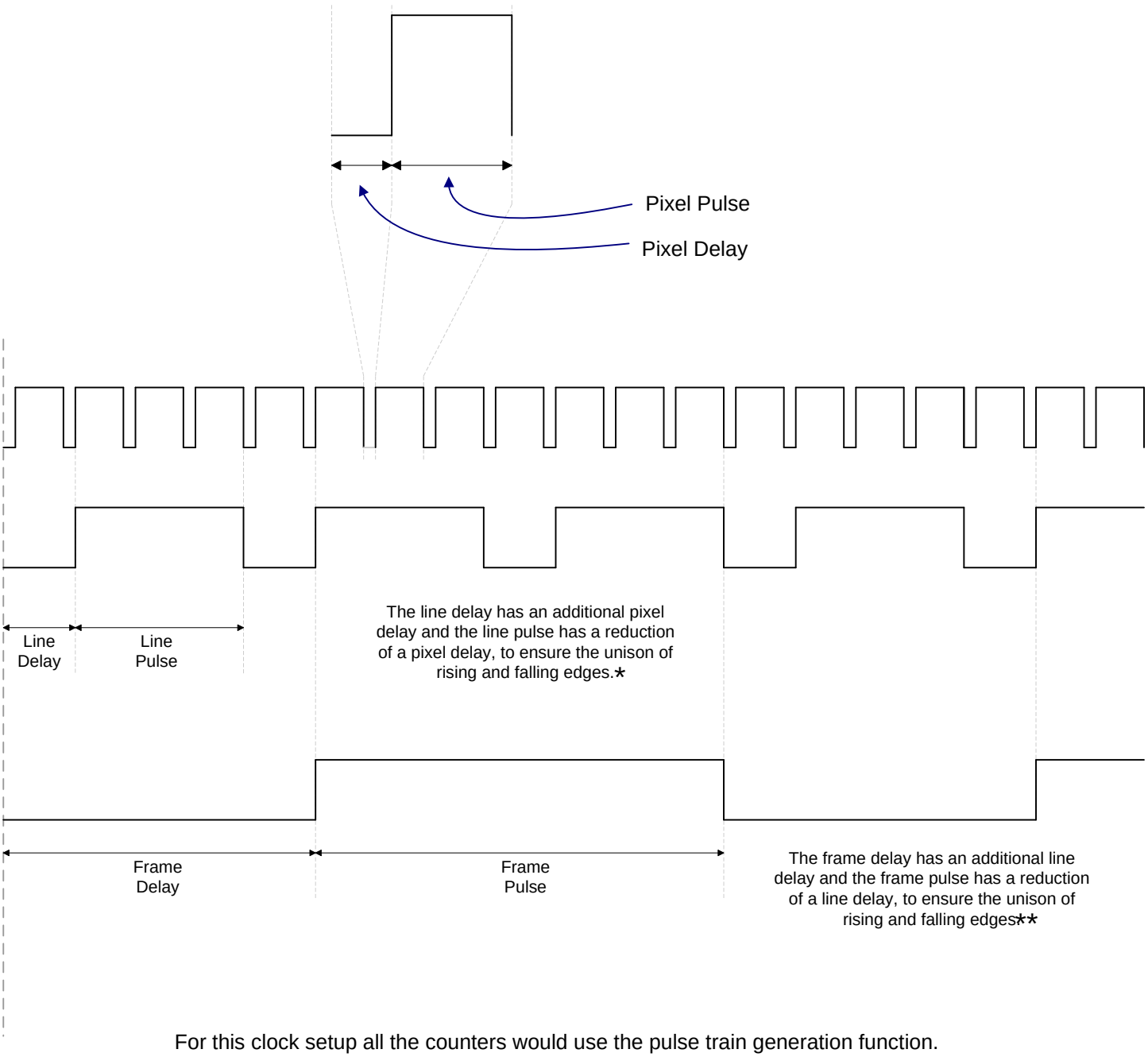
Counter Pulse Generation



For this clock setup all the counters would use the pulse train generation function. The limits the count, for both pulse and delay, to a 32 bit value. Which, when using the maximum internal timebase of 80MHz, will restrict the pixel resident times for large images. Example shown here acquires a 2 x 3 sized image.

$$^{*}\ LinePulse = [Width \times (PixelDelay + PixelPulse)] - PixelDelay$$
$$LineDelay = [n \times (PixelDelay + PixelPulse)] + PixelDelay$$

$$^{**}\ FramePulse = [Height \times (LineDelay + LinePulse)] - LineDelay$$
$$FrameDelay = [n \times (LineDelay + LinePulse)] + LineDelay$$