

Manipulate Map Data More Easily

Access ArcMap functionality quickly through the Table of Contents

By Monica Pratt, ArcUser Editor

Editor's note: Getting Started articles are designed for new or casual users of GIS software. They describe how ESRI software works and the easiest ways to accomplish common tasks.

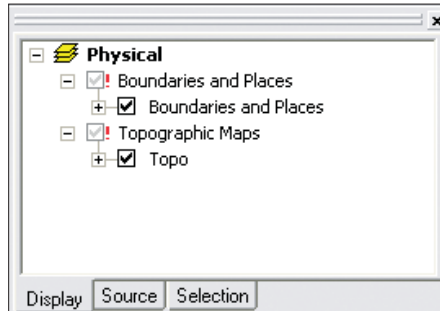
The Table of Contents (TOC) for a book or magazine is a handy navigational device that can help locate information in a document quickly. The TOC in ArcMap also helps locate information in a map document but it is far more useful than its printed counterpart. The TOC is the control center for the map document. Although the same commands are available as menu choices, using menus adds steps and clicks to often-repeated tasks. In addition, many shortcuts for TOC operations use keyboard or mouse shortcuts. Using the TOC provides immediate access to

- Information about data layers
- Controls for changing how data is displayed and symbolized
- Tools for selecting, labeling, and manipulating data layers and the map in both Data and Layout views

Becoming familiar with TOC functionality will save time and effort when creating, modifying, and navigating a map document.

Basic Views of the TOC

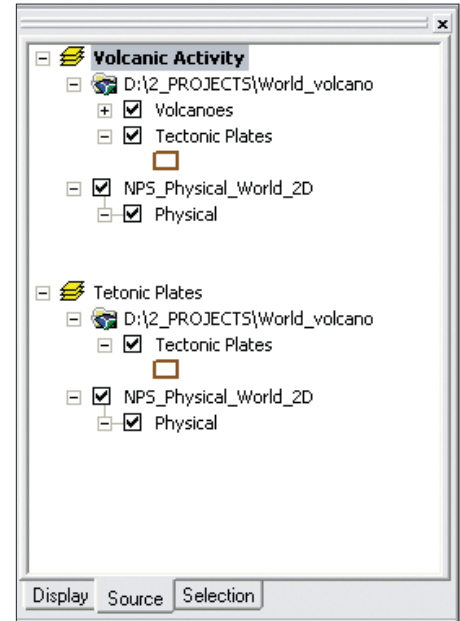
Typically the TOC is automatically displayed to the left of the map canvas when a new blank map document is created. If it is not open, choose Window > Table of Contents to display it. The width of the TOC can be adjusted by



Only references to the data used in the map are stored in ArcMap. If a red exclamation point appears next to a layer and the layer is not displayed, the data source for that layer was not found.

dragging its frame, and it can be repositioned above or below ArcToolbox or dragged to the right side of the map canvas. If the TOC is not needed to modify the map, consider closing it to allow the map canvas to expand when editing or performing other tasks.

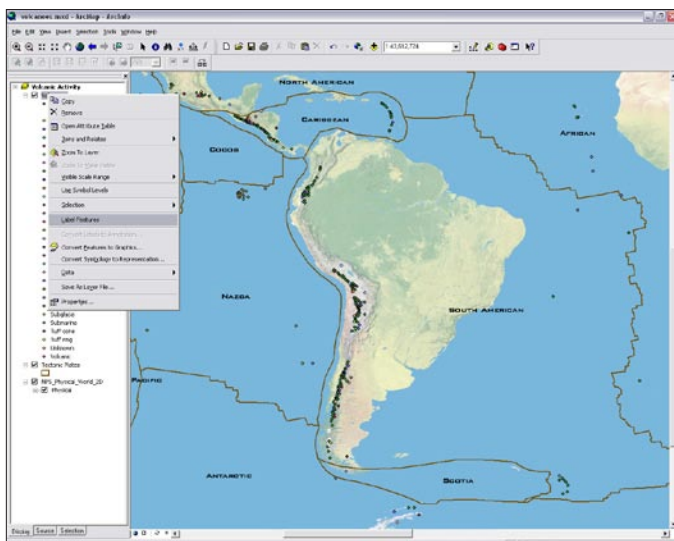
Access the Display, Source, and Selection views of the TOC by clicking on the tabs at the bottom of the TOC. In addition to the familiar Display tab view, which lists the layers in the document, the Source view shows the paths to the data sources for map layers as well as shows any tables that have been added to the document. Check boxes next to the map layers, shown on the Selection tab, allow selectability to be quickly verified or changed for any layer in the document.



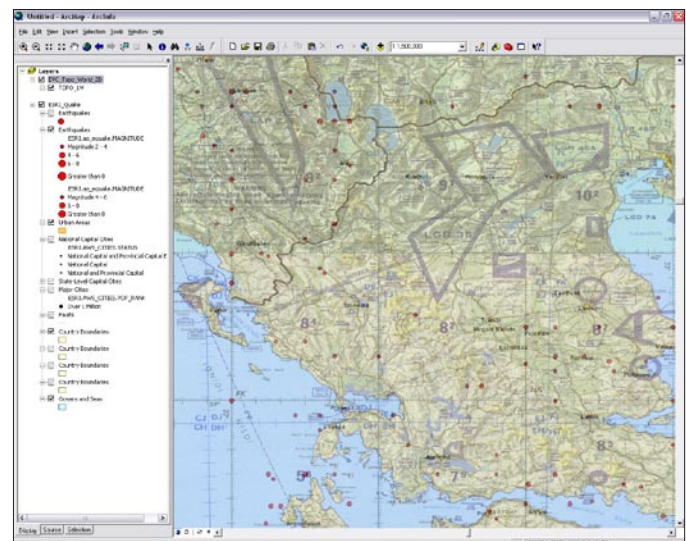
The Display tab of the TOC provides information on the location where data used in the map is stored.

Manage Data in a Map

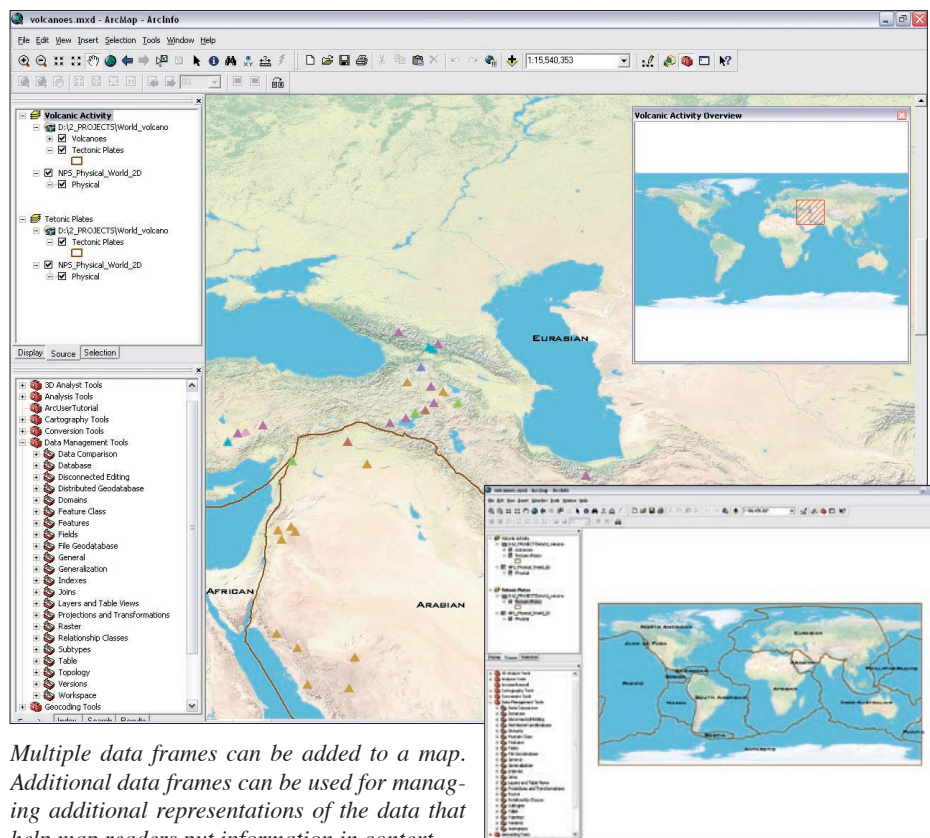
Geographic information for each type of feature (e.g., point, line, or polygon) and kind of information it represents (e.g., streams, parcels, or fire hydrants) is displayed in layers that reference shapefiles, geodatabases, images, grids, coverages, and other data formats that store the data.



Many operations on layers are immediately available by right-clicking on the layer in the TOC.



If the check box for a layer is grayed out and it is not displayed, the current scale at which the map is displayed is outside the display range set for that layer.



Multiple data frames can be added to a map. Additional data frames can be used for managing additional representations of the data that help map readers put information in context.

Mouse Shortcuts

Task	Action
Turn on any selected layer.	CNTRL + click to
Multiple layers.	CNTRL + click then SHIFT + click to select
Expand or contract all entries at one level.	CNTRL + click on any + or -
Activate a data frame.	ALT + click on data frame name
Open a layer's table or stand-alone table.	CNTRL + double-click on layer or table name.
Open layer properties.	Double-click on the layer.
Open its properties.	Double-click on symbol.
Reorder layers.	Drag and drop layer to new location.
Open context menu for selected entry.	Right-click on entry.

Keyboard Shortcuts

Task	Keys
Give keyboard focus.	F3
Put focus back on map from TOC.	ESC
Toggle between data frames.	CNTRL + TAB
Activate selected data frame.	F11
Open table for selected layer or stand-alone table.	CTRL + T or CNTRL + ENTER
Open properties for selected entry.	ENTER or F12
Rename selected entry.	F2
Turn on or off a selected layer.	SPACEBAR
Turn on or off all layers.	SPACEBAR + CNTRL
Open context menu for selected entry.	APPLICATION KEY or SHIFT + F10

Data is not stored in the map document, only references to the data used in the map. The TOC provides information about referenced data sources. If a red exclamation point appears next to a layer and the layer is not displayed, the data source for that layer was not found. Right-click on that layer and choose Data > Repair Data Source to correct the path to a data source. If the check box for a layer is grayed out and it is not displayed, the current scale at which the map is displayed is outside the display range set for that layer.

Working with Layers

The order that layers draw can be adjusted by dragging layers or a group of layers up and down in the TOC. Click the box next to a layer to turn it off or on. Expand or collapse the legend below each layer by clicking on the positive or negative sign next to it.

Access the Layer Properties dialog box simply by double-clicking on the layer. Many operations on layers are immediately available by right-clicking on the layer in the TOC: copy and remove a layer, open its attribute table, join or relate another table, zoom to a layer, set the visible scale, convert features, export data, and save a data layer as a Layer file.

Manipulating Groups of Layers

Layers are further organized into one or more data frames in the TOC. Data frames determine the coordinate system used by all layers for display, the map cache, and other options. The data frame default is named Layers, but it can be changed to a more descriptive one simply by clicking once on the name and typing a new name in the text box. Additional structure can be added to data frames in the TOC by using group layers. Group layers organize related layers and define advanced drawing order options such as visibility scale range or transparency for all layers in the group.

Multiple data frames can be added to a map. Additional data frames can be used for displaying insets or overviews in a map layout that help map readers put information in context or compare two types of representations for data. If a map document contains more than one data frame, only one data frame can be active at a time. Activate a data frame by right-clicking on the data frame name and choosing Activate from the context menu or press F11 on the selected data frame.

Working Smarter and Faster

In addition to centralizing access to many operations, TOC functionality has been optimized with many shortcuts for both mouse and keyboard. The accompanying table summarizes some handy shortcuts.