



CINT2000 Result

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Fujitsu Limited
PRIMEPOWER650 (2025MHz)

SPECint_rate2000 = 126

SPECint_rate_base2000 = 115

SPEC license #: 19 Tested by: Fujitsu Limited Test date: Apr-2005 Hardware Avail: Jun-2005 Software Avail: Apr-2004

Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
164.gzip	8	143	91.0	8	136	95.6
175.vpr	8	122	106	8	119	109
176.gcc	8	138	73.8	8	78.6	130
181.mcf	8	167	99.8	8	147	114
186.crafty	8	76.7	121	8	71.0	131
197.parser	8	157	106	8	145	115
252.eon	8	88.1	137	8	85.7	141
253.perlbnk	8	133	126	8	133	125
254.gap	8	107	95.2	8	104	98.4
255.vortex	8	78.5	224	8	76.3	231
256.bzip2	8	126	111	8	121	115
300.twolf	8	200	139	8	183	152

Hardware

CPU: SPARC64 V
 CPU MHz: 2025
 FPU: Integrated
 CPU(s) enabled: 8 cores, 8 chips, 1 core/chip
 CPU(s) orderable: 1 to 8 (increments of 1)
 Parallel: None
 Primary Cache: 128KBI + 128KBD on chip
 Secondary Cache: 3MB(I+D) on chip
 L3 Cache: None
 Other Cache: None
 Memory: 16384MB
 Disk Subsystem: 1 x 36.4GB SCSI (10000rpm)
 Other Hardware: None

Software

Operating System: Solaris 9 4/04
 Compiler: (C/C++)
 Fujitsu Parallelnavi 2.3 with patch 913287-01
 Sun Studio 9
 File System: ufs
 System State: multi user

Notes/Tuning Information

```
FDO: (for Parallelnavi 2.3)
fdo_pre0=rm -rf `pwd`/*.f.d
PASS1=-Kpg
PASS2=-Kpu=$(EXEBASE).fbk
FDO: (for Sun Studio 9)
fdo_pre0=rm -rf ./feedback.profile ./SunWS_cache
PASS1=-xprofile=collect:./feedback
PASS2=-xprofile=use:./feedback
```

```
Integer base flags:
(using C compiler of Sun Studio 9)
-fast -xtarget=ultra3cu -xipo=2 ONESTEP=yes FDO
(using C++ compiler of Sun Studio 9)
-fast -xtarget=ultra3cu -xipo=2 ONESTEP=yes FDO
```

```
Integer peak flags:
(using C compiler of Parallelnavi 2.3)
300.twolf: -Kfast_GP2=3,GREG,eval,preex,cfunc -O3 ONESTEP=yes FDO
```



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Notes/Tuning Information (Continued)

(using C compiler of Sun Studio 9)

164.gzip: -xarch=v8plusb -xchip=ultra2 -xcache=128/64/2:4096/64/4
-xalias_level=std -xipo=2 -W2,-whole -xO5 ONESTEP=yes FDO

175.vpr: -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:4096/64/4
-xalias_level=std -xchip=ultra2 -xipo=2 ONESTEP=yes FDO

176.gcc: -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:4096/64/4
-xipo=2 -l12amm ONESTEP=yes FDO

181.mcf: -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:4096/64/4
-xipo=2 -xprefetch_level=3 -W2,-Apf:l1list=3:noinnerl1list
ONESTEP=yes FDO

186.crafty: -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:4096/64/4
-xalias_level=strong -xipo=2 -xpagesize=512K -W2,-Ashort_ldst
ONESTEP=yes FDO

197.parser: -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:4096/64/4
-xalias_level=strong -xipo=2 -xregs=syst -Wc,-Qgsched-T6,
-Qgsched-trace_late=1,-Qipa:valueprediction ONESTEP=yes FDO

253.perlbnk: -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:4096/64/4
-xipo=2 -xalias_level=std ONESTEP=yes FDO

254.gap: -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:4096/64/4
-xalias_level=strong -xipo=2 -xprefetch_level=3 -xvector
-W2,-Abcopy ONESTEP=yes FDO

255.vortex: -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:4096/64/4
-xipo=2 -xrestrict -W2,-crit,-Ainline:recursion=1:cs=500:irs=6000
-Wc,-Qdepgraph-early_cross_call=1 -l12amm ONESTEP=yes FDO

256.bzip2: -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:4096/64/4
-xipo=2 -xalias_level=strong -xrestrict ONESTEP=yes FDO

(using C++ compiler of Sun Studio 9)

252.eon: -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:4096/64/4
-noex -xalias_level=compatible -xipo=2 -xregs=syst
-Qoption cg -Qeps:enabled=1,-Qeps:ws=32 ONESTEP=yes FDO

Portability:

176.gcc: -Dalloca=__builtin_alloca -DHOST_WORDS_BIG_ENDIAN

186.crafty: -DSUN

252.eon: -library=iostream

253.perlbnk: -DSPEC_CPU2000_SOLARIS

254.gap: -DSYS_IS_USG -DSYS_HAS_TIME_PROTO -DSYS_HAS_SIGNAL_PROTO
-DSYS_HAS_CALLOC_PROTO -DSYS_HAS_IOCTL_PROTO

System Tunables:

(for /etc/system)

```
set consistent_coloring=1
set tune_t_fsflushr=86400
set autoup=86400
```

Shell Environments:

```
Stack size set to unlimited via "ulimit -s unlimited"
MPSSHEAP=4M
MPSSSTACK=4M
LD_PRELOAD=mpss.so.1
```

Processes were bound to CPUs using "submit=pbind"

Extended Interleave Mode enabled.



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Sun Studio 9, posted at URL <http://www.sun.com/software/products/studio/previous/9/index.xml> was used for this submission.