2020 Workshops

Joe Rhodes – Full Day
ArcGIS Field Workflows and Operations Dashboard

This hands-on workshop will cover how to configure and use Collector, Survey123 (mobile, web, and Connect), Workforce, and Operations Dashboard to easily create seamless field mobility workflows. Attendees with existing experience in some or all of these applications will learn tips and tricks to extend their existing applications.

Learning Objectives:

Gain familiarity and improve understanding of ArcGIS field mobility apps and Operations Dashboard, learn useful tips and tricks to extend existing implementations, gain additional skills in ArcGIS Online workflow administration.

Intended Audience:

Users and administrators of ArcGIS Online who use or plan to use field mobility capabilities. Suitable for beginners and experienced users alike.

Prerequisites:

Basic familiarity with ArcGIS.

Your Instructor:

Joe Rhodes is the owner of CivicLens, an Esri business partner focused on hosted solutions that extend ArcGIS Online capabilities through third-party APIs, serverless technologies, and automation platforms. He is a former Esri solution engineer and local government GIS analyst with over 15 years of experience in the geospatial industry.

Joe Rhodes – Half Day
Introduction to Leveraging Webhooks with Survey123 for ArcGIS

The ability of Survey123 to call webhooks opens up a world of possibilities for automating workflows with ArcGIS Online web services. This workshop will cover how to use Survey123 webhooks with Integromat, Gmail, Google Sheets, and Google Cloud Functions to automate reporting, email notifications, and event-driven scripting through the ArcGIS API for Python.

Learning Objectives:
Intended Audience:

Any ArcGIS Online users and administrators.

Prerequisites:

Basic familiarity with ArcGIS.

Your Instructor:

Joe Rhodes is the owner of CivicLens, an Esri business partner focused on hosted solutions that extend ArcGIS Online capabilities through third-party APIs, serverless technologies, and automation platforms. He is a former Esri solution engineer and local government GIS analyst with over 15 years of experience in the geospatial industry.

Tripp Corbin – Two Day
Learning ArcGIS Pro 1: Maps and Projects

This beginner course teaches students how they can use ArcGIS Pro to create maps. Students will learn terminology associated with ArcGIS Pro and GIS in general. They will gain an understanding of ArcGIS Pro projects and how to manage them.

Topics Covered:
1. Introducing ArcGIS Pro
2. Navigating the User Interface
3. Creating 2D Maps
4. Creating and managing Projects
5. Creating Map Layouts
6. Creating Map Books

Learning Objectives:

Learn how to navigate the ArcGIS Pro ribbon interface, learn how to create 2D maps, learn how to create and manage projects, learn how to create layouts and map books.

Intended Audience:

This course is intended for those new to GIS and ArcGIS Pro that wish to learn the basic skills needed to create and print simple maps. It teaches the foundational skills needed for new users. No previous experience with ArcGIS Pro or GIS is required.
Prerequisites:

Students will need to be assigned an ArcGIS Pro Basic or higher license from their organization prior to class which can be accessed from the web. This should be verified prior to the start of class. If the student does not want to use their organization license, they can use the free trial from Esri at https://www.esri.com/en-us/arcgis/products/arcgis-pro/trial. If the free trial is used, they will need to sign up for it using an email address other than their work email in most cases.

Your Instructor:

Tripp Corbin, GISP is the GIS Implementation Manager for the Davey Resource Group. He has over twenty-five years of experience orchestrating and managing surveying, mapping and GIS projects. He is recognized as an industry expert with a variety of geospatial software packages including Esri, Autodesk and Trimble products. In addition to the multiple professional and technology certifications he holds, he also has written two books on ArcGIS Pro, Learning ArcGIS Pro and ArcGIS Pro 2.x Cookbook.

Nathaniel Keith – Full Day
Editing Data Using ArcGIS Pro

ArcGIS Pro is Esri's newest desktop GIS application and is replacing ArcMap. This course teaches ArcGIS Pro users the proper workflows for editing data in this new environment. Topics covered include configuring editing options, how to create new features, updating existing features, editing attributes and using topologies.

Learning Objectives:

Configuring ArcGIS Pro editing options, Learn how to create new features in ArcGIS Pro, Know what data formats are editable using ArcGIS Pro, Learn how to update attributes individually and in mass, Learn how to update existing features, and how to use topologies to improve data quality as well as increase editing efficiencies.

Intended Audience:

Those migrating to ArcGIS Pro that are responsible for maintaining and creating GIS data.

Prerequisites:

An ArcGIS Pro standard or higher license is preferred. There will be some exercises such as working with topologies which cannot be completed with a basic license.
Your Instructor:

Mr. Keith serves as a GIS Analyst, Instructor and Support Engineer for the Davey Resource Group, Inc. He has over 12 years of experience with GIS, GPS and drafting applications. He is familiar with a variety of data models and methodologies for creating and maintaining tax parcels, zoning regulations, political jurisdictions, roads and utility infrastructure. He is responsible for GIS data development, maintenance routines, map production, software implementation, application beta-testing and customer support. He is also one of our lead instructors conducting beginner to advanced level GIS courses across the US on ArcMap, ArcGIS Pro, ArcGIS Online, ArcGIS Collector, and ERDAS Imagine.

Monica Van der Vieren – Half Day
Interpretive Storytelling for Story Maps

ArcGIS users across the world have published about a million StoryMaps. This multimedia platform provides powerful opportunities for agencies, organizations, and individuals to engage and empower broad audiences. This workshop helps attendees learn the fundamentals of interpretive storytelling to create and lay out relevant, compelling, and accessible content in the StoryMap platform. Resource and heritage interpretation are designed to engage "an audience of everyone" with a few understandable, time-tested concepts. In this workshop, participants will learn these concepts and use them to develop a story board with maps and visuals for their special story.

Learning Objectives:

This workshop will help participants identify and develop engaging and relevant stories for the ArcGIS Story Map platform. Participants will understand how to use thematic communications in short and long-form Story Maps. The audience will understand use of themes and subthemes to foster engagement and create story flow. They will learn how to use universal concepts, sensory language, and supporting visuals to create relevant and accessible Story Map content. They will create a storyboard using these concepts for a story of their choice.

Intended Audience:

Technical and non-technical audiences who want to polish their storytelling skills for a variety of approaches using the ArcGIS StoryMap platform. Attendees should have at least basic familiarity with the platform. This workshop will not cover technical instruction for use of Story Maps.

Prerequisites:
Basic familiarity with ArcGIS suggested, but not required.

**Your Instructor:**

Once a research scientist, now a communications professional, Monica Van der Vieren leads public involvement for major capital infrastructure projects. Since 2006, Monica has engaged and involved communities in the siting, design, and construction of complex wastewater infrastructure. Monica is a Certified Interpretive Trainer (National Association for Interpretation) and brings resource interpretation to her outreach efforts supporting water systems. Monica has worked with the Story Map platform since 2016, and her piece, "On the Trail of the North American Buffalo" was selected as one of ESRI's "Favorite Community Story Maps of 2018".

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**Peter Keum, Greg Lang, and Gerry Gabrisch – Full Day**

**Capture and Processing of Drone Data**

Drones are becoming increasingly beneficial in a wide range of applications. Now with continual advances in drone technology and its growing use worldwide, GIS can really take advantage of this technology. Part 1 will describe drone technology (hardware and software) and its various uses. We will discuss the development of a drone program within an organization. Part 2 will focus on 2D mapping and 3D models data products from using various SFM (structure-from-motion) software. We will also focus on best practices for mission planning to flight plans for data processing. We will also explore various ways to integrate these data products into GIS workflow.

**Learning Objectives:**

Use drone technology in the context of GIS including:
- Various drone hardware
- Data processing software
- Workflow for drone-related projects: Pre-flights to Mission Planning to Flights.
- Various flight techniques for 2D mapping, 3D model and videography.

Processing Drone Data:
- Data processing software
- Best Practice Workflow for developing accurate 2D maps and high-resolution 3D models
- Integration of 2D maps and 3D models into GIS software as product and data for further GIS analysis.

**Intended Audience:**
GIS specialists who want to learn about drone technology and its benefits. GIS specialists who are interested in developing drone data products for GIS

Prerequisites:

N/A

Your Instructors:

Peter Keum, GISP: Works as Senior GIS Specialist for KC Wastewater Treatment Division with over 20 years of experience. FAA Part 107 Certified since 2018.

Greg Lang, GISP: Works as Lead Systems Engineer at Pierce County with 20 years of experience. FAA Part 107 Certified since 2017.


Matt Stevenson, Karsten Vennemann, Joel Massellink, Paul McComb, Peter Keum and Fred Lott – Full Day
Introduction to the Open Source Geospatial Software Stack

The FOSS4G (Free and Open Source Software for Geospatial) workshop provides an opportunity to learn through demonstrations and exercises various open-source geospatial GIS desktop, database, and web mapping tools.

Learning Objectives:

Part 1. Illustrated Stories / Case studies of introducing FOSS4G Software in many organizations.
Part 2. Desktop - Use of QGIS and OGR/GDAL tools.

• Why use QGIS - free and open source that can view Esri GDB and Shapefiles without using Esri ArcPro license for casual viewer.
• Introduction - Software installation, navigation of software. Use a simple GIS dataset (such as KC data) to teach to build a map. This section will cover basic adding, editing, and viewing data, followed by simple analysis (union, intersect, merge, and clip).
• Intermediate/Advanced
  o Demonstration of model builders and advanced analysis features
  o Advanced cartographic features (i.e. Hillshade blending/ Time)
  o Using QGIS extensions (brief overview)
GDAL/OGR (and fiona/rasterio) at the command line and using python with GeoPandas

Part 3. Database & Web map Database: Learning PostgreSQL/PostGIS and loading sample KC data from part two. Demonstrate and exercise several geoprocessing tools using SQL commands.

- Using PostGIS for using SQL for complicated spatial analysis
  Web map: Demonstrate using Mapbox-gl-js, Leaflet.js, and Openlayers. Creating raster tiles using QGIS and vector tile using various open-source tools for creating web mapping applications.

Intended Audience:

- GIS professionals Interest in learning about Free and Open Source Software for Geospatial (FOSS4G) tools.
- Desire to explore and learn new tools and workflows to enhance existing GIS skills is a must.

Prerequisites:

N/A

Your Instructors:

* Matt Stevenson - Principal of Core GIS (Seattle). GIS consultant specializes in cartography, spatial analysis, web mapping, conservation planning, and GIS project management. He works primarily with government agencies and non-profits focused on conservation and restoration. Matt has twenty years of experience using GIS to convey complex spatial information with striking cartography and eye-catching graphics. Active member of local CUGOS (Cascade of Users of Geospatial Open Source).

* Joel Masselink - Principal Consultant with Earth Logic LLC. Builds geospatial solutions for environmental conservation and international development. Active member of Puget Sound QGIS User Group, Society for Conservation GIS, OpenStreetMap US, and CUGOS.

* Karsten Vennemann - GIS Consultant and owner of Terra GIS (Seattle) with a background in Geography and Soil Science. Work focuses on GIS in the context of natural resources, sustainable development and social justice. Teaches classes in Open Source GIS and a good portion of this consulting work involves creating and supporting Open Source based Web GIS solutions. Frequent speaker at FOSS4G related conferences. Active member of CUGOS since 2007.

* Peter Keum, GISP - Senior GIS Specialist for King County Wastewater Treatment Division. Active member of CUGOS (Cascadia Users of Geospatial Open Source) in Seattle since 2006, Co-organizer of PSQGiS (Puget Sound QGIS) User Group.
Fred Lott, PE - Senior GIS Specialist for King County with a background in civil engineering and hydrology. Active CUGOS member.

Paul McComb - Master GIS Specialist with King County. Founding member of Puget Sound QGIS User Group. Organizer of OpenStreetMap (OSM) Seattle. Co-instructor for King County GIS Academy: Efficient Geoprocessing Using Model Builder. Active member of local CUGOS.

Scott Moore – Half Day

Getting Started with the ArcGIS API for Python

ArcGIS API for Python is a Python library for working with maps and geospatial data, powered by web GIS. It provides simple and efficient tools for sophisticated vector and raster analysis, geocoding, map making, routing and directions, as well as for organizing and managing a GIS with users, groups and information items. In addition to working with your own data, the library enables access to ready to use maps and curated geographic data from Esri and other authoritative sources. It also integrates well with the scientific Python ecosystem and includes rich support for Pandas and Jupyter notebook.

This hands-on session will cover how analysts and data scientists can use the ArcGIS platform in combination with data science libraries from Python for mapping, visualization and geospatial data analysis. In addition, we will cover how ArcGIS administrators can use this library to automate common functions within their web GIS.

Learning Objectives:

Gain introductory experience using ArcGIS API for Python and the ArcGIS Platform for GIS analysis tasks. NOTE: Workshop Format: Participants must have an organizational ArcGIS online account; temporary ArcGIS Pro licenses can be provided if users do not have their own.

Intended Audience:

GIS Analysts

Prerequisites:

Basic familiarity with ArcGIS and Python suggested.

Your Instructor:

Scott Moore is a Solution Engineer with Esri in Olympia, WA working on the State Government team. He focuses on assisting Esri software users with architecture design, application development and technical advice for deploying ArcGIS. Mr. Moore's areas of expertise include web mapping, server-based GIS, developer technologies, and making spatial technology available to everyone. He has been with Esri since 2006. He earned a bachelor’s degree in
Geography with a focus on GIS from the University of Washington in Seattle in 1998. Prior to joining Esri, he was a Senior GIS Analyst and GIS Manager for the City of Chandler, Arizona where he built the City’s Enterprise GIS.

Chris Marsh – Half Day

What’s New With ArcGIS

This workshop will cover the most recent developments for the ArcGIS Platform. This includes ArcGIS Desktop (and ArcGIS Pro), ArcGIS Enterprise, mobile apps, web apps, as well as specialty solutions such as ArcGIS Insights, ArcGIS Urban, and ArcGIS Indoors. The presentation will also cover the changes with the ArcGIS 10.8 release, and discuss upcoming developments, including licensing. Participants are encouraged to ask questions, which will guide the focus of the presentation. The intent of the workshop is to engage in a lively conversation, while ensuring participants leave with a good understanding of the latest components and products that comprise the ArcGIS platform.

Learning Objectives:

Gain an understanding of Esri’s current ArcGIS Platform and upcoming product plans.

Intended Audience:

Anyone with interest in ArcGIS products.

Prerequisites:

Basic familiarity with ArcGIS suggested, but not required.

Your Instructor:

Chris Marsh is a Solution Engineer with Esri working out of the Olympia Regional office on the State Government team. Chris works with state agencies by assisting users with technical advice, architecture design, application development and general best practices. Chris main focus is on “Web GIS” all the way from data design/architecture, system design/architecture, to web and mobile development and everything in between. Chris has been with Esri since 2019 after spending 18 years in State Government, most recently as the GIS Coordinator for Washington Department of Fish and Wildlife.

Joshua Greenburg – Full Day

WGGL presentations and discussion
For WGGL members and WGGL eligible members