

**IN THE UNITED STATES DISTRICT COURT  
FOR THE WESTERN DISTRICT OF TEXAS  
WACO DIVISION**

<b>MONUMENT PEAK VENTURES, LLC,</b>	§	
<b>Plaintiff,</b>	§	
	§	<b>CIV. A. NO. 6:24-cv-361</b>
<b>v.</b>	§	
	§	
<b>VIVOTEK, INC.,</b>	§	<b>JURY TRIAL</b>
<b>Defendant.</b>	§	
	§	

**COMPLAINT AND JURY DEMAND**

Monument Peak Ventures, LLC alleges the following as its Complaint for patent infringement against Vivotek, Inc.:

**THE PARTIES**

1. Plaintiff, Monument Peak Ventures, LLC, (hereafter “MPV”) is a Texas Limited Liability Company with its principal place of business in Allen, Texas.

2. Defendant Vivotek, Inc. (hereafter “Vivotek”) is a corporation organized and operating under the laws of Taiwan with its principal place of business at 6F, No. 192, Lien-Cheng Road, Chung-Ho District, New Taipei City 23553, Taiwan.

3. Vivotek manufactures, sells, and offers for sale in the United States, and imports into the United States camera systems and software including Vivotek

Vast Face, Vivotek Vast FaceM, Vivotek Vast 2, Vast 2 Security Station, facial recognition tablets, Smart Tracking for PTZ IP cameras, Smart VCA, and Vivotek's FD9387-FR-v2 camera that infringe MPV's patent claims.

4. Vivotek sells the infringing products to Vivotek USA for distribution throughout the United States and to customers in this district.

### **JURISDICTION AND VENUE**

5. MPV brings this action for patent infringement under the patent laws of the United States, namely 35 U.S.C. §§ 271, 281, and 284-285, among others. This Court has subject-matter jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1338(a).

6. Venue is proper in this judicial district pursuant to 28 U.S.C. §§ 1391(c)(3) which provides that "a defendant not resident in the United States may be sued in any judicial district."

7. Vivotek directly or through intermediaries including authorized distributors makes, uses, offers for sale, imports, sells, advertises, or distributes products and services in the United States, in Texas, and in this district.

8. Vivotek makes, designs, and distributes products intended and destined for purchase, use, deployment, and operation within the district and in Texas.

9. Vivotek conducts its business of marketing, distributing, deploying,

and selling products and services in Texas and in this district through its agents, representatives, affiliates, related entities, partners, distributors, and retailers.

10. This Court has personal jurisdiction over Vivotek, directly and/or indirectly via the activities of Vivotek and its intermediaries, agents, related entities, affiliates, distributors, importers, customers, subsidiaries, or consumers. Alone and in concert with these entities, Vivotek has committed acts of direct and/or indirect patent infringement within Texas, and elsewhere within the United States, giving rise to this action and/or has established minimum contacts with Texas.

### **MONUMENT PEAK VENTURES**

11. MPV owns a portfolio of patents invented by the Eastman Kodak Company. Since acquiring the Kodak portfolio, MPV has promoted adoption of technologies claimed in Kodak portfolio and has entered into license agreements with over thirty companies.

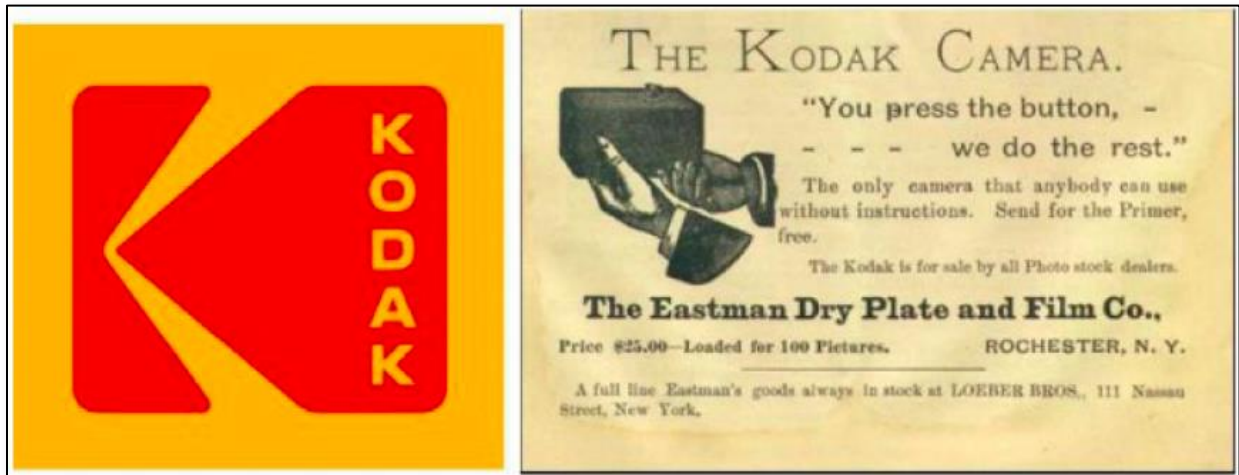
12. MPV asserts that Vivotek infringes, directly and indirectly, U.S. Patent Nos. 7,035,461 (the “’461 Patent”); 8,643,746 (the “’746 Patent”); 8,665,345 (the “’345 Patent”); and 9,013,604 (the “’604 Patent”) (the “MPV Asserted Patents”).

### **ASSERTED MPV PATENTS**

13. The MPV Asserted Patents claim inventions born from the ingenuity

of the Eastman Kodak Company (“Kodak”), an iconic American imaging technology company that dates back to the late 1800s.

14. The first model of a Kodak camera was released in 1888.



15. In 1935 Kodak introduced “Kodachrome,” a color reversal stock for movie and slide film.

16. In 1963 Kodak introduced the Instamatic camera, an easy-to-load point-and-shoot camera.



17. By 1976 Kodak was responsible for 90% of the photographic film and 85% of the cameras sold in the United States.

18. At the peak of its domination of the camera industry, Kodak invented the first self-contained digital camera in 1975.



19. By 1986 Kodak had created the first megapixel sensor that was capable of recording 1,400,000 pixels.

20. While innovating in the digital imaging space Kodak developed an immense patent portfolio and extensively licensed its technology in the space.

21. In 2010, Kodak received \$838,000,000 in patent licensing revenue.

22. As part of a reorganization of its business, Kodak sold many of its

patents to some of the biggest names in technology including Google, Facebook, Amazon, Microsoft, Samsung, Adobe Systems, HTC and others for \$525,000,000.

23. While scores of companies have paid to license the Kodak patent portfolio owned by MPV, Vivotek has refused to recognize MPV’s patents and license the inventions it has profited from using.

### **Vivotek’s Image Processing and Recognition Capabilities**

24. Vivotek markets its image processing and recognition technology that it incorporates in its cameras, including its object detection and facial recognition capabilities.



## **FD9387-FR-v2**

5MP, Facial Recognition, H.265, Up to 10,000 Facial Profiles, WDR Pro, SNV, 50M IR, Smart IR II



Facial  
Recognition



WDR Pro



Smart IR II



SNV



MicroSD/SDHC  
C/SDXC Card  
Slot



NDA  
Compliance

## Key Features

- Facial recognition accuracy up to 99%
- Camera stores up to 10,000 profiles
- Automatic stranger detection to reduce friction for management
- Privacy mode to safeguard user privacy and ensures information is not shared without consent
- Event integration with VIVOTEK VAST Security Station, Milestone, Genetec, and March Networks
- Cyber Protection via Trend Micro IoT Security
- WDR Pro for Unparalleled Visibility in Extremely Bright and Dark Environments
- 30 fps @ 2560x1920
- SNV (Supreme Night Visibility) for Low Light Conditions
- Weather-proof IP66, IP67 and Vandal-proof IK10-rated Housing

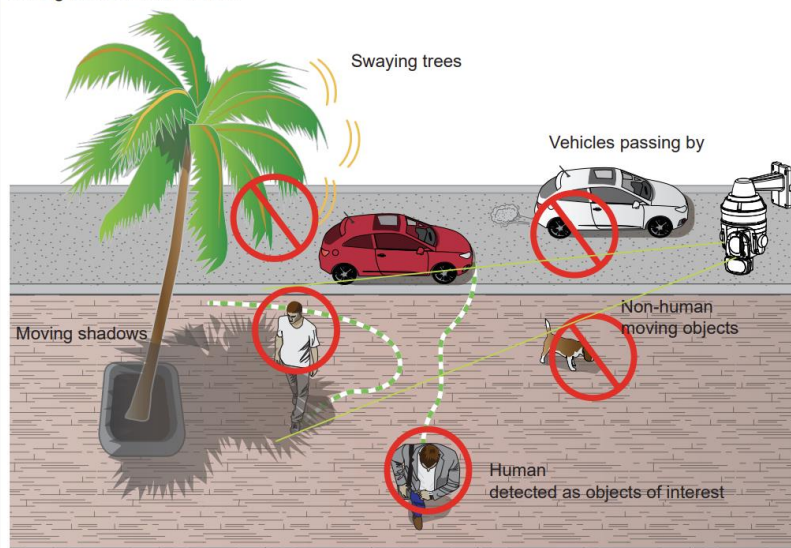


<https://www.vivotek.com/fd9387-fr-v2>.

25. Vivotek cameras detect objects, including humans, cars and moving trees.

26. Vivotek's image processing and recognition technology enables its camera systems to offer functionalities for object detection and facial recognition.


Smart Tracking automatically detects, zooms in, and keeps track of moving personnel. It relieves the efforts of discovering, tracking, and zooming from an operator. The feature is suitable for PTZ cameras installed at low-traffic areas such as parking lots, or the monitoring of facilities during the off-office hours.





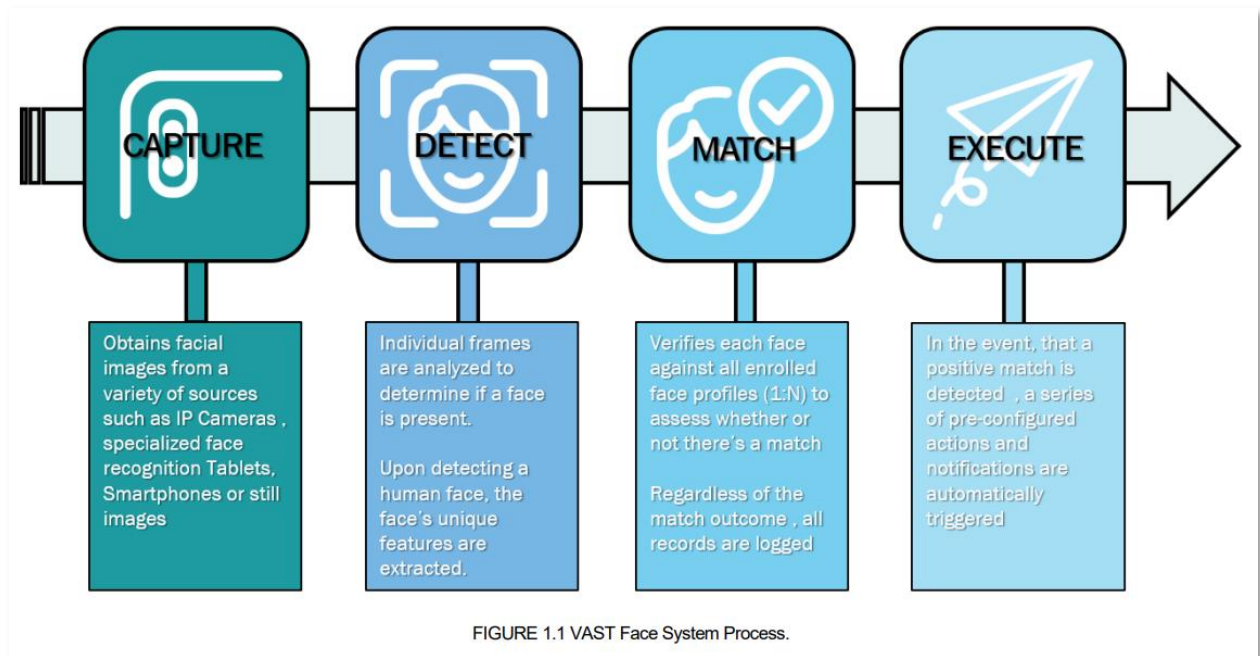
<https://webapi.vivotek.com/api/DownloadCenter/Download/global?p1=o/SvHZ4Bg%2BpRWupQBDVD8Q==&p2=j199RdC0wOvZ8pPmTck8Tg==>.

### 10,000 Faces on the edge



With 99% facial recognition accuracy, the FD9387-FR-v2 is a powerful tool for accurate facial detection and person of interest control across multiple locations. The camera itself can hold up to 10,000 facial profiles.

<https://www.vivotek.com/fd9387-fr-v2>.



<https://webapi.vivotek.com/api/DownloadCenter/Download/global?p1=yO6kXqbQhe/aEJBgWoAh4Q==&p2=j199RdC0wOvZ8pPmTck8Tg==>.



**COUNT 1:  
INFRINGEMENT OF U.S. PATENT NO. 7,035,461**

27. MPV realleges and incorporates by reference the allegations set forth above as if restated verbatim here.

28. MPV is the owner, by assignment, of U.S. Patent No. 7,035,461, titled “Method for Detecting Objects in Digital Images,” and alleges that Vivotek infringed the ’461 Patent during the term of the patent.

29. As the owner of the ’461 Patent, MPV holds all substantial rights in and under the ’461 Patent including the right to grant licenses, exclude others, and to enforce, sue, and recover damages for past and future infringement.

30. The ’461 Patent is valid, enforceable and was duly issued in full compliance with Title 35 of the United States Code.

31. The United States Patent and Trademark Office issued the ’461 Patent on April 25, 2006.

32. During the term of the patent, Vivotek directly infringed at least claims 1 and 3 of the ’461 Patent by using (including its own testing), making, selling, offering for sale, licensing, distributing, and/or importing Vivotek camera systems and software (collectively, the “’461 Infringing Instrumentalities”) without authorization or license as exemplified below.

33. Exemplary infringing Vivotek camera systems and software include

Vivotek camera systems equipped with any of the following software: Vivotek's Smart Tracking software (including, but not limited to PTZ IP cameras), Vivotek Vast 2, Vast 2 Security Station, Vast Face, Fast FaceM, facial recognition tablet, Restricted Zone Detection, Smart Motion Detection, Smart Tracking Advanced, and Smart Video Content Analysis (Smart VCA).

34. Each of the '461 Infringing Instrumentalities satisfied each and every element of each asserted claim of the '461 Patent either literally or under the doctrine of equivalents.

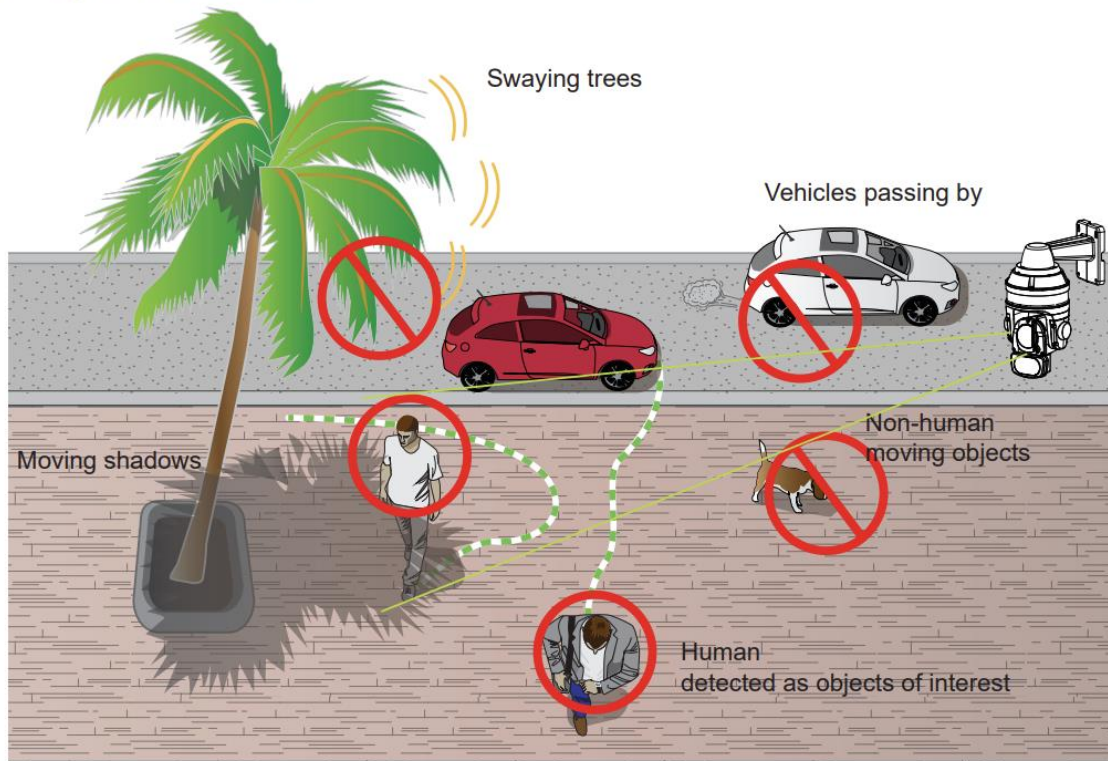
35. Claim 1 of the '461 Patent recites an embodiment of the claimed subject matter:

1. A method for detecting objects in a digital image, comprising the steps of:
  - a) generating a first segmentation map of the digital image according to a non-object specific criterion;
  - b) generating a second segmentation map of the digital image according to a object specific criterion; and
  - c) detecting objects in the digital image using both the first and second segmentation maps.

36. Each of the '461 Infringing Instrumentalities detects objects in a digital image such as vehicles passing by, swaying trees, moving shadows, and

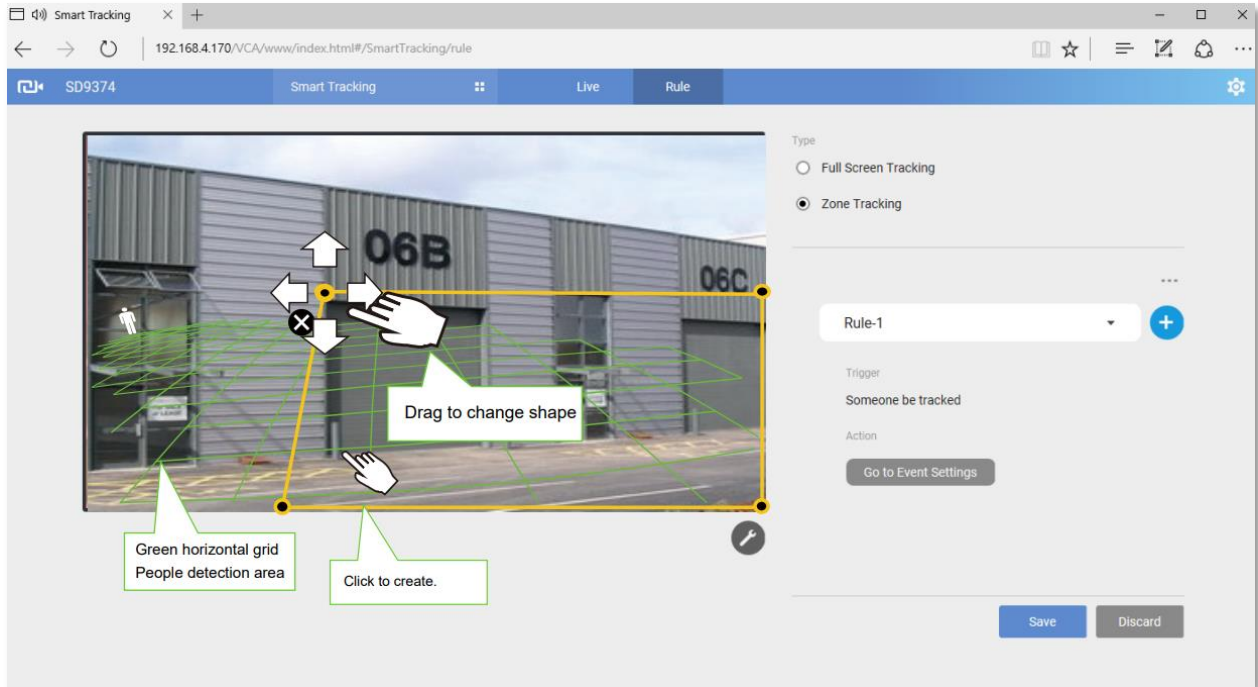
humans.

Smart Tracking automatically detects, zooms in, and keeps track of moving personnel. It relieves the efforts of discovering, tracking, and zooming from an operator. The feature is suitable for PTZ cameras installed at low-traffic areas such as parking lots, or the monitoring of facilities during the off-office hours.



<https://webapi.vivotek.com/api/DownloadCenter/Download/global?p1=o/SvHZ4Bg%2BpRWupQBDVD8Q==&p2=j199RdC0wOvZ8pPmTck8Tg==>.

37. The '461 Infringing Instrumentalities generate a “first segmentation map” of the digital image according to motion (*e.g.*, “non-object specific criterion”) in a specified region. For example, the green horizontal region in the figure below functions as a people detection area.



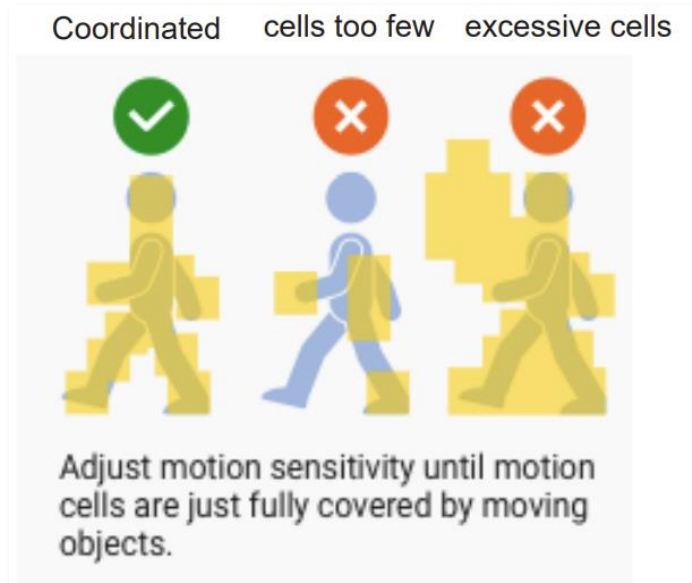
<https://webapi.vivotek.com/api/DownloadCenter/Download/global?p1=o/SvHZ4Bg%2BpRWupQBDVD8Q==&p2=j199RdC0wOvZ8pPmTck8Tg==>.

38. The '461 Infringing Instrumentalities use “Object detection” to generate a secondary segmentation map of shapes associated with a target object. As another example, silhouette detection may be used to associate with a target object.

### Object detection

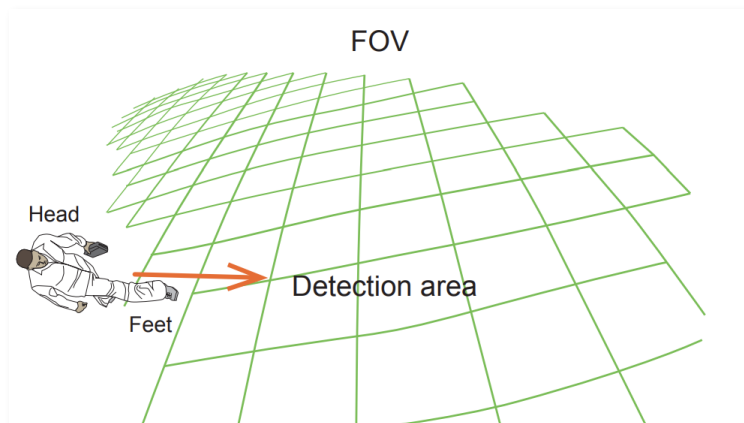
Motion cell coverage: This parameter is related to the Motion detection function in firmware.

The sensitivity level is related to the detection of human figures on screen. Tune the sensitivity so that the appearance of motion cells better coordinates the appearance of the objects of your interest. Default is 70%.



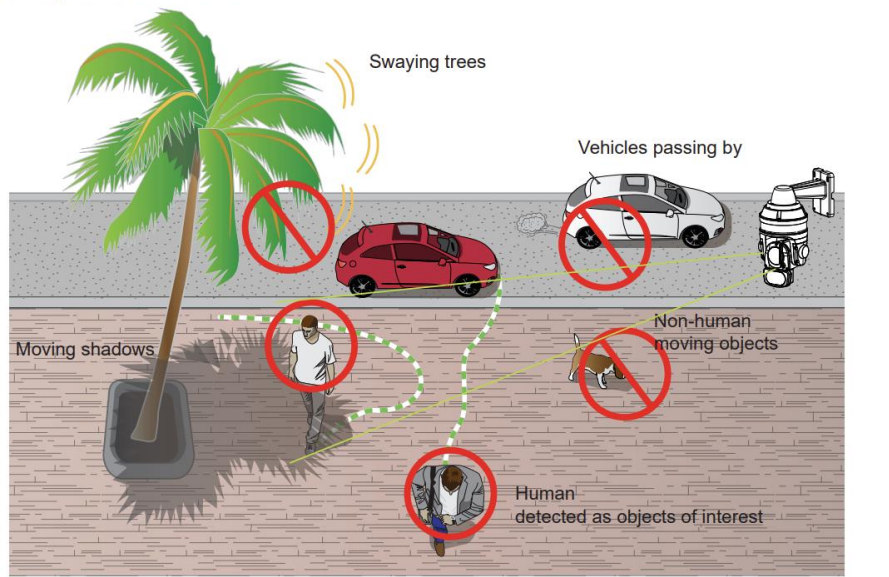
[https://download.vivotek.com/downloadfile/solutions/vadp/smart-motion-detection-manual\\_en.pdf](https://download.vivotek.com/downloadfile/solutions/vadp/smart-motion-detection-manual_en.pdf).

39. The '461 Infringing Instrumentalities can detect objects in the digital image by using both the camera's detection area (the first segmentation map) and the human silhouette detection (the second segmentation map).



[https://download.vivotek.com/downloadfile/solutions/vadp/smart-motion-detection-manual\\_en.pdf](https://download.vivotek.com/downloadfile/solutions/vadp/smart-motion-detection-manual_en.pdf).

Smart Tracking automatically detects, zooms in, and keeps track of moving personnel. It relieves the efforts of discovering, tracking, and zooming from an operator. The feature is suitable for PTZ cameras installed at low-traffic areas such as parking lots, or the monitoring of facilities during the off-office hours.



<https://webapi.vivotek.com/api/DownloadCenter/Download/global?p1=o/SvHZ4Bg%2BpRWupQBDVD8Q==&p2=j199RdC0wOvZ8pPmTck8Tg==>.

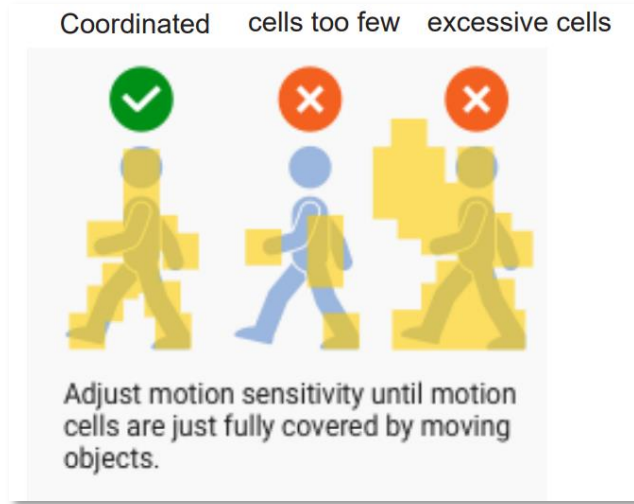
40. Claim 3 of the '461 Patent recites another embodiment of the claimed subject matter:

3. The method claimed in claim 1, further comprising the step of detecting objects using pattern matching in the first and second segmentation maps respectively and merging the detected objects.

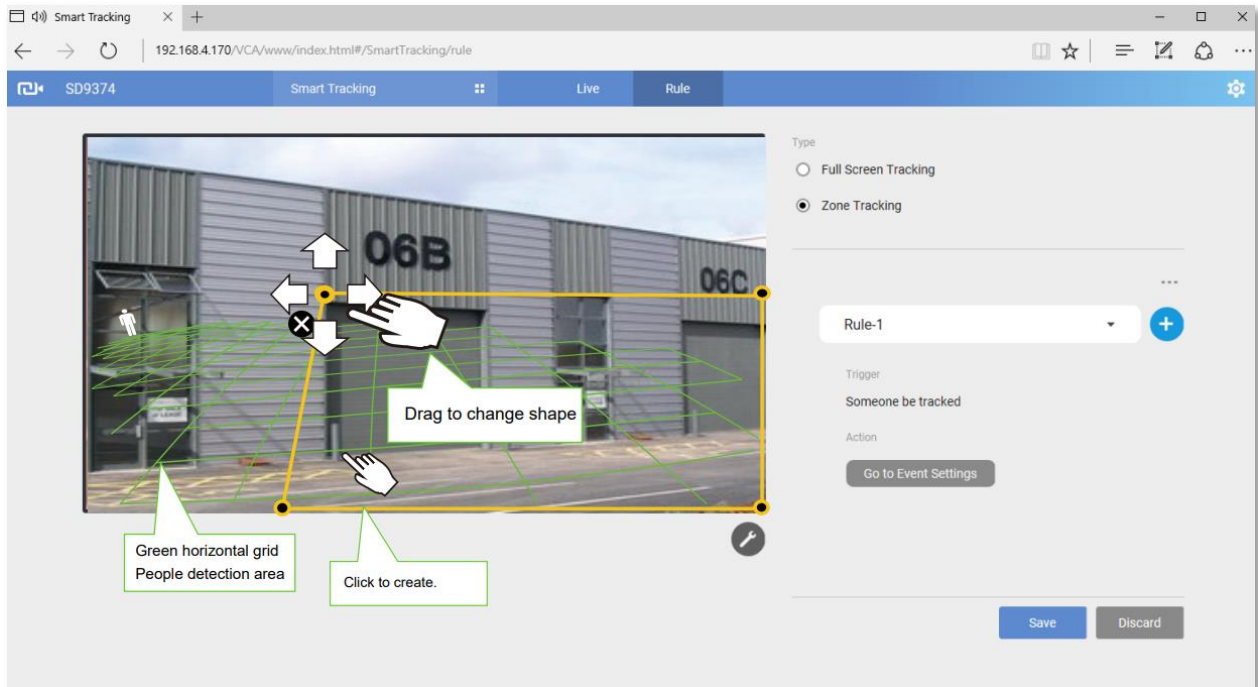
41. The '461 Infringing Instrumentalities identify object motion against a stationary background within a specified area through “pattern matching.”



42. The '461 Infringing Instrumentalities compare object patterns using a secondary map and combines the results to determine if a person is moving within the detection zone.



<https://webapi.vivotek.com/api/DownloadCenter/Download/global?p1=o/SvHZ4Bg%2BpRWupQBDVD8Q==&p2=j199RdC0wOvZ8pPmTck8Tg==>.





<https://webapi.vivotek.com/api/DownloadCenter/Download/global?p1=o/SvHZ4Bg%2BpRWupQBDVD8Q==&p2=j199RdC0wOvZ8pPmTck8Tg==>.

43. Vivotek received notice of infringement of the '461 Patent on December 13, 2021.

44. Vivotek's activities were without authority of license under the '461 Patent.

45. Consistent with Vivotek's published descriptions and instructions, normal operation during the term of the patent, the '461 Infringing Instrumentalities performed each and every step and satisfies each and every element recited in each asserted claim of the '461 Patent including claims 1 and 3 either literally or under the doctrine of equivalents.

46. Having knowledge or willful blindness to the fact that the third-party infringers' use of the '461 Infringing Instrumentalities in their intended manner practice at least claims 1 and 3 of the '461 Patent, Vivotek made no effort to avoid infringement and continued to actively encourage third-party infringers to directly infringe the '461 Patent by making, using, testing, selling, offering for sale, distributing, importing and/or licensing the accused Vivotek products; supported and managed the third-party infringers' use; and provided technical assistance to the third-party infringers by, for example, publishing instructional information

directing third-party infringers how to make and use the infringing products to practice one or more of the infringing products to infringe at least claims 1 and 3 of the '461 Patent during its term.

47. Vivotek continued to advertise and promote infringing features of the '461 Infringing Instrumentalities and encouraged third-party infringers to sell and/or operate the accused Vivotek products in an infringing manner.

48. Vivotek's end users, customers, and other third-party infringers followed Vivotek's directions to practice the asserted claims of the '461 Patent.

49. With the requisite knowledge, specific intent, or willful blindness, Vivotek specifically intended to induce, and did induce, the third-party infringers to infringe at least claims 1 and 3 of the '461 Patent, by, for example, publishing instructional information directing third-party infringers how to make and use the accused Vivotek products to infringe claims 1 and 3 of the '461 Patent.

50. Encouraged and instructed by Vivotek, third-party infringers acquired and operated the accused Vivotek products to practice all limitations of the asserted claims of '461 Patent.

51. With the requisite knowledge, specific intent, or willful blindness, Vivotek specifically intended to induce, and did induce, third-party infringers to infringe at least claims 1 and 3 of the '461 Patent. Vivotek advised, encouraged, and aided third-party infringers to engage in direct infringement, including through

its encouragement, advice, and assistance to the third-party infringers to use the infringing Vivotek products.

52. Vivotek induced infringement of at least claims 1 and 3 of the '461 Patent under 35 U.S.C. § 271(b).

53. Since MPV notified Vivotek that it was infringing the '461 Patent, Vivotek knew that the '461 Infringing Instrumentalities were made and operated in a manner that satisfied all limitations of at least claims 1 and 3 of the '461 Patent.

54. Vivotek's infringing conduct with respect to the '461 Patent was undertaken intentionally and willfully. Having refused to take a license to lawfully practice the '461 Patent, Vivotek made the business decision to "efficiently infringe" the '461 Patent. In so doing, Vivotek willfully infringed the '461 Patent.

55. MPV has been damaged by Vivotek's acts of direct and indirect infringement and is entitled to recover the damages sustained in an amount subject to proof at trial, which, by law, can be no less than a reasonable royalty, together with interest and costs as fixed by this Court, pursuant to 35 U.S.C. § 284.

**COUNT 2:  
INFRINGEMENT OF U.S. PATENT NO. 8,643,746**

56. MPV realleges and incorporates by reference the allegations set forth above, as if set forth verbatim herein.

57. MPV is the owner, by assignment, of U.S. Patent No. 8,643,746,

titled, “Video Summary Including a Particular Person.”

58. As the owner of the ’746 Patent, MPV holds all substantial rights in and under the ’746 Patent including the right to grant licenses, exclude others, and to enforce, sue, and recover damages for past and future infringement.

59. The ’746 Patent is valid, enforceable and was duly issued by the United States Patent and Trademark Office on February 4, 2014, in full compliance with Title 35 of the United States Code after a full and fair examination.

60. Vivotek has and continues to directly infringe at least claims 16 and 20 of the ’746 Patent by using (including its own testing), making, selling, offering for sale, distributing, licensing, and/or importing Vivotek camera systems and software (collectively, the “’746 Infringing Instrumentalities”) without authorization or license as exemplified below.

61. Exemplary infringing Vivotek camera systems include Model No. FD9387-FR-v2, and Vivotek camera systems and/or facial recognition tablets equipped with one or more of the Vivotek VAST Face, Vivotek VAST FaceM, or Vivotek VAST 2 software applications.

62. Each of the ’746 Infringing Instrumentalities satisfies each and every element of each asserted claim of the ’746 Patent either literally or under the doctrine of equivalents.

63. Claim 20 recites an embodiment of the claimed subject matter:

20. A non-transitory computer readable medium having stored thereon instructions executable to cause a processing system to perform functions, the functions comprising:

- (a) receiving a video sequence including a time sequence of image frames;
- (b) receiving a designation with respect to a reference image, wherein the reference image contains a particular person;
- (c) using a data processor of the processing system to automatically analyze the image frames using a person recognition algorithm to identify a subset of the image frames that contain the particular person;
- (d) forming a video summary including fewer than all of the image frames in the video sequence, wherein the video summary includes at least part of the identified subset of image frames containing the particular person;
- (e) storing the received video sequence in a storage memory as a digital video file; and
- (f) storing the video summary in the storage memory as a separate summary digital video file.

64. The '746 Infringing Instrumentalities perform a method for receiving

live video images (e.g., “video sequence”) including a time sequence of image frames.



With 99% facial recognition accuracy, the FD9387-FR-v2 is a powerful tool for accurate facial detection and person of interest control across multiple locations. The camera itself can hold up to 10,000 facial profiles.

<https://www.vivotek.com/fd9387-fr-v2>.

## Camera Features

Image Sensor	1/2.8" Progressive CMOS
Max. Resolution	2560x1920 (5MP)

<https://www.vivotek.com/fd9387-fr-v2>.

65. The 746 Infringing Instrumentalities perform a method of receiving one or more facial profiles (e.g., “reference images”) containing a person of interest (e.g., “a particular person”), which are stored in a face database.

**V**IVOTEK VAST Face is a state-of-the-art security enhanced face recognition system, capable of analyzing video streams from IP Cameras, tablets or still images in real-time, for the purposes of verifying a person’s identity against an existing face profiles database. Likewise, VAST Face is capable of providing face recognition access reports, and triggering system actions upon detecting an individual in a watchlist.

<https://webapi.vivotek.com/api/DownloadCenter/Download/global?p1=yO6kXqbQhe/aeJBgWoAh4Q==&p2=j199RdC0wOvZ8pPmTck8Tg==>.


VIVOTEK VAST FACE - USERS' GUIDE

## 2.2 Face Profile Images

Just as important as it is properly mounting video sources for face recognition, the registered photos (aka golden samples) inside the faces database must also be as clear as possible. In general, it is recommended that the database image should minimally comply to the requirements for Passport images as specified by the International Civil Aviation Organization (ICAO). The ICAO Image requirements covers pose, illumination, image brightness, contrast color, etc.

<https://webapi.vivotek.com/api/DownloadCenter/Download/global?p1=yO6kXqbQhe/aeJBgWoAh4Q==&p2=j199RdC0wOvZ8pPmTck8Tg==>.

VIVOTEK VAST FACE - USERS' GUIDE

12. To add a new profile, click on the "+Create" button (  ).

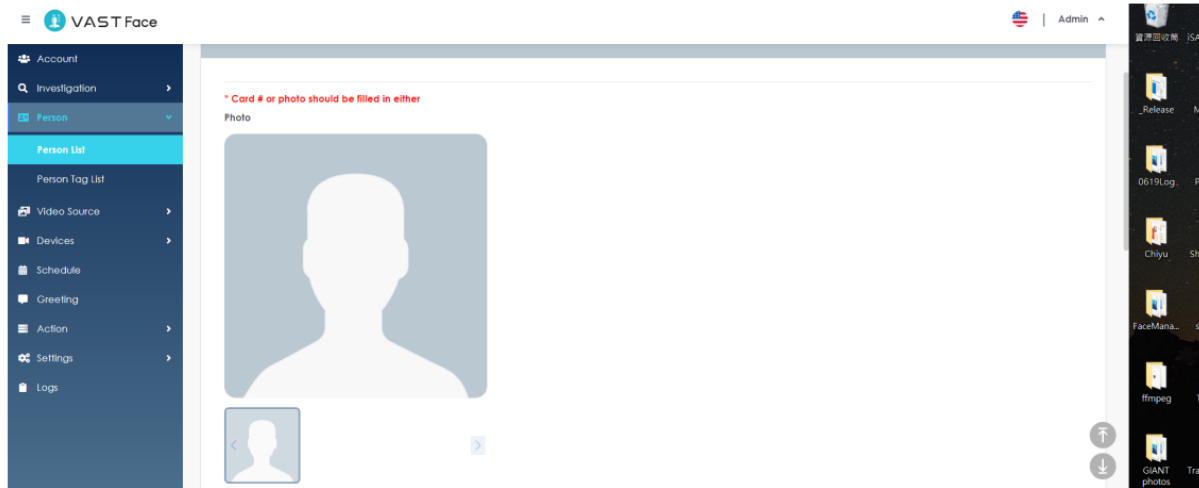


FIGURE 3.11 VAST Face create face profile

13. On the "Create profile" menu, enter the new profile information:

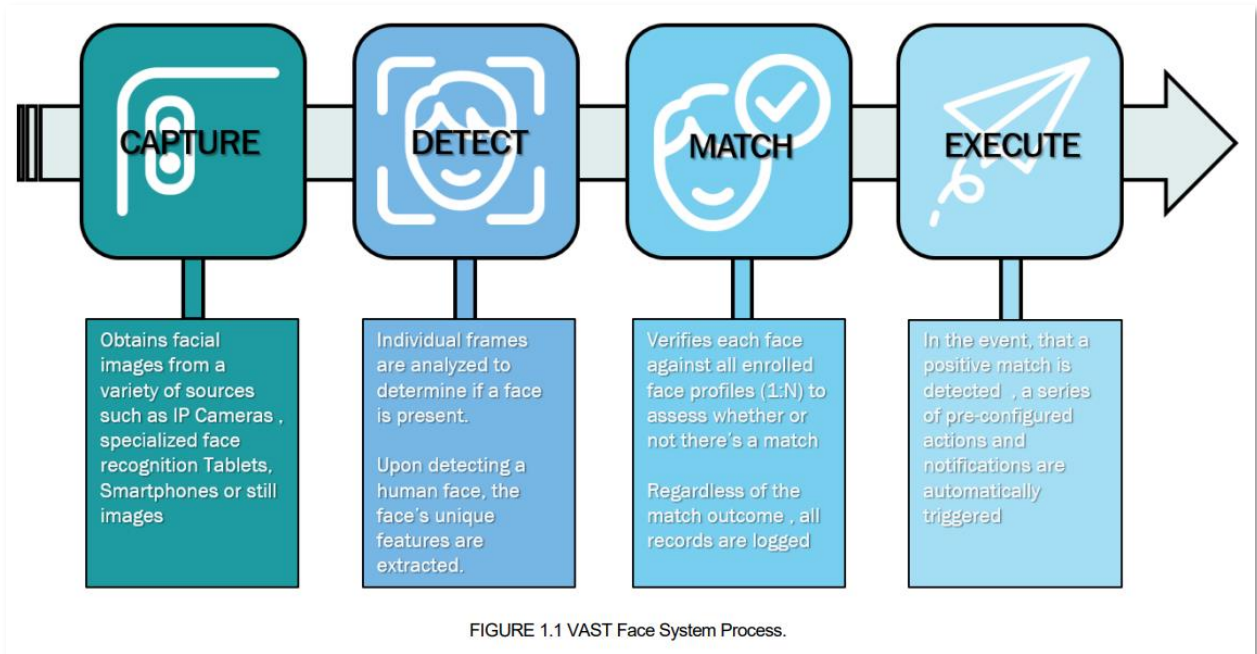
- a. **Photo** ➔ Profile photo image used for face recognition (selected image must be .PNG, .JPG or .JPEG and must be less than 1 MB).

<https://webapi.vivotek.com/api/DownloadCenter/Download/global?p1=yO6kXqbQhe/aeJBgWoAh4Q==&p2=j199RdC0wOvZ8pPmTck8Tg==>.

66. The '746 Infringing Instrumentalities use a data processor and a person recognition algorithm, allowing the cameras to automatically analyze image frames to identify and verify a subset of frames containing a particular person



against stored facial profiles.



<https://webapi.vivotek.com/api/DownloadCenter/Download/global?p1=yO6kXqbQhe/aeJBgWoAh4Q==&p2=j199RdC0wOvZ8pPmTck8Tg==>.

### Serverless facial recognition infrastructure up to 5 cameras

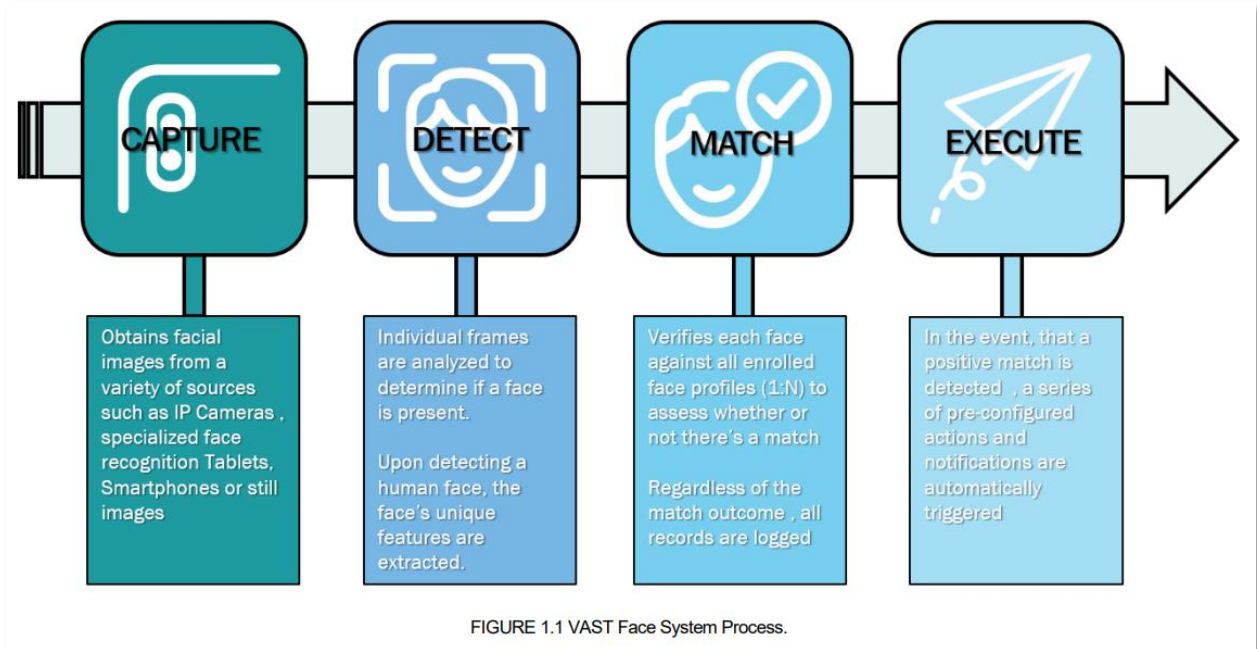
FD9387-FR-v2 can operate fully without middleware or FTP server, this reduces the operational overhead and allows you to focus on your core business functions.

With a single FD9387-FR-v2, you can store up to 10,000 facial profiles in a serverless architecture. You only need to manage and maintain the database in one camera, and it will automatically synchronize with other facial recognition cameras.

<https://www.vivotek.com/fd9387-fr-v2>.

67. The '746 Infringing Instrumentalities form a review video (e.g., “video summary”) which includes frames containing only the person of interest

(e.g., “includes at least part of the identified subset of image frames containing the particular person”).



<https://webapi.vivotek.com/api/DownloadCenter/Download/global?p1=yO6kXqbQhe/aeJBgWoAh4Q==&p2=j199RdC0wOvZ8pPmTck8Tg==>.

68. The ’746 Infringing Instrumentalities form snapshots that include frames containing only the person of interest (e.g., “includes at least part of the identified subset of image frames containing the particular person”).

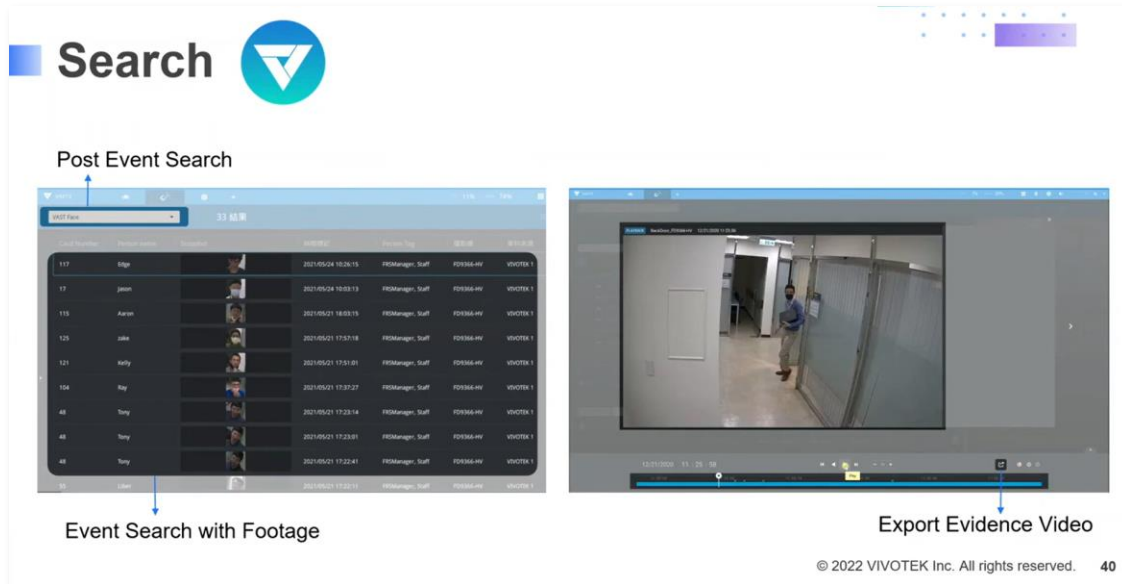
6. In the event, that the face recognition to be exported, click on the “Export to Excel” button, which will export all on-screen face recognition events including the captured face snapshot.

<https://webapi.vivotek.com/api/DownloadCenter/Download/global?p1=yO6kXqbQhe/aeJBgWoAh4Q==&p2=j199RdC0wOvZ8pPmTck8Tg==>.



<https://webapi.vivotek.com/api/DownloadCenter/Download/global?p1=yO6kXqbQhe/aeJBgWoAh4Q==&p2=j199RdC0wOvZ8pPmTck8Tg==>.

69. The '746 Infringing Instrumentalities form video clips which include frames containing only the person of the interest (e.g., “includes at least part of the identified subset of image frames containing the particular person”).



<https://www.youtube.com/watch?v=PzwtGtqMMPdw&list=PLYQwI4MkCM4LV>

[Ae7Cz3IFdWCKQJxmEeEZ.](#)

70. The '746 Infringing Instrumentalities store the received video sequence and video summaries either locally or in network storage.

71. Vivotek received notice of infringement of the '746 Patent on December 13, 2021.

72. Consistent with Vivotek's published descriptions and instructions, normal operation of the '746 Infringing Instrumentalities contain a computer readable medium containing instructions to cause a processing system to perform each and every step; and perform each and every step each asserted claim of the '746 Patent including claims 16 and 20 either literally or under the doctrine of equivalents.

73. Having knowledge or willful blindness to the fact that the third-party infringers' sale, offer for sale, distribution, license, importation, and/or use of the '746 Infringing Instrumentalities in their intended manner practice at least claims 16 and 20 of the '746 Patent, Vivotek has made no effort to avoid infringement and continues to actively encourage the third-party infringers to directly infringe the '746 Patent by making, using, testing, selling, offering for sale, importing, distributing, and/or licensing the accused Vivotek products; supporting and managing the third-party infringers' use; and providing technical assistance to the third-party infringers by, for example, publishing instructional

information directing third-party infringers how to make and use the infringing products to practice one or more of the infringing products to infringe at least claims 16 and 20 of the '746 Patent.

74. Vivotek has and continues to advertise and promote infringing features of the '746 Infringing Instrumentalities and encourage third-party infringers to sell and/or operate the accused Vivotek products in an infringing manner.

75. Vivotek's end users, customers, and other third-party infringers follow Vivotek's directions to practice the asserted claims of the '746 Patent.

76. With the requisite knowledge, specific intent, or willful blindness, Vivotek specifically intended to induce, did induce, and continues to induce the third-party infringers to infringe at least claims 16 and 20 of the '746 Patent, by, for example, publishing instructional information directing third-party infringers how to make and use the accused Vivotek products to infringe claims 16 and 20 of the '746 Patent.

77. Encouraged and instructed by Vivotek, third-party infringers acquired and operated the accused Vivotek products to practice all limitations of the asserted claims of the '746 Patent.

78. With the requisite knowledge, specific intent, or willful blindness, Vivotek specifically intended to induce, and did induce, third-party infringers to

infringe at least claims 16 and 20 of the '746 Patent. Vivotek advised, encouraged, and aided third-party infringers to engage in direct infringement, including through its encouragement, advice, and assistance to the third-party infringers to use the infringing Vivotek products.

79. Vivotek has induced infringement and continues to induce infringement under 35 U.S.C. § 271(b) of at least claims 16 and 20 of the '746 Patent.

80. Since it received notice of infringement in December 2021, Vivotek has known that the '746 Infringing Instrumentalities are made and operate in a manner that satisfies all limitations of at least claims 16 and 20 of the '746 Patent.

81. Vivotek's infringing conduct with respect to the '746 Patent has been undertaken intentionally and willfully. Having refused to take a license to lawfully practice the '746 Patent, Vivotek made the business decision to "efficiently infringe" the '746 Patent. In so doing, Vivotek has willfully infringed the '746 Patent.

82. MPV has been damaged by Vivotek's acts of direct and indirect infringement and is entitled to recover the damages sustained in an amount subject to proof at trial, which, by law, can be no less than a reasonable royalty, together with interest and costs as fixed by this Court, pursuant to 35 U.S.C. § 284.



**COUNT 3:  
INFRINGEMENT OF U.S. PATENT NO. 8,665,345**

83. MPV realleges and incorporates by reference the allegations set forth above as if restated verbatim here.

84. MPV is the owner, by assignment, of U.S. Patent No. 8,665,345, titled “Video Summary Including a Feature of Interest.”

85. As the owner of the ’345 Patent, MPV holds all substantial rights in and under the ’345 Patent, including the right to grant licenses, exclude others, and to enforce, sue, and recover damages for past and future infringement.

86. The United States Patent and Trademark Office issued the ’345 Patent on March 4, 2014, after a full examination that concluded in allowance of subject matter found to be in compliance with Title 35 of the United States Code.

87. Vivotek received notice of infringement of the ’345 Patent on December 13, 2021.

88. Vivotek has and continues to directly infringe at least claim 19 of the ’345 Patent by using (including its own testing), making, selling, offering for sale, licensing, and/or importing Vivotek camera systems and software (collectively, the “’345 Infringing Instrumentalities”) without authorization or license as exemplified below.

89. Exemplary infringing Vivotek camera systems include camera



systems and software equipped with one or more of Vivotek's Parking Violation Detection, Restricted Zone Detection, Smart Motion Detection, Smart Tracking Advanced, and Vivotek Smart VCA.

90. Each of the '345 Infringing Instrumentalities satisfies each and every element of each asserted claim of the '345 Patent either literally or under the doctrine of equivalents.

91. Claim 19 recites an embodiment of the claimed subject matter:

19. A non-transitory computer-readable medium having instructions stored thereon, the instructions comprising:

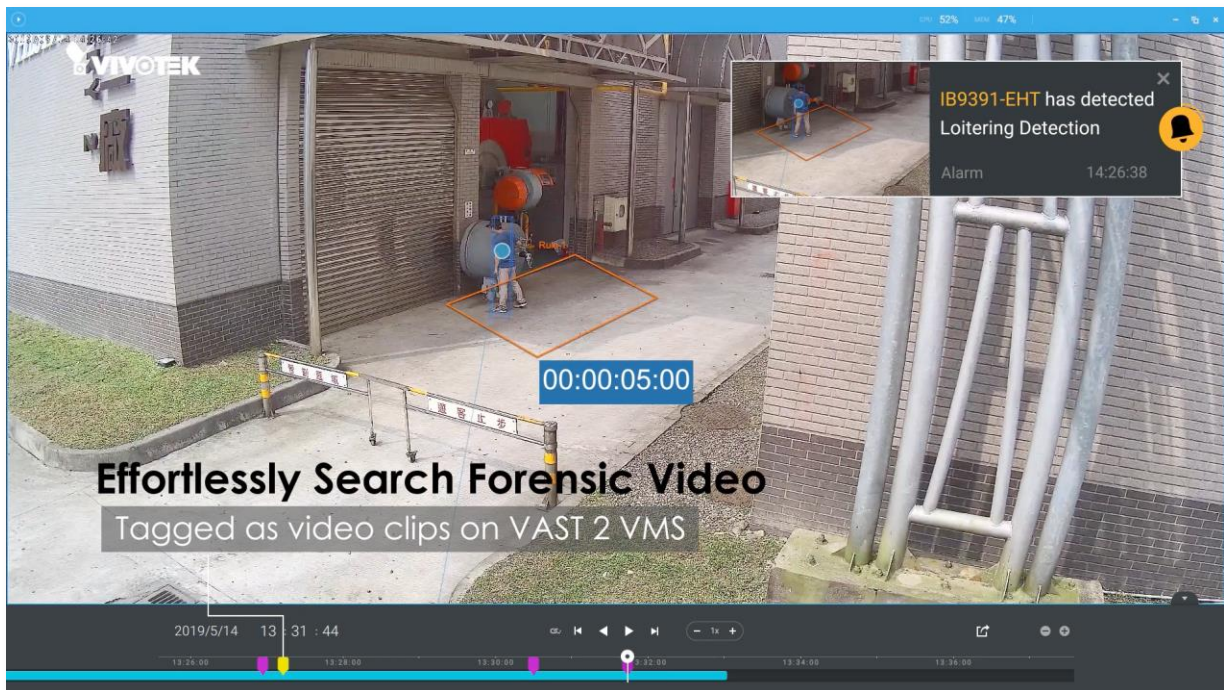
- (a) instructions for capturing a video sequence including a time sequence of image frames;
- (b) instructions for specifying reference data separate from a reference in the captured video sequence, wherein the reference data indicates a feature of interest, and wherein the reference data includes information specifying a desired characteristic of the image frames;
- (c) instructions for analyzing the image frames using a feature recognition algorithm to identify a subset of the image frames that contain the feature of interest and have the desired characteristic;

(d) instructions for forming a video summary including fewer than all of the image frames in the video sequence, wherein the video summary includes at least part of the identified subset of image frames containing the feature of interest and having the desired characteristic; and

(e) instructions for storing a representation of the video summary in a processor-accessible storage memory.

92. The '345 Infringing Instrumentalities include instructions for capturing a video sequence including a time sequence of image frames.

93. The '345 Infringing Instrumentalities receive live video images (*e.g.*, “video sequence”) including a time sequence of image frames.



[https://www.vivotek.com/learning/feature-article/smart-vca.](https://www.vivotek.com/learning/feature-article/smart-vca)

94. The '345 Infringing Instrumentalities specify loitering using Smart VCA algorithms, wherein the algorithms indicate detected people loitering (*e.g.*, “feature of interest”), and wherein the algorithms specify whether the person is in a specified area longer than a present time threshold (*e.g.*, “desired characteristic of the image frames”).



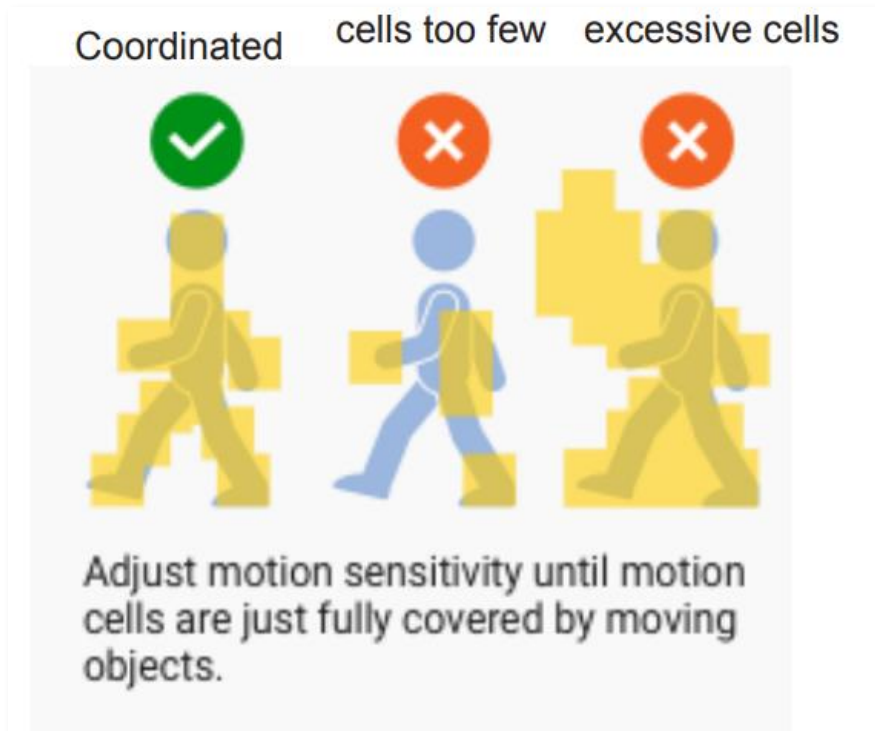
## Loitering Detection

VIVOTEK Loitering Detection is used to detect a person or a group of people lingering in one area longer than a preset time threshold.

Example Application Scenarios:

- Detect a person loitering at a walk-up or drive-up ATM lane.
- Detect a person loitering in a high-theft area of a store.

<https://www.vivotek.com/learning/feature-article/smart-vca>.



[https://blob.vivotek.com/downloadfile/SmartVca/smart-vca\\_manual\\_en.pdf](https://blob.vivotek.com/downloadfile/SmartVca/smart-vca_manual_en.pdf).

The screenshot shows the VCA configuration interface. On the left, there is a live view of a camera feed with a detection zone overlaid. On the right, the 'Rule-1' configuration panel is visible. The 'Type' is set to 'Loitering Detection'. The 'Event' is set to 'After a person stays in the zone (seconds): 5'. There is a 'Go to Event Settings' button and a 'Delete this rule' button. At the bottom, there are 'Save' and 'Discard' buttons. The text to the right of the screenshot provides instructions on how to use the 'After a person stays in the zone (seconds)' setting.

**After a person stays** in the zone (seconds):

Select a time threshold to trigger an event for a person lingering in the detection zone.

Note that you can change the Custom properties in order to display the duration of stay of people in scene.



[https://blob.vivotek.com/downloadfile/SmartVca/smart-vca\\_manual\\_en.pdf](https://blob.vivotek.com/downloadfile/SmartVca/smart-vca_manual_en.pdf).

95. The '345 Infringing Instrumentalities use a processor to automatically analyze the image frames using a feature recognition algorithm to identify a subset of the image frames that contain people loitering in an area.

96. The '345 Infringing Instrumentalities generate clips from the live video feed (e.g., a video summary) including the image frames containing people loitering in a specific area longer than a preset time threshold.

**VCA Events as Event Prompts, in List, and in Thumbnails.**

The screenshot displays the VCA software interface. On the left, a window titled 'VAST2' shows a live video feed with an event prompt overlay: 'FE9191 - Rule-2 has detected line crossing' with a timestamp of 15:22:51. Below this is a search bar for alarms. On the right, a larger window titled 'VAST2' shows an 'Alarm list' with a 'LIVE' indicator. The alarm list contains the following data:

Name	Station	Trigger source	Event type	Time	Status
Alarm-Line-crossing	VMS_Station	FE9191 - Rule-2	Line crossing detection	2019/03/14 16:06:37	New
Alarm-Line-crossing	VMS_Station	FE9191 - Rule-2	Line crossing detection	2019/03/14 16:05:26	New
Alarm-Line-crossing	VMS_Station	FE9191 - Rule-2	Line crossing detection	2019/03/14 16:05:11	New
Alarm-Line-crossing	VMS_Station	FE9191 - Rule-2	Line crossing detection	2019/03/14 16:04:18	New
Alarm-Line-crossing	VMS_Station	FE9191 - Rule-2	Line crossing detection	2019/03/14 16:03:27	New
Alarm-Line-crossing	VMS_Station	FE9191 - Rule-2	Line crossing detection	2019/03/14 16:02:47	New
Alarm-Crowd	VMS_Station	FE9191 - Rule-3	Crowd detection	2019/03/14 16:02:25	New
Alarm-Line-crossing	VMS_Station	FE9191 - Rule-2	Line crossing detection	2019/03/14 16:02:23	New
Alarm-Line-crossing	VMS_Station	FE9191 - Rule-2	Line crossing detection	2019/03/14 15:59:21	New
Alarm-Line-crossing	VMS_Station	FE9191 - Rule-2	Line crossing detection	2019/03/14 15:59:08	New
Alarm-Line-crossing	VMS_Station	FE9191 - Rule-2	Line crossing detection	2019/03/14 15:58:51	New
Alarm-Crowd	VMS_Station	FE9191 - Rule-3	Crowd detection	2019/03/14 15:58:14	New
Alarm-Line-crossing	VMS_Station	FE9191 - Rule-2	Line crossing detection	2019/03/14 15:58:14	New
Alarm-Line-crossing	VMS_Station	FE9191 - Rule-2	Line crossing detection	2019/03/14 15:56:58	New
Alarm-Line-crossing	VMS_Station	FE9191 - Rule-2	Line crossing detection	2019/03/14 15:55:41	New
Alarm-Line-crossing	VMS_Station	FE9191 - Rule-2	Line crossing detection	2019/03/14 15:54:24	New

Below the alarm list, there are four thumbnails showing the video feed with yellow bounding boxes around detected objects.

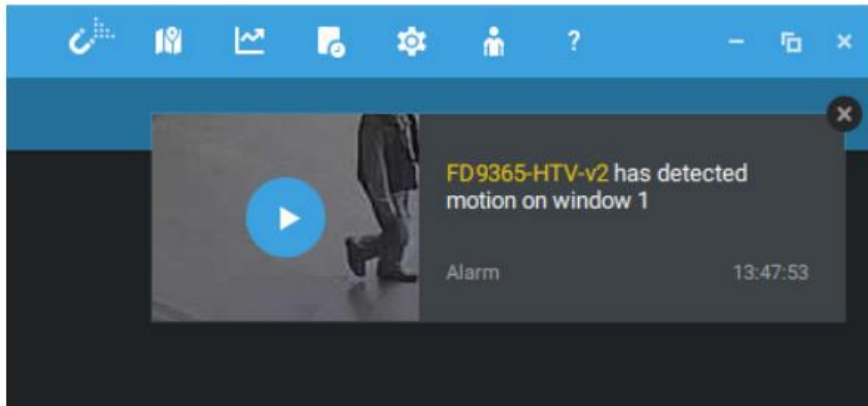
Smart VCA also supports the traditional event messaging, such as Sending live streams, record videos, send HTTP requests, send videos to FTP, sending Emails with snapshots, etc.

[https://blob.vivotek.com/downloadfile/SmartVca/smart-vca\\_manual\\_en.pdf](https://blob.vivotek.com/downloadfile/SmartVca/smart-vca_manual_en.pdf).

97. The '345 Infringing Instrumentalities store representations of the

video summaries in a memory that is accessible via the Vivotek multimedia interface.

VCA events prompt on VIVOTEK's central management software, VAST2. A single click on the event prompt can play back the related video footage.



VCA events are tagged and can be retrieved from the event list using the Alarm Search function.

**Reduced Management Efforts:** Integrated with VIVOTEK's VAST software, the VCA events can be tagged as video clips, making the forensic search effortless. With ordinary video recordings, it often takes hours to search for meaningful videos from the archives. With the VCA tagged events, searching for the related evidences is reduced to a matter of minutes. The correlation of events on different cameras are available at a glimpse as tagged events in the VAST Alarm list.

If users choose to record the videos only when VCA alarms occur, the bandwidth and storage requirements can be minimized. Also, the detection and analysis takes place on individual cameras, instead of being processed on a dedicated server. There is no need for an expensive server hardware, and the use of network bandwidth for transmitting videos is reduced to minimum.

[https://blob.vivotek.com/downloadfile/SmartVca/smart-vca\\_manual\\_en.pdf](https://blob.vivotek.com/downloadfile/SmartVca/smart-vca_manual_en.pdf).

98. Consistent with Vivotek's published descriptions and instructions, normal operation of the '345 Infringing Instrumentalities contain a computer readable medium containing instructions to cause a processing system to perform each and every step of each asserted claim of the '345 Patent including claim 19

either literally or under the doctrine of equivalents.

99. Having knowledge or willful blindness to the fact that the third-party infringers' sale, offer for sale, distribution, license, importation, and/or use of the '345 Infringing Instrumentalities in their intended manner practice at least claim 19 of the '345 Patent, Vivotek has made no effort to avoid infringement and continues to actively encourage the third-party infringers to directly infringe the '345 Patent by making, using, testing, selling, offering for sale, distributing, importing and/or licensing the accused Vivotek products, and by, for example: marketing them to third-party infringers; supporting and managing the third-party infringers' use; and providing technical assistance to the third-party infringers by, for example, publishing instructional information directing third-party infringers how to sell, make, and use the infringing products to practice one or more of the infringing products to infringe at least claim 19 of the '345 Patent.

100. Vivotek has and continues to advertise and promote infringing features of the '345 Infringing Instrumentalities and encourage third-party infringers to sell and/or operate the accused Vivotek products in an infringing manner.

101. Vivotek's end users, customers, and other third-party infringers follow Vivotek's directions to practice the asserted claims of the '345 Patent.

102. With the requisite knowledge, specific intent, or willful blindness,



Vivotek specifically intended to induce, did induce, and continues to induce the third-party infringers to infringe at least claim 19 of the '345 Patent, by, for example, publishing instructional information directing third-party infringers how to sell, make, and use the accused Vivotek products to infringe claim 19 of the '345 Patent.

103. Encouraged and instructed by Vivotek, third-party infringers acquired, sold, and operated the accused Vivotek products to practice all limitations of the asserted claims of '345 Patent.

104. With the requisite knowledge, specific intent, or willful blindness, Vivotek specifically intended to induce, and did induce, third-party infringers to infringe at least claim 19 of the '345 Patent. Vivotek advised, encouraged, and aided third-party infringers to engage in direct infringement, including through its encouragement, advice, and assistance to the third-party infringers to use the infringing Vivotek products.

105. Vivotek has induced infringement and continues to induce infringement under 35 U.S.C. § 271(b) of at least claim 19 of the '345 Patent.

106. By no later than receipt of this complaint, Vivotek knew that the '345 Infringing Instrumentalities are made and operate in a manner that satisfies all limitations of at least claim 19 of the '345 Patent.

107. Vivotek's infringing conduct with respect to the '345 Patent has been

undertaken intentionally and willfully. Having refused to take a license to lawfully practice the '345 Patent, Vivotek made the business decision to “efficiently infringe” the '345 Patent. In so doing, Vivotek willfully infringed the '345 Patent.

108. MPV has been damaged by Vivotek’s acts of direct and indirect infringement and is entitled to recover the damages sustained in an amount subject to proof at trial, which, by law, can be no less than a reasonable royalty, together with interest and costs as fixed by this Court, pursuant to 35 U.S.C. § 284.

**COUNT 4:  
INFRINGEMENT OF U.S. PATENT NO. 9,013,604**

109. MPV realleges and incorporates by reference the allegations set forth above as if restated verbatim here.

110. MPV is the owner, by assignment, of U.S. Patent No. 9,013,604, titled “Video Summary Including a Particular Person.”

111. As the owner of the '604 Patent, MPV holds all substantial rights in and under the '604 Patent, including the right to grant licenses, exclude others, and to enforce, sue, and recover damages for past and future infringement.

112. The United States Patent and Trademark Office issued the '604 Patent on April 21, 2015, after a full examination that concluded in allowance of subject matter found to be in compliance with Title 35 of the United States Code.

113. Vivotek received notice of infringement of the '604 Patent on

December 13, 2021.

114. Vivotek has and continues to directly infringe at least claim 14 of the '604 Patent by using (including its own testing), making, selling, offering for sale, licensing, and/or importing Vivotek camera systems and software (collectively, the "'604 Infringing Instrumentalities'") without authorization or license as exemplified below.

115. Exemplary infringing Vivotek camera systems include Model No. FD9387-FR-v2, Vivotek camera systems and facial recognition tablets equipped with one or more of the Vivotek VAST Face, VAST FaceM or VAST 2, Restricted Zone Detection, Smart Motion Detection, Smart Tracking Advanced, and Smart VCA software applications.

116. Each of the '604 Infringing Instrumentalities satisfies each and every element of each asserted claim of the '604 Patent either literally or under the doctrine of equivalents.

117. Claim 14 recites an embodiment of the claimed subject matter:


14. A non-transitory computer-readable medium having instructions stored thereon instructions executable to cause a processing system to perform functions, the functions comprising:

(a) receiving a designation regarding a reference image,

- wherein the reference image contains a particular person;
- (b) analyzing, using a processing system, image frames to identify a subset of the image frames that contain the particular person;
- (c) forming, using the processing system, a summary including fewer than all of the image frames, wherein the summary includes at least part of the identified subset of image frames containing the particular person; and
- (d) storing the summary in storage memory as a separate summary file.

118. The '604 Infringing Instrumentalities receive one or more facial profiles (*e.g.*, “reference image”) containing a particular person.


### 10,000 Faces on the edge



With 99% facial recognition accuracy, the FD9387-FR-v2 is a powerful tool for accurate facial detection and person of interest control across multiple locations. The camera itself can hold up to 10,000 facial profiles.

<https://www.vivotek.com/fd9387-fr-v2>.

**VIVOTEK VAST FACE - USERS' GUIDE**

12. To add a new profile, click on the "+Create" button (  ).

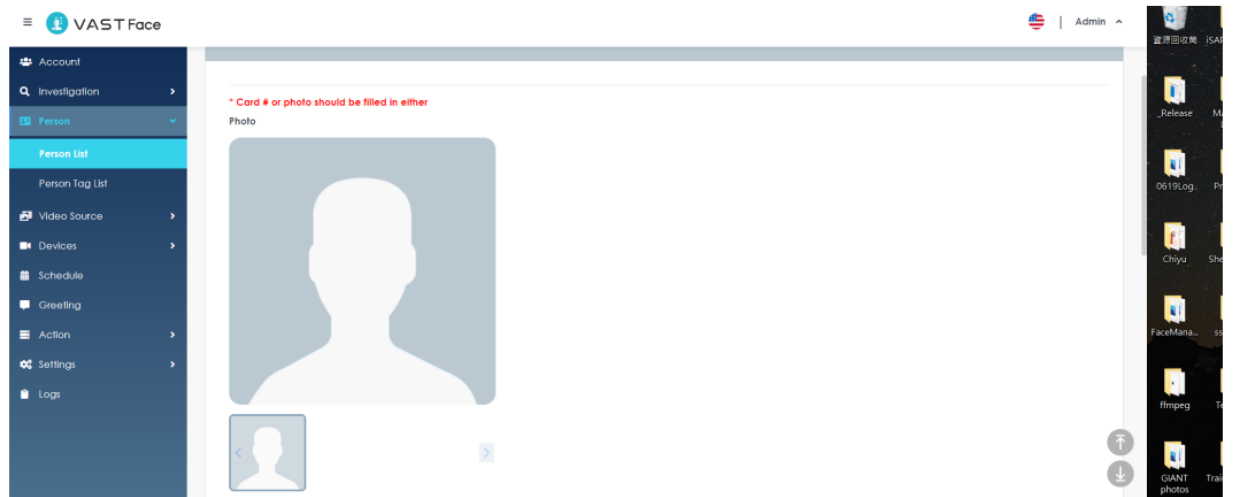


FIGURE 3.11 VAST Face create face profile

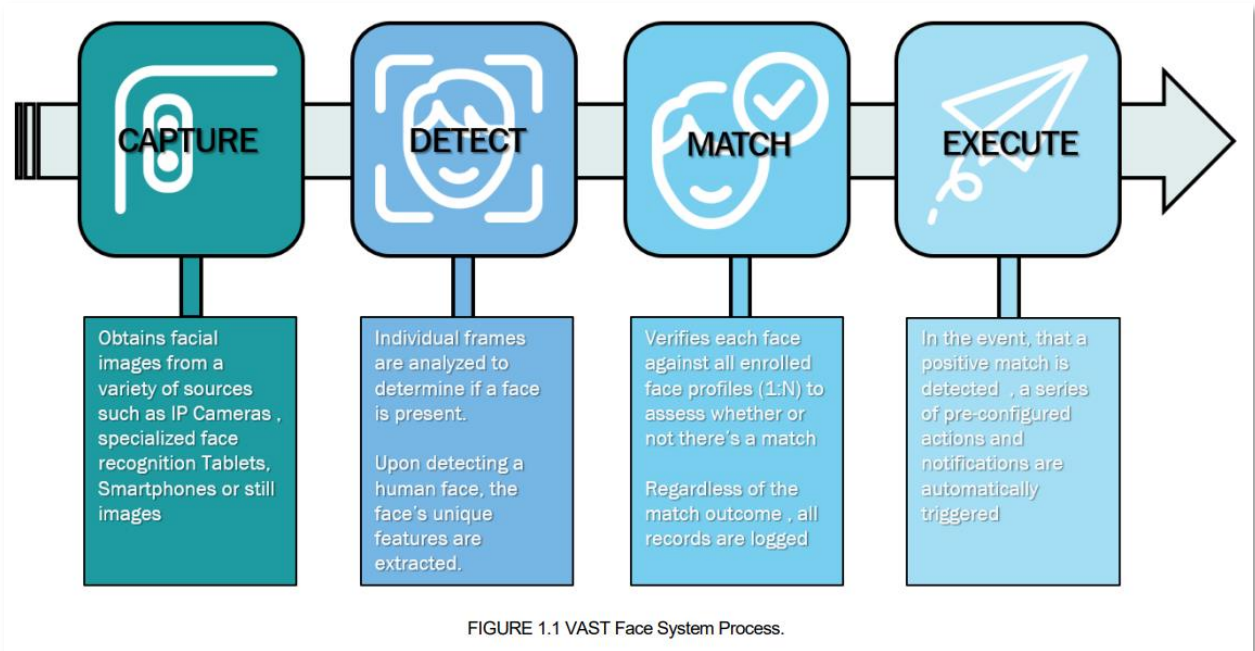
**VIVOTEK VAST FACE - USERS' GUIDE**

## 2.2 Face Profile Images

Just as important as it is properly mounting video sources for face recognition, the registered photos (aka golden samples) inside the faces database must also be as clear as possible. In general, it is recommended that the database image should minimally comply to the requirements for Passport images as specified by the International Civil Aviation Organization (ICAO). The ICAO Image requirements covers pose, illumination, image brightness, contrast color, etc.

<https://webapi.vivotek.com/api/DownloadCenter/Download/global?p1=yO6kXqbQhe/aeJBgWoAh4Q==&p2=j199RdC0wOvZ8pPmTck8Tg==>.

The '604 Infringing Instrumentalities analyze the image frames to identify a subset of the image frames that contain the particular person.



<https://webapi.vivotek.com/api/DownloadCenter/Download/global?p1=yO6kXqbQhe/aeJBgWoAh4Q==&p2=j199RdC0wOvZ8pPmTck8Tg==>.

**Serverless facial recognition infrastructure up to 5 cameras**

FD9387-FR-v2 can operate fully without middleware or FTP server, this reduces the operational overhead and allows you to focus on your core business functions.

With a single FD9387-FR-v2, you can store up to 10,000 facial profiles in a serverless architecture. You only need to manage and maintain the database in one camera, and it will automatically synchronize with other facial recognition cameras.

<https://www.vivotek.com/fd9387-fr-v2>.

119. The '604 Infringing Instrumentalities form a snapshot image which includes at least part of the identified subset of image frames containing the particular person.

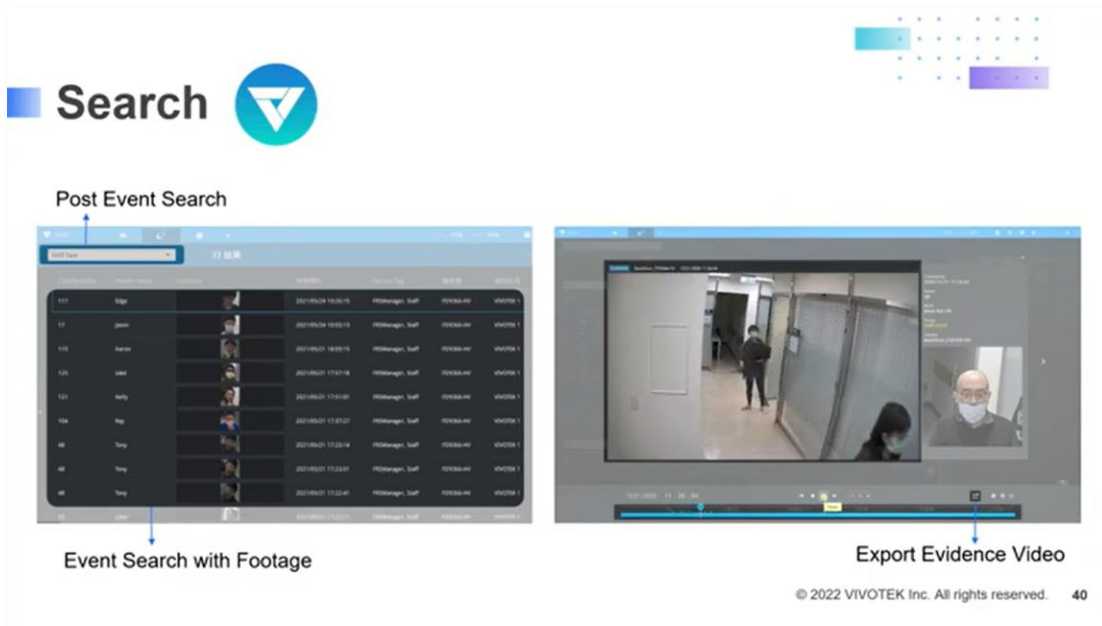
6. In the event, that the face recognition to be exported, click on the “Export to Excel” button, which will export all on-screen face recognition events including the captured face snapshot.

<https://webapi.vivotek.com/api/DownloadCenter/Download/global?p1=yO6kXqbQhe/aeJBgWoAh4Q==&p2=j199RdC0wOvZ8pPmTck8Tg==>.



<https://webapi.vivotek.com/api/DownloadCenter/Download/global?p1=yO6kXqbQhe/aeJBgWoAh4Q==&p2=j199RdC0wOvZ8pPmTck8Tg==>.

120. The '604 Infringing Instrumentalities may also form video clips (e.g., “summary”) including frames that contain the particular person.





<https://www.youtube.com/watch?v=PzwgTqMMPdw&list=PLYQwI4MkCM4LV Ae7Cz3IFdWCKQJxmEeEZ>.

121. The '604 Infringing Instrumentalities store the summary locally and/or in network storage (*e.g.*, “storage memory”) as a separate summary file.

122. Consistent with Vivotek’s published descriptions and instructions, normal operation of the '604 Infringing Instrumentalities contain a computer readable medium containing instructions to cause a processing system to perform each and every step recited in each asserted claim of the '604 Patent including claim 14 either literally or under the doctrine of equivalents.

123. Having knowledge or willful blindness to the fact that the third-party infringers’ use, sale, offer for sale, distribution, license, and/or importation of the '604 Infringing Instrumentalities in their intended manner practice at least claim 14 of the '604 Patent, Vivotek has made no effort to avoid infringement and continues to actively encourage the third-party infringers to directly infringe the '604 Patent by making, using, testing, selling, offering for sale, distributing, importing, and/or licensing the accused Vivotek products, and by, for example: marketing them to third-party infringers; supporting and managing the third-party infringers’ use; and providing technical assistance to the third-party infringers by, for example, publishing instructional information directing third-party infringers how to make and use the infringing products to practice one or more of the

infringing products to infringe at least claim 14 of the '604 Patent.

124. Vivotek has and continues to advertise and promote infringing features of the '604 Infringing Instrumentalities and encourage third-party infringers to sell and/or operate the accused Vivotek products in an infringing manner.

125. Vivotek's end users, customers, and other third-party infringers follow Vivotek's directions to practice the asserted claims of the '604 Patent.

126. With the requisite knowledge, specific intent, or willful blindness, Vivotek specifically intended to induce, did induce, and continues to induce the third-party infringers to infringe at least claim 14 of the '604 Patent, by, for example, publishing instructional information directing third-party infringers how to make, sell, offer for sale, and use the accused Vivotek products to infringe claim 14 of the '604 Patent.

127. Encouraged and instructed by Vivotek, third-party infringers acquired and operated the accused Vivotek products to practice all limitations of the asserted claims of '604 Patent.

128. With the requisite knowledge, specific intent, or willful blindness, Vivotek specifically intended to induce, and did induce, third-party infringers to infringe at least claim 14 of the '604 Patent. Vivotek advised, encouraged, and aided third-party infringers to engage in direct infringement, including through its

encouragement, advice, and assistance to the third-party infringers to make, sell, offer to sell, and/or use the infringing Vivotek products.

129. Vivotek has induced infringement and continues to induce infringement under 35 U.S.C. § 271(b) of at least claim 14 of the '604 Patent.

130. By no later than receipt of this complaint, Vivotek knew that the '604 Infringing Instrumentalities are made and operate in a manner that satisfies all limitations of at least claim 14 of the '604 Patent.

131. Vivotek's infringing conduct with respect to the '604 Patent has been undertaken intentionally and willfully. Having refused to take a license to lawfully practice the '604 Patent, Vivotek made the business decision to "efficiently infringe" the '604 Patent. In so doing, Vivotek willfully infringed the '604 Patent.

132. MPV has been damaged by Vivotek's acts of direct and indirect infringement and is entitled to recover the damages sustained in an amount subject to proof at trial, which, by law, can be no less than a reasonable royalty, together with interest and costs as fixed by this Court, pursuant to 35 U.S.C. § 284.

### **NOTICE**

133. MPV does not currently distribute, sell, offer for sale, or make products embodying the MPV Asserted Patents.

134. Vivotek has ignored MPV's notice that it infringes the '461, '746, '345, and '604 Patents.

135. MPV has complied with all notice requirements of 35 U.S.C. § 287.

**NOTICE OF REQUIREMENT OF LITIGATION HOLD**

136. Vivotek is hereby notified it is legally obligated to locate, preserve, and maintain all records, notes, drawings, documents, data, communications, materials, electronic recordings, audio/video/photographic recordings, and digital files, including edited and unedited or “raw” source material, and other information and tangible things that Vivotek knows, or reasonably should know, may be relevant to actual or potential claims, counterclaims, defenses, and/or damages by any party or potential party in this lawsuit, whether created or residing in hard copy form or in the form of electronically stored information (hereafter collectively referred to as “Potential Evidence”).

137. As used above, the phrase “electronically stored information” includes without limitation: computer files (and file fragments), e-mail (both sent and received, whether internally or externally), information concerning e-mail (including but not limited to logs of e-mail history and usage, header information, and deleted but recoverable e-mails), text files (including drafts, revisions, and active or deleted word processing documents), instant messages, audio recordings and files, video footage and files, audio files, photographic footage and files, spreadsheets, databases, calendars, telephone logs, contact manager information, internet usage files, and all other information created, received, or maintained on

any and all electronic and/or digital forms, sources and media, including, without limitation, any and all hard disks, removable media, peripheral computer or electronic storage devices, laptop computers, mobile phones, personal data assistant devices, Blackberry devices, iPhones, video cameras and still cameras, and any and all other locations where electronic data is stored. These sources may also include any personal electronic, digital, and storage devices of any and all of Vivotek's agents, resellers, or employees if Vivotek electronically stored information resides there.

138. Vivotek is hereby further notified and forewarned that any alteration, destruction, negligent loss, or unavailability, by act or omission, of any Potential Evidence may result in damages or a legal presumption by the Court and/or jury that the Potential Evidence is not favorable to Vivotek's claims and/or defenses. To avoid such a result, Vivotek's preservation duties include, but are not limited to, the requirement that Vivotek immediately notify its agents and employees to halt and/or supervise the functions of Vivotek's electronic systems and refrain from deleting Potential Evidence, either manually or through a policy of periodic deletion.

### **JURY DEMAND**

MPV hereby demands a trial by jury on all claims, issues and damages so triable.

**PRAYER FOR RELIEF**

MPV prays for the following relief:

- a. That Vivotek be summoned to appear and answer;
- b. That the Court enter an order declaring that Vivotek has infringed each of the MPV Asserted Patents.
- c. That the Court grant MPV judgment against Vivotek for all actual, consequential, special, punitive, increased, and/or statutory damages, including, if necessary, an accounting of all damages; pre- and post-judgment interest as allowed by law; and reasonable attorneys' fees, costs, and expenses incurred in this action;
- d. That Vivotek be found to have willfully infringed the MPV Asserted Patents; and
- e. That MPV be granted such other and further relief as the Court may deem just and proper under the circumstances.

Dated: July 8, 2024

Respectfully submitted,

**CONNOR LEE & SHUMAKER PLLC**

By: 

Cabrach J. Connor  
cab@CLandS.com;  
Texas Bar No. 24036390  
John M. Shumaker

john@CLandS.com  
Texas Bar No. 24033069

609 Castle Ridge Road, Suite 450  
Austin, Texas 78746  
512.646.2060 Telephone  
888.387.1134 Facsimile