Supplementary Material of
Towards Noiseless Object Contours for Weakly Supervised Semantic Segmentation

Jing Li[1,2,4]   Junsong Fan[1,2,3,4]   Zhaoxiang Zhang[1,2,3,4*]

[1]Institute of Automation, Chinese Academy of Sciences (CASIA)
[2]University of Chinese Academy of Sciences (UCAS)
[3]Centre for Artificial Intelligence and Robotics, HKISI_CAS
[4]National Laboratory of Pattern Recognition (NLPR)

{lijing2018, fanjunsong2016, zhaoxiang.zhang}@ia.ac.cn

Segmentation Model's Performance in Different Categories. We show the detailed results of the trained Deeplab-ASPP model in Tabs. 1 and 2. Specifically, Tabs. 1 and 2 show the result of SANCE in each category of PASCAL VOC 2012 *val* and *test* sets, respectively. We can see that SANCE gets great performance improvement for almost all the categories compared to other methods, demonstrating the generalization of our approach in different categories.

Method	bkg	aero	bike	bird	boat	bottle	bus	car	cat	chair	cow	table	dog	horse	mbk	person	plant	sheep	sofa	train	tv	mean
EM-Adapt [4]	67.2	29.2	17.6	28.6	22.2	29.6	47.0	44.0	44.2	14.6	35.1	24.9	41.0	34.8	41.6	32.1	24.8	37.4	24.0	38.1	31.6	33.8
CCNN [5]	68.5	25.5	18.0	25.4	20.2	36.3	46.8	47.1	48.0	15.8	37.9	21.0	44.5	34.5	46.2	40.7	30.4	36.3	22.2	38.8	36.9	35.3
MIL+seg [6]	79.6	50.2	21.6	40.9	34.9	40.5	45.9	51.5	60.6	12.6	51.2	11.6	56.8	52.9	44.8	42.7	31.2	55.4	21.5	38.8	36.9	42.0
SEC [3]	82.4	62.9	26.4	61.6	27.6	38.1	66.6	62.7	75.2	22.1	53.5	28.3	65.8	57.8	62.3	52.5	32.5	62.6	32.1	45.4	45.3	50.7
PSA [1]	88.2	68.2	30.6	81.1	49.6	61.0	77.8	66.1	75.1	29.0	66.0	40.2	80.4	62.0	70.4	73.7	42.5	70.7	42.6	**68.1**	51.6	61.7
SSDD [7]	89.0	62.5	28.9	83.7	52.9	59.5	77.6	73.7	87.0	**34.0**	**83.7**	47.6	84.1	77.0	73.9	69.6	29.8	**84.0**	43.2	68.0	**53.4**	64.9
BES [2]	88.9	74.1	29.8	81.3	53.3	69.9	89.4	79.8	84.2	27.9	76.9	46.6	78.8	75.9	72.2	70.4	50.8	79.4	39.9	65.3	44.8	65.7
Ours:	**91.4**	**78.4**	**33.0**	**87.6**	**61.9**	**79.6**	**90.6**	**82.0**	**92.4**	33.3	76.9	**59.7**	**86.4**	**78.0**	**76.9**	**77.7**	**61.1**	79.4	**47.5**	62.1	53.3	**70.9**

Table 1. Performance on the PASCAL VOC 2012 *val* set, compared to weakly supervised approaches based only on image-level labels.

Method	bkg	aero	bike	bird	boat	bottle	bus	car	cat	chair	cow	table	dog	horse	mbk	person	plant	sheep	sofa	train	tv	mean
EM-Adapt [4]	76.3	37.1	21.9	41.6	26.1	38.5	50.8	44.9	48.9	16.7	40.8	29.4	47.1	45.8	54.8	28.2	30.0	44.0	29.2	34.3	46.0	39.6
CCNN [5]	70.1	24.2	19.9	26.3	18.6	38.1	51.7	42.9	48.2	15.6	37.2	18.3	43.0	38.2	52.2	40.0	33.8	36.0	21.6	33.4	38.3	35.6
MIL+seg [6]	78.7	48.0	21.2	31.1	28.4	35.1	51.4	55.5	52.8	7.8	56.2	19.9	53.8	50.3	40.0	38.6	27.8	51.8	24.7	33.3	46.3	40.6
SEC [3]	83.5	56.4	28.5	64.1	23.6	46.5	70.6	58.5	71.3	23.2	54.0	28.0	68.1	62.1	70.0	55.0	38.4	58.0	39.9	38.4	48.3	51.7
PSA [1]	89.1	70.6	31.6	77.2	42.2	68.9	79.1	66.5	74.9	29.6	68.7	56.1	82.1	64.8	78.6	73.5	50.8	70.7	47.7	63.9	51.1	63.7
SSDD [7]	89.5	71.8	31.4	79.3	47.3	64.2	79.9	74.6	84.9	30.8	73.5	58.2	82.7	73.4	76.4	69.9	37.4	80.5	54.5	**65.7**	50.3	65.5
BES [2]	89.0	72.7	30.4	84.6	47.5	63.0	86.8	80.7	85.2	30.1	76.5	56.4	81.8	79.9	77.0	67.8	48.6	82.3	57.2	54.0	46.7	66.6
Ours:	**91.6**	**82.6**	**33.6**	**89.1**	**60.6**	**76.0**	**91.8**	**83.0**	**90.9**	**33.5**	**80.2**	**64.7**	**87.1**	**82.3**	**81.7**	**78.3**	**58.5**	**82.9**	**60.9**	53.9	**53.5**	**72.2**

Table 2. Performance on the PASCAL VOC 2012 *test* set, compared to weakly supervised approaches based only on image-level labels.

References

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* Corresponding author

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