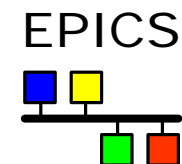


EPICS BASE Release 3.14.0alpha3
EPICS Meeting at IHEP

August 2001
Marty Kraimer



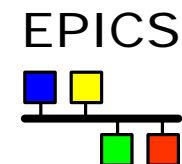
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- ◆ Main Goal for 3.14 – Port iocCore
 - ◆ vxWorks – 5.4 (Tornado 2) required
 - ◆ RTEMS – Open Source Real Time Operating System
 - ◆ Solaris – Solaris 6 and Solaris 8 tested
 - ◆ Linux – Redhat 6.1, 6.2, 7.0 tested
 - ◆ Win32 – NT
 - ◆ Marty Kraimer, Jeff Hill, Janet Anderson, Eric Norum primary developers.
- ◆ Hardware Support
 - ◆ vxWorks support unbundled
 - ◆ Some for RTEMS
 - ◆ Requires major changes for Unix, Linux, win32



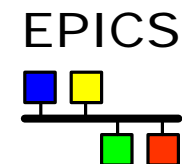
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- ◆ Not Supported
 - ◆ HPUX
 - ◆ Versions before 11 do not properly support pthreads
 - ◆ Support will require version 11
 - ◆ BESSY (Ralph Lange) is working on the port
 - ◆ Main Porting Problem is multithreading
 - ◆ Good support for pthreads OR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



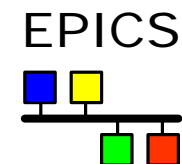
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- ◆ Supporting many platforms will be a challenge
 - ◆ Each platform has many versions
 - ◆ Many versions of G++
 - ◆ C++ is particular challenge
 - ◆ Most implementations still don't fully support standard
 - ◆ Standard C++ library implementations still immature.
- ◆ Status
 - ◆ Getting closer to beta.
 - ◆ 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

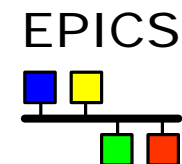
- ◆ Eric Norum & Marty Kraimer started with latest SLAC version
- ◆ Has been tested on all supported alpha2 platforms
- ◆ SLAC is still responsible for Sequencer

◆ 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.



Epics Base Release 3.14.0alpha3



- ◆ Additional Features for 3.14
 - ◆ Large Arrays – available in alpha3
 - ◆ St.cmd command: `rsrvConfig(bufsize,maxbufs)`
 - ◆ Transparent to existing clients but must be relinked
 - ◆ Purpose is ease of use not performance
 - ◆ Multipriority CA servers – not yet implemented
 - ◆ Client must request, i.e. not transparent to existing clients.
 - ◆ Provides incremental improvement for performance degradation
 - ◆ No other new features for 3.14