

GC3Pie - The GC3Pie utils

GC3: Grid Computing Competence Center,
University of Zurich

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Low level tools to debug your scripts

- `gservers` list status of computational resources
- `ginfo` print detailed information about jobs in a session
- `gstat` print status of the jobs in a session
- `gkill` kill jobs.
- `gclean` cleanup (call it after `gkill`)

gservers

```
(gc3pie)kenny:~/ $ gservers
```

```
+-----+
|                  localhost                  |
+-----+
|                Accessible? / updated        1      |
|              Total queued jobs / queued      0      |
|            Own queued jobs / user_queued      0      |
|            Own running jobs / user_run        0      |
|          Max cores per job / max_cores_per_job  2      |
| Max memory per core (MB) / max_memory_per_core 2e+09B |
| Max walltime per job (minutes) / max_walltime  2.88e+10ns |
+-----+
(gc3pie)kenny:~/ $
```

ginfo

```
(gc3pie)kenny:~/$ python ex05c -s session1  
(gc3pie)kenny:~/$ ginfo -s session1
```

ginfo (failure example)

```
(gc3pie)kenny:~/ $ python ex05c -s session1
(gc3pie)kenny:~/ $ ginfo -s session1
```

```
gc3.gc3libs: WARNING: Failed loading file 'session1/jobs/GArchApplication.228403':
  ImportError: No module named ex05c
```

```
Traceback (most recent call last):
```

```
  File "/home/amessina/gc3pie/gc3libs/persistence/filesystem.py", line 115, in load
    obj = self._load_from_file(filename)
```

```
  File "/home/amessina/gc3pie/gc3libs/persistence/filesystem.py", line 92, in _load_from
    obj = unpickler.load()
```

```
ImportError: No module named ex05c
```

```
gc3.gc3libs: WARNING: Ignoring error from loading 'GArchApplication.228403':
```

```
  Failed retrieving object from file 'session1/jobs/GArchApplication.228403': ImportError
  No module named ex05c
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gc3.gc3libs: WARNING: Failed loading file '/home/amessina/session1/jobs/GArchApplication
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GC3Utils and the PYTHONPATH

In order to work, gc3info and the other tools need to access the class definitions of your script.

To fix this issue, always remember to:

- ▶ add in your script file an if block like the following:

```
if __name__ == "__main__":  
    from ex05c import GArchScript  
    GArchScript().run()
```

- ▶ set the PYTHONPATH variable to the directory containing your script:

```
kenny:~$ export PYTHONPATH=$(pwd)
```

Reference:

<http://code.google.com/p/gc3pie/issues/detail?id=95>

ginfo (finally working)

```
(gc3pie)kenny:~$ ginfo -s session1
```

```
GArchApplication.228404
```

```
  execution_targets:
```

```
  history:
```

```
    Submitting to 'localhost' at Sun Sep 30 12:33:22 2012 at  
    Sun Sep 30 12:33:22 2012
```

```
    RUNNING at Sun Sep 30 12:33:22 2012
```

```
    SUBMITTED at Sun Sep 30 12:33:22 2012
```

```
    Submitted to 'localhost' at Sun Sep 30 12:33:22 2012 at  
    Sun Sep 30 12:33:22 2012
```

```
lrms_execdir: /tmp/gc3libs.rd5fzT.tmp.d
```

```
lrms_jobid: 27357
```

```
resource_name: localhost
```

```
state_last_changed: 1349001202.21
```

```
timestamp:
```

```
  NEW: 1349001202.2
```

```
  RUNNING: 1349001202.21
```

```
  SUBMITTED: 1349001202.21
```


gstat

```
(gc3pie)kenny:~$ gstat -n -s session1
```

Info	JobID	Job name	State
=====			
=====			
GArchApplication.228404	GArchApplication-N1	SUBMITTED	Submitted to 'localhost' at
Sun Sep 30 12:33:22 2012	at Sun Sep 30 12:33:22 2012		

gkill

Submit a job and check that it's running.

```
(gc3pie)kenny:~$ python ex05c.py -s session1
```

```
(gc3pie)kenny:~$ gstat -s session1
```

JobID	Job name	State
Info		

```
=====
GArchApplication.228411    GArchApplication-N1    SUBMITTED    Submitted
to 'argo' at Sun Sep 30 13:04:30 2012 at Sun Sep 30 13:04:30 2012
```

Cancel it using gkill:

```
(gc3pie)kenny:~$ gkill -s session1 GArchApplication.228411
```

```
Sent request to cancel job 'GArchApplication.228411'.
```

check that the job has been killed.

```
(gc3pie)kenny:~$ gstat -s session1/
```

JobID	Job name	State
Info		

```
=====
GArchApplication.228411    GArchApplication-N1    TERMINATING    Remote job terminated by s
```

gclean

- ▶ To run after (or instead of) `gkill`
- ▶ works only on jobs in final state (TERMINATED or TERMINATING)

```
(gc3pie)kenny:~$ gclean -s session1 GArchApplication.228411  
(gc3pie)kenny:~$
```

- ▶ all the gc3utils have a `--help` option.
- ▶ `gkill` and `gclean` accept a `-A` option to operate on all the jobs.
- ▶ Documentation of all gc3pie tools is available on the internet <http://gc3pie.googlecode.com/svn/trunk/gc3pie/docs/html/gc3utils.html>