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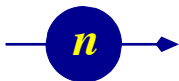
Modify a component

- *different hacks toward a CSNS source*

2019 CSNS

McStas
School

McStas



3 approaches to try - pick which one you prefer:

1. Add a time-structure to Source_Maxwell_3 in an EXTEND block
2. Properly edit a copy of Source_Maxwell_3 and add a time structure
3. Add a spectrum (i.e. 1-3 Maxwellians) to the Moderator component

Further work

- Use the GPPD instrument file and the CSNS decoupled hydrogen input file from https://github.com/McStasMcXtrace/Schools/tree/master/CSNS_March_2019/Other and measure the spectrum
- Fit 1-3 Maxwellians using iFit - use these with one of the proposed modified components
- A “proper” solution for the future would be neutronics calculations for the different CSNS moderators, and characterise/fit these using Ikeda-Carpenter functions for the different time-steps, followed by “stitching” these using e.g. Padé functions in the time-domain. See attached report from SNS second target station for examples
- file: SNS-STS-moderator-files.zip

A “quick and dirty” temporary solution

- Generate MCPL files from Vitess 3.4 and use these with McStas
- Advantage:
 - Straightforward and quick to do
- Disadvantage:
 - Slower than an analytical solution, big files, statistically limited