

This directory has an example loadable kernel server and a user-level program that communicates with it.

The loadable kernel server accepts two MiG-generated remote procedure calls: **mydriver_import()**, which sends data to the server, and **mydriver_export()**, which gets data from the server.

Chapter 3, "Using Loadable Kernel Servers," of *NeXT Operating System Software* gives more information on implementing user-level programs that communicate with loadable kernel servers. *Writing Loadable Kernel Servers* gives information on implementing your own loadable kernel server.

To build the loadable kernel server and user program, follow these steps:

1) Make a copy of this directory and change to the new directory in a Terminal window. For example:

```
localhost> cp -r /NextDeveloper/Examples/UNIX/LKSOutOfLineData ~
```

```
localhost> cd ~/LKSOuTOfLineData
```

2) Run **make** in the **KernelServer** directory. (It's important that you make the server before the user program, since the user program depends on files created during this step.)

```
localhost> cd KernelServer
```

```
localhost> make
```

3) Run **make** in the **User** directory.

```
localhost> cd ../User
```

```
localhost> make
```

To use the user program:

1) Allocate the loadable kernel server. It loads automatically once it's allocated.

```
localhost> su
```

```
Password:
```

```
localhost# kl_util -a ../KernelServer/mydriver_reloc
```

```
Adding server with relocatable /me/LKSOutOfLineData/User/..
```

```
/KernelServer/mydriver_reloc
```

```
Allocating server mydriver
```

```
Server mydriver linking /me/LKSOutOfLineData/User/..
```

```
    /KernelServer/mydriver_reloc against /mach
```

```
Server mydriver linking relocatable "/me/LKSOutOfLineData/User/..
```

```
    /KernelServer/mydriver_reloc" into loadable "/me/
```

```
    LKSOutOfLineData/User/../KernelServer/mydriver_loadable"
```

```
Server mydriver Allocated  
localhost#
```

2) Run the user program.

```
localhost# ./test  
Data is: blah  
Calling mydriver_import().  
Calling mydriver_export().  
Trying to access data.  
First data element is: A  
Second data element is: C  
Third data element is: K  
Fourth data element is:
```

Fifth data element is:

Contents of data are: ACK

3) If you wish to modify the loadable kernel server and then reload it, you should delete the running version of the **kern_loader** before allocating the kernel server again.

```
localhost# kl_util -d mydriver
```

```
Server mydriver deallocating
```

```
Server mydriver unloading
```

```
Server mydriver re-Allocated
```

```
Server mydriver Deallocated
```