CINT2000 Result

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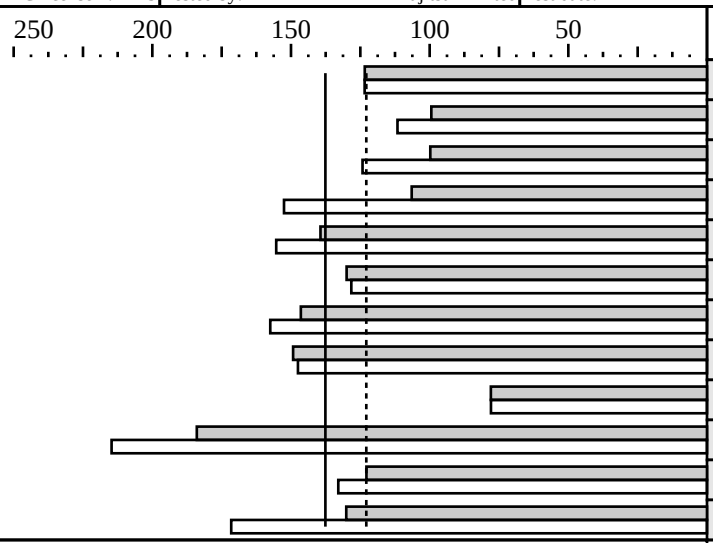
Fujitsu Limited
PRIMEPOWER2000 (563MHz)

SPECint_rate2000 = 138

SPECint_rate_base2000 = 123

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



Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
164.gzip	32	421	123	32	421	123
175.vpr	32	523	99.4	32	466	112
176.gcc	32	409	99.8	32	329	124
181.mcf	32	627	106	32	438	153
186.crafty	32	266	139	32	239	155
197.parser	32	514	130	32	521	128
252.eon	32	330	146	32	306	157
253.perlbmk	32	448	149	32	453	147
254.gap	32	524	77.9	32	524	77.9
255.vortex	32	383	184	32	329	215
256.bzip2	32	453	123	32	419	133
300.twolf	32	856	130	32	649	172

Hardware

CPU:	SPARC64 GP
CPU MHz:	563
FPU:	Integrated
CPU(s) enabled:	32 cores, 32 chips, 1 core/chip
CPU(s) orderable:	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:	29696MB
Disk Subsystem:	2 x 18.2GB SCSI (10025rpm)
Other Hardware:	Ethernet

Software

Operating System:	Solaris 8
Compiler:	Fujitsu Parallelnavi 1.0.1 Sun Forte Developer 6 update 1
File System:	ufs
System State:	single user

Notes/Tuning Information

```
Baseline (except 252.eon, for Parallelnavi 1.0.1): -Kfast_GP=3
 fdo_pre0=rm -rf ‘pwd‘/*.fbk
 PASS1=-Kpg
 PASS2=-Kpu=$(EXEBASE).fbk
(252.eon, for Forte Developer 6 update 1): -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 1.0.1):
 fdo_pre0=rm -rf ‘pwd‘/*.fbk
 PASS1=-Kpg
 PASS2=-Kpu=$(EXEBASE).fbk
 164.gzip: -Kfast_GP=3
 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=4,largepage -x-
 186.crafty: -Kfast_GP=3,switchopt,cond,noiopt,staticclump,xi=6,memalias
 197.parser: -Kfast_GP=3,switchopt,cond,staticclump,use_rodata,largepage,funcalign=128
 253.perlbmk: -Kfast_GP=3,memalias,switchopt,bcopy
 254.gap: -Kfast_GP=3
```

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Notes/Tuning Information (Continued)

```
 300.twolf: -Kfast_GP=5,GREG,popt,cfunc,staticclump,use_rodata,xi=10,nounroll,bcopy
(for Forte Developer 6 update 1)
 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
 252.eon: -fast -xcrossfile -xregs=syst -xsafe=mem -Qoption iropt -Mt500,-restrict_g,-restrict
         -Qoption cg -Qgsched-trace_late=1,-Qgsched-trace_spec_load=1,-Qgsched-T4 -xarch=v8plus
          -lmopt
 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
 256.bzip2: -fast -xarch=v8plus -W2,-Abopt -xcrossfile -xalias_level=strong
            -Wc,-Qiselect-funcalign=32 -xdepend -xregs=syst

Portability:
 176.gcc: -Dalloca=__builtin_alloca -DHOST_WORDS_BIG_ENDIAN
 186.crafty: -DSUN
 252.eon: -library=iostream,no%Cstd
 253.perlbmk: -DSPEC_CPU2000_SOLARIS -lnsl -lsocket
 254.gap: -DSYS_IS_USG -DSYS_HAS_TIME_PROTO -DSYS_HAS_SIGNAL_PROTO
          -DSYS_HAS_CALLOC_PROTO -DSYS_HAS_IOCTL_PROTO

Note:
 System Tunables: (for /etc/system)
  consistent_coloring=1, tune_t_fsflushr=86400, autoup=86400,
  shmsys:shminfo_shmmax=268435456, shmsys:shminfo_shmmni=1024, shmsys:shminfo_shmseg=1024
 (for /etc/opt/FJSVpnrm/lpg.conf)
  TSS=8192M, SHMSEGSIZE=256M
 ONESTEP=yes was set for all baseline and peak benchmarks.
 Feedback directed optimization was used for all baseline and peak benchmarks.

Also used, for 253.perlbmk (base and peak): -lnsl -lsocket
 These linker flags are no longer necessary for the benchmark, they are redundant and not necessary for result reproduction.
 (They were a leftover from a pre-release version of the benchmark which contained calls to the respective libraries.)
Submitted_by: NAKAGAWA Akikazu <a.nakagawa@cs.fujitsu.co.jp>
Submitted: Tue Mar 27 00:35:25 2001
Submission: cpu2000-20010327-00526.sub
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