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**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.