IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor:	Peter L. VENETIANER et al.	)	
Patent No.:	7,868,912	)	Control No.: Unassigned
Issued:	January 11, 2011	)	
Title:	VIDEO SURVEILLANCE SYSTEM EMPLOYING VIDEO PRIMITIVES	)	
Filing Date:	April 5, 2005	)	

Mail Stop *Ex Parte* Reexam
Central Reexamination Unit
Office of Patent Legal Administration
United States Patent & Trademark Office
P.O. Box 1450
Alexandria, Virginia 22313-1450

ATTACHMENT TO REQUEST FOR *EX PARTE* REEXAMINATION (FORM PTO-SB/57; PTO-1465) PROVIDING INFORMATION ON U.S. PATENT NO. 7,868,912

Pursuant to the provisions of 35 U.S.C. §§ 302-307 and 37 C.F.R. § 1.510, the undersigned, on behalf of an anonymous Requester, requests *ex parte* reexamination of claims 1-22 of U.S. Patent No. 7,868,912 ("the '912 Patent").

TABLE OF CONTENTS

LISTING OF ATTACHMENTS

Attachment A: Copy of U.S. Patent No. 7,868,912, for which reexamination is requested

Attachment B: German Patent Publication No. DE 101 53 484 Al ("Gilge")

Attachment C: Certified translation of Gilge

Attachment D: Lipton et al., "ObjectVideo Forensics: Activity-Based Video Indexing and Retrieval For Physical Security Applications," Intelligent Distributed Surveillance Systems (IDSS-04), The IEE, Savoy Place, London, U.K., February 23, 2004. ("Lipton et al.')

Attachment E: U.S. Patent No. 5,969,755 ("Courtney")

Attachment F: Olson et al, "Moving Object Detection and Event Recognition Algorithms for Smart Cameras" Proceedings of the 1997 Image Understanding Workshop, New Orleans, May 1997, pp. 159-175. ("Olson et al.")

Attachment G: U.S. Patent No. 6,628,835 ("Brill et al.")

Attachment H: Day et al., "Object Oriented Conceptual Modeling of Video Data," Proceedings of the Eleventh International Conference on Data Engineering, pp. 401-408. IEEE March, 1995 ("Day")

Attachment I: Japanese Published Patent Application No. 1997-130783 ("JP '783")

Attachment J: Certified translation of JP '783

Attachment K: Claim Chart - Claims 1 to 3 and 6 to 22 are Anticipated by Gilge Under 35 USC § 102

Attachment L: Claim Chart - Claims 1 to 4 and 6 to 22 are Anticipated by Lipton et al. Under 35 USC § 102

Attachment M: Claim Chart - Claims 1, 3, 4, 6, 8, 9, 11 to 13, 15 to 20, and 22 Are Anticipated by Courtney Under 35 U.S.C. § 102

Attachment N: Claim Chart - Claims 1, 3, 4, 6, 8, 9, 11 to 13, 15 to 20, and 22 are Anticipated by Olson et al. Under 35 U.S.C. § 102

Attachment O: Claim Chart - Claims 1 to 3 and 6 to 22 are Unpatentable in view of the combination of Gilge and Brill Under 35 USC § 103

Attachment P: Claim Chart - Claims 1 to 4 and 6 to 22 are Unpatentable in view of the combination of Lipton et al. and Brill Under 35 USC § 103

Attachment Q: Claim Chart - Claims 1, 3, 4, 6, 8, 9, 11 to 13, 15 to 20, and 22 are Unpatentable in view of the combination of Courtney and Brill Under 35 USC § 103

Attachment R: Claim Chart - Claims 1, 3, 4, 6, 8, 9, 11 to 13, 15 to 20, and 22 are Unpatentable in view of the combination of Olson et al. and Brill Under 35 USC § 103

Attachment S: Claim Chart - Claims 1 to 3 and 6 to 22 are Unpatentable in view of the combination of Gilge and Day Under 35 USC § 103

Attachment T: Claim Chart - Claims 1 to 4 and 6 to 22 are Unpatentable in view of the combination of Lipton et al. and Day Under 35 USC § 103

Attachment U: Claim Chart - Claims 1, 3, 4, 6, 8, 9, 11 to 13, 15 to 20, and 22 are Unpatentable in view of the combination of Courtney and Day Under 35 USC § 103

Attachment V: Claim Chart - Claims 1, 3, 4, 6, 8, 9, 11 to 13, 15 to 20, and 22 are Unpatentable in view of the combination of Olson et al. and Day Under 35 USC § 103

Attachment X: Claim Chart - Claim 5 is Unpatentable in view of the combination of JP '783 with any of Gilge, Gilge combined with Brill, and/or Gilge combined with Day

Attachment Y: Claim Chart - Claim 5 is Unpatentable in view of the combination of JP '783 with any of Lipton et al., Lipton et al. combined with Brill, and/or Lipton et al. combined with Day

Attachment Z: Claim Chart - Claim 5 is Unpatentable in view of the combination of JP '783 with any of Courtney, Courtney combined with Brill, and/or Courtney combined with Day

Attachment AA: Claim Chart - Claim 5 is Unpatentable in view of the combination of JP '783 with any of Olson et al., Olson et al. combined with Brill, and/or Olson et al. combined with Day

I. CLAIMS FOR WHICH REEXAMINATION IS REQUESTED

Reexamination is requested of claims 1-22 of U.S. Patent No. 7,868,912 ("the '912 Patent").

Pursuant to 37 C.F.R. § 1.510(b)(5), the attached Certificate of Service indicates that a copy of this Request, in its entirety, has been served on Patent Owner at the following address of the attorney of record for Patent Owner, in accordance with 37 C.F.R. § 1.33(c).

ROTHWELL, FIGG, ERNST & MANBECK, P.C.
607 14th Street, N.W.
SUITE 800
WASHINGTON DC 20005

Also submitted herewith is the fee set forth in 37 C.F.R. § 1.20(c)(1).

II. COPY OF '912 PATENT PURSUANT TO 37 C.F.R. § 1.510(b)(4)

A copy of the entire patent is attached to this Request as Attachment A, as required by 37 C.F.R. § 1.510(b)(4). Requester is not aware of any disclaimer, certificate of correction, or reexamination certificate issued with respect to the '912 Patent.

III. CERTIFICATION REGARDING 35 U.S.C. § 315(e)(1) AND 35 U.S.C. § 325(e)(1)

As required by 37 C.F.R. §1.510(b)(6), Requester certifies that the statutory estoppel provisions of 35 U.S.C. § 315(e)(1) or 35 U.S.C. § 325(e)(1) do not prohibit the Requester from filing this *ex parte* reexamination request.

IV. PROCEEDINGS RELATED TO THE '912 PATENT

The '912 patent issued on January 11, 2011 from U.S. Patent Application Serial No. 11/098,385 ("the '385 application"), filed April 5, 2005, and states on its face that it is a continuation-in-part of U.S. Patent Application Serial No. 11/057,154 ("the '154 application"), filed February 15, 2005, which is stated to be a continuation-in-part of U.S. Patent Application Serial No. 09/987,707 ("the '707 application"), filed November 15, 2001 and now abandoned, which is stated to be a continuation-in-part of U.S. Patent Application Serial No. 09/694,712 ("the '712 application"), filed October 24, 2000 and issued as U.S. Patent No. 6,954,498 ("the '498 patent").

A request for *inter partes* reexamination of the '912 Patent was filed on February 29, 2012, naming Bosch Security Systems, Inc., a subsidiary of Robert Bosch GMBH, as requester. On April 10, 2012, the Patent Office granted the request for *inter partes* reexamination. That *inter partes* reexamination proceeding was assigned reexamination Control No. 95/001,912 ("the '912 reexamination"). In the Order granting the *inter partes* reexamination, the Patent Office determined the following issues proposed in the request had a reasonable likelihood of prevailing (RLP):

Claims 1 to 3 and 6 to 22 are Anticipated by Gilge Under 35 USC s 102 (Issue 1)

Claims 1 to 4 and 6 to 22 are Anticipated by Lipton Under 35 USC s 102 (Issue 2)

Claims 1, 3, 4, 5, 8, 9, 11 to 13, 15 to 20, and 22 Are Anticipated by Courtney Under 35 U.S.C. s 102 (Issue 5)

Claims 1, 3, 4, 6, 8, 9, 11 to 13, 15 to 20, and 22 are Anticipated by Olson et al. Under 35 U.S.C. 102 (Issue 12)

(See '912 Reexamination, April 10, 2012 Office Action at p. 3; see also April 20, 2012 Order.)

On December 3, 2012, the Patent Owner filed a "Petition to Terminate Reexamination Proceeding Under 35 U.S.C. § 317(b) and 37 CFR §§ 1.182, 1.907(b)" in the '912 reexamination. As grounds for the petition, Patent Owner identifies a "Stipulation and (Proposed) Order of Dismissal" submitted in Civil Action No. 3:11cv217 (E.D. Va.), styled *ObjectVideo, Inc. v. Robert Bosch GmbH, et al.*[1] The petition indicates:

> The Order stated: (1) "The parties jointly request that this Court dismiss all claims asserted between them, with prejudice to the right to pursue any such claims in the future," (2) "The parties further stipulate and request that the Court order that the Bosch Defendants, namely Robert Bosch GmbH and Bosch Security Systems, Inc., have not sustained their burden of proving invalidity of any of the claims 1-29 of U.S. Patent No. 6,970,083, any of the claims 1-37 of U.S. Patent No. 6,696,945, any of the claims 1-22 of U.S. Patent No. 7,868,912, any of claims 1-41 of U.S. Patent No. 7,932,923, and any of the claims 1-20 of U.S. Patent No. 7,613,324' and (3) "This Order is a final and non-appealable

[1] The petition indicated that the action in the Eastern District of Virginia "had been stayed in its entirety pending the disposition of an ITC investigation (No.337-TA-795)." (Petition at p. 1.)

> decision." (December 3, 2012 Petition, Control No. 95/001/914, at pp. 2-3)

The petition proceeded to allege that:

> On November 13, 2012, the U.S. District Court for the Eastern District of Virginia signed the Order containing the above-quoted language. Exhibit 6 at 3. ("IT IS SO ORDERED."). (December 3, 2012 Petition, Control No. 95/001,912, at p. 3)

On February 13, 2013, the Patent Office issued a Decision Granting Petition to Terminate *Inter Partes* Reexamination Proceeding in the '912 Reexamination.

Prior to the filing of the petition, Patent Owner filed an Amendment and Reply on June 11, 2012 in the '912 reexamination. Requester Bosch Security Systems submitted Comments in response the Amendment and Reply on October 31, 2012. As of the date of the Decision Granting Petition to Terminate *Inter Partes* Reexamination Proceeding, the Office had not acted on the Amendment and Reply.

V. '912 PATENT AND ITS PROSECUTION

The following summary of the '912 Patent and its original prosecution history is incorporated herein substantially as set forth in the '912 reexamination request.

The application for the '912 Patent, the '385 application, was filed on April 5, 2005. As originally filed, the '385 application contained twenty-six claims, of which claims 1 and 18 were the only independent claims. Application claims 1 and 18 as filed are reproduced below:

> 1. A video processing apparatus comprising:
>
> a video content analysis module to analyze an input video sequence and to derive at least
>
> one video primitive; and
>
> a video encoder to receive said input video sequence and to output compressed video.
>
> 18. A method of video processing comprising:
>
> detecting whether or not there are one or more activities in a video sequence;
>
> encoding a video sequence to obtain encoded video; and
>
> transmitting said encoded video;

wherein at least one of the group consisting of said encoding and said transmitting depends upon at least one result of said detecting.

On December 23, 2007, the applicants filed a Preliminary Amendment adding six new paragraphs to the specification of the '385 application. The new paragraphs were numbered 144.1 to 144.6 for insertion into the specification following paragraph 144, and are reproduced below:

[144.1] In block 31, one or more objects types of interests are identified in terms of video primitives or abstractions thereof. Examples of one or more objects include: an object; a person; a red object; two objects; two persons; and a vehicle.

[144.2] In block 32, one or more spatial areas of interest are identified. An area refers to one or more portions of an image from a source video or a spatial portion of a scene being viewed by a video sensor. An area also includes a combination of areas from various scenes and/or images. An area can be an image- based space (e.g., a line, a rectangle, a polygon, or a circle in a video image) or a three-dimensional space (e.g., a cube, or an area of floor space in a building).

[144.3] Figure 12 illustrates identifying areas along an aisle in a grocery store. Four areas are identified: coffee; soda promotion; chips snacks; and bottled water. The areas are identified via a point-and-click interface with the system.

[144.4] In block 33, one or more temporal attributes of interest are optionally identified. Examples of a temporal attribute include: every 15 minutes; between 9:00 p.m. to 6:30 a.m.; less than 5 minutes; longer than 30 seconds; over the weekend; and within 20 minutes of.

[144.5] In block 34, a response is optionally identified. Examples of a response includes the following: activating a visual and/or audio alert on a system display; activating a visual and/or audio alarm system at the location; activating a silent alarm; activating a rapid response mechanism; locking a door; contacting a security service; forwarding data (e.g., image data, video data, video primitives; and/or analyzed data) to another computer system via a network, such as the Internet; saving such data to a designated computer-readable medium; activating some other sensor or surveillance system; tasking the computer system 11 and/or another computer system; and directing the computer system 11 and/or another computer system.

> [144.6] In block 35, one or more discriminators are identified by describing interactions between video primitives (or their abstractions), spatial areas of interest, and temporal attributes of interest. An interaction is determined for a combination of one or more objects identified in block 31, one or more spatial areas of interest identified in block 32, and one or more temporal attributes of interest identified in block 33. One or more responses identified in block 34 are optionally associated with each event discriminator.

In the first Office Action, mailed on August 20, 2009, the Examiner rejected claims 25 and 26 for failure to recite statutory subject matter pursuant to 35 U.S.C. § 101. The Examiner also rejected claims 1 to 8 and 18 to 21 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 7,227,893 ("Srinivasa et al."). The Examiner further rejected claims 9 to 17, 25, and 26 under 35 U.S.C. § 103(a) as being unpatentable in view of the combination of Srinivasa et al. and U.S. Patent Publication No. 2004/0161133 ("Elazar et al."). Additionally, the Examiner rejected claims 22 to 24 under 35 U.S.C. § 103(a) as being unpatentable in view of the combination of Srinivasa et al. and U.S. Patent No. 7,197,072 ("Hsu et al.").

According to the prosecution history of the '385 application, the applicants held an interview with the Examiner on November 24, 2009 to "discuss[] newly added claims 27- 70." (Interview Summary mailed December 2, 2009, page 1.) In an "Amendment and Interview Summary" filed December 22, 2009, the applicants cancelled claims 1 to 26 and added new claims 27 to 53. The applicants stated that "[s]upport for these new claims can be found throughout the disclosure, including without limitation, for example with Figures 23, 24 and 25 and the corresponding description starting at paragraph [0087]" on page 9 of the Amendment and Interview Summary. Of the newly added claims, claims 27, 33, 37, 41, and 48 are the only independent claims; claims 27, 33, 37, 41, and 48 as presented are reproduced below:

> 27. A video system comprising:
>
> a first processor which analyzes a video to determine attributes of objects detected in the video, the first processor being in communication with a first communications link to transfer the determined attributes over the communications link; and
>
> a second processor, separate from the first processor, in communication with the first communications link to receive the determined attributes transferred from the first processor over the first communications link, which determines a first event that is not one of the determined attributes by analyzing a combination of the received determined attributes

wherein the first processor determines attributes independent of a selection of the first event by the second processor.

33. A video system, comprising:

an input in communication with a communications channel;

a processor configured to receive from the input a stream of detected attributes received over the communications channel, the attributes being attributes of one or more objects detected in a video, the processor configured to determine an event that is not one of the detected attributes by analyzing a combination of the received attributes,

wherein the attributes received over the communications channel are independent of the event to be determined by the processor.

37. A method of detecting an event from a video, comprising:

receiving a stream of detected attributes over a communications channel, the detected attributes representing attributes of an object detected in a video;

performing an analysis of a combination of the detected attributes to detect an event that is not one of the detected attributes,

wherein the detected attributes received in the stream of attributes are independent of a selection of the event to be detected.

41. A method comprising:

analyzing a video to detect an object;

creating a stream of attributes at a first location by determining attributes of the detected object by analyzing the video;

transmitting the stream of attributes to a second location removed from the first location for subsequent analysis,

wherein the stream of attributes are transmitted to the second location over a communications channel, and

wherein the stream of attributes is sufficient to allow the subsequent analysis to detect an event of the video, the event not being one of the determined attributes.

48. A video device, comprising:

a processor which analyzes a video to detect an object and to determine attributes of the object detected in the video;

an output configured to transmit the attributes determined by the processor over a communications link,

wherein the output is configured to transmit the attributes to a second location removed from the processor for a subsequent analysis of a combination of the attributes at the second location,

wherein the processor determines attributes independently of a subsequent analysis of a combination of attributes to determine an event that is not one of the determined attributes, and

wherein the attributes are sufficient to allow detection of an event that is not one of the determined attributes by analyzing the combination of the attributes.

Thereafter, the Examiner issued a Final Office Action, mailed March 22, 2010. In the Final Office Action, the Examiner rejected claims 27 to 53 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 7,447,331 ("Brown et al."). According to the prosecution history of the '385 application, the applicants held another interview with the Examiner on July 22, 2010 and discussed "[a]mendments to claim 27 by incorporated claim 30 and an action taken response to the detected event." (Interview Summary mailed July 27, 2010, page 1.) Subsequently, in an "Amendment and Interview Summary" filed July 29, 2010, the applicants cancelled claims 30, 36, 40, 46, and 52, and amended independent claims 27, 33, 37, 41, and 48. The amended independent claims are reproduced below:

27. A video system comprising:

a first processor which analyzes a video to determine attributes of objects detected in the video, the first processor being in communication with a first communications link to transfer the determined attributes over the communications link; and

a second processor, separate from the first processor, in communication with the first communications link to receive the determined attributes transferred from the first processor over the first communications link, which determines a first event that is not one of the determined attributes by analyzing a combination of the received determined attributes and which provides, in response to a determination of the first event, at least one of an alert to a user, information for a report, and an instruction for taking an action,

wherein the first processor determines attributes independent of a selection of the first event by the second processor, and

wherein the second processor determines the first event without reprocessing the video analyzed by the first processor.

33. A video system, comprising:

an input in communication with a communications channel;

a processor configured to receive from the input a stream of detected attributes received over the communications channel, the attributes being attributes of one or more objects detected in a video, the processor configured to determine an event that is not one of the detected attributes by analyzing a combination of the received attributes and configured to provide, upon a determination of the event, at least one of an alert to a user, information for a report and an instruction for taking an action,

wherein the attributes received over the communications channel are independent of the event to be determined by the processor, and

wherein the processor is configured to determine the event without reprocessing the video.

37. A method of detecting an event from a video, comprising:

receiving a stream of detected attributes over a communications channel, the detected attributes representing attributes of an object previously detected in [[a]] the video at a remote location;

performing an analysis of a combination of the detected attributes to detect an event that is not one of the detected attributes without reprocessing the video,

upon detecting the event, providing at least one of an alert to a user, information for a report and an instruction for taking an action,

wherein the detected attributes received in the stream of attributes are independent of a selection of the event to be detected.

41. A method comprising:

analyzing a video to detect an object;

creating a stream of attributes at a first location by determining attributes of the detected object by analyzing the video;

transmitting the stream of attributes to a second location removed from the first location for subsequent analysis,

wherein the stream of attributes are transmitted to the second location over a communications channel, and

wherein the stream of attributes is sufficient to allow the subsequent analysis to detect an event of the video to provide at least one of an alert to a user, information for a report and an instruction for taking an action, the event not being one of the determined attributes,

wherein the stream of attributes is sufficient to allow detection of the event that is not one of the determined attributes without reprocessing the video of the first location.

48. A video device, comprising:

a processor at a first location which analyzes a video to detect an object and to determine attributes of the object detected in the video;

an output configured to transmit the attributes determined by the processor over a communications link,

wherein the output is configured to transmit the attributes to a second location removed from the processor for a subsequent analysis of a combination of the attributes at the second location,

wherein the processor determines attributes independently of a subsequent analysis of a combination of attributes to determine an event that is not one of the determined attributes, and

wherein the attributes are sufficient to allow detection of an event to provide at least one of an alert to a user, information for a report and an instruction for taking an action, the event not being ~~that is not~~ one of the determined attributes and being determinable by analyzing the combination of the attributes,

wherein the attributes are sufficient to allow detection of an event without reprocessing the video of the first location.

Thereafter, the Examiner issued a Notice of Allowance on August 31, 2010. The Notice of Allowance included the following statement of the Examiner's reasons for allowance:

> [T]he prior art of records [sic] does not disclose a video system comprising: a first processor which analyzes a video to determine attributes of objects detected in the video, the first processor being

in communication with a first communications link to transfer the determined attributes over the communications link; and a second processor, separate from the first processor, in communication with the first communications link to receive the determined attributes transferred from the first processor over the first communications link, which determines a first event that is not one of the determined attributes by analyzing a combination of the received determined attributes and which provides, in response to a determination of the first event, at least one of an alert to a user, information for a report, and an instruction for taking an action, wherein the first processor determines attributes independent of a selection of the first event by the second processor, and wherein the second processor determines the first event without reprocessing the video analyzed by the first processor. (Notice of Allowance, page 2.)

The '912 patent issued with twenty-two claims on January 22, 2011, of which claims 1, 6, 9, 12, and 18 are the only independent claims. Claims 1, 6, 9, 12, and 18 are reproduced below:

1. A video system comprising:

a first processor which analyzes a video to determine attributes of objects detected in the video, the first processor being in communication with a first communications link to transfer the determined attributes over the communications link; and

a second processor, separate from the first processor, in communication with the first communications link to receive the determined attributes transferred from the first processor over the first communications link, which determines a first event that is not one of the determined attributes by analyzing a combination of the received determined attributes and which provides, in response to a determination of the first event, at least one of an alert to a user, information for a report, and an instruction for taking an action,

wherein the first processor determines attributes independent of a selection of the first event by the second processor, and

wherein the second processor determines the first event without reprocessing the video analyzed by the first processor.

6. A video system, comprising:

an input in communication with a communications channel;

a processor configured to receive from the input a stream of detected attributes received over the communications channel, the attributes being attributes of one or more objects detected in a video, the processor configured to determine an event that is not one of the detected attributes by analyzing a combination of the received attributes and configured to provide, upon a determination of the event, at least one of an alert to a user, information for a report and an instruction for taking an action,

wherein the attributes received over the communications channel are independent of the event to be determined by the processor, and

wherein the processor is configured to determine the event without reprocessing the video.

9. A method of detecting an event from a video, comprising:

receiving a stream of detected attributes over a communications channel, the detected attributes representing attributes of an object previously detected in the video at a remote location;

performing an analysis of a combination of the detected attributes to detect an event that is not one of the detected attributes without reprocessing the video,

upon detecting the event, providing at least one of an alert to a user, information for a report and an instruction for taking an action,

wherein the detected attributes received in the stream of attributes are independent of a selection of the event to be detected.

12. A method comprising:

analyzing a video to detect an object;

creating a stream of attributes at a first location by determining attributes of the detected object by analyzing the video;

transmitting the stream of attributes to a second location removed from the first location for subsequent analysis,

wherein the stream of attributes are transmitted to the second location over a communications channel, and

wherein the stream of attributes is sufficient to allow the subsequent analysis to detect an event of the video to provide at

least one of an alert to a user, information for a report and an instruction for taking an action, the event not being one of the determined attributes,

wherein the stream of attributes is sufficient to allow detection of the event that is not one of the determined attributes without reprocessing the video of the first location.

18. A video device, comprising:

a processor at a first location which analyzes a video to detect an object and to determine attributes of the object detected in the video;

an output configured to transmit the attributes determined by the processor over a communications link,

information for a report and an instruction for taking an action, the event not being one of the determined attributes and being determinable by analyzing the combination of the attributes,

wherein the attributes are sufficient to allow detection of an event without reprocessing the video of the first location.

wherein the output is configured to transmit the attributes to a second location removed from the processor for a subsequent analysis of a combination of the attributes at the second location,

wherein the processor determines attributes independently of a subsequent analysis of a combination of attributes to determine an event that is not one of the determined attributes, and

wherein the attributes are sufficient to allow detection of an event to provide at least one of an alert to a user,

VI. CITATION OF PRIOR PATENTS AND PRINTED PUBLICATIONS

As a threshold matter, the claims of the '912 patent are not entitled to the benefit of any date prior to the actual filing date of the application for the '912 patent itself. The applicants of the '912 patent did not establish during prosecution of the '912 patent that any claim of the '912 patent is entitled, under 35 U.S.C. § 120, to the benefit of a filing date earlier than the April 5, 2005 filing date of the '385 application (the application that issued as the '912 patent), notwithstanding the fact that the '912 patent states on its face that it is a continuation-in-part of the '154 application, which is stated to be a continuation-in-part of the '707 application, which is stated to be a continuation-in-part of the '712 application. The M.P.E.P. expressly authorizes Requester to raise the issues of whether the claims of the '912 patent are entitled to the filing

date of the '154 application, the '707 application, and the '712 application. In this regard, the Office's attention is respectfully directed to M.P.E.P. § 2217, which states that:

> The statement applying the prior art may, where appropriate, point out that claims in the patent for which reexamination is requested are entitled only to the filing date of the patent and are not supported by an earlier foreign or United States patent application whose filing date is claimed. For example, the effective date of some of the claims in a patent which resulted from a continuing application under 35 U.S.C. 120 could be the filing date of the continuing application since those claims were not supported in the parent application. Therefore, intervening patents or printed publications are available as prior art. See *In re Ruscetta*, 255 F.2d 687, 118 USPQ 101 (CCPA 1958), *In re van Langenhoven*, 458 F.2d 132, 173 USPQ 426 (CCPA 1972). See also MPEP § 201.11.

The Federal Circuit has recently confirmed, in *In re NTP*, 654 F.3d 1268 (Fed. Cir. 2011), that it is proper for the Office to conduct a priority analysis under 35 U.S.C. § 120 during reexamination proceedings. In this regard, the Federal Circuit stated that "[n]othing in 35 U.S.C. §§ 301 et seq. entitles a patentee to a claim of right to its earliest priority date." *In re NTP*, 654 F.3d at 1277. As the Federal Circuit further explained:

> [W]hen a patentee argues that its claims are entitled to the priority date of an earlier filed application, the examiner must undertake a priority analysis to determine if the patentee meets the requirements of § 120. There is no statutory limitation during a reexamination proceeding prohibiting the examiner from conducting a priority analysis. Otherwise, the examiner would be stripped of a critical legal tool needed in performing a proper reexamination. Nothing in §§ 301 et seq. prohibits an examiner from determining whether or not a priority date was properly claimed during the original examination of the application. *Id.*

Accordingly, Requester herein is entitled to rely on prior art patents and printed publications that constitute prior art to the '912 patent as of the April 5, 2005 filing date of the '385 application.

Reexamination is requested in light of the following references. A copy of every prior art patent and printed publication relied upon or referred to herein is submitted herewith as required by 37 C.F.R. § 1.510(b)(3), as follows:

1. German Patent Publication No. DE 101 53 484 Al ("Gilge"). Gilge was published on August 5, 2003, more than one year before the filing date of the '912 Patent. Gilge

was not considered during the examination of the '912 Patent.[2] A copy of Gilge together with a certified translation thereof is provided as Attachments B and C.[3]

2. Lipton et al., "ObjectVideo Forensics: Activity-Based Video Indexing and Retrieval For Physical Security Applications." Lipton was published on February 2004, more than one year before the filing date of the '912 Patent. A copy of Lipton is provided as Attachment D.
3. U.S. Patent No. 5,969,755 ("Courtney"). Courtney issued on October 19, 1999, more than one year before the filing date of the '912 Patent. Courtney was not considered during the examination of the '912 Patent. A copy of Courtney is provided as Attachment E.
4. Olson et al, "Moving Object Detection and Event Recognition Algorithms for Smart Cameras." Olson was published in 1997, more than one year before the filing date of the '912 Patent. A copy of Olson is provided as Attachment F.
5. U.S. Patent No. 6,628,835 ("Brill"). The application for Brill was filed on August 24, 1999 and the patent issued on September 30, 2003, more than one year before the filing date of the '912 Patent. A copy of Brill is provided as Attachment G.
6. Day et al., "Object Oriented Conceptual Modeling of Video Data," Proceedings on the Eleventh International Conference on Data Engineering, IEEE, March 1995, pp. 401-408. ("Day") Day was published in March 1995, more than one year prior to the filing date of the '912 Patent. A copy of Day is provided as Attachment H.
7. Japanese Published Application No. 1997-130783 ("JP '783"). JP '783 was published on May 1, 1997, more than one year before the filing date of the '912 Patent. A copy of JP '783 along with a certified translation thereof is provided as Attachments I and J.

[2] As discussed below in Section VII, the claims of the '912 Patent are not entitled to the benefit of any date prior to the filing of the '912 Patent application itself.

[3] The certified translation of Gilge is the translation provided by the requester in the related '912 reexamination proceeding (see Section V, below) as Exhibit 15 to the reexamination request.

VII. STATEMENT POINTING OUT SUBSTANTIAL NEW QUESTIONS OF PATENTABILITY

Pursuant to 37 C.F.R. § 1.510(b)(1), Requester sets forth a statement pointing out each substantial new question (SNQ) of patentability of the '912 Patent based on prior patents and printed publications.

Proposed grounds of rejection 1-4 are substantially the same as the rejections proposed in the '912 reexamination and adopted by the Office, the Office having found that the requester there demonstrated a Reasonable Likelihood of Prevailing (RLP) as to each of those grounds of rejection. As the '912 *inter partes* reexamination concluded without any resolution of the adopted rejections in that proceeding, Requester submits that each of the proposed grounds of rejection 1-4 demonstrate a substantial new question of patentability as to the issued claims of the '912 Patent. As explained below, in each case the prior art references relied upon in rejections 1-4 include disclosure that is highly relevant to the features of specific assignment of processors and specifically assigning responsibilities of detecting attributes and determining events based on these attributes, respectively, by the specific processors that the applicant for the '912 patent argued as a basis for patentability. Thus, these proposed rejections demonstrate a substantial new question of patentability, which were left entirely unresolved in the '912 *inter partes* reexamination, and should be taken up in the requested *ex parte* reexamination proceeding.

In addition, Requester submits Proposed Rejections 5-24, which were ***not presented*** in the Request for the '912 reexamination. Proposed Rejections 5-8 set forth rejections under 35 U.S.C. § 103 in which the teaching of Brill et al. is combined with each of the references relied upon in Proposed Rejections I-IV. Proposed Rejections 9-12 set forth rejections under 35 U.S.C. § 103 in which the teaching of Day is combined with each of the references relied upon in Proposed Rejections I-IV. These obviousness rejections are particularly relevant given arguments advanced by the Patent Owner in the '912 reexamination characterizing the prior art as "event-indexing" and failing to teach "independence-based elements." Although Requester submits that such arguments are not based on limitations actually recited by the claims of the '912 Patent and are at odds with the "broadest reasonable interpretation" of the claims that must apply during reexamination, these arguments give rise to further substantial new questions of patentability when considered in connection with the proposed obviousness rejections set forth in Proposed Rejections 5-12.

Additionally, proposed rejections 13-24 set forth rejections under 35 U.S.C. § 103 in which the teaching of JP '783 is combined with each of the references relied upon in Proposed Rejections 1-12. JP '783, in combination with these references, render obvious the feature of claim 5 that recites, *inter alia*, a "third processor" that is "configured to determine a second event that is not one of the determined attributes" and in which the third processor "determines the second event independent from the determination of the first event by the second processor."

Accordingly, the rejections proposed by the instant request are as follows:

Proposed Rejection 1: Claims 1 to 3 and 6 to 22 are anticipated by Gilge under 35 U.S.C. § 102 (Adopted as "Issue 1" in '912 reexamination).

Proposed Rejection 2: Claims 1 to 4 and 6 to 22 are anticipated by Lipton et al. under 35 U.S.C. § 102 (Adopted as "Issue 3" in '912 reexamination).

Proposed Rejection 3: Claims 1, 3, 4, 6, 8, 9, 11 to 13, 15 to 20, and 22 are anticipated by Courtney under 35 U.S.C. § 102 (Adopted as "Issue 5" in '912 reexamination).

Proposed Rejection 4: Claims 1, 3, 4, 6, 8, 9, 11 to 13, 15 to 20, and 22 are anticipated by Olson et al. under 35 U.S.C. § 102 (Adopted as "Issue 12" in '912 reexamination).

Proposed Rejection 5: Claims 1 to 3 and 6 to 22 are unpatentable in view of the combination of Gilge and Brill under 35 USC § 103

Proposed Rejection 6: Claims 1 to 4 and 6 to 22 are unpatentable in view of the combination of Lipton et al. and Brill under 35 USC § 103

Proposed Rejection 7: Claims 1, 3, 4, 6, 8, 9, 11 to 13, 15 to 20, and 22 are unpatentable in view of the combination of Courtney and Brill under 35 USC § 103

Proposed Rejection 8: Claims 1, 3, 4, 6, 8, 9, 11 to 13, 15 to 20, and 22 are unpatentable in view of the combination of Olson et al. and Brill under 35 USC § 103

Proposed Rejection 9: Claims 1 to 3 and 6 to 22 are unpatentable in view of the combination of Gilge and Day under 35 USC § 103

Proposed Rejection 10: Claims 1 to 4 and 6 to 22 are unpatentable in view of the combination of Lipton et al. and Day under 35 USC § 103

Proposed Rejection 11: Claims 1, 3, 4, 6, 8, 9, 11 to 13, 15 to 20, and 22 are unpatentable in view of the combination of Courtney and Day under 35 USC § 103

Proposed Rejection 12: Claims 1, 3, 4, 6, 8, 9, 11 to 13, 15 to 20, and 22 are unpatentable in view of the combination of Olson et al. and Day under 35 USC § 103

Proposed Rejection 13: Claim 5 is unpatentable in view of the combination of Gilge and JP '783 under 35 USC § 103

Proposed Rejection 14: Claim 5 is unpatentable in view of the combination of Lipton et al. and JP '783 under 35 USC § 103

Proposed Rejection 15: Claim 5 is unpatentable in view of the combination of Courtney and JP '783 under 35 USC § 103

Proposed Rejection 16: Claim 5 is unpatentable in view of the combination of Olson et al. and JP '783 under 35 USC § 103

Proposed Rejection 17: Claim 5 is unpatentable in view of the combination of Gilge, Brill and JP '783 under 35 USC § 103

Proposed Rejection 18: Claim 5 is unpatentable in view of the combination of Lipton et al., Brill and JP '783 under 35 USC § 103

Proposed Rejection 19: Claim 5 is unpatentable in view of the combination of Courtney, Brill and JP '783 under 35 USC § 103

Proposed Rejection 20: Claim 5 is unpatentable in view of the combination of Olson et al., Brill and JP '783 under 35 USC § 103

Proposed Rejection 21: Claim 5 is unpatentable in view of the combination of Gilge, Day and JP '783 under 35 USC § 103

Proposed Rejection 22: Claim 5 is unpatentable in view of the combination of Lipton et al., Day and JP '783 under 35 USC § 103

Proposed Rejection 23: Claim 5 is unpatentable in view of the combination of Courtney, Day and JP '783 under 35 USC § 103

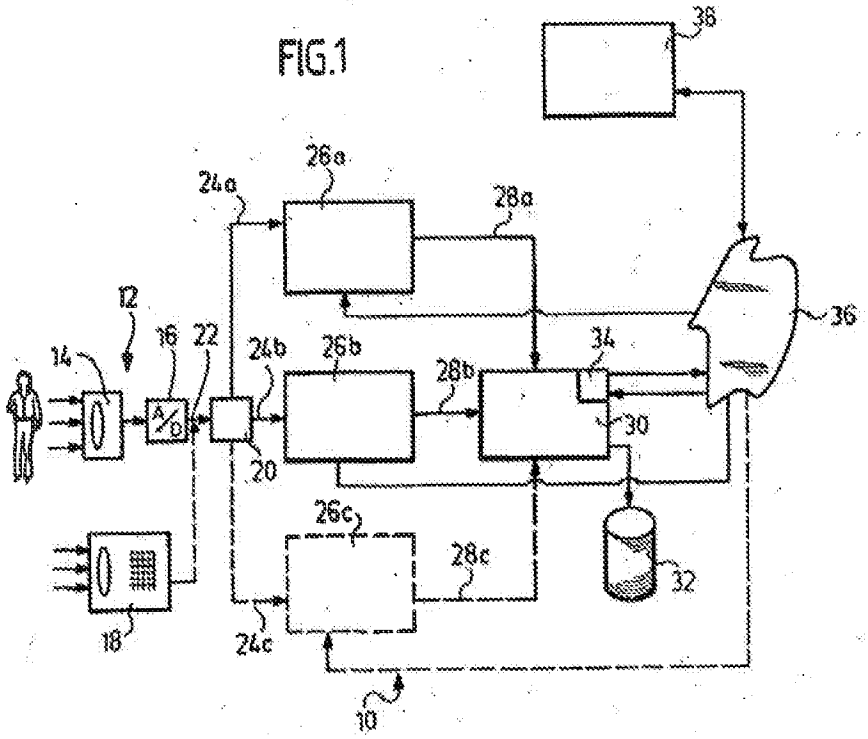
Proposed Rejection 24: Claim 5 is unpatentable in view of the combination of Olson et al., Day and JP '783 under 35 USC § 103

A. Proposed Rejection 1: Claims 1 to 3 and 6 to 22 are anticipated by Gilge under 35 U.S.C. § 102

Claims 1 to 3 and 6 to 22 are anticipated by Gilge under 35 U.S.C. § 102(b). Gilge was not cited during prosecution of the '912 patent. Gilge is closer to the subject matter of the '912 patent than any prior art that was relied upon during prosecution of the '912 patent, and Gilge provides new, non-cumulative technical teachings that were not otherwise provided in any prior art that was relied upon during prosecution of the '912 patent.

As set forth in the claim chart provided as Attachment K of the appended claim charts, Gilge discloses all of the limitations of claims 1 to 3 and 6 to 22 of the '912 patent.

For example, Gilge describes a video/audio system and an evaluation method for video/audio data. (Gilge, paragraphs [0001] to [0002].[4]) A schematic diagram of the video/audio system is presented in Figure 1, reproduced below with accompanying disclosure:



The data provided by the analog/digital transformer 16 and/or by the digital camera 18 is fed to a splitter 20 respectively arranged downstream, which divides said data stream into a multitude of identical data streams. In the exemplary embodiment shown in Fig. 1 a data stream 22, which is provided to the inlet of the splitter 20, is divided into three identical data streams 24a, 24b, and 24c, which are provided at the outlet side of the splitter 20.

A multitude of processing devices 26a, 26b, 26c are switched parallel, i.e. the collection device 12 is allocated to a multitude o f processing devices. Here, the processing device 26a, b, c receives the respective data stream 24a, b, c, i.e. each processing device receives the same data set provided by the collection device 12. (Gilge, paragraphs [0047] to [0048]; emphasis added.)

[4] All citations are to the certified English translation of Gilge (previously submitted as Exhibit 14 of the Reexamination Request in the '912 *inter partes* reexamination proceeding), which is appended to the instant request as Attachment C.

> ***An evaluation device 30 is coupled to the processing device 26a, b, c, which receives the data streams 28a, b, c of data modified at the respective processing devices 26a, b, c.*** The evaluation device 30 is switched parallel in reference to the processing devices 26a, b, c so that it combines the data streams 28a, b, c.
>
> ***The modified data of the data streams 28a, b, c can be compared and evaluated by the evaluation device 30,*** so that a data set optimized by the evaluation device 30 for an application can be selected and/or created. (Gilge, paragraphs [0050] to [0051]; emphasis added.)

Applying the foregoing to the language of claim 1, as an illustrative example, the processing devices taught by Gilge disclose the features of "a first processor which analyzes a video to determine attributes of objects detected in the video."[5] Similarly, the evaluation device taught by Gilge discloses "a second processor, separate from the first processor...which determines a first event that is not one of the determined attributes by analyzing a combination of the received determined attributes," as recited by claim 1.

Gilge provides further description of the operation of the multitude of processing devices and the evaluation device. For example, Gilge states that "a data analysis can be performed by a processing device in order, for example, to initiate another processing step depending on the result of the analysis" (paragraph 0017) and provides the following disclosure:

> It is most advantageous for ***a processing device to provide metadata, which characterizes the collected data. Such metadata (semantic data) characterizes the collected data, for example video data, on a higher level of abstraction, particularly with regard to content features and/or hierarchy.*** For example, the metadata includes the information that rapid motion occurs at an object to be detected. It may also be provided that the metadata comprises recognition data of certain objects, for example biometric data (facial recognition data or other biometric data) or identification data, such as license plates of motor vehicles. Certain behavior patterns may also be allocated to the collected data, such as the direction of movement of a person. ***Via this metadata in turn the evaluation device can perform a rapid and particularly automated comparison and an evaluation, with particularly different processing devices creating differently modified data, which varies with regard to the metadata.*** (Gilge, paragraph [0018]; emphasis added.)

[5] Patent Owner has characterized claim 1 of the '912 patent as being representative of the other claims in the '912 *inter partes* reexamination proceeding. See Section IX.A.1.d, below.

> In a first embodiment the processing devices are switched parallel in reference to each other, in particular the data of the collection device being provided to each processing device. ***This way, each processing device receives the same initial data, the different processing devices however processing it in a different manner, i.e. data sets are created with differently modified data. These data sets then include different information and based on a comparison the evaluation device can select the data which includes the information optimized for the respective application.*** (Gilge, paragraph [0026]; emphasis added.)
>
> ***In order to provide the metadata, a certain analysis takes place in a processing device, for example based on identification data such as biometric data or object recognition data, by which the respectively collected data and particularly video data has been characterized.*** In another processing device no analysis or a different analysis occurs. Depending on the results of the analysis, respective metadata is added to the compressed data collected in order to create the respective data stream 28a, 28b, 28c. (Gilge, paragraph [0065]; emphasis added.)

Accordingly, at least in view of the foregoing, Gilge teaches that the processing devices "determine[] attributes independent of a selection of the first event by the second processor" as recited by claim 1.

Additionally, Gilge provides a more detailed description of the processing devices' operation in paragraphs [0062] to [0065], reproduced below:

> ***Furthermore, it may be provided that metadata is added to the respectively compressed data, which characterizes the collected data on a higher level of abstraction.*** A data stream 28a, 28b, 28c thus represents a data stream which is composed of the compressed collected data and the respective metadata, the created metadata in turn being characteristic of the respectively allocated processing device 26a, and/or 26b, and/or 26c.
>
> The metadata characterizes the collected data, for example with regard to characterized content and/or hierarchy. ***For example, the metadata includes identification data of certain objects and/or persons, which is determined by the analysis of data originating in the collection device 12. Such identification data may represent facial recognition data, for example, or other biometric data or, for example, the license plate data of motor vehicles.***
>
> ***It may also be provided for the metadata to characterize certain behavior patterns of objects or persons to be monitored, which were determined by analyzing data determined by the recognition device 12*** in the respective processing device.

> ***In order to provide the metadata, a certain analysis takes place in a processing device, for example based on identification data such as biometric data or object recognition data, by which the respectively collected data and particularly video data has been characterized.*** In another processing device no analysis or a different analysis occurs. Depending on the results of the analysis, respective metadata is added to the compressed data collected in order to create the respective data stream 28a, 28b, 28c. (Gilge, paragraphs [0062] to [0065]; emphasis added.)

As discussed above, Gilge states that "[v]ia this metadata in turn the evaluation device can perform a rapid and particularly automated comparison and an evaluation ... which varies with regard to the metadata.'" (Gilge, paragraph [0018].) Gilge further describes the operation of the evaluation device in paragraphs [0069] to [0070], reproduced below:

> The evaluation device 30 therefore automatically provides data to the user 38, which might be of particular interest. For example, if a building or a building access is monitored, the user 38 is provided with imagery. ***However if an unknown face and/or an unknown vehicle appears, according to the invention the evaluation device 30 automatically transmits the respective videos and additional metadata to the user 38, characterizing the content of the videos, with particularly the evaluation device 30 being able to perform such a selection via the metadata included in the data streams 28a, 28b, 28c*** and based on a comparison of data saved in the memory device 32.
>
> For example, this way striking behavior patterns may be selected and perhaps respective videos are transmitted with an alarm to the user 38 when the evaluation device 30 has determined that striking behavior patterns were detected. ***When a parking lot is monitored, for example, it may show that a certain person, contrary to the usual behavior pattern, fails to approach the target location from the motor vehicle or from an initial location fails to walk to the motor vehicle but wanders between different motor vehicles. This can particularly be determined from the metadata, which is provided by the respective processing devices to the evaluation device 30.*** When such a striking behavior patterns is detected, ***the user 38 can be alarmed***, with this warning occurring automatically, i.e. the user 38 is not required himself/herself to detect such a striking behavior pattern, but rather it is detected automatically by the cooperation of the processing devices 26a, 26b, 26c and the evaluation device 30 by comparison with known, predetermined behavior patterns. (Gilge, paragraphs [0069] to [0070]; emphasis added.)

Consequently, in view of at least the foregoing, the evaluation device of Gilge "provides, in response to a determination of the first event, at least one of an alert to a user, information for a report, and an instruction for taking an action" and "determines the first event without reprocessing the video analyzed by the first processor," as recited by claim 1.

Gilge thus discloses each of the features the Examiner identified in the statement of the reasons for allowance, including the "first processor" that analyzes a video to determine attributes of objects detected in the video; the "second processor," that receives the determined attributes transferred from the first processor over the first communications link and determines a first event that is not one of the determined attributes by analyzing a combination of the received determined attributes and provides, in response to a determination of the first event, at least one of an alert to a user, information for a report, and an instruction for taking an action. Gilge further discloses the features of the first processor determines attributes independent of a selection of the first event by the second processor, and the second processor determines the first event without reprocessing the video analyzed by the first processor. Thus, each of the features the Examiner identified as a basis for allowability of the '912 Patent claims are demonstrated to be disclosed in Gilge.

Based on the foregoing and as shown in Attachment K, Requester has provided a showing of a substantial new question of patentability with respect to at least one of claims 1 to 3 and 6 to 22 in view of Gilge.

As set forth in the appended charts, Gilge discloses all of the limitations of claims 1 to 3 and 6 to 22 of the '912 patent and therefore anticipates claims 1 to 3 and 6 to 22 of the '912 patent. Therefore, Requester proposes a ground of rejection of claims 1 to 3 and 6 to 22 of the '912 patent under 35 U.S.C. § 102(b) as anticipated by Gilge.

B. Proposed Rejection 2: Claims 1 to 4 and 6 to 22 are anticipated by Lipton et al. under 35 U.S.C. § 102

Claims 1 to 4 and 6 to 22 are anticipated by Lipton et al. under 35 U.S.C. § 102(b). Lipton et al. was not cited during prosecution of the '912 patent. Lipton et al. is closer to the subject matter of the '912 patent than any prior art that was relied upon during prosecution of the '912 patent, and Lipton et al. provides new, non-cumulative technical teachings that were not otherwise provided in any prior art that was relied upon during prosecution of the '912 patent.

As set forth in the claim chart provided as Attachment L, Lipton et al. discloses all of the limitations of claims 1 to 4 and 6 to 22 of the '912 patent.

For example, Lipton et al. describes "an architecture and methodology for high-speed activity-based digital video indexing and retrieval for physical security applications." (Lipton et al., p. 57, col. 1.) As is shown in Figure 1, reproduced below, the intelligent video security system of Lipton et al. contains four subsystem components: "the video analysis subsystem; the activity inference subsystem; the query formulation subsystem; and the response engine." (Id.)

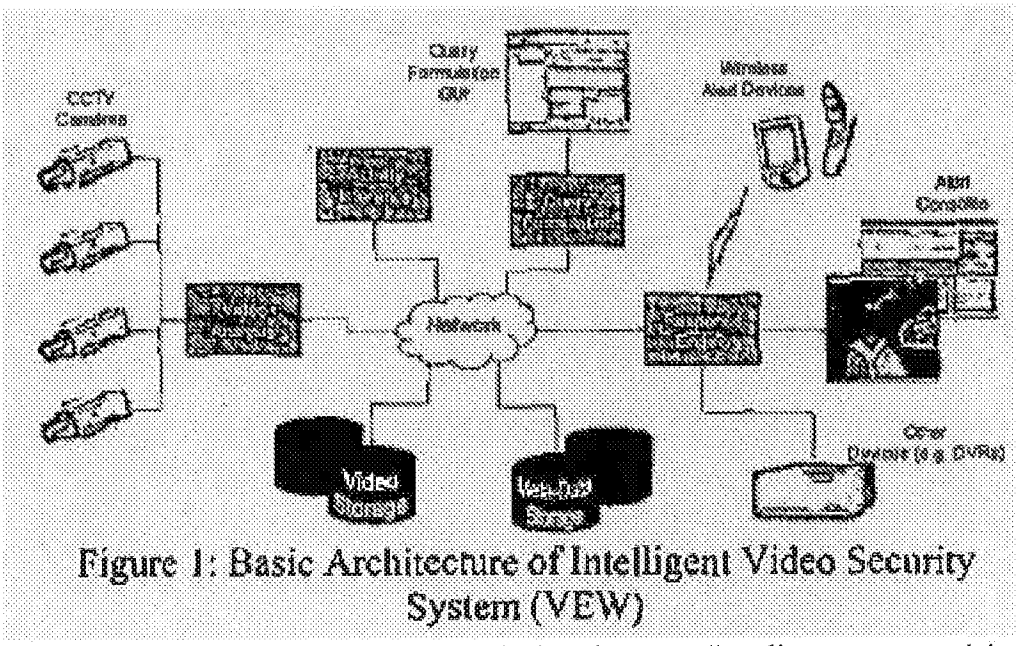


Figure 1: Basic Architecture of Intelligent Video Security System (VEW)

According to Lipton et al., the video analysis subsystem "applies computer vision algorithms to extract activity-based meta-data from CCTV video feeds." (Lipton et al., p. 57, col. 1.) A further illustration of the video analysis subsystem is set forth in Figure 3, reproduced below with accompanying disclosure:

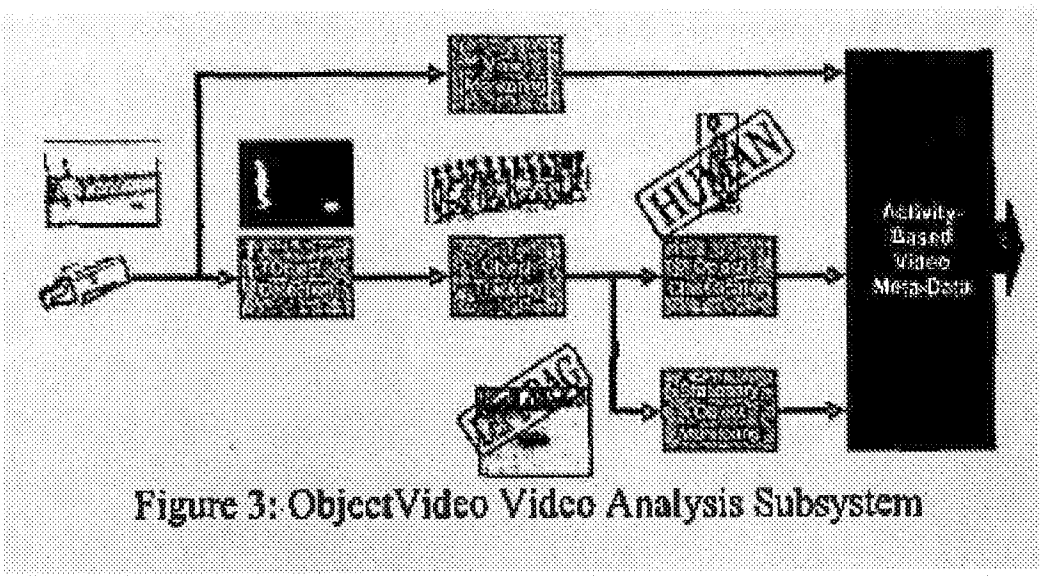


Figure 3: ObjectVideo Video Analysis Subsystem

> Figure 3 illustrates the video analysis subsystem of ObjectVideo's VEW product. ***Digital video frames are analysed to extract activity-based meta-data describing the actions of all of the objects within the scene.*** Firstly, foreground objects are extracted from environmental clutter using robust video segmentation algorithms. ***These objects are tracked between frames to create spatio-temporal descriptions of each object. Objects are classified into various classes such as people, vehicles, or other objects. Also, the spatio-temporal trajectories are analysed to determine if an object is stationary - such as a car parking or a suspicious left package. This information is turned into a meta-data stream.*** (Lipton et al., 57, col. 1; emphasis added.)

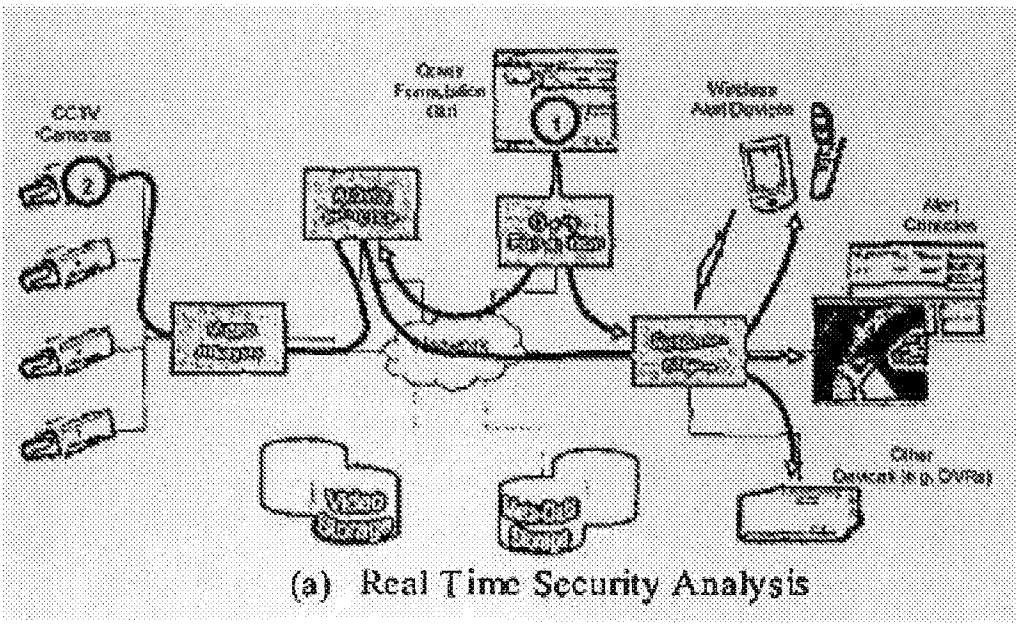
Applying the foregoing to the language of claim 1, as an illustrative example, the video analysis subsystem taught by Lipton et al. disclose the features of "a first processor which analyzes a video to determine attributes of objects detected in the video." Further, as is discussed below, the activity inference and query formulation subsystems taught by Lipton et al. disclose the features of "a second processor, separate from the first processor...which determines a first event that is not one of the determined attributes by analyzing a combination of the received determined attributes and which provides, in response to a determination of the first event, at least one of an alert to a user, information for a report, and an instruction for taking an action," as recited by claim 1.

Lipton et al. states that the "activity inference subsystem applies activity queries to a stream of activity-based meta-data to determine if any events of interest have occurred." (Lipton

et al., p. 57, col. 1.) Lipton et al. further describes the operation of the activity inference subsystem as follows:

> ***To use this meta-data requires a query schema that allows a user to formulate descriptors of scenarios such as 'a person climbing a fence, so that the data can be mined for specific security threats. These scenario descriptions are called activity queries.*** The truly profound advantage of this approach is that a very flexible sophisticated query can be made against a large database of video product as a simple numerical database lookup - at database speed! (Lipton et al., p. 57, col. 1; emphasis added.)

Further, Lipton et al. discloses an embodiment of the intelligent video security system that is adapted for real-time security analysis in Figure 2(a), reproduced below with accompanying disclosure:



(a) Real Time Security Analysis

> The other advantage of the distributed approach is that the system is highly flexible. One example of this flexibility is the ability to switch between real-time security threat detection, and extremely high speed after-the-fact forensic analysis by simply adjusting the data flow through the system. Figure 2 illustrates how this works. ***In Figure 2(a), a user creates a threat scenario using a query formulation GUI tool. Then, the system goes into real time operation. If a security rule is violated, an event notification is transmitted over the network. The response engine knows what actions to perform when events occur.*** (Lipton et al., p. 57, col. 2; emphasis added.)

Accordingly, at least in view of the foregoing, Lipton et al. teaches that the video analysis subsystem "determines attributes independent of a selection of the first event by the second processor," and that the activity inference and query formulation subsystems "determine[] the first event without reprocessing the video analyzed by the first processor," as recited by claim 1.

Lipton et al. thus discloses each of the features the Examiner identified in the statement of the reasons for allowance, including the "first processor" that analyzes a video to determine attributes of objects detected in the video; the "second processor," that receives the determined attributes transferred from the first processor over the first communications link and determines a first event that is not one of the determined attributes by analyzing a combination of the received determined attributes and provides, in response to a determination of the first event, at least one of an alert to a user, information for a report, and an instruction for taking an action. Lipton further discloses the features of the first processor determines attributes independent of a selection of the first event by the second processor, and the second processor determines the first event without reprocessing the video analyzed by the first processor. Thus, each of the features the Examiner identified as a basis for allowability of the '912 Patent claims are demonstrated to be disclosed in Lipton et al.

Based on the foregoing and as shown in Attachment L, Requester has provided a showing of a substantial new question of patentability with respect to at least one of claims 1 to 4 and 6 to 22 in view of Lipton et al.

As set forth in the appended charts, Lipton et al. discloses all of the limitations of claims 1 to 4 and 6 to 22 of the '912 patent and therefore anticipates claims 1 to 4 and 6 to 22 of the '912 patent. Therefore, Requester proposes a ground of rejection of claims 1 to 4 and 6 to 22 of the '912 patent under 35 U.S.C. § 102(b) as anticipated by Lipton et al.

C. Proposed Rejection 3: Claims 1, 3, 4, 6, 8, 9, 11 to 13, 15 to 20, and 22 are anticipated by Courtney under 35 U.S.C. § 102

Claims 1, 3, 4, 6, 8, 9, 11 to 13, 15 to 20, and 22 are anticipated by Courtney under 35 U.S.C. § 102(b). Courtney was not cited during prosecution of the '912 patent. Although U.S. Patent No. 6,424,370, which issued from a divisional application related to Courtney, was cited in an Information Disclosure Statement filed on February 4, 2008, Courtney was not cited during prosecution of the '912 patent and there is no indication of record in the '912 Patent prosecution history that the Examiner appreciated the teachings of Courtney. Nonetheless, "a substantial

new question of patentability may be based solely on old art where the art is being presented/viewed in a new light, or in a different way, as compared with its use in the earlier examination(s), in view of a material new argument or interpretation presented in the request." (See M.P.E.P. § 2242(II)(A).)

As set forth in the claim chart provided as Attachment M, Courtney teaches all of the limitations of claims 1, 3, 4, 6, 8, 9, 11 to 13, 15 to 20, and 22 of the '912 patent.

For example, Courtney is directed to "motion event detection as used for example in surveillance." (Courtney, col. 1, lines 13 to 14.) Courtney includes an illustration of an Automatic Video Indexing (AVI) system 10 in Figure 1, reproduced below along with accompanying disclosure:

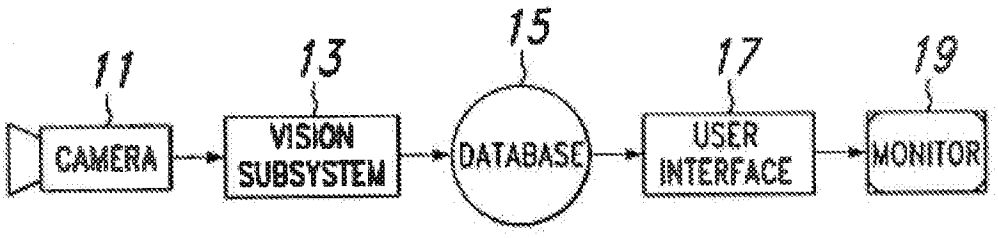


Fig. 1

> FIG. 1 shows a high-level diagram of the Automatic Video Indexing (AVI) system 10 according to one embodiment of the present invention. ***In this view, a camera 11 provides input to a vision subsystem 13 including a programmed computer which processes the incoming video which has been digitized to populate a database storage 15.*** The term camera as used herein may be a conventional television (TV) camera or infrared (IR) camera. ***A user may then analyze the video information using an interface 17, including a computer to the database 15 via spatio-temporal, event-, and object-based queries.*** The user interface 17 plays video subsequences which satisfy the queries to a monitor 19. (Courtney, col. 3, line 66 to col. 4, line 11; emphasis added.)

Courtney provides a more detailed description of the vision subsystem with respect to Figure 4, reproduced below:

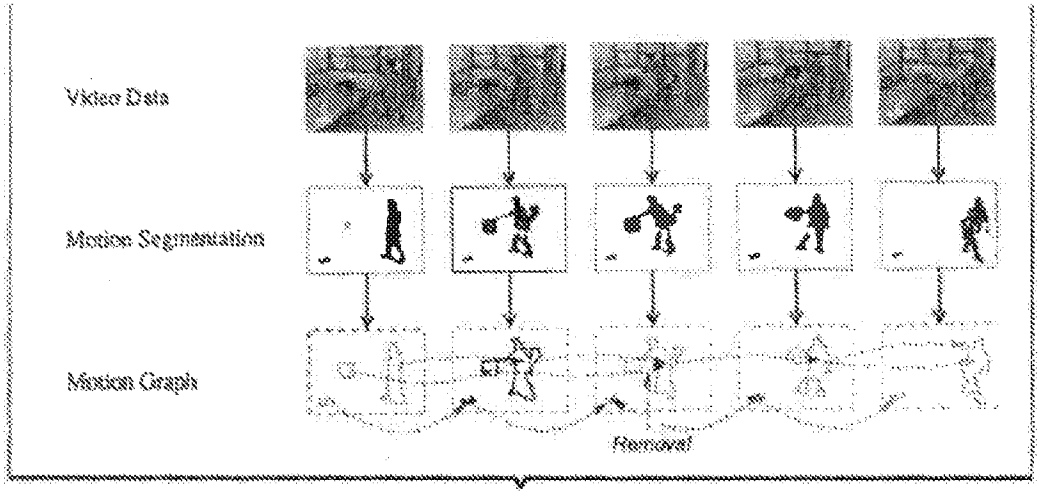


Fig. 4

> In processing the video data, the AVI vision subsystem 13 employs motion segmentation techniques to segment foreground objects from the scene background in each frame.... ***It then analyzes the segmented video to create a symbolic representation of the foreground objects and their movement This symbolic record of video content is referred to as the video 'meta-information'*** (see FIG. 4). FIG. 4 shows the progression of the video data frames, the corresponding motion segmentation and the corresponding meta-information. ***This meta-information is stored in the database in the form of an annotated directed graph appropriate for later indexing and search....The vision subsystem 13 records in the meta- information the size, shape, position, time-stamp, and image of each object in every video frame.*** (Courtney, col.4, lines 29 to 56; emphasis added.)

Applying the foregoing to the language of claim 1, as an illustrative example, the vision subsystem taught by Courtney teaches the features of "a first processor which analyzes a video to determine attributes of objects detected in the video." Further, as is discussed below, the querying and event scanner functionalities of Courtney teaches the features of "a second processor, separate from the first processor...which determines a first event that is not one of the determined attributes by analyzing a combination of the received determined attributes and which provides, in response to a determination of the first event, at least one of an alert to a user, information for a report, and an instruction for taking an action," as recited by claim 1.

According to Courtney, the video indexing system "stores the output of the vision subsystem--the video data, motion segmentation, and meta-information--in the database 15 for retrieval through the user interface 17." (Courtney, col. 5, lines 4 to 11.) Courtney further states

that a user may "specify queries on a video sequence based upon spatial- temporal, event-based, and object-based parameters," such as, for example, "the user may select a region in the scene and specify the query 'show me all objects that are removed from this region of the scene between 8 am and 9 am'." (Courtney, col. 5, lines 9 to 14.) Further disclosure of this operation is reproduced below:

> The AVI query engine retrieves video data from the database in response to queries generated at the graphical user interface. A valid query Y takes the form
>
> ***Y=(C, T, V, R, E), where***
>
> C is a video clip,
>
> T =(Ti, Tj) specifies a time interval within the clip,
>
> ***V is a V-object within the clip meta-information,***
>
> R is a spatial region in the field of view, and
>
> ***E is an object-motion event.***
>
> ***The clip C specifies the video sub-sequence to be processed by the query, and the (optional) values of T, V, R, and E define the scope of the query.*** Using this form, the AVI system user can make such a request as 'find any occurrence of this object being removed from this region of the scene between 5am and 9am.' ***Thus, the query engine processes Y by finding all the video sub-sequences in C that satisfy Y, T, V, R, and E.*** (Courtney, col. 12, lines 41 to 60; emphasis added.)

Additionally, Courtney describes the implementation of a real-time embodiment of the video indexing system as shown in Figure 27, reproduced below with accompanying disclosure:

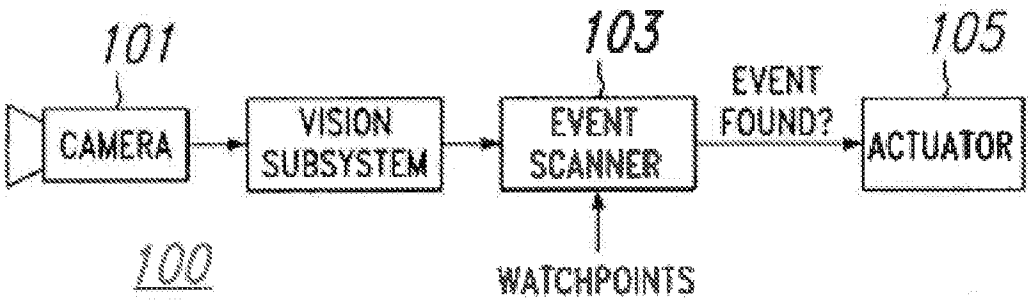


Fig. 27

> ***The video indexing system described here may also be implemented as a real-time system, as, for example, in an advanced video motion detector. FIG. 27 shows a diagram of such implementation.*** Here, the vision subsystem 100 processes

> the output of the camera 101 frame-by-frame, and continuously updates a motion graph annotated with event index marks. An event scanner 103 continuously reads the motion graph updates and searches for motion events as specified by pre-set watchpoints. ***These watchpoints may take the same form as queries from the AVI user interface, i.e. Y=(C,T,V,R,E). When the criteria for one of the watchpoints is met, the event scanner signals an actuator 105 (such as an alarm).*** (Courtney, col. 16, lines 16 to 28; emphasis added.)

Accordingly, at least in view of the foregoing, Courtney teaches that the vision subsystem "determines attributes independent of a selection of the first event by the second processor," and that the querying and event scanner functionalities "determine[] the first event without reprocessing the video analyzed by the first processor," as recited by claim 1.

Courtney thus discloses each of the features the Examiner identified in the statement of the reasons for allowance, including the "first processor" that analyzes a video to determine attributes of objects detected in the video; the "second processor," that receives the determined attributes transferred from the first processor over the first communications link and determines a first event that is not one of the determined attributes by analyzing a combination of the received determined attributes and provides, in response to a determination of the first event, at least one of an alert to a user, information for a report, and an instruction for taking an action. Courtney further discloses the features of the first processor determines attributes independent of a selection of the first event by the second processor, and the second processor determines the first event without reprocessing the video analyzed by the first processor. Thus, each of the features the Examiner identified as a basis for allowability of the '912 Patent claims are demonstrated to be disclosed in Courtney.

Based on the foregoing and as shown in Attachment M, Requester has provided a showing of a substantial new question of patentability with respect to at least one of claims 1, 3, 4, 6, 8, 9, 11 to 13, 15 to 20, and 22 in view of Courtney.

As set forth in the appended charts, Courtney discloses all of the limitations of claims 1, 3, 4, 6, 8, 9, 11 to 13, 15 to 20, and 22 of the '912 patent and therefore anticipates claims 1, 3, 4, 6, 8, 9, 11 to 13, 15 to 20, and 22 of the '912 patent. Therefore, Requester proposes a ground of rejection of claims 1, 3, 4, 6, 8, 9, 11 to 13, 15 to 20, and 22 of the '912 patent under 35 U.S.C. § 102(b) as anticipated by Courtney.

D. Proposed Rejection 4: Claims 1, 3, 4, 6, 8, 9, 11 to 13, 15 to 20, and 22 are anticipated by Olson et al. under 35 U.S.C. § 102

Claims 1, 3, 4, 6, 8, 9, 11 to 13, 15 to 20, and 22 are anticipated by Olson et al. under 35 U.S.C. § 102(b). Olson et al. was cited in the Information Disclosure Statement filed on July 1, 2005, but Olson et al. was not relied upon during the prosecution of the '912 patent and there is no indication that the Examiner appreciated the teachings of Olson et al. Nonetheless, "a substantial new question of patentability may be based solely on old art where the art is being presented/viewed in a new light, or in a different way, as compared with its use in the earlier examination(s), in view of a material new argument or interpretation presented in the request. (See M.P.E.P. § 2242(II)(A).)

Requester is accordingly entitled to present a prior art publication cited in an Information Disclosure Statement, such as Olson et al., as grounds for showing that there is a substantial new question of patentability with respect to at least one of the claims challenged in this request. Moreover, Olson et al. is closer to the subject matter of the '912 patent than any prior art that was relied upon during prosecution of the '912 patent, and Olson et al. provides new, non-cumulative technical teachings that were not otherwise provided in any prior art that was relied upon during prosecution of the '912 patent.

As set forth in the claim chart appended as Attachment N, Olson et al. teaches all of the limitations of claims 1, 3, 4, 6, 8, 9, 11 to 13, 15 to 20, and 22 of the '912 patent.

For example, Olson et al. is directed to the Autonomous Video Surveillance (AVS) system, "a general-purpose framework for moving object detection and event recognition." (Olson et al., Abstract.) The architecture and operation of the AVS situation awareness system is illustrated in Figure 4, reproduced below with accompanying disclosure:

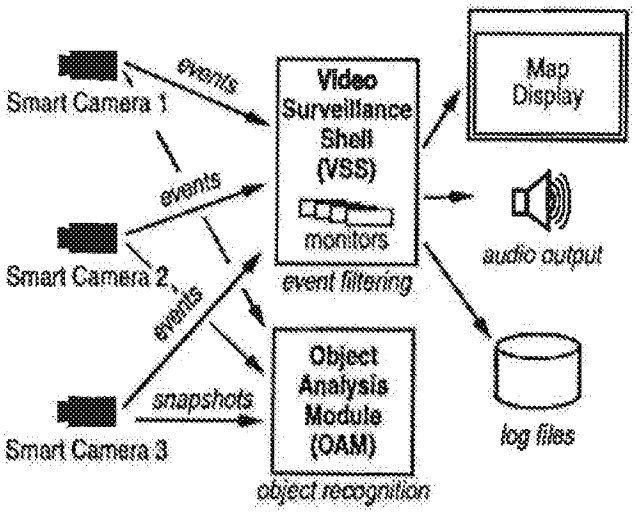


Figure 4: The situational awareness system

> The architecture of the AVS situational awareness system is depicted in Figure 4. The system consists of one or more smart cameras communicating with a Video Surveillance Shell (VSS). ***Each camera has associated with it an independent AVS core engine that performs the processing described in section 3. That is, the engine finds and tracks moving objects in the scene, maps their image locations to world coordinates, and recognizes events involving the objects. Each core engine emits a stream of location and event reports to the VSS, which filters the incoming event streams for user-specified alarm conditions and takes the appropriate actions.*** (Olson et al., p. 166, col. 1; emphasis added.)

Applying the foregoing to the language of claim 1, as an illustrative example, the AVS core engine taught by Olson et al. teaches the features of "a first processor which analyzes a video to determine attributes of objects detected in the video." Further, the Video Surveillance Shell (VSS) of Olson et al. teaches the features of "a second processor, separate from the first processor...which determines a first event that is not one of the determined attributes by analyzing a combination of the received determined attributes and which provides, in response to a determination of the first event, at least one of an alert to a user, information for a report, and an instruction for taking an action," as recited by claim 1.

According to Olson et al., the "VSS also allows the user to specify alarm regions and conditions." (Olson et al., p. 166, col. 2.) Additional disclosure regarding alarm regions and alarm conditions is presented by Olson et al. with respect to Figure 5, reproduced below:

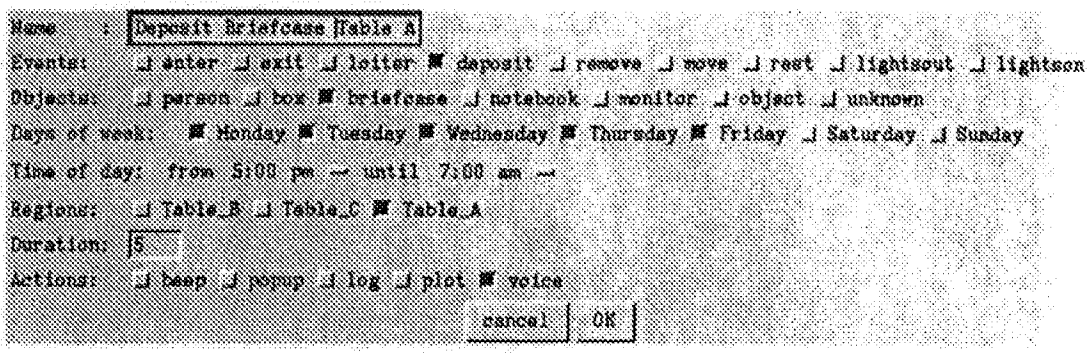


Figure 5: User interface for specifying a monitor in AVS

> Alarm regions are specified by drawing them on the map using a mouse, and naming them as desired. ***The user can then specify the conditions and actions for alarms by creating one or more monitors.*** The user names the monitor and uses the mouse to select check boxes associated with the conditions that will trigger the monitor. ***The user selects the type of event, the type of object involved in the event, the day of week and time of day of the event, where the event occurs, and what to do when the alarm condition occurs.*** The monitor specified in Figure 5 specifies that ***a voice alarm will be sounded when a briefcase is deposited on Table_A between 5:00pm and 7:00 am on a weeknight.*** (Olson et al., p. 166, col. 2 top. 167, col. 1; emphasis added.)

Accordingly, at least in view of the foregoing, Olson et al. teaches an AVS core engine that "determines attributes independent of a selection of the first event by the second processor," and a Video Surveillance Shell that "determines the first event without reprocessing the video analyzed by the first processor," as recited by claim 1.

Olson thus discloses each of the features the Examiner identified in the statement of the reasons for allowance, including the "first processor" that analyzes a video to determine attributes of objects detected in the video; the "second processor," that receives the determined attributes transferred from the first processor over the first communications link and determines a first event that is not one of the determined attributes by analyzing a combination of the received determined attributes and provides, in response to a determination of the first event, at least one of an alert to a user, information for a report, and an instruction for taking an action. Olson further discloses the features of the first processor determines attributes independent of a selection of the first event by the second processor, and the second processor determines the first event without reprocessing the video analyzed by the first processor. Thus, each of the features

the Examiner identified as a basis for allowability of the '912 Patent claims are demonstrated to be disclosed in Olson.

Based on the foregoing and as shown in Attachment N, Requester has provided a showing of a substantial new question of patentability with respect to at least one of claims 1, 3, 4, 6, 8, 9, 11 to 13, 15 to 20, and 22 in view of Olson et al.

As set forth in the appended charts, Olson et al. discloses all of the limitations of claims 1, 3, 4, 6, 8, 9, 11 to 13, 15 to 20, and 22 of the '912 patent and therefore anticipates claims 1, 3, 4, 6, 8, 9, 11 to 13, 15 to 20, and 22 of the '912 patent. Therefore, Requester proposes a ground of rejection of claims 1, 3, 4, 6, 8, 9, 11 to 13, 15 to 20, and 22 of the '912 patent under 35 U.S.C. § 102(b) as anticipated by Olson et al.

E. Proposed Rejection 5: Claims 1 to 3 and 6 to 22 are unpatentable in view of the combination of Gilge and Brill under 35 U.S.C. § 103

Brill et al. (U.S. Patent No. 6,628,835) was filed on August 24, 1999 and issued on September 30, 2003, and accordingly qualifies as prior art under 35 U.S.C. § 102(b) as of the April 5, 2005 filing date of the '385 application. Brill et al. is directed to "automatic security systems employing computer image processing for detecting complex events in a video sequence" (col. 1, lines 11 to 13) and Brill et al. provides relevant disclosure in view of Patent Owner's arguments in the '912 *inter partes* reexamination proceeding against "event-indexing" prior art, including that references relied upon in the adopted rejections do not teach the "independence-based elements" identified by Patent Owner.

Brill et al. describes a surveillance/monitoring system in Figure 1, reproduced below with accompanying disclosure:

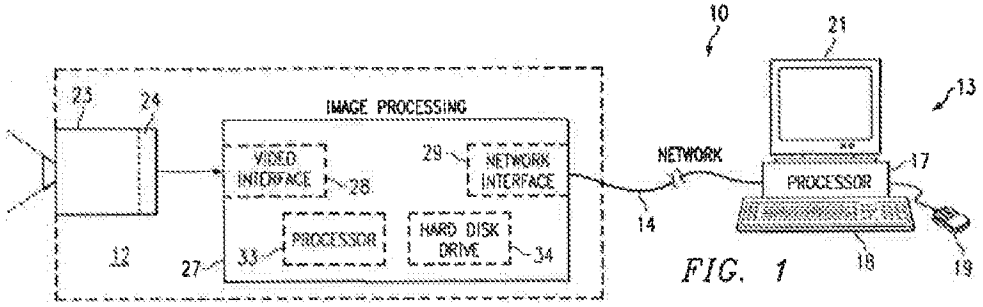


FIG. 1

FIG. 1 is a diagrammatic view of a surveillance or monitoring system 10 which embodies the present invention, and which is used monitor activity in a selected region or area. The monitoring system 10 also includes ***a camera unit 12, a computer workstation 13***, which are ***operatively coupled by a network*** shown

schematically at 14....The computer workstation 13 ***may be a personal computer including a processor 17***, a keyboard 18, a mouse 19 and a display unit 21. (col. 2, lines 42 to 52; emphasis added.)

Camera unit 12 further includes an image processing section 27....Image processing section 27 further includes a ***processor 33***. Processor 33 preferably consists of a digital signal processor and its corresponding volatile memory. (col. 2, l. 63 to col. 3, l. 5; emphasis added.)

According to Brill et al., "[t]he basic system performs three data processing steps for every image of a video sequence to recognize events. The three steps are detecting objects, tracking objects, and analyzing the motion graph." (col. 3, lines 24 to 27; see additional disclosure at col. 3, l1. 28-39, col. 3, l. 60 to col. 4, l. 13, and Figure 2.) Brill et al. further discloses that "the surveillance system can be programmed to only generate an alarm upon the occurrence of a complex event made up of a series of simple events." (col. 4, lines 27 to 29.) Brill et al. provides the following disclosure relating to the selection of events which make up a complex event with reference to Figure 6, reproduced below:

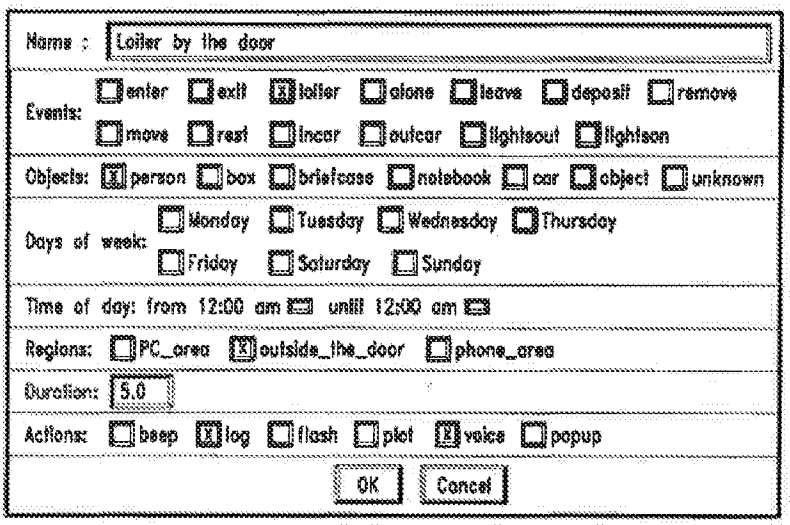


FIG. 6

The user can select which events are to form the complex event via the dialog box interface illustrated in FIG. 6. ***The user selects the event type, object type, time, location, and duration of the event to be defined using a mouse. The user can also select an action for the system to take when the event is recognized. This dialog box defines one simple event of the complex event sequence.*** ...If the event is only being defined in order to be used as a sub-event in a complex event, the user might not check any action box. *No*

action will be taken when the event is recognized except to see if it matches the next sub-event in another complex event activation or generate a new activation if it matches the first sub-event in a complex event. (col. 10, ll. 39 to 58; emphasis added.)

Brill et al. further teaches that, after simple events are defined, the user can define a complex event as illustrated in Figure 7, reproduced below with accompanying disclosure:

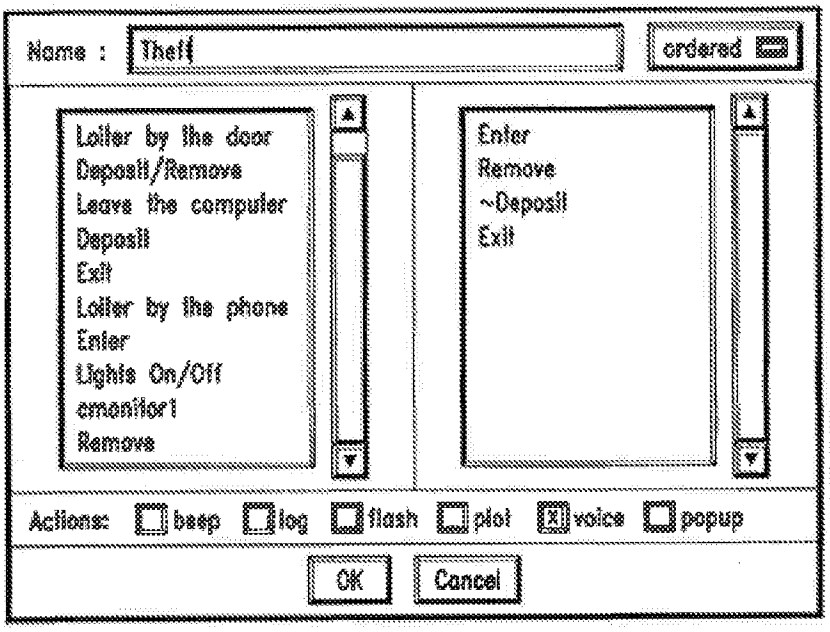


FIG. 7

After one or more simple events have been defined, the user can define a complex event via the dialog box illustrated in FIG. 7....***The first list on the left is a scrolling list of all the event types that have been defined thus far. This list will generally include both user defined events and system primitive events. The second list on the right is a list of the sub-events of the complex event being defined.*** The sub-event list is initially blank when defining a new complex event. ***When the user double-clicks with the left mouse button on an item in the event list on the left, it is added as the next item in the sub-event list on the right.*** When the user double-clicks with the right mouse button on an item in the event list on the left, that item is also added to the sub-event list on the right, but as a negated sub-event. The event name is prefixed with a tilde (~) to indicate that the event is negated.

In the upper right corner of the complex event definition dialog box is an option menu via which the user indicates how the sub-events are to be combined. The default selection is "ordered" to indicate sequential processing of the sub-events. The other options include "all" and "any."...At the bottom of the dialog box, ***the user***

> ***can select the action to take when the complex event is recognized.*** (col. 10, l. 59 to col. 11, l. 22; emphasis added.)

As set forth in Attachment O, a person of ordinary skill in the art would have been motivated to combine the teachings of Gilge (discussed previously) with the analogous art of Brill et al. in order to enhance the detection of "striking behavior patterns" disclosed by Gilge to allow for the event detection based on simple and complex events, including the ability to define complex events for detection consisting of a number of simple events, as taught by Brill et al. (see, e.g., col. 4, l. 27 to col. 5, l. 56.)

Moreover, the combination of Gilge and Brill et al. is merely (a) a combination of prior art elements according to known methods to yield predictable results; (b) a simple substitution of one known element for another to obtain predictable results; (c) a use of known technique to improve similar devices in the same way; (d) application of a known technique to a known device ready for improvement to yield predictable results; (e) obvious to try; and/or (f) known work in one field of endeavor prompting variations of it for use in either the same field or a different one based on design incentives or other market forces since the variations are predictable to one of ordinary skill in the art.

The combination of Gilge and Brill thus discloses each of the features the Examiner identified in the statement of the reasons for allowance, including the "first processor" that analyzes a video to determine attributes of objects detected in the video; the "second processor," that receives the determined attributes transferred from the first processor over the first communications link and determines a first event that is not one of the determined attributes by analyzing a combination of the received determined attributes and provides, in response to a determination of the first event, at least one of an alert to a user, information for a report, and an instruction for taking an action. The combination further discloses the features of the first processor determines attributes independent of a selection of the first event by the second processor, and the second processor determines the first event without reprocessing the video analyzed by the first processor. Thus, each of the features the Examiner identified as a basis for allowability of the '912 Patent claims are demonstrated to be taught by the combination of Gilge and Brill.

Based on the foregoing and as shown in Attachment O, Requester has provided a showing of a substantial new question of patentability with respect to at least one of claims 1-3 and 6-22 in view of combination of Gilge and Brill.

F. Proposed Rejection 6: Claims 1 to 3 and 6 to 22 are unpatentable in view of the combination of Lipton et al. and Brill under 35 U.S.C. § 103

As set forth in Attachment P, a person of ordinary skill in the art would have been motivated to combine the teachings of Lipton et al with the analogous art of Brill et al. in order to enhance video indexing and retrieval system of Lipton et al. (see, e.g., p 57, col. 1) to allow for the event detection based on simple and complex events, including the ability to define complex events for detection consisting of a number of simple events, as taught by Brill et al. (see, e.g., col. 4, l. 27 to col. 5, l. 56.)

Moreover, the combination of Lipton et al. and Brill et al. is merely (a) a combination of prior art elements according to known methods to yield predictable results; (b) a simple substitution of one known element for another to obtain predictable results; (c) a use of known technique to improve similar devices in the same way; (d) application of a known technique to a known device ready for improvement to yield predictable results; (e) obvious to try; and/or (f) known work in one field of endeavor prompting variations of it for use in either the same field or a different one based on design incentives or other market forces since the variations are predictable to one of ordinary skill in the art.

The combination of Lipton and Brill thus discloses each of the features the Examiner identified in the statement of the reasons for allowance, including the "first processor" that analyzes a video to determine attributes of objects detected in the video; the "second processor," that receives the determined attributes transferred from the first processor over the first communications link and determines a first event that is not one of the determined attributes by analyzing a combination of the received determined attributes and provides, in response to a determination of the first event, at least one of an alert to a user, information for a report, and an instruction for taking an action. The combination further teaches the features of the first processor determines attributes independent of a selection of the first event by the second processor, and the second processor determines the first event without reprocessing the video analyzed by the first processor. Thus, each of the features the Examiner identified as a basis for allowability of the '912 Patent claims are demonstrated to be disclosed in the combination of Lipton and Brill.

Based on the foregoing and as shown in attachment P, Requester has provided a showing of a substantial new question of patentability with respect to at least one of claims 1-3 and 6-22 in view of combination of Lipton and Brill.

G. Proposed Rejection 7: Claims 1, 3, 4, 6, 8, 9, 11 to 13, 15 to 20, and 22 are unpatentable in view of the combination of Courtney and Brill Under 35 U.S.C. § 103

As set forth in Attachment Q, a person of ordinary skill in the art would have been motivated to combine the teachings of Courtney with the analogous art of Brill et al. in order to enhance the automated video indexing system of Courtney to enhance the watchpoint and user query functionalities employed in detecting events to incorporate the ability to define complex events for detection consisting of a number of simple events, as taught by Brill et al. (see, e.g., col. 4, l. 27 to col. 5, l. 56.)

Moreover, the combination of Courtney and Brill et al. is merely (a) a combination of prior art elements according to known methods to yield predictable results; (b) a simple substitution of one known element for another to obtain predictable results; (c) a use of known technique to improve similar devices in the same way; (d) application of a known technique to a known device ready for improvement to yield predictable results; (e) obvious to try; and/or (f) known work in one field of endeavor prompting variations of it for use in either the same field or a different one based on design incentives or other market forces since the variations are predictable to one of ordinary skill in the art.

The combination of Courtney and Brill thus discloses each of the features the Examiner identified in the statement of the reasons for allowance, including the "first processor" that analyzes a video to determine attributes of objects detected in the video; the "second processor," that receives the determined attributes transferred from the first processor over the first communications link and determines a first event that is not one of the determined attributes by analyzing a combination of the received determined attributes and provides, in response to a determination of the first event, at least one of an alert to a user, information for a report, and an instruction for taking an action. The combination further discloses the features of the first processor determines attributes independent of a selection of the first event by the second processor, and the second processor determines the first event without reprocessing the video analyzed by the first processor. Thus, each of the features the Examiner identified as a basis for allowability of the '912 Patent claims are demonstrated to be disclosed in the combination of Courtney and Brill.

Based on the foregoing and as shown in Attachment Q, Requester has provided a showing of a substantial new question of patentability with respect to at least one of claims 1, 3, 4, 6, 8, 9, 11 to 13, 15 to 20, and 22 in view of combination of Courtney and Brill.

H. Proposed Rejection 8: Claims 1, 3, 4, 6, 8, 9, 11 to 13, 15 to 20, and 22 are unpatentable in view of the combination of Olson et al. and Brill under 35 U.S.C. § 103

As set forth in Attachment R, a person of ordinary skill in the art would have been motivated to combine the teachings of Olson et al. with the analogous art of Brill in order to enhance the automated video indexing system of Olson to enhance the automated video surveillance system of Olson et al., based on user specified conditions (see, e.g., Olson et al. at Fig. 5 and p. 166-167) to incorporate the ability to define complex events for detection consisting of a number of simple events, as taught by Brill et al. (see, e.g., col. 4, l. 27 to col. 5, l. 56.)

Moreover, the combination of Olson et al. and Brill et al. is merely (a) a combination of prior art elements according to known methods to yield predictable results; (b) a simple substitution of one known element for another to obtain predictable results; (c) a use of known technique to improve similar devices in the same way; (d) application of a known technique to a known device ready for improvement to yield predictable results; (e) obvious to try; and/or (f) known work in one field of endeavor prompting variations of it for use in either the same field or a different one based on design incentives or other market forces since the variations are predictable to one of ordinary skill in the art.

The combination of Olson et al. and Brill thus discloses each of the features the Examiner identified in the statement of the reasons for allowance, including the "first processor" that analyzes a video to determine attributes of objects detected in the video; the "second processor," that receives the determined attributes transferred from the first processor over the first communications link and determines a first event that is not one of the determined attributes by analyzing a combination of the received determined attributes and provides, in response to a determination of the first event, at least one of an alert to a user, information for a report, and an instruction for taking an action. The combination further discloses the features of the first processor determines attributes independent of a selection of the first event by the second processor, and the second processor determines the first event without reprocessing the video analyzed by the first processor. Thus, each of the features the Examiner identified as a basis for

allowability of the '912 Patent claims are demonstrated to be disclosed in the combination of Olson et al. and Brill.

Based on the foregoing and as shown in Attachment R, Requester has provided a showing of a substantial new question of patentability with respect to at least one of claims 1, 3, 4, 6, 8, 9, 11 to 13, 15 to 20, and 22 in view of combination of Olson and Brill.

I. Proposed Rejection 9: Claims 1 to 3 and 6 to 22 are unpatentable in view of the combination of Gilge and Day under 35 U.S.C. § 103

Day was published in March 1995 and accordingly qualifies as prior art under 35 U.S.C. § 102(b). Day was not considered during the prosecution of the '912 patent, and it provides new, non-cumulative technical teachings that were not otherwise provided in any prior art that was relied upon during prosecution of the '912 patent. Day is directed to video modeling techniques and querying functionality that provides relevant disclosure in view of Patent Owner's arguments in the '912 *inter partes* reexamination proceeding against "event-indexing" prior art, including that references relied upon in the adopted rejections do not teach the "independence-based elements" identified by Patent Owner.

For example, Day discloses a video analysis system employing a graphical model for determining events of detected physical objects based on analysis of attributes of the detected objects, thereby allowing semantically heterogeneous queries to be processed:

> For each input video clip, ***using a database of known objects, we first identify the corresponding objects, their sizes and locations, their relative positions and movements***, and then encode this information in the proposed graphical model. (Section 1 (Introduction) at page 402)

More specifically, Day describes detecting spatial and temporal attributes of detected objects by analyzing the video:

> The spatial attribute, of a salient physical object present in the frames can be extracted in form of bounding volume, *Z*, that describes the spatial projection of an object, in three dimensions.
>
> Temporal information of objects can be captured by specifying the changes in the spatial parameters associated with the bounding volume (*Z*) of objects over the sequence of frames. At the finest level, these changes can be recorded at each frame. (Section 2.1 (Spatio-Temporal Modeling over a Sequence of Frames (a Clip)) at page 402)

Day also discloses modeling physical objects (PO) by classifying objects (*e.g.*, persons, tree, houses, etc.) (Section 3.1 at page 405.)

A Video Semantic Directed Graph (VSDG) model is then generated with the detected spatial and temporal attributes:

> In this section, we use a video clip shown in Figure 3 to illustrate the proposed model. In the example video clip (Figure 3(a)), a car (object 2) and a person (object 1) appear first, then the camera moves toward the right and two persons (object 1 and object 5) are walking toward each other and shake hands. ***Assuming that proper object recognition methods are used to identify these objects, we can appropriately define the bounding volumes information for the objects. The complete VSDG model, for the example video clip is given in Figure 4, which describes the information about various objects and their temporal behaviors.*** The VSDG in Figure 4, has four rectangular nodes which correspond to three different scene changes. The first rectangular node (t_0) marks the start of video clip, t_1 indicates the appearance of objects O_5 t_2 indicates the appearance of object O_6, and t_3 indicates the end of the video clip. There are a total of six objects, O_1, O_2, O_3, O_4, O_5, and O_6, and some objects appear in multiple scenes. For example, O_1, O_2, O_3, and O_4 appear in video segments V_1 and V_2. (Section 2.3 (An Example of VSDG-Based Modeling) at page 404)

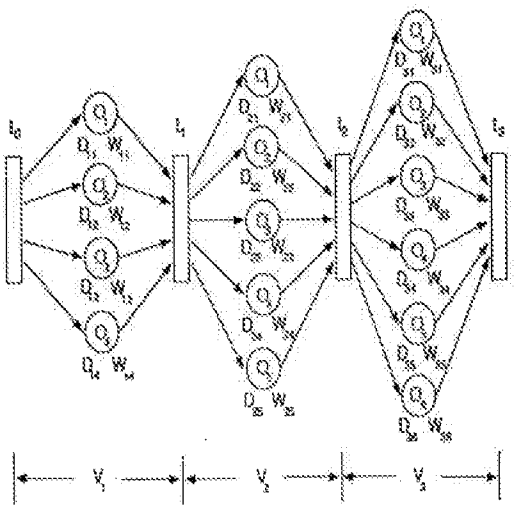


Figure 4: VSDG representation of the example clip

The model "allows to represent spatio-temporal aspects of information associated with objects (persons, buildings, vehicles, etc.) present in video data. (Section 1 at page 401.)

Conceptual queries, based on predicate logic, can be carried out using Day's VSDG model to identify specified events. For instance, Day discloses user specified temporal queries:

> Temporal specifications can be applied to higher level of concepts. For example, we can specify the query "*Person A is walking and some time later he passes by someone who is sitting on the sidewalk*" by the following predicate logic:
>
> f_t (walking(A) , sitting(B, sidewalk)),
>
> assuming that 'walking' (with the object walking as parameter) and 'sitting' (with the object sitting and the objects being sit as parameters) are predefined.
>
> (Section 3.2.2 (Temporal Sequence Specification) at page 406; emphasis original)

Day discloses spatial queries, such as:

> * Querying whether or not an object/person is present in a video clip(s):(x IN v).
>
> * Identifying the relative position of object/person. For example, search for those video clips where Mr. X appears with Mr. Y, with X standing in front of Y. The predicate for such a query is :
> $\exists\ f \in frame,\ \exists\ x, y \in person$
> $x\ IN\ f \wedge y\ IN\ f \wedge x.z.depth < y.z.depth$
> Here x, y are circular nodes in VSDG and $z.depth$ is the depth of a bounding volume z of a circular node associated with x or y.

Day discloses spatio-temporal queries, such as:

> * Finding the duration of an object. For example, how long has person X appeared on a certain video clip. This query can be expressed as :
> $X.duration \wedge X\ IN\ v$
>
> * Estimating the speed of an object. For example, how fast is object X walking in a certain clip.
> $X\ IN\ v \wedge \frac{DP(t_1,t_2,x)}{t_2-t_1}$
> Here, t_1 and t_2 are two variables denoting frame numbers assigned by the system.

Day further discloses complex queries that can be constructed, including querying for a "slam-dunk," walking, and passing a basketball.

As Day explains:

> Theoretically, any concept that requires expression of spatio-temporal interactions among objects can be specified by predicate logic expressions. We have provided only a limited number of

> examples and even for those examples, only a few possible ways of specifying them have been discussed.
>
> (Section 3.2.3 (Expressing Queries Using Predicate Logic) at pages 406-407)

The result of the queries disclosed by Day is an identification of an event of the object, such as the examples of relative position of an object, the speed of an object, a basketball being dunked, a basketball being passed, a person walking, or any other spatio-temporal interaction among objects. The user specified queries allow for the retrieval of corresponding video clips:

> Using propositional logic described in the paper, ***a user can specify queries and hence can retrieve corresponding video clips without ever processing raw video data.*** The proposed methodology employs computer vision and image processing (CVIP) techniques to automate the construction of the video database based on the VSDG model.
>
> (Section 4 (Conclusion) at page 408; emphasis added)

Day teaches that the spatio-temporal attributes of the physical objects, detected as above, are independent of the identified events. (See Day at Section 2.3, page 404; see also Section 1 at page 402: "process[ing] semantically heterogeneous queries on the unbiased encoded data.") Further, the events in Day are identified without reprocessing the video.

> "Another reason for this modeling approach is to provide an efficient indexing mechanism for on-line query processing without performing computations on the raw video data since such computation can be quite extensive. ***The proposed VSDG can be generated off-line and subsequently can be used to process user's queries on-line.*** The architecture of the proposed system is shown in Figure 1."
>
> (Day at Section 1, page 402; emphasis added.)

As set forth in Attachment S, a person of ordinary skill in the art would have been motivated to combine the teachings of Gilge with the analogous art of Day in order to enhance the detection of "striking behavior patterns" disclosed by Gilge with the conceptual modeling of video data for spatial and temporal characteristics of the detected physical objects to allow for processing heterogeneous queries of the data, as taught by Day.

Moreover, the combination of Gilge and Day is merely (a) a combination of prior art elements according to known methods to yield predictable results; (b) a simple substitution of one known element for another to obtain predictable results; (c) a use of known technique to

improve similar devices in the same way; (d) application of a known technique to a known device ready for improvement to yield predictable results; (e) obvious to try; and/or (f) known work in one field of endeavor prompting variations of it for use in either the same field or a different one based on design incentives or other market forces since the variations are predictable to one of ordinary skill in the art.

As detailed in Attachment S, the combination of Gilge and Day thus discloses each of the features the Examiner identified in the statement of the reasons for allowance, including the "first processor" that analyzes a video to determine attributes of objects detected in the video; the "second processor," that receives the determined attributes transferred from the first processor over the first communications link and determines a first event that is not one of the determined attributes by analyzing a combination of the received determined attributes and provides, in response to a determination of the first event, at least one of an alert to a user, information for a report, and an instruction for taking an action. The combination further discloses the features of the first processor determines attributes independent of a selection of the first event by the second processor, and the second processor determines the first event without reprocessing the video analyzed by the first processor. Thus, each of the features the Examiner identified as a basis for allowability of the '912 Patent claims are demonstrated to be disclosed in Gilge and Day.

Based on the foregoing, Requester has provided a showing of a substantial new question of patentability with respect to at least one of claims 1-3 and 6-22 in view of combination of Gilge and Day.

J. Proposed Rejection 10: Claims 1 to 4 and 6 to 22 are unpatentable in view of the combination of Lipton et al. and Day under 35 U.S.C. § 103

As set forth in Attachment T, a person of ordinary skill in the art would have been motivated to combine the teachings of Lipton et al. with the analogous art of Day in order to enhance video indexing and retrieval system of Lipton et al. (see, e.g., p 57, col. 1) with the conceptual modeling of video data for spatial and temporal characteristics of the detected physical objects to allow for processing heterogeneous queries of the data, as taught by Day.

Moreover, the combination of Lipton et al. and Day is merely (a) a combination of prior art elements according to known methods to yield predictable results; (b) a simple substitution of one known element for another to obtain predictable results; (c) a use of known technique to

improve similar devices in the same way; (d) application of a known technique to a known device ready for improvement to yield predictable results; (e) obvious to try; and/or (f) known work in one field of endeavor prompting variations of it for use in either the same field or a different one based on design incentives or other market forces since the variations are predictable to one of ordinary skill in the art.

As detailed in Attachment T, the combination of Lipton et al. and Day thus discloses each of the features the Examiner identified in the statement of the reasons for allowance, including the "first processor" that analyzes a video to determine attributes of objects detected in the video; the "second processor," that receives the determined attributes transferred from the first processor over the first communications link and determines a first event that is not one of the determined attributes by analyzing a combination of the received determined attributes and provides, in response to a determination of the first event, at least one of an alert to a user, information for a report, and an instruction for taking an action. The combination further discloses the features of the first processor determines attributes independent of a selection of the first event by the second processor, and the second processor determines the first event without reprocessing the video analyzed by the first processor. Thus, each of the features the Examiner identified as a basis for allowability of the '912 Patent claims are demonstrated to be disclosed in the combination of Lipton et al. and Day.

Based on the foregoing and as shown in Attachment T, Requester has provided a showing of a substantial new question of patentability with respect to at least one of claims 1-4 and 6-22 in view of combination of Lipton and Day.

K. Proposed Rejection 11: Claims 1, 3, 4, 6, 8, 9, 11 to 13, 15 to 20, and 22 are unpatentable in view of the combination of Courtney and Day under 35 U.S.C. § 103

As set forth in Attachment U, a person of ordinary skill in the art would have been motivated to combine the teachings of Courtney with the analogous art of Day in order to enhance the automated video indexing system of Courtney to enhance the watchpoint and user query functionalities employed in detecting events with the conceptual modeling of video data for spatial and temporal characteristics of the detected physical objects to allow for processing heterogeneous queries of the data, as taught by Day.

Moreover, the combination of Courtney and Day is merely (a) a combination of prior art elements according to known methods to yield predictable results; (b) a simple substitution of

one known element for another to obtain predictable results; (c) a use of known technique to improve similar devices in the same way; (d) application of a known technique to a known device ready for improvement to yield predictable results; (e) obvious to try; and/or (f) known work in one field of endeavor prompting variations of it for use in either the same field or a different one based on design incentives or other market forces since the variations are predictable to one of ordinary skill in the art.

As detailed in Attachment U, the combination of Courtney and Day discloses each of the features the Examiner identified in the statement of the reasons for allowance, including the "first processor" that analyzes a video to determine attributes of objects detected in the video; the "second processor," that receives the determined attributes transferred from the first processor over the first communications link and determines a first event that is not one of the determined attributes by analyzing a combination of the received determined attributes and provides, in response to a determination of the first event, at least one of an alert to a user, information for a report, and an instruction for taking an action. The combination further discloses the features of the first processor determines attributes independent of a selection of the first event by the second processor, and the second processor determines the first event without reprocessing the video analyzed by the first processor. Thus, each of the features the Examiner identified as a basis for allowability of the '912 Patent claims are demonstrated to be disclosed in the combination of Courtney and Brill.

Based on the foregoing and as shown in Attachment U, Requester has provided a showing of a substantial new question of patentability with respect to at least one of claims 1, 3, 4, 6, 8, 9, 11 to 13, 15 to 20, and 22 in view of combination of Courtney and Day.

L. Proposed Rejection 12: Claims 1, 3, 4, 6, 8, 9, 11 to 13, 15 to 20, and 22 are unpatentable in view of the combination of Olson et al. and Day under 35 U.S.C. § 103

As set forth in Attachment V, a person of ordinary skill in the art would have been motivated to combine the teachings of Olson et al. with the analogous art of Day in order to enhance the automated video indexing system of Olson et al. based on user specified conditions (see, e.g., Olson et al. at Fig. 5 and p. 166-167) to incorporate the conceptual modeling of video data for spatial and temporal characteristics of the detected physical objects to allow for processing heterogeneous queries of the data, as taught by Day.

Moreover, the combination of Olson et al. and Day is merely (a) a combination of prior art elements according to known methods to yield predictable results; (b) a simple substitution of one known element for another to obtain predictable results; (c) a use of known technique to improve similar devices in the same way; (d) application of a known technique to a known device ready for improvement to yield predictable results; (e) obvious to try; and/or (f) known work in one field of endeavor prompting variations of it for use in either the same field or a different one based on design incentives or other market forces since the variations are predictable to one of ordinary skill in the art.

The combination of Olson et al. and Day thus discloses each of the features the Examiner identified in the statement of the reasons for allowance, including the "first processor" that analyzes a video to determine attributes of objects detected in the video; the "second processor," that receives the determined attributes transferred from the first processor over the first communications link and determines a first event that is not one of the determined attributes by analyzing a combination of the received determined attributes and provides, in response to a determination of the first event, at least one of an alert to a user, information for a report, and an instruction for taking an action. The combination further discloses the features of the first processor determines attributes independent of a selection of the first event by the second processor, and the second processor determines the first event without reprocessing the video analyzed by the first processor. Thus, each of the features the Examiner identified as a basis for allowability of the '912 Patent claims are demonstrated to be disclosed in the combination of Olson et al. and Day.

Based on the foregoing and as shown in Attachment V, Requester has provided a showing of a substantial new question of patentability with respect to at least one of claims 1, 3, 4, 6, 8, 9, 11 to 13, 15 to 20, and 22 in view of combination of Olson et al. and Day.

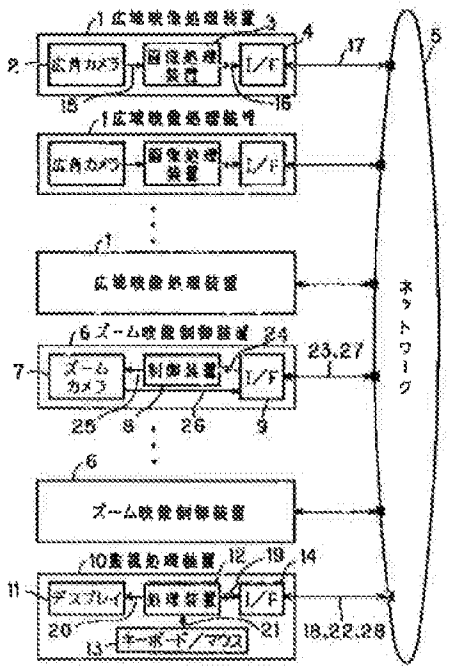
M. Proposed Rejection 13: Claim 5 is unpatentable in view of the combination of Gilge and JP '783 under 35 U.S.C. § 103

Claim 5 is unpatentable in view of the combination of Gilge and Japanese Published Patent Application No. 1997-130783 ("JP '783") Under 35 USC § 103. JP '783 was not cited during prosecution of the '912 patent. JP '783 provides new, non-cumulative technical teachings that were not otherwise provided in any prior art that was relied upon during prosecution of the '912 patent.

Claim 5 depends from claim 1 and defines a "third processor" in addition to the "first processor" and the "second processor" of parent claim 1. Like the "second processor" the third processor of claim 5 is configured to determine an event (in this case, a "second event") that is not one of the determined attributes by analyzing a combination of the attributes transferred by a second communications link (which connects to the first processor).

As detailed in Attachment K, Gilge discloses the claimed first and second processors. In a closely related field of endeavor, JP '783 teaches a distributed image monitoring system that includes multiple processing elements, including at least one wide area image processing device 1 and at least one monitoring processor 10 connected to the wide area image processing device 1 via a network connection. (JP '783 at paras. 30 and 31; Fig. 1.)

【図1】



JP '783 teaches that the image processing device 3 performs detection of attributes of detected objects (e.g., persons or cars), including characteristics of the target object (e.g., color, brightness, shape, motion estimation, motion direction) and a classification of the target object. (JP '783 at paras. 33 and 34.) The classification information is transmitted to the processing device 12 in monitoring processor 10 via network connection 5. (JP ;783 at para. 35.) Processing device 12 in monitoring processor 10 processes the attribute data received from image processing device 3 (located with camera 2) and processes this information to output a

motion profile of the target object, which is then displayed on a display device. (JP '783 at para. 33.) The motion profile determined at the processing device 12 is used in the determination of the motion of the target object to detect suspicious movement of an object or an individual entering into a specified restricted area. (JP '783 at para. 36.) JP '783 teaches that a plurality of monitoring processors 10 may be provided according to the number of observers or the classification of monitoring. (JP '783 at paragraph 31.)

Accordingly, it would have been obvious to one of ordinary skill in the art at the time of the purported invention to provide an additional processor for performing event determination (i.e., in addition to the "second processor", "a ***third processor*** configured to determine a second event that is not one of the determined attributes by analyzing a combination of the attributes transferred by the second communications link) as evidenced by JP '783 explicitly teaching a distributed surveillance network system with duplication of event determination processors to account for additional users of the system or requirements for classification of monitored activity.

The combination of Gilge and JP '783 is merely (a) a combination of prior art elements according to known methods to yield predictable results; (b) a simple substitution of one known element for another to obtain predictable results; (c) a use of known technique to improve similar devices in the same way; (d) application of a known technique to a known device ready for improvement to yield predictable results; (e) obvious to try; and/or (f) known work in one field of endeavor prompting variations of it for use in either the same field or a different one based on design incentives or other market forces since the variations are predictable to one of ordinary skill in the art.

Thus, as demonstrated herein and in the claim chart at Attachment X, the combination of Gilge and JP '783 presents a substantial new question of patentability as to claim 5 of the '912 patent.

N. Proposed Rejection 14: Claim 5 is unpatentable in view of the combination of Lipton et al. and JP '783 under 35 U.S.C. § 103

Claim 5 is unpatentable in view of the combination of Lipton et al. and JP '783 under 35 USC § 103. As shown in Attachment L, Lipton et al. discloses the claimed first and second processors of claim 1. With respect to the features of claim 5, including the claimed third processor, it would have been obvious to one of ordinary skill in the art at the time of the

purported invention to provide an additional processor for performing event determination (i.e., in addition to the "second processor", "a ***third processor*** configured to determine a second event that is not one of the determined attributes by analyzing a combination of the attributes transferred by the second communications link) as evidenced by JP '783 explicitly teaching a distributed surveillance network system with duplication of event determination processors to account for additional users of the system or requirements for classification of monitored activity.

The combination of Lipton et al. and JP '783 is merely (a) a combination of prior art elements according to known methods to yield predictable results; (b) a simple substitution of one known element for another to obtain predictable results; (c) a use of known technique to improve similar devices in the same way; (d) application of a known technique to a known device ready for improvement to yield predictable results; (e) obvious to try; and/or (f) known work in one field of endeavor prompting variations of it for use in either the same field or a different one based on design incentives or other market forces since the variations are predictable to one of ordinary skill in the art.

Thus, as demonstrated herein and in the claim chart at Attachment Y, the combination of Lipton et al. and JP '783 presents a substantial new question of patentability as to claim 5 of the '912 patent.

O. Proposed Rejection 15: Claim 5 is unpatentable in view of the combination of Courtney and JP '783 under 35 U.S.C. § 103

Claim 5 is unpatentable in view of the combination of Courtney and JP '783 under 35 USC § 103. As shown in Attachment M, Courtney discloses the claimed first and second processors of claim 1. With respect to the features of claim 5, including the claimed third processor, it would have been obvious to one of ordinary skill in the art at the time of the purported invention to provide an additional processor for performing event determination (i.e., in addition to the "second processor", "a ***third processor*** configured to determine a second event that is not one of the determined attributes by analyzing a combination of the attributes transferred by the second communications link) as evidenced by JP '783 explicitly teaching a distributed surveillance network system with duplication of event determination processors to account for additional users of the system or requirements for classification of monitored activity. The combination of Courtney and JP '783 is merely (a) a combination of prior art

elements according to known methods to yield predictable results; (b) a simple substitution of one known element for another to obtain predictable results; (c) a use of known technique to improve similar devices in the same way; (d) application of a known technique to a known device ready for improvement to yield predictable results; (e) obvious to try; and/or (f) known work in one field of endeavor prompting variations of it for use in either the same field or a different one based on design incentives or other market forces since the variations are predictable to one of ordinary skill in the art.

Thus, as demonstrated herein and in the claim chart at Attachment Z, the combination of Courtney and JP '783 presents a substantial new question of patentability as to claim 5 of the '912 patent.

P. Proposed Rejection 16: Claim 5 is unpatentable in view of the combination of Olson et al. and JP '783 under 35 U.S.C. § 103

Claim 5 is unpatentable in view of the combination of Olson et al. and JP '783 under 35 USC § 103. As shown in Attachment N, Olson et al. discloses the claimed first and second processors of claim 1. With respect to the features of claim 5, including the claimed third processor, it would have been obvious to one of ordinary skill in the art at the time of the purported invention to provide an additional processor for performing event determination (i.e., in addition to the "second processor", "a ***third processor*** configured to determine a second event that is not one of the determined attributes by analyzing a combination of the attributes transferred by the second communications link) as evidenced by JP '783 explicitly teaching a distributed surveillance network system with duplication of event determination processors to account for additional users of the system or requirements for classification of monitored activity.

The combination of Olson et al. and JP '783 is merely (a) a combination of prior art elements according to known methods to yield predictable results; (b) a simple substitution of one known element for another to obtain predictable results; (c) a use of known technique to improve similar devices in the same way; (d) application of a known technique to a known device ready for improvement to yield predictable results; (e) obvious to try; and/or (f) known work in one field of endeavor prompting variations of it for use in either the same field or a different one based on design incentives or other market forces since the variations are predictable to one of ordinary skill in the art.

Thus, as demonstrated herein and in the claim chart at Attachment AA, the combination of Olson et al. and JP '783 presents a substantial new question of patentability as to claim 5 of the '912 patent.

Q. Proposed Rejection 17: Claim 5 is unpatentable in view of the combination of Gilge, Brill and JP '783 under 35 U.S.C. § 103

Claim 5 is unpatentable in view of the combination of Gilge, Brill and JP '783 under 35 USC § 103. As shown in Attachment O, the combination of Gilge and Brill discloses the claimed first and second processors of claim 1. With respect to the features of claim 5, including the claimed third processor, it would have been obvious to one of ordinary skill in the art at the time of the purported invention to provide an additional processor for performing event determination (i.e., in addition to the "second processor", "a ***third processor*** configured to determine a second event that is not one of the determined attributes by analyzing a combination of the attributes transferred by the second communications link) as evidenced by JP '783 explicitly teaching a distributed surveillance network system with duplication of event determination processors to account for additional users of the system or requirements for classification of monitored activity.

The combination of Gilge, Brill and JP '783 is merely (a) a combination of prior art elements according to known methods to yield predictable results; (b) a simple substitution of one known element for another to obtain predictable results; (c) a use of known technique to improve similar devices in the same way; (d) application of a known technique to a known device ready for improvement to yield predictable results; (e) obvious to try; and/or (f) known work in one field of endeavor prompting variations of it for use in either the same field or a different one based on design incentives or other market forces since the variations are predictable to one of ordinary skill in the art.

Thus, as demonstrated herein and in the claim chart at Attachment X, the combination of Gilge, Brill and JP '783 presents a substantial new question of patentability as to claim 5 of the '912 patent.

R. Proposed Rejection 18: Claim 5 is unpatentable in view of the combination of Lipton et al., Brill and JP '783 under 35 U.S.C. § 103

Claim 5 is unpatentable in view of the combination of Lipton et al., Brill and JP '783 under 35 USC § 103. As shown in Attachment P, the combination of Lipton et al. and Brill

discloses the claimed first and second processors of claim 1. With respect to the features of claim 5, including the claimed third processor, it would have been obvious to one of ordinary skill in the art at the time of the purported invention to provide an additional processor for performing event determination (i.e., in addition to the "second processor", "a ***third processor*** configured to determine a second event that is not one of the determined attributes by analyzing a combination of the attributes transferred by the second communications link) as evidenced by JP '783 explicitly teaching a distributed surveillance network system with duplication of event determination processors to account for additional users of the system or requirements for classification of monitored activity.

The combination of Lipton et al., Brill and JP '783 is merely (a) a combination of prior art elements according to known methods to yield predictable results; (b) a simple substitution of one known element for another to obtain predictable results; (c) a use of known technique to improve similar devices in the same way; (d) application of a known technique to a known device ready for improvement to yield predictable results; (e) obvious to try; and/or (f) known work in one field of endeavor prompting variations of it for use in either the same field or a different one based on design incentives or other market forces since the variations are predictable to one of ordinary skill in the art.

Thus, as demonstrated herein and in the claim chart at Attachment Y, the combination of Lipton et al., Brill and JP '783 presents a substantial new question of patentability as to claim 5 of the '912 patent.

S. Proposed Rejection 19: Claim 5 is Unpatentable in view of the combination of Courtney, Brill and JP '783 Under 35 U.S.C. § 103

Claim 5 is unpatentable in view of the combination of Courtney, Brill and JP '783 under 35 USC § 103. As shown in Attachment Q, the combination of Courtney and Brill discloses the claimed first and second processors of claim 1. With respect to the features of claim 5, including the claimed third processor, it would have been obvious to one of ordinary skill in the art at the time of the purported invention to provide an additional processor for performing event determination (i.e., in addition to the "second processor", "a ***third processor*** configured to determine a second event that is not one of the determined attributes by analyzing a combination of the attributes transferred by the second communications link) as evidenced by JP '783 explicitly teaching a distributed surveillance network system with duplication of event

determination processors to account for additional users of the system or requirements for classification of monitored activity. The combination of Courtney, Brill and JP '783 is merely (a) a combination of prior art elements according to known methods to yield predictable results; (b) a simple substitution of one known element for another to obtain predictable results; (c) a use of known technique to improve similar devices in the same way; (d) application of a known technique to a known device ready for improvement to yield predictable results; (e) obvious to try; and/or (f) known work in one field of endeavor prompting variations of it for use in either the same field or a different one based on design incentives or other market forces since the variations are predictable to one of ordinary skill in the art.

Thus, as demonstrated herein and in the claim chart at Attachment Z, the combination of Courtney, Brill and JP '783 presents a substantial new question of patentability as to claim 5 of the '912 patent.

T. Proposed Rejection 20: Claim 5 is unpatentable in view of the combination of Olson et al., Brill and JP '783 under 35 U.S.C. § 103

Claim 5 is unpatentable in view of the combination of Olson et al., Brill and JP '783 under 35 USC § 103. As shown in Attachment R, the combination of Olson et al. and Brill discloses the claimed first and second processors of claim 1. With respect to the features of claim 5, including the claimed third processor, it would have been obvious to one of ordinary skill in the art at the time of the purported invention to provide an additional processor for performing event determination (i.e., in addition to the "second processor", "a ***third processor*** configured to determine a second event that is not one of the determined attributes by analyzing a combination of the attributes transferred by the second communications link) as evidenced by JP '783 explicitly teaching a distributed surveillance network system with duplication of event determination processors to account for additional users of the system or requirements for classification of monitored activity.

The combination of Olson et al., Brill and JP '783 is merely (a) a combination of prior art elements according to known methods to yield predictable results; (b) a simple substitution of one known element for another to obtain predictable results; (c) a use of known technique to improve similar devices in the same way; (d) application of a known technique to a known device ready for improvement to yield predictable results; (e) obvious to try; and/or (f) known work in one field of endeavor prompting variations of it for use in either the same field or a

different one based on design incentives or other market forces since the variations are predictable to one of ordinary skill in the art.

Thus, as demonstrated herein and in the claim chart at Attachment AA, the combination of Olson et al., Brill and JP '783 presents a substantial new question of patentability as to claim 5 of the '912 patent.

U. Proposed Rejection 21: Claim 5 is unpatentable in view of the combination of Gilge, Day and JP '783 under 35 U.S.C. § 103

Claim 5 is unpatentable in view of the combination of Gilge, Day, and JP '783 under 35 USC § 103. As shown in Attachment S, the combination of Gilge and Day discloses the claimed first and second processors of claim 1. With respect to the features of claim 5, including the claimed third processor, it would have been obvious to one of ordinary skill in the art at the time of the purported invention to provide an additional processor for performing event determination (i.e., in addition to the "second processor", "a ***third processor*** configured to determine a second event that is not one of the determined attributes by analyzing a combination of the attributes transferred by the second communications link) as evidenced by JP '783 explicitly teaching a distributed surveillance network system with duplication of event determination processors to account for additional users of the system or requirements for classification of monitored activity.

The combination of Gilge, Day, and JP '783 is merely (a) a combination of prior art elements according to known methods to yield predictable results; (b) a simple substitution of one known element for another to obtain predictable results; (c) a use of known technique to improve similar devices in the same way; (d) application of a known technique to a known device ready for improvement to yield predictable results; (e) obvious to try; and/or (f) known work in one field of endeavor prompting variations of it for use in either the same field or a different one based on design incentives or other market forces since the variations are predictable to one of ordinary skill in the art.

Thus, as demonstrated herein and in the claim chart at Attachment X, the combination of Gilge, Day and JP '783 presents a substantial new question of patentability as to claim 5 of the '912 patent.

V. Proposed Rejection 22: Claim 5 is unpatentable in view of the combination of Lipton et al., Day and JP '783 under 35 U.S.C. § 103

Claim 5 is unpatentable in view of the combination of Lipton et al., Day, and JP '783 Under 35 USC § 103. As shown in Attachment T, the combination of Lipton et al. and Day discloses the claimed first and second processors of claim 1. With respect to the features of claim 5, including the claimed third processor, it would have been obvious to one of ordinary skill in the art at the time of the purported invention to provide an additional processor for performing event determination (i.e., in addition to the "second processor", "a ***third processor*** configured to determine a second event that is not one of the determined attributes by analyzing a combination of the attributes transferred by the second communications link) as evidenced by JP '783 explicitly teaching a distributed surveillance network system with duplication of event determination processors to account for additional users of the system or requirements for classification of monitored activity.

The combination of Lipton et al., Day, and JP '783 is merely (a) a combination of prior art elements according to known methods to yield predictable results; (b) a simple substitution of one known element for another to obtain predictable results; (c) a use of known technique to improve similar devices in the same way; (d) application of a known technique to a known device ready for improvement to yield predictable results; (e) obvious to try; and/or (f) known work in one field of endeavor prompting variations of it for use in either the same field or a different one based on design incentives or other market forces since the variations are predictable to one of ordinary skill in the art.

Thus, as demonstrated herein and in the claim chart at Attachment Y, the combination of Lipton et al., Day and JP '783 presents a substantial new question of patentability as to claim 5 of the '912 patent.

W. Proposed Rejection 23: Claim 5 is unpatentable in view of the combination of Courtney, Day and JP '783 under 35 U.S.C. § 103

Claim 5 is unpatentable in view of the combination of Courtney, Day, and JP '783 Under 35 USC § 103. As shown in Attachment U, the combination of Courtney and Day discloses the claimed first and second processors of claim 1. With respect to the features of claim 5, including the claimed third processor, it would have been obvious to one of ordinary skill in the art at the time of the purported invention to provide an additional processor for performing event determination (i.e., in addition to the "second processor", "a ***third processor*** configured to

determine a second event that is not one of the determined attributes by analyzing a combination of the attributes transferred by the second communications link) as evidenced by JP '783 explicitly teaching a distributed surveillance network system with duplication of event determination processors to account for additional users of the system or requirements for classification of monitored activity.

The combination of Courtney, Day, and JP '783 is merely (a) a combination of prior art elements according to known methods to yield predictable results; (b) a simple substitution of one known element for another to obtain predictable results; (c) a use of known technique to improve similar devices in the same way; (d) application of a known technique to a known device ready for improvement to yield predictable results; (e) obvious to try; and/or (f) known work in one field of endeavor prompting variations of it for use in either the same field or a different one based on design incentives or other market forces since the variations are predictable to one of ordinary skill in the art.

Thus, as demonstrated herein and in the claim chart at Attachment Z, the combination of Courtney, Day and JP '783 presents a substantial new question of patentability as to claim 5 of the '912 patent.

X. Proposed Rejection 24: Claim 5 is unpatentable in view of the combination of Olson et al., Day and JP '783 under 35 U.S.C. § 103

Claim 5 is unpatentable in view of the combination of Olson et al., Day, and JP '783 under 35 USC § 103. As shown in Attachment V, the combination of Olson et al. and Day discloses the claimed first and second processors of claim 1. With respect to the features of claim 5, including the claimed third processor, it would have been obvious to one of ordinary skill in the art at the time of the purported invention to provide an additional processor for performing event determination (i.e., in addition to the "second processor", "a ***third processor*** configured to determine a second event that is not one of the determined attributes by analyzing a combination of the attributes transferred by the second communications link) as evidenced by JP '783 explicitly teaching a distributed surveillance network system with duplication of event determination processors to account for additional users of the system or requirements for classification of monitored activity.

The combination of Olson et al., Day, and JP '783 is merely (a) a combination of prior art elements according to known methods to yield predictable results; (b) a simple substitution of

one known element for another to obtain predictable results; (c) a use of known technique to improve similar devices in the same way; (d) application of a known technique to a known device ready for improvement to yield predictable results; (e) obvious to try; and/or (f) known work in one field of endeavor prompting variations of it for use in either the same field or a different one based on design incentives or other market forces since the variations are predictable to one of ordinary skill in the art.

Thus, as demonstrated herein and in the claim chart at Attachment AA, the combination of Olson et al., Day and JP '783 presents a substantial new question of patentability as to claim 5 of the '912 patent.

VIII. EXPLANATION OF PERTINENCY AND MANNER OF APPLYING CITED PRIOR ART TO EVERY CLAIM FOR WHICH REEXAMINATION IS REQUESTED UNDER 37 CFR § 1.510(b)(2)

The claim charts appended hereto as Attachments K to AA detail the manner of applying the cited prior art to every claim for which reexamination is requested as follows:

Attachment K: Claim Chart - Claims 1 to 3 and 6 to 22 are Anticipated by Gilge Under 35 USC § 102

Attachment L: Claim Chart - Claims 1 to 4 and 6 to 22 are Anticipated by Lipton et al. Under 35 USC § 102

Attachment M: Claim Chart - Claims 1, 3, 4, 6, 8, 9, 11 to 13, 15 to 20, and 22 Are Anticipated by Courtney Under 35 U.S.C. § 102

Attachment N: Claim Chart - Claims 1, 3, 4, 6, 8, 9, 11 to 13, 15 to 20, and 22 are Anticipated by Olson et al. Under 35 U.S.C. § 102

Attachment O: Claim Chart - Claims 1 to 3 and 6 to 22 are Unpatentable in view of the combination of Gilge and Brill Under 35 USC § 103

Attachment P: Claim Chart - Claims 1 to 4 and 6 to 22 are Unpatentable in view of the combination of Lipton et al. and Brill Under 35 USC § 103

Attachment Q: Claim Chart - Claims 1, 3, 4, 6, 8, 9, 11 to 13, 15 to 20, and 22 are Unpatentable in view of the combination of Courtney and Brill Under 35 USC § 103

Attachment R: Claim Chart - Claims 1, 3, 4, 6, 8, 9, 11 to 13, 15 to 20, and 22 are Unpatentable in view of the combination of Olson et al. and Brill Under 35 USC § 103

Attachment S: Claim Chart - Claims 1 to 3 and 6 to 22 are Unpatentable in view of the combination of Gilge and Day Under 35 USC § 103

Attachment T: Claim Chart - Claims 1 to 4 and 6 to 22 are Unpatentable in view of the combination of Lipton et al. and Day Under 35 USC § 103

Attachment U: Claim Chart - Claims 1, 3, 4, 6, 8, 9, 11 to 13, 15 to 20, and 22 are Unpatentable in view of the combination of Courtney and Day Under 35 USC § 103

Attachment V: Claim Chart - Claims 1, 3, 4, 6, 8, 9, 11 to 13, 15 to 20, and 22 are Unpatentable in view of the combination of Olson et al. and Day Under 35 USC § 103

Attachment X: Claim Chart - Claim 5 is Unpatentable in view of the combination of JP '783 with any of Gilge, Gilge combined with Brill, and/or Gilge combined with Day

Attachment Y: Claim Chart - Claim 5 is Unpatentable in view of the combination of JP '783 with any of Lipton et al., Lipton et al. combined with Brill, and/or Lipton et al. combined with Day

Attachment Z: Claim Chart - Claim 5 is Unpatentable in view of the combination of JP '783 with any of Courtney, Courtney combined with Brill, and/or Courtney combined with Day

Attachment AA: Claim Chart - Claim 5 is Unpatentable in view of the combination of JP '783 with any of Olson et al., Olson et al. combined with Brill, and/or Olson et al. combined with Day

IX. COMMENTS ON PATENT OWNER'S AMENDMENT AND REPLY IN RELATED PROCEEDING

A. Comments On Patent Owner's Remarks

As noted previously, Patent Owner submitted arguments in response to the Examiner's rejection of claims 1-4 and 6-22 in the Office Action in the '912 reexamination. (See '912 reexamination, June 11, 2012 Amendment and Reply.) Although Requester in this instant *ex parte* is not required to address the arguments made in the related '912 reexamination, Requester submits the following comments for the Examiner's consideration to the extent Patent Owner attempts to present similar arguments in the requested *ex parte* reexamination proceeding. Requester essentially agrees with the responsive comments made by the third party requester in the '912 reexamination. (See '912 reexamination, October 31, 2012 Comments Pursuant to 37 C.F.R. § 1.947, including Declaration of Dr. Gerard G. Medioni.) Accordingly, Requester restates those comments here for the consideration of the Examiner and expands upon them as appropriate.

1. Patent Owner Is Not Entitled To A Priority Date Before Earlier Than The '912 Patent Filing Date

In adopting the Third Party Requester's proposed grounds of rejection based on German Patent Publication No. DE 101 53 484 Al ("Gilge"), which published on August 5, 2003, and Lipton et al., "ObjectVideo Forensics: Activity-Based Video Indexing and Retrieval For Physical Security Applications," which published in February 2004, the Examiner in the '912 reexamination proceeding determined those references qualify as prior art under 35 U.S.C. § 102(b) as of the April 5, 2005 filing date of U.S. Patent Application Serial No. 11/098,385 ("the '385 application").[6] (See '912 reexamination, Office Action, pages 3 to 4.) In doing so, the Examiner correctly determined that claims 1 to 4 and 6 to 22 of the '912 patent are not entitled to a filing date earlier than the April 5, 2005 filing date of the '385 application. For the claims of the '912 application to be entitled to the filing date of an earlier application, the earlier application must satisfy all of the requirements of 35 U.S.C. § 112, first paragraph. (See 35 U.S.C. § 120.) That is, the earlier application must contain an enabling disclosure of the claims of the later application, and the earlier application must contain an adequate written description of the claims of the later application.

Here, U.S. Patent Application Serial No. 09/987,707 ("the '707 application") does not enable the subject matter claimed in the '912 patent and does not contain an adequate written description of the subject matter claimed in the '912 patent. Therefore, the claims of the '912 patent are not entitled to the filing date of the '707 application.

As a threshold matter, Patent Owner bears the burden of proving that the claims of the '912 patent are entitled to a filing date earlier than the filing date of the '385 application. (*See PowerOasis, Inc. v. T-Mobile USA, Inc.*, 522 F.3d 1299, 1305-06 (Fed. Cir. 2008) ("When neither the PTO nor the Board has previously considered priority, there is simply no reason to presume that claims in a CIP application are entitled to the effective filing date of an earlier filed application.... The district court therefore correctly placed the burden on PowerOasis [the Patent Owner] to come forward with evidence to prove entitlement to claim priority to an earlier filing date."))

[6] As discussed above, the '912 Patent issued from the '385 application. The '385 Application was filed as a CIP of the '707 application, which itself was filed as a CIP of the '712 application.

The '912 patent states on its face that it is a continuation-in-part of U.S. Patent Application Serial No. 11/057,154 ("the '154 application"), filed February 15, 2005, which is stated to be a continuation-in-part of the '707 application, filed November 15, 2001, and as such, "any claims in the new application not supported by the specification and claims of the parent application have an effective filing date equal to the filing date of the new application." (See M.P.E.P. § 706.02(VI)(B).)

Notwithstanding the Patent Owner's assertions in the Response it filed in the '912 reexamination, the prosecution history of the '385 application and the disclosure made in the '707 application clearly indicate that the claims of the '912 patent are not supported by the '707 application in the manner provided for in 35 U.S.C. § 112, first paragraph, and are therefore not entitled to the filing date of the '707 application, at least for the reasons set forth below.

a) The Claims of the '912 Patent Rely on New Subject Matter Disclosed in the '385 Application

The '385 application was filed as a continuation-in-part of the '707 application, and plainly disclosed ***new subject matter*** was not present in the '707 application. For instance, the '385 application added new Figures 16 to 25, which were not present in the '707 application. The '385 application also added a number of paragraphs to the '707 application's specification, including, for example, paragraphs [0080] to [0104]. The '385 application was originally filed with twenty-six claims, all of which were rejected in a first Office Action mailed August 20, 2009. Subsequently, in an "Amendment and Interview Summary" filed December 22, 2009, the applicants for the '912 patent cancelled claims 1 to 26 and added new claims 27 to 53, a subset of which eventually issued as the claims of the '912 patent. Application claim 27, which ultimately issued as claim 1 of the '912 patent and which Patent Owner has identified as representative (see '912 reexamination, Response at page 5), is presented below:

> 27. A video system comprising:
>
> a first processor which analyzes a video to determine attributes of objects detected in the video, the first processor being in communication with a first communications link to transfer the determined attributes over the communications link; and
>
> a second processor, separate from the first processor, in communication with the first communications link to receive the determined attributes transferred from the first processor over the first communications link, which determines a first event that is

not one of the determined attributes by analyzing a combination of the received determined attributes

wherein the first processor determines attributes independent of a selection of the first event by the second processor.

Application claim 27 recites a "video system" that requires two ***separate processors*** (*i.e.*, the first processor and the second processor). Claim 27 proceeds to define these processors such that each is assigned specific and exclusive responsibilities (*i.e.*, the ***first*** processor analyzes a video to determine ***attributes*** of detected objects while the ***second*** "separate" processor receives these attributes and determine the first ***event*** by analyzing the attributes). To support the newly added claims (including "representative" claim 27 above, the applicants cited to "***Figures 23, 24 and 25 and the corresponding description starting at paragraph /0087]***" on page 9 of the Amendment and Interview Summary (emphasis added). This is precisely the newly added subject matter presented ***for the first time in the '707 application***. Notably, ***no reference*** to material appearing in any prior application was made as support for this new disclosure.

Figures 23 to 25 are reproduced below, with pertinent disclosure:

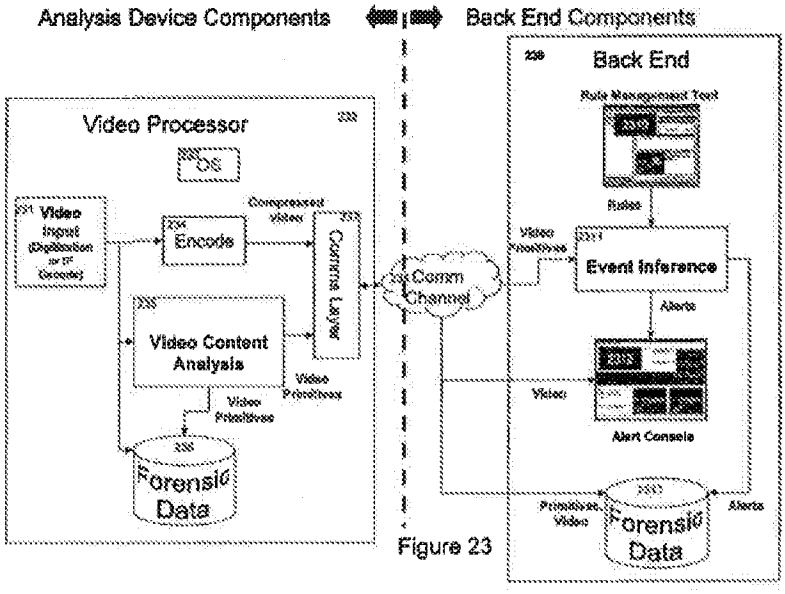


Figure 23

[0087] FIG. 23 shows another configuration of an implementation of the video surveillance system. Block 231 represents a raw (uncompressed) digital video input. This can be obtained, for example, through analog to digital capture of an analog video signal or decoding of a digital video signal. ***Block 232 represents a hardware platform housing the analysis component of the video surveillance system (block 235).*** The hardware platform may contain other components such as an operating system (block

233)...a storage mechanism (block 236)...this storage device may be, for example, a hard-disk, on-board RAM, on-board FLASH memory, or other storage medium; and a communications layer (block 237) that may, for example, packetize and/or digitize data for transmission over a communication channel (block 238). ***In the embodiment of the invention shown in FIG. 23, the activity inference component (block 2311) is shown on a separate hardware component (block 239) connected to a network to which communication channel 238 connects.***

[0089] Components on the hardware platform (block 222) may be implemented on any processing platform (general purpose processor, microcontroller, DSP, FPGA, ASIC or any other processing platform) on any video capture, processing, or management device such as a video camera, digital video camera, IP video camera, IP video server, digital video recorder (DVR), network video recorder (NVR), PC, laptop, or other device. ***Components on the back-end hardware platform (block 239) may be implemented on any processing hardware*** (general purpose processor, microcontroller, DSP, FPGA, ASIC, or any other device) on any processing device such as PC, laptop, single-board computer, DVR, NVR, video server, network router, hand-held device (such as video phone, pager, or PDA). There are a number of different possible modes of operation for this configuration.

[0090] ***In one mode, the system is programmed on the back-end device (or any other device connected to the back-end device) to look for specific events. The content analysis module (block 235) on the video processing platform (block 232) generates primitives that are transmitted to the back-end processing platform (block 239). The event inference module (block 2311) determines if the rules have been violated*** and generates alerts that can be displayed on an alert console (block 2312) or stored in a storage device (block 2313) for later analysis. (emphasis added.)

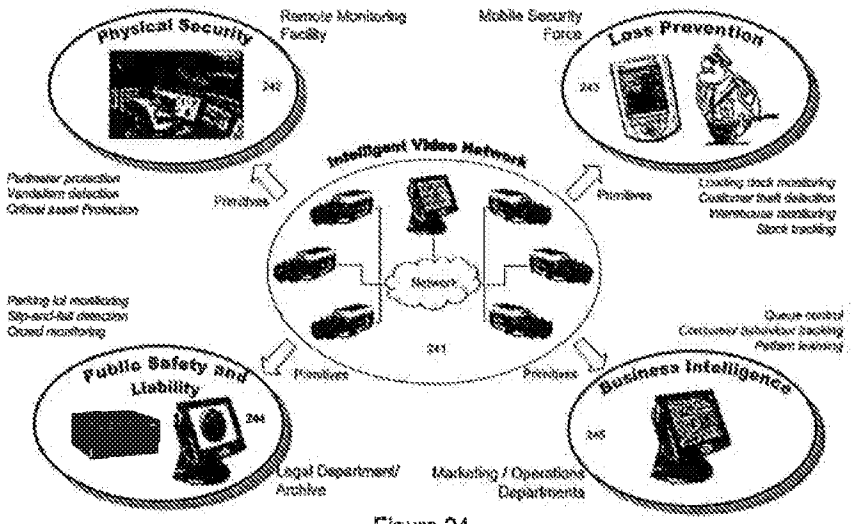


Figure 24

0099] FIG. 24 shows an extension of the configuration described in FIG. 23. ***By separating the functionality of video content analysis and back end activity inference, it is possible to enable a multi-purpose intelligent video surveillance system through the process of late application binding.*** A single network of intelligence-enabled cameras can broadcast a single stream of video primitives to separate back-end applications in different parts of an organization (at different physical locations) and achieve multiple functions. This is possible because the primitive stream contains information about everything going on in the scene and is not tied to specific application areas....***The content analysis component or components may reside on a processing device inside the cameras, in video servers, in network routers, on DVRs, on NVRs, on PCs, on laptops or any other video processing device connected to the network. From these content analysis components, streams of primitives are broadcast via standard networks to activity inference modules on back end processors (blocks 242-245) residing in physically different areas used for different purposes.*** The back end processors may be in computers, laptops, DVRs, NVRs, network routers, handheld devices (phones, pagers, PDAs) or other computing devices. (emphasis added.)

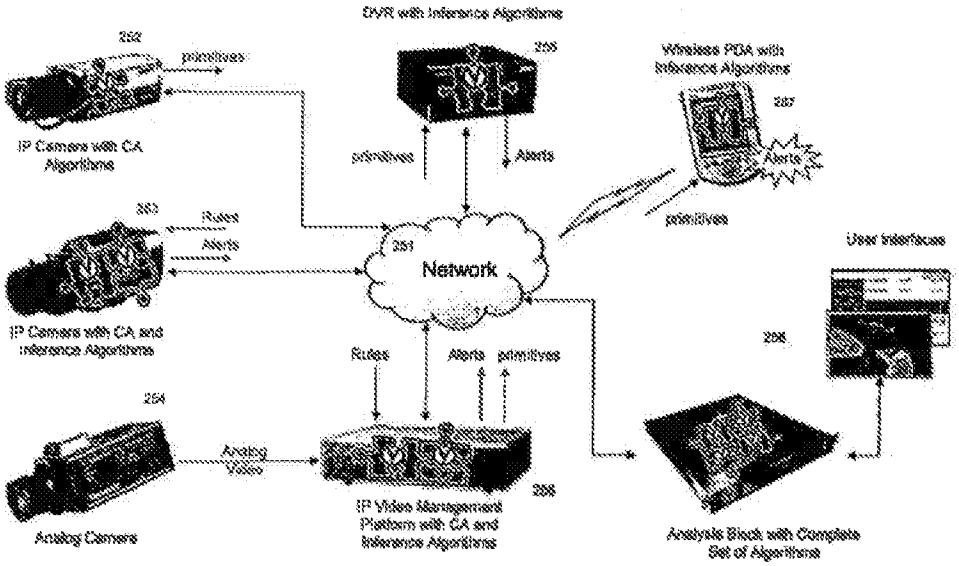


Figure 25

[0104] FIG. 25 shows a network (block 251) with a number of potential intelligence-enabled devices connected to it. ***Block 252 is an IP camera with content analysis components on board that can stream primitives over a network.*** Block 253 is an IP camera with both content analysis and activity inference components on board that can be programmed directly with rules and will generate network alerts directly....***Block 255 is a DVR with activity inference components that is capable of ingesting primitive streams from other devices and generating alerts. Block 257 is a handheld PDA enabled with wireless network communications that has activity inference algorithms on board and is capable of accepting video primitives from the network and displaying alerts.*** Block 258 is complete intelligent video analysis system capable of accepting analog or digital video streams, performing content analysis and activity inference and displaying alerts on a series of alert consoles. (emphasis added.)

The new subject matter presented in the '385 application and expressly identified by the applicant to purportedly support the newly added claims during the prosecution of the '385 application, is directed to different configurations of distributed video systems. As illustrated in Figures 23 to 25 and in the paragraphs cited above, these configurations include both ***multiple processors*** and a clear assignment of processing responsibilities ***to separate processors***, specifically the assignment to one processor of detecting attributes and the assignment of detecting events to the other by analyzing a combination of attributes - exactly what is claimed in application claim 27.

Moreover, the logic underlying Patent Owner's presentation of new subject matter in the Continuation-In-Part application ('385 application) can be plainly inferred from the descriptions below, which were disclosed in the Lipton et al. reference and authored by one of the inventors of the '912 Patent itself:

> "The power of this distributed approach is significant. Digital video requires extremely high bandwidth for high quality transmission. Furthermore, the most time-sensitive and computationally intensive processing is usually the front-end computer vision analysis of the video streams. The advantages of separating this process from the rest of the system are that dedicated computational hardware can be specifically applied to the vision processing algorithms and once these are done, all of the relevant data required for further activity analysis can be transmitted over a network as a very low bandwidth stream of activity-based meta-data -thus saving large amounts of bandwidth."
> (Lipton et al., p. 57, col. 2)

As such, these configurations of ***multiple processors*** as well as a clear assignment of processing responsibilities ***to separate processors*** are very significant features in '385 application, however, the '707 application does not contain any description regarding these important features in such full, clear, concise and exact manners as to enable a person of ordinary skill in the art to make and use the same.

Accordingly, the prosecution history of the '385 application shows that new matter was added to the '385 application that was not included in the '707 application, and that this new matter was directly relied upon by the applicants to purportedly support the claims. This demonstrates that the claims of the '912 patent are not entitled to the filing date of any earlier application, including the '707 application. This is confirmed by the discussion below regarding the lack of disclosures in the '707 application of the subject matter claimed in the '912 patent.

b) The '707 Application Does Not Disclose the Exclusive Assignment of Processes Between Separate Processors Required By All '912 Patent Claims

The '385 application was filed as a continuation-in-part of the '154 application, which is stated to be a continuation-in-part of the '707 application. Only claims that are "fully ***supported*** under 35 U.S.C. 112 by the earlier parent application have the effective filing date of that earlier parent application." (See M.P.E.P. § 706.02(VI)(B), emphasis added.) As the Federal Circuit has explained:

> "Entitlement to a filing date does not extend to subject matter which is not disclosed, but would be obvious over what is

> expressly disclosed." *In re Huston*, 308 F.3d 1267, 1277 (Fed. Cir. 2002) (quoting *Lockwood v. Am. Airlines, Inc.*, 107 F.3d 1565, 1571-72 (Fed. Cir. 1997)). In *Lockwood*, we held:
>
> While the meaning of terms, phrases, or diagrams in a disclosure is to be explained or interpreted from the vantage point of one skilled in the art, ***all the limitations must appear in the specification***. The question is not whether a claimed invention is an obvious variant of that which is disclosed in the specification. Rather, ***a prior application itself must describe an invention, and do so in sufficient detail*** that one skilled in the art can clearly conclude that the inventor invented the claimed invention as of the filing date sought.
>
> 107 F.3d at 1572. (*PowerOasis v. T-Mobile USA*, 522 F.3d at 1306; emphasis added.)

Accordingly, "Obviousness simply is not enough; the subject matter must be disclosed to establish possession." (*PowerOasis*, 522 F.3d at 1311 (internal citations omitted).) Here, the disclosure of the '707 application plainly does not support the claims of the '912 patent, and thus Patent Owner cannot rely on the filing date of the '707 application.

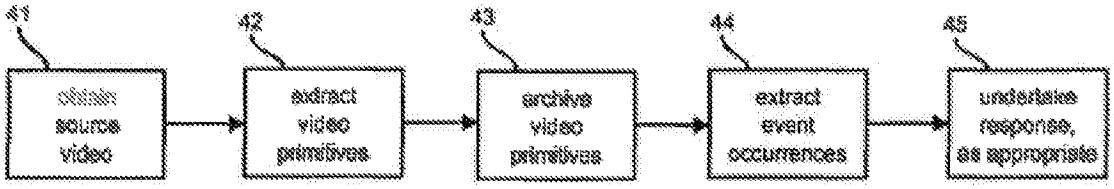
In the '912 reexamination, Patent Owner has described the "first processor" and "second processor" claim limitations of the '912 patent as the "two-processor requirement." ('912 reexamination, Response at p. 9.) This shorthand reference to the "two-processor requirement" conveniently omits the additional claim requirements: the exclusive assignment of ***specific responsibilities*** to different processors, and the assignment of determining attributes of objects detected in video to a first processor, and the assignment of determining events by analyzing a combination of attributes. Patent Owner notably makes no reference to these specific claim requirements when attempting to demonstrate support in the '707 application,

For example, Patent Owner cites paragraph [49] of the '707 application as disclosing the "two-processor requirement," reproduced below:

> [49] A "computer" refers to any apparatus that is capable of accepting a structured input, processing the structured input according to prescribed rules, and producing results of the processing as output. Examples of a computer include: a computer.... A computer can have a single processor or ***multiple processors***... A computer also refers to ***two or more computers*** connected together via a network.
>
> ...

> An example of such a computer includes a distributed computer system for processing information via ***computers*** linked by a network. ('707 application, paragraph [49]; emphasis provided in '912 reexamination Response.)

However, paragraph [49] merely provides a generic discussion of a computer, and generally describes that a computer can have multiple processors, but is silent towards different processors exclusively having ***different responsibilities***, much less the specific assignment of responsibilities recited by the claims of the '912 patent. Patent Owner also cited to Figures 4 and 9 as "flow diagrams that further support the distinct processes of the video surveillance system contemplated by the '707 application." ('912 reexamination, Response at p. 10.) Figures 4 and 9 are reproduced below, with accompanying description:



> [58] Figure 4 illustrates a ***flow diagram*** for operating the video surveillance system. ('707 application, paragraph [58]; emphasis added.)

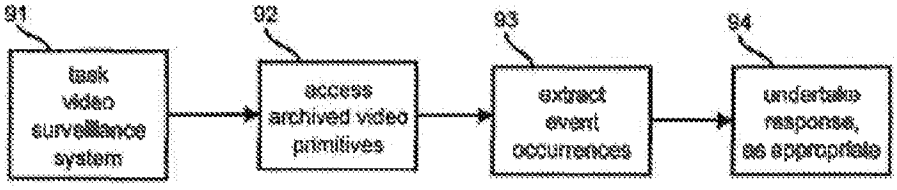


FIG. 9

> [63] Figure 9 illustrates ***an additional flow diagram*** for the video surveillance system of the invention. ('707 application, paragraph [63]; emphasis added.)

Figures 4 and 9 are merely flow diagrams illustrating the operation of the system. No structural details are provided.

Similarly, Patent Owner cites Figure 3, which is also a flow diagram:

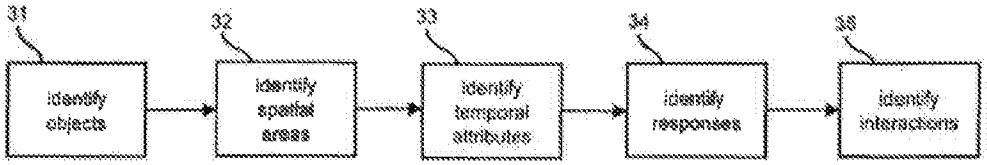


FIG. 3

> [57] Figure 3 illustrates ***a flow diagram*** for tasking the video surveillance system. ('707 application, paragraphs [57]; emphasis added.)

Figures 3, 4, and 9 do not describe the ***actual hardware*** underlying the system - the first and second processors recited by the claims of the '912 patent - much less disclose the exclusive assignment of responsibilities to different processors. Patent Owner further points to the description of how to "task" the system as including "tasking the computer system 11 and/or another computer system" as well as "forwarding data (*e.g.*, image data, video data, video primitives, and/or analyzed data) to another computer system via a network, such as the Internet." ('912 reexamination, Response at p. 11; citing '707 application paragraph [96].) However, paragraph [96] states that "In block 34, a response is optionally identified" and all of the language cited by Patent Owner is presented as "[e]xamples of a response" by the '707 application, which may be associated with the determination of an event (see paragraph [97], reproduced below) but do not perform the ***determination of an event***, as is claimed. Paragraph [97], reproduced below, addresses block 35, where "one or more discriminators are identified by describing interactions between video primitives" and does not disclose the assignment of specific processing responsibilities to separate processors:

> ***In block 35, one or more discriminators are identified by describing interactions between video primitives*** (or their abstractions), spatial areas of interest, and temporal attributes of interest. An interaction is determined for a combination of one or more objects identified in block 31, one or more spatial areas of interest identified in block 32, and one or more temporal attributes of interest identified in block 33. ***One or more responses identified in block 34 are 20 optionally associated with each event discriminator.*** (emphasis added.)

Accordingly, Figure 3, like Figures 4 and 9, does not address the hardware configuration of the video surveillance system presented in the '707 application. Rather, all these figures are directed to the operation (flow) of the system.

Notably, of the 15 figures disclosed in the '707 application, eight are flow charts (Figures 2 to 9), six are example applications of the system monitoring a grocery store (Figures 10 to 15) and only Figure 1 illustrates a video surveillance system. However, Figure 1 is only a simple "plan view" of the system and, as shown below, fails to disclose more than a ***single computer*** with a computer-readable medium:

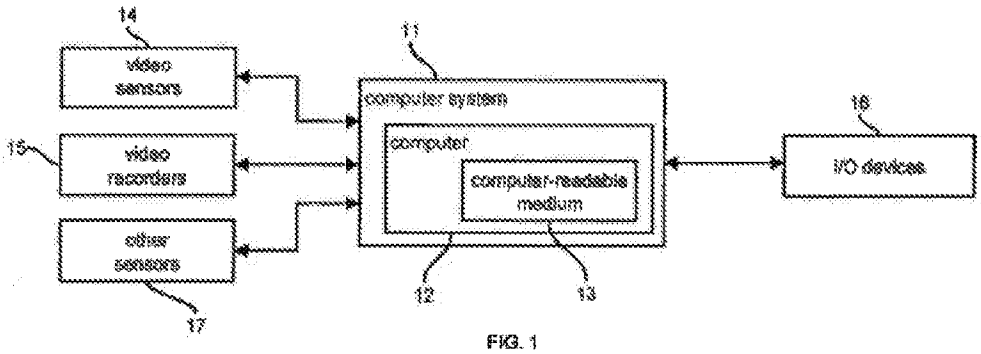


FIG. 1

[55] Figure 1 illustrates a ***plan view*** of the video surveillance system of the invention.

[71] Figure 1 illustrates a plan view of the video surveillance system of the invention. A computer system 11 comprises ***a computer 12 having a computer-readable medium 13 embodying software to operate the computer 12*** according to the invention. The computer system 11 is coupled to one or more video sensors 14, one or more video recorders 15, and one or more input/output (I/O) devices 16. The video sensors 14 can also be optionally coupled to the video recorders 15 for direct recording of video surveillance data. The computer system is 5 optionally coupled to other sensors 17. (emphasis added.)

Thus, when the '707 application does discuss system hardware, it is only in reference to ***one computer*** shown with a single computer-readable medium as a single unit. Even taking this single computer have one memory in view of the generic description of "multiple processors" set forth in paragraph [49], there is simply no disclosure of assigning ***specific processing responsibilities exclusively to different processors*** as claimed. Likewise, Patent Owner's citation of originally filed claim 2 as disclosing "code segments for extracting video primitives; and code segments for extracting event occurrences from video primitives" (but not ***different processors*** responsible for executing each of the code segments) and of multiple computer readable mediums on page 11 of the Response do not provide the disclosure necessary to cure this deficiency. Furthermore, the disclosure in the '707 application contrasts markedly with the description and detail regarding system configuration provided in the new disclosure the applicants added to the '385 continuation-in-application, as illustrated above.

Accordingly, the '707 application does not disclose the exclusive assignment of processing responsibilities to different processors, or the specific assignment of determining attributes to a first processor and of determining events to a second processor. Thus, the claims of the '912 patent are not fully supported by the '707 application in the manner provided for in

35 U.S.C. § 112, first paragraph. Consequently, the claims of the '912 patent are not entitled to the filing date of the '707 application.

c) The Applicants for the '912 Patent Argued That the Prior Art Did Not Teach the Exclusive Assignment of Processing Responsibilities

The foregoing discussion is underscored by the arguments the applicants for the '912 patent made against the prior art during prosecution. Prior art references cited by the Examiner during prosecution provide a much more clear description of the claimed features than the '707 application, but the applicants argued the "two-processor requirement" was not present.

For example, in the Final Office Action mailed March 22, 2010, the Examiner rejected claims 27 to 53 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 7,447,331 ("Brown et al."). Brown et al. illustrates a network of data processing systems in Figure 1, reproduced below along with accompanying disclosure:

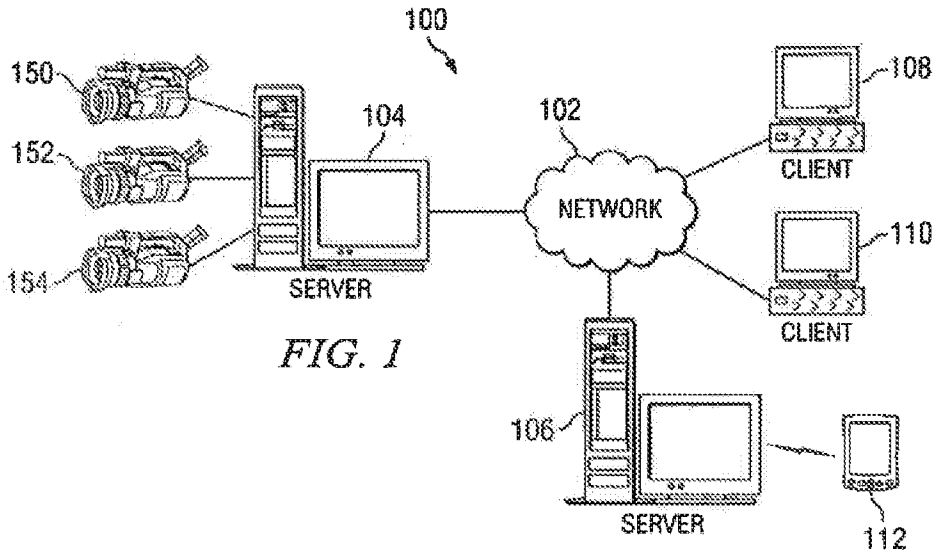


FIG. 1

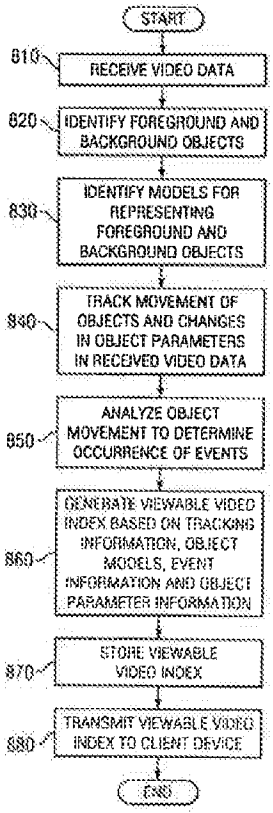
In the depicted example, server 104 is connected to network 102 along with wireless server 106. In addition, clients 108, 110, and 112 are connected to network 102. Clients 108 and 110 represent clients that communicate via the network 102 using wired connections to the network 102. Client 112 represents a client device, such as a personal digital assistant (PDA) or wireless telephone, that communicates with the network 102 using a wireless connection via the wireless server 106 which may be coupled to a base station or other type of wireless transceiver (not shown). ***These clients 108, 110, and 112 may be, for example, personal computers or network computers. In the depicted example, server 104 provides data, such as boot files, operating***

system images, and applications to clients 108-112. Clients 108, 110, and 112 are clients to server 104.

In the depicted example, ***server 104 may incorporate a viewable video index video analysis system*** in accordance with the exemplary aspects of the present invention. Server 104 may be coupled to one or more video input device 150-154 which are used to provide video data streams to the server 104. The video input devices 150-154 may be, for example, digital video cameras or the like. (Brown et al., col. 5, lines 40 to 53; emphasis added.)

Additionally, Brown et al. provides a description of the generation of the viewable video index with respect to Figure 8. Figure 8 is "a flowchart outlining an exemplary operation of one exemplary embodiment of the present invention when generating a viewable video index" (Brown et al., col. 4, 11. 4 to 6) is reproduced below with accompanying disclosure:

FIG. 8



FIGS. 8 and 9 illustrate flowcharts outlining exemplary operations of various elements of the present invention.

Accordingly, blocks of the flowchart illustrations support combinations of means for performing the specified functions, combinations of steps for performing the specified functions and program instruction means for performing the specified functions. ***It will also be understood that each block of the flowchart***

> ***illustrations***, and combinations of blocks in the flowchart illustrations, ***can be implemented by special purpose hardware-based computer systems which perform the specified functions or steps***, or by combinations of special purpose hardware and computer instructions.
>
> FIG. 8 is a flowchart outlining an exemplary operation of one exemplary embodiment of the present invention when generating a viewable video index. As shown in FIG. 8, the operation starts by receiving video data (step 810). ***Foreground and background elements of the video data are identified (step 820) and models representing the foreground objects and background elements are generated (step 830). Movement of the foreground objects over the background is then tracked for a predetermined period to generate tracking and object parameter information (step 840).*** In addition, the video data is analyzed to determine the occurrence of events and a sequence of events is generated (step 850). ***The models, tracking and event information are then utilized to generate a viewable video index (step 860) by generating a data structure with parameters and references to the model, tracking and event files.*** The viewable video index is then stored (step 870) and may be transmitted to a client device (step 880). The operation then ends. (Brown et al., col. 14, line 32 to col. 15, line 11; emphasis added.)

In the Final Office Action, the Examiner identified the server 104 and the client 108 disclosed by Brown et al. as teaching the "first processor" and "second processor," respectively, as recited by application claim 27. (See March 22, 2010 Final Office Action, page 3.) Further, the Examiner identified steps 950 to 970 of Figure 9 as teaching that the second processor "determines a first event" and steps 850 and 860 as teaching "wherein the first processor determines attributes." (See March 22, 2010 Final Office Action, page 3.) In the "Amendment and Interview Summary" dated July 29, 2010, the applicants presented the following argument against this rejection:

> In contrast, Figure 8 does include a step for determining an event. As stated at col. 15, lines 3-5, "video data is analyzed to determine the occurrence of events and a sequence of events is generated (step 850)." However, as recognized by the Examiner, Figure 8 (including the determination of events in step 850) relates to actions of server 104 (identified as the first processor by the Examiner). However, claim 27 recites that the second processor "determines a first event..." ***Thus, the event determination of step 850 does not meet the recitations of claim 27.*** (July 29, 2010 Amendment and Interview Summary, page 11; italicized emphasis provided by applicants; bold emphasis added.)

Thus, the applicants for the '912 patent distinguished Brown et al. for failure to teach that the event determination step was assigned exclusively to the second processor and not to the first processor, despite the explicit disclosure by Brown et al. of two separate processors and that in the flowchart of Figure 8 "***each block of the flowchart illustrations***, and combinations of blocks in the flowchart illustrations, ***can be implemented by special purpose hardware-based computer systems which perform the specified functions or steps***, or by combinations of special purpose hardware and computer instructions." (Brown et al., col. 14, lines 55 to 60; emphasis added.) Brown et al. thus has more explicit disclosure of the "two-processor requirement" than the '707 application, and since the disclosure of Brown et al. was found insufficient to convey the exclusive assignment of determining events to a second processor, separate from the first processor that exclusively determines attributes, the disclosure in '707 application certainly is insufficient to support the claims of the '912 patent.

As shown, the '707 application has no disclosure of the exclusive assignment of processing responsibilities, much less the claimed assignment of detecting attributes to one processor and the assignment of determining events to another processor. These features were plainly added ***for the first time*** in the '385 application, as the Patent Owner's statements in during prosecution make clear. The arguments made to distinguish the Brown prior art reference during prosecution of the '385 application only serve to confirm that the '707 application disclosure is insufficient to support an earlier priority date for the '912 Patent.

For at least these reasons, Requester submits that the Examiner's determination in the '912 *inter partes* reexamination proceeding that the claims of the '912 patent are not entitled to the filing date of the '707 application is correct and should apply equally to the instant *ex parte* request.[7]

d) Claims 6 to 22 Are Not Entitled to the '707 Application Filing Date

Patent Owner has also asserted in the '912 reexamination that "none of claims 6-22 requires two processors." ('912 reexamination, Response at p. 13.) Requester herein disagrees with this statement and notes, as an initial matter that Patent Owner has identified claim 1 as "representative of the present invention." ('912 reexamination, Response, p. 5.) This

[7] Requester also submits that Patent Owner's attempts to demonstrate support in the '707 application are inconsistent with its arguments against Courtney disclosing the first and second processor components of the claims.

identification is particularly apt because claims 6 to 22 reflect the same exclusive assignment of processing responsibilities to different processors.

For example, claim 6 recites "a processor configured to ***receive*** from the input a stream of ***detected attributes*** received over the communications channel." Logic dictates that if the processor is receiving detected attributes, those attributes had to first be detected on a ***separate processor***.

Similarly, claim 6 further recites that "the processor configured to determine an event...by analyzing a combination of the received attributes," and "wherein the attributes received over the communications channel are independent of the event to be determined by the processor, and wherein the processor is configured to determine the event without reprocessing the video." If the claimed processor is able to determine an event solely by analyzing the received attributes and without "***reprocessing*** the video," a second processor would necessarily have been required to do the ***initial processing***. The video system of claim 6 is necessarily a two processor system.

Moreover, the applicants for the '912 patent applied the same distinction over the cited prior art discussed above - that Brown et al. did not recite a *second* processor - ***for all claims*** of the '385 application. (See July 29, 2010 Amendment and Interview Summary, pp. 11 to 13.) By the applicants' own words, all claims allegedly distinguished over the prior art on the basis of this second processor requirement. The Examiner correctly determined that the exclusive assignment of processing responsibilities to different processors, which was not shown in the '385 application, underlies all claims of the '912 patent.

e) The '707 Application Does Not Disclose the Independence-Based Elements

Patent Owner has further asserted in the '912 reexamination that the "independence-based elements" are supported by the '707 application. (See '912 reexamination, Response at p. 13.) In support of this assertion, Patent Owner urged that "the '707 application distinguishes an 'event,' described as "refer[ring] to one or more objects engaged in an activity," '707 app. at ¶48, from a "video primitive," described as 'an observable attribute of an object view in a video feed.'" Id. at ¶80." ('912 reexamination, Response at p. 13.)

These assertions do not adequately establish that the '707 application provides an enabling disclosure and an adequate written description of the claim limitations identified on page 6 of the Response in the '912 reexamination as "independence-based elements."

2. The Rejections Based On Gilge and Lipton et al. Were Substantively Uncontested In The '912 Reexamination

As is set forth above, the Examiner correctly determined in the '912 *inter partes* reexamination proceeding that the claims of the '912 patent are not entitled to the filing date of the '707 application. Requester herein should therefore be entitled to rely on prior art patents and printed publications that constitute prior art to the '912 patent as of the April 5, 2005 filing date of the '385 application.

As such, the rejections of claims 1 to 3 and 6 to 22 as anticipated by German Patent Publication No. DE 101 53 484 Al ("Gilge") under 35 U.S.C. § 102(b) (adopted in the '912 reexamination as "Issue 1" and represented herein is Proposed Rejection 1) and the rejection of claims 1 to 4 and 6 to 22 as anticipated by Lipton et al., "ObjectVideo Forensics: Activity-Based Video Indexing and Retrieval For Physical Security Applications" under 35 U.S.C. § 102(b) (adopted in the '912 reexamination as "Issue 3" and represented herein as Proposed Rejection 2) should be adopted in the instant *ex parte* request.

Patent Owner notably made no substantive arguments against these same rejections in the '912 *inter partes* reexamination proceeding.

3. Patent Owner's Arguments Against The Rejection Of Claims 1, 3, 4, 6, 8, 9, 11 to 13, 15 to 20, And 22 As Anticipated By Courtney Lack Merit

In the '912 *inter partes* reexamination proceeding, claims 1, 3, 4, 6, 8, 9, 11 to 13, 15 to 20, and 22 were rejected as anticipated by U.S. Patent No. 5,969,755 ("Courtney") as "Issue 5". (See '912 reexamination, Office Action at p. 4-5.) These rejections are re-represented herein as Proposed Rejection 3. To the extent that Patent Owner may make similar arguments as those raised in the '912 reexamination concerning the rejections based on Courtney, Requester notes the following.

Patent Owner's Response in the '912 reexamination asserted that the subject matter of Courtney was contained in U.S. Patent No. 6,424,370 ("Courtney '370") and was previously considered by the Office. ('912 reexamination, June 11, 2012 Amendment and Reply at p. 18.) Courtney was not cited during the prosecution of the '912 patent, and notwithstanding Patent Owner's *post hoc* characterization of discussions with the Examiner presented in the '912 reexamination proceeding, which notably appear nowhere in the actual prosecution record of the '912 patent, nothing in the record indicates that the Examiner appreciated the disclosure of Courtney. Moreover, it is entirely proper to base a reexamination request on prior art previously

cited to and considered by the Examiner during the underlying prosecution if that prior art is "presented/viewed in a new light, or in a different way, as compared with its use in the earlier concluded examination(s), in view of a material new argument or interpretation presented in the request." (M.P.E.P. § 2216, citing M.P.E.P. § 2242(II)(A).)

As discussed below, Patent Owner's attempts to distinguish Courtney in the '912 reexamination lack merit and should be rejected if presented here.

a) Courtney Anticipates Independent Claim 1 by Disclosing a Second Processor that Determines a First Event that is Not One of the Attributes Determined Independent of a Selection of the First Event by the Second Processor

In the '912 reexamination, Patent Owner asserted that Courtney "discloses neither 'a second processor... which determines a first event that is not one of the determined attributes by analyzing a combination of the received determined attributes,' nor that 'the first processor determines attributes independent of a selection of the first event by the second processor,'" as required by claim 1. ('912 reexamination, Response at p. 20-21.) This is an incorrect interpretation of Courtney, which discloses a system that operates in the same manner as what is presented and claimed in the '912 patent.

Courtney discloses that the vision subsystem 13 "employs motion segmentation techniques to segment foreground objects from the scene background in each frame" and "analyzes the segmented video to create a symbolic representation of the foreground objects and their movement." (Courtney, col. 4, lines 29 to 45.) This "symbolic record of video content is referred to as the video 'meta-information'" and is "stored in the database in the form of an annotated directed graph appropriate for later indexing and search." (Courtney, col. 4, 11. 45-51.) A description of Courtney of the meta-information is set forth below in comparison with the disclosure of the '912 patent regarding "video primitives":

Courtney	'912 Patent
The vision subsystem 13 records in the meta-information the ***size, shape, position, time-stamp, and image*** of each object in every video frame. It tracks each object through successive video frames, estimating the ***instantaneous velocity*** at each frame and determining the ***path of the object and its intersection with the paths of other objects***. It	Another exemplary embodiment of the video primitives may include object descriptors referring to an observable attribute of an object viewed in a video feed....Exemplary object descriptors may include generic properties including, but not limited to, ***size, shape***, perimeter, ***position, trajectory, speed and direction of motion***, motion salience and its

then classifies objects as moving or stationary based upon velocity measures on their path. (col. 4, 11. 54- 61; emphasis added.)	features, color, rigidity, texture, and/or ***classification***. ... The object descriptor may also contain activities, including, but not limited to, ***carrying an object***, running, walking, standing up, or raising arms. Some activities, such as talking, fighting or ***colliding, may also refer to other objects***. (col. 13, 11. 34-53; emphasis added.)

Further, paragraph [80] of the '707 application, which Patent Owner cited in its argument that the '707 application discloses "independence-based elements" (see '912 reexamination, Response, p. 13) states that examples of video primitives include classification, size, shape, position, and velocity. (See '707 application; paragraph [80].) Also, a number of new claims Patent Owner added in the '912 reexamination June 11, 2012 Amendment and Reply were directed to size (see, e.g., claims 51, 62, 74, 85, and 96), velocity or speed (see, e.g., claims 52, 63, 75, 86, and 97), and position (see, e.g., claims 53, 64, 76, 87, and 98).

Patent Owner challenged the event-indexing functionality of Courtney because Courtney "discloses that the meta-information includes 'an index mark at each occurrence of eight events of interest: appearance/disappearance, deposit/removal, entrance/exit, and motion/rest of objects.' Courtney '755 at col. 4, lines 62-65." (See '912 reexamination, Response at p. 21.) However, the '912 patent itself states that "the exact contents of the video primitives may depend on the application and potential events of interest" ('912 patent, col. 13, 11. 11-12) and may include "scene/video descriptors" (col. 13, 1. 15) and "object descriptors" (col. 13, 1. 36), for example. Courtney describes indexing the meta-information by marking each occurrence of certain events as set forth below to create ***additional video primitives or attributes***, as is described in the '912 patent:

Courtney	**'912 Patent**
Finally, the vision subsystem 13 scans through the meta-information and places an index mark at each occurrence of eight events of interest: ***appearance/disappearance, deposit/removal, entrance/exit***, and motion/rest of objects....For example, a moving object that "spawns" a stationary object results in a ***"deposit"*** event. A	Exemplary object descriptors may include generic properties including... speed and direction of motion, motion salience and its features...The object descriptor may also contain activities, including, but not limited to, ***carrying an object***... Some activities, such as talking, fighting or colliding, may also refer to

moving object that intersects and then removes a stationary object results in a ***"removal"*** event. (col. 4, l. 62 to col. 5, l. 3; emphasis added.) Eight events of interest are defined to designate various motion events in a video sequence. ***Appearance***--An object emerges in the scene. ***Disappearance***--An object disappears from the scene. ... ***Motion***--An object at rest beings to move. (col. 10, ll. 50-60; emphasis added.)	other objects. (col. 13, ll. 38-53; emphasis added.) A motion refers to any motion that can be automatically detected. Examples of a motion include: ***appearance of an object; disappearance of an object; a vertical movement of an object; a horizontal movement of an object***; and a periodic movement of an object. (col. 14, ll. 36-40; emphasis added.)
Eight events of interest are defined to designate various motion events in a video sequence. ... ***Entrance***--A moving object enters in the scene. ***Exit***--A moving object exits from the scene. ***Motion***--An object at rest beings to move. (col. 10, ll. 50-60; emphasis added.)	A salient motion refers to any motion that can be automatically detected and can be tracked for some period of time. Such a moving object exhibits ***apparently purposeful motion***. Examples of a salient motion include: ***moving from one place to another***; and moving to interact with another object. (col. 14, ll. 41-45; emphasis added.)
Eight events of interest are defined to designate various motion events in a video sequence. ***Deposit***--An inanimate object is added to the scene. ***Removal***--An inanimate object is removed from the scene. ***Rest***--A moving object comes to a stop. (col. 10, ll. 50-57; emphasis added.)	A scene change refers to any region of a scene that can be detected as changing over a period of time. Examples of a scene change include: ***an stationary object leaving a scene; an object entering a scene and becoming stationary***. (col. 14, l. 65 to col. 15, l. 1; emphasis added.)

Accordingly, by describing the meta-information and event indexing performed by the vision subsystem 13 (*i.e.*, the creation of "events" seized on by Patent Owner) Courtney discloses the very determination of "attributes" described and claimed in the '912 patent. What Patent Owner's declarant Dr. Zeger referred to as an "event-indexing prior art system" (see '912 reexamination, Amendment and Reply, Zeger Decl. ¶ 61) is merely ***indexing the detected attributes*** in order to provide more information and a faster identification of events. The '912 patent includes a similar instruction:

> [T]he video primitives should contain information to be able to detect any event specified by the user, without the need for going back to the video and reanalyzing it.
>
> A concise representation is also desirable for multiple reasons. ...Hence, the more concise the video primitives are, the more data can be stored. In addition, the more concise the video primitive representation, the faster the data access becomes, and this, in turn may speed up forensic searching. ('912 patent, col. 12, 1. 64 to col. 13, 1. 10.)

Courtney further notes that the vision subsystem 13 "stores the output of the subsystem--the video data, motion segmentation, and meta-information--in the database retrieval through the user interface 17." (Courtney, col. 5, lines 4 to 11.) As in the '912 patent, Courtney discloses that a user may "specify queries on a video sequence based upon spatial- temporal, event-based, and object-based parameters" using the user interface 17. (Courtney, col. 5, 11. 9-11.) A comparison of the querying of Courtney and the '912 patent is set forth below:

Courtney	'912 Patent
Furthermore, the user may specify queries on a video sequence based upon spatial-temporal, event-based, and object-based parameters. (col. 5, ll. 9-11.)	As event discriminator refers to one or more objects optionally interacting with one or more spatial attributes and/or one or more temporal attributes. (col. 12, ll. 47-50.)
For example, the user may select a region in the scene and specify the query "show me all objects that are removed from this region of the scene between 8 am and 9 am." (col. 5, ll. 12-14.)	For example, an event discriminator can be looking for a "wrong way" event as defined by a person traveling the "wrong way" into an area between 9:00 a.m. and 5:00 p.m. (col. 20, ll. 41-44.)

As such, Courtney describes the detection of attributes and determination of events by analyzing the detected attributes exactly as set forth and claimed in the '912 patent. Patent Owner's prior argument that Courtney "does not disclose that the events queried for via the user interface 17 and/or scanned for by the event scanner 103 are not one of the events determined by the vision subsystem 13 by analyzing a combination of the received events determined by the vision subsystem 13" (See '912 reexamination, Response at p. 21) is incorrect. Courtney plainly discloses querying for an event that is not an attribute determined by the vision subsystem by analyzing a combination of the received attributes, including a V- object, which contains "the label, centroid, bounding box, and shape mask of its corresponding region, ***as well as object velocity and trajectory information*** by the tracking process" of a real-world object (see

Courtney, col. 5, 11. 52-60 and col. 12, 11. 22-27; emphasis added) and/or optionally an object-motion event E, discussed above. Furthermore, the system of Courtney does so by filtering the video primitives (*i.e.*, attributes) in the same manner Patent Owner asserts is performed by the '912 patent:

Courtney	'912 Patent
The AVI query engine retrieves video data from the database in response to queries generated at the graphical user interface. A valid query Y takes the form Y=(C, T, V, R, E), where C is a video clip, T=(Ti, Tj) specifies a time interval within the clip, V is a V-object within the clip meta-information, R is a spatial region in the field of view, and E is an object-motion event. The clip C specifies the video sub-sequence to be processed by the query, and ***the (optional) values of T, V, R, and E define the scope of the query***. Using this form, the AVI system user can make such a request as ***'find any occurrence of this object being removed from this region of the scene between Sam and 9am.'*** Thus, the query engine processes Y by ***finding all the video sub-sequences in C that satisfy Y, T, V, R, and E***. (Courtney, col. 12, lines 41 to 60; emphasis added.)	In block 44, event occurrences are extracted from the video primitives using event discriminators. The video primitives are determined in block 42, and the event discriminators are determined from tasking the system in block 23. ***The event discriminators are used to filter the video primitives to determine if any event occurrences occurred.*** For example, an event discriminator can be looking for a "wrong way" event as defined by ***a person traveling the "wrong way" into an area between 9:00 a.m. and 5:00 p.m.*** The event discriminator checks all video primitives being generated according to FIG. 5 and ***determines if any video primitives exist which have the following properties: a timestamp between 9:00 a.m. and 5:00 p.m., a classification of "person" or "group of people", a position inside the area, and a "wrong" direction of motion***. (col. 20, 11. 35-48; emphasis added) See Response, p. 1 ("Separately, in block 44, event occurrences are identified by comparing those attributes to a set of event discriminators (i.e., rules) that facilitate "inference analysis" based on video primitives."), citing col. 20, 11. 35-40.

Furthermore, Patent Owner's assertion that Courtney "does not disclose that the vision subsystem 13 determines events independent of a selection of the first event by the querying and/or event scanning because an event selected by the querying and/or event scanning is the event determined by the vision subsystem 13" ('912 reexamination, Response at p. 21) is also

incorrect. Courtney discloses no limitation on the user's ability to formulate queries using the user interface 17, including the "V-object" and "object-motion event" query parameters. These queries in Courtney are performed in the same manner described the '912 patent.

Patent Owner's further argument that Courtney "fails to disclose the independence-based elements of the claims of the '912 patent" ('912 reexamination, Response at p. 22) is also inaccurate, as Courtney discloses the same attribute detection and event definition analysis as the '912 patent, and describes the determination of events that are independent of the detected attributes. In its response in the '912 reexamination, Patent Owner provided no explanation as to how the "spatial attributes" and "temporal attributes" disclosed in the '912 Patent differ from the corresponding attributes in Courtney, or how the events could be independent of the detected attributes when detected by the '912 Patent, but not independent when the events are determined by Courtney. As noted above, Courtney expressly discloses attributes including size, shape, position, time-stamp, and image of each object in every video frame, instantaneous velocity at each frame and determining the path of the object and its intersection with the paths of other objects. The event determination in the '912 patent relies on these ***same attributes***, including ***size, shape, position, trajectory, speed and direction of motion***, ***classification***, object descriptors including, ***carrying an object***, and ***colliding*** among multiple objects. Courtney also determines the same events based on these attributes, such as appearance and disappearance of an object, object motion, movement to a specified location, interaction with another object, and object deposit and removal events. Further, Courtney expressly teaches that these same attributes are used to determine events specified by a user rule without any reprocessing of the video required.

Moreover, "[d]uring reexamination, claims are given the broadest reasonable interpretation consistent with the specification and limitations in the specification are not read into the claims" as set forth in M.P.E.P. § 2258(I)(G). Claim 1 recites "wherein the first processor determines attributes independent of a selection of the first event by the second processor" and, as discussed above, Courtney discloses that a user may formulate queries based upon spatial-temporal, event-based, and object-based parameters (see Courtney, col. 5, 11. 9-11) once the meta-information is stored in the database 15, and the vision subsystem 13 detects the events prior to the user formulating its query. The determination of attributes by the vision subsystem 13 is thus performed "independent" of whatever queries the user will later select using the user interface 17.

Thus, Patent Owner's attempt to distinguish Courtney in the '912 *inter partes* reexamination proceeding with respect to the features of "a second processor ... which determines a first event that is not one of the determined attributes by analyzing a combination of the received determined attributes," and that "the first processor determines attributes independent of a selection of the first event by the second processor" lacks merit and should be rejected if presented again in the requested *ex parte* reexamination.

b) Courtney Anticipates Independent Claim 1 by Disclosing a First Processor that Determines Attributes of Objects and a Separate Second Processor that Determines a First Event that is Not One of the Determined Attributes

Patent Owner has also argued in the '912 *inter partes* reexamination proceeding that Courtney does not disclose "a first processor which analyzes a video to determine attributes of objects detected in the video" and a "second processor, separate from the first processor, ... which determines a first event that is not one of the determined attributes by analyzing a combination of the received determined attributes" as recited by claim 1. (See '912 reexamination, Response at p. 22.)

As to the assertion that Courtney "fails to disclose the separate first and second processors required by claim 1" (See Response at p. 23), Requester disagrees. Courtney includes an illustration of an Automatic Video Indexing (AVI) system 10 in Figure 1, reproduced below along with accompanying disclosure, which clearly describes the vision subsystem 13 as a ***first processor*** and the user interface 17 as a ***second processor***:

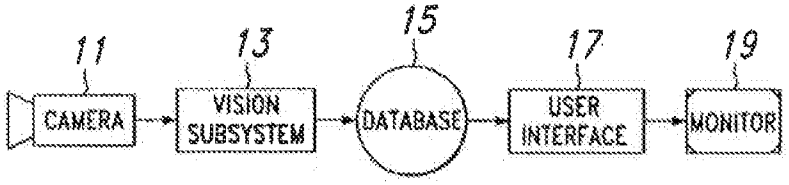


Fig. 1

FIG. 1 shows a high-level diagram of the Automatic Video Indexing (AVI) system 10 according to one embodiment of the present invention. In this view, a camera 11 provides input to ***a vision subsystem 13 including a programmed computer which processes the incoming video*** which has been digitized to populate a database storage 15....A user may then ***analyze the video information using an interface 17 including a computer*** to the database 15 via spatio-temporal, event-, and object-based queries. (Courtney, col. 3, line 66 to col. 4, line 9; emphasis added.)

Patent Owner has asserted that Courtney "discloses that the vision subsystem 13 determines events" and that Courtney "fails to disclose that the user interface 17 and/or event scanner 103 'determine[] a first event ... by analyzing a combination of the received determined attributes,'" as recited by claim 1 because Courtney "discloses that the vision subsystem 13 determines events." (See '912 reexamination, Response at pp. 22-23.) As support, Patent Owner relies on the "eight ***events*** of interest: appearance/disappearance, deposit/removal, entrance/exit, and motion/rest of objects" ('912 reexamination, Response at p. 23; emphasis in original) which, as discussed above, are merely "primitives" or "attributes" as described by the '912 patent, not events in the sense the '912 patent uses the term.

Further, Patent Owner's assertion that Courtney "discloses a single vision subsystem 13 that analyzes a video and determines events, and fails to disclose the separate first and second processors required by claim 1" ('912 reexamination, Response at p. 23) is misdirected and improperly attempts to limit Courtney's disclosure to fit Patent Owner's argument. As set forth in detail above, the vision subsystem 13 "analyzes a video to determine attributes of objects," including the "eight ***events*** of interest" which are plainly described as "attributes" in the '912 patent (see, e.g., '912 patent at 3:29-32 and 3:44-46), and the user interface 17 "determines a first event" per claim 1 (see discussion of Courtney's query functionality above).

Accordingly, because Courtney discloses that the functions of determining attributes and determining events are performed by separate processors - the vision subsystem 13 and the user interface 17, respectively - Courtney teaches "a first processor which analyzes a video to determine attributes of objects detected in the video" and "a second processor, separate from the first processor...which determines a first event that is not one of the determined attributes by analyzing a combination of the received determined attributes" as recited by claim 1.

c) Courtney Anticipates Independent Claim 6

Patent Owner asserted in the '912 reexamination that "For the reasons given above with respect to claim 1, (a) Courtney '755 does not disclose these independence based elements required by claim 6, and (b) Courtney '755 does not disclose that the querying and/or event scanner functionalities 'determine an event ... by analyzing a combination of the received attributes,' as required by claim 6." ('912 reexamination, Response at pp. 25-26.)

Patent Owner thus relied on the same arguments advanced with respect to claim 1, which lack merit for the same reasons pointed out above.

d) Courtney Anticipates Independent Claim 9

Patent Owner asserted in the '912 reexamination that "For the reasons given above with respect to claim 1, (a) Courtney '755 does not disclose these independence-based elements required by claim 9, and (b) Courtney '755 does not disclose that the querying and/or event scanner functionalities 'perform[] an analysis of a combination of the detected attributes to detect an event,' as required by claim 9." ('912 reexamination, Response at pp. 26-27.)

For the same reasons pointed out above, these contentions lack merit and claim 9 is properly rejected by Courtney.

e) Courtney Anticipates Independent Claim 12

Patent Owner asserted in the '912 reexamination that "Similar to claims 1, 6, and 9, claim 12 requires that 'the stream of attributes [be] sufficient to allow detection of the event that is not one of the determined attributes.'... Again, Courtney '755 fails to disclose the independence-based elements. Thus, for the same reasons that Courtney '755 does not disclose these limitations in claims 1, 6, and 9, Courtney '755 does not disclose this limitation in claim 12." (See '912 reexamination, Response, p. 27-28.)

For the same reasons pointed out above, these contentions lack merit and claim 9 is properly rejected by Courtney.

f) Courtney Anticipates Dependent Claim 15

Patent Owner has asserted in the '912 reexamination that Courtney does not teach "the attributes of the stream of attributes are created independently of the subsequent analysis" because "the system of Courtney '755 can only search for an event that is one of the eight events determined and indexed by the vision subsystem 13, and, thus, the events output by the vision subsystem 13 of Courtney '755 are not independent of the subsequent analysis." (See '912 reexamination, Response at p. 28.)

For the same reasons pointed out above, these contentions lack merit and claim 15 is properly rejected by Courtney.

g) Courtney Anticipates Dependent Claim 16

Patent Owner has asserted in the '912 reexamination that Courtney "does not disclose that 'the stream of attributes is sufficient to allow detection of an event that is not one of the determined attributes by analyzing a combination of the attributes,' as recited in claim 16"

because "The output of the vision subsystem 13 of Courtney '755 is, thus, sufficient only to allow detection of the eight events determined and indexed by the vision subsystem 13." (See '912 reexamination, Response at p. 29.)

For the same reasons pointed out above with respect to claim 1, these contentions lack merit and claim 16 is properly rejected by Courtney. In addition, the event determination in the '912 patent relies on identical attributes as the event determination in Courtney, including ***size, shape, position, trajectory, speed and direction of motion***, ***classification***, object descriptors including, ***carrying an object***, and ***colliding*** among multiple objects. Both the '912 patent and Courtney disclose determination of the same events as a result, such as appearance and disappearance of an object, object motion, interaction with another object, and object deposit and removal events. Thus, to the extent that the attributes of the '912 patent are "sufficient to allow detection of an event that is not one of the determined attributes by analyzing a combination of the attributes," so too are the attributes sufficient in Courtney.

h) Courtney Anticipates Dependent Claim 17

Patent Owner has asserted in the '912 reexamination that Courtney does not disclose "the stream of attributes is transmitted over a communications channel without detection of an event at the first location" because Courtney "fails to disclose the independence-based elements of the claims of the '912 patent." (See '912 reexamination, Response at pp. 29-30.)

For the same reasons pointed out above with respect to claim 1, these contentions lack merit and claim 17 is properly rejected by Courtney.

i) Courtney Anticipates Independent Claim 18

Patent Owner has asserted in the '912 reexamination that "For the reasons given above with respect to claim 1, Courtney '755 does not disclose this independence-based element required by claim 18." ('912 reexamination, Response at p. 31.)

For the same reasons pointed out above with respect to claim 1, these contentions lack merit and claim 18 is properly rejected by Courtney.

4. Patent Owner's Arguments Against the Rejection of Claims 1, 3, 4, 6, 8, 9, 11 to 13, 15 to 20, and 22 As Anticipated by Olson et al. Lack Merit

In the '912 reexamination, claims 1, 3, 4, 6, 8, 9, 11 to 13, 15 to 20, and 22 were rejected as being anticipated by Olson et al., "Moving Object Detection and Event Recognition Algorithms for Smart Cameras" as "Issue 12" (See '912 reexamination, Office Action at p. 5.)

These rejections are re-presented herein as Proposed Rejection IV. To the extent that Patent Owner may make similar arguments as those raised in the '912 reexamination concerning the rejections based on Olson et al., Requester notes the following.

a) Olson et al. Anticipates Independent Claim 1 by Disclosing a Second Processor that Determines a First Event that is Not One of the Attributes Determined Independent of a Selection of the First Event by the Second Processor

Patent Owner has asserted in the '912 reexamination that Olson et al. does not disclose "a second processor ... which determines a first event that is not one of the determined attributes by analyzing a combination of the received determined attributes...wherein the first processor determines attributes independent of a selection of the first event by the second processor." ('912 reexamination, Response at p. 34.) This assertion is incorrect.

For instance, Olson et al. describes an Autonomous Video Surveillance (AVS) system where one or more smart cameras communicate with a Video Surveillance Shell (VSS). (Olson et al., p. 166, col. 1.) Olson et al. discloses that "Each camera has associated with it an independent AVS core engine...the engine finds and tracks moving objects in the scene, maps their image locations to world coordinates, and recognizes events involving the objects. Each core engine emits a stream of location and event reports to the VSS, which filters the incoming event streams for user-specified alarm conditions and takes the appropriate actions." (Olson et al., p. 166, col. 1.)

In the '912 reexamination Patent Owner argued that, because "the VSS only filters for events in the event stream emitted by an AVS core engine, Olson does not disclose that the events searched for by the VSS are not one of the events determined by the AVS core engine by analyzing a combination of the received events determined by the AVS core engine." ('912 reexamination, Response at p. 34.) However, contrary to Patent Owner's argument, the VSS does not filter only for "events" in the event stream emitted by the AVS core engine. First, the AVS core engines in Olson et al. correspond to the claimed "a first processor which analyzes a video to determine attributes of objects detected in the video." Each core engine in Olson et al. detects and tracks objects and determines attributes of those objects to create a motion graph:

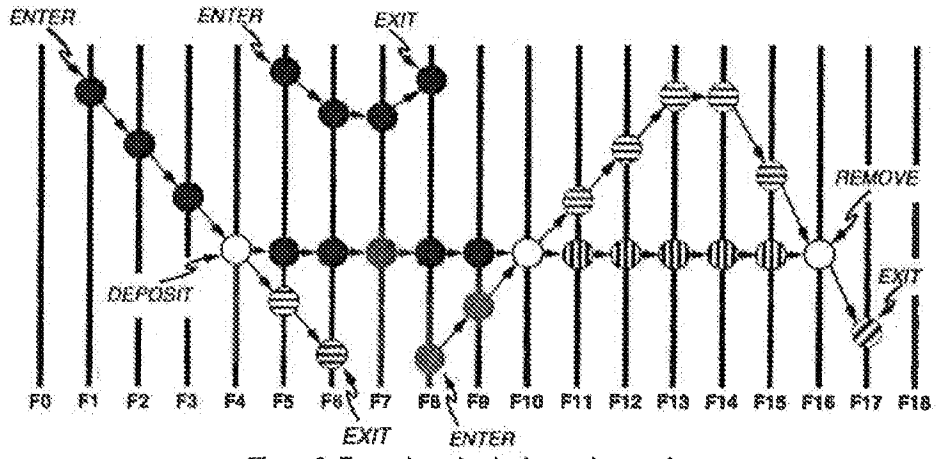


Figure 2: Event detection in the motion graph.

> Figure 2 depicts a sample motion graph. In the figure, each frame is one- dimensional and is represented by a vertical line (FO - F18). Circles represent objects in the scene. the dark arrows represent strong links, and the gray arrows represent weak links. ***An object enters the scene in frame F1***, and then moves through the scene until frame F4, where ***it deposits a second object.*** The first object continues to move through the scene, and exits at frame F6. The deposited object remains stationary. At frame F8 ***another object enters the scene***, temporarily occludes the stationary object at frame FIO (or is occluded by it) and then proceeds to move past the stationary object. This ***second moving object reverses directions*** around frames FI3 and F14, returns ***to remove the stationary*** object in frame F16, and finally exits in frame FI7. An ***additional object enters in frame F5 and exits in frame F8*** without interacting with any other object. (Olson et al., p. 163, col. 2; emphasis added.)

Next, Olson et al. discloses the AVS core engine indexes the motion graph to create additional video primitives or attributes in the same manner described in the '912 patent:

Olson et al.	**'912 Patent**
For example, the beginning of a track corresponds to an ENTER event, and the end corresponds to an EXIT event. (p. 164, col. 1.) A track that splits into two tracks, one of which is moving, and the other of which is stationary, corresponds to a DEPOSIT event. If a moving track intersects a stationary track, and then continues to move, but the stationary track ends at the intersection, this corresponds to a REMOVE event. (Olson et al., p. 164, col. 2.)	Exemplary object descriptors may include generic properties including...speed and direction of motion, motion salience and its features...The object descriptor may also contain activities, including, but not limited to, ***carrying an object***... Some activities, such as talking, fighting or colliding, may also refer to other objects. (col. 13, 11. 38-53; emphasis added.) A motion refers to any motion that can be automatically detected. Examples of a motion

Also detected (but not illustrated in Figure 2), are REST events (when a moving object comes to a stop), and MOVE events (when a RESTing object begins to move again). Finally, one further event that is detected is the LIGHTSOUT event, which occurs whenever a large change occurs over the entire image. The motion graph need not be consulted to detect this event. (p. 165, col. 1.)	include: ***appearance of an object; disappearance of an object; a vertical movement of an object; a horizontal movement of an object***; and a periodic movement of an object. (col. 14, 11. 36-40; emphasis added.) A salient motion refers to any motion that can be automatically detected and can be tracked for some period of time. Such a moving object exhibits ***apparently purposeful motion***. Examples of a salient motion include: ***moving from one place to another***; and moving to interact with another object. (col. 14, 11. 41-45; emphasis added.) A scene change refers to any region of a scene that can be detected as changing over a period of time. Examples of a scene change include: ***an stationary object leaving a scene; an object entering a scene and becoming stationary***. (col. 14, 1. 65 to col. 15, 1. 1; emphasis added.)

Thus, Olson et al. discloses the determination of attributes of objects, which are independent of the determined event, by a first processor in the manner required by claim 1. Olson et al. further discloses that the VSS also allows the user to specify alarm regions and conditions (Olson et al., p. 166, col. 2) as shown in Figure 5:

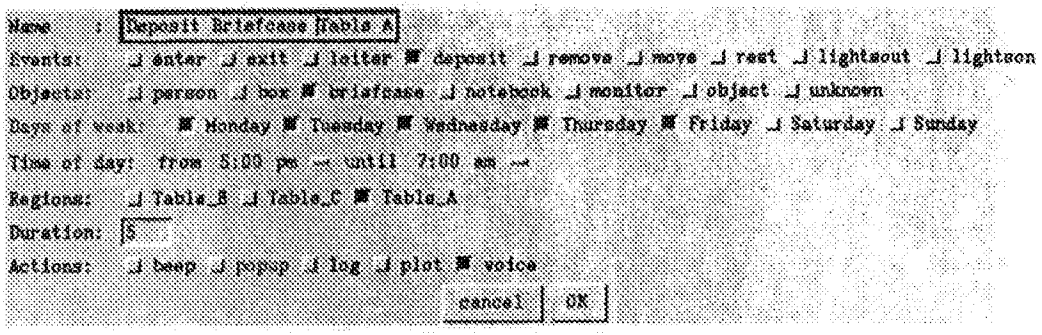


Figure 5: User interface for specifying a monitor in AVS

A comparison of the querying functionality of Olson et al. and the '912 patent is presented below:

Olson	'912 Patent
Alarm regions are specified by drawing them	An event discriminator refers to one or more

on the map using a mouse, and naming them as desired. The user can then specify the conditions and actions for alarms by creating one or more monitors. ...***The user selects the type of event, the type of object involved in the event, the day of week and time of day of the event, where the event occurs***, and what to do when the alarm condition occurs. (p. 166, col. 2; emphasis added.)	objects optionally interacting with one or more spatial attributes and/or one or more temporal attributes. (col. 12, 11. 47-50; emphasis added.)
The monitor specified in Figure 5 specifies that a voice alarm will be sounded when a briefcase is deposited on Table_A between 5:00pm and 7:00am on a weeknight. (Olson et al., p. 166, col. 2 top. 167, col. 1.)	For example, an event discriminator can be looking for a "wrong way" event as defined by a person traveling the "wrong way" into an area between 9:00 a.m. and 5:00 p.m. (col. 20, 11. 41-44.)

Thus, Olson et al. discloses "a second processor, separate from the first processor...which determines a first event that is not one of the determined attributes by analyzing a combination of the received determined attributes" as recited by claim 1 and as described in the '912 patent.

Patent Owner's argument that "Olson does not disclose that the events searched for by the VSS are not one of the events determined by the AVS core engine by analyzing a combination of the received events determined by the AVS core engine" ('912 reexamination, Response at p. 34) is incorrect in view of the disclosure by Olson et al. that "Alarm conditions may be based on the ***locations*** of people and objects in the scene, the ***types of objects*** in the scene, the ***events in which the people and objects are involved***, and the ***times*** at which the events occur" (Olson et al., p. 165, col. 2 top. 166, col.; emphasis added.) Significantly, the '912 patent also discloses a "classification" as a video primitive, described as "an identification of an object as belonging to a particular category or class. Examples of a classification include: a person; a dog; a vehicle; a police car; an individual person; and a specific type of object." ('912 patent, col. 14, 11. 1-4.) Further, "position" is disclosed as an exemplary object descriptor. (See '912 patent, col. 13, 11. 39 to 43.) Olson et al. clearly discloses that a user defines events involving a combination several types of "attributes," including the type of object, the location of people or object, the "event" involving people or objects, and the time in which an event occurs - in other words, "one or more objects optionally interacting with one or more spatial attributes and/or one more temporal attributes" per the '912 patent.

Here again, in attempting to distinguish the prior art from the rejected claims, the Patent Owner neglects to account for the identical disclosure of detected attributes that the '912 patent provides. If the determined events are "independent" from the detected attributes in the '912 patent, then so too must the ***same attributes*** be independent in Olson, such as the location, object type, events involving people and objects, and temporal attributes. Olson expressly teaches that these attributes are used to determine events specified by a user rule without any reprocessing of the video required. In fact, Olson teaches many of the same events determined from identical attributes as in the '912 patent, including appearance and disappearance of an object, object movement, movement to specified locations, and object deposit and remove events. Patent Owner has not identified any meaningful distinction between the attributes detected in Olson and the attributes detected in the '912 Patent, nor has the Patent Owner provided any meaningful distinction as to how identical events determined in both Olson and the '912 Patent could be "independent" in one context yet not independent in another.

Additionally, as discussed above, during reexamination claims are to be given the broadest reasonable interpretation. See M.P.E.P. § 2258(I)(G). Claim 1 recites "wherein the first processor determines attributes independent of a selection of the first event by the second processor" and Olson et al. discloses that the AVS core engine detects a number of "attributes," as discussed above, and that the user may draw alarm regions and specify alarm regions relating to the events to be detected. Olson et al. further discloses that each AVS core engine "emits a stream of location and event reports to the VSS" which then "filters the incoming event stream for user-specified alarm conditions." (Olson et al., p. 166, col. 1.) Thus, the determination of attributes by the core engine is ***performed independently*** of the combination of locations, object types, events involving people and objects, and times the user selects as alarm conditions applied to the user-specified alarm region.

Accordingly, Olson et al. discloses "a second processor ... which determines a first event that is not one of the determined attributes by analyzing a combination of the received determined attributes...wherein the first processor determines attributes independent of a selection of the first event by the second processor" and Patent Owner's arguments to the contrary in the '912 reexamination lack merit for the reasons discussed above.

b) Olson et al. Anticipates Independent Claim 1 by Disclosing a First Processor that Determines Attributes of Objects and a Separate Second Processor that Determines a First Event that is Not One of the Determined Attributes

Patent Owner has also argued in the '912 reexamination that Olson et al. does not disclose "a first processor which analyzes a video to determine attributes of objects detected in the video" and "a second processor, separate from the first processor, ... which determines a first event that is not one of the determined attributes by analyzing a combination of the received determined attributes" as recited by claim 1. (See '912 reexamination, Response at p. 35.) In support of this argument, Patent Owner asserted that "the VSS of Olson does not correspond to the recited 'second processor' because Olson does not disclose that the VSS 'determines a first event ... by analyzing a combination of the received determined attributes,' as required by claim 1. To the contrary, Olson discloses that each AVS core engine determines events." (See '912 reexamination, Response at p. 35.)

This argument also lacks merit. Patent Owner is again relying on the disclosure by Olson et al. of "the engine recognizes events involving objects" and "[e]ach core engine emits a stream of location and event reports to the VSS" (See '912 reexamination, Response at p. 35-36). However, as set forth above, the "events involving objects" determined by the AVS core engine are "attributes" as the '912 patent describes them, and the VSS, by analyzing the locations of people and objects in the scene, the types of objects in the scene, the events in which the people and objects are involved, and the times at which the events occur based on an alarm condition set by the a user, "determines a first event that is not one of the determined attributes by analyzing a combination of the attributes."

Further, Patent Owner's argument that "the VSS cannot be the first processor in claim 1" ('912 reexamination, Response at p. 36) mischaracterizes the disclosure of Olson et al. and is incorrect for the reasons noted above.

Thus, in view of the foregoing, claim 1 is properly rejected as anticipated by Olson et al. and Patent Owner's assertions to the contrary in the '912 reexamination lack merit.

c) Olson et al. Anticipates Independent Claim 6

Patent Owner asserted in the '912 reexamination that "For the reasons given above with respect to claim 1, (a) Olson does not disclose these independence-based elements required by claim 6, and (b) Olson does not disclose that, by filtering of the incoming event streams, the VSS

'determine[s] an event ... by analyzing a combination of the received attributes,' as required by claim 6." ('912 reexamination, Response at p. 37.)

For the same reasons pointed out above, these contentions lack merit and claim 6 is properly rejected by Olson et al.

d) Olson et al. Anticipates Independent Claim 9

Patent Owner asserted in the '912 reexamination that "For the reasons given above with respect to claim 1, (a) Olson does not disclose these independence-based elements required by claim 9, and (b) Olson does not disclose that, by filtering of the incoming event streams, the VSS 'perform[s] an analysis of a combination of the detected attributes to detect an event,' as required by claim 9." ('912 reexamination, Response at p. 37.)

For the same reasons pointed out above, these contentions lack merit and claim 9 is properly rejected by Olson et al.

e) Olson et al. Anticipates Independent Claim 12

Patent Owner asserted in the '912 reexamination that "for the same reasons that Olson does not disclose this limitation in claims 1, 6 and 9, Olson does not disclose this limitation in claim 12." ('912 reexamination, Response, p. 38.)

For the same reasons pointed out above, these contentions lack merit and claim 12 is properly rejected by Olson et al.

f) Olson et al. Anticipates Dependent Claim 15

Patent Owner asserted in the '912 reexamination that Olson et al. does not teach "the attributes of the stream of attributes are created independently of the subsequent analysis" because "the VSS of Olson can only search for events of the event stream output by the one or more smart cameras of Olson, and, thus, the events output by the smart cameras of Olson are not independent of the subsequent analysis by the VSS." (See '912 reexamination, Response, p. 38.)

For the same reasons pointed out above, these contentions lack merit and claim 15 is properly rejected by Olson et al.

g) Olson et al. Anticipates Dependent Claim 16

Patent Owner asserted in the '912 reexamination that Olson et al. "does not disclose that 'the stream of attributes is sufficient to allow detection of an event that is not one of the determined attributes by analyzing a combination of the attributes,' as recited in claim 16"

because "the event streams output of the one or more smart cameras of Olson are sufficient only to allow detection of the events recognized by the smart cameras." (See '912 reexamination, Response, p. 39.)

For the same reasons pointed out above, these contentions lack merit and claim 16 is properly rejected by Olson et al. In addition, the event determination in the '912 patent relies on identical attributes as in the event determination in Olson, such as the location, object type, events involving people and objects, and temporal attributes. Both the '912 patent and Olson disclose determination of the same events as a result of these attributes. Thus, to the extent that the attributes of the '912 patent are "sufficient to allow detection of an event that is not one of the determined attributes by analyzing a combination of the attributes," so too are the attributes sufficient in Olson.

h) Olson et al. Anticipates Dependent Claim 17

Patent Owner asserted in the '912 reexamination that Olson et al. does not disclose "the stream of attributes is transmitted over a communications channel without detection of an event at the first location" because Olson et al. "fails to disclose the independence-based elements of the claims of the '912 patent." (See '912 reexamination, Response, p. 40.)

For the same reasons pointed out above, these contentions lack merit and claim 12 is properly rejected by Olson et al.

i) Olson et al. Anticipates Independent Claim 18

Patent Owner asserted in the '912 reexamination that "For the reasons given above with respect to claim 1, Olson does not disclose this independence-based element required by claim 18." ('912 reexamination, Response, p. 31.)

For the same reasons pointed out above, these contentions lack merit and claim 18 is properly rejected by Olson et al.

B. Comments On New Claims Presented In The '912 Reexamination

In the '912 reexamination, Patent Owner proposed the addition of new claims 23 to 101. Of those claims, new claims, claims 24, 25, 26, 29, 31, 34, 37, 42, and 44 are independent. To the extent that Patent Owner may submit similar claim amendments in the requested *ex parte* reexamination proceeding, Requester provides the following comments for the Examiner's consideration.

1. Claim 23

Claim 23 recites "a computer having multiple processors, wherein the multiple processors include the first and second processors," which, as an illustrative example, is obvious in view of Brill et al.'s disclosure that "it will be recognized by those skilled in the art that image processing section 27 could alternatively be implemented within computer workstation 13 and physically separate from camera 23." (Brill et al., col. 3, 11. 14 to 18.) Moreover, since the '912 patent describes a computer as "any apparatus that is capable of accepting a structured input, processing the structured input according to prescribed rules, and producing results of the processing as output.... A computer also refers to two or more computers connected together via a network for transmitting or receiving information between the computers" (col. 3, 11. 47 to 60), this limitation is obvious in view of each of Gilge (see [0018]-[0020], [0062]-[0065]), Lipton et al. (seep. 57, col. 1 to 2), and Olson et al. (see p. 166, col. 1 to 2). Additionally, the '912 patent describes a "network" as "a number of computers and associated devices that are connected by communication facilities" (col. 4, 11. 10-11), and the combination of Courtney (see col. 4, ll. 29-56 and col. 5, 11. 4-11) with any of Gilge, Lipton et al., or Brill et al. discloses this limitation.

2. Claims 46-49

Claim 46 recites "wherein each of the attributes of the objects is an observable characteristic of an object, and the first event is one or more of the objects engaged in an activity," which, for example, is taught by Brill et al. at col. 3, 1. 28 to col. 4, 1. 37 and col. 10, 1. 39 to col. 11, 1. 25.

This feature is also shown by the following disclosure in Gilge:

> It is most advantageous for a processing device to provide metadata, which characterizes the collected data .... For example, the metadata includes the information that rapid motion occurs at an object to be detected. It may also be provided that the metadata comprises recognition data of certain objects, for example biometric data (facial recognition data or other biometric data) or identification data, such as license plates of motor vehicles. Certain behavior patterns may also be allocated to the collected data, such as the direction of movement of a person. ([0018].)
>
> For example, this way striking behavior patterns may be selected and perhaps respective videos are transmitted with an alarm to the user 38 when the evaluation device 30 has determined that striking behavior patterns were detected. When a parking lot is monitored, for example, it may show that a certain person, contrary to the

usual behavior pattern, fails to approach the target location from the motor vehicle or from an initial location fails to walk to the motor vehicle but wanders between different motor vehicles. This can particularly be determined from the metadata, which is provided by the respective processing devices to the evaluation device 30. ([0070].)

This feature is also shown by the following disclosure in Lipton:

> Objects are classified into various classes such as people, vehicles, or other objects. Also, the spatio-temporal trajectories are analysed to determine if an object is stationary - such as a car parking or a suspicious left package. This information is turned into a meta-data stream. (p. 57, col. 1)
>
> The activity inference subsystem applies activity queries to a stream of activity-based meta-data to determine if any events of interest have occurred. (p. 57, col. 1.)
>
> To use this meta-data requires a query schema that allows a user to formulate descriptors of scenarios such as "a person climbing a fence" so that the data can be mined for specific security threats. These scenario descriptions are called activity queries. The truly profound advantage of this approach is that a very flexible sophisticated query can be made against a large database of video product as a simple numerical database lookup - at database speed! (p. 57, col. 1)

This feature is also shown by the following disclosure in Courtney:

> The vision subsystem 13 records in the metainformation the size, shape, position, timestamp, and image of each object in every video frame. It tracks each object through successive video frames, estimating the instantaneous velocity at each frame and determining the path of the object and its intersection with the paths of other objects. It then classifies objects as moving or stationary based upon velocity measures on their path. (col. 4, 11. 54-61)
>
> Furthermore, the user may specify queries on a video sequence based upon spatial-temporal, event-based, and object-based parameters .... For example, the user may select a region in the scene and specify the query "show me all objects that are removed from this region of the scene between 8 am and 9 am." (col. 5, 11. 9-14.)

This feature is also shown by the following disclosure in Olson et al.:

> The use of criteria other than motion (e.g., salience based on shape or color, or more general object recognition) is compatible with our approach. (p. 160, col. 1)

> The user can then specify the conditions and actions for alarms by creating one or more monitors. . .. The user selects the type of event, the type of object involved in the event, the day of week and time of day of the event, where the event occurs, and what to do when the alarm condition occurs. (p. 166, col. 2.)
>
> The monitor specified in Figure 5 specifies that a voice alarm will be sounded when a briefcase is deposited on Table_A between 5:00pm and 7:00am on a weeknight. (p. 166, col. 2 to p. 167, col. 1.)

This feature is also shown by Day. Day discloses the event of the object as referring to the engaged in an activity. For example, Day describes queries based on the relative position of an object/person, the speed of an object, a person dunking a basketball, a person passing a basketball to another person, or a person walking. See Day Section 3.2.3, Expressing Queries Using Predicate Logic at page 402.

Claim 47 recites "wherein the attributes include at least one temporal attribute" which for example, is taught by each of the following prior art references: Gilge ("rapid motion," [0018]); Lipton et al. ("spatio-temporal descriptions of each object," p. 57, col. 1); Courtney ("time-stamp…instantaneous velocity," col. 4, ll. 55-58); Olson et al. ("the day of week and time of day of the event" and "time, location, and duration," p. 166, col. 2); Brill et al. ("time, location, and duration," col. 10, l. 42); and Day ("The spatial attribute, of a salient physical object present in the frames can be extracted in form of bounding volume, *Z*, that describes the spatial projection of an object, in three dimensions," page 402). Additionally, claim 48 recites "wherein the attributes include at least one spatial attribute" and claim 49 recites "wherein the attributes include at least one spatial attribute", and these features are taught by each of the following prior art references: Gilge ("rapid motion," [0018]); Lipton et al. ("spatio-temporal descriptions of each object," p. 57, col. 1); Courtney ("position...instantaneous velocity," col. 4, 11. 55-58); Olson et al. ("the beginning of a track corresponds to an ENTER event" and "where the event occurs," p. 163, col. 2 and p. 166, col. 2); Brill et al. ("location," col. 10, l. 42); and Day ("The spatial attribute, of a salient physical object present in the frames can be extracted in form of bounding volume, *Z*, that describes the spatial projection of an object, in three dimensions," page 402).

3. Claim 50

Claim 50 recites "wherein the attributes include a color of an object" which, for example, is taught by Gilge:

> facial recognition data or other biometric data ([0018])

This feature is also taught by Lipton et al.:

> object classification by shape, size, colour, and other features (p. 58, col. 1)

This feature is also taught by Olson et al.:

> The use of criteria other than motion (e.g., salience based on shape or color, or more general object recognition) is compatible with our approach. (p. 160, col. 1)

This feature is also taught by Brill et al.:

> However, the present invention may be utilized with a color video camera or some other type of two dimensional image detector, such as an infrared detector. (col. 2, ll. 55-58)

4. Claim 51

Claim 51 recites "wherein the attributes include a size of an object," which is taught by Lipton et al.:

> object classification by shape, size, colour, and other features (p. 58, col. 1)

This feature is also taught by Courtney:

> The vision subsystem 13 records in the meta information the size, shape, position, timestamp, and image of each object in every video frame. (col. 4, ll. 54-56)

This feature is also taught by Day:

> The spatial attribute, of a salient physical object present in the frames can be extracted in form of bounding volume, *Z*, that describes the spatial projection of an object, in three dimensions. (page 402)

5. Claim 52

Claim 52 recites "wherein the attributes include at least one of a velocity and a speed of an object," which is taught by Gilge:

> the metadata includes the information that rapid motion occurs at an object to be detected. ([0018])

This feature is also taught by Lipton et al.:

> recording the trajectory (path and speed) of every object. (p. 56, col. 1)
>
> the spatio-temporal trajectories are analysed to determine if an object is stationary (p. 57, col. 1)

This feature is also taught by Courtney:

> The vision subsystem 13 ...tracks each object through successive video frames, estimating the instantaneous velocity at each frame (col. 4, 11. 54-58)

This feature is also taught by Day. (See 3.2.3 Expressing Queries Using Predicate Logic at pages 406-407, describing speed on an object.)

6. Claim 53

Claim 53 recites "wherein the attributes include a position of an object," which is taught by Gilge:

> it may show that a certain person... wanders between different motor vehicles. This can particularly be determined from the metadata ([0070])

This feature is also taught by Lipton et al.:

> recording the trajectory (path and speed) of every object. (p. 56, col. 1)
>
> the spatio- temporal trajectories are analysed to determine if an object is stationary (p. 57, col. 1)

This feature is also taught by Courtney:

> The vision subsystem 13 ...tracks each object through successive video frames, estimating the instantaneous velocity at each frame (col. 4, 11. 54-58)

This feature is also taught by Olson et al.:

> If a moving track intersects a stationary track, and then continues to move, but the stationary track ends at the intersection, this corresponds to a REMOVE event. (p. 164, col. 2)
>
> The user selects...where the event occurs (p. 166, col. 2)

This feature is also taught by Brill et al.:

> If a moving object merges with a stationary object, and□then continues to move while the stationary object disappears, as at 58, it is designated a REMOVE event. (col. 4, 11. 8-10)
>
> The user selects the...location (col. 10, 11. 41- 42)

This feature is also taught by Day. (See 3.2.3 Expressing Queries Using Predicate Logic at pages 406-407, describing relative position on an object.)

7. Claim 54

Claim 54 recites "wherein the attributes include a trajectory of an object," which is taught by Gilge:

> it may show that a certain person... wanders between different motor vehicles. This can particularly be determined from the metadata ([0070])

This feature is also taught by Lipton et al.:

> recording the trajectory (path and speed) of every object. (p. 56, col. 1)
>
> the spatio-temporal trajectories are analysed to determine if an object is stationary (p. 57, col. 1)

This feature is also taught by Courtney:

> The vision subsystem 13 records in the meta- information the size, shape, position, time- stamp, and image of each object in every video frame. (col. 4, 11. 54-56)
>
> The object tracking process results in a list of V-objects and connecting links that form a directed graph (digraph) representing the position and trajectory of foreground objects in the video sequence. (col. 8, 1. 67 to col. 9, 1. 2)

This feature is also taught by Olson et al.:

> If a moving track intersects a stationary track, and then continues to move, but the stationary track ends at the intersection, this corresponds to a REMOVE event. (p. 164, col. 2)
>
> The user selects...where the event occurs (p. 166, col. 2)

This feature is also taught by Brill et al.:

> If a moving object merges with a stationary object, and then continues to move while the stationary object disappears, as at 58, it is designated a REMOVE event. (col. 4, 11. 8-10)
>
> The user selects the...location (col. 10' 11. 41- 42)

This feature is also taught by Day. (See 3.2.3 Expressing Queries Using Predicate Logic at pages 406-407.)

8. Claim 55

Claim 55 recites "wherein the attributes include a classification of an object," which is taught by Gilge:

> metadata comprises recognition data of certain objects, for example biometric data...or identification data ([0018])
>
> a certain person...wanders between different motor vehicles ([0070])

This feature is also taught by Lipton et al.:

> Objects are classified into various classes such as people, vehicles, or other objects. (p. 58, col. 1)

This feature is also taught by Courtney:

> It then classifies objects as moving or stationary based upon velocity measures on their path. (col. 4, 11. 59-61)

This feature is also taught by Brill et al.:

> The user selects the... object type (col. 10, 1. 41, Fig.6)

9. Claim 56

Claim 56 recites "wherein the attributes include a shape of an object," which is taught by Lipton et al.:

> object classification by shape, size, colour, and other features (p. 58, col. 1)

This feature is also taught by Courtney:

> The vision subsystem 13 records in the meta- information the size, shape, position, time-stamp, and image of each object in every video frame. (col. 4, 11. 54-56)

This feature is also taught by Olson et al.:

> The use of criteria other than motion (e.g., salience based on shape or color, or more general object recognition) is compatible with our approach. (p. 160, col. 1)

10. Claims 57 to 67

Claims 57 to 67 depend on independent claim 6, and recite substantially similar, if not identical, limitations as claims 46 to 56, and are disclosed by the prior art references as discussed above.

11. Claims 68 to 79

Further, claims 68 to 79 are dependent upon independent claim 9. Claim 68 recites "determining attributes prior to performing analysis," which is taught by Gilge:

> In order to provide the metadata, a certain analysis takes place in a processing device...The different data sets are each then transmitted to the evaluation device 30. ([0065]- [0067])

This feature is also taught by Lipton et al.:

> video...is processed to extract activity- based meta-data. This is recorded into a storage database...a user can create various threat scenarios. Now...the system can look up the activity-based meta-data stream from the database. (p. 57, col. 2 to p. 58, col. 1)

This feature is also taught by Courtney:

> The system stores the output of the vision subsystem--the video data, motion segmentation, and meta- information--in the database 15 for retrieval through the user interface 17. (col. 5, 11. 4-6)

This feature is also taught by Olson et al.:

> Each core engine emits a stream of location and event reports to the VSS, which filters the incoming event streams for user-specified alarm conditions and takes the appropriate actions. (p. 166, col. 2)

This feature is also taught by Brill et al.:

> In order to recognize a complex event, the system must keep a record of he sub-events that have occurred thus far, and the objects involved in them. (col. 5, 11. 2-4)

This feature is also taught by Day:

The proposed VSDG can be generated off-line and subsequently can be used to process user's queries on-line. (Day at page 402.)Claims 69 to 79 recite substantially similar, if not identical, limitations as claims 46 to 56, and are disclosed by the prior art references as discussed above.

12. Claims 80 to 90

Claims 80 to 90 are dependent upon independent claim 12 and recite substantially similar, if not identical, limitations as claims 46 to 56, and are disclosed by the prior art references as discussed above.

13. Claims 91 to 101

Claims 91 to 101 are dependent upon independent claim 18 and recite substantially similar, if not identical, limitations as claims 46 to 56, and are disclosed by the prior art references as discussed above.

14. Claim 24

New claim 24 is directed to a "distributed video computer system" and recites "a first computer having a first processor" and "a second computer having a second processor, the second computer being connected to the first computer via a network," and is otherwise substantially similar to independent claim 1. Requester notes that the '912 patent describes a "computer" as "any apparatus that is capable of accepting a structured input, processing the structured input according to prescribed rules, and producing results of the processing as output" (col. 3, 11. 47 to 50) and describes a "network" as "a number of computers and associated devices that are connected by communication facilities" (col. 4, 11. 10-11), and submits that all limitations of this claim are disclosed by each of Gilge, Lipton et al., and Brill et al. as discussed above. Additionally, the combination of Courtney with each of Gilge, Lipton et al., or Brill et al. discloses all limitations of this claim, as discussed above. Further, as claim 24 is substantially similar to claim 1, the combination of Day with any of Gilge, Lipton et al., Brill, and Olson et al. would disclose all the limitations of this claim.

15. Claim 25

Independent claim 25 is also directed to a "distributed video computer system" and is substantially the same as independent claim 24, and thus all limitations of claim 25 are disclosed by each of Gilge, Lipton et al., Olson et al., and Brill et al. as discussed. Additionally, the combination of Courtney or Olson et al. with each of Gilge, Lipton et al., or Brill et al. discloses all limitations of this claim, as discussed above. The combination of Day with any of Gilge, Lipton et al., Brill, and Olson et al. would also disclose all the limitations of this claim.

16. Claim 26

Independent claim 26 is directed to a "video system" which includes "a first computer-readable medium" and "a computer including a second computer-readable medium, a first processor... and a second processor," and requires that the first processor to "archive the determined attributes in the first computer-readable medium." Requester notes that the '912

patent describes a "computer-readable medium" as "any storage device used for storing data accessible by a computer" (col. 3, 11. 63-64) and submits that "archive the determined attributes in the first computer-readable medium" is taught Gilge:

> The evaluation device 30 is connected to a memory device 32, by which the selected and/or modified data received and/or selected can be saved and by which the data received can be compared to the data saved. ([0052].)

This feature is also taught by Lipton et al.:

> As...video becomes available, it is processed to extract activity-based meta-data. This is recorded into a storage database...a user can create various threat scenarios. Now...the system can look up the activity-based meta-data stream from the database. (p. 57, col.2 to p.58, col. 1)

This feature is also taught by Courtney:

> The system stores the output of the vision subsystem--the video data, motion segmentation, and meta- information--in the database 15 for retrieval through the user interface 17. (col. 5, 11. 4-6)

This feature is also taught by Olson et al.:

> When the person leaves the scene, the data record is saved to a file. Each log entry file...forms an extremely concise description of the person's movements and appearance while they were in the scene. (p. 167, col. 2)

This feature is also taught by Brill et al.:

> In order to recognize a complex event, the system must keep a record of the sub-events that have occurred thus far, and the objects involved in them. (col. 5, 11. 2-4)
>
> This event will generate a voice alarm and write a log entry when the specified event occurs. (col. 10, 11. 51- 52)

Since claim 26 is otherwise substantially similar to claim 1, Requester submits that all limitations of claim 26 are disclosed by each of Gilge, Lipton et al., Courtney, Olson et al., and Brill et al., as well as the combination of Day with any of Gilge, Lipton et al., Courtney, and Olson, as discussed above and in the appended claim charts. Claims 27 and 28 are dependent upon claim 26 and recite "wherein the first computer-readable medium is configured to transmit and receive data via the first communications link" and "wherein the first communications link comprises a network," respectively, and these limitations are also disclosed by the prior art as discussed above and in the Request. Further, the combination of Courtney and any of Gilge,

Lipton et al., or Brill et al., the combination of Olson et al. and any of Gilge, Lipton et al., or Brill et al., as well as the combination of Day with any of Gilge, Lipton et al., Courtney, and Olson, discloses all limitations of this claim, as discussed above.

17. Claim 29

Independent claim 29 is directed to a "video system" including "a computer-readable medium in communication with a communications channel the computer-readable medium archiving detected attributes" and is otherwise substantially similar to independent claim 6. Accordingly, Requester submits that all limitations of claim 29 are disclosed by each of Gilge, Lipton et al., Courtney, Olson et al., and Brill et al., as well as the combination of Day with any of Gilge, Lipton et al., Courtney, and Olson, as discussed above and in the appended claim charts. Claim 30 is dependent upon claim 29, recites "wherein the communications channel comprises a network" and this limitation is disclosed by the prior art as discussed above.

18. Claim 31

Independent claim 31 is also directed to a "video system" and recites "a computer-readable medium archiving detected attributes," and is otherwise substantially similar to independent claim 6. Accordingly, Requester submits that all limitations of claim 31 are disclosed by each of Gilge, Lipton et al., Courtney, Olson et al., and Brill et al., as well as the combination of Day with any of Gilge, Lipton et al., Courtney, and Olson, as discussed above and in the appended claim charts. Claims 32 and 33 are dependent upon claim 31 and recite "wherein the communications channel comprises a network" and "wherein the computer-readable medium is configured to transmit and receive data via the communications channel," respectively, and these limitations are also disclosed by the prior art as discussed above.

19. Claim 34

Independent claim 34 is directed to a "method of detecting an event from a video" and recites "archiving detected attributes in a computer-readable medium," and is otherwise substantially similar to independent claim 9. Accordingly, Requester submits that all limitations of claim 34 are disclosed by each of Gilge, Lipton et al., Courtney, Olson et al., and Brill et al., as well as the combination of Day with any of Gilge, Lipton et al., Courtney, and Olson, as discussed above and in the appended claim charts. Claims 35 and 36 are dependent upon claim 34 and recite "wherein the communications channel comprises a network" and "wherein the

computer-readable medium is configured to transmit and receive data via the communications channel," respectively, and these limitations are disclosed by the prior art as discussed above.

20. Claims 37-41

Independent claim 37 is directed to a "method" and recites "transmitting the stream of attributes to a second location removed from the first location for archiving in a computer-readable medium at the second location and subsequent analysis," and is otherwise substantially similar to independent claim 12. Accordingly, Requester submits that all limitations of claim 37 are disclosed by each of Gilge, Lipton et al., Courtney, Olson et al., and Brill et al., as well as the combination of Day with any of Gilge, Lipton et al., Courtney, and Olson, as discussed above and in the appended claim charts.

Claims 38 and 39 are dependent upon claim 37 and recite "wherein the communications channel comprises a network" and "archiving the determined attributes in a computer-readable medium at the second location," respectively, and these limitations are disclosed by the prior art as discussed above.

Claim 40 is dependent upon claim 39 and recites "receiving the archived determined attributes from the computer-readable medium via the communications channel; and analyzing a combination of the received determined attributes to detect the event of the video, the event not being one of the determined attributes," and claim 41 is dependent upon claim 40 and recites "upon detecting the event, providing at least one of an alert to a user, information for a report, and an instruction for taking an action," and Requester submits that these limitations are disclosed by the prior art as discussed above.

21. Claims 42 and 43

Claim 42 is directed to a "video device" and recites "wherein the output is configured to transmit the attributes to a second location removed from the processor for archiving the attributes in a computer-readable medium at the second location and for a subsequent analysis of a combination of the attributes at the second location," and is otherwise substantially similar to independent claim 18. Accordingly, Requester submits that all limitations of claim 42 are disclosed by each of Gilge, Lipton et al., Courtney, Olson et al., and Brill et al., as well as the combination of Day with any of Gilge, Lipton et al., Courtney, and Olson, as discussed above and in the appended claim charts.

Claim 43 is dependent upon claim 42 and recites "wherein the communications link comprises a network," and this limitation is disclosed by the prior art as discussed above.

22. Claims 44 and 45

Claim 44 is also directed to a "video device" and recites "wherein the output...is further configured to archive the attributes in a computer-readable medium at the second location and to analyze a combination of the attributes at the second location," and is otherwise substantially similar to independent claim 18. Requester submits that all limitations of claim 44 are disclosed by each of Gilge, Lipton et al., Courtney, Olson et al., and Brill et al., as well as the combination of Day with any of Gilge, Lipton et al., Courtney, and Olson, as discussed above and in the appended claim charts.

Claim 45 is dependent upon claim 44 and recites "wherein the communications link comprises a network," and this limitation is disclosed by the prior art as discussed and in the appended claim charts.

23. Proposed Grounds Of Rejection For New Claims

Based on the prior art disclosures identified above for the new claims presented in the '912 reexamination, Requester proposes the following grounds of rejection, which were set forth in the '912 reexamination, and submits that these rejections should also be adopted in the event Patent Owner presents similar claims in the requested *ex parte* reexamination proceeding:

(a) Claims 24 to 50, 52 to 55, 57 to 61, 63 to 66, 68 to 73, 75 to 78, 80 to 84, 86 to 89, 91 to 95, and 97 to 100 Are Anticipated by Gilge Under 35 U.S.C. § 102.

(b) Claim 23 is Unpatentable in View of Gilge Under 35 U.S.C. § 103.

(c) Claims 51, 56, 62, 67, 74, 79, 85, 90, 96, and 101 Are Unpatentable In View of the Combination of Gilge and Courtney Under 35 U.S.C. § 103.

(d) Claims 23 to 101 Are Unpatentable in View of the Combination of Gilge, Courtney, and Brill et al. Under 35 U.S.C. § 103.

(e) Claims 24 to 101 Are Anticipated by Lipton et al. Under 35 U.S.C. § 102.

(f) Claim 23 Is Unpatentable in View of Lipton et al. Under 35 U.S.C. § 103.

(g) Claims 23 to 101 Are Unpatentable in View of the Combination of Gilge and Lipton et al. Under 35 U.S.C. § 103.

(h) Claims 23 to 101 Are Unpatentable in View of the Combination of Lipton et al. and Brill et al. Under 35 U.S.C. § 103.

(i) Claims 26, 27, 29, 31, 33, 34, 37, 39 to 42, 44, 46 to 49, 51 to 60, 62 to 72, 74 to 83, 85 to 94, and 96 to 101 Are Anticipated by Courtney Under 35 U.S.C. § 102.

(j) Claims 23, 50, 61, 73, 84, and 95 Are Unpatentable in View of the Combination of Courtney and Olson et al. Under 35 U.S.C. § 103.

(k) Claims 23 to 101 Are Unpatentable in View of the Combination of Courtney, Olson et al., and Brill et al. Under 35 U.S.C. § 103.

(l) Claims 26, 27, 29, 31, 33, 34, 36, 37, 39 to 42, 44, 46 to 50, 53, 54, 56 to 61, 64, 65, 67 to 73, 76, 77, 79 to 84, 87, 88, 90 to 95, 98, 99, and 101 Are Anticipated by Olson et al. Under 35 U.S.C. § 102.

(m) Claim 23 Is Unpatentable in View of Olson et al. Under 35 U.S.C. § 103.

(n) Claims 23 to 101 Are Unpatentable In View of the Combination of Olson et al. and Lipton et al. Under 35 U.S.C. § 103.

(o) Claims 24 to 50, 53 to 55, 57 to 61, 64 to 66, 68 to 73, 76 to 78, 80 to 84, 86 to 89, 91 to 95, and 98 to 100 are Anticipated by Brill et al. Under 35 U.S.C. § 102.

(p) Claims 24-26, 29, 31, 34, 37-49, 51-54, 57-60, 62-65, 68-71, 73-76, 80-83, 85-88, 91-94, and 96-99 are Unpatentable in View of the Combination of Gilge and Day Under 35 U.S.C. § 103.

(q) Claims 24-26, 29, 31, 34, 37-49, 51-54, 57-60, 62-65, 68-71, 73-76, 80-83, 85-88, 91-94, and 96-99 are Unpatentable in View of the Combination of Lipton et al. and Day Under 35 U.S.C. § 103.

(r) Claims 24-26, 29, 31, 34, 37-49, 51-54, 57-60, 62-65, 68-71, 73-76, 80-83, 85-88, 91-94, and 96-99 are Unpatentable in View of the Combination of Courtney and Day Under 35 U.S.C. § 103.

(s) Claims 24-26, 29, 31, 34, 37-49, 51-54, 57-60, 62-65, 68-71, 73-76, 80-83, 85-88, 91-94, and 96-99 are Unpatentable in View of the Combination of Olson et al. and Day Under 35 U.S.C. § 103.

The proposed grounds of rejection presented above include several combinations of prior art references. Requester submits that it would be obvious for a person of ordinary skill in the art at the time the alleged inventions of the '912 patent were made to combine these references in the manner set forth above.

A person of ordinary skill in the art would have been motivated to combine the teachings of Gilge with the analogous art of Courtney in order to enhance the video/audio system and video/audio evaluation method of Gilge (see, e.g., [0001]-[0002]) with the motion event detection functionality of Courtney (see, e.g., col. 1, 11. 13-14).

Additionally, a person of ordinary skill in the art would have been motivated to combine the teachings of Gilge and Courtney with the analogous art of Brill et al. in order to enhance the systems of Gilge and Courtney with the simple and complex event detection functionality of Brill et al. (see, e.g., col. 4, 1. 27 to col. 5, 1. 56).

Regarding the combination of Gilge and Lipton et al., a person of ordinary skill in the art would have been motivated to combine the teachings of Gilge with the analogous art of Lipton et al. in order to enhance the video/audio systems and video/audio evaluation method of Gilge (see, e.g., [0001]-[0002]) with the digital video indexing and retrieval system of Lipton et al. (see, e.g.. p. 57, col. 1).

Furthermore, a person of ordinary skill in the art would have been motivated to combine the teachings of Lipton et al. with the analogous art of Brill et al. in order to enhance the digital video indexing and retrieval system of Lipton et al. (see, e.g.. p. 57, col. 1) with the simple and complex event detection functionality of Brill et al. (see, e.g., col. 4, 1. 27 to col. 5, 1. 56).

Regarding the combination of Courtney and Olson et al., a person of ordinary skill in the art would have been motivated to combine the teachings of Courtney with the analogous art of Olson et al. in order to enhance the motion event detection functionality of Courtney (see, e.g., col. 1, 11. 13-14) with the moving object detection and event recognition features of Olson et al. (see, e.g., Abstract).

Additionally, a person of ordinary skill in the art would have been motivated to combine the teachings of Courtney and Olson et al. with the analogous art of Brill et al. in order to enhance the systems of Courtney and Olson et al. with the simple and complex event detection functionality of Brill et al. (see, e.g., col. 4, 1. 27 to col. 5, 1. 56).

Regarding the combination of Olson et al. and Lipton et al., a person of ordinary skill in the art would have been motivated to combine the teachings of Olson et al. with the analogous art of Lipton et al. in order to enhance the moving object detection and event recognition features of Olson et al. (see, e.g., Abstract) with the digital video indexing and retrieval system of Lipton et al. (see, e.g.. p. 57, col. 1).

Regarding the combination of Day with each of Gilge, Lipton et al., Courtney, and Olson, a person of ordinary skill in the art would have been motivated to combine the teachings of Day in order to enhance their event detection functionality with the conceptual modeling of video data for spatial and temporal characteristics of the detected physical objects to allow for processing heterogeneous queries of the data, as discussed above at Proposed Rejections 9-12, respectively, and in the appended claim charts.

Moreover, the combination of Gilge and Courtney, the combination of Gilge, Courtney, and Brill et al., the combination of Gilge and Lipton et al., the combination of Lipton et al. and Brill et al., the combination of Courtney and Olson et al., the combination of Courtney, Olson et al., and Brill et al., the combination of Olson et al. and Lipton et al., and the combinations of Day with each of Gilge, Lipton et al., Courtney, and Brill, are merely (a) a combination of prior art elements according to known methods to yield predictable results; (b) a simple substitution of one known element for another to obtain predictable results; (c) a use of known technique to improve similar devices in the same way; (d) application of a known technique to a known device ready for improvement to yield predictable results; (e) obvious to try; and/or (f) known work in one field of endeavor prompting variations of it for use in either the same field or a different one based on design incentives or other market forces since the variations are predictable to one of ordinary skill in the art.

In addition, Requester submits that independent claims 31 and 44 presented in the *inter partes* reexamination are impermissibly broader than the original patent claims and should be rejected under 35 U.S.C. § 314(a). As discussed above, claims 31 and 44 are similar to independent claims 6 and 18. Claim 6 recites "an input in communication with a communications channel," and this limitation is not present in claim 31. Claim 18 recites "a processor...which analyzes a video," but claim 44 recites "a processor...configured to analyze a video." Additionally, claim 18 recites "a processor at a first location... wherein the output is configured to transmit the attributes to a second location removed from the processor," but clam 44 recites "a processor at a first location... wherein the output transmits the attributes to a second location removed from the first location." Thus, Requester submits that independent claims 31 and 44, and dependent claims 32, 33, and 45, impermissibly enlarge the scope of the claimed subject matter, and accordingly proposes the following additional ground of rejection should similar amendments be presented in the requested *ex parte* reexamination:

(t) Claims 31 to 33, 44, and 45 Are Impermissibly Broadening Claims Under 35 U.S.C. § 305.

Further, Requester submits that the recitation of a computer-readable medium being "configured to transmit and receive data via the first communications link" in claim 27, and similarly recited in claims 29, 30, 33, and 36, is not supported in the specification of the '912 patent, and these claims should be rejected for failure to comply with the written description requirement of 35 U.S.C. § 112, first paragraph. Accordingly, Requester proposes the following additional ground of rejection should similar claim amendments be presented in the requested *ex parte* reexamination proceeding:

(t) Claims 27, 29, 30, 33, and 36 Are Unpatentable for Failure to Comply with the Written Description Requirement Under 35 U.S.C. § 112, First Paragraph.

X. CONCLUSION

Based on the above remarks, including the charts appended hereto, it is respectfully submitted that substantial new questions of patentability have been raised with respect to claims 1-22 of the '912 Patent. Therefore, reexamination of claims 1-22 is respectfully requested.

Any fee due for this reexamination may be charged to Deposit Account No. 50-3828.

Respectfully submitted,

Date: May 24, 2013

By: /Allison M. Tulino/

Allison M. Tulino
Registration No. 48,294

MUNCY, GEISSLER, OLDS & LOWE, PLLC
4000 Legato Road, Suite 310
Fairfax, VA 22033
(703) 621-7140 (telephone)
(703) 621-7155 (facsimile)
CUSTOMER NO. 60601

Attorney for Requester