

Installing the SDVSave Tool for ArcGIS 10.x

March 19, 2013

The SDVSave Tool is a custom tool that can be used in combination to with Soil Data Viewer to create and permanently save soil maps in ArcMap 10.0 and 10.1. Some tools come standard with ArcGIS as shown below in Figure 1. Other custom ArcTools such as SDVSave can be downloaded from online sites or are developed by the users. The following instructions cover installation of the tool on a single-user computer

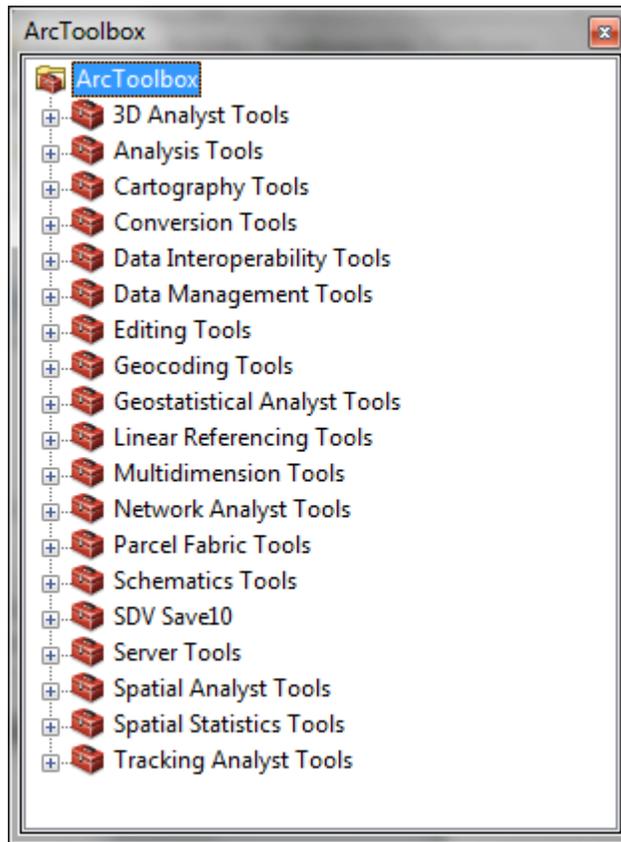


Fig 1 -The standard, out-of-the-box set of ArcTools

Use the standard ArcGIS - 'My Toolboxes' folder to store the SDVSave Toolbox. For Windows 7, the full path for this folder should be:

C:\Users

1. Download the SDVSave Tool for ArcGIS 10 from:
http://www.soils.usda.gov/education/training/job_aids.html#database_gen
2. Download and save the zip file (SDVSave_ArcGIS10.zip) to the 'My Toolboxes' folder located in the path shown above.
3. If the 'My Toolboxes' folder doesn't exist, try navigating to 'ArcToolbox' using the Catalog Tree in ArcCatalog. The folder should be automatically created now.

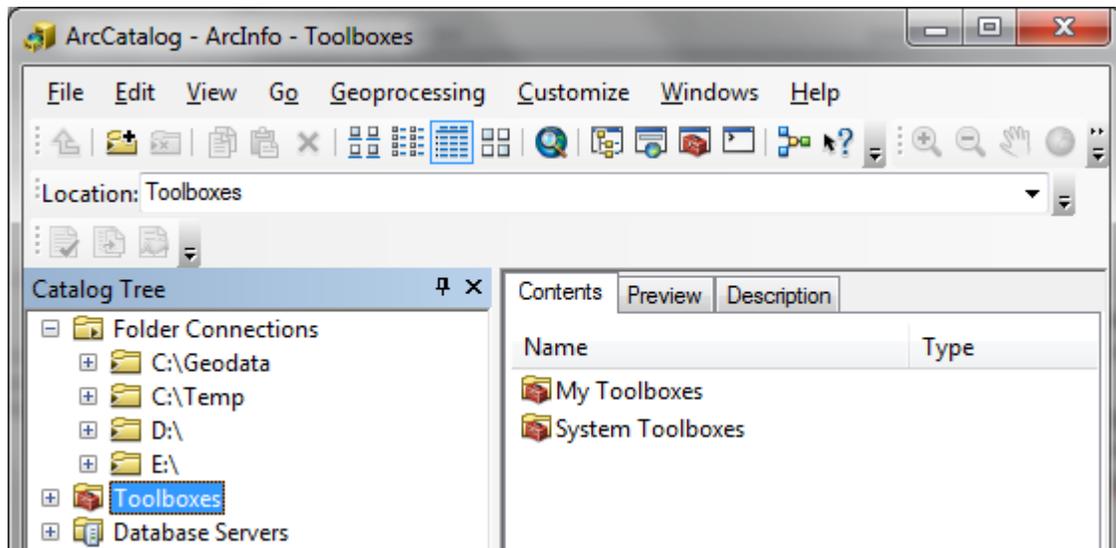


Fig 2 - Toolboxes highlighted in Catalog Tree

4. Unzip the file to the same 'My Toolboxes' folder.
5. Confirm that these two files now exist in that folder: 'SDV Save10.tbx' and 'SDVSave_10.py'
6. Open 'My Toolboxes' in ArcCatalog and confirm that the 'SDV Save10' toolbox is listed.

The long path above can easily be found as a shortcut in the ArcCatalog or ArcMap browser. In ArcGIS file browsers, the 'ArcTools' and 'My Toolboxes' are special folders marked with the red toolbox icon.

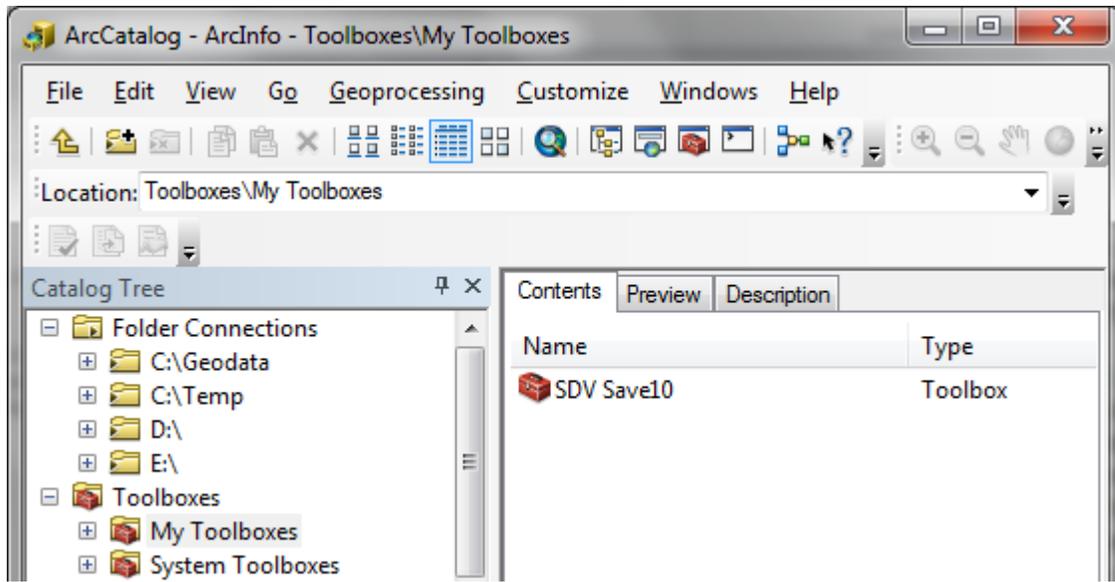


Fig 3 - My Toolboxes and its contents (SDV Save10)

Quick Start Guide for the SDVSave Tool

Soil Data Viewer creates temporary map layers based upon the shapefile format. As soon as the user exits ArcMap or exits Soil Data Viewer, those temporary shapefiles and tables are automatically deleted.

The SDVSave Tool has a single purpose. It is designed save the temporary map layers created by Soil Data Viewer to a permanent featureclass along with the associated map legends. The export format is a single featureclass in a file geodatabase. It is similar but not the same as a shapefile. The geodatabase format is used because it preserves all of the original soil ratings, even NULL values. Exporting the soil maps to shapefiles does not preserve all of the original values.

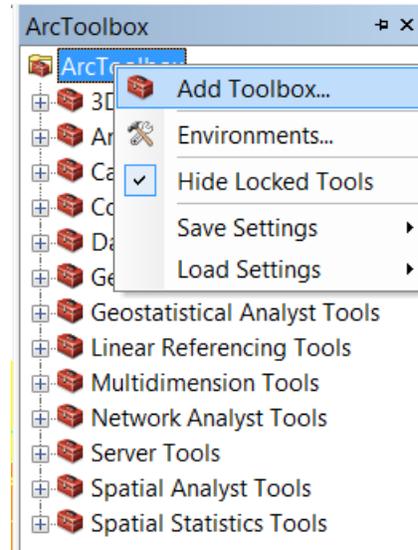
Layer files (.lyr) are also created for each soil map and stored in the same folder that the file geodatabase is located in. Always these layer files to add those soil maps for future ArcMap projects.

The tool can export multiple soil map layers to a single featureclass, but only if they are all based upon the exact same set of soil polygons. The tool works by exporting the polygons from one of the map layers and then attaching the soil attributes from the each of the other soil map layers. This method saves disk space and makes it easier to query the soils data using multiple conditions.

Step 1. The file geodatabase must already exist **before** the tool is executed. Use ArcCatalog or the 'Create File GDB' tool (Data Management/Workspace) to create the geodatabase before attempting to save the map layers.

Step 2. Determine whether the SDV Save toolbox already loaded into ArcToolbox. If not:

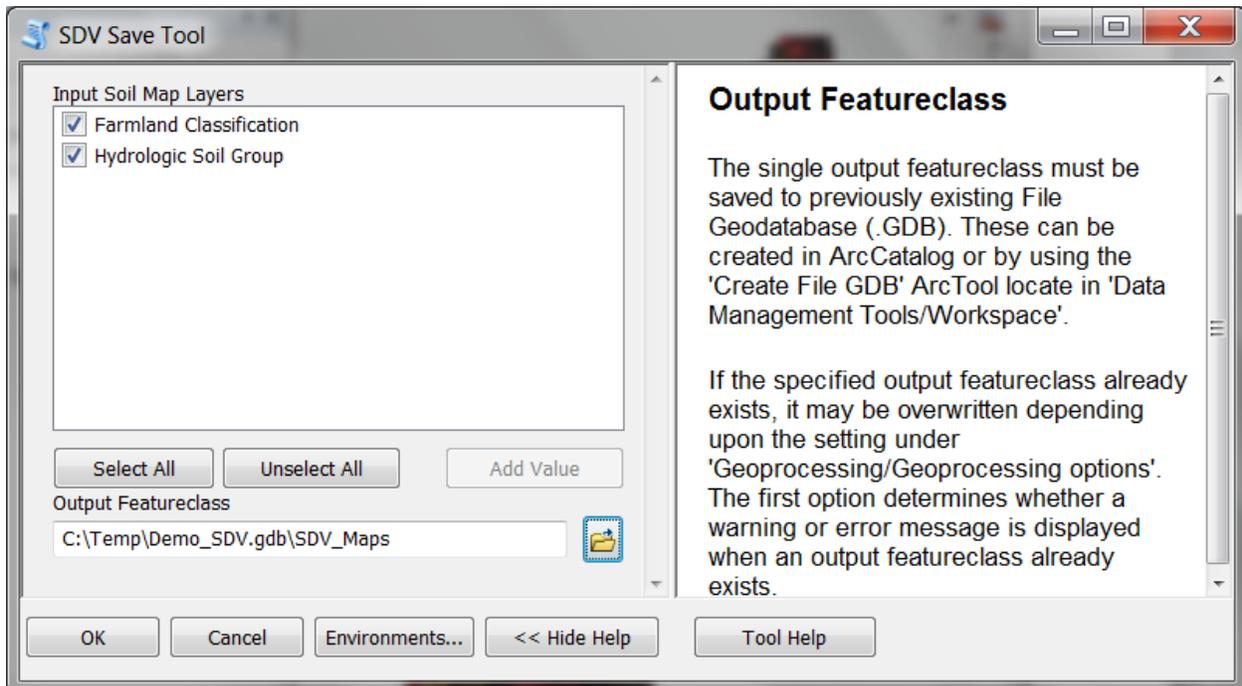
- Right-click on the 'ArcToolbox' heading
- Select 'Add Toolbox' from the drop down menu
- Double-click 'My Toolboxes' on the next menu
- Select 'SDV Save10.tbx' on the final menu
- Click 'OK'



Step 3. Create the desired soil map or maps using Soil Data Viewer and make any desired changes to the legend such as turning off polygon outlines.

Step 4. Use the 'SDV Save Tool' to export the selected soil maps to a single featureclass.

- Click the plus symbol next to the 'SDV Save10' toolbox to display the actual 'SDV Save Tool'. Note the Help window to the right.
- Fill out the SDV Save Tool dialog as in the example below
- Click 'OK' to proceed



Step 5. Below is an example of what the 'SDV Save Tool' output messages would appear. Watch for error messages (red text).

```
Using output geodatabase: C:\Temp\Demo_SDV.gdb
Creating new geodatabase featureclass (SDV_Maps) from soils shapefile...
Adding new rating columns...
HydrolGrp (text)
FrmlndCls (text)
Updating data source for selected layers...
Farmland Classification
Hydrologic Soil Group
Successfully saved SDV soil map layers
Completed script SDVSaveTool...
```

Step 6. Examine the soil map layers to see that they have been properly exported.

- Open the layer properties for each of the exported soil maps
- Click on the 'Source' tab and confirm that the featureclass is part of a file geodatabase rather than a shapefile
- Close the layer properties dialog
- Open the attribute table for each soil map layer
- Confirm that the all of the attribute columns for the exported soil maps included in each table
- Confirm that the layer files (.lyr) were created for each soil map as shown below

