



CFP2000 Result

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Supermicro H8DA8 (AMD Opteron (TM) 252)

SPECfp2000 = 1716

SPECfp_base2000 = 1620

SPEC license #01176 Tested by: supermicro Test date: May-2005 Hardware Avail: Mar-2005 Software Avail: Jul-2004

Benchmark	Reference Time	Base Runtime	Base Ratio	Runtime	Ratio	1000 2000 3000 4000			
168.wupwise	1600	60.2	2658	60.2	2658	[Bar chart showing ratio 2658]			
171.swim	3100	151	2052	139	2237	[Bar chart showing ratio 2237]			
172.mgrid	1800	127	1417	127	1417	[Bar chart showing ratio 1417]			
173.applu	2100	157	1334	136	1545	[Bar chart showing ratio 1545]			
177.mesa	1400	73.9	1896	69.2	2024	[Bar chart showing ratio 2024]			
178.galgel	2900	110	2628	102	2843	[Bar chart showing ratio 2843]			
179.art	2600	149	1742	145	1797	[Bar chart showing ratio 1797]			
183.quake	1300	86.1	1510	86.1	1510	[Bar chart showing ratio 1510]			
187.facerec	1900	101	1884	98.0	1939	[Bar chart showing ratio 1939]			
188.amp	2200	178	1235	161	1366	[Bar chart showing ratio 1366]			
189.lucas	2000	118	1691	102	1959	[Bar chart showing ratio 1959]			
191.fma3d	2100	151	1388	135	1561	[Bar chart showing ratio 1561]			
200.sixtrack	1100	139	793	139	793	[Bar chart showing ratio 793]			
301.apsi	2600	177	1466	177	1466	[Bar chart showing ratio 1466]			

Hardware

CPU: AMD Opteron (TM) 252
 CPU MHz: 2600
 FPU: Integrated
 CPU(s) enabled: 1 core, 1 chip, 1 core/chip
 CPU(s) orderable: 1
 Parallel: No
 Primary Cache: 64KBI + 64KBD on chip
 Secondary Cache: 1024KB(I+D) on chip
 L3 Cache: N/A
 Other Cache: N/A
 Memory: 4 x 1024MB PC3200 REG ECC CL3 DDR SDRAM
 Disk Subsystem: 1 X 300GB IDE
 Other Hardware: None

Software

Operating System: Windows Enterprise Server 2003
 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

Tested by Supermicro

```
+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)

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Peak tuning:
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
Tested system can be used with a 420W (minimum) ATX power supply

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