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IPC USING SHARED MEMORY

PROGRAM

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

#define SHM_SIZE 1024
#define SHM_KEY 1234

int main() {
    int shmid;
    char *shm_ptr;

    shmid = shmget(SHM_KEY, SHM_SIZE, IPC_CREAT | 0666);
    if (shmid == -1) {
        perror("shmget");
        return 1;
    }
    shm_ptr = shmat(shmid, NULL, 0);
    if (shm_ptr == (char *) -1) {
        perror("shmat");
        return 1;
    }
    sprintf(shm_ptr, "Welcome to Shared Memory");
    sleep(2);
    if (shmdt(shm_ptr) == -1) {
        perror("shmdt");
        return 1;
    }

    return 0;
}
```

```c
// receiver.c
#include <stdio.h>
#include <stdlib.h>
#include <string.h>
#include <sys/ipc.h>
#include <sys/shm.h>

#define SHM_SIZE 1024
#define SHM_KEY 1234

int main() {
    int shmid;
    char *shm_ptr;
    shmid = shmget(SHM_KEY, SHM_SIZE, 0666); // No IPC_CREAT here
    if (shmid == -1) {
        perror("shmget");
        return 1;
    }
    shm_ptr = shmat(shmid, NULL, 0);
    if (shm_ptr == (char *) -1) {
        perror("shmat");
        return 1;
    }
    printf("Message Received: %s\n", shm_ptr);
        if (shmdt(shm_ptr) == -1) {
        perror("shmdt");
        return 1;
    }
    return 0;
}
```

OUTPUT

```
[cse66@localhost ~]$ vi ipc.c
[cse66@localhost ~]$ vi sender.c
[cse66@localhost ~]$ vi receiver.c
[cse66@localhost ~]$ gcc sender.c -o sender
[cse66@localhost ~]$ gcc receiver.c -o receiver
[cse66@localhost ~]$ ./sender
[cse66@localhost ~]$ ./receiver
Message Received: Welcome to Shared Memory
```