Data Driven Pages for U.S. Fish & Wildlife Service Mapping Projects

Sean Killen
Lead Production Cartographer
NWRS – Division of Realty
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The basics in 5 minutes

* What is a **Data Driven Page**?
* What is an **Index Layer**?
* How do I use **Dynamic Text**?
* Show a **Map Book Example**
Data Driven Pages:

* Tell stories about your data
* Enable production of **multiple** maps from **one** layout/template.
* Require an **index layer** “to drive” map output - like a bookmark
* Use **dynamic text** to pull data from table to layout. (map title = DDP page name)
* Enable **global** layout design changes
The Index Layer:

* Serves as a bookmark list for each page’s map extent and “serves” data to the layout
* Uses dynamic text to reflect tabular changes in each map based on the index layer. From table or ESRI preset labels. e.g. Date
* Only works in the layout view
Suggested index layers:

* The **cadastral geodatabase** – Refuge centric – Use the ORGNAME field
* The **layer of the subject to be mapped**
* Select by Location report – export the related themes to build an index
* County, State or Congressional Districts
* Habitat, watersheds or other natural features
* Layers with a name or title are the best!
Dynamic Text – Python for dummies

Insert -> Dynamic Text

* Data Driven Page Name =

* `<dyn type="page" property="name"/>
```

* Where “name” = map title

* Substitute any field name for “name”
  e.g. “GISACRES” to paste that label in.
Here’s an example of DDP as a Map Book output:

* SAMMS / Cadastral Geodatabase
Open the Set Up DDP Dialog Box
Customize -> Toolbars -> Data Driven Pages

What are data driven pages?
An index layer is used to produce multiple output pages using a single layout. Each page shows the data at a different extent. The extents are defined by the features in the index layer.

Enable Data Driven Pages

- Index Layer
  - Data Frame: Layers
  - Layer: TRN_MBCC_AAB_6-5-13
  - Name Field: CMPXNAME
  - Sort Field: FID
  - Sort Ascending

- Optional Fields
  - Rotation: none
  - Spatial Reference: none
  - Page Number: none
  - Starting Page Number: 1
Check the “Enable Data Driven Pages” box.
Customize! – use the DDP Dialog to:

- Pick a Name field data driven page titles.
- Pick a Sort field for output, by region, refuge name...
- Choose a rotation field for the map frame
- Choose a field that defines the spatial reference
- Choose a page number
What are data driven pages?

An index layer is used to produce multiple output pages using a single layout. Each page shows the data at a different extent. The extents are defined by the features in the index layer.

- Enable Data Driven Pages
- Index Layer:
  - Data Frame: Detail
  - Layer: 4-22_NWR_NFH_non_AK_joins
  - Name Field: Title_Abbr
  - Sort Field: Title_Abbr
  - Sort Ascending
- Optional Fields:
  - Rotation: none
  - Spatial Reference: none
  - Page Number: none
  - Starting Page Number: 1
Customize! – use the DDP Dialog extent tab to:

* Pick an extent for each view
* Best fit – to feature extent + a specified %
* Or map units “extent + 5 miles”
* Choose a page number
Check the "Enable Data Driven Pages" box.
The Data Driven Page Toolbar

- Open the DDP dialog box
- Refresh data driven pages – after making changes
- Open the table
- Toggle navigation and by alpha / page number
- Insert Dynamic Text - options
Things to ensure success

- Good base map with consistency in the range of the subject maps
- Use templates – from national site: link here or Realty
- Learn to use the DDP dialog – practice
- Use dynamic text – try this at home
Thank you!

* Sean Killen
* HQ NWRS Division of Realty
* Lead Production Cartographer
* 931-525-4978
* sean.killen@fws.gov
Tips:

* Anchor your scale bar – on left center, left justified, adjust number of divisions and division values
* Use uniform base map service or data that covers the index data extent (scale dependent zoom built-in)
* Export to Pdf – individual or as multiple pages
* When opening as Pdfs use “fit to page width”
Data Driven Pages - Definition/Benefits

* A map template
* An Index layer – e.g. Cadastral Geodatabase, Refuges, Fisheries, Wilderness
* Data that is imported to each map frame and associated with the geography of the map extent.
* Output of individual maps or a collection in one Adobe Pdf file.
* Cartographic mass production
* Portable
* Global customization – one design change effects all output files.
* Custom zoom to inset maps, automated titles (Dynamic text) and
* Page Definition Queries
Benefits of DDP Generation

- Mass production
- Standard Pdf / GeoPDF output that anyone can use
- Global template design edits
- Atlas of your stuff to share with everyone. Starts the conversation about spatial relationships.
- Tells the story of your data – synoptic view with local, detailed base data. “Apples to Apples” comparisons can be made across the theme
- Data mgrs/owners can see their theme in context of other themes for the first time. ES / NWRS, NWI / NWRS, NPS / FWS boundary adjudication are just a few examples. Select by Location (intersect) + export data = index theme for DDP output.