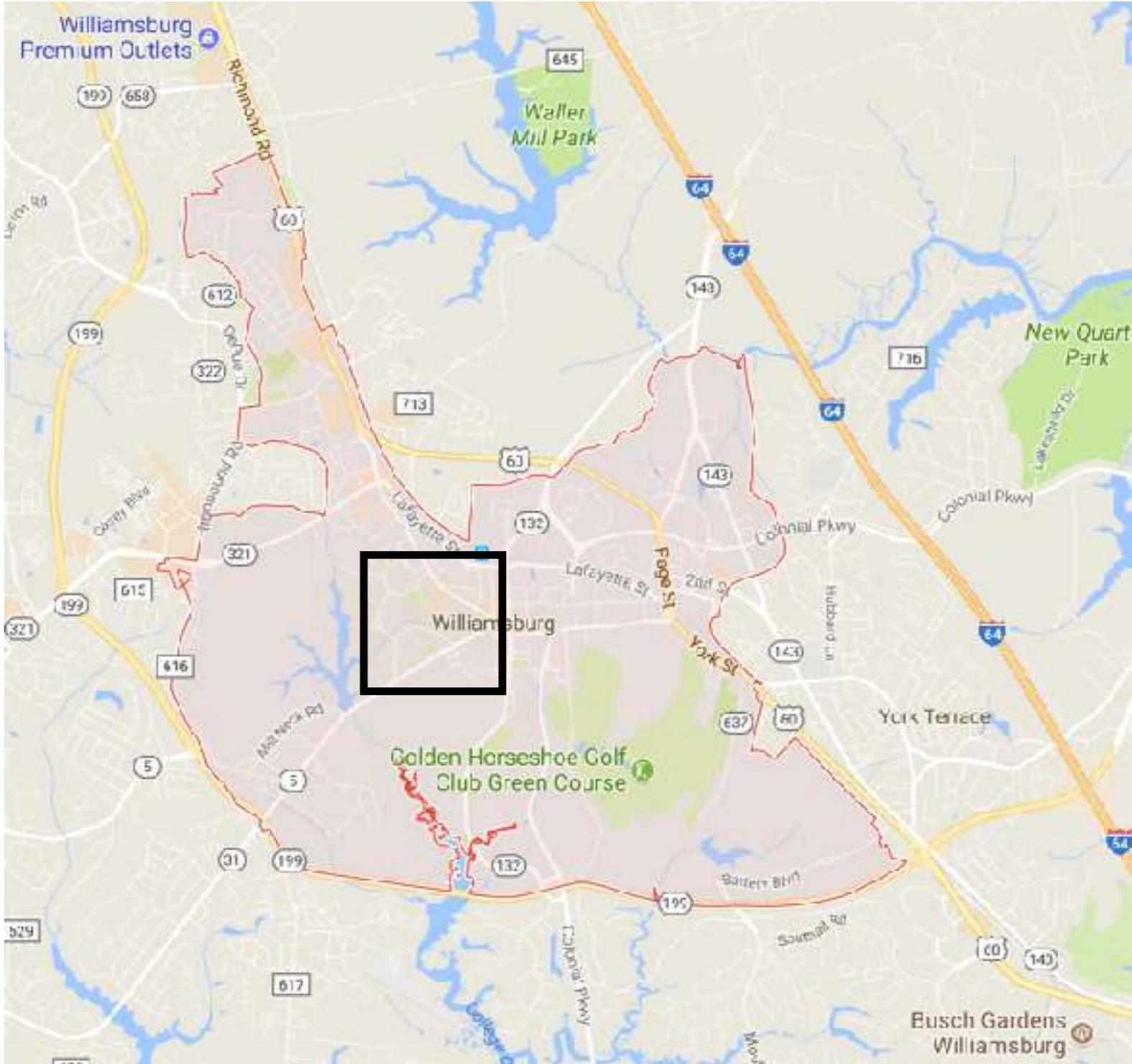


Open Source Licensing: The Challenges and Current Support for Developers

Christopher Vendome
cvendome@cs.wm.edu



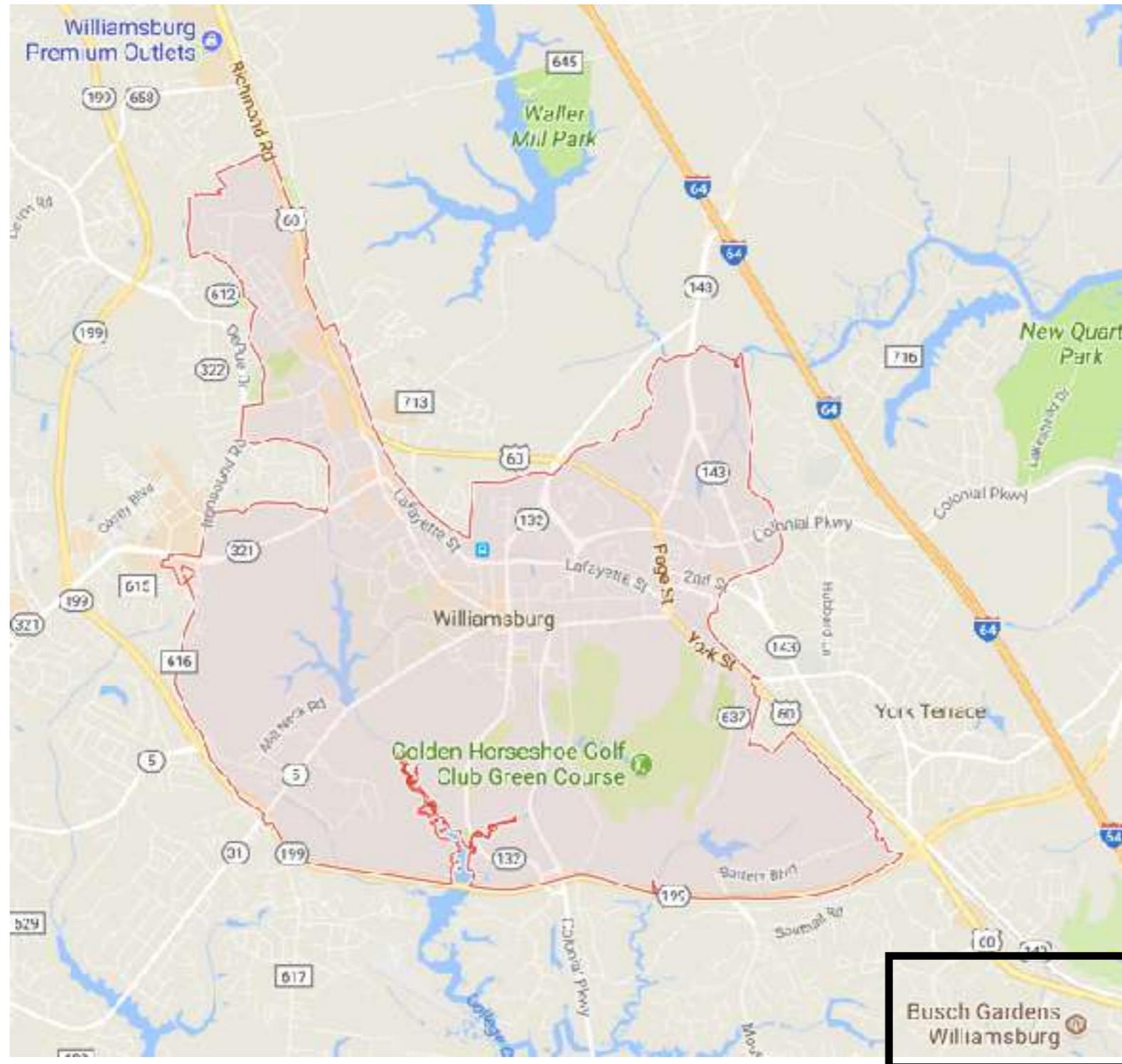
Where is William & Mary?



College of William & Mary



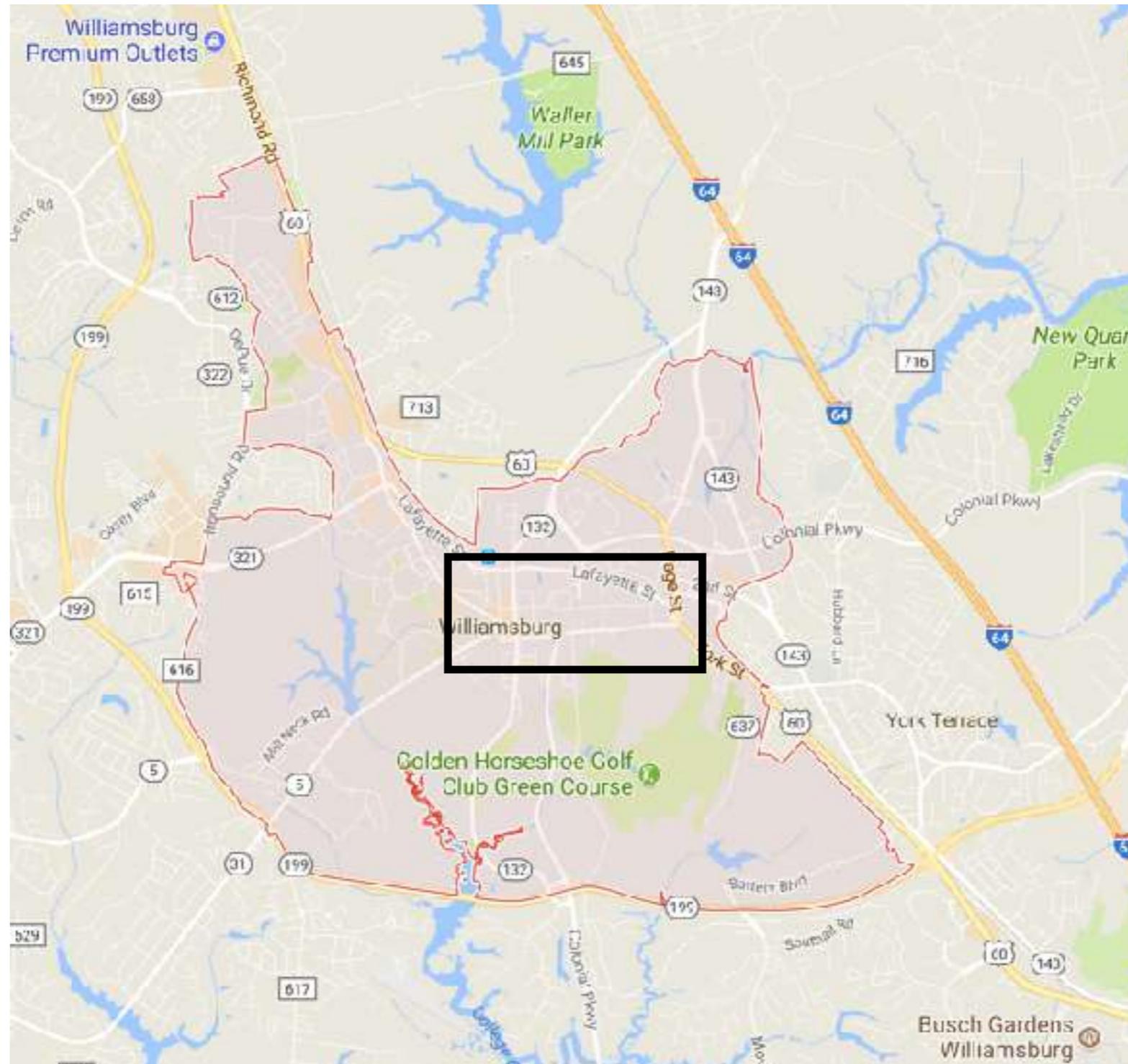
More about Williamsburg



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Main Research Interests

Open Source Software Licensing

Code Clone Detection and Provenance

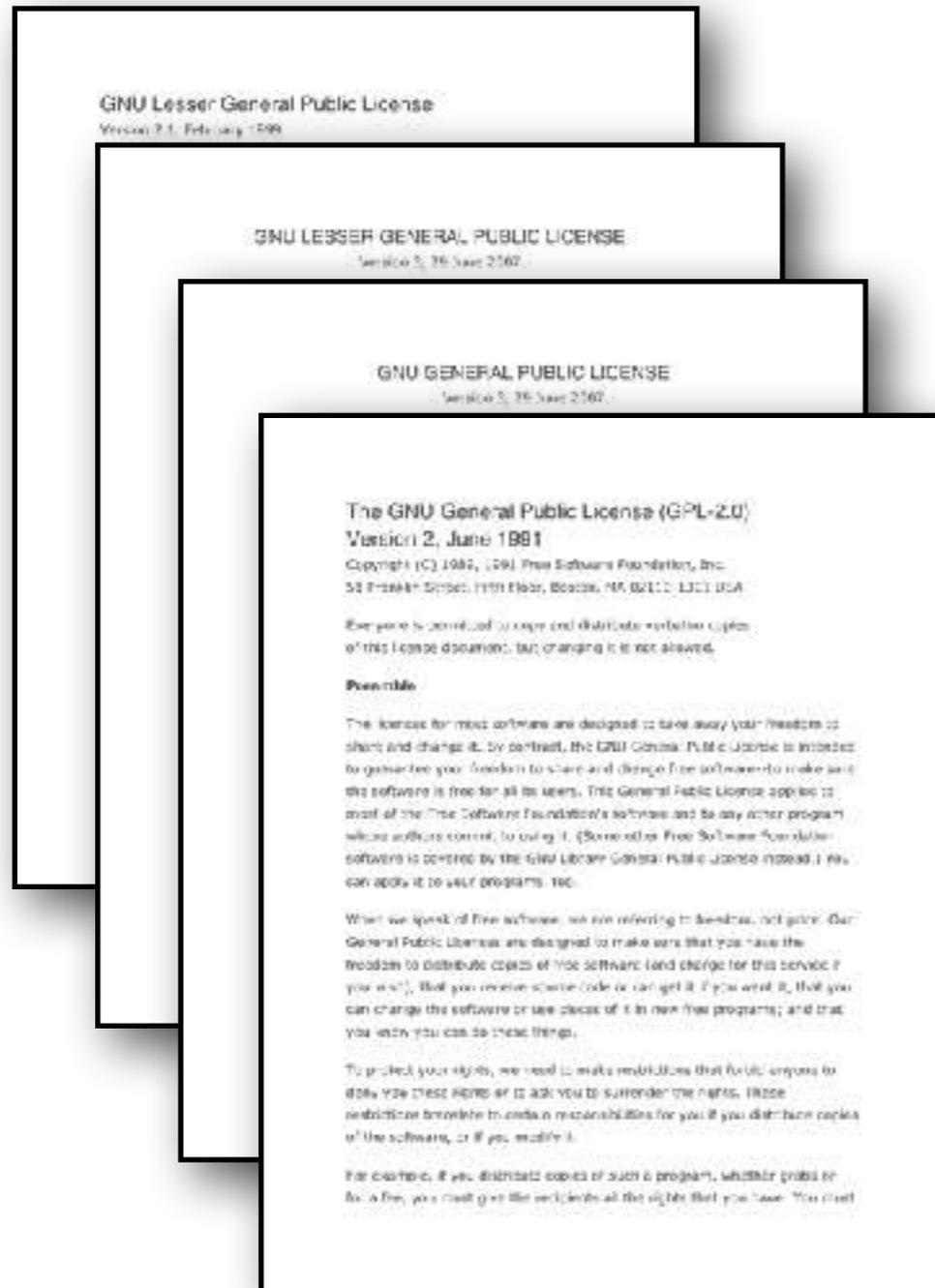
Mining Software Repositories

Android Development and Testing

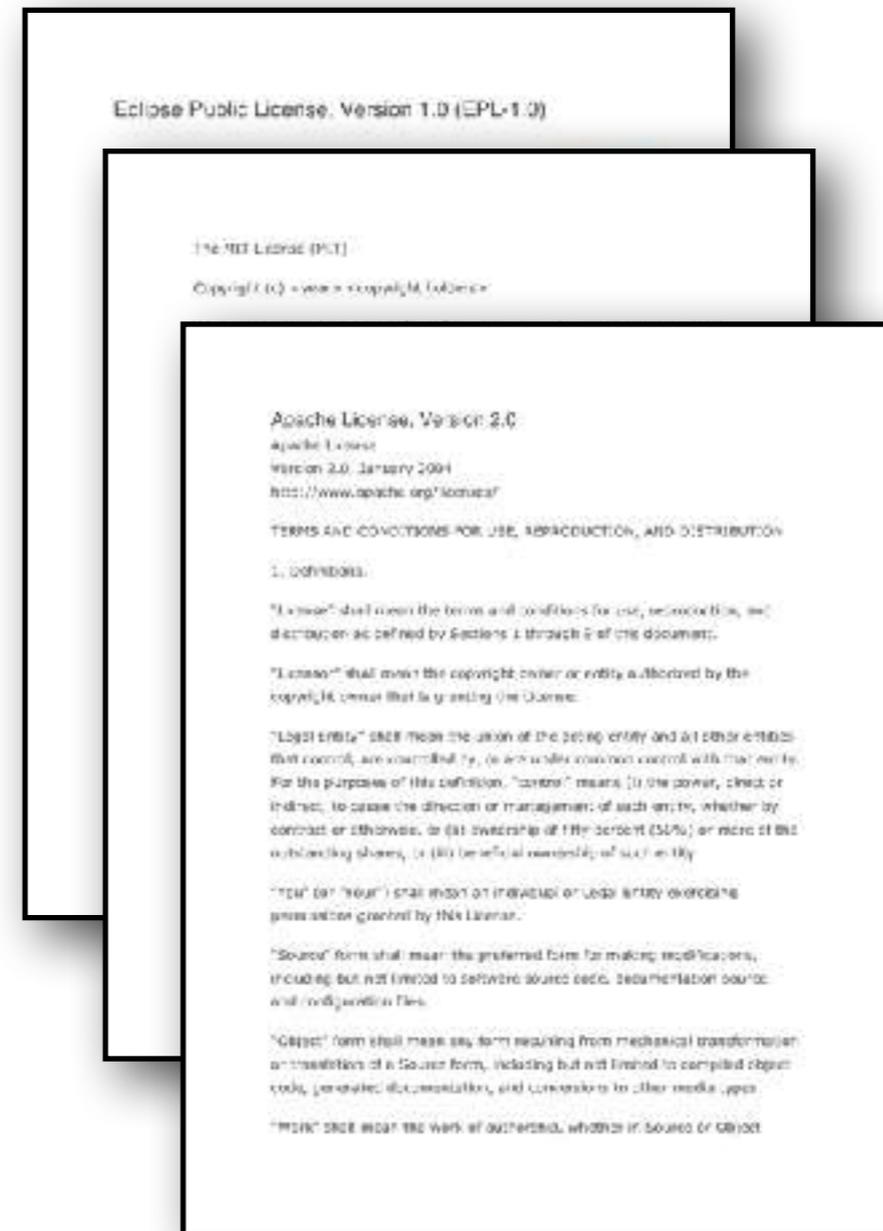
Open Source Software Licensing

Software License

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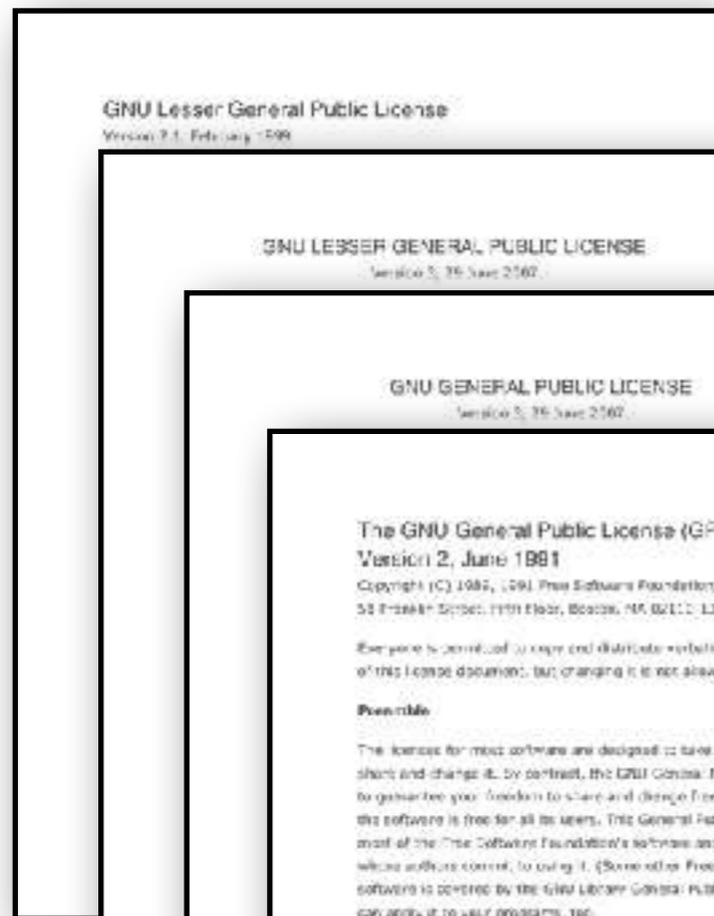


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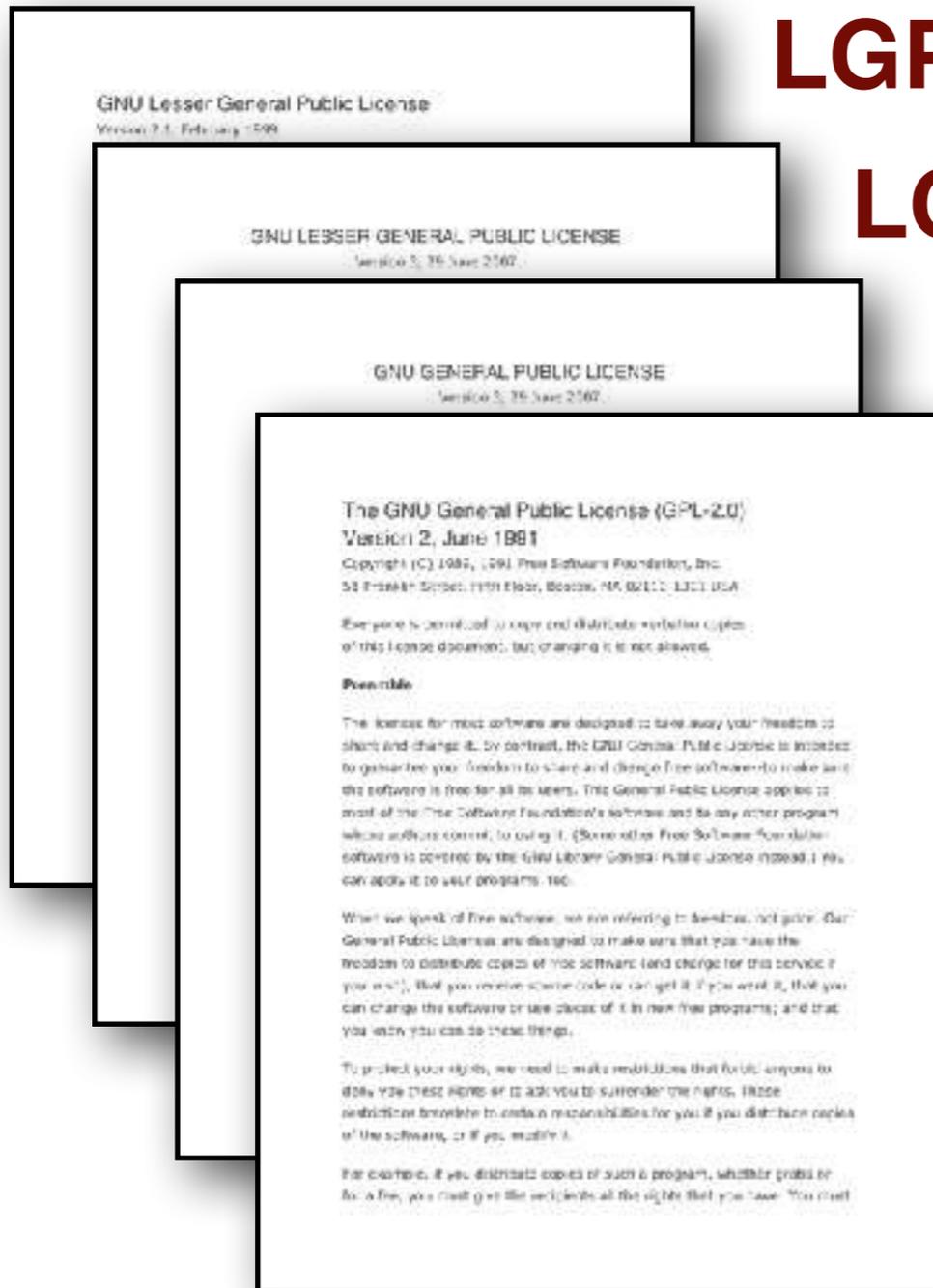
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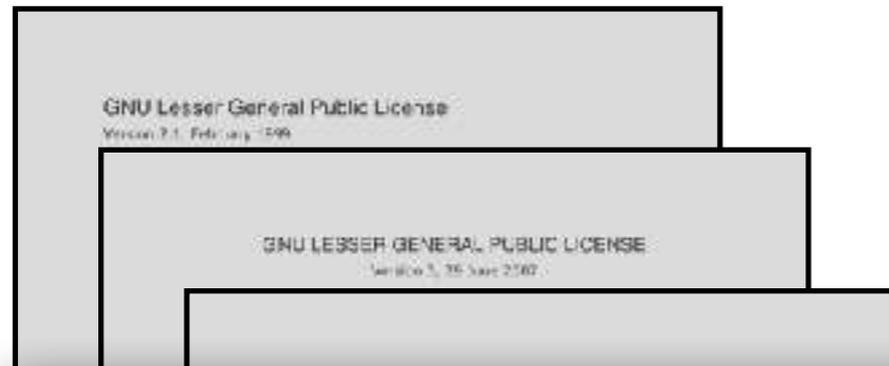
Bootstrap



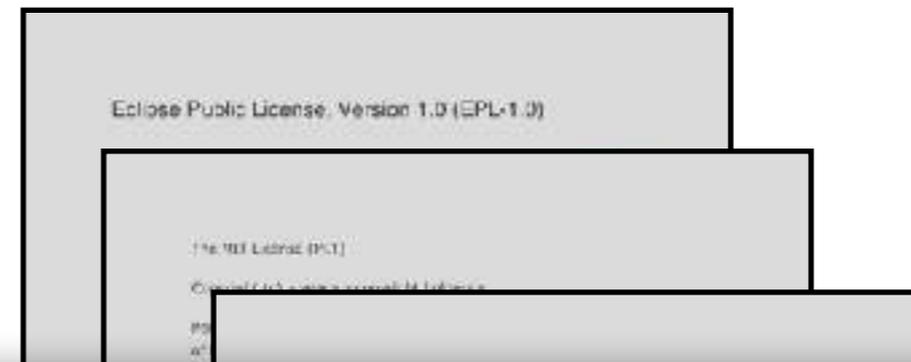
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*
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```

```
*
```

```
* ***** END LICENSE BLOCK ***** */
```

```
#include "nsXULAppAPI.h"
```

```
#ifdef XP_WIN
```

Contributor

Copyright
statement

Copyright
year

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(MPL+GPL+LGPL)

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```
#include "nsXULAppAPI.h"
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#ifdef XP_WIN
```

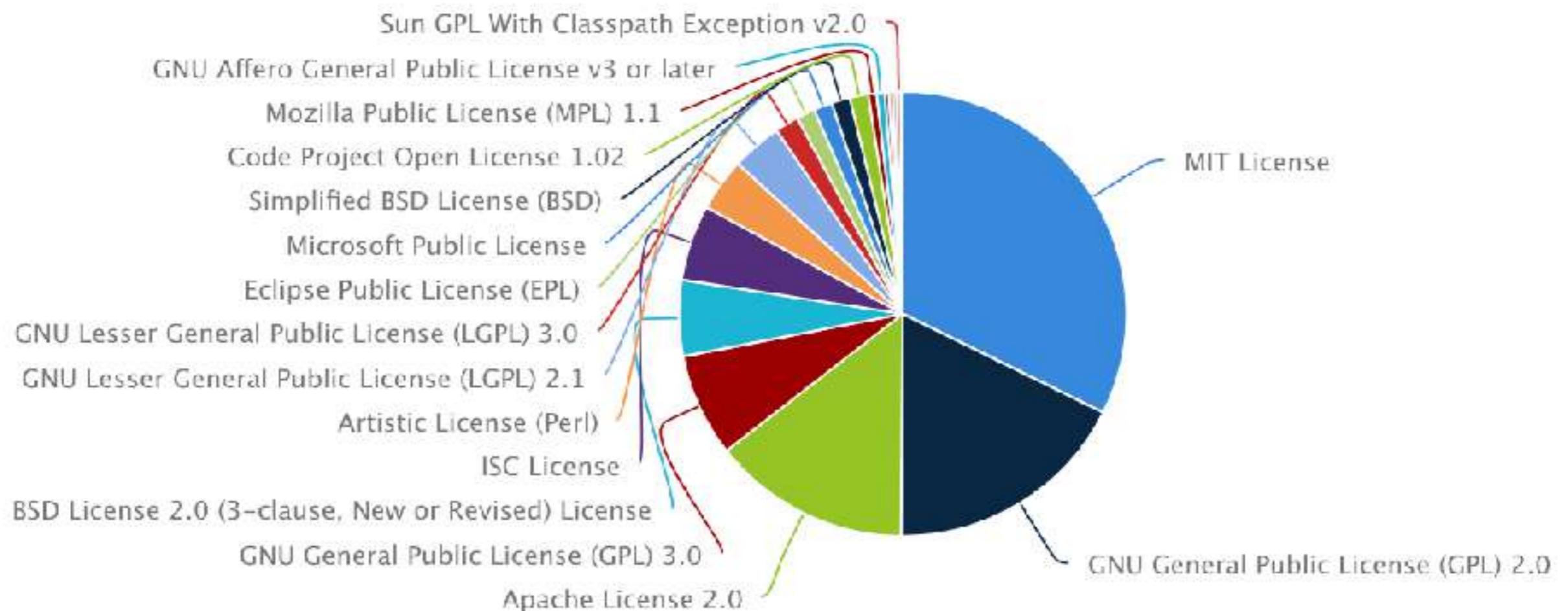
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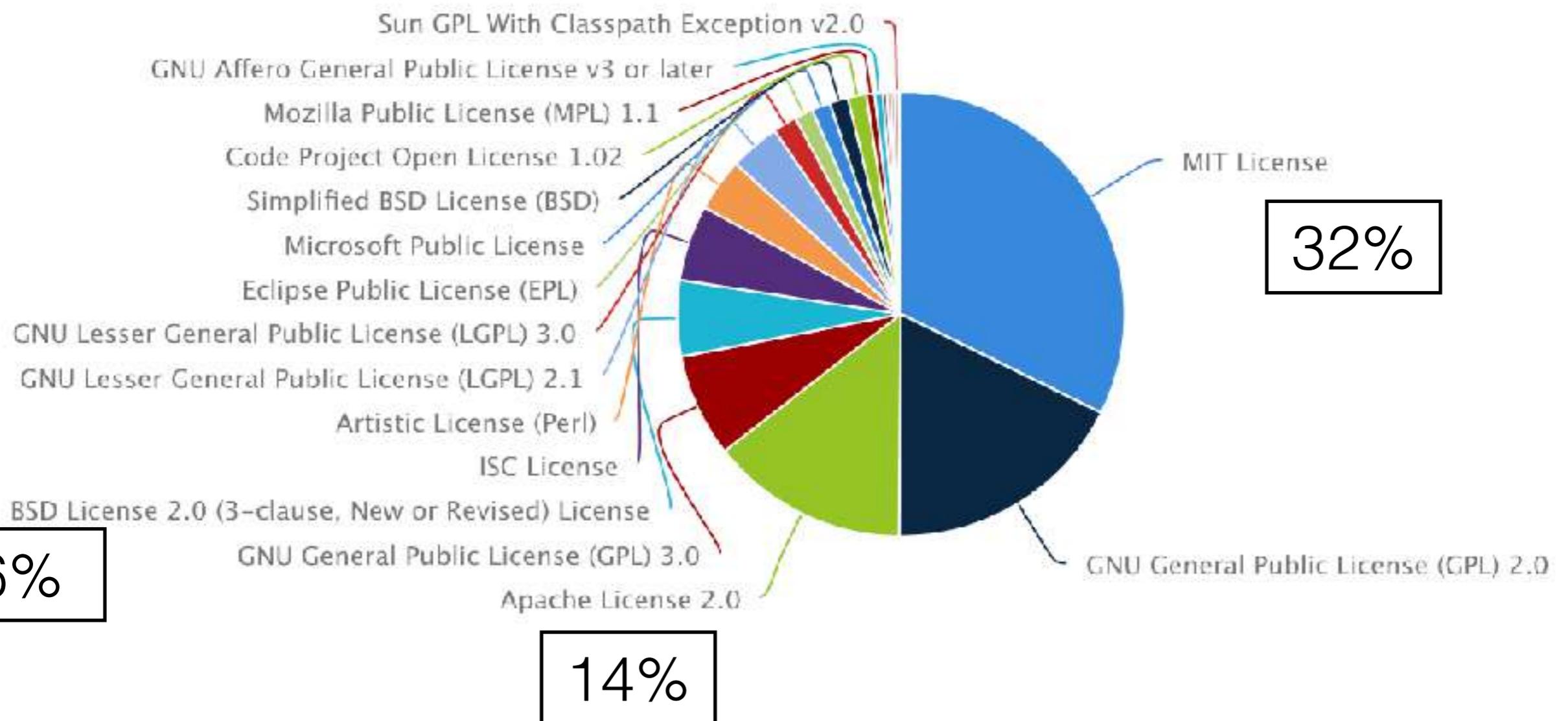
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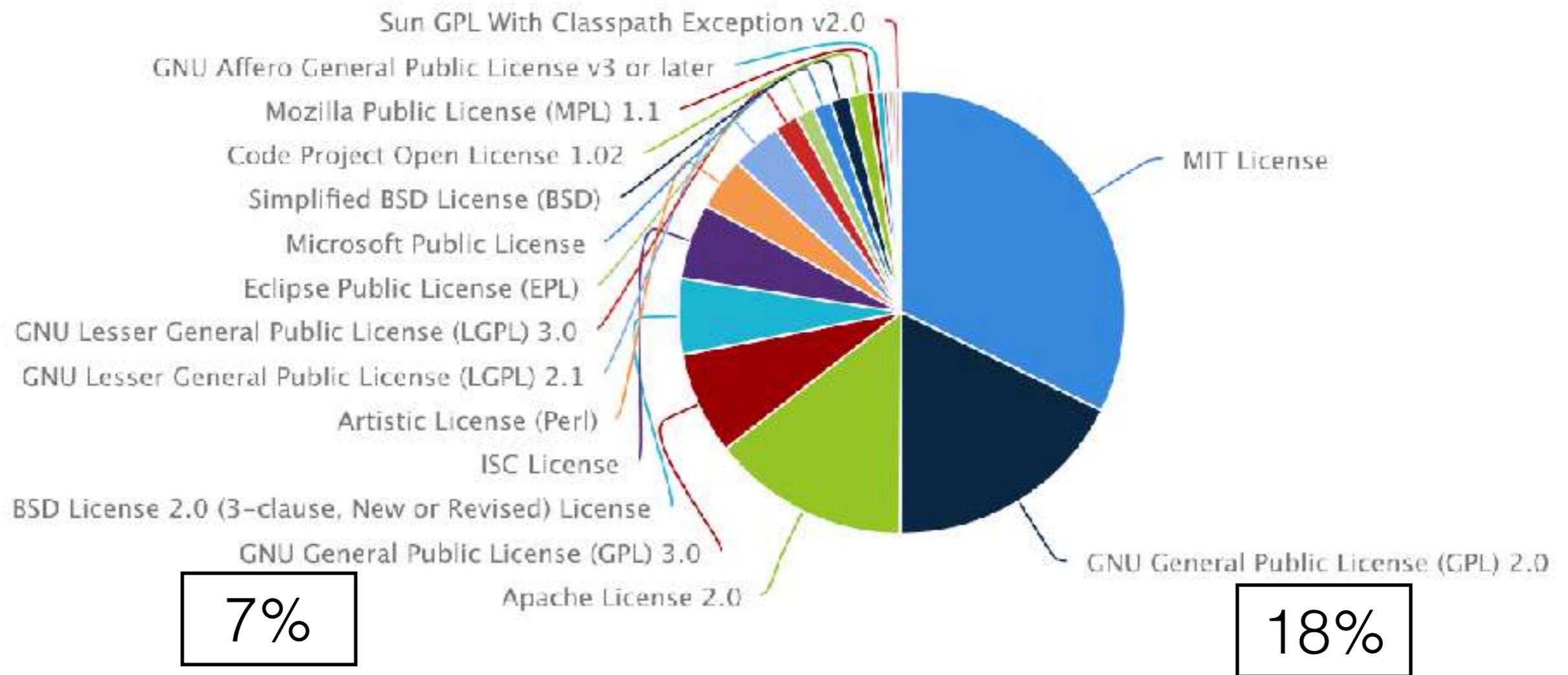
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MySQL and FOSS Exception

MySQL addresses open-source license problem

Then open-source database company takes a step to mend a rift in the open-source world by updating a licensing provision that had broken a close tie between the MySQL database and another software package.

Tech Industry

March 15, 2004

6:45 AM PST



by Stephen Shankland

[@stshank](#)



MySQL, an open-source database company, has taken a step to mend a rift in the open-source world by updating a controversial licensing provision that had broken a close tie between the MySQL database and another software package.

The rift divided **MySQL** and **PHP**, software that lets computers construct customized Web pages on the fly. The two packages are found side by side so often—along with the Linux operating system and the Apache Web server—that there's an acronym, LAMP, to label the software combination.

On Thursday night, MySQL published a license exception that, the company said, permits **PHP** to resume its previous practice of bundling MySQL components called libraries, said Zack Urlocker, MySQL's vice president of marketing.

MySQL's exception is "a step in the right direction," said Andi Gutmans, a PHP creator and vice president of technology for **Zend**, a company that **sells PHP programming tools**. Gutmans also expressed confidence that other remaining issues will be resolved.

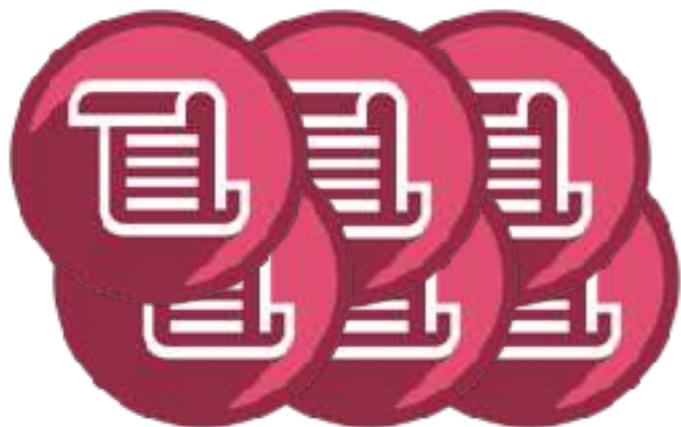
MySQL's move illustrates the growing pains in the open-source software movement as it becomes a mainstream part of the

**Is Licensing a Really
That Important?**

Why Do Licenses Matter?

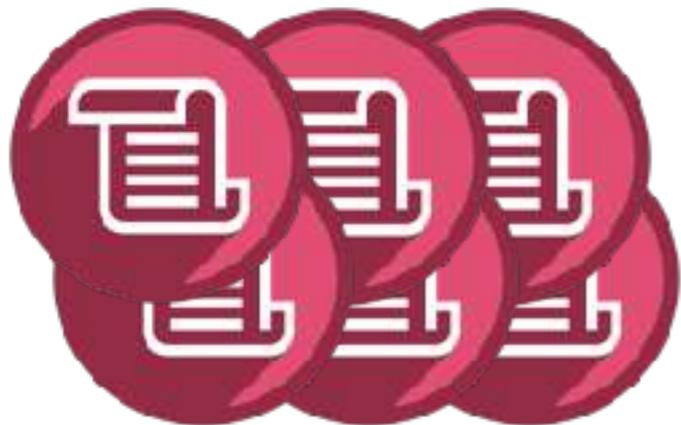


Why Do Licenses Matter?



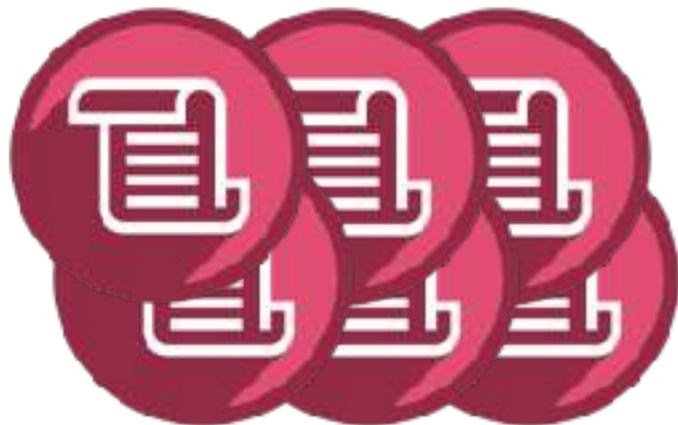
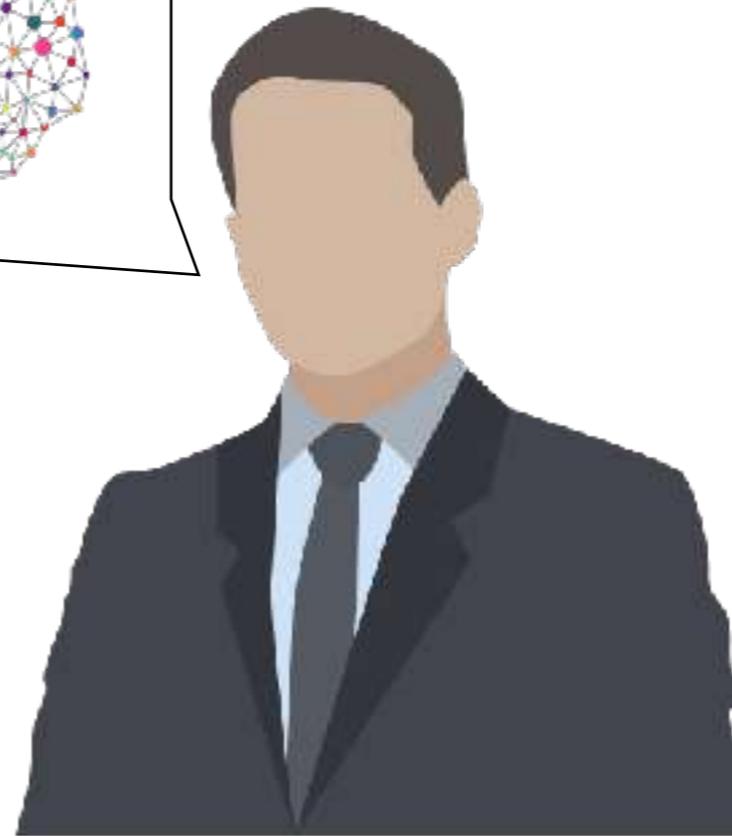
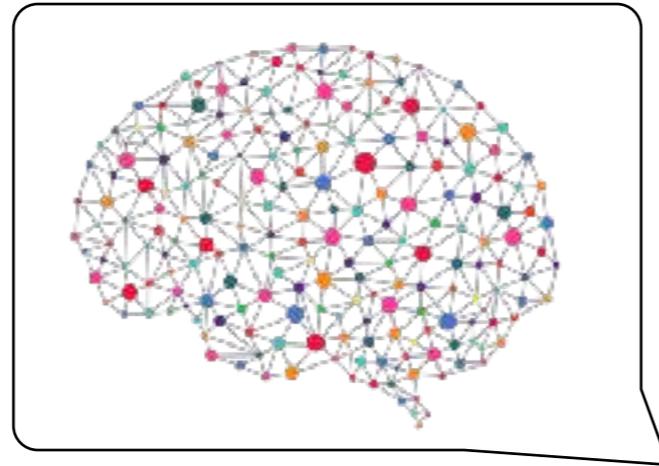
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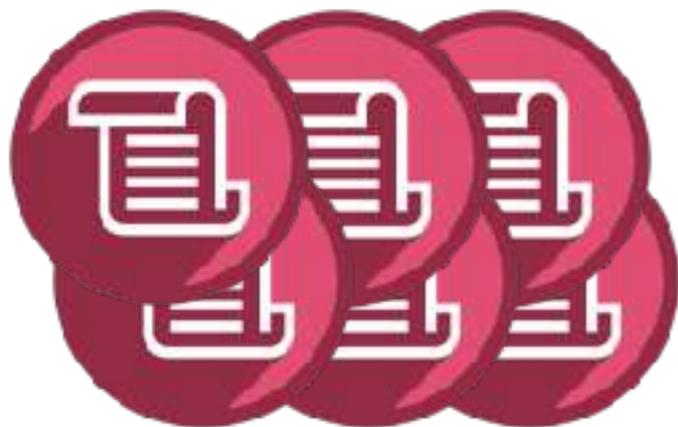
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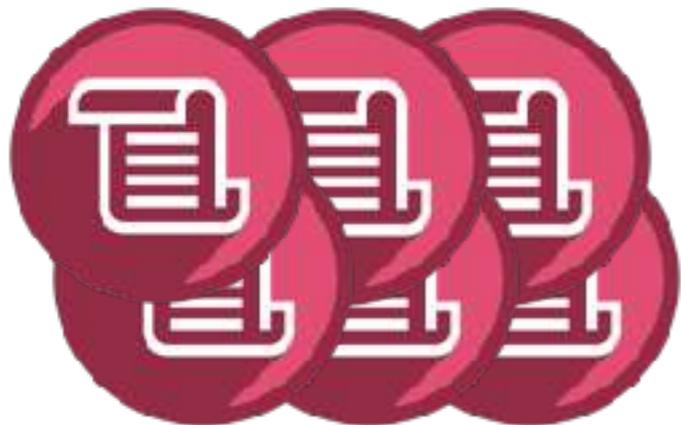
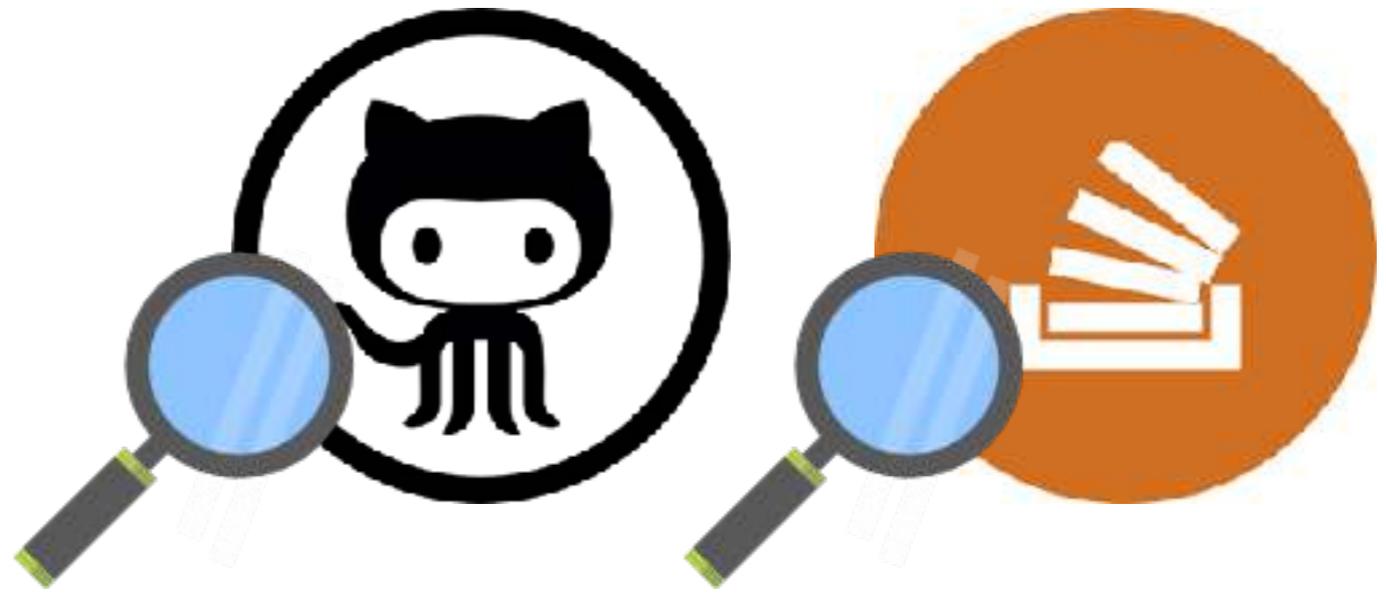
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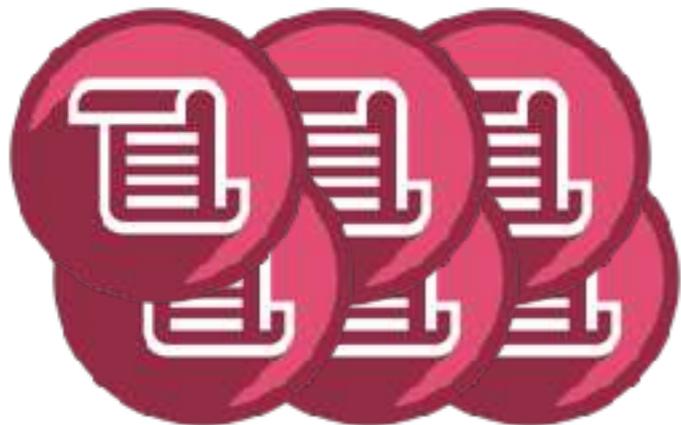
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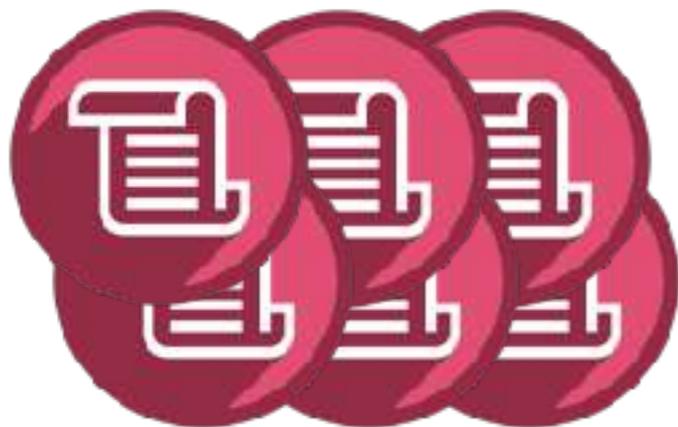
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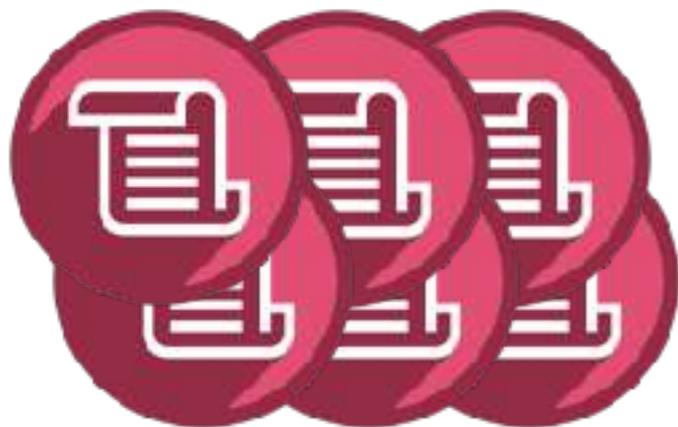


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Why Do Licenses Matter?



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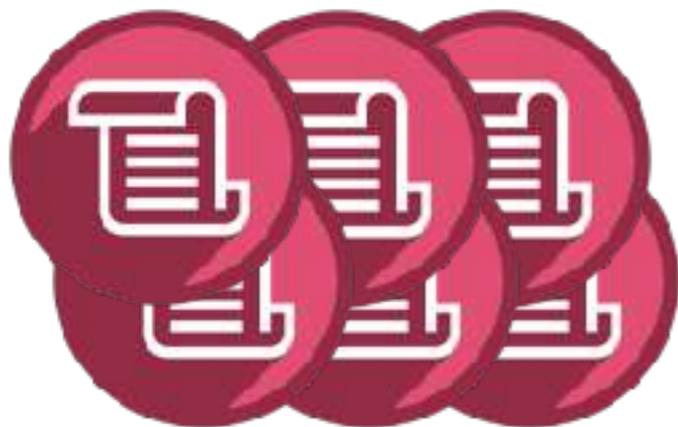


GPL-2.0

Why Do Licenses Matter?



Apache-2.0



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Copyright Implications

Update: Oracle awarded \$1.3 billion in SAP lawsuit

The amount is slightly less than what Oracle's damages expert recommended but far more than SAP said it should pay



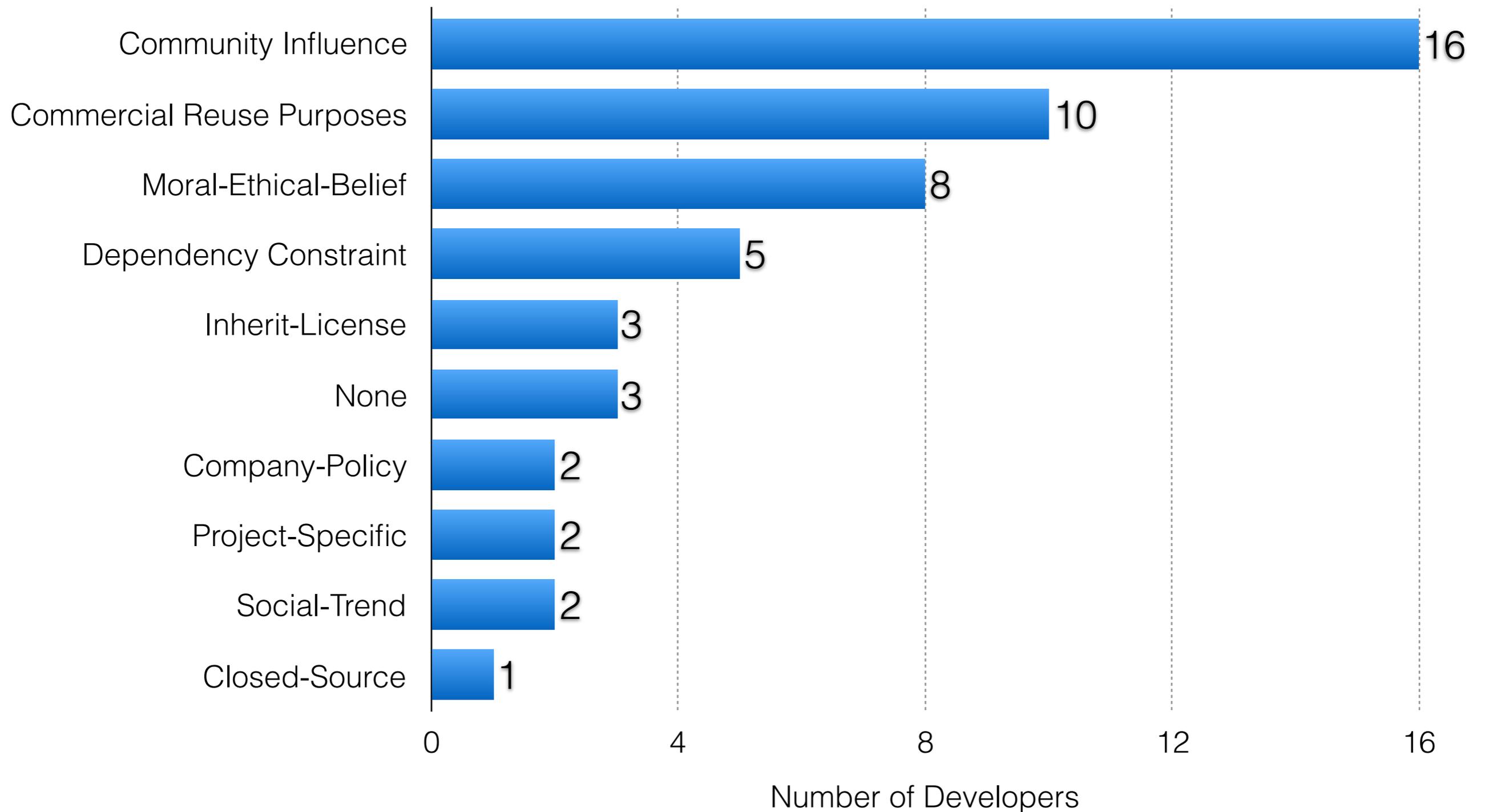
By **James Niccolai**

Deputy News Editor, **IDG News Service** | NOV 23, 2010

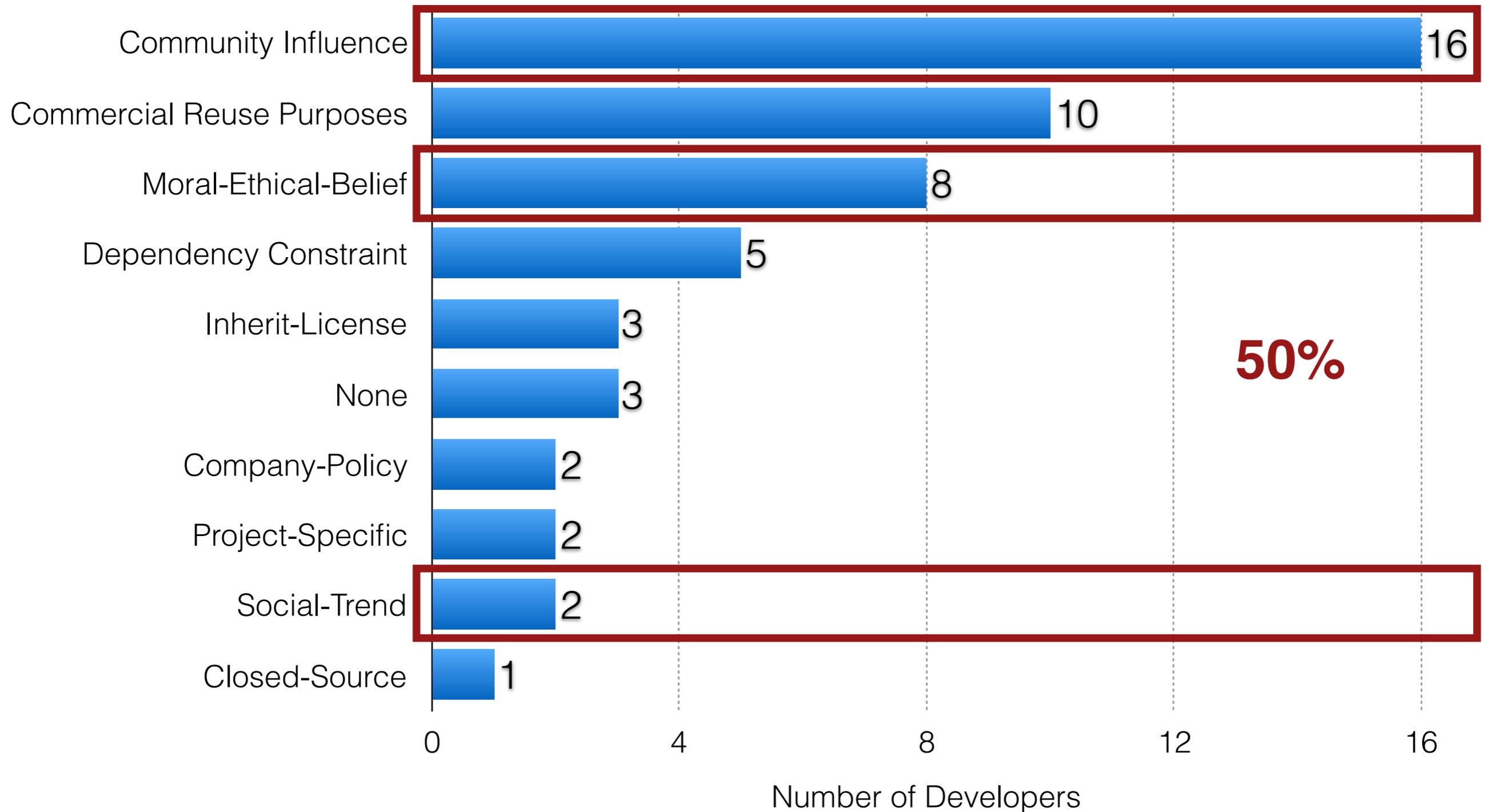
A jury has awarded Oracle \$1.3 billion in damages in its corporate theft lawsuit against SAP, a blow to the German applications vendor, which had argued it should pay just \$40 million for the software stolen by its TomorrowNow subsidiary.

Picking a License

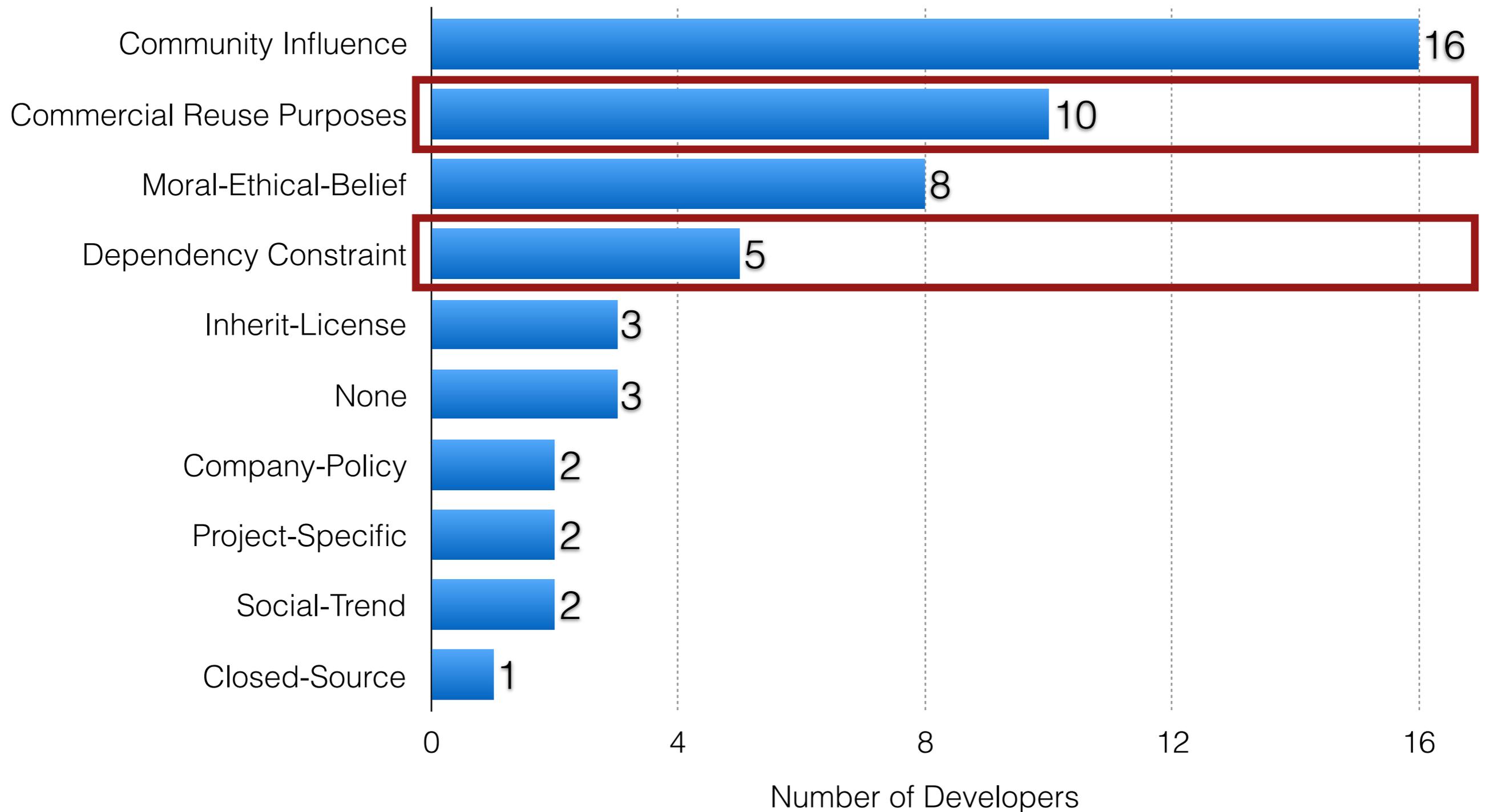
Reasons for License Adoption



Reasons for License Adoption



Reasons for License Adoption



Developer Difficulty

The screenshot shows a Stack Exchange question on the 'Software Engineering' site. The question title is 'Is there a chart for helping me decide between open-source licenses? [closed]'. The question body contains the following text: 'The Open Source Initiative lists 9 different licenses in their list of "License that are popular and widely used or with strong communities". I want to license my project as open-source. Unfortunately, I do not speak legalese. Is there some chart I could consult that will help me make the right choice, or at least point me in the right direction? For example a table summarizing the differences between the licenses, or perhaps a flow-graph using my requirements to guide me into the correct license for me? I also intend to meet a lawyer, but any information to start with will help.' The question has 49 votes and is tagged with 'open-source' and 'licensing'. It was asked 5 years ago and viewed 16572 times. A 'closed as off-topic' notice is visible, stating: 'This question appears to be off-topic. The users who voted to close gave this specific reason: "Questions asking us to recommend a tool, library or favorite off-site resource are off-topic for Programmers as they tend to attract opinionated answers and spam. Instead, describe the problem and what has been done so far to solve it." - ChrisF'. Below the notice, there are two related questions: 'Comparison of Free Software Licenses' and 'License Chooser'. On the right side, there is a 'Linked' section with several related questions and a 'Related' section with one question: 'Open Source Licenses Question'.

SOFTWARE ENGINEERING Questions Tags Users Badges Unanswered Ask Question

Is there a chart for helping me decide between open-source licenses? [closed]

asked 5 years ago
viewed 16572 times
active 2 years ago

49 votes

The Open Source Initiative lists 9 different licenses in their list of "License that are popular and widely used or with strong communities".

I want to license my project as open-source. Unfortunately, I do not speak legalese. Is there some chart I could consult that will help me make the right choice, or at least point me in the right direction? For example a table summarizing the differences between the licenses, or perhaps a flow-graph using my requirements to guide me into the correct license for me?

I also intend to meet a lawyer, but any information to start with will help.

open-source licensing

share improve this question

edited Sep 1 '11 at 18:19 **Robert Harvey** 127k ● 33 ● 282 ● 462

asked Sep 1 '11 at 18:08 **Oak** 1,803 ● 4 ● 16 ● 33

closed as off-topic by ChrisF • Sep 18 '14 at 12:13

This question appears to be off-topic. The users who voted to close gave this specific reason:

- "Questions asking us to recommend a tool, library or favorite off-site resource are off-topic for Programmers as they tend to attract opinionated answers and spam. Instead, describe the problem and what has been done so far to solve it." - ChrisF

If this question can be reworded to fit the rules in the help center, please edit the question.

2 **Comparison of Free Software Licenses** - topgun_lvard Sep 1 '11 at 18:48

2 **License Chooser** it lets you choose a license for you project based on certain criteria. - Mahmoud Hossam May 6 '12 at 0:50

I'm not a lawyer either so when I wanted a license for a new application I'm working on I just wrote one myself.

Linked

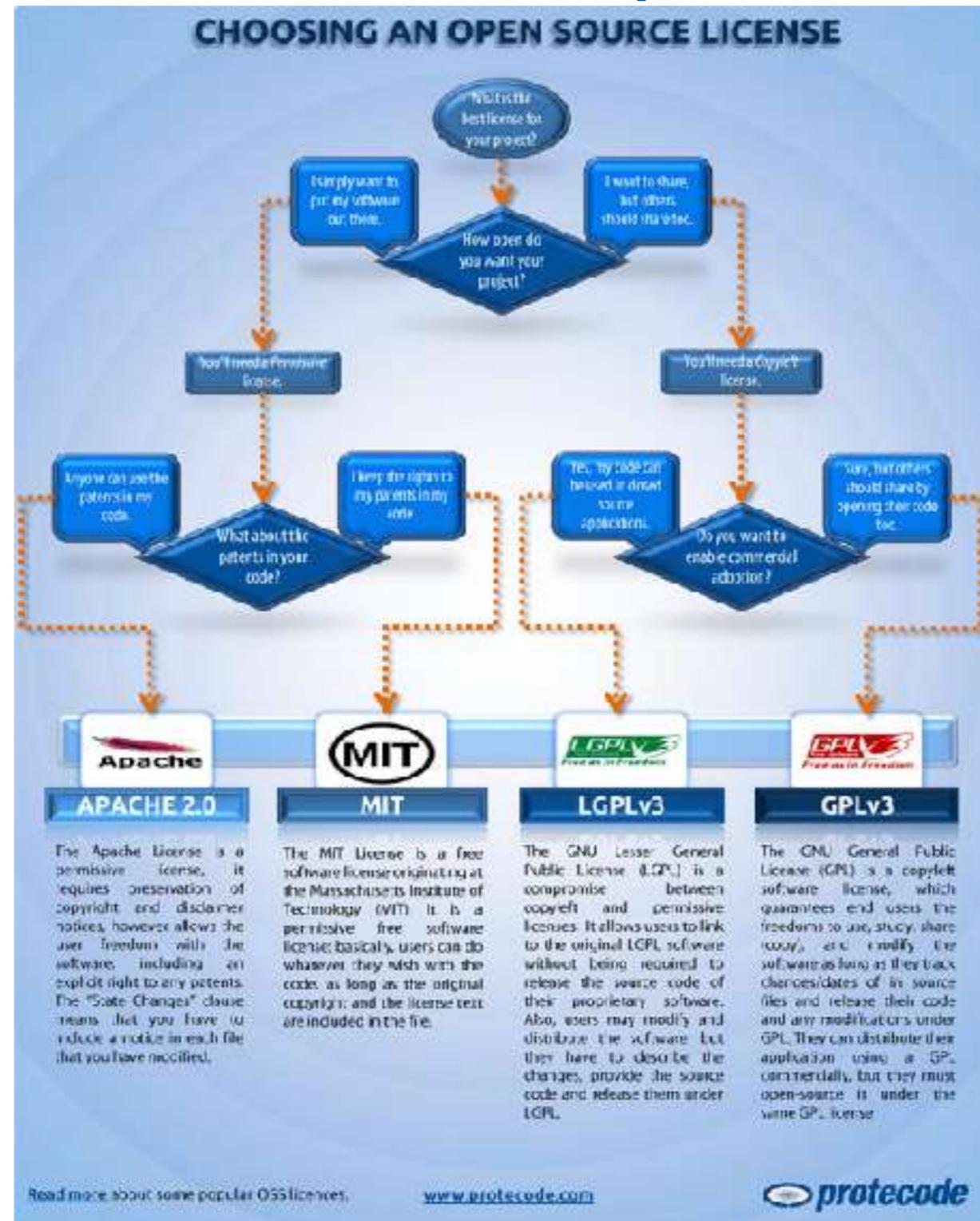
- 3 What are Apache, MIT licenses all about?
- 1 Including GPLv2 code in GPLv3 code
- 4 Libraries and licenses
- 3 Best way to reliably recognize open source licenses?
- 2 OSS Non-Commercial License
- 3 When to choose an open source license?
- 3 Java Licenses, GPL, GNU Questions
- 0 Which open-source license is right to keep some advantage for me AND for the developer-community?
- 2 Can I change a theme and then sell it?
- 3 License Type of Software with Free Functionality and Trial Additional Functionality

see more linked questions...

Related

- 1 Open Source Licenses Question

Resources to Help Pick



Resources to Help Pick

Licence differentiator



This tool attempts to help its users understand their own preferences in relation to free and open source software licences. It is no substitute for reading the licences themselves, and before placing any of your property under one of these licences, it is essential that you fully read and understand your chosen licence. The classifications of licence type that enable this tool to work are by necessity somewhat reductive, and therefore output of this tool cannot and must not be thought of as legal advice.

REMEMBER: ALWAYS READ AND UNDERSTAND YOUR CHOSEN LICENCE.

Choice One

Do you want to limit the results to licences that the Open Source Initiative describe as being "popular and widely used or with strong communities"?

This will guarantee that the licence will be 'mainstream' at the possible expense of some more esoteric but possibly useful characteristics.

Please choose

Choice Two (a)

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Do you want to include licensing conditions on reuse?

If not, your licence will be one of the so-called 'permissive' licences.

Please choose

Choice Three

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Resources to Help Pick

Choose an open source license

Which of the following best describes your situation?



I want it simple and permissive.

The **MIT License** is a permissive license that is short and to the point. It lets people do anything they want with your code as long as they provide attribution back to you and don't hold you liable.

jQuery, **.NET Core**, and **Rails** use the MIT License.



I'm concerned about patents.

The **Apache License 2.0** is a permissive license similar to the MIT License, but also provides an express grant of patent rights from contributors to users.

Android, **Apache**, and **Swift** use the Apache License 2.0.



I care about sharing improvements.

The **GNU GPLv3** is a copyleft license that requires anyone who distributes your code or a derivative work to make the source available under the same terms, and also provides an express grant of patent rights from contributors to users.

Bash, **GIMP**, and **Privacy Badger** use the GNU GPLv3.

What if none of these work for me?

My project isn't software.

There are licenses for that.

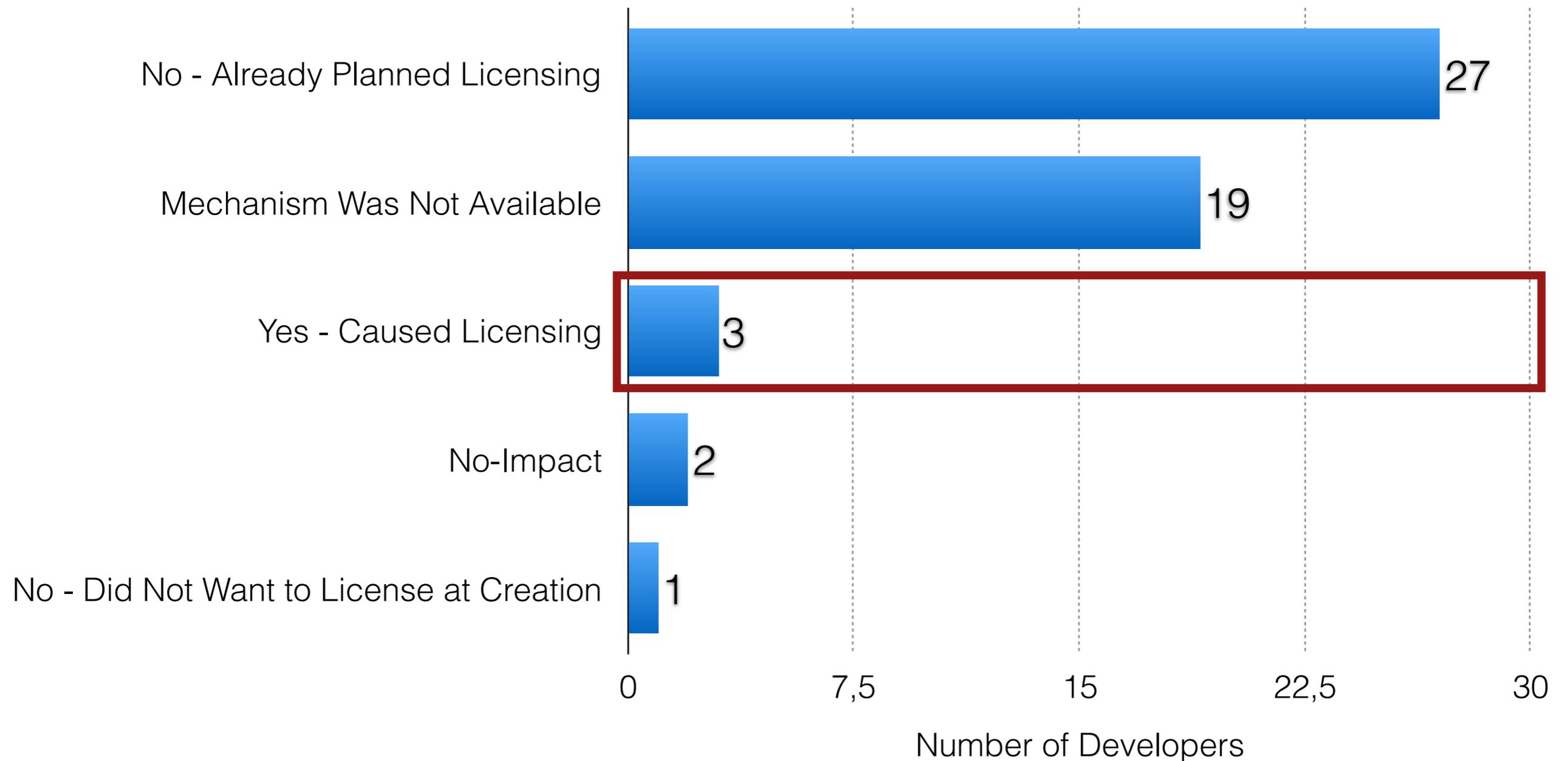
I want more choices.

More licenses are available.

I don't want to choose a license.

You don't have to.

Limited Impact of Resources



Identifying Licenses

Identifying Licensing

The screenshot displays the GitHub interface for the `apache/cloudstack` repository. At the top, navigation links include Features, Business, Explore, Marketplace, and Pricing. The repository name is `apache/cloudstack`, mirrored from `git://git.apache.org/cloudstack.git`. It has 109 Watchers, 478 Stars, and 890 Forks. The main content area features a 'Join GitHub today' banner with a 'Sign up' button. Below the banner, repository statistics are shown: 30,940 commits, 255 branches, 145 releases, and 251 contributors. A 'Branch: master' dropdown and 'New pull request' button are visible. The commit history shows the latest commit by `vedulasantosh` with the message 'CLOUDSTACK-10026 Page for Internal LB VM sticking while loading (#2216)' from 2 days ago. Other recent commits include 'agent-simulator/tomcatconf' (3 years ago), 'agent' (12 days ago), and 'api' (3 days ago).

Commit Message	Author	Time
CLOUDSTACK-10026 Page for Internal LB VM sticking while loading (#2216)	vedulasantosh	2 days ago
agent-simulator/tomcatconf		3 years ago
Merge branch '4.10'		12 days ago
Update role permission (#2236)		3 days ago

Identifying Licensing

test	CLOUDSTACK-10044: Update role permission (#2236)	3 days ago
tools	README: Repo has moved (#2235)	4 days ago
ui	CLOUDSTACK-10026 Page for Internal LB VM stucking while loading (#2215)	2 days ago
usage	Updating pom.xml version numbers for release 4.11.0.0-SNAPSHOT	a month ago
utils	CLOUDSTACK-10036: Decreasing timeout of failing unit test (#2228)	6 days ago
vmware-base	Updating pom.xml version numbers for release 4.11.0.0-SNAPSHOT	a month ago
.gitignore	CLOUDSTACK-9462: Build packages on Ubuntu 14.04/16.04 and support tom...	4 months ago
.java-version	CLOUDSTACK-9710: Switch to JRE1.8	7 months ago
.python-version	python-version: Use default to system provided version	23 days ago
.travis.yml	CLOUDSTACK-9928: Allow native CloudStack users to change password in UI	a month ago
CHANGES.md	dummy commit to for PR close #95	3 years ago
CONTRIBUTING.md	updated contributn.md	a year ago
INSTALL.md	CLOUDSTACK-9408: Fix download urls in sql and scripts	4 months ago
LICENSE	SysVM: Cleanup and removal of old (and dangerous) config files	a year ago
LICENSE.header	Add license check plugin to root pom. Disabled for the entire project...	4 years ago
NOTICE	Update NOTICE to account for updated jQuery version	3 years ago
README.md	Change the README link for event page to the current ACS CCCs website	7 months ago
configure-info.in	License header updates for misc files	5 years ago
pom.xml	Updating pom.xml version numbers for release 4.11.0.0-SNAPSHOT	a month ago
requirements.txt	Switched to the official SolidFire SDK for Python	11 months ago
version-info.in	No more ant_args	5 years ago

Identifying Licensing

GitHub improves open-source licensing policies

GitHub, the popular open-source development community site, is finally getting its licensing act together. It's high time since Black Duck has found that 77-percent of GitHub projects have no declared open-source license.

 By Steven J. Vaughan-Nichols for Linux and Open Source | July 18, 2013 -- 11:56 GMT (04:56 PDT) | Topic: [Open Source](#)



Simon Phipps, director of the [Open Source Initiative](#), pointed out a problem late in 2012 with [GitHub](#), the popular open-source development community site. [Most of the GitHub-hosted projects did not have any license.](#) By default, that made the programs subject to copyright protection with all rights reserved exclusively for the author. This means it's not open source at all! Months later, GitHub's executives have finally addressed this glaring problem by adopting a [new policy to encourage developers to use proper open-source licenses.](#)

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77-percent of GitHub projects have no declared open-source license.

42 percent of GitHub projects actually have embedded licenses

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Cloud
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Identifying Licensing

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//  
// Licensed to the Apache Software Foundation (ASF) under one  
// or more contributor license agreements. See the NOTICE file  
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// regarding copyright ownership. The ASF licenses this file  
// to you under the Apache License, Version 2.0 (the  
// "License"); you may not use this file except in compliance  
// with the License. You may obtain a copy of the License at  
//  
// http://www.apache.org/licenses/LICENSE-2.0  
//  
// Unless required by applicable law or agreed to in writing,  
// software distributed under the License is distributed on an  
// "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY  
// KIND, either express or implied. See the License for the  
// specific language governing permissions and limitations  
// under the License.  
//  
//  
package com.cloud.agent;  
  
import com.cloud.agent.api.AgentControlAnswer;  
import com.cloud.agent.api.AgentControlCommand;  
import com.cloud.exception.AgentControlChannelException;  
  
public interface IAgentControl {  
    void registerControlListener(IAgentControlListener listener);  
  
    void unregisterControlListener(IAgentControlListener listener);  
  
    AgentControlAnswer sendRequest(AgentControlCommand cmd, int timeoutInMilliseconds) throws AgentControlChannelException;  
  
    void postRequest(AgentControlCommand cmd) throws AgentControlChannelException;  
}
```

Identifying Licensing

```
//  
// Licensed to the Apache Software Foundation (ASF) under one  
// or more contributor license agreements. See the NOTICE file  
// distributed with this work for additional information  
// regarding copyright ownership. The ASF licenses this file  
// to you under the Apache License, Version 2.0 (the  
// "License"); you may not use this file except in compliance  
// with the License. You may obtain a copy of the License at  
//  
// http://www.apache.org/licenses/LICENSE-2.0  
//  
// Unless required by applicable law or agreed to in writing,  
// software distributed under the License is distributed on an  
// "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY  
// KIND, either express or implied. See the License for the  
// specific language governing permissions and limitations  
// under the License.  
//  
//
```

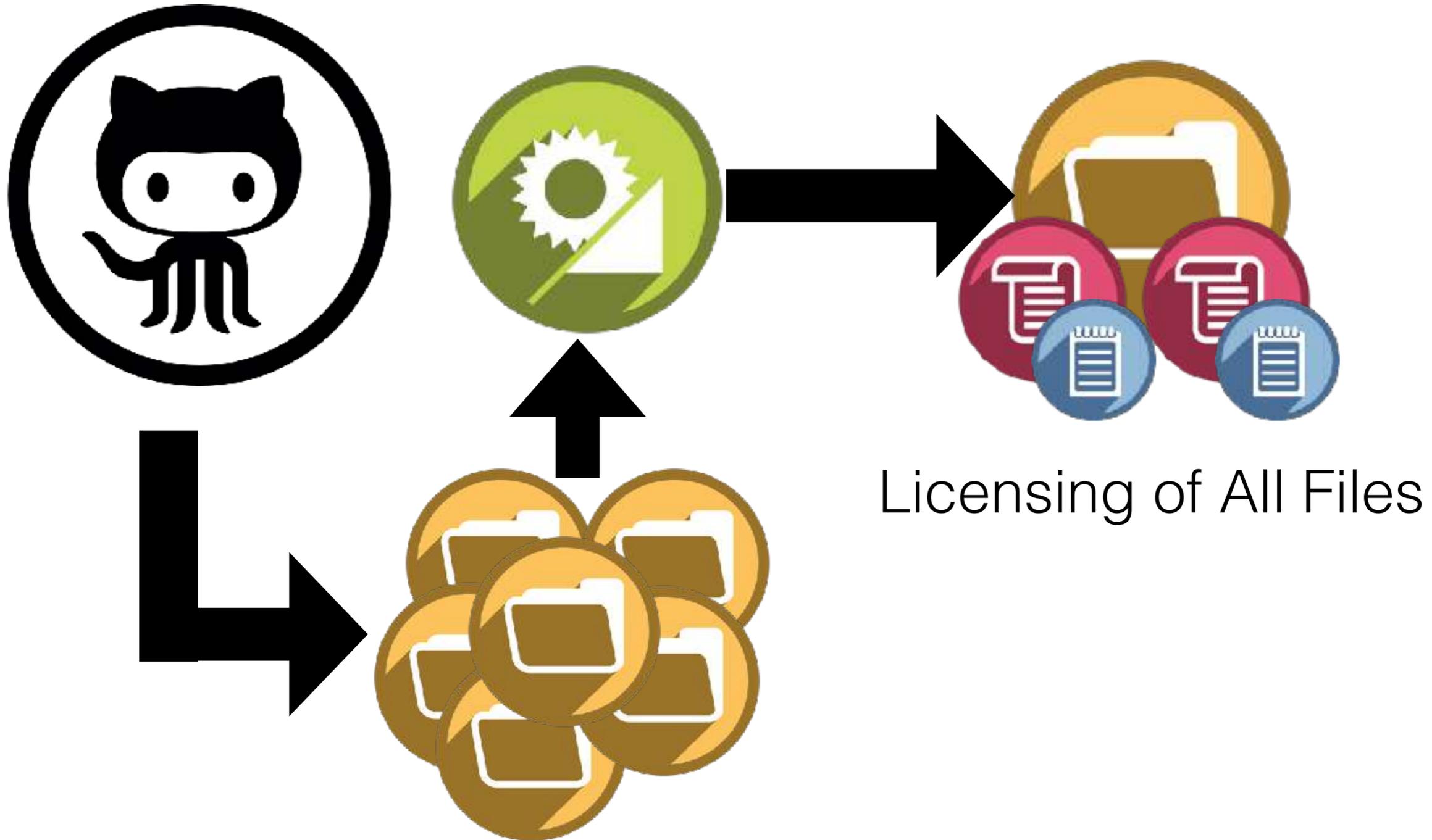
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}
```

Identifying Licensing

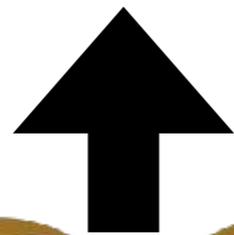
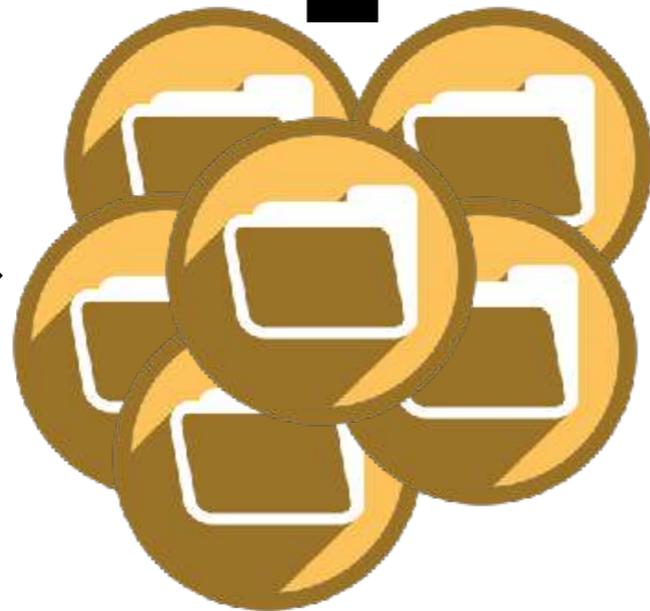
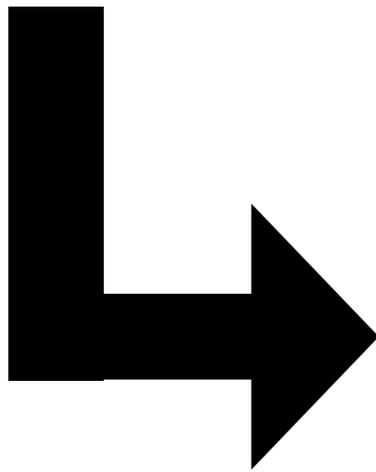
How do I figure out the licensing?!



Identifying Licensing



Licensing Identification Tools

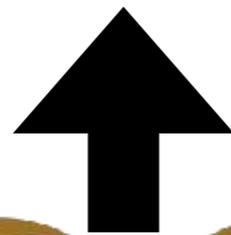
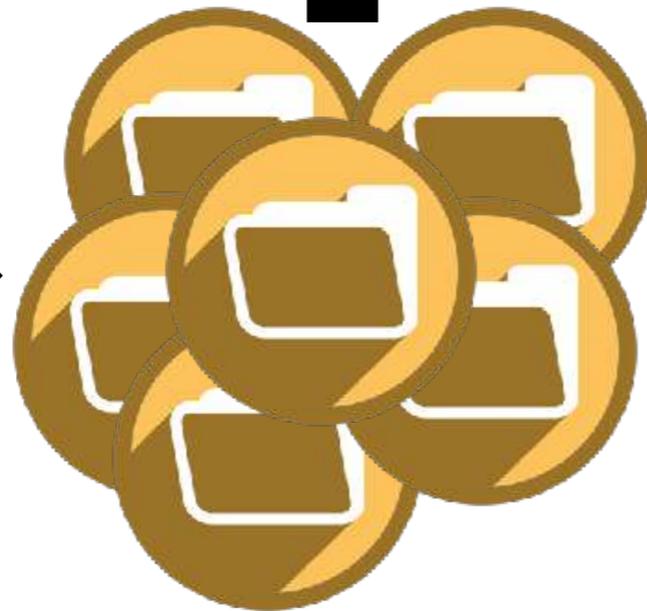
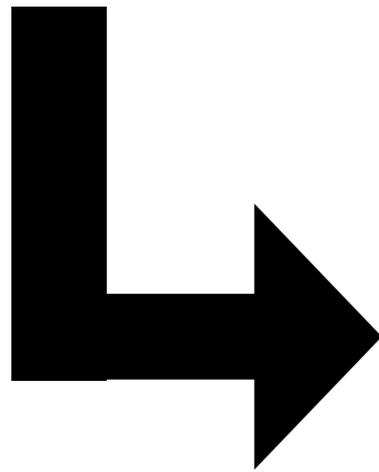


ninka



BLACKDUCK | Open Hub

Licensing Identification Tools

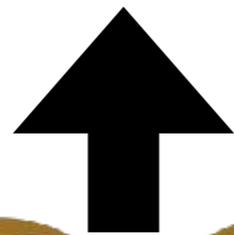
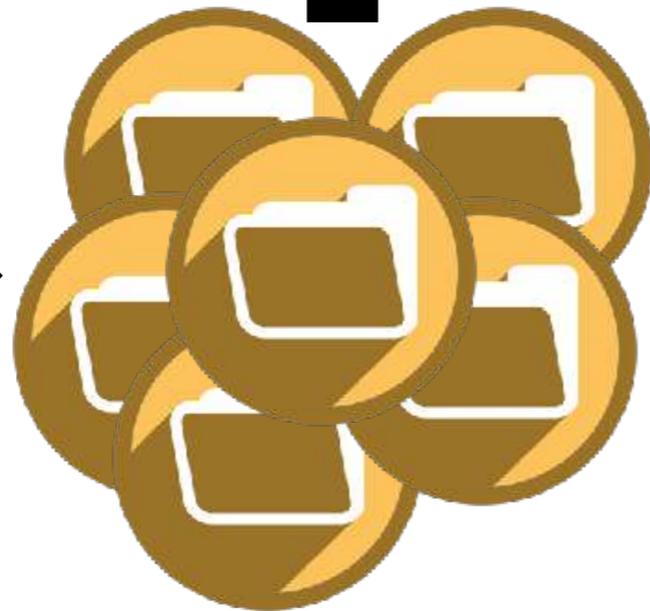
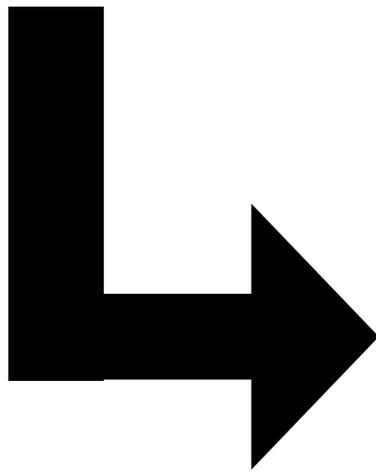


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BLACKDUCK | Open Hub

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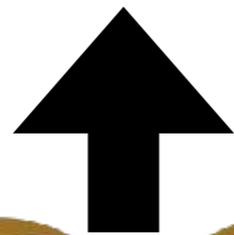
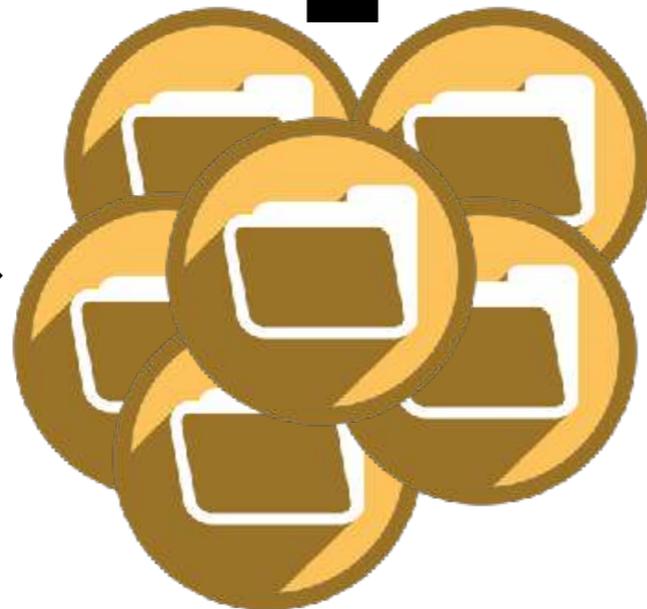
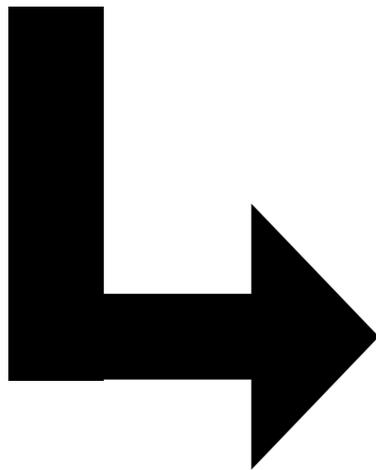


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Licensing Identification Tools



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Licensing Can Change

OPEN FOR DISCUSSION

By **Brian Proffitt** FOLLOW



GPL, copyleft use declining faster than ever

Data suggests a sharper rate of decline, which raises the question: why?

ITworld | December 16, 2011

RELATED TOPICS

IT Management

Open Source

A new analysis of licensing data shows that not only is use of the GPL and other copyleft licenses continuing to decline, but the rate of disuse is actually accelerating.

That was the [conclusion of Matthew Aslett's analysis of recent data from Black Duck Software](#), which shows that while use of the GPL, LGPL, and AGPL set of copyleft licenses dominates free and open source projects, that use is still on the decline.

"The GPL family now accounts for about 57% of all open source software, compared to 61% in June," Aslett wrote. More troubling for copyleft advocates, though, could be the projection Aslett and the 451 Group make based on the data.

"...[I]f the current rate of decline continues, we project that the GPL family of licenses will account for only 50% of all open source software by September 2012."

MORE GOOD READS

[Evaluating the state of the GPL](#)

[FSF: Ac-Cent-Tchu-Ate the Positive](#)

[DotNetNuke squares off against the GPL](#)

[on IDG Answers](#) →

[How can I keep track of and manage all of our software licenses for multiple...](#)



DEALPOSTS

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Change Can Be Costly

DATE PUBLISHED

March 23, 2017

OpenSSL Re-licensing to
Apache License v. 2.0
To Encourage Broader
Use with Other FOSS
Projects and Products

Change Can Be Costly

DATE PUBLISHED

March 23, 2017

OpenSSL Re-licensing to Apache License v. 2.0

The [website](#) will aid the OpenSSL team's efforts to contact everyone who has contributed to the project so far, which includes nearly 400 individuals with a total of more than 31,000 commits. The current license dates back to the 1990's and is more than 20 years old. The open source community has grown and changed since then, and has mostly settled on a small number of standard licenses.

USE WITH OTHER FOSS

Projects and Products

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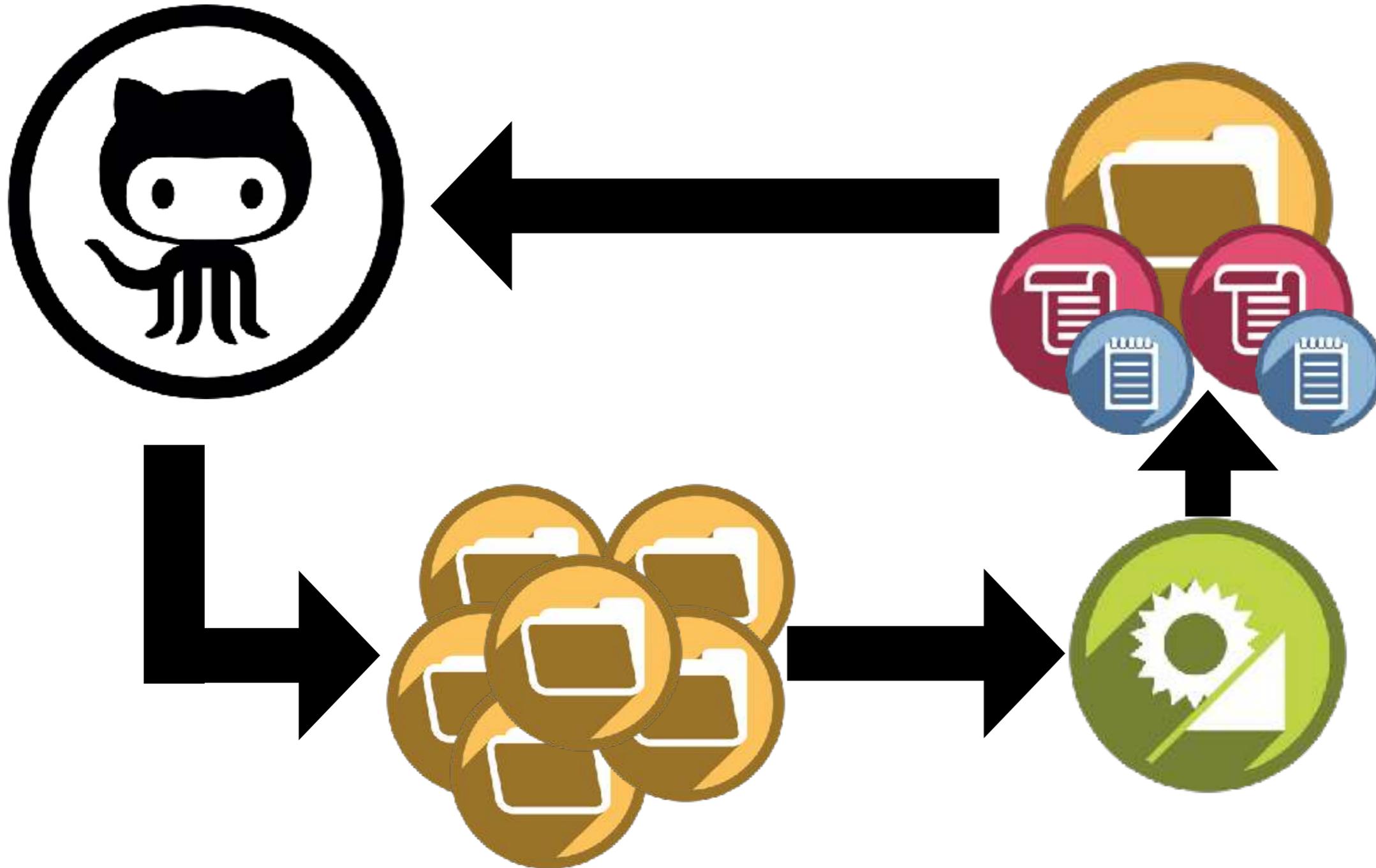
OpenSSL Re-licensing to Apache License v. 2.0

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USE WITH OTHER FOSS

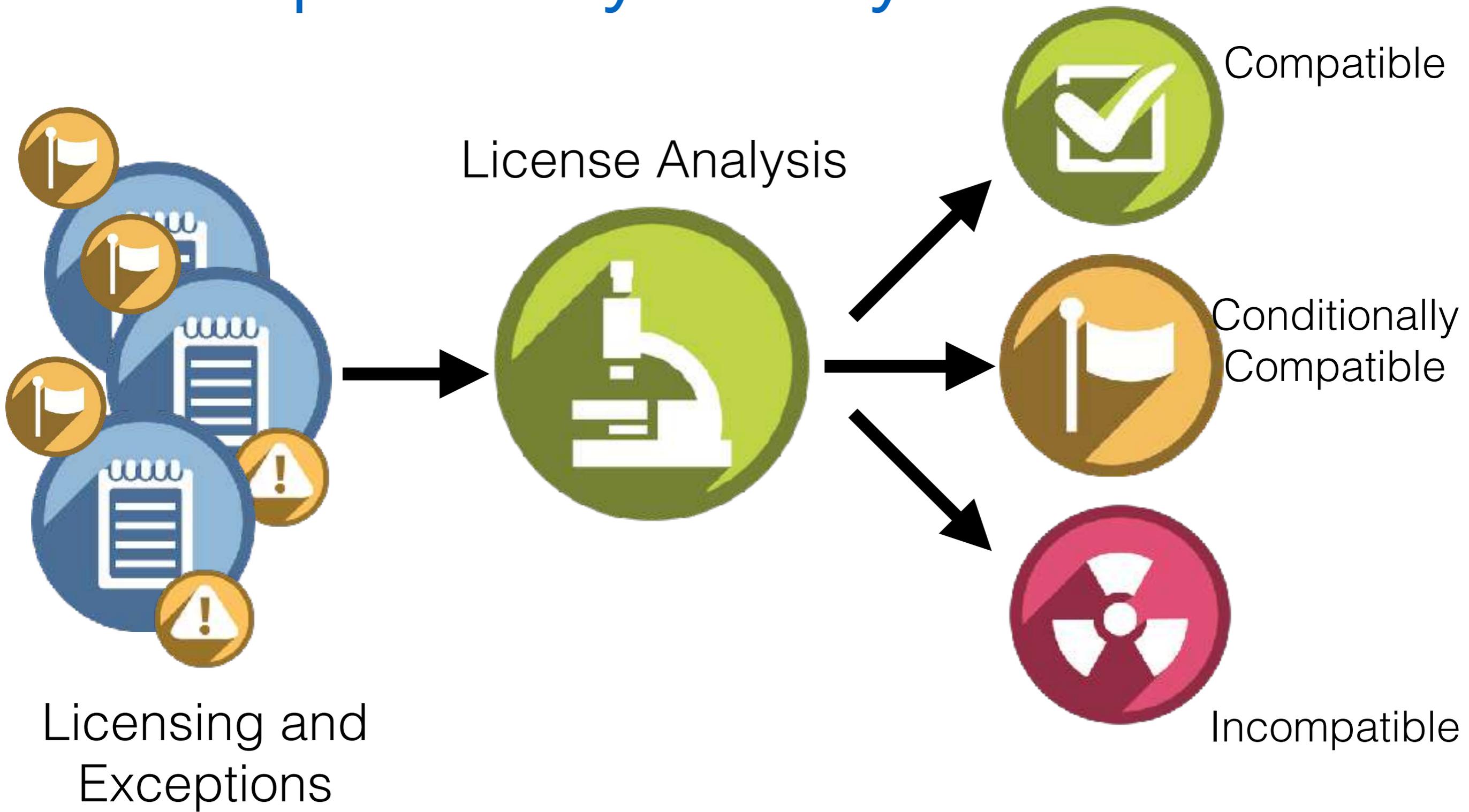
Projects and Products

Identifying Licensing

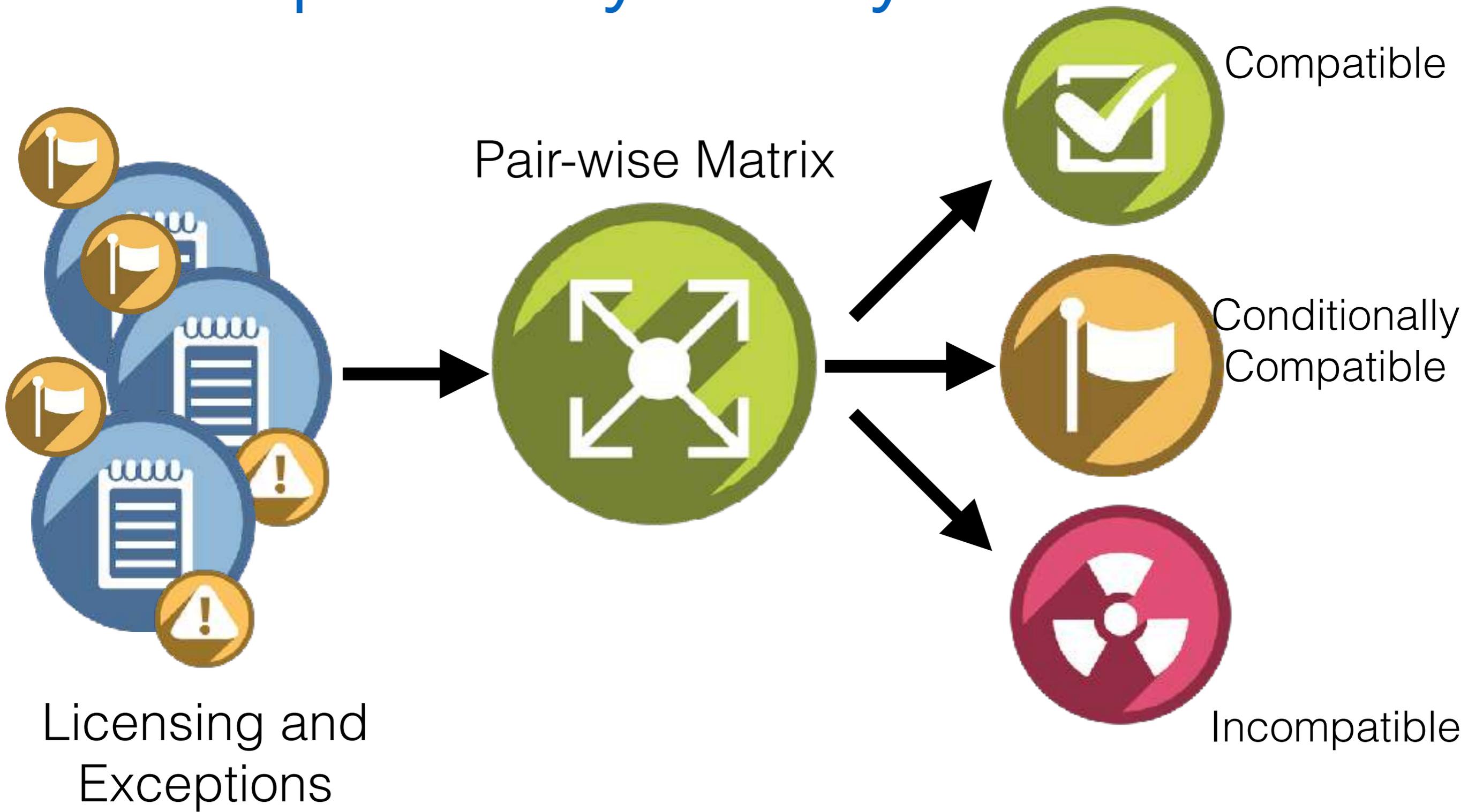


Open Challenges

Compatibility Analysis



Compatibility Analysis



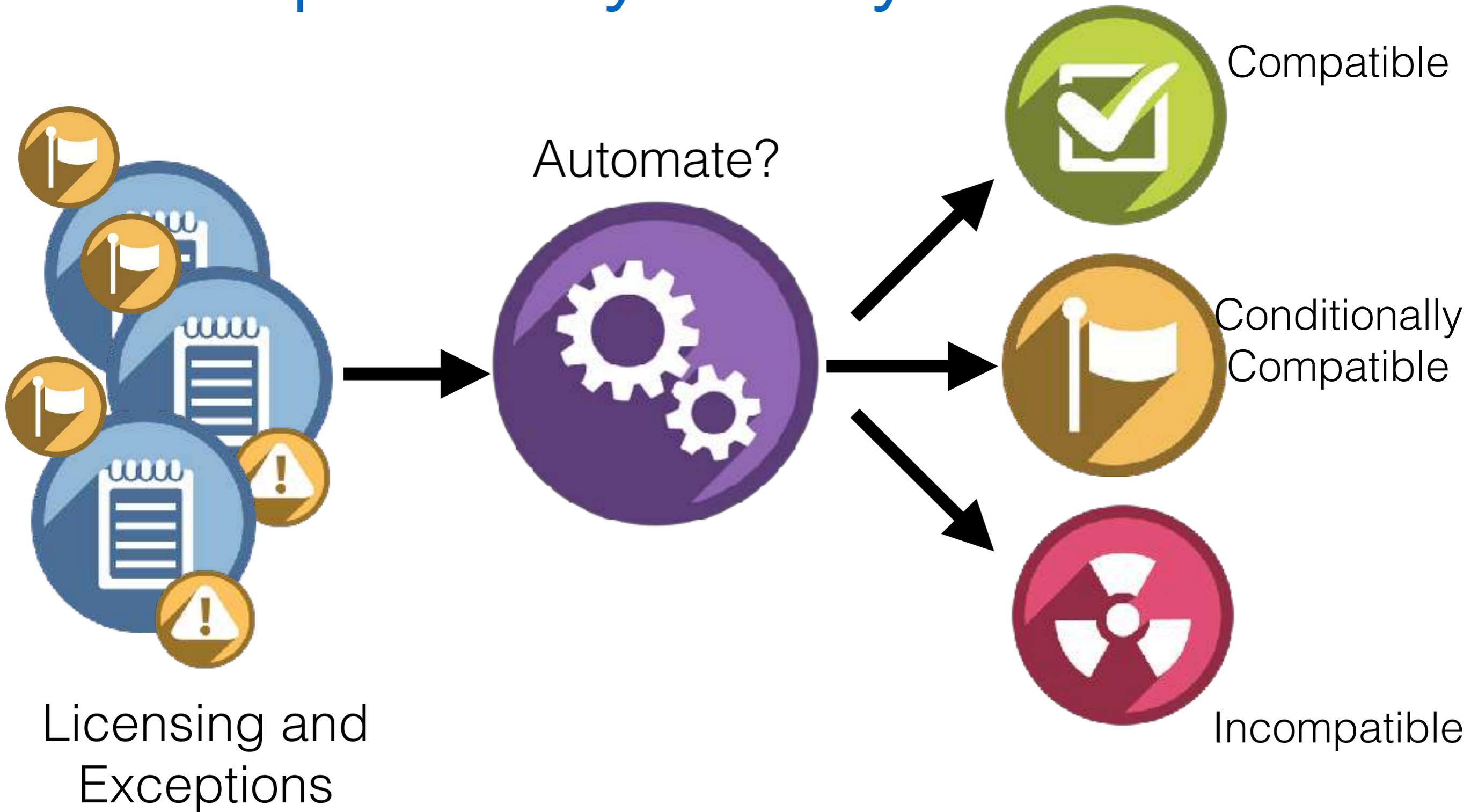
Compatibility Analysis

Pair-wise Matrix



	MIT	BSD	Apache-2.0	...
MIT	Y	Y	Y	.
BSD	Y	Y	Y	.
Apache-2.0	Y	Y	Y	.
.
.
.
.	.	.	.	As Lib.

Compatibility Analysis



Software Provenance

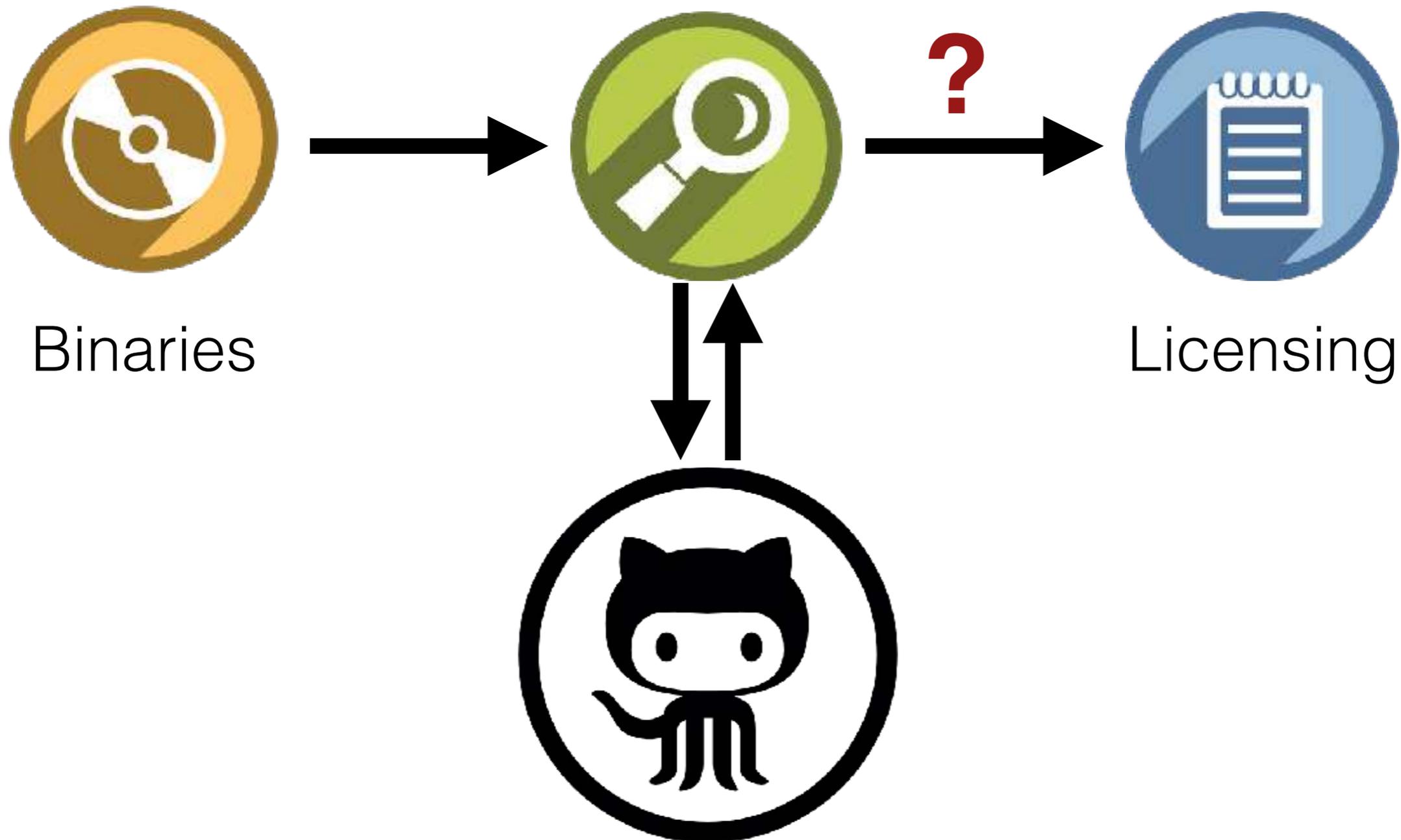


Binaries

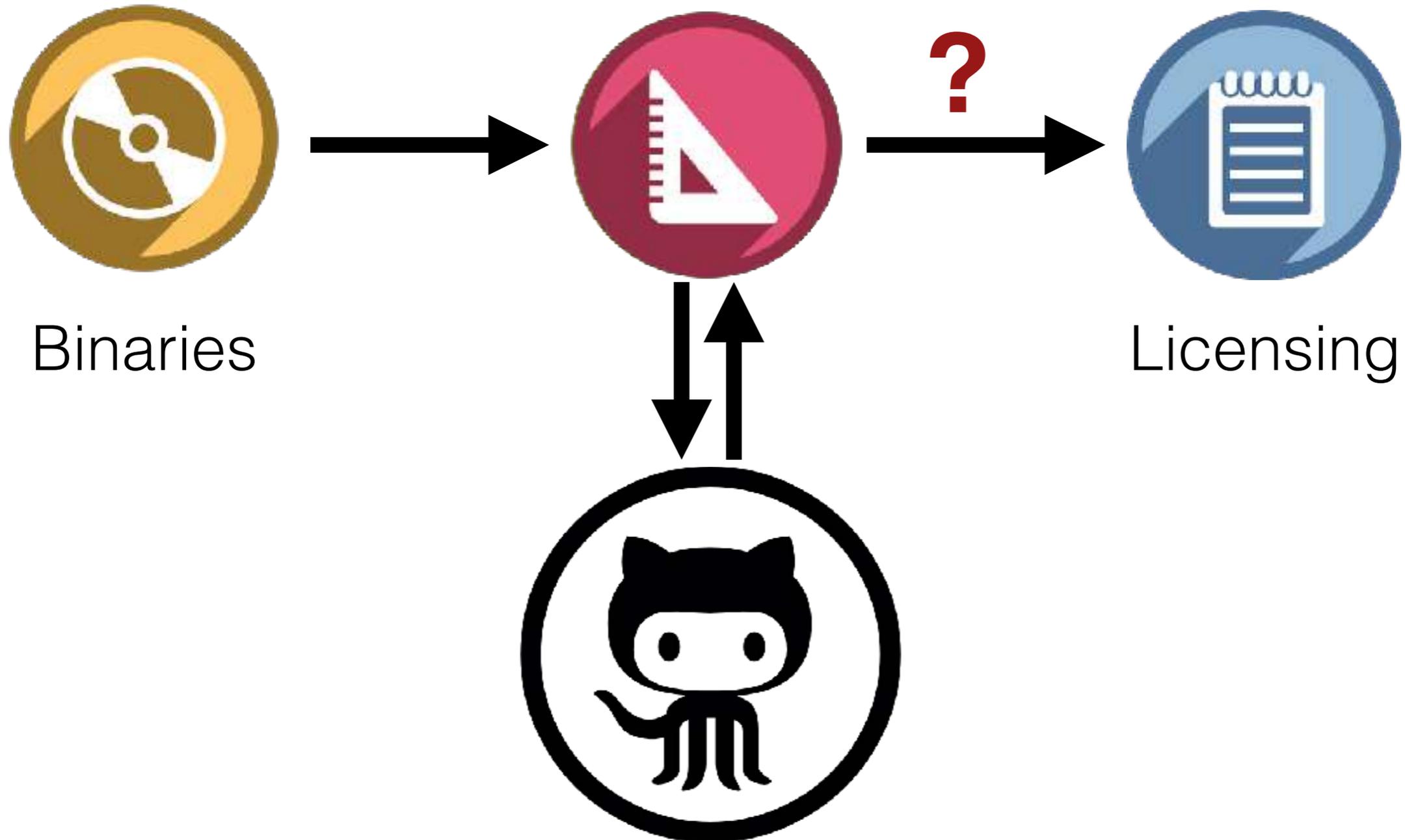


Licensing

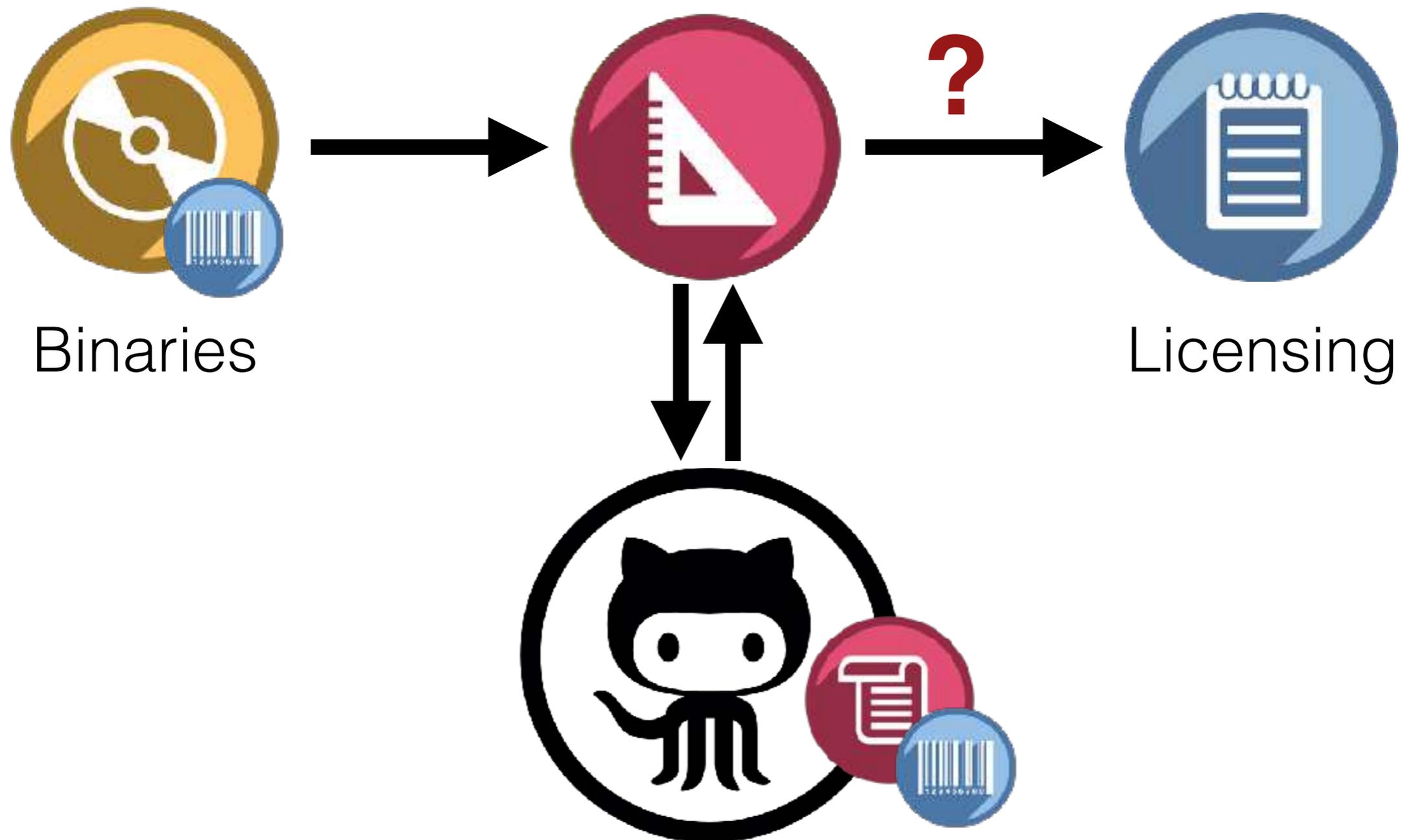
Software Provenance



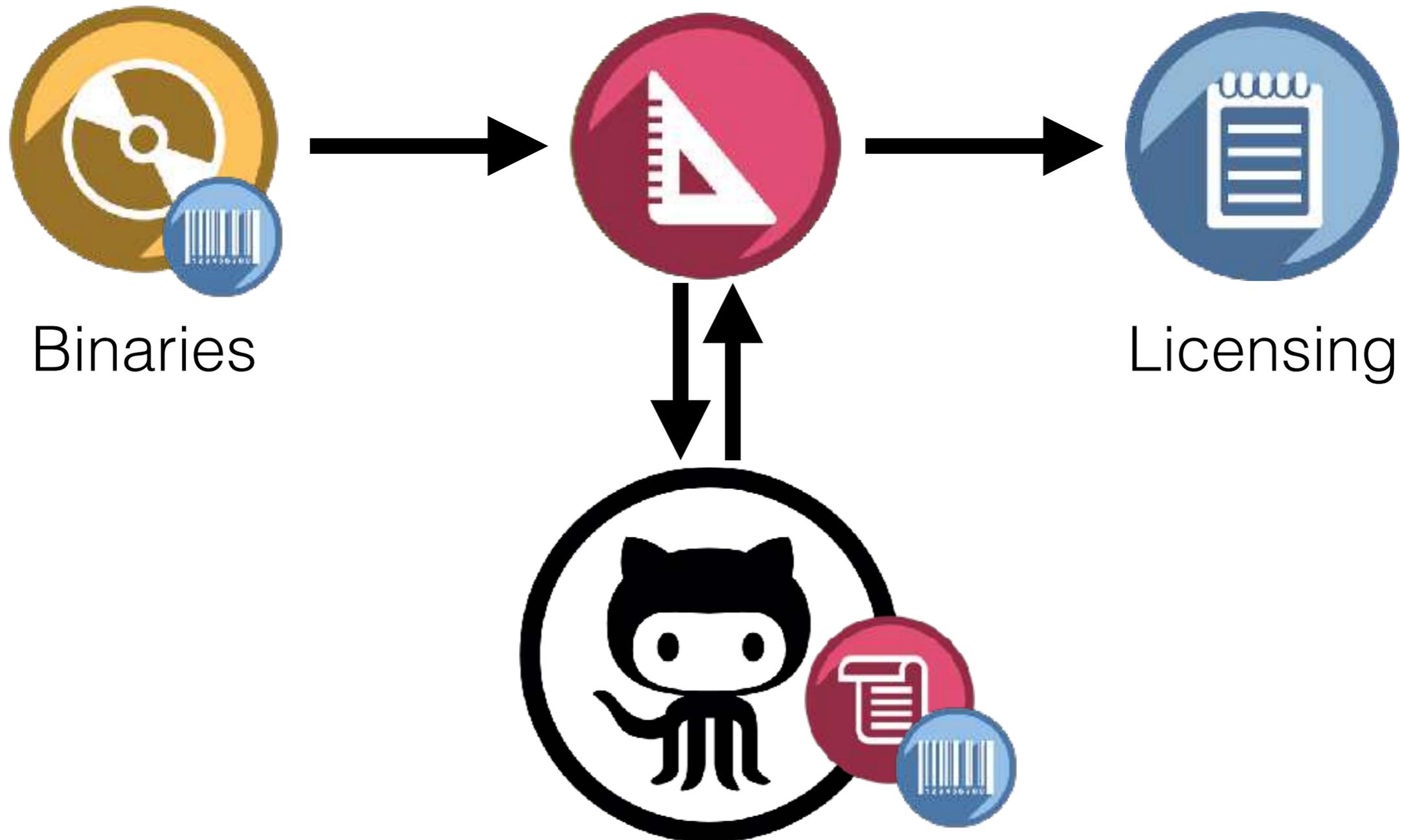
Software Provenance



Software Provenance



Software Provenance



Software License Example

```
/* -*- Mode: C++; tab-width: 2; indent-tabs-mode: nil; c-basic-offset: 2 -*- */
/* ***** BEGIN LICENSE BLOCK *****
 * Version: MPL 1.1/GPL 2.0/LGPL 2.1
 *
 * The contents of this file are subject to the Mozilla Public License Version
 * 1.1 (the "License"); you may not use this file except in compliance with
 * the License. You may obtain a copy of the License at
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 *
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 *
 * Contributor(s):
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 *
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 * the provisions above, a recipient may use your version of this file under
 * the terms of any one of the MPL, the GPL or the LGPL.
 *
 * ***** END LICENSE BLOCK ***** */
```

```
#include "nsXULAppAPI.h"
#ifdef XP_WIN
```

Contributor

Copyright
statement

Copyright
year

License
(MPL+GPL+LGPL)

Software License Example

```
/* -*- Mode: C++; tab-width: 2; indent-tabs-mode: nil; c-basic-offset: 2 -*- */
/* ***** BEGIN LICENSE BLOCK *****
 * Version: MPL 1.1/GPL 2.0/LGPL 2.1
 *
 * The contents of this file are subject to the Mozilla Public License Version
 * 1.1 (the "License"); you may not use this file except in compliance with
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 * Portions created by the Initial Developer are Copyright (C) 2002
 * the Initial Developer. All Rights Reserved.
 *
 * Contributor(s):
 *   Brian Ryner <bryner@brianryner.com>
 *
 * ***** END LICENSE BLOCK ***** */

```

Contributor

Copyright statement

Copyright year

License (MPL+GPL+LGPL)

Copyright Implications

Update: Oracle awarded \$1.3 billion in SAP lawsuit

The amount is slightly less than what Oracle's damages expert recommended but far more than SAP said it should pay



By James Niccolai

Deputy News Editor, IDG News Service · NOV 25, 2012

A jury has awarded Oracle \$1.3 billion in damages in its corporate theft lawsuit against SAP, a blow to the German applications vendor, which had argued it should pay just \$40 million for the software stolen by its TomorrowNow subsidiary.

<http://www.inloworld.com/article/2624774/technology-businessupdate--oracle-awarded--1.3-billion-in-sap-lawsuit.html>

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 *
 * The contents of this file are subject to the Mozilla Public License Version
 * 1.1 (the "License"); you may not use this file except in compliance with
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 * Portions created by the Initial Developer are Copyright (C) 2002
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 *
 * Contributor(s):
 *   Brian Ryner <bryner@brianryner.com>
 *
 * ***** END LICENSE BLOCK ***** */
#include "nsXULAppAPI.h"
#ifdef XP_WIN
```

Contributor

Copyright statement

Copyright year

License (MPL+GPL+LGPL)

Copyright Implications

Update: Oracle awarded \$1.3 billion in SAP lawsuit

The amount is slightly less than what Oracle's damages expert recommended but far more than SAP said it should pay



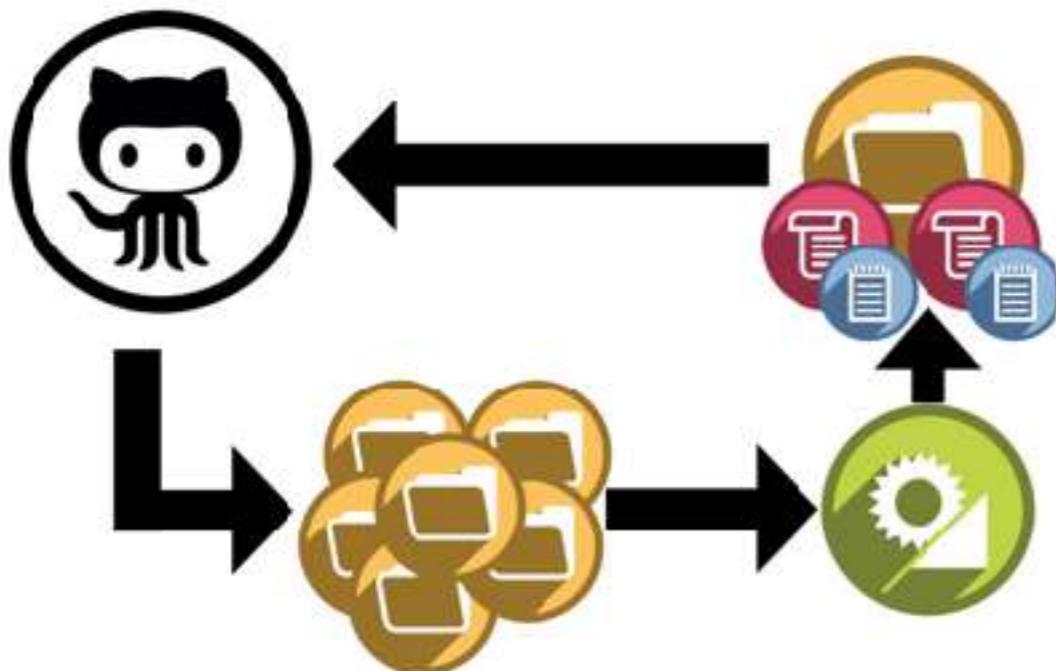
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<http://www.infloworld.com/article/2624774/technology-businessupdate--oracle-awarded--1.3-billion-in-sap-lawsuit.html>

Identifying Licensing



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```

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/* ***** BEGIN LICENSE BLOCK *****
 * Version: MPL 1.1/GPL 2.0/LGPL 2.1
 *
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 *
 * ***** END LICENSE BLOCK ***** */

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```

#include "nsXULAppAPI.h"
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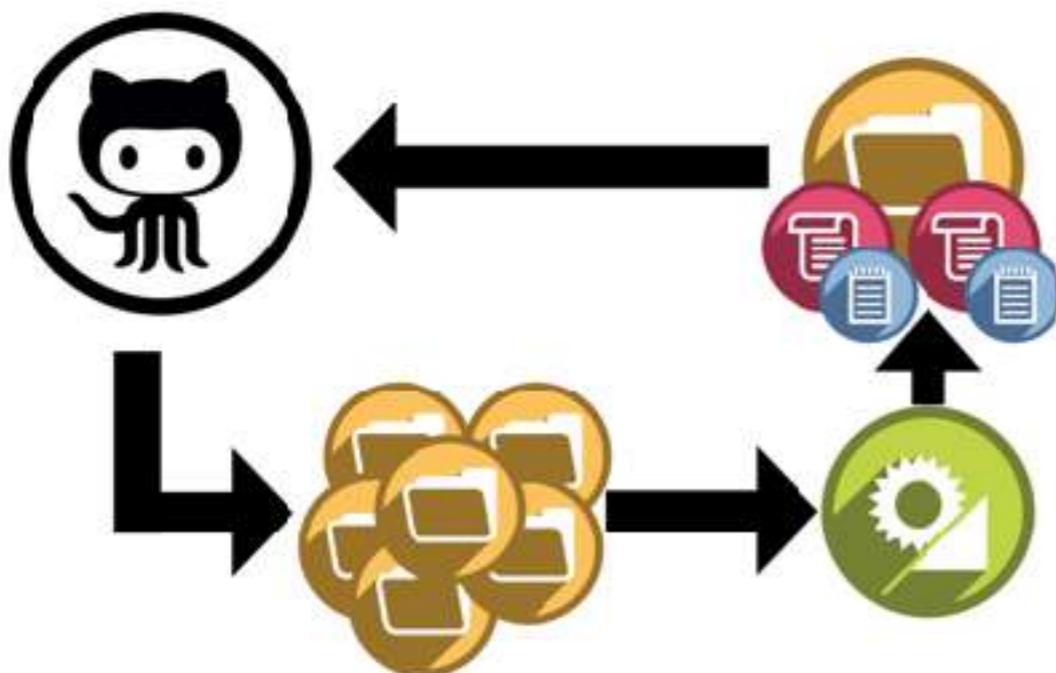
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Identifying Licensing



Compatibility Analysis

