



Online SW Migration to Git

Murrough Landon
16 January 2017

- Status
- To Do...



Status (1)

•Investigations...

- I spent various odd moments in the last few months looking at git and starting to learn about it
- Reiner Hauser has some SVN to git conversion scripts which they used for the TDAQ software - just handy wrappers around the available tools - Ive tried them and they work
 - Initial conversion took about 24 hours but you can then update it with the latest SVN changes fairly quickly
- I had many interactions with CERN IT about "git lfs" for handling large files (eg firmware) outside the repository
 - Outcome: they will not support it (certainly not on lxplus/SLC6)
 - We could just remove these FW bitfiles from our history (eg JEM)
 - And/or just live with some larger repositories until PPM,CPM are retired



Status (2)

- Test conversion to git
 - Created a test git group (not the final one) and ran Reiners conversion script
 - Output in <https://gitlab.cern.ch/l1calo-online-test/>
 - One git repository per SVN package
 - I probably need to open up the access...
 - Plan is to start with minimal access control in final git group projects
 - Some scripts updated to support git
 - Some temporarily added (gitpkg instead of getpkg)
 - Successfully ran a nightly build checking out from git
 - NB nightly & P1 release building will change more dramatically with CMake
 - So it basically works
 - However I have not tried anything at all sophisticated and still personally have many things to learn...



Next Steps

- When to switch?

- Has to be a “big bang” change on one day
 - Prepare final git group and push converted git repositories in advance
 - Then on G-day:
 - Disable write access to our SVN
 - Make final update from and last minute changes in SVN
- Sensible to do it fairly soon (next few weeks!)
 - Before we need P1 releases for the new TDAQ version
 - Developers need to start learning git now!

- TDAQ and other links

- TDAQ model: <https://twiki.cern.ch/twiki/bin/viewauth/Atlas/DaqHltGit>
- Intro: <https://twiki.cern.ch/twiki/pub/Atlas/DaqHltGit/git-intro.pdf>
- Git book: <https://git-scm.com/book/en/v2>
- NB offline tutorial (more complex workflow) this Thursday