



Client:

Our client is a young, vibrant and rapidly growing Information Technology company that focuses on product and application development. Its technology skills combined with the ability to clearly understand the demands of emerging market has always made it possible for them to deliver solutions to meet clients' satisfaction and needs. The core development activities are based on Microsoft Technologies like .NET, COM+, DCOM, MSMQ, etc.



Business Needs:

The client had developed a Product called Maintenance Gateway™ is a rule-based engine that integrates a real time plant information system (Active Plant) to Enterprise Applications such as SAP, MAXIMO, and QAD etc. thereby providing real-time intelligence to the enterprise user from the plant. MG dynamically abstracts and stores manufacturing meta-data in real-time, defines user relevant rules on the meta-data, and then delivers intelligent information to where it is needed, based on rule triggers.

It is an one time configuration and monitoring can be done referring to the logs generated by the application. The client was looking at a test partner to release the product with zero defects and also wants the testing to be :

- Traditional way of testing for reusability of technology during product enhancements.
- Testing approach by an specialized product tester which will decrease the test duration and effective testing.
- Deploying the domain experts who can understand the real time business criticality easily and drive the testing accordingly.
- Maintenance of Test Assets like test cases, defects reports etc.



Approach and Solution:

The application understanding was started with knowledge transfer by the client. After Knowledge Transfer the testing team prepared the application understanding document and compared the same with the SRS. Test management and control was done using latest version of TestDirector. Testing was started with Test Plan and Test cases are prepared mapping to Test Plan. Test execution was done and defects were uploaded using the defect tracking option in the TestDirector. This helped to maintain the traceability matrix easily in the project. The defects were uploaded with proper severity and priority levels. Each Test case was designed with proper description, summary, objective and pre conditions. The test management was designed to accommodate new enhancements and features.

The major challenges faced are as follows.

Challenge: Isolating the test environment

Initially testing was done on the development environment which slow down the testing as both the development and testing team accessing the Plant Server and Application Server

Solution:

The testing team environment was isolated by having separate Plant server and Application server.

Challenge: Often change in functionality

Often change in functionality resulting to regression

Solution:

It was decided to send the impact analysis whenever a new build is released for testing.

Challenge: Preparation of Testdata

Case Study – Maintenance Gateway

It was difficult to prepare the test data for some of the major functionalities considering various business criticalities.

Solution:

The test data was prepared considering all the permutations and combinations and real time business criticalities.



Business Benefits:

The client got a highly maintainable test suite and reduced the turnaround time for regression test execution. The client also reaped the cost and time benefits as testing was done at their premises.



Tools and Technologies:

Platform	: Windows XP, WIN2K
Technology	: .Net, COM+, DCOM, MSMQ
Database	: SQL Server
Tool	: TestDirector 8.0