Datasheet for the decision of 22 April 2009

Case Number: T 0860/04 - 3.5.04
Application Number: 98945505.0
Publication Number: 1020078
IPC: H04N 7/00

Language of the proceedings: EN

Title of invention: Downloading data

Applicant: Thomson Licensing

Opponent: -

Headword: -

Relevant legal provisions:
RPBA Art. 13(1)

Relevant legal provisions (EPC 1973):
EPC Art. 54(1) and (2)

Keyword: "Main request - novelty (no)"
"Auxiliary request - not admitted"

Decisions cited: -

Catchword: -
CASE NUMBER: T 0860/04 - 3.5.04

DECISION of the Technical Board of Appeal 3.5.04 of 22 April 2009

APPellant: Thomson Licensing
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Composition of the Board:
Chairman: F. Edlinger
Members: M. Paci
B. Müller
Summary of Facts and Submissions

I. The appeal is against the decision of the examining division refusing European patent application No. 98 945 505.0 (published as international patent application WO 99/18724 A1).

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

D1: EP 0 680 213 A2 and

III. The decision under appeal was based on the ground that the subject-matter of claim 1 according to each of the main and auxiliary requests then on file was not novel (Article 54(1) and (2) EPC 1973) in view of D1. The examining division also indicated that the downloading of a program (a loader) to download further data without specific further details could not be considered to involve an inventive step because the downloading of downloaders as such was well known in the art, as shown for example in D2.

IV. With the statement of grounds of appeal the appellant submitted a main request comprising a set of amended claims.

V. In an official communication accompanying the summons to oral proceedings the board expressed the preliminary opinion that claim 1 was ambiguously worded and that its subject-matter, as construed by the board, did not involve an inventive step in view of either D1 or D2.
VI. With a letter dated 20 March 2009 the appellant asked the board for permission to file amended claims less than one month before the date of oral proceedings because the professional representative in charge of the application was on long term leave for medical reasons.

VII. With a letter dated 25 March 2009 the appellant submitted a copy of a medical certificate and filed two sets of amended claims according to a main and an auxiliary request, respectively. With a letter dated 3 April 2009 the set of claims 1 to 14 according to the auxiliary request was slightly amended and filed again in full.

VIII. Oral proceedings were held on 22 April 2009 before the board. During the oral proceedings the appellant made his auxiliary request his main request and filed a new auxiliary request (subsidiary request No.1).

IX. The appellant's final requests are that the decision under appeal be set aside and that a patent be granted on the basis of the main request comprising claims 1 to 14 filed with letter dated 3 April 2009, or on the basis of subsidiary request No.1 comprising claims 1 to 14 submitted during the oral proceedings before the board.

X. Claim 1 according to the main request reads as follows:

"A method of downloading data to a receiver/decoder (2020), said receiver/decoder (2020) comprising a bootstrap loader (100) and some resident software stored in non-volatile erasable memory (69) of said
receiver/decoder (2020), the method comprising the steps, at the receiver/decoder, of:
- receiving a bitstream including the data (22); and characterized by:
- locating, by the bootstrap loader, in the received bitstream an instream loader which is compatible with the hardware platform of the receiver/decoder (2020);
- downloading, by the bootstrap loader, from the bitstream into the receiver/decoder (2020) the instream loader which is compatible with the hardware platform of the receiver/decoder (2020);
- downloading said data (22) into the receiver/decoder (2020) from the bitstream using said downloaded instream loader and writing said data (22) into said non volatile erasable memory (69) of the receiver/decoder (2020), thereby replacing all, or some part, of the resident software that is erased from said non volatile erasable memory (69)."

Claim 1 according to subsidiary request No.1 differs from claim 1 according to the main request by the addition of the following text at the end of the claim:

"wherein the downloaded data contains a resident loader intended to complement the bootstrap loader for subsequently performing steps in place of the bootstrap loader"

XI. The appellant argued in support of the main and the auxiliary request essentially as follows.
Claim 1 according to the main request - novelty

(a) D2 contemplates a downloading scheme for an analog decoder where a first loader is dedicated to upgrading the resident software stored in a specific memory. This first loader is able to download a second loader dedicated to the download of additional user applications stored in another memory. In D2 the downloaded loader is prohibited from addressing the memory dedicated to the resident software for security reasons (see from page 18, line 16, to page 20, line 9). Thus the feature of downloading from a bitstream and the capability of the downloaded loader to upgrade the resident software are not disclosed in D2.

(b) The receiver/decoder of D2 consists of two interconnected hardware modules: a subscriber terminal module (140) and an applications module (300) plugged into the subscriber terminal module for additional functionalities. Only the subscriber terminal module should be regarded as the original receiver/decoder. The downloaded loader, which is downloaded into the applications module, is therefore not stored in the receiver/decoder as claimed in claim 1.

(c) There is no explicit disclosure in D2 of the bootstrap loader actively searching for and locating in the received bitstream an instream loader compatible with the hardware platform of the receiver/decoder.
(d) In D2 there is no disclosure of replacing only some part, but not all, of the resident software that is erased.

For the above reasons, the subject-matter of claim 1 is novel with respect to D2.

Admissibility of subsidiary request No.1

The amendments made to claim 1 have a basis in the description of the application as filed (see in particular page 23, lines 3 to 14, page 30, lines 6 to 12, and figure 13). These amendments render the method of claim 1 novel and inventive with respect to D2. The auxiliary request should thus be admitted by the board despite being filed at a late stage.

Reasons for the Decision

1. The appeal is admissible.

Main request

2. Admissibility of the main request

According to Article 13(1) RPBA (Rules of Procedure of the Boards of Appeal, OJ EPO 2007, 536), 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. Article 13(3) RPBA further
specifies that amendments sought to be made after oral proceedings have been arranged shall not be admitted if they raise issues which the board cannot reasonably be expected to deal with without adjournment of the oral proceedings.

The amended claims according to the current main request were filed on 25 March 2009 - and slightly amended and filed again in full on 3 April 2009 - i.e. after the deadline of one month before the date of the oral proceedings set by the board. However the amendments were filed in reaction to observations made by the board in the summons to oral proceedings, did not introduce hitherto unexamined features and were submitted sufficiently in advance of the oral proceedings so that they could be easily dealt with by the board without delaying the proceedings. For these reasons and in view of the given circumstances (see sections VI and VII above), the board decided to exercise its discretion under Article 13(1) RPBA to admit the main request into the proceedings.

3. Construction of claim 1

In the oral proceedings the board raised doubts as to the novelty of the method of claim 1 in view of D2, depending on the interpretation of certain expressions of claim 1. The appellant submitted that the expression "stored in non-volatile erasable memory" in the third line of claim 1 related to the "resident software" only, not to the "bootstrap loader", and that the term "bitstream" meant a flux of bits and was not restricted to a particular format. The board adopted this
interpretation of claim 1 for the assessment of novelty below.

4. Claim 1 - novelty (Article 54(1) and (2) EPC 1973)

D2 discloses a receiver/decoder (see "home communication terminal" consisting of two interconnected hardware modules: a subscriber terminal module (140) and an applications module (300) plugged into the subscriber terminal module for additional functionalities). The receiver/decoder comprises a bootstrap loader ("first boot-loader routine") and some resident software ("program code") stored in a non-volatile erasable memory (EPROM 329 of the receiver/decoder: see page 15, last two lines, and page 18, lines 4 to 15).

The method of D2 of downloading data ("updated program code") to the receiver/decoder comprises the steps of:
- receiving a bitstream including said data (implicit from the fact that the program code is composed of bits which are downloaded from headend 10: see page 18, lines 16 to 19);
- locating, by the bootstrap loader, in the received bitstream an instream loader (see "second boot-loader routine" on page 18, lines 11 to 15) which is compatible with the hardware platform of the receiver/decoder (see page 19, lines 1 to 5);
- downloading, by the bootstrap loader, from the bitstream into the receiver/decoder the instream loader which is compatible with the hardware platform of the receiver/decoder (see page 18, lines 11 to 15, and page 19, lines 1 to 5);
- downloading said data into the receiver/decoder from the bitstream using said downloaded instream loader (see sentence bridging pages 18 and 19) and writing said data into said non volatile erasable memory of the receiver/decoder, thereby replacing all, or some part, of the resident software that is erased from said non volatile erasable memory (the old program code is erased in non volatile erasable memory 329 and replaced by the updated program code: see page 19, lines 5 to 19).

Hence D2 discloses a method having all the steps of the method of claim 1.

The appellant argued (see (a) and (b) under section XI above) that only the subscriber terminal module should be regarded as the receiver/decoder in D2, not the additional plugged-in applications module. Since the downloaded loader is loaded into the applications module and only upgrades the resident software in this module, it does not write data into a memory of the receiver/decoder as in the method of claim 1.

The board does not share the appellant's view that only the subscriber terminal module qualifies as a receiver/decoder within the meaning of present claim 1. The description of D2 makes clear that the home communication terminal, corresponding to the receiver/decoder of claim 1, includes an applications module and a subscriber terminal module (see page 4, lines 13 to 16). Although the applications module is optional (see page 6, lines 7 to 9), it is nevertheless part of the home communication terminal once plugged into the subscriber terminal module (see figure 5).
Neither claim 1 nor the description of the present application limits the hardware structure of the receiver/decoder to having only one module or only one microprocessor. Accordingly these arguments fail to convince the board.

The appellant also submitted (see (c) under section XI above) that there was no explicit disclosure in D2 of the bootstrap loader actively searching for and locating in the received bitstream an instream loader compatible with the hardware platform of the receiver/decoder.

This argument has not convinced the board. The instream loader ("second boot-loader routine") of D2 is transmitted from the headend over a distribution network (see page 18, lines 19 to 22). The bootstrap loader ("first boot-loader routine") must thus be able to recognise the instream loader (which is compatible with the hardware: see the expression "is appropriate for interfacing" on page 19, lines 1 to 5) when it arrives at the receiver/decoder in order to be able to store it. The verb "locating" in claim 1 does not imply an active search for the loader, but merely implies recognising the (appropriate or compatible) downloaded loader when it reaches the receiver/decoder, as in D2.

Finally, the appellant argued (see (d) under section XI above) that there is no disclosure in D2 of replacing only some part, but not all, of the resident software that is erased.

D2 makes clear that the instream loader ("second boot-loader routine") erases EPROM 329 before receiving and
writing updated program code into EPROM 329 (see page 19, lines 5 to 9, and page 20, lines 3 to 9).
Since the program code of D2 corresponds to the resident software of claim 1 or at least to a part thereof, the instream loader of D2 necessarily replaces either all, or some part, of the resident software, as in the method of claim 1.

For the above reasons, the subject-matter of claim 1 lacks novelty in view of D2, and therefore the appellant's main request is not allowable.

Subsidiary request No.1

5. Admissibility of the amended claims according to Subsidiary request No.1

The amended claims according to subsidiary request No.1 were filed during the oral proceedings before the board. The amendments made to claim 1 added features involving a "resident loader intended to complement the bootstrap loader". It is clear from the different terms used for the loaders specified in claim 1 and from the term "to complement" that this loader is not the same as the bootstrap loader and the instream loader in claim 1 of the main request (see also page 23, lines 7 to 10). The board noted that the "resident loader" was however only disclosed in the description and figures of the application as filed, but was not a feature of any of the previous claims considered by the examination division or the board. Admitting these claims during the oral proceedings would have raised fresh issues, such as that of a clear differentiation of the different loaders in the claim, for example in the
expression "for subsequently performing steps in place of the bootstrap loader", and its disclosure in the application as filed, and possibly that of an additional search for prior art, causing the oral proceedings to be adjourned.

Given this complexity of the new claims and the fact that they were only filed during the oral proceedings, the board decided to exercise its discretion under Article 13(1) RPBA in a different way than for the main request (see point 2 above) and did not admit this amendment of the appellant's case, i.e. subsidiary request No.1, into the proceedings.

Conclusions

6. Since the appellant's main request is not allowable and his auxiliary request (subsidiary request No.1) is not admissible, the appeal must be dismissed.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:     The Chairman:

L. Fernández Gómez     F. Edlinger