Phoebus Workshop Summary

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A Partnership of:
US/DOE
India/DAE
Italy/INFN
UK/UKRI-STFC
France/CEA, CNRS/IN2P3
Poland/WUST
Introduction

- PIP-II is using EPICS as its control system framework
- ACORN is evaluating EPICS, or components of EPICS, as a candidate for its work
- EPICS is a software framework with a full suite of tools for development of the most common aspects of control systems (front ends to back ends)
- EPICS is also an international community of users and developers
- Phoebus is presently used at PIP2IT as the user interface to the control system
- Phoebus user interface allows for integration of:
  - Code-less GUI/HMI development with drag-and-drop widgets – Display Builder
  - Alarms
  - Archiver
  - Strip Tool
  - Channel Finder
  - Electronic logbook (Olog)
  - Save & Restore
  - Writing/invoking embedded java and/or jython scripts or use the Rules function that will generate scripts
  - Invoking external scripts

Neither Susanne nor I had the chance to demonstrate most of these features – need full training session
Show and Tell

• It’s difficult to beat a product which naturally integrates the tools you need

• A little of what is being done at Fermilab for PIP-II
• Susanne showed several features but focused on:
  • Display Builder
  • Channel Finder
  • Logbook
• ESS has excellent documentation and configurations to share
• True, also, of other labs
Discussions

- Many praises sung about the tools
- Many discussions centered around deployment issues
  - Most bug fixes are very fast < 2 weeks
  - Many challenges mostly related to pushing displays
  - Most deployment issues are not necessary Phoebus
- Agreed to make a list of configurations and issues and solutions to help developers

- The discussions were lively, which is always a good sign
Fermilab Questions:

- Assuming running Phoebus local computer (laptop, desktop), alternate methods for deployment
- If running locally, how do you configure the network?
- How are displays accessed?
  - Lag when pushing displays
  - Pushing X11 – if so, what is your path forward?
  - Wayland
  - VNC
  - Xpra
  - NX webclient and Guacomole
- Weird errors such as mouse arrow too large
- Weird error causing right mouse button to not function – bad for making plots
- Better authentication