



CFP2000 Result

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Supermicro
H8DAR-T/E (AMD Opteron (TM) 252)

SPECfp2000 = 1736

SPECfp_base2000 = 1632

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	2659	60.2	2659	[Bar chart showing ratio 2659]			
171.swim	3100	156	1994	139	2228	[Bar chart showing ratio 2228]			
172.mgrid	1800	127	1419	127	1419	[Bar chart showing ratio 1419]			
173.applu	2100	156	1344	133	1577	[Bar chart showing ratio 1577]			
177.mesa	1400	74.4	1882	69.0	2029	[Bar chart showing ratio 2029]			
178.galgel	2900	109	2671	97.7	2970	[Bar chart showing ratio 2970]			
179.art	2600	146	1779	143	1818	[Bar chart showing ratio 1818]			
183.quake	1300	83.4	1559	83.4	1559	[Bar chart showing ratio 1559]			
187.facerec	1900	101	1875	97.7	1945	[Bar chart showing ratio 1945]			
188.amp	2200	177	1246	159	1380	[Bar chart showing ratio 1380]			
189.lucas	2000	114	1750	98.5	2030	[Bar chart showing ratio 2030]			
191.fma3d	2100	150	1402	134	1567	[Bar chart showing ratio 1567]			
200.sixtrack	1100	139	792	139	792	[Bar chart showing ratio 792]			
301.apsi	2600	176	1479	176	1479	[Bar chart showing ratio 1479]			

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

```