

Miscellaneous SIT Issues

Frederick Luehring

Indiana University

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SIT Session at ATLAS SW Week

Introduction

- This talk is a “random walk” through various SIT issues that probably won’t be covered elsewhere:
 - The July 25 SIT Documentation Review and SIT Twiki pages
 - Support for using Doxygen with Python
 - Getting to Release 13.0.10
 - Tag Approval and Consistency
 - Testing/Validation Coordination Issues
 - Incident on Ixplus
 - Deleting Old Releases and Externals
 - Nightly Build Disk Space
 - SIT Savannah Reports
 - glimpse
 - Number of People Working on the SIT

SIT Doc Review & Twiki Pages

- Stephen Haywood and I have arranged the SIT Documentation Review for Wednesday July 25.
 - This documentation review will concentrate on the SIT Twiki pages because the SIT has essentially no Doxygen.
- Many of you already updated your SIT Twiki pages during the Documentation Standdown.
 - Thanks greatly!
- Soon I will review the SIT Twiki pages and prod people who need to improve their pages.
 - Also I will compare the top level SIT Twiki pages with the static SIT web pages and fix any inconsistencies found.
 - Traudl Hansl-Kozanecka has been ask me to do this for some time.
- We need to certify all of our pages.

Support of Using Doxygen with Python

- A release of Doxygen has been installed that supports documenting Python.
 - This was ready right before the Documentation Standdown.
- However we were not able to locate someone with enough time to write a description of how to document Python and provide an example.
 - Consequently people are not yet documenting Python.
 - In my view, correcting this is urgent because much of the interaction between the Athena and the users is via Python.
 - I hope that we can get this in place in time the later documentation reviews.
- There has also been discussion of using pydoc.

Getting to Release 13.0.10

- Even with a much improved tag approval system and significantly more validation, it was still a painful process to close and build 13.0.10.
 - I believe that approximately the right process for closing the projects is place but there still are a many things that must converge to build the release.
- The 13.0.10 kit was patched in place several times.
 - Some people objected to the in place patching but the only alternative of cutting another release was not practical.
 - The kit had some bad links to AFS in its externals.
- Various new versions of the external packages were delayed and may even be unavailable for 13.0.20.
- Fixes continue to be put in the 13.0.10.X transforms.

Tag Approval and Consistency

- Thanks to the tag collector team, lots of additional functionality has been added to the Tag Collector so that release coordination team can manage the large number of tag requests.
- The addition of the validation (VAL) nightly has helped smooth the process of approving tags.
- Work is underway to ensure that the tags put into the bug fix (production) branch are carried over to the development branch.
 - Currently this means that tags put into 13.0.20 are being put into 13.1.0 unless the tag requestor asks explicitly that the tag not be put into 13.1.0.

Testing/Validation Coordination

- The testing and validation process has become much more robust and coordinated.
 - ATN has been running well & is now testing KV each night.
 - Since the inception of testing on the dedicated CERN nodes, the RTT has performed well.
 - A standalone Full Chain Test (FCT) has been created and is working well (Seth Zenz).
 - The project coordinators, Release Coordinator (Andrea di Simone), Software Validation Coordinator (Manuel Gallas), and Physics Validation Coordinator (Wouter Verkerke) have been intensively monitoring the release for problems.
 - The team testing/validating each release has become quite large.
- Getting prompt turn around validating a release candidate is still difficult.

Incident on Ixplus

- Last week there was an incident where an ATLAS user split a large production into many short interactive jobs running on Ixplus.
 - This filled /tmp on many nodes while degrading interactive response.
 - The Ixplus team was decidedly NOT happy.
- The user did this because he was unable to obtain an ~10 GB area scratch area accessible to Ixbatch.
 - This does raise the real issue of what to do about such requests for scratch space at CERN.
 - In the end, this user did have the alternative to use the grid because he works with an institute having a tier 2 center.
 - It would also seem that Ixplus needs more protections.

Deleting Old Releases and Externals

- Vasily Kabachenko, Emil Obreshkov, and Grigori Rybkine have removed various old releases and their underlying externals.
 - It is difficult to know what externals can be safely removed after removing old ATLAS releases.
- The design of the Pacman mirror continues to be an area of active discussion.
 - This discussion is driven by the 20 GB size limit for an AFS partition at CERN.
 - Places using the kit generally have lots of space.
 - The sheer size of the releases slows the updating of mirrors.

Disk Space for Nightlies and RTT

- The release team has systematically increased the disk space allocation for the nightlies and RTT.
 - We now have over 2 TB of AFS space in use.
 - The large number of nightlies drives this large (for AFS!) consumption.
 - Currently, we generally see disk space problems only when something fails in the underlying software (e.g. the events of early Sunday morning.)
 - Typically large numbers of error messages in the log files fill the partitions used by NICOS.
- AFS continues to struggle in general.
 - There are lots of intermittent AFS problems.

Infrastructure Savannah Reports

- There are 21 open items in the SIT Savannah group out of a total of 299 reports.
- The oldest open item still dates from March 2006.
- The following people are assigned to the open items:
 - Alex 1
 - Grigori 2
 - Hans 1
 - Stephen 1
 - David 5 (some look closable)
 - Brinick 3
 - Vincent 6 (5 CMT 1 Doxygen)
 - Saul 1

glimpse

- Frank Winklmeier asked the SIT to support line mode glimpse commands (noting that CMS uses it).
 - Alex Undrus pointed out that LXR already uses a form of glimpse (though with an incompatible regular expression format).
 - Frank was willing to do the setup himself.
 - However in the end, the SIT decided that we just didn't have the people to support yet another code display system.
 - Currently we support:
 - Doxygen (several views)
 - ViewCVS
 - LXR

Need for More SIT Workers

- As you all know the SIT has relatively few fulltime workers and we are chronically short of people.
 - Much of the work is best effort by (dedicated!) volunteers.
 - Currently I estimate that there are 33 people who are contributing about 11 FTEs.
 - I also estimate that we could easily absorb ~3 more FTEs spread over a number of areas including Testing/Validation, Cross-Platform Compatibility, Doxygen, and CMT.
- Recent personnel change:
 - Traudl Hansl-Kozanecka and Charlie Young have stopped working on HyperNews and Yves Perrin has taken this role.
- New people:
 - On Sep 1 we will add 50% of an FTE on release building.
 - Hope to get a M&OA person for Point1 work in 2008.

Final Words

- If you are aware of anyone who can contribute to the SIT work, please let me know!
- Please help us bring the SIT Twiki up to date.