



CFP2000 Result

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Hewlett-Packard Company
ProLiant BL45p (AMD Opteron (TM) 885)

SPECfp2000 = 1830
SPECfp_base2000 = 1682

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

Benchmark	Reference Time	Base Runtime	Base Ratio	Runtime	Ratio	
168.wupwise	1600	61.4	2608	61.4	2608	
171.swim	3100	146	2116	142	2176	
172.mgrid	1800	115	1570	115	1570	
173.applu	2100	151	1391	137	1533	
177.mesa	1400	137	1025	68.7	2038	
178.galgel	2900	104	2791	96.8	2995	
179.art	2600	62.5	4157	62.7	4147	
183.quake	1300	83.6	1555	83.6	1555	
187.facerec	1900	101	1872	99.8	1904	
188.amp	2200	190	1159	164	1340	
189.lucas	2000	117	1710	104	1924	
191.fma3d	2100	139	1508	137	1537	
200.sixtrack	1100	140	788	140	788	
301.apsi	2600	176	1478	176	1478	

Hardware

CPU: AMD Opteron (TM) 885
CPU MHz: 2600
FPU: Integrated
CPU(s) enabled: 1 core, 1 chip, 2 cores/chip
CPU(s) orderable: 1,2,4
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: 1x72.8GB 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

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