OMPM2001 Result

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Hewlett-Packard Company

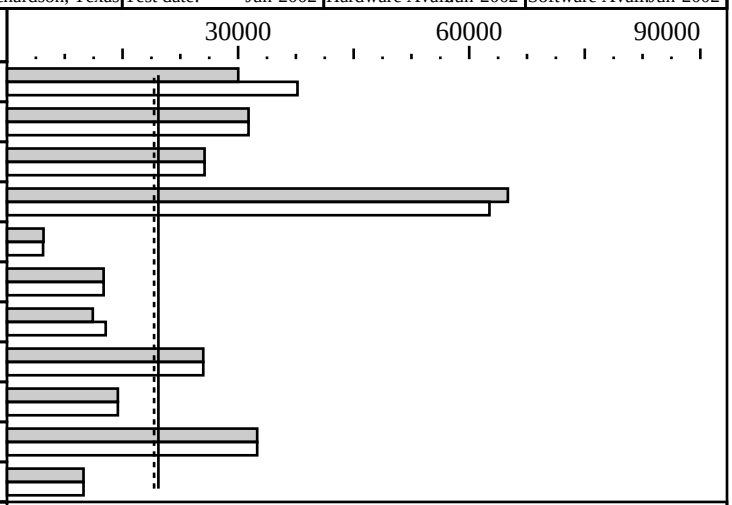
HP Superdome 64-way (875MHz PA-8700+)

SPECompMpeak2001 = 19654

SPECompMbase2001 = 19094

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	200	30017	159	37709
312.swim_m	6000	191	31355	191	31355
314.mgrid_m	7300	285	25646	285	25646
316.applu_m	4000	61.5	65018	63.9	62627
318.galgel_m	5100	1075	4743	1089	4682
320.equake_m	2600	207	12542	207	12542
324.apsi_m	3400	305	11137	265	12814
326.gafort_m	8700	341	25477	341	25477
328.fma3d_m	4600	320	14392	320	14392
330.art_m	6400	197	32476	197	32476
332.ammp_m	7000	705	9934	705	9934



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) 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 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:	Single-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 +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)

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    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
```