# Draft Text Specification

The proposed text changes are based on the document JCTVC-M1005-v2.doc. The changes are marked in yellow.

**7.3.8.11 Residual coding syntax**

|  |  |
| --- | --- |
| residual\_coding( x0, y0, log2TrafoSize, cIdx ) { | Descriptor |
| … |  |
| for( n = 15; n >= 0; n− − ) { |  |
| xC = ( xS << 2 ) + ScanOrder[ 2 ][ scanIdx ][ n ][ 0 ] |  |
| yC = ( yS << 2 ) + ScanOrder[ 2 ][ scanIdx ][ n ][ 1 ] |  |
| if( sig\_coeff\_flag[ xC ][ yC ] ) { |  |
| if( numGreater1Flag < 8 ) { |  |
| **coeff\_abs\_level\_greater1\_flag**[ n ] | ae(v) |
| numGreater1Flag++ |  |
| if( coeff\_abs\_level\_greater1\_flag[ n ] && lastGreater1ScanPos = = −1 ) |  |
| lastGreater1ScanPos = n |  |
| } |  |
| if( lastSigScanPos = = −1 ) |  |
| lastSigScanPos = n |  |
| firstSigScanPos = n |  |
| } |  |
| } |  |
| signHidden = ( lastSigScanPos − firstSigScanPos > 3 && !cu\_transquant\_bypass\_flag ) |  |
| if ( transform\_skip\_flag[ x0 ] [ y0 ] [ cIdx ] && ( CuPredMode[ x0 ][ y0 ] == MODE\_INTRA ) && ( predModeIntra == 26 ) || ( predModeIntra == 10 ) ) ) |  |
| signHidden = 0 |  |
| if( lastGreater1ScanPos != −1 ) |  |
| **coeff\_abs\_level\_greater2\_flag**[ lastGreater1ScanPos ] | ae(v) |
| for( n = 15; n >= 0; n− − ) { |  |
| xC = ( xS << 2 ) + ScanOrder[ 2 ][ scanIdx ][ n ][ 0 ] |  |
| yC = ( yS << 2 ) + ScanOrder[ 2 ][ scanIdx ][ n ][ 1 ] |  |
| if( sig\_coeff\_flag[ xC ][ yC ] &&   ( !sign\_data\_hiding\_enabled\_flag | | !signHidden | | ( n != firstSigScanPos ) ) ) |  |
| **coeff\_sign\_flag**[ n ] | ae(v) |
| } |  |
| … |  |

**8.4.4** **Decoding process for intra blocks**

**8.4.4.1** **General decoding process for intra blocks**

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– Otherwise (splitFlag is equal to 0), for the variable blkIdx proceeding over the values 0..( cIdx > 0  &&  ChromaArrayType  = =  2 ? 1 : 0 ), the following ordered steps apply:

1. The variable nTbS is set equal to 1  <<  log2TrafoSize.
2. The variable yTbOffset is set equal to blkIdx \* nTbS.
3. The general intra sample prediction process as specified in subclause 8.4.4.2.1 is invoked with the transform block location ( xTb0, yTb0 + yTbOffset ), the intra prediction mode predModeIntra, the transform block size nTbS, and the variable cIdx as inputs, and the output is an (nTbS)x(nTbS) array predSamples.
4. The scaling and transformation process as specified in subclause 8.6.2 is invoked with the luma location ( xTbY, yTbY + yTbOffset \* SubHeightC ), the variable trafoDepth, the variable cIdx, and the transform size trafoSize set equal to nTbS as inputs, and the output is an (nTbS)x(nTbS) array resSamples.
5. When either cu\_transquant\_bypass\_flag is equal to 1 or transform\_skip\_flag[ xTb0 ] [ yTb0 + yTbOffset ] [ cIdx ] is equal to 1 and either predModeIntra is equal to 10, or predModeIntra is equal to 26, the directional residual modification process for intra blocks as specified in subclause 8.4.4.3 is invoked with the intra prediction mode predModeIntra, the variable nTbS, and the (nTbS)x(nTbS) array r set equal to the array resSamples as inputs, and the output is a modified (nTbS)x(nTbS) array resSamples.

The picture reconstruction process prior to in-loop filtering for a colour component as specified in subclause 8.6.5 is invoked with the transform block location ( xTb0, yTb0 + yTbOffset ), the variables nCurrSw and nCurrSh both set equal to nTbS, the variable cIdx, the (nTbS)x(nTbS) array predSamples, and the (nTbS)x(nTbS) array resSamples as inputs.

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