



MapLogic

MAPLOGIC CORPORATION

GIS Software Solutions

MapLogic Layout Manager
User's Manual

MapLogic Layout Manager User's Manual

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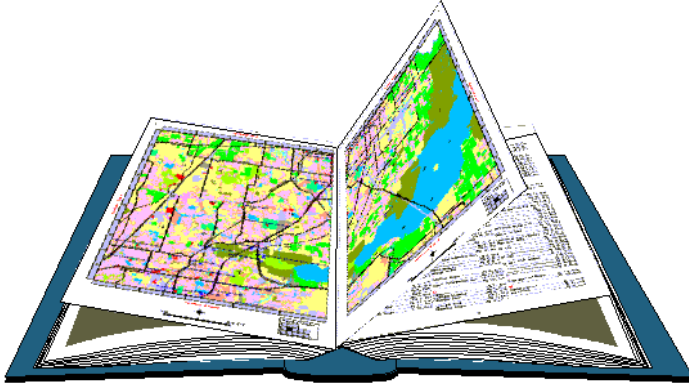
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Introduction

What Is MapLogic Layout Manager?



MapLogic Layout Manager is an extension to ArcGIS which provides all the tools necessary to create and print multiple page layouts, map series and map books within ArcMap. ArcMap's cartographic tools were designed to create very sophisticated individual maps. *MapLogic Layout Manager* was designed around the concept of multi-page maps. However, *MapLogic Layout Manager* does much more than just break up a map onto multiple pages. It handles all the details necessary for creating a true multi-page document just like your standard word processor will. Options like page numbering, indexing, two-sided printing, print previewing are all automatically handled by *MapLogic Layout Manager*.

The *MapLogic Layout Manager* enhances ArcMap by providing tools which allow you to:

1. Create and store multiple page layouts in a single ArcMap document (Mxd)
2. Create map series in ArcMap
3. Create map books in ArcMap

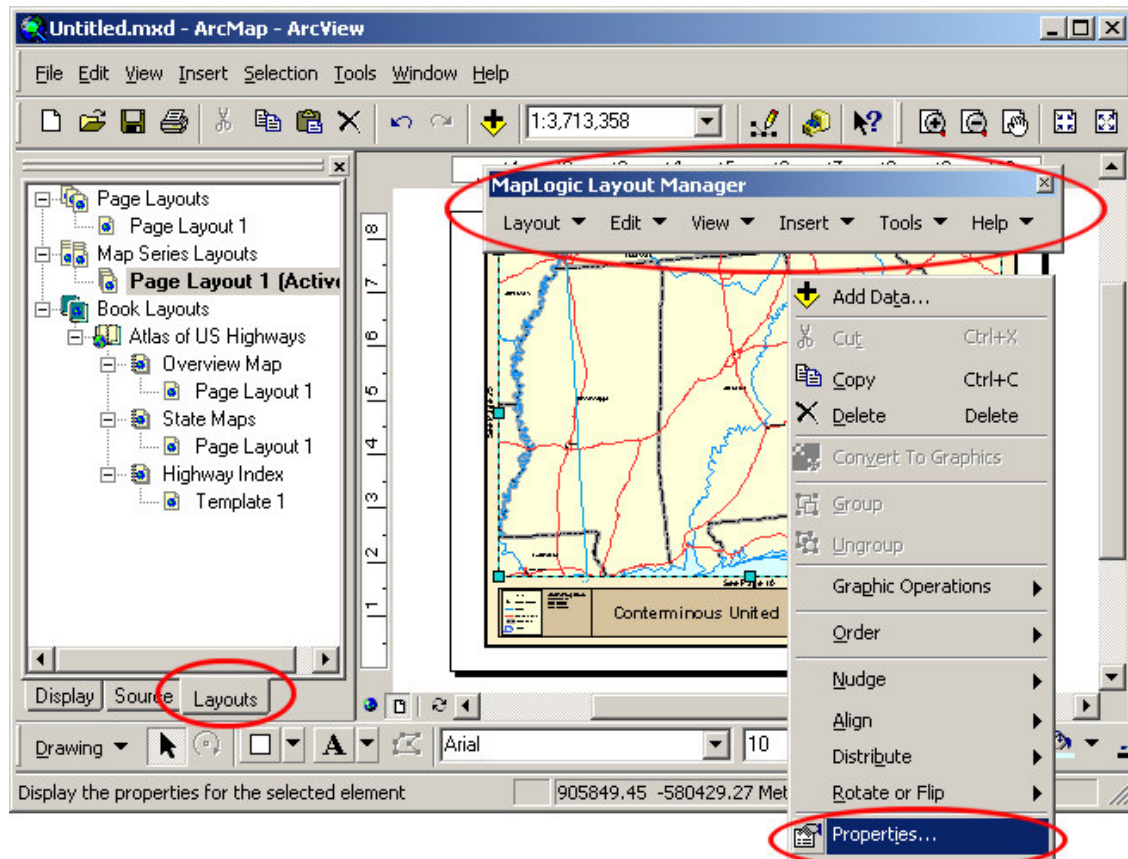
As part of creating a map book, the *MapLogic Layout Manager* allows you to:

1. Create map series – a map that is broken into multiple pages
2. Create locator maps – an overview map that highlights the location of the current page in a series
3. Create key maps – an overview map that lists the page number where you can see the detailed map of an area
4. Create indexes – a listing of features on the map and the page where are located on

MapLogic Layout Manager User Interface

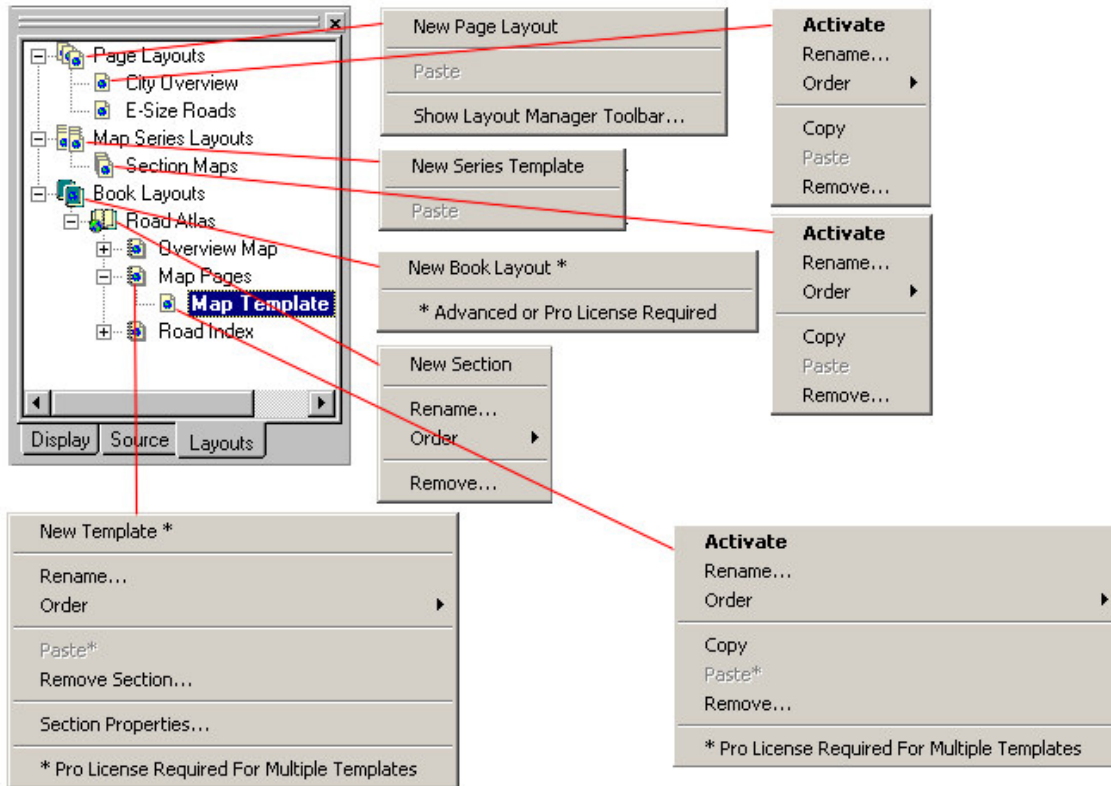
Everything you need to get to in order to use the *MapLogic Layout Manager* extension is in one of three locations:

- The “Layouts” tab in the ArcGIS Table of Contents
- The “MapLogic Layout Manager” toolbar
- The properties of different layout elements and data frames



The Layouts Tab

The Layouts tab is a new tab that is added to the ArcMap Table of Contents by the *MapLogic Layout Manager*. If the Layouts tab is not visible after you install the extension, you can make it visible by selecting Tools>Options... in ArcMap's main menu. Go to the TOC tab, make sure Layouts is checked and press the OK button.



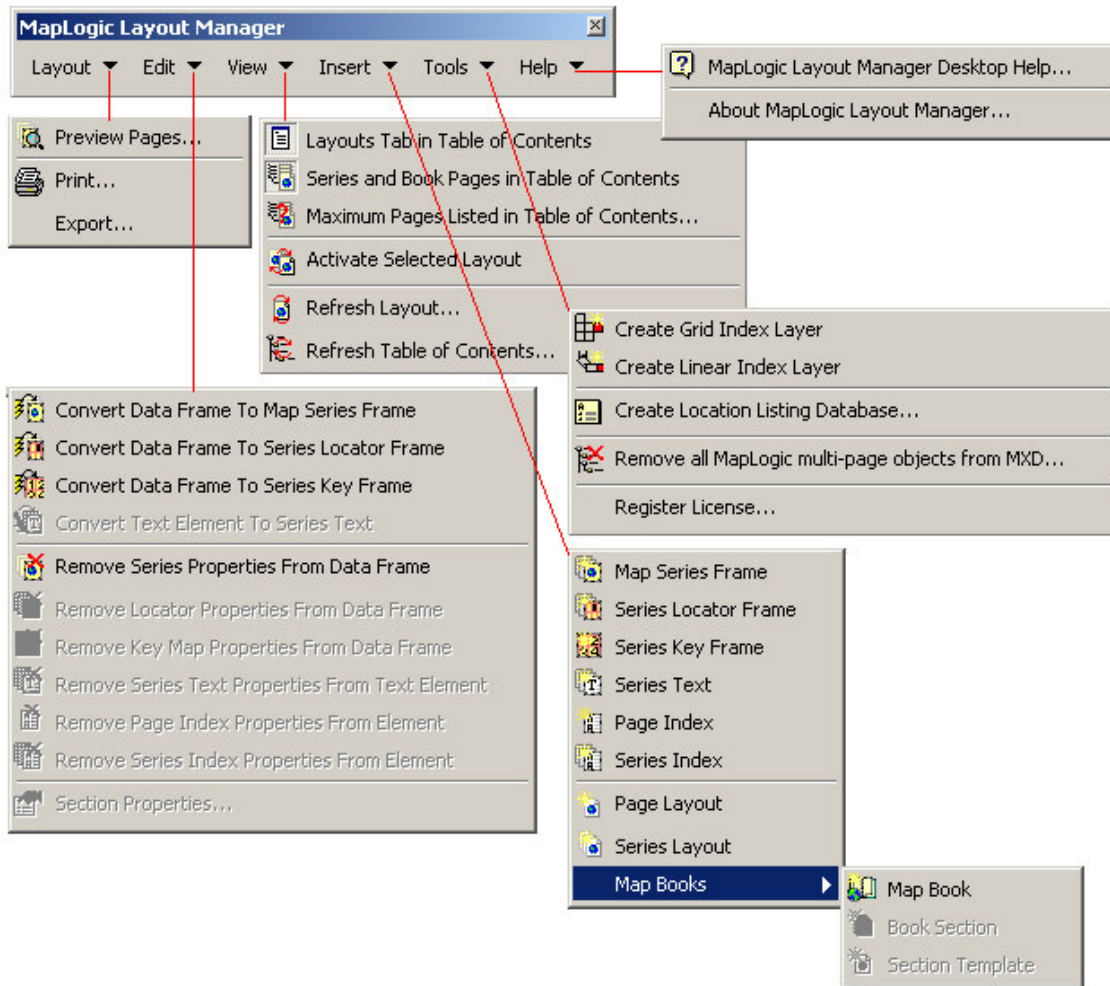
This tab is used to move around the different layouts contained in the Mxd. Double-clicking on any layout will activate it (make it visible). You can only have one layout active at any time.

Click on any item listed in the Layouts tab using your right-mouse button, and you will see a menu of options for the item. The above diagram shows all the different popup menus for the different kinds of items contained in the tab.

Most of the work of managing layouts, map series and map books (adding/removing new books and layouts, changing the order of sections, etc.) will be performed under the layouts tab. Different commands on these menus are enabled and disabled in accordance with the *MapLogic Layout Manager* license you have (Viewer, Basic, Advanced or Pro).

The MapLogic Layout Manager Toolbar

The *MapLogic Layout Manager* toolbar is a new toolbar that is added to ArcMap by the extension. Within this toolbar you will find all of the tools needed to put together a map book. If the toolbar is not visible after you install the extension go to View>Toolbars>MapLogic Layout Manager on ArcMap's Main Menu to display the toolbar.



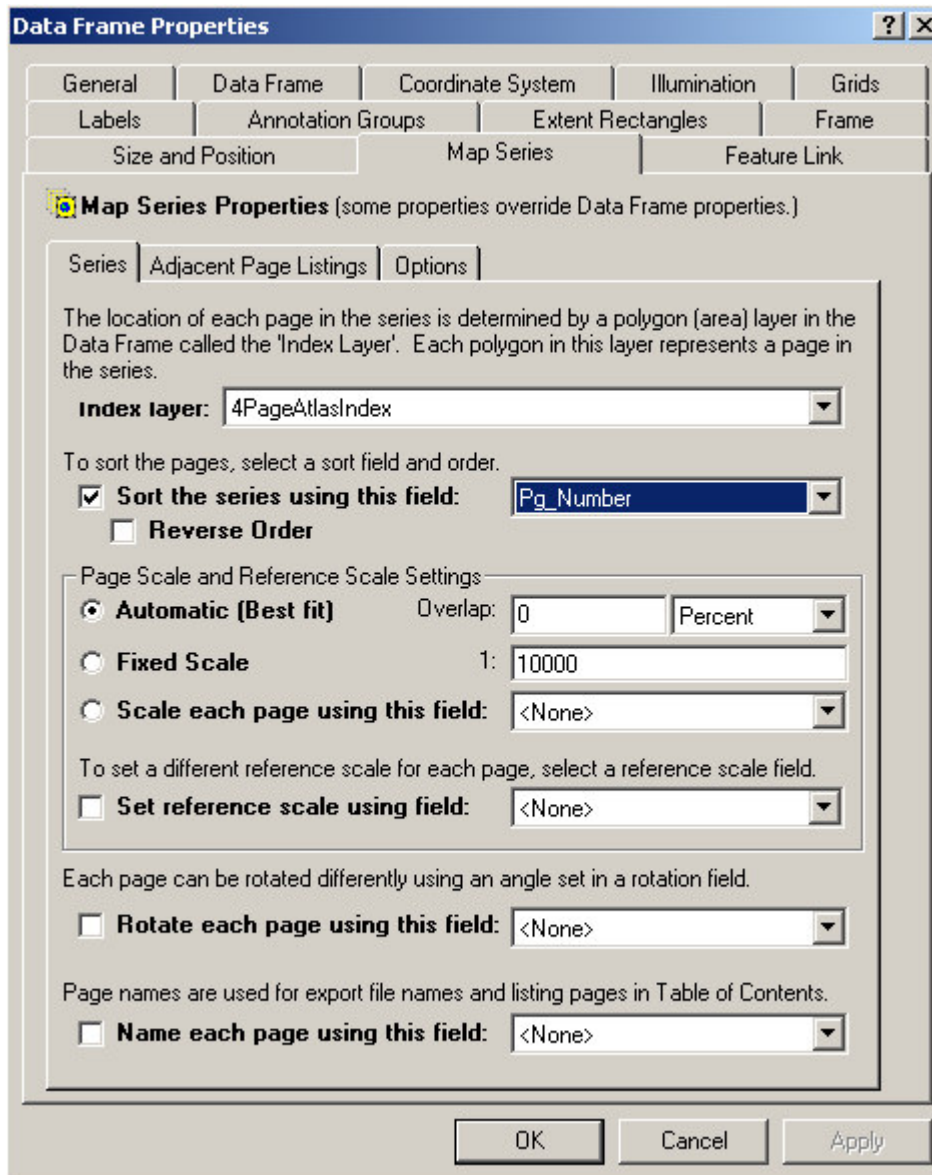
The above diagram shows the toolbar and all of its sub-menus. You will notice that the toolbar layout is very similar to ArcMap's Main Menu. This will enable you to quickly find the right commands in the extension based on where you would expect to find similar commands in ArcMap.

Different commands in the toolbar are enabled and disabled based on:

1. What kind of layout is currently active (page layout, map series layout or book layout)
2. What kind of element is currently selected in the layout
3. What kind of *MapLogic Layout Manager* license you have (Viewer, Basic, Advanced or Pro)

Element Properties

When you insert a new *MapLogic Layout Manager* element (for example a, Map Series Frame), the element is added to the active page layout just as in ArcMap's Insert Menu. To set the properties of the element, select it, click the right mouse button and then select "Properties..." on the popup menu. You can also double-click on the element.



The above example displays the properties of a map series frame. You will notice that the element will have all the normal properties you would expect for that type of element with an added tab for properties specific to our extension. Modify the element properties just like you would with any other element in ArcMap.

Before You Get Started

It is very important that the user understand that a map book is a much more sophisticated and, therefore, more complicated document when compared to a single page layout. If you are not comfortable about how to use the extension, you will save a great deal of time by reviewing the *Getting Started With MapLogic Layout Manager* document. We would also suggest reading the next section which details the conceptual framework for setting up a map book.

You will also save time by planning the design of your map book before you start creating one. Simple choices like the page size and margins you select for your map book will effect every page of your map book. How you choose to break apart your map onto multiple sheets of your map book will affect the scale and detail visible on each page.

So, even though you might want to create some quick map books just to figure out how *MapLogic Layout Manager* works, when it comes to creating a final product a little planning before hand can save you a lot of time.

Finally, as many of you have already figured out, GIS requires considerable computing power. Every time you flip the page on a map book, *MapLogic Layout Manager* has to perform a number of very intensive manipulations to render the page. Remember this when choosing the computer you are going to use for your work.

How The MapLogic Layout Manager Changes The ArcMap Document

The extension adds a container to the ArcMap document (Mxd) where it holds layouts, map series and map books. The contents of this container are displayed in a new tab called Layouts in the ArcMap Table of Contents.

Can a user who does not have the MapLogic Layout Manager extension open an ArcMap document that has been modified by the extension?

Yes. We have designed the extension so that it will allow the Mxd to be opened on other copies of ArcMap whether the extension is present or not.

What will ArcGIS users who don't have the MapLogic Layout Manager extension see when they open an ArcMap document modified by the extension?

The user will see the layout that was active when the ArcMap document was last saved. However, keep in mind that the *MapLogic Layout Manager* has a free "Viewer" license level, which allows the user to move around the layouts and preview (but not print) map books.

Different Licenses For The MapLogic Layout Manager

The *MapLogic Layout Manager* has four different license levels: Viewer, Basic, Advanced and Pro. Depending on the license level that you have purchased, you will have different tools and capabilities available to you. The following table will give you a quick overview of what you can do at each license level. Don't worry if you aren't sure what some of the items listed in the table mean, as we will provide plenty of explanation as we get further into the book.

License Level:	Viewer	Basic	Advanced	Pro
View different Layouts in ArcMap document (Mxd)	Yes	Yes	Yes	Yes
Preview map series and map books	Yes	Yes	Yes	Yes
Print single layouts	Yes	Yes	Yes	Yes
Print maps series and map books	No	Yes	Yes	Yes
Create/edit layouts and map series	No	Yes	Yes	Yes
Create/edit map books	No	No	Yes	Yes
Create location listings in map books (i.e., Main street, Page 1)	No	No	Yes	Yes
Create multi-column location listings in map books	No	No	No	Yes
Create multi-template sections in map books (i.e., Page 9 in a map series uses a different template from the rest)	No	No	No	Yes

Viewer License

The Viewer license is a free license which allows other users to explore the different layouts you have placed in the ArcMap document. Users can activate the different page, series and book layouts as well as preview the pages of a map book or map series.

The user can't create, modify, print or export map series or map book layouts with a Viewer license.

Basic License

The Basic license gives the user the ability to create new page and map series layouts in ArcMap. The user can also print map books created by other users using this license. However, none of the map book creation or editing functionality is available to the user at this license level.

Advanced License

The Advanced license enables most of the map book functionality for the extension. This includes creating, editing and printing map books as well as indexing the feature locations in a book.

Pro License

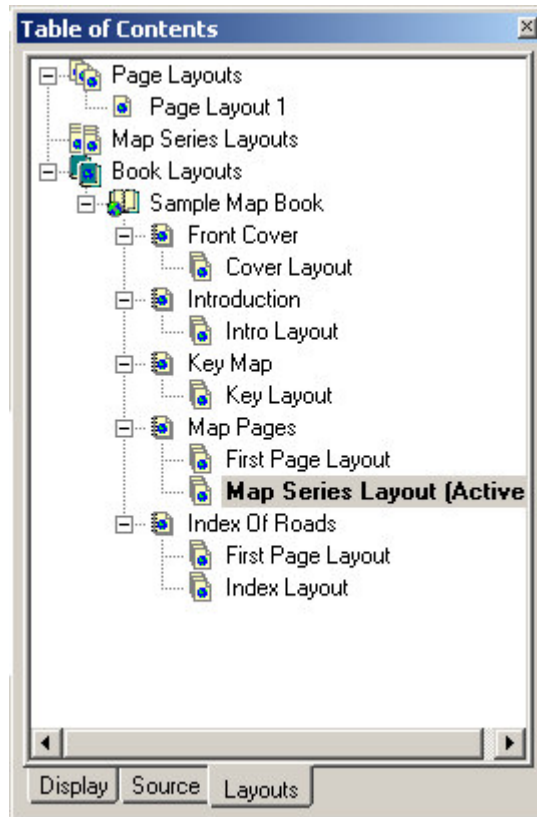
The Pro license is the highest license level of the *MapLogic Layout Manager*. At this level, users have the ability to create multi-layout sections in the map book. This allows you to create different page layouts for the odd and even pages in the map for two-sided printing.

The Pro license user can also create multi-column indexes. For example, if you would like to create an index that show the location of roads in a map book as well as the location of each address range in that road, a Pro license is required.

Basic Concepts

In this section, we attempt to familiarize the user with the conceptual framework of *MapLogic Layout Manager*. Spending a few minutes to review this section will help you greatly in understanding how *MapLogic Layout Manager* works. We assume that the user has a working knowledge of ArcMap Views and Layouts.

Multiple Layouts Within The ArcMap Document



Before you installed the *MapLogic Layout Manager*, your ArcMap document was a single layout document. In other words, you were always working on a single printed map called a page layout. After installing the extension, your ArcMap document is a multi-layout document. You are no longer limited to a single layout in your ArcMap document (Mxd).

Also, we have added two new types of layouts to the document; the map series layout and the book layout. A map series layout is very similar to a regular layout except that it generates multiple pages at print time.

A map book layout is basically a collection of page layouts and map series layouts that are linked together in a single book. The key is that the items in a map book are linked. The different parts of a book are aware of each other and update themselves when something changes.

The Map Series Layout

As we mentioned earlier, a map series layout generates multiple pages at print time. A map series knows how to move the visible area of the map from one area to the next for each page

in the series.

The ability of a map series layout to update the visible area of the map is due to the fact that one or more of the Data Frames (map windows) in the layout is a Map Series Frame. The map series frame is a new kind of data frame that you can add to your layout once you've installed the *MapLogic Layout Manager*.

The Map Series Frame Index Layer

The number and order of pages in a map series frame and the location of each page is based on a layer in the map called an Index Layer. The Index Layer is a polygon (area) layer in your map where each polygon represents a page in your map series.

Here are some characteristics about an Index Layer:

- It must be a polygon layer.
- The polygons don't have to be rectangles. For example, you can use the boundary of each state as the Index Layer for an atlas of the United States. However, rectangular indexes often provide the best results.
- The polygons don't have to be the same size or the same shape.
- Not every polygon in the layer has to be a page in the map book.
- The layer need not be turned on; it just needs to be present in your map's table of contents.

The number of polygons in the Index Layer determines the number of pages in the series. If the layer has a definition query (see ArcMap Help for more information), then only those polygons that meet the conditions of the query are considered.

The *MapLogic Layout Manager* can use any polygon layer as an Index Layer.

The Map Book Layout

Just as a map series layout is an extension of a page layout, the map book layout is an extension of map series layouts.

A Map Book Document Can Have Multiple Sections

The first difference you will notice between a map book layout and any other layout is that a map book can have multiple sections. A section is a group of pages in the map book which display similar content. For example, if you are creating a road map book you might have a section containing the individual sheets of the map, while another section might contain an index of road names and the pages they appear on.

The location of any section in the map book determines the order in which it is printed and the page numbers that are assigned to it. *MapLogic Layout Manager* prints the map book from top down, so the very first page of the top most section in the list is page 1. Right-clicking on the name of a section in the map book provides the user with some tools to rearrange the sections as needed.

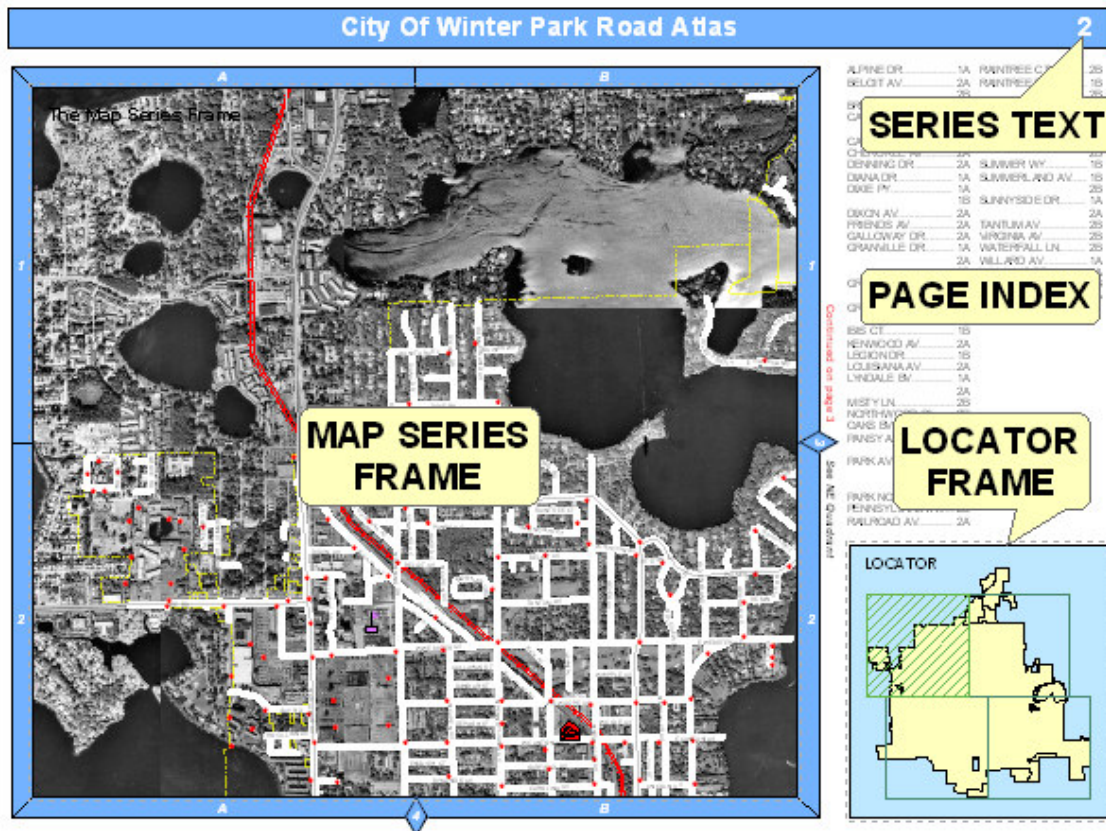
A Section Can Have Single Or Multiple Pages

Depending on the content of a section, it can have one or more pages. You define the contents of a section by creating one or more templates for that section and *MapLogic Layout Manager* handles the rest of the pages. For example, if your road map is going to be broken up over 20 sheets, you will set up the first sheet (its scale, grid style, etc.) and *MapLogic Layout Manager* will take care of the other 19 pages.

A Section Can Have Multiple Layouts (Pro License Required)

One important tool available to Pro license users is the ability to have multiple layouts for a section. For example, suppose you would like to have different layouts for the odd and even pages on the map. You can achieve this by inserting a new layout into the section and then setting the section properties to alternate back and forth between the two layouts.

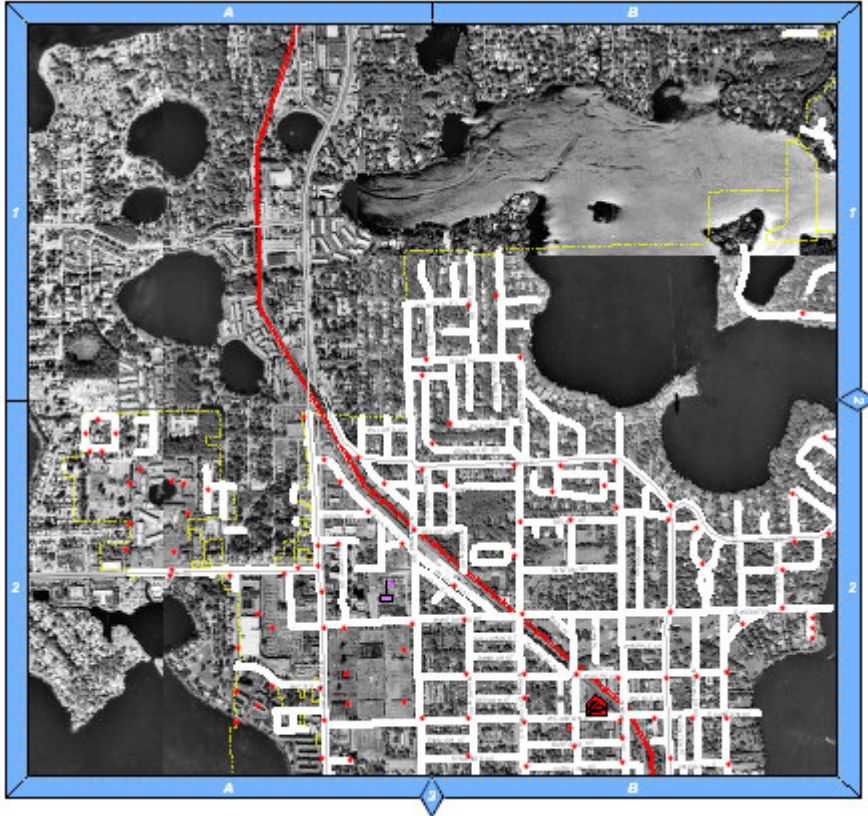
New Elements You Can Add To Map Series And Book Layouts



Earlier we mentioned the map series frame, which is a new element you can add to a layout to make it print over multiple pages. The *MapLogic Layout Manager* makes a number of new elements available to you when creating map series and books.

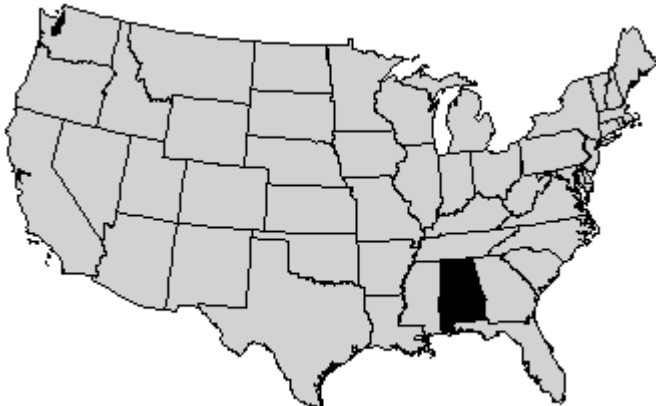
The above sample shows just a few examples of the types of elements you can add to a layout. Each element has its own purpose and properties. Each element knows how to update itself based on its properties, which is what makes the extension so powerful.

A Map Series Frame Breaks A Map Onto Multiple Pages



A map series frame is how you display areas of the map in a map series (similar to a data frame). However, unlike a data frame, a map series frame knows how to break the map onto multiple pages using the contents of a special polygon layer called the index layer. For example if your index layer is breaking your map into 20 pages, the map series frame will make the layout 20 pages long.

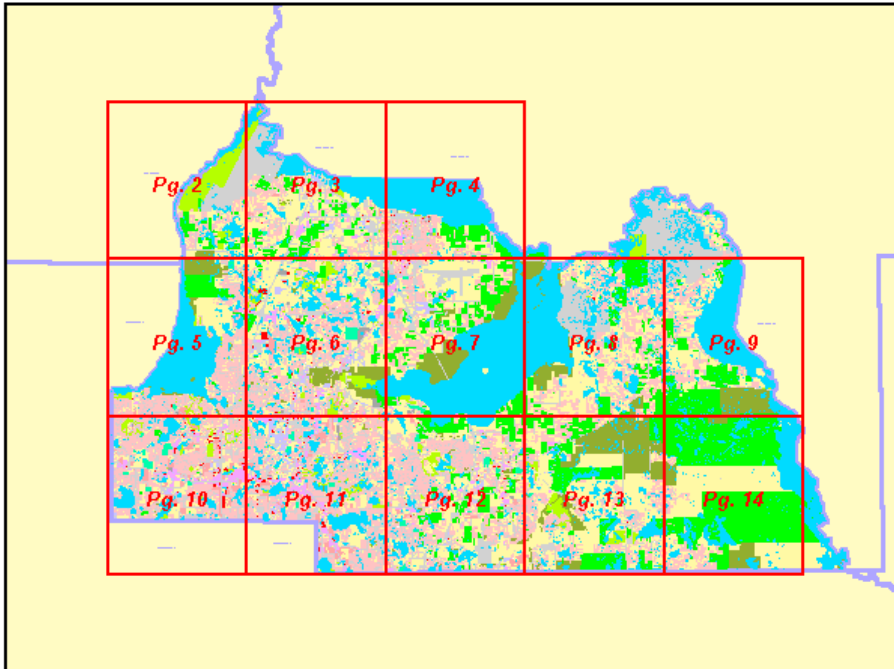
A Series Locator Frame Shows Which Page Is Currently Being Displayed



A series locator frame shows you which part of the overall map is being displayed on the current page. For example, if you create a map book of U.S. States, you might want a small

map of the entire United States on each page highlighting the location of the state that is currently being displayed. A series locator frame is designed for this purpose.

A Series Key Frame Shows The Page Number Of The Pages In A Map Series Frame



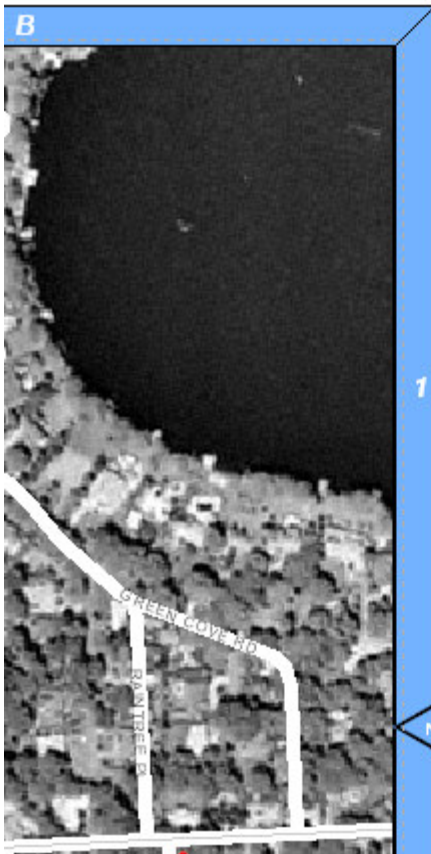
A Series Key Frame is used to create key maps. For example, you might want a map of the entire United States at the beginning of your map book showing the page number where each state can be found. A Series Key Frame was designed for this purpose.

A Series Text Element Creates Text That Changes From Page To Page

Northeast Quadrant Seminole County, Florida

A Series Text Element is used to create dynamic text on the pages of a map book. For example, if each page of a map book is showing a unique Section, Township And Range, you may want to create a text box that shows what the Section, Township And Range values are on each page of the map book. If you have this information in your Index Layer, you can use the Series Text Element to create a text box that dynamically lists this information from page to page.

A Page Index Element Indexes The Contents Of The Current Map Page



ALPINE DR.....	1A	RAINTREE CT.....	2B
BELOIT AV.....	2A	RAINTREE PL.....	1B
	2B		2B
BROCK ST.....	1A	RIDGEWOOD AV.....	1A
CAPEN AV.....	2A		2A
	2B	SOLANA AV.....	2A
CARDINAL CT.....	1B	STEWART ST.....	1B
CHEROKEE AV.....	2A		2B
DENNING DR.....	2A	SUMMER WY.....	1B
DIANA DR.....	1A	SUMMERLAND AV.....	1B
DIXIE PY.....	1A		2B
	1B	SUNNYSIDE DR.....	1A
DIXON AV.....	2A		2A
FRIENDS AV.....	2A	TANTUM AV.....	2B
GALLOWAY DR.....	2A	VIRGINIA AV.....	2B
GRANVILLE DR.....	1A	WATERFALL LN.....	2B
	2A	WILLARD AV.....	1A
	2B	WILLIAMS DR.....	1A
GREEN COVE RD.....	1B		1B
	2B	WILMA AV.....	2A
GREEN OAKS CT.....	1A		
	1B		
IBIS CT.....	1B		
KENWOOD AV.....	2A		
LEGION DR.....	1B		
LOUISIANA AV.....	2A		
LYNDAL BV.....	1A		
	2A		
MISTY LN.....	2B		
NORTHWOOD CI.....	2B		
OAKS BV.....	2A		
PANSY AV.....	2A		
	2B		
PARK AV.....	1A		
	2A		
	2B		
PARK NORTH CT.....	2B		
PENNINGTON AV.....	2B		

A Page Index Element is used to create indexes of features on the current map page. For example, if you are creating a road map book, you may wish to have a listing of where each road can be found on each page of the map book (for example, Main Street....B4). A Page Index Element must always be on the same layout as the map.

A Series Index Element Indexes The Contents Of An Entire Section

INDEX OF ROADS (ABBAY - CYPRESS)

5

Street	Page	Grid	Street	Page	Grid	Street	Page	Grid
ABBEY RD	3	2B	BERWICK DR	5	1B	S CAPEN AV	4	1A
ALABAMA DR	2	2B	BETT MAR LN	2	1B	CARDINAL CT	2	1B, 2B
ALABAMA DR	3	2A	S BLAIRSHIRE CT	5	1B	CAROLINA AV	2	2B
ALBERTA DR	3	2A	S BLUE RIDGE RD	4	2B	CAROLINA AV	4	1A
ALEXA DR	5	2A	S BLUE RIDGE RD	5	2A	CAROLLEE LN	5	1A
ALEXANDER PL	4	1B	SONITA DR	3	2A	CARYER CT	2	2A, 2B
E ALOMA AV	3	2A, 2B	SONNIE BURN Q	4	1A, 1B, 2A, 2B	CARYER ST	2	2A, 2B
ALPINE DR	2	1A	BRAEMAR DR	5	1A, 2A	CAVENISH RD	4	1A, 2A
ANCHORAGE CT	2	2B	BRANDYWINE DR	4	2B	N CENTER ST	2	2B
ANTONETTE AV	4	1B	BRECHIN DR	5	1A	N CENTER ST	4	1B
ANZLE AV	3	2A, 2B	BREWSTER AV	3	2A	S CENTER ST	4	1B
ARAGON AV	4	1A	BREWSTER AV	4	1B	CHANTILLY AV	3	1A
ARJAY WY	4	2B	BREWSTER AV	5	1A	CHAPMAN AV	4	1B
ARJAY WY	5	2A	BREWWOOD DR	4	2B	CHAPMAN CT	5	2A
ARLINGTON PL	4	1A	BROCKPORT DR	5	2A	CHASE AV	4	1B
AUDUBON LN	4	1B	BROADVIEW AV	4	1A	CHASE LANDING WY	5	2A
AUDUBON LN	5	1A	BROCK ST	2	1A, 1B	CHELTON CT	4	2B
AZALEA LN	4	1A	BROOKSHIRE AV	5	1B	CHEROKEE AV	2	2A
AZALEA PL	3	1A	BRUCE PL	4	1A	CHEROKEE LN	2	2B
B			BRUCE PL	4	1A	CHEROKEE LN	3	2A
BALCH AV	4	1A	BRUCE PL	3	2A, 2B	CHESTNUT AV	3	1A, 1B
BALFOUR DR	3	2B	BUCKINGHAM RD	4	1A, 2A	CLARENDON AV	4	1A, 1B
BALFOUR DR	5	1B	BUNGALOW AV	4	1A	COCHISE BL	3	1A
BALMORAL RD	5	1A	BURNS CT	5	1A	E COLDS TREAM DR	5	1B
BANCHORY RD	5	1A, 1B	S BURNING TREE CT	5	2B	W COLE AV	2	2B
BARCELONA WY	4	1A, 2A	S BURNING TREE LN	5	2B	COLLEGE PT	4	1B
BARKER DR	5	2A	BYRON RD	3	2B	E COOMSTOCK AV	4	1B
BARNUM AV	4	1A	C			W COOMSTOCK AV	4	1A, 1B
BEACHVIEW AV	4	1A	CADY WY	5	1A, 1B	CORTLAND AV	3	2A
BELL PL	3	2B	CALLAHAN ST	2	2B	CORTLAND AV	5	1A
BELLEWOOD DR	5	2B	CAWELLIA AV	4	2A	COUNTRY CLUB DR	2	2A
BELOF AV	2	2A, 2B	CANTERSBURY RD	4	1A, 2A	COVE Y CV	4	2B
BENJAMIN AV	2	2A	E CANTON AV	2	2B	CREEK'S EDGE	5	1A
BENMORE DR	5	1A	W CANTON AV	2	2A, 2B	CURNER AV	4	1A
BENNETT AV	2	2A	N CAPEN AV	2	2B	CYPRESS AV	4	1A
BERKSHIRE AV	4	2A	N CAPEN AV	4	1A	CYPRESS LN	3	1A

A Series Index Element is used to create indexes of features on your map pages. For example, if you are creating a road map book, you may wish to have a listing of where each road can be found in the map book (for example, Main Street....Page 2 B-4). Depending on how many listings there are, a Series Index Element can occupy one or more pages.

Two-Sided Map Book Setup And Printing

Another basic difference between *MapLogic Layout Manager* and the rest of ArcMap is the ability to setup and map book for printing on both sides of a page (Pro license required). Obviously the number of printers that can print on both sides of a page are not many, and there are probably no plotters that can print on both sides of your paper. *MapLogic Layout Manager* can't actually send a command to a printer to print something on a page and then flip the page over and print on the other side of the page. However, it does properly setup your map book so that you could manually print to both sides of the paper or photocopy onto both sides of a page. You do this by setting up two different layouts for a section and then telling the extension to alternate between the two.

Where To Go From Here?

This section has provided you with a basic overview of the conceptual framework for the *MapLogic Layout Manager* and some key capabilities and features as well as some important information about using the software's user interface. Hopefully, the user will have an overall understanding of how things are organized in *MapLogic Layout Manager* and the basic components of map series and books. In the following sections we will provide much more detailed instructions on how to setup, customize and print page, series and book layouts.

Keep in mind that this is not a tutorial. If you would like step by step instructions on setting up map series and books, please refer to the *Getting Started With MapLogic Layout Manager* document.

Working With Expressions

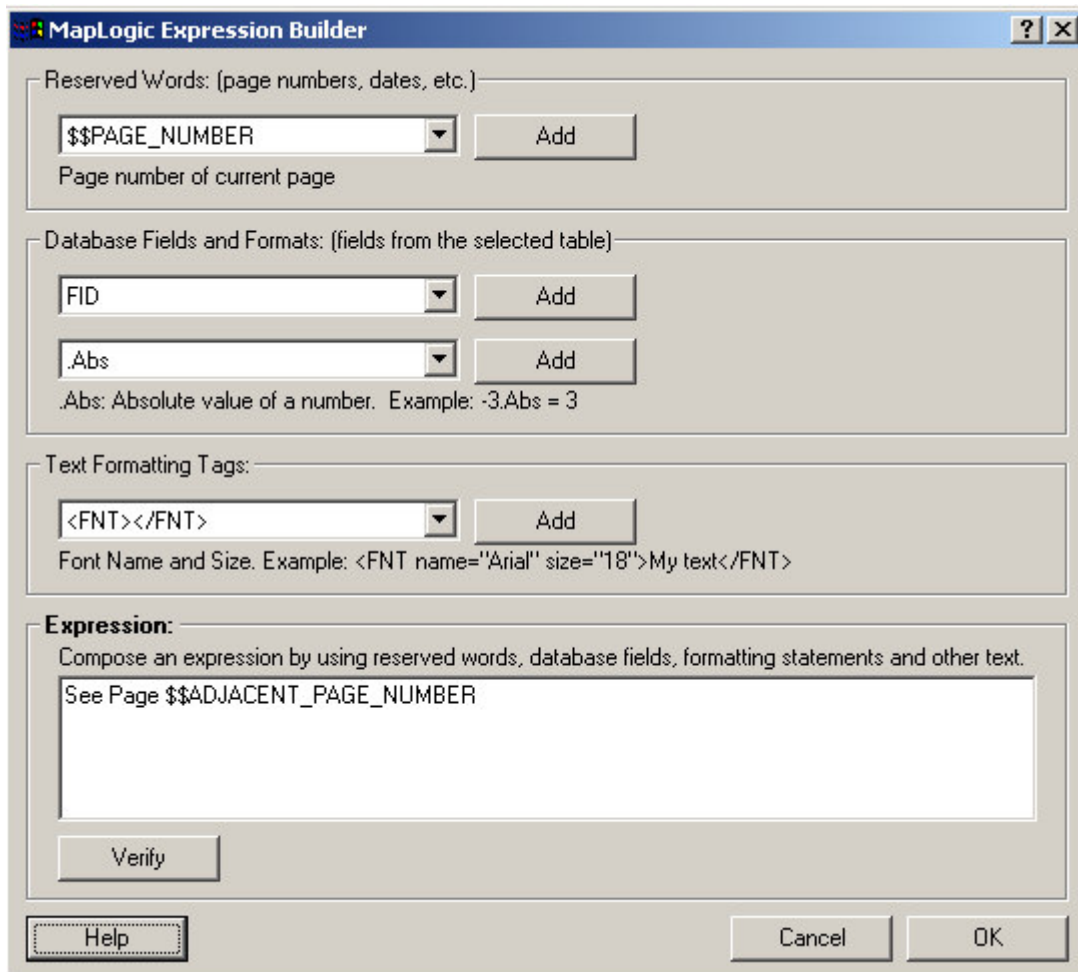
One of the key features of the *MapLogic Layout Manager* is that no text label in a map series or map book is ever hardwired. Whether the label is a page number, a page title, a listing in a series index, or any other text item in the map book, you determine the contents of that label by composing an expression for it.

Why use an expression? Well this allows you to have total control over what the label says. For example, by default the adjacent page label expression is “See Page `$$ADJACENT_PAGE_NUMBER`”. The actual label might look like “See Page 3”. Suppose you prefer the label to say “Go To 3”. All you would need to do is to change the expression to say “Go To `$$ADJACENT_PAGE_NUMBER`”.

Although there is a default expression for every text label that the extension creates, you will probably want to learn how to modify these labels to best meet your requirements.

All expressions are created using the MapLogic Expression Builder Dialog. Whenever you see a label expression on any of our dialogs, you will see an **Expression** button next to it which brings up the expression builder dialog.

The MapLogic Expression Builder Dialog



The Expression dialog lets you build an expression from which a label is created. This dialog is divided into four areas:

1. The reserved words
2. The database fields and field formatting statements
3. The text formatting tags
4. The expression

The label expression is a coded by combining reserved words, database fields, formatting statements and other text into a statement which the tool can understand. Fortunately the coding rules are very simple and the tool does most of the work for you.

Reserved Words

Anytime you see an item in an expression that starts with \$\$, you are looking at a reserved word. A reserved word is a word that the extension understands and substitutes for an appropriate value. For example, “See Page \$\$ADJACENT_PAGE_NUMBER” will be translated into a label that might look like “See Page 3”.

Depending on what item you are creating an expression for, different reserved words will be presented to you to choose from. Select a reserved word from the list, and a short description of the meaning of the word will appear below it.

The following is a list of available reserved words:

General

\$\$BOOK_NAME – The name assigned to a map book
\$\$BOOK_PAGE_COUNT – The total number of pages in a map book
\$\$DATE – Today's date formatted according to your computer's default date format
\$\$DATE_LONG – Today's date formatted according to your computer's long date format
\$\$DATE_MEDIUM – Today's date formatted according to your computer's medium date format
\$\$DATE_SHORT – Today's date formatted according to your computer's short date format
\$\$PAGE_NUMBER – Current page number
\$\$SECTION_NAME – The name assigned to the current section
\$\$SECTION_PAGE_COUNT – The total number of pages in the current section
\$\$TEMPLATE_NAME – The name assigned to the current template layout
\$\$TEMPLATE_PAGE_COUNT – The total number of pages in the current template layout
\$\$TIME_LONG – Current time formatted according to your computer's long time format
\$\$TIME_MEDIUM – Current time formatted according to your computer's medium time format
\$\$TIME_SHORT – Current time formatted according to your computer's short time format

Indexing Location Of Features In Map Series

\$\$CENTERX – The X coordinate of the center point of the feature being indexed
\$\$CENTERY – The Y coordinate of the center point of the feature being indexed
\$\$FRAME_NAME – The name of the map series frame being indexed

Map Series Frames

\$\$ADJACENT_PAGE_NUMBER – The page number of the page adjacent to the current page

Page Index and Series Index

\$\$COLUMN – The frame's grid column location of the feature being indexed
\$\$DOTS – Expand the text in a column to the column width using dots (i.e. Main St.....Pg 3)
\$\$ROW – The frame's grid row location of the feature being indexed

Series Text

\$\$FIRST_3CHAR – First 3 characters of first listing on current page (must be linked to series index)
\$\$FIRST_CHAR – First character of first listing on current page (must be linked to series index)
\$\$FIRST_LISTING – listing on current page (must be linked to series index)
\$\$FIRST_WORD – First word of first listing on current page (must be linked to series index)
\$\$LAST_3CHAR – First 3 characters of last listing on current page (must be linked to series index)
\$\$LAST_CHAR – First character of last listing on current page (must be linked to series index)
\$\$LAST_LISTING – Last listing on current page (must be linked to series index)
\$\$LAST_WORD – First word of last listing on current page (must be linked to series index)

If there are no reserved words available for an expression, the area is grayed out.

You can add a reserved word to your expression by selecting it and clicking the **Add** button.

Database Fields

The database fields area displays all the available database fields for the expression you are building. It is the information from these fields that are extracted and placed in the text label. Geometry (shape) and Blob fields cannot be used in a label expression.

Database field names are always enclosed in square brackets “[]”. For example, a field called "State_Name" would be written as *[State_Name]*.

You can add a field to the label expression by selecting it and clicking the **Add** button. If there are no database fields available for an expression, the area is grayed out.

Formatting Statements

Formatting statements allow you to modify the information extracted from database fields. For example, you might want to round a numeric value, or change text to upper case, or change the way a date is displayed.

Select any formatting statement from the list and a short description will appear on the dialog explaining what the statement does.

After you have selected a formatting statement, click **Add** to add the formatting to the expression. The tool will make sure the information is added using the correct expression coding syntax.

For example: *[Population1990].Round(0)*

A formatting statement that is mismatched with the field type is ignored. For example, if you attempt to change the number of decimals on a text field, it will be ignored.

Formatting statements are added after the field with only a "." between the two (for example, *[State_Name].UCase*).

You can apply multiple formatting statements to a field by adding them one after the other. Formatting statements will be applied to the value of the field starting from the left and moving to the right. For example, *[State_Name].UCase.LCase* will result in a lower case label because the LCase statement was the last formatting statement.

Some examples of formatting statements are:

Using the layer: *US States*

Using the legend label text definition: *[State_Name].UCase*

Would result in the following label in your legend for the state of Florida: *FLORIDA*

Using the layer: *US States*

Using the legend label text definition: *[State_Name].Replace("A","IAN").UCase*

Would result in the following label in your legend for the state of Florida: *FLORIDIAN*

The following is a list of all available formatting statements:

Abs - Absolute value of a number. For example: $-3.Abs = 3$

FormatCurrency - Number formatted to system currency. For example: $100.FormatCurrency = \$100.00$

Format(Instructions) - The Format function converts a value to a text string and gives you control over the string's appearance. For example, you can specify the number of decimal places for a numeric value, leading or trailing zeros, currency formats, and portions of the date. Format is a very powerful statement and can do many different things.

The instructions for the Format statement can be one of many named formats or a user defined

instruction.

Named Formats:

General Number - Shows numbers as entered.

Currency - Shows negative numbers inside parentheses.

Fixed - Shows at least one digit.

Standard - Uses a thousands separator.

Percent - Multiplies the value by 100 with a percent sign at the end.

Scientific - Uses standard scientific notation.

General Date - Shows date and time if expression contains both. If expression is only a date or a time, the missing information is not displayed.

Long Date - Uses the Long Date format specified in the Regional Settings dialog box of the Microsoft Windows Control Panel.

Medium Date - Uses the dd-mmm-yy format (for example, 03-Apr-93)

Short Date - Uses the Short Date format specified in the Regional Settings dialog box of the Windows Control Panel.

Long Time - Shows the hour, minute, second, and "AM" or "PM" using the h:mm:ss format.

Medium Time - Shows the hour, minute, and "AM" or "PM" using the "hh:mm AM/PM" format.

Short Time - Shows the hour and minute using the hh:mm format.

Yes/No - Any nonzero numeric value (usually - 1) is Yes. Zero is No.

True/False - Any nonzero numeric value (usually - 1) is True. Zero is False.

On/Off - Any nonzero numeric value (usually - 1) is On. Zero is Off.

Beyond the named formats, you can also create custom formats using syntax that the Format statement understand. The following examples of user defined formats assume that the country in the Windows Control Panel is set to "English (United States)."

Format("00000.00") will result in a number like *08315.40*

Format("#####.###") will result in a number like *8315.4*

Format("#,##0.00") will result in a number like *8,315.40*

Format("\$##0.00") will result in a number like *\$315.40*

Format("0.00%") will result in a number like *700.00%*

Format("m/d/yy") will result in a date like *1/27/93*

Format("dddd, mmmm dd, yyyy") will result in a date like *Wednesday, January 27, 1993*

The Format statement is based on the Visual Basic Format function and can do many things. For more information on how Format works, visit the Microsoft website for this function at:

<http://msdn.microsoft.com/library/default.asp?url=/library/en-us/vblr7/html/vafctformat.asp>

FormatNumber(0) - Sets number of decimal places for a numeric value. For example:
2.53.FormatNumber(4) = 2.5300

LCase - Sets all characters in a string to lower case. For example: "Hello World".LCase = "hello world"

Left(0) - Returns left x number of characters in a string. For example: "Hello World".Left(2) = "He"

LTrim - Removes spaces to left of string. For example: " Hello World".LTrim = "Hello World"

Mid(0,0) - Returns the middle x number of characters at position y. For example: "Hello World".Mid(7,3) = "Wor"

Replace(Search,Replace) – Search and replace text in a string. For example: "Hello World".Replace(o,xx) = "Hellxx Wxxrld"

Right(0) - Returns the right x number of characters. For example: "Hello World".Right(2) = "ld"

Round(0) - Rounds a number to decimal x places. For example: 2.67.Round(0) = 3

RTrim - Removes spaces to right of a string. For example: "Hello World ".RTrim = "Hello World"

Spaces(0) - Inserts spaces between characters of a string. For example: "GIS".Spaces(3) = "G I S"

Trim - Removes spaces from both sides of a string. For example: " Hello World ".Trim = "Hello World"

UCase - Sets all characters in a string to upper case. For example: "Hello World".UCase = "HELLO WORLD"

Text Formatting Tags

Text formatting tags are HTML-like tags supported by ArcGIS for modifying text styles of portions of your labels. These change the text font, whether its bold or italics, the character spacing and so on. Select any formatting tag from the list and a short description will appear on the dialog explaining what the statement does. For more information on text formatting tags, refer to your ArcMap documentation. After you have selected a formatting statement, click **Add** to add the formatting to the expression.

The Label Expression

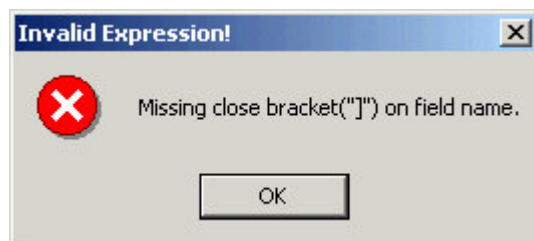
The expression text box is where the code for the label expression is composed. Although you can select items from the available lists and click the **Add** buttons to create the expression, you can also type the expression directly in this text box. An expression is composed by combining database fields, formatting statements and other text. Any text entered in the text box that the tool can't interpret as a database field or formatting statement is treated as plain text.

For example: *Population: [Population1990].Round(0)*

Will result in a symbol label that will look something like: *Population 874923*

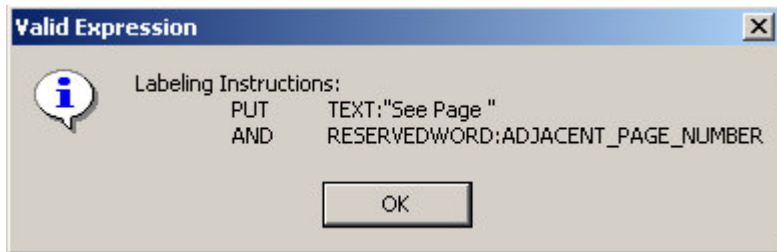
Verifying That An Expression Is Correct

Once you have created an expression, you can test whether it is using the correct syntax by clicking on the **Verify** button. The Expression Builder dialog will examine the expression and prompt you with a response. If the expression contains a syntax error, you will be prompted with the nature of the error. For example,



If the expression is valid, detailed information about how the tool is interpreting your expression

is presented. For example,



Saving The Expression

Once you have created the expression you like, click the OK button to save it.

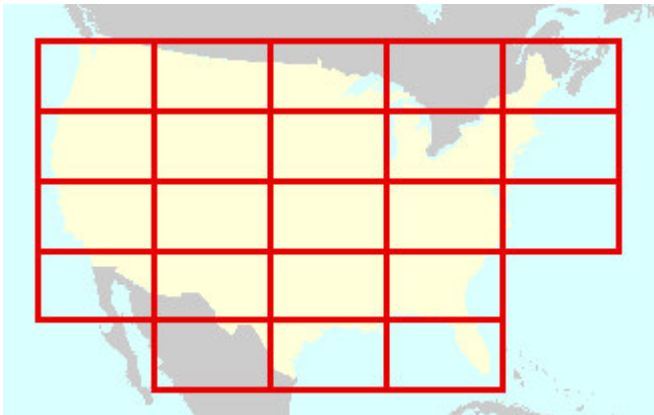
Creating Map Series Index Layers

The ability of *MapLogic Layout Manager* to create a map series is based on the Index Layer. As we mentioned earlier, the Index Layer is a polygon layer that contains all the information needed to break the map apart into multiple pages. Essentially, polygons within your Index Layer represent pages on your map book.

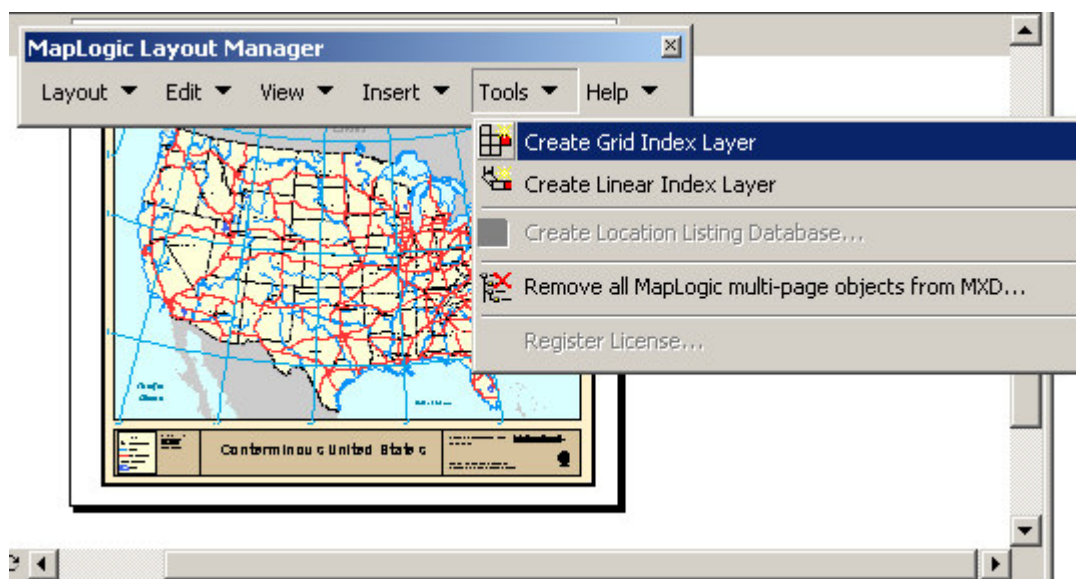
The *MapLogic Layout Manager* can use any polygon layer as an Index Layer. The extension provides you with some tools that will create grid and linear index layers for you. If the tools provided by the extension don't meet your requirements, you can always create your own Index Layer using the layer creation and editing tools provided by ArcMap.

Creating Grid Index Layers

A grid index layer is a grid of rectangles covering an area.



You can create a grid index layer by selecting **Tools\Create Grid Index Layer...** from the MapLogic Layout Manager toolbar.

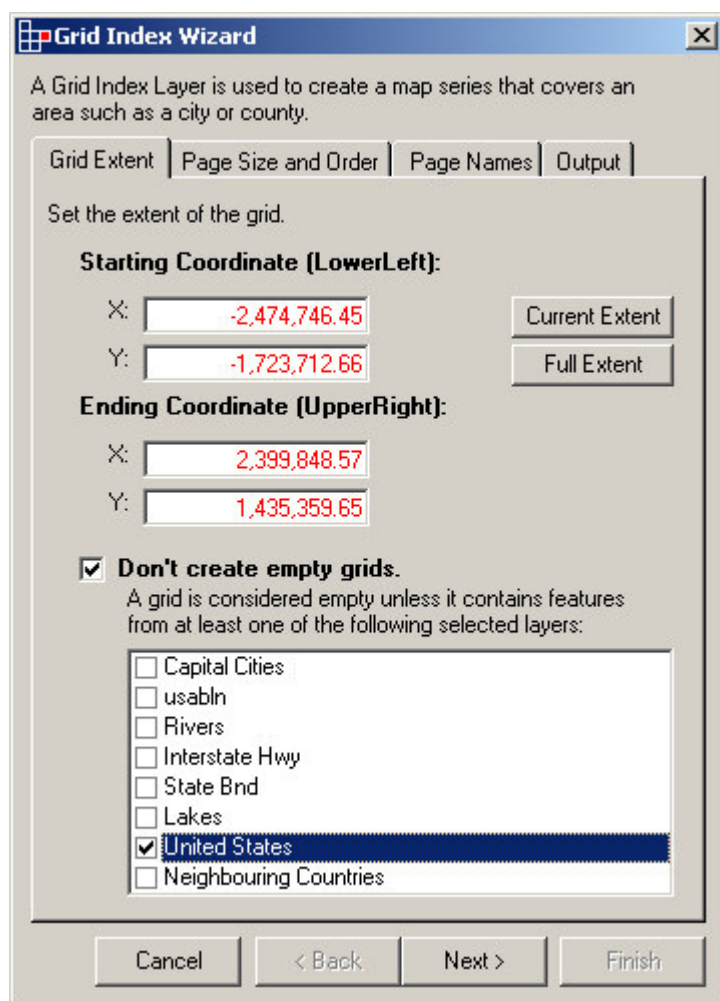


This will display the Grid Index Wizard dialog. In this dialog, you need to set the properties of the index grid. In order to accomplish this you must:

1. Set the extent the area to create a grid for and any sub-areas you want excluded from the grid creation process
2. Set the size and order of the each cell in the grid
3. Assign a page name to each grid cell (optional)
4. Set the destination of where the grid will be stored

The Grid Index Wizard dialog is divided into four tabs corresponding to the different parameters we described above.

Setting The Grid Extent

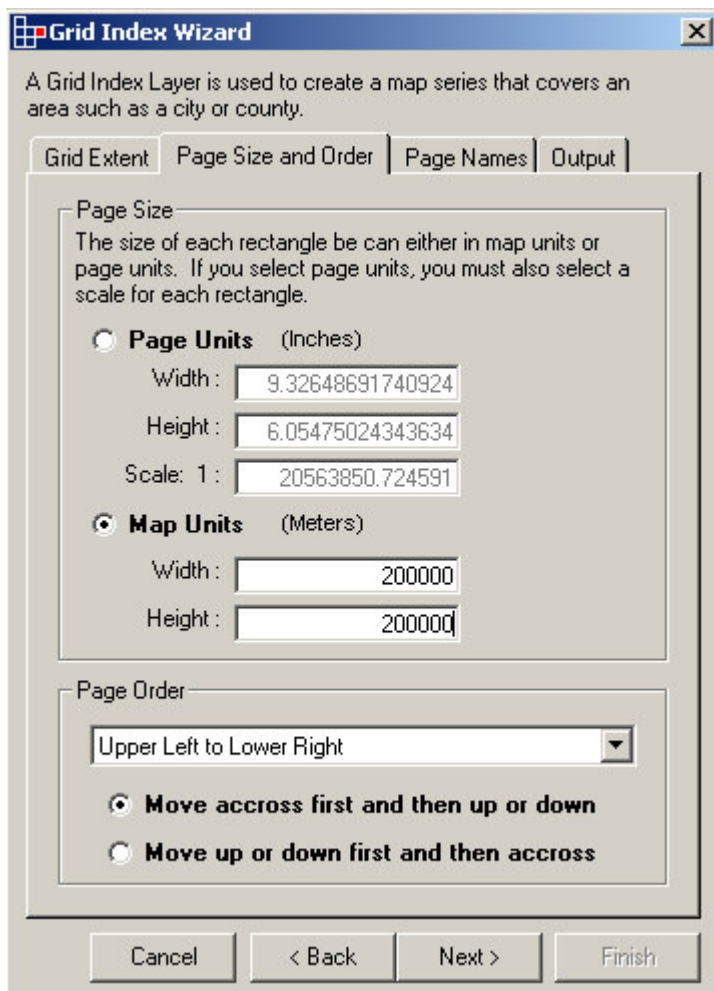


The grid extent is the limit of the area for which you want to create a grid index layer for. You can type in the coordinate limits of the extent or click on the **Current Extent** button to select the area of the map that is currently visible or click on the **Full Extent** button to select the area covered by all layers in the map.

By default a rectangular grid will be created covering the entire extent entered. If you want to create grid cells only where there is data from one or more layers in your map, check **Don't**

create empty grids. You must then select the layers which you want the wizard to check while creating the grid cells

Setting The Grid Page Size And Order



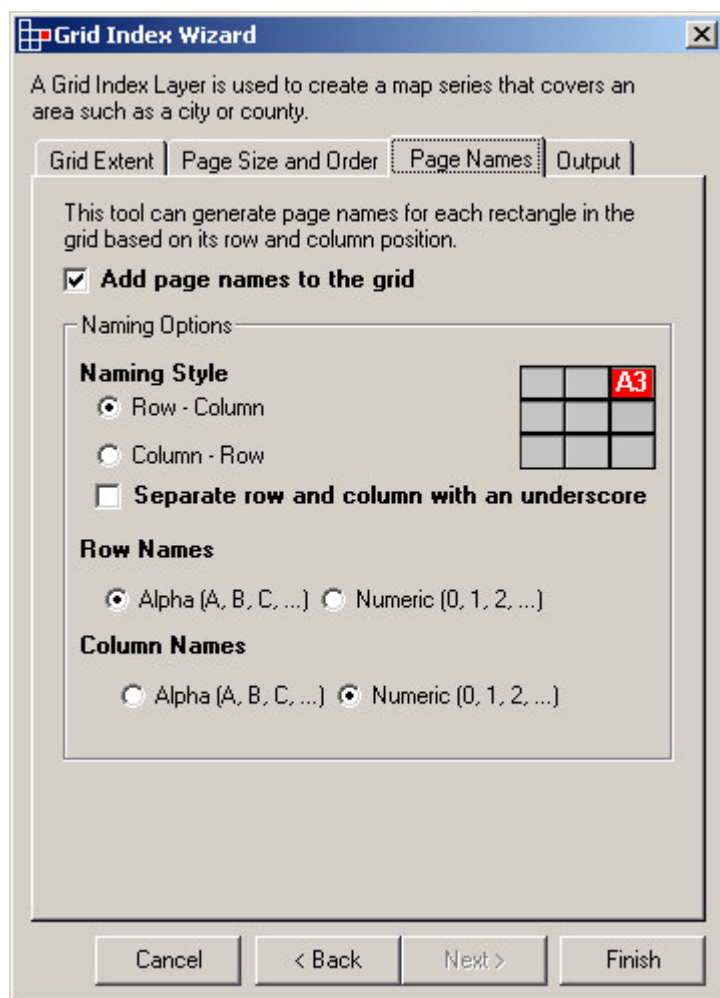
Now that you have determined the area you are going to make a grid for, you need to tell the wizard what the size of each grid cell should be and the order in which the grid cells will appear in the map series. You can set the cell size in page units or map units.

To set the cell size in page units, you must tell the wizard at what scale you will be printing the map series and how big you want each cell to be on the printed page. This is the preferred method of creating a grid since you generally want to print a map series at a particular scale. The default values for the cell width and height is the current size of the frame on the layout.

To set the cell size in map units, you must tell the wizard how big an area you want each grid cell to cover on the map.

The wizard will add page numbers to the grid cell in the index layer based on the order which you select in the Page Order area of the dialog.

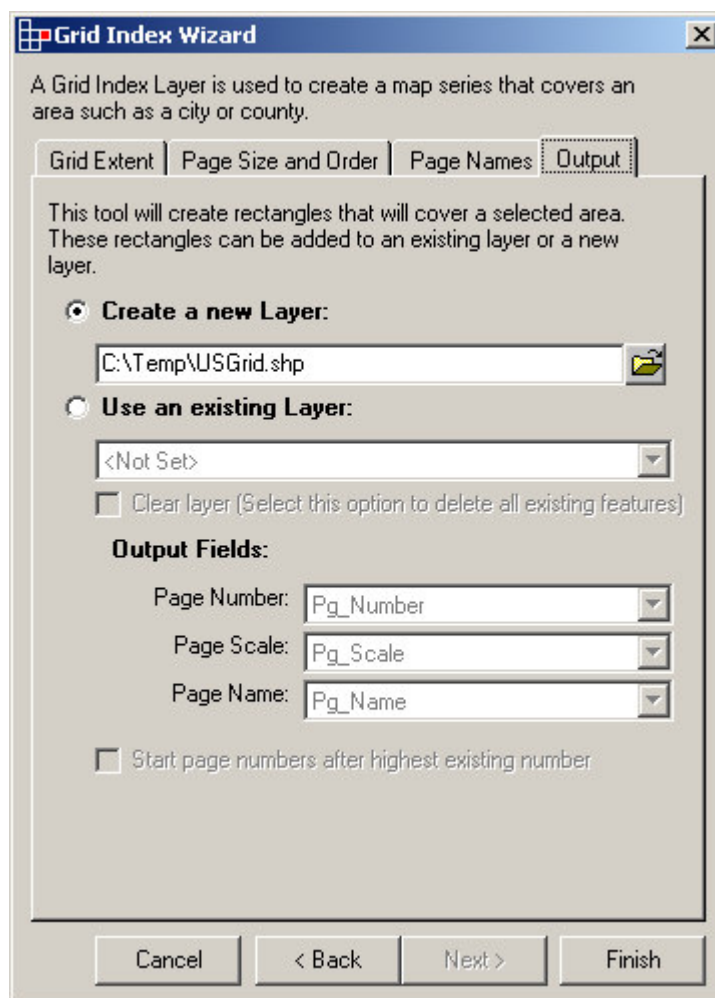
Setting The Page Names



You can optionally assign a name to each page in the grid cell based on the row and column location of the cell in the index grid. These names can be displayed on the map in place of page numbers. As you can see, you have a number of naming styles to choose from.

Don't confuse this grid with the grid that you might want to put around each page of your map series. That grid is set as a property of the data frame.

Setting The Output Destination



The wizard saves the resulting grid in a new shape file or it can append or overwrite an existing polygon layer in your map.

If you are using an existing layer, you must tell the wizard which fields it will use to store the page number, page scale and page name. If you are creating a new shape file, the wizard will automatically create the fields to store this information in.

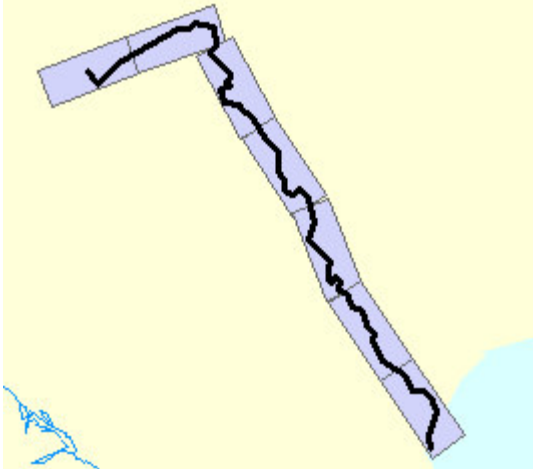
When saving into an existing layer, there are two options available to you.

Clear layer – this option clears any existing features from the layer before adding the new grid.
Start page numbers after highest existing number – If you are appending to existing polygons, you can tell the wizard to start the page numbers after the highest page number that already exists. For example, if there are already eight polygons in your index layer, the first new polygon will be numbered as page 9.

Once you have set all your parameters, click the **Finish** button to create the index layer grid.

Creating Linear Index Layers

A linear index layer is a series of rectangles following the path of a linear feature.



To create a linear index layer you must first select a linear feature to create an index for and then select **Tools\Create Linear Index Layer...** from the MapLogic Layout Manager toolbar.

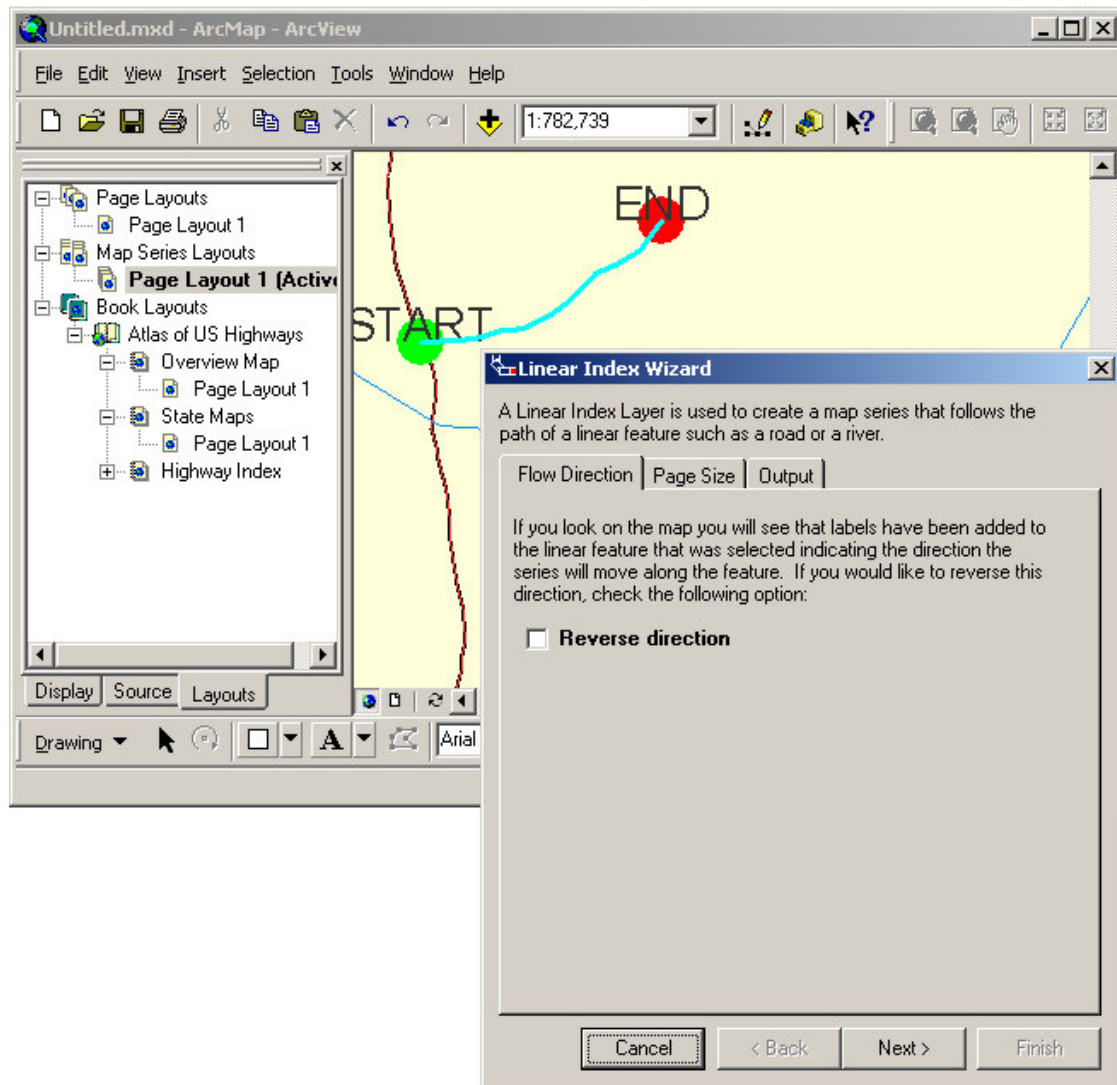
The feature you select must be a continuous line with no breaks in it.

This will display the Grid Index Wizard dialog. In this dialog you need to set the properties of the index grid. In order to accomplish this you must:

1. Set the direction of the linear
2. Set the size and order of the each cell in our grid
3. Set the destination of where the grid will be stored

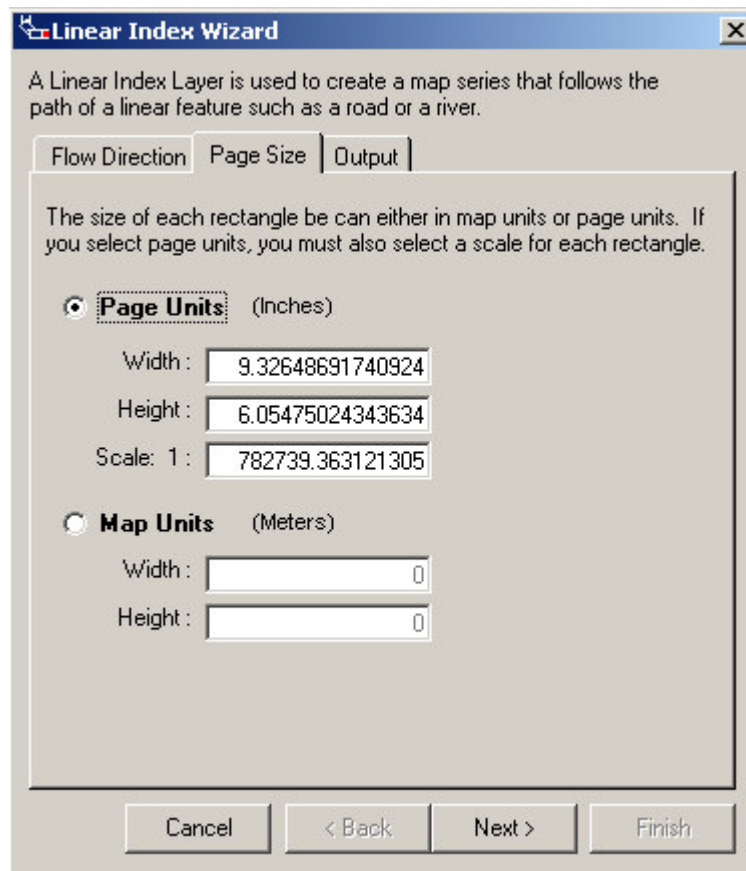
The Grid Index Wizard dialog is divided into four tabs corresponding to the different parameters we described above.

Setting The Direction Of The Linear Index



If your ArcMap session is in “Data View”, labels will be added to the map showing the current direction of the linear index. You can reverse the direction of this index by selecting the **Reverse direction** checkbox.

Setting The Grid Page Size And Order

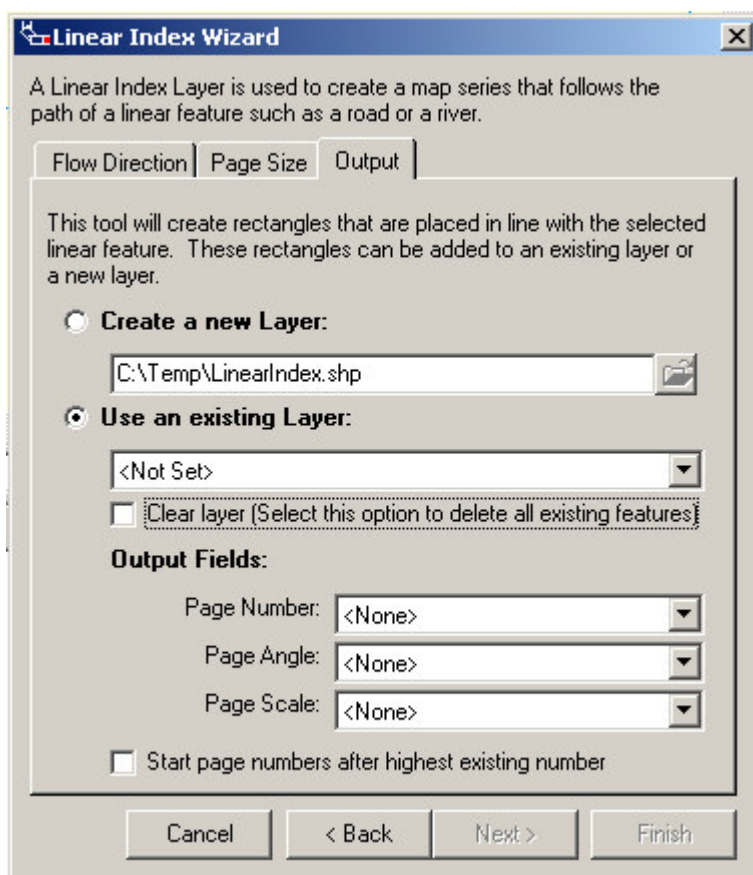


Now that you have determined the direction of the linear index, you need to tell the wizard what the size of each cell should be. You can set the cell size in page units or map units.

To set the cell size in page units, you must tell the wizard at what scale you will be printing the map series and how big you want each cell to be on the printed page. This is the preferred method of creating a linear index, since you generally want to print a map series at a particular scale. The default values for the cell width and height is the current size of the frame on the layout.

To set the cell size in map units, you must tell the wizard how big an area you want each cell to cover on the map.

Setting The Output Destination



The wizard saves the resulting index in a new shape file, or it can append or overwrite an existing polygon layer in your map.

If you are using an existing layer, you must tell the wizard which fields it will use to store the page number, page angle and page scale. If you are creating a new shape file, the wizard will automatically create the fields to store this information in.

When saving into an existing layer, there are two options available to you:

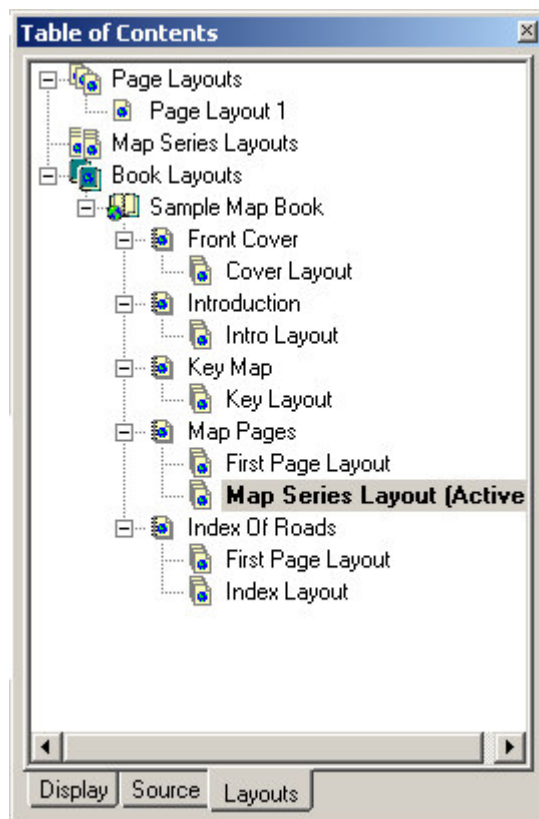
Clear layer – this option clears any existing features from the layer before adding the new polygons.

Start page numbers after highest existing number – If you are appending to existing polygons, you can tell the wizard to start the page numbers after the highest page number that already exists. For example, if there are already eight polygons in your index layer, the first new polygon will be numbered as page 9.

Once you have set all your parameters, click the **Finish** button to create linear index.

Managing Page, Map Series And Book Layouts

As was mentioned previously, the *MapLogic Layout Manager* allows you to store multiple page, map series and book layouts within the ArcMap document. You manage the collection of layouts in the document through the Layouts tab.

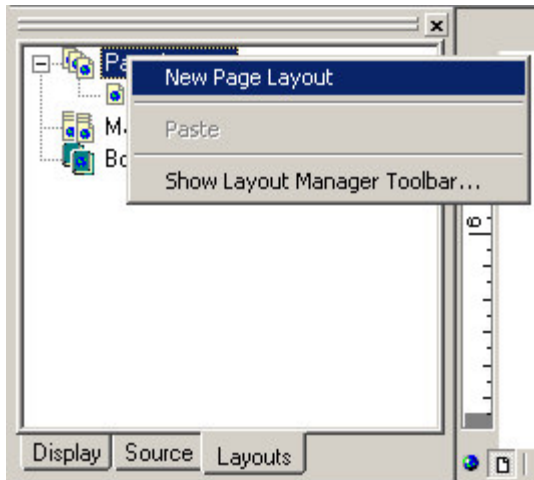


The Layouts tab is a new tab that is added to the ArcMap Table of Contents by the *MapLogic Layout Manager*. If the Layouts tab is not visible after you install the extension, you can make it visible by selecting Tools>Options... in ArcMap's main menu. Go to the TOC tab, make sure Layouts is checked and press the OK button.

You create, copy/paste, edit, delete, rename and rearrange page layouts, maps series layouts and book layouts through the Layouts tab.

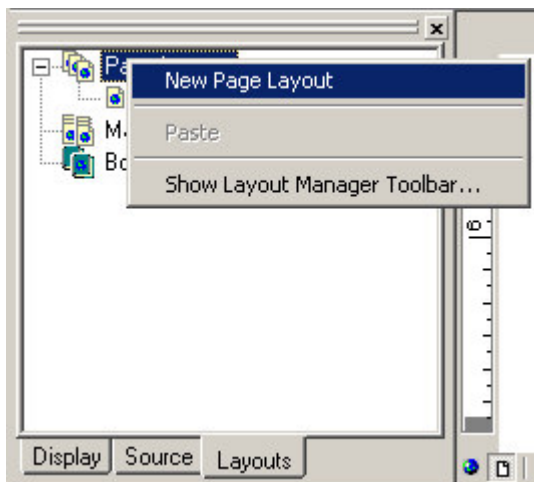
Displaying Popup Menus In The Table Of Contents Layout Tab

Right-clicking on any item in the layouts tab will present you with popup a menu which allows you to manage that item. For a full listing of all the different popup menus, please refer to the section titled **MapLogic Layout Manager User Interface**.



Creating A New Layout

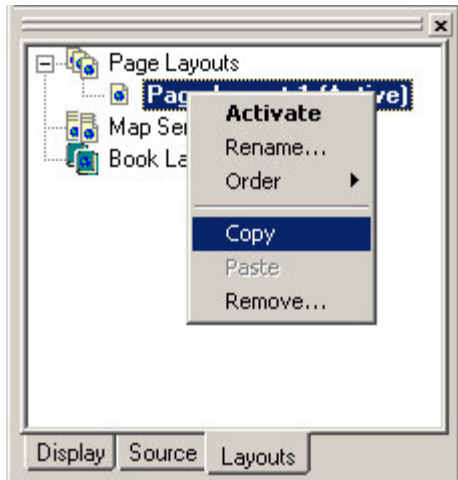
To create a new page layout right-click your mouse on where it says “Page Layouts” and select “New Page Layout” from the menu that pops up.



You can similarly create new maps series, map books, book sections and section templates.

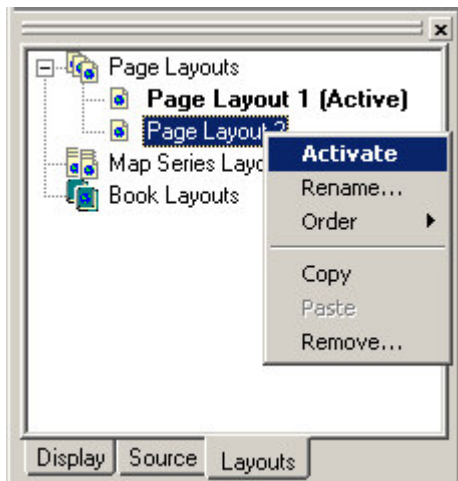
Copying An Existing Layout

If you want to make a copy of an existing layout and modify it, you can Copy/Paste an existing layout. To do this, right-click on the layout you want to copy and select “Copy” from the popup menu. Then right-click again and select “Paste” from the popup menu.



Moving Back And Forth Between Layouts

In order to see the contents of any layout in the ArcMap document you need to activate that layout. In order to activate a layout, all you need to do is double-click on its name in the list or right click on its name and select "Activate" from the pop-up menu. This will move the layout that is currently being displayed to the background and print the new layout to the foreground of your ArcMap session. The active layout is always displayed in bold letters in the table of contents along with the word "(Active)" next to its name.



Renaming Layouts

To rename a page, map series or book layout, right-click on a layout and select "Rename...".

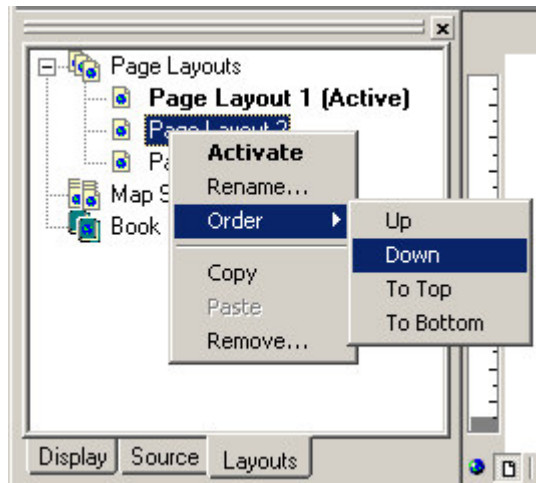
Removing (Deleting) Layouts

If you would like to remove a layout from your ArcMap document, right-click on the layout you would like to delete and select "Remove..." from the popup menu.

You should know that you can't "undelete" a deleted layout. The extension will give you a warning before deleting a layout.

Rearranging Layouts

You can always rearrange the positions of a layout in the list of page layouts by right-clicking on the name of the layout and then going to the “Order” menu.



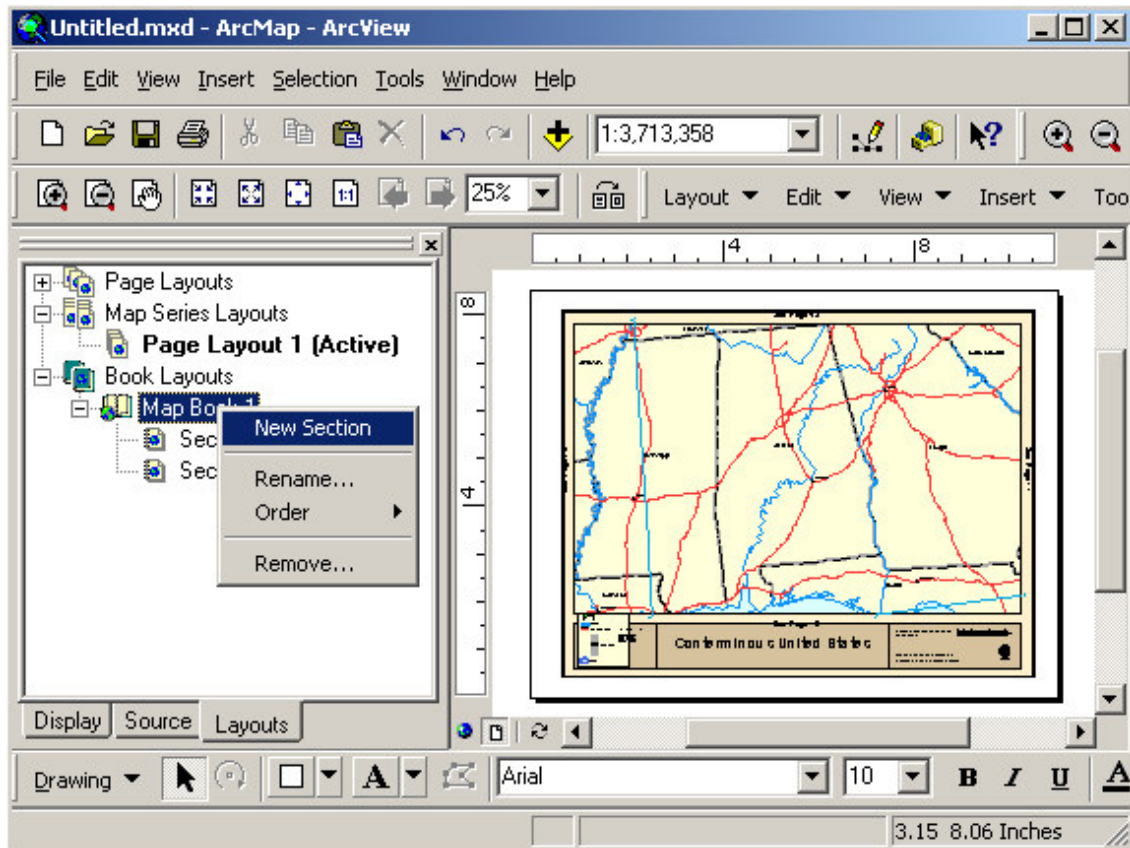
Rearranging is particularly important when dealing with sections in a map book as the order of the sections is the order in which they are printed.

Managing Page and Map Series Layout Properties

The properties of a page or map series layout, including its paper size, the location of different elements on the page, and the properties of those elements are all modified just as you have done in the past in ArcMap.

Managing Map Book Properties

A map book is a collection of sections. You add and remove contents from a map book by adding and removing sections. You do this just as you would with layouts by right-clicking on the name of the book or section in the Layout tab.



A map book does not have any properties other than the sections it contains.

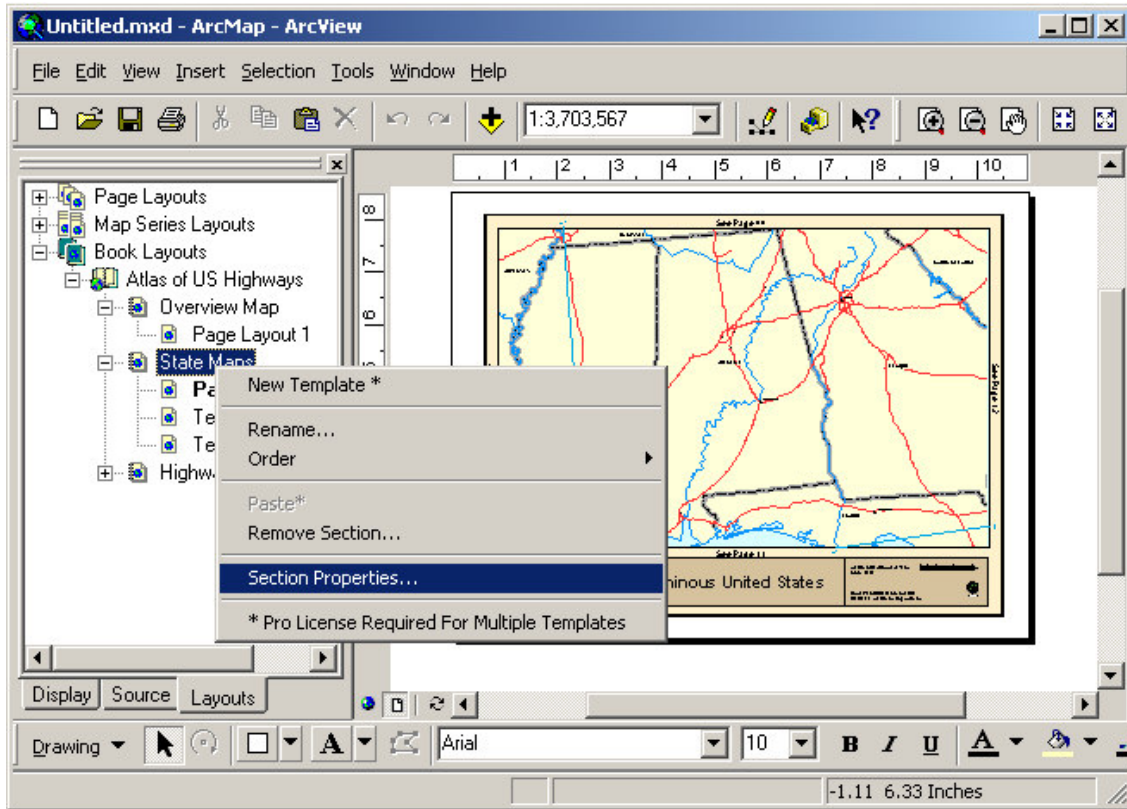
Each section in a map book can have one or more templates (A Pro license is required to add multiple templates to a section). A template is a layout which determines the contents of a section. The reason for having multiple templates in a section is so that you can create different layouts for different pages in the section.

For example, if you are printing a two-sided map book, you may wish to switch the binding margin for odd and even pages. Or you may wish to move the page number so that it is always on the outside edge of the page.

Another example would be a situation where one area of the map is so different from the rest that you would like to create a different layout for it.

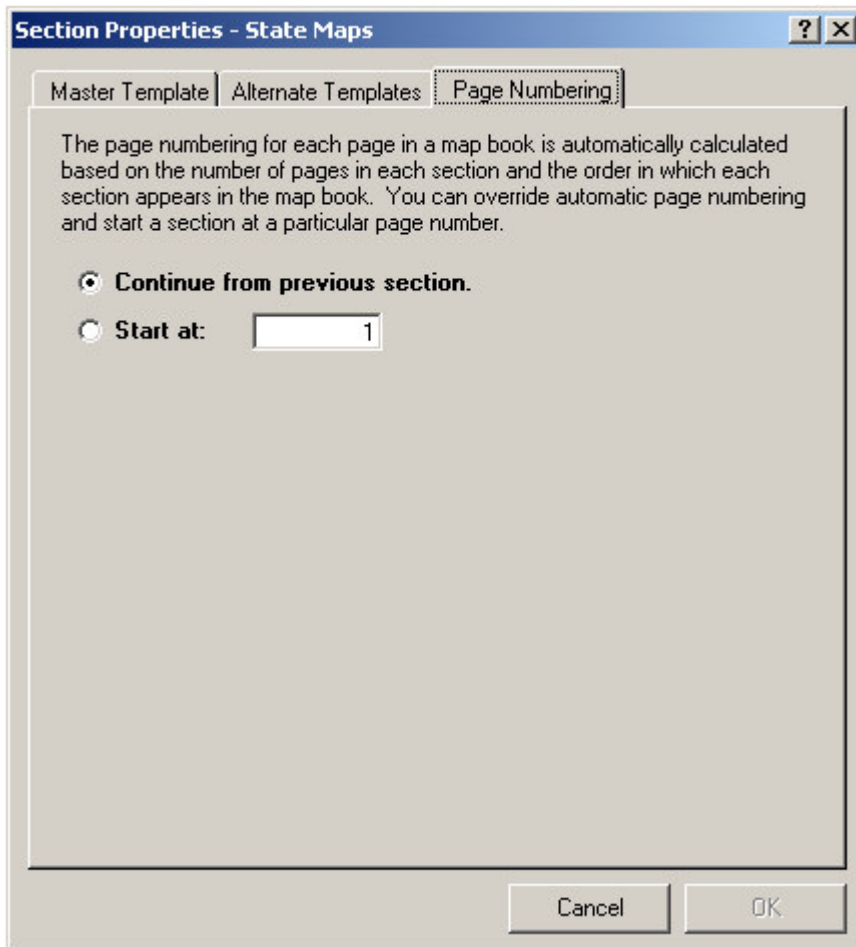
Managing Section Properties

To manage the properties of a section right-click on the section name and select Properties... from the popup menu.



Page Numbering

There are two general types of properties that you can manage for the section. The first is the page numbering for a section.



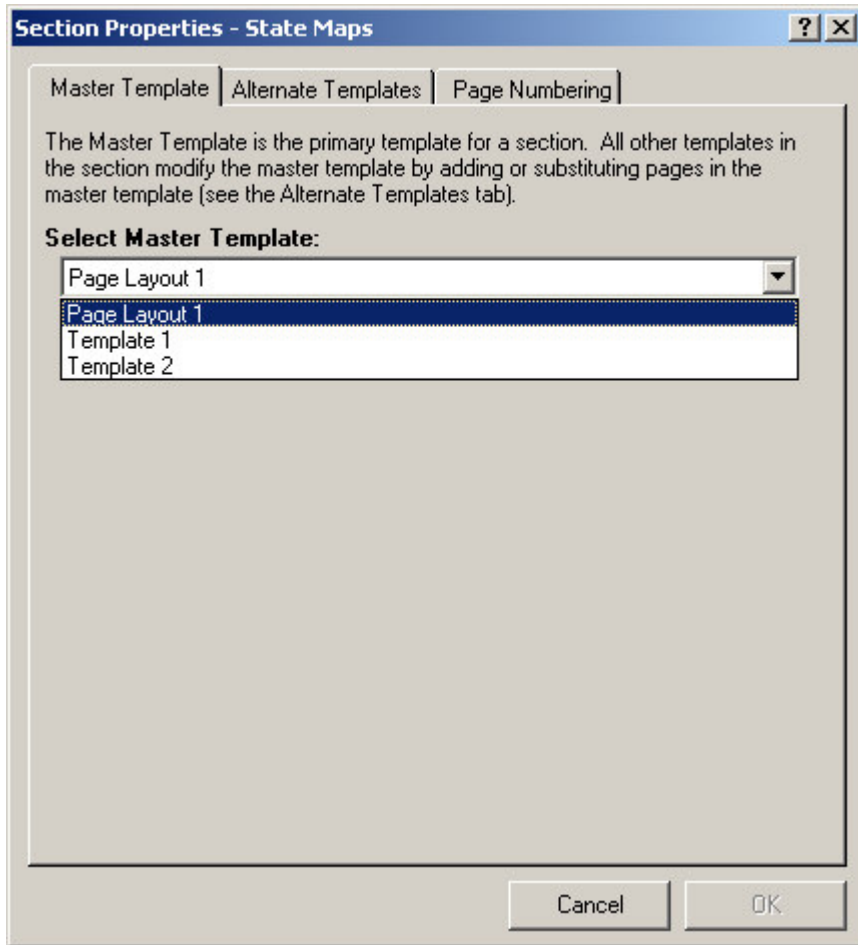
As you can see in the dialog, the normal behavior of a section is for its page numbering to continue from the previous section in the book. The *MapLogic Layout Manager* automatically keeps track of how many pages exist in each section of the book and numbers the pages accordingly.

You can, however, override the default page number and set the starting page number of a section to a particular value. To do this click the **Start at:** option and then enter a new page number.

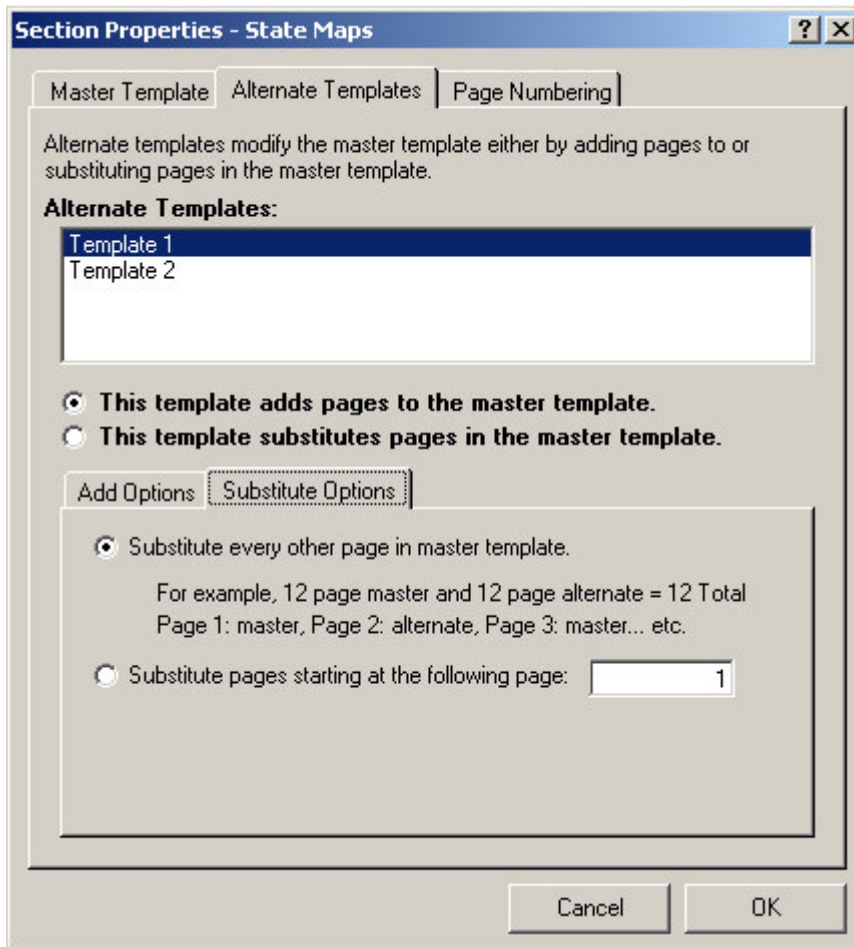
This is useful if you have pages in your map book which you do not want counted. For example, the map book might have a cover page layout which wouldn't normally be counted.

Master And Alternate Templates

If you have a Pro license, a section can have more than one template layout. When there is more than one template in a section, one of them must be selected as the master template.



The master template is the primary template for the section. All other templates modify the master template by adding or substituting pages in the master template.



As you can see in the above dialog, you can select how each alternate template in the section modifies the master template.

For example, suppose you want to create a two-sided map book where the template for the odd and even pages are different. Let's say you want to move the page number so that it's always on the outside edge of the page.

First you would create a template layout for the section. Then copy/paste that layout so you have a duplicate of it. Modify the duplicate template so that the page number is in the appropriate position.

Finally, display the properties of the section and set the second template as an alternate template. Select **This template substitutes pages in the master template** and **Substitute every other page in master template**. The extension will not alternate back and forth between the two templates when displaying and printing the contents of the sections.

If you have only one template in a section the Master Template and Alternate Templates tabs will be grayed out.

Modifying the contents of templates within a section is the same as modifying any other layout in the ArcMap document.

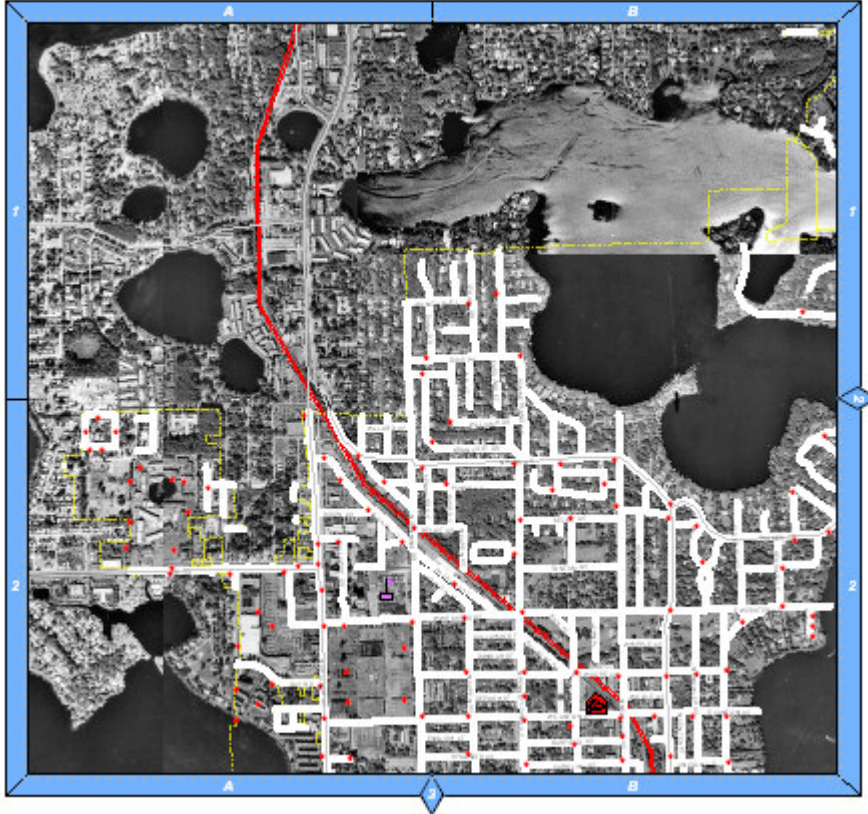
Where To Go From Here?

In this chapter you have learned the basics of managing (creating, deleting, copy/pasting, renaming) page, map series and book layouts in the ArcMap document. However, the *MapLogic Layout Manager* adds a number of new graphic elements that you can add to your layout. These graphic elements are what make creating map series and books possible.

In the next chapters we will discuss the details of each of these new graphic elements.

The Map Series Frame

What Is A Map Series Frame?

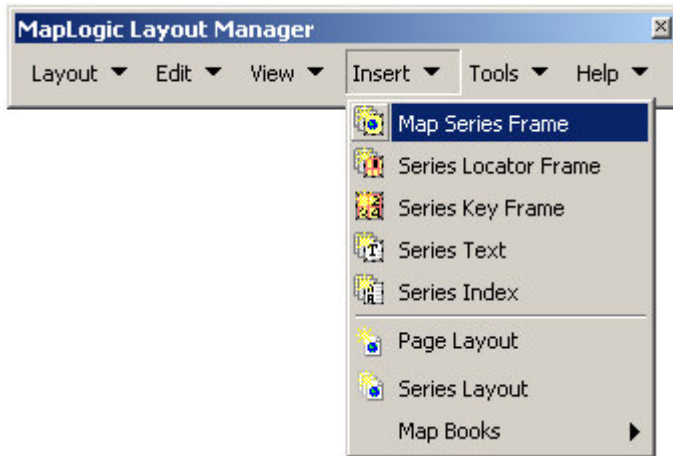


A Map Series Frame is how you display areas of the map in a map series (similar to a data frame). However, unlike a data frame, a map series frame knows how to break the map onto multiple pages using the contents of a special polygon layer called the Index Layer. For example, if your Index Layer is breaking your map into 20 pages, the map series frame will make the layout 20 pages long.

Adding A Map Series Frame To A Layout

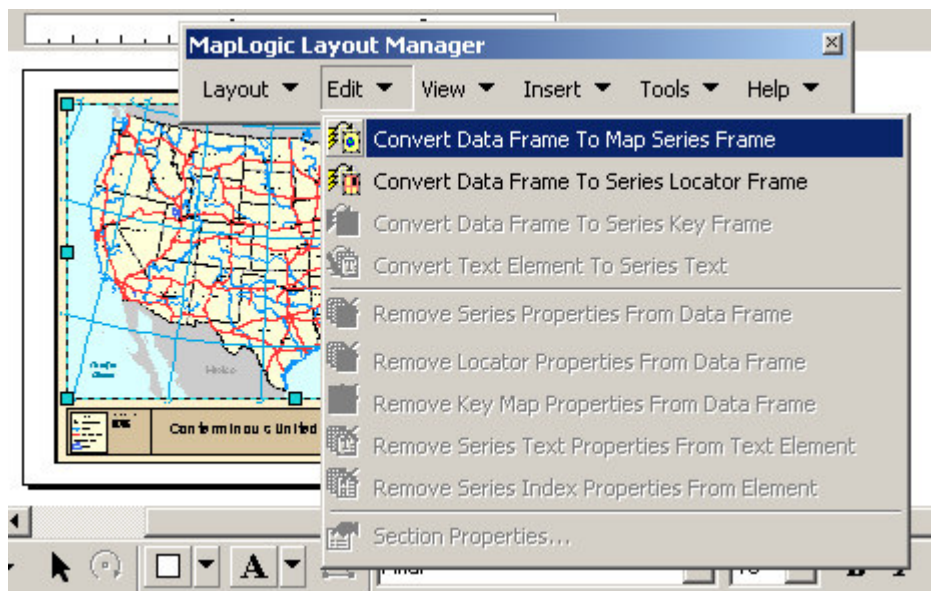
To add a new Map Series Frame to a layout select **Insert\Map Series Frame** from the MapLogic Layout Manager toolbar. You can only add map series frames to active map series and book layouts. If the active layout is a page layout, the tool is grayed out.

You must have a Basic, Advanced or Pro license to add a map series frame to a layout, otherwise the tool is grayed out.



Converting An Existing Data Frame To A Map Series Frame

You can also convert an existing data frame to a map series frame by selecting the data frame and then selecting **Edit>Convert Data Frame To Map Series Frame...** from the MapLogic Layout Manager Toolbar.

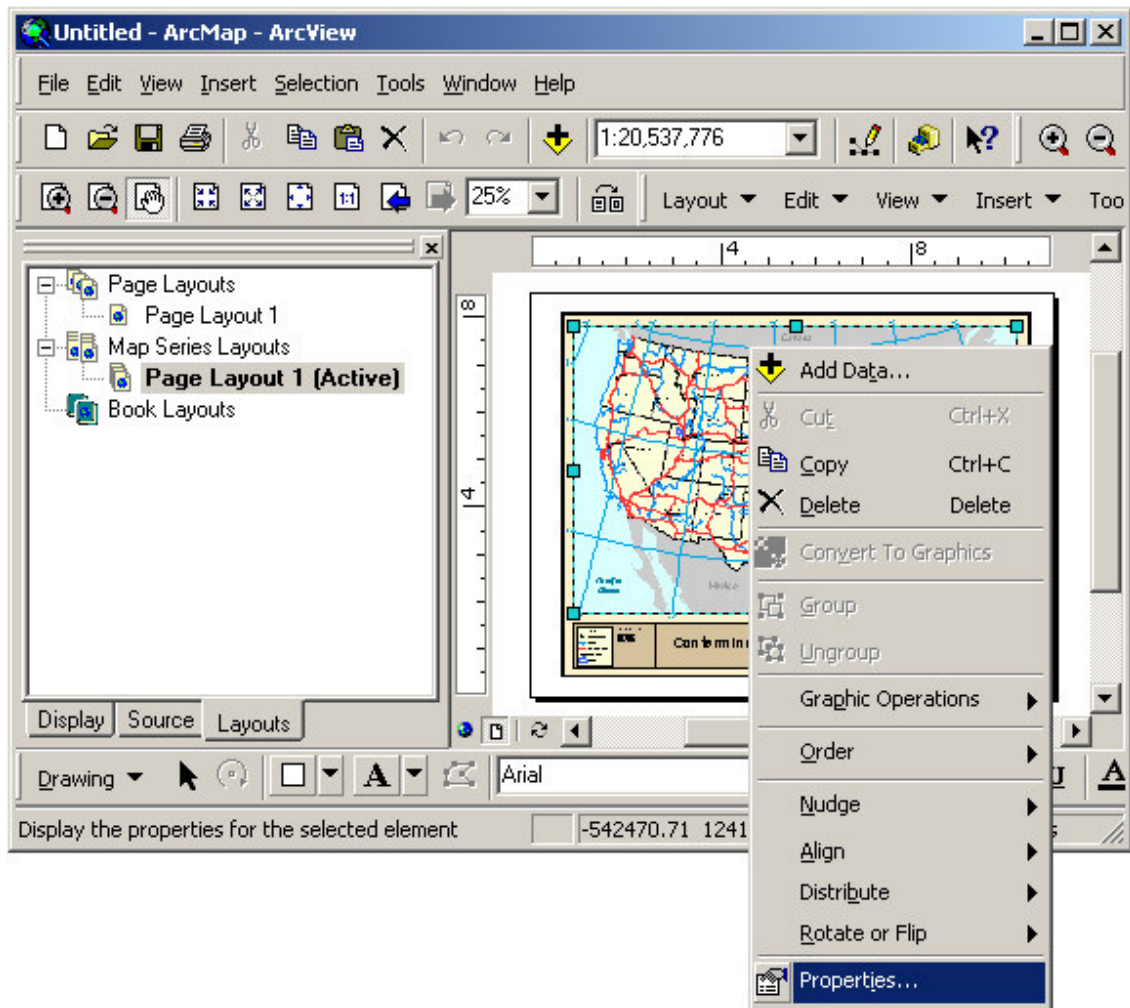


You can only convert a data frame to a map series when the active layout is a map series or book layout. If the active layout is a page layout, the tool is grayed out.

You must have a Basic, Advanced or Pro license to convert a data frame to a map series frame, otherwise the tool is grayed out.

Modifying The Properties Of A Map Series Frame

To modify the properties of a map series frame, select the frame then right-click your mouse and select **Properties...**

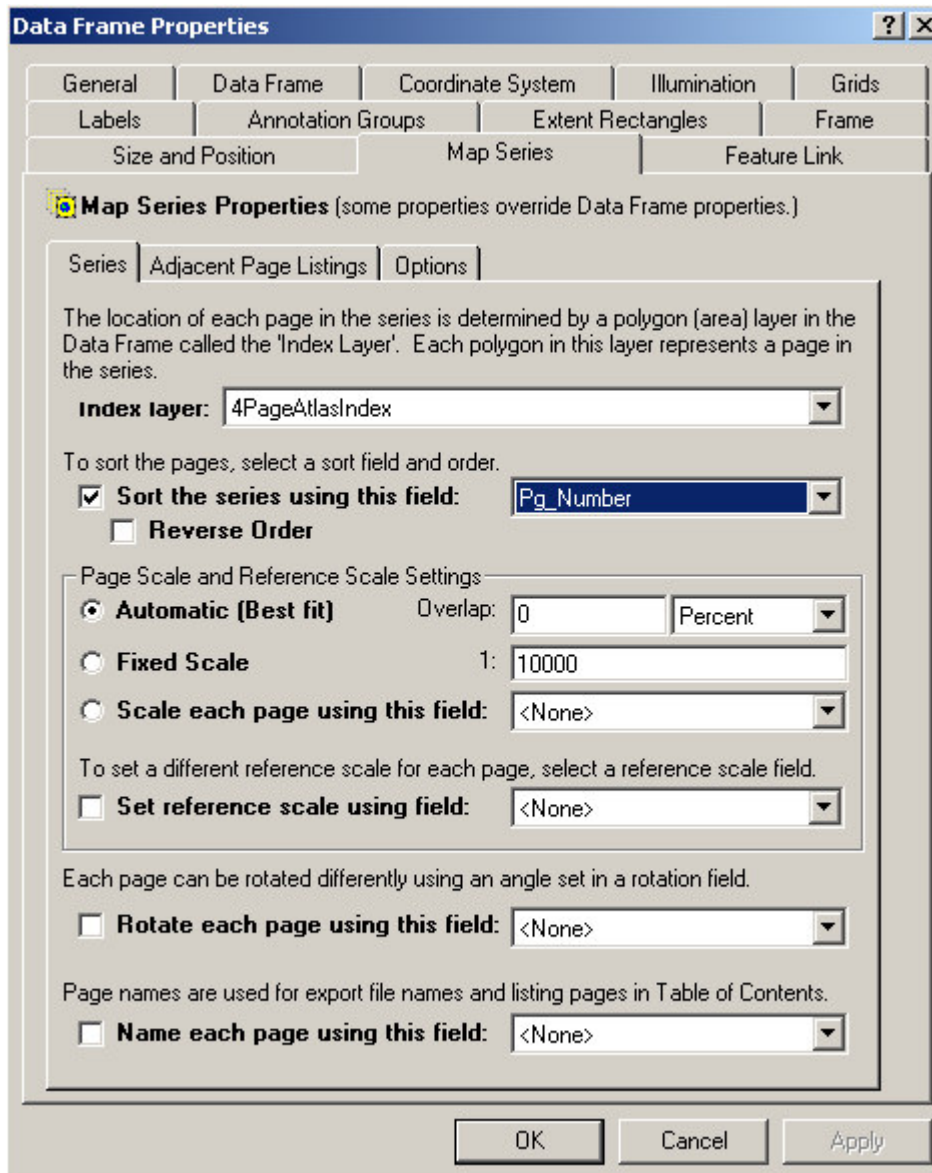


Once the properties dialog for the frame is displayed, click on the Map Series tab to adjust the map series properties.

There are three sub-tabs on the map series tab: series, adjacent page listings and options.

Modifying The Series Properties Of A Map Series Frame

The Series tab displays all the settings which determine how the contents of the map will change as you move from page to page in a map series.



The Index Layer

The Index Layer is a polygon layer in your map that determines the boundaries of each page in the map series. Essentially, each polygon in the layer represents a page in the map series. The extension examines the map and presents you with all the valid polygon layers for you to choose from.

The number of polygons in the index layer determines the number of pages in the series. If the layer has a definition query (see ArcMap Help for more information), then only those polygons that meet the conditions of the query are considered.

The Series Sort Order

Once you have selected the Index Layer, you have the option of sorting the pages in the layer based on the value in one of the fields in the layer's table. To do this check **Sort the series using this field:** and then select the appropriate field name from the list.

If you created your Index Layer using one of the extension's tools, there will be a field named Pg_Number in your table which contains the page order you specified when the layer was created.

The **Reverse Order** option reverses the sort order.

If no sorting option is selected, the order of the page in the series is the order of the features in the layer's table.

The Page Extent/Scale

You can set the extent of each page in the map series in one of three ways.

Automatic – This method zooms the boundaries of the map for each page so that the polygon representing that page “best fits” the frame. If you select this option, you can also set an amount of overlap between the pages.

Fixed Scale – This method sets the scale of the map to a fixed value for all pages in the map series. Each page will be centered on the polygon representing that page. If the polygons in the index layer are of different sizes, the series will ignore the size difference.

Scale Each Page Using Field – This method reads the scale for each page from a numeric field in the index layer's table. This is useful if you have specific scales that you want each page of the map series to be set to.

If you created your index layer using one of the extension's tools, there will be a field named Pg_Scale in your table which contains the scale specified when the layer was created.

The Reference Scale

If you would like each page in the map series to have a particular reference scale, you can do so by selecting a reference scale field. The values from this field in your Index Layer's table will be used to update the reference scale of the map as you move from page to page.

The Page Name

You have the option of assigning a page name to each page in the map series by selecting a page name field. The page name does not appear anywhere on the layout itself, rather it is used to display the names of pages in ArcMap's table of contents as well as on the print and export dialogs. This gives you additional options when selecting pages for display, print or export.

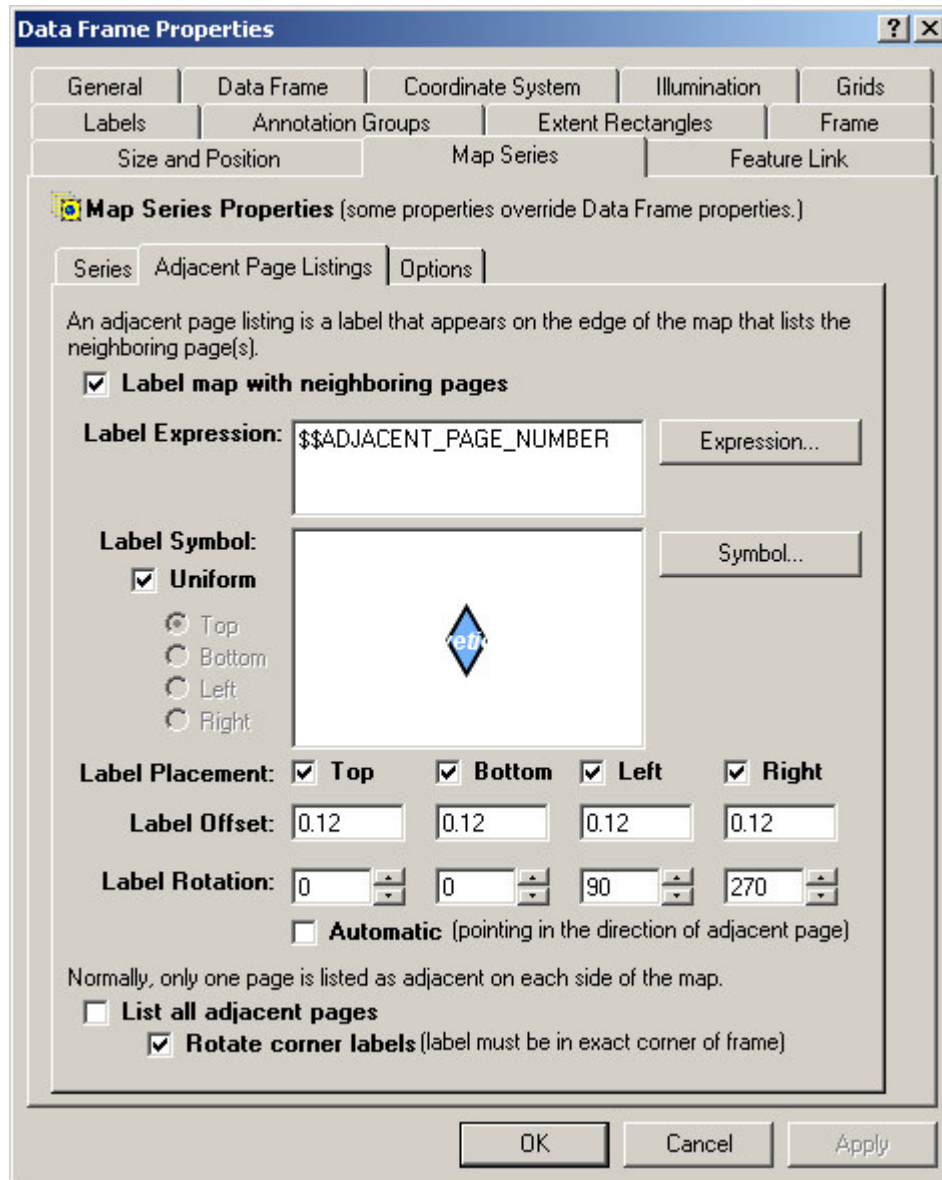
The Page Rotation

If you would like the pages in your map series to have different angles, you can select a numeric field from which the page rotation will be read.

If you created a linear index layer using the extension, there will be a field named Pg_Angle in your table which contains the rotation of each page in your linear index.

Modifying The Adjacent Page Listing Properties Of A Map Series Frame

The Adjacent Page Listings tab displays all the settings which determine the properties of the labels that appear on the edge of the map directing the user to the page where the map is continued on.



If you would like these labels to appear around your map check the **Label map with neighboring pages** option.

The Label Expression

The label expression determines the text for the label. You can modify the expression by clicking the **Expression...** button. For more information about expression syntax please refer

to the **Working With Expressions** section of this manual.

The Label Symbol

To modify the label symbol click on the **Symbol...** button. The ArcMap Symbol Selector dialog will be displayed to allow you to select a font symbol.

You have the option of selecting a uniform symbol for all four sides of the map or selecting a different symbol for each side. Using different symbols for each side of the map allows you to create marker backgrounds to the labels such as arrows.

The Label Offset

The label offset determines how far the label is placed from the edge of the map. The value of this offset is in layout units (inches or centimeters).

The Label Rotation

The label rotation determines the angle of the labels around the map.

If the rotation is set to automatic, the extension will draw a line between the center of the current page and the center of the neighboring page and then align the label with this line. Otherwise, the angles are set according to the numbers that appear in the Top, Bottom, Left and Right input boxes.

The Label Placement (Top, Bottom, Left And Right) Option

The label placement options determine the side of the map on which labels are placed.

If you don't want adjacent page labels to appear on one side of the map (for example, the binding side of the paper), you can turn placement off using the Top, Bottom, Left and Right checkboxes.

The List All Adjacent Pages Option

The default behavior of the adjacent labels is that one label will be added to each side of the map (top, bottom, left and right). If there is more than one neighboring page on one side of the map, the extension will find the page that is best aligned with the middle of that side.

If you check the **list all adjacent pages** option, all adjacent labels will be displayed around the map. The extension draws a line between the center of the current page and the center of the neighboring page to determine the location of the label.

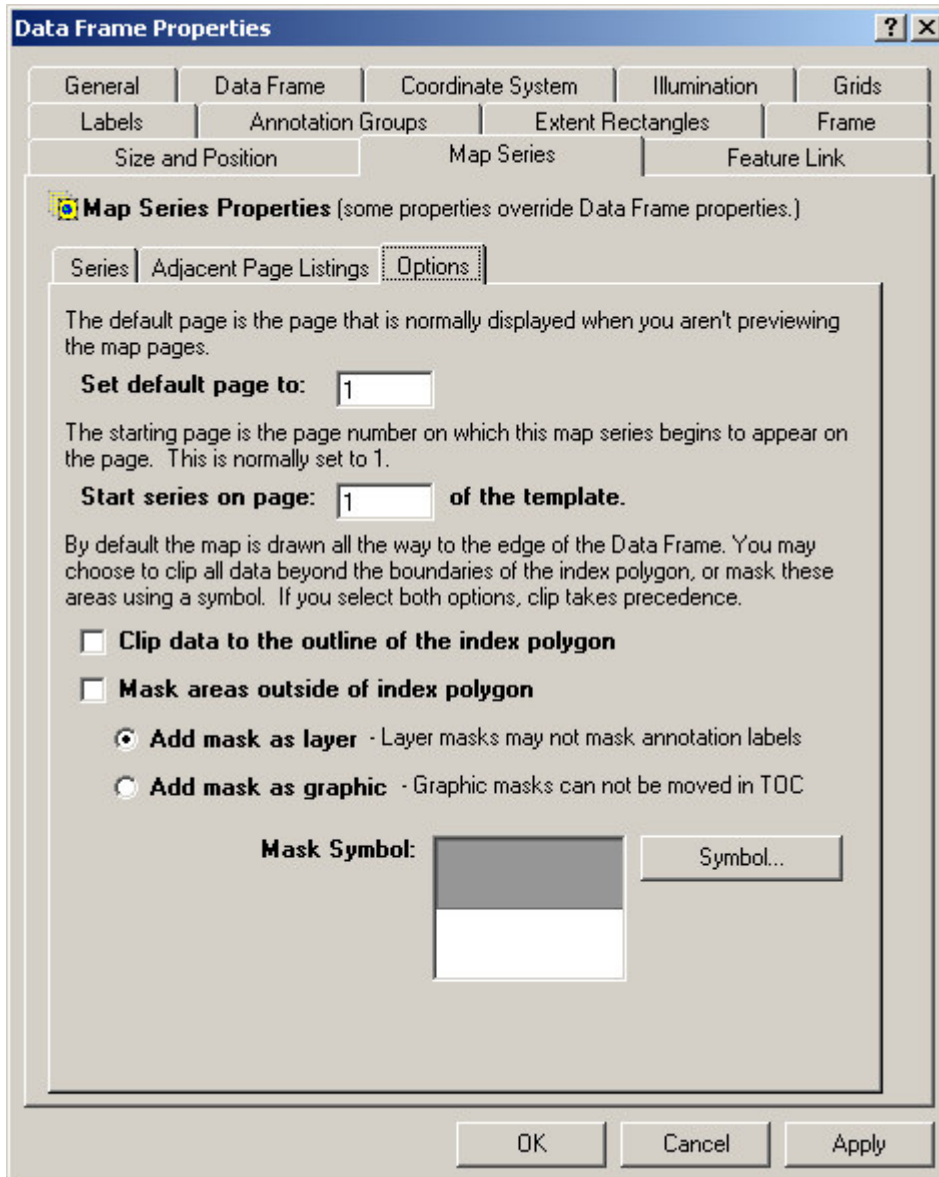
The Rotate Corner Labels Option

If you choose to display all the adjacent page labels, you can choose to rotate the corner labels so they appear at a 45 degree angle.

This option will only work if the labels are at the exact corner of the frame. In order to insure this, your index layer polygons must have the same aspect ratio as the data frame and must be aligned corner-to-corner with each other.

Modifying The Options Of A Map Series Frame

The Options tab displays some options relating to map series frames.



The Default Page

The default page is the page that is normally displayed when you aren't previewing all the pages in a map series. Normally, the first page in a maps series is the default page. However, there are some situations where the first page may not be very representative of what the series is going to look like. For example, it might be in an outlying area with very few features on the map. In such a situation, you may wish to want a different page to be displayed when you are editing your layout.

The Series Starting Page

This option allows you to offset the page on which the map series is displayed on the layout. For example, you may have two map series frames in your layout and you want one of them to start after the first one finishes. By setting a starting page other than 1, the map series will be hidden from the layout until that the series reaches the starting page.

Clip Data To The Outline Of The Index Polygon

By default, when the map zooms to a page in the series, any overlapping areas around the index polygon are displayed on the map. However, there are situations where you may wish not to show the overlapping areas. For example, if you are doing a map book of US states, you may wish to clip the displayed map to the boundary of each state. By checking this option, the pages of the map series will be clipped to the boundary of each page's index polygon.

Once you have modified all of the map series properties, click the OK or Apply button to save your changes.

Mask Areas Outside Of The Index Polygon

This option is similar to the clip option except that areas outside of the index polygon are masked using a symbol rather than clipped.

Mask Symbol

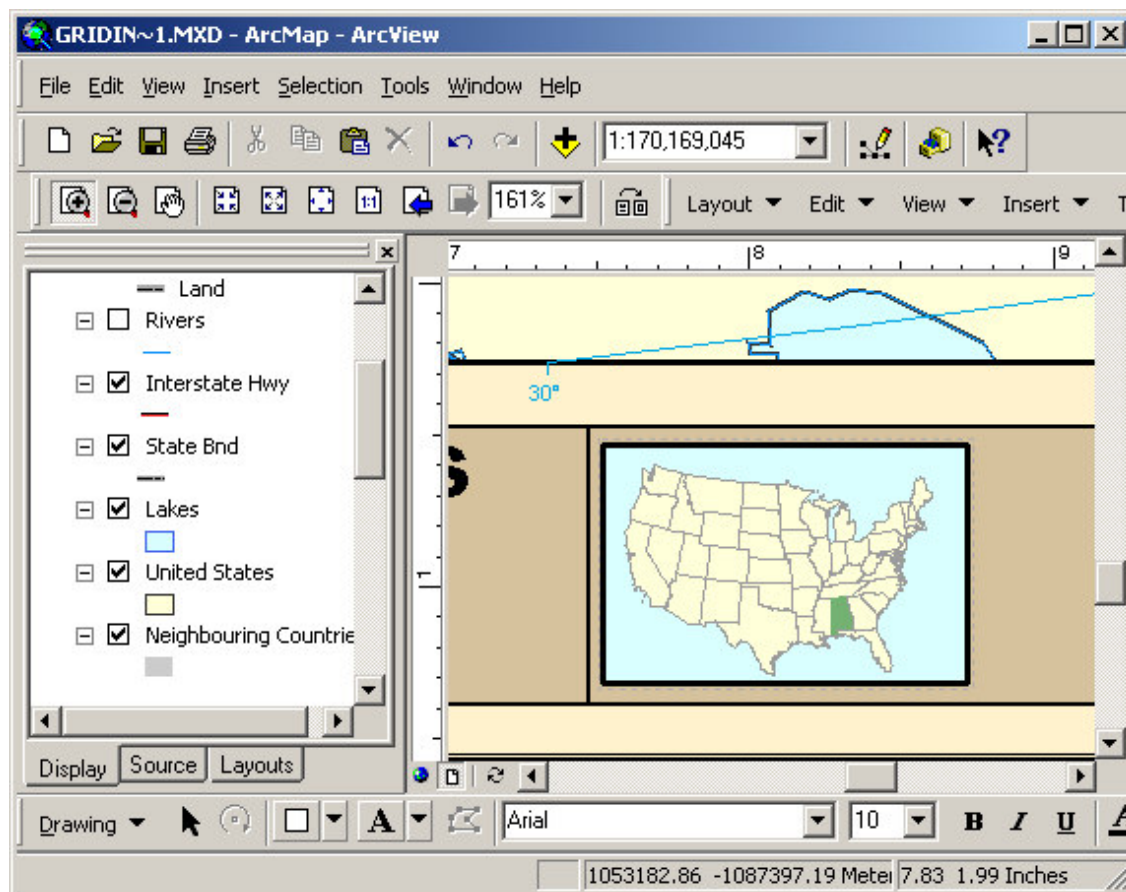
You can choose any fill symbol as a mask. To modify the label symbol click on the **Symbol...** button. The ArcMap Symbol Selector dialog will be displayed to allow you to select a font symbol.

Mask Layer Vs. Mask Graphic

If you choose to mask areas outside of the index polygon, you have the option of placing the mask as a layer or a graphic. If you choose layer masking, a layer is added to the ArcMap table of contents. This allows you to modify the position of the mask layer and, therefore, modify which layers are masked. However, a mask layer may not mask annotation labels.

The Series Locator Frame

What Is A Series Locator Frame?

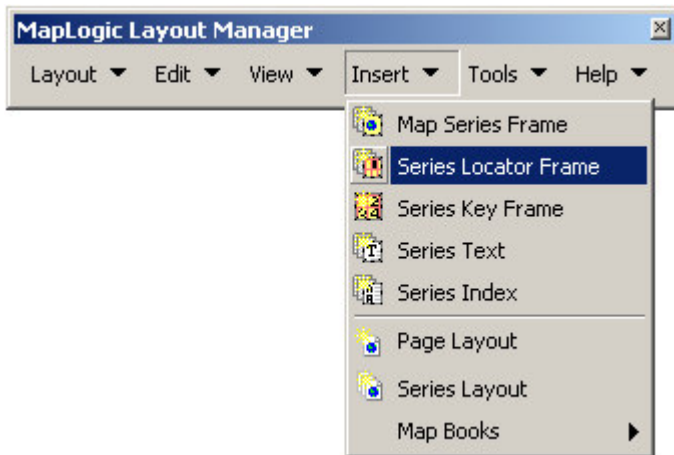


A Series Locator Frame shows you which part of the overall map is being displayed on the current page. For example, if you create a map book of U.S. States, you might want a small map of the entire United States on each page highlighting the location of the state that is currently being displayed. A series locator frame is designed for this purpose.

Adding A Series Locator Frame To A Layout

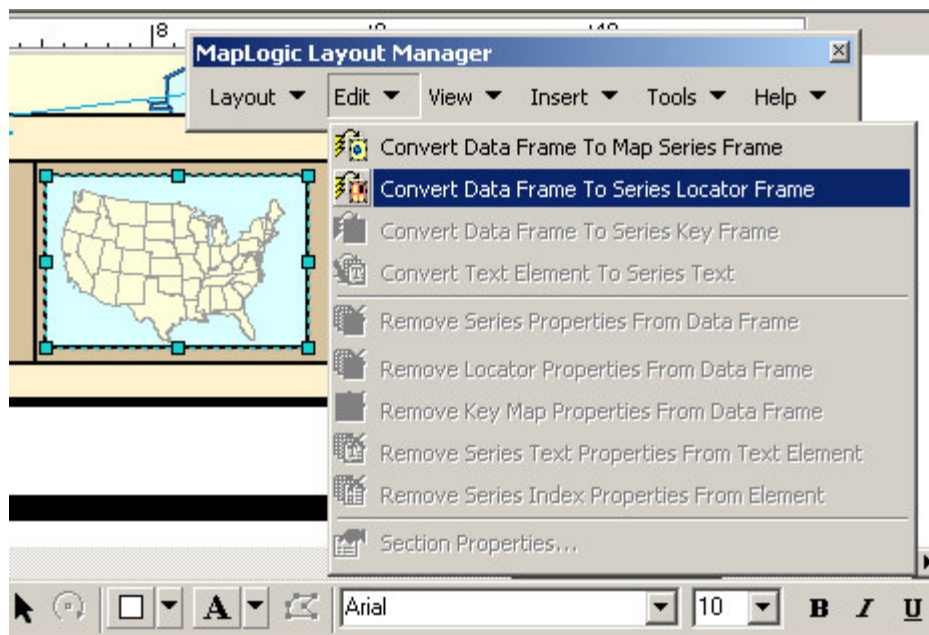
To add a new series locator frame to a layout, select **Insert\Series Locator Frame** from the MapLogic Layout Manager toolbar. You can only add series locator frames to active map series and book layouts. If the active layout is a page layout, the tool is grayed out.

You must have a Basic, Advanced or Pro license to add a series locator frame to a layout, otherwise the tool is grayed out.



Converting An Existing Data Frame To A Series Locator Frame

You can also convert an existing data frame to a series locator frame by selecting the data frame and then selecting **Edit\Convert Data Frame To Series Locator Frame...** from the MapLogic Layout Manager toolbar.

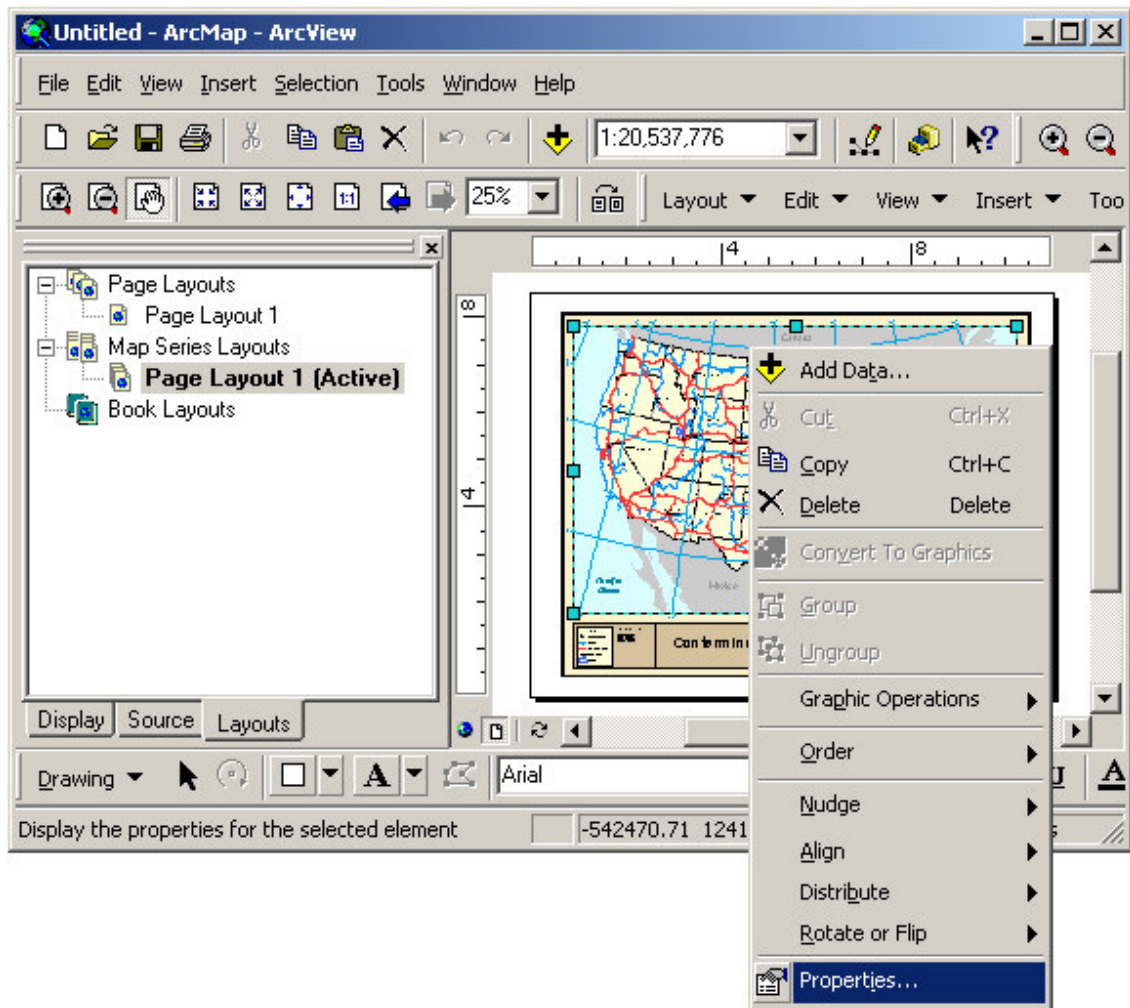


You can only convert a data frame to a series locator frame when the active layout is a map series or book layout. If the active layout is a page layout, the tool is grayed out.

You must have a Basic, Advanced or Pro license to convert a data frame to a series locator frame, otherwise the tool is grayed out.

Modifying The Properties Of A Series Locator Frame

To modify the properties of a series locator frame, select the frame then right-click your mouse and select **Properties...**

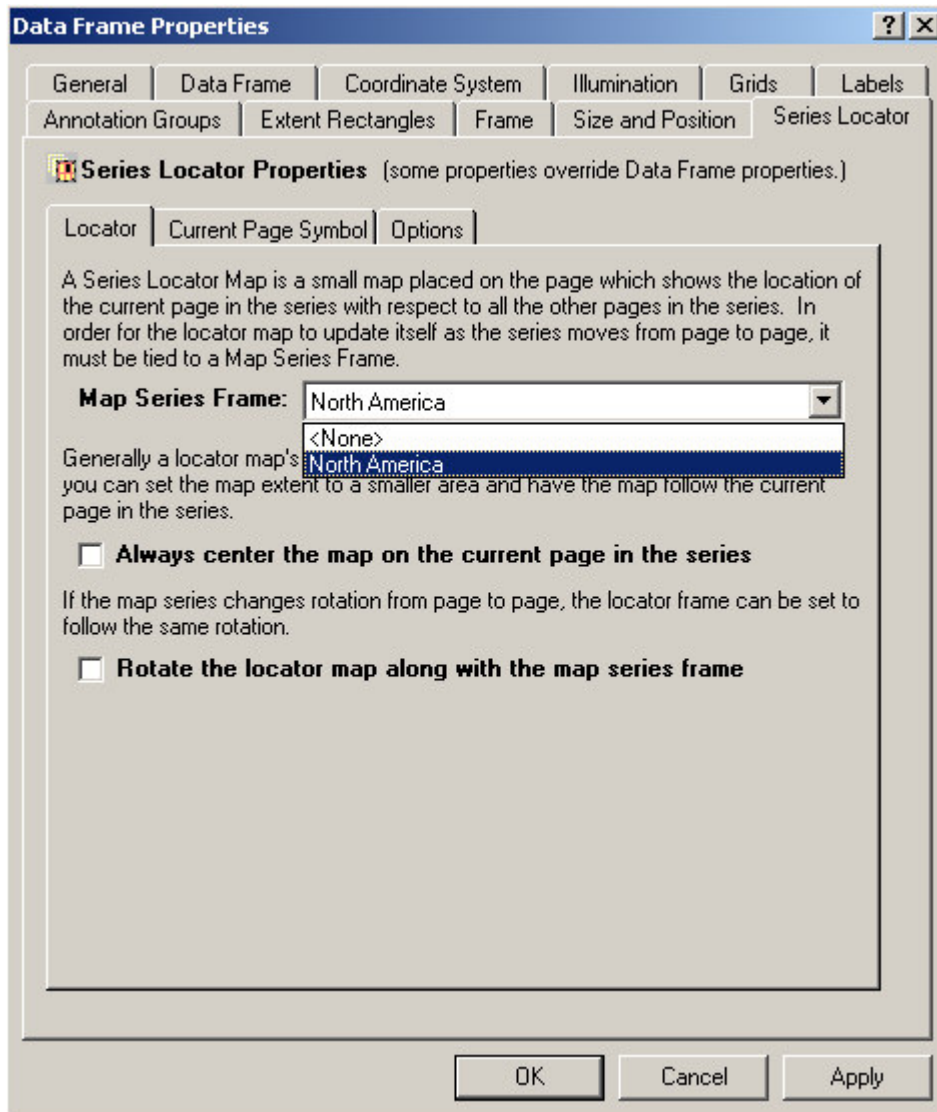


Once the properties dialog for the frame is displayed, click on the Series Locator tab to adjust the map series properties.

There are three sub-tabs on the series locator tab: locator, current page symbol and options.

Modifying The Locator Properties Of A Series Locator Frame

The Locator tab displays all the settings which determine how the contents of the map will change as you move from page to page in a map series.



The Map Series Frame

The basic step in setting the properties of a locator map is telling it what map series frame it relates to. By linking the locator map to the map series frame, it will know how to update itself as the map series moves from page to page.

The extension examines the layout and displays a list of map series frame for you to choose from.

Always Center Locator Map

This option pans the locator map as you move from page to page so that the current page is always in the center of the map. This is useful if the extent of the locator map is not zoomed out far enough to show all the pages in a series.

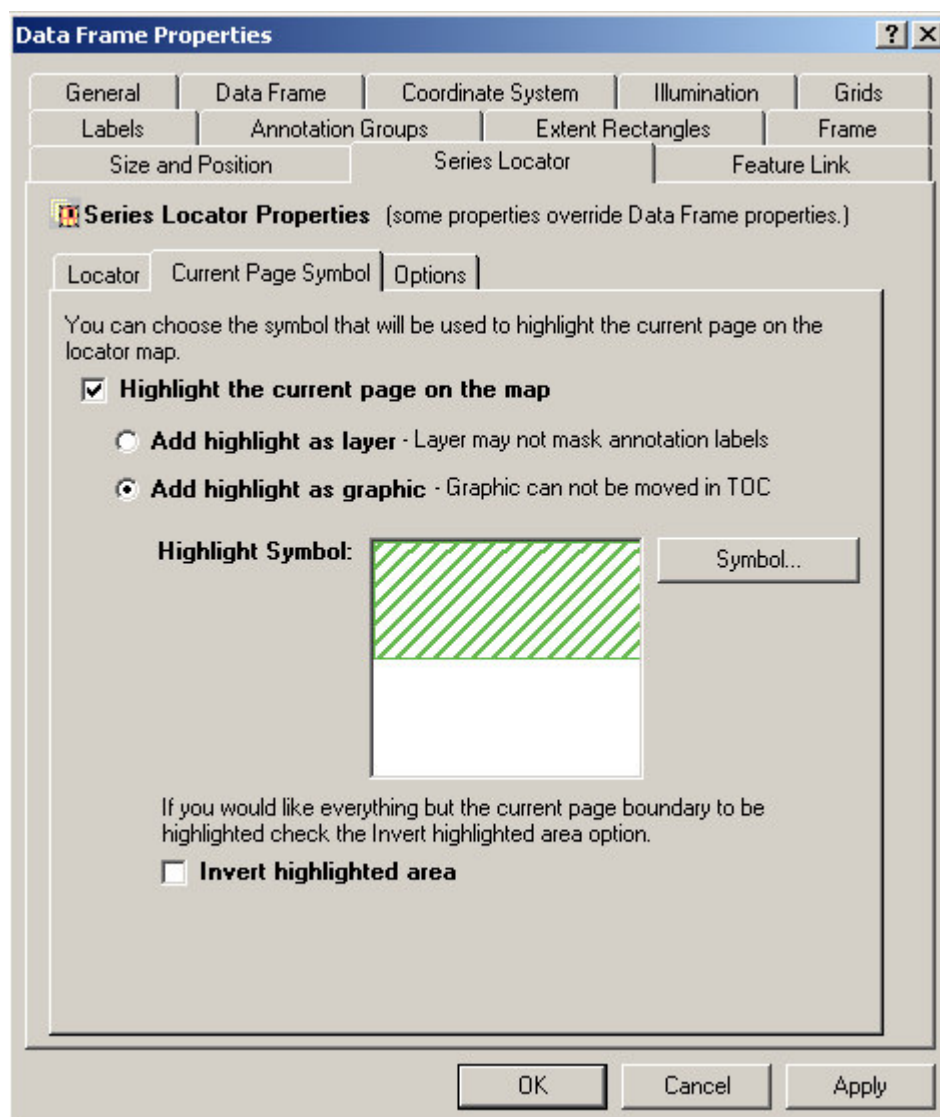
Rotate Locator Map Along With Map Series

If you have setup your map series so the rotation of the map changes as you move from page to page, selecting this option will make the locator map to copy that rotation.

This is a good way to orient the user as to what is the direction of the page in a map series.

Modifying The Current Page Symbol Properties Of A Series Locator Frame

The Current Page Symbol tab displays the settings which determine how the current page will be highlighted as you move from page to page in a series.



Highlight The Current Page

This option tells the extension that it should highlight the current page in a map series. This is the normal behavior of a locator map. If you don't select this option, the map will pan over to the center of the current page, but nothing will be highlighted.

Current Page Symbol

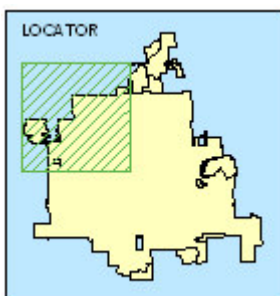
The symbol property is the fill color and pattern you would like the current page of a map series to be highlighted with. The default symbol is your ArcMap selection symbol. Click the **Symbol...** button to change the current page symbol.

Highlight Layer Vs. Highlight Graphic

You have the option of placing the highlight as a layer or a graphic. If you choose to highlight using a layer, a layer is added to the ArcMap table of contents. This allows you to modify the position of the highlight layer and, therefore, modify which layers are covered by it. However, a highlight layer may not cover annotation labels.

Invert Highlighted Area

This option allows you to invert the area that is highlight for visual effect. So instead of:

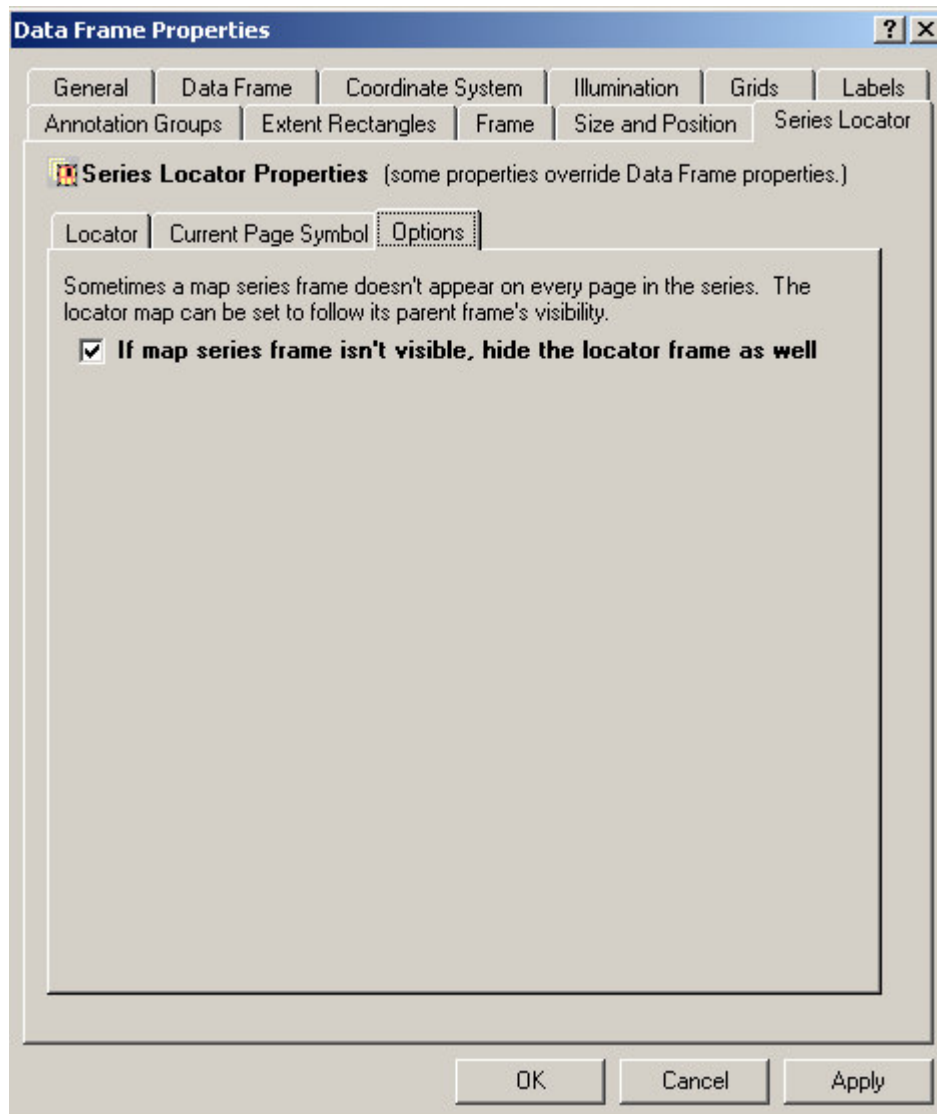


You will get:



Modifying The Options Of A Series Locator Frame

There is only one option on a Series Locator Frame.



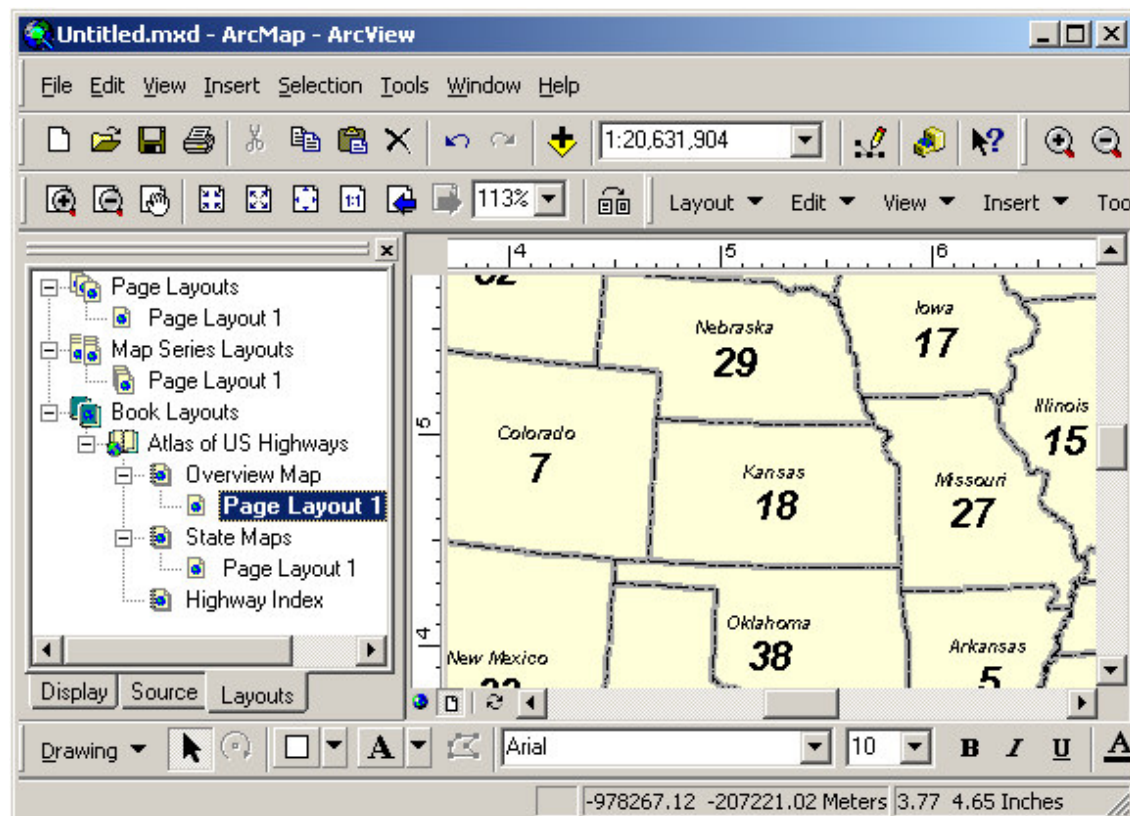
If Map Series Frame Isn't Visible, Hide Locator Frame As Well

Depending on how you have setup your map series frame, there are certain situations where the map series is not visible on the page. By selecting this option, the locator map will follow its parent map series visibility.

Once you are finished modifying the series locator frame's properties, click OK or Apply to save your settings.

The Series Key Frame

What Is A Series Key Frame?

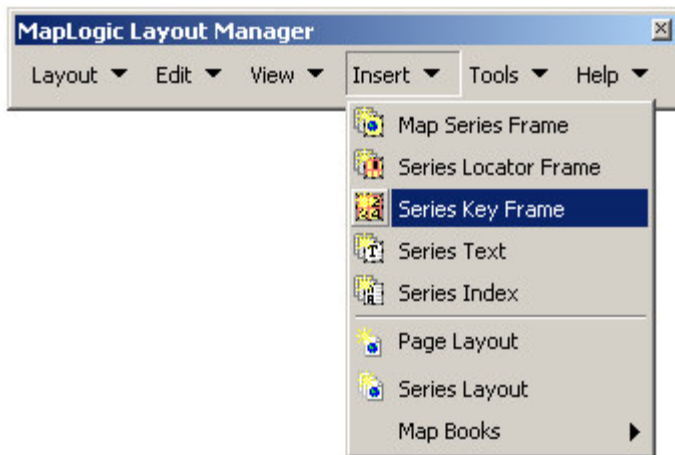


A Series Key Frame is used to create key maps. A key map is an overall map of the area in the map book showing what page the details maps for each area of the map can be found. For example, you might want a map of the entire United States at the beginning of your map book showing the page number where each state can be found. A series key frame was designed for this purpose.

Adding A Series Key Frame To A Layout

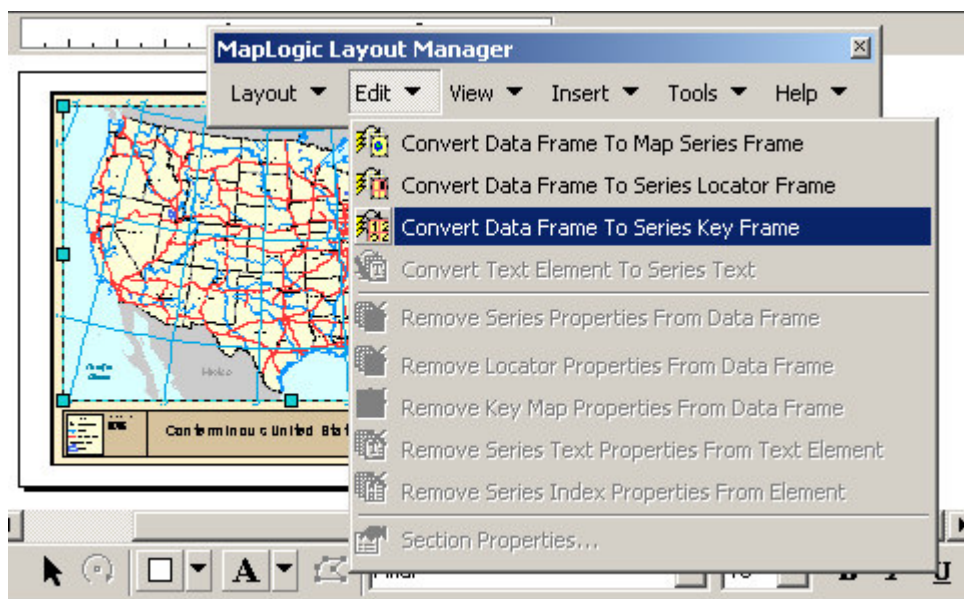
To add a new series key frame to a layout select **Insert\Series Key Frame** from the MapLogic Layout Manager toolbar. You can only add series key frames to active book layouts. If the active layout is a page layout or map series layout, the tool is grayed out.

You must have an Advanced or Pro license to add a series key frame to a layout, otherwise the tool is grayed out.



Converting An Existing Data Frame To A Series Key Frame

You can also convert an existing data frame to a series key frame by selecting the data frame and then selecting **Edit\Convert Data Frame To Series Key Frame...** from the MapLogic Layout Manager toolbar.

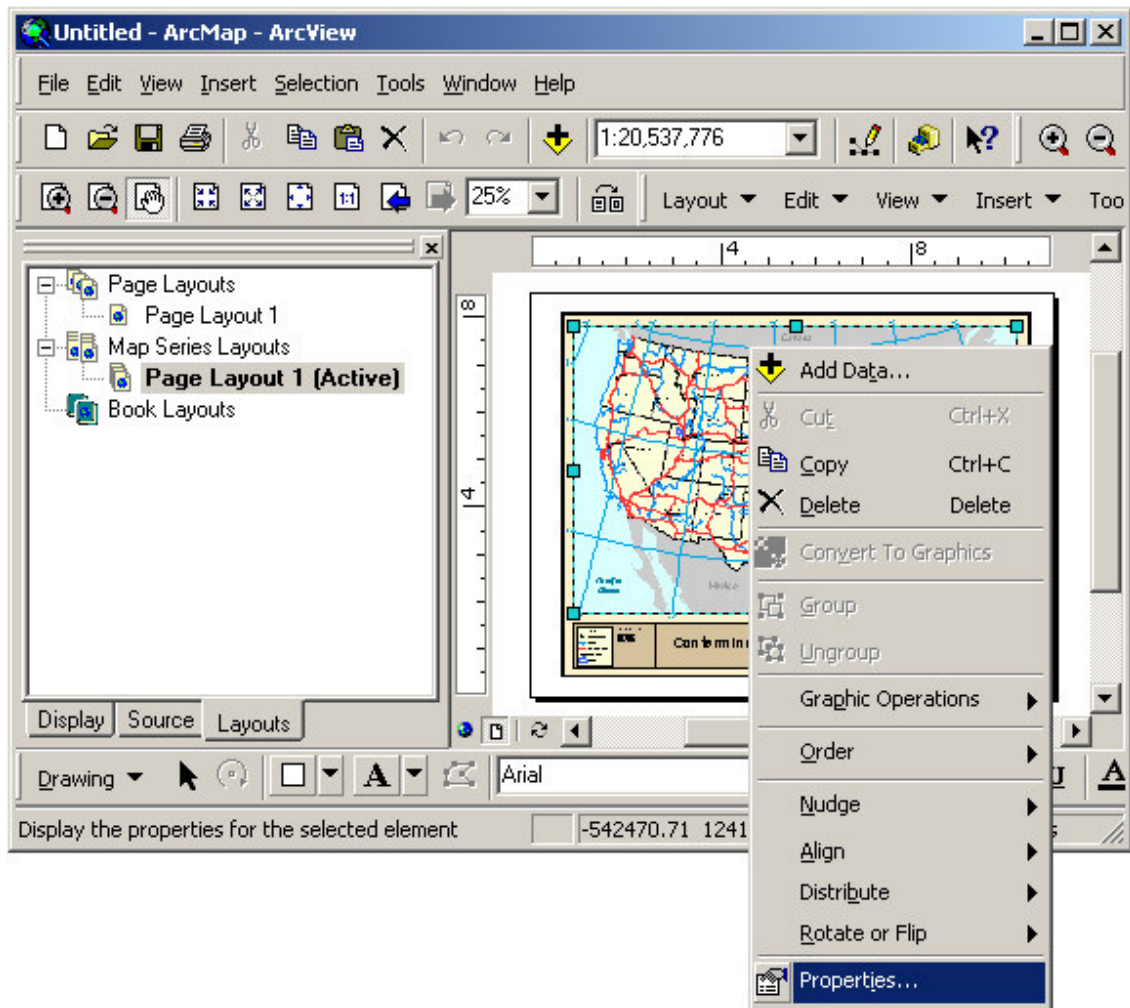


You can only convert a data frame to a series key frame when the active layout is a book layout. If the active layout is a page layout or map series layout, the tool is grayed out.

You must have an Advanced or Pro license to convert a data frame to a series key frame, otherwise the tool is grayed out.

Modifying The Properties Of A Series Key Frame

To modify the properties of a series key frame, select the frame then right-click your mouse and select **Properties...**

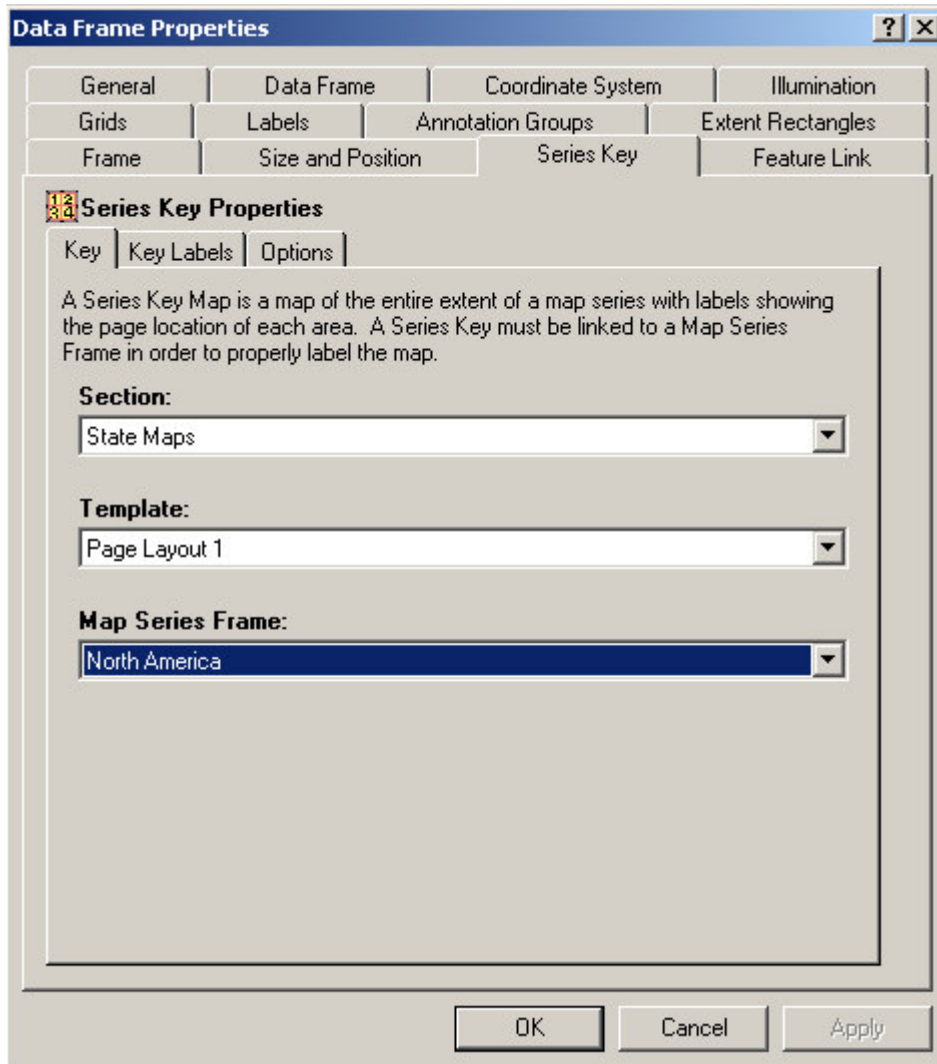


Once the properties dialog for the frame is displayed, click on the Series Key tab to adjust the map series properties.

There are three sub-tabs on the series locator tab: locator, key labels and options.

Modifying The Key Properties Of A Series Key Frame

The Key tab displays all the settings which determine where the key map will get the information of the map series it relates to.

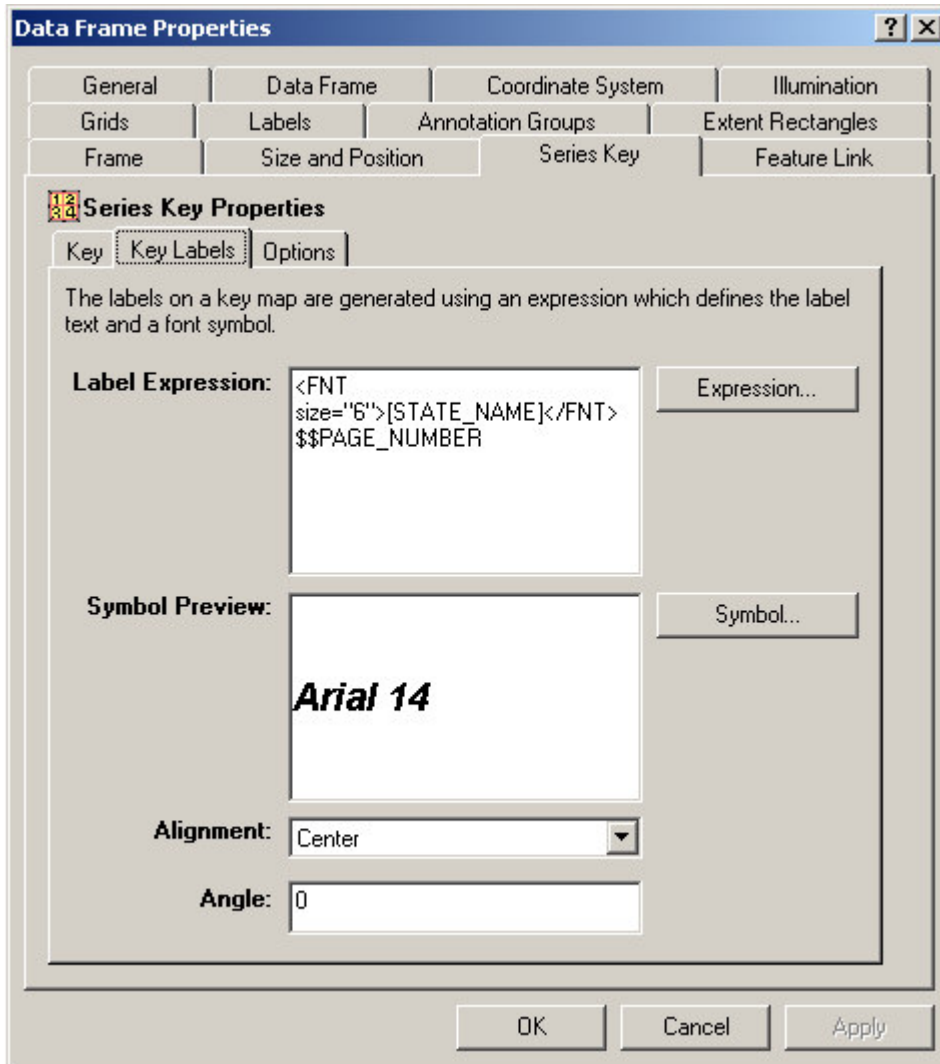


In order for a key map to display the location of each page in a map series, it must be linked to the map series that it will get the information from. A key map usually appears at the beginning or end of a map book, detailing where the user can find the detailed map for an area. It is usually placed in the layout of a section other than the map series itself.

Therefore, to link the key map to its parent map series, you must select the section, template and map series frame.

Modifying The Key Labels Properties Of A Series Key Frame

The Key Labels tab displays all the settings which determine the properties of the labels that appear on the map directing the user to the appropriate page in the map book containing the detailed map for a page.



The Label Expression

The label expression determines the text for the label. You can modify the expression by clicking the **Expression...** button. For more information about expression syntax, please refer to the **Working With Expressions** section of this manual.

The Label Symbol

To modify the label symbol click on the **Symbol...** button. The ArcMap Symbol Selector dialog will be displayed to allow you to select a font symbol.

The Label Alignment

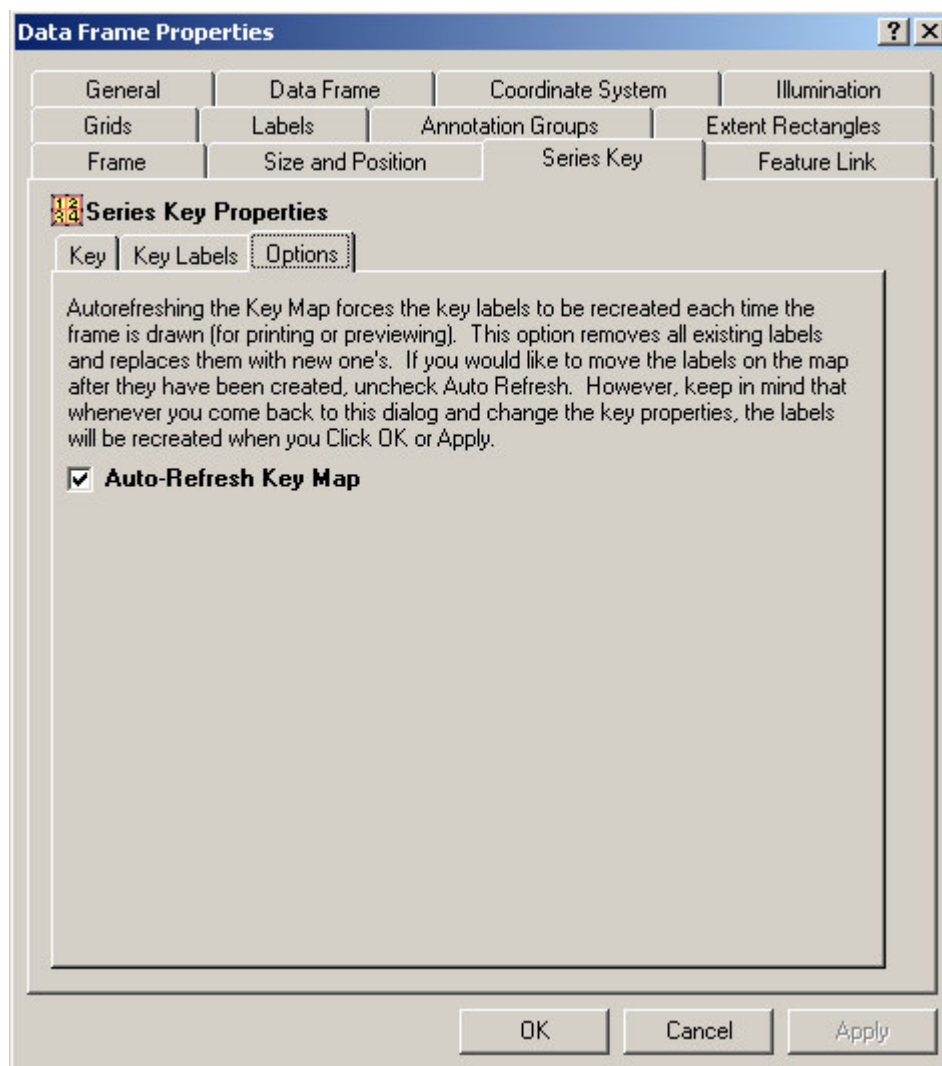
If your label has more than one line, you may want to set the alignment of the lines in the label.

The Label Angle

You may also set an angle for the labels, if you want them to have a rotation other than horizontal.

Modifying The Options Of A Series Key Frame

There is only one option on a Series Key Frame.



By default, the series key frame refreshes all the labels on the map every time the map is previewed or printed. This insures that the page numbers in the key map are accurate as you modify the contents of the map book.

If you do not like the default placement of the labels on the map, you may want to manually move the location of the labels. By turning Auto-Refresh off, you insure that the extension will not override your label placement.

However, keep in mind that whenever you go back to the properties dialog of the key frame and change the key map's properties, the labels will be recreated when you hit Apply or OK.

Once you are finished modifying the series key frame's properties, click OK or Apply to save your settings.

The Series Text Element

What Is A Series Text Element?

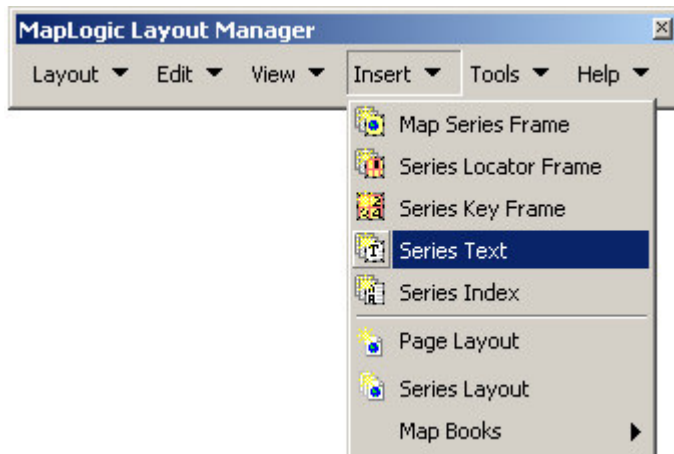
Northeast Quadrant Seminole County, Florida

A Series Text Element is used to create dynamic text on the pages of a map book. For example, if each page of a map book is showing a unique Section, Township and Range, you may want to create a text box that shows what the Section, Township and Range values are on each page of the map book. If you have this information in your index layer, you can use the Series Text Element to create a text box that dynamically lists this information from page to page.

Adding A Series Text Element To A Layout

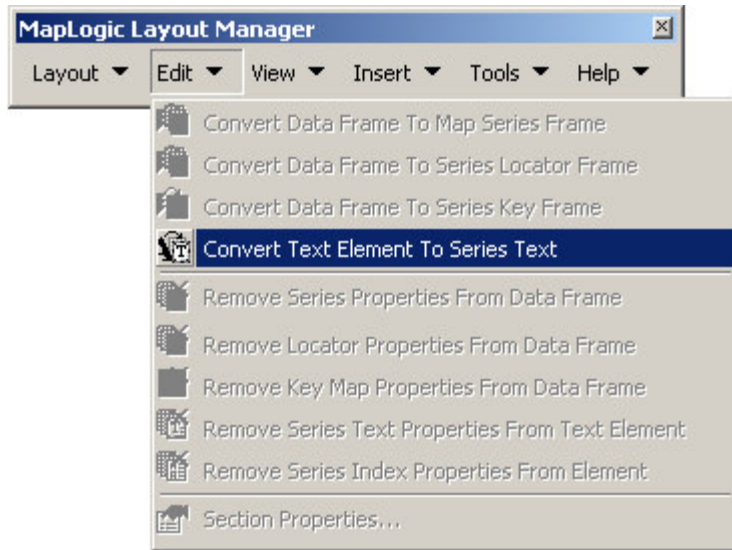
To add a new series text element to a layout select **Insert\Series Text** from the MapLogic Layout Manager toolbar. You can only add series text elements to active map series and book layouts. If the active layout is a page layout, the tool is grayed out.

You must have a Basic, Advanced or Pro license to add a series text element to a layout, otherwise the tool is grayed out.



Converting An Existing Text Label To A Series Text Element

You can also convert an existing text label to a series text by selecting the text element and then selecting **Edit\Convert Text Element To Series Text...** from the MapLogic Layout Manager toolbar.

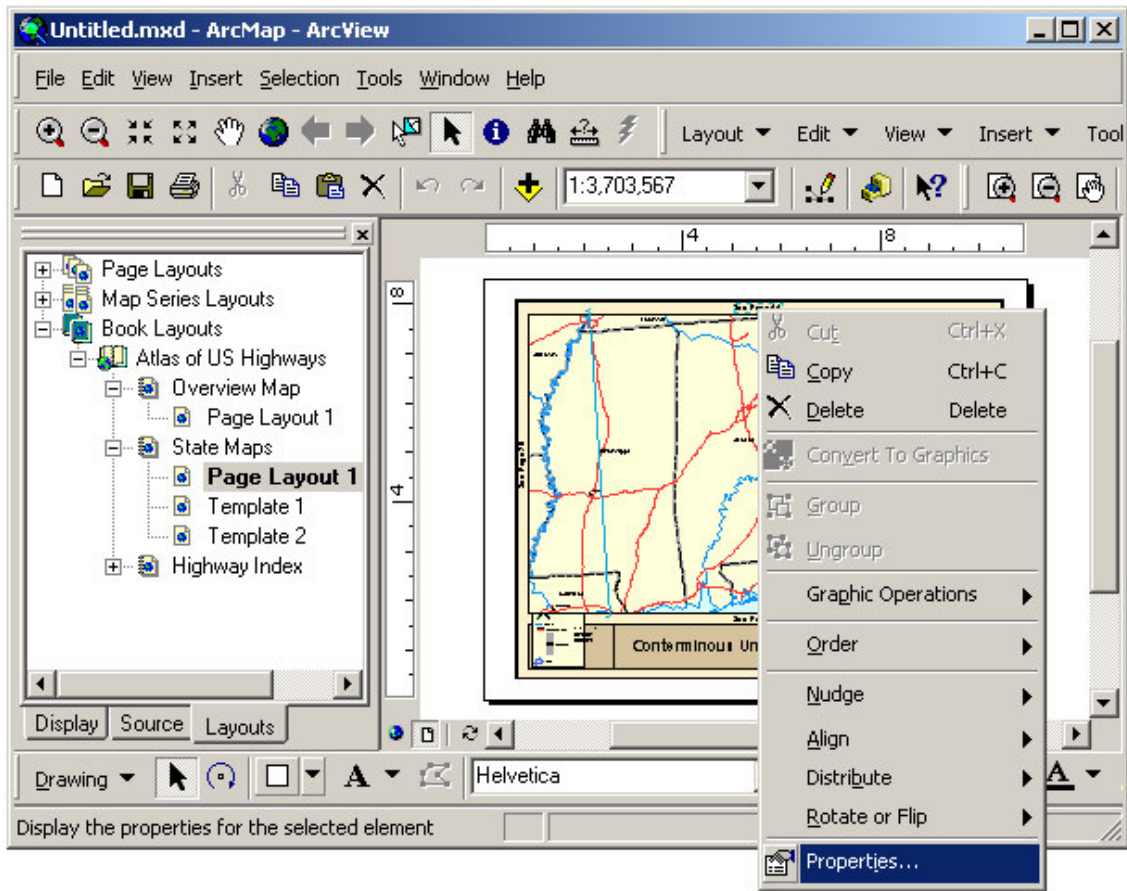


You can only convert a text element to series text when the active layout is a map series or book layout. If the active layout is a page layout, the tool is grayed out.

You must have a Basic, Advanced or Pro license to convert a data frame to a series key frame, otherwise the tool is grayed out.

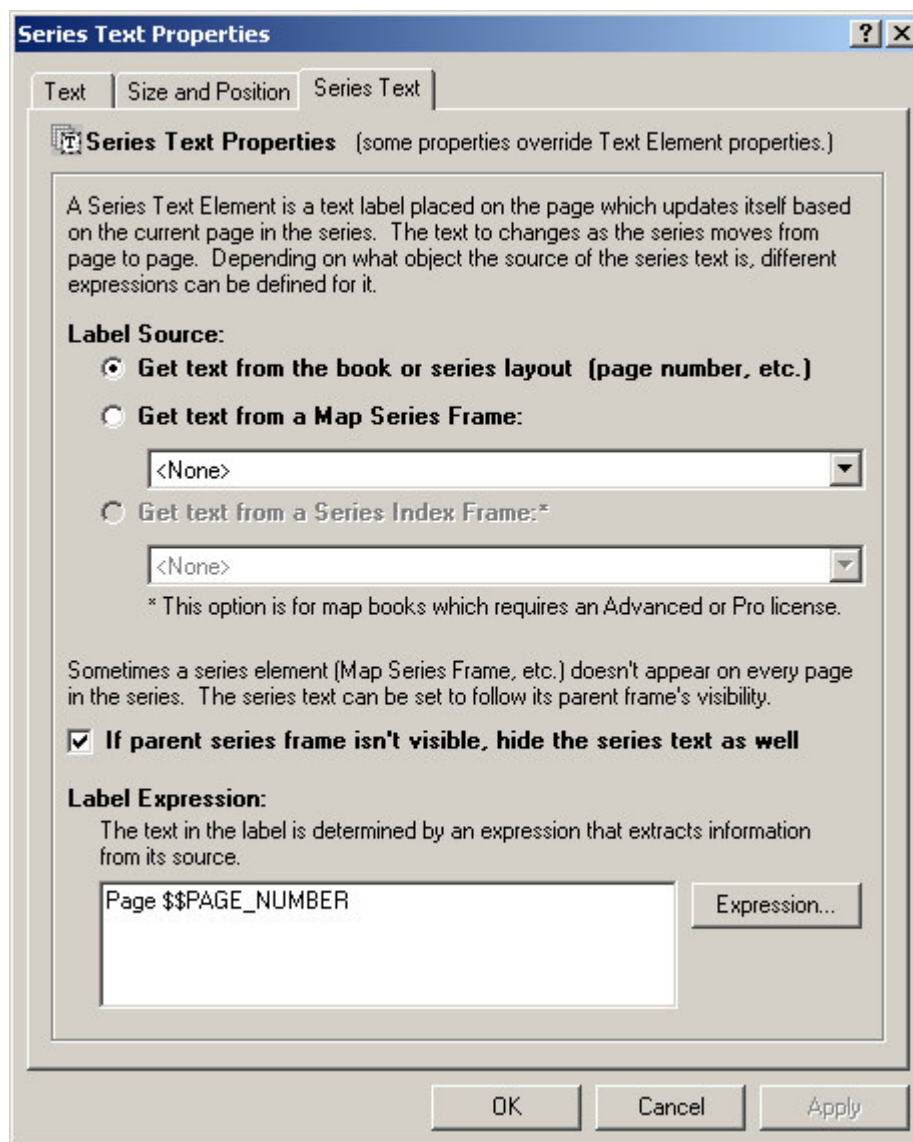
Modifying The Properties Of A Series Text Element

To modify the properties of a series text, select the text element then right-click your mouse and select **Properties...**



Once the properties dialog for the element is displayed, click on the Series Text tab to adjust the series text properties.

Modifying The Series Text Properties Of A Series Text Element



In order for the Series Text Element to update itself as the map series moves from page to page, it needs to know what the source of the label as well as the expression for the label.

The Label Source

A series text element can retrieve information from three different sources: the series layout, the map series frame, and the series index frame. The current page number is a good example of information you would get from the layout.

The Series Layout – The series layout can provide information like the page number, the name of the layout, section or map book, the total number of pages in the map series and so on.

The Map Series Frame – The map series frame can provide all the information in the Index Layer's table for the current page of a map series. For example, if you have a map series of US

States, you can retrieve the name of each state from the Index Layer's table.

The Series Index Frame – A series index frame lists the location of features in a map book (i.e. Main Street, Page 9). The series index frame can provide information about the first and last listing of the index that is being displayed on the current page. Much like a phone book, you may want to have a label on the page which shows what listings can be found on the current page (i.e. "Main Street to University Avenue").

The Label Expression

The label expression determines the text for the label. You can modify the expression by clicking the **Expression...** button. For more information about expression syntax please refer to the **Working With Expressions** section of this manual.

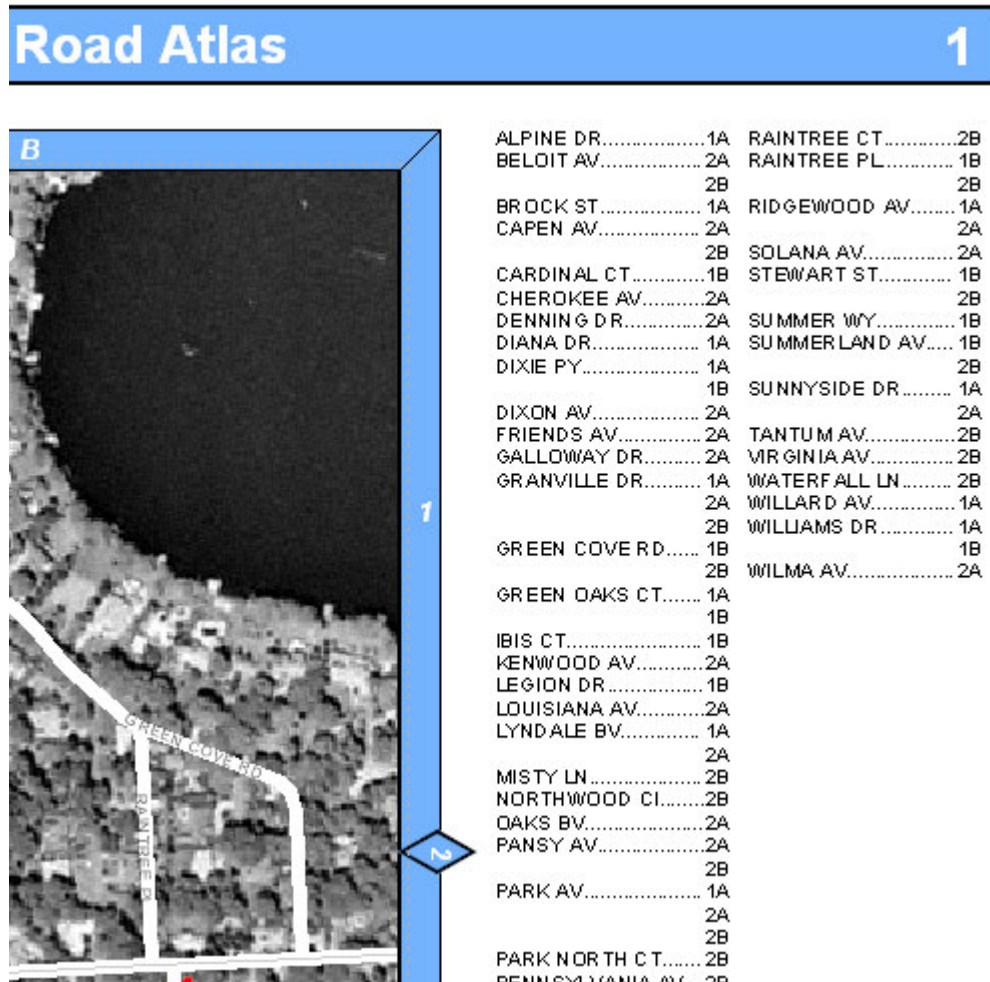
The Hide Label Option

Depending on how you have setup your map series frame, there are certain situations where the map series is not visible on the page. By selecting this option, the series text will follow its parent map series visibility.

Once you are finished modifying the series locator frame's properties, click OK or Apply to save your settings.

The Page Index Element

What Is A Page Index Element



A Page Index Element is used to create indexes of features on your map. An index is an alphabetical listing of feature in a map and where they can be found. For example, if you are creating a road map book, you may wish to have a listing of where each road can be found in the map (Main Street.... B-4).

A page index is always created in conjunction with a data frame on the layout.

IMPORTANT: You must allow enough space for the index to list all the features that appear on the page otherwise some features will be dropped from the index.

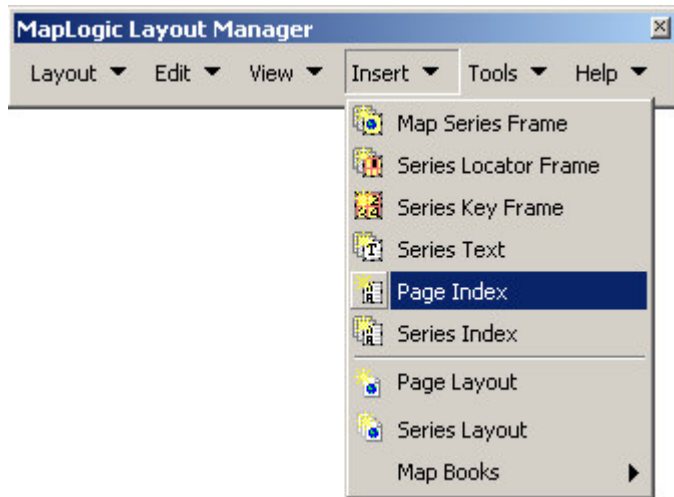
Indexes are created based on the labels of features on the map or the features themselves. However, consideration needs to be made as to what is being indexed. Sometimes the user will not be able to find a feature on the map unless there is a label associated with it. For example, if Main Street is within the grid cell B-2 of a map, the user may not be able to figure out which road on the map in that area is Main Street unless there is a label for it. On the other hand, the location of a fire station may not require a label since there is an appropriate symbol

on the map which shows the user where the fire station is located, and the likelihood of two fire stations existing close to each other is slim.

Adding A Page Index Element To A Layout

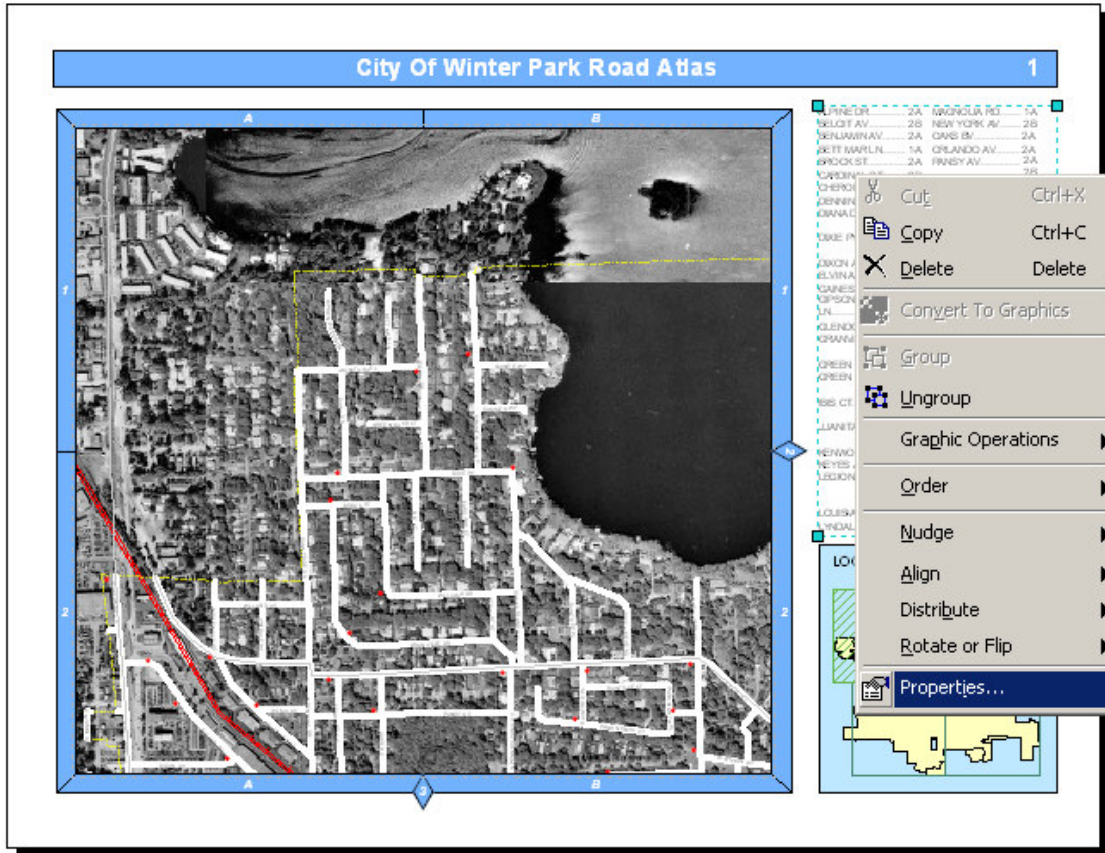
To add a new page index element to a layout select **Insert\Page Index** from the MapLogic Layout Manager toolbar. You can add page index elements to active page, map series, or book layouts.

You must have an Advanced or Pro license to add a page index element to a layout, otherwise the tool is grayed out.



Modifying The Properties Of A Page Index Element

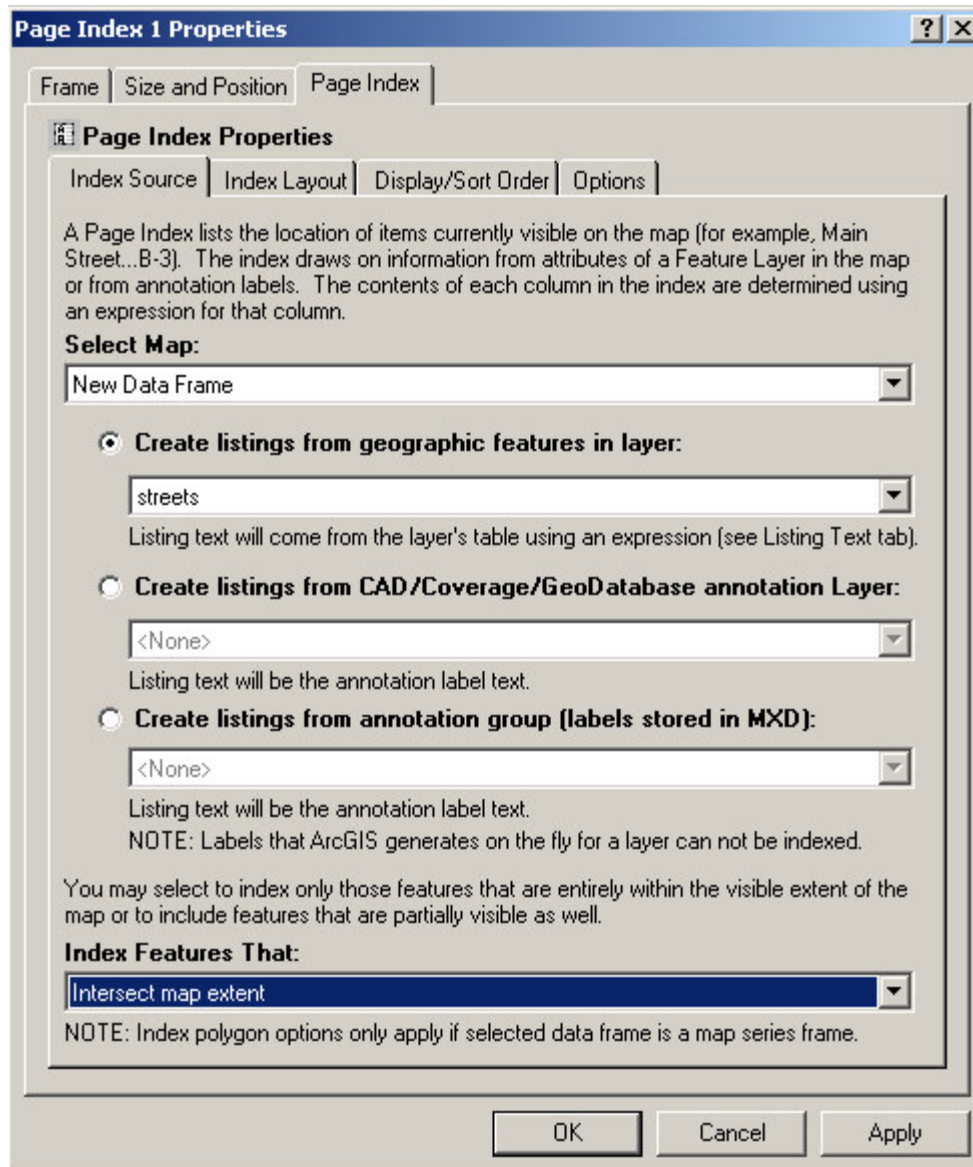
To modify the properties of a Page Index Element, select the index element then right-click your mouse and select **Properties...**



Once the properties dialog for the element is displayed, click on the Page Index tab to adjust the properties.

The properties are divided into four sections: the index source, the index layout, the display and sort order and options. There are quite a number of properties for a page index. Fortunately, most of the properties are assigned default values.

Modifying The Index Source Properties Of A Series Index Element



To set the source of an index you must select the map to be indexed, the type of features that will be indexed, the layer that will be indexed and how to choose the features to be indexed.

The Map

The map is the frame which will be indexed. The dialog will present you with a list of available maps in the layout to choose from.

The Type Of Features To Be Indexed

You can index features in a map layer or annotation labels on the map. If the location map features are going to be indexed, you will need to provide information on where in the feature's table the listing information will be extracted from.

If you are indexing annotation, the listing text will be the annotation text.

Labels that ArcMap generates "on-the-fly" can not be indexed as their positions are not static.

The Layer To Be Indexed

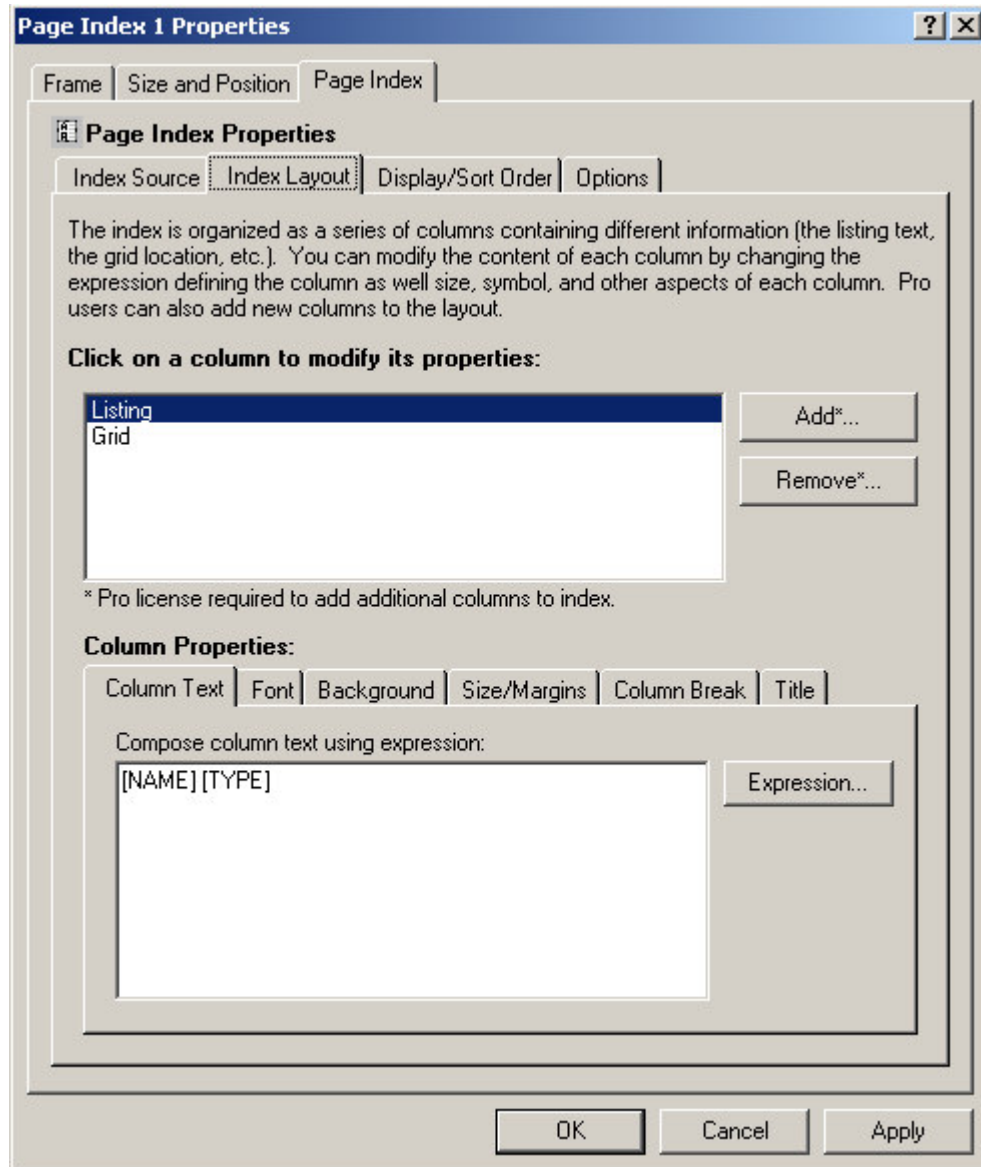
For each of the different types of items to be indexed the dialog shows a list of available layers. The page index properties are not complete unless a layer is selected.

Selecting Features

The final option on the Index Source tab is the method by which features are selected. You have the option of selecting all the features that intersect the map or only those that are completely within the map.

If the map is a map series, you also have the option of limiting the selection to the polygon for the current page.

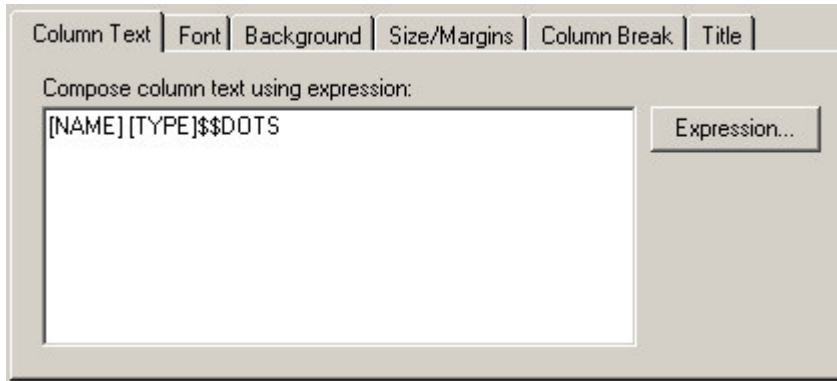
Modifying The Index Layout Properties Of A Page Index Element



The index is displayed as a series of columns containing the listings and their corresponding locations. For each column, you can define the column width, the font, the background color and many other parameters.

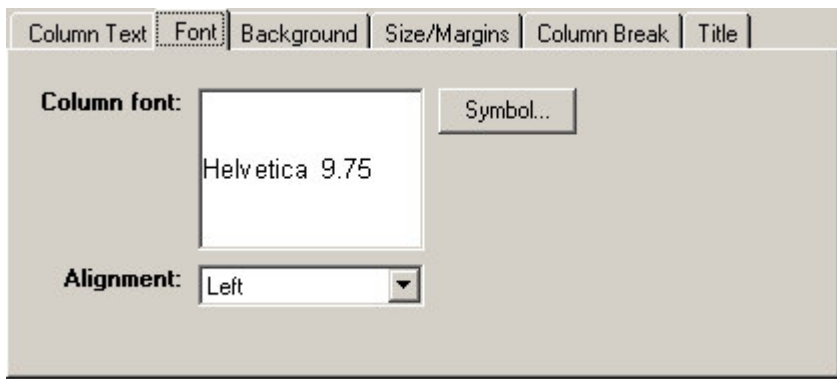
If you have a Pro license, you can add additional columns to the index. For example, one column might be the street name, another the address range, and so on.

The Column Text



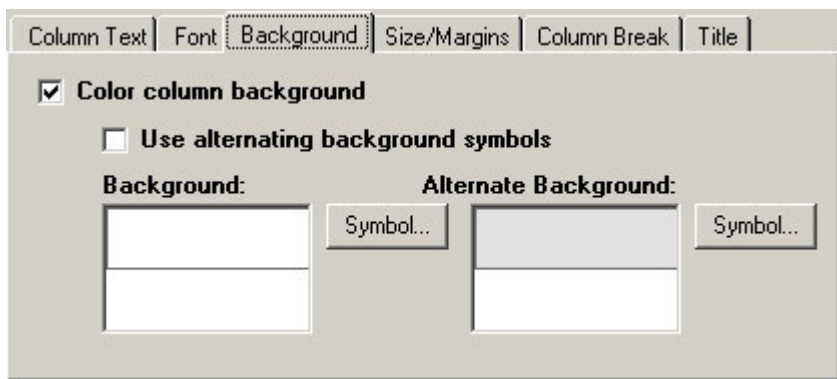
The text for a column is determined by an expression. You can modify the expression by clicking the **Expression...** button. For more information about expression syntax please refer to the **Working With Expressions** section of this manual.

The Column Font



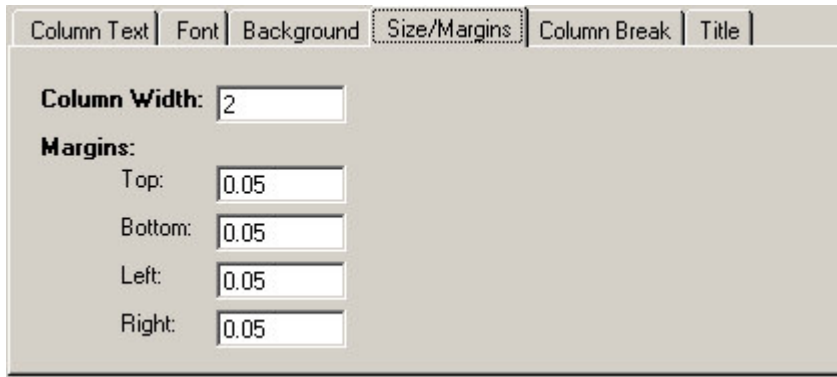
For each column in the listing you can select a different font and alignment.

The Column Background



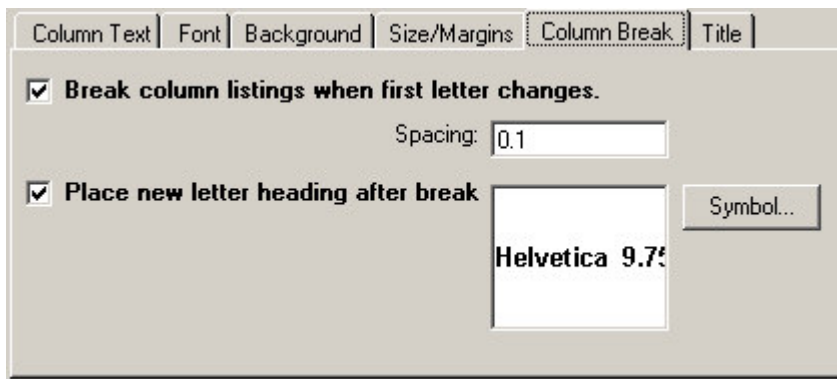
In this area you can set the background color for each column in the page index. Note that you can choose to alternate the color as you go from each listing to the next. This can make the listing a little easier to read.

The Size and Margins



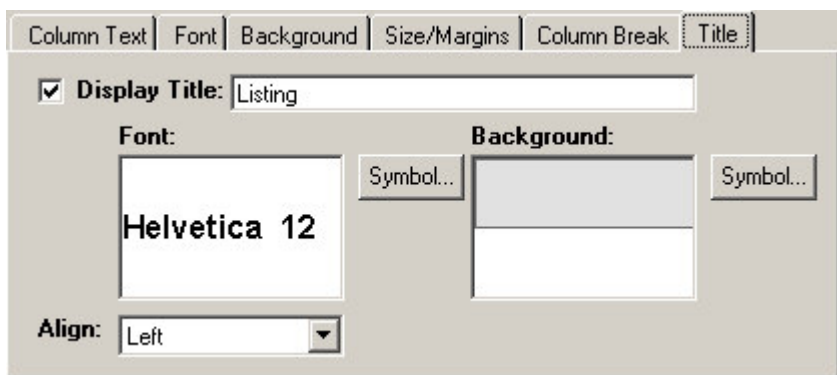
You can set the width of each column and the margins around each listing in the column. The height of the column is determined by the size of the listing. If the listing is too long to fit on a single line, the text is broken down onto multiple lines.

Column Breaks



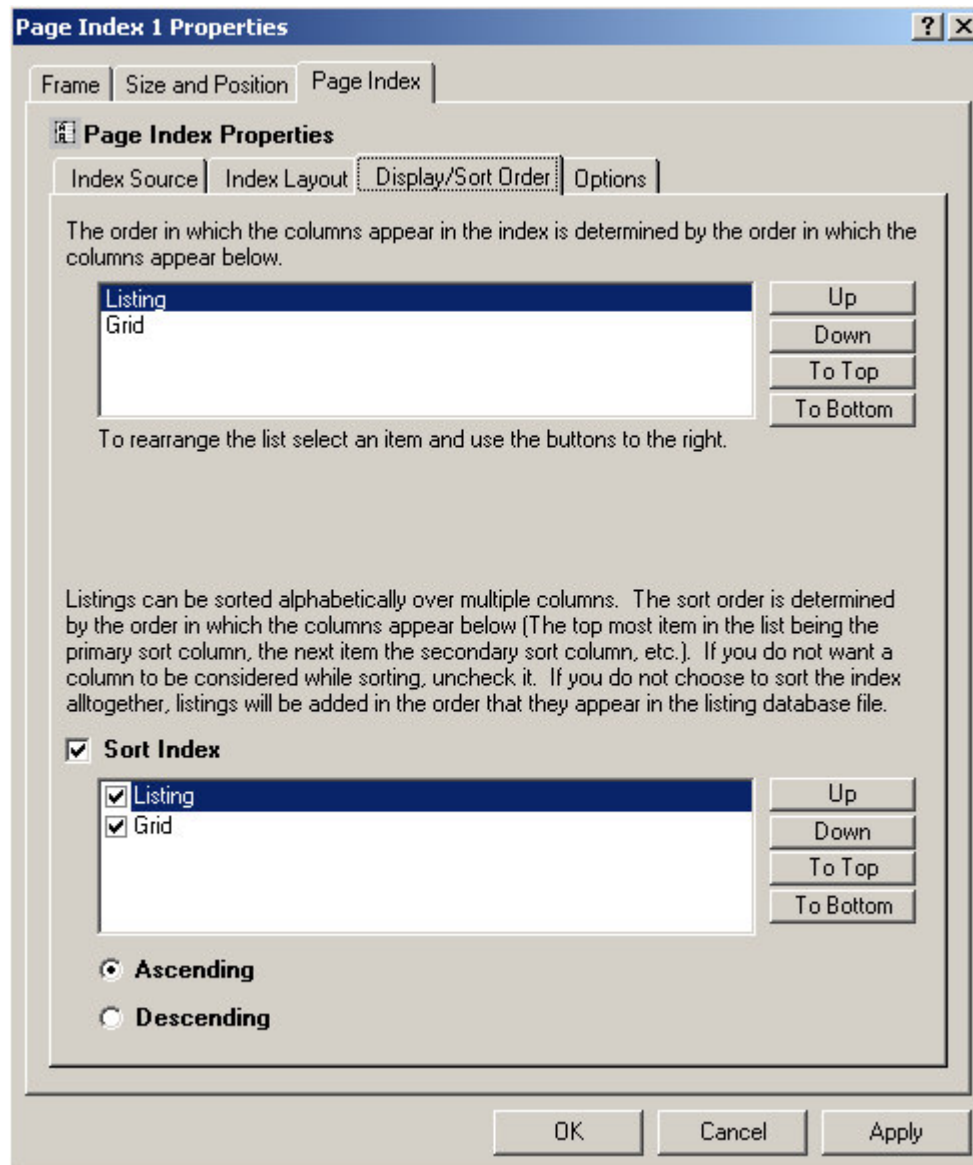
You can add a break in the listings each time the first letter in the listings change. Thus, the listings are broken down into groups of A's and B's and so on. You can set the break spacing and whether there will be a label for each break.

Column Titles



You can set a title for each column in a listing including its font and background symbol.

Modifying The Display And Sort Order Properties Of A Page Index Element



The Column Display Order

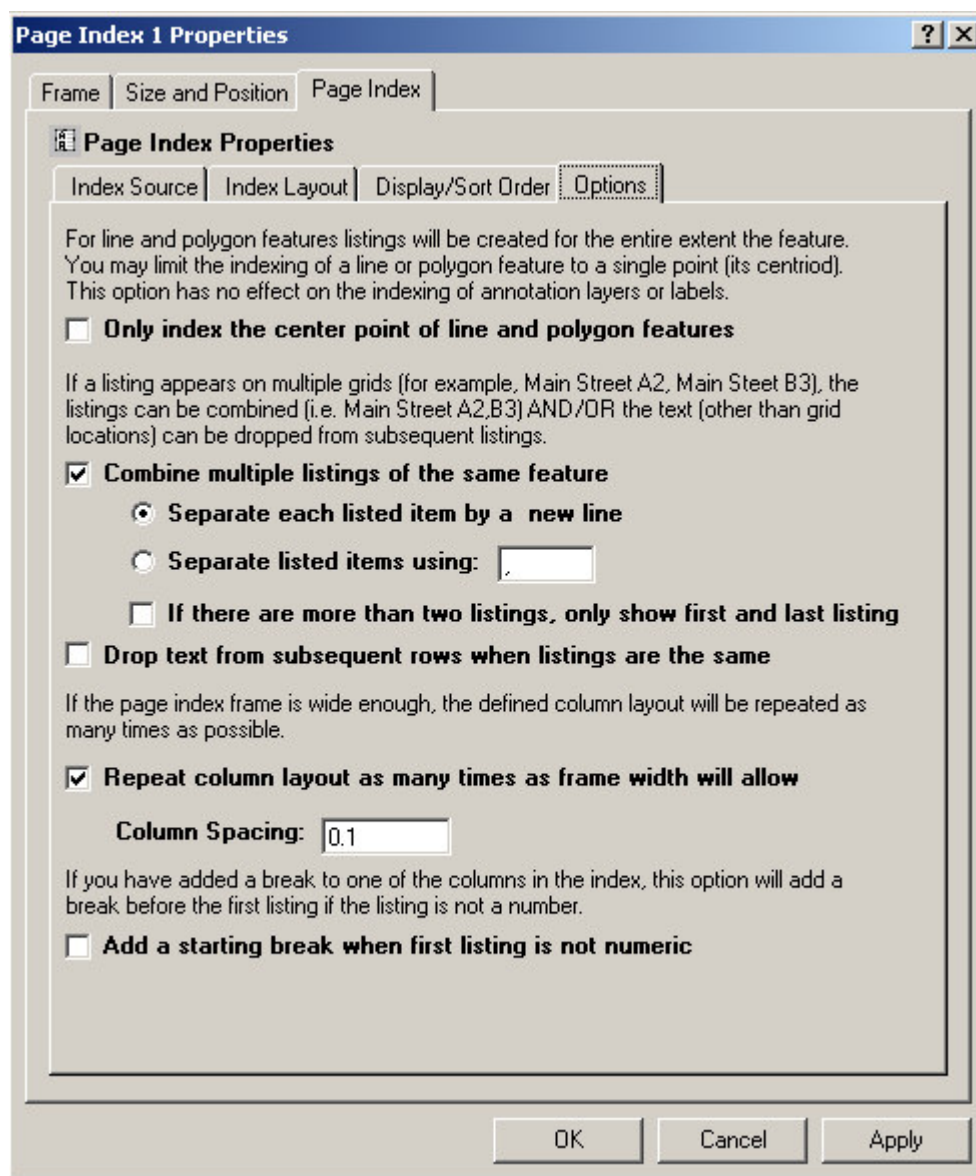
The column display order is the order in which the different elements in the listing are placed in the page index. Normally the name of the feature is displayed first followed by its location. However, you can modify this order by selecting a column and clicking on the up and down buttons.

The Column Sort Order

You can select to sort the listings by selecting the Sort Index option. Additionally, you can choose which items you want sorted, and the order in which they are sorted. The sort order is determined by the order that the column names appear in the list (the top most item in the list is

the primary sort column, the next item is the secondary sort column, and so on.). You can rearrange the columns by selecting them and clicking the up and down buttons.

Modifying The Options Of A Page Index Element



Only Index The Center Point Of Line And Polygon Features

This option limits the indexing of a line or polygon feature to a single point (its center). Otherwise, listings will be created for the entire area the feature covers. For example, a major road that crosses many grid cells in a map will have multiple locations listed. If this option is selected, the road will be listed once.

Combine Multiple Listings Of The Same Feature

This option combines listings so the same listing isn't repeated over and over. For example, if Main street appears on grid A2, A3 and B3 of the map, you generally would not want three separate listings for main street:

```
Main Street   A2
Main Street   A3
Main Street   B3
```

You can combine the listings so they appear as a single listing:

```
Main Street   A2,A3,B3
```

If you do choose to combine listings, you have the option of selecting what character separates the listings.

If There Are More Than Two Listings, Just Show The First And Last Listing

This option allows you to drop all the locations for a feature other than the first and last one. This helps reduce the number of locations listed for long linear features. In the above example the listing would look like:

```
Main Street   A2-B3
```

Drop Text From Subsequent Rows When Listings Are The Same

This option allows you to drop repeating text from columns to give it a more professional look. This option does not combine the listings as the above option. It is particularly useful when you have a multi-column listing. For example:

CITY	STREET	Grid
Gainesville	Main St	A1,B4
Gainesville	University Ave	B2
Gainesville	Willow Rd	C5
Springfield	Lincoln Ave	F2
Springfield	Main St	G9,F10

Will become:

CITY	STREET	Grid
Gainesville	Main St	A1,B4
	University Ave	B2
	Willow Rd	C5
Springfield	Lincoln Ave	F2
	Main St	G9,F10

Add A Starting Break When First Listing On First Page Is Not Numeric

This option allows you to place a column break before the very first listing if the listing does not start with a number. For example:

STREET	GRID
Allen Ave	3A
Arbor St	2B
B	
Boardwalk Ave	2A

Will become:

STREET	GRID
A	
Allen Ave	3A
Arbor St	2B
B	
Boardwalk Ave	2A

Repeat Column Layout As Many Times As The Frame Will Allow

This option will repeat the column layout as many times as will fit into the size of the page index element.

You can also set the spacing between the column groups.

Once you are finished modifying the series locator frame's properties, click OK or Apply to save your settings.

IMPORTANT: You must allow enough space for the page index to list all the features that appear on the page otherwise some features will be dropped from the index.

The Series Index Element

What Is A Series Index Element

Road Name	Page	Road Name	Page
ACE COLBMAN LN	1, 3-C	FRANCES ANN CT	8, 3-C
AEGEAN AV	4, 1-B	FRANKLIN RD	11, 2-A 11, 3-A
ALLEN AV	2, 1-B		
ALLEN ST	1, 1-B 1, 2-B	G	
ALTERNATE 441	1, 1-B 1, 1-C	GEORGE MARTIN RD	2, 1-B
ANGELINA VIEW CT	5, 2-B	GLEN AV	16, 1-B
B		GRANT ST	21, 1-D
BECK CT	2, 1-D	GRECIAN WY	24, 1-A
BECK ST	2, 1-D	GROVEWOOD LN	1, 2-C
BERG DR	7, 3-C	H	
BIGLER LN	12, 3-B	HACKAMORE RD	1, 2-D
		HARPER VALLEY RD	3, 2-D

A Series Index Element is used to create indexes of features on your map pages. An index is an alphabetical listing of feature in a map book and where they can be found. For example, if you are creating a road map book, you may wish to have a listing of where each road can be found in the map book (Main Street....Page 2 B-4). Depending on how many listings there are, a series index element can occupy one or more pages.

Indexes are created based on the labels of features on the map or the features themselves. However, consideration needs to be made as to what is being indexed. Sometimes the user will not be able to find a feature on the map unless there is a label associated with it. For example, if Main Street is within the grid cell B-2 on Page 3 of a map book, the user may not be able to figure out which road on the map in that area is Main Street unless there is a label for it. On the other hand, the location of a fire station may not require a label since there is an appropriate symbol on the map which shows the user where the fire station is located, and the likelihood of two fire stations existing close to each other is slim.

Creating a series index is a two step process. First you need to create a database of features and the pages they appear on. This is called a Location Listing Database. The second step is to take that database and put its contents in a layout for printing.

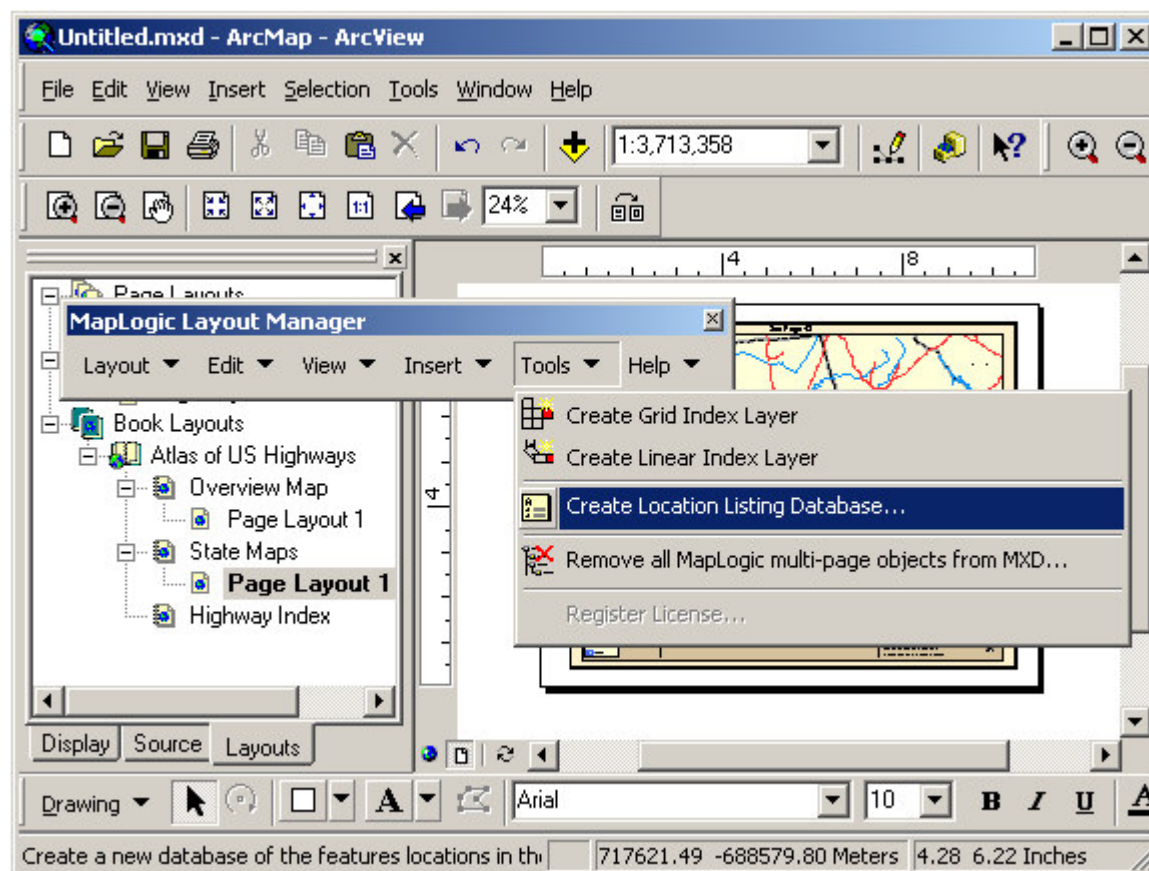
The reason the two steps of creating a series index are separated has to do with time. It takes a significant amount of time for the *MapLogic Layout Manager* to find the location of each feature in a series. The extension must create each page of the series and then examine the features that appear on the page. For a very large map series, you may be looking at a process that takes hours. If the location listing database was going to be created "on-the-fly" each time it was accessed, the software would be too slow for any practical use.

However, this means that any changes made to the map series will require re-indexing of the map series. For example, if you change the scale of the map series frame, or add new features to the map, or change the size of the map series frame, etc. you will be required to re-index the map series. Since indexing can take a long time, much time can be save by making sure all the changes to the map series have been completed before creating indexes.

Creating A Location Listing Database

To begin, go to the layout containing the map series you are going to index. Once the layout is active, select **Tools\Create Location Listing Database...** from the *MapLogic Layout Manager* toolbar.

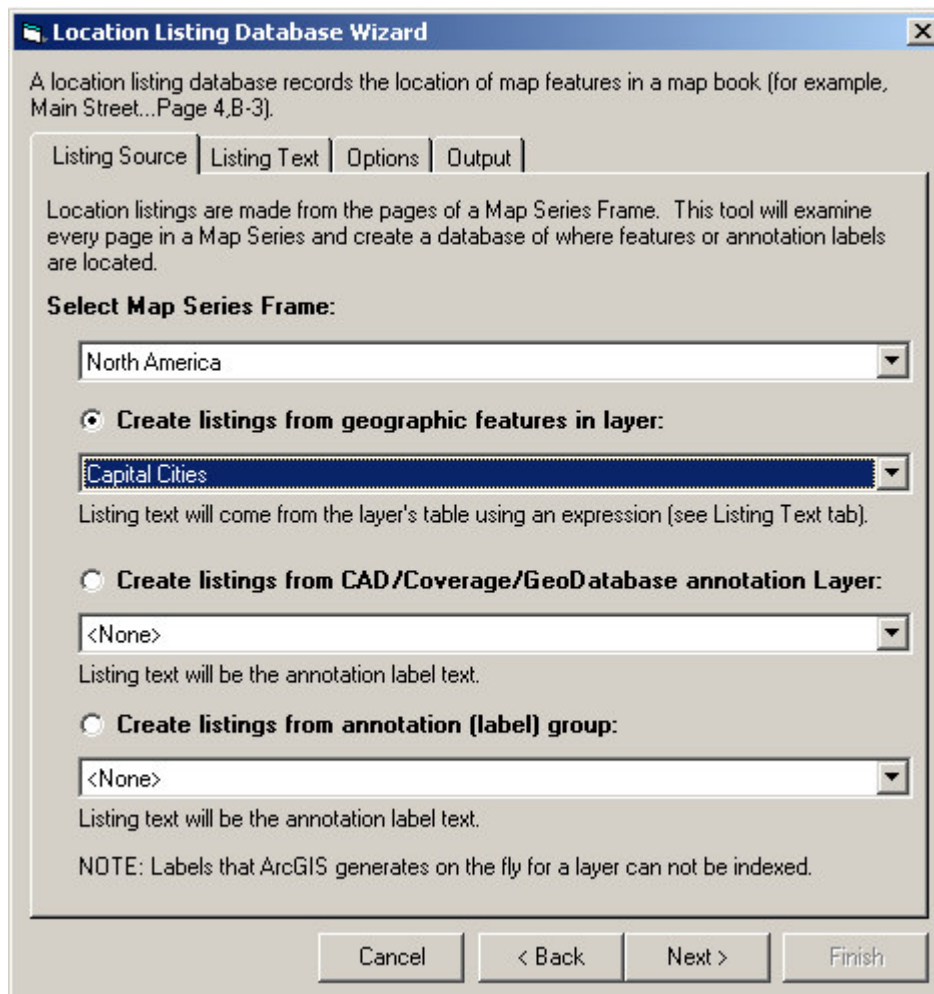
You must have an Advanced or Pro license to use this tool.



This will bring up the Location Listing Database Wizard dialog. In this dialog you are going to setup the process for creating the database which includes:

1. The source for the listings. This will include the map series as well as the layer inside the series containing the map features you would like to index.
2. The expression for the listing text.
3. Any options that you may choose to implement.
4. A file name where the results should be stored.

The Listing Source



To set the source of the location listings you must select the map series to be indexed, the type of features that will be indexed as well as the layer that will be indexed.

The Map Series Frame

The map series frame is the frame which the wizard is going search page by page. The dialog will present you with a list of available map series frames in the layout to choose from.

The Type Of Features To Be Indexed

You can index features in a map layer or annotation labels on the map. If the location map features are going to be indexed, you will need to provide information on where in the feature's table the listing information will be extracted from.

If you are indexing annotation, the listing text will be the annotation text.

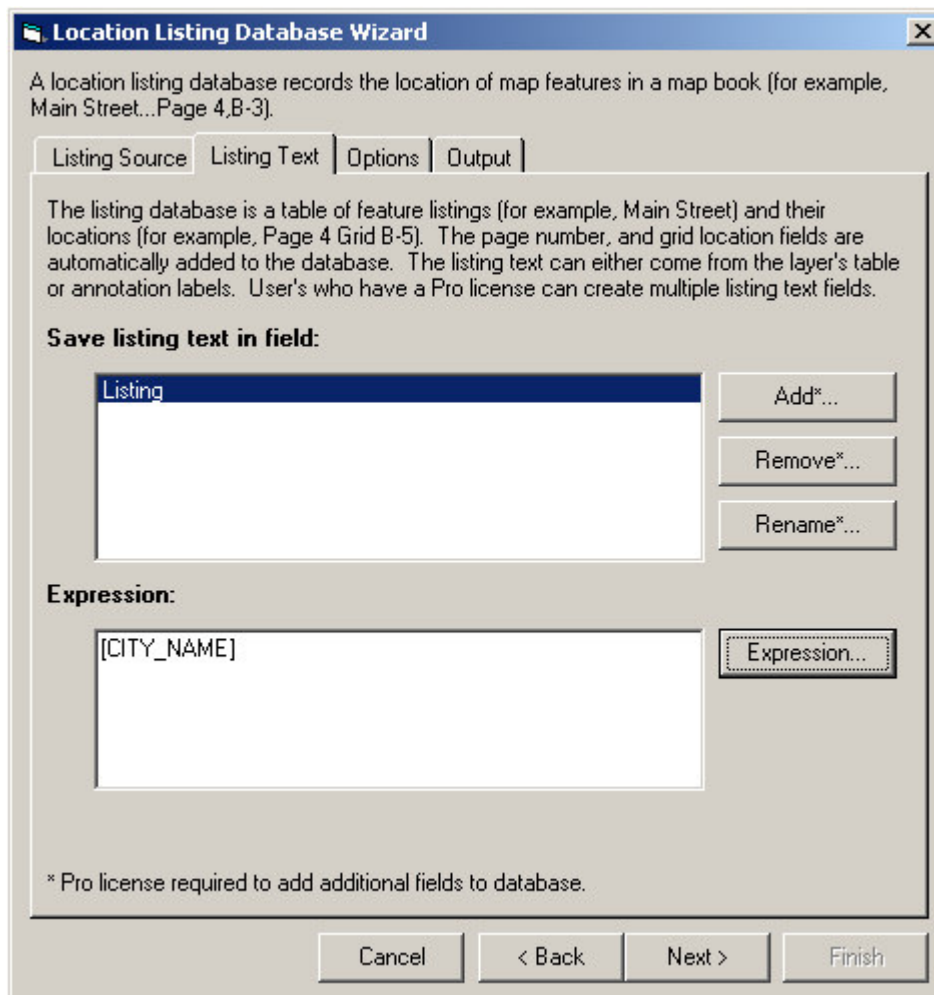
Labels that ArcMap generates "on-the-fly" can not be indexed as their positions are not static.

The Layer To Be Indexed

The wizard displays the lists of available layers for each type of features you are wanting to index. The wizard cannot complete its process unless a layer is selected.

The Listing Text

If the location map features in a layer are going to be indexed, you will need to provide information on where in the feature's table the listing information will be extracted from. This option is not available if you have chosen to index annotation labels as the text for the listing is the annotation text.



The Listing Field

The listing field is the name of the field in the location listing database where the information about the feature is stored.

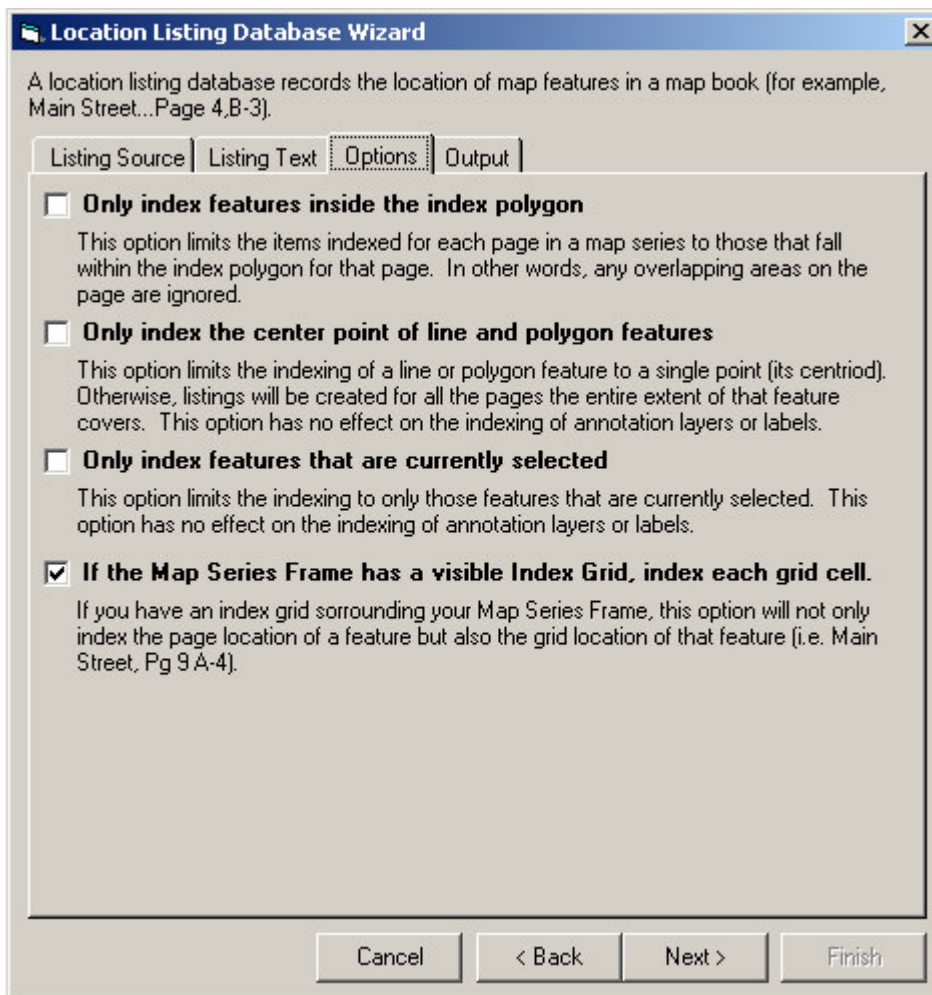
If you have a Pro license, you can create multiple fields of information for the feature. For example, if you would like to create a database that lists the location of a road and the location of an address range of that road, you can accomplish this by adding another field to the database for the address range.

The Listing Expression

The listing expression determines the text for the label. You can modify the expression by clicking the **Expression...** button. For more information about expression syntax please refer to the **Working With Expressions** section of this manual.

Options For Creating Location Listings

There are a number of options that you can set for the wizard which effect the database creation process.



Only Index Features Inside The Index Polygon

This option limits the items indexed for each page of the map series to those that fall within the index polygon for that page. In other words, any overlapping areas on the page are ignored. For example, if you are indexing the names of cities in each state of a map series of US States, you probably do not want the names of the cities in neighboring states that appear on the page to be indexed.

Only Index The Center Point Of Line And Polygon Features

This option limits the indexing of a line or polygon feature to a single point (its center). Otherwise, listings will be created for all the pages the feature covers. For example, a major road that crosses many pages in a map series will have a listing for every page it appears on. If this option is selected, the road will be listed once.

This option has no effect on the indexing of annotation labels.

Only Index Features That Are Currently Selected

If you would like to limit the indexing process to a selection of features, make sure they are selected before you call up the wizard and then check this option.

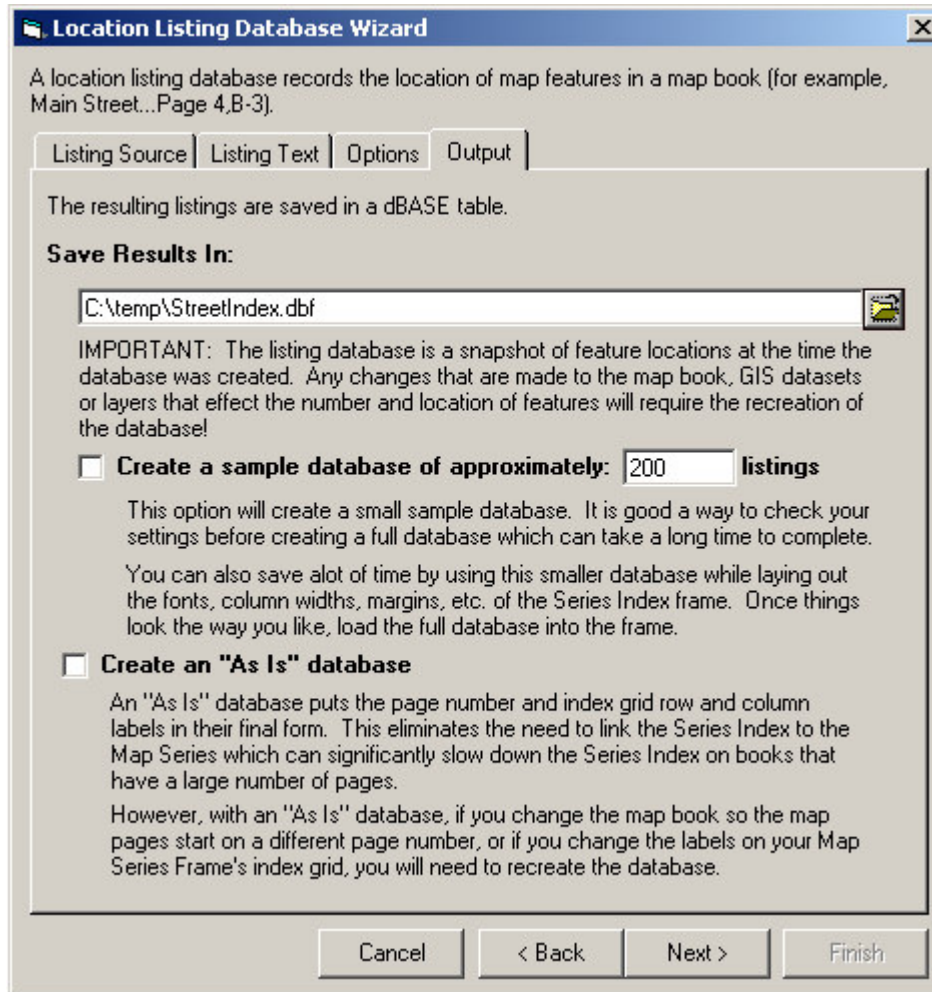
This option has no effect on the indexing of annotation labels.

If The Map Series Frame Has A Visible Index Grid, Index Each Grid Cell

If you have an index grid surrounding the map series frame, selecting this option will not only store the page a feature is located on, but also the grid cell that it appears on (i.e. Main Street...Page 9 A-4).

Selecting this option significantly increases the time required for generating the index.

Selecting The Output File To Save The Location Listing Database



Click the folder button to select a file to save the location listing database to.

Create A Sample Database

This option will create a small sample database of however many listings you choose. It is a good way to check your settings before you create the full database which can take a long time to complete. An index of roads for a moderately sized city can have tens of thousands of listings, so its always a good idea to test the process first.

You can also save time by using this smaller database while laying out the fonts, column widths, margins, etc. of the Series Index Element. Once you have the layout looking the way you want it, then load the full database into the element.

Create An "As Is" Database

Normally, the information in a location listing database is not entirely complete until it is brought into a Series Index Element and linked to its parent Map Series Frame. The page numbering and grid row and column labels are corrected when the Series Index Element is placed on the layout. This allows for some flexibility to move sections around in your map book, or change

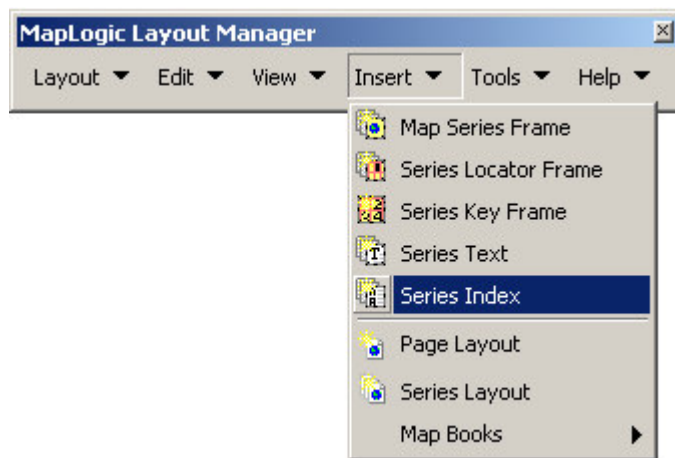
the labels of a index grid without having to recreate the location listing database. However, this flexibility comes with a performance price.

By creating an “As Is” database the correct page numbers and grid labels are placed in the location listing database. This allows for better performance in the Series Index Element. However, any change to the map book or data frame that modifies page numbers and grid labels will require that you recreate the location listing database.

Adding A Series Index Element To A Layout

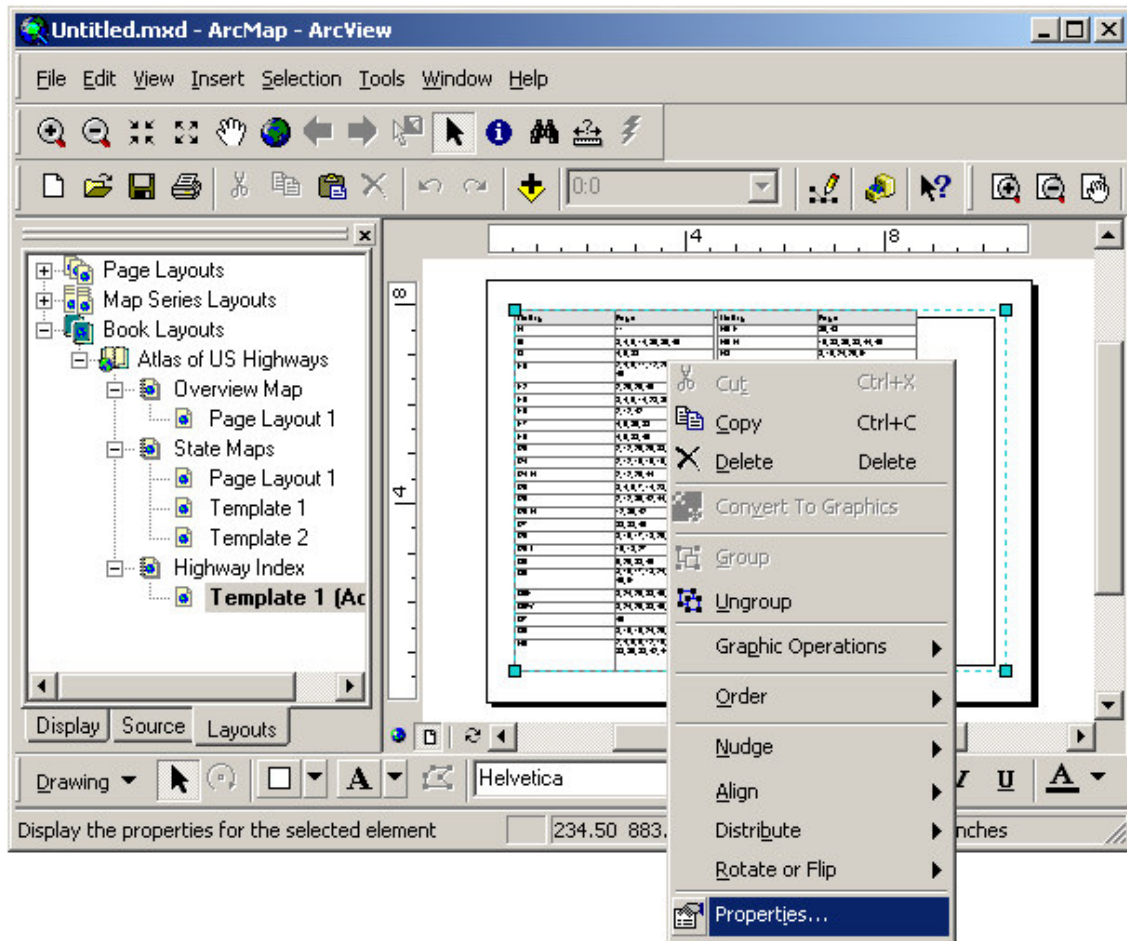
To add a new series index element to a layout select **Insert\Series Index** from the MapLogic Layout Manager toolbar. You can only add series index elements to active book layouts. If the active layout is a page or map series layout, the tool is grayed out.

You must have an Advanced or Pro license to add a series index element to a layout, otherwise the tool is grayed out.



Modifying The Properties Of A Series Index Element

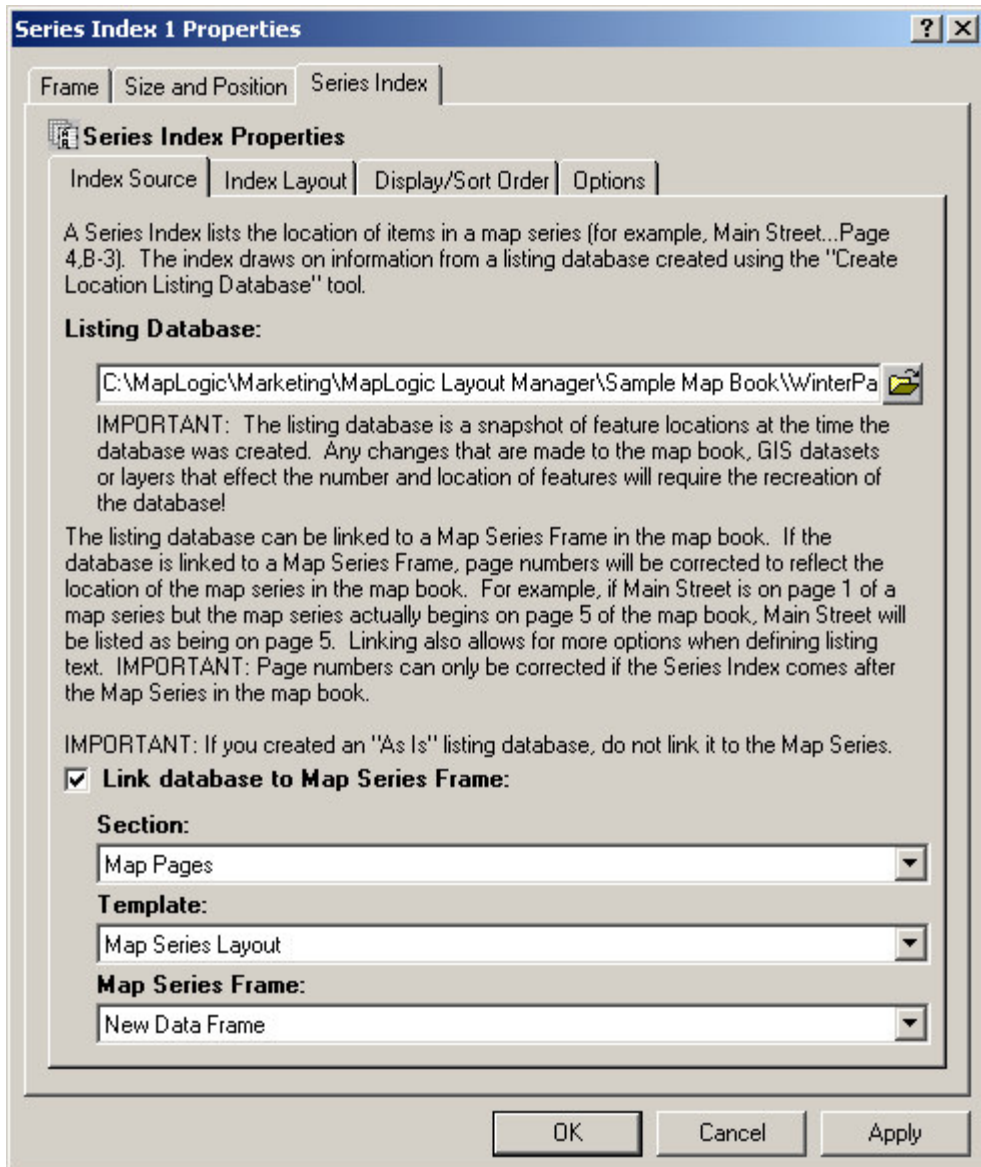
To modify the properties of a Series Index Element, select the index element then right-click your mouse and select **Properties...**



Once the properties dialog for the element is displayed, click on the Series Index tab to adjust the properties.

The properties are divided into four sections: the index source, the index layout, the display and sort order and options. There are quite a number of properties for a series index. Fortunately, most of the properties are assigned default values.

Modifying The Index Source Properties Of A Series Index Element



To set the source of an index you must set the location listing database which it must read and, optionally, the map series frame it belongs to.

The Listing Database

The listing database is the name of the file that was created by the Location Listing Database Wizard.

Link Database To Map Series Frame

Although linking the database to the map series isn't required, by linking the two, the extension will correct the page numbers to reflect the position of the map series in the map book.

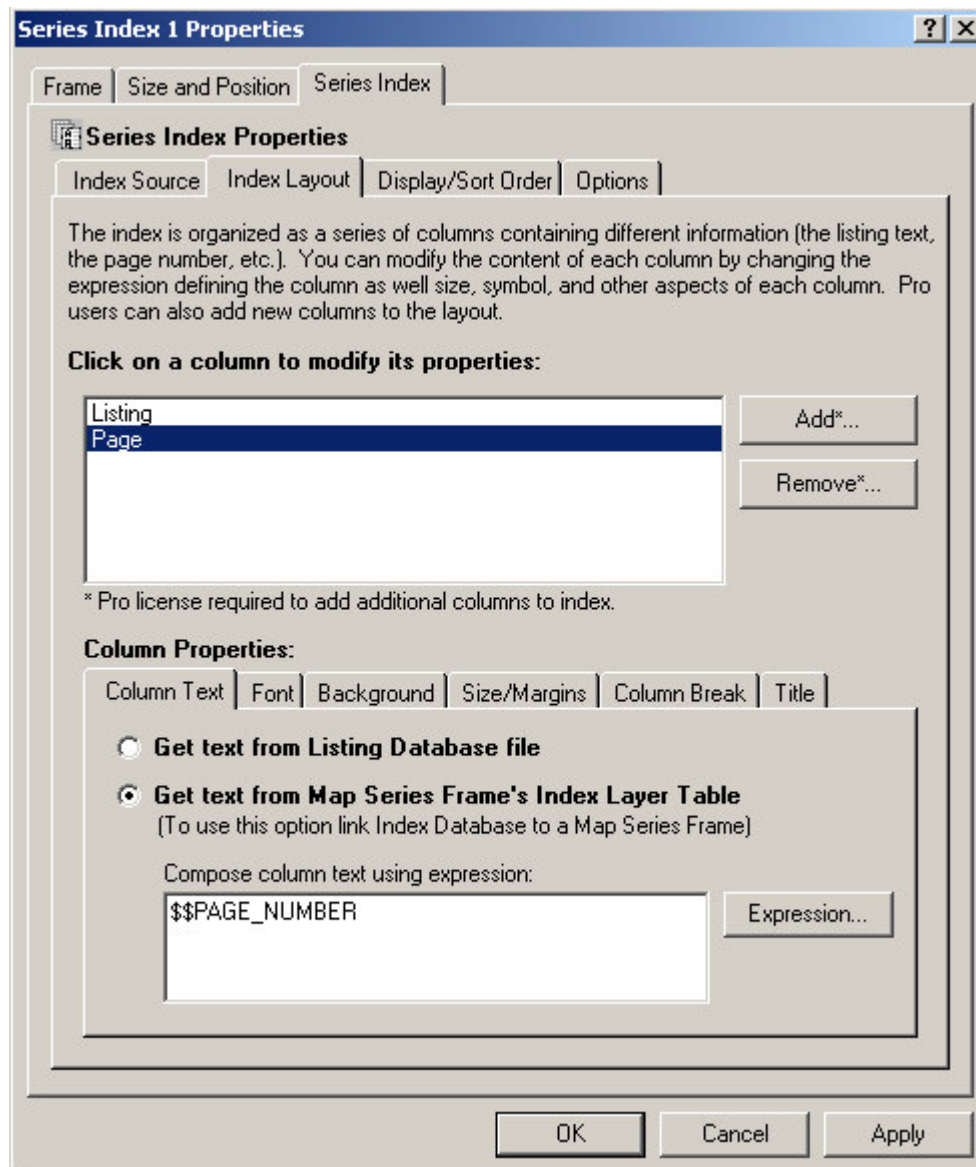
For example, suppose Main Street is located on the first page in a map series. In the location listing database Main Street will be listed as being on Page 1. However, suppose that the map series doesn't start on the first page of the map book. Suppose you have a key map on page one of a map book, so the map series actually begins on Page 2 of the book. By linking the

index to the map series, the extension will realize this and correct the listing so that Main Street is listed as being on Page 2 of the book.

To link the Series Index to the Map Series Frame, check the Link Database to Map Series Frame option and then select the appropriate, Section, Template and Map Series Frame from the drop down lists.

IMPORTANT: If you created an “As Is” Location Listing Database, do not link it to the map series frame. The page numbers in an “As Is” database have already been corrected and a second attempt to change the page numbers can create errors.

Modifying The Index Layout Properties Of A Series Index Element



The index is displayed as a series of columns containing the listings and their corresponding page numbers. For each column, you can define the column width, the font, the background color and many other parameters.

When you selected the location listing database in the previous tab, the extension examined the file and populated this area with default values for the different columns that are normally displayed (a listing and a page location).

If you have a Pro license, you can add additional columns to the index. For example, one column might be the street name, another the address range, and so on.

There are many properties that you can set for each column in the series index. This can become a little confusing, so lets take another look at the sample index presented at the beginning of this chapter.

Road Name	Page	Road Name	Page	
ACE COLBMAN LN	1, 3-C	FRANCES ANN CT	8, 3-C	
AEGEAN AV	4, 1-B	FRANKLIN RD	11, 2-A 11, 3-A	
ALLEN AV	2, 1-B	G		
ALLEN ST	1, 1-B 1, 2-B			
ALTERNATE 441	1, 1-B 1, 1-C		GEORGE MARTIN RD	2, 1-B
ANGELINA VIEW CT	5, 2-B		GLEN AV	16, 1-B
B			GRANT ST	21, 1-D
	BECK CT	2, 1-D	GRECIAN WY	24, 1-A
	BECK ST	2, 1-D	GROVEWOOD LN	1, 2-C
	BERG DR	7, 3-C	H	
	BIGLER LN	12, 3-B		HACKAMORE RD
		HARPER VALLEY RD	3, 2-D	

Note some of the characteristics of the index, the column fonts, the background colors, the column titles, the column widths, the breaks that appear in the index as the first letter of the listings change. These are all properties that you set in the Index Layout tab.

The Column Text

You have the option of creating a text that is extracted from the location listing database or, optionally the map series frames index layer table (if you have linked the index to the map series frame). For example, instead of the page number where a feature is located, you could use the name of the page in the map series.

The text for a column is determined by an expression. You can modify the expression by clicking the **Expression...** button. For more information about expression syntax please refer to the **Working With Expressions** section of this manual.

The Column Font

The screenshot shows a dialog box with tabs: Column Text, Font, Background, Size/Margins, Column Break, and Title. The 'Font' tab is selected. It contains a 'Column font:' label, a text box displaying 'Helvetica 9.75', and a 'Symbol...' button. Below this is an 'Alignment:' label and a dropdown menu set to 'Left'.

For each column in the listing you can select a different font and alignment.

The Column Background

The screenshot shows a dialog box with tabs: Column Text, Font, Background, Size/Margins, Column Break, and Title. The 'Background' tab is selected. It features a checked checkbox for 'Color column background' and an unchecked checkbox for 'Use alternating background symbols'. Below these are two sections: 'Background:' and 'Alternate Background:'. Each section has a color selection box and a 'Symbol...' button.

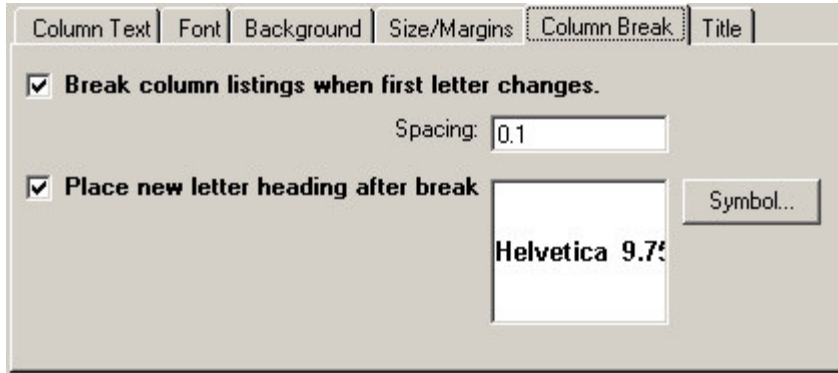
In this area you can set the background color for each column in the series index. Note that you can choose to alternate the color as you go from each listing to the next. This can make the listing a little easier to read.

The Size and Margins

The screenshot shows a dialog box with tabs: Column Text, Font, Background, Size/Margins, Column Break, and Title. The 'Size/Margins' tab is selected. It contains a 'Column Width:' label and a text box with the value '2'. Below this is a 'Margins:' label followed by four text boxes for 'Top:', 'Bottom:', 'Left:', and 'Right:', each containing the value '0.05'.

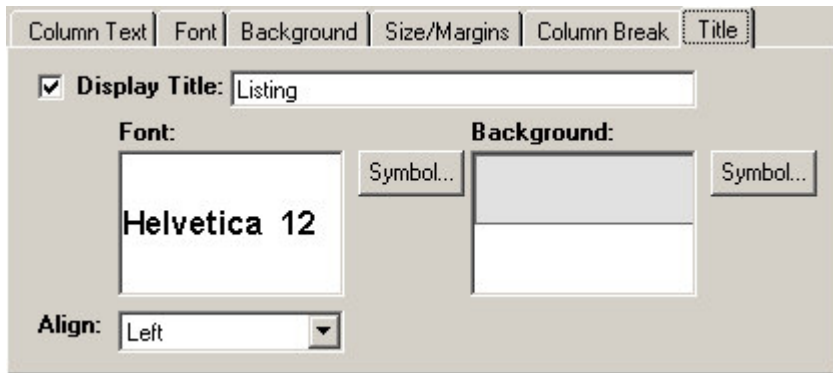
You can set the width of each column and the margins around each listing in the column. The height of the column is determined by the size of the listing. If the listing is too long to fit on a single line, the text is broken down onto multiple lines.

Column Breaks



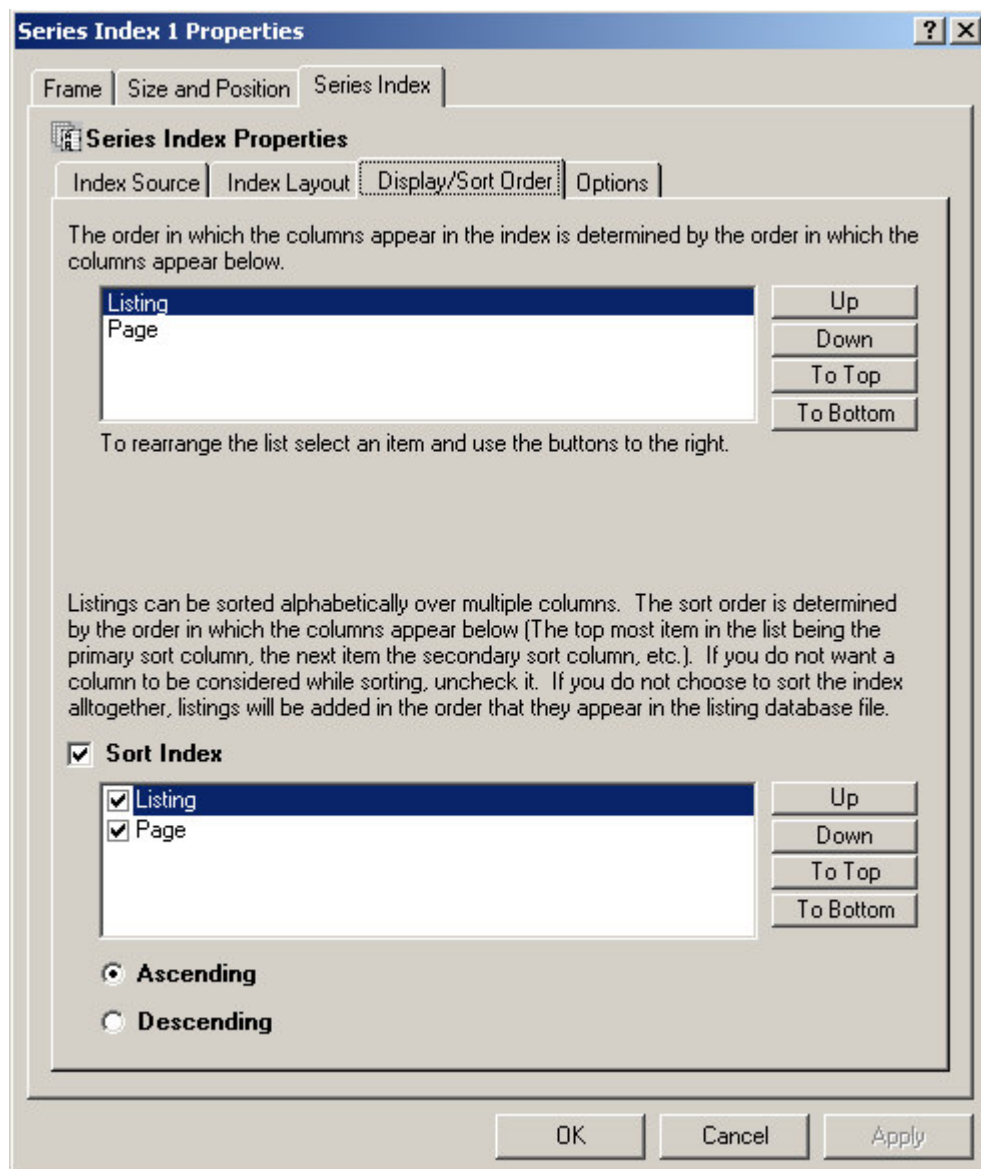
You can add a break in the listings each time the first letter in the listings change. Thus, the listings are broken down into groups of A's and B's and so on. You can set the break spacing and whether there will be a label for each break.

Column Titles



You can set a title for each column in a listing including its font and background symbol.

Modifying The Display And Sort Order Properties Of A Series Index Element



The Column Display Order

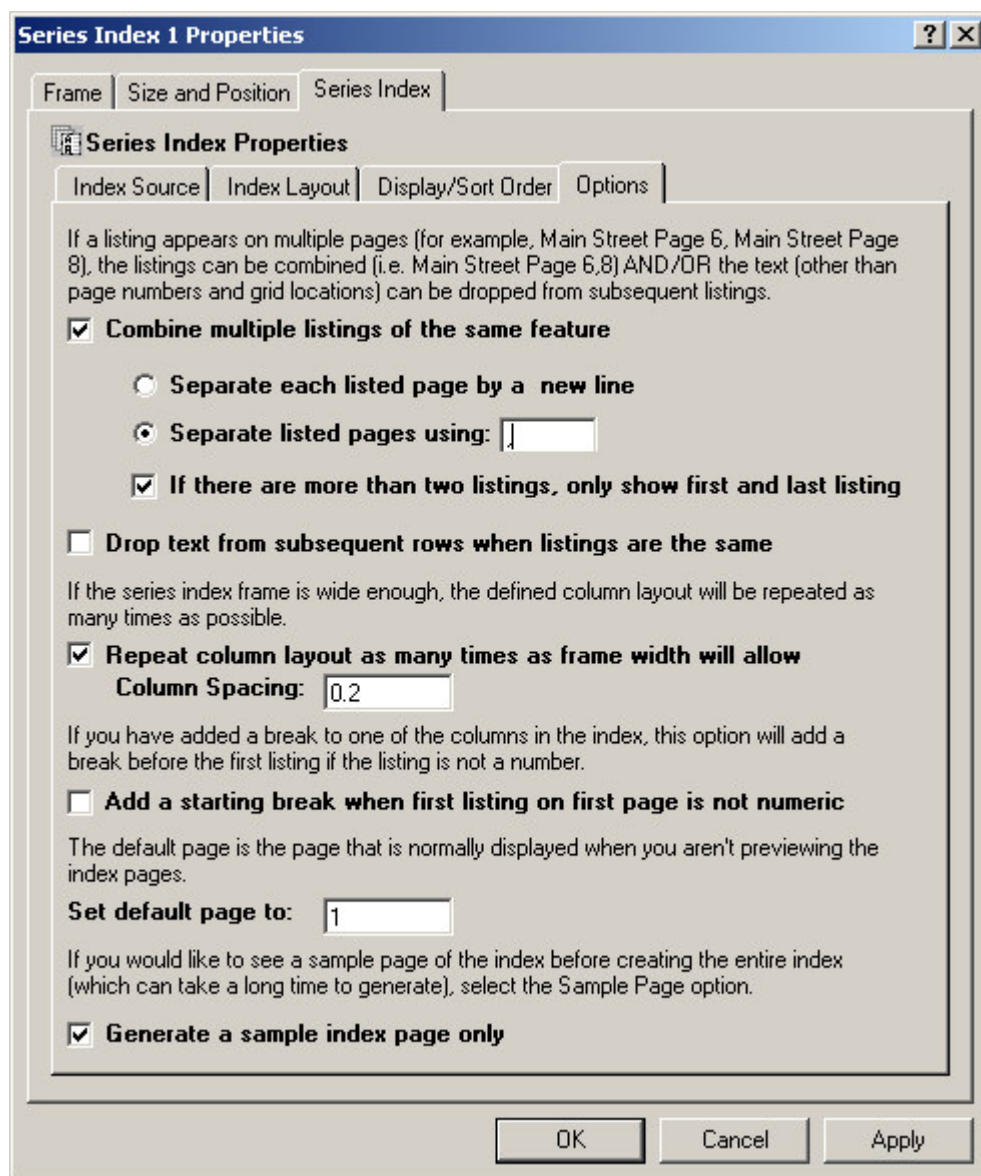
The column display order is the order in which the different elements in the listing are placed in the series index. Normally the name of the feature is displayed first followed by the page it is located on. However, you can modify this order by selecting a column and clicking on the up and down buttons.

The Column Sort Order

The listings in the location listing database are not sorted. You can select to sort the listings by selecting the Sort Index option. Additionally, you can choose which items you want sorted, and the order in which they are sorted. The sort order is determined by the order that the column names appear in the list (the top most item in the list is the primary sort column, the next item is

the secondary sort column, and so on.). You can rearrange the columns by selecting them and clicking the up and down buttons.

Modifying The Options Of A Series Index Element



Combine Multiple Listings Of The Same Feature

This option combines listings so the same listing isn't repeated over and over. For example, if Main street appears on Page 2, 3 and 4 of the map series, you generally would not want three separate listings for main street:

Main Street	2
Main Street	3
Main Street	4

You can combine the listings so they appear as a single listing:

Main Street 2,3,4

If There Are More Than Two Listings, Just Show The First And Last Listing

This option allows you to drop all the locations for a feature other than the first and last one. This helps reduce the number of locations listed for long linear features. In the above example the listing would look like:

Main Street 2-4

Drop Text From Subsequent Rows When Listings Are The Same

This option allows you to drop repeating text from columns to give it a more professional look. This option does not combine the listings as the above option. It is particularly useful when you have a multi-column listing. For example:

CITY	STREET	PAGE
Gainesville	Main St	1,4
Gainesville	University Ave	2
Gainesville	Willow Rd	5
Springfield	Lincoln Ave	12
Springfield	Main St	9,10

Will become:

CITY	STREET	PAGE
Gainesville	Main St	1,4
	University Ave	2
	Willow Rd	5
Springfield	Lincoln Ave	12
	Main St	9,10

Repeat Column Layout As Many Times As The Frame Will Allow

This option will repeat the column layout as many times as will fit into the size of the series index element. For example, in the sample series index that was shown at the beginning of this chapter, the columns were repeated twice.

You can also set the spacing between the column groups.

Add A Starting Break When First Listing On First Page Is Not Numeric

This option allows you to place a column break before the very first listing if the listing does not start with a number. For example:

STREET	PAGE
Allen Ave	3
Arbor St	2
B	
Boardwalk Ave	2

Will become:

STREET	PAGE
A	
Allen Ave	3
Arbor St	2
B	
Boardwalk Ave	2

Default Page

Normally, the first page of the series index is displayed when you are not previewing or printing the index. However, if you prefer another page to be displayed by default, you can change the default page of the listing.

Generate A Sample Index Page Only

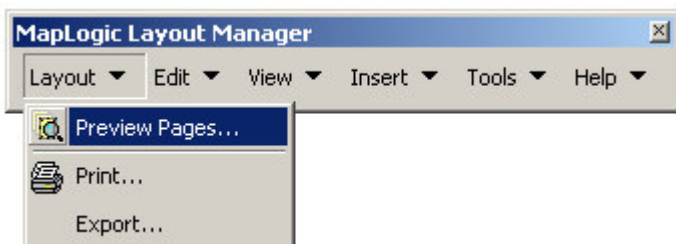
Depending on the size of the index, the process of laying out the pages of an index can take a long time. By selecting the sample page option, only one page of the index is created. This allows you to examine your layout, fonts, colors, etc. before creating the full index.

Once you are finished modifying the series locator frame's properties, click OK or Apply to save your settings.

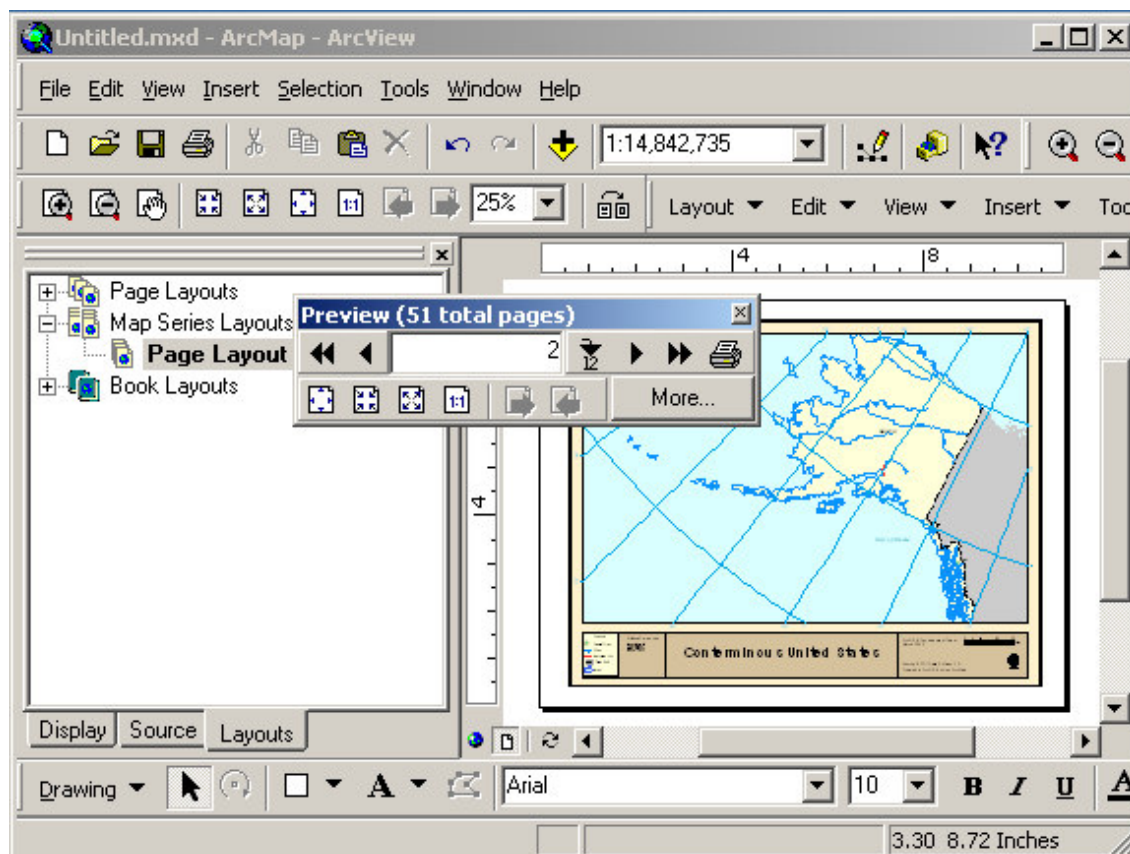
Previewing, Printing And Exporting Map Series And Map Books

Previewing Map Series Or Map Book Pages

To preview the pages of a map series or section, select **Layout\Preview Pages...** from the MapLogic Layout Manager toolbar.



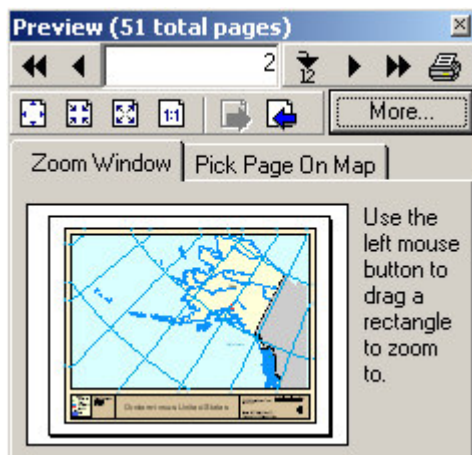
This will display the preview dialog which will allow you to flip through the pages of the series.



You can click the forward and back buttons to move to the next or previous page. You can also enter a page number and click the go to page button (small arrow point to a number) to go directly to a particular page.

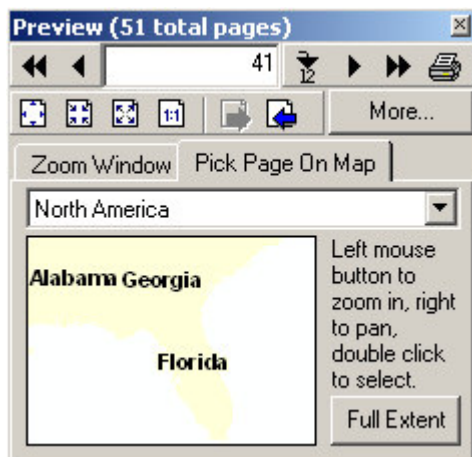
Click the More... button to get more options for zooming in on parts of the layout or selecting a page to preview.

Zoom To Region On Layout



The expanded preview button displays a small copy of the layout which you can use to zoom to any area of the layout. Just drag a rectangle on the layout to zoom to it.

Pick Page On Map



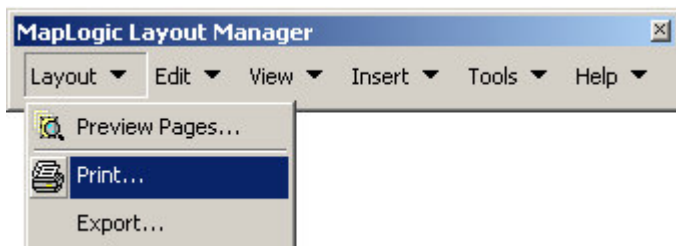
You can also select which page in a map series to preview by selecting the page on a small map window. This window will display the Index Layer of a Map Series Frame. If you have more than one map series frame on the layout, you can choose which frame you would like use from the list.

Use the left mouse button to zoom in on an area. Use the right mouse button to pan the map. Double click on an area to display its page in the map series.

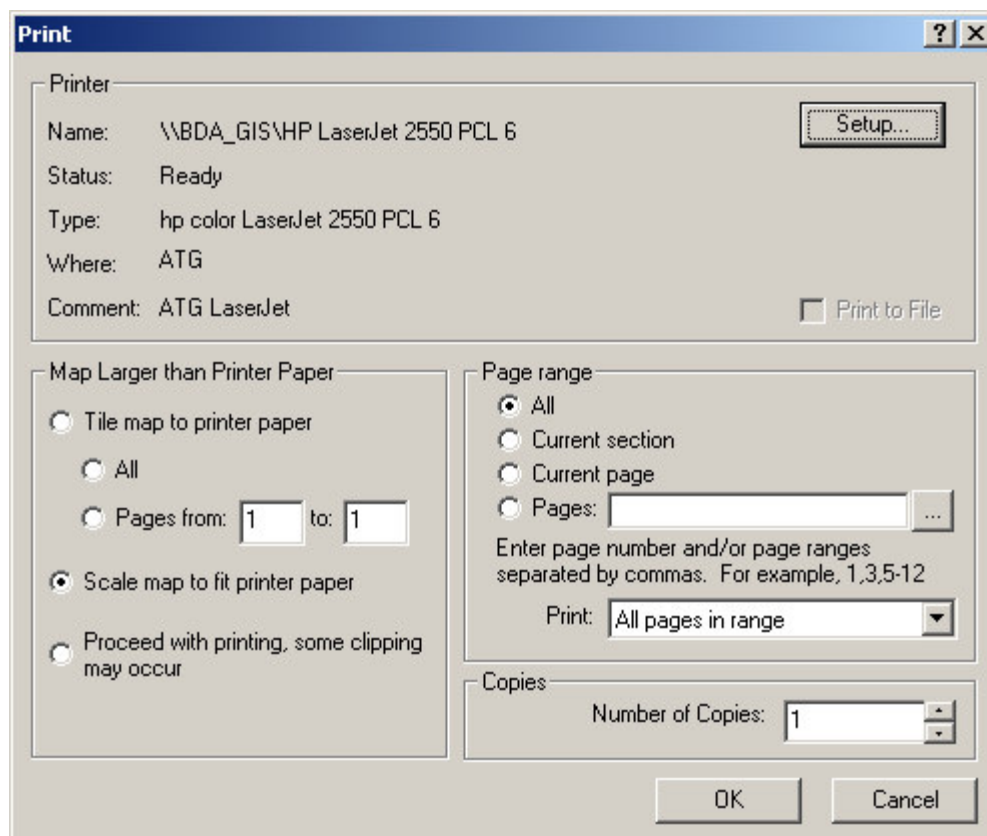
Click the Full Extent button to zoom back out to the extent of the Index Layer.

Printing A Map Book

To print a map book series or map book, select the **Layouts\Prints...** from the MapLogic Layout Manager toolbar.



This will display the print dialog.



As you can see, this dialog is very similar to that of a word processor. You can choose to print the entire map series or book, the current page or a range of pages.

You also have the option of printing only the odd or even pages. This is useful if you have a two-sided book layout.

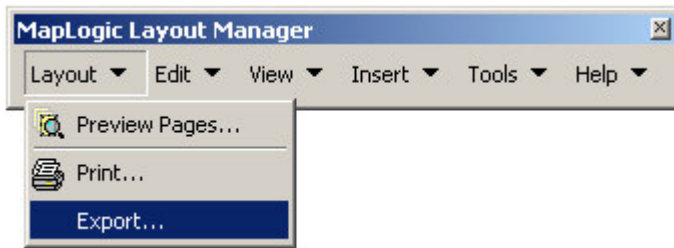
Click the **Setup...** button to modify your print settings.

The Print To File option is only available if you have selected a PostScript printer.

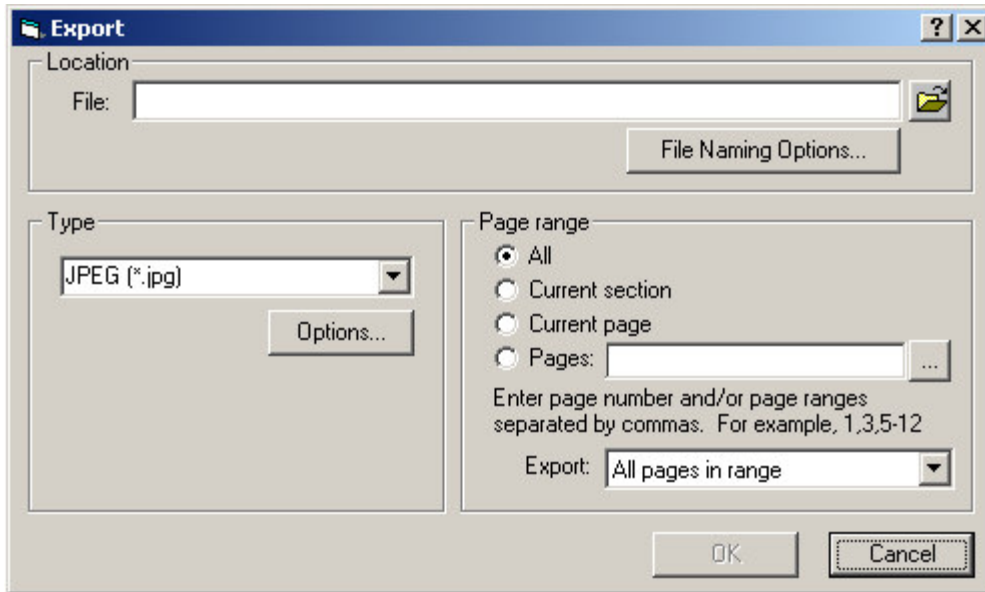
Select your print settings and click OK to begin the printing process.

Exporting A Map Book

To export a map book series or map book, select the **Layouts\Export...** from the MapLogic Layout Manager toolbar.



This will display the export dialog.



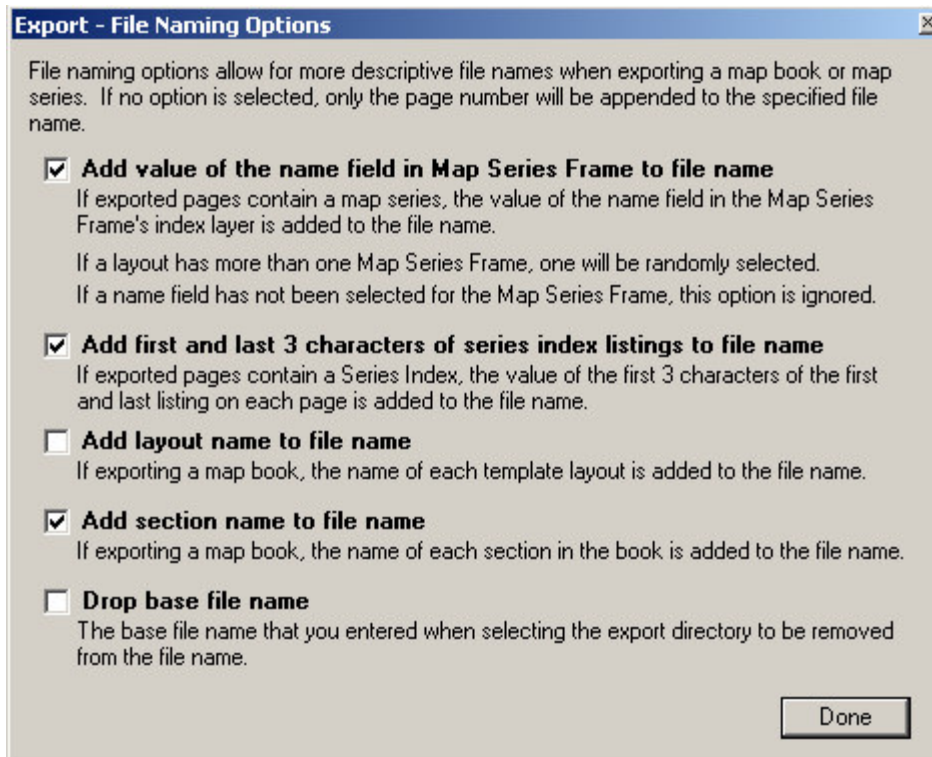
To export a map series or map book, click the folder button and select the file name that you want to export to.

The tool can export to PDF, BMP, TIFF and JPEG formats. The **Options...** button allows you to select the output settings for the format you have selected.

You can select to export the entire book or a page range.

Once you have selected all your export options, click the OK button to begin exporting the map series or book.

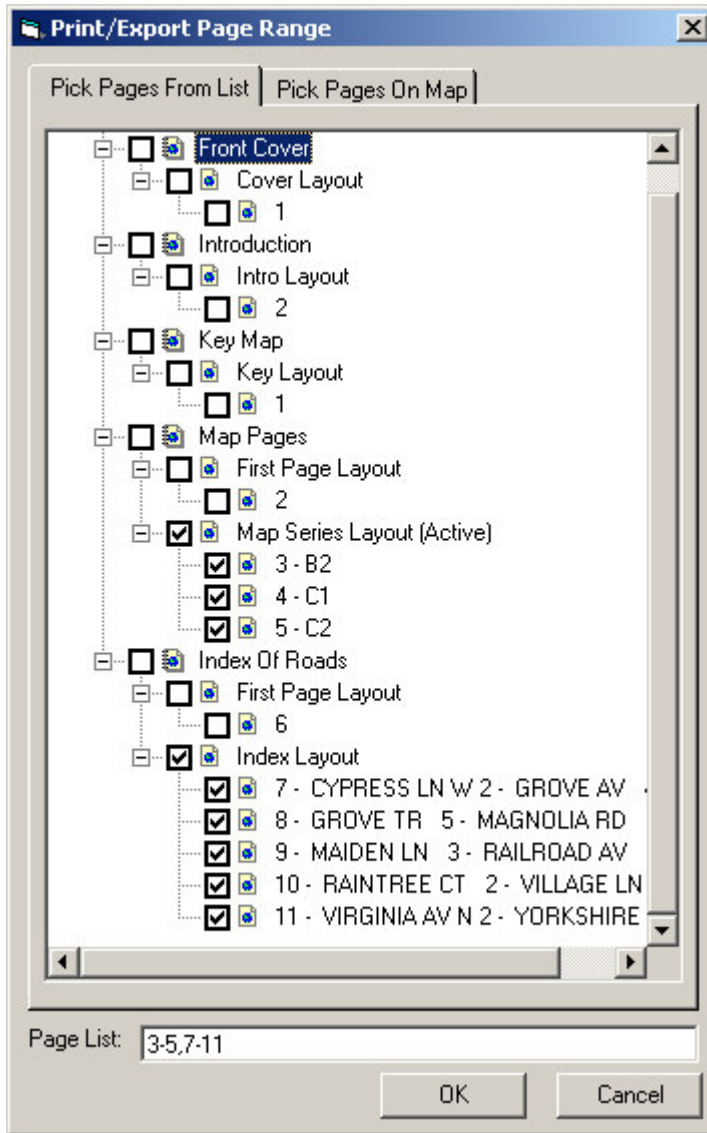
The tool will create a separate file for each page that is being exported. The page number will be appended to the name of the file that you selected. For example, if the file name you selected was TEST, the tool will create a series of files called TEST_Pg1, TEST_Pg2, etc. The **File Naming Options...** button allows you to set some parameters so that the generated file names are descriptive and provide more information about their content.



Selecting Print And Export Page Ranges Using List Or Map

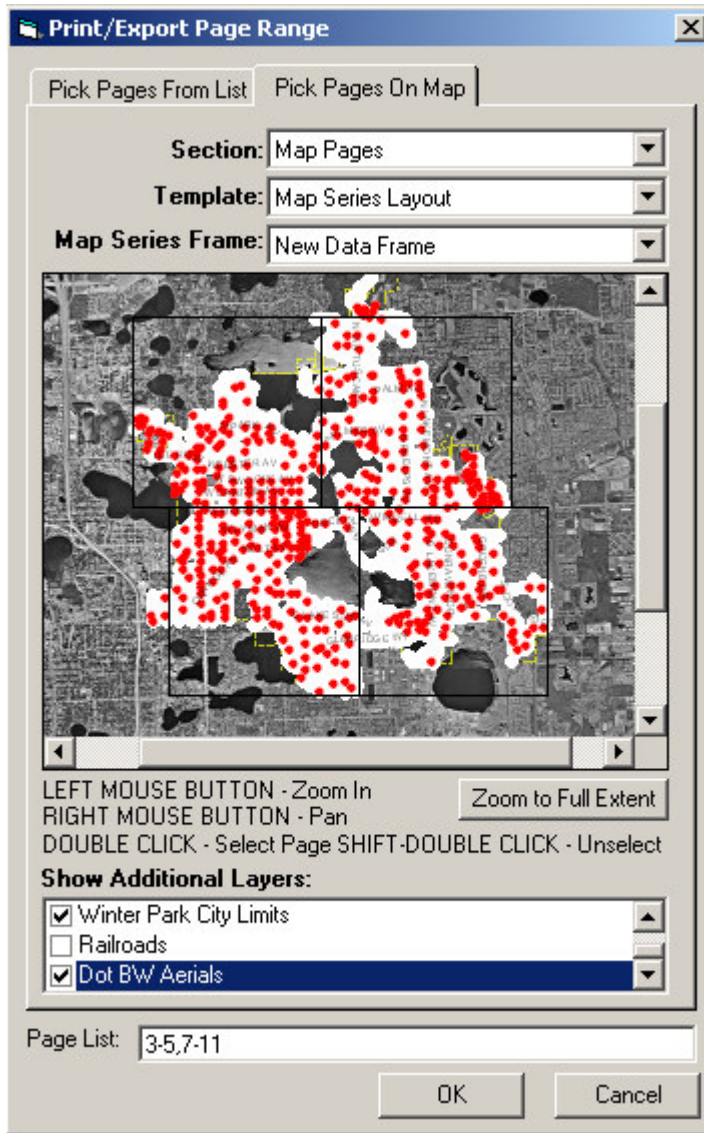
On both the Print and Export Dialogs you can interactively select the range of pages that you would like to print by either selecting the desired pages from a list or by pointing to them on a map. In order to select the pages, click on the "..." button "Pages" input on the Print and Export dialogs.

This displays the Print/Export Page Range dialog. This dialog offers two methods for selecting pages. The Pick Pages From List tab allows you to select the pages from a list similar to the Layouts tab in ArcMap's Table of Contents. If you have selected to display individual pages in the Table of Contents, they will be displayed here as well. To select a book, section, template or page for printing, click the check box next to it.



The Pick Pages On Map tab allows you to select the pages by clicking on their index layer polygons. If you are printing a map book, you will need to select the appropriate section, template and map series frame to choose from. If you are printing a map series, you only need to select the map series frame.

Once you have selected the map series frame, the dialog will display the polygons for the index layer. Double-clicking on a polygon selects the page.



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