Evaluations of Merge with Different Arguments

- argument 1: iterations
- argument 2: merge points number (每次merge的点的个数)
- argument 3: merge interval (每次merge间隔的iterations，不过在下列8次实验中并未考察该变量的影响)

Conclusion

- 主要考察 `iterations` 和 `merge points number` 对 `测试集PSNR(Testing PSNR)` 的影响
- 可以看到随着 `iterations` 的增大对 `测试集PSNR` 有一定优化
- 增大 `merge points number` 会使得收敛更早
- 增大 `iteration` 会显著增加训练时常(`Training Time`)

Table of Merge with Different Arguments

Run	***Iterations***	***Merge Inteval***	***Merge Points Number***	***Testing PSNR***	***Loss***	***Time***	***Final Points***	***Final Memory***	***Portion***
Original	30000	N.A.	N.A.	22.03	0.031	12.34min	1.08e+6	255.16MB	1.00
1	3000	500	5000	19.99	0.097	2.3min	1.05e+6	248.11MB	0.97
2	3000	500	10000	19.99	0.091	2.3min	1.02e+6	241.16MB	0.95
3	5000	500	5000	20.64	0.099	3.9min	1.03e+6	243.41MB	0.95
4	5000	500	10000	20.62	0.072	3.8min	9.9e+5	231.82MB	0.91
5	10000	500	5000	21.52	0.106	7.5min	9.84e+5	231.66MB	0.91
6	30000	500	10000	21.04	0.107	7.3min	8.91e+5	208.52MB	0.82
7	30000	500	5000	21.97	0.051	20.51min	7.81e+5	184.74MB	0.72
8	30000	500	10000	21.14 (max: 21.62)	0.065	18.58min	4.9e+5	115.81MB	0.45

- remarks
  - Only for Run 8, the loss increase / PSNR decrease around iteration 20000
  - Original run in: `output/merge_debug_train_0619`, which is also the based model for the following merge runs
  - Run 1-8 in : `output/merge_debug`
  - Final Memory are calculated based on the point cloud file, which is typically stored in the `point_cloud/iterations_{iter_num}` directory
    - e.g., Point cloud path for Run 1: `output/merge_debug/merge_debug_train_ITER_3000_MI_500_MPN_5000/point_cloud/iteration_3000/point_cloud.ply`