2022-3-29 Meeting notes

Date

29 Mar 2022, 10:00 AM EST (US)

Participants

- @ Scot Breitenfeld ⭐
- @ Vicky Moschou ⭐
- Scott Imlay ⭐
- @ David Gutzwiller
- @ Simone Crippa
- @ Tobias Leicht ⭐
- @ Gregory Sjaardema ⭐
- @ David Gutzwiller
- @ Stephen Guzik
- @ dmitry.s.kamenetskiy
- @ Tony Garratt
- @ Patrick Baker
- @ Earl P Duque
- @ ZJ Wang ⭐
- @ Christopher Rumsey
- @ Matthias Möller ⭐
- @ Pierre-Jacques Legay ⭐
- Kamenetskiy, Dmitry S
- @ Mickael PHILIT ⭐
- @ Marc Poinot
- Giorgos Strofylas (BETA CAE) ⭐

⭐ In attendance

Steering Committee Issues

Removal of CU-Boulder from Steering Committee (Thomas Hauser is now at NCAR). Passed

☐ @ Scot Breitenfeld to update the web page.

Note: Numeca is looking for a new representative, to be discussed in the next meeting.

Discussion topics

Item	Presenter	Notes
Approve 2021/12/14 minutes.	@ Scot Breitenfeld	☑ post last meeting's minutes to CGNS webpage. Approved.

high-level editing tools for the documentation page	@ Marc Poinot @ Christopher Rumsey https://github.com/CGNS/cgns.github.io/projects/1	**Help needed to divide the remaining tasks:** The documentation goes into the source using Doxygen. This work uses the "**doxygen**" branch. Examples are given for cg_open and cg_version. The aliases used for repeated variable descriptions are in *src/doxygen/doxygen.config*. Need volunteers to help with translating the remaining APIs to Doxygen. • A link to the new website is provided on the main cgns web page: https://cgns.github.io/cgns-modern.github.io/index.html • All the MLL APIs have Doxygen entries, the cgio APIs need to be done next. • An automatic generation of the website through github action is done.
Converting CGNSTalk archive to Github Discussion Posts	@ Scot Breitenfeld	Started converting the CGNSTalk archive to github discussion posts.
Discussion Topic	@ ZJ Wang	Short discussion on past AMR CPEX (0008) and whether AMR should be revisited as a feature supported CGNS. Some groups may be already using CGNS with AMR, but not known for certain. The need for AMR support in CGNS is unknown. @ Vicky Moschou @ Tobias Leicht @ ZJ Wang to discuss progressing CPEX 0008.
Status update on Accepted CPEX #0045 ➕ **CGNS-182** - CPEX 0045: Polynomial Data and Curved Grid Elements **IN PROGRESS**	@ Koen Hillewaert	The branch CPEX45_high_order has not been updated since Feb 25, 2020. An update from @ Koen Hillewaert on the status is needed. ☐ @ Scot Breitenfeld will follow-up with @ Koen Hillewaert to find out the status. ☐ @ Scot Breitenfeld will email committee an update, and @ Tobias Leicht may take over the discussion if needed. **NO UPDATES**
Discussion Topic	@ Mickael PHILIT	Proposal to have Monitoring numerical probes description to the standard. Some groups may already use CGNS to do that, but their is a need to have a shared approach. ☐ Committee needs to review the proposal and provide feedback. @ Scot Breitenfeld to send out a reminder.
Status update on Accepted CPEX #0047 Proposed Data integration Points	@ Mickael PHILIT	Working on the new website before creating a new development branch to prevent duplicating efforts. Started prototyping with python and C and will push a branch on github in the upcoming weeks.
Status of Future CPEX 0046 ➕ **CGNS-183** - CPEX 0046: Particle Data **TO DO**	@ Thomas Hauser	There is no one available to move forward wth the CPEX. @ Scot Breitenfeld will remove it from the discussion topics. **NO UPDATES**
Status of Future CPEX 0044 ➕ **CGNS-181** - CPEX 0044: Encoding sets of functions in generic variables **TO DO**	@ Koen Hillewaert	The current focus is on finishing and implementing CPEX 45. Tabling CPEX 0044 for now. **NO UPDATES** **ON HOLD**

| prioritization, review and attribution of JIRA bugs/issues | @ Tony Garratt
@ David Gutzwiller | Next release 4.4.0, Kanban:

https://cgnsorg.atlassian.net/jira/software/c/projects/CGNS/boards/4

General Kanban Board:

https://cgnsorg.atlassian.net/secure/RapidBoard.jspa?rapidView=3&projectKey=CGNS&selectedIssue=CGNS-190

ISSUE CARRIED OVER:

Platform proposals
Windows is under-tested. Suggest Test C and Fortran serial and parallel on Windows 10 x64 as a bare minimum

Do we test both 32bit (legacy) and 64bit API? It's a minor point, but it would a good idea to add 32bit to at least one Linux and Windows

NEW (June 2021) We need to add Intel OneAPI compilers to the list of supported compilers (note: OneAPI C/C++ compiler is very different to existing legacy one)

Bug list: 🔴 **CGNS-176** - Openmpi issues for large meshes fails **IN PROGRESS**

A priority of bugs to fix in next release

#1 🔴 **CGNS-135** - Windows fails VS17, large files > 2GB **TO DO**

Crucial to Ansys. Although most HPC is Linux, project set-up often was done on Windows and import/export/sharing of mesh/solution done on Windows, while most runs performed on Linux clusters

• important to have parallel working

#4 🔼 **CGNS-166** - Keep CGNS file compatible with HDF5-1.8 **TO DO**

#5 ✅ **CGNS-55** - Add new fortran and C examples to CMake **TO DO**

#6

🔼 **CGNS-38** - 64bit support should be determined from configure **TO DO**

✅ **CGNS-162** - Remove the use of configure.bat **TO DO** |

Action items from last meetings

Description	Due date	Assignee	Task appears on
☐ @ Scot Breitenfeld to update the web page.		Scot Breitenfeld	2022-3-29 Meeting notes
☐ @ Scot Breitenfeld will follow-up with @ Koen Hillewaert to find out the status.		Scot Breitenfeld	2022-3-29 Meeting notes
☐ @ Scot Breitenfeld will email committee an update, and @ Tobias Leicht may take over the discussion if needed.		Scot Breitenfeld	2022-3-29 Meeting notes
		Scot Breitenfeld	2022-3-29 Meeting

☐ Committee needs to review the proposal and provide feedback. @ Scot Breitenfeld to send out a reminder.			notes
☐ @ Scot Breitenfeld will enter a Jira issue to make the examples provided by CGNS to be updated to reflect the best practices (in terms of CGNS format description usage).	Scot Breitenfeld	2021-3-2 Meeting notes	
☐ @ Scot Breitenfeld will enter a Jira issue to add to cgnscheck to not only validated the format, but also give a best practices analysis of the chosen CGNS format description and to suggest an alternative format if needed.	Scot Breitenfeld	2021-3-2 Meeting notes	
☐ @ Scot Breitenfeld will enter a Jira issue to add to cgnsconvert the option to take the best practices suggestion from cgnscheck and convert the CGNS format description to that suggestion.	Scot Breitenfeld	2021-3-2 Meeting notes	
☐ @ Mickael PHILIT will create a Jira issue for remaining documentation tasks which need to be completed before switching to the new documentation so we can enlist others and to coordinate the effort.	Mickael PHILIT	2021-3-2 Meeting notes	
☐ @ Mickael PHILIT and higher-order developers (@ Tobias Leicht @ Koen Hillewaert) will meet to discussion the remaining issue between the CPEX0047 and higher-order methods.	Mickael PHILIT	2021-3-2 Meeting notes	
☐ SIDS structure is complete in the documentation prototype but the translation process is quite slow. Help requested.		2021-3-2 Meeting notes	
☐ @ Scot Breitenfeld or @ Christopher Rumsey should investigate if the cgns archive can be translated to forum posts or made available on cgns.org, which would make it viewable to web search engines.	Scot Breitenfeld	2021-3-2 Meeting notes	
☐ @ Scot Breitenfeld will update the copyright information on the webpage.	Scot Breitenfeld	2021-3-2 Meeting notes	
☐ @ Scot Breitenfeld Update documentation for intel compilers (KH)	Scot Breitenfeld	2021-3-2 Meeting notes	
☐ @ Thomas Hauser will organize a meeting before the next committee meeting; probably even this week.	Thomas Hauser	2021-3-2 Meeting notes	
☐ Suggest looking into using Doxygen, @ Marc Poinot suggest a separate meeting to discuss.	Marc Poinot	2021-3-2 Meeting notes	
☐ @ Scot Breitenfeld or @ Christopher Rumsey should investigate if the cgns archive can be translated to forum posts or made available on cgns.org, which would make it viewable to web search engines.	Scot Breitenfeld	2020-12-8 Meeting notes	
☐ @ Scot Breitenfeld will update the copyright information on the webpage.	Scot Breitenfeld	2020-12-8 Meeting notes	
☐ @ Scot Breitenfeld will identify reviewers for the CPEX who will report before the next meeting, the CPEX is scheduled to be voted on at the next meeting. This effort should be coordinated with higher-order effort.	Scot Breitenfeld	2020-12-8 Meeting notes	
☐ Change test site to: https://poinot.github.io/cgns-test.github.io/		2020-12-8 Meeting notes	
☐		2020-12-8 Meeting	

⌐⌐ Tabling issue, we will look into alternatives if need arises.   notes

Decisions

Page Title	Decisions
[2019-11-12 Meeting notes](#)	⅄ BETA-CAE was added to the steering committee
	⅄ The cgio_read* will be dropped in the next release of the CGNS library.
[2020-12-8 Meeting notes](#)	⅄ Meeting notes Approved.
	⅄ **Passed**: move to Github discussions when it's out of beta and retire the use of lists.nasa.gov. The notice should be posted to cgnstalk before the transition to discussions.
	⅄ **Passed**: Release all cgns.org documentation into the public domain.
[2021-3-2 Meeting notes](#)	⅄ **Passed**: move to Github discussions when it's out of beta and retire the use of lists.nasa.gov. The notice should be posted to cgnstalk before the transition to discussions.
	⅄ **Passed**: Release all cgns.org documentation into the public domain.
[2021-6-15 Meeting notes](#)	⅄ Passed CPEX #0047
[2021-9-7 Meeting notes](#)	⅄ Approved to include in the CGNS's example code.
[2022-3-29 Meeting notes](#)	⅄ Removal of CU-Boulder from Steering Committee (Thomas Hauser is now at NCAR). Passed

New Business

Any new CGNS funding proposal opportunities? Nothing was identified at the meeting.

NO UPDATES

Schedule next meeting

19 Jul 2022 , 10:00 AM EST (US)

Adjourn