Minutes of the FCC software informal meeting, 12 June 2014, 2:00pm

Present: Colin Bernet, Valentina Cairo, Andrea Dell'Acqua, Fabiola Gianotti, Benedikt Hegner, Clément Helsens, Patrick Janot, Carlos Solans (part-time).

Colin and Benedikt reported that they have started to develop a simple **EDM** based on ROOT. The approach is to avoid inheritances as much as possible. A Particle Class is being designed. This is an essential step to be able to use the Python-based analysis framework that Colin is porting to FCC (after removing all CMS-specific parts).

Clément raised some issues related to **DD4HEP**:

- A generic interface to G4 is missing — Andrea D volunteered to develop it
- The general problem on how to convey our (FCC) requests and needs to the DD4HEP team — Benedikt proposed that Clément, Andrea D, and himself get together with Pere Mato and Markus Frank to discuss this point.

As already discussed at previous meetings, we need a **production + bookkeeping** system. Various tools are currently being used by the various experiments and projects (e.g. DIRAC by CLIC, MySQL, etc). It was proposed to ask S. Padhi to have a look at the various possibilities and advise. Our strategy should be, as usual: … "keep it simple".

Our **computing resources** requests (disk space, CPU, VO status), including also IT human resources, have been sent by PJ and FG to M. Benedikt, who will send them to the Head of IT Department (F. Hemmer) by the end of this week (actually the memo has been sent a few hours after the meeting).

Andrea D would like to try GaudiHive and other proposed **frameworks** (e.g. FairRoot), starting with a simple use-case (running a generator and writing the output to HepMC/ROOT). Benedikt will provide a GaudiHive example. It was also agreed to invite M. Al-Turany to give a presentation on FairRoot at our next FCC SW meeting and to ask him to provide a link to the documentation.

Git vs **GitHub**: it was agreed that GitHub is what we need. However, it would be good to discuss with IT and have their view — A.Valassi will be asked to investigate.

Technical/doctoral students. FG and PJ reported that the FCC experiments have a PH budget code (FCC-PEX) that can be used to support technical and/or doctoral students. The deadline for submitting applications is 16 June. Several projects have been proposed by members of the FCC SW group. In particular, F.Carminati has made a proposal that covers all suggestions we have received. Benedikt will work with Federico to streamline the text and make sure that the proposed work is priority-oriented (e.g. starting with DD4HEP aspects). Patrick will investigate with L. Mapelli details about the budget, while Fabiola will ask M.Benedikt news about the Austrian technical/doctoral student (in particular the work plans and timeline).

Summary of actions:

- Andrea D.: develop a generic interface between DD4HEP and G4
- Benedikt: organize a meeting with Clément, Andrea D, Pere Mato and Markus Frank to discuss how to optimize the interactions between FCC-SW and the DD4HEP team
- Fabiola: ask S. Padhi to do some investigations of possible production+bookeeping systems for FCC
- Benedikt: provide a simple GaudiHive code example to the group (Andrea D is eager to try it)
- Patrick: contact the FairRoot team to ask for a presentation at one of our future FCC-SW meetings and for a link to their doc page.
- Patrick: ask A.Valassi to discuss the IT position vis-à-vis GitHub
- Benedikt: get in touch with Federico to streamline the proposal for the doctoral student application (URGENT: deadline for submission is 16 June)
- Patrick: ask Livio Mapelli about details of the FCC-PEX budget line
- Fabiola: discuss with M. Benedikt the plans (and timeline) for the Austrian technical/doctoral students