



# HPC2002 Result

Copyright ©1999-2002, Standard Performance Evaluation Corporation

Hewlett-Packard Company  
hp server rx5670 (1000MHz Itanium2)

SPECchemS2002 = 545

SPEC license #: HPG2116 | Tested by: Hewlett-Packard Company | Test site: Richardson, Texas | Test date: Nov-2002 | HW Avail: Oct-2002 | SW Avail: Oct-2002

Benchmark	Reference Time	Runtime	Ratio
370.gamess_s	86400	159	545

Hardware		Software	
CPU:	Intel Itanium 2	Parallel:	MPI & OpenMP
CPU MHz:	1000	Processes-Threads:	4
FPU:	Integrated	MPI Processes:	2
CPU(s) enabled:	4	OpenMP Threads:	2
CPU(s) orderable:	1 to 4	Operating System:	HP-UX 11i TCOE B.11.22
Primary Cache:	L1 Inst/Data: 16 KB, associativity = 4	Compiler:	HP C/ANSI C Compiler v11.22
Secondary Cache:	L2 Unified: 256 KB, associativity = 8		HP Fortran 90 Compiler v2.6.2
L3 Cache:	L3 Unified: 3072 KB, associativity = 12		HP aC++ Compiler A.03.35
Other Cache:	None		HP MPI 1.08.02
Memory:	12GB		PHSS_27975: f90 product
Disk Subsystem:	1x9GB SCSI disk (root), 1x9GB SCSI disk (swap)	File System:	PHSS_27286: C product
Other Hardware:	--	System State:	PHSS_27287: U2comp
		Other Software:	PHSS_27288: Linker
			PHSS_27289: Libm
			PHSS_27290: Assembler
			PHSS_27291: PBO

## Notes/Tuning Information

### Flags:

```
mpif90 +O3 +OfIltacc +Oinfo +es +U77
        -DSPEC_HPG_MPI +DD64 +r8 +i8
        -I /opt/mpi/include -DSPEC_HPG_MPI
        -L /opt/mpi/lib/pa20_64 -lmpi -Wl,+FPD
        +U77 +DD64 +FPD +Oopenmp
```

```
mpicc +O3 +Oinfo -DNOUNDERSCORE +DD64
        -DSPEC_HPG_MPI -DSPECDONOTNEEDARG
        -L /opt/mpi/lib/pa20_64 -lmpi -Wl,+FPD
        +U77 +DD64 +FPD +Oopenmp
```

```
/usr/ccs/lbin/cpp -I. -C -P -DSPEC_HPG_MPI -DNOUNDERSCORE -D_OPENMP
```

### Alternate Source used for Peak:

None

### User Environment:

```
use_submit_for_speed=1
submit=export OMP_NUM_THREADS=\$OMPI_COMM_SIZE;
        MPI_ENABLED=ENABLED; export MPI_ENABLED;
mpirun -np \$MPI_COMM_SIZE $command
```

### Kernel Parameters (/stand/system):

```
maxdsiz      0x7b03a000
maxdsiz_64bit 0x4000000000
maxssiz      0x10000000
maxssiz_64bit 0x40000000
```



# HPC2002 Result

Copyright ©1999-2002, Standard Performance Evaluation Corporation

Hewlett-Packard Company  
hp server rx5670 (1000MHz Itanium2)

SPECchemS2002 = 545

SPEC license #: HPG2116 | Tested by: Hewlett-Packard Company | Test site: Richardson, Texas | Test date: Nov-2002 | HW Avail: Oct-2002 | SW Avail: Oct-2002

## Notes/Tuning Information (Continued)

maxtsiz	1073741824
maxtsiz_64bit	4294967296
vps_pagesize	4096
vps_ceiling	16384
dbc_min_pct	20
dbc_max_pct	20