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**D E C I S I O N**  
**of 25 February 2005**

**Case Number:** T 1018/01 - 3.5.1

**Application Number:** 97933259.0

**Publication Number:** 0909513

**IPC:** H04N 7/173

**Language of the proceedings:** EN

**Title of invention:**

Interactive television system and method for displaying web-like stills with hyperlinks

**Applicant:**

OpenTV, INC., et al

**Opponent:**

-

**Headword:**

Interactive television/OPENTV

**Relevant legal provisions:**

EPC Art. 52(1), 54, 56

**Keyword:**

"Novelty - no (main and first to third auxiliary requests)"

"Inventive step - no (fourth auxiliary request)"

**Decisions cited:**

-

**Catchword:**

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Case Number: T 1018/01 - 3.5.1

**D E C I S I O N**  
of the Technical Board of Appeal 3.5.1  
of 25 February 2005

**Appellant:**

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**Decision under appeal:**

Decision of the Examining Division of the  
European Patent Office posted 7 March 2001  
refusing European application No. 97933259.0  
pursuant to Article 97(1) EPC.

**Composition of the Board:**

**Chairman:** S. V. Steinbrener  
**Members:** R. R. K. Zimmermann  
G. E. Weiss

## Summary of Facts and Submissions

- I. European patent application No. 97 933 259.0 (International publication number WO 98/00976) claiming priority from an earlier US application dated 1 July 1996 concerns a system and a method for displaying still video images in an interactive broadcast television system.
- II. With decision dated 7 March 2001, the examining division refused the application for lack of novelty and lack of inventive step, respectively, in respect of international application WO-A-95/01058 published in 1995 and cited in the proceedings as document D1.
- III. Against the refusal decision, the applicant filed a notice of appeal on 4 May 2001; the appeal fee was paid on the same day. The written statement setting out the grounds of appeal was filed on 2 July 2001.
- IV. On 25 February 2005, oral proceedings were held before the Board, to which the appellant, although duly summoned, did not appear. The decision on the appeal was announced on the basis of the requests submitted by the appellant in writing.
- V. According to these requests, the decision under appeal should be set aside and the European patent be granted, as main request, on the basis of claims filed on 17 December 1999, or, as auxiliary requests, on the basis of the four sets of claims filed with the statement of grounds and a letter dated 31 January 2005, respectively.

*Main request*

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

"1. A method for displaying still video images related to video content in an interactive television system wherein the interactive television system comprises a video delivery system for providing video content, and at least one subscriber television including a display screen, wherein the subscriber television is coupled to the video delivery system, the method comprising:  
the video delivery system providing one or more channels each comprising video content;  
the subscriber television receiving said one or more channels each comprising video content;  
the video delivery system providing at least one channel comprising a plurality of still video images:  
the subscriber television receiving said at least one channel comprising said plurality of still video images;  
displaying on the screen video content from one of said one or more channels each comprising video content;  
displaying on the screen one or more selection options wherein each of said one or more selection options corresponds to one of said still video images;  
receiving user input selecting a first selection of said one or more selection options;  
displaying on the screen a first still video image corresponding to said first selection in response to said receiving said user input selecting said first selection of said one or more selection options."

*First auxiliary request*

VII. In the first auxiliary request, the feature "wherein the interactive television system comprises a video delivery system for providing video content, and at least one subscriber television including a display screen" (see the text of the introductory part of claim 1 of the main request) was amended to read:

"wherein the interactive television system comprises a video delivery system for providing video content, at least one subscriber television including a display screen and a media server which stores a plurality of still images".

Furthermore, at the end of claim 1, after the word "options" the following text was appended:

", and the method further comprising receiving user input indicating a request to receive additional still video images related to a video content;  
the subscriber television providing said request to the media server;  
the media server receiving said request;  
the media server providing one or more additional still video images related to said video content on a third channel in response to receiving said request; and  
the subscriber television displaying on the screen said one or more additional still video images related to said video content".

*Second auxiliary request*

VIII. In the second auxiliary request, the words "on a first television channel" were introduced after the words "the screen video content" (see the text of claim 1 of the main request), amending the feature to read as follows:

"displaying on the screen video content on a first television channel from one of said one or more channels each comprising video content".

Furthermore, at the end of claim 1, after the word "options" (see the main request), the following text portion was appended:

"and wherein the video delivery system provides said at least one channel comprising said plurality of still video images on a second television channel different than said first television channel".

*Third auxiliary request*

IX. In the third auxiliary request, at the end of claim 1, after the word "options" (see the main request), the following text portion was appended:

", characterised in that one or more channels provided by the video delivery system comprises audio-video-interactive signals which include an audiovisual data stream and an interactive application content combined and synchronized by an encoder/multiplexer of the video delivery system and in that the method further comprises the steps of decoding, by the subscriber

television, the audio-video-interactive signals to separate the audio/video component from the interactive component and executing the interactive application content conveyed within audio-video-interactive signals to display said one or more selection options in conjunction with the audiovisual content, said one or more selection options corresponding to the respective still images conveyed on said at least one channel comprising said plurality of still video images."

*Fourth auxiliary request*

- X. In the fourth auxiliary request, to the last line of claim 1 of the third auxiliary request, after the word "images", the following text portion was appended:

"and of loading in a decoder of the subscriber television still images which are related to a still image selected by an user."

- XI. The appellant submitted, in writing, the following arguments in support of the requests:

Claim 1 according to the main request was directed to an interactive method for displaying still video images related to video content in an interactive television system having hyperlinked web-like capabilities. One or more selection options were displayed on the screen together with the video content. The still video images were transmitted before the selection options were displayed on the television screen.

Document D1 disclosed, in four different embodiments, an interactive audio-visual system comprising an audio-visual transceiver coupled to a user television and to a television or telephone cable, and a remote control device. Graphic overlay panels were provided from a video encoder only and thus originated from the System Memory through the Memory and Bus Controller. The still video images were clearly not transmitted over a cable or any channel medium provided by the video delivery system. In the first embodiment, the graphic overlay panels displayed information which was inherently generated from alphanumeric data encoded in vertical blanking intervals of the program channel and was thus not provided as still video images. The vertical blanking intervals would not have sufficient bandwidth to transmit a still image. Thus, when using the vertical blanking intervals to transmit information, it would only be possible to send alphanumeric or text data.

Document D1 also failed to disclose that the still video images were displayed on the screen of the television in response to a selection, by the user, of one or more corresponding selection options, which were displayed on the screen together with a video content transmitted by one or more channels received by the subscriber television.

In the second embodiment of document D1 the term "side-band channels" referred to channels transmitted on the cable or to other video sources. A full motion video content was displayed in pip windows. There was no indication that these pip windows were used to render a still video image.



The third embodiment referred to pay-per-view channel offerings. The only data transmitted, in addition to the full motion video, was alphanumeric text. Still video images were neither transmitted nor displayed on the television screen. Neither was any selection option corresponding to still video images transmitted nor displayed on the screen.

The fourth embodiment was related to a home-shopping mode using an icon for prompting the user to press a selection button of the control device, which was displayed in a graphic overlay panel superimposed onto advertisements from the TV shop channel. The icon displayed on the video content, however, was not disclosed as a selection option corresponding to still images received by the subscriber television but it rather constituted a means intended to cause the transmission of predetermined still images.

As a matter of fact, document D1 did not disclose that any still image was transmitted before the display of the icon. On the contrary, the still images were transmitted to the subscriber television after the option corresponding to the icon had been selected.

The invention as claimed was thus clearly novel in respect of document D1.

The purpose of the invention was the combination of an interactive television with hyperlinked web-like capabilities. The subscriber television received a plurality of channels comprising video content and at least one channel comprising a plurality of still video

images. The still video images were received by the subscriber television before the display of selection options on the television screen, i.e. together with a full motion video content, the still images being displayed according to corresponding selected options.

Having regard to document D1, the objective problem arising was to develop an interactive television system and method having hyperlinked web-like capabilities and of increased rapidity.

This problem was solved by transmitting, together with the full motion video content, the still images, before the display of the selection options. Thus, while a video content was displayed, still images were pre-loaded in the system memory.

D1 did not contain any teaching dealing with the reduction of the navigation latency. Thus, nothing neither disclosed nor suggested, for a man skilled in the art trying to enhance the rapidity of the television system of D1, to transmit over the T/T cable still video images together with the video content which was intended to be displayed on the television screen and before the display of selection option.

According to the claims of the first auxiliary request the user could formulate a request to receive additional still video images from a media server which received those requests and provided additional still video images related to the video content on a third channel in response to that request. These features permitted to increase the amount of information available to users.

D1 did not contain any teaching with respect to the use of a media server and to the transmission of additional still images, i.e., requested images concerning products proposed by an advertiser. Nor did the prior art system of document D1 improve the performance by increasing the number of available still images.

According to the second auxiliary request, the video content was provided on a first television channel and the still video images on a second television channel different from the first television channel. This allowed to increase the number of still images and to transmit more complex still images since the global bandwidth of the channel used was increased.

The appellant did not submit any arguments in support of the third and fourth auxiliary request.

### **Reasons for the Decision**

1. The appeal complies with the requirements of Articles 106 to 108 and Rules 1(1) and 64 EPC and is thus admissible.
2. The appeal, however, is not allowable since the appellant's requests do not meet the mandatory requirements of the EPC regarding novelty and inventive step (Articles 52(1), 54, and 56 EPC).
3. Document D1 is undisputedly a piece of prior art relevant to the subject-matter of the present requests. The document relates to multi-media applications for

home use combining personal computing with interactive television and, more specifically, to methods for managing selection, viewing, and interacting with the programs and services provided by a program or service provider. It discloses an "improved audio-visual user interface for selecting and displaying cable television or other audio-visual programs, as well as controlling various audio-visual devices and interactive services" (see document D1, pages 1, 2, and 5).

The "improved audio-visual user interface", which may include additional visual user interfaces, is based on the "general system configuration" described on pages 25 to 38 and providing a variety of interactive applications, functions and services to the user, among others a interactive "TV shop" made available to the user via a home shopping interface for example (see document D1, pages 9 and 71 ff. with figures 43 ff.). The prior art system assumes a service provider to provide "cable television and/or telephone (T/T) service to users via a T/T cable, including a digital channel of program/service listings, at least one digital back channel (from the user's home to a central file server), a number of analog TV channels, a number of digital pay-per-view channels, and other interactive services transmitted from remote storage devices such as digital file servers" (see document D1, page 5, lines 5 to 13 and figures 1 to 3 with the associated text). The TV Shop displays a continuous full-motion video of various paid-for commercials or advertising messages transmitted as an on-line service through the T/T cable from the service provider (document D1, page 71, first paragraph).

Other services, like a pay-per view channel, can be provided concurrently on the basis of the said "general system configuration" using dedicated channels of the service provider.

In the light of this prior art, the present requests lack novelty and inventive step, respectively.

*Main request*

4. Claim 1 of the main request is directed to a method of displaying still video images, which are, according to the present description, preferably MPEG-2 compressed still images (or MPEG stills, see page 3, lines 6 to 14).

Document D1 discloses the use of still images. This follows first from document D1, page 28, lines 10 to 13) indicating that the A/V decoder 74 decompresses digital signals such as MPEG motion video and the like. The encoding of still images is in the realm of the original MPEG standard. Moreover, the difference between a still (video image) and a motion video is not a technical one but resides rather in the image content, i.e. in the perception whether the image shows motion, or does not. The technique used for coding the image is not substantial: a motion video can be thought of as a sequence of still images and, vice versa, the appearance of a still image can be produced by means of a motion video. The use of the term "still video image" in claim 1 does thus not seem to distinguish the claimed method from the prior art in any technical aspect and hence may be considered irrelevant to novelty of the claimed subject-matter.

In any case, still images are explicitly mentioned in document D1 in the context of the home shopping interface (see document D1, pages 71 ff.). The cookware shown in figure 46 and the mini-espresso machine shown in figure 47 are still images.

5. The home shopping interface allows to display various paid-for commercials and advertising messages as full-motion video continuously. The video content is encoded in analog or digital signals transmitted via a television channel, or through the T/T cable (see document D1, page 71, first paragraph). The video content comprises select icons and selectable text information (see, for example, the "Duralite Cookware" in figure 46), which then highlights and causes the display of the corresponding still image.

The selection items in document D1 thus have the character of hyperlinks through which "the still images (are) related to the video content in an interactive television system" as defined in the introductory part of present claim 1 (see also page 2, lines 28 to 30 of the International publication).

6. The "interactive television system" according to document D1 comprises a video delivery system (T/T cable 52 with transceiver 54, see document D1, figures 1 and 2,) for providing video content (for example a continuous full-motion video, see document D1, pages 71, lines 8 to 11) and a subscriber television (television set 58). The subscriber television includes a display screen (screen 180) and is coupled to the video delivery system (via A/V connect module 66).

The video delivery system, in particular the T/T service provider, provides, and the subscriber television receives, one or more channels each comprising video content (see figure 3a, channels 103, 106 and 108. In particular, "a channel identified as 'SHP' or 'TV Shop' represents a dedicated home shopping service within the electronic spectrum illustrated in Figure 3a", the selection of which results in a "continuous full-motion video display of various paid-for commercials or advertising messages" (see document D1, page 71, lines 3 to 11).

Each one of figures 46 to 48 is an "illustration of the home shopping service" (see document D1, page 19), which is provided "within the electronic spectrum illustrated in Figure 3a" (loc. cit.). It follows that at least one channel provided by the video delivery system and received by the subscriber television comprises the plurality of still video images shown in these figures (i.e. the "Duralite cookware" and "Lucks Mini Espresso").

In addition to the video content, one or more selection options are displayed on the screen wherein each of said one or more selection options corresponds to one of said still video images (in figures 46 and 47, the list of specials in connection with the select button 155). The user input via the select button 155, selecting a first selection of said one or more selection options (shown in the lists), is received and the still video image corresponding to said selection is displayed as provided in claim 1 "in response to said receiving said user input selecting said first

selection of said one or more selection options" (see document D1, page 71, line 16 to page 72, line 21).

Claim 1 of the main request does thus not contain any particular feature which distinguishes the claimed method from the prior art of document D1 and does thus not comply with the requirement of novelty (Articles 52(1) and 54 EPC).

7. Appellant's argument that in document D1 the still images are not transmitted from the service provider to the subscriber but are rendered from templates pre-stored in the subscriber system and from simple alphanumeric data transmitted does not apply to the TV shop described on pages 72 ff. of document D1. On page 71 (loc. cit.), the document explicitly discloses that this service is "within the electronic spectrum illustrated in Figure 3a", i.e. transmitted via the T/T cable 52 from the service provider (see figure 1).

*First auxiliary request*

8. The first auxiliary request limits the main request in substance by adding to the still images " one or more additional still video images related to said video content" which are provided, on user request, via a third channel by a "media server" forming part of the system.

Document D1, page 71 explicitly indicates that the TV Shop "could also be presented as an on-line service through a transmitting device connected to the T/T cable 52". From figure 3a and page 31, 2nd paragraph it is clear that in such an embodiment the on-line service



must be provided over one of the "additional definable digital channels 108 offering a variety of interactive services", i.e. over a "third channel" in addition to the digital program listing channel 100, the back channels 102, and the analog standard TV channels 103. Figures 45 ff. also apply to the on-line service; in particular a full-motion video as well as one or more additional still images are provided on user request and received over the T/T cable from digital file servers (see also page 5, lines 10 to 12). An on-line service using a digital file server is considered a "media server" in the normal meaning of the term.

The first auxiliary request, therefore, does not add any novel feature to claim 1 so that novelty still lacks with respect to document D1.

#### *Second auxiliary request*

The second auxiliary request distinguishes between a "first television channel" (of one of said one or more channels each "comprising" video content) and a second television channel, different from the first television channel and "comprising" said plurality of still video images.

The TV Shop disclosed on pages 71 ff. of document D1 uses a dedicated channel for providing the still images shown in figures 46 ff., the channel being different from the standard TV channels transmitting video content. The definition of the "second television channel" does thus not add any new feature which is not yet included in the prior art of document D1.

*Third auxiliary request*

9. The third auxiliary request adds features to claim 1 of the main request, which define the encoding, in the video delivery system, and the decoding, in the subscriber television, of audio-video-interactive signals including an audiovisual data stream and an interactive application content.

However, the subscriber unit of document D1 also includes a A/V decoder, for example for MPEG Motion video (see page 28, 1st paragraph), which vice-versa means that a suitable encoder must be present somewhere at the service provider end of the system for producing the audio-visual and interactive application signals for displaying and running the selection options shown in figures 45 ff. Sequentially highlighting and selecting advertiser and specials by depressing the select button 155 or the right arrow button 150 require interactive applications to be operative in the subscriber television set (see document D1, pages 71 ff.).

The additional features introduced by the third auxiliary request into claim 1 are thus in combination completely anticipated by document D1 so that also the subject-matter of this claim does not meet the requirement of novelty.

*Fourth auxiliary request*

10. The fourth auxiliary request adds to claim 1 of the previous request the step that still images related to the still image selected by the user are loaded in a

decoder of the subscriber television. Apparently, this additional feature defines a kind of pre-loading or pre-caching still image data to reduce latency and to improve responsiveness of the system.

Such a pre-cache feature is not disclosed explicitly in document D1 in connection with the TV shop and on-line service described on pages 71 ff. It might be questioned whether the A/V memory 75 and the system memory 65 perform similar pre-load or pre-cash functions (see, for example, document D1, figure 2 with page 28, lines 10 to 13 and page 30, lines 4 to 7).

But in any case, the Board considers the caching of text, graphics, continuous multimedia and program data as a technique widespread at the priority date of the application and used for achieving reduced processor loads, network bandwidth requirements, and latency in telecommunications and computer networks. Thus, the idea of providing data caching in general for any particular video delivery system is an obvious option, which the state of the art virtually forces upon the skilled person seeking to achieve such improvements for latency and overall traffic reduction. Claim 1 of the fourth auxiliary request (like the other parts of the application) does not offer substantially more than such an obvious idea of data caching in general. The fourth auxiliary request is thus not allowable for lack of inventive step (Article 52(1) and 56 EPC).

**Order**

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

The appeal is dismissed.

The Registrar:

The Chairman:

M. Kiehl

S. V. Steinbrener