



Remote Production – the new norm for projects large and small

Regional events can now leverage Edit @Home just like the high-visibility, global ones

Global events are not the only productions that can benefit from Edit @Home. Regional entertainment and sporting events, college sports productions and regional news bureau shows – which have all of the same production requirements as the high-visibility global events - can also obtain significant benefit from this technology.

TV production techniques are constantly evolving. Nowhere is this more evident than in the production of live events – often sporting events, but also applicable to news gathering and reporting, musical performances, and corporate event coverage. But live event coverage has been a notoriously expensive proposition.

The Value of Edit @Home

A number of large sporting events have shown the clear value of remote (Edit @Home or “REMI”) production, where the action is captured at the event location, but production activities - such as editing, creation of highlight segments, and even generation of news stories – occur at the broadcaster’s home base. Fox Sports has been pioneering this workflow since their coverage of the FIFA Men’s World Cup - where the games were played in Russia, but the majority of the production and editing work was done in Los Angeles – then refining and expanding the concept further for its coverage of the FIFA Women’s World Cup, where the games were played in France, but the production work was again done in the USA. Both of these events utilized sophisticated Lightspeed Live Capture systems at the venues, which delivered high-bandwidth source footage, in edit-native, “edit-while-ingest” file formats (along with low bandwidth proxy versions) back to the US-based production site via very low-latency (~ 15 second) transfer mechanisms.

This production technique offers significant financial benefits to the broadcaster: instead of having to transport hundreds of production personnel, and the associated production equipment, to the remote site, the staff could remain “at home” and perform their production activities at existing local facilities. The cost savings on the shipping and logistic side are considerable – especially when you consider that the equipment may be used in locations where spare parts are not readily available, requiring that the broadcaster must therefore not only ship all of the production equipment to the remote site, but also all of the spares and backup systems. It quickly became evident to Fox Sports that using an Edit @Home process. was a much more cost effective and efficient way to produce these events on a global scale, and the rest of the industry has certainly taken note!

The recent COVID-19 pandemic has only made Edit @Home production more relevant. In many cases, it is simply not possible to transport more than a very small team from their home base (which, today, might actually be their home!) to a remote location. Edit @Home production might be the only practical solution at present, and once these techniques are employed, broadcasters are unlikely to go back to the “traditional” way of producing high-visibility events.

Capturing Material for Edit @Home

The key to being able to employ Edit @Home production lies in the advanced capabilities of the capture devices used. While these capture devices are indeed located at the event venues, the amount of technical staff required to support them is minimized, as is the need for on-site production staff.

Fundamentally, the on-site capture system must excel in capturing material – both HD and SD – into an edit-friendly format – which, in most cases, means the use of an intra-frame codec. The most common formats used are DNxHD, DNxHR, XAVC, ProRes and AVC intra, and the capture device should be able to create files in any or all of these formats to be compatible with the leading non-linear editing packages from companies such as Avid, Adobe, Edius and Black Magic. For live sports events, the system needs to not only capture its material to its local storage, but simultaneously deliver that full resolution content via a transfer acceleration products such as Aspera FASPStream and FileCatalyst. This technology (which is integrated into Telestream’s Lightspeed Live Capture products) is the exact technology used by Fox Sports for its FIFA World Cup productions, resulting in material – which was growing in real time - being available for edit in Los Angeles ~15 seconds from the moment it was captured in Russia and France.

For some productions, this immediate availability of the full resolution material is not as important as the ability to begin making edit decisions. So, the capture system must also (and concurrently) be able to create low bandwidth proxy versions of the full res material, so that customers can also perform proxy editing if that is what their workflow demands, only rendering the full res material on final output. Lightspeed Live Capture systems offer this capability as standard, eliminating the need to tie up an on-site transcoding system in order to produce the proxies.

One of the most common needs in live event production is the requirement to be able to produce “Highlight” compilations for various uses. For many workflows, producing these highlight segments via a full Edit @Home workflow may prove impractical.

It is important that the remote system be able to create these segments locally. Of course, the whole point of Edit @Home production is that the creative staff do not need to be transported to the event site. The solution to this apparent impasse is to use a capture device which has an integrated, web-based sub clipping UI built into it. In this way, the sub-clipping decisions (aka “cuts-only editing”) can be made by creative personnel at their home base, while the actual rendering of the edited clip takes place at the event site on the capture system itself. Lightspeed Live Capture systems offer this capability, creating sub-clips from an ongoing capture – in real time and without affecting the capture – without tying up any additional resources.

Lightspeed Live Capture C2

But global events are not the only productions that can benefit from Edit @Home. Clearly, regional entertainment and sporting events, college sports productions and regional news bureau shows – which have all of the same production requirements as the high-visibility global events - can also obtain significant benefit from this technology. However, these benefits are only within reach when the capture system is specifically designed for smaller productions when compared to FIFA World Cups and the Olympics. But the smaller capture system must still have the high-end capabilities required for professional productions regardless of size.

Lightspeed Live Capture C2 is a purpose-built, two-channel capture server. It is an ideal solution for news, live events including remote production and editing, and for tape archive through Log and Capture. The system is able to meet the requirements outlined previously, and there is an option to include a version of Vantage transcoding. When used in a stand-alone application, without attachment to other Vantage systems, Lightspeed Live Capture C2 can be an all-in-one ingest and transcoding solution.



Lightspeed Live Capture

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