CINT2000 Result

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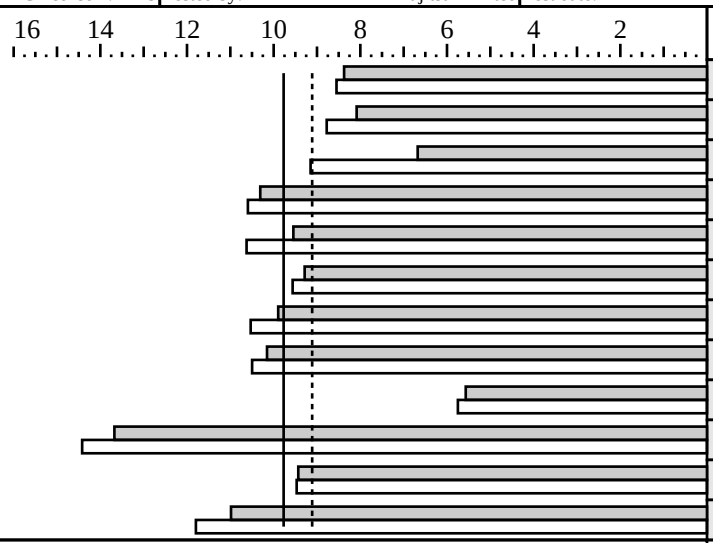
Fujitsu Limited
PRIMEPOWER400 (600MHz)

SPECint_rate2000 = 9.77

SPECint_rate_base2000 = 9.11

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



Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
164.gzip	2	388	8.37	2	380	8.55
175.vpr	2	402	8.09	2	370	8.78
176.gcc	2	382	6.68	2	279	9.15
181.mcf	2	405	10.3	2	394	10.6
186.crafty	2	243	9.55	2	218	10.6
197.parser	2	450	9.28	2	437	9.56
252.eon	2	305	9.90	2	286	10.5
253.perlbmk	2	411	10.2	2	398	10.5
254.gap	2	458	5.57	2	444	5.75
255.vortex	2	322	13.7	2	306	14.4
256.bzip2	2	369	9.43	2	368	9.47
300.twolf	2	634	11.0	2	590	11.8

Hardware

CPU:	SPARC64 GP
CPU MHz:	600
FPU:	Integrated
CPU(s) enabled:	2 cores, 2 chips, 1 core/chip
CPU(s) orderable:	1 to 4
Parallel:	None
Primary Cache:	128KBI+128KBD on chip
Secondary Cache:	8MB(I+D) off chip, per CPU
L3 Cache:	None
Other Cache:	None
Memory:	8192MB
Disk Subsystem:	1 x 36.4GB 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:	single 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
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-
186.crafty: -Kfast_GP=3,switchopt,cond,noiopt,staticclump,xi=6,memalias,largepage
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
```

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Notes/Tuning Information (Continued)

256.bzip2: -Kfast_GP=3,largepage
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
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.