



CFP2000 Result

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Hewlett-Packard Company
ProLiant BL465c (AMD Opteron (TM) 2220)

SPECfp_rate2000 = 40.4
SPECfp_rate_base2000 = 36.8

SPEC license #: 3 Tested by: Hewlett-Packard Company Test date: Nov-2006 Hardware Avail: Jan-2007 Software Avail: Oct-2006

Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
168.wupwise	2	59.7	62.1	2	59.7	62.1
171.swim	2	213	33.8	2	182	39.5
172.mgrid	2	125	33.4	2	125	33.4
173.applu	2	169	28.9	2	151	32.3
177.mesa	2	128	25.4	2	63.1	51.5
178.galgel	2	109	61.9	2	105	64.2
179.art	2	69.3	87.0	2	69.3	87.0
183.equake	2	94.0	32.1	2	94.0	32.1
187.facerec	2	101	43.5	2	108	40.8
188.amp	2	186	27.5	2	152	33.6
189.lucas	2	133	34.8	2	128	36.3
191.fma3d	2	149	32.7	2	136	35.8
200.sixtrack	2	130	19.6	2	130	19.6
301.apsi	2	170	35.5	2	170	35.5

Hardware

CPU: AMD Opteron (TM) 2220
 CPU MHz: 2800
 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: 1x36 GB 10 K SAS
 Other Hardware:

Software

Operating System: Windows Server 2003 Enterprise SP1
 Compiler: Intel C++ Compiler for 32-bit applications, (version 9.1 Build 20060927Z)
 Intel Fortran Compiler for 32-bit applications, (version 9.1 build 20060927Z)
 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)

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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

Other Configuration Notes

The start /b /wait /affinity command is used to bind CPU(s) to processes.