Claims

1. An apparatus for decoding a video, the apparatus comprising :

a receiver configured to receive a bitstream;

an extractor configured to obtain, from the bitstream, information about a location of a row boundary of a tile; and

a decoder configured to determine tiles, including a current tile, based on the information about the location of the row boundary of the tile, and

obtain, based on a split information of a coding unit, at least one coding unit from a maximum coding unit included in both the current tile and a current slice segment,

wherein all maximum coding units in the current slice segment are included in the current tile, and

when the split information indicate a split at a current depth, a coding unit of the current depth is split into coding units of a lower depth.

2. The apparatus of claim 1, wherein the maximum coding unit is hierarchically split into at least one coding unit of a depth according to the split information, the depth including at least one of a current depth and lower depth, and

when the split information indicates a split at the current depth, the coding unit of current depth is split into four square coding units of a lower depth independently from neighboring coding units, and

when the split information indicates a non-split in the current depth, at least one prediction unit is obtained from the coding unit of the current depth and at least one transformation unit is obtained from the coding unit of the current depth.

3. The apparatus of claim 1, wherein the slice segment includes at least one maximum coding unit according to a raster scan order, the slice segment is contained in a single NAL (Network Adaptation Layer) unit, and the slice segment does not exceed a boundary of the current tile.

4. The apparatus of claim 1, wherein first information is obtained from the bitstream, the first information indicating whether the current slice segment is an initial slice segment in the picture;

when the first information indicates that the current slice segment is not the initial slice segment, second information is obtained from the bitstream, the second information indicating whether the current slice segment is a dependent slice segment;

when the second information indicates that the current slice segment is the dependent slice segment, header information of the current slice segment is obtained based on header information of other slice segment;

when the second information indicates that the current slice segment is an independent slice segment, the header information of the current slice segment is obtained from the bitstream.