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ABSTRACT:

Embedding supplemental data in an encoded signal.

Method and arrangement for watermarking an audio or video signal. The signal is encoded by an encoder (6) which includes a feedback loop (64) to control the encoding process, such as a DPCM encoder or a (sigma-)delta modulator. The watermark (3) is embedded by modifying (2) selected samples of the encoded signal. Said modifying is carried out before the encoded signal is fed back so that quantization errors which are introduced by the embedded watermark will be eliminated by subsequent encoding operations. In addition, one or more samples preceding the selected samples are also modified in such a way that the error induced by the watermark is further reduced. This is achieved by "looking ahead" which (combination of) preceding sample modifications yields the best encoding quality.

Fig. 6