EESSI Happy Hour

Topic Series: EESSI dashboard and ReFrame tests

Mondays at 14:00 CE(S)T

www.multixscale.eu

https://www.eessi.io/docs/training/2025/happy-hours-sessions

Current session: EESSI dashboard

https://www.eessi.io/docs/training/2025/happy-hours-sessions

Streaming Optimised Scientific Software

EESSI

EUROPEAN ENVIRONMENT FOR SCIENTIFIC SOFTWARE INSTALLATIONS

Website: eessi.io

EESSI support portal:

gitlab.com/eessi/support

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***Session Highlights**:*

- The dashboard: https://dashboard.eessi.io/

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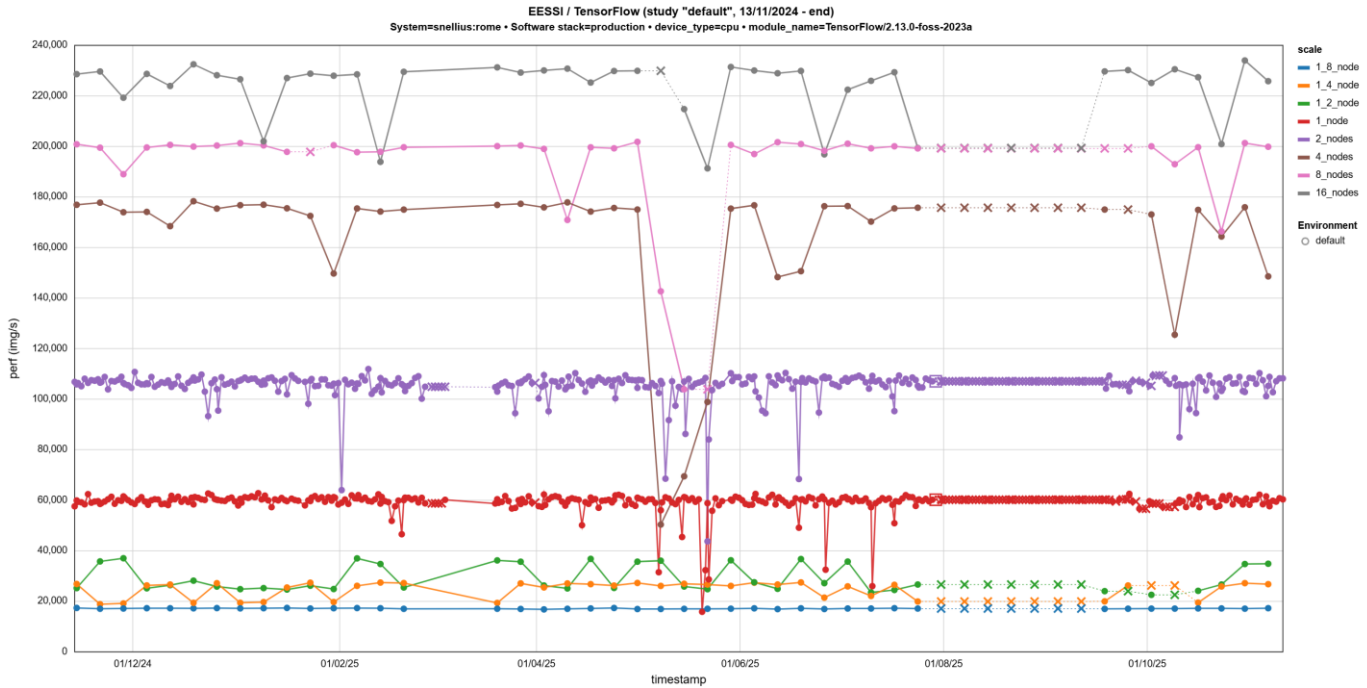

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Goal of the EESSI test suite

- Test functionality and performance of the EESSI software stack on a wide range of systems

The challenge

- Every system is different! Need tests that are *portable*

The solution

- Separate test specific information (in EESSI test suite) from system specific logic (in ReFrame config file)

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Running the test suite

- Requires writing a ReFrame configuration file (https://www.eessi.io/docs/test-suite/ReFrame-configuration-file/)
- Requires ReFrame (use the installation from EESSI!)

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Let's try! First, some prep work

```
git clone https://github.com/EESSI/test-suite.git

# Let's inspect a config
less test-suite/config/surf_snellius.py

# Some minimal ReFrame configuration to find the config file, tests, and set an output dir
export RFM_CONFIG_FILES=$PWD/test-suite/config/surf_snellius.py
export RFM_CHECK_SEARCH_PATH=$PWD/test-suite/eessi/testsuite/tests
export RFM_CHECK_SEARCH_RECURSIVE=1
export RFM_PREFIX=$PWD/reframe_runs

# Make python aware of the test suite
export PYTHONPATH=$PYTHONPATH:$PWD/test-suite

# Make sure we also see GPU-enabled tests, even from non-GPU (e.g. login) nodes
export EESSI_ACCELERATOR_TARGET_OVERRIDE=accel/nvidia/cc90
export EESSI_OVERRIDE_GPU_CHECK=True
```

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Run!

```
module load EESSI/2023.06
module load ReFrame/4.6.2

# Optional dependency, needed for some specific tests (e.g. BLAS) to determine toolchain hierarchy
module load EasyBuild/5.1.2

reframe --list
reframe --list -t CI  # only list short tests
reframe --list -t CI -t 1_node  # only list short tests that run on a single (full) node
reframe --list -t CI -t 1_node -n LAMMPS  # all short, single node tests with LAMMPS in the name

reframe --run -t CI -t 1_node -n LAMMPS
```

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Next session: ReFrame tests

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