



OMPM2001 Result

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Unisys
ES7000/1

SPECompMpeak2001 = 5578

SPECompMbase2001 = 5362

SPEC license #PG0013A | Tested by: Intel Corporation | Test site: -- | Test date: Oct-2007 | Hardware Avail: Nov-2006 | Software Avail: Nov-2007

Benchmark	Reference Time	Base Runtime	Base Ratio	Peak Runtime	Peak Ratio	
310.wupwise_m	6000	875	6857	1092	5496	
312.swim_m	6000	1404	4275	1506	3985	
314.mgrid_m	7300	2243	3255	2463	2964	
316.aplu_m	4000	373	10715	330	12137	
318.galgel_m	5100	661	7719	541	9436	
320.earthquake_m	2600	507	5131	653	3980	
324.apsi_m	3400	1091	3115	690	4926	
326.gafort_m	8700	2100	4143	1859	4680	
328.fma3d_m	4600	1166	3946	1014	4536	
330.art_m	6400	841	7608	983	6508	
332.ammp_m	7000	1042	6721	867	8078	

Hardware

CPU: Dual-Core Intel(R) Xeon(R) Processor 7140M
 CPU MHz: 3400
 FPU: Integrated
 CPU(s) enabled: 64 cores, 32 chips, 2 cores/chip
 CPU(s) orderable: 1-32 chips
 Primary Cache: 32KB(I)+32KB(D)/core on chip
 Secondary Cache: 4096KB/chip (I+D) on chip
 L3 Cache: 16MB/chip
 Other Cache: N/A
 Memory: 128 GB
 Disk Subsystem: SCSI
 Other Hardware:

Software

OpenMP Threads: 8
 Parallel: OpenMP
 Operating System: SUSE Linux Enterprise Server 10 (x86_64)
 Compiler: GCC 4.1.0
 File System: Linux ext3
 System State: Default

Notes/Tuning Information

Baseline optimization flags:

```
COPTIMIZE = -O3 --fopenmp -ansi -fwhole-program -combine
FOPTIMIZE = -O3 -fopenmp
```

```
export KMP_LIBRARY=turnaround
export KMP_STACKSIZE=31M
export KMP_BLOCKTIME=infinite
export OMP_DYNAMIC=FALSE
export KMP_STACKSIZE=31m
ONESTEP=yes
ulimit -s 1048576
```

base tuning

```
export KMP_AFFINITY=none
```

peak tuning

```
export KMP_AFFINITY=compact,1
```

```
export KMP_CPUINFO_FILE=/etc/cpuinfo
```

Portability Flags:

```
318.galgel_m: -ffixed-form -ffixed-line-length-132
```

Standard Performance Evaluation Corporation

info@spec.org

http://www.spec.org



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Notes/Tuning Information (Continued)

Extra Flags:

330.art_m: -DINTS_PER_CACHELINE=32 -DDBLS_PER_CACHELINE=16

New alternate sources

mgrid standard conformance to OpenMP 2.5; src.alt/intel

Intel replacement library for libgomp.so

-L/opt/intel/cce/10.1.008/lib -liomp5

Flags file: Intel-ic10.1-intel64-linux-flags-file-20071211.html