**shm\_server.c**

#include <sys/types.h>

#include <sys/ipc.h>

#include <sys/shm.h>

#include <stdio.h>

#define SHMSZ 27

main()

{

char c;

int shmid;

key\_t key;

char \*shm, \*s;

/\* We'll name our shared memory segment

\* "5678".

\*/

key = 5678;

/\*

\* Create the segment.

\*/

if ((shmid = shmget(key, SHMSZ, IPC\_CREAT | 0666)) < 0) {

perror("shmget");

exit(1);

}

/\*

\* Now we attach the segment to our data space.

\*/

if ((shm = shmat(shmid, NULL, 0)) == (char \*) -1) {

perror("shmat");

exit(1);

}

/\*

\* Now put some things into the memory for the

\* other process to read.

\*/

s = shm;

for (c = 'a'; c <= 'z'; c++)

\*s++ = c;

\*s = NULL;

/\*

\* Finally, we wait until the other process

\* changes the first character of our memory

\* to '\*', indicating that it has read what

\* we put there.

\*/

while (\*shm != '\*')

sleep(1);

exit(0);

}

**shm\_client.c**

/\*

\* shm-client - client program to demonstrate shared memory.

\*/

#include <sys/types.h>

#include <sys/ipc.h>

#include <sys/shm.h>

#include <stdio.h>

#define SHMSZ 27

main()

{

int shmid;

key\_t key;

char \*shm, \*s;

/\*

\* We need to get the segment named

\* "5678", created by the server.

\*/

key = 5678;

/\*

\* Locate the segment.

\*/

if ((shmid = shmget(key, SHMSZ, 0666)) < 0) {

perror("shmget");

exit(1);

}

/\*

\* Now we attach the segment to our data space.

\*/

if ((shm = shmat(shmid, NULL, 0)) == (char \*) -1) {

perror("shmat");

exit(1);

}

/\*

\* Now read what the server put in the memory.

\*/

for (s = shm; \*s != NULL; s++)

putchar(\*s);

putchar('\n');

/\*

\* Finally, change the first character of the

\* segment to '\*', indicating we have read

\* the segment.

\*/

\*shm = '\*';

exit(0);

}