



CFP2000 Result

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Advanced Micro Devices

Pogo Linux, PerformanceWare 3566, AMD Opteron (TM) 852

SPECfp_rate2000 = 35.7

SPECfp_rate_base2000 = 33.8

SPEC license #: 49 Tested by: AMD, Austin, TX Test date: Jul-2005 Hardware Avail: May-2005 Software Avail: Jan-2005

Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
168.wupwise	4	116	63.9	4	116	63.9
171.swim	4	627	23.0	4	547	26.3
172.mgrid	4	453	18.5	4	453	18.5
173.applu	4	411	23.7	4	359	27.1
177.mesa	4	78.4	82.9	4	73.6	88.2
178.galgel	4	300	44.9	4	229	58.8
179.art	4	805	15.0	4	722	16.7
183.quake	4	229	26.3	4	229	26.3
187.facerec	4	193	45.7	4	206	42.9
188.amp	4	265	38.5	4	242	42.2
189.lucas	4	341	27.2	4	336	27.6
191.fma3d	4	289	33.8	4	282	34.5
200.sixtrack	4	143	35.7	4	143	35.7
301.apsi	4	260	46.3	4	260	46.3

Hardware

CPU: AMD Opteron (TM) 852
 CPU MHz: 2600
 FPU: Integrated
 CPU(s) enabled: 4 cores, 4 chips, 1 core/chip
 CPU(s) orderable: 1-4
 Parallel: No
 Primary Cache: 64KBI + 64KBD on chip
 Secondary Cache: 1024KB(I+D) on chip
 L3 Cache: N/A
 Other Cache: N/A
 Memory: 4x1024 MB PC3200 CL3 ECC Reg
 Disk Subsystem: SCSI, Seagate Cheetah Ultra320 ST336607LC, 10K rpm
 Other Hardware: None

Software

Operating System: Microsoft Windows Server 2003 Enterprise Edition
 Compiler: Intel C++ 8.0 build 20040714Z, Intel Fortran 8.1 for IA32 build 20041019Z, PGI Fortran compiler 5.2-4 for Windows XP, AMD Core Math library Version 2.1 (ACML), Microsoft Visual Studio .NET 7.0.9466 (libraries), MicroQuill Smartheap Library 7.0
 File System: NTFS
 System State: Default

Notes/Tuning Information

```
+FDO: PASS1=-Qprof_gen PASS2=-Qprof_use
+ACML is linking with AMD Core Math Library V2.1
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)
Portability:
  178.galgel: -Mfixed
Baseline: C      : icl  -fast -arch:SSE2 -QaxW +FDO
Baseline: Fortran: pgf90 -fastsse -Mipa=fast,inline
```



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Notes/Tuning Information (Continued)

Peak tuning:

```

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
179.art:          icl -Qipo -Zp4 +FDO
183.earthquake:  icl basepeak=yes
178.galgel:       pgf90 -fastsse -Mipa=fast,safe RM_SOURCES=lapak.f90 -Munix +ACML
187.facerec:      ifort -Qipo -QxW +FDO -Qunroll3 +LIBPATH:INTEL8.1
                  -Qoption,f,-ip_ninl_max_stats=2500,-ip_ninl_max_total_stats=7000
188.amp:          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 V2.33.1.1

All memory slots populated on CPU0.

Physical Address Extension (PAE) enabled