**Project name:** Compression of Bayer-format videos

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**Abstract**

Endoscopic images are taken by a miniature camera from inside the gastrointestinal tract. Currently the camera transfers the information via a channeling tube, but in order to diminish the intrusiveness of the treatment and making it more sanitary, a wireless channel is developed. So as to make the communication between the camera and the operator wireless a certain bandwidth demand must hold. In addition, the camera’s size limits the computational complexity available for compression. Moreover, the camera produces row data in Bayer format for which standard compression methods are less effective.

The project’s purpose is therefore to experiment different compression methods on Bayer format data and to develop a compression method which supply the rate, complexity and quality demands. Most of our project consists of comparison and optimization of known simple compression methods on a given Bayer format sample, while in the remainder of the project different methods to combine these methods is tested in order to allow rate control trade off versus image quality.
Some results

![Graph showing YPSNR vs. Bits Per Pixel](image-url)