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S3IT

Useful debugging commands

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List tasks in a session

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

```
$ gsession list -r gasset
+--------------+--------------+-----------+--------------------------------------+
| JobID        | Job name     | State     | Info
|
+--------------+--------------+-----------+--------------------------------------+
| GassetApp.71 | GassetApp-N7 | TERMINATED | TERMINATED at Sat Sep 10 22:24:03 2016 |
| GassetApp.73 | GassetApp-N5 | TERMINATED | TERMINATED at Sat Sep 10 22:24:03 2016 |
| GassetApp.72 | GassetApp-N6 | TERMINATED | TERMINATED at Sat Sep 10 22:24:50 2016 |
| GassetApp.75 | GassetApp-N3 | TERMINATED | TERMINATED at Sat Sep 10 22:24:55 2016 |
| GassetApp.74 | GassetApp-N4 | TERMINATED | TERMINATED at Sat Sep 10 22:26:22 2016 |
| GassetApp.77 | GassetApp-N1 | TERMINATED | TERMINATED at Sat Sep 10 22:26:07 2016 |
| GassetApp.76 | GassetApp-N2 | TERMINATED | TERMINATED at Sat Sep 10 22:26:42 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 gasset
Sep 10 22:26:07 GassetApp.76: Submitting to 'localhost'
Sep 10 22:26:07 GassetApp.76: SUBMITTED
Sep 10 22:26:07 GassetApp.76: Submitted to 'localhost'
Sep 10 22:26:07 GassetApp.77: Final output downloaded to 'gasset-1'
Sep 10 22:26:07 GassetApp.77: TERMINATED
Sep 10 22:26:12 GassetApp.76: RUNNING
Sep 10 22:26:22 GassetApp.74: TERMINATING
Sep 10 22:26:22 GassetApp.74: Final output downloaded to 'gasset-4'
Sep 10 22:26:22 GassetApp.74: TERMINATED
Sep 10 22:26:42 GassetApp.76: TERMINATING
Sep 10 22:26:42 GassetApp.76: Final output downloaded to 'gasset-2'
Sep 10 22:26:42 GassetApp.76: 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 gasset
GassetApp.71
    [...]
    arguments: matlab, -nodesktop, -nodisplay, -nosplash, -r, simAsset  58  0.0471155977822
0.263213407081  0.0109589041096  534  3000  7 ;quit()
    inputs:
        file:///home/ubuntu/gasset/simAsset.m: simAsset.m
    outputs:
        stderr.txt: file, , stderr.txt, None, None, , None, None
        ./results/: file, , , None, None, , None, None
        stdout.txt: file, , stdout.txt, None, None, , None, None
    requested_memory: 1GB
    jobname: GassetApp-N7
    execution:
        [...]
        _state: TERMINATED
        returncode: 0, 0
        history:
            - Submitting to 'localhost' at Sat Sep 10 22:23:16 2016
            - SUBMITTED at Sat Sep 10 22:23:17 2016
            - Submitted to 'localhost' at Sat Sep 10 22:23:17 2016
            - RUNNING at Sat Sep 10 22:23:22 2016
            - TERMINATING at Sat Sep 10 22:24:03 2016
            - Final output downloaded to 'gasset-7' at Sat Sep 10 22:24:03 2016
            - TERMINATED at Sat Sep 10 22:24:03 2016
```

Abort all tasks in a session

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

```
$ gsession abort gasset
```

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.)