

CSDE Simulation Cluster – Usage and Tips

Relevant URLs

Sim Cluster status/help: <http://csde.washington.edu/computing/windows/sim.php>

Sim Cluster access request: <https://csde.washington.edu/computing/accounts/sim.php>

Contacting the computing support staff: <http://csde.washington.edu/computing/index.shtml>

Terms

Cluster = a group of servers, all configured alike, that can be accessed using a single address

Node = a single server that is a member of a cluster

Session = a logged-on user's desktop and memory space; can have multiple sessions on a single node

Load balancing = a method of directing an initial cluster logon to a less-busy node

Logging In

1. If you don't already have it, first download the Remote Desktop Connection software from <http://csde.washington.edu/computing/windows/tsaccess.shtml>
2. Open Start → (All) Programs → Accessories → Communications → Remote Desktop Connection.
3. Type `sim.csde.washington.edu` in the Computer field, click Connect, and log in with your CSDE username.
4. The `sim.csde` address is a network load balancer that will redirect you to a Sim Cluster node. When you see the Windows desktop make a mental note of which computer you're connected to, e.g. SIM4.

Running Analysis Jobs

Use the Sim Cluster server to run analyses just as you would on any other terminal server. You may wish to keep programs, output files, etc., in your CSDE H: drive for ease in storage and retrieval from any CSDE system. However, two additional local storage options exist on the Sim Cluster:

- Each Sim Cluster node has a large local "Scratch" disk, D:, for temporary storage.
- All Sim Cluster nodes have access to "NetScratch" disk, Z:, for temporary storage (across nodes).

Disconnecting and Locating Sessions

You can disconnect from a Sim Cluster session by closing the Remote Desktop window. Everything you have open will persist on the server. This is a great way to manage a long-running analysis job; simply log in to a cluster node, start the job, and disconnect. You can reconnect to your old session periodically to check on the job's progress. Remember: because the Sim Cluster uses session management, next time to log in to `sim.csde.washington.edu`, you'll automatically be returned to your existing session regardless of which cluster node it's running on. If you have multiple sessions running on the Cluster, each successive Remote Desktop connection you make will connect you to the next session.

Miscellaneous Notes

1. Nothing on the Sim Cluster nodes is backed up. Please store important files in your H: drive.
2. Because of the nature of the cluster, system upgrades are performed by erasing each node's local hard drives and reinstalling from a disk image. For this reason, you should not expect that your desktop files, user profile, application preferences, etc., will be consistently available. They will be lost whenever the cluster is upgraded.
3. The server SIM1 is not available for computational work – this node has a couple of important roles in the Sim Cluster and loading it heavily may influence the performance of the whole cluster.
4. If you find that the `sim.csde` load balancing system is not working well for you, check the Sim Cluster status/help web page before connecting and log directly on to a node that is marked *green* (least busy).