

Introduction:

Around the world, many companies require testing for various projects. This process can take numerous hours of manual labor, which in turn costs companies a lot of money. With automated software, companies do not need to spend human resources to manually test. In the business world, there is not much room for time or money to be wasted. This project reduces the time spent in testing with the use of software that can be obtained easily. It sets up a system in which one client system can test multiple applications on many server systems. The one client system implements various automation tools to accomplish the task. The practical use of this project is to reduce the time spent on testing while using automation tools that anyone can obtain. The project will show that the manual testing that originally takes hours to test on the one or two other systems can be reduced to just minutes using one system.

Automated System Testing

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Expected Results:

This project is expected to create a system in which applications on many servers can be tested through the use of one client. Although this can be done manually, the project is expected to reduce testing time from hours to minutes. In addition, the automation of the testing will not compromise the accuracy of the testing in any way. The data from the main test shows that the testing time was greatly reduced (figure 1). ← this is technically a hypothesis as the main test has not happened yet

Methods:

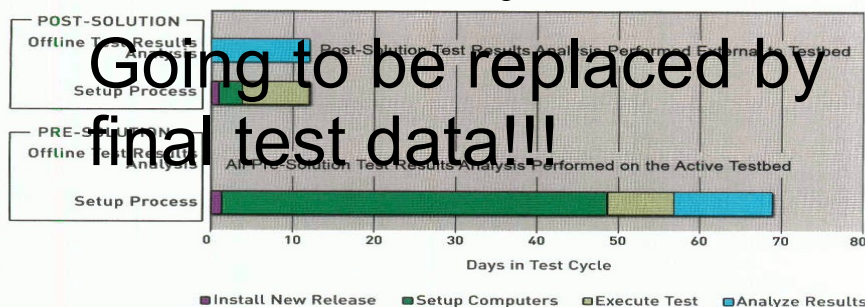
The client system will use TightVNC to connect to the server systems. This will create a relationship between one client and one server. I have coded commands into VNCRobot so that not only is the server system accessed, but it is now automated. The SeaClear application (figure 2) will be tested and the results will be sent back to the client. The test commands have been added in so that the process is now an automated test of SeaClear. The operator, will then be able to view the results within minutes of starting the testing. The data collection will be through the comparison between manual and automated testing. The initial test will be a test case built for a manual test whose time will be recorded. This includes work in SeaClear.

Application Background:

TightVNC: The original purpose of TightVNC is to create a VNC environment.

VNCRobot: The original purpose of VNCRobot was to access a server system through a client system.

Figure 1



Analysis:

The data collected was in the form of different tests. The main objective was first to have everything running properly. After setting up the environment that was needed to have everything working, I started to test different application before settling for the one that would mainly be used for the project. The application chosen for the official test was SeaClear. SeaClear was used because of its many variables that could be tested and automated.

Figure 2

