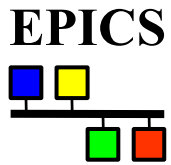

Beyond π: Progress on EPICS R3.15

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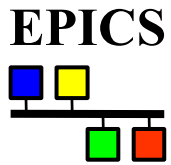
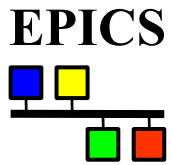
APS/ANL

Outline



- What's going into R3.15?
- Where is the development now?
- When will it be available?

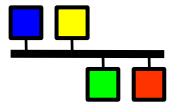
What's going into R3.15



- Link Support
  - New extensible syntax for link fields, defined in .dbd file
    - Mainly intended for device support addresses
    - Allows new link types – e.g. foreign network protocols etc.
  - Old link types and syntax will be retained and supported in R3.15
    - Eventually they will be removed (R3.16?)
- Runtime modification of device addresses
  - Can even change the device type of a record
  - Existing device support must be extended for this to work
  - Device support layers can refuse address changes
- Compiled .dbd files
  - IOCs will not have to read menus, record types, link types, device support or drivers from a .dbd file at startup

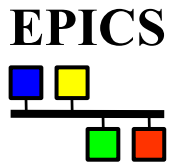
How do you compile a .dbd file?

EPICS



- Record Field descriptions are converted into a static struct in *Record.h that is compiled into the *Record.o file
  - Older versions already do this, but the structure they compile only contains field sizes and offsets
  - By compiling all of the record description data together, some kinds of IOC configuration errors can no longer occur
- IOC applications must add a new registrar.c file
  - The record, link and device types, menu definitions, functions and drivers listed in `app.dbd` are converted into `app_registrar.c`
  - The dbdRegistrar() routine from this file must be executed by the startup script instead of loading the .dbd file
  - Breakpoint table handling is still TBD

Where is development now?



- Waiting for R3.14 to be released
  - I can't commit my changes to CVS until the branch is created
- Compilation of .dbd files is working
  - Results in smaller iocCore and faster startup
- Runtime modification of device addresses is working
  - Some more thought needed, questions about when to do readback of output values from hardware
- Incomplete replacement for dbStaticHost library
  - Doesn't yet handle .db files or have a dbStaticLib API
  - Designed to be extensible, XML support can easily be added
- No Link Support runtime code written yet

When will it be available?