OMPM2001 Result

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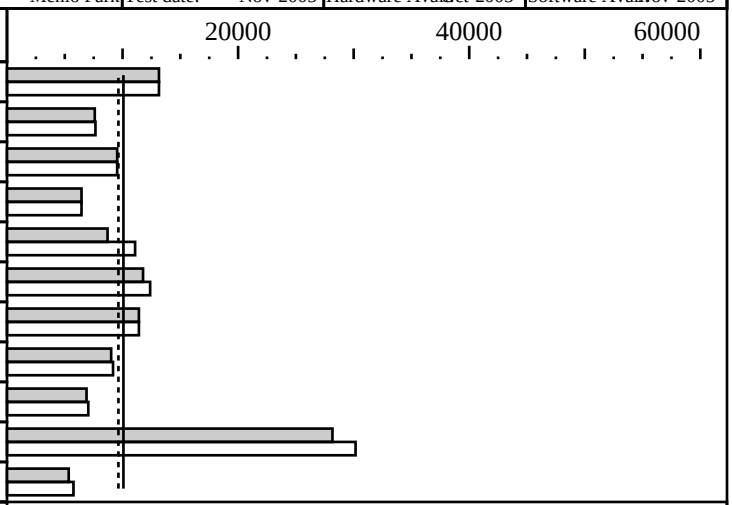
Sun Microsystems
Sun Fire X4100

SPECompMpeak2001 = 10076

SPECompMbase2001 = 9643

SPEC license #:	HPG0010	Tested by:	Sun Microsystems, Santa Clara	Test site:	Menlo Park	Test date:	Nov-2005	Hardware Avail:	Oct-2005	Software Avail:	Nov-2005

Benchmark	Reference Time	Base Runtime	Base Ratio	Peak Runtime	Peak Ratio
310.wupwise_m	6000	456	13152	456	13152
312.swim_m	6000	790	7596	784	7655
314.mgrid_m	7300	766	9534	766	9534
316.applu_m	4000	620	6448	620	6448
318.galgel_m	5100	586	8702	460	11086
320.equake_m	2600	221	11773	210	12387
324.apsi_m	3400	298	11416	298	11416
326.gafort_m	8700	965	9014	948	9176
328.fma3d_m	4600	668	6884	654	7033
330.art_m	6400	227	28163	212	30164
332.ammp_m	7000	1311	5341	1217	5753



Hardware

CPU:	AMD Opteron (TM) 275
CPU MHz:	2200
FPU:	Integrated
CPU(s) enabled:	4 cores, 2 chips, 2 cores/chip
CPU(s) orderable:	1,2 (order by # 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, PC3200 CL3 DDR SDRAM ECC Registered)
Disk Subsystem:	SAS, 36GB, 10K RPM
Other Hardware:	None

Software

OpenMP Threads:	4
Parallel:	OpenMP
Operating System:	Solaris 10 3/05 HW1
Compiler:	Sun Studio 11
File System:	ufs
System State:	Multi-User

Notes/Tuning Information

```
*****************************************************************
*vvvvvvvvvvvvvvvvvvvvvvvvvvvvvvvvvvvvvvvvvvvvvvvvvvvvvvvvvvvvvvvv*
     This config uses the -xalias_level=strong flag for "base"
     and is in violation of run rule 2.2.4.  It is unacceptable
     as a base flag for future submissions.  This submission was
     accepted prior to this rule clarification and it has been
     established that any variation in performance due to this
     flag was within the range of tolerance for reproducibility.
*^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^*
*****************************************************************
 Compiler Invocation:
   C   : cc
   F90 : f90
   F77 : f90

 Base tuning:
   Fortran : -fast -xipo=2 -xarch=amd64 -xprefetch_level=3 -xvector=simd -xopenmp
   C       : -fast -xipo=2 -xalias_level=strong -xarch=amd64 -xopenmp
   ONESTEP=yes

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

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SPEC license #1	HPG0010	Tested by:	Sun Microsystems, Santa Clara	Test site:	Menlo Park	Test date:	Nov-2005	Hardware Avail:	Oct-2005	Software Avail:	Nov-2005

Notes/Tuning Information (Continued)

```
Peak tuning:
 ONESTEP=yes for all peak tests.

 310.wupwise_m   : basepeak=yes
 312.swim_m      : -fast -xipo=2 -xarch=amd64 -xprefetch_level=3 -xvector=simd -xopenmp
 314.mgrid_m     : basepeak=yes
 316.applu_m     : basepeak=yes
 318.galgel_m    : -fast -xipo=2 -xprefetch_level=3 -xvector=simd
                   -xarch=amd64 -xopenmp -xpagesize=2m -xlic_lib=sunperf +FDO
                    RM_SOURCES=lapak.f90
 320.equake_m    : -fast -xipo=2 -xalias_level=strong  -xarch=amd64 -xopenmp
 324.apsi_m      : basepeak=yes
 326.gafort_m    : -fast -xipo=2 -xarch=amd64 -xprefetch_level=3 -xvector=simd
                    -xopenmp -xpagesize=2m
 328.fma3d_m     : -fast -xipo=2 -xprefetch_level=3 -xarch=amd64 -xopenmp -xpagesize=2m +FDO
 330.art_m       : -fast -xcrossfile -xarch=amd64 -xalias_level=std -xopenmp
                   -xpagesize=2m -lmtmalloc -lm
 332.ammp_m      : -fast -xipo=2 -xarch=amd64 -xalias_level=std -xopenmp -xpagesize=2m -lmopt -lm

Portablility flags:
      318.galgel_m      : -e -fixed
      330.art_m         : Extra Flag: -DINTS_PER_CACHELINE=16 -DDBLS_PER_CACHELINE=8

Alternate Source:
      330.art_m         : Required srcalt purdue1 used for base and peak
      312.swim_m        : Approved srcalt ompl.32 used for peak
      320.equake_m      : Approved srcalt ompl.32 used for peak

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 11 Compiler flags, portability flags
and system parameters used to generate this result, please refer to
SUN-20051207-Studio-Solaris-opteron.txt file in the flags directory.

Default BIOS settings used.
This result was measured on Sun Fire X4200;
Sun Fire X4100 with AMD Opteron (TM) 275 and Sun Fire X4200 with
AMD Opteron (TM) 275 are electronically equivalent.
```