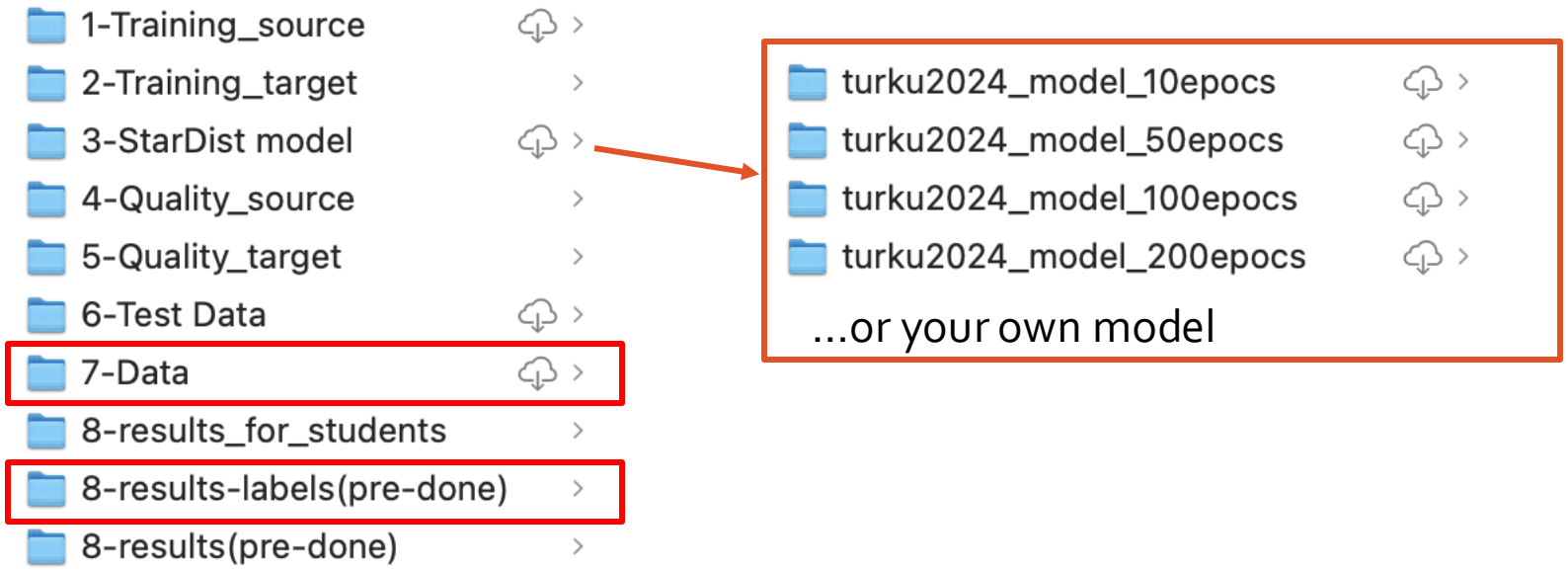
ZEROCOSTDL4MIC

Hands-on training – Part 3

Task

- Apply your StarDist model to a whole dataset



6. Using the trained model

In this section the unseen data is processed using the trained model (in section 4). First, your unseen images are uploaded and prepared for prediction. After that your trained model from section 4 is activated and finally saved into your Google Drive.

6.1 Generate prediction(s) from unseen dataset

In this section the unseen data is processed using the trained model (in section 4). First, your unseen images are uploaded and prepared for prediction. After that your trained model from section 4 is activated and finally saved into your Google Drive.

The current trained model (from section 4.3) can now be used to process images. If an older model needs to be used, please untick the **Use_the_current_trained_model** box and enter the name and path of the model to use. Predicted output images are saved in your **Prediction_folder** folder as restored image stacks (ImageJ-compatible TIFF images).

`Data_folder`: This folder should contains the images that you want to predict using the network that you will train.

`Result_folder`: This folder will contain the predicted output ROI.

`Data_type`: Please indicate if the images you want to predict are single images or stacks

In stardist the following results can be exported:

- Region of interest (ROI) that can be opened in ImageJ / Fiji. The ROI are saved inside of a .zip file in your choosen result folder. To open the ROI in Fiji, just drag and drop the zip file !**
- The predicted mask images
- A CSV file that contains the coordinate the centre of each detected nuclei (single image only).

Settings

Provide the path to your dataset and to the folder where the prediction will be saved (Result folder), then play the cell to predict output on your unseen images.

Data_folder: /content/gdrive/Shareddrives/Image analysis course 2024/Day_2/T cell dataset/7-Data

Raw data

Results_folder: /content/gdrive/Shareddrives/Image analysis course 2024/Day_2/T cell dataset/8-results_for_students

Results folder

Are your data single images or stacks?

Data_type: Stacks

Do you have images or stacks (video)?

Do you also want to export Fiji ROI?

Region_of_interests: ☐

Do you want to export the centroids of objects?

Do you want to use the current trained model?

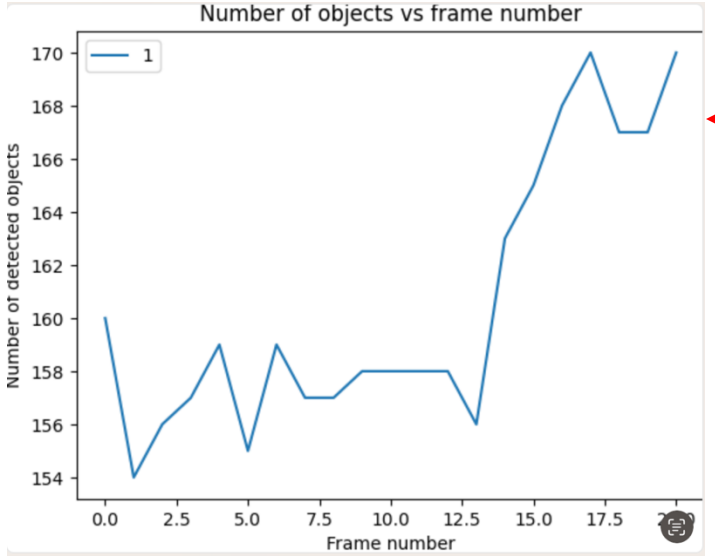
Use_the_current_trained_model: ☐

If not, please provide the path to the model folder:

Prediction_model_folder: /content/gdrive/Shareddrives/Image analysis course 2024/Day_2/T cell dataset/3-StarDist model/turku2024_model_100epocs

Select the model you want to use here

Take a look of the results



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- Exp 1 VCAM 2...i_number.csv
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AND WE ARE DONE ☺