



ASQT 2021 Virtual Conference

Orchestrating Your Testing Process

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PractiTest, Rehovot, Israel
November, 2021

Orchestrating Your Testing Process

Coordinating the manual and automated tests in your project

Joel Montvelisky
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About Me!

QA / Testing

(last 23 years)

- Tester
- QA Manager
- Blogger / Podcaster
- Speaker
- Consultant
- Solution Architect



Joel Montvelisky

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PractiTest

- Chief Solution Architect

Other Stuff

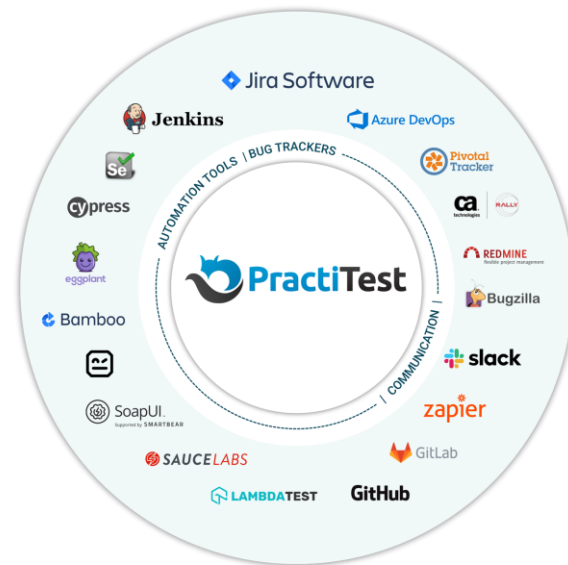
- AST Board Member
- State of Testing™
- Online Test Conference

About PractiTest

Integrate manual and automated testing in one central platform



- ▶ Increase Visibility & Communication
- ▶ Streamline Processes
- ▶ Enhance Efficiency
- ▶ Lower Cost and Improve ROI
- ▶ Reduce Time to Market



Trusted by global brands across all industries



Manual vs. Automated Testing

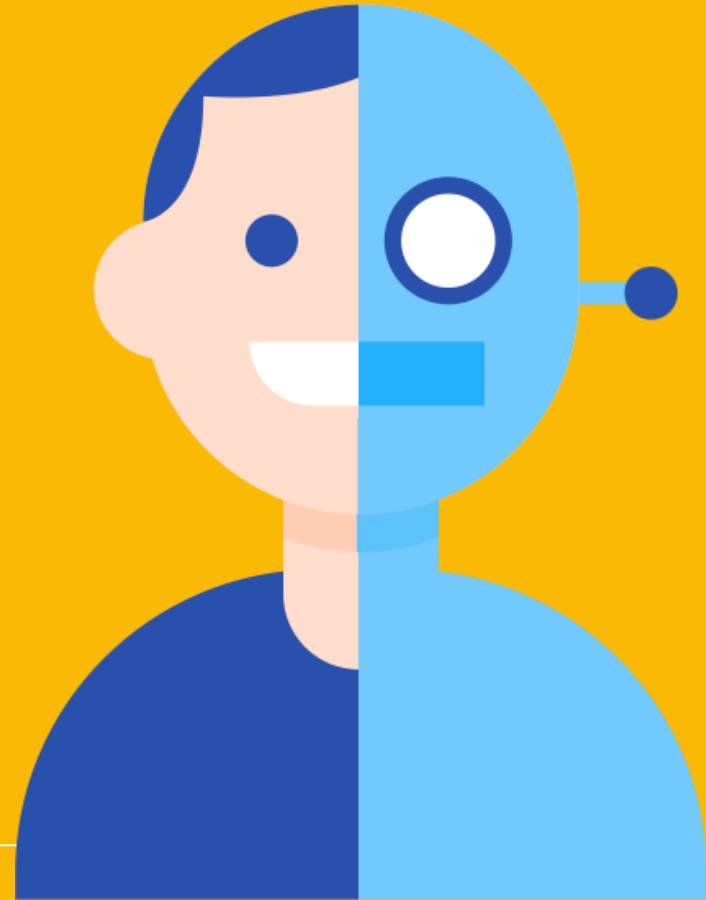


Manual vs. Automated Testing



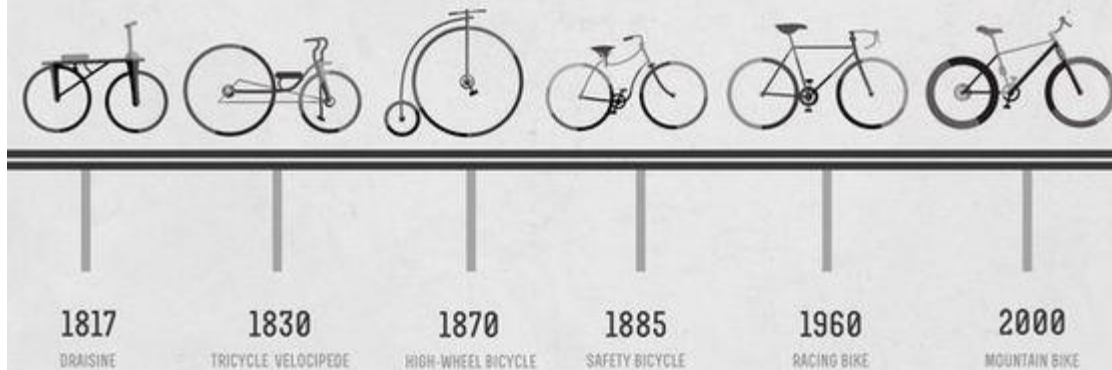
What are the challenges
of managing
manual & automated
tests together?

Why is this interesting
Right Now?



EVOLUTION OF THE BICYCLE

FROM 1817 TO 2000



Changes in Automation Adoption and Tools

- More tools, and also more diverse
- Less expensive
- Easier to use
- Automated tests are becoming more robust



Jenkins

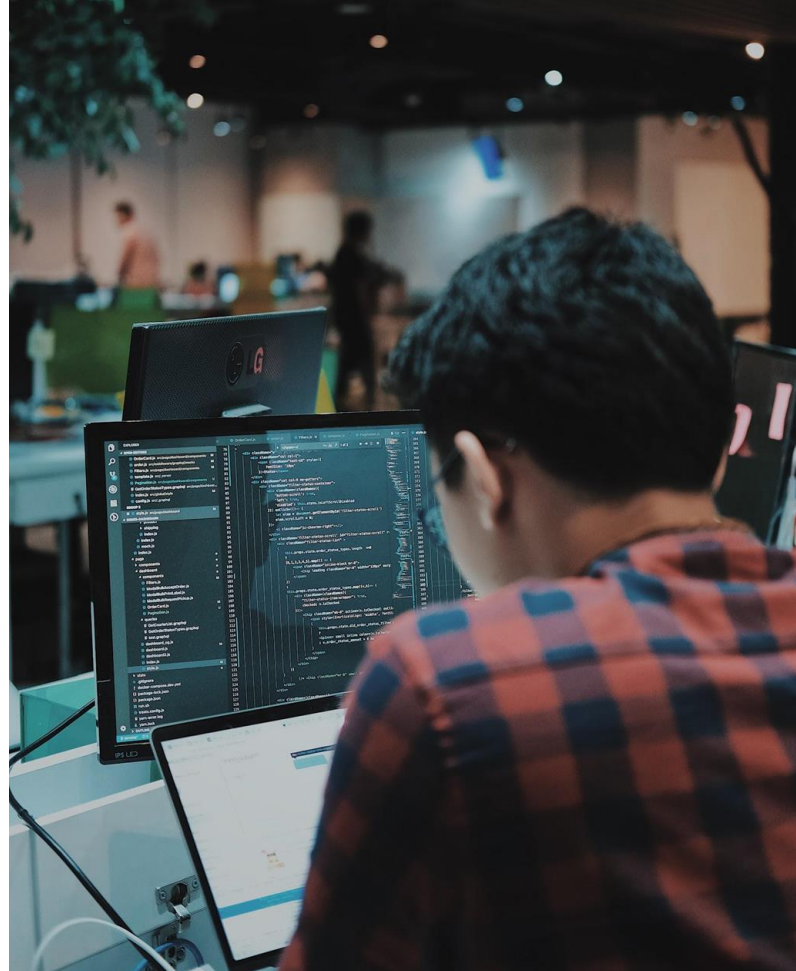
Changes in Dev & Testing Processes

- Agile - shorter cycles requiring constant stability
- CI - “*Clever*” idea of constantly building and testing the system
- DevOps - laser-focused testing, reducing the cost of *some* bugs in production, shifting to whole team testing

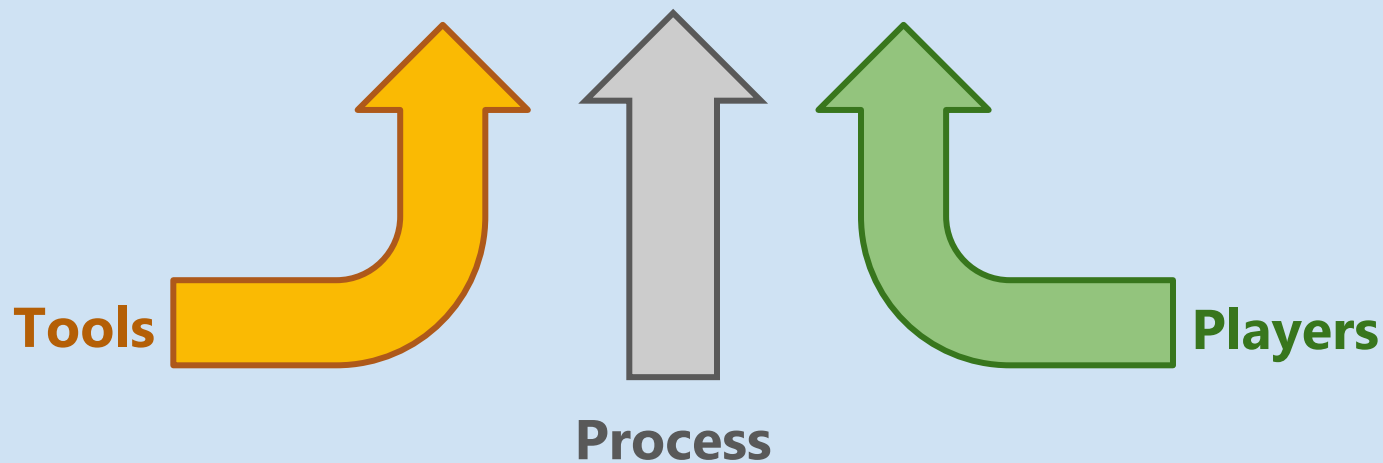


Changes in Players

- Less testers within each team
- Testers are more technical
- Developers are taking a more active role in testing tasks
- Other teams taking part in testing



More & Better Automated Testing



2. What's the difference between manual & automated tests?

Actually, quite a lot...

Purpose of the Tests

Manual

- Evaluate the product to ensure desired quality, value, fit, etc
- Find bugs and areas to improve



Automated

- Maintain the product's functional and non-functional stability
- Detect changes that may point to issues



Nature of the Tests

Manual

- (Relatively)
Inexpensive to write
Expensive to run
- Long run duration
- High Level & Flexible
- Results directly dependent on the tester



Automated

- (Relatively)
Expensive to write
Inexpensive to run
- Short run duration
- Low Level & Inflexible
- Results independent from the tester



Runs & Results

Manual

- Small(er) number of runs and repetitions
- Tests are distributed among the team
- Failed tests usually report bugs directly
- Interest resides in the direct results
- Good for evaluations and exploration



Automated

- Very large number of runs and repetitions
- Tests are run on automation frameworks
- Failed tests require analysis and review
- Interest resides in trends and benchmarks
- Good for stability and certification across platforms



Manual Testing

Evaluation & Discovery

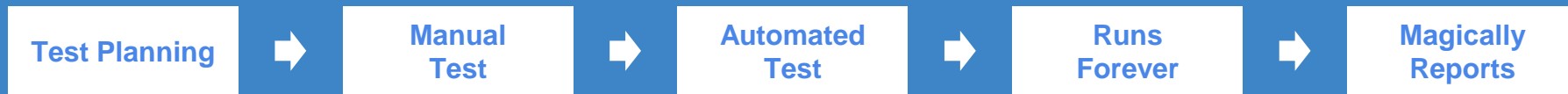


Automated Testing

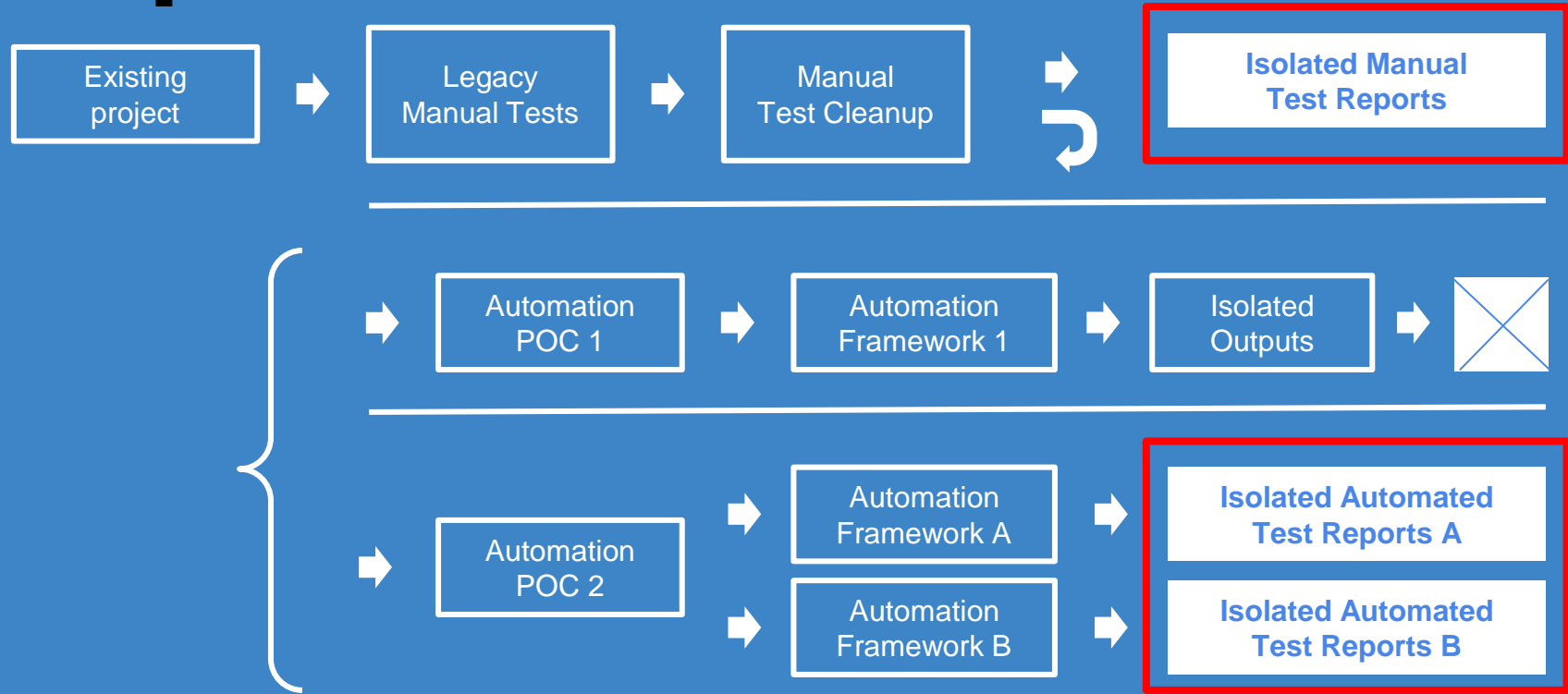
Stability & Certification

A common misconception about automated testing projects

In theory



In practice



3. Challenges of Managing Manual & Automated Testing Together

Very different entities

- Automated tests are usually deeper and more specific
 - Manual tests are usually more extensive and less defined
-
- There are different types among manual
(e.g. Scripted vs. Exploratory / Regression vs. New Funct.)
 - There are also different types among automated
(e.g. GUI vs. API vs. Performance vs. Unit vs. Integration...)



Different scale of tests and runs

- There are usually many more automated tests than manual, specially when you add unit tests.
- There are also many more automated runs, as they run constantly (sometimes daily or continually).



Different timelines for results

- Automated tests can complete full cycles in minutes / hours
- Manual results may take hours / days to be completed



No one really knows which scripts exist or where they are running?

- Teams create the tests they need.
- There are no guidelines or coordination.
- No one really knows what is running or when it runs.
- Very hard to reuse tests or integrate results to create unified visibility



Need a different approach...

First of all

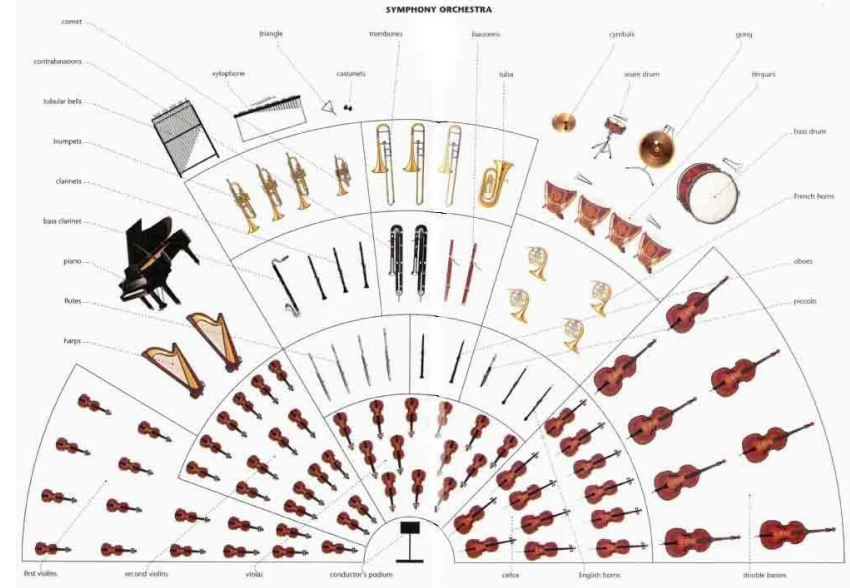
Think about the overall desired results.

Only then

Plan the contribution, scope & priority of

the parts.

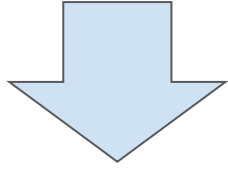
Need a different approach...



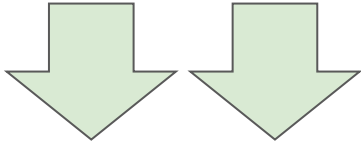
Orchestration of the Overall Testing Process



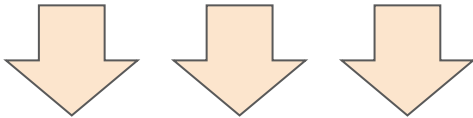
Test Orchestration I - Master Planning



1. Define the purpose and scope of the overall testing process



2. Agree on what will be tested
Manually and what Automated.

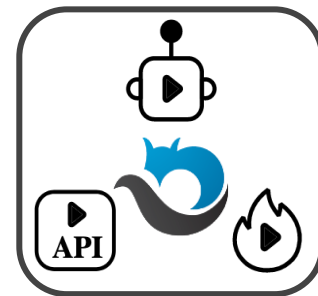
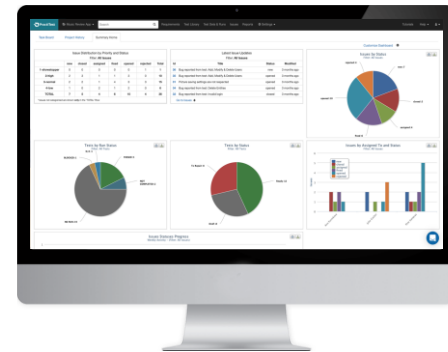


3. Break down into tasks.

4. Agree on priorities and timelines

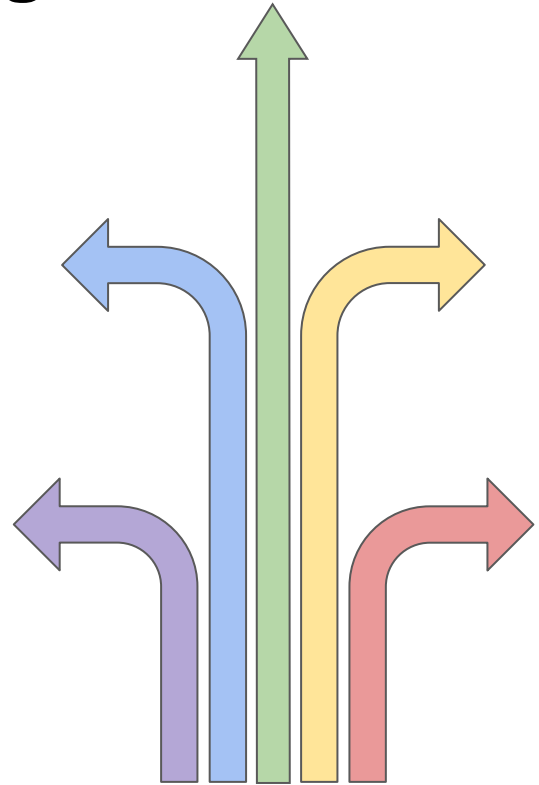
Test Orchestration II - Ongoing coordination

5. Define a communication and coordination process across teams
6. Deploy a single reporting & visibility framework
7. Integrate between the different tools & the framework (manual + automated)



Test Orchestration III - Broadcasting Value

8. Deliver results with independent value and as an integrated Quality Dashboard
9. Generate business valuable information for the main stakeholders
10. Distribute information via multiple channels for better diffusion



Test Orchestration IV - Important points

- 💣 Process should not interfere with the ability to run trials & innovate
- 💣 Invest in cleaning up and refactoring tests as part of the daily tasks
- 💣 Make the integrated testing framework an enabling priority and not a side cost



Finally, Keep in mind...



Keep in mind

- The balance is shifting from Integrated Platforms (one-stop shops) to Best of Breed.
- Constant visibility and transparency ensures healthy processes.
- Align from the get-go the testing efforts with the Company's Business Value.



Thank You!

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