# **Frost Info**

## Please Note: Special Windows

Check the current system reservations using the 'showres' command. Reservations cause a queue drain on the reserved portion of the machine (often the entire machine), and with most users commonly running the maximum allowed wallclock time of 24 hours, this provides a multiple hour window before the reservation for shorter jobs to run.

- 08:00am 10:00am MDT Fridays "Jumbo Fridays" window, reserved weekly for half- and full-system jobs. If there is enough demand, this window may be extended to 12 noon.
- 07:00am 12:00pm MDT Wednesdays Announced in advance if required: System Maintenance window
- 10:00am 12:00pm MDT Fridays Announced in advance if required: Short system maintenance tasks and special job runs immediately following the Jumbo Fridays

Announcements will be sent out over the bglusers@ucar.edu mailing list, so please subscribe to it.

#### Frost Overview

- System Overview
- Hardware Overview
- Partition Layout
- File systems

## Connecting

- Requesting an Account
- Logging In
- Changing your passwordTransferring files

#### Compiling and Job Submission

- Compiling: The cross-compile environment on Frost
  Running: Using Cobalt on Frost (cqsub, cqstat, etc.)
- Libraries available on Frost
- Tips for building your own libraries (PETSc, Trilinos, etc.)
- Mapping MPI processes to specific nodes

## **Debugging and Profiling**

- Common Problems
- · Debugging: reading core files and monitoring stack and heap usage
- Profiling code with gprof, hpm, and friends
- Common error codes

#### Frontend Tools

• NCAR tools: Netcdf, nco, ncarg and ncl