



CFP2000 Result

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ION Computer Systems
BX21 (3.2GHz Xeon processor w. 2MB L3 cache)

SPECfp_rate2000 = 21.9
SPECfp_rate_base2000 = 21.5

SPEC license #: 2697 | Tested by: ION | Test date: Apr-2004 | Hardware Avail: Mar-2004 | Software Avail: Apr-2004

Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
168.wupwise	2	125	29.8	2	125	29.8
171.swim	2	399	18.0	2	399	18.0
172.mgrid	2	243	17.2	2	243	17.2
173.applu	2	353	13.8	2	346	14.1
177.mesa	2	95.8	33.9	2	95.8	33.9
178.galgel	2	139	48.4	2	139	48.4
179.art	2	311	19.4	2	286	21.1
183.quake	2	161	18.7	2	136	22.1
187.facerec	2	151	29.3	2	151	29.3
188.amp	2	254	20.1	2	255	20.0
189.lucas	2	267	17.4	2	267	17.4
191.fma3d	2	258	18.9	2	258	18.9
200.sixtrack	2	180	14.1	2	180	14.1
301.apsi	2	282	21.4	2	282	21.4

Hardware

CPU: Intel Xeon processor, 533MHz system bus
 CPU MHz: 3199
 FPU: Integrated
 CPU(s) enabled: 2 cores, 2 chips, 1 core/chip, HyperThreading disabled
 CPU(s) orderable: 1-2
 Parallel: No
 Primary Cache: 12K(I) micro-ops + 8KB(D) on chip
 Secondary Cache: 512KB (I+D) on chip
 L3 Cache: 2048KB (I+D) on chip
 Other Cache: None
 Memory: 1 GB, DDR266, 2.5-3-3, (4x256MB DIMMs)
 Disk Subsystem: 1x 40GB IDE, 5400rpm
 Other Hardware: None

Software

Operating System: Red Hat Enterprise Linux ES release 3
 Compiler: Intel(R) Fortran Compiler for Linux 8.0 (Build 20040412Z)
 Intel(R) C++ Compiler for Linux 8.0 (Build 20040412Z)
 MicroQuill SmartHeap Library 7.1 (www.microquill.com)
 File System: ext2
 System State: Multi-user, 2.4.21 smp kernel

Notes/Tuning Information

HyperThreading disabled in BIOS

Baseline optimization flags:

C programs: PASS1= -xN -prof_gen PASS2= -xN -fast -prof_use
 Fortran programs: PASS1= -xN -prof_gen PASS2= -xN -ipo -O3 -prof_use

FP Peak optimization flags:

168.wupwise: basepeak=yes
 171.swim: basepeak=yes
 172.mgrid: basepeak=yes
 173.applu: PASS1= -xN -prof_gen PASS2= -xN -fast -prof_use
 177.mesa: basepeak=yes
 178.galgel: basepeak=yes
 179.art: PASS1= -prof_gen PASS2= -xN -ipo -Oa -unroll4 -Zp4 -prof_use
 183.quake: PASS1= -xW -prof_gen PASS2= -xW -fast -prof_use
 Extra Library: -L\${SH_PATH} -lsmartheap (SH_PATH is path to SmartHeap Library)
 187.facerec: basepeak=yes



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Notes/Tuning Information (Continued)

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188.ammmp: PASS1= -xW -prof_gen PASS2= -xW -fast -prof_use
189.lucas: basepeak=yes
191.fma3d: basepeak=yes
200.sixtrack: basepeak=yes
301.apsi: basepeak=yes
```

FP Portability Flags:
178.galgel: -FI