

CGNS Steering Committee Telecon Minutes
24 January 2012

- 1) The telecon was called to order at 11:00 AM eastern time. There were 6 attendees, listed in Attachment 1.
- 2) The minutes of the 06 December 2011 telecon were approved.
- 3) Membership issues
 - a) Lawrence Livermore National Laboratory (represented by Stephen Guzik) was voted in as a new CGNS Steering Committee member.
 - b) It was confirmed that Thomas Hauser will remain as chair through January 2013 (adding a 1-year extension to his second 2-year term).
- 4) Version 3.1
 - a) Wedan released Release 4 of Version 3.1.3 on 1/15/2012. This release fixes an issue with descriptors under FamilyBCDataSet_t nodes; changes NormalIndexFlag to NormalIndexSize for cg_boco_info; and adds a new Fortran routine cg_exit_on_error_f. This function allows a Fortran application to set a flag which will cause the program to print an error message and exit automatically if an error is encountered.
- 5) Status of previous 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.
 - i) Action carries.
 - b) Hauser, Duque, and Iannetti to continue to develop Iannetti's proposal for handling sprays of unconnected points.
 - i) Action carries
 - c) Wedan to continue to look into possible problem with the 64-bit cg_goto_f.
 - i) It appears that they were using an older CGNS library version. Action item resolved.
 - d) Iannetti will look into possible R&D Award for the V3 release.
 - i) Action carries
 - e) Hauser will check his cgsize changes to pcgns into SVN on Sourceforge.
 - i) Action completed by Wedan. Has been checked into SVN repository, and will be officially released in the Spring.
 - f) Wedan to consider the need for a flag to indicate whether a file is using I4 or I8.
 - i) TBD. Flag will probably be added under the root node. A new cg MLL call will be created to access it.
 - g) Rumsey to check through the documentation (SIDS and Filemapping) to make sure there are no explicit I4 specifications that need to be changed to I8 (or

- described to be a function of the compilation). For example, filemapping docs for Zone_t needs to be changed to I8.
- i) Done.
 - h) Wedan to continue to investigate potential bug in links noted by Oancea (10/21/11).
 - i) Done. (Directory search order for linked files has been corrected and released.)
 - i) Rumsey to add description to MLL docs that for Fortran calls, all integer args are integer*4 in 32 bit mode and integer*8 in 64 bit mode (with a pointer to a fuller description on the intro page).
 - i) Done.
 - 6) Other news:
 - a) A recent CGNSTalk discussion mentioned that if using 32-bit integers, one could divide into multiple element sets within a zone to get around the 32-bit integer limitation for large grids. But this is not correct, because elements are numbered consecutively. To avoid future confusion, Hann will add a reply in CGNSTalk regarding the fact that use of multiple element sets within a zone does not get around the 32-bit integer problem for large grids.
 - b) There was a brief discussion of the issue raised recently by Sodhi on CGNSTalk regarding how CGNS handles 1-to-1 connectivity. The issue is not fully understood. All feel the current method represents a standard already in wide use in the CFD community and do not understand the need for any change. Also, Sodhi says changing would cause incompatibility. However, we will remain open to further discussion on this issue.
 - c) Paper by Rumsey, Wedan, Hauser, Poinot on “CGNS status” was presented by Rumsey at AIAA’s ASM 2012 (early January). The talk had good attendance, in spite of its being the last talk on the last day. Both the paper and the talk have been posted on the CGNS website’s doc page. There is a lot of interest both in the new 64-bit integer capability as well as the upcoming integrated parallel implementation (due in Spring 2012).
 - 7) Next Telecon is tentatively set for Tue, Mar 6, 2012, 11 am eastern.
 - 8) 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) Iannetti will look into possible R&D Award for the V3 release.
 - d) Wedan to add a flag node to indicate whether a file is using I4 or I8 (along with MLL call to access it).

- e) Hann will add a reply in CGNSTalk regarding the fact that use of multiple element sets within a zone does not get around the 32-bit integer problem for large grids.

Attachment 1: Attendees

Stephen Guzik
Richard Hann
Thomas Hauser
Chris Rumsey
Will Stoffers
Bruce Wedan

Lawrence Livermore National Lab
ANSYS / CFX
University of Colorado
NASA Langley
Boeing Commercial
Computational Engineering Solutions