Building Map Books in ArcGIS

Jeff Barrette
Tom Bole
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

Use DDP and/or arcpy.mapping
Types of Map Books (cont.)

- Thematic map books
  - all pages have the same extent
  - each page shows unique layers

arcpy.mapping only
Types of Map Books (cont.)

- Temporal map books
  - 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
Tom Bole
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

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

Jeff Barrette
Resources

• Desktop help:
  - Mapping/Page layouts
  - Arcpy.mapping (100’s of samples)

• ArcGIS Online:
  - arcpy.mapping / Map Automation group
  - Map Automation Forum

• Training – short web courses
  - Using ArcMap in ArcGIS Desktop 10
  - Basics of Python (for ArcGIS 10)
  - Python Scripting for Map Automation in ArcGIS 10
Related sessions

**Wednesday**
- 3:45-4:15 – Best Practices for Authoring Effective Web Maps (demo theater)

**Thursday**
- 8:30-9:45 – Introduction to arcpy.mapping (Room 8)
- 8:30-9:45 – Supporting High-Quality Printing in Web Applications for ArcGIS 10.1 for Server (Room 7)
- 10:15-11:30 – Beyond the basics of arcpy.mapping (Room 7)
• Thank you for attending
• Have fun at UC2012
• Open for Questions

• Please fill out the evaluation:

  www.esri.com/ucsessionssurveys

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