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# Datasheet for the decision of 19 February 2024

**Case Number:** T 1726/19 - 3.5.04

**Application Number:** 17169970.5

**Publication Number:** 3264753

**IPC:** H04N7/24, H04N5/765

**Language of the proceedings:** EN

**Title of invention:**
IMAGE PROCESSING APPARATUS AND CONTROL METHOD THEREOF

**Applicant:**
Samsung Electronics Co., Ltd.

**Headword:**

**Relevant legal provisions:**
EPC Art. 54, 56, 84

**Keyword:**
Novelty - main request (no) - first auxiliary request (no)
Inventive step - second auxiliary request (no)
Claims - clarity - third auxiliary request (no)
Inventive step - fourth to eighth auxiliary requests (no)

**Decisions cited:**

**Catchword:**

Europäisches Patentamt
European Patent Office
Office européen des brevets

**Beschwerdekammern**

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**Case Number: T 1726/19 - 3.5.04**

# D E C I S I O N
# of Technical Board of Appeal 3.5.04
# of 19 February 2024

| | |
|---|---|
| **Appellant:** (Applicant) | Samsung Electronics Co., Ltd.<br>129, Samsung-ro<br>Yeongtong-gu<br>Suwon-si<br>Gyeonggi-do 16677 (KR) |
| **Representative:** | Walaski, Jan Filip<br>Venner Shipley LLP<br>200 Aldersgate<br>London EC1A 4HD (GB) |
| **Decision under appeal:** | **Decision of the Examining Division of the European Patent Office posted on 29 January 2019 refusing European patent application No. 17169970.5 pursuant to Article 97(2) EPC.** |

**Composition of the Board:**

| | |
|---|---|
| **Chair** | B. Willems |
| **Members:** | A. Seeger |
| | T. Karamanli |

## Summary of Facts and Submissions

I. The appeal is against the examining division's decision to refuse European patent application No. 17 169 970.5, published as EP 3 264 753 A1.

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

D2: US 2005/0235316 A1

D5: WO 2004/049692 A2

III. The decision under appeal was based on the ground that the subject-matter of the independent claims of all requests then on file lacked inventive step within the meaning of Article 56 EPC.

IV. The applicant (appellant) filed notice of appeal. With the statement of grounds of appeal, the appellant filed claims according to a main request and first to third auxiliary requests. It indicated a basis in the application as filed for the claimed subject-matter and provided arguments to support its opinion that the claims of all requests met the requirements of Article 56 EPC.

V. The appellant was summoned to oral proceedings. In a communication under Article 15(1) RPBA the board gave the following preliminary opinion.

(a) The subject-matter of claim 1 of the main request and of the first auxiliary request was not new (Article 54 EPC).

(b) By not providing a basis for the amendments in claim 1 of the second auxiliary request, the appellant had failed to sufficiently substantiate this request, and the board was minded not to take it into account in the appeal proceedings under Article 12(4) and (2) RPBA 2007.

(c) Claim 1 of the third auxiliary request was not clear (Article 84 EPC).

VI. With its letter dated 21 November 2023, the appellant submitted amended claims of fourth to eighth auxiliary requests, indicated a basis for the amendments in the application as filed and argued that the features of the second auxiliary request were already present in the main request and that claim 1 of the second auxiliary request was largely a rewording of claim 1 of the main request. The appellant submitted reasons why the requests filed by letter dated 21 November 2023 should be admitted into the appeal proceedings. It also submitted arguments to support its opinion that the claims of the third auxiliary request met the requirements of Article 84 EPC and the subject-matter of the claims of the main request and the first, second and fourth to eighth auxiliary requests met the requirements of Article 54 EPC.

VII. The board held oral proceedings on 19 February 2024.

The appellant's final requests were that the decision under appeal be set aside and that a European patent be granted on the basis of the claims of the main request filed with the statement of grounds of appeal or, alternatively, on the basis of the claims of one of the first to third auxiliary requests filed with the statement of grounds of appeal, or the claims of one of

the fourth to eighth auxiliary requests filed by letter dated 21 November 2023.

At the end of the oral proceedings, the Chair announced the board's decision.

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

"An image processing apparatus comprising:
a receiver (101) configured to receive a current image content;
a communicator (103) configured to communicate with a supply source which is configured to supply related image content, the related image content being related to the current image content;
a user input unit (111) configured to receive a user's command;
a signal processor (105) configured to process the current or related image content; and
a controller (115) configured to:
control the signal processor (105) to process the current image content received by the receiver (101) to be displayed and, based on a first command being received while the current image content is being displayed, to process a user interface, UI, comprising a list relating to a plurality of related image contents to be displayed over the current image content, which is being processed and displayed, the plurality of related image contents relating to at least one of a title, content and genre of the current image content;
based on a second command being received to select one of the plurality of related image contents of the list, control the communicator (103) to transmit a request to the supply source so that the supply source supplies

the selected one of the plurality of related image contents, and
based on the selected one of the plurality of related image contents being received from the supply source by the communicator (103), control the signal processor (105) to process the received one of the plurality of related image contents to be displayed."

IX. Claim 1 of the first auxiliary request reads as follows:

"An image processing apparatus comprising:
a receiver (101) configured to receive a current image content for display;
a communicator (103) configured to receive a plurality of related image contents, the plurality of related image contents being related by at least one of title, content or genre to the current image content being displayed;
a user input unit (111) configured to receive a user's command;
a signal processor (105) configured to process the current or related image contents; and
a controller (115) configured to:
control the signal processor (105) to process the current image content received by the receiver (101) to be displayed and to process a list of related image contents received by the communicator (103) to be displayed over the current image content, based on a first user command being received via the user input unit while the current image content is being displayed;
control the communicator (103) to request a supply source to supply one of the plurality of the related image contents in response to a second user command

being received via the user input unit to select the one of the plurality of related image contents, and control the signal processor (105) to process the supplied one of the plurality of related image contents to be displayed."

X. Claim 1 of the second auxiliary request reads as follows:

"An image processing apparatus comprising:
a receiver (101) configured to receive a current image content;
a communicator (103) configured to communicate with a supply source which is configured to supply related image content, the related image content being related to the current image content;
a user input unit (111) configured to receive a user's command;
a signal processor (105) configured to process the current or related image content; and
a controller (115) configured to:
control the signal processor (105) to process the current image content received by the receiver (101) to be displayed;
based on a first command being received while the current image content is being displayed, control the communicator (103) to transmit a first request to the supply source so that the supply source supplies information relating to a plurality of related image contents relating to at least one of a title, content and genre of the current image content;
based on the information relating to the plurality of related image contents being received from the supply source by the communicator (103), control the signal processor (105) to process a user interface, UI, comprising a list relating to the plurality of related

image contents to be displayed over the current image content, which is being processed and displayed;
based on a second command being received to select one of the plurality of related image contents of the list, control the communicator (103) to transmit a second request to the supply source so that the supply source supplies the selected one of the plurality of related image contents, and
based on the selected one of the plurality of related image contents being received from the supply source by the communicator (103), control the signal processor (105) to process the received one of the plurality of related image contents to be displayed."

XI. Claim 1 of the third auxiliary request reads as follows:

"An image processing apparatus comprising:
a receiver (101) configured to receive current image content for display;
a communicator (103) configured to receive related image content, the related image content being related by at least one of title, content or genre to the current image content being displayed;
a user input unit (111) configured to receive a user's command;
a signal processor (105) configured to process the current or related image content; and
a controller (115) configured, in response to a first command being received to display related image content while the current image content is being displayed, to:
transmit a request to a supply source external to the image processing apparatus to supply a plurality of the related image content based on additional information in the current image content, and

control the signal processor (105) to process the received current image content to be displayed and to process a user interface (UI) of information relating to the plurality of the related image content to be displayed over the current image content, which is being displayed;
control the communicator (103) to request the supply source to supply one of the plurality of the related image content in response to a second command being received to select the one of the plurality of the related image content, and
control the signal processor (105) to process the supplied one of the plurality of the related image content to be displayed."

XII. Claim 1 of the fourth auxiliary request reads as follows (amendments compared with claim 1 of the main request are underlined):

"An image processing apparatus comprising:
a receiver (101) configured to receive a current image content, the receiver including a tuning unit for receiving a broadcasting signal;
a communicator (103) configured to communicate with a supply source which is configured to supply related image content, the related image content being related to the current image content, the communicator being configured to communicate with the supply source through a wired/wireless LAN or modem;
a user input unit (111) configured to receive a user's command;
a signal processor (105) configured to process the current or related image content; and
a controller (115) configured to:
control the signal processor (105) to process the current image content received by the receiver (101) to

be displayed and, based on a first command being received while the current image content is being displayed, to process a user interface, UI, comprising a list relating to a plurality of related image contents to be displayed over the current image content, which is being processed and displayed, the plurality of related image contents relating to at least one of a title, content and genre of the current image content;
based on a second command being received to select one of the plurality of related image contents of the list, control the communicator (103) to transmit a request to the supply source so that the supply source supplies the selected one of the plurality of related image contents, and
based on the selected one of the plurality of related image contents being received from the supply source by the communicator (103), control the signal processor (105) to process the received one of the plurality of related image contents to be displayed."

XIII. Claim 1 of the fifth auxiliary request reads as follows (amendments compared with claim 1 of the first auxiliary request are underlined):

"An image processing apparatus comprising:
a receiver (101) configured to receive a current image content for display, the receiver including a tuning unit for receiving a broadcasting signal;
a communicator (103) configured to receive a plurality of related image contents, the plurality of related image contents being related by at least one of title, content or genre to the current image content being displayed, the communicator being configured to communicate with a supply source through a wired/ wireless LAN or modem;

a user input unit (111) configured to receive a user's command;
a signal processor (105) configured to process the current or related image contents; and
a controller (115) configured to:
control the signal processor (105) to process the current image content received by the receiver (101) to be displayed and to process a list of related image contents received by the communicator (103) to be displayed over the current image content, based on a first user command being received via the user input unit while the current image content is being displayed;
control the communicator (103) to request ~~a~~ the supply source to supply one of the plurality of the related image contents in response to a second user command being received via the user input unit to select the one of the plurality of related image contents, and
control the signal processor (105) to process the supplied one of the plurality of related image contents to be displayed."

XIV. Claim 1 of the sixth auxiliary request reads as follows (amendments compared with claim 1 of the second auxiliary request are underlined):

"An image processing apparatus comprising:
a receiver (101) configured to receive a current image content, the receiver including a tuning unit for receiving a broadcasting signal;
a communicator (103) configured to communicate with a supply source which is configured to supply related image content, the related image content being related to the current image content, the communicator being configured to communicate with a supply source through a wired/wireless LAN or modem;

a user input unit (111) configured to receive a user's command;
a signal processor (105) configured to process the current or related image content; and
a controller (115) configured to:
control the signal processor (105) to process the current image content received by the receiver (101) to be displayed;
based on a first command being received while the current image content is being displayed, control the communicator (103) to transmit a first request to the supply source so that the supply source supplies information relating to a plurality of related image contents relating to at least one of a title, content and genre of the current image content;
based on the information relating to the plurality of related image contents being received from the supply source by the communicator (103), control the signal processor (105) to process a user interface, UI, comprising a list relating to the plurality of related image contents to be displayed over the current image content, which is being processed and displayed;
based on a second command being received to select one of the plurality of related image contents of the list, control the communicator (103) to transmit a second request to the supply source so that the supply source supplies the selected one of the plurality of related image contents, and
based on the selected one of the plurality of related image contents being received from the supply source by the communicator (103), control the signal processor (105) to process the received one of the plurality of related image contents to be displayed."

XV. Claim 1 of the seventh auxiliary request reads as follows (features added compared with claim 1 of the

third auxiliary request are underlined and deleted features are ~~struck through~~):

"An image processing apparatus comprising:
a receiver (101) configured to receive current image content for display, the receiver including a tuning unit for receiving a broadcasting signal;
a communicator (103) configured to receive a list of the related image content, the related image content being related by at least one of title, content or genre to the current image content being displayed, the communicator being configured to communicate with the supply source through a wired/wireless LAN or modem;
a user input unit (111) configured to receive a user's command;
a signal processor (105) configured to process the current or related image content; and
a controller (115) configured, in response to a first command being received to display the list of the related image content while the current image content is being displayed, to:
transmit a request to a supply source external to the image processing apparatus to supply the ~~a plurality of~~ list of the related image content based on additional information in the current image content, and
control the signal processor (105) to process the received current image content to be displayed and to process a user interface (UI) of ~~information relating to~~ the ~~plurality of~~ list of the related image content to be displayed over the current image content, which is being displayed;
control the communicator (103) to request the supply source to supply one of the plurality of the related image content in the list in response to a second command being received to select the one of the plurality of the related image content, and

control the signal processor (105) to process the supplied one of the plurality of the related image content to be displayed."

XVI. Claim 1 of the eighth auxiliary request reads as follows (features added compared with claim 1 of the third auxiliary request are underlined and deleted features are ~~struck through~~):

"An image processing apparatus comprising:
a receiver (101) configured to receive current image content for display;
a communicator (103) configured to receive a list of the related image content, the related image content being related by at least one of title, content or genre to the current image content being displayed;
a user input unit (111) configured to receive a user's command;
a signal processor (105) configured to process the current or related image content; and
a controller (115) configured, in response to a first command being received to display the list of the related image content while the current image content is being displayed, to:
transmit a request to a supply source external to the image processing apparatus to supply the ~~a plurality of~~ list of the related image content based on additional information in the current image content, and
control the signal processor (105) to process the received current image content to be displayed and to process a user interface (UI) of ~~information relating to~~ the ~~plurality of~~ list of the related image content to be displayed over the current image content, which is being displayed;
control the communicator (103) to request the supply source to supply one of the plurality of the related

image content in the list in response to a second command being received to select the one of the plurality of the related image content, and control the signal processor (105) to process the supplied one of the plurality of the related image content to be displayed."

## Reasons for the Decision

1. The appeal is admissible.

2. Main request - novelty (Article 54 EPC)

2.1 Document D2 discloses an image processing apparatus (see Figure 1: "*Set Top box*" 16 and paragraph [0022]) comprising:

a receiver configured to receive a current image content (see Figure 1: "*Processor*" 36 being connected to "*Media Source*" and paragraph [0024]: "*STB 16 receives the program signals from media source 20*")

a communicator configured to communicate with a supply source which is configured to supply related image content, the related image content being related to the current image content (see Figure 1: "*Processor*" 36 being connected to "*Media Source*")

a user input unit configured to receive a user's command (see Figure 1: "*Receiver*" 28 receiving signals from "*Remote Control*" 32 and paragraph [0025]: "*[t]o facilitate the control of STB 16, receiver 28 can be provided for receiving remote control signals from remote control 32*")

a signal processor configured to process the current or related image content (see Figure 1: "*Processor*" 36 and paragraph [0025]: "*[p]rocessor 36 can be provided to interpret and act upon the signals received from media source 20 ... and then in turn provide the signals to media display 24*")

a controller (see Figure 1: "*Processor*" 36) configured to:

control the signal processor to process the current image content received by the receiver to be displayed (see Figure 2: 48) and, based on a first command being received while the current image content is being displayed (see Figure 2: "*MORE EPISODES*" 100 and paragraph [0038]: "*MORE EPISODES button 100 can be provided to view additional episodes related to the series shown in window 50*"), to process a user interface, UI, comprising a list relating to a plurality of related image contents (see Figure 3: "*RALLY ROUND THE H... more episodes*" "*Trattoria, 2003*" ... "*Tree View, 2003*" and paragraph [0039]: "*The five episodes referred to by reference numerals 106, 108, 110, 112, and 120 relate to episodes, or sub-categories, which are available under the generalized category of Rally Round The House*") to be displayed over the current image content, which is being processed and displayed (see paragraph [0029]: "*[m]enu 44 overlays a portion of any image showing on screen 48. Much of the image can still be viewed in the areas of screen 48 not taken up by menu 44*"), the plurality of related image contents relating to at least one of a title, content and genre of the current image content (see Figure 2: "*RALLY ROUND THE HOUSE*" 52 and paragraph [0030]: "*[t]he series title is referred to by reference numeral 52*");

based on a second command being received to select one of the plurality of related image contents of the list, control the communicator to transmit a request to the supply source so that the supply source supplies the selected one of the plurality of related image contents (see Figure 3: "GO" 134 and paragraph [0041]: "*GO button 134 can be actuated to order the episode in window 120*"), and

based on the selected one of the plurality of related image contents being received from the supply source by the communicator, control the signal processor to process the received one of the plurality of related image contents to be displayed (see paragraph [0044]: "*to view the desired episode on-demand*")

2.2 The appellant argued that the receiver and the communicator were distinct and separate features of claim 1. Furthermore, they were shown as separate elements 101 and 103 in the drawings. Hence, they should not be considered to be disclosed by a single feature in the prior art.

The board is not convinced by this argument. The processor 36 in Figure 1 of document D2 performs the function of both the claimed receiver (illustrated by the incoming arrow) and the claimed communicator (illustrated by the outgoing arrow) and hence anticipates both the receiver (101) and the communicator (103). Furthermore, the application as originally filed itself mentions that the receiver and the communicator may be included in a single hardware unit (see description, page 6, lines 33 and 34: "*[t]he receiver 101 and the communicator 103 may be provided as an integrated chip (IC)*").

2.3 The appellant argued that document D2 did not disclose that a user would receive a list of related image contents in response to a first command while the current image content was being displayed.

The board is not convinced by this argument because the feature "*based on a first command being received while the current image content is being displayed, to process a user interface, UI, comprising a list relating to a plurality of related image contents to be displayed over the current image content*" in claim 1 only specifies that a list of related image contents is displayed on the basis of a first user command. This does not necessarily mean that the list of related image contents is received in response to the first user command.

2.4 The appellant argued that document D2 solved the problem of providing related image content in an entirely different way, namely by making the decision as to what content is related at the media source and providing the series and episodes to the set-top box ready for selection by the user.

The board is not convinced by this argument for the following reasons.

Firstly, claim 1 does not specify the origin of the "*list relating to a plurality of related image contents to be displayed over the current image content ... the plurality of related image contents relating to at least one of a title, content and genre of the current image content*". Hence, claim 1 encompasses both the possibility that the list is created at the image

processing apparatus and the possibility that the list is obtained from an external entity.

Secondly, document D2 does not set out that all series and episodes are provided ready for selection by the user, i.e. that these series and episodes are provided from the media source to the set-top box before a user selects which series or episode to watch. Rather, document D2 discloses in paragraph [0025] that "*on-demand viewing is actually on-demand as the subscriber can order and view any of the available episodes at any time*", and in paragraph [0041] that "*for ordering, GO button 134 can be actuated to order the episode*". The person skilled in the art would understand the term "*on-demand*" to mean that the respective episode is ordered and received from the media source once the user actuates the GO button.

2.5 The appellant argued furthermore that, according to claim 1, two different communication channels were used for receiving the current image content and the related image content. In contrast, in a set-top box according to document D2, the current image content and the plurality of related image contents were received by the same channel.

The board is not convinced by this argument because claim 1 merely specifies:

(a) a receiver configured to receive a current image content

(b) a communicator configured to communicate with a supply source which is configured to supply related image content, the related image content being related to the current image content

Claim 1 thus encompasses the possibility that the receiver is configured to receive a current image content from the same supply source which is configured to supply the related image content. This option is even explicitly mentioned in the description, page 6, third and fourth paragraphs: "*The communicator 103 communicates with at least one supply source to request related image content of the primary image content, and receives the related image content from the supply source ... The supply source supplies the primary image content*".

Furthermore, claim 1 encompasses the possibility that the receiver and the communicator make use of the same communication channel.

2.6 In view of the above, the subject-matter of claim 1 of the main request is not new (Article 54 EPC).

3. First auxiliary request - novelty (Article 54 EPC)

3.1 Apart from the fact that features have been rearranged, claim 1 of the first auxiliary request differs from claim 1 of the main request in that it further specifies that a list of related image contents is received by the communicator.

3.2 This additional feature is disclosed in paragraph [0037] of document D2: "*The episodes refer to individual programs which can be classified under the more general series classification ... The designations and classifications for the various series and episodes can be provided by media source 20, and, in particular, the head-end, such that the content of data can be*

*programmable by media source 20 and downloaded to STB 16*".

Hence, according to document D2, a set-top box can download from a head-end the information regarding which further episodes or "*related image contents*" are available for a current episode of a series, i.e. the "*current image content being displayed*".

3.3 The appellant argued that paragraph [0037] of document D2 still meant that information about series and episodes was downloaded when a programme was initially requested and not in response to a command received while the current image content was being displayed.

The board is not convinced by this argument because the feature "*control the signal processor ... to process a list of related image contents received by the communicator (103) to be displayed over the current image content, based on a first user command being received*" in claim 1 merely specifies that a list of related image contents is received by the communicator and that this list is displayed. Claim 1 does not specify that this list of related image contents is received on the basis of the first user command.

3.4 Thus the subject-matter of claim 1 of the first auxiliary request is not new (Article 54 EPC) for the same reasons as those set out under point 2. above for claim 1 of the main request.

4. Second auxiliary request - inventive step (Article 56 EPC)

4.1 Compared with claim 1 of the main request, claim 1 of the second auxiliary request additionally includes the feature that the communicator transmits a request to the supply source relating to a plurality of related image contents while the current image content is being displayed (see statement of grounds, page 3, first paragraph under the heading "Second Auxiliary Request").

4.2 The subject-matter of claim 1 differs from the disclosure of document D2 in that it further specifies:

"*based on a first command being received while the current image content is being displayed, control the communicator (103) to transmit a first request to the supply source so that the supply source supplies information relating to a plurality of related image contents relating to at least one of a title, content and genre of the current image content*"

4.3 Document D2 discloses that information relating to a plurality of related image contents relating to at least one of a title, content and genre of the current image is received by the communicator (see D2, paragraphs [0023] and [0037] as well as Figure 3).

However, document D2 does not contain any explicit disclosure of when this information is obtained, namely either when a current program is received or when the "*MORE EPISODES*" button in Figure 2 is invoked.

4.4 The person skilled in the art would thus have understood that there are two options for obtaining this information about the related image contents – either it is obtained in advance, i.e. when the current programme is received, or it is obtained when it is

actually needed, i.e. when the "*MORE EPISODES*" button in Figure 2 is invoked.

In addition, the person skilled in the art would have been aware of the advantages and disadvantages of these options, namely that obtaining all the information in advance enables a faster response time but requires more storage space.

4.5 Therefore, the board finds that selecting one of these options does not involve an inventive step.

4.6 The appellant submitted that document D2 disclosed an on-demand listings guide (see paragraph [0007] of D2). The purpose of this guide was to give the user immediate access to all available information. Hence, it was clear from document D2 that all the information was loaded when a current program was received. At the publication date of document D2, i.e. in 2005, there were not that many channels yet. Therefore, at that time it was still possible and useful to load the information for all channels, series and episodes in advance. Furthermore, document D2 did not disclose an additional loading step before the display of further episodes in Figure 3. If any such additional loading step had been present, this would have been mentioned in document D2.

The appellant therefore argued that the distinguishing feature (see point 4.2 above), according to which the loading of information about a plurality of related image contents was based on a first command received while the current image content was being displayed, would not have been obvious to the person skilled in the art because it ran counter to the core teaching of document D2.

4.7 The board is not convinced by this argument for two reasons.

Firstly, document D2 does not disclose that all the information must be immediately available, i.e. that a fast reaction time is important.

Secondly, loading information from a server either initially or as soon as that information is needed are such common alternatives that the person skilled in the art would always consider them.

4.8 In view of the above, the subject-matter of claim 1 of the second auxiliary request does not involve an inventive step (Article 56 EPC) in view of the disclosure of document D2 combined with the common general knowledge of the person skilled in the art.

5. Third auxiliary request - clarity (Article 84 EPC)

5.1 The claims per se must be free of contradiction. The claims must be clear in themselves when read by the person skilled in the art, without any reference to the content of the description (see Case Law of the Boards of Appeal of the European Patent Office, 10th edition, 2022, "Case Law", II.A.3.1).

5.2 Claim 1 specifies: "*a controller (115) configured, in response to a first command being received to display related image content while the current image content is being displayed, to: transmit a request to a supply source external to the image processing apparatus to supply a plurality of the related image content based on additional information in the current image content*".

5.3 In the board's view, it is not clear whether the formulation "*display related image content while the current image content is being displayed*" in claim 1 means that:

- actual related image content is displayed or
- information about such related image content is displayed

As a consequence, it is not clear whether the subsequent formulation "*to supply a plurality of the related image content*" in claim 1 means that:

- actual related image content is supplied or
- information about such related image content is supplied

5.4 The wording of the first and second formulations in claim 1 points more towards an interpretation of actual related image content being supplied and displayed.

However, claim 1 further specifies: "*control the communicator (103) to request the supply source to supply one of the plurality of the related image content in response to a second command being received to select the one of the plurality of the related image content*".

In view of this further feature of claim 1, it does not appear to make technical sense to supply the actual related image content twice, namely in response to both the "*first command*" and the "*second command*" as defined in claim 1.

5.5 The appellant argued that the person skilled in the art would have understood that it did indeed not make technical sense to supply the same image content twice.

This was clear in view of the description, for example page 9, lines 4 to 25 and page 11, lines 4 to 19. Hence, the person skilled in the art would have ruled out an interpretation in which the actual related information was supplied and displayed. The person skilled in the art would thus have understood the feature of claim 1 "*to display related image content*" and "*to supply a plurality of related image content*" to mean that information about the related image content was supplied and displayed. Therefore, the feature quoted under point 5.2 above was sufficiently clear to be understood by the person skilled in the art.

5.6 The board is not convinced by the appellant's arguments. In the board's view, a claim cannot be considered clear if the skilled person has to deviate from the natural understanding of its plain wording in order to understand it in a technically meaningful way. This effectively means that the claim contains a contradiction. Furthermore, a claim has to be clear in itself when read by the person skilled in the art, without any reference to the content of the description.

5.7 Therefore, claim 1 of the third auxiliary request is not clear (Article 84 EPC).

6. Fourth and fifth auxiliary requests - inventive step (Article 56 EPC)

6.1 Claim 1 of the fourth and fifth auxiliary requests differs from claim 1 of the main request and the first auxiliary request, respectively, only in that it further specifies the following features:

(a) "*the receiver including a tuning unit for receiving a broadcasting signal*"

(b) "*the communicator being configured to communicate with the supply source through a wired/wireless LAN or modem*"

6.2 Document D2 discloses feature (a) in paragraph [0016]: "*the currently tuned to episode or channel*", paragraph [0028]: "*tuning to a designated on-demand television channel*" and paragraph [0035]: "*access a high definition broadcast*".

6.3 Document D2 discloses a cable television network (see paragraph [0023]: "*[m]edia source 20 can be a cable television network*" and "*[t]ransmission may occur ... through cables*") allowing on-demand viewing, i.e. in which a subscriber can order and view any of the available episodes at any time (see paragraph [0025]: "*on-demand viewing is actually on-demand as the subscriber can order and view any of the available episodes at any time*" and paragraph [0044]: "*view the desired episode on-demand*").

However, document D2 does not disclose the way in which the "back channel" (see the arrow starting at the processor in Figure 1 of D2 and ending at the media source) is implemented, i.e. the way in which a subscriber can order an available episode.

Hence, document D2 does not disclose feature (b) quoted under point 6.1 above.

This is the only distinguishing feature in claim 1 of the fourth and fifth auxiliary requests (see points 2. and 3. above)

6.4 The objective technical problem may thus be formulated as how to implement a "back channel" from the set-top box to the media source in the cable television network.

6.5 For the person skilled in the art faced with this problem, it would have been obvious to use the existing cable connection between the media source and the set-top box to implement such a "back channel".

In doing so, the person skilled in the art would have arrived at feature (b) in a straightforward manner.

6.6 The appellant did not deny this but argued that with claim 1 as amended (see point 6.1 above) the prior-art system of document D2 could not be considered equivalent to both the receiver and the communicator.

6.7 The board is not convinced by this argument because the processor in the set-top box shown in Figure 1 of document D2 receives image content via a cable of the cable television network and implements its "back channel" via the same cable. The processor thus functions as both a receiver (see the incoming arrow to the processor in Figure 1 of D2) and a communicator (see the outgoing arrow in Figure 1 of D2, which ends at the media source).

6.8 In view of the above, the subject-matter of claim 1 of the fourth and fifth auxiliary requests does not involve an inventive step (Article 56 EPC) in view of the disclosure of document D2 combined with the common general knowledge of the person skilled in the art.

7. Sixth auxiliary request - inventive step (Article 56 EPC)

7.1 Partial problems exist if the features or sets of features of a claim are a mere aggregation of these features or sets of features (juxtaposition or collocation) which are not functionally interdependent, i.e. do not mutually influence each other to achieve a technical success over and above the sum of their respective individual effects. What has to be established in that case is whether each set of features is separately obvious in the light of the prior art (see Case Law, I.D.9.3.2).

7.2 Claim 1 of the sixth auxiliary request differs from claim 1 of the second auxiliary request in that it further specifies the features quoted under point 6.1 above.

7.3 In view of points 4.2, 6.2 and 6.3 above, the subject-matter of claim 1 differs from the disclosure of document D2 on account of the following features:

(a) "*based on a first command being received while the current image content is being displayed, control the communicator (103) to transmit a first request to the supply source so that the supply source supplies information relating to a plurality of related image contents relating to at least one of a title, content and genre of the current image content*"

(b) "*the communicator being configured to communicate with the supply source through a wired/wireless LAN or modem*"

7.4 Distinguishing feature (a) implements one of the two options regarding when to obtain information about the related image contents (see point 4.4 above).

7.5 Distinguishing feature (b) implements a "back channel" from the set-top box to the media source in the cable television network (see point 6.4 above).

7.6 The appellant argued that both distinguishing features were linked.

7.7 The board agrees with the appellant in so far as there is a link between the distinguishing features, since a request for the supply source to provide information about the related image contents is sent from the set-top box to the supply source via the "back channel".

However, the features regarding when to transmit a request via the "back channel" and the way in which the "back channel" is implemented, namely by using a cable, do not mutually influence each other to achieve a technical success over and above the sum of their respective individual effects.

7.8 Hence, what has to be established is whether each of the distinguishing features (a) and (b) is separately obvious in the light of the prior art.

7.9 Distinguishing feature (a) was found to be obvious in view of the disclosure of document D2 (see points 4.4 to 4.8 above).

7.10 Distinguishing feature (b) was found to be obvious in view of the disclosure of document D2 (see points 6.5 to 6.8 above).

7.11 In view of the above, the subject-matter of claim 1 of the sixth auxiliary request does not involve an inventive step (Article 56 EPC) in view of the disclosure of document D2 combined with the common general knowledge of the person skilled in the art.

8. Seventh auxiliary request - inventive step (Article 56 EPC)

8.1 Apart from the fact that some features have been rearranged, claim 1 of the seventh auxiliary request differs from claim 1 of the sixth auxiliary request in that a first request is transmitted to a supply source to supply "*the list of the related image content based on additional information in the current image content*".

8.2 Document D2 discloses that a list of related image content is supplied and displayed (see Figure 3: "*RALLY ROUND THE H... more episodes*" "*Trattoria, 2003*", "*Beach Front, 2003*", "*50's Diner, 2003*", "*Doggone, 2003*" and "*Tree View, 2003*").

Furthermore, document D2 discloses that the list of related image content is based on a title of the series to which the current programme relates (see paragraph [0029]: "*menu 44 includes window 50 that displays graphical or textual indicia of the series currently tuned to and showing on screen 48*", paragraph [0038]: "*MORE EPISODES button 100 can be provided to view additional episodes related to the series shown in window 50*" and Figure 3: "*RALLY ROUND THE H... more episodes*").

In a system according to document D2, the media source provides information about series and episodes in the

form of metadata linked to a programme (see paragraph [0037]: "*The episodes refer to individual programs which can be classified under the more general series classification ... The designations and classifications for the various series and episodes can be provided by media source 20, and, in particular, the head-end*" and paragraph [0023]: "*The head-end server can communicate the signals with STB 16. The program signals can include video signals, audio signals, and program information for all episodes and series*").

The term "*additional information in the current image content*" in claim 1 encompasses metadata linked to a programme. This is apparent from the description, page 8, line 35 to page 9, line 2 – "*additional information in the primary image content. The additional information may include a broadcasting station transmitting the image content, the title, contents, playing time, file size of the image content*" – and was confirmed by the appellant.

Therefore, document D2 discloses the additional feature of claim 1 quoted under point 8.1 above.

8.3 In view of the above, the subject-matter of claim 1 of the seventh auxiliary request does not involve an inventive step (Article 56 EPC) in view of the disclosure of document D2 combined with the common general knowledge of the person skilled in the art for the same reasons as those set out for claim 1 of the sixth auxiliary request (see point 7. above).

9. Eighth auxiliary request - inventive step (Article 56 EPC)

9.1 Claim 1 is identical to claim 1 of the seventh auxiliary request except that it does not include the features quoted under point 6.1.

This was confirmed by the appellant (see the appellant's letter dated 21 November 2023, page 7, section "Eighth Auxiliary Request": "*The Eighth Auxiliary Request is an amendment to the Third Auxiliary Request ... but without the additional amendment relating to the receiver/communicator*").

9.2 Therefore, the subject-matter of claim 1 of the eighth auxiliary request does not involve an inventive step (Article 56 EPC) in view of the disclosure of document D2 combined with the common general knowledge of the person skilled in the art at least for the same reasons as those set out for claim 1 of the seventh auxiliary request (see point 8. above).

10. Conclusion

The main request and the first auxiliary request are not allowable because the subject-matter of claim 1 of each of these requests is not new (Article 54 EPC). The second auxiliary request is not allowable because the subject-matter of claim 1 of this request does not involve an inventive step (Article 56 EPC). The third auxiliary request is not allowable because claim 1 of this request is not clear (Article 84 EPC). The fourth to eighth auxiliary requests are not allowable because claim 1 of each of these requests does not involve an inventive step (Article 56 EPC). Since none of the appellant's requests is allowable, the appeal must be dismissed.

**Order**

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

The appeal is dismissed.

The Registrar: The Chair:

K. Boelicke B. Willems

Decision electronically authenticated