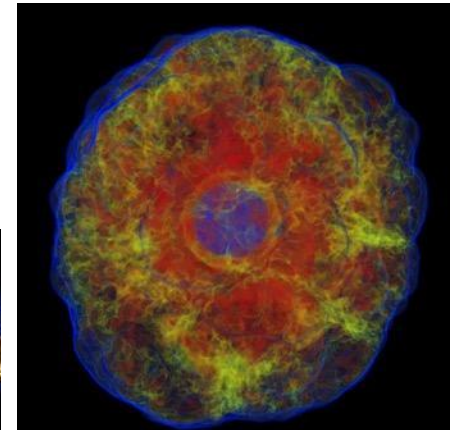
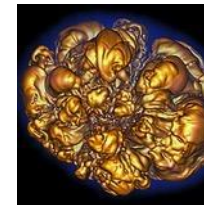
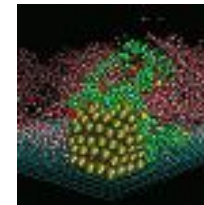
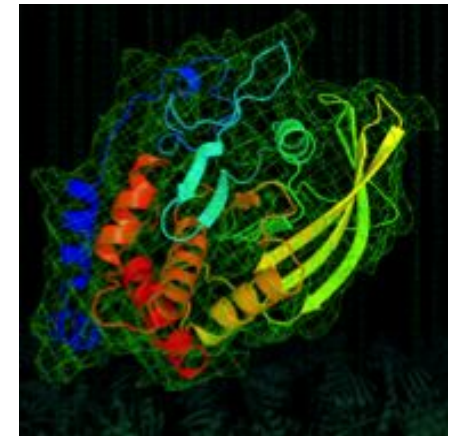
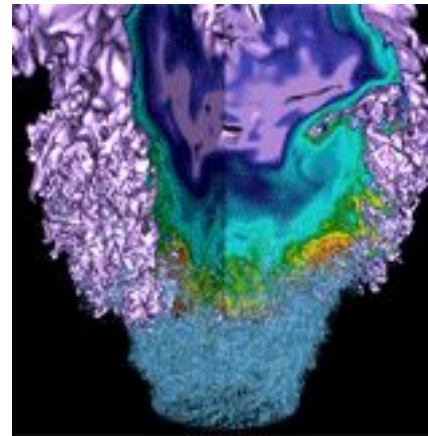


# Accounts and Allocations



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NERSC User Engagement Group

NERSC New User Training  
June 21, 2019

# Accounts vs. Allocations



## There are two types of *accounts* at NERSC:

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

MFA OTP:   
(One-Time Password)

[Reset your NIM password.](#) | [Forgot your username?](#) | [Lost your tokens?](#) | [Sign in as Staff](#)

- **Drop-down menus**

USG TestAccount | [Logout](#) | [Change My Password](#)

Quick Search:



[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 an Appropriate Use Policy form**
    - This is incorporated into the Self-Service account request form
- [https://nim.nerisc.gov/Appropriate\\_Use\\_Policy.php](https://nim.nerisc.gov/Appropriate_Use_Policy.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

# Multi-Factor Authentication



- **Provides an additional security layer to accessing NERSC**
- **Required for ALL users**
- **Generate token in NIM**
  - Synch with an OTP generator like Google Authenticator, Authy, Duo, etc
- **Online instructions**
  - <http://www.nersc.gov/users/connecting-to-nersc/mfa/>



# Generating a Token




FreeOTP configuration interface showing a table of tokens and a QR code for OATH Soft Token generation.

User	Serial Id	Token Description	Fails
[Redacted]	TOTP22856A68	my phone	0

Buttons: Add Token, Delete All

Navigation: OATH Soft Token, **OTP seed**

QR-Code for installing the OATH compatible Soft Tokens (FreeOTP, Google Authenticator and other apps using the 'otpath://' syntax).  
**This will be the only time you will be able to scan this code into your Google Authenticator (or similar app), or use the URL string below.**  
For other apps that require manual configuration, choose the "OTP seed" tab above.



otpath://totp/NERSC-[Redacted]-TOTP22856A68?  
secret=[Redacted]  
TOTP22856A68

- PIs apply through *Energy Research Computing Allocations Process (ERCAP)*
  - Accessed through the NERSC Help Desk at:
    - <https://ercap.nersc.gov>
  - 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 Exploratory (startup) allocations are awarded throughout the year with DOE approval

# Allocations Process - NERSC



- **Amount of MPP time available**
  - Approximately 9.23 billion MPP hours AY19
  - 80% to “DOE Mission Science”
  - 10% to ASCR Leadership Computing Challenge (ALCC)
  - 10% to “Director’s Reserve”
    - NERSC Exascale Science Application Program (NESAP)
    - Exploratory, Education, staff, etc.

# Quarterly Allocation Reductions



- **We encourage you to plan your computing usage and use your time consistently**
- **We withdraw time on a Quarterly basis for under-usage**
  - <http://www.nersc.gov/users/accounts/allocations/allocation-reductions/>
  - Time goes back to the DOE Office of Science program for re-distribution
- **Only from DOE Mission Science projects**
  - NOT ALCC, Director's Reserve, Exploratory, or Education

# 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 if repo cannot pay for job
  - 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
- Any jobs submitted will run in scavenger (low priority)

# Resources



- Self Help

<https://ercap.nersc.gov>

<https://nim.nersc.gov>

[https://nim.nersc.gov/nersc\\_account\\_request.php](https://nim.nersc.gov/nersc_account_request.php)

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

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

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

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

<http://www.nersc.gov/users/connecting-to-nersc/mfa/>

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

<http://www.nersc.gov/users/accounts/allocations/allocation-reductions/>

# Resources cont.



- **NERSC Account Support**
  - <http://help.nersc.gov>
  - [accounts@nersc.gov](mailto:accounts@nersc.gov)
  - 1-800-66-NERSC, menu option 2 or 510-486-8612
  
- **NERSC Allocation Support**
  - <http://help.nersc.gov>
  - [allocations@nersc.gov](mailto:allocations@nersc.gov)
  - 1-800-66-NERSC, menu option 2 or 510-486-8612

# NERSC

Thank you.