Supplementary Material: Unified Reconstruction of Static and Dynamic Scenes from Events

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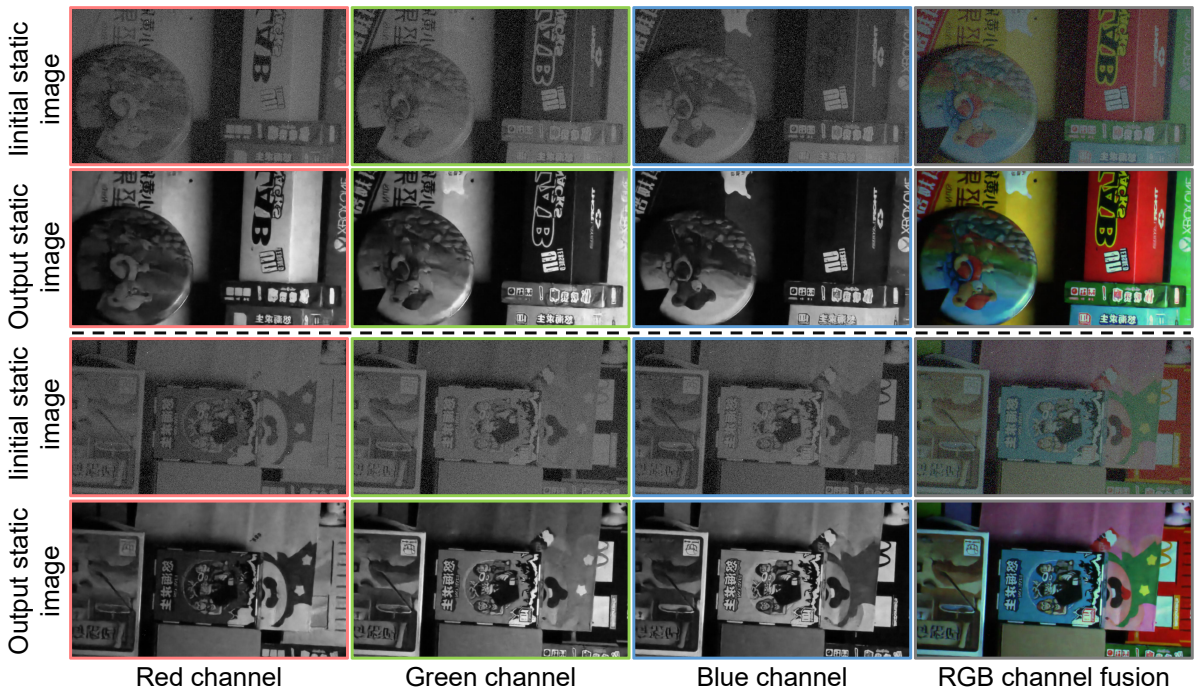

Figure 8. Reconstructed frames of color scenes on E-static dataset. For each scenario, the upper row displays the reconstructed original frame of the three-color channels without denoising, while the lower row shows the denoised frame.

7. Results on Video Reconstruction

The performance of reconstructing static and dynamic scene videos is compared in **the video file accompanied by this supplementary material**. E2VID (pretrained) [3], E2VID (retrained), FireNet [4], E2HQV [2], ETNet [5], EVSNN [6] and SSL [1] are chosen as the compared methods.

8. Color Static Scene Reconstruction

We achieve color reconstruction of static scenes for the first time. One significant challenge with event cameras is their inability to capture color information. Although the development of the DAVIS color sensor offers a solution, its low spatial resolution and demosaic issues limit its application in certain scenarios. Our approach involves placing color filters in front of the event camera lens to separately capture red, green, and blue color event streams. Through our reconstruction method, we can generate a high-fidelity three-channel intensity map, which is then fused to produce a full-color scene frame, as illustrated in Fig. 8.

# Equal contribution, † Corresponding author
Project page: https://github.com/gaoqiyao1997/URSEE

References

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