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Civil 3D is the successor to the Autodesk Land Desktop product line (Land Desktop, Civil Design, and Survey). Like Autodesk Land Desktop (LDT), the program is a powerful drafting tool and unlike Autodesk (LDT), Civil 3D is a dynamic engineering environment. Civil 3D does not create data based on drawing entity snapshots, but drawing objects. The dynamic engineering environment is the single fundamental change that radically alters the CADD design environment. Changes in data produce changes in documentation.

Autodesk (LDT) with its hidden data and definitions disappears in Civil 3D. Prospector and Data Shortcuts provide open access to object data and its properties. Prospector manages an object and provides the interface to the object’s data. In Civil 3D, data is only a few clicks away. Data Shortcuts allow data sharing.

The Settings Toolspace presents a unique way of managing a company’s “look” that is consistent irrespective of which user develops a design. This is where the journey starts, with Civil 3D styles that accomplish its design drafting and documentation. Where Land Desktop was a take-it or draft-it environment, Civil 3D is a la carte. With Civil 3D you either live with its shipping content or you spend time developing your content. It is a new beginning for the Civil Industry using Civil 3D tools and styles.

Civil 3D’s tool sets include points, surfaces, parcels, alignments, profiles, sections, pipes, and survey. To use Civil 3D’s tool sets efficiently requires fundamental Civil Design and Survey process knowledge. This book addresses the use of and provides a basic understanding of the tool sets. This book, however, is NOT an engineering or surveying textbook nor is it a tips and tricks book. You can peruse the newsgroups for those needs. This book provides explanations of and exercises helping in the development of a basic understanding of Civil 3D’s tools. Many examples are from people using the software while other examples contain difficulties to demonstrate capabilities.

Civil 3D 2010 introduces the ribbon and it is a departure from traditional AutoCAD menus. The ribbon focuses on tasks, whereas the menus focus on object types. I chose to use the ribbon for this book and find its focus on tasks rather than object types a more flowing work process.
When working in Civil 3D you have four potential tasks: creating objects (Home tab), analyzing their values (Analyze tab), editing them if wrong (Modify tab), and labeling (Annotate tab) their values. If using the ribbon and not panicking for menus, the ribbon will become an ingrained habit. The menus remain, as does selecting with the left mouse button, pressing the right mouse button, and selecting a command from a shortcut menu.

Working through the exercises, you will encounter issues with the software. I have not had a single version of Civil 3D complete all of the tasks in this book. With this release, Civil 3D accomplishes most of its goals. I cannot imagine going back to LDT after becoming familiar with Civil 3D.

Drawing files are included on the book’s Student Companion Premium Website for use in exercises.

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*Phillip J. Zimmerman*