test \_ reproducing hang issue use

Main steps:

-- update spack-repo of flecsi2 manually before build flecsi using spack:

<https://github.com/STEllAR-GROUP/flecsi2/blob/task_local/spack-repo/packages/flecsi/package.py>

-- run [build\_flecsi\_spack.sh](https://github.com/hcq9102/my_flecsi/commit/e93a868d2f1335921901c63665d5b53886e6080d) :

--start testing under spack env;

*Note: The cmake/3.23.3 and gcc/12.2.0 , which I used before all the time are removed from Rostam since May 23. Currently, I verified the gcc/9.2.1 and cmake/3.26.3works.*

***Note2: All files can be found from***[*https://github.com/hcq9102/my\_flecsi/tree/main/hpx\_backend%20tests*](https://github.com/hcq9102/my_flecsi/tree/main/hpx_backend%20tests)

Highlights are Commands.

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**task\_local flecsi + hpx master:**

1. **spack build flecsi**

**-- update spack-repo of flecsi2 manually before build flecsi using spack:**

$ cd PROJECT

1. access rostam –medusa & 4 localities

USER@rostam1:/work/USER/PROJECT$ srun -p medusa -N 1 -n 4 --pty /bin/bash -l

1. download flecsi manually:

USER@ medusaXX:/work/USER/PROJECT$git clone --branch task\_local <https://github.com/STEllAR-GROUP/flecsi2.git>

1. Go to flecsi2/spack-repo/packages/flecsi/package.py, modify package.py with the new flecsi branch (task\_local) & hpx version.

3 lines as following:

<https://github.com/hcq9102/my_flecsi/blob/main/hpx_backend%20tests/package.py#L19-L22>

<https://github.com/hcq9102/my_flecsi/blob/main/hpx_backend%20tests/package.py#L116>

**-- run** [**build\_flecsi\_spack.sh**](https://github.com/hcq9102/my_flecsi/commit/e93a868d2f1335921901c63665d5b53886e6080d)**: script from**

[**https://github.com/hcq9102/my\_flecsi/blob/main/hpx\_backend%20tests/build\_flecsi\_spack.sh**](https://github.com/hcq9102/my_flecsi/blob/main/hpx_backend%20tests/build_flecsi_spack.sh)

USER@ medusaXX:/work/ USER /PROJECT$ ./build\_flecsi\_spack.sh

**2. start testing under spack env:**

**// activate spack env**

USER@ medusaXX:/work/ USER /PROJECT $source spack/share/spack/setup-env.sh

USER@ medusaXX:/work/ USER /PROJECT $ spack env activate -p ./

// will see [PROJECT] in the front

[PROJECT] USER@medusaXX:/work/USER/PROJECT$

**// do test —Release**

Go to cmake-build\_release/test

[PROJECT] USER@medusaXX:/work/USER/PROJECT$ cd flecsi2/cmake-build\_release/test

Copy test script to test folder: <https://github.com/hcq9102/my_flecsi/blob/main/hpx_backend%20tests/test_csv.sh>

[PROJECT] USER@medusaXX:/work/USER/PROJECT/ flecsi2/cmake-build\_release/test$ ./test\_csv.sh

**// do test —Debug**

// change the results name for ‘debug’ in script test\_csv.sh

[PROJECT] USER@medusaXX:/work/USER/PROJECT/ flecsi2/cmake-build\_release/test$ ./test\_csv.sh

After testing, exit spack env: ~ $ spack env deactivate

**3.NOTE: Try different localities: eg. Localities=2**

USER@rostam1:/work/USER/PROJECT$ srun -p medusa -N 1 -n **2** --pty /bin/bash -l

USER@ medusaXX:/work/ USER /PROJECT $source spack/share/spack/setup-env.sh

USER@ medusaXX:/work/ USER /PROJECT $ spack env activate -p ./

// release (change NUM value in script test\_csv.sh)

[PROJECT] USER@medusaXX:/work/USER/PROJECT/ flecsi2/cmake-build\_release/test$ ./test\_csv.sh

//debug

[PROJECT] USER@medusaXX:/work/USER/PROJECT/ flecsi2/cmake-build\_debug/test$ ./test\_csv.sh

Try more localities: repeat the steps in 3.

**task\_local2 flecsi + hpx master:**

***Note2: All files used can be found from***[*https://github.com/hcq9102/my\_flecsi/tree/main/hpx\_backend%20tests*](https://github.com/hcq9102/my_flecsi/tree/main/hpx_backend%20tests)

**1. spack build flecsi**

**-- update spack-repo of flecsi2 manually before build flecsi using spack:**

$ cd PROJECT

1. access rostam –medusa & 4 localities

USER@rostam1:/work/USER/PROJECT$ srun -p medusa -N 1 -n 4 --pty /bin/bash -l

1. download flecsi manually:

USER@ medusaXX:/work/USER/PROJECT$ git clone --branch task\_local2 <https://github.com/STEllAR-GROUP/flecsi2.git>

1. Go to flecsi2/spack-repo/packages/flecsi/package.py, modify package.py.

Replace the package.py using <https://github.com/hcq9102/my_flecsi/blob/main/hpx_backend%20tests/package2.py>

// the new package.py includes “unit” flag defined which can be used in build flecsi script directly. No side effects.

**-- run** [**build\_flecsi\_spack.sh**](https://github.com/hcq9102/my_flecsi/commit/e93a868d2f1335921901c63665d5b53886e6080d)**: script from**

<https://github.com/hcq9102/my_flecsi/blob/main/hpx_backend%20tests/build_flecsi_spack.sh>

USER@ medusaXX:/work/ USER /PROJECT$ ./build\_flecsi\_spack.sh

**2. start testing under spack env:**

**// activate spack env**

USER@ medusaXX:/work/ USER /PROJECT $ source spack/share/spack/setup-env.sh

USER@ medusaXX:/work/ USER /PROJECT $ spack env activate -p ./

// will see [PROJECT] in the front

[PROJECT] USER@medusaXX:/work/USER/PROJECT$

**// do test —Release**

Go to cmake-build\_release/test

[PROJECT] USER@medusaXX:/work/USER/PROJECT$ cd flecsi2/cmake-build\_release/test

Copy test script to test folder: <https://github.com/hcq9102/my_flecsi/blob/main/hpx_backend%20tests/test_csv.sh>

[PROJECT] USER@medusaXX:/work/USER/PROJECT/ flecsi2/cmake-build\_release/test$ ./test\_csv.sh

**// do test —Debug**

// change the results name for ‘debug’ in script test\_csv.sh

[PROJECT] USER@medusaXX:/work/USER/PROJECT/ flecsi2/cmake-build\_release/test$ ./test\_csv.sh

After testing, exit spack env: ~ $ spack env deactivate

Try different localities: see page2 -- part3.