

Setzen wir unsere Qualitätsanalysen wirklich sinnvoll ein?

Über Mich

Forschung

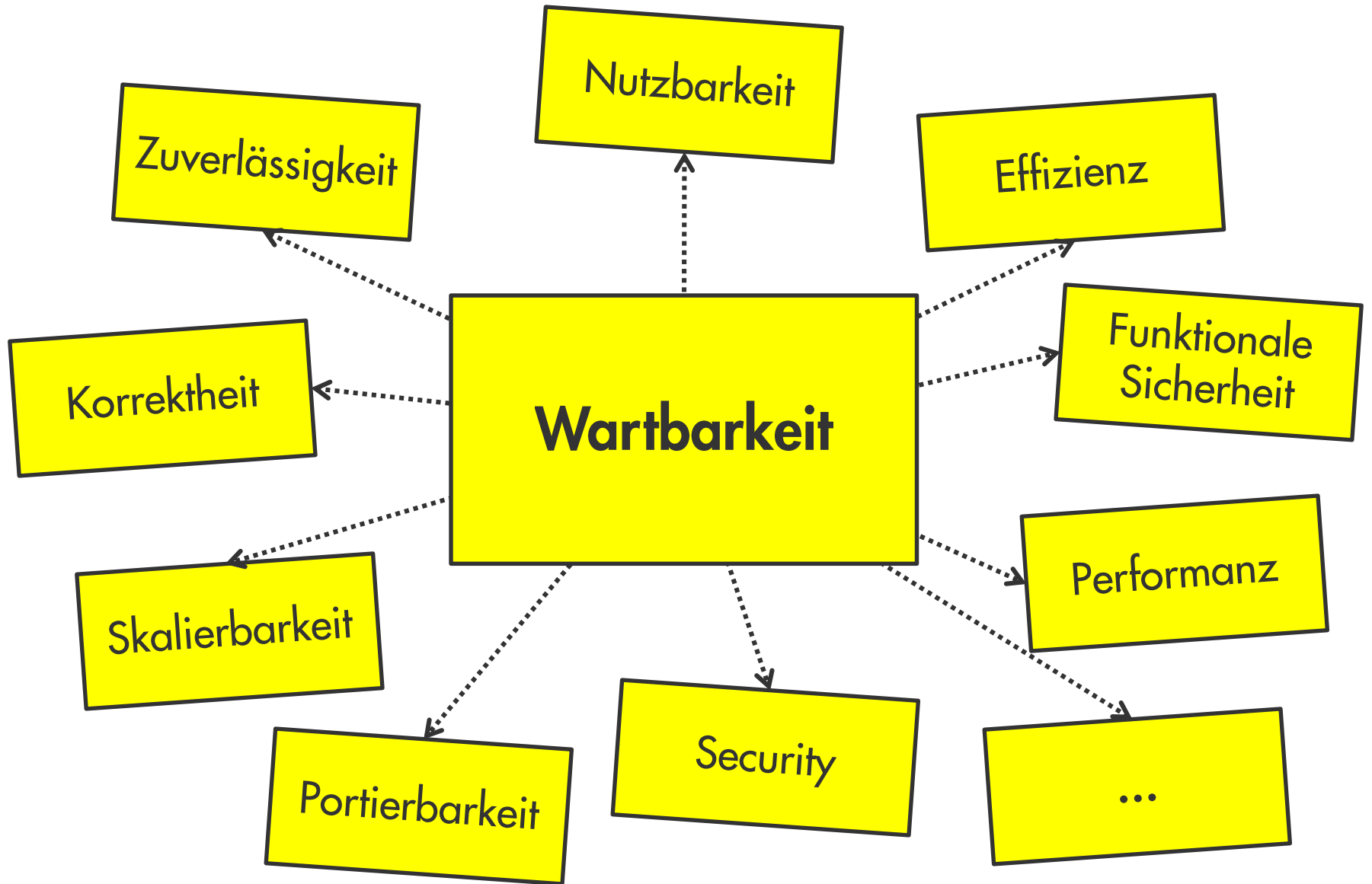
- Clone Detection, Architekturanalyse
- Effektivität und Effizienz von QS-Maßnahmen



Beratung

- Gründer
- Qualitäts-Bewertung & Qualitäts-Controlling





// Utilities for arrays of elements

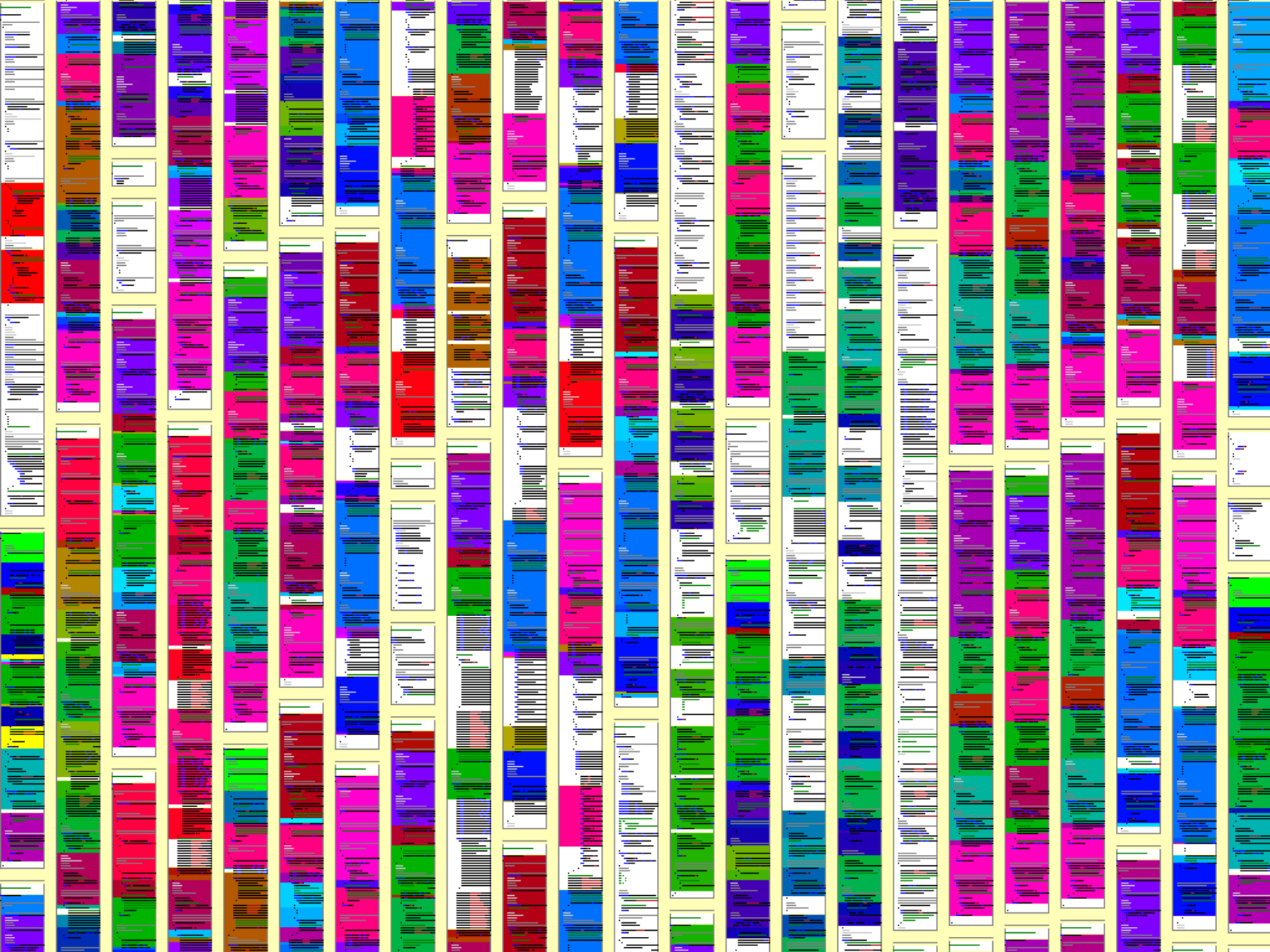
```
public String showElements(ModelElement[] elements, String nomsg) {  
    boolean found = false;  
    StringBuffer res = new StringBuffer();  
    if (elements != null) {  
        Index.getInstance().setCurrentRenderer(  
            FlatReferenceRenderer.getInstance());  
        for (int i = 0; i < elements.length; i++) {  
            ModelElement el = elements[i];  
            res.append(showElementLink(el)).append(HTML.LINE_BREAK);  
            found = true;  
        }  
        Index.getInstance().resetCurrentRenderer();  
    }  
    if (!found && nomsg != null && nomsg.length() > 0) {  
        res.append(HTML.italics(nomsg));  
    }  
    return res.toString();  
}
```

// Utilities for arrays of elements

```
public String showElements(ModelElement[] elements, String nomsg) {  
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    }  
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    }  
    return res.toString();  
}
```





Studie

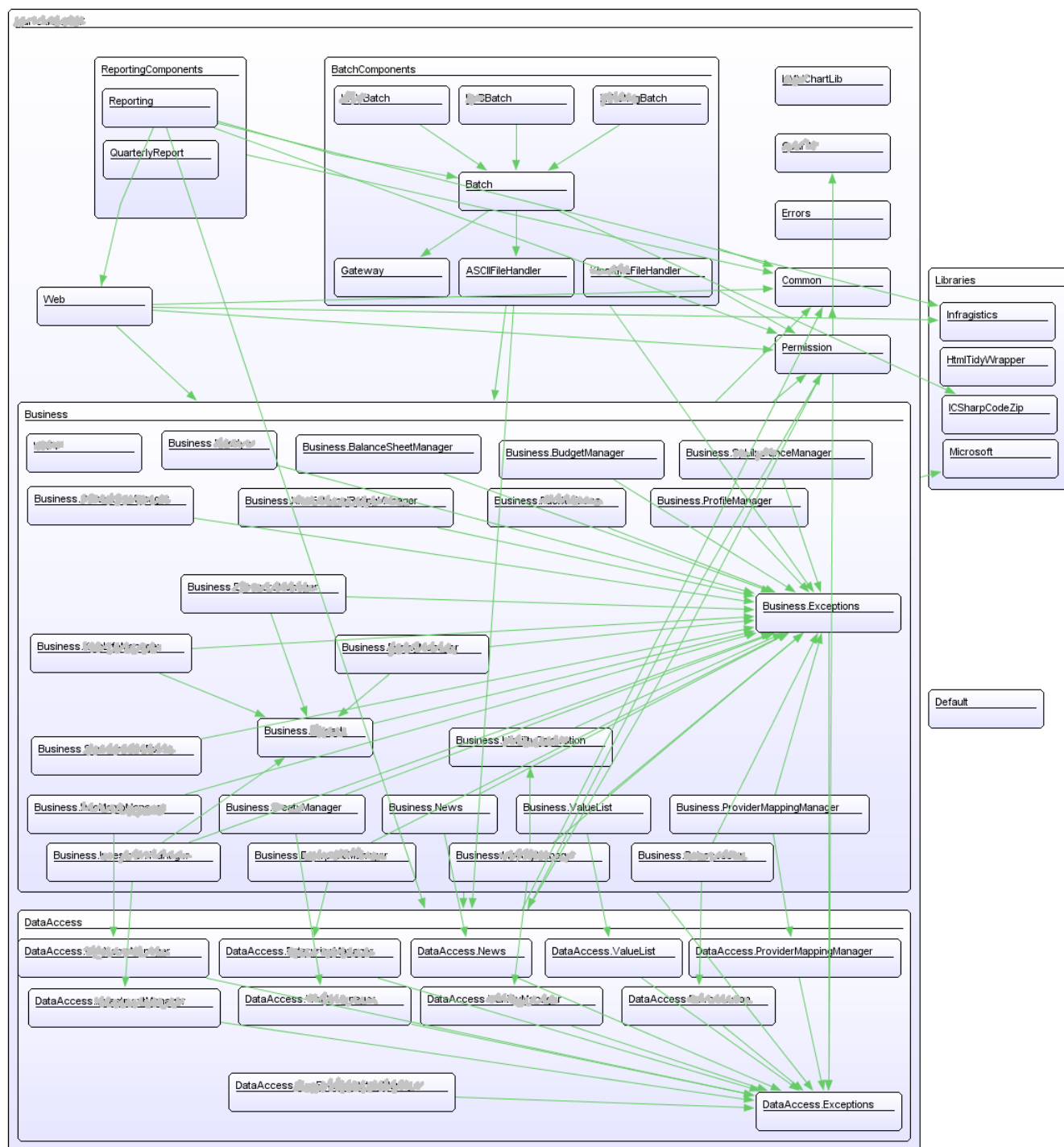
Munich Re 

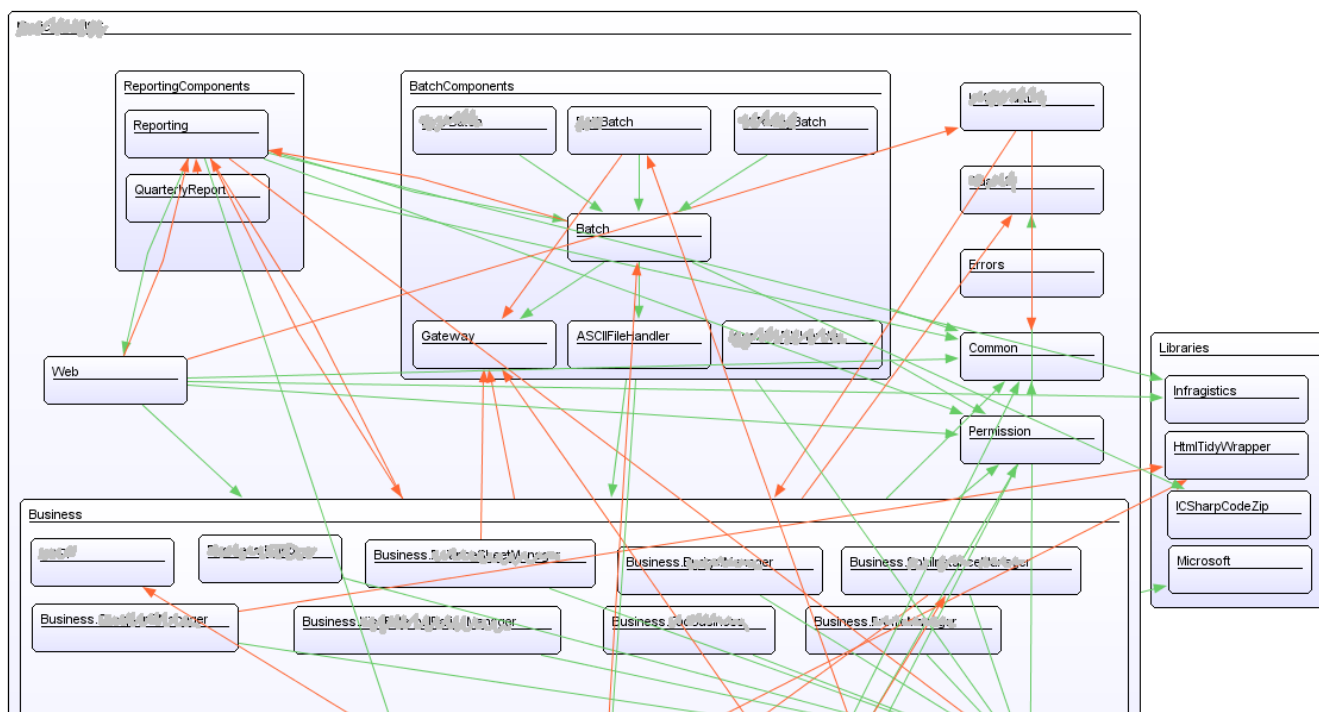
- Über 100 Fehler in produktiver Software



- 52% aller ungewollten Unterschiede fehlerhaft

Juergens, Deissenboeck et al: *Do Code Clones Matter?* ICSE 2009



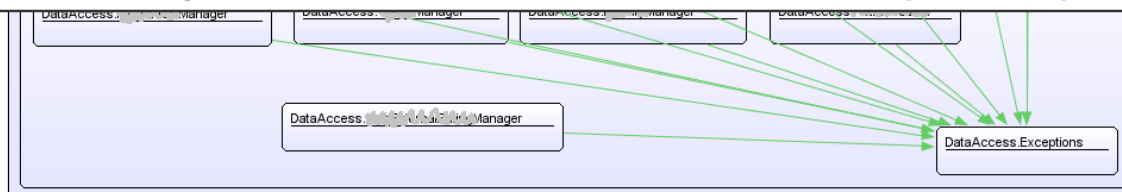


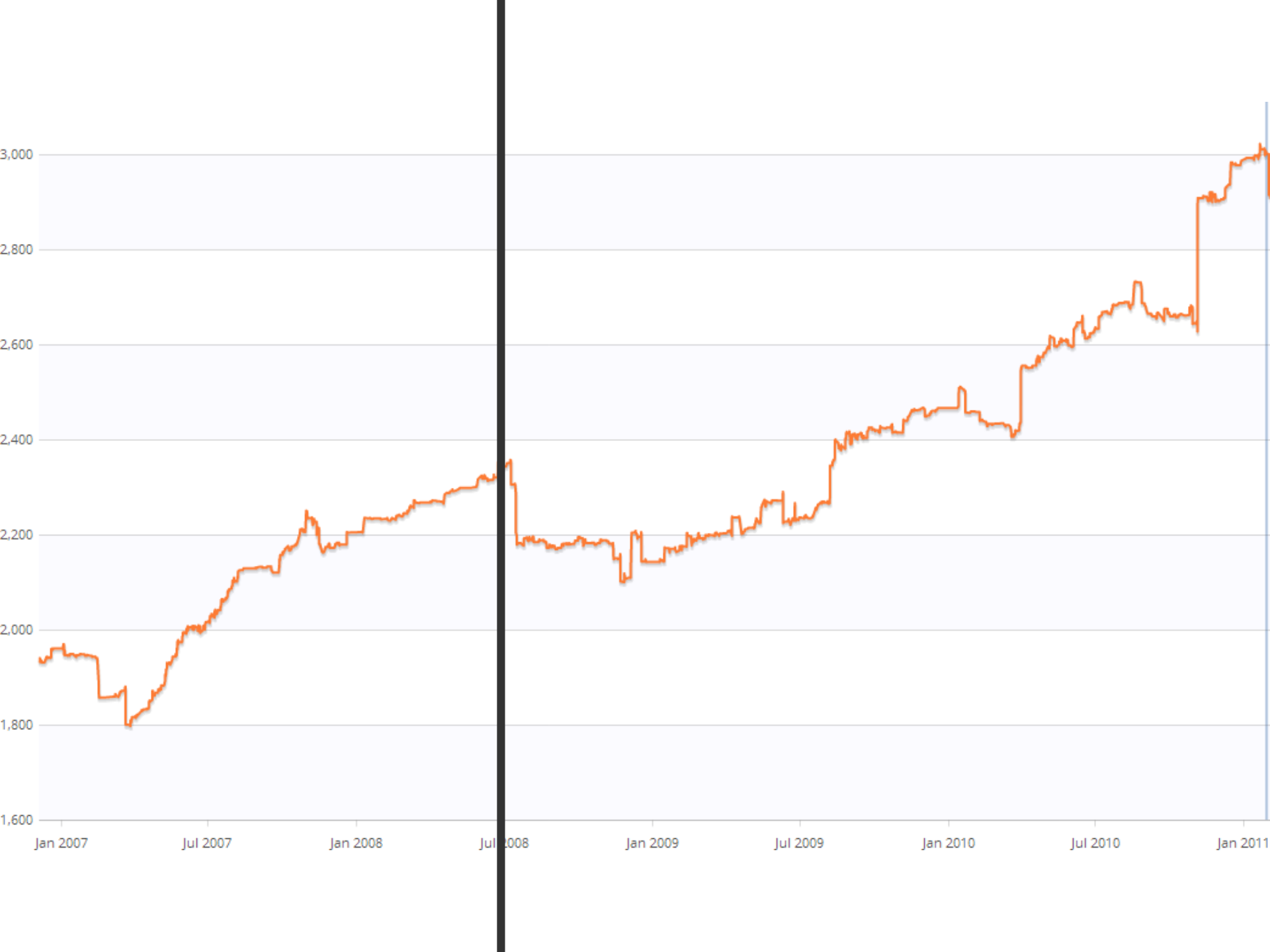
Studie

- Auslassungen in Dokumentation
- Aufdeckung von Fehlern
- Katalysator für Architekturdiskussionen

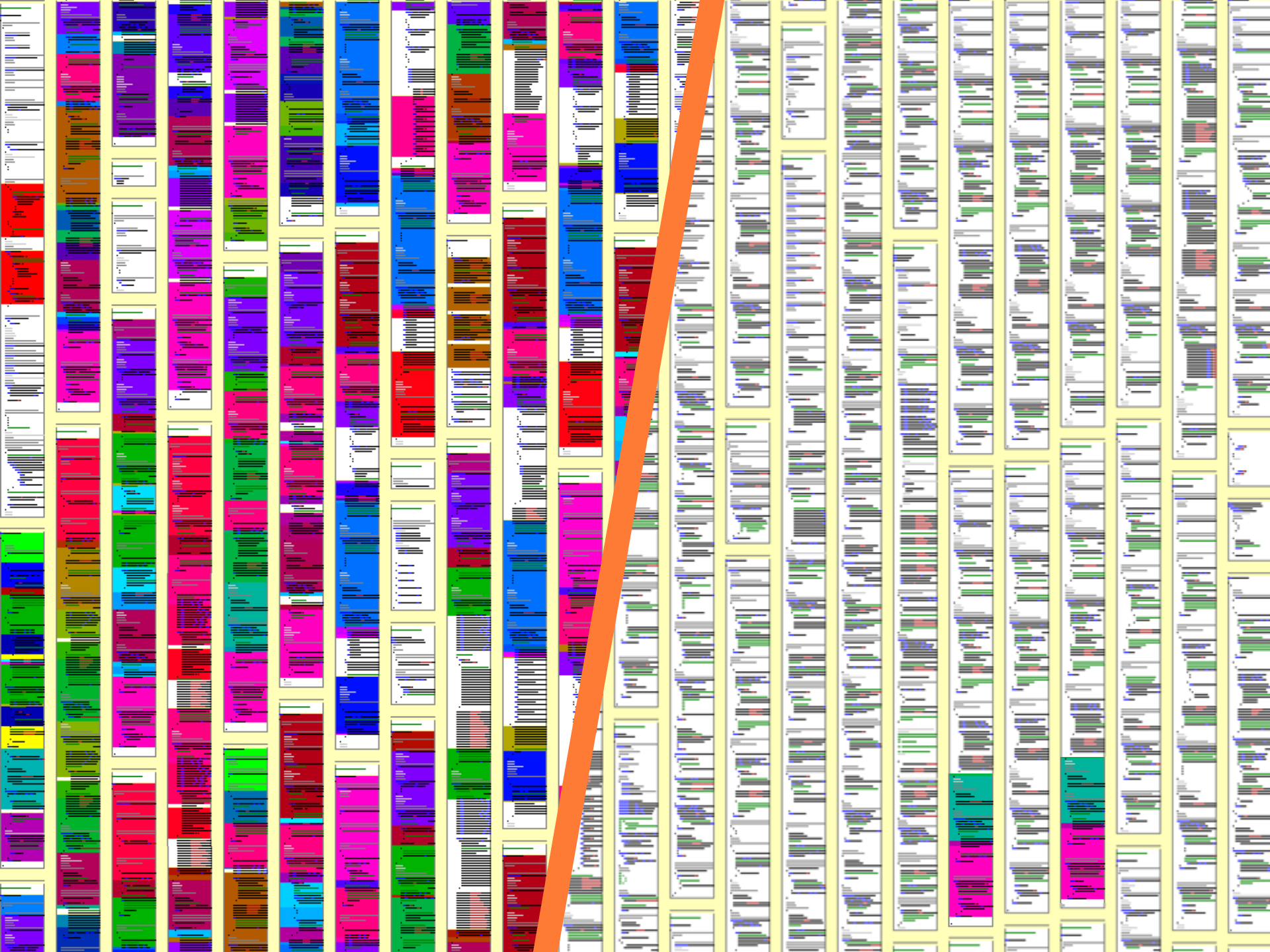
Munich Re

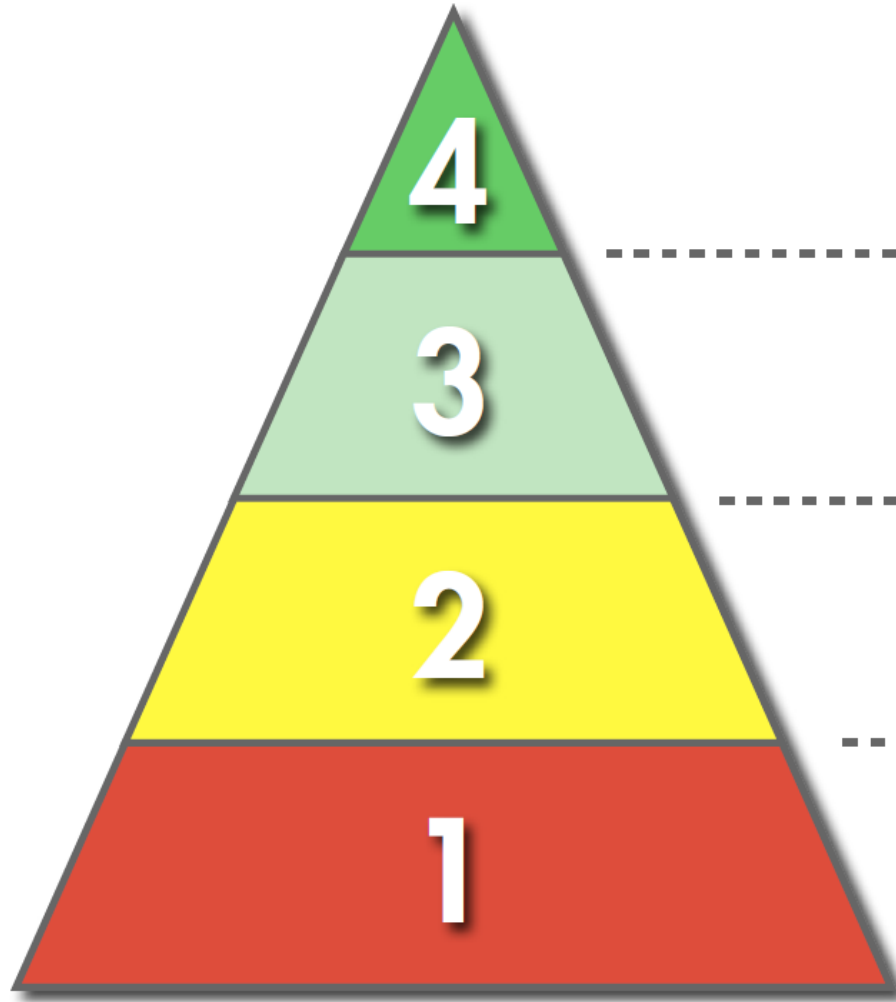
Feilkas, Juergens et al: *Loss of Architectural Knowledge During Evolution* ICPC 2009









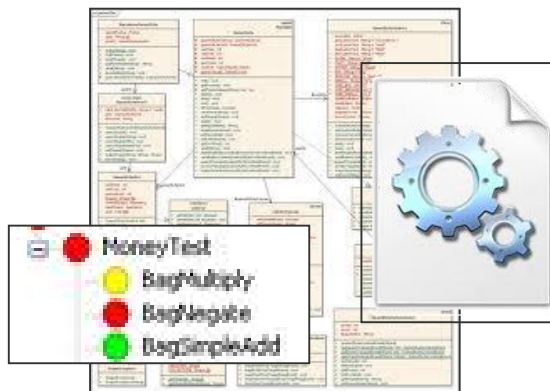


Keine Defizite

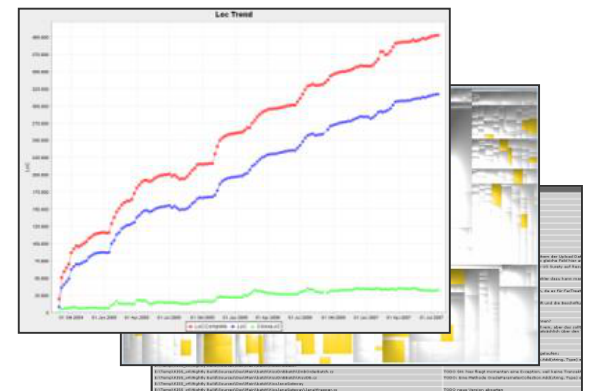
Keine Defizite in geändertem Code

Keine neuen Defizite

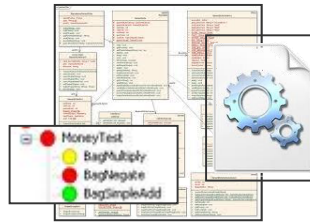
Egal



conQAT



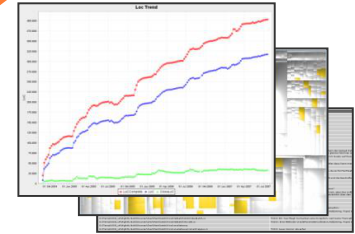
Baseline



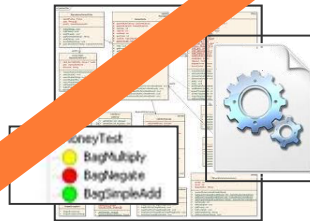
JUnitQAT



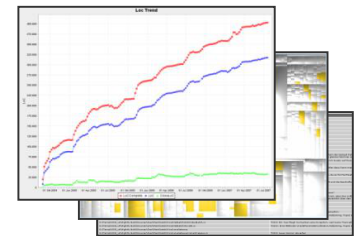
Baseline
Dashboard

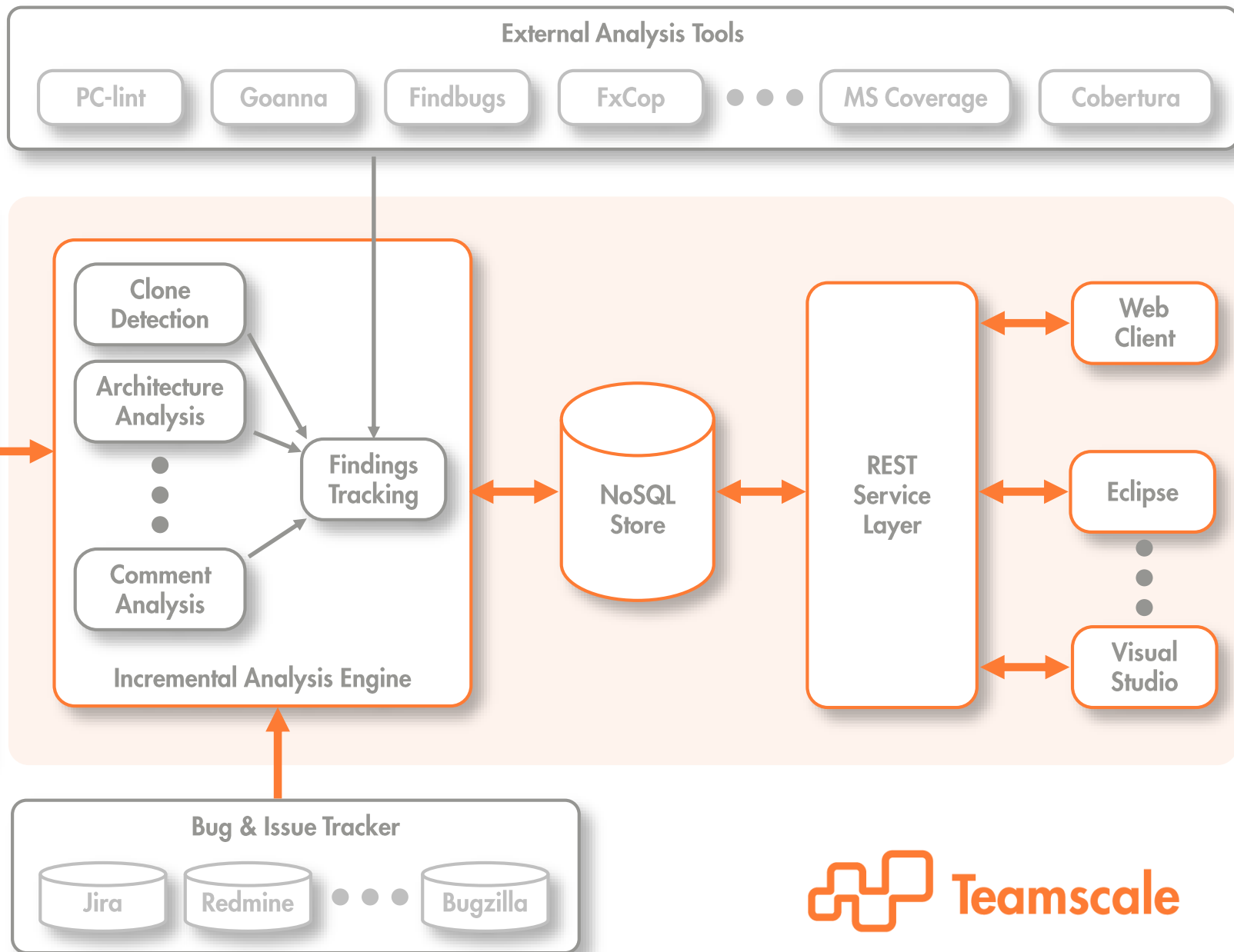


Latest Version



Dashboard
inkl Delta







ACT-1270 Fixing Inconsistent handling of serializable process variables

by [Victoria King](#) in revision [e1aa41b4b133d269980fff3f81d008da8f21a109](#) (git)

Jun 29 2012

16:05

changed 2 files

-4 findings



ACT-1258 Merging Pablo's work into trunk

by [Jacob Nelson](#) in revision [9e664a1f0676cedcbe03415a253e8c3e4a58944c](#) (git)

Jun 29 2012

14:41

added 3 files, changed 2 files

-1 findings



Fix for ACT-1059: Task#setDelegationState(DelegationState) was not saved in database

by [Michael Harris](#) in revision [1f48dcad04bc4a621e60af047fb121ae161bca30](#) (git)

Jun 28 2012

21:45

changed 3 files

+2 findings



ACT-991 Removed user id from exception message in order not to leak sensitive information

by [Michael Harris](#) in revision [e9a09424e6309c854c44ac5d08740a8ffb082fc9](#) (git)

Jun 28 2012

15:26

changed 2 files

-2 findings



Project:

CQSE All With Branches

Branch:

master

Timetravel:

All Commits.



Merge remote-tracking branch 'origin/cr/9905'

Oct 20 2016

 by [Lars Heinemann](#) in revision [3e9579a715a156d2e629fcb02a44f3c1d3ad0b5b](#) in branch master

14:34

(repository1)

 Merged from [cr/9905](#)

Files: 3 changed

 Findings: 0


Merge branch 'master' into cr/10552_branch_coverage

Oct 20 2016

 by [Benjamin Hummel](#) in revision [25692692f99563e104e167204f860ceec5fa92aa](#) in branch

14:24

cr/10552_branch_coverage (repository1)

 Merged from [master](#)

Files: 13 added, 152 changed, 3 deleted

 Findings: 59 8 69


CR#9766: reviewed

Oct 20 2016

 by [Lars Heinemann](#) in revision [ed133b7b146e1d5051c19995a0be058f48a0c0b9](#) in branch master

14:22

(repository1)

Files: 2 changed

 Findings: 8


CR#10552 GREEN (with Thomas)

Oct 20 2016

 by [Benjamin Hummel](#) in revision [31b76706e1d6a7600762d5881f5850ef8da06bad](#) in branch

14:19

cr/10552_branch_coverage (repository1)

Files: 7 changed

 Findings: 11


CR#0: trying to fix test

Oct 20 2016

 by [Lars Heinemann](#) in revision [87d74fd92ba06f9b3f43be63a641008bdf8ed0a1](#) in branch master

13:24

(repository1)

Files: 1 changed

 Findings: 0



fixed: latest change is no longer lost when assigning entry to a keyword group while it is being edited

by jzieren in revision [e0ca9a51b50c8b01f579f4eef79028bff6c34028](#) (git)

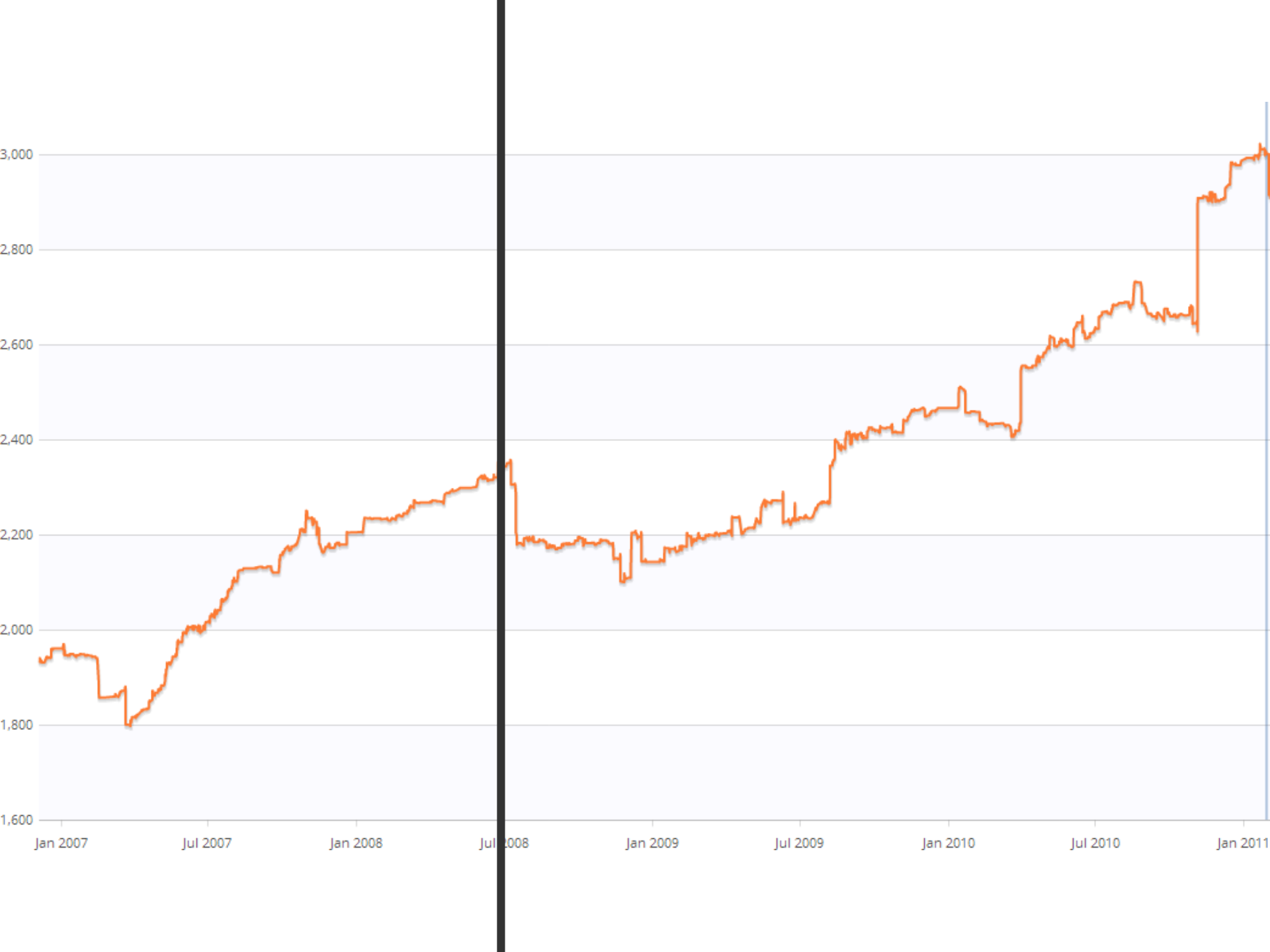
May 26 2005
15:58

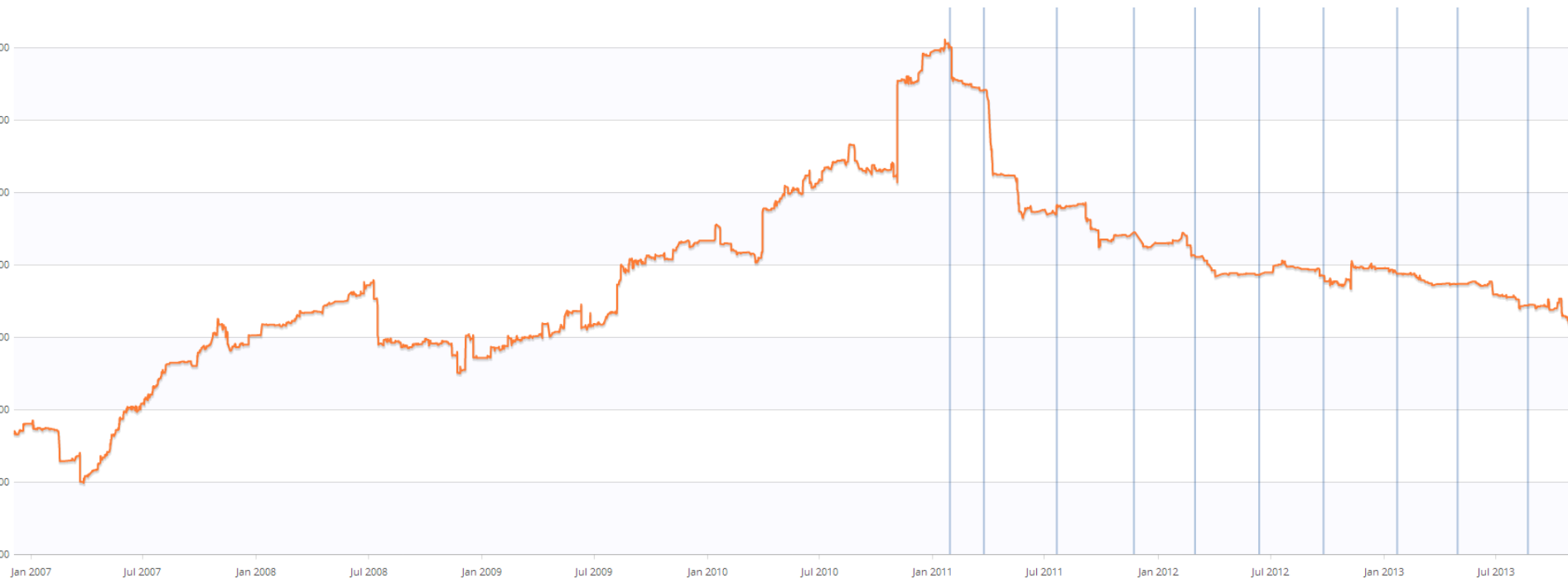
1 alerts:

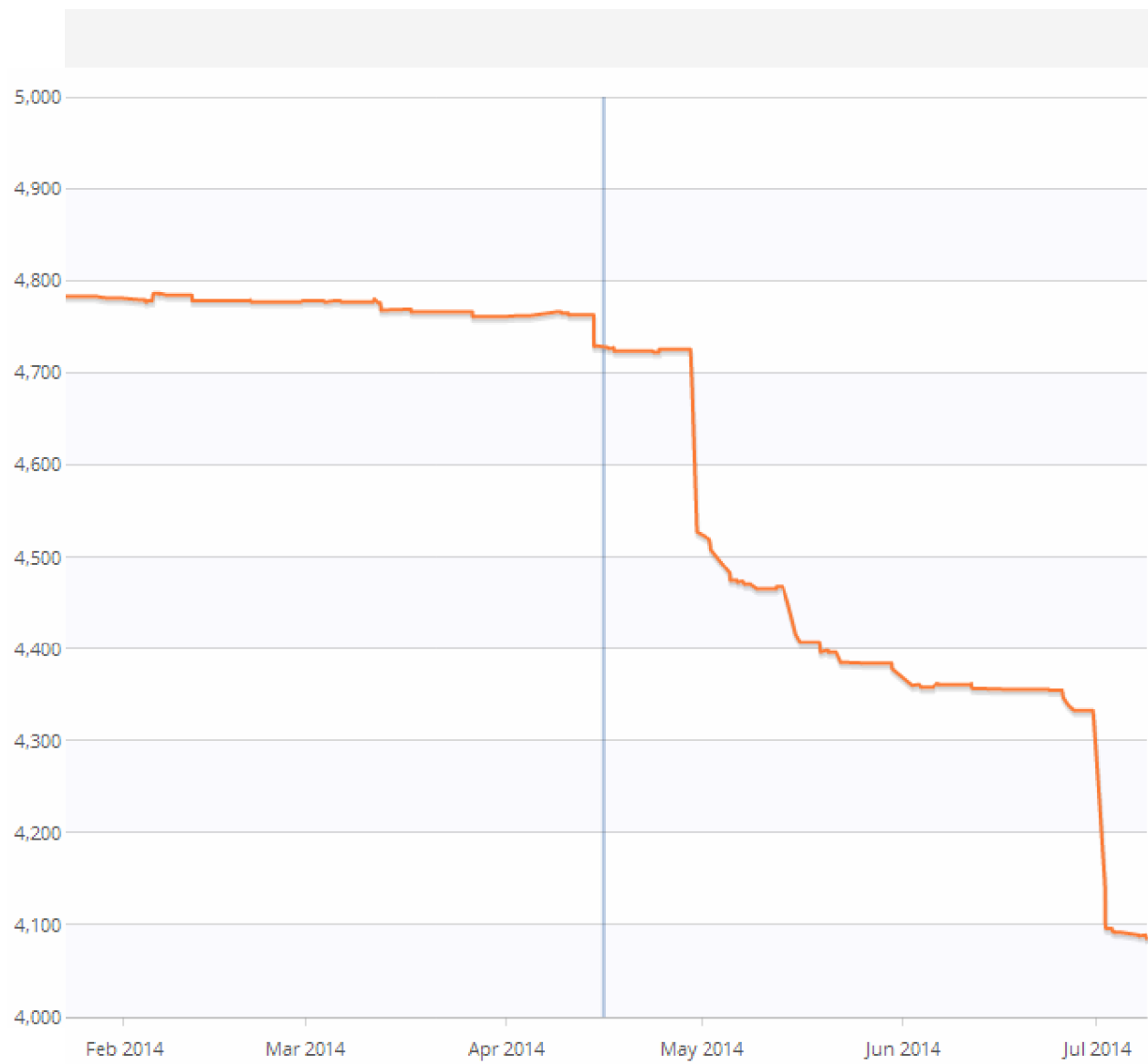
Message	Context
Found potential inconsistent clone change in RightClickMenu.java	[Broken clone] [Old clone finding] [Code change]

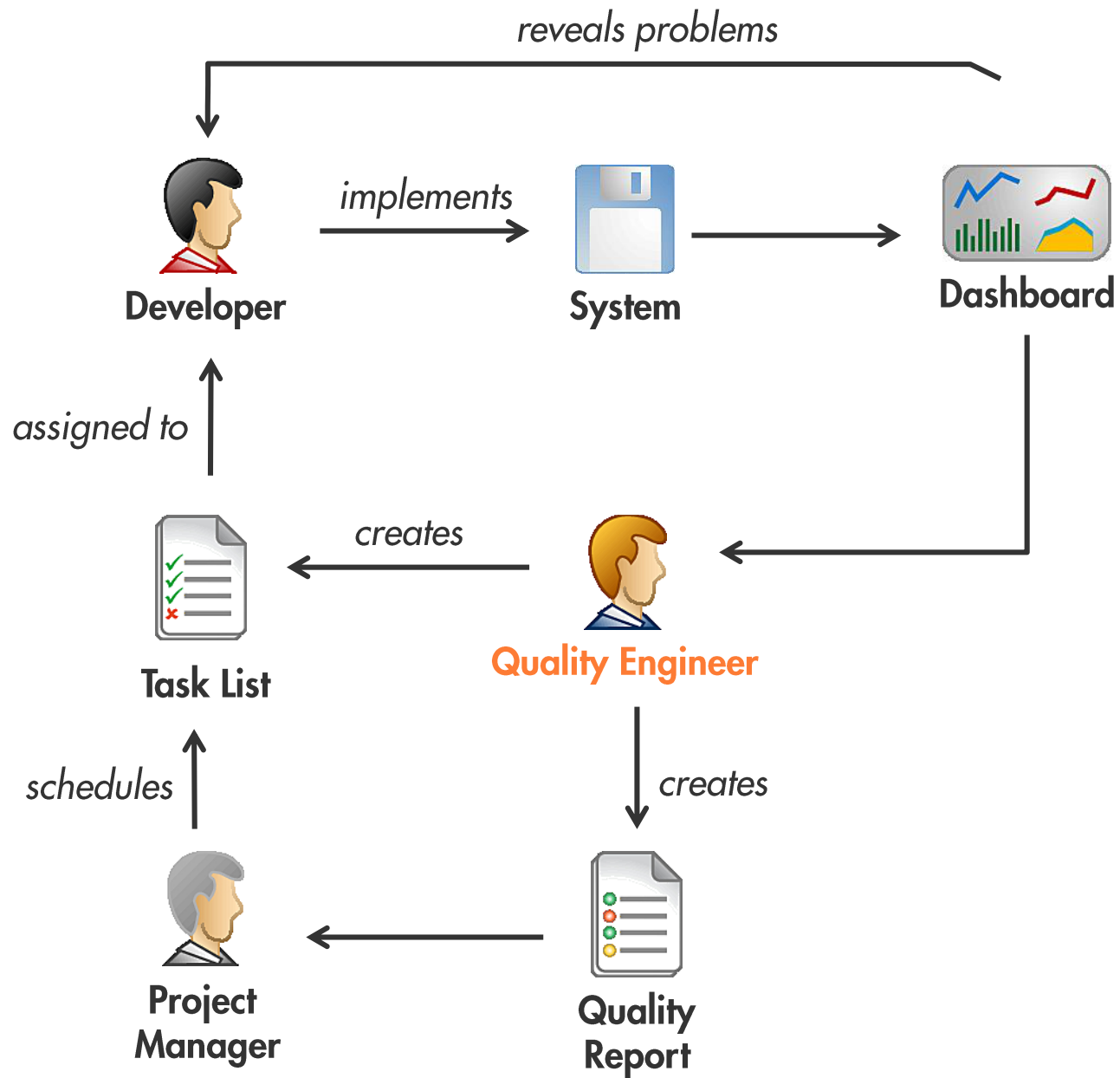
2 removed findings:

Message	Location	Finding Group
Clone with 2 instances of length 10	src/java/net/sf/.../RightClickMenu.java:366-380	Code Duplication / Cloning
Clone with 2 instances of length 10	src/java/net/sf/.../RightClickMenu.java:340-354	Code Duplication / Cloning

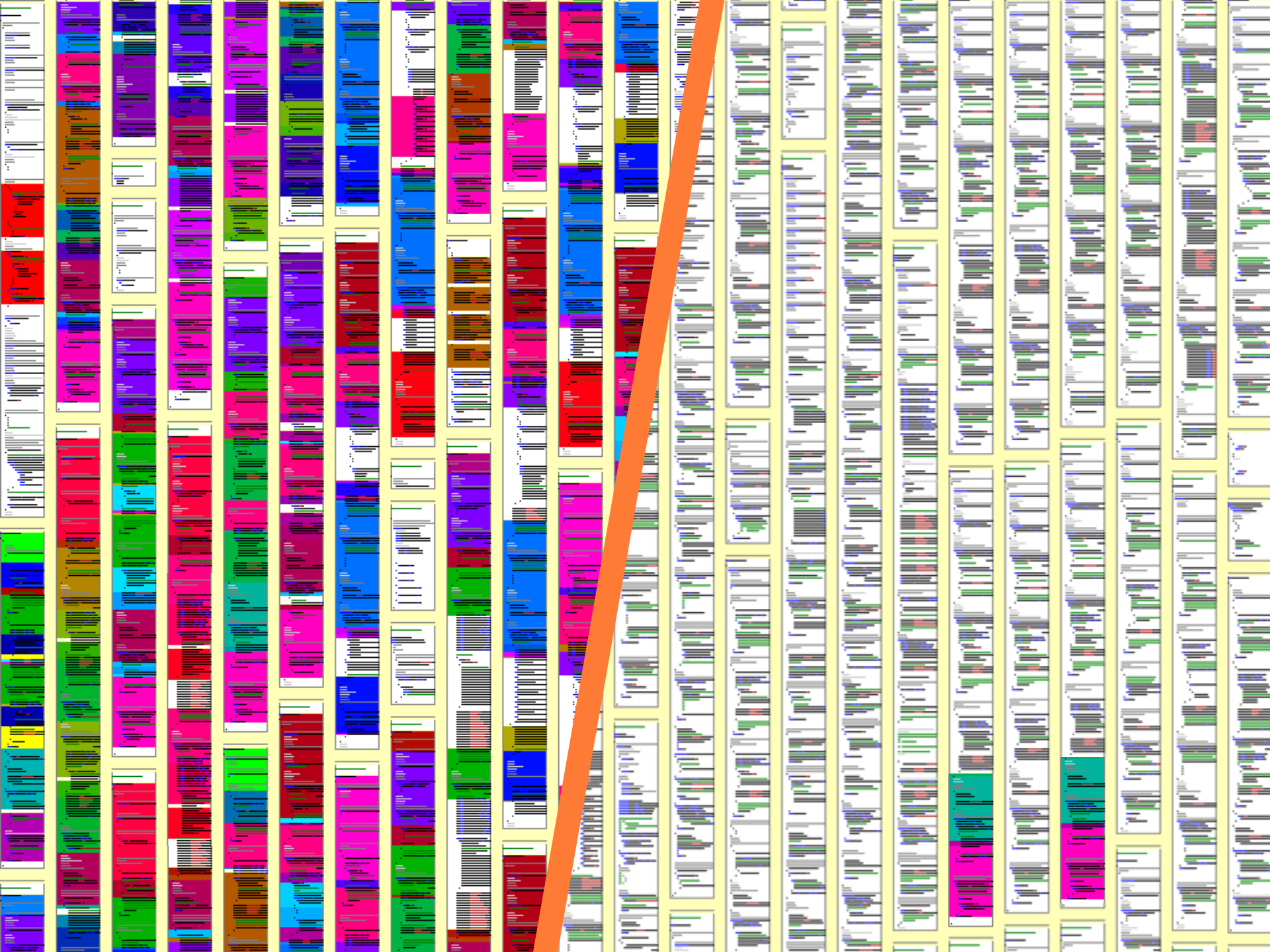


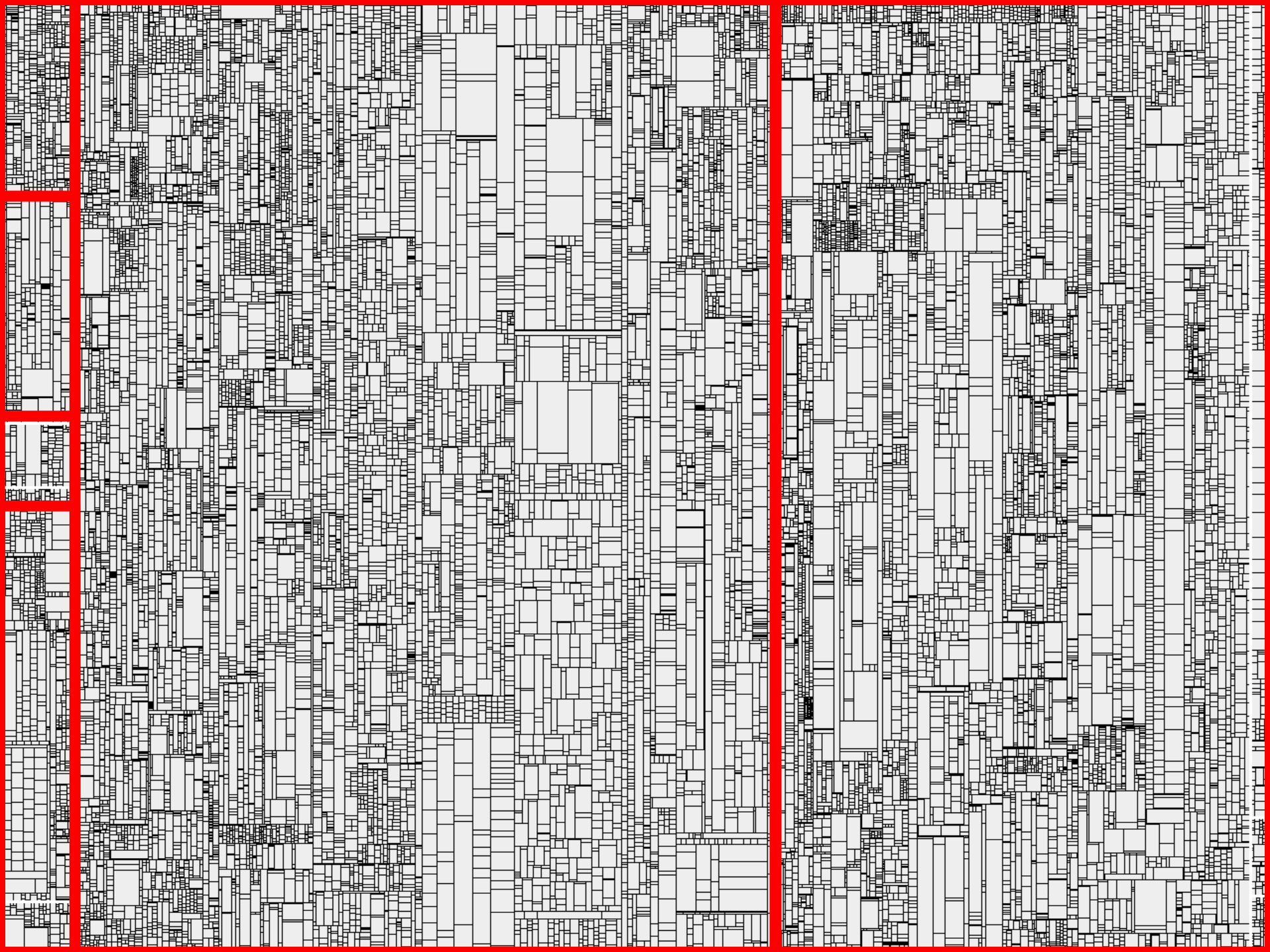


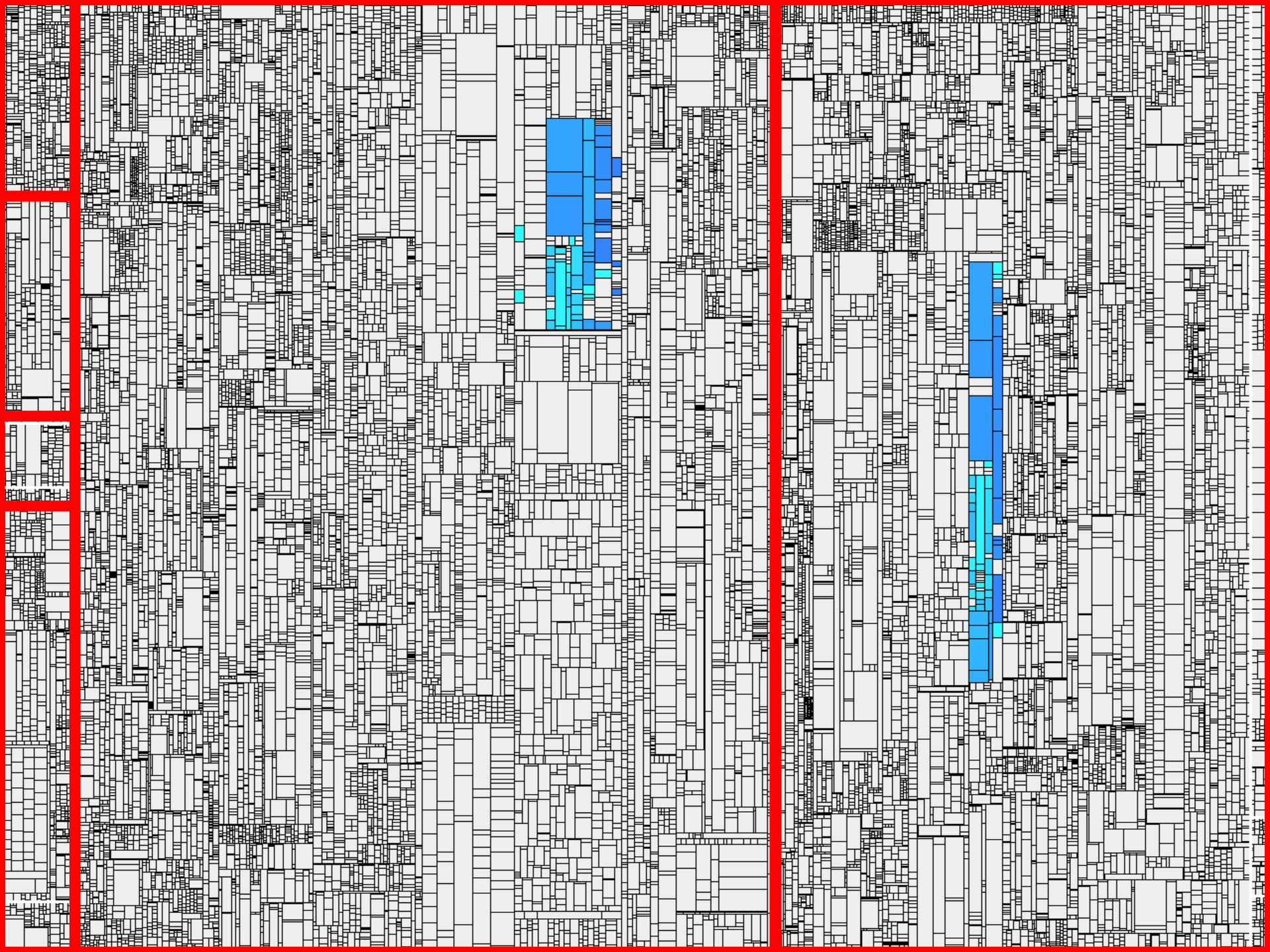


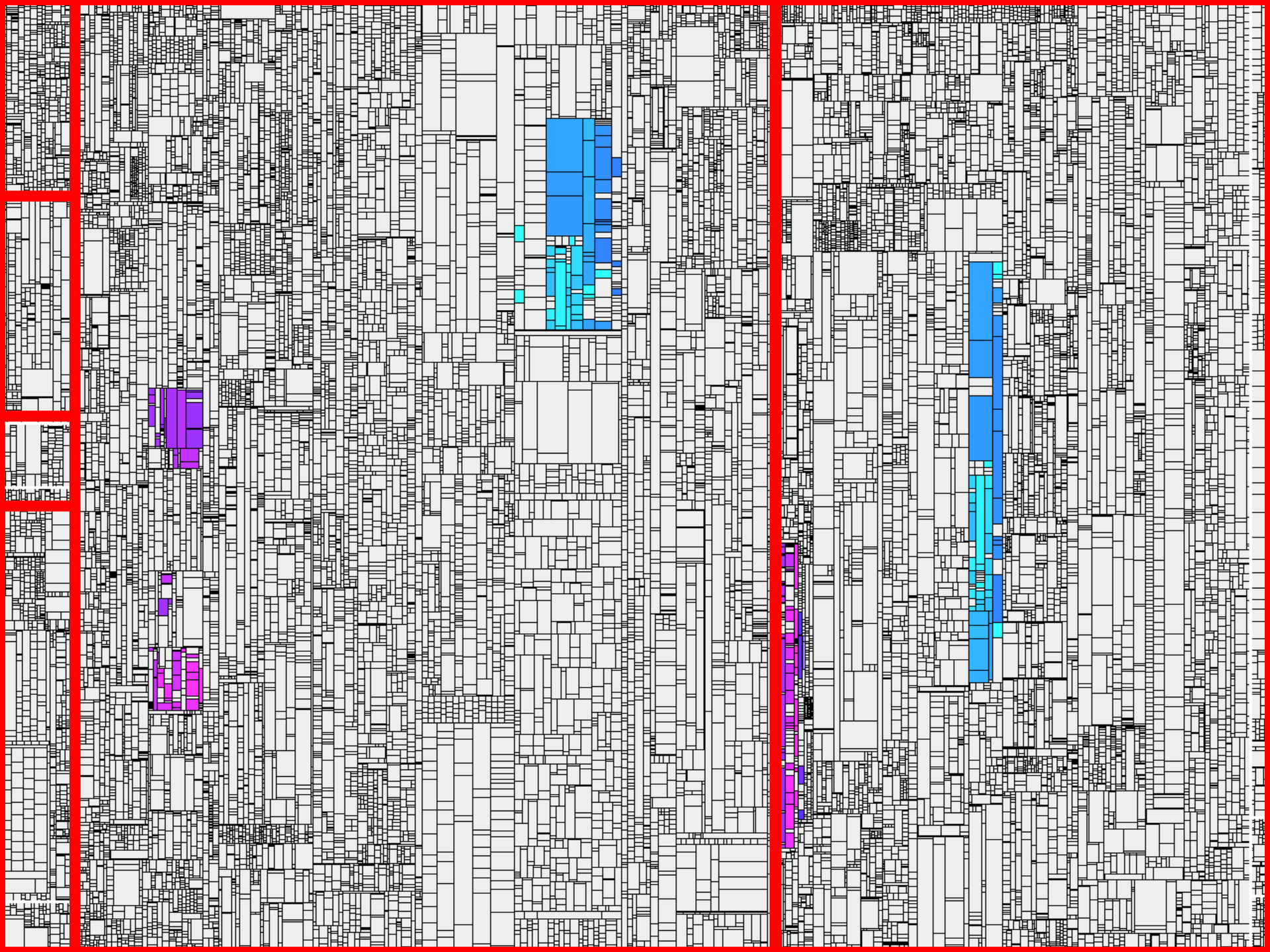


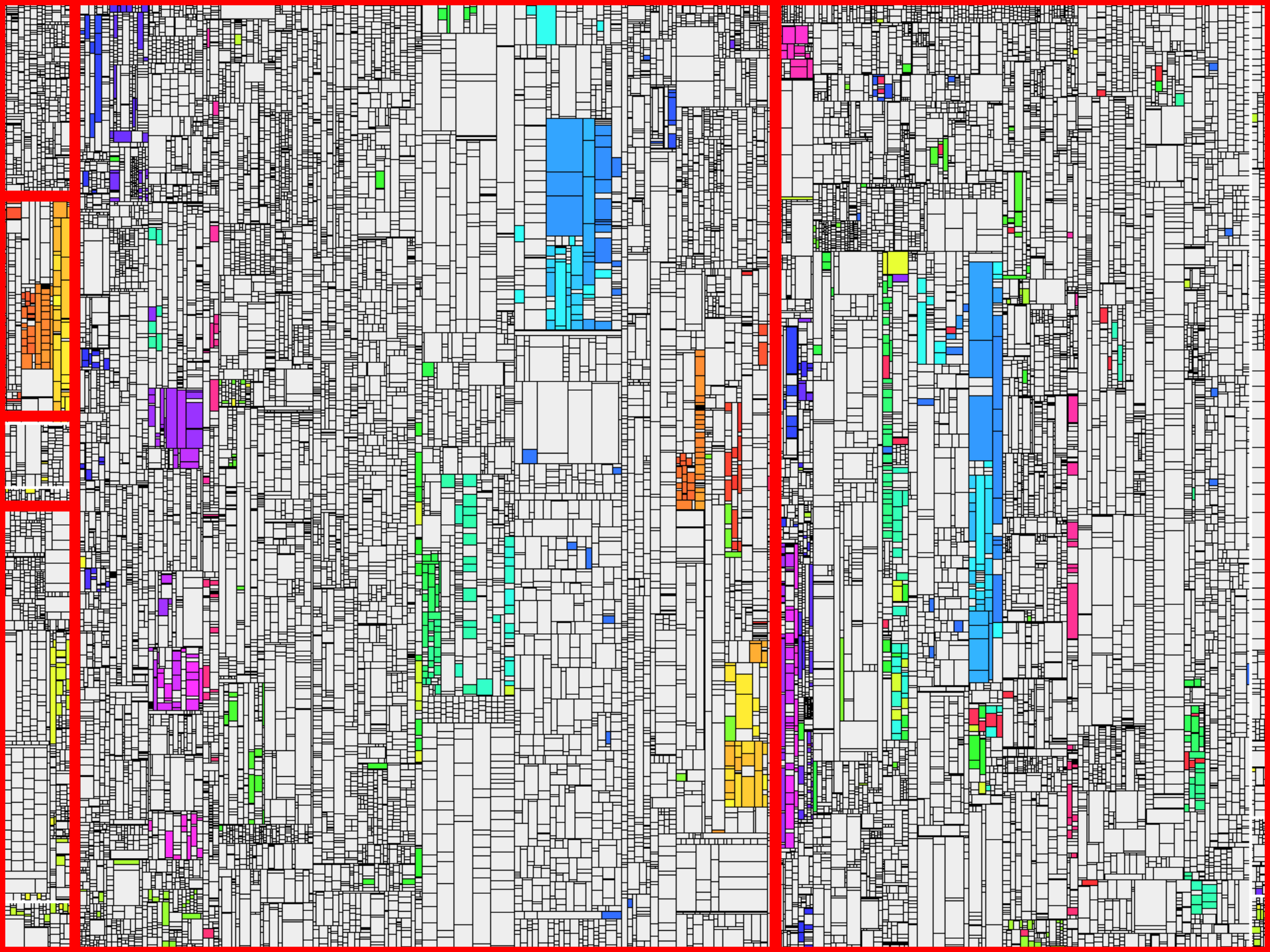
Wie überzeuge ich meine Kollegen?

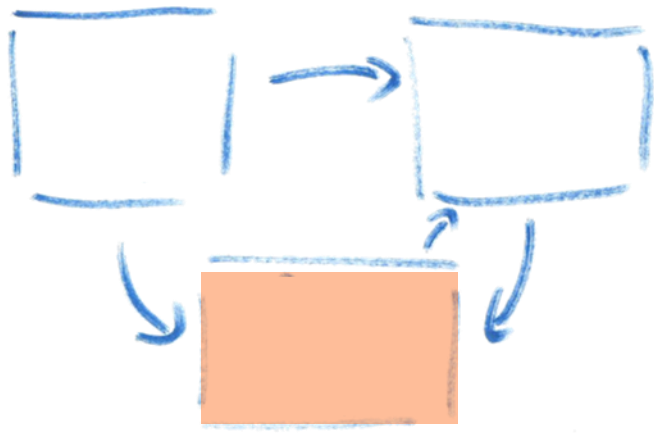
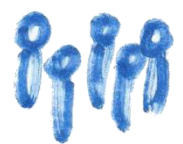
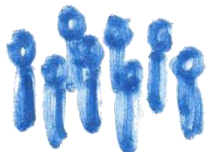














Wie überzeuge ich
unser *Management*?








Ausfall beim Nasdaq-Index Herzstillstand an der Wall Street



Wenig ging mehr am Times Square: Drei Stunden lang klemmte der Handel an der New Yorker Tech-Börse Nasdaq. Schuld war offenbar ein Softwarefehler. Die Panne war nicht die erste ihrer Art in letzter Zeit - sie zeigt die Anfälligkeit der elektronischen Märkte. Von Marc Pitzke, New York-Münchener [Forum]

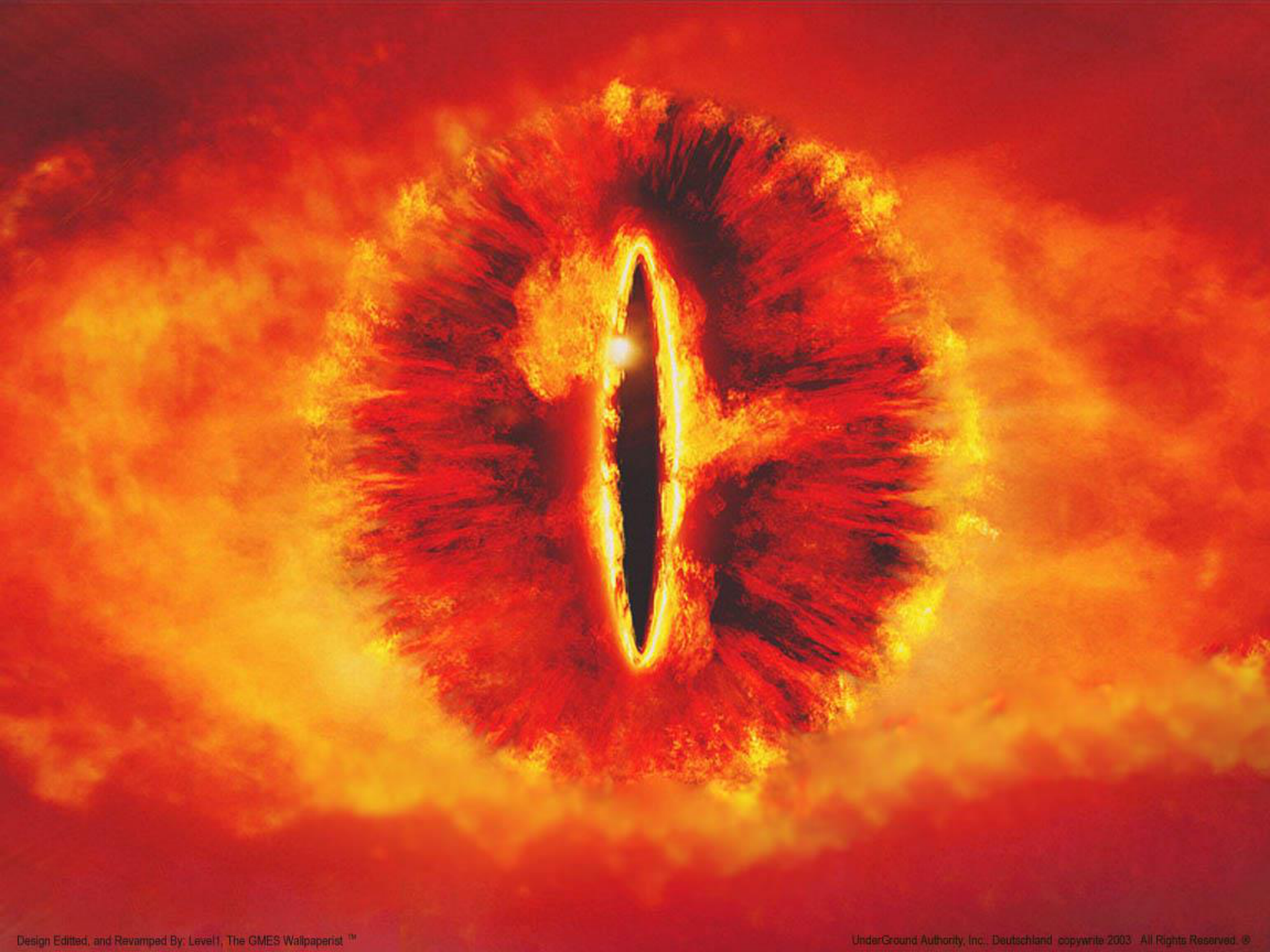
US-Technologiebörse: Nasdaq unterbricht Handel für drei Stunden

	Subject	 From	Date
 	Gutschrift 11 2399999999999995 EUR	 Wohn-Idee24 - Amazon Marketplace	09:58

----- Anfang der Nachricht -----

Sehr geehrte(r) Göde,

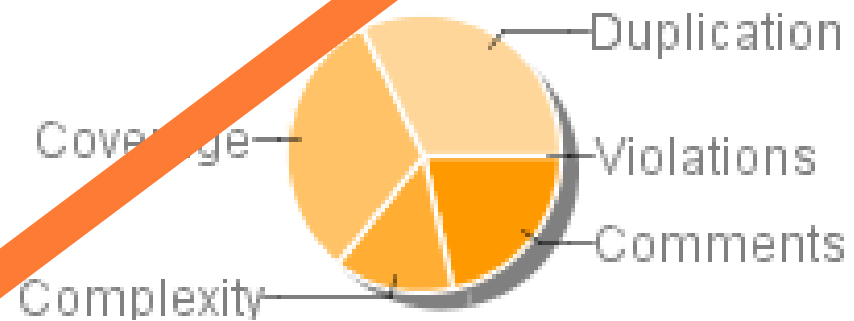
wir haben für Sie eine Gutschrift in Höhe von 11,239999999999995 EUR erstellt.

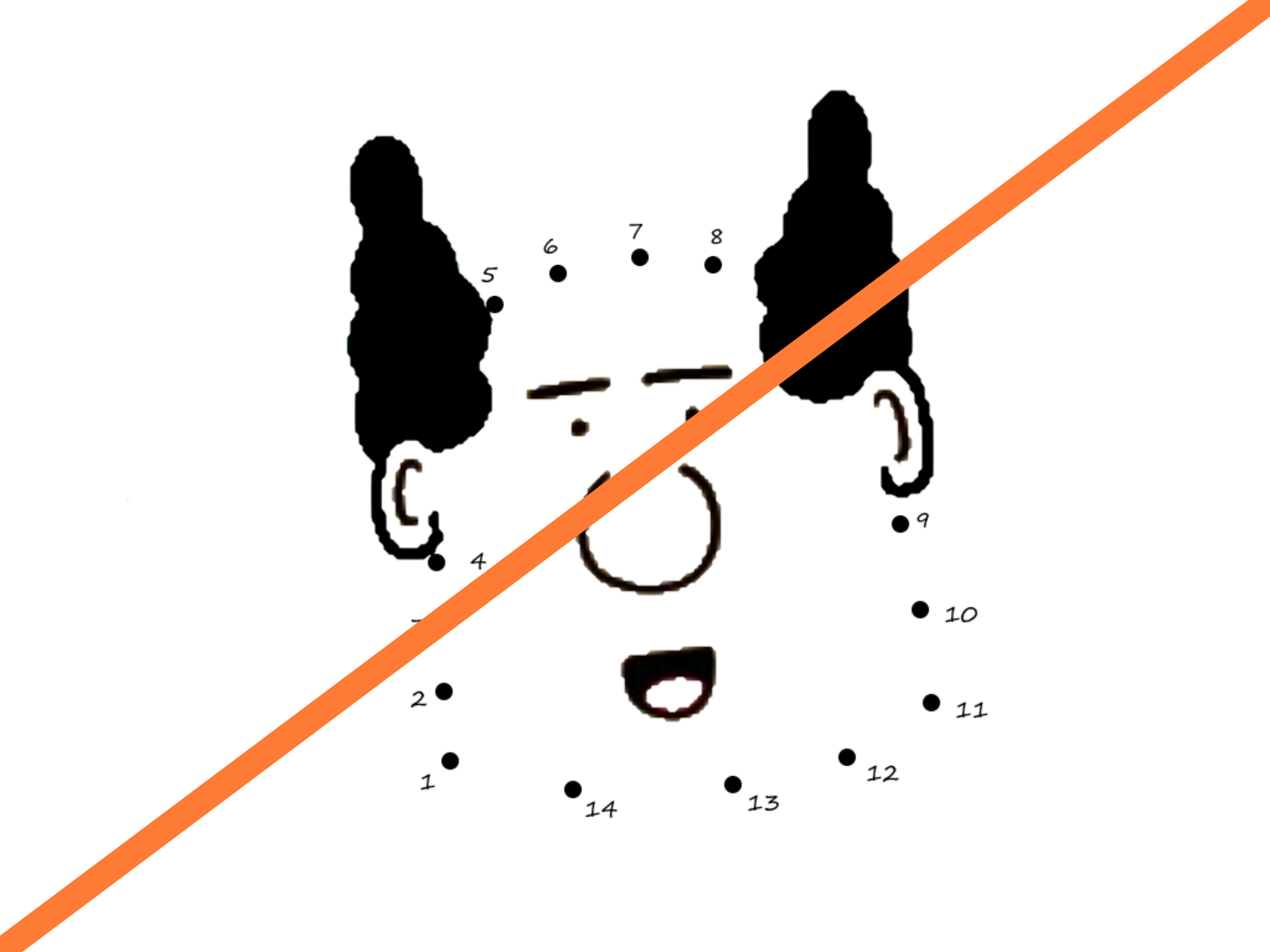


Technical Debt

\$ 14'605

29 man days





Wie sag ichs meinem Entwicklungsleiter?

Mit Vorträgen über Softwarequalität sind wir regelmäßig auf Industriekonferenzen oder Kunden-internen Workshops vertreten.



Impulsvorträge

Gerne kommen wir auch zu Ihnen ins Haus, beispielsweise für interne Konferenzen oder Workshops. Unsere Themen reichen von Qualitätsanalysen über Qualitätscontrolling bis hin zu Testcontrolling oder der Einführung von Reviews. Oder aber Sie schlagen uns ein Thema Ihrer Wahl vor.

IMPULSVORTRAG ANFRAGEN

DAS ANGEBOT

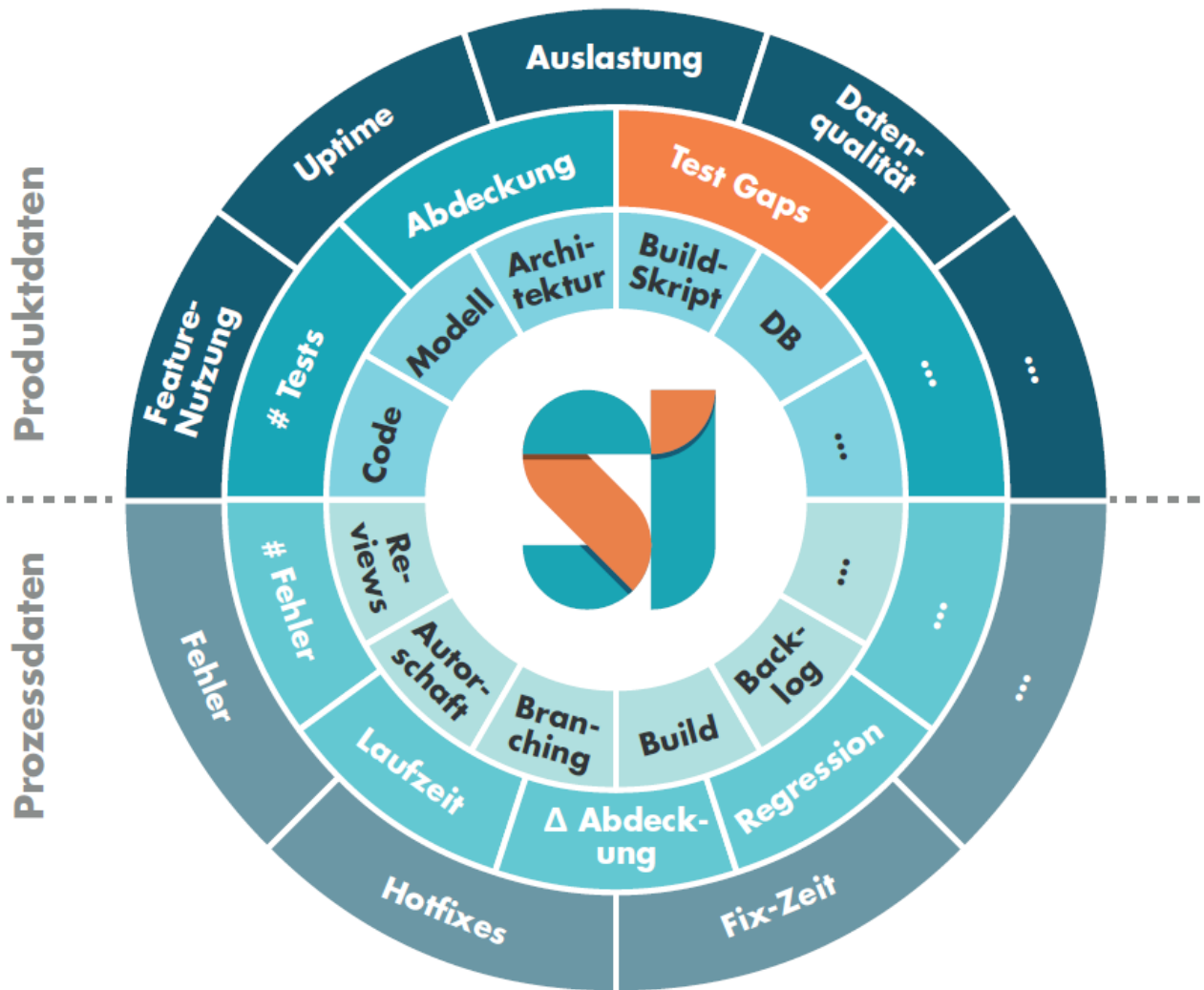
- 🕒 60-90 MIN VORTRAG
- 💬 SOFTWAREQUALITÄT ALS THEMA
- 📍 BEI IHNEN IM HAUS
- € NUR UNSERE ANREISEKOSTEN
- 📅 TERMIN NACH VEREINBARUNG

Wie überzeuge ich
unser *Management*?

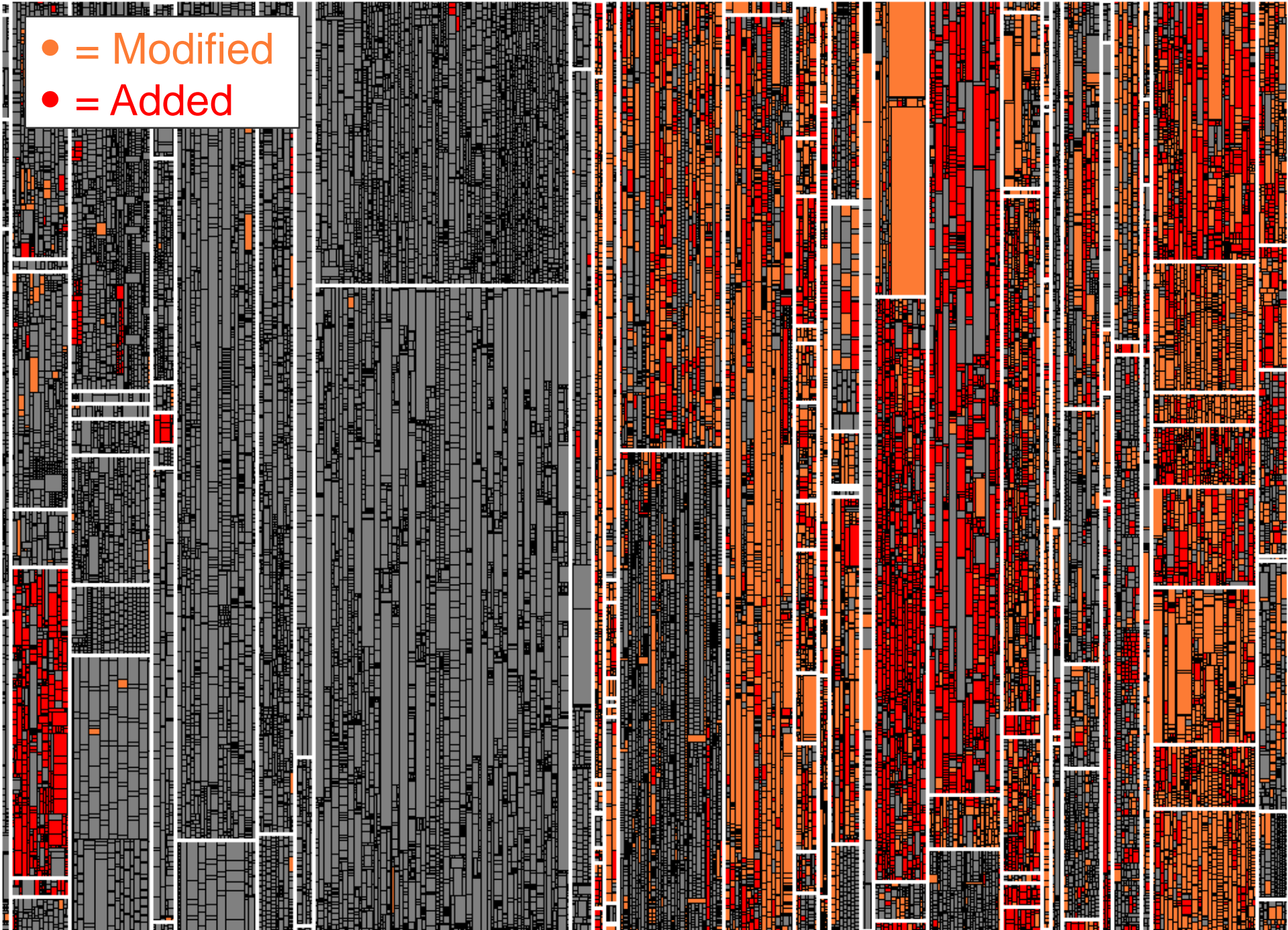
Business Intelligence



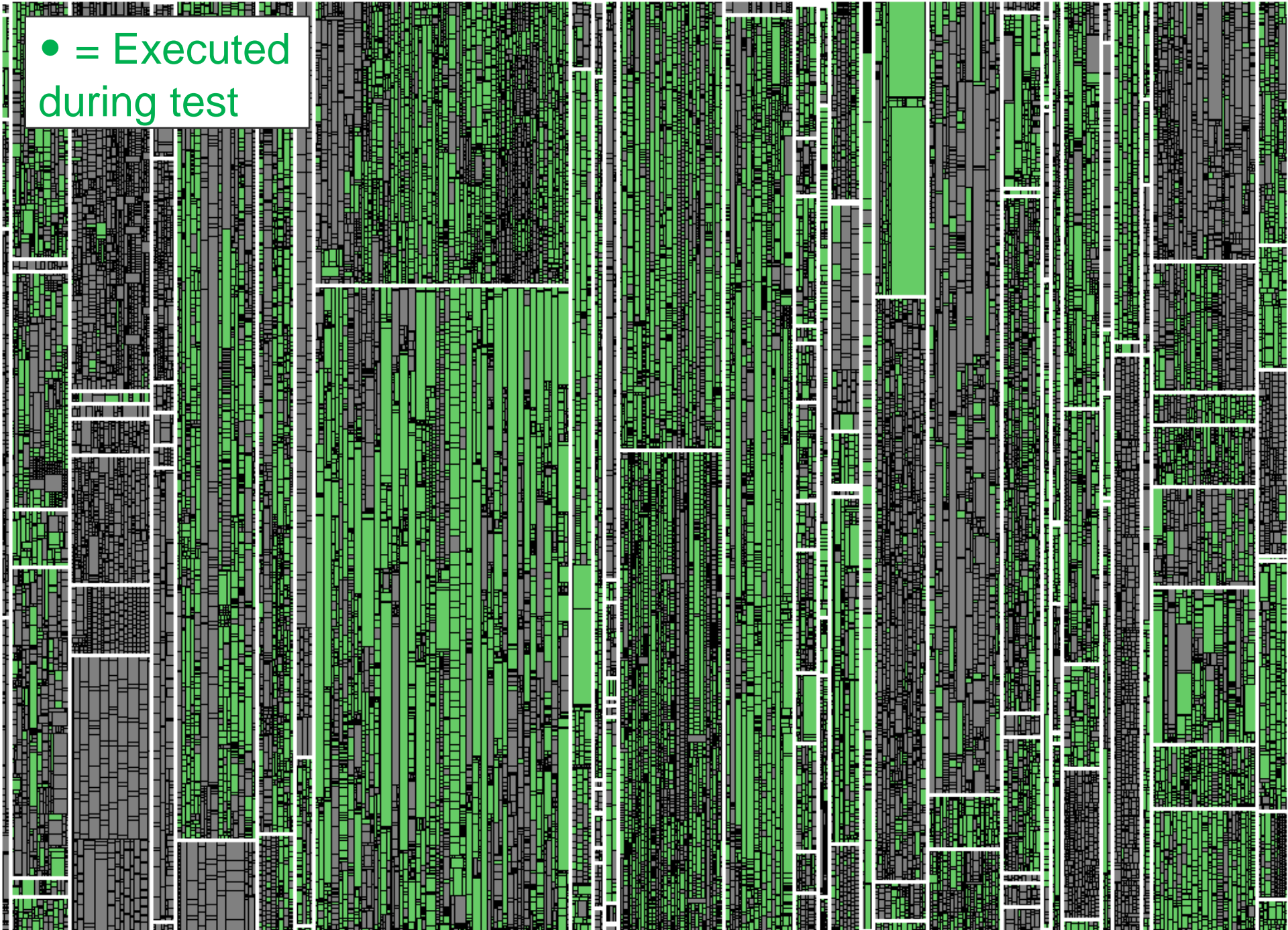
»A set of **techniques** and **tools** for the acquisition and transformation of **raw data** into meaningful and useful information for **business analysis purposes**.«



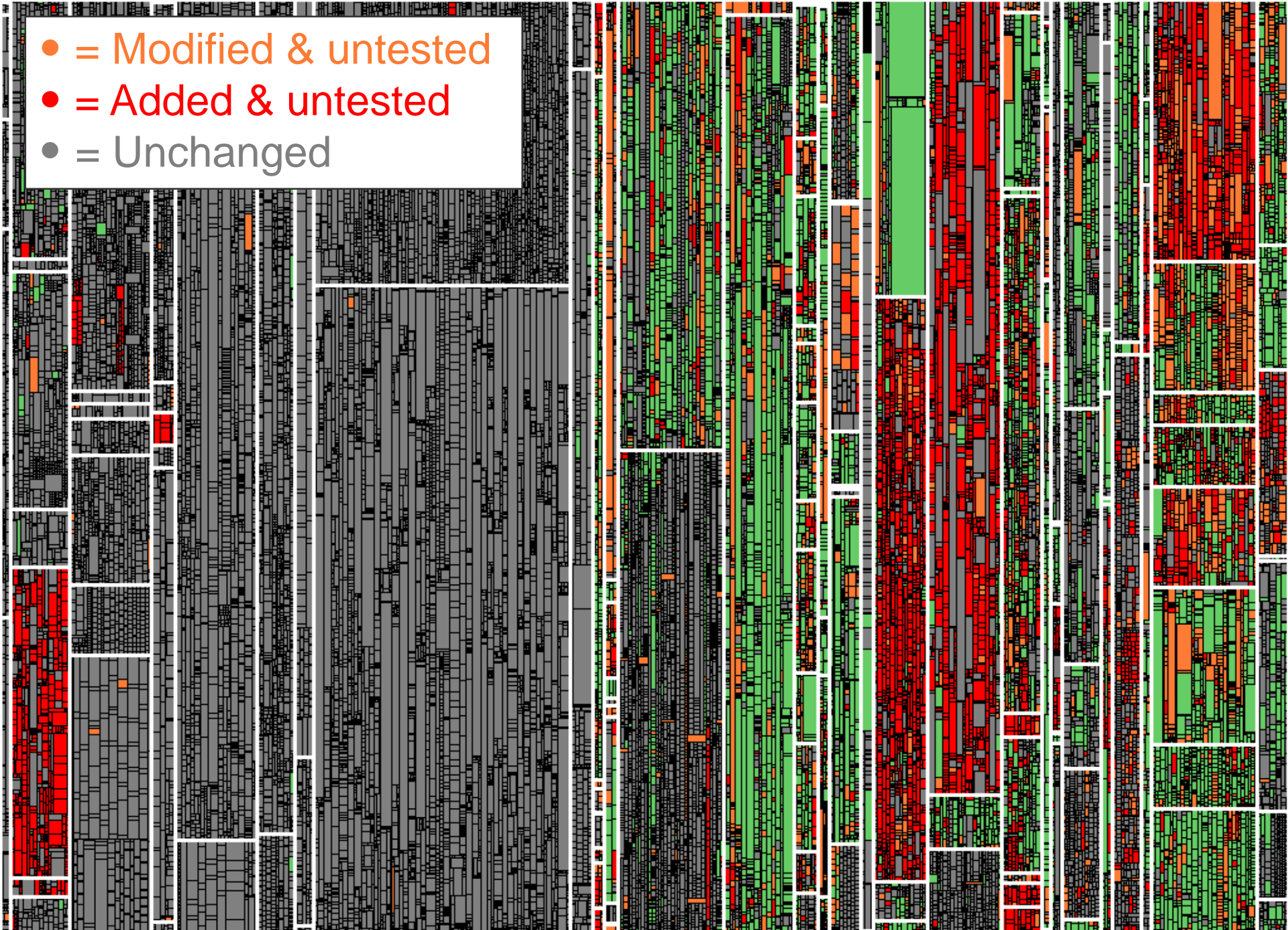
- = Modified
- = Added

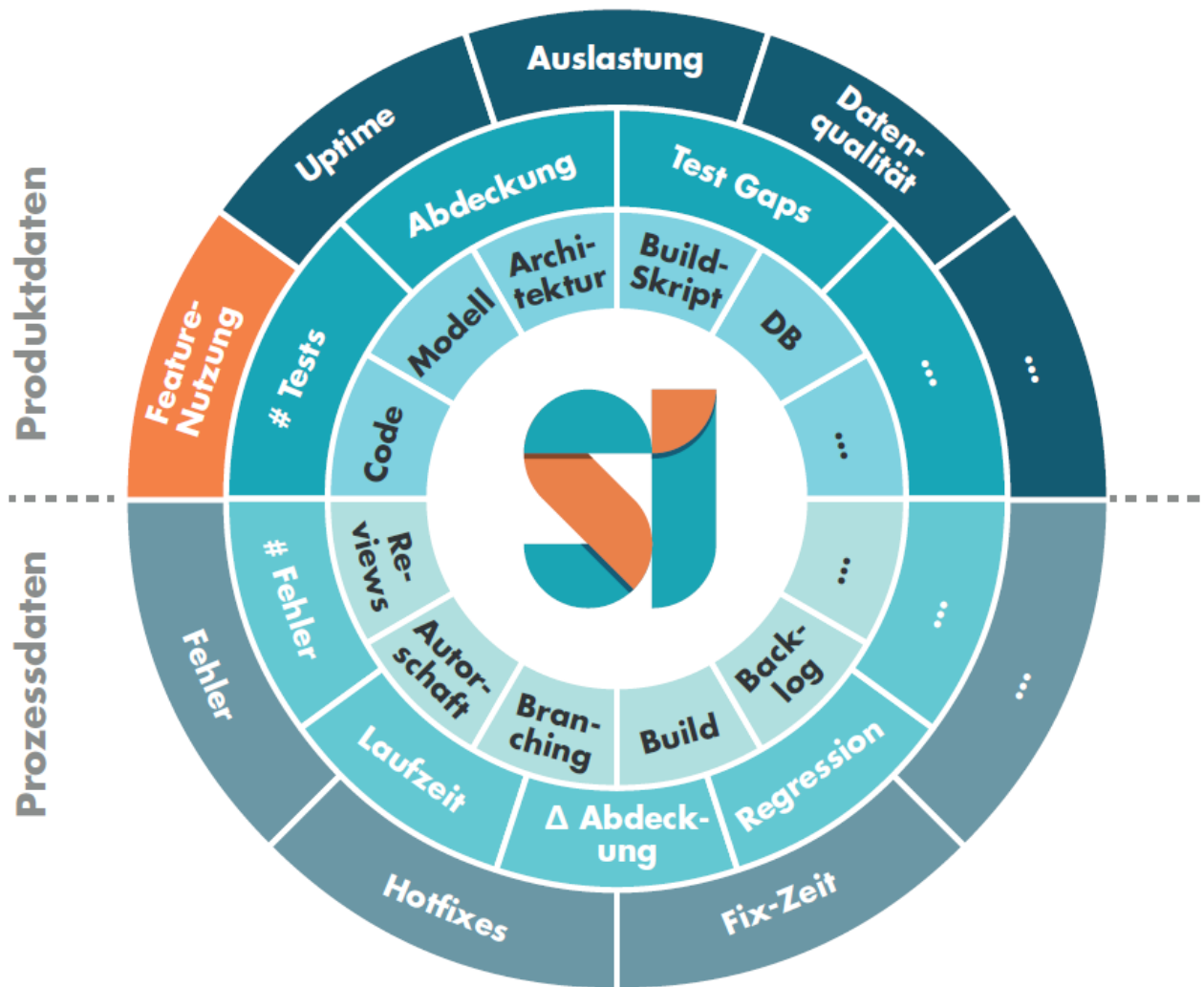


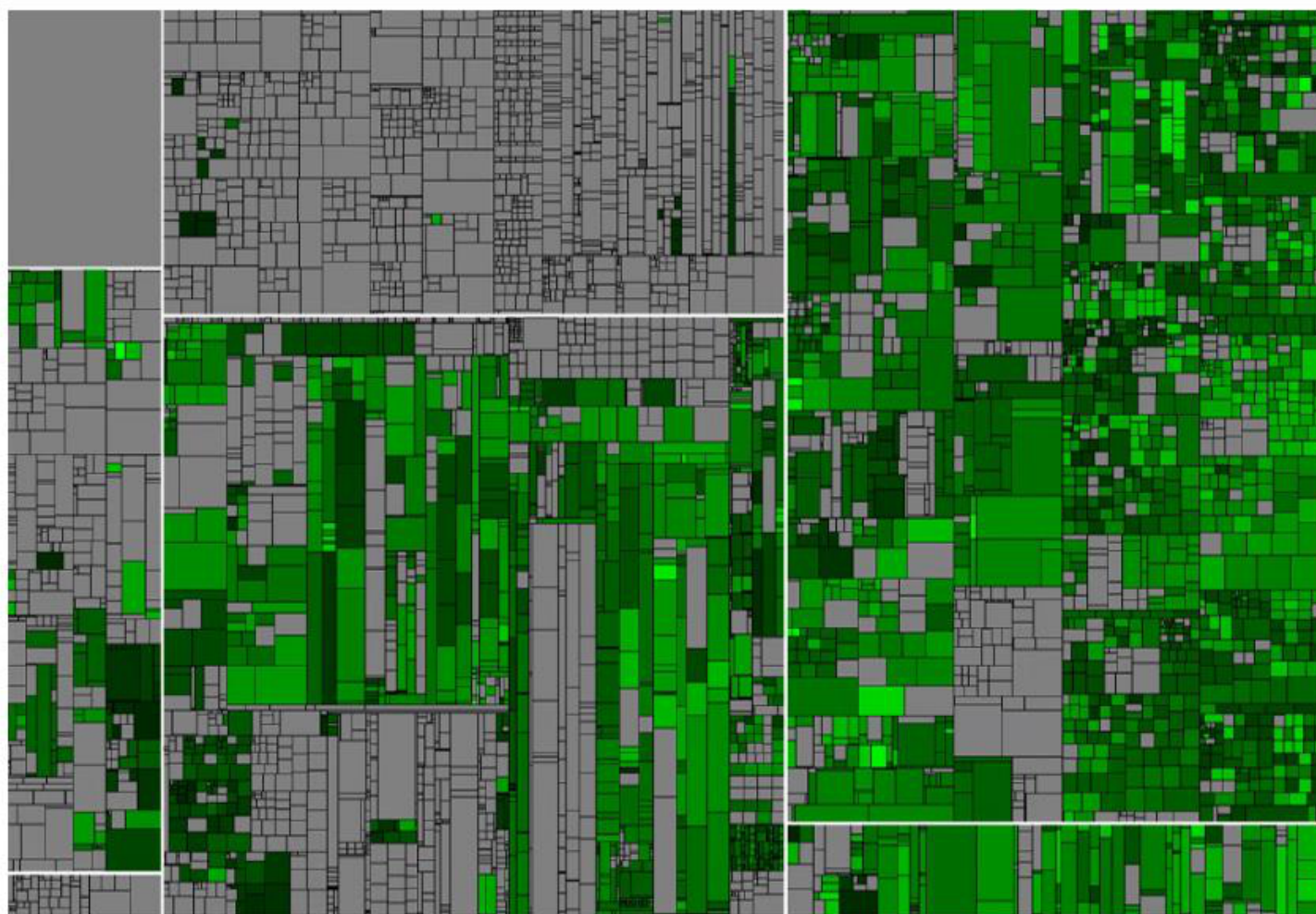
● = Executed
during test

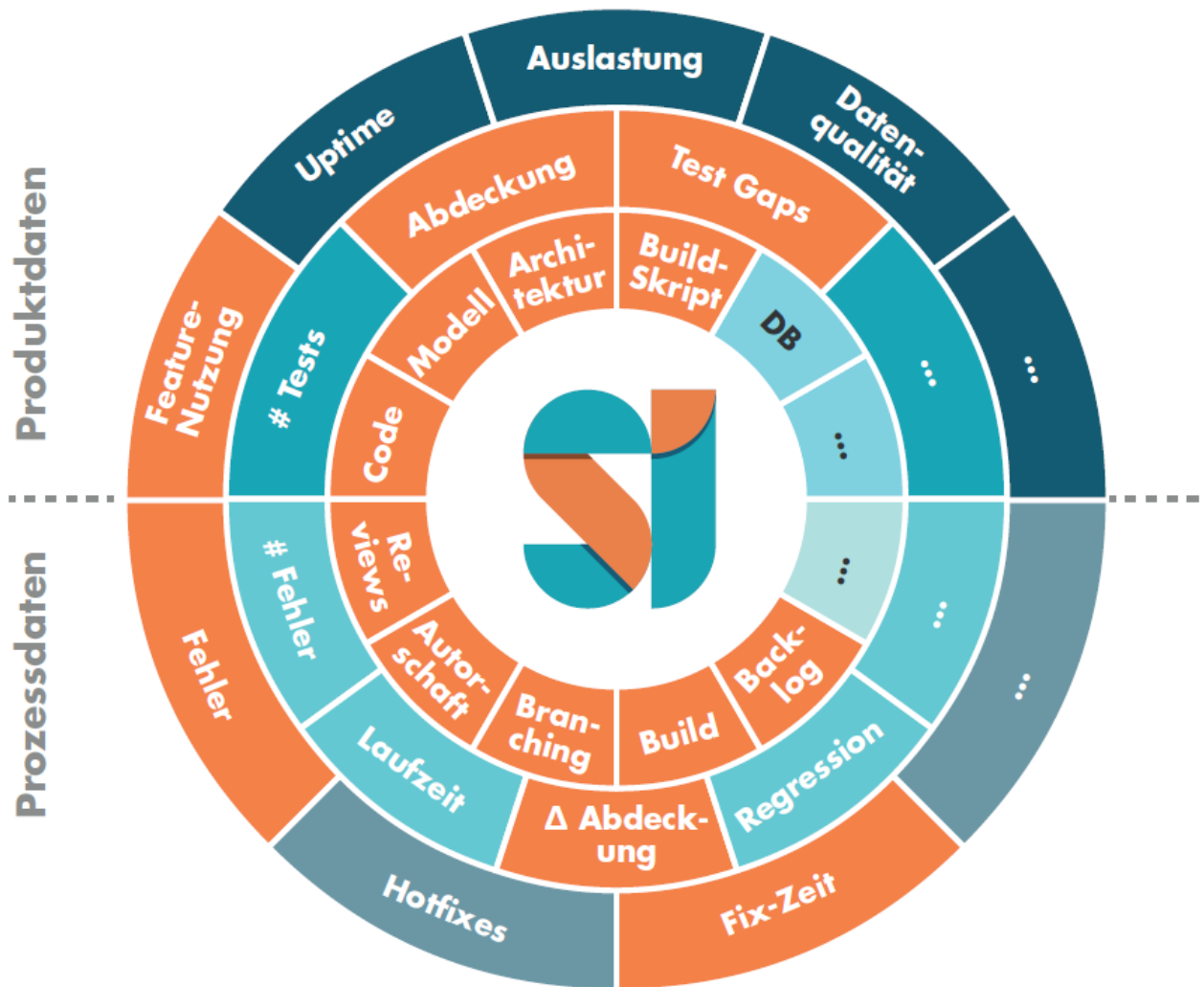


- = Modified & untested
- = Added & untested
- = Unchanged









Fazit

Qualitätsanalysewerkzeuge sind notwendig, aber nicht hinreichend für Verbesserung der Software-Qualität.

Nachhaltige Verbesserung erfordert die Unterstützung von Entwicklern und Management und die Integration in den Entwicklungsprozess.

Mindestens einer muss sich hierfür verantwortlich fühlen.

Software Quality Blog

Practical Guide to Code Clones (Part 1)

Posted on 07/16/2014 by Dr. Benjamin Hummel

One well known principle in software engineering states *don't repeat yourself*, also known as the DRY principle. A very obvious violation of DRY is the application of copy/paste to create duplicates of large portions of source code within the same code base. These duplicate pieces of code, also known as *code clones*, have been subject to lots of research in the last two decades. In this two-part post I want to summarize those parts of the current knowledge that I find most relevant to the practitioner, especially the impact of clones on software development.



Practical Guide to Code Clones (Part 2)

Posted on 07/30/2014 by Dr. Benjamin Hummel

In the previous part we introduced the notion of code clones and discussed, whether and under which circumstances cloning in your code base can be a problem for development and maintenance. In this post, I will introduce ways and tools to deal with code clones in your code base. After reading this, you should be able to select and apply a detection tool to inspect the clones in your own code base.



<https://www.teamscale.com>

Kontakt

Ich freue mich auf Diskussionen 😊

Dr. Elmar Jürgens · juergens@cqse.eu · +49 179 675 3863

@ElmarJuergens

@teamscale

www.cqse.eu/en/blog

CQSE GmbH, Lichtenbergstraße 8,
85748 Garching bei München