Bezier Surface Equation:

$$\bar{P} = U M_B \bar{P} M_B^T W^T$$

M_B - Bezier Matrix

$\bar{P}$ - Matrix of Control points.

5 X 3 Bezier patch

$$P(u,w) = \begin{bmatrix} u^4 & u^3 & u^2 & u & 1 \end{bmatrix}$$

$$\begin{bmatrix} 1 & -4 & 6 & -4 & 1 \\ -4 & +12 & -12 & 4 & 0 \\ 6 & -12 & 6 & 0 & 0 \\ -4 & 4 & 0 & 0 & 0 \\ 1 & 0 & 0 & 0 & 0 \end{bmatrix}$$

Bezier matrix for 4th degree curve.

$$\begin{bmatrix} P_{00} & P_{01} & P_{02} \\ \vdots & \vdots & \vdots \\ P_{40} & P_{41} & P_{42} \end{bmatrix} \begin{bmatrix} 1 & -2 & 1 \\ -2 & 2 & 0 \\ 1 & 0 & 0 \end{bmatrix} \begin{bmatrix} w^2 \\ w \\ 1 \end{bmatrix}$$

Quadratic Curve Bezier Matrix