



# CFP2000 Result

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Hewlett-Packard Company  
ProLiant BL25p (AMD Opteron (TM) 275)

SPECfp2000 = 1519  
SPECfp\_base2000 = 1465

SPEC license #: 3 Tested by: Hewlett-Packard Company Test date: Jul-2005 Hardware Avail: Jun-2005 Software Avail: Jun-2005

Benchmark	Reference Time	Base Runtime	Base Ratio	Runtime	Ratio
168.wupwise	1600	71.3	2245	71.3	2245
171.swim	3100	157	1979	154	2011
172.mgrid	1800	132	1363	132	1363
173.applu	2100	166	1268	154	1365
177.mesa	1400	87.9	1593	82.0	1707
178.galgel	2900	118	2460	109	2667
179.art	2600	163	1598	162	1610
183.quake	1300	91.7	1417	91.7	1417
187.facerec	1900	116	1636	117	1630
188.amp	2200	203	1083	187	1174
189.lucas	2000	127	1569	111	1798
191.fma3d	2100	159	1318	151	1387
200.sixtrack	1100	167	660	167	660
301.apsi	2600	204	1273	204	1273

### Hardware

CPU: AMD Opteron (TM) 275  
CPU MHz: 2200  
FPU: Integrated  
CPU(s) enabled: 1 core, 1 chip, 2 cores/chip  
CPU(s) orderable: 1,2  
Parallel: No  
Primary Cache: 64KBI + 64KBD on chip  
Secondary Cache: 1024KB(I+D) on chip per core  
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 8.0 Build 20040318Z  
Intel Fortran Compiler for 32-bit applications 8.1 build 20050517Z  
PGI Fortran compiler 6.0-4 for Windows XP (32-bit)  
Microsoft Visual Studio .NET 7.0.9466 (for libraries)  
MicroQuill Smartheap Library 7.0  
AMD Core Math Library V2.6.0  
File System: NTFS  
System State: Default

## Notes/Tuning Information

```
+FDO: PASS1=-Qprof_gen PASS2=-Qprof_use
+ACML is linking with AMD Core Math Library V2.6.0
ONESTEP is set for all peak runs.
ifort is the Intel Fortran compiler, icl is the Intel C++ compiler and
pgf90 is the PGI Fortran compiler.
The Intel C++ 8.0 and the Intel Fortran 8.1 compilers are setup in the following order:
"c:\program files\intel\fortran\compiler80\ia32\bin\ifortvars.bat"
"c:\program files\intel\cpp\compiler80\ia32\bin\iclvars.bat"
To make sure that the correct libraries are selected, the following link option is
added for the peak runs where Intel Fortran 8.1 compiler is used:
LDOPT = -Fe$@ -link -LIBPATH:"c:\program files\intel\fortran\compiler80\ia32\lib"
(denoted by +LIBPATH:INTEL8.1 in the optimization flags listed below)
Base tuning for C programs: icl -fast -arch:SSE2 -QaxW +FDO
Base tuning for FORTRAN programs: pgf90 -fastsse -Mipa=fast,inline
Portability flags:
178.galgel: -Mfixed
Peak tuning:
```



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## Notes/Tuning Information (Continued)

```

168.wupwise:      pgf90 basepeak=yes
171.swim:         ifort -Qipo -O3 -QaxN -QxW +FDO -Qunroll0      +LIBPATH:INTEL8.1
172.mgrid:       pgf90 basepeak=yes
173.applu:       ifort -Qipo -O3 -QaxN -QxW +FDO -auto      +LIBPATH:INTEL8.1
177.mesa:        icl -Qipo -arch:SSE2      +FDO -Qunroll1 -Qansi_alias
                  -Qoption,f,-ip_ninl_max_stats=1500,-ip_ninl_max_total_stats=4500
178.galgel:      pgf90 -fastsse -Mipa=fast,safe RM_SOURCES=lapak.f90 -Munix +ACML
179.art:         icl -Qipo      -Zp4 +FDO
183.equake:      icl basepeak=yes
187.facerec:     ifort -Qipo      -QxW +FDO -Qunroll3      +LIBPATH:INTEL8.1
                  -Qoption,f,-ip_ninl_max_stats=2500,-ip_ninl_max_total_stats=7000
188.ammp:        icl -Oa -arch:SSE2 -Zp4      -Qansi_alias
189.lucas:       ifort -Qipo      -QxW      -Qunroll1      +LIBPATH:INTEL8.1
191.fma3d:       ifort -Qipo      -QaxN -QxW +FDO -Qansi-alias- +LIBPATH:INTEL8.1
200.sixtrack:    pgf90 basepeak=yes
301.apsi:        pgf90 basepeak=yes

```

### Other Configuration Notes

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

### BIOS Configuration Notes

Node Interleaving is Disabled