Detailed Usage Instructions

1. Download file: epdet_V2.tar
2. Load Docker Image:

   docker load -i epdet_V2.tar

   If successful, it will display a message like: Loaded image: epdet:v2
3. Run Docker:

   docker run -it --rm epdet:v2 /bin/bash
4. Activate python environment:

   conda activate framework
5. Run detect:

   cd /home/dell460/epdet/detect3

   python demo_evt_1and2.py

Notes:

1. Load Data:

   Place the original .evt file into /home/dell460/epdet/data/data.

2. Generate training data:

   If you need to fine-tune the model, run /home/dell460/epdet/detect3/deal_init_data_new.py to generate the training, validation, and testing data for the first-step and second-step detection.

3. First-step training:

   Run /home/dell460/epdet/detect_1_trans/Swin-Transformer-Object-Detection/tools/train.py.

   After training, the model will be saved in the directory: /home/dell460/epdet/detect_1_trans/Swin-Transformer-Object-Detection/tools/work_dirs/mask_rcnn_swin_tiny_patch4_window7_mstrain_480-800_adamw_3x_coco.

4. Second-step training:

   Run /home/dell460/epdet/detect_2/tools/train_4096.py.

   After training, the model will be saved in the directory: /home/dell460/epdet/detect_2/output/checkpoint.

5. Thresh Net training:

   Run /home/dell460/epdet/thresh_operation/bayesian_train.py.

   After training, the model will be saved in the directory: /home/dell460/epdet/thresh_operation/model_save.