

EPICS Base 3.15 and Beyond

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Outline

- Base 3.14.12.4 release
- Commits on 3.14 branch
- Base 3.15.0.2 release
- Plan for 3.15.1
- Future development



Base 3.14.12.4 Release

- Released 16 December 2013
- 66 Commits in 12 months since 3.14.12.3
 - Nanosecond resolution time provider for MacOS
 - Periodic scan threads no longer drift over time (Eric Norum/LBL)
 - `epicsLoadLibrary()` and `epicsFindSymbol()` on Windows (Dirk Zimoch/PSI)
 - Support for VxWorks 6.9 and Apple iOS 7.0
 - New target architectures for 64-bit Cygwin & MinGW tool-sets
 - Many internal clean-ups and minor bug fixes

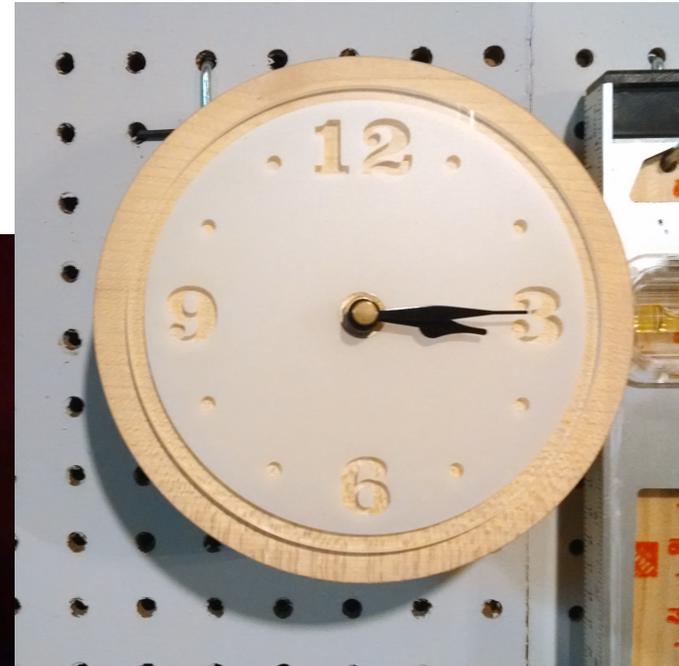


Commits on 3.14 Branch

- We usually only apply bug fixes and build system updates to the 3.14 branch.
- These changes have been committed since 3.14.12.4:
 - Fix issues with record handling of NaN and Inf values (Ralph Lange/ITER)
 - Fix for fractional seconds roll-over in `epicsTime::strftime()`
 - Fixed `epicsStrCaseCmp()` and `epicsStrnCaseCmp()` functions
 - Fixes for `DBR_GR_ENUM` type handling in `catools` and Perl CA library
 - Added Perl CA->version function to retrieve Base version
 - Minor improvements to makeBaseApp templates
 - Additional build rule fixes for parallel make
 - Build rule fixes for Apple iOS Simulator target (Tom Pelaia/SNS)
 - Fix for static MinGW builds (Wang Xiaoqiang/PSI)
 - Added `win32-x86-static` and `windows-x64-static` target architectures
 - Support for Solaris 11 (Bob Soliday/APS) and RTEMS on Altera Nios-2 (Jeff Hill/LANL)
- Will release 3.14.12.5



Quelle heure est-il?



Unfortunately my play on words only works in English



Base 3.15.0.2 Release

- Final developer release before 3.15.1
- Tagged and released on October 7th, 2014
- Many enhancements and additional features added since 3.15.0.1, see Release Notes for full details
 - Backwards-compatible enhancements to many existing record types
 - fanout, seq, aSub, mbbiDirect, mbboDirect, aai, aao, waveform
 - New record types for long string support: lsi, lso, printf
 - Better support for SMP (Linux) systems
 - Parallel callback threads, memory locking for IOCs using real-time scheduler
 - New APIs for spinLocks, thread-pools, memory-mapped I/O, 64-bit integer support
 - EPICS_CAS_INTF_ADDR_LIST support for IOC (single interface only)
 - Support modules can be chosen and loaded at IOC startup
 - HTML document generation from POD in DBD files
 - Stack-trace API, back-trace is now printed on thread suspension
 - New iocsh command iocshLoad(script, macro-definitions)



Plans for 3.15.1 Release

- The 3.15 branch is now in feature-freeze for the 3.15.1 release
 - No significant new functionality will be added to the IOC
 - Build system changes, bug fixes and new target architectures will be allowed
- Final release date early December
- Request to support module developers:
 - Please build and test your software against 3.15.0.2 ASAP
 - Report any problems to me or the tech-talk mailing list



Future Development

- A new development branch 3.16 will be created soon
- Developer releases could be made on this branch quite soon
 - EPICS V4 pvaSrv needs ability to lock several locksets simultaneously
 - Michael Davidsaver (BNL/NSLS-2) is rewriting the IOC record locking code
- Various additional features are in development, for example
 - 64-bit integer fields in the IOC
 - Replacement for link field parser
 - Ability to add new link types (e.g. pvAccess, eventually)
- Some version 4 modules will be considered for merging in due course



Minimum Requirements for VxWorks IOCs

- Base 3.15 will support VxWorks 5.5.2 and above
- EPICS Version 4 C++ modules currently require VxWorks 6
- Minimum RAM requirements are also growing slowly
 - Unlikely to be as much of a problem

