CSCI 4061 Discussion 14

4/30/18

Overview

- Signals
  - Sending
  - Masks
  - Handlers
- Exercise

Sending A Signal

```
int kill(pid_t pid, int sig);
```

- Sends signal of the type indicated by the integer, to the process with the id given.

Signal Masks

- Set of signals that are to be blocked.
- Represented by sigset_t struct

```
int sigemptyset(sigset_t *set);
int sigfillset(sigset_t *set);
int sigaddset(sigset_t *set, int signum);
int sigdelset(sigset_t *set, int signum);
int sigismember(const sigset_t *set, int signum);
```

Signal Handlers

- Functions which are triggered when a signal arrives.
  - Interrupts the current function.

```
struct sigaction

int sigaction(int signum, const struct sigaction *act,
struct sigaction *oldact);
```

Re-entrancy

- The ability of a function to be returned to if interrupted by a signal without changing the output.
- If a function is not re-entrant, signals must be blocked during critical section.

Exercise

- rec14.c will infinitely print a counter.
- Develop **TWO** programs from this.
  - One which will toggle this printing when a SIGINT is received.
  - Another which will not stop even if a SIGINT is received.