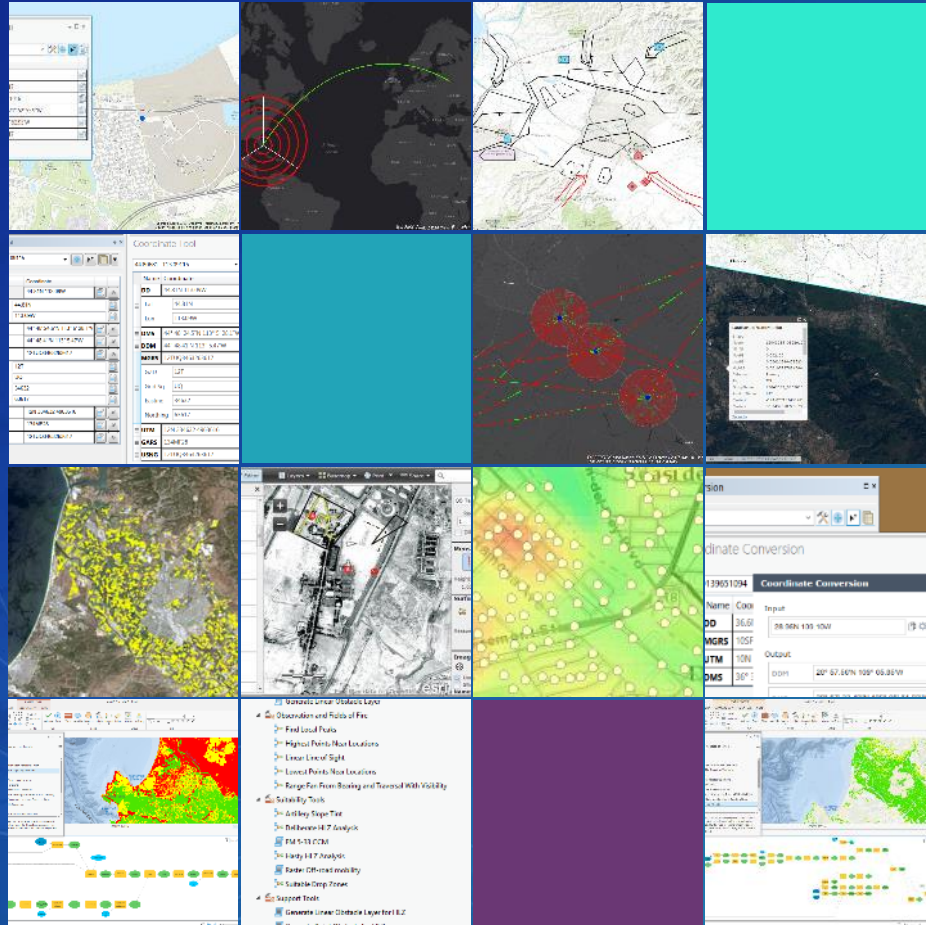


Simple Maps and Apps for Tactical Operations

Dan Barnes and Matt Funk
Defense Solutions

Defense Solutions

We support the Defense, Intelligence, and National Security industry



Fully documented and maintained

Fully supported

Open source

From Print Map to Web App

Digital Transformation for Tactical Operations

- ArcGIS Online
- ArcGIS Enterprise
- Web AppBuilder for ArcGIS
- Survey123 for ArcGIS
- Operations Dashboard For ArcGIS



Web Map – foundation for creating and sharing Web Applications

Bringing your data into ArcGIS Enterprise or ArcGIS Online

- A web map is the basis for creating these information products
 - Geographic context
 - Visualization with smart mapping
 - Interactive and exploratory
 - Shareable to your organization

Data Sources



ArcGIS Desktop
Applications (Pro)



Server with
Geographic Data



Table,
spreadsheet, .csv

Share your Data



Map your Data in the Web



ArcGIS® Enterprise



ArcGISSM Online



Get Started with Sharing

Populating your Organization with Data



1 *Add content*



2 *Refine item details*



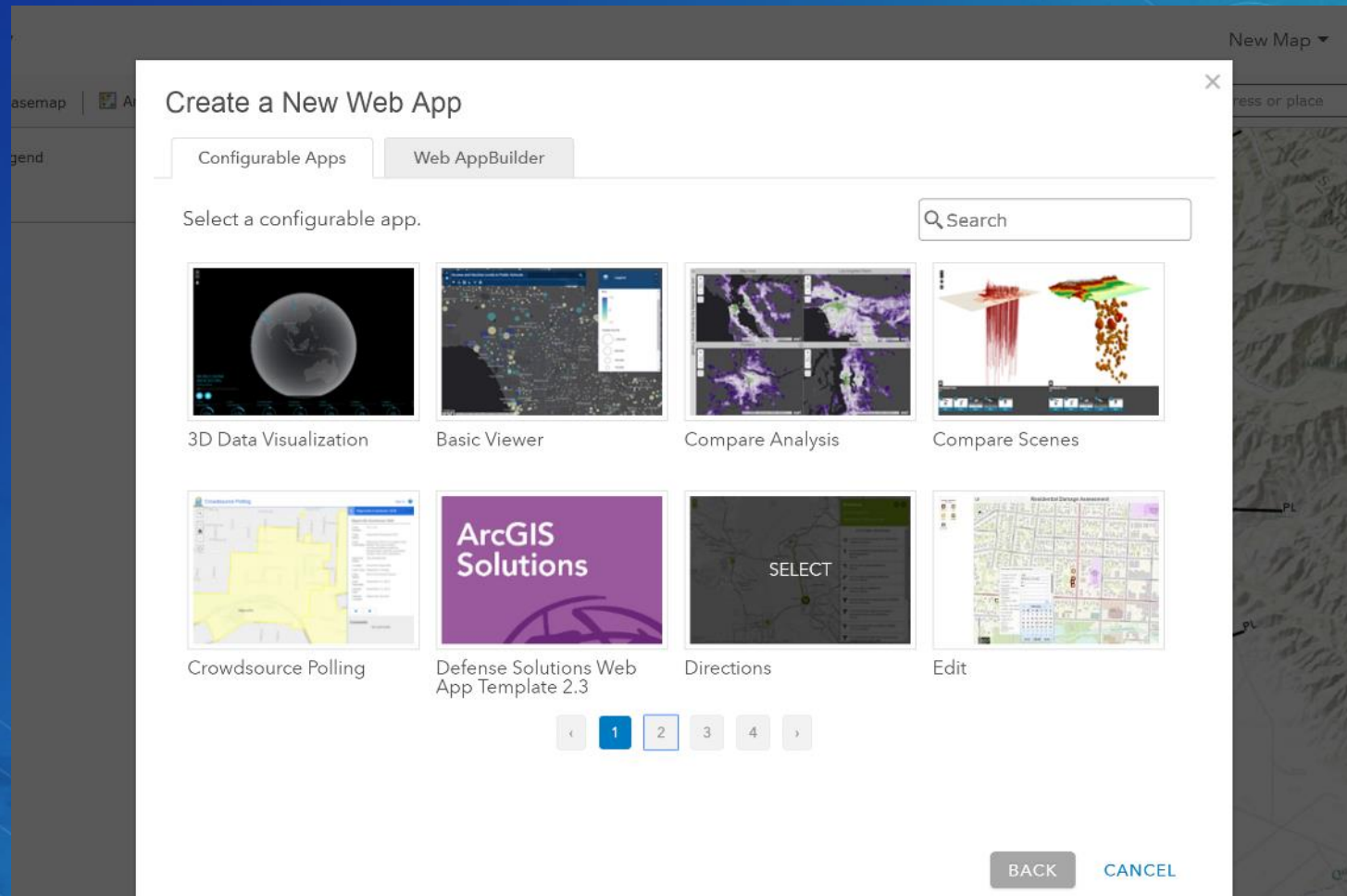
3 *Choose audience*



4 *Share content*

Web Map to Web Application with Configurable Apps

Apps available in your organization



Web Map to Web Application with Web AppBuilder for ArcGIS®

Assemble web applications – no coding required

- Widgets
- Themes
- Any Device

Web Maps



ArcGIS® Enterprise



ArcGISSM Online



Web AppBuilder for ArcGIS®



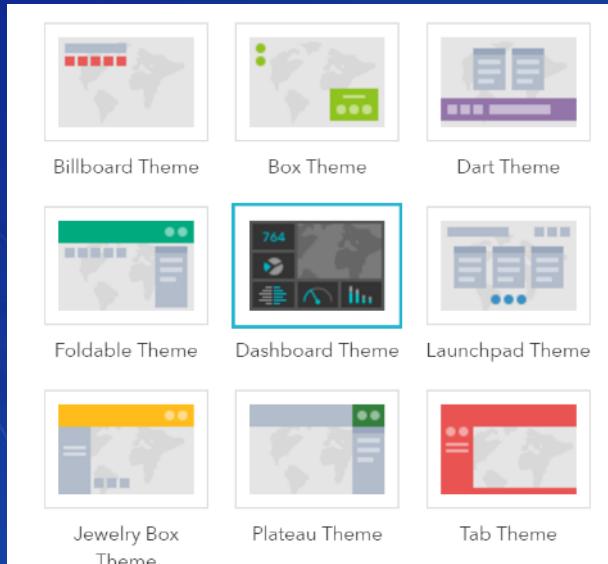
Web Apps



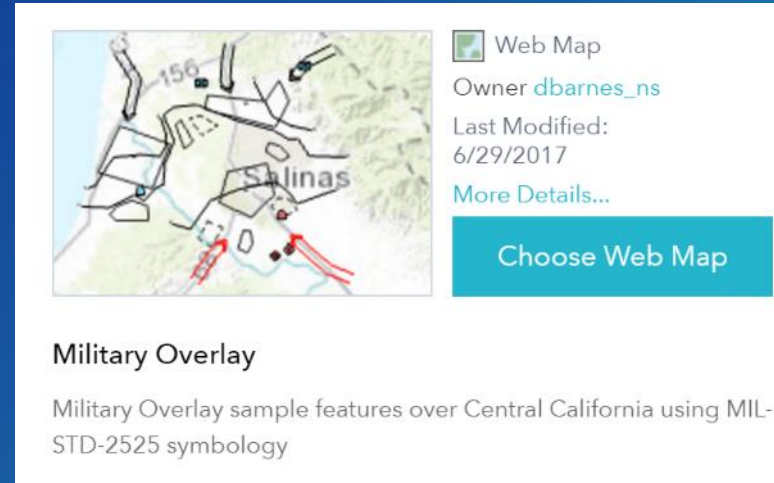
Building Apps

Decisions and Considerations

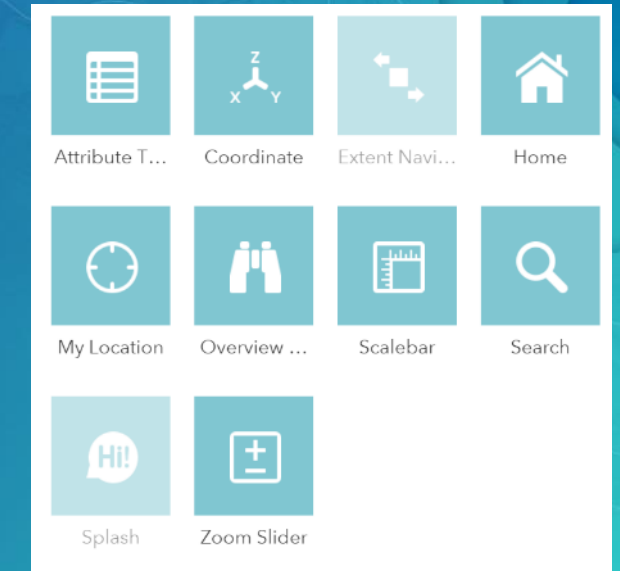
1. Choose Theme



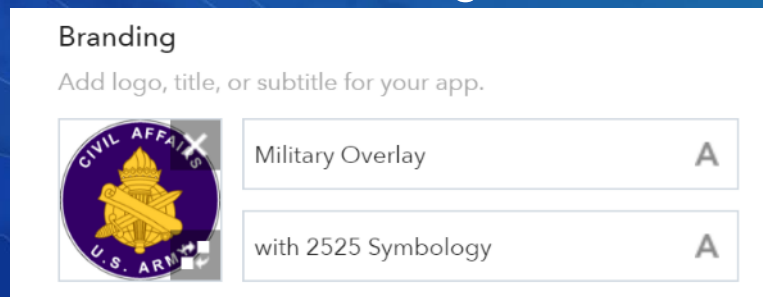
2. Choose Web Map



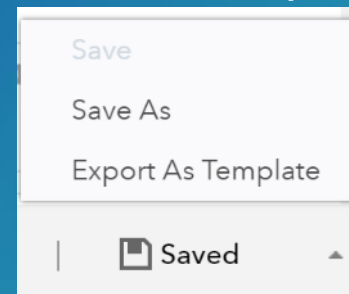
3. Choose Widgets



4. Choose Branding



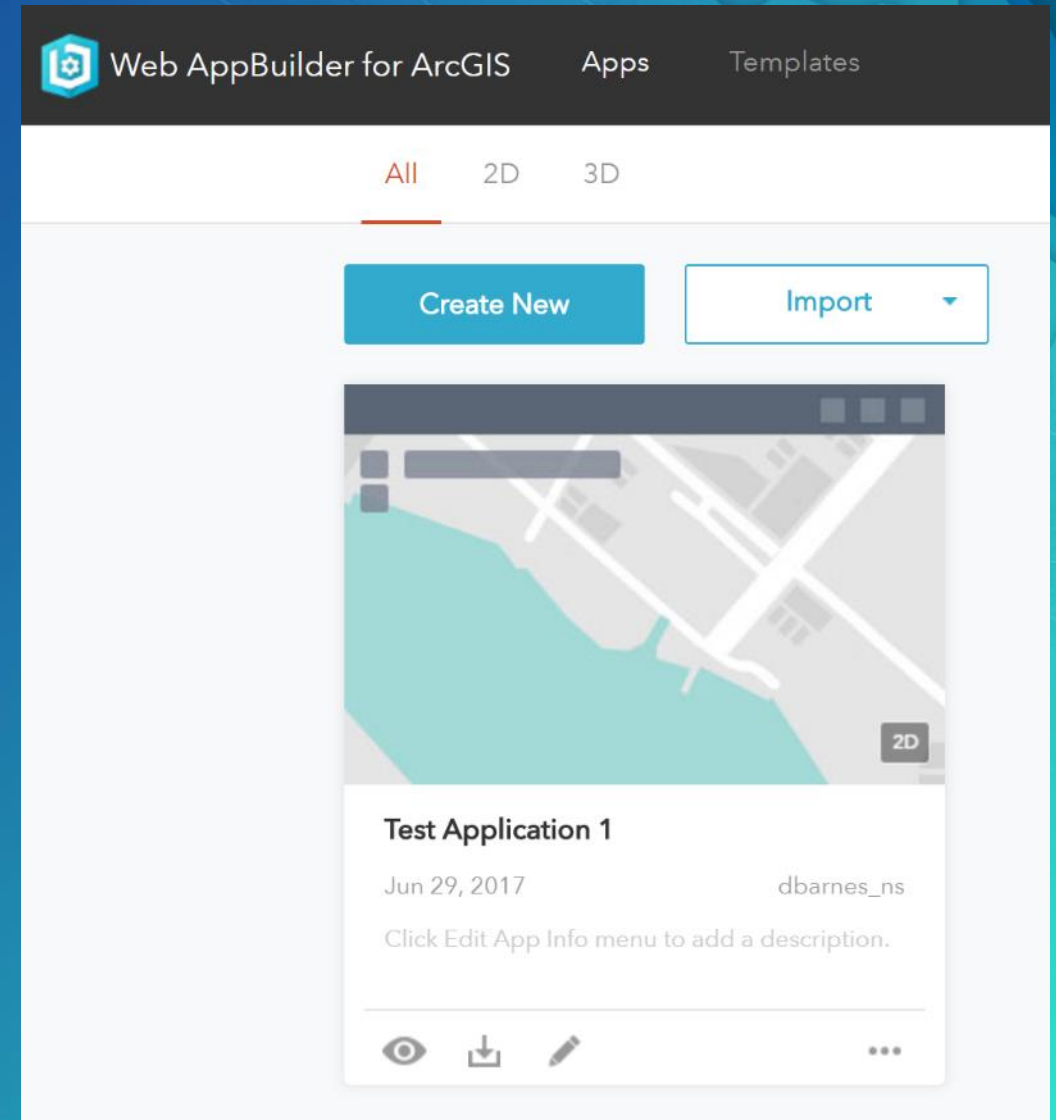
5. Save, Export as Template



Web AppBuilder (Developer Edition)

Extend Web AppBuilder

- Create custom themes
- Develop and incorporate custom widgets
- Run in a disconnected environment
- Download apps and deploy on web server



Defense Solutions Widgets

Custom functionality for your workflows



Defense Solutions Widgets

Available at:

- <http://solutions.arcgis.com/shared/help/solutions-webappbuilder-widgets/>
- <http://solutions.arcgis.com/defense/help/military-tools/web-appbuilder/>

Core widgets released at ArcGIS Online 5.2, ArcGIS Enterprise 10.5.1, and Web AppBuilder Dev Edition 2.5 (Summer 2017)

Core Widgets

Custom
Supported
Widgets

Custom Non-
Supported
Widgets

Military Tools for ArcGIS

Coordinate
Conversion

Distance
and
Direction

Visibility

Solutions Web AppBuilder Widgets

Grid Overlay

Gridded
Reference
Graphic

Critical
Infrastructure/Key
Resources Chart

Bomb Threat

Emergency
Response
Guidebook

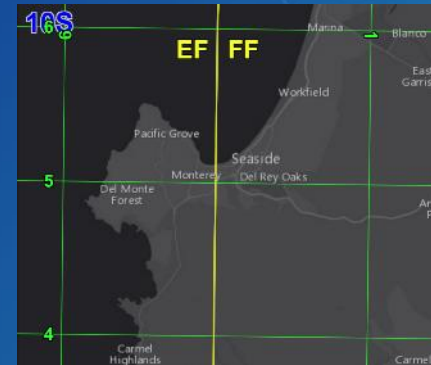
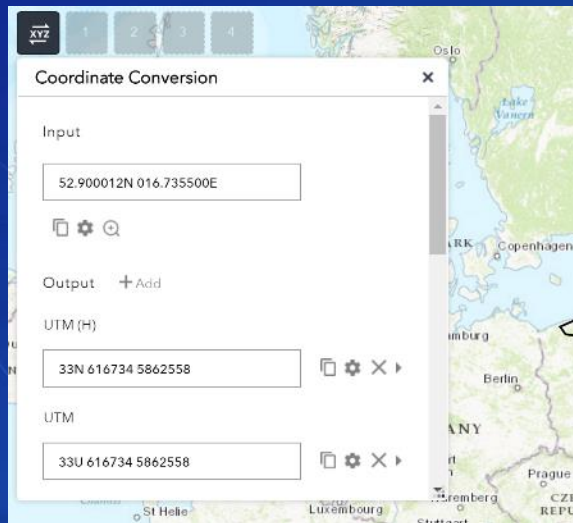
Elevation Profile

Image Discovery

Defense Solutions Widgets

Built for your workflows

Convert Coordinate Notation Formats

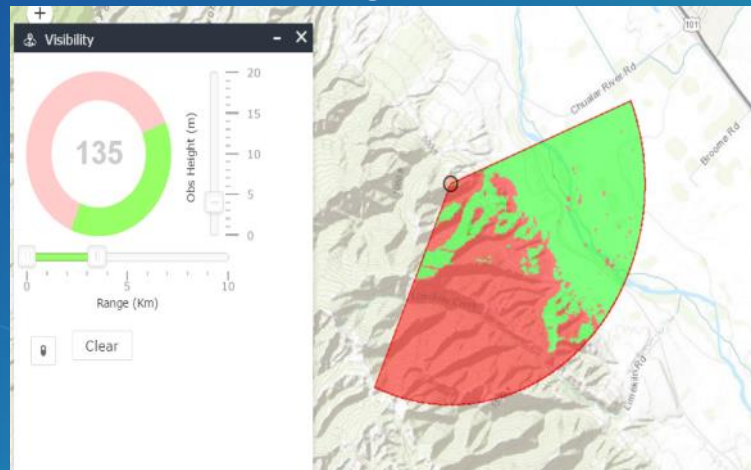


MGRS Grid

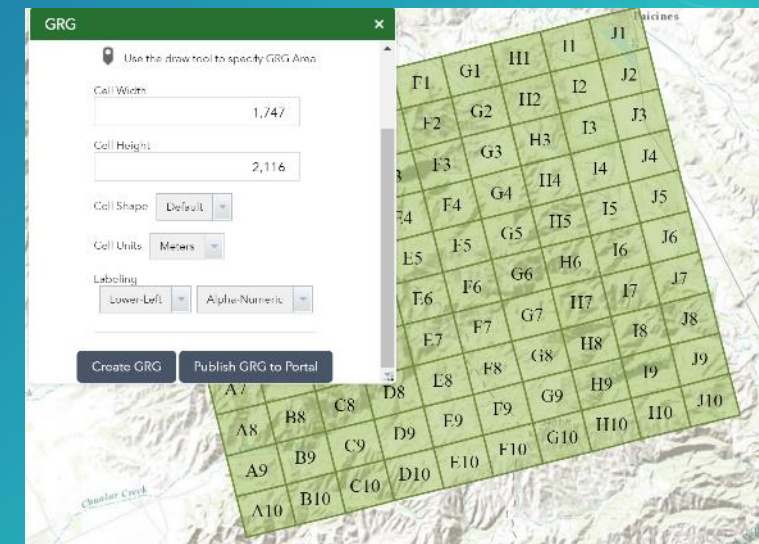


Line, Circle, Ellipse, Range Ring Graphics

Radial Line of Sight

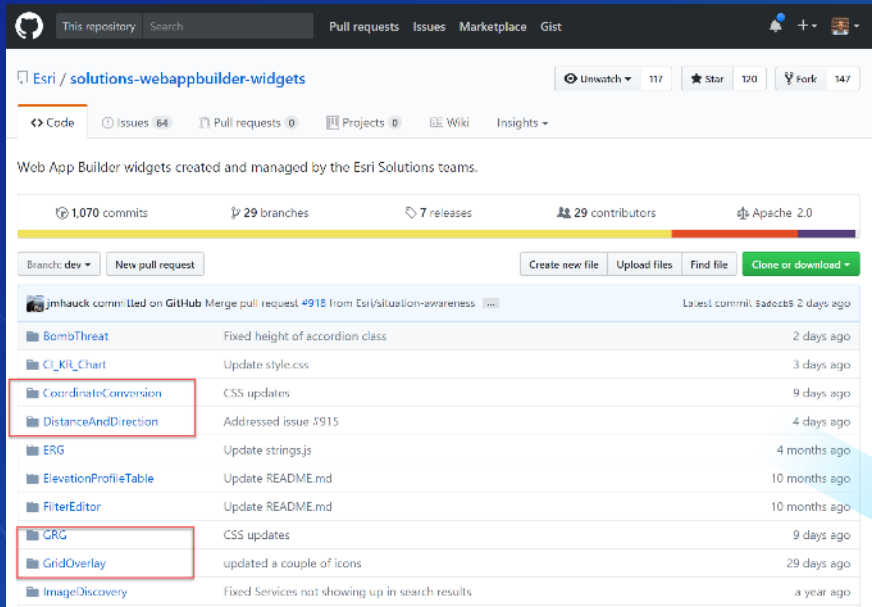


Gridded Reference Graphics



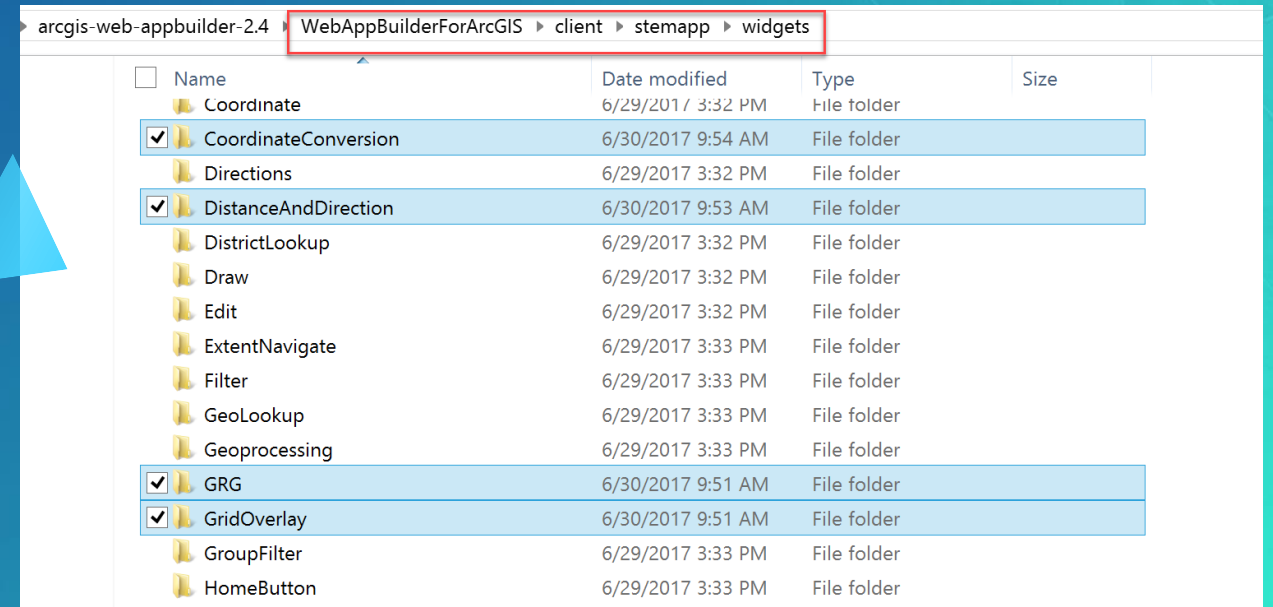
Getting Started with the Widgets

Copy widget folders from source to your instance of Web AppBuilder (Dev Edition)



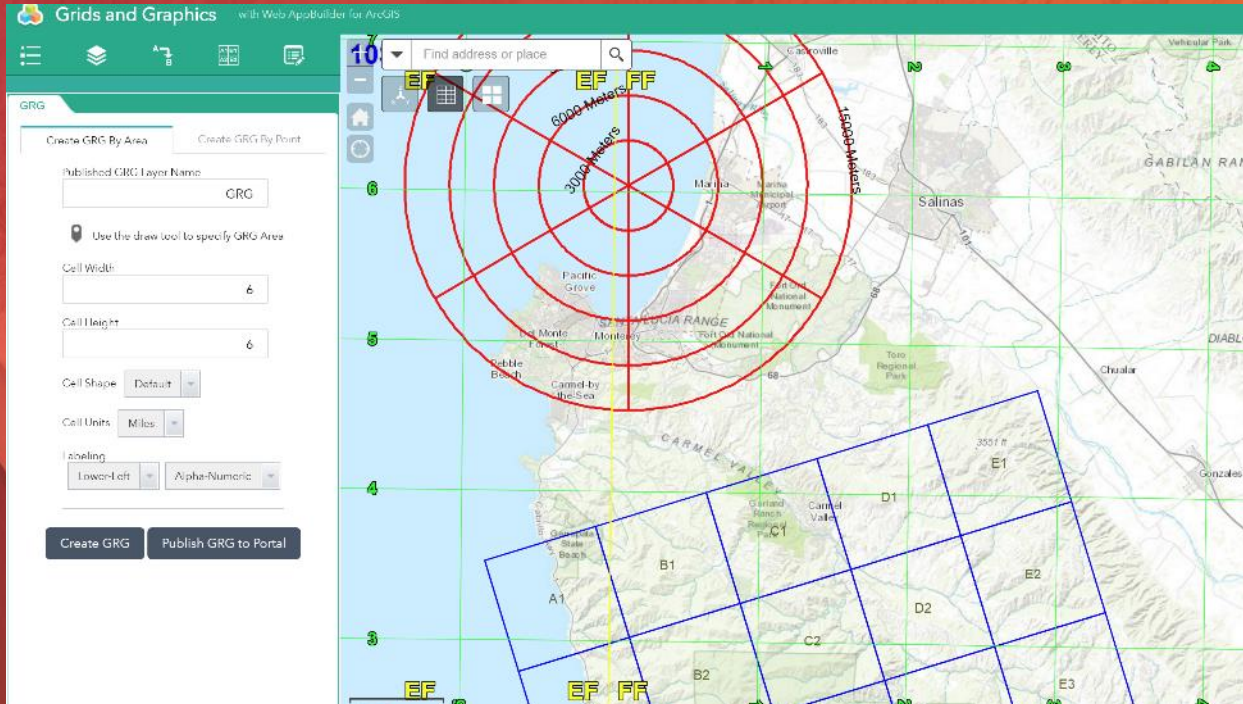
At ArcGIS Enterprise 10.5.1, custom widgets can be added to hosted Web AppBuilder as a Portal item type

WebAppBuilderForArcGIS/client/stemapp/widgets

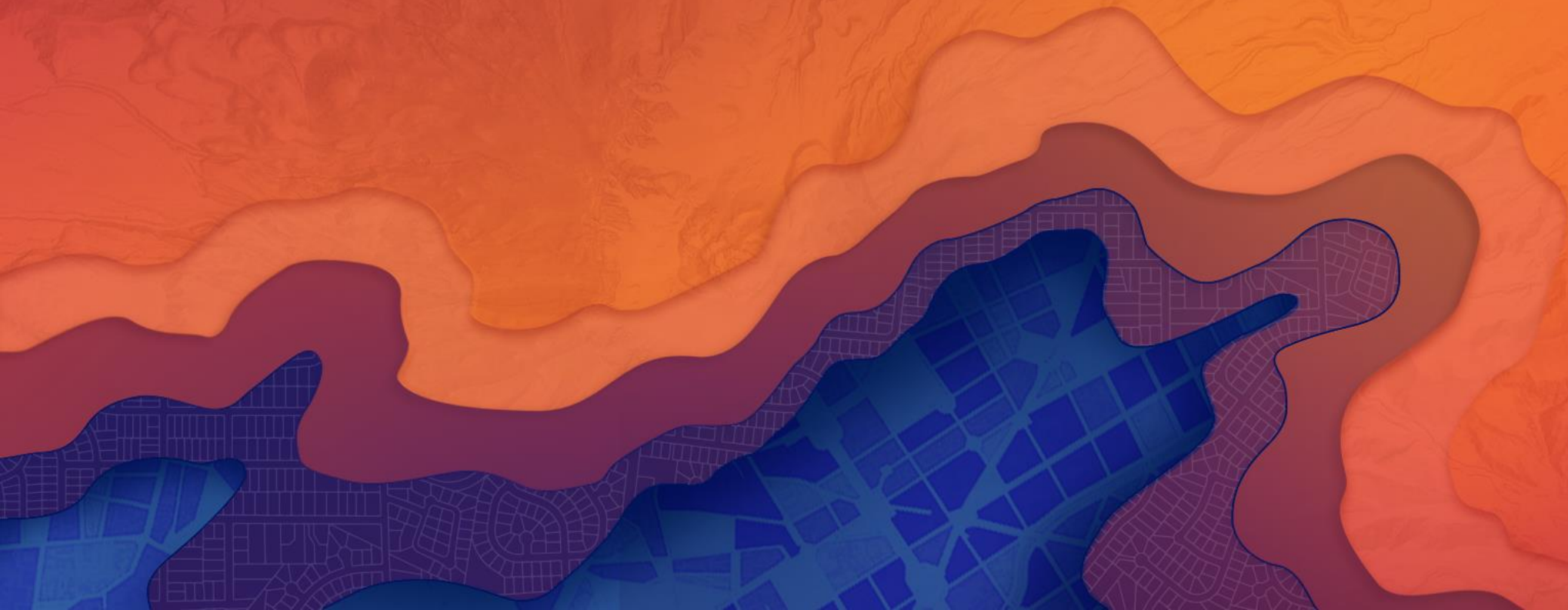


Building a Grids and Graphics Application

Incorporating Defense Solutions Widgets into Web AppBuilder (Developer Edition)



Building Solutions: Civil Military Operations



Civil Affairs

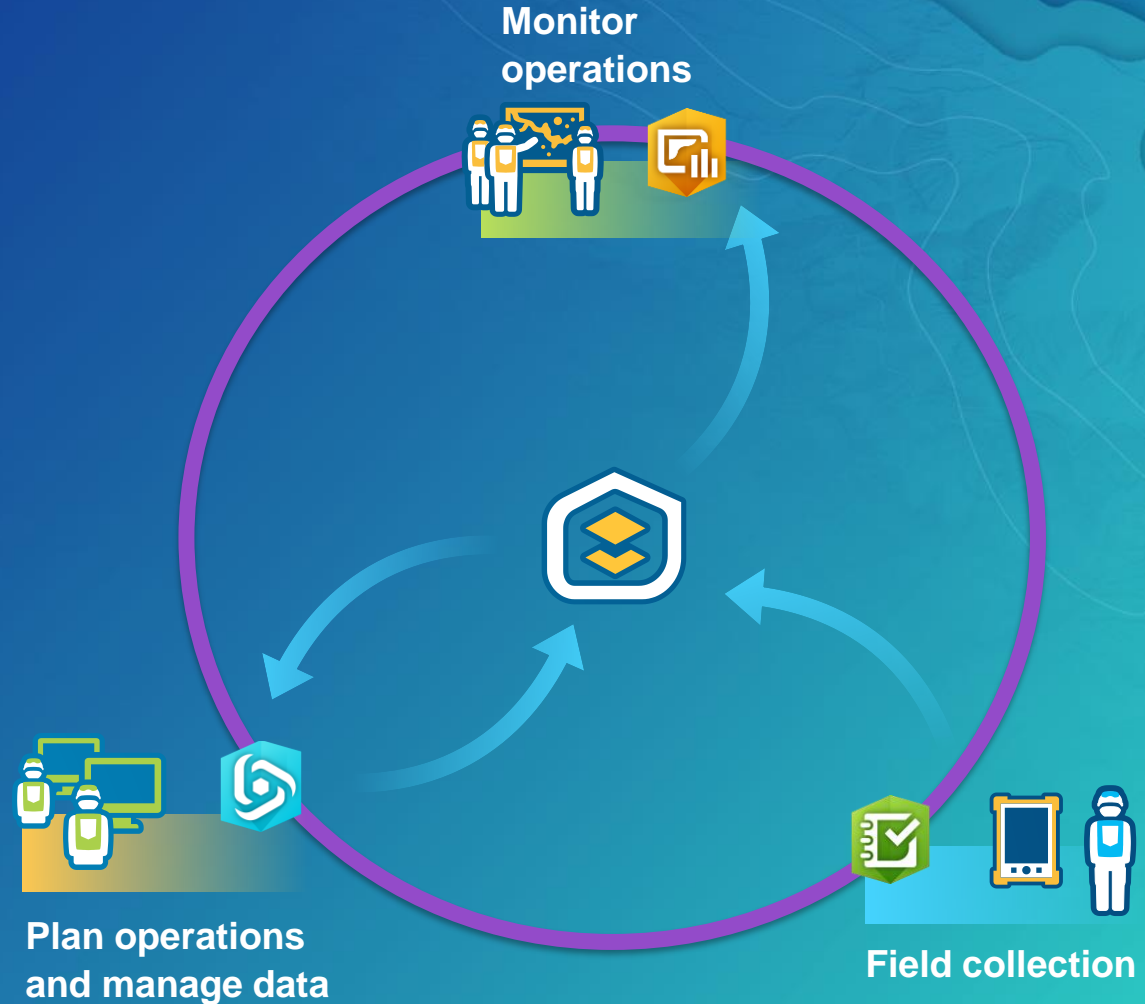
What problem were we trying to solve?

- Paper forms and maps in static process
 - Not integrated, processes in parallel and disconnected
 - No easy way to visualize common-op picture
-
- Web-first solution for military-civilian operations
 - Keep same processes
 - Automate collection and merge form results
 - Visualize responses



Civil Military Operations

- Planning operations and managing information
- Field collection
- Monitor operations



Civil Military Operations

- Atmospherics Questionnaire
- Population Assessment Questionnaire Report (POPREP)
- Request for Information (RFI)
- Priority Areas of Interest and Operations
- Civil Mission Execution Planner
- Civil Military Operations Manager
- Civil Military Operations Dashboard

<http://solutions.arcgis.com>

ArcGIS for Defense ▾ GALLERY COMMUNITY DOCUMENTATION

Civil-Military Operations

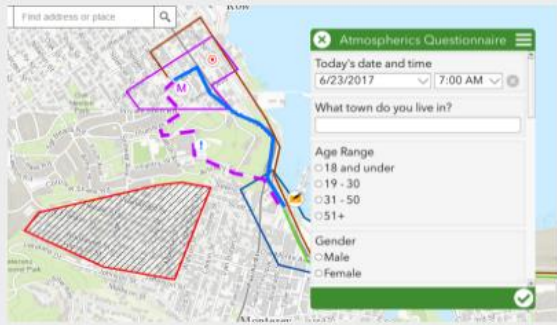
Home Get Started Workflows Resources

Overview

Civil-Military Operations is an Esri Defense solution for Civil Affairs. The solution consists of Survey123 forms; configurable web apps; and dashboards for collecting, managing, and visualizing civil affairs engagements, population sentiment, and requests for information.

With this solution you can do the following:

- Capture Atmospherics information from brief interviews.
- Capture Population Report (POPREP) information from in-depth interviews.
- Capture and manage Requests for Information (RFI).
- Plan the concept of operations (CONOP) for civil missions.
- Manage priority areas of interest and track civil affairs engagements.
- Manage the quality assurance process for data collected by civil affairs teams.
- Brief decision-makers on the status of civil-military operations in the field.



REQUIREMENTS WHAT YOU GET DOWNLOAD

Civil Military Operations - Forms

Using Survey123 for ArcGIS

- Field collection of survey and interview data
 - On mobile device, laptop, browser
- XLSForms-based smart forms
- Shared as form and feature service

The screenshot displays the Survey123 for ArcGIS application window. The title bar reads 'Survey123 for ArcGIS'. The browser tab is 'Population Assessment Questionnaire R...'. The form is titled 'Interview Information' and contains the following fields:

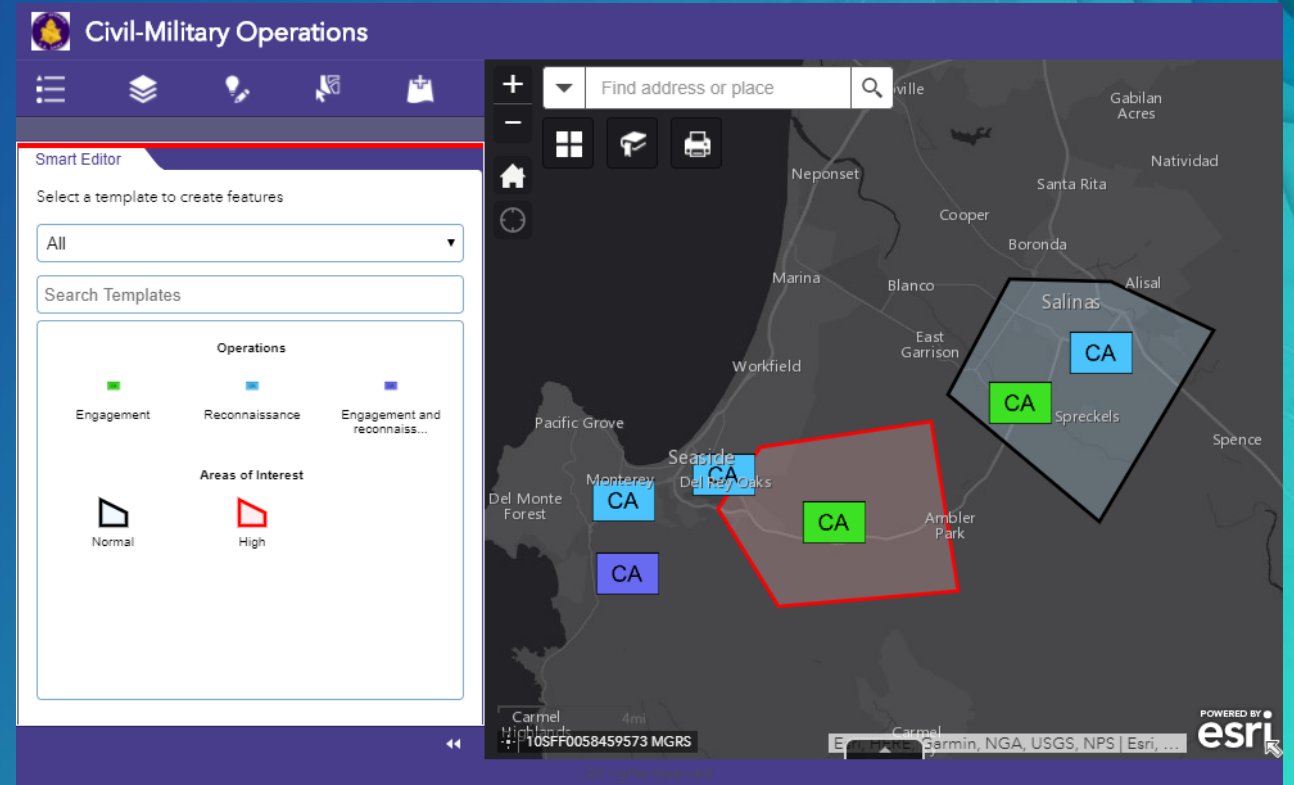
- Team Name ***: A text input field.
- Interview Date and Time ***: Two dropdown menus for date and time, with values '7/3/2017' and '9:31 AM' respectively, and a clear button (X).
- Interpreter Name**: A text input field.
- Interviewer Name**: A text input field.
- Interviewee Name ***: A text input field.
- Age**: A text input field.
- Title/Role in the community**: A text input field.

A green bar at the bottom right of the form contains a white checkmark icon, indicating successful submission.

Civil Military Operations - Apps

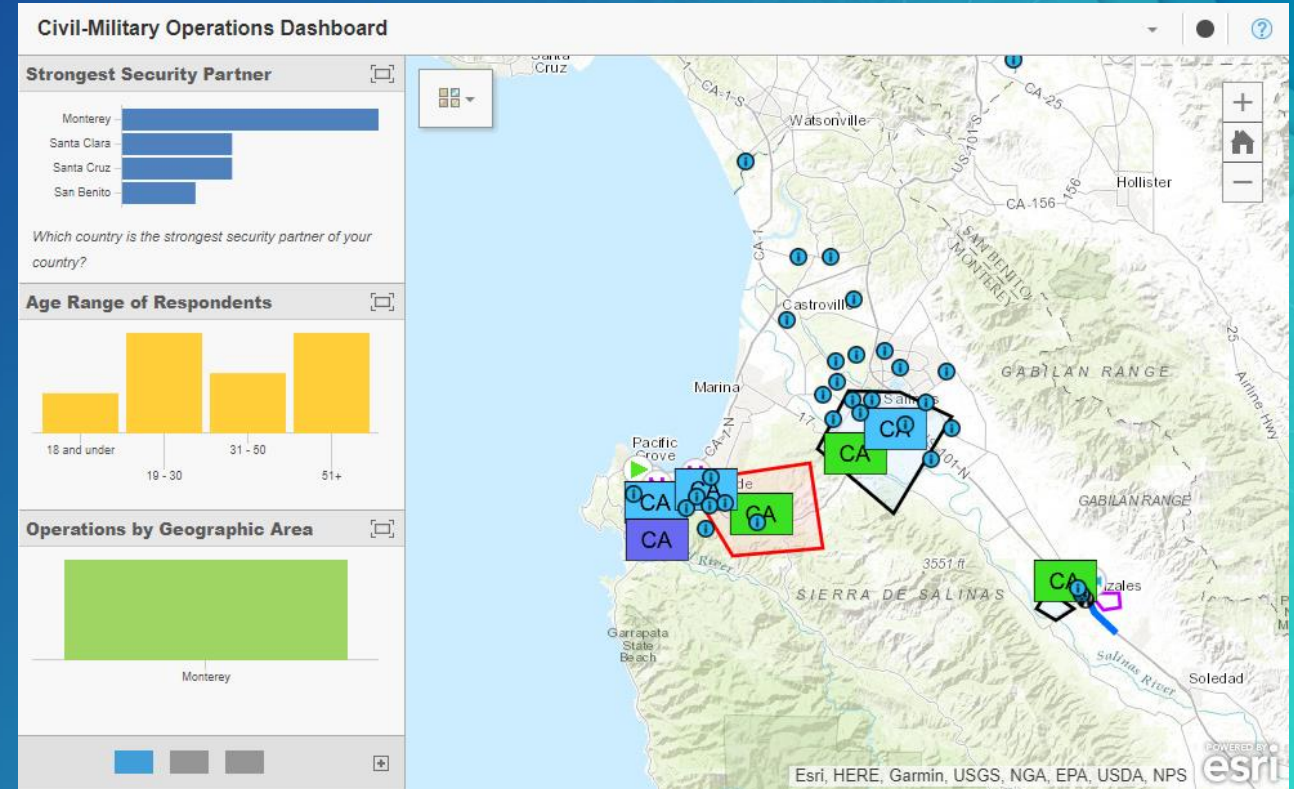
Using Web AppBuilder

- Prioritize and plan operations
- Manage field collection
- Browser-based applications
- Use web maps and widgets with NO CODING



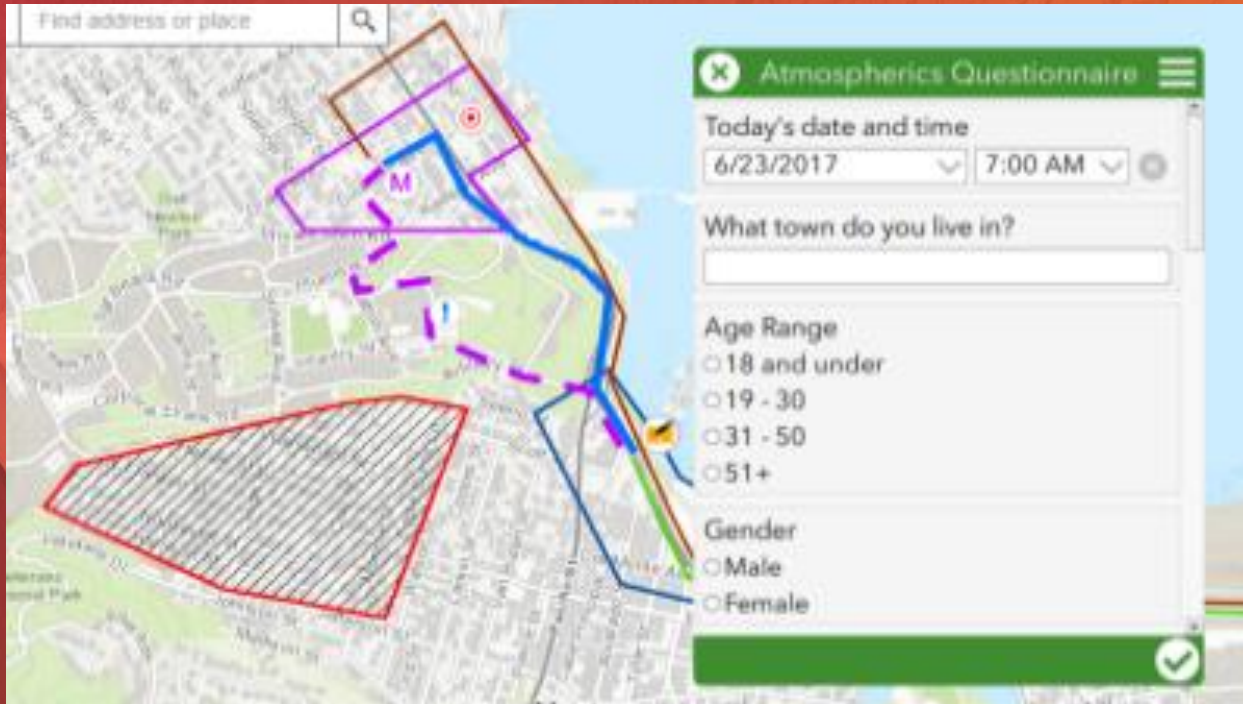
Using Operations Dashboard

- Monitor field collection operations and results
- Desktop or browser based
- Interactive maps, charts, graphs, and lists to visualize dynamic information



Civil Military Operations Demo

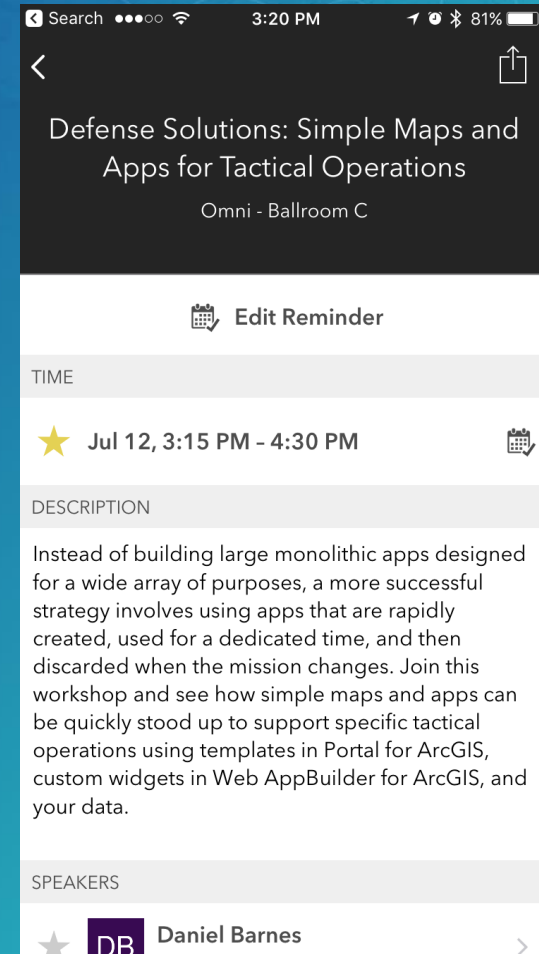
Matt Funk



Simple Maps and Apps for Tactical Operations

What we did today:

- Creating Web Maps
- Configuring apps with Web AppBuilder
- Defense Solutions widgets
- Civil Military Operations solution
 - Forms with Survey123 for ArcGIS
 - Apps with Web AppBuilder
 - Operations Dashboard for ArcGIS



Questions?

... and answers

- Find our solutions at:
solutions.arcgis.com/#Defense
- Join our community:
geonet.esri.com/groups/defense-and-intelligence
- Survey for our workshop:
Simple Maps and Apps for Tactical Operations

Search 8:13 AM 90%

< Defense Solutions: Simple... >

FEEDBACK

Title and Description Consistent with Content

Low 1 2 3 4 5 High

Well Organized/Clear Presentation

Low 1 2 3 4 5 High

Public Speaking Skills

Low 1 2 3 4 5 High

The content of the workshop was relevant to my work

No Yes

The workshop provided information or techniques I can apply to my work right away

Low 1 2 3 4 5 High

I would recommend this workshop to a colleague

No Yes



esri

THE
SCIENCE
OF
WHERE