

# Software Craftsmanship, was ist das?

# Ich bin...

- Patrick Cornelißen
- Dipl. Informatiker
- Selbständig
- Softwareentwickler
- Coach/Trainer
- Java und früher PHP
- Agile!
- Software  
Craftsmanship
- Security (Web)

Mich kann man mieten! ;-)

# Agenda

Was ist Software Craftsmanship?

Wo kommt es her?

Was habe ich davon?

# 1992 - Wie „alles“ begann...

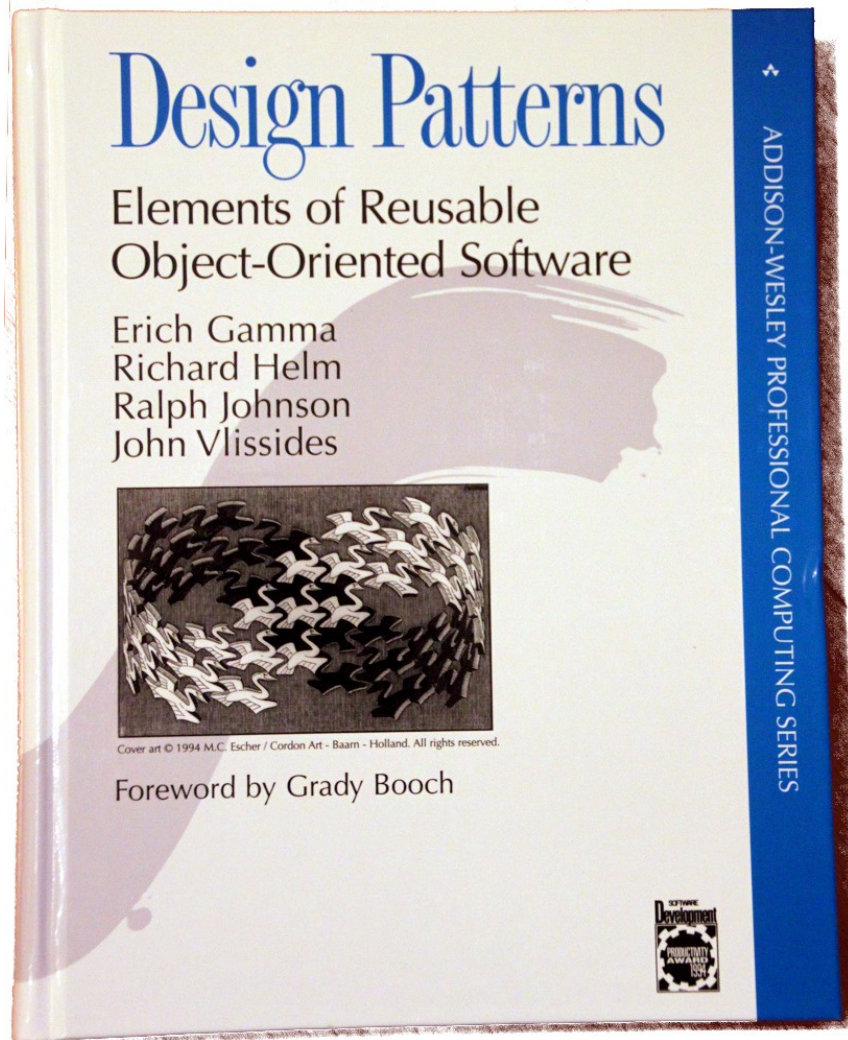


...  
**This is the difference between craft and engineering. Experience can lead us in the right direction. This is craft.**  
...

Software development is still more a craft than an engineering discipline. This is primarily because of a **lack of rigor** in the critical processes of validating and improving a design.

Jack W. Reeves Artikel: „What is Software Design?“

# 1995 – Design Patterns, GoF



From left to right: Ralph Johnson, Richard Helm, Erich Gamma, and John Vlissides. (Photography courtesy of Addison-Wesley.)

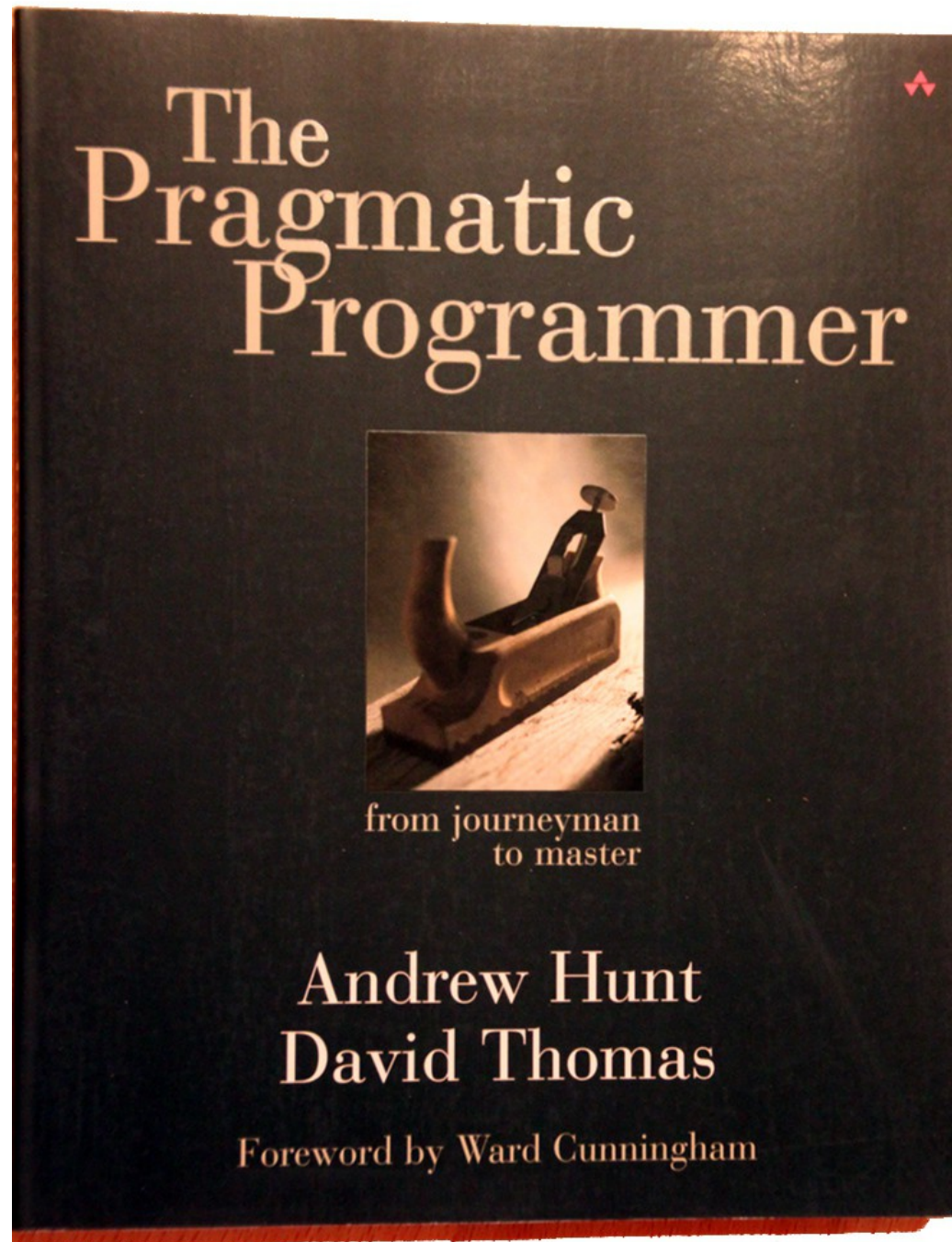
<http://www.amazon.de/Patterns-Elements-Reusable-Object-Oriented-Software/dp/0201633612>

# 1996 – eXtreme Programming wird geboren



<http://www.flickr.com/photos/akindemir/>

1999



<http://www.amazon.de/Pragmatic-Programmer-Journeyman-Master/dp/020161622X>

# 2001

## Manifesto for Agile Software Development

We are uncovering better ways of developing software by doing it and helping others do it.

Through this work we have come to value:

**Individuals and interactions** over processes and tools

**Working software** over comprehensive documentation

**Customer collaboration** over contract negotiation

**Responding to change** over following a plan

That is, while there is value in the items on the right, we value the items on the left more.

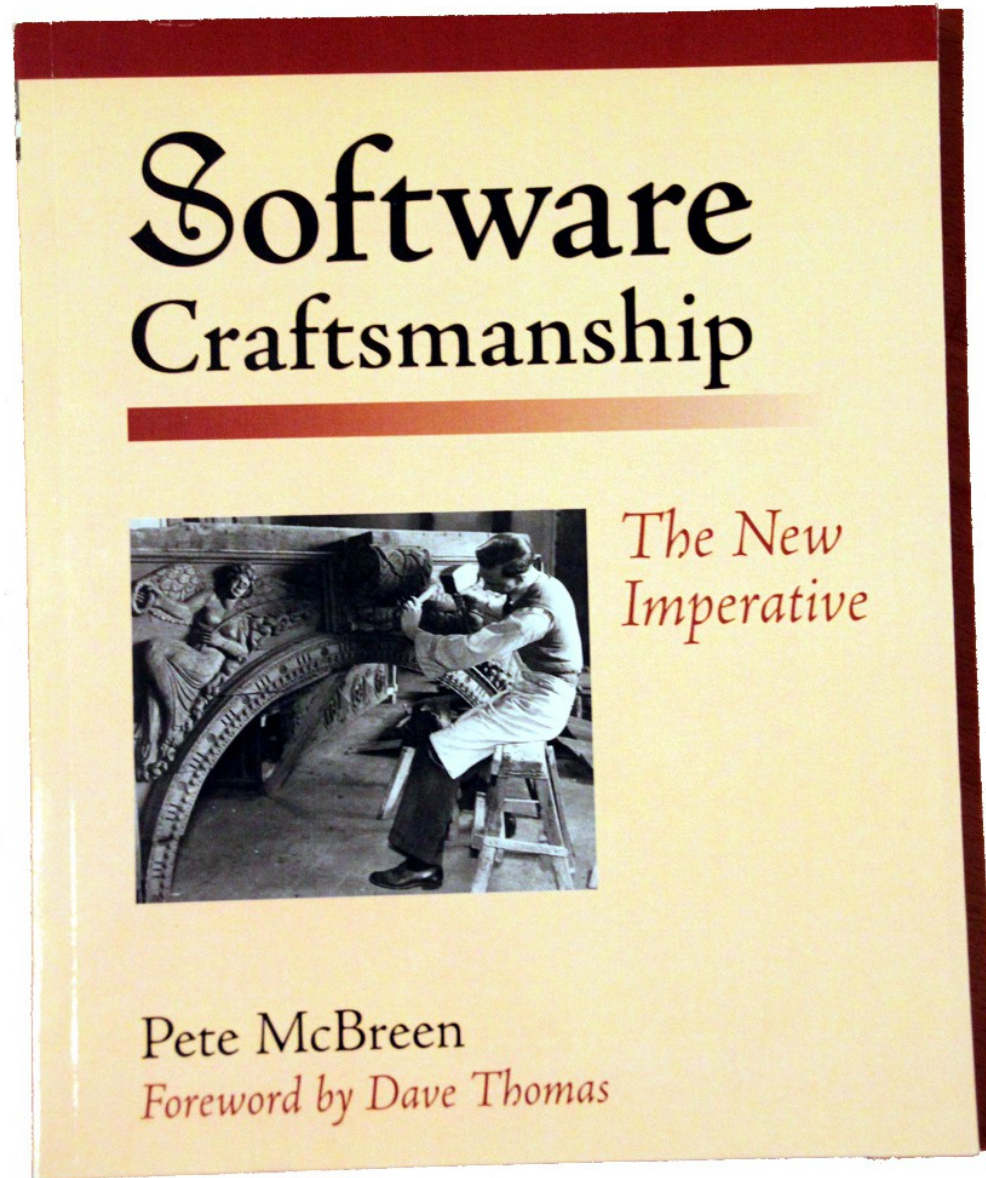
Kent Beck	James Grenning	Robert C. Martin
Mike Beedle	Jim Highsmith	Steve Mellor
Arie van Bennekum	Andrew Hunt	Ken Schwaber
Alistair Cockburn	Ron Jeffries	Jeff Sutherland
Ward Cunningham	Jon Kern	Dave Thomas
Martin Fowler	Brian Marick	

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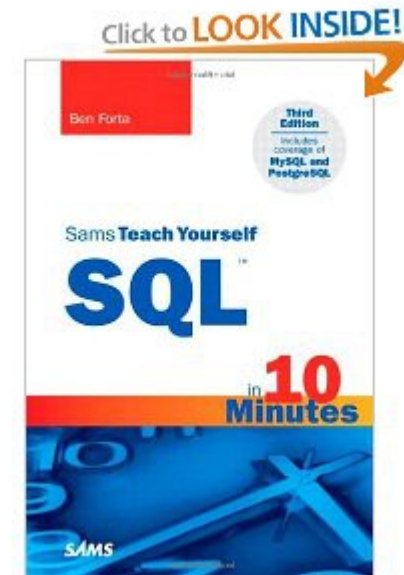
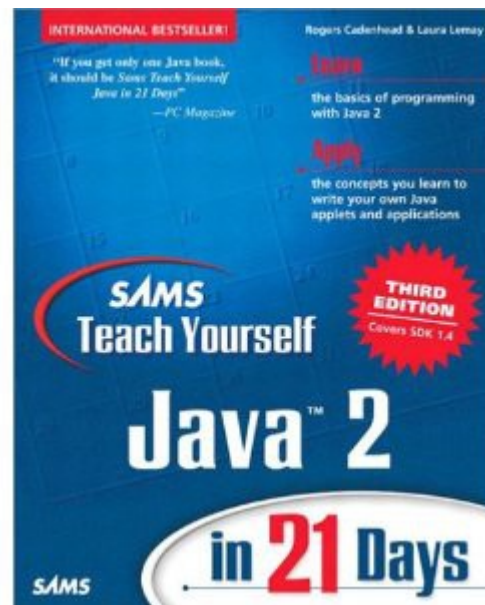
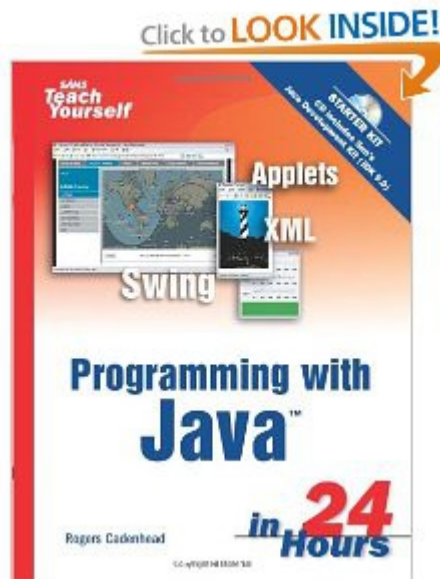
2001 (Sept.)



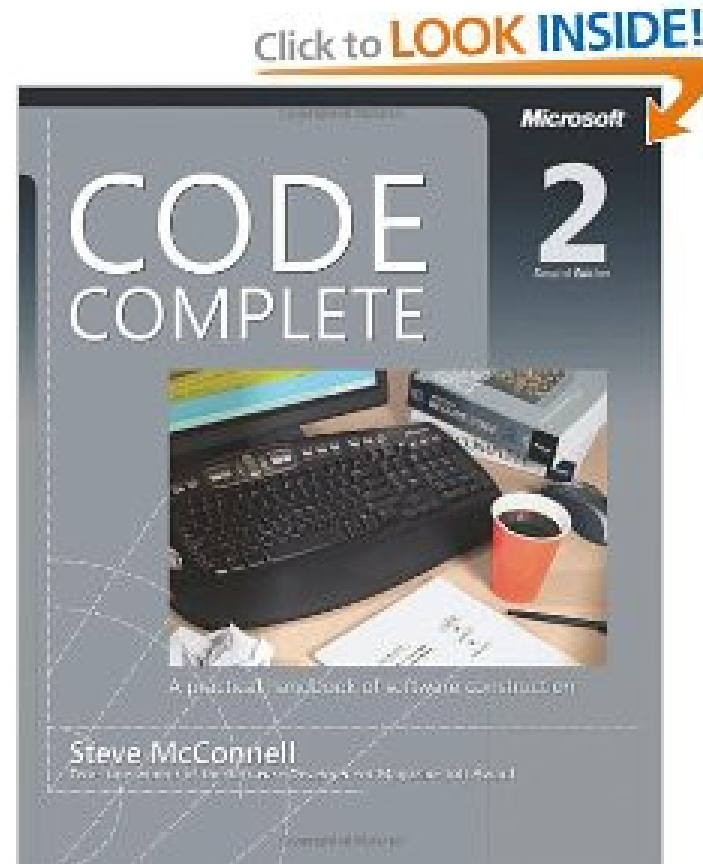
<http://www.amazon.de/Software-Craftsmanship-Imperative-Pete-McBreen/dp/0201733862>

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# 2001 – Teach yourself programming in 10 years



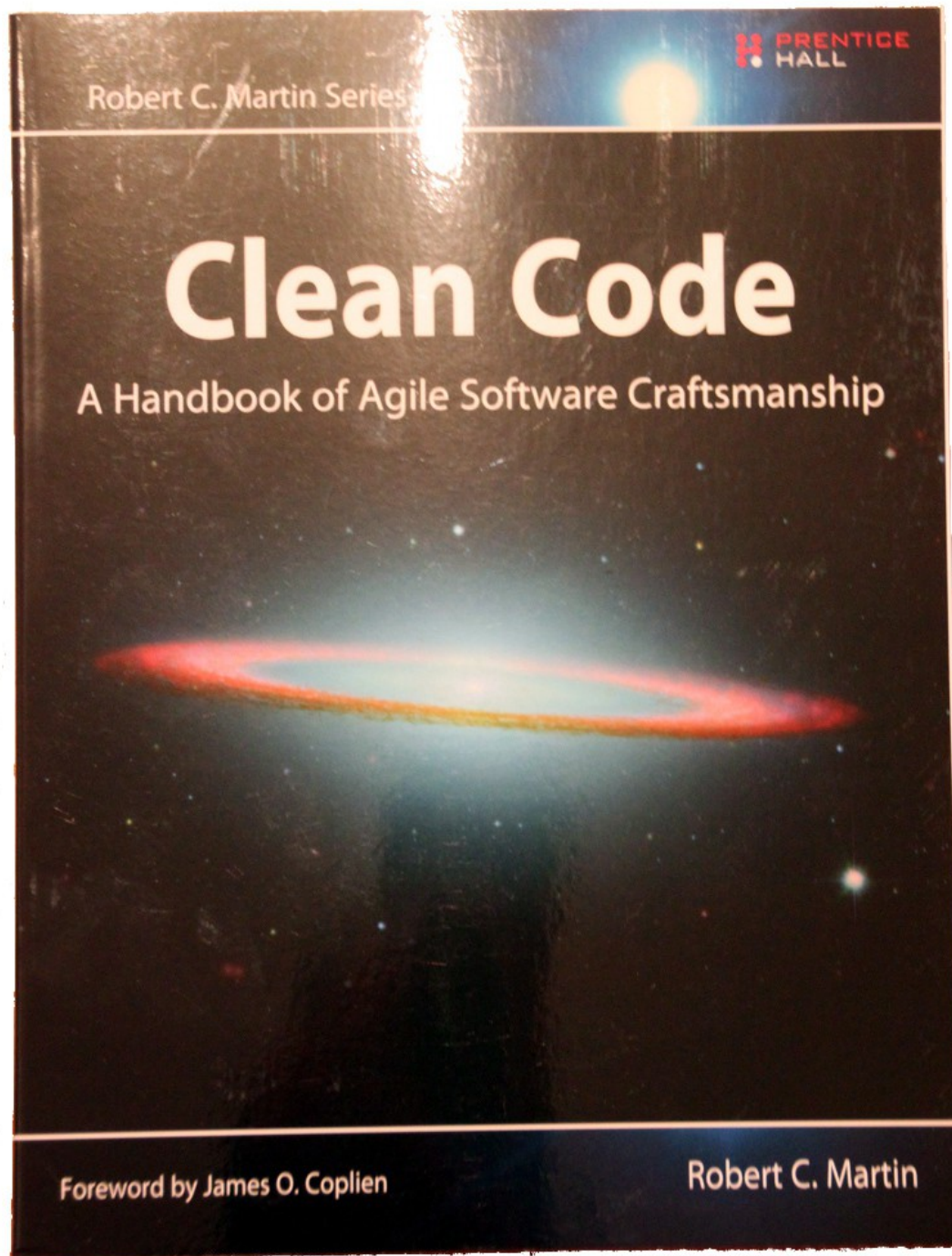
# 2004 Code Complete



Steve McConnell  
Microsoft Press

<http://www.amazon.com/dp/0735619670?tag=squid1498815-20>

2008



<http://www.amazon.de/Clean-Code-Handbook-Software-Craftsmanship/dp/0132350882>

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# 2008 – Craftsmanship over crap



Agile2008  
Conference



Toronto August 4 to 8, 2008

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# 2008 – Craftsmanship over execution



**Agile2008**  
*Conference*



Toronto August 4 to 8, 2008

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# 2008 (Dez.) – Erstes „craftsmanship summit“



8th Light

2009 (März)

# *Manifesto for Software Craftsmanship*

Raising the bar.

**A**s aspiring Software Craftsmen we are raising the bar of professional software development by practicing it and helping others learn the craft. Through this work we have come to value:

Not only working software,  
but also **well-crafted software**

Not only responding to change,  
but also **steadily adding value**

Not only individuals and interactions,  
but also **a community of professionals**

Not only customer collaboration,  
but also **productive partnerships**

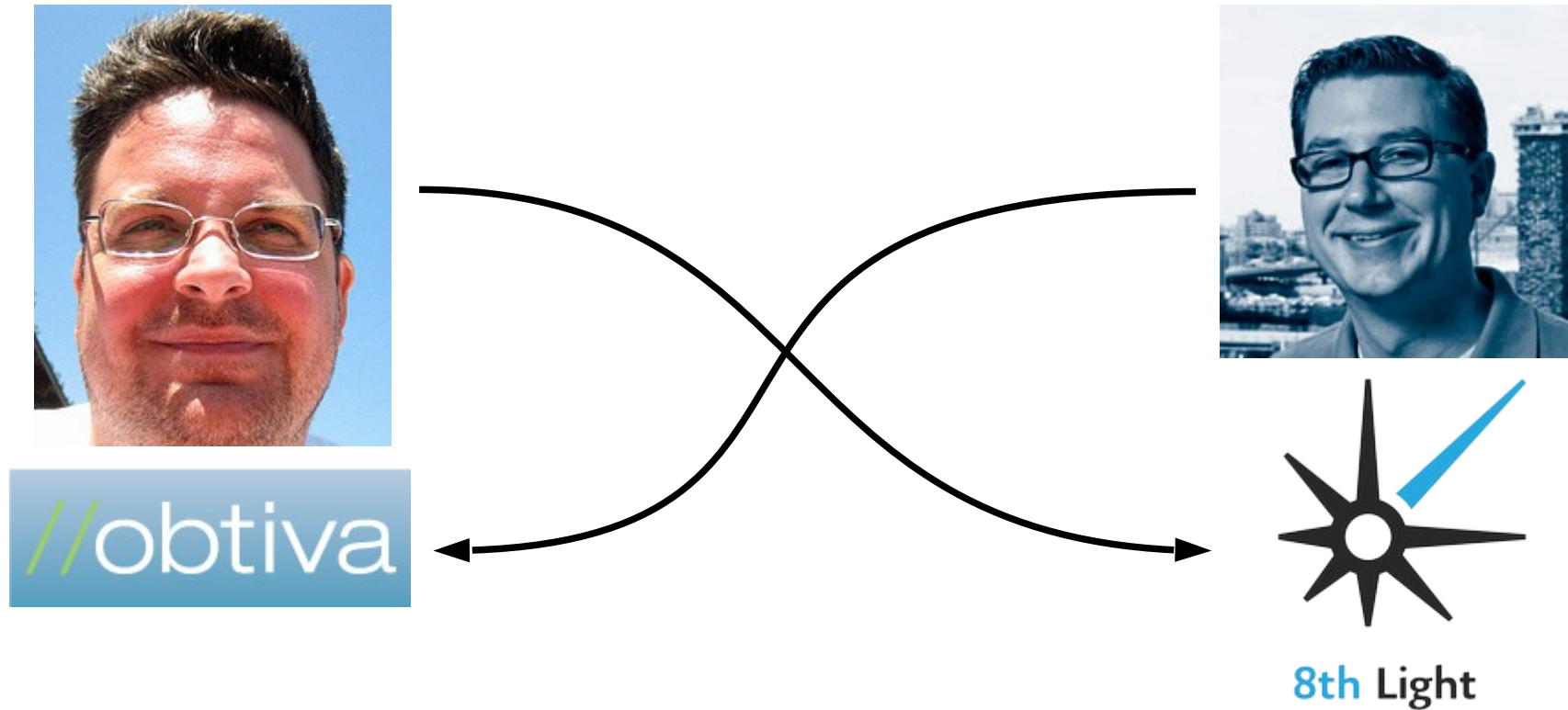
That is, in pursuit of the items on the left we have found the items on the right to be indispensable.

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but only in its entirety through this notice.

<http://manifesto.softwarecraftsmanship.org/>



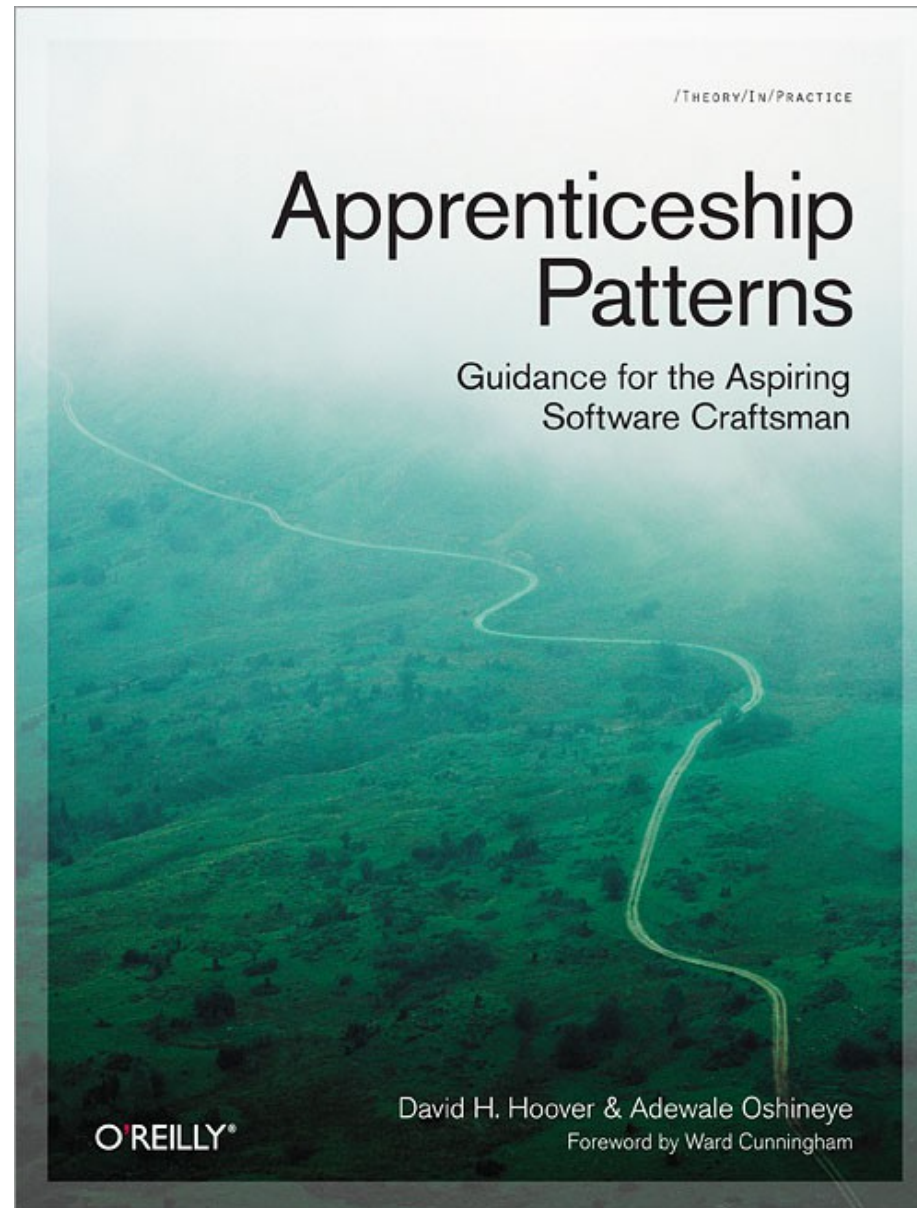
# 2009 (April) – Craftsman Swap



# 2009 (Mai) – The Wandering Book



# 2009 (Okt.) – Apprenticeship Patterns

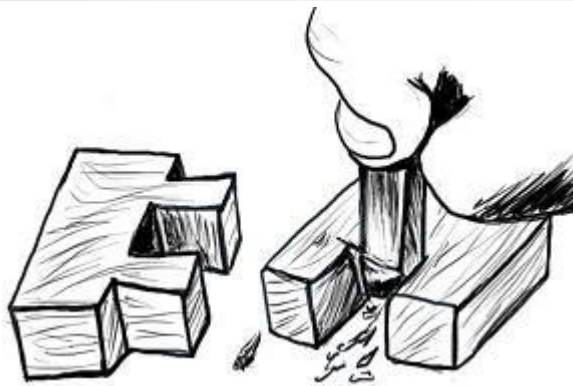


<http://www.amazon.de/Apprenticeship-Patterns-Guidance-Aspiring-Craftsman/dp/0596518382>

<http://ofps.oreilly.com/titles/9780596518387/index.html>

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# 2009 Das Jahr der Usergroups und Konferenzen

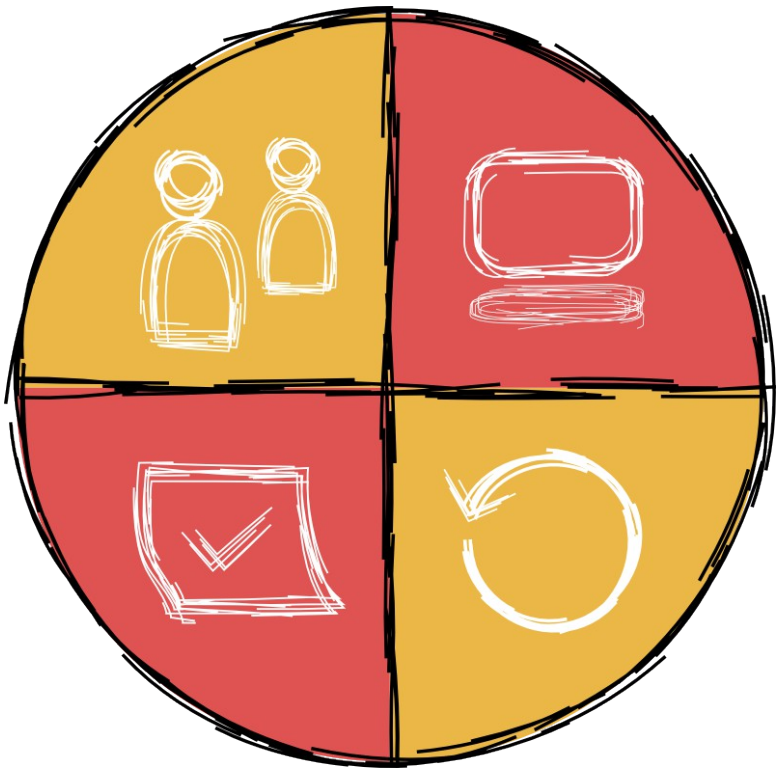


# 2010 – Die Bewegung festigt sich...



— SOFTWARE —  
**CRAFTSMANSHIP**  
*North America*

# 2011 – SoCraTes



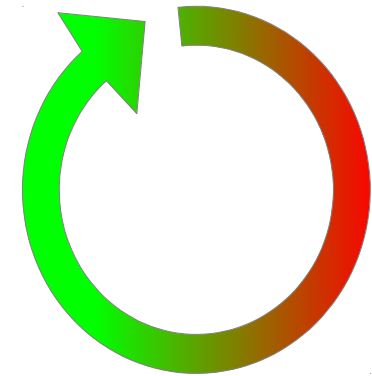
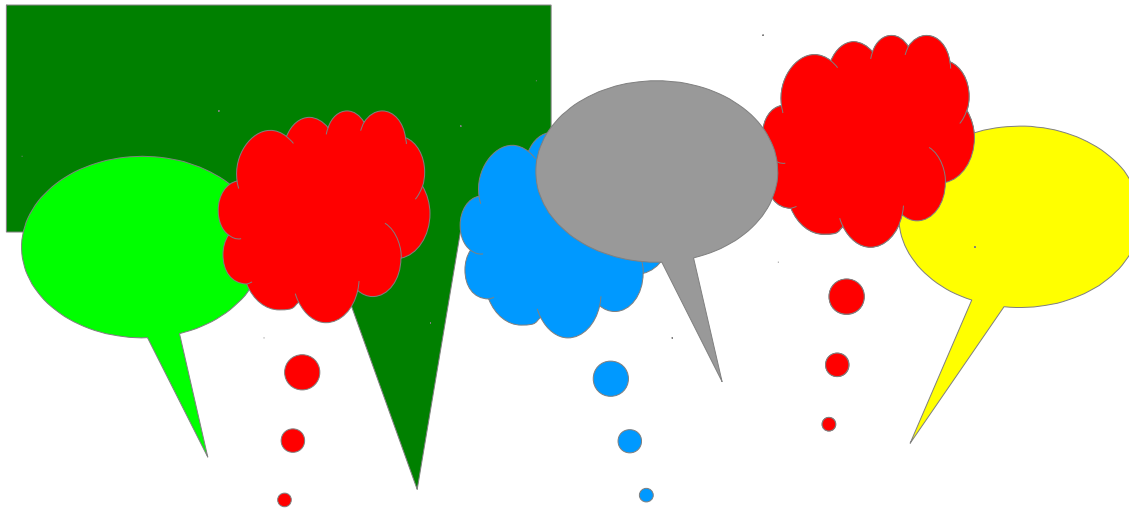
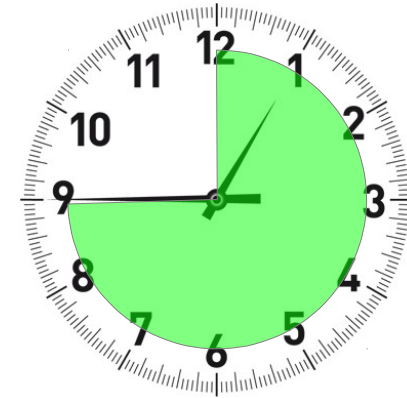
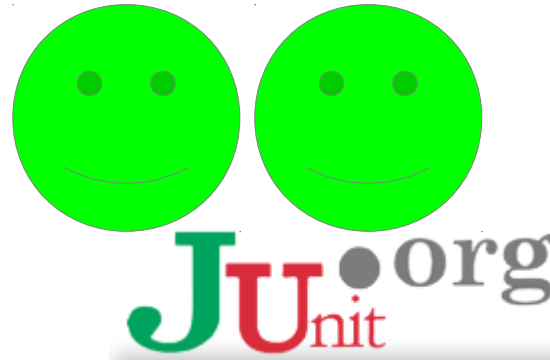
<http://www.Softwerkskammer.de>

# 2011 (Dez.) – Global day of coderetreat



# Code? Retreat?

Beispiel: Am 01.09.12  
<http://coderetreat-dus-1.eventbrite.de/>



<http://danieltemme.blogspot.de/2011/02/code-retreat-was-ist-das.html>

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# 2011 (Dez.) – Global day of coderetreat



# Des Pudels Kern...



<http://de.wikipedia.org/wiki/Pudel>

# Productive partnerships



# Community of professionals



Agile2008  
Conference

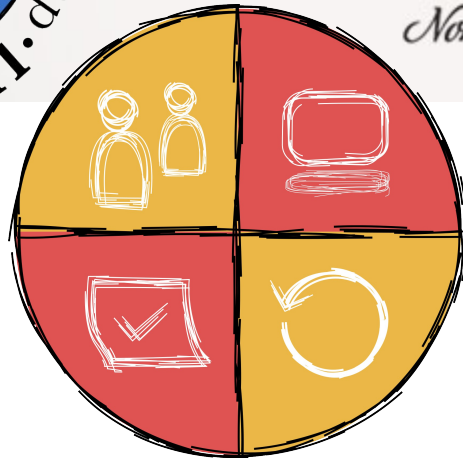


Toronto August 4 to 8, 2008

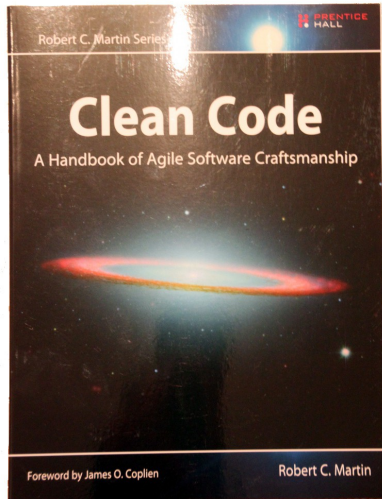
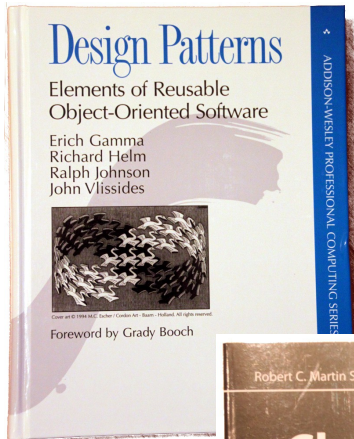
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— SOFTWARE —  
**CRAFTSMANSHIP**  
*North America*

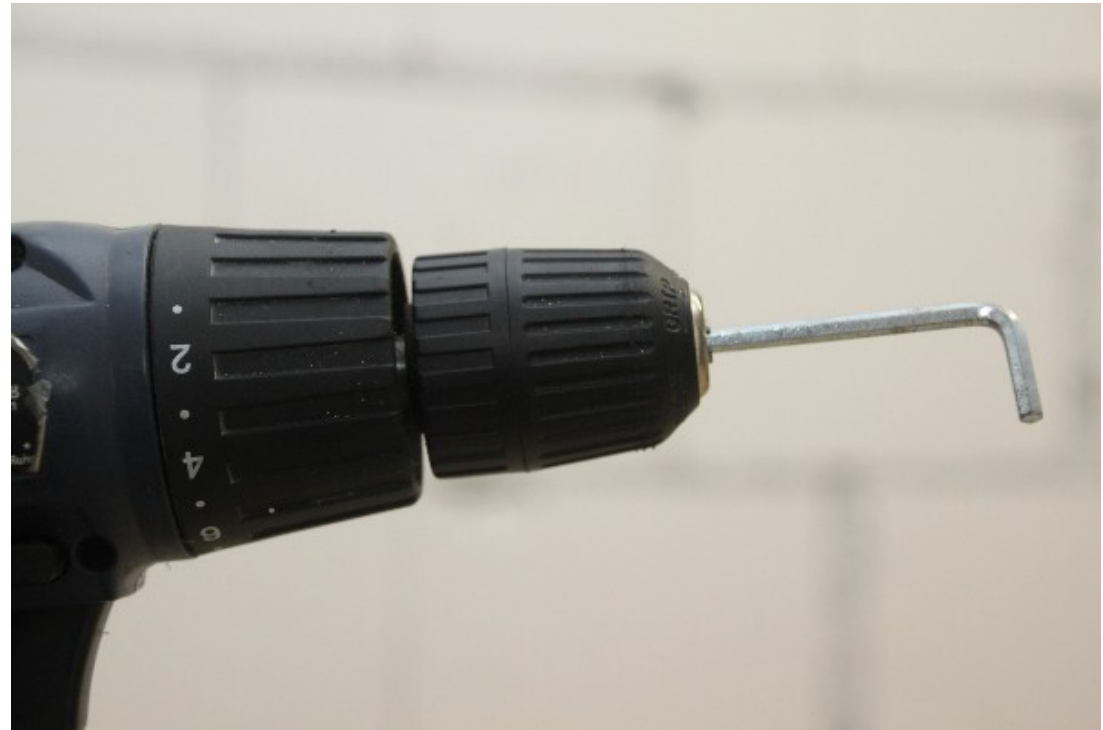
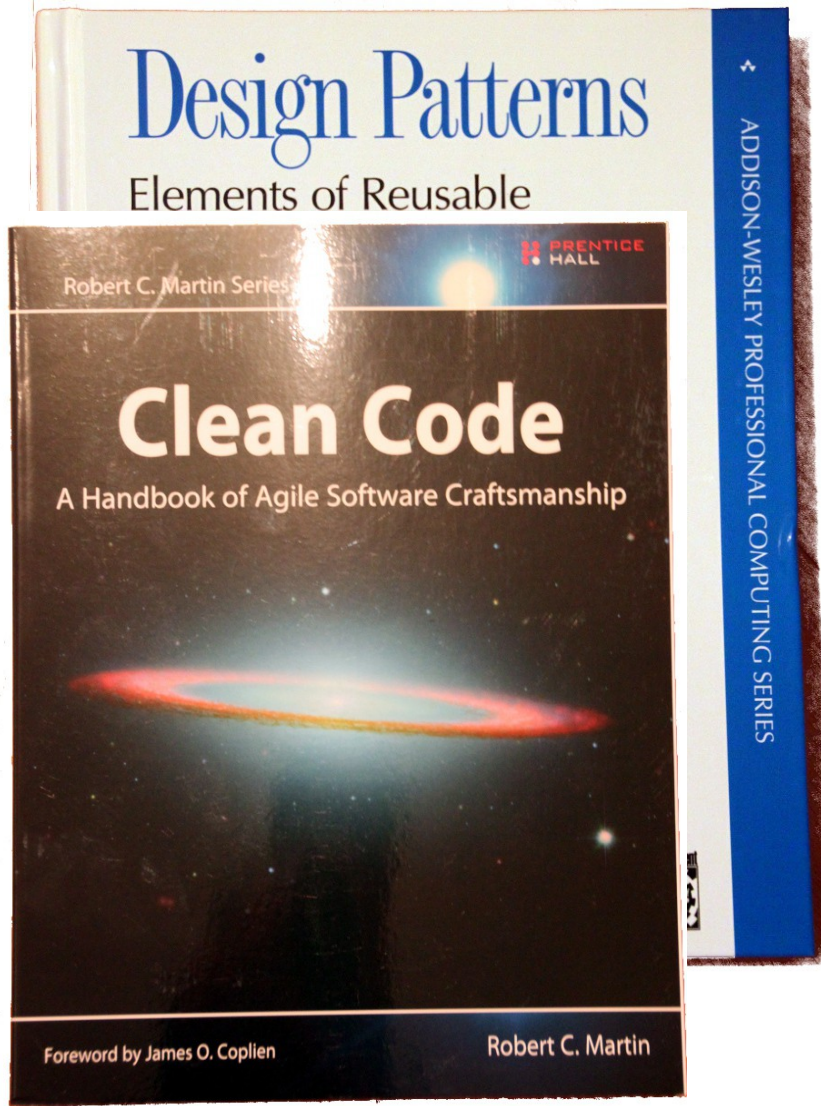


# Steadily adding value

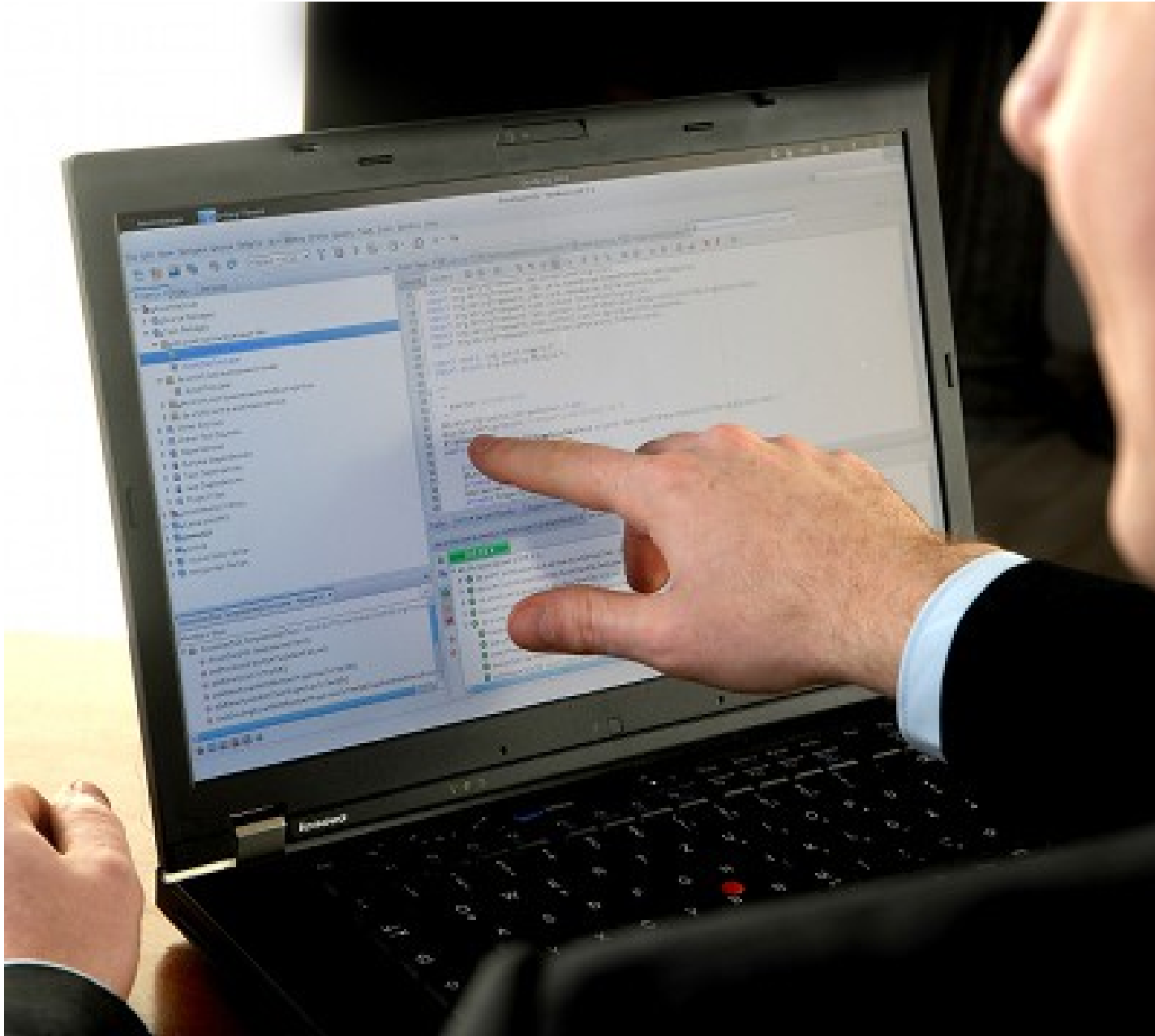


<http://www.flickr.com/photos/magie/349460191/>

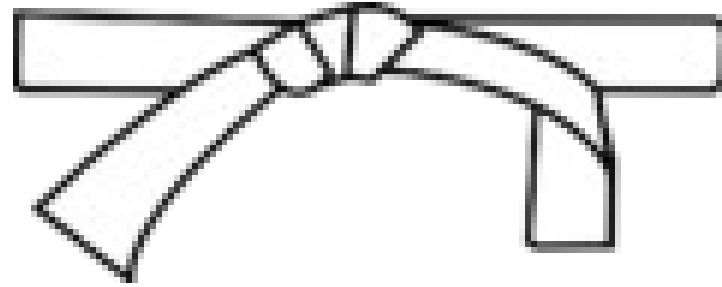
# Well crafted software



# Üben, üben, üben!



# Alleine



```
ruby
.....
.
Finished in 0.020221 seconds
1 example, 0 failures
.....
F
1)
'Fizzbuzz should compute fizzbuzz' FAILED
expected: "buzz",
got: "" (using ==)
./fizzbuzz.rb:21:

Finished in 0.022755 seconds
1 example, 1 failure
.....
.
Finished in 0.021134 seconds
1 example, 0 failures
.....
F
1)
'Fizzbuzz should compute fizzbuzz' FAILED
expected: "fizzbuzz",
got: "fizz" (using ==)
./fizzbuzz.rb:28:

Finished in 0.021463 seconds
1 example, 1 failure
.....
.
Finished in 0.020282 seconds
1 example, 0 failures
.....^C
You finished your kata. Choose your next action:
u) Upload the kata to http://www.codersdojo.com.

class Fizzbuzz
  def fizzbuzz number
    if number % 15 == 0
      "fizzbuzz"
    elsif number % 3 == 0
      "fizz"
    elsif number % 5 == 0
      "buzz"
    else
      ""
    end
  end
end

describe Fizzbuzz, "" do
  before (:each) do
    @fizzbuzz = Fizzbuzz.new
  end

  it "should compute fizzbuzz" do
    @fizzbuzz.fizzbuzz(1).should == ""
    @fizzbuzz.fizzbuzz(3).should == "fizz"
    @fizzbuzz.fizzbuzz(6).should == "fizz"
    @fizzbuzz.fizzbuzz(5).should == "buzz"
    @fizzbuzz.fizzbuzz(15).should == "fizzbuzz"
  end
end
```



<http://www.codersdojo.org>



# Code Kata?



FizzBUZZ

RomanNumerals

Game of life

Anagrams

Bowling game

Potter

<http://davenicolette.wordpress.com/2012/07/25/why-should-we-do-code-katas/>  
<http://codingdojo.org/cgi-bin/wiki.pl?KataCatalogue>

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# Alleine



```
ruby
.....
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.....^C
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    elsif number % 5 == 0
      "buzz"
    else
      ""
    end
  end
end

describe Fizzbuzz, "" do
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    @fizzbuzz.fizzbuzz(6).should == "fizz"
    @fizzbuzz.fizzbuzz(5).should == "buzz"
    @fizzbuzz.fizzbuzz(15).should == "fizzbuzz"
  end
end
```



<http://www.codersdojo.org>

# Oder in der Gruppe



## Legacy **CODERETREAT**

KRAKÓW - JULY 14th 2012

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**REGISTER**

### WANT TO JOIN?

- > Are you a professional programmer?
- > Do you feel passionate about your craft?
- > Are you interested in spending a Saturday practicing pair-programming and Test Driven Development with a bunch of fellow geeks?
- > Do you know legacy code when you see it?
- > Will you be in Kraków on the 14th of July?

If so, then you will be happy to know, that we have a perfect thing planned for you: a Legacy Code Retreat.

### WHAT IS THIS "CODE RETREAT"?

A Code Retreat is a whole day long (8 hours!) exercise in Pair Programming and TDD. We start early - 8am, but rest assured that the experience is well worth getting up at the brink of dawn. After introductions, a cup of coffee, a bite to eat and an explanation of the problem we are going to solve. We will proceed with 3 programming sessions, each 45 minutes long and ending with a retrospective. Oh, and did we mention pair programming? You will be switching pairs after each session. Next we will have a nice, relaxing, catered lunch break (yay! free food!), followed by 3 more sessions and a final retrospective. And as if it is not enough, there is going to be an after-party in the House of Beer with free... beer... beer :) (yay! free beer!).

You will get all of this free stuff thanks to our awesome and generous sponsors: [Lunar Logic Polska](#) and [ABB](#). Every attendee will also receive a free, lifelong subscription to [Kabanery](#).

### GAME OF LIFE? NOT THIS TIME!

THIS ALL SOUNDS NICE AND WELL, BUT I



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# Aber ich will was richtiges machen!



[http://de.wikipedia.org/w/index.php?title=Datei:250g\\_Goldbarren.JPG](http://de.wikipedia.org/w/index.php?title=Datei:250g_Goldbarren.JPG) (Apollo2005)

# Fremden Code lesen!



# Tests schreiben



# Refactoring von altem Code



# Jenkins

★ Issue [19808](#): u-boot crosssystem support needs refactoring

1 person starred this issue and may be notified of changes.

Status: Available

Owner: [vben...@chromium.org](mailto:vben...@chromium.org)

Reported by project member [vben...@chromium.org](mailto:vben...@chromium.org), Aug 29

On ARM systems u-boot passes vital verified boot



# Dokumentation?!

```
import ...

class Feed {

    private final FeedConfig config;

    private SyndFeed feed;
    private List<Item> items = null;

    Feed(FeedConfig config) {
        this.config = config;
    }

    public void parse(XmlReader reader) {
        SyndFeedInput input = new SyndFeedInput();
        try {
            feed = input.build(reader);
        } catch (FeedException e) {
            throw new InvalidFeedException(e);
        }
    }

    public Integer getItemCount() {
        return feed.getEntries().size();
    }

    public List<Item> getItems() {
        if (items == null) {
            items = new ArrayList<>(getItemCount());
        }
    }
}
```

```
+import ...

/**
 * Feed provides access to the items of an rss feed which has been fetched
 * and provided via the parse method. After calling "parse" you can find the
 * items sorted by episode/season via getItems.
 */
class Feed {

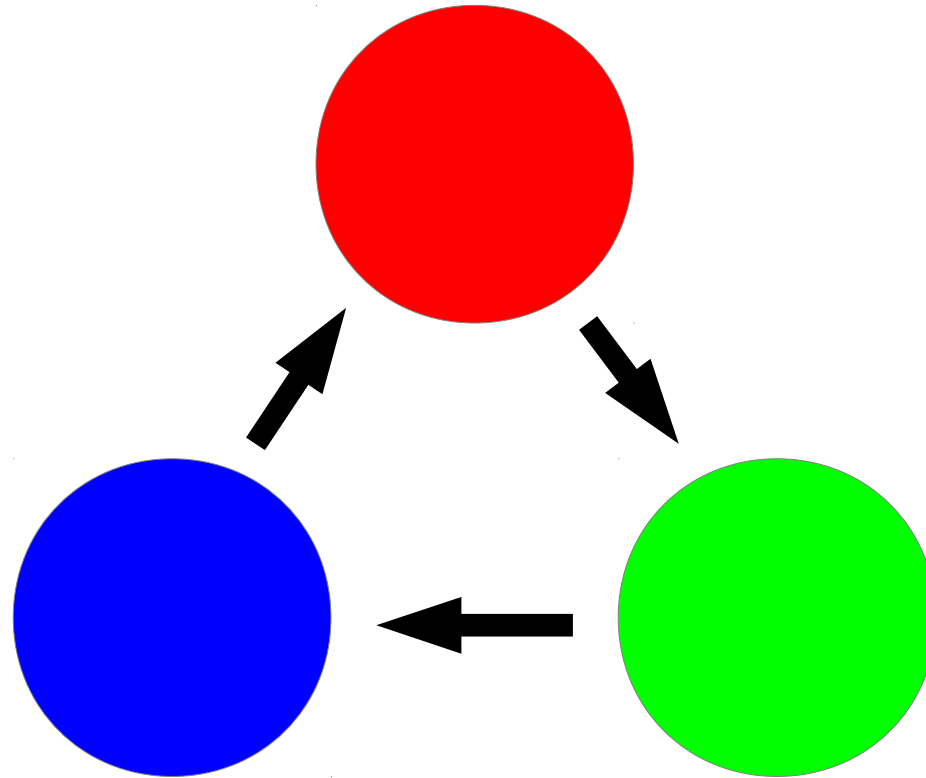
    private final FeedConfig config;
    private SyndFeed feed;
    private List<Item> items = new ArrayList<>();

    /**
     * Initializes the feed and saves the config for later use.
     *
     * @param config
     */
    Feed(FeedConfig config) {
        this.config = config;
    }

    /**
     * Parses the given XML Stream as RSS Feed and extracts the
     * necessary information. The result can be fetched via
     * {@link net.rssucker.Feed#getItems\(\)} afterwards.
     *
     * @param reader
     */
    public void parse(XmlReader reader) {
        SyndFeedInput input = new SyndFeedInput();
    }
}
```



# Mal was richtiges per TDD bauen



# Also?

- Werde ein Softwerker
  - Lerne deine Tools
  - Verbessere deine Skills
  - Lerne Leute kennen
  - Hab Spaß!
- Open Source hilft!
  - Freie Tools
  - Mitarbeit in Projekten
    - Wirklichen Wert liefern
    - Community
    - Erfahrung
    - Ausprobieren ohne Druck
    - Reputation aufbauen

# Danke!

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**Email:** pcornelissen@orchit.de

**Google+:** orchit (G+ Seite)  
cornelis@pcornelissen.de  
pcornelissen@orchit.de

**Web:** <http://www.orchit.de>

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