The HEP Software Foundation Initiative

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Preamble

❑ Existing major software projects were started by individuals or groups to fulfill user/ experiment needs.

❑ Future is challenging; a new development cycle underway

  ➢ code needs to run more efficiently

  ➢ must adapt to new computer architectures (embrace parallelism)

❑ Skilled developers are required

  ➢ It is important that there is a well defined career path for them.

❑ Learn from the open-source experience to foster innovation and get many different parties involved.

❑ Workshop held (April 3-4, 2014) to discuss how we can best organize ourselves to provide a framework for supporting development and maintenance of all major HEP-related software

Mission statements

❑ The HEP Software Foundation has a mission to:

  ➢ promote and facilitate the creation, maintenance and lifecycle management of high-quality common software of value to HEP and beyond.

  ➢ provide a forum for collaboration between software developers within HEP and with other sciences or endeavors.

❑ The process of creating the Foundation is underway…

White Papers

10 White Papers submitted on behalf of different communities

1. Germany: Gunter Quast
2. Grid: Oxana Smirnova
3. Nikhef: Jeff Templon
4. US: Richard Mount
5. IN2P3: Michel Jouvin
6. US: Panagiotis Spentzouris
7. UK GridPP: Dave Britton
8. INFN: Dario Menasce
9. Geant4: Makoto Asai
10. Openlab: Andrzej Nowak

Potential Foundation Services

- ❑ Communication and infrastructure services
  - ➢ mailing lists, web site, newsletter, software journal
  - ➢ forum and workshop organisation
  - ➢ support (material) for training and schools
- ❑ Provide support for software projects
  - ➢ formal recognition of projects, organisation of reviews
  - ➢ promote interoperability and use of open standards
  - ➢ recommend QA policies and procedures, benchmarking, coding rules
  - ➢ launch new projects and new technology initiatives
- ❑ Community related support
  - ➢ intellectual property, career, outreach, outreach to funding agencies
- ❑ Infrastructure for development and distribution
  - ➢ software development tools (build, test, release infrastructure)
  - ➢ software repository service etc.

Approach to Governance

❑ As lightweight and agile as possible
  ➢ Technical Board (domain conveners)
  ➢ Governing Board (institutional)

❑ Inclusive i.e. open to interested stakeholders
  ➢ representation of software projects and experiment software teams

❑ Bottom-up approach
  ➢ establish a development infrastructure and other services
  ➢ identify technical leadership – implies a commitment of effort

Current Status

- ❑ The "Interim" Foundation Board has started to meet
  - ➢ initial membership are white paper authors and other interested parties
  - ➢ open to whole community (mailing list : hep-sf-ifb@cern.ch)
- ❑ We are seeking to identify a small team (3-4 people) to lead the startup process
- ❑ Mandate will be to create a limited scale but fully functioning Foundation i.e. to
  - ➢ prepare a synthesis of the documents received
  - ➢ invite a number of projects to join to act as 'guinea pigs'
  - ➢ prepare an initial set of services supporting collaboration on software development
  - ➢ propose an infrastructure for disseminating information
- ❑ A second workshop will be organised later in 2014 to review progress

Resources

- ❑ workshop agenda and presentations
  - ➢ http:/ / indico.cern.ch/ event/ 297652
- ❑ white papers
  - ➢ http:/ / ph-dep-sft.web.cern.ch/ content/ white-papers-contributed-discussion-hep-software-foundation-0
- ❑ mailing list interim Foundation Board
  - ➢ HEP-SF-IFB@cern.ch