CGNS Steering Committee
Telecon Minutes
1 April 2009

1. The meeting was called to order at 11:05 AM eastern time. There were 6 attendees, listed in
   Attachment 1.

2. The minutes of the 07 January 2009 meeting were approved as posted on the web site.

3. EUCASS meeting in France

   (a) Poinot and Hauser will run an all-day special event at the EUCASS meeting in early
       July 2009 in Versailles, France. The all-day event will consist of a tutorial session,
       hands-on workstation demos, industrial presentations, and a meeting. Rumsey, Poinot,
       and Hauser have developed a poster for Poinot to print for the meeting. Poinot to
       organize the industrial presentations for EUCASS.

4. CGNS for Drag Prediction Workshop

   (a) Recall from the previous meeting that the Drag Prediction Workshop (DPW)
       committee would like to move toward CGNS as the official format for their grids,
       particularly as part of their mesh quality evaluation. There may be opportunities for
       CGNS discussions/talks at the AIAA San Antonio meeting in June or at next January's
       ASM in Orlando. Rumsey to contact Michael (Boeing) regarding the status of the
       CGNS-for-DPW effort, as well as to try to obtain tools for posting on the CGNS
       website.

5. CGNS for AIAA SBLI-challenge workshop

   (a) Rumsey to contact Benek to see whether CGNS can play a part of the SBLI-challenge
       workshop. Currently, it appears that the workshop provides no grids. See the website:
       http://sbliworkshop.engin.umich.edu/html/.

6. Status of Version 3.0

   (a) Recall previous discussion: Poinot considered adding a new flag to file, to indicate
       what the ordering inside the file is, but others felt that this gives too many options and
       complicates the reading. The problem is that a bug was discovered in the software last
       year, so Poinot's group has many CGNS HDF-5 files with the incorrect index ordering
       (written before the bug was fixed). General consensus at an earlier meeting was to
       enforce C-ordering in HDF-5 files. I.e., corrupted files will need to be fixed via some
       external utility; there should be no additional flag or node added in the file.
   (b) However, in pursuing this, Hauser wants to make sure that V3.0 will work correctly
       with Poinot's (or anyone else's) old HDF5 files that were written with incorrect index
       ordering. Hauser to make a proposal regarding handling index ordering in V3.0 and
       will hold a special mini-telecon in mid-April to try to finalize how to handle it.

7. Other issues

(a) Towne retiring — probably at end of May. He is seeking someone at NASA Glenn to take over his CGNS-documentation-handling duties, so that NASA Glenn will continue to have representation on the committee. However, it may be better for the documentation website (currently 45 MB in size) to be moved to Sourceforge. Rumsey said we may need to reduce the website's current size first, because Sourceforge has size restrictions. Decision on this will be deferred until Towne meets with others at Glenn. Rumsey may at least take over the monitoring of CGNSTalk.

(b) CGNS.org website — This long process of transferring the domain name of CGNS.org from Ansys to Utah State (Hauser) is nearing completion. Payment has been made for the domain name, but full transfer is awaiting final actions by Ansys. In the mean time, the website has still been reachable via http://cgns.sourceforge.net/. Hauser to announce to CGNSTalk that CGNS.org is back up and running as soon as the domain transfer is successfully concluded.

(c) Two bugs have been raised on CGNSTalk. Someone needs to follow up on these. Hauser to investigate and fix bugs noted by Magnan (CGNSTalk 04 Feb 2009) regarding declaration of `cg_model_read`, and by Edwards (CGNSTalk 27 March 2009) regarding `ADF_Read_Block_Data`.

8. Status of previous action items

   (a) Hauser to test Version 3 compression capability prior to release.
      i. Done. It works.

   (b) Hauser & Wedan to complete and release V3.0.
      i. Not done yet. Array ordering needs final resolution first.

   (c) Poinot to work with Power and others to bring Rigid Motion Improvement proposal to completion, including specific examples.
      i. Not done yet. Poinot still needs to provide examples to Power. Action carries.

   (d) Hauser will add HDF-5 parallel code to SourceForge and will let users know when it is available.
      i. Not done yet. Student still working on it. Action carries.

   (e) Hauser to contact members of the HPC Consortium to explore possibility of CGNS contributing to their effort.
      i. No response back. Action cancelled.

   (f) Duque and Hauser to continue to develop proposal for handling sprays of unconnected points.
      i. Action carries.

   (g) Wedan to investigate issue of MLL deleting the entire node even though its new dimensions are the same.
      i. Action carries.

   (h) Hauser will take control of cgns.org domain name and will consider possibility of moving website to Utah State site.
      i. Control has been transferred, but some action by Ansys is still required. Hauser will oversee completion of cgns.org domain transfer.

(i) Wedan to look into issue brought up by Miller (10/19/07) to write info one element at a time to save memory.

    i. Action carries.

(j) Wedan to implement patch sent to him by Bussoletti to fix excessive memory usage by MLL.

    i. Action carries.

(k) Hauser will contact Alonso to see if he is interested in rejoining the CGNS steering committee.

    i. Action item transferred to Rumsey.

(l) Rumsey will ping Hunten to find out the current status of the ISO/STEP effort.

    i. Done. Status reported in 07 Jan 09 minutes.

(m) Power will provide some high-level routines for reading/writing CGNS that may be useful, for inclusion on the website.

    i. Not done yet. These are still being worked. Ultimately, they will come from Todd Michal at Boeing. Rumsey will contact Michal about this.

(n) Hauser will investigate both the "`long`" vs "`int`" issue as well as the problem with the 64-bit `cg_goto_f`, and report back.

    i. HDF uses `long long` type. A problem is that C++ does not support this. Committee recommended moving forward in spite of C++ issue and making it work with HDF (using `long long`), because we are already running into the limit for big grids. Hauser to proceed with fix for both the "`long`" vs "`int`" issue as well as the problem with the 64-bit `cg_goto_f`.

(o) Rumsey will notify people via CGNSTalk about the upcoming CGNS activities at the EUCASS meeting in France.

    i. Done.

9. Meeting was adjourned at 12:00 PM Eastern. Next Telecon date for the full steering committee is tentatively Wed, May 20, 11 AM eastern.

10. Summary of **action items**:

    (a) Poinot to organize the industrial presentations for EUCASS.

    (b) Rumsey to contact Michael (Boeing) regarding the status of the CGNS-for-DPW effort, as well as to try to obtain tools for posting on the CGNS website.

    (c) Rumsey to contact Benek to see whether CGNS can play a part of the SBLI-challenge workshop.

    (d) Hauser to make a proposal regarding handling index ordering in V3.0 and will hold a special mini-telecon in mid-April to try to finalize how to handle it.

    (e) Hauser will oversee completion of cgns.org domain transfer. Hauser to announce to CGNSTalk that CGNS.org is back up and running as soon as the domain transfer is successfully concluded.

    (f) Hauser to investigate and fix bugs noted by Magnan (CGNSTalk 04 Feb 2009) regarding declaration of `cg_model_read`, and by Edwards (CGNSTalk 27 March 2009) regarding `ADF_Read_Block_Data`.

(g) Hauser & Wedan to complete and release V3.0.

(h) Poinot to work with Power and others to bring Rigid Motion Improvement proposal to completion, including specific examples.

(i) Hauser will add HDF-5 parallel code to SourceForge and will let users know when it is available.

(j) Duque and Hauser to continue to develop proposal for handling sprays of unconnected points.

(k) Wedan to investigate issue of MLL deleting the entire node even though its new dimensions are the same.

(l) Wedan to look into issue brought up by Miller (10/19/07) to write info one element at a time to save memory.

(m) Wedan to implement patch sent to him by Bussoletti to fix excessive memory usage by MLL.

(n) Rumsey will contact Alonso to see if he is interested in rejoining the CGNS steering committee.

(o) Power or Michal will provide some high-level routines for reading/writing CGNS that may be useful, for inclusion on the website.

(p) Hauser to proceed with fix for both the "`long`" vs "`int`" issue as well as the problem with the 64-bit `cg_goto_f`.

Attachment 1: Attendees

Mark Anderson	Concepts NREC
Simon Pereira	ANSYS / ICEM CFD
Greg Power	USAF/AEDC
Thomas Hauser	Utah State
Chris Rumsey	NASA Langley
Charlie Towne	NASA Glenn