



OMPM2001 Result

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Unisys
ES7000/1

SPECompMpeak2001 = 23075

SPECompMbase2001 = 18770

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	222	27033	185	32429	
312.swim_m	6000	539	11123	315	19040	
314.mgrid_m	7300	542	13459	293	24941	
316.applu_m	4000	129	30926	115	34828	
318.galgel_m	5100	467	10927	467	10913	
320.earthquake_m	2600	130	20012	79.7	32636	
324.apsi_m	3400	134	25375	125	27212	
326.gafort_m	8700	472	18426	427	20375	
328.fma3d_m	4600	286	16098	249	18476	
330.art_m	6400	260	24614	259	24690	
332.ammp_m	7000	348	20097	342	20443	

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: 32
 Parallel: OpenMP
 Operating System: SUSE Linux Enterprise Server 10 (x86_64)
 Compiler: Intel FORTRAN Compiler 10.1.008 for Linux
 File System: Linux ext3
 System State: Default

Notes/Tuning Information

Baseline optimization flags:

```
COPTIMIZE = -O3 -ipo -openmp -ansi_alias -openmp-lib compat
FOPTIMIZE = -O3 -ipo -openmp -openmp-lib compat
```

```
export KMP_LIBRARY=turnaround
export KMP_STACKSIZE=31M
```

```
export OMP_DYNAMIC=FALSE
export KMP_BLOCKTIME=infinite
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: -FI -132
```

Extra Flags:

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

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Notes/Tuning Information (Continued)

all: -gcc-name=/usr/bin/gcc

New alternate sources

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

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