

Job submission using gLite commands and through the WM proxy

- **Retrieving information of the user certificate**

```
[egee01@ui01 egee01]$ grid-cert-info
Certificate:
  Data:
    Version: 3 (0x2)
    Serial Number: 2108 (0x83c)
    Signature Algorithm: sha1WithRSAEncryption
    Issuer: C=GR, O=HellasGrid Demos, OU=Certification Authorities, CN=HellasGrid Demo CA 2006
    Validity
      Not Before: Nov 1 15:55:02 2007 GMT
      Not After : Nov 16 15:55:02 2007 GMT
    Subject: C=GR, O=HellasGrid Demos, OU=People, L=SAMOS_Training, CN=User 2108
    Subject Public Key Info:
      Public Key Algorithm: rsaEncryption
      RSA Public Key: (1024 bit)
      Modulus (1024 bit):
[...]
```

- **Creating a proxy certificate**

```
[egee01@ui01 egee01]$ voms-proxy-init --voms=hgdemo
Your identity: /C=GR/O=HellasGrid Demos/OU=People/L=SAMOS_Training/CN=User 2108
Enter GRID pass phrase:
wrong pass phrase
Function: proxy_init_cred
[egee01@ui01 egee01]$ voms-proxy-init --voms=hgdemo
Your identity: /C=GR/O=HellasGrid Demos/OU=People/L=SAMOS_Training/CN=User 2108
Enter GRID pass phrase:
Creating temporary proxy
..... Done
Contacting voms.grid.auth.gr:15030 [/C=GR/O=HellasGrid/OU=auth.gr/CN=voms.grid.auth.gr] "hgdemo"
Done
Creating proxy ..... Done
Your proxy is valid until Sat Nov 3 08:26:09 2007
```

- **Destroying a proxy certificate**

```
[egee01@ui01 egee01]$ voms-proxy-destroy
```

- **Obtaining information about computing resources of a specific VO**

```
[egee01@ui01 egee01]$ lcg-infosites --vo hgdemo ce
#CPU    Free    Total Jobs    Running Waiting ComputingElement
-----
  9      1      0             0      0    node001.grid.auth.gr:2119/jobmanager-pbs-hgdemo
 18      8      0             0      0    ce02.marie.hellasgrid.gr:2119/jobmanager-pbs-hgdemo
 61      4      0             0      0    ce01.isabella.grnet.gr:2119/jobmanager-pbs-hgdemo
```

- **Obtaining information about storage resources of a specific VO**

```
[egee01@ui01 egee01]$ lcg-infosites --vo hgdemo se
Avail Space(Kb) Used Space(Kb) Type    SEs
-----
171550000      398      n.a    se02.marie.hellasgrid.gr
1564778240    3577805056 n.a    se01.isabella.grnet.gr
2340000000    198201    n.a    se01.afroditi.hellasgrid.gr
```

- **Listing the hostnames of the LFC catalogues of a specific VO**

```
[egee01@ui01 egee01]$ lcg-infosites --vo hgdemo lfc
lfc.isabella.grnet.gr
```

- **Listing the software tags published by each CE supporting the VO**

```
[egee01@ui01 egee01]$ lcg-infosites --vo see tag
Name of the CE: ce01.isabella.grnet.gr
VO-see-R-2.4.0
VO-see-octave-2.1.73
```

VO-see-gsl-1.9
VO-seegrid-vive-0.4.3
VO-seegrid-grow-0.2

• **Listing all WLCG/EGEE sitenames**

```
[egee01@ui01 egee01]$ lcg-infosites --vo hgdemo sitenames
[...]  
HG-01-GRNET  
HG-02-IASA  
HG-03-AUTH  
HG-04-CTI-CEID  
HG-05-FORTH  
HG-06-EKT  
[...]
```

• **Listing computing elements that match a job description**

```
[egee01@ui01 egee01]$ glite-wms-job-list-match -a testJob1.jdl  
Connecting to the service https://wms01.egee-see.org:7443/glite_wms_wmproxy_server  
=====
```

COMPUTING ELEMENT IDS LIST

The following CE(s) matching your job requirements have been found:

```

*CEId*
- ce01.afroditi.hellasgrid.gr:2119/jobmanager-pbs-hgdemo
- ce01.ariagni.hellasgrid.gr:2119/jobmanager-lcgpbs-hgdemo
- ce01.athena.hellasgrid.gr:2119/jobmanager-pbs-hgdemo
[...]
```

• **Single Job submission**

```
[egee01@ui01 egee01]$ glite-wms-job-submit -o jobId -a testJob1.jdl  
Connecting to the service https://wms01.egee-see.org:7443/glite_wms_wmproxy_server  
===== glite-wms-job-submit Success =====  
The job has been successfully submitted to the WMPProxy  
Your job identifier is:  
  
https://wms01.egee-see.org:9000/6INrYSPP4XfkgTYHuqHuww  
  
The job identifier has been saved in the following file:  
/home/training/egee01/jobId  
=====
```

• **Retrieving the status of a job**

```
[egee01@ui01 egee01]$ glite-wms-job-status -i jobId  
*****  
BOOKKEEPING INFORMATION:  
Status info for the Job : https://wms01.egee-see.org:9000/6INrYSPP4XfkgTYHuqHuww  
Current Status:      Done (Success)  
Exit code:           0  
Status Reason:      Job terminated successfully  
Destination:        ce01.marie.hellasgrid.gr:2119/jobmanager-pbs-hgdemo  
Submitted:          Sun Nov  4 20:03:05 2007 EET  
*****
```

```
[egee01@ui01 egee01]$ watch "glite-job-status -i jobId"
```

• **Cancelling a job**

```
[egee01@ui01 egee01]$ glite-wms-job-cancel -i jobId  
Are you sure you want to remove specified job(s) [y/n]y :
```

• **Output retrieval**

```
[egee01@ui01 egee01]$ glite-wms-job-output -i jobId  
Connecting to the service https://195.251.53.233:7443/glite_wms_wmproxy_server  
=====
```

JOB GET OUTPUT OUTCOME

Output sandbox files for the job:
https://wms01.egee-see.org:9000/6INrYSPP4XfkgTYHuqHuww
have been successfully retrieved and stored in the directory:
/tmp/glite/glite-ui/egee01_6INrYSPP4XfkgTYHuqHuww
=====

```
[egee01@ui01 egee01]$ ls -l /tmp/glite/glite-ui/egee01_6INrYSPP4XfkgTYHuqHuw
total 1344
-rw-rw-r-- 1 egee01 egee01 1356179 Nov 4 20:44 gLite-3-UserGuide.pdf
-rw-rw-r-- 1 egee01 egee01 1782 Nov 4 20:44 merge.out
-rw-rw-r-- 1 egee01 egee01 0 Nov 4 20:44 std.err
-rw-rw-r-- 1 egee01 egee01 2419 Nov 4 20:44 std.out
```

- **Configuration to use the LFC catalogue**

```
[egee01@ui01 egee01]$ export LFC_HOST=`lcg-infosites --vo hgdemo lfc`
[egee01@ui01 egee01]$ export LCG_CATALOG_TYPE=lfc
[egee01@ui01 egee01]$ export LCG_GFAL_VO=hgdemo
```

- **Creating a directory**

```
[egee01@ui01 egee01]$ lfc-mkdir /grid/hgdemo/(LFC_directory_name)
(LFC_directory_name) ⇨ the name of the directory to be created
```

- **Listing the entries of a LFC directory**

```
[egee01@ui01 egee01]$ lfc-ls -l /grid/hgdemo/
drwxrwxr-x 0 26259 32000 0 Nov 04 20:57 test_egee01
drwxrwxr-x 0 26236 32000 0 Sep 18 01:17 test_egee03
```

- **Defining LFC_HOME variable to point to the created directory**

```
[egee01@ui01 egee01]$ export LFC_HOME=/grid/hgdemo/(LFC_directory_name)
```

- **Uploading a file to the grid**

```
[egee01@ui01 egee01]$ lcg-cr file:$PWD/(file_to_upload) -l lfn:(LFN_name)
guid:cd7f7909-c62b-4cc9-8c61-5d8e369e6e90
```

```
[egee01@ui01 egee01]$ lcg-cr file:$PWD/(file_to_upload) -l lfn:(LFN_name) -d
(hostname_of_storage_element)
guid:d6fac888-59f9-4e44-aca4-62407a7fd180
```

(file_to_upload) ⇨ the name of the file to be uploaded

(LFN_name) ⇨ the LFN given by the user

(hostname_of_storage_element) ⇨ the hostname of the storage element where the file will be uploaded

- **Replicating a file**

```
[egee01@ui01 egee01]$ lcg-rep -v lfn:(LFN_name) -d (hostname_of_storage_element)
Using grid catalog type: lfc
Using grid catalog : lfc.isabella.grnet.gr
Source URL: lfn:/grid/hgdemo/test_egee01/image1
File size: 33985
VO name: hgdemo
Destination specified: se01.kallisto.hellasgrid.gr
Source URL for copy: gsiftp://se01.isabella.grnet.gr/storage/hgdemo/generated/2007-11-04/file21c2d313-ca4c-4bb4-bbfd-09f946068920
Destination URL for copy:
gsiftp://se01.kallisto.hellasgrid.gr/se01.kallisto.hellasgrid.gr:/data02/hgdemo/2007-11-04/fileb1b5d5e7-22e7-4ce4-9785-aad6373ab00f.200096.0
# streams: 1
# set timeout to 0
0 bytes 0.00 KB/sec avg 0.00 KB/sec inst
Transfer took 3250 ms
Destination URL registered in LRC:
srm://se01.kallisto.hellasgrid.gr/dpm/kallisto.hellasgrid.gr/home/hgdemo/generated/2007-11-04/fileb1b5d5e7-22e7-4ce4-9785-aad6373ab00f
```

- **Downloading a file out of the Grid**

```
[egee01@ui01 egee01]$ lcg-cp -t 100 lfn:(LFN_name) file:$PWD/(filename)
Using grid catalog type: lfc
Using grid catalog : lfc.isabella.grnet.gr
VO name: (null)
Source URL: lfn:/grid/hgdemo/test_egee01/image1
File size: 33985
Source URL for copy: gsiftp://se01.isabella.grnet.gr/storage/hgdemo/generated/2007-11-04/file21c2d313-ca4c-4bb4-bbfd-09f946068920
Destination URL: file:/home/training/egee01/copy_image1
# streams: 1
# set timeout to 100 (seconds)
0 bytes 0.00 KB/sec avg 0.00 KB/sec inst
```

Transfer took 1010 ms

(filename) ⇔ the name to be used in the local filesystem

- **Listing replicas**

```
[egee01@ui01 egee01]$ lcg-lr --vo hgdemo lfn:(LFN_name)
```

```
sfn://se01.isabella.grnet.gr/storage/hgdemo/generated/2007-11-04/file21c2d313-ca4c-4bb4-bbfd-09f946068920
```

```
srm://se01.kallisto.hellasgrid.gr/dpm/kallisto.hellasgrid.gr/home/hgdemo/generated/2007-11-04/fileb1b5d5e7-22e7-4ce4-9785-aad6373ab00f
```

- **Listing GUIDs given the LFN**

```
[egee01@ui01 egee01]$ lcg-lg lfn:(LFN_name)
```

```
guid:d6fac888-59f9-4e44-aca4-62407a7fd180
```

- **Adding metadata information to LFC entries**

```
[egee01@ui01 egee01]$ lfc-setcomment /grid/hgdemo/(LFC_directory_name)/(LFN_name)
```

```
"Comment "
```

- **View metadata of a specific file**

```
[egee01@ui01 egee01]$ lfc-ls --comment /grid/hgdemo/(LFC_directory_name)/(LFN_name)
```

```
/grid/hgdemo/test_egee01/image1 Created for the training
```

- **Removing metadata information to LFC entries**

```
[egee01@ui01 egee01]$ lfc-delcomment /grid/hgdemo/(LFC_directory_name)/(LFN_name)
```

- **Deleting all replicas with a specific LFN**

```
[egee01@ui01 egee01]$ lcg-del -a lfn:(LFN_name)
```

- **Deleting LFC directory**

```
[egee01@ui01 egee01]$ lfc-rm -r /grid/hgdemo/(LFC_directory_name)
```