

Creating Map Books Using Data Driven Pages

Presented By:

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MRB | *group*

Engineering, Architecture, Surveying, P.C.

Introduction

- What is the definition of a map book?
 - It is a book of maps
 - Series of maps with a similar theme that breaks a large area into smaller maps

maps

File Edit View Favorites Tools Help

Back Search Folders

Address N:\4210.11001.000\dwg\maps

Name	Size	Type	
130.mxd	9,120 KB	ESRI ArcMap Docu...	
140.mxd	300.mxd	9,145 KB	ESRI ArcMap Docu...
150.mxd	310.mxd	9,145 KB	ESRI ArcMap Docu...
160.mxd	320.mxd	9,145 KB	ESRI ArcMap Docu...
170.mxd	325.mxd	9,145 KB	ESRI ArcMap Docu...
200.mxd	330.mxd	9,145 KB	ESRI ArcMap Docu...
210.mxd	335.mxd	9,145 KB	ESRI ArcMap Docu...
215.mxd	340.mxd	9,145 KB	ESRI ArcMap Docu...
220.mxd	350.mxd	9,145 KB	ESRI ArcMap Docu...
220.mxd	360.mxd	9,145 KB	ESRI ArcMap Docu...
230.mxd	370.mxd	9,145 KB	ESRI ArcMap Docu...
240.mxd	380.mxd	9,145 KB	ESRI ArcMap Docu...
250.mxd	390.mxd	9,145 KB	ESRI ArcMap Docu...
260.mxd	400.mxd	9,145 KB	ESRI ArcMap Docu...
265.mxd	405.mxd	9,145 KB	ESRI ArcMap Docu...
270.mxd	410.mxd	9,145 KB	ESRI ArcMap Docu...
280.mxd	415.mxd	9,145 KB	ESRI ArcMap Docu...
285.mxd	420.mxd	9,145 KB	ESRI ArcMap Docu...
290.mxd	425.mxd	9,145 KB	ESRI ArcMap Docu...
295.mxd	430.mxd	9,145 KB	ESRI ArcMap Docu...
	440.mxd	9,145 KB	ESRI ArcMap Docu...
	450.mxd	9,145 KB	ESRI ArcMap Docu...
	460.mxd	9,145 KB	ESRI ArcMap Docu...
	480.mxd	9,145 KB	ESRI ArcMap Docu...
	485.mxd	9,145 KB	ESRI ArcMap Docu...
	IndexMap.mxd	2,709 KB	ESRI ArcMap Docu...
	Legend.mxd	3,061 KB	ESRI ArcMap Docu...
	LegendBackupcopy.mxd	1,512 KB	ESRI ArcMap Docu...

Command: <Switching to: G-5>
Regenerating layout.
Regenerating model.

Command:
42.6571, 2.4621, 0.0000

Command:
713684.6925, 1191757.0591, 0.0000

GIS-SIG Program Meeting
September 20, 2011

Introduction

- How many people have used developer sample DS Mapbook at ArcGIS 9.x?
- ESRI incorporated this functionality into ArcGIS 10.x as Data Driven Pages.

Getting Started

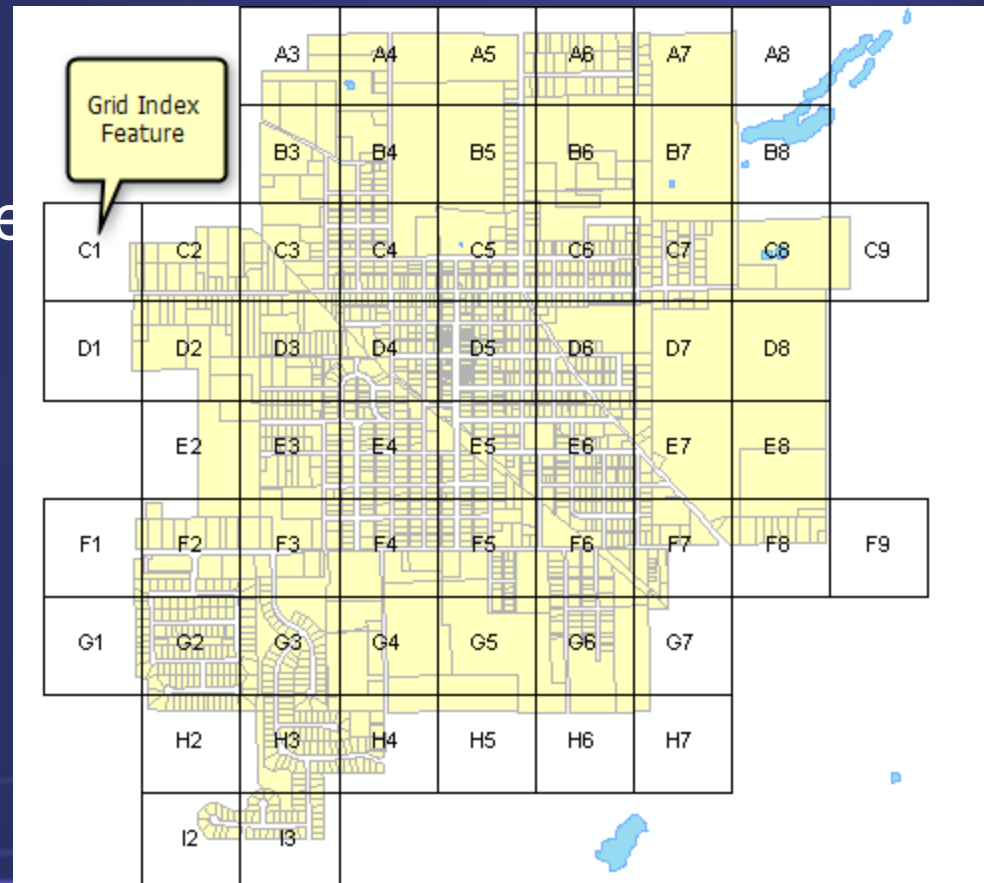
- Map books are based on an index layer
- Use existing feature class as index layer
- Create a new index grid layer using ArcToolbox

Index Layers

- Grid
- Strip
- Asymmetrical

Index Layers

- Grid Index
 - Symmetrical
 - Map pages are





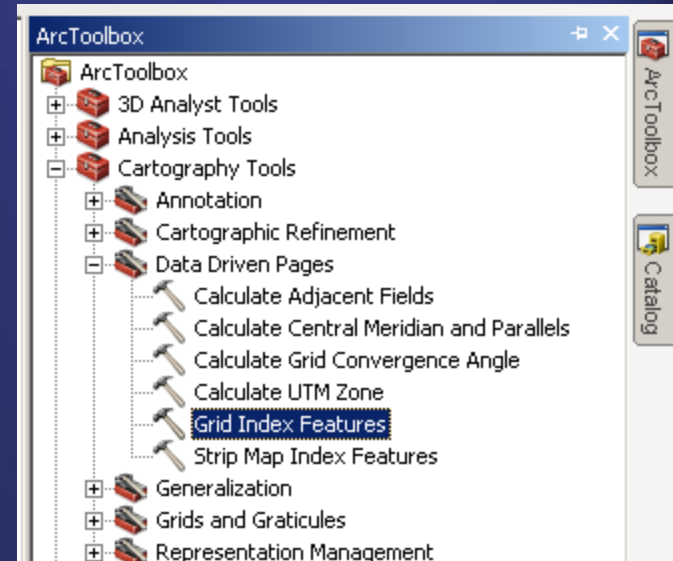
Strip Map
Index
Feature

Index Layers

- Asymmetrical
 - Use existing polygon feature class
 - Each map has its own unique boundary
 - Example: use state boundaries to create a map series showing a map zoomed into each state boundary
 - Creates cartographic challenges if maps are at different scales

Generate Index Layer

- ArcToolbox
 - Cartography Tools
 - Data Driven Pages
 - Grid Index Features
 - Strip Index Features



Generate Index Layer

- Grid Index
 - Requirements
 - Need a base layer to build the index grid from
 - Ex. Sanitary sewer system
 - Need to know the viewable area of your printed map
 - Need to consider if you want to show a small portion of the adjoining maps on each map in the map book
 - Need to know your map scale

Generate Index Layer

Grid Index Features

Output Feature Class
C:\Users\home\Desktop\mapbook\Output.gdb\gridGISSIG

Input Features (optional)

C:\Users\home\Desktop\mapbook\waterloo_gis_data.gdb\SanitarySewer\Sanitary_Sewer

Generate Polygon Grid that intersects input feature layers or datasets (optional)

Use Page Unit and Scale (optional)

Map Scale (optional) 2400

Polygon Width (optional) 14.4 Inches

Polygon Height (optional) 9.2 Inches

Polygon Grid Origin Coordinate (optional)

X Coordinate 742226.6918474212 Y Coordinate 1054220.512989007

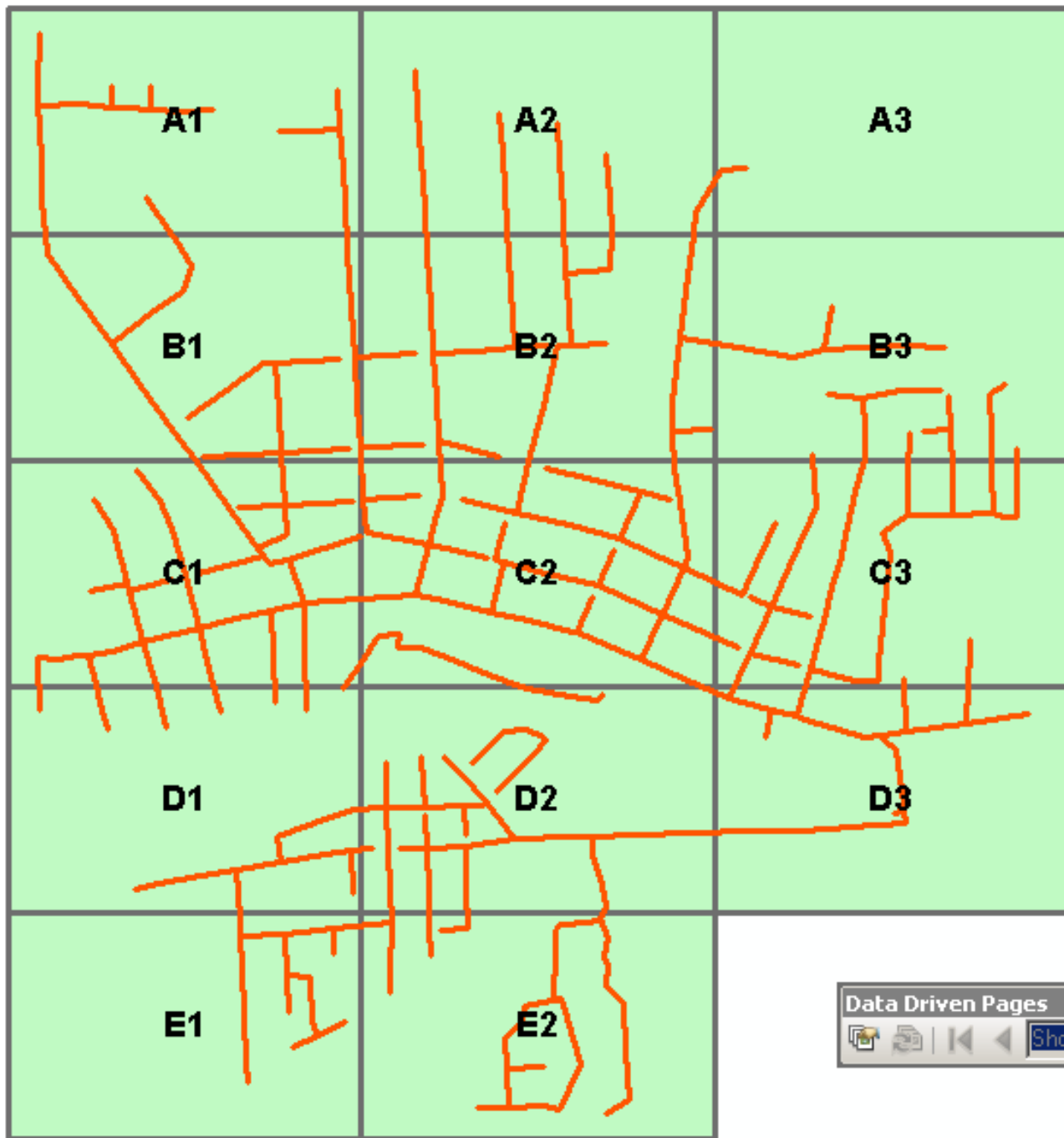
Number of Rows (optional) 5

Number of Columns (optional) 3

Starting Page Number (optional) 1

Start labeling from the Origin (optional)

OK Cancel Environments... Show Help >>



Data Driven Pages

⏏ ⏪ ⏩ Show f

Setu

- Turn
 - C
 -
 - E
 - S



Setup Data Driven Pages

Definition | Extent

i What are data driven pages?
An index layer is used to produce multiple output pages using a single layout. Each page shows the data at a different extent. The extents are defined by the features in the index layer.

Enable Data Driven Pages

Index Layer

Data Frame:
Layers

Layer:
gridGISSIG

Name Field:
PageName

Sort Field:
PageNumber

Sort Ascending

Optional Fields

Rotation:
none

Spatial Reference:
none

Page Number:
none

Starting Page Number:
1

OK Cancel

Setup Data Driven Pages

Setup Data Driven Pages

Definition | Extent

Map Extent

Best Fit

Margin

Size: Specify Using:

Round Scale To Nearest:

Center And Maintain Current Scale

Data Driven Scale

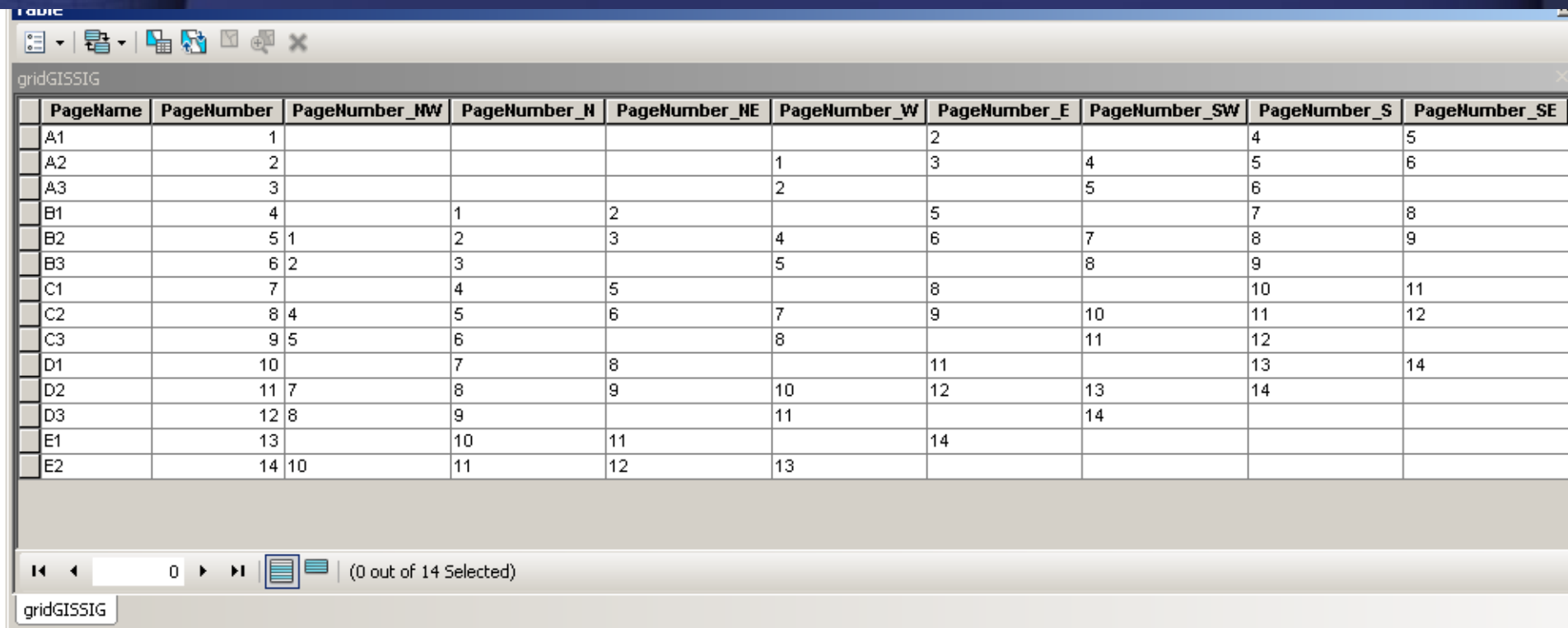
OK Cancel

Dynamic Map Elements

- Dynamic map elements change depending on map page
- Map title
- Page number
- Author
- File Path
- Adjacent Page Numbers

Dynamic Map Elements

- Adjacent page numbers
 - ArcToolbox / Data Driven Pages / Calculate Adjacent Fields



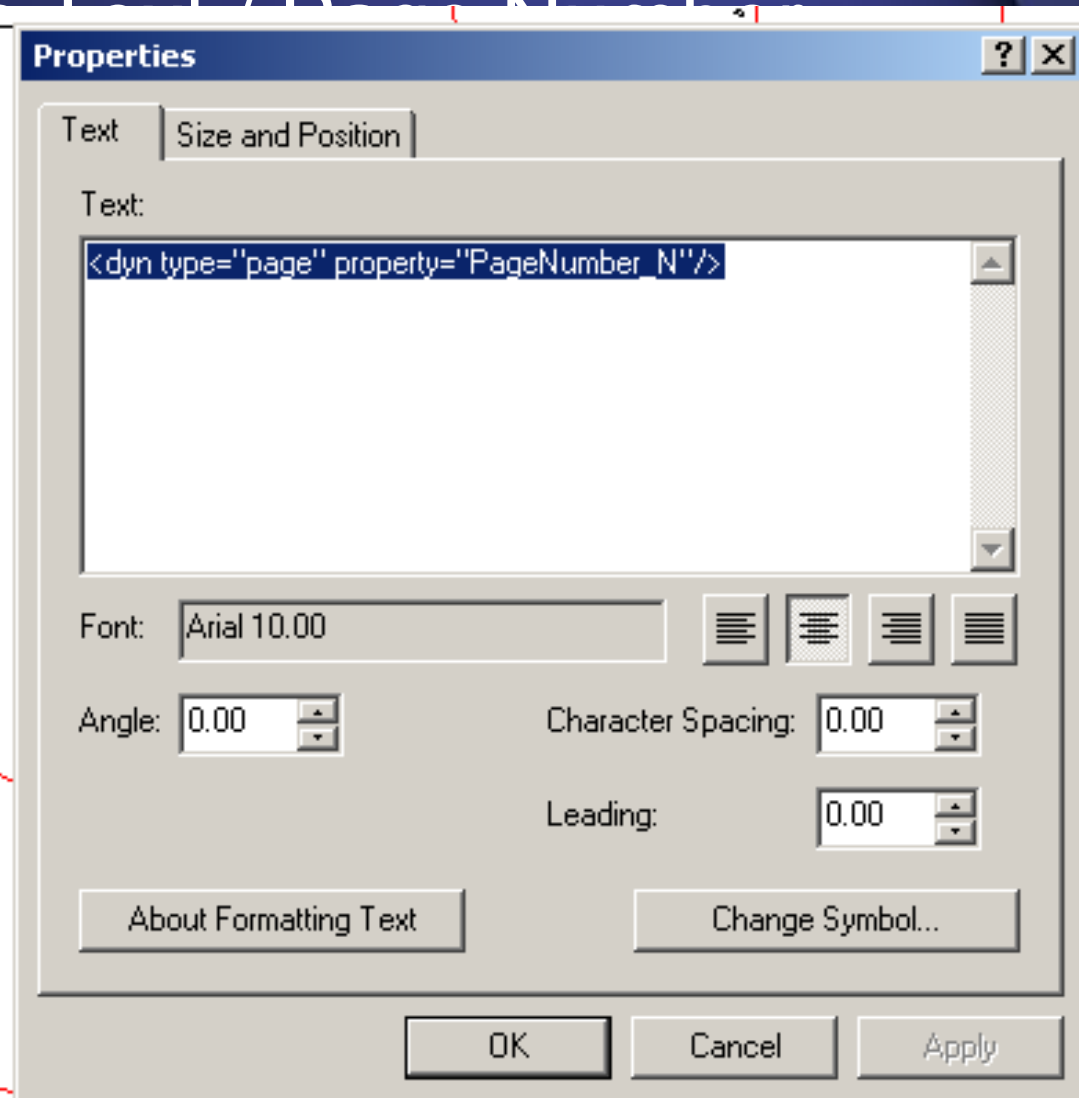
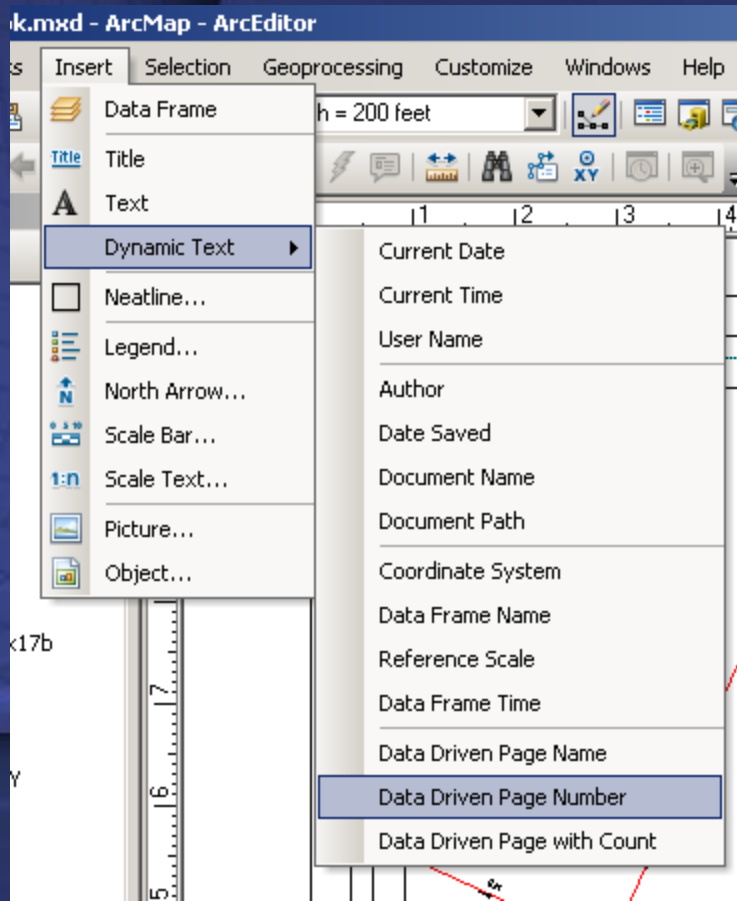
The screenshot shows a software window titled "gridGISSIG" with a table of page numbers and their adjacent fields. The table has 10 columns: PageName, PageNumber, PageNumber_NW, PageNumber_N, PageNumber_NE, PageNumber_W, PageNumber_E, PageNumber_SW, PageNumber_S, and PageNumber_SE. The rows represent pages A1 through E2, with some cells containing multiple numbers separated by spaces.

PageName	PageNumber	PageNumber_NW	PageNumber_N	PageNumber_NE	PageNumber_W	PageNumber_E	PageNumber_SW	PageNumber_S	PageNumber_SE
A1	1					2		4	5
A2	2				1	3	4	5	6
A3	3				2		5	6	
B1	4		1	2		5		7	8
B2	5 1		2	3	4	6	7	8	9
B3	6 2		3		5		8	9	
C1	7		4	5		8		10	11
C2	8 4		5	6	7	9	10	11	12
C3	9 5		6		8		11	12	
D1	10		7	8		11		13	14
D2	11 7		8	9	10	12	13	14	
D3	12 8		9		11		14		
E1	13		10	11		14			
E2	14 10		11	12	13				

At the bottom of the window, there is a navigation bar with a left arrow, a right arrow, and a status indicator "(0 out of 14 Selected)".

Dynamic Map Elements

- Insert / Dynamic Text / Page Number
- Modify Text to look like a page number



Page Definition

- Page definition of

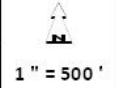

Layer Properties

General Source Selection Display Symbology Fields Definition Query

Definition Query:

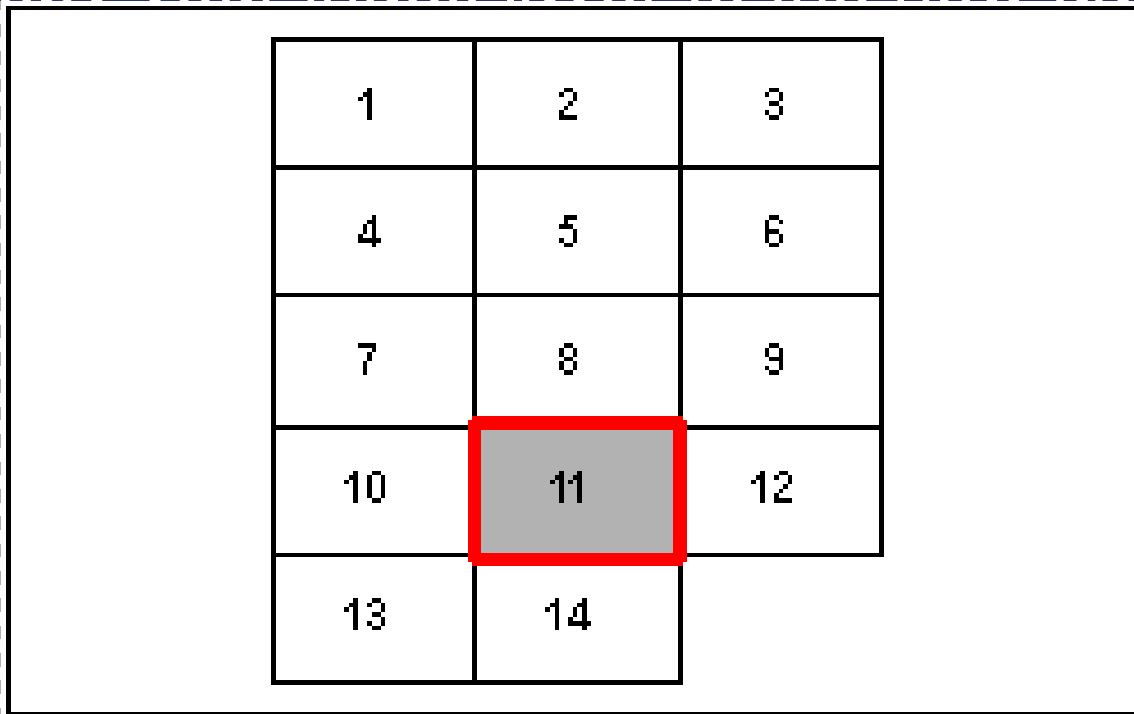
Query Builder... Page Definition...



300	PENFIELD FIRE DISTRICT	 1" = 500'		300
	BOX BOOK MAPPING			

Locator Map

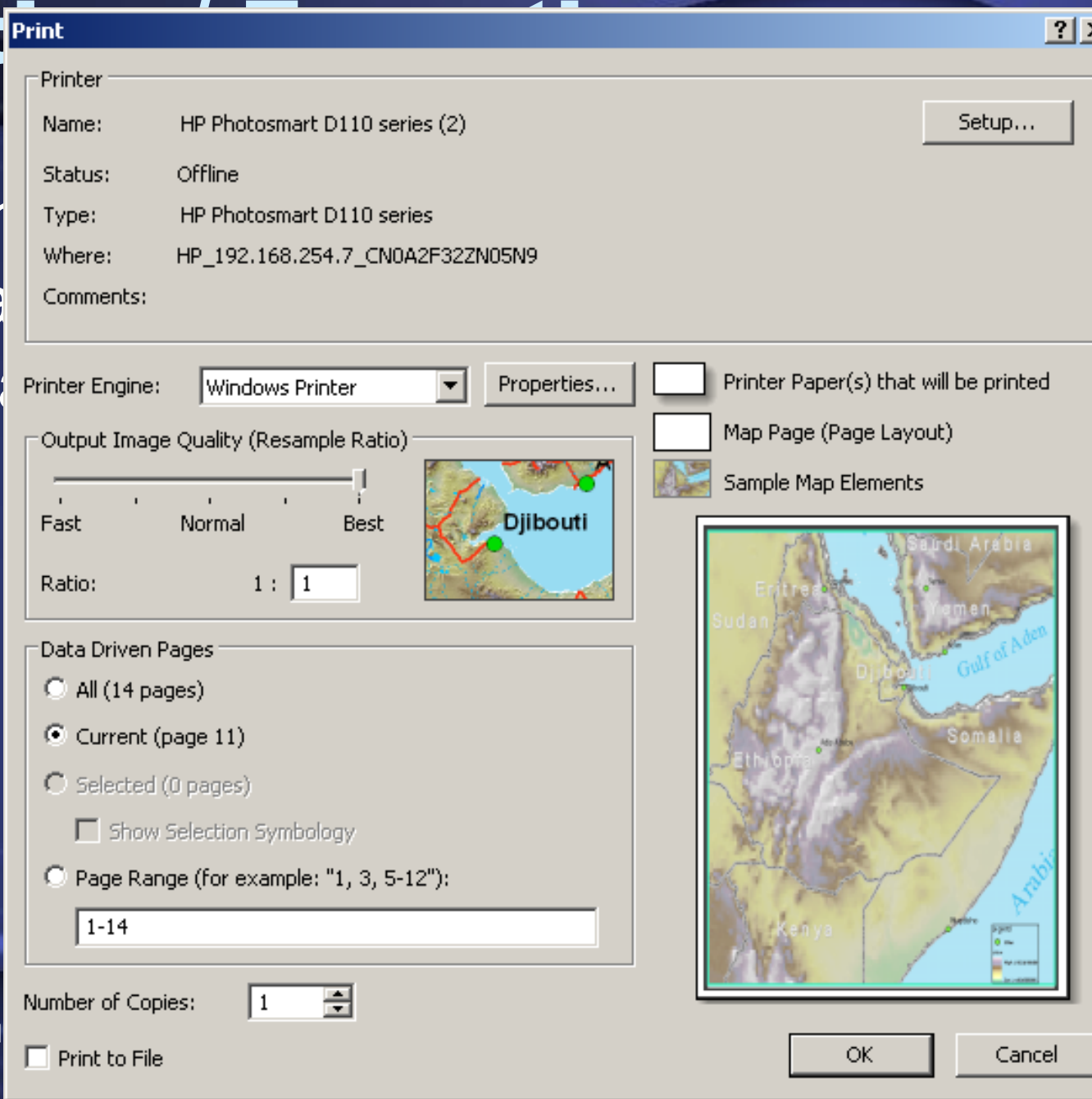
- Locator Map
- Highlights grid cell for each active page
 - Create new data frame
 - Copy your index layer to the new data frame



1	2	3
4	5	6
7	8	9
10	11	12
13	14	

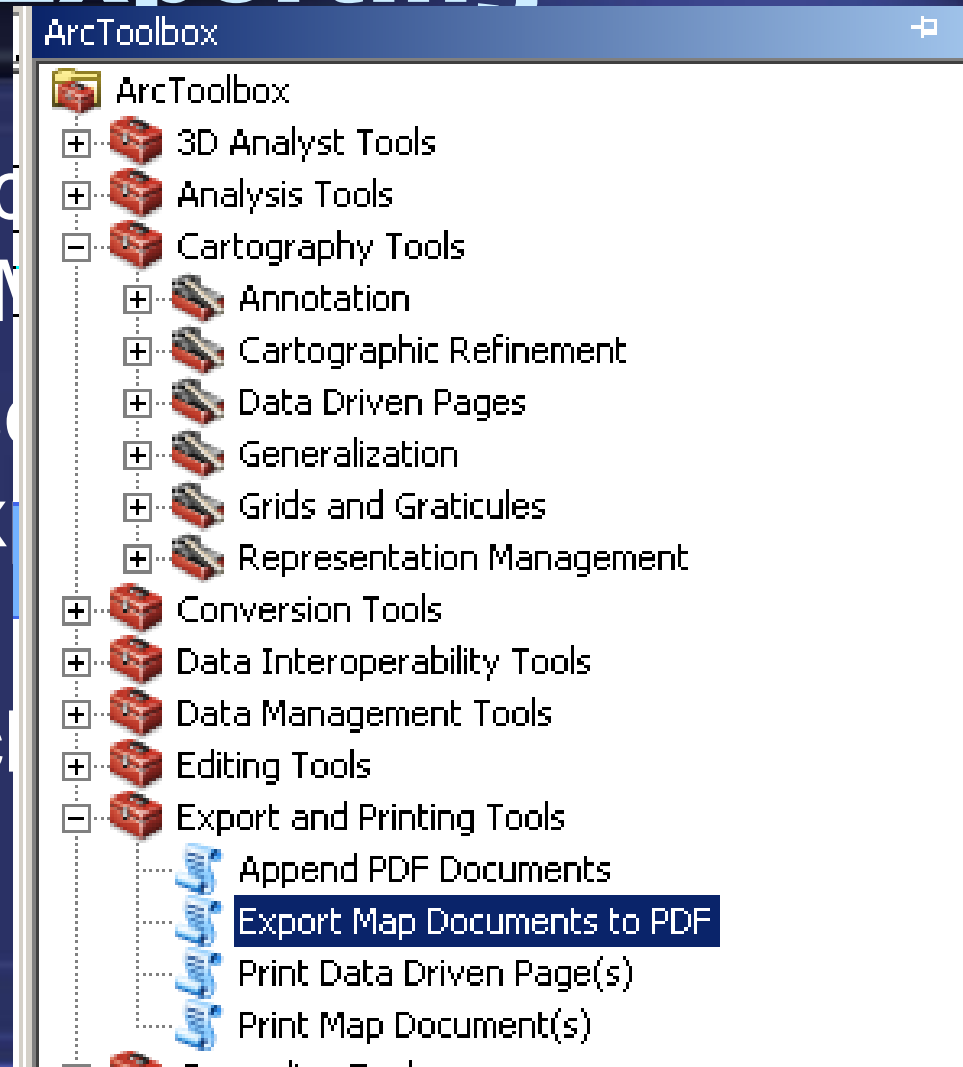
Print

- When you click on the printer icon, you will see a dialog box to print a map.



Printing / Exporting

- Title page and as separate .M
- Use Python script toolbox to export PDF
- Google search "script tools"



Conclusion

- Questions?
- Live Demo
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