



OMPM2001 Result

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Hewlett-Packard Company
hp server rp7410 (875MHz PA-8700+)

SPECompMpeak2001 = 4541
SPECompMbase2001 = 4375

SPEC license #HPG2116 | Tested by: Hewlett-Packard Company | Test site: Richardson, Texas | Test date: Jun-2002 | Hardware Avail: Jul-2002 | Software Avail: Jun-2002

Benchmark	Reference Time	Base Runtime	Base Ratio	Peak Runtime	Peak Ratio
310.wupwise_m	6000	1279	4690	965	6216
312.swim_m	6000	1306	4593	1306	4593
314.mgrid_m	7300	1826	3999	1826	3999
316.applu_m	4000	830	4817	831	4814
318.galgel_m	5100	1659	3074	1666	3061
320.earthquake_m	2600	619	4203	619	4203
324.apsi_m	3400	797	4265	698	4870
326.gafort_m	8700	1885	4615	1885	4615
328.fma3d_m	4600	1135	4054	1135	4054
330.art_m	6400	707	9047	707	9047
332.ammp_m	7000	2408	2907	2408	2907

Hardware	Software
CPU: PA-8700+ CPU MHz: 875 FPU: Integrated CPU(s) enabled: 8 CPU(s) orderable: 2 to 8 by 2 Primary Cache: 0.75MB(I) + 1.5MB(D) on chip Secondary Cache: None L3 Cache: None Other Cache: None Memory: 16GB (32x512MB DIMMs) Disk Subsystem: 2x18 GB SCSI Other Hardware: 2 cells	OpenMP Threads: 8 Parallel: OpenMP Operating System: HP-UX 11i TCOE B.11.11.0206.5 Compiler: HP C/ANSI C Compiler v11.11.04 HP Fortran 90 Compiler v2.5.14 HP aC++ Compiler A.03.35 PHSS_26263 ld(1) and linker tools patch PHSS_25719 LIBCL patch PHSS_26913 CPSlib patch PHSS_26792 ANSI C compiler patch PHSS_26793 +O4/PBO compiler patch PHSS_27072 Fortran90 compiler patch PHSS_26952 aC++ -AA runtime libraries PHSS_24207 libm patch PHSS_26264 linker startup code File System: Online JFS System State: Multi-user

Notes/Tuning Information

```

User environment:
OMP_NUM_THREADS=8
CPS_STACK_SIZE=128
Kernel Parameters (/stand/system):
maxdsiz      0X80000000
maxdsiz_64bit 0X400000000
maxssiz      0X10000000
maxssiz_64bit 0X400000000
maxtsiz      0X40000000
maxtsiz_64bit 0X400000000
vps_pagesize 4096
vps_ceiling  16384
dbc_min_pct  10
dbc_max_pct  10
Base:
F90 +O3 +Oa11 +Onofltacc -Wl,+FPD +Oopenmp
    -Wl,-aarchive +Oinfo +DA2.0 -N +Oloop_unroll=2
aCC  +Oa11 +DA2.0W +Oopenmp +Oinfo -Wl,-aarchive
  
```



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Notes/Tuning Information (Continued)

```
PASS1_CFLAGS      +I
PASS1_LDCFLAGS    +I -Wl,-aarchive
PASS2_CFLAGS      +P +Ostatic_prediction
PASS2_LDCFLAGS    +P +Ostatic_prediction -Wl,-aarchive
```

Peak:

```
310.wupwise_m:    +O3 +Oall +Onofltacc -Wl,+FPD
                  +Oopenmp -Wl,-aarchive +Oinfo +DA2.0 -N
                  +Oloop_unroll=2 +cat +Oinline_budget=10000
                  ONESTEP = true
```

```
316.applu_m:      +O3 +Oall +Onofltacc -Wl,+FPD
                  +Oopenmp -Wl,-aarchive +Oinfo +DA2.0 -N
                  +Oloop_unroll=2 +Ono_ptrs_to_globals
```

```
318.galgel_m:     +O3 +Oall +Onofltacc -Wl,+FPD
                  +Oopenmp -Wl,-aarchive +Oinfo +DA2.0 -N
                  +Oloop_unroll=2 +Ono_ptrs_to_globals
```

```
324.apsi_m:       +O3 +Oall +Onofltacc -Wl,+FPD
                  +Oopenmp -Wl,-aarchive +Oinfo +DA2.0 -N
                  +Oloop_unroll=2 +Onodataprefetch
```

Alternate Sources

hpg.1 C++ compiler compatible sources
from SPEC ompm2001-isoc-20020619.tar.gz