

CGNS Steering Committee
Telecon Minutes
2 July 2008

1. The meeting was called to order at 11:00 AM eastern time. There were 8 attendees, listed in [Attachment 1](#).
2. The minutes of the 7 May 2008 meeting were approved as posted on the web site. (Rumsey noted a missing action item, but it will be added to the action items for this telecon: Wedan and Hauser to look into improving documentation and build instructions for V3.0).
3. Extensions status
 - (a) Regions proposal was approved. It is now listed on the website as “accepted: awaiting implementation in MLL.”
 - (b) There is also an earlier approved extension (Multiple zone connectivities for time-dependent) still awaiting implementation in MLL.
 - (c) New Allmaras proposal for “General SIDS improvement” has been posted. This proposal is for storing edge and face-based data, and creating uniformity across the SIDS. Deadline for comment is August 1, 2008.
 - (d) New Poinot proposal for “Rigid motion improvement” has been posted. Deadline for comment is September 1, 2008.
 - (e) Rumsey to e-mail committee to remind them to comment on new extensions.
4. Status of previous action items
 - (a) Hauser will lead a mini-telecon for those involved with Regions on May 13.
 - i. Done. Regions extension was finally approved.
 - (b) Wedan to remove instructions regarding XML output from configure script in V3.0.
 - i. Not done yet. Hauser to take on this action item.
 - (c) Hauser to look into the issue of bundling HDF-5 with the CGNS release of V3.0.
 - i. Bundling OK as long as HDF-5 copyright kept intact.
 - ii. Decision made for V3.0: bundle in HDF-5. If user does nothing special, “make” will automatically create library with HDF-5 capability, using bundled software. If user specifies, it will either make with user’s version of HDF-5, or will not make with HDF-5 at all.
 - iii. Hauser to make HDF-5 part of V3.0’s tar file distribution, and set up makefile appropriately.
 - (d) Hauser to contact vendors regarding testing V3.0 prior to release if possible and report back to committee.
 - i. Not done yet. Action item carries.
 - (e) Hauser will add HDF-5 parallel code to SourceForge and will let users know when it is available.
 - i. Not done yet. This will be done after V3.0 is released. Action item carries.

- (f) Towne and Rumsey to add `NGON_n` + `NFACE_n` documentation into V3.0 SIDS.
 - i. Done. There was discussion regarding Towne's question about whether there should be a rule for `NGON_n` regarding ordering the nodes. Allmaras felt a general rule probably was not possible in 3-D. The suggestion was made that perhaps it should be suggested in the SIDS that `NGON_n` be used for 2-D only (in this case one could enforce counterclockwise node ordering), and for 3-D one must use `NGON_n` only when in combination with `NFACE_n`. Rumsey to email Towne and Wedan about the issue of node ordering for `NGON_n`.
- (g) Rumsey to send email to committee members describing `NGON_n` + `NFACE_n` and ask them to try it out.
 - i. Done.
- (h) Allmaras to finalize Regions proposal modification, including proposed additions to `FlowSolution`, `DiscreteData`, `BC`, and `BCDataSet` and send to Rumsey for posting on website.
 - i. Done.
- (i) Paul, Bussoletti, and Allmaras to look into finding development (particularly for MLL implementation) resources at Boeing.
 - i. Some discussions have been held at Boeing. They are considering enterprise-wide commitment of person/people resources to CGNS, since 3 significant projects in the company currently use it. It is seen as an investment, but commitment of money is unlikely.
 - ii. Action item carries.
- (j) Duque and Hauser to assume lead on new discussion/proposal for handling sprays of unconnected points.
 - i. Ongoing. There are still some questions that need to be resolved, such as: is the assumption of a spherical particle at each point sufficient, or is handling of more complex shapes needed? Action item carries.
 - ii. Rumsey to look at posting a specific checklist on the website on what to put in a proposal for extension.
 - iii. Duque and Hauser have also been looking into possible NSF funding for CGNS. They plan to continue to pursue this, and also possibly look into the idea of a collaborative of industry partners — to try to secure funding in order to sustain CGNS software development. Intelligent Light would be willing to help spearhead this effort, and manage the collaborative. Duque and Hauser to continue to pursue NSF funding and look into idea of a fundraising collaborative.
- (k) Hauser, Rumsey, and Poinot to continue to explore possible CGNS meeting in Europe.
 - i. Ongoing. A possibility is EUCASS 2009 in France (July 2009). Rumsey will contact EUCASS 2009 conference organizers about possibility of having CGNS sessions and/or tutorial.
 - ii. Rumsey suggested we should also consider writing a CGNS status paper for the AIAA summer meeting in San Antonio in June 2009. Abstract deadline would be Oct 2008 timeframe. Hauser and Rumsey to consider writing abstract on CGNS progress for AIAA summer 2009 conference.

- (l) Poinot to send necessary coding changes for HDF-5 linking to Hauser for implementation into V3.0 alpha version.
 - i. Done. Hauser to merge Poinot's changes related to HDF-5 linking into V3.0.
 - (m) Hauser to look into methods on SourceForge for getting Poinot developer access: switch from CVS to SVN? or use SSL?
 - i. Poinot will check if CVS is working for him, if not Hauser will look into moving to SVN using SSL?
 - (n) Hauser to speak to Koziol at HDF-5 Group about issues related to developers and funding.
 - i. Not done yet. Action item carries.
 - (o) Wedan to investigate issue of MLL deleting the entire node even though its new dimensions are the same.
 - i. Not done yet. Action item carries.
 - (p) Hauser will take control of domain name and will consider possibility of moving website to Utah State site.
 - i. Hauser is waiting for an invoice from ANSYS before he pays for the rights to the domain name. Action item carries.
 - (q) Hauser to contact Hunten about ISO/STEP and ask the best way for us to comment.
 - i. Not done yet. Action item carries.
5. Open Items (purpose of these is to not lose track of long-term issues that come up)
- (a) Keep track of/resolve HDF-5 "to-do" list ([Attachment 2](#)).
 - i. Many of these items are now completed for V3.0.
 - (b) Keep track of progress with ISO/STEP.
 - (c) Need for official certification process (test for compliance)
 - (d) Develop method to write info one element at a time to save memory via something like `cg_section_partialwrite` (Miller 10/19/07 CGNSTalk)
 - (e) Address issue of possible need for "long" instead of "int" to avoid signed 2 Gig limit (Miller 10/19/07 CGNSTalk).
6. Next Telecon is tentatively set for September 3, 2008.
7. Summary of **action items**:
- (a) Wedan and Hauser to look into improving documentation and build instructions for V3.0.
 - (b) Rumsey to e-mail committee to remind them to comment on new extensions.
 - (c) Hauser to remove instructions regarding XML output from configure script in V3.0.
 - (d) Hauser to make HDF-5 part of V3.0's tar file distribution, and set up makefile appropriately.
 - (e) Hauser to contact vendors regarding testing V3.0 prior to release if possible and report back to committee.
 - (f) Hauser will add HDF-5 parallel code to SourceForge and will let users know when it is available.

- (g) Rumsey to email Towne and Wedan about the issue of node ordering for NGON_n.
- (h) Paul, Bussoletti, and Allmaras to continue to look into finding manpower development (particularly for MLL implementation) resources at Boeing.
- (i) Duque and Hauser to continue to develop proposal for handling sprays of unconnected points.
- (j) Rumsey to look at posting a specific checklist on the website on what to put in a proposal for extension.
- (k) Duque and Hauser to continue to pursue NSF funding and look into idea of a fundraising collaborative.
- (l) Rumsey will contact EUCASS 2009 conference organizers about possibility of having CGNS sessions and/or tutorial.
- (m) Hauser and Rumsey to consider writing abstract on CGNS progress for AIAA summer 2009 conference.
- (n) Hauser to merge Poinot's changes related to HDF-5 linking into V3.0.
- (o) Poinot will check if CVS is working for him, if not Hauser will look into moving to SVN using SSL?
- (p) Hauser to speak to Koziol at HDF-5 Group about issues related to developers and funding.
- (q) Wedan to investigate issue of MLL deleting the entire node even though its new dimensions are the same.
- (r) Hauser will take control of cgns.org domain name and will consider possibility of moving website to Utah State site.
- (s) Hauser to contact Hunten about ISO/STEP and ask the best way for us to comment.

Attachment 1: Attendees

Steve Allmaras	Boeing Commercial
Pat Baker	Pointwise
Earl Duque	Intelligent Light
Thomas Hauser	Utah State
Simon Pereira	ANSYS / ICEM CFD
Greg Power	USAF/AEDC
Chris Rumsey	NASA Langley
Kurt Weber	Rolls Royce / Allison

Attachment 2: Tentative to-do list in association with HDF-5 switchover

- Complete and test parallel implementation
 - under development
- Complete and test API capability to automatically detect and switch between ADF and HDF-5 (transparent to user?)
 - done in V3.0
- Assess/minimize impact on software vendors using CGNS
 - under development (success with automatic detection transparent to user will minimize impact)
- Make changes recommended by HDF-5 to improve usability with HDF-5 (e.g., character strings as opposed to character arrays)
- Assess compression capability of HDF-5
- CGNS configure scripts will need to be modified to check for availability of appropriate HDF-5 libraries.
 - done in V3.0
- Possibly add flag-based options when opening CGNS files. For example: “follow links” vs. “don’t follow links”; “use ADF” vs. “use HDF-5”; “translate file automatically” vs. “leave the file as-is”; “compress” vs. “don’t compress”.
- Look into eliminating need for ID’s from MLL
- Resolve “link-of-links” problem: will require HDF-5 fix by NCSA under development (1.8.0 beta)
 - done in V3.0 in combination with HDF-5 V1.8