



OMPL2001 Result

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Intel Corporation
Endeavor Node(Intel SR1600UR)

SPECompLpeak2001 = 251903
SPECompLbase2001 = 246703

SPEC license #HPG0013 | Tested by: Intel Corporation | Test site: -- | Test date: Feb-2010 | Hardware Avail: Mar-2010 | Software Avail: Feb-2010

Benchmark	Reference Time	Base Runtime	Base Ratio	Peak Runtime	Peak Ratio
311.wupwise_l	9200	416	353918	418	352208
313.swim_l	12500	1250	160004	1112	179792
315.mgrid_l	13500	1105	195557	1104	195588
317.applu_l	13500	1929	111962	1926	112121
321.quake_l	13000	862	241161	861	241712
325.apsi_l	10500	610	275553	614	273651
327.gafort_l	11000	647	271903	652	269966
329.fma3d_l	23500	1869	201196	1850	203245
331.art_l	25000	533	751016	494	810361

Hardware	Software
CPU: Intel(R) Xeon(R) Processor X5670 CPU MHz: 2930 FPU: Integrated CPU(s) enabled: 12 cores, 2 chips, 6 cores/chip, 1 thread/core CPU(s) orderable: 1,2 Primary Cache: 32KB I + 32KB D on chip per core Secondary Cache: 256KB I+D on chip per core L3 Cache: 12MB I+D on chip per chip Other Cache: N/A Memory: 24 GB (RDIMM 6x4-GB 1333 MHz) Disk Subsystem: Seagate 500 GB ST300655SS Other Hardware:	OpenMP Threads: 12 Parallel: OpenMP Operating System: Red Hat EL 5.4, kernel 2.6.18-164 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: Default

Notes/Tuning Information

BIOS settings notes:

Intel Hyper-Threading Technology (SMT): Disabled
Intel Turbo Boost Technology (Turbo) : Disabled

Portability Flags:

318.galgel_m: -FI -132

Extra Flags:

330.art_m: -DINTS_PER_CACHELINE=16 -DDBLS_PER_CACHELINE=8 -D_OPENMP
331.art_l: -DINTS_PER_CACHELINE=16 -DDBLS_PER_CACHELINE=8 -D_OPENMP
all: -gcc-name=/usr/bin/gcc

General Notes and Enviroment variables

```
export KMP_LIBRARIY=turnaround
export KMP_STACKSIZE=31M
export KMP_BLOCKTIME=infinite
export OMP_NUM_THREADS=12
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 enviroment variables:

Large:

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



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Notes/Tuning Information (Continued)

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

Peak optimization flags and enviroment variables:

Large:

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

Peak per-benchmark optimization flags and enviroment variables:

313.swim_m

```
OPTIMIZE=-O3 -xSSE4.2 -ipo1 -openmp -opt-streaming-stores always -align -rcd
PORTABILITY = -mcmmodel=medium -shared-intel
```

315.mgrid_1

```
OPTIMIZE=-O3 -xSSE4.2 -ipo1 -openmp -opt-streaming-stores never -align -rcd
```

317.applu_1

```
PORTABILITY = -mcmmodel=medium -shared-intel
```

325.apsi_1

```
OPTIMIZE=-O3 -xSSE4.2 -ipo1 -openmp
```

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
export KMP_AFFINITY=scatter,1
```