

Repository and Releases

Status and Plans

ATLAS Software Workshop

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Overview

- Packages
- Supported Platforms
- Releases
- Testing
- Tools
- Miscellaneous

See also

<http://atlasinfo.cern.ch/Atlas/GROUPS/SOFTWARE/HELP/librarian/index.html>

Packages (I)

- **Number of packages: 45 top level , 152 total**
 - in release: 42 top level, 121 total
 - not yet in release: Control, Database, Doc, TileCalorimeter
 - to be implemented: ATLAS simulation with GEANT4, analysis, new reconstruction etc
 - **Contributed software** in repository:
 - Atlantis
 - **External software** in repository:
 - Expat, classlib, pccts
 - Fragments for external packages (CLHEP, Gemini, HTL, HepOBMS, MasterSuite, Nag_C, ObjectSpace, Objectivity, OpenGL, OpenInventor) recently implemented by L. Tuura
==> version control for each release!

Lines of code: F77 503 K Age 94 K C++ 337 K

Packages (II)

- **External software outside the repository**
 - Following agreed policy - see http://atlasinfo.cern.ch/Atlas/GROUPS/SOFTWARE/HELP/librarian/External_Proposal.txt
 - Under `/afs/cern.ch/atlas/offline/external`:
 - **isajet**: latest version installed and maintained by J. Shank, used by Applications/isagen
 - **geant4**: installed and maintained by M. Stavrianakou releases 4.0.1 and 4.0.1.p01, cross section data visualisation (with DAWN) to be installed
see also <http://www.cern.ch/Atlas/GROUPS/SOFTWARE/OO/domains/simulation/>
 - **cernlib**: shared libraries for ATLAS to be installed and maintained by S. O'Neale

“Supported” platforms

- Now HP, DEC, IBM, SUN, LINUX
 - hppa1.1-hp-hpux10.20 with HP aCC 1.21
 - alpha-dec-osf4.0b with Digital C++ 6.1
 - powerpc-ibm-aix4.3 (mapped to 4.1.5) with IBM x1C 3.6
 - i586-pc-linux-gnu with egcs-1.0.2
 - sparc-sun-solaris2.5.1 with SUN CC-4.2
- To be dropped (?):
 - IBM-AIX January 1st, 2000
 - ALPHA-DEC January 1st, 2000 or after Trigger TDR at the latest
 - HP-UX by mid/end 2001
- Discussion after N. McCubbin’s presentation

Releases (I)

- Fortnightly (developers') releases
 - 36 releases in ~18 months
- Nightly builds (on HP, DEC, SUN and Linux)
- Recent improvements in release procedure
 - Extensive automation implemented by L. Tuura
 - New tags and the corresponding updates and bug fixes documented in ReleaseLog
 - also improved ChangeLog following recommendations
http://atlasinfo.cern.ch/Atlas/GROUPS/SOFTWARE/HELP/librarian/ChangeLog_Guidelines.txt

Releases (II)

- Note: a complete release (e.g. for distribution outside CERN) should comprise:
 - The entire release tree for the sources from `/afs/cern.ch/atlas/software/dist`
 - The subtrees for the desired platform(s)
 - The external software used from `/afs/cern.ch/atlas/offline/external`
 - The data files from `/afs/cern.ch/atlas/offline/data`
 - The release tool (SRT) version used to build the release

Production Release

- TDR Software production release
 - Severely (> 6 months!) delayed
 - Testing in progress but slow (see next slide)
 - Executables for atlsim and atlfast on HP and Linux to be prepared
 - Proposal: make production release shortly after above executables are ready, whether testing is finished or not, freeze and eventually remove test area

Testing

- Testing for production release was supposed to have been finished by early November
 - Calorimeter testing mostly (?) done (and mostly been documented) by M. Wielers and M. Bosman
 - Inner Detector testing in progress (not yet documented) by D. Barberis, D. Rousseau et al
 - Muon system testing in progress (no feedback)
- Outstanding problems:
 - hits in TRT (HP vs Linux)
 - iPatRec testing after fix in pixel common block - simulate data with new DICE executable
 - other?
- See also <http://www.cern.ch/Atlas/GROUPS/SOFTWARE/HELP/testing/>

Repository, Build and Release Tools

Installed and maintained by L. Tuura

available via the ATLAS Software Server (<http://atlas-sw.cern.ch/>)

- SRT
- CVS server
- Build server
- Build logfile analyser
- Browsers
- Automatically updated list of package coordinators
- Dependency Grapher

Miscellaneous

- Evaluation of build and release tools following requirements document
(see presentation by S. Fisher)
- Problem tracking: migration from GNATS to Remedy
(see presentation by H. Meinhard)
- Documentation tools by S. Fisher- see
<http://www.cern.ch/Atlas/GROUPS/SOFTWARE/OO/tools/doc/>

Outstanding issues

- Generator packages (to be discussed at the ATLAS Monte Carlo meeting later this week?)
- Package author list to be updated
- Circular dependencies
- Releases in both optimised and debug mode
- Long-term tool development and support