

NAME

pmc_get_msr - x86 architecture-specific PMC operations

LIBRARY

Performance Counters Library (libpmc, -lpmc)

SYNOPSIS

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

int

```
pmc_get_msr(pmc_id_t pmc, uint32_t *msr);
```

DESCRIPTION

The function **pmc_get_msr()** returns the processor model specific register number associated with a PMC for subsequent use with RDPMC instructions. Argument *pmc* specifies a process scope counting PMC. The function will write the model specific register number associated with the PMC to the location pointed to by argument *msr*.

After successful completion of this function, applications can directly read the contents of PMC hardware using RDPMC instructions.

RETURN VALUES

The **pmc_get_msr()** function returns the value 0 if successful; otherwise the value -1 is returned and the global variable *errno* is set to indicate the error.

ERRORS

A call to **pmc_get_msr()** may fail with the following errors:

- | | |
|----------|---|
| [EINVAL] | The PMC handle specified was invalid. |
| [EINVAL] | The PMC specified did not have process scope or counting mode. |
| [EINVAL] | The PMC specified was allocated with the PMC_F_DESCENDANTS flag. |
| [EINVAL] | The specified PMC is already attached to target processes other than the owner. |
| [ENOSYS] | The underlying hardware does not support an RDPMC instruction. |

SEE ALSO

pmc(3), hwpmc(4)