HPC2002 Result

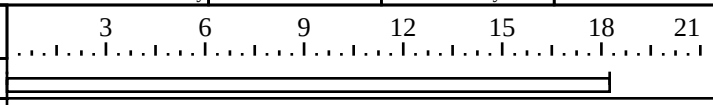
IBM

IBM eServer pSeries 690 Turbo (1700 MHz, 16 CPUs)

SPECchemM2002 = 18.3

SPEC license #: HPG0007A | Tested by: Purdue University | Test site: Purdue University | Test date: Oct-2004 | HW Avail:May-2003 | SW Avail: Jul-2003

Benchmark	Reference Time	Runtime	Ratio
371.gamess_m	86400	4733	18.3



Hardware

CPU:	POWER4+
CPU MHz:	1700
FPU:	Integrated
CPU(s) enabled:	16 cores, 8 chips, 2 cores/chip, 4 chips/MCM
CPU(s) orderable:	1,2,3,4 (order by # MCMs)
Primary Cache:	64KBI+32KBD (on chip)/core
Secondary Cache:	1536KB unified (on chip) per chip
L3 Cache:	128MB unified (off-chip) per MCM, 2 MCMs in SUT
Other Cache:	None
Memory:	128GB
Disk Subsystem:	2x36GB+14x72GB, SCSI, 10K RPM
Other Hardware:	None

Software

Parallel:	MPI
Processes-Threads:	16
MPI Processes:	16
OpenMP Threads:	--
Operating System:	AIX 5L V5.2
Compiler:	IBM XL FORTRAN for AIX, Version 8.1.1.0 IBM C for AIX, Version 6.0
File System:	AIX/JFS
System State:	Multi-user
Other Software:	Parallel Environment for AIX V3.2.0.10

Notes/Tuning Information

```
Tested by Purdue University

C:          IBM C invoked as mpcc
Fortran 90: IBM XL Fortran for AIX invoked as mpxlf90

Flags:
  COPTIMIZE = -O3 -qstrict -qarch=pwr4 -qtune=pwr4
  FOPTIMIZE = -O3 -qstrict -qarch=pwr4 -qtune=pwr4
  EXTRA_CFLAGS = -I. -DNOUNDERSCORE
  EXTRA_FFLAGS = -I. -qfixed -qintsize=8
  EXTRA_CPPFLAGS = -I. -C -P -DSPEC_HPG_MPI_INT4 -DSP2_TIME
  EXTRA_LDFLAGS = -bmaxdata:0x60000000 -bmaxstack:0x20000000

Alternate Source:
  chem2002-src_nrel_ibm-20021106.tar.gz
  Replace interger with integer*4 in mpif.h


MCM: Acronym for "Multi-Chip Module"
SUT: Acronym for "System Under Test"
```