Case Number: T 0652/05 - 3.5.04
Application Number: 97307534.4
Publication Number: 0833513
IPC: H04N 7/173

Language of the proceedings: EN

Title of invention: Digital information display apparatus and methods

Applicant: Sony Computer Entertainment UK Limited

Opponent:

Headword:

Relevant legal provisions:

Relevant legal provisions (EPC 1973): EPC Art. 56

Keyword: "Inventive step (yes) after amendments"

Decisions cited:

Catchword:

Datasheet for the decision of 2 October 2008
Case Number: T 0652/05 - 3.5.04

DECISION
of the Technical Board of Appeal 3.5.04
of 2 October 2008

Appellant: Sony Computer Entertainment UK Limited
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Representative: Raynor, Simon Mark
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Decision under appeal: Decision of the Examining Division of the European Patent Office posted 30 December 2004 refusing European application No. 97307534.4 pursuant to Article 97(1) EPC.

Composition of the Board:
Chairman: F. Edlinger
Members: A. Dumont
B. Müller
Summary of Facts and Submissions

I. The appeal is directed against the decision to refuse European patent application No. 97307534.4, published as EP 0 833 413 A2.

II. The following prior art documents were relied on in the decision under appeal:

D1: WO 96/17475 A1;
D2: US 5,251,909 A and

III. The examining division refused the application on the grounds that the subject-matter of the independent claims according to the main, the first and the second auxiliary requests then on file lacked an inventive step having regard to the prior art documents D1, D2 and D3.

IV. The appellant filed an appeal. Following the filing of several sets of claims in written proceedings, the appellant requested in the oral proceedings before the board that the decision under appeal be set aside and that a patent be granted in the following version:

Claims: 1 to 13 filed in the oral proceedings;
Description: pages 1, 1a, 1b, 2 to 9 filed in the oral proceedings; and
Drawings: sheets 1/2 and 2/2 as indicated in the decision under appeal (i.e. filed with the letter dated 28 February 2003 and received on 10 March 2003).
If the main request was not allowable then corresponding amendments would be made to the claims of the first and second auxiliary requests filed with the letter dated 27 August 2008.

V. Independent claim 1 of the main request reads as follows:

"Digital information display apparatus comprising display means (12) for displaying decoded information from encoded information held on a local transportable data carrier (11) in response to a release signal provided upon selection by a user from a displayed menu, the menu being received as a menu signal from a remote source through an external communications channel (14) at the start of a session; wherein the encoded digital information on the data carrier cannot be downloaded for display in an intelligible manner without the release signal, and further comprising a control console (10) adapted to accept the data carrier (11) holding encoded digital information and to selectively download information from said data carrier in response to the release signal; and conditional access means for connection to said console, to said means for displaying, and to the external communications channel (14); said conditional access means being adapted to receive the menu signal from said channel, said menu signal then permitting the display means to display the menu listing available encoded digital information on a said data carrier currently in the control console and said access means being further adapted then to provide said release signal to the control console upon selection by
a user from the displayed menu whereby to permit the display means to display a decoded set of information from the data carrier."

Independent claim 10 of the main request reads as follows:

"A method of controlling the decoding and display of information, characterised in that the information is held in encoded form on a local transportable data carrier accepted in a control console (10) and is released for decoded display in response to a release signal provided by conditional access means upon selection by a user from a displayed menu, and wherein the encoded digital information on the data carrier cannot be downloaded for display in an intelligible manner without the release signal, the menu being received as a menu signal from a remote source through an external communications channel at the start of a session and then permitting the display of a menu listing available encoded information on the data carrier, said access means then providing said release signal to the control console upon selection by a user from the displayed menu, thereby permitting the display of a decoded set of information from the data carrier."

The other claims are dependent claims.

VI. The reasoning in the decision under appeal may be summarised as follows.

D3 discloses an apparatus and a method relating to information (for instance an electronic game) held in compressed form on a local transportable data carrier
(CD-ROM) and released for display upon the user selecting from information (for instance "catalog information" as a menu signal) received from a remote source (head end). The received information is combined with the information held locally.

D2 discloses an apparatus and a method for controlling the decoding of encrypted information in response to a release signal provided by a conditional access means, both the information and the menu being received from a remote source.

Starting from D3, the problem consists in providing an additional level of security to the data stored on the local CD-ROM by encrypting it. The solution is obvious in view of D2 showing conditional access means for encryption/decryption.

Alternatively, starting from D2, the problem consists in avoiding a massive flow of data down the communications channel after the subscriber has selected a game from a menu. The solution is obvious in view of D3 solving this problem by storing a major part of the information on the CD-ROM at the subscriber's site.

D1 discloses prior art similar to that of D2.

VII. The appellant argued essentially as follows.

D3 addresses the bandwidth problem underlying the present invention and constitutes the closest prior art. The CD-ROM contains a menu permitting the display of information from the CD-ROM. The downloaded information
provides corrections or updates to the content, for instance the catalogue information. Full access to all information held on the CD-ROM is possible from reading the CD-ROM alone without the downloading of anything from the head end. The examining division's conclusion that the menu would be at least partly downloaded from the head end is based on an ex post facto analysis. On the contrary, the menu is primarily contained on the CD-ROM itself, so that receiving the complete menu signal from the remote source is not suggested in D3. There is furthermore nothing in D2 which would suggest that the release signal is generated by the conditional access means in response to selection from the menu. The invention is therefore not obvious starting from D3.

There is nothing in the prior art to suggest breaking the link between the information of interest and the corresponding menu coming from the same source. The person skilled in the art, starting from D2 and applying the teaching of D3, would therefore include both the information and the menu on the CD-ROM.

Reasons for the Decision

1. The appeal is admissible.

2. Amendments

2.1 Independent method claim 10 corresponds in substance to claim 10 as originally filed, completed by features defining the operation of the conditional access means derivable from independent apparatus claim 2 as originally filed and by further features derivable from
the initial description (see page 6, lines 10 to 14, and page 7, lines 14 to 17). Hence the board considers that the amendments to claim 10 comply with Article 123(2) EPC.

2.2 Independent apparatus claim 1 corresponds in substance to independent apparatus claim 2 as originally filed completed by the same features derivable from the initial description as present claim 10, and further omitting the initial stipulation in claim 2 that the conditional access means be adapted to monitor the usage. This latter feature is described as being optional (see page 8, lines 20 to 29). Thus the board considers that the amendments to claim 1 also comply with Article 123(2) EPC.

2.3 The dependent claims recite features of originally filed claims. The board considers that they are not objectionable under Article 123(2) EPC.

3. The invention

The present invention relates to a method and an apparatus in which information is wholly or substantially wholly held on a transportable data carrier (see the paragraph bridging pages 3 and 4 of the present description) which is distributed through any suitable channel. A menu signal is downloaded from a remote source at the start of a session with the data carrier loaded into the local control console, in order to permit the display of a menu listing the available information (at the time of downloading) and to permit access to the information on the data carrier. This allows dynamic control of the data held on the data
carrier (see page 7, paragraph 2, of the present description).

The user may then select one set of information from the menu in order to obtain the release signal (for instance a decryption key) permitting the display of the selected set of information in an intelligible manner (see page 3, paragraph 2; or page 6, paragraph 2, of the present description).

As a result, locally providing the bulk of the information reduces the bandwidth required on the communications channel (see page 4, paragraph 2, of the present description), whereas downloading the menu signal and providing a release signal contributes to security and flexibility in the release, availability and pricing structure for sets of digital information (see page 2, paragraph 1, of the present description).

4. The prior art

4.1 D3 discloses a method of controlling the display of static, "long-term", information (for instance game data) held on a CD-ROM as an instance of a local transportable data carrier. The information may be combined with "short-term" information received from a remote source (head end) prior to being displayed. Keeping most of the data on a CD-ROM reduces the bandwidth requirements for the communications channel whilst downloading "short-term" information increases flexibility (see, in particular, page 9, lines 12 to 20; and page 19, lines 4 to 7). The download may be used to display updated information accessible via conventional menu-type presentations, on the basis of which the
subscriber may then make a selection (see page 16, lines 9 to 12). The update information downloaded however complements or, at most, only partially replaces locally available menu items, so that the menu is mainly held on the local carrier (see page 12, lines 7 to 12; and page 17, line 28, to page 18, line 9). The information on the data carrier is not encoded in the meaning of present claim 10 (not intelligible without the release signal), and a menu signal permitting the display of a menu listing, in the meaning of present claim 10, is not received from a remote source at the start of a session.

4.2 D2 discloses a video game computer system in which a cartridge containing game data is replaced by an interface (20 - figure 1) plugged into a cartridge connector to download encoded game data from a remote source over a communications channel at a high data transmission speed (see column 1, lines 19 to 31 and lines 38 to 50; column 2, lines 37 to 41). Menu information and decryption keys are transmitted prior to the start of a game from the same remote source, thereby enhancing flexibility (see column 1, lines 19 to 35) and access control (see column 2, lines 14 to 41; column 11, line 60, to column 12, line 4; and column 16, lines 27 to 37).

5. Independent claim 10

5.1 Inventive step with D3 as a starting point

Starting from D3, the person skilled in the art would have to look for solutions providing security (by rendering the data stored on the local CD-ROM
unintelligible without a release signal) and full access control over the information on the data carrier (the remote source controls which content on the data carrier is made accessible at a given time). None of these problems are addressed in D3, but the board agrees with the decision under appeal to the extent that encryption/decryption schemes and conditional access means are omnipresent in the field of interactive television systems to which D3 relates.

D2 provides the solution of encrypting data to render them unintelligible. However a combination of the relevant teaching of D3 and D2 would result in a method in which the received menu controls the conditional access to information stored on the remote head end. It does not have the technical effect of providing flexible control by the remote source over what could be displayed from a local data carrier which has been distributed through another channel and is no longer under the control of the head end. A further modification would therefore be necessary to arrive at the invention as claimed, this modification not being suggested in the prior art. As a result, receiving the menu signal relating to the information on the local transportable data carrier at the start of the session in order to permit the display of a menu listing available encoded information on the local data carrier is a solution increasing flexibility and security not derivable from D2 without hindsight. The combination of the features according to claim 10 is therefore considered not to be obvious starting from D3.
5.2 Inventive step with D2 as a starting point

D2 relates to a system in which menu information and data are both made available and controlled by a server as a single source. It replaces a standard game cartridge and it is therefore less suitable than D3 as a starting point for assessing the obviousness of the invention, where a local data carrier and a remote source coexist. The combination of the features according to claim 10 is therefore also considered not to be obvious starting from D2.

5.3 D1 discloses a method in which a menu listing available video games and the corresponding game data are downloaded from a remote server, as an alternative to a menu and data being both contained on a game cartridge. It is therefore in substance similar to D2, so that the conclusions in the section above also apply to a combination of D3 with D1.

5.4 As a result, the invention according to independent claim 10 is considered as involving an inventive step (Article 56 EPC 1973).

6. Independent claim 1

Claim 1 is directed to an apparatus containing (at least) the means for carrying out the method steps according to independent method claim 10. In the judgement of the board, substantially the same considerations apply to the apparatus features in combination and the invention defined therein is therefore considered as also involving an inventive step (Article 56 EPC 1973).
7. In conclusion, the board considers that the patent application in the version according to the main request presently on file meets the requirements of the EPC.

8. There is accordingly no need to examine the allowability of any of the auxiliary requests.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.

2. The case is remitted to the first instance with the order to grant a patent in the following version:

   Description:
   Pages 1, 1a, 1b, 2 to 9 filed in the oral proceedings;
   Claims:
   No. 1 to 13 filed in the oral proceedings; and
   Drawings:
   Sheets 1/2 and 2/2 filed with the letter dated 28 February 2003 and received on 10 March 2003.