



OMPL2001 Result

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CISCO Systems, Inc.
Cisco UCS C460 M1

SPECompLpeak2001 = 628126

SPECompLbase2001 = 607818

SPEC license #HPG9019 Tested by: Cisco Systems, Inc. Test site: -- Test date: Mar-2010 Hardware Avail: May-2010 Software Avail: Mar-2010

Benchmark	Reference Time	Base Runtime	Base Ratio	Peak Runtime	Peak Ratio
311.wupwise_l	9200	178	828730	177	833475
313.swim_l	12500	550	363439	519	385629
315.mgrid_l	13500	434	497739	429	504072
317.applu_l	13500	518	417290	489	441508
321.quake_l	13000	416	500083	399	520846
325.apsi_l	10500	281	596926	270	622877
327.gafort_l	11000	285	617983	264	667213
329.fma3d_l	23500	744	505165	742	507071
331.art_l	25000	206	1942237	206	1938569

Hardware	Software
CPU: Intel(R) Xeon(R) Processor X7560 CPU MHz: 2260 FPU: Integrated CPU(s) enabled: 32 cores, 4 chips, 8 cores/chip 2 threads/core CPU(s) orderable: 1,2,3,4 Primary Cache: 32KB I + 32KB D on chip per core Secondary Cache: 256KB I+D on chip per core per chip L3 Cache: 24MB I+D on chip per chip Other Cache: N/A Memory: 512 GB (RDIMM 64x8 GB 1066 MHz) Disk Subsystem: 146 GB SAS, 10K RPM Other Hardware: None	OpenMP Threads: 64 Parallel: OpenMP Operating System: Red Hat EL 5.3, kernel 2.6.18-128 Compiler: Intel C/C++ Compiler 11.1.059 for Linux Intel FORTRAN Compiler 11.1.059 for Linux GNU C Compiler 4.1.2 20070115 File System: Linux ext3 System State: Multi-user, run level 3

Notes/Tuning Information

BIOS settings notes:

Intel Hyper-Threading Technology (SMT): Enabled
Intel Turbo Boost Technology (Turbo) : Enabled (Max 2.66 GHz)

Extra Flags:

331.art_l: -DINTS_PER_CACHELINE=16 -DDBLS_PER_CACHELINE=8 -D_OPENMP
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 64000

For compiler/openMP flags description please refer:
Intel-ic11.1-intel64-linux-flags-file-Feb-25-2010.html

Base optimization flags and environment variables:

Large:
OPTIMIZE = -O3 -xSSE4.2 -ipol -openmp



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Notes/Tuning Information (Continued)

```
COPTIMIZE = -ansi-alias
PORTABILITY = -mcmmodel=medium -shared-intel
export KMP_AFFINITY=scatter,1
```

Peak optimization flags and environment variables:

Large:

```
OPTIMIZE = -O3 -xSSE4.2 -ipo1 -openmp -rcd
export KMP_AFFINITY=compact,1
```

Peak per-benchmark optimization flags and environment variables:

```
311.wupwise_1
export KMP_AFFINITY=scatter,1
```

```
313.swim_m
OPTIMIZE=-O3 -xSSE4.2 -ipo1 -openmp -opt-streaming-stores always -align -rcd
PORTABILITY = -mcmmodel=medium -shared-intel
export KMP_AFFINITY=scatter,1
export OMP_NUM_THREADS=32
```

```
315.mgrid_1
OPTIMIZE=-O3 -xSSE4.2 -ipo1 -openmp -fno-alias -rcd
```

```
317.applu_1
PORTABILITY = -mcmmodel=medium -shared-intel
export KMP_AFFINITY=scatter,0
```

```
321.quake_1
export KMP_AFFINITY=scatter,1
export OMP_NUM_THREADS=32
```

```
325.appsi_1
OPTIMIZE=-O3 -xSSE4.2 -ipo1 -openmp
export KMP_AFFINITY=scatter,0
```

```
327.gafort_1
PORTABILITY = -mcmmodel=medium -shared-intel
export KMP_AFFINITY=scatter,0
```

```
329.fma3d_1
FOPTIMIZE=-no-prec-sqrt -fp-model fast=2
```

```
331.art_1
COPTIMIZE=-ansi-alias
```