

# AN INTRODUCTION TO EXPLORATORY TESTING

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# Who am I?

Director of Engineering, Interactions

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Director, Association for Software Testing

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My Blogs:

Personal blog

[www.MichaelDKelly.com/blog](http://www.MichaelDKelly.com/blog)

Quick Testing Tips

[www.QuickTestingTips.com](http://www.QuickTestingTips.com)

Software Quality Insights

[www.itknowledgeexchange.techtarget.com/  
software-quality/](http://www.itknowledgeexchange.techtarget.com/software-quality/)

# What is Exploratory Testing?

- Simultaneous learning, test design and test execution – James Bach
- It's a method of testing that values the tester as an integral part of the test process
- It's an approach that shares the same values as the Agile Manifesto

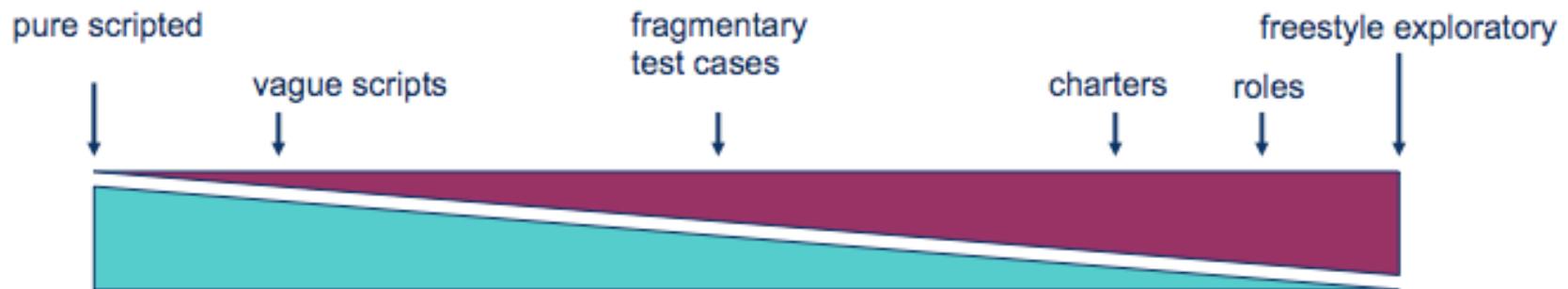


Image from Jon Bach

# Exploratory Skills and Tactics

## Self-Management

- Chartering
- Refocusing
- Branching/  
Backtracking
- Alternating
- Recording/  
Reporting
- Resourcing

## Developing Ideas

- Modeling
- Questioning
- Generating/  
Elaborating
- Overproduction  
/Abandonment
- Abandonment/  
Recovery
- Collaborating

## Examining the Product

- Interacting with  
the product
- Observing
- Applying tools
- Conjecturing
- Modeling

# Session Based Test Management

- Major criticisms of exploratory testing:
  - “it's hard to make progress visible”
  - “it's hard to know what kind of coverage you have”
  
- SBTM developed by Jon Bach as a way to address those problems
  - The basic work unit in session-based test management is the session, and the sessions are organized around test charters.
  - Each session is time-boxed (typically 45 to 60 minutes) and the charter for each session often outlines the basic testing mission.
  - After each session, testers debrief with the test lead and charters are updated and reprioritized as appropriate.

# Visibility and Coverage

Sample Project Dashboard.xls

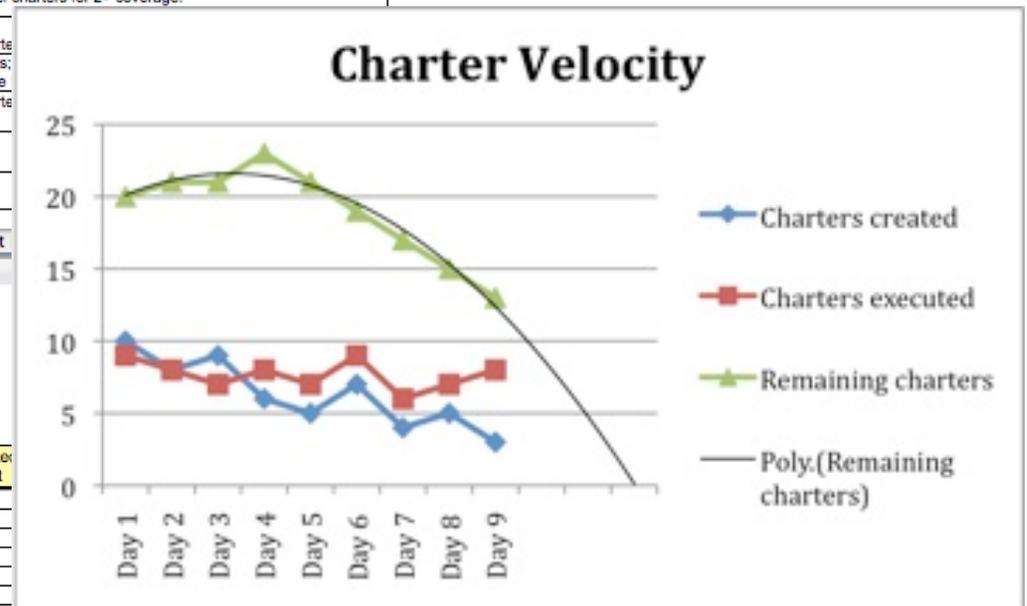
New Open Save Print Import Copy Paste Format Undo Redo AutoSum Sort A-Z Sort Z-A Gallery Toolbox

Sheets Charts SmartArt Graphics WordArt

Area	Effort	Coverage	Assessment	Comments
<Area 1>	Low	(2) -Common Cases	●Green	Testing B Level Charters for 2+ coverage.
<Area 2>	Low	(2) -Common Cases	●Green	Now executing B-level charters for 2+ coverage.
<Area 3>	Low	(2) -Common Cases	●Green	Testing B Level Charte
<Area 4>	Low	(2) -Common Cases	●Green	Validation of Schemas; on a connection to the
<Area 5>	Low	(2) -Common Cases	●Green	Testing B Level Charte
System Level Testing	High	(1) -Sanity Check	●Black	
Enhancement Requests	High	(1) -Sanity Check	●Black	DEF00060198

Last Updated: 01/01/2008

Dashboard Summary Dashboard Legend <Area 1> Test



Ranking	Test Case, Charter, or Task	Estimate
Importance	Order	Effort
	<area> <feature>P <vendor> Data.txt	1.0
	<area> <feature> <vendor> Data	1.0
	<area> <feature>A <vendor> Data	1.0
	<area> <data> <vendor> Data	1.0
	<area> Order <feature> <vendor> Data	1.0
	<area> Order <feature>A <vendor> Data	1.0
	<area> Order <feature>P <vendor> Data	1.0
	<area> Order <data> <vendor> Data	1.0
	Generation of the correct org levels	1.0
	<area> ADD <vendor> Test Data	1.0
	Partially received <data> from <application> - <feature> only received; <feature>A;<feature>P, <data> not received <area> verification	1.0

# How we test at Interactions

- Scrum development process
- Standard agile testing practices (unit testing, continuous integration, etc)
- Session Based Exploratory Testing

## Testing outside of the sprint

- Chartering takes place during the sprint where the story is developed
- Story test execution takes place following the sprint
- **Defects are worked as backlog items**
- Regression testing takes place with the final release

## “Embedded” testers

- Chartering takes place during the sprint where the story is developed
- Story test execution takes place during the sprint
- **A story is not “done” until all defects are fixed**
- Regression testing takes place with the final release

# How we test at Interactions (cont)



- Chartering is done by story and/or release
- Charters are tracked in JIRA
- Session notes are tracked in JIRA  
(previously on the wiki, that worked well too)
- Debriefs take place daily
- Automated regression testing for web applications
- Performance testing done on major platform changes and for new client go-live

# Techniques for Exploratory Testing



## □ Mnemonics

- Application touring: FCC CUTS VIDS
- Session notes: MCOASTER
- Coverage: SFDPOT
- Quality Criteria: CRUSSPICSTMPL
- Oracles: HICCUPPS

## □ Tools

- BB TestAssistant (or iShowU for the Mac)
- Selenium / Watir
- Session Tester

# Build and Price an F150 on [fordvehicles.com](http://fordvehicles.com)

- We will run this like a test project
- Process:
  - Outline the areas of the application we need to test
  - Develop initial charters
  - Execute tests
  - Debrief
  - Reprioritize

