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**Datasheet for the decision
of 4 March 2011**

Case Number: T 1634/06 - 3.5.04

Application Number: 99948321.7

Publication Number: 1110387

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:

-

Relevant legal provisions:

-

Relevant legal provisions (EPC 1973):

EPC Art. 56

Keyword:

"Inventive step - no"

"Inventive step - determination of closest prior art"

Decisions cited:

-

Catchword:

See Sections 2.1, 2.2 and 2.5



Case Number: T 1634/06 - 3.5.04

D E C I S I O N
of the Technical Board of Appeal 3.5.04
of 4 March 2011

Appellant: United Video Properties, Inc.
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Tulsa, OK 74136 (US)

Representative: Hale, Peter
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Decision under appeal: Decision of the Examining Division of the
European Patent Office posted 10 May 2006
refusing European patent application
No. 99948321.7 pursuant to Article 97(1) EPC
1973.

Composition of the Board:

Chairman: F. Edlinger
Members: C. Kunzelmann
T. Karamanli

Summary of Facts and Submissions

- I. The appeal is against the decision of the examining division to refuse European patent application No. 99 948 321.7.
- II. The decision to refuse was based on the ground of lack of inventive step (Article 56 EPC 1973) of the subject-matter of claims 1 and 12 according to the main request then on file in view of documents
- D5: WO 95/01058 A1 and
D6: EP 0 843 468 A2.
- III. The applicant appealed and filed claim 1 of a first auxiliary request with the statement of grounds of appeal.
- IV. With a letter dated 26 January 2007 the appellant filed a new figure 5b to replace figure 5b then on file.
- V. The board issued a communication pursuant to Article 15(1) of the Rules of Procedure of the Boards of Appeal (RPBA), annexed to a summons to oral proceedings dated 22 December 2010. In this communication the board indicated that it tended to agree with the decision under appeal as to which features specified in claim 1 of the main request were disclosed in D5. Furthermore the board indicated that the new figure 5b might be objectionable under Article 123(2) EPC.

- VI. With a letter of 4 February 2011 the appellant filed claims according to a new main request, a new figure 5b labelled "Auxiliary Request #1" and figure 5b as originally filed but labelled "Auxiliary Request #2".
- VII. Oral proceedings before the board were held on 4 March 2011. During oral proceedings the appellant filed claims 1 to 8 and withdrew all previous requests. The appellant's final requests were that the decision under appeal be set aside and a patent granted on the basis of claims 1 to 8 filed in the oral proceedings before the board with the description and drawings on which the decision under appeal was based, except for figure 5b, which according to the **main request** should be that filed with the letter dated 26 January 2007. As a **first auxiliary request** only figure 5b of the main request should be replaced by figure 5b filed as "Auxiliary Request #1" with the letter dated 4 February 2011. As a **second auxiliary request** only figure 5b of the main request should be replaced by figure 5b as originally filed.
- VIII. Claim 1 reads as follows:

"A method for use in an interactive television program guide implemented on user television equipment (22) for displaying programs and associated program data, the method characterised by:
storing on a digital storage device programs and program data that is associated with the programs using the interactive television program guide;
maintaining *on the digital storage device* a directory of the program data *for the stored programs* using the interactive television program guide, and

providing to the user a list of selectable options, wherein a first selectable option is provided for allowing the user to access information for at least one broadcast television program and at least one recorded program stored on the digital storage device, and wherein a second selectable option is provided for allowing the user to access a list of *currently stored* programs from the directory."

(Amendments to claim 1 of the main request on which the decision under appeal was based are set in *italics*.)

Claims 2 to 8 are dependent on claim 1.

IX. The reasons to refuse the application given in the decision under appeal may be summarised as follows:

The method of claim 1 differed from the method disclosed in D5 in that it provided the user with a list of selectable options wherein a first selectable option was provided for allowing the user to access information for at least one broadcast television program and at least one recorded program stored on the digital storage device. The objective problem solved by the invention might therefore be formulated as how to allow a user of an interactive program guide system to access broadcast television programs and recorded programs with their related program data in a convenient manner. D6 disclosed another interactive program guide system. In the embodiment of figure 7 of D6 a user interface was created which comprised both a list of broadcast television programs and a list of recorded programs. The examining division considered the combination of the different display types in D5

and D6 in one system as a normal design procedure which a person skilled in the art was able to perform without the exercise of an inventive step.

X. The appellant's arguments may be summarised as follows:

D5 was not an appropriate starting point for the assessment of inventive step because D5 did not address the same problem as the claimed invention. D5 disclosed a distributed audio/visual system. A main module was connected to multiple devices and controlled all these devices, in particular a video cassette recorder. D5 kept a log of programs that had been made the subject of a recording on the video cassette recorder, i.e. a serially accessed device, as a preference indicator. The log was stored in a digital storage in the form of a system memory. There was no reference in D5 to storing program data associated with the stored programs on a digital storage device which stored the programs. Nor was there a disclosure in D5 that a directory was maintained, let alone on the digital storage device. The main module described in D5 could not maintain a directory because the diverse devices which might be connected to it could not be anticipated. Furthermore, D5 did not disclose a mixed-media program guide giving the user access to both currently broadcast and currently stored programs.

D6 disclosed a mixed-media program guide, but both D5 and D6 were concerned with storing on multiple peripheral devices. In D6 an example given was a video tape recorder. As with D5, the primary use of a serially accessed medium in D6 mitigated against any maintenance of contents information.

The essence of the invention was the storing of programs, associated program data and a directory on one digital storage device. The invention did not attempt to control multiple devices; instead the invention was a contained, integrated, reliable system having one digital storage. The invention used digital technology to provide the user with improved applications. Hence the invention was more reliable and simpler than the distributed system of D5. When compared with D5, the invention solved the problem of how to reliably access and maintain program information, for recording programs.

Since the claims of all three requests were identical the appellant was aware that the auxiliary requests would share the same fate as the main request if the subject-matter of claim 1 were found not to involve an inventive step.

Reasons for the Decision

1. The appeal is admissible.
2. *Inventive step (Article 56 EPC 1973)*
 - 2.1 The technical field
 - 2.1.1 The present application "relates to video systems, and more particularly, to interactive television program guide systems which allow for digital storage of programs and program related information" (see page 1, lines 2 to 5). As specified in claim 1, the interactive

television program guide is implemented on user television equipment. This equipment may include a set-top box storing television programming and program information on a digital storage device associated with the program guide. The digital storage device may be, for instance, a magnetic disk, a hard drive or a random access memory (RAM) (see page 3, lines 10 to 31). The television equipment may be, for instance, an advanced television receiver or a personal computer television (PC/TV) (see page 10, lines 3 to 7). The program information (i.e. the "program data that is associated with the programs" in claim 1) may include the title, a description and other information such as associated internet web sites (see page 13, lines 17 to 23 in conjunction with page 5, line 28 to page 6, line 3 and page 21, lines 3 to 15). Exemplary user interfaces for the television equipment are a keyboard, a touch-pad, and voice recognition systems (see page 9, lines 21 to 26).

2.1.2 Hence the invention concerns both television technology - in particular television program guides which allow digital storage of information - and computer and computer-interface technology. In this context the board takes the view that it was well known, before the priority date of the present application, that these two areas of technology were converging. Therefore, the common general knowledge of a person skilled in the art of television program guides included common general knowledge of computers and computer interfaces in so far as it related to television technology and television program guides.

2.2 The closest prior art

2.2.1 It is established case law that the closest prior art for assessing inventive step is normally a prior-art document disclosing subject-matter conceived for the same purpose or aiming at the same objective as the claimed invention and having the most relevant technical features in common, i.e. requiring the minimum of structural modifications. A further criterion for the selection of the most promising starting point is the similarity of the technical problem (see Case Law of the Boards of Appeal, 6th edition 2010, I.D.3.1).

The present application states that "[t]he use of independent analog storage devices like videocassette recorders, however, does not allow for the more advanced features that might be implemented if a digital storage device were associated with the program guide." Hence the invention provides "an interactive program guide system with digital storage that allows the program guide to be used to provide more advanced features than previously offered by interactive program guide systems" (see page 2, lines 13 to 28). "The use of a digital storage device associated with the program guide provides the user with more advanced features than could be performed using an independent analog storage device. For example, the current invention gives the user the ability to store information associated with recorded programs in a directory in the digital storage device thereby providing easy access to program information" (see page 3, last line to page 4, line 7).

D5 on the other hand states that "[t]he combination of computer technology with television (TV) and audio-visual (A/V) systems, has fostered the development of multi-media interactive entertainment systems" (see page 3, lines 1 to 3). "The marriage of video and television technology with computer interface technology provides consumers with maximum flexibility in storing, retrieving and viewing television and other audio-visual programming" (see page 4, lines 5 to 8). The invention disclosed in D5 provides "methods and apparatus for presenting an improved audiovisual user interface, which includes various user-selectable features for viewing and controlling a television, video tape recorder (VCR) and other audio-visual devices" (see page 4, lines 8 to 12). The apparatus may comprise "a general purpose computer selectively activated or reconfigured by a computer program stored in the computer" (see page 22, lines 13 to 16). The "invention's user interface provides a user-friendly mechanism for consumers to view, record, and play back TV and A/V programs, as well as control other A/V home entertainment devices using a remote control device" (see page 4, lines 12 to 15). Examples of A/V recording devices for use in the invention of D5 are video cassette recorders and hard disks, i.e. digital storage devices, at least in the case of the latter example (see page 8, last paragraph). The apparatus and user interface may also allow access to online services (see figure 36 and page 17, third paragraph). "Furthermore, information such as TV program listings and additional information related to programs as well as selecting and controlling categories of interactive programs and services may be provided through the user interface" of the invention disclosed in D5 (see page 4, lines 16

to 19).

2.2.2 Hence both D5 and the present application (see point 2.1.2 above) relate to the converging television and computer technologies. Both of them use digital technology, more particularly computer technology, in the context of electronic program guides and *inter alia* deal with improving user access to television programs recorded on digital storage devices. It follows from the teaching of D5 that the use of an interactive guide system with digital storage provides many of the more advanced features referred to in the present application (see point 2.2.1 above). Thus the board finds that D5 qualifies as a starting point for the assessment of inventive step of the method of claim 1.

2.2.3 The appellant's argument that D5 did not address the same problem as the claimed invention does not convince the board. With respect to D5, this argument emphasises the control functionality discussed in D5, but D5 also addresses other problems, such as user-friendliness and improvement of the user interface. These problems are also discussed in the present application. With respect to the present application, the appellant focuses on reliability and simplicity of the invention. These aspects are however not explicitly mentioned in the present application as filed. On the contrary, the preferred embodiment illustrated in figure 2 is described as a distributed system comprising a television apparatus, a set-top box including a digital storage device and a secondary storage device, for instance a video cassette recorder or a DVD recorder, all being controlled by the user by means of a remote control (see page 6, line 16 to page 9, line 6). This

embodiment has similarity with the distributed system of D5 comprising a television apparatus, a transceiver and a video cassette recorder, all being controlled by the user by means of a remote control, as illustrated in figure 1 of D5. Furthermore, the invention is not described as being limited to one digital storage device and one directory (see page 7, lines 25 to 29). Nor does claim 1 specify that there is only one digital storage device and only one directory. Hence the technical problems underlying D5 on the one hand and the present application on the other hand are so similar that D5 may be used as a starting point for the assessment of inventive step of the method of claim 1.

2.3 Document D5

2.3.1 D5 discloses an audio-visual system for selectively viewing and interacting with programs and services from a number of program/service sources (see the title of D5). The system comprises several components and has many functionalities, one of them being a "record function" included in the television program guide, as described on pages 49 and 50 and figures 18 and 19. This function allows the recording of programs to be displayed at a later time on the television screen. In the context of this recording function, the user is presented with a record panel of the interactive television program guide displayed on the television screen (see page 49, lines 10 to 18). The record panel comprises, for instance, the title of the program to be recorded. The title is an example of the "associated program data" specified in present claim 1 (see claim 4 and point 2.1.1 above). Hence D5 discloses a method

according to the pre-characterising portion of present claim 1.

- 2.3.2 The record panel may also allow the selection of different video cassette recorders or other A/V recording devices. The other A/V recording devices are not specified on page 49, but a hard disk, in the context of a record button for making copies of programs, is explicitly referred to in the "summary of the invention" (see page 8, last paragraph).
- 2.3.3 The television program guide of D5 also has a "list function" described on pages 45 to 48 and figures 12 to 17. This function allows the user to obtain, for instance, a program/service listing for the current date and time during which the user is watching television (see page 45, lines 4 to 7). The "list function" is also available with other A/V devices, for instance recording devices such as a hard disk. For example, if a VCR used for recording programs is displayed on the television screen, pressing a list button on a remote control device would display a listing of all programs recorded by the user on the VCR, highlighting the program now displayed from the VCR (see page 48, last six lines). It is implicit that this listing of all recorded programs is analogous to the listing illustrated in figures 12 to 17 and includes the titles of the recorded programs. Moreover, an "info function" can be used to display information about a currently highlighted program/service (see page 43, line 3 from below to page 44, line 3 and page 48, lines 11 to 13). Hence D5 discloses the storing of programs and program data that is associated with the programs using the interactive television program guide,

and discloses the keeping of a list of all programs which have been recorded.

2.3.4 However, D5 does not disclose that the programs and the program data are stored on the same digital storage device. Nor does D5 disclose the feature of maintaining on the digital storage device a directory of the program data for the stored programs using the interactive television program guide. Furthermore, D5 does not disclose the list of selectable options giving access to a mixed-media guide as specified in the last feature in claim 1 ("providing to the user a list of selectable options, wherein ...").

2.4 The objective technical problem

2.4.1 Claim 1 is not limited to only one digital storage device (see point 2.2.3 above). However, the digital storage device specified in claim 1 stores programs, program data that is associated with the programs stored on the digital storage device, and a directory of the program data for the programs stored on the digital storage device. Hence the maintaining of the directory is facilitated in that programs and/or program data stored on other storage devices need not be considered, and the reliability of the television equipment may be improved as a consequence thereof. The mixed-media program guide specified in the last feature in claim 1 allows the user to access a list of currently stored programs from the directory stored on the digital storage device and hence allows the user to use the directory whose maintaining is facilitated. The mixed-media program guide also allows the user to access information for at least one broadcast

television program, which the user may wish to record on the digital storage device together with the associated program data.

2.4.2 Thus the board essentially agrees with the appellant that the objective technical problem may be seen as allowing simple and reliable access to, and maintenance of, program data of recorded programs while allowing simple access to program data of broadcast programs.

2.5 The relevant common general knowledge

It was common general knowledge in the given technical field, i.e. the converging technologies specified in point 2.1.2 above, that usage data, such as files (in the present case recorded programs), and data associated therewith, such as file names, format, dates, etc. (in the present case associated program data, such as titles or dates) may be stored on the same digital storage device, in particular a hard disk. It was also common general knowledge that the data on a hard disk could be accessed by means of a directory of files stored on the hard disk, the directory being stored on the hard disk. Furthermore it was common general knowledge that a directory should be maintained, i.e. that it should reflect at any given time the files which were stored on the hard disk. For instance if the user, using the user interface, had erased files from the hard disk, such erased files were not normally present in the directory of the hard disk.

2.6 Hence, starting from the method disclosed in D5, a person skilled in the art would have considered storing the programs and the program data associated with the

programs on a digital storage, using the interactive television program guide. He would also have considered maintaining on the digital storage device a directory of the program data for the stored programs, using the interactive television program guide.

2.7 The mixed-media program guide

2.7.1 The mixed-media program guide specified in the last feature of claim 1 ("providing to the user a list of selectable options ... ") comprises a list of options which are provided to the user, as illustrated in figures 4 to 6 and 9. At least the first option (see the "program listings" option 51 in figure 4 and page 11, lines 8 to 21 in conjunction with page 14, lines 3 to 12) is not provided as a selectable option in D5. According to D5, the "list function" allows the user to access a list of available broadcast programs or, alternatively, of currently stored programs (see point 2.3.3 above). The mixed-media program guide contributes to the solution of the objective problem in that the first selectable option in the list allows the user to access information for a program stored in the digital storage device and for a broadcast program. This increases user-friendliness, one of the objectives addressed in D5 (see point 2.2.1 above), in that information for at least one stored program (e.g. the title) is shown in the same list as information for at least one broadcast program, and further information may be accessed using the "info function" (see point 2.3.3 above). But otherwise the mixed-media guide specified in claim 1 is merely an alternative way of providing user access to the available information for programs. The appellant has not submitted arguments as

to why the mixed-media program guide in the context of claim 1 as a whole results in an inventive step over the method for use in an interactive television program guide of D5.

2.7.2 In particular, the accessible information is the same as in the prior art, as far as it relates to the title of programs. Moreover, it was usual practice to provide additional information associated with individual programs, such as channel, length of program, category, etc., which according to the teaching of D5 is optionally accessible via the "info function" (see page 40, line 1 to page 41, line 5). As already set out above, the television program guide disclosed in D5 has a "list function" which may display alternatively a listing of programs currently available or a listing of all programs recorded by the user on the A/V recording device being displayed on the television screen (see point 2.3.3 above). Furthermore, it was known in the art of television program guides to provide in a mixed-media program guide a consolidated listing of currently broadcast programs and currently stored programs (see D6, figure 7 and column 5, line 32 to column 6, line 30). This makes the use of the television equipment more convenient for the user (see D6, column 6, lines 8 to 22). The board thus considers it as a matter of normal design procedure to offer a user of an interactive television program guide an option to access information in a consolidated listing or, alternatively, listings which show only currently broadcast programs or currently stored programs. In the technical field of personal computer television, to which both D5 and the present application refer, it was usual practice that a user could select different

options for presenting information, for instance a directory of files, either following a set-up procedure or by a menu function giving access to different options.

2.7.3 In view of the above the board finds that the subject-matter of claim 1 was obvious to a person skilled in the art, having regard to documents D5 and D6. Hence the subject-matter of claim 1 does not involve an inventive step within the meaning of Article 56 EPC 1973. Thus the main request is not allowable.

3. Auxiliary requests

3.1 The interpretation of claim 1 is not dependent on the content of the respective version of figure 5b. In the present case, the different presentation of the program listings grid does not change the meaning of the selectable options as claimed and is merely a matter of allowability of the respective amendment made. Hence the above analysis concerning inventive step is not dependent on the particular version of figure 5b which is part of the documents forming the basis on which grant of a patent is requested. This has also been acknowledged by the appellant. From this it follows that the first and second auxiliary requests are not allowable because of lack of inventive step of the claimed subject-matter.

3.2 Under these circumstances there is no need for a decision on whether the inclusion of figure 5b according to the main request and the first auxiliary request respectively meets the requirements of Article 123(2) EPC.

4. Since no request of the appellant 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