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Abstract

In this document, we report the verification results of JVT-W031 proposed by LG. We received the source code, configuration files, coded bitstream, experimental results, and documents for description. LG proposed the derivation scheme for IC information in B_Skip mode. We verified the implementation, encoding/decoding for the proposed scheme and its results.

1. Verification

We received the source code, configuration files, coded bitstream, experimental results, and documents for description from LG. The verification has been performed by checking the implementation, encoding and decoding for eight test sequences, and comparing our results with the received ones. We did not find any errors from the implementation, encoding, and decoding. All decoded results are matched with the results provided by LG. We attached the excel file for verified results.

2. Verification Results

Followings are the verification results for JVT-W031. We confirm all results perfectly coincide with the received ones from LG.

Table 1. Performance Evaluation for '*Uli*' Sequence

Basic QP	Avg. PSNR (dB)		Avg. Bitrate (kbps)	
	JMVM3.0.1	LG	JMVM3.0.1	LG
37	32.14	32.10	691.93	685.14
32	34.85	34.82	1241.34	1232.25
27	37.31	37.29	2238.41	2228.33
22	39.22	39.21	4257.41	4245.58

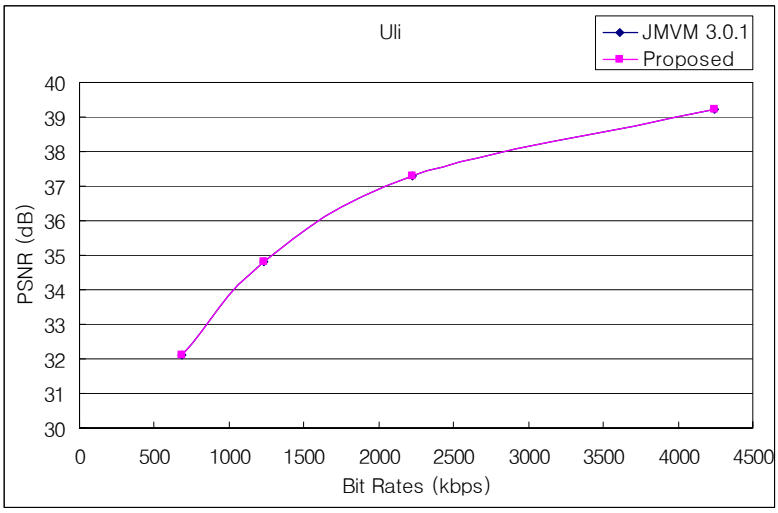

Fig. 1 Rate-Distortion Curves for '*Uli*' Sequence

Table 2. Performance Evaluation for '*Akko&Kayo*' Sequence

Basic QP	Avg. PSNR (dB)		Avg. Bitrate (kbps)	
	JMVM3.0.1	LG	JMVM3.0.1	LG
37	33.30	33.23	183.21	179.67
32	36.32	36.27	296.76	291.61
27	39.26	39.23	519.67	514.59
22	41.90	41.88	1002.54	997.02

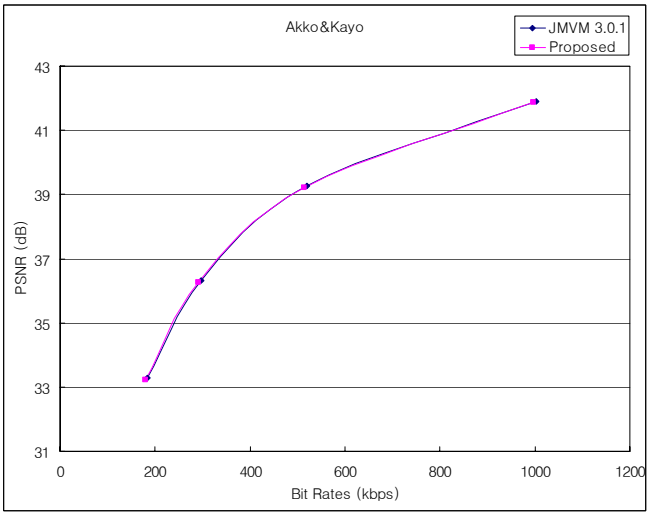

Fig. 2 Rate-Distortion Curves for '*Akko&Kayo*' Sequence

Table 3. Performance Evaluation for '*Rena*' Sequence

Basic QP	Avg. PSNR (dB)		Avg. Bitrate (kbps)	
	JMVM3.0.1	LG	JMVM3.0.1	LG
37	36.12	97.04	36.03	94.19
32	39.16	164.40	39.08	159.76
27	42.26	309.65	42.20	304.13
22	44.98	639.40	44.94	633.34

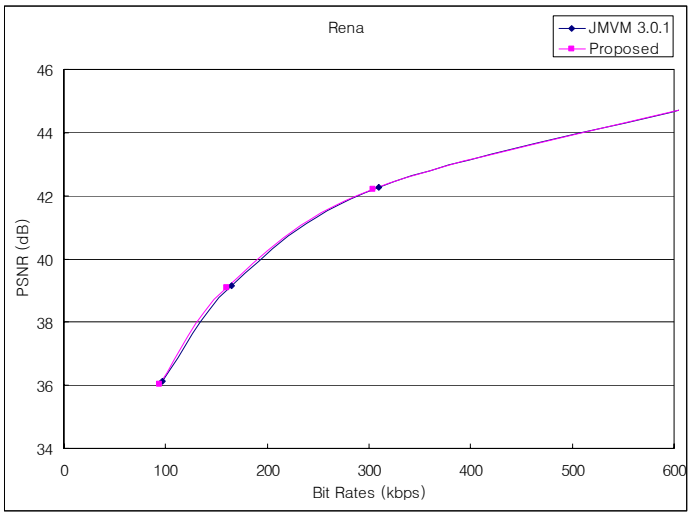

Fig. 3 Rate-Distortion Curves for '*Rena*' Sequence

Table 4. Performance Evaluation for '*Ballroom*' Sequence

Basic QP	Avg. PSNR (dB)		Avg. Bitrate (kbps)	
	JMVM3.0.1	LG	JMVM3.0.1	LG
37	31.79	31.76	195.28	192.71
32	34.52	34.49	352.05	347.79
27	37.15	37.13	683.00	677.29
22	39.32	39.31	1402.41	1395.75

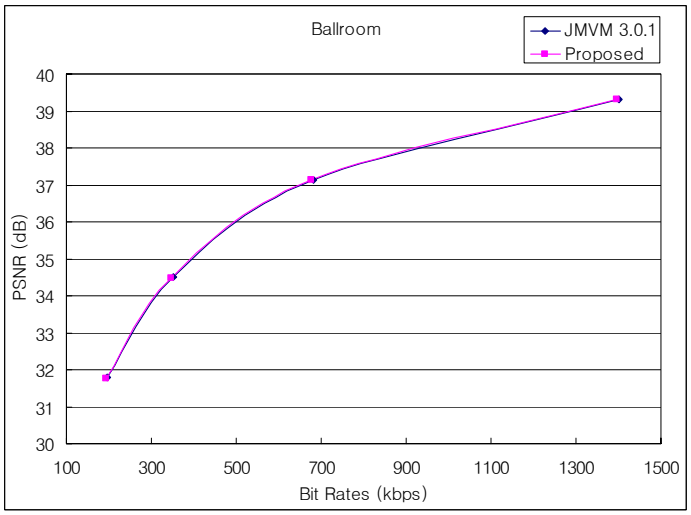

Fig. 4 Rate-Distortion Curves for '*Ballroom*' Sequence

Table 5. Performance Evaluation for '*Exit*' Sequence

Basic QP	Avg. PSNR (dB)		Avg. Bitrate (kbps)	
	JMVM3.0.1	LG	JMVM3.0.1	LG
37	34.51	34.45	103.48	101.30
32	36.77	36.73	175.02	171.98
27	38.60	38.58	337.75	333.55
22	40.06	40.05	825.64	820.34

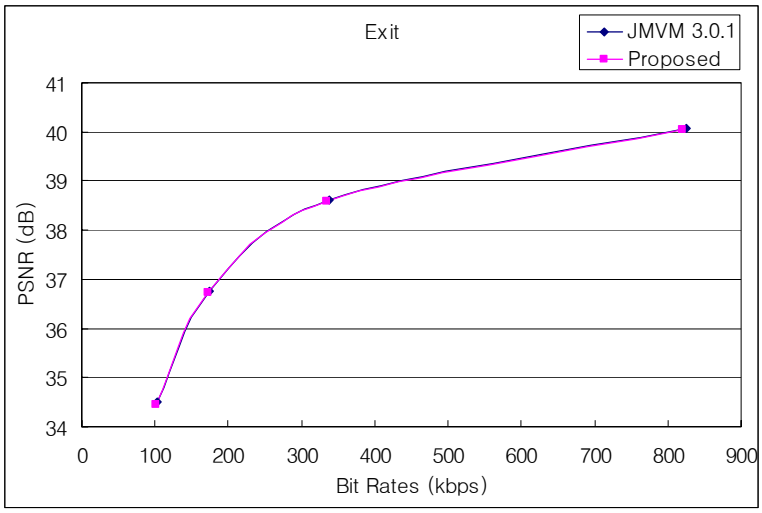

Fig. 5 Rate-Distortion Curves for '*Exit*' Sequence

Table 6. Performance Evaluation for '*Race1*' Sequence

Basic QP	Avg. PSNR (dB)		Avg. Bitrate (kbps)	
	JMVM3.0.1	LG	JMVM3.0.1	LG
37	33.34	33.28	149.94	146.53
32	36.08	36.03	254.89	249.91
27	38.77	38.73	502.49	497.44
22	41.39	41.37	1053.73	1047.82

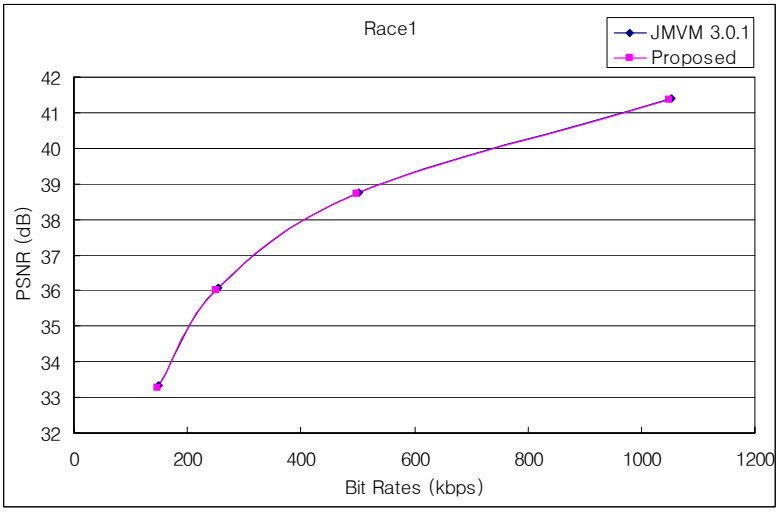

Fig. 6 Rate-Distortion Curves for '*Race1*' Sequence

Table 7. Performance Evaluation for '*Flamenco2*' Sequence

Basic QP	Avg. PSNR (dB)		Avg. Bitrate (kbps)	
	JMVM3.0.1	LG	JMVM3.0.1	LG
37	33.35	33.31	214.01	211.37
32	36.30	36.26	389.59	385.95
27	39.19	39.17	733.40	729.35
22	41.89	41.88	1397.38	1393.58

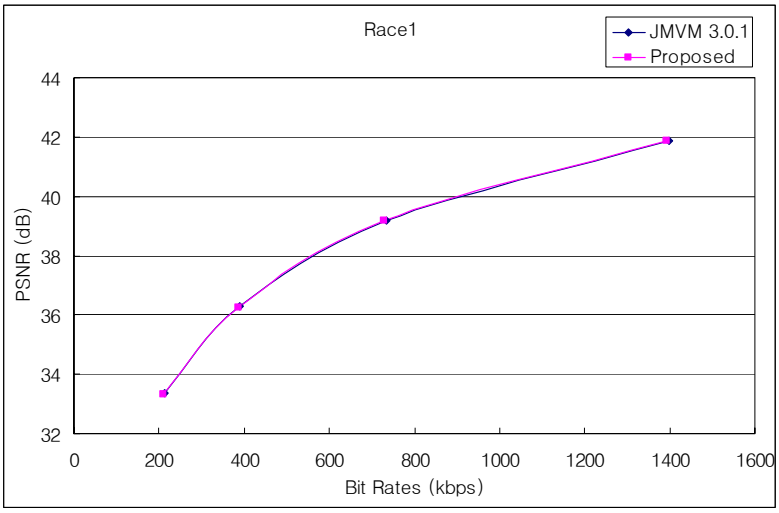

Fig. 7 Rate-Distortion Curves for '*Flamenco2*' Sequence

Table 8. Performance Evaluation for '*Breakdancers*' Sequence

Basic QP	Avg. PSNR (dB)		Avg. Bitrate (kbps)	
	JMVM3.0.1	LG	JMVM3.0.1	LG
37	35.42	35.31	139.24	134.30
32	37.31	37.24	232.97	226.74
27	38.71	38.69	438.43	432.38
22	39.87	39.86	1084.07	1077.18

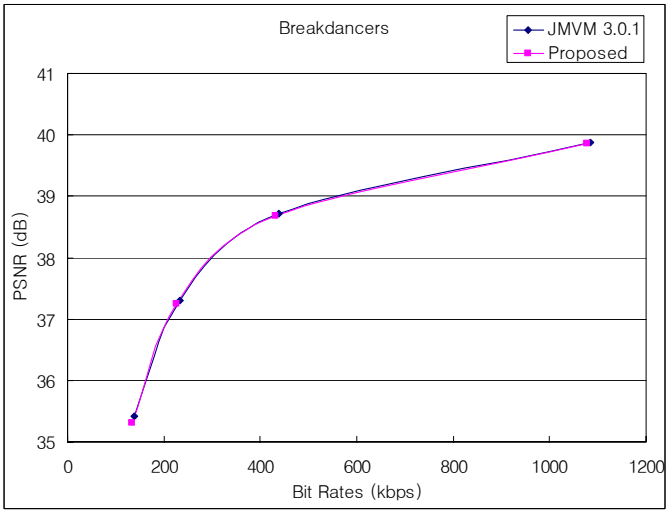

Fig. 8 Rate-Distortion Curves for '*Breakdancers*' Sequence

3. Conclusion

In this document, we report the verification results of JVT-W031 proposed by LG. We confirm the implementation, encoding process, and decoding process do not have any errors and its results are matched with the results provided by LG.

4. Acknowledgements

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