CLAIMS:

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

decoding coded information of a coding ~~block~~ unit (~~CB~~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 ~~of the CB~~;

~~partitioning the CB into sub-processing units (SPUs) having a width that is a minimum one of W and K and a height that is a minimum one of H and K, at least one of the width W and the height H of the CB being larger than a processing data unit size K;~~

determining ~~a~~ which partitioning structure from among plural partitioning structures is selected to ~~further~~ partition the ~~SPUs~~ CU based on the width and the height of the ~~SPUs~~ 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~~at least one of the width and the height of the SPUs being larger than M~~; and

recursively partitioning ~~each of the SPUs~~the CU into a plurality of TUs ~~of~~ until a size of each TU is less than or equal to MxM based on the ~~determined~~ 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, wherein~~

~~the width and the height of the SPUs are larger than M;~~

~~the determining the partitioning structure includes determining the partitioning structure to be a quadtree partitioning structure; and~~

~~the partitioning the SPUs into the TUs includes partitioning the SPUs into the TUs based on the quadtree partitioning structure.~~

~~3. The method of claim 1, wherein~~

~~the width of the SPUs is larger than M and the height of the SPUs is equal to M;~~

~~the determining the partitioning structure includes determining the partitioning structure to be a vertical binary tree partitioning structure; and~~

~~the partitioning the SPUs into the TUs includes partitioning the SPUs into the TUs based on the vertical binary tree partitioning structure.~~

~~4. The method of claim 1, wherein~~

~~the height of the SPUs is larger than M and the width of the SPUs is equal to M;~~

~~the determining the partitioning structure includes determining the partitioning structure to be a horizontal binary tree partitioning structure; and~~

~~the partitioning the SPUs into the TUs includes partitioning the SPUs into the TUs based on the horizontal binary tree partitioning structure.~~

~~5. The method of any of claims 1 to 4, wherein the partitioning the SPUs into the TUs includes partitioning one of the SPUs recursively into the TUs based on the partitioning structure.~~

~~6~~2. The method of ~~any of claims 1 to 5~~claim 1, further comprising:

~~processing the SPUs according to a first scan order; and~~

processing the TUs ~~in each of the SPUs~~ according to a ~~second~~ scan order.

~~7~~3. The method of claim ~~6~~2, wherein ~~at least one of~~ the ~~first~~ scan order ~~and the second 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.

~~8~~4. The method of claim ~~7~~3, wherein the ~~first~~ scan order ~~and the second scan order~~ ~~are~~is the raster scan order.

~~9~~5. The method of claim ~~6~~ 2 or ~~7~~3, wherein

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

~~the first scan order is from left to right; and~~

the ~~second~~ scan order is a raster scan order.

~~10. The method of any of claims 1 to 9, wherein~~

~~the processing data unit size K indicates a size of a virtual pipeline data unit (VPDU);~~

~~a first one of the SPUs is included in a first VPDU and a second one of the SPUs is included in a second VPDU in the picture; and~~

~~the method further includes:~~

~~after processing the first VPDU in a first stage of a multi-stage pipeline, simultaneously processing the first VPDU in a second stage of the multi-stage pipeline and the second VPDU in the first stage.~~

~~11~~6. The method of claim 1, wherein at least two TUs ~~in one of the SPUs~~ are configured to be processed simultaneously at different stages of a multi-stage pipeline.

~~12. The method of claim 1, wherein partitioning the CB comprises:~~

~~selecting a partitioning structure from among plural partitioning structures to partition the CB based on a comparison of at least one of the width W and the height H of the CB to the maximum transform unit (TU) size M.~~

~~13~~7. The method of claim ~~12~~1, wherein ~~the plural partitioning structures comprise at least one of a quadtree partitioning structure, a vertical binary tree partitioning structure, and a horizontal binary tree partitioning structure; and the method further comprises:~~

~~in response to the width W being greater than M and the width W being greater than the height H, selecting the vertical binary tree partitioning structure to partition the CB into two partitions, each having a size of W/2 x H;~~

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 ~~selecting~~ the horizontal binary tree partitioning structure ~~to~~ that partitions the ~~CB~~ CU into two partitions, each having a size of W x H/2.

~~14~~8. An apparatus for video decoding, comprising processing circuitry configured to perform the method of any of claims 1 to ~~13~~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.