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Engineers for Exploration

**Using retile.py**

# INTRODUCTION

## PREREQUISITES

GDAL

Input raster

# NOTES

Forming tiles is a necessary process for much of the mangrove machine learning workflow. Our CNN’s require square inputs for both classification and training, so the creation of tiles is an important process. This script also improves on past methods such as the using the ArcGIS tool (Export Training Data For Deep Learning), which is much slower than the respective GDAL tools.

This script will take an input tif orthomosaic and transform it into its corresponding square output tiles, ready for classification or training these files after converting these images to jpg format.

The list of arguments and their explanations are as follows:

* -h
  + This argument lists all of the arguments that are covered in this documentation file
* **--width (int** *pixels***)**
  + This will be the width and height of the square output tiles outputted by retile. Typical width is 64px or 256px to avoid the effects of resizing the images
* **--input (filename** *raster***)**
  + This is the filename of the input raster which you want to be decomposed into the respective tiles
* **--targetDir (directory)**
  + This is the directory at which you want tiles from the original raster to be outputted to
* **--shpfile (filename** *shapefile***)**
  + This is the filename of the shapefile at which you want to do an intersection of the original raster to get the raster within the bounds of the polygon defined by the shapefile. An illustration is provided below with an input raster, the polygon as the clip feature, and the resulting intersection as the output.

