SI2-SSE: Connecting Cyberinfrastructure with the Cooperative Computing Tools

PI: Douglas Thain, University of Notre Dame (NSF-OCI-1148330)

Our Goal: Make it easy to harness multiple kinds of infrastructure for ordinary applications with no special privileges.

Typical User Has an existing code or dataset that works well on a local machine, and now wants to run on 1000s of nodes drawn from a campus cluster, a public cloud, and an national resource.

Annual Workshop

Molecular Dynamics Ensembles

Lee-Ping Wang, et al.
Harassed over 300K node-hours of CPU time on the Blue Waters supercomputer at NCSA using Work Queue

Badi Abdul-Wahid, et al.

High Energy Physics

Bioinformatics

- Open source, GPL License, approx 3 releases per year.
- Development focus on Red Hat, Mac, and Windows (Cygwin).
- Use UW-Madison NMI B&T to build on 40+ platforms.
- Users on Blue Waters, XSEDE, FutureGrid, OSG, iPlant.
- Three students supported: release, outreach, and devel focus.
- Used in classes at ND, UWEC, and University of Arizona.
- One workshop at ND + several road tutorials per year.

http://ccl.cse.nd.edu