CFP2000 Result

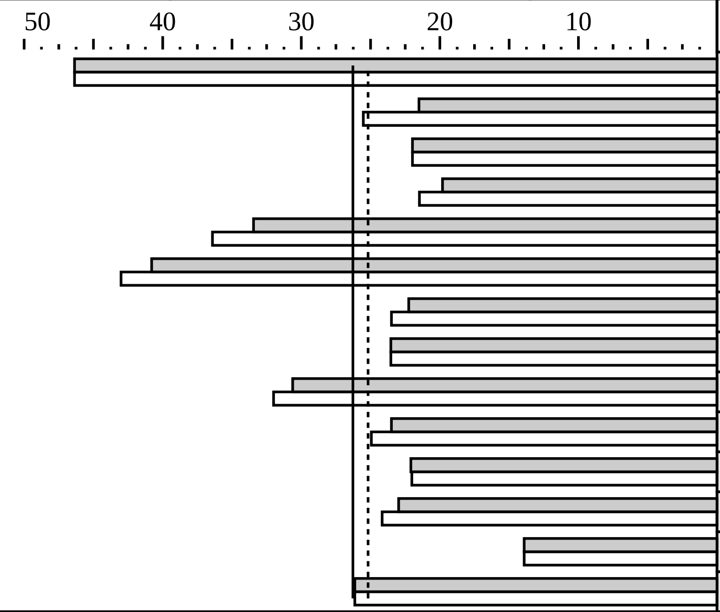
Advanced Micro Devices

TYAN S2865 K8E Tomcat, AMD Opteron (TM) 170

SPECfp_rate2000 = 26.3

SPECfp_rate_base2000 = 25.2

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



Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
168.wupwise	2	80.1	46.4	2	80.1	46.4
171.swim	2	334	21.5	2	282	25.5
172.mgrid	2	190	22.0	2	190	22.0
173.applu	2	246	19.8	2	227	21.5
177.mesa	2	97.1	33.4	2	89.2	36.4
178.galgel	2	165	40.8	2	156	43.0
179.art	2	271	22.2	2	257	23.5
183.equake	2	128	23.5	2	128	23.5
187.facerec	2	144	30.6	2	138	32.0
188.ammp	2	217	23.5	2	205	24.9
189.lucas	2	210	22.1	2	211	22.0
191.fma3d	2	212	23.0	2	202	24.2
200.sixtrack	2	183	13.9	2	183	13.9
301.apsi	2	231	26.1	2	231	26.1

Hardware

CPU:	AMD Opteron (TM) 170 (939-pin)
CPU MHz:	2000
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 CL2.0
Disk Subsystem:	IDE, Western Digital WD2500JB, 7200 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 for IA32 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 filesintel ortrancompiler80ia32 inifortvars.bat"
   "c:program filesintelcppcompiler80ia32 iniclvars.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 filesintel ortrancompiler80ia32lib"
 (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
Peak tuning:
```

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Notes/Tuning Information (Continued)

```
 168.wupwise:       pgf90 basepeak=yes
 171.swim:         ifort -Qipo  -O3  -QaxN -QxW +FDO -Qunroll0     +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 -Qunroll1 -Qansi_alias
                        -Qoption,f,-ip_ninl_max_stats=1500,-ip_ninl_max_total_stats=4500
 179.art:           icl   -Qipo             -Zp4 +FDO
 183.equake:        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.ammp:          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
The start /b /wait /affinity command is used to bind CPU(s) to processes.
The tested system can be assembled using a standard ATX footprint, an Antec True 550
Watt EPS12V power supply, and a PCI or PCIe graphics card.
All memory slots were populated with Corsair CMX512-3200XL.
Memory timings manually set in BIOS: CAS=2, TRCD=2, TRAS=5, TRP=2
BIOS V2.00b
```