OMPM2001 Result

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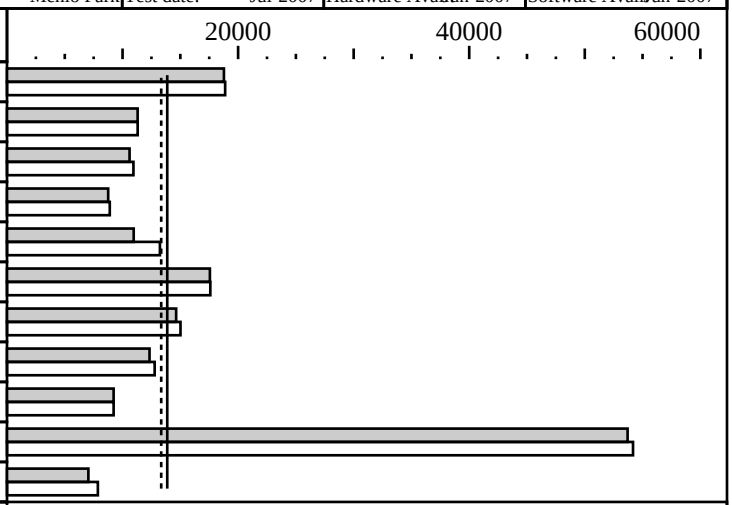
Sun Microsystems
Sun Blade X6220

SPECompMpeak2001 = 13868

SPECompMbase2001 = 13345

SPEC license #:	HPG0010	Tested by:	Sun Microsystems, Santa Clara	Test site:	Menlo Park	Test date:	Jul-2007	Hardware Avail:	Jun-2007	Software Avail:	Jun-2007

Benchmark	Reference Time	Base Runtime	Base Ratio	Peak Runtime	Peak Ratio
310.wupwise_m	6000	320	18772	318	18878
312.swim_m	6000	531	11304	531	11307
314.mgrid_m	7300	688	10606	667	10942
316.applu_m	4000	457	8757	450	8894
318.galgel_m	5100	465	10964	385	13233
320.equake_m	2600	148	17558	148	17595
324.apsi_m	3400	232	14638	226	15014
326.gafort_m	8700	705	12334	681	12779
328.fma3d_m	4600	499	9227	499	9227
330.art_m	6400	119	53705	118	54175
332.ammp_m	7000	994	7042	890	7863



Hardware

CPU:	AMD Opteron (TM) 2222
CPU MHz:	3000
FPU:	Integrated
CPU(s) enabled:	4 cores, 2 chips, 2 cores/chip
CPU(s) orderable:	1,2 (order by number of chips)
Primary Cache:	64KBI + 64KBD (on chip) per core
Secondary Cache:	1024KB (I+D) (on chip) per core
L3 Cache:	None
Other Cache:	None
Memory:	16GB (8x2GB, DDR2-667 CL5 ECC Registered)
Disk Subsystem:	SCSI, 73GB, 10K RPM
Other Hardware:	None

Software

OpenMP Threads:	4
Parallel:	OpenMP
Operating System:	Solaris 10 11/06
Compiler:	Sun Studio 12
File System:	ufs
System State:	Multi-User

Notes/Tuning Information

```
Compiler Invocation:
  C   : cc
  F90 : f90
  F77 : f90

Base tuning:
  Fortran: -fast -xipo=2 -m64 -xarch=sse2a -xprefetch_level=3
           -xvector=simd -xopenmp
  C:       -fast -xipo=2 -m64 -xarch=sse2a -xopenmp
  ONESTEP=yes

  +FDO:    PASS1= -xprofile=collect:./feedback
           PASS2= -xprofile=use:./feedback

Peak tuning:
  ONESTEP=yes for all peak tests.

  310.wupwise_m: -fast  -Qoption ube -sched_first_pass=1 -xipo=2
      -xarch=am64 -xprefetch_level=3 -xvector=simd -xopenmp -lmvec
  312.swim_m:    -fast -Qoption ube -fsimple=3 -xipo=2 -m64
      -xarch=sse2a -xprefetch_level=3 -xvector=simd -xopenmp -lmvec
  314.mgrid_m:   -fast -Qoption ube -sched_first_pass=1 -xipo=2
      -xarch=amd64 -xprefetch_level=3 -xvector=simd -xopenmp -lmvec
```

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Notes/Tuning Information (Continued)

```
    316.applu_m:   -fast -xipo=2
        -Qoption f90comp -hoist_expensive,-hoist_trivial
        -m64 -xarch=sse2a -xprefetch_level=3 -xvector -xopenmp -lmtmalloc
    318.galgel_m:  -fast -xpagesize=2m -xipo=2 -qoption iropt
        -xprefetch_level=3 -xvector=simd -xarch=amd64 -xopenmp
        -xlic_lib=sunperf +FDO
        RM_SOURCES=lapak.f90
    320.equake_m:  -fast -Wu,-sched_first_pass=1 -xipo=2
        -xarch=amd64 -xopenmp  -lmvec
    324.apsi_m:    -fast -xipo=2
        -Qoption f90comp -hoist_expensive,-hoist_trivial
        -xarch=amd64a -xprefetch_level=3 -xvector -xopenmp -lmtmalloc
    326.gafort_m:  -fast -Qoption ube -sched_first_pass=1 -xpagesize=2m
        -xipo=2 -xarch=amd64 -xprefetch_level=3 -xvector=simd -lmvec
    328.fma3d_m:   basepeak=yes
    330.art_m:     -fast -xpagesize=2m -xipo=2 -xarch=amd64
        -xalias_level=std -xopenmp -lmtmalloc -lm
    332.ammp_m:    -fast -Wu,-sched_first_pass=1 -xpagesize=2m -xipo=2 -m64
        -xarch=sse2a -xalias_level=std -xopenmp -lmopt -lm

  Portability flags:
    318.galgel_m:  -e -fixed

  Extra art allowed flags:
    330.art_m:     -DINTS_PER_CACHELINE=16 -DDBLS_PER_CACHELINE=8

  Base and Peak User Environment:
    export OMP_NUM_THREADS=4
    export SUNW_MP_PROCBIND=TRUE
    export SUNW_MP_THR_IDLE=SPIN
    export OMP_NESTED=FALSE
    export STACKSIZE=16384
    export OMP_DYNAMIC=TRUE
    ulimit -s unlimited

  For a description of Sun Studio 10 Compiler flags, portability flags
  and system parameters used to generate this result, please refer to
  SUN-20070711-Studio-Solaris-opteron.txt file in the flags directory.

  Default BIOS settings used.
```