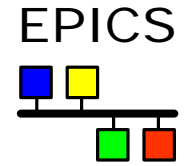# EPICS BASE Release 3.14.0alpha2
EPICS Meeting at PSI/SLS

May 2001

Marty Kraimer
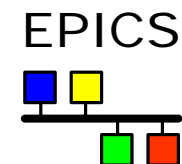
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◆ **Main Goal for 3.14 – Port iocCore**

  ◆ 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

  ◆ 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
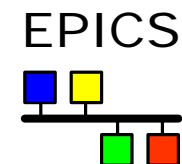
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◆ **Not Supported**

  ◆ HPUX

    ◆ Versions before 11 do not properly support pthreads

    ◆ Support will require version 11

    ◆ Expect that BESSY will implement

  ◆ 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

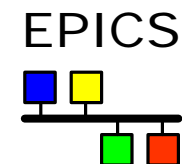   ◆ CA is also multithreaded but transparent to existing applications.

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◆ 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
- ◆ Getting closer to beta.
- ◆ During July Shutdown plan to convert 2 APS IOCs to 3.14.
- ◆ I have tested vxWorks Test stand with many VME I/O modules
- ◆ Encourage users to try Win32, Solaris, Linux soft iocs
- ◆ Killer APPS: Sequencer and LAN Gpib

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◆ Sequencer
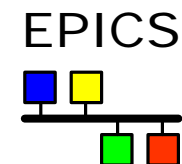
  ◆ Eric Norum & Marty Kraimer started with latest SLAC version

  ◆ Has been tested on all supported alpha2 platforms

  ◆ SLAC is still responsible for Sequencer

◆ 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.

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EPICS

◆ Additional Features for 3.14 (Not currently implemented)

  ◆ Large Arrays

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

  ◆ Transparent to existing clients but must be relinked

  ◆ Purpose is ease of use not performance

  ◆ Multipriority CA servers

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

  ◆ Provides incremental improvement for performance degradatation

  ◆ No other new features for 3.14