OMPM2001 Result

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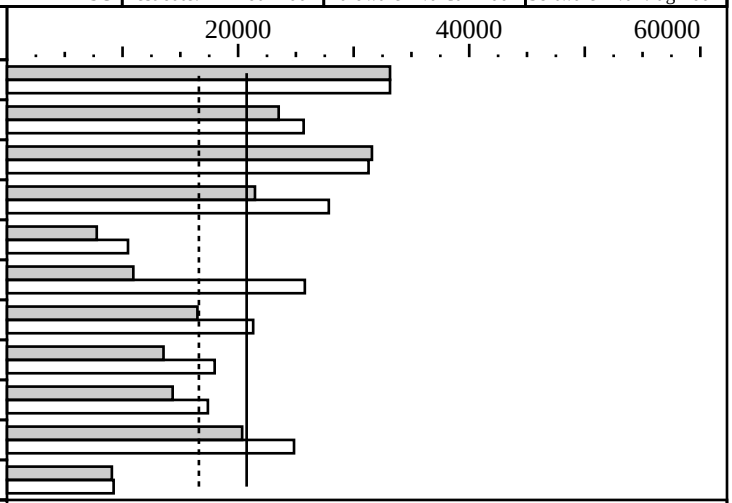
SGI
SGI Origin 3800 64X 600MHz R14000A

SPECompMpeak2001 = 20739

SPECompMbase2001 = 16607

SPEC license #HPG0014 | Tested by: SGI | Test site: SGI | Test date: Jul-2002 | Hardware Avail: Jan-2002 | Software Avail: Aug-2002

Benchmark	Reference Time	Base Runtime	Base Ratio	Peak Runtime	Peak Ratio
310.wupwise_m	6000	181	33146	181	33146
312.swim_m	6000	255	23510	234	25671
314.mgrid_m	7300	231	31581	233	31289
316.applu_m	4000	186	21459	144	27849
318.galgel_m	5100	657	7767	487	10472
320.equake_m	2600	238	10932	101	25774
324.apsi_m	3400	206	16479	160	21303
326.gafort_m	8700	642	13545	484	17972
328.fma3d_m	4600	321	14336	265	17384
330.art_m	6400	315	20350	258	24838
332.ammp_m	7000	771	9075	759	9227



Hardware

CPU:	R14000A
CPU MHz:	600
FPU:	Integrated
CPU(s) enabled:	64
CPU(s) orderable:	2-512
Primary Cache:	32KBI + 32KBD on chip
Secondary Cache:	8MB(I+D) off chip
L3 Cache:	N/A
Other Cache:	N/A
Memory:	64 GB
Disk Subsystem:	1 x 18 GB FC, 20x 18 GB (striped) FC
Other Hardware:	None

Software

OpenMP Threads:	64
Parallel:	OpenMP
Operating System:	IRIX 6.5.17f
Compiler:	MIPSpro 7.3.1.3m C, Fortran90
File System:	xfs
System State:	Single-user

Notes/Tuning Information

```
Baseline flags (C benchmarks): -64 -mp -Ofast=ip35 -LNO:prefetch=0 -CG:ld_latency=7
Baseline flags (Fortran benchmarks): -64 -mp -Ofast=ip35 -LNO:fusion=2
Portability Flags:
   318.galgel_m: -fixedform -extend_source

Peak flags:
310.wupwise_m: basepeak=true
312.swim_m: -64 -mp -Ofast=ip35 -LNO:fusion=2
314.mgrid_m: -64 -mp -Ofast=ip35 -LNO:fusion=2
316.applu_m: -64 -mp -Ofast=ip35 -LNO:prefetch=0:fusion=2 -CG:ld_latency=3
318.galgel_m: -64 -mp -Ofast=ip35
320.equake_m: -64 -mp -Ofast=ip35 -CG:ld_latency=7
324.apsi_m: -64 -mp -Ofast=ip35 -LNO:prefetch=0:blocking=off -IPA:linear=on
326.gafort_m: -64 -mp -Ofast=ip35
328.fma3d_m: -64 -mp -Ofast=ip35 -bigp_off -LNO:prefetch=0 -CG:ld_latency=2 -OPT:goto=off
330.art_m: -64 -mp -Ofast=ip35 -LNO:prefetch=0 -CG:ld_latency=3
332.ammp_m: -64 -mp -Ofast=ip35 -OPT:goto=off -CG:ld_latency=7

Baseline user environment:
   limit stacksize 512m
   OMP_NUM_THREADS=64
   OMP_DYNAMIC=FALSE
   MPC_GANG=OFF
```

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Notes/Tuning Information (Continued)

```
   _DSM_MUSTRUN=

Peak user environment:
316.applu_m: PAGESIZE_DATA=4096, PAGESIZE_STACK=4096, _DSM_PLACEMENT=ROUND_ROBIN
318.galgel_m: _DSM_PLACEMENT=ROUND_ROBIN, OMP_NUM_THREADS=40
324.apsi_m: PAGESIZE_DATA=4096, PAGESIZE_STACK=4096
332.ammp_m: PAGESIZE_DATA=1024, PAGESIZE_STACK=1024, _DSM_PLACEMENT=ROUND_ROBIN

Peak sources:
SPEC OMPL2001 source for 64bit systems modified for SPEC OMPM2001.
Available as SPEC OMPM2001 Source: ompm2001-srcl64bit-20020807.tar.gz.
For 312.swim, 314.mgrid, 320.equake, 324.apsi, 326.gafort, 328.fma3d, and 330.art.

The following O/S parameters were set via systune:
   percent_totalmem_4m_pages = 25 ; percent_totalmem_1m_pages = 25
   percent_totalmem_256k_pages = 10 ; percent_totalmem_64k_pages = 10
```