CLAIMS

1. A decoding method, applied to a decoder, the method comprising:

parsing a bitstream to determine a value of first syntax identification information;

if the first syntax identification information indicates that a current block uses a cross-component prediction merge mode, determining a value of second syntax identification information;

if the second syntax identification information indicates that the current block uses a cross-component prediction merge fusion mode, determining at least one fusion type identification value corresponding to the current block;

determining at least one chroma prediction mode corresponding to the current block according to the at least one fusion type identification value;

performing chroma intra prediction on the current block using the at least one chroma prediction mode to determine at least one first prediction value;

performing chroma intra prediction on the current block using the cross-component prediction merge mode to determine a second prediction value; and

determining a chroma prediction value corresponding to the current block based on the at least one first prediction value and the second prediction value.

2. The method according to claim 1, wherein the determining at least one chroma prediction mode corresponding to the current block according to the at least one fusion type identification value comprises:

determining at least one chroma prediction mode corresponding to the current block in a preset correspondence between fusion type identification values and chroma prediction modes according to the at least one fusion type identification value; the preset correspondence comprises at least one preset fusion type identification value corresponding to at least one preset chroma prediction mode.

3. The method according to claim 1, wherein determining at least one fusion type identification value corresponding to the current block comprises:

determining a fusion type identification value corresponding to the current block;

and determining the at least one chroma prediction mode corresponding to the current block according to the at least one fusion type identification value comprises:

determining the chroma prediction mode corresponding to the current block according to

the fusion type identification value corresponding to the current block.

4. The method according to any one of claims 1 to 3, wherein the chroma prediction mode is a cross-component prediction mode or a non-cross-component prediction mode.

5. The method according to any one of claims 1 to 3, wherein the chroma prediction mode is one of: a cross-component linear model prediction mode, an MMLM mode, a convolutional cross-component model mode, a GLM mode, a DIMD mode, or a DM mode.

6. The method according to any one of claims 1 to 5, further comprising:

if the first syntax identification information indicates that the current block does not use the cross-component prediction merge mode, performing chroma intra prediction on the current block through a cross-component prediction mode to determine the chroma prediction value corresponding to the current block.

7. The method according to any one of claims 1 to 5, further comprising:

if the second syntax identification information indicates that the current block does not use the cross-component prediction merge fusion mode, performing chroma intra prediction on the current block through the cross-component prediction merge mode to determine the chroma prediction value corresponding to the current block.

8. The method according to any one of claims 1 to 5, wherein determining the chroma prediction value corresponding to the current block based on the at least one first prediction value and the second prediction value comprises:

determining a weighted sum value of the at least one first prediction value and the second prediction value; and

shifting the weighted sum value to determine the chroma prediction value corresponding to the current block.

9. The method according to claim 8, further comprising:

determining a shift factor according to weighting weights corresponding to the at least one first prediction value and the second prediction value; and

shifting the weighted sum value according to the shift factor to determine the chroma prediction value corresponding to the current block.

10. An encoding method, applied to an encoder, the method comprising:

determining a value of first syntax identification information;

if the first syntax identification information indicates that a current block uses a cross-component prediction merge mode, determining a value of second syntax identification information;

if the second syntax identification information indicates that the current block uses a cross-component prediction merge fusion mode, determining at least one chroma prediction mode corresponding to the current block, and determining at least one fusion type identification value corresponding to the at least one chroma prediction mode;

performing chroma intra prediction on the current block using the at least one chroma prediction mode to determine at least one first prediction value;

performing chroma intra prediction on the current block using the cross-component prediction merge mode to determine a second prediction value; and

determining a chroma prediction value corresponding to the current block based on the at least one first prediction value and the second prediction value.

11. The method according to claim 10, wherein the determining at least one chroma prediction mode corresponding to the current block comprises:

determining at least one encoding cost corresponding to the at least one preset chroma prediction mode; and

determining the at least one chroma prediction mode from the at least one preset chroma prediction mode based on the at least one encoding cost.

12. The method according to claim 10, wherein determining the at least one chroma prediction mode corresponding to the current block comprises:

determining a chroma prediction mode of the current block;

and determining the at least one fusion type identification value corresponding to the at least one chroma prediction mode comprises:

determining a fusion type identification value corresponding to the chroma prediction mode of the current block.

13. The method according to any one of claims 10 to 12, wherein the chroma prediction mode is a cross-component prediction mode or a non-cross-component prediction mode.

14. The method according to any one of claims 10 to 12, wherein the chroma prediction mode is one of: a cross-component linear model prediction mode, an MMLM mode, a convolutional cross-component model mode, a GLM mode, a DIMD mode, or a DM mode.

15. The method according to claim 10, wherein the determining at least one fusion type identification value corresponding to the at least one chroma prediction mode comprises:

determining at least one fusion type identification value corresponding to the current block in a preset correspondence between fusion type identification values and chroma prediction modes according to the at least one chroma prediction mode; wherein the preset correspondence comprises at least one preset fusion type identification value corresponding to at least one preset chroma prediction mode.

16. The method according to claim 11, wherein the determining at least one encoding cost corresponding to the at least one preset chroma prediction mode comprises:

determining a first chroma prediction value corresponding to each preset chroma prediction mode among the at least one preset chroma prediction mode; and

determining an encoding cost corresponding to each preset chroma prediction mode based on the first chroma prediction value corresponding to each preset chroma prediction mode and a chroma value of the current block, to determine the at least one encoding cost.

17. The method according to any one of claims 10 to 16, wherein determining the chroma prediction value corresponding to the current block based on the at least one first prediction value and the second prediction value comprises:

determining a weighted sum value of the at least one first prediction value and the second prediction value; and

shifting the weighted sum value to determine the chroma prediction value corresponding to the current block.

18. The method according to claim 17, further comprising:

determining a shift factor according to weighting weights corresponding to the at least one first prediction value and the second prediction value; and

shifting the weighted sum value according to the shift factor to determine the chroma prediction value corresponding to the current block.

19. The method according to claim 10, further comprising:

determining a residual corresponding to the current block based on the chroma prediction value corresponding to the current block and a chroma value of the current block; and

generating a bitstream based on the residual, the first syntax identification information, the second syntax identification information, and the at least one fusion type identification value.

20. A computer-readable storage medium having stored thereon a computer program and a bitstream wherein when the computer program is executed by a processor, the computer program implements the method of any one of claims 10 to 19 to generate a bitstream.