



# What the heck happened?

QA Tools – Squish & Test Center  
Thomas Piekarski  
Booth 21

STAREAST, Orlando, Wednesday, 27 April 2022

# Agenda

- 1 Introduction
- 2 Live Demo
- 3 QA Tools
- 4 Wrap-up
- 5 Q&A



# Introduction



All your tests have  
run successfully...

# Introduction



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run successfully...



...and suddenly one  
test is failing...

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...what the heck  
happened?

# Approaching failed tests

- › Verification message(s)

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- › Verification message(s)
- › Logs and output of stdout/stderr

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- › Screenshots

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- › Screenshots
- › **Google...**

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Is this enough to  
pinpoint a failure?



**‘ A picture is worth  
a thousand words.**

# Approaching failed tests

Video captured during test runs

```
ListModel {  
  id: cupList  
  ListElement {  
    name: "doppio"  
    image: "qrc:doppio.png"  
  }  
  
  states: [  
    State {  
      name: "start"  
    },  
    State {  
      name: "wait"  
    },  
    State {  
      name: "ready"  
    }  
  ]  
}
```



2

Live Demo – Testing a Coffee Machine

Test Suites

suite\_py

Test Cases

- tst\_general
- tst\_adding
- tst\_adding\_data
- tst\_addLoggingWrapper
- tst\_clickButton\_wrapper

Test Case Resources

Scripts Test Data VPs Gestures

test.py

Test Suite Resources

Scripts Test Data VPs Gestures

\_pycache\_

names.py

wrapsquishfunction.py

Video Player (suite\_py/tst\_general)

Control Bar

Stop Recording Verify Insert Pause Remote Control Cancel

Running Test Case tst\_general

Comparison: 'Doe' and 'Smith' are not equal

Address Book - MyAddresses.adr

	Forename	Surname	Email	Phone
1	Jane	Doe	jane.doe@nowhere.com	123 555 1212
2	Aaiyasha	Cheatham	aaiya.cheatha@shearer.net	543 709 9479
3	Abdul-Wahhab	Dickie	abdu.dickie@grissom.com	591 326 1378
4	Aditya	Doe	ad.crisp@beadsworth.net	565 741 2692
5	Ahmet	Boardus	a.board@oldenburg.com	538 161 3394
6	Aillie	Lant	ailli.lant@harkins.net	579 102 6482
7	Alanah	Dewa		
8	Alea	Coop		
9	Amy	Mcmi		
10	Aron	Griev		
11	Aston	Rob		
12	Awais	Rohr		
13	Bairah	Caca		
	Removed Adora	Hay		

Recent Test Results

Result	Message
TestSuite	suite_py
Test Case	tst_general
Video Capture Start	Video Attachment for AUT: addressbook...
Pass	Comparison
Detail	'125' and '125' are equal
Pass	Comparison
Detail	'126' and '126' are equal
Pass	Comparison
Fail	Comparison
Detail	'Doe' and 'Smith' are not equal
Pass	Comparison
Pass	Comparison
Pass	Comparison
Detail	'125' and '125' are equal

Explore - Squish Test Center for

https://eimsbuettel.froglogic.com/testcenter/explore?page=1&tab=sunburst&ty=

90%

Squish Test Center

tests

History Explore Manual Testing Jira John Smith

jenkins-new-feature-tests-9

Batch

Failures

Table Sunburst Code Coverage

Arguments with singlequotes

Test Case

```
26 test.compare(table.rowCount, 126)
27 doubleClick(waitForObjectItem(names.address_Book_MyAddresses_adr_File_QTableWidget,
28 type(waitForObject(names.file_LineEdit), "Doe")
29 type(waitForObject(names.file_LineEdit), "<Return>")
30 mouseClicked(waitForObjectItem(names.address_Book_MyAddresses_adr_File_QTableWidget,
31 clickButton(waitForObject(names.address_Book_MyAddresses_adr_Remove_QToolButton))
32 clickButton(waitForObject(names.address_Book_Yes_QPushButton))
33 test.compare(waitForObjectExists(names.file_0_0_QLineEdit), "Doe")
34 test.compare(waitForObjectExists(names.file_0_0_QLineEdit), "Doe")
35 test.compare(waitForObjectExists(names.file_0_0_QLineEdit), "Doe")
```

# QA Tools



## Squish

Multi-platform, object-aware  
**automated GUI testing** for  
virtually any toolkit

# QA Tools



**Squish**

Multi-platform, object-aware  
**automated GUI testing** for  
virtually any toolkit



**Coco**

Cross-platform, cross-compiler  
advanced **code coverage analysis** &  
Tool Qualification

# QA Tools



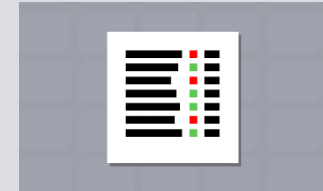
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## Test Center

Centralized **test result management**  
platform connecting automation with  
the entire dev process

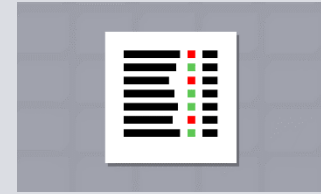
# QA Tools



Squish



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Test Center



**Test Suites**

suite\_py

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7	Alanah	Dewar	a.dewar@handfield.eu	555 137 3609
8	Alea	Cooper	alea.cooper@breedlove.net	529 792 9823
9	Amy	Mcmillan	amy.mcmillan@robb.eu	588 226 5176
10	Aron	Grieve	ar.grieve@mulkey.eu	573 879 8988
11	Aston	Rob	aston.rob@uren.net	527 859 2438
12	Awais	Rohrbach	aw.rohrbach@bowser.com	550 500 3059
13	Bairah	Care	hai.race@nimmo.net	608 331 0730
	Removed	Adora Hay		

00:00:31/00:00:36

**Test Results**

Recent Test Results

Result

Message

TestSuite suite\_py

TestCase tst\_general

Video Capture Start Video Attachment for AUT: addressbook...

Pass Comparison

Detail '125' and '125' are equal

Pass Comparison

Detail '126' and '126' are equal

Pass Comparison

Detail '125' and '125' are equal

Fail Comparison

Detail 'Doe' and 'Smith' are not equal

Pass Comparison

Pass Comparison

Pass Comparison

Detail '125' and '125' are equal

Video Capture End Video Capture Stopped

**Global Scripts**

**Squish Test Center**

Project

```
26 test.compare(table.rowCount, 126)
27 doubleClick(waitForObjectItem(names.address_Book_MyAddresses_adr_File_QTableWidget, "3/1"), 19, 16, Qt.NoModifier, Qt.LeftButton)
28 type(waitForObject(names.file_LineEdit), "Doe")
29 type(waitForObject(names.file_LineEdit), "<Return>")
30 mouseClick(waitForObjectItem(names.address_Book_MyAddresses_adr_File_QTableWidget, "4/1"), 72, 21, 0, Qt.LeftButton)
31 clickButton(waitForObject(names.address_Book_MyAddresses_adr_Remove_QToolButton))
32 clickButton(waitForObject(names.address_Book_Yes_QPushButton))
33 test.compare(waitForObjectExists(names.file_LineEdit), "Doe")
34 test.compare(waitForObjectExists(names.file_LineEdit), "Doe")
35 test.compare(waitForObjectExists(names.file_LineEdit), "Doe")
```

## 3.1 Overview of Squish GUI Tester

# Squish Quick Features

- 1 Recording and Replaying of Tests
- 2 Script- and BDD-based Test Development
- 3 Object-, Image- and OCR-driven



# Squish Quick Features

4 Test across platforms and devices

5 Powerful IDE and Integration in CI

6 Video Capture



tests

History

Explore

Manual Testing

Jira

jenkins-squish-tests-new-feature-tests-9

Batch

Test Suite

Table

Sunburst

Code Coverage

1 failed

1 failed( 1 new )

111 passed(99%)

1 failed

111 passed(99%)

Start Time: 4/1/2022, 3:15:31 PM

End Time: 4/1/2022, 5:31:05 PM

Total Duration: 2h 15'35"

Run Duration: 4m 23"

Report

Entire Batch

Linux, new-feature, ikarus

Tests

All

Search

Filter...

OS

Linux (1)

branch

new-feature-branch...

host

ikarus (1)

Reports 1

Configurations 1

OS

branch

host

PM 3:15:31, 4/1/2022

Report #119424

Linux

new-feature-tests

ikarus

Jenkins

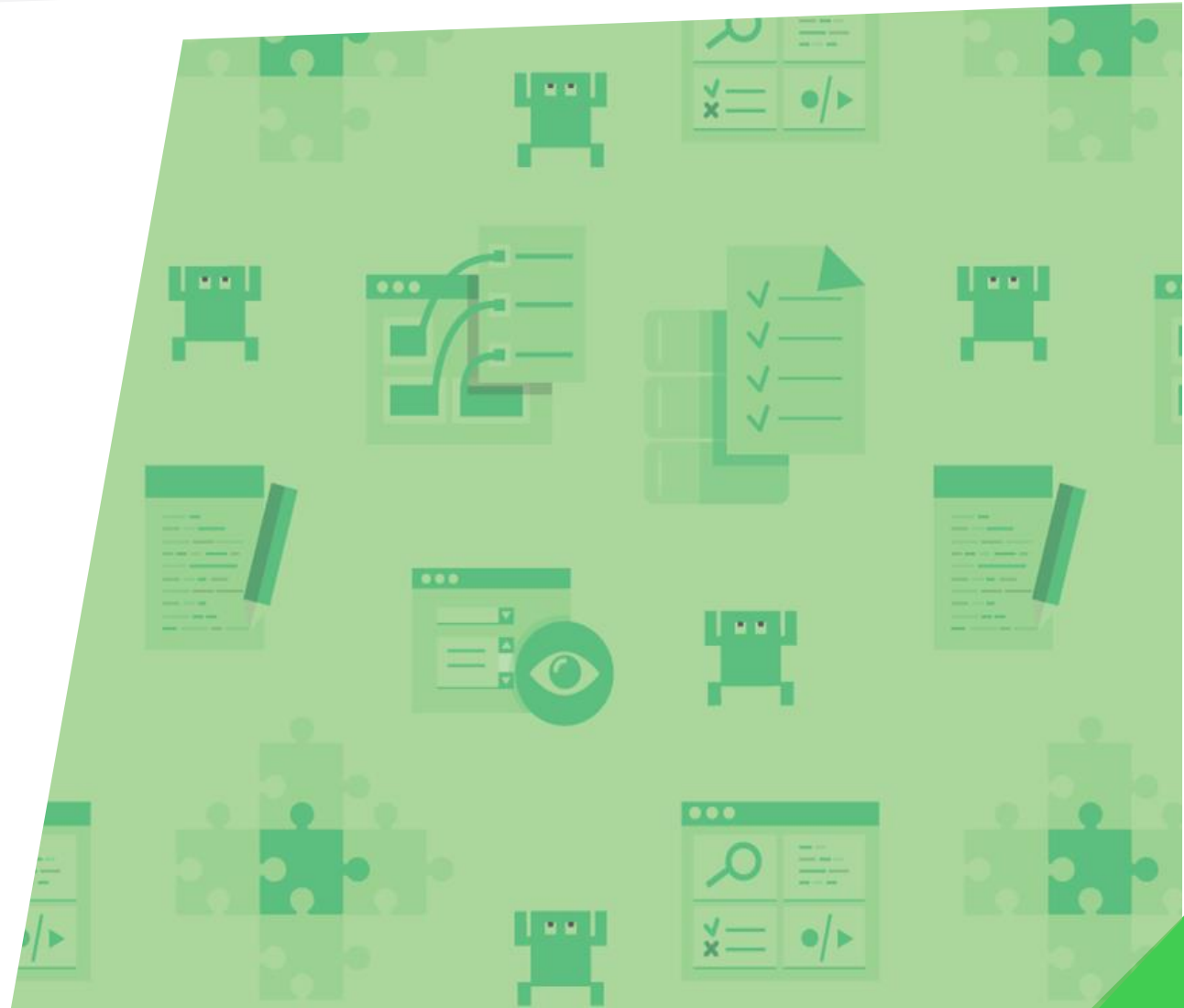
Tests	Status	Total Skips & Warnings	Duration (min/max)	Older Batches	Actions	
OS						
branch						
host						
suite_starting_appliance Test Suite	✓	0 ⚡ 22 0 ⚡ 1	0.17s 0.17s	✓ ✓	⋮	✓
suite_boiling_water Test Suite	✓	0 ⚡ 22 0 ⚡ 1	0.34s 0.34s	✓ ✓	⋮	✓
suite_checking_tray Test Suite	✓	0 ⚡ 22 0 ⚡ 1	0.41s 0.41s	✓ ✓	⋮	✓
suite_checking_grinder Test Suite	✓	0 ⚡ 22 0 ⚡ 1	0.67s 0.67s	✓ ✓	⋮	✓
suite_dryrun_checkout Test Suite	✓	0 ⚡ 22 0 ⚡ 1	1m 02" 1m 02"	✓ ✓	⋮	✓
suite_test_transactions Test Suite	✓	0 ⚡ 22 0 ⚡ 1	0.17s 0.17s	✓ ✓	⋮	✓
suite_ui_responsivness Test Suite	✓	0 ⚡ 22 0 ⚡ 1	< 1ms < 1ms	✓ ✓	⋮	✓
suite_brew_coffee Test Suite	✗	0 ⚡ 22 0 ⚡ 1	< 1ms < 1ms	✓ ✓	⋮	✗
suite_test_scale Test Suite	✓	0 ⚡ 22 0 ⚡ 1	< 1ms < 1ms	✓ ✓	⋮	
suite_test_water Test Suite						

3.2

Overview of Test Center

# Test Center Quick Features

- 1 Central dashboard for test results
- 2 Stream captured videos
- 3 Manage your tests from anywhere



# Customers







WHAT THE HECK HAPPENED?

# Wrap-up

- › Record and Replay tests



WHAT THE HECK HAPPENED?

# Wrap-up

- › Record and Replay tests
- › Verifying values and screenshots

WHAT THE HECK HAPPENED?

# Wrap-up

- › Record and Replay tests
- › Verifying values and screenshots
- › How to break tests

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- › Different ways to approach failing tests

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  - › Video is one piece in this puzzle

WHAT THE HECK HAPPENED?

# Wrap-up

- › Record and Replay tests
- › Verifying values and screenshots
- › How to break tests
- › Different ways to approach failing tests
  - › Video is one piece in this puzzle
- › **Develop tests with Squish**

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- › Verifying values and screenshots
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- › Develop tests with Squish
  - › One way to automate manual testing

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  - › One way to handle the ever-growing number of test results

# Q&A

Let's discuss your questions now!



Thank you,  
let's have a coffee  
and see you  
at our booth 21!

**Jan Aarsaether**  
jan.aarsaether@qt.io

**Thomas Piekarski**  
thomas.piekarski@qt.io



**Demo Repository**  
<https://qrco.de/stareast-22-qt-demo>

