

Manual dense cloud classification guidelines

The guidelines below provide the recommendations on the manual dense cloud classification for users who would like to contribute to the multi-class classifier implemented in Agisoft Metashape Pro.

Requirements on a dataset:

- Width and height to be no less than 40 meters;
- Ground sampling distance to be no less than 0.2 meters;
- Aerial photography only, i.e. we do not currently support indoor or close-range datasets.

Requirements on labeling:

- Point classes are to be assigned using the per-class instructions, which could be found below;
- In case of actual class of a point is hard to recognize, we strongly encourage to assign this point to "Unclassified" label. Typical examples of such situations are falsely reconstructed points and ivy-covered walls of a building;
- If a point does not belong to the specified classes (e.g. it belong to a plane or water), please assign "Unclassified" label;
- Quality of labeling is much more valuable than the number of labeled points.

Per-class labeling instructions:

Currently we support six classes, short descriptions and examples of them follow.

Ground

Natural terrain surfaces.

Examples: soil of any type, stones, cliffs, sand, plants lower than 0.5 meters tall.

High vegetation

Any type of plants higher than 0.5 meters above the ground.

Examples: trees, high bushes, hedges.

Building

Any sort of building, having vertical walls and volume of its parts above the ground at least 10 m^3 and at least 2 meters tall.

Examples: cottage, medium-size bus stop, cathedral, shed, transformer substation.

Road surface

Asphalt-covered surface.

Examples: highway, parking lot, sidewalk.

Car

Car or motorcycle of any type.

Examples: taxi cab, truck with a trailer.

Man-made

City infrastructure artifacts or small man-made objects.

Examples: trash can, road sign, traffic barrier, power line support, billboard, monument, fence, tank, container.