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Understanding our world.

Training the GIS Professional

Mastering ArcPy using Python for ArcGIS for Desktop 10.x 3 Days

Overview

This three day course builds upon the concepts taught in the "Introduction to Geoprocessing Scripts using Python 10" 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 when working with ArcGIS for Server Standard and Advanced.

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

■ This course is aimed at those who wish to gain a greater understanding of the ArcPy site package and its associated Mapping and Data Access modules. Attendees will also find this course useful if there is a requirement to re-distribute the Python scripts and also if ArcGIS for Server services need to be maintained on a regular basis.

■ 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.

Goals

■ If you write Python scripts and you want to make them available to a wider audience, or you want to get the most out of the ArcPy site package or you perform repetitive ArcGIS for Server administration tasks then this course is for you.

Topics Covered

Using Python within ArcGIS for 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.

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 function; create a Python toolbox; create a Python tool; using the help system to populate toolbox and tool parameters.

Using Python to administer ArcGIS for Server Standard & Advanced
Introducing ArcGIS for Server; Administering via scripting; publishing services; administering folders.

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.

Related courses

■ Getting Started with the Python Scripting Language
■ Introduction to Geoprocessing Scripts using Python

Contact Us

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