Data Driven Pages

Introduction – What is data driven pages?

Data Driven Pages gives you the ability to generate a set of output pages by taking a single layout and iterating over a set of map extents. The extents are defined by the features in a layer and are sometimes called tiles, sections, or areas of interest (AOI). The layer that defines the extents is referred to as an index layer. Any feature layer may serve as the index layer. You create and customize new Data Driven Pages using the **Setup Data Driven Pages** dialog box. This dialog box contains two tabs: **Definition** and **Extent**. You can activate this dialog box from the **Data Driven Pages** toolbar or from the **Page and Print Setup** dialog box.


Problem and the solution

- Create an identical map of all the district municipalities in South Africa
    - The maps should show the same content, but the titles, extents and labeling need to be different
- We already have a GIS layer with all the municipalities and their names
    - The GIS software should be able to step through each data item (municipality) in the layer and change the extent of each map (zoom) automatically
    - The GIS software should be able to change the title of each maps automatically
    - The GIS software should be able to make selections from other layers, based on the current municipality being displayed
    - You should be able to export each map to a separate PDF file or to one multipage file (map book)
- Data driven pages - a solution
    - Has "always" been a possibility, even in ArcView
   - Was an extension up to ArcMap 9.3, but integrated since ArcMap 10

Creating Data Driven Pages in ArcMap 10.6

Step 1: Enabling Data Driven Pages

- In this step, you will activate the Data Driven Pages toolbar

- Click on the '**Customize**' tab, '**Toolbars**' and select '**Data Driven Pages**' as shown in the screenshot below:
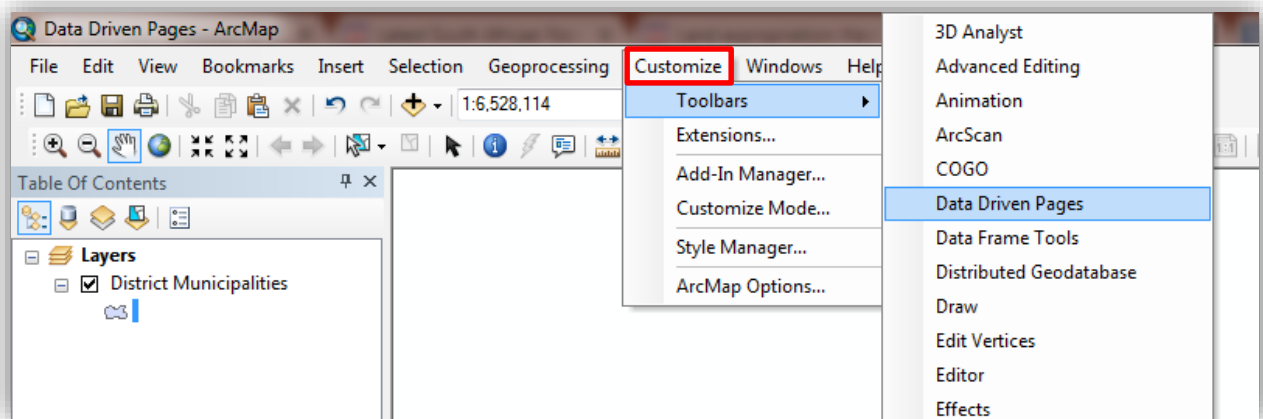

- The 'Data Driven Pages' toolbar will pop-up and the next step is to click on the '**Data Driven Pages Setup**' icon.
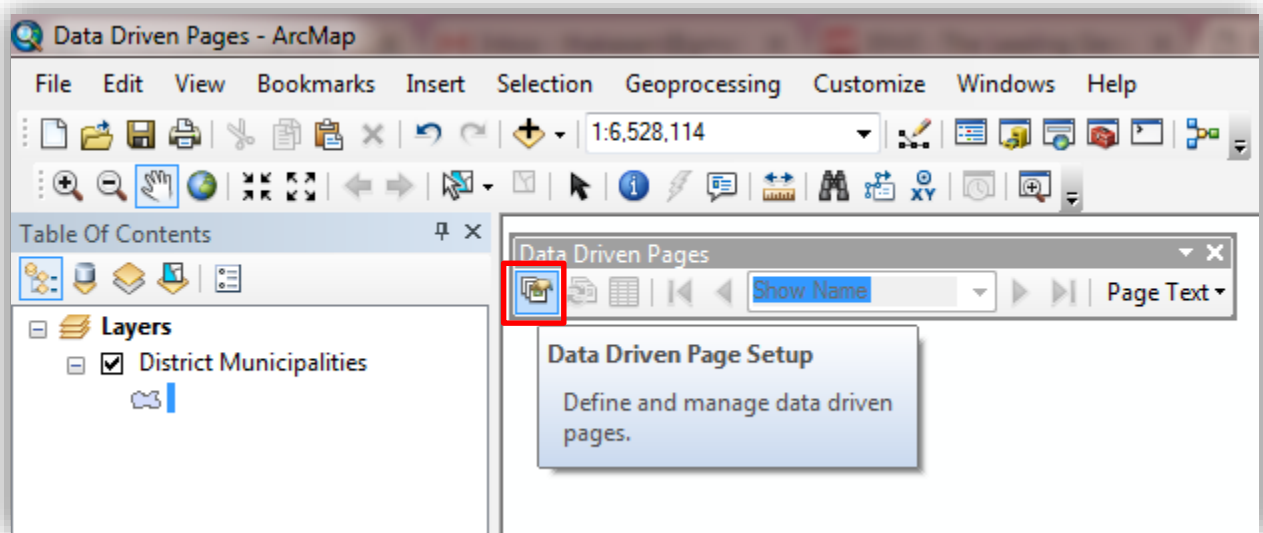
Step 2: Setting up the Data Driven Pages dialog box

- Click on the '**Enable Data Driven Pages**' check box which will enable Data Driven Pages for the current map document. Unchecking the box disables the functionality. The checkbox needs to be checked to create, view, and utilize Data Driven Pages.
- Choose the '**Layer**' and '**Name Field**' that you want to use as the Index Layer
- The '**Name Field**' chosen will be used for drawing individual maps and changing the title of each map
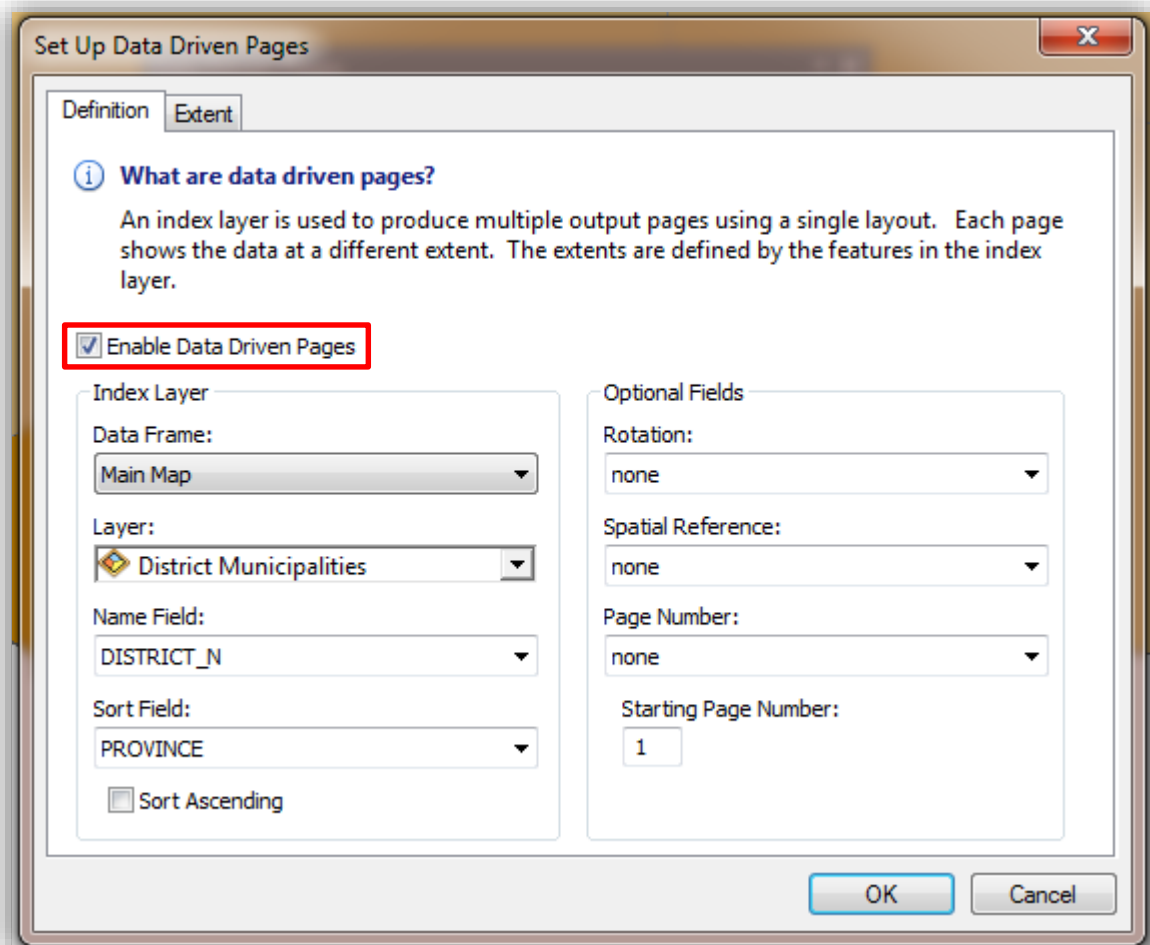
**Step 3: Changing the map title automatically**

- Inset dynamic text for map titles
- Other dynamic elements you could add
  - Geographic extent of the map
  - Map scale
  - North arrow
  - Scale bar
 - Scale text
  - Page number
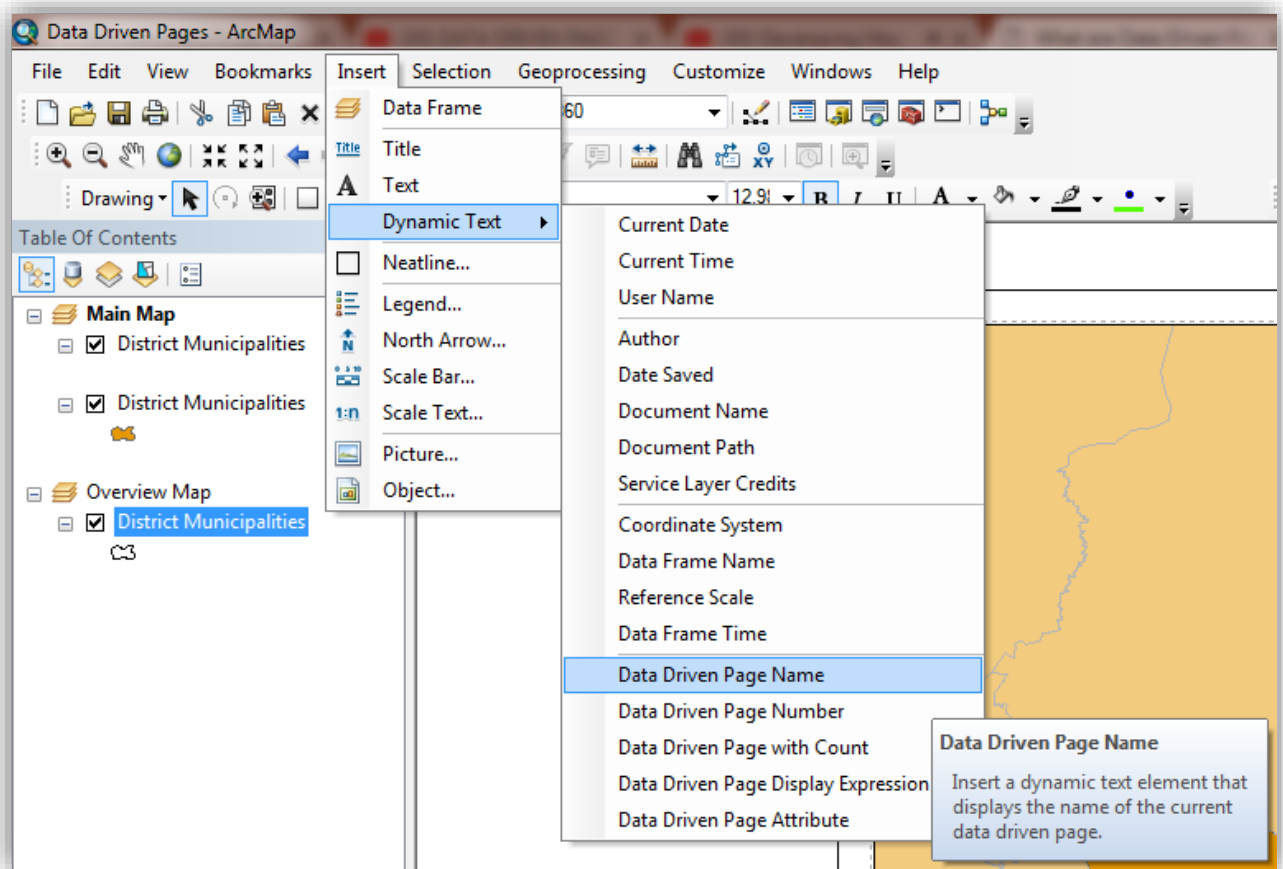
Step 4: Mask layer

- Duplicate the index layer in the main data frame

- Change the symbology colour to "Artic White" and "Outline Width" to 0.00

- Setup a '**Page Definition Query**' on the mask layer

- Set the transparency to 35%

> Note: The mask layer must be placed above the index layer (See table of contents on the previous screenshot).
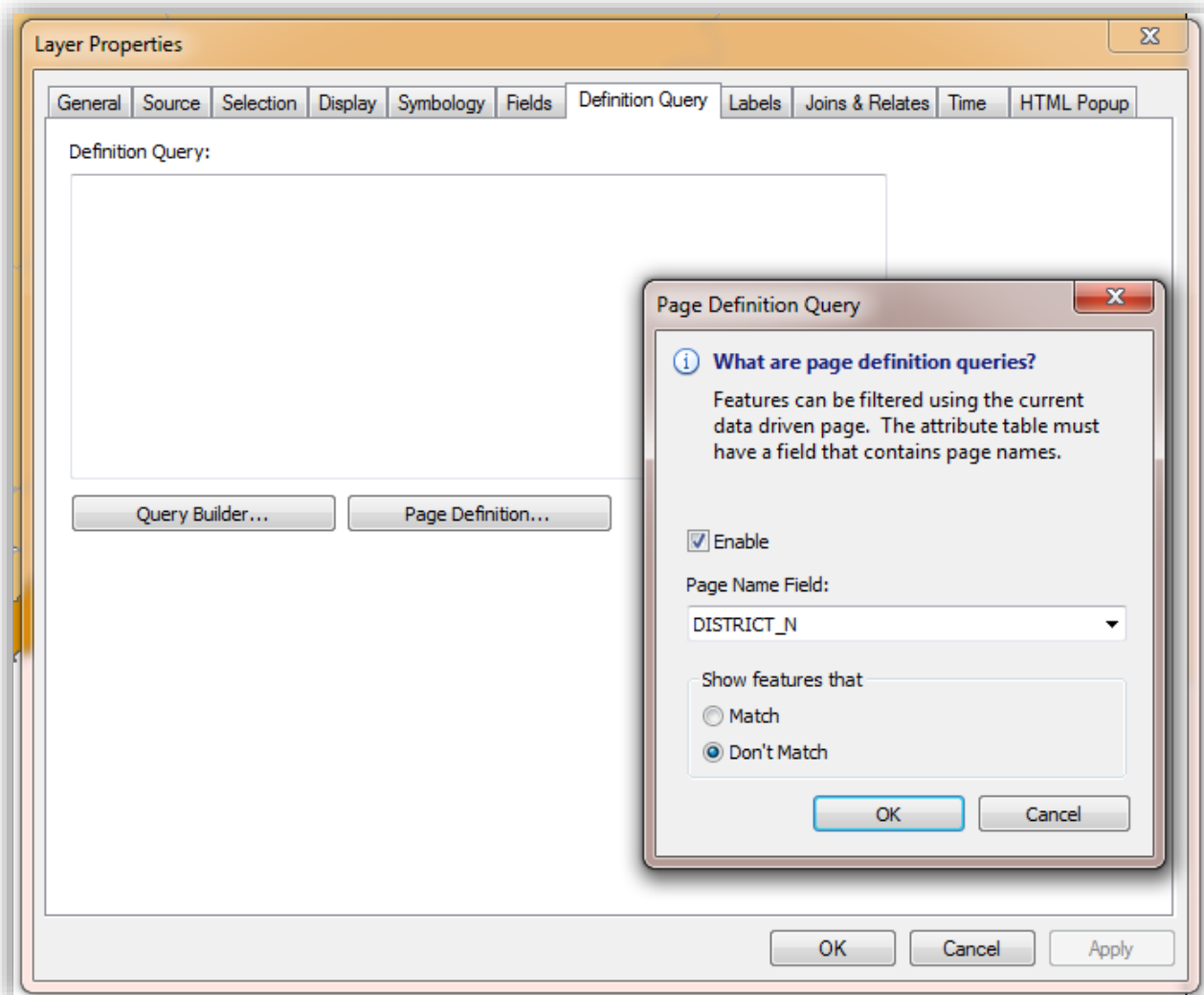
Step 5: Adding an overview map

- Not related to data driven pages, but could be used to mimic an index page

- Inset a new '**Data Frame'** and name it '**Overview Map**'

- Copy and paste your index layer on the '**Overview Map**' data frame
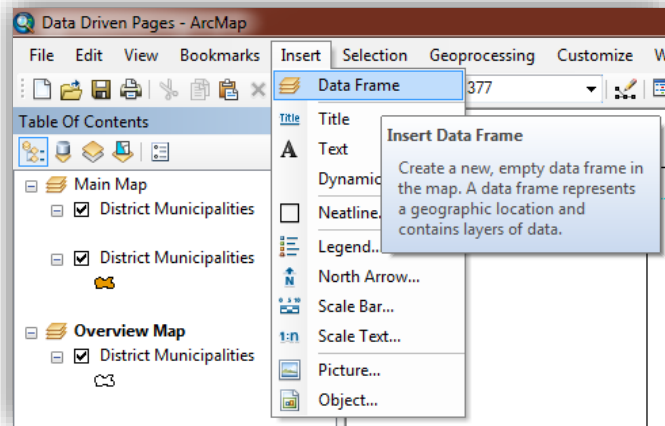
- Open the '**Data Frame Properties**' of the '**Overview Map**' data frame

- Move your '**Main Map'** from '**Other data frame**' to the '**Show extent indicator for these data frames**' box.

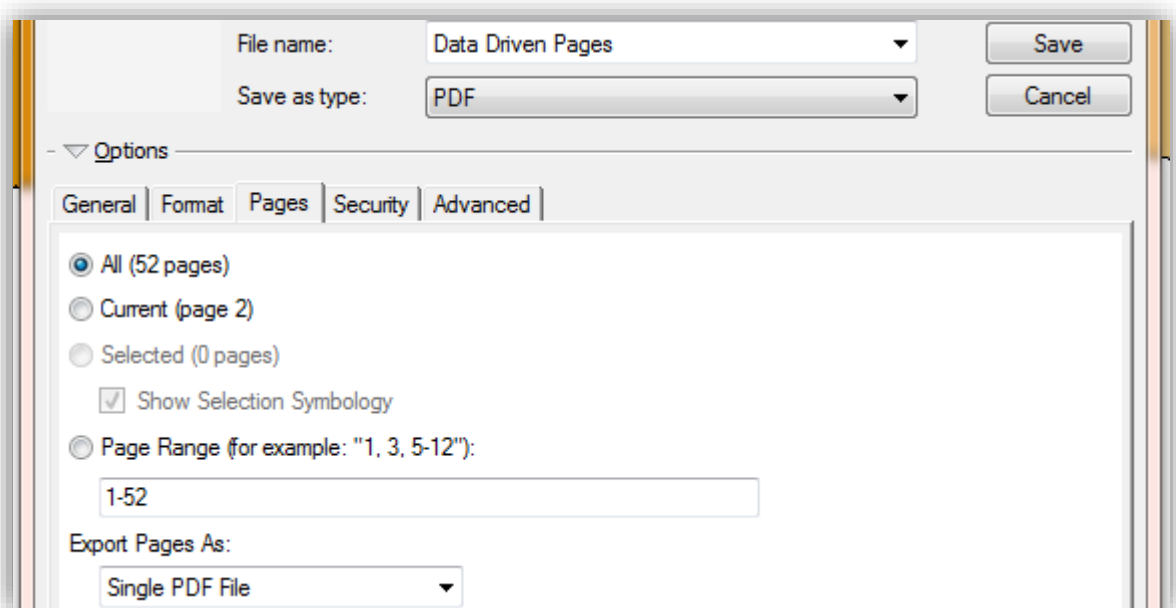- Uncheck '**Use simple extent**', '**Apply**' and click '**OK**'
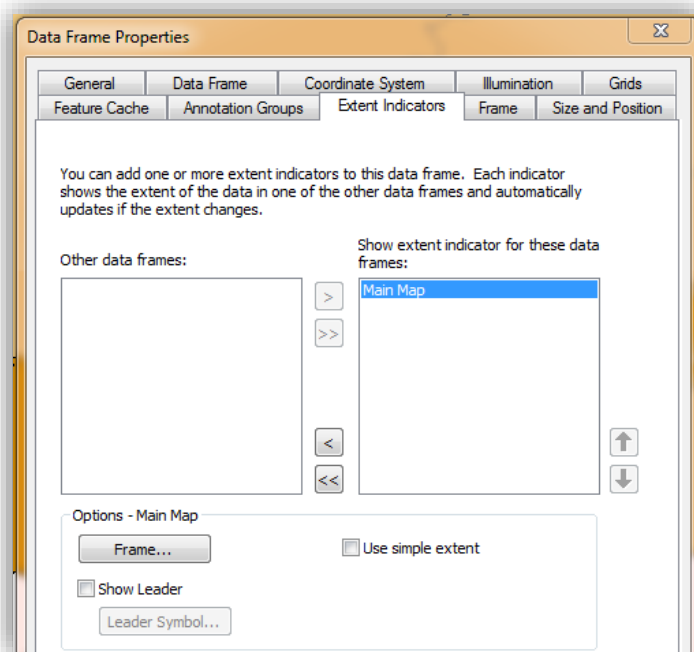
Overview map example
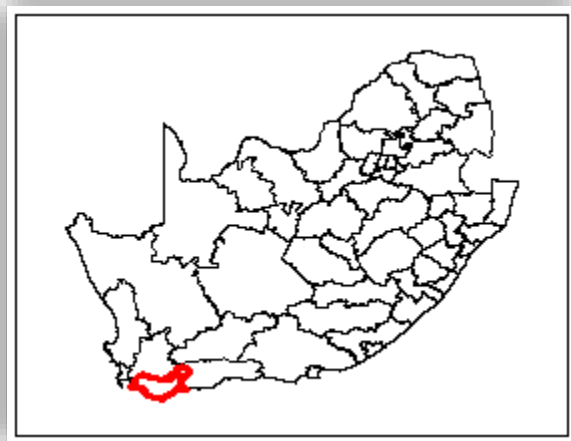
Step 6: Exporting your maps or map book

- Use the '**Export Map**' button, select '**All**' and save as **PDF**
- Currently, there is no option of exporting multiple maps / pages for other formats using the '**Export Map'** dialog box

Example

Overberg

Data Driven Pages
Overberg   Page Text

Overberg

Legend

District Municipalities

N

| 0 | 10 | 20 | 40 | 60 | 80 | 100 |

Kilometers