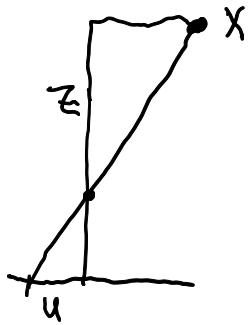


$p_{i \dots n}$  world xyz

$c_{j \ 1-4}$  world control

$$p_i^w = \sum_j^4 \alpha_{ij} c_j^w$$



$$\begin{bmatrix} \alpha_{11} & \alpha_{12} & \alpha_{13} & \alpha_{14} \\ \vdots & & & \end{bmatrix} \begin{matrix} c_1 \\ c_2 \\ c_3 \\ c_4 \end{matrix}$$

$$p_i^w = \left[ \begin{matrix} x \\ y \\ z \\ 1 \end{matrix} \right]_i^w \quad \alpha_i = \begin{bmatrix} \end{bmatrix}$$

$i \rightarrow 50$

$$w_i \begin{bmatrix} u_i \\ z_i \\ 1 \end{bmatrix} = \begin{bmatrix} f_u & 0 & u \\ 0 & f_z & z \\ 0 & 0 & 1 \end{bmatrix} \begin{bmatrix} x \\ y \\ z \end{bmatrix}_i^i$$

$$f_u x_i + u z_i = w_i u_i \quad \frac{x}{z} = \frac{u}{f_u}$$

$$z_i = w_i$$

$$f_u = F/P_x$$

$$\frac{F}{P_x} x_i + u \frac{P_x}{z_i} = z_i u_i P_x$$