

From: Karsten Suehring <suehring@hhi.de>
Sent: Friday, August 16, 2002 12:17 PM
To: Paul Bright-Thomas
Cc: Jvt-Experts
Subject: Re: [jvt-experts] Sample Q in 4x4 intra

Dear Paul,

you are right. We also encountered this problem, but forgot to start a discussion on the reflector (We were quite busy at this point).

I believe there are inconsistencies in both software and FCD text.

The modes 3,7 and 8 don't need Q for the calculations of the predicted values. But the text forbids the use of these modes if Q is not available.

The software doesn't check the availability of Q in all cases which may lead to a prediction from a pixel in a different slice. This has to be fixed.

But if Q is the only missing pixel we may probably achieve a small coding gain (really small, because it won't affect many blocks) for slice coding if we allow the intra prediction modes and make a good assumption for Q, e.g. by averaging it from A and I.

Best regards,
Karsten

Paul Bright-Thomas wrote:

>

> Section 8.5.1 of D157 does not mention how sample Q is predicted if it
> is not available. From the description of the modes I believe that Q
> is never required if unavailable, i.e. the modes that use Q would not
> be supported without Q available. Is this true?

>

> jm40c also appears to evaluate the availability of sample Q
> incorrectly, assuming that if the blocks immediately above and to the
> left are available, then the block up *and* to the left (where Q is
> sample p) is also going to be available.

>

> This is not true if the block in which Q resides is block 15 of a
> macroblock in a different slice.

>

> Regards, Paul.

>

> Paul Bright-Thomas tel: +44 (0)118 949 7593
> Development Engineer fax: +44 (0)118 949 7228
> www.siroyan.com email: pbright-thomas@siroyan.com

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