CGNS Steering Committee
Telecon Minutes
20 November 2003
11:00 AM Eastern Time

1. The meeting was called to order at 11:05 AM. There were 17 attendees, listed in
   Attachment 1.

2. The minutes of the 28 September 2003 telecon meeting were reviewed and approved as
   posted on the web site.

3. Status of previous action items:

   (a) Progress on release of ONERA/AEDC's HDF-5 implementation (Power):
       - Updated implementation released by AEDC, but not available on web yet.
       - Replaces ADF; still need CGNS mid-level library.
       - Still has some known problems: problem closing when multiple opens; cannot do
         linking.
       - Poinot has tested it, and had some problems related to ADF children IDs, possibly
         related to change between V2.2 and V2.3? Poinot will investigate further.
       - Power, Poinot, and Wedan will attempt to coordinate their work on HDF-5, to
         avoid duplication of effort.
       - Wedan will add HDF-5 implementation package to SourceForge for all to access.

   (b) Summary/status of Wedan's fix to speed up CGNS (Wedan):
       - Installed in beta software (V2.3), and results in as much as factor of 10 speed-up.
         Several groups reported that it is working great!
       - Additional change (user-specified record length) may give additional speed-up,
         but existing record length believed to be "optimal" in some sense. If change record
         length, lose backward-compatability, but this point becomes moot if and when we
         switch over to HDF-5.
       - Alonso and Van derWeide will experiment with various record lengths to see what
         types of speed-up can be achieved.

   (c) Are links a fundamental problem for HDF-5? (Power, Poinot):
       - No fundamental problem; it should be workable.
       - Alonso identified a big slow-down when accessing a file with links, but this was
         with V2.2. Alonso will test this with V2.3 and report back.

   (d) Status of pending proposals for extension (Bush):
       - Bush didn't see any particular problems, but some proposals may need increased
         definition.
       - Bush and Rumsey will re-examine them, for discussion at Steering Committee
         meeting in Reno.

   (e) Can a "home page" be added at SourceForge? (Wedan):
       - Yes, but hasn't yet been done yet. Action item carries.

(f) Proposal for reinstating removed element list and range (Wedan):

- Not done yet. Action item carries.

(g) Update charter (Rumsey, Edwards):

- Charter has been updated. Rumsey will send to Steering Committee members and to Towne for posting on web site, for review. Committee will vote on it at Reno meeting.

(h) New ISO drafts posted on CGNS webpage (Wedan):

- Done.

(i) Need for allowing `GridLocation=FaceCenter` for `GridConnectivity` (Rumsey):

- Rumsey has been in contact with the proposer (Harlan McMorris). An official proposal for extension may be forthcoming from him.

(j) Addition of two van der Weide proposals to website (Wedan):

- Done.

(k) Abstract submission (Poinot, Rumsey, Bush):

- Submitted for 2004 AIAA Fluid Dynamics Conference in Portland ("Impact of CGNS on CFD Workflow")
- Also noted that Poinot and Legensky will participate in panel discussion on "Integrated Computational and Visualization Environments" at AIAA meeting in Reno (Wed AM, January 7).

4. ISO status/discussion (Cosner):

(a) All four parts have passed their next gate, so we're OK for two more years.
(b) Parts 52, 53, and 110 are now under formal configuration control. Part 237 is one gate behind, and thus not yet under formal configuration control.
(c) Four months allowed for people to comment, none received yet. The time expires sometime near mid-January.
(d) Boeing FY 2004 funding for this is still undecided.

5. Documentation issues and CGNStalk issues (Towne):

(a) Craig Day at AIAA will send ballot to CGNS Steering Committee members, for approval of current SIDS document as updated Recommended Practice, this month or next.

6. Software status/discussion (Wedan):

(a) Discussion to take place at Steering Committee Meeting in Reno about releasing CGNS V2.3 (removing from beta status)
(b) No documentation changes needed for V2.3.

7. HDF-5 status/discussion (Poinot, Power):

(a) Question about whether or not PHDF-5 (Parallel) will automatically work if HDF-5 works? The answer is no; different calls will have to be added in the Mid-Level

Library. Boeing St. Louis has done similar work, and Bush thinks they can release it, but it uses ADF, not HDF-5.

8. Extensions status/discussion:

   (a) Reading/writing partial connectivity info (van der Weide): For unstructured grids, we cannot now read/write partial connectivity info. This capability is needed for parallel IO, where you don't want to read connectivity info for entire grid on each processor. <u>Van der Weide will write proposal.</u>

9. Other issues:

   (a) Intelligent Light work/update (Edwards):
      - Intelligent Light has finished Phase 1 NASA SBIR for improved data management for CFD, using CGNS. Phase 2 has been awarded, for two years, to start in January.
      - Will be addressing use of HDF-5, including parallel capability.
      - Will also add up to five proposed extensions (or two man-months work). Extensions to be chosen by Steering Committee, and work to be completed within first eight months. Committee to begin selection process at Reno meeting.
      - All CGNS software enhancements will be given to CGNS Committee for public release.
      - Alonso and Van der Weide at Stanford volunteered to work with Edwards to help set up benchmarks.
   (b) Reno meeting in January (Rumsey):
      - Steering Committee Meeting tentatively scheduled to be held Wed, Jan 7, at 7:00 PM.

10. Meeting was adjourned at 12:00 PM.

11. Summary of action items:

   (a) Poinot will further investigate possible problem between V2.2 and V2.3 related to ADF children IDs when using HDF-5 package.
   (b) Wedan will add Poinot and Power's HDF-5 implemetation package to SourceForge.
   (c) Alonso and Van derWeide will experiment with various record lengths to see what types of speed-up can be achieved.
   (d) Alonso and Van der Weide will test to see if there is a big slowdown with V2.3 when a link is present.
   (e) Bush and Rumsey will re-examine and prepare plan for discussing and down-selecting proposals for extension, for discussion at Steering Committee meeting in Reno.
   (f) (carried) Wedan will look into adding a "home page" at SourceForge, allowing more content & description of CVS and release process.
   (g) (carried) Wedan will write and post an extension proposal, regarding issue of removed element list and element range.
   (h) Rumsey will send updated draft Charter to Steering Committee members and to Towne for posting on web site, for review.

(i) Van der Weide will write proposal for partial read/writes of connectivity info.

Attachment 1: Attendees

Juan Alonso	Stanford
Bob Bush	Pratt & Whitney
Ray Cosner	Boeing - Integrated Defense
Armen Darian	Boeing - Rocketdyne
Dan Dominik	Boeing - Rocketdyne
David Edwards	Intelligent Light
Pankaj Gupta	Fluent
Richard Hann	Ansys/CFX
Steve Karman	UT Chattanooga
Kevin Mack	ADAPCO
Marc Poinot	ONERA
Greg Power	USAF/AEDC
Chris Rumsey	NASA Langley
Greg Stuckert	Fluent
Charlie Towne	NASA Glenn
Edwin Van der Weide	Stanford
Bruce Wedan	ICEM CFD Engineering