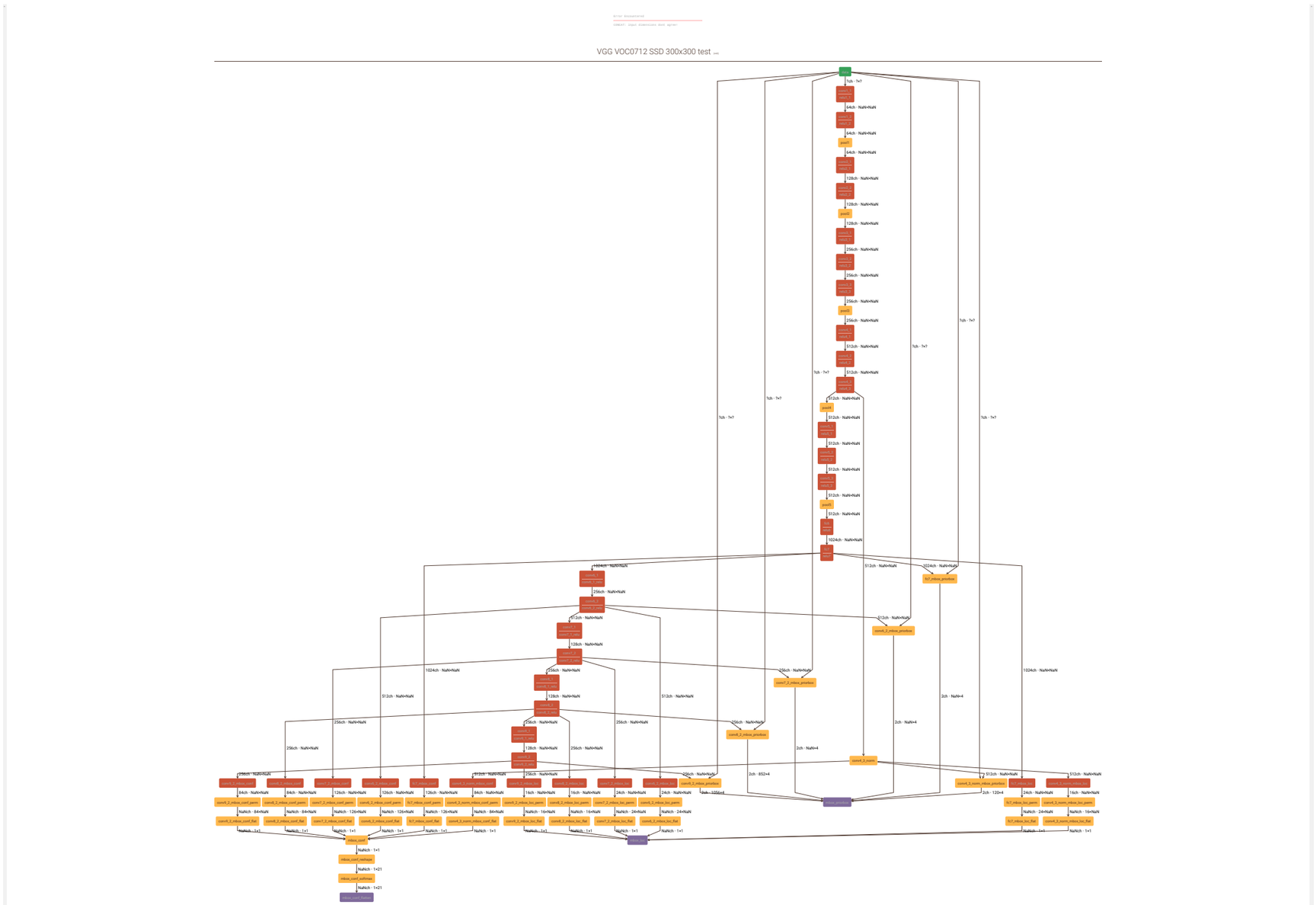
```
name: "VGG_VOC0712_SSD_300x300_test"
layer {
  name: "data"
  type: "AnnotatedData"
  top: "data"
  top: "label"
  include {
    phase: TEST
  }
  transform_param {
    mean_value: 104
    mean_value: 117
    mean_value: 123
    resize_param {
      prob: 1
      resize_mode: WARP
      height: 300
      width: 300
      interp_mode: LINEAR
    }
  }
  data_param {
    source: "examples/VOC0712/VOC0712_test_lmdb"
    batch_size: 4
    backend: LMDB
  }
  annotated_data_param {
    batch_sampler {
    }
    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
    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_2"
  type: "ReLU"
  bottom: "conv3_2"
  top: "conv3_2"
}
layer {
  name: "conv3_3"
  type: "Convolution"
  bottom: "conv3_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"
```



Network Analysis

Summary:

```
layer {
  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
    dilation: 6
  }
}
layer {
  name: "relu6"
  type: "ReLU"
  bottom: "fc6"
  top: "fc6"
}
layer {
  name: "fc7"
  type: "Convolution"
  bottom: "fc6"
  top: "fc7"
  param {
    lr_mult: 1
    decay_mult: 1
  }
  param {
    lr_mult: 2
    decay_mult: 0
  }
  convolution_param {
    num_output: 1024
    kernel_size: 1
    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
```

ID	name	type	batch	ch_in	dim_in	ch_out	dim_out	ops	mem
1	data	implicit	?	3	7x7	3	7x7		
2	conv1_1	Convolution	?	?	7x7	64	NaNxNaN		
3	relu1_1	ReLU	64	NaNxNaN	64	NaNxNaN			
4	conv1_2	Convolution	64	NaNxNaN	64	NaNxNaN		**param** 36.93k	
5	relu1_2	ReLU	64	NaNxNaN	64	NaNxNaN			
6	pool1	Pooling	64	NaNxNaN	64	NaNxNaN			
7	conv2_1	Convolution	64	NaNxNaN	128	NaNxNaN		**param** 73.86k	
8	relu2_1	ReLU	128	NaNxNaN	128	NaNxNaN			
9	conv2_2	Convolution	128	NaNxNaN	128	NaNxNaN		**param** 147.58k	
10	relu2_2	ReLU	128	NaNxNaN	128	NaNxNaN			
11	pool2	Pooling	128	NaNxNaN	128	NaNxNaN			
12	conv3_1	Convolution	128	NaNxNaN	256	NaNxNaN		**param** 295.17k	
13	relu3_1	ReLU	256	NaNxNaN	256	NaNxNaN			
14	conv3_2	Convolution	256	NaNxNaN	256	NaNxNaN		**param** 590.08k	
15	relu3_2	ReLU	256	NaNxNaN	256	NaNxNaN			
16	conv3_3	Convolution	256	NaNxNaN	256	NaNxNaN		**param** 590.08k	
17	relu3_3	ReLU	256	NaNxNaN	256	NaNxNaN			
18	pool3	Pooling	256	NaNxNaN	256	NaNxNaN			
19	conv4_1	Convolution	256	NaNxNaN	512	NaNxNaN		**param** 1.18M	
20	relu4_1	ReLU	512	NaNxNaN	512	NaNxNaN			
21	conv4_2	Convolution	512	NaNxNaN	512	NaNxNaN		**param** 2.36M	
22	relu4_2	ReLU	512	NaNxNaN	512	NaNxNaN			
23	conv4_3	Convolution	512	NaNxNaN	512	NaNxNaN		**param** 2.36M	
24	relu4_3	ReLU	512	NaNxNaN	512	NaNxNaN			
25	conv4_3_norm	Normalize	512	NaNxNaN	512	NaNxNaN		**param** 2	
26	conv4_3_norm_mbox_priorbox	PriorBox	512	NaNxNaN	2	120x4			
27	conv4_3_norm_mbox_conf	Convolution	512	NaNxNaN	84	NaNxNaN		**param** 387.16k	
28	conv4_3_norm_mbox_conf_perm	Permute	84	NaNxNaN	NaN	84xNaN			
29	conv4_3_norm_mbox_conf_flat	Flatten	NaN	84xNaN	NaN	1x1			
30	conv4_3_norm_mbox_loc	Convolution	512	NaNxNaN	16	NaNxNaN		**param** 73.74k	
31	conv4_3_norm_mbox_loc_perm	Permute	16	NaNxNaN	NaN	16xNaN			
32	conv4_3_norm_mbox_loc_flat	Flatten	NaN	16xNaN	NaN	1x1			
33	pool4	Pooling	512	NaNxNaN	512	NaNxNaN			
34	conv5_1	Convolution	512	NaNxNaN	512	NaNxNaN		**param** 2.36M	
35	relu5_1	ReLU	512	NaNxNaN	512	NaNxNaN			
36	conv5_2	Convolution	512	NaNxNaN	512	NaNxNaN		**param** 2.36M	
37	relu5_2	ReLU	512	NaNxNaN	512	NaNxNaN			
38	conv5_3	Convolution	512	NaNxNaN	512	NaNxNaN		**param** 2.36M	
39	relu5_3	ReLU	512	NaNxNaN	512	NaNxNaN			
40	pool5	Pooling	512	NaNxNaN	512	NaNxNaN			
41	fc6	Convolution	512	NaNxNaN	1024	NaNxNaN		**param** 4.72M	
42	relu6	ReLU	1024	NaNxNaN	1024	NaNxNaN			
43	fc7	Convolution	1024	NaNxNaN	1024	NaNxNaN		**param** 1.05M	
44	relu7	ReLU	1024	NaNxNaN	1024	NaNxNaN			
45	fc7_mbox_priorbox	PriorBox	?	7x7	2	NaNx4			
46	fc7_mbox_conf	Convolution	1024	NaNxNaN	126	NaNxNaN		**param** 1.16M	
47	fc7_mbox_conf_perm	Permute	126	NaNxNaN	NaN	126xNaN			
48	fc7_mbox_conf_flat	Flatten	NaN	126xNaN	NaN	1x1			
49	fc7_mbox_loc	Convolution	1024	NaNxNaN	24	NaNxNaN		**param** 221.21k	
50	fc7_mbox_loc_perm	Permute	24	NaNxNaN	NaN	24xNaN			
51	fc7_mbox_loc_flat	Flatten	NaN	24xNaN	NaN	1x1			
52	conv6_1	Convolution	1024	NaNxNaN	256	NaNxNaN		**param** 262.4k	
53	conv6_1_relu	ReLU	256	NaNxNaN	256	NaNxNaN			
54	conv6_2	Convolution	256	NaNxNaN	512	NaNxNaN		**param** 1.18M	
55	conv6_2_relu	ReLU	512	NaNxNaN	512	NaNxNaN			
56	conv6_2_mbox_priorbox	PriorBox	?	?	2	NaNx4			
57	conv6_2_mbox_conf	Convolution	512	NaNxNaN	126	NaNxNaN		**param** 580.73k	
58	conv6_2_mbox_conf_perm	Permute	126	NaNxNaN	NaN	126xNaN			
59	conv6_2_mbox_conf_flat	Flatten	NaN	126xNaN	NaN	1x1			
60	conv6_2_mbox_loc	Convolution	512	NaNxNaN	24	NaNxNaN		**param** 110.62k	
61	conv6_2_mbox_loc_perm	Permute	24	NaNxNaN	NaN	24xNaN			
62	conv6_2_mbox_loc_flat	Flatten	NaN	24xNaN	NaN	1x1			
63	conv7_1	Convolution	512	NaNxNaN	128	NaNxNaN		**param** 65.66k	
64	conv7_1_relu	ReLU	128	NaNxNaN	128	NaNxNaN			
65	conv7_2	Convolution	128	NaNxNaN	256	NaNxNaN		**param** 295.17k	
66	conv7_2_relu	ReLU	256	NaNxNaN	256	NaNxNaN			
67	conv7_2_mbox_priorbox	PriorBox	?	?	2	NaNx4			
68	conv7_2_mbox_conf	Convolution	256	NaNxNaN	126	NaNxNaN		**param** 290.43k	
69	conv7_2_mbox_conf_perm	Permute	126	NaNxNaN	NaN	126xNaN			
70	conv7_2_mbox_conf_flat	Flatten	NaN	126xNaN	NaN	1x1			
71	conv7_2_mbox_loc	Convolution	256	NaNxNaN	24	NaNxNaN		**param** 55.3k	
72	conv7_2_mbox_loc_perm	Permute	24	NaNxNaN	NaN	24xNaN			
73	conv7_2_mbox_loc_flat	Flatten	NaN	24xNaN	NaN	1x1			
74	conv8_1	Convolution	256	NaNxNaN	128	NaNxNaN		**param** 32.9k	
75	conv8_1_relu	ReLU	128	NaNxNaN	128	NaNxNaN			
76	conv8_2	Convolution	128	NaNxNaN	256	NaNxNaN		**param** 295.17k	
77	conv8_2_relu	ReLU	256	NaNxNaN	256	NaNxNaN			
78	conv8_2_mbox_priorbox	PriorBox	?	7x7	2	852x4			
79	conv8_2_mbox_conf	Convolution	256	NaNxNaN	84	NaNxNaN		**param** 193.62k	
80	conv8_2_mbox_conf_perm	Permute	84	NaNxNaN	NaN	84xNaN			
81	conv8_2_mbox_conf_flat	Flatten	NaN	84xNaN	NaN	1x1			
82	conv8_2_mbox_loc	Convolution	256	NaNxNaN	16	NaNxNaN		**param** 36.88k	
83	conv8_2_mbox_loc_perm	Permute	16	NaNxNaN	NaN	16xNaN			
84	conv8_2_mbox_loc_flat	Flatten	NaN	16xNaN	NaN	1x1			
85	conv9_1	Convolution	256	NaNxNaN	128	NaNxNaN		**param** 32.9k	
86	conv9_1_relu	ReLU	128	NaNxNaN	128	NaNxNaN			
87	conv9_2	Convolution	128	NaNxNaN	256	NaNxNaN		**param** 295.17k	
88	conv9_2_relu	ReLU	256	NaNxNaN	256	NaNxNaN			
89	conv9_2_mbox_priorbox	PriorBox	?	7x7	2	1058x4			
90	mbox_priorbox	Concat	12	120x4	12	120x4			
91	conv9_2_mbox_conf	Convolution	256	NaNxNaN	84	NaNxNaN		**param** 193.62k	
92	conv9_2_mbox_conf_perm	Permute	84	NaNxNaN	NaN	84xNaN			
93	conv9_2_mbox_conf_flat	Flatten	NaN	84xNaN	NaN	1x1			
94	mbox_conf	Concat	NaN	1x1	NaN	1x1			
95	mbox_conf_reshape	Reshape	NaN	1x1	NaN	1x21			
96	mbox_conf_softmax	Softmax	NaN	1x21	NaN	1x21			
97	mbox_conf_flatten	Flatten	NaN	1x21	NaN	1x1			
98	conv9_2_mbox_loc	Convolution	256	NaNxNaN	16	NaNxNaN		**param** 36.88k	
99	conv9_2_mbox_loc_perm	Permute	16	NaNxNaN	NaN	16xNaN			
100	conv9_2_mbox_loc_flat	Flatten	NaN	16xNaN	NaN	1x1			
101	mbox_loc	Concat	NaN	1x1	NaN	1x1			
	TOTAL							**macc** NaN **activation** NaN **comp** NaN **param** NaN **add** NaN **div** NaN **exp** NaN	

Details:

ID	name	type	batch	ch_in	dim_in	ch_out	dim_out	ops_per	mem_per
1	data	implicit	?	3	7x7	3	7x7	**macc** 0 **comp** 0 **add** 0 **div** 0 **exp** 0	**activation** 0 **param** 0
2	conv1_1	Convolution	?	?	7x7	64	NaNxNaN	**macc** NaN **comp** 0 **add** 0 **div** 0 **exp** 0	**activation** NaN **param** NaN
3	relu1_1	ReLU	?	64	NaNxNaN	64	NaNxNaN	**macc** 0 **comp** NaN **add** 0 **div** 0 **exp** 0	**activation** NaN **param** 0
4	conv1_2	Convolution	?	64	NaNxNaN	64	NaNxNaN	**macc** NaN **comp** 0 **add** 0 **div** 0 **exp** 0	**activation** NaN **param** 36928
5	relu1_2	ReLU	?	64	NaNxNaN	64	NaNxNaN	**macc** 0 **comp** NaN **add** 0 **div** 0 **exp** 0	**activation** NaN **param** 0
6	pool1	Pooling	?	64	NaNxNaN	64	NaNxNaN	**macc** 0 **comp** NaN **add** 0 **div** 0 **exp** 0	**activation** NaN **param** 0
7	conv2_1	Convolution	?	64	NaNxNaN	128	NaNxNaN	**macc** NaN **comp** 0 **add** 0 **div** 0 **exp** 0	**activation** NaN **param** 73856
8	relu2_1	ReLU	?	128	NaNxNaN	128	NaNxNaN	**macc** 0 **comp** NaN **add** 0 **div** 0 **exp** 0	**activation** NaN **param** 0
9	conv2_2	Convolution	?	128	NaNxNaN	128	NaNxNaN	**macc** NaN **comp** 0 **add** 0 **div** 0 **exp** 0	**activation** NaN **param** 147584

```
    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: "conv9_1"
  type: "Convolution"
  bottom: "conv8_2"
  top: "conv9_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: "conv9_1_relu"
  type: "ReLU"
  bottom: "conv9_1"
  top: "conv9_1"
}
layer {
  name: "conv9_2"
  type: "Convolution"
  bottom: "conv9_1"
  top: "conv9_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: "conv9_2_relu"
  type: "ReLU"
  bottom: "conv9_2"
  top: "conv9_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
    }
  }
}
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: "fc7_mbox_loc"
  type: "Convolution"
  bottom: "fc7"
  top: "fc7_mbox_loc"
  param {
    lr_mult: 1
    decay_mult: 1
  }
  param {
    lr_mult: 2
    decay_mult: 0
  }
```

ID	name	type	batch	ch_in	dim_in	ch_out	dim_out	ops_raw	mem_raw
10	relu2_2	ReLU	?	128	NaNxNaN	128	NaNxNaN	macc 0, comp NaN, add 0, div 0, exp 0	activation NaN, param 0
11	pool2	Pooling	?	128	NaNxNaN	128	NaNxNaN	macc 0, comp NaN, add 0, div 0, exp 0	activation NaN, param 0
12	conv3_1	Convolution	?	128	NaNxNaN	256	NaNxNaN	macc NaN, comp 0, add 0, div 0, exp 0	activation NaN, param 295168
13	relu3_1	ReLU	?	256	NaNxNaN	256	NaNxNaN	macc 0, comp NaN, add 0, div 0, exp 0	activation NaN, param 0
14	conv3_2	Convolution	?	256	NaNxNaN	256	NaNxNaN	macc NaN, comp 0, add 0, div 0, exp 0	activation NaN, param 590080
15	relu3_2	ReLU	?	256	NaNxNaN	256	NaNxNaN	macc 0, comp NaN, add 0, div 0, exp 0	activation NaN, param 0
16	conv3_3	Convolution	?	256	NaNxNaN	256	NaNxNaN	macc NaN, comp 0, add 0, div 0, exp 0	activation NaN, param 590080
17	relu3_3	ReLU	?	256	NaNxNaN	256	NaNxNaN	macc 0, comp NaN, add 0, div 0, exp 0	activation NaN, param 0
18	pool3	Pooling	?	256	NaNxNaN	256	NaNxNaN	macc 0, comp NaN, add 0, div 0, exp 0	activation NaN, param 0
19	conv4_1	Convolution	?	256	NaNxNaN	512	NaNxNaN	macc NaN, comp 0, add 0, div 0, exp 0	activation NaN, param 1180160
20	relu4_1	ReLU	?	512	NaNxNaN	512	NaNxNaN	macc 0, comp NaN, add 0, div 0, exp 0	activation NaN, param 0
21	conv4_2	Convolution	?	512	NaNxNaN	512	NaNxNaN	macc NaN, comp 0, add 0, div 0, exp 0	activation NaN, param 2359808
22	relu4_2	ReLU	?	512	NaNxNaN	512	NaNxNaN	macc 0, comp NaN, add 0, div 0, exp 0	activation NaN, param 0
23	conv4_3	Convolution	?	512	NaNxNaN	512	NaNxNaN	macc NaN, comp 0, add 0, div 0, exp 0	activation NaN, param 2359808
24	relu4_3	ReLU	?	512	NaNxNaN	512	NaNxNaN	macc 0, comp NaN, add 0, div 0, exp 0	activation NaN, param 0
25	conv4_3_norm	Normalize	?	512	NaNxNaN	512	NaNxNaN	macc NaN, comp 0, add NaN, div NaN, exp NaN	activation NaN, param 2
26	conv4_3_norm_mbox_priorbox	PriorBox	?	512	NaNxNaN	2	120x4	macc 0, comp 0, add 0, div 0, exp 0	activation 0, param 0
27	conv4_3_norm_mbox_conf	Convolution	?	512	NaNxNaN	84	NaNxNaN	macc NaN, comp 0, add 0, div 0, exp 0	activation NaN, param 387156
28	conv4_3_norm_mbox_conf_perm	Permute	?	84	NaNxNaN	NaN	84xNaN	macc 0, comp 0, add 0, div 0, exp 0	activation 0, param 0
29	conv4_3_norm_mbox_conf_flat	Flatten	?	NaN	84xNaN	NaN	1x1	macc 0, comp 0, add 0, div 0, exp 0	activation NaN, param 0
30	conv4_3_norm_mbox_loc	Convolution	?	512	NaNxNaN	16	NaNxNaN	macc NaN, comp 0, add 0, div 0, exp 0	activation NaN, param 73744
31	conv4_3_norm_mbox_loc_perm	Permute	?	16	NaNxNaN	NaN	16xNaN	macc 0, comp 0, add 0, div 0, exp 0	activation 0, param 0
32	conv4_3_norm_mbox_loc_flat	Flatten	?	NaN	16xNaN	NaN	1x1	macc 0, comp 0, add 0, div 0, exp 0	activation NaN, param 0
33	pool4	Pooling	?	512	NaNxNaN	512	NaNxNaN	macc 0, comp NaN, add 0, div 0, exp 0	activation NaN, param 0
34	conv5_1	Convolution	?	512	NaNxNaN	512	NaNxNaN	macc NaN, comp 0, add 0, div 0, exp 0	activation NaN, param 2359808
35	relu5_1	ReLU	?	512	NaNxNaN	512	NaNxNaN	macc 0, comp NaN, add 0, div 0, exp 0	activation NaN, param 0
36	conv5_2	Convolution	?	512	NaNxNaN	512	NaNxNaN	macc NaN, comp 0, add 0, div 0, exp 0	activation NaN, param 2359808
37	relu5_2	ReLU	?	512	NaNxNaN	512	NaNxNaN	macc 0, comp NaN, add 0, div 0, exp 0	activation NaN, param 0
38	conv5_3	Convolution	?	512	NaNxNaN	512	NaNxNaN	macc NaN, comp 0, add 0, div 0, exp 0	activation NaN, param 2359808
39	relu5_3	ReLU	?	512	NaNxNaN	512	NaNxNaN	macc 0, comp NaN, add 0, div 0, exp 0	activation NaN, param 0
40	pool5	Pooling	?	512	NaNxNaN	512	NaNxNaN	macc 0, comp NaN, add 0, div 0, exp 0	activation NaN, param 0
41	fc6	Convolution	?	512	NaNxNaN	1024	NaNxNaN	macc NaN, comp 0, add 0, div 0	activation NaN, param 4719616

```
  convolution_param {
    num_output: 24
    pad: 1
    kernel_size: 3
    stride: 1
    weight_filler {
      type: "xavier"
    }
    bias_filler {
      type: "constant"
      value: 0
    }
  }
}
layer {
  name: "fc7_mbox_loc_perm"
  type: "Permute"
  bottom: "fc7_mbox_loc"
  top: "fc7_mbox_loc_perm"
  permute_param {
    order: 0
    order: 2
    order: 3
    order: 1
  }
}
layer {
  name: "fc7_mbox_loc_flat"
  type: "Flatten"
  bottom: "fc7_mbox_loc_perm"
  top: "fc7_mbox_loc_flat"
  flatten_param {
    axis: 1
  }
}
layer {
  name: "fc7_mbox_conf"
  type: "Convolution"
  bottom: "fc7"
  top: "fc7_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: "fc7_mbox_conf_perm"
  type: "Permute"
  bottom: "fc7_mbox_conf"
  top: "fc7_mbox_conf_perm"
  permute_param {
    order: 0
    order: 2
    order: 3
    order: 1
  }
}
layer {
  name: "fc7_mbox_conf_flat"
  type: "Flatten"
  bottom: "fc7_mbox_conf_perm"
  top: "fc7_mbox_conf_flat"
  flatten_param {
    axis: 1
  }
}
layer {
  name: "fc7_mbox_priorbox"
  type: "PriorBox"
  bottom: "fc7"
  bottom: "data"
  top: "fc7_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: 16
    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: 111.0
    max_size: 162.0
    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
  }
}
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
```

ID	name	type	batch	ch_in	dim_in	ch_out	dim_out	ops_raw	mem_raw
								exp 0	
42	relu6	ReLU	?	1024	NaNxNaN	1024	NaNxNaN	macc 0 comp NaN add 0 div 0 exp 0	activation NaN param 0
43	fc7	Convolution	?	1024	NaNxNaN	1024	NaNxNaN	macc NaN comp 0 add 0 div 0 exp 0	activation NaN param 1049600
44	relu7	ReLU	?	1024	NaNxNaN	1024	NaNxNaN	macc 0 comp NaN add 0 div 0 exp 0	activation NaN param 0
45	fc7_mbox_priorbox	PriorBox	?	?	?x?	2	NaNx4	macc 0 comp 0 add 0 div 0 exp 0	activation 0 param 0
46	fc7_mbox_conf	Convolution	?	1024	NaNxNaN	126	NaNxNaN	macc NaN comp 0 add 0 div 0 exp 0	activation NaN param 1161342
47	fc7_mbox_conf_perm	Permute	?	126	NaNxNaN	NaN	126xNaN	macc 0 comp 0 add 0 div 0 exp 0	activation 0 param 0
48	fc7_mbox_conf_flat	Flatten	?	NaN	126xNaN	NaN	1x1	macc 0 comp 0 add 0 div 0 exp 0	activation NaN param 0
49	fc7_mbox_loc	Convolution	?	1024	NaNxNaN	24	NaNxNaN	macc NaN comp 0 add 0 div 0 exp 0	activation NaN param 221208
50	fc7_mbox_loc_perm	Permute	?	24	NaNxNaN	NaN	24xNaN	macc 0 comp 0 add 0 div 0 exp 0	activation 0 param 0
51	fc7_mbox_loc_flat	Flatten	?	NaN	24xNaN	NaN	1x1	macc 0 comp 0 add 0 div 0 exp 0	activation NaN param 0
52	conv6_1	Convolution	?	1024	NaNxNaN	256	NaNxNaN	macc NaN comp 0 add 0 div 0 exp 0	activation NaN param 262400
53	conv6_1_relu	ReLU	?	256	NaNxNaN	256	NaNxNaN	macc 0 comp NaN add 0 div 0 exp 0	activation NaN param 0
54	conv6_2	Convolution	?	256	NaNxNaN	512	NaNxNaN	macc NaN comp 0 add 0 div 0 exp 0	activation NaN param 1180160
55	conv6_2_relu	ReLU	?	512	NaNxNaN	512	NaNxNaN	macc 0 comp NaN add 0 div 0 exp 0	activation NaN param 0
56	conv6_2_mbox_priorbox	PriorBox	?	?	?x?	2	NaNx4	macc 0 comp 0 add 0 div 0 exp 0	activation 0 param 0
57	conv6_2_mbox_conf	Convolution	?	512	NaNxNaN	126	NaNxNaN	macc NaN comp 0 add 0 div 0 exp 0	activation NaN param 580734
58	conv6_2_mbox_conf_perm	Permute	?	126	NaNxNaN	NaN	126xNaN	macc 0 comp 0 add 0 div 0 exp 0	activation 0 param 0
59	conv6_2_mbox_conf_flat	Flatten	?	NaN	126xNaN	NaN	1x1	macc 0 comp 0 add 0 div 0 exp 0	activation NaN param 0
60	conv6_2_mbox_loc	Convolution	?	512	NaNxNaN	24	NaNxNaN	macc NaN comp 0 add 0 div 0 exp 0	activation NaN param 110616
61	conv6_2_mbox_loc_perm	Permute	?	24	NaNxNaN	NaN	24xNaN	macc 0 comp 0 add 0 div 0 exp 0	activation 0 param 0
62	conv6_2_mbox_loc_flat	Flatten	?	NaN	24xNaN	NaN	1x1	macc 0 comp 0 add 0 div 0 exp 0	activation NaN param 0
63	conv7_1	Convolution	?	512	NaNxNaN	128	NaNxNaN	macc NaN comp 0 add 0 div 0 exp 0	activation NaN param 65664
64	conv7_1_relu	ReLU	?	128	NaNxNaN	128	NaNxNaN	macc 0 comp NaN add 0 div 0 exp 0	activation NaN param 0
65	conv7_2	Convolution	?	128	NaNxNaN	256	NaNxNaN	macc NaN comp 0 add 0 div 0 exp 0	activation NaN param 295168
66	conv7_2_relu	ReLU	?	256	NaNxNaN	256	NaNxNaN	macc 0 comp NaN add 0 div 0 exp 0	activation NaN param 0
67	conv7_2_mbox_priorbox	PriorBox	?	?	?x?	2	NaNx4	macc 0 comp 0 add 0 div 0 exp 0	activation 0 param 0
68	conv7_2_mbox_conf	Convolution	?	256	NaNxNaN	126	NaNxNaN	macc NaN comp 0 add 0 div 0 exp 0	activation NaN param 290430
69	conv7_2_mbox_conf_perm	Permute	?	126	NaNxNaN	NaN	126xNaN	macc 0 comp 0 add 0 div 0 exp 0	activation 0 param 0
70	conv7_2_mbox_conf_flat	Flatten	?	NaN	126xNaN	NaN	1x1	macc 0 comp 0 add 0 div 0 exp 0	activation NaN param 0
71	conv7_2_mbox_loc	Convolution	?	256	NaNxNaN	24	NaNxNaN	macc NaN comp 0 add 0 div 0 exp 0	activation NaN param 55320
72	conv7_2_mbox_loc_perm	Permute	?	24	NaNxNaN	NaN	24xNaN	macc 0 comp 0 add 0 div 0 exp 0	activation 0 param 0
73	conv7_2_mbox_loc_flat	Flatten	?	NaN	24xNaN	NaN	1x1	macc 0 comp 0	activation NaN param 0

```
    aspect_ratio: 2
    aspect_ratio: 3
    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: 100
    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 {
    axis: 1
  }
}
layer {
  name: "conv9_2_mbox_priorbox"
  type: "PriorBox"
  bottom: "conv9_2"
  bottom: "data"
  top: "conv9_2_mbox_priorbox"
  prior_box_param {
    min_size: 264.0
    max_size: 315.0
    aspect_ratio: 2
    flip: true
    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_conf_reshape"
  type: "Reshape"
  bottom: "mbox_conf"
  top: "mbox_conf_reshape"
  reshape_param {
    shape {
      dim: 0
      dim: -1
      dim: 21
    }
  }
}
layer {
  name: "mbox_conf_softmax"
  type: "Softmax"
  bottom: "mbox_conf_reshape"
  top: "mbox_conf_softmax"
  softmax_param {
    axis: 2
  }
}
layer {
  name: "mbox_conf_flatten"
  type: "Flatten"
  bottom: "mbox_conf_softmax"
  top: "mbox_conf_flatten"
  flatten_param {
    axis: 1
  }
}
layer {
  name: "detection_out"
  type: "DetectionOutput"
  bottom: "mbox_loc"
  bottom: "mbox_conf_flatten"
  bottom: "mbox_priorbox"
  top: "detection_out"
  include {
    phase: TEST
```

								add 0 div 0 exp 0	
74	conv8_1	Convolution	?	256	NaNxNaN	128	NaNxNaN	macc NaN comp 0 add 0 div 0 exp 0	activation NaN param 32896
75	conv8_1_relu	ReLU	?	128	NaNxNaN	128	NaNxNaN	macc 0 comp NaN add 0 div 0 exp 0	activation NaN param 0
76	conv8_2	Convolution	?	128	NaNxNaN	256	NaNxNaN	macc NaN comp 0 add 0 div 0 exp 0	activation NaN param 295168
77	conv8_2_relu	ReLU	?	256	NaNxNaN	256	NaNxNaN	macc 0 comp NaN add 0 div 0 exp 0	activation NaN param 0
78	conv8_2_mbox_priorbox	PriorBox	?	?	?x?	2	852x4	macc 0 comp 0 add 0 div 0 exp 0	activation 0 param 0
79	conv8_2_mbox_conf	Convolution	?	256	NaNxNaN	84	NaNxNaN	macc NaN comp 0 add 0 div 0 exp 0	activation NaN param 193620
80	conv8_2_mbox_conf_perm	Permute	?	84	NaNxNaN	NaN	84xNaN	macc 0 comp 0 add 0 div 0 exp 0	activation 0 param 0
81	conv8_2_mbox_conf_flat	Flatten	?	NaN	84xNaN	NaN	1x1	macc 0 comp 0 add 0 div 0 exp 0	activation NaN param 0
82	conv8_2_mbox_loc	Convolution	?	256	NaNxNaN	16	NaNxNaN	macc NaN comp 0 add 0 div 0 exp 0	activation NaN param 36880
83	conv8_2_mbox_loc_perm	Permute	?	16	NaNxNaN	NaN	16xNaN	macc 0 comp 0 add 0 div 0 exp 0	activation 0 param 0
84	conv8_2_mbox_loc_flat	Flatten	?	NaN	16xNaN	NaN	1x1	macc 0 comp 0 add 0 div 0 exp 0	activation NaN param 0
85	conv9_1	Convolution	?	256	NaNxNaN	128	NaNxNaN	macc NaN comp 0 add 0 div 0 exp 0	activation NaN param 32896
86	conv9_1_relu	ReLU	?	128	NaNxNaN	128	NaNxNaN	macc 0 comp NaN add 0 div 0 exp 0	activation NaN param 0
87	conv9_2	Convolution	?	128	NaNxNaN	256	NaNxNaN	macc NaN comp 0 add 0 div 0 exp 0	activation NaN param 295168
88	conv9_2_relu	ReLU	?	256	NaNxNaN	256	NaNxNaN	macc 0 comp NaN add 0 div 0 exp 0	activation NaN param 0
89	conv9_2_mbox_priorbox	PriorBox	?	?	?x?	2	1056x4	macc 0 comp 0 add 0 div 0 exp 0	activation 0 param 0
90	mbox_priorbox	Concat	?	12	120x4	12	120x4	macc 0 comp 0 add 0 div 0 exp 0	activation NaN param 0
91	conv9_2_mbox_conf	Convolution	?	256	NaNxNaN	84	NaNxNaN	macc NaN comp 0 add 0 div 0 exp 0	activation NaN param 193620
92	conv9_2_mbox_conf_perm	Permute	?	84	NaNxNaN	NaN	84xNaN	macc 0 comp 0 add 0 div 0 exp 0	activation 0 param 0
93	conv9_2_mbox_conf_flat	Flatten	?	NaN	84xNaN	NaN	1x1	macc 0 comp 0 add 0 div 0 exp 0	activation NaN param 0
94	mbox_conf	Concat	?	NaN	1x1	NaN	1x1	macc 0 comp 0 add 0 div 0 exp 0	activation NaN param 0
95	mbox_conf_reshape	Reshape	?	NaN	1x1	NaN	1x21	macc 0 comp 0 add 0 div 0 exp 0	activation 0 param 0
ID	**name**	**type**	**batch**	**ch_in**	**dim_in**	**ch_out**	**dim_out**	**ops_raw**	**mem_raw**
96	mbox_conf_softmax	Softmax	?	NaN	1x21	NaN	1x21	macc 0 comp 0 add NaN div NaN exp NaN	activation NaN param 0
97	mbox_conf_flatten	Flatten	?	NaN	1x21	NaN	1x1	macc 0 comp 0 add 0 div 0 exp 0	activation NaN param 0
98	conv9_2_mbox_loc	Convolution	?	256	NaNxNaN	16	NaNxNaN	macc NaN comp 0 add 0 div 0 exp 0	activation NaN param 36880
99	conv9_2_mbox_loc_perm	Permute	?	16	NaNxNaN	NaN	16xNaN	macc 0 comp 0 add 0 div 0 exp 0	activation 0 param 0
100	conv9_2_mbox_loc_flat	Flatten	?	NaN	16xNaN	NaN	1x1	macc 0 comp 0 add 0 div 0 exp 0	activation NaN param 0
101	mbox_loc	Concat	?	NaN	1x1	NaN	1x1	macc 0 comp 0 add 0 div 0 exp 0	activation NaN param 0

Excel-compatible Analysis Results (experimental)

```
}
detection_output_param {
  num_classes: 21
  share_location: true
  background_label_id: 0
  nms_param {
    nms_threshold: 0.45
    top_k: 400
  }
  save_output_param {
    output_directory: "/home/weiyingli/hyg/caffe-code/faster-rcnn/data/VOCdevkit/results/VOC2007/SSD_300x300/Main"
    output_name_prefix: "comp4_det_test_"
    output_format: "VOC"
    label_map_file: "data/VOC0712/labelmap_voc.prototxt"
    name_size_file: "data/VOC0712/test_name_size.txt"
    num_test_image: 4952
  }
  code_type: CENTER_SIZE
  keep_top_k: 200
  confidence_threshold: 0.01
}
}
layer {
  name: "detection_eval"
  type: "DetectionEvaluate"
  bottom: "detection_out"
  bottom: "label"
  top: "detection_eval"
  include {
    phase: TEST
  }
  detection_evaluate_param {
    num_classes: 21
    background_label_id: 0
    overlap_threshold: 0.5
    evaluate_difficult_gt: false
    name_size_file: "data/VOC0712/test_name_size.txt"
  }
}
```