



You Bet Your Life

Playing The Automation Tool Selection Game



Paul Grizzaffi

Who Is This Guy?

- » Paul Grizzaffi
- » Principal Automation Architect at Magenics
- » “Software Pediatrician”
- » Career focused on automation
- » Advisor to Software Test Professionals (STP)

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So Many Questions!

Which Automation Tool is the best ?

What would be the best automation tool that comes as a java library to test RESTful APIs

Best Automation Tool for iOS?

What is the best tool for mobile apps testing

Which is best tool to learn in terms of moving into Automation Testing for Manual tester. Please share your ideas and...

Which Automation Tool Should I Learn?

What's the best testing tool for games?

which is the best mobile automation test tool to recommend to client

Selenium Vs Watir Which one is best ?

Best API Testing tool

Hi All...for a beginner which automation tool is the best to learn ...is QTP a tool that is likely to be in demand for long ?

Best languages to learn for qa position

So Many Options!



Press Your Luck!

- » I think automation is valuable for my testing
- » I'll ask "The Experts" what the best tool is
- » "The Internet" == "The Experts"
- » Certainly, "The Internet" knows what I need
- » I'll use a spin!



No Whammies, No Whammies...



USA

Doesn't “The Internet” Know All?

- » No – it doesn't know your context
- » What's the best hamburger place?
 - › Traditional or exotic?
 - › On a budget?
 - › Where are you?
- » Must fit what you're hungry for
- » Must fit your needs...your ecosystem



Automation Ecosystem

Strategy



Audience



Environment



Did *The Experts* Consider Your Strategy?



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14

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10

BRA STREISAND

9

ENRICO CARUSO

6



What Do You Want To Do?

- » Raise quality / Increase coverage
- » Release faster
- » Hit high-value targets
- » Is automation valuable?

These are business decisions



How Are You Going To Do It?

- » What kind of testing?
 - › Feature
 - › Lock-step with Agile/Scrum/Etc.
 - › Integration/End-to-end
 - › Exploratory
 - › Performance
 - › Some or all of the above
- » Are your test cases “automation ready”?
- » “Date or Marry?”



Date or Marry?

» Dating

- › Pick and choose
- › You have options, don't have to "go steady"
- › Won't necessarily have all benefits of marriage



» Marriage

- › Monogamy is in your best interest
- › Lots of family support
- › You'd better like the in-laws



I'd Like To Solve The Puzzle

Company 1

- » Valuable to automate
- » Increase quality/coverage
- » New targets on the way
- » Feature, end-to-end, HiVAT, Automation Assist, negative
- » Test case rehab

Company 2

- » Valuable to automate
- » Increase quality/coverage
- » New targets on the way
- » Feature, end-to-end, HiVAT, Automation Assist, negative, performance
- » Test case rehab



Did *The Experts* Consider Your Audience?



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Audience Demographics

- » Who?
- » Size
- » Automation acumen
 - › Tool/Framework
 - › Scripts
 - › Reports
- » Level of buy-in
 - › Have any friendlies?

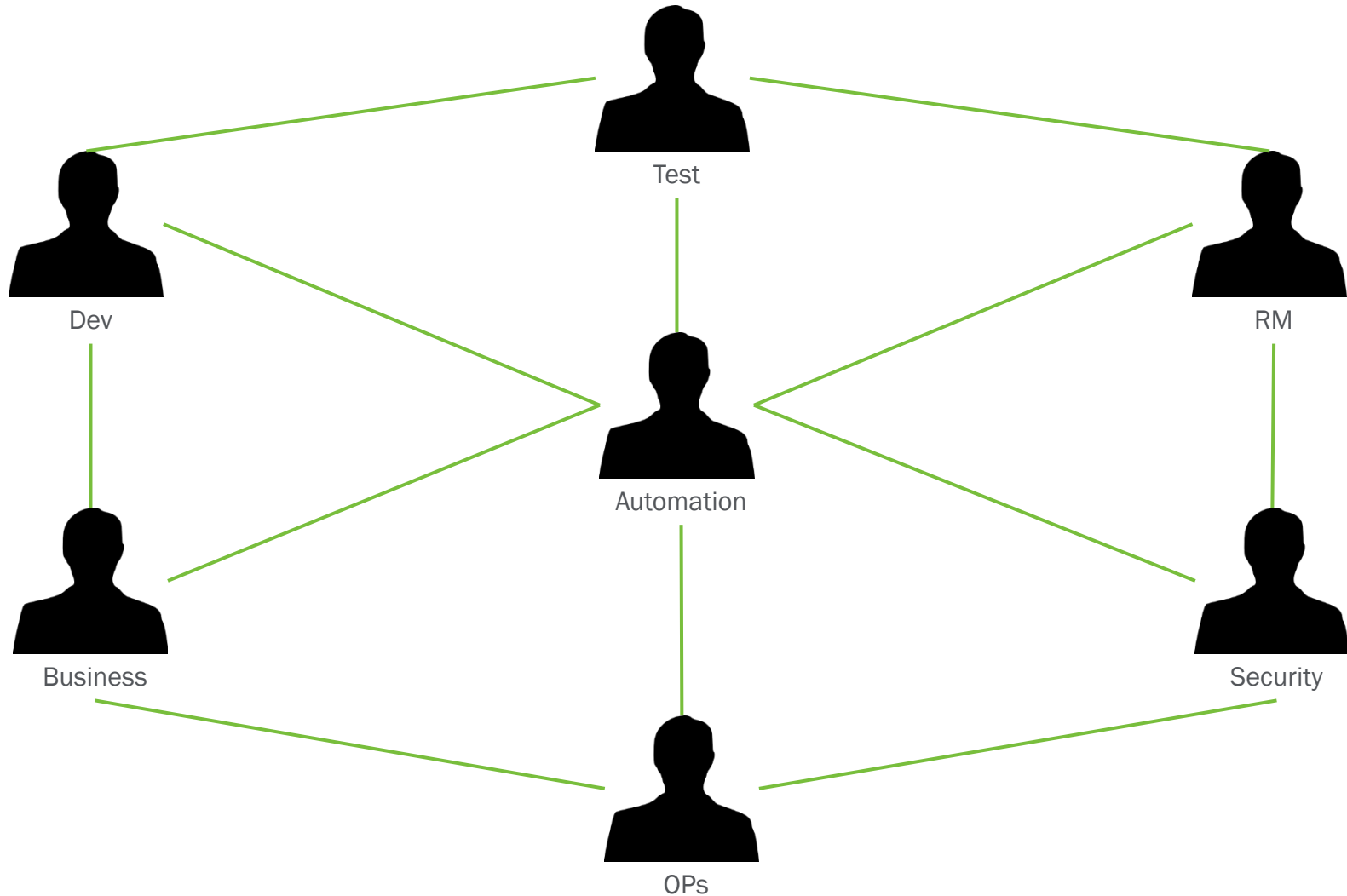


Studio Audience or Home Audience?

- » Location can affect choice
- » Sites
 - › One or more?
 - › Same or different countries
- » Telecommuters
- » Language (not *that* kind)



How Are Your Relationships?



Why Are You Telling Me This?

- » Relationships affect behavior
- » Good relationships → trust and dialog
- » Allows culture change
- » The middle can facilitate change
- » Increases tool choices



I'd Like To Solve The Puzzle

Company 1

- » Assessed, participated in hiring
- » Limited outsourcing
- » Test team receptive, low automation experience
- » Dev trailed but interested
- » Leadership ready, willing to invest
- » Had friendlies

Company 2

- » Assessed, participated in hiring
- » Large percentage outsourced
- » Test team receptive, low automation experience
- » Some Dev trailing, now highly engaged
- » Leadership ready, willing to invest
- » Had friendlies
- » Hard to involve business



Did The Experts Consider Your Environment?



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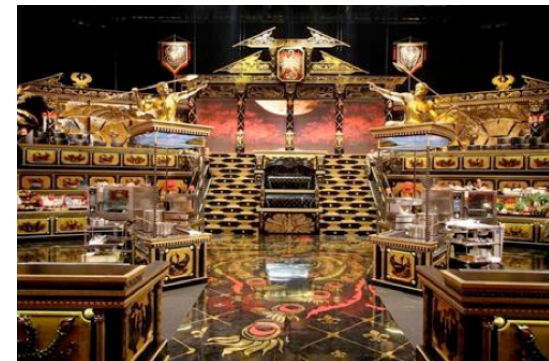
What Are You Testing?

- » Product status
 - › New
 - › Existing and adding new features/fixes
 - › “Legacy” and migrating to new tech/arch
- » Product type
 - › Desktop? Mobile? Web? Combination?
 - › Distributed system
 - › Embedded
- » Product automatability
 - › Messaging
 - › API
 - › GUI
 - › Which tech?



What Is Your Test Bed?

- » Desktop? Laptop? Lab? Segregated LAN?
- » Which OS or OS combination?
- » Virtual environments
- » Devices, specialty or proprietary hardware



With What Do You Interact?

- » Test script repository
- » Results repository
- » Continuous integration environment
- » The cloud
- » License server



How Big Is Your Box?

- » Network/Security
- » Intellectual property
- » HIPAA/PCI/etc.
- » Budget
 - › Buy
 - › Build
 - › Open source



I'd Like To Solve The Puzzle

Company 1

- » Web, services, thick client
- » Greenfield with needs
- » What (not) to automate
- » Small user base
- » Small number of products
- » Multi-browser/OS/Mobile
- » Jenkins
- » MTM – run and results

Company 2

- » Web, services, thick client
- » Existing infrastructure with needs
- » What (not) to automate
- » Larger, mixed user base
- » Large number of products
- » Windows/IE/.NET
- » Team City



GONG!

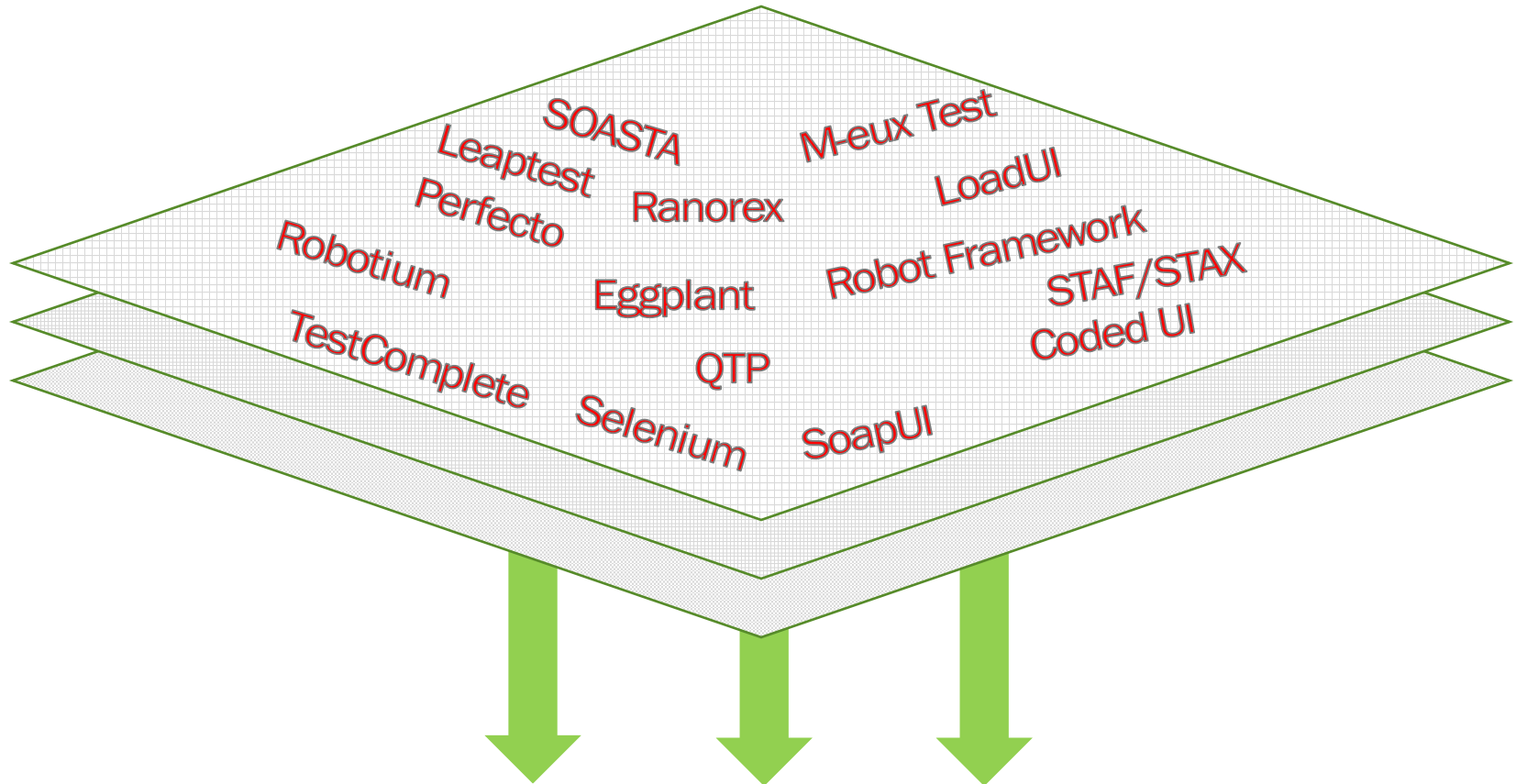


Really?

- » No
- » Context
- » OK to learn about tools
- » Don't prematurely decide
- » Automation tool as “boss card”?



Narrowing The Options



Appropriate Candidates

FINAL

JEOPARDY!

BEST IN CLASS

**What is an
overused
software term?**

Best In Class

- » Consider instead: Most Appropriate In Class
- » The “best” isn’t always what is needed
- » “Best” is relative; remember the burgers
- » Start with appropriate, evolve when no longer appropriate

What is an
overused
software
term?

Solving The “Company 1” Puzzle

- » Unclear technology roadmap
- » Needed web testing via the browser
- » Looked at several tools; at the time:
 - › Vendor-supplied not cost effective
 - › Selenium RC and IDE not appropriate
 - › Selenium WebDriver not ready
- » Layered framework with Ruby scripting for tool independence
- » Started with WebSpec, migrated to Selenium WebDriver
 - › No impact to business logic
- » Eventually needed web services and ancillary capabilities



Solving The “Company 2” Puzzle

- » Unclear technology roadmap across many products
- » Needed web, non-web UI, and non-traditional automation
- » Existing initiative using TestComplete, evolution needed
- » Tool-*dependent*, layered architecture with scripting
- » Supplement with open source and automation assist



Free Spin?

- » Scrum teams adopt a test-first approach
- » New participants in automation creation
 - › Testers
 - › Developers – already know C#
 - › Product owners
- » Selenium has attractive licensing
- » Layered framework with scripting for tool independence
- » SpecFlow for “non-technical” audience
- » Coexists with TestComplete



What Do I Suggest?

- » Broad assessment of your ecosystem
- » “Play” with open source or free-trial tools
- » Prototype with appropriate tools and assess
- » Next steps...
 - › Re-prototype?
 - › Abstract away tool specifics in a framework?
 - › Develop a small sanity/smoke suite and reassess?
 - › Deeper assessment of ecosystem?



Takeaways

- » Focus on testing ecosystem
 - › Strategy, audience, environment
- » No premature decision
- » “Playing” is encouraged
- » Remember “Most Appropriate In Class”



Q & A



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