

CGNS Steering Committee Teleconference Meeting Minutes

11 May 2000, 14h-15h

1. Roll Call: The meeting was held via teleconference at 2:00pm Eastern Time. The attendees are listed in Appendix A.
2. Bob Bush reviewed the minutes from the March telecon, noting that they have been posted on the web. Having no comments, the minutes were approved as posted.
3. A round-table discussion of the current implementation and usage status of CGNS in various organizations was held to familiarize the Committee with current activities.
 - Introduction of Charlie Towne, NASA GRC, as the new documentation focal point. Charlie is currently merging the SIDS and the SIDS_additions documents. He creates the document in LaTeX, then convert it to PDF. He would be like to also build an HTML version. This merging of the 2 documents implies reviewing to whole SIDS which was written originally only for multi-block. Chris Rumsey, Bob Bush and Diane Poirier agreed to help by reviewing the merged document before it is posted on the web.
 - Introduction of Don Roberts - AMTEC Engineering: In 1 or 2 weeks, they are releasing a CGNS reader for Tecplot. Their reader supports structured and unstructured data, with solutions at cell centers or nodes. Experience to share with others: Mentioned that the CGNS libraries should be stable, and that they had compatibility problems between library versions. Will ask the developer to send more details on this.
 - Introduction of Jamil Appa – BAE and Denis Bertin – Aerospatiale (both not present)
 - ISO Status - Bob Bush presented for Boeing St-Louis: The work continues. There is an informative meeting planned in June between the ISO group and some members of the CGNS committee. Are on schedule to present a draft standard at the ISO meeting in October 2000. Peter Wilson (Boeing Seattle) converted the SIDS to EXPRESS.
 - John Chawner - Pointwise - They have been evaluating CGNS since December 1999 and decided to implement it. GridGen version 14 will have a CGNS writer. Would like to volunteer to be part of the CGNS Steering Committee. Bob said that we will discuss adding new members at the Denver conference. Questions he passed along from his developers:
 - Q: Are there any higher level documents to explain how to create a CGNS file for a tetra mesh, for example.
 - A: Such document doesn't exist. The best thing to do is to use the examples on the web.
 - Q: Is there a data checker to see if the file is CGNS compliant.
 - A: No, but if the file is readable in the CGNS API, or if the file was written with the CGNS API, then it is necessarily CGNS compliant. The ADF_edit file browser is also a good tool for browsing a file and verifying its content.
 - Michel Delanaye - Numeca - Numeca software released at the end of April 2000 included their implementation of CGNS for structured meshes and solutions.

They are working now on implementing the interblock connectivity. Wants to present a proposal for hierarchical elements in June. Steve Karman (Lockeed) agreed to work with Michel on this proposal. Passed along comments from his chemistry specialist who would like CGNS to

- ❑ interface with Chemkin
- ❑ Have curve fitting enthalpy and Cp
- ❑ Complex kinematics scheme
- ❑ Bob Bush suggested that we start with what we have, then we can work on an extension proposal.

4. Diane Poirier - Extensions status

- Web site enhancements: Add pages to collect data sets, utilities and comments/experiences.
- Linux port: First release on April 26. It is being used by MTU in Munich and by L.A.N.L.
- LINUX problem: gives memory error when using `cg_goto_f(...)` and compiling the Fortran application with the g77 compiler, but only when format statement for prints is inside parenthesis. Works OK when separate format statement is used. For example:
 - ❑ Syntax that creates memory errors in function `cg_goto_f` using g77 compiler:

```
write(6,'(a,i3)') 'a=',a
```
 - ❑ Syntax that doesn't create any memory errors:

```
write(6,10) 'a=',a
10 format(a,i3)
```
- Released - Unstructured Element Ordering on March 15.
- Status - Moving Grid specification : the CGNS lib version 1.3 is planned to be release in July and to include the API for moving grid.
- Doug McCarthy to check if Boeing - St Louis has made any headway with ADF linking problems.

5. Bob Bush - Solicit implementation paper for Reno 2000.

- Most people not prepared to submit abstract for Reno 2001 on CGNS implementations. Diane is planning a CGNS performance paper however. Many agreed that an informal gathering/demo/discussion of CGNS implementations at Reno may be feasible.

6. Bob Bush - June Meeting

- Rescheduled for Wednesday night, tentatively at 7p.m. Advise all to look for posting of room and time in Denver.
- Items on the agenda
 - ❑ Discuss addition of new members of the steering committee
 - ❑ Plan and schedule for development through Jan 2000
 - ❑ Implementation and release status reports
 - ❑ Documentation status report
 - ❑ Extensions status report

Appendix A: Attendees

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|--------------------|----------------------|
| 1) Bob Bush | UTRC |
| 2) John Chawner | Pointwise |
| 3) Armen Darian | Boeing |
| 4) Michel Delanaye | Numeca |
| 5) Dan Dominik | Boeing |
| 6) Peter Dutton | Adapco |
| 7) David Edwards | Intelligent Light |
| 8) Steve Karman | Lockeed Martin |
| 9) Doug McCarthy | Boeing |
| 10) Diane Poirier | ICEM CFD Engineering |
| 11) Don Roberts | Amtec |
| 12) Chris Rumsey | NASA Langley |
| 13) Charlie Towne | NASA Glenn |