

**ILGISA 2021 ANNUAL CONFERENCE SESSION & WORKSHOP DESCRIPTIONS****MONDAY, OCTOBER 18TH, 2021****9:00 AM – 10:10 AM SESSIONS****Benefits of Reality Capture****PRIVATE DINING ROOM**

*This presentation will explain what Reality Capture is and demonstrate various strategies and uses for it on different engineering projects. The presentation will focus on the various reality capture tools and methods, the advantages and limitations of each, and deliverable options. We will also look at some sample project datasets. The goal is to help participants better understand these technologies and their capabilities, and see applications in their own projects.*

**Derek Twente, TWM, Inc.****Jeff Clay, TWM, Inc.****Evaluating Development with 3D GIS****COLTRANE**

*Downtown is the heart of Glen Ellyn and this Chicago suburb's central business district and source of community pride. The area is home to dozens of businesses and numerous residents that reside in mixed-use and multi-family buildings scattered throughout the area. Maintaining the established and desirable character has been paramount in the community and has created a challenge for new development and investment that has been considered necessary to strengthen downtown's vibrancy. With concerns and opposition to proposed height, architecture, parking location, and building materials, local developers often faced challenging approvals. Village planners believed a 3D planning tool would allow them to better evaluate proposals, and that an immersive 3D game-like experience could allow elected officials and decision makers better evaluate the appropriateness of a development within this important place in their community. Using ArcGIS Pro, CityEngine, and Unreal Engine, Esri partners Houseal Lavigne Associates transformed the community's GIS information into a rich and immersive 3D environment. Developers are now required to submit 3D models with their application, and Glen Ellyn's Immersive 3D Development Viewer is used to examine building setbacks and heights, architectural character, and views from adjacent properties and the public realm.*

**Devin Lavigne, Houseal Lavigne****Success in sharing COVID-19 information using Esri Operations Dashboard****GETZ**

*Adams County needed a solution to share data with the public about COVID-19. We used Esri Operations Dashboard with great success. The dashboard was launched in March of 2020 and currently we have over 1.3 million pageviews.*

**Kevin Dicks, Adams County, IL****Tips & Tricks in SQL Enterprise Geodatabases****COLTRANE**

*We'll peek under the hood of SQL Spatial databases and show you how you can easily update attribute domains, field order and field type. We'll also explore the advantages of views for calculated values and dynamic layers.*

**Scott Daniel, GRAEF****Interagency Collaboration during COVID-19****GETZ**

*The COVID-19 pandemic brought many complex challenges to citizens of our communities, state, and country. It should be no surprise that state agencies and partners encountered these challenges and had to come up with solutions to tackle them. State agencies and partners had to come together to work geospatially to help combat the pandemic. Specifically, the Illinois State Geological Survey (ISGS), Illinois Department of Transportation (IDOT), and Illinois Statewide Terrorism & intelligence Center (STIC) worked together with partners from both the government and private sector to provide*

*geospatial applications that were used by decision makers at the highest levels in state government. This session will go over some of those solutions and how they all worked together to provide a statewide picture for the pandemic as it unfolded.*

**Nicholas Gray, Illinois Statewide Terrorism & Intelligence Center**

**Mark Yacucci, Illinois State Geological Survey**

**Dan Wakefield, Illinois Department of Transportation**

## **Multipurpose use of Street-Level Imagery**

**SHAW**

*Many local governments and utilities rely on technology initiatives that optimize management of properties, assets, and infrastructure. Cyclomedia provides high resolution street level imagery, LiDAR, software tools and asset data collection services that enable jurisdictions to move towards more efficient data-driven operations. In this session, we will provide an overview of Cyclomedia, and review open-source street level imagery resources and compare against professional grade data and Saas applications. This session will showcase several case studies demonstrating how agencies are leveraging street level imagery and LiDAR resources to support their operations.*

**Bill Wetzal, Cyclomedia**

**MONDAY, OCTOBER 18TH, 2021**

**10:30 AM – 11:40 AM SESSIONS**

## **The Addressing House of Horrors: Abandon all Hope Ye who enter here!**

**PRIVATE DINING ROOM**

*The State of Illinois grants municipalities and county boards the right to regulate the numbering of buildings, plus the authority to create and alter any street name, avenue, or alley within their jurisdiction; however, such responsibility can come with great challenges. Why has changing a street name or re-numbering a building, most notably, become such a gruesome task, especially when undertaken to improve emergency response? In this session, we will explore the horrors experienced by Lake County during a project to eliminate dual addressing in unincorporated areas. We will take the willing victim through the careful planning and implementation of the project followed by the bloody aftermath that ensued from the world of online mapping. Should our victims survive the onslaught, they will come away armed with details on how to update the likes of Google Maps, OpenStreetMap, HERE, TomTom, and other online mapping & navigation platforms. Please join us for a - pleasant - stroll down Elm Street!*

**Matt Coleman, Lake County**

**Peter Schoenfield, Lake County**

## **Address Verification & Fire Sign Collection using ArcGIS Collector and Operations Dashboard**

**GETZ**

*With NG911 right around the corner, making sure all of the addresses in your jurisdiction are accurate and complete is essential for 911 and public safety. The address verification application was developed using ArcGIS for Collector, along with Operations Dashboard, so that our fire departments could go out and verify addresses in their jurisdiction and report their findings back to the GIS Analyst. In addition, a fire sign application was developed using the same GIS technology, for a fire agency to go out and verify the condition of the rural fire signs, making sure they are still readable, not missing, and/or needing repairs. This application allows the fire department to track which signs need immediate attention, so that they can get repaired for when an emergency occurs.*

**Kristina Rohrbach, Tri-Com Central Dispatch 911**

## **Work Smarter, Not Harder: Save Time with Attribute Rules**

**SHAW**

*Have you ever had your data exactly where you wanted it, only to have a new business system force a change to your working-just-fine schema? Ever find yourself repeating field calculations, converting the same attributes over and over or*

*find out later that were just not quite as thorough as you thought you were? With basic ArcGIS Pro and Arcade knowledge, you can automate many of your data conversion tasks (both simple and not-so-simple) that may be taking your time and stealing your sanity. You'll walk away from this session with the knowledge to immediately implement simple Attribute Rules and begin dreaming and scheming about the more complex ones that would have a big impact on your workflows. Plus, if you're still not sure about ArcGIS Pro, this one powerful tool might just convince you to jump in!*

**Erin Strickler, Cloudpoint Geospatial**

**Hunter Ray, Cloudpoint Geospatial**

## **Elgin Police Department Transparency Hub**

### **COLTRANE**

*The Elgin community now has access to near real-time crime dashboards. We felt it was also important to provide a continuous count of dispatched calls for service which displays next to the ongoing counts for incidents involving response to resistance as well as performance complaints. Each of these counts are supported with dashboards for further exploration. Employee and recruitment demographic data are shared, as are the outreach initiatives undertaken by the department and good news about our employees. We plan to keep expanding information we provide in this portal.*

**Chris Nawrot, City of Elgin**

**Richard Snyder, City of Elgin**

**Kristie Hilton, City of Elgin**

## **A Partnered Approach to Upgrading ArcGIS Enterprise**

### **GETZ**

*City of St. Charles' enterprise GIS had matured by late 2019, many complex information products and workflows had been implemented as a product of incremental long-term growth. Timing was ripe for an overhaul and modernization. Current city staff responsible for GIS were already near capacity, additionally it was understood there would be project-specific training or guidance necessary to undertake the effort if managed internally. The City partnered with GISinc to augment the team, providing consultative and technical support to build an upgrade plan that would meet the City's needs of avoiding downtime as much as possible and seeking opportunity to learn as they go about the various technical aspects of an enterprise upgrade. Together the project team assembled the roadmap and prepared the teams accordingly: Step 1; System Inventory and Review, deep dive into content and related dependencies. Step 2; Risk Analysis and Assessment to support the Upgrade Strategy. Step 3; Build and Prepare for the Plan, define the details and prepare for Deployment Roles and Responsibilities on each team. Step 4; Co-Work the Upgrade and Migration effort.*

**Micah Williamson, GISinc**

**Eric Creighton, City of St. Charles, IL**

**Tyler Prah, GISinc: A Continental Mapping Company**

## **MONDAY, OCTOBER 18TH, 2021**

### **1:15 PM – 2:25 PM SESSIONS**

## **Tips and tricks - developing address points and roads for Next Generation 911**

### **PRIVATE DINING ROOM**

*This presentation is designed for communities which are eager to improve data quality for NG911 with limited GIS resources. Address points and roads are required layers for NG 911. However, developing these layers is not an easy task. Some counties may start by downloading roads from Census TIGER or IDOT websites and adjusting data schema to NG 911 standards. The presenter will discuss pros and cons of each dataset and efficient ways to populate necessary fields such as road ranges (theoretical or actual) and incorporated municipalities (different from postal community). Address points useful for geocoding would involve quality control checks including field work. Even though parcel data can be helpful, there are several considerations during the conversion, such as how accurate the site address is.*

**Keisuke Nozaki, Western Illinois University GIS Center**

## Deep Dive into Data: EPA and Federal GIS Data Resources For You

**COLTRANE**

*EPA and federal agencies publish a range of authoritative datasets that may be useful for your environmental projects. Learn about the latest releases and tools such as the Underground Storage Tanks Finder (UST Finder), EJSCREEN (Environmental Justice), Cleanups in My Community, and the Inland Sensitivity Atlas. EPA also has a large online gallery of layers and apps in [epa.maps.arcgis.com](http://epa.maps.arcgis.com). This presentation will also highlight other federal agencies such as FEMA and USFWS who publish environmental data layers of interest.*

Lucy Stanfield, US Environmental Protection Agency

## Why Using Drones Should Change the Way You Think about Remote Sensing and Data Collection

**GETZ**

*If you have not thought of using drones for your data collection work and modeling, this presentation will ask you to consider the possibilities. As an emerging technology, the use of drones might be the most versatile developing technology currently available for spatial data collection. The use of unmanned aerial systems to map and model continues to progress and become more dynamic. Meanwhile, the real-world applicability for drones is constantly evolving. This session emphasizes the use of drones to collect visual and spatial data and provides various applications for use. Using "remote sensing" or visual imagery such as aerial photography or satellite imagery, researchers can collect data to form point clouds and ultimately create 3D models. Of course, professional drone pilots need a FAA Part 107 license to conduct their work. Drone technology will develop, and the drone workforce is expected to grow exponentially in the next few years, and into the foreseeable future.*

Rich Schultz, Illinois GIS Association (ILGISA)

## Data Collection using LiDAR with Unmanned Aerial Vehicles

**SHAW**

*This presentation will demonstrate various strategies and uses for Aerial LiDAR on engineering & GIS projects. Capturing existing conditions for large projects, in difficult terrain or during the summer months can be a challenge. LiDAR is a well known, but often poorly understood technology that we believe is underutilized.*

Jeff Clay, TWM Inc.

## (Lightning Talk) Using Data to Make Informed Decisions on Redistricting

**COLTRANE**

Joe Kezon, Chicago Office of Public Safety Administration

## (Lightning Talk) The ILGISA MOOC: Learning on Demand

**COLTRANE**

*Have you ever completed a "MOOC" before? A MOOC is a "massive online open course" designed to provide content through a learning experience at your own pace. ILGISA has created a MOOC designed for those new to location technologies. It is free, open, and easy to access for everyone. It comes with free access for a limited time to a licensed version of ArcGIS Online and an opportunity to use Quantum GIS (QGIS) to experience the use of GIS work. The MOOC presents learning about why location technologies is critical to understanding spatial relationships and applies to a multitude of fields. Newcomers to location intelligence will receive a certificate of completion upon completion of the learning experience. Spread the word to those you know who are new to location intelligence to learn about how they might use it in their work.*

Rich Schultz, Illinois GIS Association (ILGISA)

## Community Based Air Quality Monitoring to Improve Public Health

**GETZ**

*Air Quality Chicago is the Environmental Law & Policy Center's community science project aimed towards education communities about what is in the air around them and ways to protect their health. ELPC provides communities with the tools to collect and understand air quality data, in hopes that the hands on experience will empower them to become clean air advocates.*

**Tiffany Werner, Environmental Law & Policy Center**

**Susan Mudd, ELPC**

## USGS Lidar in Illinois - Current Status, Future Plans, and Applications

**SHAW**

*Aerial Services, Inc. (ASI) is a USGS contractor under the GPSC program and has collected lidar data over most of the state. In this presentation, ASI will present an update on statewide lidar activity and draw on current information from federal and state agencies involved in these efforts to discuss forecasts for the remainder of Illinois. This presentation will also review common data applications and an overview of data upgrades available for regional entities covered by the projects.*

**Ben Redding, Aerial Services, Inc.**

**Tim Dayhuff, Aerial Services, Inc.**

## MONDAY, OCTOBER 18TH, 2021

### 2:45 PM - 3:55 PM SESSIONS

## The Hidden Value of Remote Sensing

**PRIVATE DINING ROOM**

*Explore the fine details of exploiting imagery and lidar beyond just their ability to produce a pretty picture. This session discusses automated feature extraction techniques for generating impervious surfaces and for identifying invasive species, land cover, change detection, solar potential and elevation-derived hydrography. As an advantageous and versatile application, feature extraction allows for the analysis of multiple data sources, provides reproducible results, reduces labor cost and time, and so much more. Walk away from our session having experienced the unseen value of remote sensing""and how it can take your ventures to the next level.*

**Kent Park, Woolpert**

## Leverage Your GIS Expertise To Inspire The Next Generation

**COLTRANE**

*GIS professionals have various opportunities to inspire the next generation of GIS professionals, including mentoring, career fairs, teaching, etc. These options involve direct interaction between current and future GIS professionals. The Geographic Society of Chicago's Education Committee is testing a model with the potential for more widespread influence, in which current GIS professionals equip middle and high school teachers across disciplines with tools to promote GIS as a career path to their students. The committee is collaborating with teachers to enhance their lesson plans with ArcGIS Online web maps to generate critical early exposure and interest in GIS among students who are actively forming career goals. This presentation will discuss both the web maps created for teachers and the teachers' experiences applying them in the classroom.*

**Anita Thomas, IFF**

## Illinois Coordinate System 2022 Update

### SHAW

*This session will offer an update to the Illinois Coordinate system. Included will be an overview of current and future projections, details on the new 33-zone system, implementation of the conversion software created by the Illinois State Plane Coordinate System Committee, legislative considerations, the inclusion of the system into various software, and how the data can be accessed.*

**Kory Allred, Parkland College**

## Mapping Your Environment with LiDAR

### PRIVATE DINING ROOM

*Processing and viewing LiDAR derivatives is time consuming, confusing, and can be difficult for some computers to handle. This leaves many to only use derived DEMs and contours from the LiDAR. As a major provider of Aerial LiDAR, Ayres works with clients to try and extract more value from this critical foundational layer. One area of focus has been developing a suite of environmental LiDAR layers that can help land managers locate and mitigate risks across the landscape. Whether its locating exactly where your culverts are, creating Enhanced Hydrography Datasets to map water flow, finding closed depressions, or assessing risk of erosion, analysis of LiDAR can put your data to work to help derive answers for departments across your organization. This presentation will dive into the creation and use cases for the next generation of GIS layers derived from LiDAR base products. Be prepared to explore the terrain and environment with help of Lidar!*

**Adam Derringer, Ayres Associates**

## Behind the Scenes: Maricopa County, AZ COVID-19 Response

### COLTRANE

*For our GIS team, 2020 started like every other year, we were planning a migration of all our 200 GIS virtual servers to a new domain with all new infrastructure and the latest Esri software. I was scheduled to attend and speak about our world-class enterprise environment at the 2020 Esri CIO Summit and then the world shutdown. Because of our relationship and the demand for data analysis from Public Health, the CIO selected me to manage all IT requests including GIS from the 4th largest county Public Health Department in the US and that's when the fun began. Early on our hybrid team of GIS and Public Health professionals had to rebuild public perception of national data inaccuracies which involved into implementing over 50 applications, surveys, and dashboards, change our application deployment mindset, and review COVID-19 vaccine applications from the State of Arizona and vendors such as Salesforce, ServiceNow, SAP, and Microsoft. In this presentation, I will share how we were able to maintain our high expectations and standards, manage our team, and win a record 7 National Association of Counties awards with a 2021 SAG award from Esri which resulted in 5 new IT positions dedicated to Public Health over the next 2 years and one of the best years of my career.*

**David Moss, Sidwell**

**TUESDAY, OCTOBER 19TH, 2021**

**9:00 AM - 10:10 AM SESSIONS**

## More than Blue Lines

### PRIVATE DINING ROOM

*There is an opportunity to move our National Hydrography Dataset (NHD) from more than "'blue lines' on a topo map to create a dynamic geospatial framework that will support more accurate modeling, navigation and watershed mapping. Woolpert is part of the private sector community assigned a USGS Task Order to convert new USGS elevation data into datasets to create the 3D-NHD. Collection of new elevation data country-wide through 3DEP National Map Program will enable once unimaginable detail to be integrated into hydrography. The specifications of the USGS 3DEP program guarantee the end products are of such accuracy and density it lends itself to machine learning to create an updated NHD. The creation of dynamic watershed maps that capture all stream flows - including intermittent and ephemeral - from headwaters to flow direction through culverts, more accurate slope, and accumulation of drainage paths. Woolpert has developed such processes based on 6-acre catchments. Specifically, many Great Lake states have completed lidar updates*

to their respective elevation datasets using the contractual and financial assistance from USGS's 3DEP Program. Perhaps a combined regional effort to create a bi-national Great Lakes, basin-wide 3D-NHD can greatly enhance the scientific analysis of protecting the water quality of twenty percent of the world's fresh water.

**Kent Park, Woolpert**

## Practical Hosted & Managed Cloud Strategies

### COLTRANE

*Is the cloud intimidating to you? Push your nephophobia (fear of clouds) aside for this educational session covering hosted and managed Cloud Strategies for ArcGIS Enterprise. We will discuss deployment strategies, methods of security, successful examples, and even recommend some deployment tools.*

**Micah Williamson, GISinc**

## GIS Data & Next Gen 911 - Lessons Learned & Best Practices

### GETZ

*In this session I will discuss the most important lessons we've learned while preparing our GIS data for the switch to Next Generation 911 as well as the best workflows & practices we've developed for validating our data and synchronizing our boundaries with neighboring jurisdictions.*

**Chad Bergeson, DeKalb County Government**

## Labeling with Arcade and producing the IDOT Operations Facilities Directory

### SHAW

*Using ArcGIS Pro Map Series and Arcade language to create the IDOT Operations Facilities Directory which contains locational and textual data about the IDOT Maintenance Yards, Rest Areas and Weigh Stations across the State of Illinois.*

**Wendy Sheppard, Illinois Department of Transportation**

**Barb Clauser, IDOT**

## Give Your Land Records a Spin with ArcGIS Pro Parcel Fabric

### COLTRANE

*Are you ready to give your Land Records a spin with ArcGIS Pro Parcel Fabric? We will discuss what you need to know to make a smooth transition from ArcMap to ArcGIS Pro. The presentation will touch on a number of topics to help you find the groove, including software and licensing considerations, data management and branch versioning, record-driven workflows, and ArcGIS Pro editing tools. Drop the needle on the Land Records and listen to the joyous sounds of the ArcGIS Pro Parcel Fabric!*

**Matthew Junker, Cloudpoint Geospatial**

## GIS Workflow for NextGen 911 in Illinois

### GETZ

*The Next Gen 911 GIS Committee has been working with esri to develop a workflow to enable data loading, validation and uploading for each PSAP's GIS data. This workflow was officially released this year and will help streamline the process of working with your agencies GIS data. This session will focus on the developed tools and supporting information such as videos and the GeoNet that has been created so far. This session will also discuss an upcoming addition to the workflow that will incorporate a comparison of local ALI data files to the GIS data (address point and road centerline). Attendees should have a basic understanding of NextGen 911 terminology and concepts.*

**Chad Sperry, Western Illinois University, GIS Center**

**Bridging the IT/GIS Gap****SHAW**

*Admit it or not, there can exist a gap between GIS and IT. Whether it be communication, technology terms or resources. GIS and IT often do not understand the needs of the other. This session will break down the communication and technology walls so your environment will run at an optimal level. Tips and tricks for working collaboratively with your GIS and IT departments will be discussed.*

**David Moss, Sidwell****TUESDAY, OCTOBER 19TH, 2021****10:30 AM - 11:40 AM SESSIONS****Deploying Solutions for Local Government****PRIVATE DINING ROOM**

*Through the ArcGIS Platform, industry solutions can be easily deployed to support mission critical local government operations. This session will walk through the deployment of the Esri ArcGIS Hub for a small jurisdiction. We will provide quick steps and tips and tricks to implement feature layers, web maps, applications, and review the organizational controls (sharing and user types) needed to successfully deploy this solution.*

**Carissa Choong, Sidwell****Website or GIS Site: Using Experience Builder in the Real World****COLTRANE**

*As GIS professionals, 'Other duties as assigned' means we all may be asked to work on things that may not be strictly map related. ArcGIS Experience Builder helps mitigate these requests with building a full website experience that can still be based on your GIS data. Learn what it means to integrate your GIS infrastructure as a central point of your organizations overall IT strategy. Use GIS layers and Survey123 results as a means to update announcements and content creation. Rather than limit and isolate, extend and incorporate!*

**Micah Williamson, GISinc****Century-old Utility Map Conversion to the GIS Age****GETZ**

*Mapping at a century-old electric utility poses unique challenges. ComEd, a 120-year-old company, is an electrical utility serving 10 million customers in Chicago and Northern Illinois. Our data goes back decades - originally documented on hand-drawn vellum maps and AutoCAD diagrams. The conversion to GIS had to include modeling electrical flow, incorporation of millions of equipment attributes as well as encompassing many different types of maps. ComEd has created a customized robust GIS utilizing GE SmallWorld GIS products. Our presentation will showcase original maps and the steps involved to evolve them into auto-generated digital map products.*

**Nancy Isberg, GISP, ComEd****Peter Collins, ComEd****Beverly Dial, ComEd****Using Deep Learning Models with ArcGIS to Extract Road Culverts from Imagery****SHAW**

*Hydrologic connectivity is critical to address a myriad of environmental management issues, such as nutrient transport and aquatic species passage. Ensuring hydrologic connectivity often involves delineating hydro-topographic boundaries using high-resolution Digital Elevation Models (HRDEMs). However, this task presents significant challenges as HRDEMs are highly sensitive to artifacts of topographic variations, including topographic depressions and flow barriers. Locations of flow barriers such as road culverts must be preprocessed before a delineation of watershed boundaries. However, the current practice of manually digitizing culvert locations is both time and labor intensive. Therefore, there was a critical need to develop a new approach to automatically identify the locations of road culverts. In this preliminary study, ArcGIS*

*Pro's computer vision and deep learning tools were used to detect culvert locations. A set of manually selected image samples were used to train deep learning models. Then, the selected model was used to identify culvert features on the imagery. The challenges and opportunities of the experiments will be discussed in the presentation.*

**Claire Talbert, Southern Illinois University**

## **Applications of GIS in the Energy Industry: Utilities and Asset Management**

**GETZ**

*Explore the applications of GIS for utilities and asset management in the Energy industry. From data integration to solution deployment, learn about opportunities to leverage your current infrastructure and enhance your data's value.*

**Matthew Moy, EN Engineering**

## **Storm Water Outfall Inspections using Field Maps/Survey 123 Collaboration**

**SHAW**

*Transforming from paper inspections to digital inspections using Field Maps, Survey 123, Operations dashboard and webhooks. Field staff can now provide office staff near real-time inspection data to input into the City's asset management system.*

**Justin Emerson, City of Rockford, IL**

**Jonathan Oelschlager, City of Rockford, IL**

**TUESDAY, OCTOBER 19TH, 2021**

**1:15 PM – 4:15 PM WORKSHOPS**

## **Workshop: Power BI as a Digital Solution for Spatial Data**

**SAVOYE**

*In this workshop, we will explore Power BI which is a Microsoft tool for Making informed decisions quickly. Connect, model, and then explore your data with visual reports that you can collaborate, publish, and share. Power BI integrates with other tools, including Microsoft Excel, so you can get up to speed quickly and work seamlessly with your existing solutions. It is also possible to work with some GIS data types. At the end of this workshop, attendees will be able to*

- *Import different data types,*
- *Model, shape and relate data*
- *Create visualizations*
- *Work with GIS data*
- *Create spatial data visuals*

**Kari Ann Buckvold, Jacobs**

## **Workshop: Introduction to Dashboards in ArcGIS Online**

**GETZ**

*In this workshop, we will compare two methods for building dashboards in ArcGIS Online. We will begin by building a dashboard with Web App Builder (WAB). The group will briefly discuss the use cases for the WAB method. In the second half of the workshop, we will build a similar product with ArcGIS Dashboards (formerly Operations Dashboard), exploring various functions of ESRI's newly updated solution for creating dashboards in ArcGIS Online.*

**Joe Magnotta, American Surveying & Engineering P.C.**

## **Workshop: Introduction to Python**

**COLTRANE**

*In this workshop we will be using Python 3, ArcGIS Pro, and VS code (free IDE). We will not directly be covering or interacting with ArcMap 10.8 or Python 2, but I will mention them and some differences along the way. We will start off and focus mainly on the basics for users who have not used python before, but towards the end we may move to some more advanced aspects as time allows. I will be showing python code in VS code and in ArcGIS Pro. There will be lots of*

code and I will send a copy of it to all attendees. If you have a specific task you are trying to use python for, please send it to me (McAlpine@JULIE1call.com) before the conference and I might be able to add it to the workshop. It is not required, but feel free to bring a laptop to follow along.

**Burt McAlpine, JULIE Inc.**

## **Workshop: Networking and Mastermind Group Introduction**

### **LOBBY BAR**

*An introduction to the ILGISA Mastermind Group followed by lightly structured networking. A mastermind group is a group of peers that lends advice and support to each other. The ILGISA Mastermind meets monthly on Discord.*

**Thomas O'Malley, Lee County**

## **Workshop: Concepts & Techniques of Survey123 Connect & Submitting Survey Forms as Related Records**

### **SAVOY F**

*In this workshop, we will explore concepts and techniques needed to harness the power of Survey123's smart-form capabilities using Survey123 Connect. Some of the topics covered in this workshop will be: formatting XLS forms in Connect with field types/default values/appearances, setting up calculations/relevancies/constraints, and configuring survey settings. This workshop will also include hands-on learning allowing participants the opportunity to build their own survey forms in Survey123 Connect using the techniques learned from this workshop. We will also demonstrate a real-world example workflow of submitting Survey123 forms as related records.*

**Hunter Ray, Cloudpoint Geospatial**

**Mike Genard, Cloudpoint Geospatial**

## **Workshop: Hands On with a GPS Trimble Tablet**

### **SHAW**

*The Yuma2 (Trimble) is a sophisticated rugged tablet that can be used, among other purposes, to collect GPS data. Its outputs include data usable by most levels of GIS software, including photologging and data connectivity. The class is intended to give attendees the look and feel of the hardware, as well as the general applicability of the results. After a short introduction and how-to, there will be an outdoor field exercise, with the collected data files being transmitted to the users. Setup and downstream processing will also be discussed.*

**Laurence Rohter, Illinois Institute of Technology**