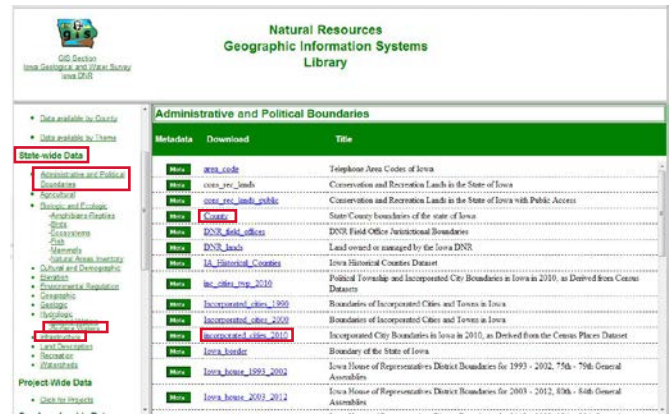# IOWA STATE UNIVERSITY
## Extension and Outreach

# Building Map Books with Data Driven Pages

Welcome to the Essential ArcGIS Task Sheet Series. This series supplements the Iowa State University GIS Geospatial Technology Training Program short course series, "Essential ArcGIS Tutorial Series." The task sheets are designed to provide quick, easy instructions for performing specific tasks in GIS.

A map book is a collection of maps and text that belong in a series. ArcGIS provides all the tools necessary to create automated map books in printed or PDF format through the combination of Data Driven Pages and Python scripts. This task sheet will use Data Driven Pages to create a map book showing incorporated cities, water-bodies, and roads for each county in Iowa.
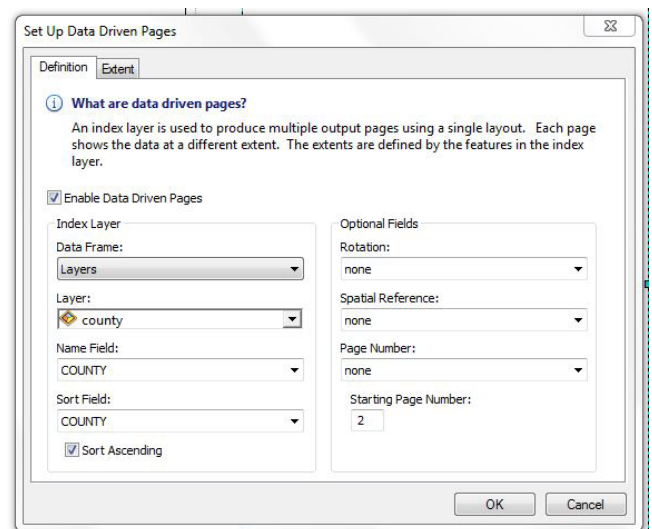
## 1. Download data from the NRGIS Library

a. In a web browser, navigate to the NRGIS Library website at https://programs.iowadnr.gov/nrgislibx/.

b. Download the following datasets under the **State-wide Data** section of the website:
   - County
   - incorporated_cities_2010
   - waterbody
   - Iowa_Roads_2006

c. Open a blank ArcMap document and add the data downloaded from the previous step. Click **Start** > **All Programs** > **ArcGIS** > **ArcMap10.1**. Click **Add Data...** and select the data from the folder it resides in. *Hint: The file will need to be extracted from the zipped folder.*
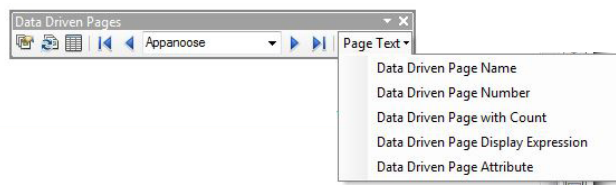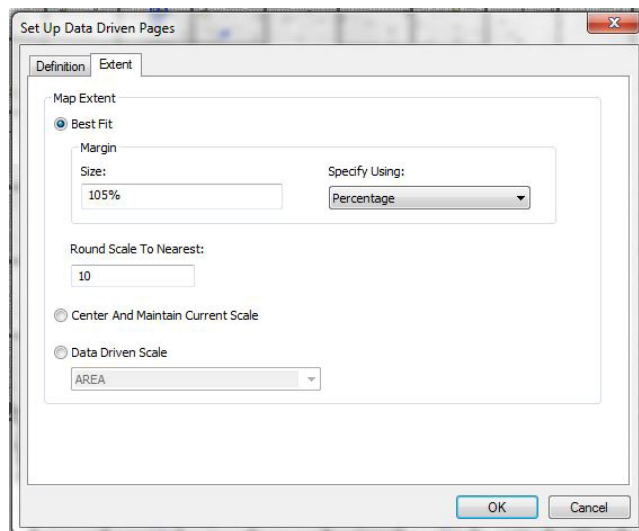


## 2. Setup Data Driven Pages

a. Open the Data Driven Pages toolbar, click **Customize** > **Toolbars** > **Data Driven Pages**.

b. Open the Set Up Data Driven Pages dialog box to enable Data Driven Pages for this map document. Click on the **Data Driven Pages Setup icon**. When the Set Up Data Driven Pages dialog box opens check the box next to **Enable Data Driven Pages**.

c. Set the index layer. The index layer is the layer that you want the map book pages to be based on. In this case we want a map book page for each county in Iowa. In the Data Driven Pages dialog box under the **Definition** tab, set the **Layer**, **Name Field**, and **Sort Field** to **County**. Check the box next to **Sort Ascending**.

d. Set the extent of each map for the map book. Click on the **Extent** tab in the Set Up Data Driven Pages dialog box and choose **Best Fit**. Set the Margin size to **105%**.
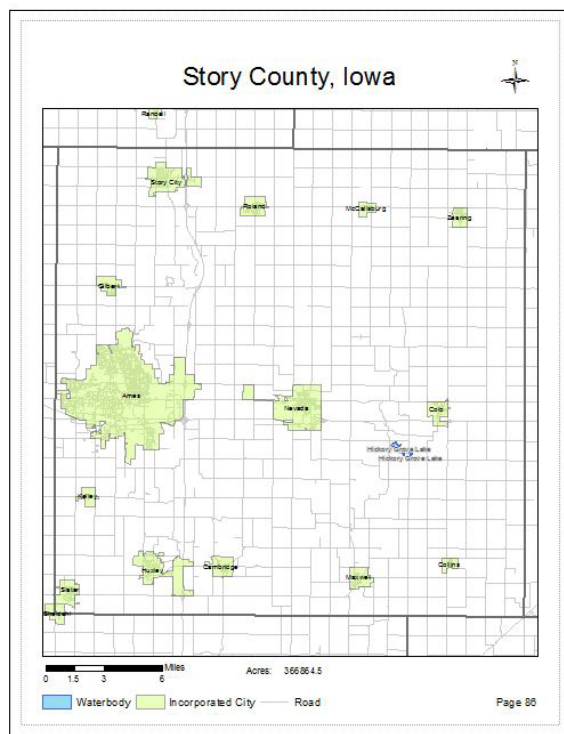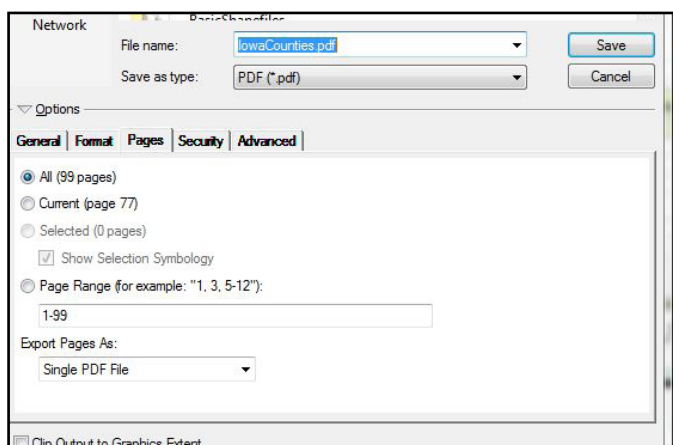
## 3. Creating Dynamic Layout Elements

a. Switch from Data View to Layout View in the Map Document. **View** > **Layout View**.

b. Create a dynamic map title. Click the **Page Text** drop-down on the Data Driven Pages toolbar and select **Data Driven Page Name**. This will show a dynamic text element displaying the name of the current data driven page as defined by the **Name Field** in **Step 2c**. Double click on the text box to open **Properties**. In the text box, type **" County, Iowa"** after the dynamic text. *Hint: to test the dynamic element, click the Next Page icon on the Data Driven Pages toolbar. The name of the county should change with each page.*

c. Create a dynamic page number. Click **Page Text** > **Data Driven Page Number**. Page number is based on the **Sort Field** and ascending order, defined in **Step 2c.**

d. Create a dynamic text element displaying an attribute for the current data driven page. In the Page Attribute Dynamic Text dialog box, select **ACRES_SF** as the **Index Layer Field**.

## 4. Export Map Book

a. Export the map book as a single, multi-page PDF. Click **File** > **Export Map...** and set **Save as type:** to **PDF**. Under Options, click the **Pages** tab, select **All (99 pages)** and select **Single PDF File** under the **Export Pages As:** drop-down.

## Contact:

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