

SixTrack: Boinc/Sixdesk update

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SixDesk/BOINC changes for moving to EOS

Moving to EOS/cernbox:

- User can use the cernbox as spool directory
- User or sixdesk creates directory that has write access for boinc

Question to IT:

- How many processes can be written at the same time to the same directory with AFS and EOS? And in a non-mounted EOS?
- Can IT provide configurations to have system wide mount of eos?
- What is the state of boincai03/boincai11 as test machine?
- Do symbolic links work under fuse mounted eos?
- Can IT provide a server to replace the input spool for job submissions?

BOINC workflow

- Sixdesk (dot_boinc) prepares fort.2, .3, .8, .16
- Sixdesk (dot_boinc) creates
/afs/cern.ch/work/b/boinc/boinc/\$study
- Sixdesk calls uploadWorkunit with ...args...
- uploadWorkunit creates under
/afs/cern.ch/work/b/boinc/boinc/\$study/work/
workunitName.zip and workunitName.desc
- Cron jobs using
boinc08:/share/data/project/sixtrack/bin/cron.submit_simo3
reads .desc and .zip and calls create_work with proper input
template, output template, application and bounds
- When data ready, assimilator writes in
/afs/cern.ch/work/b/boinc/boinc/\$study/result/ \$workunitname
(fort.10) and \$workunitname.zip (SixOut.zip) if present

Adapt Boinc to different studies

Flexibility in input/output files, push results to user directories to mitigate space issues.

Next steps:

- `run_six` (`dot_boinc`): change to create boinc directory in user scratch and symlink them in `/afs/cern.ch/work/b/boinc/boinc/$study` (ERIC, ALESSIO)
- `run_results` looks directly in user scratch (ERIC , ALESSIO)
- ...other scripts to follow (ERIC)
- Change SixTrack: add a block in `fort.3` `ZIPIT` that contains a list of files to be inserted to `Sixout.zip`. (ERIC, KYRRE)
- Compile on Windows (ERIC, ALESSIO)
- Select template that fetch the `Sixout.zip` in `boincserver`. (IGOR, ALESSIO)
- centralize the `sixdesk` scripts