

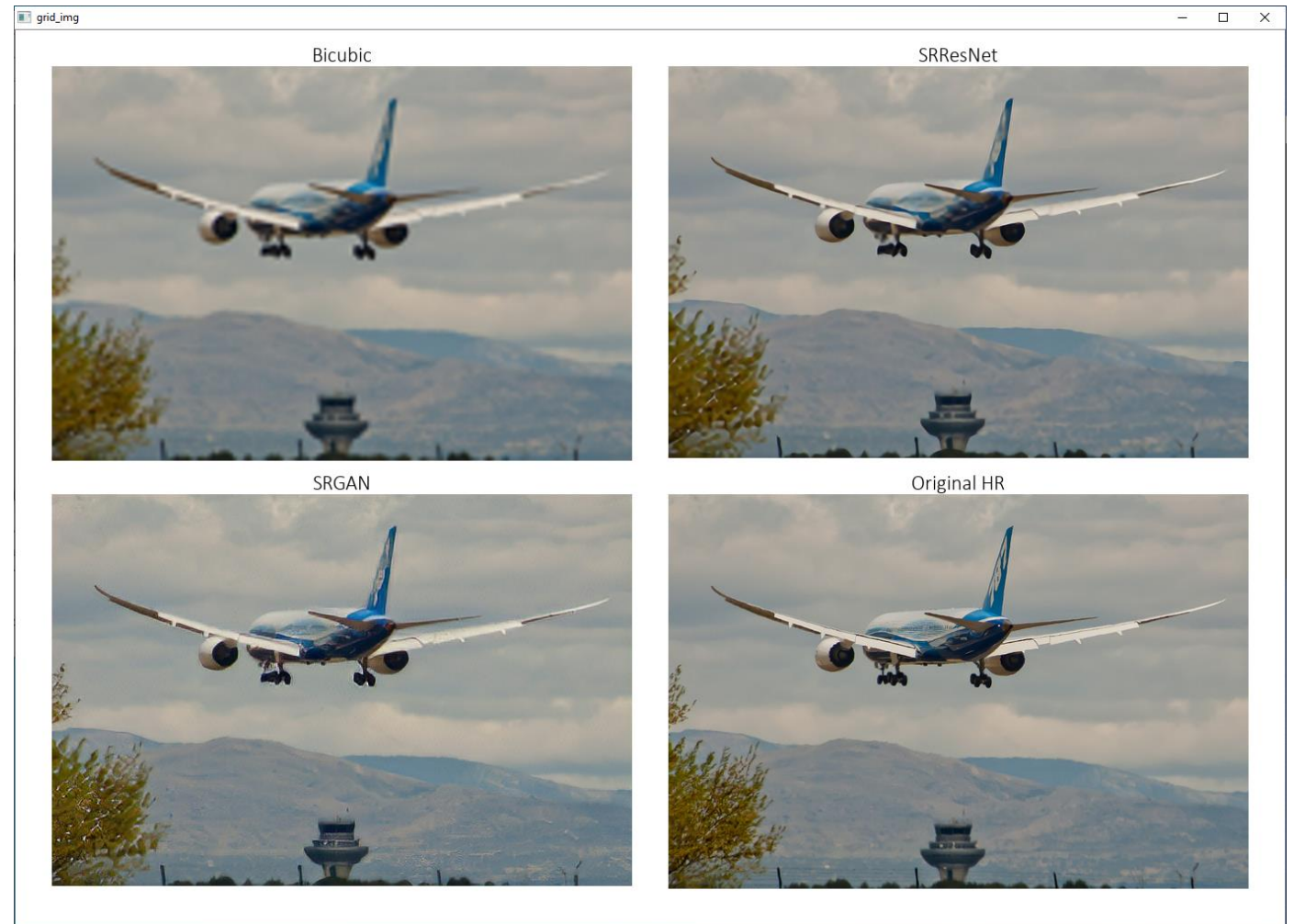
Super Resolution

Super Resolution is to increase the resolution of the video, a low-resolution image, using SRGAN to generate a high-resolution, thereby improving the resolution of the image.

Version 20230223

Applications

Super Resolution can be applied to image related technologies such as image augmentation.



How to use

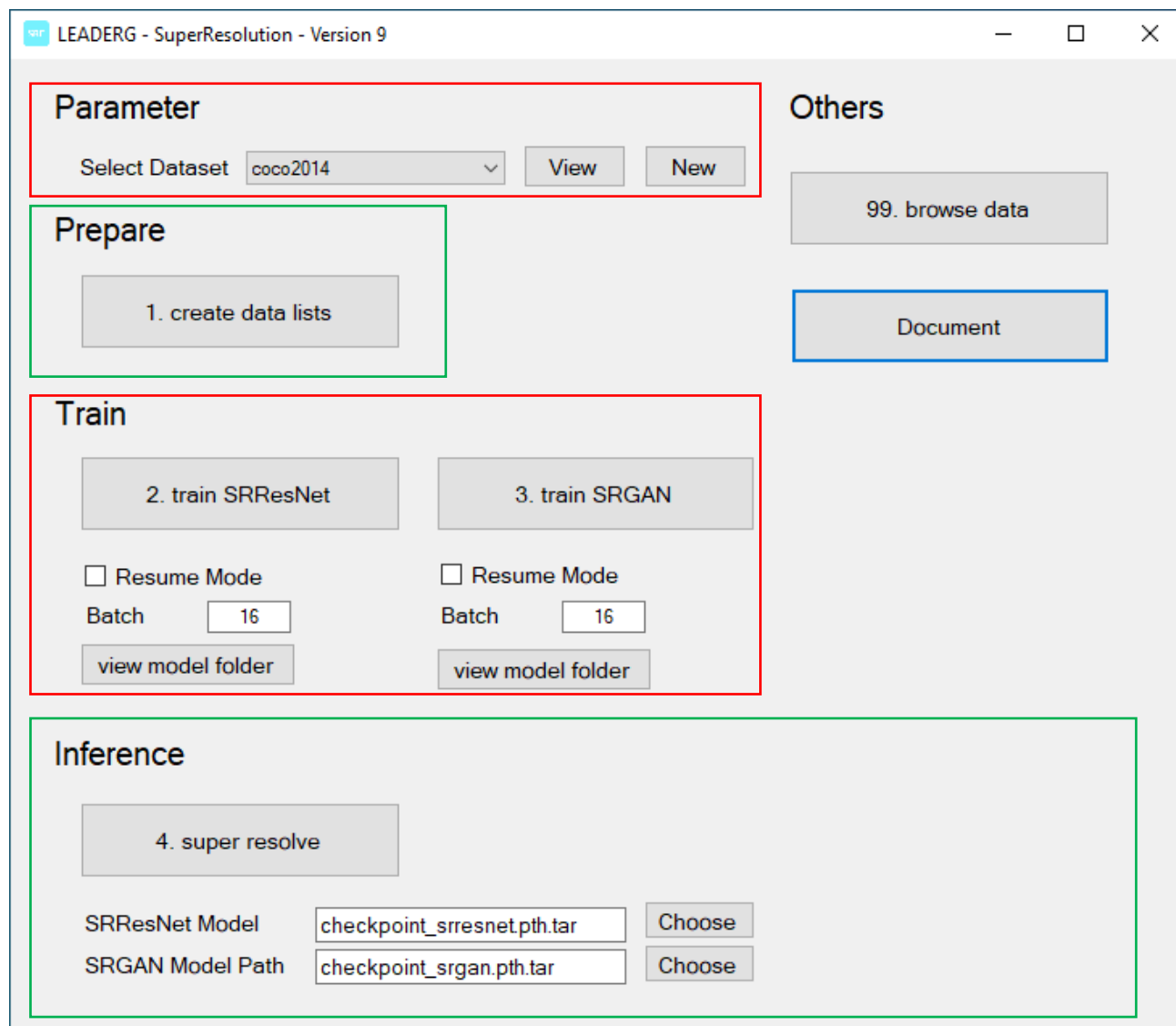
The main process is:

Select dataset ->

generate training files ->

training SRResNet and SRGAN ->

super resolution image

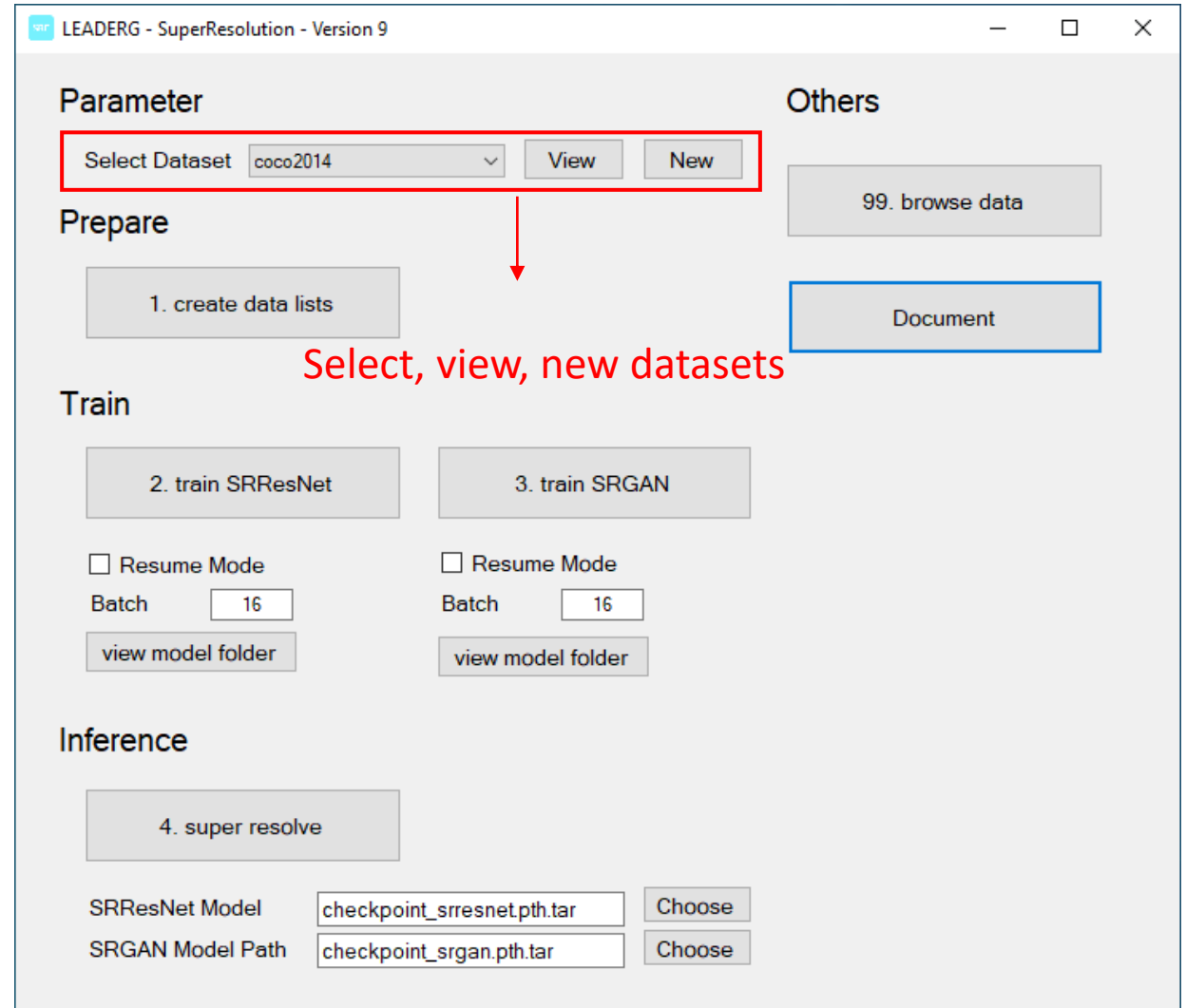


Select dataset

The dataset used by the APP is the dataset of coco2014.
Select the dataset to be used in Select Dataset.

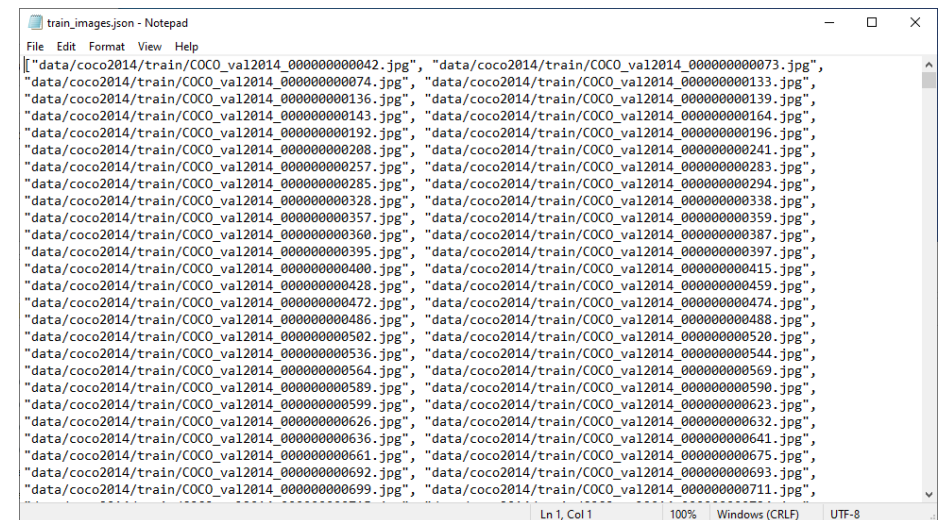
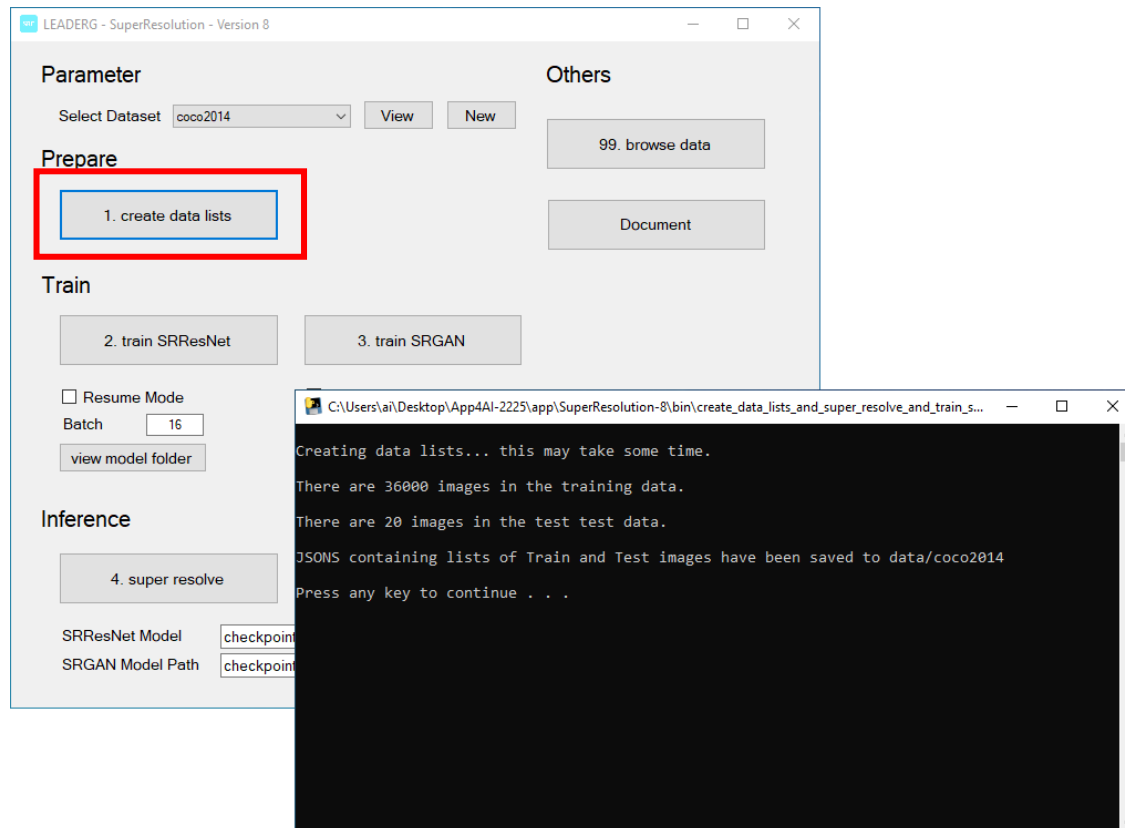
- The "View" button next to the drop-down menu can open the data folder location, which is convenient for users to confirm and modify.
- If you want to create a new dataset by yourself, please press the "New" button, enter the dataset name in the pop-up window (only English and numbers can be used as the dataset name), and press "OK" to complete the creation. Go back to the drop-down menu to find the name you just entered.

Do not delete the "vgg19-dcbb9e9d.pth" file in the model folder.



1. Create data lists

Generate a json file for training.



2. train srresnet

SRResNet must be trained first.

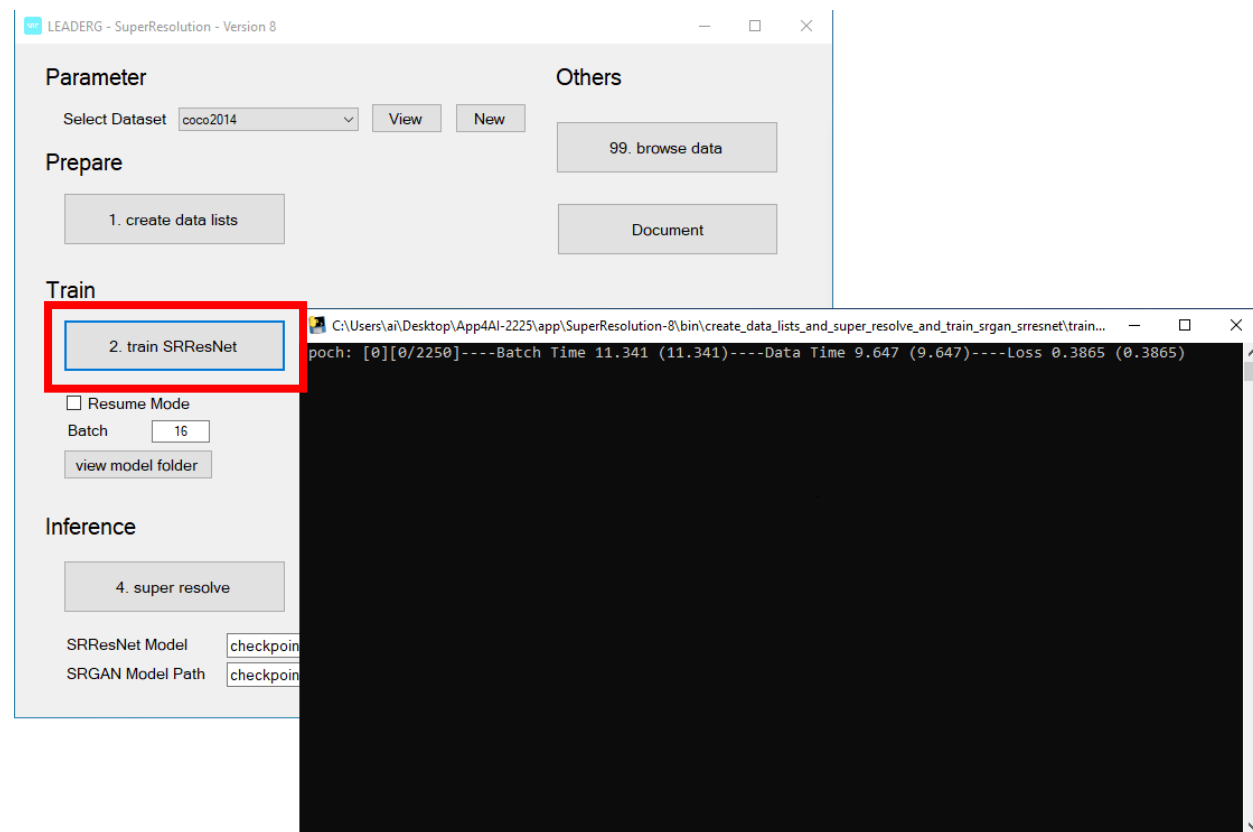
Note:

(1) If you need to resume training, please check the resume mode below and press 2. When train SRResNet, select the model file to continue training. The model file name must be XXX_srresnet.pth.tar.

(2) If you need to set a different batch size, you can fill in the batch size field below.

(3) The trained model is placed in the model folder with a fixed name "checkpoint_srresnet.pth.tar".

(4) Since the training will continue to update "checkpoint_srresnet.pth.tar", if the user needs it, please back up the "checkpoint_srresnet.pth.tar" file by yourself.



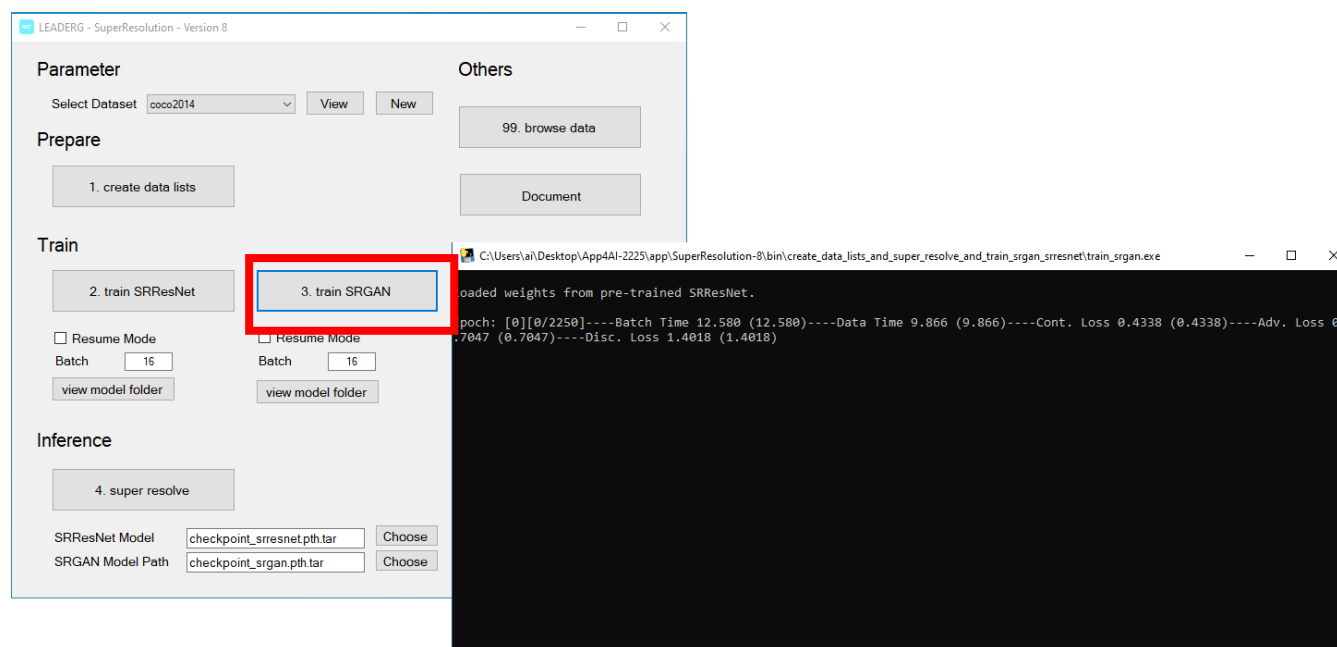
3. train srgan

Then train SRGAN.

Prerequisite: "checkpoint_srresnet.pth.tar" and "vgg19-dcbb9e9d.pth" must be in the model folder. °

Note:

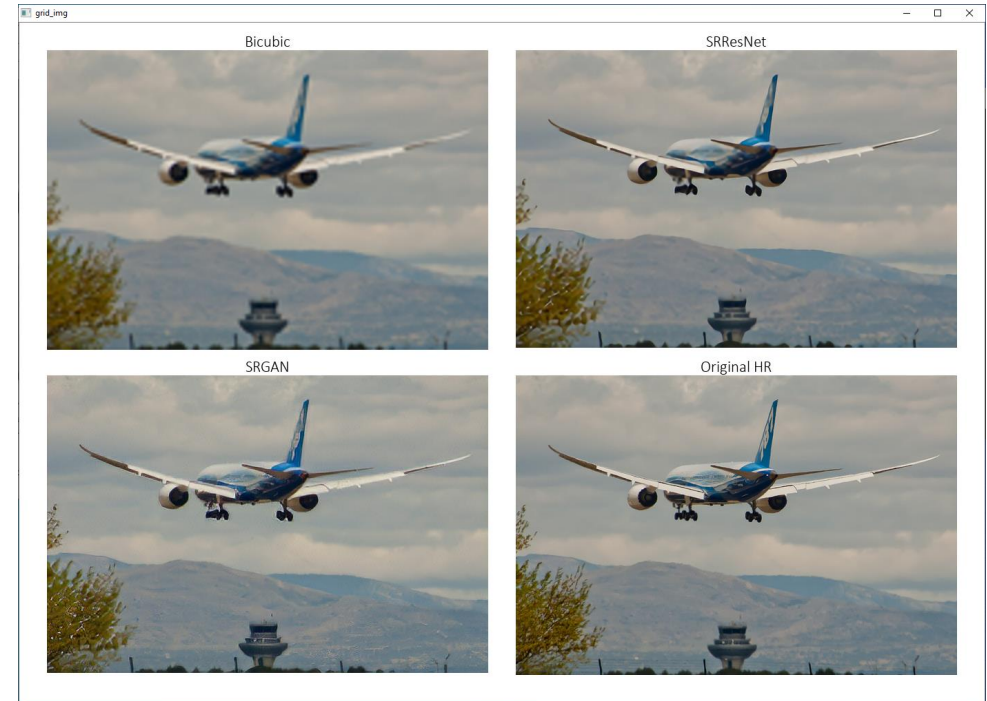
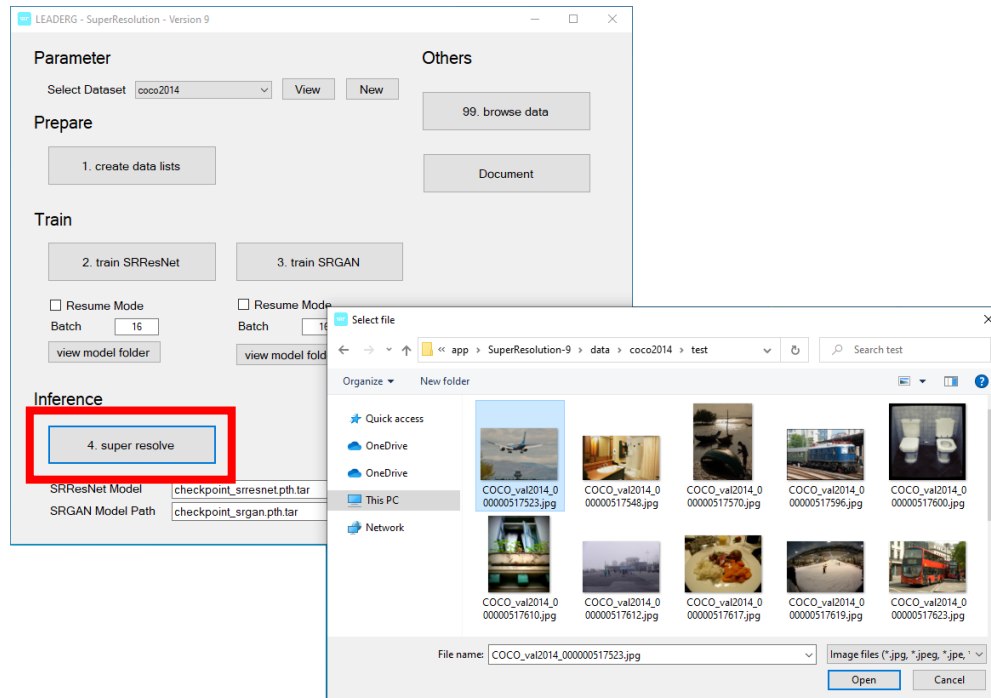
- (1) If you need to continue training, please check the resume mode below and press 3. When train SRGAN, select the model file to continue training. The model file name must be XXX_srgan.pth.tar.
- (2) If you need to set a different batch size, you can fill in the batch size field below.
- (3) The trained model is placed in the model folder with a fixed name "checkpoint_srgan.pth.tar".
- (4) Since the training will continue to update "checkpoint_srgan.pth.tar", if the user needs it, please back up the "checkpoint_srgan.pth.tar" file by yourself.



4. super resolve

Select the image to be tested.

If you need to select other models for testing, please select srresnet model or srgan model in the area below.



Reference

- Please refer to the readme.txt in the APP folder.
- LEADERG AppForAI: <https://www.leaderg.com/appforai-windows>
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