OMPL2001 Result

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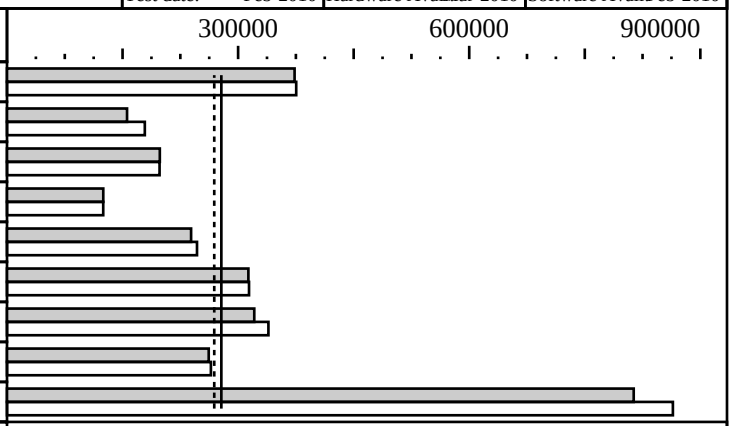
Intel Corporation
Endeavor Node(Intel SR1600UR)

SPECompLpeak2001 = 278240

SPECompLbase2001 = 269032

SPEC license #1	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.equake_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

CPU:	Intel(R) Xeon(R) Processor X5670
CPU MHz:	2930
FPU:	Integrated
CPU(s) enabled:	12 cores, 2 chips, 6 cores/chip, 2 threads/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:	

Software

OpenMP Threads:	24
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): 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 Enviroment variables
  export KMP_LIBRARY=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 enviroment variables:
================================================================================
Large:
  OPTIMIZE  = -O3 -xSSE4.2 -ipo1 -openmp
```

Notes/Tuning Information (Continued)

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

Peak optimization flags and enviroment variables:
================================================================================
Large:
  OPTIMIZE  = -O3 -xSSE4.2 -ipo1 -openmp
  export KMP_AFFINITY=compact,1

Peak per-benchmark optimization flags and enviroment variables:
================================================================================
311.wupwise_l
  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_l
  OPTIMIZE=-O3 -xSSE4.2 -ipo1 -openmp -opt-streaming-stores never -align -rcd
  export KMP_AFFINITY=scatter,1

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

================================================================================
321.equake_l
  export OMP_NUM_THREADS=12

================================================================================
325.appsi_l
  OPTIMIZE=-O3 -xSSE4.2 -ipo1 -openmp

================================================================================
327.gafort_l
  PORTABILITY = -mcmodel=medium -shared-intel
  export KMP_AFFINITY=scatter,0

================================================================================
329.fma3d_l
  FOPTIMIZE=-no-prec-sqrt -fp-model fast=2

================================================================================
331.art_l
  COPTIMIZE=-ansi-alias
  export KMP_AFFINITY=scatter,1
```