



OMPL2001 Result

Copyright 1999-2008, Standard Performance Evaluation Corporation

SGI

SGI Altix ICE 8400EX (Intel Xeon X5680, 3.33GHz)

SPECompLpeak2001 = 282953

SPECompLbase2001 = 275399

SPEC license #HPG0014 | Tested by: SGI | Test site: SGI | Test date: Aug-2010 | Hardware Avail: May-2010 | Software Avail: Jun-2010

Benchmark	Reference Time	Base Runtime	Base Ratio	Peak Runtime	Peak Ratio
311.wupwise_l	9200	394	373482	393	375005
313.swim_l	12500	1280	156307	1117	179046
315.mgrid_l	13500	1099	196611	1099	196540
317.applu_l	13500	1723	125385	1723	125356
321.quake_l	13000	879	236504	846	245733
325.apsi_l	10500	509	330186	511	328636
327.gafort_l	11000	530	331919	499	352394
329.fma3d_l	23500	1352	278207	1340	280618
331.art_l	25000	456	878124	455	880059

Hardware		Software	
CPU:	Intel(R) Xeon(R) Processor X5680	OpenMP Threads:	24
CPU MHz:	3333	Parallel:	OpenMP
FPU:	Integrated	Operating System:	SUSE Linux Enterprise Server 11 SP1, Kernel 2.6.32.13-0.4-default
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
CPU(s) orderable:	1-2 chips	File System:	NFSv3 IPoIB
Primary Cache:	32 KB I + 32 KB D on chip per core	System State:	Multi-user, run level 3
Secondary Cache:	256 KB I+D on chip per core		
L3 Cache:	12 MB I+D on chip		
Other Cache:	N/A		
Memory:	24 GB (6x4 GB dual-rank DDR3-1333 CL9 RDIMMs)		
Disk Subsystem:	8.8 TB RAID 5		
Other Hardware:	60 x 146 GB SAS (Seagate Cheetah 15K.5)		
	None		

Notes/Tuning Information

BIOS settings notes:

```

Intel Hyper-Threading Technology (SMT): Enabled
Intel Turbo Boost Technology (Turbo) : Enabled (Max 3.6GHz)
Patrol Scrub: Disabled

```

Extra Flags:

```

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

```

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:

SGI-20100816-Linux-Intel11.1-intel64.html

Base optimization flags and environment variables:

Large:

```

OPTIMIZE = -O3 -xSSE4.2 -ipo1 -openmp -mmodel=medium -shared-intel

```

Standard Performance Evaluation Corporation

info@spec.org

http://www.spec.org



OMPL2001 Result

Copyright 1999-2008, Standard Performance Evaluation Corporation

SGI

SGI Altix ICE 8400EX (Intel Xeon X5680, 3.33GHz)

SPECompLpeak2001 = 282953

SPECompLbase2001 = 275399

SPEC license #HPG0014 Tested by: SGI Test site: SGI Test date: Aug-2010 Hardware Avail: May-2010 Software Avail: Jun-2010

Notes/Tuning Information (Continued)

```
COPTIMIZE = -ansi-alias
export KMP_AFFINITY=scatter,1
```

Peak optimization flags and environment variables:

Large:

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

```
315.mgrid_1
export KMP_AFFINITY=scatter,1
```

```
317.aplu_1
OPTIMIZE=-O3 -xSSE4.2 -ipol -openmp -rcd -mcmodel=medium -shared-intel
export KMP_AFFINITY=scatter,1
```

```
321.quake_1
export OMP_NUM_THREADS=12
```

```
325.appsi_1
OPTIMIZE=-O3 -xSSE4.2 -ipol -openmp
```

```
327.gafort_1
OPTIMIZE=-O3 -xSSE4.2 -ipol -openmp -rcd -mcmodel=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
```