Common errors you may find - Mapant ES

Mapant is an autogenerated map that implies non-human intervention in cartographic generalization or simplification processes. That means that some errors might been seen while looking at the map.

The main sources of these errores are:

- Poor Lidar point cloud classification
- Vector base map (Topo map, OSM, etc.)
- Karttapullautin parameters.
- Symbology chosen

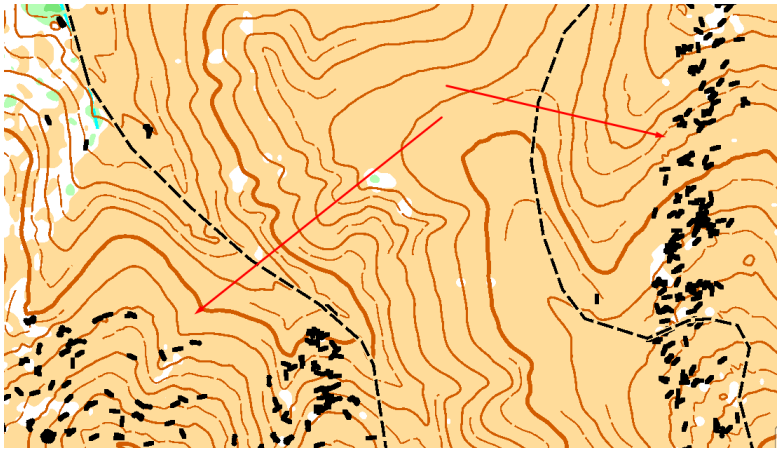
1. Errors due to poor LIDAR point cloud classification

1.1 Bad ground classification

If Lidar ground points are now well classified, we can mainly find errors in contours and cliffs.

Generation of false cliffs

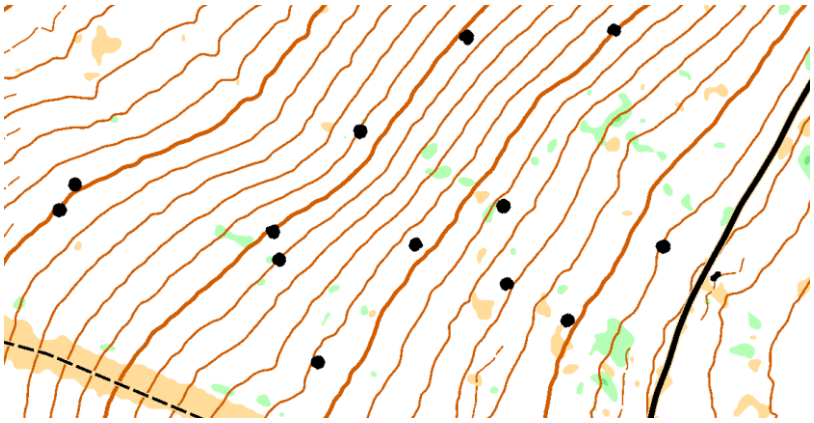
Examples where Mapant generates false cliffs. In the real terrain there are no cliffs.



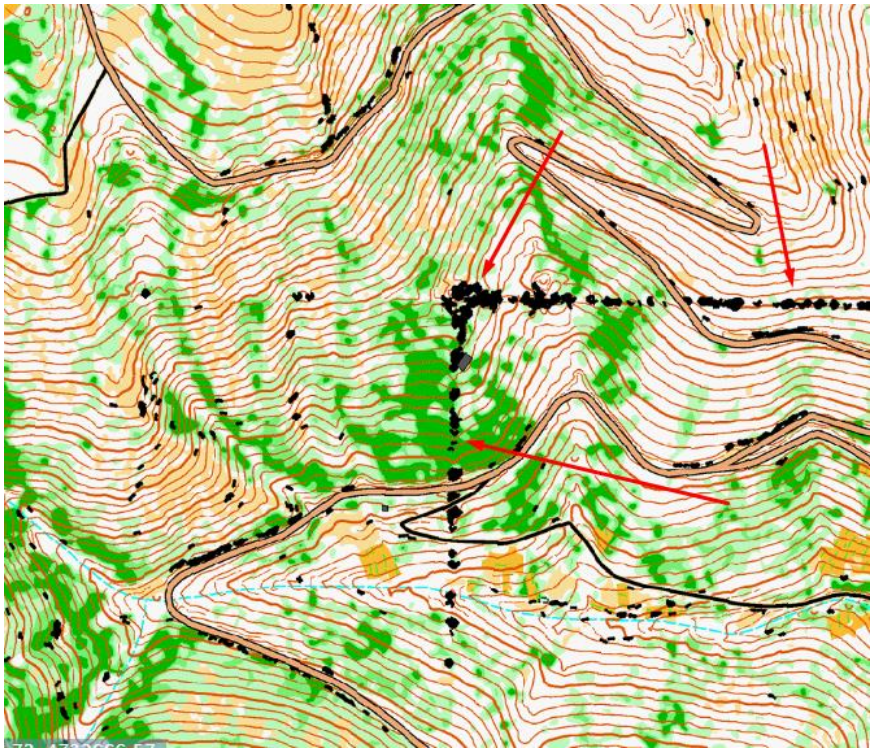
Solution: With LAStools, reclassify all the point cloud to class 0 and then classify the ground with *lasground*.

Generation of false boulders

Mapant generates black circles, that might be boulders but they ARE NOT. They do not exists in the real terrain.

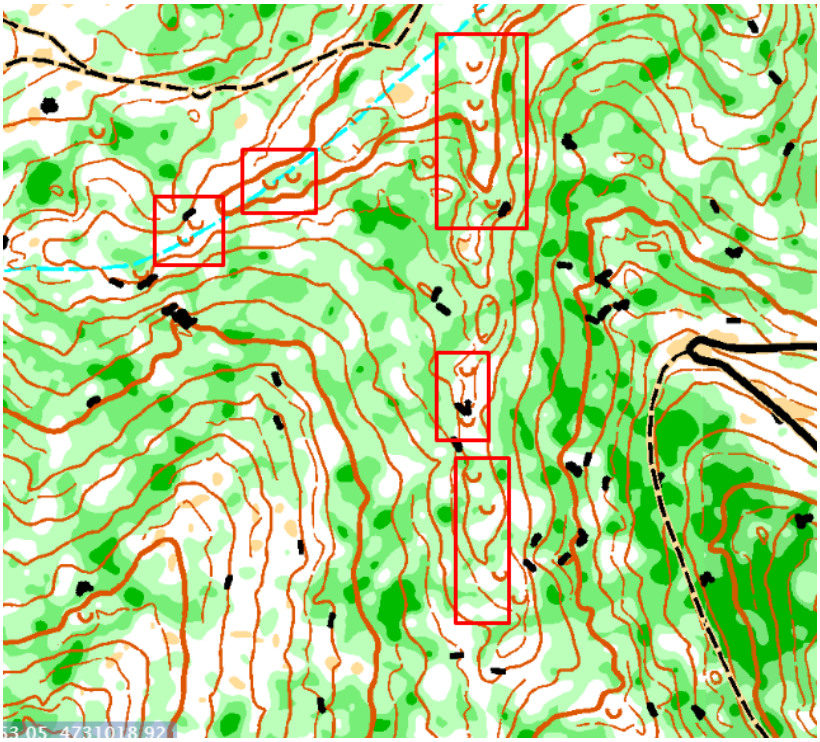


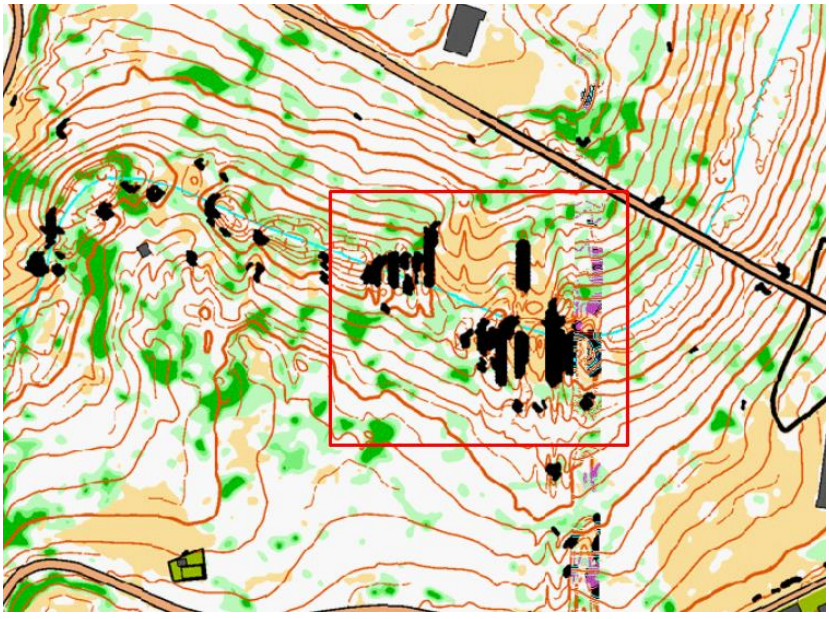
Generation of black lines (cross shape)



Solution: For both examples, with LAStools you can use *lasnoise* tool (under license) and filter all the noise that is isolated.

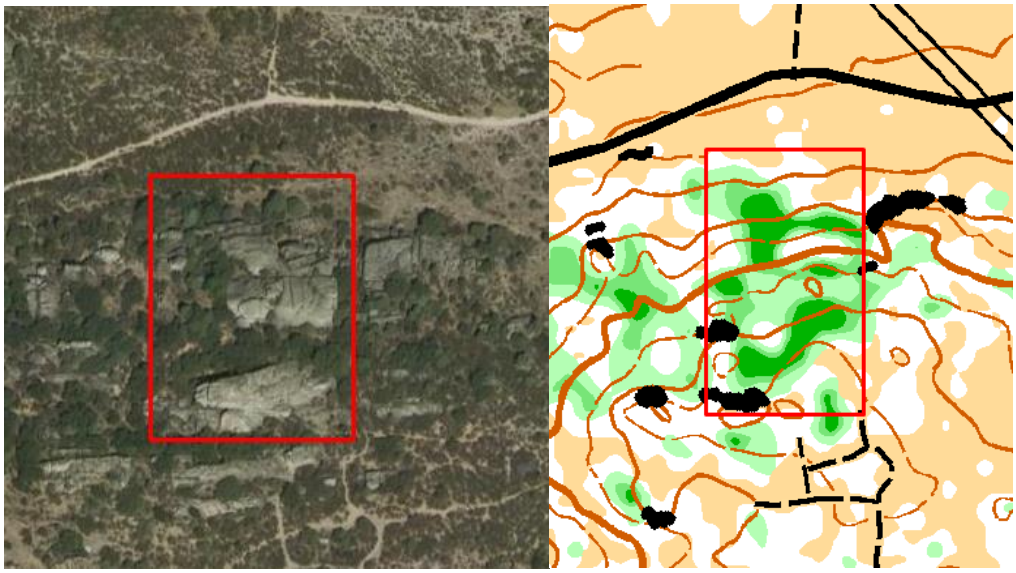
Dodgy and irregular gullies with depressions



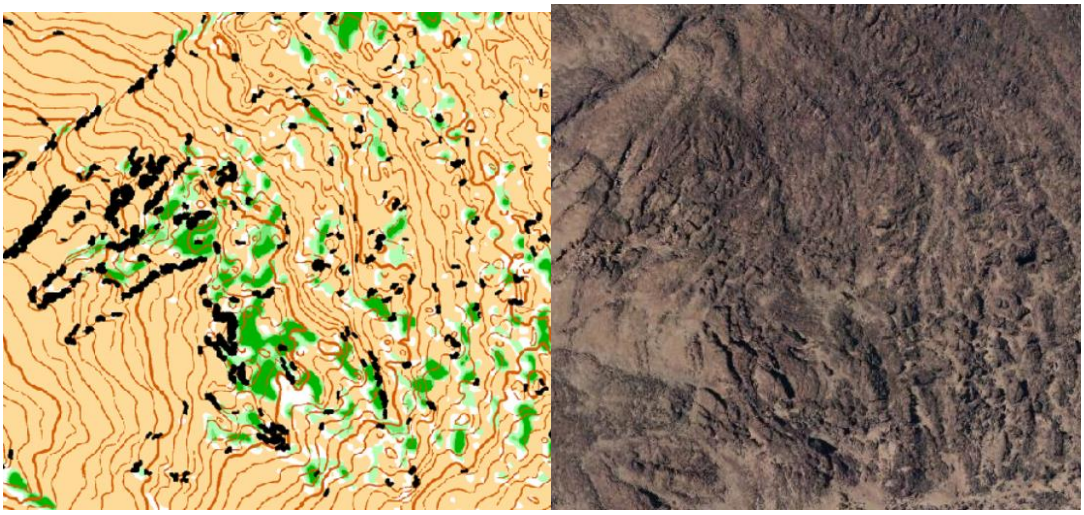


1.2 Bad vegetation classification

Boulders and rocks as green



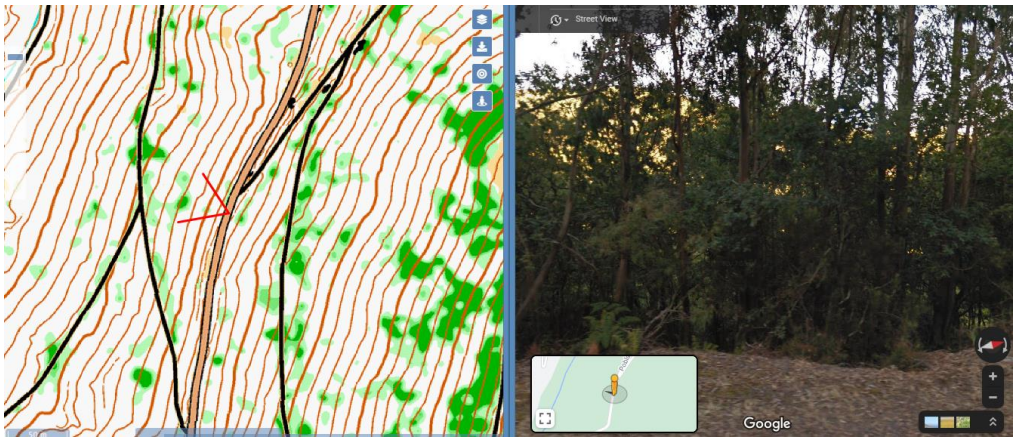
Also visible in very stony terrains (eg. Volcanic places).



Solution: With LAStools you reclassify all the point cloud, *las2las*, to class 0 and then reclassify only the ground with *lasground*.

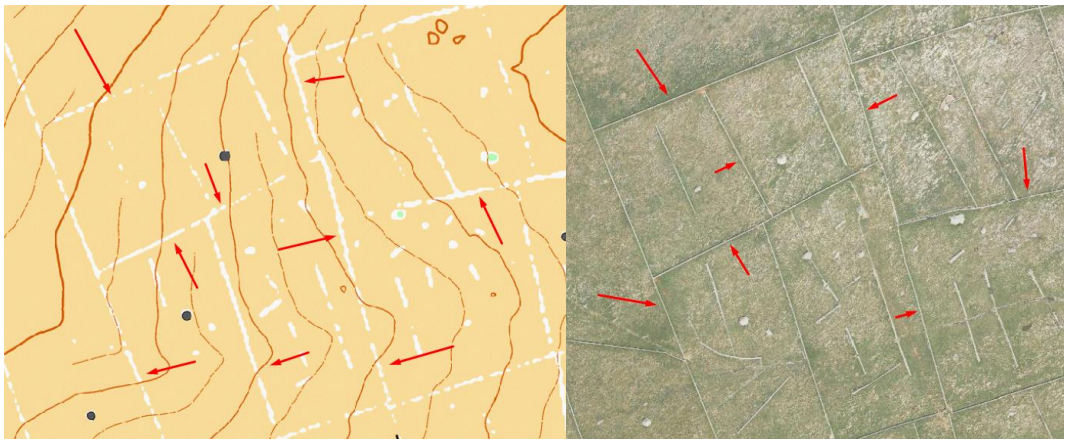
Poor representation of green thresholds (vegetation density)

In many occasions one may see a bad representation of the vegetation in terms of runnability. Especially in places where you see white in Mapant, but in the real terrain you expect to see a lot of green or undergrowth. Sometimes this comes when there is a lack of point density in order to have more information of mid-layers of the forest. Also it may come from Karttapullautin parameters.



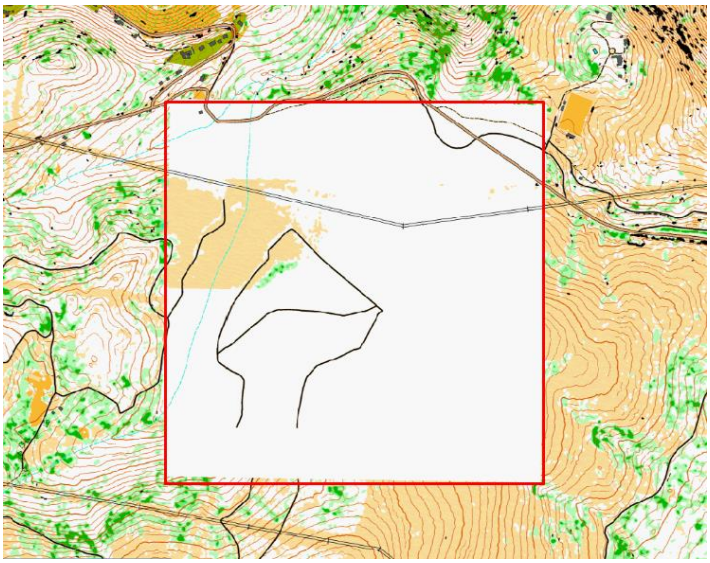
1.3 Others

Walls as white



Non-covered areas by LIDAR

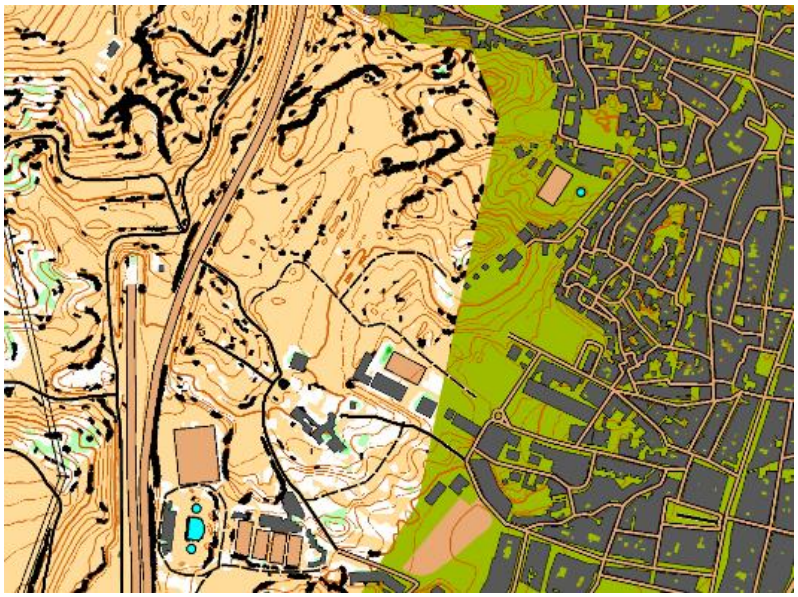
There may exists areas where there is no LIDAR data available (sometimes for military reasons)



2. Errors due to vector base map

Private green in urban areas

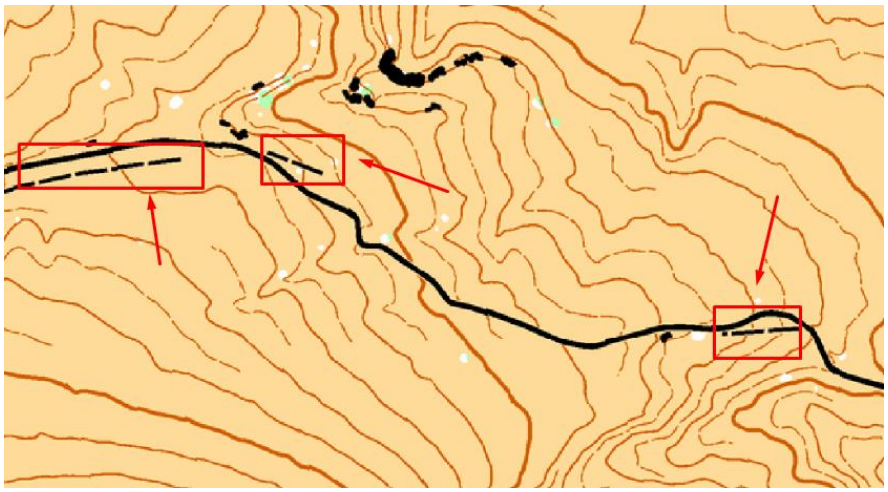
In many towns and urban areas you may see private olive green when it is not in real terrain.



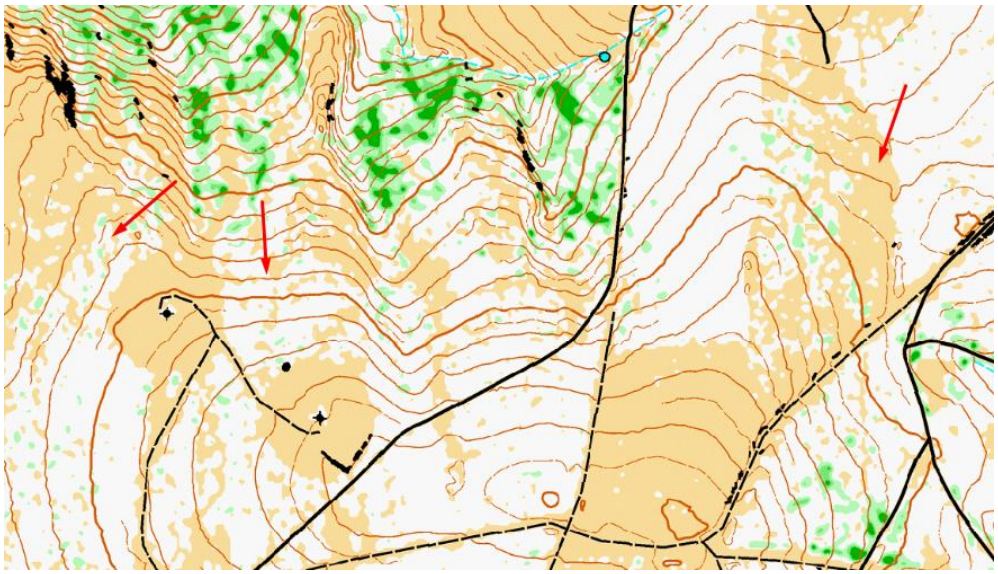
The opposite also may happen. Areas that should be filled with olive green but they are not.

Generation of parallel tracks & paths

Most of the parallel paths are coming because the source of information is different: OSM and National Topo Map. The algorithm we have applied should discriminate these mistakes but sometimes it does not as the example below.



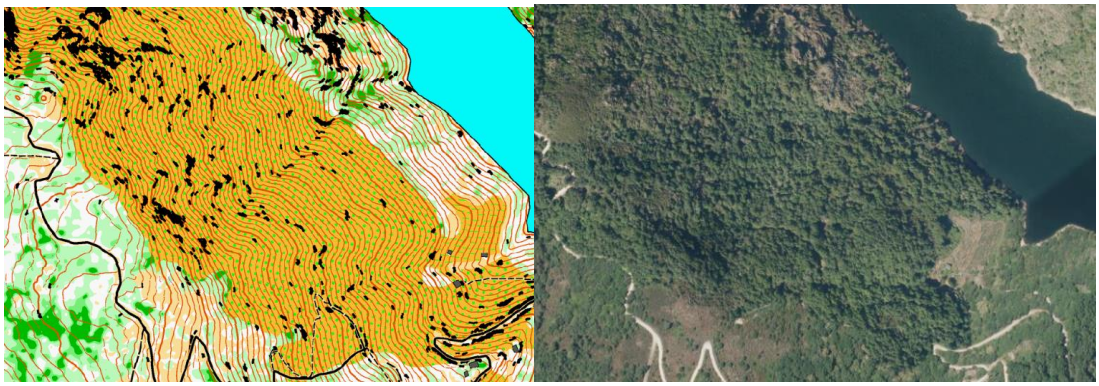
Omission of paths and tracks



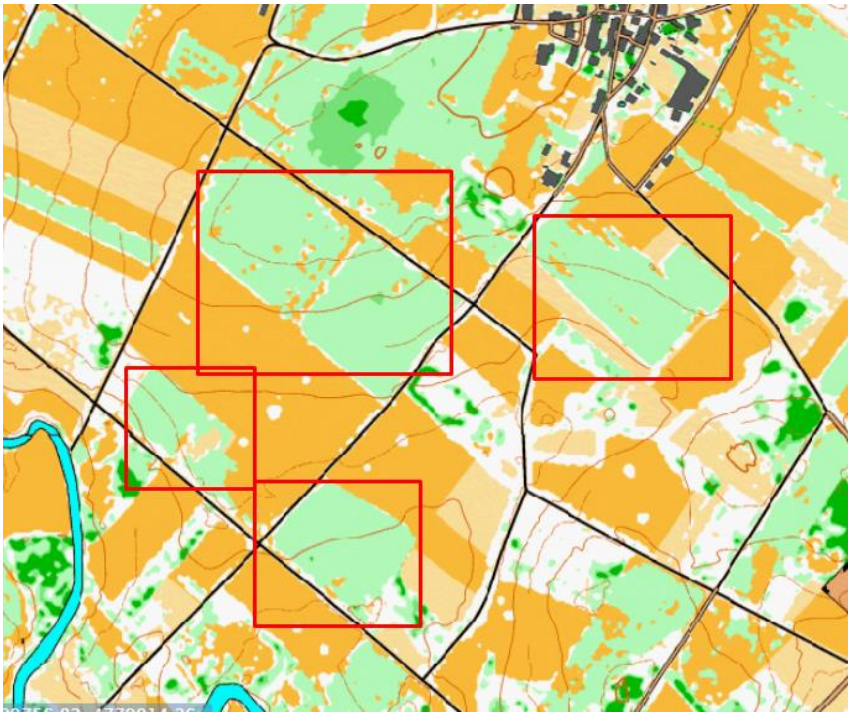
Solution: You can update and edit the track network at the OSM website www.openstreetmap.org. Mapant España is a collaborative project, therefore your help is crucial in order to improve this product.

Bad representation of crops

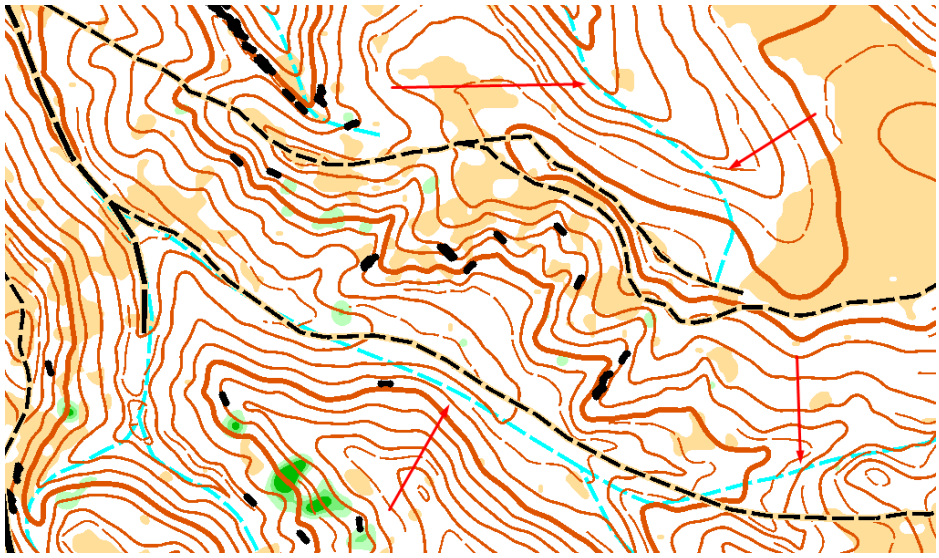
In the following example the crop is wrongly represented in the map. In the terrain it is a forest.



There are also cases where crops are visualized as light green.

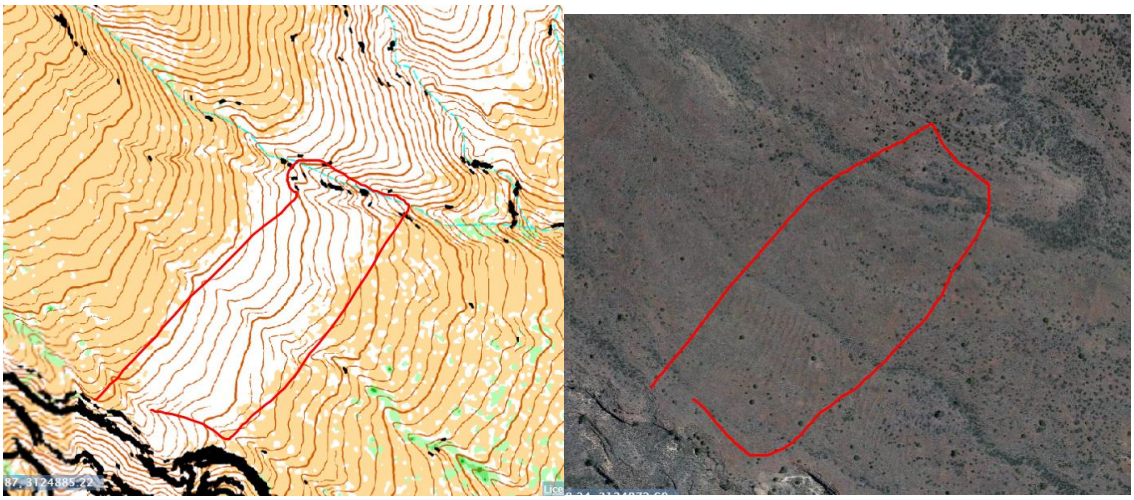


Streams does not follow the shape of the gully



3. Errors due to Karttapullautin parameters

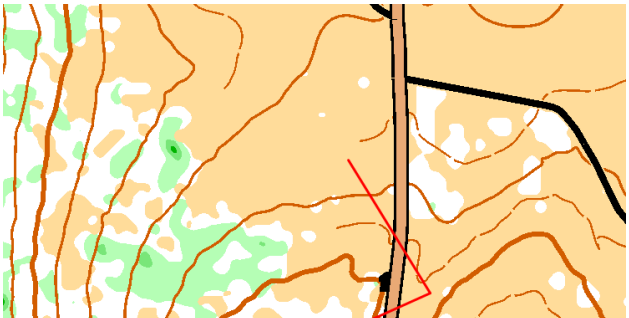
White in steep non-forested slopes



Solution: Increase the *pointvolumefactor* parameter from Karttapullautin to 0.25-0.35

Undergrowth-green stripes as white or yellow

For technical reasons we have decided not to represent green stripes symbol, which represents undergrowth terrain.



Solution: Turn on the Karttapullautin parameter *undergrowth*

Zonas de edificación como verde

4. Features you won't see at Mapant

Many ISOM 2017-2 symbols are not represented in Mapant. Some of these symbols you won't find in the map are:

- Erosion gullies and knolls
- Boulders, rocks and stony terrain
- Undergrowth
- Walls and fences
- Wells and fountains

5. Use warnings

If you are going to use Mapant for trainings, we recommend to use areas where there are not many gross errors. On the other hand, there exists numerous áreas where Mapant is accurate enough to use for navigation (Rogaine, MTB-O, Orienteering). You can check if these errores exists activating "Ortofoto" and "Topo Map" layers, or checking that area with Street View.

Useful features for controls

- Tracks and paths
- Spur and gullies
- Cliffs
- Vegetation boundaries - clearings

Non-recommended features for controls

- Little green areas
- Depressions along streams
- Little cliffs

If you are a mapmaker, don't forget that Mapant can provide you a very useful information to your base mapa. However, autogenerated LIDAR maps contain gross errors in numerous occasions. It is responsibility of the mapmaker to adapt, rectify and convert this map to ISOM-2017 standards and apply all the steps that cartography needs to make the map legible.

6. Report errors

On the map viewer (www.mapant.es), left click on the area you want to report > Notificar error > Grabar