

## Chapter 4

# Publish Your Work

To “publish” a script file means to put it in a document format that will include both the commands that were used and the output that you get. In the sample below, we’ve got a script file named `my_script.m`, which has the following commands:

```
disp("Hello World");

x=linspace(-3,8,100);
y=sin(x);
plot(x,y,'k-');

A=[1 2;3 4]
```

### Publishing in Matlab

First open the script file in Matlab’s editor:

```
edit my_script.m
```

Then in the editor, find the second tab at the top of the dialog box, which should read “Publish”. Press that tab. You should see a “Publish” button on the right with a downward pointing arrow. Press that. If you want your document in HTML format, that is the default, but I find PDF to be more convenient. I would select “Edit Publishing Options”, and in the first option, “Output file format”, change that from html (the default value) to pdf. Next, select “Publish” from the tab at the bottom of the dialog box.

If you didn’t change the output folder, Matlab has created a folder named “html” in the current directory, and stored the files there (including the PDF document).

### Publishing in Octave

Publishing in Octave is straightforward if the commands worked, but I had trouble with using them on Octave-Online. That is, we should be able to type:

```
publish("my_script.m", 'pdf')
```

and the PDF should appear in the directory (you'll have to select the **refresh** tab at the top). However, I received a LaTeX error.

So, to get around the error, we can publish in HTML:

```
publish("my_script.m")
```

And now when you select **refresh**, you'll see two files appearing in the html folder: `my_script.html` and the image file, `my_script-1.png`. We can download these, but for some reason, Octave-Online appends the word `html` to the front of those file names, so you'll have to rename those files (at least the image file needs to go back to `my_script-1.png`).

Then open the HTML file with your web browser, and you can then print it or save it as a PDF file.

## 4.1 Sample HW Session - Matlab Only

Here we show how to put together a sample homework set in Matlab. First, open Matlab and the editor (in the command window, type `edit` ).

Here's a sample script header:

```
%% Modeling Homework 0: My Name Here
%
```

```
% Given the matrix below, reduce to RREF, locate the pivot columns.
```

```
A=[1 2 4 5;2 4 5 4;4 5 4 2];
B=rref(A)
```

```
%% SOLUTION:
```

```
% From the RREF of A, we see that the pivot columns are columns 1, 2, and 3.
%
```

Once you've typed this into the editor, save it (best not to use empty spaces in the file name). In this case, we'll save it as `ModelHW0.m`.

Once you've saved it, in the editor, select the **PUBLISH** tab at the top. To the far right, you'll see a publish button. Select that.

You should get something like this:

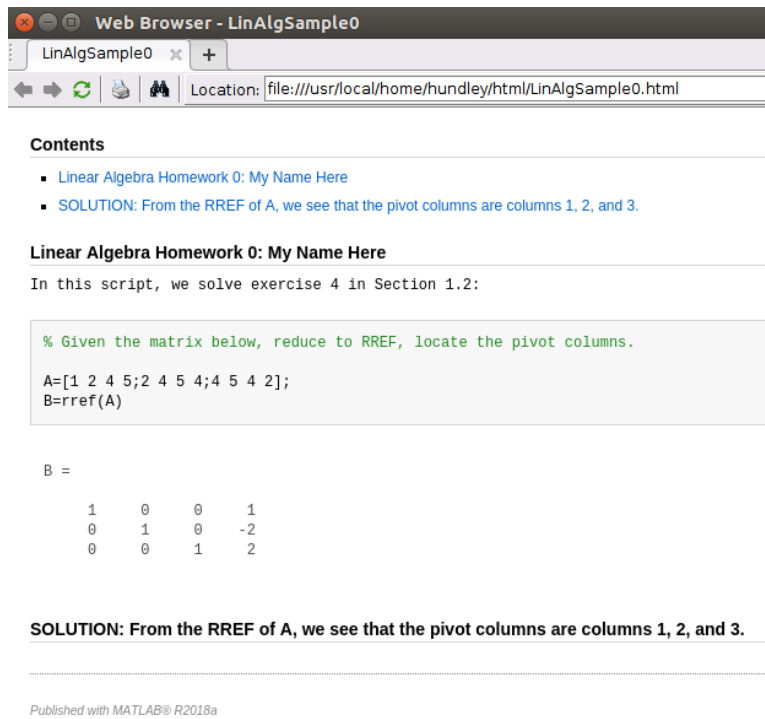


Figure 4.1: A published script. Convert it to PDF to turn in (see the video on the class website).