# P2PaLA

P2PaLA is a layout analysis tool that recognizes structure types on region level and baselines from a page based on pre-trained models.
The tool was developed by Lorenzo Quirós Díaz at the UPVLC in Valencia,
see https://github.com/lquirosd/P2PaLA for the full Open Source codebase.

# Recognition

Currently, the recognition is integrated into the Transkribus expert client (TranskribusX) for pre-trained models.
In this process, the P2PaLA tool creates new text-regions from trained structure types and optionally also baselines contained in those regions.
The table shows detailed information on all available models.
The column “Structure types” shows the list of region types this model recognizes and the column “Baslelines” shows if this models was also trained to detect baselines.

## Parameters

- Rectify regions -> all regions will be simplified to the bounding box of the actual recognized shape
- Min-Area -> Shapes with an *area* smaller than this fraction of the image *width* will be removed after the recogniton. Use this parameter to remove small “garbage” regions. Default = 0.01

# Training

- If you are interested in training your own models, please send us an email (info@readcoop.eu) and we can enable the training interface for you.
- Trained models will be associated to the currently selected collection and the owner is set to the user who has started the training.
- When tagging regions, avoid overlapping between different regions.
- Baseline training only makes sense if your dataset is large enough, i.e. at least 500-1000 corrected baselines.
- For structure type recognition, a training set of about 50-100 pages should be enough to generate a decent model, depending of course on the complexity of your layouts.
- **Dataset balancing**: it is always a good idea to have your dataset balanced, i.e. that the number of samples across all structure types is approximately the same. Elsewise, structures with fewer samples can get suppressed, especially the more epochs you train.
- Please note, that the tool can only recognize structure types that are in any way *visually* or *positionally* distinguishable on a page.
- Also note that P2PaLA is currently *not* a production-ready tool, thus please don’t expect ‘perfect’ results.

## Training Parameters

See P2PaLA Train Parameters