OMPM2001 Result

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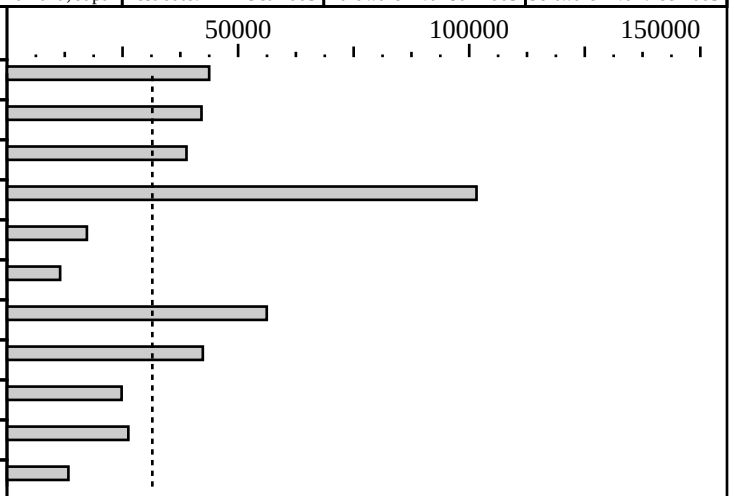
Fujitsu Limited
PRIMEPOWER HPC2500 (1.3GHz)

SPECompMpeak2001 = --

SPECompMbase2001 = 31444

SPEC license #HPG0003	Tested by: Fujitsu Limited	Test site: Numazu, Japan	Test date: Oct-2003	Hardware Avail:Jul-2003	Software AvailDec-2003

Benchmark	Reference Time	Base Runtime	Base Ratio	Peak Runtime	Peak Ratio
310.wupwise_m	6000	137	43743		
312.swim_m	6000	143	42079		
314.mgrid_m	7300	188	38833		
316.applu_m	4000	39.4	101578		
318.galgel_m	5100	295	17288		
320.equake_m	2600	226	11495		
324.apsi_m	3400	60.5	56197		
326.gafort_m	8700	205	42368		
328.fma3d_m	4600	186	24797		
330.art_m	6400	244	26253		
332.ammp_m	7000	527	13286		



Hardware

CPU:	SPARC64 V
CPU MHz:	1299
FPU:	Integrated
CPU(s) enabled:	128
CPU(s) orderable:	8 to 128
Primary Cache:	128KBI+128KBD on chip
Secondary Cache:	2MB(I+D) on chip, per CPU
L3 Cache:	None
Other Cache:	None
Memory:	512GB
Disk Subsystem:	1x 36GB Ultra SCSI
Other Hardware:	None

Software

OpenMP Threads:	64
Parallel:	OpenMP
Operating System:	Solaris 8 Fujitsu Parallelnavi 2.3 (NQS etc)
Compiler:	Fujitsu Parallelnavi 2.3 (C & F90)
File System:	ufs
System State:	Multi-user

Notes/Tuning Information

```
Baseline flags:
    C:    -KOMP,fast_GP2=2,V9,hardbarrier
          -x- -Klargepage=2,mfunc,prefetch=2
    F90:  -KOMP,fast_GP2=2,V9,hardbarrier -Klargepage=1,prefetch_line=4
          -Nautoobjstack -O5 -Kprefetch_cache_level=3

Portability Flags:
    318.galgel_m:  -Am -Fixed -w
    328.fma3d_m:   -Am

Extra Flags:
     330.art_m:    -DINTS_PER_CACHELINE=16 -DDBLS_PER_CACHELINE=8

System tunables:
    /etc/system:
        set shmsys:shminfo_shmmax=2147483648
        set shmsys:shminfo_shmmni=256
        set shmsys:shminfo_shmseg=256
        set autoup=172800
        set memscrub_period_sec=345600
    /etc/opt/FJSVpnrm/lpg.conf:
        JOB=256G,SHMSEGSIZE=2048M
```

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Notes/Tuning Information (Continued)

```
        /etc/opt/FJSVpnrm/cpursc.conf:
            CPU_USE=0,1:0,1
        NQS:
            Per-process data size limit = UNLIMITED
            Per-process permanent file size limit = UNLIMITED
            Per-process memory size limit = 128 gigabytes
            Per-request memory size limit = 128 gigabytes
            Per-process number of cpus limit = 126
            Per-process stack size limit = 4 gigabytes
            Per-process CPU time limit = 2147483646.000
            Execution mode = SImplex
            Jobclass = 0

    Submitting the runspec to NQS:
        Run the qsub command with the following sh script.

            cd /spec/omp2001
            OMP_NUM_THREADS=64
            export OMP_NUM_THREADS
            . ./shrc
            runspec --config=Fujitsu --reportable medium
```