

*Nils Hartmann - Gerd Wütherich*

# **Aufgeschmissen ohne Aspirin?**

**Modularisierung in der Praxis**





**Modularisierung...**

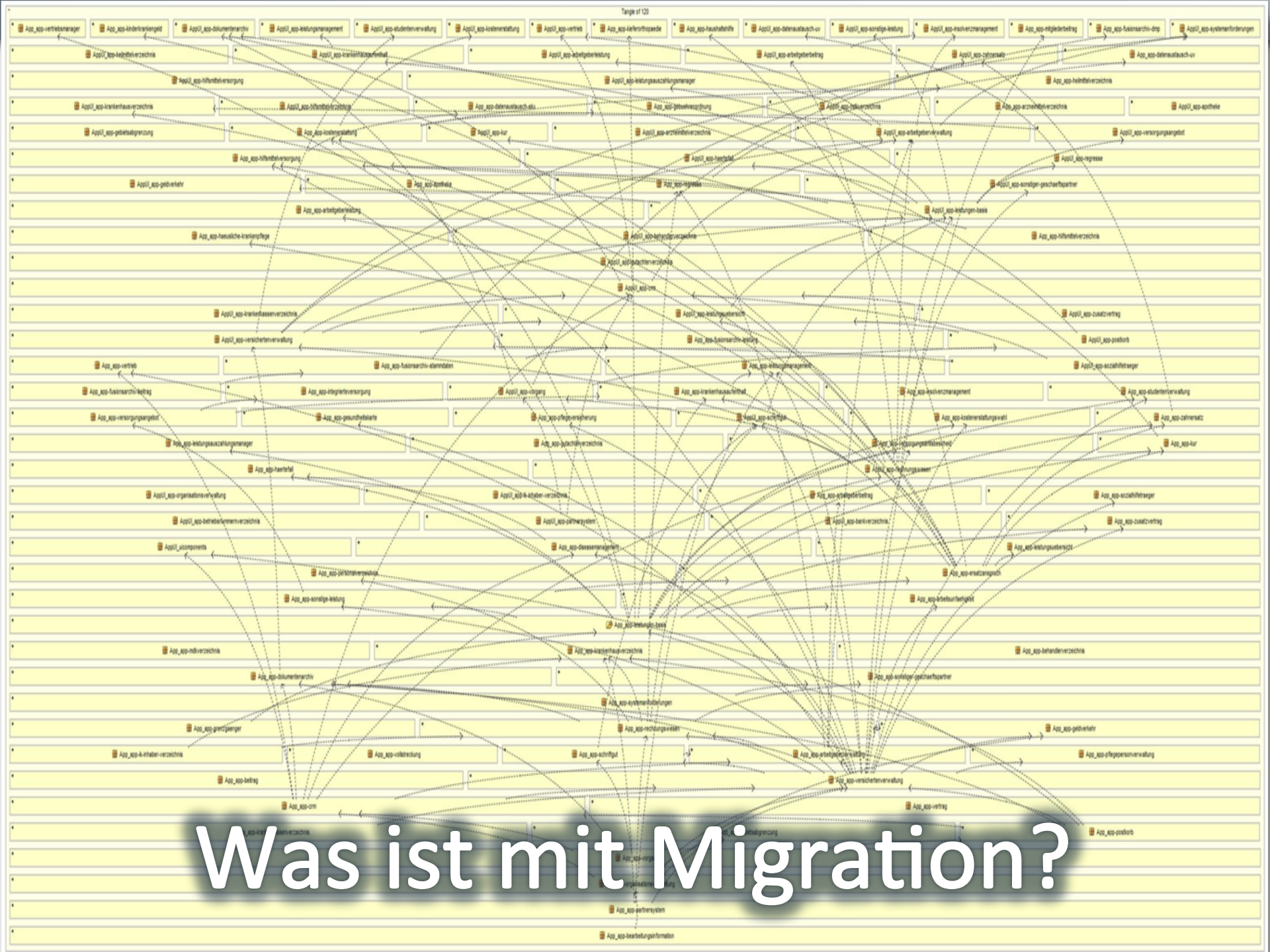


**Modularisierung in Java**

Auf der grünen Wiese ...

... ist **vieles** einfacher!



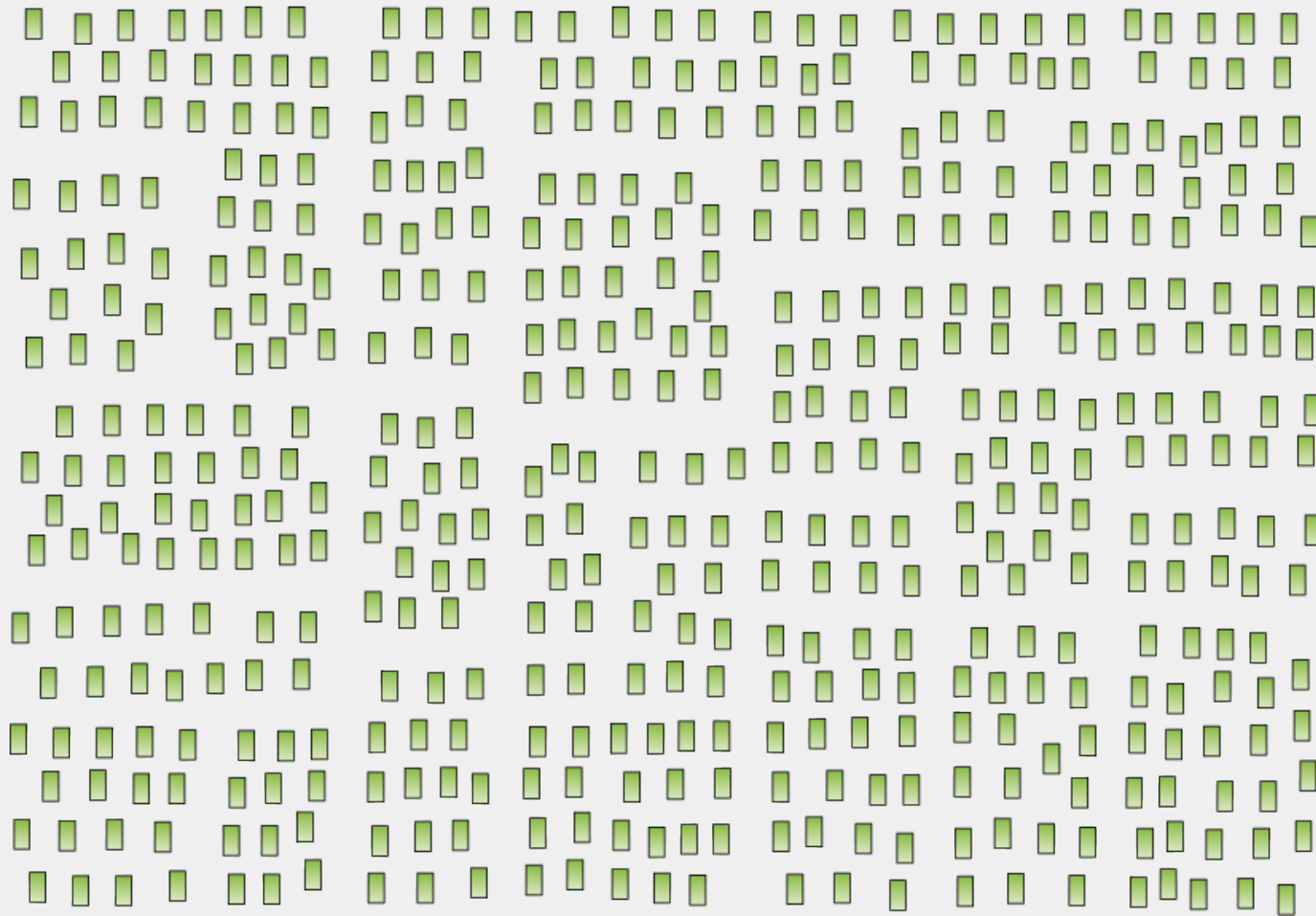


# Was ist mit Migration?

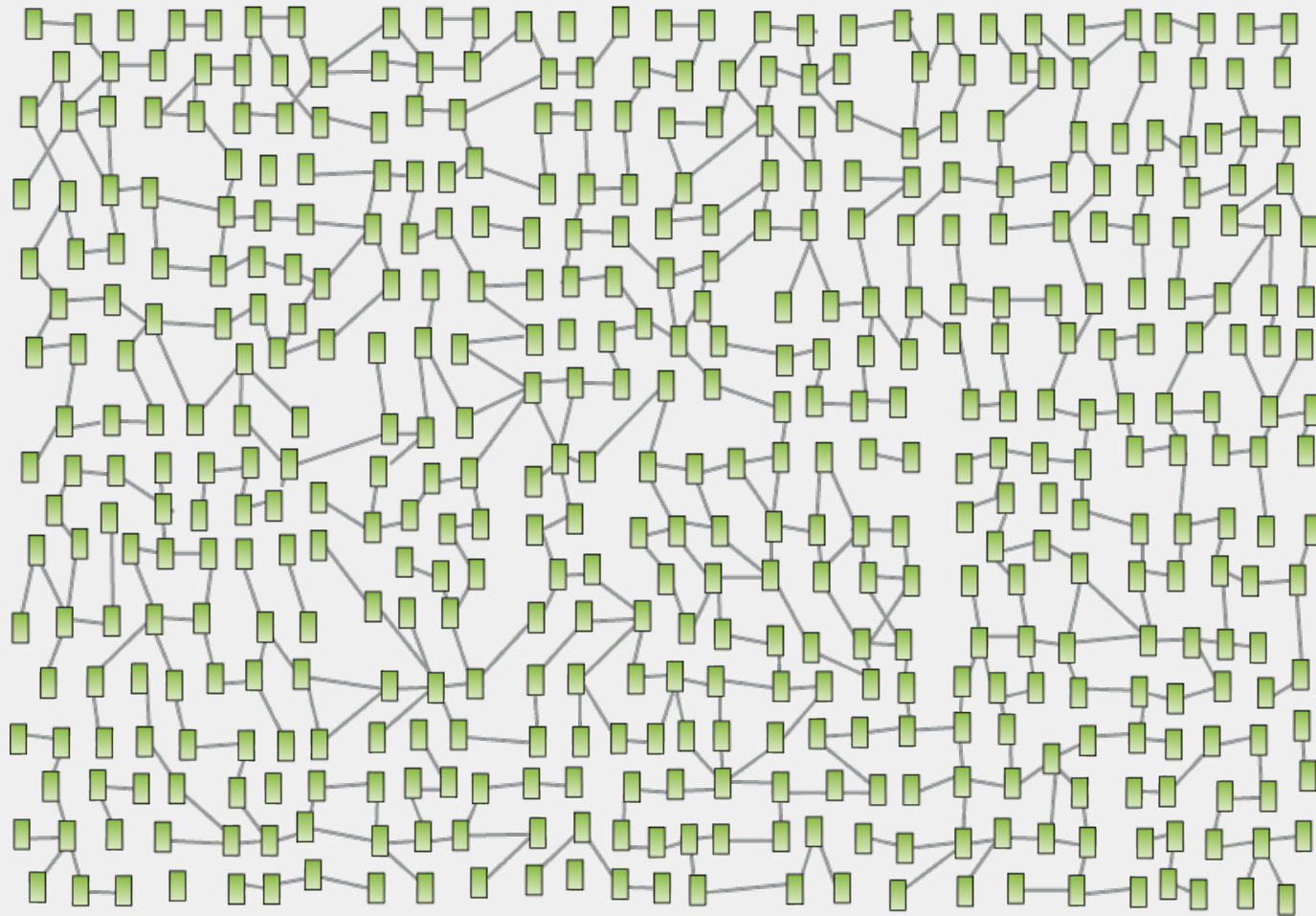
**Wie modularisiert man  
ein bestehendes System?**



# Ausgangssituation



# Ausgangssituation

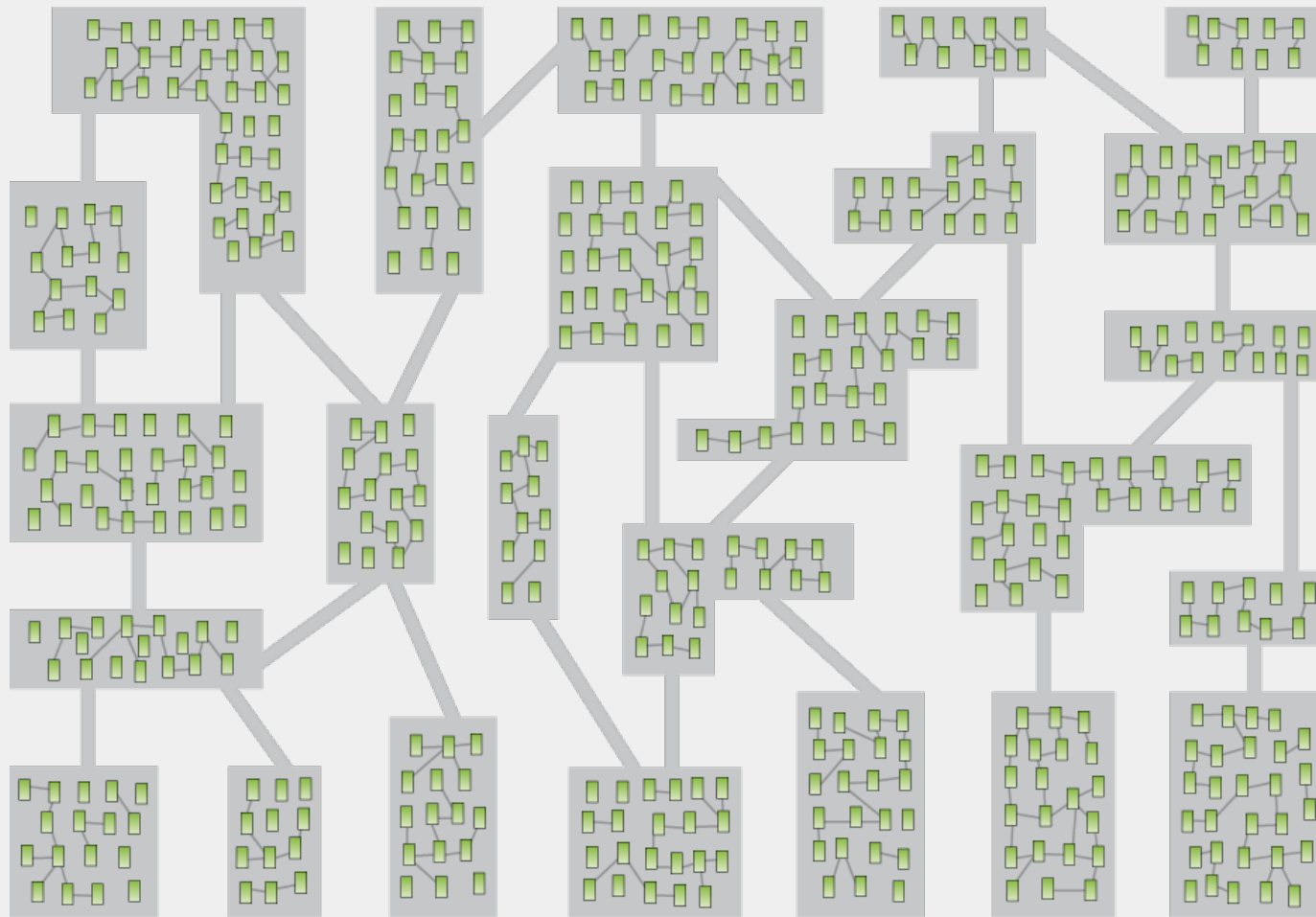




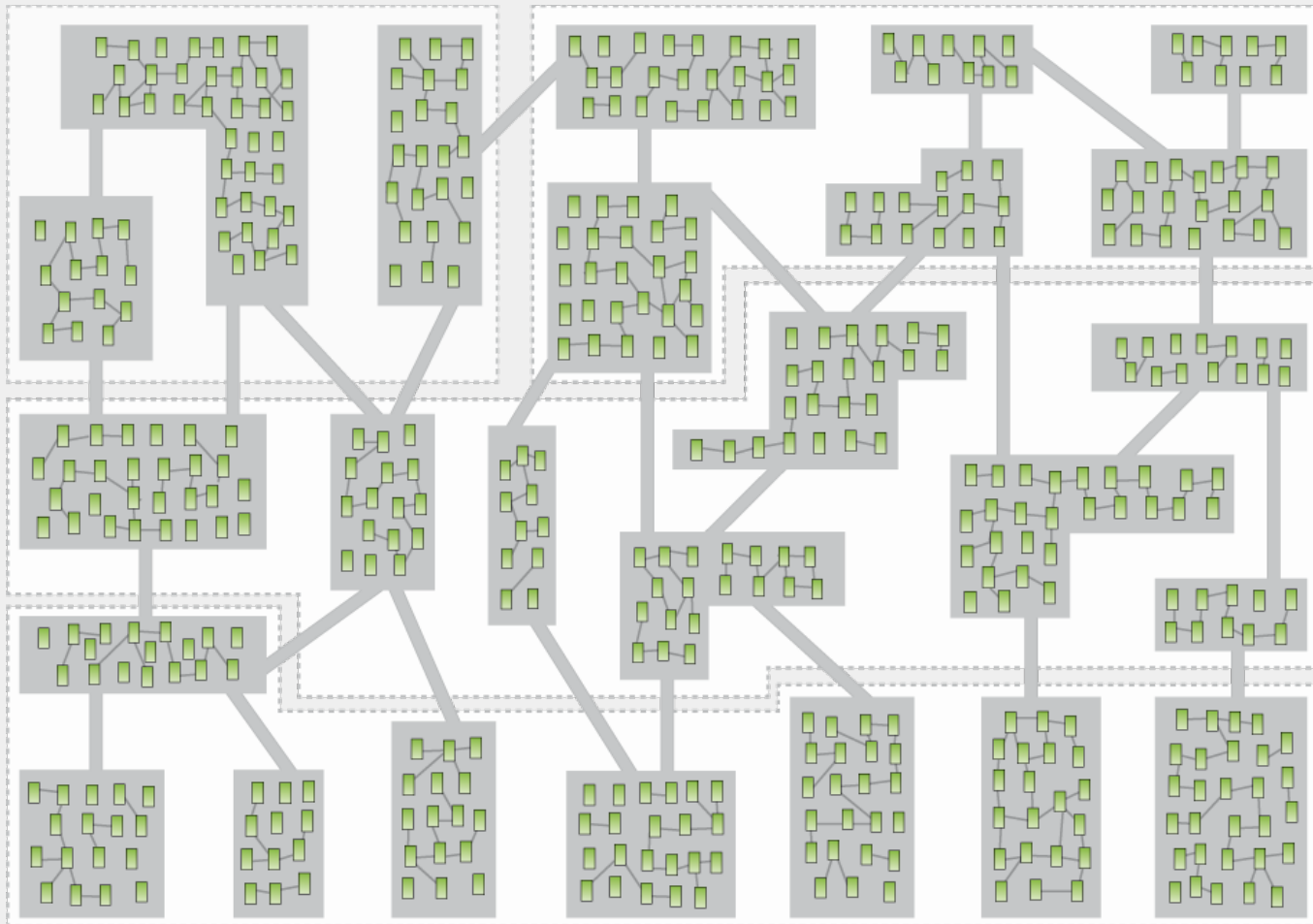
# Schritt 1: Moduldefinition



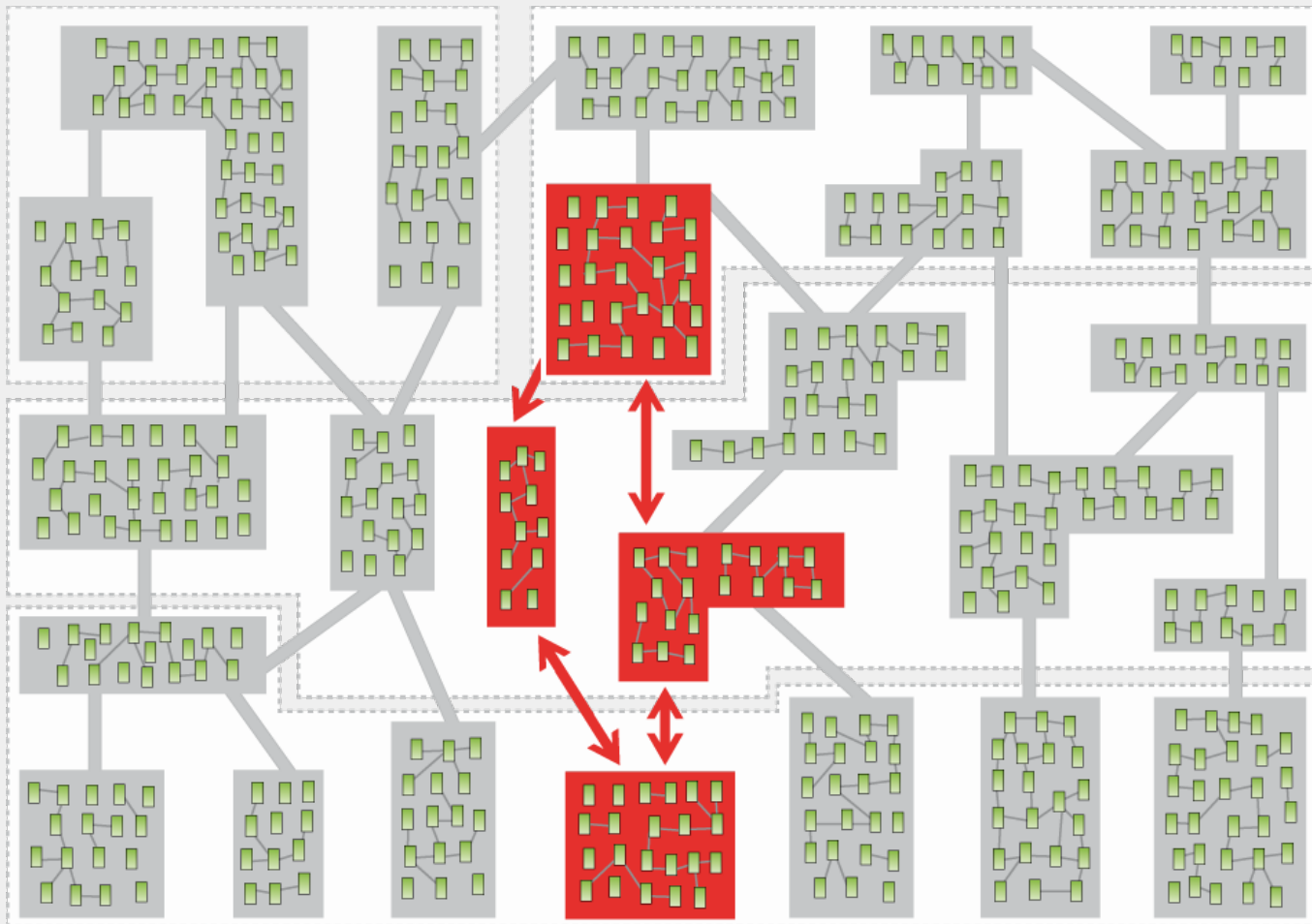
# Schritt 2: Explizite Modulabhängigkeiten



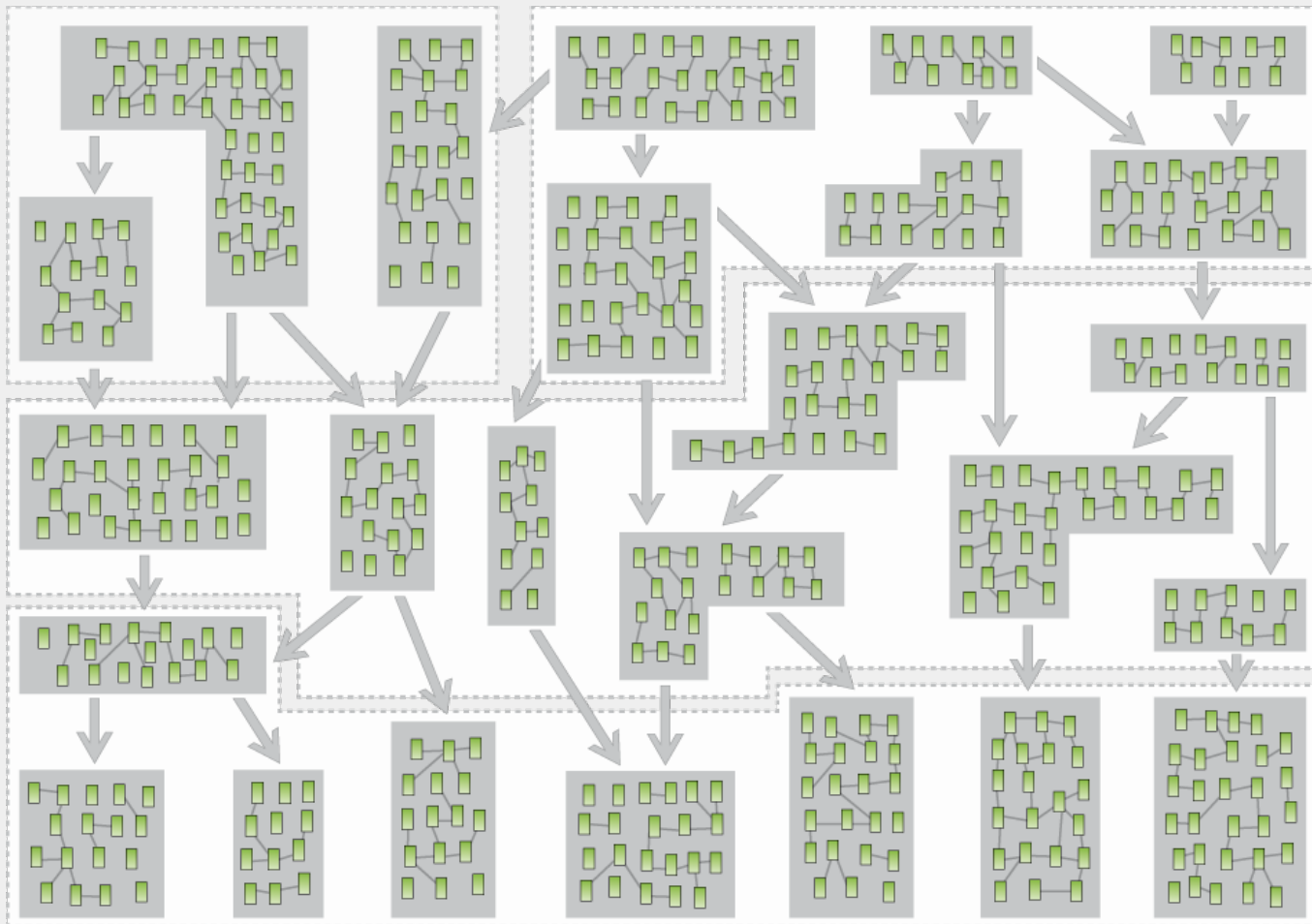
# Schritt 3: Gruppierung



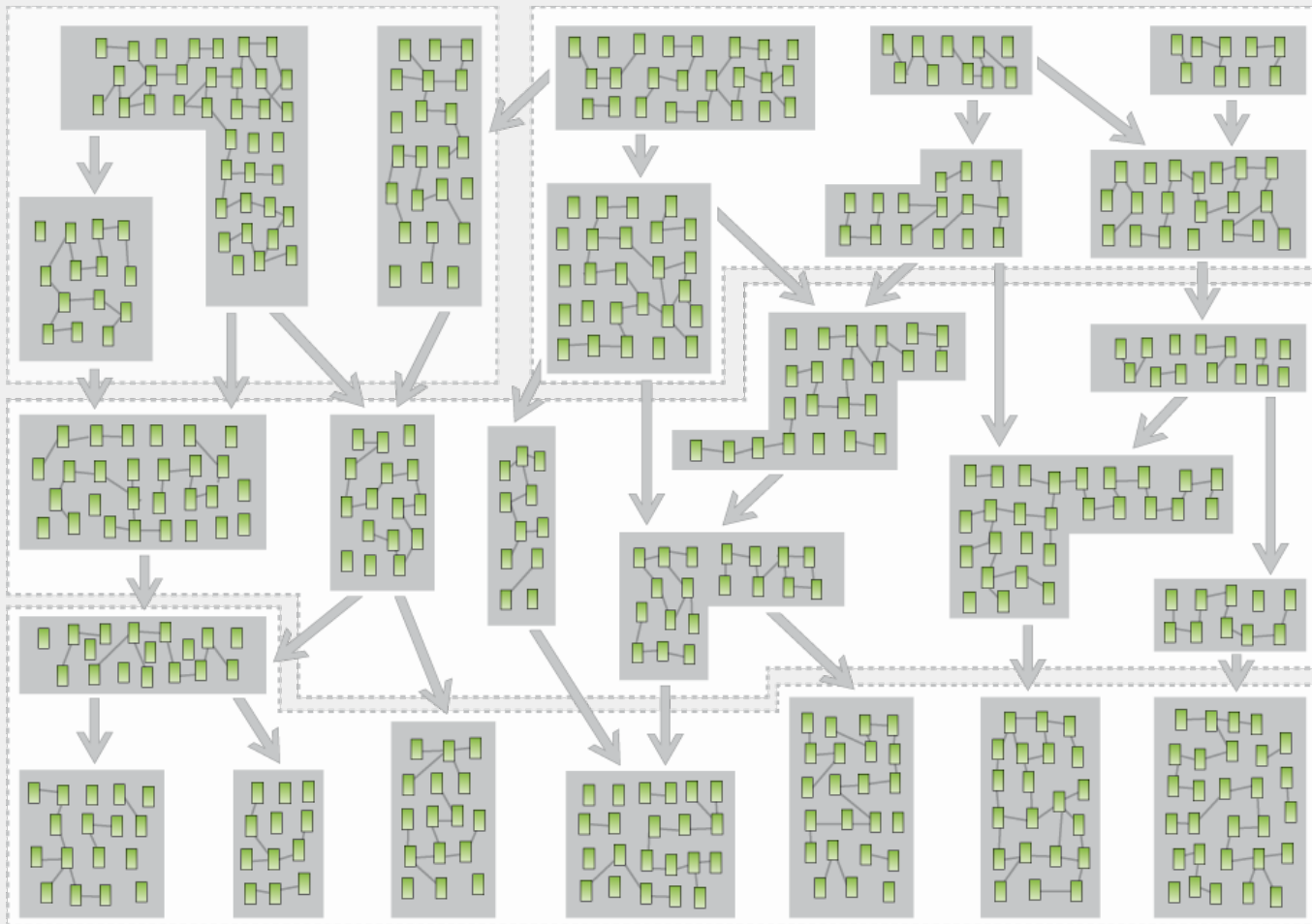
# Schritt 4: Auflösen verbotener Abhängigkeiten I



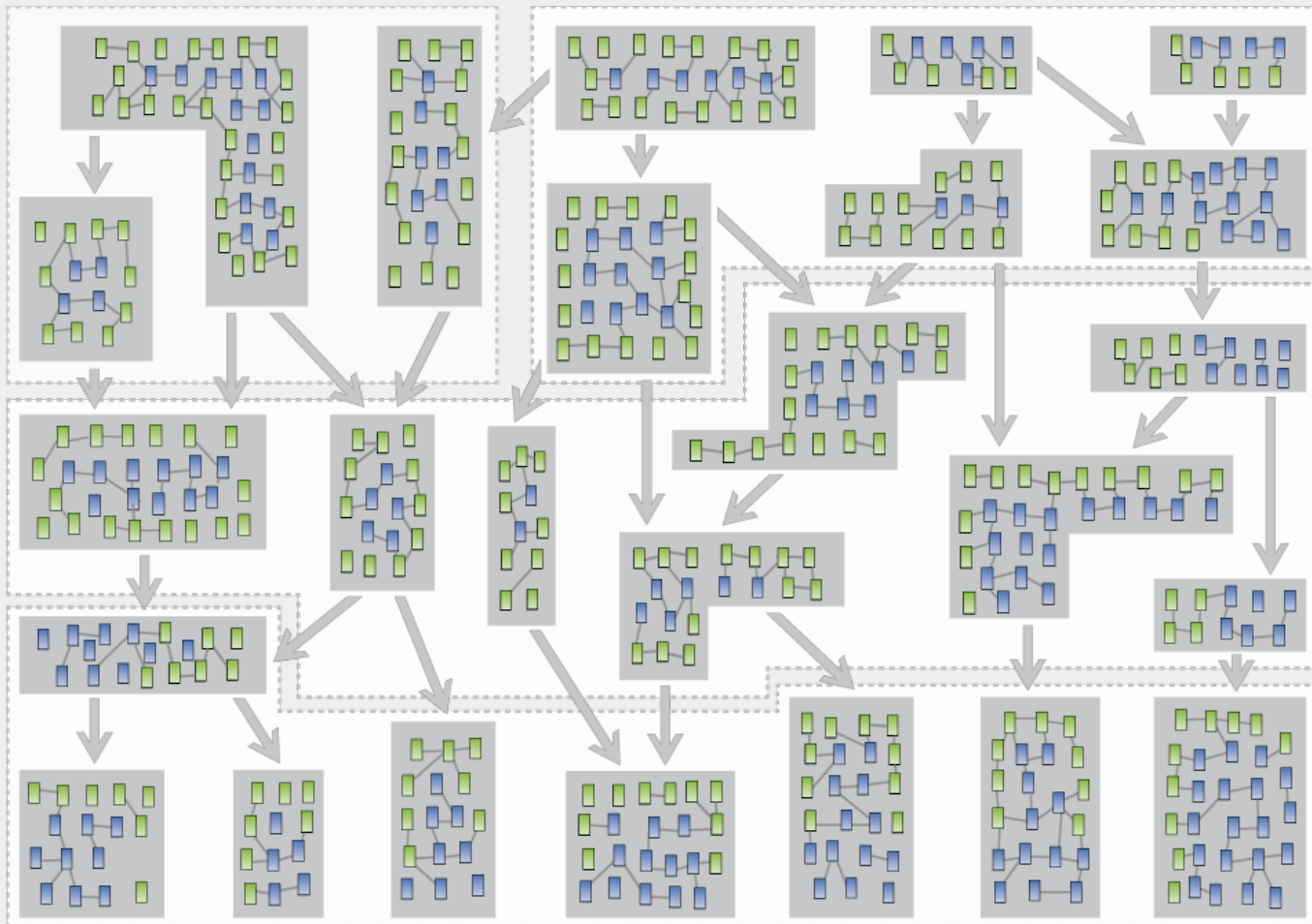
# Schritt 5: Auflösen verbotener Abhängigkeiten II



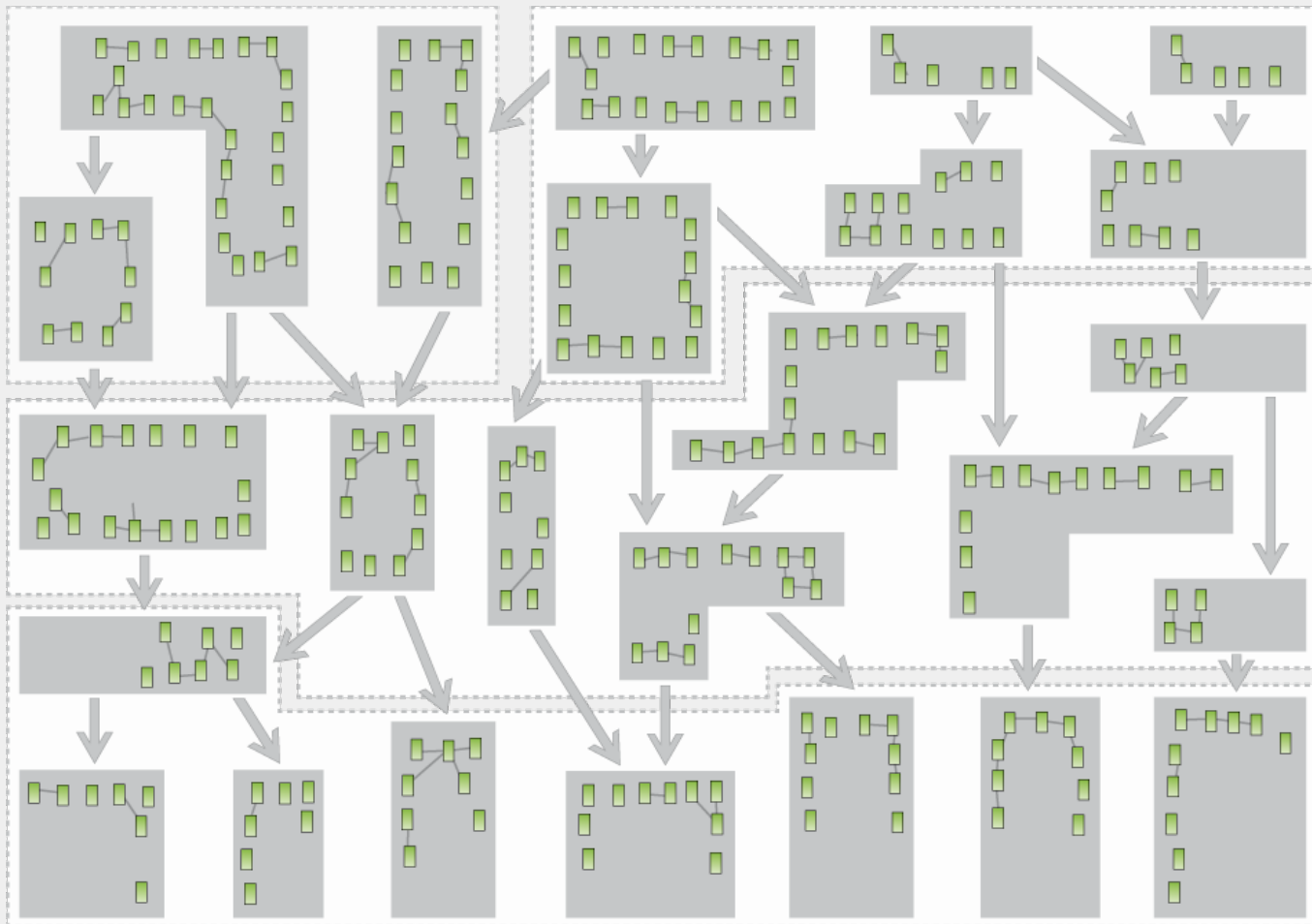
# Schritt 5: API Design I



# Schritt 6: API Design II



# Das Ergebnis





# Der Migrationspfad



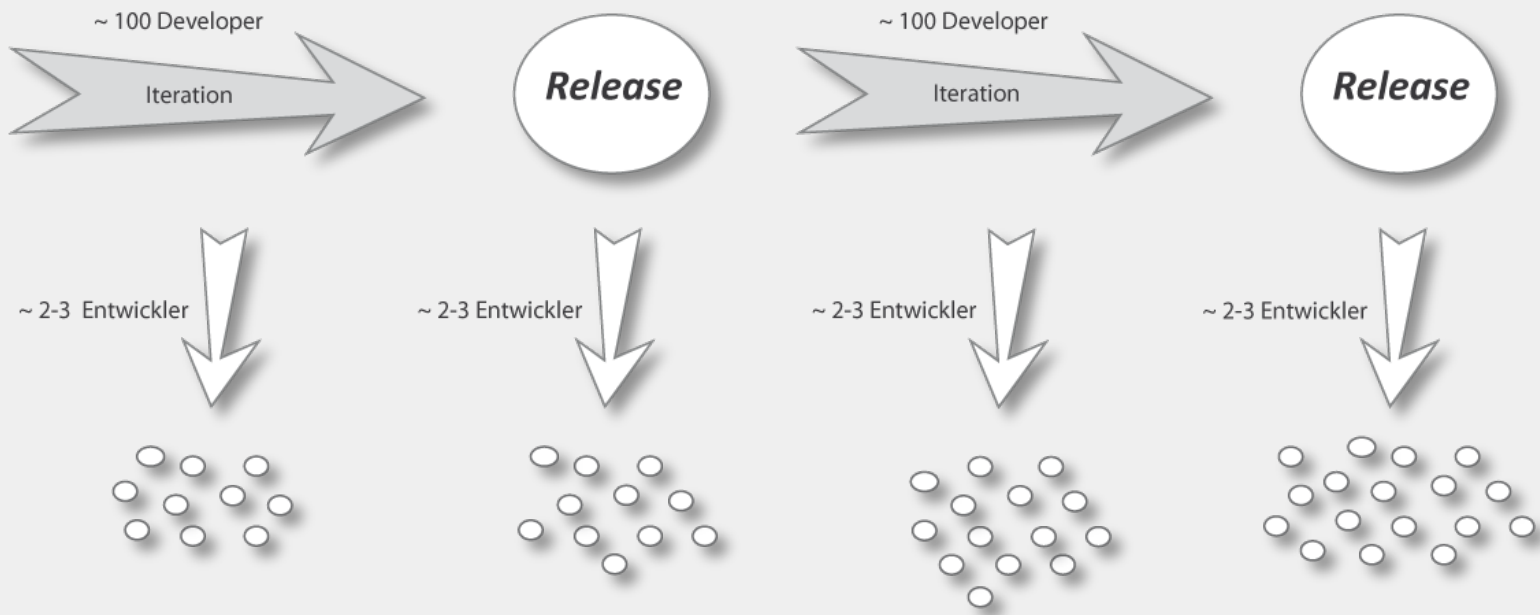
# Typischer Entwicklungszyklus I



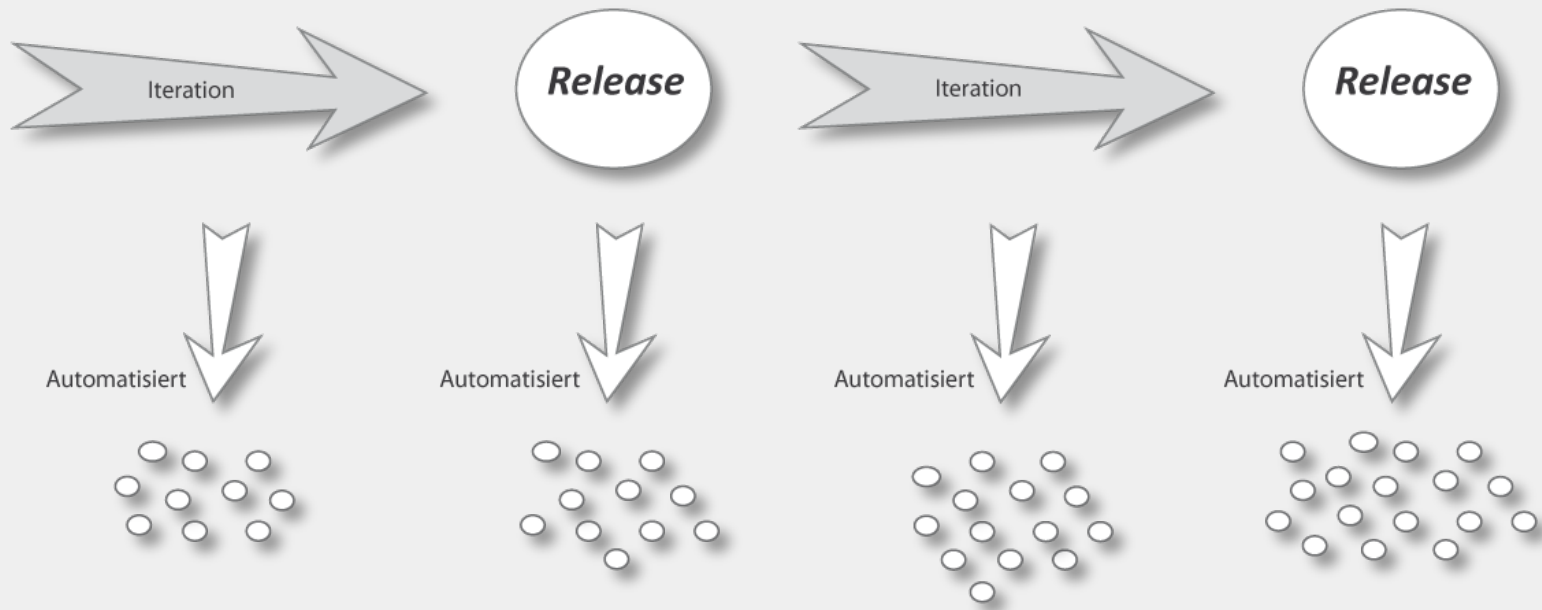
# Typischer Entwicklungszyklus II



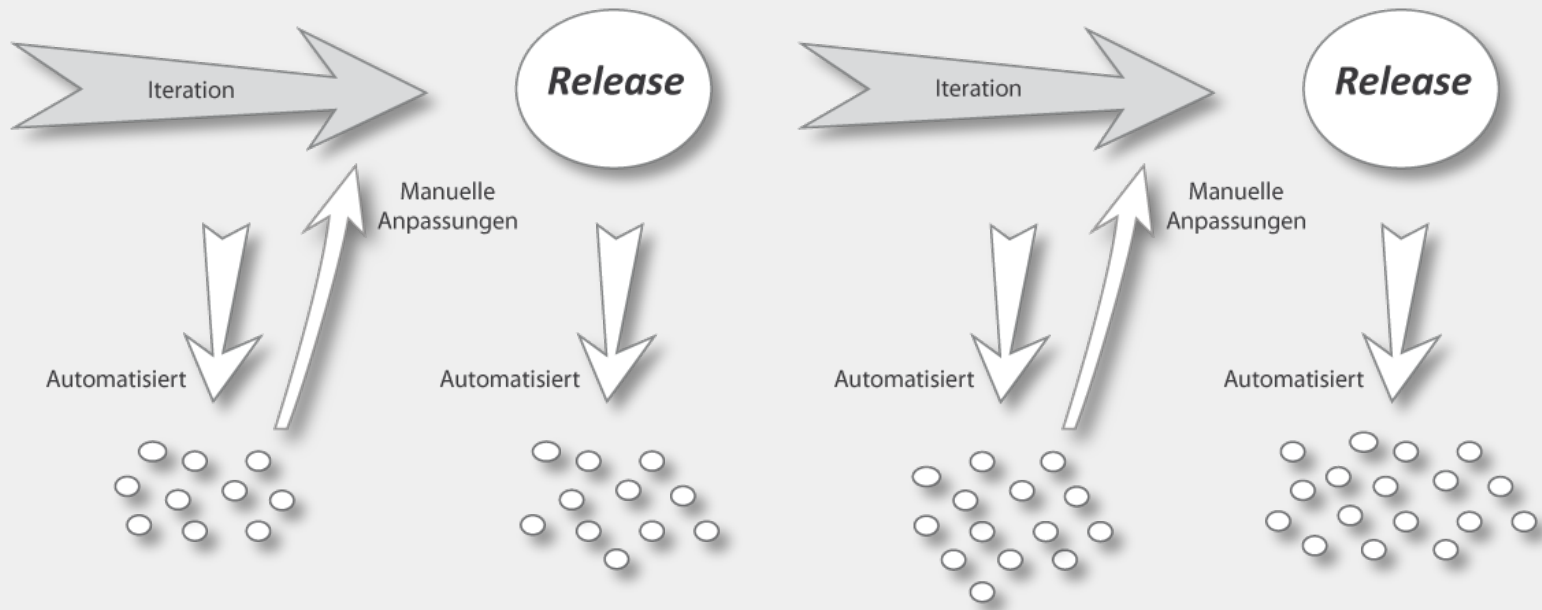
# Kontinuierliche Modularisierung I



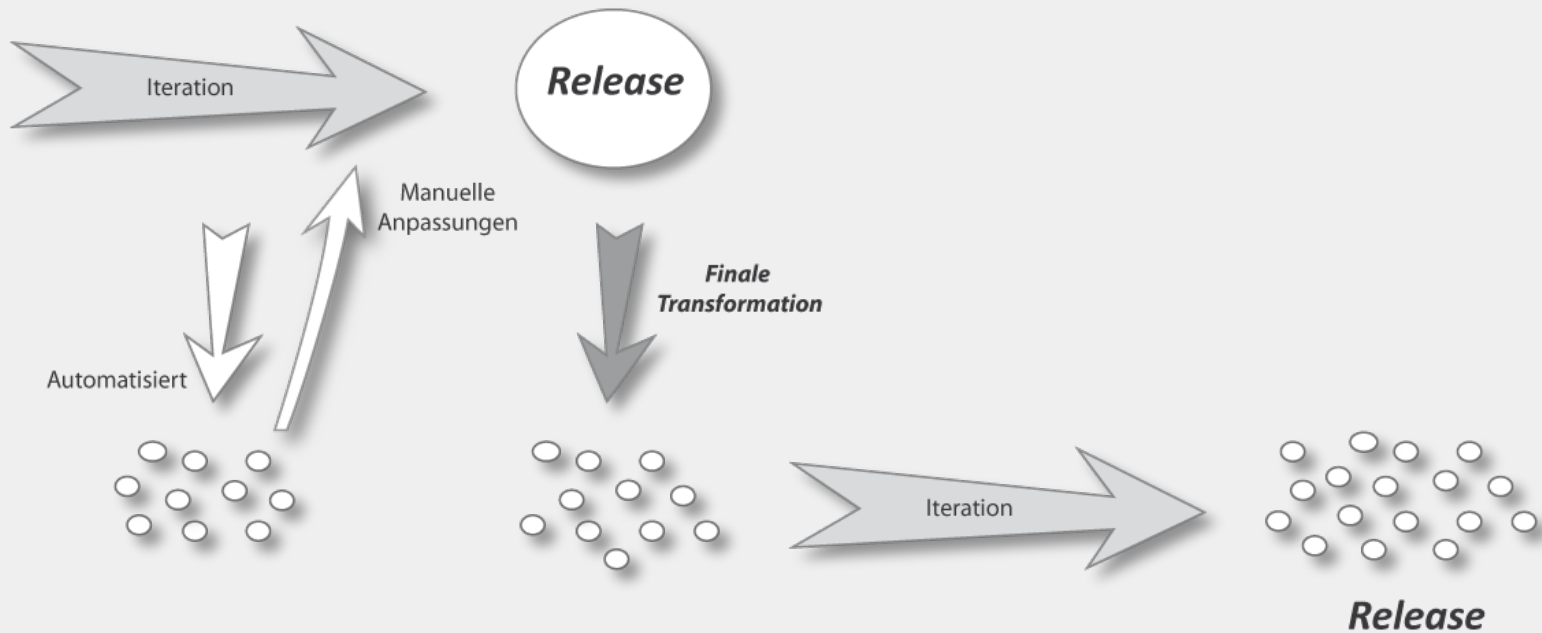
# Kontinuierliche Modularisierung II



# Kontinuierliche Modularisierung III



# Die finale Transformation





# BundleMaker

Open Software Dependency Management







# BundleMaker

Open Software Dependency Management

- » Offene Plattform für Analyse- und Modularisierungstools
- » Eclipse Public License (EPL)
- » Release 0.11 (Beta-Status)
- » <http://www.bundlemaker.org>
- » Source: <http://github.com/wuetherich/bundlemaker>



# BundleMaker

Open Software Dependency Management

1. Parse

2. Analyse

3. Transform

4. Export

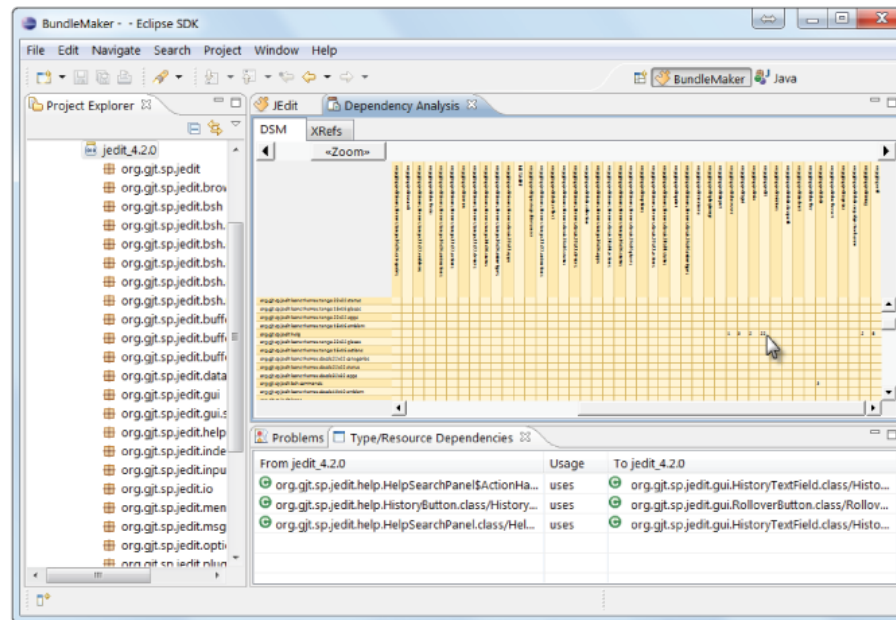
 Classes  
(Folder, JAR)

 Source-Files  
(Folder, ZIP)

 Bundles  
(Folder, JAR)

 Eclipse-Projects  
(JDT, PDE)

 Maven-Projects



The screenshot shows the BundleMaker Eclipse IDE interface. The Project Explorer on the left displays a project named 'jedt\_4.2.0' with a tree structure of packages and classes. The JEdit editor in the center shows a dependency graph with nodes and edges. The Dependency Analysis window at the bottom right displays a table of dependencies.

From jedt_4.2.0	Usage	To jedt_4.2.0
org.git.sp.jedit.help.HelpSearchPanel\$ActionHa...	uses	org.git.sp.jedit.gui.HistoryTextField.class/Histo...
org.git.sp.jedit.help.HistoryButton.class/Hist...	uses	org.git.sp.jedit.gui.RolloverButton.class/Rollov...
org.git.sp.jedit.help.HelpSearchPanel.class/Hel...	uses	org.git.sp.jedit.gui.HistoryTextField.class/Histo...

 Bundles

 PDE-Plug-in-Projects

 JDT/BND-Projects

 Maven-OSGi-Projects



# BundleMaker

Open Software Dependency Management

## Live Demo



where are  
we now?



Danke! Fragen?