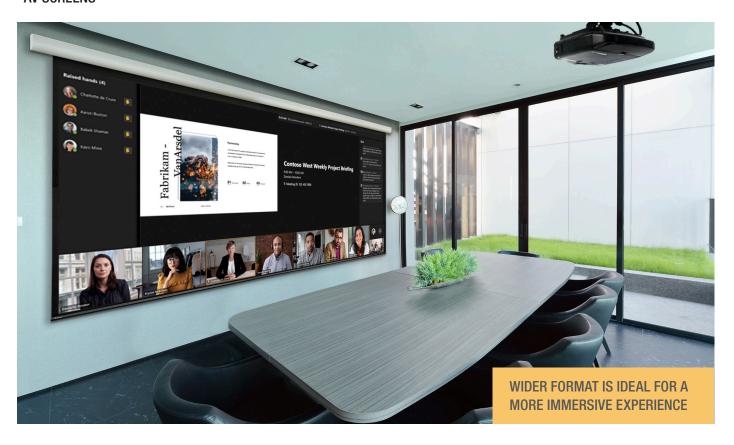
WHITE PAPER WHY 21:9 FORMAT NOW

AV SCREENS



The age of multi-tasking and immersive experiences has made the use of multiple monitors a common occurrence. But more people are warming to the idea of using a single, wider screen for better resolution and no visual interruptions from the monitors' bezels.

16:9 and 16:10 formats have been the major choices for wider screens, but now an even wider format is gaining traction. That format is 21:9.

21:9 ASPECT RATIO - WHAT IS IT, AND WHY DOES IT MATTER?

The 21:9 aspect ratio has been around for a while. However, it has been growing in popularity since Microsoft started promoting it for use with the Front Row format in Microsoft Teams Rooms (MTR).

Front Row is technically 2.37:1 (21.33:1), but the terminology used has been "rounded off". Many of the first displays had a resolution of 2560x1080, but there are now displays available with varying resolutions.

BENEFITS

In general 21:9 is a wider format choice that is ideal for those looking for a more immersive experience, including:

Gamers who want a fuller horizontal field of vision and better field of view.

Multi-taskers who want to have multiple applications open on a single display without the visual interruption of dual displays.

Cinema fans who watch movies in SCOPE format (2.39:1 is the format used for blockbuster movies). 21:9 comes close to matching SCOPE.

HISTORY

The format itself is not new.

Philips was the first company to launch a "Cinema 21:9" TV in 2009. It was a 56-inch diagonal. They released 50inch and 58-inch models in 2010 and 2011, but in 2012 discontinued 21:9 aspect ratio TV models due to lack of demand.



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Vizio followed with a 58-inch, 21:9 aspect ratio TV in 2012 and 2013. LG launched UltraWide® computer monitors in 2012, marketing them mostly to gamers and productivity users. It was also a good format for watching movies on computer monitors since the 21:9 aspect ratio is so close to the SCOPE. LG started selling larger sizes in 2015, while Jupiter Systems began selling to the commercial market starting at 34-inch diagonal.

VIDEO TIMING STANDARDS*

In 2013 video timings were created to support this aspect ratio and the HDMI interface (CTA 861-F). In 2016 more video timings were added to support 21:9 aspect ratio displays.

MICROSOFT TEAMS ROOMS FRONT ROW

The introduction of Front Row in Microsoft Teams Rooms (MTR) is bringing new life to the 21:9 format. The layout features the video gallery displayed horizontally below the main content, allowing for a more natural eye level experience for attendees. While it can work with 16:9 monitors, 21:9 gives users the full Front Row experience.

SIZE VS COST

21:9 has **exciting potential** beyond a desktop setup, allowing more immersive experiences in much larger sizes. However, affordable flat panels are still limited and are expensive in larger sizes. LED video walls are also still an expensive option.

Projection is an affordable way to make a larger image in Microsoft Teams Rooms and other applications. 4K-UHD projectors provide the best viewing experience with 21:9 screens. Their vertical resolution of 2160 is higher than High Definition 1080p, or WUXGA projectors.

When 2.37:1 is viewed on a 4K-UHD projector (16:9), the image shrinks vertically but will still be 1620 pixels tall.



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www.draperinc.com/draperpro/login.aspx

To learn more about Microsoft Teams Rooms, click here: www.microsoft.com/en-us/microsoft-teams/microsoft-teams-rooms

This AV Magazine article provides some more insight into Microsoft Teams Rooms Front Row.

www.avinteractive.com/news/collaboration/microsoft-introducesenhanced-microsoft-teams-rooms-22-03-2022

About the Author: Steve Cook is the AV Consultant Relations Manager, Eastern North America for Draper. He has nearly 40 years of experience in the AV industry, including product development, engineering, and education. He has worked for industry leading manufacturers of both projectors and screens. In addition to managing relations with consultants, Steve is heavily involved in Draper screen technology development and education.

*VESA-2013-3 v1.2 defines timings of the component video signal. Originally developed for computer monitors and video cards, it also now impacts consumer televisions.



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