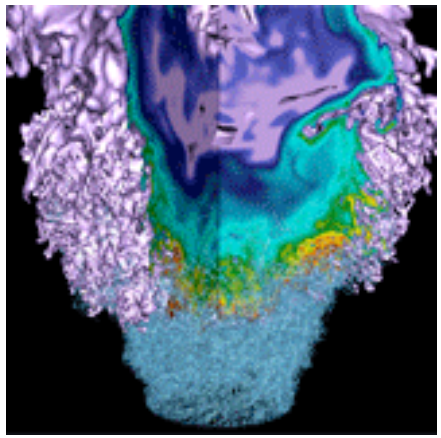
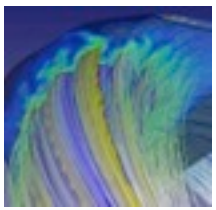
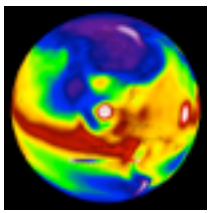
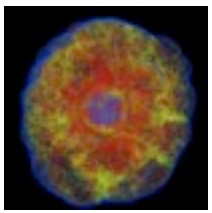
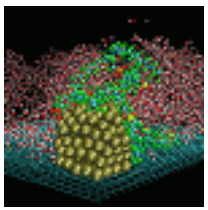
Using NX to Accelerate X











Yushu Yao

Using X-Windows

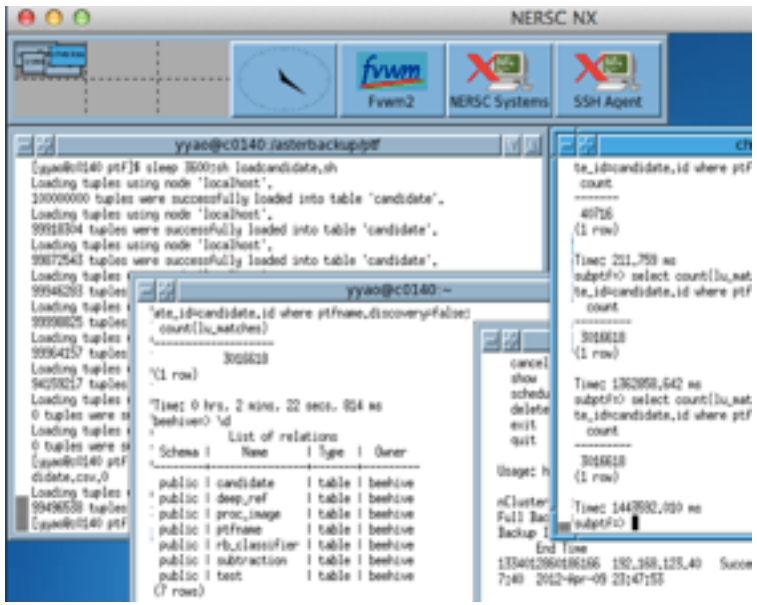
- X-Windows let you run graphical user programs (e.g. Emacs, Matlab) on NERSC Machines

- We suggest you to use NX for much better X-Windows experience

Reasons for NX

Desktop:

- **The Pain:** I'm used to start my workflow on my windows machine and let it run for a week, where is my desktop now?
- **Solution:** NX gives you a desktop, so you can connect to NERSC resources (such as genepool) and start your GUI applications.



Reasons for NX

Sessions:

- **The Pain:** If I lose internet connection, I might lose all running processes.

- **Solution:** NX provide sessions. I can suspend the session without terminating the running processes. And get back to the same point when reconnected, even from a different location or computer.

Reasons for NX

Speed:

- **The Pain:** X-Windows is slow over network. Tried starting emacs with a slow network connection? It might take minutes to get the window open.

- **Solution:** NX Buffers/Compresses X messages, giving much better X experience

What you need for NX

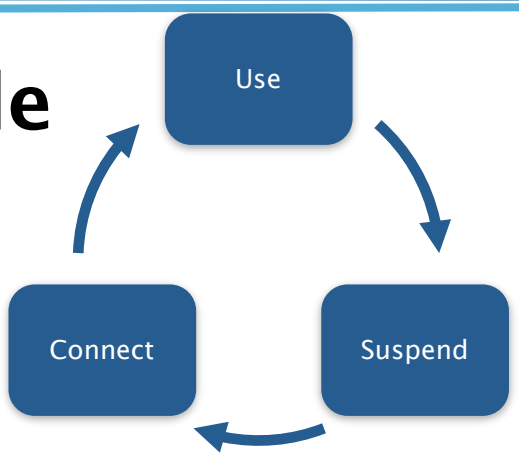
- Any Desktop/Laptop
  - Windows/Linux/Mac
- NX Client Software (Free)

NERSC NX Service

- 10 Minute Start-up Guide

Download Client (One Time, 5 min)

Setup Connection (One Time, 5 min)



Documentations:

Go to www.nersc.gov, search for "NX"

Map of Current Users

National Energy Research Scientific Computing Center