

OMPL2001 Result

Copyright ©1999-2006, Standard Performance Evaluation Corporation

Cisco
B230 M2

SPECompLpeak2001 = --

SPECompLbase2001 = 378522

SPEC license #: HPG9019 | Tested by: Cisco | Test date: Mar-2011 | Hardware Avail: Apr-2011 | Software Avail: Mar-2011

Benchmark	Reference Time	Base Runtime	Base Ratio	Runtime	Ratio	
311.wupwise_1	9200	284	518612			1000000
313.swim_1	12500	941	212638			2000000
315.mgrid_1	13500	740	291722			
317.applu_1	13500	1132	190791			
321.quake_1	13000	611	340544			
325.apsi_1	10500	395	425143			
327.gafort_1	11000	435	404784			
329.fma3d_1	23500	1084	346986			
331.art_1	25000	313	1278108			

Hardware

CPU: Intel Xeon CPU E7- 2870
CPU MHz: 2400
FPU: Integrated
CPU(s) enabled: 20 cores, 2 chips, 10 cores/chip, 2 thread/core
CPU(s) orderable: 1,2
Primary Cache: 32KB(I)+32KB(D)/core on chip
Secondary Cache: 256KB/core (I+D) on chip
L3 Cache: 30720KB (I+D) on chip
Other Cache: N/A
Memory: 128 GB (RDIMM 32x4-GB 1333 MHz)
Disk Subsystem: LSI MRSASRoMB-8i (scsi)
Other Hardware:

Software

OpenMP Threads: 40
Parallel: OpenMP
Operating System: SUSE Linux Enterprise Server 11.1, kernel 2.6.32.12-0.7-default x86_64
Compiler: Intel C/C++ Compiler 12.0.2.137 for Linux
Intel FORTRAN Compiler 12.0.2.137 for Linux
GNU C Compiler 4.3.4
File System: Linux ext3
System State: Default

Notes/Tuning Information

BIOS settings notes:

Intel Hyper-Threading Technology (SMT): Enabled
Intel Turbo Boost Technology (Turbo) : Enabled (Max 2.93 GHz)

Extra Flags:

331.art_1: -DINTS_PER_CACHELINE=16 -DDBLS_PER_CACHELINE=8
all: -gcc-name=/usr/bin/gcc

General Notes and Enviroment 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-Mar-15-2011.html

Base optimization flags and enviroment variables:

Large:

OMPL2001 Result

Copyright ©1999-2006, Standard Performance Evaluation Corporation

Cisco
B230 M2

SPECompLpeak2001 = --

SPECompLbase2001 = 378522

SPEC license #: HPG9019 | Tested by: Cisco | Test date: Mar-2011 | Hardware Avail: Apr-2011 | Software Avail: Mar-2011

Notes/Tuning Information (Continued)

```
OPTIMIZE = -O3 -xSSE4.2 -ipo -openmp -mmodel=medium -shared-intel
COPTIMIZE = -ansi-alias
export KMP_AFFINITY=compact,1
```

Peak optimization flags and environment variables:

Large:

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

Peak per-benchmark optimization flags and environment variables:

311.wupwise_1

```
export KMP_AFFINITY=compact,0
```

313.swim_m

```
OPTIMIZE=-O3 -xSSE4.2 -ipo -openmp -opt-streaming-stores always -align -rcd -mmodel=medium -shared-intel
export OMP_NUM_THREADS=40
export KMP_AFFINITY=compact,1
```

315.mgrid_1

```
OPTIMIZE=-O3 -xSSE4.2 -ipo -openmp -fno-alias -rcd
```

317.applu_1

```
OPTIMIZE=-O3 -xSSE4.2 -ipo -openmp -rcd -mmodel=medium -shared-intel
export KMP_AFFINITY=scatter,0
```

321.quake_1

```
export OMP_NUM_THREADS=40
export KMP_AFFINITY=compact,1
```

325.appsi_1

```
OPTIMIZE=-O3 -xSSE4.2 -ipo -openmp
export KMP_AFFINITY=compact,0
```

327.gafort_1

```
OPTIMIZE=-O3 -xSSE4.2 -ipo -openmp -rcd -mmodel=medium -shared-intel
export KMP_AFFINITY=scatter,0
```

329.fma3d_1

```
FOPTIMIZE=-no-prec-sqrt -fp-model fast=2
```

331.art_1

```
OPTIMIZE=-O3 -xSSE4.2 -ipo -openmp
export KMP_AFFINITY=compact,0
```