



# News

- [Virtual CHEP 2021](#) week of May 17. Free registration, but required
- Inclusion Matters 2021 [schedule](#) available
- [2021 FCRSG review](#) was this week
- Managed proxy certs will be swapped (renewed) next week. Please contact Shreyas if that's a problem for your experiment, or you want to change the registered owner of your cert

# Today's Agenda

- Highlights of jobsub 1.3.3 (Dennis/Shreyas)
- Discussion of jobsub\_submit defaults
- Summer workshop/school possibilities

# Notes on jobsub\_client v1\_3\_3

- Release: April 7, 2021 noon CDT (tentatively)
- Big feature: Resilient tarballs → tarballs distributed via CVMFS (RCDS) by default
- Since release of jobsub 1.3, multiple emails sent to liaisons of experiments that use resilient feature of jobsub asking to test
  - Got good feedback, fixed a few bugs
- Possibly one outstanding issue (which D. Box is looking into)
- Relevant links:
  - Release notes:  
<https://cdcvs.fnal.gov/redmine/projects/jobsub/repository/revisions/master/entry/doc/release.notes>
  - RCDS:  
[https://cdcvs.fnal.gov/redmine/projects/jobsub/wiki/Rapid\\_Code\\_Distribution\\_Service\\_via\\_CVMFS\\_using\\_Jobsub](https://cdcvs.fnal.gov/redmine/projects/jobsub/wiki/Rapid_Code_Distribution_Service_via_CVMFS_using_Jobsub)
- Legacy/discouraged except where really needed: Override default by using new flag `--use-pnfs-dropbox` to use old behavior (resilient dCache tarballs)

# Differences in job structure

- For example command: `jobsub_submit -G my_experiment <other args> --tar_file_name dropbox:///path/to/mytar.tar <other_args> file:///path/to/myscript <script_args>`
- Resilient dCache: Tarball/directory available in `$(CONDOR_DIR_INPUT)/${_CONDOR_JOB_IWD}`, depending on use of `--tar_file_name/-f` flags
- CVMFS/RCDS: Tarball unwound on CVMFS, symlink created in job, directory available at `$(CONDOR_DIR_INPUT)/mytar`
- To test:
  - `$ setup -t jobsub_client`
  - `$ jobsub_submit <args> --jobsub-server=jobsubdevgpvm01.fnal.gov --tar_file_name=dropbox:///path/to/my/tarball.tar <other_args> file:///path/to/myscript <script_args>`

# Changes to jobsub\_submit defaults?

- At FCRSG we saw that in the next year expt requests will exceed FermiGrid capacity
  - OSG available, but plenty of users don't even try (especially analyzers)
  - The default if you don't
- With broad Singularity deployment (>99% of slots), *environments are exactly the same on-site and off-site*. No more problems with missing libraries, etc.
  - Using RCDS for tarballs will also reduce I/O loads to remote sites
- **Proposal: make DEDICATED, OPPORTUNISTIC, OFFSITE the default**
  - Users would still be able to control as they do now
  - Drawbacks: probably want to enforce working Singularity in job requirements
    - Automatically Add to default job requirements in jobsub?
    - If yes, would need a way to disable that when testing new sites.
    - Others?

# Future FIFE Workshops

- Time to start thinking about the summer workshop
  - Late June/early July avoids most of vacation season and conferences (though no Neutrino this year).
- During FCRSG, there was a brief discussion about bringing back some kind of user-focused workshop/school
  - Recall we used to do this as part of the FIFE meetings, but attendance had become very low (5-ish new people last time) so we dropped it.
  - Something larger (with community support!) may be of interest again
  - What do experiments think?
- Heidi prepared some slides with some ideas
  - Not taking any decisions today, but we should start a dialogue

# General idea for a short IF computing summer school

- 4 modules
  - Move from general theory of computing to specifics for IF experiments
  - Taught by a mix of computer people and experiment people
  - Pointers to documentation from HSF etc.
  - 4 half-days? Virtual or in person?



## Proposed modules for a general IF computing summer school

- Basics of operating systems
  - general theory of OS
  - Linux
  - Bash
  - release management and build tools
  - disk, tape, CPU, cvmfs ...
- Basics of coding
  - What is a compiler
  - debuggers
  - python and C++ tips and tricks
  - ROOT?
  - configuration languages like fcl/json ...

## continued

- Basics of frameworks
  - what is a framework and why do we care?
  - Art in particular
  - Larsoft/dunetpc
  - cafana/Highland
  - database interfaces.
- Basics of batch and data management systems
  - theory of batch systems
  - Condor/GlidenWMS
  - sam/Rucio
  - POMS
  - debugging your batch job