art / LArSoft class outline

LArSoft Steering Group Meeting
April 24, 2015

Target audience is users with basic C++ skills with little or no familiarity with art or LArSoft.

Course will involve short lectures and exercises, where the art examples and exercises are coordinated with those in the *art Workbook*.

The first four days will be devoted to art, with the fifth dedicated to LArSoft

Planning documents can be found in the art LArSoft Course redmine project:
https://cdcvs.fnal.gov/redmine/projects/art-larsoft-course/documents
https://cdcvs.fnal.gov/redmine/projects/art-larsoft-course/repository

Monday
- Session 1:   Basics of C++
- Session 2:   Basics of objects
- Session 3:   Basic data structures
- Session 4:   Framework introduction
- Session 5:   Setup for using art
- Session 6:   Setting up for development of experiment code

Tuesday
- Session 7:   More module interface
- Session 8:   Details of module configuration
- Session 9:   Multiple instances of a module
- Session 10:   Using existing data structures
- Session 11:   Making histograms
- Session 12:   Running multiple modules

Wednesday
- Session 13:   Creating a Producer
- Session 14:   Inventing a new data product
- Session 15:   Controlling output
- Session 16:   Introducing interactive algorithm development
- Session 17:   Writing a new algorithm
- Session 18:   Using the algorithm in a producer

Thursday
- Session 19:   Some additional art facilities
- Session 20:   Using Assns and smart query objects
- Session 21:   Creating Assns
- Session 22:   Code design issues
- Session 23:   Good art workflow
- Session 24:   Reorganizing a supermodule

Friday
- Session 25:   Introduction to LArSoft, basic concepts, organization and design principles
- Session 27:   LArSoft data structures and data flow,
- Session 28:   Using LArSoft in new and existing experiments, how to contribute new code
- Session 29:   LArSoft algorithms and services
- Session 30:   Exercises