

From: Gary Sullivan <garysull@microsoft.com>
Sent: Thursday, September 12, 2002 11:02 PM
To: Byeungwoo Jeon; jvt-experts@mail.imtc.org
Subject: [jvt-experts] RE: AHG Kick-off [jvt-asic]: Alternate scan, Verification, and Interlaced chroma

I have updated the ad hoc section of the meeting report to add mention of this, although it is rather late to be creating new spin-off reflectors.

To all AHG chairs: Please check section 10.1 of JVT-D001d1.doc in the Klagenfurt directory for accuracy about discussion methods for ad-hoc groups.

Best Regards,

-Gary S.

+> -----Original Message-----

+> From: Byeungwoo Jeon [mailto:bjeon@yurim.skku.ac.kr]

+> Sent: Wednesday, September 11, 2002 6:44 AM

+> To: jvt-experts@mail.imtc.org

+> Subject: [jvt-experts] AHG Kick-off [jvt-asic]: Alternate scan,

+> Verification, and Interlaced chroma

+>

+>

+> Dear Experts,

+>

+> We are announcing kick-off of the AHG on "alternate scan,

+> verification, and interlaced chroma". This AHG is co-chaired by Eric,

+> Limin, and myself (Byeungwoo Jeon). We have three separate technical

+> investigations which were lumped together into this AHG (Mandates are

+> at the bottom).

+>

+> For those who want to subscribe can do it by registering the email

+> address at the site

+> <http://media.skku.ac.kr/mailman/listinfo/jvt-asic>.

+>

+> If you have any problem in registration, please send a message to

+> bjeon@yurim.skku.ac.kr. We will be expecting the experts' valuable

+> comments and efforts.

+>

+> Regards,

+>

+> Byeungwoo Jeon

+>

+> (PS)Followings are mandates of this AHG:

+> -----

+> With Respect to Alternate Scan:

+> * Goal: This group will answer the following questions at the next
 +> JVT
 +> meeting:
 +> - Should the 4x4 alternate scanner (JVT-D073) be used in Baseline
 +> Profile?
 +> - If yes, should the 4x4 alternate scanner be used only for
 +> interlace materials?
 +> - If yes, should the 4x4 alternate scanner be used only in field
 +> coding?
 +> - If also used in frame coding, how much gain will be?
 +> - Assume there are two default scanners (zigzag & alternate),
 +> require syntax change for signaling one of two default scanners?
 +> - Is there any need for other scanners, other than default ones?
 +>
 +> * Action Items:
 +> - Select the proper test video materials
 +> - Define the common test conditions
 +> - Cross-verify the performance with the alternate 4x4 scanner for
 +> the selected sequences under the common test conditions (by at least
 +> two
 +> companies)
 +> - Make recommendations at the next meeting
 +> - Zigzag scanner for frame coding and alternate scanner for field
 +> coding?
 +> - Add one bit to signal which default scanner is used?
 +> - Other scanners? Download in UserData?
 +> - Others
 +>
 +> With Respect to interlaced chroma:
 +> * Goal: to investigate the interlace-related issues of sample
 +> alignment for chroma and possibly for luma as raised by JVT-D079.
 +>
 +> * Background: A change to the chroma motion compensation filter for
 +> interlaced frames was proposed in JVT-D079. This is a modification
 +> of proposals present starting in Geneva in Januray 2002. Extensive
 +> experimental results in JVT-D079 indicate that a) coding efficiency
 +> is improved for interlaced sequences with a high degree of motion and
 +> chroma saturation, and b) coding efficiency is not hurt for other
 +> interlaced scenes. Seven interlaced sequences were tested under
 +> eight different conditions (all variations of CABAC/UVLC, IPP/IPB,
 +> #reffrms=1/5).
 +>
 +> * Questions and comments (ev):
 +> 1. The modified chroma filter needs to be applied ONLY to interlaced
 +> frames, i.e when pic_structure is 3 or 4. It makes no sense to apply
 +> the change to progressive content.
 +> 2. A comment was made in Klagenfurt - "Some issue about assumptions
 +> the generation of the chroma samples - whether this is a better
 +> estimator depends on assumptions of how the input samples to the
 +> encoder were generated." Is this a real issue?
 +> 3. I made a comment in Klagenfurt that a similar problem exists for
 +> luma, but at different values of the vertical offset, and that making

+> a corresponding modification to luma MC filtering would have a
+> potentially larger positive impact than the chroma change. It is
+> possible to test that assertion in the context of this activity.

+>

+> * To do:

+> 1. Verification of results by second party.

+> 2. Implementation of decoder side. Since this proposal

+> does not impact

+> the bitstream, this is not a make-or-break issue, but simply

+> needs to be

+> done for full implementation in software.

+> 3. Test the luma assertion.

+>

+> * Software for the encoder side implementation on top of JM2.0 is

+> available within JVT-D079r1.zip on the Klagenfurt

+> subdirectory of the JVT

+> ftp site.

+>

+>

+> ---

+> The use of the jvt-experts list is intended only for the

+> video coding standardization work conducted by the Joint

+> Video Team (JVT) of ISO/IEC JTC1/SC29/WG11 (MPEG) and ITU-T

+> SG16 Q.6 (VCEG).

+>

+> You are currently subscribed to jvt-experts as:

+> garysull@microsoft.com

+> To unsubscribe send a blank email to

+> %%email.unsub%%

+>

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You are currently subscribed to jvt-experts as: suehring@hhi.de

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