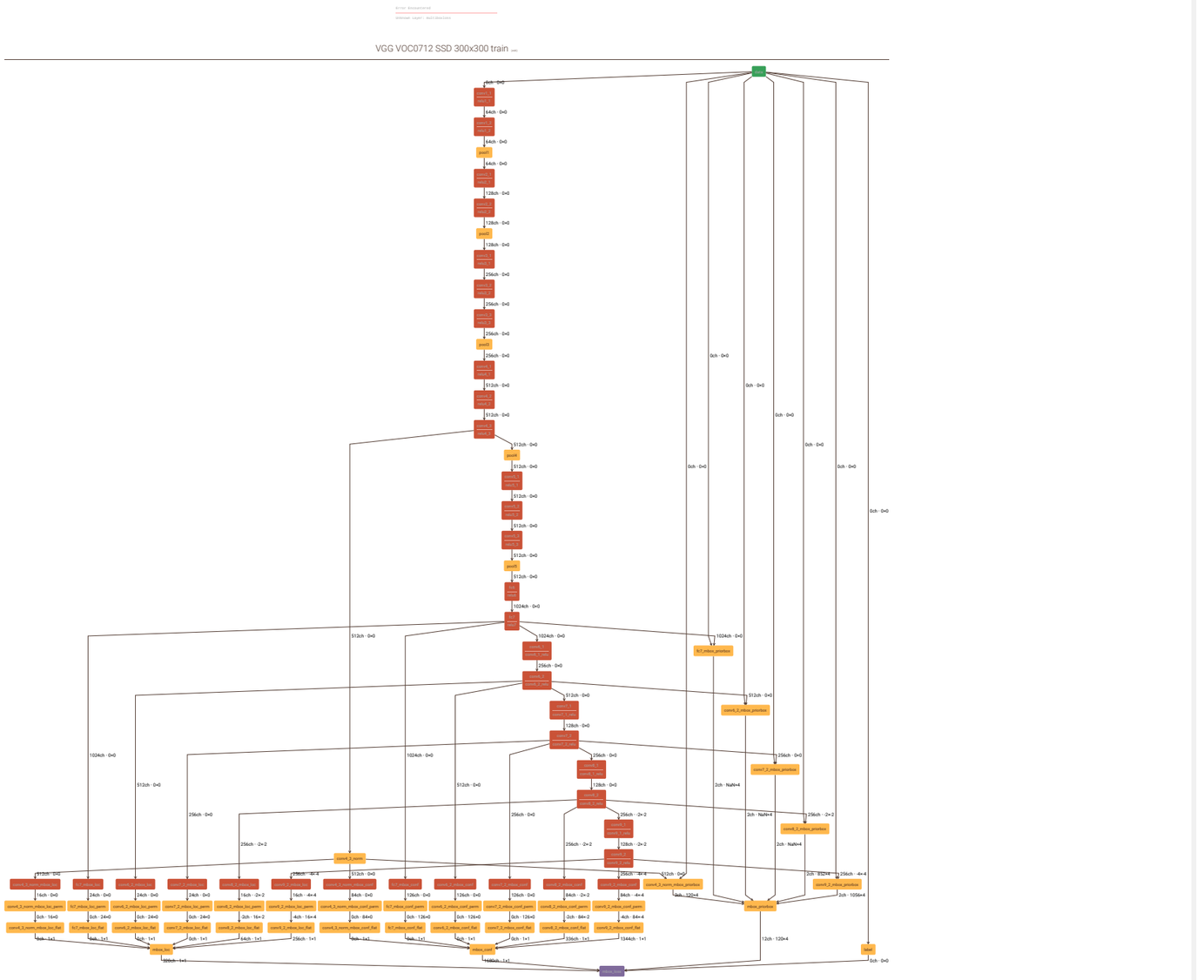
```
name: "VGG_VOC0712_SSD_300x300_train"
layer {
  name: "data"
  type: "AnnotatedData"
  top: "data"
  top: "label"
  include {
    phase: TRAIN
  }
  transform_param {
    mean_value: 104
    mean_value: 117
    mean_value: 123
    resize_param {
      prob: 1
      resize_mode: WARP
      height: 300
      width: 300
      interp_mode: LINEAR
      interp_mode: AREA
      interp_mode: NEAREST
      interp_mode: CUBIC
      interp_mode: LANCZOS4
    }
    emit_constraint {
      emit_type: CENTER
    }
    distort_param {
      brightness_prob: 0.5
      brightness_delta: 32
      contrast_prob: 0.5
      contrast_lower: 0.5
      contrast_upper: 1.5
      hue_prob: 0.5
      hue_delta: 18
      saturation_prob: 0.5
      saturation_lower: 0.5
      saturation_upper: 1.5
      random_order_prob: 0.0
    }
    expand_param {
      prob: 0.5
      max_expand_ratio: 4.0
    }
  }
  data_param {
    source: "examples/VOC0712/VOC0712_trainval_lmdb"
    batch_size: 32
    backend: LMDB
  }
  annotated_data_param {
    batch_sampler {
      max_sample: 1
      max_trials: 1
    }
    batch_sampler {
      sampler {
        min_scale: 0.3
        max_scale: 1.0
        min_aspect_ratio: 0.5
        max_aspect_ratio: 2.0
      }
      sample_constraint {
        min_jaccard_overlap: 0.1
      }
      max_sample: 1
      max_trials: 50
    }
    batch_sampler {
      sampler {
        min_scale: 0.3
        max_scale: 1.0
        min_aspect_ratio: 0.5
        max_aspect_ratio: 2.0
      }
      sample_constraint {
        min_jaccard_overlap: 0.3
      }
      max_sample: 1
      max_trials: 50
    }
    batch_sampler {
      sampler {
        min_scale: 0.3
        max_scale: 1.0
        min_aspect_ratio: 0.5
        max_aspect_ratio: 2.0
      }
      sample_constraint {
        min_jaccard_overlap: 0.5
      }
      max_sample: 1
      max_trials: 50
    }
    batch_sampler {
      sampler {
        min_scale: 0.3
        max_scale: 1.0
        min_aspect_ratio: 0.5
        max_aspect_ratio: 2.0
      }
      sample_constraint {
        min_jaccard_overlap: 0.7
      }
      max_sample: 1
      max_trials: 50
    }
    batch_sampler {
      sampler {
        min_scale: 0.3
        max_scale: 1.0
        min_aspect_ratio: 0.5
        max_aspect_ratio: 2.0
      }
      sample_constraint {
        min_jaccard_overlap: 0.9
      }
      max_sample: 1
      max_trials: 50
    }
    batch_sampler {
      sampler {
        min_scale: 0.3
        max_scale: 1.0
        min_aspect_ratio: 0.5
        max_aspect_ratio: 2.0
      }
      sample_constraint {
        max_jaccard_overlap: 1.0
      }
      max_sample: 1
      max_trials: 50
    }
    label_map_file: "data/VOC0712/labelmap_voc.prototxt"
  }
}
layer {
  name: "conv1_1"
  type: "Convolution"
  bottom: "data"
  top: "conv1_1"
  param {
    lr_mult: 1
    decay_mult: 1
  }
  param {
    lr_mult: 2
    decay_mult: 0
  }
  convolution_param {
    num_output: 64
    pad: 1
    kernel_size: 3
    weight_filler {
      type: "xavier"
    }
    bias_filler {
      type: "constant"
      value: 0
    }
  }
}
layer {
  name: "relu1_1"
  type: "ReLU"
  bottom: "conv1_1"
  top: "conv1_1"
}
layer {
  name: "conv1_2"
  type: "Convolution"
  bottom: "conv1_1"
  top: "conv1_2"
  param {
    lr_mult: 1
    decay_mult: 1
  }
  param {
    lr_mult: 2
    decay_mult: 0
  }
  convolution_param {
    num_output: 64
    pad: 1
    kernel_size: 3
    weight_filler {
      type: "xavier"
    }
    bias_filler {
      type: "constant"
      value: 0
    }
  }
}
layer {
  name: "relu1_2"
  type: "ReLU"
  bottom: "conv1_2"
  top: "conv1_2"
}
layer {
  name: "pool1"
  type: "Pooling"
  bottom: "conv1_2"
  top: "pool1"
  pooling_param {
    pool: MAX
    kernel_size: 2
    stride: 2
  }
}
layer {
  name: "conv2_1"
  type: "Convolution"
  bottom: "pool1"
  top: "conv2_1"
  param {
    lr_mult: 1
    decay_mult: 1
  }
  param {
    lr_mult: 2
    decay_mult: 0
  }
  convolution_param {
    num_output: 128
    pad: 1
    kernel_size: 3
    weight_filler {
      type: "xavier"
    }
    bias_filler {
      type: "constant"
      value: 0
    }
  }
}
layer {
  name: "relu2_1"
  type: "ReLU"
  bottom: "conv2_1"
  top: "conv2_1"
}
layer {
  name: "conv2_2"
  type: "Convolution"
  bottom: "conv2_1"
  top: "conv2_2"
  param {
    lr_mult: 1
    decay_mult: 1
  }
  param {
    lr_mult: 2
    decay_mult: 0
  }
  convolution_param {
    num_output: 128
    pad: 1
    kernel_size: 3
    weight_filler {
      type: "xavier"
    }
    bias_filler {
      type: "constant"
      value: 0
    }
  }
}
layer {
  name: "relu2_2"
  type: "ReLU"
  bottom: "conv2_2"
  top: "conv2_2"
}
layer {
  name: "pool2"
  type: "Pooling"
  bottom: "conv2_2"
  top: "pool2"
  pooling_param {
    pool: MAX
    kernel_size: 2
    stride: 2
  }
}
layer {
  name: "conv3_1"
  type: "Convolution"
  bottom: "pool2"
  top: "conv3_1"
  param {
    lr_mult: 1
    decay_mult: 1
  }
  param {
    lr_mult: 2
    decay_mult: 0
  }
  convolution_param {
    num_output: 256
    pad: 1
    kernel_size: 3
    weight_filler {
      type: "xavier"
    }
    bias_filler {
      type: "constant"
      value: 0
    }
  }
}
layer {
  name: "relu3_1"
  type: "ReLU"
  bottom: "conv3_1"
  top: "conv3_1"
}
layer {
  name: "conv3_2"
  type: "Convolution"
  bottom: "conv3_1"
  top: "conv3_2"
  param {
    lr_mult: 1
```



Network Analysis

Summary:

```
  decay_mult: 1
}
param {
  lr_mult: 2
  decay_mult: 0
}
convolution_param {
  num_output: 256
  pad: 1
  kernel_size: 3
  weight_filler {
    type: "xavier"
  }
  bias_filler {
    type: "constant"
    value: 0
  }
}
}
layer {
  name: "relu2_2"
  type: "ReLU"
  bottom: "conv2_2"
  top: "conv2_2"
}
layer {
  name: "conv3_3"
  type: "Convolution"
  bottom: "conv2_2"
  top: "conv3_3"
  param {
    lr_mult: 1
    decay_mult: 1
  }
  param {
    lr_mult: 2
    decay_mult: 0
  }
  convolution_param {
    num_output: 256
    pad: 1
    kernel_size: 3
    weight_filler {
      type: "xavier"
    }
    bias_filler {
      type: "constant"
      value: 0
    }
  }
}
layer {
  name: "relu3_3"
  type: "ReLU"
  bottom: "conv3_3"
  top: "conv3_3"
}
layer {
  name: "pool3"
  type: "Pooling"
  bottom: "conv3_3"
  top: "pool3"
  pooling_param {
    pool: MAX
    kernel_size: 2
    stride: 2
  }
}
layer {
  name: "conv4_1"
  type: "Convolution"
  bottom: "pool3"
  top: "conv4_1"
  param {
    lr_mult: 1
    decay_mult: 1
  }
  param {
    lr_mult: 2
    decay_mult: 0
  }
  convolution_param {
    num_output: 512
    pad: 1
    kernel_size: 3
    weight_filler {
      type: "xavier"
    }
    bias_filler {
      type: "constant"
      value: 0
    }
  }
}
layer {
  name: "relu4_1"
  type: "ReLU"
  bottom: "conv4_1"
  top: "conv4_1"
}
layer {
  name: "conv4_2"
  type: "Convolution"
  bottom: "conv4_1"
  top: "conv4_2"
  param {
    lr_mult: 1
    decay_mult: 1
  }
  param {
    lr_mult: 2
    decay_mult: 0
  }
  convolution_param {
    num_output: 512
    pad: 1
    kernel_size: 3
    weight_filler {
      type: "xavier"
    }
    bias_filler {
      type: "constant"
      value: 0
    }
  }
}
layer {
  name: "relu4_2"
  type: "ReLU"
  bottom: "conv4_2"
  top: "conv4_2"
}
layer {
  name: "conv4_3"
  type: "Convolution"
  bottom: "conv4_2"
  top: "conv4_3"
  param {
    lr_mult: 1
    decay_mult: 1
  }
  param {
    lr_mult: 2
    decay_mult: 0
  }
  convolution_param {
    num_output: 512
    pad: 1
    kernel_size: 3
    weight_filler {
      type: "xavier"
    }
    bias_filler {
      type: "constant"
      value: 0
    }
  }
}
layer {
  name: "relu4_3"
  type: "ReLU"
  bottom: "conv4_3"
  top: "conv4_3"
}
layer {
  name: "pool4"
  type: "Pooling"
  bottom: "conv4_3"
  top: "pool4"
  pooling_param {
    pool: MAX
    kernel_size: 2
    stride: 2
  }
}
layer {
  name: "conv5_1"
  type: "Convolution"
  bottom: "pool4"
  top: "conv5_1"
  param {
    lr_mult: 1
    decay_mult: 1
  }
  param {
    lr_mult: 2
    decay_mult: 0
  }
  convolution_param {
    num_output: 512
    pad: 1
    kernel_size: 3
    weight_filler {
      type: "xavier"
    }
    bias_filler {
      type: "constant"
      value: 0
    }
  }
}
layer {
  name: "relu5_1"
  type: "ReLU"
  bottom: "conv5_1"
  top: "conv5_1"
}
layer {
  name: "conv5_2"
  type: "Convolution"
  bottom: "conv5_1"
  top: "conv5_2"
  param {
    lr_mult: 1
    decay_mult: 1
  }
  param {
    lr_mult: 2
    decay_mult: 0
  }
  convolution_param {
    num_output: 512
    pad: 1
    kernel_size: 3
    weight_filler {
      type: "xavier"
    }
    bias_filler {
      type: "constant"
      value: 0
    }
  }
}
layer {
  name: "relu5_2"
  type: "ReLU"
  bottom: "conv5_2"
  top: "conv5_2"
}
layer {
  name: "conv5_3"
  type: "Convolution"
  bottom: "conv5_2"
  top: "conv5_3"
  param {
    lr_mult: 1
    decay_mult: 1
  }
  param {
    lr_mult: 2
    decay_mult: 0
  }
  convolution_param {
    num_output: 512
    pad: 1
    kernel_size: 3
    weight_filler {
      type: "xavier"
    }
    bias_filler {
      type: "constant"
      value: 0
    }
  }
}
layer {
  name: "relu5_3"
  type: "ReLU"
  bottom: "conv5_3"
  top: "conv5_3"
}
layer {
  name: "pool5"
  type: "Pooling"
  bottom: "conv5_3"
  top: "pool5"
  pooling_param {
    pool: MAX
    kernel_size: 3
    stride: 1
    pad: 1
  }
}
layer {
  name: "fc6"
  type: "Convolution"
  bottom: "pool5"
  top: "fc6"
  param {
    lr_mult: 1
    decay_mult: 1
  }
  param {
    lr_mult: 2
    decay_mult: 0
  }
  convolution_param {
    num_output: 1024
    pad: 6
    kernel_size: 3
    weight_filler {
      type: "xavier"
    }
    bias_filler {
      type: "constant"
      value: 0
    }
    dilation: 6
  }
}
layer {
  name: "relu6"
  type: "ReLU"
  bottom: "fc6"
  top: "fc6"
}
layer {
  name: "fc7"
  type: "Convolution"
  bottom: "fc6"
  top: "fc7"
  param {
    lr_mult: 1
```

ID	name	type	batch	ch_in	dim_in	ch_out	dim_out	ops	mem
1	data	AnnotatedData			undefinedxundefined	0	0x0		
2	conv1_1	Convolution	0	0x0		64	0x0		**param** 64
3	relu1_1	ReLU	64	0x0		64	0x0		
4	conv1_2	Convolution	64	0x0		64	0x0		**param** 36.93k
5	relu1_2	ReLU	64	0x0		64	0x0		
6	pool1	Pooling	64	0x0		64	0x0		
7	conv2_1	Convolution	64	0x0		128	0x0		**param** 73.86k
8	relu2_1	ReLU	128	0x0		128	0x0		
9	conv2_2	Convolution	128	0x0		128	0x0		**param** 147.58k
10	relu2_2	ReLU	128	0x0		128	0x0		
11	pool2	Pooling	128	0x0		128	0x0		
12	conv3_1	Convolution	128	0x0		256	0x0		**param** 295.17k
13	relu3_1	ReLU	256	0x0		256	0x0		
14	conv3_2	Convolution	256	0x0		256	0x0		**param** 590.08k
15	relu3_2	ReLU	256	0x0		256	0x0		
16	conv3_3	Convolution	256	0x0		256	0x0		**param** 590.08k
17	relu3_3	ReLU	256	0x0		256	0x0		
18	pool3	Pooling	256	0x0		256	0x0		
19	conv4_1	Convolution	256	0x0		512	0x0		**param** 1.18M
20	relu4_1	ReLU	512	0x0		512	0x0		
21	conv4_2	Convolution	512	0x0		512	0x0		**param** 2.36M
22	relu4_2	ReLU	512	0x0		512	0x0		
23	conv4_3	Convolution	512	0x0		512	0x0		**param** 2.36M
24	relu4_3	ReLU	512	0x0		512	0x0		
25	pool4	Pooling	512	0x0		512	0x0		
26	conv5_1	Convolution	512	0x0		512	0x0		**param** 2.36M
27	relu5_1	ReLU	512	0x0		512	0x0		
28	conv5_2	Convolution	512	0x0		512	0x0		**param** 2.36M
29	relu5_2	ReLU	512	0x0		512	0x0		
30	conv5_3	Convolution	512	0x0		512	0x0		**param** 2.36M
31	relu5_3	ReLU	512	0x0		512	0x0		
32	pool5	Pooling	512	0x0		512	0x0		
33	fc6	Convolution	512	0x0		1024	0x0		**param** 4.72M
34	relu6	ReLU	1024	0x0		1024	0x0		
35	fc7	Convolution	1024	0x0		1024	0x0		**param** 1.05M
36	relu7	ReLU	1024	0x0		1024	0x0		
37	conv6_1	Convolution	1024	0x0		256	0x0		**param** 262.4k
38	conv6_1_relu	ReLU	256	0x0		256	0x0		
39	conv6_2	Convolution	256	0x0		512	0x0		**param** 1.18M
40	conv6_2_relu	ReLU	512	0x0		512	0x0		
41	conv7_1	Convolution	512	0x0		128	0x0		**param** 65.66k
42	conv7_1_relu	ReLU	128	0x0		128	0x0		
43	conv7_2	Convolution	128	0x0		256	0x0		**param** 295.17k
44	conv7_2_relu	ReLU	256	0x0		256	0x0		
45	conv8_1	Convolution	256	0x0		128	0x0		**param** 32.9k
46	conv8_1_relu	ReLU	128	0x0		128	0x0		
47	conv8_2	Convolution	128	0x0		256	-2x-2		**param** 295.17k
48	conv8_2_relu	ReLU	256	-2x-2		256	-2x-2		
49	conv9_1	Convolution	256	-2x-2		128	-2x-2		**param** 32.9k
50	conv9_1_relu	ReLU	128	-2x-2		128	-2x-2		
51	conv9_2	Convolution	128	-2x-2		256	-4x-4		**param** 295.17k
52	conv9_2_relu	ReLU	256	-4x-4		256	-4x-4		
53	conv4_3_norm	Normalize	512	0x0		512	0x0		**param** 2
54	conv4_3_norm_mbox_loc	Convolution	512	0x0		16	0x0		**param** 73.74k
55	conv4_3_norm_mbox_loc_perm	Permute	16	0x0		0	16x0		
56	conv4_3_norm_mbox_loc_flat	Flatten	0	16x0		0	1x1		
57	conv4_3_norm_mbox_conf	Convolution	512	0x0		84	0x0		**param** 387.16k
58	conv4_3_norm_mbox_conf_perm	Permute	84	0x0		0	84x0		
59	conv4_3_norm_mbox_conf_flat	Flatten	0	84x0		0	1x1		
60	conv4_3_norm_mbox_priorbox	PriorBox	512	0x0		2	122x4		
61	fc7_mbox_loc	Convolution	1024	0x0		24	0x0		**param** 221.21k
62	fc7_mbox_loc_perm	Permute	24	0x0		0	24x0		
63	fc7_mbox_loc_flat	Flatten	0	24x0		0	1x1		
64	fc7_mbox_conf	Convolution	1024	0x0		126	0x0		**param** 1.16M
65	fc7_mbox_conf_perm	Permute	126	0x0		0	126x0		
66	fc7_mbox_conf_flat	Flatten	0	126x0		0	1x1		
67	fc7_mbox_priorbox	PriorBox	0	0x0		2	NaNx4		
68	conv6_2_mbox_loc	Convolution	512	0x0		24	0x0		**param** 110.62k
69	conv6_2_mbox_loc_perm	Permute	24	0x0		0	24x0		
70	conv6_2_mbox_loc_flat	Flatten	0	24x0		0	1x1		
71	conv6_2_mbox_conf	Convolution	512	0x0		126	0x0		**param** 580.73k
72	conv6_2_mbox_conf_perm	Permute	126	0x0		0	126x0		
73	conv6_2_mbox_conf_flat	Flatten	0	126x0		0	1x1		
74	conv6_2_mbox_priorbox	PriorBox	0	0x0		2	NaNx4		
75	conv7_2_mbox_loc	Convolution	256	0x0		24	0x0		**param** 55.32k
76	conv7_2_mbox_loc_perm	Permute	24	0x0		0	24x0		
77	conv7_2_mbox_loc_flat	Flatten	0	24x0		0	1x1		
78	conv7_2_mbox_conf	Convolution	256	0x0		126	0x0		**param** 290.43k
79	conv7_2_mbox_conf_perm	Permute	126	0x0		0	126x0		
80	conv7_2_mbox_conf_flat	Flatten	0	126x0		0	1x1		
81	conv7_2_mbox_priorbox	PriorBox	0	0x0		2	NaNx4		
82	conv8_2_mbox_loc	Convolution	256	-2x-2		16	-2x-2		**param** 36.88k
83	conv8_2_mbox_loc_perm	Permute	16	-2x-2		-2	16x-2		
84	conv8_2_mbox_loc_flat	Flatten	-2	16x-2		64	1x1		
85	conv8_2_mbox_conf	Convolution	256	-2x-2		84	-2x-2		**param** 193.62k
86	conv8_2_mbox_conf_perm	Permute	84	-2x-2		-2	84x-2		
87	conv8_2_mbox_conf_flat	Flatten	-2	84x-2		336	1x1		
88	conv8_2_mbox_priorbox	PriorBox	0	0x0		2	852x4		
89	conv9_2_mbox_loc	Convolution	256	-4x-4		16	-4x-4		**param** 36.88k
90	conv9_2_mbox_loc_perm	Permute	16	-4x-4		-4	16x-4		
91	conv9_2_mbox_loc_flat	Flatten	-4	16x-4		256	1x1		
92	conv9_2_mbox_conf	Convolution	256	-4x-4		84	-4x-4		**param** 193.62k
93	conv9_2_mbox_conf_perm	Permute	84	-4x-4		-4	84x-4		
94	conv9_2_mbox_conf_flat	Flatten	-4	84x-4		1344	1x1		
95	conv9_2_mbox_priorbox	PriorBox	0	0x0		2	1056x4		
96	mbox_loc	Concat	320	1x1		320	1x1		
97	mbox_conf	Concat	1680	1x1		1680	1x1		
98	mbox_priorbox	Concat	12	120x4		12	120x4		
99	label	implicit	0	0x0		0	0x0		
100	mbox_loss	MultiBoxLoss	329	1x1		0	0x0		
	TOTAL							**mem** NaN **comp** NaN **add** NaN **div** NaN **exp** NaN	**activation** NaN **param** 26.28M

Details:

ID	name	type	batch	ch_in	dim_in	ch_out	dim_out	ops_raw	mem_raw
1	data	AnnotatedData			undefinedxundefined	0	0x0	**macc** 0 **comp** 0 **add** 0 **div** 0 **exp** 0	**activation** 0 **param** 0
2	conv1_1	Convolution	0	0x0		64	0x0	**macc** NaN **comp** 0 **add** 0 **div** 0 **exp** 0	**activation** NaN **param** 64
3	relu1_1	ReLU	64	0x0		64	0x0	**macc** 0 **comp** NaN **add** 0 **div** 0 **exp** 0	**activation** NaN **param** 0
4	conv1_2	Convolution	64	0x0		64	0x0	**macc** NaN **comp** 0 **add** 0 **div** 0 **exp** 0	**activation** NaN **param** 36928
5	relu1_2	ReLU	64	0x0		64	0x0	**macc** 0 **comp** NaN **add** 0 **div** 0 **exp** 0	**activation** NaN **param** 0
6	pool1	Pooling	64	0x0		64	0x0	**macc** 0 **comp** NaN **add** 0 **div** 0 **exp** 0	**activation** NaN **param** 0
7	conv2_1	Convolution	64	0x0		128	0x0	**macc** NaN **comp** 0 **add** 0 **div** 0 **exp** 0	**activation** NaN **param** 73856
8	relu2_1	ReLU	128	0x0		128	0x0	**macc** 0 **comp** NaN **add** 0 **div** 0 **exp** 0	**activation** NaN **param** 0
9	conv2_2	Convolution	128	0x0		128	0x0	**macc** NaN **comp** 0 **add** 0 **div** 0 **exp** 0	**activation** NaN **param** 147584

```
  decay_mult: 1
}
param {
  lr_mult: 2
  decay_mult: 0
}
convolution_param {
  num_output: 1024
  kernel_size: 3
  weight_filler {
    type: "xavier"
  }
  bias_filler {
    type: "constant"
    value: 0
  }
}
}
layer {
  name: "relu7"
  type: "ReLU"
  bottom: "fc7"
  top: "fc7"
}
layer {
  name: "conv6_1"
  type: "Convolution"
  bottom: "fc7"
  top: "conv6_1"
  param {
    lr_mult: 1
    decay_mult: 1
  }
  param {
    lr_mult: 2
    decay_mult: 0
  }
  convolution_param {
    num_output: 256
    pad: 0
    kernel_size: 1
    stride: 1
    weight_filler {
      type: "xavier"
    }
    bias_filler {
      type: "constant"
      value: 0
    }
  }
}
layer {
  name: "conv6_1_relu"
  type: "ReLU"
  bottom: "conv6_1"
  top: "conv6_1"
}
layer {
  name: "conv6_2"
  type: "Convolution"
  bottom: "conv6_1"
  top: "conv6_2"
  param {
    lr_mult: 1
    decay_mult: 1
  }
  param {
    lr_mult: 2
    decay_mult: 0
  }
  convolution_param {
    num_output: 512
    pad: 1
    kernel_size: 3
    stride: 2
    weight_filler {
      type: "xavier"
    }
    bias_filler {
      type: "constant"
      value: 0
    }
  }
}
layer {
  name: "conv6_2_relu"
  type: "ReLU"
  bottom: "conv6_2"
  top: "conv6_2"
}
layer {
  name: "conv7_1"
  type: "Convolution"
  bottom: "conv6_2"
  top: "conv7_1"
  param {
    lr_mult: 1
    decay_mult: 1
  }
  param {
    lr_mult: 2
    decay_mult: 0
  }
  convolution_param {
    num_output: 128
    pad: 0
    kernel_size: 1
    stride: 1
    weight_filler {
      type: "xavier"
    }
    bias_filler {
      type: "constant"
      value: 0
    }
  }
}
layer {
  name: "conv7_1_relu"
  type: "ReLU"
  bottom: "conv7_1"
  top: "conv7_1"
}
layer {
  name: "conv7_2"
  type: "Convolution"
  bottom: "conv7_1"
  top: "conv7_2"
  param {
    lr_mult: 1
    decay_mult: 1
  }
  param {
    lr_mult: 2
    decay_mult: 0
  }
  convolution_param {
    num_output: 256
    pad: 1
    kernel_size: 3
    stride: 2
    weight_filler {
      type: "xavier"
    }
    bias_filler {
      type: "constant"
      value: 0
    }
  }
}
layer {
  name: "conv7_2_relu"
  type: "ReLU"
  bottom: "conv7_2"
  top: "conv7_2"
}
layer {
  name: "conv8_1"
  type: "Convolution"
  bottom: "conv7_2"
  top: "conv8_1"
  param {
    lr_mult: 1
    decay_mult: 1
  }
  param {
    lr_mult: 2
    decay_mult: 0
  }
  convolution_param {
    num_output: 128
    pad: 0
    kernel_size: 1
    stride: 1
    weight_filler {
      type: "xavier"
    }
    bias_filler {
      type: "constant"
      value: 0
    }
  }
}
layer {
  name: "conv8_1_relu"
  type: "ReLU"
  bottom: "conv8_1"
  top: "conv8_1"
}
layer {
  name: "conv8_2"
  type: "Convolution"
  bottom: "conv8_1"
  top: "conv8_2"
  param {
    lr_mult: 1
    decay_mult: 1
  }
  param {
    lr_mult: 2
    decay_mult: 0
  }
  convolution_param {
    num_output: 256
    pad: 0
    kernel_size: 3
    stride: 1
    weight_filler {
      type: "xavier"
    }
    bias_filler {
      type: "constant"
      value: 0
    }
  }
}
layer {
  name: "conv8_2_relu"
  type: "ReLU"
  bottom: "conv8_2"
  top: "conv8_2"
}
layer {
  name: "conv4_3_norm"
  type: "Normalize"
  bottom: "conv4_3"
  top: "conv4_3_norm"
  norm_param {
    across_spatial: false
    scale_filler {
      type: "constant"
      value: 20
    }
    channel_shared: false
  }
}
layer {
  name: "conv4_3_norm_mbox_loc"
  type: "Convolution"
  bottom: "conv4_3_norm"
  top: "conv4_3_norm_mbox_loc"
  param {
    lr_mult: 1
    decay_mult: 1
  }
  param {
    lr_mult: 2
    decay_mult: 0
  }
  convolution_param {
    num_output: 16
    pad: 1
    kernel_size: 3
    stride: 1
    weight_filler {
      type: "xavier"
    }
    bias_filler {
      type: "constant"
      value: 0
```

	name	type	batch	ch_in	dim_in	ch_out	dim_out
10	relu4_2	ReLU	128	0x0		128	0x0
11	pool2	Pooling	128	0x0		128	0x0
12	conv3_1	Convolution	128	0x0		256	0x0
13	relu3_1	ReLU	256	0x0		256	0x0
14	conv3_2	Convolution	256	0x0		256	0x0
15	relu3_2	ReLU	256	0x0		256	0x0
16	conv3_3	Convolution	256	0x0		256	0x0
17	relu3_3	ReLU	256	0x0		256	0x0
18	pool3	Pooling	256	0x0		256	0x0
19	conv4_1	Convolution	256	0x0		512	0x0
20	relu4_1	ReLU	512	0x0		512	0x0
21	conv4_2	Convolution	512	0x0		512	0x0
22	relu4_2	ReLU	512	0x0		512	0x0
23	conv4_3	Convolution	512	0x0		512	0x0
24	relu4_3	ReLU	512	0x0		512	0x0
25	pool4	Pooling	512	0x0		512	0x0
26	conv5_1	Convolution	512	0x0		512	0x0
27	relu5_1	ReLU	512	0x0		512	0x0
28	conv5_2	Convolution	512	0x0		512	0x0
29	relu5_2	ReLU	512	0x0		512	0x0
30	conv5_3	Convolution	512	0x0		512	0x0
31	relu5_3	ReLU	512	0x0		512	0x0
32	pool5	Pooling	512	0x0		512	0x0
33	fc6	Convolution	512	0x0		1024	0x0
34	relu6	ReLU	1024	0x0		1024	0x0
35	fc7	Convolution	1024	0x0		1024	0x0
36	relu7	ReLU	1024	0x0		1024	0x0
37	conv6_1	Convolution	1024	0x0		256	0x0
38	conv6_1_relu	ReLU	256	0x0		256	0x0
39	conv6_2	Convolution	256	0x0		512	0x0
40	conv6_2_relu	ReLU	512	0x0		512	0x0
41	conv7_1	Convolution	512	0x0		128	0x0

10							macc	0	activation NaN
							comp	NaN	param 0
							add	0	
							div	0	
							exp	0	
11							macc	0	activation NaN
							comp	NaN	param 0
							add	0	
							div	0	
							exp	0	
12							macc	NaN	activation NaN
							comp	0	param 295168
							add	0	
							div	0	
							exp	0	
13							macc	0	activation NaN
							comp	NaN	param 0
							add	0	
							div	0	
							exp	0	
14							macc	NaN	activation NaN
							comp	0	param 590080
							add	0	
							div	0	
							exp	0	
15							macc	0	activation NaN
							comp	NaN	param 0
							add	0	
							div	0	
							exp	0	
16							macc	NaN	activation NaN
							comp	0	param 590080
							add	0	
							div	0	
							exp	0	
17							macc	0	activation NaN
							comp	NaN	param 0
							add	0	
							div	0	
							exp	0	
18							macc	0	activation NaN
							comp	NaN	param 0
							add	0	
							div	0	
							exp	0	
19							macc	NaN	activation NaN
							comp	0	param 1180160
							add	0	
							div	0	
							exp	0	
20							macc	0	activation NaN
							comp	NaN	param 0
							add	0	
							div	0	
							exp	0	
21							macc	NaN	activation NaN
							comp	0	param 2359808
							add	0	
							div	0	
							exp	0	
22							macc	0	activation NaN
							comp	NaN	param 0
							add	0	
							div	0	
							exp	0	
23							macc	NaN	activation NaN
							comp	0	param 2359808
							add	0	
							div	0	
							exp	0	
24							macc	0	activation NaN
							comp	NaN	param 0
							add	0	
							div	0	
							exp	0	
25							macc	0	activation NaN
							comp	NaN	param 0
							add	0	
							div	0	
							exp	0	
26							macc	NaN	activation NaN
							comp	0	param 2359808
							add	0	
							div	0	
							exp	0	
27							macc	0	activation NaN
							comp	NaN	param 0
							add	0	
							div	0	
							exp	0	
28							macc	NaN	activation NaN
							comp	0	param 2359808
							add	0	
							div	0	
							exp	0	
29							macc	0	activation NaN
							comp	NaN	param 0
							add	0	
							div	0	
							exp	0	
30							macc	NaN	activation NaN
							comp	0	param 2359808
							add	0	
							div	0	
							exp	0	
31							macc	0	activation NaN
							comp	NaN	param 0
							add	0	
							div	0	
							exp	0	
32							macc	0	activation NaN
							comp	NaN	param 0
							add	0	mem_use
							div	0	
							exp	0	
33							macc	NaN	activation NaN
							comp	0	param 47196616
							add	0	
							div	0	
							exp	0	
34							macc	0	activation NaN
							comp	NaN	param 0
							add	0	
							div	0	
							exp	0	
35							macc	NaN	activation NaN
							comp	0	param 1049600
							add	0	
							div	0	
							exp	0	
36							macc	0	activation NaN
							comp	NaN	param 0
							add	0	
							div	0	
							exp	0	
37							macc	NaN	activation NaN
							comp	0	param 262400
							add	0	
							div	0	
							exp	0	
38							macc	0	activation NaN
							comp	NaN	param 0
							add	0	
							div	0	
							exp	0	
39							macc	NaN	activation NaN
							comp	0	param 1180160
							add	0	
							div	0	
							exp	0	
40							macc	0	activation NaN
							comp	NaN	param 0
							add	0	
							div	0	
							exp	0	
41							macc	NaN	activation NaN
							comp	0	param 65664
							add	0	
							div	0	

```
  }
  layer {
    name: "conv4_3_norm_mbox_loc_perm"
    type: "Permute"
    bottom: "conv4_3_norm_mbox_loc"
    top: "conv4_3_norm_mbox_loc_perm"
    permute_param {
      order: 0
      order: 2
      order: 3
      order: 1
    }
  }
  layer {
    name: "conv4_3_norm_mbox_loc_flat"
    type: "Flatten"
    bottom: "conv4_3_norm_mbox_loc_perm"
    top: "conv4_3_norm_mbox_loc_flat"
    flatten_param {
      axis: 1
    }
  }
  layer {
    name: "conv4_3_norm_mbox_conf"
    type: "Convolution"
    bottom: "conv4_3_norm"
    top: "conv4_3_norm_mbox_conf"
    param {
      lr_mult: 1
      decay_mult: 1
    }
    param {
      lr_mult: 2
      decay_mult: 0
    }
    convolution_param {
      num_output: 84
      pad: 1
      kernel_size: 3
      stride: 1
      weight_filler {
        type: "xavier"
      }
      bias_filler {
        type: "constant"
        value: 0
      }
    }
  }
  layer {
    name: "conv4_3_norm_mbox_conf_perm"
    type: "Permute"
    bottom: "conv4_3_norm_mbox_conf"
    top: "conv4_3_norm_mbox_conf_perm"
    permute_param {
      order: 0
      order: 2
      order: 3
      order: 1
    }
  }
  layer {
    name: "conv4_3_norm_mbox_conf_flat"
    type: "Flatten"
    bottom: "conv4_3_norm_mbox_conf_perm"
    top: "conv4_3_norm_mbox_conf_flat"
    flatten_param {
      axis: 1
    }
  }
  layer {
    name: "conv4_3_norm_mbox_priorbox"
    type: "PriorBox"
    bottom: "conv4_3_norm"
    bottom: "data"
    top: "conv4_3_norm_mbox_priorbox"
    prior_box_param {
      min_size: 30.0
      max_size: 60.0
      aspect_ratio: 2
      flip: true
      clip: false
      variance: 0.1
      variance: 0.1
      variance: 0.2
      variance: 0.2
      step: 8
      offset: 0.5
    }
  }
  layer {
    name: "conv6_2_mbox_loc"
    type: "Convolution"
    bottom: "conv6_2"
    top: "conv6_2_mbox_loc"
    param {
      lr_mult: 1
      decay_mult: 1
    }
    param {
      lr_mult: 2
      decay_mult: 0
    }
    convolution_param {
      num_output: 24
      pad: 1
      kernel_size: 3
      stride: 1
      weight_filler {
        type: "xavier"
      }
      bias_filler {
        type: "constant"
        value: 0
      }
    }
  }
  layer {
    name: "conv6_2_mbox_loc_perm"
    type: "Permute"
    bottom: "conv6_2_mbox_loc"
    top: "conv6_2_mbox_loc_perm"
    permute_param {
      order: 0
      order: 2
      order: 3
      order: 1
    }
  }
  layer {
    name: "conv6_2_mbox_loc_flat"
    type: "Flatten"
    bottom: "conv6_2_mbox_loc_perm"
    top: "conv6_2_mbox_loc_flat"
    flatten_param {
      axis: 1
    }
  }
  layer {
    name: "conv6_2_mbox_conf"
    type: "Convolution"
    bottom: "conv6_2"
    top: "conv6_2_mbox_conf"
    param {
      lr_mult: 1
      decay_mult: 1
    }
    param {
      lr_mult: 2
      decay_mult: 0
    }
    convolution_param {
      num_output: 126
      pad: 1
      kernel_size: 3
      stride: 1
      weight_filler {
        type: "xavier"
      }
      bias_filler {
        type: "constant"
        value: 0
      }
    }
  }
  layer {
    name: "conv6_2_mbox_conf_perm"
    type: "Permute"
    bottom: "conv6_2_mbox_conf"
    top: "conv6_2_mbox_conf_perm"
    permute_param {
      order: 0
      order: 2
      order: 3
      order: 1
    }
  }
  layer {
    name: "conv6_2_mbox_conf_flat"
    type: "Flatten"
    bottom: "conv6_2_mbox_conf_perm"
    top: "conv6_2_mbox_conf_flat"
    flatten_param {
      axis: 1
    }
  }
  layer {
    name: "conv6_2_mbox_priorbox"
    type: "PriorBox"
    bottom: "conv6_2"
    bottom: "data"
    top: "conv6_2_mbox_priorbox"
    prior_box_param {
      min_size: 60.0
      max_size: 111.0
      aspect_ratio: 2
      aspect_ratio: 3
      flip: true
      clip: false
      variance: 0.1
      variance: 0.1
      variance: 0.2
      variance: 0.2
      step: 32
      offset: 0.5
    }
}
```

	name	type	batch	ch_in	ch_out	data_out	ops	
42	conv7_1_relu	ReLU	128	0x0	128	0x0	mop 0	
							mac 0	activation NaN
							comp NaN	param 0
							add 0	
							div 0	
							exp 0	
43	conv7_2	Convolution	128	0x0	256	0x0	mop NaN	activation NaN
							comp 0	param 295168
							add 0	
							div 0	
							exp 0	
44	conv7_2_relu	ReLU	256	0x0	256	0x0	mop 0	activation NaN
							comp NaN	param 0
							add 0	
							div 0	
							exp 0	
45	conv8_1	Convolution	256	0x0	128	0x0	mop NaN	activation NaN
							comp 0	param 32896
							add 0	
							div 0	
							exp 0	
46	conv8_1_relu	ReLU	128	0x0	128	0x0	mop 0	activation NaN
							comp NaN	param 0
							add 0	
							div 0	
							exp 0	
47	conv8_2	Convolution	128	0x0	256	2x2	mop NaN	activation NaN
							comp 0	param 295168
							add 0	
							div 0	
							exp 0	
48	conv8_2_relu	ReLU	256	2x2	256	2x2	mop 0	activation NaN
							comp NaN	param 0
							add 0	
							div 0	
							exp 0	
49	conv9_1	Convolution	256	2x2	128	2x2	mop NaN	activation NaN
							comp 0	param 32896
							add 0	
							div 0	
							exp 0	
50	conv9_1_relu	ReLU	128	2x2	128	2x2	mop 0	activation NaN
							comp NaN	param 0
							add 0	
							div 0	
							exp 0	
51	conv9_2	Convolution	128	2x2	256	4x4	mop NaN	activation NaN
							comp 0	param 295168
							add 0	
							div 0	
							exp 0	
52	conv9_2_relu	ReLU	256	4x4	256	4x4	mop 0	activation NaN
							comp NaN	param 0
							add 0	
							div 0	
							exp 0	
53	conv4_3_norm	Normalize	512	0x0	512	0x0	mop NaN	activation NaN
							comp 0	param 2
							add NaN	
							div NaN	
							exp NaN	
54	conv4_3_norm_mbox_loc	Convolution	512	0x0	16	0x0	mop NaN	activation NaN
							comp 0	param 73744
							add 0	
							div 0	
							exp 0	
55	conv4_3_norm_mbox_loc_perm	Permute	16	0x0	0	16x0	mop 0	activation 0
							comp 0	param 0
							add 0	
							div 0	
							exp 0	
56	conv4_3_norm_mbox_loc_flat	Flatten	0	16x0	0	1x1	mop 0	activation NaN
							comp 0	param 0
							add 0	
							div 0	
							exp 0	
57	conv4_3_norm_mbox_conf	Convolution	512	0x0	84	0x0	mop NaN	activation NaN
							comp 0	param 387156
							add 0	
							div 0	
							exp 0	
58	conv4_3_norm_mbox_conf_perm	Permute	84	0x0	0	84x0	mop 0	activation 0
							comp 0	param 0
							add 0	
							div 0	
							exp 0	
59	conv4_3_norm_mbox_conf_flat	Flatten	0	84x0	0	1x1	mop 0	activation NaN
							comp 0	param 0
							add 0	
							div 0	
							exp 0	
60	conv4_3_norm_mbox_priorbox	PriorBox	512	0x0	2	120x4	mop 0	activation 0
							comp 0	param 0
							add 0	
							div 0	
							exp 0	
61	fc7_mbox_loc	Convolution	1024	0x0	24	0x0	mop NaN	activation NaN
							comp 0	param 221208
							add 0	
							div 0	
							exp 0	
62	fc7_mbox_loc_perm	Permute	24	0x0	0	24x0	mop 0	activation 0
							comp 0	param 0
							add 0	
							div 0	
							exp 0	
63	fc7_mbox_loc_flat	Flatten	0	24x0	0	1x1	mop 0	activation NaN
							comp 0	param 0
							add 0	
							div 0	
							exp 0	
id	fc7_mbox_conf	Convolution	batch	ch_in	ch_out	data_out	ops	activation NaN
							comp 0	param 1161342
							add 0	
							div 0	
							exp 0	
65	fc7_mbox_conf_perm	Permute	126	0x0	0	126x0	mop 0	activation 0
							comp 0	param 0
							add 0	
							div 0	
							exp 0	
66	fc7_mbox_conf_flat	Flatten	0	126x0	0	1x1	mop 0	activation NaN
							comp 0	param 0
							add 0	
							div 0	
							exp 0	
67	fc7_mbox_priorbox	PriorBox	0	0x0	2	NaNx4	mop 0	activation 0
							comp 0	param 0
							add 0	
							div 0	
							exp 0	
68	conv6_2_mbox_loc	Convolution	512	0x0	24	0x0	mop NaN	activation NaN
							comp 0	param 110616
							add 0	
							div 0	
							exp 0	
69	conv6_2_mbox_loc_perm	Permute	24	0x0	0	24x0	mop 0	activation 0
							comp 0	param 0
							add 0	
							div 0	
							exp 0	
70	conv6_2_mbox_loc_flat	Flatten	0	24x0	0	1x1	mop 0	activation NaN
							comp 0	param 0
							add 0	
							div 0	
							exp 0	
71	conv6_2_mbox_conf	Convolution	512	0x0	126	0x0	mop NaN	activation NaN
							comp 0	param 580734
							add 0	
							div 0	
							exp 0	
72	conv6_2_mbox_conf_perm	Permute	126	0x0	0	126x0	mop 0	activation 0
							comp 0	param 0
							add 0	
							div 0	
							exp 0	
73	conv6_2_mbox_conf_flat	Flatten	0	126x0	0	1x1	mop 0	activation NaN
							comp 0	param 0
							add 0	

```
layer {
  name: "conv7_2_mbox_loc"
  type: "Convolution"
  bottom: "conv7_2"
  top: "conv7_2_mbox_loc"
  param {
    lr_mult: 1
    decay_mult: 1
  }
  param {
    lr_mult: 2
    decay_mult: 0
  }
  convolution_param {
    num_output: 24
    pad: 1
    kernel_size: 3
    stride: 1
    weight_filler {
      type: "xavier"
    }
    bias_filler {
      type: "constant"
      value: 0
    }
  }
}
layer {
  name: "conv7_2_mbox_loc_perm"
  type: "Permute"
  bottom: "conv7_2_mbox_loc"
  top: "conv7_2_mbox_loc_perm"
  permute_param {
    order: 0
    order: 2
    order: 3
    order: 1
  }
}
layer {
  name: "conv7_2_mbox_loc_flat"
  type: "Flatten"
  bottom: "conv7_2_mbox_loc_perm"
  top: "conv7_2_mbox_loc_flat"
  flatten_param {
    axis: 1
  }
}
layer {
  name: "conv7_2_mbox_conf"
  type: "Convolution"
  bottom: "conv7_2"
  top: "conv7_2_mbox_conf"
  param {
    lr_mult: 1
    decay_mult: 1
  }
  param {
    lr_mult: 2
    decay_mult: 0
  }
  convolution_param {
    num_output: 126
    pad: 1
    kernel_size: 3
    stride: 1
    weight_filler {
      type: "xavier"
    }
    bias_filler {
      type: "constant"
      value: 0
    }
  }
}
layer {
  name: "conv7_2_mbox_conf_perm"
  type: "Permute"
  bottom: "conv7_2_mbox_conf"
  top: "conv7_2_mbox_conf_perm"
  permute_param {
    order: 0
    order: 2
    order: 3
    order: 1
  }
}
layer {
  name: "conv7_2_mbox_conf_flat"
  type: "Flatten"
  bottom: "conv7_2_mbox_conf_perm"
  top: "conv7_2_mbox_conf_flat"
  flatten_param {
    axis: 1
  }
}
layer {
  name: "conv7_2_mbox_priorbox"
  type: "PriorBox"
  bottom: "conv7_2"
  bottom: "data"
  top: "conv7_2_mbox_priorbox"
  prior_box_param {
    min_size: 162.0
    max_size: 213.0
    aspect_ratio: 2
    flip: true
    clip: false
    variance: 0.1
    variance: 0.1
    variance: 0.2
    variance: 0.2
    step: 64
    offset: 0.5
  }
}
layer {
  name: "conv8_2_mbox_loc"
  type: "Convolution"
  bottom: "conv8_2"
  top: "conv8_2_mbox_loc"
  param {
    lr_mult: 1
    decay_mult: 1
  }
  param {
    lr_mult: 2
    decay_mult: 0
  }
  convolution_param {
    num_output: 16
    pad: 1
    kernel_size: 3
    stride: 1
    weight_filler {
      type: "xavier"
    }
    bias_filler {
      type: "constant"
      value: 0
    }
  }
}
layer {
  name: "conv8_2_mbox_loc_perm"
  type: "Permute"
  bottom: "conv8_2_mbox_loc"
  top: "conv8_2_mbox_loc_perm"
  permute_param {
    order: 0
    order: 2
    order: 3
    order: 1
  }
}
layer {
  name: "conv8_2_mbox_loc_flat"
  type: "Flatten"
  bottom: "conv8_2_mbox_loc_perm"
  top: "conv8_2_mbox_loc_flat"
  flatten_param {
    axis: 1
  }
}
layer {
  name: "conv8_2_mbox_conf"
  type: "Convolution"
  bottom: "conv8_2"
  top: "conv8_2_mbox_conf"
  param {
    lr_mult: 1
    decay_mult: 1
  }
  param {
    lr_mult: 2
    decay_mult: 0
  }
  convolution_param {
    num_output: 84
    pad: 1
    kernel_size: 3
    stride: 1
    weight_filler {
      type: "xavier"
    }
    bias_filler {
      type: "constant"
      value: 0
    }
  }
}
layer {
  name: "conv8_2_mbox_conf_perm"
  type: "Permute"
  bottom: "conv8_2_mbox_conf"
  top: "conv8_2_mbox_conf_perm"
  permute_param {
    order: 0
    order: 2
    order: 3
    order: 1
  }
}
layer {
  name: "conv8_2_mbox_conf_flat"
  type: "Flatten"
  bottom: "conv8_2_mbox_conf_perm"
  top: "conv8_2_mbox_conf_flat"
  flatten_param {
    axis: 1
  }
}
layer {
  name: "conv8_2_mbox_priorbox"
  type: "PriorBox"
  bottom: "conv8_2"
  bottom: "data"
  top: "conv8_2_mbox_priorbox"
  prior_box_param {
    min_size: 213.0
    max_size: 264.0
    aspect_ratio: 2
    flip: true
    clip: false
    variance: 0.1
    variance: 0.1
    variance: 0.2
    variance: 0.2
    step: 128
    offset: 0.5
  }
}
layer {
  name: "conv9_2_mbox_loc"
  type: "Convolution"
  bottom: "conv9_2"
  top: "conv9_2_mbox_loc"
  param {
    lr_mult: 1
    decay_mult: 1
  }
  param {
    lr_mult: 2
    decay_mult: 0
  }
  convolution_param {
    num_output: 16
    pad: 1
    kernel_size: 3
    stride: 1
    weight_filler {
      type: "xavier"
    }
    bias_filler {
      type: "constant"
      value: 0
    }
  }
}
layer {
  name: "conv9_2_mbox_loc_perm"
  type: "Permute"
  bottom: "conv9_2_mbox_loc"
  top: "conv9_2_mbox_loc_perm"
  permute_param {
    order: 0
    order: 2
    order: 3
    order: 1
  }
}
layer {
  name: "conv9_2_mbox_loc_flat"
  type: "Flatten"
  bottom: "conv9_2_mbox_loc_perm"
  top: "conv9_2_mbox_loc_flat"
  flatten_param {
    axis: 1
  }
}
layer {
  name: "conv9_2_mbox_conf"
  type: "Convolution"
  bottom: "conv9_2"
  top: "conv9_2_mbox_conf"
  param {
    lr_mult: 1
    decay_mult: 1
  }
  param {
    lr_mult: 2
    decay_mult: 0
  }
  convolution_param {
    num_output: 84
    pad: 1
    kernel_size: 3
    stride: 1
    weight_filler {
      type: "xavier"
    }
    bias_filler {
      type: "constant"
      value: 0
    }
  }
}
layer {
  name: "conv9_2_mbox_conf_perm"
  type: "Permute"
  bottom: "conv9_2_mbox_conf"
  top: "conv9_2_mbox_conf_perm"
  permute_param {
    order: 0
    order: 2
    order: 3
    order: 1
  }
}
layer {
  name: "conv9_2_mbox_conf_flat"
  type: "Flatten"
  bottom: "conv9_2_mbox_conf_perm"
  top: "conv9_2_mbox_conf_flat"
  flatten_param {
```

ID	name	type	batch	ch_in	dim_in	ch_out	dim_out	mem_usr
74	conv4_3_mbox_priorbox	PriorBox	0	0x0	2	NaNx4	macc 0 comp 0 add 0 div 0 exp 0	activation 0 param 0
75	conv7_2_mbox_loc	Convolution	256	0x0	24	0x0	macc NaN comp 0 add 0 div 0 exp 0	activation NaN param 55320
76	conv7_2_mbox_loc_perm	Permute	24	0x0	0	24x0	macc 0 comp 0 add 0 div 0 exp 0	activation 0 param 0
77	conv7_2_mbox_loc_flat	Flatten	0	24x0	0	1x1	macc 0 comp 0 add 0 div 0 exp 0	activation NaN param 0
78	conv7_2_mbox_conf	Convolution	256	0x0	126	0x0	macc NaN comp 0 add 0 div 0 exp 0	activation NaN param 290430
79	conv7_2_mbox_conf_perm	Permute	126	0x0	0	126x0	macc 0 comp 0 add 0 div 0 exp 0	activation 0 param 0
80	conv7_2_mbox_conf_flat	Flatten	0	126x0	0	1x1	macc 0 comp 0 add 0 div 0 exp 0	activation NaN param 0
81	conv7_2_mbox_priorbox	PriorBox	0	0x0	2	NaNx4	macc 0 comp 0 add 0 div 0 exp 0	activation 0 param 0
82	conv8_2_mbox_loc	Convolution	256	-2x-2	16	-2x-2	macc NaN comp 0 add 0 div 0 exp 0	activation NaN param 36880
83	conv8_2_mbox_loc_perm	Permute	16	-2x-2	-2	16x-2	macc 0 comp 0 add 0 div 0 exp 0	activation 0 param 0
84	conv8_2_mbox_loc_flat	Flatten	-2	16x-2	64	1x1	macc 0 comp 0 add 0 div 0 exp 0	activation NaN param 0
85	conv8_2_mbox_conf	Convolution	256	-2x-2	84	-2x-2	macc NaN comp 0 add 0 div 0 exp 0	activation NaN param 193620
86	conv8_2_mbox_conf_perm	Permute	84	-2x-2	-2	84x-2	macc 0 comp 0 add 0 div 0 exp 0	activation 0 param 0
87	conv8_2_mbox_conf_flat	Flatten	-2	84x-2	336	1x1	macc 0 comp 0 add 0 div 0 exp 0	activation NaN param 0
88	conv8_2_mbox_priorbox	PriorBox	0	0x0	2	852x4	macc 0 comp 0 add 0 div 0 exp 0	activation 0 param 0
89	conv9_2_mbox_loc	Convolution	256	-4x-4	16	-4x-4	macc NaN comp 0 add 0 div 0 exp 0	activation NaN param 36880
90	conv9_2_mbox_loc_perm	Permute	16	-4x-4	-4	16x-4	macc 0 comp 0 add 0 div 0 exp 0	activation 0 param 0
91	conv9_2_mbox_loc_flat	Flatten	-4	16x-4	256	1x1	macc 0 comp 0 add 0 div 0 exp 0	activation NaN param 0
92	conv9_2_mbox_conf	Convolution	256	-4x-4	84	-4x-4	macc NaN comp 0 add 0 div 0 exp 0	activation NaN param 193620
93	conv9_2_mbox_conf_perm	Permute	84	-4x-4	-4	84x-4	macc 0 comp 0 add 0 div 0 exp 0	activation 0 param 0
94	conv9_2_mbox_conf_flat	Flatten	-4	84x-4	1344	1x1	macc 0 comp 0 add 0 div 0 exp 0	activation NaN param 0
95	conv9_2_mbox_priorbox	PriorBox	0	0x0	2	1056x4	macc 0 comp 0 add 0 div 0 exp 0	activation 0 param 0
96	mbox_loc	Concat		320	1x1	320	1x1	macc 0 comp 0 add 0 div 0 exp 0	activation NaN param 0
97	mbox_conf	Concat		1680	1x1	1680	1x1	macc 0 comp 0 add 0 div 0 exp 0	activation NaN param 0
98	mbox_priorbox	Concat		12	120x4	12	120x4	macc 0 comp 0 add 0 div 0 exp 0	activation NaN param 0
99	label	implicit	?	0	0x0	0	0x0	macc 0 comp 0 add 0 div 0 exp 0	activation 0 param 0
100	mbox_loss	MultiBoxLoss		320	1x1	0	0x0	macc 0 comp 0 add 0 div 0 exp 0	activation 0 param 0

Excel-compatible Analysis Results (experimental)

```
    axis: 1
  }
}
layer {
  name: "conv4_3_mbox_priorbox"
  type: "PriorBox"
  bottom: "conv4_3"
  bottom: "data"
  top: "conv4_3_mbox_priorbox"
  prior_box_param {
    min_size: 30.0
    max_size: 315.0
    aspect_ratio: 2
    flip: false
    clip: false
    variance: 0.1
    variance: 0.1
    variance: 0.2
    variance: 0.2
    step: 300
    offset: 0.5
  }
}
layer {
  name: "mbox_loc"
  type: "Concat"
  bottom: "conv4_3_norm_mbox_loc_flat"
  bottom: "fc7_mbox_loc_flat"
  bottom: "conv6_2_mbox_loc_flat"
  bottom: "conv7_2_mbox_loc_flat"
  bottom: "conv8_2_mbox_loc_flat"
  bottom: "conv9_2_mbox_loc_flat"
  top: "mbox_loc"
  concat_param {
    axis: 1
  }
}
layer {
  name: "mbox_conf"
  type: "Concat"
  bottom: "conv4_3_norm_mbox_conf_flat"
  bottom: "fc7_mbox_conf_flat"
  bottom: "conv6_2_mbox_conf_flat"
  bottom: "conv7_2_mbox_conf_flat"
  bottom: "conv8_2_mbox_conf_flat"
  bottom: "conv9_2_mbox_conf_flat"
  top: "mbox_conf"
  concat_param {
    axis: 1
  }
}
layer {
  name: "mbox_priorbox"
  type: "Concat"
  bottom: "conv4_3_norm_mbox_priorbox"
  bottom: "fc7_mbox_priorbox"
  bottom: "conv6_2_mbox_priorbox"
  bottom: "conv7_2_mbox_priorbox"
  bottom: "conv8_2_mbox_priorbox"
  bottom: "conv9_2_mbox_priorbox"
  top: "mbox_priorbox"
  concat_param {
    axis: 2
  }
}
layer {
  name: "mbox_loss"
  type: "MultiBoxLoss"
  bottom: "mbox_loc"
  bottom: "mbox_conf"
  bottom: "mbox_priorbox"
  bottom: "label"
  top: "mbox_loss"
  include {
    phase: TRAIN
  }
  propagate_down: true
  propagate_down: true
  propagate_down: false
  propagate_down: false
  loss_param {
    normalization: VALID
  }
  multibox_loss_param {
    loc_loss_type: SMOOTH_L1
    conf_loss_type: SOFTMAX
    loc_weight: 1
    num_classes: 21
    share_location: true
    match_type: PER_PREDICTION
    overlap_threshold: 0.5
    use_prior_for_matching: true
    background_label_id: 0
    use_difficult_gt: true
    neg_pos_ratio: 3.0
    neg_overlap: 0.5
    code_type: CENTER_SIZE
    ignore_cross_boundary_bbox: false
    mining_type: MAX_NEGATIVE
  }
}
```