

CLAIMS

1. A video processing method, comprising:
performing a conversion between a current video block of a video and bitstream of the video,
wherein the bitstream conforms to a format rule specifying that a first syntax element corresponding to side information of a first transform tool for the current video block is present in the bitstream based on a second syntax element corresponding to side information of a secondary transform tool related information,
wherein the secondary transform tool includes applying, during encoding, a forward secondary transform to an output of a forward primary transform applied to a residual of a video block prior to quantization, or applying, during decoding, an inverse secondary transform to an output of dequantization of the video block before applying an inverse primary transform.
2. The method of claim 1, wherein the first syntax element comprises at least one of indication of applying the first transform tool, index of the transform kernels used in the primary transform process.
3. The method of claim 1 or 2, wherein the second syntax element comprises at least one of indication of applying the secondary transform tool, index of the transform kernels used in the secondary transform tool.
4. The method of claim 3, wherein in response to the second syntax element indicating the secondary transform tool is enabled, the first syntax element is not present in the bitstream and inferred to be zero for the current video block.
5. The method of claim 4, wherein the first transform tool is not applied.
6. The method of any one of claims 1-5, wherein the second syntax element is context coded.

7. The method of claim 6, wherein context used for coding the second syntax element is independent of the first syntax element.
8. The method of claim 6, wherein context used to code the second syntax element is based on a color component of the current video block.
9. The method of claim 6, wherein context used to code the second syntax element is based on a splitting scheme for the current video block.
10. The method of claim 6, wherein only one context is used for coding the second bin of the second syntax element.
11. The method of any one of claims 1-10, wherein the secondary transform tool corresponds to a low frequency non-separable transform (LFNST) tool.
12. The method of any one of claims 1-11, wherein the conversion includes encoding the current video block into the bitstream.
13. The method of any one of claims 1-12, wherein the conversion includes decoding the current video block from the bitstream.
14. An apparatus for processing video data comprising a processor and a non-transitory memory with instructions thereon, wherein the instructions upon execution by the processor, cause the processor to:
 - perform a conversion between a current video block of a video and bitstream of the video,
 - wherein the bitstream conforms to a format rule specifying that a first syntax element corresponding to side information of a first transform tool for the current video block is present in the bitstream based on a second syntax element corresponding to side information of a secondary transform tool related information,

wherein the secondary transform tool includes applying, during encoding, a forward secondary transform to an output of a forward primary transform applied to a residual of a video block prior to quantization, or applying, during decoding, an inverse secondary transform to an output of dequantization of the video block before applying an inverse primary transform.

15. The apparatus of claim 14, wherein the first syntax element comprises at least one of indication of applying the first transform tool, index of the transform kernels used in the primary transform process.

16. The apparatus of claim 15, wherein the second syntax element comprises at least one of indication of applying the secondary transform tool, index of the transform kernels used in the secondary transform tool.

17. The apparatus of any one of claims 14-16, wherein in response to the second syntax element indicating the secondary transform tool is enabled, the first syntax element is not present in the bitstream and inferred to be zero for the current video block.

18. The apparatus of any one of claims 14-17, wherein the first transform tool is not applied.

19. A non-transitory computer-readable storage medium storing instructions that cause a processor to:

perform a conversion between a current video block of a video and bitstream of the video,

wherein the bitstream conforms to a format rule specifying that a first syntax element corresponding to side information of a first transform tool for the current video block is present in the bitstream based on a second syntax element corresponding to side information of a secondary transform tool related information,

wherein the secondary transform tool includes applying, during encoding, a forward secondary transform to an output of a forward primary transform applied to a residual of a video block prior to quantization, or applying, during decoding, an inverse secondary transform to an output of dequantization of the video block before applying an inverse primary transform.

20. A non-transitory computer-readable recording medium storing a bitstream of a video which is generated by a method performed by a video processing apparatus, wherein the method comprises:

generating the bitstream for a current video block of the video,

wherein the bitstream conforms to a format rule specifying that a first syntax element corresponding to side information of a first transform tool for the current video block is present in the bitstream based on a second syntax element corresponding to side information of a secondary transform tool related information,

wherein the secondary transform tool includes applying, during encoding, a forward secondary transform to an output of a forward primary transform applied to a residual of a video block prior to quantization, or applying, during decoding, an inverse secondary transform to an output of dequantization of the video block before applying an inverse primary transform.