

# UTILITY PATENT APPLICATION TRANSMITTAL

Attorney Docket No. 37112-175340

First Inventor Alan J. LIPTON

Title VIDEO SURVEILLANCE SYSTEM EMPLOYING VIDEO PRIMITIVES

(Only for new nonprovisional applications under 37 C.F.R. 1.53(b))

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## APPLICATION ELEMENTS

See MPEP chapter 600 concerning utility patent application contents.

## ADDRESS TO:

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1.  Fee Transmittal Form (e.g., PTO/SB/17)  
*(Submit an original and a duplicate for fee processing)*
2.  Applicant claims small entity status.  
See 37 CFR 1.27.
3.  Specification [Total Pages  ]  
*(preferred arrangement set forth below)*  
- Descriptive title of the Invention  
- Cross References to Related Applications  
- Statement Regarding Fed sponsored R & D  
- Reference to sequence listing, a table, or a computer program listing appendix  
- Background of the Invention  
- Brief Summary of the Invention  
- Brief Description of the Drawings ( if filed )  
- Detailed Description  
- Claim(s)  
- Abstract of the Disclosure
4.  Drawing(s) (35 U.S.C. 113) [Total Sheets  ]
5. Oath or Declaration [Total Pages  ]  
a.  Newly executed (original or copy)  
b.  Copy from a prior application (37 CFR 1.63 (d))  
*(for a continuation/divisional with Box 18 completed)*  
i.  **DELETION OF INVENTOR(S)**  
Signed statement attached deleting inventor(s) named in the prior application, see 37 CFR 1.63(d)(2) and 1.33(b).
6.  Application Data Sheet. See 37 CFR 1.76
- 6a.  Priority is claimed under the provisions of 35 U.S.C. § 120  
Appln No. 09/694,712 filed on October 24, 2000.  
Appln No. \_\_\_\_\_ filed in \_\_\_\_\_ on \_\_\_\_\_

7.  CD-ROM or CD-R in duplicate, large table or Computer Program *(Appendix)*
8. Nucleotide and/or Amino Acid Sequence Submission *(if applicable, all necessary)*  
a.  Computer Readable Form (CRF)  
b. Specification Sequence Listing on:  
i.  CD-ROM or CD-R (2 copies); or  
ii.  paper  
c.  Statements verifying identity of above copies

## ACCOMPANYING APPLICATIONS PARTS

9.  Assignment Papers (cover sheet & document(s))
10.  37 C.F.R. § 3.73(b) Statement  Power of Attorney  
*(when there is an assignee)*
11.  English Translation Document *(if applicable)*
12.  Information Disclosure Statement (IDS)/PTO-1449  Copies of IDS Citations
13.  Preliminary Amendment
14.  Return Receipt Postcard (MPEP 503)  
*(Should be specifically itemized)*
15.  Certified Copy of Priority Document(s)  
*(if foreign priority is claimed)*
16.  Request and Certification under 35 U.S.C. 122 (b)(2)(B)(i). Applicant must attach form PTO/SB/35 or its equivalent.
17.  Other:

18. If a CONTINUING APPLICATION, check appropriate box, and supply the requisite information below and in a preliminary amendment, or in an Application Data Sheet under 37 CFR 1.76:

Continuation  Divisional  Continuation-in-part (CIP) of prior application No: 09 /694,712  
Prior application information: Examiner \_\_\_\_\_ Group / Art Unit:

For CONTINUATION or DIVISIONAL APPS only: The entire disclosure of the prior application, from which an oath or declaration is supplied under Box 5b, is considered a part of the disclosure of the accompanying or divisional application and is hereby incorporated by reference. The incorporation can only be relied upon when a portion has been inadvertently omitted from the submitted application parts.

## 20. CORRESPONDENCE ADDRESS

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or  Correspondence address below

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Signature		Date	November 15, 2001

<b>REQUEST AND CERTIFICATION UNDER 35 U.S.C. 122(b)(2)(B)(i)</b>	First Named Inventor		Alan J. LIPTON
	Title	VIDEO SURVEILLANCE SYSTEM EMPLOYING VIDEO PRIMITIVES	
	Atty Docket Number		37112-175340

I hereby certify that the invention disclosed in the attached application **has not and will not be** the subject of an application filed in another country, or under a multilateral agreement, that requires publication at eighteen months after filing. I hereby request that the attached application not be published under 35 U.S.C. 122(b).

November 15, 2001  
Date

  
Signature

Michael A. Sartori, Ph.D. Reg. No. 41,289  
Typed or printed name

This request must be signed in compliance with 37 CFR 1.33(b) and submitted with the application **upon filing**.

Applicant may rescind this nonpublication request at any time. If applicant rescinds a request that an application not be published under 35 U.S.C. 122(b), the application will be scheduled for publication at eighteen months from the earliest claimed filing date for which a benefit is claimed.

If applicant subsequently files an application directed to the invention disclosed in the attached application in another country, or under a multilateral international agreement, that requires publication of applications eighteen months after filing, the applicant **must** notify the United States Patent and Trademark Office of such filing within forty-five (45) days after the date of the filing of such foreign or international application. **Failure to do so will result in abandonment of this application (35 U.S.C. 122(b)(2)(B)(iii)).**

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 PC Docs No. 332238

FOR FILING

**APPLICATION FOR UNITED STATES PATENT**

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37112-175340

# VIDEO SURVEILLANCE SYSTEM EMPLOYING VIDEO PRIMITIVES

## CROSS-REFERENCE TO RELATED APPLICATIONS

5 [1] This application claims the priority of U.S. Patent Application No. 09/694,712 filed October 24, 2000, which is incorporated herein by reference.

## BACKGROUND OF THE INVENTION

### Field of the Invention

10 [2] The invention relates to a system for automatic video surveillance employing video primitives.

### References

15 [3] For the convenience of the reader, the references referred to herein are listed below. In the specification, the numerals within brackets refer to respective references. The listed references are incorporated herein by reference.

[4] The following references describe moving target detection:

[5] {1} A. Lipton, H. Fujiyoshi and R. S. Patil, "Moving Target Detection and Classification from Real-Time Video," Proceedings of IEEE WACV '98, Princeton, NJ, 1998, pp. 8-14.

20 [6] {2} W.E.L. Grimson, et al., "Using Adaptive Tracking to Classify and Monitor Activities in a Site", CVPR, pp. 22-29, June 1998.

[7] {3} A.J. Lipton, H. Fujiyoshi, R.S. Patil, "Moving Target Classification and Tracking from Real-time Video," IJCV, pp. 129-136, 1998.

FOOTNOTES 4028550

[8] {4} T.J. Olson and F.Z. Brill, "Moving Object Detection and Event Recognition Algorithm for Smart Cameras," IUW, pp. 159-175, May 1997.

[9] The following references describe detecting and tracking humans:

[10] {5} A. J. Lipton, "Local Application of Optical Flow to Analyse Rigid Versus Non-Rigid Motion," International Conference on Computer Vision, Corfu, Greece, September 1999.

[11] {6} F. Bartolini, V. Cappellini, and A. Mecocci, "Counting people getting in and out of a bus by real-time image-sequence processing," IVC, 12(1):36-41, January 1994.

[12] {7} M. Rossi and A. Bozzoli, "Tracking and counting moving people," ICIP94, pp. 212-216, 1994.

[13] {8} C.R. Wren, A. Azarbayejani, T. Darrell, and A. Pentland, "Pfinder: Real-time tracking of the human body," Vismod, 1995.

[14] {9} L. Khoudour, L. Duvieubourg, J.P. Deparis, "Real-Time Pedestrian Counting by Active Linear Cameras," JEI, 5(4):452-459, October 1996.

[15] {10} S. Ioffe, D.A. Forsyth, "Probabilistic Methods for Finding People," IJCV, 43(1):45-68, June 2001.

[16] {11} M. Isard and J. MacCormick, "BraMBLe: A Bayesian Multiple-Blob Tracker," ICCV, 2001.

[17] The following references describe blob analysis:

[18] {12} D.M. Gavrila, "The Visual Analysis of Human Movement: A Survey," CVIU, 73(1):82-98, January 1999.

[19] {13} Niels Haering and Niels da Vitoria Lobo, "Visual Event Detection," Video Computing Series, Editor Mubarak Shah, 2001.

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