Class of Property Dissolve Toolset Guide

The Class of Property Dissolve Toolset consists of three separate tools, each designed to translate some of the most common formats that Class of Property is maintained as within Wisconsin tax rolls or county land information systems. Each tool will handle a specific format of class of property data and create an output that adheres to the statewide schema definitions from the Submission Documentation.

Use this guide if your class of property information exists in one of the formats outlined in Figure 1 and you wish to reformat it to meet the requirements of the statewide schema definitions of **PROPCLASS** and **AUXCLASS**.

Tool1 Format. A feature class is required to run Tool1. In the attribute table of the feature class, class of property is separated into field(s) associated with that particular class. For example, a general property class might have a field for class 1 acres and class 1 land value. Auxiliary classes are structured the same way, but that might have fewer fields associated with each class. For an example, see the Input Table graphic for Tool1 in Figure 1.

Tool2 Format. A table (usually a tax roll) is the input format required to run tool 2. The structure for class of property in the input table follows the relational model. Each record in the table will have a unique parcel ID and class of property. For example, see the Input Table graphic for Tool2 in Figure 1, parcel 100 has three records and three distinct classes of property (1, 4, and 6).

Tool3 Format. The input of tool 3 can be either a table or feature class. In this case, class of property is maintained in multiple fields with one class per field. For example, see the Input Table graphic for Tool3 in Figure 1, parcel 300 has two classes versus parcel 200 with three classes.
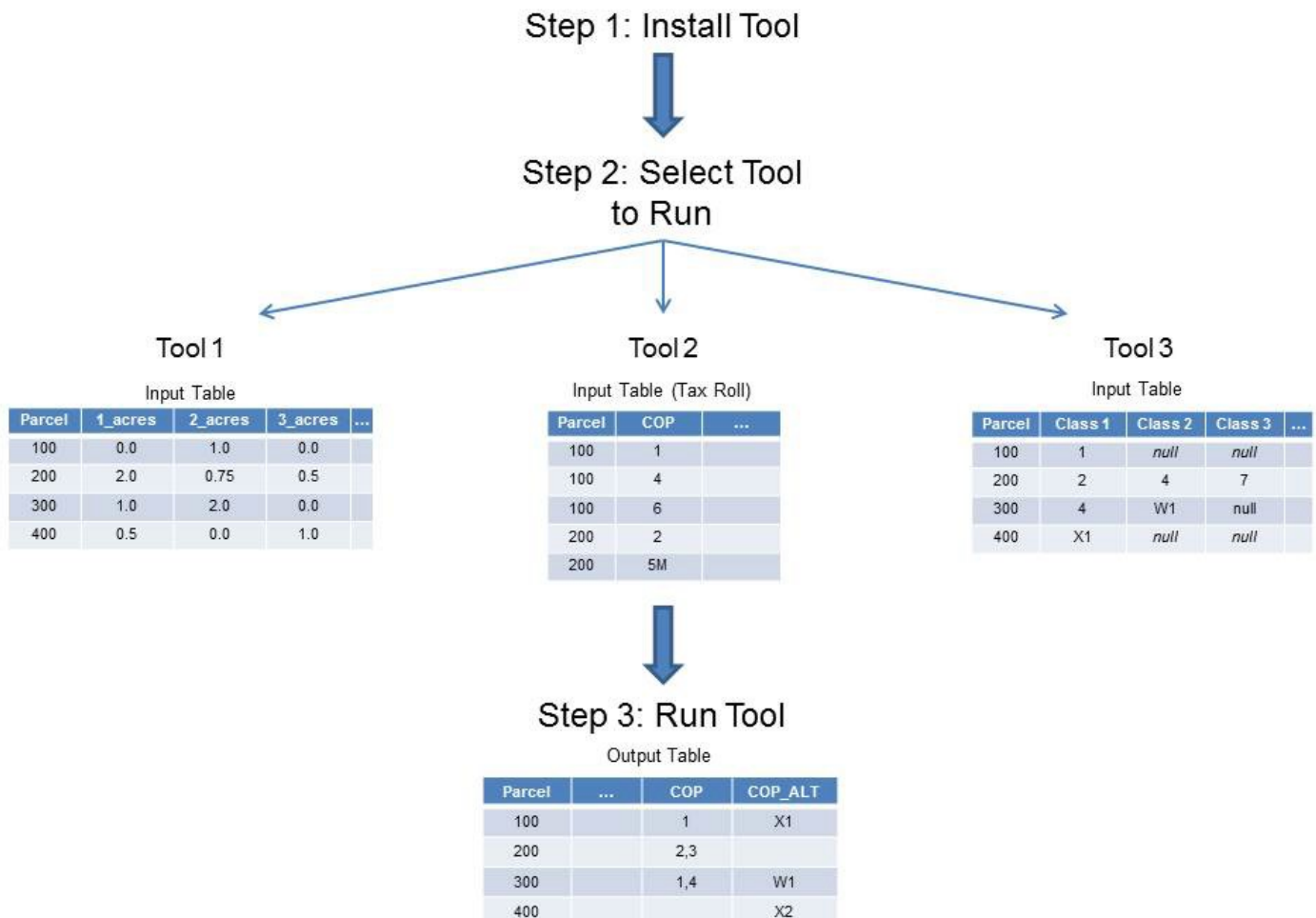
Step 1: Install Tool

Step 2: Select Tool to Run

Tool 1

Input Table

Parcel	1_acres	2_acres	3_acres	...
100	0.0	1.0	0.0	
200	2.0	0.75	0.5	
300	1.0	2.0	0.0	
400	0.5	0.0	1.0	

Tool 2

Input Table (Tax Roll)

Parcel	COP	...
100	1	
100	4	
100	6	
200	2	
200	5M	

Tool 3

Input Table

Parcel	Class 1	Class 2	Class 3	...
100	1	null	null	
200	2	4	7	
300	4	W1	null	
400	X1	null	null	

Step 3: Run Tool

Output Table

Parcel	...	COP	COP_ALT
100		1	X1
200		2,3	
300		1,4	W1
400			X2

Figure 1. Class of Property Tool workflow overview

The Class of Property Dissolve Toolset follows Wisconsin Department of Revenue assessment codes for property classifications:

General Real Estate Property Code Descriptions
- **1** – Residential
- **2** – Commercial
- **3** – Manufacturing
- **4** – Agricultural (Assessment values based on use in agriculture)
- **5** – Undeveloped (Assessed at 50% of full value)
- **5M** – Agricultural Forest (Assessed at 50% of full value)
- **6** – Productive Forest Land
- **7** – Other

Special Code Descriptions (Formerly "Woodland")
- **W1** – Private Forest Crop Pre 1972
- **W2** – Private Forest Crop Post 1971
- **W3** – Private Forest Crop Special
- **W4** – County Forest Crop
- **W5** – MFL Open Post 2004
- **W6** – MFL Closed Post 2004
- **W7** – MFL Open Pre 2005
- **W8** – MFL Closed Pre 2005
- **W9** – MFL Ferrous Mining

Exempt Code Descriptions
- **X1** – Federal
- **X2** – State
- **X3** – County
- **X4** – Other

❶ Step 1: Install the Toolset

1.1 Download and unzip the tool

Download the zipped package with the Class of Property Toolset, an ArcPy script tool, from www.sco.wisc.edu/parcels/tools.

Unzip to the directory of your choice. Then open ArcCatalog and navigate to the new directory. You should see toolboxes, labeled with their respective ArcGIS version compatibility. Choose the toolbox that fits your ArcGIS install. If you do not see any toolboxes, hit F5 to refresh the directory. Once the tools are visible, move on to the next step.

In this document, the three tools are described one-by-one. Please review Figure 1 to select the appropriate tool. If native class of property information is not maintained in a similar way to any of the tools, please contact the State Cartographer's Office for additional support.

❷ Step 2: Select Appropriate Tool

1.2 Tool1 Overview

Tool1 uses ancillary fields for each class of property to determine the classes of property that exist for a given record. The existence of a class of property is made by checking if the value in a field is greater than 0. The output is a duplicate feature class with a record's classes of property separated into **COP** and **COP_ALT** fields.
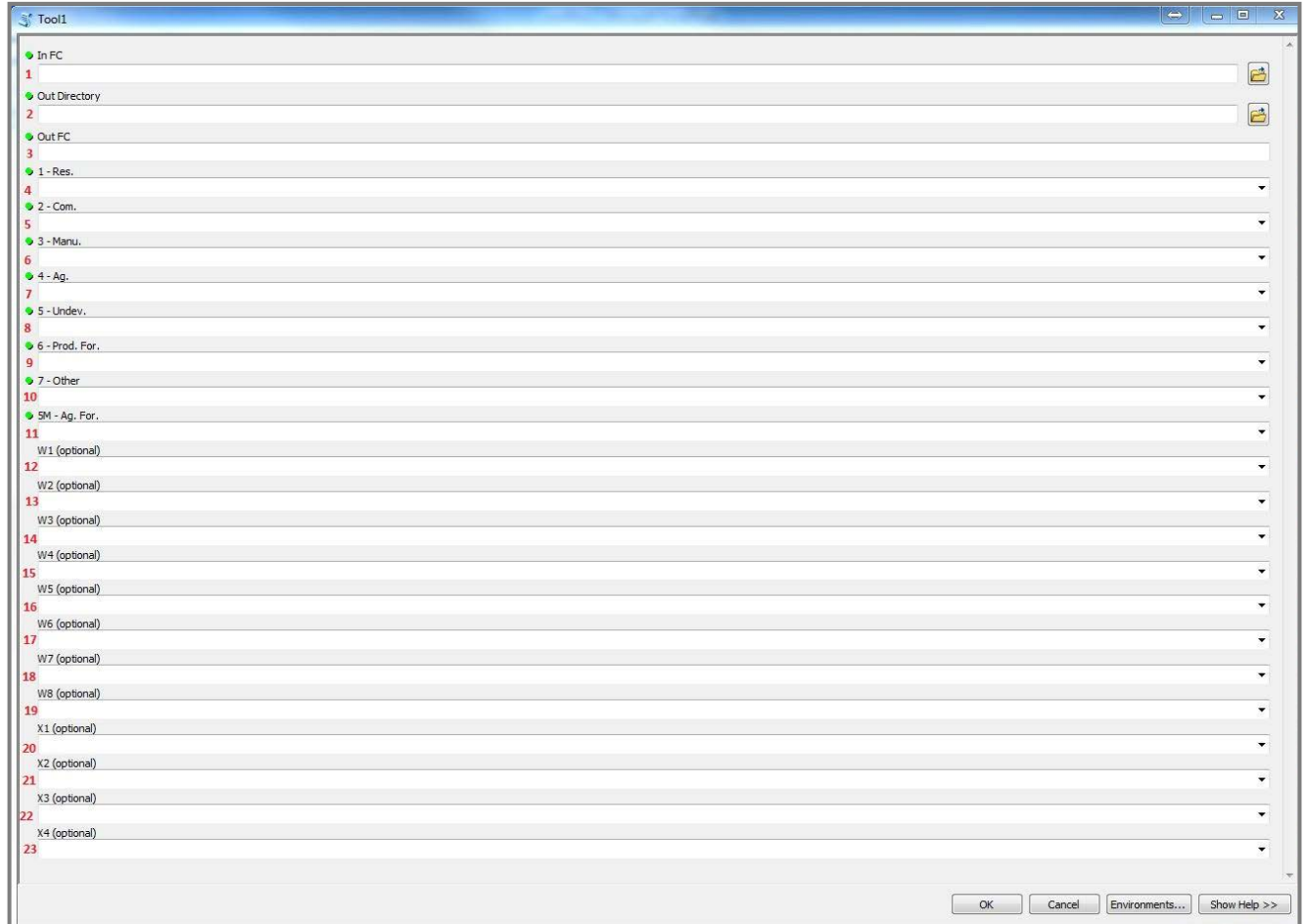

Figure 2. Class of Property Tool1 parameters

Class of Property Tool1 Parameter Definitions		
1	**In FC**	The feature class containing class of property.
2	**Out Directory**	The path specified for the output feature class. This must be a path to a file geodatabase, or file geodatabase feature dataset.
3	**Output FC**	The name of the output feature class.
4-11	**General Property Class**	Select the acreage field associated with a given property class. If the acreage field does not exist, use the land value field.
11-23	**Auxiliary Class of Property (optional)**	Select the acreage field associate with a given auxiliary property class.
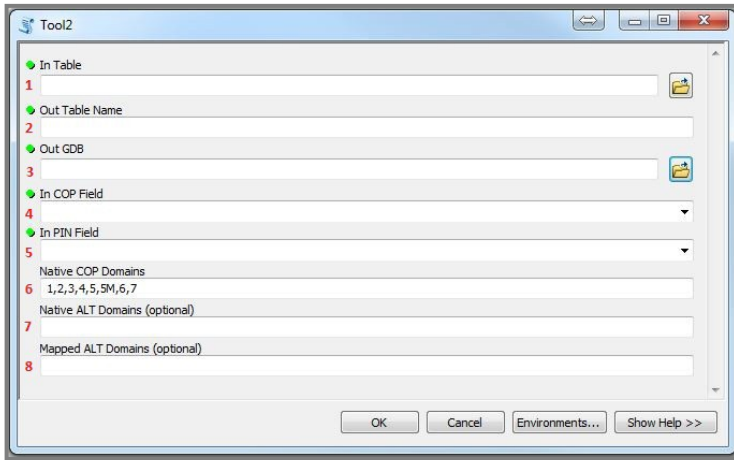
1.3 Tool2 Overview

Tool2 uses a table in a many-to-one structure, where each record contains a unique ID and class of property, to generate a table with unique IDs and class of property separated into **COP** and **COP_ALT** fields. The output table can be joined to a parcel layer via the ID.

Figure 2. Class of Property Tool2 parameters

	Class of Property Tool2 Parameter Definitions	
1	**In Table**	The table containing class of property data.
2	**Out Table Name**	The name of the output table.
3	**Out GDB**	The path specified for the output table.
4	**In COP Field**	The field containing class of property data.
5	**In PIN Field**	The field containing the ID. A value can exist multiple times in the table depending on the number of classes of property for a record.
6	**Native COP Domains**	The general class of property domains that exist for your county. Use a comma as the delimiter without spaces. By default, the output domains are listed. **NOTE:** Order does matter. The first value is mapped to 1, the second to 2…
7	**Native ALT Domains (optional)**	Any additional auxiliary classes of property domains for your county should be listed here. Use a comma as the delimiter without spaces. **NOTE:** Order does matter. The first value will be mapped to the first value of the Mapped ALT Domains parameter.
8	**Mapped ALT Domains (optional)**	The State of Wisconsin auxiliary classes of property corresponding to the domains listed in the previous parameter. Use a comma as the delimiter without spaces. **NOTE:** Order does matter. The first value of Native ALT Domains parameter will be mapped to this parameter's first value.

1.4 Tool3 Overview

Tool3 ingests a feature class or table with multiple fields used to describe class of property. The output is a duplicate feature class or table with class of property divided into two new fields, **COP** and **COP_ALT**.
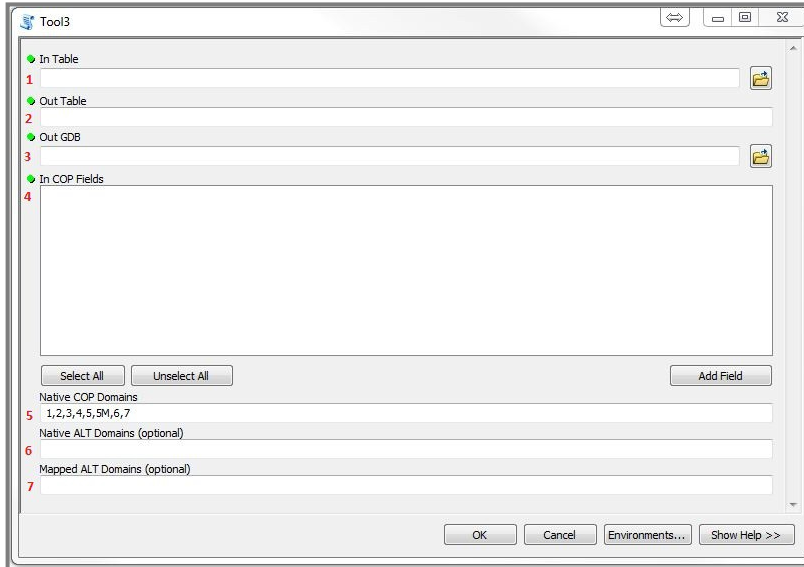

Figure 4. Class of Property Tool3 parameter

Class of Property Tool3 Parameter Definitions		
1	**In Table**	The table containing class of property data.
2	**Out Table**	The name of the output table.
3	**Out GDB**	The path specified for the output table.
4	**In COP Fields**	Select all fields in the table that contain class of property data.
5	**Native COP Domains**	The general class of property domains that exist for your county. Use a **comma** as the delimiter without spaces. By default, the output domains are listed. **NOTE:** Order does matter. The first value is mapped to 1, the second to 2…
6	**Native ALT Domains (optional)**	Any additional auxiliary classes of property domains for your county should be listed here. Use a comma as the delimiter without spaces. **NOTE:** Order does matter. The first value will be mapped to the first value of the *Mapped ALT Domains* parameter.
7	**Mapped ALT Domains (optional)**	The State of Wisconsin auxiliary classes of property corresponding to the domains listed in the previous parameter. Use a comma as the delimiter without spaces. **NOTE:** Order does matter. The first value of *Native ALT Domains* parameter will be mapped to this parameter's first value.

❸ Step 3: Configure and Run Tool

1.5 **Sample configurations of each tool**

This zipped package includes three sample sets of data, each specific to the tool that would appropriately process it. There are feature class and table examples included for Tool3. The following images depict how the provided sample data would be used within the Class of Property Toolset.
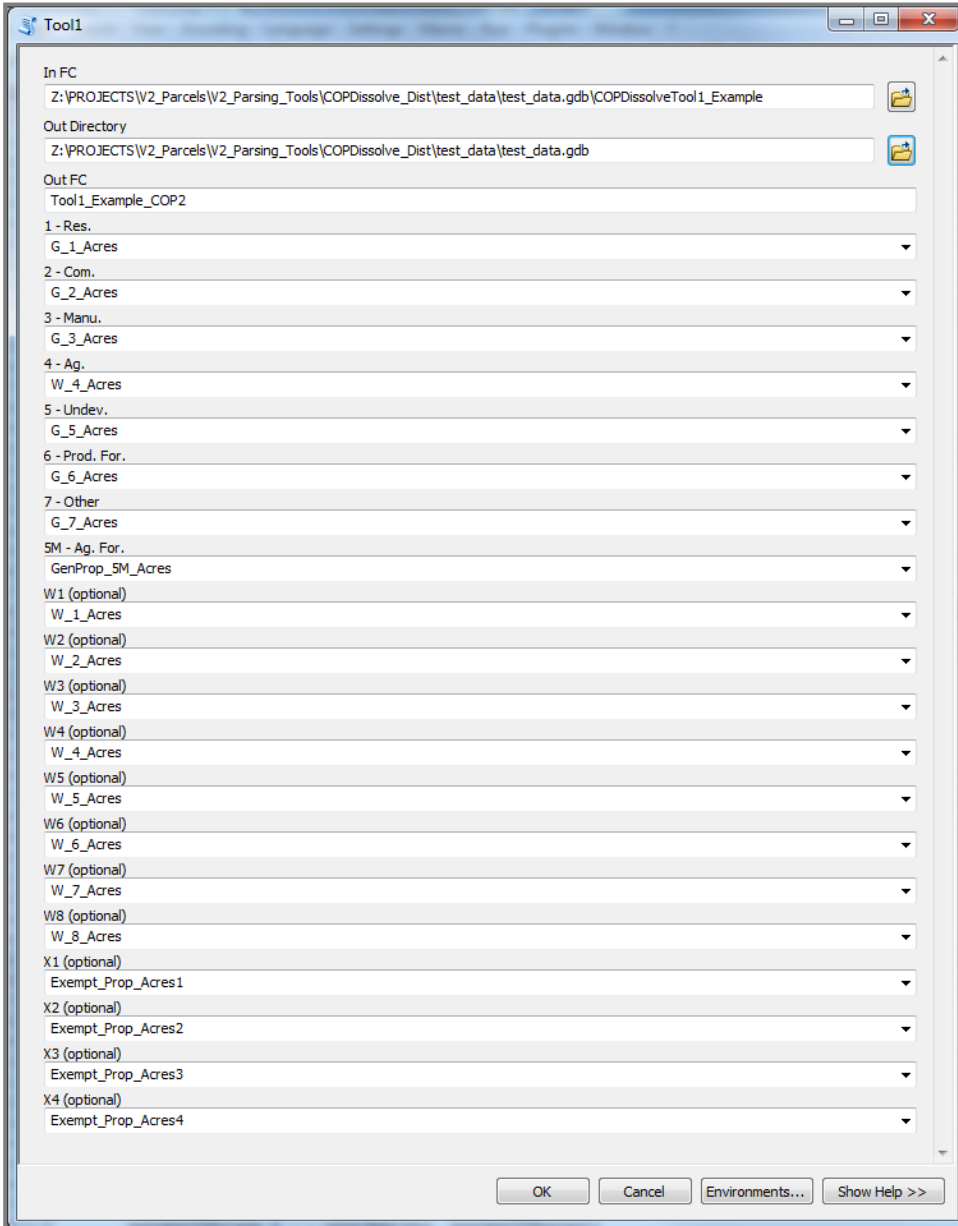

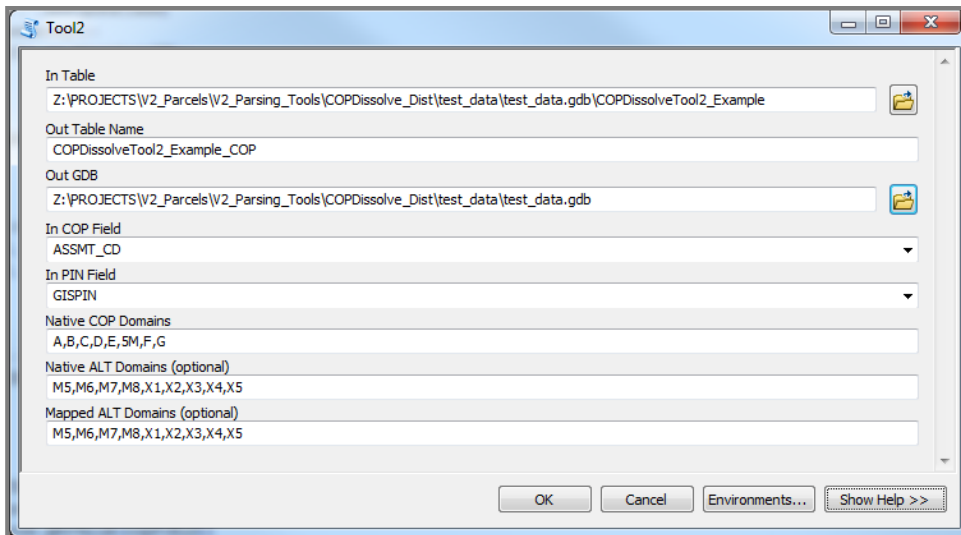*Figure 5. Tool1 sample configuration*
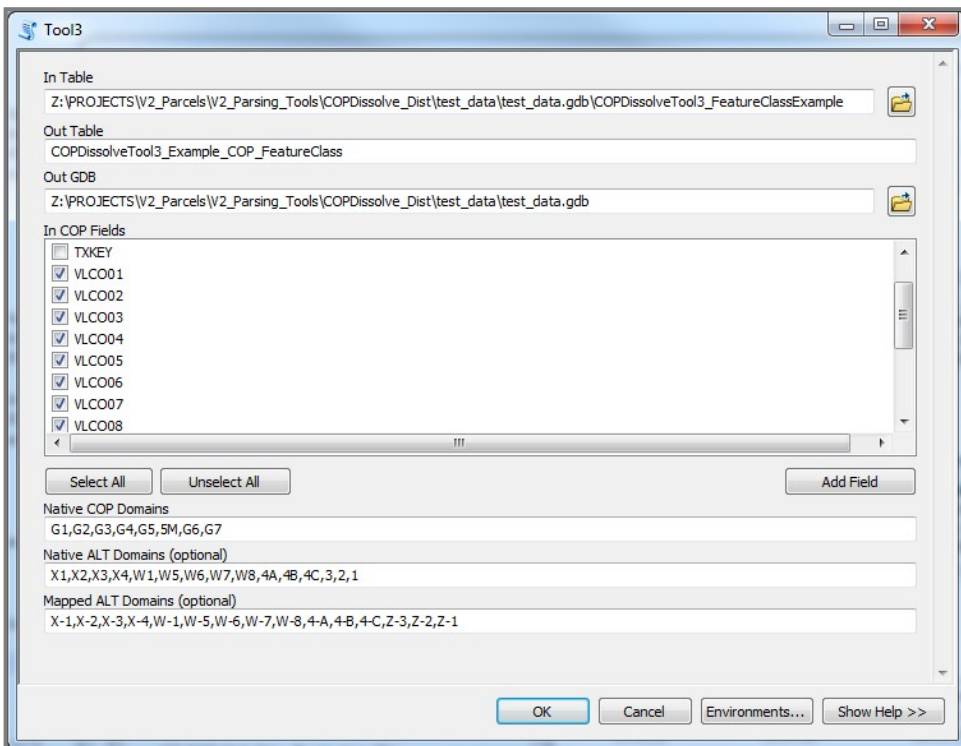
Figure 6. Tool2 sample configuration

Figure 7. Tool3 sample configuration

Troubleshooting for Class of Property Dissolve Toolset

My tool does not show-up in the directory I have unpacked to.

If the tool does not appear in the directory you have unpacked it to, first try refreshing the directory in ArcCatalog (Right click directory » Refresh…). If the problem continues, it may be because you are using a legacy version of ArcGIS (ArcGIS 9.0 – ArcGIS 10.0).

I get an error when attempting to run the tool.

If running the tool results in an error, first ensure that the tool runs correctly on the test data provided in the zipped package.

- If the tool does not run successfully over the test data, try to interpret the error message in finding a solution and submit the error message (via screen capture or cut and paste) to David Vogel at djvogel2@wisc.edu.

I get a properties dialogue instead of a tool input dialogue when opening the tool.

Refresh the directory in ArcCatalog (hit F5 to refresh).

Who can I contact for help?

David Vogel, State Cartographer's Office, 608-890-3793, djvogel2@wisc.edu

Credits

Developed by:

Scheele, Chris; Vogel, David, & See, Codie. *Class of Property Dissolve Toolset* [computer file: *COPDissolve_10_1_10_2.tbx; COPDissolve_10_3.tbx*]. (2016). Madison, WI; Wisconsin State Cartographer's Office (SCO). Available via web download site: https://www.sco.wisc.edu/parcels/tools. [January 22, 2016].

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