PERL SHMCTL FUNCTION

Description

This function controls the shared memory segment referred to by ID, using CMD with ARG. You will need to import the IPC::SysV module to get the command tokens defined below in Table.

```
Command   Description
IPC_STAT  Places the current value of each member of
  the data structure associated with ID into
  the scalar ARG

IPC_SET   Sets the value of the following members o
  of the data structure associated with ID to
  the corresponding values found in the packed
  scalar ARG

IPC_RMID  Removes the shared memory identifier specified
  by ID from the system and destroys the shared
  memory segment and data structure associated
  with it

SHM_LOCK  Locks the shared memory segment specified by ID
  in memory

SHM_UNLOCK  Unlocks the shared memory segment specified by ID
```

Syntax

Following is the simple syntax for this function −

```
shmctl ID, CMD, ARG
```

Return Value

This function returns undef on failure and 0 but true if the return value from the shmctl is 0.

Example

Following is the example code showing its basic usage −

```perl
#!/usr/bin/perl

# Assume this file name is  writer.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_RMID {0}'        unless defined &IPC_RMID;

$key  = 12345;
$size = 80;
$message = "Pennyfarthingale.";

# Create the shared memory segment

$key = shmget($key, $size, &IPC_CREAT | 0777 ) or
    die "Can't shmget: $!";

# Place a string in itl
shmwrite( $id, $message, 0, 80 ) or die "Can't shmwrite: $!";
```

```perl
sleep 20;

# Delete it;

shmctl( $id, &OPC_RMID, 0 ) or die "Can't shmctl: $! ";
```

Write a reader program which retrieves the memory segment corresponding to $key and reads its contents using shmread();.

```perl
#!/usr/bin/perl

# Assume this file name is reader.pl

$key = 12345;
$size = 80;

# Identify the shared memory segment
$id = shmget( $key, $size, 0777 ) or die "Can't shmget: $!";

# Read its contents itno a string
shmread($id, $var, 0, $size) or die "Can't shmread: $!";

print $var;
```

Now First run writer.pl program in background and then reader.pl then it will produces the following result.

```
$perl writer.pl&
$perl reader.pl

Pennyfrathingale
```