OMPM2001 Result

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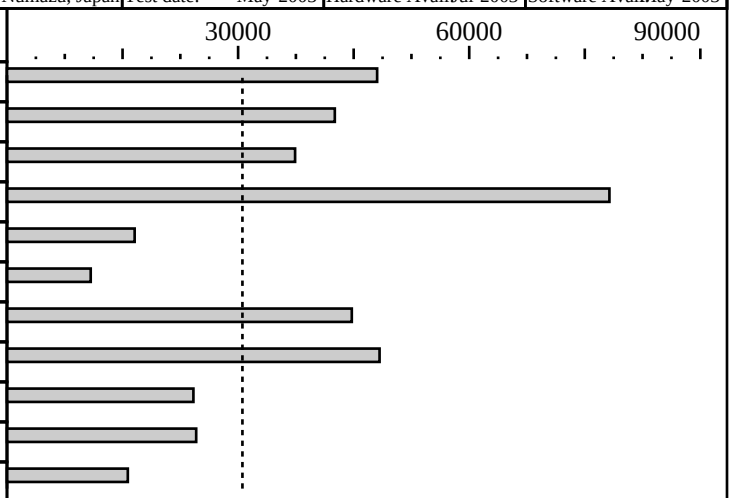
Fujitsu Limited
PRIMEPOWER HPC2500 (1.3GHz)

SPECompMpeak2001 = --

SPECompMbase2001 = 30561

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

Benchmark	Reference Time	Base Runtime	Base Ratio	Peak Runtime	Peak Ratio
310.wupwise_m	6000	125	48046		
312.swim_m	6000	141	42553		
314.mgrid_m	7300	195	37396		
316.applu_m	4000	51.2	78199		
318.galgel_m	5100	308	16570		
320.equake_m	2600	239	10867		
324.apsi_m	3400	76.0	44757		
326.gafort_m	8700	180	48361		
328.fma3d_m	4600	190	24198		
330.art_m	6400	261	24558		
332.ammp_m	7000	446	15683		



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:	1 x 36 GB Ultra SCSI
Other Hardware:	None

Software

OpenMP Threads:	96
Parallel:	OpenMP
Operating System:	Solaris 8 Fujitsu Parallelnavi 2.2 (NQS etc)
Compiler:	Fujitsu Parallelnavi 2.2 (C & F90)
File System:	ufs
System State:	Multi-user

Notes/Tuning Information

```
Baseline flags:
    C:    -KOMP,fast_GP2=2,V9,largepage=2,hardbarrier -x-
    F90:  -KOMP,fast_GP2=2,V9,largepage=2,hardbarrier,prefetch_line=4 -Nautoobjstack

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=268435456
        set shmsys:shminfo_shmmni=2048
        set shmsys:shminfo_shmseg=2048
        set autoup=4800
        set memscrub_period_sec=345600
    /etc/opt/FJSVpnrm/lpg.conf:
        JOB=408G,SHMSEGSIZE=256M
    /etc/opt/FJSVpnrm/cpursc.conf:
        CPU_USE=0-3:0-3
```

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Notes/Tuning Information (Continued)

```
        NQS:
            Per-process data size limit = UNLIMITED
            Per-process permanent file size limit = UNLIMITED
            Per-process memory size limit = 40 gigabytes
            Per-request memory size limit = 32 gigabytes
            Per-process number of cpus limit = 124
            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
            . ./shrc
            OMP_NUM_THREADS=96
            export OMP_NUM_THREADS
            runspec --config=Fujitsu --reportable medium
```