



CINT2000 Result

Copyright ©1999-2004, Standard Performance Evaluation Corporation

Fujitsu Limited
PRIMEPOWER450 (1320MHz)

SPECint2000 = **882**
SPECint_base2000 = **762**

SPEC license #: 19 Tested by: Fujitsu Limited Test date: Dec-2003 Hardware Avail: Feb-2004 Software Avail: Dec-2003

Benchmark	Reference Time	Base Runtime	Base Ratio	Runtime	Ratio	
164.gzip	1400	223	627	201	697	
175.vpr	1400	215	652	188	744	
176.gcc	1100	129	850	124	886	
181.mcf	1800	294	613	204	882	
186.crafty	1000	120	836	116	865	
197.parser	1800	274	657	249	722	
252.eon	1300	228	570	145	897	
253.perlbnk	1800	210	858	208	864	
254.gap	1100	160	688	145	757	
255.vortex	1900	145	1310	110	1730	
256.bzip2	1500	197	760	187	801	
300.twolf	3000	309	971	278	1081	

Hardware

CPU: SPARC64 V
 CPU MHz: 1320
 FPU: Integrated
 CPU(s) enabled: 1 core, 1 chip, 1 core/chip
 CPU(s) orderable: 1 to 4 (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: 8192MB (512MB x 16)
 Disk Subsystem: 1 x 36.4GB SCSI (10000rpm)
 Other Hardware: None

Software

Operating System: Solaris 8 2/02 with current patches (see notes)
 Compiler: Fujitsu Parallelnavi 2.3
 Sun ONE Studio 8
 Sun Performance Library 8
 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 ONE Studio 8)
fdo_pre0=rm -rf ./feedback.profile ./SunWS_cache
PASS1=-xprofile=collect:./feedback
PASS2=-xprofile=use:./feedback

Integer base flags:
(using C compiler of Sun ONE Studio 8)
-fast -xtarget=ultra3cu -xipo=2 ONESTEP=yes FDO
(using C++ compiler of Sun ONE Studio 8)
-fast -xchip=ultra3cu -xarch=v8plusb -xipo=2 ONESTEP=yes

Integer peak flags:
(using C compiler of Parallelnavi 2.3)
300.twolf: -Kfast_GP2=3 -O5 -KGREG,largepage,memalias,cfunc,
use_rodaxi=20 ONESTEP=yes FDO
```



CINT2000 Result

Copyright ©1999-2004, Standard Performance Evaluation Corporation

Fujitsu Limited
PRIMEPOWER450 (1320MHz)

SPECint2000 = 882
SPECint_base2000 = 762

SPEC license #: 19 | Tested by: Fujitsu Limited | Test date: Dec-2003 | Hardware Avail: Feb-2004 | Software Avail: Dec-2003

Notes/Tuning Information (Continued)

(using C compiler of Sun ONE Studio 8)

164.gzip: -xO5 -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:2048/64/4
-xalias_level=std -xipo=2 -xprefetch -W2,-whole,-Ainline
-Wc,-Qiselect-funcalign=64 ONESTEP=yes FDO

175.vpr: -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:2048/64/4
-xarch=v8plus -xchip=ultra -xalias_level=std -xdepend -xipo=2
-xprefetch=latx:1.6 -xsfpconst -W2,-whole -Wc,-Qeps:do_spec_load=1
-Wc,-Qeps:enabled=1,-Qeps:rp_filtering_margin=100,
-Qiselect-funcalign=64 -lprism32 ONESTEP=yes FDO

176.gcc: -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:2048/64/4
-xipo=2 -xprefetch=latx:1.6 -W2,-whole
-Wc,-Qgsched-T4,-Qgsched-trace_late=1,-Qiselect-funcalign=64
-ll2amm ONESTEP=yes FDO

181.mcf: -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:2048/64/4
-xchip=ultra2 -xdepend -xipo=2 -W2,-Apf:l1list=3:noinnerl1list
-Wc,-Qeps:enabled=1,-Qms_pipe-pref -lprism32 ONESTEP=yes FDO

186.crafty: -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:2048/64/4
-xarch=v8plusa -xalias_level=strong -xipo=2
-xprefetch=latx:0.8 -W2,-Ashort_ldst -Wc,-Qiselect-funcalign=64
ONESTEP=yes FDO

197.parser: -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:2048/64/4
-xalias_level=strong -xdepend -xipo=2 -xprefetch=latx:0.8
-xregs=syst -Wc,-Qgsched-T6,-Qgsched-trace_late=1,
-Qipa:valueprediction,-Qiselect-funcalign=64
-lprism32 ONESTEP=yes FDO

253.perlbnk: -dn -xO5 -xarch=v8plus -xchip=ultra3 -xcache=128/64/2:2048/64/4
-xipo=2 -Wc,-Qiselect-funcalign=64
ONESTEP=yes FDO

254.gap: -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:2048/64/4
-xalias_level=strong -xipo=2 -xprefetch_level=3 -xprefetch=latx:2.0
-xvector -W2,-Abcopy,-whole -Wc,-Qgsched-T4,-Qgsched-trace_late=1,
-Qiselect-funcalign=64 ONESTEP=yes FDO

255.vortex: -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:2048/64/4
-xchip=ultra -xdepend -xipo=2 -xrestrict -xprefetch=latx:1.6
-W2,-Aheap,-Ainline:recursion=1:cs=500:irs=6000,-Aunroll,-crit
-W2,-Ms15,-Mt300,-Mr6000,-reroll=1 -Wc,-Qdepgraph-early_cross_call=1
-Wc,-Qeps:do_spec_load=1,-Qeps:enabled=1,-Qiselect-funcalign=64
-Wc,-Qpeep-Sh0 -ll2amm -lprism32 ONESTEP=yes FDO

256.bzip2: -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:2048/64/4
-xipo -xalias_level=strong -xdepend -xregs=syst -xrestrict
-xprefetch=latx:0.8 -W2,-Abopt -Wc,-Qiselect-funcalign=64
-Wc,-Qeps:enabled ONESTEP=yes FDO

(using C++ compiler of Sun ONE Studio 8)

252.eon: -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:2048/64/4
-noex -xalias_level=compatible -xipo=2
-xprefetch=latx:0.8 -xregs=syst -xunroll=3
-Qoption cg -Qeps:enabled=1,-Qeps:ws=32,-Qgsched-T4,
-Qgsched-trace_late=1,-Qiselect-funcalign=64
-Qoption iropt -Mt2000 -lmopt 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



CINT2000 Result

Copyright ©1999-2004, Standard Performance Evaluation Corporation

Fujitsu Limited
PRIMEPOWER450 (1320MHz)

SPECint2000 = 882
SPECint_base2000 = 762

SPEC license #: 19 | Tested by: Fujitsu Limited | Test date: Dec-2003 | Hardware Avail: Feb-2004 | Software Avail: Dec-2003

Notes/Tuning Information (Continued)

-DSYS_HAS_CALLOC_PROTO -DSYS_HAS_IOCTL_PROTO

System Tunables:

(for /etc/system)

```
set consistent_coloring=1
set shmsys:shminfo_shmmax=2147483648, set shmsys:shmmani=256,
set shmsys:shminfo_shmseg=400, set shmsys:shmmin=1
set tune_t_fsflushr = 86400
set autoup = 86400
```

(for /etc/opt/FJSVpnm/lpg.conf)

```
TSS=1024M, SHMSEGSIZE=256M
```

Shell Environments:

```
Stack size set to unlimited via "ulimit -s unlimited"
```

```
LD_LIBRARY_PATH="/opt/SUNWspro/prod/lib/v8plusb"
```

```
PRISM_HEAP=268435456
```

```
PRISM_MODE=2
```

System board used with only on CPU present.

Sun ONE Studio 8, posted at URL <http://www.sun.com/software/sundev/suncc/> was used for this submission.

All patches for Solaris 8 posted at

http://access1.sun.com/patch.public/cgi-bin/show_list.cgi/wrk/Sun_ONE_Studio_8_SPARC_SunOS_5.8 as of date 2003/12/17 were applied: 108434-13, 108435-13, 111697-04, 111721-04.