CINT2000 Result

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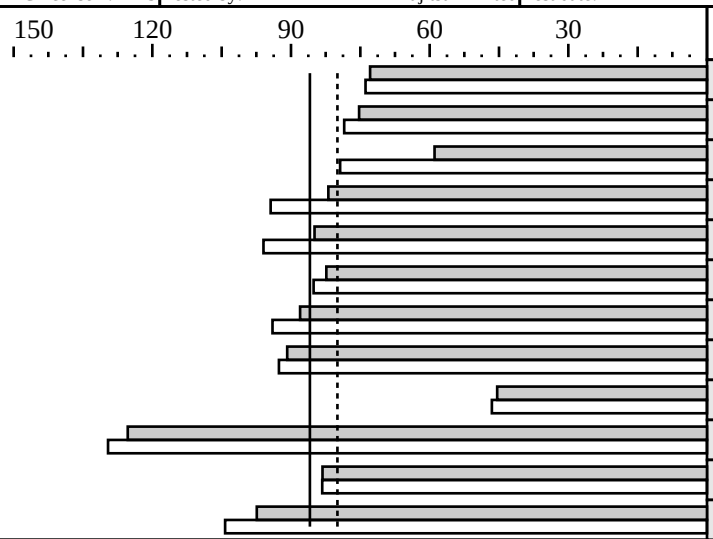
Fujitsu Limited
PRIMEPOWER800/1000/2000 (675MHz)

SPECint_rate2000 = 85.9

SPECint_rate_base2000 = 80.0

SPEC license #: 19 | Tested by: Fujitsu Limited | Test date: Sep-2001 | Hardware Avail: Sep-2001 | Software Avail: Dec-2001



Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
164.gzip	16	356	72.9	16	352	73.9
175.vpr	16	345	75.3	16	331	78.5
176.gcc	16	346	58.9	16	257	79.4
181.mcf	16	408	81.9	16	354	94.4
186.crafty	16	219	84.9	16	193	96.0
197.parser	16	406	82.4	16	393	85.1
252.eon	16	274	88.0	16	257	94.0
253.perlbmk	16	368	90.8	16	361	92.6
254.gap	16	450	45.4	16	439	46.5
255.vortex	16	281	125	16	272	130
256.bzip2	16	335	83.2	16	334	83.2
300.twolf	16	572	97.4	16	534	104

Hardware

CPU:	SPARC64 GP
CPU MHz:	675
FPU:	Integrated
CPU(s) enabled:	16 cores, 16 chips, 1 core/chip
CPU(s) orderable:	4 to 16/4 to 32/8 to 128
Parallel:	None
Primary Cache:	128KBI+128KBD on chip
Secondary Cache:	8MB(I+D) off chip, per CPU
L3 Cache:	None
Other Cache:	None
Memory:	32GB
Disk Subsystem:	1 x 36GB, 1 x 18GB SCSI (10000rpm)
Other Hardware:	None

Software

Operating System:	Solaris 8 7/01
Compiler:	Fujitsu Parallelnavi 1.0.2 with patch 911403-01 Sun Forte Developer 6 update 2
File System:	ufs
System State:	multi user

Notes/Tuning Information

```
Baseline (except 252.eon, for Parallelnavi 1.0.2): -Kfast_GP=3,largepage
fdo_pre0=rm -rf ‘pwd‘/*.fbk
PASS1=-Kpg
PASS2=-Kpu=$(EXEBASE).fbk
(252.eon, for Forte Developer 6 update 2): -fast -xcrossfile -xarch=v8plus
fdo_pre0=rm -rf ‘pwd‘/../feedback.profile ‘pwd‘/SunWS_cache
PASS1=-xprofile=collect:‘pwd‘/../feedback
PASS2=-xprofile=use:‘pwd‘/../feedback

Peak (for Parallelnavi 1.0.2):
fdo_pre0=rm -rf ‘pwd‘/*.fbk
PASS1=-Kpg
PASS2=-Kpu=$(EXEBASE).fbk
164.gzip: -Kfast_GP=4,largepage
175.vpr: -Kfast_GP=4,staticclump,memalias,switchopt,cond,GREG,nounroll,largepage,onefile,NOFLTLD=3,xi=30
181.mcf: -Kfast_GP=2,nounroll,memalias,restp,prefetch=2,largepage -x-
197.parser: -Kfast_GP=4,switchopt,cond,staticclump,use_rodata,largepage
253.perlbmk: -Kfast_GP=4,memalias,switchopt,largepage,bcopy
254.gap: -Kfast_GP=3,largepage,memalias,unroll=4
256.bzip2: -Kfast_GP=3,largepage
```

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Notes/Tuning Information (Continued)

```
300.twolf: -Kfast_GP=5,GREG,memalias,cfunc,staticclump,use_rodata,xi=10,largepage,nounroll,bcopy
(for Forte Developer 6 update 2)
 fdo_pre0=rm -rf ‘pwd‘/../feedback.profile ‘pwd‘/SunWS_cache
 PASS1=-xprofile=collect:‘pwd‘/../feedback
 PASS2=-xprofile=use:‘pwd‘/../feedback
176.gcc: -fast -xcrossfile -W2,-whole -Wc,-Qgsched-trace_late=1,-Qgsched-T4,-Qiselect-funcalign=64
          -xarch=v8plus -xprefetch -DUSG
186.crafty: -fast -xcrossfile -Wc,-Qgsched-trace_late=1,-Qgsched-T4 -xalias_level=strong
          -xregs=syst -xchip=ultra2 -xarch=v8plus -W2,-Amemopt
252.eon: -fast -xcrossfile -xsafe=mem -Qoption iropt -Mt500,-restrict_g,-restrict
          -Qoption cg -Qgsched-trace_late=1,-Qgsched-T4 -xarch=v8plus
255.vortex: -fast -xsafe=mem -xcrossfile -W2,-Aheap,-reroll=1,-Aunroll,-Ms1,-Mt500,-Mr6000,-crit
          -Wc,-Qdepgraph-early_cross_call=1 -Wc,-Qiselect-funcalign=32 -Wc,-Qpeep-Sh0
         -xrestrict -xdepend -Wc,-Qgsched-trace_late=1,-Qgsched-T4  -xarch=v8plus -W2,-Amemopt

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

Note:
 System Tunables: (for /etc/system)
  consistent_coloring=1, tune_t_fsflushr=86400, autoup=86400,
  shmsys:shminfo_shmmax=8589934592, shmsys:shminfo_shmmni=1024, shmsys:shminfo_shmseg=1024
 (for /etc/opt/FJSVpnrm/lpg.conf)
  TSS=512M, SHMSEGSIZE=256M
 ONESTEP=yes was set for all baseline and peak benchmarks.
 Feedback directed optimization was used for all baseline and peak benchmarks.
```