

Final Project

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ECE 495/595

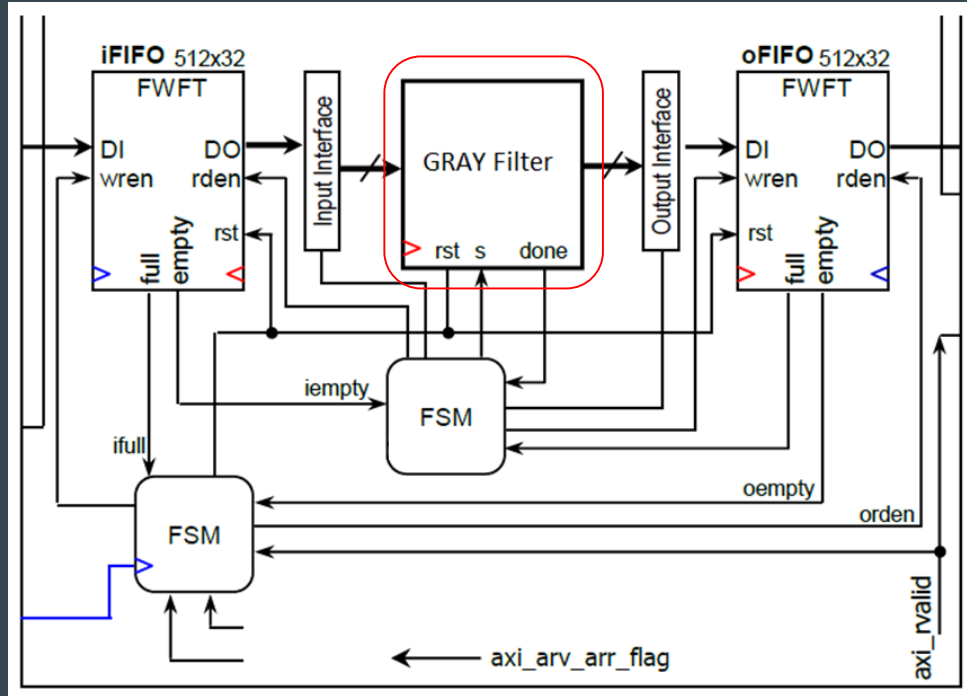
Tejas Sevak, Cabir Yavuz

Grayscale Filter



$$\text{Gray Value} = \frac{(R * \%X) + (G * \%Y) + (B * \%Z)}{100}$$

Block Diagram



$$Gray\ Value = \frac{(R * \%X) + (G * \%Y) + (B * \%Z)}{100}$$

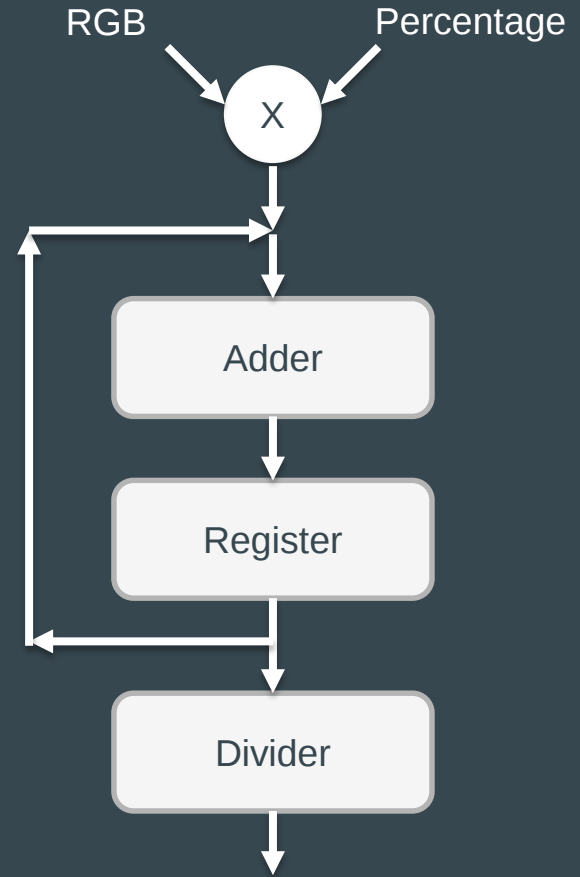
Grayscale Filter Components

- Adder
- Multiplier
- Divider

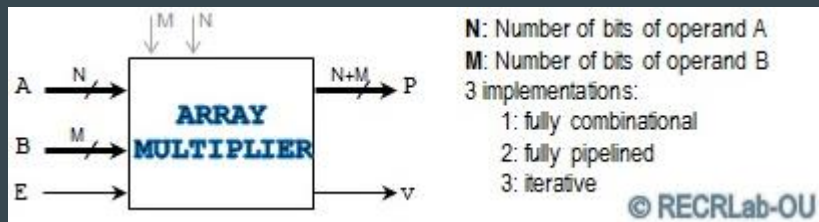
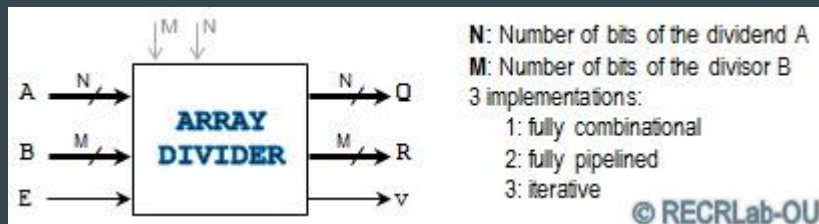
ITU-R BT.601

$0.299 * R + 0.587 * G + 0.114 * B$

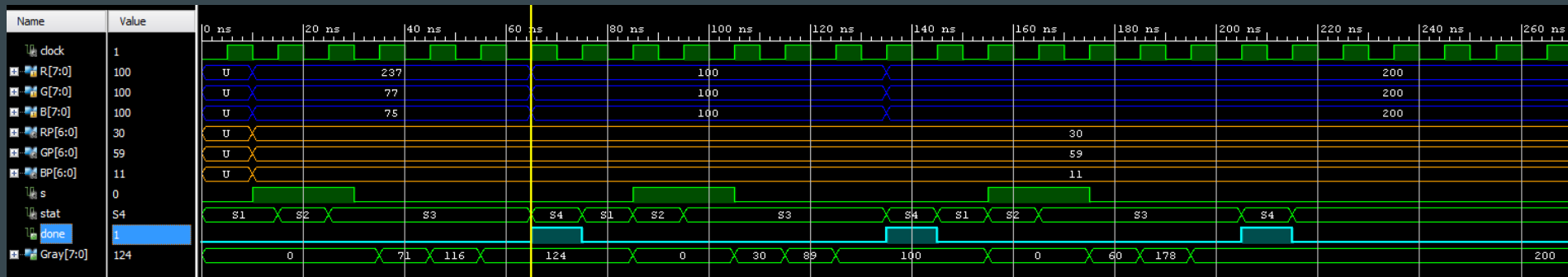
$$Gray\ Value = \frac{(R * \%X) + (G * \%Y) + (B * \%Z)}{100}$$



Components



Timing Diagram



Thank You!