



CFP2000 Result

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Hewlett-Packard Company
ProLiant DL145 G2 (AMD Opteron (TM) 285)

SPECfp_rate2000 = 68.9
SPECfp_rate_base2000 = 63.4

SPEC license #: 3 Tested by: Hewlett-Packard Company Test date: Feb-2006 Hardware Avail: Mar-2006 Software Avail: Feb-2006

Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
168.wupwise	4	67.8	110	4	67.8	110
171.swim	4	272	52.8	4	248	57.9
172.mgrid	4	160	52.3	4	160	52.3
173.applu	4	201	48.4	4	180	54.0
177.mesa	4	136	47.6	4	67.7	95.9
178.galgel	4	126	106	4	122	111
179.art	4	84.0	144	4	84.0	144
183.equake	4	113	53.4	4	113	53.4
187.facerec	4	119	73.9	4	118	75.0
188.amp	4	196	52.1	4	167	61.0
189.lucas	4	160	58.0	4	156	59.5
191.fma3d	4	174	56.0	4	168	58.0
200.sixtrack	4	140	36.6	4	140	36.6
301.apsi	4	186	64.9	4	186	64.9

Hardware

CPU: AMD Opteron (TM) 285
CPU MHz: 2600
FPU: Integrated
CPU(s) enabled: 4 cores, 2 chips, 2 cores/chip
CPU(s) orderable: 1,2
Parallel: No
Primary Cache: 64KBI + 64KBD (on chip) per core
Secondary Cache: 1024KB(I+D) (on chip) per core
L3 Cache: N/A
Other Cache: N/A
Memory: 8x2048MB PC3200 CL3.0
Disk Subsystem: 1x36.4GB 15K Ultra320 SCSI
Other Hardware:

Software

Operating System: Windows Server 2003 Enterprise SP1
Compiler: Intel C++ Compiler for 32-bit applications, (Version 9.0 Build 20060120Z)
Intel Fortran Compiler for 32-bit applications, (Version 9.0 build 20060120Z)
PGI Fortran compiler 6.0-4 for Windows XP (32-bit)
PGI C compiler 6.0-4 for Windows XP (32-bit)
Microsoft Visual Studio .NET 7.0.9466 (for libraries)
AMD Core Math Library V3.0.0

File System: NTFS
System State: Default

Notes/Tuning Information

```
+FDO: PASS1=-Qprof_gen PASS2=-Qprof_use (Intel compiler)
+FDO*: PASS1=-Mpfi PASS2=-Mpfo (PGI compiler)
+ACML is linking with AMD Core Math Library V3.0.0
ifort is the Intel Fortran compiler, icl is the Intel C++ compiler; and
pgf90 is the PGI Fortran compiler, pgcc is the PGI C compiler.
Base tuning for C programs: pgcc -fastsse -Mipa=fast,inline
Base tuning for FORTRAN programs: pgf90 -fastsse -Mipa=fast,inline +FDO* ONESTEP=1
Portability flags:
178.galgel: -Mfixed
Peak tuning:
168.wupwise: pgf90 basepeak=yes
171.swim: ifort -Qipo -O3 -QaxN -QxW +FDO -Qunroll0 ONESTEP=1
172.mgrid: pgf90 basepeak=yes
173.applu: ifort -Qipo -O3 -QaxN -QxW +FDO -auto ONESTEP=1
177.mesa: icl -Qipo -arch:SSE2 +FDO -Qunroll1 -Qansi_alias ONESTEP=1
-Qoption,c,-ip_ninl_max_stats=1500,-ip_ninl_max_total_stats=4500
178.galgel: pgf90 -fastsse -Mipa=fast,safe RM_SOURCES=lapak.f90 -Munix +ACML ONESTEP=1
```



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Notes/Tuning Information (Continued)

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179.art:          pgcc -fastsse -Mipa=fast,inline
183.equake:       icl basepeak=yes
187.facerec:      ifort -Qipo -QxW +FDO -Qunroll3 ONESTEP=1
                  -Qoption,f,-ip_ninl_max_stats=2500,-ip_ninl_max_total_stats=7000
188.amp:          icl -Oa -arch:SSE2 -Zp4 -Qansi_alias ONESTEP=1
189.lucas:        ifort -Qipo -QxW -Qunroll1 ONESTEP=1
191.fma3d:        ifort -Qipo -QaxN -QxW +FDO -Qansi_alias- ONESTEP=1
200.sixtrack:     pgf90 basepeak=yes
301.apsi:         pgf90 basepeak=yes

```

BIOS Configuration Notes

Node Interleaving is Disabled

Other Configuration Notes

The start /b /wait /affinity command is used to bind CPU(s) to processes.
/NUMPROC=1 flag was added to boot.ini to invoke uniprocessor environment.