



# DPM Python tools

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# Introduction

- Dpm-admin-tools
- Dmlite Shell
- Dpm-listspaces

# GridPP Admin tools

- Developed by GridPP people and maintained by Sam
- Small bug fixes
- New dpm-move-data script implemented by A. Forti
- New version ( 0.2.2) to be pushed to EPEL
  - Also EPEL7

# GridPP Admin tools future

- Some of the command available are now implemented in the dmlite-shell (e.g. dpns-du -> du)
- No plan to move other implementations to dmlite-shell ( except for dpm-move-data, see later)
- Understand the changes when moving out from Legacy stack

# Dmlite Shell

- Shell to administrate Dmlite
- Made for admins and developers, not for users
- You can manage directories, files, replicas, pools, users, groups, ... (48 commands)
- A few commands are missing:
  - Filesystem related commands
  - Spacetokens related commands
    - Most probably not going to be implemented
- <https://svnweb.cern.ch/trac/lcgdm/wiki/Dpm/Dev/Dmlite/Shell>

# Dmlite Shell - what's new

- Version 0.7.5 contains:
  - Bug fixes:
    - The info cmd now prints the extended attributes too
    - In the checksum command, the parameters 'type' and 'value' were inverted
  - Enhancements:
    - Replica-del command now remove the physical file too
    - Added recursive delete option for rmdir
    - Make the logging parameters configurable
    - Logging to file ( -l <logfile> option)
  - New Commands:
    - *drainpool, drainserver, drainfs, replicate, replicamove* ( v 0.7.6)

# Dmlite Shell – drain

- The new drain commands are making use of HTTP for I/O ( bye bye RFIO)
  - *drainpool, drainserver, drainfs*
  - Same options as the old drain implementation ( plus dryrun)
  - Checks at startup if the drain is possible with the available DPM configuration
  - Multithreading ( up to 20)
  - Should fix issues with hung threads observed with old drain
  - Of course it requires LCGDM Dav properly configured on all disknodes



# Dmlite Shell – replicate + replicamove

- *replicate* in dmlite-shell replaces the dpm-replicate client
  - Moved to HTTP as well
  - Allows user to replicate a file to a specified destination
  - Could be simply extended to allow replication between different pool types ( e.g. FS to HDFS)
- *replicamove* allows *moving* specific replica folders to a specific server/FS
  - Similar to drain, but with the possibility to specify the destination (and to change spacetoken when moving as well)
  - Equivalent to dpm-move-data in admin tools

# Dpm-listspaces

- Script to populate the GLUE BDIIs (1.3 and 2) with the information of each DPM site
- Latest version available in DPM 1.8.10
  - Fix for negative free space ( again)
  - Added support for dmlite (--use-dmlite-conf option)
    - It allows to get information on legacy pools ( e.g. HDFS)

# Summary

- dmlite-shell as THE tool for DPM administration
- New Drain with HTTP
  - One more step towards dropping RFIO
- Dpm-listspaces dmlite aware

# Questions?

