Outline
Linuxj

RCX Communication

Send/Receive Programs

Linux

File structure
Everything is a file

Files are organized in a tree; a directory is a file that contains files.

Top-level directories:
      bin (binaries)
      dev (devices)
      etc (useful stuff, often configuration files)
      opt (optional stuff, often packages downloaded)
      sbin (system binaries)
      tmp (temporary files, deleted on reboot)
      usr (often user home directories)
      var (various, often configuration information)

The Shell
A command language interpreter that translates the commands a user types into Linux "programs," which can be built-in commands (executed within the shell's process) or executable files. The shell understands a simple programming language that includes decision and looping statements.

Basic Commands
man - print manual page
ls – list files
cd – change directory
mv – move file
cp – copy file
rm – remove file
ping – test internet connectivity
ifconfig –network interface configuration
dig – get ip address from domain name system
nano – intuitive text editor

Specialized Commands

Export
Shell builtin command that exports the value of a shell variable, making it available to

Chmod

NAME

chmod -- change file modes or Access Control Lists

SYNOPSIS

      chmod [-fv] [-R [-H | -L | -P]] mode file ...
      chmod [-fv] [-R [-H | -L | -P]] [-a | +a | =a] ACE file ...
      chmod [-fhv] [-R [-H | -L | -P]] [-E] file ...
      chmod [-fhv] [-R [-H | -L | -P]] [-C] file ...
      chmod [-fhv] [-R [-H | -L | -P]] [-N] file ...

DESCRIPTION

The chmod utility modifies the file mode bits of the listed files as specified by the mode operand. It may also be used to modify the Access Control Lists (ACLs) associated with the listed files.

Modprobe

modprobe is a Linux program originally written by Rusty Russell and used to add a loadable kernel module (LKM) to the Linux kernel or to remove an LKM from the kernel.

The program offers more full-featured, Swiss-army-knife features than the more basic insmod and rmmod utilities, with the following benefits:

- an ability to make more intuitive decisions about which modules to load
- an awareness of module dependencies, so when requested to load a module, it adds other required modules first
- the resolution of recursive module-dependencies as required

If no switches are specified, the default is to add/insert/install the module into the kernel. Root privileges may be required for success; in some cases this requires typing sudo modprobe.

Link

SYNOPSIS

      ln [-Ffhinsv] source_file [target_file]
      ln [-Ffhinsv] source_file ... target_dir
      link source_file target_file

DESCRIPTION

The ln utility creates a new directory entry (linked file) which has the same modes as the original file. It is useful for maintaining multiple copies of a file in many places at once without using up storage for the ``copies''; instead, a link ``points'' to the original copy. There are two types of links; hard links and symbolic links. How a link ``points'' to a file is one of the differences between a hard and symbolic link.