

**NAME**

**pmc\_read**, **pmc\_rw**, **pmc\_write** - read and write hardware performance counters

**LIBRARY**

Performance Counters Library (libpmc, -lpmc)

**SYNOPSIS**

```
#include <pmc.h>
```

*int*

```
pmc_read(pmc_id_t pmc, pmc_value_t *value);
```

*int*

```
pmc_rw(pmc_id_t pmc, pmc_value_t newvalue, pmc_value_t *oldvaluep);
```

*int*

```
pmc_write(pmc_id_t pmc, pmc_value_t value);
```

**DESCRIPTION**

These functions read and write the current value of a PMC.

Function **pmc\_read()** will read the current value of the PMC specified by argument *pmc* and write it to the location specified by argument *value*.

Function **pmc\_write()** will set the current value of the PMC specified by argument *pmc* to the value specified by argument *value*.

Function **pmc\_rw()** combines a read and a write into a single atomic operation.

For write operations the PMC should be a quiescent state.

**RETURN VALUES**

Upon successful completion, the value 0 is returned; otherwise the value -1 is returned and the global variable *errno* is set to indicate the error.

**ERRORS**

A call to these functions may fail with the following errors:

[EBUSY]           A write operation specified a currently running PMC.

[EINVAL] Argument *pmc* specified a PMC not in a readable state.

[EINVAL] The PMC specified by argument *pmc* was not owned by the current process.

**SEE ALSO**

pmc(3), hwpmc(4)