OMPL2001 Result

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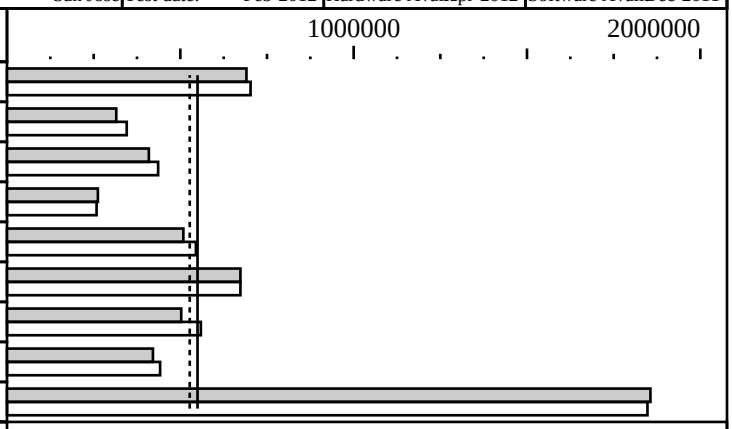
Cisco
C220 M3

SPECompLpeak2001 = 549613

SPECompLbase2001 = 527122

SPEC license #HPG9019 | Tested by: Cisco | Test site: San Jose | Test date: Feb-2012 | Hardware Avail: Apr-2012 | Software Avail: Dec-2011

Benchmark	Reference Time	Base Runtime	Base Ratio	Peak Runtime	Peak Ratio
311.wupwise_l	9200	213	690726	210	702597
313.swim_l	12500	635	315187	579	345357
315.mgrid_l	13500	528	409202	495	435975
317.applu_l	13500	824	262158	836	258409
321.equake_l	13000	409	508751	382	544936
325.apsi_l	10500	249	673358	249	673358
327.gafort_l	11000	350	502602	315	559136
329.fma3d_l	23500	893	420977	851	441654
331.art_l	25000	216	1856053	217	1847476



Hardware

CPU:	Intel(R) Xeon(R) Processor E5-2690
CPU MHz:	2900
FPU:	Integrated
CPU(s) enabled:	16 cores, 2 chips, 8 cores/chip, 2 thread/core
CPU(s) orderable:	1,2
Primary Cache:	32KB(I)+32KB(D) per core on chip
Secondary Cache:	256KB per core (I+D) on chip
L3 Cache:	20MB (I+D) per chip on chip
Other Cache:	N/A
Memory:	128 GB (DDR3 RDIMM 16x8-GB 1600 MHz)
Disk Subsystem:	LSI MR9266-8i (scsi) 299GB
Other Hardware:	

Software

OpenMP Threads:	32
Parallel:	OpenMP
Operating System:	Red Hat EL 6.2, 2.6.32-220.el6.x86_64
Compiler:	Intel C/C++ Compiler 12.0.2 for Linux Intel FORTRAN Compiler 12.0.2 for Linux GNU C Compiler 4.4.6
File System:	Linux ext4
System State:	Default

Notes/Tuning Information

```
    BIOS settings notes:
        Intel Hyper-Threading Technology (SMT): Enabled (default is Enabled)
       Intel Turbo Boost Technology (Turbo)  : Enabled (default is Enabled)(Max 3.8GHz)
    Extra Flags:
        331.art_l: -DINTS_PER_CACHELINE=32 -DDBLS_PER_CACHELINE=16
        all: -gcc-name=/usr/bin/gcc
General Notes and environment variables
export KMP_LIBRARY=turnaround
export KMP_STACKSIZE=31M
export KMP_BLOCKTIME=infinite
export OMP_DYNAMIC=FALSE
ONESTEP=yes
ulimit -s unlimited
For compiler/openmp flags description please refer:
http://www.spec.org/cpu2006/flags/Intel-ic12.0-linux64-revB.20120329.html
Base optimization flags and environment variables:
Large:
OPTIMIZE=-O2 -xAVX -ipo -openmp -no-prec-div -mcmodel=medium -shared-intel
COPTIMIZE = -ansi_alias
export KMP_AFFINITY=compact,0
Peak optimization flags and environment variables:
Large:
OPTIMIZE=-O2 -xAVX -ipo -openmp -mcmodel=medium -shared-intel
COPTIMIZE = -ansi_alias
export KMP_AFFINITY=compact,1
Peak per-benchamrk optimization flags and environment variables:
```

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Notes/Tuning Information (Continued)

```
311.wupwise_l
OPTIMIZE=-O3 -xSSE4.2 -ipo -openmp

313.swim_l
srcalt = ompl.32
OPTIMIZE=-O3 -xSSE4.2 -ipo -openmp  -opt-streaming-stores always -align
export KMP_AFFINITY=compact,1
export OMP_NUM_THREADS=16

315.mgrid_l
OPTIMIZE=-O3 -xSSE4.2 -ipo -openmp  -fno-alias
export KMP_AFFINITY=compact,1
export OMP_NUM_THREADS=16

317.applu_l
OPTIMIZE=-O3 -xSSE4.2 -ipo -openmp  -fno-alias
export KMP_AFFINITY=compact,1
export OMP_NUM_THREADS=16

321.equake_l
export KMP_AFFINITY=compact,1
export OMP_NUM_THREADS=16

325.apsi_l=peak=default=default:
basepeak=yes
327.gafort_l
OPTIMIZE=-O3 -xSSE4.2 -ipo -openmp
export KMP_AFFINITY=scatter,0

329.fma3d_l
FOPTIMIZE=-no-prec-sqrt -fp-model fast=2
EXTRA_LIBS=-L$(SPECLIB) -lhoard
export KMP_AFFINITY=compact,1

331.art_l
```