

CS-701 Lecture 19

April 17, 2001

Administrivia

- Exams
- Assignment 4
- (Registration System/Babbage)

Dealing with Errors

- System calls return -1 on errors, and set *errno* to an integer code telling what the problem was.
- *extern int errno* #defined in `<errno.h>`.
 - *perror(char* m);* // Write error msg to stderr
 - *strerror(int e);* // Get string associated
// with error number *e*

Debugging with GDB

- Primitive debugging strategy: Insert print statements in code.
 - To trace program logic
 - To display values of variables
 - But:
 - Requires recompilation each time print statements are added/removed
 - Adding/removing statements requires editing, which leads to more bugs!
 - (Comment on comments)
- GDB (GNU Debugger)
 - All of the advantages of above, none of the disadvantages!

GDB Features

- Operates interactively or post-mortem
 - `gdb qsh [core]`
- Breakpoints
- Single step (into/over)
- Print
- Backtrace
- Etc.!