EPICS Base 3.14 Status
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APS/ANL

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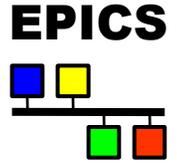
- 3.14.0beta2 is the latest release
  - Available via the new EPICS base License
- 3.14.1 soon. December 2002
- Future 3.14 releases
  - Major emphasis is stability
  - Only minor enhancements
    - iocsh improvements
    - pthread priorities
    - pthread mutex
  - Major changes will go into 3.15
  - 3.14 releases should be more frequent.
  - 3.14 will be put on CVS branch

Base 3.14 Overrview
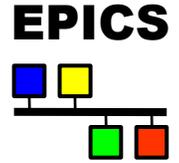
- Main Goal for 3.14: port iocCore
  - vxWorks - 5.4 (Tornado 2) required
  - RTEMS - Open Source Real Time Operating System
  - Solaris - Solaris 6 and Solaris 8 tested
  - Linux - Redhat 6.1, 6.2, 7.0, 7.1, 7.2, 7.3 tested
  - Win32 - NT, win2000 tested
  - Darwin - Open Source for Mac OSX
  - HPUX11 - Release 3.14.1
  - Base software is organized to minimize porting effort
  - Marty Kraimer, Jeff Hill, Janet Anderson, Eric Norum, and Ralph Lange primary developers.
- Hardware Support
  - vxWorks support unbundled
  - Some for RTEMS
  - Requires major changes for non VME/vxWorks platforms

3.14 Channel Access Features
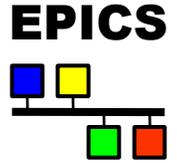
- Large Arrays - available in beta1
  - Both client and server must be 3.14
  - Set CA_MAX_ARRAY_BYTES on both client and server
  - Transparent to existing clients but must be relinked
  - Purpose is ease of use not performance
  - In 3.14.1 PCAS will also support large arrays.
- Multipriority CA servers - available in beta1
  - Client must request, i.e. not transparent to existing clients.
  - Provides incremential improvement for performance degradatation. Purpose is to allow inter IOC communication to have higher priority than other clients.
- No other new features for 3.14

Channel Access Features (Cont.)
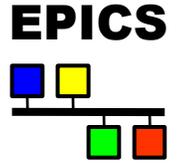
◆ Regression testing was upgraded

◆ Reference manual upgraded

   ◆ new chapters

   ◆ converted to HTML

◆ UDP protocol now has sequence numbers

   ◆ Improved CA Search message scheduling

   ◆ Detection of CA server beacons duplicated by routing loops

   ◆ Both client and server must be running R3.14

◆ Hash tables now expand on demand, but retains deterministic latency