HPC2002 Result

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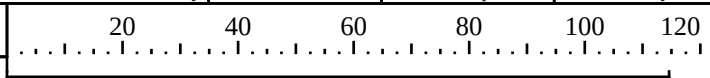
DELL
PowerEdge 1750 cluster

SPECenvM2002 = 115

SPEC license #: HPG0007A	Tested by: Purdue University	Test site: Purdue University	Test date: Jan-2005	HW Avail:Apr-2004	SW Avail:May-2004

Benchmark	Reference Time	Runtime	Ratio
361.wrf_m	86400	754	115



Hardware

CPU:	Intel Xeon processor
CPU MHz:	3060
FPU:	Integrated
CPU(s) enabled:	32 cores, 32 chips, 1 core/chip, Hyper-Threading enabled
CPU(s) orderable:	1 or 2 per node
Primary Cache:	12KB (I) micro-ops (trace) + 8KB (D) on chip
Secondary Cache:	512KB on chip
L3 Cache:	1 MB on chip
Other Cache:	N/A
Memory:	2 GB DDR PC2100 CL2.5 ECC Registered per node
Disk Subsystem:	1x36 GB SCSI per node
Other Hardware:	See File server and Network notes

Software

Parallel:	MPI
Processes-Threads:	32
MPI Processes:	32
OpenMP Threads:	--
Operating System:	RedHat Enterprise Linux, Advanced Server version 3 (4)
Compiler:	Intel C++ Compiler- icc, Version 8.0 Build 20031016Z for Linux Intel Fortran Compiler- ifort, Version 8.0 Build 20040122Z for Linux
File System:	NFS shared file system
System State:	Multi-user
Other Software:	MPICH-1.2.6, NETCDF-3.5.1

Notes/Tuning Information

```
Flags (Fortran & C):
CPP Flags: -I. -C -P -DSPEC_HPG_MPI
COPTIMIZE = -O2 -march=pentium4 -mcpu=pentium4 -axW -tpp7 -xW
FOPTIMIZE = -O2 -mp -fp_port -axW -tpp7 -xW
EXTRA_LIBS = -L${NETCDF_BASE}/lib -lnetcdf

Submit command to run MPI application:
use_submit_for_speed=1
MPI_COMM_SIZE=32
submit=mpiexec -n "$MPI_COMM_SIZE" $command
NetCDF 3.5.1 built from source
Cluster config:
Nodes and file server use NFS shared file system
Two CPUs per node, Hyperthreading ENABLED
File server:
2 x 3.06 GHz Intel Xeon processors
4 GB DDR PC2100 CL2.5 ECC Registered Memory
5 x 72 GB 10K RPM SCSI Drives
Hardware RAID-5 (Dell PERC/3Di option)
Debian Linux, 3.1 "sarge"
ext3 local file system
NFS shared file system
Network (for computation and file server):
Cisco 6509 Gigabit Ethernet Switch
Built-in Gigabit Ethernet Adapters
All BIOS parameters left with factory defaults
For a description of Intel compiler flags,portability flags,
and system parameters used to generate this result,please refer
to PURDUE-20050329-INTEL-LINUX-XEON.txt in the flags diretory.
```