OMPM2001 Result

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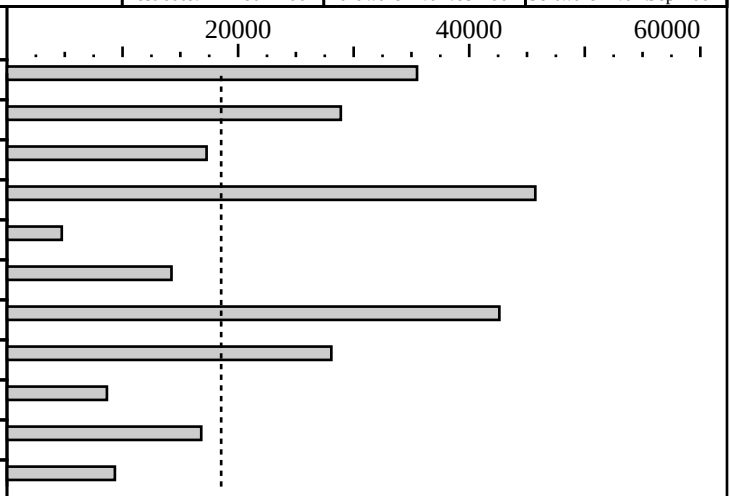
Fujitsu Limited
PRIMEPOWER2000 (563MHz)

SPECompMpeak2001 = --

SPECompMbase2001 = 18534

SPEC license #:	HPG0003	Tested by:	Fujitsu Limited	Test site:		Test date:	Jun-2001	Hardware Avail:	Feb-2001	Software Avail:	Sep-2001

Benchmark	Reference Time	Base Runtime	Base Ratio	Peak Runtime	Peak Ratio
310.wupwise_m	6000	169	35485		
312.swim_m	6000	208	28888		
314.mgrid_m	7300	423	17272		
316.applu_m	4000	87.5	45720		
318.galgel_m	5100	1076	4740		
320.equake_m	2600	183	14235		
324.apsi_m	3400	79.8	42608		
326.gafort_m	8700	310	28069		
328.fma3d_m	4600	532	8647		
330.art_m	6400	381	16809		
332.ammp_m	7000	750	9337		



Hardware

CPU:	SPARC64 GP
CPU MHz:	563
FPU:	Integrated
CPU(s) enabled:	128
CPU(s) orderable:	8 to 128
Primary Cache:	128KBI+128KBD on chip
Secondary Cache:	8MB(I+D) off chip, per CPU
L3 Cache:	None
Other Cache:	None
Memory:	128GB
Disk Subsystem:	2 x 18.2GB SCSI (10025rpm)
Other Hardware:	None

Software

OpenMP Threads:	126
Parallel:	--
Operating System:	Solaris 8 - 6/00 Fujitsu Parallelnavi 1.0.2 (NQS, CPU scheduler, largepage)
Compiler:	Fujitsu Parallelnavi 1.0.2 (C, F90)
File System:	ufs
System State:	Multi-user

Notes/Tuning Information

```
Baseline flags:
    C:    -KOMP,largepage -Kfast_GP=2,V9FMADD -x-
    F90:  -KOMP,largepage -Kfast_GP=2,V9FMADD -Nautoobjstack -Knogs

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=4096
        set shmsys:shminfo_shmseg=4096
    /etc/opt/FJSVpnrm/lpg.conf:
        JOB=32G,SHMSEGSIZE=256M
    /etc/opt/FJSVpnrm/cpursc.conf:
        CPU_USE=0-1:0-1
    NQS:
        Per-process data size limit = 40 gigabytes
```

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Notes/Tuning Information (Continued)

```
            Per-process permanent file size limit = 1 gigabytes
            Per-process memory size limit = 40 gigabytes
            Per-request memory size limit = 32 gigabytes
            Per-process number of cpus limit = 126
            Per-process stack size limit = 4 gigabytes
            Per-process CPU time limit = 453600.000
            Execution mode = SImplex
            Jobclass = 0

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

            cd /kaiser2/kit27
            . ./shrc
            OMP_NUM_THREADS=126
            export OMP_NUM_THREADS
            runspec --config=Fujitsu_PP2000_126 --reportable medium
```