



# OMPL2001 Result

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Intel Corporation  
Intel SR1600UR

SPECompLpeak2001 = 284104  
SPECompLbase2001 = 276000

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	382	385570	382	385570
313.swim_l	12500	1263	158357	1093	182968
315.mgrid_l	13500	1067	202496	1067	202496
317.applu_l	13500	1716	125895	1717	125807
321.quake_l	13000	849	245101	815	255258
325.apsi_l	10500	520	323135	517	325066
327.gafort_l	11000	531	331682	502	350265
329.fma3d_l	23500	1386	271343	1375	273544
331.art_l	25000	478	837619	474	843957

Hardware		Software	
CPU:	Intel(R) Xeon(R) Processor X5680	OpenMP Threads:	24
CPU MHz:	3330	Parallel:	OpenMP
FPU:	Integrated	Operating System:	Red Hat EL 5.2, kernel 2.6.18-85
CPU(s) enabled:	12 cores, 2 chips, 6 cores/chip, 2 threads/core	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
CPU(s) orderable:	1,2	File System:	Linux ext3
Primary Cache:	32KB I + 32KB D on chip per core	System State:	Default
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:			

## Notes/Tuning Information

### BIOS settings notes:

Intel Hyper-Threading Technology (SMT): Enabled  
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  
331.art\_l: -DINTS\_PER\_CACHELINE=16 -DDBLS\_PER\_CACHELINE=8  
all: -gcc-name=/usr/bin/gcc

### General Notes and Environment variables

export KMP\_LIBRARIY=turnaround  
export KMP\_STACKSIZE=31M  
export KMP\_BLOCKTIME=infinite  
export OMP\_NUM\_THREADS=24  
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)

```
PORTABILITY = -mcmodel=medium -shared-intel
export KMP_AFFINITY=scatter,1
```

Peak optimization flags and environment variables:

Large:

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

Peak per-benchmark optimization flags and environment variables:

```
311.wupwise_1
basepeak=yes
```

```
313.swim_m
```

```
OPTIMIZE=-O3 -xSSE4.2 -ipol -openmp -opt-streaming-stores always -align -rcd
PORTABILITY = -mcmodel=medium -shared-intel
export OMP_NUM_THREADS=12
```

```
315.mgrid_1
basepeak=yes
```

```
317.applu_1
```

```
PORTABILITY = -mcmodel=medium -shared-intel
```

```
321.equake_1
```

```
export OMP_NUM_THREADS=12
```

```
325.appsi_1
```

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

```
327.gafort_1
```

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

```
329.fma3d_1
```

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