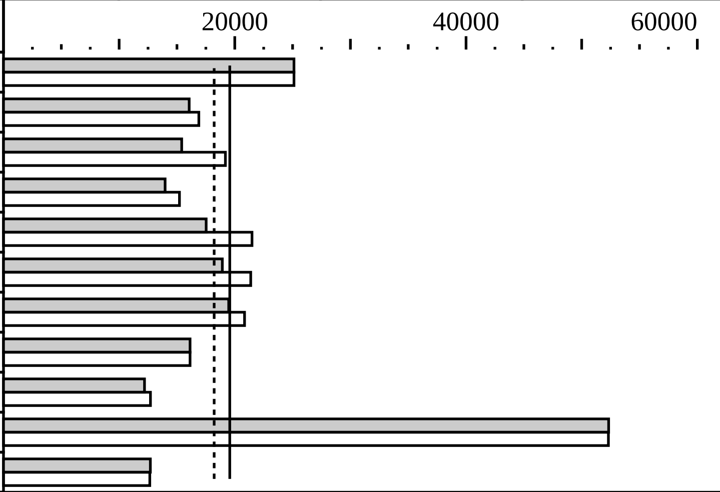
OMPM2001 Result

IBM Corporation
IBM BladeCenter JS22 (4.0 GHz, 4 core)

SPECompMpeak2001 = 19568
SPECompMbase2001 = 18218

SPEC license #	Tested by:	Test site:	Test date:	Hardware Avail	Software Avail
HPG0005	IBM	Austin, TX	Oct-2007	Nov-2007	Nov-2007

Benchmark	Reference Time	Base Runtime	Base Ratio	Peak Runtime	Peak Ratio
310.wupwise_m	6000	239	25120	239	25120
312.swim_m	6000	374	16057	355	16893
314.mgrid_m	7300	474	15410	380	19190
316.applu_m	4000	286	13976	263	15217
318.galgel_m	5100	291	17526	237	21490
320.equake_m	2600	137	18923	122	21380
324.apsi_m	3400	175	19476	163	20845
326.gafort_m	8700	539	16133	539	16133
328.fma3d_m	4600	377	12194	362	12709
330.art_m	6400	122	52331	122	52312
332.ammp_m	7000	551	12699	553	12652



Hardware

CPU:	POWER6
CPU MHz:	4000
FPU:	Integrated
CPU(s) enabled:	4 cores, 2 chips, 2 cores/chip, 2 threads/core
CPU(s) orderable:	4 cores
Primary Cache:	64 KB I + 64 KB D on chip per core
Secondary Cache:	4 MB I+D on chip per core
L3 Cache:	None
Other Cache:	None
Memory:	16 GB (4x4 GB) DDR2 667 MHz
Disk Subsystem:	1x146 GB SAS 15K RPM
Other Hardware:	None

Software

OpenMP Threads:	8
Parallel:	OpenMP
Operating System:	IBM AIX 5L V5.3
Compiler:	XL C/C++ Enterprise Edition Version 9.0 for AIX XL Fortran Enterprise Edition Version 11.1 for AIX Other Software: IBM Engineering and Scientific Subroutine Library (ESSL) version 4.3.0.2
File System:	AIX/JFS2
System State:	Multi-user

Notes/Tuning Information

```
 Portability Flags Variables
    -qfixed used in: 310.wupwise_m, 312.swim_m, 314.mgrid_m, 316.applu_m, 324.apsi_m
     -qfixed=80 used in: 318.galgel_m
     -qsuffix=f=f90 used in: 318.galgel_m, 326.gafort_m, 328.fma3d_m

Base Flags
  FORTRAN: -qsmp=omp -qipa=partition=large -qmaxmem=-1 -qsuppress=cmpmsg
           -O5 -bmaxdata:0x80000000
  C:       -qsmp=omp -qipa=partition=large -qmaxmem=-1
           -O5 -bmaxdata:0x80000000

Base & Peak User Environment:
  OMP_DYNAMIC=FALSE
  MALLOCOPTIONS=multiheap
  MEMORY_AFFINITY=MCM
  XLFRTEOPTS=intrinthds=1
 ENV_XLSMPOPTS=SPINS=0:YIELDS=0:STACK=8000000:SCHEDULE=STATIC:STARTPROC=0:STRIDE=1
  OMP_NUM_THREADS=8

 Peak sources:
  Approved SPEC OMPL2001 source for 32bit systems modified for SPEC OMPM2001 used with 320.equake_m.

Peak Flags:
```

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SPEC license #: HPG0005	Tested by: IBM	Test site: Austin, TX	Test date: Oct-2007	Hardware Avail: Nov-2007	Software Avail: Nov-2007

Notes/Tuning Information (Continued)

```
    310.wupwise_m:  basepeak=1
    312.swim_m:     -qsmp=omp -qipa=partition=large -qmaxmem=-1
                    -O5 -qenablevmx -qvecnvol -qessl
          -bdatapsize:64K -bstackpsize:64K -btextpsize:64K -bmaxdata:0x80000000 -lesslsmp
    314.mgrid_m:    -qsmp=omp -qipa=partition=large -qmaxmem=-1 -qsuppress=cmpmsg
                    -pdf1/pdf2 -O5 -q64 -qalign=struct=natural
                    -bdatapsize:64K -bstackpsize:64K
                    ENV_OMP_NUM_THREADS=4
          ENV_XLSMPOPTS=SPINS=0:YIELDS=0:STACK=8000000:SCHEDULE=STATIC:STARTPROC=0:STRIDE=2
    316.applu_m:    -qsmp=omp -qipa=partition=large -qmaxmem=-1
                    -O5 -qenablevmx -qvecnvol -qessl
          -bdatapsize:64K -bstackpsize:64K -btextpsize:64K -bmaxdata:0x80000000 -lesslsmp
    318.galgel_m:   -qsmp=omp -qipa=partition=large -qmaxmem=-1 -qsuppress=cmpmsg
                    -O4 -q64 -qessl
                    -bdatapsize:64K -bstackpsize:64K -lesslsmp
    320.equake_m:   -qsmp=omp -qipa=partition=large -qmaxmem=-1
                    -pdf1/pdf2 -O5 -qhot=arraypad -Q
                    -btextpsize:64K -bdatapsize:64K -bmaxdata:0x80000000
    324.apsi_m:     -qsmp=omp -qipa=partition=large -qmaxmem=-1 -qsuppress=cmpmsg
                    -O5 -qenablevmx -qvecnvol -qessl
          -bdatapsize:64K -bstackpsize:64K -btextpsize:64K -bmaxdata:0x80000000 -lesslsmp
    326.gafort_m:   basepeak=1
    328.fma3d_m:    -qsmp=omp -qipa=partition=large -qmaxmem=-1 -qsuppress=cmpmsg
                    -O5
                    -bmaxdata:0x80000000 -btextpsize:64K -bdatapsize:64K
    330.art_m:      -qsmp=omp -qipa=partition=large -qmaxmem=-1
                    -O5 -qenablevmx -qvecnvol -qessl
             -bdatapsize:64K -bstackpsize:64K -btextpsize:64K -bmaxdata:0x80000000
    332.ammp_m:     -qsmp=omp -qipa=partition=large -qmaxmem=-1
                    -O5
             -btextpsize:64K -bdatapsize:64K -bstackpsize:64K -bmaxdata:0x80000000

The installed OS level is AIX 5L for POWER version 5.3 with the 5300-07 Technology Level.
 IBM XL Compilers updated to October 2007 PTF Level.
 C:               IBM XL C for AIX invoked as xlc_r
 Fortran:         IBM XL Fortran for AIX invoked as xlf90_r

 ulimits set to unlimited.
 User system privileges (capabilities) and Large Pages are set as follows:
     vmo -r -o lgpg_regions=256 -o lgpg_size=16777216
     chuser capabilities=CAP_BYPASS_RAC_VMM,CAP_PROPAGATE $USER
     bosboot -aD
     shutdown -rF

 Use flags-description file IBM-20070606-AIX.txt
```