

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](#) :

--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/3.26.3 works.

Note2: All files can be found from

https://github.com/hcq9102/my_flecsi/tree/main/hpx_backend%20tests

Highlights are Commands.

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

2. download flecsi manually:

USER@ medusaXX:/work/USER/PROJECT\$ git clone --branch task_local

<https://github.com/STELLAR-GROUP/flecsi2.git>

3. 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](#): 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

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

```
USER@rosta1:/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

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

2. download flecsi manually:

USER@ medusaXX:/work/USER/PROJECT\$ git clone --branch task_local2

<https://github.com/STELLAR-GROUP/flecsi2.git>

3. 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**: 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.