



CFP2000 Result

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

SPECfp_rate2000 = 27.9
SPECfp_rate_base2000 = 26.5

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	2	78.2	47.5	2	78.2	47.5
171.swim	2	349	20.6	2	259	27.7
172.mgrid	2	176	23.7	2	176	23.7
173.applu	2	228	21.4	2	207	23.5
177.mesa	2	87.8	37.0	2	80.8	40.2
178.galgel	2	146	46.1	2	142	47.4
179.art	2	268	22.5	2	254	23.8
183.quake	2	128	23.6	2	128	23.6
187.facerec	2	138	31.9	2	137	32.1
188.amp	2	213	24.0	2	192	26.6
189.lucas	2	197	23.6	2	193	24.0
191.fma3d	2	198	24.6	2	191	25.5
200.sixtrack	2	165	15.5	2	165	15.5
301.apsi	2	221	27.4	2	221	27.4

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) 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
```



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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.quake:    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.