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CERN Open Hardware Licence 2.0

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A suite of licences designed for Open Hardware

History

- March 2011: CERN OHL 1.0
- July 2011: CERN OHL 1.1
- September 2013: CERN OHL 1.2
- 2017: CERN OHL 2, beta 1
- 2019 : CERN OHL 2, beta 2

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Copyleft for hardware
Broad range: mechanical to electronic
Create a hardware commons
Easy to understand

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Specific Challenges

- Scope of copyleft
- Compatibility with other licences
- Fewer mature free and open-source toolchains for hardware than software (and particular problems with ASICs).
- Practicalities of working with FPGAs and ASICs

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Other issues addressed

- Eliminate gendered Language
- Simpler terminology
- Borrowing terms (e.g. “Convey”)
- Troll dissuasion (compliance first approach)
- Contract, not a bare licence.
- Strong, weak and permissive.
- Now works for software

SCOPE

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If you Make a Product from Covered Source, you must make the Complete Source available to a recipient of the Product, either privately, or via a Source Location and license it under the CERN OHL.

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Complete Source

…includes design materials, code, interfacing information etc. It does *NOT* include “Available Components” (for which you only have to provide specifications and interface information).

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- Datacentre
- Rack - network, power cabling
- Enclosure/PSU
- **Circuit board**
- Component - resistor, capacitor, FPGA
- Bitstream
- Custom code, standard libraries, third party libraries

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“Available Component”

- Itself available under CERN-OHL or compatible licence; or
- Available with the specifications, characteristics and interface information necessary to Make the Product
- Or is part of the normal distribution of the toolchain

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“Product”

- May be a finished product, but may be
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  - An intermediate form derived from the Complete Source, such as:
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Scope of copyleft:

- Constrained upwards by “Product”
- Constrained downwards by “Available Component”

Difference between strong and weak

- Weak: You can release a Product without releasing the code for all its components if you have all of the interfacing information etc. for those components (like LGPL)
- Strong: the exception above *only* applies to physical components (i.e you have to release the complete code for digital code: software, HDL files, etc).
- Why physical only?
  - Physical components will generally have to be bought
  - Won't have the design files to make those components from atoms

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Permissive version

- Simpler than reciprocal versions, but with the same patent provisions.
- Like Apache: Notices must be preserved on transfer of the source.

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Where to next?

- Licences, FAQ and commentary available on https://www.ohwr.org/projects/cernohl/wiki/cern-ohl-v2-draft
- We have been consulting with FOSSi Foundation, SPDX and others
- If you would like to comment, please contact me at andrew.katz@moorcrofts.com
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