Hewlett-Packard Company
AlphaServer ES80 7/1150

SPECompMpeak2001 = 12289
SPECompMbase2001 = 10522


OMPM2001 Result

Benchmark | Reference Time | Base Runtime | Base Ratio | Peak Runtime | Peak Ratio | Time | Base | Ratio | Time | Base | Ratio
--- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | ---
310.wupwise_m | 6000 | 608 | 9864 | 350 | 17143 | 20000 | 40000 | 60000
312.swim_m | 6000 | 213 | 28146 | 143 | 41991 | 314.mgrid_m | 7300 | 506 | 14436 | 465 | 15700 | 316.applu_m | 4000 | 333 | 12006 | 335 | 11933 | 318.galgel_m | 5100 | 284 | 11951 | 532 | 13636 | 320.equake_m | 2600 | 333 | 12006 | 335 | 11933 | 322.gafort_m | 8700 | 585 | 11951 | 532 | 13636 | 324.apsi_m | 4600 | 483 | 13244 | 482 | 13284 | 330.art_m | 6400 | 5139 | 13244 | 482 | 13284 | 332.ammp_m | 7000 | 1362 | 5139 | 1319 | 5308 | 334.ammp_m | 7000 | 1362 | 5139 | 1319 | 5308 | 336.applu_m | 4000 | 527 | 12006 | 335 | 11933 | 338.fma3d_m | 4600 | 585 | 7864 | 532 | 8648 | 340.art_m | 6400 | 483 | 13244 | 482 | 13284 | 342.ammp_m | 7000 | 1362 | 5139 | 1319 | 5308 | 344.applu_m | 4000 | 527 | 12006 | 335 | 11933 | 346.fma3d_m | 4600 | 585 | 7864 | 532 | 8648 | 348.art_m | 6400 | 483 | 13244 | 482 | 13284 | 350.ammp_m | 7000 | 1362 | 5139 | 1319 | 5308

Hardware

CPU: Alpha 21364
CPU MHz: 1150
FPU: Integrated
CPU(s) enabled: 8 cores, 8 chips, 1 core/chip
CPU(s) orderable: 2 to 8
Primary Cache: 64KB(I)+64KB(D) on chip
Secondary Cache: 1.75MB on chip per core
L3 Cache: None
Other Cache: None
Memory: 4GB per core; 512MB RIMMs; 32GB total
Disk Subsystem: 36GB Ultra 160 10KRPM
Other Hardware: None

Software

OpenMP Threads: 8
Parallel: OpenMP
Operating System: Tru64 UNIX V5.1B + IPK
Compiler: HP Fortran V5.5A-3548-48D88
File System: UFS
System State: Multi-user

Notes/Tuning Information

MP_STACK_SIZE=10000000
4Mb pages used (sysconfigtab)
no processor sets used

Tuning pseudo-switches:
+BPD - Big page disable
+PFB - Post-link feedback for prefetches
See the flags description or the configuration file
for more details.

Base:
Fortran: f90 -arch ev7 -fast -omp -O5
C: cc -arch ev7 -fast -omp -O4
alternate source purdue1 for 330.art_m

Peak:
All use -arch host -omp ONESTEP
Individual benchmark tuning:
310.wupwise_m: f90 -arch host -omp -call_shared
-inline all -unroll 12 -align commons
+PFB+BPD
alternate source ompl.32
312.swim_m: f90 -arch host -omp -fast -O5
Hewlett-Packard Company  
AlphaServer ES80 7/1150

SPECompMpeak2001 = 12289  
SPECompMbase2001 = 10522

Notes/Tuning Information (Continued)

+PFB +BPD
PTHREAD_CONFIG=feature=def-scs,d4-scs  
alternate source ompl.32

314.mgrid_m: f90 -arch host -omp -O5 -transform_loops  
-tune ev7 -unroll 8  
+PFB +BPD
PTHREAD_CONFIG=feature=def-scs,d4-scs  
alternate source ompl.32

316.applu_m: f90 -arch host -omp -fast -O5 -unroll 14  
+PFB
PTHREAD_CONFIG=feature=def-scs,d4-scs  
alternate source ompl.32

318.galgel_m: f90 -arch host -omp -fast -unroll 5 -O5  
+PFB

320.equake_m: cc -arch host -omp -fast -call_shared  
-O4 -ldensemalloc -assume restricted_pointers  
-inline speed -unroll 13  
+PFB +BPD
PTHREAD_CONFIG=feature=def-scs,d4-scs  
alternate source ompl.32

324.apsi_m: f90 -arch host -omp -O5 -transform_loops  
-unroll 8  
+PFB
PTHREAD_CONFIG=feature=def-scs,d4-scs  
alternate source ompl.32

326.gafort_m: f90 -arch host -omp -fast -O5  
-arch ev67 -tune ev67  
alternate source ompl.32

328.fma3d_m: f90 -arch host -omp -fast -O4  
-transform_loops  
+PFB +BPD
PTHREAD_CONFIG=feature=def-scs,d4-scs  
alternate source ompl.32

330.art_m: cc -arch host -omp -assume whole_program  
-ldensemalloc -call_shared  
-assume restricted_pointers -fast -O4 -unroll 16  
-inline none  
+PFB +BPD  
alternate source purduel

332.ammp_m: cc -arch host -omp -O4 -ifo  
-assume nomath_errno  
-assume trusted_short_alignment -fp_reorder  
-readonly_strings -ldensemalloc  
-assume restricted_pointers -unroll 9  
PTHREAD_CONFIG=feature=def-scs,d4-scs

Information on UNIX V5.1B Patches can be found at
Hewlett-Packard Company  |  SPECompMpeak2001 = 12289
AlphaServer ES80 7/1150   |  SPECompMbase2001 = 10522

Notes/Tuning Information (Continued)


This result was measured on model ES80.
Model ES47 and model ES80 are electronically equivalent.