What is claimed is:

1. An apparatus of decoding video, the apparatus comprising:

a processor; and

memory storing executable instructions that, when executed by the processor, causes the processor to perform:

obtaining a bin string corresponding to current transformation coefficient level information by arithmetic decoding a bitstream;

determining a current binarization parameter, for determining a prefix bin string from the bin string, to be one of (i) a previous binarization parameter and (ii) an updated value of the previous binarization parameter obtained by adding n to the previous binarization parameter, where n is integer, and n is equal to or greater than 1, based on a comparison between a predetermined value that is proportional to the previous binarization parameter and a value of a previous transformation coefficient;

obtaining the current transformation coefficient level information indicating a size of transformation coefficient by de-binarizing binary values of the prefix bin string using the determined current binarization parameter and determining a value of the current transformation coefficient using the current transformation coefficient level information; and

decoding data included in a transformation unit using inverse quantization, and reverse transformation based on the value of the current transformation coefficient,

wherein, when the value of the previous transformation coefficient is equal to or smaller than the predetermined value, the current binarization parameter is determined to be the previous binarization parameter,

when the value of the previous transformation coefficient is larger than the predetermined value, the current binarization parameter is determined to be the updated value, and

wherein the current binarization parameter has a value equal to or smaller than a predetermined threshold value.