Claims

1. A~~n apparatus for~~ method of entropy decoding transformation coefficients, the ~~apparatus~~ method comprising:

~~an entropy decoder which extracts, from a received bitstream according to a certain scan order, information about a horizontal axis direction location and a vertical axis direction location of a last significant transformation coefficient having a non-zero value and included in a transformation block, and which determines a location of the last significant transformation coefficient by decoding the extracted information about the horizontal axis direction location and the vertical axis direction location~~splitting an image into a plurality of maximum coding units;

hierarchically splitting one of the maximum coding units into one or more coding units; determining a transformation unit hierarchically split from one of the at least one coding units;

extracting (1910) information about a horizontal axis direction location and a vertical axis direction location of a last significant transformation coefficient having a non-zero value and included in the transformation unit, from a received bitstream wherein the last significant transformation coefficient has last scan index according to a certain scan order among the transformation coefficients;

determining (1920) a location of the last significant transformation coefficient by decoding the information about the horizontal axis direction location and the vertical axis direction location;

decoding the last significant transformation coefficient based on the location of the last significant transformation coefficient;

decoding a significant coefficient flag, included in the received bitstream, representing a location of a second significant transformation coefficient; and

decoding the second significant transformation coefficient by using the significant coefficient flag;

wherein the information includes an x value corresponding to the horizontal axis direction location and a y value corresponding to the vertical axis direction location.