Claims

1. An image decoding device comprising:

an intra prediction unit for carrying out an intra-frame prediction process on a processing block, which is a coding block or a sub-block which said coding block is divided into, to generate a prediction image when a coding mode for said coding block is an intra coding mode;

wherein said intra prediction unit generates said prediction image of said processing block by calculating a predicted value from reference samples according to an intra prediction parameter indicating a type of intra prediction, and performs a filtering process for said prediction image of said processing block on at least one of pixels in said prediction image according to a block size of said processing block.

2. An image decoding method comprising:

an intra prediction processing step of carrying out an intra-frame prediction process on a processing block, which is a coding block or a sub-block which said coding block is divided into, to generate a prediction image when a coding mode for said coding block is an intra coding mode;

wherein in said intra prediction processing step, said prediction image of said processing block is generated by calculating a predicted value from reference samples according to an intra prediction parameter indicating a type of intra prediction, and a filtering process for said prediction image of said processing block is performed on at least one of pixels in said prediction image according to a block size of said processing block.

3. An image decoding device comprising:

an intra prediction unit for carrying out an intra-frame prediction process on a processing block, which is a coding block or a sub-block which said coding block is divided into, to generate a prediction image when a coding mode for said coding block is an intra coding mode;

wherein said intra prediction unit generates said prediction image of said processing block by calculating a predicted value from reference samples according to an intra prediction

parameter indicating a type of intra prediction, and performs a filtering process for said prediction image of said processing block according to said intra prediction parameter.

4. An image decoding method comprising:

an intra prediction processing step of carrying out an intra-frame prediction process on a processing block, which is a coding block or a sub-block which said coding block is divided into, to generate a prediction image when a coding mode for said coding block is an intra coding mode;

wherein in said intra prediction processing step, said prediction image of said processing block is generated by calculating a predicted value from reference samples according to an intra prediction parameter indicating a type of intra prediction, and a filtering process for said prediction image of said processing block is performed on at least one of pixels in said prediction image according to said intra prediction parameter.

5. An image encoding device comprising:

an intra prediction unit for carrying out an intra-frame prediction process on a processing block, which is a coding block or a sub-block which said coding block is divided into, to generate a prediction image when a coding mode for said coding block is an intra coding mode;

wherein said intra prediction unit generates said prediction image of said processing block by calculating a predicted value from reference samples according to an intra prediction parameter indicating a type of intra prediction, and performs a filtering process for said prediction image of said processing block on at least one of pixels in said prediction image according to a block size of said processing block.

6. An image encoding method comprising:

an intra prediction processing step of carrying out an intra-frame prediction process on a processing block, which is a coding block or a sub-block which said coding block is divided into, to generate a prediction image when a coding mode for said coding block is an intra coding mode;

wherein in said intra prediction processing step, said prediction image of said processing block is generated by calculating a predicted value from reference samples according to an intra prediction parameter indicating a type of intra prediction, and a filtering process for said prediction image of said processing block is performed on at least one of pixels in said prediction image according to a block size of said processing block.

7. An image encoding device comprising:

an intra prediction unit for carrying out an intra-frame prediction process on a processing block, which is a coding block or a sub-block which said coding block is divided into, to generate a prediction image when a coding mode for said coding block is an intra coding mode;

wherein said intra prediction unit generates said prediction image of said processing block by calculating a predicted value from reference samples according to an intra prediction parameter indicating a type of intra prediction, and performs a filtering process for said prediction image of said processing block on at least one of pixels in said prediction image according to said intra prediction parameter.

8. An image encoding method comprising:

an intra prediction processing step of carrying out an intra-frame prediction process on a processing block, which is a coding block or a sub-block which said coding block is divided into, to generate a prediction image when a coding mode for said coding block is an intra coding mode;

wherein in said intra prediction processing step, said prediction image of said processing block is generated by calculating a predicted value from reference samples according to an intra prediction parameter indicating a type of intra prediction, and a filtering process for said prediction image of said processing block is performed on at least one of pixels in said prediction image according to said intra prediction parameter.

9. A data structure for a coded data generated by performing a prediction process on a processing block which is a coding block or a sub-block which said coding block is

divided into,

said coded data comprising:

a coding mode for said coding block,

an intra prediction parameter indicating a type of intra prediction when said coding mode is intra coding mode,

a block size of said processing block, and

a compression data generated by performing a compressing process on a difference image between an image of said processing block and a prediction image generated by preforming said prediction process;

wherein said prediction image is generated by calculating predicted value from reference samples according to said intra prediction parameter and performing a filtering process on a predicted value of at least one of pixels in said prediction image according to said block size when said coding mode is said intra coding mode.