OMPL2001 Result

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Hewlett-Packard Company

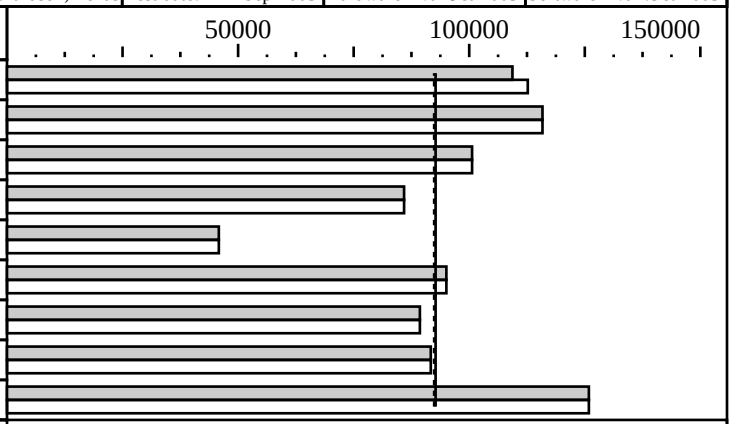
HP Integrity Superdome 16-way (1500 MHz Itanium 2)

SPECompLpeak2001 = 92725

SPECompLbase2001 = 92418

SPEC license #: HPG2116 | Tested by: Hewlett-Packard Company | Test site: Richardson, Texas | Test date: Sep-2003 | Hardware Avail: Oct-2003 | Software Avail: Oct-2003

Benchmark	Reference Time	Base Runtime	Base Ratio	Peak Runtime	Peak Ratio
311.wupwise_l	9200	1346	109350	1306	112668
313.swim_l	12500	1726	115851	1726	115851
315.mgrid_l	13500	2147	100618	2147	100618
317.applu_l	13500	2514	85908	2514	85908
321.equake_l	13000	4539	45829	4539	45829
325.apsi_l	10500	1767	95059	1767	95059
327.gafort_l	11000	1970	89326	1970	89326
329.fma3d_l	23500	4101	91683	4101	91683
331.art_l	25000	3177	125886	3177	125886



Hardware

CPU:	Intel Itanium 2
CPU MHz:	1500
FPU:	Integrated
CPU(s) enabled:	16
CPU(s) orderable:	6 to 16 by 2
Primary Cache:	L1 Inst/Data: 16 KB, associativity = 4
Secondary Cache:	L2 Unified: 256 KB, associativity = 8
L3 Cache:	L3 Unified: 6144 KB, associativity = 24
Other Cache:	None
Memory:	64GB (128 * 512MB DIMMs)
Disk Subsystem:	root disk 1x36 SCSI 9x36GB Fibrechannel (striped)
Other Hardware:	--

Software

OpenMP Threads:	16
Parallel:	OpenMP
Operating System:	HPUX11i-TCOE B.11.23
Compiler:	HP C/ANSI C Compiler B.11.23 HP aC++ Compiler B.11.23 HP Fortran 90 Compiler B.11.23 HP LIBF90 PHSS_29620 HP F90 Compiler PHSS_29663 HP aC++ Compiler PHSS_29655 HP C Compiler PHSS_29656 u2comp/be/plugin library PHSS_29657
File System:	vxfs
System State:	Multi-user

Notes/Tuning Information

```
User environment:
   MP_IDLE_THREADS_WAIT=-1
   OMP_FIRST_USE=0

Base:
   F90  +Ofaster +DSitanium2 +Oopenmp
        +Oinfo +DD64 -minshared
   cc   +Ofaster +Oopenmp +DD64 +Oinfo +DSitanium2
        -minshared -AOe +Ofltacc=default


          mpsched -T FILL $command

Peak:
  311.wupwise_l:  +Ofaster +O3 +DSitanium2 +Oopenmp
    +Oinfo +DD64 -minshared +cat -Wl,+pd64k -Wl,+pi64k
    ONESTEP = true

  313.swim_l:  basepeak=true

  315.mgrid_l:  basepeak=true

  317.applu_l:  basepeak=true
```

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Notes/Tuning Information (Continued)

```
      321.equake_l:  basepeak=true

      325.apsi_l: basepeak=true

      327.gafort_l: basepeak=true

      329.fma3d_l: basepeak=true

      331.art_l:  basepeak=true

   Alternate Sources:
     ifdef version of art
     from SPEC Web site  ompl2001-fabs-20030401.tar.gz
       used for Base and Peak 331.art_l


    Kernel Paramters (/stand/system):
       maxdsiz          0xc0000000
       maxdsiz_64bit    0x3ffbfffffff
       maxssiz          0x17f00000
       maxssiz_64bit    0x40000000
       maxtsiz          0x40000000
       maxtsiz_64bit    0x40000000
       vps_pagesize     4096
       vps_ceiling      16384
       dbc_min_pct      20
       dbc_max_pct      20
       swapmem_on       0

  Notes:

    System was configured with 1/2 of memory interleaved and
      1/2 of memory local to each cell

    System configured as a single partition with 4 cells and
      4 processors per cell

    Threads were assigned to cpus using the FILL strategy
      from the HP-UX mpsched utility

    Memory tuning is documented in man page malloc(3C)
      _M_ARENA_OPTS=64:32
        64 malloc arenas, 32 4k pages expansion
      _M_SBA_OPTS=16348:150:256
        16384 maxfast size, 150 small blocks, 256 grain size
```