# OMPL2001 Result

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## Hewlett-Packard Company

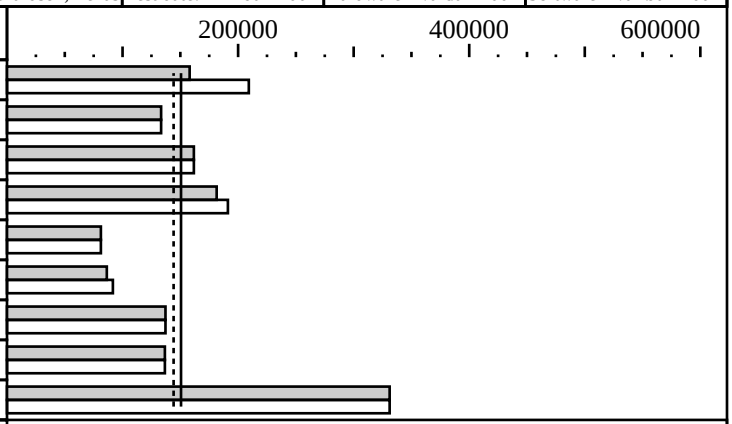
HP Superdome 64-way (875MHz PA-8700+)

SPECompLpeak2001 = 150600

SPECompLbase2001 = 144183

SPEC license #HPG0001 | Tested by: Hewlett-Packard Company | Test site: Richardson, Texas | Test date: Jun-2002 | Hardware Avail:Jun-2002 | Software Avail:Jun-2002

| Benchmark | Reference Time | Base Runtime | Base Ratio | Peak Runtime | Peak Ratio |
|---|---|---|---|---|---|
| 311.wupwise_l | 9200 | 931 | 158057 | 703 | 209264 |
| 313.swim_l | 12500 | 1500 | 133369 | 1500 | 133369 |
| 315.mgrid_l | 13500 | 1336 | 161707 | 1336 | 161707 |
| 317.applu_l | 13500 | 1190 | 181440 | 1130 | 191168 |
| 321.equake_l | 13000 | 2560 | 81246 | 2560 | 81246 |
| 325.apsi_l | 10500 | 1945 | 86376 | 1834 | 91627 |
| 327.gafort_l | 11000 | 1283 | 137146 | 1283 | 137146 |
| 329.fma3d_l | 23500 | 2752 | 136624 | 2752 | 136624 |
| 331.art_l | 25000 | 1208 | 331133 | 1208 | 331133 |




### Hardware

| | |
|---|---|
| CPU: | PA-8700+ |
| CPU MHz: | 875 |
| FPU: | Integrated |
| CPU(s) enabled: | 64 |
| CPU(s) orderable: | 8 to 64 |
| Primary Cache: | 0.75MB(I) + 1.5MB(D) on chip |
| Secondary Cache: | None |
| L3 Cache: | None |
| Other Cache: | None |
| Memory: | 256GB |
| Disk Subsystem: | 5x9GB Fiberchannel (striped)<br>1x9GB SCSI disk (root), 28x9GB FC disks (swap) |
| Other Hardware: | 16 cells |

### Software

| | |
|---|---|
| OpenMP Threads: | 64 |
| Parallel: | OpenMP |
| Operating System: | HP-UX 11i TCOE B.11.11.0206.5 |
| Compiler: | HP C/ANSI C Compiler v11.11.04<br>HP Fortran 90 Compiler v2.5.14<br>HP aC++ Compiler A.03.35 |
| | PHSS_26263 ld(1) and linker tools patch<br>PHSS_25719 LIBCL patch<br>PHSS_26913 CPSlib patch<br>PHSS_26792 ANSI C compiler patch<br>PHSS_26793 +O4/PBO compiler patch<br>PHSS_27072 Fortran90 compiler patch<br>PHSS_26952 aC++ -AA runtime libraries<br>PHSS_24207 libm patch<br>PHSS_26264 linker startup code |
| File System: | Online JFS |
| System State: | Multi-user |

## Notes/Tuning Information

```
User environment:
   OMP_NUM_THREADS=64
Kernel Paramters (/stand/system):
   maxdsiz          3221225472
   maxdsiz_64bit    274877906944
   maxssiz          0x10000000
   maxssiz_64bit    1073741824
   maxtsiz          1073741824
   maxtsiz_64bit    4294967296
   vps_pagesize     4096
   vps_ceiling      16384
   dbc_min_pct      10
   dbc_max_pct      10
Base:
   F90  +O3 +Oall +Ofltacc -Wl,+FPD  +Oopenmp
        -Wl,-aarchive  +Oinfo +DA2.0W +Oloop_unroll=2
   aCC   +Oall +Oopenmp  +Oinfo -Wl,-aarchive  +DA2.0W
   PASS1_CFLAGS    +I
   PASS1_LDCFLAGS  +I -Wl,-aarchive
   PASS2_CFLAGS    +P +Ostatic_prediction
   PASS2_LDCFLAGS  +P +Ostatic_prediction -Wl,-aarchive
```

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## Notes/Tuning Information (Continued)

Peak:

311.wupwise_l: +O3 +Oall +Onofltacc -Wl,+FPD
+Oopenmp -Wl,-aarchive +Oinfo +DA2.0W
+Oloop_unroll=2 +cat +Oinline_budget=10000
ONESTEP = true

317.applu_l: +O3 +Oall +Onofltacc -Wl,+FPD
+Oopenmp -Wl,-aarchive +Oinfo +DA2.0W
+Oloop_unroll=2 +Ono_ptrs_to_globals

325.apsi_l: +O3 +Oall +Onofltacc -Wl,+FPD
+Oopenmp -Wl,-aarchive +Oinfo +DA2.0W
+Oloop_unroll=2 +Onodataprefetch