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**Datasheet for the decision
of 13 October 2009**

Case Number: T 1168/05 - 3.5.04

Application Number: 03005155.1

Publication Number: 1330121

IPC: H04N 5/445

Language of the proceedings: EN

Title of invention:

Electronic program guide with digital storage

Applicant:

United Video Properties, Inc.

Opponent:

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Headword:

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Relevant legal provisions:

-

Relevant legal provisions (EPC 1973):

EPC Art. 56

Keyword:

"Inventive step (no)"

Decisions cited:

-

Catchword:

-



Case Number: T 1168/05 - 3.5.04

DECISION
of the Technical Board of Appeal 3.5.04
of 13 October 2009

Appellant: United Video Properties, Inc.
7140 South Lewis Avenue
Tulsa, OK 74136 (US)

Representative: Neobard, William John
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Decision under appeal: Decision of the Examining Division of the
European Patent Office posted 11 March 2005
refusing European application No. 03005155.1
pursuant to Article 97(1) EPC 1973.

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. 03 005 155.1, which was published as EP 1 330 121 A1.
- II. The following documents, cited as prior art in the decision under appeal, are relevant to the present decision:
- D1: EP 0 843 468 A2
D4: WO 95/01058 A1.
- III. The decision under appeal was based on the ground that claim 1 then on file did not involve an inventive step (Article 56 EPC 1973) in view of D1 and common general knowledge (D4 was provided as evidence for the common general knowledge).
- IV. With the statement of grounds of appeal the appellant (applicant) filed three sets of claims according to a main request, a first auxiliary request and a second auxiliary request.
- V. In a communication accompanying the summons to oral proceedings the board expressed the preliminary opinion that the subject-matter of claim 1 according to all three requests did not involve an inventive step in view of D1 and D4.
- VI. Oral proceedings were held on 13 October 2009.

VII. 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 claims of the main request, alternatively of the first auxiliary request or alternatively of the second auxiliary request, all filed with the statement of grounds of appeal and in that order.

VIII. Independent claim 1 according to the main request (which is identical to claim 1 of the decision under appeal) reads as follows:

"A method for use in an interactive television program guide system that provides a user with access to broadcast television programs and recorded programs stored on a digital storage device (31, 49) in the user's equipment, the method comprising:

receiving from a main facility (12), television program listings information (51) and television program information wherein both the television program listings information (51) and television program information are associated with broadcast television programs;

using the television program listings information to provide a listing display (Fig.5a) comprising listings of plural broadcast television programs, the listing display (Fig.5a) affording access to an information display (70, 84, 100) in which the television program information can be viewed;

receiving a first user selection of a broadcast television program from the listing display;

in response to said first user selection, recording on the digital storage device the broadcast television program associated with the first user

selection and television program information associated with the said broadcast television program;

displaying a second display (Fig.5b) of user selectable television program listings associated with broadcast television programs, the second display including user selectable listings of recorded television programs (147) associated with television programs stored on the digital storage device (31, 49), wherein the television program listings in the second display (Fig.5b) are associated with one or more television channels, and wherein the recorded program listings in the second display are associated with a channel that identifies the digital storage device;

receiving a second user selection of a broadcast television program from the listings displayed on the second display (Fig.5b) of selectable listings;

in response to said second user selection, causing the display of television program information (Fig.6) for the broadcast television program associated with the second user selection;

receiving a third user selection of a recorded program in a recorded program listing displayed on the second display of selectable listings; and

in response to said third user selection, displaying said television program information for the selected recorded program (Fig.6), wherein the television program information for the selected recorded program is obtained from the digital storage device (31, 49)."

IX. Claim 1 according to the first auxiliary request reads as follows (inserted text with respect to claim 1 of the main request being indicated in **bold**, deletions being ~~struck through~~):

"A method for use in an interactive television program guide system that provides a user with access to broadcast television programs and recorded programs stored on a digital storage device (31, 49) in the user's equipment, the method comprising:

receiving from a main facility (12), television program listings information (51) and television program information wherein both the television program listings information (51) and television program information are associated with ~~broadcast~~ television programs **to be broadcast**;

using the television program listings information to provide a listing display (Fig.5a) comprising listings of plural ~~broadcast~~ television programs **to be broadcast**, the listing display (Fig.5a) affording access to an information display (70, 84, 100) in which the television program information can be viewed;

receiving a first user selection of a broadcast television program from the listing display;

in response to said first user selection, recording on the digital storage device the ~~broadcast~~ television program associated with the first user selection **when it is broadcast** and television program information associated with the said ~~broadcast~~ television program;

displaying a second display (Fig.5b) of user selectable television program listings associated with broadcast television programs, the second display including user selectable listings of recorded television programs (147) associated with television programs stored on the digital storage device (31, 49), wherein the television program listings in the second display (Fig.5b) are associated with one or more

television channels, and wherein the recorded program listings in the second display are associated with a channel that identifies the digital storage device;

receiving a second user selection of a ~~broadcast~~ television program **to be broadcast** from the listings displayed on the second display (Fig.5b) of selectable listings;

in response to said second user selection, causing the display of television program information (Fig.6) for the ~~broadcast~~ television program associated with the second user selection;

receiving a third user selection of a recorded program in a recorded program listing displayed on the second display of selectable listings; and

in response to said third user selection, displaying said television program information for the selected recorded program (Fig.6), wherein the television program information for the selected recorded program is obtained from the digital storage device (31, 49)."

- X. Claim 1 according to the second auxiliary request reads as follows (inserted text with respect to claim 1 of the first auxiliary request being indicated in **bold**, deletions being ~~struck through~~):

"A method for use in an interactive television program guide system that provides a user with access to broadcast television programs and recorded programs stored on a digital storage device (31, 49) in the user's equipment, the method comprising:

receiving from a main facility (12), television program listings information (51) and television program information wherein both the television program

listings information (51) and television program information are associated with television programs to be broadcast;

using the television program listings information to provide a listing display (Fig.5a) comprising listings of plural television programs to be broadcast, the listing display (Fig.5a) affording access to an information display (70, 84, 100) in which the television program information can be viewed;

receiving a first user selection of a broadcast television program from the listing display;

in response to said first user selection, recording on the digital storage device the television program associated with the first user selection when it is broadcast and **storing the received** television program information associated with the said television program **as an entry in a directory of recorded programs;**

displaying a second display (Fig.5b) of user selectable television program listings associated with broadcast television programs, the second display including user selectable listings of recorded television programs (147) associated with television programs stored on the digital storage device (31, 49), wherein the television program listings in the second display (Fig.5b) are associated with one or more television channels, and wherein the recorded program listings in the second display are associated with a channel that identifies the digital storage device;

receiving a second user selection of a television program to be broadcast from the listings displayed on the second display (Fig.5b) of selectable listings;

in response to said second user selection, causing the display of television program information (Fig.6)

for the television program associated with the second user selection;

receiving a third user selection of a recorded program in a recorded program listing displayed on the second display of selectable listings; and

in response to said third user selection, displaying said television program information for the selected recorded program (Fig.6), wherein the television program information for the selected recorded program is obtained from **the directory in** the digital storage device (31, 49)."

XI. The examining division's reasoning in the decision under appeal with respect to claim 1 then on file (which is identical to claim 1 according to the present main request) can be summarised as follows.

Inventive step (Article 56 EPC 1973)

D1, regarded as the closest prior art, discloses a method for use in an interactive guide system in which a storage device (analogue VTR) is treated and displayed as an additional channel in the program guide. D1 however does not mention additional program information associated with the broadcast or recorded television programs.

The method of claim 1 thus differs from the method disclosed in D1 essentially in that:

- a) the storage device is digital;
- b) in addition to television program listings information also television program information being associated with broadcast television programs is provided by the main facility;

- c) the listing display affords access to an information display in which the television program information can be viewed;
- d) the television program information associated with the broadcast television program is recorded on the storage device and
- e) user selections in the second display of selectable listings cause the display of television program information associated to the user selection made.

Regarding feature "a", it is commonly known (see D4, page 6, lines 2 to 6) that digital storage devices are obvious alternatives to videotape recorders such as used in D1 for the storage and reproduction of audio-visual material.

Regarding features "b" to "e", the problem to be solved in the present invention may be regarded as "how to provide a user of an interactive television program guide system a broadcast receiver and device for storing and reproducing received programs with additional program information".

D4 discloses the common general knowledge of how additional information related to the television programs is received by broadcast transmission and displayed when the user pushes the "info" button on his remote control in relation to a selected television program.

It would thus be obvious to apply these intuitive concepts of user interfaces known from D4 to the method disclosed in D1 without the use of inventive skill. Once the solution to integrate a storage device into a

program guide is known (as indicated in D1), the skilled person would be able to implement all other standard functionalities of television program guides (e.g. access to multiple levels of program information) in the same manner.

Hence the subject-matter of claim 1 does not involve an inventive step.

XII. The appellant essentially argued as follows with regard to inventive step.

Main request

It is undisputed that D1 represents the closest prior art. The appellant also essentially agrees with the preliminary opinion set out on page 2 of the board's communication accompanying the summons to oral proceedings that the method of claim 1 differs from the method of D1 essentially in that:

- the storage device is digital,
- television program information is received from the main facility together with the broadcast television programs,
- the recording of a broadcast television program on the storage device is accompanied by the recording of the associated television program information and
- the interactive television program guide system can display television program information associated with a selected television program, both for broadcast television programs and for recorded television programs.

However this last distinguishing feature does not draw a proper distinction between two types of technically distinct information which are used in two different ways, namely the television program listings information and the television program information. In the invention the listings information is used in calling up for display the transformed program information. The appellant submits that the distinguishing features relating to the television program information are suggested neither by D1 nor D4, nor by the combination thereof, for the following reasons:

- D1 neither discloses nor suggests (additional) television program information associated with television programs, and even less to record such information on a digital storage device;
- the analogue VTR of D1 is most probably for playback only because D1 only discloses external memory units as video-recording media and a VTR tape is accessed serially (both for recording and reproducing), which is incompatible with capturing the type of transmission needed to populate a program guide; D1 does not disclose where the categories "MOVIE", "HOME DRAMA" and "MUSIC" shown in figure 7 would come from if not from a pre-recorded tape;
- D4 discloses additional television program information which can be displayed by the user by pressing the "info" button (136) on the remote control. However this additional information refers mostly to the program currently being watched (see information on the baseball player in figure 10 and "today's data" interleaved with the television program listings information for the other days of the week in figure 3b);

- the objective technical problem solved by the method of claim 1 is to improve the television guide for broadcast and recorded contents;
- D4 solves a different problem which is to improve the user's experience while watching a television program;
- D4 is silent on associating additional program information with a recorded broadcast program and storing this information on a digital storage device and
- D4 fails to make the advantageous link between ephemeral data and stored data.

Hence the combined teachings of D1 and D4 could not have led a person skilled in the art to the method of claim 1 without hindsight.

First auxiliary request

Claim 1 according to the first auxiliary request differs from claim 1 according to the main request essentially in that the expression "broadcast television programs" has been replaced by "television programs to be broadcast" in order to highlight the temporal separation between the receipt of the program information and the broadcast of the associated program. None of the prior art documents suggests this as a possibility.

Second auxiliary request

Claim 1 according to this request is further amended with respect to claim 1 according to the first auxiliary request essentially in that the television

program guide information is stored "as an entry in the directory of recorded programs". This is further emphasis on the archival nature of the program information as and when it is stored in association with a recorded program.

Reasons for the Decision

1. The appeal is admissible.

Main request

2. Inventive step (Article 56 EPC 1973)

- 2.1 Closest prior art

It is not disputed that D1 represents the closest prior art to the method of claim 1 and discloses a method for use in an interactive television program guide system that provides a user with access to broadcast television programs and recorded programs stored on a storage device (Video Tape Recorder, hereinafter "VTR") in the user's equipment. The method of D1 includes an electronic program guide (hereinafter "EPG") which displays on the same screen program listings for broadcast television programs and for television programs recorded on the storage device (see, in particular, figures 4 to 7).

- 2.2 Distinguishing features

It is also undisputed that the method of claim 1 differs from the method of D1 essentially in that:

- the storage device is digital,
- television program information is received from the main facility together with the broadcast television programs,
- the recording of a broadcast television program on the storage device is accompanied by the recording of the associated television program information and
- the EPG can display television program information associated with a selected television program, both for broadcast television programs and for recorded television programs.

2.3 Objective technical problem

The appellant has submitted that the objective technical problem solved by the method of claim 1 should be regarded as being "to improve the television guide for broadcast and recorded contents". The board is satisfied with this formulation of the objective technical problem which corresponds to the contribution of the distinguishing features to the technical effect achieved by the method of claim 1 while not containing pointers to the solution.

2.4 Obviousness

D1 mentions that "a video-recording medium other than a magnetic tape can also be used as well" and cites a video-disk as an example (see column 8, lines 48 to 55, of D1). Alternative well-known storage devices were also described in a similar context in D4 and included digital storage devices such as hard disks (see D4, page 6, lines 2 to 6, the paragraph bridging pages 8 and 9, and page 31, line 1). Moreover digital

television standards such as MPEG-2 had already been published at the priority date, and the move from analogue television to digital television was already well underway. Hence the board agrees with the examining division (see section XI above) that it was obvious for the skilled person to use digital storage devices instead of an analogue VTR.

Regarding the other distinguishing features, it was well known in the art, as evidenced in particular by D4, that an EPG could receive (by broadcast transmission), store and display additional information on the program currently being watched (see D4, page 7, lines 2 to 4) or on a program highlighted by the user in a list of programs (see D4, page 48, lines 11 to 13). This additional program information was usually displayed upon request by the user (see "info" button 136 in figures 4a, 4b and 5a of D4) thus advantageously providing the user with more depth of information when desired. When asked in the oral proceedings, the appellant did not contest these facts.

Although D1 does not disclose details of the EPG, the board considers it to have been a matter of normal design procedure of an EPG at the priority date of the present application to receive, temporarily store and display additional television program information for at least the currently broadcast programs, such as disclosed, for instance, in D4.

Moreover it should be noted that the television program listings of the EPG of D1 contain not only broadcast television programs but also recorded television programs (see figures 4 to 7). D1 explains the

advantage of this configuration as being that "either a broadcasted program or a program recorded in advance can be selected in such a uniform manner that there is no need to distinguish one from another, raising the degree of usage convenience of the system" (see column 6, lines 8 to 13). Following this teaching of equal treatment of broadcast and recorded programs, the skilled person would therefore have been incited to provide additional television program information for both broadcast and recorded programs. In the case of recorded programs the technical implementation of this last feature would necessarily require that additional information associated with a recorded program be recorded together with the program on the storage device. In particular, in the case of digital television (e.g. MPEG-2), this would have posed no difficulty, since television programs and additional information were both received as packets and had to be temporarily stored for display in usual EPGs as set out above.

The skilled person would thus have arrived at the method of claim 1 without exercising inventive skill, but merely by combining the teaching of D1 and common general knowledge of EPGs, as evidenced, for instance, by D4.

2.5 Appellant's arguments

The appellant argued that the analogue VTR of D1 is most probably for playback only because a serially recording analogue VTR is incompatible with the type of transmission needed for a program guide, and D1 does not disclose where the categories "MOVIE", "HOME DRAMA"

and "MUSIC" shown in figure 7 would come from if not from a pre-recorded tape.

The board does not fully agree with this reading of D1. Firstly, D1 states unambiguously that the VTR can both record and play back videos (see column 4, lines 34 to 41; column 6, line 32, to column 7, line 3; figures 9 and 10; and column 8, lines 48 to 55). Secondly, the labels "MOVIE", "HOME DRAMA" and "MUSIC" in figure 7 do not automatically imply that the tape was pre-recorded. These labels could also have been transmitted from TV 21 to VTR 22 over bidirectional digital control line 29 during the recording phase (see figures 1 and 2; column 2, lines 44 to 58, and column 4, lines 11 to 25). However, and more importantly, the board considers that with the choice of a digital recording video device, audio and data packets are stored in the same manner, for instance on a hard disk. This made it possible to easily improve the additional information on the recorded programs by recording it together with television program information which was commonly available in an EPG and associated with the broadcast television program in the EPG. Hence the above limitations of analogue video recording are overcome by digital technology.

The appellant also submitted that the additional program information in D4 was only about the currently watched television program, not about all television programs shown in a television program listing. The appellant arrived at this conclusion based on the fact that in figure 3b "today's data" is interleaved with data for the other days of the week and that the additional data shown in figure 10 (i.e. statistics

about the currently playing baseball player) is certainly received only during the broadcast of the associated television program. The additional information of D4 thus solves a different problem which is to improve the user's experience while watching a television program.

The board is not convinced by the above argument. On page 48, lines 11 to 13, of D4 it is stated that "the info function can be used in conjunction with the list function to display information about the currently highlighted program/service". As set out above (see point 2.4), program listings were usually not limited to the currently broadcast programs. This is also hinted at in D4. For instance, the user can choose to display the program listings for the next hours or the next days (see D4, from page 47, line 18, to page 48, line 11). The fact that (as shown in figure 3b of D4) "today's data" is interleaved with - and thus transmitted more often than - data for the other days of the week - apparently for quicker access or update - does not permit one to conclude, as the appellant does, that additional information is only provided for currently broadcast programs. Even if the appellant's argument with respect to D4 were accepted, it would not change the board's reasoning set out above because the availability of this additional information for future events in usual EPGs was not contested and, anyway, the additional information for the relevant program would also be available in the "today data" of D4 when the program is to be recorded.

2.6 For the above reasons, the subject-matter of claim 1 according to the main request does not involve an inventive step.

2.7 Accordingly, the appellant's main request is not allowable.

First auxiliary request

3. Inventive step (Article 56 EPC 1973)

Claim 1 according to the first auxiliary request differs from claim 1 according to the main request essentially in that the expression "broadcast television programs" has been replaced by "television programs to be broadcast" in order to highlight the temporal separation between the receipt of the program information and the broadcast of the associated program.

As explained in section 2 above (see in particular subsection 2.5), additional information both for programs currently broadcast and for programs to be broadcast could be displayed by commonly known EPGs at the priority date. The recording of this additional information merely requires that it be present when the program is recorded. This was also the case in D4. The negative conclusion with regard to inventive step reached for claim 1 of the main request thus also applies to claim 1 according to the first auxiliary request.

Hence the first auxiliary request is not allowable.

Second auxiliary request

4. Inventive step (Article 56 EPC 1973)

Compared to claim 1 according to the first auxiliary request, claim 1 according to the second auxiliary request sets out the added limitation that the television program information is stored on the digital storage device as an entry in a directory of recorded programs, and obtained therefrom when it is to be displayed.

Digital storage devices at the priority date conventionally had a file structure based on directories (see Microsoft® Windows® on a PC). Moreover the board considers that the person skilled in the art would have realised that, in storing the recorded programs and associated information in a directory, it was possible to achieve one of the objectives mentioned in D1 (see column 6, lines 8 to 13), namely that "either a broadcasted program or a program recorded in advance can be selected in such a uniform manner that there is no need to distinguish one from another, raising the degree of usage convenience of the system". Thus this feature cannot render the method of claim 1 inventive.

For these reasons, the second auxiliary request is also unallowable.

5. Conclusion

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 Chairman:

L. Fernández Gómez

F. Edlinger