

Distributed Computing Overview

- Four Beowulf Clusters
- Condor
- Individual Compute Servers
- ECDF

Iutzow

- Installed 2002
- School Provision
- WS530, Single Processor Single Core
- 16 physical nodes
- 1GB
- Myrinet Interconnect
- Low usage

lion

- Installed 2002
- School Provision
- GX240, Single Processor Single Core
- Originally 64 physical nodes, now 80
- 0.5GB
- Heavy usage

hermes

- Installed 2005
- School Provision
- SC1425, Single Processor Dual Core
- 24 physical nodes, 48 processing nodes
- Originally 2GB per physical-node, now 4GB
- Surprisingly low usage?

townhill

- Installed 2006
- CSTR/HCRC Only
- SC1425 – Dual Processor Dual Core
- 32 physical nodes, 128 processing nodes
- 4GB per physical-node
- Most heavily used of all

Software

- FC5 -> FC6 (or SL5?)
- Gridengine for Job Scheduling
- Ganglia for graphing Node/Slot Availability and CPU/Memory load (broken patches in FC5)

Shared Filesystem

- Har – NFS
- 4TB Fibrechannel (ATABeast)
- Separate home directory on cluster
- Local disk scratch space
- Currently no AFS space on clusters

Condor

- Installed 2005, production 2006
- FC5 desktops -> FC6
- 2 Pools with Flocking
- Jobs submitted from Pool masters or personal desktops only, not from lab machines
- Approximately 200 nodes
- Originally a “bonus” facility!

Individual Servers

- ANC – planets cluster, mars cluster
- No job scheduling
- Access to home directory space
- Large local disk scratch space
- Adhoc single compute servers dotted about

ECDF

- University Provision
- ...