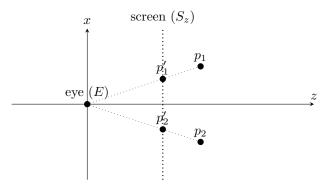
3D Projection 1



When we refer to p we mean either p_1 or p_2 . When we refer to p' we mean either p_1' or p_2' .

$$p = (p_x, p_y, p_z) \tag{1}$$

$$p' = (p'_x, p'_y, S_z) (2)$$

$$E = (E_x, E_y, E_z) \tag{3}$$

(4)

The formula to find p'

$$p'_{y} = \frac{(p_{y} - E_{y})(S_{z} - E_{z})}{(p_{z} - E_{z})} + E_{y}$$

$$p'_{x} = \frac{(p_{x} - E_{x})(S_{z} - E_{z})}{(p_{z} - E_{z})} + E_{x}$$
(6)

$$p_x' = \frac{(p_x - E_x)(S_z - E_z)}{(p_z - E_z)} + E_x \tag{6}$$

(7)

If we assume that E = (0, 0, 0) and $S_z = 1$

$$p_y' = \frac{p_y}{n_z} \tag{8}$$

$$p'_{y} = \frac{p_{y}}{p_{z}}$$

$$p'_{x} = \frac{p_{x}}{p_{z}}$$
(8)

(10)