

Summary of the ESMF Change Review Board Meeting on Nov 30, 2005 in Greenbelt, MD.

Attendance:

Robert Ferraro/JPL, Cecelia Deluce/NCAR, Mike Seablom*/NASA GSFC, Atanas Trayanov/NASA GSFC, Alan Walcraft/NRL SSC, Chris Hill/MIT, Mark Iredell/NOAA, Mariana Vertenstein/NCAR

* substitute for Tom Clune/NASA GSFC, who was unable to attend at the last minute

Agenda

The CRB covered the following topics during its meeting:

Report on current development status and schedule

The schedule definition and process, schedule granularity, and role of the JST in modifying the schedule

Update to the development and public release schedule

- Validate/adjust current development schedule
- Proposed changes to the schedule
- Next public release contents

ESMF Requirements Review & Prioritization

Process for accepting 3rd party contributions and including them in the public release.

Other topics to be added as requested.

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.

Report on current development status and schedule (Cecelia Deluca)

Cecelia Deluca presented the development task list as captured in SourceForge for the ESMF. She gave a synopsis of each task and noted the key core team member in the task critical path. The CRB had participated in an open telecon with the Joint Specification Team on Nov 10 to gather input on JST development priorities. The SourceForge task list was updated to reflect the JST input.

Members discussed the various tasks on this list for the purpose of prioritizing them into a development schedule. Cecelia identified tasks that were complete, or nearing completion, and grouped them as scheduled to be included in the next internal release (Dec 2005). Those tasks that remained were then considered for scheduling.

Update to the Development and Public Release Schedule

The CRB next took up the task of revising the development schedule to get a feel for the issues involved in the scheduling process.

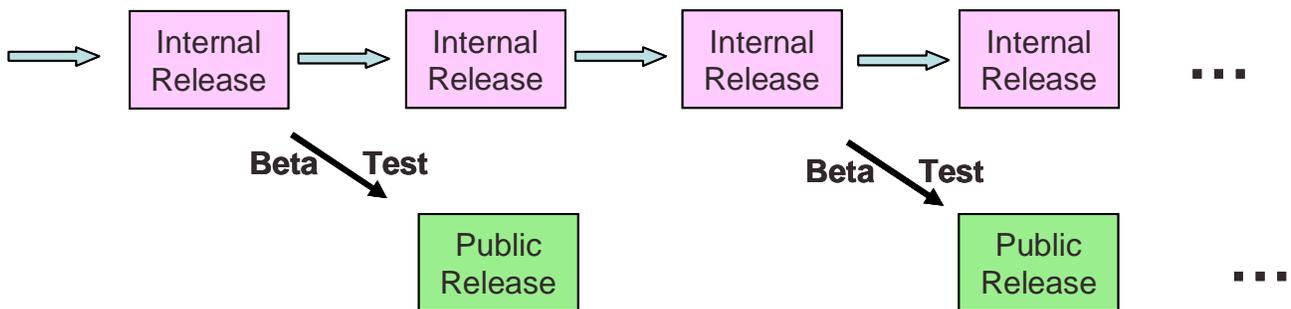
Initial CRB Published Schedule

In order to develop a realistic schedule, members asked for additional information on each task: developer(s) involved, estimated work weeks for each developer, and any dependencies. With the understanding that the workforce estimates for each task are approximate, the board considered how to place tasks on a schedule so that the following constraints were honored:

- No developer is oversubscribed
- Tasks durations are to encompass all development work to the point of release for beta testing

The Board discussed various approaches for arriving at a realist development schedule that would be the product of CRB meetings. Development always involves uncertainties, and unanticipated liens on workforce due to bug fixes, training, and other unscheduled core team activities. There was some discussion about the notion of a roadmap verses a schedule. It was agreed that the CRB product should be a schedule, with the understanding that tasks towards the end of the schedule have more of a roadmap character, while tasks at the beginning of the schedule were to be considered firm commitments. It was also agreed that tasks would be defined at a granularity of no less than 2 work weeks effort. [See the synopsis from the 9/1/05 CRB meeting for the description of what constitutes a task to be scheduled by the CRB.]

Besides tasks, the CRB is charged with scheduling and approving ESMF public releases. Historically, the core team has delivered some number of internal releases in between public releases. The plan from this point forward is to schedule 2 internal releases for each public release, with internal releases scheduled to encompass approximately 3 months of available developers' work time. There will be a 3 month beta test period on the internal release that is scheduled prior to a public release. The beta tested internal release becomes the public release. The sequence of releases looks like this:



Tasks are to be grouped into bins of approximately 12 work months of core team developers' effort (3 months x 4 developers). Tasks will be further identified as release **Required** (the internal release will be delayed if they are not completed) and release **Expected** (scheduled for the release, but the release can take place if one or more are not completed on time). Additional tasks representing development work that is not under direct core team management may also be included on the schedule as *Expected* for release, but due to the nature of the management and funding of these tasks, they will never be scheduled as *Required*. There was discussion about how far out into the future the schedule should cover. Six months was deemed to be too short, and one year was deemed to be speculative at best. A compromise was agreed upon where the CRB will

schedule tasks to encompass the next 3 internal releases. Public releases will be scheduled accordingly. Tasks that have been accepted by the CRB for scheduling, but cannot be accommodated in the schedule because of workforce constraints will be listed as **Accepted** for future scheduling.

The CRB reviewed each task on the SourceForge list and accepted all of them for scheduling. Cecelia Deluca provided workforce estimates and developer dependencies in real time as each task was reviewed. The Board then proceeded to develop the internal release schedule based on workforce and developer constraints, and consensus priorities. Public releases were then scheduled 3 months following the appropriate internal release. Cecelia Deluca was then asked to vet the schedule with her developers and report back to the CRB with any adjustments that might be necessary. The CRB will adopt a final schedule via email or telecon once the vetting is completed.

Role of the JST

The Board discussed the process used to gather input to the scheduling process. Prior to this meeting, the Board held a joint telecon with the JST to gather input on task priorities, and proposals for new tasks to be scheduled. The consensus was that this process was effective, and should continue in the future. No Board members brought any new task proposals to the table this time around, though the option to do so remains for the future. The Board agreed to continue scheduling joint CRB-JST telecons approximately 2 weeks prior to future meetings for the purpose of gathering prioritization input and new development task proposals.

Future Schedule Revisions

With a tentative baseline schedule established, the board considered the process to be used for revising the schedule at future meetings. Several questions arose in the discussion:

- What happens to **Expected** tasks that are not completed in time for an internal release?
- What about tasks whose durations are greater than the period between internal releases?
- How will internal and public releases be reviewed and approved?
- Are there any requirements to be imposed on accepting new tasks for scheduling?
- Do newly proposed tasks automatically get put at the end of the schedule?

The consensus was that the CRB will review progress against the published schedule at each meeting. Tasks scheduled to be completed for the next internal release would be reviewed for evidence that sufficient internal testing had been done and was successful, and that sufficient documentation of the functionality had been completed. Tasks passing these criteria would be approved for the internal release. If a **Required** task for the release did not pass, the release would be delayed until all required tasks had passed. If an **Expected** task did not pass, the release would be approved as scheduled, and the task would be held over for rescheduling.

For Public releases, the CRB would review the support requests related to the functionality. The decision to approve a feature for inclusion in the public release would be based on a demonstration that the support requests had all been resolved, either by

code fixes, or by documenting limitations. The CRB may delay a public release if there are issues with required functionality scheduled for the release.

Once the next internal release (and public release, if appropriate) has been settled, the Board will review the remainder of the schedule. The Board will make allowances for any workforce liens resulting from delays in internal or public releases. Tasks not approved for release will be reprioritized among the remaining scheduled tasks. Each task on the schedule that is in process will be reviewed for progress and its workforce and duration estimates will be revised accordingly.

The Board will then consider newly proposed tasks. There was some discussion about what should be required for a proposed task to be accepted by the CRB for scheduling. Some members would like to see a use case description be a requirement for accepting a task. Some members would like to see evidence of “prior art” – i.e., the functionality exists in some form in a current application. No consensus was reached on requirements for acceptance. The Board will likely revisit this issue when the next round of new tasks are proposed.

Tasks durations will sometimes span internal release dates. The schedule will only show which release the task is expected to be completed for. The Board expressed a preference for dealing with tasks that do not exceed 3 calendar months in duration. More experience with scheduling long tasks will be needed before any specific policy is considered.

Newly accepted tasks do not automatically go to the end of the list. The Board will review its prioritization of all tasks, and may adjust the priority of any task relative to the others. The Board will then revise the schedule taking into account workforce constraints, developer constraints, and any revisions to resource estimates for existing scheduled tasks. This process will normally result in the adjustment of tasks scheduled for internal releases and the addition of a new internal release (and possibly a next public release) to the schedule. The Board will maintain a 3 internal release horizon of scheduled tasks, and defer remaining unscheduled tasks to the **Accepted** category.

This revised schedule will then be vetted by the core team for accuracy of resource estimates. The Board will make any adjustments resulting from the vetting process via email or telecon before issuing the updated schedule.

Process for accepting 3rd party contributions

The Board noted that there are tasks on the schedule for development work being done outside of the control of the core team manager. These tasks may be considered examples of 3rd party contributions. The process adopted is to schedule them as **Expected** for a future internal release. Once approved for an internal release, the functionality would be reviewed and accepted in the same manner as other elements of a public release. A 3rd party contribution is expected to come to the Board for scheduling through the JST.

ESMF Requirements Review & Prioritization

The Board discussed the DOORS database and the ESMF requirements contained in it. Technical issues are preventing several CRB members from accessing the database, and its current organization is problematic for use by the Board. A discussion ensued as to how the requirements would be linked to the development schedule. Several Board

members expressed the opinion that the current process for placing tasks on the development schedule is not driven by the captured requirements. If the requirements are not going to be used to drive the development schedule, then the CRB has little interest in expending effort on prioritizing the requirements in the database. The working project still considers requirements capture to be important, and will continue to do so. Since the tasks proposed for inclusion on the CRB schedule are to come from the JST, and the database is not usable by the CRB in its current form, the Chair suggested that the CRB not expend any effort on prioritizing requirements at this time. The Board agreed to the proposal.

Next Meeting

The next CRB meeting will take place in approximately 3 months, to be scheduled around members' constraints. Robert Ferraro volunteered to host the next meeting at JPL.