For compact models to be deployed through needs.nanoHUB.org, the following specific guidelines apply.

1) Each Verilog-A model must contain a header with the following minimum set of information:

> Author, affiliation, contact information
> Date the model was last updated
> Model version
> For an example of a good header, see the MVS model
> MVS 1.0.1 Nanotransistor Model (Silicon)

2) NEEDS Verilog-A models must be licensed according to the NEEDS-modified CMC license (https://nanohub.org/groups/needs/File:LICENSE.txt).

> The text of this license must be included in the Verilog-A script.
> For an example of how this is done, see the MVS model
> http://nanohub.org/resources/19685/download/mvs_model_si_1_0_1.va

3) NEEDS Verilog-A models should be given version numbers according to the CMC Guidelines for versioning (https://nanohub.org/groups/needs/versioning)

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More information about the Compact Model files :
(see https://nanohub.org/resources/20139 for more about these files)

1) < model >.va
   The properly licensed, documented, and versioned Verilog-A script. Be sure that your Verilog-A script follows the guidelines.

2) Circuit simulation benchmark files
   - Netlists corresponding to testing simple circuits.
   - Corresponding simulation results (*.pdf file).
   - Simulation options have simulator version dependencies and must be noted (e.g. min. capacitance from node to gnd cmin).
   - Readme file must list the version of SPECTRE or HSPICE that was used to run the circuit netlists (simulator dependencies).

3) Model exerciser (optional)
   A model exerciser is a MATLAB *.m file that plots the various outputs from the model.

4) Model parameter extractor (optional) OR Parameter Sets
   A parameter extractor can be (i) a linear regression method or (ii) a non-linear parameter extraction tool (typically implemented in MATLAB) to extract

parameters in the model upon calibration with experimental data*. **If a parameter extractor is not provided, A PARAMETER SET IS REQUIRED.**

5) < model >manual.pdf
A manual for the model is required. It must describe all the equations in the model, the process for extracting parameters, and should contain references for further information about the model. It is recommended that the model manual show some basic simulation results obtained using the model.

6) Example device data files

Example data sets to be used in parameter extraction.
Include a readme file that explains the format of the experimental data (what different columns represent).
Properly cite the source of experimental data both in readme file and the model manual.

In addition to the files, you will be asked to provide the following information when you are submitting your compact model through nanoHUB's Publication platform:

1) Exact title of the model
2) Version
3) Short description (shows up in search results)
4) Abstract
5) Key references: A list of peer-reviewed publications (or theses and other reports) that discuss the model itself and/or the underlying theory is strongly encouraged. Pointers to open source content are also encouraged.
6) Version notes for any version after the first one, detailing any changes
7) License information: institution, year, authorizing authors, and date the model was last updated
8) Keywords