



License Expectations

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

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<sup>1</sup>[https://www.debian.org/social\\_contract#guidelines](https://www.debian.org/social_contract#guidelines)

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

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

## Licensing constraints

Apertis currently limits the usage of the licenses below:

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

### GPL-3 and derivatives

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

### Original 4 clause BSD license

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

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

## Apertis Licensing expectations

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

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

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

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

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

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

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

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

## 66 General rules of the Apertis project and their specific con- 67 straints

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

71 For more guidance on how to ensure your software properly identifies it's licens-  
72 ing, see the guide on [applying licensing](#)<sup>10</sup>.

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

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

## 81 Apertis Repository component specific rules

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

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

89 For current apertis releases, the following components exist:

- 90 • target: contains packages for the final devices,
- 91 • hmi: contains user interfaces packages,
- 92 • sdk: contains packages specific to SDK
- 93 • development: contains packages useful for developers

94 The license expectations for each of those components are defined below. Any  
95 package outside these expectations should be documented as a [license excep-](#)  
96 [tion](#)<sup>11</sup>.

### 97 target

98 This component ships source packages producing binary packages used in images  
99 deployable on target devices. For a file in a binary package to be considered an  
100 artifact, the file must have been generated/compiled/translated from a source

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<sup>9</sup>[https://www.debian.org/social\\_contract#guidelines](https://www.debian.org/social_contract#guidelines)

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

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

101 package. An artifact can be an executable, a library, or any other file that is  
102 subject to a license. Specifically, the binary packages installed on those images  
103 should not be affected by licensing constraints. This does not mean that every  
104 source or binary package in the component must be completely unrestricted:

- 105 • source packages may contain restricted build scripts, provided that the  
106 license does not affect generated artifacts
- 107 • source packages may contain restricted tests or utilities, provided that  
108 they are not shipped in the same package as the unrestricted artifacts  
109 installed on target images
- 110 • binary packages may contain restricted artifacts, provided that they are  
111 built from a source package also producing unrestricted packages that are  
112 shipped on target images
- 113 • binary packages may contain restricted artifacts with added exceptions.  
114 The [GCC Runtime Library Exception](https://www.gnu.org/licenses/gcc-exception-3.1-faq.html)<sup>12</sup> covering `libgcc` is the main exam-  
115 ple. Those exceptions should be documented as [license exceptions](https://www.apertis.org/policies/license-exceptions/)<sup>13</sup>.

## 116 **hmi**

117 This component has the same usage and constraints as the target component.

## 118 **sdk**

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

## 123 **development**

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

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

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

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

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

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

## 141 Auditing the license of a project

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

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

- 147 • vetting licensing terms to ensure they are open source (in particular, as  
148 defined in the DFSG)
- 149 • ensuring that non DFSG-compliant items are excluded from the source  
150 code
- 151 • a standardized location for the licensing information (that is, `de-`  
152 `bian/copyright` in the package source)
- 153 • an ongoing effort to make the provided licensing information machine-  
154 readable ([DEP-5](#)<sup>14</sup>)

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

## 158 Documenting exceptions

159 For Apertis, the list of exceptions should mention:

- 160 • The project location in Apertis mainly gitlab or OBS.
- 161 • The project source package name
- 162 • The project component
- 163 • The rule the project does not meet that requires the exception
- 164 • The reason behind the exception
- 165 • The date at which the exception was made
- 166 • The name of the person who validated the exception

167 The canonical source of Licensing exceptions is the [license exceptions](#)<sup>15</sup> docu-  
168 ment.

169 Apertis derived projects should provide an equivalent location for their specific  
170 exceptions.

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

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

## 171 Appendix

### 172 The Debian Free Software Guidelines (DFSG)

#### 173 1. Free Redistribution

174

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

179

#### 180 2. Source Code

181

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

184

#### 185 3. Derived Works

186

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

189

#### 190 4. Integrity of The Author's Source Code

191

192 The license may restrict source-code from being distributed in modified form  
193 only if the license allows the distribution of "patch files" with the source  
194 code for the purpose of modifying the program at build time. The license must  
195 explicitly permit distribution of software built from modified source code. The  
196 license may require derived works to carry a different name or version number  
197 from the original software. (This is a compromise. The Debian group encourages  
198 all authors not to restrict any files, source or binary, from being modified.)

199

#### 200 5. No Discrimination Against Persons or Groups

201

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

203

#### 204 6. No Discrimination Against Fields of Endeavor

205

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

209

#### 210 7. Distribution of License

211

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

215  
216 8. License Must Not Be Specific to Debian  
217  
218 The rights attached to the program must not depend on the program's being part  
219 of a Debian system. If the program is extracted from Debian and used or  
220 distributed without Debian but otherwise within the terms of the program's  
221 license, all parties to whom the program is redistributed should have the same  
222 rights as those that are granted in conjunction with the Debian system.  
223  
224 9. License Must Not Contaminate Other Software  
225  
226 The license must not place restrictions on other software that is distributed  
227 along with the licensed software. For example, the license must not insist that  
228 all other programs distributed on the same medium must be free software.  
229  
230 10. Example Licenses  
231  
232 The "GPL", "BSD", and "Artistic" licenses are examples of licenses that we  
233 consider "free".