

## CGNS Telecon Minutes

Tuesday, 01 March 2016, 10:00am Eastern Time

1. The meeting was called to order by Bob Bush at 10:05am eastern time. Attendees are listed in Appendix A.
2. Dec 8, 2015 minutes were approved as published on the website.
3. Steering committee issues:
  - a. Committee members (telecon last date attended):
    - a. Airbus 12/15
    - b. ANSYS 12/15
    - c. Boeing 3/16
    - d. Colo State 12/15
    - e. GE 10/15
    - f. HDF 3/16
    - g. IL 5/15
    - h. NASA LRC 3/16
    - i. ONERA 10/15
    - j. Pointwise 3/16
    - k. P&W 3/16
    - l. Tecplot 12/14
    - m. TTC 12/14
    - n. U Colo 3/16
    - o. U Kansas 12/15
  - b. All steering committee members are still encouraged to get atlassian accounts, so they can monitor CGNS software bugs & issues. Do so at: <https://cgnsorg.atlassian.net/admin/users/sign-up>. The site is then accessed via: <https://cgnsorg.atlassian.net>.
4. Discussion
  - a. Funding status and development plans
    - i. Recent NASA funding to HDF5 has just ended
      1. All svn switched over to git
      2. Regular testing on Linux, Mac, and Windows (except Fortran on Windows)
      3. Updated check-in capability; automated
      4. Static analysis of CGNS (Coverity)
      5. Testing daily on different compilers and platforms
      6. Timings done routinely
      7. Release of 3.3.0 in late January
    - ii. New possible funding ideas were discussed
      1. NSF call is coming out (SSE) – deadline in April. Hauser and Breitenfeld to investigate possibility of applying for NSF SSE grant.
      2. DOE Exascale project; Hauser has already started writing a proposal that includes CGNS. Hauser will try to partner with Breitenfeld (HDF) on the DOE proposal.
  - b. Code release status
    - i. Breitenfeld has released 3.3.0. Steering committee members are encouraged to test it.

- ii. Windows with Fortran still does not work (C works fine). Committee discussed this and decided that this problem affects a very small user base, so this will remain as a “known bug”, and will not be pursued for now.
    - iii. Breitenfeld mentioned that Coverity has uncovered 225 “defects”; these should be looked at (perhaps members of the committee can tackle them).
  - c. HDF5 status
    - i. As is already known, there are issues with slowness of opening/closing CGNS files with lots of metadata when running parallel HDF5 (only noticeable for large numbers of processors, roughly > 256 or so). Current HDF5 releases are HDF5-1.8.16, HDF5-1.10.0-alpha1. Version 1.10.0 is slower than 1.8 by about a factor of 2. Next release of HDF5 (1.10.1), due out in fall 2016, should bring the speed back to be comparable with 1.8.
- 5. Review action items
  - a. Guzik to implement CPEX 40 into MLL and revise the SIDS HTML docs appropriately.
    - i. Action carries.
  - b. Breitenfeld will investigate existing issue of write error with high-rank array.
    - i. Fixed.
  - c. Breitenfeld to email to CGNSTalk describing where the current test suites are, and how to run them.
    - i. Done.
  - d. Rumsey to add news post and email to CGNSTalk regarding Pointot’s upcoming AIAA talk at SciTech in San Diego.
    - i. Done. The paper was AIAA-2016-1924.
- 6. New business
  - a. Rumsey mentioned that Seth Spiegel at NASA Ames wrote a paper (AIAA-2016-1061) on their high-order NASA Glenn code, which has been using parallel CGNS. Rumsey to ping Spiegel at NASA Glenn re their experiences with parallel CGNS.
- 7. Ongoing Action Items
  - a. Guzik to implement CPEX 40 into MLL and revise the SIDS HTML docs appropriately.
  - b. Hauser and Breitenfeld to investigate possibility of applying for NSF SSE grant.
  - c. Hauser will try to partner with Breitenfeld (HDF) on the DOE proposal.
  - d. Rumsey to ping Spiegel at NASA Glenn re their experiences with parallel CGNS.
- 8. The next meeting is tentatively scheduled for Tuesday, 5 April 2016 at 10am Eastern.
- 9. Adjourn

**Appendix A – Attendees**

Pat Baker	Pointwise
Scot Breitenfeld	HDF Group
Bob Bush	Pratt & Whitney
Thomas Hauser	U Colorado
Dmitri Kamenetskiy	Boeing
Chris Rumsey	NASA LaRC