

LArSoft Event Display Requirements

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The event display evaluation project

- Event display project in 2018 LArSoft Workplan
 - Investigate the possibility of a new, common event display
 - Review technical options, estimate effort required to develop and deploy
 - Recommend a solution
- Have developed a detailed plan for this work
 - Develop a set of requirements ranked according to essential, strongly recommended, desired, possibly useful
 - Get community input on these requirements and rankings
 - Establish criteria to judge between technical options
 - Identify list of possible technical solutions
 - Evaluate options via demonstration of requirements, various other means
 - Take results to SCD management for review with the goal of obtaining funding

Some guidance going in

- Unlikely to have a lot of effort available for implementation
 - Effort required should be an important factor in forming a recommendation
 - Implications
 - Unlikely to be able to create an ED abstraction layer / multiple display back ends
 - Think in terms of selecting a particular technology, tying ED to that
- Design considerations
 - Expect variant of Model-View-Controller or Model-View-Presenter pattern
 - Sort requirements with this idea in mind

Methodology

- Currently at this phase of the plan:
 - “Develop a set of requirements ranked according to essential, strongly recommended, desired, possibly useful
 - “Get community input on these requirements and rankings”
- Developing requirements
 - Solicited input from experiment offline coordinators, event display power-users / developers
 - Input received from offline leads + Tracy Usher + Cory Adams
 - Held meetings to discuss / rank the various suggested requirements
 - Organized into a google doc: [Draft LArSoft event display requirements, v2](#)
 - Note: intended to cover only high-level functionality, so does not enumerate all that is possible with existing ED. Should be understood to include that.

Now soliciting community discussion and input

Should comment on all aspects of what follows

Draft requirements document

- Divided into four sections
 - General requirements
 - Input data handler requirements
 - Display / viewer requirements
 - User interface requirements
- Requirements ranked into four categories
 - **Essential:** any solution must do this
 - **Strongly recommended:** should seek solutions that provide this feature
 - **Desired:** things we want, but can live with out (and probably already are)
 - **Might be useful:** a suggested feature / attribute that would enhance capabilities, but may not have a broad demand / user base

Draft requirements document

- The google doc, draft v2 requirements
- Discussion...

Next steps

- From the plan on page 2:
 - Update the requirements based on feedback here
 - Iterate draft and soliciting input more broadly until satisfied
 - Proceed to draft evaluation criteria
 - Will circulate those
 - Identify list of technical solutions
 - Begin the evaluation process
- Ideally would be able to conduct the evaluation process over the summer. That will be the goal if we can get resources.

The end