It’s Time to Rethink TestOps!

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PNSQC 2021
### Agenda

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#PNSQC2021

It’s Time to Rethink TestOps!
PART 01

What is TestOps?
The intersection between testing and operations?

Is this TestOps?

Illustration from “Are You My Mother?”, by P.D. Eastman
Is it using production data in testing?

Illustration from “Are You My Mother?”, by P.D. Eastman
What about testing in production?

Illustration from “Are You My Mother?”, by P.D. Eastman
PART 02

A framework for scaling.
The challenge with scaling testing

More People

More Tests

More Releases
Why scaling, why now?

Growth in Web Applications → Test Automation → Faster Release Cycles → Test Automation is Getting Easier

The discipline of managing and scaling test automation to maximize efficiency, delivery speed, and application quality.

Core tenets:
- Planning
- Management
- Control
- Insights
Planning

What to test?

How to test it?

Who should test it?

Planning docs

- Test design spec
- Test case spec
- Test procedure spec
- Pass / Fail criteria
- Test data
- Related tests
Management

- Test organization
- Work assignments
- Test lifecycle
- Test execution

It’s Time to Rethink TestOps!
Control

- **Set standards**: Manage tests to high standards with naming, organization, and documentation.
- **Drive reuse**: Author maintainable tests. Reuse proven steps, groups, and configurations, to improve robustness.
- **Approvals**: Treat tests like code and govern changes by requiring reviews by trusted test leaders.
Insights

It’s Time to Rethink TestOps!
TestOps Isn’t Enough. Tips for Project Success.
Success Blueprint

Support Structure
- Strong champion
- Management engagement
- Communication
- Infrastructure Readiness

Plan
- Establish goals and objectives
- Prioritize automation
- Evaluate team skills
- Kickoff!

Prove Value
- Enable team
- Start small, focused
- Create reusable functions
- Reach stability
- CI Integration
- Integrate toolchain
- Celebrate success!

Scale
- Establish change controls
- Expand team included
- New scenarios
- Fill coverage gaps
- Measure & report!
Teamwork

- Plan as a team
- Document well
- Work in branches
- Label consistently
- Organize work thoughtfully
Reuse Components

Why?
- Easier to maintain
- Faster test creation
- Easier troubleshooting

How?
- Share and reuse components
- Parameterize variables
Smart Data Use

- Cover more scenarios
- Persona based testing
Review and Communicate Results

- Establish results review process
- Communicate results regularly
- Expand with successes
- Tag and trend failures
- Look for systemic problems
PART 03

Features to help Scale Test Operations (TestOps)
The Testim Solution

TestOps

- Management
- Control
- Insights

Fast Test Authoring
AI-Based Stability
Root Cause Analysis

It’s Time to Rethink TestOps!
Management:
Test Status

- Alter how the CI treats test failures (fail the build/skip) to build trust in tests
- Clearly identify the tests that need improvement
Test Owner

Assign owners to tests to:

- Distribute workload
- Improve clarity of responsibilities
- Filter and analyze results by owner
Management:
Folder Hierarchy for shared steps + step menu

Organize tests and shared steps into folders

Better access to shared steps through the editor step menu
Control:

Branch conflict resolution

Number of pending conflicts

Resolve all conflicts automatically

Next/previous conflict

Recommended version indicator

Conflict reason
Control:

Branch conflict resolution
Control:
Read-Only Master

Lock the master branch to prevent writing directly to master.
Control:
Test Merge as a Pull Request

Control:
Test Merge as a Pull Request

Treat tests like code
Require reviewers for changes with Pull Request
Insights:
Auto-Grouping Recommendations

Streamline test architecture for better visualization and lower maintenance.
Insights:

Reports and dashboards

Team productivity will allow managers to have better visibility to the team’s work.
Wrapping it up

● The new TestOps is about scaling the operations of testing.
  • Planning
  • Management
  • Control
  • Insights

● TestOps is not a substitute for good project management.

● Look for features that will help you scale your team and tests.
PART 04

Q&A