

WHAT IS CLAIMED IS:

1. A method of coding video data, the method comprising:
coding first video data, for coding a first block, based on an adaptive context model; and
coding second video data, for coding a second block, based on a non-adaptive context model.
2. The method of claim 1, wherein coding the first video data comprises coding the first video data using entropy coding with the adaptive context model, and wherein coding the second video data comprises coding the second video data using entropy coding with the non-adaptive context model.
3. The method of claim 2, wherein coding the first video data using entropy coding comprises coding the first video data using context-based arithmetic coding with the adaptive context model, and wherein coding the second video data using entropy coding comprises coding the second video data using context-based arithmetic coding with the non-adaptive context model.
4. The method of claim 1, wherein the first block and the second block are in the same picture or slice.
5. The method of claim 1, wherein the first block and the second block are in different pictures or slices.
6. The method of claim 1, wherein coding the first video data based on the adaptive context model comprises:
adapting one or more context models based on at least one of previous input bins or previous output bins to generate one or more adapted context models;
storing the one or more adapted context models in a memory;
reading the one or more adapted context models from the memory; and
context-based arithmetic coding the first video data with the one or more adapted context models read from the memory.

7. The method of claim 6, wherein the memory is random access memory (RAM).
8. The method of claim 1, wherein coding the second video data based on the non-adaptive context model comprises:
 - reading one or more context models from a memory; and
 - context-based arithmetic coding the second video data with the one or more context models read from the memory.
9. The method of claim 8, wherein the memory is read only memory (ROM).
10. The method of claim 1, wherein coding the second video data based on the non-adaptive context model comprises:
 - determining information of a manner in which the second block is coded;
 - selecting a location to read from in a memory based on the determined information;
 - reading one or more context models from the selected location; and
 - context-based binary coding the second video data with the one or more context models read from the memory.
11. The method of claim 10, wherein the information of the manner in which the second block is coded includes at least one of a quantization parameter for the second block and a prediction mode for the second block.
12. The method of claim 1, further comprising:
 - determining that a number of times that context-based arithmetic coding with adaptive context models is used is greater than or equal to a threshold value,
 - wherein coding the second video data comprises coding the second video data based on the one or more non-adaptive context models based on the determination that the number of times that context-based arithmetic coding with adaptive context models is used is greater than or equal to the threshold value.

13. The method of claim 1, further comprising:
 - determining whether to code the first video data based on the adaptive context model based on one or more of:
 - a context of the first video data;
 - frequency of use of the context model of the first video data;
 - stability of the context model used to code the first video data; and
 - comparison of the context to a threshold value.
14. The method of claim 1,
 - wherein coding the first video data comprises decoding the first video data based on the adaptive context model, and
 - wherein coding the second video data comprises decoding the second video data based on the non-adaptive context model.
15. The method of claim 1,
 - wherein coding the first video data comprises encoding the first video data based on the adaptive context model, and
 - wherein coding the second video data comprises encoding the second video data based on the non-adaptive context model.
16. A device for coding video data, the device comprising:
 - a plurality of memories configured to store context models; and
 - an integrated circuit configured to:
 - code first video data, for coding a first block, based on an adaptive context model; and
 - code second video data, for coding a second block, based on a non-adaptive context model.
17. The device of claim 16, wherein to code the first video data, the integrated circuit is configured to code the first video data using entropy coding with the adaptive context model, and wherein to code the second video data, the integrated circuit is configured to code the second video data using entropy coding with the non-adaptive context model.

18. The device of claim 17, wherein to code the first video data using entropy coding, the integrated circuit is configured to code the first video data using context-based arithmetic coding with the adaptive context model, and wherein to code the second video data using entropy coding, the integrated circuit is configured to code the second video data using context-based arithmetic coding with the non-adaptive context model.

19. The device of claim 16, wherein the first block and the second block are in the same picture or slice.

20. The device of claim 16, wherein the first block and the second block are in different pictures or slices.

21. The device of claim 16, wherein to code the first video data based on the adaptive context model, the integrated circuit is configured to:

- adapt one or more context models based on at least one of previous input bins or previous output bins to generate one or more adapted context models;

- store the one or more adapted context models in a memory of the plurality of memories;

- read the one or more adapted context models from the memory; and

- context-based arithmetic code the first video data with the one or more adapted context models read from the memory.

22. The device of claim 21, wherein the memory is random access memory (RAM).

23. The device of claim 16, wherein to code the second video data based the non-adaptive context model, the integrated circuit is configured to:

- read one or more context models from a memory of the plurality of memories;
- and

- context-based arithmetic code the second video data with the one or more context models read from the memory.

24. The device of claim 23, wherein the memory is read only memory (ROM).

25. The device of claim 16, wherein to code the second video data based on the non-adaptive context model, the integrated circuit is configured to:

- determine information of a manner in which the second block is coded;
- select a location to read from in a memory based on the determined information;
- read one or more context models from the selected location; and
- context-based binary code the second video data with the one or more context models read from the memory.

26. The device of claim 25, wherein the information of the manner in which the second block is coded includes at least one of a quantization parameter for the second block and a prediction mode for the second block.

27. The device of claim 16, wherein the integrated circuit is configured to:

- determine that a number of times that context-based arithmetic coding with adaptive context models is used is greater than or equal to a threshold value,
- wherein to code the second video data, the integrated circuit is configured to code the second video data based on the non-adaptive context model based on the determination that the number of times that context-based arithmetic coding with adaptive context models is used is greater than or equal to the threshold value.

28. The device of claim 16, wherein the integrated circuit is configured to:

- determine whether to code the first video data based on the adaptive context models based on one or more of:
 - a context of the first video data;
 - frequency of use of the context model of the first video data;
 - stability of the context model used to code the first video data; and
 - comparison of the context to a threshold value.

29. The device of claim 16,

- wherein to code the first video data, the integrated circuit is configured to decode the first video data based on the adaptive context model, and
- wherein to code the second video data, the integrated circuit is configured to decode the second video data based on the non-adaptive context model.

30. The device of claim 16,
wherein to code the first video data, the integrated circuit is configured to encode the first video data based on the adaptive context model, and
wherein to code the second video data, the integrated circuit is configured to encode the second video data based on the non-adaptive context model.
31. A computer-readable storage medium storing instructions thereon that when executed cause one or more processors to:
code first video data, for coding a first block, based on an adaptive context model; and
code second video data, for coding a second block, based on a non-adaptive context model.
32. A device for coding video data, the device comprising:
means for coding first video data, for coding a first block, based on an adaptive context model; and
means for coding second video data, for coding a second block, based on a non-adaptive context model.