CFP2000 Result

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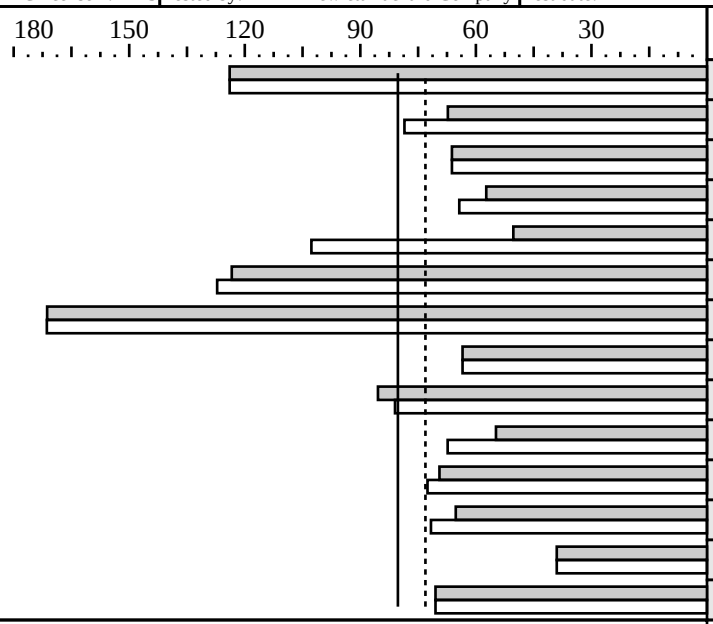
Hewlett-Packard Company

ProLiant BL45p G2 (AMD Opteron (TM) 8220)

SPECfp_rate2000 = 80.2

SPECfp_rate_base2000 = 73.1

SPEC license #: 3 | Tested by: Hewlett-Packard Company | Test date: Oct-2006 | Hardware Avail: Feb-2007 | Software Avail: Aug-2006



Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
168.wupwise	4	59.9	124	4	59.9	124
171.swim	4	214	67.3	4	183	78.5
172.mgrid	4	126	66.2	4	126	66.2
173.applu	4	170	57.3	4	152	64.3
177.mesa	4	129	50.3	4	63.3	103
178.galgel	4	109	123	4	106	127
179.art	4	70.4	171	4	70.4	171
183.equake	4	95.0	63.5	4	95.0	63.5
187.facerec	4	103	85.4	4	109	81.0
188.ammp	4	186	54.8	4	152	67.3
189.lucas	4	134	69.5	4	128	72.6
191.fma3d	4	149	65.2	4	136	71.7
200.sixtrack	4	131	39.0	4	131	39.0
301.apsi	4	171	70.5	4	171	70.5

Hardware

CPU:	AMD Opteron (TM) 8220
CPU MHz:	2800
FPU:	Integrated
CPU(s) enabled:	4 cores, 2 chips, 2 cores/chip
CPU(s) orderable:	2,4 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:	16 GB (8x2 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 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.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.ammp:          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.
```