



Useful debugging commands

Riccardo Murri <riccardo.murri@uzh.ch>

S3IT: Services and Support for Science IT

University of Zurich

List tasks in a session

The `gsession list` command prints the list of tasks in a session, together with their state:

```
$ gsession list -r ex2b
```

JobID	Job name	State	Info
GrayscaleApp.6	GrayscaleApp-N1	TERMINATED	TERMINATED at Sat Jul 9 22:13:58 2016

Show log of actions in session

The `gession log` command prints out the sequence of actions and state changes for all tasks in a session:

```
$ gsession log ex2b
Jul 09 22:13:53 GrayscaleApp.6: Submitting to 'localhost'
Jul 09 22:13:53 GrayscaleApp.6: SUBMITTED
Jul 09 22:13:53 GrayscaleApp.6: Submitted to 'localhost'
Jul 09 22:13:58 GrayscaleApp.6: TERMINATING
Jul 09 22:13:58 GrayscaleApp.6: Final output downloaded to 'grayscale.d'
Jul 09 22:13:58 GrayscaleApp.6: TERMINATED
```

Dump contents of a task

The `ginfo` command allows you to dump the contents of a specific task, or all tasks in a session:

```
$ ginfo -v -s ex2b
GrayscaleApp.6
arguments: convert, bfly.jpg, -colorspace, gray, gray-bfly.jpg
[...]
execution:
  [...]
  history:
    - Submitting to 'localhost' at Sun Jul 10 00:27:02 2016
    [...]
  lrms_execdir: /home/gc3pie/docs/programmers/tutorials/workflows/gc3libs.SMGNxrr
  lrms_jobid: 23183
  resource_name: localhost
  [...]
inputs:
  file:///home/gc3pie/docs/programmers/tutorials/workflows/bfly.jpg: bfly.jpg
  [...]
output_dir: grayscale.d
outputs:
  gray-lbfly.jpg: file, , gray-bfly.jpg, None, None, , None, None
  stderr.txt: file, , stderr.txt, None, None, , None, None
  stdout.txt: file, , stdout.txt, None, None, , None, None
  [...]
stderr: stderr.txt
stdin: None
stdout: stdout.txt
  [...]
```

Dump contents of a task, II

Note that **without the -v** option, `ginfo` limits its output to the `.execution` attribute of a Task/Application object:

```
$ ginfo -s ex2b
GrayscaleApp.6
[...]
history:
  - Submitting to 'localhost' at Sun Jul 10 00:27:02 2016
  [...]
lrms_execdir: /home/gc3pie/docs/programmers/tutorials/workflows/gc3libs.SMGNx
lrms_jobid: 23183
resource_name: localhost
[...]
```

Abort all tasks in a session

The `gsession abort` command kills all tasks in a session.

```
$ gsession abort ex2b
```

It produces normally no output; use the `-v` option to see a log of actions taken.

Note: it is important that sessions are terminated! Otherwise, GC3Pie will consider part of the resources as still allocated to a task. This is especially evident when running on a single computer: after launching a few tasks, GC3Pie will stop and refuse to run anything.

Manual cleanup of the localhost resource

In case of incomplete cleanup, you will still run into this error:

```
ERROR: Resource localhost already running maximum allowed number of jobs
```

As a last resort, you can inspect directory

```
$HOME/.gc3/shellcmd.d:
```

```
$ ls $HOME/.gc3/shellcmd.d  
15843
```

Each of these files is an allocated execution slot in the localhost resource. Delete the files to free up the slot.

(The file name is the PID of the process, in case you want to check if a command is still running before you make GC3Pie forget about it.)