



OMPM2001 Result

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SGI
SGI Origin300 8X 500MHz R14k

SPECompMpeak2001 = 3502

SPECompMbase2001 = 3438

SPEC license #HPG0014 | Tested by: SGI | Test site: | Test date: Oct-2001 | Hardware Avail: Jan-2002 | Software Avail: Sep-2001

Benchmark	Reference Time	Base Runtime	Base Ratio	Peak Runtime	Peak Ratio	2000 4000 6000 8000			
310.wupwise_m	6000	1671	3590	1631	3679	[Bar chart showing performance relative to reference]			
312.swim_m	6000	1646	3644	1642	3655	[Bar chart showing performance relative to reference]			
314.mgrid_m	7300	1991	3666	1981	3686	[Bar chart showing performance relative to reference]			
316.applu_m	4000	1392	2874	1278	3129	[Bar chart showing performance relative to reference]			
318.galgel_m	5100	1298	3930	1291	3951	[Bar chart showing performance relative to reference]			
320.earthquake_m	2600	735	3535	738	3523	[Bar chart showing performance relative to reference]			
324.apsi_m	3400	783	4345	741	4590	[Bar chart showing performance relative to reference]			
326.gafort_m	8700	2248	3870	2212	3934	[Bar chart showing performance relative to reference]			
328.fma3d_m	4600	1562	2944	1546	2975	[Bar chart showing performance relative to reference]			
330.art_m	6400	2067	3097	2070	3092	[Bar chart showing performance relative to reference]			
332.ammp_m	7000	2589	2704	2582	2711	[Bar chart showing performance relative to reference]			

Hardware

CPU: R14000
 CPU MHz: 500
 FPU: Integrated
 CPU(s) enabled: 8
 CPU(s) orderable: 2-32
 Primary Cache: 32KBI + 32KBD on chip
 Secondary Cache: 2MB(I+D) off chip
 L3 Cache: N/A
 Other Cache: N/A
 Memory: 8 GB
 Disk Subsystem: 1 x 18 GB FC, 4x 36 GB (striped) FC
 Other Hardware: None

Software

OpenMP Threads: 8
 Parallel: --
 Operating System: IRIX 6.5.13m
 Compiler: MIPSpro 7.3.1.2m C, Fortran90
 File System: xfs
 System State: Multi-user

Notes/Tuning Information

Baseline flags: -64 -mp -Ofast=ip35 -LNO:fusion=2

Portability Flags:

318.galgel_m: -fixedform -extend_source

Peak flags:

310.wupwise_m: -64 -mp -Ofast=ip27 -LNO:fusion=2:prefetch Ahead=5 -INLINE:aggressive=on

. -IPA:space=1000:linear=on:plimit=10000:callee_limit=5000 -OPT:Olimit=0

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:ou_max=5:ou_prod_max=10:prefetch=0:fusion=2

. -CG:ld_latency=3

318.galgel_m: -64 -mp -Ofast=ip35 -LNO:fusion=2

320.earthquake_m: -64 -mp -Ofast=ip35 -LNO:fusion=2

324.apsi_m: -64 -mp -Ofast=ip35 -LNO:fusion=2 -TENV:X=4 -LNO:prefetch=0:blocking=off

326.gafort_m: -64 -mp -Ofast=ip35

328.fma3d_m: -64 -mp -Ofast=ip35 -LNO:fusion=2 -CG:ld_latency=3

. -IPA:linear=on:use_intrinsic

330.art_m: -64 -mp -Ofast=ip35 -LNO:fusion=2

332.ammp_m: -64 -mp -Ofast=ip35 -LNO:fusion=2:prefetch=0

Baseline user environment:

limit stacksize 512m

OMP_NUM_THREADS=8

Standard Performance Evaluation Corporation

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Notes/Tuning Information (Continued)

```
OMP_DYNAMIC=FALSE
MPC_GANG=OFF
_DSM_WAIT=SPIN
PAGESIZE_DATA 4096
PAGESIZE_STACK 4096
```

Peak user environment:

```
316.applu_m: _DSM_PLACEMENT=ROUND_ROBIN
332.ammp_m: _DSM_PLACEMENT=ROUND_ROBIN
```

The following O/S parameters were set via systune:

```
percent_totalmem_4m_pages = 70 ; percent_totalmem_1m_pages = 7
percent_totalmem_256k_pages = 7 ; percent_totalmem_64k_pages = 6
```