

Software Infrastructure Overview

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December 7, 2004

Building Issues I

- There has been continuous work on the building procedures and to solve problems with the build.
- AtlasLogin package has been updated to make a consistent environment for all users.
- Even using local build AFS problems consistently disrupt the nightly build cycle.
 - AFS failures are seriously impeding the work.
- Switched nightlies from a full build to incremental building to reduce build time.
 - Some problems initially but it seems to work now.
- Possible use of “gmake -jN” to speed builds
 - Some packages need to be modified to compile.

Building Issues II

- The SLC3 build is basically working.
 - Library order change solved slow compilation.
 - Still a problem with speed of Fortran compilation?
- We have received an additional high speed machine for use with SLC3 and are promised more fast machines soon.
 - Still pretty tight but hopefully soon we will have a few machines for running valgrind and testing.
 - A misunderstanding about which of the lxbuild machines were reserved for Atlas use has been settled.

Building Issues III

- Some work has been done on porting the Atlas software to 64 bit processor machines.
 - There is a strong request from the community for support of Opteron / gcc.
 - LCG has ported externals to Intel / icc.
 - Not much has happened on porting the code to Mac.
 - Still seems to be considerable user interest in using Macs.

Distribution

- There has been lots of work to make the distribution system more reliable.
- That said it still has been difficult to get the distribution kit built correctly.
 - Now starting to use Kit Validation to validate kit before announcing it (and to the release builds too!)
 - Some of the difficulties have been traced to changes in External packages. Also problems with patching kit.
- Strong request from the users for each kit build to be identified with a clearly labeled version.
 - There is no way to tell if the kit has been patched / rebuilt.
- Pacman 3 is now in release and Christian is testing it before we use it with the production distribution kit.

Testing & Validation

- My thanks go to Peter Sherwood who has agreed to become the new Atlas SW Testing coordinator.
- There are multiple efforts for testing and validation:
 - There is the AtNight testing system that is run in the nightly.
 - There is the Run Time Tester that runs many, longer tests after each nightly use a cluster of computers in the UK.
 - There is the Kit Validation package for the distribution kits.
 - There are also traditional human-based validation work done by the Physics Validation, Recon, and other groups.
- Peter is working on coordinating these testing efforts and making life easier for the developers who now are faced with a large set of choices. Much more info at the testing session on Wednesday afternoon.

Release Strategy I

- Recently there has been considerable discussion about our release strategy.
- Our current strategy is:
 - Every ~3 weeks there is a development release (x.y.0)
 - Every ~6 months there is a production release (x.0.0) followed by a series of patches (x.0.z).
 - There also have been branches for the CTB also.
- In my opinion we are at the limit of how many releases can simultaneously be maintained using a full time librarian and a part time release coordinator.
 - Instead of building one release every 3-4 weeks like we used to, a release is being built nearly every week and there is a constant need for the tag approval process.

Release Strategy II

- The full tag approval process has definitely reduced last minute changes right before releases. However:
 - It is time consuming for the approvers.
 - Errors are made by the approvers.
- I am open to suggestions on improving the tag approval process.
- There is also a very strong request from the user community for an automated way to close containers.
 - Certainly closing the containers consumes lots of time for the people performing librarian functions.

Documentation / Web / Wiki

- I have received considerable comment from the developers and users that that documentation situation needs improvement.
- We have some ideas of people who can help on this BUT as always we are currently short-handed and the documentation suffers as a result.

Help List / Savannah

- I have been monitoring the atlas-sw-help list and find that requests for help go unanswered.
 - Many people use the the developers list in the way that atlas-sw-help was intended to be used.
 - People also confuse atlas-sw-support with atlas-sw-help.
- The SIT Savannah bug group has been dormant however recently Emil has started monitoring it.
 - Emil will say more in his talk.
 - Ed Moyse suggested that we should not have 27 Savannah groups. He wants a single place where all bugs are reported and then later moved by experts to the correct person.
- Again lack of people is hurting us in responding to requests but still I think that we can do better.

Minor Issues (I)

- Jakob left - someone needs to take over checkreq.
- CERN is about to (finally) put Kerberos 5 into production though there are troubles.
- The latest link that pointed at the current nightly has been replaced by two links:
 1. latest_copied_release - set when build/copy completes
 2. latest_doxygen - set when doxygen completes
- Please be careful when printing from within loops - there have been instances of when a error condition was repeatedly printed and the log file filled the disk.
 - E.g. an error printed when the network is down making the conditions database unavailable. If there is no limit on the number of retries to access the database, the disk is filled.

Minor Issues (II)

- For some time now we have been promising to implement user CVS repositories.
 - Promised “after” CVS migration which is now done...
 - Any user who requested it, would get a user/<username> container created for them.
 - The user would have freedom to freely do what they want in container.
- CERN is phasing out the Simba mailing list system and replacing it with an MS Exchange-based system called Simba2
 - After discussion the mailing list group, the conversion of the Atlas lists has been put off until next year.
 - We should clean-up the mailing lists while converting.
 - Solveig will provide full details in her talk.

Project Planning and Reviews

- We have provided Tom LeCompte with some input for his planning documents.
 - I will try to talk to each of you week to revise Tom's numbers.
 - We definitely are short of people.
- The SIT is the second project to under go review next year and we need to start planning for this review now.
 - I will be talking to Solveig this week about what we need to prepare and what the timeframe is for submitting documents.
 - Preparing for the review will require work from everyone but hopefully will lead to clearer understanding of how many more people we need.

Conclusions

- We need more people.
- We need to start preparing for the review.

- On a more personal note:
 - I would like to thank everyone for all of their hard work on the SIT!
 - Happy Holidays to everyone!