OMPL2001 Result

Sun Microsystems

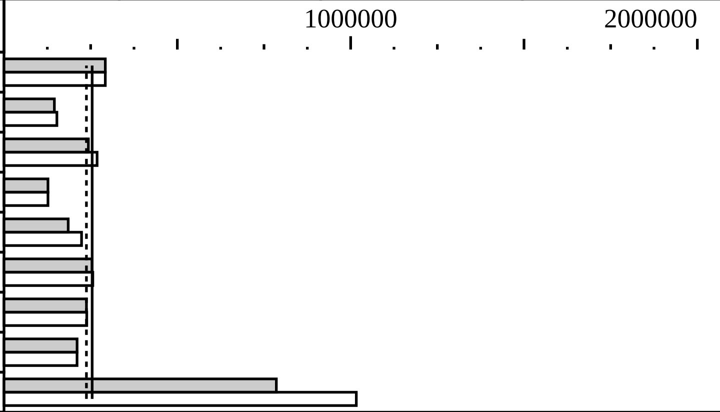
Sun Fire X2270 (Intel Xeon X5570 2.93GHz)

SPECompLpeak2001 = 254318

SPECompLbase2001 = 237781

SPEC license #: HPG0010	Tested by: Sun Microsystems	Test site: Menlo Park	Test date: Mar-2009	Hardware Avail: Apr-2009	Software Avail: Jun-2009

Benchmark	Reference Time	Base Runtime	Base Ratio	Peak Runtime	Peak Ratio
311.wupwise_l	9200	504	292217	504	292216
313.swim_l	12500	1376	145331	1311	152583
315.mgrid_l	13500	887	243413	804	268546
317.applu_l	13500	1703	126851	1703	126851
321.equake_l	13000	1123	185219	930	223712
325.apsi_l	10500	662	253927	656	256181
327.gafort_l	11000	740	237879	737	238754
329.fma3d_l	23500	1783	210836	1784	210708
331.art_l	25000	509	785590	394	1016266



Hardware

CPU:	Intel Xeon X5570
CPU MHz:	2933
FPU:	Integrated
CPU(s) enabled:	8 cores, 2 chips, 4 cores/chip, 2 threads/core
CPU(s) orderable:	1,2 chips
Primary Cache:	32 KB I + 32 KB D on chip per core
Secondary Cache:	256 KB I+D on chip per core
L3 Cache:	8 MB I+D on chip per chip
Other Cache:	None
Memory:	24 GB (6 x 4 GB DDR3-1333)
Disk Subsystem:	1 x 1 TB, SATA, 7200 RPM
Other Hardware:	None

Software

OpenMP Threads:	16
Parallel:	OpenMP and Automatic parallel
Operating System:	OpenSolaris 2008.11
Compiler:	Sun Studio 12 Update 1 (backend build 20090309)
File System:	zfs
System State:	Multi-User

Notes/Tuning Information

```
Compiler Invocation:
  C   : cc
  F90 : f90
  F77 : f90

Base tuning:
  Fortran :  -fast  -xtarget=nehalem -xarch=generic  -xpagesize=2M
             -xmodel=medium -xopenmp -xautopar -xipo=2 -xvector=lib
             -xprefetch -xprefetch_level=3 -m64 -lmtmalloc
  C       :  -fast -m64 -xmodel=medium -fns=no -xalias_level=layout
             -xdepend=no -xopenmp -lmvec
  ONESTEP=yes

Peak tuning:
 ONESTEP=yes for all peak tests.

 311.wupwise_l   : -fast -xtarget=nehalem -xarch=generic -xpagesize=2M
                   -xmodel=medium -xopenmp -xautopar -xipo=2 -xvector=lib
                   -xprefetch -xprefetch_level=3 -m64 -lmtmalloc
 313.swim_l      : -fast -xpagesize=2M -xmodel=medium -xopenmp
                   -xautopar -xipo=2 -xvector=lib
                   -xprefetch -xprefetch_level=3 -m64 -lmtmalloc
                   SUNW_MP_PROCBIND="8 10 12 14 9 11 13 15"
                   OMP_NUM_THREADS=8
 315.mgrid_l     : -fast  -xtarget=nehalem -xarch=generic
                   -xpagesize=2M -xmodel=medium -xopenmp -xautopar
```

Notes/Tuning Information (Continued)

```
                   -xipo=2 -xvector=lib -xprefetch -xprefetch_level=3 -m64
                   -lmtmalloc
                   SUNW_MP_PROCBIND="8 10 12 14 9 11 13 15"
                   OMP_NUM_THREADS=8
 317.applu_l     : basepeak=yes
 321.equake_l    : -fast -xmodel=medium -fns=no -xalias_level=layout
                   -m64 -xdepend=no -xopenmp -lmvec
                   SUNW_MP_PROCBIND="8 10 12 14 9 11 13 15"
                   OMP_NUM_THREADS=8
 325.apsi_l      : -fast -xpagesize=2M -xmodel=medium -xopenmp -xautopar
                   -xipo=2 -xvector=lib -xprefetch -xprefetch_level=3
                   -m64 -lmtmalloc
 327.gafort_l    : -fast -xmodel=medium -fstore  -aligncommon=8
                   -xpagesize=2m -xipo=2 -m64 -xvector=simd
                   -xopenmp -lmvec
 329.fma3d_l     : -fast -xpagesize=2M -xmodel=medium -xopenmp -xautopar
                   -xipo=2 -xvector=lib -xprefetch
                   -xprefetch_level=3  -m64 -lmtmalloc
 331.art_l       : -fast -xpagesize=2M -xmodel=medium -xopenmp
                   -xautopar -xipo=2 -xvector=lib -xprefetch
                   -xprefetch_level=3 -m64 -lmtmalloc
                   SUNW_MP_PROCBIND="8 10 12 14 9 11 13 15"
                   OMP_NUM_THREADS=8

Extra art allowed flags:
  331.art_l      : -DINTS_PER_CACHELINE=16 -DDBLS_PER_CACHELINE=8

Base and Peak User Environment:
  export OMP_NUM_THREADS=16
  export SUNW_MP_PROCBIND=TRUE
  export SUNW_MP_THR_IDLE=SPIN
  export OMP_NESTED=FALSE
  export STACKSIZE=16384
  export OMP_DYNAMIC=TRUE
  ulimit -s unlimited

For a description of Sun Studio 12 Update 1 Compiler flags, portability flags
and system parameters used to generate this result, please refer to
SUN-20090504-Studio-Solaris-X86_64.txt file in the flags directory.

Platform Notes:
  Intel Turbo Boost Technology up to 3.33 GHz
  Default BIOS settings used except:
    Hyper-Threading Technology Enabled (default),
    Intel VT-d: Disabled.  VT-d, if enabled, supports
    remapping of I/O DMA transfers for virtualization.
```