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(09/09/2021)

Today i had trained faster rcnn model upto 149499 iterations with more augmemtation.

Previous Checkpoint: 138000
Test :
Augmentation : Resize(1024), HFlip

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[09/09 03:58:44 d2.evaluation.fast_eval_api]: COCOeval_opt.accumulate() finished in 0.02 seconds.
 Average Precision  (AP) @[ IoU=0.50:0.95 | area=   all | maxDets=100 ] = 0.384
 Average Precision  (AP) @[ IoU=0.50      | area=   all | maxDets=100 ] = 0.565
 Average Precision  (AP) @[ IoU=0.75      | area=   all | maxDets=100 ] = 0.415
 Average Precision  (AP) @[ IoU=0.50:0.95 | area= small | maxDets=100 ] = 0.232
 Average Precision  (AP) @[ IoU=0.50:0.95 | area=medium | maxDets=100 ] = 0.503
 Average Precision  (AP) @[ IoU=0.50:0.95 | area= large | maxDets=100 ] = 0.552
 Average Recall     (AR) @[ IoU=0.50:0.95 | area=   all | maxDets=  1 ] = 0.221
 Average Recall     (AR) @[ IoU=0.50:0.95 | area=   all | maxDets= 10 ] = 0.541
 Average Recall     (AR) @[ IoU=0.50:0.95 | area=   all | maxDets=100 ] = 0.581
 Average Recall     (AR) @[ IoU=0.50:0.95 | area= small | maxDets=100 ] = 0.404
 Average Recall     (AR) @[ IoU=0.50:0.95 | area=medium | maxDets=100 ] = 0.688
 Average Recall     (AR) @[ IoU=0.50:0.95 | area= large | maxDets=100 ] = 0.819
[09/09 03:58:44 d2.evaluation.coco_evaluation]: Evaluation results for bbox:
```

AP	AP50	AP75	APs	APm	APl
38.352	56.507	41.474	23.209	50.253	55.211

```
[09/09 03:58:44 d2.evaluation.coco_evaluation]: Per-category bbox AP:
```

category	AP	category	AP	category	AP
aeroplane	64.450	car	26.561	chair	30.293
cow	58.988	person	20.008	traffic_light	29.813

```
Total inference time: 0:02:17.554629 (0.743539 s / iter per device, on 1 devices)
Total inference pure compute time: 0:02:16 (0.740199 s / iter per device, on 1 devices)
```

Train :

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[09/09 04:08:01 d2.evaluation.fast_eval_api]: COCOeval_opt.accumulate() finished in 0.05 seconds.
 Average Precision  (AP) @[ IoU=0.50:0.95 | area=   all | maxDets=100 ] = 0.656
 Average Precision  (AP) @[ IoU=0.50      | area=   all | maxDets=100 ] = 0.865
 Average Precision  (AP) @[ IoU=0.75      | area=   all | maxDets=100 ] = 0.733
 Average Precision  (AP) @[ IoU=0.50:0.95 | area= small | maxDets=100 ] = 0.565
 Average Precision  (AP) @[ IoU=0.50:0.95 | area=medium | maxDets=100 ] = 0.743
 Average Precision  (AP) @[ IoU=0.50:0.95 | area= large | maxDets=100 ] = 0.825
 Average Recall     (AR) @[ IoU=0.50:0.95 | area=   all | maxDets=  1 ] = 0.306
 Average Recall     (AR) @[ IoU=0.50:0.95 | area=   all | maxDets= 10 ] = 0.717
 Average Recall     (AR) @[ IoU=0.50:0.95 | area=   all | maxDets=100 ] = 0.756
 Average Recall     (AR) @[ IoU=0.50:0.95 | area= small | maxDets=100 ] = 0.667
 Average Recall     (AR) @[ IoU=0.50:0.95 | area=medium | maxDets=100 ] = 0.827
 Average Recall     (AR) @[ IoU=0.50:0.95 | area= large | maxDets=100 ] = 0.912
[09/09 04:08:01 d2.evaluation.coco_evaluation]: Evaluation results for bbox:
```

AP	AP50	AP75	APs	APm	APl
65.610	86.528	73.318	56.502	74.312	82.524

```
[09/09 04:08:01 d2.evaluation.coco_evaluation]: Per-category bbox AP:
```

category	AP	category	AP	category	AP
aeroplane	88.144	car	57.644	chair	67.827
cow	74.917	person	55.569	traffic_light	49.560

```
OrderedDict([('bbox',
```

```
Total inference time: 0:08:27.085180 (0.741353 s / iter per device, on 1 devices)
Total inference pure compute time: 0:08:24 (0.738200 s / iter per device, on 1 devices)
```

Current Chechpoints : 149500 itr

Augmetation : Resize(1024),Hflip ,Random brightness , Random Rotation , Random crop

Test :

```
[09/09 14:34:01 d2.evaluation.fast_eval_api]: Evaluate annotation type *bbox*
[09/09 14:34:02 d2.evaluation.fast_eval_api]: COCOeval_opt.evaluate() finished in 0.11 seconds.
[09/09 14:34:02 d2.evaluation.fast_eval_api]: Accumulating evaluation results...
[09/09 14:34:02 d2.evaluation.fast_eval_api]: COCOeval_opt.accumulate() finished in 0.02 seconds.
 Average Precision  (AP) @[ IoU=0.50:0.95 | area=   all | maxDets=100 ] = 0.203
 Average Precision  (AP) @[ IoU=0.50      | area=   all | maxDets=100 ] = 0.520
 Average Precision  (AP) @[ IoU=0.75      | area=   all | maxDets=100 ] = 0.086
 Average Precision  (AP) @[ IoU=0.50:0.95 | area= small | maxDets=100 ] = 0.156
 Average Precision  (AP) @[ IoU=0.50:0.95 | area=medium | maxDets=100 ] = 0.287
 Average Precision  (AP) @[ IoU=0.50:0.95 | area= large | maxDets=100 ] = 0.287
 Average Recall     (AR) @[ IoU=0.50:0.95 | area=   all | maxDets=  1 ] = 0.127
 Average Recall     (AR) @[ IoU=0.50:0.95 | area=   all | maxDets= 10 ] = 0.338
 Average Recall     (AR) @[ IoU=0.50:0.95 | area=   all | maxDets=100 ] = 0.374
 Average Recall     (AR) @[ IoU=0.50:0.95 | area= small | maxDets=100 ] = 0.295
 Average Recall     (AR) @[ IoU=0.50:0.95 | area=medium | maxDets=100 ] = 0.426
 Average Recall     (AR) @[ IoU=0.50:0.95 | area= large | maxDets=100 ] = 0.498
[09/09 14:34:02 d2.evaluation.coco_evaluation]: Evaluation results for bbox:
|   AP   |  AP50  |  AP75  |  APs   |  APm   |  APl   |
|:------:|:------:|:------:|:------:|:------:|:------:|
| 20.263 | 52.047 | 8.584  | 15.602 | 28.665 | 28.670 |
[09/09 14:34:02 d2.evaluation.coco_evaluation]: Per-category bbox AP:
| category   | AP     | category   | AP     | category      | AP     |
|:-----------|:-------|:-----------|:-------|:--------------|:-------|
| aeroplane  | 27.905 | car        | 16.978 | chair         | 16.489 |
| cow        | 23.104 | person     | 13.267 | traffic_light | 23.835 |
OrderedDict([('bbox',
```

```
 Total inference time: 0:02:26.119563 (0.789835 s / iter per device, on 1 devices)
 Total inference pure compute time: 0:02:21 (0.763777 s / iter per device, on 1 devices)
```

Train :

```
 [09/09 15:03:50 d2.evaluation.fast_eval_api]: Accumulating evaluation results...
 [09/09 15:03:50 d2.evaluation.fast_eval_api]: COCOeval_opt.accumulate() finished in 0.07 seconds.
  Average Precision  (AP) @[ IoU=0.50:0.95 | area=   all | maxDets=100 ] = 0.321
  Average Precision  (AP) @[ IoU=0.50      | area=   all | maxDets=100 ] = 0.801
  Average Precision  (AP) @[ IoU=0.75      | area=   all | maxDets=100 ] = 0.116
  Average Precision  (AP) @[ IoU=0.50:0.95 | area= small | maxDets=100 ] = 0.311
  Average Precision  (AP) @[ IoU=0.50:0.95 | area=medium | maxDets=100 ] = 0.375
  Average Precision  (AP) @[ IoU=0.50:0.95 | area= large | maxDets=100 ] = 0.392
  Average Recall     (AR) @[ IoU=0.50:0.95 | area=   all | maxDets=  1 ] = 0.163
  Average Recall     (AR) @[ IoU=0.50:0.95 | area=   all | maxDets= 10 ] = 0.413
  Average Recall     (AR) @[ IoU=0.50:0.95 | area=   all | maxDets=100 ] = 0.447
  Average Recall     (AR) @[ IoU=0.50:0.95 | area= small | maxDets=100 ] = 0.412
  Average Recall     (AR) @[ IoU=0.50:0.95 | area=medium | maxDets=100 ] = 0.478
  Average Recall     (AR) @[ IoU=0.50:0.95 | area= large | maxDets=100 ] = 0.518
 [09/09 15:03:50 d2.evaluation.coco_evaluation]: Evaluation results for bbox:
 |   AP   |  AP50  |  AP75  |  APs   |  APm   |  APl   |
 |:------:|:------:|:------:|:------:|:------:|:------:|
 | 32.063 | 80.082 | 11.644 | 31.081 | 37.548 | 39.221 |
 [09/09 15:03:50 d2.evaluation.coco_evaluation]: Per-category bbox AP:
 | category   | AP     | category   | AP     | category      | AP     |
 |:-----------|:-------|:-----------|:-------|:--------------|:-------|
 | aeroplane  | 31.379 | car        | 30.986 | chair         | 36.573 |
 | cow        | 35.506 | person     | 23.276 | traffic_light | 34.657 |
 OrderedDict([('bbox',
```

```
Inference done 686/689. Dataloading: 0.0023 s/iter. Inference: 0.7593 s/iter. Eval: 0.0003
Total inference time: 0:08:41.578473 (0.762542 s / iter per device, on 1 devices)
Total inference pure compute time: 0:08:39 (0.759366 s / iter per device, on 1 devices)
```