OMPM2001 Result

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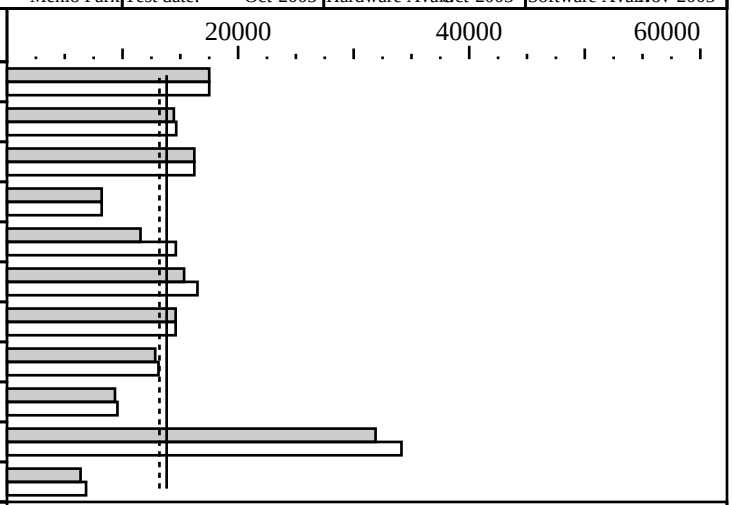
Sun Microsystems
Sun Fire V40z

SPECompMpeak2001 = 13817

SPECompMbase2001 = 13195

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	343	17500	343	17500
312.swim_m	6000	416	14440	410	14644
314.mgrid_m	7300	450	16211	450	16211
316.applu_m	4000	488	8194	488	8194
318.galgel_m	5100	441	11554	349	14612
320.equake_m	2600	170	15326	158	16483
324.apsi_m	3400	233	14594	233	14594
326.gafort_m	8700	678	12826	664	13111
328.fma3d_m	4600	492	9344	481	9559
330.art_m	6400	201	31896	187	34138
332.ammp_m	7000	1100	6365	1023	6843



Hardware

CPU:	AMD Opteron (TM) 854
CPU MHz:	2800
FPU:	Integrated
CPU(s) enabled:	4 cores, 4 chips, 1 core/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:	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 -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=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-20051104-Studio-Solaris-opteron.txt file in the flags directory.

  Default BIOS settings used.
```