



## **Requirement driven quality, test & change management automation**

### **A collaborative product development case study**

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# Agenda

- Introduction
- Project
- Challenges
- Solution
- Demo



## SVA - the company

- A leading German system integrator, established in 1997
- With more than 150 employees and 11 locations in Germany
- A Premier IBM Business Partner
- Focus on total solutions: hardware, software and services
- 100's of satisfied customers and projects - [http://www.sva.de/sva\\_referenz\\_san\\_bu.php](http://www.sva.de/sva_referenz_san_bu.php)



## Why SVA?

- A nation wide reach, knowledgeable sales force, committed technical team
- A complete solution focus
- Technology for practical implementation through many of our own designed, developed and implemented solutions
- Thought leadership through, innovative BPIC, co-authored IBM Redbooks and many technology specific certifications & awards



## The customer

- A software development company
- Own logistics software products
- Small, but cohesive team

## The project

- Implementing changes to the existing requirements
- Changes has been introduced by the customer
- Current scenario
- Customer needs estimation on time and effort
- Need of subjective impact analysis
- Estimation on regression testing timing

## Challenges - in general

- Impact estimation of current change
- Identification of right quality parameters
- Testing effort estimation
- Test coverage & time
- Effective reporting





## Requirements: Can you add just one more...

- On going changes from the customer side
- Limited documented requirements
- Lack of traceability from requirements to test cases
- Variety of sources of change requests



## Delivery schedule: *May be we can deliver on...*

- From guess-timation to estimation
- Need of a systematic approach for estimation
- Basis for estimation through impact analysis

## Quality: How much to test & how to test all?

- Identification of indirect requirements impacted with change
- Identification of right test cases
- Finding out the right size of regression test
- How to carry out regression test for every change?
- How to manage the challenge between time & right quality?



## Reports: Oh! It's time for yet another, let me quickly...

- An efficient way to communicate internal management
- Tedious process of data assimilation for reports
- Various kinds of reports for different stakeholders
- Resource shortage for report generation



## Solution: Requirements

- Well organized, classified and centrally located
- End to end traceable
- One tool to gather requirements
  - IBM Rational RequisitePro
  - Rational RequisiteProWeb for customers
- Enabled requirements driven testing

## Solution: Delivery Schedule

- Possibility of clear impact analysis
- Clarity on how much, where & what to change
- What to check and what not?
- Well-informed estimation, more accurate
- Effect of change on requirements, design, test cases etc.



## Solution: Quality

- Ability to plan correctly
- Linked requirements and test cases
- Synchronized development and test teams
- Well-informed stakeholders through customized dashboards
- Impact driven test case selection
- Test automation for regression testing
- Remote acceptance test execution

## Solution: Reports

- Freedom from data assimilation
- Goodbye! to static reports; always updated
- One thing does not fit for all; as per your choice, dynamic
- Reports as and when you need; web enabled
- Effective resource utilization



## Lessons Learned

- A well manageable situation
- A single source
- Much accurate delivery schedules
- Objective support for the schedules
- Ability to test the right ones
- Better coverage through regression
- Initial productivity dip for script generation
- Time to think for additional testing ideas!



Software engineering solutions & services





Software engineering solutions & services

# Questions



Software engineering solutions & services

Thank  
YOU

The words 'Thank YOU' are rendered in a large, 3D, blue font. Each letter is filled with a different photograph of a person in a professional setting. The 'T' shows a man in profile. The 'h' shows a man in a suit. The 'a' shows a woman in a white top. The 'n' shows a man in a white shirt. The 'k' shows a woman in a dark top. The 'Y' shows a man with glasses. The 'O' shows a man in a white shirt. The 'U' shows a man in a light blue shirt.