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***Rocky Enterprise Linux 9.2 Manual Pages on command 'IPC::Semaphore.3perl'***

***\$ man IPC::Semaphore.3perl***

IPC::Semaphore(3perl) Perl Programmers Reference Guide IPC::Semaphore(3perl)

**NAME**

IPC::Semaphore - SysV Semaphore IPC object class

**SYNOPSIS**

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

```
use IPC::Semaphore;
```

```
$sem = IPC::Semaphore->new(IPC_PRIVATE, 10, S_IRUSR | S_IWUSR | IPC_CREAT);
```

```
$sem->setall( (0) x 10);
```

```
@sem = $sem->getall;
```

```
$ncnt = $sem->getncnt;
```

```
$zcnt = $sem->getzcnt;
```

```
$ds = $sem->stat;
```

```
$sem->remove;
```

## DESCRIPTION

A class providing an object based interface to SysV IPC semaphores.

## METHODS

`new ( KEY , NSEMS , FLAGS )`

Create a new semaphore set associated with "KEY". "NSEMS" is the number of semaphores in the set. A new set is created if

? "KEY" is equal to "IPC\_PRIVATE"

? "KEY" does not already have a semaphore identifier associated with it, and "FLAGS & IPC\_CREAT" is true.

On creation of a new semaphore set "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.

`getall`

Returns the values of the semaphore set as an array.

`getncnt ( SEM )`

Returns the number of processes waiting for the semaphore "SEM" to become greater than its current value

`getpid ( SEM )`

Returns the process id of the last process that performed an operation on the semaphore "SEM".

`getval ( SEM )`

Returns the current value of the semaphore "SEM".

`getzcnt ( SEM )`

Returns the number of processes waiting for the semaphore "SEM" to become zero.

id Returns the system identifier for the semaphore set.

op ( OPLIST )

"OPLIST" is a list of operations to pass to "semop". "OPLIST" is a concatenation of smaller lists, each which has three values. The first is the semaphore number, the second is the operation and the last is a flags value. See semop(2) for more details.

For example

```
$sem->op(  
    0, -1, IPC_NOWAIT,  
    1, 1, IPC_NOWAIT  
);
```

remove

Remove and destroy the semaphore set from the system.

set ( STAT )

set ( NAME => VALUE [, NAME => VALUE ...] )

"set" will set the following values of the "stat" structure associated with the semaphore set.

uid

gid

mode (only the permission bits)

"set" accepts either a stat object, as returned by the "stat" method, or a list of name-value pairs.

setall ( VALUES )

Sets all values in the semaphore set to those given on the "VALUES" list. "VALUES" must contain the correct number of values.

setval ( N , VALUE )

Set the "N"th value in the semaphore set to "VALUE"

stat

Returns an object of type "IPC::Semaphore::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

ctime

otime

nsems

#### SEE ALSO

IPC::SysV, Class::Struct, semget(2), semctl(2), semop(2)

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#### COPYRIGHT

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