Quality Assessment of Compressed Video for Automatic License Plate Recognition.

Definition of video quality requirements for video surveillance poses new questions in the area of quality assessment. This paper presents a quality assessment experiment for an automatic license plate recognition scenario. We explore the influence of the compression by H.264/AVC and H.265/HEVC standards on the recognition performance. We compare logarithmic and logistic functions for quality modeling. Our results show that a logistic function can better describe the dependence of recognition performance on the quality for both compression standards. We observe that automatic license plate recognition in our study has a behavior similar to human recognition, allowing the use of the same mathematical models. We furthermore propose an application of one of the models for video surveillance systems.

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