

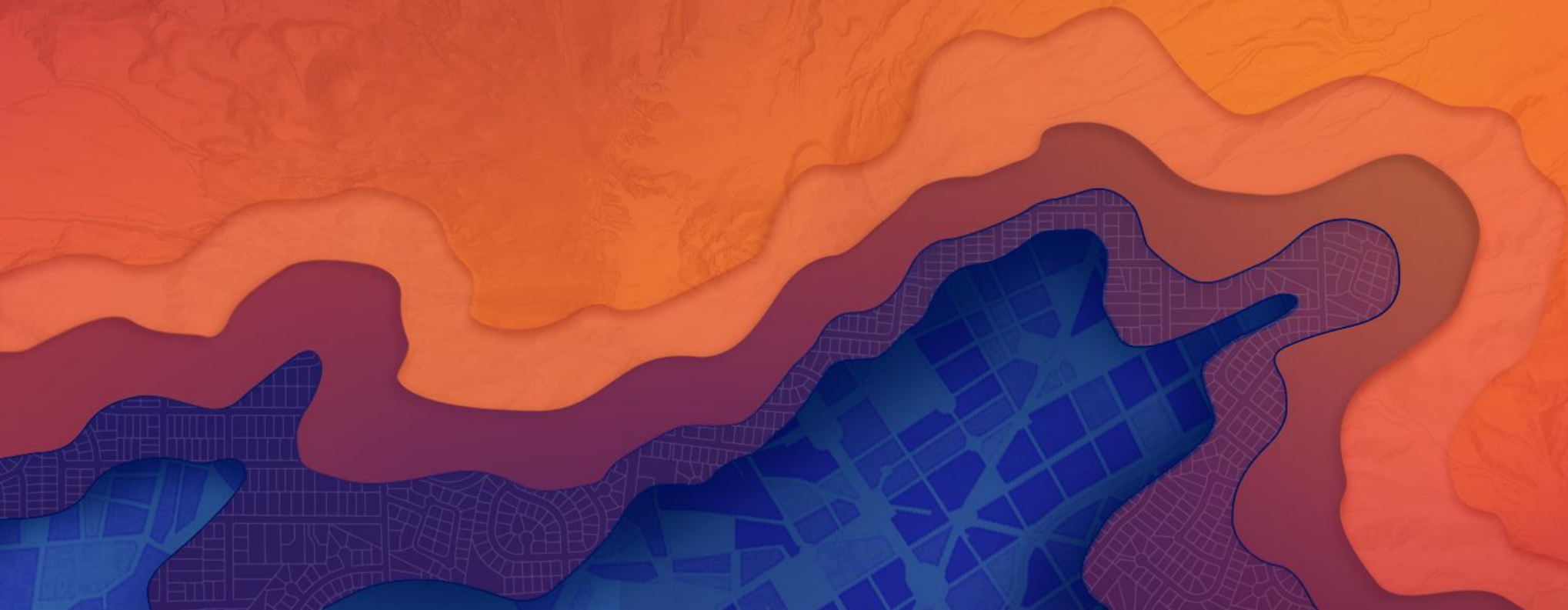
Upgrading Common Workflows from 10.2.x to 100.x with ArcGIS Runtime SDK for .NET

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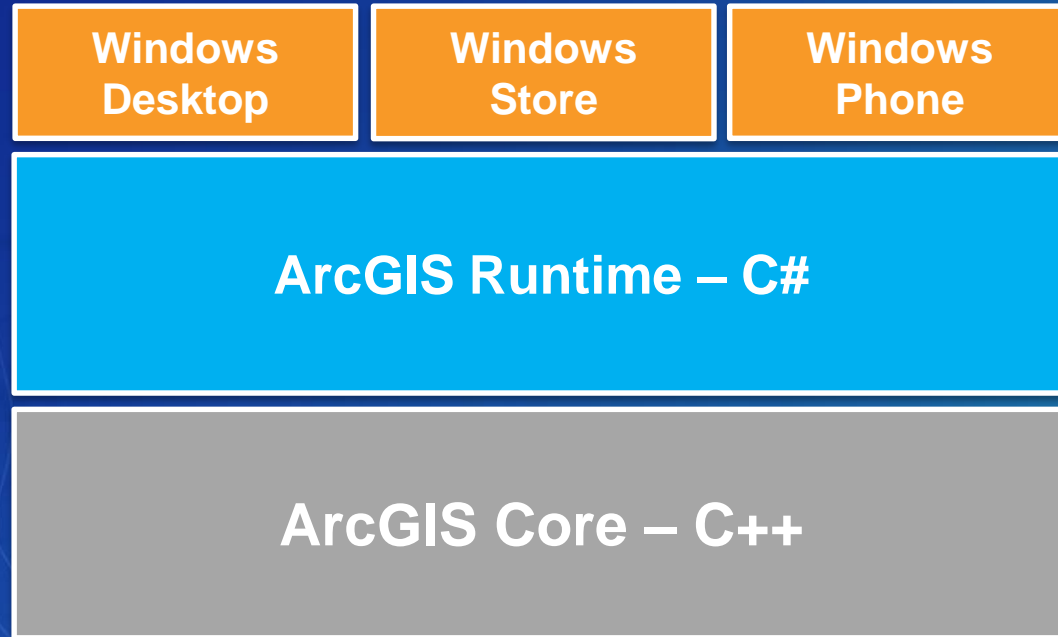
Agenda

- Architectural Overview
- Maps
- Editing
- Analysis
- Resources
- Q&A

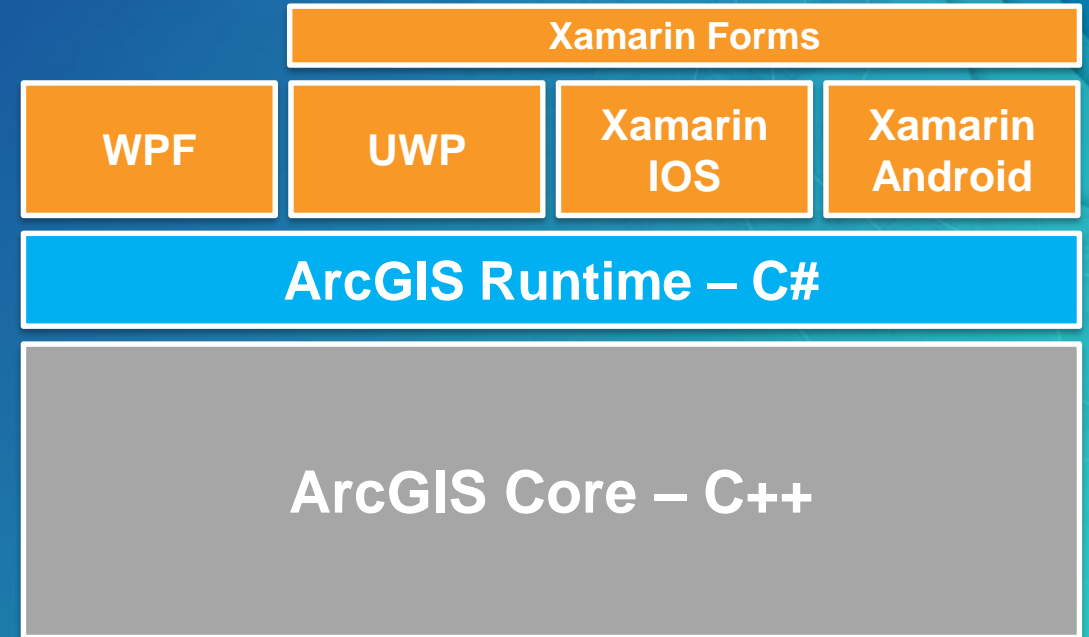
Architectural Overview



Architecture: New APIs included in this release



10.2.x



100.x

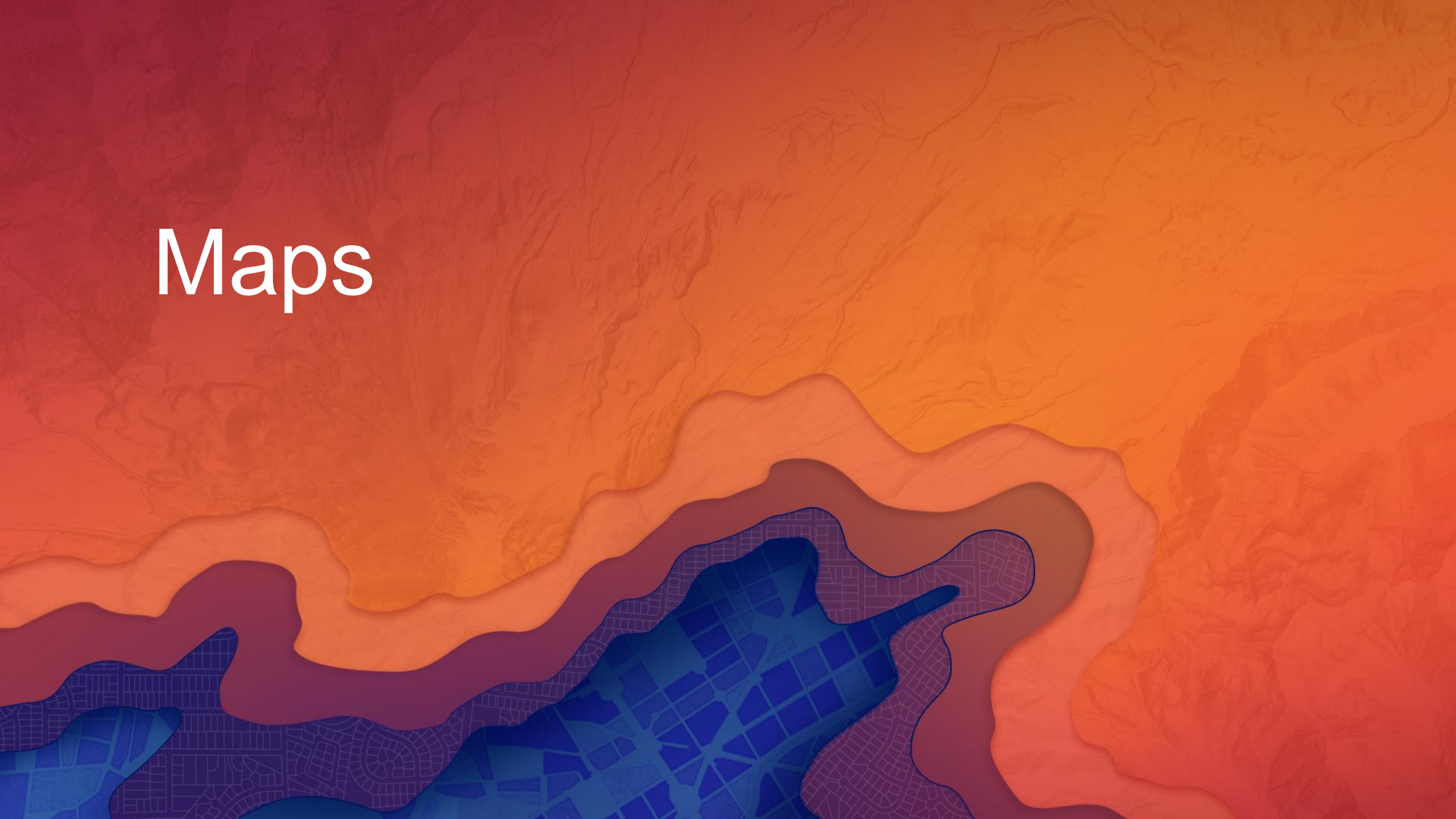
Architecture: Notes about install

- New install workflow
 - Templates installed locally as a Visual Studio (VSIX) extension
 - APIs can reference packages stored locally or hosted on NuGet.org
- No longer requires an ArcGIS Runtime .NET Deployment Manifest.
- Local Server is now a separate install
- .NET 4.5.2 minimum

Architecture: Additional info

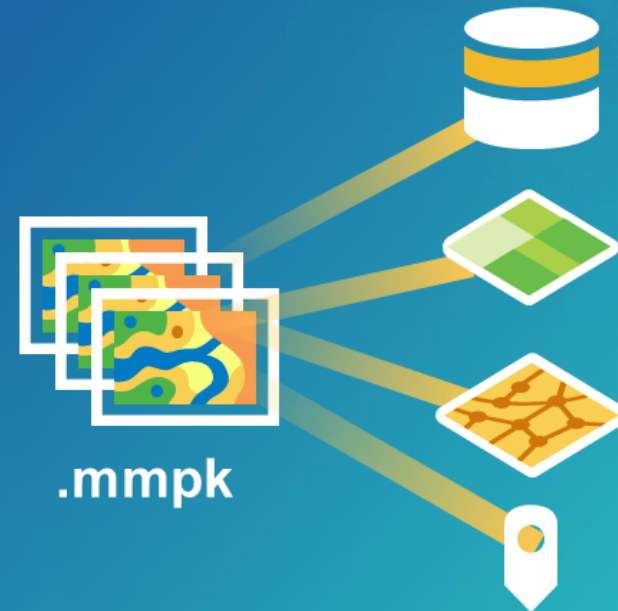
- Loadable Pattern
 - Intended for workflows that involve accessing lots of data from connected online resources
 - Makes the behavior of loading state more consistent and uniform
- Online/Offline
 - APIs for common operations such as editing, searching, geocoding or routing are the same in 100.x
 - Packaging Offline maps – Mobile Map Packages

Maps



Maps: Mobile Map Package .mmpk

- The creation of Mobile Map Package replaces Create Runtime Content
 - Same content as .mpks
 - Mobile .geodatabase
 - Tile Package .tpk
 - Runtime network dataset
 - Runtime locator
 - Vector basemaps
 - Created in ArcGIS Pro



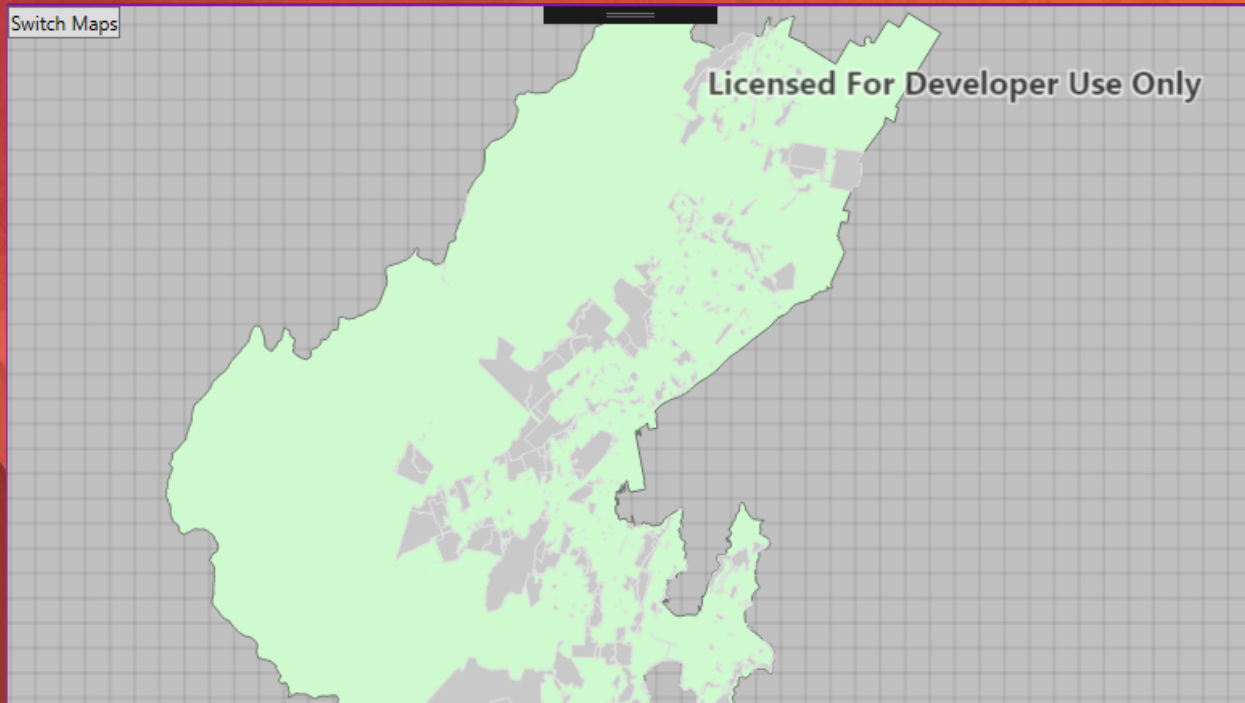
Maps: Map Package .mpk

- Continue to be supported in ArcGIS Runtime 100.x via Local Server
- Superseded by Mobile Map Package and direct data format support in many workflows
 - May still be required for some scenarios e.g. CAD layer
- Map Packages must be created with ArcMap 10.4.1
- Recommended for Geoprocessing Packages



Maps: Vector Tile Package .vtpk

- Contain collection of vector tiles and style resources
- Vector tiles contain vector representations of data across a range of scales
- Adapt to resolution of the device display
- Can be customized on the device for multiple uses e.g. day / night styling
- Faster to generate, smaller packages
- Tile packages .tpk continue to be supported in 100.x



Demo

Mobile Map Packages (.mmpk)

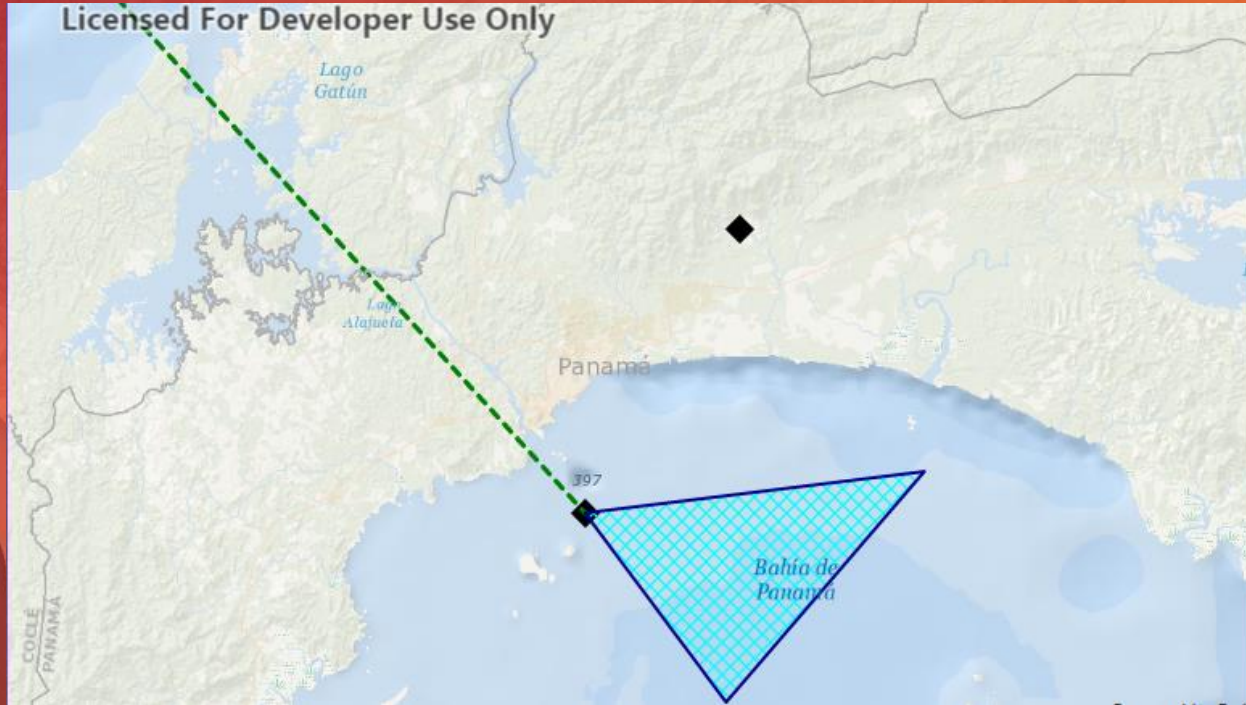
Editing



Editing: ArcGIS Runtime 100.x

- Supports same editable data formats and content as 10.2.x
- Feature Collections new to 100.x
 - Features, geometry, and attributes
 - Stored in maps 'by value'
 - Portal items 'by reference'
- Offline Map Package .mpk editing via Local Server
 - Still supported in 100.0
 - Only option for editing File geodatabases
 - Many workflows replaced with sync-enabled feature services and mobile geodatabases





Demo

Editing Feature Collections

Editing: ArcGIS Runtime 100.x

- Offline Editing
 - The pattern for generating a local geodatabase has changed
 - You now run a job that will generate an offline map
 - GenerateGeodatabaseJob
 - Job that requests a feature service to generate a geodatabase file
 - Event Handlers:
 - JobChanged
 - ProgressChanged





Demo

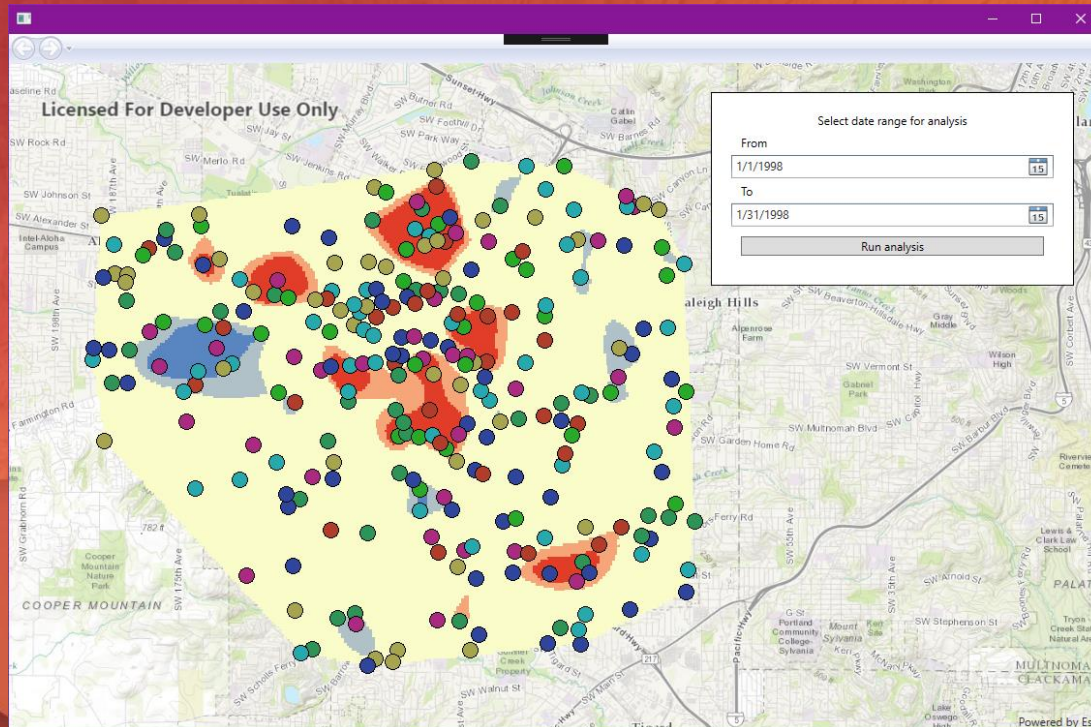
GenerateGeodatabaseJob

Analysis



Analysis: Geoprocessing Tasks

- Geoprocessing
 - Local geoprocessing service using LocalServer
 - ArcGIS Server
 - ArcGIS Online
- Geoprocessor class has been replaced with GeoprocessingTask
 - Create a geoprocessing job that tracks progress of the server processing
 - Listen for status changes as job progresses, and respond when it's complete by reading the results (outputs) from the job



Demo

Geoprocessing Task

Resources

- ArcGIS Runtime SDK for .NET 100.1.0 Homepage- <https://developers.arcgis.com/net/latest/>
- Migrate from 10.2.x to 100.x - <https://developers.arcgis.com/net/latest/wpf/guide/migrate-to-100-x.htm>
- ArcGIS Runtime SDK for .NET Samples - <https://github.com/Esri/arcgis-runtime-samples-dotnet/tree/master>
- System requirements - <https://developers.arcgis.com/net/latest/wpf/guide/system-requirements.htm>
- Release Notes - <https://developers.arcgis.com/net/latest/wpf/guide/release-notes-100-0-0.htm>



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