OMPM2001 Result

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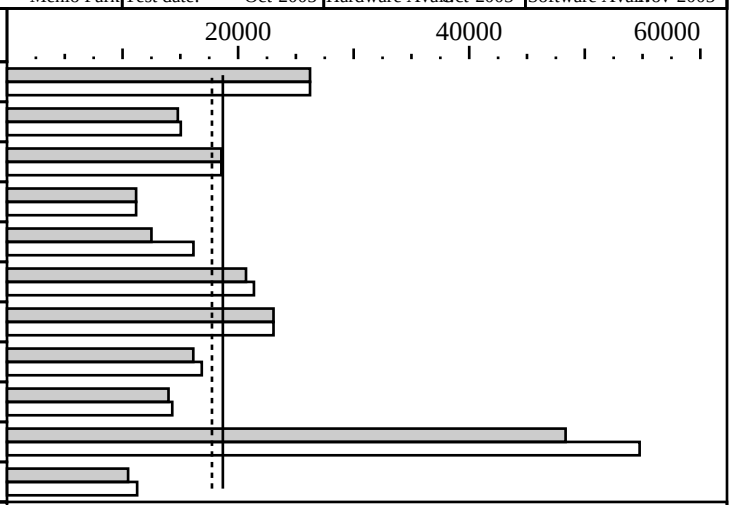
Sun Microsystems
Sun Fire V40z

SPECompMpeak2001 = 18680

SPECompMbase2001 = 17738

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

Benchmark	Reference Time	Base Runtime	Base Ratio	Peak Runtime	Peak Ratio
310.wupwise_m	6000	229	26224	229	26224
312.swim_m	6000	406	14783	399	15039
314.mgrid_m	7300	394	18551	394	18551
316.applu_m	4000	358	11173	358	11173
318.galgel_m	5100	408	12500	316	16136
320.equake_m	2600	126	20683	122	21370
324.apsi_m	3400	147	23064	147	23064
326.gafort_m	8700	540	16122	516	16856
328.fma3d_m	4600	329	13978	322	14301
330.art_m	6400	132	48340	117	54746
332.ammp_m	7000	668	10480	622	11263



Hardware

CPU:	AMD Opteron (TM) 880
CPU MHz:	2400
FPU:	Integrated
CPU(s) enabled:	8 cores, 4 chips, 2 cores/chip
CPU(s) orderable:	2,4 (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:	32GB (16x2GB, PC3200 CL3 DDR SDRAM ECC Registered)
Disk Subsystem:	SCSI, 73GB, 10K RPM
Other Hardware:	None

Software

OpenMP Threads:	8
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 -Xc -xipo=2 -xalias_level=strong -xarch=amd64 -xopenmp
   ONESTEP=yes

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

 +MPSS mean setting the following environment variables:
```

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Notes/Tuning Information (Continued)

```
  MPSSHEAP=2m
  MPSSSTACK=2m
  LD_PRELOAD=mpss.so.1

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 -qoption iropt -xprefetch_level=3 -xvector=simd
                   -xarch=amd64 -xopenmp -xlic_lib=sunperf +FDO +MPSS
                   RM_SOURCES=lapak.f90
  320.equake_m   : -fast -Xc -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 +MPSS
  328.fma3d_m    : -fast -xipo=2 -xprefetch_level=3 -xarch=amd64 -xopenmp +FDO +MPSS
  330.art_m      : -fast -Xc -xcrossfile -xarch=amd64 -xalias_level=std -xopenmp
                   -lmtmalloc -lm +MPSS
  332.ammp_m     : -fast -Xc -xipo=2 -xarch=amd64 -xalias_level=std -xopenmp -lmopt -lm
                   +MPSS

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=8
  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-20051104-Studio-Solaris-opteron.txt file in the flags directory.

Default BIOS settings used.
```