CINT2000 Result

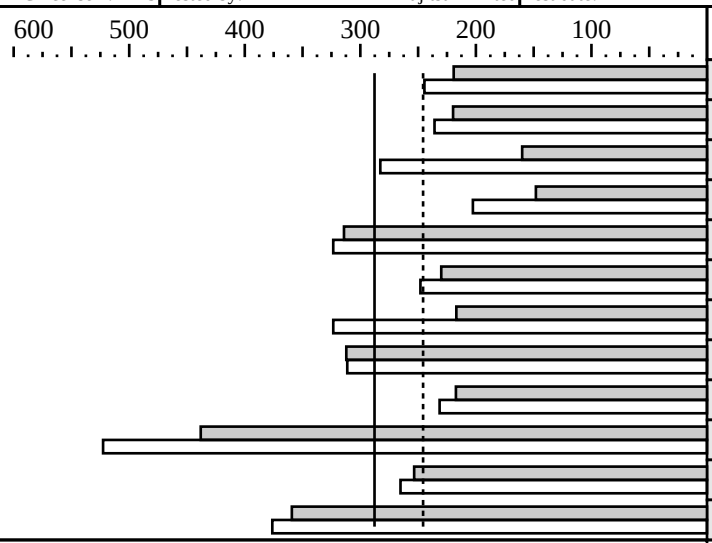
Copyright ©1999-2004, Standard Performance Evaluation Corporation

Fujitsu Limited
PRIMEPOWER1500 (1350MHz)

SPECint_rate2000 = 288

SPECint_rate_base2000 = 246

SPEC license #: 19 | Tested by: Fujitsu Limited | Test date: Jun-2003 | Hardware Avail: May-2003 | Software Avail: May-2003



Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
164.gzip	32	237	219	32	213	245
175.vpr	32	236	220	32	220	236
176.gcc	32	255	160	32	144	283
181.mcf	32	451	148	32	330	203
186.crafty	32	118	314	32	115	323
197.parser	32	291	230	32	269	248
252.eon	32	222	217	32	149	323
253.perlbmk	32	214	312	32	215	311
254.gap	32	188	217	32	176	231
255.vortex	32	161	438	32	135	523
256.bzip2	32	220	253	32	210	265
300.twolf	32	310	359	32	296	376

Hardware

CPU:	SPARC64 V
CPU MHz:	1350
FPU:	Integrated
CPU(s) enabled:	32 cores, 32 chips, 1 core/chip
CPU(s) orderable:	1 to 32 (increments of 1)
Parallel:	None
Primary Cache:	128KBI+128KBD on chip
Secondary Cache:	2MB(I+D) on chip
L3 Cache:	None
Other Cache:	None
Memory:	131072MB
Disk Subsystem:	1 x 36.4GB SCSI (10000rpm)
Other Hardware:	None

Software

Operating System:	Solaris8 2/02 with current patches (see notes)
Compiler:	Fujitsu Parallelnavi 1.0.2 Sun ONE Studio 8 Sun Performance Library 8
File System:	ufs
System State:	multi user

Notes/Tuning Information

```
Baseline (except 252.eon, for Sun ONE Studio 8):
   -fast -xtarget=ultra3cu -xipo=2 ONESTEP=yes
   fdo_pre0=rm -rf ./feedback.profile ./SunWS_cache
   PASS1=-xprofile=collect:./feedback
   PASS2=-xprofile=use:./feedback
Baseline (252.eon, for Sun ONE Studio 8):
   -fast -xchip=ultra3cu -xarch=v8plusb -xipo=2 ONESTEP=yes

Peak
(for Sun ONE Studio 8)
   fdo_pre0=rm -rf ./feedback.profile ./SunWS_cache
   PASS1=-xprofile=collect:./feedback
   PASS2=-xprofile=use:./feedback
164.gzip: -xO5 -xchip=ultra2 -xcache=128/64/2:2048/64/4 -xarch=v8plusb
    -xalias_level=std -xipo=2 -xprefetch
    -W2,-whole,-Ainline ONESTEP=yes
175.vpr: -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:2048/64/4
    -xchip=ultra2 -xalias_level=std -xipo=2 -xsfpconst -xdepend -W2,-whole
    -Wc,-Qeps:enabled=1,-Qeps:do_spec_load=1,-Qeps:rp_filtering_margin=100
    -lmopt -lm ONESTEP=yes
```

Copyright ©1999-2004, Standard Performance Evaluation Corporation

Notes/Tuning Information (Continued)

```
176.gcc: -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:2048/64/4
    -xchip=ultra3 -xipo=2 -xprefetch=latx:2.0 -W2,whole
    -Wc,-Qgsched-trace_late=1,-Qgsched-T4 -ll2amm ONESTEP=yes
181.mcf: -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:2048/64/4
    -xchip=ultra2 -xipo=2 -xdepend -Wc,-Qms_pipe-pref,-Qeps:enabled=1
    -xprefetch_level=3 -W2,-Apf:llist=3:noinnerllist -lprism32 ONESTEP=yes
186.crafty: -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:2048/64/4
    -xipo=2 -xalias_level=strong
    -W2,-Ashort_ldst ONESTEP=yes
197.parser: -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:2048/64/4
    -xipo=2 -xalias_level=strong -xdepend -xregs=syst
    -Wc,-Qgsched-trace_late=1,-Qgsched-T6,-Qipa:valueprediction -lprism32 ONESTEP=yes
252.eon: -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:2048/64/4
    -xchip=ultra3 -xipo=2 -xregs=syst -xalias_level=compatible -noex -xunroll=3
    -xprefetch=latx:0.8 -Qoption iropt -Mt2000
    -Qoption cg -Qgsched-trace_late=1,-Qgsched-T4,-Qeps:enabled=1,-Qeps:ws=32
    -lmopt ONESTEP=yes
253.perlbmk: -dn -xO5 -xchip=ultra3 -xcache=128/64/2:2048/64/4
    -xarch=v8plus -xipo=2 ONESTEP=yes
254.gap: -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:2048/64/4
    -xchip=ultra3 -xipo=2 -xalias_level=strong -xvector -xprefetch_level=3
    -W2,-whole,-Abcopy -Wc,-Qgsched-trace_late=1,-Qgsched-T4 ONESTEP=yes
255.vortex: -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:2048/64/4
    -xchip=ultra2 -xrestrict -xipo=2 -xdepend -xprefetch=latx:2.4
   -W2,-crit,-Ainline:recursion=1:cs=500:irs=6000,-Aheap,-reroll=1,-Aunroll,-Ms15,-Mt300,-Mr6000
    -Wc,-Qeps:enabled=1,-Qeps:do_spec_load=1,-Qdepgraph-early_cross_call=1
    -Wc,-Qiselect-funcalign=32,-Qpeep-Sh0 -ll2amm -lprism32 ONESTEP=yes
256.bzip2: -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:2048/64/4
    -xchip=ultra3 -xipo -xalias_level=strong -xdepend -xregs=syst
    -xrestrict -xprefetch=latx:1.6 -W2,-Abopt
    -Wc,-Qiselect-funcalign=64,-Qeps:enabled ONESTEP=yes

(for Parallelnavi 1.0.2)
300.twolf: -Kfast_GP=5,GREG,popt,cfunc,staticclump,use_rodata,
    xi=10,nounroll,largepage,bcopy,prefetch=4 -dy
    PASS1=-Kpg PASS2=-Kpu=$(EXEBASE).fbk
    ONESTEP=yes

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

Note:
System Tunables: (for /etc/system)
 set consistent_coloring=1,
 set shmsys:shminfo_shmmax=17179869184,set shmsys:shminfo_shmmni=256,
 set shmsys:shminfo_shmseg=400,set shmsys:shminfo_shmmin=1
 set tune_t_fsflushr = 86400
 set autoup = 86400
System Tunables: (for /etc/opt/FJSVpnrm/lpg.conf)
 TSS=8192M, SHMSEGSIZE=256M
Shell Environments:
```

Copyright ©1999-2004, Standard Performance Evaluation Corporation

Notes/Tuning Information (Continued)

```
  LD_LIBRARY_PATH="/opt3/SUNWspro/prod/lib/v8plusb"
  PRISM_HEAP=268435456
  PRISM_MODE=2

ONESTEP=yes was set for all baseline and peak benchmarks.
Feedback directed optimization was used for all baseline and peak benchmarks
except 252.eon(base).
Processes were bound to CPUs using "submit=pbind".
Stack size set to unlimited via "ulimit -s unlimited".
Sun ONE Studio 8, posted at URL http://wwws.sun.com/software/sundev/suncc/
was used for this submission.
All patches for Solaris8 posted at
  http://access1.sun.com/patch.public/cgi-bin/show_list.cgi/wrk/Sun_ONE_Studio_7_SPARC_SunOS_5.8
as of date 2003/04/21 were applied: 108434-12, 108435-12, 111697-04, 111721-03.
```