# OMPM2001 Result

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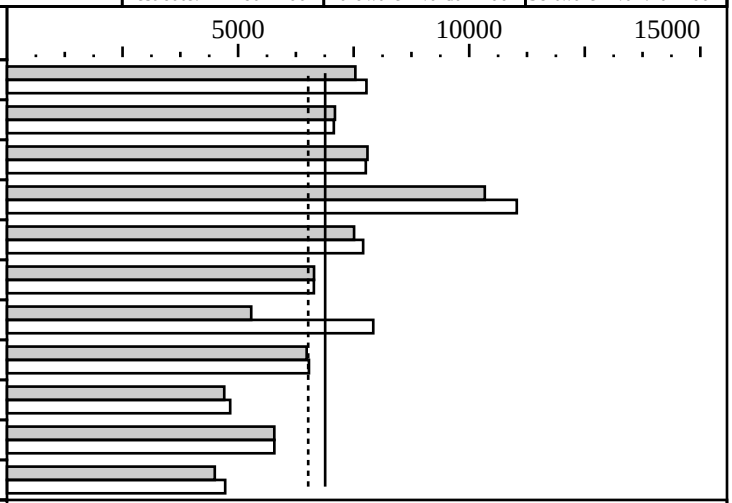
## SGI
## SGI Origin 3800 16X 500MHz R14k

SPECompMpeak2001 = 6883
SPECompMbase2001 = 6517

| SPEC license #HPG0014 | Tested by: SGI | Test site: | Test date: Jun-2001 | Hardware Avail Jun-2001 | Software Avail Mar-2001 |
|---|---|---|---|---|---|

| Benchmark | Reference Time | Base Runtime | Base Ratio | Peak Runtime | Peak Ratio |
|---|---|---|---|---|---|
| 310.wupwise_m | 6000 | 796 | 7537 | 772 | 7777 |
| 312.swim_m | 6000 | 846 | 7095 | 849 | 7071 |
| 314.mgrid_m | 7300 | 936 | 7799 | 940 | 7763 |
| 316.applu_m | 4000 | 387 | 10337 | 363 | 11029 |
| 318.galgel_m | 5100 | 679 | 7509 | 662 | 7705 |
| 320.equake_m | 2600 | 391 | 6643 | 392 | 6639 |
| 324.apsi_m | 3400 | 644 | 5284 | 429 | 7924 |
| 326.gafort_m | 8700 | 1342 | 6483 | 1332 | 6533 |
| 328.fma3d_m | 4600 | 979 | 4700 | 953 | 4829 |
| 330.art_m | 6400 | 1107 | 5783 | 1106 | 5784 |
| 332.ammp_m | 7000 | 1557 | 4495 | 1483 | 4720 |




### Hardware

| | |
|---|---|
| CPU: | R14000 |
| CPU MHz: | 500 |
| FPU: | Integrated |
| CPU(s) enabled: | 16 |
| 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: | 16 GB |
| Disk Subsystem: | 1 x 18 GB FC |
| Other Hardware: | None |

### Software

| | |
|---|---|
| OpenMP Threads: | 16 |
| Parallel: | -- |
| Operating System: | IRIX 6.5.12m |
| 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.equake_m: -64 -mp -Ofast=ip35 -OPT:goto=off:unroll_size=160:unroll_times_max=4
.             -CG:ld_latency=3
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
```

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## Notes/Tuning Information (Continued)

```
    OMP_NUM_THREADS=16
    OMP_DYNAMIC=FALSE
    MPC_GANG=OFF
    _DSM_WAIT=SPIN

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

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
```