

CCITT SGXV
Working Party XV/1

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June 8, 1989

Specialists Group on Coding
for Visual Telephony

SOURCE: VideoTelecom
TITLE : RM8 Simulation Results

This document gives the RM8 simulation results for Miss America, Salesman, Claire and Swing. Both full and quarter CIF results are presented.

DATE : JUNE 8, 1989 INSTITUTE : VIDEOTELECOM, CORP.
 DATA RATE : 59.4 KBPS
 FRAME RATE : 10 FPS STATISTICS : RM8 - FULL CIF

ITEM			MISS AM.	SALESMAN	CLAIRE	SWING
1. RMS for luminance			3.19	6.76	3.07	4.63
2. SNR for luminance			38.05	31.53	38.39	34.81
for chrominance (Cb)			37.82	38.61	39.04	36.36
for chrominance (Cr)			38.77	39.48	42.11	36.95
3. Mean value of step size			18.68	25.99	18.51	15.37
4. Mean value of the no. of non-zero coefficients			1.99	2.66	2.86	2.12
5. Mean value of the last run of zeroes			1.91	4.16	2.28	12.35
6. Block type of MACRO	FIXED		210.06	268.83	275.93	265.09
	CODED MC		74.98	34.56	45.81	4.61
	FIXED MC		22.20	6.78	6.57	1.04
	CODED		88.47	82.17	67.29	123.87
	INTRA		0.29	3.66	0.40	1.40
7. Block type of Y	FIXED		1120.10	1270.09	1266.53	1378.68
	CODED MC		128.06	86.22	123.81	11.25
	FIXED MC		260.67	79.12	85.70	11.33
	CODED		74.02	133.91	106.35	177.16
	INTRA		1.14	14.66	1.61	5.58
8. Block type of Cb and Cr	FIXED		530.61	694.13	674.43	743.06
	CODED MC		49.96	4.10	23.93	4.93
	FIXED MC		144.41	78.57	80.83	6.36
	CODED		66.45	7.87	12.01	34.86
	INTRA		0.57	7.33	0.81	2.79
9. Number of bits	Macro attributes		748.18	567.09	574.80	513.31
	End of block		640.41	508.17	537.02	473.13
	Coded block pat.		894.98	538.53	559.39	641.98
	Motion vectors		601.92	260.91	325.68	48.24
	Stuffing bits		0.00	0.00	0.00	0.00
	QSS bits		173.37	168.72	172.38	158.95
	Coef.	Y	2206.18	3765.13	3519.90	3386.58
		Cb	324.65	69.66	166.10	441.76
		Cr	322.12	57.19	75.71	259.63
		Total	2852.96	3891.99	3761.71	4087.97
Total		5911.82	5935.42	5930.98	5923.59	
10. No. of overflow blocks			0.00	0.00	0.00	0.00
11. Bits for first frame			34838.00	53050.00	38454.00	80155.00

DATE : JUNE 8, 1989 INSTITUTE : VIDEOTELECOM, CORP.
 DATA RATE : 59.4 KBPS
 FRAME RATE : 10 FPS STATISTICS : RM8 - QUARTER CIF

ITEM		MISS AM.	SALESMAN	CLAIRE	SWING
1. RMS for luminance		2.78	4.80	2.84	2.75
2. SNR for luminance		39.24	34.51	39.07	39.35
for chrominance (Cb)		39.10	40.15	40.00	40.16
for chrominance (Cr)		39.17	41.08	43.10	40.98
3. Mean value of step size		11.48	13.46	10.43	8.42
4. Mean value of the no. of non-zero coefficients		4.47	5.70	6.03	2.80
5. Mean value of the last run of zeroes		3.33	6.47	3.41	11.64
6. Block type of MACRO	FIXED	35.02	46.22	45.27	29.94
	CODED MC	18.98	5.00	8.80	1.37
	FIXED MC	0.86	0.10	0.20	0.11
	CODED	44.04	47.30	44.70	67.35
	INTRA	0.10	0.38	0.04	0.23
7. Block type of Y	FIXED	240.06	264.63	274.18	263.48
	CODED MC	50.63	17.40	28.06	4.24
	FIXED MC	28.71	3.01	7.91	1.69
	CODED	76.18	109.46	85.70	125.69
	INTRA	0.41	1.50	0.15	0.90
8. Block type of Cb and Cr	FIXED	110.67	171.21	159.22	158.44
	CODED MC	20.18	2.21	9.25	1.95
	FIXED MC	19.49	7.99	8.74	1.02
	CODED	47.45	15.83	20.72	36.15
	INTRA	0.20	0.75	0.07	0.45
9. Number of bits	Macro attributes	201.57	167.70	178.28	182.80
	End of block	390.12	294.31	287.90	338.76
	Coded block pat.	397.00	259.36	288.91	396.10
	Motion vectors	88.51	27.83	43.44	11.64
	Stuffing bits	0.00	12.18	151.65	1546.48
	QSS bits	44.80	43.86	44.88	41.69
	Coef. Y	3711.53	4927.74	4460.79	2678.71
	Cb	521.71	109.36	328.74	423.30
	Cr	543.53	81.07	152.40	294.74
	Total	4776.78	5118.17	4941.93	3396.75
	Total	5898.78	5923.41	5936.99	5914.22
10. No. of overflow blocks		0.00	0.00	0.00	0.02
11. Bits for first frame		9775.00	14555.00	12868.00	123710.00