

CS-701 Lecture 13

March 15, 2001

The *quit* and *print* Commands

- *quit* is the same as *exit* except it must be entered with no command line arguments.
- *print* prints its arguments, all on one line, and returns the number of arguments it printed.

Printing Error Messages

```
fprintf( stderr,  
        "%s: this is an error message\n",  
        argv[0] );
```

- Redirecting the standard error stream
 - (t)osh: ls junk >& /dev/null
 - (ba|k)sh: ls junk 2> /dev/null
 - ls > out 2>&1

Using *makedepend*

- makedepend interprets all preprocessor directives to determine what header files are referenced by .c or .cc files, and generates dependency lines for your Makefile
 - Follows nested #includes, which isn't always what you want.
- ```
makedepend -Y *.cc
```
- Makefile must be writeable; header file dependencies will be put at the end of it after a line that says, "# DO NOT DELETE ..."
- The *depend* target:

```
depend:
<tab>makedepend -Y $(SRCS)
```

    - "What's \$(SRCS)?" I hear you ask ...

## Generating Variable Values

- In a Makefile:  
SRCS= main.cc builtins.cc  
OBJS = \$(SRCS:.cc=.o)
  - Now \$(OBJS) is “main.o builtins.o”
  - Only need to update one line in Makefile when adding a new source file to the project.