CLAIMS

1. An image encoding device comprising:

an intra prediction unit for, when a coding mode corresponding to one of coding blocks into which an inputted image is divided is an intra coding mode, carrying out an intra-frame prediction process on a block which is a unit for prediction of the coding block to generate a prediction image, wherein

when the intra prediction unit carries out an average prediction, the intra prediction unit carries out a filtering process on a target pixel of the prediction located at an upper end or a left end of the block which is a unit for prediction of the coding block, the filtering process using an intermediate prediction value which is an average value of adjacent pixels of the block, and at least one adjacent pixel of the target pixel, and

the intra prediction unit sets a coefficient associated with the intermediate prediction value for a target pixel at an upper left corner of the block which is a unit for prediction of the coding block to 1/2, and sets a coefficient associated with an adjacent pixel adjacent to an upper or left side of the target pixel to 1/4.

2. An image decoding device comprising:

an intra prediction unit for, when a coding mode associated with a coding block is an intra coding mode, carrying out an intra-frame prediction process on a block which is a unit for prediction of the coding block to generate a prediction image, wherein

when an intra prediction parameter shows an average prediction, the intra prediction unit carries out a filtering process on a target pixel of the prediction located at an upper end or a left end of the block which is a unit for prediction of the coding block, the filtering process using an intermediate prediction value which is an average value of adjacent pixels of the block, and at least one adjacent pixel of the target pixel, and

the intra prediction unit sets a coefficient associated with the intermediate prediction value for a target pixel at an upper left corner of the block which is a unit

for prediction of the coding block to 1/2, and sets a coefficient associated with an adjacent pixel adjacent to an upper or left side of the target pixel to 1/4.

3. An image encoding method comprising:

an intra prediction processing step of, when a coding mode corresponding to one of coding blocks into which an inputted image is divided is an intra coding mode, carrying out an intra-frame prediction process on a block which is a unit for prediction of the coding block to generate a prediction image, wherein

in the intra prediction processing step, when an average prediction is carried out, a filtering process is carried out on a target pixel of the prediction located at an upper end or a left end of the block which is a unit for prediction of the coding block, the filtering process using an intermediate prediction value which is an average value of adjacent pixels of the block, and at least one adjacent pixel of the target pixel, and

the filtering process sets a coefficient associated with the intermediate prediction value for a target pixel at an upper left corner of the block which is a unit for prediction of the coding block to 1/2, and sets a coefficient associated with an adjacent pixel adjacent to an upper or left side of the target pixel to 1/4.

4. An image decoding method comprising:

an intra prediction processing step of, when a coding mode associated with a coding block is an intra coding mode, carrying out an intra-frame prediction process on a block which is a unit for prediction of the coding block to generate a prediction image, wherein

in the intra prediction processing step, when an intra prediction parameter shows an average prediction, a filtering process is carried out on a target pixel of the prediction located at an upper end or a left end of the block which is a unit for prediction of the coding block, the filtering process using an intermediate prediction value which is an average value of adjacent pixels of the block, and at least one adjacent pixel of the target pixel, and

the filtering process sets a coefficient associated with the intermediate

prediction value for a target pixel at an upper left corner of the block which is a unit for prediction of the coding block to 1/2, and sets a coefficient associated with an adjacent pixel adjacent to an upper or left side of the target pixel to 1/4.

5. A storage medium storing a bitstream based on a coding block into which an inputted image is divided for encoding, the bitstream comprising:

coding mode information indicating whether a type of coding mode of the coding block is inter prediction process or intra prediction process ; and

an intra prediction parameter showing a type of intra prediction, when the coding mode information indicates an intra prediction, wherein

the intra prediction parameter indicates an average prediction in which a filtering process is carried out on a target pixel of the intra prediction located at an upper end or a left end of the block which is a unit for prediction of the coding block, the filtering process using an intermediate prediction value which is an average value of adjacent pixels of the block, and at least one adjacent pixel of the target pixel, and

the filtering process sets a coefficient associated with the intermediate prediction value for a target pixel at an upper left corner of the block which is a unit for prediction of the coding block to 1/2, and sets a coefficient associated with an adjacent pixel adjacent to an upper or left side of the target pixel to 1/4.