



CFP2000 Result

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

SPECfp_rate2000 = 56.7
SPECfp_rate_base2000 = 54.2

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	4	78.0	95.2	4	78.0	95.2
171.swim	4	302	47.6	4	260	55.2
172.mgrid	4	174	48.1	4	174	48.1
173.applu	4	221	44.2	4	199	49.0
177.mesa	4	87.9	73.9	4	80.9	80.3
178.galgel	4	144	93.8	4	136	98.7
179.art	4	274	44.0	4	258	46.7
183.quake	4	126	48.0	4	126	48.0
187.facerec	4	136	64.9	4	136	65.0
188.amp	4	211	48.5	4	191	53.6
189.lucas	4	180	51.6	4	176	52.6
191.fma3d	4	197	49.5	4	188	51.8
200.sixtrack	4	165	30.9	4	165	30.9
301.apsi	4	221	54.6	4	221	54.6

Hardware

CPU: AMD Opteron (TM) 275
 CPU MHz: 2200
 FPU: Integrated
 CPU(s) enabled: 4 cores, 2 chips, 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: 8x2048MB 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)

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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