



We’re talking about this today because all too often I see testers who are paralyzed because they don’t have everything they need to test. Requirements aren’t complete, we lack documentation, etc. This shouldn’t be the case – ever. We should be able to add value and test at the same time that we learn the application – this is the premise behind exploratory testing at its core.

So let’s jump right in...

ABOUT RAYMOND JAMES



- Founded in 1962, Raymond James is a diversified financial services holding company with subsidiaries engaged primarily in investment and financial planning, in addition to investment banking and asset management.
- Raymond James Financial has more than 5,300 financial advisors serving 2.5 million accounts in 2,300 locations throughout the United States, Canada and overseas.
- Additionally, total client assets are approximately \$273 billion, of which approximately \$35 billion are managed by the firm's asset management subsidiaries.

WHAT EXPLORATORY TESTING IS NOT

- ◉ It is not “Kicking the application around” or “playing with the application”
- ◉ It is not Random
- ◉ It is not Sloppy
- ◉ It is not Unbounded
- ◉ It is not Unplanned
- ◉ Why is it not “Ad-Hoc?”

It is not ad-hoc, as a matter of semantics really and the connotation of what that might mean – unstructured, unrefined, not focused, not bound by time or scope, etc.

WHAT EXPLORATORY TESTING IS

- ◉ *Exploratory Testing is an **interactive** process of simultaneous test design, test execution, and **learning** about the application.*
- ◉ It is Chartered
- ◉ It is Focused -
 - Learning about the application
 - Building Models (Designing Tests)
 - Validating Models (Testing)
- ◉ It is Time Boxed
- ◉ More aptly - it's scientific thinking in real-time!

SESSION BASED TEST MANAGEMENT

- ◉ *Our mission is to test whatever is needed, on short notice, without the benefit, or burden, of pre-defined test procedures.*
- ◉ *There are other test teams working on various parts of the product. Our particular team was commissioned because the product is so large and complex, and the stakes are so high.*
- ◉ *We provide extra testing support to follow up on rumors, reproduce difficult problems, or cover areas that lie between the responsibilities of the other testers.*

SESSION BASED TEST MANAGEMENT

- ◉ A session is an uninterrupted block of reviewable, chartered test effort
 - Charter
 - Uninterrupted
 - Reviewable
 - Report
 - Time Breakdown
 - Testing, Bug Investigation, Session Setup
 - Bugs
 - Issues
 - Notes
 - Session
 - On Charter
 - On Opportunity

EXAMPLE CHARTERS

- Test the Save Dialog for PowerPoint.

- Can you break it?
- How many generations of save dialogs has MS done now?
- Is this unique to PowerPoint?

- Test Notepad

- Can we create any undesired behaviors?
- How long has MS been shipping Notepad?
- Is this a defect?

For the PowerPoint example, attempt to save this file using a question mark in the filename (it won't work and you won't get an error message). What other characters display the same behavior? Are there any characters besides alpha-numerics that work? Any that behave in a different way?

For the notepad example, on a machine running Windows 2000 or XP create a blank file and in the first line type the following:

this app can break

Then save the file and close it. When you reopen it, you should either see chinese characters or blank squares.

This happens because the Windows NT version of Notepad, installed by default on [Windows 2000](#) and [Windows XP](#), has the ability to detect Unicode files even when they are missing a [byte order mark](#). To do this, it utilizes a Windows API function called `IsTextUnicode()`. However, this function is imperfect, incorrectly identifying some all-lowercase [ASCII](#) text as UTF-16. As a result, Notepad interprets a file containing a phrase like "aaaa aaa aaa aaaaa" ("4-3-3-5") as two-byte Unicode text file and attempts to display it as such. If a font with support for Chinese is installed, nine Chinese characters are displayed; otherwise, it will display squares instead of Chinese characters.



BUT WAIT,
THERE'S MORE!

WHAT IS CONTEXT DRIVEN TESTING?

- The value of any practice depends on its context.
- There are good practices in context, but there are no best practices.
- People, working together, are the most important part of any project's context.
- Projects unfold over time in ways that are often not predictable.
- The product is a solution. If the problem isn't solved, the product doesn't work.
- Good software testing is a challenging intellectual process.
- Only through judgment and skill, exercised cooperatively throughout the entire project, are we able to do the right things at the right times to effectively test our products.

WHY BE CONTEXT DRIVEN?

- ◉ The goal is to teach you how to test a product when you have to test it right now, under conditions of uncertainty, in a way that stands up to scrutiny.

BEST PRACTICES IN CONTEXT

- ◉ The value of any practice depends on its context.
- ◉ There are good practices in context, but there are no best practices.
- ◉ The skills we will learn are not contradictory, nor mutually exclusive; they are complimentary based on context.

Think about some “best practices” today. Can we think of reasons why they aren’t a perfect fit for every situation?

Example: When on fire, stop, drop, and roll. When would this be a bad idea? (what if there was gas on the ground? What if you were next to a perfectly good swimming pool next to that puddle of gas? Etc, etc).

The point is, we shouldn’t relegate ourselves to always doing something one way – there is a time when we should put the context of a situation ahead of a best practice. Which is why WE say... there are no best practices – just some good ones.

DIFFERENT CONTEXTS

- ◉ Brainstorming
- ◉ Requirements Gathering
- ◉ Specifications and Design
- ◉ Coding
- ◉ User Feedback
- ◉ Early Testing
- ◉ Automation
- ◉ Regression Testing
- ◉ UAT

WHAT IS THE MOST IMPORTANT THING?

◉ Develop your scientific mind!

- Pose useful questions
- Observe what happens
- Describe what you perceive
- Think critically about what you know
- Recognize and manage bias
- Design hypothesis and experiments
- Think in spite of what you already know
- Analyze someone else's thinking
- Reason about cause and effect
- Remember that "Facts" are simply what you think you know to be true

Heuristics – the ability for us to make an educated determination based on what we know experientially!

AIDS TO CRITICAL THINKING

- ◉ Huh?
 - You may not understand something.
- ◉ Really?
 - What you understand may be wrong.
- ◉ So?
 - The truth of what you know may not matter.

FOCUS VS. DEFOCUS

- ◉ Focus (What to do if you are confused)

- Simplify your tests
- Conserve states
- Frequently repeat your actions
- Frequently return to a known state
- Prefer OFAT (one factor at a time)
- Make precise observations

FOCUS VS. DEFOCUS

◉ DeFocus (Find elusive Bugs)

- Look over recent tests to find patterns
- Violate those patterns with new tests
- Prefer MFAT (multiple factors at a time)
- Broaden and vary your observations

THE DICE GAME

⦿ The Rules!

- Each team will get a collection of dice and a dice cup.
- Using the cup, role the dice
- Determine what you think the score is
- Check your results with an Oracle (That would be me)
 - You can ask me any question; my only answers will be Yes, No, Unanswerable, and the actual score from your roll.

⦿ Your goal is to determine exactly how I am computing the scores.

- This is testing, so feel free to break the rules.

Q&A

Any questions?





THANK YOU!