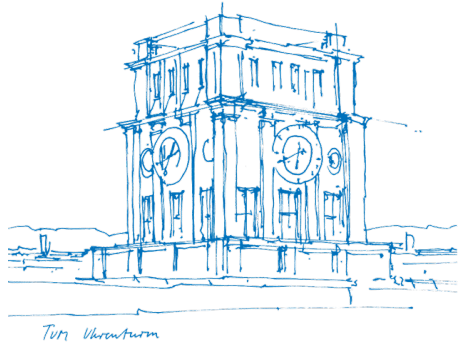


The OpenFOAM community needs its own online home

17th OpenFOAM Workshop
Cambridge, UK

Gerasimos Chourdakis
Technical University of Munich

July 13, 2022



Similarities & one difference



Turning into a de facto standard for software communities

open-source forum platform, self-hosted, free hosting for open-source projects



`discourse.org` (not to be confused with Discord)

Disclaimer: I have nothing to do with it.

Experiences from the preCICE forum



Home GitHub Twitter YouTube



all categories ▶ all tags ▶ Latest New (1) Top Bookmarks

✂ + New Topic

Category	Topics	Latest
News News, announcements, "blog"-like posts	23	<input type="checkbox"/> Recommended solid solver with 3D functionality? Using preCICE ■ adapters 2 6h
Is preCICE for me? General questions regarding preCICE as a coupling solution.	39	<input type="checkbox"/> Turek-Hron FSI with OpenFOAM and CalculiX Official adapters and tutorials ■ calculix ■ fsi ■ openfoam 8 17h
Installing preCICE Any issues with getting the preCICE library installed	52	<input type="checkbox"/> Pipe flow FSI using OpenFOAM and CalculiX 21 19h
Using preCICE Using the preCICE API, configuring a new simulation	178	<input type="checkbox"/> [OpenFOAM-6 adapter] Error during build: undefined symbols of dependencies Official adapters and tutorials ■ adapters ■ openfoam 3 1d
Official adapters and tutorials Installing, configuring, extending adapters, running or modifying the tutorials	147 1 new	<input checked="" type="checkbox"/> Variable time steps without sub-cycling in serial-explicit coupling 22
Community projects Share your simulation cases for everybody to admire and try.	3	



preCICE.discourse.group, 283 users since Nov 2019

Makis Developer 21d

So, if I understand correctly, there is the following config:

```
<time-window-size value="-1" method="first-participant"/>
<participants first="Capsule" second="PCM"/>
```

meaning that Capsule should prescribe the time step size.

Since adjustTimeStep is set to no, Capsule should always return the same time step size (assuming 1.0, should be defined in the controlDict). I also see that the first solution reported by preCICE then reports:

```
The timestep length given to preCICE in "advance" 1 exceeds the
```

uekerman Developer 12d

Hi @auer1329

So, it seems that the additional bug, we will only be able to solve when merging initialize and initializeData, which we think about doing in the next major release. The complexity here is that you use both "first-participant" and data initialization. We now found out that this combination never worked, it seems nobody has ever needed it.

Your case should work if you set "initialize=off" for all exchanged data (and using the version from the PR). Of course, then, initial data is not communicated. Maybe as a workaround you could hard-code these values on the first participants?

Clear what all this means or do you need more explanations?

1 Reply Solution 1 ❤️

A good question maybe is if really timestepSolverDetermined < timestepPrecision case (maybe timestepPrecision is not up-to-date?). This should come from initialization

```
github.com
preCICE/openfoam-adapter/blob/a95da52062c2f503ce58d9509c3e47f5ef0/Adapter.C#L512-L515
```

```
512 void preCICEAdapter::Adapter::initialize()
513 {
514     DEBUG(adapterInfo("Initializing the preCICE solver into
515         timestepPrecision_ = preCICE->initialize();
```

Create a new Topic

Fluid-structure interaction with OpenFOAM

Uncategorized optional tags

This is an equation:

```
$$
Open \nabla_n \text{FOAM}
$$
```

Create Topic cancel

preCICE Workshop 2022: Introduce yourself!

News workshop2022

IshaanDesai Developer 3 Feb 9

Hi there!

We want to make the preCICE Workshop 2022 as interactive as possible, and we thought we could complement the virtual conference sessions with the "take-your-time" power of Discourse.

In this topic, we ask everybody joining the workshop to introduce themselves, similar to last year's Discourse post. If you were an attendee in the last workshop, you can link to your post from last time. You can use this space to add even more information and links to your work. During the discussion sessions of the workshop, you are encouraged to refer others to your post.

Some ideas to get you started:

- Name and affiliation.
- Some work you would like to share (images & videos welcome!).
- How long you were using preCICE, how did you find it, what do you know already?
- What do you want to learn in this workshop?
- Any links to forum topics you want to discuss during the hands-on user support sessions? Please also link to your GitHub profile so that we know its your there too!

4 ❤️ 60 replies 820 views 56 users 293 likes 41 links

Frequent Posters

Community health

Quarter APR 12 - JUL 12

Consolidated Pageviews

Topics 37 Posts 219

preCICE Log In

One year of preCICE on Discourse

News community inactive

Makis Developer 1 Oct 20

In September 2019, the communication with our community had already increased more than we could handle with the channels we had back then: a mailing list, and a Gitter chatroom. After long discussions on how to take our communication to the next level, we ended up creating our own "preCICE forum" as part of Discourse. Since many software communities go through the same phase, let's have a look at the motivation, some data, and what we have learnt.

Your topic is similar to...

- Fluid-Structure-Thermal Interactio... Official adapters and tutorials Jan 12 - Hello, I plan to simulate a case about the thermal-structural, can u provide me a esd...
- Fluid-Structure-Thermal Interactio... Official adapters and tutorials Apr 21 - Hello, I plan to simulate an FTSI case. This I need to write temperature and heatflux fr...
- Test installation of OpenFOAM-preCICE... Official adapters and tutorials Dec 21 - I have installed preCICE-2.3.0 with op...
- Openfoam-adapter failed to compile... Official adapters and tutorials May 13 - Hi, everyone. I compile openfoam-v2112 with intel compile, and openfoam-adapter as well. openfoam is successfuly, but I got some error when compiling the openfoam-adapter. Building the Obe...

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Summary

Build bridges, people will come.



`precice.discourse.group`