**Changes to Working Draft for CABAC HTB**

Syntax element high\_throughput\_binarizarion\_flag is added to the syntax description in “7.3.3 Slice Header Syntax” as follows:

|  |  |
| --- | --- |
| **…** | **…** |
| **collocated\_from\_l0\_flag** | u(1) |
| if( adaptive\_loop\_filter\_enabled\_flag && aps\_adaptive\_loop\_filter\_flag ) { |  |
| byte\_align( ) |  |
| alf\_cu\_control\_param( ) |  |
| byte\_align( ) |  |
| } |  |
| if( ( weighted\_pred\_flag && slice\_type = = P) | |  ( weighted\_bipred\_idc = = 1 && slice\_type = = B ) ) |  |
| pred\_weight\_table( ) |  |
| } |  |
| if( first\_slice\_in\_pic\_flag == 0 ) |  |
| **high\_throughput\_binarization\_flag** | u(1) |
| if( slice\_type = = P | | slice\_type = = B ) |  |
| 5\_minus\_max\_num\_merge\_cand | ue(v) |
| for( i = 0; i <num\_substreams\_minus1 + 1; i++ ){ |  |
| **substream\_length\_mode** | u(2) |
| **substream\_length[i]** | u(v) |
| } |  |
| } |  |

Semantics of syntax element high\_throughput\_binarization\_flag is added to the semantics description in “7.4.3 Slice Header Semantics” as follows:

**…**

**collocated\_from\_l0\_flag** equal to 1 specifies the picture that contains the co-located partition shall be derived from list 0, otherwise the picture shall be derived from list 1.

**high\_throughput\_binarization\_flag** equal to 1 specifies that syntax elements significant\_coeff\_group\_flag, significant\_coeff\_flag, coeff\_abs\_level\_greater1\_flag and coeff\_abs\_level\_greater2\_flag are decoded with bypass decoding process. high\_throughout\_binarization\_flag equal to 0 specifies that the bins are decoded with normal context adaptive arithmetic decoding.

**5\_minus\_max\_num\_merge\_cand** specifies the maximum number of merging MVP candidates supported in the slice subtracted from 5. The maximum number of merging MVP candidates, MaxNumMergeCand is computed as

MaxNumMergeCand = 5 − 5\_minus\_max\_num\_merge\_cand (7‑9)

The value of 5\_minus\_max\_num\_merge\_cand shall be limited such that MaxNumMergeCand is in the range of 0 to 5, inclusive.

**…**

Binarization description is amended as follows:

**…**

The use of the DecodeBypass process and the variable bypassFlag is derived as follows.

– If no value is assigned to ctxIdxOffset for the corresponding binarization or binarization part in Table 9‑46 labelled as "na", all bins of the bit strings of the corresponding binarization or of the binarization prefix/suffix part are decoded by invoking the DecodeBypass process as specified in subclause 9.3.3.2.3. In such a case, bypassFlag is set equal to 1, where bypassFlag is used to indicate that for parsing the value of the bin from the bitstream the DecodeBypass process is applied.

– Otherwise, for each possible value of binIdx up to the specified value of maxBinIdxCtx given in Table 9‑46, a specific value of the variable ctxIdx is further specified in subclause 9.3.3. bypassFlag is set equal to 0.

* If high\_throughput\_binarization\_flag is equal to 1, binarization of syntax elements significant\_coeff\_group\_flag, significant\_coeff\_flag, coeff\_abs\_level\_greater1\_flag and coeff\_abs\_level\_greater2\_flag are decoded by invoking the DecodeBypass process. If high\_throughput\_binarization\_flag is equal to 0, binarization of the syntax elements is decoded as specified in Table 9‑46.

The possible values of the context index ctxIdx vary depending on the value of ctxIdxTable. The value assigned to ctxIdxOffset specifies the lower value of the range of ctxIdx assigned to the corresponding binarization or binarization part of a syntax element.

**…**