

**Abstract**

The coding or decoding of video data with the associated audio and/or other data can be performed, for example, on the basis of the standards ISO/IEC 11172 (MPEG1) or ISO/IEC 13818 (MPEG2). In some cases, it is wished to convert a bit stream coded on the basis of such standards into a bit stream with a different data rate. The best picture quality is in this case achieved by a decoding of the primary bit stream and subsequent encoding into a secondary bit stream. However, extensive hardware is required for this purpose.

The invention is based on the reuse of motion-compensating prediction vectors of the primary bit stream in the secondary bit stream. Since the information content of the motion vectors from the primary bit stream retains its validity also in the secondary bit stream, it is not necessary to recalculate motion vectors for transcoding. Instead, an encoding of the secondary bit stream is performed with the aid of the motion vectors from the primary bit stream. In this case, the encoding of the secondary bit stream is carried out in a restricted prediction mode, i.e. only those prediction modes which are described by the respective block type or the motion information of the primary bit stream are allowed in the secondary bit stream.

Fig. 1