OMPM2001 Result

Copyright ©1999-2002, Standard Performance Evaluation Corporation

Hewlett-Packard Company

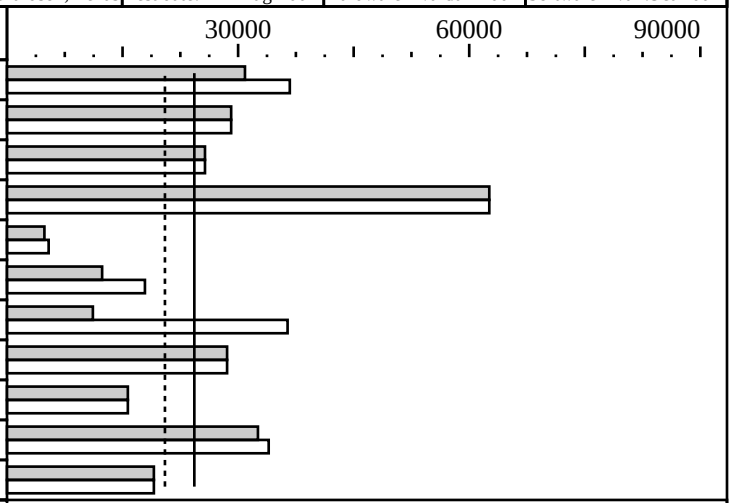
HP Superdome 64-way (875MHz PA-8700+)

SPECompMpeak2001 = 24318

SPECompMbase2001 = 20502

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	194	30890	163	36710
312.swim_m	6000	206	29098	206	29098
314.mgrid_m	7300	284	25700	284	25700
316.applu_m	4000	63.9	62605	63.9	62605
318.galgel_m	5100	1050	4856	943	5406
320.equake_m	2600	211	12348	145	17904
324.apsi_m	3400	305	11147	93.4	36422
326.gafort_m	8700	305	28570	305	28570
328.fma3d_m	4600	293	15687	293	15687
330.art_m	6400	196	32574	188	33968
332.ammp_m	7000	367	19065	367	19065



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 v2.6.1 HP aC++ Compiler A.03.35 PHSS_26263 ld(1) and linker tools patch PHSS_25719 LIBCL patch PHSS_27700 CPSlib patch PHSS_26792 ANSI C 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  +Oopenmp
       -Wl,-aarchive  +Oinfo +DA2.0 -N +Oloop_unroll=2
   aCC     +Oall +DA2.0W +Oopenmp +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  +Oopenmp
       -Wl,-aarchive  +Oinfo +DA2.0 -N +Oloop_unroll=2
   aCC     +Oall +DA2.0W +Oopenmp +Oinfo -Wl,-aarchive

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

Copyright ©1999-2002, Standard Performance Evaluation Corporation

Notes/Tuning Information (Continued)

```
    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 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.ammp_m
    (PEAK) 332.ammp_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, and 330.art_m

Base and Peak User Environment:
   CPS_STACK_SIZE=128

Peak User Environment:
   310.wupwise_m: ONESTEP = true
   318.galgel_m:  submit with OMP_NUM_THREADS=40

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
```