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Datasheet for the decision of 23 July 2013

Case Number: T 1027/09 - 3.5.04

Application Number: 03002994.6

Publication Number: 1322106

IPC: H04N5/00, H04N7/24, H04N7/173

Language of the proceedings: EN

Title of invention:
Method and apparatus for concurrently encoding and tagging digital video data

Applicants:
NCube Corporation
Thirdspace Living Limited

Headword:

Relevant legal provisions:
EPC 1973 Art. 84
RPBA Art. 13(1)

Keyword:
Claims - clarity (no)
Late-filed auxiliary requests - admitted (no)

Decisions cited:

Catchword:

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Case Number: T 1027/09 - 3.5.04

D E C I S I O N
of Technical Board of Appeal 3.5.04
of 23 July 2013

Appellant: (Applicant 1)	NCube Corporation 1825 NW 167th Place Beaverton, Oregon 97006 (US)
Appellant: (Applicant 2)	Thirdspace Living Limited Voyager Place, Shoppenhangers Road Maidenhead, Berkshire SL6 2PJ (GB)
Representative:	Viering, Jentschura & Partner Grillparzerstraße 14 81675 München (DE)
Decision under appeal:	**Decision of the Examining Division of the European Patent Office posted on 12 December 2008 refusing European patent application No. 03002994.6 pursuant to Article 97(2) 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. 03 002 994.6 under Article 97(2) of the European Patent Convention (EPC). The application is a divisional application of the earlier European patent application No. 98 953 691.7, which was filed as international application PCT/US98/22018 and published as WO 99/21364 A1.

II. The application was refused on the ground that the subject-matter of all the claims of the sole request then on file did not involve an inventive step (Article 56 EPC).

III. The applicants appealed. In the statement of grounds of appeal, the appellants submitted that the objective problem defined in the decision under appeal included parts of the solution of the technical problem to be solved and was therefore not correct. The appellants also submitted their interpretation of claim 1 and argued that the video delivery system of claim 1, thus interpreted, had an improved reliability when compared with the video delivery system of the closest prior art.

IV. The board issued a communication pursuant to Article 15(1) of the Rules of Procedure of the Boards of Appeal (RPBA), annexed to a summons to oral proceedings. In this communication the board raised objections under Articles 76(1) and 123(2) EPC as well as Article 84 EPC 1973. It also raised doubts as to the appellants' interpretation of claim 1.

V. With a letter of reply dated 24 June 2013 the appellants replaced the previously submitted claims with claims of a new main and first auxiliary request and submitted arguments concerning the board's objections.

VI. Claim 1 of the main request reads as follows:

"A digital video delivery system comprising:
an encoder (101) configured to receive visual information and to encode content data that represents the visual information in a digital video format;
the encoder (101) configured to generate control data separate from and in parallel with the content data, the control data indicating locations of frames contained in the content data;
at least one video server (106) configured to repeatedly determine new end-of-file information for the content data as new content data is encoded from the visual information into the digital video format;
the video server (106) configured to determine if a request to access the content data specifies a position beyond the current end-of-file;
a video pump (120);
the video pump (120) configured, conditional that the request does not specify a position that is beyond the current end-of-file, to:
i) use the control data to select a set of video frames within the content data corresponding to the specified position;
ii) construct a digital data stream including the selected set of video frames; and
iii) transmit the digital data stream to one or more client devices."

VII. Claim 1 of the first auxiliary request is the same as claim 1 of the main request, with the following text appended at the end, before the full stop:

"; the control data for particular frames of content data transmitted to the video server (106) by the encoder (101) before the particular frames are transmitted; and
the video server (106) configured to receive the control data for the particular frames and to release the control data for the particular frames to the video pump (120) only after (a) the particular frames are available from the encoder (101), and (b) an additional period of time after the particular frames are available, the additional period of time set to guarantee that a seek by the video pump (120) to the particular frames will not starve the video pump (120) for data".

VIII. Oral proceedings before the board were held on 23 July 2013. In the oral proceedings the appellants filed claim 1 of a second auxiliary request. The appellants' final requests were that the decision under appeal be set aside and that a patent be granted on the basis of the set of claims of the main request or of the auxiliary request, both filed with the letter dated 24 June 2013, or on the basis of claim 1 of the second auxiliary request submitted in the oral proceedings. At the end of the oral proceedings, the chairman announced the board's decision.

IX. Claim 1 of the second auxiliary request reads as follows (amendments to claim 1 of the main request are in *italics*):

"A digital video delivery system comprising:
an encoder (101) configured to receive visual information and to encode content data that represents the visual information in a digital video format;
the encoder (101) configured to generate control data separate from and in parallel with the content data, the control data indicating locations of frames contained in the content data;
a media data store (112) configured to store the content data in a content file (134) and to store the control data;
at least one video server (106) configured to repeatedly determine new end-of-file information for the *content file (134)* as new content data is encoded from the visual information into the digital video format *and stored in the content file (134), wherein the end-of-file information indicates a current end-of-file of the content file (134);*
a stream server (118) configured to receive a request from a client (122) to access the content data stored in the content file (134);
a video pump (120);
the video pump (120) configured, *if and only if* the request does not specify a position that is beyond the current end-of-file *of the content file (134)*, to:
i) use the control data to select a set of video frames within the content data corresponding to the specified position;
ii) construct a digital data stream including the selected set of video frames; and
iii) transmit the digital data stream to one or more client devices; and
wherein, if the request specifies a position that is beyond the current end-of-file of the content file (134), the video pump (120) does not perform a seek to the specified position."

X. The appellants' arguments relating to the issues of Article 84 EPC 1973 and Article 123(2) EPC may be summarised as follows:

The application as filed disclosed that the video server determined and controlled the end-of-file (EOF) information by defining and buffering it. The EOF information was the last point in the content file corresponding to presentable data encoded from the live feed. Points in the live feed not yet encoded in the content file were beyond the EOF. The EOF information was provided to a Media Data Store, from where it controlled read accesses by the video pump. Thus the video server indirectly controlled access to and streaming of the content through a chain of components. By determining the EOF information it consequently also determined if a request to access the content data specified a position beyond the EOF.

Moreover, the appellants argued that the second auxiliary request should be admitted into the appeal proceedings as a reaction to the board's objections raised in the oral proceedings.

Reasons for the Decision

1. The appeal is admissible.

2. Main request: clarity (Article 84 EPC 1973)

2.1 The video server of the digital video delivery system according to claim 1 of the main request is configured a) to repeatedly determine new EOF information for the content data as new content data is encoded from the visual information into the digital video format; and b) to determine if a request to access the content data specifies a position beyond the current EOF.

2.2 For the purpose of this decision and in favour of the appellants, the board will give the expression "end-of-file information" the meaning submitted by the appellants, namely the last point in the content file corresponding to presentable data encoded from the live feed. Hence, stored content positioned before or at EOF may be accessed by the video pump, whereas content positioned beyond EOF may not.

2.3 On this basis the technical meaning of the configuration of the video server specified by feature a) above is clear as to the determination of new EOF information. Hence, when new content data is encoded and stored, the video server determines new EOF information. The newly encoded and stored content may then be accessed by the video pump configured as specified in claim 1.

2.4 The configuration of the video server specified by feature b) above, however, is not clear. One understanding of this feature would be that the video

server compares data of a request to access content data with the current EOF and determines "if" the request specifies a position beyond the current EOF. However, in the application as a whole, and in particular the description and figure 1, there is no indication that requests to access content may be transmitted to the video server for comparison with the current EOF. Thus this understanding is not necessarily the correct one.

2.4.1 Another understanding would be that submitted by the appellants, namely that the video server, by repeatedly determining new EOF information as new content data is encoded, defines the current EOF and consequently determines whether a request to access the content data specifies a position beyond the current EOF. This understanding is consistent with the description. But in this understanding the configuration of the video server specified by feature b) is unclear as to whether it implies a certain further configuration of the video server or is redundant in view of feature a). Furthermore, this understanding would raise the question of which element of the video delivery system compares data of a request to access content data with the current EOF and determines whether the request specifies a position beyond the current EOF.

2.4.2 The appellants' argument that they had submitted the only understanding of the video server configuration that a person skilled in the art would have considered did not convince the board. In the context of the application, some element of the video delivery system must compare data of a request to access content data with the current EOF and determine whether the request specifies a position beyond the current EOF (see the feature "conditional that the request does not specify

a position that is beyond the current end-of-file" in claim 1). Otherwise the decision whether or not to grant access cannot be taken. The application does not give details in this respect, and indeed for the client issuing the request it is not decisive by which element this decision is taken. Thus it is neither excluded for technical reasons nor inconsistent with the disclosure of the application that this decision may be taken by the video server.

2.4.3 Thus the board finds that the technical meaning of the configuration of the video server specified in claim 1 of the main request is not clear.

2.5 Hence, the board judges that claim 1 according to the main request is not clear (Article 84 EPC 1973).

3. First auxiliary request: clarity (Article 84 EPC 1973)

3.1 The objections raised in section 2 above against claim 1 of the main request apply also to claim 1 of the first auxiliary request. The additional features of the configuration of the video server specified in claim 1 of the first auxiliary request concern timing issues of the control data, not the determination of whether a request to access the content data specifies a position beyond the current EOF.

3.2 Hence, the board judges that claim 1 according to the first auxiliary request is not clear (Article 84 EPC 1973).

4. *Second auxiliary request: admission into the appeal proceedings (Article 13(1) RPBA)*

4.1 According to Article 13(1) RPBA, "Any amendment to a party's case after it has filed its grounds of appeal ... may be admitted and considered at the Board's discretion. The discretion shall be exercised in view of inter alia the complexity of the new subject-matter submitted, the current state of the proceedings and the need for procedural economy."

4.2 In the present case, the second auxiliary request was filed in the oral proceedings, long after the filing of the statement of grounds of appeal. Hence the second auxiliary request may be admitted and considered at the board's discretion.

4.3 The sole claim of the second auxiliary request specifies further elements of the digital video delivery system, such as a media data store and a stream server. These elements *prima facie* raise new problems and further objections. This increases the complexity of the case.

4.3.1 For instance, the stream server (118) is "configured to receive a request from a client (122) to access the content data stored in the content file (134)", but the configuration in respect of the issue discussed in section 2 above, and in particular how the stream server reacts to the request, is not specified.

4.3.2 Moreover, the media data store stores *inter alia* the content file. The configuration of the video server considered in point 2.3 above is modified to repeatedly determine new EOF information for the content file as new content data is encoded from the visual information

into the digital video format **and stored in the content file** (emphasis by the board). Thus timing aspects related to the storing of the content file in the media data store also need to be taken into consideration in the configuration of the video server. Thus the clarity issues discussed in section 2 above become more complex.

4.4 The oral proceedings were not the appropriate point in time in the appeal proceedings for submitting the second auxiliary request. The summons to oral proceedings raised the issue of the functionality of the video server to determine whether a request specified a position beyond the current EOF, albeit in terms of Articles 76(1) and 123(2) EPC. In the letter of reply dated 24 June 2013, the appellants submitted arguments as to the configuration of the video server as well as amended claims according to a main and a first auxiliary request, but not the sole claim of the second auxiliary request.

4.5 It became clear in the oral proceedings that the amendments made (with respect to claim 1 of the main request) would lead to further discussions and possibly further amendments, at odds with the need for procedural economy.

4.6 The appellants' argument that the second auxiliary request was a reaction to the board's objections raised in the oral proceedings failed to convince the board. Even if its claim 1 comprises features prompted by the discussion in the oral proceedings, the issues in points 4.3 to 4.5 above remain.

4.7 In view of the above, the board decided to exercise its discretion in not admitting the second auxiliary request into the appeal proceedings.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

K. Boelicke F. Edlinger

Decision electronically authenticated