WHAT IS CLAIMED IS:

1. A method of decoding a bitstream of encoded video by reconstructing significant-coefficient flags for a transform unit, the transform unit comprising a sequence of blocks, the bitstream encoding sets of significant-coefficient flags, each set corresponding to a respective block, the method comprising:

for a set of significant-coefficient flags corresponding to a first block, selecting a context set from a plurality of context sets for use in decoding significant-coefficient flags of that set based on a significant-coefficient-group flag associated with a block to the right of the first block and a significant-coefficient-group flag associated with a block below the first block; and

decoding the significant-coefficient flags of that set using the selected context set.

2. The method claimed in claim 1, wherein each significant-coefficient-group flag indicates whether its associated block is presumed to contain at least one non-zero significant-coefficient flag.

3. The method claimed in claim 1 or claim 2, wherein selecting a context set comprises selecting a first context set if both of the significant-coefficient-group flags are non-zero, and, otherwise, selecting another context set.

4. The method claimed in any one of claims 1 to 3, wherein decoding comprises context-adaptive decoding, and wherein the context sets identify the contexts to be used in context-adaptively decoding the significant-coefficient flags of that set of significant-coefficient flags.

5. The method claimed in any one of claims 1 to 4, wherein selecting a context set further includes selecting a specific context for decoding the significant-coefficient flag in the DC position of the first block if it is the upper-left block in the transform unit.

6. The method claimed in any one of claims 1 to 5, wherein selecting a context set is further based on whether or not the first block is in the upper-left corner of the transform unit.

7. The method claimed in any one of claims 1 to 6, wherein selecting a context set is further based upon the size of the transform unit.

8. The method claimed in any one of claims 1 to 7, wherein selecting a context set is further based upon whether components of the transform unit are luma components or chroma components.

9. A decoder for decoding a bitstream of encoded data to reconstruct significant-coefficient flags for a transform unit, the decoder comprising:

a processor;

a memory; and

a decoding application stored in memory and containing instructions for configuring the processor to perform the method claimed in any one of claims 1 to 8.

10. A method of encoding a video by encoding significant-coefficient flags for a transform unit to create a bitstream of encoded sets of significant-coefficient flags, the transform unit comprising a sequence of blocks, each set of significant-coefficient flags corresponding to a respective block, the method comprising:

for a set of significant-coefficient flags corresponding to a first block, selecting a context set from a plurality of context sets for use in encoding significant-coefficient flags of that set based on a significant-coefficient-group flag associated with a block to the right of the first block and a significant-coefficient-group flag associated with a block below the first block ; and

encoding the significant-coefficient flags of that set using the selected context set.

11. The method claimed in claim 10, wherein each significant-coefficient-group flag indicates whether its associated block is presumed to contain at least one non-zero significant-coefficient flag.

12. The method claimed in claim 10 or claim 11, wherein selecting a context set comprises selecting a first context set if both of the significant-coefficient-group flags are non-zero, and, otherwise, selecting another context set.

13. The method claimed in any one of claims 10 to 12, wherein encoding comprises context-adaptive encoding, and wherein the context sets identify the contexts to be used in context-adaptively encoding the significant-coefficient flags of that set.

14. An encoder for encoding significant-coefficient flags for a transform unit to produce a bitstream of encoded data, the encoder comprising:

a processor;

a memory; and

an encoding application stored in memory and containing instructions for configuring the processor to perform the method claimed in any one of claims 10 to 13.

15. A non-transitory processor-readable medium storing processor-executable instructions which, when executed, configures one or more processors to perform the method claimed in any one of claims 1 to 8 and 10 to 13.

What is claimed is:

[Claim 1]

A method of a decoder decoding a bitstream of encoded video by reconstructing significant-coefficient flags for a transform unit, the transform unit comprising a sequence of blocks, the bitstream encoding sets of significant-coefficient flags, each set corresponding to a respective block, the method comprising:

for a set of significant-coefficient flags corresponding to a first block, selecting a context set from a plurality of context sets for use in decoding significant-coefficient flags of that set based on a significant-coefficient-group flag associated with a block to the right of the first block and a significant-coefficient-group flag associated with a block below the first block; and

decoding the significant-coefficient flags of that set using the selected context set.

[Claim 2]

The method claimed in claim 1, wherein each significant-coefficient-group flag indicates whether its associated block is presumed to contain at least one non-zero significant-coefficient flag.

[Claim 3]

The method claimed in claim 1 or claim 2, wherein selecting a context set comprises selecting a first context set if both of the significant-coefficient-group flags are non-zero, and, otherwise, selecting another context set.

[Claim 4]

The method claimed in any one of claims 1 to 3, wherein decoding comprises context-adaptive decoding, and wherein the context sets identify the contexts to be used in context-adaptively decoding the significant-coefficient flags of that set of significant-coefficient flags.

[Claim 5]

The method claimed in any one of claims 1 to 4, wherein selecting a context set further includes selecting a specific context for decoding the significant-coefficient flag in the DC position of the first block

if it is the upper-left block in the transform unit.

[Claim 6]

The method claimed in any one of claims 1 to 5, wherein selecting a context set is further based on whether or not the first block is in the upper-left corner of the transform unit.

[Claim 7]

The method claimed in any one of claims 1 to 6, wherein selecting a context set is further based upon the size of the transform unit.

[Claim 8]

The method claimed in any one of claims 1 to 7, wherein selecting a context set is further based upon whether components of the transform unit are luma components or chroma components.

[Claim 9]

A decoder for decoding a bitstream of encoded data to reconstruct significant-coefficient flags for a transform unit, the decoder comprising:

a processor;

a memory; and

a decoding application stored in memory and containing instructions for configuring the processor to perform the method claimed in any one of claims 1 to 8.

[Claim 10]

A method of encoding a video by an encoder encoding significant-coefficient flags for a transform unit to create a bitstream of encoded sets of significant-coefficient flags, the transform unit comprising a sequence of blocks, each set of significant-coefficient flags corresponding to a respective block, the method comprising:

for a set of significant-coefficient flags corresponding to a first block, selecting a context set from a plurality of context sets for use in encoding significant-coefficient flags of that set based on a significant-coefficient-group flag associated with a block to the right of the first block and a significant-coefficient-group flag associated with a block below the first block ; and

encoding the significant-coefficient flags of that set using the selected context set.

[Claim 11]

The method claimed in claim 10, wherein each significant-coefficient-group flag indicates whether its associated block is presumed to contain at least one non-zero significant-coefficient flag.

[Claim 12]

The method claimed in claim 10 or claim 11, wherein selecting a context set comprises selecting a first context set if both of the significant-coefficient-group flags are non-zero, and, otherwise, selecting another context set.

[Claim 13]

The method claimed in any one of claims 10 to 12, wherein encoding comprises context-adaptive encoding, and wherein the context sets identify the contexts to be used in context-adaptively encoding the significant-coefficient flags of that set.

[Claim 14]

An encoder for encoding significant-coefficient flags for a transform unit to produce a bitstream of encoded data, the encoder comprising:

a processor;

a memory; and

an encoding application stored in memory and containing instructions for configuring the processor to perform the method claimed in any one of claims 10 to 13.

[Claim 15]

A processor-readable recording medium storing processor-executable instructions which, when executed, cause processors to perform the method claimed in any one of claims 1 to 8 and 10 to 13.