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1) Clean the XML - This will create a new directory under ./images called cleaned. Once script is run copy the contents back to /images overwriting the existing xml

In [1]:
```python
!python xmlconversion.py --verbose
```

```
images/Car40.xml
images/LoxodontaAfricana112.xml
images/Car74.xml
images/LoxodontaAfricana025.xml
images/LoxodontaAfricana060.xml
images/Car54.xml
images/Car69.xml
images/LoxodontaAfricana100.xml
images/LoxodontaAfricana083.xml
images/Car56.xml
images/LoxodontaAfricana066.xml
images/Car73.xml
images/Car84.xml
images/LoxodontaAfricana107.xml
images/LoxodontaAfricana014.xml
images/Car120.xml
images/LoxodontaAfricana047.xml
images/LoxodontaAfricana024.xml
images/LoxodontaAfricana056.xml
images/Car02.xml
images/Car34.xml
images/LoxodontaAfricana031.xml
images/Car107.xml
images/LoxodontaAfricana001.xml
images/Car15.xml
images/LoxodontaAfricana086.xml
images/Car109.xml
images/Car65.xml
images/Car149.xml
images/LoxodontaAfricana062.xml
images/LoxodontaAfricana082.xml
images/Car55.xml
images/LoxodontaAfricana068.xml
images/LoxodontaAfricana120.xml
images/Car26.xml
images/Car77.xml
images/Car145.xml
images/LoxodontaAfricana046.xml
images/Car30.xml
```

```
images/LoxodontaAfricana111.xml
images/Car63.xml
images/Car60.xml
images/LoxodontaAfricana030.xml
images/LoxodontaAfricana094.xml
images/Car03.xml
images/LoxodontaAfricana007.xml
images/Car108.xml
images/Car80.xml
images/LoxodontaAfricana101.xml
images/Car114.xml
images/LoxodontaAfricana050.xml
images/LoxodontaAfricana092.xml
images/LoxodontaAfricana058.xml
images/LoxodontaAfricana109.xml
images/Car64.xml
images/Car130.xml
images/Car121.xml
images/LoxodontaAfricana090.xml
images/LoxodontaAfricana036.xml
images/Car68.xml
images/Car49.xml
images/LoxodontaAfricana045.xml
images/Car154.xml
images/LoxodontaAfricana073.xml
images/Car106.xml
images/Car116.xml
images/LoxodontaAfricana088.xml
images/Car04.xml
images/Car57.xml
images/Car675.xml
images/Car104.xml
images/LoxodontaAfricana076.xml
images/Car47.xml
images/LoxodontaAfricana005.xml
images/LoxodontaAfricana070.xml
images/LoxodontaAfricana028.xml
images/Car113.xml
images/Car139.xml
images/Car62.xml
images/Car140.xml
images/LoxodontaAfricana022.xml
images/Car133.xml
images/Car126.xml
images/Car67.xml
images/LoxodontaAfricana098.xml
images/Car144.xml
images/LoxodontaAfricana063.xml
images/LoxodontaAfricana102.xml
images/LoxodontaAfricana091.xml
images/LoxodontaAfricana104.xml
images/Car50.xml
images/Car18.xml
images/LoxodontaAfricana015.xml
images/LoxodontaAfricana085.xml
images/Car31.xml
images/Car36.xml
images/Car129.xml
images/LoxodontaAfricana042.xml
images/LoxodontaAfricana004.xml
images/LoxodontaAfricana016.xml
images/Car123.xml
images/Car125.xml
images/LoxodontaAfricana055.xml
images/LoxodontaAfricana020.xml
```

```
images/LoxodontaAfricana072.xml
images/LoxodontaAfricana079.xml
images/Car09.xml
images/Car22.xml
images/Car52.xml
images/Car83.xml
images/Car70.xml
images/LoxodontaAfricana096.xml
images/Car53.xml
images/Car79.xml
images/Car127.xml
images/Car48.xml
images/Car13.xml
images/Car678.xml
images/LoxodontaAfricana011.xml
images/Car06.xml
images/Car148.xml
images/LoxodontaAfricana093.xml
images/Car131.xml
images/Car118.xml
images/Car46.xml
images/Car59.xml
images/Car151.xml
images/Car132.xml
images/Car16.xml
images/Car35.xml
images/LoxodontaAfricana027.xml
images/Car142.xml
images/Car128.xml
images/Car45.xml
images/Car122.xml
images/LoxodontaAfricana040.xml
images/LoxodontaAfricana035.xml
images/Car119.xml
images/Car112.xml
images/LoxodontaAfricana105.xml
images/Car103.xml
images/LoxodontaAfricana038.xml
images/Car32.xml
images/Car24.xml
images/Car58.xml
images/LoxodontaAfricana039.xml
images/Car44.xml
images/Car11.xml
images/LoxodontaAfricana054.xml
images/LoxodontaAfricana044.xml
images/LoxodontaAfricana095.xml
images/Car117.xml
images/Car27.xml
images/Car25.xml
images/Car105.xml
images/Car153.xml
images/LoxodontaAfricana017.xml
images/LoxodontaAfricana021.xml
images/LoxodontaAfricana069.xml
images/LoxodontaAfricana089.xml
images/Car05.xml
images/Car111.xml
images/Car42.xml
images/Car10.xml
images/LoxodontaAfricana078.xml
images/LoxodontaAfricana074.xml
images/LoxodontaAfricana010.xml
images/LoxodontaAfricana033.xml
images/Car138.xml
```

```
images/LoxodontaAfricana067.xml
images/LoxodontaAfricana029.xml
images/LoxodontaAfricana013.xml
images/Car78.xml
images/Car146.xml
images/Car14.xml
images/Car75.xml
images/LoxodontaAfricana113.xml
images/LoxodontaAfricana049.xml
images/LoxodontaAfricana097.xml
images/LoxodontaAfricana061.xml
images/LoxodontaAfricana099.xml
```

Patition the train / test split 90/10

In [2]:
```
!python partition_dataset.py -x -i ./images -r 0.1
```

Create the TF Record

Update the .PBTXT file

In [5]:
```
!code './data/label_map.pbtxt'
```

Create the TF Record (Train)

In [6]:
```
!python generate_tfrecord.py -x images/train -l data/label_map.pbtxt -o data/
```

```
Successfully created the TFRecord file: data/train.record
```

Create the TF Record (Test)

In [7]:
```
!python generate_tfrecord.py -x images/test -l data/label_map.pbtxt -o data/t
```

```
Successfully created the TFRecord file: data/test.record
```

Set the model path

In [8]:
```
#PATH_TO_MODEL = "faster_rcnn_resnet101_v1_640x640_coco17_tpu-8"
PATH_TO_MODEL = "faster_rcnn_resnet101_v1_1024x1024_coco17_tpu-8"
#PATH_TO_MODEL = "efficientdet_d3_coco17_tpu-32"
#PATH_TO_MODEL = "efficientdet_d4_coco17_tpu-32"
#PATH_TO_MODEL = "centernet_hg104_1024x1024_coco17_tpu-32"
```

Configure the config file

In [9]:
```
!code './training/TF2/training/'{PATH_TO_MODEL}'/pipeline.config'
```

Hyperparameters

In [16]:
```
!python model_main_tf2.py --model_dir=training/TF2/training/{PATH_TO_MODEL} -
```

```
2021-08-10 16:21:00.398946: I tensorflow/stream_executor/platform/default/d
so_loader.cc:44] Successfully opened dynamic library libcuda.so.1
2021-08-10 16:21:00.431997: I tensorflow/stream_executor/cuda/cuda_gpu_exec
utor.cc:981] successful NUMA node read from SysFS had negative value (-1),
but there must be at least one NUMA node, so returning NUMA node zero
2021-08-10 16:21:00.432279: I tensorflow/core/common_runtime/gpu/gpu_devic
e.cc:1561] Found device 0 with properties:
pciBusID: 0000:01:00.0 name: NVIDIA GeForce RTX 2080 Ti computeCapability:
7.5
coreClock: 1.65GHz coreCount: 68 deviceMemorySize: 10.76GiB deviceMemoryBan
dwidth: 573.69GiB/s
2021-08-10 16:21:00.432392: I tensorflow/stream_executor/platform/default/d
so_loader.cc:44] Successfully opened dynamic library libcudart.so.10.1
2021-08-10 16:21:00.433245: I tensorflow/stream_executor/platform/default/d
so_loader.cc:44] Successfully opened dynamic library libcublas.so.10
2021-08-10 16:21:00.434122: I tensorflow/stream_executor/platform/default/d
so_loader.cc:44] Successfully opened dynamic library libcufft.so.10
2021-08-10 16:21:00.434252: I tensorflow/stream_executor/platform/default/d
so_loader.cc:44] Successfully opened dynamic library libcurand.so.10
2021-08-10 16:21:00.435233: I tensorflow/stream_executor/platform/default/d
so_loader.cc:44] Successfully opened dynamic library libcusolver.so.10
2021-08-10 16:21:00.435713: I tensorflow/stream_executor/platform/default/d
so_loader.cc:44] Successfully opened dynamic library libcusparse.so.10
2021-08-10 16:21:00.437607: I tensorflow/stream_executor/platform/default/d
so_loader.cc:44] Successfully opened dynamic library libcudnn.so.7
2021-08-10 16:21:00.437673: I tensorflow/stream_executor/cuda/cuda_gpu_exec
utor.cc:981] successful NUMA node read from SysFS had negative value (-1),
but there must be at least one NUMA node, so returning NUMA node zero
2021-08-10 16:21:00.437970: I tensorflow/stream_executor/cuda/cuda_gpu_exec
utor.cc:981] successful NUMA node read from SysFS had negative value (-1),
but there must be at least one NUMA node, so returning NUMA node zero
2021-08-10 16:21:00.438215: I tensorflow/core/common_runtime/gpu/gpu_devic
e.cc:1703] Adding visible gpu devices: 0
2021-08-10 16:21:00.438400: I tensorflow/core/platform/cpu_feature_guard.c
c:143] Your CPU supports instructions that this TensorFlow binary was not c
ompiled to use: SSE4.1 SSE4.2 AVX AVX2 FMA
2021-08-10 16:21:00.458832: I tensorflow/core/platform/profile_utils/cpu_ut
ils.cc:102] CPU Frequency: 3600000000 Hz
2021-08-10 16:21:00.459742: I tensorflow/compiler/xla/service/service.cc:16
8] XLA service 0x55f2ee7102a0 initialized for platform Host (this does not
guarantee that XLA will be used). Devices:
2021-08-10 16:21:00.459753: I tensorflow/compiler/xla/service/service.cc:17
6]   StreamExecutor device (0): Host, Default Version
2021-08-10 16:21:00.459893: I tensorflow/stream_executor/cuda/cuda_gpu_exec
utor.cc:981] successful NUMA node read from SysFS had negative value (-1),
but there must be at least one NUMA node, so returning NUMA node zero
2021-08-10 16:21:00.460157: I tensorflow/core/common_runtime/gpu/gpu_devic
e.cc:1561] Found device 0 with properties:
pciBusID: 0000:01:00.0 name: NVIDIA GeForce RTX 2080 Ti computeCapability:
7.5
coreClock: 1.65GHz coreCount: 68 deviceMemorySize: 10.76GiB deviceMemoryBan
dwidth: 573.69GiB/s
2021-08-10 16:21:00.460178: I tensorflow/stream_executor/platform/default/d
so_loader.cc:44] Successfully opened dynamic library libcudart.so.10.1
2021-08-10 16:21:00.460187: I tensorflow/stream_executor/platform/default/d
so_loader.cc:44] Successfully opened dynamic library libcublas.so.10
2021-08-10 16:21:00.460195: I tensorflow/stream_executor/platform/default/d
so_loader.cc:44] Successfully opened dynamic library libcufft.so.10
2021-08-10 16:21:00.460203: I tensorflow/stream_executor/platform/default/d
so_loader.cc:44] Successfully opened dynamic library libcurand.so.10
2021-08-10 16:21:00.460211: I tensorflow/stream_executor/platform/default/d
so_loader.cc:44] Successfully opened dynamic library libcusolver.so.10
2021-08-10 16:21:00.460218: I tensorflow/stream_executor/platform/default/d
so_loader.cc:44] Successfully opened dynamic library libcusparse.so.10
2021-08-10 16:21:00.460226: I tensorflow/stream_executor/platform/default/d
```

so_loader.cc:44] Successfully opened dynamic library libcudnn.so.7
2021-08-10 16:21:00.460259: I tensorflow/stream_executor/cuda/cuda_gpu_exec
utor.cc:981] successful NUMA node read from SysFS had negative value (-1),
but there must be at least one NUMA node, so returning NUMA node zero
2021-08-10 16:21:00.460565: I tensorflow/stream_executor/cuda/cuda_gpu_exec
utor.cc:981] successful NUMA node read from SysFS had negative value (-1),
but there must be at least one NUMA node, so returning NUMA node zero
2021-08-10 16:21:00.460846: I tensorflow/core/common_runtime/gpu/gpu_devic
e.cc:1703] Adding visible gpu devices: 0
2021-08-10 16:21:00.460881: I tensorflow/stream_executor/platform/default/d
so_loader.cc:44] Successfully opened dynamic library libcudart.so.10.1
2021-08-10 16:21:00.518993: I tensorflow/core/common_runtime/gpu/gpu_devic
e.cc:1102] Device interconnect StreamExecutor with strength 1 edge matrix:
2021-08-10 16:21:00.519017: I tensorflow/core/common_runtime/gpu/gpu_devic
e.cc:1108]   0
2021-08-10 16:21:00.519024: I tensorflow/core/common_runtime/gpu/gpu_devic
e.cc:1121] 0:   N
2021-08-10 16:21:00.519175: I tensorflow/stream_executor/cuda/cuda_gpu_exec
utor.cc:981] successful NUMA node read from SysFS had negative value (-1),
but there must be at least one NUMA node, so returning NUMA node zero
2021-08-10 16:21:00.519485: I tensorflow/stream_executor/cuda/cuda_gpu_exec
utor.cc:981] successful NUMA node read from SysFS had negative value (-1),
but there must be at least one NUMA node, so returning NUMA node zero
2021-08-10 16:21:00.519752: I tensorflow/stream_executor/cuda/cuda_gpu_exec
utor.cc:981] successful NUMA node read from SysFS had negative value (-1),
but there must be at least one NUMA node, so returning NUMA node zero
2021-08-10 16:21:00.520004: I tensorflow/core/common_runtime/gpu/gpu_devic
e.cc:1247] Created TensorFlow device (/job:localhost/replica:0/task:0/devic
e:GPU:0 with 9854 MB memory) -> physical GPU (device: 0, name: NVIDIA GeFor
ce RTX 2080 Ti, pci bus id: 0000:01:00.0, compute capability: 7.5)
2021-08-10 16:21:00.521124: I tensorflow/compiler/xla/service/service.cc:16
8] XLA service 0x55f2f025bfa0 initialized for platform CUDA (this does not
guarantee that XLA will be used). Devices:
2021-08-10 16:21:00.521133: I tensorflow/compiler/xla/service/service.cc:17
6]   StreamExecutor device (0): NVIDIA GeForce RTX 2080 Ti, Compute Capabil
ity 7.5
INFO:tensorflow:Using MirroredStrategy with devices ('/job:localhost/replic
a:0/task:0/device:GPU:0',)
I0810 16:21:00.522822 140670380646784 mirrored_strategy.py:500] Using Mirro
redStrategy with devices ('/job:localhost/replica:0/task:0/device:GPU:0',)
INFO:tensorflow:Maybe overwriting train_steps: 28000
I0810 16:21:00.524891 140670380646784 config_util.py:552] Maybe overwriting
train_steps: 28000
INFO:tensorflow:Maybe overwriting use_bfloat16: False
I0810 16:21:00.524950 140670380646784 config_util.py:552] Maybe overwriting
use_bfloat16: False
WARNING:tensorflow:num_readers has been reduced to 1 to match input file sh
ards.
W0810 16:21:00.819956 140670380646784 dataset_builder.py:83] num_readers ha
s been reduced to 1 to match input file shards.
WARNING:tensorflow:From /home/msc1/anaconda3/envs/Object-Detection-API/lib/
python3.7/site-packages/object_detection/builders/dataset_builder.py:100: p
arallel_interleave (from tensorflow.python.data.experimental.ops.interleave
_ops) is deprecated and will be removed in a future version.
Instructions for updating:
Use `tf.data.Dataset.interleave(map_func, cycle_length, block_length, num_p
arallel_calls=tf.data.experimental.AUTOTUNE)` instead. If sloppy execution
is desired, use `tf.data.Options.experimental_deterministic`.
W0810 16:21:00.821106 140670380646784 deprecation.py:323] From /home/msc1/a
naconda3/envs/Object-Detection-API/lib/python3.7/site-packages/object_detec
tion/builders/dataset_builder.py:100: parallel_interleave (from tensorflow.
python.data.experimental.ops.interleave_ops) is deprecated and will be remo
ved in a future version.
Instructions for updating:
Use `tf.data.Dataset.interleave(map_func, cycle_length, block_length, num_p

```
arallel_calls=tf.data.experimental.AUTOTUNE)` instead. If sloppy execution
is desired, use `tf.data.Options.experimental_deterministic`.
WARNING:tensorflow:From /home/msc1/anaconda3/envs/Object-Detection-API/lib/
python3.7/site-packages/object_detection/builders/dataset_builder.py:175: D
atasetV1.map_with_legacy_function (from tensorflow.python.data.ops.dataset_
ops) is deprecated and will be removed in a future version.
Instructions for updating:
Use `tf.data.Dataset.map()
W0810 16:21:00.830808 140670380646784 deprecation.py:323] From /home/msc1/a
naconda3/envs/Object-Detection-API/lib/python3.7/site-packages/object_detec
tion/builders/dataset_builder.py:175: DatasetV1.map_with_legacy_function (f
rom tensorflow.python.data.ops.dataset_ops) is deprecated and will be remov
ed in a future version.
Instructions for updating:
Use `tf.data.Dataset.map()
WARNING:tensorflow:From /home/msc1/anaconda3/envs/Object-Detection-API/lib/
python3.7/site-packages/object_detection/inputs.py:79: sparse_to_dense (fro
m tensorflow.python.ops.sparse_ops) is deprecated and will be removed in a
future version.
Instructions for updating:
Create a `tf.sparse.SparseTensor` and use `tf.sparse.to_dense` instead.
W0810 16:21:07.163713 140670380646784 deprecation.py:323] From /home/msc1/a
naconda3/envs/Object-Detection-API/lib/python3.7/site-packages/object_detec
tion/inputs.py:79: sparse_to_dense (from tensorflow.python.ops.sparse_ops)
is deprecated and will be removed in a future version.
Instructions for updating:
Create a `tf.sparse.SparseTensor` and use `tf.sparse.to_dense` instead.
WARNING:tensorflow:From /home/msc1/anaconda3/envs/Object-Detection-API/lib/
python3.7/site-packages/object_detection/inputs.py:259: to_float (from tens
orflow.python.ops.math_ops) is deprecated and will be removed in a future v
ersion.
Instructions for updating:
Use `tf.cast` instead.
W0810 16:21:11.229553 140670380646784 deprecation.py:323] From /home/msc1/a
naconda3/envs/Object-Detection-API/lib/python3.7/site-packages/object_detec
tion/inputs.py:259: to_float (from tensorflow.python.ops.math_ops) is depre
cated and will be removed in a future version.
Instructions for updating:
Use `tf.cast` instead.
INFO:tensorflow:depth of additional conv before box predictor: 0
I0810 16:21:18.635434 140660598363904 convolutional_keras_box_predictor.py:
154] depth of additional conv before box predictor: 0
WARNING:tensorflow:From /home/msc1/anaconda3/envs/Object-Detection-API/lib/
python3.7/site-packages/object_detection/utils/model_util.py:57: Tensor.exp
erimental_ref (from tensorflow.python.framework.ops) is deprecated and will
be removed in a future version.
Instructions for updating:
Use ref() instead.
W0810 16:21:24.904462 140660598363904 deprecation.py:323] From /home/msc1/a
naconda3/envs/Object-Detection-API/lib/python3.7/site-packages/object_detec
tion/utils/model_util.py:57: Tensor.experimental_ref (from tensorflow.pytho
n.framework.ops) is deprecated and will be removed in a future version.
Instructions for updating:
Use ref() instead.
WARNING:tensorflow:From /home/msc1/anaconda3/envs/Object-Detection-API/lib/
python3.7/site-packages/object_detection/core/losses.py:378: softmax_cross_
entropy_with_logits (from tensorflow.python.ops.nn_ops) is deprecated and w
ill be removed in a future version.
Instructions for updating:

Future major versions of TensorFlow will allow gradients to flow
into the labels input on backprop by default.

See `tf.nn.softmax_cross_entropy_with_logits_v2`.
```

```
W0810 16:21:28.865827 140660598363904 deprecation.py:323] From /home/msc1/a
naconda3/envs/Object-Detection-API/lib/python3.7/site-packages/object_detec
tion/core/losses.py:378: softmax_cross_entropy_with_logits (from tensorflo
w.python.ops.nn_ops) is deprecated and will be removed in a future version.
Instructions for updating:

Future major versions of TensorFlow will allow gradients to flow
into the labels input on backprop by default.

See `tf.nn.softmax_cross_entropy_with_logits_v2`.

2021-08-10 16:21:33.203564: I tensorflow/stream_executor/platform/default/d
so_loader.cc:44] Successfully opened dynamic library libcublas.so.10
2021-08-10 16:21:33.315207: I tensorflow/stream_executor/platform/default/d
so_loader.cc:44] Successfully opened dynamic library libcudnn.so.7
2021-08-10 16:21:33.932409: W tensorflow/stream_executor/gpu/asm_compiler.c
c:81] Running ptxas --version returned 256
2021-08-10 16:21:33.973853: W tensorflow/stream_executor/gpu/redzone_alloca
tor.cc:314] Internal: ptxas exited with non-zero error code 256, output:
Relying on driver to perform ptx compilation.
Modify $PATH to customize ptxas location.
This message will be only logged once.
INFO:tensorflow:Reduce to /job:localhost/replica:0/task:0/device:CPU:0 then
broadcast to ('/job:localhost/replica:0/task:0/device:CPU:0',).
I0810 16:21:53.489148 140670380646784 cross_device_ops.py:440] Reduce to /j
ob:localhost/replica:0/task:0/device:CPU:0 then broadcast to ('/job:localho
st/replica:0/task:0/device:CPU:0',).
INFO:tensorflow:Reduce to /job:localhost/replica:0/task:0/device:CPU:0 then
broadcast to ('/job:localhost/replica:0/task:0/device:CPU:0',).
I0810 16:21:53.489759 140670380646784 cross_device_ops.py:440] Reduce to /j
ob:localhost/replica:0/task:0/device:CPU:0 then broadcast to ('/job:localho
st/replica:0/task:0/device:CPU:0',).
INFO:tensorflow:Reduce to /job:localhost/replica:0/task:0/device:CPU:0 then
broadcast to ('/job:localhost/replica:0/task:0/device:CPU:0',).
I0810 16:21:53.490345 140670380646784 cross_device_ops.py:440] Reduce to /j
ob:localhost/replica:0/task:0/device:CPU:0 then broadcast to ('/job:localho
st/replica:0/task:0/device:CPU:0',).
INFO:tensorflow:Reduce to /job:localhost/replica:0/task:0/device:CPU:0 then
broadcast to ('/job:localhost/replica:0/task:0/device:CPU:0',).
I0810 16:21:53.490754 140670380646784 cross_device_ops.py:440] Reduce to /j
ob:localhost/replica:0/task:0/device:CPU:0 then broadcast to ('/job:localho
st/replica:0/task:0/device:CPU:0',).
INFO:tensorflow:Reduce to /job:localhost/replica:0/task:0/device:CPU:0 then
broadcast to ('/job:localhost/replica:0/task:0/device:CPU:0',).
I0810 16:21:53.491394 140670380646784 cross_device_ops.py:440] Reduce to /j
ob:localhost/replica:0/task:0/device:CPU:0 then broadcast to ('/job:localho
st/replica:0/task:0/device:CPU:0',).
INFO:tensorflow:Reduce to /job:localhost/replica:0/task:0/device:CPU:0 then
broadcast to ('/job:localhost/replica:0/task:0/device:CPU:0',).
I0810 16:21:53.491759 140670380646784 cross_device_ops.py:440] Reduce to /j
ob:localhost/replica:0/task:0/device:CPU:0 then broadcast to ('/job:localho
st/replica:0/task:0/device:CPU:0',).
INFO:tensorflow:Reduce to /job:localhost/replica:0/task:0/device:CPU:0 then
broadcast to ('/job:localhost/replica:0/task:0/device:CPU:0',).
I0810 16:21:53.492264 140670380646784 cross_device_ops.py:440] Reduce to /j
ob:localhost/replica:0/task:0/device:CPU:0 then broadcast to ('/job:localho
st/replica:0/task:0/device:CPU:0',).
INFO:tensorflow:Reduce to /job:localhost/replica:0/task:0/device:CPU:0 then
broadcast to ('/job:localhost/replica:0/task:0/device:CPU:0',).
I0810 16:21:53.492631 140670380646784 cross_device_ops.py:440] Reduce to /j
ob:localhost/replica:0/task:0/device:CPU:0 then broadcast to ('/job:localho
st/replica:0/task:0/device:CPU:0',).
INFO:tensorflow:Reduce to /job:localhost/replica:0/task:0/device:CPU:0 then
broadcast to ('/job:localhost/replica:0/task:0/device:CPU:0',).
I0810 16:21:53.493201 140670380646784 cross_device_ops.py:440] Reduce to /j
```

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ob:localhost/replica:0/task:0/device:CPU:0 then broadcast to ('/job:localho
st/replica:0/task:0/device:CPU:0',).
INFO:tensorflow:Reduce to /job:localhost/replica:0/task:0/device:CPU:0 then
broadcast to ('/job:localhost/replica:0/task:0/device:CPU:0',).
I0810 16:21:53.493557 140670380646784 cross_device_ops.py:440] Reduce to /j
ob:localhost/replica:0/task:0/device:CPU:0 then broadcast to ('/job:localho
st/replica:0/task:0/device:CPU:0',).
WARNING:tensorflow:Unresolved object in checkpoint: (root).model._groundtru
th_lists
W0810 16:21:53.681059 140670380646784 util.py:144] Unresolved object in che
ckpoint: (root).model._groundtruth_lists
WARNING:tensorflow:Unresolved object in checkpoint: (root).model._first_sta
ge_box_predictor_first_conv
W0810 16:21:53.681165 140670380646784 util.py:144] Unresolved object in che
ckpoint: (root).model._first_stage_box_predictor_first_conv
WARNING:tensorflow:Unresolved object in checkpoint: (root).model._first_sta
ge_box_predictor
W0810 16:21:53.681203 140670380646784 util.py:144] Unresolved object in che
ckpoint: (root).model._first_stage_box_predictor
WARNING:tensorflow:Unresolved object in checkpoint: (root).model._maxpool_l
ayer
W0810 16:21:53.681236 140670380646784 util.py:144] Unresolved object in che
ckpoint: (root).model._maxpool_layer
WARNING:tensorflow:Unresolved object in checkpoint: (root).model._mask_rcnn
_box_predictor
W0810 16:21:53.681268 140670380646784 util.py:144] Unresolved object in che
ckpoint: (root).model._mask_rcnn_box_predictor
WARNING:tensorflow:Unresolved object in checkpoint: (root).model._batched_p
rediction_tensor_names
W0810 16:21:53.681299 140670380646784 util.py:144] Unresolved object in che
ckpoint: (root).model._batched_prediction_tensor_names
WARNING:tensorflow:Unresolved object in checkpoint: (root).model.endpoints
W0810 16:21:53.681329 140670380646784 util.py:144] Unresolved object in che
ckpoint: (root).model.endpoints
WARNING:tensorflow:Unresolved object in checkpoint: (root).model._first_sta
ge_box_predictor_first_conv.layer_with_weights-0
W0810 16:21:53.681360 140670380646784 util.py:144] Unresolved object in che
ckpoint: (root).model._first_stage_box_predictor_first_conv.layer_with_weig
hts-0
WARNING:tensorflow:Unresolved object in checkpoint: (root).model._first_sta
ge_box_predictor_first_conv.layer-1
W0810 16:21:53.681391 140670380646784 util.py:144] Unresolved object in che
ckpoint: (root).model._first_stage_box_predictor_first_conv.layer-1
WARNING:tensorflow:Unresolved object in checkpoint: (root).model._first_sta
ge_box_predictor_first_conv.layer-2
W0810 16:21:53.681421 140670380646784 util.py:144] Unresolved object in che
ckpoint: (root).model._first_stage_box_predictor_first_conv.layer-2
WARNING:tensorflow:Unresolved object in checkpoint: (root).model._first_sta
ge_box_predictor._prediction_heads
W0810 16:21:53.681451 140670380646784 util.py:144] Unresolved object in che
ckpoint: (root).model._first_stage_box_predictor._prediction_heads
WARNING:tensorflow:Unresolved object in checkpoint: (root).model._first_sta
ge_box_predictor._sorted_head_names
W0810 16:21:53.681481 140670380646784 util.py:144] Unresolved object in che
ckpoint: (root).model._first_stage_box_predictor._sorted_head_names
WARNING:tensorflow:Unresolved object in checkpoint: (root).model._first_sta
ge_box_predictor._shared_nets
W0810 16:21:53.681511 140670380646784 util.py:144] Unresolved object in che
ckpoint: (root).model._first_stage_box_predictor._shared_nets
WARNING:tensorflow:Unresolved object in checkpoint: (root).model._mask_rcnn
_box_predictor._box_prediction_head
W0810 16:21:53.681542 140670380646784 util.py:144] Unresolved object in che
ckpoint: (root).model._mask_rcnn_box_predictor._box_prediction_head
WARNING:tensorflow:Unresolved object in checkpoint: (root).model._mask_rcnn
_box_predictor._class_prediction_head
```

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W0810 16:21:53.681572 140670380646784 util.py:144] Unresolved object in che
ckpoint: (root).model._mask_rcnn_box_predictor._class_prediction_head
WARNING:tensorflow:Unresolved object in checkpoint: (root).model._mask_rcnn
_box_predictor._third_stage_heads
W0810 16:21:53.681601 140670380646784 util.py:144] Unresolved object in che
ckpoint: (root).model._mask_rcnn_box_predictor._third_stage_heads
WARNING:tensorflow:Unresolved object in checkpoint: (root).model._first_sta
ge_box_predictor_first_conv.layer_with_weights-0._inbound_nodes
W0810 16:21:53.681645 140670380646784 util.py:144] Unresolved object in che
ckpoint: (root).model._first_stage_box_predictor_first_conv.layer_with_weig
hts-0._inbound_nodes
WARNING:tensorflow:Unresolved object in checkpoint: (root).model._first_sta
ge_box_predictor_first_conv.layer_with_weights-0.kernel
W0810 16:21:53.681676 140670380646784 util.py:144] Unresolved object in che
ckpoint: (root).model._first_stage_box_predictor_first_conv.layer_with_weig
hts-0.kernel
WARNING:tensorflow:Unresolved object in checkpoint: (root).model._first_sta
ge_box_predictor_first_conv.layer_with_weights-0.bias
W0810 16:21:53.681706 140670380646784 util.py:144] Unresolved object in che
ckpoint: (root).model._first_stage_box_predictor_first_conv.layer_with_weig
hts-0.bias
WARNING:tensorflow:Unresolved object in checkpoint: (root).model._first_sta
ge_box_predictor_first_conv.layer-1._inbound_nodes
W0810 16:21:53.681736 140670380646784 util.py:144] Unresolved object in che
ckpoint: (root).model._first_stage_box_predictor_first_conv.layer-1._inboun
d_nodes
WARNING:tensorflow:Unresolved object in checkpoint: (root).model._first_sta
ge_box_predictor_first_conv.layer-2._inbound_nodes
W0810 16:21:53.681766 140670380646784 util.py:144] Unresolved object in che
ckpoint: (root).model._first_stage_box_predictor_first_conv.layer-2._inboun
d_nodes
WARNING:tensorflow:Unresolved object in checkpoint: (root).model._first_sta
ge_box_predictor._prediction_heads.box_encodings
W0810 16:21:53.681796 140670380646784 util.py:144] Unresolved object in che
ckpoint: (root).model._first_stage_box_predictor._prediction_heads.box_enco
dings
WARNING:tensorflow:Unresolved object in checkpoint: (root).model._first_sta
ge_box_predictor._prediction_heads.class_predictions_with_background
W0810 16:21:53.681826 140670380646784 util.py:144] Unresolved object in che
ckpoint: (root).model._first_stage_box_predictor._prediction_heads.class_pr
edictions_with_background
WARNING:tensorflow:Unresolved object in checkpoint: (root).model._first_sta
ge_box_predictor._shared_nets.0
W0810 16:21:53.681857 140670380646784 util.py:144] Unresolved object in che
ckpoint: (root).model._first_stage_box_predictor._shared_nets.0
WARNING:tensorflow:Unresolved object in checkpoint: (root).model._mask_rcnn
_box_predictor._box_prediction_head._box_encoder_layers
W0810 16:21:53.681887 140670380646784 util.py:144] Unresolved object in che
ckpoint: (root).model._mask_rcnn_box_predictor._box_prediction_head._box_en
coder_layers
WARNING:tensorflow:Unresolved object in checkpoint: (root).model._mask_rcnn
_box_predictor._class_prediction_head._class_predictor_layers
W0810 16:21:53.681917 140670380646784 util.py:144] Unresolved object in che
ckpoint: (root).model._mask_rcnn_box_predictor._class_prediction_head._clas
s_predictor_layers
WARNING:tensorflow:Unresolved object in checkpoint: (root).model._first_sta
ge_box_predictor._prediction_heads.box_encodings.0
W0810 16:21:53.681988 140670380646784 util.py:144] Unresolved object in che
ckpoint: (root).model._first_stage_box_predictor._prediction_heads.box_enco
dings.0
WARNING:tensorflow:Unresolved object in checkpoint: (root).model._first_sta
ge_box_predictor._prediction_heads.class_predictions_with_background.0
W0810 16:21:53.682020 140670380646784 util.py:144] Unresolved object in che
ckpoint: (root).model._first_stage_box_predictor._prediction_heads.class_pr
edictions_with_background.0
```

WARNING:tensorflow:Unresolved object in checkpoint: (root).model._mask_rcnn
_box_predictor._box_prediction_head._box_encoder_layers.0
W0810 16:21:53.682050 140670380646784 util.py:144] Unresolved object in che
ckpoint: (root).model._mask_rcnn_box_predictor._box_prediction_head._box_en
coder_layers.0
WARNING:tensorflow:Unresolved object in checkpoint: (root).model._mask_rcnn
_box_predictor._box_prediction_head._box_encoder_layers.1
W0810 16:21:53.682081 140670380646784 util.py:144] Unresolved object in che
ckpoint: (root).model._mask_rcnn_box_predictor._box_prediction_head._box_en
coder_layers.1
WARNING:tensorflow:Unresolved object in checkpoint: (root).model._mask_rcnn
_box_predictor._box_prediction_head._box_encoder_layers.2
W0810 16:21:53.682111 140670380646784 util.py:144] Unresolved object in che
ckpoint: (root).model._mask_rcnn_box_predictor._box_prediction_head._box_en
coder_layers.2
WARNING:tensorflow:Unresolved object in checkpoint: (root).model._mask_rcnn
_box_predictor._class_prediction_head._class_predictor_layers.0
W0810 16:21:53.682141 140670380646784 util.py:144] Unresolved object in che
ckpoint: (root).model._mask_rcnn_box_predictor._class_prediction_head._clas
s_predictor_layers.0
WARNING:tensorflow:Unresolved object in checkpoint: (root).model._mask_rcnn
_box_predictor._class_prediction_head._class_predictor_layers.1
W0810 16:21:53.682172 140670380646784 util.py:144] Unresolved object in che
ckpoint: (root).model._mask_rcnn_box_predictor._class_prediction_head._clas
s_predictor_layers.1
WARNING:tensorflow:Unresolved object in checkpoint: (root).model._mask_rcnn
_box_predictor._class_prediction_head._class_predictor_layers.2
W0810 16:21:53.682202 140670380646784 util.py:144] Unresolved object in che
ckpoint: (root).model._mask_rcnn_box_predictor._class_prediction_head._clas
s_predictor_layers.2
WARNING:tensorflow:Unresolved object in checkpoint: (root).model._first_sta
ge_box_predictor._prediction_heads.box_encodings.0._box_encoder_layers
W0810 16:21:53.682232 140670380646784 util.py:144] Unresolved object in che
ckpoint: (root).model._first_stage_box_predictor._prediction_heads.box_enco
dings.0._box_encoder_layers
WARNING:tensorflow:Unresolved object in checkpoint: (root).model._first_sta
ge_box_predictor._prediction_heads.class_predictions_with_background.0._cla
ss_predictor_layers
W0810 16:21:53.682262 140670380646784 util.py:144] Unresolved object in che
ckpoint: (root).model._first_stage_box_predictor._prediction_heads.class_pr
edictions_with_background.0._class_predictor_layers
WARNING:tensorflow:Unresolved object in checkpoint: (root).model._mask_rcnn
_box_predictor._box_prediction_head._box_encoder_layers.1.kernel
W0810 16:21:53.682292 140670380646784 util.py:144] Unresolved object in che
ckpoint: (root).model._mask_rcnn_box_predictor._box_prediction_head._box_en
coder_layers.1.kernel
WARNING:tensorflow:Unresolved object in checkpoint: (root).model._mask_rcnn
_box_predictor._box_prediction_head._box_encoder_layers.1.bias
W0810 16:21:53.682322 140670380646784 util.py:144] Unresolved object in che
ckpoint: (root).model._mask_rcnn_box_predictor._box_prediction_head._box_en
coder_layers.1.bias
WARNING:tensorflow:Unresolved object in checkpoint: (root).model._mask_rcnn
_box_predictor._class_prediction_head._class_predictor_layers.1.kernel
W0810 16:21:53.682352 140670380646784 util.py:144] Unresolved object in che
ckpoint: (root).model._mask_rcnn_box_predictor._class_prediction_head._clas
s_predictor_layers.1.kernel
WARNING:tensorflow:Unresolved object in checkpoint: (root).model._mask_rcnn
_box_predictor._class_prediction_head._class_predictor_layers.1.bias
W0810 16:21:53.682382 140670380646784 util.py:144] Unresolved object in che
ckpoint: (root).model._mask_rcnn_box_predictor._class_prediction_head._clas
s_predictor_layers.1.bias
WARNING:tensorflow:Unresolved object in checkpoint: (root).model._first_sta
ge_box_predictor._prediction_heads.box_encodings.0._box_encoder_layers.0
W0810 16:21:53.682413 140670380646784 util.py:144] Unresolved object in che
ckpoint: (root).model._first_stage_box_predictor._prediction_heads.box_enco

dings.0._box_encoder_layers.0
WARNING:tensorflow:Unresolved object in checkpoint: (root).model._first_sta
ge_box_predictor._prediction_heads.class_predictions_with_background.0._cla
ss_predictor_layers.0
W0810 16:21:53.682444 140670380646784 util.py:144] Unresolved object in che
ckpoint: (root).model._first_stage_box_predictor._prediction_heads.class_pr
edictions_with_background.0._class_predictor_layers.0
WARNING:tensorflow:Unresolved object in checkpoint: (root).model._first_sta
ge_box_predictor._prediction_heads.box_encodings.0._box_encoder_layers.0.ke
rnel
W0810 16:21:53.682474 140670380646784 util.py:144] Unresolved object in che
ckpoint: (root).model._first_stage_box_predictor._prediction_heads.box_enco
dings.0._box_encoder_layers.0.kernel
WARNING:tensorflow:Unresolved object in checkpoint: (root).model._first_sta
ge_box_predictor._prediction_heads.box_encodings.0._box_encoder_layers.0.bi
as
W0810 16:21:53.682504 140670380646784 util.py:144] Unresolved object in che
ckpoint: (root).model._first_stage_box_predictor._prediction_heads.box_enco
dings.0._box_encoder_layers.0.bias
WARNING:tensorflow:Unresolved object in checkpoint: (root).model._first_sta
ge_box_predictor._prediction_heads.class_predictions_with_background.0._cla
ss_predictor_layers.0.kernel
W0810 16:21:53.682536 140670380646784 util.py:144] Unresolved object in che
ckpoint: (root).model._first_stage_box_predictor._prediction_heads.class_pr
edictions_with_background.0._class_predictor_layers.0.kernel
WARNING:tensorflow:Unresolved object in checkpoint: (root).model._first_sta
ge_box_predictor._prediction_heads.class_predictions_with_background.0._cla
ss_predictor_layers.0.bias
W0810 16:21:53.682605 140670380646784 util.py:144] Unresolved object in che
ckpoint: (root).model._first_stage_box_predictor._prediction_heads.class_pr
edictions_with_background.0._class_predictor_layers.0.bias
WARNING:tensorflow:A checkpoint was restored (e.g. tf.train.Checkpoint.rest
ore or tf.keras.Model.load_weights) but not all checkpointed values were us
ed. See above for specific issues. Use expect_partial() on the load status
 object, e.g. tf.train.Checkpoint.restore(...).expect_partial(), to silence
these warnings, or use assert_consumed() to make the check explicit. See ht
tps://www.tensorflow.org/guide/checkpoint#loading_mechanics for details.
W0810 16:21:53.682674 140670380646784 util.py:152] A checkpoint was restore
d (e.g. tf.train.Checkpoint.restore or tf.keras.Model.load_weights) but not
all checkpointed values were used. See above for specific issues. Use expec
t_partial() on the load status object, e.g. tf.train.Checkpoint.restore
(...).expect_partial(), to silence these warnings, or use assert_consumed()
to make the check explicit. See https://www.tensorflow.org/guide/checkpoint
#loading_mechanics for details.
WARNING:tensorflow:num_readers has been reduced to 1 to match input file sh
ards.
W0810 16:21:53.685918 140670380646784 dataset_builder.py:83] num_readers ha
s been reduced to 1 to match input file shards.
INFO:tensorflow:Step 100 per-step time 0.245s loss=1.670
I0810 16:23:13.035118 140670380646784 model_lib_v2.py:647] Step 100 per-ste
p time 0.245s loss=1.670
INFO:tensorflow:Step 200 per-step time 0.236s loss=2.146
I0810 16:23:35.962604 140670380646784 model_lib_v2.py:647] Step 200 per-ste
p time 0.236s loss=2.146
INFO:tensorflow:Step 300 per-step time 0.235s loss=1.791
I0810 16:23:59.646862 140670380646784 model_lib_v2.py:647] Step 300 per-ste
p time 0.235s loss=1.791
INFO:tensorflow:Step 400 per-step time 0.216s loss=1.685
I0810 16:24:23.303036 140670380646784 model_lib_v2.py:647] Step 400 per-ste
p time 0.216s loss=1.685
INFO:tensorflow:Step 500 per-step time 0.241s loss=2.957
I0810 16:24:46.790369 140670380646784 model_lib_v2.py:647] Step 500 per-ste
p time 0.241s loss=2.957
INFO:tensorflow:Step 600 per-step time 0.222s loss=0.814
I0810 16:25:10.287009 140670380646784 model_lib_v2.py:647] Step 600 per-ste

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p time 0.222s loss=0.814
INFO:tensorflow:Step 700 per-step time 0.253s loss=0.285
I0810 16:25:33.352478 140670380646784 model_lib_v2.py:647] Step 700 per-ste
p time 0.253s loss=0.285
INFO:tensorflow:Step 800 per-step time 0.212s loss=0.940
I0810 16:25:56.609001 140670380646784 model_lib_v2.py:647] Step 800 per-ste
p time 0.212s loss=0.940
INFO:tensorflow:Step 900 per-step time 0.240s loss=0.858
I0810 16:26:20.120796 140670380646784 model_lib_v2.py:647] Step 900 per-ste
p time 0.240s loss=0.858
INFO:tensorflow:Step 1000 per-step time 0.234s loss=0.494
I0810 16:26:43.326494 140670380646784 model_lib_v2.py:647] Step 1000 per-st
ep time 0.234s loss=0.494
INFO:tensorflow:Step 1100 per-step time 0.267s loss=0.449
I0810 16:27:07.460587 140670380646784 model_lib_v2.py:647] Step 1100 per-st
ep time 0.267s loss=0.449
INFO:tensorflow:Step 1200 per-step time 0.258s loss=0.281
I0810 16:27:30.804321 140670380646784 model_lib_v2.py:647] Step 1200 per-st
ep time 0.258s loss=0.281
INFO:tensorflow:Step 1300 per-step time 0.230s loss=0.932
I0810 16:27:54.096057 140670380646784 model_lib_v2.py:647] Step 1300 per-st
ep time 0.230s loss=0.932
INFO:tensorflow:Step 1400 per-step time 0.232s loss=0.722
I0810 16:28:17.013206 140670380646784 model_lib_v2.py:647] Step 1400 per-st
ep time 0.232s loss=0.722
INFO:tensorflow:Step 1500 per-step time 0.226s loss=0.688
I0810 16:28:40.497241 140670380646784 model_lib_v2.py:647] Step 1500 per-st
ep time 0.226s loss=0.688
INFO:tensorflow:Step 1600 per-step time 0.227s loss=0.477
I0810 16:29:03.520852 140670380646784 model_lib_v2.py:647] Step 1600 per-st
ep time 0.227s loss=0.477
INFO:tensorflow:Step 1700 per-step time 0.218s loss=0.869
I0810 16:29:26.537836 140670380646784 model_lib_v2.py:647] Step 1700 per-st
ep time 0.218s loss=0.869
INFO:tensorflow:Step 1800 per-step time 0.216s loss=0.764
I0810 16:29:49.738521 140670380646784 model_lib_v2.py:647] Step 1800 per-st
ep time 0.216s loss=0.764
INFO:tensorflow:Step 1900 per-step time 0.228s loss=0.187
I0810 16:30:13.101967 140670380646784 model_lib_v2.py:647] Step 1900 per-st
ep time 0.228s loss=0.187
INFO:tensorflow:Step 2000 per-step time 0.229s loss=0.401
I0810 16:30:36.613879 140670380646784 model_lib_v2.py:647] Step 2000 per-st
ep time 0.229s loss=0.401
INFO:tensorflow:Step 2100 per-step time 0.219s loss=1.632
I0810 16:31:00.157021 140670380646784 model_lib_v2.py:647] Step 2100 per-st
ep time 0.219s loss=1.632
INFO:tensorflow:Step 2200 per-step time 0.238s loss=0.483
I0810 16:31:23.472338 140670380646784 model_lib_v2.py:647] Step 2200 per-st
ep time 0.238s loss=0.483
INFO:tensorflow:Step 2300 per-step time 0.217s loss=0.155
I0810 16:31:46.736896 140670380646784 model_lib_v2.py:647] Step 2300 per-st
ep time 0.217s loss=0.155
INFO:tensorflow:Step 2400 per-step time 0.219s loss=0.536
I0810 16:32:09.919340 140670380646784 model_lib_v2.py:647] Step 2400 per-st
ep time 0.219s loss=0.536
INFO:tensorflow:Step 2500 per-step time 0.247s loss=0.597
I0810 16:32:33.192565 140670380646784 model_lib_v2.py:647] Step 2500 per-st
ep time 0.247s loss=0.597
INFO:tensorflow:Step 2600 per-step time 0.227s loss=0.147
I0810 16:32:56.270463 140670380646784 model_lib_v2.py:647] Step 2600 per-st
ep time 0.227s loss=0.147
INFO:tensorflow:Step 2700 per-step time 0.232s loss=0.713
I0810 16:33:19.451686 140670380646784 model_lib_v2.py:647] Step 2700 per-st
ep time 0.232s loss=0.713
INFO:tensorflow:Step 2800 per-step time 0.252s loss=0.361
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I0810 16:33:42.696951 140670380646784 model_lib_v2.py:647] Step 2800 per-st
ep time 0.252s loss=0.361
INFO:tensorflow:Step 2900 per-step time 0.241s loss=1.083
I0810 16:34:05.956608 140670380646784 model_lib_v2.py:647] Step 2900 per-st
ep time 0.241s loss=1.083
INFO:tensorflow:Step 3000 per-step time 0.205s loss=0.418
I0810 16:34:29.311135 140670380646784 model_lib_v2.py:647] Step 3000 per-st
ep time 0.205s loss=0.418
INFO:tensorflow:Step 3100 per-step time 0.230s loss=0.702
I0810 16:34:53.017369 140670380646784 model_lib_v2.py:647] Step 3100 per-st
ep time 0.230s loss=0.702
INFO:tensorflow:Step 3200 per-step time 0.193s loss=0.068
I0810 16:35:16.068166 140670380646784 model_lib_v2.py:647] Step 3200 per-st
ep time 0.193s loss=0.068
INFO:tensorflow:Step 3300 per-step time 0.238s loss=0.318
I0810 16:35:39.216750 140670380646784 model_lib_v2.py:647] Step 3300 per-st
ep time 0.238s loss=0.318
INFO:tensorflow:Step 3400 per-step time 0.228s loss=0.240
I0810 16:36:02.385932 140670380646784 model_lib_v2.py:647] Step 3400 per-st
ep time 0.228s loss=0.240
INFO:tensorflow:Step 3500 per-step time 0.232s loss=0.247
I0810 16:36:25.534727 140670380646784 model_lib_v2.py:647] Step 3500 per-st
ep time 0.232s loss=0.247
INFO:tensorflow:Step 3600 per-step time 0.241s loss=0.105
I0810 16:36:48.793212 140670380646784 model_lib_v2.py:647] Step 3600 per-st
ep time 0.241s loss=0.105
INFO:tensorflow:Step 3700 per-step time 0.231s loss=0.335
I0810 16:37:11.877717 140670380646784 model_lib_v2.py:647] Step 3700 per-st
ep time 0.231s loss=0.335
INFO:tensorflow:Step 3800 per-step time 0.221s loss=0.202
I0810 16:37:35.176942 140670380646784 model_lib_v2.py:647] Step 3800 per-st
ep time 0.221s loss=0.202
INFO:tensorflow:Step 3900 per-step time 0.209s loss=0.573
I0810 16:37:58.104497 140670380646784 model_lib_v2.py:647] Step 3900 per-st
ep time 0.209s loss=0.573
INFO:tensorflow:Step 4000 per-step time 0.249s loss=0.402
I0810 16:38:21.413947 140670380646784 model_lib_v2.py:647] Step 4000 per-st
ep time 0.249s loss=0.402
INFO:tensorflow:Step 4100 per-step time 0.235s loss=0.314
I0810 16:38:45.152913 140670380646784 model_lib_v2.py:647] Step 4100 per-st
ep time 0.235s loss=0.314
INFO:tensorflow:Step 4200 per-step time 0.237s loss=1.175
I0810 16:39:08.483064 140670380646784 model_lib_v2.py:647] Step 4200 per-st
ep time 0.237s loss=1.175
INFO:tensorflow:Step 4300 per-step time 0.258s loss=0.723
I0810 16:39:31.689286 140670380646784 model_lib_v2.py:647] Step 4300 per-st
ep time 0.258s loss=0.723
INFO:tensorflow:Step 4400 per-step time 0.252s loss=0.507
I0810 16:39:54.860706 140670380646784 model_lib_v2.py:647] Step 4400 per-st
ep time 0.252s loss=0.507
INFO:tensorflow:Step 4500 per-step time 0.219s loss=0.640
I0810 16:40:17.885951 140670380646784 model_lib_v2.py:647] Step 4500 per-st
ep time 0.219s loss=0.640
INFO:tensorflow:Step 4600 per-step time 0.233s loss=0.166
I0810 16:40:41.042086 140670380646784 model_lib_v2.py:647] Step 4600 per-st
ep time 0.233s loss=0.166
INFO:tensorflow:Step 4700 per-step time 0.243s loss=0.164
I0810 16:41:04.209331 140670380646784 model_lib_v2.py:647] Step 4700 per-st
ep time 0.243s loss=0.164
INFO:tensorflow:Step 4800 per-step time 0.236s loss=0.241
I0810 16:41:27.176967 140670380646784 model_lib_v2.py:647] Step 4800 per-st
ep time 0.236s loss=0.241
INFO:tensorflow:Step 4900 per-step time 0.315s loss=0.098
I0810 16:41:49.854887 140670380646784 model_lib_v2.py:647] Step 4900 per-st
ep time 0.315s loss=0.098
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        INFO:tensorflow:Step 5000 per-step time 0.227s loss=0.102
        I0810 16:42:13.090847 140670380646784 model_lib_v2.py:647] Step 5000 per-st
        ep time 0.227s loss=0.102
        INFO:tensorflow:Step 5100 per-step time 0.229s loss=0.093
        I0810 16:42:36.624682 140670380646784 model_lib_v2.py:647] Step 5100 per-st
        ep time 0.229s loss=0.093
        INFO:tensorflow:Step 5200 per-step time 0.249s loss=0.244
        I0810 16:42:59.978870 140670380646784 model_lib_v2.py:647] Step 5200 per-st
        ep time 0.249s loss=0.244
        INFO:tensorflow:Step 5300 per-step time 0.285s loss=0.138
        I0810 16:43:23.275139 140670380646784 model_lib_v2.py:647] Step 5300 per-st
        ep time 0.285s loss=0.138
        INFO:tensorflow:Step 5400 per-step time 0.241s loss=0.121
        I0810 16:43:46.548533 140670380646784 model_lib_v2.py:647] Step 5400 per-st
        ep time 0.241s loss=0.121
        INFO:tensorflow:Step 5500 per-step time 0.234s loss=0.182
        I0810 16:44:09.529745 140670380646784 model_lib_v2.py:647] Step 5500 per-st
        ep time 0.234s loss=0.182
        INFO:tensorflow:Step 5600 per-step time 0.261s loss=0.062
        I0810 16:44:32.743717 140670380646784 model_lib_v2.py:647] Step 5600 per-st
        ep time 0.261s loss=0.062
        INFO:tensorflow:Step 5700 per-step time 0.212s loss=0.560
        I0810 16:44:55.958683 140670380646784 model_lib_v2.py:647] Step 5700 per-st
        ep time 0.212s loss=0.560
        INFO:tensorflow:Step 5800 per-step time 0.242s loss=0.333
        I0810 16:45:19.171371 140670380646784 model_lib_v2.py:647] Step 5800 per-st
        ep time 0.242s loss=0.333
        INFO:tensorflow:Step 5900 per-step time 0.231s loss=0.079
        I0810 16:45:42.356617 140670380646784 model_lib_v2.py:647] Step 5900 per-st
        ep time 0.231s loss=0.079
        INFO:tensorflow:Step 6000 per-step time 0.239s loss=0.333
        I0810 16:46:05.662393 140670380646784 model_lib_v2.py:647] Step 6000 per-st
        ep time 0.239s loss=0.333
        INFO:tensorflow:Step 6100 per-step time 0.222s loss=0.233
        I0810 16:46:29.333603 140670380646784 model_lib_v2.py:647] Step 6100 per-st
        ep time 0.222s loss=0.233
        INFO:tensorflow:Step 6200 per-step time 0.246s loss=0.191
        I0810 16:46:52.636635 140670380646784 model_lib_v2.py:647] Step 6200 per-st
        ep time 0.246s loss=0.191
        INFO:tensorflow:Step 6300 per-step time 0.222s loss=0.086
        I0810 16:47:15.962204 140670380646784 model_lib_v2.py:647] Step 6300 per-st
        ep time 0.222s loss=0.086
        INFO:tensorflow:Step 6400 per-step time 0.231s loss=1.014
        I0810 16:47:39.024216 140670380646784 model_lib_v2.py:647] Step 6400 per-st
        ep time 0.231s loss=1.014
        INFO:tensorflow:Step 6500 per-step time 0.239s loss=0.087
        I0810 16:48:02.274997 140670380646784 model_lib_v2.py:647] Step 6500 per-st
        ep time 0.239s loss=0.087
        INFO:tensorflow:Step 6600 per-step time 0.204s loss=0.108
        I0810 16:48:25.355215 140670380646784 model_lib_v2.py:647] Step 6600 per-st
        ep time 0.204s loss=0.108
        INFO:tensorflow:Step 6700 per-step time 0.234s loss=1.086
        I0810 16:48:48.500742 140670380646784 model_lib_v2.py:647] Step 6700 per-st
        ep time 0.234s loss=1.086
        INFO:tensorflow:Step 6800 per-step time 0.251s loss=0.450
        I0810 16:49:11.706913 140670380646784 model_lib_v2.py:647] Step 6800 per-st
        ep time 0.251s loss=0.450
        INFO:tensorflow:Step 6900 per-step time 0.229s loss=0.053
        I0810 16:49:35.089702 140670380646784 model_lib_v2.py:647] Step 6900 per-st
        ep time 0.229s loss=0.053
        INFO:tensorflow:Step 7000 per-step time 0.254s loss=0.316
        I0810 16:49:58.320200 140670380646784 model_lib_v2.py:647] Step 7000 per-st
        ep time 0.254s loss=0.316
        INFO:tensorflow:Step 7100 per-step time 0.239s loss=0.069
        I0810 16:50:21.985937 140670380646784 model_lib_v2.py:647] Step 7100 per-st
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ep time 0.239s loss=0.069
INFO:tensorflow:Step 7200 per-step time 0.240s loss=0.251
I0810 16:50:45.324851 140670380646784 model_lib_v2.py:647] Step 7200 per-st
ep time 0.240s loss=0.251
INFO:tensorflow:Step 7300 per-step time 0.233s loss=0.085
I0810 16:51:08.600366 140670380646784 model_lib_v2.py:647] Step 7300 per-st
ep time 0.233s loss=0.085
INFO:tensorflow:Step 7400 per-step time 0.246s loss=0.051
I0810 16:51:32.187613 140670380646784 model_lib_v2.py:647] Step 7400 per-st
ep time 0.246s loss=0.051
INFO:tensorflow:Step 7500 per-step time 0.238s loss=0.339
I0810 16:51:55.277574 140670380646784 model_lib_v2.py:647] Step 7500 per-st
ep time 0.238s loss=0.339
INFO:tensorflow:Step 7600 per-step time 0.204s loss=0.110
I0810 16:52:18.460774 140670380646784 model_lib_v2.py:647] Step 7600 per-st
ep time 0.204s loss=0.110
INFO:tensorflow:Step 7700 per-step time 0.307s loss=0.072
I0810 16:52:41.876444 140670380646784 model_lib_v2.py:647] Step 7700 per-st
ep time 0.307s loss=0.072
INFO:tensorflow:Step 7800 per-step time 0.264s loss=0.221
I0810 16:53:05.057981 140670380646784 model_lib_v2.py:647] Step 7800 per-st
ep time 0.264s loss=0.221
INFO:tensorflow:Step 7900 per-step time 0.229s loss=0.312
I0810 16:53:27.911303 140670380646784 model_lib_v2.py:647] Step 7900 per-st
ep time 0.229s loss=0.312
INFO:tensorflow:Step 8000 per-step time 0.229s loss=0.107
I0810 16:53:51.193548 140670380646784 model_lib_v2.py:647] Step 8000 per-st
ep time 0.229s loss=0.107
INFO:tensorflow:Step 8100 per-step time 0.236s loss=0.141
I0810 16:54:14.875737 140670380646784 model_lib_v2.py:647] Step 8100 per-st
ep time 0.236s loss=0.141
INFO:tensorflow:Step 8200 per-step time 0.231s loss=0.262
I0810 16:54:37.900974 140670380646784 model_lib_v2.py:647] Step 8200 per-st
ep time 0.231s loss=0.262
INFO:tensorflow:Step 8300 per-step time 0.234s loss=0.661
I0810 16:55:00.990568 140670380646784 model_lib_v2.py:647] Step 8300 per-st
ep time 0.234s loss=0.661
INFO:tensorflow:Step 8400 per-step time 0.232s loss=0.447
I0810 16:55:24.159552 140670380646784 model_lib_v2.py:647] Step 8400 per-st
ep time 0.232s loss=0.447
INFO:tensorflow:Step 8500 per-step time 0.241s loss=0.157
I0810 16:55:47.638538 140670380646784 model_lib_v2.py:647] Step 8500 per-st
ep time 0.241s loss=0.157
INFO:tensorflow:Step 8600 per-step time 0.241s loss=0.554
I0810 16:56:10.802352 140670380646784 model_lib_v2.py:647] Step 8600 per-st
ep time 0.241s loss=0.554
INFO:tensorflow:Step 8700 per-step time 0.208s loss=0.085
I0810 16:56:34.014420 140670380646784 model_lib_v2.py:647] Step 8700 per-st
ep time 0.208s loss=0.085
INFO:tensorflow:Step 8800 per-step time 0.230s loss=0.097
I0810 16:56:57.439535 140670380646784 model_lib_v2.py:647] Step 8800 per-st
ep time 0.230s loss=0.097
INFO:tensorflow:Step 8900 per-step time 0.205s loss=0.212
I0810 16:57:20.777597 140670380646784 model_lib_v2.py:647] Step 8900 per-st
ep time 0.205s loss=0.212
INFO:tensorflow:Step 9000 per-step time 0.221s loss=0.377
I0810 16:57:43.836417 140670380646784 model_lib_v2.py:647] Step 9000 per-st
ep time 0.221s loss=0.377
INFO:tensorflow:Step 9100 per-step time 0.245s loss=0.582
I0810 16:58:07.585140 140670380646784 model_lib_v2.py:647] Step 9100 per-st
ep time 0.245s loss=0.582
INFO:tensorflow:Step 9200 per-step time 0.238s loss=0.199
I0810 16:58:30.529732 140670380646784 model_lib_v2.py:647] Step 9200 per-st
ep time 0.238s loss=0.199
INFO:tensorflow:Step 9300 per-step time 0.237s loss=0.052
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           I0810 16:58:53.761811 140670380646784 model_lib_v2.py:647] Step 9300 per-st
           ep time 0.237s loss=0.052
           INFO:tensorflow:Step 9400 per-step time 0.230s loss=0.080
           I0810 16:59:16.973029 140670380646784 model_lib_v2.py:647] Step 9400 per-st
           ep time 0.230s loss=0.080
           INFO:tensorflow:Step 9500 per-step time 0.246s loss=0.090
           I0810 16:59:40.116055 140670380646784 model_lib_v2.py:647] Step 9500 per-st
           ep time 0.246s loss=0.090
           INFO:tensorflow:Step 9600 per-step time 0.266s loss=0.091
           I0810 17:00:03.048329 140670380646784 model_lib_v2.py:647] Step 9600 per-st
           ep time 0.266s loss=0.091
           INFO:tensorflow:Step 9700 per-step time 0.244s loss=0.120
           I0810 17:00:25.983389 140670380646784 model_lib_v2.py:647] Step 9700 per-st
           ep time 0.244s loss=0.120
           INFO:tensorflow:Step 9800 per-step time 0.243s loss=0.350
           I0810 17:00:49.069720 140670380646784 model_lib_v2.py:647] Step 9800 per-st
           ep time 0.243s loss=0.350
           INFO:tensorflow:Step 9900 per-step time 0.242s loss=0.177
           I0810 17:01:11.826941 140670380646784 model_lib_v2.py:647] Step 9900 per-st
           ep time 0.242s loss=0.177
           INFO:tensorflow:Step 10000 per-step time 0.249s loss=0.217
           I0810 17:01:35.086033 140670380646784 model_lib_v2.py:647] Step 10000 per-s
           tep time 0.249s loss=0.217
           INFO:tensorflow:Step 10100 per-step time 0.245s loss=0.065
           I0810 17:01:58.848036 140670380646784 model_lib_v2.py:647] Step 10100 per-s
           tep time 0.245s loss=0.065
           INFO:tensorflow:Step 10200 per-step time 0.259s loss=0.234
           I0810 17:02:22.319729 140670380646784 model_lib_v2.py:647] Step 10200 per-s
           tep time 0.259s loss=0.234
           INFO:tensorflow:Step 10300 per-step time 0.238s loss=0.252
           I0810 17:02:45.466959 140670380646784 model_lib_v2.py:647] Step 10300 per-s
           tep time 0.238s loss=0.252
           INFO:tensorflow:Step 10400 per-step time 0.228s loss=0.279
           I0810 17:03:08.760203 140670380646784 model_lib_v2.py:647] Step 10400 per-s
           tep time 0.228s loss=0.279
           INFO:tensorflow:Step 10500 per-step time 0.229s loss=0.053
           I0810 17:03:32.222997 140670380646784 model_lib_v2.py:647] Step 10500 per-s
           tep time 0.229s loss=0.053
           INFO:tensorflow:Step 10600 per-step time 0.246s loss=0.219
           I0810 17:03:55.473987 140670380646784 model_lib_v2.py:647] Step 10600 per-s
           tep time 0.246s loss=0.219
           INFO:tensorflow:Step 10700 per-step time 0.230s loss=0.058
           I0810 17:04:18.540434 140670380646784 model_lib_v2.py:647] Step 10700 per-s
           tep time 0.230s loss=0.058
           INFO:tensorflow:Step 10800 per-step time 0.227s loss=0.071
           I0810 17:04:41.536039 140670380646784 model_lib_v2.py:647] Step 10800 per-s
           tep time 0.227s loss=0.071
           INFO:tensorflow:Step 10900 per-step time 0.211s loss=0.571
           I0810 17:05:04.617599 140670380646784 model_lib_v2.py:647] Step 10900 per-s
           tep time 0.211s loss=0.571
           INFO:tensorflow:Step 11000 per-step time 0.237s loss=0.266
           I0810 17:05:27.807526 140670380646784 model_lib_v2.py:647] Step 11000 per-s
           tep time 0.237s loss=0.266
           INFO:tensorflow:Step 11100 per-step time 0.264s loss=0.069
           I0810 17:05:52.008595 140670380646784 model_lib_v2.py:647] Step 11100 per-s
           tep time 0.264s loss=0.069
           INFO:tensorflow:Step 11200 per-step time 0.229s loss=0.605
           I0810 17:06:15.319464 140670380646784 model_lib_v2.py:647] Step 11200 per-s
           tep time 0.229s loss=0.605
           INFO:tensorflow:Step 11300 per-step time 0.260s loss=0.151
           I0810 17:06:38.304998 140670380646784 model_lib_v2.py:647] Step 11300 per-s
           tep time 0.260s loss=0.151
           INFO:tensorflow:Step 11400 per-step time 0.200s loss=0.224
           I0810 17:07:01.271577 140670380646784 model_lib_v2.py:647] Step 11400 per-s
           tep time 0.200s loss=0.224
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INFO:tensorflow:Step 11500 per-step time 0.222s loss=0.116
I0810 17:07:24.099948 140670380646784 model_lib_v2.py:647] Step 11500 per-s
tep time 0.222s loss=0.116
INFO:tensorflow:Step 11600 per-step time 0.246s loss=0.375
I0810 17:07:47.552819 140670380646784 model_lib_v2.py:647] Step 11600 per-s
tep time 0.246s loss=0.375
INFO:tensorflow:Step 11700 per-step time 0.233s loss=0.041
I0810 17:08:10.524134 140670380646784 model_lib_v2.py:647] Step 11700 per-s
tep time 0.233s loss=0.041
INFO:tensorflow:Step 11800 per-step time 0.225s loss=0.063
I0810 17:08:33.986558 140670380646784 model_lib_v2.py:647] Step 11800 per-s
tep time 0.225s loss=0.063
INFO:tensorflow:Step 11900 per-step time 0.254s loss=0.221
I0810 17:08:57.222794 140670380646784 model_lib_v2.py:647] Step 11900 per-s
tep time 0.254s loss=0.221
INFO:tensorflow:Step 12000 per-step time 0.244s loss=0.099
I0810 17:09:20.576633 140670380646784 model_lib_v2.py:647] Step 12000 per-s
tep time 0.244s loss=0.099
INFO:tensorflow:Step 12100 per-step time 0.245s loss=0.090
I0810 17:09:44.014352 140670380646784 model_lib_v2.py:647] Step 12100 per-s
tep time 0.245s loss=0.090
INFO:tensorflow:Step 12200 per-step time 0.268s loss=0.116
I0810 17:10:07.160665 140670380646784 model_lib_v2.py:647] Step 12200 per-s
tep time 0.268s loss=0.116
INFO:tensorflow:Step 12300 per-step time 0.230s loss=0.169
I0810 17:10:30.573750 140670380646784 model_lib_v2.py:647] Step 12300 per-s
tep time 0.230s loss=0.169
INFO:tensorflow:Step 12400 per-step time 0.229s loss=0.028
I0810 17:10:53.805509 140670380646784 model_lib_v2.py:647] Step 12400 per-s
tep time 0.229s loss=0.028
INFO:tensorflow:Step 12500 per-step time 0.203s loss=0.092
I0810 17:11:17.097300 140670380646784 model_lib_v2.py:647] Step 12500 per-s
tep time 0.203s loss=0.092
INFO:tensorflow:Step 12600 per-step time 0.209s loss=0.074
I0810 17:11:40.454610 140670380646784 model_lib_v2.py:647] Step 12600 per-s
tep time 0.209s loss=0.074
INFO:tensorflow:Step 12700 per-step time 0.289s loss=0.079
I0810 17:12:03.735634 140670380646784 model_lib_v2.py:647] Step 12700 per-s
tep time 0.289s loss=0.079
INFO:tensorflow:Step 12800 per-step time 0.230s loss=0.289
I0810 17:12:26.964136 140670380646784 model_lib_v2.py:647] Step 12800 per-s
tep time 0.230s loss=0.289
INFO:tensorflow:Step 12900 per-step time 0.236s loss=0.200
I0810 17:12:49.909892 140670380646784 model_lib_v2.py:647] Step 12900 per-s
tep time 0.236s loss=0.200
INFO:tensorflow:Step 13000 per-step time 0.247s loss=0.371
I0810 17:13:13.175641 140670380646784 model_lib_v2.py:647] Step 13000 per-s
tep time 0.247s loss=0.371
INFO:tensorflow:Step 13100 per-step time 0.220s loss=0.155
I0810 17:13:36.886242 140670380646784 model_lib_v2.py:647] Step 13100 per-s
tep time 0.220s loss=0.155
INFO:tensorflow:Step 13200 per-step time 0.248s loss=0.684
I0810 17:14:00.091746 140670380646784 model_lib_v2.py:647] Step 13200 per-s
tep time 0.248s loss=0.684
INFO:tensorflow:Step 13300 per-step time 0.209s loss=0.046
I0810 17:14:23.459130 140670380646784 model_lib_v2.py:647] Step 13300 per-s
tep time 0.209s loss=0.046
INFO:tensorflow:Step 13400 per-step time 0.210s loss=0.137
I0810 17:14:46.572510 140670380646784 model_lib_v2.py:647] Step 13400 per-s
tep time 0.210s loss=0.137
INFO:tensorflow:Step 13500 per-step time 0.233s loss=0.172
I0810 17:15:09.640701 140670380646784 model_lib_v2.py:647] Step 13500 per-s
tep time 0.233s loss=0.172
INFO:tensorflow:Step 13600 per-step time 0.237s loss=0.095
I0810 17:15:32.825568 140670380646784 model_lib_v2.py:647] Step 13600 per-s
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tep time 0.237s loss=0.095
INFO:tensorflow:Step 13700 per-step time 0.221s loss=0.044
I0810 17:15:55.820251 140670380646784 model_lib_v2.py:647] Step 13700 per-s
tep time 0.221s loss=0.044
INFO:tensorflow:Step 13800 per-step time 0.207s loss=0.042
I0810 17:16:19.100350 140670380646784 model_lib_v2.py:647] Step 13800 per-s
tep time 0.207s loss=0.042
INFO:tensorflow:Step 13900 per-step time 0.231s loss=0.080
I0810 17:16:42.425421 140670380646784 model_lib_v2.py:647] Step 13900 per-s
tep time 0.231s loss=0.080
INFO:tensorflow:Step 14000 per-step time 0.234s loss=0.069
I0810 17:17:05.477955 140670380646784 model_lib_v2.py:647] Step 14000 per-s
tep time 0.234s loss=0.069
INFO:tensorflow:Step 14100 per-step time 0.233s loss=0.110
I0810 17:17:29.244670 140670380646784 model_lib_v2.py:647] Step 14100 per-s
tep time 0.233s loss=0.110
INFO:tensorflow:Step 14200 per-step time 0.205s loss=0.027
I0810 17:17:52.402452 140670380646784 model_lib_v2.py:647] Step 14200 per-s
tep time 0.205s loss=0.027
INFO:tensorflow:Step 14300 per-step time 0.240s loss=0.081
I0810 17:18:15.546598 140670380646784 model_lib_v2.py:647] Step 14300 per-s
tep time 0.240s loss=0.081
INFO:tensorflow:Step 14400 per-step time 0.228s loss=0.024
I0810 17:18:38.747485 140670380646784 model_lib_v2.py:647] Step 14400 per-s
tep time 0.228s loss=0.024
INFO:tensorflow:Step 14500 per-step time 0.221s loss=0.209
I0810 17:19:01.902184 140670380646784 model_lib_v2.py:647] Step 14500 per-s
tep time 0.221s loss=0.209
INFO:tensorflow:Step 14600 per-step time 0.225s loss=0.104
I0810 17:19:25.200657 140670380646784 model_lib_v2.py:647] Step 14600 per-s
tep time 0.225s loss=0.104
INFO:tensorflow:Step 14700 per-step time 0.224s loss=0.119
I0810 17:19:48.252292 140670380646784 model_lib_v2.py:647] Step 14700 per-s
tep time 0.224s loss=0.119
INFO:tensorflow:Step 14800 per-step time 0.228s loss=0.847
I0810 17:20:11.237196 140670380646784 model_lib_v2.py:647] Step 14800 per-s
tep time 0.228s loss=0.847
INFO:tensorflow:Step 14900 per-step time 0.229s loss=0.114
I0810 17:20:34.491459 140670380646784 model_lib_v2.py:647] Step 14900 per-s
tep time 0.229s loss=0.114
INFO:tensorflow:Step 15000 per-step time 0.216s loss=0.545
I0810 17:20:57.653941 140670380646784 model_lib_v2.py:647] Step 15000 per-s
tep time 0.216s loss=0.545
INFO:tensorflow:Step 15100 per-step time 0.259s loss=0.037
I0810 17:21:21.534740 140670380646784 model_lib_v2.py:647] Step 15100 per-s
tep time 0.259s loss=0.037
INFO:tensorflow:Step 15200 per-step time 0.238s loss=0.111
I0810 17:21:44.905044 140670380646784 model_lib_v2.py:647] Step 15200 per-s
tep time 0.238s loss=0.111
INFO:tensorflow:Step 15300 per-step time 0.229s loss=0.126
I0810 17:22:07.967046 140670380646784 model_lib_v2.py:647] Step 15300 per-s
tep time 0.229s loss=0.126
INFO:tensorflow:Step 15400 per-step time 0.206s loss=0.064
I0810 17:22:30.881189 140670380646784 model_lib_v2.py:647] Step 15400 per-s
tep time 0.206s loss=0.064
INFO:tensorflow:Step 15500 per-step time 0.235s loss=0.917
I0810 17:22:54.096278 140670380646784 model_lib_v2.py:647] Step 15500 per-s
tep time 0.235s loss=0.917
INFO:tensorflow:Step 15600 per-step time 0.272s loss=0.068
I0810 17:23:17.507810 140670380646784 model_lib_v2.py:647] Step 15600 per-s
tep time 0.272s loss=0.068
INFO:tensorflow:Step 15700 per-step time 0.237s loss=0.049
I0810 17:23:40.490165 140670380646784 model_lib_v2.py:647] Step 15700 per-s
tep time 0.237s loss=0.049
INFO:tensorflow:Step 15800 per-step time 0.243s loss=0.034
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                    I0810 17:24:03.705418 140670380646784 model_lib_v2.py:647] Step 15800 per-s
                    tep time 0.243s loss=0.034
                    INFO:tensorflow:Step 15900 per-step time 0.237s loss=0.275
                    I0810 17:24:27.030661 140670380646784 model_lib_v2.py:647] Step 15900 per-s
                    tep time 0.237s loss=0.275
                    INFO:tensorflow:Step 16000 per-step time 0.247s loss=0.213
                    I0810 17:24:50.280533 140670380646784 model_lib_v2.py:647] Step 16000 per-s
                    tep time 0.247s loss=0.213
                    INFO:tensorflow:Step 16100 per-step time 0.227s loss=0.030
                    I0810 17:25:13.966457 140670380646784 model_lib_v2.py:647] Step 16100 per-s
                    tep time 0.227s loss=0.030
                    INFO:tensorflow:Step 16200 per-step time 0.227s loss=0.032
                    I0810 17:25:37.052838 140670380646784 model_lib_v2.py:647] Step 16200 per-s
                    tep time 0.227s loss=0.032
                    INFO:tensorflow:Step 16300 per-step time 0.249s loss=0.076
                    I0810 17:26:00.137248 140670380646784 model_lib_v2.py:647] Step 16300 per-s
                    tep time 0.249s loss=0.076
                    INFO:tensorflow:Step 16400 per-step time 0.201s loss=0.091
                    I0810 17:26:23.477724 140670380646784 model_lib_v2.py:647] Step 16400 per-s
                    tep time 0.201s loss=0.091
                    INFO:tensorflow:Step 16500 per-step time 0.232s loss=0.031
                    I0810 17:26:46.909275 140670380646784 model_lib_v2.py:647] Step 16500 per-s
                    tep time 0.232s loss=0.031
                    INFO:tensorflow:Step 16600 per-step time 0.204s loss=0.028
                    I0810 17:27:10.114312 140670380646784 model_lib_v2.py:647] Step 16600 per-s
                    tep time 0.204s loss=0.028
                    INFO:tensorflow:Step 16700 per-step time 0.220s loss=0.211
                    I0810 17:27:33.079387 140670380646784 model_lib_v2.py:647] Step 16700 per-s
                    tep time 0.220s loss=0.211
                    INFO:tensorflow:Step 16800 per-step time 0.227s loss=0.768
                    I0810 17:27:56.159826 140670380646784 model_lib_v2.py:647] Step 16800 per-s
                    tep time 0.227s loss=0.768
                    INFO:tensorflow:Step 16900 per-step time 0.218s loss=0.021
                    I0810 17:28:19.530647 140670380646784 model_lib_v2.py:647] Step 16900 per-s
                    tep time 0.218s loss=0.021
                    INFO:tensorflow:Step 17000 per-step time 0.246s loss=0.069
                    I0810 17:28:42.957868 140670380646784 model_lib_v2.py:647] Step 17000 per-s
                    tep time 0.246s loss=0.069
                    INFO:tensorflow:Step 17100 per-step time 0.242s loss=0.114
                    I0810 17:29:06.617299 140670380646784 model_lib_v2.py:647] Step 17100 per-s
                    tep time 0.242s loss=0.114
                    INFO:tensorflow:Step 17200 per-step time 0.251s loss=0.516
                    I0810 17:29:29.666775 140670380646784 model_lib_v2.py:647] Step 17200 per-s
                    tep time 0.251s loss=0.516
                    INFO:tensorflow:Step 17300 per-step time 0.262s loss=0.238
                    I0810 17:29:52.882509 140670380646784 model_lib_v2.py:647] Step 17300 per-s
                    tep time 0.262s loss=0.238
                    INFO:tensorflow:Step 17400 per-step time 0.230s loss=0.344
                    I0810 17:30:16.051396 140670380646784 model_lib_v2.py:647] Step 17400 per-s
                    tep time 0.230s loss=0.344
                    INFO:tensorflow:Step 17500 per-step time 0.235s loss=0.073
                    I0810 17:30:39.473938 140670380646784 model_lib_v2.py:647] Step 17500 per-s
                    tep time 0.235s loss=0.073
                    INFO:tensorflow:Step 17600 per-step time 0.233s loss=0.407
                    I0810 17:31:02.574267 140670380646784 model_lib_v2.py:647] Step 17600 per-s
                    tep time 0.233s loss=0.407
                    INFO:tensorflow:Step 17700 per-step time 0.235s loss=0.132
                    I0810 17:31:25.844374 140670380646784 model_lib_v2.py:647] Step 17700 per-s
                    tep time 0.235s loss=0.132
                    INFO:tensorflow:Step 17800 per-step time 0.248s loss=0.099
                    I0810 17:31:49.372807 140670380646784 model_lib_v2.py:647] Step 17800 per-s
                    tep time 0.248s loss=0.099
                    INFO:tensorflow:Step 17900 per-step time 0.243s loss=0.648
                    I0810 17:32:12.588007 140670380646784 model_lib_v2.py:647] Step 17900 per-s
                    tep time 0.243s loss=0.648
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INFO:tensorflow:Step 18000 per-step time 0.217s loss=0.033
I0810 17:32:35.999083 140670380646784 model_lib_v2.py:647] Step 18000 per-s
tep time 0.217s loss=0.033
INFO:tensorflow:Step 18100 per-step time 0.256s loss=0.405
I0810 17:32:59.899837 140670380646784 model_lib_v2.py:647] Step 18100 per-s
tep time 0.256s loss=0.405
INFO:tensorflow:Step 18200 per-step time 0.205s loss=0.051
I0810 17:33:23.177609 140670380646784 model_lib_v2.py:647] Step 18200 per-s
tep time 0.205s loss=0.051
INFO:tensorflow:Step 18300 per-step time 0.226s loss=0.064
I0810 17:33:46.587656 140670380646784 model_lib_v2.py:647] Step 18300 per-s
tep time 0.226s loss=0.064
INFO:tensorflow:Step 18400 per-step time 0.241s loss=0.079
I0810 17:34:09.787794 140670380646784 model_lib_v2.py:647] Step 18400 per-s
tep time 0.241s loss=0.079
INFO:tensorflow:Step 18500 per-step time 0.230s loss=0.135
I0810 17:34:32.793313 140670380646784 model_lib_v2.py:647] Step 18500 per-s
tep time 0.230s loss=0.135
INFO:tensorflow:Step 18600 per-step time 0.227s loss=0.029
I0810 17:34:56.133717 140670380646784 model_lib_v2.py:647] Step 18600 per-s
tep time 0.227s loss=0.029
INFO:tensorflow:Step 18700 per-step time 0.215s loss=0.019
I0810 17:35:19.259295 140670380646784 model_lib_v2.py:647] Step 18700 per-s
tep time 0.215s loss=0.019
INFO:tensorflow:Step 18800 per-step time 0.305s loss=0.056
I0810 17:35:42.727958 140670380646784 model_lib_v2.py:647] Step 18800 per-s
tep time 0.305s loss=0.056
INFO:tensorflow:Step 18900 per-step time 0.232s loss=0.088
I0810 17:36:05.957596 140670380646784 model_lib_v2.py:647] Step 18900 per-s
tep time 0.232s loss=0.088
INFO:tensorflow:Step 19000 per-step time 0.239s loss=0.042
I0810 17:36:29.257402 140670380646784 model_lib_v2.py:647] Step 19000 per-s
tep time 0.239s loss=0.042
INFO:tensorflow:Step 19100 per-step time 0.236s loss=0.035
I0810 17:36:53.056068 140670380646784 model_lib_v2.py:647] Step 19100 per-s
tep time 0.236s loss=0.035
INFO:tensorflow:Step 19200 per-step time 0.243s loss=0.095
I0810 17:37:16.367074 140670380646784 model_lib_v2.py:647] Step 19200 per-s
tep time 0.243s loss=0.095
INFO:tensorflow:Step 19300 per-step time 0.221s loss=0.064
I0810 17:37:39.302220 140670380646784 model_lib_v2.py:647] Step 19300 per-s
tep time 0.221s loss=0.064
INFO:tensorflow:Step 19400 per-step time 0.261s loss=0.078
I0810 17:38:02.462299 140670380646784 model_lib_v2.py:647] Step 19400 per-s
tep time 0.261s loss=0.078
INFO:tensorflow:Step 19500 per-step time 0.250s loss=0.102
I0810 17:38:25.668995 140670380646784 model_lib_v2.py:647] Step 19500 per-s
tep time 0.250s loss=0.102
INFO:tensorflow:Step 19600 per-step time 0.213s loss=0.150
I0810 17:38:48.920294 140670380646784 model_lib_v2.py:647] Step 19600 per-s
tep time 0.213s loss=0.150
INFO:tensorflow:Step 19700 per-step time 0.221s loss=0.054
I0810 17:39:11.885333 140670380646784 model_lib_v2.py:647] Step 19700 per-s
tep time 0.221s loss=0.054
INFO:tensorflow:Step 19800 per-step time 0.206s loss=0.039
I0810 17:39:34.816264 140670380646784 model_lib_v2.py:647] Step 19800 per-s
tep time 0.206s loss=0.039
INFO:tensorflow:Step 19900 per-step time 0.237s loss=0.232
I0810 17:39:58.069600 140670380646784 model_lib_v2.py:647] Step 19900 per-s
tep time 0.237s loss=0.232
INFO:tensorflow:Step 20000 per-step time 0.241s loss=0.230
I0810 17:40:21.158663 140670380646784 model_lib_v2.py:647] Step 20000 per-s
tep time 0.241s loss=0.230
INFO:tensorflow:Step 20100 per-step time 0.254s loss=0.041
I0810 17:40:45.245811 140670380646784 model_lib_v2.py:647] Step 20100 per-s
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tep time 0.254s loss=0.041
INFO:tensorflow:Step 20200 per-step time 0.244s loss=0.097
I0810 17:41:08.510571 140670380646784 model_lib_v2.py:647] Step 20200 per-s
tep time 0.244s loss=0.097
INFO:tensorflow:Step 20300 per-step time 0.229s loss=0.046
I0810 17:41:31.699756 140670380646784 model_lib_v2.py:647] Step 20300 per-s
tep time 0.229s loss=0.046
INFO:tensorflow:Step 20400 per-step time 0.224s loss=0.059
I0810 17:41:54.891585 140670380646784 model_lib_v2.py:647] Step 20400 per-s
tep time 0.224s loss=0.059
INFO:tensorflow:Step 20500 per-step time 0.232s loss=0.358
I0810 17:42:17.911867 140670380646784 model_lib_v2.py:647] Step 20500 per-s
tep time 0.232s loss=0.358
INFO:tensorflow:Step 20600 per-step time 0.226s loss=0.402
I0810 17:42:41.003149 140670380646784 model_lib_v2.py:647] Step 20600 per-s
tep time 0.226s loss=0.402
INFO:tensorflow:Step 20700 per-step time 0.224s loss=0.242
I0810 17:43:04.296325 140670380646784 model_lib_v2.py:647] Step 20700 per-s
tep time 0.224s loss=0.242
INFO:tensorflow:Step 20800 per-step time 0.245s loss=0.333
I0810 17:43:27.563710 140670380646784 model_lib_v2.py:647] Step 20800 per-s
tep time 0.245s loss=0.333
INFO:tensorflow:Step 20900 per-step time 0.224s loss=0.377
I0810 17:43:50.777107 140670380646784 model_lib_v2.py:647] Step 20900 per-s
tep time 0.224s loss=0.377
INFO:tensorflow:Step 21000 per-step time 0.260s loss=0.426
I0810 17:44:14.157815 140670380646784 model_lib_v2.py:647] Step 21000 per-s
tep time 0.260s loss=0.426
INFO:tensorflow:Step 21100 per-step time 0.256s loss=0.086
I0810 17:44:38.138144 140670380646784 model_lib_v2.py:647] Step 21100 per-s
tep time 0.256s loss=0.086
INFO:tensorflow:Step 21200 per-step time 0.233s loss=0.272
I0810 17:45:01.589646 140670380646784 model_lib_v2.py:647] Step 21200 per-s
tep time 0.233s loss=0.272
INFO:tensorflow:Step 21300 per-step time 0.247s loss=0.020
I0810 17:45:24.881153 140670380646784 model_lib_v2.py:647] Step 21300 per-s
tep time 0.247s loss=0.020
INFO:tensorflow:Step 21400 per-step time 0.235s loss=0.083
I0810 17:45:48.115295 140670380646784 model_lib_v2.py:647] Step 21400 per-s
tep time 0.235s loss=0.083
INFO:tensorflow:Step 21500 per-step time 0.226s loss=0.151
I0810 17:46:11.390181 140670380646784 model_lib_v2.py:647] Step 21500 per-s
tep time 0.226s loss=0.151
INFO:tensorflow:Step 21600 per-step time 0.236s loss=0.170
I0810 17:46:34.564490 140670380646784 model_lib_v2.py:647] Step 21600 per-s
tep time 0.236s loss=0.170
INFO:tensorflow:Step 21700 per-step time 0.206s loss=0.059
I0810 17:46:57.408122 140670380646784 model_lib_v2.py:647] Step 21700 per-s
tep time 0.206s loss=0.059
INFO:tensorflow:Step 21800 per-step time 0.225s loss=0.327
I0810 17:47:20.557226 140670380646784 model_lib_v2.py:647] Step 21800 per-s
tep time 0.225s loss=0.327
INFO:tensorflow:Step 21900 per-step time 0.242s loss=0.040
I0810 17:47:43.929083 140670380646784 model_lib_v2.py:647] Step 21900 per-s
tep time 0.242s loss=0.040
INFO:tensorflow:Step 22000 per-step time 0.271s loss=0.114
I0810 17:48:07.226072 140670380646784 model_lib_v2.py:647] Step 22000 per-s
tep time 0.271s loss=0.114
INFO:tensorflow:Step 22100 per-step time 0.241s loss=0.181
I0810 17:48:31.186712 140670380646784 model_lib_v2.py:647] Step 22100 per-s
tep time 0.241s loss=0.181
INFO:tensorflow:Step 22200 per-step time 0.205s loss=0.026
I0810 17:48:54.363014 140670380646784 model_lib_v2.py:647] Step 22200 per-s
tep time 0.205s loss=0.026
INFO:tensorflow:Step 22300 per-step time 0.232s loss=0.061
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I0810 17:49:17.547968 140670380646784 model_lib_v2.py:647] Step 22300 per-s
tep time 0.232s loss=0.061
INFO:tensorflow:Step 22400 per-step time 0.239s loss=0.034
I0810 17:49:40.456113 140670380646784 model_lib_v2.py:647] Step 22400 per-s
tep time 0.239s loss=0.034
INFO:tensorflow:Step 22500 per-step time 0.233s loss=0.082
I0810 17:50:03.582491 140670380646784 model_lib_v2.py:647] Step 22500 per-s
tep time 0.233s loss=0.082
INFO:tensorflow:Step 22600 per-step time 0.222s loss=0.073
I0810 17:50:26.733983 140670380646784 model_lib_v2.py:647] Step 22600 per-s
tep time 0.222s loss=0.073
INFO:tensorflow:Step 22700 per-step time 0.206s loss=0.047
I0810 17:50:49.956901 140670380646784 model_lib_v2.py:647] Step 22700 per-s
tep time 0.206s loss=0.047
INFO:tensorflow:Step 22800 per-step time 0.227s loss=0.452
I0810 17:51:13.089292 140670380646784 model_lib_v2.py:647] Step 22800 per-s
tep time 0.227s loss=0.452
INFO:tensorflow:Step 22900 per-step time 0.196s loss=0.049
I0810 17:51:36.159256 140670380646784 model_lib_v2.py:647] Step 22900 per-s
tep time 0.196s loss=0.049
INFO:tensorflow:Step 23000 per-step time 0.237s loss=0.056
I0810 17:51:59.269652 140670380646784 model_lib_v2.py:647] Step 23000 per-s
tep time 0.237s loss=0.056
INFO:tensorflow:Step 23100 per-step time 0.246s loss=0.060
I0810 17:52:23.462499 140670380646784 model_lib_v2.py:647] Step 23100 per-s
tep time 0.246s loss=0.060
INFO:tensorflow:Step 23200 per-step time 0.237s loss=0.014
I0810 17:52:46.882762 140670380646784 model_lib_v2.py:647] Step 23200 per-s
tep time 0.237s loss=0.014
INFO:tensorflow:Step 23300 per-step time 0.209s loss=0.255
I0810 17:53:10.165219 140670380646784 model_lib_v2.py:647] Step 23300 per-s
tep time 0.209s loss=0.255
INFO:tensorflow:Step 23400 per-step time 0.233s loss=0.035
I0810 17:53:33.612174 140670380646784 model_lib_v2.py:647] Step 23400 per-s
tep time 0.233s loss=0.035
INFO:tensorflow:Step 23500 per-step time 0.235s loss=0.093
I0810 17:53:56.743749 140670380646784 model_lib_v2.py:647] Step 23500 per-s
tep time 0.235s loss=0.093
INFO:tensorflow:Step 23600 per-step time 0.242s loss=0.050
I0810 17:54:19.960250 140670380646784 model_lib_v2.py:647] Step 23600 per-s
tep time 0.242s loss=0.050
INFO:tensorflow:Step 23700 per-step time 0.221s loss=0.102
I0810 17:54:43.232027 140670380646784 model_lib_v2.py:647] Step 23700 per-s
tep time 0.221s loss=0.102
INFO:tensorflow:Step 23800 per-step time 0.241s loss=0.025
I0810 17:55:06.722940 140670380646784 model_lib_v2.py:647] Step 23800 per-s
tep time 0.241s loss=0.025
INFO:tensorflow:Step 23900 per-step time 0.242s loss=0.078
I0810 17:55:30.145105 140670380646784 model_lib_v2.py:647] Step 23900 per-s
tep time 0.242s loss=0.078
INFO:tensorflow:Step 24000 per-step time 0.208s loss=0.502
I0810 17:55:53.302029 140670380646784 model_lib_v2.py:647] Step 24000 per-s
tep time 0.208s loss=0.502
INFO:tensorflow:Step 24100 per-step time 0.293s loss=0.039
I0810 17:56:17.307212 140670380646784 model_lib_v2.py:647] Step 24100 per-s
tep time 0.293s loss=0.039
INFO:tensorflow:Step 24200 per-step time 0.210s loss=0.110
I0810 17:56:40.689923 140670380646784 model_lib_v2.py:647] Step 24200 per-s
tep time 0.210s loss=0.110
INFO:tensorflow:Step 24300 per-step time 0.218s loss=0.067
I0810 17:57:03.829481 140670380646784 model_lib_v2.py:647] Step 24300 per-s
tep time 0.218s loss=0.067
INFO:tensorflow:Step 24400 per-step time 0.225s loss=0.071
I0810 17:57:26.941392 140670380646784 model_lib_v2.py:647] Step 24400 per-s
tep time 0.225s loss=0.071
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INFO:tensorflow:Step 24500 per-step time 0.235s loss=0.155
I0810 17:57:50.054090 140670380646784 model_lib_v2.py:647] Step 24500 per-s
tep time 0.235s loss=0.155
INFO:tensorflow:Step 24600 per-step time 0.277s loss=0.015
I0810 17:58:13.115933 140670380646784 model_lib_v2.py:647] Step 24600 per-s
tep time 0.277s loss=0.015
INFO:tensorflow:Step 24700 per-step time 0.236s loss=0.120
I0810 17:58:36.398439 140670380646784 model_lib_v2.py:647] Step 24700 per-s
tep time 0.236s loss=0.120
INFO:tensorflow:Step 24800 per-step time 0.215s loss=0.065
I0810 17:58:59.387703 140670380646784 model_lib_v2.py:647] Step 24800 per-s
tep time 0.215s loss=0.065
INFO:tensorflow:Step 24900 per-step time 0.225s loss=0.120
I0810 17:59:22.725945 140670380646784 model_lib_v2.py:647] Step 24900 per-s
tep time 0.225s loss=0.120
INFO:tensorflow:Step 25000 per-step time 0.224s loss=0.024
I0810 17:59:45.770314 140670380646784 model_lib_v2.py:647] Step 25000 per-s
tep time 0.224s loss=0.024
INFO:tensorflow:Step 25100 per-step time 0.243s loss=0.599
I0810 18:00:09.406018 140670380646784 model_lib_v2.py:647] Step 25100 per-s
tep time 0.243s loss=0.599
INFO:tensorflow:Step 25200 per-step time 0.245s loss=0.158
I0810 18:00:32.759934 140670380646784 model_lib_v2.py:647] Step 25200 per-s
tep time 0.245s loss=0.158
INFO:tensorflow:Step 25300 per-step time 0.274s loss=0.086
I0810 18:00:55.786223 140670380646784 model_lib_v2.py:647] Step 25300 per-s
tep time 0.274s loss=0.086
INFO:tensorflow:Step 25400 per-step time 0.228s loss=0.418
I0810 18:01:19.302747 140670380646784 model_lib_v2.py:647] Step 25400 per-s
tep time 0.228s loss=0.418
INFO:tensorflow:Step 25500 per-step time 0.257s loss=0.069
I0810 18:01:42.661742 140670380646784 model_lib_v2.py:647] Step 25500 per-s
tep time 0.257s loss=0.069
INFO:tensorflow:Step 25600 per-step time 0.222s loss=0.057
I0810 18:02:05.920939 140670380646784 model_lib_v2.py:647] Step 25600 per-s
tep time 0.222s loss=0.057
INFO:tensorflow:Step 25700 per-step time 0.232s loss=0.065
I0810 18:02:29.317863 140670380646784 model_lib_v2.py:647] Step 25700 per-s
tep time 0.232s loss=0.065
INFO:tensorflow:Step 25800 per-step time 0.226s loss=0.026
I0810 18:02:52.500101 140670380646784 model_lib_v2.py:647] Step 25800 per-s
tep time 0.226s loss=0.026
INFO:tensorflow:Step 25900 per-step time 0.209s loss=0.122
I0810 18:03:15.776461 140670380646784 model_lib_v2.py:647] Step 25900 per-s
tep time 0.209s loss=0.122
INFO:tensorflow:Step 26000 per-step time 0.229s loss=0.057
I0810 18:03:38.976424 140670380646784 model_lib_v2.py:647] Step 26000 per-s
tep time 0.229s loss=0.057
INFO:tensorflow:Step 26100 per-step time 0.254s loss=0.076
I0810 18:04:03.190531 140670380646784 model_lib_v2.py:647] Step 26100 per-s
tep time 0.254s loss=0.076
INFO:tensorflow:Step 26200 per-step time 0.254s loss=0.145
I0810 18:04:26.307411 140670380646784 model_lib_v2.py:647] Step 26200 per-s
tep time 0.254s loss=0.145
INFO:tensorflow:Step 26300 per-step time 0.229s loss=0.093
I0810 18:04:49.399595 140670380646784 model_lib_v2.py:647] Step 26300 per-s
tep time 0.229s loss=0.093
INFO:tensorflow:Step 26400 per-step time 0.224s loss=0.101
I0810 18:05:12.463227 140670380646784 model_lib_v2.py:647] Step 26400 per-s
tep time 0.224s loss=0.101
INFO:tensorflow:Step 26500 per-step time 0.233s loss=0.087
I0810 18:05:35.822218 140670380646784 model_lib_v2.py:647] Step 26500 per-s
tep time 0.233s loss=0.087
INFO:tensorflow:Step 26600 per-step time 0.228s loss=0.300
I0810 18:05:59.162842 140670380646784 model_lib_v2.py:647] Step 26600 per-s
```

```
tep time 0.228s loss=0.300
INFO:tensorflow:Step 26700 per-step time 0.253s loss=0.029
I0810 18:06:22.533396 140670380646784 model_lib_v2.py:647] Step 26700 per-s
tep time 0.253s loss=0.029
INFO:tensorflow:Step 26800 per-step time 0.244s loss=0.127
I0810 18:06:45.863990 140670380646784 model_lib_v2.py:647] Step 26800 per-s
tep time 0.244s loss=0.127
INFO:tensorflow:Step 26900 per-step time 0.194s loss=0.026
I0810 18:07:08.953053 140670380646784 model_lib_v2.py:647] Step 26900 per-s
tep time 0.194s loss=0.026
INFO:tensorflow:Step 27000 per-step time 0.224s loss=0.394
I0810 18:07:32.142990 140670380646784 model_lib_v2.py:647] Step 27000 per-s
tep time 0.224s loss=0.394
INFO:tensorflow:Step 27100 per-step time 0.221s loss=0.120
I0810 18:07:55.868204 140670380646784 model_lib_v2.py:647] Step 27100 per-s
tep time 0.221s loss=0.120
INFO:tensorflow:Step 27200 per-step time 0.258s loss=0.165
I0810 18:08:19.100847 140670380646784 model_lib_v2.py:647] Step 27200 per-s
tep time 0.258s loss=0.165
INFO:tensorflow:Step 27300 per-step time 0.246s loss=0.113
I0810 18:08:42.516160 140670380646784 model_lib_v2.py:647] Step 27300 per-s
tep time 0.246s loss=0.113
INFO:tensorflow:Step 27400 per-step time 0.199s loss=0.025
I0810 18:09:06.024069 140670380646784 model_lib_v2.py:647] Step 27400 per-s
tep time 0.199s loss=0.025
INFO:tensorflow:Step 27500 per-step time 0.234s loss=0.073
I0810 18:09:29.339540 140670380646784 model_lib_v2.py:647] Step 27500 per-s
tep time 0.234s loss=0.073
INFO:tensorflow:Step 27600 per-step time 0.279s loss=0.038
I0810 18:09:52.735315 140670380646784 model_lib_v2.py:647] Step 27600 per-s
tep time 0.279s loss=0.038
INFO:tensorflow:Step 27700 per-step time 0.199s loss=0.183
I0810 18:10:15.953732 140670380646784 model_lib_v2.py:647] Step 27700 per-s
tep time 0.199s loss=0.183
INFO:tensorflow:Step 27800 per-step time 0.242s loss=0.193
I0810 18:10:39.099640 140670380646784 model_lib_v2.py:647] Step 27800 per-s
tep time 0.242s loss=0.193
INFO:tensorflow:Step 27900 per-step time 0.232s loss=0.126
I0810 18:11:02.188817 140670380646784 model_lib_v2.py:647] Step 27900 per-s
tep time 0.232s loss=0.126
INFO:tensorflow:Step 28000 per-step time 0.228s loss=0.235
I0810 18:11:25.251377 140670380646784 model_lib_v2.py:647] Step 28000 per-s
tep time 0.228s loss=0.235
```

Exporting a Trained Inference Graph

Once your training job is complete, you need to extract the newly trained inference graph, which will be later used to perform the object detection. This can be done as follows:

In [2]:
```
!python exporter_main_v2.py --input_type image_tensor --pipeline_config_path
```

```
2021-03-24 15:35:19.162967: I tensorflow/stream_executor/platform/default/d
so_loader.cc:48] Successfully opened dynamic library cudart64_101.dll
2021-03-24 15:35:26.827869: I tensorflow/stream_executor/platform/default/d
so_loader.cc:48] Successfully opened dynamic library nvcuda.dll
2021-03-24 15:35:26.860710: I tensorflow/core/common_runtime/gpu/gpu_devic
e.cc:1716] Found device 0 with properties:
pciBusID: 0000:01:00.0 name: GeForce RTX 2070 Super computeCapability: 7.5
coreClock: 1.38GHz coreCount: 40 deviceMemorySize: 8.00GiB deviceMemoryBand
width: 417.29GiB/s
2021-03-24 15:35:26.860751: I tensorflow/stream_executor/platform/default/d
so_loader.cc:48] Successfully opened dynamic library cudart64_101.dll
```

```
2021-03-24 15:35:27.290492: I tensorflow/stream_executor/platform/default/d
so_loader.cc:48] Successfully opened dynamic library cublas64_10.dll
2021-03-24 15:35:27.658570: I tensorflow/stream_executor/platform/default/d
so_loader.cc:48] Successfully opened dynamic library cufft64_10.dll
2021-03-24 15:35:27.686818: I tensorflow/stream_executor/platform/default/d
so_loader.cc:48] Successfully opened dynamic library curand64_10.dll
2021-03-24 15:35:27.932204: I tensorflow/stream_executor/platform/default/d
so_loader.cc:48] Successfully opened dynamic library cusolver64_10.dll
2021-03-24 15:35:28.151225: I tensorflow/stream_executor/platform/default/d
so_loader.cc:48] Successfully opened dynamic library cusparse64_10.dll
2021-03-24 15:35:28.448661: I tensorflow/stream_executor/platform/default/d
so_loader.cc:48] Successfully opened dynamic library cudnn64_7.dll
2021-03-24 15:35:28.449176: I tensorflow/core/common_runtime/gpu/gpu_devic
e.cc:1858] Adding visible gpu devices: 0
2021-03-24 15:35:28.453224: I tensorflow/core/platform/cpu_feature_guard.c
c:142] This TensorFlow binary is optimized with oneAPI Deep Neural Network
Library (oneDNN)to use the following CPU instructions in performance-critic
al operations:  AVX2
To enable them in other operations, rebuild TensorFlow with the appropriate
compiler flags.
2021-03-24 15:35:28.506204: I tensorflow/compiler/xla/service/service.cc:16
8] XLA service 0x168c5a79fd0 initialized for platform Host (this does not g
uarantee that XLA will be used). Devices:
2021-03-24 15:35:28.506221: I tensorflow/compiler/xla/service/service.cc:17
6]   StreamExecutor device (0): Host, Default Version
2021-03-24 15:35:28.508285: I tensorflow/core/common_runtime/gpu/gpu_devic
e.cc:1716] Found device 0 with properties:
pciBusID: 0000:01:00.0 name: GeForce RTX 2070 Super computeCapability: 7.5
coreClock: 1.38GHz coreCount: 40 deviceMemorySize: 8.00GiB deviceMemoryBand
width: 417.29GiB/s
2021-03-24 15:35:28.508315: I tensorflow/stream_executor/platform/default/d
so_loader.cc:48] Successfully opened dynamic library cudart64_101.dll
2021-03-24 15:35:28.508335: I tensorflow/stream_executor/platform/default/d
so_loader.cc:48] Successfully opened dynamic library cublas64_10.dll
2021-03-24 15:35:28.508340: I tensorflow/stream_executor/platform/default/d
so_loader.cc:48] Successfully opened dynamic library cufft64_10.dll
2021-03-24 15:35:28.508344: I tensorflow/stream_executor/platform/default/d
so_loader.cc:48] Successfully opened dynamic library curand64_10.dll
2021-03-24 15:35:28.508349: I tensorflow/stream_executor/platform/default/d
so_loader.cc:48] Successfully opened dynamic library cusolver64_10.dll
2021-03-24 15:35:28.508354: I tensorflow/stream_executor/platform/default/d
so_loader.cc:48] Successfully opened dynamic library cusparse64_10.dll
2021-03-24 15:35:28.508359: I tensorflow/stream_executor/platform/default/d
so_loader.cc:48] Successfully opened dynamic library cudnn64_7.dll
2021-03-24 15:35:28.508385: I tensorflow/core/common_runtime/gpu/gpu_devic
e.cc:1858] Adding visible gpu devices: 0
2021-03-24 15:35:29.835870: I tensorflow/core/common_runtime/gpu/gpu_devic
e.cc:1257] Device interconnect StreamExecutor with strength 1 edge matrix:
2021-03-24 15:35:29.835887: I tensorflow/core/common_runtime/gpu/gpu_devic
e.cc:1263]      0
2021-03-24 15:35:29.835892: I tensorflow/core/common_runtime/gpu/gpu_devic
e.cc:1276] 0:   N
2021-03-24 15:35:29.837249: I tensorflow/core/common_runtime/gpu/gpu_devic
e.cc:1402] Created TensorFlow device (/job:localhost/replica:0/task:0/devic
e:GPU:0 with 6613 MB memory) -> physical GPU (device: 0, name: GeForce RTX
2070 Super, pci bus id: 0000:01:00.0, compute capability: 7.5)
2021-03-24 15:35:29.843259: I tensorflow/compiler/xla/service/service.cc:16
8] XLA service 0x168f2178410 initialized for platform CUDA (this does not g
uarantee that XLA will be used). Devices:
2021-03-24 15:35:29.843272: I tensorflow/compiler/xla/service/service.cc:17
6]   StreamExecutor device (0): GeForce RTX 2070 Super, Compute Capability
7.5
INFO:tensorflow:depth of additional conv before box predictor: 0
I0324 15:35:36.971793 18468 convolutional_keras_box_predictor.py:153] depth
of additional conv before box predictor: 0
```

```
WARNING:tensorflow:From C:\Users\Carl\.conda\envs\Tensorflow-gpu-2\lib\site
-packages\object_detection\utils\model_util.py:57: Tensor.experimental_ref
(from tensorflow.python.framework.ops) is deprecated and will be removed in
a future version.
Instructions for updating:
Use ref() instead.
W0324 15:35:42.474819 18468 deprecation.py:317] From C:\Users\Carl\.conda\e
nvs\Tensorflow-gpu-2\lib\site-packages\object_detection\utils\model_util.p
y:57: Tensor.experimental_ref (from tensorflow.python.framework.ops) is dep
recated and will be removed in a future version.
Instructions for updating:
Use ref() instead.
WARNING:tensorflow:Skipping full serialization of Keras layer <object_detec
tion.meta_architectures.faster_rcnn_meta_arch.FasterRCNNMetaArch object at
0x00000168C72F02E0>, because it is not built.
W0324 15:35:49.581745 18468 save_impl.py:77] Skipping full serialization of
Keras layer <object_detection.meta_architectures.faster_rcnn_meta_arch.Fast
erRCNNMetaArch object at 0x00000168C72F02E0>, because it is not built.
2021-03-24 15:36:03.985448: W tensorflow/python/util/util.cc:348] Sets are
not currently considered sequences, but this may change in the future, so c
onsider avoiding using them.
INFO:tensorflow:Assets written to: ./training/TF2/training/test/saved_mode
l/saved_model\assets
I0324 15:36:37.825565 18468 builder_impl.py:774] Assets written to: ./train
ing/TF2/training/test/saved_model/saved_model\assets
INFO:tensorflow:Writing pipeline config file to ./training/TF2/training/tes
t/saved_model/pipeline.config
I0324 15:36:45.624598 18468 config_util.py:253] Writing pipeline config fil
e to ./training/TF2/training/test/saved_model/pipeline.config
```

In [ ]: