



CINT2000 Result

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Fujitsu Limited
PRIMEPOWER450 (1980MHz)

SPECint2000 = 1434
SPECint_base2000 = 1359

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	131	1072	129	1083	
175.vpr	1400	118	1187	115	1213	
176.gcc	1100	87.6	1256	73.0	1507	
181.mcf	1800	146	1234	125	1443	
186.crafty	1000	68.6	1457	65.8	1520	
197.parser	1800	156	1157	143	1259	
252.eon	1300	85.9	1513	83.2	1563	
253.perlbnk	1800	126	1426	125	1437	
254.gap	1100	94.4	1165	88.7	1241	
255.vortex	1900	73.6	2581	72.0	2638	
256.bzip2	1500	120	1248	118	1276	
300.twolf	3000	204	1470	204	1471	

Hardware

CPU: SPARC64 V
CPU MHz: 1980
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,-Qdeprgraph-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.