CCITT SGXV
SPECIALISTS GROUP ON CODING FOR VISUAL TELEPHONY

SOURCE: USA
TITLE: Test Sequences for the Evaluation of M x 64 Kbit/s
          Video Codecs

At the eighth meeting of the Specialists Group proposals were requested for video test sequences to study coding algorithms for M x 64 Kbit/s. This contribution describes a video tape consisting of a number of candidate sequences.

The present application of low rate codecs can best be described as videophone or face-to-face conference which includes a head and shoulders picture of one person and associated still graphics. However, it must be anticipated that with improvements in technology other more demanding applications will be attempted. The contents of this tape take such potential future uses into account. Some scenes on the tape are intended to stress all codecs to, and possibly beyond, the limit of their capability. The tape is designed to highlight both the capabilities and limitations of each codec.

The test tape has a total length of just under 12 minutes, including introductory color bars and titles. It is divided into four sections. Any test can be limited to using only one or more of these sections, depending on the codec performance features that are to be investigated. All scenes are representative of typical teleconferencing applications.

The first section consists of six "face-to-face" scenes, averaging about 15 seconds in length. Five scenes show a single person each while in the sixth scene the camera pans between the

six participants of a teleconference, individually introducing each conferee.

The second section contains nine scenes of still graphics with an average length of about 20 seconds, produced either with a camera or electronically with a character generator. They are designed to test both resolution and color fidelity. The material consists of lettering, typing, a diagram and a map. If applicable and desired, the codec may be switched to a special graphic mode for this section.

The third section, called changing graphics, takes into account the possible need for adjustments to properly frame the desired picture, and also covers simple drawings and pointing out of details. All six scenes, averaging close to 30 seconds, were taken with an overhead graphic camera in a teleconference room. The graphic material is being moved into the desired position, and there is some limited zooming to achieve the proper picture size.

The fourth section is entitled instruction and briefing. In some respects the contents are similar to those of the third section but they feature more the person presenting the information. The five scenes with an average length of 30 seconds contain presentations on a flip pad, chalk board and viewgraph, in addition to pointing out features on a map and printed circuit board. A small amount of camera panning and zooming is used.

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TEST TAPE FOR THE EVALUATION OF

M x 64 KBIT/SEC VIDEO CODECS

LIST OF SEQUENCES

SEQUENCE NO	PICTURE CONTENT	TIME SECONDS
1	Color Bars	30
2	Title: Face to Face	6
3	Title: Scene 1	3
4	Announcer Talking	20
5	Title: Scene 2	3
6	Man at Desk with Phone	12
7	Title: Scene 3	3
8	Man sitting	15
9	Title: Scene 4	3
10	Girl sitting	15
11	Title: Scene 5	3
12	Man sitting	15
13	Title: Scene 6	3
14	6 People, Introduced One-by-One	25
15	Title: Still Graphics	6
16	Title: Scene 1	3
17	Colored Lettering on White & Black	20
18	Title: Scene 2	3
19	Typed Page	15
20	Title: Scene 3	3
21	Colored Lettering on Yellow & Magenta	20

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TEST TAPE FOR THE EVALUATION OF

M x 64 KBIT/SEC VIDEO CODECS

LIST OF SEQUENCES

SEQUENCE NO	PICTURE CONTENT	TIME SECONDS
22	Title: Scene 4	3
23	Circuit Diagram	15
24	Title: Scene 5	3
25	Colored Lettering-Various Sizes, Colors & Backgrounds	30
26	Title: Scene 6	3
27	Map - Pentagon - 2 sizes	20
28	Title: Scene 7	3
29	Colored Lettering on Green & Red	20
30	Title: Scene 8	3
31	Print Samples, Various Sizes on White & Black	20
32	Title: Scene 9	3
33	Colored Lettering on Cyan & Blue	20
34	Title: Changing Graphics	6
35	Title: Scene 1	3
36	Commerce Bank Poster	25
37	Title: Scene 2	3
38	Grand House Poster	27
39	Title: Scene 3	3
40	Bar Graph	15
41	Title: Scene 4	3

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TEST TAPE FOR THE EVALUATION OF

M x 64 KBIT/SEC VIDEO CODECS

LIST OF SEQUENCES

SEQUENCE NO	PICTURE CONTENT	TIME SECONDS
42	Flow Chart	28
43	Title: Scene 5	3
44	Drawing on Pad	56
45	Title: Scene 6	3
46	Phone Instrument Poster (with Pointing)	15
47	Title: Instruction, Briefing	6
48	Title: Scene 1	3
49	Diagram on Flip Pad	28
50	Title: Scene 2	3
51	Viewgraph Presentation	20
52	Title: Scene 3	3
53	Hand Pointing on Map	22
54	Title: Scene 4	3
55	Girl at Chalk Board	30
56	Title: Scene 5	3
57	Circuit Board (with Pointing)	31

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