

CCITT SGXV
Working Party XV/1
Specialist Group on Coding
for Visual Telephony

Doc # 198
March 1987

SUBJECT: RM3 STATISTICS.
SOURCE: UK, NL, FR, D

The attached statistics are representative of the statistics generated using the Reference Model 3 as specified in [1]. Specifically the tables were generated by NL and the graphs by UK. Whilst some variation was found on implementations the standard deviation is small.

[1].....TD 10, CCITT WP SG XV/1 Specialist Group on Coding for Video
Telephony, Nurnberg 86.

STATISTICS RM3

DATE : 5 - 3 - 1987

SEQUENCE : SPLIT / TREVOR

MODIFICATION : -

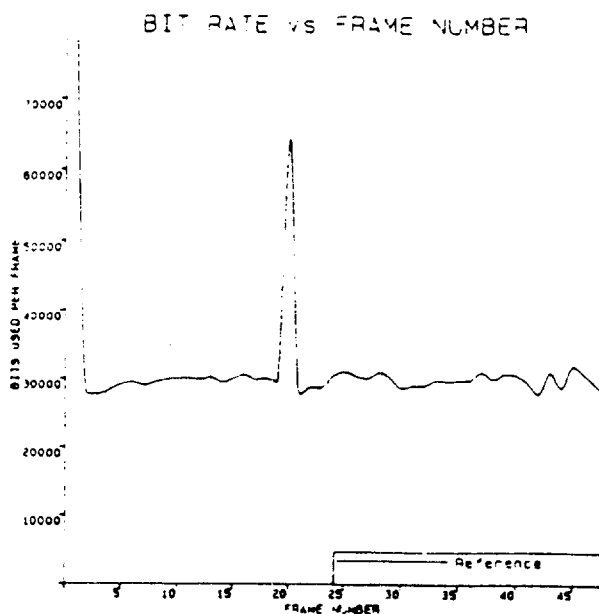
	ITEM		15th Picture	Mean whole seq.
1. RMS for luminance			4.036	3.367
2. SNR			36.012	37.586
3. Mean value of step size			11.889	9.670
4. Mean value of the number of non-zero coefficients			3.560	3.735
5. Mean value of the number of zeroes before the last NZ-coefficient			6.229	6.639
6. Block type of Y		coded MC		
	INTRA	- -	8	39
	FIXED	F F	752	845
	INTER	T F	211	172
	FIXED MC	F T	225	124
	INTER MC	T T	388	401
	Filtered		413	337
7. Block type of UV	INTRA	- -	21	10
	FIXED	F -	586	632
	INTER	T T	185	148
	Filtered		121	82
8. Number of bits	Attributes	Rel addr	1983	1849
		Y	3085	2783
		U	483	472
		V	494	467
		Total	6045	5572
	Classification indexes		1214	1228
	End of block		2439	2319
	Motion vectors		4904	4206
	Coefficients	Y	13498	14725
		U	899	871
		V	1299	802
		Total	15696	16399
Total		30298	29726	

DATE: 9/2/87
SOURCE: BTRL UK
AUTHOR: G SEXTON

CODER SOFTWARE: CODEC6 V1.3 (OKUBO
REFERENCE MODEL3

MODIFICATIONS:
SOURCE SEQUENCE: COSTI CIF. SPLIT
SCREEN TREVOR
FRAME SIZE: 352 * 288
BITRATE: 300KBITS/SEC
BUFFER SIZE: 30000

FRAME RATE: 10 FRAMES / S
CODED FRAMES: 48



Mean value of reference = 29645

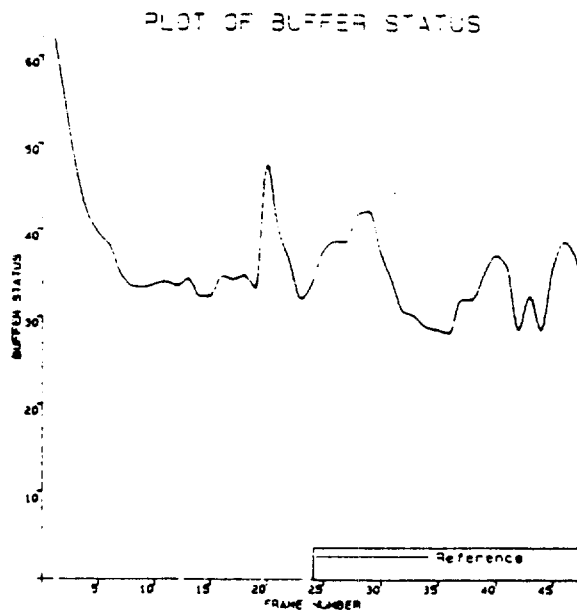
Rm3
13/1/87

DATE: 9/2/87
SOURCE: BTRL UK
AUTHOR: G SEXTON

CODER SOFTWARE: CODEC6 V1.3 (OKUBO
REFERENCE MODEL3

MODIFICATIONS:
SOURCE SEQUENCE: COSTI CIF. SPLIT
SCREEN TREVOR
FRAME SIZE: 352 * 288
BITRATE: 300KBITS/SEC
BUFFER SIZE: 30000

FRAME RATE: 10 FRAMES / S
CODED FRAMES: 48



Mean value of reference = 35.23384

0 = Empty
100 = Full.

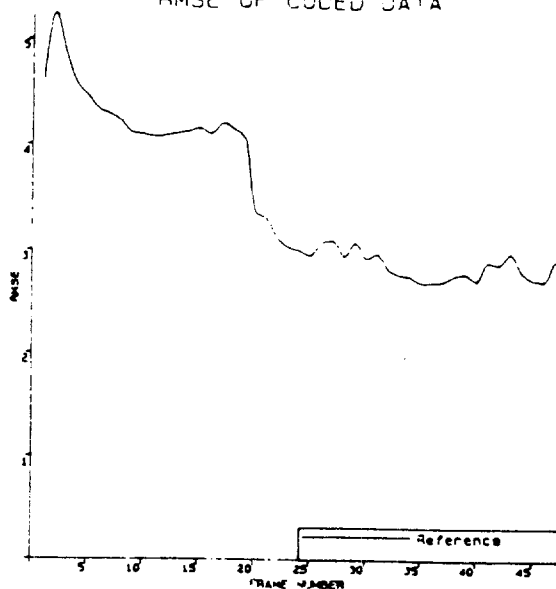
DATE: 9/2/87
SOURCE: BTRL UK
AUTHOR: G SEXTON

CODER SOFTWARE: CODEC6 V1.3 (OKUBO
REFERENCE MODEL3

MODIFICATIONS:
SOURCE SEQUENCE: COSTI CIF. SPLIT
SCREEN TREVOR
FRAME SIZE: 352 * 288
BITRATE: 300KBITS/SEC
BUFFER SIZE: 30000

FRAME RATE: 10 FRAMES / S
CODED FRAMES: 48

RMSE OF CODED DATA



Mean value of reference = 3.42757

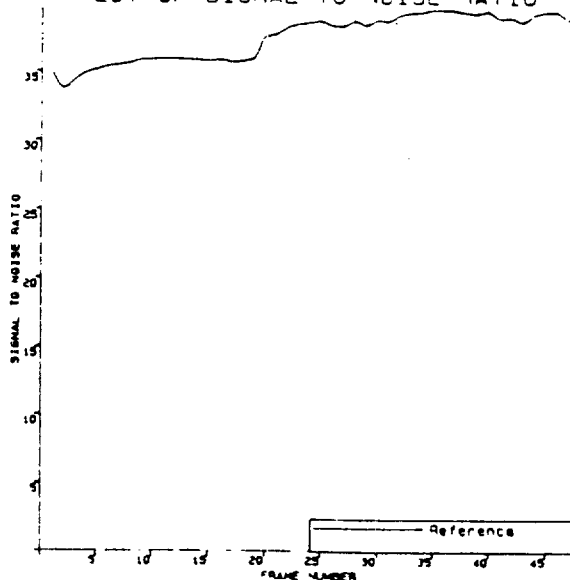
DATE: 9/2/87
SOURCE: BTRL UK
AUTHOR: G SEXTON

CODER SOFTWARE: CODEC6 V1.3 (OKUBO
REFERENCE MODEL3

MODIFICATIONS:
SOURCE SEQUENCE: COSTI CIF. SPLIT
SCREEN TREVOR
FRAME SIZE: 352 * 288
BITRATE: 300KBITS/SEC
BUFFER SIZE: 30000

FRAME RATE: 10 FRAMES / S
CODED FRAMES: 48

PLOT OF SIGNAL TO NOISE RATIO



Mean value of reference = 37.616287

DATE: 2/3/87
SOURCE: BTRL UK
AUTHOR: G SEXTON

CODER SOFTWARE: CODEC6 V1.3 (OKUBO
REFERENCE MODEL3)

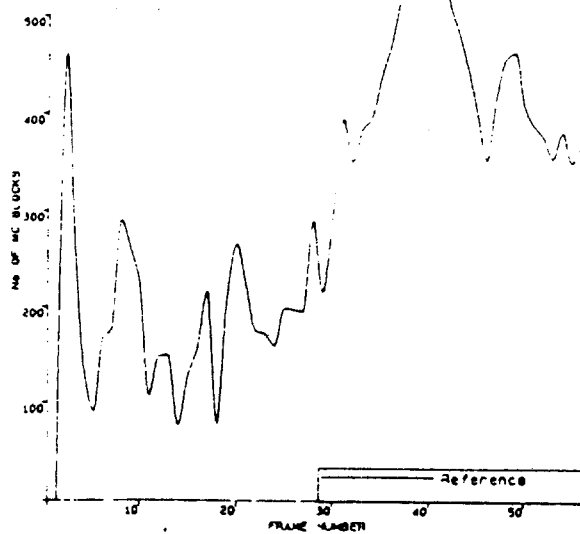
MODIFICATIONS:

SOURCE SEQUENCE: MISSA CIF

BITRATE: 300KBITS/SEC
BUFFER SIZE: 30000

FRAME RATE: 15 FRAMES / S
CODED FRAMES: 57

MOTION COMPENSATION



Mean value of reference = 310

DATE: 2/3/87
SOURCE: BTRL UK
AUTHOR: G SEXTON

CODER SOFTWARE: CODEC6 V1.3 (OKUBO
REFERENCE MODEL3)

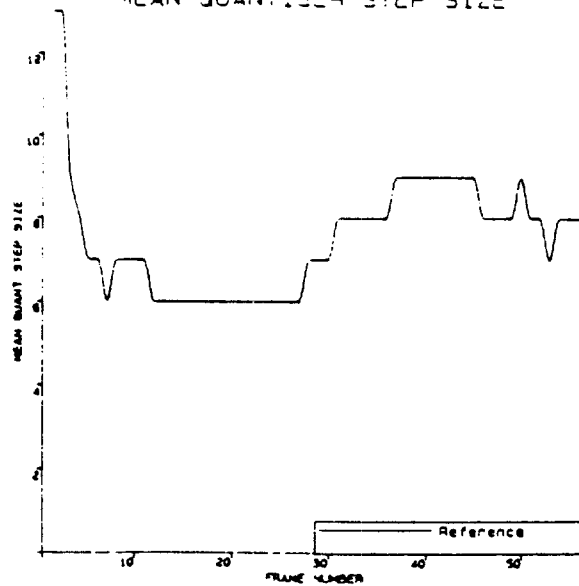
MODIFICATIONS:

SOURCE SEQUENCE: MISSA CIF

BITRATE: 300KBITS/SEC
BUFFER SIZE: 30000

FRAME RATE: 15 FRAMES / S
CODED FRAMES: 57

MEAN QUANTISER STEP SIZE



Mean value of reference = 7.5