Some tips for reading and displaying files in Matlab.
(You should probably be familiar, if not acquainted, with these functions.)

1. How to read an image file:

a. If the file is unformatted byte data, you can read the byte string in using the following. This is helpful also when you want to figure out the header and message lengths.

> **fp=fopen('filename','r');**
> **DataArray=fread(fp,[1,inf],'uchar');**
> **fclose(fp)**;

b. If the file is formatted ASCII or some Matlab *.mat file, try using Matlab's **load** command directly. Alternatively, if you know the linelength and number_of_lines in the data file, then you might want to try:

> **fp=fopen('filename','r');**
> **DataArray=fread(fp,[linelength,no_of_lines],'uchar');**
> **fclose(fp)**;

2. To display an image read from a file of binary data, try **imbytefile.m**. This routine displays an image of line length 'linelength' on a grayscale ranging from 0-255.

> **DataArray=imbytefile('filename',linelength);**

Note that the file name should be specified as the first argument. The file is assumed to be written in line order. The linelength is the second argument. The data is assumed to be unsigned characters, and the color is scaled to use the full [0,255] range.

This routine is available in the class web site under the Software tab.