

Tutorial 6-1

Customizing toolbars and menus

One of the simplest methods of customizing ArcGIS to fit your individual workflow is to customize the menus and toolbars that act as your interface to the software. Even though these are simple changes to make, they can have a dramatic impact on your ease in operating ArcGIS.

Learning objectives

- Add new tools
- Modify the existing menus
- Create custom toolbars

Introduction

There are several ways to modify the ArcGIS interface, with the simplest being to add more tools to the existing toolbars. There are many more tools available for ArcGIS than can be shown on the menus, and many powerful tools don't have a permanent home on the out-of-the-box default menus. If you look through the lists of available tools, you will no doubt find useful features that you will want to make available on a regular basis. This is as simple as dragging the newly discovered tool onto a toolbar.

Not all the tools have to be on the main toolbars, however. As you know, there are a host of context menus available throughout ArcGIS. These are the menus that appear when you right-click an item. And even though these menus are buried under other ones, they are readily accessible for customization.

Sometimes, the regular toolbar structure doesn't seem appropriate for the tools you may have selected, so ArcGIS allows users to create custom toolbars that will appear in the interface exactly like the default toolbars. You can even make submenus from the toolbars to stack a lot of functionality into a single custom toolbar.

Creating a new toolbar

Scenario You've been getting questions from your staff about altering the ArcMap interface. It seems that the tools they use most are either not accessible or buried within context menus. This is making life difficult, and you want to find a way to ease their perceived burden.

Data The map document for this tutorial has some inconsequential data to act as a backdrop while you work with the menus.

Tools used ArcMap:

Customize Mode

Toolbars: Customize

Toolbars: New Menu

Toolbars: Context Menu

You will first take a look at the tools that are available inside ArcMap.



Research ArcMap tools

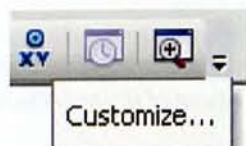
- 1** Start ArcMap and open the map document Tutorial 6-1.mxd. On the main menu, go to **Customize > Customize Mode**.
- 2** Click the **Commands** tab. The Customize dialog box has to be opened each time you want to change a toolbar. A quick way to open the dialog box is to double-click in any blank area on the toolbar.

The Categories pane shows groupings of tools. By selecting a category, the Commands pane will display a list of tools associated with those tools. Many of these tools do not appear on any toolbar, and will only be available if you add them.

- 3** Click a few of the categories and view the results in the Commands pane. If you find an interesting tool, click the Item Description link to get a brief synopsis of the tool's function.



The Toolbar Options button  or , which is located on every toolbar, provides an easy shortcut to the Customize window. Simply click the button and select Customize to open the window. If the ArcMap toolbar's size prevents all the buttons from being displayed, you can still access them by clicking the Toolbar Options button to make them visible.



- 4** Scroll down and find the category Pan/Zoom. In the Commands pane, drag the Continuous Zoom and Pan tool to the main menu next to the standard Zoom and Pan tools. A thick bar will appear to show where the tool's icon will display. A circle with a slash through it indicates that the tool cannot live there. When you have the tool in an appropriate spot, release the mouse. Close the Customize Mode dialog box and experiment with the new tool. This tool was easy to find, but some may be difficult to find, or may be unknown to you. In the Customize Mode dialog box, there is a Search tool to help locate tools.

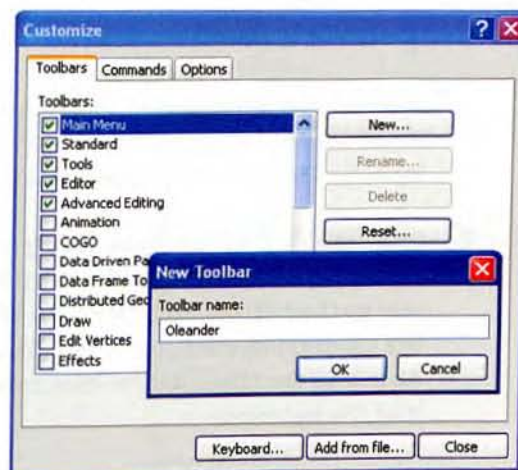
- 5 Open the Customize Mode dialog box again, click the Commands tab, and type **Select Features** on the line labeled Show commands containing. A list of categories containing tools with those words in their name is displayed in the Commands pane. Choose the Selection category, and then drag the Select Features on Screen tool from the Commands pane to the Tools toolbar next to the Clear Selected Features button.

- 6 Next, right-click the new tool and select **Begin a Group**. This will place a bar between the tools and make them more visible. Close the Customize Mode dialog box and test the tool.

The new tool fits right in on this toolbar. Another concern of the staff was not to have their favorite tools spread all over the interface. You'll fix this by creating a custom toolbar and adding their favorite tools to it.



- 7 Open the Customize Mode dialog box and click the Toolbars tab. A list of all the toolbars available from the default ArcMap installation is displayed. On the right side, click **New** and name the new toolbar **Oleander**. The new toolbar will be docked at the top of the map area.



- 8 As long as the Customize Mode dialog box is open, you can add tools to the new toolbar. Undock it and drag it into the map area so that it is easily visible. Click the Commands tab, and in the Categories pane, click Editor. Then drag the Save Edits tool from the Commands pane to your new toolbar. When the tool is placed on the new toolbar, right-click it and select Image and Text.

- 9 Add Start Editing and Stop Editing to the toolbar as well, with both the image and text displayed. Note that it is possible to rename a tool on your custom toolbar. Close the Customize Mode dialog box.



Your new toolbar will function just like a standard toolbar. It can be moved around, docked, closed, and added from the Toolbars menu under the View tab.

YOUR TURN

Add a tool to the Oleander toolbar to turn the snapping on and off. (Hint: Search for snapping commands and view their descriptions). Then add a tool next to it to set the selectable layers.



Add a drop-down menu

A drop-down menu can be added to either the standard menu or a custom menu. For the benefit of your staff, you'll add one to the Oleander toolbar that switches the map display from the Data View to the Map View.

- 1 Open the Customize Mode dialog box and click the Commands tab. Scroll all the way to the bottom and click New Menu. In the Commands pane, click New Menu and drag it to the Oleander toolbar, releasing it at the bottom.



- 2 Right-click the menu and change the name to **Select View**.

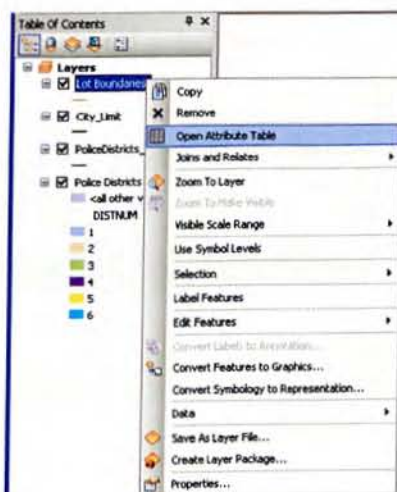


- 3 Scroll up the Categories list and click View. Drag the Data View tool up to the Select View menu and a new box will open below it. Drop the tool there. Next add the Layout View tool to the menu. Close the Customize Mode dialog box and try out your new drop-down menu.

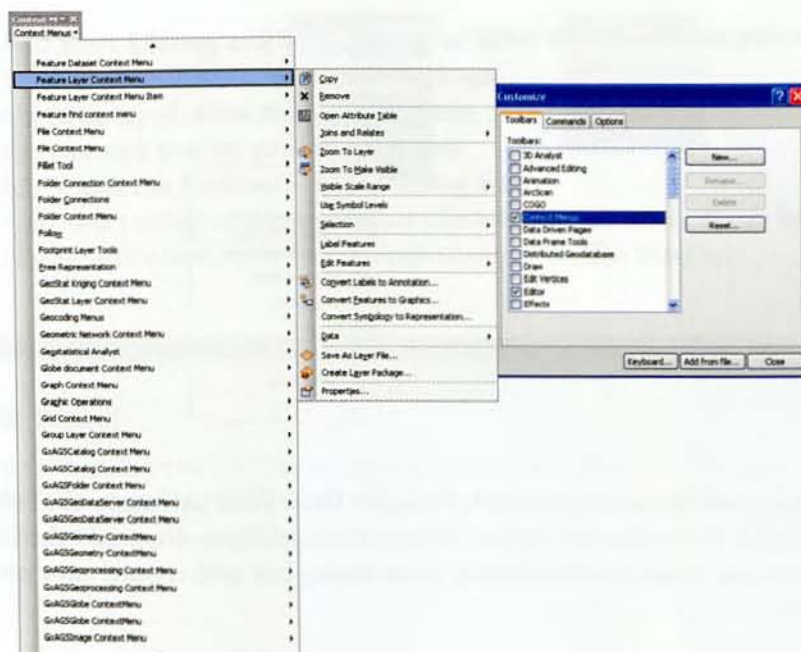
Customize a context menu

The final modification you'll make to the menus and toolbars will be to add a tool to the context menu for layers.

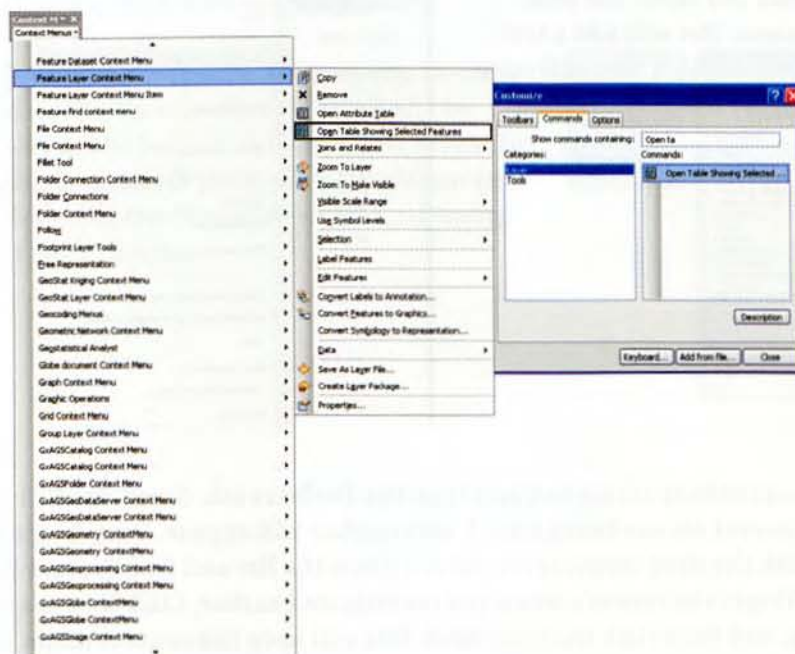
- 1 First, investigate where the new tool will go. Right-click any layer and look at the context menu. You will add a tool below Open Attribute Table that will open the table and display only the selected features.



- 2 Open the Customize Mode dialog box and click the Toolbars tab. Scroll down the list and select the Context Menus check box. A new toolbar will appear. Drag it into the map area and click the drop-down arrow. Scroll down the list and find Feature Layer Context Menu. This is the context menu you investigated earlier. Click it to see the tools it contains, and then click the Copy tool. This will keep the context menu open while you add tools to it.



- 3** In the Customize Mode dialog box, click the Commands tab, and then click the Layer category. Drag the Open Table Showing Selected Features tool from the Commands pane to the context menu. If the context menu closed, you'll need to hold down the left mouse button and retrace your steps to get the context menu open again. Close the Customize Mode dialog box.



- 4 Click the **Select Features on Screen** tool you added earlier, right-click the **Lot Boundaries** layer, and then try out the new tool. These new menus and tools will be of great help to your GIS staff.
- 5 Save your map document as **GIST3\MyAnswers\Tutorial 6-1.mxd**. If you are not continuing to the next exercise, exit ArcMap.

Exercise 6-1

The tutorial showed how to create a new menu in the ArcMap interface and add tools to it.

In this exercise, you will repeat the process to create a custom editor menu. Many of the editing tools that you might want to use on a single project are loaded onto different menus. To speed up your editing, you'll create a custom menu and add your own set of tools to it.

- Start ArcMap and open Tutorial 6-1.mxd.
- Create a new menu called **Fast Edits**
- Add these tools to your new menu from the Customize Mode dialog box:
 - ☒ Save Edits
 - ☒ Edit tool
 - ☒ Rotate tool
 - ☒ Curve Calculator
- Save your results as **\GIST3\MyAnswers\Exercise 6-1.mxd**.

6-1

6-2

WHAT TO TURN IN

If you are working in a classroom setting with an instructor, you may be required to submit a screen capture showing the menu you created in tutorial 6-1.

A screen capture of the menus you created in

Tutorial 6-1

Exercise 6-1

Tutorial 6–1 review

When attempting to accomplish a task in ArcMap, you may need functionality that you cannot find in the standard sets of menus and toolbars. This does not mean that a tool does not exist—it simply is not accessible from the standard interface. There are hundreds of tools available in ArcMap to manage spatial features, and if you were to show every tool, there would not be enough room in your map document to work with your data!

ArcMap groups tools in categories according to their primary functions. They are found by going to Customize > Customize Mode and clicking the Commands tab. There are many beneficial tools there that do not appear on the regular menus.

One of the simplest methods for customizing ArcGIS is to customize the menus and toolbars by adding more tools to the existing toolbars. You accomplished this simply by dragging a needed tool from the Customize Mode dialog box to the toolbar.

You created your own **customized toolbar** (Oleander) by clicking the Toolbars tab under Customize > Customize Mode and clicking the New button. You then created a **customized drop-down menu** for that toolbar that allowed you to switch between Map View and Layout View.

You created a **custom context menu** (these are the menus that appear when you right-click an item) in a similar fashion by first creating the context menu using the Customize Mode dialog box and selecting the Context Menus check box under the Toolbars tab. Once finding the appropriate tool, you just dragged it onto the context menu.

STUDY QUESTIONS

1. List four tools to place on a customized toolbar that would help you become more efficient using ArcMap. What is the objective of this new toolbar?
2. If you had a chance to redesign the ArcMap interface to include different tools available on the standard toolbars, how would you do it? Would you choose to display fewer tools or more of them?
3. Do you think you could streamline the interface for non-GIS professionals and make their job easier? Or would you simply teach others where to find the tools they need? Explain your answer.

Other real-world examples

Creating custom menus and toolbars is a great way to save time and make you more productive. In fact, by creating a number of customized tools (which you will learn about in the next tutorial) and placing them on one (or several) toolbars, you can begin to develop customized extensions for ArcMap.

Organizations will often customize the ArcMap interface to tailor the interface and reduce its complexity for employees who perform specialized tasks. A municipality with a group of users dedicated to editing the sanitary and storm drain systems, for example, will customize the ArcMap interface to present only the necessary functionality for these employees to complete their tasks.

to achieve a common goal operating within the ArcGIS framework to extend the functionality of the standard ArcGIS software. A variety of vendors provide suites of tools that extend the functionality of ArcGIS into niche, or specialized, areas. ESRI provides a wide variety of extensions that work with ArcMap, including Spatial Analyst, 3D Analyst, Survey Analyst, Maplex (see tutorial 8-1), Geostatistical Analyst, Network Analyst, and many more. Over the years, many of the more popular tools that were once confined to extensions are now contained within core ArcGIS products.