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| *Title:* | **Simplification of 3D Merge list construction** | | |
| *Status:* | Input document | | |
| *Purpose:* | Proposal | | |
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# Proposed Text (Option4)

I.8.5.3.2.1 Derivation process for luma motion vectors for merge mode

…

~~2. For N being replaced by A~~~~1~~~~, B~~~~1~~~~, B~~~~0~~~~, A~~~~0~~ ~~and B~~~~2~~~~, the following applies:~~

* + - ~~If N is an element in baseMergeCandList, availableFlagN is set equal to 1.~~
    - ~~Otherwise (N is not an element in baseMergeCandList), availableFlagN is set equal to 0.~~

…

6. The merging candidate list, extMergeCandList, is constructed as follows:

i = 0  
 if( availableFlagT )  
 extMergeCandList[ i++ ] = T  
 if( availableFlagD )  
 extMergeCandList[ i++ ] = D  
 if( availableFlagIvMC ~~&& ( !availableFlagT  | |  differentMotion( T, IvMC ) )~~ )  
 extMergeCandList[ i++ ] = IvMC  
 N = DepthFlag ? T : IvMC  
 ~~if( availableFlagA~~~~1~~ ~~&& ( !availableFlagN  | |  differentMotion( N, A~~~~1~~~~) ) )~~  
 extMergeCandList[ i++ ] = baseMergeCandList[0] ~~A~~~~1~~~~if( availableFlagB~~~~1~~ ~~&& ( !availableFlagN  | |  differentMotion( N, B~~~~1~~~~) ) )~~  
 extMergeCandList[ i++ ] = baseMergeCandList[1] ~~B~~~~1~~ ~~if( availableFlagB~~~~0~~ ~~)  
 extMergeCandList[ i++ ] = B~~~~0~~ (‑103) if( availableFlagIvDC ~~&& ( !availableFlagA~~~~1~~~~| |  differentMotion( A~~~~1~~~~, IvDC ) ) &&   
 ( !availableFlagB~~~~1~~~~| |  differentMotion( B~~~~1~~~~, IvDC ) )~~ && ( i < ( 5 + NumExtraMergeCand ) ) )  
 extMergeCandList[ i++ ] = IvDC  
 ~~if( availableFlagVSP && !ic\_flag && iv\_res\_pred\_weight\_idx = = 0 &&   
 i < ( 5 + NumExtraMergeCand ) )  
 extMergeCandList[ i++ ] = VSP~~  
 ~~if( availableFlagA~~~~0~~ ~~&& i < ( 5 + NumExtraMergeCand ) )  
 extMergeCandList[ i++ ] = A~~~~0~~ ~~if( availableFlagB~~~~2~~ ~~&& i < ( 5 + NumExtraMergeCand ) )  
 extMergeCandList[ i++ ] = B~~~~2~~ if( availableFlagIvMCShift && i < ( 5 + NumExtraMergeCand ) ~~&&  
 ( !availableFlagIvMC  | |  differentMotion( IvMC, IvMCShift ) )~~ )  
 extMergeCandList[ i++ ] = IvMCShift

…

8. The merging candidate list, extMergeCandList, is constructed as follows:

if( availableFlagIvDCShift )  
 extMergeCandList[ i++ ] = IvDCShift  
 j = 0  
 while( i < MaxNumMergeCand ) {(I‑104)  
 ~~N = baseMergeCandList[ j++ ]  
 if( N != A~~~~1~~ ~~&& N != B~~~~1~~ ~~&& N != B~~~~0~~ ~~&& N != A~~~~0~~ ~~&& N != B~~~~2~~ ~~)~~  
 extMergeCandList[ i++ ] = baseMergeCandList[2+(j++)] ~~N~~  
 }

if( availableFlagVSP && !ic\_flag && iv\_res\_pred\_weight\_idx = = 0){

j = 5 + NumExtraMergeCand - 1

while ( j > 4 ){

extMergeCandList[j] = extMergeCandList[j-1]

j--

}

extMergeCandList[3] = VSP

}

…

1. ~~The derivation process for a view synthesis prediction flag as specified in subclause  is invoked with the luma location ( xCb, yCb ), the luma location ( xPb, yPb ), the variables nPbW and nPbH, the merge candidate indicator N as the inputs, and the output is the mergeCandIsVspFlag.~~
2. The variable vspModeFlag is derived as specified in the following:

vspModeFlag = ~~mergeCandIsVspFlag~~ (merge\_idx[xPb][yPb] = = 3) && !ic\_flag &&   
 ( iv\_res\_pred\_weight\_idx = = 0 ) && availableFlagVSP

…

~~I.8.5.3.2.17 Derivation process for a view synthesis prediction flag~~

~~Inputs to this process are:~~

* ~~a luma location ( xCb, yCb ) of the top-left sample of the current luma coding block relative to the top-left luma sample of the current picture,~~
* ~~a luma location ( xPb, yPb ) of the top-left sample of the current luma prediction block relative to the top-left luma sample of the current picture,~~
* ~~two variables nPbW and nPbH specifying the width and the height of the current prediction block,~~
* ~~a merge candidate indicator N, specifying the merge candidate.~~

~~Outputs of this process are:~~

* ~~a variable mergeCandIsVspFlag specifying, whether the merge candidate is a view synthesis prediction merge candidate.~~

1. ~~The variable mergeCandIsVspFlag is derived as specified in the following:~~

* ~~If N is equal to VSP, mergeCandIsVspFlag is set equal to 1,~~
* ~~Otherwise, if N is equal to A~~~~1~~~~, B~~~~1~~~~,~~~~B~~~~0~~~~,~~~~A~~~~0~~~~,~~~~or B~~~~2~~~~,~~~~the following applies:~~ 
  + ~~The luma position ( xN, yN ) is specified in depending on N.~~
  + ~~If one of the following conditions is true, the variable mergeCandIsVspFlag is set equal to VspModeFlag[ xN ][ yN ].~~
    - ~~N is equal to A~~~~1~~ ~~or A~~~~0~~
    - ~~N is equal to B~~~~0~~~~,~~~~B~~~~1~~~~,~~~~or B~~~~2~~ ~~and ( yN  >>  Log2CtbSizeY ) is equal to ( yCb >> Log2CtbSizeY )~~
  + ~~Otherwise, ,mergeCandIsVspFlag is set equal to 0.~~
* ~~Otherwise, mergeCandIsVspFlag is set equal to 0.~~

~~Table ‑10 – Specification of xN and yN depending on N~~

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **~~N~~** | ~~A~~~~1~~ | ~~B~~~~1~~ | ~~B~~~~0~~ | ~~A~~~~0~~ | ~~B~~~~2~~ |
| **~~xN~~** | ~~xPb − 1~~ | ~~xPb + nPbW − 1~~ | ~~xPb + nPbW~~ | ~~xPb − 1~~ | ~~xPb − 1~~ |
| **~~yN~~** | ~~yPb + nPbH − 1~~ | ~~yPb − 1~~ | ~~yPb − 1~~ | ~~yPb + nPbH~~ | ~~yPb − 1~~ |

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