CLAIMS:

1. A method for video decoding in a decoder, comprising:

decoding coded information of a coding unit (CU) in a picture from a coded video bitstream, the coded information indicating a width of the CU as W samples and a height of the CU as H samples;

determining which partitioning structure from among plural partitioning structures is selected to partition the CU based on the width and the height of the CU and a maximum transform unit (TU) size of M samples, the plural partitioning structures comprising a vertical binary tree partitioning structure and a horizontal binary tree partitioning structure; and

recursively partitioning the CU into a plurality of TUs until a size of each TU is less than or equal to MxM based on the partitioning structure that is determined as selected from among the plural partitioning structures, wherein

in response to the width W being greater than the maximum TU size M and the width W being greater than the height H, the determined partitioning structure is the vertical binary tree partitioning structure that partitions the CU into two partitions, each having a size of W/2 x H.

2. The method of claim 1, further comprising:

processing the TUs according to a scan order.

3. The method of claim 2, wherein the scan order is one of (i) a raster scan order, (ii) a vertical scan order, (iii) a zig-zag order, and (iv) a diagonal scan order.

4. The method of claim 3, wherein the scan order is the raster scan order.

5. The method of claim 2 or 3, wherein

W is 128, H is 64, and M is 32;

the scan order is a raster scan order.

6. The method of claim 1, wherein at least two TUs are configured to be processed simultaneously at different stages of a multi-stage pipeline.

7. The method of claim 1, wherein

in response to the height H being greater than M and the height H being greater than or equal to the width W, the determined partitioning structure is the horizontal binary tree

partitioning structure that partitions the CU into two partitions, each having a size of W x H/2.

8. An apparatus for video decoding, comprising processing circuitry configured to perform the method of any of claims 1 to 7.

9. A computer-readable storage medium, having stored thereon computer instructions that, when executed by a computer, cause the computer to perform the method according to any one of claims 1 to 7.

10. A method for video encoding in an encoder, comprising:

obtaining coded information of a coding unit (CU) in a picture, the coded information indicating a width of the CU as W samples and a height of the CU as H samples; wherein

the width and the height of the CU are used, together with a maximum transform unit (TU) size of M samples, to determine which partitioning structure from among plural partitioning structures is selected to recursively partition the CU into a plurality of TUs until a size of each TU is less than or equal to MxM, the plural partitioning structures comprising a vertical binary tree partitioning structure and a horizontal binary tree partitioning structure; and in response to the width W being greater than the maximum TU size M and the width W being greater than the height H, the determined partitioning structure is the vertical binary tree partitioning structure that partitions the CU into two partitions, each having a size of W/2 x H; and

signaling a coded video bitstream comprising the coded information.

11. The method of claim 10, wherein

in response to the height H being greater than M and the height H being greater than or equal to the width W, the determined partitioning structure is the horizontal binary tree partitioning structure that partitions the CU into two partitions, each having a size of W x H/2.

12. An apparatus for video encoding, comprising processing circuitry configured to perform the method of claim 10 or 11.

13. A computer-readable storage medium, having stored thereon computer instructions that, when executed by a computer, cause the computer to perform the method according to claim 10 or 11.