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
```