|  |  |
| --- | --- |
| **Joint Collaborative Team on Video Coding (JCT-VC)**  **of ITU-T SG 16 WP 3 and ISO/IEC JTC 1/SC 29/WG 11**  10th Meeting: Stockholm, SE, 11 – 20 July 2012 | Document: JCTVC-J0511 |

|  |  |  |  |
| --- | --- | --- | --- |
| *Title:* | **Cross-check of high throughput binarization for reference index coding (JCTVC-J0297)** | | |
| *Status:* | Input Document | | |
| *Purpose:* | Information | | |
| *Author(s) or Contact(s):* | Jianle Chen  5775 Morehouse Drive, San Diego, CA 92121-1714 USA | Tel: Email: | +1-858-651-8028 cjianle@qualcomm.com |
| *Source:* | Qualcomm | | |

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

# Abstract

This contribution presents the cross-check performed by Qualcomm of the method proposed by Sharp in JCTVC-J0297. This method combines truncated unary and fixed length coding (TUFLC) for reference index binarization to reduce the CABAC bin number for the worst case. The cross-check performance results for common conditions in HM7.0 match those provided by the proponent. The codes are inspected and matches to the algorithm description in the proposal.

# Cross-check of code and experiment results

Binarization method in the following table are proposed and implemented in HM7.0 by the proponent. The red colored bins represents context coded bins. The software was inspected and matches to the description.

Table 1. Comparison between different binariztion methods.

|  |  |  |
| --- | --- | --- |
| Ref index | HM7.0 | TUFLC  (c=4, cMax=4) |
| 0 | 0 | 0 |
| 1 | 10 | 10 |
| 2 | 110 | 110 |
| 3 | 1110 | 1110 |
| 4 | 11110 | 1111 xxxx |
| 5 | 111110 | 1111 xxxx |
| 6 | 1111110 | 1111 xxxx |
| 7 | 11111110 | 1111 xxxx |
| 8 | 111111110 | 1111 xxxx |
| 9 | 1111111110 | 1111 xxxx |
| 10 | 11111111110 | 1111 xxxx |
| 11 | 111111111110 | 1111 xxxx |
| 12 | 1111111111110 | 1111 xxxx |
| 13 | 11111111111110 | 1111 xxxx |
| 14 | 111111111111110 | 1111 xxxx |
| 15 | 111111111111111 | 1111 xxxx |

Coding results using common conditions with HM7.0 anchor have been obtained. Experiment shows that the proposed method has identical results to HM7.0 in common test condition.