

# Code methods for increasing the information capacity of digital images

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## Abstract

This article is dedicated to the problem of increasing the information capacity of digital images. It's often necessary to have an additional information about chosen images (medicine databases with X-ray photos, private photo albums, etc.). To solve this task we can add some additional information to initial images and get it by request. We propose to use unequal error-correcting codes for this task. In our scheme we use special class of error correcting codes for coding. While researching process different schemes of division image (SDI) into significant and insignificant parts were analyzed. Here we represent some results of our research for the scheme using optimal code based on generalized (L,G)- codes with two different significance zones. This scheme was realized for several SDI to find the optimal one. It was found that it is possible to use this approach for DRM, error protection and information capacity increasing purpose in telecommunication systems. The future research goals are also discussed.

**Index Terms:** Image processing, (L,G)- codes, Information capacity increasing, DRM.