

## 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 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  
                    nattach  
                    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*.

`detach`

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

`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

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## COPYRIGHT

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