CLAIMS

1. A method of decoding an image, comprising:

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

determining a first flag indicating whether an intra prediction mode of the current block is derived from a first MPM group or a second MPM group, wherein an MPM (Most Probable Mode) candidate group is divided into the first MPM group comprising one or more default intra prediction modes and the second MPM group comprising one or more non-default intra prediction modes that are derived from an intra prediction mode of a neighboring block adjacent to the current block;

when the first flag is determined to be a first value, deriving an intra prediction mode of the current block based on a default intra prediction mode in the first MPM group;

when the first flag is determined to be a second value, deriving the intra prediction mode of the current block based on a non-default intra prediction mode in the second MPM group that is selected by an MPM index; and

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

wherein the plurality of pixel lines at least include a first pixel line immediately adjacent to the current block, a second pixel line immediately adjacent to the first pixel line, and a third pixel line immediately adjacent to the second pixel line, and

wherein the first flag is determined by parsing a bitstream only when the reference pixel line of the current block is determined to be the first pixel line.

2. The method of claim 1, wherein the default mode is composed of only a non-directional mode, and

wherein the non-directional mode includes at least one of a planar mode or a DC mode.

3. The method of claim 2, wherein the second group further includes a mode derived by adding or subtracting an N value to the intra prediction mode of the neighboring block, and

wherein the N value is 1, 2, or 3.

4. The method of claim 1, further comprising:

dividing the current block into a plurality of sub-blocks,

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

wherein the number of the sub-blocks is variably determined based on a size or a shape of the current block.

5. A method of encoding an image, comprising:

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

determining an intra prediction mode of the current block;

performing the intra prediction on the current block based on the reference pixel line and the intra prediction mode; and

determining, based on the intra prediction mode of the current block, a first flag indicating whether the intra prediction mode of the current block is derived from a first MPM group or a second MPM group, wherein an MPM (Most Probable Mode) candidate group is divided into the first MPM group comprising one or more default intra prediction modes and the second MPM group comprising one or more non-default intra prediction modes that are derived from an intra prediction mode of a neighboring block adjacent to the current block;

wherein the plurality of pixel lines at least include a first pixel line immediately adjacent to the current block, a second pixel line immediately adjacent to the first pixel line, and a third pixel line immediately adjacent to the second pixel line, and

wherein the first flag is encoded into a bitstream only when the reference pixel line of the current block is determined to be the first pixel line, and

wherein the first flag is determined to be a first value, when the intra prediction mode of the current block is a default intra prediction mode in the first MPM group,

wherein the first flag is determined to be a second value, when the intra prediction mode of the current block is a non-default intra prediction mode in the second MPM group,

wherein an MPM index indicating one among non-default intra prediction modes in the second MPM group is encoded into the bitstream, when the first flag is determined to be the second value.

6.A transmitting method to transmit a bitstream including encoded image data , the transmitting method comprising:

generate a bitstream by encoding an image based an image encoding method; and

transmit the bitstream;

wherein the image encoding method comprising:

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

determining an intra prediction mode of the current block;

performing the intra prediction on the current block based on the reference pixel line and the intra prediction mode; and

determining, based on the intra prediction mode of the current block, a first flag indicating whether the intra prediction mode of the current block is derived from a first MPM group or a second MPM group, wherein an MPM (Most Probable Mode) candidate group is divided into the first MPM group comprising one or more default intra prediction modes and the second MPM group comprising one or more non-default intra prediction modes that are derived from an intra prediction mode of a neighboring block adjacent to the current block;

wherein the plurality of pixel lines at least include a first pixel line immediately adjacent to the current block, a second pixel line immediately adjacent to the first pixel line, and a third pixel line immediately adjacent to the second pixel line, and

wherein the first flag is encoded into a bitstream only when the reference pixel line of the current block is determined to be the first pixel line, and

wherein the first flag is determined to be a first value, when the intra prediction mode of the current block is a default intra prediction mode in the first MPM group,

wherein the first flag is determined to be a second value, when the intra prediction mode of the current block is a non-default intra prediction mode in the second MPM group,

wherein an MPM index indicating one among non-default intra prediction modes in the second MPM group is encoded into the bitstream, when the first flag is determined to be the second value.