

Ways to (mis?) use Characterization Tests

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Samuel Hopf

Definition

In computer programming, a characterization test (also known as Golden Master Testing) is a means to describe (characterize) the actual behavior of an existing piece of software, and therefore protect existing behavior of legacy code against unintended changes via automated testing. [Wikipedia]

Recap

We used Characterization / Approval Tests in Alcor Training to:

- enable refactoring
- test and approve the current behaviour
 - (whether it's wrong or right from business perspective)
- get a 100% test coverage fast
- «describe» a system without having to understand it in details
- ... but thats not the end yet
 - Mutation Tests
 - replace Approval Tests with proper Unit Tests during refactoring

The Common Way

Team LS wants to do a refactoring of some business interfaces – the Jira ticket calls for

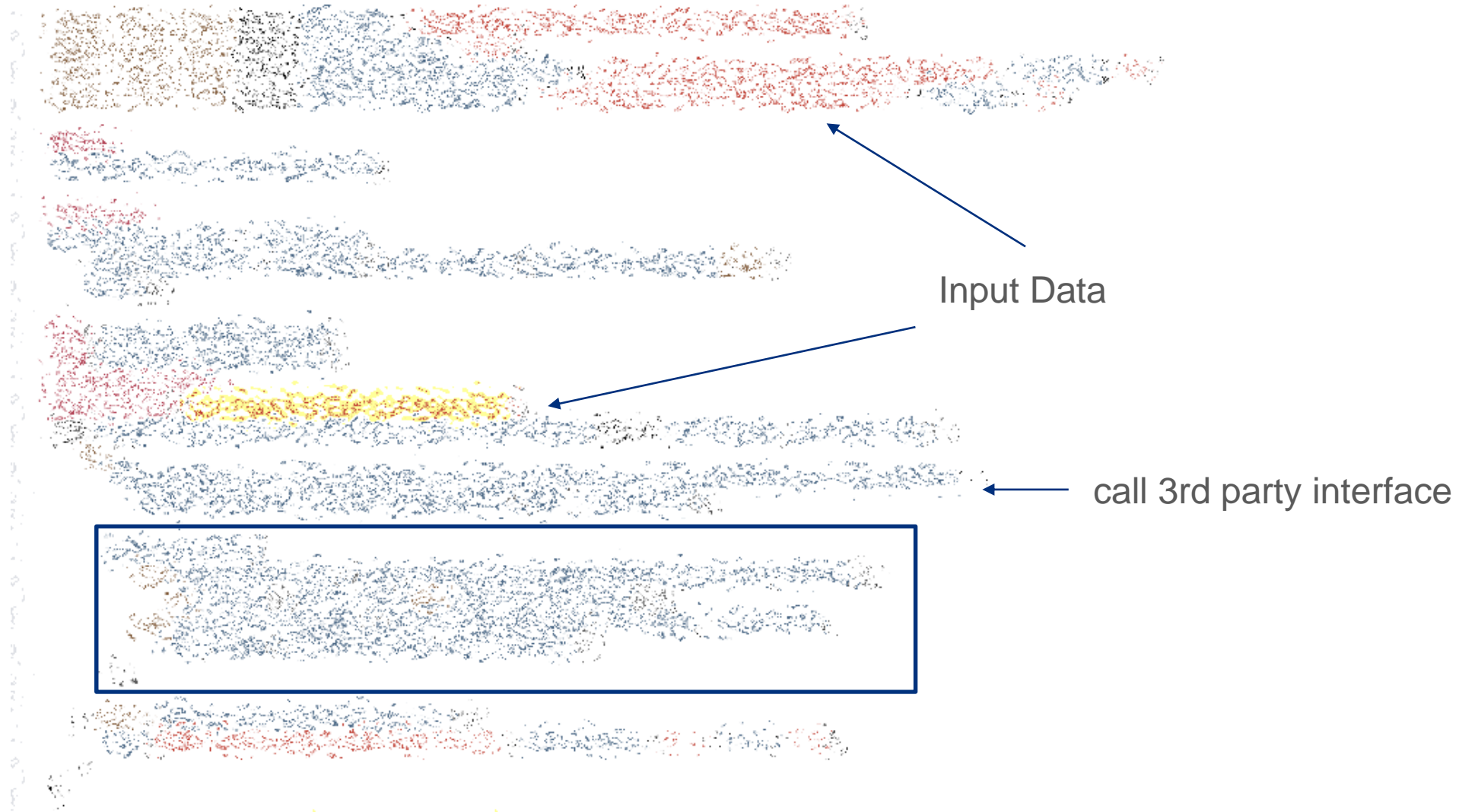
- as little risk as possible
- tests should be used as integration tests on build pipelines
- **they'll do it with Approval and Permutation Tests**

The Big Brother Way

Our software is highly distributed – we also access 3rd party interfaces. The same team as before uses an Approval Tests

- as a kind of «Contract Test»
- to control 3rd party interfaces built and extended by another company
- they use a «golden master»
 - a broad combination of several partners and access dates
 - to make sure, you always get the same data in the same format
- constant monitoring of test results

The Big Brother Way – an example

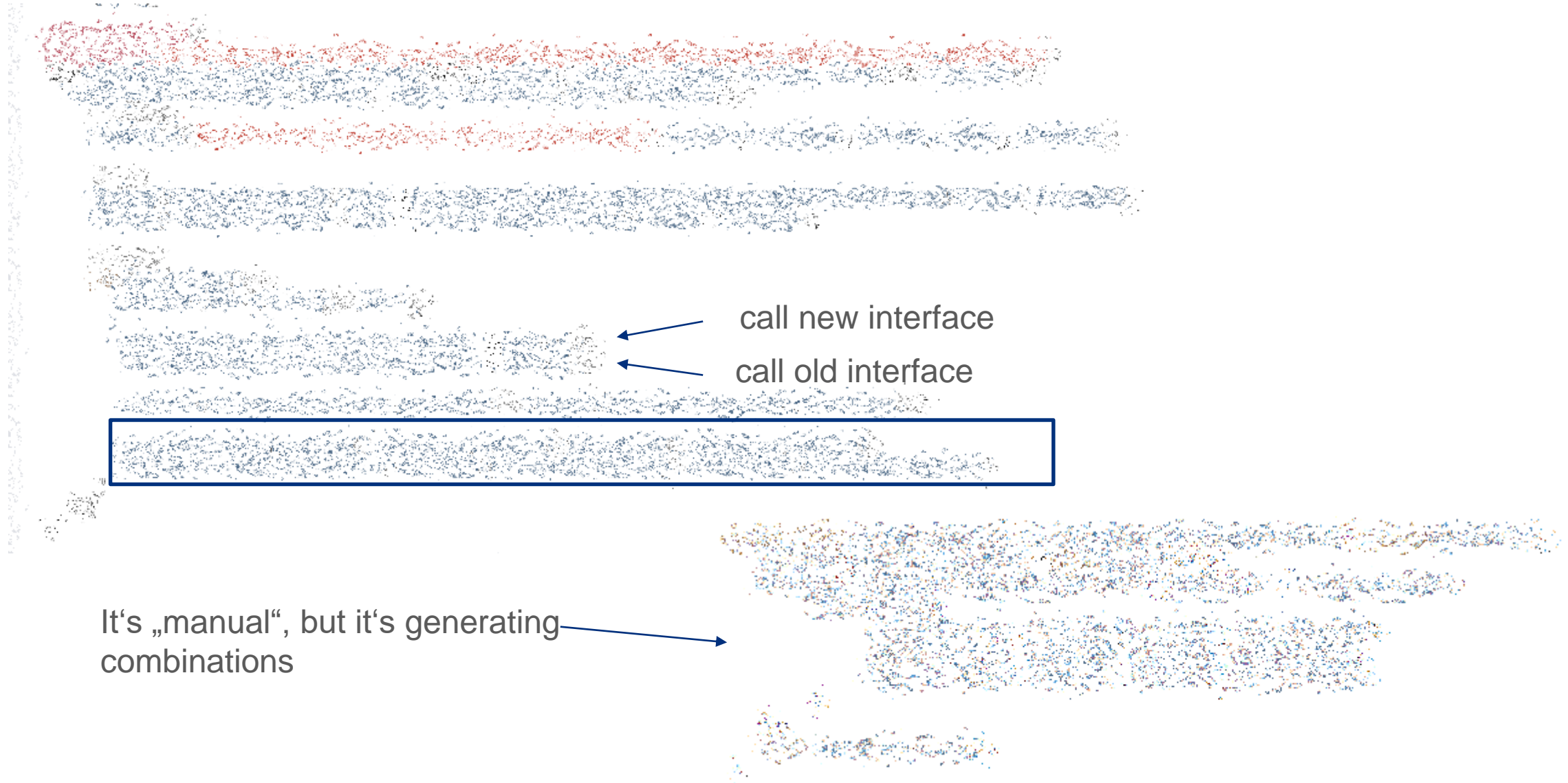


The Replacement Way

The same approach as with refactoring, but instead to approve a newly built interface.

- with the same functionality as the old one
- calls both interfaces and compares
- uses combinations of fixed values

The Replacement Way – an example



The No-Way

We have to exchange a BPMN engine

- calls have to be exchanged at certain points
- the code isn't intuitive and too big and too much in one place
- several calls to blackboxed functionality like
 - creating and saving
 - asking current states
 - starting workflows
- I had to test spies because the method to call is void ☹ and it's all about integration
- **But the training brought another secret weapon 😊**

The one to rule them all

```
// some assignments and stuff
```

new instance method wrapping that

my spies

did the same in here