HPC2002 Result

DELL PowerEdge 1750 cluster	SPECseisM2002 =NC

SPEC license # HPG0007A	Tested by: Purdue University	Test site: Purdue University	Test date: Dec-2004	Hardware Avail: Apr-2004	Software Avail: May-2004

SPEC has determined that this result was not in compliance with the SPEC HPC2002 run and reporting rules. Specifically, the result violated run rule 5.0 ("Run Rule Exceptions") in that unapproved source code changes, made to comply with the Fortran standard, were used. Replacement results that use an approved alternate source can be found at: http://www.spec.org/hpc2002/results/res2005q2/hpc2002-20050504-00137.html

Benchmark	Reference Time	Runtime	Ratio
351.seis_m	86400	NC	NC
SPECseisM2002			NC

Hardware		Software	
Hardware Vendor:	DELL	**Parallel:**	MPI
Model Name:	PowerEdge 1750 cluster	**Processes-Threads:**	16
CPU:	Intel Xeon processor	**MPI Processes:**	16
CPU MHz:	3060	**OpenMP Threads:**	--
FPU:	Integrated	**Operating System:**	RedHat Enterprise Linux, Advanced Server version 3 (4)
CPU(s) enabled:	16 cores, 16 chips, 1 core/chip, Hyper-Threading enabled	**Compiler:**	Intel C++ Compiler-icc, Version 8.0 Build 20031016Z for Linux Intel Fortran Compiler-ifort, Version 8.0 Build 20040122Z for Linux
CPU(s) orderable:	1 or 2 per node	**File System:**	NFS shared file system
Primary Cache:	12KB (I) micro-ops (trace) + 8KB (D) on chip	**System State:**	Multi-user
Secondary Cache:	512KB on chip	**Other Software:**	MPICH
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		

Notes / Tuning Information

```
Flags (Fortran & C):
CPP Flags: -I. -C -P -traditional -DMPI -DSPEC_HPG_MPI
COPTIMIZE = -O3 -static -xW -axW -tpp7 -march=pentium4 -mcpu=pentium4 \
            -Dmpi -DSPEC_HPG_MPI -DSPECDONOTNEEDARG -DFORTRAN_UNDERSCORE \
            -I/opt/mpich-1.2.6/p4-intel/include
FOPTIMIZE = -O3 -mp -static -fp_port -I/opt/mpich-1.2.6/p4-intel/include
LDOPTIONS = -O3 -mp -static -L/opt/intel_cc_80/lib -lcxa

Submit command to run MPI application:
use_submit_for_speed=1
MPI_COMM_SIZE=16
submit=mpiexec -n "\$MPI_COMM_SIZE" $command
Hardware notes:
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
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.

Submitted_by: "Sayeed, Mohamed" Submitted: Thu Mar 31 11:28:31 2005
Submission: hpc2002-20050226-00123.sub
```
