Automating Geodatabase Administration with Python

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Python and Geodatabases

- **Python**
  - Is the programming language for geoprocessing.
  - ArcPy site package is used to access geoprocessing functionality.

- **Geodatabase**
  - Core ArcGIS Data model
    - A comprehensive model for representing and managing GIS data
  - A physical store of geographic data.
  - A transactional model for managing GIS workflows.
Things you need to know

- Familiar with using Python for geoprocessing
  - Arcpy, Python lists, looping, string manipulation, data types.
- Familiar with Enterprise geodatabase concepts
  - Versions, replicas, connection files, data ownership.
Agenda

- Demo 1
  - Geodatabase maintenance.
    - Reconcile/post/delete versions, synchronize replicas, error reporting and automatic notifications

- Demo 2
  - Scheduling your scripts to run (Windows)

- Brief discussion of new admin 10.1 features
Version Maintenance

- Synchronize replicas
- Reconcile versions
- Post versions
  - Delete versions – this will depend on your organization’s workflow and version structure.
- Compress database
- Email notifications
Scheduling your script to run

- Using Windows task scheduler you can automate when your script will be run.
- This is especially useful for tasks that need to be run on a regular basis.
DEMO
Scheduling
What’s new at 10.1

• Tools:
  - Analyze Datasets
  - Rebuild Indexes
  - Reconcile Versions

• Python functions:
  - ListVersions
  - ListReplicas
  - ListUsers (lists connected users)
  - DisconnectUsers
  - Describe will return the current release of a geodatabase
This script is available online:

- Should be page 5 or 6 of the Geoprocessing tool gallery.

- **URL**
Related Sessions

- Road Ahead – GDB Admin
  - Thursday 3:40 Room 27B
Esri Training for Desktop Developers

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• Instructor-Led Courses
  - Introduction to Geoprocessing Scripts Using Python
  - Programming ArcGIS Desktop Using Add-Ins

• Web Course
  - Using Python in ArcGIS Desktop 10
Questions?

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