Operations Dashboard: Designing Effective Dashboards

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Agenda

• Qualities of a “good” dashboard
• Map and data preparation
• Dashboard layout
• Dashboard elements
• Effective use of colors
• Embedded dashboards
• Interactive dashboards
• Mobile dashboards
Operations Dashboard for ArcGIS

- A web app focused on authoring and viewing dashboards
- Provides data summaries on a single web page
- Common patterns of use:
  - Monitor and manage operations
  - Event Management
  - Visualize key performance
- Available in ArcGIS Online & ArcGIS Enterprise 10.6 (and beyond)
Qualities of “Good” Dashboards

• Know your audience:
  - What questions are they trying to answer
  - In what environments are they going to view the dashboard
• Express information clearly and accurately, without distraction
• Grab attention to where it is needed
Map and Data Preparation
It all starts in the web map

- What data are most important?
- Style your layers to convey meaning (Arcade is your friend)
- Set appropriate refresh interval (do the math)
Demonstration
It all starts in the web map

Minutes since report

Expression

Round(DateDiff(Now(), $feature.reptd, "minutes"), 0)
It all starts in the web map

Attribute Expressions
Adding expressions allows you to create new information from existing fields for use in pop-ups.

Hex Color by Priority

Custom Attribute Display
Use the area below to define, format, and lay out the information you want to display.

PEDESTRIAN
24TH ST & MONROE BLVD; E 2400 S; S 800 E
Priority: 1
Status: ARRVD
Unit: 2F13 | Zone: OG6
Street View
3/26/2019, 10:22 AM (5 min ago)

ASSIST
2828 HARRISON BLVD; OGDEN HIGH SCHOOL
Priority: 4
Status: ARRVD
Unit: 2F7 | Zone: OG8
Street View
3/26/2019, 9:52 AM (37 min ago)
Dashboard Layout
Dashboard Layout Considerations

• Keep it simple

The goal of a dashboard is NOT to see how many different ways you can display your data
Don't build this... if your users need this.
Dashboard Layout Considerations

• Keep it simple
• How will the dashboard be viewed?
  - What screen resolution?
  - Will it be embedded?
  - Mobile users?
How you think your dashboard will be used

How everyone else uses your dashboard
Dashboard Layout Considerations

- Keep it simple
- How will the dashboard be viewed?

On my 27” monitor

Active Snowplows

Embedded in StoryMap

Active Snowplows

# Plows with speed > 0 mph
Dashboard Elements
Tips for Designing Visual Elements

• Indicators
• Gauges
• Charts
• Lists
• Filters
Tips for Designing Visual Elements

• Indicators
  - Is a number enough?
  - What is the trend?
  - Out of how many?
  - Compared to what?
  - Is a Gauge better?

Which one has more information?

Units On Duty

13

38 total units (25 off duty)
Tips for Designing Visual Elements

• Charts
  - Pie or Serial?
  - Use guides for context
  - Configure actions
Tips for Designing Visual Elements

- Lists
  - How many features?
  - Which attributes are important?
  - What order?
  - Actions needed?
Tips for Designing Visual Elements

• Filters
  - How many?
  - Buttons or Dropdown?
  - Configure actions
    - Spatial or attribute?

![Filter options](image_url)
Mobile Dashboards
Mobile Dashboards Considerations

- Less is more
- Mobile dashboards are complement, not replacement, of desktop dashboards
- Mostly used to show performance
- Reduce amount of text
- Use colors effectively
Mobile Dashboards Considerations
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Select the session you attended

Scroll down to find the feedback section

Complete answers and select “Submit”
Resources

- Product Documentation: https://arcg.is/2IVIC0R
- GeoNet: https://arcg.is/2zamYzd
- ArcGIS Solutions: https://arcg.is/2lYHzNP
- Training webinar: https://arcg.is/2np1xCl

Bonus tip:
- Want to see how a cool sample dashboard was configured?
- Change: https://www.arcgis.com/apps/opsdashboard/index.html#/itemId
- To: https://www.arcgis.com/apps/opsdashboard/index.html#/new?id=itemId
- This will save a copy of the dashboard into your content