



# CINT2000 Result

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Fujitsu Limited  
PRIMEPOWER1500 (2160MHz)

SPECint\_rate2000 = 274  
SPECint\_rate\_base2000 = 246

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

Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
164.gzip	16	133	196	16	131	198
175.vpr	16	114	227	16	112	232
176.gcc	16	162	126	16	71.5	285
181.mcf	16	153	218	16	126	265
186.crafty	16	62.7	296	16	60.0	309
197.parser	16	145	230	16	133	250
252.eon	16	77.5	311	16	74.9	322
253.perlbnk	16	118	284	16	117	286
254.gap	16	109	187	16	107	190
255.vortex	16	74.5	474	16	72.6	486
256.bzip2	16	110	253	16	108	259
300.twolf	16	187	298	16	187	298

Hardware	Software
CPU: SPARC64 V	Operating System: Solaris 10
CPU MHz: 2160	Compiler: Studio 11
FPU: Integrated	
CPU(s) enabled: 16 cores, 16 chips, 1 core/chip	
CPU(s) orderable: 1 to 32 (increments of 1)	
Parallel: None	File System: ufs
Primary Cache: 128KBI + 128KBD on chip	System State: multi user
Secondary Cache: 4MB(I+D) on chip	
L3 Cache: None	
Other Cache: None	
Memory: 64GB (512MB x 128)	
Disk Subsystem: 1 x 36.4GB SCSI (10000rpm)	
Other Hardware: None	

## 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

```

### System Tunables:

```

(for /etc/system)
  set consistent_coloring=1
  set tune_t_fsflushr=86400
  set autoup=86400
  set memscrub_period_sec=172800

```

### Shell Environments:

```

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

```

Extended Interleave Mode enabled.

4 CPUs each on 4 system boards. Unused CPUs have physically removed.

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