975.

-A paper that used experimented with different Test Cases to achieve a more effective automation for web based applications.

-The various websites from the applications that I will be using (VNCRobot, STAF/STAX, Eggplant,SeaClear).

-The demos/tutorials for each of the applications.

-Automated Software Testing: Introduction, Management, Performance

4. Procedure and Methodology.

Language: Java, Python

I will be able to test my project's performance by various applications. For example, SeaClear, which is a navigation tool, can be used. There are many drop down menus and well as places where values can be input. For example, I can plug in known values that are valid and then known values that are invalid and see if an error message will appear. Also, my project will be tested by seeing if the different systems interact correctly with each other. If the applications can not even be tested, it means the framework was not correctly set up. The client system will use TightVNC to connect to the server systems. From there, the client will use VNCRobot to automate the testing of applications on the server. To connect multiple servers together, I will use STAF/STAX to create a framework.

5. Expected Results & Value to Others

I expect that this project will result in a computer that will be able to control a system of computers. Since the ultimate purpose of this project is to reduce testing time, I expect that my project will have applications running on some systems but automated by the client computer. The testing time for manual testing can be shown, taking a very long time. After that, the client will test all of the systems at the same time, showing a major reduction in testing time. This idea can be presented in a demonstration showing the automation.