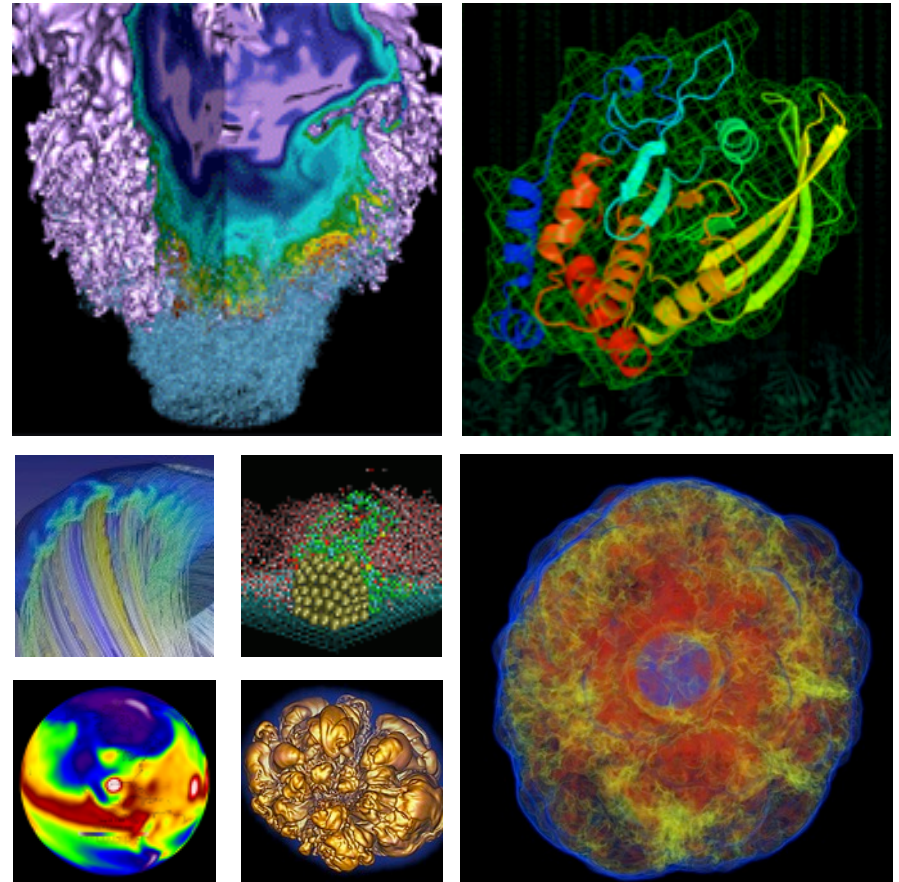# Accounts and Allocations

Clayton Bagwell
NERSC User Engagement Group

NERSC New User Training
March 21, 2016

Accounts vs. Allocations

There are two types of *accounts* at NERSC.

1. Your personal, private account
   - Associated with your *login* or *user name*
   - Provides *authentication* (personal identity) and *authorization* (which resources are accessible)
   - You can request an account on your own or your project's Principal Investigator (PI) or Proxy can request an account for you
   - Four primary account *roles*
     - PI, PI Proxy, Project Manager, User

2. A Project allocation account, or *repository* (aka *repo*)
   - Like a bank account you use to "pay" for computer time and archival storage
   - Managed by a Principal Investigator (PI) and (optionally) one or more PI Proxies.
   - All MPP users belong to at least one repo
   - An individual user may belong to more than one repository
     - But only one *default repo*

NIM – NERSC Information Management

- ## Web-based tool for user and repo management
  - Check daily balance, change password, change login shell, update contact information, etc.

https://nim.nersc.gov

Please sign in

NERSC Username:

NIM Password:

Reset your NIM password. | Forgot your username?

Log In

NIM Controls

- **Drop-down menus**

USG TestAccount | Logout | Change My Password

Quick Search: Repository | | Go

NIM Home | My Stuff ▼ | Search ▼ | Reports ▼ | Actions ▼

   – Actions menu
- Change password, change default login shell, generate HPSS token, change default repo

- **Tabs**

| Account Usage | Logins by Host | Unix Groups | Roles | Contact Info | Grid Certificates | SSH Keys |

USG TestAccount

Account Usage

Account Usage Summary

Resrc	Repo	User_id	Login	Login Type	User Hrs Used	User Charged	Avg CF	% Used	% Allowed	User Balance	Last Charged On	Base Repo?	Dflt Now?
MPP	mpccc	17931	dpturner	Authorized	6,219	6,178	1.0	0.1	10	993,822	08-SEP-13	Y	Y
MPP	matcomp	17931	dpturner	Authorized	1,430	1,430	1.0	0.0	1.0	228,570	05-SEP-13	N	N
MPP	usplanck	17931	dpturner	Authorized	447	447	1.0	0.0	5	384,553	03-SEP-13	N	N

Account Policies

- **All users must sign Computer User Agreement**
  - This is incorporated into the Self-Service account request form

https://nim.nersc.gov/Computer_User_Agreement.php

- **Password policies**
  - Must change password every 6 months
  - **Do not share passwords**
  - **Do not email passwords**

- **Account locked after 5 consecutive login failures**
  - Login to NIM to clear login failures
  - If you have forgotten your password, there is a link on the NIM login page that will lead you through the process of resetting a password
  - Call NERSC Account Support for more help

Password Rules

- **Must contain**
  - *at least* eight characters
  - *at least* one each of:
    - UPPER-case letter
    - lower-case letter
    - numeric digit
    - "special" character (! @ $ % ? & etc.)
- **Good**

  j#K01vz$euP@!udls
- **Bad**

  P@ssw0rd
- **One possible method**
  1. computer security is very important for nersc users
  2. csivifnu
  3. C$1v1fnu

Allocations Process - PIs

- **PIs apply through *Energy Research Computing Allocations Process* (ERCAP)**
  - Part of NIM
  - Renew current projects annually, typically late summer
  - Science objectives, approach, and resource requirements
    - Computer time and archival storage space
  - Reviewed and awarded by DOE Science Offices
  - Most allocations are awarded in late Fall (December)
    - Allocation year starts in January
    - Small startup allocations are awarded throughout the year with DOE approval

Allocations Process - NERSC

- **Amount of MPP time available**
  - Approximately 3 billion MPP hours AY16
  - 80% to "DOE Base"
  - 10% to ASCR Leadership Computing Challenge (ALCC)
  - 10% to "Director's Reserve"
    - NERSC Exascale Science Application Program (NESAP)
    - Startups, staff, Education, etc.

Running Out of Time

- **User**
  - PI determines how much of the repo's MPP allocation each user can use
    - Either as a % of Total allocation or a fixed # of hours
  - If user runs out of time
    - Submitted jobs go into the scavenger queue
    - Contact PI to increase percentage or # of hours

- **Repo**
  - If repo runs out of time, PI should contact appropriate DOE Science Office Allocations Manager
    - Each Office typically holds a certain amount of time in reserve

Resources

- **Self Help**

http://www.nersc.gov/users/accounts/

http://www.nersc.gov/users/accounts/user-accounts/

http://www.nersc.gov/users/accounts/allocations/

https://nim.nersc.gov

https://nim.nersc.gov/nersc_account_request.php

http://www.nersc.gov/users/accounts/user-accounts/how-usage-is-charged/

http://www.nersc.gov/users/data-and-file-systems/hpss/hpss-charging/

- **NERSC Account Support**

http://help.nersc.gov

accounts@nersc.gov

1-800-66-NERSC, menu option 2 or 510-486-8612

Thank you.