

# MSR Trace Events

The x86 kernel supports tracing most MSR (Model Specific Register) accesses. To see the definition of the MSRs on Intel systems please see the SDM at <https://www.intel.com/sdm> (Volume 3)

Available trace points:

`/sys/kernel/debug/tracing/events/msr/`

Trace MSR reads:

`read_msr`

- `msr`: MSR number
- `val`: Value written
- `failed`: 1 if the access failed, otherwise 0

Trace MSR writes:

`write_msr`

- `msr`: MSR number
- `val`: Value written
- `failed`: 1 if the access failed, otherwise 0

Trace RDPMC in kernel:

`rdpmc`

The trace data can be post processed with the `postprocess/decode_msr.py` script:

```
cat /sys/kernel/debug/tracing/trace | decode_msr.py /usr/src/linux/include/asm/msr-index.h
```

to add symbolic MSR names.