United States Census Bureau

Python Programming for Statistical Geography
U.S. Census Bureau, Washington, D.C.

This workshop will provide Geographic Information Systems (GIS) practitioners with an improved capability to manage and process large spatial datasets. This workshop will use the Python programming language (www.python.org), a very popular language for automating geospatial operations, and the ArcPy library of ArcGIS Desktop.

The workshop will start with a basic introduction to Python including defining variables and basic control structures. From this base, students will be introduced to successively more complex geoprocessing tasks. Instructors will guide students through script examples based on tasks frequently encountered at statistical organizations. Participants will be encouraged to make changes to the scripts on their own while using online help resources. The workshop will emphasize continued skill development after the class and promote interacting with the GIS and Python user community.

Case studies will include data management, attribute manipulation, and proximity analysis. Common questions, which will be addressed in this workshop include:

1. How do I perform the same operation on all of the files of a certain type within a particular directory?
2. How do I copy attribute values between layers based on a certain set of criteria?
3. How do I generate a report on the proximity of features contained within two separate layers?

Audience and Prerequisites

This is an intermediate workshop designed for analysts responsible for managing and maintaining statistical geographic data in a government agency, such as a National Statistics Office, or a nongovernmental organization (NGO). This workshop is best suited for analysts who are comfortable with desktop GIS and familiar with geoprocessing and workflows. No prior programming experience is necessary.

Date: October 19 – 23, 2015
Place: U.S. Census Bureau Headquarters
              Suitland, Maryland (near Washington, D.C.)
Tuition: US $2,500

Apply early. The workshop will be limited to 15 participants. Those who complete the application requirements will be accepted on a first-come, first-served basis. For more information e-mail ipcta@lists.census.gov.