

US software development priorities in support of analysis

- US continues to deliver and support a well-balanced and demonstrably successful program of software development in core areas (frameworks, I/O, ...), distributed computing, analysis, ...
 - Discussion focus today is upon **software development priorities in support of analysis in particular**
 - Many synergies and collaborative efforts across these domains already
 - Have heard about some of these already, will hear more in the coming days
 - With so many of us in the same place, we have an excellent opportunity to make progress toward common priorities and goals
1. Discuss/examine what our priorities are and should be in software development in support of analysis
 2. Of these, which can we profitably address in this forum?
 - There are many. Give preference to topics for which we can leverage our cross-domain representation here?

Current analysis support software priorities (from Jason and Erich)

- - analysis tools (EventLoop/SampleHandler, plus the new "supertools" that will allow more convenient handling of systematic uncertainties)
- - dual-use CP tools
- - software to support US Tier3's (including some areas that are at the interface between local and remote computing to allow users to conveniently send jobs to remote resources and access the output data)

Some core software priorities in support of analysis

- xAOD I/O and persistence, xAOD size and performance
- Core support for derivation framework
- Metadata, in-file and otherwise, and supporting dual use tools
- ROOT 6 migration
- Systematics and framework support therefor
- Distributed I/O robustness and performance
- ...

Priority to ensuring readiness for Run 2

Topics for further discussion?

- Some “obvious” topics emerge from the morning session
- Even more will emerge in the afternoon session, and in later days
- Example from the pROOT presentations: What collaborative work do we need among core and analysis and distributed computing developers to support
 - Robustness, automatic retries, ...?
 - Is automatic environment optimization a solved problem, or is work needed here?
 - Monitoring: what and when and how, and will users find it intrusive or performance-degrading?
- ... but there are many others, some of them listed as questions in the morning presentations.

Insert discussion here.