



HPC2002 Result

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IBM Corporation
IBM RS/6000 SP-375MHz T

SPECchemM2002 = 5.46

SPEC license #: HPG0021A | Test site: NREL, Golden, CO | Test date: Nov-2002 | HW Avail: Feb-2000 | SW Avail: Dec-2001

Benchmark	Reference Time	Runtime	Ratio	1	2	3	4	5	6	
371.gamess_m	86400	15829	5.46						

Hardware

CPU: Power3-II
 CPU MHz: 375
 FPU: Integrated
 CPU(s) enabled: 56
 CPU(s) orderable: 128
 Primary Cache: 32KBI+64KBD (on chip)
 Secondary Cache: 8MB unified (off chip)
 L3 Cache: None
 Other Cache: None
 Memory: 2GB
 Disk Subsystem: 2x9.1GB
 Other Hardware: Ethernet 10-Base2/SP-Colony Switch

Software

Parallel: MPI
 Processes-Threads: 16
 MPI Processes: 16
 OpenMP Threads: --
 Operating System: AIX 4.3.3
 Compiler: C: IBM VAC 5.0.2.0, "mpcc"
 Preprocessor: IBM VAC 5.0.2.0, "/usr/ccs/lib/cpp"
 Fortran: IBM x1 Fortran 7.1.1.0, "mpxl90"
 File System: AIX/GPFS
 System State: Multi-user
 Other Software: Parallel Operating Environment (POE) 3.1.0.0

Notes/Tuning Information

Tested by NREL (National Renewable Energy Lab)

Flags:

```
C: -I. -DNOUNDERScore -O3 -qstrict -qarch=pwr3 -qtune=pwr3
Preprocessor: -I. -C -P -DSPEC_HPG_MPI_INT4 -DSP2_TIME
Fortran: -I. -qfixed -qintsize=8 -O3 -qstrict -qarch=pwr3 -qtune=pwr3
-bmaxdata:0x60000000 -bmaxstack:0x20000000
```

Alternate Source:

```
chem2002-src_nrel_ibm-20021106.tar.gz
Replace integer with integer*4 in mpif.h
```

User Environment:

```
limit stacksize 256m
limit memoryuse 2048m
```

Submit command to run applications

```
export "MP_HOSTFILE=${HOME}/hostfile"; export "MP_PROCS=${MPI_COMM_SIZE}"; poe $command
```