

From: mike.nilsson@bt.com
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To: jvt-experts@mail.imtc.org
Subject: [jvt-experts] Intra prediction process for chroma blocks

The Intra prediction process for chroma blocks seems to be different in the reference software (JM5.0) to the draft standard (JVT-E146d33), and both seem different to JVT-C118 which was (eventually) adopted in Klagenfurt.

JVT-C118 does not define the process for DC prediction, and states "For the horizontal and vertical filters, the prediction is filtered using a {1,2,1}/4 filter". There is no mention of such a filter in the draft standard, and it is not in the reference software. Was this part of the proposal not agreed? and what was agreed for DC prediction?

The major difference between the reference software and the draft standard is in the definition of DC prediction, which is defined exactly as for intra16x16 luma in the draft standard, but is implemented in the reference code as the original intra chroma prediction, that is 4x4 block-wise DC prediction using the average(s) of 4 edge pixels.

Can anyone confirm which is as intended - the document or the software?

In addition, the software has problems for the plane mode

```
ib=17*(ih+16)/32;  
ic=17*(iv+16)/32;
```

should be

```
ib=(17*ih+16) >> 5;  
ic=(17*iv+16) >> 5;
```

assuming JVT-C118 and the draft standard are correct.

Best regards

Mike

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