



DAQKit-01



- What is DAQKit-01
 - A release of a bundle of Online Software packages
 - They will have been verified to work correctly on a **reference platform**
 - The DAQKit-01 should contain **all necessary “tools”** to build
 - small DAQ systems for test-beam or laboratory
 - develop local DAQ components



Reference platform for DAQkit-01



- **OS system:**
 - CERN Linux 7.3.3 Workstation installation with kernel sources
- **Additional packages needed:**
 - gcc-alt-3.2.3 compiler (available as RPM from ASIS)
 - Java SDK 1-4-2 (available as RPM)
 - MySQL 4-0-18-0 (available as RPMs)
 - Xerces 2-3-0 (available from XDAQ web site)
 - log4cplus V1.0 (available from XDAQ web site)



Components of DAQKit-01



- XDAQ core
 - the CMD online software framework
- ptATCP
 - TCP transport layer to shuffle data via the xdaq i2o peer transport
- XPhys
 - XDAQ application to interface the bigphys kernel patch
 - needed to build zero-copy DAQ systems (work with hardware which uses DMA to transfer data into and out of a PC)



DAQKit-01 components



- **itools**
 - fedkit driver and generic PCI driver
- **Fedkit application**
 - XDAQ application to read data via an Slink into a PC (uses the fedkit driver)
- **EVB**
 - latest version of the event builder
- **Job Control**
 - XDAQ application to start and stop XDAQ executives on a computing node



DAQKit-01 components



- **HAL**
 - Hardware Access Library
- **SBS driver**
 - version which compiles and installs on CERN Linux 7.3.3
 - CAEN VME/PCI driver which compiles and installs on CERN Linux 7.3.3
- **RCMS**
 - Run Control to Control XDAQ based DAQ systems (including Filter unit(s), allows to access reconstruction parameters via RCMS)



DAQKit-01 components



- **Filter software**
 - “stand alone” filter unit which gives interface to reconstruction code.
 - Filter skeleton which interfaces to EVB and reconstruction code
 - Root based data quality monitoring service



Status of DAQKit-01



- Except for Filter software and CAEN driver all components have been integrated.
 - CAEN driver has been tested. Some small issues to be fixed with CAEN. This will not hold off the release of DAQKit-01
- **To be done**
 - RCMS has been improved, debugged, extended a lot since first integration.
 - Issues and fixes found in first integration process have to be incorporated in packages. (partly done)
 - Filter software has to be tried and incorporated.
 - Everything has to be tested once more.