

**Joint Video Experts Team (JVET)
of ITU-T SG 16 WP 3 and ISO/IEC JTC 1/SC
29/WG 11**

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Title: AhG 9: Cleanup of Constraint Flags

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Purpose: Proposal

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Abstract

The draft VVC specification provides several constraint flags to profiles where certain coding tools are activated/deactivated. It is asserted that several redundant constraint flags are signaled when either monochrome coding or intra-only profiles are used. This contribution proposes cleaning up the constraint flags such that redundant coding of constraint flags is removed.

Introduction

Several constraint flags are defined in VVC. The inter-related ones are:

Similarly, the chroma related ones are:

The problem is that when dealing with intra-only profile, 12 redundant flags are coded. For monochrome profile, 3 color-related flags are unnecessarily coded. This contribution proposes removing this redundancy by conditionally coding these flags depending on the current profile.

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LINKS

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JVET-R0173

<http://vexpertise.stbit.ru/documents/JVET-R0173>

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AHG 9: Cleanup of Constraint Flags

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ABSTRACT

MEETING NOTES



SOURCE

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Associated Resources

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ARCHIVE

archive v3

https://jvet-experts.org/doc_end_user/documents/18_Alpbach/wg11/JVET-R0173-v3.zip

Archive

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MEETING NOTES

external meeting notes

https://www.itu.int/wftp3/av-arch/jvet-site/2020_04_R_Alpbach/JVET-R_Notes_dH.docx

Joint Video Experts Team (JVET)
of ITU-T SG21 WP3/21 and ISO/IEC JTC 1/SC 29
18th Meeting: Teleconference, April 2020

Document: JVET-R0173

Title: Meeting Report of the 41st Meeting of the Joint Video Experts Team

Status: Report document from the chair of JVET

Purpose: Report

1 Summary



MEETING NOTES

[JVET-R0173](#) AHG9: Cleanup of Constraint Flags [K. Naser, F. Le Léannec, M. Kerdranvat, P. de Lagrange (InterDigital)]

The draft VVC specification provides several constraint flags to profiles where certain coding tools are activated/deactivated. It is asserted that several redundant constraint flags are signalled when either monochrome coding or intra-only profiles are used. This contribution proposes cleaning up the constraint flags such that redundant coding of constraint flags is removed.

Proposals 1 and 2 are alternative ways of introducing various conditioning of the constraints on monochrome and intra. The same sort of conditioning is proposed in JVET-R0286 aspect 1. Currently the general constraint flags are never conditioned on anything and they are placed at a fixed position, so they can be easily extracted and carried at a system level in a fixed-length code. to stay consistent with that design philosophy, no action was taken on this.

Proposal 3 changes the semantics of the `intra_only_constraint_flag` to apply to `ph_inter_slice_allowed_flag` rather than `slice_type`. It was commented that this would impose a tighter constraint than currently specified and said that the current expression is more desirable, so no action was taken on this.

CITATION

K. Naser, F. Le Léannec, M. Kerdranvat, P. de Lagrange, "AhG 9: Cleanup of Constraint Flags", JVET-R0173, 18th Meeting: Teleconference, April 2020.