OMPM2001 Result

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Hewlett-Packard Company

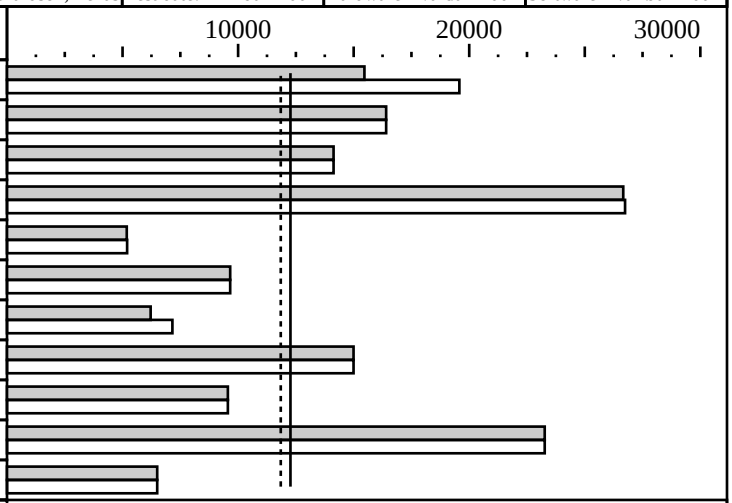
HP Superdome 32-way (875MHz PA-8700+)

SPECompMpeak2001 = 12265

SPECompMbase2001 = 11846

SPEC license #HPG2116 | 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
310.wupwise_m	6000	388	15466	307	19574
312.swim_m	6000	366	16406	366	16406
314.mgrid_m	7300	517	14130	517	14130
316.applu_m	4000	150	26665	150	26743
318.galgel_m	5100	984	5182	981	5198
320.equake_m	2600	269	9657	269	9657
324.apsi_m	3400	547	6215	475	7157
326.gafort_m	8700	580	14995	580	14995
328.fma3d_m	4600	481	9557	481	9557
330.art_m	6400	275	23267	275	23267
332.ammp_m	7000	1077	6499	1077	6499



Hardware

CPU:	PA-8700+
CPU MHz:	875
FPU:	Integrated
CPU(s) enabled:	32
CPU(s) orderable:	4 to 32
Primary Cache:	0.75MB(I) + 1.5MB(D) on chip
Secondary Cache:	None
L3 Cache:	None
Other Cache:	None
Memory:	64GB
Disk Subsystem:	80x36GB FibreChannel (striped) 1x9GB SCSI disk (root) 17x9GB disk (swap)
Other Hardware:	8 cells

Software

OpenMP Threads:	32
Parallel:	OpenMP
Operating System:	HP-UX 11i TCOE B.11.11.0109
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:	VxFS
System State:	Multi-user

Notes/Tuning Information

```
User environment:
   OMP_NUM_THREADS=32
Kernel Paramters (/stand/system):
   maxdsiz          4294963200
   maxdsiz_64bit    0X4000000000
   maxssiz          256000000
   maxssiz_64bit    1073741824
   maxtsiz          1073741824
   maxtsiz_64bit    1073741824
   vps_pagesize     4096
   vps_ceiling      16384
   dbc_min_pct      50
   dbc_max_pct      50
Base:
   F90  +O3 +Oall +Onofltacc -Wl,+FPD  +Oopenmp
        -Wl,-aarchive  +Oinfo +DA2.0 -N +Oloop_unroll=2
   aCC     +Oall +DA2.0W +Oopenmp  +Oinfo -Wl,-aarchive
   PASS1_CFLAGS    +I
```

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Notes/Tuning Information (Continued)

```
    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
```