



Construction Producers Project Analysis Report

DeRisk IT recently worked with a client that manages and integrates hardware and software solutions for construction materials producers including aggregate, ready mixed, concrete, asphalt, and cement and block producers. They provide development, marketing, and helpdesk personnel to support all product features and enhancements. In August 2008 DeRisk IT's client acquired DeRisk IT as an extension of its testing team, and purchased 500 service hours to automate manual test cases and produce a fully automated regression test using TestPartner. The client had previously obtained Compuware's automated testing tool, TestPartner, but due to increasing development and testing efforts was unable to provide the testers necessary to convert the manual test cases into automated scripts. The Client's QA Manager had previously started automation prior to DeRisk IT involvement however, with other commitments was unable to fully automate a regression test.

DeRisk IT Inc. provided a two week ramp up period free of charge, during which time they gained access to the client's environment, user guides, and specifications documents. The tester assigned to the project spent many man hours navigating through the application, and becoming familiar with the workings of the software. DeRisk IT's client provided VPN access along with access to a remote desktop and a license of TestPartner to ensure DeRisk IT had all available resources necessary to complete the job. The client's QA Manager also hosted a WebEx meeting to answer any questions and acquainted DeRisk IT with their environment and application.

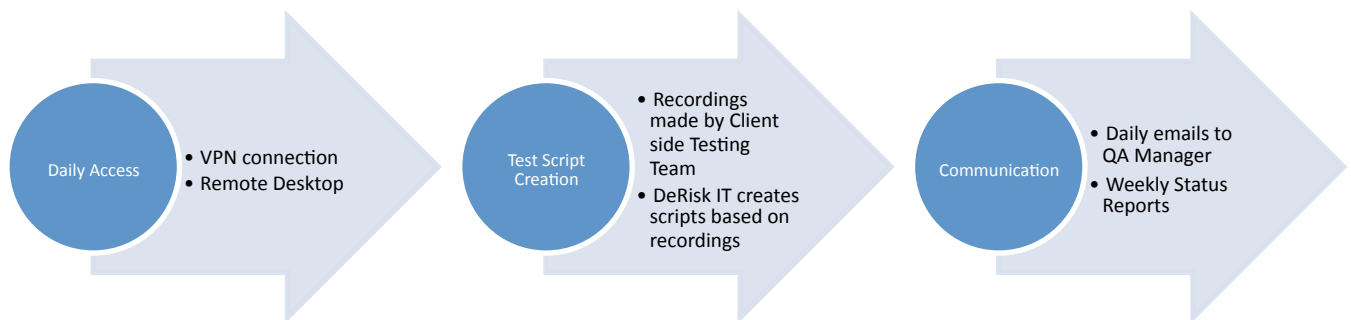
During the course of 3 months, the 500 service hours were used to convert script recordings made by the client's testing team into automated scripts. DeRisk IT used the client's testing procedure which called for using a driver script, and creating modules for each action such as button clicks, attaching to windows, and navigating trees etc.. The modules names were then called using Excel for script creation. Once the test was completed in Excel, the document was loaded back into TestPartner so the script could be executed and debugged against the Uniface application. At the end of 500 hours, on November 4th, 2008, a multitude of modules were created as well as a total of 86 individual scripts, a fully automated regression test, and a training manual.

Setup/Testing Stats:

DeRisk IT and their client worked together to come up with the most beneficial testing approach/access approach possible.

- ✓ TestPartner 6.0 was previously obtained by the client. TestPartner was updated to latest version of 6.1 prior to testing
- ✓ Testing occurred through VPN/Remote Desktop with recordings made by the client side testing team within TestPartner, and DeRisk IT converting this to desired format. (See Successes and Failures for more information)
- ✓ Daily status reports were sent to the client side QA manager and Project Status Reports were sent out weekly. (by Monday 12pm for previous week)
- ✓ DeRisk IT's client provided all documentation for Uniface application, and a Webex walk-through of application. The operating system used for testing purposes was Windows XP.

DeRisk IT/Client Work Flow:





Project Successes

- **Communication**

Communication between DeRisk IT and their client was fundamental to the success of the project. Daily communication via email and phone calls if needed provided any arising questions from each side with quick resolution.

- **Training Manual**

DeRisk IT created a training manual for the client which gave specific directions and steps for remote access, as well as a TestPartner overview and user information. The Training manual also provided them with a means to maintain the scripts by giving instructions on how DeRisk IT automated the recordings step by step.

- **Script Creation**

DeRisk IT's client allotted different testers to record scripts, and DeRisk IT was able to successfully automate all recorded scripts assigned and complete a full regression test by the end of the 500 service hours purchased.

Project Failures

- **Allotment of Personnel**

Since the client chose to select members of its testing team to record scripts within TestPartner and have DeRisk IT fully automate them, the lack of recorded scripts made available at all times proved to be somewhat of an obstacle. There were many weeks during the project that no new scripts were recorded because DeRisk IT's client did not have a tester available due to other assignments and tasks. During the time when there were no new recordings DeRisk IT spent those hours running previously automated test scripts to ensure they were still running and functioning correctly. Also, there were a total of 4 different testers that recorded scripts, many times doing the same functionality a different way, or making mistakes during the recording and not finalizing the recordings by fixing those mistakes.

- **Changes in Application Screens**

The client's application had many profile settings which could be altered. When altered, these settings changed some of the functionality of the screens within the Uniface application. Many times, screens that were previously there no longer existed, or new screens appeared. An example of this is setting placed purchase limits on an account. If a limit is set, and a script is written to automate placing an order, if the order amount was more than the limit, or if the script was ran enough, then a new screen appeared stating the account had reached its limit. These changes in profiles caused many scripts to quit working after they were successful for many months and ran several hundred times. This obstacle was overcome by writing separate scripts to set up profiles to ensure that DeRisk IT could determine exactly what screens would come up. Once the profile setting scripts were created, those smaller scripts were then linked into scripts where the settings were needed so that unexpected windows no longer occurred.

DeRisk IT's Solution to Overcoming Failures:

The biggest obstacle faced during the Construction producers project was the availability of new scripts. DeRisk IT worked diligently to create functioning and usable automated scripts, however, this obstacle could have been avoided in the following ways:

- ✓ **Have 1 or 2 allotted personal to record scripts**

DeRisk IT recommends that in future projects their client allot 1 or 2 testers to do the recordings. This would ensure that all manual test cases get recorded (they were unavailable in electronic or document form) and coverage is 100%. This would also ensure that the offsite testers always have new scripts to work on each week and do not have downtime during the project due to lack of recordings available.

- ✓ **Ensure Recordings are accurate**

Since DeRisk IT's client did not provide written manual test cases for DeRisk IT to automate and instead had their testers do recordings within the testing tool, DeRisk IT proposes that all recordings should be accurate and in a logical order as a manual test case would be. Many times these recordings would show steps where the tester went into a screen, typed in information then closed the screen because they realized they were in the incorrect screen. This inaccuracy on recordings meant DeRisk IT had to use many hours to determine if the steps were supposed to be in the automated script or if it was a mistake on the client side tester's part.