



# CFP2000 Result

Copyright ©1999-2005, Standard Performance Evaluation Corporation

Hewlett-Packard Company  
ProLiant BL35p (AMD Opteron (TM) 275)

SPECfp\_rate2000 = 17.5  
SPECfp\_rate\_base2000 = 16.8

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

| Benchmark    | Base Copies | Base Runtime | Base Ratio | Copies | Runtime | Ratio |
|--------------|-------------|--------------|------------|--------|---------|-------|
| 168.wupwise  | 1           | 70.7         | 26.3       | 1      | 70.7    | 26.3  |
| 171.swim     | 1           | 168          | 21.4       | 1      | 158     | 22.8  |
| 172.mgrid    | 1           | 133          | 15.7       | 1      | 133     | 15.7  |
| 173.applu    | 1           | 169          | 14.4       | 1      | 155     | 15.7  |
| 177.mesa     | 1           | 87.3         | 18.6       | 1      | 81.0    | 20.0  |
| 178.galgel   | 1           | 120          | 28.1       | 1      | 110     | 30.6  |
| 179.art      | 1           | 165          | 18.3       | 1      | 164     | 18.4  |
| 183.equake   | 1           | 93.4         | 16.1       | 1      | 93.4    | 16.1  |
| 187.facerec  | 1           | 116          | 19.0       | 1      | 116     | 19.0  |
| 188.amp      | 1           | 203          | 12.6       | 1      | 186     | 13.7  |
| 189.lucas    | 1           | 132          | 17.6       | 1      | 115     | 20.1  |
| 191.fma3d    | 1           | 160          | 15.2       | 1      | 152     | 16.0  |
| 200.sixtrack | 1           | 164          | 7.76       | 1      | 164     | 7.76  |
| 301.apsi     | 1           | 204          | 14.8       | 1      | 204     | 14.8  |

**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) per core  
Secondary Cache: 1024KB(I+D) (on chip) per core  
L3 Cache: N/A  
Other Cache: N/A  
Memory: 2x2048MB PC3200 CL3.0  
Disk Subsystem: 1x60GB ATA100 5400RPM  
Other Hardware:

**Software**

Operating System: Windows Server 2003 Enterprise SP1  
Compiler: Intel C++ Compiler 8.0 Build 20040318Z  
Intel Fortran Compiler 8.1 build 20050517Z  
PGI Fortran compiler 6.0-4 for Windows XP  
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 V2.0
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.
"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:
168.wupwise: pgf90 basepeak=yes
```



# CFP2000 Result

Copyright ©1999-2005, Standard Performance Evaluation Corporation

Hewlett-Packard Company  
ProLiant BL35p (AMD Opteron (TM) 275)

SPECfp\_rate2000 = 17.5  
SPECfp\_rate\_base2000 = 16.8

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

## Notes/Tuning Information (Continued)

```

171.swim:      ifort -Qipo -O3 -QaxN -QxW +FDO -Qunroll10      +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 -Qunroll11 -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 -Qunroll13 +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 -Qunroll11 +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

### Other Configuration Notes

The start /b /wait /affinity command is used to bind CPU(s) to processes.  
/NUMPROC=1 flag was added to boot.ini to invoke uniprocessor environment.