SOP - Running simple workflow with AWE

Skyport 2

Authors: Wolfgang Gerlach, Andreas Wilke, Folker Meyer

Version: 0.1

Audience:

This document is intended for users who are familiar with docker and git.

Requirements:

- You have finished SOP Skyport2 quick setup
- Started Skyport2 stack
- docker
- Workflow and Tool Directories under Data dir

Known limitations:

may not work with less than 8GB of memory

Introduction:

This SOP describes the steps necessary to run a demo workflow from the **skyport2** repository

SOP:

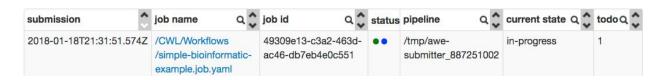
- 1. Ignore if already checked out and in Skyport2 repository:
 - > git clone --recursive https://github.com/MG-RAST/Skyport2.git
 > cd Skyport2
- 2. Set you Skyport 2 client environment
 - > source ./init-client.sh

This will set a number of environment variables, most importantly SKYPORT_HOST.

3. Submit the sample workflow

```
> ./skyport_submit -d data \
  -w ./CWL/Workflows/simple-bioinformatic-example.cwl \
  -j ./CWL/Workflows/simple-bioinformatic-example.job.yaml \
  -d ./CWL/Data/
>
```

- 4. The awe-submitter will upload input files and workflow document and wait for the workflow complete.
- 5. The progress of the workflow can be seen in the AWE browser:



6. Once the job completes, the awe-submitter presents the results in form of a CWL receipt:

```
"preprocessed": [
        "class": "File",
        "location": "http://shock:7445/node/dlce8b4b-824f-429c-a821...
        "path": "/Users/yourname/skyport-test/Skyport2/data/...
        "basename": "filtered.fasta",
"dirname": "",
        "nameroot": ""
        "nameext": "",
        "checksum": "sha1$cee2321e2b0c4d0dc9999e05a188a788137ccb01",
        "size": 669732,
        "secondaryFiles": null,
        "format": "",
        "contents": ""
],
"sims": [
        "class": "File",
        "location": "http://shock:7445/node/30094b99-3c15-41bb-a929-d5...
        "path": "/Users/yourname/skyport-test/Skyport2/data/awe-work...",
```

```
"basename": "filtered.sims",
    "dirname": "",
    "nameroot": "",
    "nameext": "",
    "checksum": "shal$09fee41cf94cb95760a7bbccd481947ebeae396b",
    "size": 4679068,
    "secondaryFiles": null,
    "format": "",
    "contents": ""
}
```

- 7. Check you AWE instance at http://localhost:8001/awe to monitor the job (raw data)
- 8. Check the <u>AWE UI</u> for the rendered version of the job information
- 9. Check the SHOCK browser for the files