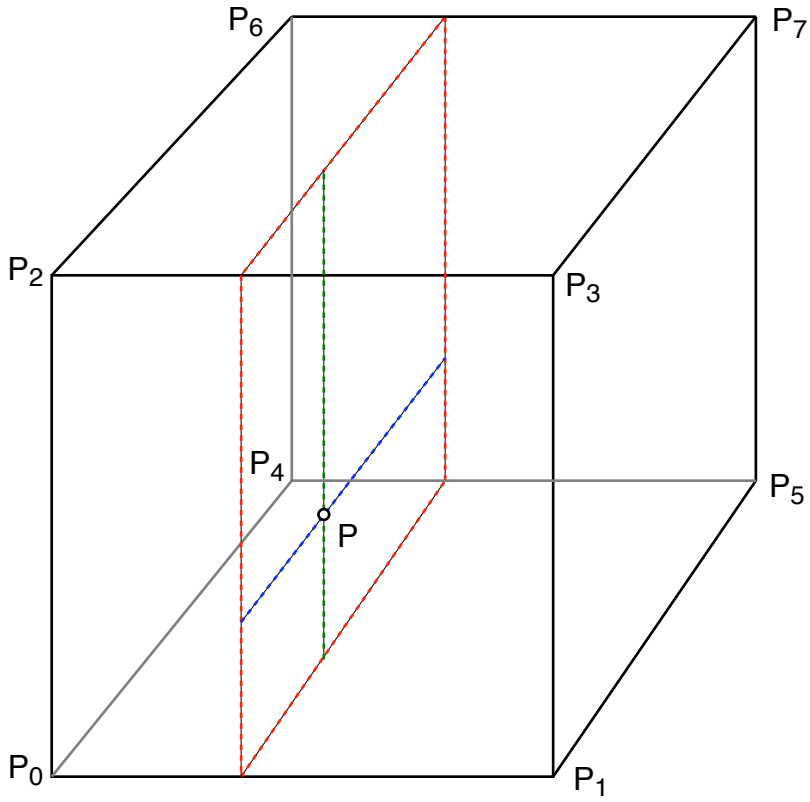
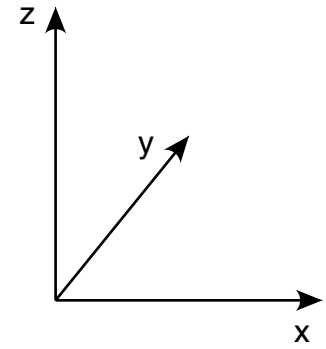




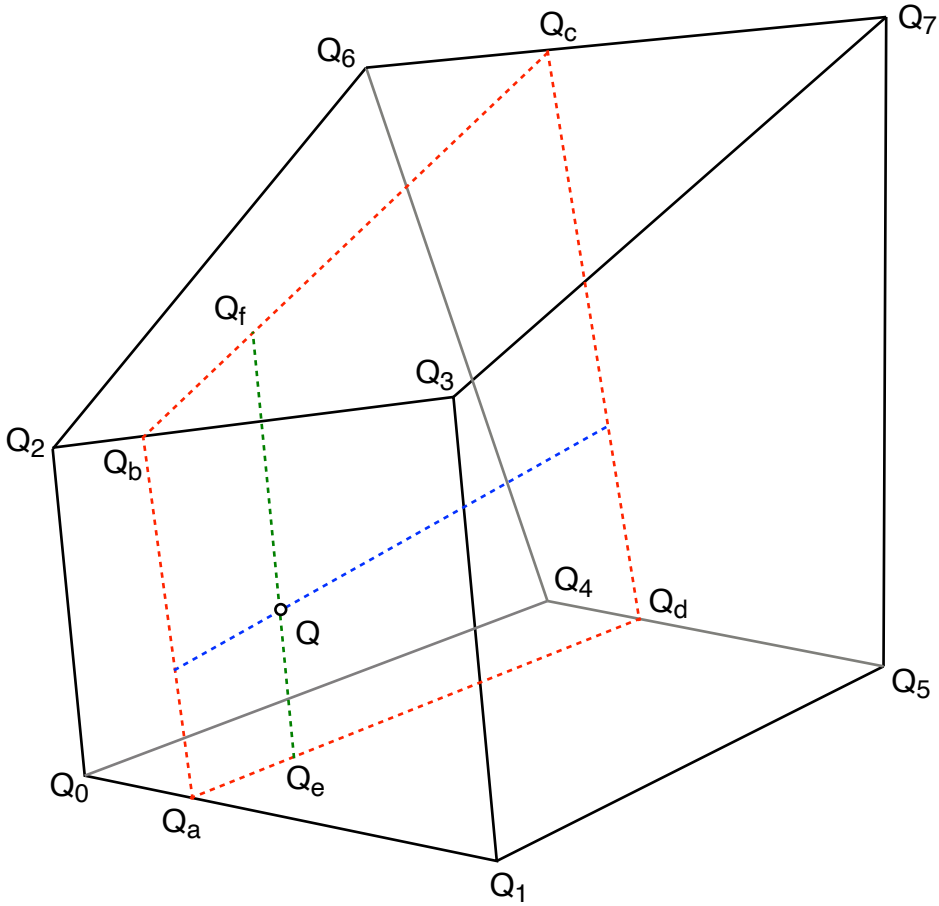
$u_x = (P_x - P_{0x}) / (P_{1x} - P_{0x})$

$u_y = (P_y - P_{0y}) / (P_{4y} - P_{0y})$

$u_z = (P_z - P_{0z}) / (P_{2z} - P_{0z})$

Given the vertices of a box (axis aligned) P_0 ... P_7 and a point to be remapped P, find the relative positions along each side $U = (u_x,u_y,u_z)$. Each component of U will be between 0 and 1 for a point P within box, less than 0 or greater than 1 for a point P outside the box. For a unit cube with P0 at the origin then U = P.

Given the vertices of the warped cube Q_0 ... Q_7 then to find the position Q corresponding to P first find the vertices of the plane Q_a,Q_b,Q_c,Q_d using u_x. Then find the ends of the line Q_e and Q_f on that plane using u_y. Finally find the position Q along that line using u_z.



$Q_a = Q_0 + u_x (Q_1 - Q_0)$

$Q_b = Q_2 + u_x (Q_3 - Q_2)$

$Q_c = Q_6 + u_x (Q_7 - Q_6)$

$Q_d = Q_4 + u_x (Q_5 - Q_4)$

$Q_e = Q_a + u_y (Q_d - Q_a)$

$Q_f = Q_b + u_y (Q_c - Q_b)$

$Q = Q_e + u_z (Q_f - Q_e)$