

License & IPR Tracking tools for FOSS projects

FOSSology use & Auditing methodology

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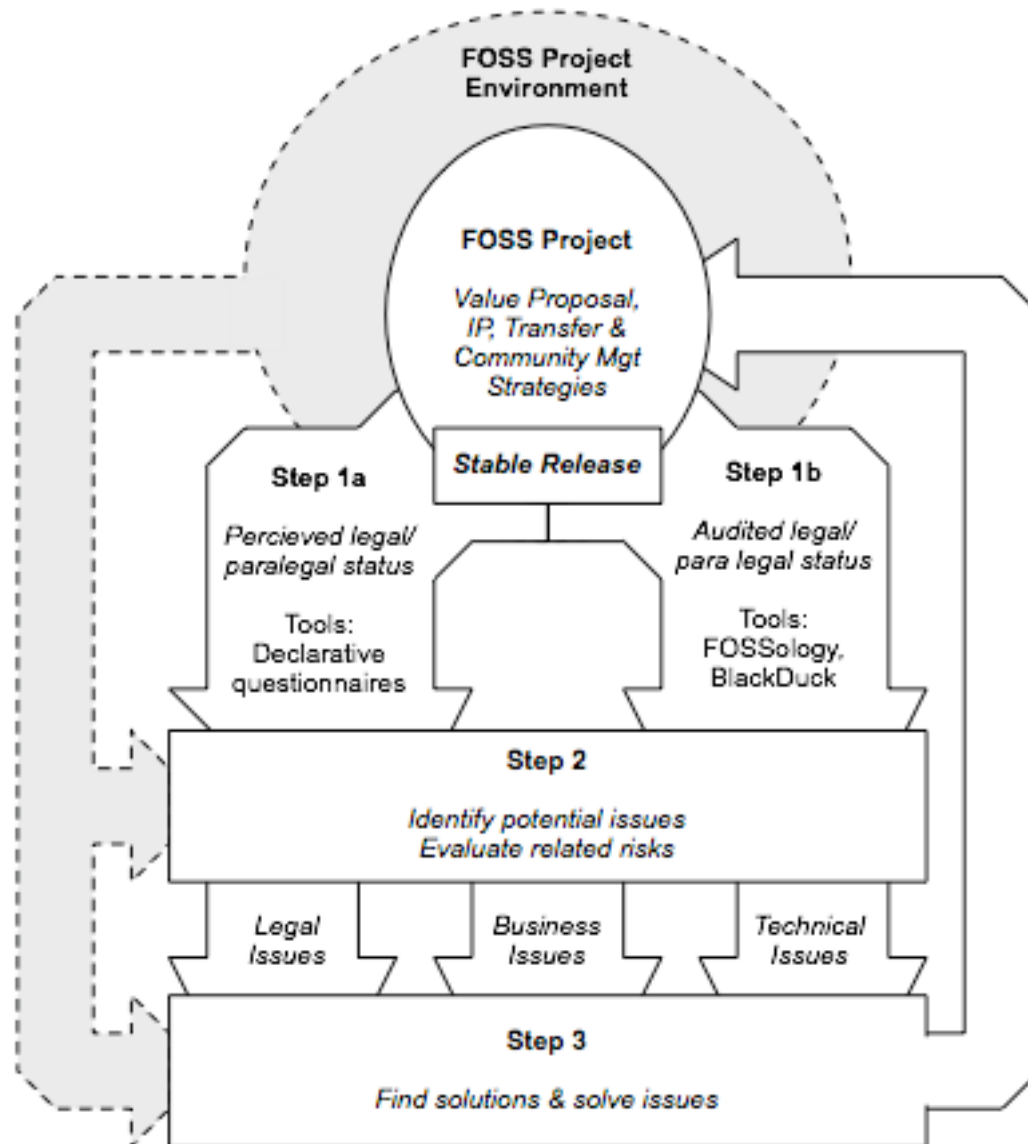
- Who am I?
 - ✓ Matthieu Farcot

- Where do I work?
 - ✓ A Technology Transfer and Valorization Unit of a Public Research Center (CITI, CRP Henri Tudor), located in Luxembourg, and focused on applied R&D

- Why am I here?
 - ✓ Strong experience, both theoretical and practical, on Business & Legal issues for software and IT projects
 - ✓ Most of the software developments done at the CRP Henri Tudor are licensed under FOSS licenses

 - ✓ FOSS licensing is a strategy often used for our software projects

Auditing FOSS projects



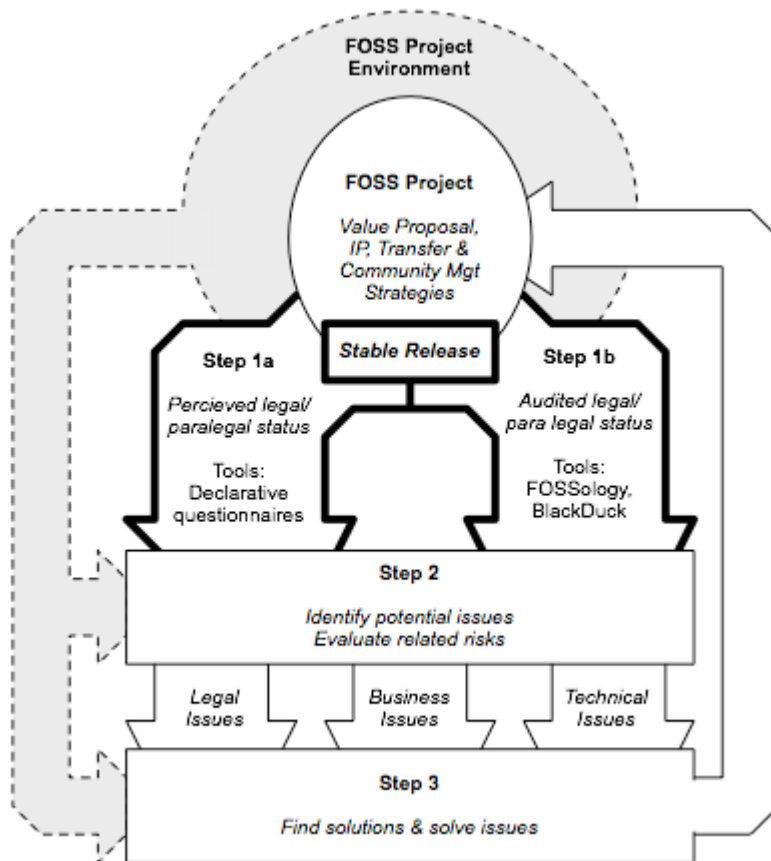
- This methodology is based on Qualipso project results
 - ✓ *First full scale use was set within a FP6 EU project (Palette)*
- Methodology improved for own needs using an internal R&D project, FOSS4PRO
- Methodology hereby presented is set to be used during a project
 - ✓ The sooner the better
 - ✓ Usually done during the project, and right before a transfer

FOSS project governance, from value to IP management

- FOSS project is set within an environment
 - ✓ Strong focus on multilateral communication, code and knowledge exchange
 - ✓ Environment is used to optimize positive spill-over effects
- Environment impacts legal, business and technical choices and strategies
 - ✓ Project vs communities (organizational management, ...)
 - ✓ Project vs market (customers, competitors, ...)
 - ✓ Project vs technology (component choices, ...)
 - ✓ Project vs legal issues (freedom to operate, ...)
 - ✓ Project vs licensing issues (interoperability, ...)
- Most projects are led by developers, focused on using FOSS to ease and speed up development processes
 - ✓ Meaning all previous issues are usually NOT tackled

From code to software projects

Risk & problems tackling



- Code « stable release » status is reached
 - ✓ Architecture & external components are chosen
- Need of an interconnected view
 - ✓ What is perceived as done (Step 1a)
 - ✓ What has been done (Step 1b)

Step 1a

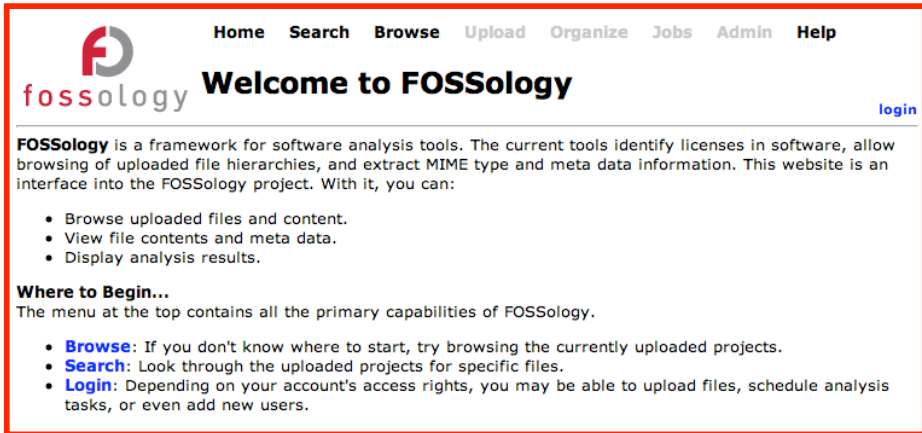
- Questionnaire, focused on business, technical and legal issues
 - ✓ List of external FOSS components used, related licenses and degree of importance
 - ✓ Business (& transfer) focused justification for the licensing choice of the project
 - ✓ List of authors, contributors and resp. right holders
 - ✓ Identification of contractual issues

- Filled out by the project management & developers

What has been done

Step 1b

- Automated audit, using FOSSology
 - ✓ Source code data mining related to licensing references
 - ✓ Automated treatment, simple to use
 - ✓ Identification of licenses and related textual patterns within source code
 - ✓ Web-based tool



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fossology Welcome to FOSSology [login](#)

FOSSology is a framework for software analysis tools. The current tools identify licenses in software, allow browsing of uploaded file hierarchies, and extract MIME type and meta data information. This website is an interface into the FOSSology project. With it, you can:

- Browse uploaded files and content.
- View file contents and meta data.
- Display analysis results.

Where to Begin...
The menu at the top contains all the primary capabilities of FOSSology.

- Browse:** If you don't know where to start, try browsing the currently uploaded projects.
- Search:** Look through the uploaded projects for specific files.
- Login:** Depending on your account's access rights, you may be able to upload files, schedule analysis tasks, or even add new users.

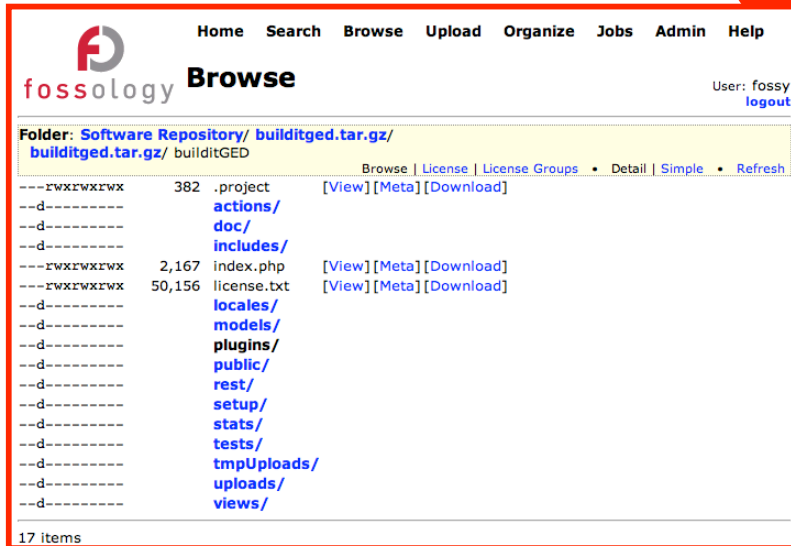
Folder: Software Repository/ builditged.tar.gz/
builditged.tar.gz/ builditGED/ index.php

View | Info | License | Meta | One-Shot | Recompare • Hex | Text | Formatted • Refresh

Match	Item
80%	view ref GPL, GPLv2

```
<?php
# ***** BEGIN LICENSE BLOCK *****
# This file is part of CRTI-Web.
# Copyright (c) 2007 Centre de Recherche Public Henri Tudor.
# All rights reserved.
#
# CRTI-Web is free software; you can redistribute it and/or modify
# it under the terms of the GNU General Public License as published by
# the Free Software Foundation; either version 2 of the License, or
# (at your option) any later version.
#
# CRTI-Web is distributed in the hope that it will be useful,
# but WITHOUT ANY WARRANTY; without even the implied warranty of
# MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the
# GNU General Public License for more details.
#
# You should have received a copy of the GNU General Public License
# along with CRTI-Web; if not, write to the Free Software
# Foundation, Inc., 59 Temple Place, Suite 330, Boston, MA 02111-1307 USA
# ***** END LICENSE BLOCK *****

define('IN_BUILD', true);
require_once dirname(__FILE__) . "/includes/common.php";
```



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fossology Browse [User: fossy](#) [logout](#)

Folder: Software Repository/ builditged.tar.gz/
builditged.tar.gz/ builditGED

Browse | License | License Groups • Detail | Simple • Refresh

```
---zwxzwxzwx 382 .project [View][Meta][Download]
--d----- actions/
--d----- doc/
--d----- includes/
---zwxzwxzwx 2,167 index.php [View][Meta][Download]
---zwxzwxzwx 50,156 license.txt [View][Meta][Download]
--d----- locales/
--d----- models/
--d----- plugins/
--d----- public/
--d----- rest/
--d----- setup/
--d----- stats/
--d----- tests/
--d----- tmpUploads/
--d----- uploads/
--d----- views/
```

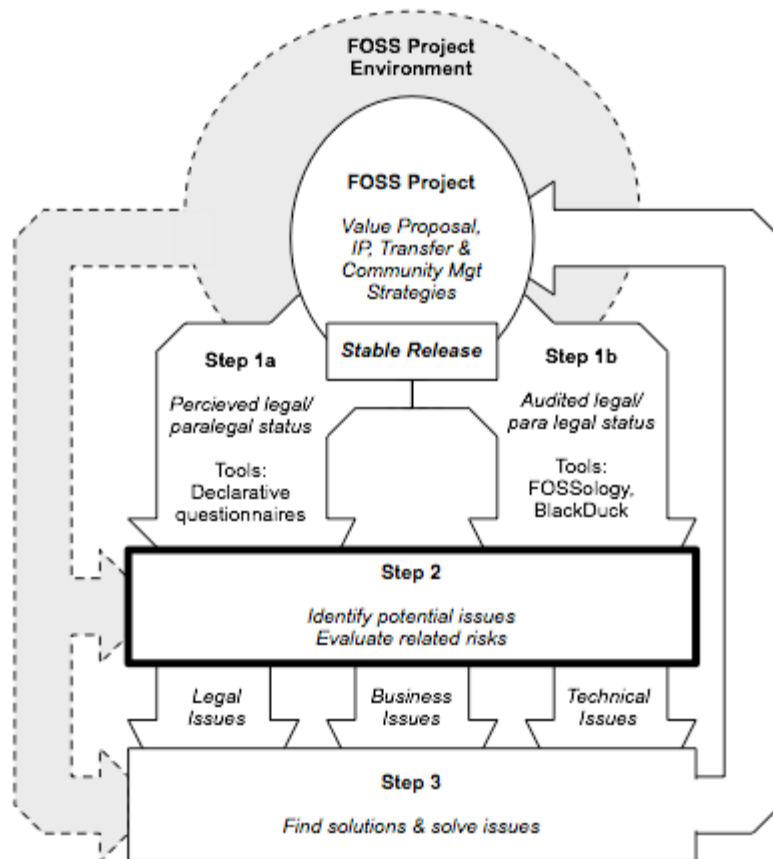
17 items

Count	Files	License
157	Show	GPLv2
2	Show	GPL
2	Show	LGPL
2	Show	LGPL v2.1
2	Show	LGPL v2.1 Preamble
1	Show	GPLv2 Preamble
1	Show	Imlib2
1	Show	Intel-OSL
1	Show	Phrase

.project	
actions/	[15 licenses]
doc/	
includes/	[48 licenses]
index.php	[1 license]
license.txt	[7 licenses]
locales/	[1 license]
models/	[81 licenses]
plugins/	
public/	[1 license]
rest/	[9 licenses]
setup/	[1 license]
stats/	[2 licenses]
tests/	[3 licenses]
tmpUploads/	
uploads/	
views/	

Issues and Risk identification

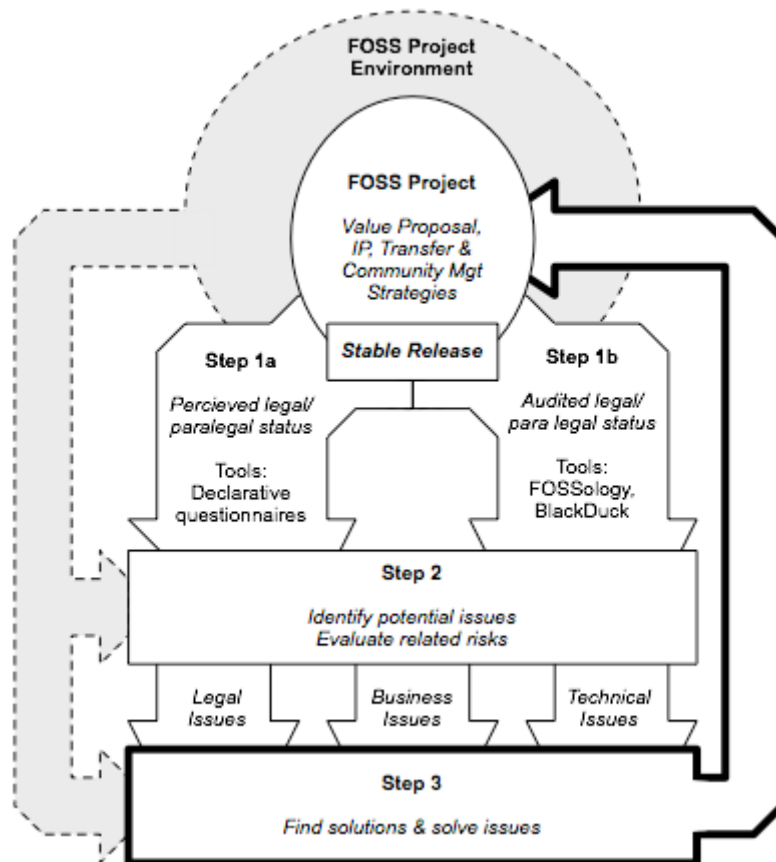
Step 2



- Identify critical vs non-critical issues
 - ✓ Depending on transfer strategy
 - ✓ Compare questionnaire vs FOSSOLOGY audit results
- Identify licensing interoperability issues
- Need of strong knowledge of the environment for effective work

Find solutions

Step 3



- Possible solutions
 - ✓ Code cleaning
 - ✓ Redevelopment
 - ✓ Removal
 - ✓ Negotiating specific licensing-in deals with third parties & right holders
- Can DEAPLY impact the project

- Data-mining tool : cannot recognize if licensing-related information was voluntarily (or not) removed
- Interoperability issues (because of the technical nature of the problem) & related licensing compliance
- HUGE reliance on human action & analysis

➤ For additional information

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✓ <http://libre.tudor.lu>

✓ <http://www.fossology.org>

✓ Many thanks to ProFoss, Qualipso, and FOSSology communities