

Establishing test automation for Test Machine

1.0 Overview

Customer is a fast emerging leader in the field of quality testing and on-line monitoring and services for the textile industry worldwide. This company is a part of the USD 150 million in India and provides a wide range of solutions for the textile industry to improve Quality and Productivity. The company manufactures Fiber Testing Equipment, Yarn Testing Equipment, Yarn Clearing Systems, On-Line Quality and Production Monitoring Systems for Spinning and Weaving and Mill Management Solutions

2.0 Business Need

In practice, these machines are used in textile industry for days together. Therefore, when these machines are manufactured, they should also be tested for days together in various sequences of usage. This is often not possible.

For instance, Yarn testing equipment is fitted with sensors to detect contamination of yarn and measure its thickness. This equipment is run by software written in Visual Basic. Once the equipment is started, it could keep running for a long time without any problems being detected. If it is left to run on its own without human supervision, the only information that could be gathered is whether there was a problem or not. Also, there is nothing for any one to do till the problem occurs to demand human intervention.

3.0 Solution

Astra has worked very closely with the customer for about one year. Services rendered include helping identification of tools, training, and mentoring.

IBM Rational Robot was identified as a tool for testing. It was required to have a toolset supporting entire software development lifecycle, good recognition of controls in the Graphical User Interface. Also, use of SQABasic as scripting language helped in quick learning as the team was already familiar with Visual Basic, both being very similar.

Scripts for various sequences of usage were recorded and tailored for better resilience. These scripts were used to run the software and, in turn, the equipment.

4.0 Benefits

Customer was able to run the equipment for days together simulating its real life usage while at the same time collecting information about the run into log to analyze subsequently.