



Control room video walls:
Is 4K the right choice?

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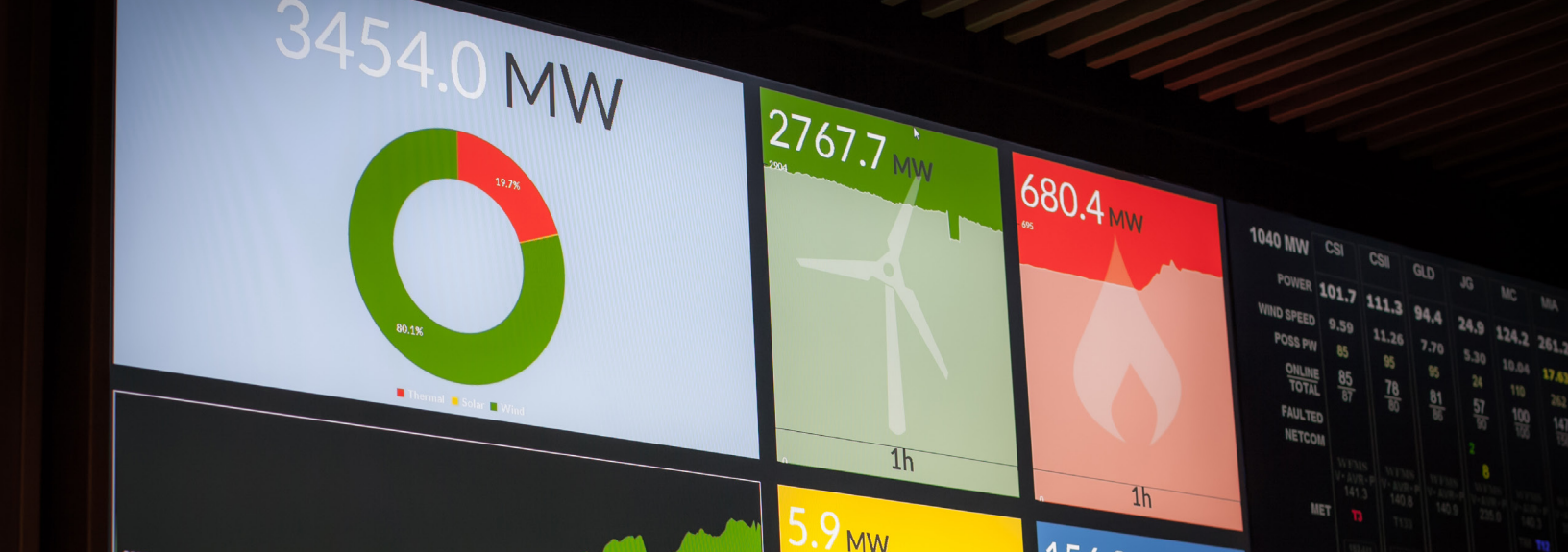
First standardized by the cinema market, 4K resolution has quickly risen in popularity to become the preferred choice for a variety of viewing applications.	Consumer televisions, digital signage, visualization and simulation, entertainment, and medical imaging are just a few markets where the higher pixel density and enhanced detail of 4K resolution has proven advantageous.	However, when it comes to control room video walls for security and monitoring, 4K resolution is simply not the right choice. Let's explore why.
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Driving interest in 4K for control rooms

The interest in 4K resolution for control rooms is being driven from two areas: ingest of content and desktop forensic analysis.	to view and manage high-resolution content. Higher resolutions allow for more details to be perceivable and, for certain applications, this is necessary.	The benefits of this level of detail in security settings are obvious.
Developments in high-resolution capture and streaming equipment, such as 12MP cameras and high-bandwidth networking, give control room operators the ability	For example, 4K displays allow operators conducting forensic-level analysis to clearly perceive fine details, like license plates or a person's face.	However, when we look at the typical large-format control room video wall, 4K resolution is not only unnecessary, it actually limits the viewer's ability to properly evaluate displayed content.



▲ 4K resolution helps control room operators conduct desktop forensic analysis, but when it comes to large-format video walls, HD resolution is the best choice for optimal viewing



4K video walls: Getting lost in the details

It's possible to have too much detail. When we display 4K content on a 4K video wall, certain aspects of the image show up very small.

Content like fonts, labels on maps, SCADA images, dashboards, web pages and other fine-detail objects appear so small they are illegible.

This is due to what the human eye can interpret based on distance and the type of content displayed.

Optimal viewing for 4K resolution is up-close on a smaller display, such as a desktop monitor at an operator's console. However, when viewing content on a video wall where the control

room operators are sitting back from the display, certain types of images in 4K resolution become unreadable.

Add to this the common practice of displaying multiple sources across the entire video wall, and the issue is compounded.

HD: The best choice for control room video walls

With decades of experience as a leading supplier of control room solutions, we understand which products work best in any control room environment.

When specifying a video wall for a partner or customer, they're often surprised when we suggest HD video walls as the preferred choice for a better, more legible viewing experience.

Most commercial-grade, 1080P HD display products, such as tiled-LCD or

LED video walls, provide more than enough resolution for the modern control room environment. Not only do HD video walls provide a better user experience, they are also much less expensive than their 4K counterparts.

As an added bonus, operators can still use their high-resolution cameras. This is because Christie display products can scale native 4K content to properly fit HD displays.

Meaning control rooms can still use a 4K workflow for fine-detail desktop analysis when needed, while benefiting from a better viewing experience when interacting with the video wall.

And of course, operators can always group four HD sources together into a single window on the video wall to display native 4K content.

Contact Christie

Ready to learn more about choosing control room display and processing technology?

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