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| *Title:* | **Mental Cross-check of JCTVC-J0136 - Improvement of HRD for sub-picture based operation** | | |
| *Status:* | Input Document to JCT-VC | | |
| *Purpose:* | Information | | |
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| *Source:* | SHARP | | |

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# Abstract

This document provides a mental cross-check for JCTVC-J0136 - Improvement of HRD for sub-picture based operation [1].

# Cross-check

The proposal in JCTVC-J0136 is claimed to have been understood by the author of this document.

A summary of the author’s understanding of the proposal in JCTVC-J0136 is as follows:

This contribution proposes improvements in HRD for sub-picture based operation.

Following improvements are proposed:

* Modified definition of removal time when low\_delay\_hrd\_flag is equal to 1,
* A new SEI as a hint of early displaying of decoded pictures, and
* Modified definition of du\_cpb\_removal\_delay.

# References

1. K Kazui, J Koyama, S Shimada, A Nakagawa, “Improvement of HRD for sub-picture based operation,” 11- 20 July, 2012, JCTVC-J0136