



CFP2000 Result

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Advanced Micro Devices

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

SPECfp_rate2000 = 69.9

SPECfp_rate_base2000 = 68.0

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

Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
168.wupwise	4	64.0	116	4	64.0	116
171.swim	4	151	95.2	4	151	95.2
172.mgrid	4	132	63.1	4	132	63.1
173.applu	4	163	59.9	4	201	48.5
177.mesa	4	74.8	86.8	4	70.5	92.1
178.galgel	4	115	117	4	104	129
179.art	4	241	50.0	4	240	50.3
183.equake	4	98.2	61.4	4	98.2	61.4
187.facerec	4	119	74.1	4	117	75.5
188.amp	4	201	50.9	4	168	60.6
189.lucas	4	125	74.4	4	109	85.2
191.fma3d	4	160	61.0	4	145	67.2
200.sixtrack	4	143	35.6	4	143	35.6
301.apsi	4	210	57.3	4	210	57.3

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: 16x1024 MB PC3200 (MICRON) CL3 ECC Reg
Disk Subsystem: SCSI, Seagate Cheetah Ultra320 ST373307LC, 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 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

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+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,inlined
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Notes/Tuning Information (Continued)

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Peak tuning:
168.wupwise:      pgf90 basepeak=yes
171.swim:         basepeak=yes
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.quake:        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.ampp:         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 Rev 2.32.3.1
All memory slots populated on all CPU(s)
Physical Address Extension (PAE) enabled

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