CINT2000 Result

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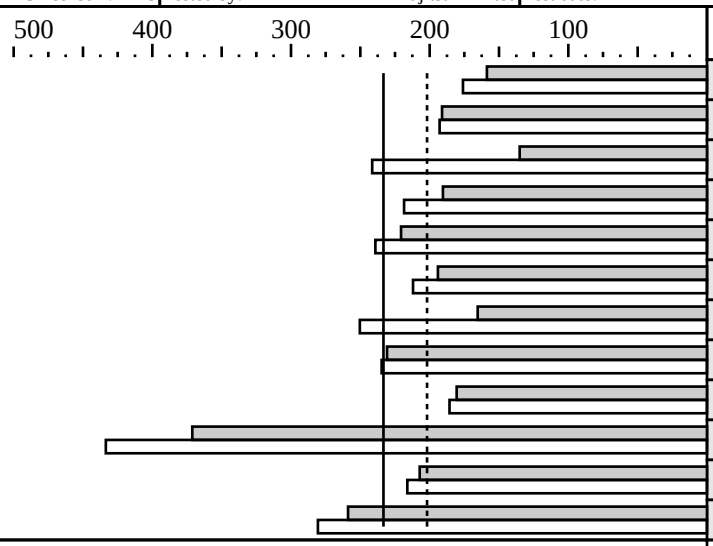
Fujitsu Limited
PRIMEPOWER900 (1890MHz)

SPECint_rate2000 = 233

SPECint_rate_base2000 = 202

SPEC license #: 19 | Tested by: Fujitsu Limited | Test date: May-2004 | Hardware Avail: Sep-2004 | Software Avail: Apr-2004



Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
164.gzip	16	164	159	16	148	176
175.vpr	16	136	191	16	135	193
176.gcc	16	151	135	16	84.6	241
181.mcf	16	175	190	16	153	218
186.crafty	16	84.1	221	16	77.6	239
197.parser	16	172	194	16	158	212
252.eon	16	146	165	16	96.4	250
253.perlbmk	16	145	231	16	142	235
254.gap	16	113	181	16	110	186
255.vortex	16	95.0	371	16	81.3	434
256.bzip2	16	134	207	16	129	216
300.twolf	16	215	259	16	198	281

Hardware

CPU:	SPARC64 V
CPU MHz:	1890
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:	3MB(I+D) on chip
L3 Cache:	None
Other Cache:	None
Memory:	32768MB
Disk Subsystem:	1 x 36.4GB SCSI (10000rpm)
Other Hardware:	None

Software

Operating System:	Solaris 9 4/04
Compiler:	Fujitsu Parallelnavi 2.3 with patch 913287-01 Sun Studio 8 Sun Performance Library 8
File System:	ufs
System State:	multi user

Notes/Tuning Information

```
FDO: (for Parallelnavi 2.3)
fdo_pre0=rm -rf ‘pwd‘/*.f.d
PASS1=-Kpg
PASS2=-Kpu=$(EXEBASE).fbk
FDO: (for Sun Studio 8)
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 8)
   -fast -xtarget=ultra3cu -xipo=2 ONESTEP=yes FDO
(using C++ compiler of Sun Studio 8)
   -fast -xchip=ultra3cu -xarch=v8plusb -xipo=2 ONESTEP=yes

Integer peak flags:
(using C compiler of Parallelnavi 2.3)
300.twolf:    -Kfast_GP2=3,GREG,eval,preex,cfunc -O3 ONESTEP=yes FDO
```

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Notes/Tuning Information (Continued)

```
(using C compiler of Sun Studio 8)
164.gzip:     -xO5 -xarch=v8plusb -xchip=ultra2 -xcache=128/64/2:4096/64/4
              -xalias_level=std -xipo=2 -xprefetch -W2,-whole,-Ainline
              -Wc,-Qiselect-funcalign=64 ONESTEP=yes FDO
175.vpr:      -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:4096/64/4
              -xalias_level=std -xchip=ultra -xipo=2 -xprefetch=latx:1.6
              -xsfpconst -W2,-whole -Wc,-Qeps:do_spec_load=1,
              -Qeps:enabled=1,-Qeps:rp_filtering_margin=100,
              -Qiselect-funcalign=64 -lmopt -lm ONESTEP=yes FDO
176.gcc:      -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:4096/64/4
              -xipo=2 -W2,-whole -Wc,-Qgsched-T4,-Qgsched-trace_late=1,
              -Qiselect-funcalign=64 -ll2amm ONESTEP=yes FDO
181.mcf:      -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:4096/64/4
              -xipo=2 -xprefetch_level=3 -W2,-Apf:llist=3:noinnerllist
              -Wc,-Qeps:enabled=1 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 -xregs=syst
              -Wc,-Qgsched-T6,-Qgsched-trace_late=1,
              -Qipa:valueprediction,-Qiselect-funcalign=64
              ONESTEP=yes FDO
253.perlbmk:  -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:4096/64/4
              -xipo=2 -xalias_level=std -Wc,-Qeps:enabled=1,
              -Qiselect-funcalign=64 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
              -xprefetch=latx:2.0 -xvector -W2,-Abcopy
              -Wc,-Qiselect-funcalign=64 ONESTEP=yes FDO
255.vortex:   -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:4096/64/4
              -xchip=ultra -xipo=2 -xrestrict -xprefetch=latx:1.6
              -W2,-Aheap,-Ainline:recursion=1:cs=500:irs=6000,-Aunroll,-crit,
              -Ms15,-Mt300,-Mr6000,-reroll=1 -Wc,-Qdepgraph-early_cross_call=1,
              -Qeps:do_spec_load=1,-Qeps:enabled=1,-Qiselect-funcalign=64,
              -Qpeep-Sh0 -ll2amm ONESTEP=yes FDO
256.bzip2:    -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:4096/64/4
              -xipo -xalias_level=strong -xregs=syst -xrestrict
              -xprefetch=latx:1.8 -W2,-Abopt -Wc,-Qiselect-funcalign=64,
              -Qeps:enabled ONESTEP=yes FDO

(using C++ compiler of Sun Studio 8)
252.eon:      -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:4096/64/4
              -noex -xalias_level=compatible -xipo=2 -xregs=syst -xunroll=3
              -Qoption cg -Qeps:enabled=1,-Qeps:ws=32,-Qgsched-T4,
              -Qgsched-trace_late=1,-Qiselect-funcalign=64
              -Qoption iropt -Mt2000 -lmopt ONESTEP=yes FDO

Portability:
176.gcc:      -Dalloca=__builtin_alloca -DHOST_WORDS_BIG_ENDIAN
186.crafty:   -DSUN
252.eon:      -library=iostream
253.perlbmk:  -DSPEC_CPU2000_SOLARIS
254.gap:      -DSYS_IS_USG -DSYS_HAS_TIME_PROTO -DSYS_HAS_SIGNAL_PROTO
              -DSYS_HAS_CALLOC_PROTO -DSYS_HAS_IOCTL_PROTO
```

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Notes/Tuning Information (Continued)

```
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 8, posted at URL http://wwws.sun.com/software/products/studio/
was used for this submission.

Model PRIMEPOWER850 and model PRIMEPOWER900 are electronically equivalent.
This result was measured on model PRIMEPOWER900.
```