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| *Title:* | **AHG6: Crosscheck on ALF baseline Option 2 BA with reduced number of filters (JCTVC-I0215)** | | |
| *Status:* | Input Document to JCT-VC | | |
| *Purpose:* | Information | | |
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# Abstract

This contribution provides cross-check results of Method 2: modifying mapping table to 10 or 7 classes, which is proposed in JCTVC-I0215 so as to reduce number of filters in ALF block-based filter adaptation with directional features. The verification task was done successfully, and the results exactly match those provided by the proponents.

# Verification

The proponents provided the HM source codes of their proposal described in JCTVC-I0215 [1]. Two verifications are carried by setting following macros in the provided code:

Test1 : modifying mapping table to 10 classes

#define ALF\_LONG\_TERM\_MAX\_NUM\_FILTERS 10

#define ALF\_16\_BA\_GROUPS 0 ///< H0409 16 BA groups

#define ALF\_BA\_RED 1 //!< Reduction of BA classes

#if ALF\_BA\_RED

#define ALF\_BA\_MAX 10 //!< Max number of BA under development

#endif

Test 2: modifying mapping table to 7 classes

#define ALF\_LONG\_TERM\_MAX\_NUM\_FILTERS 7

#define ALF\_16\_BA\_GROUPS 0 ///< H0409 16 BA groups

#define ALF\_BA\_RED 1 //!< Reduction of BA classes

#if ALF\_BA\_RED

#define ALF\_BA\_MAX 7 //!< Max number of BA under development

#endif

The anchor is the software of AHG6 ALF Option 2 BA\_Pre 0412 release, which uses following macros:

#define ALF\_APS\_USE\_16RA 0

#define ALF\_LONG\_TERM\_USE\_CURRENT\_FILTER 0

Four configurations (AI-HE10, RA-HE10, LB-HE10, and LP-HE10) were run for the modifications for normal QP setting ( QP=22, 27, 32, 37 ).

# Experimental Results

Table 1 and Table 2 show the summary of the experimental results. It is confirmed that the BD-rates from our experimental results exactly match those provided by the proponents.

**Table 1: Performance of method 2: modifying mapping table to 10 classes**



**Table 2: Performance of method 2: modifying mapping table to 7 classes**



# Conclusion

Regarding method 2: modifying mapping table to 10 or 7 classes in JCTVC-I0215, the cross-checker’s results perfectly match those of the proponents.

# Reference

1. Wang (PoLin) Lai, Felix C. A. Fernandes, “AHG6: ALF baseline Option 2 BA with reduced number of filters,” JCTVC-I0215, 9th Meeting: Geneva, CH, 27 April – 7 May 2012.