

## CHAPTER 2

# A first look at ArcGIS Pro

### Exercise objectives

#### 2a: Learn some basics

- Start a new project
- Import a map document
- Create a folder connection
- Modify map contents
- Explore the map
- Examine the contextual ribbon
- Examine feature attributes
- Select features

#### 2b: Go beyond the basics

- Modify feature symbols
- Label features
- Measure distances
- Add a basemap
- Package and share the map

#### 2c: Experience 3D GIS

- Start a new project
- Add data and create a bookmark
- Create a 3D scene

ArcGIS Pro, the latest evolution of the Esri line of GIS software products, is a solution for today's GIS professional. It offers 2D and 3D visualization and analysis within an intuitive, easily navigable interface. ArcGIS Pro seamlessly integrates with networks and the cloud to allow researching, developing, sharing, publishing, and collaborating on GIS projects. The desktop application is designed to be used with ArcGIS Online; for instance, maps authored in ArcGIS Pro can be published to ArcGIS Online, shared with and modified by other users, and then brought back into ArcGIS Pro. You already got an introduction to ArcGIS Online in the first chapter, so now it is time to meet the main character of this book.

## ARCGIS PRO SYSTEM REQUIREMENTS

To take full advantage of the 3D capabilities of ArcGIS Pro, you need an adequate system. Complete system requirements can be found in ArcGIS Pro Online Help, under Get Started > Set Up > System Requirements (<http://pro.arcgis.com/en/pro-app/get-started/arcgis-pro-system-requirements.htm>).

The following short exercises provide an initial overview of ArcGIS Pro. They are designed for brand-new GIS users as well as users who are familiar with other Esri mapping products. You will be introduced to the interface, start exploring some maps, and accomplish some common GIS tasks. These tasks include looking at feature attributes, turning on labels, and modifying map contents. Then, you will work with 3D maps. This chapter will prepare you to successfully complete the GIS project scenarios presented in subsequent chapters.

## DATA

Your data is stored on ArcGIS Online in a folder called EsriPress. In EsriPress\GTKAGPro\World\World.gdb:

- Cities—point features that represent major cities of the world with a population greater than 1 million (*Source: ArcWorld*)
- Countries—polygon features that represent world countries, including demographic data and air pollution estimates (*Source: ArcWorld; US Census International Division, CIA Factbook; The World Bank*)
- Latlong—line features that represent latitude and longitude (*Source: Esri*)
- Ocean—grid of polygons used to display a single-color background behind land features (*Source: Esri*)

In EsriPress\GTKAGPro\3D:

- buildings.shp—polygon building footprints for a section of a Manhattan neighborhood in New York City (*Source: New York City Department of City Planning*)

## EXERCISE 2A

# Learn some basics

*Estimated time to complete: 40 minutes*

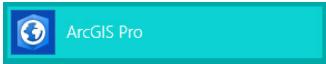
In this exercise, you will create a new ArcGIS Pro project, add a map to it, explore map features, and modify the map view.

## Exercise workflow

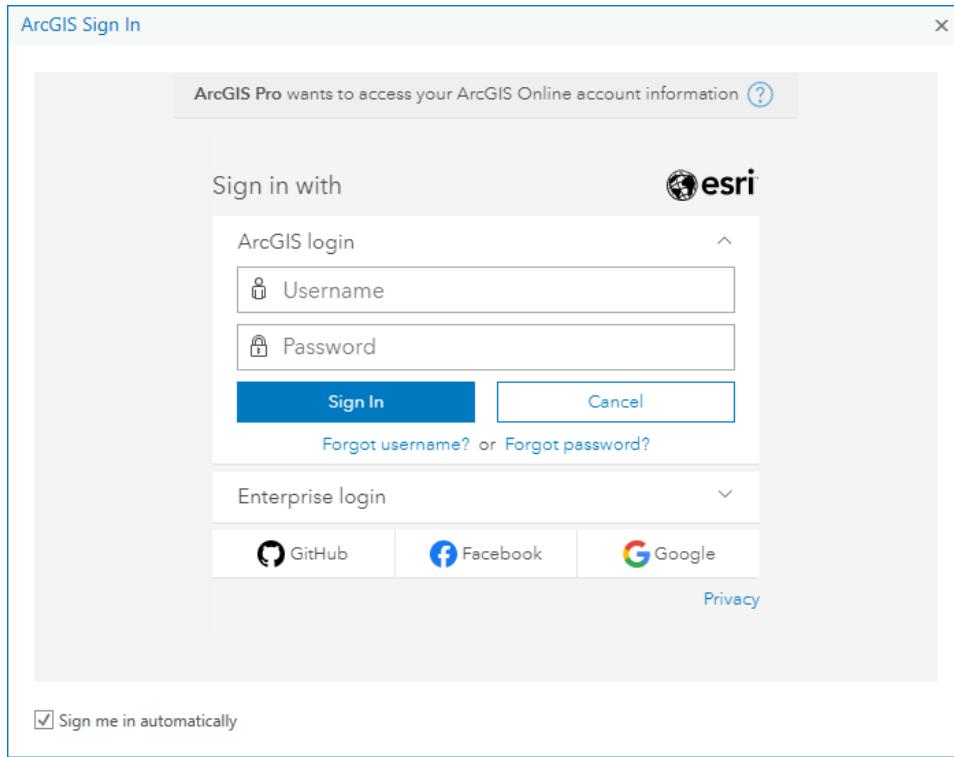
- Start a new ArcGIS Pro project using an imported map and a new folder connection.
- Modify map layers by changing visibility, renaming layers, and moving the order in which they are drawn.
- Navigate around the map and explore information about map features.
- Use the Select tool.

## Start a new project

### 1. Start ArcGIS Pro (part of the ArcGIS Desktop suite).



At start-up, you are asked to sign in using your ArcGIS Online organizational account. Your login authorizes your ArcGIS Pro license and makes it easier to obtain or share data with ArcGIS Online organizations or an ArcGIS portal. You can choose the option to “Sign me in automatically” if you do not want to sign in each time you start the application.

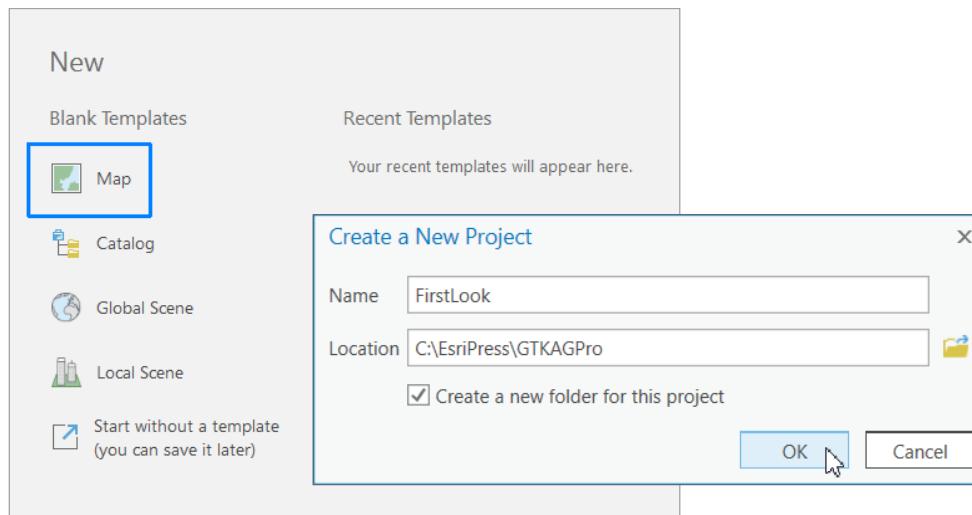


**TIP** *In ArcGIS Pro > Licensing Settings, you can choose to work offline, in which case a license file serves as authorization rather than your ArcGIS Online credentials. This option is good if you are working without an internet connection. However, keep in mind that you will not see basemaps or any other data layers that are served on the web.*

2. **Enter your user name and password to sign in. (They are the same ones that you registered to use for ArcGIS Online in chapter 1.)**
3. **On the opening screen, choose to open a Map template. Give it a unique name (for example, FirstLook) and save it to either the default or another location, such as your EsriPress\GTKAGPro folder. Maintain the default option to create a folder, and click OK.**

**TIP** *ArcGIS interface elements change periodically to keep up with evolving software functionality, so the images in this book may not exactly match the software interface you see.*

1  
2  
3  
4  
5  
6  
7  
8  
9  
10

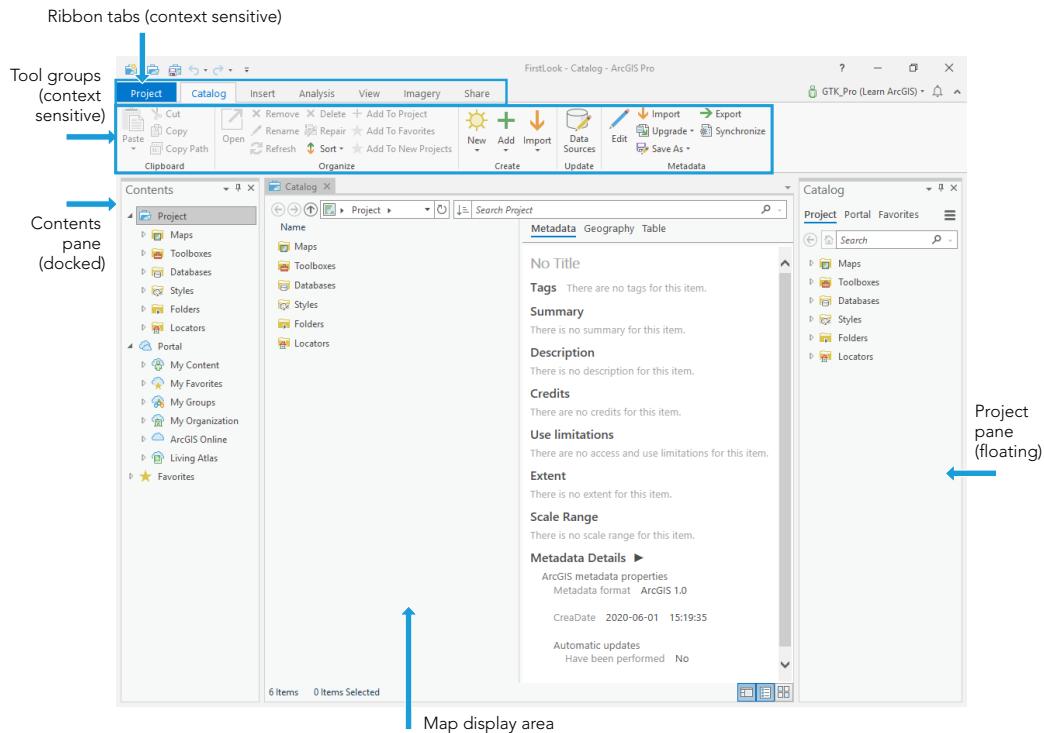


## PROJECT TEMPLATES

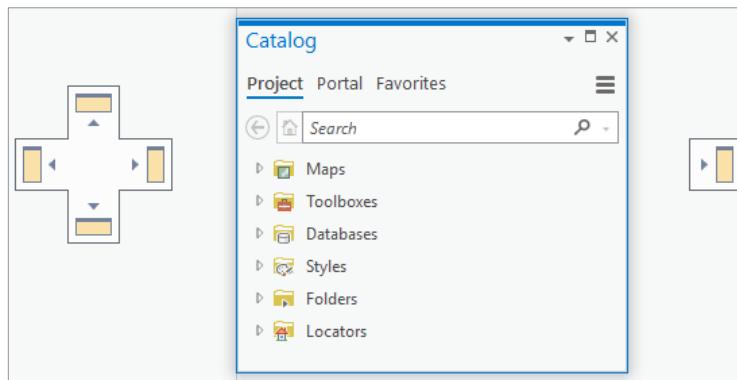
Using a project template (.aptx) is usually the quickest way to start a project. Templates are shareable project packages, including the specific basemaps, connections, datasets, toolboxes, or add-ins that are most helpful for your project. ArcGIS Pro offers some basic templates (catalog, global scene, local scene, and map), and other industry templates are available as well. You can also create your own template: simply package an existing project and save it to the Documents\ArcGIS\ProjectTemplates folder in your user profile. You can also share it to your organization's network or through ArcGIS Online. Using an organizational template is a good way to ensure consistency between projects.

**TIP** *An ArcGIS Pro project is much more than a map document. A project file (.aprxF) or project package (.ppkxF—essentially a zipped project file, ideal for sharing) may contain multiple maps, geodatabases, folder connections, layer files, task lists, models, toolboxes, and more. It is like an easily shareable container that holds everything you need for your GIS project.*

You see an empty display area with a ribbon at the top. The ribbon contains tabs that have various buttons, tools, and drop-down options. Notice the elements highlighted in the accompanying graphic of the ArcGIS Pro user interface. All windows can be resized, docked, or detached, or turned off when they are not needed. Tabs and tools change depending on the content you are working with.

1  
2  
3  
4  
5  
6  
7  
8  
9  
10

To dock or move a pane (such as Contents or Catalog), click the top of the pane, and press and hold the mouse button. As you begin to move the mouse pointer, the pane turns blue, and arrows point to locations in which the pane can be docked. Drag the pane to an arrow, and then release it to choose the docking location. Or drag and release anywhere if you prefer a detached pane.

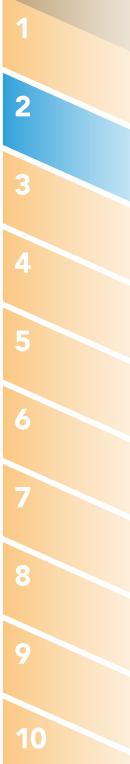
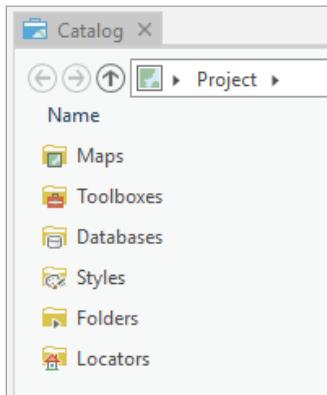


Panes can be stacked to save space—simply click the tabs at the bottom of the panes to switch between them.

When a pane is docked, click the Auto Hide button —it looks like a pushpin—to activate tabbed behavior. A tab replaces the pane when you are working in the map view; just click the tab to reveal the hidden pane.

By default, ArcGIS Pro opens in Catalog view. Since this information is also available in the Catalog pane, you can close Catalog. (Catalog provides additional details and functions you don't need right now.)

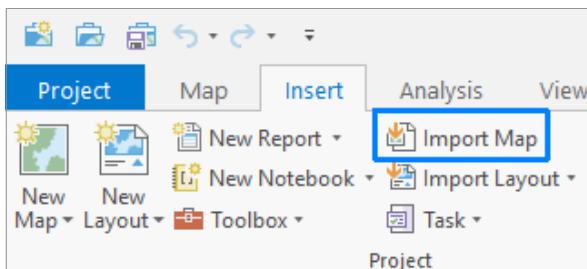
#### 4. Close the Catalog view, and then arrange or resize the panes as you prefer.



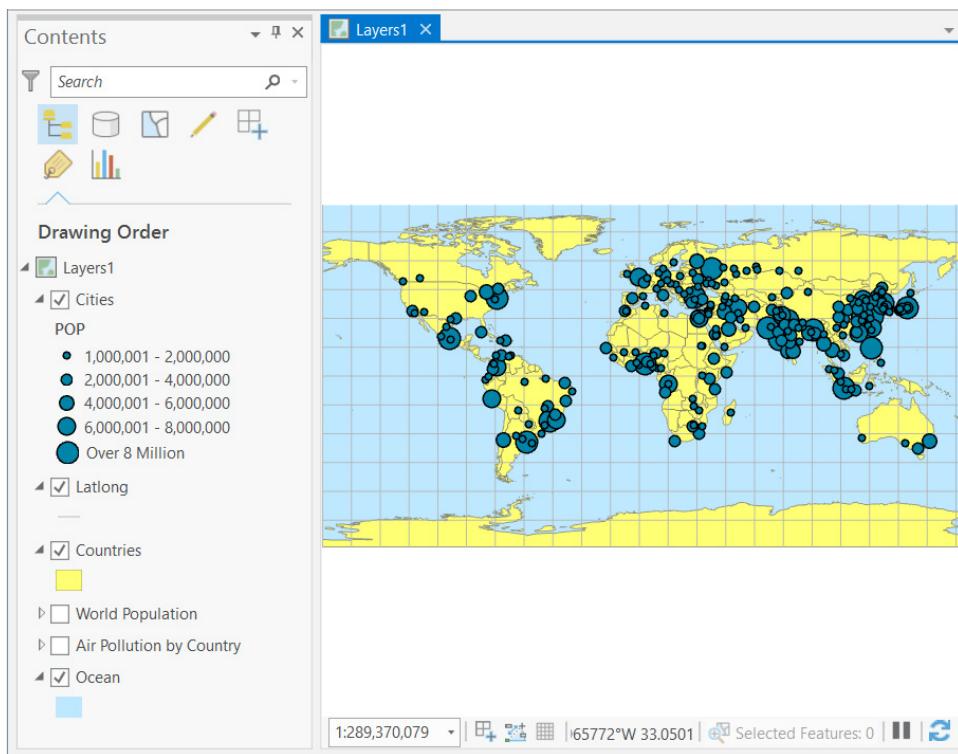
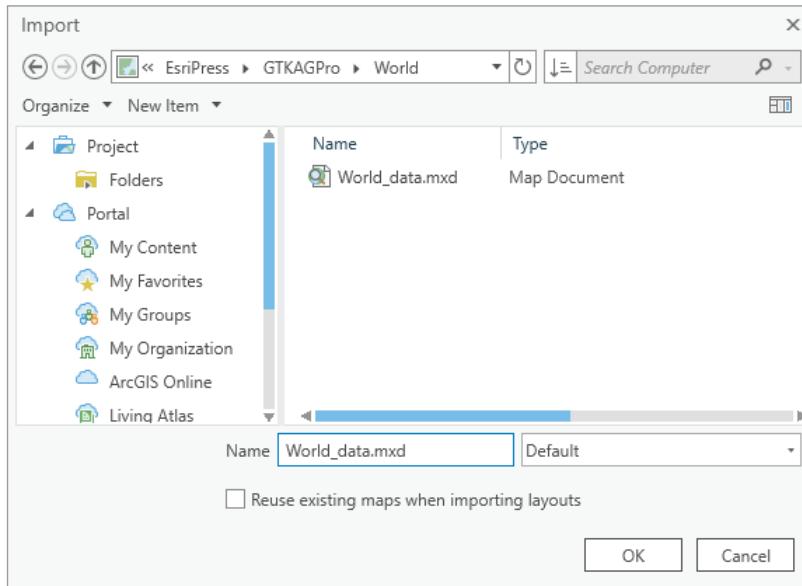
## Import a map document

Map documents created with other applications (such as ArcMap™) can be imported into an ArcGIS Pro project.

#### 1. Click the Insert tab, and in the Project group, click the Import Map button.



**TIP** If your ArcGIS Pro window is small, you may see only the icon.

**2. Import World\_data.mxd from your EsriPress\GTKAGPro\World folder.**

Notice that the Contents pane is populated with the map layers. Some layers are turned on (indicated by a check mark), and others are turned off.

**TIP** *When the map you import has multiple data frames, each frame becomes a separate map in ArcGIS Pro.*

## Create a folder connection

Creating folder connections for your projects allows you to quickly add data or modify a layer's source data. A folder connection prevents you from having to search through multiple system folders.

1. **On the Insert tab, in the Project group, click Add Folder .**
2. **Browse to the EsriPress\GTKAGPro\World folder, and click OK.**
3. **On the Catalog pane, expand Folders to see the new connection.** There is also a connection to the project folder, which is created by default when you start a new project.

