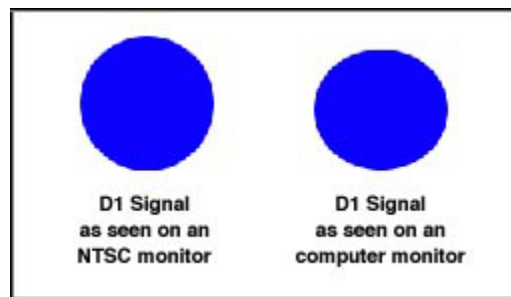


# D1 Aspect Ratio

## D1 Aspect Ratio

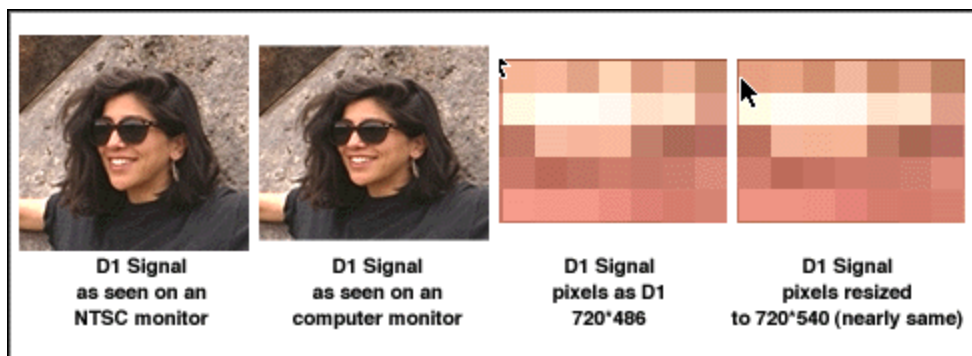
As the quantity and quality of effects shots being created on desktop computers has increased, so has the confusion about "D1 aspect ratio." For those of you fortunate enough to have never heard of D1 aspect ratio, digital video signals (D1 or CCR601 being the industry standard) are made up of pixels (720\*486 for NTSC). These pixels are displayed as rectangular pixels that are slightly more narrow than they are tall, while all pixels on a computer display are perfectly square. As a result, a perfect circle seen on a TV monitor will look like a squat oval on a computer monitor.

Products such as Adobe's After Effects™ have a feature that compensates for the D1 aspect ratio by dynamically scaling the image to its correct proportions. This is a marvelous feature for working with D1 images within a procedural compositing environment, but for a paint program this solution is not as useful. There is a noticeable speed hit when rescaling the image, and you are introducing aliasing and a slight blurring/softness as a result of the scaling.



## Commotion and D1 aspect ratio pixels

Commotion's motto regarding D1 aspect ratio is that a pixel is a pixel is a pixel. When Commotion is being used to touch up a matte, clean up some dirt, or tweak a composite plate, it is irrelevant how the image is displayed (whether it is slightly distorted on screen is irrelevant, since the ultimatte delivery medium will be a broadcast monitor where the image will look fine). As you paint, you see the true pixels and their results from any effects work that you perform -- any dynamic rescaling would deter from this true perception of pixels.



If you are working on an image where it is essential to see the pixels displayed in their correct aspect ratio - for example, if you were animating circles - then you would want to resize your clip to 720\*540 (which would correct for the pixel aspect ratio,) do your work, then rescale back to 720\*486. Bear in mind that this rescaling will introduce a slight blurring/softening.