T6

Track
4/29/2010 11:15 AM

"Heuristics for Rapid Test Management"

Presented by:

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Jon Bach

Currently a managing consultant for Seattle-based test lab Quardev, Inc., **Jon Bach** has been in testing for fourteen years, twelve as a manager. His experience includes managing teams at Microsoft, HP, and LexisNexis. The co-inventor (with his brother James) of Session-Based Test Management, Jon frequently speaks about test management and exploratory testing. Jon is co-author of Microsoft's *Patterns and Practices* book on acceptance testing (freely available online) and has written articles for testing magazines. Find him on Facebook, Twitter, or his many presentations, articles, and his blog at **jonbox.wordpress.com**.

Heuristics for Rapid Test Management

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STAR*EAST* 2010

QUARDEV

What is Rapid Testing?

The skill of testing anything, any time, under conditions of uncertainty, such that your work stands up to scrutiny. It's a mental martial art.

Backstory

Start Date: *About one year ago*

Projects: *Four desktop applications*

Methods: *Agile, Waterfall, "Agile-fall"*

Staff: *15*

- *12 onsite, 3 offsite;*
- *10 full-time, 5 contract;*
- *third test manager in 6 months*

Conditions I found

- *Tasks needed more time than ALL of their time*
- *Everything seemed to be Priority 1*
- *People had multiple duties*
- *No specs, just meetings and emails*
- *Little time for training*
- *Cubicles / team wasn't sharing info with each other*
- *Heavy tools*
- *Interruptions / emergent event*
- *They were wary of managers*

Conclusions

- *I focused on people, not the methods*
- *Not one of my ideas came from a book or published methodology*
- *Ideas can be half-baked – THIS is the process of baking them*
- *An important component is to build credibility*
- *Try a pilot idea*
  - *Open-Book Testing*
  - *Dawn Patrol – SBTM*
  - *Color-aided Test Design*
- *You don't need permission; oppose bad ideas*

Let's Rewind…

- *Who's on my team?*
- *How do they find time to learn?*
- *How does exploration fit?*
- *What's my test approach?*
- *What are they doing right now?*
- *Where are we? How are we doing?*
- *How did you do that?*
- *Can we do this differently?*

Ideas

- *Surveys*
- *Open-Book Testing*
- *Dawn Patrol – SBTM*
- *Color-aided Test Design*
- *Testing Pyramid*
- *Hybrids*
- *Daily status*
- *Drive-by Learning*
  - *Lightning Talks*
  - *Combo Locks*
  - *Show and tell*
- *Tools: WME, SWP, PK*

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Surveys

What time works for you for a one-on-one with me this week?
Do you have any ideas of how to dogfood?
What are your working hours?
What's you biggest annoyance when working?
What's the name of your spouse / children?
What are 3 aspects of your ideal manager?
What's the best business / testing book you've read?
What's the best overall book you've read?
What one project problem do you wished was solved NOW?
What aspect of working here is most important to you?

Survey Says...

The results were conducted in a team meeting … revealing the answers as a team, one at a time -- Family Feud style

Speed round...

1) Name a customer that tends to be mentioned a lot in meetings.

2) Jon has one full row of books on the bookshelf in his cube (standard size). How many books are on it?

3) Name the genre of book that most of the staff says they like.

4) Name the most interesting project codename we've used (any project).

5) Name a popular first name for staff on all four project teams.

6) Name a test management tool we use.

7) Name a neighboring state to our HQ.

8) What would you say is the average amount of emails each person on Jon's staff gets per day?

9) Name another state (other than Washington) where Home-Based Employees are based?

10) Name the resolution category for bugs most assigned back to you.

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OBT

The act of creating open-ended questions such that…

Testers	Managers
…are immersed in the product right away, building a model or mind map.	…create test “charters”, or missions that seek to reveal many bugs instead of one (akin to using scenarios and personas).
…learn how they are provoked into critical thinking by being exposed to many types of questions (test ideas).	…learn how their staff is provoked; to know how they can perform critical thinking.
… quickly find bugs and raise issues in answering the questions they are given	…evaluate tester skill and test coverage.

Samples

Excerpts from Flight Sim Ground School exam:

- Which airplanes are equipped with slotted flaps?
- Describe the steps needed to start the engine of the DC3.
- If the vacuum system failed in the 172, what instruments would no longer function?
- Joe, an aviation history fanatic, buys Combat FS and complains to tech support that the P-51 flight model is "all wrong" because in a dogfight, "the airplane stalls at 200 MPH." Joe flies with the Realism Settings set to Hard and he knows that the P-51 should stall at about 100 MPH. Explain to Joe how it is possible for an airplane to stall at twice its published stalling speed.

The answer matters less than *how it was derived*.

For example, the question:

"Which airplanes are equipped with slotted flaps?"

…can lead to the following strategies to find the answer:

- Select aircraft / spot plane view should show me the type
- Aircraft details: should tell me the type of flaps
- Flap function (shortcut key, panel icon, keyboard) can be tested to verify the flap animation is consistent with model
- Flight model affect (whether the flaps *behave* as slotted) can be tested in flight

The **primary** purpose of Open-Book Testing is to drive better learning about the product and therefore, better testing.

(*Reverse OBT, too*)

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Dawn Patrol

A SWAT team of dedicated testers who do exploratory testing when no one is awake yet.

Some Exploration Skills and Tactics

"MR.Q COMP GRABC R&R?"

Modeling	**Chartering**	**Generating/Elaborating**	**Recording**
Resourcing	**Observing**	**Refocusing**	**Reporting**
Questioning	**Manipulating**	**Alternating**	
	Pairing	**Branching/Backtracking**	
		Conjecturing	

Exploratory testing is a mindset using this skillset.

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Session-Based Exploration

The "Session"

1) **Time Box**
2) **Reviewable Result**
3) **Debriefing**

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Session Report

- **Charter**
  - #AREAS

- **Metrics**
  - #DURATION
  - #TEST DESIGN AND EXECUTION
  - #SESSION SETUP
  - #BUG INVESTIGATION AND REPORTING
  - #CHARTER / OPPORTUNITY

- **Notes**

- **Bugs**
  - #BUG

- **Issues**
  - #ISSUE

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- **Capabilities**: **Green**: (Often the beginning tests) Does the app do what it's supposed to do.
- **Failure Modes: Red**: ("What if" questions) Challenge the expected outcome.
- **Inputs/outcomes: Purple:** (Boundaries tests) push the limits on all input fields with string lengths (min/max)
- **White box testing White:** Reviewing design code and data schemas. Exercising the decisions and paths through the program.
- **Quality Factors: Yellow**: Performance, scalability, usability
- **Usage Scenarios: Blue**: Extremely high value tests: Ask not what the app does for the user, but what the user does for the app. View these from the perspective of the specific users. Can the user do their job with the application?
- **Creative Testing: Gold**: Soap opera testing. Do what the user would normally do, but much more dramatically. What if the user goes through things in the wrong order?

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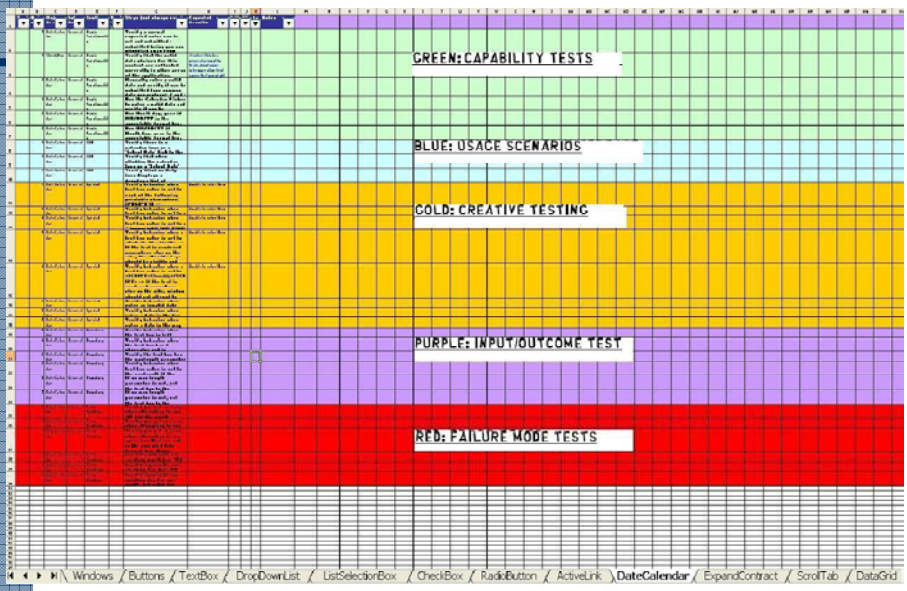

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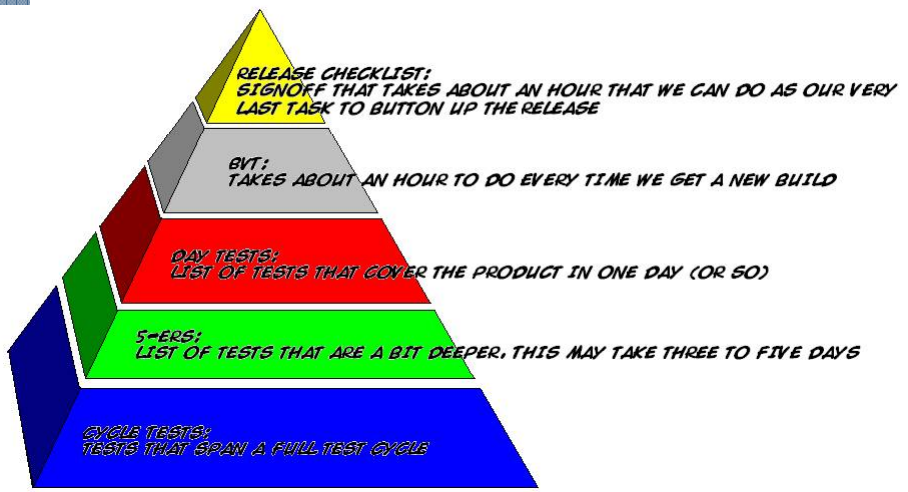

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Testing Hybrid

A test document that combines exploratory and matrix-driven verification testing.

Sample

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- *Daily status*
- *Drive-by learning*
- *Lightning talks*
- *Tools: WME, SWP, PK*

From: Brodsky-Porges, Benjamin M.
To: Bach, Jon
Cc:
Subject: Status 2/4/09

Wednesday February 4th 2009

Highlights:

- *CM-744: Manage Docs - List All Docs In Case*
- *CM-469: Clip Annotation Video - Database Changes*
- *Performed Test Review of Brian's 759: Create Replica Wizard - Rework as Wizard 97 Flow*
- *Sent test script to Brian for Test review. CM-753: Linked Files Issues and Unit Tests*
- *Logged bug 40862*
- *Logged bug 40865*
- *Logged bug 40874*
- *Logged bug 40876*
- *Regressed bug 40876*
- *Regressed bug 40874*

Blocking issues:

- *None at this time.*

Sprint hours burned:

- *burned 6 hours*

Ideas

- Surveys
- Open-Book Testing
- Dawn Patrol – SBTM
- Color-aided Test Design
- Testing Pyramid
- Hybrid
- Start / End daily status
- **Drive-by learning**
  - Lightning talks
  - Combo lock
  - Show and tell
- Tools: WME, SWP, PK

Ideas

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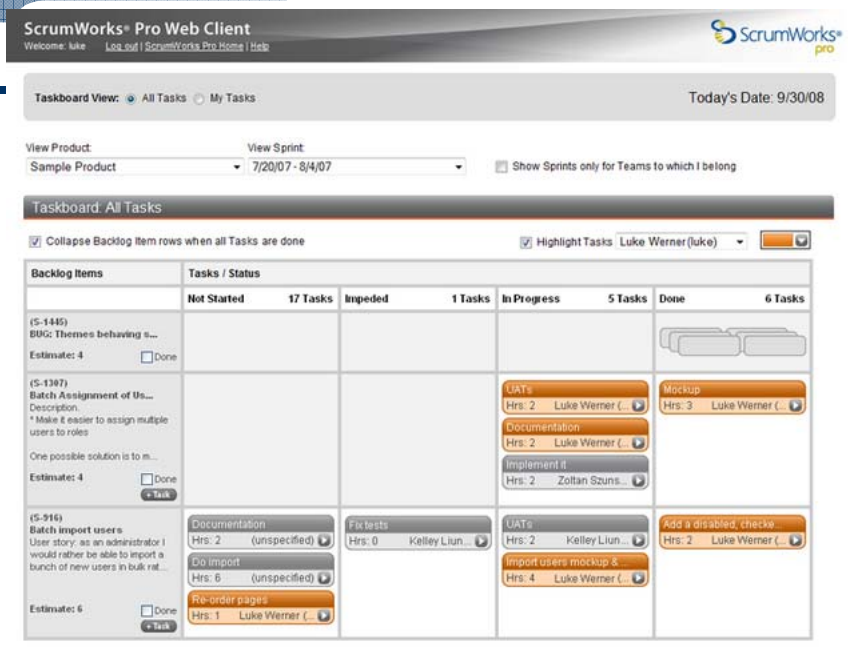
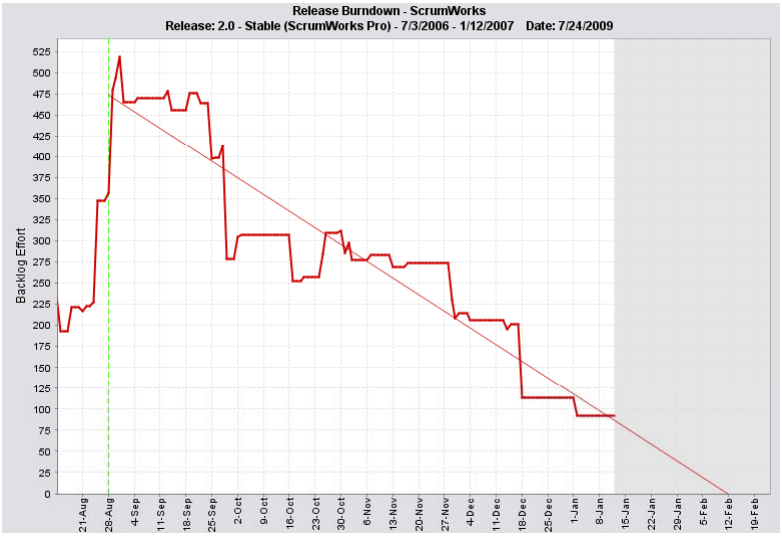
  - *Combo lock*
- *Tools: SWP, WME PerfectKey*





Then they laid everybody off…

Transition

- *The test vendor asked for our test procedures*
- *We came up with the curriculum*
- *12 weeks: with Shadow, Share, Lead*
- *Onsite training / Some offsite staff*
- *Recordings with LiveMeeting*
- *“Doing Business with India”*
- *Four 2-hour classes per day*
- *KT documents, MOMs*
- *Test Case Writing and Review*

I’m their manager

- *Map of India*
- *Makeshift test lab / classroom*
- *Open-Book testing*
- *James came in to do drive-by learning*
- *Assigned features and roles to the team (what are your top 3 favorites?)*
- *Session-Based Testing*
- *Feature Analysis exercise (p&c)*

Conclusions

- *I focused on people, not the methods*
- *Not one of my ideas came from a book or published methodology*
- *Ideas can be half-baked – THIS is the process of baking them*
- *An important component is to build credibility*
- *Try a pilot idea*
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Bake Your Half-Baked Ideas

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