NAME

init – process control initialization

SYNOPSIS

/etc/init

DESCRIPTION

Init is invoked inside UNIX as the last step in the boot procedure. Generally its role is to create a process for each typewriter on which a user may log in.

First, *init* checks to see if the console switches contain 173030. (This number is likely to vary between systems.) If so, the console typewriter *tty* is opened for reading and writing and the shell is invoked immediately. This feature is used to bring up a single-user system. When the system is brought up in this way, the *getty* and *login* routines mentioned below and described elsewhere are not needed.

Otherwise, *init* invokes a Shell, with input taken from the file */etc/rc*. This command file performs housekeeping like removing temporary files, mounting file systems, and starting the dataphone daemon.

Then *init* forks several times to create a process for each typewriter mentioned in an internal table. Each of these processes opens the appropriate typewriter for reading and writing. These channels thus receive file descriptors 0 and 1, the standard input and output. Opening the typewriter will usually involve a delay, since the *open* is not completed until someone is dialled up and carrier established on the channel. Then the process executes the program */etc/getty* (q.v.). *Getty* will read the user's name and invoke *login* (q.v.) to log in the user and execute the shell.

Ultimately the shell will terminate because of an end-of-file either typed explicitly or generated as a result of hanging up. The main path of *init*, which has been waiting for such an event, wakes up and removes the appropriate entry from the file *utmp*, which records current users, and makes an entry in *wtmp*, which maintains a history of logins and logouts. Then the appropriate typewriter is reopened and *getty* is reinvoked.

FILES

/dev/tty, /dev/tty?, /tmp/utmp, /tmp/wtmp,

SEE ALSO

login(I), getty(VII), sh(I)