



# CFP2000 Result

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Hewlett-Packard Company  
ProLiant DL145 G2 (AMD Opteron (TM) 275)

SPECfp\_rate2000 = 19.6  
SPECfp\_rate\_base2000 = 17.9

SPEC license #: 3 Tested by: Hewlett-Packard Company Test date: Dec-2005 Hardware Avail: Sep-2005 Software Avail: Nov-2005

Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
168.wupwise	1	67.7	27.4	1	67.7	27.4
171.swim	1	143	25.2	1	145	24.8
172.mgrid	1	127	16.4	1	127	16.4
173.applu	1	156	15.6	1	145	16.8
177.mesa	1	163	9.96	1	80.3	20.2
178.galgel	1	113	29.7	1	104	32.4
179.art	1	67.0	45.0	1	67.2	44.9
183.quake	1	86.7	17.4	1	86.7	17.4
187.facerec	1	112	19.7	1	113	19.5
188.amp	1	210	12.1	1	171	14.9
189.lucas	1	120	19.4	1	104	22.3
191.fma3d	1	153	15.9	1	145	16.8
200.sixtrack	1	164	7.80	1	164	7.80
301.apsi	1	198	15.2	1	198	15.2

**Hardware**

CPU: AMD Opteron (TM) 275  
CPU MHz: 2200  
FPU: Integrated  
CPU(s) enabled: 1 core, 1 chip, 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: 4x2048MB 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 8.1 Build 20050524Z)  
Intel Fortran Compiler for 32-bit applications, (version 8.1 build 20050517Z)  
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 V2.6.0

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 V2.6.0
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)

```

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  
/NUMPROC=1 flag was added to boot.ini to invoke uniprocessor environment.