CFP2000 Result

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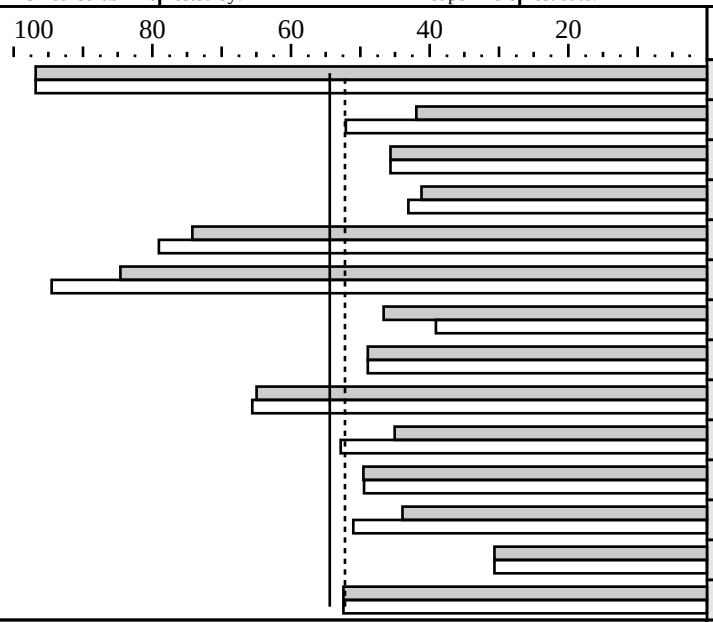
Supermicro
H8DA8 (AMD Opteron (TM) 275)

SPECfp_rate2000 = 54.4

SPECfp_rate_base2000 = 52.2

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



Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
168.wupwise	4	76.7	96.8	4	76.7	96.8
171.swim	4	343	41.9	4	276	52.1
172.mgrid	4	183	45.7	4	183	45.7
173.applu	4	237	41.2	4	226	43.1
177.mesa	4	87.5	74.2	4	82.2	79.1
178.galgel	4	159	84.6	4	142	94.5
179.art	4	259	46.6	4	309	39.1
183.equake	4	123	48.9	4	123	48.9
187.facerec	4	136	65.0	4	134	65.6
188.ammp	4	227	45.0	4	193	52.8
189.lucas	4	187	49.6	4	188	49.5
191.fma3d	4	222	43.9	4	191	51.0
200.sixtrack	4	167	30.7	4	167	30.7
301.apsi	4	230	52.4	4	230	52.4

Hardware

CPU:	AMD Opteron (TM) 275
CPU MHz:	2200
FPU:	Integrated
CPU(s) enabled:	4 cores, 2 chips, 2 cores/chip
CPU(s) orderable:	1, 2
Parallel:	No
Primary Cache:	64KBI + 64KBD on chip
Secondary Cache:	1024KB(I+D) on chip
L3 Cache:	N/A
Other Cache:	N/A
Memory:	8 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 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
```

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Notes/Tuning Information (Continued)

```
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
```