

Java User Forum - Stuttgart

Die Top 10 der Tools & Methoden für mehr Spaß beim Entwickeln

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Odilo Oehmichen – Senior Software Consultant



SWIFTMIND

Speaker Profiles

- Patrick Baumgartner
 - Senior Software Consultant | Partner
 - Spring Framework, OSGi & agile Methoden
 - Co-Autor von „OSGi für Praktiker“ (Hanser)
- Odilo Oehmichen
 - Senior Software Consultant | Partner
 - mehr als 10 Jahre Erfahrung im Java-Umfeld
 - Spring, Spring MVC, Webflow, Security, etc.
- Swiftmind GmbH (<http://www.swiftmind.com>)
 - Enterprise Java, Spring & OSGi Consulting
 - Spring & OSGi Workshops/Trainings



Das kennen wir alle...

- Jeder von uns...
 - ... wird ständig in seinem **Arbeitsfluss unterbrochen**
 - ... muss den **Code** seiner Kollegen **weiterentwickeln**
 - ... hat immer **wiederkehrende** zeitraubende **Tasks**
- raubt den Spaß am Entwickeln

Agenda

- *Unsere* 10 Lieblingsmittelchen gegen



Procrastination



Code Smells

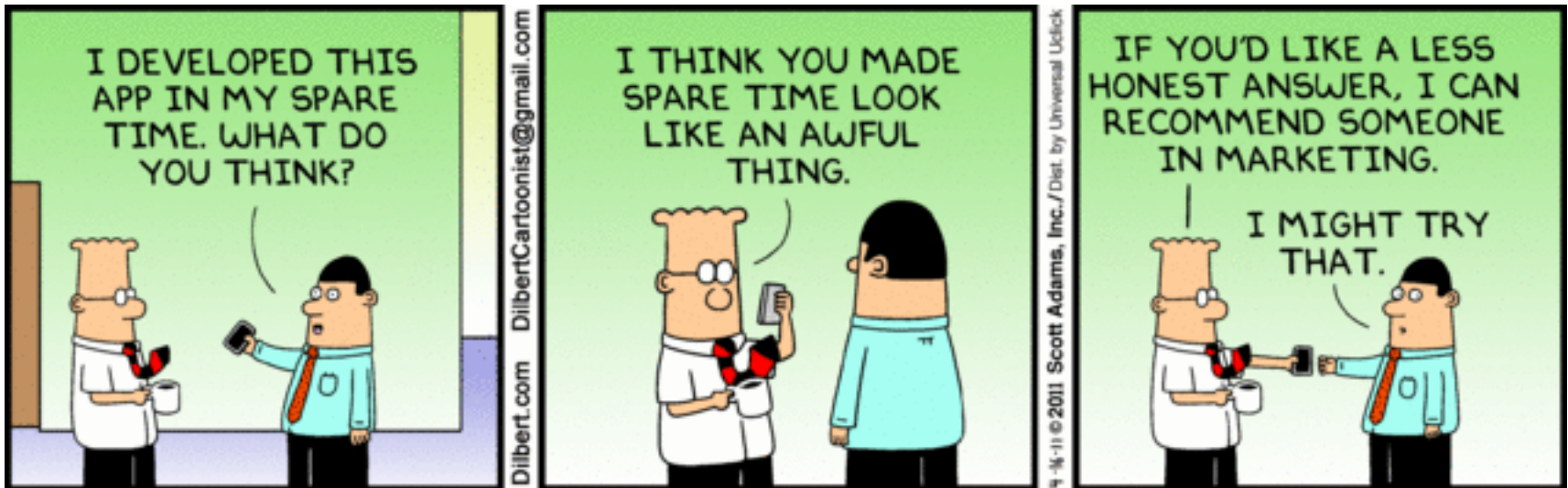


Repetitive Tasks



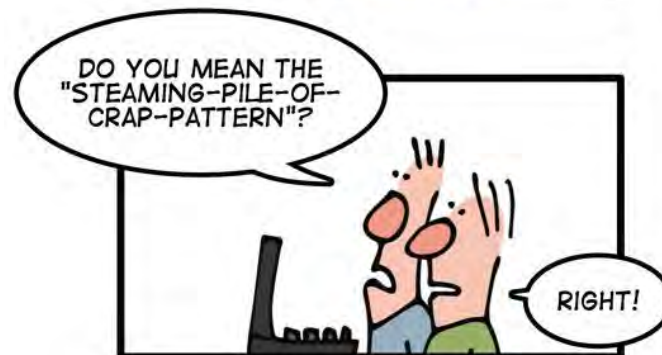
Deadly **D**ullness

- Q&A / Welches sind Eure Lieblingstool?



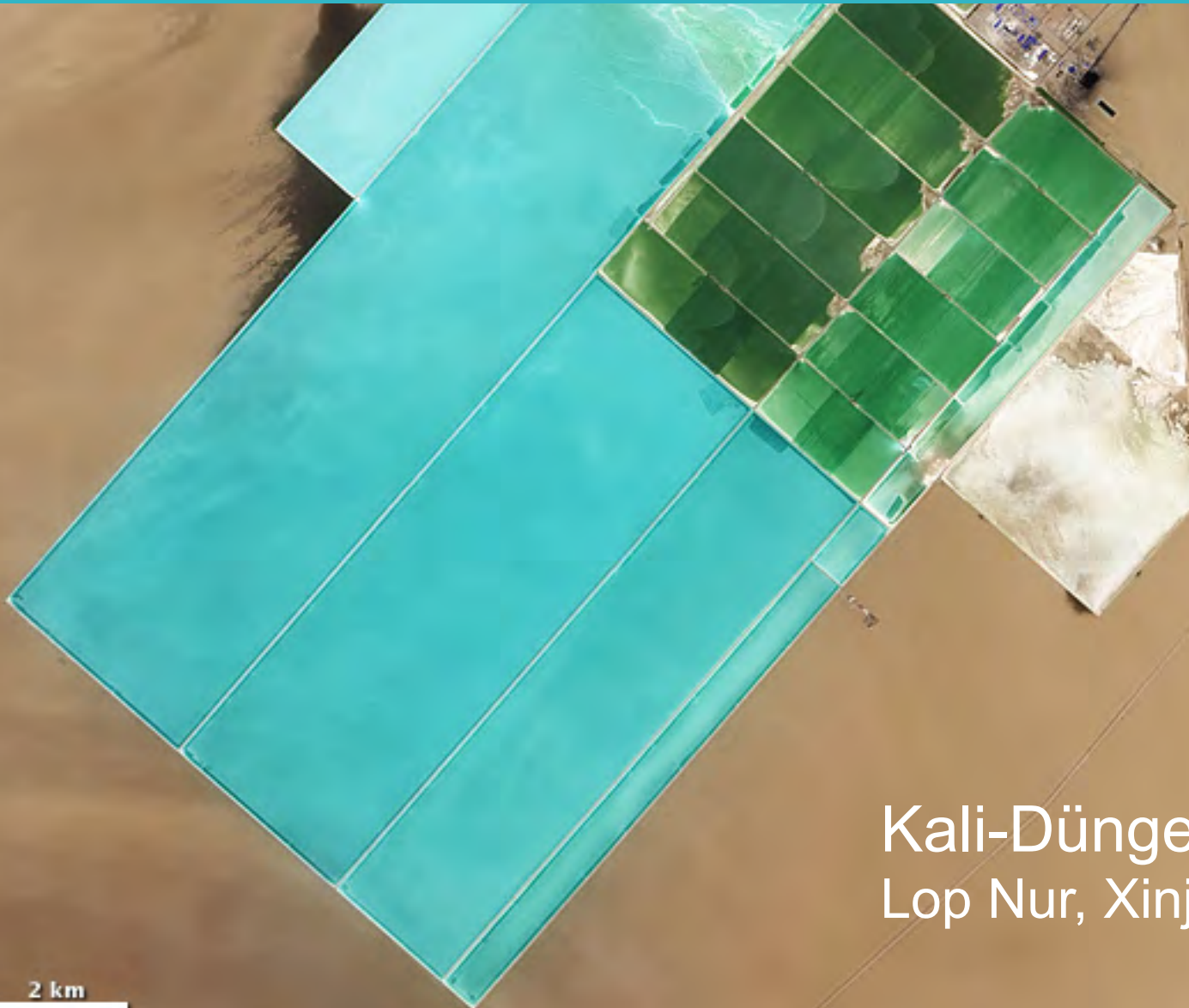
Your Daily Comic Strip

Geek and Poke

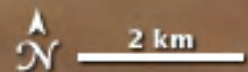


Nasa - Earth Observatory

D



Kali-Düngerwerk
Lop Nur, Xinjiang, China





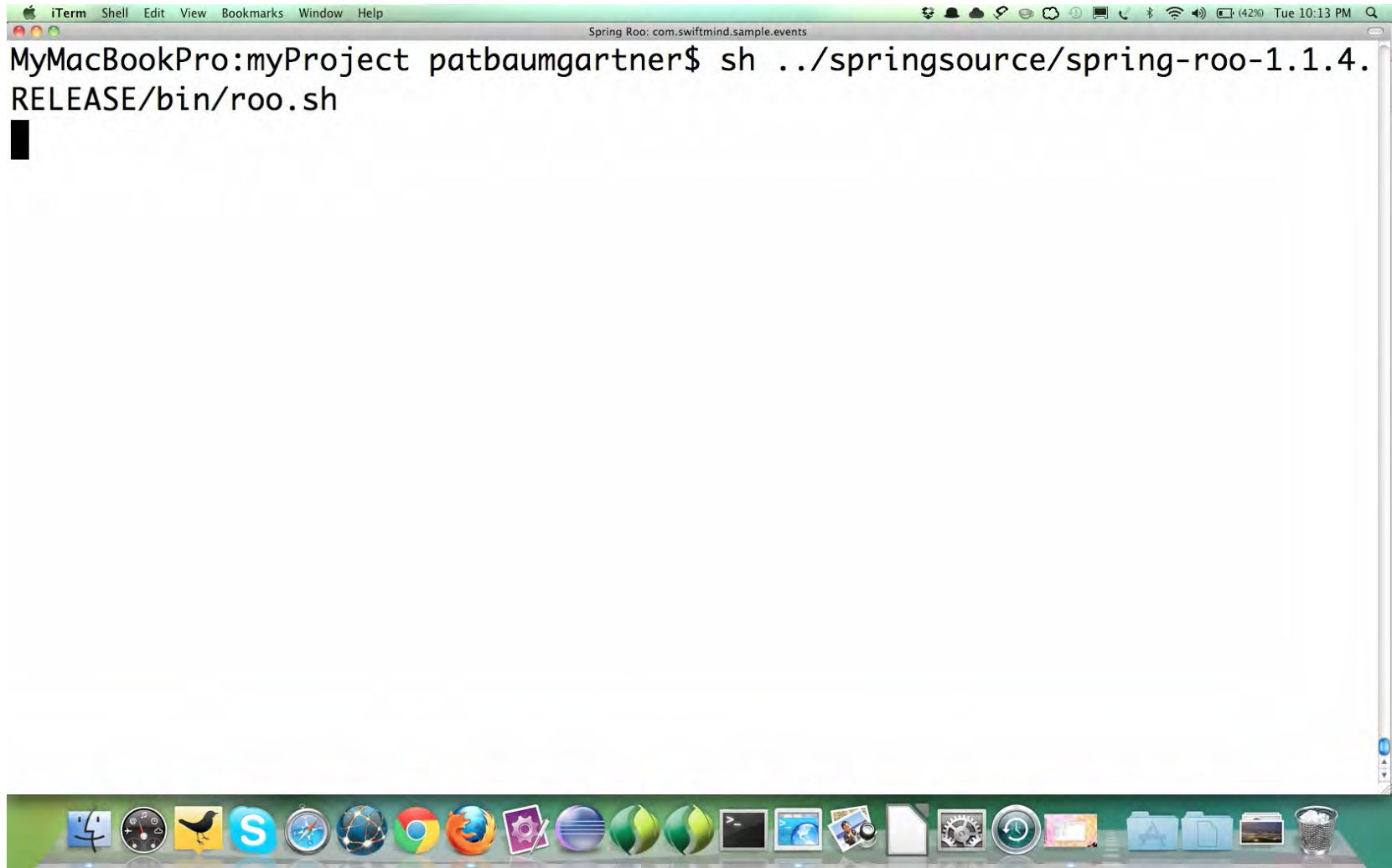
Rapid Application Development



Projekt Setup

- Projekt Struktur schnell erzeugen
- Persistenzlayer konfigurieren
- Webtechnologie integrieren
- Managen von Dependencies und Repositories
- Scaffolding Applikationen bauen

Spring Roo Demo



The screenshot shows an iTerm window titled "Spring Roo: com.swiftmind.sample.events". The terminal text is as follows:

```
MyMacBookPro:myProject patbaumgartner$ sh ../springsource/spring-roo-1.1.4.  
RELEASE/bin/roo.sh
```

The terminal window is part of a macOS desktop environment. The dock at the bottom contains various application icons including Finder, System Preferences, Mail, Safari, Google Chrome, Firefox, and others. The top of the screen shows the macOS menu bar with standard system icons and the date/time "Tue 10:13 PM".



Clean Code

Clean Code

- Software Craftmanship
- geprägt von Uncle Bob (Robert C. Martin)
- Code Smells
 - Klassen-, Methoden-, Variablennamen
 - Methodengrösse
 - Comments
 - Strong cohesion -> Single Responsibility
 - ...



Projekt Lombok

- Java Library – lombok.jar
- Reduce Boilerplate Code
- Annotationsbasiert

`@Getter, @Setter, @ToString, @Data, ...`

Projekt Lombok

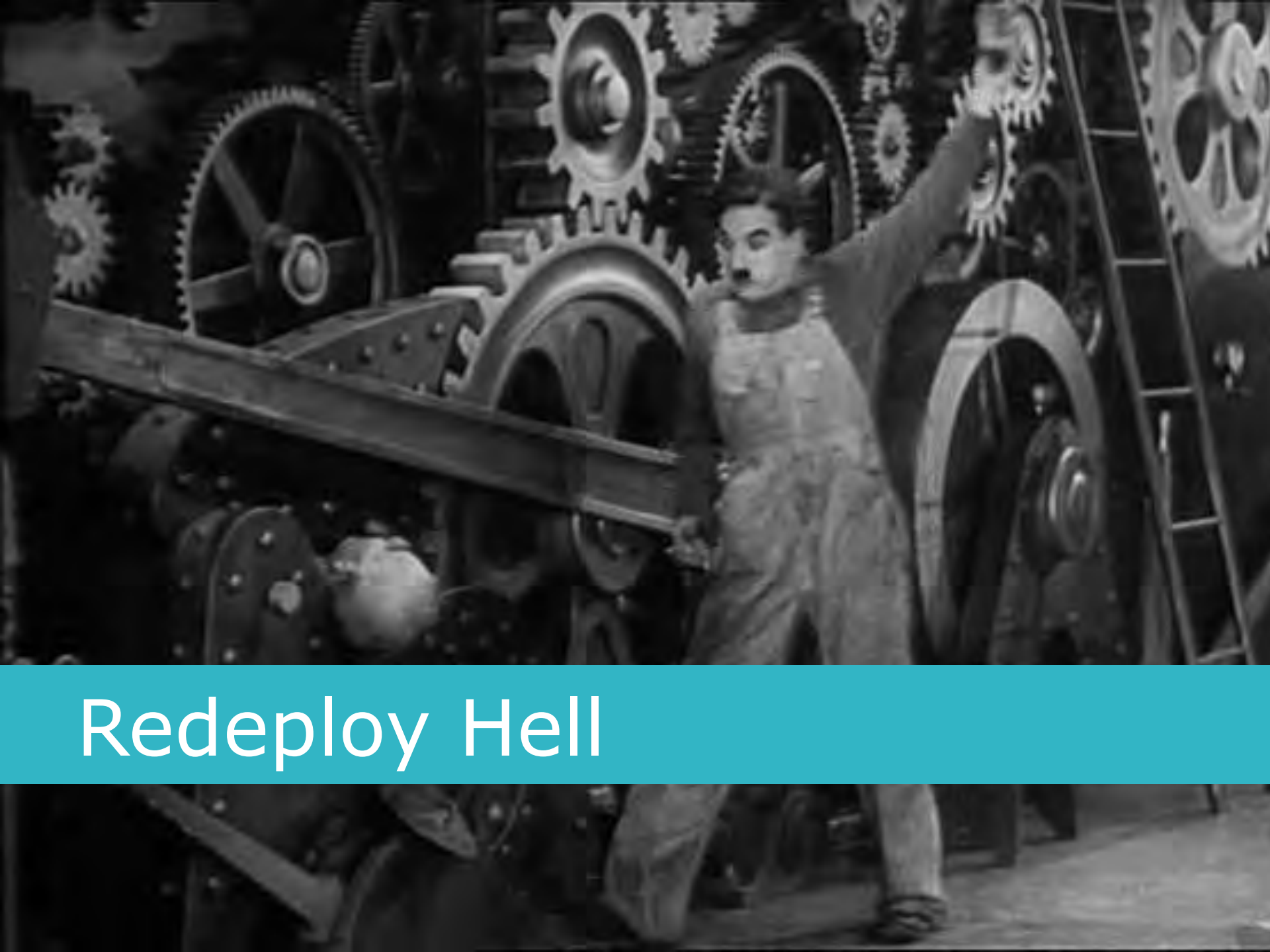
```
public class Person {  
    private String firstname;  
    private String name;  
}
```

```
    public void setFirstname(String firstname) {  
        this.firstname = firstname;  
    }  
  
    public String getName() {  
        return name;  
    }  
  
    public void setName(String name) {  
        this.name = name;  
    }  
  
    @Override  
    public String toString() {  
        return "Person [firstname=" + firstname + ", name=" + name + "]";  
    }  
  
    @Override  
    public int hashCode() {  
        final int prime = 31;  
        int result = 1;  
        result = prime * result + ((firstname == null) ? 0 : firstname.hashCode());  
        result = prime * result + ((name == null) ? 0 : name.hashCode());  
    }
```

```
import lombok.Data;  
  
@Data  
public class Person {  
    private String firstname;  
    private String name;  
}
```

- Benötigt Java ≥ 6
- Java Agents hooken in Compile Prozess

```
javac -cp lombok.jar Person.java
```
- Eclipse, netbeans, maven Plugins
- Andere Tools: PMD, findbugs, checkstyle, Simian



Redeploy Hell

Redeploy Hell

- Problem
 - Code geschrieben -> Build -> Deploy auf Server
 - Über 15 % der Entwicklungszeit ist Warten auf Redeploy
 - Frißt Nerven, Zeit und Geld
- Lösungen
 - Funktionalitäten ausgliedern
 - Abhängigkeiten zu Laufzeit-Umgebungen reduzieren
 - Unittests / Applikation
 - Tools
 - Debugger
 - JRebel

- Integriert sich in JVM
- Richtiges Hotdeployment
 - Hinzufügen von Methoden
 - Ändern von Methodensignaturen
 - Konfigfile Änderung (Spring, Hibernate, JSF, Wicket,...)
- Verbindet sich direkt mit IDE-Workspace
- Unterstützt alle gängigen Appserver

- Nachteil: Kommerziell



Open Source Libraries

Don't re-invent the wheel

- Einsatz von Open Source Libraries im Projekt
 - Bessere Applikations-Architektur
 - Source Code von der Community benutzt
 - gut (Unit-)getestet
 - Schnelleres Entwickeln mit kleineren Team
 - Fokussierung auf die Businesslogik
- Libraries
 - Apache Commons
 - Guava
 - FluentJava
 - Spring

Apache Commons – Lang

- Verschiedene String Operationen

```
String name = "Apache Jakarta Commons";  
name = StringUtils.remove(name, " Jakarta");  
  
String escapedXml = StringEscapeUtils.escapeXml(  
    "<project><name>Commons Lang</name></project>");
```

- Erwartete Resultate

Apache Commons

<project><name>Commons Lang</name></project>

Apache Commons – CLI

- Command Line Programm mit Option „-h“

```
Options options = new Options();
options.addOption("h", false, "display help");

CommandLineParser parser = new PosixParser();
CommandLine line = parser.parse(options, args);
if(line.hasOption("h")){
    HelpFormatter f = new HelpFormatter();
    f.printHelp("myApp", options);
}
```

- Programmausgabe

```
usage: myApp
-h    display help
```

Apache Commons – Email

- Beispiel Email senden über Gmail

```
Email email = new SimpleEmail();
email.setHostName("smtp.gmail.com");
email.setSmtpport(587);
email.setAuthenticator(new DefaultAuthenticator("username", "password"));
email.setTLS(true);
email.setFrom("user@gmail.com");
email.setSubject("TestMail");
email.setMsg("This is a test mail ... :-)");
email.addTo("foo@bar.com");
email.send();
```

Apache Commons

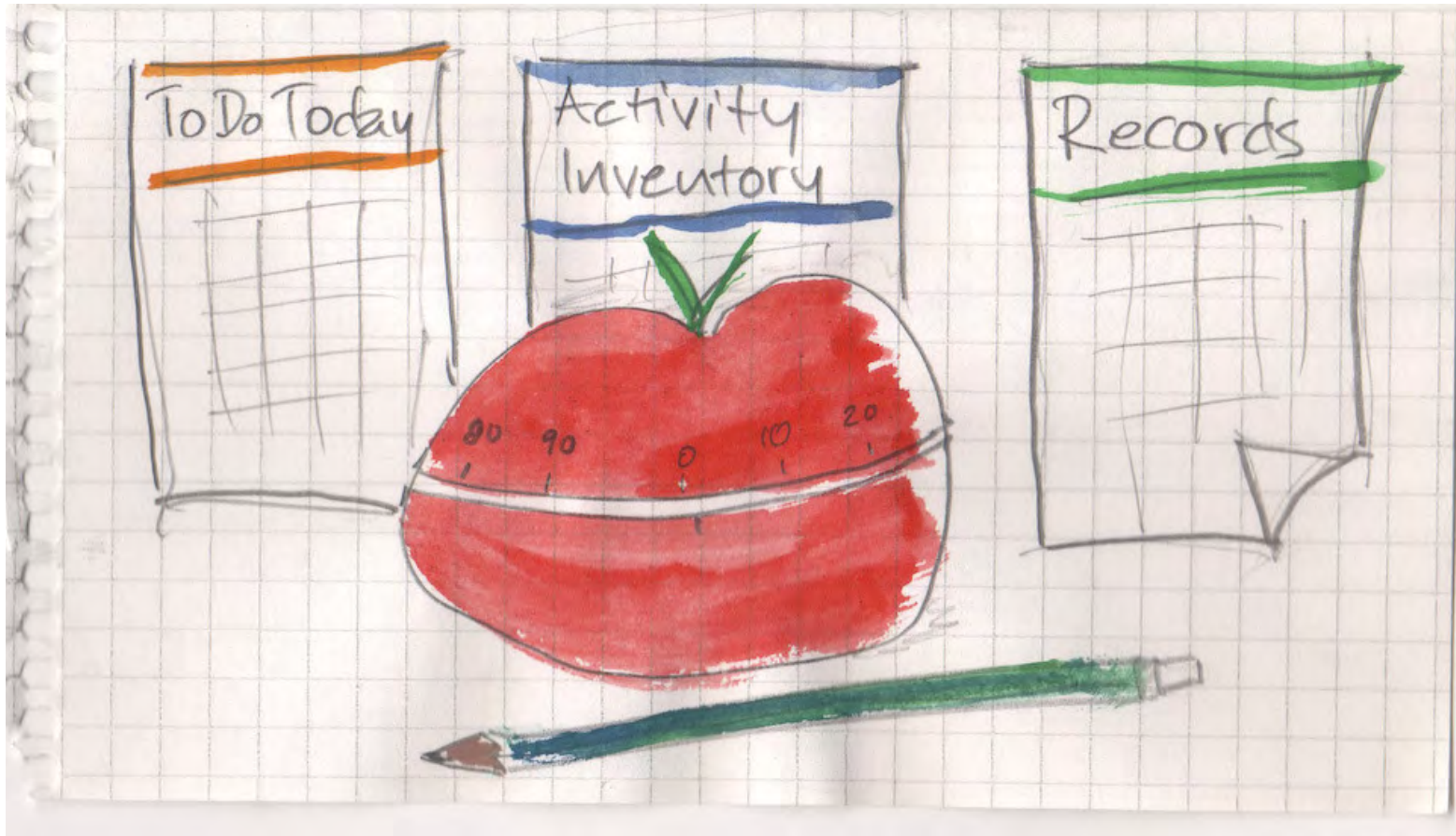


Attributes, BeanUtils, Betwixt, Chain, **CLI**, Codec, Collections, Compress, Configuration, Daemon, DBCP, DbUtils, Digester, Discovery, EL, **Email**, Exec, FileUpload, IO, JCI, Jelly, Jexl, XPath, **Lang**, Launcher, Logging, Math, Modeler, Net, Pool, Primitives, Proxy, Sanselan, SCXML, Transaction, Validator, VFS



Get your Work Done!

Pomodoro Technique



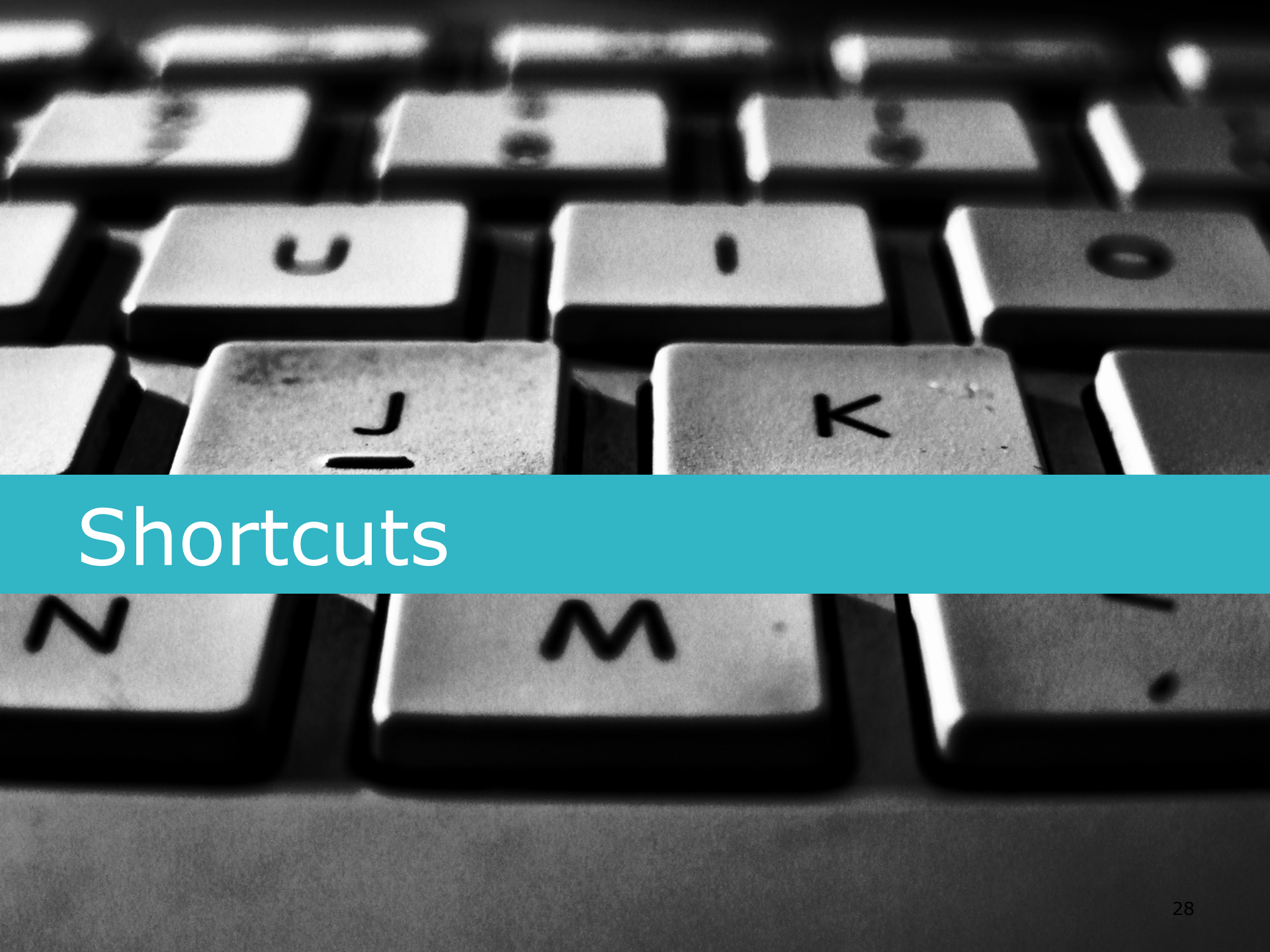
(c) Staffan Nöteberg - Pomodoro Technique Illustrated

Pomodoro Technique



- Ergebnisse
 - Lernen Aktivitäten planen & schätzen
 - Aufzeichnen & verbessern der Aktivitäten
 - Störungen vermindern & vermeiden
- Tools
 - Pomodoro (Eieruhr)
 - Focus Buster





Shortcuts

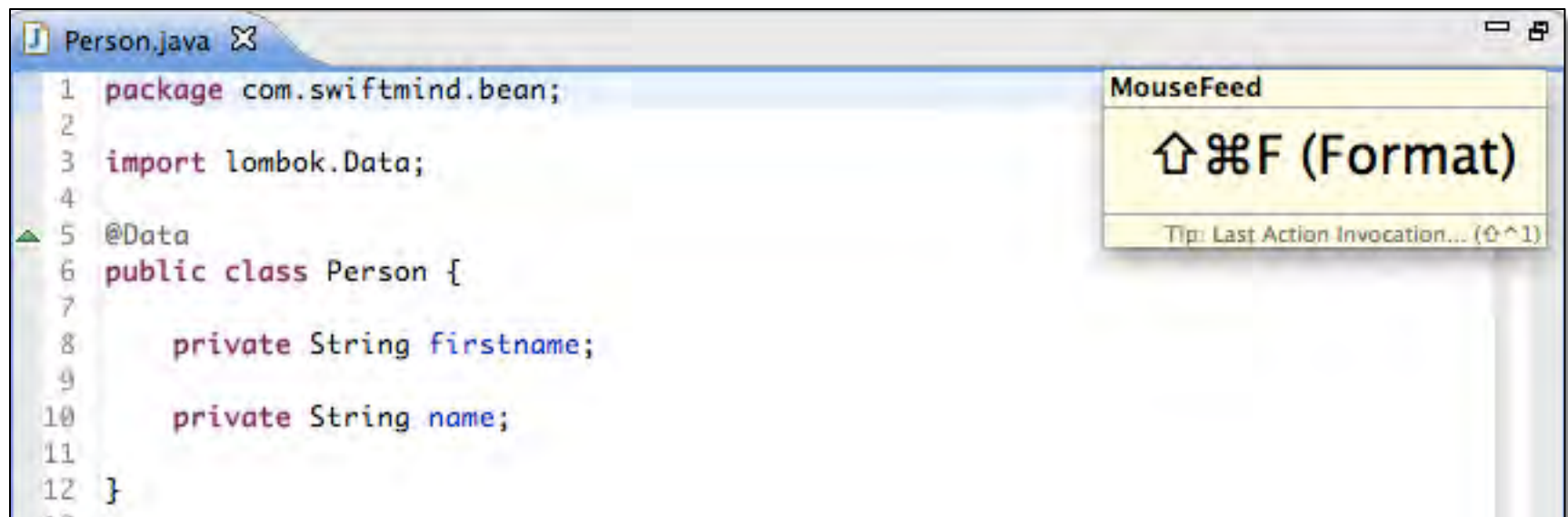
Shortcuts

- Problem
 - Mouse Junkies
 - Umgreifen frisst Zeit
 - Produktivität sinkt
 - Shortcuts schwer lernbar

Shortcuts

R

- Lösungen
 - Eclipse Mousefeed-Plugin zeigt Shortcuts auf



- Save-Actions räumt Code auf
- Cheatsheets (für jegliche Tools)

Where's The Build?!

This is Gladys and she's a racecar in the red. You were supposed to have a build finished an hour ago. What's the hold up, sonny? Can't you even build the crap you wrote?



Continuous Integration

won't have to

www.WheresTheBuild.com

Continuous Integration

Phyllis



Jenkins

- Alles was es braucht ist Java
- Gehe zu <http://jenkins-ci.org>
- Download War-File
- Command-Line `java -jar jenkins.war`
- Plugin-Mechanismus
 - Chuck-Norris
 - Lava Lampe
 - ...



Continuous Integration

Agnes



- „*You broke the build*“
 - Einzahlung in Build-Kasse
 - „<...> Developer of the week“
 - ...
- CI Game von Clint Shank
 - Reward-System
 - Jenkins-Plugin verfügbar

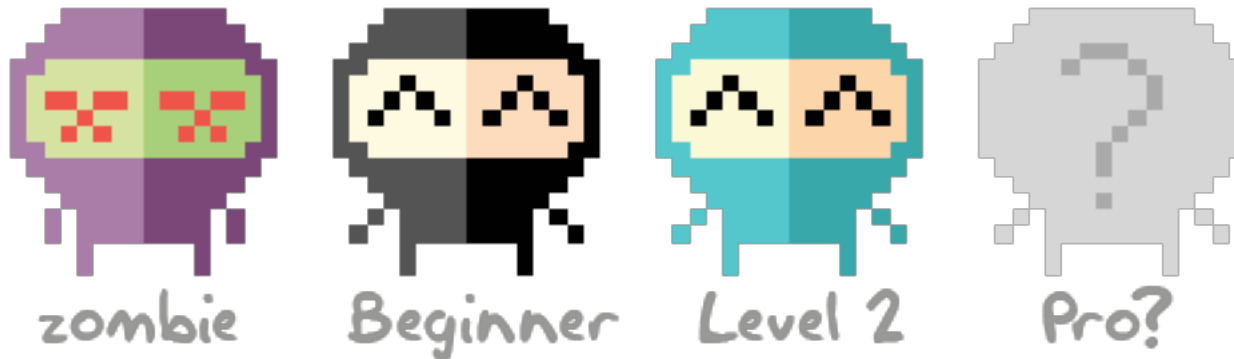


Unit Testing

Unit Testing

D R

- TDGotchi
 - Gotchi füttern mit Unittest-Results



- Infinitest
 - Continuous Test Runner for Java

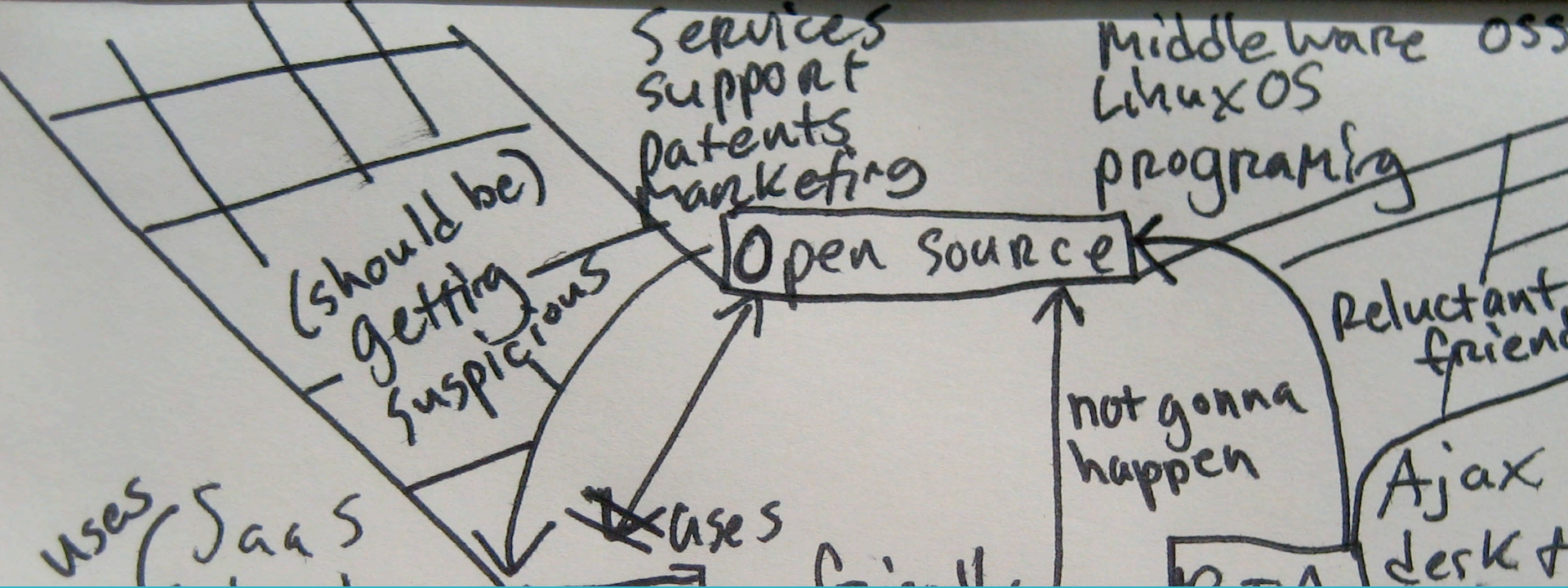
The background of the slide features a complex, abstract pattern of glowing blue and green lines, resembling a circuit board or a network diagram. These lines are set against a dark blue background. A solid teal horizontal banner is positioned across the middle of the image, containing the text "Keep up-to-date" in white. The overall aesthetic is high-tech and digital.

Keep up-to-date

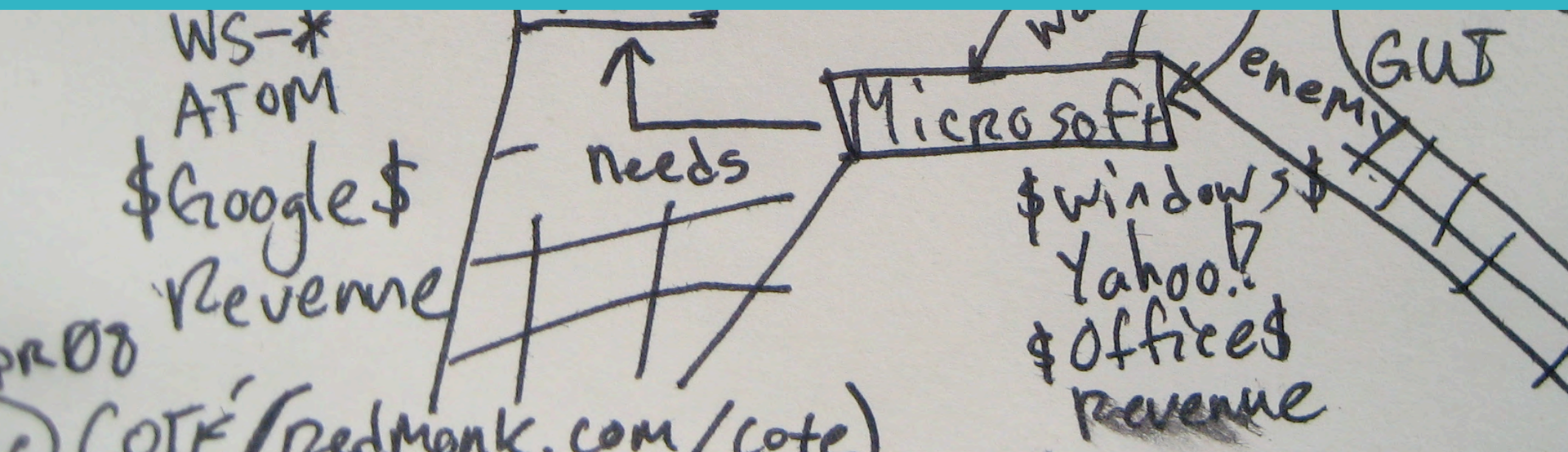
Keep up-to-date

D

- Es tut sich viel in der Java-Welt
 - Java 7, Cloud Computing, OSGi,
- Besuche...
 - Konferenzen
 - Hackathons / Hackergarten
 - Java User Groups
- Tausch dich aus
- E-Learning
 - Blogs
 - Parleys (Offline-Client)
 - InfoQ



Zusammenfassung



Zusammenfassung

- Your Daily Commic Strip
- Rapid Application Development
- Clean Code
- Redeploy Hell
- Open Source Libraries
- Get your Work Done!
- Shortcuts
- Continuous Integration – Jenkins
- Unit Testing
- Keep up-to-date

Weitere Ressourcen

- Swiftmind GmbH
 - <http://www.swiftmind.com>
 - <http://www.swiftmind.com/blog>
- Memonic
 - <http://bit.ly/swiftmind-jfs>

Q & A

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