

CLAIMS

What is claimed is:

1. A method of coding a video sequence comprising:
receiving video information corresponding to one or subpictures within a picture;
identifying a first subpicture from among the one or more subpictures as a region of interest; and
encoding the first subpicture corresponding to the region of interest in a high quality mode.
2. The method of claim 1, further comprising encoding one or more other subpictures from among the one or more subpictures in a low quality mode.
3. The method of claim 2, further comprising outputting the first encoded subpicture and the encoded one or more other subpictures with one or more output layer sets.
4. The method of claim 3, wherein each output layer set from among the one or more output layer sets comprises: one or more output layers and one or more of the subpictures.
5. The method of claim 4, wherein a flag indicates whether subpicture partitions are aligned across the one or more output layers.
6. The method of claim 4, wherein a flag indicates whether subpicture identification values are present in each of the one or more output layers.
7. The method of claim 6, further comprising outputting the subpicture identification values present in each output layer of each output layer set.
8. A computer system for coding a video sequence, the computer system comprising:
one or more computer-readable non-transitory storage media configured to store computer program code; and

one or more computer processors configured to access said computer program code and operate as instructed by said computer program code, said computer program code including:

receiving code configured to cause the one or more processors to receive video information corresponding to one or subpictures within a picture;

identifying code configured to cause the one or more processors to identify a first subpicture from among the one or more subpictures as a region of interest; and

first encoding code configured to cause the one or more processors to encode the first subpicture corresponding to the region of interest in a high quality mode.

9. The computer system of claim 8, further comprising second encoding code configured to cause the one or more processors to encode one or more other subpictures from among the one or more subpictures in a low quality mode.

10. The computer system of claim 9, further comprising outputting code configured to cause the one or more processors to output the first encoded subpicture and the encoded one or more other subpictures with one or more output layer sets.

11. The computer system of claim 10, wherein each output layer set from among the one or more output layer sets comprises: one or more output layers and one or more of the subpictures.

12. The computer system of claim 11, wherein a flag indicates whether subpicture partitions are aligned across the one or more output layers.

13. The computer system of claim 11, wherein a flag indicates whether subpicture identification values are present in each of the one or more output layers.

14. The computer system of claim 13, further comprising outputting code configured to cause the one or more processors to output the subpicture identification values present in each output layer of each output layer set.

15. A non-transitory computer readable medium having stored thereon a computer program

for coding a video sequence, the computer program configured to cause one or more computer processors to:

- receive video information corresponding to one or subpictures within a picture;
- identify a first subpicture from among the one or more subpictures as a region of interest;
- and
- encode the first subpicture corresponding to the region of interest in a high quality mode.

16. The computer readable medium of claim 15, wherein the computer program is further configured to cause one or more computer processors to encode one or more other subpictures from among the one or more subpictures in a low quality mode.

17. The computer readable medium of claim 16, wherein the computer program is further configured to cause one or more computer processors to output the first encoded subpicture and the encoded one or more other subpictures with one or more output layer sets.

18. The computer readable medium of claim 17, wherein each output layer set from among the one or more output layer sets comprises: one or more output layers and one or more of the subpictures.

19. The computer readable medium of claim 18, wherein a flag indicates whether subpicture partitions are aligned across the one or more output layers.

20. The computer readable medium of claim 18, wherein a flag indicates whether subpicture identification values are present in each of the one or more output layers.