Informal introduction to supercomputing

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1 Introduction

This is a short cheat sheet to help get readers up to speed on how to drive the CU-CSDMS HPCC, more informally called "Beach." It assumes only very basic knowledge of terminal commands and the command line. Probably the things described here will be more difficult on a Windows OS than a Mac/Linux OS.

1.1 Structure of Beach

Beach is a collection of many "nodes," or individual computers that are networked together. Most nodes are "compute nodes," meaning that they are the nodes responsible for running your slow fancy model. The whole show is run by the "head node," which is the node you are automatically working in when you log in to Beach. The head node is responsible for taking user job submissions and parsing them out to the different compute nodes to be run.

1.2 Why use a supercomputer?

Some supercomputers are blazing fast. Beach is not blazing fast. Each "node," easily thought of

2 Cautionary notes

2.1 Don't run jobs on the head node

2.2 Don't use "sudo"