



# OMPL2001 Result

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**Hewlett-Packard Company**  
hp server rp8400 (875MHz PA-8700+)

SPECompLpeak2001 = 42864  
SPECompLbase2001 = 41056

SPEC license #HPG0001 | 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
311.wupwise_1	9200	3246	45348	2273	64770
313.swim_1	12500	5527	36189	5527	36189
315.mgrid_1	13500	4980	43377	4980	43377
317.applu_1	13500	5968	36196	5783	37353
321.quake_1	13000	6763	30755	6763	30755
325.apsi_1	10500	6685	25132	6685	25132
327.gafort_1	11000	4396	40037	4396	40037
329.fma3d_1	23500	8811	42674	8811	42674
331.art_1	25000	4107	97397	4107	97397

### Hardware

CPU: PA-8700+  
 CPU MHz: 875  
 FPU: Integrated  
 CPU(s) enabled: 16  
 CPU(s) orderable: 2 to 16 by 2  
 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 v2.5.14  
 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=16  
 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 +OfIltacc -Wl,+FPD +Oopenmp  
 -Wl,-aarchive +Oinfo +DA2.0W +Oloop\_unroll=2  
 aCC +Oall +Oopenmp +Oinfo -Wl,-aarchive +DA2.0W  
 PASS1\_CFLAGS +I  
 PASS1\_LDCFLAGS +I -Wl,-aarchive  
 PASS2\_CFLAGS +P +Ostatic\_prediction  
 PASS2\_LDCFLAGS +P +Ostatic\_prediction -Wl,-aarchive



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## Notes/Tuning Information (Continued)

Peak:

```
311.wupwise_1: +O3 +Oall +Onofltacc -Wl,+FPD
+Oopenmp -Wl,-aarchive +Oinfo +DA2.0W
+Oloop_unroll=2 +cat +Oinline_budget=10000
ONESTEP = true
```

```
317.applu_1: +O3 +Oall +Onofltacc -Wl,+FPD
+Oopenmp -Wl,-aarchive +Oinfo +DA2.0W
+Oloop_unroll=2 +Ono_ptrs_to_globals
```

```
325.apsi_1: +O3 +Oall +Onofltacc -Wl,+FPD
+Oopenmp -Wl,-aarchive +Oinfo +DA2.0W
+Oloop_unroll=2 +Onodataprefetch
```