

palinQA meetup

B U D A P E S T



@palinQA



Protractor A New Hope?

Gergely Agnecz
Senior Software Test Automation Engineer @ EPAM



Agenda

- General UI testing and struggles
- What is Protractor
- How does it work
- How to use it
- Pros and cons
- Q&A



General UI Testing and struggles

Purpose of UI Testing:

- UI component validation
- Feature validation
- Content validation

Tools:

- Selenium
- NightwatchJS
- Ranorex Studio
- HP QTP - UFT
- Protractor

Struggles:

- Locator issues
- Waits
- Efforts

Protractor

- Created by Angular
- Open-Source
- JavaScript based
- Support Angular and non-Angular apps as well
- Supported BDD frameworks:
 - Jasmine (Official)
 - Mocha (Limited)





How to use it

2 main components:

- Conf.js => Browser details, list of suites, Selenium Server details, etc.
- Spec.js => Your tests



Example Code

Conf.js:

```
exports.config = {
  seleniumAddress: 'http://localhost:4444/wd/hub',
  framework: 'jasmine',
  specs: ['aSpec.js',
          'bSpec.js',
          'cSpec.js'],
}
```



Example Code

Spec.js:

```
describe('Protractor Demo App', function() {
  it('Check Title', function() {
    browser.get('http://juliemr.github.io/protractor-demo/');

    expect(browser.getTitle()).toEqual('Super Calculator');
  });
});
```



Pros and cons

- New locators to use:
 - Model
 - Binding
- Automatic waits, but... still need to use conditional waits.
- JavaScript and async working is unfamiliar from OOP languages.
- If the Angular is not used properly, it can be very bad for us.
- Promise chains...



Thank You for your attention!



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Why you should share what you've got - telling tales of testing



Erik Hörömpöli
TOPdesk
2017.12.05.

E-mail: erik.horompoli@gmail.com
Twitter: @erikhun
Blog: promptest.wordpress.com







Mob-testing Setup

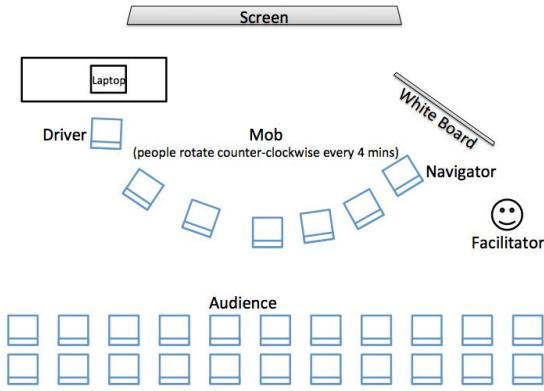


Image from <https://leanpub.com/mobprogrammingguidebook>



Product Elements

Ultimately a product is an experience or solution provided to a customer. Products have many dimensions. So, to test well, we must examine those dimensions. Each category, listed below, represents an important and unique aspect of a product. Testers who focus on only a few of these are likely to miss important bugs.

Structure. Everything that comprises the physical product.

- *Code*: the code structures that comprise the product, from executables to individual routines.
- *Hardware*: any hardware component that is integral to the product.
- *Non-executable files*: any files other than multimedia or programs, like text files, sample data, or help files.
- *Collateral*: anything beyond software and hardware that is also part of the product, such as paper documents, web links and content, packaging, license agreements, etc.

Function. Everything that distinguishes the product does.

- *Application*: any function that defines or distinguishes the product or fulfills core requirements.
- *Calculation*: any arithmetic function or arithmetic operations embedded in other functions.
- *Time-related*: time-out settings; daily or month-end reports; nightly batch jobs; time zones; business holidays; interest calculations; terms and warranty periods; chronograph functions.
- *Transformations*: functions that modify or transform something (e.g. setting fonts, inserting clip art, withdrawing money from account).
- *Startup/Shutdown*: each method and interface for invocation and initialization as well as exiting the product.
- *Multimedia*: sounds, bitmaps, videos, or any graphical display embedded in the product.
- *Error Handling*: any functions that detect and recover from errors, including all error messages.
- *Interactions*: any interactions between functions within the product.
- *Testability*: any functions provided to help test the product, such as diagnostics, log files, asserts, test menus, etc.

Data. Everything that the product processes.

- *Input*: any data that is processed by the product.
- *Output*: any data that results from processing by the product.
- *Preset*: any data that is supplied as part of the product, or otherwise built into it, such as prefabricated databases, default values, etc.
- *Persistent*: any data that is stored internally and expected to persist over multiple operations. This includes modes or states of the product, such as options settings, view modes, contents of documents, etc.
- *Sequences/Combinations*: any ordering or permutation of data, e.g. word order, sorted vs. unsorted data, order of tests.
- *Cardinality*: Numbers of objects or fields may vary (e.g. zero, one, many, max, open limit). Some may have to be unique (e.g. database keys).
- *Big/Little*: variations in the size and aggregation of data.
- *Noise*: any data or state that is invalid, corrupted, or produced in an uncontrolled or incorrect fashion.
- *Lifecycle*: transformations over the lifetime of a data entity as it is created, accessed, modified, and deleted.

Interfaces. Every conduit by which the product is accessed or expressed.

- *User Interfaces*: any element that mediates the exchange of data with the user (e.g. displays, buttons, fields, whether physical or virtual).
- *System Interfaces*: any interface with something other than a user, such as other programs, hard disk, network, etc.
- *API/SDK*: any programmatic interfaces or tools intended to allow the development of new applications using this product.
- *Import/export*: any functions that package data for use by a different product or interpret data from a different product.

Platform. Everything on which the product depends (and that is outside your project).

- *External Hardware*: hardware components and configurations that are not part of the shipping product, but are required (or optional) in order for the product to work: systems, servers, memory, keyboards, the Cloud, etc.
- *External Software*: software components and configurations that are not a part of the shipping product, but are required (or optional) in order for the product to work: operating systems, concurrently executing applications, drivers, fonts, etc.
- *Internal Components*: libraries and other components that are embedded in your product but are produced outside your project.

Operations. How the product will be used.

- *Users*: the attributes of the various kinds of users.
- *Environment*: the physical environment in which the product operates, including such elements as noise, light, and distractions.
- *Common Use*: patterns and sequences of input that the product will typically encounter. This varies by user.
- *Disfavored Use*: patterns of input produced by ignorant, mistaken, careless or malicious use.
- *Extreme Use*: challenging patterns and sequences of input that are consistent with the intended use of the product.

Time. Any relationship between the product and time.

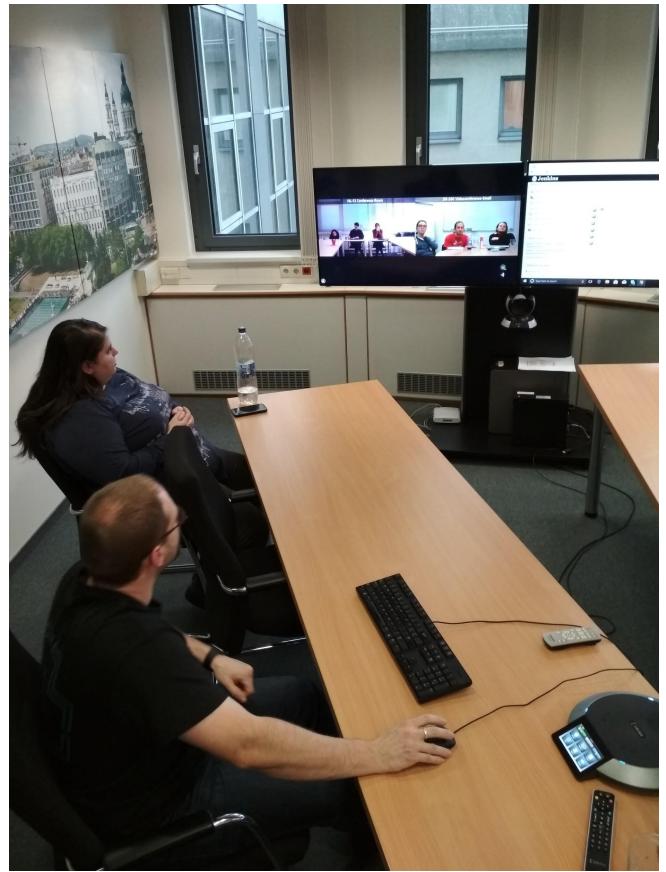
- *Input/Output*: when output is provided, and any timing relationships (delays, intervals, etc.) among them.
- *Fast/Slow*: testing with "fast" or "slow" input; fastest and slowest; combinations of fast and slow.
- *Changing Rates*: speeding up and slowing down (spikes, bursts, hangs, bottlenecks, interruptions).
- *Concurrency*: more than one thing happening at once (multi-user, time-sharing, threads, and semaphores, shared data).

```
const commandLineArgs = require('command-line-args');
const fs = require('fs');
const request = require("sync-request");
// node record.js -i input.json -o output.json
const OPTION_DEFINITIONS = [
  { name: "input", alias: "-i", type: String },
  { name: "output", alias: "-o", type: String },
  { name: "host", type: String },
  { name: "var", type: String, multiple: true }
];
const OPTIONS = commandLineArgs(OPTION_DEFINITIONS, { partial: true });
function substituteVariables(variables, str) {
  return typeof str === "string" ? str : Object.keys(variables)
    .reduce(
      (acc, key) => acc.replace(new RegExp(`\\$\\${key}`), variables[key]),
      str
    )
}
function substituteVariablesForObject(variables, obj) {
  return Object.keys(obj)
    .reduce((acc, key) => {
      acc[key] = substituteVariables(variables, obj[key]);
      return acc;
    }, {});
}
function mergeGlobalVariables(inputVariables) {
  var variables = JSON.parse(JSON.stringify(inputVariables));
  OPTIONS.var.forEach(val => {
    const keyValue = val.split('=');
  });
}
```

“ ”

Software development is anecdotal.





CoP: Testing Community

General Drive Tasks Calendar Discussions Conversations Photo Lists Wiki

CoP: Testing Community

The end of Internet Explorer is in sight...
Though I am curious what kind of work it will entail to support Edge.

here is an update: <https://connect.topdesk.com/company/personal/user/231/blog/17996/>
but I don't know exactly how it will effect different teams

You are not a recipient of this message. Maybe it was sent to a workgroup you're not a member of (yet)?

it is in Release management group

Aha
That explains it 😊

November 24, 2017

Do we have a tester login for Linoit?
I remember using it before, but I don't seem to be able to sign in.

December 01, 2017

The link all button of the link wizard does not work in Edge

2:19 PM 2:24 PM 2:25 PM 3:12 PM 3:12 PM 3:12 PM 2:05 PM 4:34 PM

Comments 0 Like More ▾

While all the reports are in Dutch, it's still interesting to have a look if you don't speak Dutch. Note the variety of styles and formats. Everything from charts to mindmaps to walls of text.

It's quite an insight into your options for test reporting, including a few great and not-so-great examples.

Enjoy!

Add comment 0 Like More ▾

Release Management, CoP: Testing Community, Development

As you might have seen, the functional deadline for the next on-premise release is set on Monday January 8. It's intended to also support Edge from this version on. There are concerns about the test coverage though, and whether we can guarantee proper working of the upcoming release with this browser. So far Support spent a day of daily work in Edge, but no more testing of our existing functionalities is done.

An that's where we come in 😊 To take away part of the concerns, I proposed that we as testers can do a focused acceptance test of our maintenance components in Edge. Brig prepares a small overview of attention points that you can use as input for testing; I will prepare an acceptance test run in TestRail, so we can keep track on what needs to be done and what bugs are found.

Brig and I discussed the planning of this acceptance test, but since the Christmas period is coming up and there is time needed to fix bugs if

Comments 0 Like More ▾

20-11-14 12:18 0 Like Reply More ▾
sport_P

yesterday - 09:01 0 Like Reply More ▾
coding to the documentation we officially support Safari since forever (at least since I joined 3 years ago 😊), do not test it
sported bugs. Also the mobile friendly SSP stuff was actively tested on iPhone 5c, iPhone 6 plus and iPad mini. So at least in
work 😊

yesterday - 09:41 0 Like Reply More ▾
stated, never checked docs 😊 But I volunteer to have a Mac for regular smoke tests 😊

→ Martin Poll, Team Cappuccino, CoP: Testing Community

Usability testing light
Hey everybody,

At Cappuccino we are working on a new report: duration on status report.
Because we always make things that we think are awesome or at least useful, we are kinda biased. So a little usability testing helps us to get some feedback.

But instead of the long and tedious usability testing or setting up a mob testing session, we decided to do it a little bit more laid-back and keep it light-weighted.
So what did we do? A reproduction recipe:
1. Team makes something interesting (preferably with UI)
2. Ask the PO and some consultants from behind their computer up to the 14th floor (only for Delft and not possible after the move)
3. Put the consultant's behind a PC with you new interesting feature/interface/component/etc.
4. Watch and learn
(5. Don't forget to write down your insights)

Photo: 

Comments 0 Like More ▾

24-11-15 23:48 0 Like Reply More ▾

24-11-15 23:48 0 Like Reply More ▾
Martin Poll

25-11-16 03:48 0 Like Reply More ▾
am Pigeous made it possible to drag the logs window bigger, because the consultants work with very small screens. Instead
it would be received or waiting for feedback, it took five minutes to go downstairs to the 10th and simply asked a consultant to

Add comment

[page](#) | [discussion](#) | [edit](#) | [history](#) | [move](#) | [watch](#) | [refresh](#)

Testing

Categories (Click for help): [Tester](#) | [Development Team](#)

Welcome to Testing!



What is testing anyway?

- ✖ Tips for Agile Testers.
- ✖ What is testing anyway?
- ✖ What makes a good tester?



Meet the Testing Community

- ✖ What's a Testing CoP?
- ✖ CoP Goals and Objectives
- ✖ The Agile Testing Quadrants



How do we test at TOPdesk?

- ✖ Types of testing
- ✖ Testing within Scrum
- ✖ Templates and Good Practices



Where can I find...?

- ✖ Cheat Sheets
- ✖ Documents & Databases
- ✖ How To's & Getting Started



Learning and Knowledge Sharing for Testers

- ✖ Training and Inspiration
- ✖ Knowledge Days & Conferences
- ✖ Improve your Product Knowledge



Testing Tools: A Tester's Toolbox

- ✖ Who to contact
- ✖ Tools and Software
- ✖ What's in a tester's toolbox?

Links

Welcome Pages: All about Testing!

- ✖ What is testing anyway?
- ✖ Meet the Testing Community
- ✖ How do we test at TOPdesk?
- ✖ Where can I find...?
- ✖ Learning and Knowledge Sharing for Testers
- ✖ Testing Tools: A Tester's Toolbox

Tester related

- ✖ New Tester Training Programme (TestRail) [9]
- ✖ Advanced training opportunities at TOPdesk
- ✖ Test Automation Modules
- ✖ Exploratory Testing
- ✖ Cross Team Testing
- ✖ Test_Naming_Convention

Testing websites

- ✖ Software Testing Club [9]
- ✖ The Testing Planet [9]
- ✖ Software Quality Assurance & Testing [9]
- ✖ DevTest [9]
- ✖ Live on Software [9]
- ✖ The SCRUM Blog [9]
- ✖ James Christie's Blog [9]
- ✖ James Bach's Blog [9]
- ✖ RBCS Blog [9]
- ✖ SQA Forums [9]

General Information

- ✖ Scrum teams and their modules
- ✖ Releases Monitor [9]
- ✖ List of Cleanselets
- ✖ How to register a bug in Jira
- ✖ How to register a user story in Jira
- ✖ Apply for TCO 2017

Testing on TOPwiki Archive (old)

- ✖ Guidelines for writing test cases
- ✖ QA on Trello [9]
- ✖ Requirements Test
- ✖ Acceptance Test
- ✖ Old Testing Welcome Page
- ✖ Old Testing Wiki Portal

A screenshot of a Microsoft Teams video call interface. At the top, a dark blue header bar displays the word "CONVERSATION" on the left and "2 Participants" on the right, with a small user icon. Below the header is a white message list area containing several messages from different users, each with a blue background and white text. The messages are mostly illegible due to blurring. On the far right of the screen, there is a video feed of a man with brown hair and a beard, wearing a black t-shirt and a black headset with a microphone. He is looking slightly to his left. The background behind him shows a room with a window and some furniture.

The image is a screenshot of a video conferencing application. At the top right, there are icons for signal strength, battery level, and user status. The main area has a dark blue background. In the center-left, there is a message: "Some presenting features are unavailable due to server connectivity issues." Below this message is a rectangular button with the text "Rejoin Presentation". To the right of the message, there is a large, blurry profile picture of a person's head and shoulders. In the bottom right corner, there is a smaller, sharp portrait of a man with glasses and a beard, identified as "Erik Heimpoli". At the very bottom of the screen, there is a yellow navigation bar containing five circular icons: a camera, a microphone, a desktop sharing icon, a file download icon, and a red refresh/reload icon.

*To stay an enthusiast,
you need enthusiastic people around you.*



<input type="checkbox"/> ID	Title
Get to know Development at TOPdesk (0)	
<input type="checkbox"/> ID	Title
Testing Community (8)	
<input type="checkbox"/> ID	Title
<input type="checkbox"/> T175376	History of Testing and Development (Lisanne)
<input type="checkbox"/> T175364	Communities of Practice
<input type="checkbox"/> T175324	Meetings (Erik)
<input type="checkbox"/> T175326	"Apenkooi" time (Cees)
<input type="checkbox"/> T175379	OKRs (your devlead)
<input type="checkbox"/> T175327	Explanation P0 and BG
<input type="checkbox"/> T175325	Network folders (Cees)
<input type="checkbox"/> T175411	Testing community on TOPwiki
Scrum Teams at TOPdesk (6)	
<input type="checkbox"/> ID	Title
<input type="checkbox"/> T175337	Introduction to agile and scrum at TOPdesk
<input type="checkbox"/> T175368	Watch some recorded demo's on LifeSize
<input type="checkbox"/> T175370	Find your way around with scrum masters and visit some live demo's
<input type="checkbox"/> T175406	Understand the processes of your future team
<input type="checkbox"/> T175378	Design principles (a designer)
<input type="checkbox"/> T175402	Development Principles (Hazel)
How we release (6)	
<input type="checkbox"/> ID	Title
<input type="checkbox"/> T175387	Continuous delivery pipeline (BrigZs)
<input type="checkbox"/> T175280	Regression, acceptance and smoke testing (Lisanne)
<input type="checkbox"/> T175361	SaaS (Laurent)
<input type="checkbox"/> T175390	The new architecture: services (someone from your team)
<input type="checkbox"/> T175407	Release notes and fix version (Roel)
<input type="checkbox"/> T175408	Branches and feature flags (someone from your team)
Learn about TOPdesk The Product (0)	
<input type="checkbox"/> ID	Title
Licenses and Versioning (2)	
<input type="checkbox"/> ID	Title
<input type="checkbox"/> T175355	TOPdesk On Premise versions (BrigZs)
<input type="checkbox"/> T175356	TOPdesk Licenses: modules, Enterprise, Professional, Lite and SaaS
TOPdesk (see TOPwiki for which team and make an appointment with the tester) (4)	



To prepare to share is to learn.





Our group Meetups Members Photos Discussions More



palinQA

@palinQA Follows you

Meetup for all passionate about #testing and not only. Based in #Budapest

Budapest, Hungary

meetup.com/palinqa

Joined November 2017

palinQA — Budapest QA Meetup

Location

Budapest, Hungary

Members

877



Organizers

Lina Zubyte and 1 other

testersbudapest

erikhan

All Threads

Channels

general

random

Direct Messages

@skarckot

@erikhan (you)

@charlins

@darkka

@fenerfer

@georgiehinszki

@jHajni

@jigzalai

@nagyidavid

@skatki

@lestee

Apps

buggyfina

@erikhan what do you use for automation?

erikhan 11:52 AM

for the GUI level (and here I mean e2e, so "full stack"), it's the Robot framework

How about you?

buggyfina 11:53 AM

so you do GUI automated testing?

I am interested what you use in general for all areas, so I could understand your point better

like what are better tools then to use and in which situations (context is the king I believe)

erikhan 4:07 PM

automated tests on all levels (tools for lower ones are mockito, junit, jasmine, what-have-you)

My point is rather an observation that ppl assume that their job as testers mostly consists of writing (and maintaining) E2E test code ("because that's where we simulate end-users right?" *that's where all those clicking happens that I do as well, right?*) and how I think that that is a sad misuse of their time and energy.

I'm really happy btw that you can not relate!

kmaria 4:37 PM

online test conf has just started, if you are interested go to <http://www.onlinetestconf.com>

Fall OnlineTestConf

Fall OnlineTestConf 2017 The only 100% online conference all about testing November 28-29th, 2017 Save

buggyfina 8:39 PM

Oo James Bach got a keynote

I will try to check it out

thanks for sharing, Marci!

Monday, November 27th

Tuesday, November 28th

...

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Join our Slack (testersbudapest.slack.com) by adding your e-mail at:
<https://testersbudapest.herokuapp.com/>



European Testing Conference 2018, Amsterdam, 19-20 Feb, 2018

(<http://europeantestingconference.eu/2018/>)

15% discount

FRIENDSOFGASPAR



Agile Testing Days 2018, Potsdam, 12-16 Nov, 2018

(<https://agiletestingdays.com/>)

20% on Regular ticket discount if you book until Sep 9, 2018

ATD_postcard_020



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<https://testersbudapest.herokuapp.com/>