Model Training_Conversion

After completing the dataset annotation tutorial content, we can start training the model using the board.

```
This tutorial only introduces CLI model training and conversion. You can refer to the official website for Python case modifications.
```

1. Model Training

Use CLI command to directly train the model: Copy the yolo11n.pt file to the directory where the configuration file is located, then open a terminal in the configuration file directory:

```
cd /home/jetson/ultralytics/ultralytics/data/yahboom_data/orange_data
```

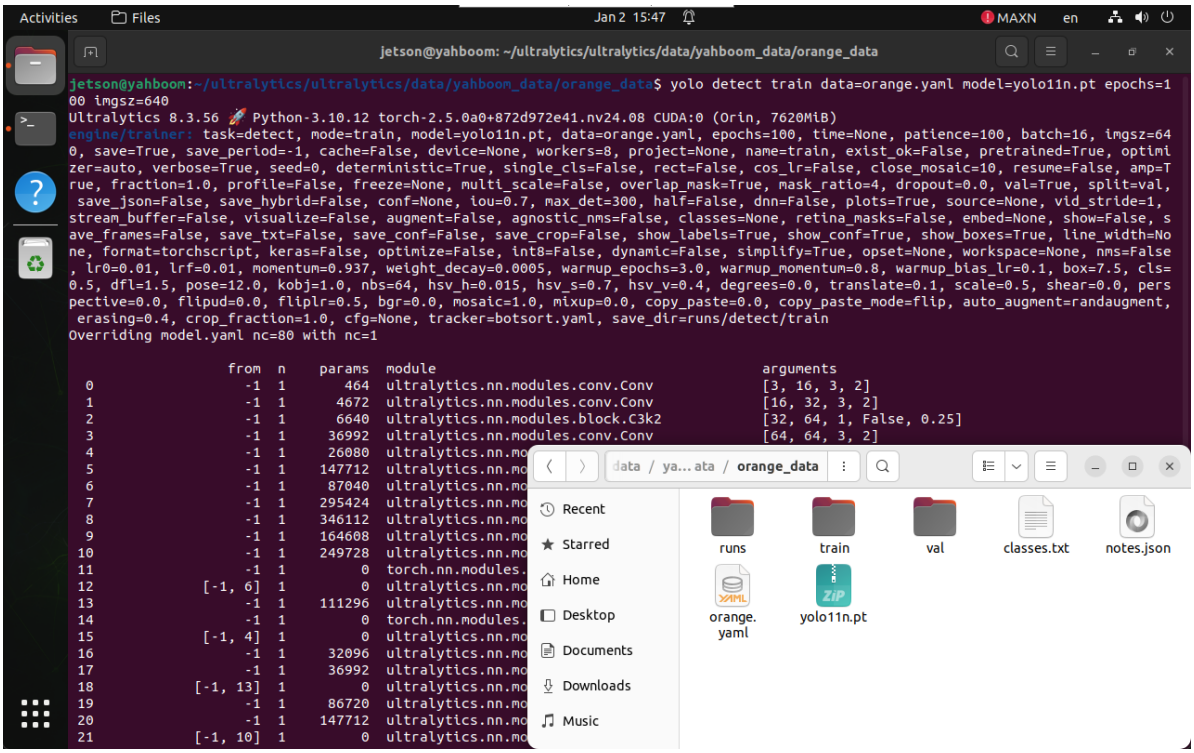
```
yolo detect train data=orange.yaml model=yolo11n.pt epochs=100 imgsz=640
```

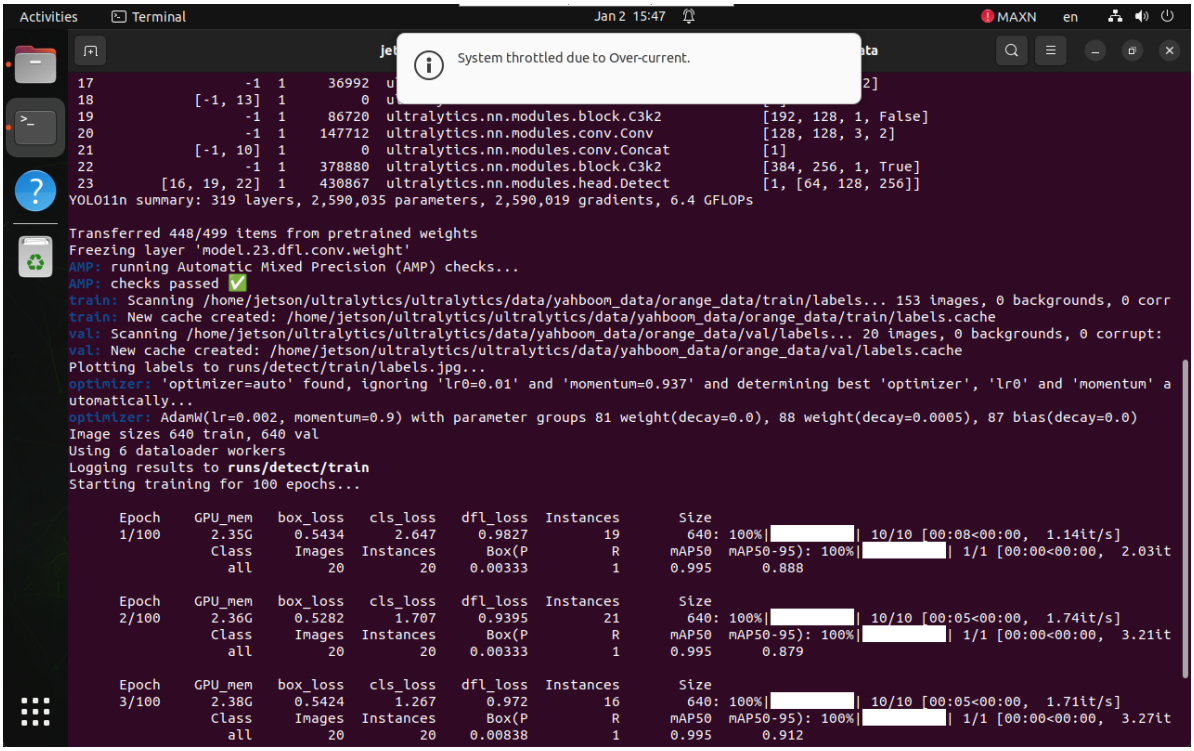
`data`: Dataset configuration file

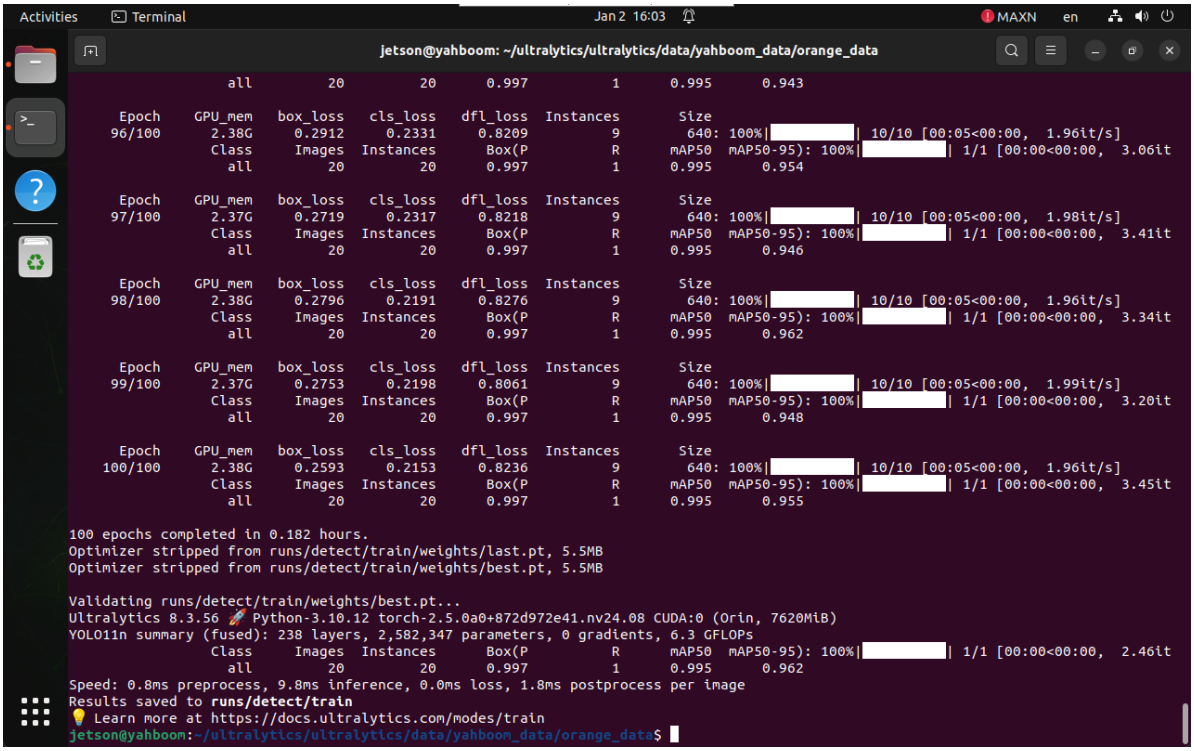
`model`: Pre-trained model file

`epochs`: Number of training epochs

`imgsz`: Input specified image size







2. Model Conversion

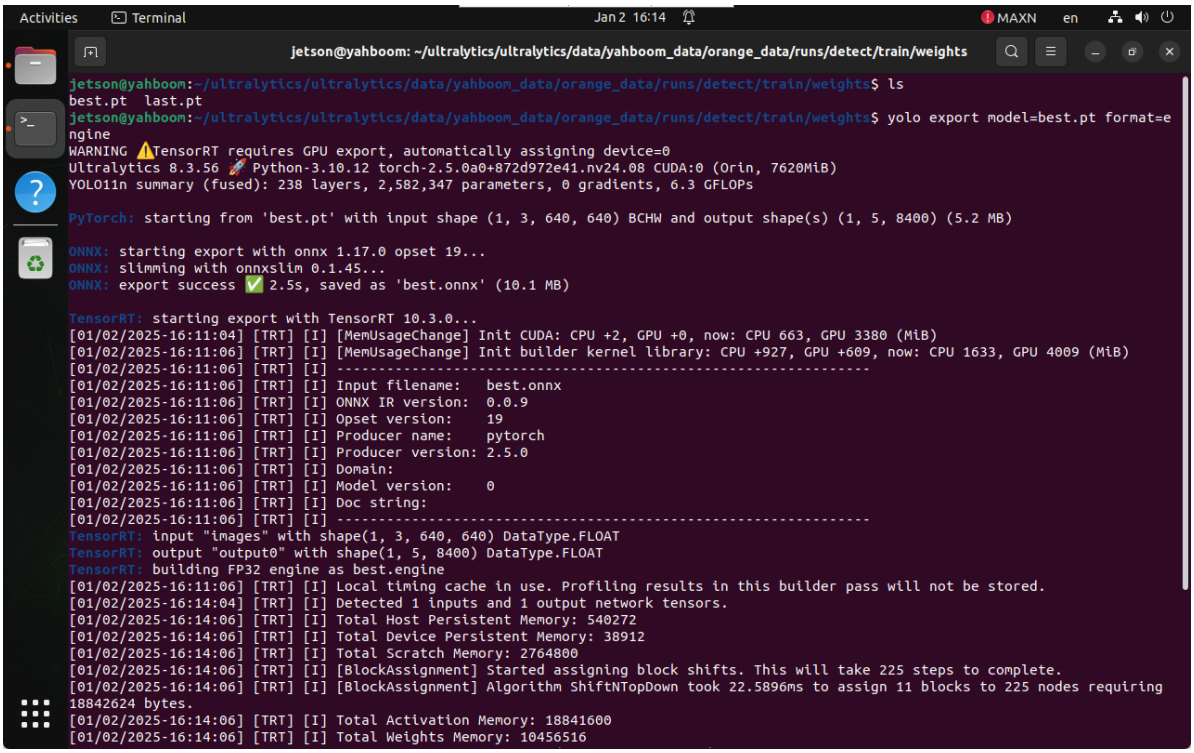
The final model will be generated in the runs folder: Generally select the best.pt file for use

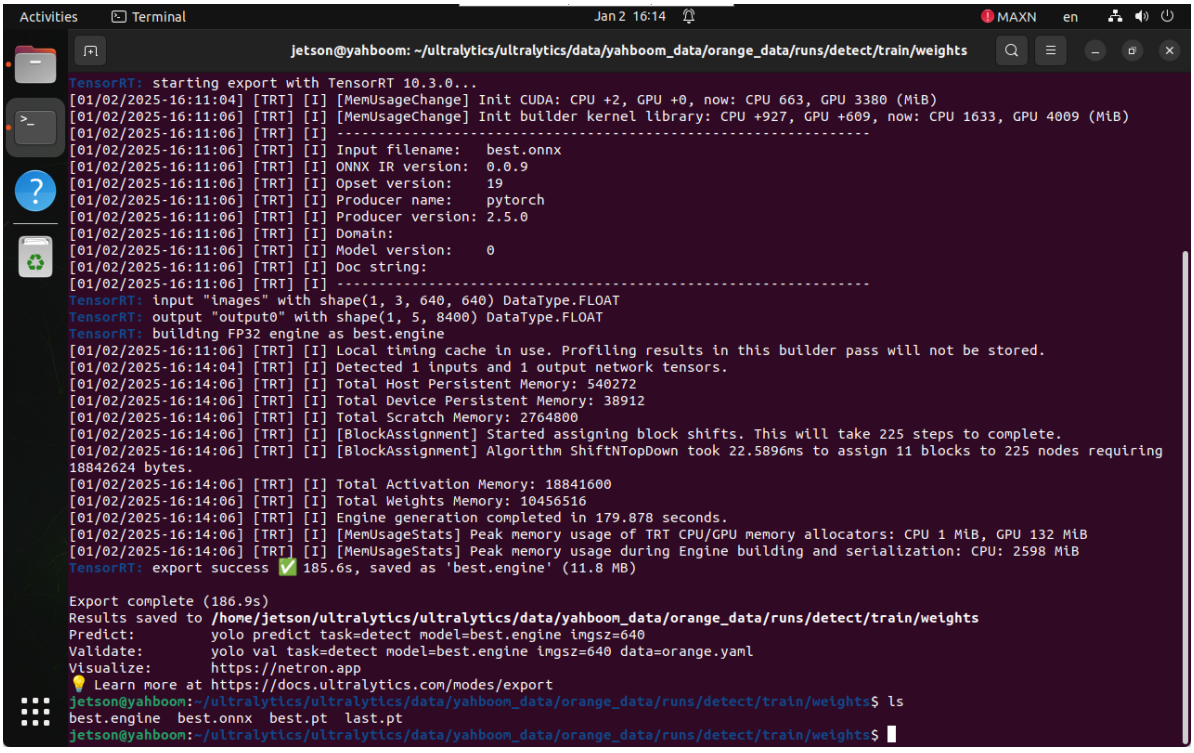
```
/home/jetson/ultralytics/ultralytics/data/yahboom_data/orange_data/runs/detect/train/weights
```

Convert PyTorch format model to TensorRT:

```
cd /home/jetson/ultralytics/ultralytics/data/yahboom_data/orange_data/runs/detect/train/weights
```

```
yolo export model=best.pt format=engine
```





References

https://docs.ultralytics.com/modes/train/