OMPM2001 Result

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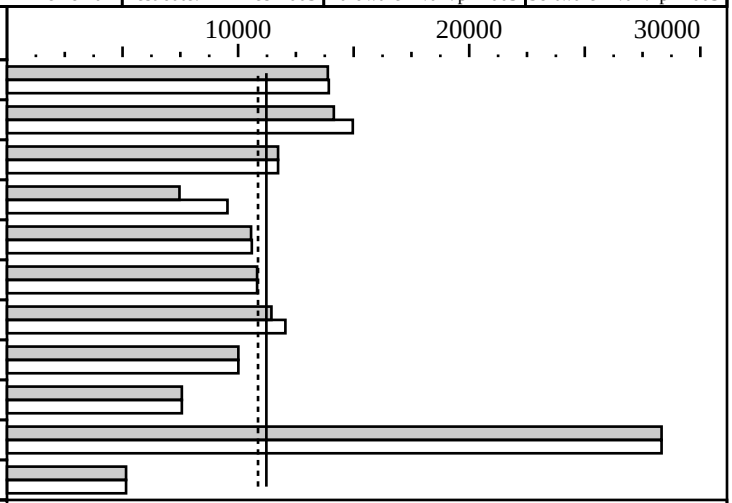
Sun Microsystems
Sun Fire V40z

SPECompMpeak2001 = 11223

SPECompMbase2001 = 10862

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

Benchmark	Reference Time	Base Runtime	Base Ratio	Peak Runtime	Peak Ratio
310.wupwise_m	6000	432	13882	431	13924
312.swim_m	6000	424	14142	401	14962
314.mgrid_m	7300	622	11729	622	11729
316.applu_m	4000	536	7463	419	9540
318.galgel_m	5100	483	10561	481	10593
320.equake_m	2600	240	10822	240	10822
324.apsi_m	3400	297	11442	282	12046
326.gafort_m	8700	869	10011	869	10011
328.fma3d_m	4600	608	7566	608	7566
330.art_m	6400	226	28323	226	28323
332.ammp_m	7000	1359	5152	1359	5152



Hardware

CPU:	AMD Opteron (TM) 852
CPU MHz:	2600
FPU:	Integrated
CPU(s) enabled:	4 cores, 4 chips, 1 core/chip
CPU(s) orderable:	1,2,4
Primary Cache:	64KBI + 64KBD on chip
Secondary Cache:	1024KB (I+D) on chip
L3 Cache:	None
Other Cache:	None
Memory:	16GB (8x2GB, PC3200 CL3 DDR SDRAM ECC Registered)
Disk Subsystem:	SCSI, 73GB, 10K RPM
Other Hardware:	None

Software

OpenMP Threads:	4
Parallel:	OpenMP
Operating System:	SUSE LINUX Enterprise Server 9
Compiler:	PathScale EKOPath Compiler Suite, Release 2.1
File System:	ufs
System State:	Multi-User

Notes/Tuning Information

```
Baseline Optimization Flags:
  Fortran : -Ofast -OPT:early_mp=on -mcmodel=medium -mp
  C       : -Ofast -mp

Peak Optimization Flags:
  310.wupwise_m : -mp -Ofast -mcmodel=medium -LNO:prefetch_ahead=5:prefetch=3 -TENV:X=4
                  -OPT:unroll_times_max=8:unroll_size=128:IEEE_NaN_Inf=off:ro=3
  312.swim_m    : -mp -O3 -OPT:Ofast -m3dnow -mcmodel=medium -LNO:simd=0
  314.mgrid_m   :  basepeak=yes
  316.applu_m   :  -mp -Ofast -mcmodel=medium -CG:local_fwd_sched=on
                  -LNO:fusion=2:fission=2:full_unroll_size=10000:prefetch=3 -TENV:X=3
  318.galgel_m  :  -Ofast -mp -OPT:early_mp=on
  320.equake_m  :  basepeak=yes
  324.apsi_m    :  -mp -O3 -OPT:Ofast -TENV:x=4 -LNO:fusion=2:prefetch=0
  326.gafort_m  :  basepeak=yes
  328.fma3d_m   :  basepeak=yes
  330.art_m     :  basepeak=yes
  332.ammp_m    :  basepeak=yes

Alternate Source:
  330.art_m  :  required srcalt purdue1 used for base and peak
  316.applu_m:  approved srcalt ompl.32 used for peak
  324.apsi_m :  approved srcalt ompl.32 used for peak
```

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Notes/Tuning Information (Continued)

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Portability Flags:
  318.galgel_m      : -fixedform -extend_source
  330.art_m         : Extra Flag: -DINTS_PER_CACHELINE=16 -DDBLS_PER_CACHELINE=8

Base and Peak User Environment:
  export OMP_NUM_THREADS=4
  export OMP_GUIDED_CHUNK_MAX=300
  ulimit -s unlimited

Default BIOS settings used.

For a description of PathScale EKOPath Compiler Suite, Release 2.1 flags,
portability flags and system parameters used to generate this result,
please refer to SUN-20050302-PathScale2.1-SuSE-opteron.txt file in the
flags directory.
```