OMPM2001 Result

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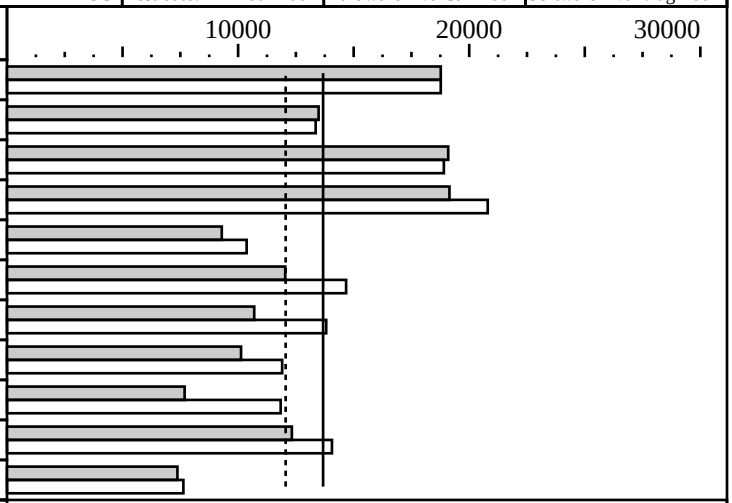
SGI
SGI Origin 3800 32X 600MHz R14000A

SPECompMpeak2001 = 13677

SPECompMbase2001 = 12057

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	320	18769	320	18769
312.swim_m	6000	445	13483	449	13357
314.mgrid_m	7300	382	19090	386	18902
316.applu_m	4000	209	19144	192	20801
318.galgel_m	5100	549	9293	492	10369
320.equake_m	2600	216	12039	177	14673
324.apsi_m	3400	318	10698	246	13812
326.gafort_m	8700	859	10127	731	11906
328.fma3d_m	4600	599	7685	388	11842
330.art_m	6400	519	12325	455	14061
332.ammp_m	7000	949	7375	917	7632



Hardware

CPU:	R14000A
CPU MHz:	600
FPU:	Integrated
CPU(s) enabled:	32
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:	32 GB
Disk Subsystem:	1 x 18 GB FC, 20x 18 GB (striped) FC
Other Hardware:	None

Software

OpenMP Threads:	32
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=32
   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
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
```