

CLAIMS

1. A picture coding method, applied to an encoder and comprising:

before coding processing is performed according to a matrix-based intra prediction, MIP, mode, setting initial right shift parameters corresponding to different sizes and different MIP mode numbers as a uniform offset parameter, wherein the offset parameter indicates a number of right shifting bits of a predicted value; and

when coding processing is performed according to the MIP mode, performing coding processing according to the offset parameter.

2. The method of claim 1, wherein setting the initial right shift parameters corresponding to the different sizes and the different MIP mode numbers as the uniform offset parameter comprises:

when an initial right shift parameter is different from the offset parameter, modifying the initial right shift parameter to the offset parameter, to enable the numbers of right shifting bits of all predicted values corresponding to all sizes and all MIP mode numbers to be the same.

3. The method of claim 1, wherein after setting the initial right shift parameters corresponding to the different sizes and the different MIP mode numbers as the uniform offset parameter, the method further comprises:

modifying an initial weight matrix and an initial bias matrix according to a preset calculation rule to obtain a modified weight matrix and a modified bias matrix, the initial weight matrix and the initial bias matrix corresponding to an initial right shift parameter subjected to unification modification; and

performing coding processing according to the offset parameter, the modified weight matrix and the modified bias matrix.

4. The method of claim 3, wherein modifying the initial weight matrix and the initial bias matrix according to the preset calculation rule to obtain the modified weight matrix and the modified bias matrix comprises:

modifying all element values in the initial weight matrix to values of the same binary order of magnitude as an element value of another weight matrix according to a rounding-down calculation rule to obtain the modified weight matrix; and

modifying all elements in the initial bias matrix to values of the same binary order of magnitude as an element value of another bias matrix according to the rounding-down calculation rule to obtain the modified bias matrix.

5. The method of claim 3, wherein modifying the initial weight matrix and the initial bias matrix according to the preset calculation rule to obtain the modified weight matrix and the modified bias matrix comprises:

modifying all the element values in the initial weight matrix to values of the same binary order of magnitude as an element value of another weight matrix according to a rounding-up calculation rule to obtain the modified weight matrix; and

modifying all the elements in the initial bias matrix to values of the same binary order of magnitude as an element value of another bias matrix according to the rounding-up calculation rule to obtain the modified bias matrix.

6. The method of claim 3, wherein modifying the initial weight matrix and the initial bias matrix according to the preset calculation rule to obtain the modified weight matrix and the modified bias matrix comprises:

modifying all the element values in the initial weight matrix to values of the same binary order of magnitude as an element value of another weight matrix according to a rounding calculation rule to obtain the modified weight matrix; and

modifying all the elements in the initial bias matrix to values of the same binary order of magnitude as an element value of another bias matrix according to the rounding calculation

rule to obtain the modified bias matrix.

7. The method of claim 1, wherein the offset parameter is set to a fixed positive integer.

8. The method of claim 1, wherein the offset parameter is set to be 6.

9. A picture decoding method, applied to a decoder and comprising:

before decoding processing is performed according to a matrix-based intra prediction, MIP, mode, setting initial right shift parameters corresponding to different sizes and different MIP mode numbers as a uniform offset parameter, wherein the offset parameter indicates a number of right shifting bits of a predicted value; and

when decoding processing is performed according to the MIP mode, performing decoding processing according to the offset parameter.

10. The method of claim 9, wherein setting the initial right shift parameters corresponding to the different sizes and the different MIP mode numbers as the uniform offset parameter comprises:

when an initial right shift parameter is different from the offset parameter, modifying the initial right shift parameter to the offset parameter, to enable the numbers of right shifting bits of all predicted values corresponding to all sizes and all MIP mode numbers to be the same.

11. The method of claim 10, wherein after setting the initial right shift parameters corresponding to the different sizes and the different MIP mode numbers as the uniform offset parameter, the method further comprises:

modifying an initial weight matrix and an initial bias matrix according to a preset

calculation rule to obtain a modified weight matrix and a modified bias matrix, the initial weight matrix and the initial bias matrix corresponding to an initial right shift parameter subjected to unification modification; and

performing decoding processing according to the offset parameter, the modified weight matrix and the modified bias matrix.

12. The method of claim 9, wherein the offset parameter is set to a fixed positive integer.

13. The method of claim 9, wherein the offset parameter is set to be 6.

14. A decoder, comprising a second processor, a second memory storing an instruction executable for the second processor, a second communication interface and a second bus configured to connect the second processor, the second memory and the second communication interface, wherein the instruction is executed by the second processor to implement the method of any one of claims 9-13.

15. A computer-readable storage medium having stored thereon a computer program, applied to an encoder and a decoder, wherein the program is executed by a processor to implement the method of any one of claims 1-13.