The problem for AIDA

An adiabatic path from our legacy VMS system to the modern world

The Legacy Control system

- Begun for the SLC, over 20 years ago
- All VMS
- Fortran and “C”
- Very non system independent
- Highly structured operator interface (hierarchy of 8x8 button arrays)

More Legacy

- Very rich set of applications
- Mature, well debugged code
- Most code is data driven
- Integrated, model-based applications
- “In-core” database – access is very fast
- Most data points historied (6 minute granularity)

EPICS – new focus

- Strong DOE collaboration
- Flexible toolkit for Control System development
- Very mature and robust Channel Access for get/put/monitor
- All new projects done with EPICS (including upcoming LCLS project)

Current cross connections

- VMS system has channel access
  - Client access for getting EPICS values
  - Server for allowing EPICS access to SLC Database
  - (single threaded; not optimized for throughput)
- Applications on VMS must be modified to include Channel Access

The Challenge – Application Development on Unix

- Many arguments against continuing VMS
- Unix apps need transparent access to all data sources (SLC DB, SLC History, CA, CA Archiver, Oracle DB, …)
- It has to become easier and more natural to develop an application on Unix than it is to extend or add a new application on VMS