

CGNS Steering Committee Telecon Minutes  
5 February 2013

- 1) The telecon was called to order at 11:00 AM eastern time. There were 11 attendees, listed in Attachment 1.
- 2) The minutes of the 10 December 2012 telecon were approved.
- 3) The committee welcomed Bruce Wedan back from his long absence. Bruce Wedan discussed plans for the next stable release (v3.1.4) as well as the next beta release (v3.2). One issue that the Committee needs to be aware of is the removal of automatic file compression. This removal is required because of the new parallel I/O capability in v3.2. We decided to turn it off for v3.1.4 as well. However, the user still has the option of turning it on if needed (through `cg_compress`). There is also a utility in the tools directory (`cgns_compress`) that can be used. `Cgns_viewer` also has compression capability. With no automatic compression, this means that a file size can grow when modifying data within it (e.g., deleting nodes can leave “holes”). The software tries to re-use space if possible.
- 4) Bruce Wedan discussed issues associated with CPEX 0031 implementation. The problem is in the disallowed items in the table for BCs (see table on p. 104 - or 21 of the document `parts_of_sids.pdf` on the page <http://cgns.sourceforge.net/Proposals.html>). Bruce says he has examples where someone is writing out just a surface in a 3-D problem. So `CellDimension` is 2. But the case is still 3D (`PhysicalDimension`=3), so you have to allow `GridLocation` = `FaceCenter`. The current table does not allow it. After discussion, one possible course of action was to revise the table in the SIDS to allow `EdgeCenter` for `CellDimension`=1, and to allow `FaceCenter` for `CellDimension`=2. Subsequent to the telecon, Bruce realized that the problem could be overcome by simply adding the option of `GridLocation`=`CellCenter` to the table; this makes the table consistent with the other tables in `FlowSolution` and `DiscreteData`. It was also decided to re-allow `ElementList` and `ElementRange` to be returned in the MLL calls; this latter change does not affect the SIDS.
- 5) The vote was concluded for the high-order proposal CPEX 0036 (see description at <http://cgns.sourceforge.net/Proposals.html>). These are new 3<sup>rd</sup>-order elements. The vote was 13-Yes, 0-No, 1-Abstain (8 members did not vote). So the proposal was accepted. Wedan will add CPEX 0036 into the v3.2 release.
- 6) Chris Rumsey and Bruce Wedan discussed the issue of maintaining PDF files for all CGNS documents. This is very time-consuming and difficult. It was recommended to discontinue the use of PDF files, and keep all documentation as on-line HTML files only. The main disadvantage of HTML is the difficulty if one needs to print out many different pages. However, the Committee decided in favor of discontinuing the maintenance of PDF files. Bruce mentioned the new capability of Windows-compiled

help files (CHM files) that allows a user to quickly obtain a copy of all HTML documentation locally.

- 7) Chris Rumsey mentioned that the Committee has 6 members who have not been active at all for several years or more. Rumsey will contact the inactive CGNS members to request their status: they may be removed from the Committee in the interest of retaining a quorum, unless they can re-engage or find another interested person to assume the position.
- 8) The Telecon ran out of time before the Status of previous action items could be addressed. Therefore, most pass unchanged. However, the few that have been resolved off-line are described below.
  - a) Hauser and Duque to continue to look into the consortium idea for CGNS, including more active support of HDF-5 consortium. Also look into applying to NSF software infrastructure for sustained innovation, possibly related to data management plan.
    - i) Carries.
  - b) Hauser, Duque, and Iannetti to continue to develop Iannetti's proposal for handling sprays of unconnected points.
    - i) Carries.
  - c) Wedan to add a flag node to indicate whether a file is using I4 or I8 (along with MLL call to access it).
    - i) Carries.
  - d) Poinot to track down and correct the latest HDF5 linking issue.
    - i) Done (see j below).
  - e) Hauser, Alonso, and Guzik will start to look at and evaluate the new parallel capability in the SVN repository, with a goal to report if it is ready for release.
    - i) With Wedan's return, this action is no longer necessary. Beta v3.2 will be released soon with parallel capability.
  - f) Hauser to finalize the CGNS survey based on feedback from committee members, and email out to CGNSTalk.
    - i) Carries.
  - g) Hauser will let committee members know if CGNS meeting at AIAA's ASM in January will take place (currently doubtful).
    - i) Not done. There was no meeting held.
  - h) Kamenetskiy will look at CPEX 0036 and make sure it does not conflict with an internal methodology being used at Boeing. He and ZJ will work together to finalize the proposal prior to Committee vote.
    - i) Done and voted upon (see 5 above).
  - i) Guzik will summarize the changes required to the MLL software to have core data always start at location (1,1,1) when including Rind data, as well as backward-compatibility implications, to help the Steering Committee decide on a course of action.
    - i) Carries.
  - j) Poinot to commit weak mode fix for HDF5 linking issue to v3.2 SVN repository
    - i) Done.

9) Next Telecon is tentatively set for Tues, March 12, 2013, 11 am eastern. A confirmation email will be sent prior to the meeting.

10) Summary of **action items**:

- a) Hauser and Duque to continue to look into the consortium idea for CGNS, including more active support of HDF-5 consortium. Also look into applying to NSF software infrastructure for sustained innovation, possibly related to data management plan.
- b) Hauser, Duque, and Iannetti to continue to develop Iannetti's proposal for handling sprays of unconnected points.
- c) Wedan to add a flag node to indicate whether a file is using I4 or I8 (along with MLL call to access it).
- d) Hauser to finalize the CGNS survey based on feedback from committee members, and email out to CGNSTalk.
- e) Guzik will summarize the changes required to the MLL software to have core data always start at location (1,1,1) when including Rind data, as well as backward-compatibility implications, to help the Steering Committee decide on a course of action.
- f) Wedan will add CPEX 0036 into the v3.2 release.
- g) Rumsey will contact the inactive CGNS members to request their status: they may be removed from the Committee in the interest of retaining a quorum, unless they can re-engage or find another interested person to assume the position.

Attachment 1: Attendees

Juan Alonso	Stanford
Bob Bush	Pratt & Whitney
Dave Garlich	Pointwise
Stephen Guzik	Colorado State U
Thomas Hauser	University of Colorado
Scott Imlay	Tecplot
Dmitri Kamenetskiy	Boeing
Marc Poinot	ONERA
Chris Rumsey	NASA Langley
ZJ Wang	University of Kansas
Bruce Wedan	Computational Engineering Solutions