Data for testing - ML/CV

Script - SentinelAPI

Script used to download data using SentinelAPI based on extent defined in input shape files.
Params:
   :param int m: Month number used to query the raster
   :param int y: Year number used to query the raster
   :param int mn: Maximum number of downloads
   :param str i: Input shape used as reference to define the footprint and ROI
   :param str o: Path where output files will be stored

Example: python get_sentinel2_data.py -m 1 -y 2022 -mn 2 -i files_util/reference_get_data.shp -o output_path

Script - semi-supervised approach

Script used to execute a semi-supervised approach based on optimized k-means. Please note that such script can be used to label addition data and predict results for cases where our automatic solution cannot handle

Params:
   :param str ir: Folder composed by the rasters that will be analyzed
   :param str is: Directory that points to a shape file where the ROI were defined
   :param str o: Base output path

Example: python main_annotate.py -ir output_from_get_sentinental2 -is files_util/reference.shp -o output_path

Script - automatic approach

Script used to execute the automatic approach based on U-Net.

Params:
   :param str ir: Folder composed by the rasters that will be analyzed
   :param str o: Base output path

Example: python main_automatic.py -ir output_from_get_sentinental2 -o output_path

Script - Train/test composition

Script used to split the available data into train and test based on specific percentage.
Params:
   :param str i: Path where rasters that will be part of dataset are stored
   :param float p: Percentage test (0-1)
   :param str o: Path where output files will be stored

Example: python train_test.py -i D:\rivereye\Dataset-orgtes\train-opt -p 0.1 -o
D:\rivereye\Dataset-orgtes

Script - Train/Validation composition

Script used to split the available data into train and validation based on specific percentage.

Params:
   :param str i: Path where rasters that will be part of dataset are stored
   :param float p: Percentage test (0-1)
   :param str o: Path where output files will be stored

Example: python train_validation.py -i D:\rivereye\Dataset-orgtes\train-opt -p 0.2 -o
D:\rivereye\Dataset-orgtes