



# CFP2000 Result

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Hewlett-Packard Company  
ProLiant DL145 G3 (AMD Opteron (TM) 2218)

SPECfp2000 = 1952  
SPECfp\_base2000 = 1770

SPEC license #: 3 Tested by: Hewlett-Packard Company Test date: Oct-2006 Hardware Avail: Jan-2006 Software Avail: Sep-2006

Benchmark	Reference Time	Base Runtime	Base Ratio	Runtime	Ratio	
168.wupwise	1600	58.3	2745	58.3	2745	
171.swim	3100	123	2519	121	2570	
172.mgrid	1800	111	1629	111	1629	
173.applu	2100	141	1490	125	1678	
177.mesa	1400	138	1015	68.0	2059	
178.galgel	2900	99.3	2921	91.6	3167	
179.art	2600	58.0	4480	57.9	4494	
183.quake	1300	77.7	1674	77.7	1674	
187.facerec	1900	94.8	2005	100	1896	
188.amp	2200	192	1148	158	1394	
189.lucas	2000	110	1820	91.5	2185	
191.fma3d	2100	132	1590	117	1791	
200.sixtrack	1100	140	786	140	786	
301.apsi	2600	172	1511	172	1511	

### Hardware

CPU: AMD Opteron (TM) 2218  
CPU MHz: 2600  
FPU: Integrated  
CPU(s) enabled: 2 cores, 1 chip, 2 cores/chip  
CPU(s) orderable: 1,2 chips  
Parallel: No  
Primary Cache: 64 KB I + 64 KB D on chip per core  
Secondary Cache: 1 MB I+D on chip per core  
L3 Cache: N/A  
Other Cache: N/A  
Memory: 8 GB (4x2 GB PC2-5300P CL5.0)  
Disk Subsystem: 1x250 GB SATA  
Other Hardware:

### Software

Operating System: Windows Server 2003 Enterprise SP1  
Compiler: Intel C++ Compiler for 32-bit applications, (version 9.1 Build 20060816Z)  
Intel Fortran Compiler for 32-bit applications, (version 9.1 build 20060816Z)  
PGI Fortran compiler 6.0-8 for Windows XP (32-bit)  
PGI C compiler 6.0-8 for Windows XP (32-bit)  
Microsoft Visual Studio .NET 7.0.9466 (for libraries)  
AMD Core Math Library V3.5.0  
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 V3.5.0
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.quake:       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.ampp:        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.