Essentials

AutoCAD®
Map 3D 2017 (R1)
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Chapter 1: Getting Started

The AutoCAD® Map 3D software is based on the AutoCAD® software and contains all of that software’s functionality. It also contains its own powerful tools designed for mapping and geographic information systems (GIS) professionals.

Objectives

After completing this chapter, you will be able to:

- Describe the elements of the AutoCAD Map 3D interface.
- Explore the AutoCAD Map 3D user interface.
Lesson: AutoCAD Map 3D User Interface

Overview

The AutoCAD Map 3D software provides a robust environment with several ways of viewing its many ribbons and workspaces. You view the various ways of customizing the interface according to the type of work you are planning to perform.

Map Explorer is a key element of the user interface, as shown in the following illustration.

Objectives

After completing this lesson, you will be able to:

- Describe the elements of the AutoCAD Map 3D interface.
- Explore the AutoCAD Map 3D user interface.
About the AutoCAD Map 3D User Interface

This first time you open the AutoCAD Map 3D software, you are prompted to select your default workspace. The software provides three workspace options, as shown in the following illustration.

The Planning and Analysis Workspace has replaced the tool based workspace containing tools from the AutoCAD Map 3D software. It enables the gathering of data from multiple formats and the analyzing of that data. It also has maintenance and planning functionality. This workspace is used throughout this student guide.

The Maintenance Workspace is an enhanced Topobase workspace that enables you to work with and maintain different data models from a range of formats all in one workspace.

The 2D Drafting Workspace provides the familiar 2D Drafting and Annotation workspace from the AutoCAD software, while adding the Map 3D functionality. It includes the creation and editing tools, annotation management, and clean up tools from the AutoCAD software while still providing Data Connect functionality for planning and maintenance.

A fourth workspace is available, which will be familiar to legacy AutoCAD Map 3D users, called Map Classic. This workspace provides menus and floating toolbars to access tools rather than the ribbon interface that will be used throughout this student guide.

The AutoCAD Map 3D software contains a wide array of tools to help you interact with the application. Your familiarity with these tools helps you decide how to access the various available functions.
When a drawing is not open, or if you click (New Tab) in the File Tabs area, the Start Tab displays in the model window. It contains two content frames: Learn and Create, as shown below.

- **Learn**: Contains Getting Started Videos and Online Resources to help you quickly get up to speed with the AutoCAD Map 3D software.
- **Create**: Provides options on starting a new drawing from a template, or opening an existing drawing or sheet set. It also enables you to connect with other users online via the Autodesk 360 service and send feedback to Autodesk to help improve the product.

The following illustration shows the user interface in the AutoCAD Map 3D software. The key parts are called out below.
Key Parts of the User Interface

Following is a summary of the various user interface tools in the AutoCAD Map 3D software:

1. Four primary workspaces are available: Planning and Analysis, Maintenance, 2D Drafting, and Map Classic.

2. The Planning and Analysis Workspace continues to use the collection of ribbons, some combining tools that work with Geospatial Features or AutoCAD Objects in the AutoCAD Map 3D software. It is divided logically into specific areas of functionality:
   i. Ribbon (or Tab)
   ii. Panel
   iii. Tool

3. The Task pane includes tabs to access:
   i. **Map Explorer** - Provides the main access to critical functions in the AutoCAD Map 3D software. The tree structure includes branches for Drawings, Query Library, Feature Sources, Feature Classes, Data Sources, Topologies, and Link Templates. Shortcut buttons at the top of Map Explorer (Data, Schema, Table, Tools, and Remove) offer quick access to common tasks.
   ii. **Display Manager** - Used to create stylized versions of maps.
   iii. **Map Book Tasks** - Used to create plot sets.
   iv. **Survey** - Used to create and store point data.

4. Right-clicking on most items in the user interface provides you with instant access to a wide array of commands and functions.

5. The Properties dialog box in the AutoCAD software plays a critical role in the AutoCAD Map 3D user interface. Double-clicking on an object opens the Properties palette, which displays the object’s properties from the AutoCAD software and AutoCAD Map 3D software.

6. Press <Ctrl> + 9, and click Command below the drawing window to toggle the command line at the bottom of the window in the AutoCAD Map 3D software.

7. Customize which commands display in the Status Bar by clicking (Customization) on the Status Bar and selecting items from the list.

8. A legacy Map menu is available by loading the Map Classic Workspace, as shown in the following illustration.
Exercise: Exploring the AutoCAD Map 3D User Interface

1. Open ... \The AutoCAD Map 3D User Interface\UI.dwg, as shown in the following illustration.

2. Above the drawing editor:
   - Click the View ribbon.
   - Under Palettes, click Map Task Pane, as shown in the following illustration. The Task Pane is toggled on or off.

3. Look through the items in Map Explorer. Click Data, Tools, and Schema at the top, as shown in the following illustration. Note the tree structures for critical Map items and functions.

4. Select the Display Manager tab.
   - Look through the Display Manager. This is where you compose special display configurations.
   - Click Data, Tools, and Maps at the top, as shown in the following illustration, to see the items that you can access through them.
5. Select the Map Book tab, as shown in the following illustration, in which you will compose special Map plot configurations called Map Books.

6. Select the Survey tab, as shown in the following illustration, in which you can create Survey Data Stores with imported point information.

7. Click through each of the ribbons across the top of the drawing editor. Look through each of the ribbons to see what functions can be accessed through them.

8. At the bottom of the Task Pane, as shown in the following illustration, click the workspace switching tool.

9. Select the Maintenance Workspace. Note that the ribbons change so that the tools are more familiar to Topobase users, as shown in the following illustration.

10. Select the Map Classic Workspace. Note the menus and floating toolbars that are available, as shown in the following illustration.

11. Select the Planning and Analysis Workspace.
12. Click the Tools ribbon. 
   - Under Customization, click User Interface, as shown in the following illustration.

13. In the Customize User Interface dialog box: 
   - Under Workspaces, right-click on Planning and Analysis Workspace (current).
   - Click Set Default, as shown in the following illustration.
   - Click OK.

14. On the keyboard, press <Ctrl>+<9>. This will toggle the Command Line on and off. At the bottom of the screen, note the command line disappear and reappear. The Command line is shown in the following illustration.

15. In the drawing editor: 
   - Click on a red line from the AutoCAD software that is a road centerline.
   - Right-click and click Properties. Note the Map data displayed in the AutoCAD Properties palette, as shown in the following illustration.
Chapter Summary

Having completed this chapter, you can:

- Describe the elements of the AutoCAD Map 3D interface.
- Explore the AutoCAD Map 3D user interface.