



# CFP2000 Result

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Hewlett-Packard Company  
ProLiant DL385 (AMD Opteron (TM) 275)

SPECfp\_rate2000 = 28.5  
SPECfp\_rate\_base2000 = 27.3

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

Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
168.wupwise	2	77.4	48.0	2	77.4	48.0
171.swim	2	301	23.9	2	258	27.8
172.mgrid	2	173	24.1	2	173	24.1
173.applu	2	219	22.2	2	198	24.6
177.mesa	2	87.8	37.0	2	80.6	40.3
178.galgel	2	142	47.5	2	135	49.7
179.art	2	269	22.4	2	256	23.6
183.quake	2	124	24.3	2	124	24.3
187.facerec	2	134	32.8	2	134	33.0
188.amp	2	209	24.5	2	190	26.9
189.lucas	2	179	25.9	2	176	26.3
191.fma3d	2	196	24.9	2	188	25.9
200.sixtrack	2	165	15.5	2	165	15.5
301.apsi	2	219	27.6	2	219	27.6

**Hardware**

CPU: AMD Opteron (TM) 275  
CPU MHz: 2200  
FPU: Integrated  
CPU(s) enabled: 2 cores, 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

```

BIOS Configuration Notes  
Node Interleaving is Disabled