## Sun Microsystems
### Sun Blade 150 (650 MHz)

**SPECint2000 = 246**  
**SPECint_base2000 = 230**

**CPU:** UltraSPARC IIi  
**CPU MHz:** 650  
**FPU:** Integrated  
**CPU(s) enabled:** 1 core, 1 chip, 1 core/chip  
**CPU(s) orderable:** 1  
**Parallel:** No  
**Primary Cache:** 16KBI+16KBD on chip  
**Secondary Cache:** 512KB (I+D) on chip  
**L3 Cache:** None  
**Memory:** 256MB  
**Disk Subsystem:** 1 x Seagate ST340016A  
**Other Hardware:** None

### Software

- **Operating System:** Solaris 8 2/02  
- **Compiler:** Sun ONE Studio 7 and Sun Performance Library 7  
- **File System:** ufs  
- **System State:** Multi-User

### Notes/Tuning Information

- **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

- **Profile Feedback (-xprofile):**  
  - fdo_pre0: rm -rf ./feedback.profile ./SunWS_cache  
  - Pass 1: -xprofile=collect:/feedback  
  - Pass 2: -xprofile=use:/feedback

- **Base Flags:**  
  - Base C flags: -fast -xcrossfile -xprofile  
  - Base C++ flags: -fast -xcrossfile -xprofile

- **Peak Flags:**  
  - 164.gzip: -xO5 -xtarget-native -xalias_level=std -W2,-whole -xcrossfile -W2,-Ainline -xprofile  
  - 175.vpr: -fast -xalias_level=std -xcrossfile -xsfpcost -W2,-whole
### Notes/Tuning Information (Continued)

- `-Wc,-Qeps:enabled=1,-Qeps:do_spec_load=1,-Qeps:rp_filtering_margin=100`
- `-xregs=syst -lmopt -xprofile`
- **176.**gcc: `-fast -xcrossfile -W2,-whole -Wc,-Qsched-trace_late=1,-Qsched-T4 -xprofile`
- **181.**mcf: basepeak=yes
- **186.**crafty: `-fast -xF -xinline= -xcrossfile -Wc,-Qsched-trace_late=1,-Qsched-T4 -xalias_level=strong -xregs=syst -W2,-Ashort_ldst,-Aivel: duplicate_loops -xprofile`
- **197.**parser: `-fast -xprefetch=no%auto -xcrossfile -xregs=syst`
  - `-Wc,-Qsched-trace_late=1,-Qsched-T4 -xalias_level=strong -Wc,-Qipa:valueprediction -xprofile`
- **252.**eon: `-fast -xchip=generic -xcrossfile -xalias_level=compatible -xsafe=mem`
  - `-Qoption iropt -Mt500,-xrestrict -Qoption cg -Qsched-trace_late=1,-Qsched-T4`
  - `-dn -lmopt -xprofile`
- **253.**perlbench: `-xO5 -xtarget=native -xcrossfile -xalias_level=std -xsafe=mem`
  - `-Wc,-Qsched-trace_late=1,-Qsched-T4,-Qsched-trace_spec_load=1`
  - `-Wc,-Qinline_memcpy=32 -Wc,-Qilect-funcalign=32,-Qlcache-chbab=1`
  - `-Wc,-Qilect-sw_pf_tbl_th=20 -xprofile`
- **254.**gap: `-fast -xcrossfile -xalias_level=std -xprefetch=no%auto -xprofile`
- **255.**vortex: `-fast -xcrossfile -Wc,-Qeps:enabled=1,-Qeps:do_spec_load=1`
  - `-Wc,-Qinline_memcpy=32 -W2,-Aheap,-reroll=1,-Aunroll,-Msl,-Mt500,-Mr6000,-crit`
  - `-Wc,-Qdepgraph-early_cross_call=1 -Wc,-Qilect-funcalign=32`
  - `-Wc,-Qepsh-Sh0 -xrestrict -xprofile`
- **256.**bzip2: `-fast -W2,-Adopt -xcrossfile -xalias_level=strong`
  - `-Wc,-Qilect-funcalign=32 -xregs=syst -xprofile`
- **300.**twolf: `-fast -xalias_level=strong -xsafe=mem -xcrossfile -xprefetch=no%auto -xprofile`

ONESTEP=yes for all benchmarks in base and peak

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

Software Patches: All patches for the Sun ONE Studio 7 Compiler (Product Patches and OS patches) as recommended by http://access1.sun.com/sundev/s1s7-patches.html on Aug the 7th, 2002 were installed (111704-03 111705-02 111706-01 111708-01 111709-01 111714-01 111715-01 111716-02 111718-01 111723-01 108434-08 108435-08 111697-03 111721-02)