

Intro

'Cartography Outside of Esri'
Using tools beyond ArcMap to make maps

Presented by Michael Fornalski at the summer COGIS meeting, September 4, 2013, in Bend, Oregon.

Views, opinions, and experiences contained herein represent only those of the author, and not those of his employer or former clients.

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You could do that, but why would you want to?

- Achieve visual effects not possible or easy with ArcMap alone
- Fix 'glitches' in ArcMap output
- Prepare ArcMap output for other mediums

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Considerations

- Intended audience and use for map
- Disconnect from spatial data
- Estimated life of map
- Project schedule
- Labor budget
- Familiarity with non-Esri software tools
- Map reproduction method and quantity

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Rough classification of mapping techniques

Based on level of effort:

- Basic effort
- Moderate effort
- Maximum effort

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Basic Effort Techniques

- Export to PDF
- 'Optimize' or other file compression in Acrobat
- Minor edits as needed

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Basic Effort Techniques

- All maps exported to PDF for ease of printing
- All PDFs opened within Adobe Acrobat
- Most maps compressed for file size reduction
- Some editing capability within Acrobat

Name	Size	Date modified	Type
Langshorn_MallBy.pdf	416.027 KB	6/27/2013 4:57 PM	Adobe Acrobat Document
Langshorn_MallBy-r.pdf	8.605 KB	8/27/2013 5:05 PM	Adobe Acrobat Document

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Moderate Effort Techniques

- Export to PDF or AI formats
- Most map layers are rasterized
- Most editing is in labels, legend, and margins

ArcMap → PDF Export (Adobe PDF icon) → AI Export (Adobe Ai icon) → Illustrator → PDF / Print

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Moderate Effort Techniques

- Label
- Leader
- Graph

Brewery Name	Address	City	State	Zip
10 Barrel Brewing Co.	1010 NE Oregon St.	Portland	OR	97232
Blind Tiger Brewing	1010 NE Oregon St.	Portland	OR	97232
Brewery 33	33 NE Oregon St.	Portland	OR	97232
Brewery 36	36 NE Oregon St.	Portland	OR	97232
Brewery 37	37 NE Oregon St.	Portland	OR	97232
Brewery 38	38 NE Oregon St.	Portland	OR	97232
Brewery 39	39 NE Oregon St.	Portland	OR	97232
Brewery 40	40 NE Oregon St.	Portland	OR	97232
Brewery 41	41 NE Oregon St.	Portland	OR	97232
Brewery 42	42 NE Oregon St.	Portland	OR	97232
Brewery 43	43 NE Oregon St.	Portland	OR	97232
Brewery 44	44 NE Oregon St.	Portland	OR	97232
Brewery 45	45 NE Oregon St.	Portland	OR	97232
Brewery 46	46 NE Oregon St.	Portland	OR	97232
Brewery 47	47 NE Oregon St.	Portland	OR	97232
Brewery 48	48 NE Oregon St.	Portland	OR	97232
Brewery 49	49 NE Oregon St.	Portland	OR	97232
Brewery 50	50 NE Oregon St.	Portland	OR	97232

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Moderate Effort Techniques

Subdivision Name	Address	City	State	Zip
10 Barrel	1010 NE Oregon St.	Portland	OR	97232
Blind Tiger	1010 NE Oregon St.	Portland	OR	97232
Brewery 33	33 NE Oregon St.	Portland	OR	97232
Brewery 36	36 NE Oregon St.	Portland	OR	97232
Brewery 37	37 NE Oregon St.	Portland	OR	97232
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Brewery 40	40 NE Oregon St.	Portland	OR	97232
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Moderate Effort Techniques

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Moderate Effort Techniques

- Export raster elements to tiff
- Keep vector labels and marginalia

Mavericks at Sunriver

DEER PARK

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Major Effort Techniques

- Export layer-by-layer
- Rebuild final art in AI
- Significant labor required
- Can be most flexible result

ArcMap → AI and TIF Exports (stack of AI icons) → Illustrator → PDF / Print

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Major effort technique

- Complex maps, multiple content types, lots of labels

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Major effort techniques

Methods used include

- Export many or all layers to AI, sometimes one layer at a time
- De-format layer properties in ArcMap to avoid known export issues
 - Transparencies
 - Label placement options
 - Grouping
 - Color assignments
- Export attribute data to text file for separate import to AI
- Add photos, text, graphics at AI stage

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Major effort techniques

- Layer-by-layer export example

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Fixing ArcMap annoyances

- Labels that don't follow the line

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Fixing ArcMap annoyances

Fixing Label Placement

- Capture the keystrokes
- Get rid of everything else
- Reconstruct the label on a new path
- Add a halo as a stroke on

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Fixing ArcMap annoyances

Fixing Label Placement

- Capture the keystrokes
- Get rid of everything else
- Reconstruct the label on a new path
- Add a halo as a stroke on the text

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End

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Major Effort Techniques

Label de-formatting

- Opt 1: format labels with 'straight' setting in ArcMap, then copy/paste to preferred location in map in AI
- Opt 2: Export attribute data to text file, import text to AI and copy/paste labels onto new paths

<i>Copper Ck</i>	<i>Horseshoe Ck</i>	<i>Cross Ck</i>
<i>Avalanche Ck</i>	<i>Dougherty Ck</i>	<i>Ouzel Ck</i>
<i>Glacier Ck</i>	<i>Kennedy Ck</i>	<i>Horse Ck</i>
	<i>Comb Ck</i>	<i>Sugarloaf Ck</i>
<i>Gardiner Ck</i>	<i>Lewis Ck</i>	<i>West Fork Ferguson Ck</i>
<i>Charlotte Ck</i>	<i>Sheep Ck</i>	<i>East Fork Sugarloaf Ck</i>
	<i>Ferguson Ck</i>	<i>Ferguson Ck</i>
	<i>Hotel Ck</i>	<i>Table Ck</i>
	<i>Bubbs Ck</i>	<i>Sphinx Ck</i>
	<i>Cunningham Ck</i>	<i>East Ck</i>
	<i>Brewer Ck</i>	<i>Vidette Ck</i>
	<i>Roaring River</i>	<i>Granite Ck</i>
	<i>Moraine Ck</i>	<i>Horse Ck</i>
	<i>Bartn. Ck</i>	

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Major Effort Technique

Line de-formatting

- Set line formats to solid in ArcMap
- Apply dashed or built-upstrokes in AI

