“Lightweight” HPC Client
Leveraging Galaxy Tool configs

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Background

- Want to re-use tool wrapping work already done in Galaxy
- Sysadmins with ... strict ... policies
- Only accepted authentication: SSH
- :/
Solution

- Use SSH!
- Use (Galaxy) Toolconfigs!
- :)
Select tool

Select a tool from the ones available in the tool group just selected...

Convert these sequences: /bubo/home/h22/samuel/fasta_test.igv

How many columns to divide title string into?: 1

How many title characters to keep?: 0

Output directory: /bubo/home/h22/samuel/temp

Output filename: myoutfile.out

Resulting command: python fasta_to_tabular.py /bubo/home/h22/samuel/fasta_test.igv /bubo/home/h22/samuel/temp/myoutfile.out 0 1

< Back  Next >  Cancel  Finish
Configure SBATCH parameters

Set the parameters for the SBATCH job batch script to be sent to the SLURM resource manager.

- HPC Module to load: 
- Project to account: uppmax_staff
- Partition (type of job): core
- No of Nodes: core
- No of CPUs: node
data
devel
- Running time (d-hh:mm:ss):
- Activate --qos=short option?: no
- Job name: Untitled

```
#SBATCH -A uppmax_staff
#SBATCH -p core
#SBATCH -N [noofnodes]
#SBATCH -n [noofcpus]
#SBATCH -t [runtime]
#SBATCH -J Untitled

module load bioinfo-tools
[modulename]

perl #!$pileup_type.type_select == "six" #pileup_parser.pl $input 3 5
```
Galaxy via SSH-tunneled browser

Configure and start batch jobs

Native job runner options
- Project: b2010074
- Max job time limit: 3:00:00
- Format: (days:hh:mm:ss)
- This specifies the maximum running time for a job, helps the job manager decide on better scheduling strategies for jobs.
- Partition:
  - Node
  - Core
  - Devel
- Specifies the job granularity: whole nodes or single CPU cores per job (task).

JobInfo
- Job ID: 1591866
- Partition: devel
- Job Name: interactive
- User: samuel
- Project: uppmax_staff
- Status: R
- Time Left: 1

[Mockup Image]
Take home messages / questions

- “light-weight” helper tool, using normal HPC
- Teaches (normal) HPC usage
- Ways to make tool configs more declarative?
- We will (try to) use Galaxy in the normal way too!
Status: Proof of concept

Youtube Demo: tinyurl.com/hpcclient

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