Evaluate PQ README

General Panoptic Quality evaluation script

Find the panoptic quality match PQ between predicted and GT mask for vessels. The script can run as-is with the example folders supplied.

The script has a few modes class agnostic that will evaluate the PQ value ignoring classification errors.

Main Input Parameters

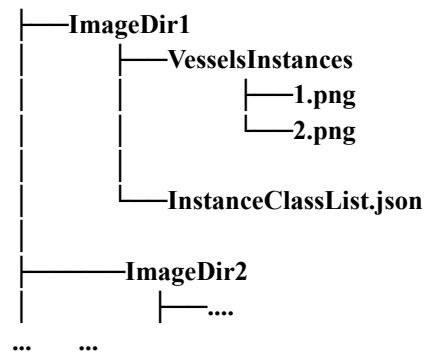**GTDir:** contains the path to the LabPics evaluation set that is used as ground truth
PredDir: Contain the link to the predicted instances of the vessels (See Subfolder **ExampleData/Predict/** for example in this folder).

Predicition folder strucutre:
See Subfolder **ExampleData/Predict/** for example prediction folder.
The structure of the predicted dir should be as follows:

```
PredDir
├──ImageDir1
│        ├──VesselsInstances
│        │        ├──1.png
│        │        └──2.png
│        │
│        └──InstanceClassList.json
│
├────────ImageDir2
│            ├──....
...    ...
```

ImageDir: Should have the same name as the image folder in LabPics evaluation set for every image folder in the GT dir there should be a similar folder in the predicted folder.

ImageDir1\VesselsInstances: Mask of Vessels instances.

ImageDir1\Vessels\1.png: Binary mask for vessel instance 1.
ImageDir1\Vessels\1.png: Binary mask for vessel instance 2.

ImageDir1\InstanceClassList.json: Contain classes for material instances in vessel 1. For example: {"1": ["Pippete", "Transparent"], "2": ["Transparent", "Tube"]}means instance 1 is transparent tube and instance 2 is transparent pippete.

Additional parameters

ClassToUse: classes that will be used for the evaluation.
LimitToVessel: only this vessel types if "" check all.
IgnoreVesselsThatAreParts: ignore connectors condensers and stuff.
MinPixelsInInstace: Ignore smaller instances (In pixels).
MatchThresh: IOU threshold for matching instances.
ClassAgnostic: Ignore misclassification errors only use IOU.