TACC Overview 2014

What is TACC?

Texas Advanced Computing Center provides:

- High performance computing systems- large clusters, capable of running highly parallel computation and advanced visualization.
- Large data storage and data archival capabilities.
- Software packages already installed on the clusters.

To find documentation/training on TACC systems: User guides, training courses offered by TACC and CCBB.

Stuck with TACC specific errors or need a specific tool installed on TACC? Submit a ticket to TACC consulting.

TACC's Cluster Systems

Cluster systems are made up of multiple computers, connected together to act as one. Each computer is called a node in the cluster and can have multiple processors (called cores). Users log in to the cluster through a limited number of head nodes and submit jobs to the many compute nodes. These systems are inherently parallel and can be greatly beneficial when your jobs are also parallelized.

LONESTAR:

- 1888 nodes (computers)
- 22,656 cores (processors)
- Max run time: 24 hours
- USE: For running large, parallel computation jobs.

STAMPEDE:

- 6400 nodes (computers)
- 102,400 cores (processors)
- Max run time: 48 hours
- · 7th most powerful cluster in the world
- USE: For running large, parallel computation jobs





TACC's Data Storage Systems

CORRAL:

- Replicated storage
- 6 Petabytes of storage
- Accessible on lonestar and stampede systems
- \$250 per terabyte (First 5 terabytes free for UT users)
- USE: Backup data, analysis results.

RANCH:

- Tape storage
 Archival storage- not replicated or backed up.
 60 Petabytes of storage
 Immediate access can be difficult.
 USE: Long term archival of data. One of two copies.

Now on to how to use the lonestar cluster...