[0122] In addition to the previous example, the 9 contexts may be grouped in a pre-defined manner resulting in less contexts being applied. For example, ctx=8 and ctx=7 in the previous example may be merged and only one context may be used for both of these ctx values.

[0123] In some embodiments, two neighboring blocks are used, (i.e., left and top), and the context value (ctx) is derived as follows, where $dpcm_flag_{left}$ and $dpcm_flag_{top}$ refer to the dpcm_flag of the left and top neighboring blocks, respectively, and $bdpcm_dir_flag_{left}$ and $bdpcm_dir_flag_{top}$ refer to the bdpcm_dir_flag of the left and top neighboring blocks, respectively.

$$\text{Eq. (11): } dpcm_left = dpcm_flag_{left} \; ? \; (bdpcm_dir_flag_{left} \; ? \; 1 : 2) : 0$$

$$\text{Eq. (12): } dpcm_top = dpcm_flag_{top} \; ? \; (bdpcm_dir_flag_{top} \; ? \; 1 : 2) : 0$$

$$\text{Eq. (13): } ctx = (dpcm_left == dpcm_top) \; ? \; dpcm_left : 0.$$

[0124] FIG. 9 illustrates an embodiment of a process performed by a decoder such as video decoder (710). The process may start at step (S900) to determine whether a first block associated with a second block is coded in the BDPCM mode. In some examples, the first block may be a block that is a spatial neighbor of a second block located in the same picture as the first block. In other examples, the first block may be a luma block and the second block is a chroma block, where the luma block is co-located with the chroma block.

[0125] If the first block is coded in the BDPCM mode, the process proceeds from step (S900) to step (S902), where the first block is associated with an intra prediction mode value based on a BDPCM directional flag. For example, bdpcm_flag may indicate that a block is coded in the BDPCM mode, and bdpcm_dir_flag may be used to determine whether to use the horizontal direction or vertical direction. The process proceeds to step (S904) to determine an ~~inter~~intra prediction mode value for the second block using the intra prediction mode value associated with the first block. For example, based on the BDPCM directional flag, the intra prediction mode value may be one of a horizontal intra prediction mode value and a vertical intra prediction mode value. Furthermore, if the first block is a spatial neighbor of the second block, the intra prediction mode value of the first block may be used for creating a MPM list, where the MPM list is used for deriving the intra prediction mode value of the second block. Additionally, if the second block is a chroma block that is predicted using the DM mode, and the first block is a co-located luma block, the intra prediction mode value of the second block may be determined based on the intra prediction mode value of the first block.