



HPC2002 Result

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Sun Microsystems
Sun Enterprise 450

SPECchemM2002 = 1.20

SPEC license #: HPG0007A | Tested by: Purdue University | Test site: Purdue University | Test date: Oct-2003 | HW Avail: Aug-2000 | SW Avail: Nov-2002

Benchmark	Reference Time	Runtime	Ratio	1	2	3	4	5
371.gamess_m	86400	71990	1.20					

Hardware

CPU: UltraSPARC II
 CPU MHz: 480
 FPU: Integrated
 CPU(s) enabled: 4
 CPU(s) orderable: 1 to 4
 Primary Cache: 16KBI+16KBD on chip
 Secondary Cache: 8MB(I+D) off chip
 L3 Cache: None
 Other Cache: None
 Memory: 4GB
 Disk Subsystem: Fujitsu MAJ3364M SUN36G
 Other Hardware: 100Mbps Ethernet

Software

Parallel: MPI
 Processes-Threads: 4
 MPI Processes: 4
 OpenMP Threads: --
 Operating System: Solaris 8
 Compiler: Sun WorkShop 6 update 2
 File System: NFS
 System State: Multi User
 Other Software: MPICH-1.2.4 ch_shmem

Notes/Tuning Information

Tested by Purdue University

```
FC = ${MPIHOME}/bin/mpif90
F77 = ${MPIHOME}/bin/mpif90
CC = ${MPIHOME}/bin/mpicc
```

Flags:

```
OPTIMIZE = -I${MPIHOME}/include -fast -xarch=v9a -ftrap=%none
FOPTIMIZE = -xtypemap=integer:64
```

MPICH: version 1.2.4

```
setenv CC "cc -xarch=v9a"
setenv FC "f90 -xarch=v9a -xtypemap=integer:64"
setenv F90 "f90 -xarch=v9a -xtypemap=integer:64"
configure --with-device=ch_shmem
make
```

```
submit = MPI_ENABLED=ENABLED; export MPI_ENABLED; \
STACKSIZE=20000; export STACKSIZE; \
${MPIHOME}/bin/mpirun -np 4 $command
```