OMPM2001 Result

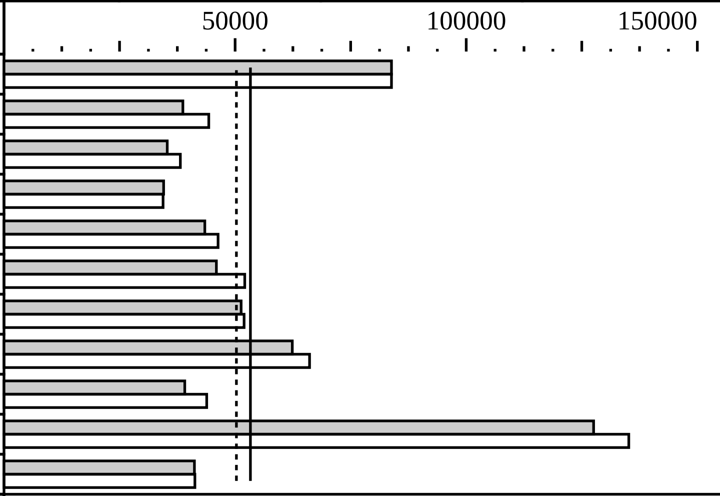
Intel Corporation
Endeavor Node(Intel SR1600UR)

SPECompMpeak2001 = 53313

SPECompMbase2001 = 50283

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
310.wupwise_m	6000	71.6	83833	71.6	83831
312.swim_m	6000	155	38700	135	44302
314.mgrid_m	7300	207	35318	191	38152
316.applu_m	4000	116	34535	116	34414
318.galgel_m	5100	117	43446	110	46314
320.equake_m	2600	56.6	45950	49.9	52086
324.apsi_m	3400	66.3	51304	65.5	51944
326.gafort_m	8700	139	62373	132	66106
328.fma3d_m	4600	118	39109	105	43857
330.art_m	6400	50.2	127561	47.3	135171
332.ammp_m	7000	170	41199	169	41298



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:
```

Notes/Tuning Information (Continued)

```
==========================================================================
Medium:
  OPTIMIZE  = -O3 -xSSE4.2 -ipo1 -openmp
  export KMP_AFFINITY=scatter,1

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

Peak per-benchmark optimization flags and enviroment variables:
==========================================================================
310.wupwise_m
  export KMP_AFFINITY=scatter,1

==========================================================================
312.swim_m
  OPTIMIZE=-O3 -xSSE4.2 -ipo1 -openmp -opt-streaming-stores always -align -rcd
  srcalt = ompl.32
  export OMP_NUM_THREADS=12

==========================================================================
314.mgrid_m
  OPTIMIZE=-O3 -xSSE4.2 -ipo1 -openmp -opt-streaming-stores never -align -rcd
  export OMP_NUM_THREADS=12

==========================================================================
316.applu_m
  export KMP_AFFINITY=scatter,1

==========================================================================
318.galgel_m
  export OMP_NUM_THREADS=12

==========================================================================
320.equake_m
  export OMP_NUM_THREADS=12

==========================================================================
324.appsi_m
  export OMP_NUM_THREADS=12

==========================================================================
326.gafort_m
  srcalt = ompl.32

==========================================================================
328.fma3d_m
  FOPTIMIZE=-no-prec-sqrt -fp-model fast=2
  srcalt = ompl.32

==========================================================================
330.art_m
  COPTIMIZE=-ansi-alias
```

Notes/Tuning Information (Continued)

```
  export KMP_AFFINITY=scatter,1

========================================================================
332.ammp_m
  OPTIMIZE=-O3 -xSSE4.2 -ipo1 -openmp
  export KMP_AFFINITY=scatter,1
```