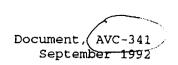
CCITT SG XV
Working Party XV/1
Experts group on ATM Video Coding



INTERNATIONAL ORGANISATION FOR STANDARDISATION

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ISO-IEC/JTC1/SC29/WG11

CODED REPRESENTATION OF PICTURE AND AUDIO INFORMATION

ISO-IEC/JTC1/SC29/WG11 MPEG 92/.....

Title:

Results on the comparison of error prediction versus

reconstructed signal prediction

Source:

PTT Research. The Netherlands

On behalf of VADIS

Status:

Information

In MPEG 92/N0245, Test Model 2 Appendix G an experiments list is given. In this document a report is made on MPEG-1 based prediction of prediction error versus prediction of input for field structured pictures.

The two methods both provide compatibility with MPEG-1 and H.261 and are capable of providing HDTV - TV compatibility. Differences can be found in decoder complexity and functionality.

Simulations were carried out for the sequences Calendar, Flower Garden and Table Tennis, at a total bit rate of 4 Mbits/s, the MPEG-1 bit rate was 1.5 Mbits/s.

	Error Prediction	Reconstructed Signal Prediction
Table Tennis	33.82	33.94
Flower Garden	29.84	30.02
Calendar	29.68	29.73

From a picture quality point of view results show that there is a small difference (0.0 to 0.2 dB) in favour of the reconstructed signal prediction.

Conclusion

On the basis of this comparison there is no strong argument to select one of the two methods. A decision on the selection of combination of the methods has to be based on complexity or functionality.