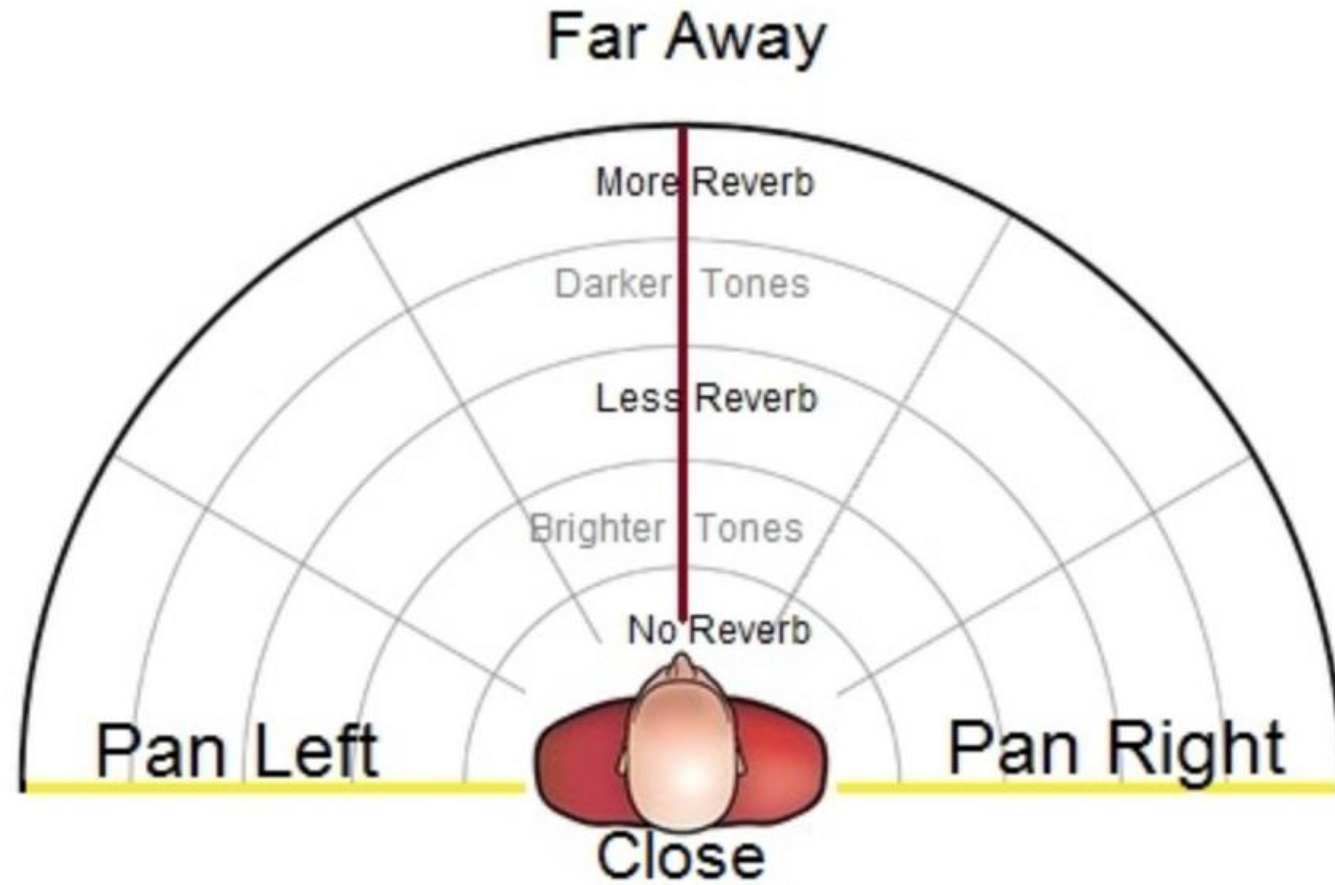


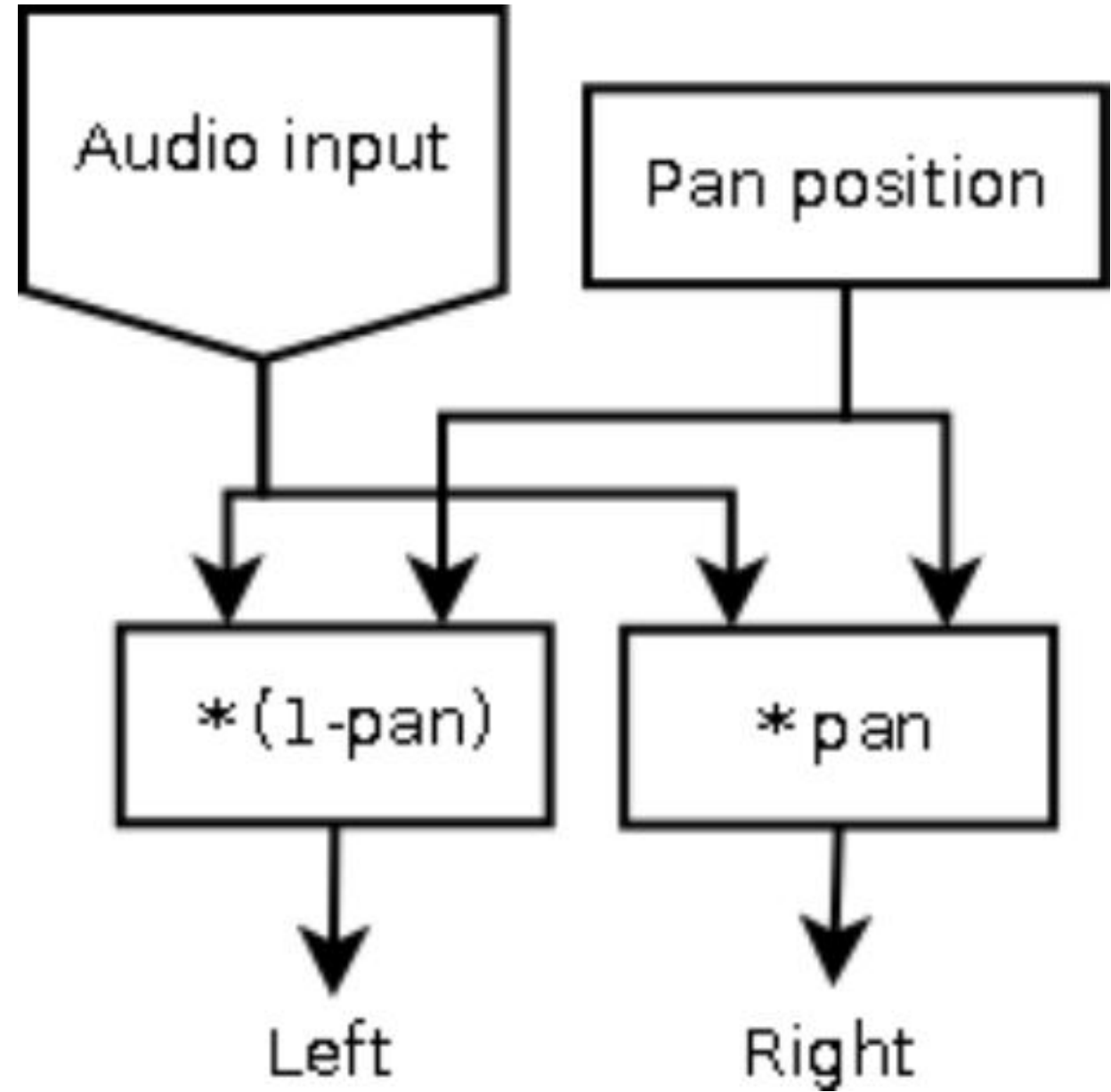
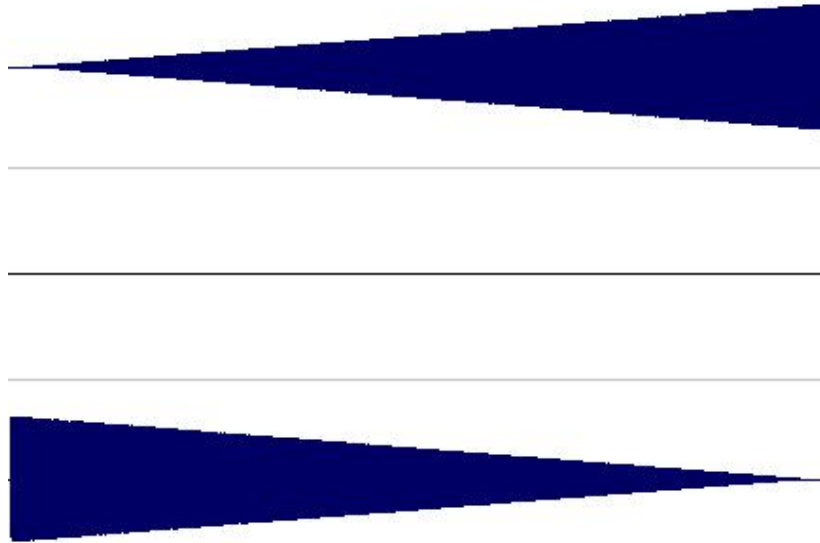
# Pan position

- Pan position value: where we intend to put our sound source.
- Range of 0.0 (fully in left) to 1.0 (fully in right).



# Linear Panning

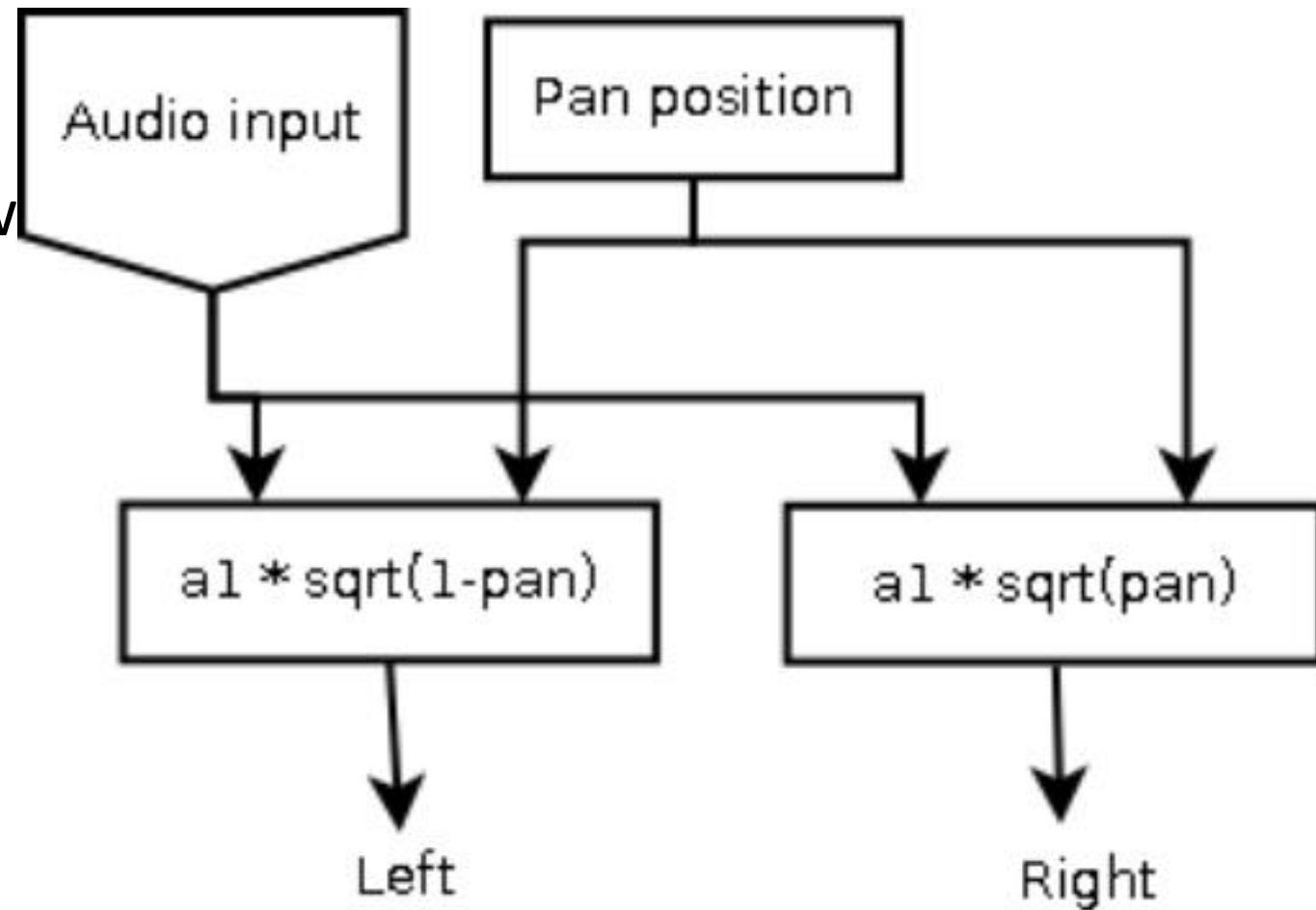
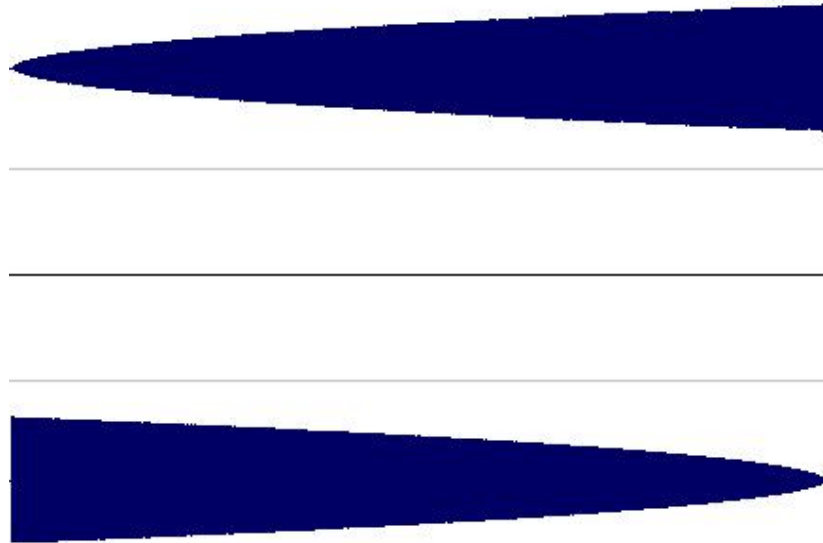
- Linear panning signal flow



$$L(\theta) = \left(\frac{\pi}{2} - \theta\right) \frac{1}{\frac{\pi}{2}} = \left(\frac{\pi}{2} - \theta\right) \frac{2}{\pi}, \text{ and } R(\theta) = \theta \frac{1}{\frac{\pi}{2}} = \theta \frac{2}{\pi}$$

# Square root Panning

- Square root panning signal flow



$$L^2\left(\frac{\pi}{4}\right) + R^2\left(\frac{\pi}{4}\right) = \cos^2\left(\frac{\pi}{4}\right) + \sin^2\left(\frac{\pi}{4}\right) = 1$$

# Our Program

