

CGNS Steering Committee Telecon Minutes  
10 June 2010

- 1) The telecon was called to order at 11:00 AM eastern time. There were 9 attendees, listed in Attachment 1.
- 2) The minutes of the 29 April 2010 telecon were approved as posted on the web site.
- 3) Documentation issue noted by Richard Hann. The documentation is incorrect for all enumerated types for example the following specifies what the valid values are for TimeUnits\_t: Null, UserDefined, Second but the actual definition is as follows:  
typedef enum {TimeUnitsNull, TimeUnitsUserDefined, Second} TimeUnits\_t;  
From a code point of view this will work and be consistent due to how a fix was made in edit 1.3 of cgnslib.h using macros to define CG\_Null as 0 and CG\_UserDefined as 1 and corresponding subsequent macros Null (as CG\_Null) and UserDefined (as CG\_UserDefined) to maintain backwards compatibility. Hann mentioned that the main problem here is that the documentation is out-of-sync with the code base and this should be corrected but he also noted that using a mixture of enumerated types and macros isn't sustainable because it relies on any enumerated type having its first and second values specified consistently so that each type always starts with a "Null" and this is always followed "UserDefined" which can then be followed by any other values. If this convention isn't kept to it may mean it is impossible to add one of these values to a type whilst still allowing a user to make use of the generic CG\_Null, Null, CG\_UserDefined or UserDefined macros to compare and get consistent results. Hann recommends we fix up the documentation so the new (correct) values are referenced which puts the onus on the user to correctly use the enumerated types and to discourage the use of either CG\_Null, CG\_UserDefined and the older Null and UserDefined. To ensure that the user is forced to use the correct enumerated value it would be appropriate to remove the generic (CG\_)Null and (CG\_)UserDefined macros from the file completely which would force users to move to the correct values on upgrade to Version 3. Rumsey indicated the removal of these generic values may cause backwards compatibility problems and further problems for users who specify their own types.  
Hann will send a description of how the documentation for 2.5 and 3.0 beta needs to be updated to Hauser, Chris and Iannetti.
- 4) Poinot developed a SIDS-to-Python mapping. Hauser to email to committee asking for a vote to approve the SIDS-to-Python mapping. Poinot also mentioned that we may eventually want to consider changes related to SIDS, but that will come later.
- 5) Status of CGNS Version 3.0
  - a) Poinot pointed out that the bundled tarball for V3.0 beta is not the correct version. Hauser to correct bundled tarball for V3.0 and let the committee know when done.

- b) Chris to add links to beta and parallel code on website, after bundled tarball is corrected.
  - c) Committee is encouraged to test V3.0.
- 6) Status of previous action items
- a) Hauser to contact Wedan and ask Wedan to address the issue of partial reads allocating too much memory.
    - i) Rumsey forwarded original Bussoletti email to Wedan. Wedan to look into issue of need for partial\_read functionality with low memory usage.
  - b) Iannetti and Hauser to hold mini-telecon May 13, and discuss future switchover to make the old “beta” documentation the new official one.
    - i) Cancelled.
  - c) Iannetti to look into NASA form that allows for a payment of newly released software.
    - i) Carries.
  - d) Hauser to fix bug identified by Jiao 3/9/10 in CGNSDLL int cg\_field\_read prior to release of V3.0.
    - i) Carries.
  - e) Wedan to add ifdefs to V3.0 so can still compile with HDF 1.6.
    - i) Cancelled. Decided that this issue will go away, and it can be gotten around in any case in the mean time. Rumsey to put message on website stating that for V3.0 with HDF-5 it is necessary to use HDF-5 V1.8 or later.
  - f) Hauser to update website “Download” page, including making list of what is new in V3.0 compared to V2.5 – including new MLL calls/changes, and send to Rumsey to post on website.
    - i) Carries.
  - g) Hauser to supply Wiki address to Rumsey for linking to website.
    - i) Done.
  - h) Duque and Hauser 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.
    - i) Carries.
  - i) Poinot to split Rigid Motion Proposal into 2 parts: part associated to families can be accepted/implemented right away.
    - i) Carries.
  - j) Hauser to email descriptions and instructions regarding HDF-5 parallel code under SVN at Sourceforge to Rumsey for posting on website.
    - i) Carries.
  - k) Iannetti to develop starting point for proposal for handling sprays of unconnected points, and work with Hauser and Duque to bring it to fruition.
    - i) Carries.
  - l) Wedan to document changes to MLL calls for V3.0 (e.g., is\_cgns, cg\_section\_partial\_write, cg\_element\_partial\_write), and send to Rumsey and Iannetti for posting to V3.0(beta) docs pages.
    - i) Carries. Also, Wedan to document cg\_io replacement calls to ADF and send to Rumsey.

- m) Hauser to fix the “long” vs “int” issue (4 byte integer limit).
    - i) Carries.
  - n) Hauser to look into the problem with the 64-bit `cg_goto_f`.
    - i) Carries.
  - o) Iannetti to post Hauser’s recent paper on parallel I/O with CGNS.
    - i) Carries.
  - p) Iannetti to post new tutorial slides on the website.
    - i) Carries.
  - q) Hauser or his student to tar up official release of V3 after final testing and announce it.
    - i) Done.
  - r) Hauser to tar up the docs (developer’s documentation) which are part of the release and send to Iannetti for posting.
    - i) Carries.
- 7) Hauser will email the committee members and invite them to a “CGNS Social” at the AIAA Chicago meeting on Wednesday June 30 at 6:30 pm.
- 8) Next Telecon tentatively set for Thu, August 19, 2010, 11 am eastern.
- 9) Summary of **action items**:
- a) Hann to send documentation changes needed for 2.5 and 3.0 to Hauser, Rumsey, and Iannetti.
  - b) Hauser to email to committee asking for a vote to approve the SIDS-to-Python mapping.
  - c) Hauser to correct bundled tarball for V3.0 and let the committee know when done.
  - d) Chris to add links to beta and parallel code on website, after bundled tarball is corrected.
  - e) Wedan to look into issue of need for `partial_read` functionality with low memory usage (identified by Bussoletti in CGNSTalk, 3/25/10).
  - f) Iannetti to look into NASA form that allows for a payment of newly released software.
  - g) Hauser to fix bug identified by Jiao 3/9/10 in CGNSDLL int `cg_field_read` prior to release of V3.0.
  - h) Rumsey to put message on website stating that for V3.0 with HDF-5 it is necessary to use HDF-5 V1.8 or later.
  - i) Hauser to update website “Download” page, including making list of what is new in V3.0 compared to V2.5 – including new MLL calls/changes, and send to Rumsey to post on website.
  - j) Duque and Hauser 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.
  - k) Poinot to split Rigid Motion Proposal into 2 parts: part associated to families can be accepted/implemented right away.

- l) Hauser to email descriptions and instructions regarding HDF-5 parallel code under SVN at Sourceforge to Rumsey for posting on website.
- m) Iannetti to develop starting point for proposal for handling sprays of unconnected points, and work with Hauser and Duque to bring it to fruition.
- n) Wedan to document changes to MLL calls for V3.0 (e.g., `is_cgns`, `cg_section_partial_write`, `cg_element_partial_write`), and send to Rumsey and Iannetti for posting to V3.0(beta) docs pages.
- o) Wedan to document `cg_io` replacement calls to ADF and send to Rumsey and Iannetti.
- p) Hauser to fix the “long” vs “int” issue (4 byte integer limit).
- q) Hauser to look into the problem with the 64-bit `cg_goto_f`.
- r) Iannetti to post Hauser’s recent paper on parallel I/O with CGNS.
- s) Iannetti to post new tutorial slides on the website.
- t) Hauser to tar up the docs (developer’s documentation) which are part of the release and send to Iannetti for posting.

Attachment 1: Attendees

Richard Hann  
Thomas Hauser  
Marc Pointot  
Chris Rumsey  
Brude Wedan  
Juan Alonzo  
Scott Emelie  
Todd Simons  
Steve Feldman

ANSYS CFX  
Northwestern University  
ONERA  
NASA Langley  
SimCosm, Inc.  
Stanford University  
Techplot  
Rolls Royce  
Adapco