



CINT2000 Result

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Fujitsu Limited
PRIMEPOWER650 (2160MHz)

SPECint2000 = 1620
SPECint_base2000 = 1501

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	123	1140	121	1154	
175.vpr	1400	104	1342	101	1387	
176.gcc	1100	102	1084	65.7	1676	
181.mcf	1800	111	1615	93.0	1936	
186.crafty	1000	62.3	1606	59.6	1677	
197.parser	1800	139	1292	127	1415	
252.eon	1300	76.9	1690	74.5	1744	
253.perlbnk	1800	113	1588	113	1598	
254.gap	1100	88.0	1251	85.4	1288	
255.vortex	1900	64.6	2940	63.0	3018	
256.bzip2	1500	101	1480	99.1	1514	
300.twolf	3000	186	1610	186	1610	

Hardware

CPU: SPARC64 V
CPU MHz: 2160
FPU: Integrated
CPU(s) enabled: 1 core, 1 chip, 1 core/chip
CPU(s) orderable: 1 to 8 (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: 8GB (512MB 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)

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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,-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.

Small configuration memory system mode used ("4cpu mode", enabled via front panel).

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