



# CFP2000 Result

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**Supermicro**  
H8DSR-8 Motherboard (AMD Opteron(TM) 285)

SPECfp\_rate2000 = **68.1**  
SPECfp\_rate\_base2000 = **62.7**

SPEC license #01176 | Tested by: Supermicro | Test date: Apr-2006 | Hardware Avail: Apr-2006 | Software Avail: Oct-2005

Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
168.wupwise	4	68.2	109	4	68.6	108
171.swim	4	275	52.4	4	249	57.8
172.mgrid	4	161	51.8	4	161	51.8
173.applu	4	204	47.9	4	184	53.0
177.mesa	4	139	46.8	4	68.5	94.8
178.galgel	4	126	106	4	125	108
179.art	4	81.7	148	4	81.7	148
183.equake	4	114	52.9	4	113	53.2
187.facerec	4	118	74.5	4	118	74.5
188.amp	4	199	51.3	4	164	62.1
189.lucas	4	162	57.2	4	158	58.8
191.fma3d	4	177	55.0	4	172	56.6
200.sixtrack	4	141	36.3	4	141	36.3
301.apsi	4	201	60.2	4	200	60.3

### Hardware

CPU: AMD Opteron(TM) 285  
CPU MHz: 2600  
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) per core  
Secondary Cache: 1024KB (I+D) (on chip) per core  
L3 Cache: N/A  
Other Cache: N/A  
Memory: 8 X Apacer 78.A1071.404, 2GB DDR-400 CL3 ECC Reg  
Disk Subsystem: 1 X IDE, Seagate ST3250823A 250GB  
Other Hardware: None

### Software

Operating System: Windows server 2003 Enterprise Edition 32-bit Version w/ Service Pack 1  
Compiler: Intel C++ 9.0 build 20050912Z for IA32, Intel Fortran 9.0 build 20050912Z for IA32, Microsoft Visual Studio .NET 2003 7.0.9466 (libraries) PGI Fortran compiler 6.0-5 for Windows XP, PGI C compiler 6.0-5 for Windows XP, ACML Version 2.5.3 (bundled with PGI 6.0-5)  
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 -Mvect
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
177.mesa: icl -Qipo -QxW -Qunroll1 -Qansi_alias +FDO
```



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## Notes/Tuning Information (Continued)

```

-Option,c,-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.quake:           icl     -O3 -Qipo -QxW +FDO
187.facerec:         pgf90  basepeak=1
188.ampp:            icl     -Oa  -QxW  -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

```

Tested system was built with chassis SC813S+-500,  
Product description located as of:

<http://www.supermicro.com/Aplus/motherboard/Opteron/HT2000/H8DSR-8.cfm>

To ensure system stability, a 600W (minimum) ATX power supply [8-pin (+12V) and (20+4)-pin are required] ) and 24-pin are required]

### Other Configuration Notes

The start /b /wait /affinity command is used to bind CPU(s) to processes.