ADMap: Anti-disturbance Framework for Vectorized HD Map Construction

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1 supplementary material

1.1 Supplementary experiments for the paper

In Table 1, we reported the high-performance version of ADMapv2†. Without introducing any external data, this version achieves a 12.0% increase in mAP. Ablation experiments show that the introduction of fine depth supervision through EA-LSS has greatly helped in HD map reconstruction (3.1% mAP improvement). The addition of CBGS to reuse the training data to include more complex scenarios (such as intersections) has significantly improved the overall performance of the model (6.2% mAP increase). The multi-task framework and pre-training also contribute to a 2.7% mAP increase.

Table 1: Ablation experiments for each module. CBGS denotes incorporation of the data augmentation method Class-Balanced Grouping and Sampling (CBGS), EA-LSS denotes incorporated the deep supervision module of EA-LSS,pre-training denotes the addition of pre-training weights, and MTF denotes multi-task framework.

MTF	Pretrain	EA-LSS	CBGS	AP_{div}	AP_{ped}	AP_{bou}	mAP
✗	✗	✗	✗	68.2	69.0	75.2	70.8
✓	✗	✗	✗	68.3	69.4	75.3	71.0
✓	✓	✗	✗	70.8	71.5	78.3	73.5
✓	✓	✓	✗	76.6	74.1	81.1	76.6
✓	✓	✓	✓	**83.0**	**80.2**	**84.8**	**82.8**
Improvment				+14.8	+11.2	+9.6	+12.0

1.2 Visualization of Argoverse2

Figure 1 shows a comparison of the visualisation of ground truth, MapTR and ADMap in the nuScenes benchmark. The visualisations demonstrate that

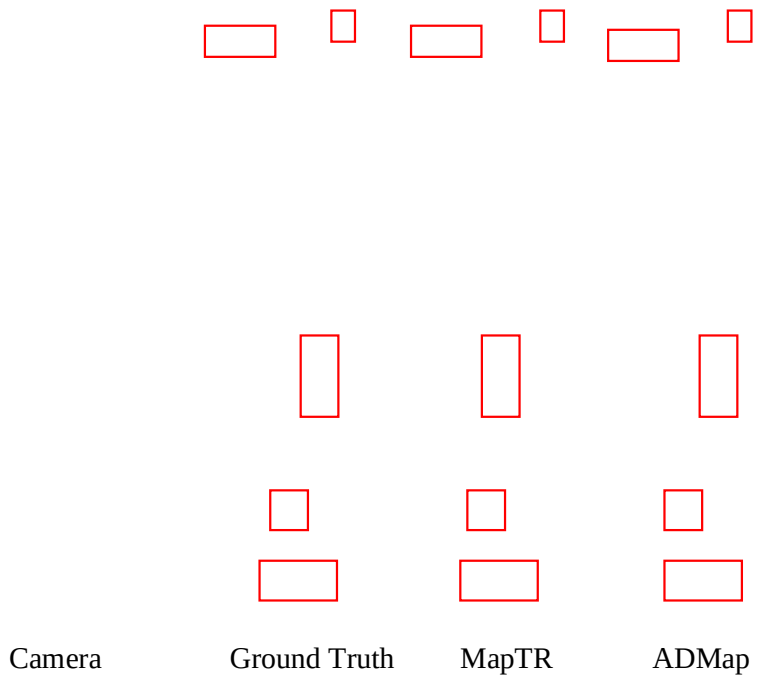

Fig. 1: Visualization results of the Argoverse2 dataset. Areas of discrepancy are indicated by red boxes. ADMap effectively reduces jitter within instances.

ADMap is effective in mitigating point jitter in vector instances and predicts map elements more accurately.