

Converting ENVI Classifications to ArcGIS Shapefiles

Once you have created a landcover classification in ENVI you may wish to view or work with these data in ArcGIS. To simply view this file, make sure you include a file extension of “.DAT” as part of the filename. For example, you can name the file **MyClass.dat**. Now you can open the file in ArcGIS and you will see the classified image with the colors that you have specified.

You need to be aware that this is just an 8-bit raster data, it does not have the attributes of a classified image in ArcGIS, i.e. you cannot use this for zonal statistics, selection by attribute (class), or clipping and buffering other data. There is a simple two-step process that you can use to convert these data into a file structure that can be used for these purposes.

1. Export to Vector:

Once you have performed your image classification(s) and assessed the accuracy of your work you need to export this raster file to a vector format. From the ENVI main menu bar, select **Vector** → **Classification to Vector**, select your classified image, and click OK. This opens the *Raster To Vector Parameters* dialog (Figure 1). You have several options within this dialog; you can select all classes or some subset of them, you can save all of the data to a single layer file or save each class as a separate layer.

Typically you will select all classes into a single layer file. Make sure you **do not** select the default class labeled “Unclassified” or a class labeled “Masked pixels” (created if you apply a mask to your image). Direct the Output to a Single Layer and enter a new filename such as **Class_Vector.dat**. This creates an ENVI vector file in EVF format and opens the Available Vectors List with the new file **called RTV(your original classified file name)**. Select this layer and click the Load Selected to display this in a new vector window.

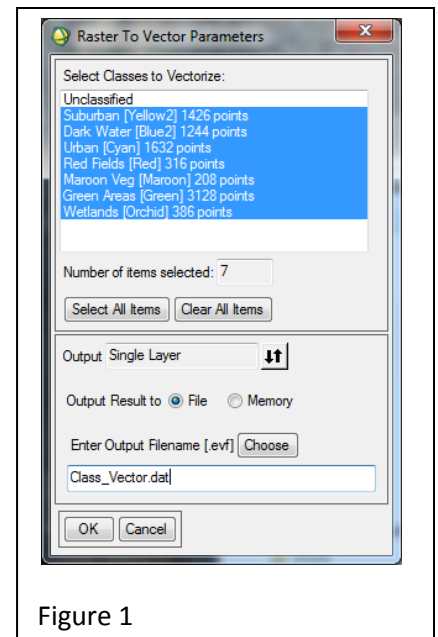


Figure 1

2. Export to Shapefile:

From the Vector Window menu, select **File** → **Export Active layer to Shapefile**. Enter an appropriate filename (ENVI will add the “.SHP” file extension, and click OK. It may take some time to complete the export, be patient.

Once this is complete, add this shapefile to a map in ArcGIS. Open the *Layer Properties* and under the **Symbology** tab select **Categories** → **Unique Values** then click on the button *Add All Values* to display the separate classes. ArcGIS will use the ENVI class names but will use its own color scheme. You can easily change the individual colors and labels here or in the Table of Contents pane.