EASY ACCEPTANCE TESTING

Cecil G. Williams

What I Plan To Cover

- Different Types of Testing
- Disadvantages of Acceptance Testing
- Advantages of Acceptance Testing
- Tools for Acceptance Testing
- Demonstration using Groovy and Selenium
- Q & A

Why Listen To Me

BSNE, MBA, MSIT

Wrote my first computer program on a Commodore VIC-20 in 1982

Practicing Agile Software Development since 2004

Nuclear Engineer, Software Developer, Technical Lead, System Administrator, Development Manager, Agile Coach, IT Consultant

source allies, inc.

Growing Businesses Through Creative and Open Technology Solutions

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Why Listen To Me

Technical Lead on project featured in Chapter 14

Specification by Example
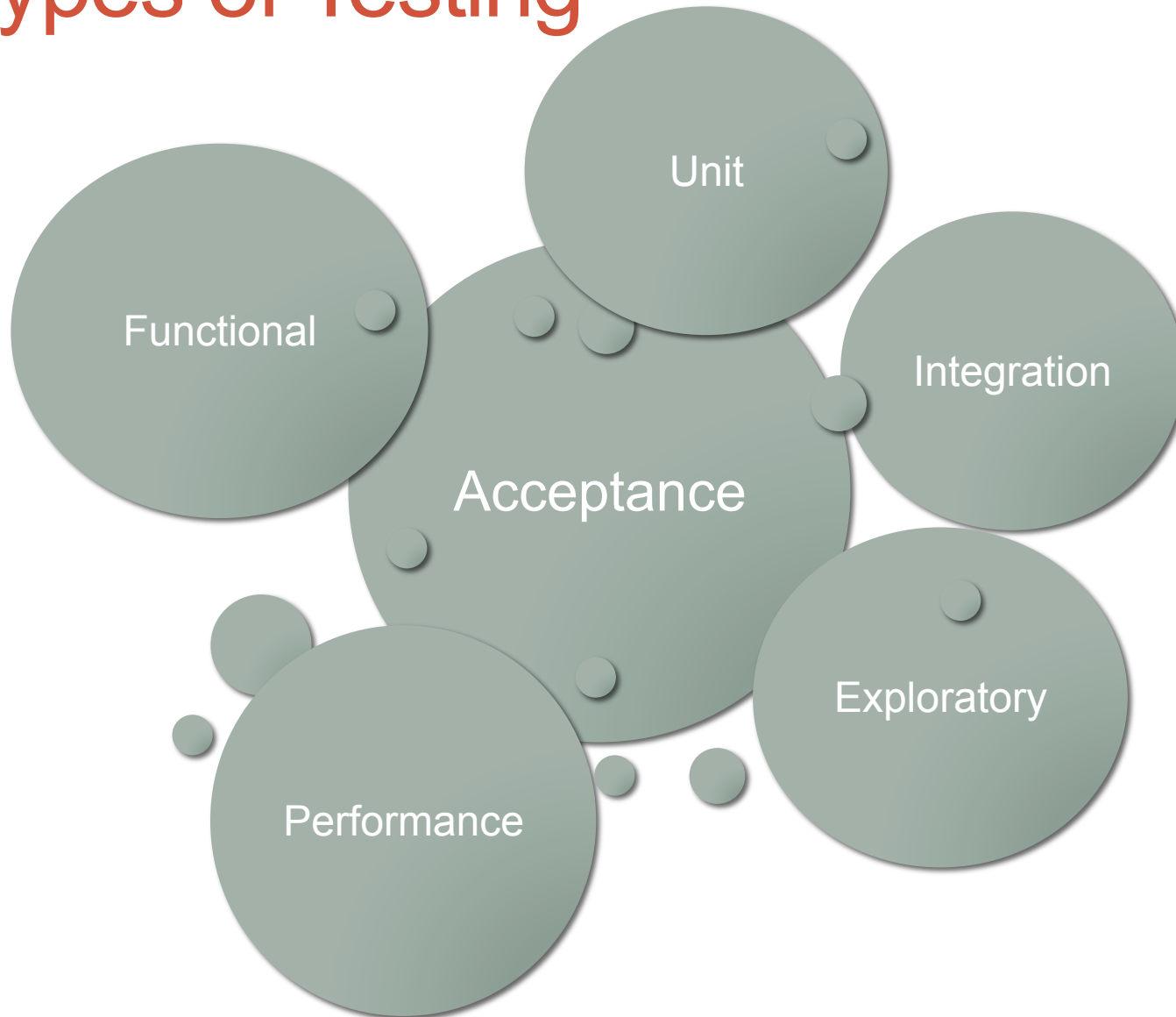*How Successful Teams Deliver the Right Software*
Gojko Adzic

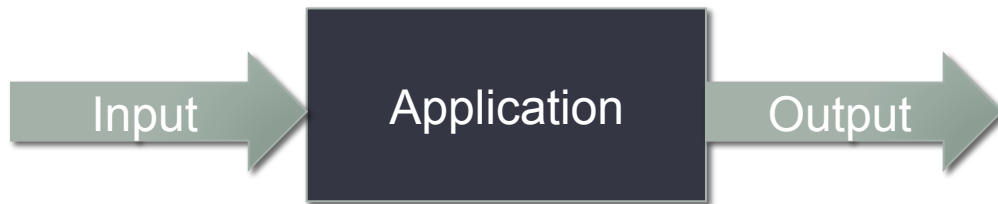June, 2011 | 296 pages
ISBN 9781617290084

http://specificationbyexample.com

Types of Testing

Unit

Functional

Integration

Acceptance

Exploratory

Performance

Acceptance Testing

Input ➔ **Application** ➔ Output

"An acceptance test is a formal description of the behaviour of a software product, generally expressed as an example or a usage scenario."

- Black Box or End to End Testing

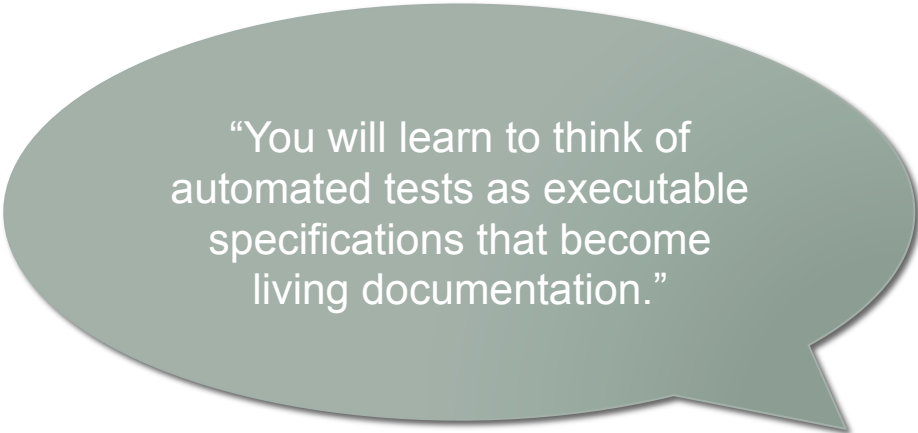- Exercises the Real System

- Manual or Automated

Automated Acceptance Testing

"…Acceptance should be a conversation…"

– James Shore | 08 Sep 2012
http://www.jamesshore.com/Blog/Acceptance-Testing-Revisited.html

"You will learn to think of automated tests as executable specifications that become living documentation."

– Mary Poppendieck
http://manning.com/adzic/

Disadvantages of Acceptance Testing

Very Slow To Run

Brittle

Duplication

Test 1	Test 2	Test 3
Step 1	Step 1	Step 1
Step 2	Step 2	Step 2
Step 3	Step 3	Step 3
	Step 4	Step 4
		Step 5

Disadvantages of Acceptance Testing

Burden to Maintain

Resistance

Advantages of Acceptance Testing

Complete Integration

http://www.allvectors.com/puzzle-vector/
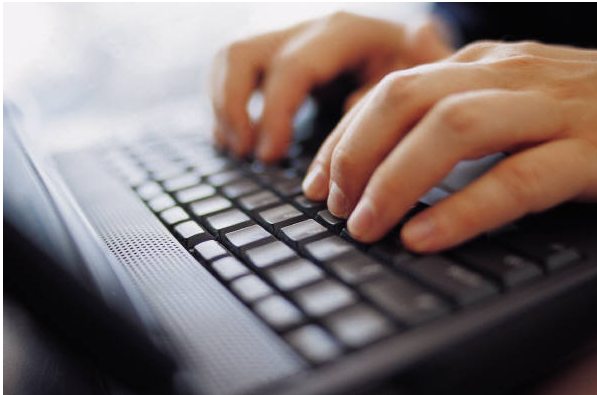
Exercise the System
like a User

Advantages of Acceptance Testing

Feedback

Legacy Systems

Safety Net
for Refactoring

Advantages of Acceptance Testing

Run Against Different Environments
- Operating Systems
- Browsers
- Mobile Platforms

Tools for Acceptance Testing

Cucumber
http://cukes.info/

http://docs.seleniumhq.org/

Watir
http://watir.com/

specflow
PRAGMATIC BDD FOR .NET
http://www.specflow.org/

https://code.google.com/p/robotium/

Frank
http://www.testingwithfrank.com/

FitNesse
http://fitnesse.org/

FEST
http://fest.easytesting.org/
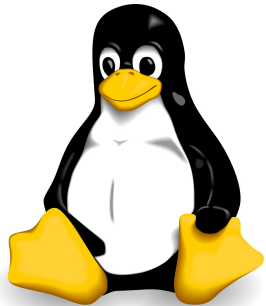
Tools for Acceptance Testing

Wiki based Acceptance Testing Framework

Tools for Acceptance Testing

Cucumber
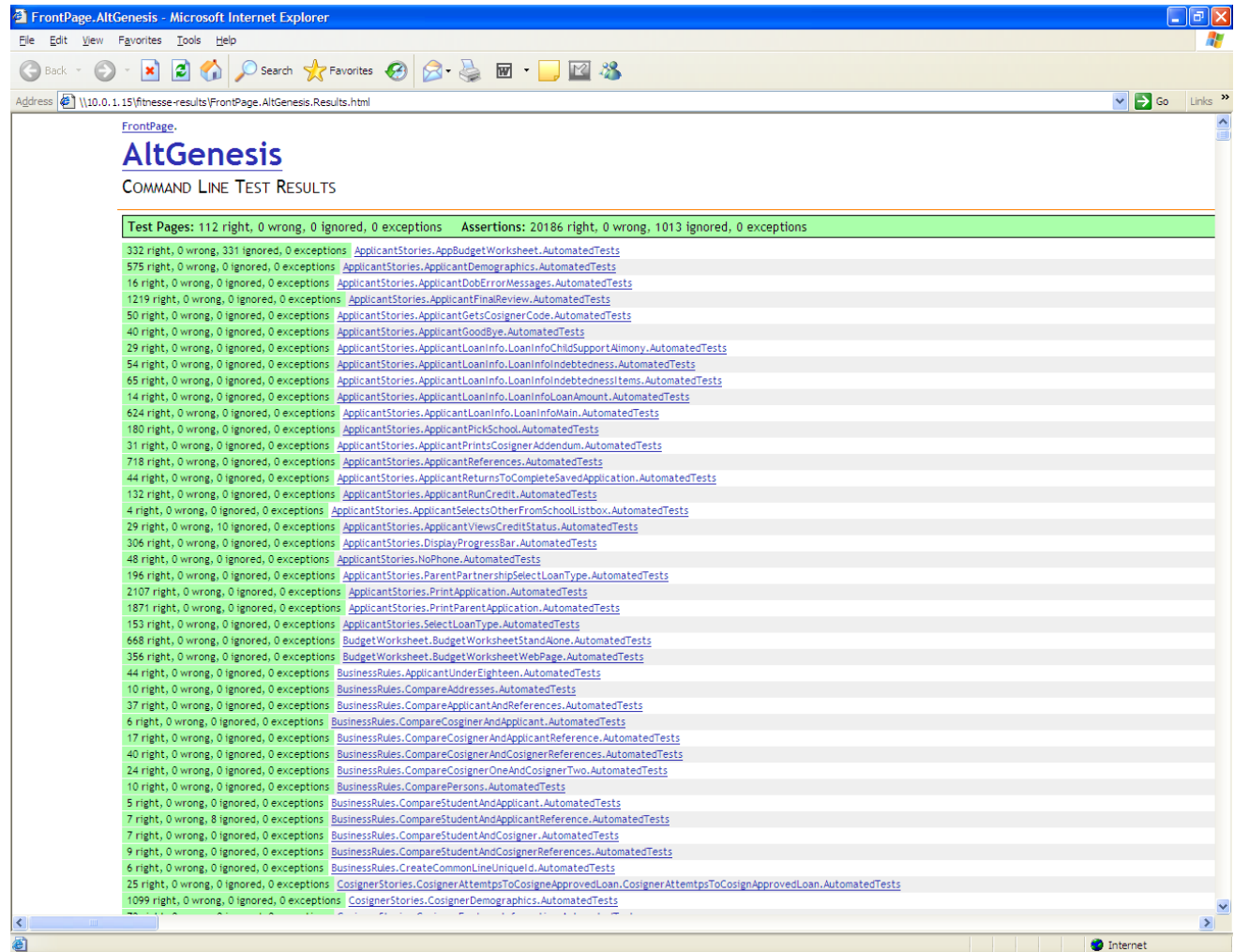
Behavior Driven
Development Tool
From The
Ruby Community

Feature: Addition
 In order to avoid silly mistakes
 As a math idiot
 I want to be told the sum of two numbers

 Scenario: Add two numbers
  Given I have entered <input_1> into the calculator
  And I have entered <input_2> into the calculator
  When I press <button>
  Then the result should be <output> on the screen

 Examples:
input_1	input_2	button	output
20	30	add	50
2	5	add	7
0	40	add	40

Tools for Acceptance Testing

Selenium: Web Browser Automation Tool

- IDE: Firefox plugin for
  record-and-playback

- WebDriver: Language specific bindings
  to drive a browser

- API: W3C Working Draft 27 January 2013
  http://www.w3.org/TR/2013/WD-webdriver-20130117/

Demonstration

- Written in Groovy
- Uses Selenium
- Scenarios in XML

Summary

- Different Types of Testing
- Advantages of Acceptance Testing
- Disadvantages of Acceptance Testing
- Tools for Acceptance Testing
- Example of Simple Framework

https://github.com/cecilgwilliams/EasyAT

Q & A

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Easy Acceptance Testing Links

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- http://blogs.sourceallies.com

- https://github.com/cecilgwilliams/EasyAT

- http://specificationbyexample.com

- http://docs.seleniumhq.org/

- http://cukes.info/

- http://watir.com/

- http://www.specflow.org/

- https://code.google.com/p/robotium

- http://www.testingwithfrank.com

- http://fitnesse.org

- http://fest.easytesting.org