Feature Spotlight

DARK TIME INSERTION

Enhance motion clarity in fast-action content.

Dark Time Insertion, available as part of Brompton Technology's ShutterSync® feature on the Tessera SX40 and S8 processors, operates on a simple premise: inserting some dark time between consecutive frames. This dark time separates the frames, reducing the persistence of vision effects that can create an appearance of motion blur.

This feature is particularly beneficial for applications where there is fast movement in the content, such as esports and simulation, and a desire to enhance motion clarity.

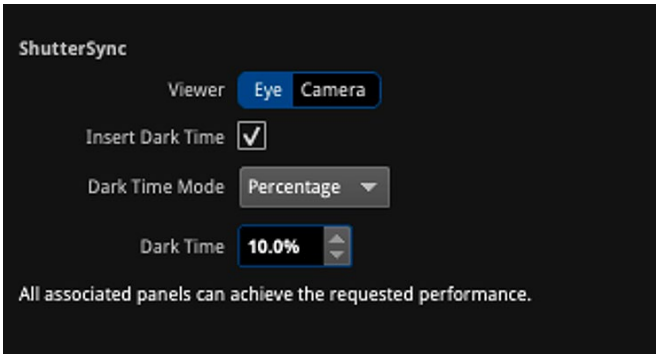
Reduces Motion Blurring

When dark time is inserted between two frames of the video, it reduces the persistence of the previous frame (how long an image lingers on the LED screen before transitioning to the next frame). So, by inserting dark time, the persistence of the frame is effectively shortened – this reduces the perceived motion blur because the human eye has less time to track the motion of the previous frame, with the result that fast-moving objects appear sharper and clearer.

- ✓ More clarity in fast movement.
- ✓ Simple to set up and use.
- ✓ Beneficial for esports and simulation.

How To Use Dark Time Insertion

From Tessera 3.5 onwards, ShutterSync has two Viewer modes depending on the viewing application: Eye and Camera. Camera mode is an existing, patented, camera-centred ShutterSync functionality.



With new Eye mode, dark time can be inserted into the frame period either by setting an absolute time for the dark time in milliseconds or by specifying a percentage of the frame period to be dark. Dark Time Insertion does not require the use of High Frame Rates (HFR+) or Frame Remapping and can be used with all panel types.

Brompton Technology is the market leader in LED video processing for the most demanding applications across key sectors including Virtual Production & ICVFX, Live Events & Touring, Corporate & Education, Broadcast & Studio and Esports. The company has won multiple awards and become a globally respected brand, known for the quality and reliability of its products and exceptional technical support. For more information, visit www.bromptontech.com.

© 2025 Brompton Technology Ltd, 272 Gunnersbury Avenue, Chiswick, London W4 5QB | www.bromptontech.com