The Impact of Different Seamline Production Methods on the Production of Orthophoto Mosaic in Agriculture and Forestry Areas

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SUMMARY

Rapid advances on software and image acquisition systems fastened and increased quality of orthophoto production therefore resulted in time and cost savings. While external orientation parameters and digital elevation models are affecting orthophoto production quality, mathematical models are affecting seamline generation for ortho mosaicking.

Defining the most accurate mathematical model and production technic for seamline generation will definitely improve orthophoto production speed and quality.

Using 30cm GSD aerial photos on the test areas defined for this study (agricultural and forestry areas), feature detection, adaptive feathering, smart-seams and closest-to-camera-center methods are tested for ortho mosaic production.

As a result; for ortho mosaic production, while adaptive feathering giving the best result in agricultural areas, all four tested seamline generation methods gave successful results in forestry areas.

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