



# CINT2000 Result

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Fujitsu Limited  
PRIMEPOWER450 (1650MHz)

SPECint2000 = 1223  
SPECint\_base2000 = 1162

SPEC license #: 19 | Tested by: Fujitsu Limited | Test date: Dec-2005 | Hardware Avail: Feb-2006 | Software Avail: Nov-2005

Benchmark	Reference Time	Base Runtime	Base Ratio	Runtime	Ratio	
164.gzip	1400	156	898	154	907	
175.vpr	1400	138	1014	134	1047	
176.gcc	1100	99.7	1104	86.2	1276	
181.mcf	1800	157	1149	134	1340	
186.crafty	1000	82.4	1214	78.9	1267	
197.parser	1800	185	975	169	1062	
252.eon	1300	103	1262	100	1300	
253.perlbnk	1800	151	1194	150	1204	
254.gap	1100	110	1004	103	1064	
255.vortex	1900	85.1	2232	83.3	2282	
256.bzip2	1500	140	1070	137	1097	
300.twolf	3000	245	1225	245	1225	

### Hardware

CPU: SPARC64 V  
 CPU MHz: 1650  
 FPU: Integrated  
 CPU(s) enabled: 1 core, 1 chip, 1 core/chip  
 CPU(s) orderable: 1 to 4 (increments of 1)  
 Parallel: None  
 Primary Cache: 128KBI + 128KBD on chip  
 Secondary Cache: 3MB(I+D) on chip  
 L3 Cache: None  
 Other Cache: None  
 Memory: 16GB (1GB x 16)  
 Disk Subsystem: 1 x 36.4GB SCSI (10000rpm)  
 Other Hardware: None

### Software

Operating System: Solaris 10  
 Compiler: Sun Studio 11  
 File System: ufs  
 System State: multi user

## Notes/Tuning Information

FDO: (for Sun Studio 11)  
 fdo\_pre0=rm -rf ./feedback.profile ./SunWS\_cache  
 PASS1=-xprofile=collect:./feedback  
 PASS2=-xprofile=use:./feedback

Integer base flags:  
 (using C compiler of Sun Studio 11)  
 -fast -xtarget=ultra3cu -xipo=2 ONESTEP=yes FDO  
 (using C++ compiler of Sun Studio 11)  
 -fast -xipo=2 ONESTEP=yes FDO

Integer peak flags:  
 (using C compiler of Sun Studio 11)  
 164.gzip: -xarch=v8plusb -xchip=ultra2 -xcache=128/64/2:4096/64/4  
 -xalias\_level=std -xipo=2 -W2,-whole -xO5 ONESTEP=yes FDO  
 175.vpr: -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:4096/64/4  
 -xalias\_level=std -xchip=ultra2 -xipo=2 ONESTEP=yes FDO  
 176.gcc: -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:4096/64/4  
 -xipo=2 -l12amm ONESTEP=yes FDO



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## Notes/Tuning Information (Continued)

```

181.mcf:      -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:4096/64/4
              -xipo=2 -xprefetch_level=3 -W2,-Apf:l1list=3:noinnerl1list
              ONESTEP=yes FDO
186.crafty:   -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:4096/64/4
              -xalias_level=strong -xipo=2 -xpagesize=512K -W2,-Ashort_ldst
              ONESTEP=yes FDO
197.parser:   -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:4096/64/4
              -xalias_level=strong -xipo=2 -Wc,-Qgsched-T6,
              -Qgsched-trace_late=1,-Qipa:valueprediction ONESTEP=yes FDO
253.perlbnk:  -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:4096/64/4
              -xipo=2 -xalias_level=std ONESTEP=yes FDO
254.gap:      -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:4096/64/4
              -xalias_level=strong -xipo=2 -xprefetch_level=3 -xvector
              -W2,-Abcopy ONESTEP=yes FDO
255.vortex:   -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:4096/64/4
              -xipo=2 -xrestrict -W2,-crit,-Ainline:recursion=1:cs=500:irs=6000
              -Wc,-Qdepgaph-early_cross_call=1 -l12amm ONESTEP=yes FDO
256.bzip2:    -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:4096/64/4
              -xipo=2 -xalias_level=strong -xrestrict ONESTEP=yes FDO
300.twolf:    -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:4096/64/4
              -xipo=2 ONESTEP=yes FDO

```

(using C++ compiler of Sun Studio 11)

```

252.eon:      -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:4096/64/4
              -noex -xalias_level=compatible -xipo=2
              -Qoption cg -Qeps:enabled=1,-Qeps:ws=32 ONESTEP=yes FDO

```

### Portability:

```

176.gcc:      -Dalloca=__builtin_alloca -DHOST_WORDS_BIG_ENDIAN
186.crafty:    -DSUN
253.perlbnk:  -DSPEC_CPU2000_SOLARIS
254.gap:      -DSYS_IS_USG -DSYS_HAS_TIME_PROTO -DSYS_HAS_SIGNAL_PROTO
              -DSYS_HAS_CALLOC_PROTO -DSYS_HAS_IOCTL_PROTO

```

### System Tunables:

```

(for /etc/system)
  set consistent_coloring=1
  set tune_t_fsflushr=86400
  set autoup=86400

```

### Shell Environments:

```

Stack size set to unlimited via "ulimit -s unlimited"
MPSSHEAP=4M
MPSSSTACK=4M
LD_PRELOAD=mpss.so.1

```

System board used with only ONE CPU present.

Sun Studio 11, posted at URL <http://www.sun.com/software/products/studio/index.xml> was used for this submission.