CCITT
Question 4/XV
Specialist group on coding
for visual telephony

Source: France, FRG

Title : Inter/Intra frame switch

A threshold value 6400 has been introduced in the reference model n° 2 as far as the Inter/Intra frame decision is concerned.

Some attempts have been made with a reduced threshold value 640. It leads of course to different numbers of intra frame and inter frame blocks, and it seems that there is a gain in DB although the mean value of the stepsize is higher. Here are the figures for the COST and MA sequences.

COST

	FRG		France	
Threshold	6400	 640 	6400	640
SNR	36.21	36-45	35.71	36.75
Step size	11.22	11.29	11.05	11.36

M. A

	FRG		France	
Threshold	6400	 640	 6400 	 640
SNR	38.99	39.24	 38.68 	39.29
 Step size	8.72	8.79	8.32	 8.73

Conclusion

It seems difficult to explain how we can have at the same a gain in DB and an increase of the step size. May be it is due to the motion estimation artifacts which are not produce in the case of intra mode.

This threshold is not subject to standardization and will have to be variable during the hardware phase.