OMPL2001 Result

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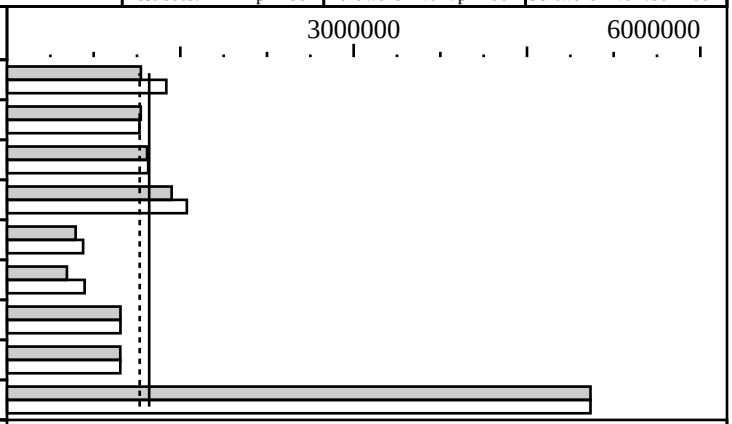
Fujitsu Limited
Fujitsu SPARC Enterprise M9000

SPECompLpeak2001 = 1230446

SPECompLbase2001 = 1148235

SPEC license #: HPG0003 | Tested by: Fujitsu Limited | Test site: | Test date: Apr-2007 | Hardware Avail: Apr-2007 | Software Avail: Jul-2007

Benchmark	Reference Time	Base Runtime	Base Ratio	Peak Runtime	Peak Ratio
311.wupwise_l	9200	127	1158569	107	1378740
313.swim_l	12500	173	1157700	174	1146578
315.mgrid_l	13500	178	1212185	177	1221797
317.applu_l	13500	152	1424890	139	1556386
321.equake_l	13000	350	594145	316	658639
325.apsi_l	10500	324	518556	250	671728
327.gafort_l	11000	179	981933	179	981933
329.fma3d_l	23500	384	980376	384	980376
331.art_l	25000	79.2	5049461	79.2	5049461



Hardware

CPU:	SPARC64 VI
CPU MHz:	2400
FPU:	Integrated
CPU(s) enabled:	128 cores, 64 chips, 2 cores/chip
CPU(s) orderable:	1 to 16 CMUs; each CMU contains 2 or 4 chips
Primary Cache:	128 KB I + 128 KB D on chip per core
Secondary Cache:	6 MB I+D on chip per chip
L3 Cache:	None
Other Cache:	None
Memory:	1 TB (512 x 2 GB)
Disk Subsystem:	673 GB RAID 1+0 created by Solaris Volume Manager with 20 x 73 GB 10,000 RPM Fujitsu MAY2073RC SAS
Other Hardware:	--

Software

OpenMP Threads:	128
Parallel:	OpenMP and Autoparallel
Operating System:	Solaris 10 7/07
Compiler:	Sun Studio 12
File System:	ufs
System State:	Multi-User

Notes/Tuning Information

```
Compiler Invocation:
  C:   cc
  F90: f90
  F77: f77

Base Tuning:
  C:       -fast -xopenmp -xipo=2 -xprefetch_level=3 -xcode=abs44
           -m64 -lmtmalloc -xpagesize=4m -xprefetch=latx:3
           -Xc -xprofile
  Fortran: -fast -openmp -xcode=abs44 -m64 -xipo=2 -autopar
           -fma=fused -xpagesize=4m -xprefetch=latx:3 -xprofile
  ONESTEP=yes

Peak Tuning:
  ONESTEP=yes

  311.wupwise_l: -fast -openmp -autopar -xcode=abs44 -m32 -xipo=2
                 -fma=fused -xpagesize=512k -xprefetch_level=3
                 -Qoption iropt -Athr,-Apf:l2subblock=256,-Apf:ipa=9
                 -xprefetch=latx:3 -xprofile
  313.swim_l:    -fast -openmp -m64 -xipo=2 -autopar -xcode=abs44
                 -xpagesize=512k -xprefetch=latx:3 -xprofile
  315.mgrid_l:   -fast -openmp -xipo=2 -xprefetch_level=3
```

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Notes/Tuning Information (Continued)

```
                  -Qoption iropt -Apf:largedim,-Apf:l2subblock=256
                  -m64 -xcode=abs44 -xpagesize=512k -xprefetch=latx:5
                  -xprofile
    317.applu_l:  -fast -openmp -xipo=2 -xcode=abs44 -m64 -fma=fused
                  -xpagesize=4m -Qoption iropt -Aujam:inner=g,
                  -Apf:l2subblock=256  -xprefetch=latx:3 -xprofile
    321.equake_l: -fast -xopenmp -xipo=2 -xcode=abs44 -xrestrict
                  -xprefetch_level=3 -lmtmalloc -m64 -xpagesize=64k
                  -W2,-Apf:l2subblock=256  -xprefetch=latx:3
                  -xprofile
    325.apsi_l:   -fast -openmp -xcode=abs44 -xipo=2 -m64
                  -xpagesize=4m -lmtmalloc -xprefetch=latx:3
                  -xprofile
    327.gafort_l: basepeak=yes
    329.fma3d_l:  basepeak=yes
    331.art_l:    basepeak=yes

  Portability flags:
    318.galgel_l: -e -fixed

  Extra art allowed flags:
    331.art_l:    -DINTS_PER_CACHELINE=16 -DDBLS_PER_CACHELINE=8

  Alternate Source for Peak:
    Approved alternate source ompl.dd was used for 325.apsi_l.
    Change initial data distribution for WORK array
    ompl2001-dd-20040128.tar.gz

  Feedback optimization (-xprofile) is done as follows,
  unless otherwise noted:
    fdo_pre0:  rm -rf ‘pwd‘/feedback.profile
    PASS1:     -xprofile=collect:./feedback
    PASS2:     -xprofile=use:./feedback

  Base and Peak User Environment:
    setenv SUNW_MP_PROCBIND "0 2 4 6 8 10 12 14 16 18
      20 22 24 26 28 30 32 34 36 38 40 42 44 46 48 50
      52 54 56 58 60 62 64 66 68 70 72 74 76 78 80 82
      84 86 88 90 92 94 96 98 100 102 104 106 108 110
      112 114 116 118 120 122 124 126 128 130 132 134
      136 138 140 142 144 146 148 150 152 154 156 158
      160 162 164 166 168 170 172 174 176 178 180 182
      184 186 188 190 192 194 196 198 200 202 204 206
      208 210 212 214 216 218 220 222 224 226 228 230
      232 234 236 238 240 242 244 246 248 250 252 254"
    setenv SUNW_MP_THR_IDLE SPIN

  Kernel Paramters (/etc/system):
    set autoup=900
    set tune_t_fsflushr=3

  System configuration details located at
     http://www.fujitsu.com/global/services/computing/server/sparcenterprise/products/

  For a description of Sun Studio 12 Compiler flags, portability flags
  and system parameters used to generate this result, please refer to
```

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Notes/Tuning Information (Continued)

SUN-20070503-Studio-Solaris-sparc.txt file in the flags directory.

This result was measured on a Fujitsu SPARC Enterprise M9000.
The Sun SPARC Enterprise M9000 and the Fujitsu SPARC Enterprise
M9000 are electrically equivalent.