CERN

European Organization for Nuclear Research
Organisation Européenne pour la Recherche Nucléaire

The CERN OHL

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Knowledge Transfer Group

CERN OHL: background

- *CERN: Intergovernmental Organisation, with mainly European membership, but worldwide participation*

- *Knowledge transfer: maximise dissemination*

- *Open Hardware Repository (Javier Serrano):*
  - Create framework for collaboration among research institutes and beyond
  - Make available designs and documentation for modification/redistribution by all
  - http://www.ohwr.org

- *Options:*
  - Open Source Software licence, e.g. GNU GPL
  - Open Content licence, e.g. GNU Free Documentation Licence, Creative Commons
  - Open Source Hardware licence, e.g. TAPR, e-Puck

Knowledge Transfer

- *Initially drafted to address CERN-specific concern*
    - Tracing impact of our research
    - Taking into account our status and constraints

- *Current form makes it usable by anyone*

- *Principles of the CERN OHL similar to GPL open source software licence*

Knowledge Transfer

CERN OHL: facts and figures

- CERN OHL v.1.1 released July 7, 2011
- Gathering comments / ideas for v.1.2
- 12 projects on the Open Hardware Repository licensed under CERN OHL v.1.1 (as of Sept. 7, 2011)

CERN OHL: main features

Set of definitions

Applicability

- Documentation and products
- Not software

Warranty and liability

General

Documentation: permitted uses and conditions

- Use, copy, distribute;
- Modify, subject to certain conditions
  - Keep notices and disclaimer of warranties;
  - Make clear that the Documentation was modified;
  - License modifications under same conditions (CERN OHL)
  - Notify Licensor of modifications
- Licence to patents owned by Licensor included

Manufacturing products

- Manufacture
- Distribute products, subject to certain conditions
  - Together with Documentation
  - Comply with same obligations that apply to Documentation
- Inform Licensor

Knowledge Transfer

OSHW definition

Documentation

Scope

Necessary software

Derived works

Free redistribution

Attribution

No discrimination against persons or groups

No discrimination against fields of endeavor

Distribution of licence

Licence must not be specific to a product

Licence must not restrict other hardware or software

Licence must be technology neutral

Knowledge Transfer

OSHW definition

Documentation   "preferred format for making changes"

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Knowledge Transfer

OHANDA

Freedom 0: The freedom to use the device for any purpose.

Freedom 1: The freedom to study how the device works and change it to make it to do what you wish. Access to the complete design is precondition to this.

Freedom 2: Redistribute the device and/or design (remanufacture).

Freedom 3: The freedom to improve the device and/or design, and release your improvements (and modified versions in general) to the public, so that the whole community benefits. Access to the complete design is precondition to this.

Knowledge Transfer

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Knowledge Transfer

CERN OHL: points under discussion

1. *Definition of Documentation*
   • Must include the 'source' of the hardware, i.e. preferred form for making modifications

2. *Notification of changes (s.3.3.d)*
   • Version control systems – impractical? not in spirit of licence?
   ❑ Modify definition of "Modifications"?
   • Requirement vs. request; reasonable efforts

   http://www.ohwr.org/projects/cernohl/wiki/CernOhlIdeas

Knowledge Transfer

Open Hardware Workshop

- ICALEPCS (http://icalepcs2011.esrf.eu/)
- Grenoble
- **October 9, 2011**
- http://www.ohwr.org/projects/ohr-meta/wiki/OHWorkshop

Knowledge Transfer