



OMPM2001 Result

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BULL

NovaScale 5160 (1500MHz, Itanium 2)

SPECompMpeak2001 = 18218

SPECompMbase2001 = 16488

SPEC license #HPG0015 | Tested by: Bull Echirolles | Test site: Bull Echirolles | Test date: Jan-2004 | Hardware Avail:Jan-2003 | Software Avail:Jan-2004

Benchmark	Reference Time	Base Runtime	Base Ratio	Peak Runtime	Peak Ratio
310.wupwise_m	6000	261	23005	261	23020
312.swim_m	6000	311	19288	315	19042
314.mgrid_m	7300	368	19819	364	20059
316.applu_m	4000	335	11939	186	21520
318.galgel_m	5100	330	15468	330	15468
320.quake_m	2600	186	13944	163	15962
324.apsi_m	3400	205	16575	179	19009
326.gafort_m	8700	608	14308	608	14308
328.fma3d_m	4600	413	11130	346	13291
330.art_m	6400	198	32302	198	32302
332.ammp_m	7000	552	12685	521	13448

Hardware

CPU: Intel Itanium 2
 CPU MHz: 1500
 FPU: Integrated
 CPU(s) enabled: 16
 CPU(s) orderable: 4 to 16
 Primary Cache: 16KBI + 16KBD (on chip) per CPU
 Secondary Cache: 256KB (on chip) per CPU
 L3 Cache: 6.0MB (on chip) per CPU
 Other Cache: N/A
 Memory: 64 GB
 Disk Subsystem: 1 SJ0812 Disk drawer with 2 15krpm 36GB SCSI disks
 Other Hardware: None

Software

OpenMP Threads: 16
 Parallel: OpenMP
 Operating System: Bull Advanced Server 3 (Linux 64 bits)
 Compiler: Intel(R) Fortran Compiler for Linux 7.1 (Build 20030701)
 Intel(R) C++ Compiler for Linux 7.1 (Build 20030701)
 File System: ext2
 System State: Single-user

Notes/Tuning Information

Baseline optimization flags:

C programs: -openmp -O3 -ipo -ansi_alias
 Fortran programs: -openmp -O3 -ipo -stack_temps

processes were bound to cpu using bindopenmp

Portability Flags:

318.galgel_m: -FI -132

Baseline user environment:

OMP_NUM_THREADS=16
 limit stacksize 2000000
 KMP_STACKSIZE 250M
 KMP_LIBRARY TURNAROUND

Peak optimization flags:

310.wupwise_m: -ipo -O3 -openmp
 312.swim_m: -O3 -openmp
 314.mgrid_m: -O3 -openmp
 316.applu_m: -ipo -openmp
 318.galgel_m: basepeak=true
 320.quake_m: -openmp -O3 -ipo -ansi -ansi_alias



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Notes/Tuning Information (Continued)

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324.apsi_m: -openmp -O3 -stack_temps
326.gafort: basepeak=true
328.fma3d_m: -openmp -O3 -static -stack_temps
330.art_m: basepeak=true
332.amp_m: -openmp -ansi_alias
```

Alternate sources:

ISO C and C++ compatible sources

Available as SPEC OPM2001 source: ompm2001-isoc-20020619.tar.gz

Used for base: 320.equake_m, 330.art_m, 332.amp_m

Used for peak: 330.art_m

Alternate sources for peak:

SPEC OMPL2001 (srcalt=ompl) 64-bit source modified for OPM2001.

Used for 320.equake_m, 324.apsi_m, 328.fma3d_m.