

WORKFLOW SPECIAL

CIO Review

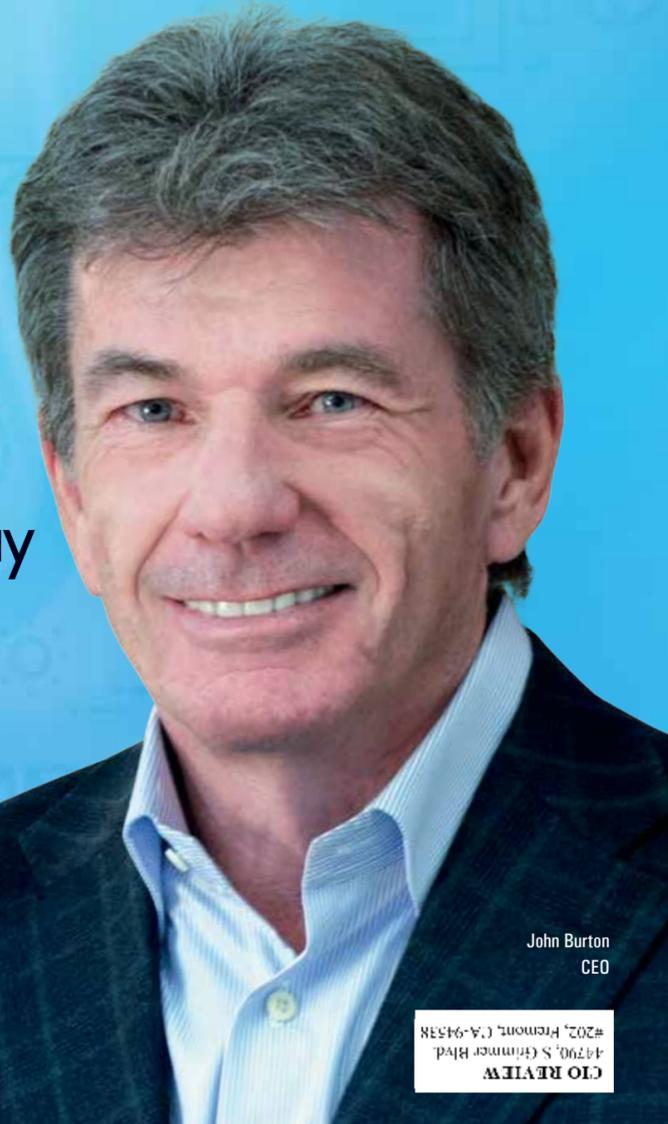
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Nintex

Streamlining Everyday Workflows



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C I O R E V I E W



CXO INSIGHTS

LARGE FORMAT PRODUCTION

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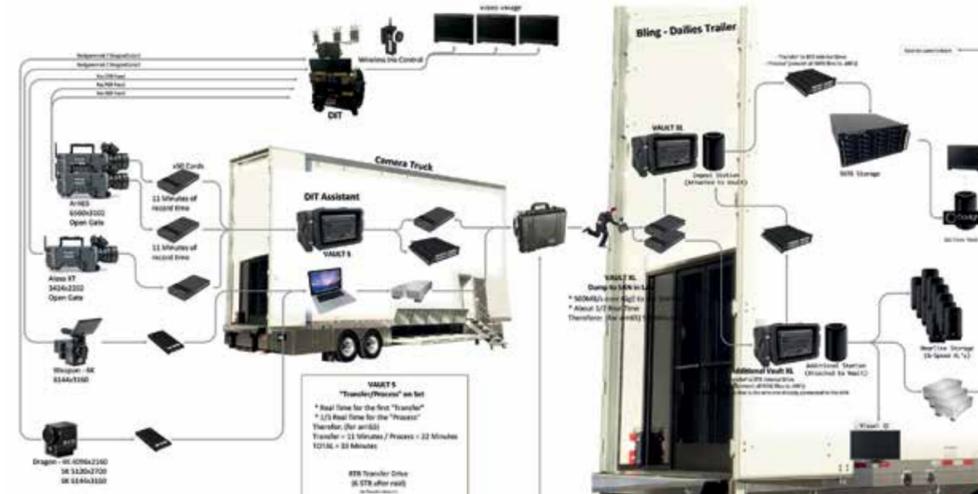
Picture you're a Workflow Producer that has just been hired on a big budget feature film. Your client is super excited to have just gotten their hands on the latest camera to hit the market that records in a brand new large format. As excited as you are for the brilliant images it will record, you know the challenges ahead; your go-to software and hardware will need to be reassessed. This will inevitably require unique workflow decisions to work around the fact that the software and hardware within the post-production industry has fallen behind cameras recording capabilities.

Software and hardware companies have made it very easy for users

to use off the shelf products when working with smaller form factor cameras. With no serious investment in infrastructure, users have many options to work with their files at the highest quality possible. However, larger form factor cameras provide many more challenges that workflow experts need to consider when designing their pipeline. Cameras like the ARRI65, or RED Helium are pushing the boundaries on recording increasingly larger files. It is common on scripted television shows to shoot approximately 3 hours of footage a day. With the ARRI65 camera, that would amount to around 8.4 terabytes. Something as simple as making a copy of your files, requires many more considerations then you may be used to when working with smaller formats.

This may also mean working with proprietary hardware, as your go-to solutions may not be able to support the new format you are working with.

For smaller camera formats, things can remain very simple for post-production. After recording your files you can bring them directly into your editing application. This sounds like a simple process that would work for all jobs, however due to post production hardware and software processing speeds not keeping up with the camera manufacturers large recording formats, we have created what we in the industry refer to as the offline edit. Rather then editing with the cameras original recorded files, you need to convert them into smaller, more manageable files. Therefore all of the creative editing work with a



client in the room, is optimized and you don't have to deal with your hardware or software struggling to play the media. Once the creative editing has been

completed, a process will take place where we relink this edit, back to the cameras originally recorded files. This is referred to as the 'conform'. This workflow is not a choice we are choosing to make because it makes any sense from a creative standpoint, but rather one we are forced to, due to camera manufacturers drastically pushing the envelope with their recording formats.

Many cameras used for scripted televising and movies are recording in RAW. Any time you have recorded in RAW, a 'debayer' process must occur. Whether you are choosing to simply play the media, or convert it into another format, this debayer will take place. Companies are often forced to make a decision between speed and quality. As an example, with RED media, you can choose what quality debayer to use when playing your files. Therefore choosing a lesser quality will result in smoother playback. Choosing a better-quality option will require more hardware/software performance. The vast majority of companies are very rarely looking at media during their creative work in its highest debayer, due to the processing power needed to do so. In fact, after the offline edit has completed and you are now reconnected back to the cameras original files, many post facilities in Hollywood

are converting these into a non-RAW format. Therefore ensuring that when they have clients in the room for this color correction session, the hardware and software will not lag. This, like the offline edit, is not something that people are choosing to do because it makes sense from a creative standpoint, but rather to optimize performance.

Will we one day be able to cut this offline process out, debayer in the highest quality and stop cutting corners to optimize user experience? As time goes on processing power



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in post-production will drastically increase. However at the same rate, camera formats will continue to evolve providing higher bit depths, larger resolutions and exciting technology yet to even be conceived. This cycle is far from ending, as camera manufacturers are not going to just stop developing their products. However, as a Workflow Producer, taking that call from a client excited about a new camera format that has just been released, means we as workflow consultants will continue to design customized workflows and optimization choices that are tailor made to each unique job, providing our clients with the best experience possible with the tools available to us.



Jesse Korosi