

Digital image size and aspect ratio resource for competition entries.

6 towns photographic club uses a 60inch 4k smart tv to display digital images. The smart tv has a wide screen 16:9 aspect ratio display area with a resolution of 3840 x 2160 pixels at 73.43 ppi pixels per inch...

Aspect ratio

Wikipedia explains it like this: the aspect ratio of an image describes the proportional relationship between its width and its height. It is commonly expressed as two numbers separated by a colon, as in 16:9.

In layman's terms it refers to the shape of your image.

Most digital cameras use an aspect ratio of 3:2 meaning the height of your image will be two thirds its width.

When displaying your digital entries on our wide screen tv the images have to be cropped **to fit inside the display area that we have made available for the competition.**

That display area is 3500 pixels wide by 1800 pixels high any image can be any size and shape provided it fits inside these dimensions.

Aspect ratios explained

Photography has always used a default aspect ratio of 3:2 not wide screen 16:9

If your image is 3500 pixels wide then its height would be 2332 pixels $3500 \div 3 \times 2 = 2332$ with a 3:2 ratio

The competition rules are 3500 wide and 1800 high not 2332 high

As you can see from the above numbers 2332 will not fit inside 1800 and so the top of your image unless it was sized correctly would be cut off **or will be automatically resized by our photo entry competition upload service to best fit.**

How to determine how big your image will look on another device

Ok so you've just created a masterpiece on your 19-inch apple mac with its super hd screen and you want to enter it into a 6towns photo competition as a digital entry.

How big will it look on their 60inch smart tv?

Divide your images width and height in pixels by the tv's ppi of 73.43

If your image was the same size in pixels as the tv display area of 3840 x 2160 pixels - it would fill the whole screen at 60inches in size - not particularly desirable. This is why we have reduced the display area to 3500 x 1800 for the competitions.

Less is often best

When considering how to display your digital image consider how you would view it as a print and consider how you would crop it as a print – it's your creative choice you will be critiqued on this choice.

It may help to print your image and see if the size and crop works - then work backwards measure your print in inches and convert those inches into digital inches.

A 12 x 8 inch space on our tv is 881.16 x 587.44 pixels because our tv has a ppi of 73.43

$12 \times 73.43 = 881.16$ and $8 \times 73.43 = 587.44$

Very nice you might think – however, a 12 x 8 inch print may look perfect mounted framed and hanging on your wall but it's going to look very small on a 60inch smart tv – who am i to say.

If you think your digital image is going to look too small and you want to add impact then scale your image up but keep the aspect ratio the same otherwise you will distort your image.

Instead of 12inch x 8inch double it and use 24inch x 16inch

$24 \times 73.43 = 1762.32$ pixels wide $16 \times 73.43 = 1174.88$ pixels high

A 1762.32 x 1174.88 pixel size image will fill just over half the width and just over half the height of our tv display. Much better

But if you continue scale your image higher you could begin to run out of height or width depending upon the aspect ratio of your image- i.e. its crop size in relation to the competition rules or the tv display area.

If this happens parts of your image could be cut off or automatically resized.