



OMPM2001 Result

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Hewlett-Packard Company
HP Superdome 16-way (875MHz PA-8700+)

SPECompMpeak2001 = 8788
SPECompMbase2001 = 7763

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

Benchmark	Reference Time	Base Runtime	Base Ratio	Peak Runtime	Peak Ratio	
310.wupwise_m	6000	644	9315	549	10920	
312.swim_m	6000	657	9129	657	9129	
314.mgrid_m	7300	904	8079	904	8079	
316.applu_m	4000	381	10493	381	10493	
318.galgel_m	5100	1114	4579	1114	4579	
320.earthquake_m	2600	395	6589	364	7145	
324.apsi_m	3400	796	4274	258	13154	
326.gafort_m	8700	1002	8684	1002	8684	
328.fma3d_m	4600	731	6293	731	6293	
330.art_m	6400	430	14877	430	14877	
332.ammp_m	7000	858	8161	858	8161	

Hardware

CPU: PA-8700+
 CPU MHz: 875
 FPU: Integrated
 CPU(s) enabled: 16
 CPU(s) orderable: 4 to 16
 Primary Cache: 0.75MB(I) + 1.5MB(D) on chip
 Secondary Cache: None
 L3 Cache: None
 Other Cache: None
 Memory: 64GB
 Disk Subsystem: 5x9GB Fiberchannel (striped)
 1x9GB SCSI disk (root), 28x9GB FC disks (swap)
 Other Hardware: 4 cells

Software

OpenMP Threads: 16
 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 v2.6.1
 HP aC++ Compiler A.03.35
 PHSS_26263 ld(1) and linker tools patch
 PHSS_25719 LIBCL patch
 PHSS_27700 CPSlib patch
 PHSS_26792 ANSIC compiler patch
 PHSS_26793 +O4/PBO compiler patch
 PHSS_27735 Fortran90 compiler patch
 PHSS_26952 aC++ -AA runtime libraries
 PHSS_24207 libm patch
 PHSS_26264 linker startup code

File System: Online JFS
 System State: Single-user

Notes/Tuning Information

Base Flags:

```
F90 +O3 +Oall +Onofltacc -Wl,+FPD +Openmp
      -Wl,-aarchive +Oinfo +DA2.0 -N +Oloop_unroll=2
aCC +Oall +DA2.0W +Openmp +Oinfo -Wl,-aarchive
PASS1_CFLAGS +I
PASS1_LDCFLAGS +I -Wl,-aarchive
PASS2_CFLAGS +P +Ostatic_prediction
PASS2_LDCFLAGS +P +Ostatic_prediction -Wl,-aarchive
```

Peak Flags:

Unless otherwise noted, all tests use:

```
F90 +O3 +Oall +Onofltacc -Wl,+FPD +Openmp
      -Wl,-aarchive +Oinfo +DA2.0 -N +Oloop_unroll=2
aCC +Oall +DA2.0W +Openmp +Oinfo -Wl,-aarchive
```

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



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Notes/Tuning Information (Continued)

ONESTEP = true

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

Alternate Source used for (both) Base (and Peak):
ISO C and C++ compatible sources available as:
SPEC OMPM2001 Source: ompm2001-isoc-20020619.tar.gz
(BASE) 320.equake_m, 330.art_m, 332.amp_m
(PEAK) 330.art_m, 332.amp_m

Peak Source:
SPEC OMPL2001 source for 64bit systems available as:
SPEC OMPM2001 Source: ompm2001-srcl32bit-20020822.tar.gz
Used for 320.equake_m, 324.apsi_m

Base and Peak User Environment:
CPS_STACK_SIZE=128

Peak User Environment:
310.wupwise_m: ONESTEP = true

Kernel Parameters (/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