[0023] FIGURE 15 illustrates an interpolation between 4:2:0 and 4:4:4;

[0024] FIGURE 16 illustrates Index Map processing with Upper/Left line buffer;

[0025] FIGURE 17 illustrates the apparatus and methods/flows incorporated into the current HEVC;

[0026] FIGURE 18 illustrates one example of a communication system; and

[0027] FIGURE 19A and FIGURE 19B illustrate example devices that may implement the methods and teachings according to this disclosure.

Claims

1. A method for coding screen content into a bitstream, the method comprising:

selecting a color palette table for a coding unit (CU) of screen content;

creating a color index map having indices for the CU using the selected color palette table; and

encoding the selected color palette table and the color index map for the CU into a bitstream, and

wherein the color palette table is derived from a neighboring CU using a reconstructed CU in a pixel domain.

2. The method as specified in Claim 1 wherein the method is processed using a planar color format or an interleaved color format.

3. The method as specified in Claim 2 wherein the method is processed at a level selected from the group of: a CU level, a slice level, a picture level or a sequence level.

4. The method as specified in Claim 1 further comprising generating a color palette table of the neighboring CU based on available reconstructed pixels, regardless of the CU depth and size.

5. The method as specified in Claim 14 further comprising generating a color palette table of the neighboring CU, wherein the neighboring CU is encoded using a color palette mode.

6. The method as specified in Claim 14 wherein the neighboring CU color palette table is encoded using a color palette mode.

7. The method as specified in Claim 1 wherein the color palette table is derived in a pixel domain at a decoder, wherein the encoded bitstream is parsed to reconstruct, for the CU, the color palette table and the color index map.

8. The method as specified in Claim 4 wherein a pixel value is derived at each position in the CU by combing the color index, and the color palette table.

9. The method as specified in Claim 1 further comprising classifying colors or pixel values of the CU based on a previous derived color palette table for corresponding indices.

10. The method as specified in Claim 1 wherein the color palette table is generated and ordered according to a histogram.

11. The method as specified in Claim 1 wherein each pixel of the CU is converted into a color index within the color palette table.

12. The method as specified in Claim 2 wherein a flag is defined for the CU to indicate whether the CU is processed using a packed fashion or a planar mode.

13. The method as specified in Claim 1 wherein the color palette table is processed by encoding a size of the color palette table and each color in the color palette table.

14. The method as specified in Claim 1 further comprising generating a flag indicating the CU uses the color palette table from its left or upper CU.

15. The method as specified in Claim 1 wherein the color index map is encoded using a string match selected from the group comprising: one dimensional (1-D) string match, a hybrid 1-D string match, and a two dimensional (2-D) string match,

wherein the string match is signaled using matched pairs.

16. The method as specified in Claim 15 wherein the string match is performed using a running hash method.

17. The method as specified in Claim 1 wherein a two dimensional (2-D) string match is performed over the color index map by identifying a location of a current pixel and a location of reference pixel in the CU as a starting point.

18. The method as specified in Claim 1 wherein the CU has a 4:4:4 format processed using a down-sampled 4:2:0 sampling format.

19. The method as specified in Claim 18 wherein the down-sampled format is processed at a level selected from the group of: a CU level, a slice level, a picture level or a sequence level.

20. A processor for coding screen content into a bitstream, the processor configured to:

select a color palette table for a coding unit (CU) of screen content;

create a color index map having indices for the CU using the selected color palette table; and

encode the selected color palette table and the color index map for the CU into a bitstream, and

wherein the color palette table is derived from a neighboring CU using a reconstructed CU in a pixel domain.