



DELIVERING IMMERSIVE SLOW-MOTION VIDEO WITH WIRELESS FREEDOM IN A FULLY INTEGRATED BROADCAST WORKFLOW



Standard studio cameras, running at 50fps or 59.94fps are designed to deliver the needs of the majority through a balance of spatial resolution clarity – through HD or 4k video formats, and temporal resolution which ensures that for many motion sequences within normal programming the human visual system interprets the on-screen video as realistic images that stand out and deliver on the event director's creative vision.

However, the capability of the human visual system continues to impress as we learn more about our innate visual capabilities. Resent research shows that we are able to identify some detail in an image very rapidly - with the human visual system able to recognize orientation of an object within as little as 9ms. However, recognizing other information about an image takes longer. Recognition of colors can take 25ms or longer and correctly identifying both orientation and understanding the color of an object requires periods in excess of 30ms - Longer than a video frame.

Understanding the capabilities of the human visual system shows us that for fast motion video sequences the human eye may not be able to capture as much temporal detail from the video screen presentation as is being played out in front of the camera lens. TV directors have understood the power of a slow-motion action replay sequence for many years. By capturing in high frame rate and then playing back slower than real time, the audience gains a better understanding of what events occur and the director adds creative drama to the production.

High frame rate camera systems have historically been specialized and expensive with many requiring their own production workflows. However, technology has continued to advance and the most up-to-date system cameras such as the Sony HDC-5500 now provide a high frame rate option.

When covering and producing video content of live events, cameras may be positioned and configured specifically for capturing action sequences for slow motion replay applications. This does however create an in-flexible content capture system. Better value for money deployments and more creative deployments may be achieved by configuring the camera system for a dual-purpose normal frame rate and high frame rate workflow.

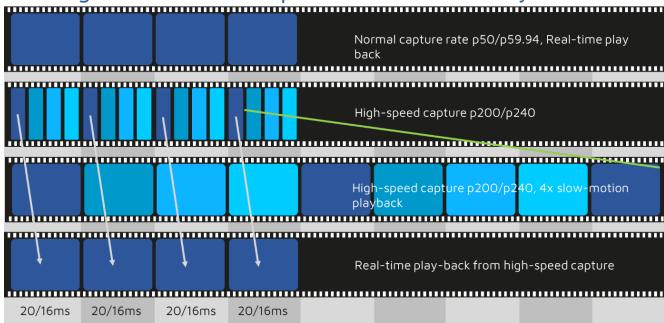


Vislink's INCAM-HS integrated into the side-panel of the Sony HDC-5500 system camera









Time interleaved carriage of high frame rate video gives access to high frame rate and standard frame rate content

The time-interleaved, high frame rate connectivity across 4x SDI video interfaces implemented in the latest system cameras allows combined standard and high frame rate workflows. This enables camera and wider scale systems to be deployed cost-effectively and use them to deliver programming content with the power of high impact action images that come from smooth slow-motion sequences. But what really gives the visual content a highly immersive feel and sucks in the audiences is the ability to be right at the heart of the action.

By implementing a wireless camera system – one that can support both standard and high frame rate workflows, the event director can benefit from maximum creative freedom – to position the camera amongst the action, to have freedom of movement, to have the ability to quickly re-purpose the camera from one location to another and so make best use of the camera asset.



Vislink's INCAM-HS integrated camera transmitter solution for the Sony HDC-55000 camera and Vislink Quantum wireless camera receiver delivers and end-to-end wireless transmission system that provides both a real-time and slow-motion workflow

Vislink's INCAM-HS 4k, HD, HDR and HFR capable wireless camera system can be fully integrated within Sony cameras such as the HDC-5500. This purpose-built system provides complete wireless freedom and, as a fully integrated system provides perfect weight distribution across the camera body creating a better-balanced camera that is more comfortable for the camera operator. And as a fully integrated camera system delivers an easy to configure pick-up and go solution.