

Bit Fiddling: Printing Graphics Files

Write a C program that reads graphics files in `cs201` format (described below). Save your program in a file named `pix.c`, in a subdirectory of your home directory name `mar25`. Guess when it's due? The program should read and display the file named as a command line argument. The display output should consist of spaces, pound signs, and newlines.

A graphics file in `cs201` format is a text file containing a list of base 10 integers. The first two integers are the width and height of the image. The remaining lines are 8-bit values representing the image. A one-bit should be printed with a pound sign, a zero-bit with a space. After each print *width* characters a newline should be printed, and a new value read.

Sample data file:

```
5 5 31 17 17 17 31
```

Sample output

```
#####  
#  #  
#  #  
#  #  
#####
```

In this case the output should consist of exactly 30 characters: $25 = 5*5$ for the image, plus 5 newlines. Note that $31 = 00011111$ in binary and $17 == 00010001$. Since the width of the image is 5, only the first (low order) 5 bits of the byte are used. More examples will be given in class. There are several data files in `/u1/junk/cs201`. These files use the file name extension `.cs201`.