

Find Identical and Delete Identical

ArcGIS 10.1, 10.2

Welcome to the Essential ArcGIS Task Sheet Series. This series supplements the Iowa State University GIS Geospatial Technology Training Program short course series, “Essential ArcGIS Tutorial Series.” The task sheets are designed to provide quick, easy instructions for performing specific tasks in GIS.

The Find Identical Data Management tool reports any records in a feature class or table that have identical values in a list of fields, and generates a table listing these identical records. If the field Shape is selected, feature geometries are compared. Delete Identical is a tool that deletes records in a feature class or table which have identical values in a list of fields. If the field Shape is selected, feature geometries are compared. This task sheet will demonstrate a scenario and use of both the Find Identical and Delete Identical data management tools.

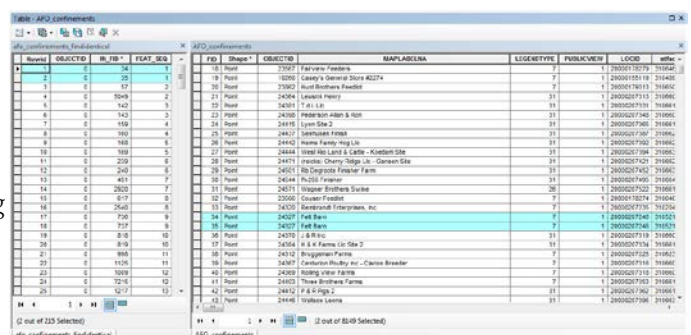
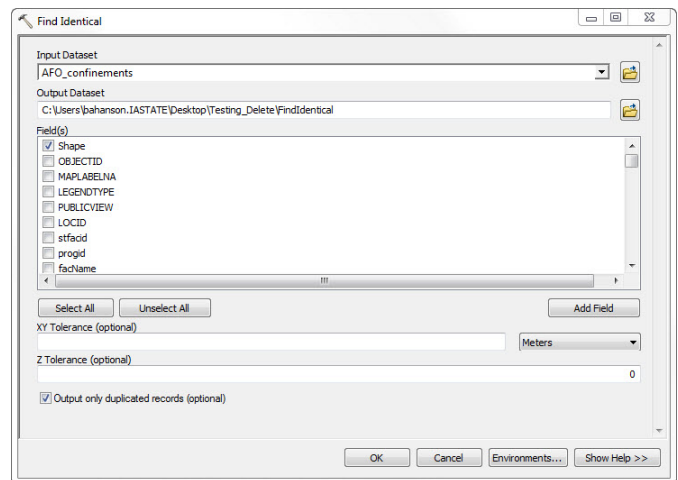
1. Download the Data

- To download the data used in this task sheet, navigate to www.extension.iastate.edu/communities/gis/quicktasksheets/data in a web browser. Click on the publication number that matches this task sheet. In this case, the publication number is **PM2082-14n**. The data for this task sheet originates from the NRGIS and can also be found at: <https://programs.iowadnr.gov/nrgislibx/>.
- When the download is complete, you will need to unzip the folder or copy the files from the zipped folder to a different folder or directory in order to access the files in ArcGIS.

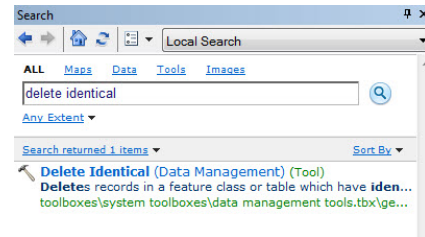


2. Find Identical

- Add the **AFO_confinements** shapefile to a blank ArcMap document.
- Open the **Find Identical** tool by searching **Find Identical** using the **Search** bar or using the following path in ArcToolbox: **Data Management Tools > General > Find Identical**.
- For the **Input Dataset** field select **AFO_confinements**, navigate to an appropriate path and name the table.
- In the **Field(s)** menu check **Shape** and check **Output only duplicated records**. Click **OK**. *Note: by selecting these options the output table will only contain records that have records with the exact same geometric location. Selecting multiple features to compare it also possible. For example, try selecting Shape and facName in the Field(s) menu for a comparison of both location and facility name.*

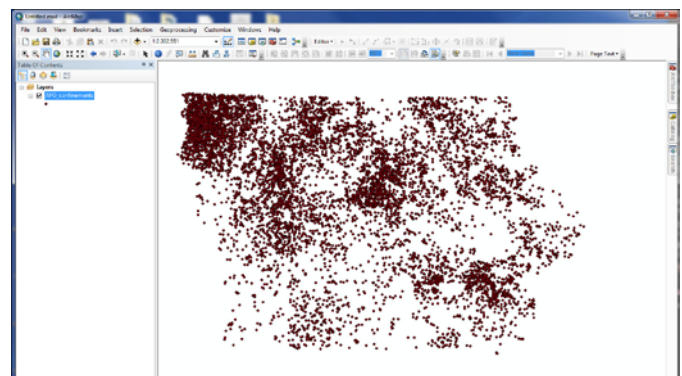
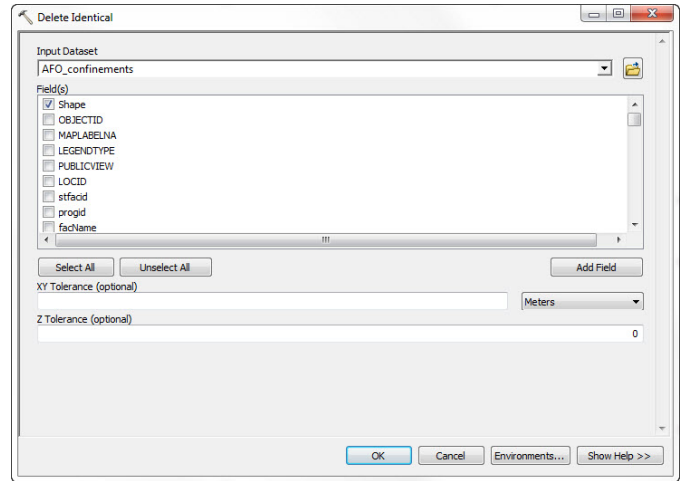


- e. In the output table, the **IN_FID*** field indicates the **FID** field of the **AFO_confinements** attribute table. If features have the same **FEAT_SEQ** fields, they are records that have identical location.



3. Delete Identical

- Open the **Delete Identical** tool by searching **Delete Identical** using the **Search** bar or using the following path in ArcToolbox: **Data Management Tools > General > Delete Identical**.
- Select **AFO_confinements** in the **Input Dataset** section and select **Shape** form the **Field(s)** menu. Click **OK**.
- The number of fields in the **AFO_confinements** shapefile should will now be **8224** records instead of **8343**. To confirm this, right-click on **AFO_confinements** in the **Table of Contents** and select **Open Attribute Table**. At the bottom on the table you will see text that say **(0 out of 8224 selected)**.
- Just like the **Find Identical** tool, in the **Delete Identical** tool multiple fiends can be selected for the comparison. For example, try selecting **Shape** and **facName** in the **Field(s)** menu for a comparison of both location and facility name. *Note: make sure to do this using the original AFO_confinements shapefile, with 8343 records rather than the updated AFO_confinements shapefile with 8224 records. The Delete Identical tool will permanently alter the shapefile used as the Input Dataset.*



Contact:

Bailey Hanson bahanson@iastate.edu, 515-520-1436 or Professor Christopher J. Seeger, ASLA, GISP cjseeger@iastate.edu, 515-509-0651 for more information about the Geospatial Technology Program. This task sheet and more are available at www.extension.iastate.edu/communities/gis

...and justice for all
 The US Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at 202-720-2600 (voice and TDD). To file a complaint of discrimination, write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue SW, Washington, DC 20250-9410, or call 800-795-3272 (voice) or 202-720-6382 (TDD).

Issued in furtherance of Cooperative Extension work, Acts of May 8 and June 30, 1914, in cooperation with the US Department of Agriculture. Cathann Kress, director, Cooperative Extension Service, Iowa State University of Science and Technology, Ames, Iowa.