Summary of HEP SW workshop

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15th April 2014

Context

- Experiment requests for more resources (people, hardware) to develop and run software for next years physics;
- Prospect that lack of computing resources (or performance) will limit the physics which can be accomplished in next years;
- Potential for a small amount of additional resources from new initiatives, from different funding sources and collaboration with other fields;
- Large effort required to maintain existing diverse suite of experiment and common software, while developing improvements.
  - Constraints of people resources drive needs for consolidation between components from different projects, and for reduction of diversity in software used for common purposes.

Goals

- Goals of the initiative are to:
  - better meet the rapidly growing needs for simulation, reconstruction and analysis of current and future HEP experiments,
  - further promote the maintenance and development of common software projects and components for use in current and future HEP experiments,
  - enable the emergence of new projects that aim to adapt to new technologies, improve the performance, provide innovative capabilities or reduce the maintenance effort
  - enable potential new collaborators to become involved
  - identify priorities and roadmaps
  - promote collaboration with other scientific and software domains.

Feedback / points of discussion

- The discussion identified issues and concerns, including
  - the need for clear benefits from joining a collaboration,
  - the importance of allowing innovation,
  - the need for competition of solutions, in a Darwinian manner, rather than 'decision' from a management structure.

Model

- Many comments suggested the need for a loosely coupled model of collaboration. The model of the Apache Foundation was suggested: it is an umbrella organisation for open-source projects that endorses projects and has incubators for new projects.

- Agreed aim is to create a Foundation, which endorses projects that are widely adopted and has an incubator function for new ideas which show promise for future widespread use.
    - In the HEP context, a Foundation could provide resources for life-cycle tasks such as testing etc.

- Some important characteristics of the Foundation :
    - A key task is to foster collaboration;
    - developers publish their software under the umbrella of the 'foundation'; in return their software will become more visible, be integrated with the rest, made more portable, have better quality etc
    - it organizes reviews of its projects, to identify areas for improvement and to ensure the confidence of the user community and the funding agencies.
    - a process for the oversight of the Foundation's governance can be established by the whole community;

Next Steps

- First target is a short white paper / document describing the key characteristics of a HEP Software Foundation. The proposed length is up to 5 pages.
    - Goals
    - Scope and duration
    - Development model
    - Policies: IPR, planning, reviews, …
    - Governance model
    - …

- It was agreed to call for drafts to be prepared by groups of interested persons, within a deadline of ~ four weeks (i.e. May 12th.) The goal is a consensus draft, to be used as a basis for the creation of the Foundation, that can be discussed at a second workshop some time in the Fall 2014.