



CFP2000 Result

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

SPECfp_rate2000 = 30.3
SPECfp_rate_base2000 = 29.1

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	2	72.4	51.2	2	72.4	51.2
171.swim	2	266	27.0	2	239	30.1
172.mgrid	2	166	25.1	2	166	25.1
173.applu	2	204	23.9	2	184	26.5
177.mesa	2	85.5	38.0	2	80.7	40.2
178.galgel	2	137	49.1	2	129	52.1
179.art	2	247	24.5	2	236	25.6
183.quake	2	114	26.4	2	114	26.4
187.facerec	2	126	35.1	2	123	35.8
188.amp	2	203	25.2	2	186	27.4
189.lucas	2	158	29.3	2	153	30.3
191.fma3d	2	189	25.8	2	175	27.9
200.sixtrack	2	163	15.7	2	163	15.7
301.apsi	2	207	29.2	2	207	29.2

Hardware

CPU: AMD Opteron (TM) 275
 CPU MHz: 2200
 FPU: Integrated
 CPU(s) enabled: 2 cores, 1 chip, 2 cores/chip
 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: 4x512 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.