Project Plan (current)

CCSM Data Model v7 Project

Implementation Plan and Status

Status

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Last Update: July 31, 2006
Work Completed:
o Phase I (datm7) was completed in Nov 2005 for CAMHIST and TN460 modes
  (those modes which emulate datm6 and latm6)
  Phase I was reopened and completed in February 2006 to implement
  a new "CLMNCEP" mode (a new use case)
o Phase II (docn7) began in Nov 2005 and was completed in Dec 2005,
  except for step (G) -- the scientific validation process for the
  SOM mode is still underway by the Polar Climate Working Group.
o Phase III (dlnd7) began in February 2006 and completed June 7, 2006.
  (work was suspended in March & April)
o Phase IV (dice7) began in May 2006 and was completed in June 2006.
* Note: with the completion of Phases I - IV, all version 6 data models
have been replace by version 7 data models in the CCSM3.1 development trunk.
The version 7 codes provide all the functionality found in the version 6 code (and more).
Work In Progress:
o ongoing, relatvely minor, modifications to functionality and science as requested by users.
Next Steps:
o Phase V is expected to begin in August 2006, starting with
  making datm7 a distributed parallel application.
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Implementation Plan

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Phase I ~ create a complete, working datm7 model which implements new
   architecture, shared code, uniform set of basic functionality, and
   which also implements existing datm6 functionality (CAMHIST mode)
   as well as all desired extensions to scientific functionality
   (TN460 and CLMNCEP modes).
   A) requirements analysis wrt to basic/uniform functionality and framework
   B) choose an architectural design wrt basic + framework requirements
   C) implementation: detailed design, coding, debugging, unit-testing
   D) preliminary-system testing
   E) add various "modes" that implement desired science.
   F) incorporate into CCSM3.1 tag
   G) work with appropriate working groups for scientific validation
Phase II ~ Implements existing docn6 functionality as well as all
   desired extensions to scientific functionality (SOM mode)
   A) Adapt datm7 code to implement docn7 component
   B) preliminary-system testing
   C) add various "modes" that implement desired science.
   D) incorporate into CCSM3.1 tag
   E) work with appropriate working groups for scientific validation
Phase III ~ Repeat Phase II for dlnd model
   - note: special functionality wrt independant runoff grid
Phase IV ~ Repeat Phase II for dice model
   - note: special physics mode for Q flux ice accumulation & melting
Phase V - Create SPMD versions of the models.
Resources:
    Core team members: brian k
    Other resources: tony c
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