

CGNS Steering Committee  
Telecon Minutes  
18 September 2003  
11:00 AM Eastern Daylight Time

1. The meeting was called to order at 11:05 AM, at the start of the east-coast hurricane Isabel. There were 14 attendees, listed in [Attachment 1](#).
2. The minutes of the 29 May 2003 telecon meeting were reviewed and approved as posted on the web site.
3. Status of previous action items:
  - (a) HDF-5 implementation (Power):
    - AEDC has implemented the ADFH library (HDF5) for CGNS files, and tested it successfully with Wind and ADFViewer. Seems about 20% slower than ADF for large datasets. Have not done much investigation into why it is slower.
    - Greg Power asked for advice on licensing/release issues. For government organizations like AEDC, what are the difficulties, procedures to follow, etc., in re-distributing modified open-source (e.g., GNU licensed) software? No one had an answer to this. Power will try to obtain permission to release their work to the CGNS steering committee as soon as possible.
    - Others confirmed that the use of CGNS for large databases can be prohibitively slow. The problem appears to be related to the number of nodes (quadratic dependence), not so much to the amount of data stored in each node. Reading seems to be faster than writing. Timing tests seem to indicate the bottleneck is in `cg_close`. Wedan will look into this high priority issue.
    - Need to establish communication between Power and Poinot on their experience with the HDF5 software, if possible.
    - Still no linking capability. Is this a fundamental problem with HDF5? Power will check into this.
  - (b) Review of 2 proposals for extension (Bush):
    - Discussion tabled because Bob had to sign off telecon early. Action item carries over.
  - (c) Comments added to website on release policy (Wedan):
    - Added to SourceForge web site, but limited to 256 characters
    - Alonso offered to house CGNS website at Stanford, if needed
    - Wedan will look into adding a "home page" at SourceForge, allowing more content.
  - (d) CNSLibraryVersion now mandatory, documentation in place; no CGNSVersion extension is being proposed (Towne):
    - Towne confirmed that the documentation has been updated.
  - (e) Latest 2.2 docs to AIAA for update to Recommended Practice (Towne):

- PDF file, in style used for AIAA Recommended Practice, was sent to AIAA on Sept. 2, but no response from them as yet.
- (f) Issue of removed element list and element range (Wedan):
- These are easy to re-implement (and in fact the software changes have already been made and tested in the CVS version).
  - Wedan will write and post an extension proposal, to make it official.
4. Charter issues (Rumsey): Rumsey and Edwards will work together to update the Charter.
5. ISO Status - Chris described the current status, based on info in an email from Ray Cosner.
- (a) Still no Boeing funds for this work. It even seems doubtful that they will be able to restore funding in 2004.
  - (b) ISO has adopted a new rule, requiring the cancellation of any initiatives that have not shown any progress (i.e., passing a gate) in two years. Under the new rule, all four parts of the CGNS initiative are subject to cancellation on Sep 30, 2003.
  - (c) Ray and Peter Wilson put together and submitted to ISO a draft submittal for Parts 52, 53, and 110 for gate 3. Hopefully these will be accepted, and keep the effort alive for two more years.
  - (d) They also created a draft of Part 237 for gate 2, although this has some missing pieces.
  - (e) Wedan will be posting the new drafts at the CGNS web site.
6. HDF5 status (Pointot): On a note unrelated to HDF5, Chris reported that Marc had been working on a MY-SQL DBS server for CGNS files over the summer.
7. Documentation issues and CGNSTalk issues (Towne):
- (a) No documentation issues.
  - (b) CGNSTalk has received several emails containing viruses within the last few weeks. Usually, but not always, the attachment containing the virus is removed by mail filters at NASA Glenn before being sent to the list. So far, this has been more of a nuisance than a severe problem, and no changes have been made to the subscription policy for CGNSTalk.
8. Software status (Wedan):
- (a) Most of the recent work has been on the configuration scripts and the include files, to make the software more portable. It works for Macintosh, also.
  - (b) A new release has not been made yet. Users need to do a CVS update to get the latest updated software.
9. Discussion on extensions:
- (a) The deadline for commenting on the extension proposals currently posted has passed. However, we need information/review from Bush on their status before proceeding.
  - (b) Need for decision regarding allowing `GridLocation=FaceCenter` for `GridConnectivity` (assign team to create a proposal? user who identified need: Harlan McMorris, CentaurSoft). Rumsey will look into this.

- (c) Need for allowing `BCDataSet` under `Family_t` node? (assign team to create a proposal? User who identified need: Edwin van der Weide, Stanford). Van der Weide will write up a formal proposal, and submit it to Bruce for posting.
  - (d) It was mentioned that it would be nice to allow Periodic BC property under a `GridConnectivity1to1` node, in addition to under the general `GridConnectivity` node. Van der Weide will write a proposal, and submit to Bruce for posting.
10. Other issues - Reno abstract on CGNS was not accepted. However, Theresa Benyo reported that Pointot will be an invited member of a panel discussion at Reno (Integrated Computational and Visualization Environments, 8am-12noon Wed Jan 7), but there would be no published paper. Pointot (Rumsey, Bush) will also re-submit the abstract to the Portland AIAA meeting.
11. Meeting was adjourned at 12:00 PM.
12. Summary of action items:
- (a) Power will try to obtain permission to release their work to the CGNS steering committee as soon as possible.
  - (b) Wedan will look into the high priority issue of why CGNS is so slow for large numbers of nodes.
  - (c) Power will check into whether linking is a fundamental problem for HDF5.
  - (d) Bush to review/report on the 2 pending proposals for extension.
  - (e) Wedan will look into adding a "home page" at SourceForge, allowing more content & description of CVS and release process.
  - (f) Wedan will write and post an extension proposal, regarding issue of removed element list and element range.
  - (g) Rumsey and Edwards will work together to update the Charter.
  - (h) Wedan will post the new ISO drafts at the CGNS web site.
  - (i) Rumsey will look into need for allowing `GridLocation=FaceCenter` for `GridConnectivity`.
  - (j) Van der Weide will write up two formal proposals: one for allowing `BCDataSet` under `Family_t` node, and one for allowing Periodic BC property under a `GridConnectivity1to1` node. Wedan will post these.
  - (k) Pointot (Rumsey, Bush) will re-submit the abstract for the Portland AIAA meeting.

Attachment 1: Attendees

Juan Alonso	Stanford
Theresa Benyo	NASA Glenn
Bob Bush	Pratt & Whitney
Dan Dominik	Boeing - Rocketdyne
David Edwards	Intelligent Light
Pankaj Gupta	Fluent
Mori Mani	Boeing St. Louis
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
Nick Wyman	Pointwise