

VC-1 Compressed Video Bitstream Format and Decoding Process — Amendment 1



Page 1 of 5 pages

Table of Contents	Page
Foreword	2
1 Purpose	3
2 Amendments	3
2.1 SMPTE 421M Introduction	3
2.2 SMPTE 421M Section 4.14	3
2.3 SMPTE 421M Section 5.5.1	3
2.4 SMPTE 421M Sections 6.1.14.3.2 and 6.1.14.3.3	3
2.5 SMPTE 421M Section 7.1.1.40	3
2.6 SMPTE 421M Sections 8.1.3.9, 10.1.2.8 and 10.5.2.2	3
2.7 SMPTE 421M Section 8.6.4.1	4
2.8 SMPTE 421M Section 8.9.2	4
2.9 SMPTE 421M Figure 58	4
2.10 SMPTE 421M Figure 92	4
2.11 SMPTE 421M Figure 117	4
2.12 SMPTE 421M Figure 121	4
2.13 SMPTE 421M Section 10.7.1	5
2.14 SMPTE 421M Figure 159	5
2.15 SMPTE 421M Annex J.1.15	5

Foreword

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SMPTE Standard Amendment 1 to SMPTE 421M was prepared by Working Group C24-10 on VC-1, reporting to Technology Committee C24.

1 Purpose

This amendment corrects typographical errors and provides clarifying text to support correct interpretation of the standard.

2 Amendments

2.1 SMPTE 421M Introduction

Add the sentence

This section is entirely informative and does not form an integral part of this Engineering Document.

at the beginning of the Introduction.

2.2 SMPTE 421M Section 4.14

Replace

BDU: Coded Block Pattern

with

CBP: Coded Block Pattern

2.3 SMPTE 421M Section 5.5.1

After

For interlaced frames ... shall be a multiple of 2.

add the sentence

In this context, interlaced frames are frames in an advanced profile sequence which has the INTERLACE bit described in section 6.1.9 set to 1.

2.4 SMPTE 421M Sections 6.1.14.3.2 and 6.1.14.3.3

Replace both instances of “aspect size of the sample” with “aspect size, minus one, of the sample.”

2.5 SMPTE 421M Section 7.1.1.40

Replace “sequence-level syntax element” with “entry-point level syntax element.”

2.6 SMPTE 421M Sections 8.1.3.9, 10.1.2.8 and 10.5.2.2

In the last sentence of Sections 8.1.3.9, 10.1.2.8 and 10.5.2.2, replace \overline{AC}_p with AC_p .

2.7 SMPTE 421M Section 8.6.4.1

After

The criteria used to decide whether to filter the left boundary of block 3 (the lower-right luma block) shall be derived from the motion vector status of blocks 2 and 3 as intended but instead of using the coded-block status and subblock patterns (if present) for blocks 2 and 3 as intended, the coded-block status and subblock patterns of blocks 1 and 3 shall be used instead.

Add the sentence

If block 2 is inter-coded and block 1 is intra-coded, the coded-block status of block 2 shall be derived based on whether AC coefficients are present in block 1.

2.8 SMPTE 421M Section 8.9.2

Replace both instances of

of the pan scan window in luma samples

with

of the pan scan window, minus one, in luma samples

2.9 SMPTE 421M Figure 58

Replace "DC" with "DC and AC" in the caption.

2.10 SMPTE 421M Figure 92

Replace the label "PL 10 byte" with "PL 11 byte."

2.11 SMPTE 421M Figure 117

After the comment "// A, B and C are Inter" replace

fieldpred_y = median (predictorA_x, predictorB_y, predictorC_y)

with

fieldpred_y = median (predictorA_y, predictorB_y, predictorC_y)

In the last else condition after the comment "// Predictor C is out of bounds, use Predictor A and Predictor B"

replace

fieldpred_y = median (predictorA_x, predictorB_y, 0)

with

fieldpred_y = median (predictorA_y, predictorB_y, 0)

2.12 SMPTE 421M Figure 121

Replace both instances of

reference is from same field as current field

with

reference is from the field with the same polarity as current field

Replace both instances of

reference is from opposite field as current field

with

reference is from the field with polarity opposite to that of current field

2.13 SMPTE 421M Section 10.7.1

After

Therefore, the reconstruction ... to (0,0).

add the sentence

Note: If intensity compensation is performed on the reference frame or on either of the fields that are part of the reference frame, the post intensity compensated pixel values of the reference frame shall be used to reconstruct the skipped frame.

2.14 SMPTE 421M Figure 159

Replace the three occurrences of "<" with "≤." The corrected text should read:

- ≥ -2048 and ≤ 2047
- ≥ -4096 and ≤ 4095
- ≥ -512 and ≤ 511

2.15 SMPTE 421M Annex J.1.15

Replace "Section 7.4" with "Section 8.5."