

METHODS FOR CROSS COMPONENT DEPENDENCY REDUCTION

CROSS REFERENCE TO RELATED APPLICATIONS

[0001] This application is based on International Patent Application No. PCT/CN2020/086111, filed on April 22, 2020, which claims the priority to and benefit of International Patent Application No. PCT/CN2019/083846, filed on April 23, 2019. All the aforementioned patent applications are hereby incorporated by reference in their entireties.

TECHNICAL FIELD

[0002] This patent document relates to video coding and decoding techniques, devices and systems.

BACKGROUND

[0003] In spite of the advances in video compression, digital video still accounts for the largest bandwidth use on the internet and other digital communication networks. As the number of connected user devices capable of receiving and displaying video increases, it is expected that the bandwidth demand for digital video usage will continue to grow.

SUMMARY

[0004] Devices, systems and methods related to digital video coding/decoding, and specifically, simplified linear model derivations for the cross-component linear model (CCLM) prediction mode in video coding/decoding are described. The described methods may be applied to both the existing video coding standards (e.g., High Efficiency Video Coding (HEVC)) and future video coding standards (e.g., Versatile Video Coding (VVC)) or codecs.

[0005] In one representative aspect, a method for visual media processing is disclosed. The method includes computing, during a conversion between a current video block of visual media data and a bitstream representation of the current video block, a cross-component linear model (CCLM) and/or a chroma residual scaling (CRS) factor for the current video block based, at least in part, on neighboring samples of a corresponding luma block which covers a top-left sample of a collocated luma block associated with the current video block, wherein one or more characteristics of the current video block are used for identifying the corresponding luma block.

[0006] In another representative aspect, a method for visual media processing is disclosed. The method includes using a rule to make a determination of selectively enabling or disabling a chroma residual scaling (CRS) on color components of a current video block of visual media data, wherein the rule is based on coding mode information of the current video block and/or coding mode information of one or