

## CLAIMS

1. A method for predicting a video colour component, applied to a decoder and comprising:

acquiring first colour component neighboring reference values, second colour component neighboring reference values and first colour component reconstructed values corresponding to a current block, wherein the first and second colour component neighboring reference values represent respectively values of different first and second colour components corresponding to a neighboring reference sample of the current block, the current block having a plurality of neighboring reference samples, and the first colour component reconstructed values represent reconstructed values of a first colour component corresponding to the current block;

determining a weight coefficient corresponding to each neighboring reference sample according to a correlation between the first colour component neighboring reference value and the first colour component reconstructed value;

determining a scaling factor according to the weight coefficients, the first colour component neighboring reference values and the second colour component neighboring reference values, the scaling factor including a first scaling parameter and a second scaling parameter; and

obtaining second colour component predicted values corresponding to the current block based on a linear model, the linear model including the first scaling parameter and second scaling parameter applied to the first colour component reconstructed values.

2. The method of claim 1, wherein the neighboring reference samples comprise one or more reference samples on an upper side of the current block and one or more reference samples on a left side of the current block.

3. A decoder, comprising an acquisition section and a determination section, wherein

the acquisition section is configured to acquire first colour component neighboring reference values, second colour component neighboring reference values and first colour component reconstructed values corresponding to a current block, wherein the first and second colour component neighboring reference values represent respectively values of different first and second colour components corresponding to a neighboring reference sample of the current block, the current block having a plurality of neighboring reference samples,

and the first colour component reconstructed values represent reconstructed values of a first colour component corresponding to the current block;

the acquisition section is further configured to determine a weight coefficient corresponding to each neighboring reference sample according to a correlation between the first colour component neighboring reference value and the first colour component reconstructed value, and to determine a scaling factor according to the weight coefficients, the first colour component neighboring reference values and the second colour component neighboring reference values, the scaling factor including a first scaling parameter and a second scaling parameter; and

the acquisition section is further configured to obtain second colour component predicted values corresponding to the current block based on a linear model, the linear model including the first scaling parameter and second scaling parameter applied to the first colour component reconstructed values.

4. The decoder of claim 3, wherein the neighboring reference samples comprise one or more reference samples on an upper side of the current block and one or more reference samples on a left side of the current block.

5. A method for predicting a video colour component, applied to an encoder and comprising:

acquiring first colour component neighboring reference values, second colour component neighboring reference values and first colour component reconstructed values corresponding to a current coding block, wherein the first and second colour component neighboring reference values represent respectively values of different first and second colour components corresponding to a neighboring reference sample of the current coding block, the current block having a plurality of neighboring reference samples, and the first colour component reconstructed values represent one or more reconstructed values of a first colour component corresponding to the current coding block;

determining a weight coefficient corresponding to each neighboring reference sample according to a correlation between the first colour component neighboring reference value and the first colour component reconstructed value;

determining a scaling factor according to the weight coefficients, the first colour component neighboring reference values and the second colour component neighboring reference values, the scaling factor including a first scaling parameter and a second scaling parameter; and

obtaining second colour component predicted values corresponding to the current coding block based on a linear model, the linear model including the first scaling parameter and second scaling parameter applied to the first colour component reconstructed values.

6. The method of claim 5, wherein the neighboring reference samples comprise one or more reference samples on an upper side of the current coding block and one or more reference samples on a left side of the current coding block.

7. An encoder, comprising an acquisition section and a determination section, wherein

the acquisition section is configured to acquire first colour component neighboring reference values, second colour component neighboring reference values and first colour component reconstructed values corresponding to a current coding block, wherein the first and second colour component neighboring reference values represent respectively values of different first and second colour components corresponding to a neighboring reference sample of the current coding block, the current block having a plurality of neighboring reference samples, and the first colour component reconstructed values represent reconstructed values of a first colour component corresponding to the current coding block;

the acquisition section is further configured to determine a weight coefficient corresponding to each neighboring reference sample according to a correlation between the first colour component neighboring reference value and the first colour component reconstructed value, and to determine a scaling factor according to the weight coefficients, the first colour component neighboring reference values and the second colour component neighboring reference values, the scaling factor including a first scaling parameter and a second scaling parameter; and

the acquisition section is further configured to obtain second colour component predicted values corresponding to the current coding block based on a linear model, the linear model including the first scaling parameter and second scaling parameter applied to the first colour component reconstructed values.

8. The encoder of claim 7, wherein the neighboring reference samples comprise one or more reference samples on an upper side of the current coding block and one or more reference samples on a left side of the current coding block.