

# instructor action item list

## Common stuff:

### Credentials

- Projector: Code **1988**
- Workstations: student hookem

Project allocation for the class, e.g. : **20130520NGS-FAC**

### Instructors:

- Make sure you source the common profile, or if not, be sure to execute **umask 002** to make all files you create group writable.
- If your primary group is not the NGSC group, do this right after logging so that all files you create will be the NGSC group (G-803889)

```
newgrp - G-803889
umask 002
```

## Instructors de-briefing 5/23/13:

- Most common confusion in tutorials:
  - local computer vs TACC vs idev
  - where example commands are being executed (current directory)
- 1st day overwhelming for non-Unix folks (as usual). Maybe find a way to introduce commands as part of guided lecture?
- Three kinds of sections from us: 1) lecture 2) guided lecture (they exec some cmds) 3) tutorial
  - Have more 1 & 2 early on, moving to more 2 & 3 as they get more comfortable
  - Definitely go through mapping tutorial one step at a time from the front of the class - this should be REALLY clear
- Should explore full day for TopHat - maybe yeast in TopHat? More interactive demos on graphing, etc. Theoretically (in Anna's mind) this is already done!
- Maintain encouragement to the linux-challenged
- Maybe an assembly evaluation tool?
- Maybe switch from a genome assembly to a transcriptome assembly (i.e. the yeast subset from the TopHat)
- Should move to bowtie2
- Need to clarify language: reference, reference genome, indexes (references, bam files)
- Need to clarify "commands" file (for launcher\_creator.py) vs a bash script
- Fix wrap-around with "nowrap" macro instead of "code" macro
- Maybe some "speciality" or niche application exposure - metagenomics, IMGT, ddRAD analysis, etc.
- Should we describe library prep more? Or things like enrichment?
- It was good to have expanded QC discussion.
- Maybe manipulatives.
- End-of-day review/test - with rewards the next day if they get it right - to build confidence.

## Instructors de-briefing 8/23/12:

- Need to add a TACC 1-day Linux workshop the week before the class - students must have some linux exp. before class or they fall behind
- Limit class size to 30 with two instructors and four volunteers so there is ample personal instruction
- Use the large-monitor TACC machines, not personal PC's, for instruction, but offer to help people setup their own laptops in an enrichment section or two
- John F. will figure out how to test whether corral is running before sourcing the ngs\_user\_profile script (in case corral is down)
- Need to have back-up of data on SCRATCH - best idea is the following:
  - Have students copy the **entire** tree of data/examples/etc on day 1
  - Have a "fix my data" rsync script that corrects it on subsequent days, in case they accidentally corrupt their local copy
- Re-structure so that each major section has:
  - Clearly stated learning objectives
  - A theoretical overview
  - An overview of the exact workflow steps the students will do and finally
    - Recommended sections for a tutorial: Data (where to get it, description of what it is), Toolbox/Recipe (introduce new commands /programs/basic workflow), Exercises (questions about the data analysis or what options in the program are doing).
  - Time - for the students to work through the exact commands themselves; instructors & volunteers going around to help one-on-one instead of watching the instructor type commands and students trying to follow along.
    - As we see what many people struggle with, we can pull everyone's attention up to the screen occasionally to go over a specific command.
    - Since this will take longer, we might want to co-opt the later "enrichment section" time for one of the self-paced lessons each day (i.e. have an introduction to a topic that ends at 4:30), and only use time before class for real enrichment sessions on other topics.
    - This will also encourage people to try things on their own data?
  - Re-cap learning objectives
  - Test whether students have met the learning objectives (homework, scavenger hunts, etc.)
- We can reserve nodes for iDev in the future - we need to ask for Tommy's help about a week to 10 days in advance
- Prune content - fewer commands, focus on what they're doing
- Maybe use ssh -Y which John F. believes will forward not only from a login node but also from an idev node

## Older to-dos

Our project is: **20120820NGS**

Use this when list a command to submit to the queue, not run interactively



### Submit via qsub

Use *launcher\_creator.py* followed by *qsub* to submit this command.

- Launcher creator - update - with usage(), output what it's doing - Aaron
- Explain SAM format when we look at data in IGV
- Create more intro materials - SPHS/JB
- Any other visualization tools?

Done:

- Obtain allocation for Aug course - SPHS
- Ask Chris Jordan for NGCS web allocation - SPHS/AB
- AB: Add new dir or re-use on /corral-repl/utexas; make new global linking to it.
- AB: will email group RE global .profile\_user we should use with the right umask.
- Hardcopies of <http://www.tjhsst.edu/~dhyatt/superap/unixcmd.html> - DA to trim, then SPHS ask Vicki/heather to print/laminate
- SPSH edit flowchart including quafelkfuyt.
- Refer folks to linux intro tutorials -
- <http://loving.corral.tacc.utexas.edu/bioiteam/> which links to \$BI/web

Guidelines on scripting vs. individual commands:

1. On early-on basics (e.g. day 1), try to lead students to do it themselves; copy and paste hidden is OK.

We're going to run R interactively on HN, idev -m <bunch> is backup, local machines is next. John F. looking at other options.

SPHS to move \$BI/subdirs into ngs\_course and update links