

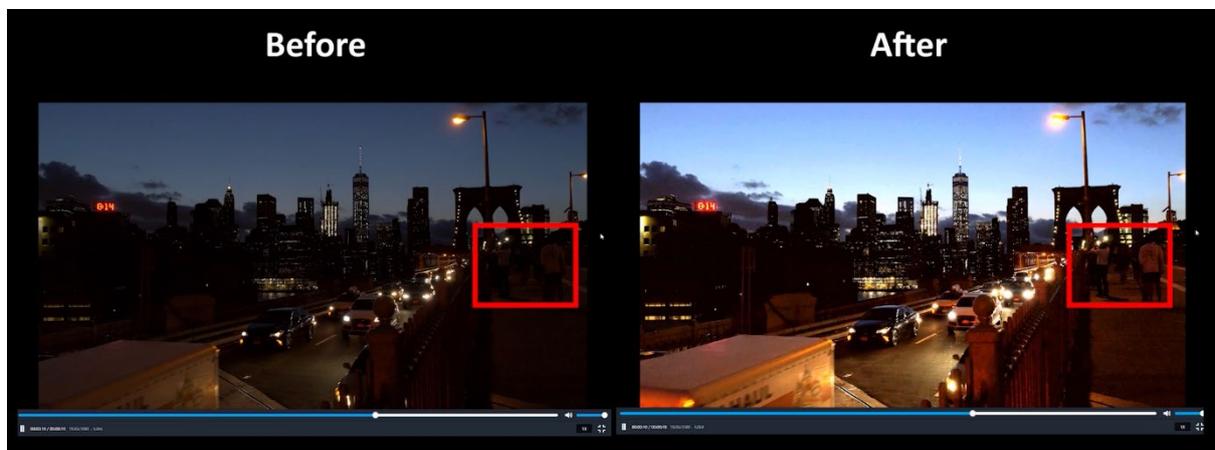
Improve video with advanced enhancement feature in MD-VIDEO

In this article, you can learn how to enhance video and image using advanced enhancement features in MD-VIDEO. Even if the video you are investigating is blurry, shaky, dark, small, MD-VIDEO can improve and secure better visibility with various enhancement features. It's a powerful feature to find the key frame from multi aspects including basic adjustment features, deblurring, super-resolution, and perspective transformation. You don't need to find other video or image editors. Follow the below how-to tips, MD-VIDEO can help you to increase your video investigation efficiency and let you get close to the key evidence! If you want to learn more about enhancement features, go find our Youtube channel https://youtu.be/_mtZqvLuA0A

Basic Enhancement

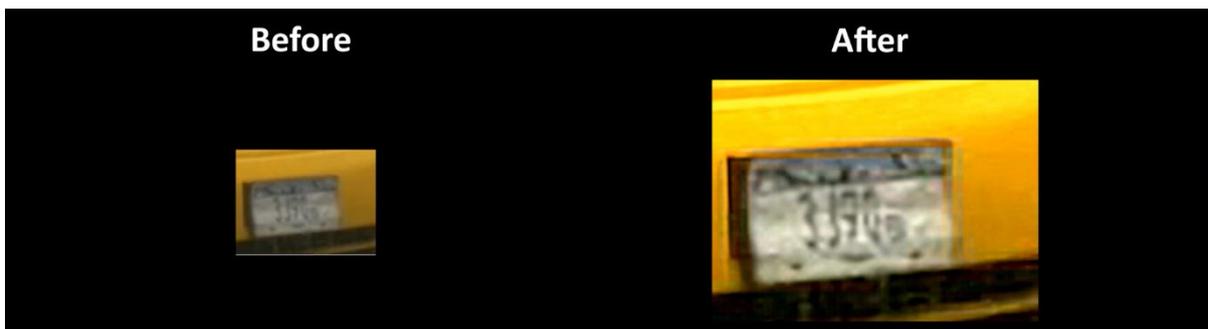
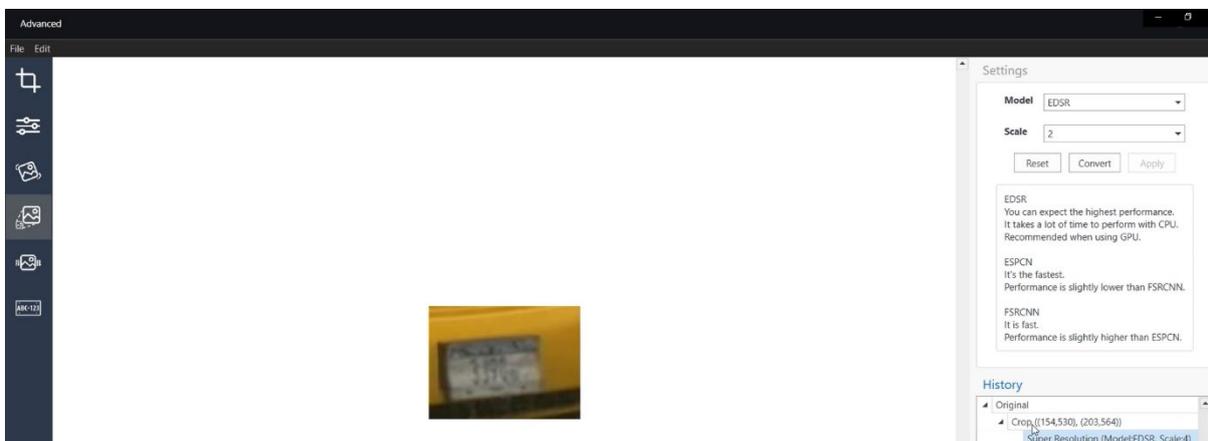
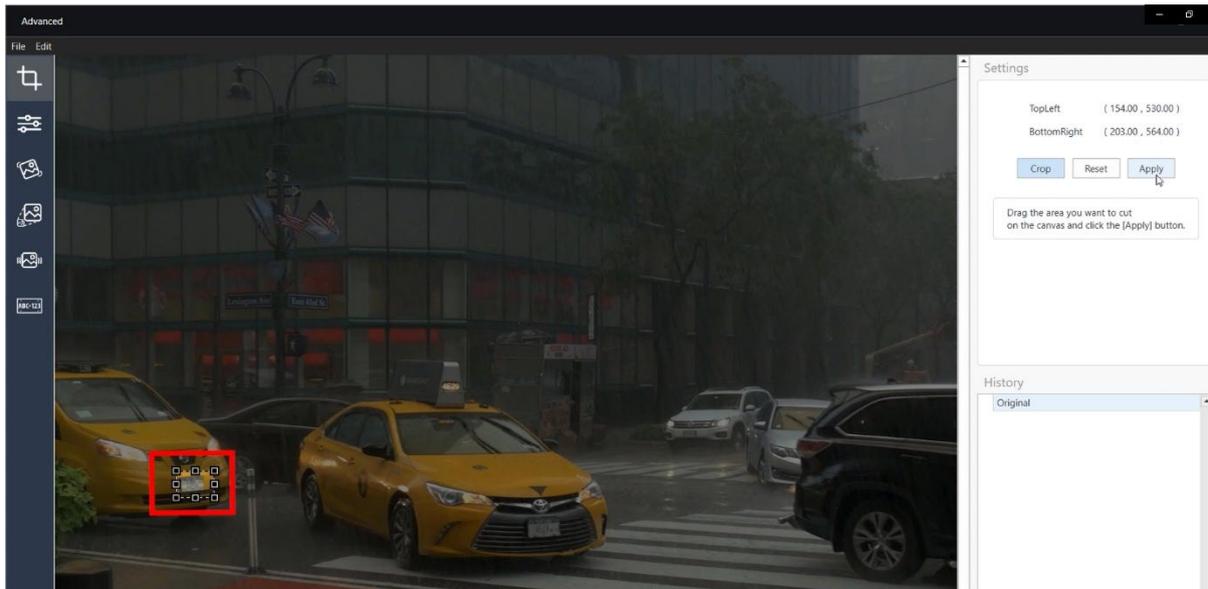
Basic enhancement feature includes Brightness/Contrast/Gamma/Color/Edge Sharpening/Noise Reduction. You can apply these filters to the dark videos like this sample video as below. We hardly see the people beside the highway, but after the brightness adjustment, we can clearly find people on the bridge and even the text on the vehicles.

The screenshot displays the MD-VIDEO software interface. On the left is a sidebar with navigation options like 'Save Case', 'Save As', 'Close Case', 'Recovery', 'AI Analyzer', 'OCR', 'Create Video', and 'Export'. The main area shows a 'Column View' of a file list with columns for 'No.', 'State', 'Name', 'Preview', 'File Path', 'Cha...', and 'Resolution'. The list contains 8 items, including 'Auto.mp4', 'Auto2.mp4', 'Brightness.mp4', 'Carsign.mp4', 'EdgeSharpening.mp4', 'MotionDeblur.mp4', 'Rotation.mp4', and 'SuperResolution.mp4'. On the right, a video player shows a night cityscape. Below the player, the 'Enhancement' tab is active, with 'Apply Filter' checked. The 'Density' section has 'Manual' selected, and sliders for 'Brightness' (0%), 'Contrast' (0%), and 'Gamma' (1) are visible. The 'Color' section has sliders for 'R', 'G', and 'B' (all at 0).



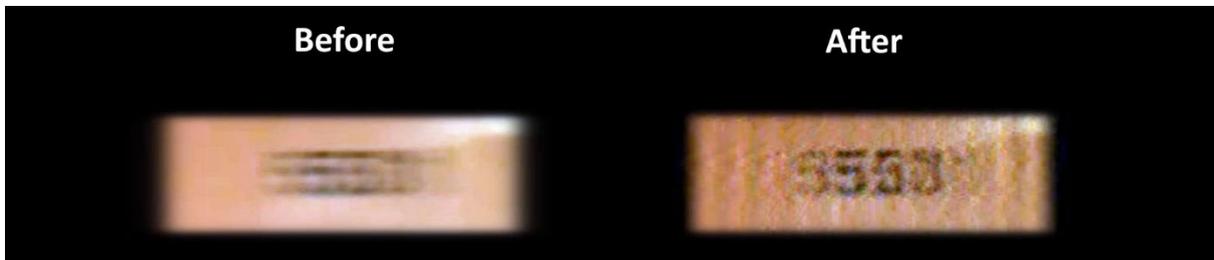
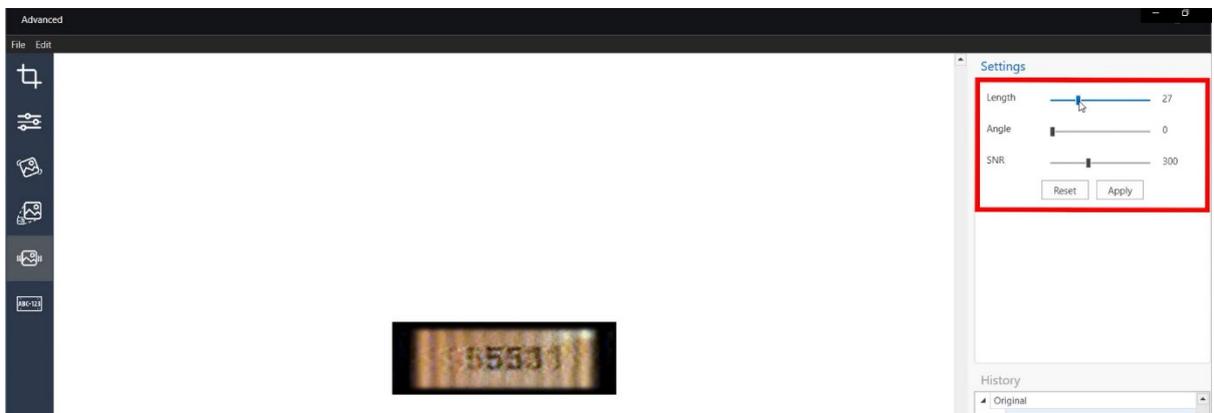
Advanced Enhancement – a. Super Resolution

Super-resolution can magnify the analysis results with high quality compared to the common magnification. With this sample video, we'll try a super-resolution feature to the car plate on the taxi. MD-VIDEO supports 3 types of super-resolution, EDSR/ESPCN/FSRCNN. EDSR has the best quality of performance, but it may take a lot of time, so we recommend using a GPU. Apply crop and rotate feature in advanced, and select super-resolution then set the scale level. You can check the adjustment result from the canvas and try additional enhancements to have better visibility.



Advanced Enhancement – b. Motion Deblur

Shaky images can be improved with the Motion Deblurring feature. If you want to have the clear text from the moving object, the following enhancement tips can help you. Capture the frame and crop the only necessary part then select the Motion Deblur menu. Make an adjustment of Length, Angle, SNR(Signal to Noise) until you get the clearest result.



Advanced Enhancement – c. Perspective Transformation

The tilted objects can be flattened with the Perspective Transformation feature. We'll apply on this sample video, you may need this feature frequently on the car plate. After cropping the image, go click the Perspective Transformation menu. Select the four coordinates of the area where perspective transformation is performed and click the apply button.

