

Aaron Marks

Geog 485

lesson 1

I found it easiest and most beneficial to reflect and do my “write-up” in sections as I worked through the lesson in order to fully understand and remember what was done in each part. Final thoughts are included at the end with my extra exercise.

Part I

Everything was installed fine at home with ArcGIS 10 including ArcObjects help for VBA.

The Project was saved as Lesson1.mxd

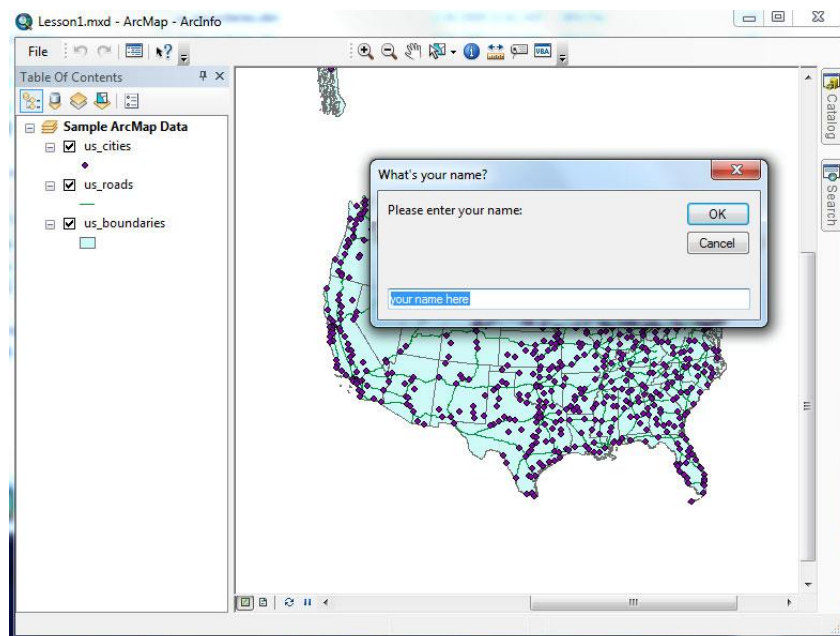
Part II

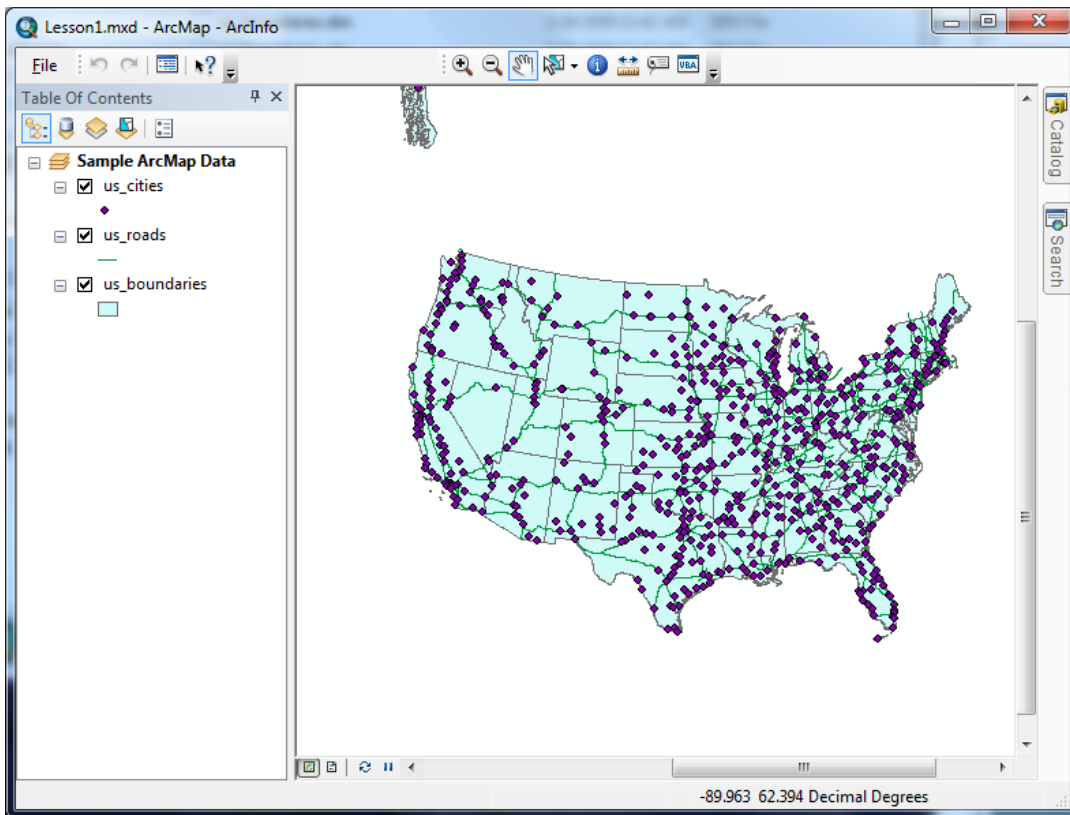
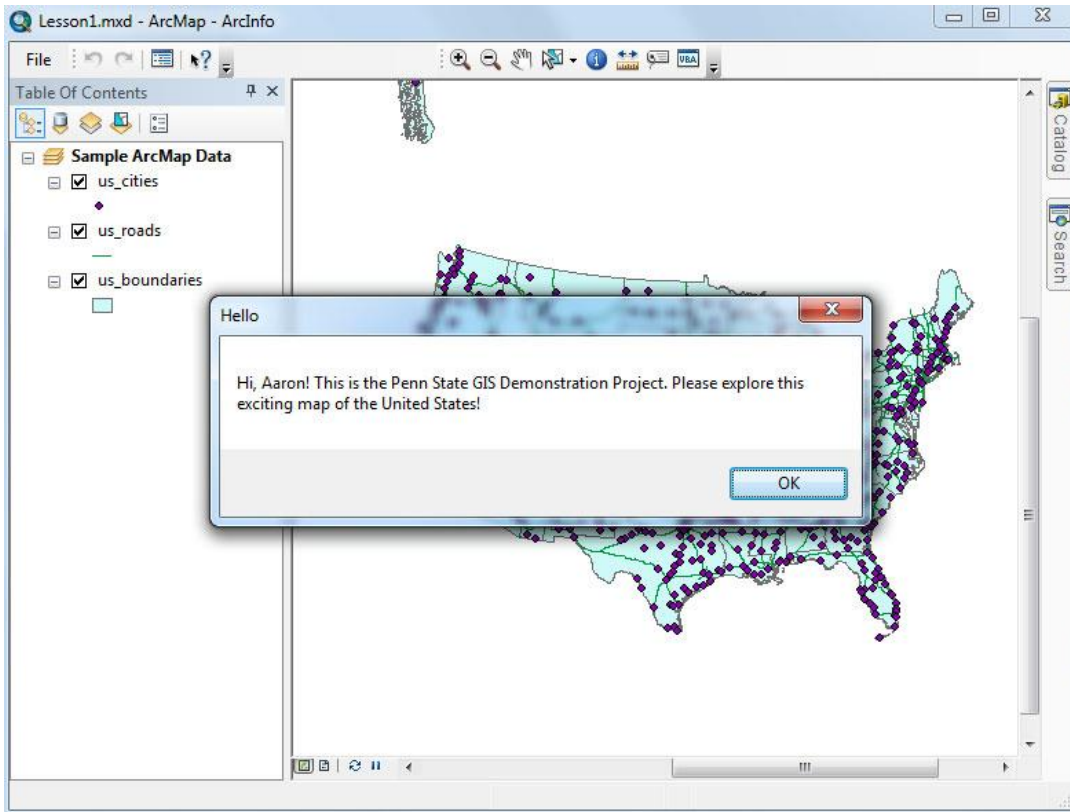
While deciding which tools should be available I basically took out everything that would require a save, anything that edits the file, as well as the option to save as well for safe measures. I left in some options that the user may be interested in doing such as printing the map or exporting it to have a copy of their own. I also left in the undo/redo commands allowing changes made from labeling to be undone if a future user doesn't wish to see them.

The customizing will be locked using the password “gis” preventing a user, who may know how to access the customize dialog box, from modifying any of the changes I made to the application.

Part III

When re-opening lesson1.mxd in a fresh application, the previously modified toolbars are the same and the input box prompts me for my name and then greets me after entering it. Note: THE VBA BUTTON WILL BE REMOVED – It is there in the screenshots for my own shortcut while working



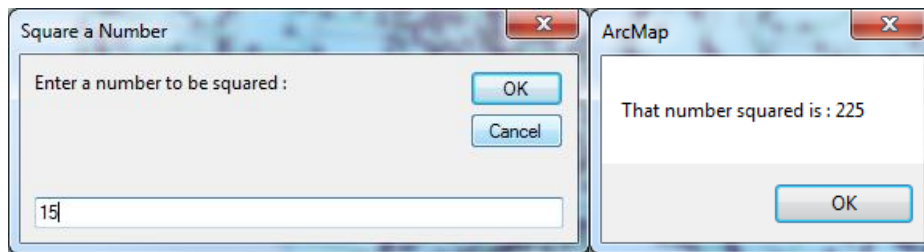


Part IV

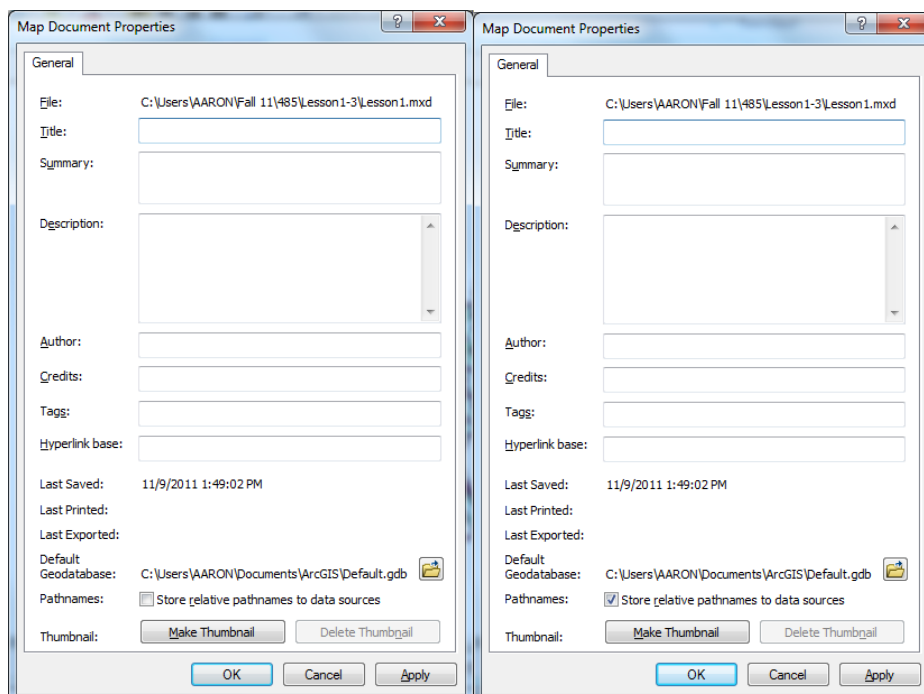
In this part I was able to have the program perform a very simple task, which was only available through accessing various interfaces. When using an interface, we need it to be “opened up” and declared as variables in the code in order to use or modify its features.

Part V

In the first exercise the code has three major parts, one to prompt and store a user entered value to be squared and a second to then store the square of that number. The last part is to return the value to the user. The two variables are declared, with the first being assigned through an input box and storing what the user enters. The second variable stores the square of that number assigning the square operation of the first variable as its value. The message box provides a short message as well as the value stored in the second variable.

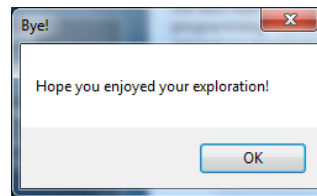


The second exercise changes a property found within the MxDoc interface. This requires a Query Interface of the MxDox interface and adjusting one of its properties. The first step is to declare a variable for the MxDoc interface. By default the RelativePaths property is set to False (or unchecked). This program successfully changed this to True (checked).



Conclusions

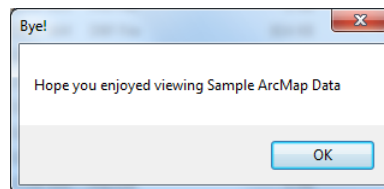
Having some practice with working with the basics of the Customize tools available to use with ArcGIS through lesson 1 provides a foundation for what I see as being the first steps to any customization performed. I see future lessons requiring many of the things learned in this lesson to be performed in order to even begin them. To further my understanding of some of the basics covered in lesson 1 I wrote a simple procedure for when the user closes the document to thank them for viewing. I found this action under the MxDocument Events menu in the VBA editor. Similar to the opening of the document, I made a message for when it is closed.



While this wasn't very lengthy or time consuming, which isn't always the best way to learn, it did require some self-exploration. I could have easily written up some code with addition operations I found while figuring out how to square a number but decided to continue to look for something I could do.

The only problem I ran into in this lesson was figuring out the correct code for changing the value of the RelativePaths option. After trying to set the option I realized I could just assign it based on the property not requiring a "write" to be set as indicated by a solid black box on the right side of the dumbbell in the interface reference help section. After looking it up I changed my code to simply assign the value and know that I would use "set" for the open right side boxes on the diagram.

Running into this issue required me to look into Query Interfaces in more detail which I found to be quite beneficial. Being one of the more complex ideas in this lesson, it certainly became clearer after reviewing the material provided on the course website and using the interface diagrams. With that said I also went ahead and added, to my closing message, the name of the Data Layer (Which isn't a very interesting name but it does work!) This uses the object Name found in the IMap interface, which is of course part of the IDocument interface.



Having done Lesson 1 and my extra exploration, for both myself and credit, I feel pretty confident in how to use Query Interfaces - which seemed to be the biggest topic for this lesson. Additionally I considered including the users entered name into the closing statement which I believe would require me to have a global variable in order to use the string entered from the Opening Sub in the Closing sub. I could see something like this coming up in future lessons, while everything in this lesson was in private subs.