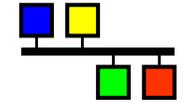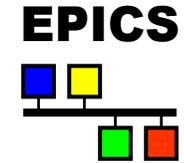# EPICS BASE Release 3.14 Status
EPICS Meeting at BESSY

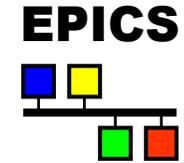May 2002

Marty Kraimer

Epics Base Release 3.14 Status

EPICS

◆ Main Goal for 3.14 – Port iocCore

   ◆ vxWorks – 5.4 (Tornado 2) required

   ◆ RTEMS – Open Source Real Time Operating System

   ◆ Solaris – Solaris 6 and Solaris 8 tested

   ◆ Linux – Redhat 6.1, 6.2, 7.0 tested

   ◆ Win32 – NT

   ◆ Darwin – Open Source for Mac OSX

   ◆ Marty Kraimer, Jeff Hill, Janet Anderson, Eric Norum primary developers.

◆ Hardware Support

   ◆ vxWorks support unbundled

   ◆ Some for RTEMS

   ◆ Requires major changes for Unix, Linux, win32
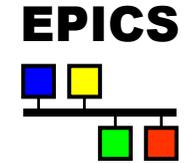
Epics Base Release 3.14 Status

EPICS

- ◆ **Not Supported**
  - ◆ HPUX
    - ◆ Versions before 11 do not properly support pthreads
    - ◆ Support will require version 11
    - ◆ BESSY (Ralph Lange) is working on the port. Ready soon.
  - ◆ Main Porting Problem is multithreading
    - ◆ Good support for pthreads OR
    - ◆ Threads support for implementing epicsThread, epicsMutex, and epicsEvent
  - ◆ Multithreading now required
    - ◆ iocCore is intrinsically multithreaded
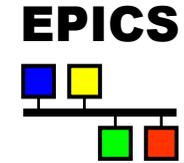   - ◆ CA is also multithreaded but transparent to existing applications.

Epics Base Release 3.14 Status

◆ Supporting many platforms will be a challenge

- ◆ Each platform has many versions

- ◆ Many versions of G++

- ◆ C++ is particular challenge

  - ◆ Most implementations still don't fully support standard
  - ◆ Standard C++ library implementations still immature.

◆ Status

- ◆ First beta release is now available. Ready for test stands, commissioning, etc. Operational systems should still wait.

- ◆ I have tested vxWorks Test stand with many VME I/O modules

- ◆ Encourage users to try Win32, Solaris, Linux.

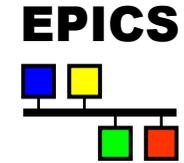- ◆ Killer Applications: Sequencer and LAN Gpib

Epics Base Release 3.14 Status

EPICS

◆ Sequencer

   ◆ Eric Norum & Marty Kraimer started with latest SLAC version

   ◆ Has been tested on all supported alpha2 platforms

   ◆ SLAC has taken back responsibility (Michael Laznovsky)

◆ GPIB: HP2050 LAN Gpib

   ◆ Eric Norum & Marty Kraimer started with latest BESSY release.

   ◆ Has been tested on all but winNT.

   ◆ Support for NI1014 only on vxWorks

   ◆ Bitbus and bitbus gpib supported on vxWorks

   ◆ BESSY is still responsible for GPIB.

   ◆ With new EPICS license APS can still distribute if a Grant of License is signed by BESSY.

Epics Base Release 3.14 Status

EPICS

◆ Additional Features for 3.14

    ◆ Large Arrays – available in beta1

        ◆ St.cmd command: rsrvConfig(bufsize,maxbufs)

        ◆ Transparent to existing clients but must be relinked

        ◆ Purpose is ease of use not performance

        ◆ In next release PCAS will also support large arrays.

    ◆ Multipriority CA servers – available in beta1

        ◆ Client must request, i.e. not transparent to existing clients.

        ◆ Provides incremental improvement for performance degradatation

    ◆ No other new features for 3.14

◆ Testing

    ◆ Some tests are still failing.