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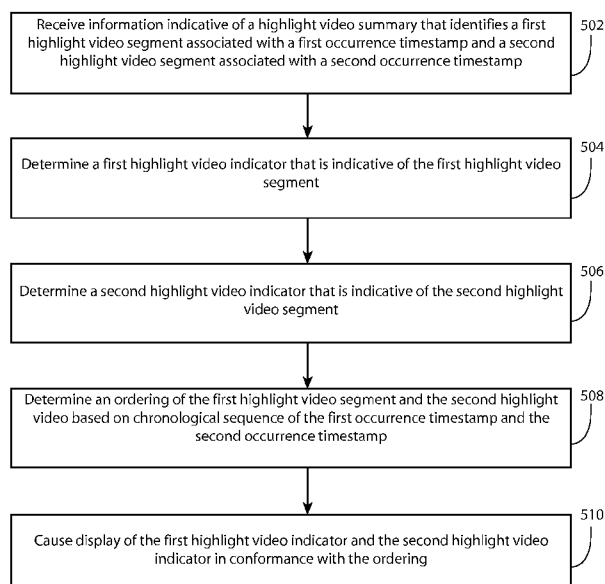


FIG. 5

(57) Abstract: A method is provided, comprising: receiving information indicative of a video highlight summary that identifies, at least, a first highlight video segment and a second highlight video segment, the first highlight video segment being associated with a first occurrence timestamp and the second highlight video segment being associated with a second occurrence timestamp, determining a first highlight video indicator that is indicative of the first highlight video segment, determining a second highlight video indicator that is indicative of the second highlight video segment, determining an ordering of the first highlight video segment and the second highlight video segment based, at least in part, on chronological sequence of the first occurrence timestamp and the second occurrence timestamp, and causing display of the first highlight video indicator and the second highlight video indicator in conformance with the ordering.

ORDERING OF HIGHLIGHT VIDEO SEGMENTS

TECHNICAL FIELD

5 [0001] The present application relates generally to ordering of highlight video segments.

BACKGROUND

10 [0002] As users have become more reliant on their electronic apparatuses, users are increasingly relying on their apparatuses for viewing video information. However, as users become increasingly busy, many users desire to experience videos in an abbreviated manner. However, in some circumstances, user may desire to spend even less time experiencing the video information in an abbreviated manner, in this manner, it may be desirable to allow for a simple and intuitive manner for users to interact with highlight video segments.

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SUMMARY

[0003] Various aspects of examples of the invention are set out in the claims.

20 [0004] One or more embodiments may provide an apparatus, a computer readable medium, a non-transitory computer readable medium, a computer program product, and a method for receiving information indicative of a video highlight summary that identifies, at least, a first highlight video segment and a second highlight video segment, the first highlight video segment being associated with a first occurrence timestamp and the second highlight video segment being associated with a second occurrence timestamp, determining a first highlight video indicator that is indicative of the first highlight video segment, determining a second highlight video indicator that is indicative of the second highlight video segment, determining an ordering of the first highlight video segment and the second highlight video segment based, at least in part, on chronological sequence of the first occurrence timestamp and the second occurrence timestamp, and causing display of the first highlight video indicator and the second video segment highlight indicator in
25
30 conformance with the ordering.

[0005] One or more embodiments may provide an apparatus, a computer readable medium, a computer program product, and a non-transitory computer readable medium having means for receiving information indicative of a video highlight summary that

identifies, at least, a first highlight video segment and a second highlight video segment, the first highlight video segment being associated with a first occurrence timestamp and the second highlight video segment being associated with a second occurrence timestamp, means for determining a first highlight video indicator that is indicative of the first

5 highlight video segment, means for determining a second highlight video indicator that is indicative of the second highlight video segment, means for determining an ordering of the first highlight video segment and the second highlight video segment based, at least in part, on chronological sequence of the first occurrence timestamp and the second occurrence timestamp, and means for causing display of the first highlight video indicator and the
10 second highlight video indicator in conformance with the ordering.

[0006] In at least one example embodiment, causation of display of the first highlight video indicator and the second highlight video indicator in conformance with the ordering comprises causation of display of the first highlight video indicator and the second highlight video indicator along an axis such that a sequence along the axis of the
15 first highlight video indicator and the second highlight video indicator corresponds with the ordering.

[0007] In at least one example embodiment, the axis is a horizontal axis.

[0008] In at least one example embodiment, causation of display of the first highlight video indicator and the second highlight video indicator in conformance with the
20 ordering is performed such that a subsequent highlight video indicator is displayed rightward of a prior highlight video indicator.

[0009] In at least one example embodiment, the ordering indicates the first highlight video indicator being prior to the second highlight video indicator, and the causation of display of the first highlight video indicator and the second highlight video
25 indicator in conformance with the ordering is performed such that the second highlight video indicator is displayed rightward of the first highlight video indicator.

[0010] In at least one example embodiment, the axis is a vertical axis.

[0011] In at least one example embodiment, causation of display of the first highlight video indicator and the second highlight video indicator in conformance with the
30 ordering is performed such that a subsequent highlight video indicator is displayed below a prior highlight video indicator.

[0012] In at least one example embodiment, the ordering indicates the first highlight video indicator being prior to the second highlight video indicator, and the

causation of display of the first highlight video indicator and the second highlight video indicator in conformance with the ordering is performed such that the second highlight video indicator is displayed below the first highlight video indicator.

5 [0013] In at least one example embodiment, the determination of the ordering is independent of a team indicated by the video highlight summary.

[0014] In at least one example embodiment, the determination of the ordering is based, at least in part, on one or more teams indicated by the video highlight summary.

[0015] In at least one example embodiment, the determination of the ordering is performed such that highlight video segments are sequenced based on an associated team.

10 [0016] In at least one example embodiment, the determination of the ordering is performed such that highlight video segments are sequenced based on an associated team such that a highlight video segment associated with a particular team are further ordered based, at least in part, on chronological sequence of an associated timestamp.

15 [0017] In at least one example embodiment, the first highlight video segment is associated with a first team, the second highlight video segment is associated with a second team, and determination of the ordering is based, at least in part, on the first team and the second team.

[0018] In at least one example embodiment, the determination of the ordering is performed such that the second team is sequenced prior to the first team.

20 [0019] In at least one example embodiment, the determination of the ordering is performed such that the second highlight video segment is sequenced prior to the first highlight video segment based, at least in part, on the second team being sequenced prior to the first team.

25 [0020] In at least one example embodiment, the video highlight summary identifies a third highlight video segment associated with the first team and a fourth highlight video segment associated with the second team, such that the third highlight video segment is associated with a third occurrence timestamp and the fourth highlight video segment is associated with a fourth occurrence timestamp.

30 [0021] In at least one example embodiment, the determination of the ordering is performed such that the second highlight video segment and the fourth highlight video segment are sequenced prior to the first highlight video segment and the third highlight video segment based, at least in part, on the second team being sequenced prior to the first team.

[0022] In at least one example embodiment, the determination of the ordering of the first highlight video segment and the third highlight video is based, at least in part, on chronological sequence of the first occurrence timestamp and the third occurrence timestamp.

5 [0023] In at least one example embodiment, the determination of the ordering of the second highlight video segment and the fourth highlight video is based, at least in part, on chronological sequence of the second occurrence timestamp and the fourth occurrence timestamp.

[0024] In at least one example embodiment, the determination of the ordering is
10 performed in accordance with a cross-team chronological ordering.

[0025] In at least one example embodiment, the cross-team chronological ordering refers to an ordering indicative of sorting of highlight video segments based on respective occurrence timestamps.

[0026] In at least one example embodiment, a cross-team chronological ordering
15 refers to an ordering indicative of sorting of highlight video segments based, at least in part, on respective occurrence timestamps absent sorting of the highlight video segments based, at least in part, on respective teams.

[0027] One or more example embodiments further perform receipt of information indicative of an order type change input, determination of another ordering of the first
20 highlight video segment and the second highlight video segment in conformance with a team chronological ordering based, at least in part, on a team associated with the first highlight video segment and a team associated with the second highlight video segment, and causation of display of the first highlight video indicator and the second highlight video indicator in conformance with the other ordering.

25 [0028] In at least one example embodiment, the order type change input is a drag input that is perpendicular to an axis along which the first highlight video indicator and the second highlight video indicator are displayed.

[0029] In at least one example embodiment, the determination of the ordering is performed in accordance with a team chronological ordering.

30 [0030] In at least one example embodiment, the team chronological ordering refers to an ordering indicative of sorting of highlight video segments based, at least in part, on respective teams, and within respective teams based, at least in part, on respective occurrence timestamps.

[0031] One or more example embodiments further perform receipt of information indicative of another order type change input, determination of a different ordering of the first highlight video segment and the second highlight video segment in conformance with a cross-team chronological ordering based, at least in part, on chronological sequence of the first occurrence timestamp and the second occurrence timestamp independently of a team associated with the first highlight video segment and a team associated with the second highlight video segment, and causation of display of the first highlight video indicator and the second highlight video indicator in conformance with the different ordering.

[0032] One or more example embodiments further perform determination of a first occurrence classification associated with the first highlight video segment, wherein determination of the first highlight video indicator comprises determination of an occurrence classification indicator, and the first highlight video indicator comprises the occurrence classification indicator.

[0033] In at least one example embodiment, the first occurrence classification identifies a type of occurrence that is represented by the first highlight video segment.

[0034] In at least one example embodiment, the first occurrence classification identifies at least one of a score attempt, a serve, a pitch, or a change of control.

[0035] In at least one example embodiment, the first occurrence classification indicator indicates at least one of a score attempt, a serve, a pitch, or a change of control.

[0036] In at least one example embodiment, the first occurrence classification identifies an outcome of an occurrence that is represented by the first highlight video segment.

[0037] In at least one example embodiment, the first occurrence classification indicator indicates the outcome of the occurrence.

[0038] In at least one example embodiment, the outcome identifies at least one of a failure or a success.

[0039] In at least one example embodiment, the first occurrence classification indicator indicates at least one of a failure or a success.

[0040] In at least one example embodiment, the first occurrence classification identifies a team that performed the occurrence that is represented by the first highlight video segment.

[0041] In at least one example embodiment, the first occurrence classification indicator indicates the team that performed the occurrence that is represented by the first highlight video segment.

5 [0042] In at least one example embodiment, a highlight video segment is an identified portion of a sporting event video.

[0043] One or more example embodiments further perform receipt of information indicative of a highlight video segment removal input associated with the first highlight video indicator, cause removal of the first highlight video segment from the video highlight summary based, at least in part, on the highlight video segment removal input, and
10 termination of display of the first highlight video indicator based, at least in part, on the highlight video segment removal input.

[0044] One or more example embodiments further perform receipt of information indicative of a highlight video segment content change input associated with the first highlight video indicator, and change of the first highlight video segment such that the first
15 highlight video segment identifies a different portion of a sporting event video based, at least in part on the highlight video segment content change input.

[0045] In at least one example embodiment, the highlight video segment content change input corresponds with movement of a start edge of the first highlight video indicator in a chronologically decreasing direction, and change of the first highlight video
20 segment comprises prepending content to the first highlight video segment from a part of the sporting event video that has a timestamp that is prior to an edit timestamp that is prior to the first occurrence timestamp, and change of the first occurrence timestamp to correspond with the edit timestamp.

[0046] In at least one example embodiment, the difference between the first
25 occurrence timestamp and the edit timestamp is proportional to a distance of the movement of the start edge of the first highlight video indicator.

[0047] In at least one example embodiment, the highlight video segment content change input corresponds with movement of a start edge of the first highlight video indicator in a chronologically increasing direction, and change of the first highlight video
30 segment comprises truncation of content from the first highlight video segment that corresponds with a timestamp that is prior to an edit timestamp that is subsequent to the first occurrence timestamp, and change of the first occurrence timestamp to correspond with the edit timestamp.

[0048] In at least one example embodiment, the highlight video segment content change input corresponds with movement of a finish edge of the first highlight video indicator in a chronologically decreasing direction, and change of the first highlight video segment comprises truncation of content from the first highlight video segment that
5 corresponds with a reduced duration that is less than a duration of the first highlight video segment, and change of the duration of the first highlight video segment to correspond with the reduced duration.

[0049] In at least one example embodiment, the difference between the duration of the first highlight video segment and the reduced duration is proportional to a distance
10 of the movement of the finish edge of the first highlight video indicator.

[0050] In at least one example embodiment, the highlight video segment content change input corresponds with movement of a finish edge of the first highlight video indicator in a chronologically increasing direction, and change of the first highlight video segment comprises appending of content to the first highlight video segment that
15 corresponds with a timestamp that is subsequent to a duration of the first highlight video segment and within an increased duration, and change of the duration of the first highlight video segment to correspond with the increased duration.

[0051] One or more example embodiments further perform receipt of information indicative of a multiple highlight video segment content change input associated with the
20 first highlight video indicator and the second highlight video indicator, change of the first highlight video segment such that the first highlight video segment identifies a different portion of a sporting event video based, at least in part on the multiple highlight video segment content change input and change of the second highlight video segment such that the second highlight video segment identifies a different portion of a sporting event video
25 based, at least in part on the multiple highlight video segment content change input.

[0052] In at least one example embodiment, the multiple highlight video segment content change input corresponds with movement of a start edge of a video highlight summary indicator, which comprises the first highlight video indicator and the second highlight video indicator, in a chronologically decreasing direction, and change of the first
30 highlight video segment comprises prepending content to the first highlight video segment from a part of the sporting event video that has a timestamp that is prior to a first edit timestamp that is prior to the first occurrence timestamp, change of the second highlight video segment comprises prepending content to the second highlight video segment from a

part of the sporting event video that has a timestamp that is prior to a second edit timestamp that is prior to the second occurrence timestamp, change of the first occurrence timestamp to correspond with the first edit timestamp, and change of the second occurrence timestamp to correspond with the second edit timestamp.

5 **[0053]** In at least one example embodiment, the difference between the first occurrence timestamp and the first edit timestamp is proportional to a distance of the movement of the start edge of the video highlight summary indicator, and the difference between the second occurrence timestamp and the second edit timestamp is proportional to the distance of the movement of the start edge of the video highlight summary indicator.

10 **[0054]** In at least one example embodiment, the multiple highlight video segment content change input corresponds with movement of a start edge of a video highlight summary indicator that comprises the first highlight video indicator and the second highlight video indicator in a chronologically increasing direction, and change of the first highlight video segment comprises truncation of content from the first highlight video
15 segment that corresponds with a timestamp that is prior to a first edit timestamp that is subsequent to the first occurrence timestamp, change of the second highlight video segment comprises truncation of content from the second highlight video segment that corresponds with a timestamp that is prior to a second edit timestamp that is subsequent to the second occurrence timestamp, change of the first occurrence timestamp to correspond
20 with the first edit timestamp, and change of the second occurrence timestamp to correspond with the second edit timestamp.

[0055] In at least one example embodiment, the multiple highlight video segment content change input corresponds with movement of a finish edge of a video highlight summary indicator that comprises the first highlight video indicator and the second
25 highlight video indicator in a chronologically decreasing direction, and change of the first highlight video segment comprises truncation of content from the first highlight video segment that corresponds with a first reduced duration that is less than a duration of the first highlight video segment, change of the second highlight video segment comprises truncation of content from the second highlight video segment that corresponds with a
30 second reduced duration that is less than a duration of the second highlight video segment, change of the duration of the first highlight video segment to correspond with the first reduced duration, and change of the duration of the second highlight video segment to correspond with the second reduced duration.

[0056] In at least one example embodiment, the difference between the duration of the first highlight video segment and the first reduced duration is proportional to a distance of the movement of the finish edge of the video highlight summary indicator, and the difference between the duration of the second highlight video segment and the second reduced duration is proportional to the distance of the movement of the finish edge of the video highlight summary indicator.

[0057] In at least one example embodiment, the multiple highlight video segment content change input corresponds with movement of a finish edge of a video highlight summary indicator that comprises the first highlight video indicator and the second highlight video indicator in a chronologically increasing direction, and change of the first highlight video segment comprises appending of content to the first highlight video segment that corresponds with a timestamp that is subsequent to a duration of the first highlight video segment and within a first increased duration, and change of the duration of the first highlight video segment to correspond with the first increased duration, and change of the second highlight video segment comprises appending of content to the second highlight video segment that corresponds with a timestamp that is subsequent to a duration of the second highlight video segment and within a second increased duration, and change of the duration of the second highlight video segment to correspond with the second increased duration.

BRIEF DESCRIPTION OF THE DRAWINGS

[0058] For a more complete understanding of embodiments of the invention, reference is now made to the following descriptions taken in connection with the accompanying drawings in which:

[0059] FIGURE 1 is a block diagram showing an apparatus according to an example embodiment;

[0060] FIGURES 2A-2B are diagrams illustrating highlight video segments associated with a video highlight summary according to at least one example embodiment;

[0061] FIGURES 3A-3C are diagrams illustrating a video highlight summary indicator according to at least one example embodiment;

[0062] FIGURES 4A-4D are diagrams illustrating editing of one or more highlight video segments according to at least one example embodiment;

[0063] FIGURE 5 is a flow diagram illustrating activities associated with a video highlight summary according to at least one example embodiment;

[0064] FIGURE 6 is a flow diagram illustrating activities associated with a video highlight summary according to at least one example embodiment;

5 [0065] FIGURE 7 is a flow diagram illustrating activities associated with a video highlight summary according to at least one example embodiment; and

[0066] FIGURE 8 is a flow diagram illustrating activities associated with a video highlight summary according to at least one example embodiment.

10 **DETAILED DESCRIPTION OF THE DRAWINGS**

[0067] An embodiment of the invention and its potential advantages are understood by referring to FIGURES 1 through 8 of the drawings.

[0068] Some embodiments will now be described more fully hereinafter with reference to the accompanying drawings, in which some, but not all, embodiments are
15 shown. Various embodiments of the invention may be embodied in many different forms and should not be construed as limited to the embodiments set forth herein; rather, these embodiments are provided so that this disclosure will satisfy applicable legal requirements. Like reference numerals refer to like elements throughout. As used herein, the terms “data,” “content,” “information,” and similar terms may be used interchangeably to refer to
20 data capable of being transmitted, received and/or stored in accordance with embodiments of the present invention. Thus, use of any such terms should not be taken to limit the spirit and scope of embodiments of the present invention.

[0069] Additionally, as used herein, the term ‘circuitry’ refers to (a) hardware-only circuit implementations (e.g., implementations in analog circuitry and/or digital
25 circuitry); (b) combinations of circuits and computer program product(s) comprising software and/or firmware instructions stored on one or more computer readable memories that work together to cause an apparatus to perform one or more functions described herein; and (c) circuits, such as, for example, a microprocessor(s) or a portion of a microprocessor(s), that require software or firmware for operation even if the software or
30 firmware is not physically present. This definition of ‘circuitry’ applies to all uses of this term herein, including in any claims. As a further example, as used herein, the term ‘circuitry’ also includes an implementation comprising one or more processors and/or portion(s) thereof and accompanying software and/or firmware. As another example, the

term ‘circuitry’ as used herein also includes, for example, a baseband integrated circuit or applications processor integrated circuit for a mobile phone or a similar integrated circuit in a server, a cellular network apparatus, other network apparatus, and/or other computing apparatus.

5 **[0070]** As defined herein, a “non-transitory computer-readable medium,” which refers to a physical medium (e.g., volatile or non-volatile memory device), can be differentiated from a “transitory computer-readable medium,” which refers to an electromagnetic signal.

10 **[0071]** FIGURE 1 is a block diagram showing an apparatus, such as an electronic apparatus 10, according to at least one example embodiment. It should be understood, however, that an electronic apparatus as illustrated and hereinafter described is merely illustrative of an electronic apparatus that could benefit from embodiments of the invention and, therefore, should not be taken to limit the scope of the invention. While electronic apparatus 10 is illustrated and will be hereinafter described for purposes of example, other
15 types of electronic apparatuses may readily employ embodiments of the invention. Electronic apparatus 10 may be a personal digital assistant (PDAs), a pager, a mobile computer, a desktop computer, a television, a gaming apparatus, a laptop computer, a tablet computer, a media player, a camera, a video recorder, a mobile phone, a global positioning system (GPS) apparatus, an automobile, a kiosk, an electronic table, and/or any other types
20 of electronic systems. Moreover, the apparatus of at least one example embodiment need not be the entire electronic apparatus, but may be a component or group of components of the electronic apparatus in other example embodiments. For example, the apparatus may be an integrated circuit, a set of integrated circuits, and/or the like.

25 **[0072]** Furthermore, apparatuses may readily employ embodiments of the invention regardless of their intent to provide mobility. In this regard, even though embodiments of the invention may be described in conjunction with mobile applications, it should be understood that embodiments of the invention may be utilized in conjunction with a variety of other applications, both in the mobile communications industries and outside of the mobile communications industries. For example, the apparatus may be, at
30 least part of, a non-carryable apparatus, such as a large screen television, an electronic table, a kiosk, an automobile, and/or the like.

[0073] In at least one example embodiment, electronic apparatus 10 comprises processor 11 and memory 12. Processor 11 may be any type of processor, controller,

embedded controller, processor core, and/or the like. In at least one example embodiment, processor 11 utilizes computer program code to cause an apparatus to perform one or more actions. Memory 12 may comprise volatile memory, such as volatile Random Access Memory (RAM) including a cache area for the temporary storage of data and/or other memory, for example, non-volatile memory, which may be embedded and/or may be removable. The non-volatile memory may comprise an EEPROM, flash memory and/or the like. Memory 12 may store any of a number of pieces of information, and data. The information and data may be used by the electronic apparatus 10 to implement one or more functions of the electronic apparatus 10, such as the functions described herein. In at least one example embodiment, memory 12 includes computer program code such that the memory and the computer program code are configured to, working with the processor, cause the apparatus to perform one or more actions described herein.

[0074] The electronic apparatus 10 may further comprise a communication device 15. In at least one example embodiment, communication device 15 comprises an antenna, (or multiple antennae), a wired connector, and/or the like in operable communication with a transmitter and/or a receiver. In at least one example embodiment, processor 11 provides signals to a transmitter and/or receives signals from a receiver. The signals may comprise signaling information in accordance with a communications interface standard, user speech, received data, user generated data, and/or the like.

Communication device 15 may operate with one or more air interface standards, communication protocols, modulation types, and access types. By way of illustration, the electronic communication device 15 may operate in accordance with second-generation (2G) wireless communication protocols IS-136 (time division multiple access (TDMA)), Global System for Mobile communications (GSM), and IS-95 (code division multiple access (CDMA)), with third-generation (3G) wireless communication protocols, such as Universal Mobile Telecommunications System (UMTS), CDMA2000, wideband CDMA (WCDMA) and time division-synchronous CDMA (TD-SCDMA), and/or with fourth-generation (4G) wireless communication protocols, wireless networking protocols, such as 802.11, short-range wireless protocols, such as Bluetooth, and/or the like. Communication device 15 may operate in accordance with wireline protocols, such as Ethernet, digital subscriber line (DSL), asynchronous transfer mode (ATM), and/or the like.

[0075] Processor 11 may comprise means, such as circuitry, for implementing audio, video, communication, navigation, logic functions, and/or the like, as well as for

implementing embodiments of the invention including, for example, one or more of the functions described herein. For example, processor 11 may comprise means, such as a digital signal processor device, a microprocessor device, various analog to digital converters, digital to analog converters, processing circuitry and other support circuits, for performing various functions including, for example, one or more of the functions described herein. The apparatus may perform control and signal processing functions of the electronic apparatus 10 among these devices according to their respective capabilities. The processor 11 thus may comprise the functionality to encode and interleave message and data prior to modulation and transmission. The processor 1 may additionally comprise an internal voice coder, and may comprise an internal data modem. Further, the processor 11 may comprise functionality to operate one or more software programs, which may be stored in memory and which may, among other things, cause the processor 11 to implement at least one embodiment including, for example, one or more of the functions described herein. For example, the processor 11 may operate a connectivity program, such as a conventional internet browser. The connectivity program may allow the electronic apparatus 10 to transmit and receive internet content, such as location-based content and/or other web page content, according to a Transmission Control Protocol (TCP), Internet Protocol (IP), User Datagram Protocol (UDP), Internet Message Access Protocol (IMAP), Post Office Protocol (POP), Simple Mail Transfer Protocol (SMTP), Wireless Application Protocol (WAP), Hypertext Transfer Protocol (HTTP), and/or the like, for example.

[0076] The electronic apparatus 10 may comprise a user interface for providing output and/or receiving input. The electronic apparatus 10 may comprise an output device 14. Output device 14 may comprise an audio output device, such as a ringer, an earphone, a speaker, and/or the like. Output device 14 may comprise a tactile output device, such as a vibration transducer, an electronically deformable surface, an electronically deformable structure, and/or the like. Output device 14 may comprise a visual output device, such as a display, a light, and/or the like. In at least one example embodiment, the apparatus causes display of information, the causation of display may comprise displaying the information on a display comprised by the apparatus, sending the information to a separate apparatus that comprises a display, and/or the like. The electronic apparatus may comprise an input device 13. Input device 13 may comprise a light sensor, a proximity sensor, a microphone, a touch sensor, a force sensor, a button, a keypad, a motion sensor, a magnetic field sensor, a camera, and/or the like. A touch sensor and a display may be characterized as a touch

display. In an embodiment comprising a touch display, the touch display may be configured to receive input from a single point of contact, multiple points of contact, and/or the like. In such an embodiment, the touch display and/or the processor may determine input based, at least in part, on position, motion, speed, contact area, and/or the like. In at least one example embodiment, the apparatus receives an indication of an input. The apparatus may receive the indication from a sensor, a driver, a separate apparatus, and/or the like. The information indicative of the input may comprise information that conveys information indicative of the input, indicative of an aspect of the input indicative of occurrence of the input, and/or the like.

[0077] The electronic apparatus 10 may include any of a variety of touch displays including those that are configured to enable touch recognition by any of resistive, capacitive, infrared, strain gauge, surface wave, optical imaging, dispersive signal technology, acoustic pulse recognition or other techniques, and to then provide signals indicative of the location and other parameters associated with the touch. Additionally, the touch display may be configured to receive an indication of an input in the form of a touch occurrence which may be defined as an actual physical contact between a selection object (e.g., a finger, stylus, pen, pencil, or other pointing device) and the touch display. Alternatively, a touch occurrence may be defined as bringing the selection object in proximity to the touch display, hovering over a displayed object or approaching an object within a predefined distance, even though physical contact is not made with the touch display. As such, a touch input may comprise any input that is detected by a touch display including touch occurrences that involve actual physical contact and touch occurrences that do not involve physical contact but that are otherwise detected by the touch display, such as a result of the proximity of the selection object to the touch display. A touch display may be capable of receiving information associated with force applied to the touch screen in relation to the touch input. For example, the touch screen may differentiate between a heavy press touch input and a light press touch input. In at least one example embodiment, a display may display two-dimensional information, three-dimensional information and/or the like.

[0078] In embodiments including a keypad, the keypad may comprise numeric (for example, 0-9) keys, symbol keys (for example, #, *), alphabetic keys, and/or the like for operating the electronic apparatus 10. For example, the keypad may comprise a conventional QWERTY keypad arrangement. The keypad may also comprise various soft

keys with associated functions. In addition, or alternatively, the electronic apparatus 10 may comprise an interface device such as a joystick or other user input interface.

[0079] Input device 13 may comprise a media capturing element. The media capturing element may be any means for capturing an image, video, and/or audio for

5 storage, display or transmission. For example, in at least one example embodiment in which the media capturing element is a camera module, the camera module may comprise a digital camera which may form a digital image file from a captured image. As such, the camera module may comprise hardware, such as a lens or other optical component(s), and/or software necessary for creating a digital image file from a captured image.

10 Alternatively, the camera module may comprise only the hardware for viewing an image, while a memory device of the electronic apparatus 10 stores instructions for execution by the processor 11 in the form of software for creating a digital image file from a captured image. In at least one example embodiment, the camera module may further comprise a processing element such as a co-processor that assists the processor 11 in processing image

15 data and an encoder and/or decoder for compressing and/or decompressing image data. The encoder and/or decoder may encode and/or decode according to a standard format, for example, a Joint Photographic Experts Group (JPEG) standard format.

[0080] FIGURES 2A-2B are diagrams illustrating highlight video segments associated with a video highlight summary according to at least one example embodiment.

20 The examples of FIGURES 2A-2B are merely examples and do not limit the scope of the claims. For example, interrelationship between highlight video segments may vary, number of highlight video segments may vary, configuration of highlight video segments may vary, and/or the like.

[0081] Many users of electronic apparatuses have become increasingly reliant on

25 their apparatuses for consuming video content. For example, many users record the world around them using their apparatus. In another example, many users download videos to watch on their apparatus, have videos streamed to their apparatus, and/or the like. In such an example, the user may rely on such videos to keep him informed of happenings throughout the world. In some circumstances, the user may rely on such videos to keep the

30 user aware of the happenings of sporting events. The sporting event may be any type of sporting event, such as American Football, Soccer, Volleyball, Hockey, Badminton, Tennis, etc.

[0082] In some circumstances, a user may desire to perceive the happenings of a sporting event, but may have limited time to dedicate to the sporting event. In such circumstances, the user may be interested in viewing highlights of the sporting event instead of the entirety of the sporting event. In this manner, the user may desire to view one or more highlight video segments instead of, or in addition to, a contiguous video of the sporting event. In at least one example embodiment, a highlight video segment is a portion of a sporting event video that indicates occurrence of a particular occurrence. In at least one example embodiment, the sporting event video refers to a video that represents, at least a portion of, a sporting event in a chronological manner. For example, the sporting event video may be a video of the sporting event that was recorded to represent the happenings of the sporting event. It should be understood that the sporting event video may be recorded from one or more camera modules. For example, the sporting event video may comprise portions that were recorded from a particular camera module and other portions that were recorded from a different camera module. In this manner, the user may perceive occurrences of the sporting event by way of viewing one or more video highlight segments without necessarily watching a contiguous video of the sporting event.

[0083] There may be various manners in which highlight video segments are identified. In some circumstances, the highlight video segments may be manually identified. For example, a human may view the sporting event video, and manually determine which portions of the sporting event video to become highlight video segments. In some circumstances, the highlight video segments may be automatically determined. For example, there may be an apparatus that evaluates at least part of a sporting event video, and identifies portions of the sporting event video as highlight video segments. In such an example, the apparatus may perform video analysis to identify circumstances that indicate occurrence of particular occurrences, particular types of occurrences, and/or the like. It should be understood that there are many manners that currently exist, and many that will likely be developed in the future, to automatically generate highlight video segments from a sporting event video. Therefore, the manner in which the highlight video segments are generated does not necessarily limit the claims in any way.

[0084] In some circumstances, a user may desire to experience a sporting event without necessarily viewing the entirety of the sporting event video. In such circumstances, the user may desire to experience the sporting event by way of a video highlight summary. In at least one example embodiment, a video highlight summary of a

particular sporting event refers to a group of highlight video segments that represent highlights of the particular sporting event. For example, a video highlight summary of a specific basketball game comprises highlight video segments that represent happenings in the specific basketball game. In this manner, the user may view the video highlight

5 summary as a proxy for viewing the entirety of the game. As such, the user may be able to experience many of the relevant occurrences of the sporting event in less time than the user would be able to experience the entirety of the sporting event. In addition, the user may utilize fewer resources when viewing a video highlight summary instead of the entirety of the sporting event video. For example, the apparatus may utilize less power, utilize fewer
10 network resources, and/or the like.

[0085] FIGURE 2A is a diagram illustrating highlight video segments associated with a video highlight summary according to at least one example embodiment. In the example of FIGURE 2A, video highlight summary 210 comprises highlight video segments from sporting event video 200. In the example of FIGURE 2A, video highlight
15 summary 210 comprises video highlight segment 201B, video highlight segment 202B, video highlight segment 203B, and video highlight segment 204B.

[0086] In many circumstances, a video highlight segment may be dependent upon the associated sporting event video as a source video for the video highlight segment. For example, the video highlight segment may be defined in terms of the associated sporting
20 event video. In at least one example embodiment, the video highlight segment is associated with an occurrence timestamp and a duration. In at least one example embodiment, the occurrence timestamp identifies a beginning of the highlight video segment to correspond with a particular timestamp of the sporting event video. For example, a highlight video segment that represents a score attempt that began at a 30.5
25 second timestamp in the sporting event video may have an occurrence timestamp of 30.5 seconds. In at least one example embodiment, the duration of the highlight video segment refers to the amount of time of the sporting event video that is represented by the highlight video segment. For example, the highlight video segment that represents the score attempt at 30.5 seconds may be 15 seconds long. In such an example, the highlight video segment
30 duration may be 15 seconds. In this manner, the video highlight segment may be identified by the occurrence timestamp of 30.5 seconds and the duration of 15 seconds.

[0087] In the example of FIGURE 2A, highlight video segment 201B is associated with an occurrence timestamp and a duration that correspond with portion 201A

of sporting event video 200. In the example of FIGURE 2A, highlight video segment 202B is associated with an occurrence timestamp and a duration that correspond with portion 202A of sporting event video 200. In the example of FIGURE 2A, highlight video segment 203B is associated with an occurrence timestamp and a duration that correspond with portion 203A of sporting event video 200. In the example of FIGURE 2A, highlight video segment 204B is associated with an occurrence timestamp and a duration that correspond with portion 204A of sporting event video 200.

[0088] FIGURE 2B is a diagram illustrating a highlight video segment associated with a video highlight summary according to at least one example embodiment. The example of FIGURE 2B illustrates portion 251, which corresponds with an occurrence timestamp and a duration, portion 252, which corresponds with another occurrence timestamp and another duration, and portion 253, which corresponds with yet another occurrence timestamp and yet another duration, of sporting event video 250. In at least one example embodiment, portion 253 indicates a portion that corresponds with a video highlight segment. In at least one example embodiment, portion 251 indicates a default duration from the occurrence timestamp that denotes the beginning of portion 251. As described regarding FIGURES 4A-4D, in some circumstances, a highlight video segment associated with portion 251 may be changed to include portion 252, to include portion 253, and/or the like. As described regarding FIGURES 4A-4D, a highlight video segment associated with the combination of portion 252 and portion 251 may be changed to omit portion 252. As described regarding FIGURES 4A-4D, a highlight video segment associated with the combination of portion 251 and portion 253 may be changed to omit portion 253. As described regarding FIGURES 4A-4D, a highlight video segment associated with the combination of portion 251, portion 252, and portion 253 may be changed to omit portion 252 and portion 253. In some circumstances, there may be limitations imposed on modification of a highlight segment.

[0089] In at least one example embodiment, an apparatus receives information indicative of a video highlight summary. For example, the apparatus may receive the information indicative of the video highlight summary from memory, from a separate apparatus, and/or the like. For example, the apparatus may receive the information indicative of the video highlight summary from a server. The information indicative of the video highlight summary may be reference information, such as a uniform resource locator, that identifies the video highlight summary, the highlight video segments

comprised by the video highlight summary, and/or the like. The information indicative of the video highlight summary may be the highlight video segments comprised by the video highlight summary.

[0090] In at least one example embodiment, a highlight video segment indicates information associated with the occurrence represented by the highlight video segment. Similarly, the video highlight summary may indicate information associated with occurrences represented in the video highlight summary. For example, the highlight video segment may indicate a type of occurrence, a team that performed the occurrence, an outcome of the occurrence, and/or the like. In at least one example embodiment, the type of occurrence identifies a particular activity that is represented in the highlight video segment. The type of occurrence may be a score attempt, a serve, a pitch, a change of control, a pass, and/or the like. The team performing the occurrence may indicate a team that attempted to score, a team that performed a serve, a team that performed a pitch, a team that gained control, a team that performed a pass, and/or the like. An outcome of the occurrence may be a failure, a success, and/or the like.

[0091] FIGURES 3A-3C are diagrams illustrating a video highlight summary indicator according to at least one example embodiment. The examples of FIGURES 3A-3C are merely examples and do not limit the scope of the claims. For example, representation of the video highlight summary indicator may vary, representation of one or more highlight video indicators may vary, number of highlight video indicators may vary, and/or the like.

[0092] As previously described, many users find themselves to be very time-constrained. In this manner, users may benefit, not only from reduced sporting event viewing time, but may also benefit from being able to interact with a video highlight summary in an efficient and intuitive manner. For example, the user may desire to quickly assess whether a particular highlight video segment contains happenings that the user desires to perceive. In another example, the user may desire to quickly assess whether a particular highlight video segment contains happenings that the user desires to avoid perceiving.

[0093] In at least one example embodiment, an apparatus causes display of a video highlight summary indicator. The video highlight summary indicator may be any information that indicates the existence and/or the content of the video highlight summary. For example, the video highlight summary indicator may comprise one or more highlight

video segment indicators. The highlight video indicator may be any information that indicates the existence and/or the content of the highlight video segment that is indicated by the highlight video indicator.

[0094] In at least one example embodiment, causation of display of information, such as the video highlight summary indicator, comprises displaying of the information on a display that is comprised by the apparatus. In at least one example embodiment, causation of display of information, such as the video highlight summary indicator, comprises sending the information to a separate apparatus, such that the separate apparatus displays the information on a display. For example, the apparatus may send the information to a separate display, to a computer, to a laptop, to a mobile apparatus, and/or the like. For example, the apparatus may be a server that causes display of the information by way of sending the information to a client apparatus that displays the information. In this manner, causation of display of the information may comprise sending one or more messages to the separate apparatus that comprise the information, streaming the information to the separate apparatus, and/or the like.

[0095] FIGURE 3A is a diagram illustrating a video highlight summary indicator according to at least one example embodiment. In the example of FIGURE 3A, video highlight summary indicator 300 comprises highlight video indicator 301, highlight video indicator 302, highlight video indicator 303, and highlight video indicator 304. In at least one example embodiment, a highlight video indicator comprises information indicative of a type of occurrence, a team that performed the occurrence, an outcome of the occurrence, and/or the like. For example, the highlight video indicator may comprise a team indicator. The team indicator may be a particular color of the highlight video indicator, such as a team color, may comprise a team logo, may indicate a direction of play, and/or the like. In at least one example embodiment, a direction of play is indicative of a direction on the field of play in which the team is oriented, such as towards a particular goal from a particular perspective. In at least one example embodiment, a direction of play is indicative of home team status or visitor team status. For example, the direction of play may indicate a particular direction in association with a home team, and an opposite direction in association with a visitor team. In the example of FIGURE 3A, a particular team is indicated by a leftward arrow and a different team is indicated by a rightward arrow. It can be seen that highlight video indicator 301 comprises team indicator 306, which corresponds with the particular team, that highlight video indicator 302 comprises

team indicator 307, which corresponds with the different team, that highlight video indicator 303 comprises team indicator 308, which corresponds with the different team, and that highlight video indicator 304 comprises team indicator 309, which corresponds with the particular team. In this manner, the user may be able to quickly and intuitively
5 identify a team that performed the occurrence represented in the respectively represented highlight video segments of video summary indicator 300.

[0096] In at least one example embodiment, the highlight video indicator may indicate duration of the highlight video segment that is indicated by the highlight video indicator. For example, a greater size in a particular dimension, such as length, width,
10 and/or depth, may indicate a duration. In at least one example embodiment, the indication of duration is such that a difference in size between different highlight video segments is indicative of a difference in duration between the respective highlight video segments indicated by the highlight video indicators. For example, the difference in size between the different highlight video segments may be proportional to the difference in duration
15 between the respective highlight video segments indicated by the highlight video indicators.

[0097] In at least one example embodiment, the apparatus determines a highlight video indicator that is indicative of a highlight video segment. For example the apparatus may base the highlight video indicator, at least in part, on information received from
20 separate apparatus, information comprised by the highlight video segment, and/or the like. For example, the apparatus may receive, at least part of, the highlight video indicator. In another example, the apparatus may generate, at least part of, the highlight video indicator based, at least in part, on occurrence information, such as type of occurrence, team that performed the occurrence, outcome of the occurrence, and/or the like.

[0098] In many circumstances, the order in which highlight video indicators are presented to the user may have a particular significance to the user. For example, the user may be accustomed to reading in a particular direction. In such circumstances, the user is likely to evaluate the video highlight summary indicator in a manner that complies with the user's accustomed reading direction. Therefore, it may be desirable to indicate one or
25 more aspects of a highlight video segment by way of the ordering of the associated highlight video indicators. For example, the ordering may indicate chronology, team performing the occurrence represented by the indicated highlight video segment, outcome of the occurrence, and/or the like. For example, the highlight video indicators may be
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sorted based, at least in part, on chronology, on team performing the occurrence, on outcome of the occurrence, and/or the like. In addition, the manner in which the highlight video indicators are ordered may be combined. For example, video highlight indicators may be primarily sorted by team, secondarily sorted by outcome of the occurrence, tertiary sorted by chronology, and/or the like.

[0099] In at least one example embodiment, an apparatus determines an ordering of highlight video segments based, at least in part, on chronological sequence of occurrence timestamps of the highlight video segments. For example, the apparatus determines an ordering of a first highlight video segment and a second highlight video segment based, at least in part, on chronological sequence of a first occurrence timestamp associated with the first highlight video segment and a second occurrence timestamp associated with the second highlight video segment. The ordering may be based, at least in part, on chronology, on the team performing the occurrence associated with the highlight video segment, on the type of occurrence associated with the highlight video segment, on the outcome occurrence associated with the highlight video segment, and/or the like. In at least one example embodiment, the determination of the ordering is independent of a team indicated by the video highlight summary. For example, the ordering may be based purely on chronology of the highlight video segments of the video highlight summary. In at least one example embodiment, the determination of the ordering is performed in accordance with a cross-team chronological ordering. In at least one example embodiment, the cross-team chronological ordering refers to an ordering indicative of sorting of highlight video segments based on respective occurrence timestamps. For example, a cross-team chronological ordering may refer to an ordering indicative of sorting of highlight video segments based, at least in part, on respective occurrence timestamps absent sorting of the highlight video segments based, at least in part, on respective teams.

[00100] In at least one example embodiment, the ordering is based, at least in part, on one or more teams indicated by the video highlight summary, such as a team performing an occurrence represented by a highlight video segment. In at least one example embodiment, the determination of the ordering is performed such that highlight video segments are sequenced based on an associated team. For example, the highlight video segments may be sorted primarily by team and secondarily by chronology. In this manner, the determination of the ordering may be performed such that highlight video segments are sequenced based, at least in part, on an associated team such that a highlight

video segment associated with a particular team are further ordered based, at least in part, on chronological sequence of an associated timestamp.

[00101] In at least one example embodiment, determination of the ordering is performed in accordance with a team chronological ordering. In at least one example embodiment, the team chronological ordering refers to an ordering indicative of sorting of highlight video segments based, at least in part, on respective teams, and within respective teams based, at least in part, on respective occurrence timestamps.

[00102] FIGURE 3B is a diagram illustrating a video highlight summary indicator according to at least one example embodiment. In the example of FIGURE 3B, video summary indicator 320 indicates an ordering based primarily on team and secondarily on chronology. It can be seen that the highlight video indicators of FIGURE 3B correspond with the highlight video indicators of FIGURE 3A. In can be seen in FIGURE 3B that the highlight video indicators have been ordered differently from FIGURE 3A. For example, the ordering of FIGURE 3A may be based purely on chronology, absent consideration of team. It can be seen that the ordering of FIGURE 3B is based primarily on team. For example, it can be seen that, from left to right, highlight video indicator 302 and highlight video indicator 303 are both associated with a particular team and that highlight video indicator 301 and highlight video indicator 304 are both associated with a different team.

[00103] In at least one example embodiment, the apparatus causes display of highlight video indicators in conformance with the ordering. For example, the apparatus may cause display of a first highlight video indicator and a second highlight video indicator in conformance with the ordering. In at least one example embodiment, causation of display of highlight video indicators in conformance with the ordering refers to display of the highlight video indicators in a manner that visually represents the ordering. In at least one example embodiment, causation of display in conformance with the ordering comprises causation of display of the highlight video indicators along an axis such that a sequence along the axis of the first highlight video indicator and the second highlight video indicator corresponds with the ordering. For example, in FIGURE 3A, highlight video indicators 301, 302, 303, and 304 are arranged along a horizontal axis such that the sequence of highlight video indicators 301, 302, 303, and 304 along the axis corresponds with the chronological ordering.

[00104] In at least one example embodiment, causation of display of highlight video indicators in conformance with the ordering is performed such that a subsequent

highlight video indicator is displayed rightward of a prior highlight video indicator. In at least one example embodiment, the ordering indicates a first highlight video indicator being prior to a second highlight video indicator. In such an example, the causation of display of the first highlight video indicator and the second highlight video indicator in conformance with the ordering is performed such that the second highlight video indicator is displayed rightward of the first highlight video indicator. For example, in FIGURE 3A, highlight video indicator 302 may be rightward of highlight video indicator 301 based, at least in part, on the ordering indicating the highlight video segment associated with highlight video indicator 302 subsequent to the highlight video segment associated with highlight video indicator 301.

[00105] Even though the examples of FIGURES 3A-3C indicate display of highlight video indicators along a horizontal axis, the axis may vary. For example the axis may be vertical diagonal, and/or the like. In at least one example embodiment, causation of display of highlight video indicators in conformance with the ordering is performed such that a subsequent highlight video indicator is displayed below a prior highlight video indicator. In at least one example embodiment, the ordering indicates a first highlight video indicator being prior to a second highlight video indicator. In such an example, the causation of display of the first highlight video indicator and the second highlight video indicator in conformance with the ordering is performed such that the second highlight video indicator is displayed below the first highlight video indicator.

[00106] As previously described, in some circumstances, it may be desirable to sort highlight video segments based, at least in part, on team. In at least one example embodiment, the video highlight summary comprises highlight video segments associated with a first team and highlight video segments associated with a second team. In such an example, the determination of the ordering may be performed such that the second team is sequenced prior to the first team. For example, the highlight video segments associated with the second team may be sequenced prior to the highlight video segments associated with the first team. In this manner, if a first highlight video segment is associated with the first team and a second highlight video segment is associated with the second team, the determination of the ordering may be performed such that the second highlight video segment is sequenced prior to the first highlight video segment based, at least in part, on the second team being sequenced prior to the first team. For example, even though highlight video indicator 301 may indicate a highlight video segment associated with an

earlier timestamp than the highlight video segment indicated by highlight video indicator 302, the ordering of FIGURE 3B may sequence highlight video indicator 302 prior to highlight video indicator 301 based, at least in part, on team. In another example, the video highlight summary may identify a third highlight video segment associated with the first team and a fourth highlight video segment associated with the second team. In such an example, the determination of the ordering may be performed such that the second highlight video segment and the fourth highlight video segment are sequenced prior to the first highlight video segment and the third highlight video segment based, at least in part, on the second team being sequenced prior to the first team. For example, in FIGURE 3B, highlight video indicators 302 and 303 may be sequenced prior to highlight video indicators 301 and 304 based, at least in part, on team. Furthermore, the determination of the ordering of the first highlight video segment and the third highlight video may be based, at least in part, on chronological sequence of the first occurrence timestamp and a third occurrence timestamp associated with the third highlight video segment. For example, highlight video indicator 303 may be sequenced subsequent to highlight video indicator 302 based, at least in part, on timestamp chronology. In addition, the determination of the ordering of the second highlight video segment and the fourth highlight video may be based, at least in part, on chronological sequence of the second occurrence timestamp and a fourth occurrence timestamp associated with the fourth highlight video segment. For example, highlight video indicator 304 may be sequenced subsequent to highlight video indicator 301 based, at least in part, on timestamp chronology.

[00107] In at least one example embodiment, the apparatus determines an occurrence classification associated with a highlight video segment. For example, the apparatus may receive information indicative of the occurrence classification, may evaluate the highlight video segment to determine the occurrence classification, and/or the like. In at least one example embodiment, determination of a highlight video indicator comprises determination of an occurrence classification indicator. In at least one example embodiment, the occurrence classification indicator is information that visually represents the occurrence classification. In at least one example embodiment, the highlight video indicator comprises the occurrence classification indicator. In at least one example embodiment, the occurrence classification indicator indicates type of occurrence, such as a score attempt, a serve, a pitch, a change of control, and/or the like. The occurrence

classification indicator may indicate the type of occurrence by way of a color, an image, and icon, a shape, a size, and/or the like that is indicative of the type of occurrence.

[00108] In at least one example embodiment, the occurrence classification indicator indicates the outcome of the occurrence. The occurrence classification indicator may indicate the outcome of the occurrence by way of a color, an image, and icon, a shape, a size, and/or the like that is indicative of the outcome of the occurrence. In at least one example embodiment, the occurrence classification indicator indicates at least one of a failure or a success. The occurrence classification indicator may indicate the failure or a success by way of a color, an image, and icon, a shape, a size, and/or the like that is indicative of the failure or a success. In at least one example embodiment, the occurrence classification indicator indicates the team that performed the occurrence that is represented by the first highlight video segment. The occurrence classification indicator may indicate the team by way of a team logo, a color, an image, and icon, a shape, a size, and/or the like that is indicative of the team.

[00109] FIGURE 3C is a diagram illustrating a video highlight summary indicator according to at least one example embodiment. In the example of FIGURE 3C, video highlight summary indicator 340 comprises highlight video indicator 341, highlight video indicator 342, highlight video indicator 343, and highlight video indicator 344. In the example of FIGURE 3C, a particular team is indicated by a leftward arrow and a different team is indicated by a rightward arrow. It can be seen that highlight video indicator 341 comprises team indicator 346, which corresponds with the particular team, that highlight video indicator 342 comprises team indicator 347, which corresponds with the different team, that highlight video indicator 343 comprises team indicator 348, which corresponds with the different team, and that highlight video indicator 344 comprises team indicator 349, which corresponds with the particular team. In the example of FIGURE 3C, highlight video indicator 341 comprises occurrence classification indicator 351, highlight video indicator 342 comprises occurrence classification indicator 352, highlight video indicator 343 comprises occurrence classification indicator 353, and highlight video indicator 344 comprises occurrence classification indicator 354. It can be seen that occurrence classification indicators indicate type of occurrence and success or failure of the occurrence. For example, it can be seen that occurrence classification indicator 353 indicates a failed score attempt by way of an image of a ball entering a net with an “X” overlay. Similarly, it can be seen that occurrence classification indicators 351, 352, and

354 indicate a successful score attempt by way of an image of a ball entering a net absent an “X” overlay.

[00110] FIGURES 4A-4D are diagrams illustrating editing of one or more highlight video segments according to at least one example embodiment. The examples of
5 FIGURES 4A-4D are merely examples and do not limit the scope of the claims. For example, number of highlight video segments may vary, type of input may vary, number of inputs may vary, and/or the like.

[00111] In some circumstances, the user may desire to change the video highlight summary. For example, the user may desire to change the appearance of the video
10 highlight summary indicator, change one or more highlight video segments comprised by the video highlight summary, remove one or more highlight video segments comprised by the video highlight summary from the video highlight summary, and/or the like.

[00112] In some circumstances, a user may desire to remove one or more highlight video segments from a video highlight summary. For example, the user may desire to
15 remove a particular highlight video segment from the video highlight summary, may desire to remove a group of highlight video segments from the video highlight summary, and/or the like. For example, the user may desire to exclude each highlight video segment associated with a particular team. In another example, the user may desire to remove highlight video segments that are associated with a particular type of occurrence. In yet
20 another example, the user may desire to remove highlight video segments that are associated with type of occurrence that differs from a particular type of occurrence.

[00113] In at least one example embodiment, the apparatus receives information indicative of a highlight video segment removal input associated with one or more highlight video indicators. The highlight video segment removal input may identify one or
25 more highlight video indicators by way of positional concurrence between at least part of the highlight video segment removal input and at least part of one or more video segment indicators, by way of identifying an occurrence classification that corresponds with one or more video segment indicators, and/or the like.

[00114] In at least one example embodiment, the apparatus causes removal of the
30 highlight video segment from the video highlight summary based, at least in part, on the highlight video segment removal input. The apparatus may cause removal of the highlight video segment by way of deleting the video highlight segment from memory, sending a directive to a separate apparatus that causes the separate apparatus to remove the highlight

video segment from the video highlight summary, and/or the like. In at least one example embodiment, the apparatus terminates display of the highlight video indicator based, at least in part, on the highlight video segment removal input. For example, the apparatus may remove the highlight video indicator from a video highlight summary indicator that is being displayed.

[00115] In some circumstances, the user may desire to change one or more highlight video segments. For example, in some circumstances, the manner in which a video highlight segment is generated may cause the video highlight segment to be unacceptable to the user. For example, the user may desire the highlight video segment to include an earlier portion of the sporting event video, to include a later portion of the sporting event video, to omit a portion of the highlight video segment, and/or the like. However, as previously described, the user may have limited time for performance of such change. In this manner, it may be desirable to provide a simple and intuitive manner for the user to change a highlight video segment.

[00116] In at least one example embodiment, the apparatus receives information indicative of a highlight video segment content change input associated with a highlight video indicator. The highlight video segment content change input may be any input that identifies the highlight video segment and indicates a change to be performed. For example, the highlight video segment content change input may be a selection input, a drag input, and/or the like. In at least one example embodiment, a drag input is an input that comprises selection of at least part of a highlight video indicator, followed by a movement input. The input may be a touch input, a cursor input, a gesture input, and/or the like.

[00117] In at least one example embodiment, the highlight video segment content change input indicates a portion of the highlight video segment content change input that is to be changed. For example, the highlight video segment content change input may indicate the beginning of the highlight video segment, may indicate the end of the highlight video segment, and/or the like. In at least one example embodiment, the highlight video segment content change input indicates the portion of the highlight video segment to be changed by way of the portion of the highlight video indicator that was selected. In at least one example embodiment, such a portion of the highlight video indicator is based, at least in part, on the manner in which chronology is represented by the video highlight summary. As previously described, the video highlight summary indicator may represent chronology along an axis. In this manner, the relationship between an edge of the highlight video

indicator and the axis indicates the portion of the highlight video segment to be changed.

In this manner, selection of a start edge of the highlight video indicator is indicative of change of the beginning of the highlight video segment. Similarly, selection of a finish edge of the highlight video indicator is indicative of change of the end of the highlight

5 video segment. In at least one example embodiment, a start edge of a highlight video indicator is an edge of the highlight video indicator that corresponds with an earlier position along the axis than a finish edge of the highlight video indicator. In at least one example embodiment, a finish edge of a highlight video indicator is an edge of the highlight video indicator that corresponds with a later position along the axis than the start
10 edge of the highlight video indicator.

[00118] In at least one example embodiment, the highlight video segment content change input indicates whether the change of the portion of the highlight video segment content change input that is to be changed is inclusion of additional content or removal of content. In at least one example embodiment, the highlight video segment content change
15 input indicates whether the change of the portion of the highlight video segment content change input that is to be changed is inclusion of additional content or removal of content by way of movement. In at least one example embodiment, the movement may be in a chronologically increasing direction. As previously described, the video highlight summary indicator may represent chronology along an axis. In this manner, a
20 chronologically increasing direction may be a direction from a lesser time along the axis to a later time along the axis. Similarly, a chronologically decreasing direction may be a direction from a greater time along the axis to a lesser time along the axis.

[00119] In at least one example embodiment, the apparatus changes the highlight video segment such that the highlight video segment identifies a different portion of the
25 sporting event video based, at least in part, on the highlight video segment content change input. In this manner, the change is performed such that at least part of the content identified by the highlight video segment is different. For example, the highlight video segment may be changed to include content that occurred prior to the timestamp of the highlight video segment, to include content that occurred subsequent to the duration of the
30 highlight video segment, and/or the like. Similarly, the highlight video segment may be changed to omit a portion of content from the beginning of the highlight video segment, to omit a portion from the end of the highlight video segment, and/or the like. In this manner,

change of the highlight video indicator may comprise prepending of content, appending of content, truncation of content, and/or the like.

[00120] FIGURE 4A is a diagram illustrating editing of a highlight video segment according to at least one example embodiment. In the example of FIGURE 4A, video highlight summary indicator 400 comprises highlight video indicator 401, highlight video indicator 402, highlight video indicator 403, and highlight video indicator 404. In the example of FIGURE 4A, a particular team is indicated by a leftward arrow and a different team is indicated by a rightward arrow. It can be seen that highlight video indicator 401 comprises team indicator 406, which corresponds with the particular team, that highlight video indicator 402 comprises team indicator 407, which corresponds with the different team, that highlight video indicator 403 comprises team indicator 408, which corresponds with the different team, and that highlight video indicator 404 comprises team indicator 409, which corresponds with the particular team. In the example of FIGURE 4A, highlight video segment content change input 410 corresponds with a start edge of highlight video segment indicator 401. It can be seen that highlight video segment content change input 410 may include a leftward movement as a chronologically decreasing movement, or may include a rightward movement as a chronologically increasing movement.

[00121] In at least one example embodiment, the highlight video segment content change input indicates inclusion of content that occurs prior to the occurrence timestamp of the highlight video segment. For example, a highlight video segment content change input that corresponds with movement of a start edge of the highlight video indicator in a chronologically decreasing direction may indicate inclusion of content that occurred prior to the timestamp of the highlight video segment. In at least one example embodiment, the apparatus prepends content to the highlight video segment from the sporting event video. For example, the apparatus may prepend the content by adding content from a part of the sporting event video that has a timestamp that is prior to an edit timestamp. In such an example, the edit timestamp is prior to the occurrence timestamp. For example, if the highlight video segment is defined by an occurrence timestamp and a duration, the apparatus may prepend the content by way of setting the occurrence time to the edit timestamp. In this manner, the apparatus may change the occurrence timestamp to correspond with the edit timestamp. In at least one example embodiment, the difference between the occurrence timestamp of the highlight video segment and the edit timestamp is proportional to a distance of the movement of the start edge of the first highlight video

indicator. In some circumstances, the apparatus may change the duration so that the highlight video segment ends at the same timestamp as before the change. For example, if the occurrence timestamp changed by 10 milliseconds, the apparatus may increase the duration by 10 milliseconds.

5 **[00122]** For example, the highlight video segment indicator may be highlight video segment indicator 401 of FIGURE 4A, and the highlight video segment content change input may be highlight video change input 410 of FIGURE 4A in a leftward direction. In such an example, the highlight video segment indicated by be highlight video segment indicator 401 may correspond to portion 251 of FIGURE 2B. In such an example,
10 the occurrence timestamp of the highlight video segment may be changed so that the highlight video segment includes portion 252 and at least part of portion 251. The apparatus may increase the duration of the highlight video segment so that the highlight video segment includes portion 252 and portion 251.

[00123] In at least one example embodiment, the highlight video segment content
15 change input indicates truncation of a portion of content that occurs subsequent to the occurrence timestamp of the highlight video segment. For example, a highlight video segment content change input that corresponds with movement of a start edge of the highlight video indicator in a chronologically increasing direction may indicate truncation of a portion of content that occurs subsequent to the occurrence timestamp of the highlight
20 video segment. For example, the apparatus may truncate the content by removing content from a part of the highlight video segment that has a timestamp that is prior to an edit timestamp. In such an example, the edit timestamp is subsequent to the occurrence timestamp. For example, if the highlight video segment is defined by an occurrence timestamp and a duration, the apparatus may truncate the content by way of setting the
25 occurrence time to the edit timestamp. In this manner, the apparatus may change the occurrence timestamp to correspond with the edit timestamp. In at least one example embodiment, the difference between the occurrence timestamp of the highlight video segment and the edit timestamp is proportional to a distance of the movement of the start edge of the first highlight video indicator. In some circumstances, the apparatus may
30 change the duration so that the highlight video segment ends at the same timestamp as before the change. For example, if the occurrence timestamp changed by 10 milliseconds, the apparatus may decrease the duration by 10 milliseconds.

[00124] For example, the highlight video segment indicator may be highlight video segment indicator 401 of FIGURE 4A, and the highlight video segment content change input may be highlight video change input 410 of FIGURE 4A in a rightward direction. In such an example, the highlight video segment indicated by be highlight video segment indicator 401 may correspond to portions 251 and 252 of FIGURE 2B. In such an example, the occurrence timestamp of the highlight video segment may be changed so that the highlight video segment truncates portion 252. The apparatus may decrease the duration of the highlight video segment so that the highlight video segment includes portion 252 and omits any part of portion 253 of FIGURE 2B.

[00125] In at least one example embodiment, the highlight video segment content change input indicates truncation of a portion of content that occurs subsequent to a reduced duration of the highlight video segment. For example, a highlight video segment content change input that corresponds with movement of a finish edge of the highlight video indicator in a chronologically decreasing direction may indicate truncation of a portion of content that occurs subsequent to a reduced duration of the highlight video segment. For example, the apparatus may truncate the content by removing content from a part of the highlight video segment is beyond a reduced duration. In such an example, the reduced duration is less than the duration of the highlight video segment. For example, if the highlight video segment is defined by an occurrence timestamp and a duration, the apparatus may truncate the content by way of setting the duration to the reduced duration. In this manner, the apparatus may change the duration to correspond with the reduced duration. In at least one example embodiment, the difference between the duration of the highlight video segment and the reduced duration is proportional to a distance of the movement of the finish edge of the first highlight video indicator.

[00126] For example, the highlight video segment may correspond to portions 251 and 253 of FIGURE 2B. In such an example, the duration of the highlight video segment may be changed so that the highlight video segment truncates portion 253.

[00127] In at least one example embodiment, the highlight video segment content change input indicates appending of a portion of content that occurs subsequent to a duration of the highlight video segment. For example, a highlight video segment content change input that corresponds with movement of a finish edge of the highlight video indicator in a chronologically increasing direction may indicate appending of a portion of content that occurs subsequent to the duration of the highlight video segment. For

example, the apparatus may append the content by including content from a part of the sporting event video that is beyond the duration and within an increased duration. In such an example, the increased duration is greater than the duration of the highlight video segment. For example, if the highlight video segment is defined by an occurrence
5 timestamp and a duration, the apparatus may append the content by way of setting the duration to the increased duration. In this manner, the apparatus may change the duration to correspond with the increased duration. In at least one example embodiment, the difference between the duration of the highlight video segment and the increased duration is proportional to a distance of the movement of the finish edge of the first highlight video
10 indicator.

[00128] For example, the highlight video segment may correspond to portion 251 of FIGURE 2B. In such an example, the duration of the highlight video segment may be changed so that the highlight video segment includes portion 253 of FIGURE 2B.

[00129] In some circumstances, the highlight video segment content change input
15 may indicate multiple changes to a single highlight video segment. For example, the highlight video segment content change input may be a multiple touch input that comprises a highlight video segment content change input that identifies a start edge of the highlight video identifier and another highlight video segment content change input that identifies a finish edge of the highlight video identifier. In such an example, the apparatus may
20 perform the change associated with the highlight video segment content change input and perform the change associated with the other highlight video segment content change input. In at least one example embodiment, such an input may be referred to as a pinch input.

[00130] FIGURE 4B is a diagram illustrating editing of a highlight video segment
25 according to at least one example embodiment. In the example of FIGURE 4B, video highlight summary indicator 420 comprises highlight video indicator 421, highlight video indicator 422, highlight video indicator 423, and highlight video indicator 424. In the example of FIGURE 4B, a particular team is indicated by a leftward arrow and a different team is indicated by a rightward arrow. It can be seen that highlight video indicator 421
30 comprises team indicator 426, which corresponds with the particular team, that highlight video indicator 422 comprises team indicator 427, which corresponds with the different team, that highlight video indicator 423 comprises team indicator 428, which corresponds with the different team, and that highlight video indicator 424 comprises team indicator

429, which corresponds with the particular team. In the example of FIGURE 4B, highlight video segment content change input 430 corresponds with a start edge of highlight video segment indicator 421. It can be seen that highlight video segment content change input 430 may include a leftward movement as a chronologically decreasing movement, or may include a rightward movement as a chronologically increasing movement. In the example of FIGURE 4B, highlight video segment content change input 431 corresponds with a finish edge of highlight video segment indicator 421. It can be seen that highlight video segment content change input 431 may include a leftward movement as a chronologically decreasing movement, or may include a rightward movement as a chronologically increasing movement.

[00131] In some circumstances, there may be predetermined constraints on changing the highlight video segment. For example there may be constraints that limit the amount of additional content that may be included. In another example, there may be constraints placed on the amount of content that may be truncated. For example, there may be a minimum duration below which truncation of the highlight video segment is precluded. In another example, there may be a maximum duration beyond which addition to the highlight video segment is precluded. In at least one example embodiment, the difference between the maximum duration and the minimum duration is referred to as highlight video segment elasticity.

[00132] In some circumstances, the user may desire to change each highlight video segment comprised by a video highlight summary. For example, the user may determine that the manner in which the highlight video segments are generated is consistently undesirable. For example, the user may determine that, generally, the highlight video segments of a video highlight summary start too late, start too soon, end too soon, and/or end too late. In such circumstances, the user may desire to change each of the highlight video summaries in a simple and intuitive manner. For example, it may be desirable to allow inputs that are similar to highlight video segment content change inputs to be performed in relation to a video highlight summary identifier. In such circumstances, the apparatus may perform an appropriate operation on each of the highlight video segments comprised by the video highlight summary. In this manner, the user may be able to change each highlight video segment of the video highlight summary without necessarily performing independent inputs for each highlight video indicator.

[00133] In at least one example embodiment, the apparatus receives information indicative of a multiple highlight video segment content change input associated with a highlight video indicator. The multiple highlight video segment content change input may be any input that identifies the video highlight summary indicator and indicates a change to
5 be performed. For example, the multiple highlight video segment content change input may be a selection input, a drag input, and/or the like. In at least one example embodiment, a drag input is an input that comprises selection of at least part of a video highlight summary indicator, followed by a movement input. The input may be a touch input, a cursor input, a gesture input, and/or the like.

10 [00134] In at least one example embodiment, the multiple highlight video segment content change input indicates a portion of the highlight video segment content change input that is to be changed. For example, the multiple highlight video segment content change input may indicate the beginning of the highlight video segment, may indicate the end of the highlight video segment, and/or the like. In at least one example embodiment,
15 the multiple highlight video segment content change input indicates the portion of the highlight video segment to be changed by way of the portion of the video highlight summary indicator that was selected. In at least one example embodiment, such a portion of the video highlight summary indicator is based, at least in part, on the manner in which chronology is represented by the video highlight summary. As previously described, the
20 video highlight summary indicator may represent chronology along an axis. In this manner, the relationship between an edge of the highlight video indicator and the axis indicates the portion of the highlight video segment to be changed. In this manner, selection of a start edge of the video highlight summary indicator is indicative of change of the beginning of the highlight video segment. Similarly, selection of a finish edge of the
25 video highlight summary indicator is indicative of change of the end of the highlight video segment. In at least one example embodiment, a start edge of a video highlight summary indicator is an edge of the video highlight summary indicator that corresponds with an earlier position along the axis than a finish edge of the video highlight summary indicator. In at least one example embodiment, a finish edge of a video highlight summary indicator
30 is an edge of the video highlight summary indicator that corresponds with a later position along the axis than the start edge of the video highlight summary indicator.

[00135] In at least one example embodiment, the apparatus receives information indicative of a multiple highlight video segment content change input associated with a

video highlight summary indicator. In this manner, the multiple highlight video segment content change input is associated with each of the highlight video segments comprised by the video highlight summary indicated by the video highlight summary indicator.

[00136] In at least one example embodiment, the apparatus changes each highlight video segment such that the highlight video segment identifies a different portion of the sporting event video based, at least in part on the multiple highlight video segment content change input. In this manner, the change is performed such that at least part of the content identified by each highlight video segment is different. For example, the highlight video segment may be changed to include content that occurred prior to the timestamp of the highlight video segment, to include content that occurred subsequent to the duration of the highlight video segment, and/or the like. Similarly, the highlight video segment may be changed to omit a portion of content from the beginning of the highlight video segment, to omit a portion from the end of the highlight video segment, and/or the like. In this manner, change of the highlight video indicator may comprise prepending of content, appending of content, truncation of content, and/or the like.

[00137] FIGURE 4C is a diagram illustrating editing of a multiple highlight video segment according to at least one example embodiment. In the example of FIGURE 4C, video highlight summary indicator 440 comprises highlight video indicator 441, highlight video indicator 442, highlight video indicator 443, and highlight video indicator 444. In the example of FIGURE 4C, a particular team is indicated by a leftward arrow and a different team is indicated by a rightward arrow. It can be seen that highlight video indicator 441 comprises team indicator 446, which corresponds with the particular team, that highlight video indicator 442 comprises team indicator 447, which corresponds with the different team, that highlight video indicator 443 comprises team indicator 448, which corresponds with the different team, and that highlight video indicator 444 comprises team indicator 449, which corresponds with the particular team. In the example of FIGURE 4C, multiple highlight video segment content change input 450 corresponds with a start edge of video highlight summary indicator 440. It can be seen that multiple highlight video segment content change input 450 may include a leftward movement as a chronologically decreasing movement, or may include a rightward movement as a chronologically increasing movement.

[00138] FIGURE 4D is a diagram illustrating editing of a highlight video segment according to at least one example embodiment. In the example of FIGURE 4D, video

highlight summary indicator 460 comprises highlight video indicator 461, highlight video indicator 462, highlight video indicator 463, and highlight video indicator 464. In the example of FIGURE 4D, a particular team is indicated by a leftward arrow and a different team is indicated by a rightward arrow. It can be seen that highlight video indicator 461 comprises team indicator 466, which corresponds with the particular team, that highlight video indicator 462 comprises team indicator 467, which corresponds with the different team, that highlight video indicator 463 comprises team indicator 468, which corresponds with the different team, and that highlight video indicator 464 comprises team indicator 469, which corresponds with the particular team. In the example of FIGURE 4D, multiple highlight video segment content change input 470 corresponds with a start edge of video highlight summary indicator 460. It can be seen that multiple highlight video segment content change input 470 may include a leftward movement as a chronologically decreasing movement, or may include a rightward movement as a chronologically increasing movement. In the example of FIGURE 4D, multiple highlight video segment content change input 471 corresponds with a finish edge of video highlight summary indicator 460. It can be seen that multiple highlight video segment content change input 471 may include a leftward movement as a chronologically decreasing movement, or may include a rightward movement as a chronologically increasing movement.

[00139] In at least one example embodiment, the multiple highlight video segment content change input corresponds with movement of a start edge of a video highlight summary indicator in a chronologically decreasing direction. In such an example, the apparatus may prepend content to each highlight video segment from the sporting event video. For example, the apparatus may perform each operation associated with the apparatus prepending content to the highlight video segment from the sporting event video for each highlight video segment comprised by the video highlight summary similarly as previously described. In at least one example embodiment, the magnitude of the change is proportional to the distance of the movement of the start edge of the video highlight summary indicator.

[00140] In at least one example embodiment, the multiple highlight video segment content change input corresponds with movement of a start edge of a video highlight summary indicator in a chronologically increasing direction. In such an example, the apparatus may truncate content from each highlight video segment. For example, the apparatus may perform each operation associated with the apparatus truncating content

from the highlight video segment for each highlight video segment comprised by the video highlight summary similarly as previously described. In at least one example embodiment, the magnitude of the change is proportional to the distance of the movement of the start edge of the video highlight summary indicator.

5 **[00141]** In at least one example embodiment, the multiple highlight video segment content change input corresponds with movement of a finish edge of a video highlight summary indicator in a chronologically decreasing direction. In such an example, the apparatus may truncate content from each highlight video segment. For example, the
10 from the highlight video segment for each highlight video segment comprised by the video highlight summary similarly as previously described. In at least one example embodiment, the magnitude of the change is proportional to the distance of the movement of the start edge of the video highlight summary indicator.

[00142] In at least one example embodiment, the multiple highlight video segment
15 content change input corresponds with movement of a finish edge of a video highlight summary indicator in a chronologically increasing direction. In such an example, the apparatus may append content to each highlight video segment from the sporting event video. For example, the apparatus may perform each operation associated with the apparatus appending content to the highlight video segment from the sporting event video
20 for each highlight video segment comprised by the video highlight summary similarly as previously described. In at least one example embodiment, the magnitude of the change is proportional to the distance of the movement of the start edge of the video highlight summary indicator.

[00143] Even though the previous examples describe change of each of the
25 highlight video segments in equal proportion, in some circumstances, it may be desirable to change the highlight video segments in proportion to the proximity of their respective highlight video indicators in the video summary indicator to the multiple highlight video segment content change input. For example, it may be desirable to change a highlight video segment associated with a highlight video indicator that is closer to the multiple
30 highlight video segment content change input than a highlight video segment associated with a highlight video indicator that is further from the multiple highlight video segment content change input. For example, in FIGURE 4C, the apparatus may change the highlight video segment associated with highlight video indicator 441 to a greater extent

than the highlight video segment associated with highlight video indicator 444, based, at least in part, on highlight video indicator 441 being closer to the multiple highlight video segment content change input than highlight video indicator 441.

[00144] In some circumstances, it may be desirable to constrain the amount that a highlight video segment may be changed. For example, there may be a particular portion of the highlight video segment that should be included to avoid the highlight video segment losing meaningfulness. In such an example, it may be desirable enforce constraints regarding the manner in which the highlight video segment is changed, so that such a portion of the highlight video segment is maintained. In at least one example embodiment, the apparatus limits truncation of content from the highlight video segment to conform to a minimum highlight video duration. In at least one example embodiment, the minimum highlight video duration is a limitation of a duration of the video highlight segment, which indicates undesirability of a highlight video segment having a lesser duration than the minimum highlight video duration. For example, the apparatus may limit truncation of content from the highlight video segment such that the truncation of content causes the highlight video segment to have a duration that is equal to the minimum highlight video duration.

[00145] In another example, it may be desirable to avoid appending or prepending content to a highlight video segment to an extent that renders the highlight video segment to become burdensomely long. For example, there may be a duration, beyond which, the highlight video segment is difficult to consider as a highlight, and becomes considered to be a more lengthy investment of the user's time. In such an example, it may be desirable enforce constraints regarding the manner in which the highlight video segment is changed, so that a limitation on the duration to which the highlight video segment may be increased. In at least one example embodiment, the apparatus limits appending and/or prepending of content to the highlight video segment to conform to a maximum highlight video duration. In at least one example embodiment, the maximum highlight video duration is a limitation of a duration of the video highlight segment, which indicates undesirability of a highlight video segment having a greater duration than the maximum highlight video duration. For example, the apparatus may limit prepending and/or appending of content from the highlight video segment such that the prepending and/or appending of content causes the highlight video segment to have a duration that is equal to the maximum highlight video duration.

[00146] For example, in some circumstances, a duration of portion 251 may correspond with a minimum highlight video segment, and a duration of the combination of portions 252, 251, and 253 may correspond with a maximum highlight video segment. In such an example, the apparatus may avoid truncation of content within portion 251.

5 Similarly, in such an example, the apparatus may avoid prepending of content prior to portion 252, and may avoid appending content subsequent to portion 253.

[00147] FIGURE 5 is a flow diagram illustrating activities associated with a video highlight summary according to at least one example embodiment. In at least one example embodiment, there is a set of operations that corresponds with the activities of FIGURE 5.

10 An apparatus, for example electronic apparatus 10 of FIGURE 1, or a portion thereof, may utilize the set of operations. The apparatus may comprise means, including, for example processor 11 of FIGURE 1, for performance of such operations. In an example embodiment, an apparatus, for example electronic apparatus 10 of FIGURE 1, is transformed by having memory, for example memory 12 of FIGURE 1, comprising
15 computer code configured to, working with a processor, for example processor 11 of FIGURE 1, cause the apparatus to perform set of operations of FIGURE 5.

[00148] At block 502, the apparatus receives information indicative of a video highlight summary that identifies, at least, a first highlight video segment and a second highlight video segment, the first highlight video segment being associated with a first
20 occurrence timestamp and the second highlight video segment being associated with a second occurrence timestamp. The receipt, the information, the video highlight summary, the first highlight video segment, the second highlight video segment, the first occurrence timestamp, and the second occurrence timestamp may be similar as described regarding FIGURES 2A-2B.

25 [00149] At block 504, the apparatus determines a first highlight video indicator that is indicative of the first highlight video segment. The determination and the first highlight video indicator may be similar as described regarding FIGURES 3A-3C.

[00150] At block 506, the apparatus determines a second highlight video indicator that is indicative of the second highlight video segment. The determination and the second
30 highlight video indicator may be similar as described regarding FIGURES 3A-3C.

[00151] At block 508, the apparatus determines an ordering of the first highlight video segment and the second highlight video segment based, at least in part, on chronological sequence of the first occurrence timestamp and the second occurrence

timestamp. The determination, the ordering, and the chronological sequence may be similar as described regarding FIGURES 3A-3C.

[00152] At block 510, the apparatus causes display of the first highlight video indicator and the second highlight video indicator in conformance with the ordering. The causation of display and the conformance with the ordering may be similar as described regarding FIGURES 3A-3C.

[00153] FIGURE 6 is a flow diagram illustrating activities associated with a video highlight summary according to at least one example embodiment. In at least one example embodiment, there is a set of operations that corresponds with the activities of FIGURE 6.

An apparatus, for example electronic apparatus 10 of FIGURE 1, or a portion thereof, may utilize the set of operations. The apparatus may comprise means, including, for example processor 11 of FIGURE 1, for performance of such operations. In an example embodiment, an apparatus, for example electronic apparatus 10 of FIGURE 1, is transformed by having memory, for example memory 12 of FIGURE 1, comprising computer code configured to, working with a processor, for example processor 11 of FIGURE 1, cause the apparatus to perform set of operations of FIGURE 6.

[00154] As previously described, it may be desirable to display different orderings of highlight video indicators. In some circumstances, it may be desirable to transition between different orderings. For example, the user may desire to provide a simple and intuitive input to cause the apparatus to transition from an ordering to a different ordering.

[00155] At block 602, the apparatus receives information indicative of a video highlight summary that identifies, at least, a first highlight video segment and a second highlight video segment, the first highlight video segment being associated with a first occurrence timestamp and the second highlight video segment being associated with a second occurrence timestamp, similarly as described regarding block 502 of FIGURE 5. At block 604, the apparatus determines a first highlight video indicator that is indicative of the first highlight video segment, similarly as described regarding block 504 of FIGURE 5. At block 606, the apparatus determines a second highlight video indicator that is indicative of the second highlight video segment, similarly as described regarding block 506 of FIGURE 5. At block 608, the apparatus determines an ordering of the first highlight video segment and the second highlight video segment based, at least in part, on chronological sequence of the first occurrence timestamp and the second occurrence timestamp, similarly as described regarding block 508 of FIGURE 5. In at least one example embodiment, the

chronological ordering is a cross-team chronological ordering. At block 610, the apparatus causes display of the first highlight video indicator and the second highlight video indicator in conformance with the ordering, similarly as described regarding block 510 of FIGURE 5.

5 **[00156]** At block 612, the apparatus receives of information indicative of an order type change input. In at least one example embodiment, the order type change input is any input that indicates a desire to change the order in which the highlight video indicators are represented. For example, the order type change input may be a drag input that is perpendicular to an axis along which the first highlight video indicator and the second
10 highlight video indicator are displayed. In this manner, the user may easily understand the different between the order type change input and the highlight video segment content change input.

[00157] At block 614, the apparatus determines another ordering of the first highlight video segment and the second highlight video segment in conformance with a
15 team chronological ordering based, at least in part, on a team associated with the first highlight video segment and a team associated with the second highlight video segment. The determination, the other ordering, the conformance, and the team chronological ordering may be similar as described regarding FIGURES 3A-3C.

[00158] At block 616, the apparatus causes display of the first highlight video
20 indicator and the second highlight video indicator in conformance with the other ordering. The causation of display and the conformance with the other ordering may be similar as described regarding FIGURES 3A-3C.

[00159] In some circumstances, the user may desire to transition back from the team chronological ordering to a cross-team chronological ordering. In at least one
25 example embodiment, subsequent to block 616, the apparatus receives information indicative of another order type change input. In such an example, the apparatus may determine a different ordering of the first highlight video segment and the second highlight video segment in conformance with a cross-team chronological ordering based, at least in part, on chronological sequence of the first occurrence timestamp and the second
30 occurrence timestamp independently of a team associated with the first highlight video segment and a team associated with the second highlight video segment. In such an example, the apparatus may cause display of the first highlight video indicator and the second highlight video indicator in conformance with the different ordering.

[00160] FIGURE 7 is a flow diagram illustrating activities associated with a video highlight summary according to at least one example embodiment. In at least one example embodiment, there is a set of operations that corresponds with the activities of FIGURE 7. An apparatus, for example electronic apparatus 10 of FIGURE 1, or a portion thereof, may
5 utilize the set of operations. The apparatus may comprise means, including, for example processor 11 of FIGURE 1, for performance of such operations. In an example embodiment, an apparatus, for example electronic apparatus 10 of FIGURE 1, is transformed by having memory, for example memory 12 of FIGURE 1, comprising computer code configured to, working with a processor, for example processor 11 of
10 FIGURE 1, cause the apparatus to perform set of operations of FIGURE 7.

[00161] As previously described, it may be desirable to change the content of a particular highlight video segment. For example, the user may desire to perform a highlight video segment content change input to cause the apparatus to change the content of a particular highlight video segment.

15 [00162] At block 702, the apparatus receives information indicative of a video highlight summary that identifies, at least, a first highlight video segment and a second highlight video segment, the first highlight video segment being associated with a first occurrence timestamp and the second highlight video segment being associated with a second occurrence timestamp, similarly as described regarding block 502 of FIGURE 5.
20 At block 704, the apparatus determines a first highlight video indicator that is indicative of the first highlight video segment, similarly as described regarding block 504 of FIGURE 5. At block 706, the apparatus determines a second highlight video indicator that is indicative of the second highlight video segment, similarly as described regarding block 506 of FIGURE 5. At block 708, the apparatus determines an ordering of the first highlight video
25 segment and the second highlight video segment based, at least in part, on chronological sequence of the first occurrence timestamp and the second occurrence timestamp, similarly as described regarding block 508 of FIGURE 5. At block 710, the apparatus causes display of the first highlight video indicator and the second highlight video indicator in conformance with the ordering, similarly as described regarding block 510 of FIGURE 5.

30 [00163] At block 712, the apparatus receives information indicative of a highlight video segment content change input associated with the first highlight video indicator. The receipt and the highlight video segment content change input may be similar as described regarding FIGURES 4A-4D.

[00164] At block 714, the apparatus changes the first highlight video segment such that the first highlight video segment identifies a different portion of a sporting event video based, at least in part on the highlight video segment content change input. The change and the different portion may be similar as described regarding FIGURES 4A-4D.

5 [00165] FIGURE 8 is a flow diagram illustrating activities associated with a video highlight summary according to at least one example embodiment. In at least one example embodiment, there is a set of operations that corresponds with the activities of FIGURE 8. An apparatus, for example electronic apparatus 10 of FIGURE 1, or a portion thereof, may utilize the set of operations. The apparatus may comprise means, including, for example
10 processor 11 of FIGURE 1, for performance of such operations. In an example embodiment, an apparatus, for example electronic apparatus 10 of FIGURE 1, is transformed by having memory, for example memory 12 of FIGURE 1, comprising computer code configured to, working with a processor, for example processor 11 of FIGURE 1, cause the apparatus to perform set of operations of FIGURE 8.

15 [00166] As previously described, it may be desirable to change the content of each highlight video segment comprised by a video highlight summary. For example, the user may desire to perform a multiple highlight video segment content change input to cause the apparatus to change the content of each highlight video segment comprised by a video highlight summary.

20 [00167] At block 802, the apparatus receives information indicative of a video highlight summary that identifies, at least, a first highlight video segment and a second highlight video segment, the first highlight video segment being associated with a first occurrence timestamp and the second highlight video segment being associated with a second occurrence timestamp, similarly as described regarding block 502 of FIGURE 5.
25 At block 804, the apparatus determines a first highlight video indicator that is indicative of the first highlight video segment, similarly as described regarding block 504 of FIGURE 5. At block 806, the apparatus determines a second highlight video indicator that is indicative of the second highlight video segment, similarly as described regarding block 506 of FIGURE 5. At block 808, the apparatus determines an ordering of the first highlight video
30 segment and the second highlight video segment based, at least in part, on chronological sequence of the first occurrence timestamp and the second occurrence timestamp, similarly as described regarding block 508 of FIGURE 5. At block 810, the apparatus causes

display of the first highlight video indicator and the second highlight video indicator in conformance with the ordering, similarly as described regarding block 510 of FIGURE 5.

[00168] At block 812, the apparatus receives information indicative of a multiple highlight video segment content change input associated with the first highlight video indicator and the second highlight video indicator. The receipt and the multiple highlight video segment content change input may be similar as described regarding FIGURES 4A-4D.

[00169] At block 814, the apparatus changes the first highlight video segment such that the first highlight video segment identifies a different portion of a sporting event video based, at least in part on the multiple highlight video segment content change input. The change and the different portion may be similar as described regarding FIGURES 4A-4D.

[00170] At block 816, the apparatus changes the second highlight video segment such that the second highlight video segment identifies a different portion of a sporting event video based, at least in part on the multiple highlight video segment content change input. The change and the different portion may be similar as described regarding FIGURES 4A-4D.

[00171] Embodiments of the invention may be implemented in software, hardware, application logic or a combination of software, hardware, and application logic. The software, application logic and/or hardware may reside on the apparatus, a separate device, or a plurality of separate devices. If desired, part of the software, application logic and/or hardware may reside on the apparatus, part of the software, application logic and/or hardware may reside on a separate device, and part of the software, application logic and/or hardware may reside on a plurality of separate devices. In an example embodiment, the application logic, software or an instruction set is maintained on any one of various conventional computer-readable media.

[00172] If desired, the different functions discussed herein may be performed in a different order and/or concurrently with each other. For example, block 504 of FIGURE 5 may be performed after block 506 of FIGURE 5. Furthermore, if desired, one or more of the above-described functions may be optional or may be combined. For example, block 510 of FIGURE 5 may be optional and/or combined with block 508 of FIGURE 5.

[00173] Although various aspects of the invention are set out in the independent claims, other aspects of the invention comprise other combinations of features from the

described embodiments and/or the dependent claims with the features of the independent claims, and not solely the combinations explicitly set out in the claims.

[00174] It is also noted herein that while the above describes example embodiments of the invention, these descriptions should not be viewed in a limiting sense.

- 5 Rather, there are variations and modifications which may be made without departing from the scope of the present invention as defined in the appended claims.

WHAT IS CLAIMED IS

1. An apparatus, comprising:

at least one processor;

at least one memory including computer program code, the memory

5 and the computer program code configured to, working with the processor, cause the apparatus to perform at least the following:

receipt of information indicative of a video highlight

summary that identifies, at least, a first highlight video segment and

a second highlight video segment, the first highlight video segment

10 being associated with a first occurrence timestamp and the second highlight video segment being associated with a second occurrence timestamp;

determination of a first highlight video indicator that is indicative of the first highlight video segment;

15 determination of a second highlight video indicator that is indicative of the second highlight video segment;

determination of an ordering of the first highlight video segment and the second highlight video segment based, at least in part, on chronological sequence of the first occurrence timestamp and the second occurrence timestamp; and

20 causation of display of the first highlight video indicator and the second highlight video indicator in conformance with the ordering.

25 2. The apparatus of claim 1, wherein causation of display of the first highlight video indicator and the second highlight video indicator in conformance with the ordering comprises causation of display of the first highlight video indicator and the second highlight video indicator along an axis such that a sequence along the axis of the first highlight video indicator and the second highlight video indicator
30 corresponds with the ordering.

3. The apparatus of any of claims 1-2, wherein the first highlight video segment is associated with a first team, the second highlight video segment is

associated with a second team, and determination of the ordering is based, at least in part, on the first team and the second team.

4. The apparatus of any of claims 1-3, wherein the memory includes computer program code configured to, working with the processor, cause the apparatus to perform:

receipt of information indicative of an order type change input;

determination of another ordering of the first highlight video segment and the second highlight video segment in conformance with a team chronological ordering based, at least in part, on a team associated with the first highlight video segment and a team associated with the second highlight video segment; and

causation of display of the first highlight video indicator and the second highlight video indicator in conformance with the other ordering.

5. The apparatus of any of claims 1-4, wherein the memory includes computer program code configured to, working with the processor, cause the apparatus to perform:

receipt of information indicative of a highlight video segment content change input associated with the first highlight video indicator; and

change of the first highlight video segment such that the first highlight video segment identifies a different portion of a sporting event video based, at least in part on the highlight video segment content change input.

6. The apparatus of claim 5, wherein the highlight video segment content change input corresponds with movement of a start edge of the first highlight video indicator in a chronologically decreasing direction, and change of the first highlight video segment comprises prepending content to the first highlight video segment from a part of the sporting event video that has a timestamp that is prior to an edit

timestamp that is prior to the first occurrence timestamp, and change of the first occurrence timestamp to correspond with the edit timestamp.

7. The apparatus of claim 5, wherein the highlight video segment content change input corresponds with movement of a start edge of the first highlight video indicator in a chronologically increasing direction, and change of the first highlight video segment comprises truncation of content from the first highlight video segment that corresponds with a timestamp that is prior to an edit timestamp that is subsequent to the first occurrence timestamp, and change of the first occurrence timestamp to correspond with the edit timestamp.

8. The apparatus of claim 5, wherein the highlight video segment content change input corresponds with movement of a finish edge of the first highlight video indicator in a chronologically decreasing direction, and change of the first highlight video segment comprises truncation of content from the first highlight video segment that corresponds with a reduced duration that is less than a duration of the first highlight video segment, and change of the duration of the first highlight video segment to correspond with the reduced duration.

9. The apparatus of claim 5, wherein the highlight video segment content change input corresponds with movement of a finish edge of the first highlight video indicator in a chronologically increasing direction, and change of the first highlight video segment comprises appending of content to the first highlight video segment that corresponds with a timestamp that is subsequent to a duration of the first highlight video segment and within an increased duration, and change of the duration of the first highlight video segment to correspond with the increased duration.

10. A method comprising:

receiving information indicative of a video highlight summary that identifies, at least, a first highlight video segment and a second highlight video segment, the first highlight video segment being associated with a first occurrence timestamp and the second

highlight video segment being associated with a second occurrence timestamp;

determining a first highlight video indicator that is indicative of the first highlight video segment;

5 determining a second highlight video indicator that is indicative of the second highlight video segment;

determining an ordering of the first highlight video segment and the second highlight video segment based, at least in part, on chronological sequence of the first occurrence timestamp and the second occurrence timestamp; and

10 causing display of the first highlight video indicator and the second highlight video indicator in conformance with the ordering.

11. The method of claim 10, wherein causing display of the first highlight video indicator and the second highlight video indicator in conformance with the ordering comprises causation of display of the first highlight video indicator and the second highlight video indicator along an axis such that a sequence along the axis of the first highlight video indicator and the second highlight video indicator corresponds with the ordering.

20 12. The method of any of claims 10-11, wherein the first highlight video segment is associated with a first team, the second highlight video segment is associated with a second team, and determination of the ordering is based, at least in part, on the first team and the second team.

25 13. The method of any of claims 10-12, further comprising:
receiving information indicative of an order type change input;
determining another ordering of the first highlight video segment and the second highlight video segment in conformance with a team chronological ordering based, at least in part, on a team associated with the first highlight video segment and a team associated with the second highlight video segment; and

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causing display of the first highlight video indicator and the second highlight video indicator in conformance with the other ordering.

5 14. The method of any of claims 10-13, further comprising:
 receiving information indicative of a highlight video segment
 content change input associated with the first highlight video
 indicator; and

10 changing the first highlight video segment such that the first
 highlight video segment identifies a different portion of a sporting
 event video based, at least in part on the highlight video segment
 content change input.

15 15. The method of claim 14, wherein the highlight video segment content
 change input corresponds with movement of a start edge of the first highlight video
 indicator in a chronologically decreasing direction, and change of the first highlight
 video segment comprises prepending content to the first highlight video segment
 from a part of the sporting event video that has a timestamp that is prior to an edit
 timestamp that is prior to the first occurrence timestamp, and change of the first
20 occurrence timestamp to correspond with the edit timestamp.

25 16. The method of claim 14, wherein the highlight video segment content
 change input corresponds with movement of a start edge of the first highlight video
 indicator in a chronologically increasing direction, and change of the first highlight
 video segment comprises truncation of content from the first highlight video
 segment that corresponds with a timestamp that is prior to an edit timestamp that is
 subsequent to the first occurrence timestamp, and change of the first occurrence
 timestamp to correspond with the edit timestamp.

30 17. At least one computer-readable medium encoded with instructions that,
 when executed by a processor, perform:

 receipt of information indicative of a video highlight
 summary that identifies, at least, a first highlight video segment and

a second highlight video segment, the first highlight video segment being associated with a first occurrence timestamp and the second highlight video segment being associated with a second occurrence timestamp;

5 determination of a first highlight video indicator that is indicative of the first highlight video segment;

 determination of a second highlight video indicator that is indicative of the second highlight video segment;

10 determination of an ordering of the first highlight video segment and the second highlight video segment based, at least in part, on chronological sequence of the first occurrence timestamp and the second occurrence timestamp; and

 causation of display of the first highlight video indicator and the second highlight video indicator in conformance with the
15 ordering.

18. The medium of claim 17, wherein causation of display of the first highlight video indicator and the second highlight video indicator in conformance with the ordering comprises causation of display of the first highlight video indicator and
20 the second highlight video indicator along an axis such that a sequence along the axis of the first highlight video indicator and the second highlight video indicator corresponds with the ordering.

19. The medium of any of claims 17-18, wherein the first highlight video
25 segment is associated with a first team, the second highlight video segment is associated with a second team, and determination of the ordering is based, at least in part, on the first team and the second team.

20. The medium of any of claims 17-19, further encoded with instructions that,
30 when executed by a processor, perform:

 receipt of information indicative of an order type change
 input;

determination of another ordering of the first highlight video segment and the second highlight video segment in conformance with a team chronological ordering based, at least in part, on a team associated with the first highlight video segment and a team associated with the second highlight video segment; and

causation of display of the first highlight video indicator and the second highlight video indicator in conformance with the other ordering.

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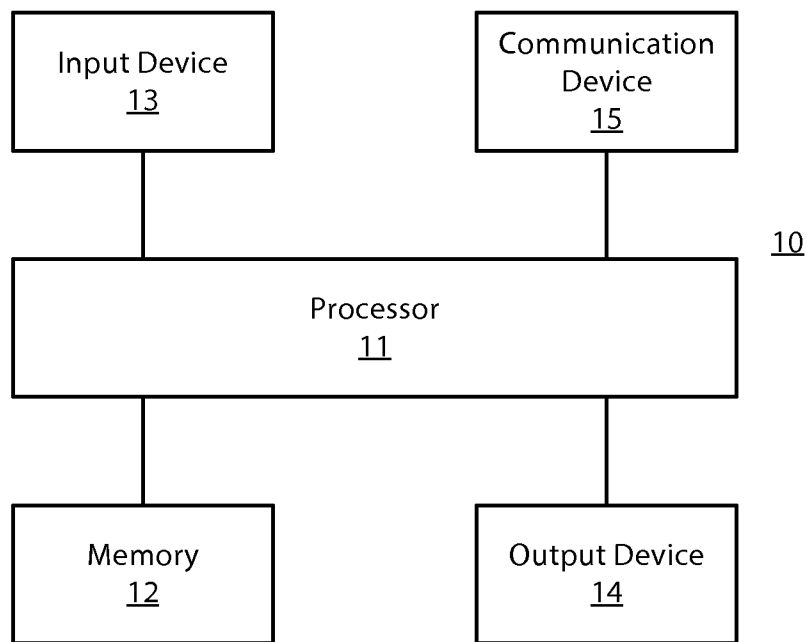


FIG. 1

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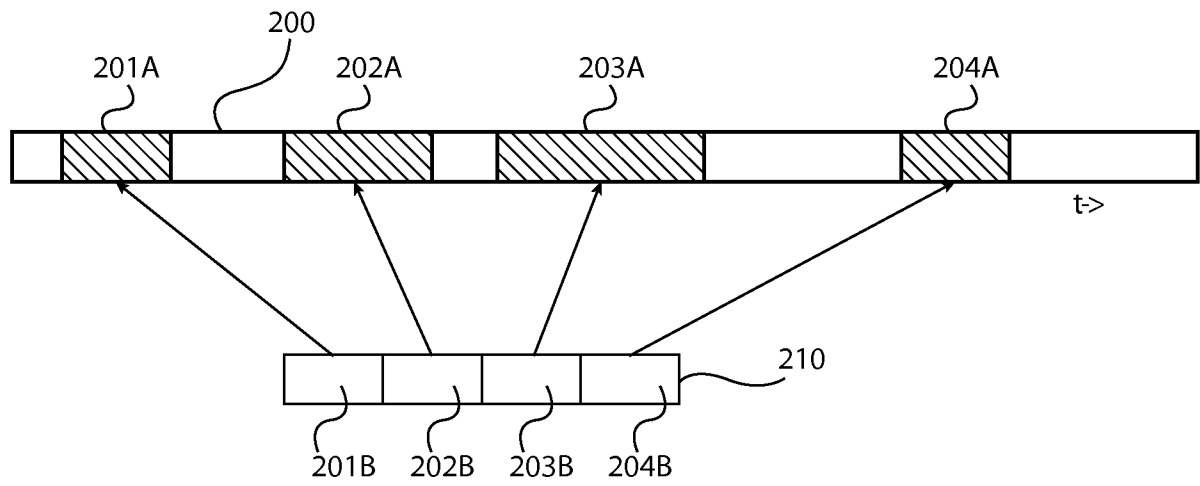


FIG. 2A

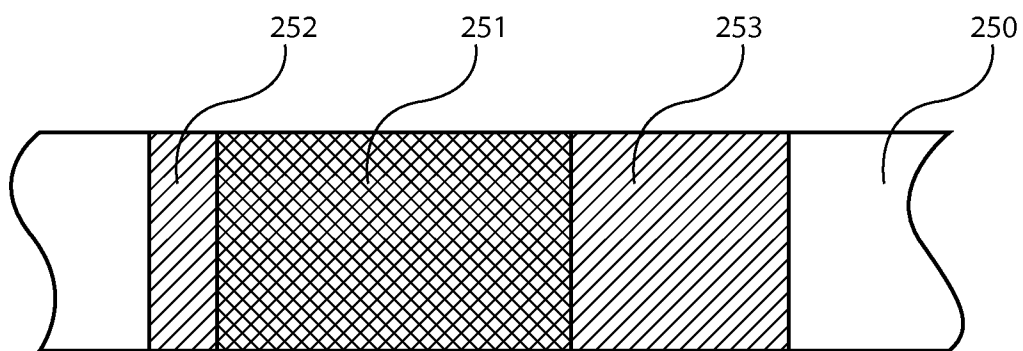


FIG. 2B

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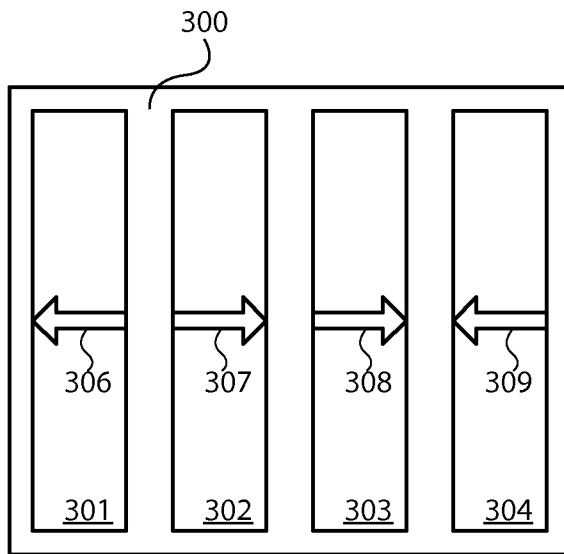


FIG. 3A

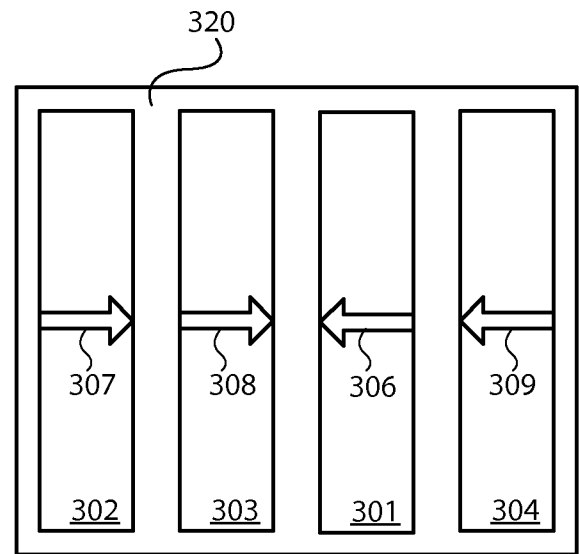


FIG. 3B

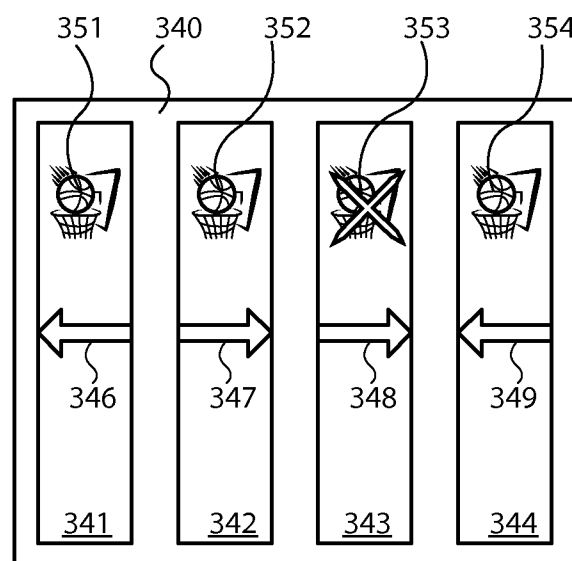


FIG. 3C

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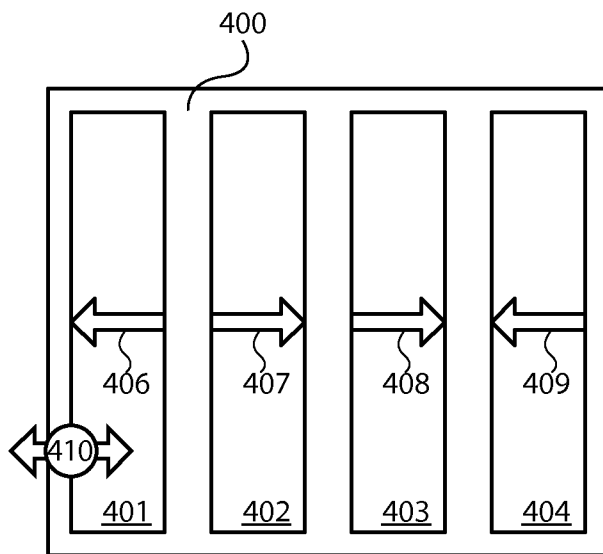


FIG. 4A

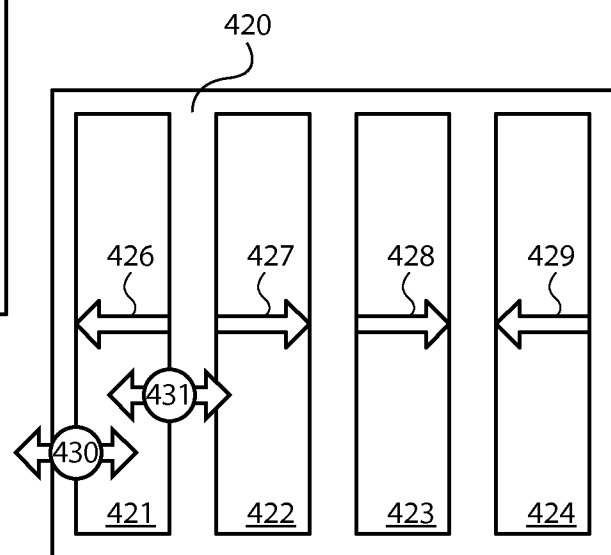


FIG. 4B

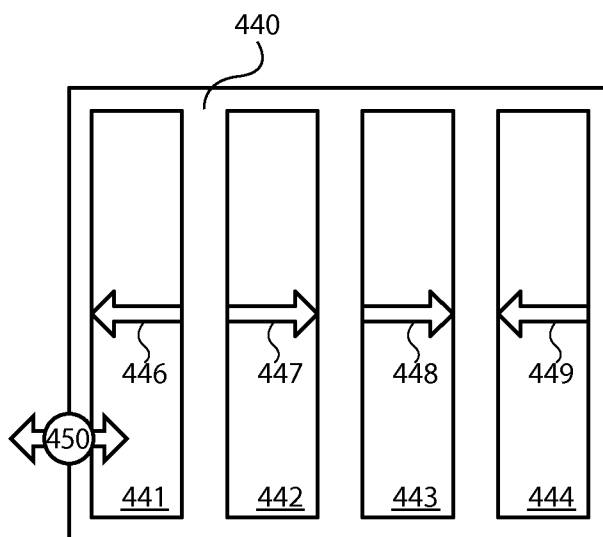


FIG. 4C

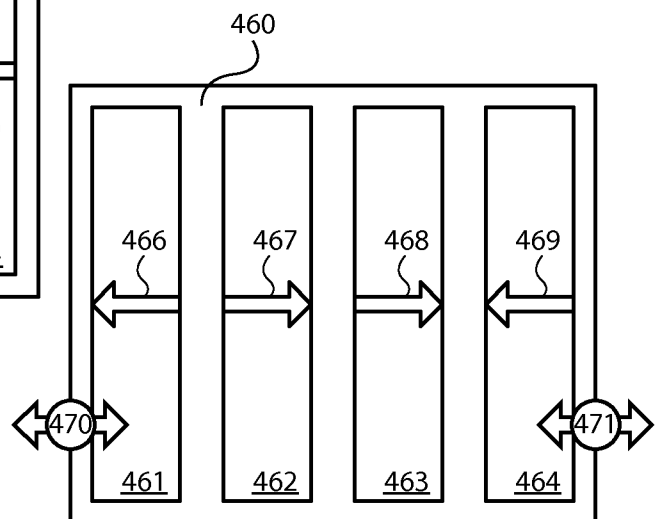


FIG. 4D

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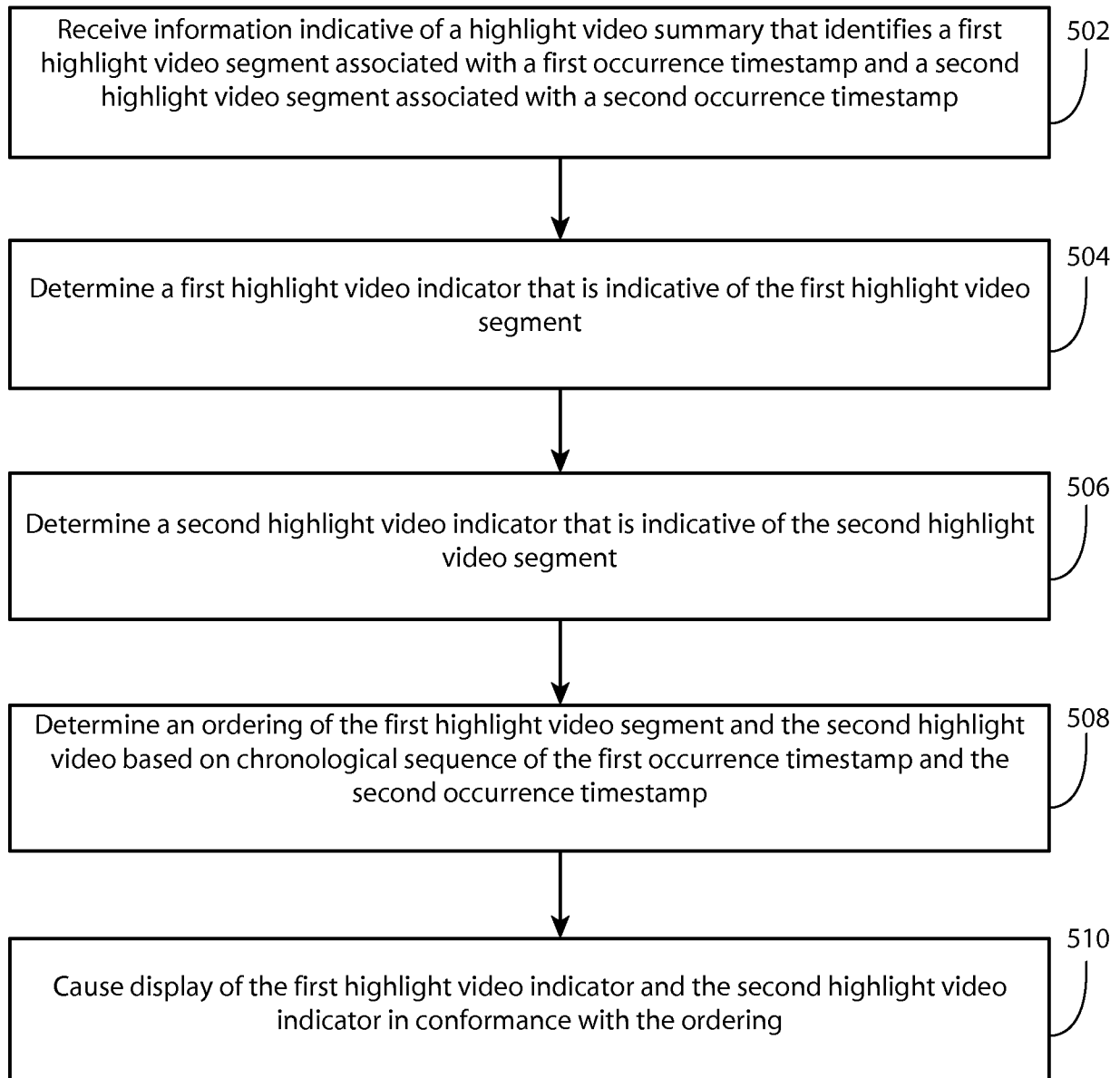


FIG. 5

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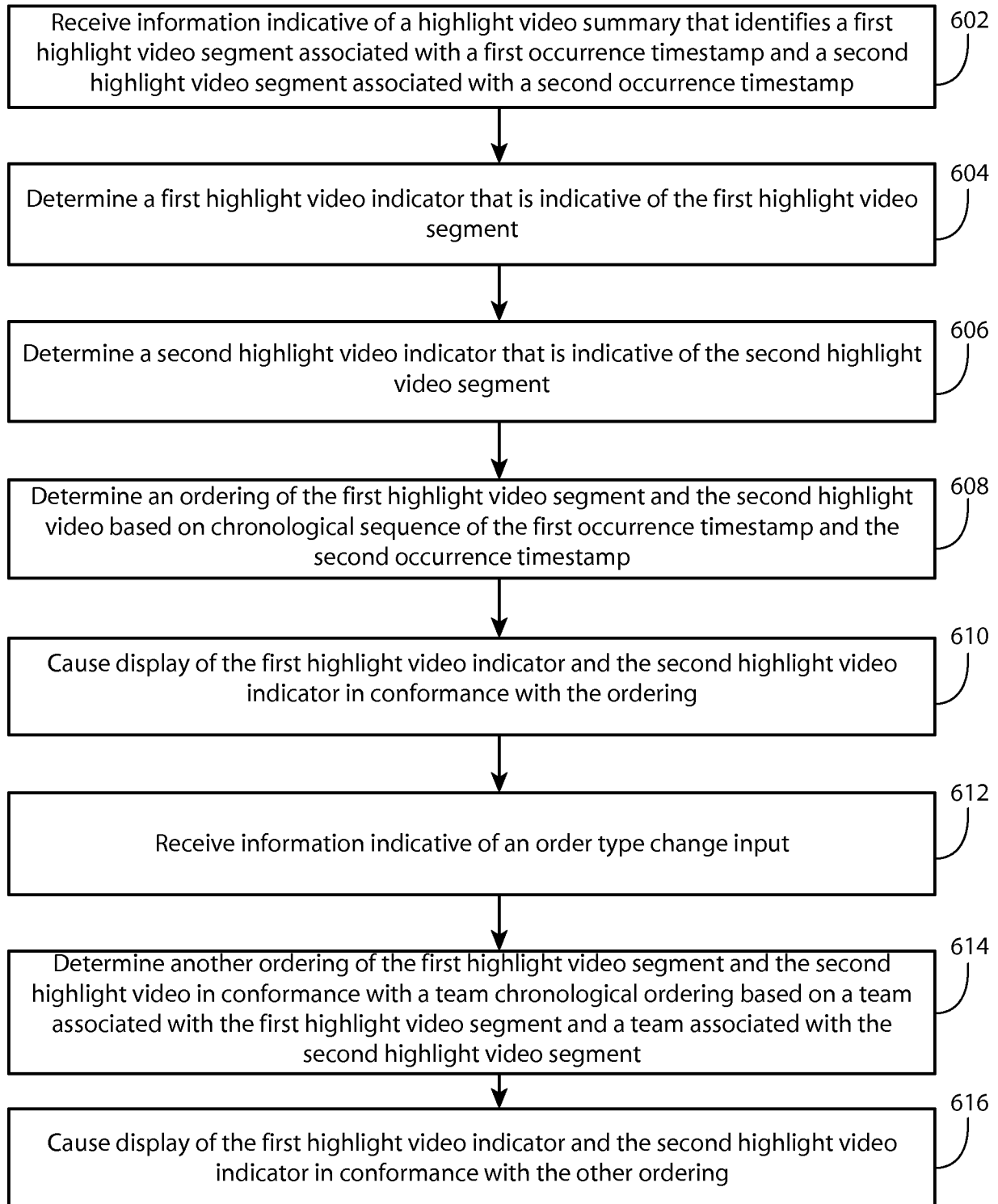


FIG. 6

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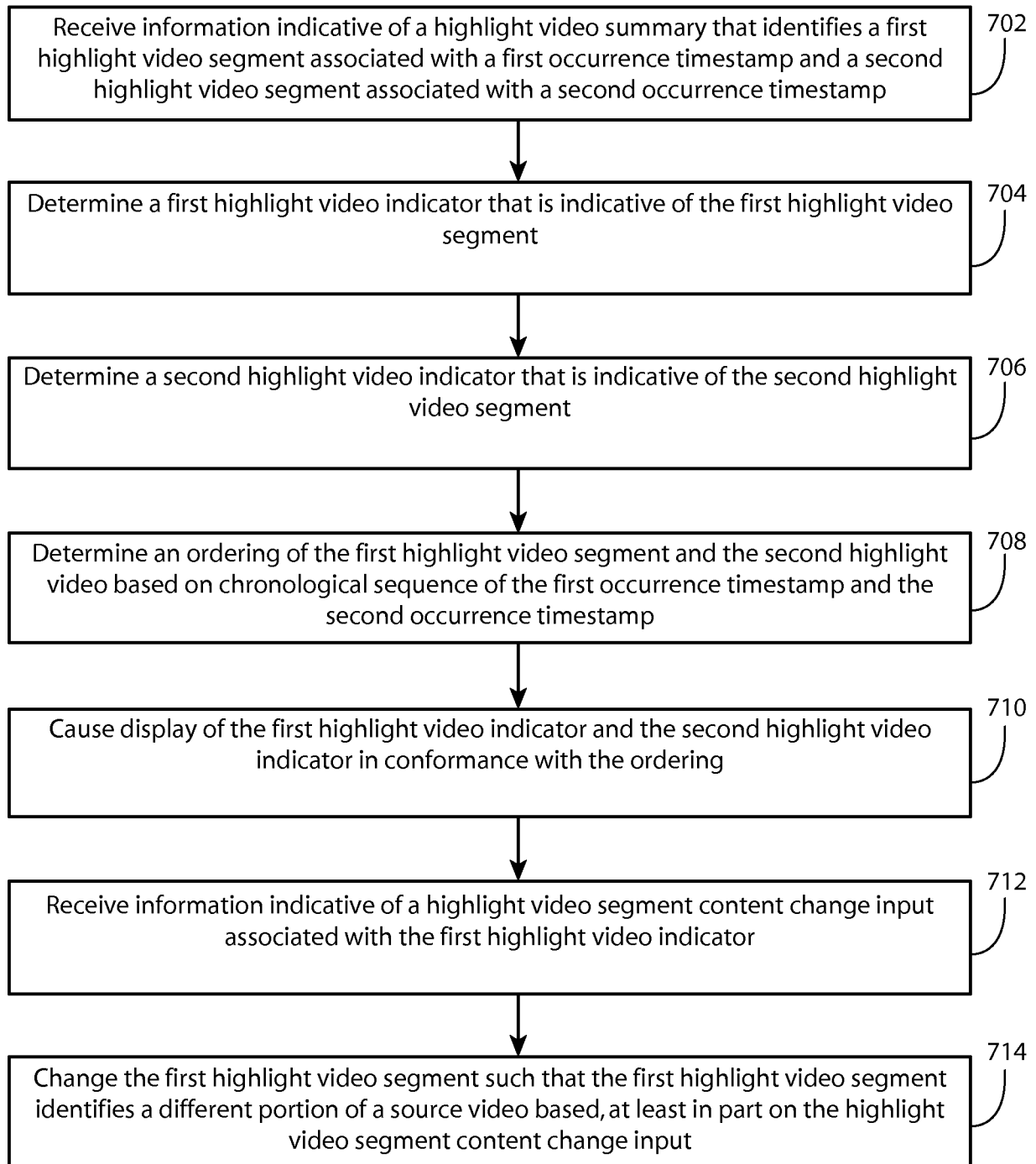


FIG. 7

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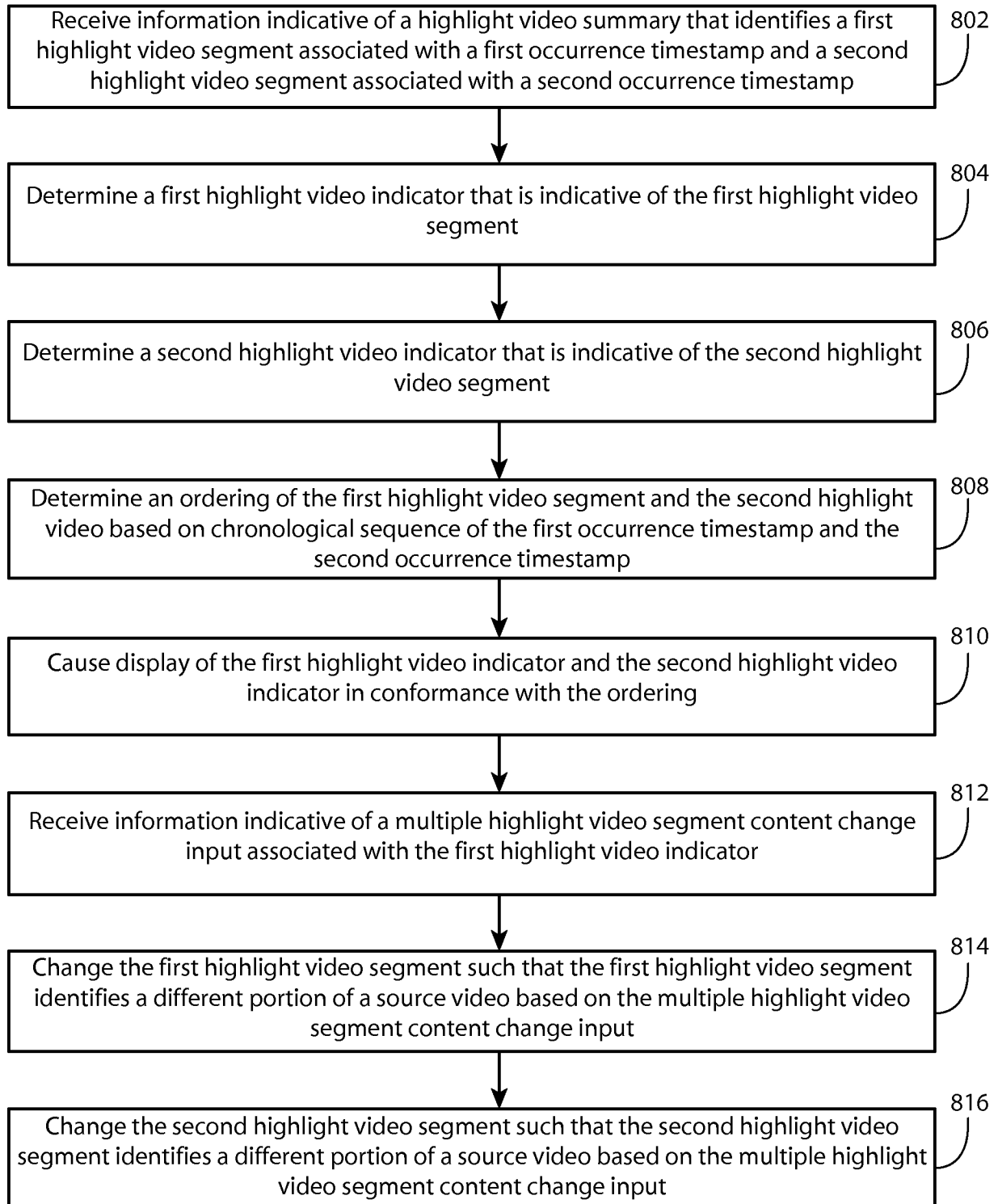


FIG. 8

INTERNATIONAL SEARCH REPORT

International application No
PCT/FI2014/050080

A. CLASSIFICATION OF SUBJECT MATTER
INV. G11B27/34 G06F17/30
ADD. G11B27/034

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)

G11B G06F

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 practicable, search terms used)

EP0-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	WO 2013/103938 A1 (IT S RELEVANT LLC [US]) 11 July 2013 (2013-07-11) paragraphs [0003], [0004], [0019] - [0026], [0029], [0032] - [0037], [0044], [0046], [0078], [0082], [0118] - [0130]; figures 1,3,5,6,7,9-13 ----- -/--	1-20

☒ 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 application or patent 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

"&" document member of the same patent family

Date of the actual completion of the international search

9 May 2014

Date of mailing of the international search report

20/05/2014

Name and mailing address of the ISA/

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Fax: (+31-70) 340-3016

Authorized officer

Bruma, Cezar

INTERNATIONAL SEARCH REPORT

International application No
PCT/FI2014/050080

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	Anonymous: "Matchplay : User Manual", 1 January 2011 (2011-01-01), XP055060368, Australia Retrieved from the Internet: URL:http://www.matchplay.com.au/files/Matc hPlayManualV3.pdf [retrieved on 2013-04-19] How does MatchPlay work?; page 3 pages 13,14,16 page 18 page 21 - page 23 page 27 - page 31 pages 32,33	1-20
X	----- US 2004/263529 A1 (OKADA YUJI [JP] ET AL) 30 December 2004 (2004-12-30) paragraphs [0154] - [0169]; figure 10 -----	1-20
A	Anonymous: "OPUS Content Management", 1 January 2008 (2008-01-01), XP055060376, Retrieved from the Internet: URL:http://dt.mentaldrivestudio.com/produc ts/upload/files/OPUS2ContentManagement.pdf [retrieved on 2013-04-19] the paragraph bridging the 2 pages; figures 1,2	1-20
A	----- EP 1 221 659 A1 (ASOBOU S KK [JP]) 10 July 2002 (2002-07-10) paragraphs [0030] - [0044]; figures 6,7,12 -----	1-20

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/FI2014/050080

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 2013103938 A1	11-07-2013	US 2013227416 A1 WO 2013103938 A1	29-08-2013 11-07-2013
US 2004263529 A1	30-12-2004	AU 2003235876 A1 CN 1596445 A EP 1511035 A1 JP 4065142 B2 JP 2004007271 A US 2004263529 A1 WO 03102953 A1	19-12-2003 16-03-2005 02-03-2005 19-03-2008 08-01-2004 30-12-2004 11-12-2003
EP 1221659 A1	10-07-2002	CA 2365764 A1 EP 1221659 A1 JP 2002202979 A KR 20020055574 A US 2002092027 A1	28-06-2002 10-07-2002 19-07-2002 09-07-2002 11-07-2002