



DMLite Shell

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CERN IT/SDC-ID
4th DPM Workshop
13th December 2013



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:

```
~$ dmlite-shell -e ls
dpm      (dir)
~$
```

- Execute a script:

```
~$ dmlite-shell -s scriptfile
dpm      (dir)
cern.ch  (dir)
home     (dir)
~$
```

```
~$ cat scriptfile
ls
cd dpm
ls
cd cern.ch
ls
```

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

```
> cd dpm/cern.ch/home/  
atlas/    dteam/    test    testdir2/  
> |
```

```
> user  
useradd   userban   userdel   userinfo  
> user|
```

- 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            show this help message
  -c CONFIGFILE, --config=CONFIGFILE
                        define the configuration file
                        shell
```

```
> help
acl          Set or read the ACL of a file.
cd           Change the current directory.
chgrp       Change the group of a file.
chmod       Change the mode of a file.
```

```
> help userban
userban <user name or ID> <status>
Modify the ban status of a user.

Give as parameter the name or ID
NO_BAN or 0, ARGUS_BAN or 1, LOCAL_BAN or 2
```

```
> help user
useradd <user name>
Add a new user.

userban <user name or ID> <status>
Modify the ban status of a user.

Give as parameter the name or ID
NO_BAN or 0, ARGUS_BAN or 1, LOCAL_BAN or 2

userdel <user name or ID>
Delete a user.

userinfo [ <user name or ID> ]
List the informations about all users.

> |
```

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

Summary

- Shell to administrate DMLite
- 41 bash-like commands
- Detailed help included
- Available on EPEL-testing

Questions?