

Summary of the ESMF Change Review Board Meeting on Nov 30, 2009.

Attendance:

Robert Ferraro/JPL, Cecelia Deluce/NCAR, Atanas Trayanov/NASA GSFC, Alan Wallcraft/NRL SSC, Tom Black/NOAA, Mariana Verstenstein/NCAR, Scott Sandgathe/NUOPC

Agenda

The CRB covered the following topics during its meeting:

Introduction of new CRB member – Scott Sandgathe/NUOPC
Development status and schedule review

A synopsis of the discussion and decisions from the meeting is presented below. It is organized by agenda item. These notes attempt to capture the high points of the discussions, and any decisions that resulted.

Development Status Review (Cecelia Deluca)

The Public Release ESMF v4.0.0r was released in Oct 2009. See the release notes for details of interface changes since ESMF v4.0.0.

The interim release v4.0.1 is partially completed, but several items remain to be finished. Since release is not imminent, the CRB decided to remove it from the schedule and combine items with v5.0.0, for a March release.

A number of new feature requests have been received by the ESMF core team with the release of v4.0.0. Cecelia requested that the CRB review the current task schedule to see if some high priority items could be accommodated for inclusion in the v5.0.0 release.

There are a few items on the current schedule that will not get done any time soon. The Fedora Core implementation is tangled up in legal issues, with no resolution in sight. The CRB agreed to remove it from the schedule. The attribute development task (metadata) is ongoing and most development has been completed. With the addition of NUOPC as a major ESMF customer, the task will likely be on hold for the foreseeable future. It was also dropped from the schedule.

User specified grid generation has been deferred. The customer base for this feature is sparse at this time. Current practice is for users to generate their own grid points based on the requirements for their specific models. No CRB member felt that an automatic grid point generation facility was a high priority at this time. This item and the grid generation based on the NCEP w3 library were deferred to future development. In its place, tasks for providing shortcuts to the instantiation of tri-pole and cube-sphere grids were added. These are considered to have higher community interest in the near term.

There is a specific customer request for completion of the ArrayHalo functionality in connection with the use of the Regrid capabilities now available in v4.0.0. It was agreed that this task made sense if the capability was limited (for the time being) to regular structured grids. The generalize Halo operation is still technically complicated, and is not

included in this task. Use test case and documentation are made requirements as part of this task.

The proposed schedule was distributed to core team developers and they refined the tasks on it to reflect current issues and dependencies. A number of relatively short-term items were added, including the ability to change the number of fields dynamically for a sparse matrix multiply (requested for the CCSM implementation) and implementing grid edge connections as a prerequisite to implementing tripole and cubed sphere shortcuts.

Adjustments to the Current Schedule

The Internal Release v4.0.1 is now combined with the v5.0.0 release.
Internal release V5.0.0 is now scheduled for Mar 2010.

Next Meeting

The next meeting is tentatively scheduled to take place at the end of Feb 2010. Members are invited to travel to Boulder for the next meeting to visit the new ESMF host facility at NOAA/CIRES. The specific date is TBD.