

Driver Installation

Important Steps

- Compiling the device driver;
- Modifying the kernel configuration tables and files
- Linking the device driver with the kernel object files to produce a new kernel
- Creating the necessary entries in the /dev directory
- Rebooting the system with the new kernel

Compiling the Driver

- Just like any other 'C' program
- But to generate '.obj' file – Intermediate code file and not '.exe' file

Configuring the Kernel

- Maintain entries in two files
 - mdevice file
 - sdevice file
- Present in /etc/conf/cf.d
- mdevice file : entry for each device driver present on the system
- sdevice file : entry for each driver incorporated into the Kernel

The Mdevice file

- Device Name
- Function List
- Driver Characteristics
- Handler Prefix
- Block Major Number
- Character Major Number
- Minimum Units
- Maximum Units
- DMA Channel

The Sdevice file

- Device Name
- Configure
- Unit
- Ipl
- Interrupt Type
- Vector
- SIOA – Start I/O Address
- EIOA – End I/O Address
- SCMA – Start Controller Memory Address
- ECMA – End Controller Memory Address

Installing the New Driver

- `ldinstall` command

Building the New Kernel

- `idbuild` command

Creating entries in /dev

- Device Name
- Node Name
- Node Type
- Minor Device Number
- Idmkenv and idmknod commands

Rebooting New Kernel

- Backup of old copy
- /unix.old
- /unix.original
- Generate Bootable tape or copy
- Fsck (File system Check) command
- Fsdb (File system Debugger) command