

CGNS Steering Committee

Meeting Minutes

24 June 2002

7:00pm

St. Louis, Missouri

Bob Bush called the meeting to order at 7:00. There were 10 attendees at the informal CGNS Steering Committee meeting held at the AIAA Summer fluids conferences. Attendees are listed in [Appendix A](#).

The minutes of the last meeting were approved as posted on the web.

Charter Business - Bob Bush publicly thanked Alexandre Corjon who has been representing AM Airbus on the Steering Committee, and reported that Thierry Chevalier will be taking over this role.

Bob Bush noted that the Charter calls for a chairperson election every 2 years. We have been somewhat remiss in this department, and so plan to hold an election at the winter meeting at the AIAA conference in Reno in January. Bob would like to pass the mantle and use this as an opportunity to re-invigorate the committee. Nominations or volunteers are encouraged to contact Bob. This will be a topic of discussion at future telecons.

ISO Status - Ray Cosner provided an overview of the ISO standard development effort. The effort is on track for approval of the various parts towards the end of 2004. We are getting closer to voting time, so Ray is soliciting additional international contacts to provide support. Bob Bush will send Ray the contact information for Thierry Chevalier, Marc Poinot and Jan B. Vos. Others are encouraged to send additional contact information; Ray has a standard introductory letter and can take it from there.

There will be a detailed technical review of the ISO standard, most likely the first week of November hosted by Lockheed Martin. This will be the best opportunity for the CGNS community to make detailed comments on the evolving ISO standard. Participation is encouraged. Ray Cosner will be providing details as we get closer to the date.

Documentation - Charlie Towne could not be present, but indicated to the Chairman that the revised documentation for Version 2.1 is now installed on the web in the default locations. The older documentation is still available via other links.

Jim French and Craig Day could not be present. However, they indicated to the Chairman that the voting for the standard has been completed. It is not clear what the next steps are, but it is anticipated that the documentation will be available as an AIAA Recommended Practice soon.

The committee discussed how to move the documentation updates that are continually occurring reflected in the AIAA Recommended Practice. The committee agreed that we could make the SIDS document a DRAFT AIAA Recommended Practice, and label it as such on the web site.

Then, periodically, as significant changes to the SIDS are implemented and accepted, a revised Recommended Practice will be voted on and released. Unfortunately, none of the principals could attend the meeting, so the Chairman asks Charlie Towne, Jim French and Craig Day to work out appropriate arrangements, and feedback any issues that arise.

Bob Bush is not sure of the process to use in answering the few questions that were brought up during the public comment period. The questions were discussed briefly at the meeting, and Bob will draft a set of responses, and ask for guidance on how to proceed.

One of the issues raised is the need for a simplified standard to facilitate new user familiarization. The User's Guide was one attempt at a simplified set of documentation. Mark Fisher also suggested that there may be instances where information can be stored in more than one way, and we should streamline and/or eliminate the duplications. It was generally agreed that we should document and emphasize the preferred approach for duplicate information, and discourage use of alternate methods. Mark volunteered to document some of the duplications he has in mind so we can try to address this issue.

Extensions - Marc Poinot could not attend, but indicated to the Chairman that he is working on an HDF5 implementation for the mid-level library which replaces the ADF core. This will likely be a link time option and require no, or few, changes to user programs.

Ray Cosner also indicated that the ISO standard effort is still struggling with how to represent binary data. Currently the path of least resistance seems to be to use HDF5 for the binary data representation. Ray asked for any known objections to going in this direction, but there was no experience with HDF5 at the meeting. Please send Ray and Bob Bush any information you might have - for or against using HDF5 as the ISO standard.

Marc Poinot's HDF5 implementation provide a starting point for this effort. However, for backward compatibility, and ease of transition, we will also likely need binary translation routines which will re-format a file between HDF5 and ADF.

Chris Rumsey reported on the progress of the Langley sub-contract to extend the CGNS software. Several options and extensions are being implemented and tested, including a translator utility program, a new API call `cg_delete_node`, and new extensions `Gravity_t`, `Axisymmetry_t` and `RotatingCoordinates_t`. Wall Functions, periodic BC's and rotor-stator interfaces are still being defined. Bob Bush, Mark Fisher and Chris Rumsey met briefly after the meeting to discuss these extensions. Chris Rumsey volunteered to re-write the proposals in SIDS-speak, and put them back out for review.

Mark Fisher had a few ideas for additional extensions, including surface groupings and solution data at boundaries, and agreed to draft such proposals for review.

Issues - There were no additional issues, and the meeting was adjourned around 8:30.

Appendix A — Attendees

Bob Bush

Dan Dominik

Chris Rumsey

Steve Legensky

David Edwards

Rick Matus

John Benek

Greg Power

Steve Karman

Ray Cosner