

Evaluation of JPEG2000 Compression Algorithm for Satellite Image

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Abstract

Satellite Image archiving system requires large storage and long transmission time. A simple and cheap way of overcoming these limitations is to increase the compression ratio. However, this requires a feasibility study for accurate applications. Here, a new still image compression standard is being developed, the JPEG2000. It provides lossless and lossy compression, progressive transmission by pixel accuracy and by resolution, region-of-interest coding, user-defined tiling size, random codestream access and processing etc.

In this study, we will briefly introduce the JPEG2000 compression standard which provides a new compression technique based on the wavelet technology and offers better compression ratios, and evaluate the compression ratios of JPEG2000 for satellite image by performing various image quality tests. Also, we will compare brief test result using the commercial remote sensing software

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