Frameworks Session Report

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CCMC Workshop

**Clearwater Beach**

October 14, 2005.
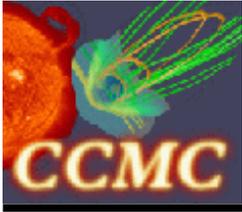
Talks

- Introduction
- SWMF - DeZeeuw
  - Overview and status
  - New results : Halloween storm - 5 s/c comparison
- CISM - Goodrich
  - Overview and status
  - Stressed loosely coupled asynchronous execution design and minimal changes philosophy
- CCMC Data format - Maddox
- USAF - Cade
  - BEI goals - commitment to ESMF
- SEC Perspective - Onsager
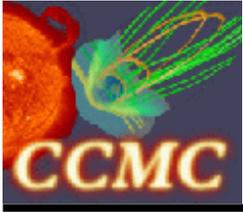
Discussion - Questions Posed

- How do I know which framework I should target?
    - Which framework is easiest to plug into?
- Pressure to converge on a single framework?
    - How will BEI satisfy its SW milestone if it is locked into ESMF, and how will this factor into their operational need to work with a single framework?
    - Dangers of legislating standards!
- Accuracy
    - Coupling won't improve results without blood sweat and tears
    - Are framework validation efforts premature?
- Born-again frameworkers
    - Is there a role for CCMC as framework evangelists?
    - No future codes should standalone - should all design toward modularity!
    - Should there be funding opportunities expressly for code additions to frameworks? (CT did have this notion in round 3)
- Will data assimilation needs take over from coupling imperative in framework design questions in the next decade?
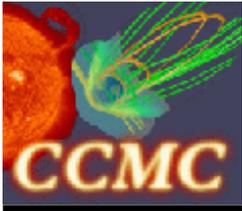
Discussion - Summary

- Consensus - 3 must be collapsed into 1
  - What will the forcing pressure be?
  - When will it arrive? - some time off.
  - I still struggle to grasp what SWFs and ESMF offer to each other beyond political alliance right now.
- Consensus - collapse must emerge naturally, not be legislated
- Consensus - on how to pick the one that is right for you
  - Premature, because of
    - 'coupling physics' challenge
    - Data assimilation challenge (?)
    - Will dwarf actual coupling coding tasks
    - Extended initial 2 model coupling phase - choice based on comfort level in working with particular framework team - wrong choice dangers mitigated by steady evolution of frameworks towards ability to cooperate (partial compliance features).
- CCMC actions
  - Play with frameworks - provide feedback to on how easy each is to plug into.