

SPATIAL PREDICTION METHOD, IMAGE DECODING METHOD, AND IMAGE CODING METHOD

Abstract

In a spatial prediction method which can reduce the complexity of spatial prediction, a horizontal gradient (G_y) and a vertical gradient (G_x) between pixels in an adjacent block which is adjacent to a block which is the subject of prediction are acquired, and thus an edge (E) which overlaps with the block which is the subject of prediction is detected (S10); the integer incline of the detected edge is calculated (S11); and for each pixel position in the block which is the subject of prediction, a fractional pixel position (450) which has the calculated integer incline, and is the intersection point between a line (430) which passes through the pixel position (440), and the boundary of the adjacent block is determined (S12); the pixel value of the pixel position (440) for each pixel position in the block which is the subject of prediction is predicted on the basis of a pixel value which has been interpolated by the fractional pixel position (450) determined for said pixel position (S13). The boundary with the adjacent block is the closest row or column to the block which is the subject of prediction, from among the plurality of pixel rows and columns included in the adjacent block.

Figure 7