CCITT SGXV
Working Party XV/1
Specialists Group on Coding for Visual Telephony

Document #398
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SOURCE: AEG
TITLE :

Patents hold by AEG via Licentia-Patent-Verwaltungs-GmbH, Frankfurt in the field of low rate picture coding with frame to frame prediction

DE 3629 472 A1; EP 0259 562 A1; US 07-090,875 Priority: 29.6.86
Inventors: G. Kummerfeldt, F.May, W. Wolf

A process of frame to frame prediction coding in which a frame is broken down into a regular block scanning field and then prior to each prediction, up to four prediction methods, namely block displacements, object related displacement vector calculation, nullification of the displacement, and nullification of the prediction are monitored as to the data rate to be transmitted, and the method that leads to the smallest prediction is selected for the coding.

DE 36 44 407; filed in US, Japan, etc. Priority: 24.12.86
Inventors: G. Kummerfeldt, W. Schwerzel

A process for displacement vector search by a programmable array of processor elements in which in a first stage the partial sums (according to the L1 or L2 norm) ar computed in parallel, and in a second stage these sums are accumulated in a succeding processor element, and in a third stage a control processor element evaluates the displacement vectors; the set of pixel pairs used in the first stage can be a subset of of all pixel pairs within the measurement window; the search path within the search area is programmable.

DE 33 28 341 Priority: 05.08.83
Inventors: F. May, W. Wolf

A process of frame to frame prediction coding in which the motion compensated estimated picture is computed in a hierarchical manner in two (or more) steps, where whithin one moving areas first the dominant (object) movement is compensated, and then the less dominant (object) movement(s) are compensated.

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Document n°483

Oslo , March 7-10 , 1989

Title : Patents applications by CNET on low bit rate coding

Source : CNET (FRANCE TELECOM)

1. Scanning classes and post-decision technique.
   October 85
   85 15 649

2. Non-linear quantization technique.
   April 86
   86 05 213

3. Variable blocksize technique.
   May 86
   86 07 713

4. Variable thresholding technique.
   September 88
   88 12 186

DE 30 29 190 Priority: 01.08.80

Inventor: F. May

A process of frame to frame prediction coding with blockwise cosine transform and adaptive quantization in which a frame to frame prediction coefficient is computed, quantized and transmitted; especially only two values are used in order to distinguish between a coding of the original block and a coding of the frame to frame difference block.