



License Expectations

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| 17 | Apertis aims to accomplish the following goals with it's licensing: | |
| 18 | • Ensure that all the software shipped in Apertis is open source or at least | |
| 19 | freely distributable, so that downstreams are entitled to use, modify and | |
| 20 | redistribute work derived from our deliverables. | |
| 21 | • Ensure that Apertis images targeting devices (such as HMI and fixedfunc- | |
| 22 | tion), are not subject to licensing constraints that may conflict with the | |
| 23 | regulatory requirements of some intended use cases. | |
| 24 | In order to reach these goals, the below assumptions are made: | |
| 25 | • Licenses declared by open source projects are correct: The soft- | |
| 26 | ware authors correctly document the licensing of their released software | |
| 27 | sources and that they have all the rights to distribute it under the docu- | |
| 28 | mented terms. | |
| 29 | • Licenses verified by the Debian project are correct: The package | |
| 30 | distributors (that is, Debian maintainers and the FTP Masters team) | |
| 31 | check that the licensing terms provided by the software authors are | |
| 32 | open source using the definitions in the Debian Free Software Guide- | |
| 33 | lines ¹ and ensure those terms are documented in a canonical location | |
| 34 | (debian/copyright in the package sources). | |
| 35 | • Licenses of Debian patches do not imply a relicensing: The patches | |
| 36 | provided in Debian packaging metadata are aimed to keep the same license | |
| 37 | of the files they patch unless a specific note is found in the patch file. | |
| 38 | Under this assumption the license of the Debian packaging metadata does | |

¹https://www.debian.org/social_contract#guidelines

39 not affect the license of the patches, and a bug report should be open on
40 Debian to fix the issue.

41 Apertis also performs [license scanning](#)² as part of its continuous integration
42 process to help ensure that its licensing goals are maintained.

43 **Licensing constraints**

44 Apertis currently limits the usage of the licenses below:

- 45 • GPL-3.0 and derivatives (LGPL-3, AGPL-3)
- 46 • BSD-4-Clause

47 **GPL-3 and derivatives**

48 [Version 3 of the GPL license](#)³ was created to address the concern of users who
49 were prevented from running modified code on their device, when the device was
50 shipped with open source software. A common method for preventing users to
51 run their own code is by using signature verification. This practice is known as
52 [Tivoization](#)⁴. Those licensing rules are a constraint because in some application
53 domains, it is a regulatory (or safety) requirement to ensure that the hardware
54 runs verified software.

55 **Original 4 clause BSD license**

56 The [BSD-4-Clause](#)⁵ license still contains the problematic advertisement clause
57 that was dropped in later versions and is thus to be avoided in Apertis.

58 The original authors of the license retroactively deleted the problematic clause
59 on the software under the University of California copyright, leading to the [BSD-
60 4-Clause-UC](#)⁶ variant which resolves the issue on the original software, but not
61 on software with different copyright holders.

62 **Apertis Licensing expectations**

63 Code written for Apertis, including build scripts, helpers and recipes, should
64 be licensed under the [Mozilla Public License Version 2.0](#)⁷. Images (such as
65 icons) and documentation in Apertis are licensed under the [Creative Commons
66 Attribution-ShareAlike 4.0 International](#)⁸ (CC BY-SA 4.0) license.

²<https://www.apertis.org/architecture/application/license-scanning/>

³<https://spdx.org/licenses/GPL-3.0-or-later.html>

⁴<https://en.wikipedia.org/wiki/Tivoization>

⁵<https://spdx.org/licenses/BSD-4-Clause.html>

⁶<https://spdx.org/licenses/BSD-4-Clause-UC.html>

⁷<https://www.mozilla.org/en-US/MPL/2.0/>

⁸<https://creativecommons.org/licenses/by-sa/4.0/>

67 **General rules of the Apertis project and their specific con-** 68 **straints**

69 The [Debian Free Software Guidelines](#)⁹ defines expectations for the licenses of
70 the projects that are integrated in Debian. They serve as a base for Apertis
71 policy. The DFSG can be read in the [Appendix](#) section of this document.

72 For more guidance on how to ensure your software properly identifies its licens-
73 ing, see the guide on [applying licensing](#)¹⁰.

74 On top of the DFSG expectations, Apertis defines additional rules for specific
75 sections of its package repository which are described in [Apertis specific rules](#).
76 In particular, the sections in the Apertis package repository are meant to group
77 the packages that are installed on images for target devices and should thus be
78 free of [licensing constraints](#).

79 Debian packages in a repository are organized in components. A component is
80 a group of packages sharing a common policy. A single image can incorporate
81 packages from different components.

82 **Apertis Repository component specific rules**

83 The canonical source of Licensing information is this document. Each repository
84 is listed here, with the rules that apply.

85 Each component contains several source packages, and each source package can
86 generate multiple binary packages. For example, in a client server project, it'
87 s possible for a source package to generate two binary packages: one for the
88 server side of a project, and one for the client side. Each binary package can
89 have a different license.

90 For current apertis releases, the following components exist:

- 91 • target: contains packages for the final devices,
- 92 • hmi: contains user interfaces packages,
- 93 • sdk: contains packages specific to SDK,
- 94 • development: contains packages useful for developers,
- 95 • non-free: contains necessary firmware packages which have non-free licens-
96 ing.

97 The license expectations for each of those components are defined below. Any
98 package outside these expectations should be documented as a [license excep-](#)
99 [tion](#)¹¹.

⁹https://www.debian.org/social_contract#guidelines

¹⁰<https://www.apertis.org/guides/licensing/license-applying/>

¹¹<https://www.apertis.org/policies/license-exceptions/>

100 **target**

101 This component ships source packages producing binary packages used in images
102 deployable on target devices. For a file in a binary package to be considered an
103 artifact, the file must have been generated/compiled/translated from a source
104 package. An artifact can be an executable, a library, or any other file that is
105 subject to a license. Specifically, the binary packages installed on those images
106 should not be affected by licensing constraints. This does not mean that every
107 source or binary package in the component must be completely unrestricted:

- 108 • source packages may contain restricted build scripts, provided that the
109 license does not affect generated artifacts
- 110 • source packages may contain restricted tests or utilities, provided that
111 they are not shipped in the same package as the unrestricted artifacts
112 installed on target images
- 113 • binary packages may contain restricted artifacts, provided that they are
114 built from a source package also producing unrestricted packages that are
115 shipped on target images
- 116 • binary packages may contain restricted artifacts with added exceptions.
117 The [GCC Runtime Library Exception](#)¹² covering `libgcc` is the main exam-
118 ple. Those exceptions should be documented as [license exceptions](#)¹³.

119 **hmi**

120 This component has the same usage and constraints as the `target` component.

121 **sdk**

122 This component ships source packages producing binary packages suitable for
123 images deployable on SDK images. Since the packages hosted in this component
124 are only meant for development purposes, no further requirement is imposed
125 other than the DFSG ones.

126 **development**

127 This component provides the packages needed to build the packages in the `target`
128 repository component but that are not meant to be installed on target devices.
129 Build tools like GNU binutils, the GNU Autotools, or Meson are hosted in this
130 component.

131 Dependencies of packages in the `target` component that are not meant to be
132 installed on target images are also hosted in this component. For instance, many
133 source package in the `target` component also build a binary package containing
134 their tests which are not intended to be part of the target images: the extra
135 dependencies required by the test package but not by the main package are
136 hosted in the development component.

¹²<https://www.gnu.org/licenses/gcc-exception-3.1-faq.html>

¹³<https://www.apertis.org/policies/license-exceptions/>

137 The development component also host development tools that are not part of
138 the target images by default, but that may be useful to install manually on
139 target devices during development. Tools like `strace`, `tcpdump` or `bash` belong to
140 this category.

141 Since those packages are exclusively intended for a development purpose within
142 the Apertis development team no further requirement is imposed other than the
143 DFSG ones.

144 **non-free**

145 This component contains packages that are provided under licensing terms that
146 don't meet the licensing requirements required by the other repositories, but
147 which are critical to the operation of a specific device. The Apertis project
148 expects this component to be used purely for firmware. It is expected that each
149 package and/or firmware provided in these packages will be provided under it's
150 own licensing.

151 The licensing of the packages provided in this repository should be fine for
152 distribution, however as they aren't provided under open source terms and thus
153 this needs to be taken into account when using these packages.

154 **Auditing the license of a project**

155 Auditing the license of an imported package depends of the type of the project.

156 For debian packages, the Debian licensing information gives a good indication
157 if a project can be integrated in Apertis. Debian maintainers take extreme
158 precaution to ensure that what they redistribute is redistributable. Using the
159 Debian licensing information provides many benefits:

- 160 • vetting licensing terms to ensure they are open source (in particular, as
161 defined in the DFSG)
- 162 • ensuring that non DFSG-compliant items are excluded from the source
163 code
- 164 • a standardized location for the licensing information (that is, `de-`
165 `bian/copyright` in the package source)
- 166 • an ongoing effort to make the provided licensing information machine-
167 readable ([DEP-5](https://dep-team.pages.debian.net/deps/dep5/)¹⁴)

168 Some projects may not be packaged by Debian. In this case, the project source
169 code should contain a document stating the license. Any project that does not
170 provide license information should not be redistributed.

¹⁴<https://dep-team.pages.debian.net/deps/dep5/>

171 Documenting exceptions

172 For Apertis, the list of exceptions should mention:

- 173 • The project location in Apertis mainly gitlab or OBS.
- 174 • The project source package name
- 175 • The project component
- 176 • The rule the project does not meet that requires the exception
- 177 • The reason behind the exception
- 178 • The date at which the exception was made
- 179 • The name of the person who validated the exception

180 The canonical source of Licensing exceptions is the [license exceptions](#)¹⁵ docu-
181 ment.

182 Apertis derived projects should provide an equivalent location for their specific
183 exceptions.

184 Appendix

185 The Debian Free Software Guidelines (DFSG)

186 1. Free Redistribution

187

188 The license of a Debian component may not restrict any party from selling or
189 giving away the software as a component of an aggregate software distribution
190 containing programs from several different sources. The license may not require
191 a royalty or other fee for such sale.

192

193 2. Source Code

194

195 The program must include source code, and must allow distribution in source
196 code as well as compiled form.

197

198 3. Derived Works

199

200 The license must allow modifications and derived works, and must allow them to
201 be distributed under the same terms as the license of the original software.

202

203 4. Integrity of The Author's Source Code

204

205 The license may restrict source-code from being distributed in modified form
206 only if the license allows the distribution of "patch files" with the source
207 code for the purpose of modifying the program at build time. The license must
208 explicitly permit distribution of software built from modified source code. The

¹⁵<https://www.apertis.org/policies/license-exceptions/>

209 license may require derived works to carry a different name or version number
210 from the original software. (This is a compromise. The Debian group encourages
211 all authors not to restrict any files, source or binary, from being modified.)

212

213 5. No Discrimination Against Persons or Groups

214

215 The license must not discriminate against any person or group of persons.

216

217 6. No Discrimination Against Fields of Endeavor

218

219 The license must not restrict anyone from making use of the program in a
220 specific field of endeavor. For example, it may not restrict the program from
221 being used in a business, or from being used for genetic research.

222

223 7. Distribution of License

224

225 The rights attached to the program must apply to all to whom the program is
226 redistributed without the need for execution of an additional license by those
227 parties.

228

229 8. License Must Not Be Specific to Debian

230

231 The rights attached to the program must not depend on the program's being part
232 of a Debian system. If the program is extracted from Debian and used or
233 distributed without Debian but otherwise within the terms of the program's
234 license, all parties to whom the program is redistributed should have the same
235 rights as those that are granted in conjunction with the Debian system.

236

237 9. License Must Not Contaminate Other Software

238

239 The license must not place restrictions on other software that is distributed
240 along with the licensed software. For example, the license must not insist that
241 all other programs distributed on the same medium must be free software.

242

243 10. Example Licenses

244

245 The "GPL", "BSD", and "Artistic" licenses are examples of licenses that we
246 consider "free".