

UNDER REVIEW

Getting To Know ArcGIS Desktop

By: Ormsby, Napoleon, Burke, Groessl, and Bowden, (2010).

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Abstract

The Geographic Information Systems workbook, *Getting To Know ArcGIS Desktop* (Ormsby, Napoleon, Burke, Groessl, and Bowden, 2010), is published by the Environmental Systems Research Institute (ESRI). This book has served as a key resource for learning the basic operations of the ArcGIS Desktop software system. It is an extremely successful product that is used for many purposes worldwide. Aside from its foundation layout structure and operations, more advanced tools and analytical extensions are available for purchase. Made available in the year 2000, ArcGIS Desktop has undergone a series of modifications with each version. In parallel, the book has adapted its content to stay current. Primarily a reference for ArcGIS technical operations, “Getting To Know ArcGIS Desktop” also includes some description of GIS theory. There are a variety of exercises, along with a disk that contains trial software and exercise data.

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Review

There are eight sections of *Getting To Know ArcGIS Desktop*: Getting to know GIS, Getting started with maps and data, Displaying data, Getting information about features, Analyzing feature relationships, Creating and editing data, Presenting data, and Modeling. Each section contains a series of chapters that cover aspects of each section in greater detail, a total of 20 chapters. Nested in each chapter are a series of exercises that provide the hands-on learning component. In general, the book is organized in a logical manner. The assumption is made that the reader is new to both GIS and ArcGIS software. As the content is engaged in a sequential manner, the reader will first be exposed to fundamental operations and progress towards the more advanced.

To introduce newcomers to GIS, section one: Getting to know GIS, contains two chapters that describe some of the basic principles of GIS, along with an introduction to ArcGIS Desktop. Although the primary focus of *Getting To Know ArcGIS Desktop* is familiarizing the reader with ArcGIS Desktop operations, the first chapter needs to describe the principles of GIS in a more thorough manner. Aspects of GIS are clearly communicated, but a more thorough review would be beneficial. Chapter two, Introduction to ArcGIS Desktop, is similar in that additional descriptions of the structure of ArcGIS Desktop software is merited.

Section two: Getting started with maps and data, begins the process of familiarizing the reader with ArcGIS Desktop through exercises. Through engaging tasks such as displaying data, accessing basic navigation tools, and exploring some simple ways of representing data, the reader becomes familiar with the ArcGIS Desktop environment. Since GIS is based on spatial data models, representing information in map format is the primary method of sharing information. Using maps,

section two introduces the reader to GIS in an effective manner.

Section three: Displaying Data, carries the mapping theme to operations that represent map information in a variety of ways. The exercises are well structured, and explain operations that are valuable towards depicting map information used daily in the workplace. However, the potential exists to combine these exercises with those found in section seven: Presenting Data. This section deals primarily with the development of a final cartographic product that can be shared with others. Both sections deal with the visual aspects of mapping. There is no definitive right or wrong in this case, only a matter of opinion. However, it does bring up the dilemma in GIS education of discussing one aspect of the technology, and subsequently, touching on others in the process.

Section four: Getting information about features, provides the reader with the skills to query attribute information connected to geographically referenced GIS data. Although attribute queries are not actual spatial analysis operations, they are both very useful and often a precursor towards performing spatial operations. These consist of analyzing the topologic, proximal, and directional qualities of geographically referenced data. That sort of analysis is described in section five: Analyzing feature relationships. For both sections, *Getting To Know ArcGIS Desktop* provides a very good foundation towards learning the basics of querying GIS data.

Section six: Creating and editing data, is by far the most ambitious. Its chapters cover the topics of: building geodatabases, creating features (GIS data), editing features and attributes, and geocoding addresses. Books have been written that solely cover these topics, but considering the intent of this book, an adequate amount of operations are presented to the

reader. This situation also applies to section eight: Modeling. As for operations not included, the exercises provide enough background to locate where in the ArcGIS Desktop environment to look for them.

One of the resources of the software that is seldom given credit is the help option. The ESRI Corporation did an outstanding job of including in ArcGIS Desktop a massive amount of information concerning both GIS concepts and operations in a user-friendly manner. The format is such that after engaging the book's content, individuals could independently continue to learn more advanced GIS content. Graphically, both the book and help option provide illustrations that are very descriptive and helpful. The ESRI Corporation has developed a variety of publications that are visually pleasing, and *Getting To Know ArcGIS Desktop* is clearly in line with that tradition.

Although this text is well organized and does a fine job of preparing the reader to use ArcGIS Desktop, subsequent editions may benefit from utilizing a theme approach. This implies the use of scenarios in exercises that connect GIS technical operations with real-world situations. This approach would help answer the questions of "why" certain operations were conducted.

Regarding data and software, loading each shouldn't pose a problem. Once the software is loaded, the reader will be asked to register with the ESRI Corporation. Doing so will provide access to additional resources provided by the company. Minus any confounding hardware/software issues, each exercise runs as described in the book. Although the software included in the disk will operate for only 180 days, that provides an adequate amount of time to complete all exercises.

Overall, *Getting To Know ArcGIS Desktop* is a wonderful resource for those just learning GIS, as well as an excellent reference for those familiar with the software.

Bibliography

Ormsby, T., Napoleon, E., Burke, R., Groessl, C., Bowden, L. (2010). *Getting To Know ArcGIS Desktop*. Redlands, California: ESRI Press.