

Dictionary Learning Details

- All Dictionary Learning / Sparse Reconstruction runs below is based on our best merged model currently(output/merge_debug/merge_debug_train_ITER_30000_MI_500_MPN_5000/point_cloud/iteration_30000/point_cloud.ply)
- n_atoms: number of atoms in dictionary (稀疏重建中, 如果n_atoms=30000, 则将会重建为n*30000的字典和30000*59的稀疏矩阵)
- coffs_no_zero: 稀疏矩阵中非零向量的数量

Metrics

Runs	n_atoms	coffs_no_zero	PSNR	Memory	Portion to Origianl	Portion to Merged
Original	N/A	N/A	22.03	255.16MB	1.00	1.39
Merged	N/A	N/A	21.97	184.74MB	0.72	1.00
1	30000	5	20.4489899	60.62MB	0.24	0.33
2	30000	10	20.9264145	82.96MB	0.33	0.45
3	30000	20	21.1392784	127.66MB	0.50	0.69
4	30000	59	21.4701824	301.96MB	1.18	1.63
5	50000	5	20.2755432	71.73MB	0.28	0.39
6	50000	10	20.9266453	101.52MB	0.40	0.55
7	50000	20	21.1515560	131.32MB	0.63	0.87
8	50000	59	21.2996254	161.12MB	1.54	2.13
9	60000	5	20.3123169	73.56MB	0.29	0.40
10	60000	10	20.9170418	103.35MB	0.41	0.56
11	60000	20	21.1894054	162.95MB	0.64	0.88
12	60000	59	21.2950077	395.35MB	1.55	2.14

- remarks
 - Run **Merged** refers to output/merge_debug/merge_debug_train_ITER_30000_MI_500_MPN_5000/point_cloud/iteration_30000/point_cloud.ply
 - Dictionary experiments results stored in output/dl_debug