PERL SEMGET FUNCTION

Description

This function returns the semaphore ID associated with KEY, using the system function semget ie. Finds the semaphore associated with KEY.

Syntax

Following is the simple syntax for this function −

```
semget KEY, NSEMS, FLAGS
```

Return Value

This function returns undef on failure and 0 but true on success.

Example

Following is the example code showing its basic usage, creating a semaphore and incrementing its value −

```
#!/usr/bin/perl -w

# Assume this file name is left.pl

use IPC::SysV;

#use these next two lines if the previous use fails.
eval 'sub IPC_CREAT {0001000}' unless defined &IPC_CREAT;
eval 'sub IPC_EXCL {0002000}'  unless defined &IPC_EXCL;
eval 'sub IPC_RMID {0}'        unless defined &IPC_RMID;

$key = 1066;

$| = 1;
$num = 0;
$flag = 0;

# Create the semaphor
$id = semget ( $key, 1, &IPC_EXCL|&IPC_CREAT|0777 ) or
 die "Can't semget: $!";
foreach( 1..5) {
 $op  = 0;
 $operation = pack( "s*", $num, $op, $flags );
 semop( $id, $operation ) or die "Can't semop: $! ";
 print "Left....\n";
 sleep 1;
 $op = 2;
 $operation = pack( "s*", $num, $op, $flags );
 # add 2 to the semaphore ( now 2 )
 semop( $id, $operation ) or die "Can't semop $! ";
}
semctl (  $id, 0, &IPC_RMID, 0 );
```

Run the above program in background using $left.pl& and write following another program. Here Left sets the semaphore to 2 and Right prints Right and resets the semaphore to 0. This continues until Left finishes its loop after which it destroys the semaphore with semctl()

```
#!/usr/bin/perl -w

# Assume this file name is right.pl
```

```
$key = 1066;

$| = 1;
$num = 0;
$flags = 0;

# Identify the semaphore created by left.
$id = semget( $key, 1, 0 ) or die ("Can't semgt : $!" );

foreach( 1..5){
 $op = -1;
 $operation =  pack( "s*", $num, $op, $flags );
 # Add -1 to the semaphore (now 1)
 semop( $id, $operation ) or die " Can't semop $!";
 print "Right....\n";
 sleep 1;
 $operation = pack( "s*", $num, $op, $flags );
  # Add -1 to the semaphore (now  0)
 semop( $id, $operation ) or die "Can't semop $! ";
}
```

When above code is executed, it produced following result. Now run right.pl and It will produce following results –

```
Right....
Left....
Right....
Left....
Right....
Left....
Right....
Left....
Right....
Left
```