OMPM2001 Result

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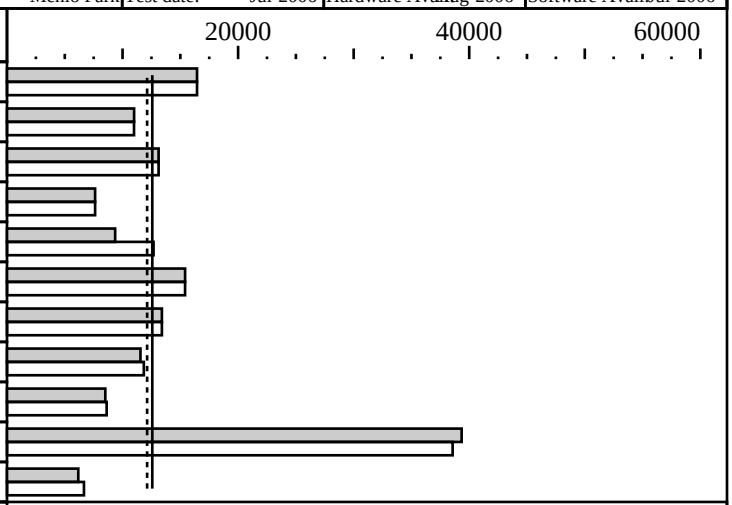
Sun Microsystems
Sun Fire X2200 M2

SPECompMpeak2001 = 12574

SPECompMbase2001 = 12127

SPEC license #:HPG0010 | Tested by: Sun Microsystems, Santa Clara | Test site: Menlo Park | Test date: Jul-2006 | Hardware Avail:Aug-2006 | Software Avail:Jul-2006

Benchmark	Reference Time	Base Runtime	Base Ratio	Peak Runtime	Peak Ratio
310.wupwise_m	6000	365	16445	365	16445
312.swim_m	6000	546	10999	546	10992
314.mgrid_m	7300	556	13119	556	13119
316.applu_m	4000	525	7624	525	7624
318.galgel_m	5100	545	9360	402	12681
320.equake_m	2600	169	15412	169	15410
324.apsi_m	3400	254	13403	254	13403
326.gafort_m	8700	753	11550	735	11841
328.fma3d_m	4600	541	8508	533	8624
330.art_m	6400	163	39343	166	38564
332.ammp_m	7000	1135	6169	1051	6660



Hardware

CPU:	AMD Opteron (TM) 2218
CPU MHz:	2600
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, DDR2-667 CL5 ECC Reg)
Disk Subsystem:	SATA,250GB,7200RPM
Other Hardware:	None

Software

OpenMP Threads:	4
Parallel:	OpenMP
Operating System:	Solaris 10 6/06
Compiler:	Sun Studio 11 with Patches
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

 Peak tuning:
```

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Notes/Tuning Information (Continued)

```
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 -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 -xipo=2 -xalias_level=strong  -xarch=amd64 -xopenmp
324.apsi_m      : basepeak=yes
326.gafort_m    : -fast -xpagesize=2m -xipo=2 -xarch=amd64 -xprefetch_level=3 -xvector=simd
                  :  -xopenmp
328.fma3d_m     : -fast -xpagesize=2m -xipo=2 -xprefetch_level=3 -xarch=amd64 -xopenmp +FDO
330.art_m       : -fast -xpagesize=2m -xipo=2 -xarch=amd64 -xalias_level=std -xopenmp
                  -lmtmalloc -lm
332.ammp_m      : -fast -xpagesize=2m -xipo=2 -xarch=amd64 -xalias_level=std -xopenmp -lmopt -lm

Portablility flags:
      318.galgel_m      : -e -fixed

Extra art Base 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

The following patches were applied to Sun Studio 11 compiler:
120759-07 : x86/x64
121016-03 : x86 C
121020-03 : x86 F90
121018-03 : x86 C++

For a description of Sun Studio 10 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.
```