Why is testing in an Agile with Scrum environment hard?
(And what can we do about it?)

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28th July 2010
Agenda

- Agile with Scrum introduction
- Time, Cost Quality Triangle
- Release quality at the end of every sprint
- Soak testing
- Stress testing
- Regression Testing
What is Agile with Scrum

- Project Management technique
- Releasable Product at the end of each Sprint
- Sprints (2 – 4 weeks)
- Daily Scrum (<15 min stand up meeting)
Time Cost Quality Triangle
Time is fixed to the length of the Sprint
Cost is fixed by the available team size
Release Quality every Sprint

- What do we mean by Release Quality?
- How do we measure quality?
- What gives the stakeholders confidence that the product is ready for general release?
Release Quality every Sprint

- What do we mean by Release Quality?
  - Complete
  - Fully integrated, tested and documented

- How do we measure quality?
  - Outstanding defects
  - Completed Testing

- What gives the stakeholders confidence that the product is ready for general release?
  - Exposure within test team
  - Exposure to customers
Soak Testing

- How effective is a ‘short’ Soak Test?
- How can Soak Testing be run for the Maximum amount of time?
- What Risk are the stakeholders prepared to accept?
Soak Testing

- How effective is a ‘short’ Soak Test?
  - Instrumented versions of each part of the code
  - Periodic extended Soak Tests

- How can Soak Testing be run for the Maximum amount of time?
  - Continuous overlapping Soak Tests.

- What Risk are the stakeholders prepared to accept?
  - Potentially release between Soak Test starting and completing
Stress Testing

- When should Stress Testing be done?
- Is Stress Testing easily automated?
Stress Testing

When should Stress Testing be done?
- Interleaved with functional testing
- During the final week of a Sprint (System Test phase)

Is Stress Testing easily automated?
- Using Soak instrumentation to detect failures
- Repetitive tasks using record and playback
Regression Testing

- How long to spend Regression testing?
- How much Regression testing per sprint?
- How to identify to best suite of Regression Tests?
Regression Testing

How long to spend Regression testing?
- Automation makes any time more effective.

How much Regression testing per sprint?
- Requires consideration of the code changes

How to identify to best suite of Regression Tests?
- Definition of the product
- Definition of the customer use cases