

CLAIMS

1. A method of coding video data, the method comprising:
determining a context for entropy coding a bin of a value
indicative of a last significant coefficient of a block of
video data using a function of an index of the bin,
wherein the function produces a context index for the
context by right-shifting the index of the bin by a
value k and adding the right-shifted value to an offset
value,
wherein the offset value is determined according to the
formula:
$$\text{offset} = 3 * n + ((n + 1) \gg 2),$$

wherein the value k is determined according to the
formula:
$$k = (n + 3) \gg 2,$$

wherein the value n is determined according to the
formula:
$$n = (\log_2(\text{block_size}) - 2),$$
 and
wherein the value `block_size` comprises a value
indicative of the size of the block; and
coding the bin using the determined context.
2. The method of claim 1, wherein determining the context
comprises executing the function.
3. The method of claim 1, wherein the function comprises
a linear function.
4. The method of claim 1, wherein the function comprises
a non-linear function.
5. The method of claim 1, wherein the function produces a
context index for the context by right-shifting the index of the
bin by one.
6. The method of claim 1, further comprising receiving the
function from a user.
7. The method of claim 1, further comprising receiving
syntax data defining the function.

8. The method of claim 1, wherein coding the bin comprises entropy decoding encoded data using the determined context to reproduce a value for the bin.

9. The method of claim 1, wherein coding the bin comprises entropy encoding the bin using the determined context.

10. A device for coding video data, the device comprising:
a memory configured to store the video data; and

one or more processors configured to:

determine a context for entropy coding a bin of a value indicative of a last significant coefficient of a block of video data using a function of an index of the bin, wherein the function produces a context index for the context by right-shifting the index of the bin by a value k and adding the right-shifted value to an offset value,

wherein the offset value is determined according to the formula:

$$\text{offset} = 3 * n + ((n + 1) \gg 2),$$

wherein the value k is determined according to the formula:

$$k = (n + 3) \gg 2,$$

wherein the value n is determined according to the formula:

$$n = (\log_2(\text{block_size}) - 2), \text{ and}$$

wherein the value `block_size` comprises a value indicative of the size of the block; and

code the bin using the determined context.

11. The device of claim 10, wherein the video coder is configured to determine the context at least in part by executing the function.

12. The device of claim 10, wherein the video coder is further configured to receive syntax data defining the function.

13. The device of claim 10, wherein the video coder is configured to code the bin at least in part by entropy decoding encoded data using the determined context to reproduce a value for the bin.

14. The device of claim 10, wherein the video coder is configured to code the bin at least in part by entropy encoding the bin using the determined context.

15. The device of claim 10, wherein the device comprises at least one of:

an integrated circuit;

a microprocessor; and

a wireless communication device that comprises the video coder.

16. A device for coding video data, the device comprising: means for determining a context for entropy coding a bin of a value indicative of a last significant coefficient of a block of video data using a function of an index of the bin,

wherein the function produces a context index for the context by right-shifting the index of the bin by a value k and adding the right-shifted value to an offset value,

wherein the offset value is determined according to the formula:

$$\text{offset} = 3 * n + ((n + 1) \gg 2),$$

wherein the value k is determined according to the formula:

$$k = (n + 3) \gg 2,$$

wherein the value n is determined according to the formula:

$$n = (\log_2(\text{block_size}) - 2), \text{ and}$$

wherein the value `block_size` comprises a value indicative of the size of the block; and

means for coding the bin using the determined context.

17. The device of claim 16, wherein the means for determining the context comprises means for executing the function.

18. The device of claim 16, further comprising means for receiving syntax data defining the function.

19. A computer-readable storage medium encoded with instructions that, when executed, cause a programmable processor of a computing device to:

determine a context for entropy coding a bin of a value indicative of a last significant coefficient of a block of video data using a function of an index of the bin, wherein the function produces a context index for the context by right-shifting the index of the bin by a value k and adding the right-shifted value to an offset value,

wherein the offset value is determined according to the formula:

$$\text{offset} = 3 * n + ((n + 1) \gg 2),$$

wherein the value k is determined according to the formula:

$$k = (n + 3) \gg 2,$$

wherein the value n is determined according to the formula:

$$n = (\log_2(\text{block_size}) - 2), \text{ and}$$

wherein the value `block_size` comprises a value indicative of the size of the block; and

code the bin using the determined context.

20. The computer-readable storage medium of claim 19, wherein the instructions that cause the programmable processor to determine the context further include instructions that cause the programmable processor to execute the function.

21. The computer-readable storage medium of claim 19, further encoded with instructions that, when executed, cause the programmable processor to receive syntax data defining the function.

CLAIMS

- Claim 1: A method of coding video data, the method comprising:
- determining a context for entropy coding a bin of a value indicative of a last significant coefficient of a block of video data using a function of an index of the bin,
- wherein the function produces a context index for the context by right-shifting the index of the bin by a value k and adding the right-shifted value to an offset value,
- wherein the offset value is determined according to the formula:
- $\text{offset} = 3 * n + ((n+1) >> 2),$
- wherein the value k is determined according to the formula:
- $k = (n+3) >> 2,$
- wherein the value n is determined according to the formula:
- $n = (\log_2(\text{block_size}) - 2),$ and
- wherein the value `block_size` comprises a value indicative of the size of the block; and
- coding the bin using the determined context.
- Claim 2: The method of claim 1, wherein determining the context comprises executing the function.
- Claim 3: The method of claim 1, wherein the function comprises a linear function.
- Claim 4: The method of claim 1, wherein the function comprises a non-linear function.
- Claim 5: The method of claim 1, wherein the function produces a context index for the context by right-shifting the index of the bin by one.
- Claim 6: The method of claim 1, further comprising receiving the function from a user.
- Claim 7: The method of claim 1, further comprising receiving syntax data defining the function.
- Claim 8: The method of claim 1, wherein coding the bin comprises entropy decoding encoded data using the determined context to reproduce a value for the bin.

Claim 9: The method of claim 1, wherein coding the bin comprises entropy encoding the bin using the determined context.

Claim 10: A device for coding video data, the device comprising:
a memory configured to store the video data; and
one or more processors configured to:

determine a context for entropy coding a bin of a value indicative of a last significant coefficient of a block of video data using a function of an index of the bin,

wherein the function produces a context index for the context by right-shifting the index of the bin by a value k and adding the right-shifted value to an offset value,

wherein the offset value is determined according to the formula:

$$\text{offset} = 3 * n + ((n+1) \gg 2),$$

wherein the value k is determined according to the formula:

$$k = (n+3) \gg 2,$$

wherein the value n is determined according to the formula:

$$n = (\log_2(\text{block_size}) - 2), \text{ and}$$

wherein the value `block_size` comprises a value indicative of the size of the block; and

code the bin using the determined context.

Claim 11: The device of claim 10, wherein the one or more processors are configured to determine the context at least in part by executing the function.

Claim 12: The device of claim 10, wherein the one or more processors are further configured to receive syntax data defining the function.

Claim 13: The device of claim 10, wherein the one or more processors are configured to code the bin at least in part by entropy decoding encoded data using the determined context to reproduce a value for the bin.

Claim 14: The device of claim 10, wherein the one or more processors are configured to code the bin at least in part by entropy encoding the bin using the determined context.

Claim 15: The device of claim 10, wherein the device comprises at least one of:
 an integrated circuit;
 a microprocessor; and
 a wireless communication device that comprises the video coder.

Claim 16: A device for coding video data, the device comprising:
 means for determining a context for entropy coding a bin of a value indicative of a last significant coefficient of a block of video data using a function of an index of the bin,
 wherein the function produces a context index for the context by right-shifting the index of the bin by a value k and adding the right-shifted value to an offset value,
 wherein the offset value is determined according to the formula:

$$\text{offset} = 3 * n + ((n+1) >> 2),$$

 wherein the value k is determined according to the formula:

$$k = (n+3) >> 2,$$

 wherein the value n is determined according to the formula:

$$n = (\log_2(\text{block_size}) - 2), \text{ and}$$

 wherein the value `block_size` comprises a value indicative of the size of the block; and
 means for coding the bin using the determined context.

Claim 17: The device of claim 16, wherein the means for determining the context comprises means for executing the function.

Claim 18: The device of claim 16, further comprising means for receiving syntax data defining the function.

Claim 19: A computer-readable storage medium encoded with instructions that, when executed, cause a programmable processor of a computing device to:
 determine a context for entropy coding a bin of a value indicative of a last significant coefficient of a block of video data using a function of an index of the bin,
 wherein the function produces a context index for the context by right-shifting the index of the bin by a value k and adding the right-shifted value to an offset value,

wherein the offset value is determined according to the formula:

$$\text{offset} = 3 * n + ((n+1) >> 2),$$

wherein the value k is determined according to the formula:

$$k = (n+3) >> 2,$$

wherein the value n is determined according to the formula:

$$n = (\log_2(\text{block_size}) - 2), \text{ and}$$

wherein the value `block_size` comprises a value indicative of the size of the block; and

code the bin using the determined context.

Claim 20: The computer-readable storage medium of claim 19, wherein the instructions that cause the programmable processor to determine the context further include instructions that cause the programmable processor to execute the function.

Claim 21: The computer-readable storage medium of claim 19, further encoded with instructions that, when executed, cause the programmable processor to receive syntax data defining the function.