CFP2000 Result

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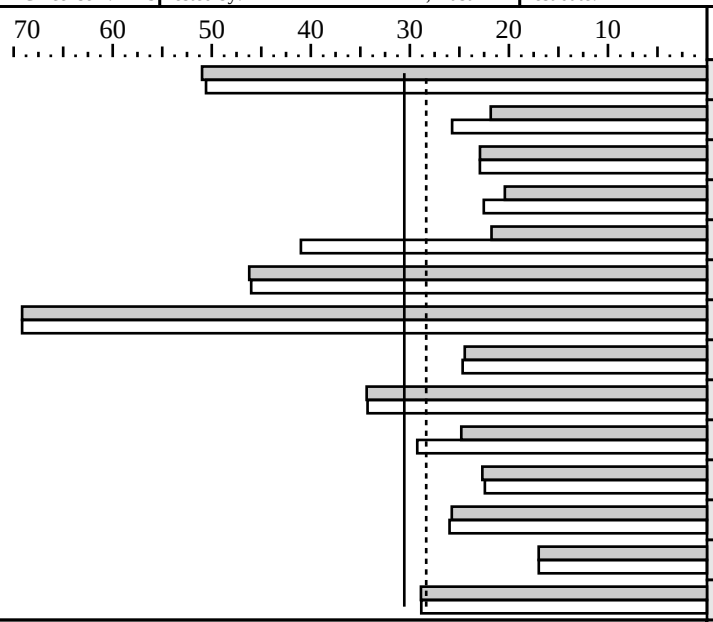
Advanced Micro Devices

TYAN Tomcat K8E (S2865), AMD Opteron (TM) 180

SPECfp_rate2000 = 30.6

SPECfp_rate_base2000 = 28.3

SPEC license #: 49 | Tested by: AMD, Austin TX | Test date: Aug-2005 | Hardware Avail: Nov-2005 | Software Avail: Jun-2005



Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
168.wupwise	2	72.8	51.0	2	73.4	50.6
171.swim	2	329	21.8	2	279	25.7
172.mgrid	2	182	22.9	2	182	22.9
173.applu	2	239	20.4	2	216	22.5
177.mesa	2	149	21.8	2	79.2	41.0
178.galgel	2	146	46.2	2	146	46.0
179.art	2	87.2	69.1	2	87.2	69.1
183.equake	2	123	24.5	2	122	24.7
187.facerec	2	128	34.4	2	129	34.3
188.ammp	2	206	24.8	2	174	29.3
189.lucas	2	205	22.7	2	207	22.4
191.fma3d	2	189	25.8	2	187	26.0
200.sixtrack	2	150	17.0	2	150	17.0
301.apsi	2	209	28.9	2	209	28.8

Hardware

CPU:	AMD Opteron (TM) 180 (939-pin)
CPU MHz:	2400
FPU:	Integrated
CPU(s) enabled:	2 cores, 1 chip, 2 cores/chip
CPU(s) orderable:	1
Parallel:	no
Primary Cache:	64KBI + 64KBD/core
Secondary Cache:	1024KB (I+D)/core
L3 Cache:	N/A
Other Cache:	N/A
Memory:	4x512 MB, DDR400 CL2
Disk Subsystem:	SATA, Western Digital WD740GD, 74 GB 10000 RPM
Other Hardware:	None

Software

Operating System:	Microsoft Windows Server 2003 Enterprise Edition SP1
Compiler:	Intel C++ 9.0 build 20050430z for IA32, Intel Fortran 9.0 build 20050430z for IA32, PGI Fortran compiler 6.0-4 for Windows XP, PGI C compiler 6.0-4 for Windows XP, ACML Version 2.5.3 (bundled with PGI 6.0-4) Microsoft Visual Studio .NET 7.0.9466 (libraries)
File System:	NTFS
System State:	default

Notes/Tuning Information

```
+FDO:
 icl, ifort  : PASS1=-Qprof_gen  PASS2=-Qprof_use
 pgf90       : PASS1=-Mpfi       PASS2=-Mpfo
ifort is the Intel Fortran compiler, icl is the Intel C++ compiler and
pgf90 is the PGI Fortran 90 compiler.
pgcc is the PGI C compiler.
ONESTEP is set to 1 for every compile with the PGI compilers.
Portability:
178.galgel:                -Mfixed
Baseline: C      :  pgcc    -fastsse -Mipa=fast,inline
Baseline: Fortran:  pgf90   -fastsse -Mipa=fast,inline +FDO
Peak tuning:
168.wupwise:        pgf90   -fastsse -Mipa=fast,inline -Mnovect
171.swim:           ifort   -Qipo  -O3  -QaxN -QxW -Qunroll0 +FDO
172.mgrid:          pgf90   -fastsse -Mipa=fast,inline
173.applu:          ifort   -Qipo  -O3 -QaxN -QxW -auto +FDO
```

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Notes/Tuning Information (Continued)

```
 177.mesa:           icl     -Qipo -arch:SSE2 -Qunroll1 -Qansi_alias +FDO
                          -Qoption,f,-ip_ninl_max_stats=1500,-ip_ninl_max_total_stats=4500
 178.galgel:         pgf90   -fastsse -Mipa=fast,safe -Munix -lacml
                             RM_SOURCES=lapak.f90
 179.art:            pgcc     basepeak=yes
 183.equake:         icl     -fast -arch:SSE2 -QaxW +FDO
 187.facerec:        pgf90   -fastsse -Mipa=fast,inline +FDO
 188.ammp:           icl     -Oa   -arch:SSE2  -Zp4 -Qansi_alias
 189.lucas:          ifort   -Qipo -QxW -Qunroll1
 191.fma3d:          pgf90   -Mipa=fast,inline -fastsse -Mnovect +FDO
 200.sixtrack:       pgf90   -fastsse -Mipa=fast,inline
 301.apsi:           pgf90   -fastsse -Mipa=fast,inline
The tested system can be built using a standard ATX case and an Antec
True 550W EPS12V power supply.
All memory slots populated on all CPU(s).
BIOS Version 2.01
'start /b /wait /affinity' command was used to bind CPU(s) to processes.
```