

Internal distribution code:

- (A) [] Publication in OJ
(B) [] To Chairmen and Members
(C) [X] To Chairmen
(D) [] No distribution

**Datasheet for the decision
of 24 April 2008**

Case Number: T 1387/05 - 3.5.04

Application Number: 03001127.4

Publication Number: 1320268

IPC: H04N 9/804

Language of the proceedings: EN

Title of invention:

Band-compressed signal recording/reproducing processing apparatus

Applicant:

KABUSHIKI KAISHA TOSHIBA

Headword:

-

Relevant legal provisions (EPC 1973):

EPC Art. 76(1)

Keyword:

"Added subject-matter (yes)"

Decisions cited:

G 0001/93, G 0001/05, G 0001/06

Catchword:

see point 6



Case Number: T 1387/05 - 3.5.04

D E C I S I O N
of the Technical Board of Appeal 3.5.04
of 24 April 2008

Appellant:

KABUSHIKI KAISHA TOSHIBA
1-1, Shibaura 1-chome
Minato-ku
Tokyo (JP)

Representative:

Henkel, Feiler & Hänzel
Patentanwälte
Maximiliansplatz 21
D-80333 München (DE)

Decision under appeal:

Decision of the Examining Division of the
European Patent Office posted 30 May 2005
refusing European application No. 03001127.4
pursuant to Article 97(1) EPC.

Composition of the Board:

Chairman: F. Edlinger
Members: C. Kunzelmann
B. Müller

Summary of Facts and Submissions

- I. The appeal is against the decision of the examining division to refuse European patent application No. 03 001 127.4 (published as EP 1 320 268 A1). The application is a second generation divisional application, divided from parent application No. 99 106 820.6, which itself was divided from root application No. 92 116 707.8.
- II. The examining division refused the application for lack of clarity (Article 84 EPC 1973) of the independent claims then on file and for lack of original disclosure (Articles 123(2) and 76(1) EPC 1973) of the subject-matter of these claims, when understood in the light of the applicant's explanation of the main aim of the claimed invention.
- III. The applicant appealed and filed new claims with a statement of grounds of appeal.
- IV. In a communication annexed to a summons to attend oral proceedings the board, referring to Article 76(1) EPC 1973, expressed doubts whether the parent application as originally filed disclosed a system of the type defined in claim 1.
- V. The appellant filed new claims according to a main and an auxiliary request with a letter dated 20 March 2008.
- VI. Claim 1 of the main request reads as follows.

"A system comprising:
means (12, 13, 14, 15, 16, 19, 20, 21, 22, 23, 31 and 67) for producing coded video data of pictures, the pictures being constituted by at least one or a plurality of slices, each slice being constituted by one or a plurality of blocks,
said coded video data including intra-frame-coded data blocks and inter-frame-coded data blocks;
said inter-frame-coded data blocks being formed by coding a difference between information in a present picture and information in a predicted picture;
said intra-frame-coded data blocks being formed by coding information in a present picture;
means (68) for transmitting the coded video data in the form of a predetermined bitstream;
means (113) for inputting the transmitted coded video data in the form of a predetermined bitstream to a decoder (111, 114, 115, 116, 119, 122 and 135) for decoding the coded video data; and
a frame memory (121) for storing the video data decoded by the decoder;
characterized in that
the coded video data of each slice comprises a header including address information indicating a position of the slice in the picture;
the decoded video data of each slice is displayed in accordance with the address information;
the transmitting means (68) is adapted to transmit the coded video data in the form of the predetermined bitstream with flag information (TRK) indicating a reproduction mode;
the flag information (TRK) included in the predetermined bitstream output from the inputting means is set in a first level when a normal reproduction mode

is set and in a second level when a special reproduction mode is set; and when said inputting means inputs the transmitted coded video data in the form of the predetermined bitstream with the flag information (TRK) which is set in the second level, a block of previously decoded pictures is used for a non-transmitted block."

VII. Claim 1 of the auxiliary request differs from claim 1 of the main request as follows.

- The expression "flag information (TRK)" is replaced by "information (TRK)".
- The last feature ("a block of previously decoded pictures is used for a non-transmitted block") is replaced by "only intra-frame-coded data blocks are written in the frame memory (121)".

VIII. The appellant's arguments can be summarized as follows.

The fact that the parent application was directed to an apparatus for recording/reproducing did not per se prevent the claiming of a system for producing and transmitting coded video data in this divisional application, as long as the latter was directly and unambiguously derivable from what was disclosed in each of the preceding applications. Figure 9 of the parent application showed the encoder side of a band compression signal processor, and the description made clear that the invention was directed to a system for producing coded video data. Overhead data were added to an output of the encoder, and the resultant data was output to an output terminal as a bit stream to be transmitted with a broadcast wave. Figure 58 of the

parent application showed the decoder side of the band compression signal processor as having an input terminal which received the broadcast wave. Thus the system for transmitting coded video data was directly and unambiguously derivable from the disclosure in the description and drawings of each of the preceding applications, so that the conditions stated in decision G 1/06 (OJ EPO 2008, 307) were fulfilled. In particular, G 1/06 did not state in the answer to the referred questions that subject-matter had to be separately derivable from what was disclosed in each of the preceding applications as filed.

The parent application disclosed two different branches of video signal transmission. The first branch related to broadcasting from an encoder on a transmitter side to a decoder on a receiver side and was the invention for which protection was sought by the present application. The alternative branch disclosed a recording means, for instance a video cassette recorder, on the encoder side and a playback means, for instance a video cassette player, on the decoder side and had been pursued in the parent and root applications. It was clear to a person skilled in the art that the first branch did not require the recording and playback means even if this was not stated in the description. For both branches the underlying idea of the invention was the partitioning of frames into blocks, which blocks could be intra-frame coded or inter-frame coded. In the case of the first branch, there were two possibilities, namely either broadcasting both inter-frame coded blocks and intra-frame coded blocks, or broadcasting only intra-frame coded blocks. The information as to which of the two possibilities had been chosen on the

encoder side was broadcast as overhead data to the decoder side. The normal and special reproduction modes mentioned in the claims specified the reproduction of the broadcast signal.

- IX. The appellant requested that the decision under appeal be set aside and that the board either grant a patent on the basis of claims 1 to 6 filed with letter dated 20 March 2008 according to the main request or the auxiliary request, or otherwise remit the case to the examining division for further prosecution.
- X. Oral proceedings before the board were held on 24 April 2008, at the end of which the chairman pronounced the board's decision.

Reasons for the Decision

1. The appeal is admissible.
2. In accordance with established case law (see G 1/06, *supra*, Headnote), "[i]n the case of a sequence of applications consisting of a root (originating) application followed by divisional applications, each divided from its predecessor, it is a necessary and sufficient condition for a divisional application of that sequence to comply with Article 76(1), second sentence, EPC [1973] that anything disclosed in that divisional application be directly and unambiguously derivable from what is disclosed in each of the preceding applications as filed." Both Article 76(1) EPC 1973 and Article 123(2) EPC 1973 enshrine the principle that before grant the legal security of third

parties is sufficiently protected by the prohibition of extending the content of the application by amendment beyond what was originally disclosed, and exactly the same principles are to be applied for both types of cases when determining what extends beyond the content of the earlier application. The content has to be interpreted as the whole technical content of the earlier application (see points 5.1, 5.3 and 9.2 of G 1/06, *supra*, and the identical text in the Reasons of G 1/05, OJ EPO 2008, 271). Added matters which are to be avoided in the interest of legal security for third parties may be generalisations of specific features or embodiments and the introduction of new alternatives (see G 1/93, OJ EPO 1994, 541, point 11).

3. In the present case, the parent application as filed is based on ten priority documents, has 133 figures and a complex description of a variety of aspects of the invention. The subject-matter of all the claims and the description and drawings, at the most general level, relate to a recording/reproducing processing apparatus for easily reproducing a good image, especially in the fast reproduction mode, from band compressed signals. It also discloses an apparatus which can record signals in a wide band, used for a high-definition TV or the like (page 1, lines 1 to 12) [0001]. (References to the relevant pages of the parent application as filed are set in parentheses. Corresponding paragraphs of the largely identical description of the present divisional application as published - to which the appellant referred - are set in square brackets.)

The introductory part of the description describes encoding and decoding of intra-frame and inter-frame

coded signals as well as the problems resulting from fast reproduction of inter-frame coded signals recorded on tracks of a tape of a video tape recorder (page 7, line 4, to page 8, line 32, referring to figures 5 to 8) [0017 to 0022]. These problems are said to be solved by the invention as defined in claim 1, and embodiments are described in the following. The question therefore arises whether any other part of the parent application as filed directly and unambiguously discloses a system having the combination of features specified in claim 1 of the present main request. This claim is not directed at recording/reproducing processing, specifies "a special reproduction mode" which is a generalisation of the fast reproduction mode and specifies generalised bit stream flag information which is not related to fast reproduction of signals recorded on tracks of, for example, a tape of a video tape recorder.

- 3.1 The encoder-side section of this band compressed signal recording/reproducing processing apparatus is illustrated in the parent application in figure 9 (page 10, lines 1 to 3) [0024] and comprises a video recording means, for instance a video tape recorder and a tape on which codes are recorded using the recording heads of a rotary drum (page 35, line 33, to page 36, line 7, and page 43, lines 7 to 16) [0140], [0172]. In particular, overhead data output from an overhead data generator is added to an output from a variable length encoder, and the resultant data is output to an output terminal (page 57, lines 10 to 13) [0247]. As shown in figure 9, the output terminal (68) is connected to the recording means through circuitry comprising a code switching circuit.

3.2 The decoder side is illustrated in figure 58 and also comprises a video recorder, here a video cassette recorder (VCR) having a tape with an encoded signal recorded thereon, which is read using the reading heads of a rotary drum of the VCR (page 81, lines 17 to 33) [0433 to 0436]. In particular, the input of a variable length code decoder is connected to the reading heads through circuitry comprising a code re-switching circuit.

3.3 As already set out under point 3 above, the parent application describes the problems occurring when reproducing the coded signal in a special reproduction mode, namely at multiples of the normal reproduction speed of the tape (page 7, line 4 to page 8, line 32) [0017 to 0022], as well as a forcible intra-frame signal processing for accomplishing the special reproduction in the case where a recording medium such as a VCR or a disk is utilized (page 24, lines 27 to 34) [0063]. The entire chapter 9 of the description is dedicated to "Requirements for fast reproduction" (page 34, line 29, to page 45, line 1) [0134 to 0182], and in the entire application, the expressions "special reproduction" and "fast reproduction" are used as synonyms. Similarly, "normal reproduction" and "slow reproduction" are used as synonyms (e.g. page 122, lines 27 to 35, or page 124, lines 2 to 11) [0631, 0636] and relate to reproduction using a "package medium such as a VCR or a video disk" (e.g. page 57, lines 14 to 18) [0248].

4. It is undisputed that the parent application does not explicitly state that recording and playback means are not required to solve a technical problem arising with

normal and special reproduction modes by means as specified in claim 1 if a broadcast wave is transmitted.

- 4.1 In the parent application the broadcast wave is mentioned in the context of both the normal and the special reproduction modes of the entire system (see points 3 to 3.3 above). For instance, concerning the encoder side, the parent application states that "[r]eferring to Fig. 9, over-head data output from an over-head data generator 67 is added to an output from the variable length encoder 16, and the resultant data is output to an output terminal 68. A package medium such as a VCR or a video disk requires the code switching circuit 45 in order to realize fast reproduction. In transmitting a broadcast wave, however, code switching is not necessarily required. In addition, a code switching technique is dependent on the rotational speed of the drum of a VCR; the number of heads, the tape format, the recording code amount per track, and the special reproduction speed. For this reason, the bit stream of a broadcast wave is transmitted by using the bit stream of a macro-block shown in Figs. 44 and 47" (page 57, lines 10 to 25) [0247 to 0250]. Furthermore "[a] broadcast wave bit stream can be formed by setting only necessary data in a broadcast wave. In this case, the format converter of the VCR only needs to have circuits required to form a bit stream ... necessary for the VCR" (page 60, lines 4 to 8) [0267]. And for the decoder side, "[t]he bit stream described above is used as bit stream of a broadcast wave. The decoder which is used to receive the broadcast wave can thereby receive also the signal which has been reproduced by the VCR in a special way" (page 64, lines 21 to 25) [0303]. Further "[i]n the VCR,

a bit stream for normal reproduction has the same macro-block arrangement as that of a bit stream of a broadcast wave. This is why a bit stream of a broadcast wave is input through the terminal 113" (page 83, lines 8 to 11) [0446]. Still further "[i]n the normal reproduction mode using a broadcast wave and a recording medium, the above-described write processing with respect to the variable length code decoder 114, the inverse quantizer 116, the inverse DCT circuit 115, and the frame delay circuit 121 is always performed in units of macro-blocks" (page 86, lines 8 to 13) [0464].

- 4.2 Thus, as far as the broadcast wave is concerned, the disclosure of the parent application is that the disclosed band-compressed signal recording/reproducing processing apparatus may be used for transmitting and receiving a broadcast wave. There is however no disclosure of a different apparatus which may be used for transmitting and receiving a broadcast wave.

5. The appellant's argument that it was clear to a person skilled in the art that the transmitting and receiving of a broadcast wave did not require any recording and playback means did not convince the board that it was directly and unambiguously derivable from the parent application that the recording and playback means could be dispensed with for the following reasons.
 - 5.1 The parent application is concerned with problems associated with the fast reproduction of coded signals recorded on a tape or a video disk (see point 3.3 above). Dispensing with the recording and playback means would have the effect that these problems would not occur in the first place and would thus be

inconsistent with the teaching of the parent application.

5.2 Even though the parent application indicates that the same macro-block arrangement is used for normal reproduction of a recorded signal and for a broadcast wave (page 83, lines 8 to 10) [0446], the processing of the macro-blocks is only described in the context of a VCR, not in the context of a system having no recording and playback means. The parent application states that: "The bit stream described above is used as bit stream of a broadcast wave. The decoder which is used to receive the broadcast wave can thereby receive also the signal which has been reproduced by the VCR in a special way. By using the above-described bit stream, the format converter of the VCR can realize special reproduction by simply detecting the over-head data of each macro-block and switching refresh block codes" (page 64, lines 21 to 29) [0303 and 0304].

5.3 The appellant's argument is based on the underlying understanding that the parent application discloses two distinct branches as alternatives, and that the claims of the present divisional application concerned only the first branch (see point VIII above). However the parent application does not directly and unambiguously present alternative apparatuses corresponding to these two alternative branches. Instead it discloses a recording/reproducing processing apparatus (see point 3 above) with the functionality that a broadcast wave may be transmitted and/or received (see point 4.1 above).

5.4 The fact that no recording and playback means are required if the recording/reproducing processing

apparatus disclosed in the parent application is not used for recording and then reproducing band-compressed signals does not mean that the parent application discloses an apparatus having the features specified in claim 1 of the divisional application. The use of the flag information indicating a normal or a special reproduction mode is intimately related to providing a solution to a problem arising in the fast reproduction mode of inter-frame coded signals recorded on tracks (see points 3 and 3.3 above). Reading the parent application as filed, a person skilled in the art might have found that the flag information could be used for another special use, but the parent application did not even hint at any particular use of this kind. Therefore the board does not see a direct and unambiguous disclosure of the subject-matter of claim 1 in the parent application as filed.

6. The board accepts the appellant's argument that the decision G 1/06 did not state that subject-matter had to be separately derivable from what was disclosed in each of the preceding applications as filed. However this does not mean that features which were disclosed in a given context may be claimed in a different context or specific features may be generalised without a proper basis in the parent application as filed.
 - 6.1 It has already been set out above under point 2 that the same principles are to be applied for both Article 76(1) EPC 1973 and Article 123(2) EPC 1973.
 - 6.2 In the context of Article 123(2) EPC, it is established case law that it is normally not allowable to extract features from a set of features which have originally

been disclosed only in combination (see the examples cited in "Case Law of the Boards of Appeal of the European Patent Office, 5th edition 2006", Section III.A.1.1). It follows from point 6.1 above that it is normally not allowable under Article 76(1) EPC 1973 to extract features from a set of features which have been originally disclosed only in combination in a parent application and to claim such extracted features in a divisional application isolated from their context, namely the combination disclosed in the parent application.

7. Hence the subject-matter of claim 1 of the main request of the divisional application is not directly and unambiguously derivable from the parent application as filed. Thus, in the board's judgment, the divisional application infringes Article 76(1) EPC 1973.

8. The above reasons also apply to the subject-matter of claim 1 of the auxiliary request because the differences over claim 1 of the main request set out under point VII above only relate to details of flag information and the blocks which are written in the frame memory. They do not re-introduce features relating to the relevant context of recording/reproducing processing disclosed in the parent application as filed.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:

D. Sauter

F. Edlinger