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

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SOURCE: CHAIRMAN

TITLE : TRANSMITTED ELEMENTS WHEN ALL BLOCKS IN A GOB ARE INTRA CODED

In case of the forced update or scene cut, all blocks in a GOB are intra coded. This can be efficiently indicated from coder to decoder with TYPE2=1xx (see p.8/Doc. #182).

When all blocks in a GOB are intra coded, obviously BA=0 and TYPE3='1' in every block. These block attribute values can be transmitted redundantly, or can be omitted. In the current Flexible Hardware specification, there is no description on this point.

According to the principle 'Some of the elements may be omitted if signalled in the GOB or Picture Header' described in the note of Figure 8/Doc. #182, the following is proposed:

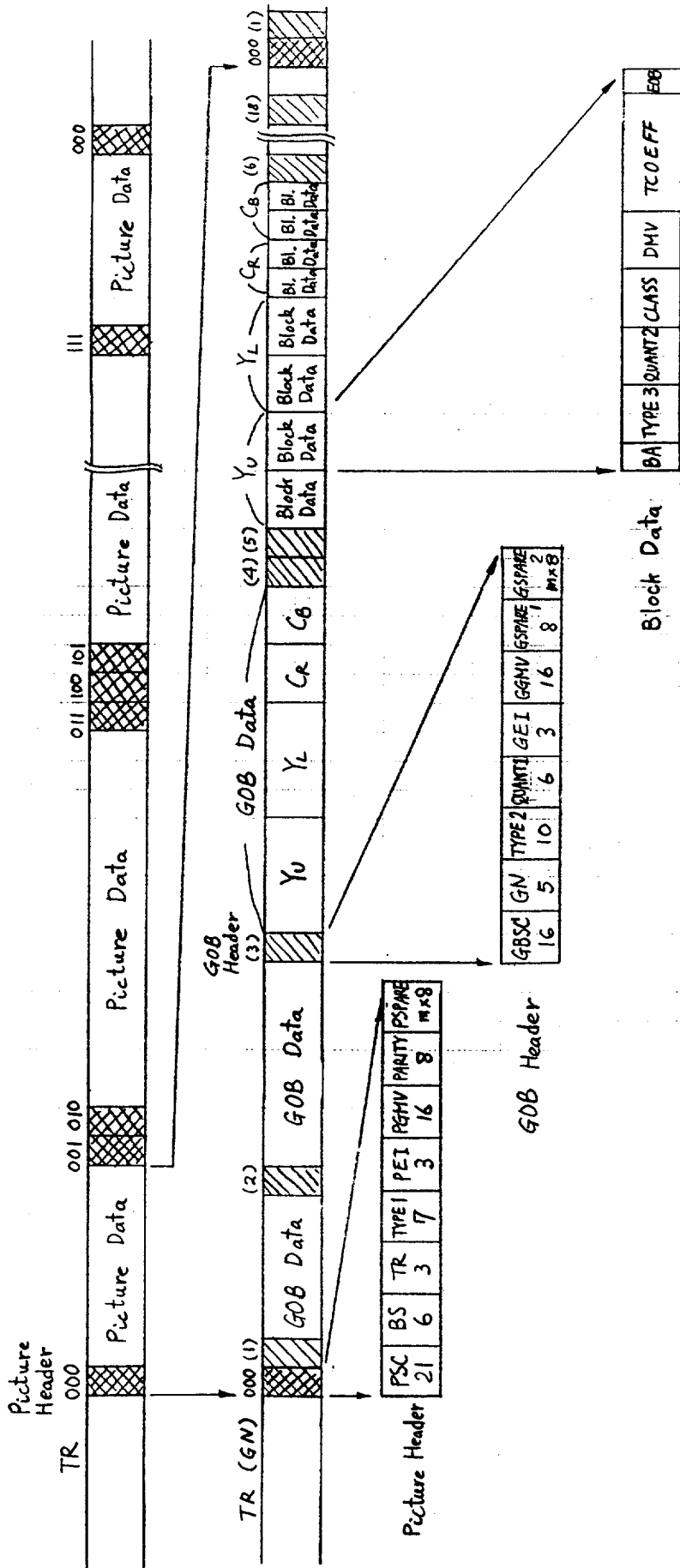
In case of TYPE2=1xx, both BA and TYPE3 are omitted.

This should be reflected in the Flexible Hardware specification, or in the note of Table 2/Doc. #182.

A figure with a table is attached to visualize the video multiplex coder output, including the above proposal.

End

Appendix to Document #184



- Notes
- 1) Picture Header is always present, 29.97 headers/sec.
 - 2) GOB Header is always present, 18 headers/picture.
 - 3) Some elements of Block Data may be omitted according to TYPE2, TYPE3 and Y/C. See Table.

Fig. Data structure of Flexible Hardware (from Doc. #182)

Table Block attribute, block type and block data

Block Attribute (Value) *					Block Type	Block Data **						
Inter/Intra (1) (0)	Not Coded/Coded (1) (0)	Filter on/off (1) (0)	MV ≠ 0/MV=0 (1) (0)	DMV ≠ 0/DMV=0 (1) (0)		BA †	TYPE 3 †	QUANT 2 † †	CLASS	DMV	TOOEFF	EOB
0	=	=	=	=	1	X	X	X	X	—	X	X
1	0	0	0	=	Fixed	—	—	—	—	—	—	—
1	0	0	1	0	5a	X	X	—	—	—	—	—
1	0	0	1	1	5b	X	X	—	—	X	—	—
1	0	1	0	=	3	X	X	—	—	—	—	—
1	0	1	1	0	5c	X	X	—	—	—	—	—
1	0	1	1	1	5d	X	X	—	—	X	—	—
1	1	0	0	=	2	X	X	X	X	—	X	X
1	1	0	1	0	6a	X	X	X	X	—	X	X
1	1	0	1	1	6b	X	X	X	X	X	X	X
1	1	1	0	=	4	X	X	X	X	—	X	X
1	1	1	1	0	6c	X	X	X	X	—	X	X
1	1	1	1	1	6d	X	X	X	X	X	X	X

Block attribute*			Block Type	Block Data **				
Inter/Intra (1) (0)	Not Coded/Coded (1) (0)	Filter on/off (1) (0)		BA †	TYPE 3 †	QUANT 2 † †	TOOEFF	EOB
0	=	=	1	X	X	X	X	X
1	0	0	Fixed	—	—	—	—	—
1	0	1	3	X	X	—	—	—
1	1	0	2	X	X	X	X	X
1	1	1	4	X	X	X	X	X

*) = : don't care

†) not present if TYPE2 = 1xx

**) X : present

††) not present if designated by QUANT1

— : not present