How to get your Release Through the Incubator

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Who am I?

- Freelance Developer - programming for 25 years
- Incubator PMC and Apache Flex PMC plus a few others, Apache member and a mentor for several incubating projects
- Reviewed 200+ incubator releases at Apache
- Run IoT meetup in Sydney Australia
I am not a Lawyer

• I’m not a lawyer and nothing in here should be taken as legal advice
• Occasionally I get things wrong
• My understanding has changed over time
• Sometimes it’s complex and there’s more than one “right” answer
• I’m a volunteer and not paid to do this
• This talk contains my own views and may not represent the incubator as a whole
Incubating Projects

- Ensure donations comply with the Apache 2.0 license
- Follows the ASF structure of contributors, committers and (P)PMC
- Grants more responsibility via meritocracy
- Ensure that decision making is done in the open
- People act as individuals not companies
- Follows the Apache Way
Incubator Vote Process

- Podling creates a release candidate
- Vote on dev mailing list until 3 +1 votes and more +1 than -1
- If vote fails need to make a new release candidate
- Vote on general incubator list
- Need 3 +1 and more +1 than -1 by IPMC members
- If vote fails need to make a new release candidate
- Can release once voted and generally 72 hours pass
State of Play

- 60+ projects in the incubator
- 250+ IPMC members (but not all are active)
- A dozen or more successful releases a month
- About 70% of releases pass the incubator
Required Reading

• Legal previously asked questions
  https://www.apache.org/legal/resolved

• Incubator release process (DRAFT)
  http://incubator.apache.org/guides/releasemanagement.html
  https://incubator.apache.org/guides/release.html

• Assembling License and Notice How To
  http://www.apache.org/dev/licensing-howto.html
Required Reading (cont)

• Apache Maturity Model
  http://community.apache.org/apache-way/apache-project-maturity-model.html

• Legal mailing list archive
  http://mail-archives.apache.org/mod_mbox/www-legal-discuss/

• Legal JIRA
  https://issues.apache.org/jira/browse/LEGAL
How I’ve Voted
Why I voted -1

- 13 - Unexpected binary in source release
- 10 - Includes Category X licensed software (usually GPL)
- 8 - Included Category B license software
- 6 - License or notice issue
- 6 - Copyright issue
- 4 - Missing header or header issue
- 3 - Contains encryption software
-1 is not a Veto

- Release votes need 3 +1 votes and more +1 than -1 votes to pass
- People can change their mind or have it changed
- People put up conditional votes
- That being said a -1 vote is often for a good reason so you should at least look into it and fix next release
It Doesn’t Have to be Perfect

- Incubating projects are not expected to get it right first go
- May not be familiar with policy at start
- Policy doesn't cover all situations
- If something doesn’t follow policy point it out in the RC
- A release containing no surprises is good thing
Make it Easy to Review

• Don’t make people have to think hard about it
• Provide well named artefacts
• Don’t try to be clever with licensing or headers
• Include compile instructions in the release
• Make it easy to compile
Not One Right Answer

- Documentation can sometimes be confusing and sometimes out of date
- A lot of cultural knowledge isn’t well documented
- Large IPMC - some differing opinions on what is “correct”
- Often multiple ways to solve the same issue
- If in doubt take err on the side of caution - often changes needed are minimal
Top Level Projects

• Policy changes over time / may be out of date
• A project may it own reasons for doing something in a certain way
• Take care when looking at TLP for examples
• Probably better to look at TLP that have recently graduated
Signing

- Release must be cryptographically signed
- Good idea to use an apache.org email address
Disclaimer

- Best (but not required) to put in a file called DISCLAIMER
- Could also be in README
Tagging

• Good idea to tag releases
• That way that can be easily compared to what is released
• Can also be easily checked out and built if needed in the future
• Note that git tags can be changed so provide hash in vote email
Licensing

• Seems where a lot of the issues occur
• Observed some reluctance to understand
• Language barrier to even those who speak English
• Can be complex
• Policy does change over time
Developers vs Licensing

• We’re not the only people who have difficulty or frustration with licensing
• Apache projects tend to be on average a lot better!
• External project often are:
  • May have unclear licenses
  • May include code under a different (sometime incompatible) licenses
  • If Apache 2.0 licensed missing a NOTICE file
• Try to be funny
Copyright (C) 2010 The Android Open Source Project
Licensed 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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All rights reserved.
Redistribution and use in source and binary forms, with or without
modification, are permitted provided that the following conditions
are met:
* Redistributions of source code must retain the above copyright

33 Copies of BSD
## CONTRIBUTING.md

**Project** button near the bottom of the project page. You can edit your
getting too many notifications.

Translations are licensed under

[TXT](https://raw.githubusercontent.com/openstreetmap/10/master/LICENSE), the same license

[ISC](https://raw.githubusercontent.com/openstreetmap/10/master/LICENSE), the same license

as zlib.

Why are there so many duplicate "type" translations? There are multiple

[171,9] [171,9] [171,9] into the public directory of your webserver to deploy id.

### licensing

- ID is under the [TXT](http://www.txtpl.net/). Some of the libraries it uses
- are under different licenses. If you're contributing to ID, you're contributing
- TXTPL code.

- ID is available under the [ISC License](https://opensource.org/licenses/ISC).
- Some of the libraries it uses are under different licenses. If you're contributing
- to ID, you're contributing ISC licensed code.

### Submitting Changes
This software is subject to either of two licenses (BSD or LGPL), which you can choose from in your use of the code. The terms for each of these licenses is listed below:

BSD License

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GPL or BSD?
Documentation Issues vs Errors

- Err on the side of caution
- It’s better to have a documentation issue than an licensing error
- Minor issues are OK to be fixed in the next release
Universal Donor

• Give anyone confidence they can use our software without any legal issues
• All software within an artefact is compatible with the Apache 2.0 licence
• Means it can be use for commercial and non commercial purposes
Guiding Principle

- The LICENSE and NOTICE files exactly represent the contents of the distribution they live in.
- Don't mention stuff that’s not bundled i.e. no need to mention external dependancies in LICENSE and NOTICE
- Applies to both source and binary artifacts
May Contain Nuts

• When bundling software check to see what it contains
• In particular look for Category B and Category X software
• Look at photos or other resources like fonts that you may not have permissions to distribute or may be under another license
• Manual inspection is not always required but often a good idea
Rat

- Great tool for finding binaries and licenses in your source release
- Not perfect but very handy
- Will not find double headers
- Will not check for multiple licenses in the same file
- Only knows about a few licenses
- Exclusions can be too wide and miss something
Rat Output
Compliance Rocks!

• Online tool to check release compliance
  http://compliance.rocks

• Gives good results - slightly different to Rat

• Run both!
### Compliance Rocks

#### Done processing request #30d0a3e4 (ApacheWombat.zip)

Result permalink: [http://compliance.rocks/result.html?30d0a3e4](http://compliance.rocks/result.html?30d0a3e4)

<table>
<thead>
<tr>
<th>Category</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Archive digest file</td>
<td><img src="image" alt="No digest file found." /></td>
</tr>
<tr>
<td>File type</td>
<td><img src="image" alt="File is a Zip archive" /></td>
</tr>
<tr>
<td>Extracting files from archive</td>
<td><img src="image" alt="Completed (224 elements extracted)" /></td>
</tr>
<tr>
<td>Required files</td>
<td><img src="image" alt="LICENSE + NOTICE present in same dir" /></td>
</tr>
<tr>
<td>Non-compliant license headers</td>
<td><img src="image" alt="Potentially missing license headers in some files" /></td>
</tr>
<tr>
<td>Presence of binary applications</td>
<td><img src="image" alt="None found" /></td>
</tr>
<tr>
<td>License count</td>
<td>Apache License/2.0: 1 &lt;br&gt; License missing: 9 &lt;br&gt; MIT License: 8</td>
</tr>
<tr>
<td>Scan results</td>
<td>OKAY-ISH (release is compliant, but could be improved upon)</td>
</tr>
</tbody>
</table>

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Finding Licenses

• One way is to use find and grep

  find . -type f -exec grep -i "$1" {} \; -print

• Search for common license names “GPL”, “BSD”, “MIT”
• Search for “copyright”
Pesky JS files

- JS files (especially minified ones) are often missing license headers or license details
- Some licenses require full text to be contained somewhere
- Lots are under non-Apache licenses including GPL
- Other included other bundled softwares (eg jQuery and Bootstrap)
- Licenses change between versions
- May need to look carefully
Other People’s Cat Photos

• Copy all the images!
  
  find . -name "*.jpg" -exec cp {} images \; -print

• View all images using OS or favourite image browsing tool

• If you find something that may be suspect:
  • Look at image metadata
  • Google reverse image search
Troublesome Fonts

• Licensing around fonts can be complex
• Look at font meta-data
• Make sure you have permission to distribute
• As fonts are binary may not be obvious to reviewer how they are licensed. May want to make that clear in the LICENSE file.
## Legal vs Policy

- Licenses provide certain legal obligations you need to comply with.
- Apache policy adds a little more:
  - Need to have NOTICE file.
  - List all licenses in LICENSE (even if it not required).
License File

- LICENSE or LICENSE.txt in root directory
- Contains Apache license and list of licenses of bundled software in a distribution
- Short form pointer to license preferred
- May have different contents for source and binary
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.

APACHE WOMBAT SUBCOMPONENTS:

Apache Wombat includes a number of subcomponents with separate copyright notices and license terms. Your use of the source code for these subcomponents is subject to the terms and conditions of the following licenses.

This product bundles Bootstrap 3.3.6, copyright Twitter, Inc., which is available under a MIT license. For details, see licenses/bootstrap/MIT.

This product bundles normalize 3.0.3 copyright Nicolas Gallagher and Jonathan Neal, which is available under a MIT license. For details, see licenses/normalize/MIT.

This product bundles Glyphicons Halflings Regular, copyright Jan Kohovík, which is available under a MIT license. For details, see licenses/glyphicons/MIT.
Notice File

- Contains ASF copyright and
- Keep year up to date
- Only add what is needed
  - Relocated copyright notices
  - Required notices from bundled Apache software notice files
  - All other required notices
- In general licensing info shouldn’t be in the notice file
Notice File
Required Notices

- Some confusion to what is a required notice
- Advertising clauses (but are probably category X)
- Link to original source / how to get original
- State changes made
Category A

- Can bundle and can depend on
- Don’t add any restrictions above and beyond what the Apache License 2.0 does
- Common licenses include Apache License 2.0, Apache License 1.1, 2 or 3 clause BSD (without advertising clause), MIT/X11, W3C, Unicode, CC copyright only, WTF public license
Category B

- Can’t include in source release
- Contain some restriction of use
- By using binary form limits chance of corruption
- Common license include:
  - Common Development and Distribution License (CDDL), Eclipse Public License (EPL), Mozilla Public License (MPL), Creative Common Attribution (CC-A)
Category X

- Can’t depend on
- Can’t bundle
- A few exceptions for build tools
- Or optional dependancies
- Common Category X include:
  - GPL, LGPL, CC non commercial, JSON, BSD 4 clause, Apache 1.0?
No Unexpected Binary Files

- No compiled source in a source release
- No exes, dlls, jars or class files please
Headers

- All Apache licensed source files should have an ASF header
- Don’t include a copyright line
Can Compile

• Helps to have clear instructions on how to in the release
• If it doesn’t work on a platform please note that
• If you needs to set someone or download a 3rd party component to get it to compile note that
• Make it easy to do
Apache Wombat

- Fictional Apache project bundling Bootstrap 3.3.2
- Showing how to assemble LICENSE and NOTICE
- Github with text explanation and checkin step by step showing changes
  [https://github.com/justinmclean/ApacheWombat](https://github.com/justinmclean/ApacheWombat)
- Short screen cast (5 minutes) video of assembly
  [https://vimeo.com/171210141](https://vimeo.com/171210141)
Wombat Walk Through

- Get boilerplate LICENSE and NOTICE files via curl
- Get NOTICE file to correct copyright and year
- Add Bootstrap’s MIT license to LICENSE
- index.html contains HTML shiv which is dual licensed MIT/GPL
- Add HTML shiv MIT to LICENSE
- index.html depends on Respond.js and jQuery but not bundled
- Bootstrap bundles normalize.js add MIT to LICENSE
- Glyphicon fonts are MIT license add to LICENSE
Nice to Haves

- Up to date README
- Up to date CHANGES
- KEYS file published
Common Mistakes

- Unexpected binary files in source release
- Contents of LICENSE and NOTICE files
- Source and binary have same LICENSE and NOTICE
- Release not in correct place
- Missing DISCLAIMER
- Missing headers - sometime due to Rat exclusions
Binary Distributions

• Need to comply the same way as source distributions
• LICENSE and NOTICE may be different and the content of the artefact is often different to the source artefact
• May need to look inside jars to see what is bundled
• But are not official releases and provided for convenience only
Where to ask for help

• Ask on your mailing lists
• Ask your project Mentors
• Email the incubator mailing list at: general@incubator.apache.org
• Email the legal discuss mailing list at: legal-discuss@apache.org
The incubator is broken

- Every few years this comes up, I don't think it is, but like most things it’s not perfect
- It does adds a lot of value for a relatively small amount of work for those involved
- Following the general list and see what issues incubating project do/don’t run into
- We could do with more help. Get involved! You don't have to be an ASF member.
- We need more people reviewing releases and helping improve documentation
How can we improve?

• Please email the incubator mailing list at: 
  general@incubator.apache.org

• We’re happy to talk about it - perhaps a bit too much :-)
Other Tools

• Apache Creadur project (Rat + more)
  http://creadur.apache.org

• Apache Whisker - describes licenses via meta data
  http://creadur.apache.org/whisker/
Questions?

Ask now, see me after the session, follow me on twitter @justinmclean or email me at justin@classsoftware.com.

Slides can be found at conference site.