

About CMC Models in Open Source Simulators

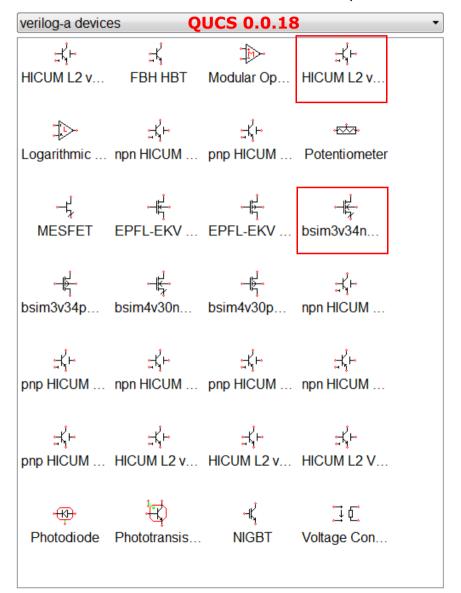
MOS-AK, University of California, Berkeley, CA December 07, 2016

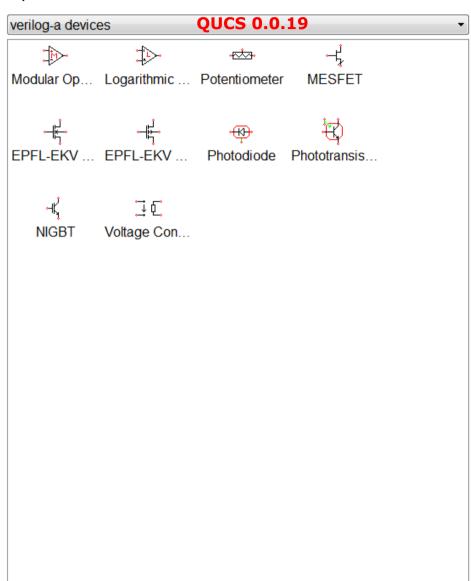
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Overview

- Open source simulators like GNUCAP, QUCS, QUCSstudio, NGSPICE, XYCE... are fantastic tools...
- Especially for Universities and students who want to learn SPICE and to make simulations for free
- Up to now, I used (and my Ph.D. students) QUCS because it was the only open source simulator where HICUM models (both Level 2 and Level 0) were implemented
 - Version 0.0.18
- Unfortunately, in the new version 0.0.19 HICUM models were removed, and other CMC models. Why?
- The reason: CMC licenses not GPL compatible. Why?
- Is it possible to solve this issue and how? knowing that a simulator without advanced models (CMC) is more or less useless...

All CMC models are removed (BSIM, HICUM)





Example of HICUM license (CMC)

The terms under which the HICUM/L2 software is provided are as follows:

Software is distributed as is, completely without warranty or service support.

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- 1. The users agree not to charge for the model owner's code itself but may charge for additions, extensions, or support.
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- 3. Redistributions to others of source code and documentation must retain the copyright notice, disclaimer, and list of conditions.
- 4. Redistributions to others in binary form must reproduce the copyright notice, disclaimer, and list of conditions in the documentation and/or other materials provided with the distribution

Comments of QUCS developer

Why CMC licenses are not GPL?

Clause 1: It establishes a non-commercial clause, which is incompatible with GPL. If the code is included in a media which is sold (by the cost of the media or shipping cost) it is impossible do discern if the distributor is charging for your source or not. This is incompatible with GPL.

Clause 2: It essentially requests to keep the copyright notice, which is fine. However the request for documentation (shall? must?) creates a practical problem which make it incompatible with GPL.

Clause 3: First, which government? Second, it imposes further restrictions that are incompatible with GPL

Clause 4: This seems fine, enforces the copyright retention, but the documentation part looks like Clause 2 again (?)

The Free Software Foundation (FSF) has a nice commented page on the widely used licences and the compatibility to GPL: https://www.gnu.org/licenses/license-list.en.html

The FSF suggestion is to adopt an existing license instead of creating new ones. Proliferation of licenses is bad because it creates a complex scenario where each license has to be carefully checked for compatibility with other existing licenses.

The HICUM license (similar to CMC license for that matter) looks like a the "original BSD" also known as "4-clause BSD". This license is not compatible with GPL.

https://www.gnu.org/licenses/license-list.en.html#OriginalBSD http://directory.fsf.org/wiki/License:BSD_4Clause

To solve the compatibility issues of the above licence the "modified BSD" also known as "**3-clause BSD**" was created. The modified license **is** compatible with GPL.

https://www.gnu.org/licenses/license-list.en.html#ModifiedBSD http://directory.fsf.org/wiki/License:BSD_3Clause

Solutions?

From these comments, is it possible to make CMC licenses GPL compatible?