



ESRI DEVELOPER WORKSHOP 2022



Extending ArcGIS Pro

Gintautas Kmieliauskas



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<https://arcg.is/37GjtSR>



Introduction

- With Esri technologies from 1993
- ArcObjects from beginning
- ArcGIS Pro SDK from 2017
- ArcGIS Runtime + Xamarin
- ArcGIS AppStudio + QML
- ArcPy





Agenda

- Overview ways of extending ArcGIS Pro
- Requirements for development environment
- Resources for development
- Developing of add-in
 - Demo
- Developing of configuration
 - Demo



Technologies

- ArcGIS Pro SDK for .NET
 - Add-ins
 - Configuration
 - Solution branding
 - Conditional/role-based customization
 - Add-in capabilities
 - Control over add-ins
 - Plugin Datasource
- Python toolboxes



Requirements

- Supported IDEs:
 - Visual Studio 2019 (Professional, Enterprise, and Community Editions)
 - Visual Studio 2017 (Professional, Enterprise, and Community Editions)
- ArcGIS Pro 2.9
- ArcGIS Pro 2.9 SDK and templates packages
- Supported platforms:
 - Windows 11 (Home, Pro, Enterprise)
 - Windows 10 (Home, Pro, Enterprise) (64 bit)
 - Windows 8.1 (Pro, and Enterprise) (64 bit)
- Microsoft .NET Framework 4.8 Developer Pack

Note: Breaking changes starting from ArcGIS Pro 3.0



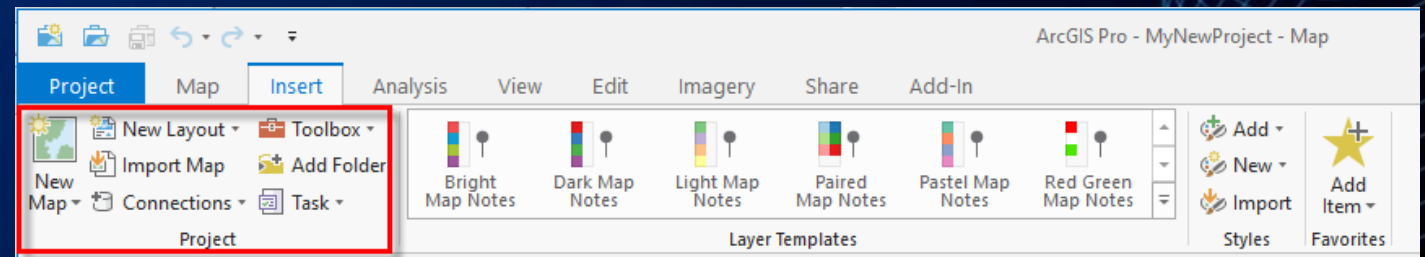
SDK: Resources

- ProConcepts
- ProGuides
- ProSnippets
- ArcGIS Pro SDK Community Samples
- ArcGIS Pro API Reference Guide
- Esri Community ArcGIS Pro developer section



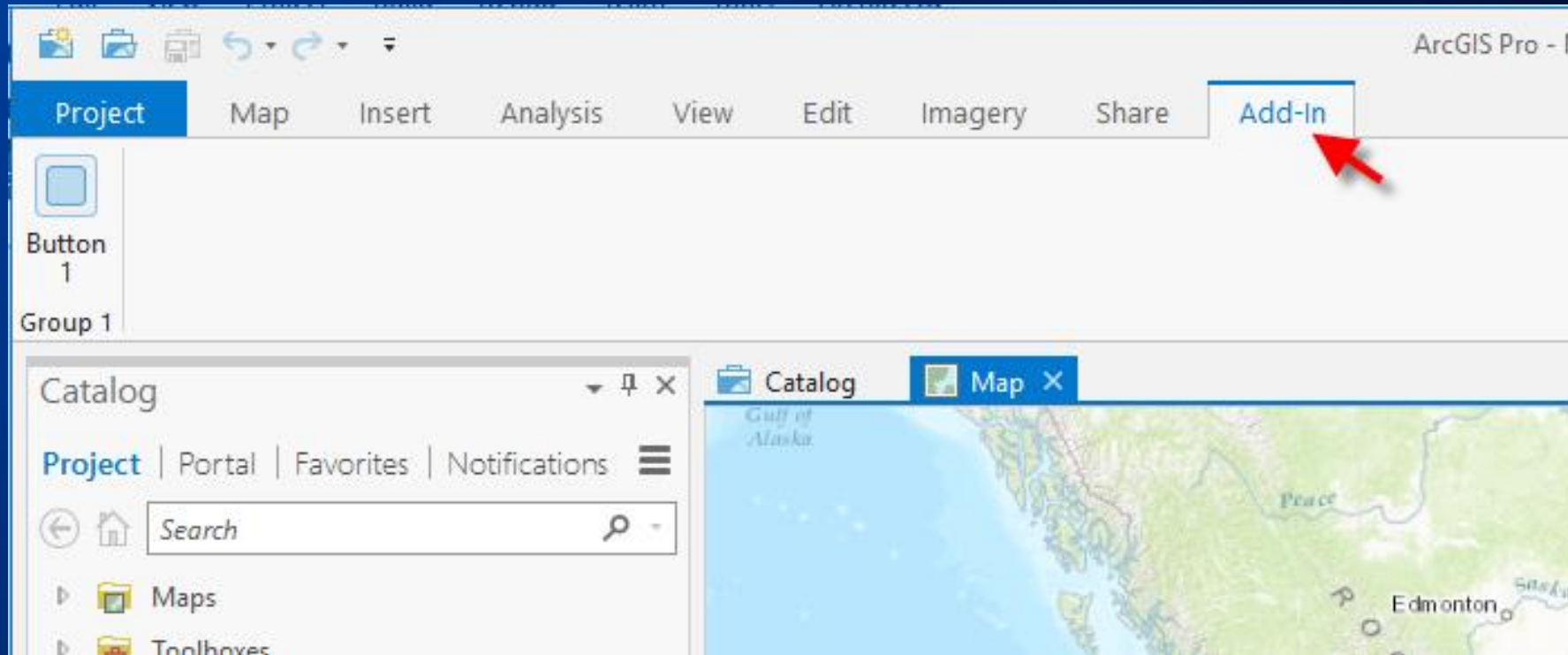
Add-in extensibility points

- Ribbon * Tabs/Contextual Tabs
 - Groups
 - Controls (Buttons, Split buttons, Button palettes, Tools, Tool palettes, Toolbars, Galleries, Combobox, Editbox, Menus, Dynamic menus, Custom controls)
- Panes
- DockPanes
- Property sheets/pages
- Backstage tabs
- Component categories





Add-ins: Demo





Configuration vs Add-in

Similarities:

- Purpose
- Building
- Deployment
- Installation
- Resources

Differences:

- Count of elements at runtime
- Period of activity



Configuration: Demo

The screenshot displays a web application window titled "ConfigWithMap". The interface includes the "Acme Electric" logo and a "Click a county" instruction. A map of California is shown with county boundaries and labels. On the right, a "Signed in as:" section is visible, and below it, a "Recent counties" sidebar lists "San Diego" with a small map icon. A red star icon is located in the bottom right corner of the application area.



Useful links

- <https://github.com/Esri/arcgis-pro-sdk/wiki/ProConcepts-Migrating-to-ArcGIS-Pro>
- <https://github.com/Esri/arcgis-pro-sdk/wiki/ProGuide-Build-your-first-add-in>
- <https://github.com/Esri/arcgis-pro-sdk/wiki/ProSnippets>
- <https://pro.arcgis.com/en/pro-app/latest/sdk/api-reference/#topic1.html>
- <https://github.com/Esri/arcgis-pro-sdk-community-samples>
- <https://community.esri.com/t5/arcgis-pro-sdk/ct-p/arcgis-pro-sdk>



Questions & Answers