

Training the GIS Professional

Imagery Analysis in ArcGIS Pro -2 days

Overview

Transform pixels into information.

Workflows and considerations to display, process, and create derived raster products using ArcGIS Pro, Image Analyst and Spatial Analyst extensions are covered. You will explore common imagery applications, including disaster recovery, damage assessment, and forest canopy assessment.

Who should attend

■ GIS professionals and imagery analysts in the private sector and civilian government agencies who need to extract meaningful information from satellite imagery, unmanned aerial vehicle (UAV)-collected data, and other imagery formats

Goals

- Apply dynamic raster functions to enhance imagery display and perform change detection.
- Perform image classification and assess the accuracy of results.
- Post-process classified thematic rasters to support analysis needs.
- Work with derived information products including digital elevation models.

Topics Covered

- Rasters. What is remote sensing? Rasters in ArcGIS Pro Sensor resolutions; The electromagnetic spectrum; Band combinations: Applied
- Raster functions. What are raster functions? Benefits of raster functions; Consider raster function parameters; Types of raster functions
- Raster function templates What are raster function templates? Raster function template components; Evaluate a raster function template; Benefits of using raster function templates; Raster functions used in raster products
- Change detection with raster functions. Change detection types; Choosing types of change detection; Preprocessing methods for change detection; Discovering change with the Change Detection Wizard; Pixel value change detection workflow
- Image classification techniques. Defining image classification Describing image classification outputs; Image classification types; Image classification methods; Choosing image classification techniques

Topics Covered Continued

- Classification workflows. Unsupervised image classification workflow. Supervised image classification workflow; Classifying a raster with the Image Classification Wizard.
- Segmentation. What is segmentation? Segmentation parameters; Segmentation parameter exploration
- Training the classifier. Training sample considerations; Types of image classification algorithms.
- Classification evaluation. Pixel Editor functionality; Compare Pixel Editor operations; Post-processing classification results

Prerequisites

Completion of ArcGIS Pro 2 – Essential Workflows for ArcGIS Pro or Migrating from ArcMap to ArcGIS Pro or equivalent knowledge.

Software

- GIS Pro 2.x (Standard or Advanced)
- ArcGIS Image Analyst
- ArcGIS Spatial Analyst

Contact Us

For GIS training enquiries and bookings visit esriuk.com/learning, email us at learning@esriuk.com or call us on 01296 745504