Training report for SplineDist (2D) model (Chr_spline_dist_noaug)
Date: 2022-04-05
Training time: 2.0hour(s) 48.0min(s) 52sec(s)

Information for your materials and method:

The SplineDist (2D) model was trained from scratch for 100 epochs on 12 paired image patches (image dimensions: (1694, 2267, 3), patch size: (512,512)) with a batch size of 4 and a mae loss function, using the SplineDist (2D) ZeroCostDL4Mic notebook (v 1) (von Chamier & Laine et al., 2020). Key python packages used include tensorflow (v file:///tensorflow-2.8.0-cp37-cp37m-linux_x86_64.whl), Keras (v reprocessing==1.1.2), csbdeep (v 0.6.3), numpy (v 1.21.5), cuda (v 11.1.105
Build cuda_11.1.TC455_06.29190527_0). The training was accelerated using a Tesla T4 GPU.

Augmentation: No augmentation was used for training.

Parameters

Default Advanced Parameters were enabled

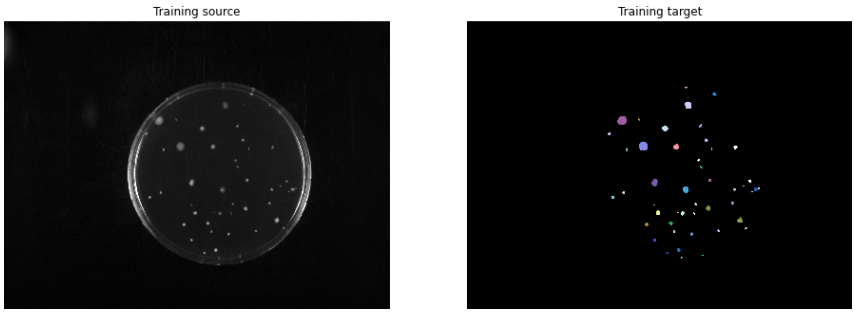
Parameter	Value
number_of_epochs	100
patch_size	512x512
batch_size	4
number_of_steps	58.598297119140625
percentage_validation	10
contoursize_max	146.43
grid_parameter	2
number_of_contour_points	16
initial_learning_rate	0.0003

Training Dataset

Training_source: /content/gdrive/MyDrive/Spline_dist/source
Training_target: /content/gdrive/MyDrive/Spline_dist/target

Model Path: /content/gdrive/MyDrive/Spline_dist/Chr_spline_dist_noaug

Example Training pair



References:
- ZeroCostDL4Mic: von Chamier, Lucas & Laine, Romain, et al. "Democratising deep learning for microscopy with ZeroCostDL4Mic." Nature Communications (2021).
- SplineDist 2D: Mandal et al. "SplineDist: Automated Cell Segmentation with Spline Curves. bioRxiv 2020.

Important:
Remember to perform the quality control step on all newly trained models
Please consider depositing your training dataset on Zenodo