



LCG SC2 - 16 Mar. 2004

ATLAS and LCG-AA products

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POOL/SEAL Strategy

- Phased integration of POOL/SEAL
 - POOL first
 - Then client access to SEAL dictionary
 - Then other SEAL components
- Design of POOL integration started before end of 2002
- Actual integration started in spring 2003
- We now use:
 - POOL 1.6.2
 - SEAL 1.3.4
- Main ATLAS contributions in 2004:
 - Collections
 - Conditions DB



POOL/SEAL Status

- Required functionality is essentially in place
 - ATLAS is now testing the EDG RLS-based file catalog
 - POOL collections are available via Athena, but the physicist's interface is only at prototype level
- We have moved from an expert to general developer environment
- The event data model is being filled out
 - we are almost at the end of the chain
- Goal was to have it essentially complete by end of last year
 - But important parts of transient model have been redesigned
- Python scripting support is incorporated now
 - PyROOT, PyLCGDict, GaudiPython, etc.



PI

- Re-implementing of Gaudi/Athena histogram service based on AIDA/ROOT implementation (needed by both LHCb & ATLAS) is complete
- ATLAS does not presently intend to take advantage of enlarged AIDA API
 - Wait until more experience gained from physics analysis
- Next steps have to be coordinated with ARDA work and ATLAS Distributed Analysis developments



Simulation

- We have long history of active involvement with Geant4
- Extensive validation studies
- Physics and memory/CPU performance have reached point where it's deemed to be ready for production
- We are now actively deploying the Geant-4 based simulation for our Data Challenges 2 (starting next month)
- We also use it for the combined testbeam May-Oct 2004
- We have validated the GENSER generator distribution
 - Migration to use some generators from distribution underway now



SPI

- Primary focus is the LCG projects themselves
 - But very useful interactions support for the experiments
- Savannah portal is widely used
 - Primarily for bug tracking
 - Version 2 has addressed several issues we had
- We are migrating to the SPI External installations
- Useful scripts and procedures are available from QA/testing
 - Although "some assembly required" because of different package structures
- Generally very good interactions with SPI



Verification milestones

- 1.1.2.1 1.18 - ATLAS POOL validation with DC1 data - 19-01-2004
 - superseded by events and lack of manpower: validation was done at a lower scale with DC2 pre-production tests
- 1.1.2.1 1.19 - ATLAS validation of POOL Metadata/event collections - 01-02-2004
 - now scheduled for ATLAS Release 9 (end June 2004)
- 1.1.2.1 1.19 - ATLAS POOL validation with complete Event Data Model - 01-04-2004
 - now scheduled for ATLAS Release 9 (end June 2004)
- 1.1.3 1.19 - ATLAS: SEAL Integration into Athena - 31-12-2003
 - Dictionary, Python and all that is necessary for POOL already there
 - Plug-in Manager and other components now scheduled for ATLAS Release 10 (end 2004)