



CINT2000 Result

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Fujitsu Limited
PRIMEPOWER850 (2160MHz)

SPECint_rate2000 = 283

SPECint_rate_base2000 = 259

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

| Benchmark | Base Copies | Base Runtime | Base Ratio | Copies | Runtime | Ratio |
|-------------|-------------|--------------|------------|--------|---------|-------|
| 164.gzip | 16 | 130 | 200 | 16 | 128 | 203 |
| 175.vpr | 16 | 109 | 239 | 16 | 108 | 241 |
| 176.gcc | 16 | 130 | 157 | 16 | 70.7 | 289 |
| 181.mcf | 16 | 131 | 256 | 16 | 110 | 302 |
| 186.crafty | 16 | 62.8 | 295 | 16 | 60.2 | 308 |
| 197.parser | 16 | 142 | 236 | 16 | 130 | 258 |
| 252.eon | 16 | 78.7 | 307 | 16 | 76.0 | 318 |
| 253.perlbnk | 16 | 118 | 282 | 16 | 118 | 283 |
| 254.gap | 16 | 101 | 202 | 16 | 97.8 | 209 |
| 255.vortex | 16 | 69.9 | 504 | 16 | 68.4 | 516 |
| 256.bzip2 | 16 | 106 | 262 | 16 | 104 | 268 |
| 300.twolf | 16 | 187 | 297 | 16 | 187 | 297 |

Hardware

CPU: SPARC64 V
 CPU MHz: 2160
 FPU: Integrated
 CPU(s) enabled: 16 cores, 16 chips, 1 core/chip
 CPU(s) orderable: 1 to 16 (increments of 1)
 Parallel: None
 Primary Cache: 128KBI + 128KBD on chip
 Secondary Cache: 4MB(I+D) on chip
 L3 Cache: None
 Other Cache: None
 Memory: 32GB (512MB x 64)
 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)

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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
  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

```

Processes were bound to CPUs using "submit=pbind"

Extended Interleave Mode enabled.

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

Model PRIMEPOWER850 (2160MHz) and model PRIMEPOWER900 (2160MHz) are electronically equivalent. This result was measured on model PRIMEPOWER900 (2160MHz).