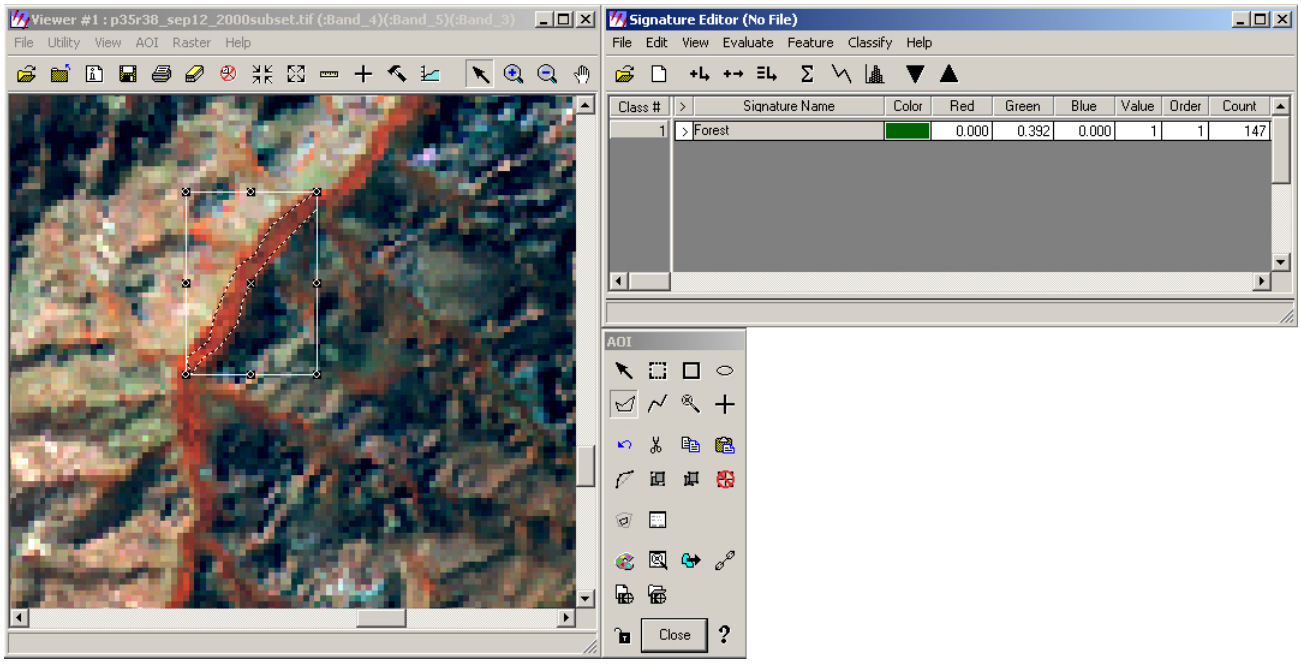
Supervised classification with Erdas Imagine 8.7

1. To start a supervised classification, open an image in a viewer. Choose *AOI* > *Tools* in the drop down menu to open the AOI tool set. Next, choose *Signature Editor* from the *Classifier* button menu in the main Erdas toolbar. Signatures representing each land cover type will be collected from the image in the viewer.



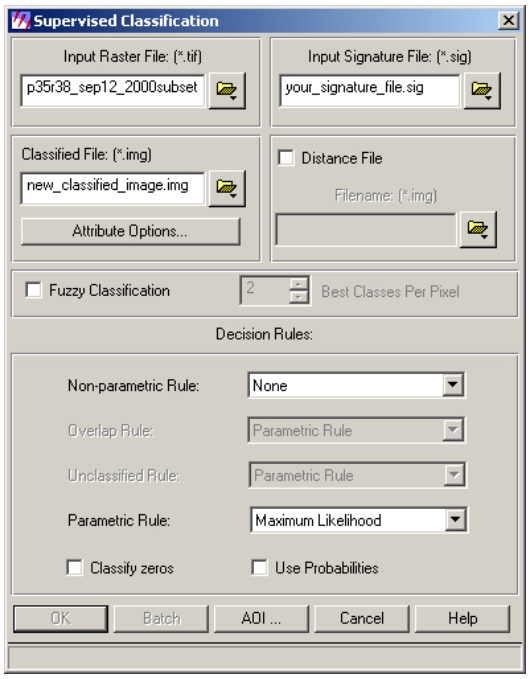
2. To collect a signature, choose the *Create Polygon AOI* button  from the AOI tools. Digitize a polygon around a sample land cover area, and double-click when finished. The polygon should be located completely within a uniform land cover sample. Click the *Create New Signature from AOI* button  in the Signature Editor to add the sample.

It is important to keep separate signatures for each variation within a single land cover type. For instance, individual signatures should be collected for sunlit forest and shadowed forest or shallow water and deep water. Three or more signatures should be collected for every land cover type to be classified. Also check the pixel count number in the *Count* column of the Signature Editor. Signatures should contain at least 30 pixels but not be excessively large.

Save the Signature file when enough signatures have been collected.

3. Choose the *Classifier* button to access the menu, and *Supervised Classification…* to enter the setup dialog.

4. Choose the satellite image that was used to collect the signatures as the *Input Raster File*, and the file created from the signature editor for the *Input Signature File*. Enter a new file name for the classified image to be created and choose OK to run the process. The Maximum Likelihood parametric rule is the method that the software will be using to group pixels into classes.



5. Once the classification is finished, and you are happy with the results, use the recode function to combine multiple classes of the same land cover type. Open the *Thematic Recode* dialog by choosing *Interpreter* > *GIS Analysis* > *Recode*. Enter the classified image as the *Input* file, and enter a new *Output* file name. Click *Setup Recode*, and renumber the *New Value* column so that similar classes share the same value. Be sure to write down what classes the new values represent. Click *OK* to create the new image. Open the image in a viewer and attribute editor again to rename the classes based on the new values.