

DATA STRUCTURES FOR ROAD CONDITION AVI FILE VIDEO AUGMENTATION

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Abstract: *The paper presents data structures for ROad Measurement and Data Acquisition System's (ROMDAS) road condition video augmentation. The ROMDAS system collects and analyses the road-condition state through video and the non-perceptible discrete data acquired by measurement devices. Due to the separate storage of videos and the corresponding data, engineers have to search the videos manually in order to find details of interest provided by data analysis. We propose the integration and encapsulation of the discrete data into the video file. We have designed and implemented Augmented Video stream Framework (AVF) that enables creation, search and playback of such augmented AVI files for effective road surveying. The AVF uses a type system similar to C++ and Java programming languages and offers encapsulation of arbitrary data.*

Key words: *data structures, information retrieval, video augmentation, road surveying*



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