

# Getting a Grip on Exploratory Testing

Exploratory Testing is a discipline. Focussed on the just-delivered system, it exposes real-world problems more rapidly and more reliably than approaches which concentrate on prior expectations. It forms a powerful complement to scripted testing, and is especially powerful when matched with the large-scale confirmatory testing found on agile projects. Good exploratory testers find better bugs, and give fast, clear feedback to their teams.

Many testers are able to work without scripts and explore a system. However, most take a single exploratory approach, and so become less effective when they have exhausted that approach. Many teams use exploratory testing, but do not know how to manage it effectively.

This course allows participants to experience a range of exploratory techniques in a disciplined framework that will allow exploratory testing to be managed and integrated with existing test activities. The course is built around hands-on, brain-engaged exercises designed to enhance and reinforce the learning experience.

Participants will discover:

- The **test design** skills to **probe** a system and **trigger** a bug
- The **analysis** skills to **model** the system and **understand** a bug
- The **discipline** to **manage** their exploration and **sustain** their bug rate

## Course Description

This two-day course is a comprehensive guide to exploratory testing, with exercises designed to engage testers of all abilities, and structured workshops to help participants use and share the lessons learned. The course will introduce participants to a wide variety of approaches to exploratory testing: parsing the system; systematic exploration; modelling for success and failure; questioning; attacks and exploitations. Starting with three basic exploratory frameworks, we will construct models of the systems under test, and use those models to enhance our testing and to judge problems found. We will develop attacks and exploitations to reveal deep risks, and look at the potential risks in target technologies.

Throughout the course, we will use session-based testing to support the personal and team discipline necessary to support effective exploration, and will examine ways that ET can be managed within existing processes.

This tutorial will be of greatest use to test analysts, senior testers and test managers, but will also be immediately relevant to designers and coders. Direct experience of exploratory techniques is not necessary, but delegates with one or more year's experience of hands-on testing will get most from this course.

## Learning Objectives

- Understand the principles of exploration, and their application to software testing
- Introduce control and discipline by using session-based exploration
- Understand the application of ET to both the discovery of risk and the verification of value
- Use three frameworks for exploratory testing: transformations, states and maps
- Construct and use models during ET, and use those models to help judge problems found
- Understand how to use tools to increase their effectiveness in exploration
- Understand test selection within ET
- Use attacking techniques to reveal deep information
- Recognise opportunities for application of ET
- Arrive at an understanding of their personal exploratory style

Hands-on exercises and facilitated discussions will be used throughout the course. Each section will be concluded with a wrap-up session to summarise and reinforce key points. Participants' workbooks contain sections to record conclusions; participants are encouraged to review these after the course is completed.

## Presenter

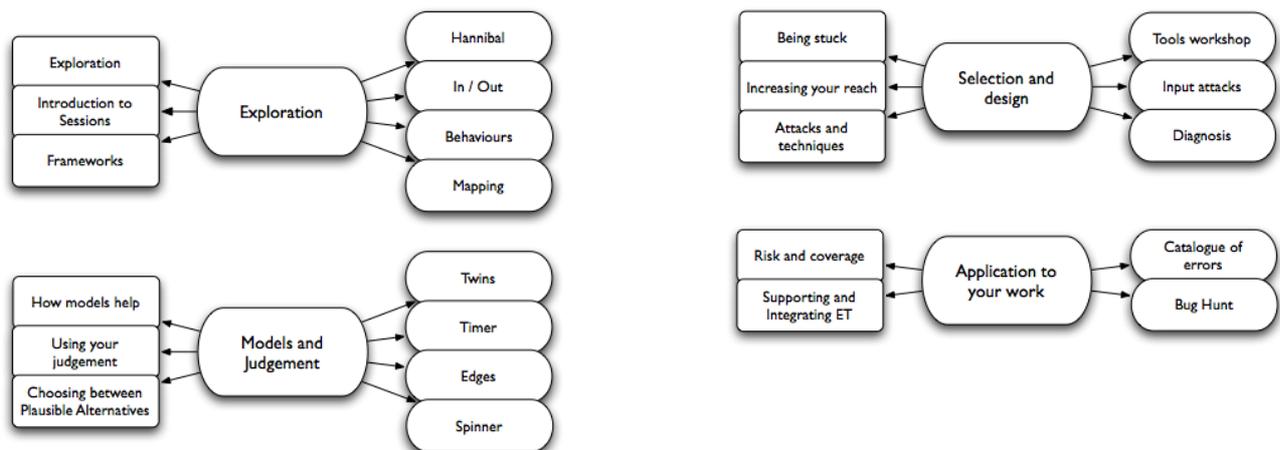
James Lyndsay is an independent Test Strategist, based in London. He started testing in 1986, and has been the principal consultant at Workroom Productions since its formation in 1994. As a consultant, he's worked in a variety of businesses and project styles; from retail to telecommunications, from rapidly-evolving internet start-ups to more traditional large-scale enterprise. He's worked to technical requirements for companies that make and sell software, and to commercial requirements for companies that buy and use software. James has used, taught and championed hands-on exploratory testing wherever it made sense.



James is a regular speaker at international test conferences, delivering invited keynote talks at STAREast, AsiaSTAR and EuroSTAR. He received "Best Paper" at STARWest 2002 and at EuroSTAR 2002 for "Adventures in Session-Based Testing" and at STAREast 2009 for "The Irrational Tester". An active participant in the testing community, James spent five years as an internal irritant to the ISEB exam process and has taken part in peer workshops including WOPR, LAWST, WHET, WTST, ExTRS and AA-FTT. He is the convenor and facilitator of LEWT, the London Exploratory Workshop in Testing. James pioneered the interactive live testing environment "The TestLab", for conferences and workshops.

See <http://www.workroom-productions.com/> for more details.

## Course outline (2-day)



## Equipment

Many exercises are computer-based, using Workroom Productions' custom-built "Black Box" machines. These Flash-based interactives run in-browser, on Linux, OS X and Windows, without installing executables or library files. Delegates are encouraged to download exercises before the tutorial, and bring their laptops to use and share.

