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Version 2

Do an EXAHD GENE run on hazel hen V.2

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Protocol status: In development

We are still developing and optimizing this protocol

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Last Modified: October 30, 2018

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Fix parameters, upload and create issue

- 1 Define a scenario (or more that belong together) and push it as a parameters file into <https://simsgs.informatik.uni-stuttgart.de:8444/EXAHD/ParameterFiles> (for the combigrid runs, we'll need ctparam files there, too)

Create an issue to have other people have a look at it and so we can guide it through our project board: <https://simsgs.informatik.uni-stuttgart.de:8444/EXAHD/ParameterFiles/boards>

Add label 1 to the issue once you have completed this step.

Pull onto hazel hen, adapt submit script

- 2 <https://www.protocols.io/view/using-hlrs-hazel-hen-supercomputer-ud8es9w>

To pull, log into hazel hen with

Command

```
ssh -R 7890:simsgs.informatik.uni-stuttgart.de:22  
ipvuser@hazelhen.hww.de  
git pull /lustre/cray/ws8/ws/ipvpolti-EXAHD/ParameterFiles
```

Execute `./newprob`` in `/lustre/cray/ws8/ws/ipvpolti-EXAHD/gene-dev/`` to create a new problem directory `prob`+number`.

Symlink or copy your desired parameters file there as `parameters``.

Make sure that the output folder (called `diagdir``) specified in the parameters file exists.

A template submit script is located in

https://gitlab.mpcdf.mpg.de/ext-ec8a21db5900/gene-dev/blob/exahd/makefiles/hazel_hen/qsub_hazel_hen.sh

use it to submit the job from the problem directory, after adapting the cores and time etc.

If you changed something about the installation or in the parameters file, now is a good time to commit these changes. mention the link to the issue in the commit message, so



the issue page gets updated.

Add label 2 to the issue.

Submit

3

Command

```
qsub /lustre/cray/ws8/ws/ipvpolli-EXAHD/gene-  
dev/"prob+number"/qsub_hazel_hen.sh
```

Add label 3 to the issue
... and wait.

Get simulation results into git annex

4 git annex is a storage space where the metadata will be kept in our <https://simsgs.informatik.uni-stuttgart.de:8444/EXAHD/ParameterFiles> , but the actual files are stored somewhere else.

for this, copy or move the problem directory into a sensible place in
/lustre/cray/ws8/ws/ipvpolli-EXAHD/ParameterFiles

==> (Further instructions follow soon once the instance is set up)

Be sure to include (the commit hashes of)

- the GENE version used
 - the combigrid module used (if applicable)
 - the parameter file used (if not transparent from the file structure)
- in the commit message

Add label 4 to the issue.

Do postprocessing



5 Depends on the scenario, and what we want to find out.

For instance, get the files onto draco and run GENE diagnostics there (Tilman can help with that).

Or pull them onto your machine and do visualizations there. Or, do the heavy number crunching on hazel hen directly.

Add label 5 to the issue.