



CFP2000 Result

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Advanced Micro Devices
Pogo Linux PerformanceWare 3566, AMD Opteron (TM) 870

SPECfp_rate2000 = 103
SPECfp_rate_base2000 = 100

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

				Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
250	200	150	100	168.wupwise	8	84.2	176	8	84.2	176
				171.swim	8	293	98.2	8	293	98.2
				172.mgrid	8	183	91.5	8	183	91.5
				173.applu	8	227	86.0	8	227	86.0
				177.mesa	8	96.0	135	8	90.5	144
				178.galgel	8	160	169	8	146	184
				179.art	8	316	76.5	8	296	81.5
				183.quake	8	135	89.7	8	135	89.7
				187.facerec	8	152	116	8	152	116
				188.amp	8	246	83.1	8	214	95.5
				189.lucas	8	178	104	8	178	104
				191.fma3d	8	214	91.1	8	201	97.1
				200.sixtrack	8	190	53.6	8	190	53.6
				301.apsi	8	237	102	8	237	102

Hardware

CPU: AMD Opteron (TM) 870
 CPU MHz: 2000
 FPU: Integrated
 CPU(s) enabled: 8 cores, 4 chips, 2 cores/chip
 CPU(s) orderable: 1-4
 Parallel: No
 Primary Cache: 64KBI + 64KBD/core
 Secondary Cache: 1024KB (I+D)/core
 L3 Cache: N/A
 Other Cache: N/A
 Memory: 16x1024 MB PC3200 CL3.0 ECC Reg
 Disk Subsystem: SCSI, Seagate Cheetah Ultra320
 ST373307LC, 10000 RPM
 Other Hardware: None

Software

Operating System: Microsoft Windows Server 2003 Enterprise Edition SP1
 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

```
+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:         basepeak=yes
172.mgrid:        pgf90 basepeak=yes
173.applu:         basepeak=yes
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:      basepeak=yes
188.ammp:          icl -Oa -arch:SSE2 -Zp4 -Qansi_alias
189.lucas:         basepeak=yes
191.fma3d:         ifort -Qipo -QaxN -QxW +FDO -Qansi-alias- +LIBPATH:INTEL8.1
200.sixtrack:     pgf90 basepeak=yes
301.apsi:         pgf90 basepeak=yes

```

Bios Rev 2.33.1.1

All memory slots populated on all CPU(s).

Physical Address Extension (PAE) enabled.

The start /b /wait /affinity command is used to bind CPU(s) to processes.