



Widescreen

16 x 9 and 4 x 3 Video

A diagram illustrating video aspect ratios on a grid. The grid is 4 columns wide and 8 rows high. The top-left corner is cut off by a diagonal line. The grid cells are shaded in various tones of green. One cell, located in the second column and fifth row, is a darker green and contains the text "White Paper".

White Paper



Widescreen format video is increasingly popular, and the VBrick WM Appliance (Version 4 and above) supports multiple video resolutions including widescreen.

4 x 3

Conventional television, and most streaming video, is delivered in 4 x 3 format. These numbers are merely the ratio of the width to the height (the width is 1.333 times the height).

16 x 9

NTSC, PAL, and even standard film formats do not really support ratios other than 4 x 3 – but the actual image that is within the 4 x 3 “frame” can contain 16 x 9 video (where the width is 1.777 times the height). This is done by using letterbox (you see black bars on top and bottom of the video) or by using anamorphic techniques. For anamorphic, the source video is stretched vertically and this is the image that is on the film, tape or video file. If you were to view this video on a standard 4 x 3 monitor, everything would look too tall. But if the subsequent display width is stretched 1.777 times the height, the original 16 x 9 resolution is restored.

VBrick Resolutions

VBrick WM Appliances support 4 x 3, 16 x 9, and a special 16 x 9 zoom mode.

If you present 16 x 9 anamorphic video to a WM VBrick configured for 16 x 9 encoding, the VBrick produces a video stream that is widescreen. If you present a standard 4 x 3 video to a VBrick configured for 4 x 3, it produces a standard non-widescreen video. The player simply displays the proper number of pixel columns and rows.

16 x 9 Zoom Mode

When you deliver standard 4 x 3 video to a VBrick configured for 16 x 9 Zoom Mode, the video stream or file is produced in widescreen format.

The VBrick crops the top and bottom of the video input and “zooms in” toward the center of the input video until the video fills the full 16 x 9 resolution. While some video information is lost, this is a great way to produce 16 x 9 video using standard, inexpensive 4 x 3 cameras and letterbox video sources.

4 x 3 Resolutions	16 x 9 Resolutions
640 x 480	640 x 360*
640 x 240	640 x 180*
320 x 480	384 x 216
320 x 240	256 x 144
240 x 180	128 x 72
160 x 120	

*Resolution available for Zoom Mode



About VBrick Systems, Inc.

VBrick is the leader in Enterprise IP Video solutions, with over 6,000 corporate, education and government customers and 60,000 installations worldwide. VBrick solutions work over standard IP networks and the Internet to deliver rich media communications that connect people everywhere – from employees and customers, to partners and shareholders. Our comprehensive product suite and end-to-end solutions are used in a wide range of live and on-demand applications including meeting and event broadcasts, distance learning, digital signage, TV distribution, video surveillance, and Web-based marketing campaigns. Headquartered in Wallingford, CT, VBrick's products and services are available through industry-leading value-added resellers.

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