```
1  ssh://root@103.254.67.181:10006/usr/bin/
   python -u /home/sunfengzhen/pycharm/end-
   to-end-for-chinese-plate-recognition/
   keras_train_test.py
2  Using TensorFlow backend.
3  Epoch 1/25
4  2019-07-08 07:55:11.404746: I tensorflow
   /core/platform/cpu_feature_guard.cc:141
   ] Your CPU supports instructions that
   this TensorFlow binary was not compiled
   to use: AVX2 FMA
5  2019-07-08 07:55:11.675264: I tensorflow
   /core/common_runtime/gpu/gpu_device.cc:
   1432] Found device 0 with properties:
6  name: GeForce GTX 1080 Ti major: 6 minor
   : 1 memoryClockRate(GHz): 1.582
7  pciBusID: 0000:82:00.0
8  totalMemory: 10.92GiB freeMemory: 10.
   76GiB
9  2019-07-08 07:55:11.675338: I tensorflow
   /core/common_runtime/gpu/gpu_device.cc:
   1511] Adding visible gpu devices: 0
10 2019-07-08 07:55:12.083776: I tensorflow
   /core/common_runtime/gpu/gpu_device.cc:
```

```
10  982] Device interconnect StreamExecutor
    with strength 1 edge matrix:
11  2019-07-08 07:55:12.083853: I tensorflow
    /core/common_runtime/gpu/gpu_device.cc:
    988]      0
12  2019-07-08 07:55:12.083868: I tensorflow
    /core/common_runtime/gpu/gpu_device.cc:
    1001] 0:     N
13  2019-07-08 07:55:12.084305: I tensorflow
    /core/common_runtime/gpu/gpu_device.cc:
    1115] Created TensorFlow device (/job:
    localhost/replica:0/task:0/device:GPU:0
    with 10409 MB memory) -> physical GPU (
    device: 0, name: GeForce GTX 1080 Ti,
    pci bus id: 0000:82:00.0, compute
    capability: 6.1)
14   - 747s - loss: 11.2974 - c1_loss: 1.
    3668 - c2_loss: 0.6344 - c3_loss: 1.0498
     - c4_loss: 1.4052 - c5_loss: 1.8665 -
    c6_loss: 2.4041 - c7_loss: 2.5707 -
    c1_acc: 0.6273 - c2_acc: 0.8297 - c3_acc
    : 0.7073 - c4_acc: 0.6039 - c5_acc: 0.
    4854 - c6_acc: 0.3605 - c7_acc: 0.3188
     - val_loss: 4.0986 - val_c1_loss: 0.
```

14 2364 - val_c2_loss: 0.0308 - val_c3_loss: 0.1229 - val_c4_loss: 0.2885 - val_c5_loss: 0.7124 - val_c6_loss: 1.3390 - val_c7_loss: 1.3685 - val_c1_acc: 0.9420 - val_c2_acc: 0.9941 - val_c3_acc: 0.9668 - val_c4_acc: 0.9193 - val_c5_acc: 0.8059 - val_c6_acc: 0.6449 - val_c7_acc: 0.6387

15 Epoch 2/25

16 - 748s - loss: 3.8204 - c1_loss: 0.2658 - c2_loss: 0.0369 - c3_loss: 0.1116 - c4_loss: 0.2755 - c5_loss: 0.6494 - c6_loss: 1.2379 - c7_loss: 1.2432 - c1_acc: 0.9247 - c2_acc: 0.9905 - c3_acc: 0.9675 - c4_acc: 0.9194 - c5_acc: 0.8196 - c6_acc: 0.6677 - c7_acc: 0.6664 - val_loss: 2.2901 - val_c1_loss: 0.1051 - val_c2_loss: 0.0143 - val_c3_loss: 0.0405 - val_c4_loss: 0.1145 - val_c5_loss: 0.3619 - val_c6_loss: 0.8374 - val_c7_loss: 0.8163 - val_c1_acc: 0.9740 - val_c2_acc: 0.9971 - val_c3_acc: 0.9895 - val_c4_acc: 0.9677 - val_c5_acc: 0.8977 - val_c6_acc: 0.

16 7751 - val_c7_acc: 0.7876

17 Epoch 3/25

18 - 743s - loss: 2.6238 - c1_loss: 0.1756 - c2_loss: 0.0219 - c3_loss: 0.0609 - c4_loss: 0.1595 - c5_loss: 0.4285 - c6_loss: 0.9246 - c7_loss: 0.8527 - c1_acc: 0.9492 - c2_acc: 0.9947 - c3_acc: 0.9817 - c4_acc: 0.9524 - c5_acc: 0.8793 - c6_acc: 0.7473 - c7_acc: 0.7725 - val_loss: 1.8104 - val_c1_loss: 0.0859 - val_c2_loss: 0.0095 - val_c3_loss: 0.0346 - val_c4_loss: 0.0891 - val_c5_loss: 0.2785 - val_c6_loss: 0.6715 - val_c7_loss: 0.6414 - val_c1_acc: 0.9789 - val_c2_acc: 0.9982 - val_c3_acc: 0.9907 - val_c4_acc: 0.9758 - val_c5_acc: 0.9223 - val_c6_acc: 0.8196 - val_c7_acc: 0.8378

19 Epoch 4/25

20 - 788s - loss: 2.1331 - c1_loss: 0.1422 - c2_loss: 0.0177 - c3_loss: 0.0460 - c4_loss: 0.1180 - c5_loss: 0.3351 - c6_loss: 0.7758 - c7_loss: 0.6982 - c1_acc: 0.9577 - c2_acc: 0.9952 - c3_acc

20 : 0.9864 - c4_acc: 0.9643 - c5_acc: 0.9041 - c6_acc: 0.7884 - c7_acc: 0.8136 - val_loss: 1.4755 - val_c1_loss: 0.0823 - val_c2_loss: 0.0098 - val_c3_loss: 0.0255 - val_c4_loss: 0.0685 - val_c5_loss: 0.2173 - val_c6_loss: 0.5560 - val_c7_loss: 0.5162 - val_c1_acc: 0.9784 - val_c2_acc: 0.9979 - val_c3_acc: 0.9935 - val_c4_acc: 0.9812 - val_c5_acc: 0.9382 - val_c6_acc: 0.8487 - val_c7_acc: 0.8643

21 Epoch 5/25

22 - 782s - loss: 1.8313 - c1_loss: 0.1212 - c2_loss: 0.0158 - c3_loss: 0.0398 - c4_loss: 0.0968 - c5_loss: 0.2812 - c6_loss: 0.6734 - c7_loss: 0.6030 - c1_acc: 0.9637 - c2_acc: 0.9958 - c3_acc: 0.9886 - c4_acc: 0.9712 - c5_acc: 0.9205 - c6_acc: 0.8149 - c7_acc: 0.8390 - val_loss: 1.1948 - val_c1_loss: 0.0591 - val_c2_loss: 0.0094 - val_c3_loss: 0.0184 - val_c4_loss: 0.0483 - val_c5_loss: 0.1719 - val_c6_loss: 0.4813 - val_c7_loss: 0.4064 - val_c1_acc

22 : 0.9851 - val_c2_acc: 0.9981 - val_c3_acc: 0.9953 - val_c4_acc: 0.9864 - val_c5_acc: 0.9512 - val_c6_acc: 0.8692 - val_c7_acc: 0.8982

23 Epoch 6/25

24 - 779s - loss: 1.6139 - c1_loss: 0.1085 - c2_loss: 0.0146 - c3_loss: 0.0351 - c4_loss: 0.0838 - c5_loss: 0.2412 - c6_loss: 0.6068 - c7_loss: 0.5239 - c1_acc: 0.9679 - c2_acc: 0.9958 - c3_acc: 0.9893 - c4_acc: 0.9744 - c5_acc: 0.9311 - c6_acc: 0.8337 - c7_acc: 0.8574 - val_loss: 1.0458 - val_c1_loss: 0.0473 - val_c2_loss: 0.0073 - val_c3_loss: 0.0166 - val_c4_loss: 0.0401 - val_c5_loss: 0.1461 - val_c6_loss: 0.4203 - val_c7_loss: 0.3679 - val_c1_acc: 0.9870 - val_c2_acc: 0.9983 - val_c3_acc: 0.9957 - val_c4_acc: 0.9886 - val_c5_acc: 0.9600 - val_c6_acc: 0.8874 - val_c7_acc: 0.9018

25 Epoch 7/25

26 - 776s - loss: 1.4232 - c1_loss: 0.1001 - c2_loss: 0.0132 - c3_loss: 0.0321 -

26 c4_loss: 0.0703 - c5_loss: 0.2122 - c6_loss: 0.5306 - c7_loss: 0.4647 - c1_acc: 0.9700 - c2_acc: 0.9963 - c3_acc: 0.9905 - c4_acc: 0.9782 - c5_acc: 0.9392 - c6_acc: 0.8539 - c7_acc: 0.8740 - val_loss: 0.9390 - val_c1_loss: 0.0486 - val_c2_loss: 0.0071 - val_c3_loss: 0.0151 - val_c4_loss: 0.0366 - val_c5_loss: 0.1338 - val_c6_loss: 0.3571 - val_c7_loss: 0.3406 - val_c1_acc: 0.9869 - val_c2_acc: 0.9983 - val_c3_acc: 0.9956 - val_c4_acc: 0.9886 - val_c5_acc: 0.9620 - val_c6_acc: 0.9029 - val_c7_acc: 0.9089

27 Epoch 8/25

28 - 778s - loss: 1.3347 - c1_loss: 0.0907 - c2_loss: 0.0114 - c3_loss: 0.0292 - c4_loss: 0.0645 - c5_loss: 0.1965 - c6_loss: 0.4966 - c7_loss: 0.4458 - c1_acc: 0.9722 - c2_acc: 0.9967 - c3_acc: 0.9914 - c4_acc: 0.9800 - c5_acc: 0.9434 - c6_acc: 0.8621 - c7_acc: 0.8794 - val_loss: 0.8777 - val_c1_loss: 0.0512 - val_c2_loss: 0.0094 - val_c3_loss

28 : 0.0183 - val_c4_loss: 0.0357 - val_c5_loss: 0.1151 - val_c6_loss: 0.3315 - val_c7_loss: 0.3165 - val_c1_acc: 0.9863 - val_c2_acc: 0.9982 - val_c3_acc: 0.9953 - val_c4_acc: 0.9901 - val_c5_acc: 0.9669 - val_c6_acc: 0.9072 - val_c7_acc: 0.9174

29 Epoch 9/25

30 - 786s - loss: 1.2378 - c1_loss: 0.0874 - c2_loss: 0.0118 - c3_loss: 0.0252 - c4_loss: 0.0592 - c5_loss: 0.1784 - c6_loss: 0.4664 - c7_loss: 0.4094 - c1_acc: 0.9732 - c2_acc: 0.9970 - c3_acc: 0.9926 - c4_acc: 0.9822 - c5_acc: 0.9492 - c6_acc: 0.8704 - c7_acc: 0.8888 - val_loss: 0.9282 - val_c1_loss: 0.0542 - val_c2_loss: 0.0092 - val_c3_loss: 0.0182 - val_c4_loss: 0.0443 - val_c5_loss: 0.1288 - val_c6_loss: 0.3422 - val_c7_loss: 0.3312 - val_c1_acc: 0.9838 - val_c2_acc: 0.9973 - val_c3_acc: 0.9947 - val_c4_acc: 0.9871 - val_c5_acc: 0.9623 - val_c6_acc: 0.9038 - val_c7_acc: 0.9105

```
31  Epoch 10/25
32   - 763s - loss: 1.1757 - c1_loss: 0.0842
     - c2_loss: 0.0101 - c3_loss: 0.0262 -
    c4_loss: 0.0584 - c5_loss: 0.1671 -
    c6_loss: 0.4377 - c7_loss: 0.3920 -
    c1_acc: 0.9746 - c2_acc: 0.9972 - c3_acc
    : 0.9919 - c4_acc: 0.9824 - c5_acc: 0.
    9510 - c6_acc: 0.8770 - c7_acc: 0.8922
     - val_loss: 0.8084 - val_c1_loss: 0.
    0448 - val_c2_loss: 0.0075 - val_c3_loss
    : 0.0159 - val_c4_loss: 0.0347 -
    val_c5_loss: 0.1050 - val_c6_loss: 0.
    3075 - val_c7_loss: 0.2929 - val_c1_acc
    : 0.9876 - val_c2_acc: 0.9982 -
    val_c3_acc: 0.9955 - val_c4_acc: 0.9900
     - val_c5_acc: 0.9702 - val_c6_acc: 0.
    9155 - val_c7_acc: 0.9223
33  Epoch 11/25
34   - 752s - loss: 1.0978 - c1_loss: 0.0839
     - c2_loss: 0.0092 - c3_loss: 0.0260 -
    c4_loss: 0.0534 - c5_loss: 0.1570 -
    c6_loss: 0.4050 - c7_loss: 0.3634 -
    c1_acc: 0.9741 - c2_acc: 0.9971 - c3_acc
    : 0.9921 - c4_acc: 0.9835 - c5_acc: 0.
```

34 9550 - c6_acc: 0.8879 - c7_acc: 0.9008 - val_loss: 0.7945 - val_c1_loss: 0.0587 - val_c2_loss: 0.0078 - val_c3_loss: 0.0173 - val_c4_loss: 0.0319 - val_c5_loss: 0.1066 - val_c6_loss: 0.2885 - val_c7_loss: 0.2837 - val_c1_acc: 0.9830 - val_c2_acc: 0.9981 - val_c3_acc: 0.9947 - val_c4_acc: 0.9907 - val_c5_acc: 0.9695 - val_c6_acc: 0.9197 - val_c7_acc: 0.9249

35 Epoch 12/25

36 - 807s - loss: 1.0495 - c1_loss: 0.0782 - c2_loss: 0.0102 - c3_loss: 0.0219 - c4_loss: 0.0520 - c5_loss: 0.1468 - c6_loss: 0.3876 - c7_loss: 0.3528 - c1_acc: 0.9764 - c2_acc: 0.9970 - c3_acc: 0.9935 - c4_acc: 0.9847 - c5_acc: 0.9567 - c6_acc: 0.8903 - c7_acc: 0.9048 - val_loss: 0.7007 - val_c1_loss: 0.0489 - val_c2_loss: 0.0078 - val_c3_loss: 0.0171 - val_c4_loss: 0.0298 - val_c5_loss: 0.0964 - val_c6_loss: 0.2590 - val_c7_loss: 0.2418 - val_c1_acc: 0.9852 - val_c2_acc: 0.9980 -

36 val_c3_acc: 0.9950 - val_c4_acc: 0.9911 - val_c5_acc: 0.9722 - val_c6_acc: 0.9271 - val_c7_acc: 0.9338

37 Epoch 13/25

38 - 931s - loss: 1.0015 - c1_loss: 0.0785 - c2_loss: 0.0089 - c3_loss: 0.0217 - c4_loss: 0.0478 - c5_loss: 0.1389 - c6_loss: 0.3730 - c7_loss: 0.3327 - c1_acc: 0.9762 - c2_acc: 0.9975 - c3_acc: 0.9936 - c4_acc: 0.9851 - c5_acc: 0.9593 - c6_acc: 0.8958 - c7_acc: 0.9100 - val_loss: 0.6677 - val_c1_loss: 0.0539 - val_c2_loss: 0.0063 - val_c3_loss: 0.0157 - val_c4_loss: 0.0264 - val_c5_loss: 0.0864 - val_c6_loss: 0.2338 - val_c7_loss: 0.2452 - val_c1_acc: 0.9838 - val_c2_acc: 0.9981 - val_c3_acc: 0.9953 - val_c4_acc: 0.9920 - val_c5_acc: 0.9751 - val_c6_acc: 0.9348 - val_c7_acc: 0.9344

39 Epoch 14/25

40 - 929s - loss: 0.9787 - c1_loss: 0.0786 - c2_loss: 0.0083 - c3_loss: 0.0229 - c4_loss: 0.0482 - c5_loss: 0.1374 -

40 `c6_loss: 0.3582 - c7_loss: 0.3251 - c1_acc: 0.9762 - c2_acc: 0.9976 - c3_acc: 0.9929 - c4_acc: 0.9855 - c5_acc: 0.9605 - c6_acc: 0.8999 - c7_acc: 0.9104 - val_loss: 0.6052 - val_c1_loss: 0.0349 - val_c2_loss: 0.0065 - val_c3_loss: 0.0150 - val_c4_loss: 0.0274 - val_c5_loss: 0.0809 - val_c6_loss: 0.2181 - val_c7_loss: 0.2225 - val_c1_acc: 0.9900 - val_c2_acc: 0.9980 - val_c3_acc: 0.9956 - val_c4_acc: 0.9920 - val_c5_acc: 0.9769 - val_c6_acc: 0.9378 - val_c7_acc: 0.9389`

41 `Epoch 15/25`

42 `- 869s - loss: 0.9446 - c1_loss: 0.0780 - c2_loss: 0.0079 - c3_loss: 0.0215 - c4_loss: 0.0445 - c5_loss: 0.1323 - c6_loss: 0.3503 - c7_loss: 0.3100 - c1_acc: 0.9765 - c2_acc: 0.9977 - c3_acc: 0.9932 - c4_acc: 0.9868 - c5_acc: 0.9623 - c6_acc: 0.9023 - c7_acc: 0.9164 - val_loss: 0.5479 - val_c1_loss: 0.0368 - val_c2_loss: 0.0065 - val_c3_loss: 0.0122 - val_c4_loss: 0.0225 -`

42 val_c5_loss: 0.0701 - val_c6_loss: 0.1925 - val_c7_loss: 0.2072 - val_c1_acc: 0.9891 - val_c2_acc: 0.9981 - val_c3_acc: 0.9964 - val_c4_acc: 0.9937 - val_c5_acc: 0.9795 - val_c6_acc: 0.9462 - val_c7_acc: 0.9453

43 Epoch 16/25

44 - 747s - loss: 0.8933 - c1_loss: 0.0754 - c2_loss: 0.0075 - c3_loss: 0.0187 - c4_loss: 0.0432 - c5_loss: 0.1251 - c6_loss: 0.3294 - c7_loss: 0.2939 - c1_acc: 0.9770 - c2_acc: 0.9978 - c3_acc: 0.9940 - c4_acc: 0.9866 - c5_acc: 0.9633 - c6_acc: 0.9084 - c7_acc: 0.9183 - val_loss: 0.5777 - val_c1_loss: 0.0348 - val_c2_loss: 0.0063 - val_c3_loss: 0.0122 - val_c4_loss: 0.0246 - val_c5_loss: 0.0792 - val_c6_loss: 0.2150 - val_c7_loss: 0.2055 - val_c1_acc: 0.9899 - val_c2_acc: 0.9985 - val_c3_acc: 0.9969 - val_c4_acc: 0.9930 - val_c5_acc: 0.9781 - val_c6_acc: 0.9389 - val_c7_acc: 0.9446

45 Epoch 17/25

```
46    - 753s - loss: 0.8761 - c1_loss: 0.0758
      - c2_loss: 0.0088 - c3_loss: 0.0182 -
    c4_loss: 0.0431 - c5_loss: 0.1264 -
    c6_loss: 0.3151 - c7_loss: 0.2887 -
    c1_acc: 0.9772 - c2_acc: 0.9974 - c3_acc
    : 0.9940 - c4_acc: 0.9871 - c5_acc: 0.
    9634 - c6_acc: 0.9110 - c7_acc: 0.9195
      - val_loss: 0.6290 - val_c1_loss: 0.
    0378 - val_c2_loss: 0.0071 - val_c3_loss
    : 0.0199 - val_c4_loss: 0.0340 -
    val_c5_loss: 0.0948 - val_c6_loss: 0.
    2215 - val_c7_loss: 0.2140 - val_c1_acc
    : 0.9892 - val_c2_acc: 0.9981 -
    val_c3_acc: 0.9941 - val_c4_acc: 0.9899
      - val_c5_acc: 0.9729 - val_c6_acc: 0.
    9372 - val_c7_acc: 0.9405
47  Epoch 18/25
48    - 746s - loss: 0.8493 - c1_loss: 0.0742
      - c2_loss: 0.0093 - c3_loss: 0.0205 -
    c4_loss: 0.0448 - c5_loss: 0.1193 -
    c6_loss: 0.3041 - c7_loss: 0.2770 -
    c1_acc: 0.9776 - c2_acc: 0.9975 - c3_acc
    : 0.9941 - c4_acc: 0.9873 - c5_acc: 0.
    9657 - c6_acc: 0.9143 - c7_acc: 0.9235
```

48
```
 - val_loss: 0.5735 - val_c1_loss: 0.
0398 - val_c2_loss: 0.0071 - val_c3_loss
: 0.0133 - val_c4_loss: 0.0283 -
val_c5_loss: 0.0829 - val_c6_loss: 0.
2052 - val_c7_loss: 0.1968 - val_c1_acc
: 0.9882 - val_c2_acc: 0.9983 -
val_c3_acc: 0.9961 - val_c4_acc: 0.9919
 - val_c5_acc: 0.9764 - val_c6_acc: 0.
9414 - val_c7_acc: 0.9455
```
49 `Epoch 19/25`
50
```
 - 750s - loss: 0.8366 - c1_loss: 0.0722
 - c2_loss: 0.0093 - c3_loss: 0.0211 -
c4_loss: 0.0417 - c5_loss: 0.1162 -
c6_loss: 0.2976 - c7_loss: 0.2786 -
c1_acc: 0.9787 - c2_acc: 0.9974 - c3_acc
: 0.9938 - c4_acc: 0.9872 - c5_acc: 0.
9659 - c6_acc: 0.9184 - c7_acc: 0.9239
 - val_loss: 0.6042 - val_c1_loss: 0.
0470 - val_c2_loss: 0.0104 - val_c3_loss
: 0.0171 - val_c4_loss: 0.0309 -
val_c5_loss: 0.0804 - val_c6_loss: 0.
2081 - val_c7_loss: 0.2103 - val_c1_acc
: 0.9860 - val_c2_acc: 0.9970 -
val_c3_acc: 0.9950 - val_c4_acc: 0.9912
```

50   - val_c5_acc: 0.9761 - val_c6_acc: 0.9405 - val_c7_acc: 0.9427

51   Epoch 20/25

52   - 758s - loss: 0.8333 - c1_loss: 0.0707 - c2_loss: 0.0091 - c3_loss: 0.0206 - c4_loss: 0.0414 - c5_loss: 0.1209 - c6_loss: 0.2996 - c7_loss: 0.2711 - c1_acc: 0.9785 - c2_acc: 0.9975 - c3_acc: 0.9939 - c4_acc: 0.9879 - c5_acc: 0.9660 - c6_acc: 0.9182 - c7_acc: 0.9255 - val_loss: 0.4449 - val_c1_loss: 0.0288 - val_c2_loss: 0.0058 - val_c3_loss: 0.0097 - val_c4_loss: 0.0172 - val_c5_loss: 0.0547 - val_c6_loss: 0.1659 - val_c7_loss: 0.1628 - val_c1_acc: 0.9920 - val_c2_acc: 0.9986 - val_c3_acc: 0.9974 - val_c4_acc: 0.9950 - val_c5_acc: 0.9846 - val_c6_acc: 0.9540 - val_c7_acc: 0.9554

53   Epoch 21/25

54   - 778s - loss: 0.7824 - c1_loss: 0.0709 - c2_loss: 0.0080 - c3_loss: 0.0175 - c4_loss: 0.0386 - c5_loss: 0.1058 - c6_loss: 0.2773 - c7_loss: 0.2644 -

54 c1_acc: 0.9787 - c2_acc: 0.9978 - c3_acc: 0.9947 - c4_acc: 0.9883 - c5_acc: 0.9688 - c6_acc: 0.9212 - c7_acc: 0.9283 - val_loss: 0.4669 - val_c1_loss: 0.0304 - val_c2_loss: 0.0058 - val_c3_loss: 0.0093 - val_c4_loss: 0.0217 - val_c5_loss: 0.0571 - val_c6_loss: 0.1730 - val_c7_loss: 0.1696 - val_c1_acc: 0.9917 - val_c2_acc: 0.9988 - val_c3_acc: 0.9975 - val_c4_acc: 0.9934 - val_c5_acc: 0.9833 - val_c6_acc: 0.9512 - val_c7_acc: 0.9523

55 Epoch 22/25

56 - 770s - loss: 0.7705 - c1_loss: 0.0688 - c2_loss: 0.0080 - c3_loss: 0.0182 - c4_loss: 0.0391 - c5_loss: 0.1068 - c6_loss: 0.2769 - c7_loss: 0.2526 - c1_acc: 0.9796 - c2_acc: 0.9977 - c3_acc: 0.9943 - c4_acc: 0.9880 - c5_acc: 0.9687 - c6_acc: 0.9229 - c7_acc: 0.9296 - val_loss: 0.4968 - val_c1_loss: 0.0412 - val_c2_loss: 0.0057 - val_c3_loss: 0.0114 - val_c4_loss: 0.0215 - val_c5_loss: 0.0640 - val_c6_loss: 0.

56 1776 - val_c7_loss: 0.1753 - val_c1_acc: 0.9878 - val_c2_acc: 0.9985 - val_c3_acc: 0.9966 - val_c4_acc: 0.9931 - val_c5_acc: 0.9812 - val_c6_acc: 0.9509 - val_c7_acc: 0.9520

57 Epoch 23/25

58 - 769s - loss: 0.7877 - c1_loss: 0.0712 - c2_loss: 0.0088 - c3_loss: 0.0179 - c4_loss: 0.0378 - c5_loss: 0.1078 - c6_loss: 0.2883 - c7_loss: 0.2559 - c1_acc: 0.9791 - c2_acc: 0.9974 - c3_acc: 0.9947 - c4_acc: 0.9887 - c5_acc: 0.9688 - c6_acc: 0.9210 - c7_acc: 0.9289 - val_loss: 0.4762 - val_c1_loss: 0.0363 - val_c2_loss: 0.0049 - val_c3_loss: 0.0118 - val_c4_loss: 0.0214 - val_c5_loss: 0.0617 - val_c6_loss: 0.1638 - val_c7_loss: 0.1762 - val_c1_acc: 0.9901 - val_c2_acc: 0.9987 - val_c3_acc: 0.9966 - val_c4_acc: 0.9936 - val_c5_acc: 0.9817 - val_c6_acc: 0.9538 - val_c7_acc: 0.9524

59 Epoch 24/25

60 - 745s - loss: 0.7517 - c1_loss: 0.0689

```
60    - c2_loss: 0.0095 - c3_loss: 0.0179 -
      c4_loss: 0.0373 - c5_loss: 0.1039 -
      c6_loss: 0.2610 - c7_loss: 0.2532 -
      c1_acc: 0.9798 - c2_acc: 0.9974 - c3_acc
      : 0.9946 - c4_acc: 0.9889 - c5_acc: 0.
      9704 - c6_acc: 0.9282 - c7_acc: 0.9317
       - val_loss: 0.4544 - val_c1_loss: 0.
      0276 - val_c2_loss: 0.0053 - val_c3_loss
      : 0.0097 - val_c4_loss: 0.0196 -
      val_c5_loss: 0.0575 - val_c6_loss: 0.
      1656 - val_c7_loss: 0.1692 - val_c1_acc
      : 0.9916 - val_c2_acc: 0.9985 -
      val_c3_acc: 0.9972 - val_c4_acc: 0.9946
       - val_c5_acc: 0.9833 - val_c6_acc: 0.
      9534 - val_c7_acc: 0.9540
61    Epoch 25/25
62    - 749s - loss: 0.7526 - c1_loss: 0.0685
       - c2_loss: 0.0079 - c3_loss: 0.0176 -
      c4_loss: 0.0404 - c5_loss: 0.0988 -
      c6_loss: 0.2654 - c7_loss: 0.2540 -
      c1_acc: 0.9794 - c2_acc: 0.9978 - c3_acc
      : 0.9947 - c4_acc: 0.9882 - c5_acc: 0.
      9710 - c6_acc: 0.9266 - c7_acc: 0.9302
       - val_loss: 0.4713 - val_c1_loss: 0.
```

```
62  0429 - val_c2_loss: 0.0042 - val_c3_loss
    : 0.0115 - val_c4_loss: 0.0200 -
    val_c5_loss: 0.0577 - val_c6_loss: 0.
    1698 - val_c7_loss: 0.1652 - val_c1_acc
    : 0.9865 - val_c2_acc: 0.9990 -
    val_c3_acc: 0.9965 - val_c4_acc: 0.9941
     - val_c5_acc: 0.9824 - val_c6_acc: 0.
    9535 - val_c7_acc: 0.9548
63
64  Process finished with exit code 0
65
```