Claims

1. A video decoding apparatus comprising:

an obtaining unit configured for obtaining, from a bitstream, information about a maximum size of a coding unit and first information indicating whether a dependent slice segment is permitted to be included in a picture; and

a decoder configured for determining at least one maximum coding unit included in a first slice segment, based on a maximum coding unit size which is determined by using the information about the maximum size;

wherein the obtaining unit further configured for obtaining, from the bitstream, second information indicating whether a current maximum coding unit is at an end of the first slice segment or not;

wherein the decoder further configured for storing a context variable of the first slice segment if the first information indicates that a dependent slice segment is permitted to be included in the picture and the second information indicates that a current maximum coding unit is at an end of the first slice segment; and

wherein the decoder further configured for decoding a dependent slice segment which is located next to the first slice segment in the picture by using the stored context variable.

2. The video decoding apparatus of claim 1, wherein the decoder configured for storing context variables of the current maximum coding unit if a dependent slice segment is permitted to be included in the picture .

3. The video decoding apparatus of claim 1, the decoder configured for storing a context variable of the current maximum coding unit finally decoded in the first slice segment if the second information indicates that the current maximum coding unit is at the end of the first slice segment.

4. The video decoding apparatus of claim 1, the decoder further configured for determining whether a dependent slice segment of the picture can be included or not based on the first information obtained from a picture parameter set of the bitstream, determining whether the current maximum coding unit is a final maximum coding unit or not based on the second information obtained from data of the current maximum coding unit among data of each of slice segments of the bitstream, and obtaining a bin string from the data of the current maximum coding unit.

5. The video decoding apparatus of claim 1, the decoder further configured for determining a number of entry points of subsets, which are included in the slice segment, based on third information obtained from a slice segment header of the bitstream and determining positions of entry points by using an offset which is 1 larger than a number which fourth information indicates,

wherein the number and the positions of the entry points are determined if a tile can be included in a slice segment of the picture or synchronization can be performed for context variables of the current maximum coding unit included in the picture.

Claims

1. A video decoding apparatus comprising:

an obtaining unit configured for obtaining, from a bitstream, information about a maximum size of a coding unit and first information indicating whether a dependent slice segment is permitted to be included in a picture; and

a decoder configured for determining at least one maximum coding unit included in a first slice segment, based on a maximum coding unit size which is determined by using the information about the maximum size,

wherein the obtaining unit further configured for obtaining, from the bitstream, second information indicating whether a current maximum coding unit is at an end of the first slice segment or not,

wherein the decoder further configured for determining a number of entry points of subsets, which are included in the slice segment, based on third information obtained from a slice segment header of the bitstream, and for determining positions of entry points by using an offset which is 1 larger than a number which fourth information indicates,

wherein the decoder further configured for storing a context variable of the first slice segment if the first information indicates that a dependent slice segment is permitted to be included in the picture and the second information indicates that a current maximum coding unit is at an end of the first slice segment,

wherein the decoder further configured for decoding a dependent slice segment which is located next to the first slice segment in the picture by using the stored context variable, and

wherein the number and the positions of the entry points are determined if a tile can be included in a slice segment of the picture or synchronization can be performed for context variables of the current maximum coding unit included in the picture.

2. The video decoding apparatus of claim 1, wherein the decoder configured for storing context variables of the current maximum coding unit if a dependent slice segment is permitted to be included in the picture .

3. The video decoding apparatus of claim 1, the decoder configured for storing a context variable of the current maximum coding unit finally decoded in the first slice segment if the second information indicates that the current maximum coding unit is at the end of the first slice segment.

4. The video decoding apparatus of claim 1, the decoder further configured for determining whether a dependent slice segment of the picture can be included or not based on the first information obtained from a picture parameter set of the bitstream, determining whether the current maximum coding unit is a final maximum coding unit or not based on the second information obtained from data of the current maximum coding unit among data of each of slice segments of the bitstream, and obtaining a bin string from the data of the current maximum coding unit.