

Multi scale object based classification of net house vegetation in high resolution optical satellite imagery

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ABSTRACT:

The usage of an object based approach provides the ability to include part of the operator knowledge into the software based interpretation process. The method of working for the optical net house vegetation area extraction in a single image is developed in a multi scale, multi method scheme in which three levels can be recognized. Firstly the course level, in which in an autonomous way Regions Of Interest (ROIs) are determined. Secondly the medium level, in which basic segmentation and classification is done within the ROIs, with some user interaction. Thirdly in the fine level, the classification result is refined based on the knowledge on object characteristics and contextual rules. On this level, considerable user interaction is required. The method has been tested on a high resolution dataset. The results show a relevant first achievement, but improvements are required.