

## Writer

```
#include <sys/ipc.h>
#include <sys/shm.h>
#include <stdio.h>
#include <unistd.h>
#include <stdlib.h>

int main()
{
    key_t key = ftok("a.txt", 'A');
    int shmid = shmget(key, 1024, 0777 | IPC_CREAT);
    char *str = (char *)shmat(shmid, (void *)0, 0);

    printf("write data into file: ");
    fgets(str, 1024, stdin); // Use fgets instead of gets

    printf("Data written in memory: %s\n", str);
    shmdt(str);
    system("ipcs -m");

    return 0;
}
```

## Reader

```
#include<sys/ipc.h>
#include <sys/shm.h>
#include <stdio.h>
#include<unistd.h>
#include<stdlib.h>

int main()
{
    key_t key=ftok("a.txt",'A');
    int shmid= shmget( key ,1024,0777|IPC_CREAT);
    char *str= (char*) shmat(shmid,(void*)0,0);
    printf("Data read from memory: %s\n",str);
    system("ipcs -m");
    shmdt(str);
    shmctl(shmid,IPC_RMID,NULL);
    return 0;
}
```

OUTPUT

```
er Writer$ ./a.out
write data into file: HELLO
Data written in memory: HELLO

----- Shared Memory Segments -----
key      shmid    owner      perms      bytes      nattch     status
0x00000000 4          mohakborol 600        524288     2          dest
0x00000000 7          mohakborol 606        6073236    2          dest
0x00000000 8          mohakborol 606        6073236    2          dest
0x00000000 9          mohakborol 606        6073236    2          dest
0x00000000 10         mohakborol 606        6073236    2          dest
0x00000000 19         mohakborol 600        524288     2          dest
0xffffffff 25         mohakborol 777        1024       0          
```

```
er Writer$ ./a.out
Data read from memory: HELLO

----- Shared Memory Segments -----
key      shmid    owner      perms      bytes      nattch     status
0x00000000 4          mohakborol 600        524288     2          dest
0x00000000 7          mohakborol 606        6073236    2          dest
0x00000000 8          mohakborol 606        6073236    2          dest
0x00000000 9          mohakborol 606        6073236    2          dest
0x00000000 10         mohakborol 606        6073236    2          dest
0x00000000 19         mohakborol 600        524288     2          dest
0xffffffff 25         mohakborol 777        1024       1          
```