



CFP2000 Result

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Advanced Micro Devices
TYAN S2895 Thunder K8WE, AMD Opteron (TM) 275

SPECfp_rate2000 = 57.5
SPECfp_rate_base2000 = 54.7

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

Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
168.wupwise	4	77.7	95.6	4	77.7	95.6
171.swim	4	345	41.7	4	276	52.1
172.mgrid	4	172	48.5	4	172	48.5
173.applu	4	226	43.1	4	194	50.2
177.mesa	4	85.5	76.0	4	81.2	80.0
178.galgel	4	147	91.5	4	138	97.5
179.art	4	258	46.8	4	245	49.3
183.quake	4	119	50.5	4	119	50.5
187.facerec	4	130	68.1	4	131	67.4
188.amp	4	209	48.9	4	189	54.0
189.lucas	4	172	54.0	4	167	55.6
191.fma3d	4	193	50.4	4	185	52.7
200.sixtrack	4	164	31.2	4	164	31.2
301.apsi	4	217	55.5	4	217	55.5

Hardware

CPU: AMD Opteron (TM) 275
 CPU MHz: 2200
 FPU: Integrated
 CPU(s) enabled: 4 cores, 2 chips, 2 cores/chips
 CPU(s) orderable: 1-2
 Parallel: No
 Primary Cache: 64KBI + 64KBD/core
 Secondary Cache: 1024KB(I+D)/core
 L3 Cache: N/A
 Other Cache: N/A
 Memory: 8x512 MB PC3200 CL2.5 ECC Reg
 Disk Subsystem: SATA, Western Digital WD740GD, 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,inlined
```



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Notes/Tuning Information (Continued)

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Peak tuning:
168.wupwise:      pgf90 basepeak=yes
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
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 -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 Rev 1.00.2895

The start /b /wait /affinity command is used to bind CPU(s) to processes.
The tested system can be assembled using the SSI EEB v3.5 footprint, an Antec True 550 EPS12V 550W power supply, and a PCI-e graphics card.