

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
8 November 2007 (08.11.2007)

PCT

(10) International Publication Number
WO 2007/125474 A1

(51) International Patent Classification:
H04H 1/00 (2006.01)

(21) International Application Number:
PCT/IB2007/051497

(22) International Filing Date: 24 April 2007 (24.04.2007)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
06113421.9 3 May 2006 (03.05.2006) EP

(71) Applicant (for all designated States except US): **KONINKLIJKE PHILIPS ELECTRONICS N.V.** [NL/NL];
Groenewoudseweg 1, NL-5621 BA Eindhoven (NL).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **DIEDERIKS, Elmo, M., A.** [NL/NL]; c/o Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL). **VAN DE SLUIS, Bartel, M.** [NL/NL]; c/o Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL). **GEURTS, Luc, J., F.** [NL/NL]; c/o Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL). **ANDREWS, Anton, O., A.** [GB/NL]; c/o Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL).

(74) Agents: **GROENENDAAL, Antonius, W., M.** et al.;
Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declaration under Rule 4.17:

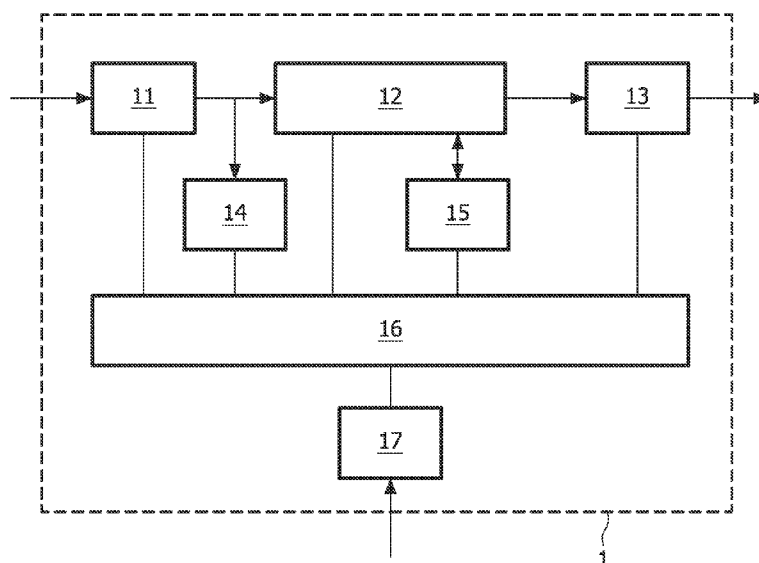
— as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))

Published:

— with international search report

[Continued on next page]

(54) Title: ARRANGEMENT FOR STORING A PART OF AUDIO / VIDEO INFORMATION



(57) Abstract: Arrangements (1) for storing parts of audio/video information are provided with receivers (11) for receiving information streams comprising the audio/video information and input interfaces (17) for receiving user commands from users during receptions of the information streams and memories (15) for storing parts defined by the user commands, to make a play list, a slide show or a media album relatively independently from possibly available metadata. The user commands define time durations of the parts and contents of the parts and memory locations for storing the parts. Detectors (14) detect types of audio/video information, the parts of the audio/video information further being defined by the detected types. The audio/video information comprises live/interactive content. Devices (2) comprise further memories (18) for storing further and larger parts of the audio/video information. Systems (3) comprise further input interfaces (19) for receiving user commands from further users.

WO 2007/125474 A1



— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

Arrangement for storing a part of audio / video information

The invention relates to an arrangement for storing a part of audio/video information, and also relates to a device, to a system, to a method, to a computer program product and to a medium.

Examples of such audio/video information are television programs, phone
5 calls, video calls, video games and further audio/video happenings. Examples of such a device are personal computers and audio/video recorders and further consumer products and non-consumer products. Examples of such an arrangement are parts of such a device.

10 A prior art device is known from US 2003/0093790 A1, which discloses an audio and video program recording, editing and playback system using metadata. This system utilizes metadata (data about data) created at a central location or at an individual user's location, to enhance a user's enjoyment of available broadcast programming content. Thereto, while watching a show, a user can make a play list via a "one-button-save". The
15 metadata identifying the current segment is then added to the play list.

The known device is disadvantageous, inter alia, owing to the fact that it is based on metadata. If the metadata is not available, the prior art device does not work.

20 It is an object of the invention, inter alia, to provide an arrangement for storing a part of audio/video information, which arrangement works relatively independently from possibly available metadata.

Further objects of the invention are, inter alia, to provide, for storing a part of audio/video information, a device, a system, a method, a computer program product and a
25 medium, that work relatively independently from possibly available metadata.

The arrangement according to the invention for storing a part of audio/video information comprises

- a receiver for receiving an information stream comprising the audio/video information,

- an input interface for receiving a user command from a user during a reception of the information stream, and
- a memory for storing the part of the audio/video information, which part is defined by the user command.

5 By letting the user command define the part of the audio/video information and by storing this part of the audio/video information (instead of its metadata as disclosed in the prior art) during the reception of the information stream that comprises the audio/video information, an arrangement for storing a part of audio/video information has been created that does not require any metadata to be available.

10 The arrangement (or “apparatus”) is further advantageous, inter alia, in that it is simpler and therefore less costly. The fact that the arrangement according to the invention does not require any metadata does not exclude the possibility that the information stream might comprise metadata in addition to the audio/video information and does not exclude the possibility that the audio/video information might comprise metadata.

15 Audio/video information (in other words, media content data) comprises audio information only or comprises video information only or comprises a combination of audio and video information. The input interface for example comprises a keyboard and/or a mouse or is (to be) coupled to a keyboard and/or a mouse or comprises a remote control or another hand held terminal or is (to be) coupled to a remote control or another hand held terminal in a
20 wired and/or wireless way etc. The audio/video information may comprise a start and/or an end and/or an amount of content in between. The part of the audio/video information, which part is to be stored, may comprise for example less than 10% of this content or less than 1% of this content.

The arrangement allows to define and personalise the stored part of the
25 audio/video information. Effectively, the user controls the generation of the stored part, and it is easy to recognise when the user watches the stored part later. For example, the arrangement may extract the part of the audio/video information (of a fixed or user-defined length) played back just before the user pressed the button (entered the command). For example, when the user has seen a funny moment in the movie and the user pressed the button at that moment,
30 the corresponding characteristic segment of the audio/video information is stored.

An embodiment of the arrangement according to the invention is defined by the user command defining at least one of

- a time duration of the part of the audio/video information,
- a content of the part of the audio/video information, and

- a memory location for storing the part of the audio/video information.

To define the time duration and/or the content and/or the memory location, the user command may comprise a code defining the time duration and/or the content and/or the memory location. Such a code may for example be a preset code or may for example be entered by the user. Alternatively and/or in addition, to define the time duration and/or the content and/or the memory location, the input interface may add a code defining the time duration and/or the content and/or the memory location in dependence of the way the user command is inputted. Such a code may for example depend on an icon to be selected by the user or may for example depend on a user identification and/or a time and/or a date and/or a location.

An embodiment of the arrangement according to the invention is defined by further comprising

- an output interface for outputting the audio/video information, the part of the audio/video information being a part of the outputted audio/video information.

In case the audio/video information comprises information that has been coded according to a first (complex) coding format, such as MPEG-4 signals, instead of storing the part of the audio/video information in the first (complex) coding format it might be advantageous to store the part of the audio/video information in a second (simple) coding format. The outputted audio/video information comprises information that has been coded according to such a second (simple) coding format, such as RGB signals etc.

An embodiment of the arrangement according to the invention is defined by the user command defining at least one of

- a time duration of the part of the outputted audio/video information,
- a content of the part of the outputted audio/video information, and
- a memory location for storing the part of the outputted audio/video information.

Again, to define the time duration and/or the content and/or the memory location, the user command may comprise a code defining the time duration and/or the content and/or the memory location. Alternatively and/or in addition, to define the time duration and/or the content and/or the memory location, the input interface may add a code defining the time duration and/or the content and/or the memory location in dependence of the way the user command is inputted.

An embodiment of the arrangement according to the invention is defined by further comprising

- a detector for detecting a type of information to which the audio/video information belongs, the part of the audio/video information further being defined by the detected type of information.

The detector for example detects the audio/video information belonging to a television program, a phone call, a video call, a video game or a further audio/video happening. This might be done by detecting metadata or by analyzing a signal that represents the audio/video information or by detecting and/or analyzing an environment of the audio/video information such as a kind of device, a kind of channel, a time and a date etc. So, in case of metadata being available, it might be used to define how the part of the audio/video information is to be stored, contrary to the prior art that stores the metadata itself instead of the audio/video information.

An embodiment of the arrangement according to the invention is defined by the type of information defining at least one of

- a time duration of the part of the audio/video information,
- a content of the part of the audio/video information, and
- a memory location for storing the part of the audio/video information.

To define the time duration and/or the content and/or the memory location, the type of information may comprise a code defining the time duration and/or the content and/or the memory location. Alternatively and/or in addition, to define the time duration and/or the content and/or the memory location, the detector may add a code defining the time duration and/or the content and/or the memory location in dependence of the way the type of information is detected.

An embodiment of the arrangement according to the invention is defined by further comprising

- an output interface for outputting the audio/video information, the part of the audio/video information being a part of the outputted audio/video information.

Again, in case the audio/video information comprises information that has been coded according to a first (complex) coding format, such as MPEG-4 signals, instead of storing the part of the audio/video information in the first (complex) coding format it might be advantageous to store the part of the audio/video information in a second (simple) coding format. The outputted audio/video information comprises information that has been coded according to such a second (simple) coding format, such as RGB signals etc.

An embodiment of the arrangement according to the invention is defined by the type of information defining at least one of

- a time duration of the part of the outputted audio/video information,
- a content of the part of the outputted audio/video information, and
- a memory location for storing the part of the outputted audio/video information.

5 Again, to define the time duration and/or the content and/or the memory location, the type of information may comprise a code defining the time duration and/or the content and/or the memory location. Alternatively and/or in addition, to define the time duration and/or the content and/or the memory location, the detector may add a code defining the time duration and/or the content and/or the memory location in dependence of the way
10 the type of information is detected.

An embodiment of the arrangement according to the invention is defined by the audio/video information comprising a live content and/or an interactive content. Especially for live contents and interactive contents, it is important to be able to store the part of the audio/video information in an efficient and user-friendly way.

15 An embodiment of the arrangement according to the invention is defined by the memory being at least one of a play list memory and a slide show memory and a media album memory. Especially for play list memories and slide show memories and media album memories, it is important to be able to store the part of the audio/video information in an efficient and user-friendly way.

20 An embodiment of the arrangement according to the invention is defined by a time duration of the part of the audio/video information being larger than a tenth of a second. Especially for audio parts of the audio/video information, to be able to recognize such an audio part, the audio part should have a time duration of at least a tenth of a second, preferably one to ten seconds, further preferably shorter than a hundred seconds.

25 An embodiment of the arrangement according to the invention is defined by the part of the audio/video information having a time duration in case of the audio/video information comprising audio only and/or the part of the audio/video information comprising a snap shot in case of the audio/video information comprising video only and/or the part of the audio/video information having a time duration and/or comprising a snap shot in case of
30 the audio/video information comprising audio as well as video. A part of the audio/video information having a time duration may be an audio fragment or a video fragment or an audio/video fragment. A snapshot may comprise a screenshot (still image).

An embodiment of the arrangement according to the invention is defined by comprising the memory for further storing a link to a further part of the audio/video

information, which further part of the audio/video information is larger than the part of the audio/video information. The link to the further (larger) part of the audio/video information, such as a stored entire television program or a stored entire phone call or a stored entire video call or a stored entire video game etc., offers access, from the stored (smaller) part of the audio/video information to the stored further (larger) part of the audio/video information.

The device according to the invention comprises the arrangement according to the invention and further comprises a further memory for storing a further part of the audio/video information, which further part of the audio/video information is larger than the part of the audio/video information. Again, the further (larger) part of the audio/video information may comprise a stored entire television program or a stored entire phone call or a stored entire video call or a stored entire video game etc.

The system according to the invention comprises the arrangement according to the invention and is further defined by the part of the audio/video information being a first part of the audio/video information and further comprises

- a further input interface for receiving a further user command from a further user during a reception of the information stream, which further user command defines a second part of the audio/video information, which second part of the audio/video information is to be stored in the memory, and

- an output interface for outputting the audio/video information, the respective first and second parts of the audio/video information being respective first and second parts of the outputted audio/video information.

This system has the ability to let two or more users together create a play list or a slide show or a media album. The output interface for example comprises a display or is (to be) coupled to (a device comprising) a display.

Embodiments of the device according to the invention and of the system according to the invention and of the method according to the invention and of the computer program product according to the invention and of the medium according to the invention correspond with the embodiments of the device according to the invention.

The invention is based upon an insight, inter alia, that metadata is not always available, and is based upon a basic idea, inter alia, that a user command should define a part of the audio/video information and this part of the audio/video information is to be stored during a reception of an information stream that comprises the audio/video information.

The invention solves the problem, inter alia, to provide an arrangement for storing a part of audio/video information, which arrangement works relatively independently

from possibly available metadata. The arrangement according to the invention is further advantageous, inter alia, in that it is simpler and therefore less costly.

These and other aspects of the invention will be apparent from and elucidated with reference to the embodiments(s) described hereinafter.

5

In the drawings:

Fig. 1 shows diagrammatically an arrangement according to the invention,

Fig. 2 shows diagrammatically a device according to the invention,

10

Fig. 3 shows diagrammatically a system according to the invention, and

Fig. 4 shows a screen with two television programs and one media album.

The arrangement 1 according to the invention shown in Fig. 1 for storing a
15 part of audio/video information comprises a receiver 11 for receiving an information stream comprising the audio/video information and comprises an input interface 17 for receiving a user command from a user during a reception of the information stream and comprises a memory 15 for storing the part of the audio/video information, which part is defined by the user command. The arrangement 1 further for example comprises an output interface 13 for
20 outputting the audio/video information, the part of the audio/video information then possibly becoming a part of the outputted audio/video information, and further for example comprises a detector 14 for detecting a type of information to which the audio/video information belongs, the part of the audio/video information then further being defined by the detected type of information.

25

Thereto, the receiver 11 comprises an input for receiving the information stream comprising the audio/video information such as television programs, phone calls, video calls, video games and further audio/video happenings and comprises an output coupled to an input of a switch 12 and to an input of the detector 14 and comprises a control in/output coupled to a processor 16. An output of the switch 12 is coupled to an input of the
30 output interface 13 that further comprises an output for outputting the audio/video information and that further comprises a control in/output coupled to the processor 16. An in/output of the switch 12 is coupled to an in/output of the memory 15 that further comprises a control in/output coupled to the processor 16. The switch 12 further comprises a control in/output coupled to the processor 16. The detector 14 further comprises an output coupled to

the processor 16. The input interface 17 comprises an input for receiving the user command from the user during the reception of the information stream and comprises an output coupled to the processor 16.

The receiver 11 for example comprises a cable interface or a telephone interface or an internet interface or a satellite receiver for receiving the information stream comprising the audio/video information via a cable network or a telephone network or an internet network or a satellite. Preferably, the audio/video information comprises a live content and/or an interactive content and the memory 15 comprises a play list memory or a slide show memory or a media album memory. To be able to make a play list or a slide show or a media album, a user generates a user command that is supplied via the input interface 17 to the processor 16. Thereto, the input interface 17 for example comprises a keyboard and/or a mouse or is (to be) coupled to a keyboard and/or a mouse or comprises a remote control or another hand held terminal or is (to be) coupled to a remote control or another hand held terminal in a wired and/or wireless way etc.

In response to the user command, the processor 16 instructs the switch 12 to pass a part of the audio/video information to the memory 15, without interrupting the supply of the audio/video information to the output interface 13. As a result, the user can make a play list or a slide show or a media album, relatively independently of whether metadata is available for the incoming audio/video information.

Preferably, the user command defines a time duration of the part of the (possibly outputted) audio/video information and/or defines a content of the part of the (possibly outputted) audio/video information and/or defines a memory location for storing the part of the (possibly outputted) audio/video information. To define the time duration and/or the content and/or the memory location in the memory 15, the user command may comprise a code defining the time duration and/or the content and/or the memory location. Such a code may for example be a preset code or may for example be entered by the user. Alternatively and/or in addition, to define the time duration and/or the content and/or the memory location in the memory 15, the input interface 17 or the processor 16 may add a code defining the time duration and/or the content and/or the memory location in dependence of the way the user command is inputted. Such a code may for example depend on an icon to be selected by the user or may for example depend on a user identification and/or a time and/or a date and/or a location.

The detector 14 for example detects the audio/video information belonging to a television program, a phone call, a video call, a video game or a further audio/video

happening. This might be done by detecting metadata or by analyzing a signal that represents the audio/video information or by detecting and/or analyzing an environment of the audio/video information such as a kind of device that is responsible for supplying the information stream or that is responsible for receiving and/or outputting the information stream, a kind of channel via which channel the information stream is arriving, a time and a date etc.

The type of information defines for example a time duration of the part of the audio/video information and/or a content of the part of the audio/video information and/or a memory location in the memory 15 for storing the part of the audio/video information. To define the time duration and/or the content and/or the memory location in the memory 15, the type of information may comprise a code defining the time duration and/or the content and/or the memory location in the memory 15. Alternatively and/or in addition, to define the time duration and/or the content and/or the memory location in the memory 15, the detector may add a code defining the time duration and/or the content and/or the memory location in the memory 15 in dependence of the way the type of information is detected.

The part of the audio/video information may have a time duration larger than a tenth of a second such as one second or ten seconds in case of the audio/video information comprising audio only, because a human needs some time to recognize audio. The part of the audio/video information may comprise a snap shot in case of the audio/video information comprising video only, because a human only needs a single image to recognize video. The part of the audio/video information may have a time duration and/or may comprise a snap shot in case of the audio/video information comprising audio as well as video.

The memory 15 may further store a link to a further part of the audio/video information, which further part of the audio/video information is larger than the part of the audio/video information. This further part may be an entire television program or an entire phone call or an entire video call or an entire video game etc. The link to the further (larger) part of the audio/video information offers access from the stored (smaller) part of the audio/video information to the (stored) further (larger) part of the audio/video information. This further part of the audio/video information may be stored inside or outside the arrangement 1, and/or may be stored inside a device 2 according to the invention close to the arrangement 1, as shown in the Fig. 2.

The detector 14 and/or the input interface 17 may alternatively be integrated into the processor 16. The switch 12 is an example only and may be avoided by (de)activating the in/output of the memory 15 and by (de)activating the output of the receiver

11. The switch 12 may further have a buffer function and/or may comprise the detector 14 and/or may be integrated into the receiver 11. The switch 12 may also further comprise a transcoder for decoding and encoding formats of the audio/video information for transcoding a first format of the audio/video information into a second format of the audio/video information. The switch 12 may also further comprise a converter for converting a first format of the audio/video information into a second format of the audio/video information. In case the audio/video information comprises information that has been coded according to a first (complex) coding format, such as MPEG-4 signals, instead of storing the part of the audio/video information in the first (complex) coding format it might be advantageous to store the part of the audio/video information in a second (simple) coding format. The outputted audio/video information comprises information that has been coded according to such a second (simple) coding format, such as RGB signals etc. The switch 12 may be considered to form an exemplary borderline: At an input side of the switch 12, the audio/video information comprises inputted audio/video information, and at an output side of the switch 12, the audio/video information comprises outputted audio/video information.

Alternatively, the in/output of the memory 15 may be coupled to the input of the output interface 13 or to the output of the output interface 13. Further alternatively, an input of the memory 15 may be coupled to the input of the output interface 13 or to the output of the output interface 13, and an output of the memory 15 may be coupled to the input of the output interface 13 or to the output of the output interface 13. This for example depends on whether the output interface 13 comprises a coding/decoding function and on whether audio/video information entering or leaving such an output interface 13 is to be stored etc.

The user command may be a one-key command (only one key needs to be pressed) or a two-key command (only two keys need to be pressed subsequently) or a one-combination-key command (only one combination of keys is required which keys need to be pressed simultaneously) or a two-combination-key command (only two combinations of keys are required which keys need to be pressed simultaneously per combination) or a one-click command (only one mouse click is required) or a two-click command (only two mouse clicks are required) or a one-drag-and-drop command (only one drag-and-drop action is required) or a two-drag-and-drop command (only two drag-and-drop actions are required subsequently). The required one or more keys may be the one or more keys of a separate keyboard or may be the one or more keys of a keyboard of the arrangement 1, a device 2 as shown in the Fig. 2

and/or a system 3 as shown in the Fig. 3 or may be the one or more keys of a keyboard of a remote control or another separate unit.

The device 2 according to the invention as shown in the Fig. 2 comprises the arrangement 1 already described for the Fig. 1 and further comprises a further memory 18 for storing the further part of the audio/video information, which further part of the audio/video information is larger than the part of the audio/video information. This further memory 18 for example comprises an in/output coupled to an output of the switch 12 or to an input or an output of the output interface 13 and comprises a control in/output coupled to the processor 16. Alternatively, the memory 15 and the further memory 18 may be realized by different memory fields in one and the same memory not shown.

The system 3 comprises the arrangement already described for the Fig. 1, whereby the part of the audio/video information is considered to be a first part of the audio/video information, and further comprises a further input interface 19 for receiving a further user command from a further user during a reception of the information stream, which further user command defines a second part of the audio/video information, which second part of the audio/video information is to be stored in the memory 15 and further comprises the output interface 13 already described for the Fig. 1 for outputting the audio/video information. The respective first and second parts of the audio/video information are then the respective first and second parts of the outputted audio/video information.

The screen with two television programs and one media album shown in the Fig. 4 discloses at its left side a first television program viewed by a first user and discloses at its right side a second television program viewed by a second user and discloses in the middle a media album 40 comprising three icons 41-43. The first user has for example entered a first user command indicated by arrow 5 via a remote control or another hand held terminal comprising a wired or wireless transmitter for transmitting a user command to the arrangement 1. This has resulted in the storage of a part of the first television program such as a snap shot of that first television program at the time of reception of the first user command. This stored snap shot can be read out and displayed via the icon 41. The second user has for example entered second and third user commands indicated by arrow 6 via a mobile phone comprising a wired or wireless transmitter for transmitting data to the arrangement 1. The second user command has resulted in the storage of a part of the second television program such as a snap shot of that second television program at the time of reception of the second user command. This stored snap shot can be read out and displayed via the icon 42. The third user command has resulted in the storage of a part of a telephone

call that took place via the mobile phone such as an audio part of one or ten seconds of that telephone call at the time of reception of the third user command. Thereto, the data sent from the mobile phone to the arrangement 1 comprises the third user command as well as the audio part, in a combined way or in a separated way. This stored audio part can be read out and reproduced via the icon 43. Instead of storing a snap shot of a television program only, alternatively a combination of a snap shot and an audio part of a particular time duration may be stored.

This way, a user can store a first part of first audio/video information and a second part of second audio/video information and a third part of third audio/video information etc. The first, second and third parts give the user an overview of the first, second and third audio/video information even after (the delivery of and/or the taking place of) this first, second and third audio/video information has finished. In a minimum situation, the user has the overview only. In a more advanced situation, the user can retrieve the first, second and third audio/video information via stored links from a storage located near the user or somewhere else.

It is noted that the arrangement according to the invention may be a server remote from the user and from the storage for storing the part of the audio/video information. The server may comprise only a remote controller for receiving the user command, communicating the user command to the switch 12, and controlling the switch to store the part of the audio/video information in the separate remote storage. In this embodiment, the server does not comprise the receiver 11 nor memory 15.

It should be noted that the above-mentioned embodiments illustrate rather than limit the invention, and that those skilled in the art will be able to design many alternative embodiments without departing from the scope of the appended claims. In the claims, any reference signs placed between parentheses shall not be construed as limiting the claim. Use of the verb "to comprise" and its conjugations does not exclude the presence of elements or steps other than those stated in a claim. The article "a" or "an" preceding an element does not exclude the presence of a plurality of such elements. The invention may be implemented by means of hardware comprising several distinct elements, and by means of a suitably programmed computer. In the device claim enumerating several means, several of these means may be embodied by one and the same item of hardware. The mere fact that certain measures are recited in mutually different dependent claims does not indicate that a combination of these measures cannot be used to advantage.

CLAIMS:

1. An arrangement (1) for storing a part of audio/video information, comprising
 - a receiver (11) for receiving an information stream comprising the audio/video information,
 - an input interface (17) for receiving a user command from a user during a
 - 5 reception of the information stream, and
 - a memory (15) for storing the part of the audio/video information, which part is defined by the user command.
2. An arrangement (1) as defined by claim 1, the user command defining at least
- 10 one of
 - a time duration of the part of the audio/video information,
 - a content of the part of the audio/video information, and
 - a memory location for storing the part of the audio/video information.
3. An arrangement (1) as defined by claim 1, further comprising
 - an output interface (13) for outputting the audio/video information, the part
 - 15 of the audio/video information being a part of the outputted audio/video information.
4. An arrangement (1) as defined by claim 3, the user command defining at least
- 20 one of
 - a time duration of the part of the outputted audio/video information,
 - a content of the part of the outputted audio/video information, and
 - a memory location for storing the part of the outputted audio/video
 - information.
- 25 5. An arrangement (1) as defined by claim 1, further comprising
 - a detector (14) for detecting a type of information to which the audio/video
 - information belongs, the part of the audio/video information further being defined by the
 - detected type of information.

6. An arrangement (1) as defined by claim 5, the type of information defining at least one of

- a time duration of the part of the audio/video information,
- a content of the part of the audio/video information, and
- a memory location for storing the part of the audio/video information.

7. An arrangement (1) as defined by claim 5, further comprising
- an output interface (13) for outputting the audio/video information, the part of the audio/video information being a part of the outputted audio/video information.

8. An arrangement (1) as defined by claim 7, the type of information defining at least one of

- a time duration of the part of the outputted audio/video information,
- a content of the part of the outputted audio/video information, and
- a memory location for storing the part of the outputted audio/video information.

9. An arrangement (1) as defined by claim 1, the audio/video information comprising a live content and/or an interactive content.

10. An arrangement (1) as defined by claim 1, the memory (15) being at least one of a play list memory and a slide show memory and a media album memory.

11. An arrangement (1) as defined by claim 1, a time duration of the part of the audio/video information being larger than a tenth of a second.

12. An arrangement (1) as defined by claim 1, the part of the audio/video information having a time duration in case of the audio/video information comprising audio only and/or the part of the audio/video information comprising a snap shot in case of the audio/video information comprising video only and/or the part of the audio/video information having a time duration and/or comprising a snap shot in case of the audio/video information comprising audio as well as video.

13. An arrangement (1) as defined by claim 1, comprising the memory (15) for further storing a link to a further part of the audio/video information, which further part of the audio/video information is larger than the part of the audio/video information.

14. A device (2) comprising the arrangement (1) as defined in claim 1 and further comprising a further memory (18) for storing a further part of the audio/video information, which further part of the audio/video information is larger than the part of the audio/video information.

15. A system (3) comprising the arrangement (1) as defined in claim 1, the part of the audio/video information being a first part of the audio/video information, further comprising

- a further input interface (19) for receiving a further user command from a further user during a reception of the information stream, which further user command defines a second part of the audio/video information, which second part of the audio/video information is to be stored in the memory (15), and

- an output interface (13) for outputting the audio/video information, the respective first and second parts of the audio/video information being respective first and second parts of the outputted audio/video information.

16. A method for storing a part of audio/video information, comprising the steps of

- receiving an information stream comprising the audio/video information,
- receiving a user command from a user during a reception of the information

stream, and

- storing the part of the audio/video information, which part is defined by the user command.

17. A computer program product for performing the steps of the method as defined in claim 16.

18. A medium comprising the computer program product as defined in claim 17.

1/4

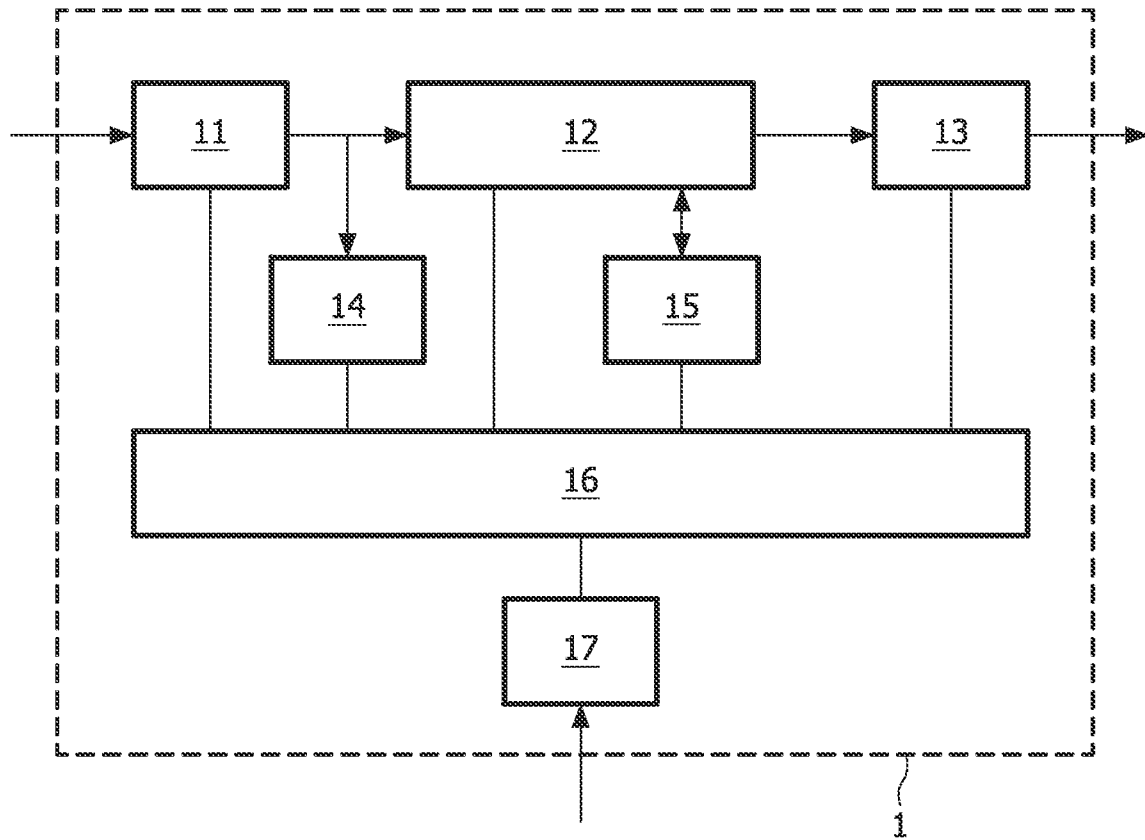


FIG. 1

2/4

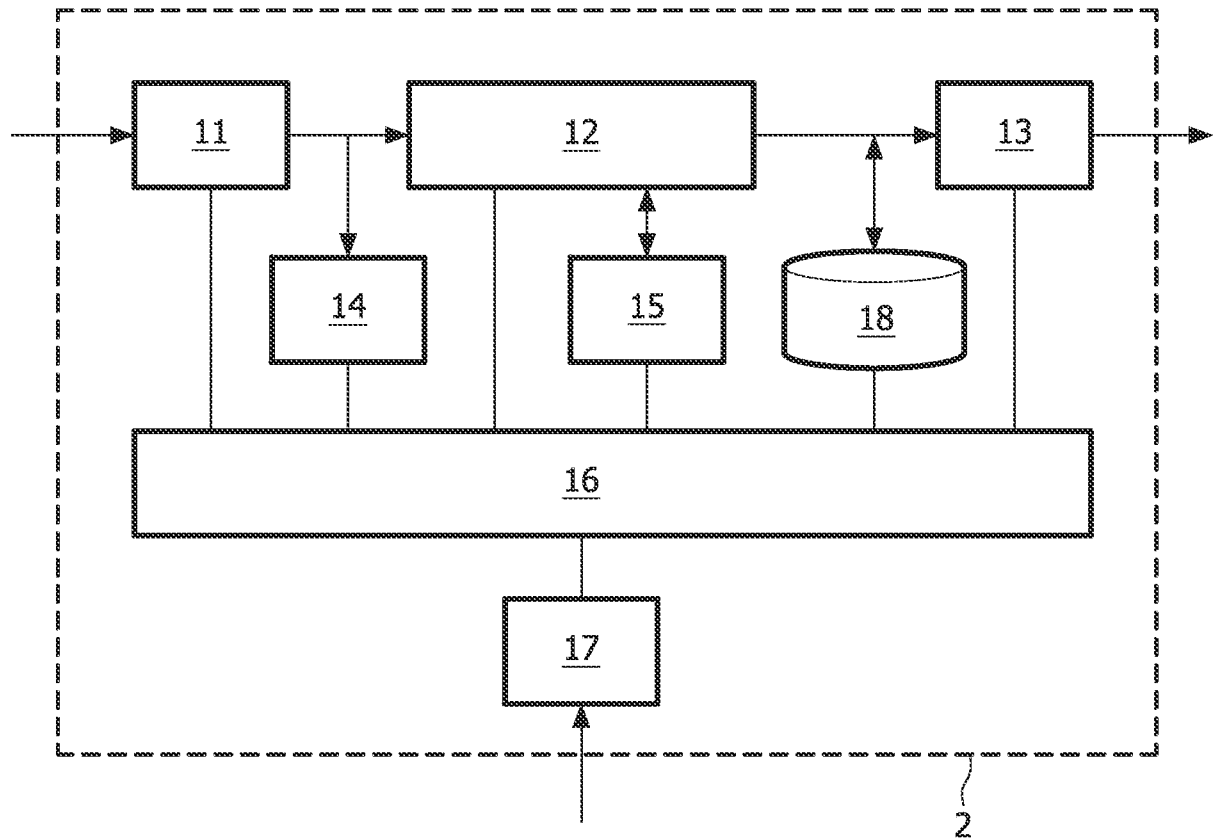


FIG. 2

3/4

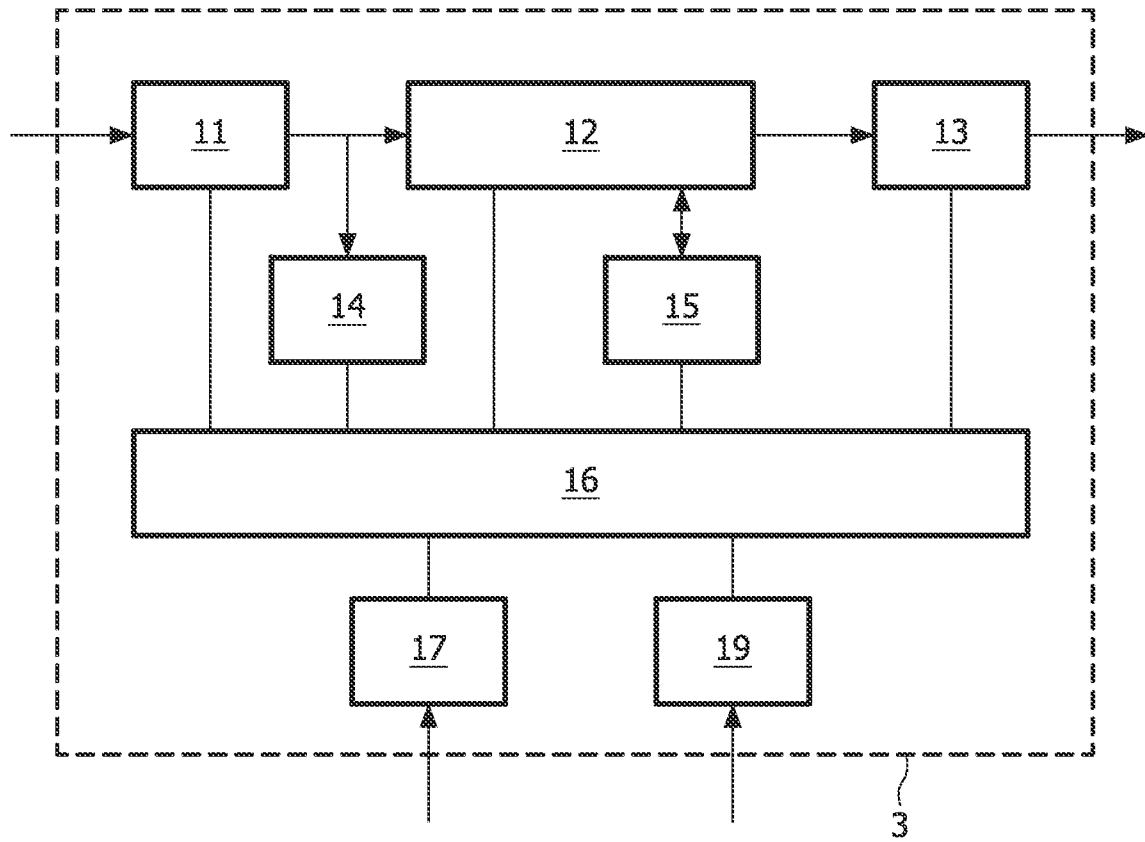


FIG. 3

4/4

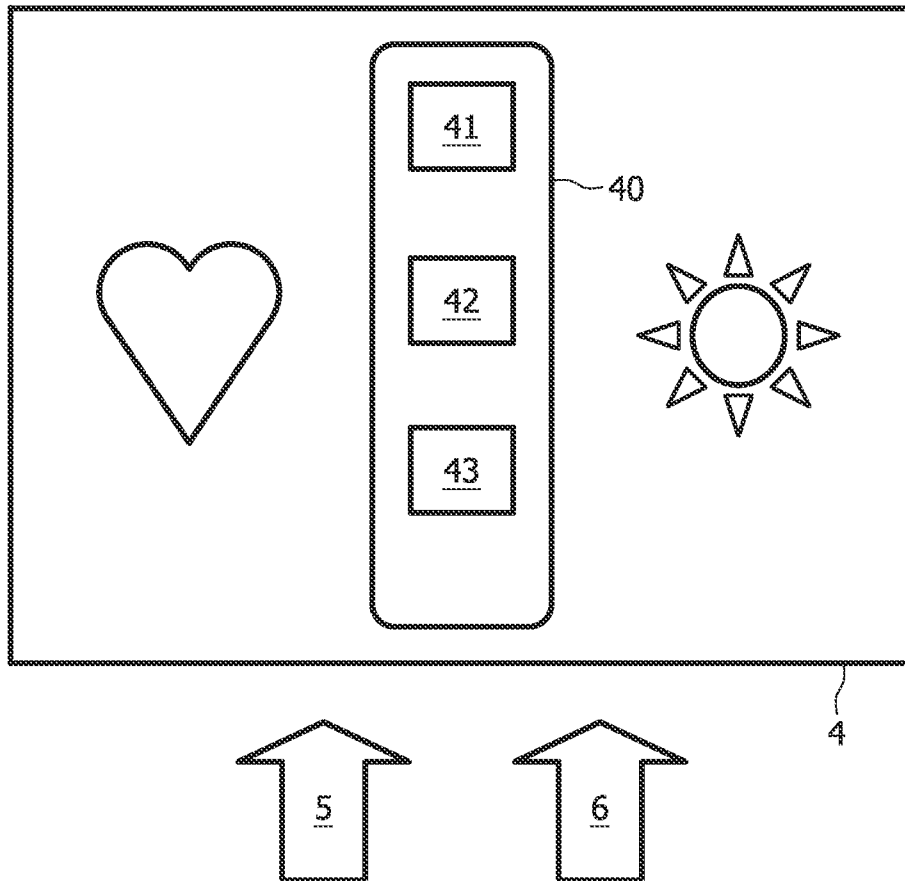


FIG. 4

INTERNATIONAL SEARCH REPORT

International application No

PCT/IB2007/051497

A. CLASSIFICATION OF SUBJECT MATTER
INV. H04H1/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

H04H H04N G11B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2003/163823 A1 (LOGAN JAMES D [US] ET AL) 28 August 2003 (2003-08-28) paragraph [0003]; figure 1 paragraph [0012] paragraphs [0069], [0070] paragraphs [0159] - [0167] -----	1-14, 16-18
X	EP 1 077 547 A (PACE MICRO TECH PLC [GB]) 21 February 2001 (2001-02-21) paragraph [0004] paragraph [0006] paragraphs [0008] - [0011] paragraphs [0013] - [0016] paragraph [0018] -----	1, 3, 5, 7, 9, 10, 15-18



Further documents are listed in the continuation of Box C.



See patent family annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *G* document member of the same patent family

Date of the actual completion of the international search

17 September 2007

Date of mailing of the international search report

24/09/2007

Name and mailing address of the ISA/

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

TORCAL SERRANO, C

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/IB2007/051497

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 2003163823	A1	28-08-2003	NONE	
EP 1077547	A	21-02-2001	NONE	