



Introduction to Navigator for ArcGIS

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Scott Ball

**GIS
INSPIRING
WHAT'S
NEXT**

Agenda

Introduction to Navigator for ArcGIS

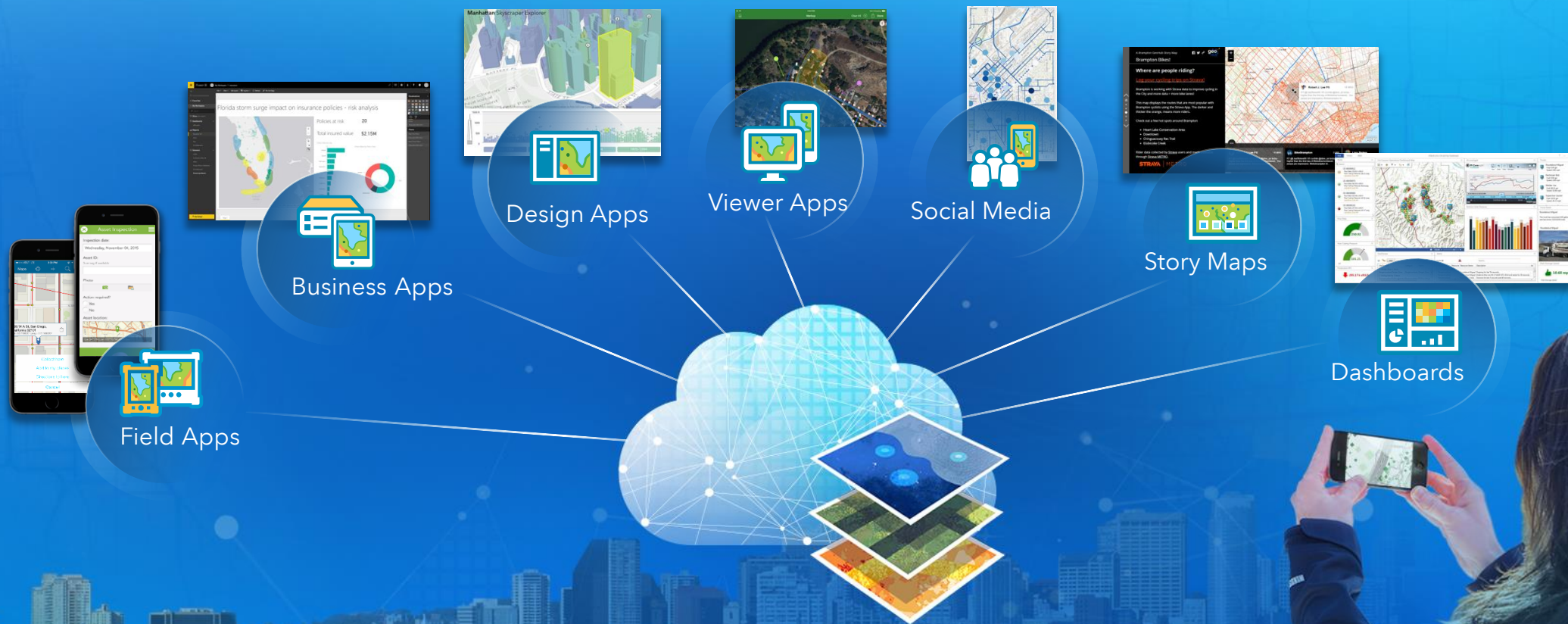
- ArcGIS platform overview
- Navigator for ArcGIS overview
- Who's using Navigator?
- Working with ArcGIS Online + Enterprise
- Working with ArcGIS field apps
- Sending routes to Navigator using URL schemes
- Using custom maps with Navigator
- Q&A



ArcGIS platform overview

Apps Are Bringing the Power of GIS to Everyone

Extending the Reach of GIS



Across Organizations and Beyond



What is Navigator for ArcGIS?



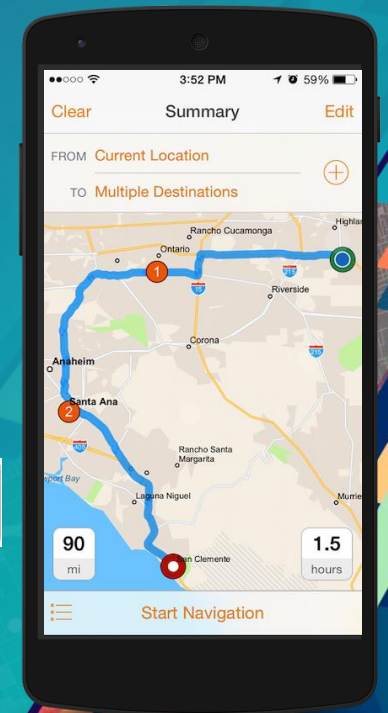
Navigator for ArcGIS

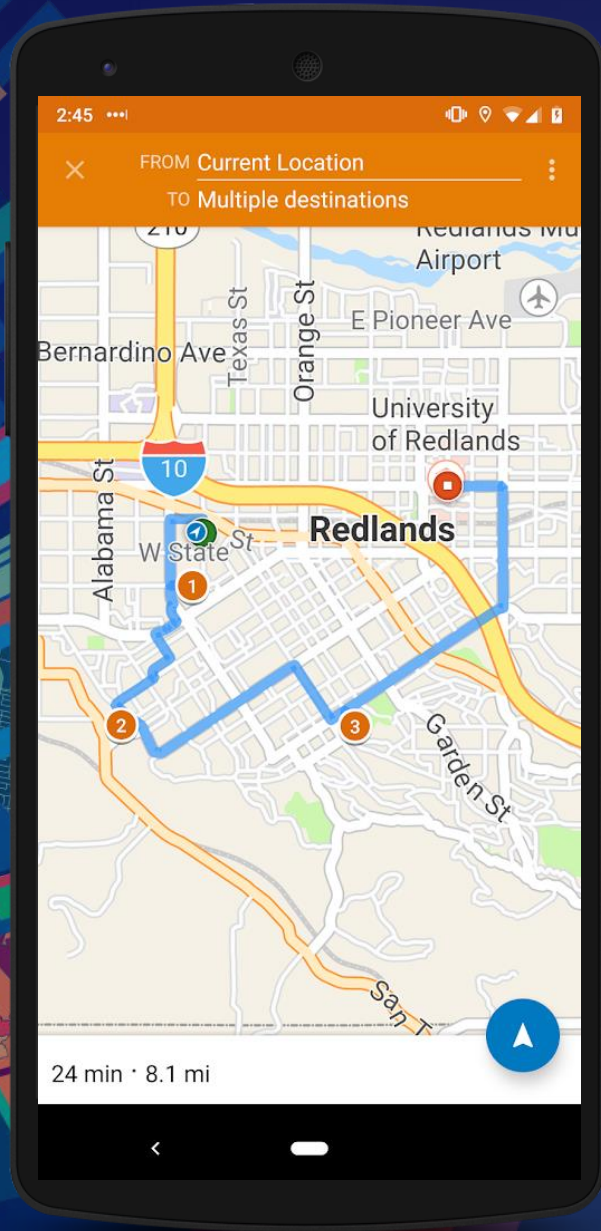
Get your field workforce where it needs to be

Use **your own map** (custom search, custom roads, custom routes)

Work **offline** – maps on your device

Route with **travel modes** (your vehicles, your rules)





Demo

Navigator Basics



Who's using Navigator for ArcGIS?

Natural Resources

Utilities

Government

Commercial



Building Inspections

"We are saving \$197,000 per year on mileage and inspectors' time by using ArcGIS." Rich Franz-Under



Home Delivery Meals Program

"Navigator has given us a lot more flexibility. Any driver can deliver any route." Alan Knudsen

Infrastructure Repairs

"Navigator for ArcGIS has been a great tool for the newer employees. They are able to efficiently get to our assets without having years of experience navigating through our service area. The Navigator app guides them efficiently and safely to where they need to go." Andy Adrian





Working with ArcGIS Online and ArcGIS Enterprise

How to use Esri provided Navigator maps

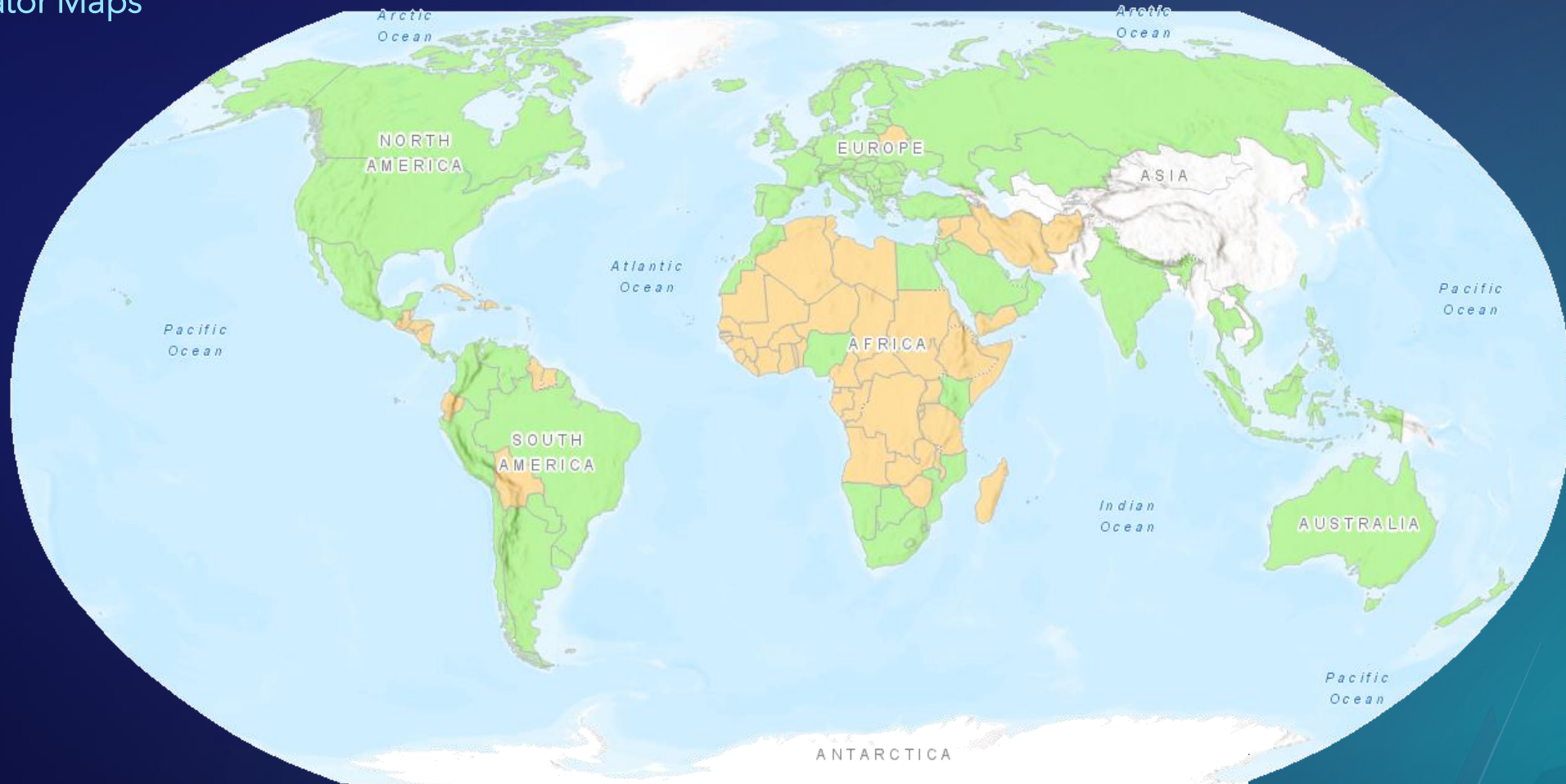
1. Login to your organization in Navigator
2. Download from ArcGIS Online
3. Start using map in Navigator



Note: Maps can be side loaded onto devices also

Global Coverage

Navigator Maps



Green is coverage to local roads

Orange is coverage to major roads

How to create and use custom Navigator maps

1. Create Mobile Map Package with ArcGIS Pro
2. Upload to ArcGIS Online or Enterprise
3. Download to a Device with Navigator
4. Start Using Navigator



Note: Maps can also be side loaded onto devices

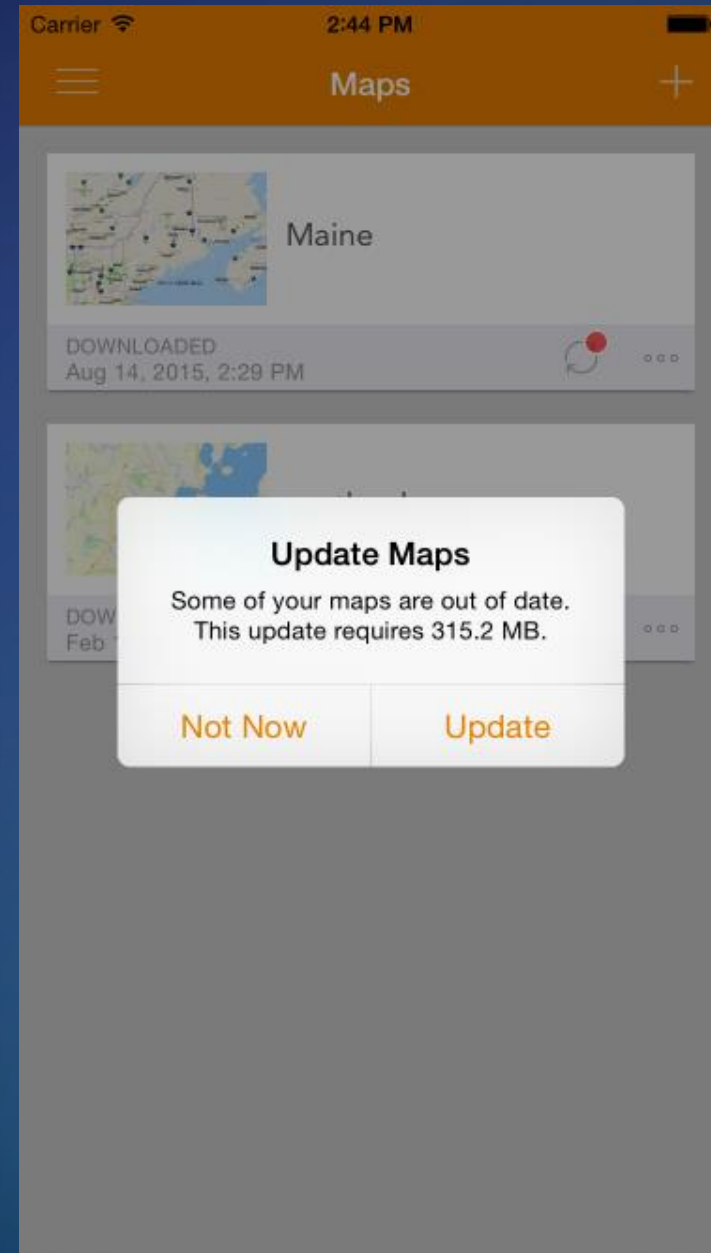
Note: Network Analyst license necessary to create networks

Automatic map updates

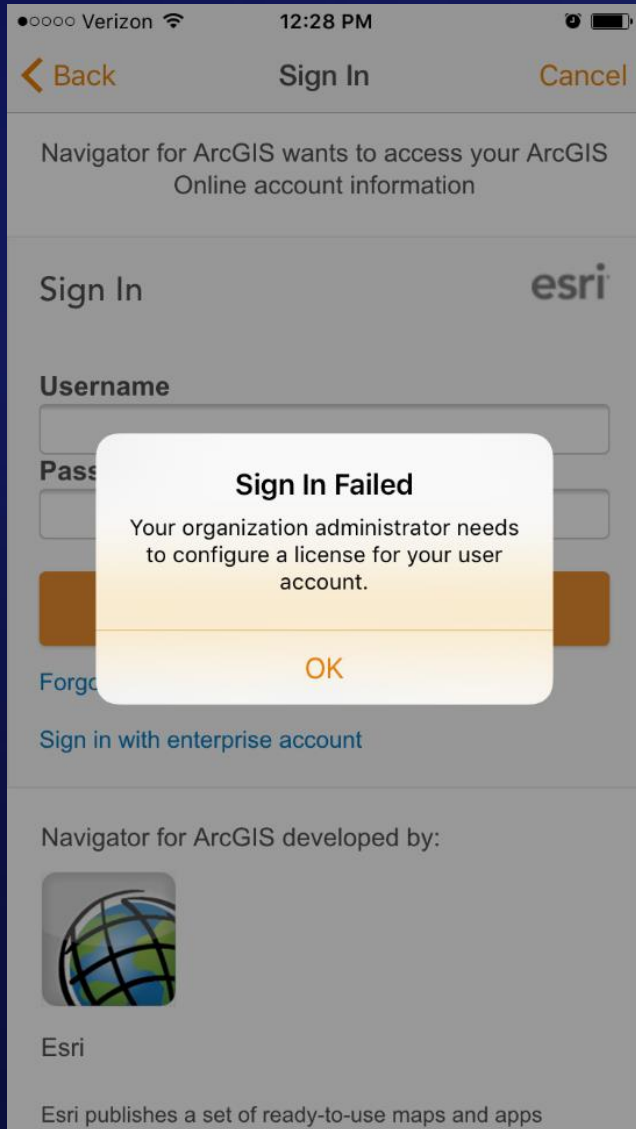
North America: three times a year

Europe: two times a year

All other regions: annually



Troubleshooting & Licensing



Administrator

The screenshot shows the 'Administrator' web interface for managing product licenses. The top navigation bar includes 'Home', 'Gallery', 'Map', 'Scene', 'Groups', 'My Content', and 'My Organization'. The user's name 'Scott' is displayed in the top right corner. The main heading is 'Manage Product Licenses for Esri Directions and Routing'. Below this, there are tabs for 'MY ORGANIZATION', 'ArcGIS Pro', and 'Additional Products'. A table displays the license status for various products:

Product	Drone2Map for ArcGIS	GeoPlanner for ArcGIS	AppStudio for ArcGIS Standard	Esri Community Analyst	Navigator for ArcGIS	Esri Business Analyst web app
Licenses	50	50	50	50	50	50
Available	50	50	49	50	43	50

Below the table, there is a section for 'Licensed Products for Scott Sandusky (ssandusky)'. It includes a list of products with checkboxes:

- Drone2Map for ArcGIS
- GeoPlanner for ArcGIS
- AppStudio for ArcGIS Standard
- Esri Community Analyst
- Navigator for ArcGIS
- Esri Business Analyst web app

At the bottom right, there are three buttons: 'UPDATE', 'REVOKE ALL', and 'CANCEL'.






Navigator Maps Licensing

User: navappuc2018
Password: apps2018



Navigator
license

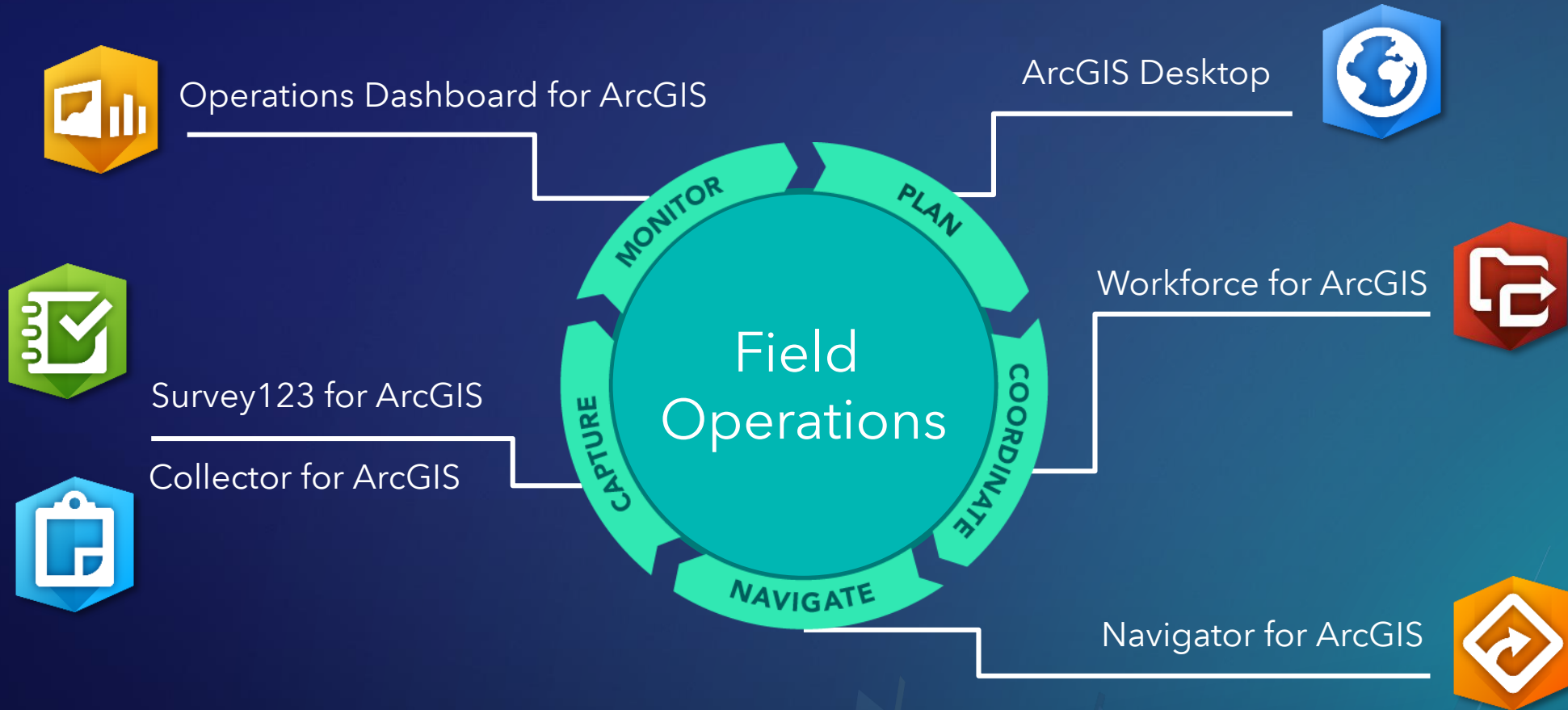


	Level 1 Named User	Level 2 Named User
ArcGIS Online 		
ArcGIS Enterprise 	Soon...	



Working with ArcGIS field apps

ArcGIS in the Field



Field Apps Work Together as One



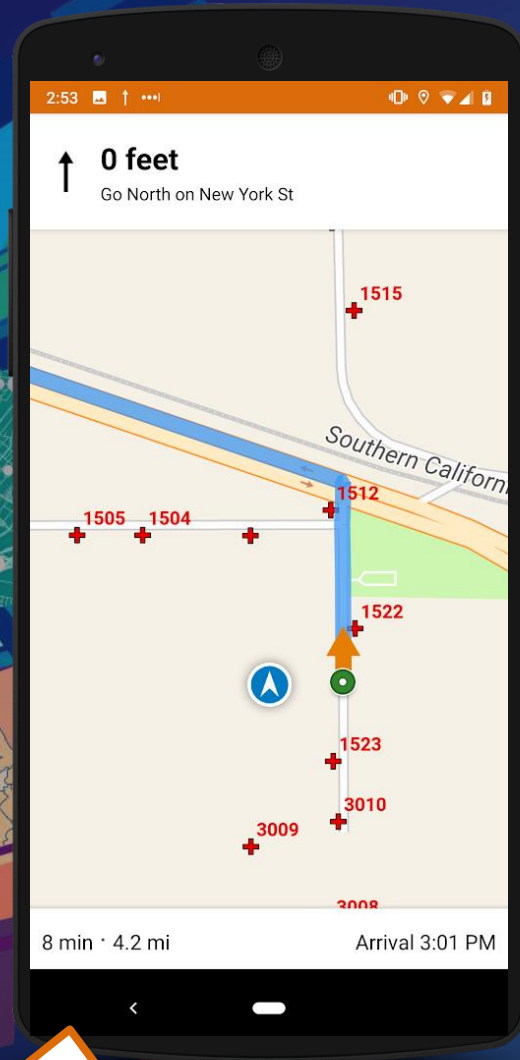
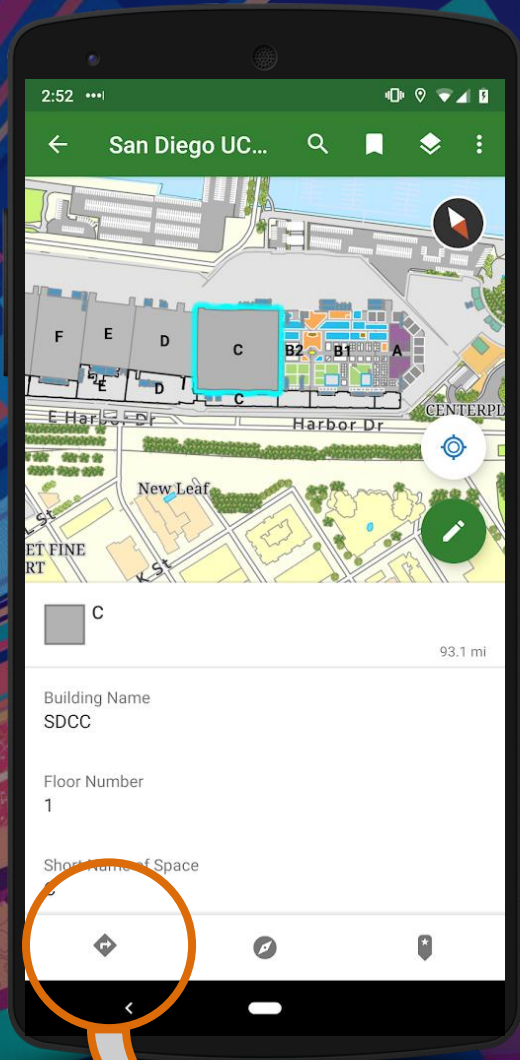
Explorer for
ArcGIS



Navigator
for ArcGIS



Explorer for
ArcGIS



Demo

Working with ArcGIS Field Apps



Working with URL schemes



Navigator URL Scheme

Supported Arguments:

- **start** - Start location
- **startname** - Name of start location
- **stop** - Location of a stop
- **stopname** - Name of stop
- **callback** - Callback URL scheme
- **callbackprompt** - Prompt displayed in the app
- **optimize** - Boolean to determine if route is optimized
- **travelmode** - Travel mode used when calculating the route

GitHub Repository: <https://github.com/Esri/navigator-integration>



Navigator URL Scheme



1. Identifying information for the app being invoked. This is often referred to as the "Scheme". Note that this is the same for the app on all platforms but is different than the AGOL App ID.
2. App specific data or parameters

```
arcgis-navigator://?stop=43.65958,-70.25118&stop=43.65761,-70.25388&optimize=true
```

```
arcgis-navigator://?stop=777+East+Alejo+Rd,+Palm+Springs,+California&stop=...&stop=...
```

GitHub Repository: <https://github.com/Esri/navigator-integration>

Implementation Patterns

URL Scheme



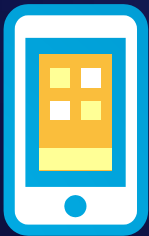
- Host a **web page** with links



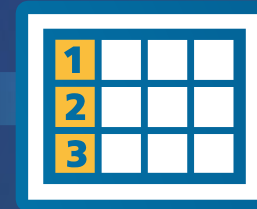
- Email or text **message**



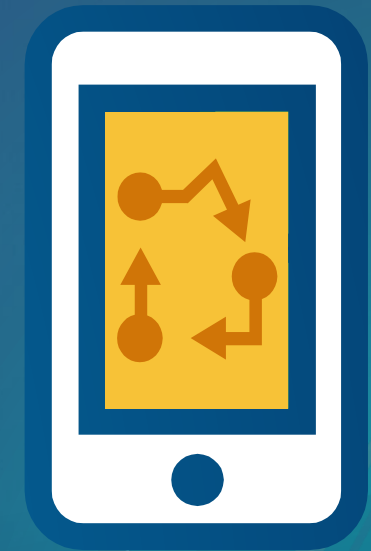
- Email or text **attachment**



- Custom **app**



Navigator for ArcGIS





Using custom maps and networks

What is a Navigator map?

- **Create in ArcGIS Pro**
 - Search (geocoding locator)
 - Route (network dataset with travel mode)
 - Display (basemap and operational layers)
- **Mobile map package (.mmpk)**

Custom Navigator Maps

ArcGIS Pro



ArcGIS Online
or
ArcGIS Enterprise



Share

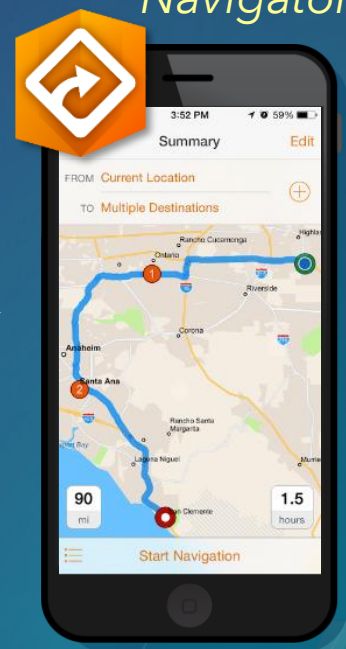
Download



Package*

Copy

Navigator



*Requires Network Analyst extension

Data Options

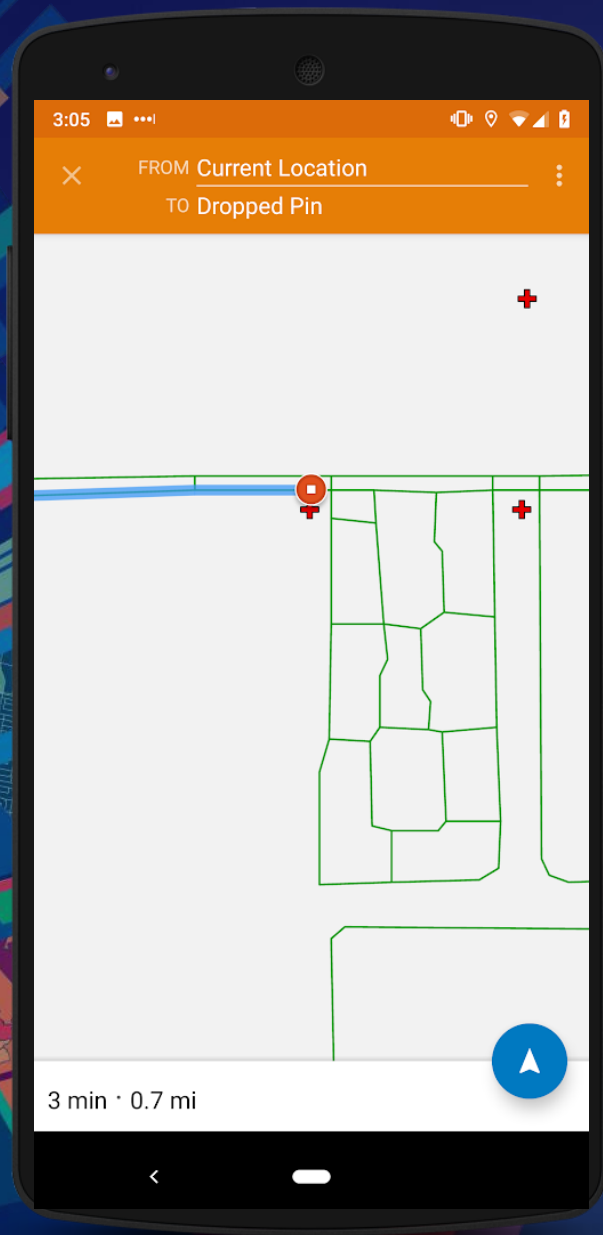
Use all your own data

Or

Customize the Esri Navigator map

- Requires StreetMap Premium



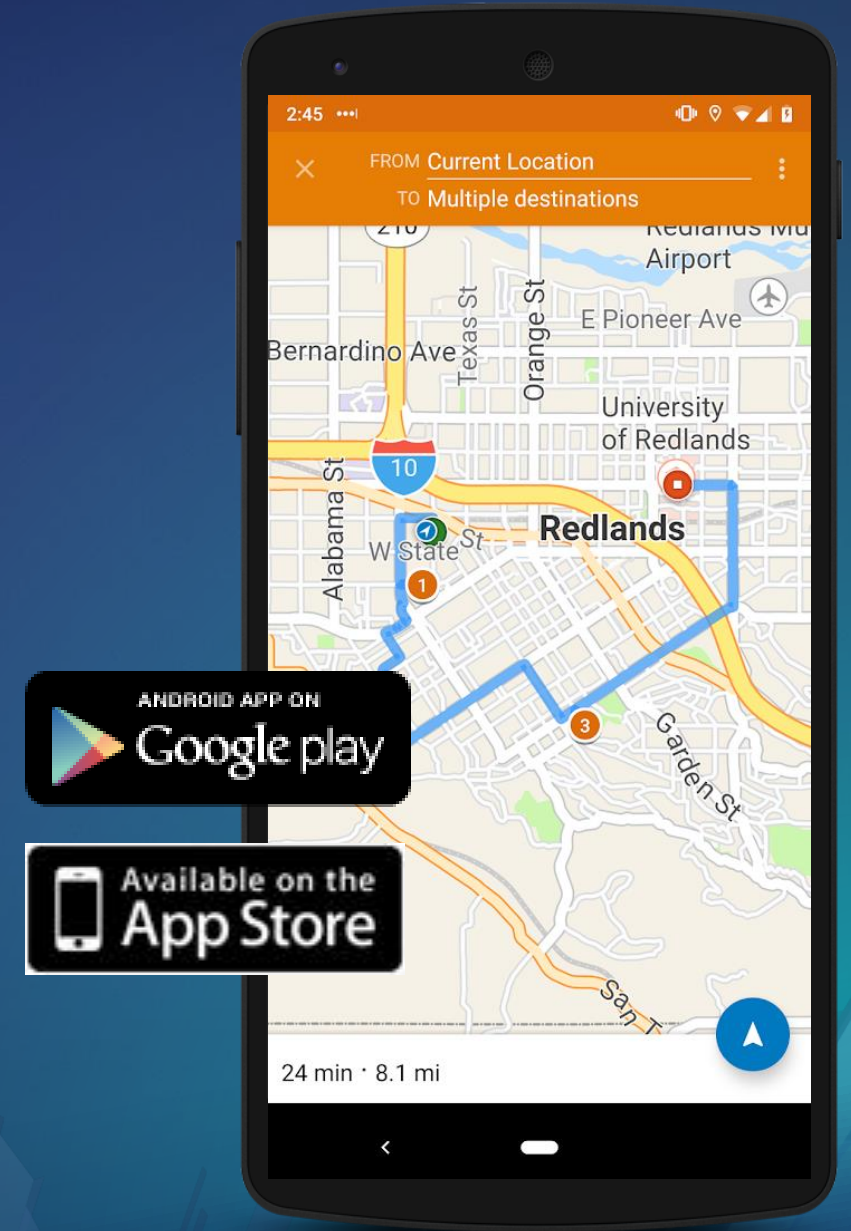


Demo

Custom Navigator Maps

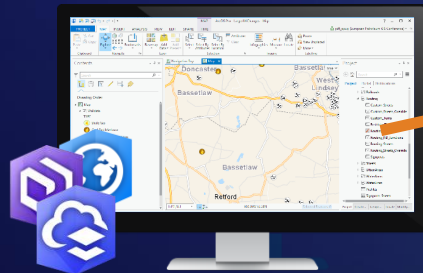
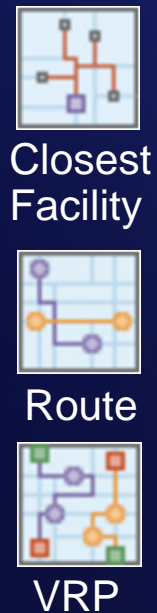
Summary

- Works **disconnected**
- Comes with **global maps** for download
- Supports **custom GIS maps** (search, route, display)
- Model your vehicle with **travel modes**
- Creates **multi-stop optimized** routes
- Works with other ArcGIS **field apps**
- Send **customized stop lists**



Road Ahead: Pre-Planned Route Workflow

1. Create Route with ArcGIS Pro, WebMap Viewer, GP Tools, Python, SDKs
2. Save Route to ArcGIS Online or Enterprise
3. Download to a Device with Navigator
4. Start Using the Route in Navigator



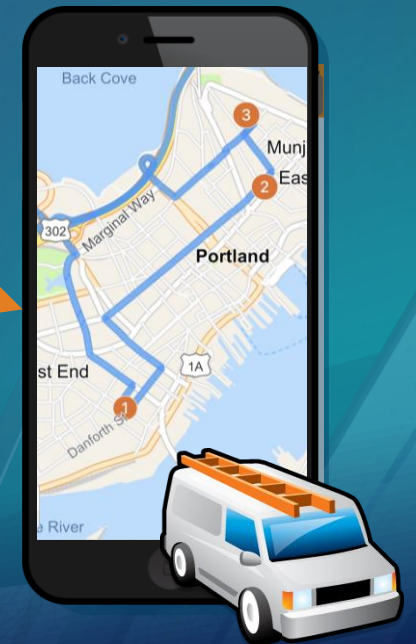
API's & SDK's
Map Viewer
Enterprise
Desktop

Save



Enterprise or Online

Download

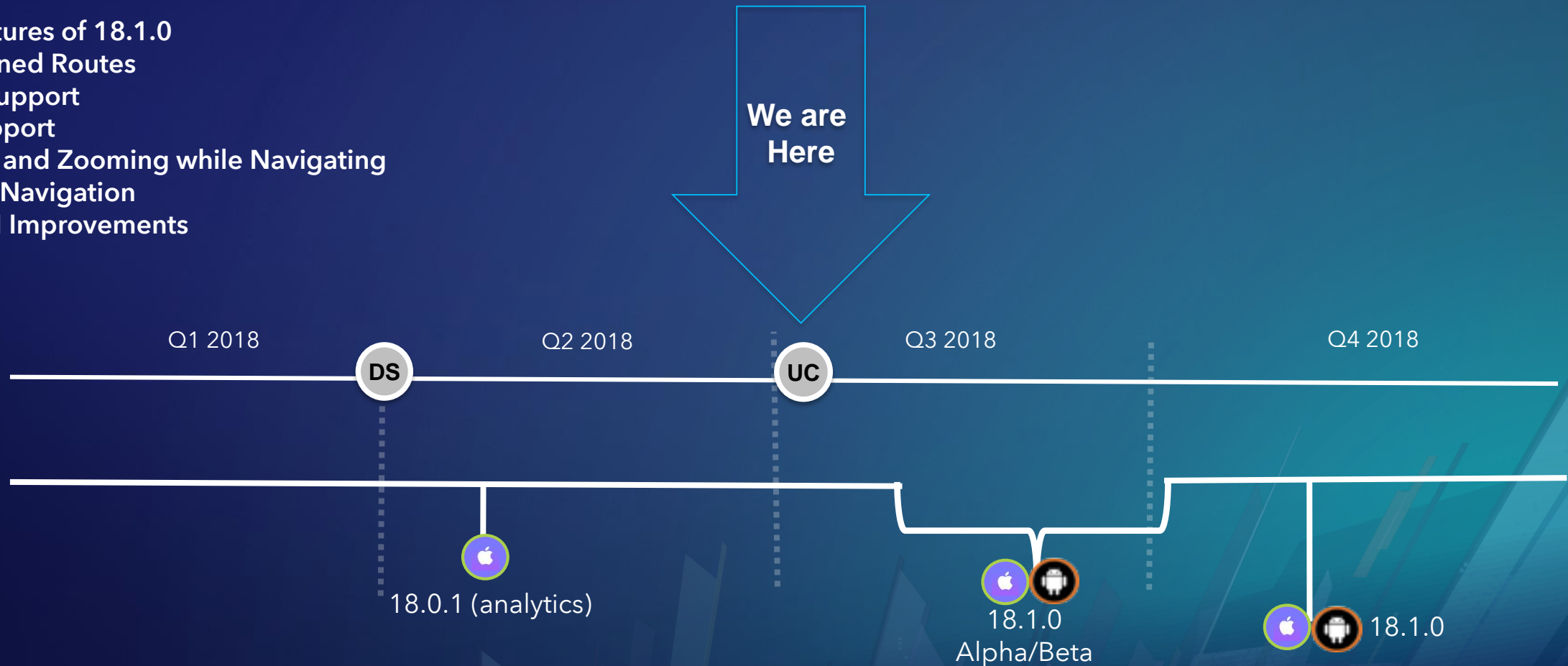


Navigator

The Road Map

Major Features of 18.1.0

- Pre Planned Routes
- Popup support
- IWA Support
- Panning and Zooming while Navigating
- Pausing Navigation
- Major UI Improvements



Resources

Heather: hmccracken@esri.com

Scott: sball@esri.com

- **Free trial**
<http://go.esri.com/navigatortrial>
- **Overview (including case studies)**
www.esri.com/products/navigator
- **Help**
<http://doc.arcgis.com/en/navigator>
- **Map Coverage**
- <http://www.arcgis.com/home/group.html?id=5f430cab7f2b4cb5926bb9fe4e054ecc>
- **Community**
<https://geonet.esri.com/groups/navigator>
- **GitHub repo**
<https://github.com/esri/navigator-integration>

Other Sessions this week

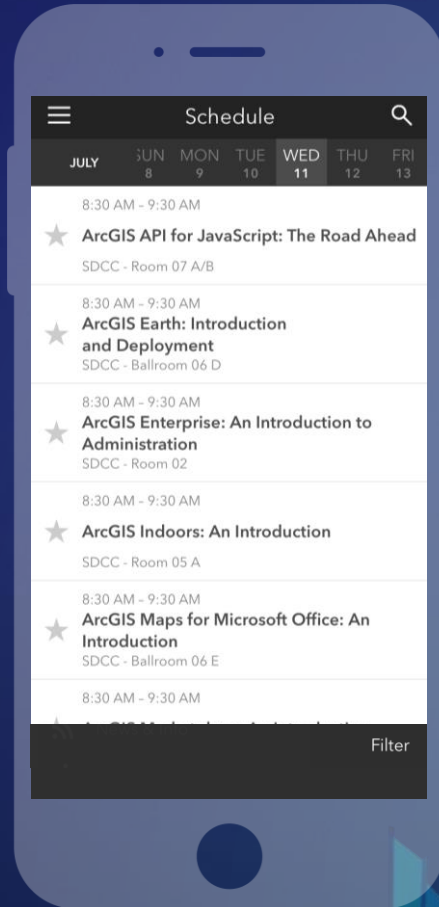
- **Navigator for ArcGIS: Connecting to Preplanned Routes**
 - Weds 12:15 - Demo Theater 09
- **Navigator for ArcGIS: Connecting to Preplanned Routes**
 - Thurs 10:00 - Demo Theater 05
- **ArcGIS Apps for the Field: Working Together**
 - Weds 10:00 - SDCC Room 08
- **Many others - Apps for the Field**
 - Explorer
 - Workforce
 - Collector
 - Survey123...

Please Take Our Survey on the App

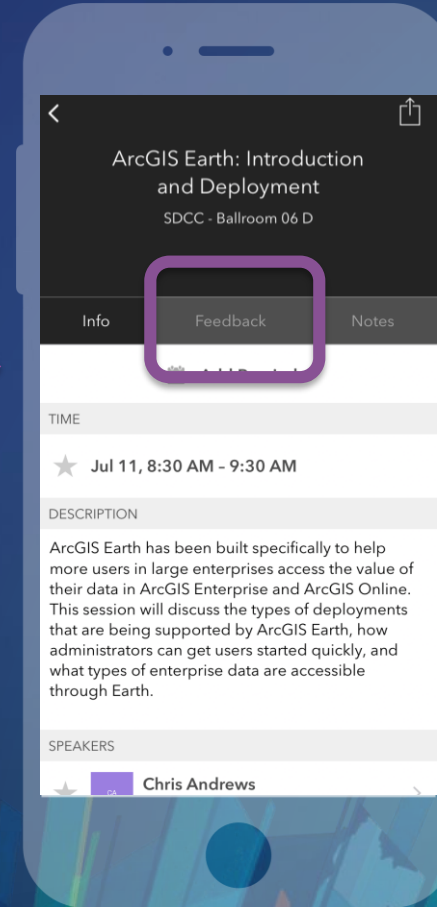
Download the Esri Events app and find your event



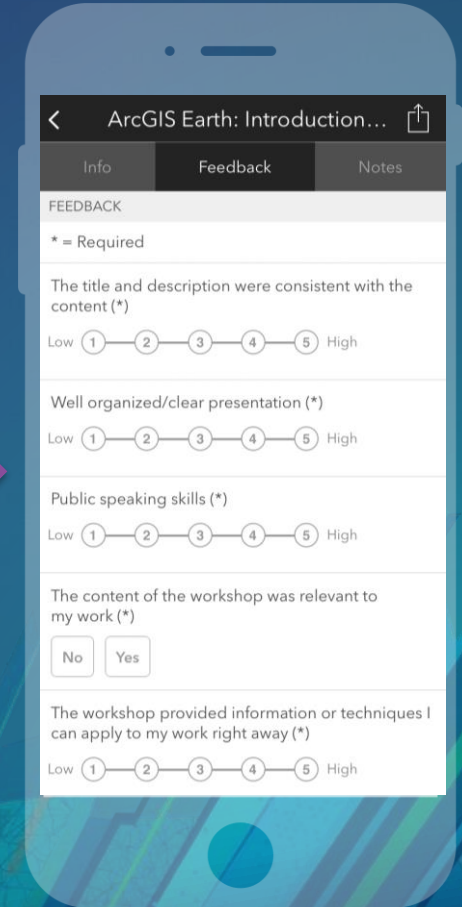
Select the session you attended



Scroll down to find the feedback section



Complete answers and select "Submit"





esri

**THE
SCIENCE
OF
WHERE**