



# Desktop Mapping: Building Map Books

Jeff Barrette

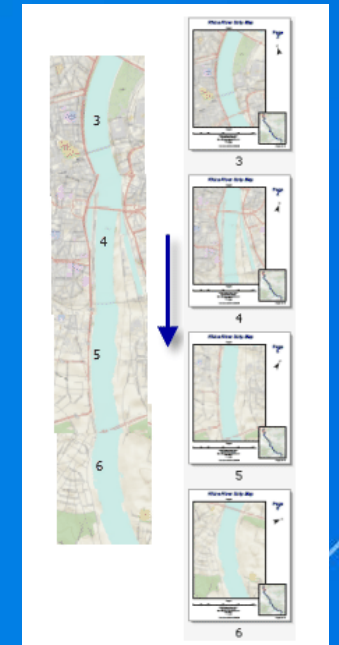
Michael Grossman

# Map automation options

- Data Driven Pages (DDP)
  - User interface approach to building map pages
- arcpy.mapping
  - Scripting framework for automating map output
  - Can be used to extend DDP

# Types of Map Books

- Collection of map pages
  - Plus additional pages like:
    - titles, TOC, index pages, etc.
- Most common are reference map books
  - series of pages that iterate across a geographic area
  - reference grid based, strip maps, or feature based

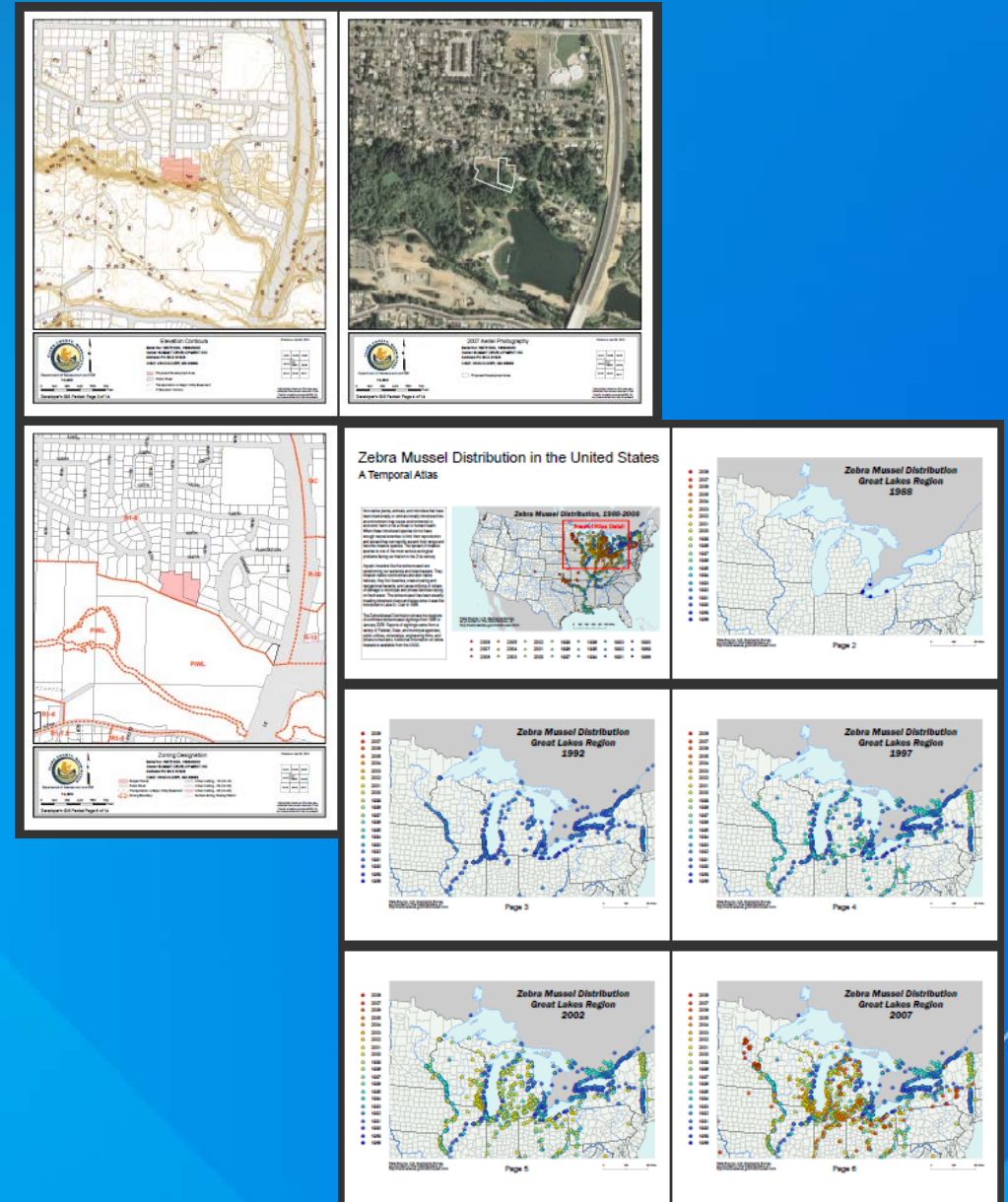


DDP and/or arcpy.mapping

# Types of Map Books (cont.)

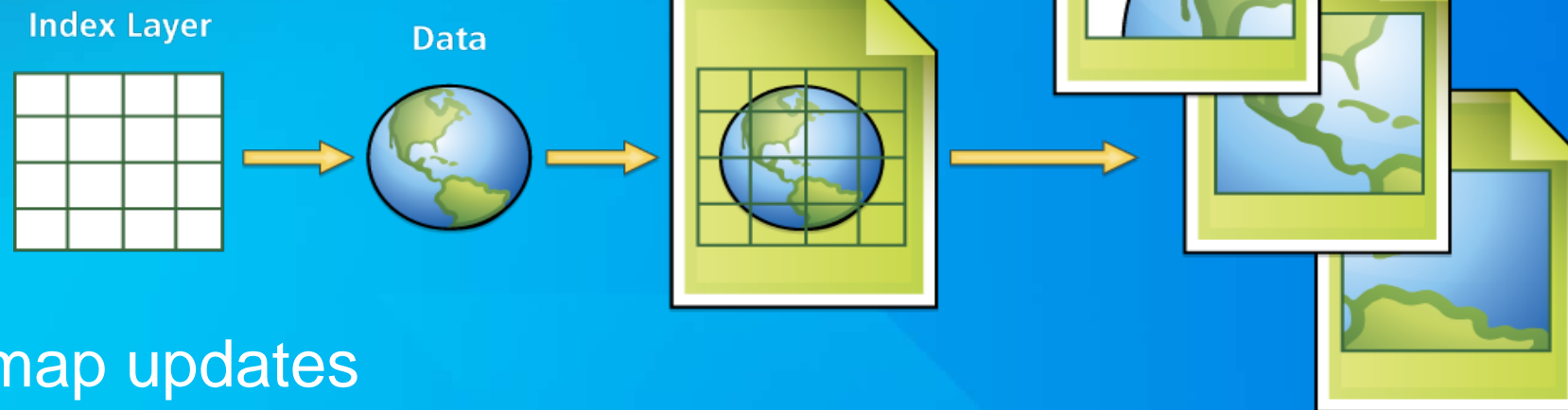
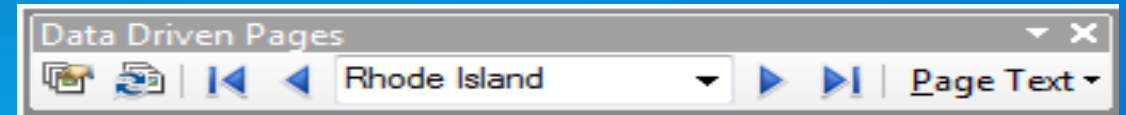
- Thematic
  - all pages have the same extent
  - each page shows unique layers
- Temporal
  - mapping time series data
  - each page shows unique data and time

arcpy.mapping only

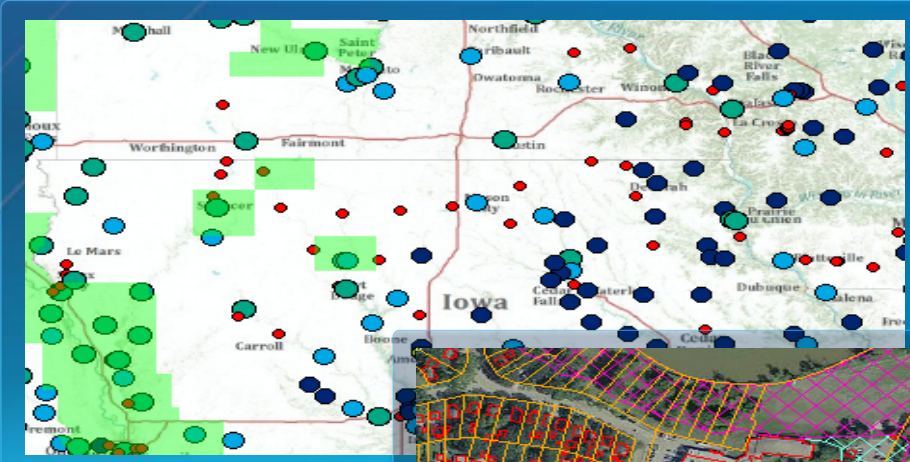


# Data Driven Pages

- Index layer
- Single map layout
- Pages based on feature extents



- Other map updates
  - Dynamic legends, text, and pictures



# Data Driven Pages

Samantha Keehan

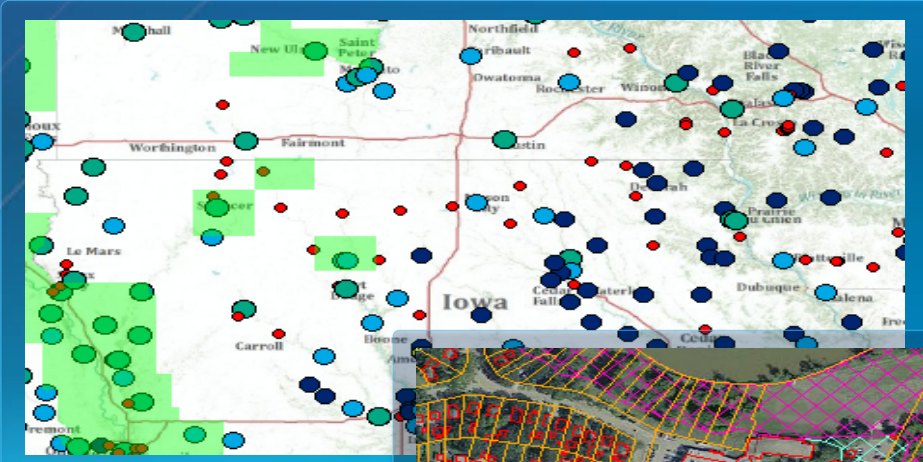
# What is arcpy.mapping?

- A map scripting environment introduced at 10.0
- Python mapping module that is part of the ArcPy site-package
- An API that allows users to:
  - manage map documents, layer files, and their contents
    - find a layer with data source X and replace with Y
    - update a layer's symbology in many MXDs
    - generate reports that lists document information
      - data sources, broken layers, spatial reference info, etc.
  - Automate the exporting and printing of map documents
  - Automate map production and create map books
    - **extend Data Driven Pages capabilities**

# arcpy.mapping example - appending PDFs

```
import arcpy
newPDF = arcpy.mapping.PDFDocumentCreate(
    "C:/project/newpdf.pdf")
newPDF.appendPages("C:/project/titlepage.pdf")
newPDF.appendPages("C:/project/mappages.pdf")
newPDF.appendPages("C:/project/indexpages.pdf")
newPDF.saveAndClose()
```





# arcpy.mapping

Jeff Barrette

# Resources available

- ArcGIS Resource Center (web help)
  - Building map books / DDP: <http://esriurl.com/8147>
  - arcpy.mapping: <http://esriurl.com/8148>
    - Alphabetical lists of classes and functions with detailed discussions
    - Multiple sample scripts for each class and function topic
- ArcGIS Online – arcpy.mapping / Map Automation group
  - <http://esriurl.com/8899>
    - Download sample scripts (be sure to check “Show ArcGIS Desktop Content”)



Understanding our world.