Meeting goals

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2012 Geant4 Collaboration Meeting

Chartres

Meeting goals

- Preparation toward the major release in 2013
  - Thread safety
  - Interface changes
  - Example/test/document migration
  - Testing strategy
- Release 9.6
  - The last version of version 9 series
- Credibility and cooperativeness
  - Bug report, HyperNews, requirement tracking
  - Join to the efforts, share responsibilities
- Strategic planning
  - Plan our future

Major release in 2013

- The release in 2013 will be a major release.
  - Geant4 version X (name to be discussed)
- The highlight is its multi-threading capability.
  - Some interfaces need to be changed due to multi-threading
  - Plenary 6 (and some parallel sessions)
- It offers two build options.
  - Multi-threaded mode (including single thread) - default
  - Sequential mode
    - In case a user depends on thread-unsafe external libraries, he may install Geant4 in sequential mode.
- This is the first major release since 2008.
  - This is a rare opportunity to clean up obsolete code and make interface improvements.
  - GNUmake?
  - Plenary 8 (and some parallel sessions)
- Making clear and detailed work plan toward 2013 release is one of the major goals of this collaboration meeting.

What we have to do now toward version X

- Identify obsolete classes and interfaces and mark them. They should cause warning messages if they are used.

- Clean up your code NOW. Remove bottlenecks as much as possible. This effort is independent to multi-threading. For example:

  – referencing rather than copying the arguments of frequently-used method,

  – unnecessary instantiation/deletion of local scope objects,

  – check unnecessary copy of information, too granular file I/O,

  – inefficient implementation, unnecessary recalculation,

  – data locality improvements as long as they don't break user's code

Version 9.6

- This is the final release of version 9 series.
- Check planned features announced in March and identify items which are in danger to miss the release.
  - WG coordinators, please report such features at risk at the SB meeting on Friday.
- Make best use of Coverity, performance monitoring, and unit and integrated testing results.
  - New testing systems are on stage.
  - Several talks in Plenary 2, 5 and 7 provide you
    - What you need to know, where to look at, how to read results
- Complete migration to CMake.
  - There are many examples which do not have proper CMakeLists.txt file.
    - Talk on CMakeLists.txt in Plenary 2
  - CMake build system may get improved with your feedback.
- Join the effort of improving documents, examples.

Credibility – 1

- The key of our past, current and future success is satisfaction of our customer users. We have to make them feel well taken care of and well supported.

- There are many open bug reports. The Steering Board is now checking every open bug report at every SB meeting. Please update bug report you are assigned to.
  - You can change the severity and priority of the bug report if you believe they are unnecessarily too high (or too low).
  - If you think the report should be assigned to someone else, please re-assign it. Otherwise change the status to "assigned".
  - If you have already fixed the issue, or if you have identified the report as invalid, please update the report status accordingly.
  - If you are not a Steering Board member, please keep your working group coordinator informed of the status of your bug report. He/she will report the status at the Steering Board meeting on this coming Friday on your behalf.

Credibility – 2

- There are many unattended HyperNews postings even though they are asking reasonable questions. We have to address to them.
  - This is a team effort. None of us is expert of all Geant4 aspects.
- Join the collaboration-wide efforts. Collaboration meeting is a good opportunity for stepping in.
  - Testing, computing and physics performance monitoring
  - Examples, documentation, web
  - Publication
- Please encourage your local users to attend to the Technical Forum.
  - If needs are, we may have it more than 4 times a year, and you may locally host it.
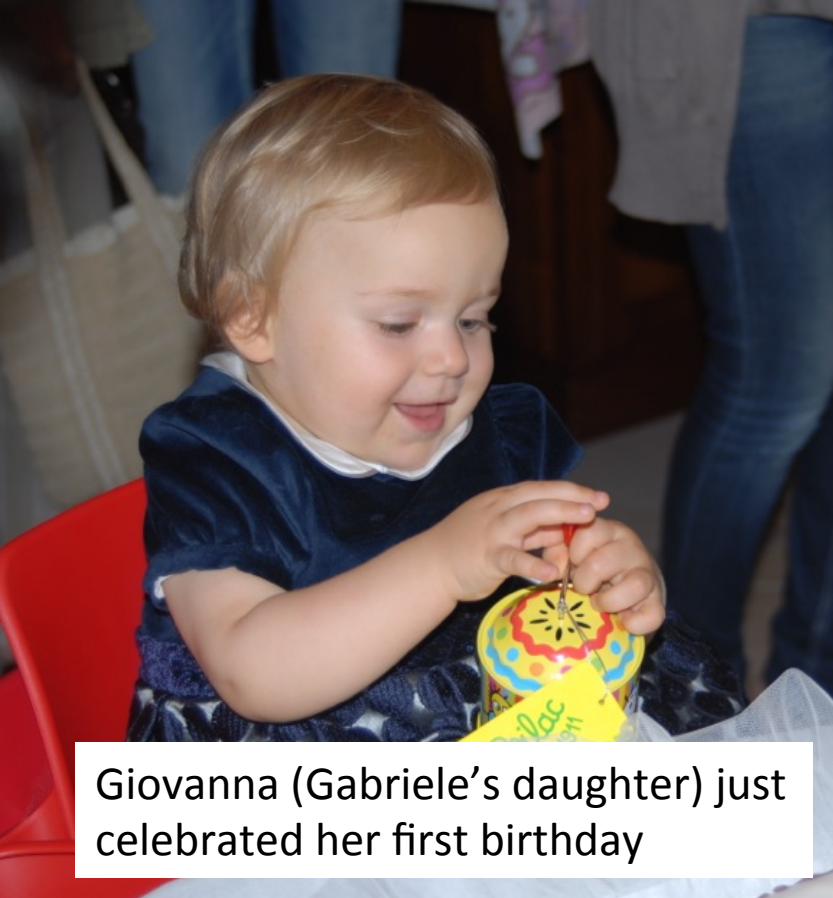 - Let's discuss how we can refine our user-support processes.

Review on organization and communication

- The oversight Board has just initiated a review focusing on organization and communication of the Geant4 Collaboration.

- We may have some reviewers attending to this collaboration meeting to see how we organize ourselves.

- Dedicated review meeting will be scheduled sometime soon.
  - You will be kept informed as things develop.

Plan our future

- Geant4 version X is not our ultimate goal. It's the beginning of our new era.

- We will keep improving Geant4, maintaining it and supporting our customer users for foreseeable future.

- Robust and achievable longer term strategic plan can only be made with brainstorming discussions.

  - New hardware / software trends must be followed.

    - Evaluate benefits and risks on each solution

    - Consider standards wherever applicable

  - Some basic designs could be re-iterated.

    - Catch requirements and refine use-cases through dense communications

  - We obviously have scalability problem in user support. Our resource is not growing proportionally with the number of users.

    - Encourage and conduct experienced users

  - Some key developers have retired. Some others are "tired."

    - Encourage and promote new generation collaborators

We are productive…

Hanah & Minah (Tatsumi's twin daughters) born in June

Giovanna (Gabriele's daughter) just celebrated her first birthday

Elisa (Luciano's daughter) born two weeks ago

Let's discuss

- Face-to-face discussion is by far the best way of communication.

- Speakers, please keep your talk in time. Session chairs, please allocate enough amount of discussion time.

- Please make the best use of coffee and lunch breaks, parallel to parallel sessions, evening getting together, etc. Find every opportunity for "non-scheduled" discussions.