



First Internal Pool Release 0.1

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Release Platform

- POOL V0.1 has been released on October 3rd
 - the cvs release tag is POOL_0_1_0
- Single supported platform so far
 - RedHat 7.2 using gcc 2.95.2
 - Code should also work on rh61 and (partially) on win32/VC6
- Require several external packages hosted by SPI
 - see [/afs/cern.ch/sw/lcg/external](http://afs.cern.ch/sw/lcg/external)
 - MySQL (4.0.1-alpha)
 - MySQL++ (1.7.9)
 - Root (3.03)
 - Xerces-C (1.6.0)
- Supported build systems
 - scram and (less complete) cmt



Release Content



- **Storage Service**
 - two operation modes objects in a tree or objects named into directory structure
 - provides coherent access to the two very different root optimisation models with the user same code
- **File Catalog**
 - two implementation based on mysql and xml
 - provide api & admin tools
- **Refs and Cache**
 - simplistic cache implementation
 - testbed for Ref classes – example for integration with experiment caches
- **Reflection & Conversion**
 - Full reflection interface
 - some refactoring of the interface going on (not yet in the tagged release)



Release Content II



- Release Target:
 - Provide component implementations for pool core component and show basic navigation between persistent objects
- Test Programs – eg /pool/test/Pool_1
 - write a few interrelated objects into a root file
 - read them back using pool object references
 - keep objects available for repeated local access in pool object cache
 - register and lookup files as required by the navigation from either of the two available catalog implementations
- But...
 - rather bare bones component integration so far!
 - Pool_1 test shows **not** the expected end user code
 - in many cases still calling low level component api which is to be hidden behind a proper end user facade (Refs/PersistencySvc)



Building POOL Libraries and Executables



- ... is not as easy yet as it should be. Because of
 - bugs...
 - weaknesses in our integration testing (no automatised test yet)
 - too little time for thorough integration testing in this cycle
 - not yet existing documentation
- Plan to tag a bug fix release
- Complicated setup because conflicting build system conventions
 - include directory names
 - path prefixing conventions
 - CVS tag conventions
 - compiler settings (GNU_SOURCE)
- All minor issues
 - but hard to resolve in a single development system



POOL development on CMT and SCRAM?



- Was this useful?
 - yes, at least during the project start-up phase
 - it allowed developers to work in their “home development environment”
- Should we keep **release** support for both or even extend this to other build mechanisms
 - definitely not!
 - this is convenient for single component development
 - but would likely turn into a nightmare for more serious integration testing and release QA



Next Steps



- Code review starts now
 - in 3 teams of 2 pool developers for 2 half days
 - SPI provides one external person for the review
 - Tagged reflection code will be send to Tyng-Ruey Chuang
 - To be finished by end of next week (also ROOT ws week!)
- Standarise and simplify cvs structure
 - Flatten sub directory structure to /pool/component
 - Use "pool" for component interface directories and #include "pool/ISomeThing.h" for inclusion
- Working with SPI project
 - On code documentation (cvsview)
 - Move asap to automatised unit and integration testing (cpp_unit/oval?)



Communication



- Pool work package meetings will be announced on our web and email list
- Everybody contributing to pool development is welcome to attend
 - WARNING: Don't expect to leave without a development task assigned to you
- The pool list became after the release quite active
 - Propose to setup an dedicated developer list for bug reporting traffic and internal developer discussions
 - Spare the traffic on the main list for architectural discussions interesting to a wider community



Next release



- In only less than a month ...
 - Planning discussions for the release content started
- Collection support is coming
 - Commit of first prototype is expected soon
 - Steve Eckman replaces Chris Lain as of now
 - One day planning & integration meeting with Collection WP will be held tomorrow in Orsay
 - Expect Storage Svc requirement for container and file level iterators
- Object Conversion and Foreign Class Support
 - gcc-xml, ADL, XML based reflection & conversions prototype?
 - Need to improve the manpower problems in this work package
- Move to MySQL 4.0.3-beta
 - Alexandre Vaniachine has taken over from Zhen the responsibility for MySQL and MySQL++ (external packages used by pool)



Next release - Ideas



- Data extraction and publishing tools
 - take a few file home
 - publish file generated in a decoupled setup
- Catalog browser & admin tool?
 - complement command line tools developed by Zhen
 - eg Python based
 - rather decoupled - could be done eg outside CERN
- Move release platform to RedHat 7.3?
 - CERN will be moving soon – we should as well either for V0.2 or V0.3
- Provide additional support for gcc 3.2?
 - Only if we can get rid of one build system by end of October



Summary



- The internal POOL V0.1 release took place with planned content and only minor delay
 - Thanks to the full commitment of all pool developers and significant help from outside!
- This is the **FIRST DEVELOPER** release
 - report bugs/problems to the developer list – we left enough ☹️
 - we'll create a pool developer list if traffic becomes unbearable
 - even better: fix bugs – most of them are still easy to fix 😊
- Many lessons learned from the very first cycle
 - We will try to fix the observed setup problems
 - The CVS structure will be simplified and standardised
 - Plan to drop release support either scram or cmt as soon as possible
- LCG POOL as a project is up and running
 - a growing fraction of the pool software is as well ...

