esri UK

Training the GIS Professional

Mastering ArcPy using Python for ArcGIS for Desktop 10.x (ArcMap) - 3 days

This three day course builds upon the concepts taught in the "Introduction to Geoprocessing Scripts using Python 10.x" course and will delve deeper into the ArcPy site package as well as introduce new ways to distribute your scripts.

The course uses a combination of lectures, demonstrations and code-alongs to show you how to use Python to work with the map document, the geodatabase and how Python scripts scan be used to publish to ArcGIS Online.

The course will contain a number of exercises for you to work through on the day. You will be provided with the data, demos, tools and exercises that the trainer uses to deliver the course so that you can work through them in your own time.

Who should attend

- GIS Analysts
- GIS Technical Leads
- GIS Professionals
- GIS Desktop Application Developers
- Application Developers

Goals

- Using Python to create labels
- Performing table and field validation
- Advanced error message handling
- License and extension validation
- Investigate the mapping and data access modules
- Distributing your scripts through Addins and Python toolboxes
- Creating feature services through arcpy

Topics Covered

- Using Python within ArcGIS Desktop: Python within labelling expressions, field calculations, enhancements to working with geoprocessing tools

- Licensing and validation Using ArcPy: Validation datasets and field names, checking for the existence of data, licensing extensions and the Desktop product.

- Advanced geoprocessing error handling: Raising exceptions, setting the severity level of an error, setting tool errors and warnings, adding messages, warnings and errors.

- Script tool validation: Working with the ToolValidator class, enable or disable controls, applying filters, working with categories, adding help documentation.

- Working with the arcpy.mapping module: Access the map document and list its contents, managing layers and the Page Layout, printing, exporting and publishing.

Topics Covered Cont.

- Introducing the arcpy.da module: Using the new cursor classes, work with edit sessions and edit operations, geometry tokens, working with versions, domains and subtypes.

- Creating Python Desktop add-ins; Working with the Python Add-in Wizard, creating user interface components, creating application extensions, distributing your add-in.

- Learn how to create a Python Toolbox and Tool: Using Python classes and functions, create a Python toolbox, create a Python tool, using the help system to populate toolbox and tool parameters.

- The ArcGIS System. Sharing via Web GIS, Service publishing workflow, Publish a map to ArcGIS Online using arcpy, using arcpy to publish a hosted feature layer"

Prerequisites

Attendees should have already attended the "Getting Started with the Python Scripting Language" course or have the equivalent knowledge of python prior to attending this course. Attendance of our "Introduction to Geoprocessing Scripts using Python" course would be advantageous but is not essential.

Contact Us

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