

Ben Foster <foster@ucar.edu>

Fri, May 29, 2015 at 9:26 AM

TIEGCM with AMIE hooks

5 messages

jwolfe@astraspace.net <jwolfe@astraspace.net> To: Foster@ucar.edu

Hi Ben,

My name is Jon Wolfe, and I am a senior software engineer locally in Boulder at ASTRA. We're part of the ICON project, working with Astrid Maute. She suggested I write you with a question we have run into. I'm trying to combine her TIEGCM_ICON codebase with a version of TIEGCM that has hooks to use AMIE data for high latitude boundaries. And one of the issues I've run into is that Astrid's version has the parallel dynamo routine, while the AMIE version is still using the serial code. Astrid feels strongly that we want to stick with pdynamo, so I'm curious if anyone there has modified that code to include AMIE potentials. She had told me you would be the person who might know.

Thanks for any help you can offer, Jon

Ben Foster <foster@ucar.edu> Tue, Jun 2, 2015 at 10:11 AM To: "jwolfe@astraspace.net" <jwolfe@astraspace.net>, Gang Lu <ganglu@ucar.edu>, Astrid Maute <maute@ucar.edu>

Jon,

The tiegcm_amie branch does not have the parallel dynamo code yet. Gang has been working on updating the tiegcm_amie branch, but it is not ready yet. If you cannot wait,

you could possibly merge Astrid's ICON branch (tiegcm/branches/tiegcm_icon) with the tiegcm AMIE branch (tiegcm/branches/tiegcm_amie), but beware that the latter is quite old compared to the trunk that the ICON code is based on. It does not have parallel dynamo, but I don't think that's essential - the parallel dynamo was a performance improvement, but should give essentially the same results as the serial dynamo.

Note that the TIMEGCM AMIE branch is up to date w/ the trunk, including the parallel dynamo, thanks to Gang's efforts last March. So another possibility would be to merge the ICON hooks to the TIMEGCM amie branch (timegcm/branches/timegcm_amie). I'm not familiar w/ the icon branch, so I'm not sure if this is a viable option - that would be a question for Astrid.

--Ben

--Ben [Quoted text hidden] --Ben Foster National Center for Atmospheric Research (NCAR) High Altitude Observatory (HAO) 303-497-1595

Astrid Maute <maute@ucar.edu> To: Ben Foster <foster@ucar.edu> Tue, Jun 2, 2015 at 10:16 AM

Cc: "jwolfe@astraspace.net" <jwolfe@astraspace.net>, Gang Lu <ganglu@ucar.edu>, Geoff Crowley <gcrowley@astraspace.net>

Ben,

thanks a lot for the information. That is very helpful especially that TIMEGCM has Amie and pdynamo together thanks to Gang. I will discuss it with Jon and Geoff.

Thanks a lot, Astrid [Quoted text hidden]

Ben Foster <foster@ucar.edu> To: Joe McInerney <joemci@ucar.edu>

Joe, FYI: [Quoted text hidden]

jwolfe@astraspace.net <jwolfe@astraspace.net>

To: Astrid Maute <maute@ucar.edu>

Cc: Ben Foster <foster@ucar.edu>, Gang Lu <ganglu@ucar.edu>, Geoff Crowley <gcrowley@astraspace.net>

Thanks all,

Astrid, I would appreciate your advice in figuring out which way to proceed.

Thanks, Jon [Quoted text hidden] Tue, Jun 2, 2015 at 10:22 AM

Tue, Jun 2, 2015 at 11:07 AM