#### Coding unit syntax

|  |  |
| --- | --- |
| **…** |  |
| **rem\_intra\_luma\_pred\_mode**[ x0 + i ][ y0 + j ] | ae(v) |
| for( j = 0; j < nCbS; j = j + pbOffset ) |  |
| for( i = 0; i < nCbS; i = i + pbOffset ) |  |
| **intra\_luma\_pred\_interpolation\_mode**[ x0 + i ][ y0 + j ] | ae(v) |

…

### 8.4.3.A Derivation process for luma intra prediction interpolation mode

Input: a luma location ( xCb, yCb ) specifying the top-left sample of the current luma coding block relative to the top‑left luma sample of the current picture.

Output of this process is the variable IntraPredModeInterpolationY.

The variable interpolationIdx is derived using intra\_luma\_pred\_interpolation\_mode[ xCb ][ yCb ] and IntraPredModeY[ xCb ][ yCb ] as specified in Table I.

Table I – Specification of interpolationIdx

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **intra\_luma\_pred\_interpolation\_mode**[ xCb ][ yCb ] | **IntraPredModeY[ xCb ][ yCb ]** | | | | | | | |
| **0** | **26** | **10** | **1** | **2** | **18** | **34** | **X ( 0  <=  X  <=  34 )** |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |

### 8.4.3.B Derivation process for chroma intra prediction interpolation mode

This process is only invoked when ChromaArrayType is not equal to 0.

Input to this process is a luma location ( xCb, yCb ) specifying the top-left sample of the current luma coding block relative to the top‑left luma sample of the current picture.

Output of this process is the variable IntraPredInterpolationModeC.

The chroma intra prediction mode IntraPredInterpolationModeC is derived as follows:

– If ChromaArrayType is equal to 2,

If intra\_chroma\_pred\_mode[ xCb ][ yCb ] is equal to 4

IntraPredInterpolationModeC[ xCb ][ yCb ] is set equal to IntraPredInterpolationModeY[ xCb ][ yCb ].

Otherwise

IntraPredInterpolationModeC[ xCb ][ yCb ] is set to 0.

– Otherwise, IntraPredInterpolationModeC[ xCb ][ yCb ] is set to 0.

* + - * 1. **Specification of intra prediction mode in the range of INTRA\_ANGULAR2.. INTRA\_ANGULAR34**

**…**

b. Depending on the value of iFact, the following applies:

* If iFact is not equal to 0, the value of the prediction samples predSamples[ x ][ y ] is derived as follows:

If (IntraPredModeInterpolationY ==1)

* + if (iFact<16)
  + predSamples[ x ][ y ] = ref[ y + iIdx + 1 ]
  + Otherwise
  + predSamples[ x ][ y ] = ref[ y + iIdx + 2 ]
  + Otherwise

predSamples[ x ][ y ]   
 ( ( 32 − iFact ) \* ref[ y + iIdx + 1 ] + iFact \* ref[ y + iIdx + 2 ] + 16 )  >>  5

Table 9‑34 – Values of initValue for ctxIdx of intra\_luma\_pred\_interpolation\_mode

|  |  |  |  |
| --- | --- | --- | --- |
| **Initialization variable** | **ctxIdx of prev\_intra\_luma\_pred\_mode** | | |
| **0** | **1** | **2** |