
An Algorithm for Automated Map Mosaicing Prior to Georegistration

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Abstract

An automated process of mosaicing non-registered map sheets or images is proposed and examined with a case study. When there are not any or enough control points available from individual map sheets or images, it is sometimes necessary to assemble all the adjacent map sheets prior to the rectification of an entire map mosaic. Conventional manual methods can easily result in human errors in map mosaicing. The proposed technique involves the shifting and rotation of adjacent map sheets with the condition of minimizing the overall errors. A weighting factor that reflects the analyst's confidence in various connection points and map sheets can be incorporated in the mosaic process. An initial application of this mosaic technique indicated its great potential for broad applications. A visual basic computer program was written and thus this technique can be applied to a wide range of applications.
