Desktop Mapping: Building Map Books

Jeff Barrette
Samantha Keehan
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
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()
Resources available

• **ArcGIS Resource Center (web help)**
  - Building map books / DDP: [http://esriurl.com/8147](http://esriurl.com/8147)
  - arcpy.mapping: [http://esriurl.com/8148](http://esriurl.com/8148)
    - Alphabetical lists of classes and functions with detailed discussions
    - Multiple sample scripts for each class and function topic

• **ArcGIS Resource Center (forums)**
  - Map Automation: [http://esriurl.com/4624](http://esriurl.com/4624)
  - Python: [http://esriurl.com/4625](http://esriurl.com/4625)

• **ArcGIS Online – arcpy.mapping / Map Automation group**
  - [http://esriurl.com/4626](http://esriurl.com/4626)
    - Download sample scripts (be sure to check “Show ArcGIS Desktop Content”)

Desktop Mapping: Building Map Books
Thank you…

Please fill out the session evaluation

First Offering ID:  1690
Second Offering ID:  1691

Online – www.esri.com/ucsessionssurveys
Paper – pick up and put in drop box