



CFP2000 Result

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Hewlett-Packard Company
ProLiant DL145 G2 (AMD Opteron (TM) 254)

SPECfp2000 = 1987
SPECfp_base2000 = 1813

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

Benchmark	Reference Time	Base Runtime	Base Ratio	Runtime	Ratio	
168.wupwise	1600	56.8	2819	56.8	2819	
171.swim	3100	137	2268	133	2325	
172.mgrid	1800	106	1692	106	1692	
173.applu	2100	139	1511	127	1649	
177.mesa	1400	129	1087	63.7	2197	
178.galgel	2900	96.1	3018	89.5	3242	
179.art	2600	58.7	4429	58.8	4421	
183.quake	1300	76.9	1691	76.9	1691	
187.facerec	1900	94.1	2019	94.3	2015	
188.amp	2200	175	1255	139	1582	
189.lucas	2000	109	1835	96.0	2083	
191.fma3d	2100	129	1628	123	1701	
200.sixtrack	1100	129	851	129	851	
301.apsi	2600	163	1599	163	1599	

Hardware

CPU: AMD Opteron (TM) 254
 CPU MHz: 2800
 FPU: Integrated
 CPU(s) enabled: 1 core, 1 chip, 1 core/chip
 CPU(s) orderable: 1,2
 Parallel: No
 Primary Cache: 64KBI + 64KBD on chip
 Secondary Cache: 1024KB(I+D) on chip
 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)

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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