Real-Time Animated Video

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Abstract

Animated effect maker are targeted to images and are used after an image has been taken: one would take a photo at an earlier time and use software-implemented animated effect maker, post-picture-taking. Our group proposes to implement a real-time animated video maker with dedicated FPGA hardware. Our project will aim at calculating edges of each frame in a video, using a high-pass filter or using a point-wise multiplication with three-by-three Sobel operator; then the output on the VGA monitor will have a sharpened-edge with reduced color resolution, to give a cartoon-like video output. The proposed system will first operate with grayscale images, and then with color images. Time-permitting, we would like to extend this system to be able to be used in video stabilization.