

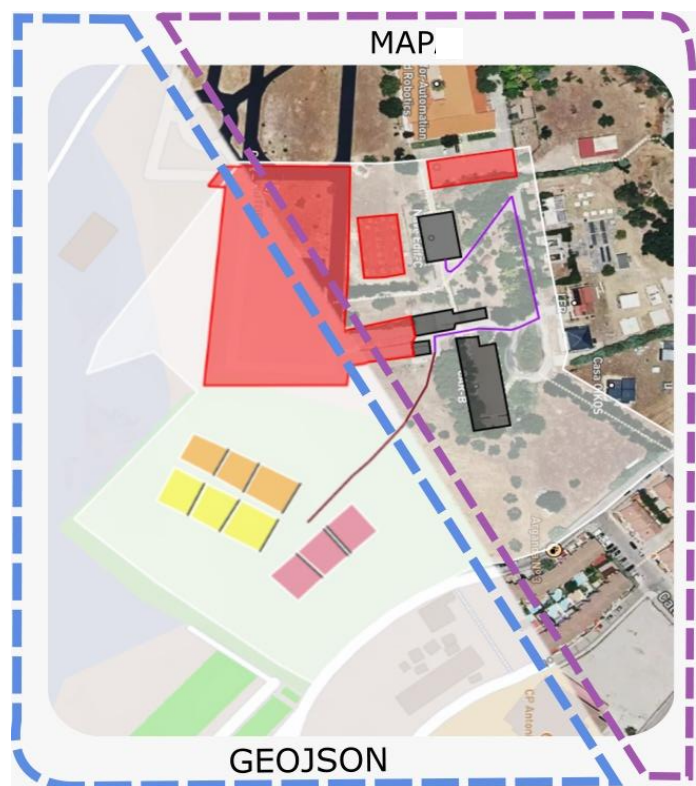
Field map generation

Problem Statement

A detailed field map is crucial to make informed and efficient decisions in planning and managing tasks. However, there are many challenges due to the availability, scalability and quality of accurate and up-to-date information. For this reason, it is necessary to identify all the intrinsic characteristics of the land, such as its location, type, extension and data related to cultivation.

Solution

WeLASER has developed an innovative solution to help farmers manage their fields more efficiently. To do this, a free access mapping tool has been adopted and made compatible with the WeLASER system. The resulting tool can collect precise geographic information from the field and the elements that make it up, including parcels, buildings, roads and restricted areas. Using this information, a detailed geometric description of the terrain is generated, and a more complete and precise vision of it is obtained. This combination of data allows us to manage the field more effectively, resulting in better results in the route planning of the agricultural robot.



Practical recommendations

The region of interest is first located for generating maps and then divided into different areas using polygonal shapes. Each area is associated with a specific type (building, crop in parcel, road, etc.), and various characteristics are detailed (type of road, parcel cultivation, etc.). It is important to note that, in the case of roads, the geometric shape for their representation is a set of lines.

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