Continue Discussions of Phase II

From April notes: "….something to present at the end of the next quarter, along the lines proposed:

"**Creating a Collaboration for sharing physics code across LAr TPC experiments.** including ownership definition, credit mechanisms, …

ask for the experiments and LArSoft leadership to discuss an organizational structure and expanded scope of LArSoft toward this "phase-II" of the project".

Sub-group: Bonnie, Dave/Andrzej, Jen, Mark, Erica, Ruth.
Propose face to face meeting at end of the quarter – end of July?

Can we take a first step, iterated and change as we understand and agree on more ?

We are in month 1 of what we said would be a 6 month discussion of how to frame LArSoft Phase II.

(Cf the OSG where the Council took 1 year to write and sign off on the by-laws).

Can we take a first step and “acknowledge” the steering group.

Erica has recently brought up the lack of a “Front Page” and “introduction for people who have never approached LArSoft before.

Can we make a LArSoft front page at larsoft.org ?

- Begin with information of the collaborating experiments and the current make up of the Steering Group.
- Include pointers to and scope of the current core project.
- Have a first pass discussion of the collaboration itself..
- Include some “credits”
- Include sections and acknowledgement of the Fermilab Today article whose words were agreed to

Existing Web pages

https://cdcvs.fnal.gov/redmine/projects/larsoft/

https://cdcvs.fnal.gov/redmine/projects/larsoft/wiki

https://cdcvs.fnal.gov/redmine/projects/larsoft/documents

https://cdcvs.fnal.gov/redmine/projects/larsoft/wiki/Introduction_to_LArSoft

Potential discussion of credits

e.g.
list related publications and/or technical notes
include chart of number of checkins;
include “Physics improvement of the month /quarter”

….

Geant4 ?

Geant4 is a toolkit for the simulation of the passage of particles through matter. Its areas of application include high energy, nuclear and accelerator physics, as well as studies in medical and space science. The two main reference papers for Geant4 are published in *Nuclear Instruments and Methods in Physics Research*
A 506 (2003) 250-303, and *IEEE Transactions on Nuclear Science* 53 No. 1 (2006) 270-278.

http://geant4.cern.ch/collaboration/index.shtml

Info posted by Other Software Collaborations for Reference

Genie?

http://www.genie-mc.org/

Genie is hosted by Hepforge, IPPP Durham

GENIE Mission Statement

1. The GENIE Collaboration shall **provide a state-of-the-art neutrino MC generator for the world experimental neutrino community**. GENIE shall simulate all processes for all neutrino species and nuclear targets, from MeV to PeV energy scales.
2. The GENIE Collaboration shall provide electron-nucleus, hadron-nucleus and nucleon decay generators in the same physics framework as the neutrino-nucleus generator.
3. The GENIE Collaboration shall **review critically all relevant theoretical work and experimental data** and it shall **synthesize selected physics models and data into a comprehensive and self-consistent picture of neutrino interaction physics**.
4. The GENIE Collaboration shall **curate archives of the world neutrino scattering data, and a large sample of complementary charged lepton and hadron scattering data**, and it shall make those archives available in digital form for the purpose of neutrino interaction model validation, tuning and systematic error evaluation.
5. The GENIE Collaboration shall **perform global fits** to neutrino, charged-lepton and hadron scattering data and **provide global neutrino interaction model tunes**.
6. The GENIE Collaboration shall provide a complete **systematic analysis of its default model.**
7. The GENIE Collaboration shall **provide expert advice to the world neutrino community** on matters related to neutrino interaction phenomenology based on in-depth knowledge of relevant scattering data and the experience building a comprehensive model of neutrino interaction physics. It shall also expert advice on all technical matters related to the realistic simulation of complex experimental environments.
8. The GENIE Collaboration shall **provide tools to support the full life-cycle of simulation and generator-related analysis tasks**, including a) a suite of neutrino flux and detector geometry navigation drivers which allow event generation for realistic, arbitrarily complex experimental setups using off-the-shelf components, b) standardised event generation applications for all major experiments, and c) event reweighting code allowing the propagation of generator-level uncertainties into physics analyses.

For all enquiries please contact:
Dr. Costas Andreopoulos, *University of Liverpool & STFC Rutherford Appleton Laboratory*

XROOTD?

http://xrootd.org/index.html

XRootD

- home
- download
- docs
- development
- collaboration
- contact

Welcome to the XRootD webpage

The XROOTD project aims at giving high performance, scalable fault tolerant access to data repositories of many kinds. The typical usage is to give access to file-based ones. It is based on a scalable architecture, a communication protocol, and a set of plugins and tools based on those. The freedom to configure it and to make it scale (for size and performance) allows the deployment of data access clusters of virtually any size, which can include sophisticated features, like authentication/authorization, integrations with other systems, WAN data distribution, etc.

XRootD software framework is a fully generic suite for fast, low latency and scalable data access, which can serve natively any kind of data, organized as a hierarchical filesystem-like namespace, based on the concept of directory. As a general rule, particular emphasis has been put in the quality of the core software parts.

Quick Links

- LICENSE - XRootD is distributed under the terms of the GNU LGPL License
- Scalla-Intro.pdf - an overview of the xrootd system
- xrootd-4.2.0.tar.gz - the latest version of the software
- Release Notes - a list of significant changes between the releases
- GitHub repository - repository browser
- GitHub bug tracking - report and track bugs

News

[RSS]

- [01 May 2015] Warning for sites using dCache as an xrdcp target and upgrading to 4.x.x
- [29 Apr 2015] Release announcement - 4.2.0
- [17 Apr 2015] Release announcement - 4.1.2
- [04 Dec 2014] Release announcement - 4.1.1
- [27 Nov 2014] Release announcement - 4.1.0
- [22 Oct 2014] Release announcement - 4.0.4
- [24 Sep 2014] Collaboration Meeting Minutes
- [29 Aug 2014] Using XRootD with systemd

DIRAC?

http://diracgrid.org/

DIRAC (**D**istributed **I**nfrastructure with **R**emote **A**gent **C**ontrol) **INTERWARE** is a software framework for distributed computing providing a complete solution to one (or more) **user community** requiring access to **distributed resources**. DIRAC builds a layer between the users and the resources offering a common **interface** to a number of heterogeneous providers, **integrating** them in a seamless manner, providing **interoperability**, at the same time as an optimized, transparent and reliable usage of the resources.

Gaudi?

http://proj-gaudi.web.cern.ch/proj-gaudi/

The Gaudi project is a open project for providing the necessary interfaces and services for building HEP experiment frameworks in the domain of event data processing applications. The Gaudi framework is experiment independent.

LArSoft….