ArcGIS Pro: An Introduction

Tom Schwartzman, Esri
ArcGIS Pro: An Introduction

Or....
Helping you get over the fear of change

Tom Schwartzman, Esri
ArcGIS Desktop

- ArcMap
- ArcCatalog
- ArcScene
- ArcGlobe
- ArcGIS Pro

Desktop
Web
Device

Portal

Server
Online Content and Services

Apps
Access
Services
ArcGIS Pro

- 64 Bit, multi-threaded
- Simplified user interface
- Integrated with ArcGIS Online
- Combined 2D/3D experience
- Multiple maps and layouts
- All the analysis tools
- Simple search and query
The user interface is new

- Contextual
- Intuitive
- Project based
- Map focused
- Integrated
Fusion of applications

ArcMap / ArcCatalog

ArcGlobe / ArcScene

CityEngine
What can I do with ArcGIS Pro?
Analysis

- Analysis ribbon
- Majority of tools from ArcMap
- Geoprocessing pane
- Modelbuilder
- Python window
- Network Analysis
- Geostatistical Wizard
- Image and Raster Analysis
Editing

- 2D and 3D editing
- Simplified edit sessions
- Edit enterprise GDBs
- Group templates
- GDB & Map Topology
- CAD like editing experience
Mapping & Visualization

- Improved drawing performance and quality
- Multiple layouts
- Unified symbol model
- Transparency
- 3D Cartography
- Map Series
- Animation
Sharing

- Web maps and 3D web scenes
- Map and layer packages
- Project packages
- Map & Layout files
- Task files
- Symbology (stylx)
Common Questions
Is ArcGIS Pro a replacement for ArcMap?
Yes. ArcGIS Pro will eventually replace ArcMap. We will continue to support and maintain ArcMap. However, our focus is on making ArcGIS Pro the world’s best desktop GIS. There are still some capabilities of ArcMap that are not yet in ArcGIS Pro, so some ArcGIS Desktop users will be using both ArcGIS Pro and ArcMap until ArcGIS Pro has everything you need to fully support your work.
How is ArcGIS Pro licensed?
Any way you want

Becky

Named user

Single use

Concurrent use
Licensing options

- **Concurrent Use**
  - Requires a 10.4 or later license manager
  - Updated license file

- **Single Use**
  - Locked to a machine
Can ArcGIS Pro be virtualized?
On-premise Virtualization

Virtualization Platform

- VMWare
  - ESXi
  - Horizon View
- Citrix
  - XenServer
  - XenDesktop
Cloud-based Virtualization

Microsoft Azure
- NV-Series VM
  - Nvidia GPU
  - 56 Gb Memory
  - 380 Gb storage
  - Demo’d at Microsoft Ignite

AWS
- GPU Workspace
  - Nvidia GPU
  - 8 vCPUs
  - 15 Gb Memory
  - 200 Gb storage

► Available Now
► Tested by Esri Performance Engineering – Great UX

The demo really demonstrated the “Workstation in the Cloud” scenario that is now really possible with Azure NV based Virtual Machines at Ignite! - Karan Batta, Microsoft Azure
Can I customize ArcGIS Pro?
• Use
• Configure
• Automate
• Extend

Customize the Ribbon

Tasks

Use
Configure
Automate
Extend

Python

.NET API

• ArcGIS
• ArcGIS.Core
• ArcGIS.Desktop.Catalog
• ArcGIS.Desktop.Core
• ArcGIS.Desktop.Editing
• ArcGIS.Desktop.Extensions
• ArcGIS.Desktop.Mapping
• ArcGIS.Desktop.Framework
• ArcGIS.Desktop.Shared.Wpf
• Microsoft.CSharp
• PresentationCore
What’s new at 2.1?
ArcGIS Pro 2.1 Priorities

ArcMap Equivalence

New Innovation

Connected Desktop
ArcGIS Pro 2.1 is a big release

- Sharing Maps and Layers
- Mapping
- Layout
- Editing
- Geoprocessing
- 3D Enhancements
- Image Analyst Extension
- Business Analyst Extension
- Utility Network Management
Sharing Maps and Layers

- Offline maps and layers
- Overwrite map image layers
- Publish scene layers referencing registered data store items
- Sharing Web styles
- File system drag and drop
Mapping

- Annotation Editing
- MGRS Grids
- Text in Marker Symbols
- Vector Tile Improvements
- Generalization
- Attribute driven color overrides
- Linear hatches and labels
- Additional Chart Types
- Dot Density
- Pro-based Print Service
- Dynamic Tables
- Arcade
Layout

• MGRS Grids
  - Corner Labels
  - Interior Labels
  - Intersection Points
  - 100,000m Grid Identifiers

• Dynamic Tables
  - Style Headers, Rows & Fields
  - Word Wrapping
  - Width, Gaps, Spacing
  - Column Wrapping
  - Sorting
  - Zebra Stripes

<table>
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<th>Year</th>
<th>Movie</th>
<th>Location</th>
<th>Actor</th>
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<tr>
<td>1963</td>
<td>From Russia with Love</td>
<td>Fairy Speedboat</td>
<td>Sean Connery</td>
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<td>Countryside road</td>
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<td>Orient Express</td>
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<td>From Russia with Love</td>
<td>Venice</td>
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<td>Goldfinger</td>
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<td>Mountain Roads</td>
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<td>Bern</td>
<td>George Lazenby</td>
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<td>Berghagen</td>
<td>Roger Moore</td>
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<td>Cortina d’Ampezzo</td>
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<td>Octopussy</td>
<td>Karl Marx Stadt</td>
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<td>1983</td>
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<td>Cairo</td>
<td>Roger Moore</td>
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<td>The Living Daylights</td>
<td>Vienna</td>
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<td>Prague</td>
<td>Daniel Craig</td>
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<td>SPECTRE</td>
<td>Austria</td>
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<td>2015</td>
<td>SPECTRE</td>
<td>Soldeon</td>
<td>Daniel Craig</td>
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</tbody>
</table>
Editing

- 3D editing grid
- Preset multipatch shapes
- Editing gallery
  - Favorites
  - Customize gallery
- Attribute Rules
- Stereo editing tools
Geoprocessing

- ModelBuilder enhancements
  - If-then-else branching
  - Find and replace
  - Filter by (i.e. “Add to Display”)
  - Report of tools and parameters

- Interactive tool input
3D Enhancements

- Vertical Coordinate Systems
- 3D Analysis – Fence Diagram
- Multipatch Object Creation and Editing
- Isometric Views
- Exploratory Analysis
- 3D Object Scene Layer Symbology
Image Analyst Extension

- Image interpretation and exploitation
- Creation of information products
- Advanced feature interpretation and measurement
- Stereo Imagery for capture and measurement
- Raster and image analysis workflows for machine learning and feature extraction

*Designed for Image and Geospatial Analysts*
Business Analyst for ArcGIS Pro

Introducing BA in the ArcGIS Pro 2.1 Release

- A foundational release with the first wave of BA-based content, tools, and workflows
- Installed and updated with each ArcGIS Pro release
- Available to all current Business Analyst Desktop users
### Near-term
- Metadata (Import, Export and Sharing)
- Reports
- Full motion video
- Real time streaming
- Offset printing
- Presentations
- Scene Layer Editing
- Revit File Support
- Attribute Rule
- More predictive analysis
- Spell Check
- Batch Geoprocessing
- Data Clock Chart

### Mid-term
- Parcel Management
- Dynamic Feature Binning and Clustering
- Projects in the Enterprise
- **Animated** symbols
- Dimensions
- Materials
- 3D Effects
- 3D Interpolation
- GPS Support
- Terrain Editing
- Trend Profile Chart
- Interactive Suitability modeling
- New Extensions

### Long-term
- Physically based rendering
- Geoprocessing in the database
- Distributed desktop processing using Spark
- Space-Time interpolation
- ...