

THE SCIENCE OF WHERE ™

ArcGIS Pro 2.5 Functionality Every GIS Professional Should Know

Sepideh Sepehr, Technical Solutions Specialist Emilie Rabeau, Technical Solutions Specialist May 13, 2020

Today's Speakers





Sepideh Sepehr Technical Solutions Specialist

Emilie Rabeau Technical Solutions Specialist



Surveys and Recordings

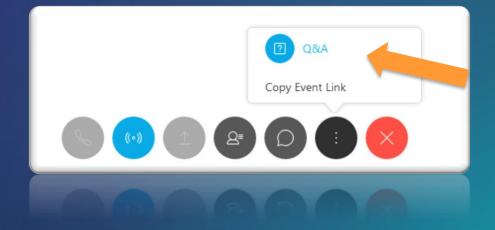
- We are recording today
- Expect an email from us with link
- Please share your thoughts on the exit survey

Open to Questions

- Please use the Q&A panel:
 - Choose Ask: All Panelists, type your question and click Send

Ask:	All Panelists		
	ect a panelist in the Ask menu first and then type ar question here. There is a 256-character limit.	Send	
200			

 If you're unable to see the Q&A panel, click the three dots and then the Q&A button on the control dock at the bottom of your screen:



Today's Agenda

This webinar is designed to help you understand:

- 1. Explore productivity enhancements in ArcGIS Pro 2.5
- 2. Discover advancements in spatial data science workflows
- 3. Learn about advanced 3D functions

<u>We All</u> Have Problems We Are Trying to Solve!



Productivity enhancements

Tools that help you get the work done!

Table Enhancements

- The new Find and Replace functionality allows you to search tabular data
- Ability to freeze one or more columns with the Free/Unfreeze Field tool

 Set a default docking location for attribute tables

	t's New in ArcGIS I	Pro - Thundersto	rm Warnings 2019 ·	- ArcGIS Pro	Table	Feature Lay	rer				?	-	0
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NEW



Chart Symbology

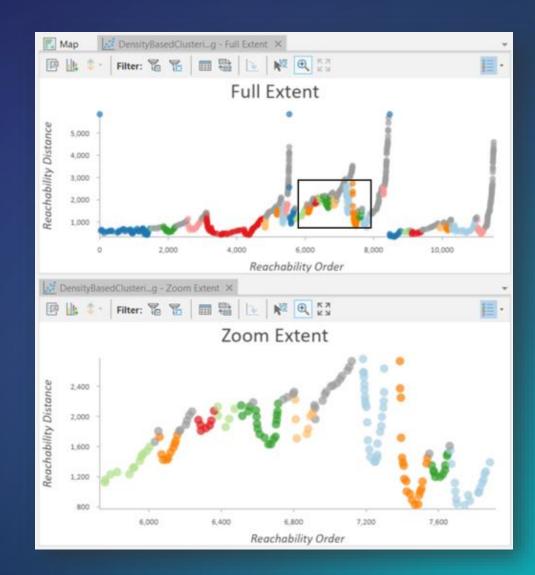
- <u>Chart symbology</u> has been added for point, line and polygon features.
- Pies, bars and stacked bars are available
- Charts can be sized proportionally



NEW

Enhancements with Charts

- Chart data is rendered faster and asynchronously.
- All charts with axes have zooming and panning functionality



Demonstration I

ArcGIS Notebooks

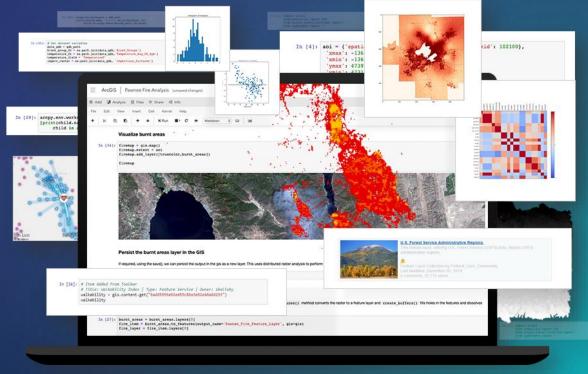
Five Tips To Get You Started With Jupyter Notebook

Introducing ArcGIS Notebooks in ArcGIS Pro

Learn more about ArcGIS Notebooks

ArcGIS Notebooks in ArcGIS Pro

Sample notebooks



NEW

Demonstration II

Review and Questions

Advancements in Spatial Data Science

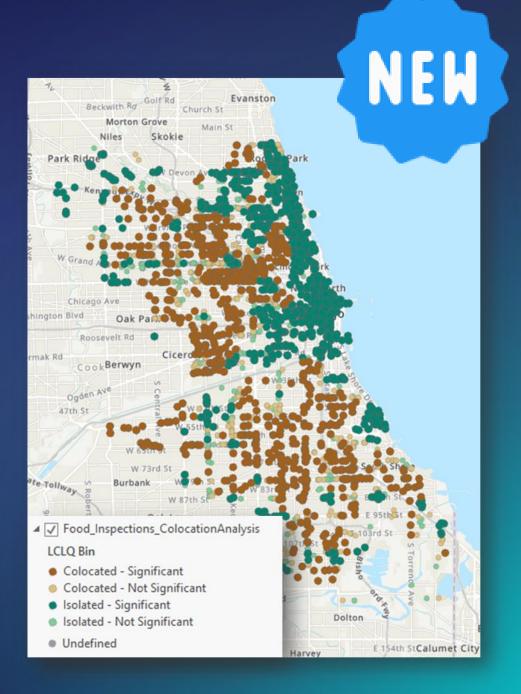
Colocation Analysis

Problem

I want to know if two types of features in my dataset happen near each other in a way that is meaningful

Solution

Use spatial statistics to evaluate if the colocation of two categorical variables, or two sets of features, is statistically significant



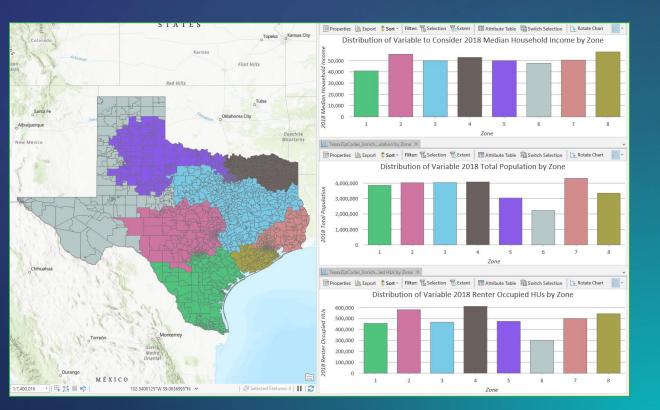
Build Balanced Zones

Problem

I want to create homogenous zones that are similar to each other in terms of a number of different characteristics and thresholds

Solution

Use machine learning techniques to find contiguous, homogenous zones based on criteria set by the user.



Local Bivariate Relationships

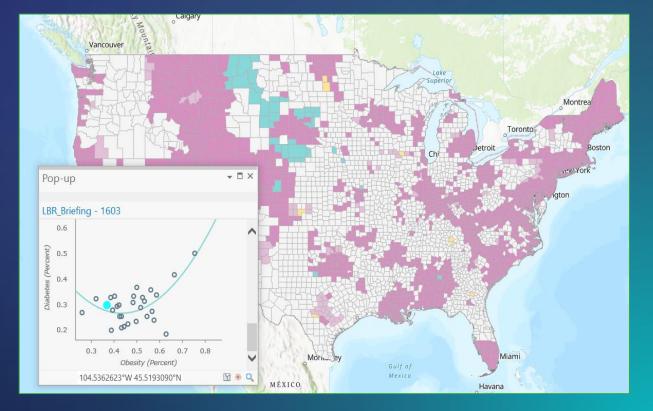
Problem

I want to build on my bivariate visualization and start to really understand if the patterns that I'm seeing are meaningful.

Solution

Use statistical techniques to evaluate the local relationship between two variables





Geoprocessing CHIME Model v1.1.1 Parameters Environments Field-Based Model Parameters Doubling Time in Days (Up to Today) Social Distancing % (Reduction in Social Contact Going Forward) Hospitalization % (Total Infections) ICU % (Total Infections) Ventilated % (Total Infections) Infectious Days Average Hospital Length of Stay (Days) Average Days in ICU

Daily Hospital Census Projections

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 Hospitalood Ca ICU Census

- 計算 22 目 -

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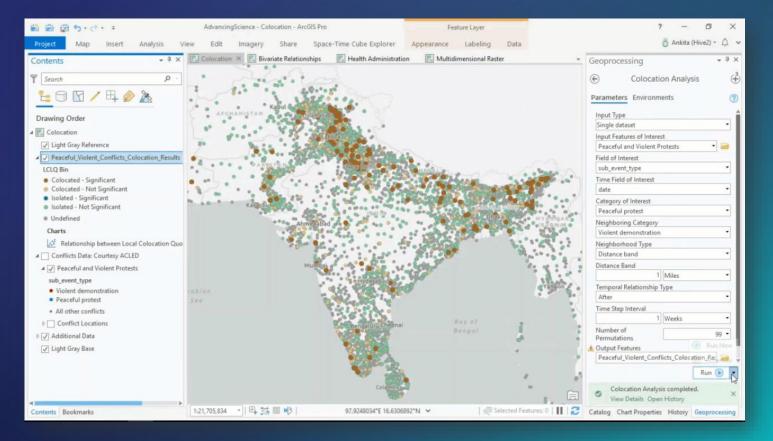
ArcGIS Pro COVID-19 Modeling Toolbox

- The CHIME model provides up-todate estimates of how many people will need to be hospitalized, and of that number how many will need ICU beds and ventilators.
- It also factors social distancing policies and how they might impact disease spread.

Find the <u>CHIME Geoprocessing Tool here</u>.

Tools that help you get the work done!

 Ability to <u>schedule analytical</u> <u>tools</u> to run later or with recurrence

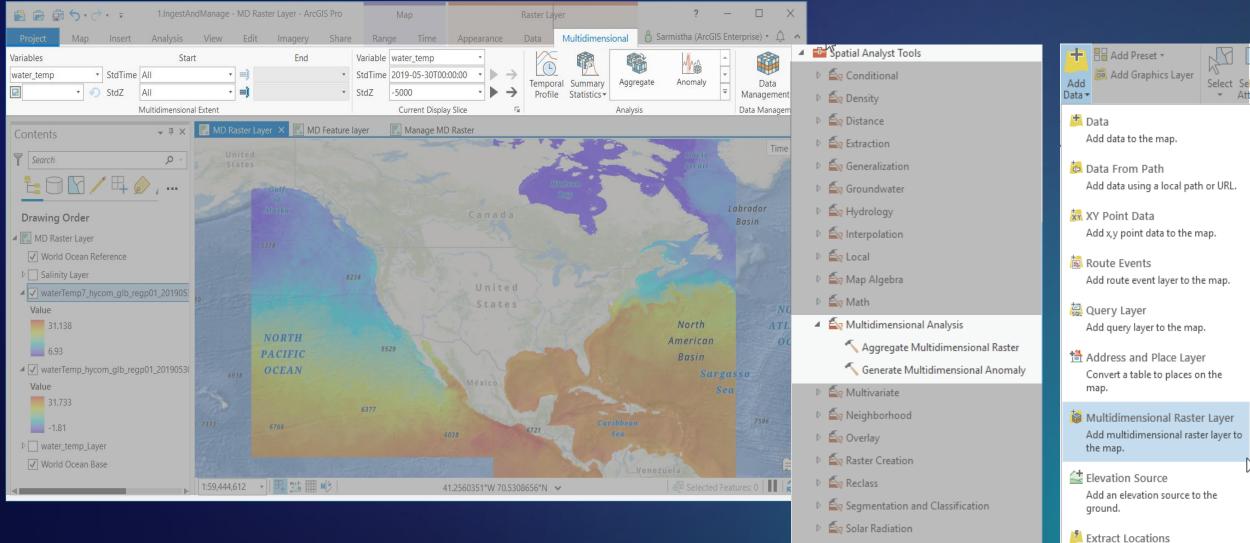


NEW



Demonstration III

Working with Multidimensional Data



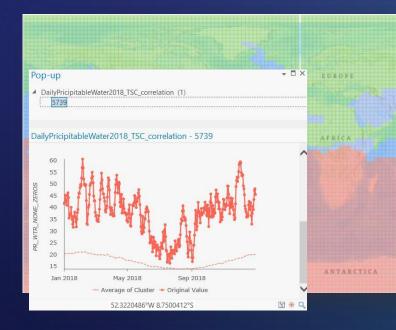
▷ Surface

🕑 🏠 Zonal

Add data extracted from documents to a map



- <u>Time Series Clustering</u> tool
- <u>Create Space Time Cube from Multidimensional</u> <u>Raster Layer</u> tool





NEW

Demonstration IV

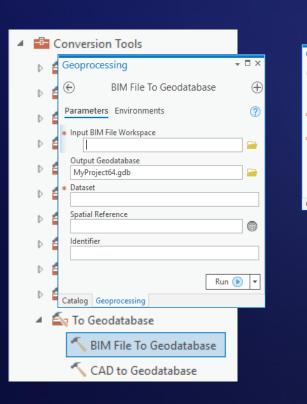
Review and Questions

3D Functionalities

Revit

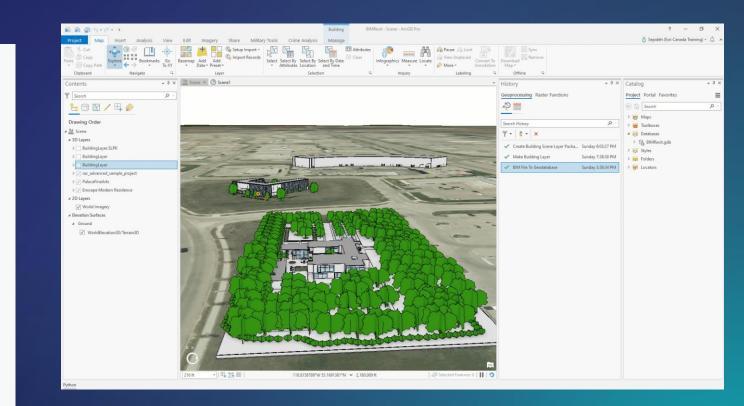
Handling multiple BIM datasets

- BIM File to Geodatabase
- Make Building Layer



Data Management Tools 4 Archiving Attachments Attribute Rules Contingent Values Data Comparison - □ × Geoprocessing € \oplus Make Building Layer Parameters Environments ? Input Feature Dataset F Output Layer Run 🕟 🔻 Catalog Geoprocessing Geodatabase Administration Indexes I Solors and Relates LAS Dataset A Layers and Table Views Apply Symbology From Layer

Make Building Layer



NEW

Pixel Editor

Operations have been added to the Pixel Editor:

- Custom Processing
- Interpolate from Edges
- Replace pixels



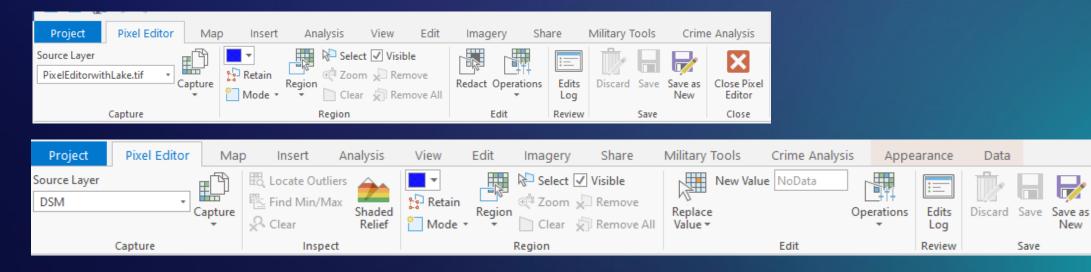
×

Close Pixel

Editor

Close

New



Tools that help you get the work done!

The output Python code generated by the **Export To Python File** and **Send To Python Window** commands has been enhanced.





New at Pro 2.5

• Building scene layer

Pro 2.4

- <u>3D Slice</u>, Merge, & Explode
- <u>Water effects</u>
- Cut & Fill tools
- Profile Viewing
- <u>3D Empirical Bayesian</u>
 <u>Kriging</u>

- Mobile Scene Packages
- <u>Multi BIM File to GDB</u>
- New 3D Editing Options
- <u>Building Scene Layer</u>

Performance Updates

<u>3D symbols styles</u>

Midterm +

- Civil 3D DWG import
- BIM 360 Catalog view
- Color & Texture Support
 from Revit
- Voxel desktop UX
- Voxel web experience
- IFC Import (Future)
- Indoor navigation in 3D scenes

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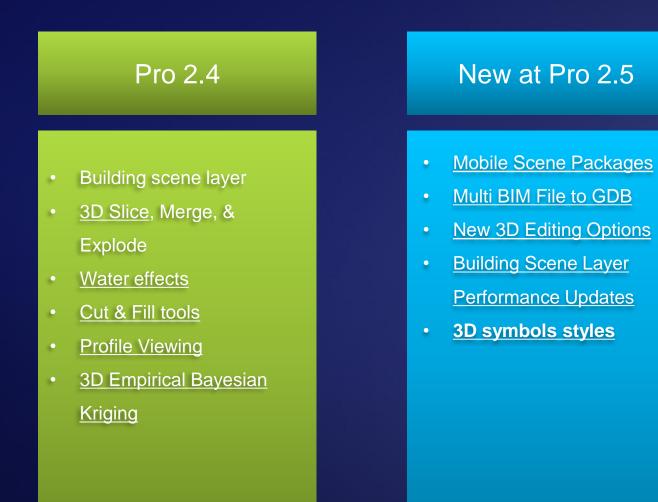
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scenes

Review and Questions

Summary

In this webinar you learned about:

- Productivity enhancements like the Find and Replace tool and scheduling;
- Some great spatial data science tools like Colocation Analysis tool;
- Discovered available enhancements in 3D capabilities.



 ArcGIS Pro 2.5 has delivered over 60 user-requested enhancements, many of them being ArcMap equivalency requests.

Visit the <u>ArcGIS Ideas</u> site to view the status of a request or to submit a new idea!

ArcGIS[®] Pro Roadmap



Near-term

- Map Graphics
- Parcel Adjustment
- Trace Networks
- Non-Spatial Objects in Utility Networks
- Voxel Layers
- Mesh Manipulation
- Geoprocessing Leveraging Spatial Databases
- Interactive Suitability Analysis
- Link Analysis
- New Extensions & Solutions
- GPS Support
- Bivariate Symbology
- Data Engineering

Mid-term

- Catalog Layers
- Linear Reference Editing
- Knowledge Graphs
- Big Data Connections
- Projects in the Enterprise
- Material Textures
- Multipatch Editing Enhancements
- Multipatch Editing in Stereo
- Layer Blend Modes
- Presentations
- Dynamic Feature Clustering
- Voxel Layer Sharing
- Animated Symbols

Long-term

- Terrain Editing
- 3D Mesh as ground
- High Fidelity rendering

Are you currently working from home?

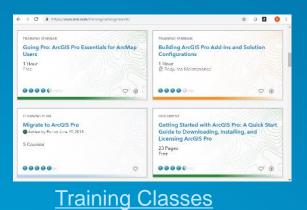
Blogs

- How to access Esri technology while working from home
- <u>Comment accéder à la technologie Esri tout en traivaillant à la maison</u>
- Working Well Remotely

Webinars:

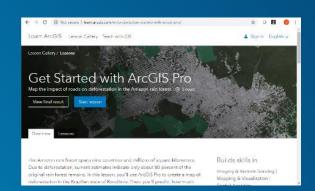
Working from Home: ArcGIS Pro...Cloud hosted virtualization







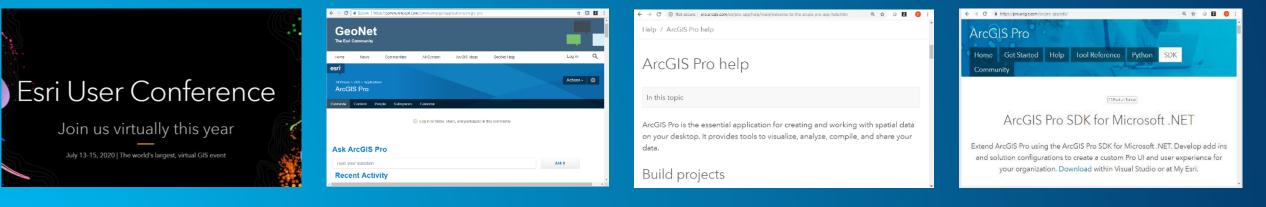
<u>Videos</u>



Learn.ArcGIS.com



Developer Resources



Esri User Conference





Esri Canada Resources

- Upcoming webinars & events
 - Creating Tailored Web Page Experiences with ArcGIS Enterprise Sites, May 21, 2020
 - Tips & Tricks: GIS Solutions for COVID-19 Government Response, May 28, 2020
 - Online Bling: 6ix Headlines from ArcGIS Online, June 18, 2020
- Related training courses
 - Migrating from ArcMap to ArcGIS Pro
 - Spatial Analysis with ArcGIS Pro
 - ArcGIS Pro: Working with ModelBuilder

Thank You

- The recording will be available online at: <u>resources.esri.ca/webinars</u>
- If you have any additional questions about the content presented to you, feel free to contact us:

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- Sepideh Sepehr, ssepehr@esri.ca
- Emilie Rabeau, erabeau@esri.ca

Connect with us @esricanada

Resources Mentioned During Webinar

- Spatial Data Analysis Resources
 - https://spatialstats.github.io/
- LIDAR Data Resources
 - https://canadiangis.com/free-canada-lidar-data.php
- Early Adopter Program
 - https://www.esri.com/en-us/early-adopter



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