

SOP - Running simple workflow with AWE

Skyport 2

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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](#):

submission	job name	job id	status	pipeline	current state	todo
2018-01-18T21:31:51.574Z	/CWL/Workflows/simple-bioinformatic-example.job.yaml	49309e13-c3a2-463d-ac46-db7eb4e0c551	● ●	/tmp/awe-submitter_887251002	in-progress	1

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/d1ce8b4b-824f-429c-a821...",  
      "path": "/Users/yourname/skyport-test/Skyport2/data/...",  
      "basename": "filtered.fasta",  
      "dirname": "",  
      "nameroot": "",  
      "nameext": "",  
      "checksum": "sha1$cee2321e2b0c4d0dc9999e05a188a788137ccb01",  
      "size": 669732,  
      "secondaryFiles": null,  
      "format": "",  
      "contents": ""  
    }  
  ],  
  "sims": [  
    {  
      "class": "File",  
      "location": "http://shock:7445/node/30094b99-3c15-41bb-a929-d5...",  
      "path": "/Users/yourname/skyport-test/Skyport2/data/awe-work...",  
      "basename": "simulated.fasta",  
      "dirname": "",  
      "nameroot": "",  
      "nameext": "",  
      "checksum": "sha1$cee2321e2b0c4d0dc9999e05a188a788137ccb01",  
      "size": 669732,  
      "secondaryFiles": null,  
      "format": "",  
      "contents": ""  
    }  
  ]  
}
```

```
        "basename": "filtered.sims",
        "dirname": "",
        "nameroot": "",
        "nameext": "",
        "checksum": "sha1$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 [AWE UI](#) for the rendered version of the job information
9. Check the [SHOCK browser](#) for the files