Title (en)

Method and apparatus for encoding and decoding symbols carrying payload data for watermarking an audio or video signal

Title (de)

Verfahren und Vorrichtung zur Kodierung und Dekodierung von nutzlasttragenden Zeichen zur Einbettung eines Wasserzeichens in ein Audio- oder Videosignal

Title (fr)

Procédé et appareil pour la codage et décodage des symboles porteurs d'information pour le tatouage des signaux audio/vidéo

Publication

EP 1703461 B1 20100526 (EN)

Application

EP 06300165 A 20060227

Priority

- EP 05090072 A 20050318
- EP 06300165 A 20060227

Abstract (en)

[origin: EP1703461A1] Watermark information (denoted WM) consists of several symbols which are embedded continuously in an audio or a video signal. At decoder site the WM is regained using correlation of the received signal with an m-sequence if Spread Spectrum is used. In some watermark technology the watermark information is transmitted asynchronously, i.e. it is continuously tested whether or not WM can be embedded imperceptible within the audio or video signals. Only if this is true a WM frame is transmitted. But a WM frame consists of some tens of symbols, each carrying one or more bits which are transmitted synchronously. That means, if the period in which the WM can be embedded is shorter than the frame length, some symbols cannot be recovered at receiver side. According to the invention, each WM symbol carries an ID item in addition to its normal payload, and it is already tested in the encoder whether or not the signal is good enough so that the embedded symbol can be recovered at decoder side. If true, it is embedded. If not true, no WM is embedded for the length of one symbol and the test is repeated for the following symbol. The sequence of IDs is known at the encoder which can therefore detect using the ID whether or not a symbol has been skipped.

IPC 8 full level

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