OMPL2001 Result

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SGI

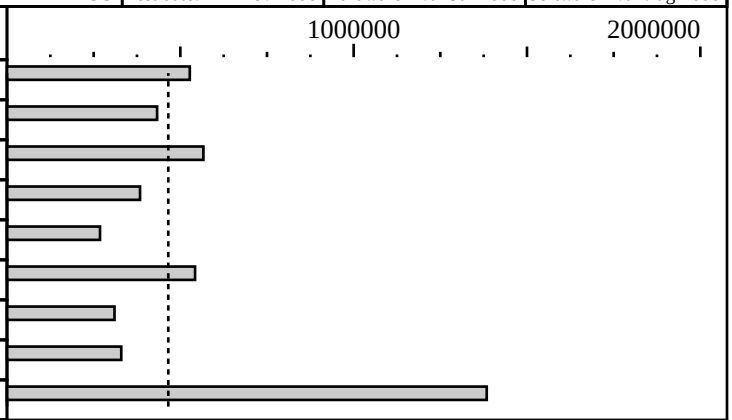
SGI Altix 4700 Density System (1600MHz 18M L3, DC Itanium2 9040)

SPECompLpeak2001 = --

SPECompLbase2001 = 465289

SPEC license #HPG0014 | Tested by: SGI | Test site: SGI | Test date: Nov-2006 | Hardware Avail:Jul-2006 | Software Avail:Aug-2006

Benchmark	Reference Time	Base Runtime	Base Ratio	Peak Runtime	Peak Ratio
311.wupwise_l	9200	279	527287		
313.swim_l	12500	462	433031		
315.mgrid_l	13500	381	566512		
317.applu_l	13500	563	383771		
321.equake_l	13000	775	268303		
325.apsi_l	10500	310	542482		
327.gafort_l	11000	568	310122		
329.fma3d_l	23500	1141	329626		
331.art_l	25000	289	1383852		



Hardware

CPU:	Intel DC Itanium2 Processor 9040
CPU MHz:	1600
FPU:	Integrated
CPU(s) enabled:	64 cores, 32 chips, 2 cores/chip (Hyper-Threading Technology disabled)
CPU(s) orderable:	2-1024
Primary Cache:	16KBI + 16KBD (on chip) per core
Secondary Cache:	1MBI + 256KBD (on chip) per core
L3 Cache:	9.0MB (on chip) per core
Other Cache:	N/A
Memory:	128 GB (8*1G PC3200 DIMMS per 4 core module)
Disk Subsystem:	1 x 146 GB SCSI (Seagate Cheetah 15k rpm)
Other Hardware:	None

Software

OpenMP Threads:	64
Parallel:	OpenMP
Operating System:	SUSE Linux Enterprise Server 10 + SGI ProPack(TM) 5
Compiler:	Intel(R) Fortran Compiler for Linux 9.1 (Build 20060818) Intel(R) C++ Compiler for Linux 9.1 (Build 20060818)
File System:	xfs
System State:	Multi-user

Notes/Tuning Information

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Baseline optimization flags:
  C programs:       -openmp -O3 -IPF_fp_relaxed -ipo -ansi_alias (ONESTEP)
  Fortran programs: -openmp -O3 -IPF_fp_relaxed -ipo (ONESTEP)
  OpenMP runtime library libguide.a statically linked

Extra Flags:
  331.art_l: -DINTS_PER_CACHELINE=32 -DDBLS_PER_CACHELINE=16

User environment:
  OMP_NUM_THREADS 64
  limit stacksize 128000
  KMP_STACKSIZE 124M
  KMP_LIBRARY TURNAROUND
  OMP_DYNAMIC FALSE
  KMP_SCHEDULE static,balanced

For all benchmarks, threads were bound to cores using the following submit command:
dplace -x2 -e -cNTM1,0 $command,
where NTM1 is the number of threads minus 1.
This binds threads in order of creation, beginning with the master
thread on core NTM1, the first slave thread on core NTM1-1, and so on.
The -x2 flag instructs dplace to skip placement of the lightweight
OpenMP monitor thread, which is created prior to the slave threads.

For a description of SGI's compiler flags, portability flags, and
system parameters used to generate this result, please refer to the
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Notes/Tuning Information (Continued)

SGI-20060801-Linux-Intel9.1-IPF.txt file in the flags directory.