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**Datasheet for the decision  
of 9 November 2016**

**Case Number:** T 1827/11 - 3.5.04

**Application Number:** 03791219.3

**Publication Number:** 1547385

**IPC:** H04N7/167, G06F17/30

**Language of the proceedings:** EN

**Title of invention:**

Diligent control of preview of stored contents

**Applicant:**

Nippon Hosokai

**Headword:**

**Relevant legal provisions:**

EPC 1973 Art. 56

**Keyword:**

Inventive step - (no)

**Decisions cited:**

**Catchword:**



**Beschwerdekammern**  
**Boards of Appeal**  
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Case Number: T 1827/11 - 3.5.04

**D E C I S I O N**  
**of Technical Board of Appeal 3.5.04**  
**of 9 November 2016**

**Appellant:** Nippon Hosho Kyokai  
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**Decision under appeal:** **Decision of the Examining Division of the  
European Patent Office posted on 29 April 2011  
refusing European patent application  
No. 03791219.3 pursuant to Article 97(2) EPC.**

**Composition of the Board:**

**Chairman** C. Kunzelmann  
**Members:** R. Gerdes  
B. Müller

## **Summary of Facts and Submissions**

I. The appeal is directed against the decision to refuse European patent application No. 03 791 219.3, published as international application WO 2004/021707 A1.

II. The application was refused on the grounds that the subject-matter of the independent claims according to the sole request did not involve an inventive step in view of document

D1: EP 0 708 561 A2.

With respect to the dependent claims, the examining division also referred to documents

D2: JP 11 308 595 A and

D3: WO 01/95623 A1.

III. The reasons for the decision under appeal may be summarised as follows, as far as claim 1 is concerned:

D1 was considered to be the closest prior art. It disclosed a method of transmitting contents of the kind specified in claim 1 comprising the steps of

(a) encrypting the contents by a first encryption key,

(c) encrypting the first encryption key by a second encryption key, thereby generating first encrypted information,

(d) encrypting the second encryption key and content-usage control information by a third encryption key, thereby generating second encrypted information,

(e) transmitting the encrypted contents, the first encrypted information, and the second encrypted information.

The subject-matter of claim 1 differed from that known from D1 in that

- preview control information indicative of a variable relationship between content view time and accounted preview time was generated at the head-end and transmitted with the content, and
- the preview control information was encrypted with a key different from that used to encrypt the content.

The variable relationship in the first difference related to a business concept.

The two objective technical problems to be solved could be regarded as

- how to implement a variable preview time cost function in a context where the content was initially transmitted as a whole (i.e. not pay-per-view broadcast as in D1), and
- how to secure the preview control information.

Regarding the first objective technical problem, the solution of claim 1 did not go beyond an obvious implementation. Regarding the second objective technical problem, D1 disclosed that the anytime free preview (AFP) duration was included as part of the Program Attributes forming the program key, and that

this information was encrypted using a program pre-key different from the keys used to encrypt the content.

IV. The applicant filed an appeal against this decision. With the statement of grounds of appeal the appellant resubmitted the claims underlying the decision under appeal as forming the basis of its main request. It also filed claims according to a first auxiliary request.

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

"A method of transmitting contents, which are to be received at a reception side where a portion of the contents is previewed while the contents are not accessible for playing other than for a preview purpose, comprising the steps of:

encrypting the contents by a first encryption key ( $K_s$ );

characterised by:

generating information indicative of an elapsed time of the contents that indicates a relationship between positions on a time axis of the contents representing an amount of time that passes as the contents are played and a time count that accrues as a preview time when the contents are previewed;

encrypting the first encryption key and the information indicative of an elapsed time of the contents by a second encryption key ( $K_c$ ), thereby generating first encrypted information;

encrypting the second encryption key and content-usage control information by a third encryption key ( $K_w$ ),

thereby generating second encrypted information, said content-usage control information indicating usage of the contents on the reception side; and

transmitting the encrypted contents, the first encrypted information, and the second encrypted information to the reception side,

wherein the time count is assigned to the time axis of the contents such that the time count indicates a first time length accrued as the preview time for passage of a predetermined time length on the time axis of the contents at a first portion of the contents, and indicates a second time length accrued as the preview time for passage of the same predetermined time length on the time axis of the contents at a second portion of the contents, said first time length being different from the second time length."

VI. Claim 1 of the first auxiliary request reads as follows (amendments to claim 1 of the main request are underlined):

"A method of transmitting contents, which are to be received at a reception side where a portion of the contents is previewed while the contents are not accessible for playing other than for a preview purpose, comprising the steps of:

encrypting the contents by a time-varying first encryption key (Ks);

characterised by:

generating information indicative of an elapsed time of the contents that indicates a relationship between

positions on a time axis of the contents representing an amount of time that passes as the contents are played and a time count that accrues as a preview time when the contents are previewed;

encrypting the first encryption key and the information indicative of an elapsed time of the contents by a content-specific second encryption key (Kc), thereby generating first encrypted information;

encrypting the second encryption key and content-usage control information including an authorised preview time length by a third encryption key (Kw), thereby generating second encrypted information, said content-usage control information indicating usage of the contents on the reception side; and

transmitting the encrypted contents, the first encrypted information, and the second encrypted information to the reception side,

wherein the time count is assigned to the time axis of the contents such that the time count indicates a first time length accrued as the preview time for passage of a predetermined time length on the time axis of the contents at a first portion of the contents, and indicates a second time length accrued as the preview time for passage of the same predetermined time length on the time axis of the contents at a second portion of the contents, said first time length being different from the second time length."

VII. In a communication annexed to a summons to oral proceedings the board indicated *inter alia* that it considered the subject-matter of claim 1 of both of the appellant's requests to lack an inventive step.



The board made the following observations:

*"Main request*

*...*

*Inventive step, Article 56 EPC 1973*

4. *The rejection of the main request in the decision under appeal is based on the grounds of lack of inventive step in view of D1. During the examination procedure and in the oral proceedings before the examining division the objection of lack of inventive step was also based on D1 in combination with D2. The board considers D2 to be relevant for the question of inventive step (see point 5.7 below) and attaches a machine translation to this annex to the summons to oral proceedings. At the oral proceedings the appellant should be prepared to discuss inventive step in view of D1 and the combination of D1 and D2.*

5. *At present the board is not convinced by the appellant's arguments in the statement of grounds that the decision under appeal should be set aside.*

5.1 *It appears to be common ground that D1 can be considered as the closest prior art. Using the denomination of features as employed by the examining division in the decision under appeal, see points 12.1 and 12.2, it appears that the examining division summarised features (b) and parts of feature (e) in the first distinguishing feature:*

*(i) preview control information indicative of a variable relationship between content view time and accounted preview time is generated at a head-end and transmitted with the content.*

*The board tends to formulate the second distinguishing feature in a manner which is slightly different from the decision under appeal as*

*(ii) the preview control information is encrypted together with the first encryption key using the second encryption key,*

*since, according to claim 1, the preview control information is not encrypted by any key, but specifically by the second encryption key which is used to encrypt the first key.*

*5.2 The appellant argued that feature (d) and the first part of feature (e) (corresponding to features (c) and (d) according to the denomination in the statement of grounds) were not known from the prior art, either, but it did not give any reasons for this statement. The board tends to agree with the decision under appeal, which says that these features were disclosed in figure 2 and column 5, lines 20 to 55 of D1.*

*5.3 Hence, the subject-matter of claim 1 appears to be distinguished by features (i) and (ii) from D1.*

*5.4 With respect to the technical effect provided by the distinguishing features the appellant argued that encrypting preview control information for each time segment together with the first encryption key provided the advantage of ensuring more secure control of the preview control information (see penultimate paragraph on page 2 of the statement of grounds).*

*It appears that this advantage is explicitly referred to in D1, see column 9, lines 9 to 26, in the context of the program attributes, which are encrypted together with the program key.*

*5.5 Furthermore, according to the appellant, the present application relates to content-specific management, whereas D1 and D2 relate to channel-specific management.*

*As acknowledged by the examining division in its decision, see point 12.5, D1 relates to a pay-per-view environment, whereas the present application allows for playing the contents after having been broadcast and stored, see application, page 4, lines 1 to 9. Nevertheless, preview control in D1 appears to be managed in terms of individual programs, i.e. content (see for example D1, column 2, lines 5 to 14, together with column 6, lines 3 to 5 and column 7, lines 10 to 25). Hence, D1 also seems to relate to content-specific management.*

*It is accepted that the present invention provides the advantage of having the authorised preview time and the elapsed time linked to the same content key (see statement of grounds, page 3, third paragraph). However, according to D1, the authorised preview time is likewise linked to the content key (in D1 the program pre-key), which is a consequence of the fact that this parameter is content-specific. The same applies for the elapsed time (preview control information) and, hence, the skilled person would also link this parameter to the content key.*

*5.6 The appellant argued that the technical problem could be regarded as how to increase the security of*

*encryption to enable more precise and more secure management of previews and to increase the flexibility with which content can be transmitted (see statement of grounds, page 3, fourth paragraph).*

*At present the board cannot see how the flexibility with which content is transmitted may be enhanced by the combination of the features of claim 1. The security of encryption appears to be enhanced only insofar as the additional preview control information is transmitted in a secure manner. The board also tends to concur with the examining division that the attribution of different preview time costs to different portions of the content to prevent customers from previewing the most important parts of the content and losing interest in purchasing the content is a business concept (see decision under appeal, point 12.4).*

*Hence, at present the board tends to adopt the problem formulation of the decision under appeal, point 12.5.*

5.7 *It is questionable whether details of the implementation of a variable preview time cost function can be deduced from claim 1 apart from the fact that the cost is not equal for at least two (equally-sized) portions of the content.*

*With respect to the transmission of the preview control information to the reception side, it is noted that D2 appears to disclose the concept of transmitting preview control information as part of a corresponding ECM, i.e. together with the first encryption key  $K_s$  (see figure 3 and paragraphs [0021] to [0029], [0033], [0034] and [0038]). Using a second encryption key to link the first encryption key and the preview control*

*information seems to be obvious in view of the advantage of such a procedure as described in D1, column 9, lines 9 to 26.*

*5.8 Hence, at present the board tends to agree with the decision under appeal that starting from D1 the skilled person would have arrived at the subject-matter of claim 1 without the exercise of inventive skills.*

*Auxiliary request*

*6. Claim 1 of the auxiliary request specifies additionally that the first encryption key is a time-varying first encryption key and that the second encryption key is a content-specific encryption key. Both of these features appear to be known from D1, see column 6, lines 24 to 32 and column 5, lines 32 and 33.*

*Claim 1 of the auxiliary request also differs from claim 1 of the main request by specifying that the content-usage control information includes an authorised preview time length. This authorised preview time length seems to correspond to the AFP (anytime free preview) duration of D1, see figure 4: 82.*

*Hence, the same objections as those with respect to the main request apply."*

VIII. With a letter dated 9 September 2016, the appellant informed the board that its representative would not be attending the oral proceedings. The appellant did not make any submissions concerning the board's communication.

- IX. Oral proceedings were held by the board on 9 November 2016. As announced beforehand, the appellant was not represented.

The chairman noted that the appellant had requested that the decision under appeal be set aside and that a patent be granted on the basis of the claims according to the main or first auxiliary request, both filed with the statement of grounds of appeal. At the end of the oral proceedings the chairman announced the board's decision.

### **Reasons for the Decision**

1. The appeal is admissible.
2. In the communication annexed to the summons to oral proceedings, the board expressed its view that the subject-matter of claim 1 of all current requests lacked inventive step. As a consequence the board noted that it was minded to uphold the decision under appeal (see above, point VII).
3. The appellant neither attempted to rebut the board's provisional opinion, nor submitted any new requests aimed at overcoming the objections. The board sees no reason to change its preliminary opinion, which therefore becomes final.
4. It follows that the decision under appeal cannot be set aside.

**Order**

**For these reasons it is decided that:**

The appeal is dismissed.

The Registrar:

The Chairman:



K. Boelicke

C. Kunzelmann

Decision electronically authenticated