CINT2000 Result

Copyright ©1999-2004, Standard Performance Evaluation Corporation

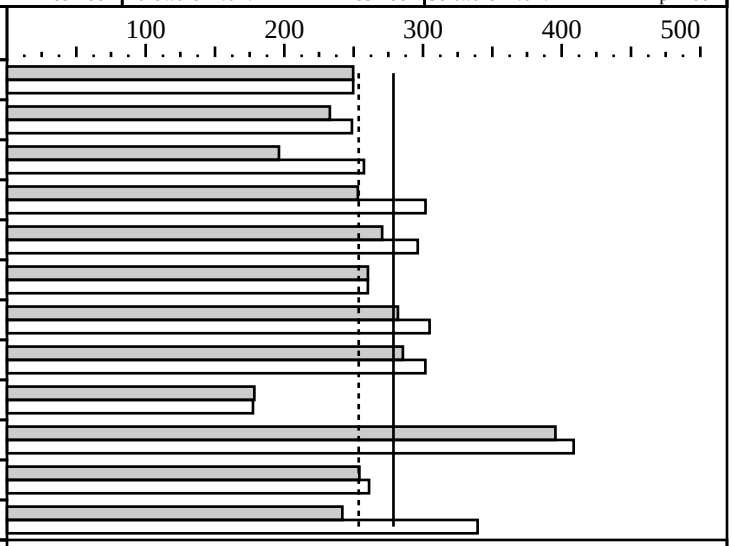
Fujitsu Limited
PRIMEPOWER200 (400MHz)

SPECint2000 = 279

SPECint_base2000 = 254

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

Benchmark	Reference Time	Base Runtime	Base Ratio	Runtime	Ratio
164.gzip	1400	561	250	561	250
175.vpr	1400	601	233	563	249
176.gcc	1100	561	196	427	257
181.mcf	1800	711	253	596	302
186.crafty	1000	370	271	338	296
197.parser	1800	692	260	692	260
252.eon	1300	461	282	427	305
253.perlbmk	1800	631	285	597	302
254.gap	1100	617	178	620	177
255.vortex	1900	480	396	465	409
256.bzip2	1500	590	254	574	261
300.twolf	3000	1240	242	884	339



Hardware

CPU:	SPARC64 GP
CPU MHz:	400
FPU:	Integrated
CPU(s) enabled:	1 core, 1 chip, 1 core/chip
CPU(s) orderable:	1 to 2
Parallel:	None
Primary Cache:	128KBI+128KBD on chip
Secondary Cache:	4MB(I+D) off chip, per CPU
L3 Cache:	None
Other Cache:	None
Memory:	2048MB
Disk Subsystem:	1 x 36.4GB 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,largepage
 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,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=4,largepage -x-
 186.crafty: -Kfast_GP=3,switchopt,cond,noiopt,staticclump,xi=6,memalias,largepage
 197.parser: -Kfast_GP=3,switchopt,cond,staticclump,use_rodata,largepage,funcalign=128
 253.perlbmk: -Kfast_GP=3,memalias,switchopt,largepage,bcopy
 254.gap: -Kfast_GP=3,largepage
```

Copyright ©1999-2004, Standard Performance Evaluation Corporation

Notes/Tuning Information (Continued)

256.bzip2: Kfast_GP=3,NOFLTLD=1,use_rodata,staticclump,xi=8,cfunc,memalias,restp,largepage,funcalign=128
300.twolf: -Kfast_GP=5,GREG,popt,cfunc,staticclump,use_rodata,xi=10,nounroll,largepage,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

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=512M, 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:
-Xa (base and peak, except where noted) for 176.gcc (base only), 181.mcf, 186.crafty, 197.parser (peak only), 254.gap
-dy (base) for all benchmarks except 252.eon, -dy (peak) for all except 176.gcc, 252.eon, 255. vortex
-DWANT_STD_PROTO for 181.mcf (base and peak), -DCPU2000 for 186.crafty (base and peak),
-DSUN -DCPU2000 for 197.parser (peak)
The flags listed above as "also used" were used for the actual compilation,
but they had no effect (-D flags), were the compiler’s default (-Xa), or the compiler’s
default when -Klargepage is used (-dy).
They are not necessary for result reproduction and can be omitted.