ENABLING SUCCESSFUL MOBILE AUTOMATION TESTING
INTRODUCTION

• Michael Pollino – Technical Team Lead with Planit Test Management Solutions

• 7 years Automated Testing experience

• Planit provide Software Testing solutions. We are based in Melbourne, Sydney, Perth and NZ with a team of over 450 permanent Consultants
UNSUCCESSFUL MOBILE TESTING
OVERVIEW

1. Proliferation of Mobile Devices
2. The Mobile Difference
3. Mobile Landscape
4. Technology Targeting
5. Tools
6. Defining Success?
THE PROLIFERATION OF MOBILE

Smartphones are becoming indispensable to Australian daily life:

• 52% of Australians over 18 currently own a smartphone.

• 9.2 million Australians went online via their mobile phone in the six months to May 2012.

• 74% do not leave home without their device.

THE PROLIFERATION OF MOBILE

The bottom line:

- $8.5 Billion generated revenue from Apps in 2012 in the US
- Spending set to grow to $46 Billion by 2016
- 4.45 million users downloaded an app during June 2012.

THE MOBILE DIFFERENCE

**Question:** What is the difference between a Mobile Development project and any other project?

**Answer:** Time. The rate at which things change on a Mobile App Project is far faster than your usual projects.
THE MOBILE DIFFERENCE

Everything is faster:
• Changes in operating systems
• Changes in technology – Platforms and Standards
• Changes in devices
• Changes in user expectation
• Changes in business requirements

Nothing stands still – first to market is critical
THE MOBILE LANDSCAPE

iOS Distribution Nth America

- Earlier iOS: 11.9%
- iOS 5: 34.9%
- iOS 6.0: 5.4%
- iOS 6.0.1: 3.8%
- iOS 6.0.2: 1.8%
- iOS 6.1: 15.6%
- iOS 6.1.1: 22.8%
- iOS 6.1.2: 3.7%

February 2013

Android Distribution Nth America

- Jelly Bean: 30.5%
- Ice Cream Sandwich: 20.1%
- Honeycomb: 1.2%
- Gingerbread: 1.1%
- Eclair: 0.1%
- Froyo: 1.1%
- Donut: 5.9%

February 2013

Source: http://chitika.com/insights/
WHERE DOES AUTOMATION FIT?

- Do we need it?
- What will it give us?
- When do we start?
- What do we Automate?
- How do we do it?
TECHNOLOGY TARGETING

• Test the technology your customers are using

• Get the most from your Test Effort - break down your mobile traffic.
  • Know what to support, more crucially – when to support it
  • Map the user experience

• Create a Technology Cross section that represents your client base

• Standardised devices? Hero handsets? Tablets?
ARE YOUR CUSTOMERS TRYING TO TELL YOU SOMETHING?

- User Experience absolutely critical
- User expectations high
- Feedback is very visible
- Would you want to explain this:

![User Reviews图表](chart.png)

**User Reviews**

- 5 star: 11
- 4 star: 6
- 3 star: 8
- 2 star: 4
- 1 star: 56

[Planit logo]
THE CLOUD ENVIRONMENT

- The emerging new technology
- Lower cost of ownership of actual physical devices
- Increased Handset diversity
- Easily shared resources for manual testing
- Geographical considerations
- Performance
- Security
- Object Recognition?
TESTING ACTUAL DEVICES

- Real world hardware
- Real world provider
- Robust Object Recognition
- Concurrent Test Execution

- Cost and Maintenance

- Emulators and Simulators used for Test development and debugging
WHICH TOOL DO I CHOOSE?

Mobile Automation is comparatively immature – Careful tool choice is critical

• Test Platform will be crucial for Tool selection

• App vs Hybrid vs Web

• Object Recognition – We must move past capture replay

• Device independent test cases
WHICH TOOL DO I CHOOSE?

• Automating new capabilities; camera, GPS, hardware buttons.

• Compiling foreign code with your application code

• Will I get support?

• Integration with existing Automation implementation?

• Open Source
SUCCESS!

• Save Money
• Shorter Test cycles
• Find Defects quicker
• Higher quality
• Happy Testers
NOW WHAT?

- Maintain
- Improve
- Refactor
- Document

The mobile space changes rapidly – Adapting with to these changes is critical
QUESTIONS?
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