

## NAME

IPC::SharedMem - SysV Shared Memory IPC object class

## SYNOPSIS

```
use IPC::SysV qw(IPC_PRIVATE S_IRUSR S_IWUSR);
use IPC::SharedMem;

$shm = IPC::SharedMem->new(IPC_PRIVATE, 8, S_IRWXU);

$shm->write(pack("S", 4711), 2, 2);

$data = $shm->read(0, 2);

$ds = $shm->stat;

$shm->remove;
```

## DESCRIPTION

A class providing an object based interface to SysV IPC shared memory.

## METHODS

`new ( KEY , SIZE , FLAGS )`

Creates a new shared memory segment of `SIZE` bytes size associated with `KEY`. A new segment is created if

- `KEY` is equal to `IPC_PRIVATE`
- `KEY` does not already have a shared memory segment associated with it, and `FLAGS` & `IPC_CREAT` is true.

On creation of a new shared memory segment `FLAGS` is used to set the permissions. Be careful not to set any flags that the Sys V IPC implementation does not allow: in some systems setting execute bits makes the operations fail.

`id`

Returns the shared memory identifier.

`read ( POS, SIZE )`

Read `SIZE` bytes from the shared memory segment at `POS`. Returns the string read, or `undef` if there was an error. The return value becomes tainted. See *shmread*.

`write ( STRING, POS, SIZE )`

Write `SIZE` bytes to the shared memory segment at `POS`. Returns true if successful, or false if there is an error. See *shmwrite*.

`remove`

Remove the shared memory segment from the system or mark it as removed as long as any processes are still attached to it.

`is_removed`

Returns true if the shared memory segment has been removed or marked for removal.

`stat`

Returns an object of type `IPC::SharedMem::stat` which is a sub-class of `Class::Struct`

. It provides the following fields. For a description of these fields see your system documentation.

```
uid
gid
cuid
cgid
mode
segsz
lpid
cpid
nattch
atime
mtime
ctime
```

`attach ( [FLAG] )`

Permanently attach to the shared memory segment. When a `IPC::SharedMem` object is attached, it will use *memread* and *memwrite* instead of *shmread* and *shmwrite* for accessing the shared memory segment. Returns true if successful, or false on error. See *shmat(2)*.

`detach`

Detach from the shared memory segment that previously has been attached to. Returns true if successful, or false on error. See *shmdt(2)*.

`addr`

Returns the address of the shared memory that has been attached to in a format suitable for use with `pack( 'P' )`. Returns `undef` if the shared memory has not been attached.

## SEE ALSO

*IPC::SysV*, *Class::Struct*

## AUTHORS

Marcus Holland-Moritz <mhx@cpan.org>

## COPYRIGHT

Version 2.x, Copyright (C) 2007-2013, Marcus Holland-Moritz.

Version 1.x, Copyright (c) 1997, Graham Barr.

This program is free software; you can redistribute it and/or modify it under the same terms as Perl itself.