





# OMPM2001 Result

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Sun Microsystems  
Sun Fire X4100

SPECompMpeak2001 = 7612

SPECompMbase2001 = 7320

SPEC license #HPG0010 | Tested by: Sun Microsystems, Santa Clara | Test site: Menlo Park | Test date: Aug-2005 | Hardware Avail: Oct-2005 | Software Avail: Sep-2005

## Notes/Tuning Information (Continued)

ENV\_MPSSHEAP=2m  
ENV\_MPSSSTACK=2m  
ENV\_LD\_PRELOAD=mpss.so.1

### Peak tuning:

ONESTEP=yes for all peak tests.

```

310.wupwise_m      : -fast -xipo=2 -xarch=amd64 -xprefetch_level=3 -xvector=simd -xopenmp
312.swim_m         : -fast -xipo=2 -xarch=amd64 -xprefetch_level=3 -xvector=simd -xopenmp
314.mgrid_m       : -fast -xipo=2 -xprefetch_level=3 -xarch=amd64 -xopenmp
316.applu_m       : -fast -xipo=2 -xprefetch_level=3 -xarch=amd64
                   -Qoption iropt -Aujam:inner=g -xopenmp +MPSS
318.galgel_m      : -fast -xipo=2 -qoption iropt -xprefetch_level=3 -xvector=simd
                   -xarch=amd64 -xopenmp -xlic_lib=sunperf +FDO +MPSS
                   RM_SOURCES=lapak.f90
320.equake_m      : -fast -xipo=2 -xalias_level=strong -xarch=amd64 -xopenmp
324.apsi_m        : -fast -xipo=2 -xprefetch_level=3 -xopenmp
326.gafort_m      : -fast -xipo=2 -xarch=amd64 -xprefetch_level=3 -xvector=simd
                   : -xopenmp +MPSS
328.fma3d_m       : -fast -xipo=2 -xprefetch_level=3 -xarch=amd64 -xopenmp +FDO +MPSS
330.art_m         : -fast -xcrossfile -xarch=amd64 -xalias_level=std -xopenmp
                   -lmtmalloc -lm +MPSS
332.ammp_m        : -fast -xipo=2 -xarch=amd64 -xalias_level=std -xopenmp -lmopt -lm +MPSS

```

### Portability flags:

```

318.galgel_m      : -e -fixed
330.art_m         : Extra Flag: -DINTS_PER_CACHELINE=16 -DDBLS_PER_CACHELINE=8

```

### Alternate Source:

```

330.art_m         : Required srcalt purduel used for base and peak
310.wupwise_m     : Approved srcalt ompl.32 used for peak
312.swim_m        : Approved srcalt ompl.32 used for peak
314.mgrid_m       : Approved srcalt ompl used for peak
320.equake_m      : Approved srcalt ompl.32 used for peak
324.apsi_m        : Approved srcalt ompl used for peak

```

### Base and Peak User Environment:

```

export OMP_NUM_THREADS=2
export SUNW_MP_PROCBIND=TRUE
export SUNW_MP_THR_IDLE=SPIN
export OMP_NESTED=FALSE
export STACKSIZE=16384
export OMP_DYNAMIC=TRUE
ulimit -s unlimited

```

Patch-02 includes the following patches for Sun Studio 10 compiler, these can be downloaded from (as of 04/21/2005)  
[http://developers.sun.com/prodtech/cc/downloads/patches/ss10\\_patches.html](http://developers.sun.com/prodtech/cc/downloads/patches/ss10_patches.html)  
117831-02 C++  
117837-02 C  
117845-01 Debugger  
117846-02 x86/x64 backend (codegen)

For a description of Sun Studio 10 Compiler flags, portability flags and system parameters used to generate this result, please refer to



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## Notes/Tuning Information (Continued)

SUN-20050330-Studio-Solaris-opteron.txt file in the flags directory.

Default BIOS settings used.

This result was measured on Sun Fire X4200;  
Sun Fire X4100 and Sun Fire X4200 are electronically equivalent.