



# CFP2000 Result

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Einix  
A4800

SPECfp\_rate2000 = 24.9

SPECfp\_rate\_base2000 = 23.3

SPEC license #: 49 | Tested by: AMD Austin TX | Test date: Apr-2003 | Hardware Avail: Jul-2003 | Software Avail: May-2003

Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
168.wupwise	2	162	22.9	2	123	30.2
171.swim	2	195	36.9	2	195	36.9
172.mgrid	2	191	21.8	2	191	21.9
173.applu	2	238	20.4	2	223	21.9
177.mesa	2	106	30.7	2	98.8	32.9
178.galgel	2	200	33.6	2	201	33.5
179.art	2	339	17.8	2	290	20.8
183.equake	2	134	22.6	2	122	24.7
187.facerec	2	166	26.6	2	163	27.0
188.amp	2	232	22.0	2	216	23.7
189.lucas	2	177	26.3	2	172	27.0
191.fma3d	2	204	23.9	2	198	24.6
200.sixtrack	2	248	10.3	2	224	11.4
301.apsi	2	263	22.9	2	257	23.4

### Hardware

CPU: AMD Opteron 244, 1.8 GHz  
 CPU MHz: 1800  
 FPU: Integrated  
 CPU(s) enabled: 2 cores, 2 chips, 1 core/chip  
 CPU(s) orderable: 1,2,4  
 Parallel: No  
 Primary Cache: 64KBI + 64KBD on chip  
 Secondary Cache: 1024KB(I+D) on chip  
 L3 Cache: N/A  
 Other Cache: N/A  
 Memory: 8x512MB PC2700 DDR ECC Registered SDRAM CL2.5  
 Disk Subsystem: IDE 7200 RPM  
 Other Hardware: None

### Software

Operating System: SuSE Linux Enterprise Server 8 for AMD64  
 Compiler: Intel C/C++ 7.0 build 20021212Z and Intel Fortran 7.0 build 20021212Z  
 File System: ext2  
 System State: Run level 3

## Notes/Tuning Information

The binaries were built on SuSE Linux Professional 8.1 running on an Opteron system

+FDO: PASS1=-prof\_gen PASS2=-prof\_use

icc and ifc are the Intel C/C++ and Fortran compilers

Portability:

178.galgel: -FI

Baseline: C icc +FDO -O3 -xW -ipo

Baseline: Fortran ifc +FDO -O3 -xW -ipo

Peak tuning:

168.wupwise: ifc -xK -axW -ipo -fno-alias -Qoption,f,-ip\_ninl\_max\_stats=2000,-Qoption,f,-ip\_ninl\_max\_total\_stats=4500

171.swim: ifc +FDO -O3 -xK -ipo -unroll2 -prefetch-

172.mgrid: ifc +FDO -O3 -axW -ipo -fno-alias

173.applu: ifc +FDO -O3 -xK -ipo -scalar\_rep-

177.mesa: icc +FDO -O3 -xW -ipo -fno-alias -Qoption,c,-ip\_ninl\_max\_stats=1500 -Qoption,c,-ip\_ninl\_max\_total\_stats=3500 -static

178.galgel: ifc +FDO -O3 -xW -ipo -unroll1

179.art: icc -xW -ipo -fno-alias -nolib\_inline



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## Notes/Tuning Information (Continued)

```
183.equake:      icc      -O3 -xK      -ipo -fno-alias
187.facerec:    ifc +FDO -O3      -axW -ipo -unroll1
188.ammp:       icc      -O3 -xW      -fno-alias -prefetch-
189.lucas:      ifc +FDO -xW      -ipo -static -auto
191.fma3d:      ifc +FDO -O3 -xW      -ipo -static -Zp8
200.sixtrack:   ifc      -ipo -fno-alias -align
301.apsi:       ifc +FDO -xW      -ipo -fno-alias -ansi_alias-
```

ONESTEP is used for all base and peak runs  
Uniprocessor Kernel recompiled with SMP and NUMA support