Ncurses is a terminal window manipulation library that allows you to plot characters on the screen. Ncurses maintains a picture of the window in memory which you can manipulate and then redraw periodically. So you can have the user enter a message at the bottom of the screen while you display new messages at the top, for example.

To use ncurses, #include <curses.h> in your client program. When you compile your client, you'll need to include the option -lncurses at the end of the command line.

Initialize ncurses with the following:

```c
initscr(); // initialize the curses library
cbreak();  // take input characters one at a time; don't wait for a newline
noecho();  // don't echo characters automatically to the screen;
            // easier to NOT use this and let it automatically echo
            // probably only needed if you want to correctly handle backspacing...
```

Then, the following functions will prove useful:

- `move(y,x)`: move the cursor to column y, row x
- `addch(ch)`: add a character to the display at the current \((y, x)\) location
- `addstr(str)`: add a string to the display at the current \((y, x)\) location
- `refresh()`: refresh the window; the effects of `move()`, `addch()`, and `addstr()` will be displayed only after refreshing
- `getch()`: returns one character from stdin; the character will be echoed at the current \((y, x)\) location

The ncurses library also declares two variables — LINES and COLS — and initializes them to contain the number of lines and columns of the terminal window. (You can use these variables as constants without declaring them anywhere.)

Finally, close ncurses with the following:

```c
endwin(); // close curses
```

If you want more extensive documentation, try

- *Programming with curses* by John Strang, published by O'Reilly
- http://dickey.his.com/ncurses/ncurses-intro.html
- the man pages (man ncurses)