

WHAT IS CLAIMED IS:

1. A system comprising:

a display;

an antenna configured to receive an encoded bitstream of video data;

a memory to store the bitstream;

a processor communicatively coupled to the display, antenna, and memory; and

decoder circuitry to:

determine a region size for a node of a region quadtree, the region associated with a second region and the region associated with a video frame,

determine a context index value associated with an individual node of the region quadtree based at least in part on the region size, wherein to determine the context index value, the circuitry is to determine a value of $5 - \log_2(\text{region size})$, and

determine a split flag based at least in part on the determined context index value, wherein the determination of the split flag includes non-splitting of the node of the region and transmission of residual information if the determined split flag is equal to zero, and

wherein the determination of the context index value is performed as part of an entropy context-adaptive binary arithmetic coding (CABAC) coding of transform split flags to determine one or more transform split flags.

2. The system of claim 1, wherein the region comprises a transform unit (TU), the second region comprises a coding unit (CU), the CU comprises a partition of a picture, and the TU comprises a whole or part of the CU.

3. The system of claim 1, wherein the determination of the context index value is performed as part of a context adaptive entropy coding operation to determine one or more transform split flags.

4. The system of claim 1, wherein the context index value comprises one of three potential values.

5. At least one non-transitory article comprising a computer program stored thereon having instructions that, if executed by the computer, cause the computer to:

determine a region size for a node of a region quadtree, the region associated with a second region and the region associated with a video frame,

determine a context index value associated with an individual node of the region quadtree based at least in part on the region size, wherein to determine the context index value, the circuitry is to determine a value of $5 - \log_2(\text{region size})$, and

determine a split flag based at least in part on the determined context index value, wherein the determination of the split flag includes non-splitting of the node of the region and transmission of residual information if the determined split flag is equal to zero, and

wherein the determination of the context index value is performed as part of an entropy context-adaptive binary arithmetic coding (CABAC) coding of transform split flags to determine one or more transform split flags.

6. The non-transitory article of claim 5, wherein the region comprises a transform unit (TU), the second region comprises a coding unit (CU), the CU comprises a partition of a picture, and the TU comprises a whole or part of the CU.

7. The non-transitory article of claim 5, wherein the determination of the context index value is performed as part of a context adaptive entropy coding operation to determine one or more transform split flags.

8. The non-transitory article of claim 5, wherein the context index value comprises one of three potential values.

9. An apparatus, comprising:

circuitry to:

determine a transform unit (TU) size for a node of a TU quadtree, the TU associated with a coding unit (CU) and the TU associated with a video frame,

determine a context index value associated with an individual node of the TU quadtree based at least in part on the TU size, wherein to determine the context index value, the circuitry is to determine a difference between a binary logarithm of a maximum TU size and a binary logarithm of the transform unit size, and

determine a transform split flag based at least in part on the determined context index value, wherein the determination of the split flag includes non-splitting

of the node of the region and transmission of residual information if the determined split flag is equal to zero, and

wherein the determination of the context index value is performed as part of an entropy context-adaptive binary arithmetic coding (CABAC) coding of transform split flags to determine one or more transform split flags.

10. The apparatus of claim 9, wherein the determination of the context index value is performed as part of a context adaptive entropy coding operation to determine one or more transform split flags.

11. The apparatus of claim 9, wherein the circuitry is to:

determine a first split flag having a first value when the transform unit has a size in excess of a first size, and wherein the first split flag is not explicitly provided in a bitstream; and

determine a second split flag of second value when the transform unit has a second size, and wherein the second split flag is not explicitly provided in a bitstream.

12. The apparatus of claim 9, further comprising a video encoder and wherein the circuitry is part of the video encoder.

13. A system comprising:

a display;

an antenna configured to receive an encoded bitstream of video data;

a memory to store the bitstream;

a processor communicatively coupled to the display, antenna, and memory; and decoder circuitry to:

determine a transform unit (TU) size for a node of a TU quadtree, the TU associated with a coding unit (CU) and the TU associated with a video frame,

determine a context index value associated with an individual node of the TU quadtree based at least in part on the TU size, wherein to determine the context index value, the circuitry is to determine a difference between a binary logarithm of a maximum TU size and a binary logarithm of the transform unit size, and

determine a transform split flag based at least in part on the determined context index value, wherein the determination of the split flag includes non-splitting

of the node of the region and transmission of residual information if the determined split flag is equal to zero, and

wherein the determination of the context index value is performed as part of an entropy context-adaptive binary arithmetic coding (CABAC) coding of transform split flags to determine one or more transform split flags.

14. The apparatus of claim 13, wherein the determination of the context index value is performed as part of a context adaptive entropy coding operation to determine one or more transform split flags.

15. The apparatus of claim 13, wherein the decoder circuitry is to:

determine a first split flag having a first value when the transform unit has a first size, and wherein the first split flag is not explicitly provided in the bitstream; and

determine a second split flag of second value when the transform unit has a second size, and wherein the second split flag is not explicitly provided in the bitstream.

16. The apparatus of claim 13, wherein the first size is 64x64 and the second size 4x4.

17. At least one non-transitory article comprising a computer program stored thereon having instructions that, if executed by the computer, cause the computer to:

determine a transform unit (TU) size for a node of a TU quadtree, the TU associated with a coding unit (CU) and the TU associated with a video frame,

determine a context index value associated with an individual node of the TU quadtree based at least in part on the TU size, wherein to determine the context index value, the circuitry is to determine a difference between a binary logarithm of a maximum TU size and a binary logarithm of the transform unit size, and

determine a transform split flag based at least in part on the determined context index value, wherein the determination of the split flag includes non-splitting of the node of the region and transmission of residual information if the determined split flag is equal to zero, and

wherein the determination of the context index value is performed as part of an entropy context-adaptive binary arithmetic coding (CABAC) coding of transform split flags to determine one or more transform split flags.

18. The non-transitory article of claim 17, wherein the determination of the context index value is performed as part of a context adaptive entropy coding operation to determine one or more transform split flags.

19. The non-transitory article of claim 17, wherein the decoder circuitry is to:

determine a first split flag having a first value when the transform unit has a first size, and wherein the first split flag is not explicitly provided in the bitstream; and

determine a second split flag of second value when the transform unit has a second size, and wherein the second split flag is not explicitly provided in the bitstream.

20. The non-transitory article of claim 17, wherein the first size is 64x64 and the second size 4x4.