

EEOS 472 – Programming for GIScience Applications – Spring 2011

Exercise 13

Additional Instructions/Notes

1. For all exercises in this course, you will want to make a copy of the exercise .mxd to your H:\ space and open that, rather than using the one in the course data directory on S:\ because the exercises almost always involve customizing the project document, which you cannot do to the one on S:\, since you do not have write access there.
5. You may encounter an “Unable to display help” error. This is due to the absence of the Desktop Software Developer Kit. Instead of pressing F1 to bring up ArcGIS Developer Help, you can search the Online Developer Help at: <http://resources.esri.com/arcgisdesktop/index.cfm?fa=forDevelopers>

Question 13-1 (2 marks)

In this exercise, we are introduced to a way to access the functionality of ArcGIS controls that are provided in the stock interface. Note that we can simply call the functionality, and we are not given access to the actual code that runs for these pre-existing controls. Why might ESRI have chosen to not allow us access to that code? Supposing we wish to modify what the stock interface does while keeping things looking the same to the user. How could we do that?

Question 13-2 (2 marks)

At one point in this exercise, we reused pCommandItem rather than creating another ICommandItem variable. Why would we do this? What is the downside of reusing a variable rather than creating another?

Exercise 14A

Additional Instructions/Notes

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Question 14A-1 (2 marks)

It is important to distinguish between properties that are set byVal (by Value) and byRef (by reference). In the case of a byVal property, if the object that was used to set the property is changed, what happens to the property? What about the case of a byRef property?

Question 14A-2 (2 marks)

How are byVal and byRef properties distinguished from one another in the symbology used in UML object diagrams?

Exercise 14B**Additional Instructions/Notes**

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22. One change made to ArcGIS in version 9.3 is the location of bookmarks, now in their own menu. Click the Bookmarks menu and click Train wreck overview.
24. One change made to ArcGIS in version 9.3 is the location of bookmarks, now in their own menu. Click the Bookmarks menu and click Train wreck detail.

Question 14B-1 (2 marks)

What are the similarities between adding a feature class and a raster data set to a map? What are the differences between the procedures?

Question 14B-2 (1 mark)

Suppose we wanted to place our new raster layer at the top of the Table of Contents rather than the bottom. What would the line of code look like that would accomplish this? Use correct ArcGIS VBA syntax.