

c

MORE (THAN YOU EVER WANTED TO KNOW) ON COMPILING

- `-o` option - specify output file
- `-O` option - specify optimization level when compiling
 - compiling goes to machine code
 - some machine code is faster/uses less space than others
 - optimization level makes optimization for these tradeoffs
 - CAREFUL -> high optimization levels can break code!
- `-Wall` - enables warning messages

DATA TYPES:

Non-floating point

- `int` - at least 16 bits
- `long` - at least 32 bits
- `long long` - at least 64 bits

Floating point

- `float` - typically 32 bits
- `double` - typically 64 bits

Character: `char`

PRINTING OUTPUT

- `printf(controlstring [, data])`
- `controlstring` indicates surrounding text to print, how to format variable printing
- `data` is optional - used when you want to print value of variable
 - says what variable to print
 - `controlstring` contains format specifiers for each `data` being printed

FORMAT SPECIFIERS

- integer: %d (may also see %i)
 - can add additional formatting info
 - add number before d - specify min width %3d
 - specify 0-fill %03d
 - specify left justify %-3d

FORMAT SPECIFIERS (CONT.)

- float/double: %f, %e, %g
 - %f: fixed point notation
 - %e: exponential notation
 - %g: chooses between normal and exponential (drops trailing)
- number before decimal - total width to use
- number after decimal - # places after decimal pt
- use 0 for 0-fill, use - for left justify

FORMAT SPECIFIERS (CONT.)

- char: %c
- string: %s
 - same with int/float you can add
 - number to specify width
 - – to specify left-justify

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