$$u = \frac{L_1 x + L_2 y + L_3 z + L_4}{L_9 x + L_{10} y + L_{11} z + 1}$$

$$L_9 x u + L_{10} y u + L_{11} z u + u - L_1 x - L_2 y - L_3 z - L_4 = 0$$

$$+L_1 x + L_2 y + L_3 z + L_4 + 0L_5 + 0L_6 + 0L_7 + 0L_8 \mp L_9 xu \mp L_{10} yu \mp L_{11} zu + u = 0$$

$$L_1 x + L_2 y + L_3 z + L_4 + 0(L_5 + L_6 + L_7 + L_8) - L_9 xu - L_{10} yu - L_{11} zu = +u$$

$$v = \frac{L_5 x + L_6 y + L_7 z + L_8}{L_9 x + L_{10} y + L_{11} z + 1}$$

$$0(L_1 + L_2 + L_3 + L_4) + L_5 x + L_6 y + L_7 z + L_8 - v_x L_9 - v_y L_{10} - v_z L_{11} = v$$

$$\begin{array}{ccccccccccc} 1 & 2 & 3 & 4 & 5 & 6 & 7 & 8 & 9 & 10 & 11 \end{array}$$

$$\begin{bmatrix} x_1 & y_1 & z_1 & 1 & 0 & 0 & 0 & 0 & -x_1 u_1 & -y_1 u_1 & -z_1 u_1 \\ 0 & 0 & 0 & 0 & x_1 & y_1 & z_1 & 1 & -x_1 v_1 & -y_1 v_1 & -z_1 v_1 \end{bmatrix} \begin{bmatrix} L_1 \\ L_2 \\ \vdots \\ L_{10} \\ L_{11} \end{bmatrix} = \begin{bmatrix} u_1 \\ v_1 \\ \vdots \\ u_n \\ v_n \end{bmatrix}$$

LSQ METHOD (OVERDETERMINED SYST...)

$$XL = Y$$

$$\Rightarrow L = (X^T \cdot X)^{-1} \cdot (X^T \cdot Y)$$