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This book is designed for ArcGIS users who want to get a quick start on programming ArcObjects. Both ArcGIS and ArcObjects are products developed and marketed by Environmental Systems Research Institute (ESRI), Inc. ArcObjects is the programming platform for ArcGIS, a software package for managing geographic information systems (GIS). Ideally, we should learn ArcObjects before using ArcGIS, but that is not the case in reality. We use ArcGIS first through its toolbars and extensions. It is easier to follow the user interface in ArcGIS than to sort out classes, properties, and methods in code. The topic of ArcObjects usually emerges when we realize that programming ArcObjects can actually reduce the amount of repetitive work, streamline the workflow, and even produce functionalities that are not readily available in ArcGIS.

How can we learn programming ArcObjects efficiently and quickly? Perhaps answering to some, the answer is to apply our knowledge from working with ArcGIS. In fact, this book uses a task-oriented approach in an attempt to directly relate what we already know about ArcGIS to programming ArcObjects.

### THE TASK-ORIENTED APPROACH

GIS activities are task-oriented: we use GIS for data integration, data management, data display, data analysis, and so on. Therefore, an efficient way to learn programming ArcObjects is to take a task-oriented approach. The task-oriented approach has at least three main advantages:

First, it connects ArcObjects with what we already know. Take the example of *QueryFilter*. This book first links a *QueryFilter* object to the task of data exploration. After we know that the object can perform the same function as the *Select by Attributes* command in ArcMap, which we have used many times before, it becomes easy to understand the properties and methods that are associated with the object.

Second, the task-oriented approach groups ArcObjects in a way that is logical to ArcGIS users. With thousands of objects, properties, and methods, it can be