Vincent Blondeau

Test Sucker

How to Convert Real Production Objects to Automated Test Cases?

Lifeware

A SWISS COMPANY

21	Years old
5	Founders are top management
60	Employees with strong methodology
4	Redundant datacenters

8
languages supported

billion Euro assets under management 25 €

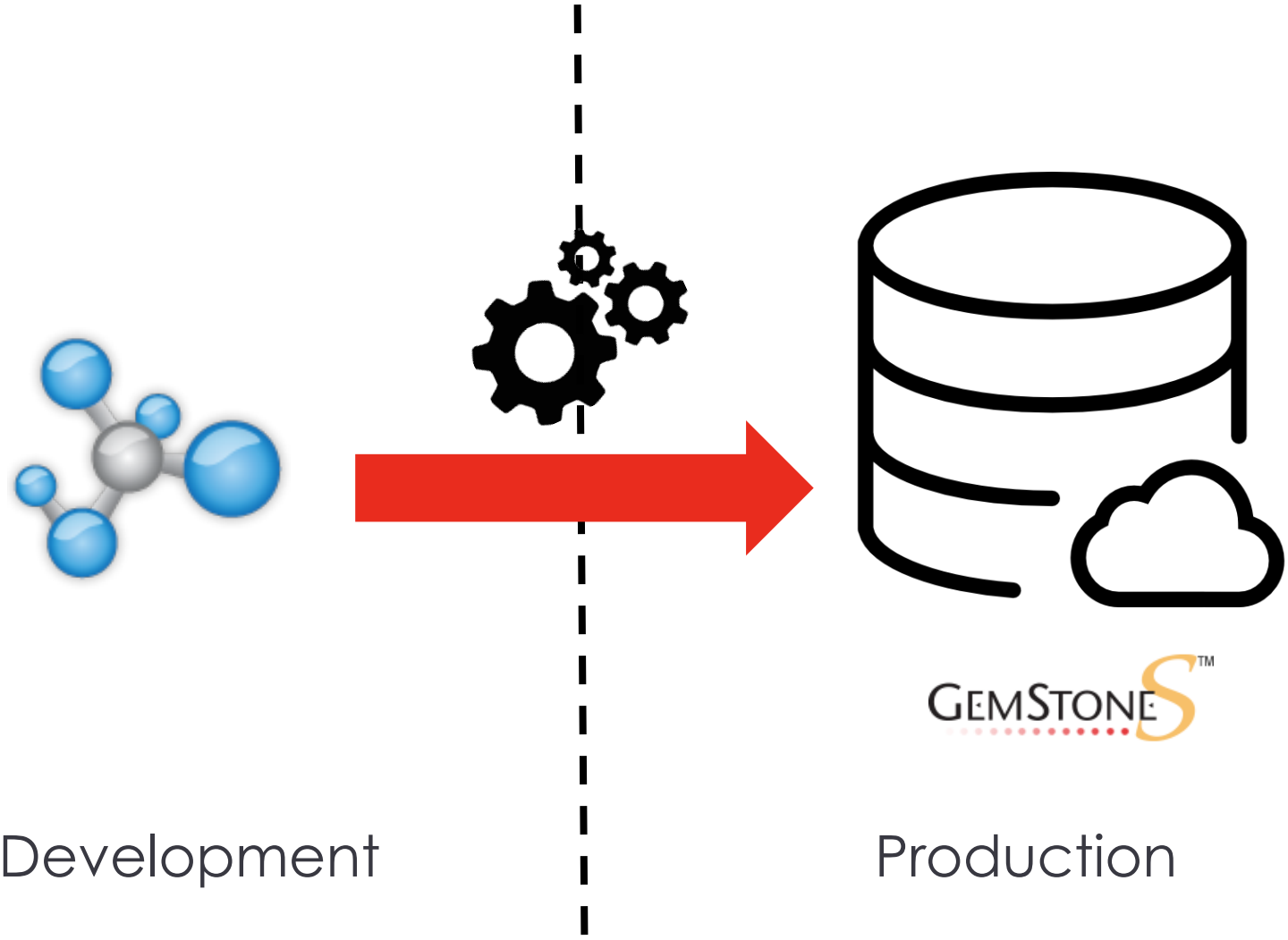
17
countries

130.000
authorized users

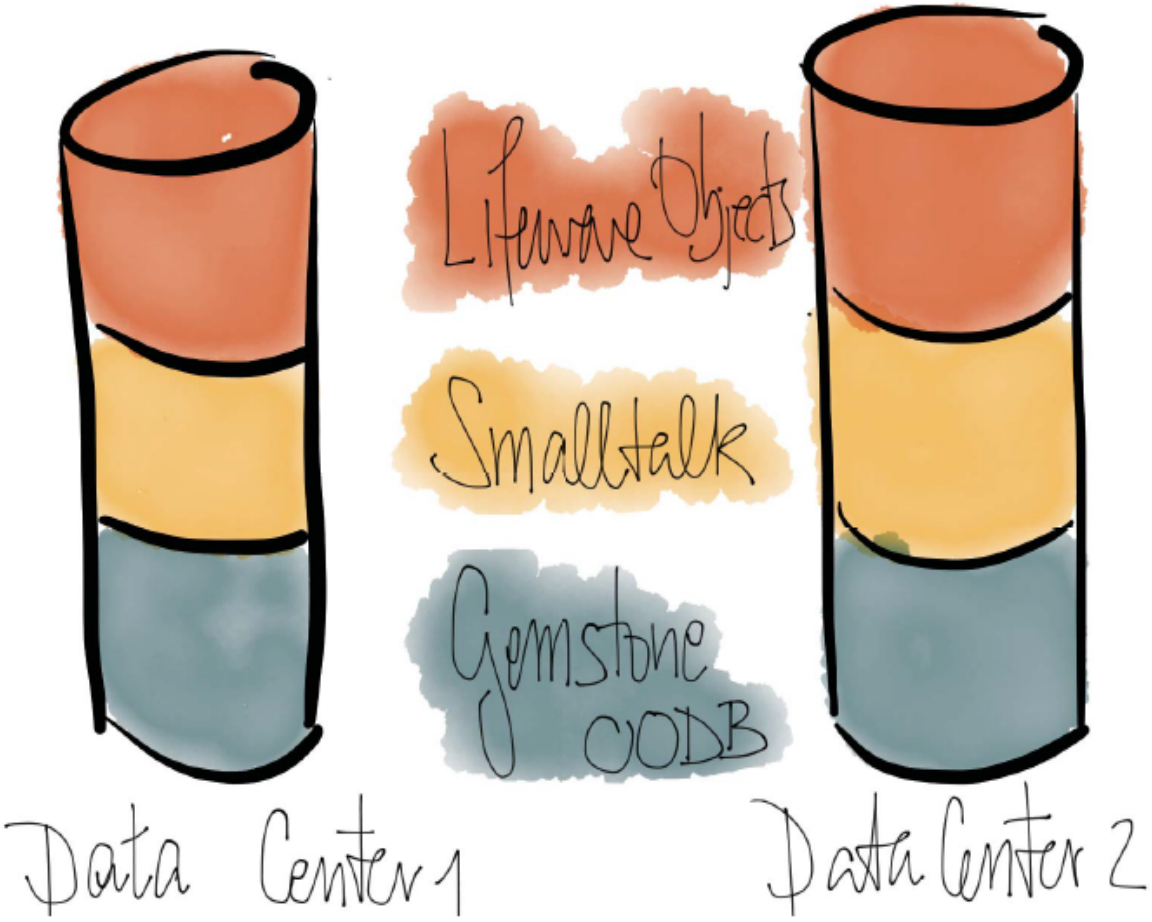
800.000
policies

200+
life insurance products implemented

CORE TECHNOLOGY



OBJECTS ALL OVER

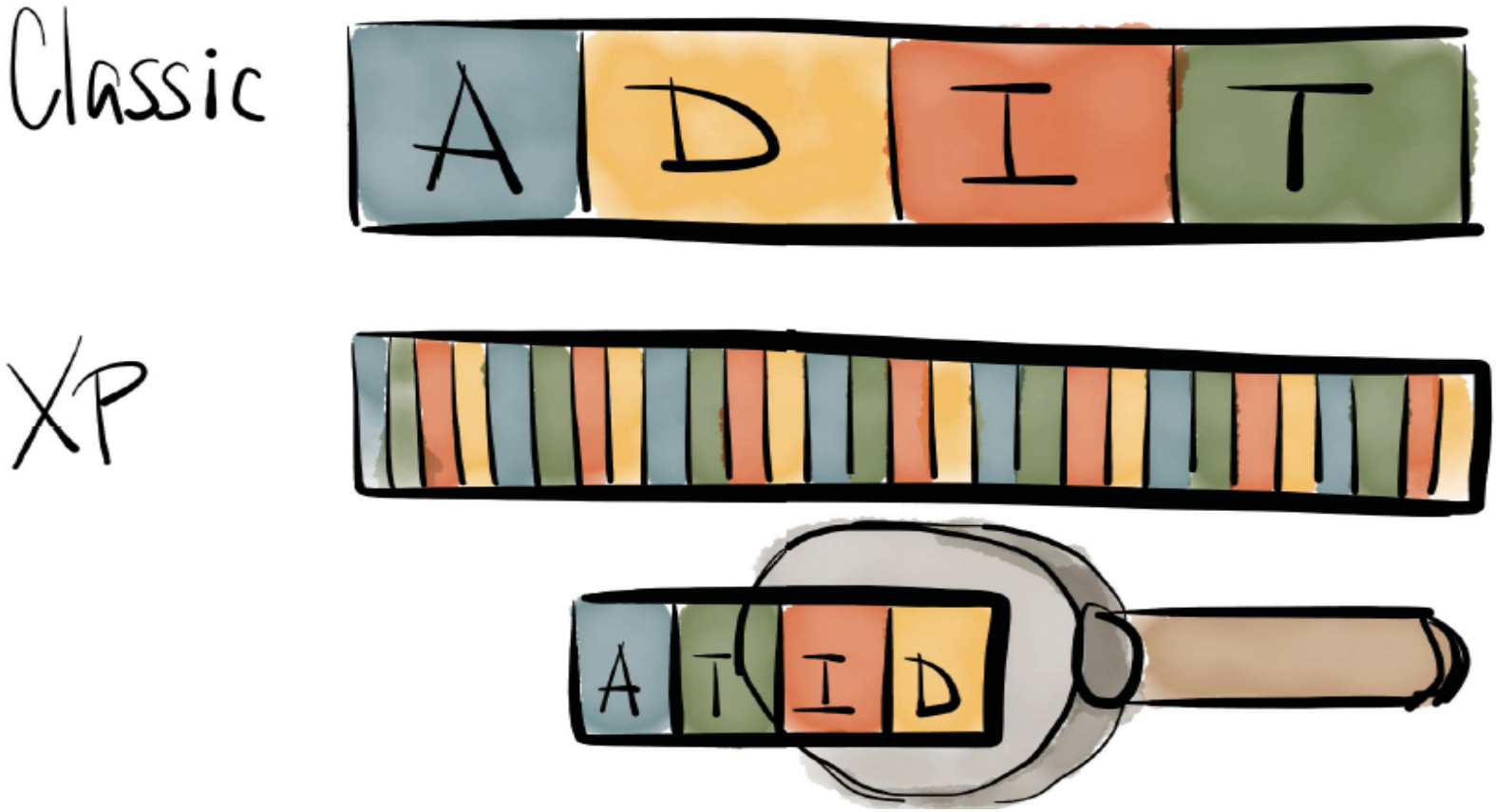


70 000
Classes

1 500 000
Methods

3 TB
Persisted objects

EXTREME EFFICIENCY

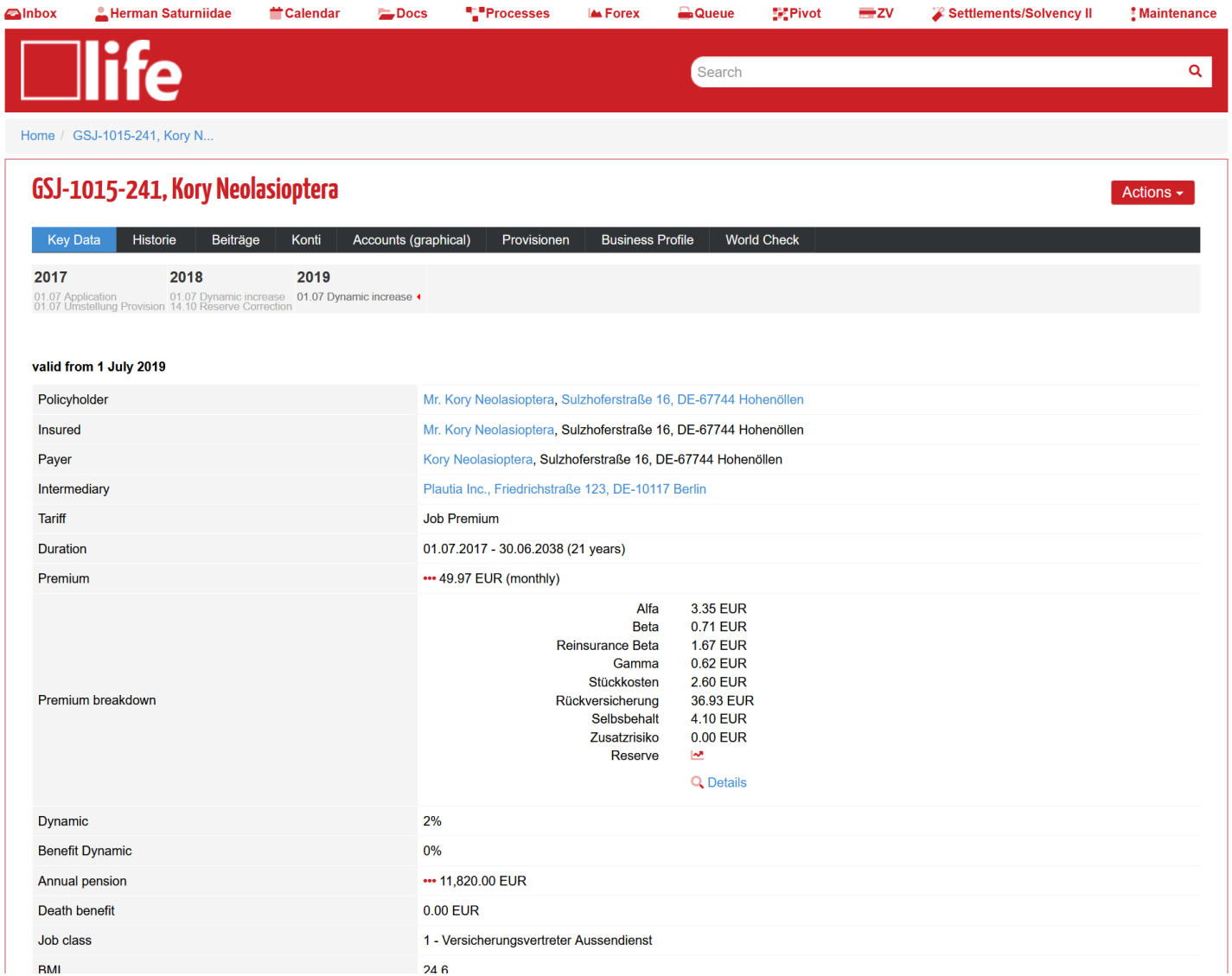


AUTOMATIC TESTING

Lifeware automated testing infrastructure

95 000	tests in the code base
60	times a day all tests run
320	processors sustain our test environment
∑	coverage informs about untested code

CONTRACT CENTRIC SYSTEM



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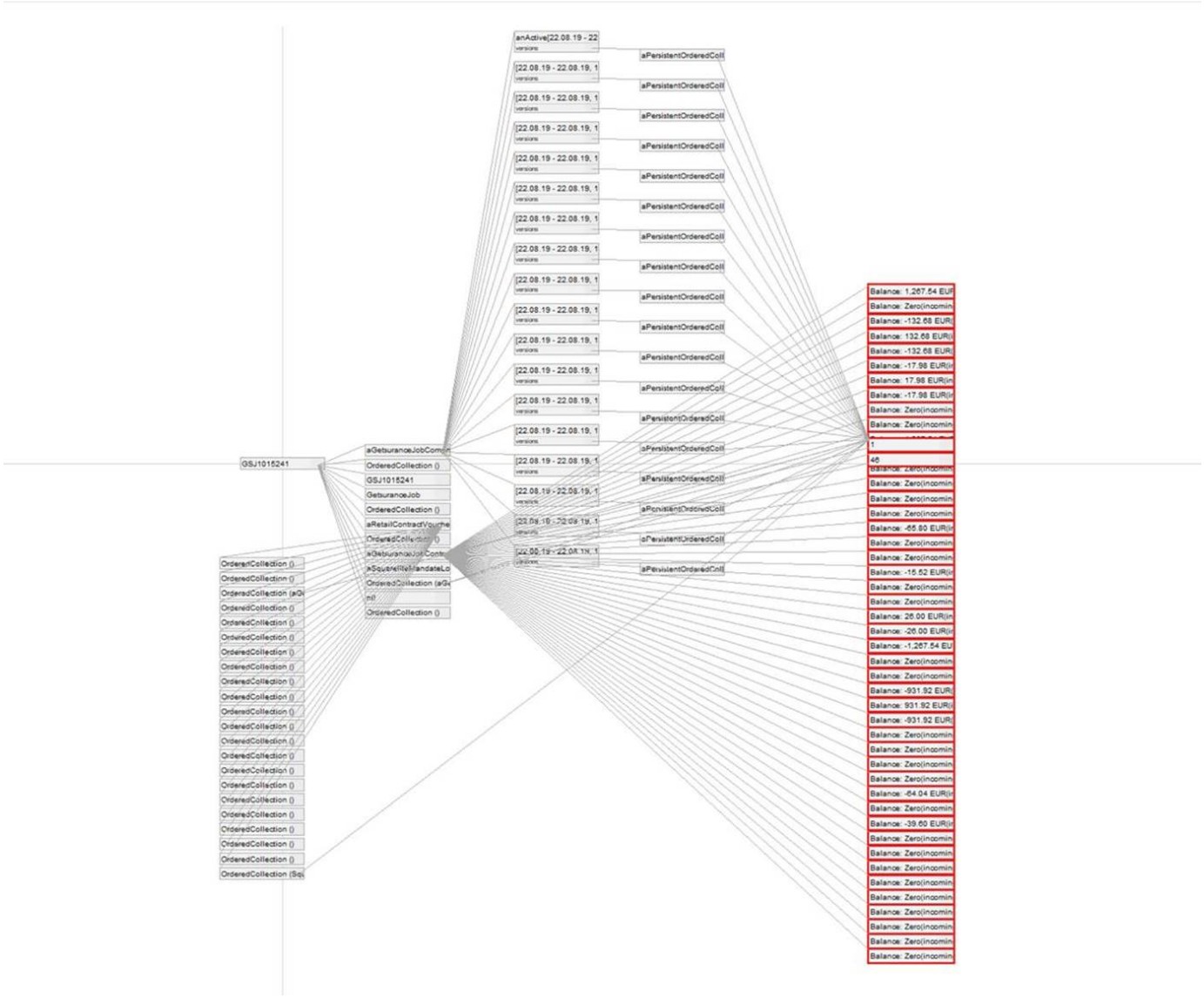
DEMO

OR BACKUP SLIDES…

CONTRACT CENTRIC SYSTEM



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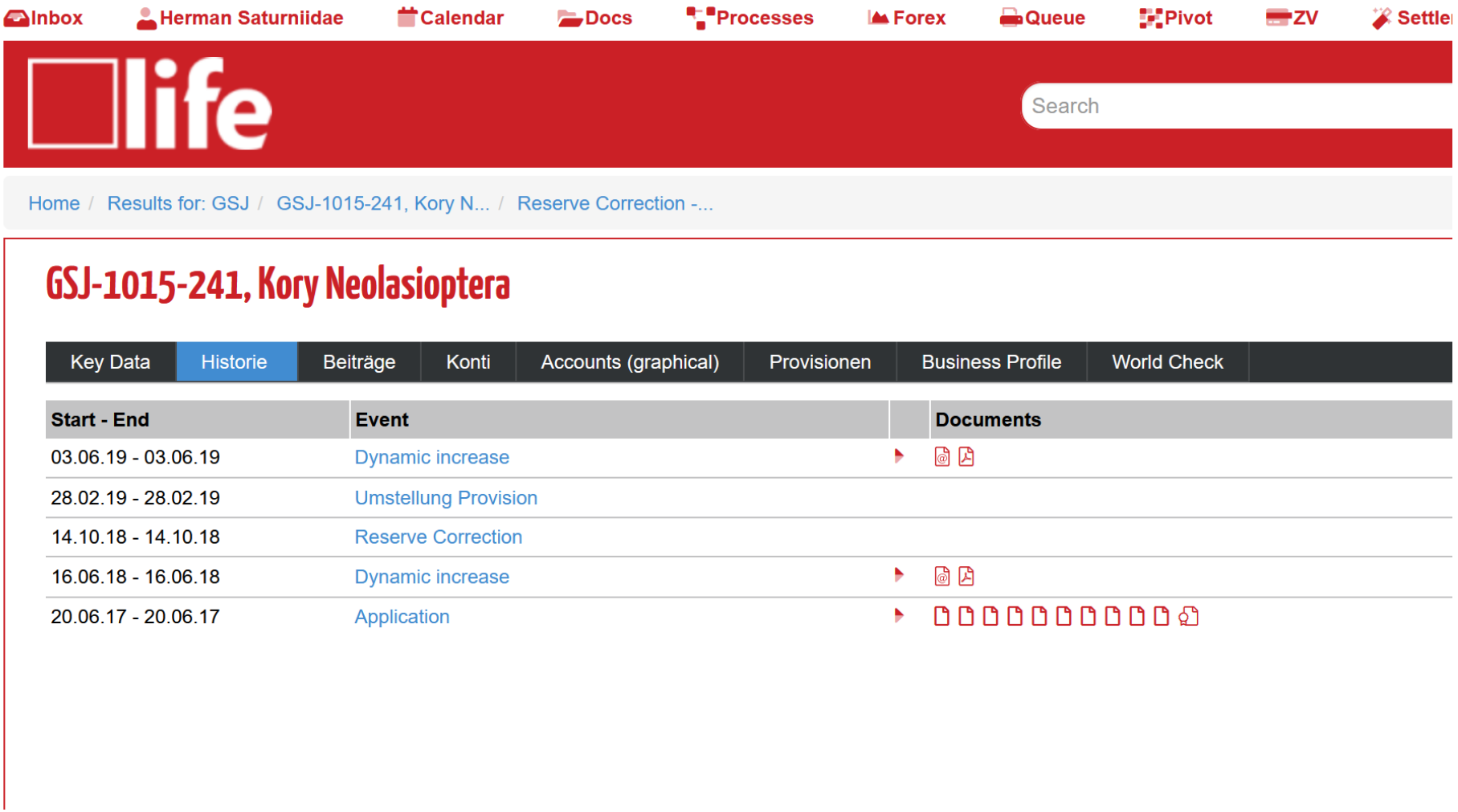
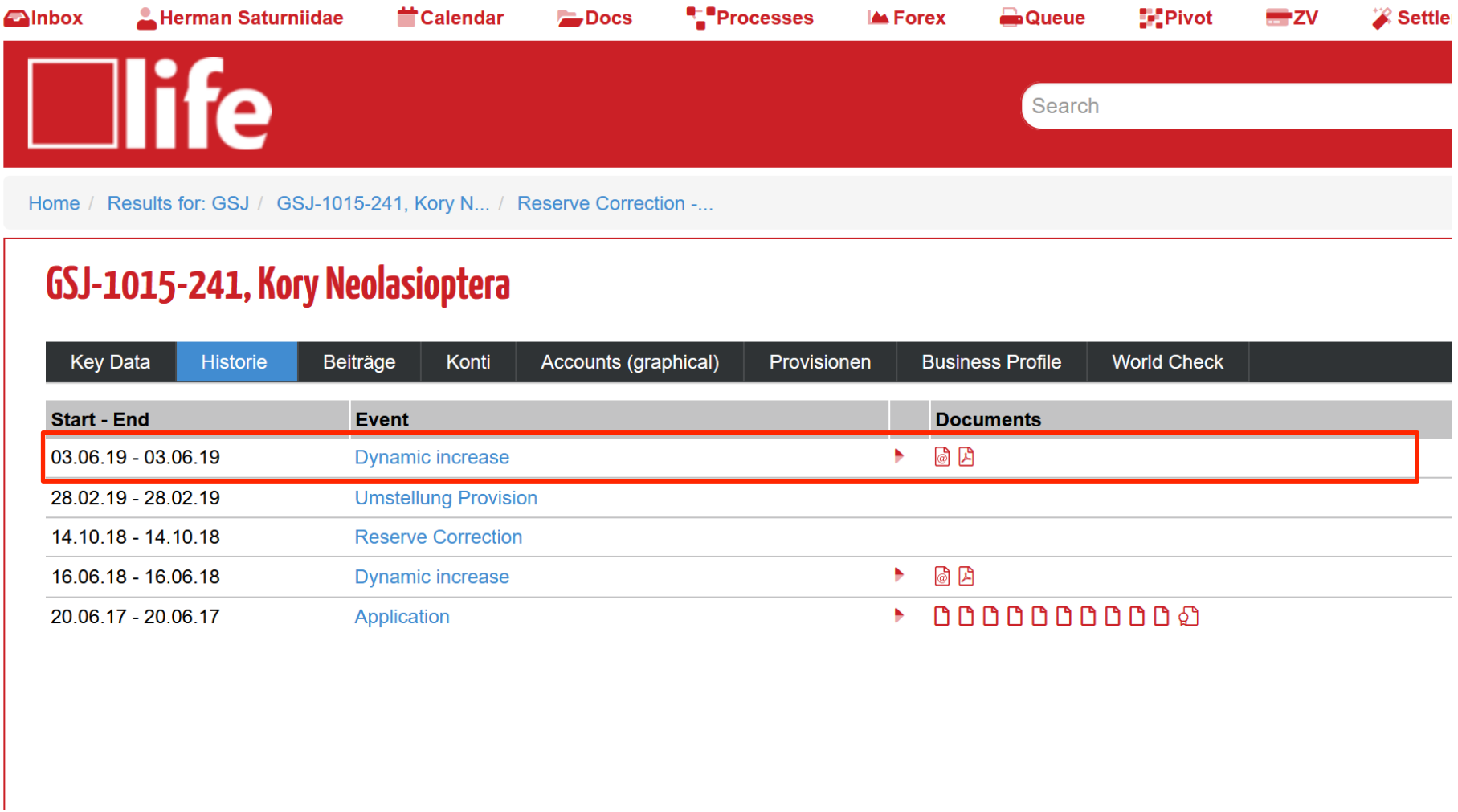
CONTRACT TOOLS



CONTRACT TOOLS



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CONTRACT TOOL

Dynamic increase - GSJ-1015-241, Kory Neolasioptera

Changes | Logbook | Correspondence | Documents | Documentstree | Upload

Dynamic increase

Start	Monday, 03.06.2019, 07:00:45, k.A.
End	Monday, 03.06.2019, 07:00:42, k.A.
Duration	23 hours, 59 minutes, 57 seconds

Comments

CONTRACT TOOL

Dynamic increase - GSJ-1015-241, Kory Neolasioptera

Changes | Logbook | Corr

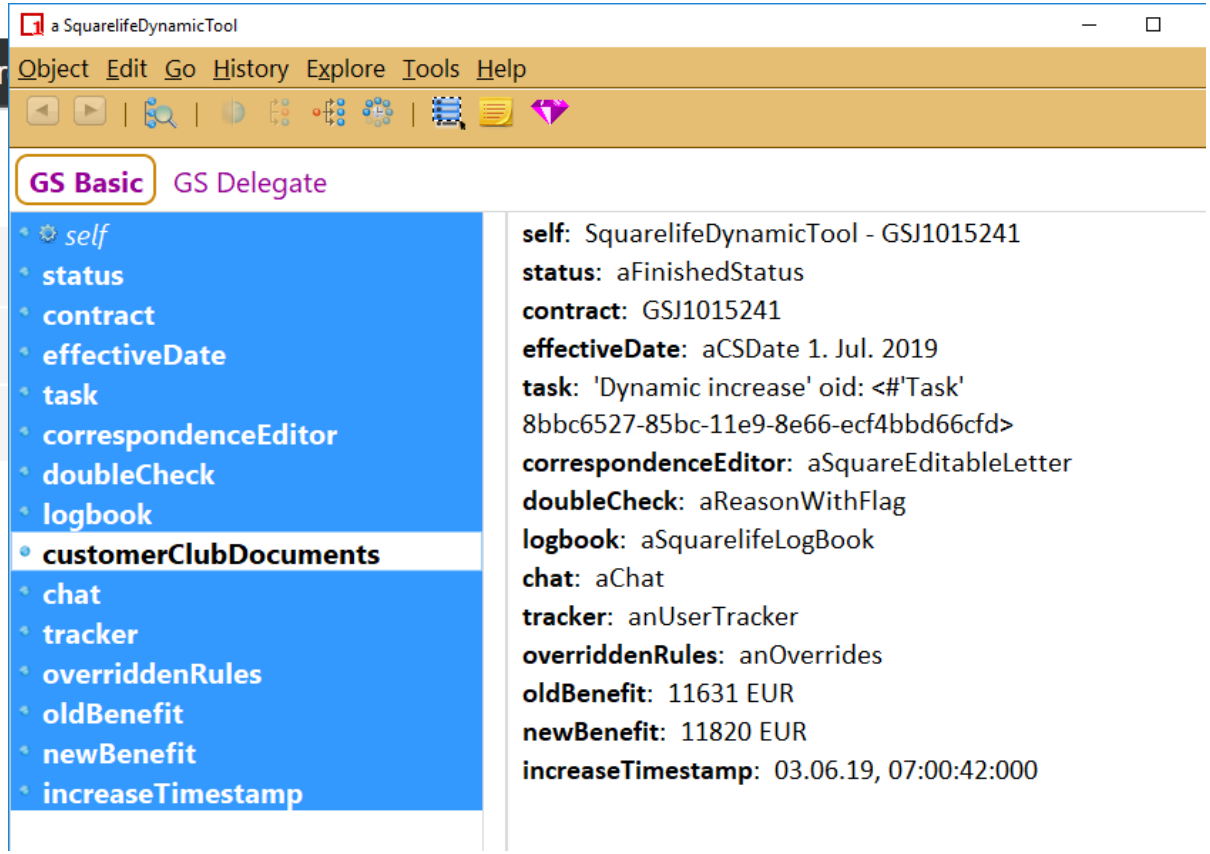
Dynamic increase

Start

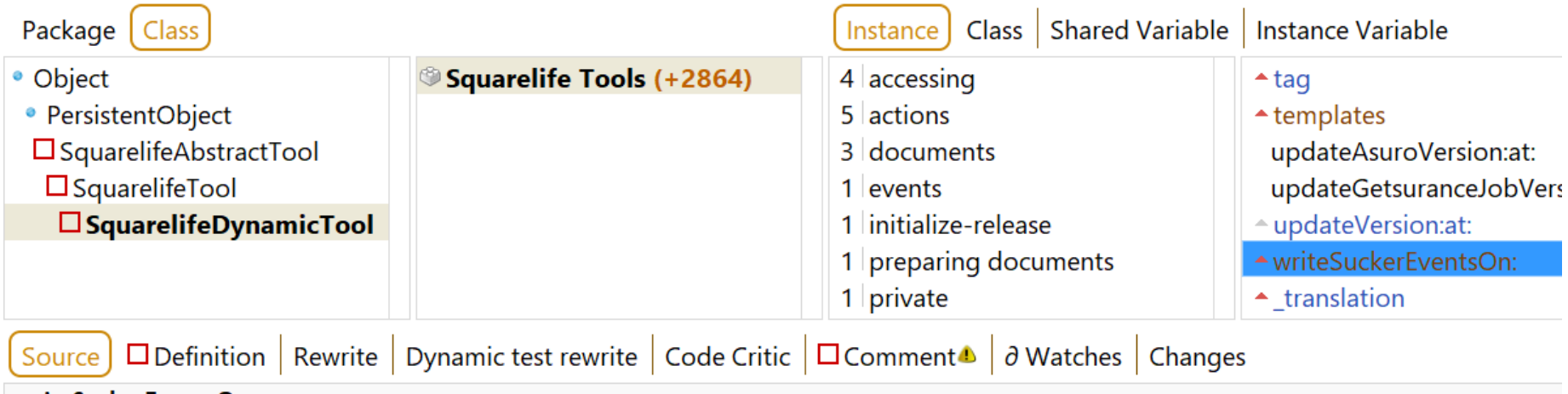
End

Duration

Comments



TEST SUCKER METHODS



TEST SUCKER METHODS

Package | Class | Instance | Class | Shared Variable | Instance Variable

- Object
  - PersistentObject
    - SquarelifeAbstractTool
      - SquarelifeTool
        - **SquarelifeDynamicTool**

Squarelife Tools (+2864)

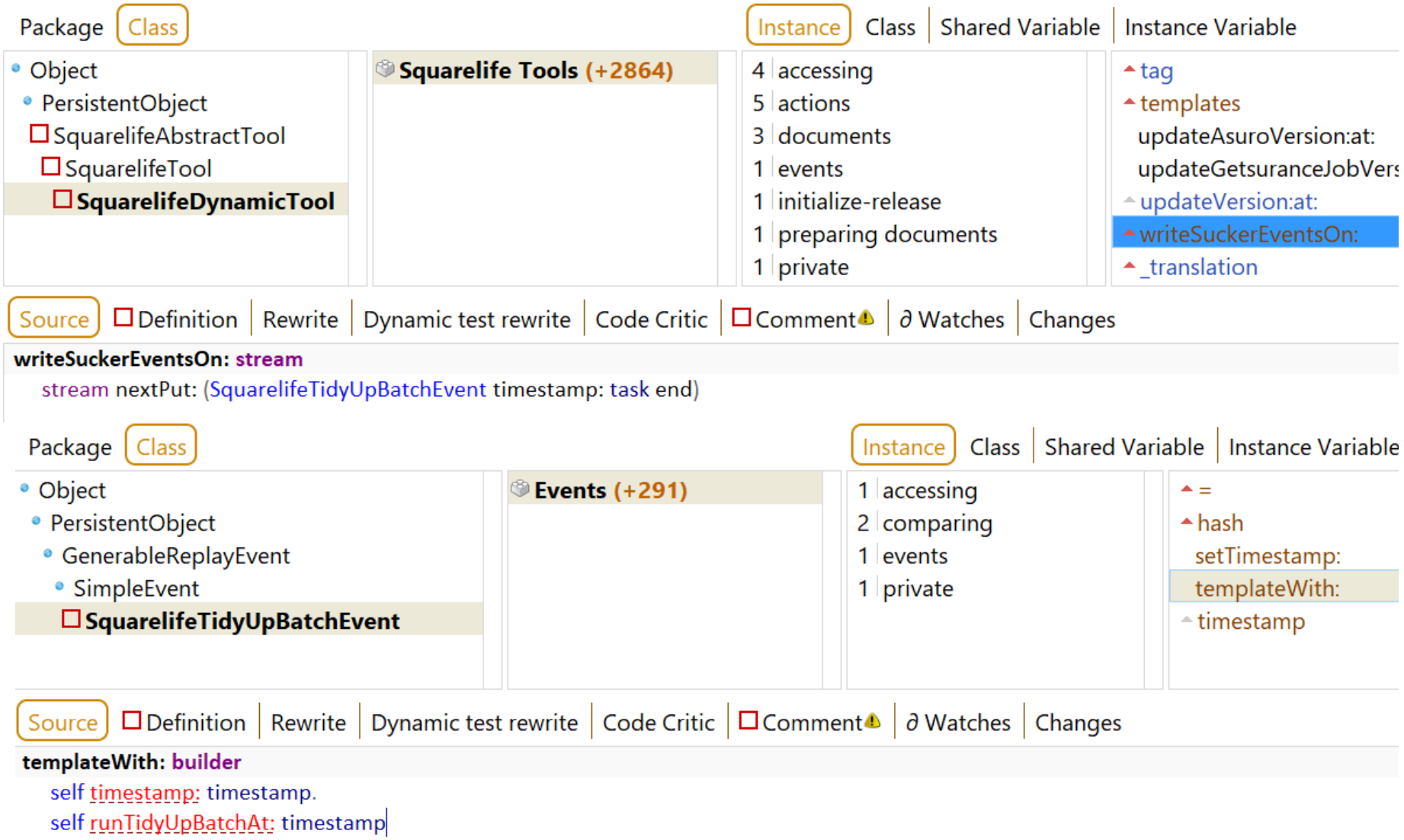
4	accessing
5	actions
3	documents
1	events
1	initialize-release
1	preparing documents
1	private

- tag
- templates
- updateAsuroVersion:at:
- updateGetsuranceJobVers
- updateVersion:at:
- writeSuckerEventsOn:
- _translation

Source | Definition | Rewrite | Dynamic test rewrite | Code Critic | Comment | ∂ Watches | Changes

```
writeSuckerEventsOn: stream
    stream nextPut: (SquarelifeTidyUpBatchEvent timestamp: task end)
```

TEST SUCKER METHODS



CONVERSION TO TEST

```
templateWith: builder
    self timestamp: timestamp.
    self runTidyUpBatchAt: timestamp
```

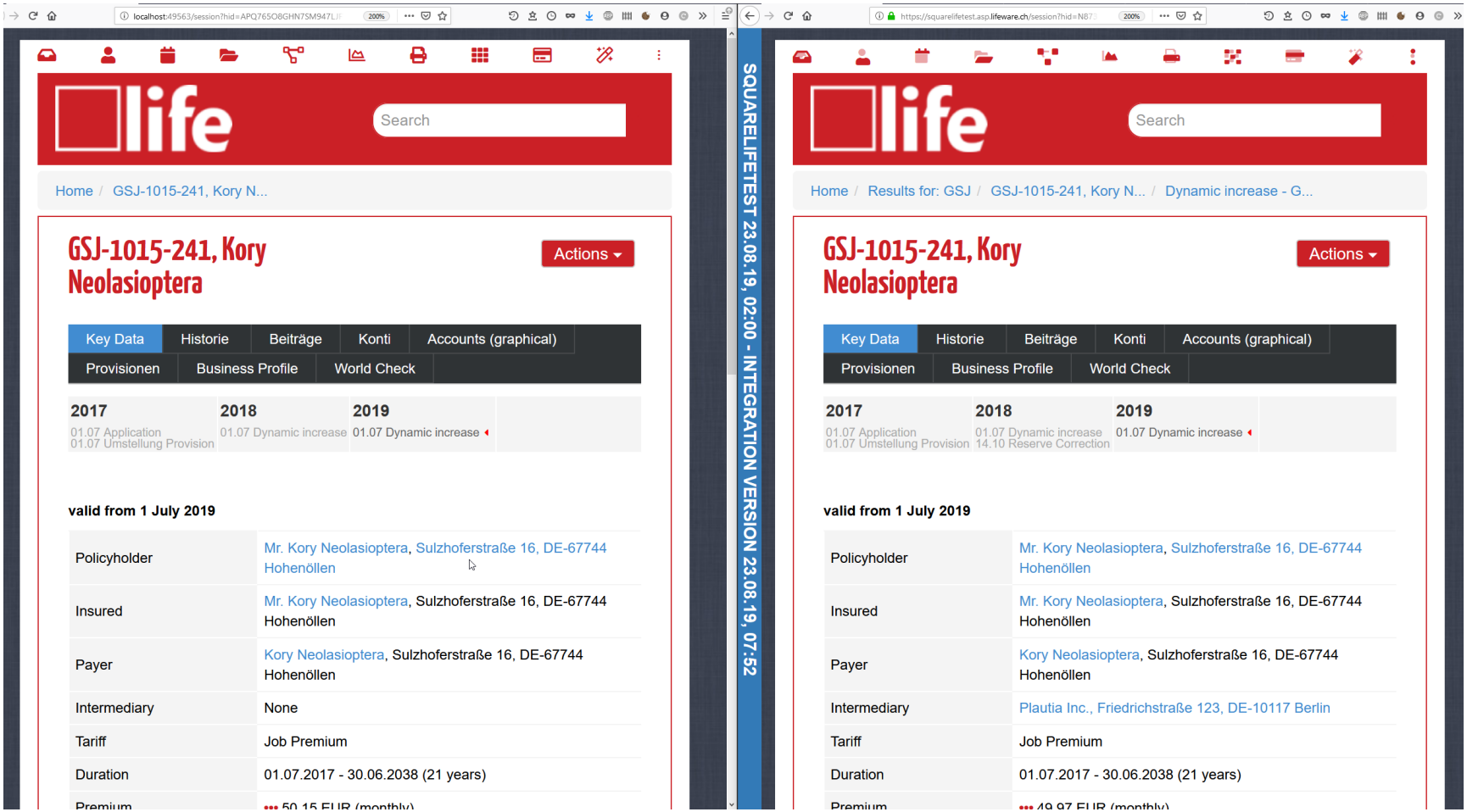
Inlining refactorings
- Variables
- Methods

```
self
    timestamp: (3 jun: 2019) @ '07:00:42.000';
    runTidyUpBatchAt: (3 jun: 2019) @ '07:00:42.000'
```

TEST SUCKED

Development

Production



END OF DEMO
BACKUP SLIDES

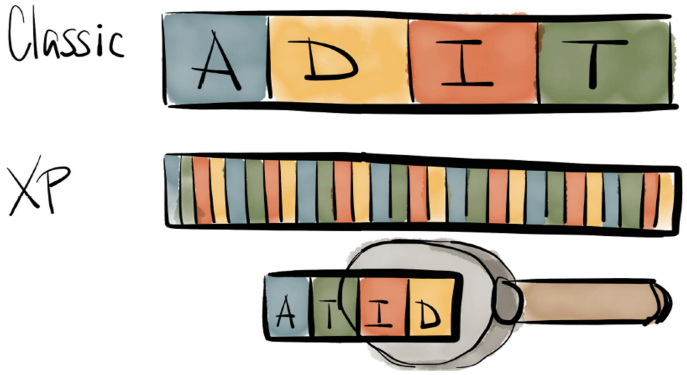
LIMITATIONS

Test sucker

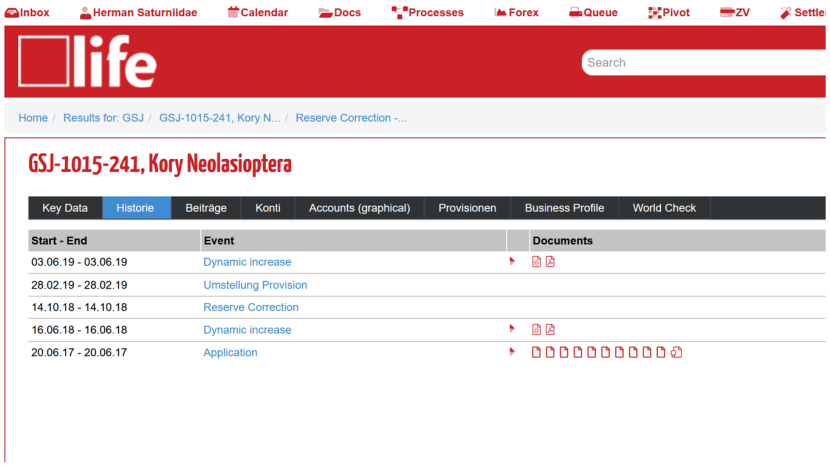
- does not handle manual changes
- has to be implemented for each tool
- may become tedious

```
templateWith: builder
    self testcase timestamp: self timestamp.
    builder newApplicationNamed: application contract policyNumber
        currency: application version currency.
    (builder application)
        policyholder: (builder partnerWithEmail: application policyholder email);
        insured: (builder partnerWithEmail: application insured email);
        broker: builder client broker3A;
        channel: builder client brokerC4C;
        origin: application version origin;
        plan: application version plan;
        initialCredit: application version initialCredit;
        creditAmortizationDuration: application version creditAmortizationDuration;
        creditRate: application version creditRate;
        currency: application version currency;
        deathCoverage: true;
        additionalCoverages: application version additionalCoverages;
        generalCondition: application version generalCondition.
    (builder application)
        apply;
        putInForceAt: application task end by: builder martaGiorgetti
```

EXTREME EFFICIENCY



CONTRACT TOOLS



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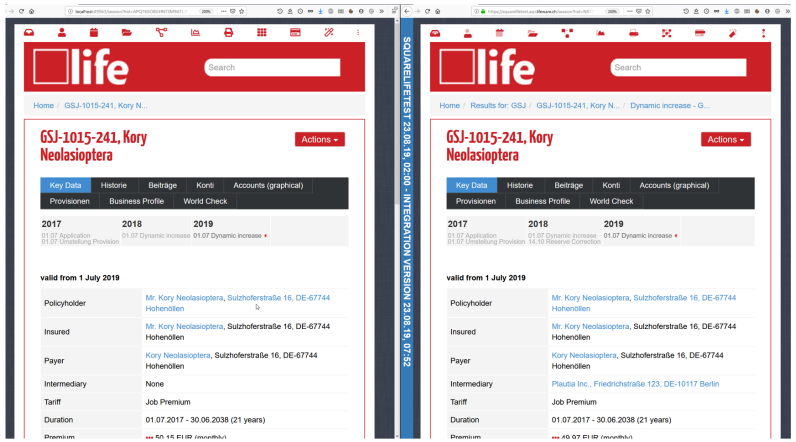
TEST SUCKED

Development

Production



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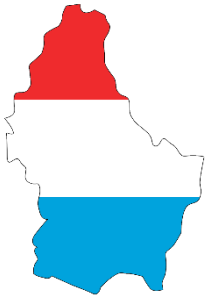
We are looking for innovative problem solvers!



Luxembourg

Switzerland

Join us to

- Solve real world problems
- Design innovative solutions
- Transition to Pharo

hresource@lifeware.ch