



Intro to Testing

In incomplete overview of software testing.

Kinds of Testing

These are mostly *blackbox testing*:

1. Exploratory
2. Functional
3. Risk-based
4. Integration Test
5. End-to-End

Exploratory Testing

Explore the software to discover areas to test in depth.

"Tour" the software.

Especially useful for testing existing software.

What to Tour?

Feature Tour - use the application and try the features and controls.

Documentation Tour - browse online help or user guide for the software. Perform something interesting.

Sample Data Tour - try varied sample data sets. Complex data is good.

Variability Tour - look for anything that is variable and vary it. Vary as far as possible.

User Tour - think of different classes of users and how they might want to use the software. Try each.

Scenario Tour - try scenarios for each class of user.

Other Tours

These are described in Bolton's blog:

Interruptions Tour - start and cancel tasks, go back, switch tabs

Obsessive Tour - perform same task several times





Back Alley Tour - try the least used feature

All-night Tour - leave the application running all night.

Complexity Tour - try the most complex features; look for places that bugs can hide.

Testing Dashboard

A reminder of your testing progress...

Product Area	Effort	Coverage	Quality	Comments
ProductView	high	2		#48
Edit catalog	low	1		
ShoppingCart	medium	1+		71, 72, 76
Payment	blocked	0		no code
Installation	blocked	0		
General UI	low	1		

Product Area

- 15 - 30 areas (keep it simple)
- avoid sub-areas (too confusing)
- **inclusive**: areas cover **everything** reasonably testable
- minimize **overlap**
- "product areas" can include **tasks or risks**, but put them last in list.

Test Effort

None	Not testing or not planning to test.
Start	Expect to start soon.
Low	Regression or exploratory testing only.
High	High test effort, increasing coverage.
Paused	Temporarily stopped, but area is testable.
Blocked	Can't effectively test, due to blocking problem
Ship	Doing final tests and sign off procedure.
Ship	Passed final tests and sign off procedure.

Test Coverage

0	Don't have good information about this area.
1	Major functions & simple data (sanity check).
1+	More than sanity check, but many functions not tested.
2	Common & critical: all functions tried with common & critical tests.
2+	Data, state, or error coverage beyond 2.
3	Strong data, state, error, or stress testing.

Test Coverage

1 and 2 focus on functional requirements and capabilities.

"can this product work at all?"

2 finds obvious bugs

2+ and 3 test "-ilities", such as reliability, usability, performance.

"Will this product work under realistic usage?"

Level 3 implies *"if there was a serious bug here, we would probably know it."*

Quality Assessment



No known problems in this area that would interrupt testing or threaten to stop shipment.



We know of potentially serious problems, or suspect important problems not discovered yet.



Found serious problems that prevent shipment or interrupt testing.

Refs for Exploratory Testing

Blog by Michael Bolten, "*Of Testing Tours and Dashboards*".

<http://www.developsense.com/blog/2009/04/of-testing-tours-and-dashboards/>

"Exploratory Testing Explained"

<http://www.satisfice.com/articles/et-article.pdf>

Video & slide Introduction:

<http://www.testingeducation.org/BBST/exploratory/>

(part of an online course in blackbox testing)

Reference for Testing Dashboard

From *Rapid Software Testing* course.

Slides:

<http://www.satisfice.com/rst.pdf>

Course:

http://www.testingeducation.org/coursenotes/bach_james/cm_200204_rapidtesting/

A series of video courses on blackbox testing (Cem Kaner):

<http://www.testingeducation.org/BBST/>