



*Case Study*

# Test Automation for a Software developed under RUP Model

# *Background*



- A Web based Insurance product connecting Company, Agents, Customers
- Margin of error had to be very low in the software
- Quality goals were stringent
- Short Turnaround time

# *Project characteristics*



- Web application
- Rational Unified Process (RUP) based development methodology (Incremental)
- Short cycle time of development
- Quality conscious customer

# *Project's Quality needs*



- Detailed and precise Verification and Validation based on Project Goals (FURPS+)
- Streamlined Processes
- Quick Regression tests

# *Client's bane - Testing process*



- Manual testing was laborious task due to frequent enhancements and increments in the Software
- Imprecise inputs. Repeated runs of a manual test produced slightly different results
- Testing time overlapping with incremental development time thereby making testing effort redundant
- Ownership of Test artifacts was an Issue

# *OAKSYS Solution*



- Automation of Testing process using an appropriate tool
- Reorganization of Test artifacts as a prelude to Automation
- Verification of Test artifacts, that are inputs for Automation, in terms correctness and completeness
- Synchronization of Automation process with development process

## *How we did it*

- Verified Flowchart and Test cases vis-à-vis *Use cases* for completeness and correctness as a prerequisite for Automation
- Reorganized Test data as part of Automation effort
- Jointly developed Acceptance criteria and scripting standards
- Developed Automation script that are dynamic and reusable thereby ensuring maintainability

## *How we did it contd....*



- Developed Test case traceability in the script across Use-cases
- Synchronized regression testing based on Software release plan
- Devised Tracking mechanism giving high visibility in the entire exercise
- Followed Client processes (CMM level 3)



## *Our Value Add*



- Identified missing Test cases during Reorganization of Test artifacts for Automation
- Took Ownership of Entire testing exercise (for the scope agreed upon) thereby reducing client's Role and anxiety in ensuring Quality

## *Numbers speak*



- Around 1400 test cases were verified and Test data reorganized as part of Automation
- Automation carried out for around 1300 test cases that could be automated

## *Where Numbers cannot speak*



- Automation added new dimension to reach quality goals
- Meaningful Automation exercise meant faster Turnaround, higher quality and consequently higher Client and End-user satisfaction