



Agenda – 1 hour

- Github issues/PR
- Benchmarks, tests
- Towards next Gate release
- AOB ...

Github Issues & PRs

- Accolinerity [#381](#) (Maxime Toussaint)
 - 64Cu positron spectra problem [#312](#) (TP. PHAM).
 - Fast I124 ion source [#384](#) (Zhengzhi).
 - Generic Repeater, hit with a wrong head ID [#347](#)
 - [PR #387](#): github actions, Docker
 - G4Radioactivation [#378](#) (Alex Vergera Gil)
 - Positron range [#379](#) (Minh Phuong Nguyen):
 - PETscanner (cubicArray & genericRepeater) [#296](#)
 - AnatomicalOrientation [#359](#)
 - [PR #391](#): material database ?
 - Issue [#404](#): libTorch compile error
 - Issue [#392](#): PET and Ccmmod
 - GATE Error related to SPECT_FFD Example [#351](#)
 - ... other issues
- Accolinerity.** do not work, doc changed. Mirjam/Karl !?
 Closed.
 Closed.
 Closed. PR#396
 Closed.
 Still in progress (David, Lydia, Alex)
 Still in progress (David + Minh + Muhammad)
 Christian replied. Change doc. Warn user if possible.
 Doc change ? (label in the mhd file?)
 DavidB. WIP + doc for mat (recom) db
 ?
 Ane?
 not started yet, todo @Lyon

PR – towards 10.7

Compilation 10.7.1: **OK (Christian)**

Docker: table with Gate/geant4/lib version: **Christian/Alex/Thomas/David**

Give access to official docker hub to Alex. **Thomas/David**

External dep:

- CLHEP: (G4 copy incomplete), need full CLHEP
 - To be discuss with G4
 - In the meantime: force the user to install clhep ?
 - Currently Gate has a partial copy (old) of clhep.
 - In the cmake, clhep version 2.4.4.0
 - For Docker : system installed CLHEP for both Gate and Geant4. **Alex.**
 - **DavidB is on it ! Update the copy within copy (detect if system used?)**
- MetalO: (reading/writing mhd)
 - To be investigated ; in the meantime: silent the warnings ?
 - Check AnatomicalOrientation Issue #359
 - **DavidB is on it !**
- ECAT/LMF:
 - Can we put them in external, auto compile with make
 - (Add flag to remove warning)
 - **Done ! PR in progress. Karl checked LMF. Doc in progress. Karl will check with Marseille.**

Gate benchmarks

- <https://github.com/OpenGATE/GateBenchmarks>
- Automatization (**github action**)
- Warning : sub module needed (for the large output files)

```
git clone --recursive https://github.com/OpenGATE/GateBenchmarks.git  
git submodule update --recursive --remote
```

Benchmarks tests proposal

- T1: gamma, proton, carbon depth dose 99% Done (DB?)
- T2: voxelized navigation and dose (gamma) 99% Done (DB?)
- T3: generic ion electron range 75% Done
- T4: PET NECR 75% Done
- T5: complete (fake) PET system 50% Done
- T6: DPK: Lydia 75% Done
- T7: GARF (arf for spect) 50% Done
- T8: GAN phasespace 50% Done

All tests contain:

- Macros
- Python analysis script
- Produce plot.pdf
- Return true/false (ok/fail)

Proposals

- RadioactiveDecay: Nicolas Arbor. **In progress?**
- Mesh and merge actor(mesh inside vox): Julien Bert. **In progress ?**
- Optical: **Carlotta, Mathieu ?**
- Fix GateScintillation issue #346 #368 ; **Carlotta, Mathieu ?**
- Commit to fix #352 multi system, GateDeadTime. #369 ; **prepare test ?**

Next Gate release

- With next Geant4 10.7 (dec 2020)
- To date, almost only bug corrections
- Proposal: version 9.1, early 2021
- Adapt current version to Geant4 10.7
 - **Compilation is now with 10.7.1 (only)**
 - (LATER) Plan to provide a docker image (Thomas, put docker file on git)
 - (LATER) Plan to provide vGate (virtual machine)
- Important: Next Geant4 11.0. **David to talk to Marc Verderdi & John Apostolakis**

