FOSSology: General Introduction
The Problem Actually

You know these examples

Distributing open source software requires to

• Provide licenses of involved software
• Provide copyright statements of involved authors
• Provide disclaimers
• … and much more
It is about finding licenses

Finding Licenses

- License texts
- References to licenses
- Written texts explaining licensing
- License relevant statements
An Example – What do we find?

The Example

- (Apache projects are known for homogenous licensing)
- Such a project declares its licensing on its Website
- However, Open Source implies using other open source
- As such, a projects can contain also parts from other open source projects
Using FOSSology with this Example

Open Source and Reuse

- It is natural that an OSS project reuses available https://github.com/fossology/fossology
- Likely OSS from other projects is found
- For example, FOSSology will find 25 other licensing relevant text occurrences in Apache thrift
Using FOSSology with this Example

Another Example: Linux Kernel Project

- Looking at the Linux kernel will result in thousands of files containing license relevant information
- Analyzing them yields about 30 distinctive licensing statements
How does FOSSology work? – Overview 1 of 2

See more details the Basic Workflow Description: https://www.fossology.org/get-started/basic-workflow

- Upload an open source package to the server
- Select scan agents that analyze the software

- Review what scanners have found
- Review license occurrences and correct findings if necessary

- Generate report output
- For example list of licenses or SPDX
How does FOSSology work? – Overview 2 of 2

- Uploading source code archive (*.zip, *.tar.gz, etc)
- Agents scan for license relevant text
- Copyrights, Export Control (ECC), your keywords to look for etc.
- Review scanner results for wrong license classification
- Review other scanner findings (copyrights, ECC)
- Result of the “clearing”
  - SPDX reporting
  - Generated notice or readme file
  - debian-copyright
### What is FOSSology?

A *Web server application for license and copyright compliance of software components.*

<table>
<thead>
<tr>
<th>FOSSology Project</th>
<th>FOSSology Development</th>
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<tbody>
<tr>
<td><strong><a href="https://www.fossology.org/">https://www.fossology.org/</a></strong></td>
<td><strong><a href="https://www.github.com/fossology/fossology">https://www.github.com/fossology/fossology</a></strong></td>
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| - Published first in 2008, GPL-2.0 | - Standard Web application stack:  
  - Linux, Apache 2, PostgreSQL, PHP, |
| - 2015: Linux Foundation collaboration project | - Web-based UI in PHP, but scanners  
  written in C / C++ |
| - Web server based and command line interfaces | - Two ways to interact:  
  - Web user interface  
  - Command line utilities |
| - Scanning agents searching for license and copyright relevant hits (and more …) | |
| - A multi-user / multi-tenant Web UI for review organizing clearing job | |
# FOSSology Feature Overview

A Web server application for license and copyright compliance of software components.

<table>
<thead>
<tr>
<th>License Scan features</th>
<th>Other features</th>
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<tr>
<td>· Regular expression scanner</td>
<td>· Copyright, authorship statements scanner</td>
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<td>· Text similarity scanner</td>
<td>· Export control and customs scanner</td>
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<td>· License (text) management</td>
<td>· Command line interfaces</td>
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<td>· Aggregation of licenses in hierarchical view</td>
<td>· Reporting</td>
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<td>· License histogram</td>
<td>· SPDX RDF and tag-value</td>
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<td>· Supporting concluded vs. found license</td>
<td>· Debian-copyright</td>
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<td>· Bulk processing of files with same licensing</td>
<td>· Plain text output</td>
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<td>· Reusing of license conclusions</td>
<td>· Files sorting in buckets</td>
</tr>
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<td></td>
<td>· User, group and upload management</td>
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FOSSology is Open Source

What happens actually?

- As an organization distributing software there is responsibility for license compliance
- This work must be actually provided by 3rd parties as well!
- With FOSSology, a tool is freely available supporting all kind of organizations with their license compliance efforts
  - GPL-2.0 licensed
FOSSology is Popular

List of Public Supporters

- See the FOSSology.org website for the most recent list of public supporters.

- Not on this list? – Consider supporting the project with putting your logo there. To be included, send email to fossology-steering@fossology.org.
FOSSology Conclusions

Major Takeaways

- **It is open source software**
  - No vendor lock-in, it can be shared among partners

- **It is a server-based Web application**
  - Allowing for multi user operations, allowing for reuse

- **It is design for efficiency**
  - Reducing the actual efforts for analyzing OSS components

You like it and would like to contribute?

- Put your logo on the FOSSology homepage if you use it.
  Send email to fossology-steering@fossology.org
- Report issues on Github: https://github.com/fossology/fossology
- Consider contributing to the code base with your extensions
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https://creativecommons.org/licenses/by-sa/4.0/

Internet
https://www.fossology.org

Github
https://github.com/fossology/fossology

Further Links
https://github.com/sw360/sw360portal