



# **DMLite Shell**

Ivan Calvet CERN IT/SDC-ID 4th DPM Workshop 13<sup>th</sup> December 2013





**IT-SDC : Support for Distributed Computing** 

## **Presentation of DMLite Shell**

Tool to administrate DMLite

Shell who provides bash-like commands

 Made for admins and developers, not for users (root access needed)



#### **Under the hood**

Developed in Python (2.4)



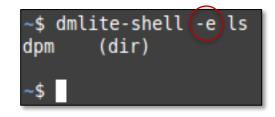
 Based on the python wrapper for DMLite called *pydmlite*



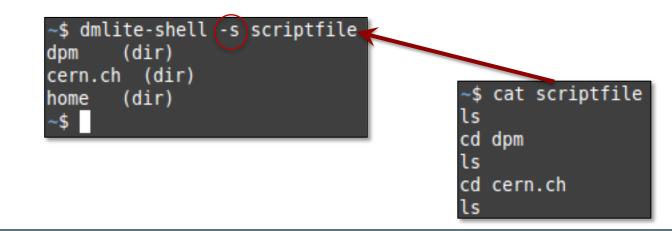


#### Usage as a command

Execute only one command:



Execute a script:





# Usage as a shell (1/2)

Launch the shell:

~\$ dmlite-shell
DMLite shell v0.2.3 (using DMLite API v20121218)
Using configuration "/etc/dmlite.conf" as root.
> help

Launch it with a specific configuration:

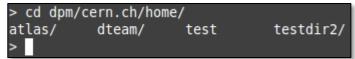
~\$ dmlite-shell(-c)/etc/dmlite-alternate.conf
DMLite shell v0.2.3 (using DMLite API v20121218)
Using configuration "/etc/dmlite-alternate.conf" as root.
> help



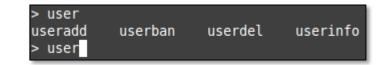


# Usage as a shell (2/2)

#### Auto-completion



# Type checking



> userban icalvet test > userban test 0 1 2 ARGUS\_BAN LOCAL\_BAN NO\_BAN > userban test wrongstatus ERROR: Expected one of the following options: NO\_BAN, 0, ARGUS\_BAN, 1, LOCAL\_BAN, 2 Expected syntax is: userban <user name or ID> <status> >

#### Syntax checking

> userban ERROR: Bad syntax. Expected syntax is: userban <user name or ID> <status>





# Commands (1/2)

#### 41 commands:

- 5 to manage the shell: init, help, version, getimplid, exit
- 20 to manage files:

pwd, cd, ls, mkdir, unlink, rmdir, mv, du, ln, readlink, comment, info, create, chmod, chown, chgrp, checksum, utime, acl, setguid

 3 to manage replicas: replicaadd, replicamodify, replicadel



# Commands (2/2)

- 5 to manage pools: pooladd, poolinfo, poolmodify, pooldel, qryconf
- 4 to manage users: useradd, userinfo, userban, userdel
- 4 to manage groups: groupadd, groupinfo, groupban, groupdel



# **Demonstration**



## **Need help?**

https://svnweb.cern.ch/trac/lcgdm/wiki/Dpm/Dev/Dmlite/Shell

## Check the Man page

~\$ dmlite-shell(help) Usage: dmlite-shell [options]	
Options: -h,help -c CONFIGFILE,	show t config=CONF define shell

<b>cd</b> chgrp	Change Change	read the ACL of a file. the current directory. the group of a file. the mode of a file.
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> help userban userban <user id="" name="" or=""> <status> Modify the ban status of a user.</status></user>
<b>Give as parameter the name or ID</b> NO_BAN or 0, ARGUS_BAN or 1, LOCA
> help user useradd <user name=""> Add a new user.</user>
userban <user id="" name="" or=""> <status> Modify the ban status of a user.</status></user>
Give as parameter the name or ID NO_BAN or 0, ARGUS_BAN or 1, LOC/
userdel <user id="" name="" or=""> Delete a user.</user>
userinfo [ <user id="" name="" or=""> ] List the informations about all : &gt;</user>



## **Future improvements**

- Implement old DPM commands:
  - Filesystem related commands: fsadd, fsmodify, fsdel, (buildfsv)
  - Space related commands: getspacemd, getspacetokens, releasespace, reservespace, updatespace
  - Moving files related commands: replicate, drain

# Waiting for some feedbacks from users



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# Summary

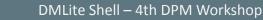
Shell to administrate DMLite

41 bash-like commands

- Detailed help included
- Available on EPEL-testing



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# **Questions?**

