SixTrack: Boinc/Sixdesk update

Present: Massimo, Igor, Kyrre, Alessio, Riccardo
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/ 
  workuniteName.zip and workuniteName.desc
• Cron jobs using 
  boincai08:/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