

Source: Japan
Title: RM7 Simulation Results

Several Japanese Institutes simulate coding efficiency according to RM7 (#446). There remain small differences among the Institutes may be caused by calculation accuracy in iDCT. One of the results is shown.

STATISTICS RM7					INSTITUTE : HITACHI	
SEQUENCE : Claire					DATE : Mar.1,1989	
MODIFICATION : NONE					BIT RATE : 59.4 kbps	
					FRAME RATE : 10Hz	
FRAME					1	2
					3	15 [2-165]
RMS for Y					3.82	3.84
SNR for Y					36.48	36.45
SNR for U					37.07	37.39
SNR for V					39.73	40.01
Mean v. of Step Size					32.00	27.83
Mean value of the No. of non-zero Coeff.					2.94	2.12
Mean value of the No. of zero Coeff.					4.04	3.39
Block type of MACRO	fixed coded MC.				0	259
	fixed MC.				0	18
	coded				0	66
	intra				396	0
Block type of Y	fixed coded MC.				1011	1220
	fixed MC.				0	135
	coded				0	149
	intra				573	0
Block type of UV	fixed coded MC.				624	613
	fixed MC.				0	23
	coded				0	119
	intra				168	0
MB. attribute					396	938
End of block					4752	772
Motion Vectors					0	573
Intra DC Coeff.					9504	0
	Y				16016	2429
	U				779	227
	V				279	151
	Total				17074	2807
Total					31726	5090

STATISTICS RM7		INSTITUTE : HITACHI				
SEQUENCE : Blue Jacket		DATE : Mar.1,1989				
MODIFICATION : NONE		BIT RATE : 59.4 kbps				
		FRAME RATE : 10Hz				

FRAME			1	2	3	15 [2-167]
RMS	for	Y	6.01	20.17	14.50	5.64 5.81
SNR	for	Y	32.56	22.04	24.90	33.10 32.97
SNR	for	U	37.97	33.31	33.46	38.42 38.30
SNR	for	V	36.72	33.70	34.47	37.38 37.31
Mean v. of Step Size			32.00	56.33	64.00	39.50 30.66
Mean value of the No. of non-zero Coeff.			2.93	1.47	1.76	8.35 4.64
Mean value of the No. of zero Coeff.			3.19	0.78	2.00	9.24 7.81
Block	fixed		0	148	209	348 308
type	coded	MC.	0	111	62	19 20
of	fixed	MC.	0	69	89	3 7
MACRO	coded		0	11	9	26 58
	intra		396	57	27	0 0
Block	fixed		585	761	918	1453 1375
type	coded	MC.	0	230	130	54 51
of	fixed	MC.	0	490	474	34 61
Y	coded		0	25	15	43 92
	intra		999	78	47	0 2
Block	fixed		707	426	485	731 709
type	coded	MC.	0	75	23	15 10
of	fixed	MC.	0	285	279	29 46
UV	coded		0	5	5	17 25
	intra		85	1	0	0 0
MB. attribute			396	1236	964	360 599
End of block			4752	1648	812	360 527
Motion Vectors			0	2292	1807	133 194
Intra DC			9504	1368	648	0 25
Coeff.	Y		17213	2208	1692	5849 4178
	U		171	246	72	250 198
	V		201	14	12	333 218
	Total		17585	2468	1776	6432 4594
Total			32237	9012	6007	7285 5942

STATISTICS RM7		INSTITUTE : HITACHI				
SEQUENCE : Salesman		DATE : Mar.2,1989				
MODIFICATION : NONE		BIT RATE : 59.4 kbps				
		FRAME RATE : 10Hz				

+-----+-----+-----+-----+-----+	
FRAME	1 2 3 15 [2-150]
+-----+-----+-----+-----+-----+	
RMS for Y	7.96 7.81 7.75 7.34 6.72
+-----+-----+-----+-----+-----+	
SNR for Y	30.12 30.28 30.34 30.82 31.61
SNR for U	37.48 37.63 37.49 37.97 38.88
SNR for V	38.40 38.45 38.58 38.91 39.72
+-----+-----+-----+-----+-----+	
Mean v. of Step Size	32.00 29.00 30.00 26.50 25.22
+-----+-----+-----+-----+-----+	
Mean value of the No. of non-zero Coeff.	3.69 1.70 2.19 2.48 2.95
+-----+-----+-----+-----+-----+	
Mean value of the No. of zero Coeff.	5.63 4.96 4.74 7.62 7.61
+-----+-----+-----+-----+-----+	
Block fixed	0 203 215 268 272
type coded MC.	0 24 52 32 35
of fixed MC.	0 11 13 11 6
MACRO coded	0 158 116 83 79
intra	396 0 0 2 1
+-----+-----+-----+-----+-----+	
Block fixed	270 1227 1161 1271 1277
type coded MC.	0 48 109 94 89
of fixed MC.	0 92 151 78 78
Y coded	0 217 163 133 131
intra	1314 0 0 8 5
+-----+-----+-----+-----+-----+	
Block fixed	679 697 652 679 698
type coded MC.	0 6 12 3 5
of fixed MC.	0 64 118 83 78
UV coded	0 25 10 26 8
intra	113 0 0 1 0
+-----+-----+-----+-----+-----+	
MB. attribute	396 1327 1135 860 821
End of block	4752 1016 924 784 723
Motion Vectors	0 241 476 279 273
Intra DC	9504 0 0 48 40
Coeff. Y	29073 2460 3029 3351 3987
U	1732 155 151 177 51
V	1786 93 158 221 35
Total	32591 2708 3338 3749 4073
Total	47243 5292 5873 5720 5932
+-----+-----+-----+-----+-----+	

STATISTICS RM7			INSTITUTE : HITACHI				
SEQUENCE : Swing			DATE : Mar.1,1989				
MODIFICATION : NONE			BIT RATE : 59.4 kbps				
			FRAME RATE : 10Hz				
FRAME			1	2	3	15	[2-125]
RMS for Y			7.76	7.65	7.38	5.26	4.58
SNR for Y			30.33	30.46	30.77	33.71	35.09
SNR for U			31.57	31.82	32.10	34.49	37.33
SNR for V			32.75	32.98	33.40	35.57	37.86
Mean v. of Step Size			32.00	27.00	22.67	39.33	26.37
Mean value of the No. of non-zero Coeff.			6.29	1.62	2.22	3.98	4.04
Mean value of the No. of zero Coeff.			9.54	6.01	9.76	17.19	18.03
Block type of MACRO	fixed coded MC.		0	218	223	382	324
	fixed MC.		0	5	3	0	4
	coded		0	9	2	1	2
	intra		0	164	168	13	63
			396	0	0	0	0
Block type of Y	fixed coded MC.		490	1335	1344	1546	1432
	fixed MC.		0	6	5	0	11
	coded		0	50	15	4	15
	intra		0	193	220	34	121
			1094	0	0	0	3
Block type of UV	fixed coded MC.		474	688	702	782	747
	fixed MC.		0	2	2	0	4
	coded		0	26	8	2	8
	intra		0	76	80	8	29
			318	0	0	0	1
MB. attribute			396	1350	1395	117	515
End of block			4752	976	1048	124	503
Motion Vectors			0	177	51	6	59
Intra DC			9504	0	0	0	24
Coeff. Y			54023	1751	3039	960	3883
U			3975	481	483	0	577
V			2308	295	542	187	369
Total			60306	2527	4064	1147	4829
Total			74958	5030	6558	1394	5934