



## Advanced Software Engineering FOSS

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# About me

- **Mark Struberg, RISE TISS Team**
- **20++ years in the industry**
- **Apache Software Foundation member**
- **struberg [at] apache.org**
- **Committer / PMC for Apache OpenWebBeans, MyFaces, TomEE, Maven, OpenJPA, BVal, Isis, DeltaSpike, JBoss Arquillian, ...**
- **Java JCP Expert Group member**
- **Twitter: @struberg**

# Agenda

- **General Considerations**
- **OSS Licenses**
- **The ASF in numbers**
- **How the ASF works**
- **The Apache License 2.0 (ALv2)**
- **The Apache Incubator**
- **How to Contribute?**

# General Considerations

# The Weapon of Choice

- **"If you have a hammer, every problem seems to be a nail"**
- **"Use the right tool for the right job"**
- **Every design decision has pros and cons!  
Example: centralised vs de-centralised systems**

# FOSS vs Closed Source

- **Pros and cons of commercial software tools**
- **Pros and cons of Open Source Software tools**
- **Big benefit of OSS if you hit a bug in a FOSS framework**
  - You don't need workarounds in your own code
  - Instead you can fix bugs directly in the OSS libraries you use
- **"Standard Software"**
- **Custom Development**
- **Project Development vs Product Development**
  - Developing a generic Product costs much more

# The License Situation

- **Commercial Licenses**
- **GPL**
- **MIT / BSD**
- **ALv2**
- **Examples for not really open OSS licenses:**
  - do-no-evil-license
  - beer-license
- **Do you have a right on the sources at all?**

# Patents

- **Some licenses contain a 'patent grant'**
  - ALv2
  - GPL-v3
- **Software Patents are allowed in the US**
  - at least it is handled that way right now
- **Software Patents are not allowed in the EU**
  - but they give a damn about that...



# Copyright

- The right to do whatever I want with a certain piece of work.
- Difference between 'Urheberrecht' and 'Verwertungsrechte' in AT
- in EU -> implicit
- in US -> explicit

# Code Provenance

- Where does the code come from?
- This is utter important for big companies!
- Reason why ASF doesn't accept pull requests from github
- ASF requires signed iCLA for non-trivial contributions

# Trademarks

- **Choose your mark wisely!**
- **Name must be unique (in your field)**
  - google
  - trademarkia.org
  - EU trademark registration office
- **Actively defend your marks**
  - Marks vanish if they frequently get used by others without proper attribution
  - require attribution  
"Apache Foo is a trademark of the apache Software Foundation"
  - <http://www.apache.org/foundation/marks/>
- **Establish a mark without restricting the economy around your project**
  - e.g. the Apache Hadoop ecosystem
  - allow 'powered by...', '... for Apache Foo'

# Ways to monetise OSS

- **Adding commercial available value on top of a base OSS offering**
  - RedHat
  - JBoss AS, IBM WebSphere
- **Professional Training**
- **Embedding OSS into hardware**
  - most routers use Linux, iptables, etc
  - Android
- **Service Contracts**
  - 'insurance' for your project
- **Sharing the costs - saving money!**
- **Project Consulting**
  - Help other companies to save money by using OSS.

# What to avoid

- **Don't try to sell the same product you give away for free**
- **Respect the freedom!**
  - Don't force/restrict others to do something only because *you* need it
  - Respect the community
- **Don't rely (only) on a payroll**
  - don't push a project into one corner just because a customer likes it that way
- **OSS project planing is different than company projects**

# Commercial impact of OSS

- **Most entertainment products nowadays use OSS inside**
  - Almost all modern TV
  - Almost all Blu-ray players
- **Android: ALv2**
- **Apple OSX/iOS (FreeBSD)**
- **Most Servers**
- **OpenJDK**
- **more than 50% of all software is OSS**

# About the Apache Software Foundation

# History of the ASF

- **1994 - bunch of hackers started The Apache WebServer**
- **1998 - first 'commercial' companies kicked in**
- **1999 - 'ASF' officially formed as foundation**
- **1999 - Apache Jakarta got started**
  - in corporation with SUN microsystems
  - first Java projects at ASF
  - JSP and Servlets RI
  - tomcat, ant, maven, struts, etc
- **2002 - Apache Incubator got started**
- **2004 - Apache License v 2.0**
- **2014 - 142 TLP, 3729 committers, ...**



# Founding Principles

- **"The Foundation exists to serve the development community" - Bill Stoddard**
- **"Let developers focus on what they do best: Code. The foundation exists to do the rest" - Justin Ehrenkrantz**
- **Not-for-profit Organisation**
- **Volunteer Organisation**
- **Not affiliated with nor controlled by any government or commercial entity**

# Mission Statement

- **Provide legal and technical infrastructure for open source software development and to perform appropriate oversight of such software.**
- **<http://www.apache.org>**
- **Apache projects are defined by**
  - collaborative consensus based processes,
  - an open, pragmatic software license and
  - a desire to create high quality software that leads the way in its field.
- **"Community over Code"**
- **"Community for Code"**

# The Apache License v 2.0 (ALv2)

- <http://www.apache.org/licenses/LICENSE-2.0>
- Liberal open source software license
- Business friendly
- Requires attribution
- Includes Patent Grant
- Can be sub-licensed
  - not to confuse with re-licensing, which is not allowed!
  - sub-licensing: allows adding your own code in any license you like
  - re-licensing: would allow to change the license of all existing code

# ASF Structure

- **Board of Directors**
- **ASF Members**
- **PMC Members**
- **Committers**
- **Contributors**
- **Public Relations, Infra, Legal advisors**

# Contributor

- **Report bugs**
- **Share ideas**
- **Get feedback on the mailing lists**
- **Provide patches via JIRA**
- **Provide Code and new modules via patches**
- **ASF requires a signed iCLA for non-trivial changes**

# Committer

- **Must be earned!**
- **Public recognition for your existing contributions**
- **Write-access to your project SCM**
- **Own yourid@apache.org email address**
- **<http://people.apache.org/~yourid/> web space**

# Project Management Committee Member

- **The PMC manages a TLP and provides the direction for the project**
- **Binding count in release votes and fundamental decisions**
- **Must provide legal oversight of the project**
- **Access to private project mailing list**

# Apache Software Foundation Member

- **Legal member of the non-for-profit organisation**
- **Right to elect the board and official positions**
- **Access to almost everything within the ASF**
- **Must get voted in by existing members**



# Board of Directors

- **9 members elected annually**
- **Official representation of the ASF**

# The Incubator

- Own TLP which 'shepherds' new candidate projects
- Goal is to make those projects (code and people) 'mature' and TLPs on their own.
- Ensure all donations meet ASF technical standards
- Ensure all donations meet ASF legal standards
  - provenance checks and IP clearing
- Ensure that the community is diverse enough
- Incubation is a good chance to build up a broad community
- "Becoming an Apache project is a process, not just a decision" - Bertrand Delacrétaz
- <http://incubator.apache.org>

# How to contribute

- **Pick a project**
- **Become familiar with the topic**
- **Start reading the mailing list**
  - you can also read the archives via markmail, nabble, etc
- **Check out the Source Code**
- **Use the project!**
- **Start reporting bugs...**
- **... and ship patches.**

# The 'Apache Way'

- **Goals**

- Reduce barriers to project participation
- Improve quality
- Achieve consensus and resolve conflicts
- Balance needs of corporate interest with needs of individual contributors

**Questions?**