CLAIMS

1. A method for video data coding with a palette mode, the method comprising:

producing a palette table containing one or more color indices, a color index corresponding to a color;

creating a palette index map that maps one or more pixels of the video data to a color index in the palette table;

performing a traverse scan, wherein a scan line is scanned in an opposite direction of a preceding parallel scan line; and

generating, based on the traverse scan, a palette index map prediction data that indicates values in the palette index map associated with at least some portions of the video data.

2. The method of claim 1, wherein the color comprises one or more color components.

3. The method of claim 1, wherein the scan line and the preceding parallel scan line are horizontal scan lines.

4. The method of claim 1, wherein the scan line and the preceding parallel scan line are vertical scan lines.

5. The method of claim 1, further comprising signaling whether the scan line and the preceding parallel scan line are horizontal scan lines or vertical scan lines.

6. The method of claim 1, further comprising generating a palette table predictor comprising one or more color values.

7. The method of claim 6, wherein one or more colors in the palette table are copied from one or more colors in the palette table predictor.

8. The method of claim 6, further comprising updating the one or more color values in the palette table predictor with the one or more colors in the palette table.

9. The method of claim 1, wherein the video data corresponds to a coding unit.

10. The method of claim 9, further comprising repeating producing the palette table, creating the palette index map, and generating the palette index map prediction data for a plurality of coding units in a video picture.

11. The method of claim 1, wherein the palette table and palette index map prediction data are included in a video bitstream.

12. The method of claim 1, further comprising generating a palette table predictor comprising one or more color values.

13. The method of claim 12, wherein at least one index of the one or more color indices in the palette table is produced at least by:

calculating a first cost of encoding the color associated with the at least one index using a color in the palette table predictor;

calculating a second cost of encoding the color associated with the at least one index as a new color in the palette table; and

selecting the smaller cost of the first cost and the second cost.

14. The method of claim 13, wherein the first cost and the second cost are calculated as a rate distortion cost.

15. The method of claim 1, wherein the color associated with an index that is mapped to one or more pixels in the video coding unit is selected as an average of the one or more colors associated with the one or more pixels in the video coding unit.

16. The method of claim 15, wherein the average is a weighted average, and wherein weights correspond to respective frequencies of occurrence of the one or more colors.

17. A video coder for coding a video data with a palette mode, the video coder comprising:

a processor configured to execute processor-executable instructions; and

a memory storing instructions that, when executed by the processor, cause the processor to

produce a palette table containing one or more color indices, a color index corresponding to a color;

create a palette index map that maps one or more pixels of the video data to a color index in the palette table;

perform a traverse scan, wherein a scan line is scanned in an opposite direction of a preceding parallel scan line; and

generate, based on the traverse scan, a palette index map prediction data that indicates values in the palette index map associated with at least some portions of the video data.

18. The video coder of claim 17, wherein the color comprises one or more color components.

19. The video coder of claim 17, wherein the scan line and the preceding parallel scan line are horizontal scan lines.

20. The video coder of claim 17, wherein the scan line and the preceding parallel scan line are vertical scan lines.

21. The video coder of claim 17, wherein the memory stores further instructions for signaling whether the scan line and the preceding parallel scan line are horizontal scan lines or vertical scan lines.

22. The video coder of claim 17, wherein the memory stores further instructions for generating a palette table predictor comprising one or more color values.

23. The video coder of claim 22, wherein one or more colors in the palette table are copied from one or more colors in the palette table predictor.

24. The video coder of claim 22, wherein the memory stores further instructions for updating the one or more color values in the palette table predictor with the one or more colors in the palette table.

25. The video coder of claim 17, wherein the video data corresponds to a coding unit.

26. The video coder of claim 25, wherein the memory stores further instructions for repeating producing the palette table, creating the palette index map, and generating the palette index map prediction data for a plurality of coding units in a video picture.

27. The video coder of claim 17, wherein the memory stores further instructions for:

including the palette table and palette index map prediction data in a video bitstream.

28. .The video coder of claim 17, wherein the palette table and palette index map prediction data are included in a video bitstream.

29. The video coder of claim 28, wherein the memory stores further instructions for generating a palette table predictor comprising one or more color values.

30. The video coder of claim 29, wherein at least one index of the one or more color indices in the palette table is produced at least by:

calculating a first cost of encoding the color associated with the at least one index using a color in the palette table predictor;

calculating a second cost of encoding the color associated with the at least one index as a new color in the palette table; and

selecting the smaller cost of the first cost and the second cost.

31. The video encoder of claim 30, wherein the first cost and the second cost are calculated as a rate distortion cost.

32. The video encoder of claim 28, wherein the color associated with an index that is mapped to one or more pixels in the video coding unit is selected as an average of the one or more colors associated with the one or more pixels in the video coding unit.

33. The video encoder of claim 32, wherein the average is a weighted average, and wherein weights correspond to respective frequencies of occurrence of the one or more colors.

CLAIMS

1. A method for video data coding with a palette mode, the method comprising:

determining, based on a palette table reuse indicator, that a current coding unit is coded in a palette table reuse mode;

based on the determining, generating a palette table associated with the current coding unit by copying entries in a palette table predictor; and

palette coding the current coding unit using the palette table.

2. The method of claim 1, wherein the palette table associated with the current coding unit containing one or more color indices, a color index corresponding to a color in the current coding unit.

3. The method of claim 1, wherein the palette table predictor comprises a palette table associated with a previous coding unit, the palette table associated with the previous coding unit containing one or more color indices, a color index corresponding to a color in the previous coding unit.

4. The method of claim 1, further comprising:

determining, based on a second palette table reuse indicator associated with a second coding unit, that the second coding unit is not coded in the palette table reuse mode;

extracting a second palette table associated with the second coding unit; and

decoding the second coding unit using the second palette table.

5. The method of claim 1, further comprising:

creating a palette index map that maps one or more pixels of the current coding unit to a color index in the palette table associated with the current coding unit; and

generating palette index map prediction data that indicates values in the palette index map associated with at least some portions of the current coding unit.

6. The method of claim 1, further comprising:

generating the palette table predictor based at least in part on one or more color values in a previous coding unit; and

updating the one or more color values in the palette table predictor with one or more colors in the palette table.

7. The method of claim 1, wherein the palette table associated with the current coding unit containing one or more color indices, a color index corresponding to a color in the current coding unit, and method further comprises generating an index in the palette table at least by:

calculating a first cost of encoding the color associated with the at least one index using a color in the palette table predictor;

calculating a second cost of encoding the color associated with the at least one index as a new color in the palette table; and

selecting the smaller cost of the first cost and the second cost.

8. The method of claim 7, wherein the first cost and the second cost are calculated as a rate distortion cost.

9. A video coder for coding a video data with a palette mode, the video coder

comprising:

a processor configured to execute processor-executable instructions; and

a memory storing instructions that, when executed by the processor, cause the processor to:

determine, based on a palette table reuse indicator, that a current coding unit is coded in a palette table reuse mode;

based on the determining, generate a palette table associated with the current coding unit by copying entries in a palette table predictor; and

palette code the current coding unit using the palette table.

10. The video coder of claim 9, wherein the palette table associated with the current coding unit containing one or more color indices, a color index corresponding to a color in the current coding unit.

11. The video coder of claim 9, wherein the palette table predictor comprises a palette table associated with a previous coding unit, the palette table associated with the previous coding unit containing one or more color indices, a color index corresponding to a color in the previous coding unit.

12. The video coder of claim 9, wherein the memory stores further instructions for:

determining, based on a second palette table reuse indicator associated with a second coding unit, that the second coding unit is not coded in the palette table reuse mode;

extracting a second palette table associated with the second coding unit; and

decoding the second coding unit using the second palette table.

13. The video coder of claim 9, wherein the memory stores further instructions for:

creating a palette index map that maps one or more pixels of the current coding unit to a color index in the palette table associated with the current coding unit; and

generating palette index map prediction data that indicates values in the palette index map associated with at least some portions of the current coding unit.

14. The video coder of claim 9, wherein the memory stores further instructions for:

generating the palette table predictor based at least in part on one or more color values in a previous coding unit; and

updating the one or more color values in the palette table predictor with one or more colors in the palette table.

15. The video coder of claim 9, wherein the palette table associated with the current coding unit containing one or more color indices, a color index corresponding to a color in the current coding unit, and wherein the memory stores further instructions for generating an index in the palette table at least by:

calculating a first cost of encoding the color associated with the at least one index using a color in the palette table predictor;

calculating a second cost of encoding the color associated with the at least one index as a new color in the palette table; and

selecting the smaller cost of the first cost and the second cost.