**Working Draft changes**

**7.3.2.2.3 Sequence parameter set scc extensions syntax**

|  |  |
| --- | --- |
| sps\_scc\_extensions( ) { | **Descriptor** |
| **intra\_block\_copy\_enabled\_flag** | u(1) |
| **palette\_mode\_enabled\_flag** | u(1) |
| **residual\_adaptive\_colour\_transform\_enabled\_flag** | u(1) |
| **transform\_skip\_group\_signalling\_enabled\_flag** | u(1) |
| } |  |

**7.3.8.5 Coding unit syntax**

|  |  |
| --- | --- |
| coding\_unit( x0, y0, log2CbSize ) { | **Descriptor** |
| if( transquant\_bypass\_enabled\_flag ) |  |
| **cu\_transquant\_bypass\_flag** | ae(v) |
| if( slice\_type != I ) |  |
| **cu\_skip\_flag**[ x0 ][ y0 ] | ae(v) |
| ..... |  |
| if( !pcm\_flag[ x0 ][ y0 ] ) { |  |
| if( ( CuPredMode[ x0 ][ y0 ] != MODE\_INTRA &&   !( PartMode = = PART\_2Nx2N && merge\_flag[ x0 ][ y0 ] ) ) | |   ( CuPredMode[ x0 ][ y0 ] = = MODE\_INTRA && intra\_bc\_flag[ x0 ][ y0 ] ) ) |  |
| **rqt\_root\_cbf** | ae(v) |
| if( rqt\_root\_cbf ) { |  |
| if( residual\_adaptive\_colour\_transform\_enabled\_flag &&   ( CuPredMode[ x0 ][ y0 ] = = MODE\_INTER | |   intra\_bc\_flag[ x0 ][ y0 ] | |   intra\_chroma\_pred\_mode[ x0 ][ y0 ] = = 4 ) ) |  |
| **cu\_residual\_act\_flag** |  |
| MaxTrafoDepth = ( CuPredMode[ x0 ][ y0 ] = = MODE\_INTRA ?   ( max\_transform\_hierarchy\_depth\_intra + IntraSplitFlag ) :   max\_transform\_hierarchy\_depth\_inter ) |  |
| if( transform\_skip\_group\_signalling\_enabled\_flag &&  transform\_skip\_enabled\_flag && !cu\_transquant\_bypass\_flag &&   intra\_bc\_flag[ x0 ][ y0 ] ){ |  |
| if ( ( log2CbSize − MaxTrafoDepth − (ChromaArrayType % 3 = = 0 ? 0 : 1 ) )  <= Log2MaxTransformSkipSize ) |  |
| **transform\_skip\_all\_ones\_in\_cu\_flag** | ae(v) |
| } |  |
| transform\_tree( x0, y0, x0, y0, log2CbSize, 0, 0 ) |  |
| } |  |
| ... |  |

**7.3.8.9 Transform tree syntax**

|  |  |
| --- | --- |
| transform\_tree( x0, y0, xBase, yBase, log2TrafoSize, trafoDepth, blkIdx ) { | **Descriptor** |
| if( log2TrafoSize <= MaxTbLog2SizeY &&  log2TrafoSize > MinTbLog2SizeY &&  trafoDepth < MaxTrafoDepth   && !( IntraSplitFlag && ( trafoDepth = = 0 ) ) ){ |  |
| if ( transform\_skip\_all\_ones\_in\_cu\_flag = = 1 && trafoDepth = = 0 ) |  |
| split\_transform\_flag[ x0 ][ y0 ][ trafoDepth ] = 1 |  |
| else |  |
| **split\_transform\_flag**[ x0 ][ y0 ][ trafoDepth ] | ae(v) |
| } |  |
| ...... |  |
| } |  |

**7.3.8.13 Residual coding syntax**

|  |  |
| --- | --- |
| residual\_coding( x0, y0, log2TrafoSize, cIdx ) { | **Descriptor** |
| if( transform\_skip\_enabled\_flag && !cu\_transquant\_bypass\_flag &&   ( log2TrafoSize <= Log2MaxTransformSkipSize ) ) { |  |
| if ( transform\_skip\_all\_ones\_in\_cu\_flag = = 1 && intra\_bc\_flag[ x0 ][ y0 ] ) { |  |
| if ( log2TrafoSize = = Max( MinTbLog2SizeY, log2CbSize − MaxTrafoDepth − (ChromaArrayType = = 3 ? 0 : (cIdx ? 1 : 0) ) ) ) |  |
| transform\_skip\_flag[ x0 ][ y0 ][ cIdx ] = 1 |  |
| else |  |
| **transform\_skip\_flag**[ x0 ][ y0 ][ cIdx ] | ae(v) |
| } |  |
| else |  |
| **transform\_skip\_flag**[ x0 ][ y0 ][ cIdx ] | ae(v) |
| } |  |
| if( ( CuPredMode[ x0 ][ y0 ] = = MODE\_INTER | | intra\_bc\_flag[ x0 ][ y0 ] ) &&   explicit\_rdpcm\_enabled\_flag && ( transform\_skip\_flag[ x0 ][ y0 ][ cIdx ] | |   cu\_transquant\_bypass\_flag ) ) { |  |
| **explicit\_rdpcm\_flag**[ x0 ][ y0 ][ cIdx ] | ae(v) |
| if( explicit\_rdpcm\_flag[ x0 ][ y0 ][ cIdx ] ) |  |
| **explicit\_rdpcm\_dir\_flag**[ x0 ][ y0 ][ cIdx ] | ae(v) |
| } |  |
| .... |  |
| } |  |

**7.4.3.2.3 Sequence parameter set scc extension semantics**

**transform\_skip\_group\_signalling\_enabled\_flag** equal to 1 specifies that the group signalling for transform\_skip\_flag may be invoked in the decoding process for intra block copy CU. transform\_skip\_signalling\_enabled\_flag equal to 0 specifies the group signalling is not applied. When not present, the value of transform\_skip\_signalling\_enabled\_flag is inferred to be equal to 0.

## Semantics

**transform\_skip\_all\_ones\_in\_cu\_flag** equal to 1 specifies that parsing process of transform\_skip\_flag and split\_transform\_flag[ x0 ][ y0 ][ 0 ] may not be invoked in decoding process in the corresponding decoding process. transform\_skip\_all\_ones\_in\_cu\_flag equal to 0 specifies that parsing process of transform\_skip\_flag and split\_transform\_flag[ x0 ][ y0 ][ 0 ] are invoked in the corresponding decoding process. When current CU is not intra block copying coded, the value of transform\_skip\_all\_ones\_in\_cu\_flag equal to 0. When not present, the value of transform\_skip\_all\_ones\_in\_cu\_flag is inferred to be equal to 0.

Encoder shall set the *transform\_skip\_all\_ones\_in\_cu\_flag* equal to 0 when current CU has no TU at the maximum allowed depth of quad-tree split.