



OMPL2001 Result

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Intel Corporation
Endeavor Node(Intel SR1600UR)

SPECompLpeak2001 = 278240
SPECompLbase2001 = 269032

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	394	373307	392	375420
313.swim_l	12500	1283	155833	1118	178900
315.mgrid_l	13500	1089	198369	1091	198042
317.applu_l	13500	1728	124967	1729	124910
321.quake_l	13000	870	238969	843	246642
325.apsi_l	10500	536	313340	535	314168
327.gafort_l	11000	548	320969	519	339349
329.fma3d_l	23500	1436	261847	1421	264678
331.art_l	25000	492	813520	463	864375

Hardware		Software	
CPU:	Intel(R) Xeon(R) Processor X5670	OpenMP Threads:	24
CPU MHz:	2930	Parallel:	OpenMP
FPU:	Integrated	Operating System:	Red Hat EL 5.4, kernel 2.6.18-164
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) : Enabled (Max 3.33GHz)

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 -ipo1 -openmp
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 = -mcmodel=medium -shared-intel
export OMP_NUM_THREADS=12

315.mgrid_1

OPTIMIZE=-O3 -xSSE4.2 -ipo1 -openmp -opt-streaming-stores never -align -rcd
export KMP_AFFINITY=scatter,1

317.applu_1

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

321.quake_1

export OMP_NUM_THREADS=12

325.appsi_1

OPTIMIZE=-O3 -xSSE4.2 -ipo1 -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

331.art_1

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