

# NorESM: Copyright and licensing

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# Basics: Copyright

- An author of a creative work receives copyright upon its creation.
- Copyright is an exclusive right to reproduce a work, or adapt or derive other works from it, and communicate those works to the public.
- It applies to computer software.
- Hence, software cannot legally be used freely by the community.

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This is a problem, because restrictions on using, testing, improving and sharing

- makes development in an open community very difficult<sup>1</sup>; and
- it makes reproducibility more difficult.

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# Solution?



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# Solution: Give rights to others

Give up the exclusivity of these rights such that others can use, modify and distribute the software.

All free software licences legally enforce:

- the freedom to use, modify and distribute;
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and may require (depending on the licence) to:

- protect against patent legislation [limited];
- preserves rights for derivative works (copyleft);
- respect your trademarks.

Some licences and copyright statements (from permissive to copyleft):

- 0-clause BSD licence / CC0 / public domain
- 2-clause BSD licence / ISC / MIT License
- 3-clause BSD licence / UCAR licence (CESM)
- Apache License 2
- GNU Lesser General Public License (LGPL)
- GNU General Public License (GPL)



# Example: ISC licence

Copyright <YEAR> <OWNER>

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THE SOFTWARE IS PROVIDED “AS IS” AND THE AUTHOR DISCLAIMS ALL WARRANTIES WITH REGARD TO THIS SOFTWARE INCLUDING ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS. IN NO EVENT SHALL THE AUTHOR BE LIABLE FOR ANY SPECIAL, DIRECT, INDIRECT, OR CONSEQUENTIAL DAMAGES OR ANY DAMAGES WHATSOEVER RESULTING FROM LOSS OF USE, DATA OR PROFITS, WHETHER IN AN ACTION OF CONTRACT, NEGLIGENCE OR OTHER TORTIOUS ACTION, ARISING OUT OF OR IN CONNECTION WITH THE USE OR PERFORMANCE OF THIS SOFTWARE.

# Additional requirements

Additional requirements should not go in a software licence. One could make remarks on the software in a consortium agreement, but this should not be in the software repository.

Concerning the non-commercial requirement: this cannot be required in a free software licence, but copyleft requires derivatives to be free making it unattractive for most companies.

Additional control over the of the software like (mis)use or requiring up-to-date documentation cannot be required through a free software licence. However, the notice of trademarks, at least «NorESM», could have the right effect.

Given the following considerations:

- the need for scientific collaboration and reproducibility,
- the need for a legal disclaimer (no warranty, no liabilities),
- the desire to limit use to non-commercial use,
- the desire to «make your code available free of charge»,
- the desire to «grant equal access rights»,
- the desire to be compatible within the international legal framework,
- my advice to keep things as simple as possible,

I propose to use a standard free software licence, and to consider copyleft insofar this is consistent with potential constraints from the UCAR/NCAR side.

# My proposal

NorESM root repository: GNU Lesser General Public License

component repositories: something GPL-compatible

all repository, all source files: copyright notice of (legal) person  
and reference to licence

end-user licence: none (no additional requirements)

Details: in pull request (after today's feedback)