pccomp_oct

Octree-based lossy point-cloud compression with open3d and numpy (.ocz)

How it works

Steps of the workflow:

- Computes octree codes in 16 depth
- Process arithmetical compression on the octree codes
- Removes repeated codes
- Ordering
- Enhtropia coding (zip)

Precision:

You can compute it by the depth. On a 30 m extend the resolution will be 0.5 mm.

Compilation of the compressing rate

Results in megabytes

Point cloud type	***LASzip***	***MrSID***	***pccomp_oct (.ocz)***
Architectural1	4,76MB	5,5MB	5,1MB
Architectural 2	13,64MB	15,3MB	10.14MB
Industrial 1	15,9MB	18,58MB	10.55MB
Industrial 2	15,3MB	15,37MB	7.76MB
Industrial 3	21,75MB	23,68MB	39,03MB
Industrial 4	30,3MB	-lefagyott-	17.09MB

Percent of the original size

Point cloud type	***LASzip***	***MrSID***	***pccomp_oct (.ocz)***
Architectural1	**7,45**	8,61	7,98
Architectural 2	6,45	7,23	**4,79**
Industrial 1	13,44	15,71	**8,92**
Industrial 2	14,85	14,92	**7,53**
Industrial 3	**4,68**	5,09	8,39
Industrial 4	3,23	-	**1,82**