block. In addition, for ease of description, the description is performed by assuming that the preset position (left, top, top left, top right, and bottom left) is configured as one block, but at least one block may exist at a corresponding position. That is, multiple sub-blocks of the partition block according to the corresponding block may exist at the preset position.

[00315] In summary, the adjacent region of the current block may be a position of a reference pixel for intra prediction of the current block, and a region corresponding to the current block of another color space may be considered as the position of the reference pixel according to the prediction mode. In addition to the above examples, the position of the reference pixel defined according to the prediction mode, method, etc. may be determined. For example, when the prediction block is generated by a method such as block matching, the position of the reference pixel may be considered as a region where encoding/decoding is completed before the current block of the current image or a region included within a search range in the region where encoding/decoding is completed (for example, included on the left side or top side or top left side and top right side of the current block).

[00316] As illustrated in FIG. 11, the reference pixel for prediction of the current block may be configured by adjacent pixels of a left block, a top block, a top left block, a top right block, and a lower left block (Ref_L, Ref_T, Ref_TL, Ref_TR, and Ref_BL in FIG. 11). In this instance, the reference pixel is generally composed of pixels of an adjacent block closest to the current block (a in FIG. 11), but may also include other pixels (pixels in b and other outer lines in FIG. 11). That is, at least one of a first pixel line "a" adjacent to the current block, a second pixel line "b" adjacent to the first pixel line, a third pixel line adjacent to the second pixel line, or a fourth pixel line adjacent to the third pixel line may be used. For example, the multiple pixel lines may include all of the first to fourth pixel lines, or may include only the remaining pixel lines except the third pixel line, according to the encoding/decoding settings. Alternatively, the multiple pixel lines may include only the first pixel line and the fourth pixel line.

[00317] The current block may perform intra prediction by selectively referencing any one of the multiple pixel lines. In this instance, the selection may be performed based on an index (refIdx) signaled by the encoding apparatus. Alternatively, any one of the multiple pixel lines may be selectively used based on the size, shape and partition type of the current block, whether the intra prediction mode is a non-directional mode, angle of the intra prediction mode, etc. For example, when the intra prediction mode is a planar mode or a DC mode, only

CLAIMS

1. An intra prediction method, comprising:

deriving an intra prediction mode of a current block;

determining a pixel line for intra prediction of the current block among a plurality of pixel lines;

selectively performing filtering on a first reference pixel of the determined pixel line based on a first flag indicating whether the first reference pixel for intra prediction is filtered; and

performing the intra prediction of the current block based on the intra prediction mode and the determined pixel line,

wherein the first flag is derived from a video decoding apparatus based on a coding parameter of the current block, and

the coding parameter comprises whether intra prediction in units of sub-blocks is applied.

2. The intra prediction method according to claim 1, wherein

the coding parameter further comprises a block size, a colour component type, or an intra prediction mode.

3. The intra prediction method according to claim 1, further comprising:

performing correction on a prediction pixel of the current block according to the intra prediction.

4. The intra prediction method according to claim 3, wherein the operation of performing correction further comprises:

determining at least one of a second reference pixel or a weighted value for the correction based on a position of the prediction pixel of the current block.

5. The intra prediction method according to claim 4, wherein

the correction is selectively performed in consideration of at least one of a position of the pixel line of the current block, the intra prediction mode of the current block, or whether

intra prediction in units of sub-blocks of the current block is performed.

6. The intra prediction method according to claim 1, wherein

the intra prediction is performed in units of sub-blocks of the current block, and

the sub-blocks are determined based on at least one of a second flag indicating whether to perform partitioning, partition direction information, or partition number information.

7. The intra prediction method according to claim 1, further comprising:

deriving the intra prediction mode based on a predetermined default mode or a plurality of Most Probable Mode (MPM) candidates.