

**Search query (18):** [SP]: produce and non-produce verification using hybrid scanner approaches to produce verification are addressed which may be suitably employed in conjunction with a low resolution image scanner. features, such as lines, corners, text, texture, edges and the like are extracted and compared with features for an identified item or evaluated to determine if the features collectively are indicative of a produce item or a non-produce item.

**Results:** 14

#### Search history

Search (scale+ or bascule+ or weigher) (Results 1000000)

1:

Search 1 and camera+ (Results 206022)

2:

Search 2 and facial recognition (Results 4486)

3:

Search 3 and GPS (Results 2158)

4:

Search 4 and wireless (Results 2033)

5:

Search 5 and food (Results 536)

6:

Search 6 and weight (Results 347)

7:

Search 7 and (deliver\* or giv\* or provid\* or suppl\* or hand\*) (Results 347)

8:

Search (8) AND IPC=(G01) (Results 111)

9:

Search CN205451329 (Results 0)

10:

Search PN=(CN205451329) (Results 1)

11:

Search [SP]: selling management system is weighed by oneself in food and beverage the utility model provides a selling management system is weighed by oneself in food and beverage, including weighing terminal, intelligent control ware, all -purpose card pos machine, pos book keeping operation administrative unit, management server, display and controlling the button, the intelligent control ware is connected in weighing terminal, all -purpose card pos machine, management server, display and controlling the button, and pos book keeping operation administrative unit is connected in all -purpose card pos quick -wittedly, vegetable price information that the vegetable is weighed based on vegetable kind and univalent information automatic calculation of the vegetable weight of weighing the terminal input and management server input to the intelligent control ware exports and gives display and all -purpose card pos machine, the vegetable consumption information of all -purpose card pos machine passback and the vegetable management information of management server passback are received and save to the intelligent control ware, the utility model discloses collect and weigh, valuate, settle accounts, sell function in an organic wholes such as data analysis, report form statistics, realized taking as required, charged according to quantity, have use value in fields such as school and enterprises and institutions dining room, social dining rooms. (Results 1)

Search fn=(63176076) (Results 1)

13:

Search 3 and cash register (Results 116)

14:

Search "cash register" (Results 24460)

15:

Search 3 and 15 (Results 116)

16:

Search PN=(US2015054959) (Results 1)

17:

Search [SP]: produce and non-produce verification using hybrid scanner approaches to produce verification are addressed which may be suitably employed in conjunction with a low resolution image scanner. features, such as lines, corners, text, texture, edges and the like are extracted and compared with features for an identified item or evaluated to determine if the features collectively are indicative of a produce item or a non-produce item. (Results 14)

**Title:** PRODUCE AND NON-PRODUCE VERIFICATION USING HYBRID SCANNER

**Abstract:** Approaches to produce verification are addressed which may be suitably employed in conjunction with a low resolution image scanner. Features, such as lines, corners, text, texture, edges and the like are extracted and compared with features for an identified item or evaluated to determine if the features collectively are indicative of a produce item or a non-produce item.

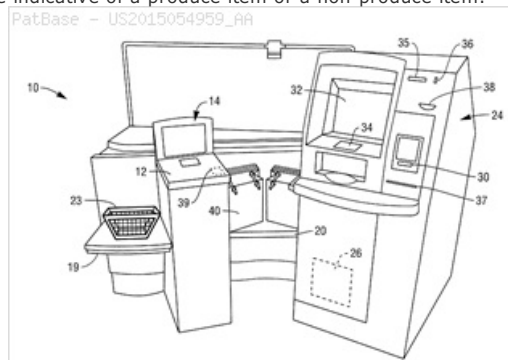
**Classifications:**

**International (IPC 8-9):** G06K9/00 G06T7/00

H04N7/18 (Advanced/Invention)

**CPC:** G06K2209/17 G06K9/00523 G06K9/46 G06K9/62

**US:** 348/150



**Family:**

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| US2015054959 AA    | 20150226         | US20130975479      | 20130826         |

**Priority:**

US20130975479 20130826

**Probable Assignee:** NCR CORP

**Assignee(s):** (std): AMORA KRISTOFFER DOMINIC ; HE CHAO ; QUIPANES RICHARD C ; YU MENG ; PARAC EM ; NCR CORP

**Assignee(s):** JPMORGAN CHASE BANK NA ; JPMORGAN CHASE BANK NA ADMINISTRATIVE AGENT AS

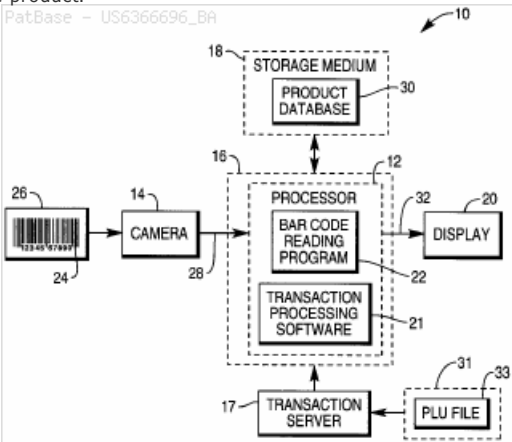
**Inventor(s):** (std): AMORA KRISTOFFER DOMINIC ; HE CHAO ; PARAC EM ; QUIPANES RICHARD C ; YU MENG

**Title:** VISUAL BAR CODE RECOGNITION METHOD

**Abstract:** A visual bar code recognition method which combines conventional decoding techniques with optical character recognition (OCR). The visual bar code recognition method captures an image of an object containing a bar code. Regardless of the orientation of the bar code within the field-of-view, the system detects the presence of the bar code, and decodes it using the bar/space patterns. It then produces an independent decoding of the human-readable numbers printed on the bar code using OCR. From these two decodings, it determines the identity of the object. It verifies this identity by comparing the physical characteristics of the object from the image with the known features of the product.

**Classifications:**

**International (IPC 8-9):** G06K9/32 (Advanced/Invention);  
G06K9/32 (Core/Invention)  
**International (IPC 1-7):** G06K9/00  
**CPC:** G06K9/32 G06K2209/01  
**European:** G06K9/32  
**US:** 382/181 382/183



**Family:**

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| US6366696 BA       | 20020402         | US19960777672      | 19961220         |

**Priority:**

US19960777672 19961220

**Probable Assignee:** NCR CORP

**Assignee(s):** (std): NCR CORP

**Assignee(s):** JPMORGAN CHASE BANK NA ; JPMORGAN CHASE BANK NA ADMINISTRATIVE AGENT AS

**Inventor(s):** (std): SU KEVIN K ; MING JOHN C ; HERTZ LOIS H

**Title:** Produce identification and pricing system for checkouts

**Abstract:** A produce identification and pricing system for a supermarket checkout or other retail outlet where produce is handled includes one or more imagers which provide image data from produce to be identified, which image data includes spectral information, preferably including information from the nearer infrared as well as RGB information. The spectral information is transformed into a signature vector which is compared with target signature vectors for the variety of types of produce handled by the supermarket or other retail outlet. The best match to the target signature vectors is employed to obtain price information from a produce price database. If the produce price is based on weight, information from a scale is retrieved and the total price is calculated. If the price is based on the number of items, a count operation is enabled and the count value determined. The price is then determined based on the count value of the number of items. The total price is output to a register for computation of the total checkout price. The produce identification information is also forwarded to a database for inventory monitoring of the produce in the store. The produce identification system may be combined with a more conventional bar code scanning system at single imaging station to provide automated handling of identification and pricing of all the items at the retail outlet without requiring any additional obtrusive hardware.

**Classifications:**

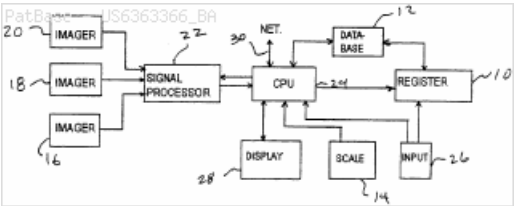
**International (IPC 8-9):** G01G19/414 G06F17/00 G06G7/00 G06K9/00 G07G1/00 (Advanced/Invention)

**International (IPC 1-7):** G06F17/00

**CPC:** G01G19/4144 G06K9/00 G06K2209/17 G07G1/0054 G06Q30/0283

**European:** G01G19/414C G06K9/00 G06Q30/0283 G07G1/00C2D S06K209/17

**US:** 356/326 356/328 382/110 705/400



**Family:**

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| US6363366 BA       | 20020326         | US19980143903      | 19980831         |
| US7319990 BA       | 20080115         | US20020105756      | 20020325         |

**Priority:**

US19980143903 19980831      US20020105756 20020325

**Probable Assignee:** ITAB SCANFLOW AB  
**Assignee(s):** (std): HENTY DAVID L  
**Assignee(s):** ITAB SCANFLOW AB  
**Inventor(s):** (std): HENTY DAVID L

**Title:** SYSTEMS AND METHODS FOR MERCHANDISE CHECKOUT

**Abstract:** Systems and methods for recognizing and identifying items located on the lower shelf of a shopping cart in a checkout lane of a retail store environment for the purpose of reducing or preventing loss or fraud and increasing the efficiency of a checkout process. The system includes one or more visual sensors that can take images of items and a computer system that receives the images from the one or more visual sensors and automatically identifies the items. The system can be trained to recognize the items using images taken of the items. The system relies on matching visual features from training images to match against features extracted from images taken at the checkout lane. Using the scale-invariant feature transformation (SIFT) method, for example, the system can compare the visual features of the images to the features stored in a database to find one or more matches, where the found one or more matches are used to identify the items.

**Classifications:**

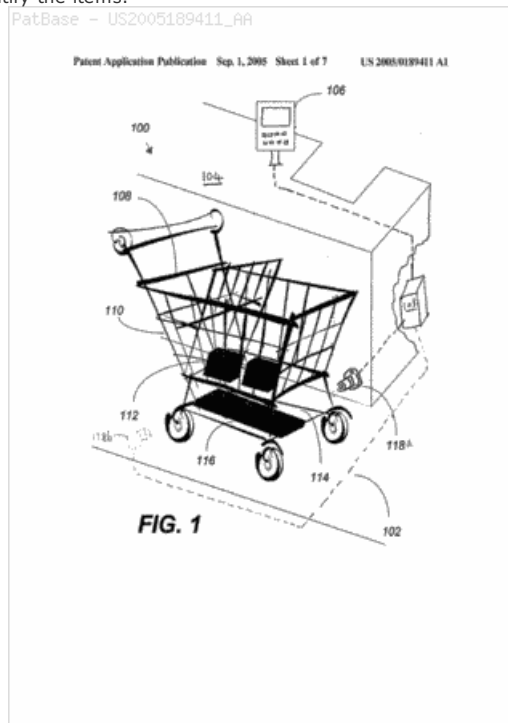
**International (IPC 8-9):** A47F9/04 G06K15/00 G06K19/00 G06K7/10 G06Q20/20 G07F7/02 G07G1/00 G07G3/00 G08B13/194 G08B13/196 (Advanced/Invention); A47F9/00 G06K15/00 G06K19/00 G07F7/00 G07G1/00 G08B13/194 (Core/Invention)

**International (IPC 1-7):** G06K15/00 G07F7/02 G07G1/00 G08B13/194

**CPC:** A47F9/046 A47F9/048 G07F7/02 A47F9/045 G06Q20/343 G07G1/0036 G07G1/0063 G07G3/00 G07G3/003 G08B13/1961 G08B13/19671 G07G1/0054 A47F11/10 A47F2009/041 G06K9/00 G06K2209/17

**European:** A47F11/10 A47F9/04C A47F9/04D A47F9/04D1 A47F9/04D1A G06K9/00 G06Q20/343 G07F7/02 G07G1/00C G07G1/00C2D G07G1/00C2D2 G07G3/00 G07G3/00B G08B13/196A4 G08B13/196S3 K47F9/04A S06K209/17

**US:** 235/383 235/383P 235/454 235/454S 705/20 705/23

**Family:**

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| US2005189411 AA    | 20050901         | US20040023004      | 20041227         |
| US2005189412 AA    | 20050901         | US20050050163      | 20050202         |
| US2006261157 AA    | 20061123         | US20050554516      | 20050228         |
| US2006283943 AA    | 20061221         | US20060466371      | 20060822         |
| US2009152348 AA    | 20090618         | US20080074263      | 20080229         |
| US2013018741 AA    | 20130117         | US20120610783      | 20120911         |
| US7100824 BB       | 20060905         | US20040023004      | 20041227         |
| US7246745 BB       | 20070724         | US20050050163      | 20050202         |
| US7337960 BB       | 20080304         | US20050554516      | 20050228         |
| US7819314 BB       | 20101026         | US20060466371      | 20060822         |
| US8267316 BB       | 20120918         | US20060466371      | 20060822         |
| US8430311 BB       | 20130430         | US20080074263      | 20080229         |
| WO05084227 A2      | 20050915         | WO2005US06079      | 20050228         |
| WO05084227 A3      | 20061005         | WO2005US06079      | 20050228         |
| WO05088569 A1      | 20050922         | WO2005US05843      | 20050224         |
| WO05088570 A1      | 20050922         | WO2005US05851      | 20050224         |

**Priority:**

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|----------------|----------|----------------|----------|---------------|----------|
| US20040548565P | 20040227 | US20040621551P | 20041022 | US20040023004 | 20041227 |
| US20050641428P | 20050104 | US20050050163  | 20050202 | US20050554516 | 20050228 |
| WO2005US06079  | 20050228 | US20050554516  | 20051025 | US20060466371 | 20060822 |
| US20080074263  | 20080229 | US20120610783  | 20120911 |               |          |

**Probable Assignee:** DATALOGIC ADC INC

**Assignee(s):** (std): EVOLUTION ROBOTICS INC ; EVOLUTION ROBOTICS RETAIL INC ; OSTROWSKI JIM ; MUNICH MARIO ; WISEMAN JOHN ; HUDNUT ALEC ; SIMONINI ALEX ; MORGAN HOWARD ; GONCALVES LUIS ; CREMEAN MICHAEL ; DATALOGIC ADC INC

**Inventor(s):** (std): CREMEAN MICHAEL ; CREMEAN MICHAEL ; GONCALVES LUIS ; HUDNUT ALEC ; MORGAN HOWARD ; MUNICH MARIO ; OSTROWSKI JIM ; SIMONINI ALEX ; WISEMAN JOHN

**Agent(s):** SHIMOKAJI AND ASSOCIATES PC; ANDREW NAGLESTAD EVOLUTION ROBOTICS RETAIL INC; ANDREW S NAGLESTAD; ANDREW S; STOEL RIVES LLP

**Designated states:** AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NA NE NI NL NO NZ OM PG PH PL PT RO RU

SC SD SE SG SI SK SL SM SN SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

**Title:** IMAGE CAPTURE AND IDENTIFICATION SYSTEM AND PROCESS

**Abstract:** An identification method and process for objects from digitally captured images thereof that uses image characteristics to identify an object from a plurality of objects in a database. The image is broken down into parameters such as a Shape Comparison, Grayscale Comparison, Wavelet Comparison, and Color Cube Comparison with object data in one or more databases to identify the actual object of a digital image.

**Classifications:**

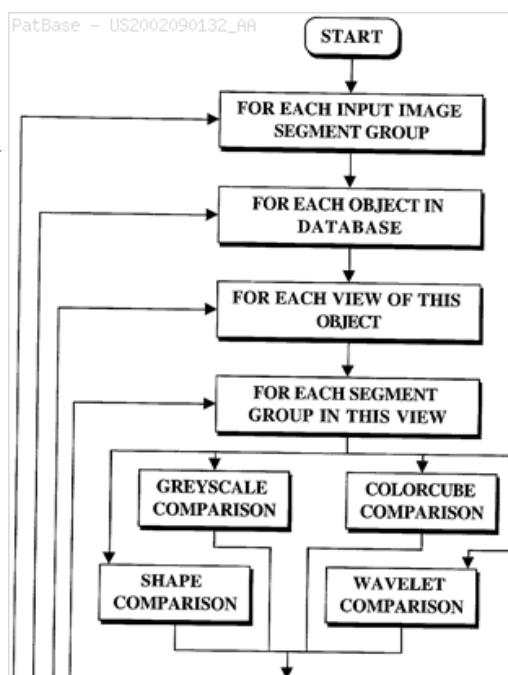
**International (ipc 8-9):** A61C3/00 A63F13/00 A63F13/10 A63F13/213 A63F13/216 A63F13/25 A63F13/332 A63F13/335 A63F13/35 A63F13/40 A63F13/52 A63F13/65 A63F13/655 A63F13/92 A63F9/24 G06F13/00 G06F15/16 G06F17/00 G06F17/30 G06F19/00 G06F3/01 G06F3/02 G06F3/033 G06F3/048 G06F3/0484 G06F3/16 G06F7/10 G06K7/00 G06K7/10 G06K9/00 G06K9/20 G06K9/22 G06K9/32 G06K9/46 G06K9/54 G06K9/60 G06K9/62 G06K9/64 G06K9/68 G06K9/72 G06K9/78 G06Q10/00 G06Q20/00 G06Q20/10 G06Q30/00 G06Q30/02 G06Q30/06 G06Q40/00 G06T1/00 G06T13/00 G06T13/80 G06T15/00 G06T19/00 G06T7/00 G09G5/00 G09G5/18 G09G5/377 H04L29/06 H04L29/08 H04L9/32 H04M1/66 H04M11/00 H04N1/00 H04N21/4223 H04N21/658 H04N5/225 H04N5/232 H04N5/44 H04N7/14 H04N7/173 H04N7/18 H04Q7/24 H04W4/16 H04W8/24 (Advanced/Invention); A63F13/06 A63F13/12 G06F15/16 G06F17/00 G06F17/30 G06F3/01 G06K9/54 G06K9/60 G06Q20/00 G09G5/14 H04M1/02 H04M1/725 H04N5/225 H04W4/16 H04W8/24 H04W88/18 (Advanced/Non-invention); A63F13/00 A63F9/24 G06F13/00 G06F17/00 G06F17/30 G06F19/00 G06F3/02 G06F3/033 G06F3/048 G06F7/06 G06K7/10 G06K9/00 G06K9/68 G06Q20/00 G06Q30/00 G06T13/00 G09G5/00 H04M11/00 H04N5/225 H04N7/14 H04Q7/24 (Core/Invention); G06F15/16 G06F17/00 G06K9/54 (Core/Non-invention)

**International (ipc 1-7):** G06F17/30 G06F19/00 G06F7/00 G06K9/00 G06K9/54 G06K9/62 G06T7/00

**CPC:** A61C1/185 A61C17/20 G06K9/00979 H04N1/00002 H04N1/00005 H04N1/00031 H04N1/00045 H04N1/00068 H04N1/00082 H04N1/00827 H04N2201/3225 G06Q30/0625 G06F17/30277 G06T19/00 G06Q30/0623 G09G5/377 G06Q30/0261 G06Q30/0267 G06Q20/10 G06F3/167 G06Q30/0269 G06K9/00 G06Q30/0613 G06F30/0267 G06K9/6217 G09G5/18 G06T15/00 G06F3/0484 G06F17/30831 G06F17/30244 G06F17/30994 G06K9/00221 G06K9/00523 G06K9/00577 G06K9/00597 G06K9/00624 G06K9/00664 G06K9/00744 G06K9/3241 G06K9/72 G06K9/78 G06T7/00 G06F17/30864 A63F13/213 A63F13/332 A63F13/655 A63F13/355 H04N21/41407 A63F2300/1087 H04N7/17318 H04N21/47815 G06K9/00671 H04N5/23229 G06F17/30486 G06K9/46 H04N5/44 G06F3/017 A63F13/06 A63F13/10 A63F2300/1093 A63F2300/538 A63F2300/5573 A63F2300/6018 A63F2300/695 A63F2300/8094 H04M2250/52 H04N21/4223 H04N21/6582 G06K9/6267 G06K9/6201 A63F13/216 A63F13/25 A63F13/35 A63F13/335 G06F17/3028 G06F17/30241 A63F2300/8082 G06K9/228 G06K9/4652 G06K9/6203 G06K9/22 G06K9/209 G06K9/6288 H04N5/23293 G06F17/30268 G06Q30/0635 G06K2209/21 G06F17/30247 G06F17/30259 G06F17/3087 G06Q30/0601 G06Q30/0641 G06F17/30312 G06K9/3216 G06K9/4671 A63F13/229 A63F13/12 G06F17/30289 G06F17/30554 G06F17/3053 H04M1/0202 G06F17/30256 H04L67/141 A63F13/52 A63F13/65 A63F13/92 G06T19/006 A61B2017/320098 G06F3/04842 H04M1/72544 G06F3/011 G09G5/14

**European:** A61C1/18D A63F13/10 A63F13/12 G06F17/30M1 G06F17/30M1H G06F17/30M1S G06F17/30W1S G06K9/00Y1 G06K9/22W G06K9/46C G06K9/62A1A G06Q20/10 G06Q30/0601 G06Q30/0613 G06Q30/0641 H04N1/00A H04N1/00A1 H04N1/00A3C H04N1/00A3J H04N1/00A3W H04N1/00A4C H04N1/00H4 H04N21/414M H04N21/4223 H04N21/478S H04N21/658S H04N7/173B2 K61B17/32U10 K61C17/20 K63F300/10X K63F300/53T K63F300/55P4 K63F300/60C1 K63F300/69P K63F300/80Z T04M1/725F1G T04M250/52 T04N201/32C4

**US:** 1/1 235/379 235/379S 235/462.11 235/462.110S 340/5.74 340/5.740S 345/156 345/158 345/169 345/619 345/629 345/630 345/631 345/632 345/632P 345/632S 345/633 345/634 348/135 348/135P 348/14.01 348/14.010P 348/14.04 348/14.040S 348/207.1 348/207.100S 348/222.1 348/E5.048 348/E5.048S 348/E7.071 348/E7.071S 382/100 382/100P 382/103 382/103P 382/115 382/115S 382/116 382/116P 382/117 382/118 382/154 382/154P 382/165 382/165P 382/165S 382/167 382/167S 382/181 382/181P 382/190 382/209 382/209S 382/217 382/217P 382/217S 382/305 382/305S 433/118 433/118S 433/119 433/119P 433/122 433/122S 433/126 433/126S 455/411 455/411S 455/414.3 455/414.300S 463/1 463/1S 463/31 463/37 463/38 463/39 463/40 463/41 463/42 700/94 700/94S 705/14.58 705/14.64 705/26.1 705/26.100S 705/26.41 705/26.410P 705/26.61 705/26.62 705/26.81 705/27 705/27.1 705/27.100P 705/39 705/39P 707/10 707/104.1 707/3 707/706 707/706P 707/711 707/722 707/999.003 707/999.003S 707/999.104 707/999.104S 707/999.107 707/999.107S 707/E17.019 707/E17.019S 707/E17.02 707/E17.020S 707/E17.023 707/E17.023S 707/E17.024 707/E17.024S 707/E17.108 707/E17.108S 707/E17.11 707/E17.110S 709/201 709/203 709/203P 709/203S 709/219 709/219S 709/228 715/700 715/727 715/740 715/740P 715/773 715/863 725/37 725/40 725/42 725/50 725/51 725/59 725/60 725/61

**Family:**

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| BRPI0614864 A2     | 20110419         | BR2006P114864      | 20060810         |
| BRPI0615283 A2     | 20110517         | BR2006P115283      | 20060829         |
| CA2619497 AA       | 20080214         | CA20062619497      | 20060810         |
| CA2619497 AA       | 20070222         | CA20062619497      | 20060810         |
| CA2621191 AA       | 20080227         | CA20062621191      | 20060829         |
| CA2621191 AA       | 20070308         | CA20062621191      | 20060829         |
| CA2621191 C        | 20121218         | CA20062621191      | 20060829         |
| CN101273368 A      | 20080924         | CN200680035265     | 20060829         |
| CN101288077 A      | 20081015         | CN200680038392     | 20060810         |
| EP1442417 A1       | 20040804         | EP20020778730      | 20021105         |
| EP1442417 A4       | 20070613         | EP20020778730      | 20021105         |
| EP1814060 A2       | 20070801         | EP20060018047      | 20060829         |
| EP1814060 A3       | 20081210         | EP20060018047      | 20060829         |
| EP1915709 A2       | 20080430         | EP20060801326      | 20060810         |
| EP1915709 A4       | 20080910         | EP20060801326      | 20060810         |
| EP1929430 A2       | 20080611         | EP20060790088      | 20060829         |

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| EP1929430 A4    | 20110629 | EP20060790088  | 20060829 |
| EP2764899 A2    | 20140813 | EP20140166069  | 20060829 |
| EP2764899 A3    | 20141210 | EP20140166069  | 20060829 |
| HK1064484 A3    | 20050128 | HK20040107257  | 20040921 |
| HK1101519 A3    | 20071018 | HK20070109335  | 20070828 |
| HK1122376 A3    | 20090515 | HK20090102795  | 20090324 |
| HK1123865 A3    | 20090626 | HK20090103248  | 20090407 |
| IN01853DN2008 A | 20080627 | IN2008DN01853  | 20080229 |
| IN01913DN2008 A | 20080627 | IN2008DN01913  | 20080304 |
| JP2005509219 T2 | 20050407 | JP20030542958T | 20021105 |
| JP2007200275 A2 | 20070809 | JP20060225644  | 20060822 |
| JP2008090838 A2 | 20080417 | JP20070246850  | 20070925 |
| JP2009505288 T2 | 20090205 | JP20080527020T | 20060810 |
| JP2009509363 T2 | 20090305 | JP20080529219T | 20060829 |
| JP2012043447 A2 | 20120301 | JP20110204795  | 20110920 |
| JP2012133790 A2 | 20120712 | JP20120012682  | 20120125 |
| JP2012194984 A2 | 20121011 | JP20120108209  | 20120510 |
| JP2014241151 A2 | 20141225 | JP20140157409  | 20140801 |
| JP2015007992 A2 | 20150115 | JP20140162208  | 20140808 |
| JP4890552 B2    | 20120307 | JP20080529219T | 20060829 |
| JP5427859 B2    | 20140226 | JP20110204795  | 20110920 |
| KR101019569 B1  | 20110308 | KR20087007433  | 20060829 |
| KR20080033538 A | 20080416 | KR20087005802  | 20060810 |
| KR20080042148 A | 20080514 | KR20087007433  | 20060829 |
| US2002090132 AA | 20020711 | US20010992942  | 20011105 |
| US2004208372 AA | 20041021 | US20040492243  | 20040520 |
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| US2006110034 AA | 20060525 | US20050294971  | 20051205 |
| US2006181605 AA | 20060817 | US20060342094  | 20060126 |
| US2007104348 AA | 20070510 | US20060510009  | 20060825 |
| US2008094417 AA | 20080424 | US20080972062  | 20080110 |
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| US2010017722 AA | 20100121 | US20090505726  | 20090720 |
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| WO07021996 A2   | 20070222 | WO2006US31485 | 20060810 |
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| WO07027738 A2   | 20070308 | WO2006US33811 | 20060829 |
| WO07027738 A3   | 20070920 | WO2007US02010 | 20060829 |
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**Priority:**

US20000246295P 20001106

US20010317521P 20010905

US20010317295P 20010905

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| US20040492243  | 20040520 | WO2002US35407  | 20040520 | US20040625526P | 20041104 |
| US20040630524P | 20041122 | US20050204901  | 20050815 | US20050712590P | 20050829 |
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| US20060342094  | 20060126 | JP20080527020  | 20060810 | JP20120012682  | 20060810 |
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| JP20120108209  | 20060822 | US20060510009  | 20060825 | EP20060790088  | 20060829 |
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| US20080972062  | 20080110 | US20090505714  | 20090720 | US20090505726  | 20090720 |
| US20090568130  | 20090928 | US20110005716  | 20110113 | US20110037330  | 20110228 |
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| US20120464410  | 20120504 | US20120477954  | 20120522 | US20120633533  | 20121002 |
| US20120686851  | 20121127 | US20120705071  | 20121204 | US20130858897  | 20130408 |
| US20130872032  | 20130426 | US20130915731  | 20130612 | US20130965876  | 20130813 |
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| US20150668988  | 20150326 | US20160169948  | 20160601 | US20160254802  | 20160901 |
| US20160298671  | 20161020 | US20160392935  | 20161228 | US20170425984  | 20170206 |
| US20170711326  | 20170921 | US20170818312  | 20171120 |                |          |

**Probable Assignee:** NANT HOLDINGS IP LLC

**Assignee(s):** (std): BONCYK WAYNE C ; COHEN RONALD ; COHEN RONALD H ; EVRYX TECHNOLOGIES ; EVRYX TECHNOLOGIES INC ; EVRYX TECH INC ; NANT HOLDINGS IP LLC ; THOMS MICHAEL ; KIRSTGEN UDO ; NANT HOLDINGS IP LLC ; NANT HOLDINGS IP LLC ; NANT HOLDINGS IP LLC

**Assignee(s):** AREA CLEARANCE SERVICES SWEDEN AB ; IRA ROTH FBO J STEVEN EMERSON PERSHING LLC CUSTODIAN AS ; JONATHAN M GLASER AND NANCY ELLEN GLASER TTEES OF JONATHAN AND NANCY GLASER FAMILY TRUST ; EVRYX TECHNOLOGIES INC ; WAYNE C BONCYK ; RONALD H COHEN ; IRA ROTH FBO J STEVEN EMERSON PERSHING LLC CUSTODI ; JONATHAN M GLASER AND NANCY ELLEN GLASER TTEES OF ; IRA ROTH FBO J STEVEN EMERSON PERSHING LLC AS CUST ; G TYLER RUNNELS AND JASMINE NIKLAS RUNNELS TTE RUNNELS FAMILY TRUST ; IRA ROLLOVER II FBO J STEVEN EMERSON PERSHING LLC CUSTODIAN AS ; HIGH TIDE LLC ; G TYLER RUNNELS AND JASMINE NIKLAS RUNNELS TTE RUN ; IRA ROLLOVER II FBO J STEVEN EMERSON PERSHING LLC ; EVRYX ACQUISITION LLC ; EMERSON PARTNERS ; BRISTOL INVESTMENT FUND LTD

**Inventor(s):** (std): BONCYK V WAYNE C ; BONCYK WAYNE ; BONCYK WAYNE C ; COHEN RONALD ; COHEN RONALD H ; EVRYX TECHNOLOGIES ; KIRSTGEN UDO ; NANT HOLDINGS IP LLC ; THOMS MICHAEL ; WAYNE C BONCYK

**Inventor(s):** RONALD H COHEN

**Agent(s):** FINLAYSON AND SINGLEHURST; RUPP CHRISTIAN ET AL; DR GRAF AND PARTNER AG; OSAKI KATSUMASA; TSUBOKURA MICHIAKI; KANAYAMA MASATAKA; KAWAGUCHI YOSHIO; ONO MAKOTO; KAWAGUTI AND PARTNERS; ROBERT D FISH RUTAN AND TUCKER LLP; FISH AND ASSOCIATES PC ROBERT D FISH; FISH AND ASSOCIATES PC; FISH AND TSANG LLP; FISH IP LAW LLP

**Designated states:** AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD MG MK ML MN MR MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

**Title:** POS-CENTRIC DIGITAL IMAGING SYSTEM

**Abstract:** A POS-centric digital imaging system for installation at a retail point of sale (POS) station having a countertop surface. The POS-centric digital imaging system includes a system housing having at least one imaging window, and providing a cashier side and a customer side for the POS-centric digital imaging system. An omni-directional digital image capturing and processing subsystem is disposed in the system housing, for generating a 3D imaging volume adjacent the imaging window. A cashier/customer terminal is integrated within the system housing, for simultaneously supporting (i) cashier product scanning/imaging and checkout operations on said cashier side, and (ii) customer payment and other services on said customer side.

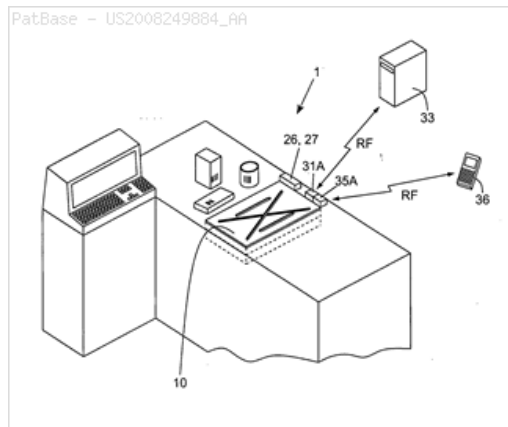
**Classifications:**

**International (IPC 8-9):** G06K7/10 G06Q20/00 (Advanced/Invention); G06K7/10 G06Q20/00 (Core/Invention)

**CPC:** A47F9/046 G02B27/48 G06K7/10544 G06K7/10564 G06K7/10574 G06K7/10613 G06K7/10623 G06K7/10693 G06K7/10712 G06K7/10722 G06K7/10732 G06K7/10782 G06K7/10792 G06K7/10851 G06K7/10861 G06K9/2027 G06K2017/0067 G06K2207/1012 G06Q20/208 G06Q30/06 G07G1/0036 G07G1/0045 G07G3/00 G07G3/006

**European:** A47F9/04D G02B27/48 G06K7/10S G06K7/10S2B G06K7/10S2B2 G06K7/10S2P2B G06K7/10S2P4B G06K7/10S4 G06K7/10S4D G06K7/10S4D2 G06K7/10S4M4 G06K7/10S8 G06K7/10S9D G06K7/10S9E G06K9/20D G06Q20/208 G06Q30/06 G07G1/00C G07G1/00C2 G07G3/00 G07G3/00C S06K17/00W20 S06K207/101D

**US:** 235/462.41 235/462.410S 705/23 705/23P



**Family:**

| Publication number | Publication date | Application number | Application date |
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| US2008249884 AA    | 20081009         | US20070980329      | 20071030         |

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**Probable Assignee:** METROLOGIC INSTRUMENTS INC

**Assignee(s):** (std): METROLOGIC INSTR INC

**Assignee(s):** METROLOGIC INSTRUMENTS INC

**Inventor(s):** (std): CIARLANTE NICHOLAS ; ELLIS DUANE ; ESSINGER STEVEN ; FURLONG JOHN A ; GARDNER JOHN ; GIORDANO PATRICK ; GOOD TIMOTHY ; HERNANDEZ MARK ; KEARNEY SEAN ; KNOWLES C HARRY ; KOTLARSKY ANATOLY ; LIU JIBIN ; LIU YONG ; REN JIE ; SCHMIDT MARK ; TAO XI ; VEKSLAND MICHAEL ; XIAN TAO ; ZHU XIAOXUN ; ZHUO MING

**Agent(s):** THOMAS J PERKOWSKI ESQ PC

**Title:** EXPOSURE CONTROL FOR MULTI-IMAGING SCANNER

**Abstract:** A multi-imaging scanner (12) and method for imaging indicia (14) located on target objects (16) is featured in the present disclosure. The multi-imaging scanner (12) includes one or more cameras (30) for imaging indicia (14) on target objects (16) and a sensor array (48) associated with each of the one or more cameras (30) for capturing a series of frames (FR1-FR6) within a respective field of view of each of the one or more cameras (30). The multi-imaging scanner (12) further includes a processor (44) coupled the one or more cameras (30) for imaging and decoding the indicia (14) on the target objects (16) captured in the frames by the one or more cameras. The frames (FR1-FR6) include a first frame having a first pre-set exposure time and a second frame having a second pre-set exposure time such that first and second pre-set exposure times are of different duration.

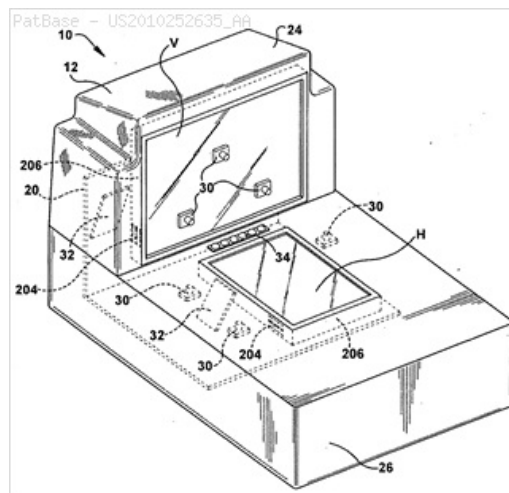
**Classifications:**

**International (IPC 8-9):** G06K15/12 G06K7/10  
G06K7/14 (Advanced/Invention)

**CPC:** G06K7/10722 G06K7/10752 G06K7/1096

**European:** G06K7/10S4D G06K7/10S4D6 G06K7/10S9N

**US:** 235/454 235/462.41 235/462.410P

**Family:**

| Publication number  | Publication date | Application number | Application date |
|---------------------|------------------|--------------------|------------------|
| ■ CN102369539 A     | 20120307         | CN201080015909     | 20100329         |
| ■ CN102369539 B     | 20140820         | CN201080015909     | 20100329         |
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| ■ EP2414989 A1      | 20120208         | EP20100726690      | 20100329         |
| ■ EP2414989 B1      | 20121205         | EP20100726690      | 20100329         |
| ■ US2010252635 AA   | 20101007         | US20090416997      | 20090402         |
| ■ US8146822 BB      | 20120403         | US20090416997      | 20090402         |
| ■ WO10114783 A1     | 20101007         | WO2010US29004      | 20100329         |

**Priority:**

US20090416997 20090402 EP20100726690 20100329 WO2010US29004 20100329

**Probable Assignee:** SYMBOL TECHNOLOGIES LLC

**Assignee(s):** (std): BARKAN EDWARD D ; DRZYMALA MARK ; SYMBOL TECHNOLOGIES INC

**Assignee(s):** SYMBOL TECHNOLOGIES LLC ; SYMBOL TECHNOLOGIES LLC ND GES D STAATES DELAWARE HOLTSVILLE ; MORGAN STANLEY SENIOR FUNDING INC COLLATERAL AGENT AS

**Inventor(s):** (std): BARKAN EDWARD D ; DRZYMALA MARK ; MARK DRZYMALA

**Agent(s):** MAIWALD PATENTANWALTSGESELLSCHAFT MBH; SCHAEFLEIN CHRISTIAN GEORG; MOTOROLA INC; NONGQIANG; FAN NONG QIANG ET AL

**Designated states:** AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

**Title:** PRODUCE WEIGHING SCALE WITH A CAMERA AND METHODS OF OPERATING A PRODUCE WEIGHING SCALE HAVING A CAMERA

**Abstract:** A produce weighing scale is provided for a retail grocery store. The produce weighing scale comprises a base, a weighing platform disposed on the base, and a touchscreen arranged to enable a retail customer to enter produce data associated with a produce item and to view display screens which contains instructions to operate the produce weighing scale. An actuatable camera is positioned over the weighing platform and is provided for, when actuated, capturing at least a partial image of a produce item which has been placed on the weighing platform. Electronic control circuitry is arranged to (i) provide an actuation signal to actuate the camera in response to a retail customer placing a produce item on the weighing platform, and (ii) display a barcode chit on the touchscreen to allow a retail customer to self-scan the displayed barcode chit without having to print the barcode chit.

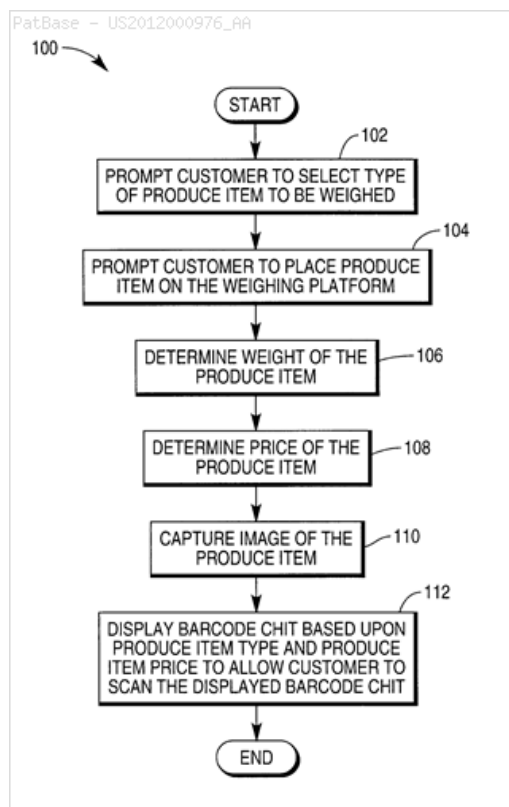
**Classifications:**

**International (IPC 8-9):** G06F17/00 G06K15/00 (Advanced/Invention)

**CPC:** G07G1/01 G01G19/4144 G06Q10/087 G06Q20/208

**European:** G01G19/414C G06Q10/087 G06Q20/208 G07G1/00C2D G07G1/01

**US:** 235/375 235/375P 235/383 705/28



**Family:**

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| US2012000976 AA    | 20120105         | US20100829030      | 20100701         |
| US8136727 BB       | 20120320         | US20100829030      | 20100701         |

**Priority:**

US20100829030 20100701

**Probable Assignee:** NCR CORP

**Assignee(s):** (std): EHRHARDT DALE ; NCR CORP ; ROLLYSON STEPHEN

**Assignee(s):** JPMORGAN CHASE BANK NA ; JPMORGAN CHASE BANK NA ADMINISTRATIVE AGENT AS

**Inventor(s):** (std): EHRHARDT DALE ; ROLLYSON STEPHEN

**Agent(s):** MICHAEL

Title: METHOD AND SYSTEM FOR MATCHING VIA AN IMAGE SEARCH QUERY AT A POINT OF SALE

**Abstract:** A method for matching an unknown product to an offered product profile at a point of sale involves obtaining a first sensory input from the unknown product, where the first sensory input comprises at least a portion of an image, assigning a value to one or more characteristics of the first sensory input, searching a first product repository for a matching product profile using a pre-defined range based on the value of the one or more characteristics of the first sensory input, identifying the matching product profile on the first product repository when the offered product profile is within the pre-defined range, wherein the matching product profile includes a plurality of product information data, and conducting a transaction at the point of sale using the plurality of product information data.

Classifications:

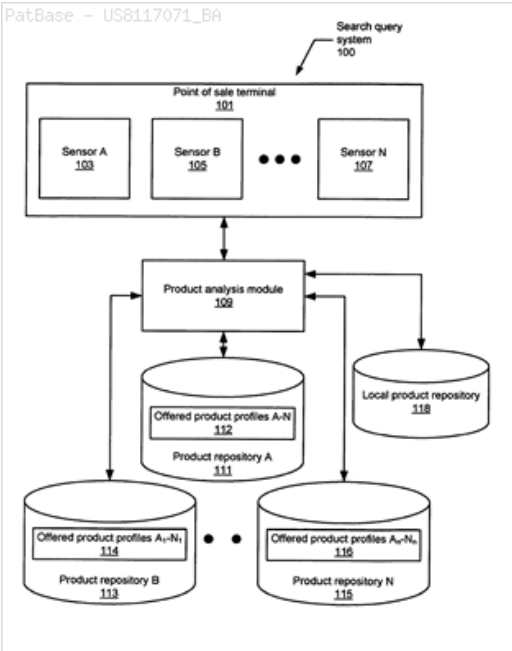
**International (IPC 8-9):** G06Q20/00 (Advanced/Invention);

G06K7/10 (Advanced/Non-invention)

**CPC:** G07G1/0054 G07G1/12 G06Q20/201 G06Q20/208

**European:** G06Q20/20 G06Q20/201 G06Q20/208

**US:** 235/462.01 705/16 705/20 705/23



Family:

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| US8117071 BA       | 20120214         | US20080112545      | 20080430         |

Priority:

US20080112545 20080430

**Probable Assignee:** INTUIT INC

**Assignee(s):** (std): FITCH TODD MATTHEW ; FLORA JOHN REED ; GOLDMAN ROY ; INTUIT INC ; WEISS BENJAMIN R

**Inventor(s):** (std): FITCH TODD MATTHEW ; FLORA JOHN REED ; GOLDMAN ROY ; WEISS BENJAMIN R

**Agent(s):** OSHA • LIANG LLP; OSHA LIANG LLP

**Title:** STORE SYSTEM, READING APPARATUS, AND SALES REGISTRATION APPARATUS

**Abstract:** A store system includes a reading unit that includes an image acquiring unit and an image output unit, and a sales registration apparatus that includes a similar image detection unit and a sales registration unit. The image acquiring unit acquires an image that is captured by an image capturing unit. The image output unit outputs the acquired image. The similar image detection unit detects an image of a product that is similar to at least a portion of the output image by referencing product management information in which information relating to sales registration of a product and an image of the product are associated for each product. The sales registration unit registers sales of a product based on information relating to the sales registration associated with the image of the detected product.

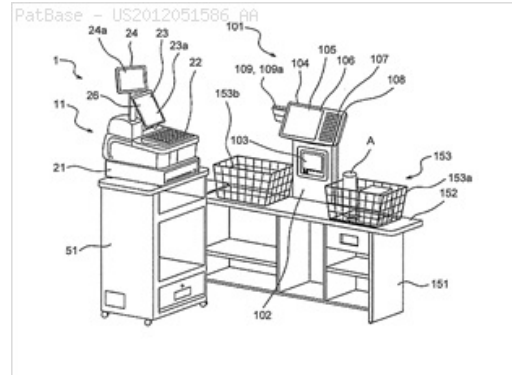
**Classifications:**

**International (IPC 8-9):** G06K9/00 G06K9/68 G06Q20/20 G06T1/00

G07G1/00 (Advanced/Invention)

**CPC:** G07G1/0045 G06Q20/204

**US:** 382/100 382/100P 382/218 705/20 705/414



**Family:**

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| JP2012053708 A2    | 20120315         | JP20100196204      | 20100901         |
| US2012051586 AA    | 20120301         | US20110220884      | 20110830         |
| US2013297433 AA    | 20131107         | US20130932165      | 20130701         |
| US8503795 BB       | 20130806         | US20110220884      | 20110830         |
| US8805092 BB       | 20140812         | US20130932165      | 20130701         |

**Priority:**

JP20100196204 20100901      US20110220884 20110830      US20130932165 20130701

**Probable Assignee:** TOSHIBA TEC KK

**Assignee(s):** (std): TOSHIBA TEC CORP ; TOSHIBA TEC KK ; WAKEBE SATOSHI

**Inventor(s):** (std): WAKEBE SATOSHI

**Agent(s):** SAKAI HIROAKI; TUROCY AND WATSON LLP; AMIN TUROCY AND WATSON LLP

**Title:** APPARATUS AND SYSTEM FOR A HYBRID OPTICAL CODE SCANNER

**Abstract:** An apparatus and system are presented for scanning optical codes presented to a hybrid optical code scanner where the scanner uses a laser pattern mirror to aid in determining the location of a sweet spot for an imaging scanner in the hybrid optical code scanner. The pattern mirror is positioned so as to reflect laser beams and an image of an optical code to an operator when the optical code is positioned in the imaging scanner's sweet spot.

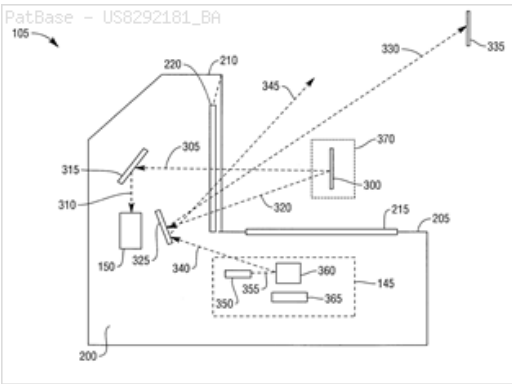
**Classifications:**

**International (IPC 8-9):** G06K7/00 G06K7/10 (Advanced/Invention)

**CPC:** G06K7/0004

**European:** G06K7/00C

**US:** 235/462.11 235/462.14 235/462.39



**Family:**

| Publication number  | Publication date | Application number | Application date |
|---------------------|------------------|--------------------|------------------|
| ■ CN102982299 A     | 20130320         | CN201210232497     | 20120627         |
| ■ CN102982299 B     | 20160302         | CN201210232497     | 20120627         |
| ■ DE602012010153 D1 | 20151015         | DE201260010153T    | 20120420         |
| ■ EP2541461 A1      | 20130102         | EP20120165018      | 20120420         |
| ■ EP2541461 B1      | 20150902         | EP20120165018      | 20120420         |
| ■ US8292181 BA      | 20121023         | US20110169309      | 20110627         |

**Priority:**

US20110169309 20110627      EP20120165018 20120420

**Probable Assignee:** NCR CORP

**Assignee(s):** (std): COLLINS JR DONALD A ; NCR CORP

**Assignee(s):** NCR DULUTH CORP ; JPMORGAN CHASE BANK NA ; JPMORGAN CHASE BANK NA ADMINISTRATIVE AGENT AS ; COLLINS DONALD

**Inventor(s):** (std): COLLINS JR DONALD A ; COLLINS DONALD

**Inventor(s):** COLLINS DONALD BUFORD

**Agent(s):** V BEZOLD AND PARTNER PATENTANWAELTE PARTG MBB; MACLEOD RODERICK WILLIAM; HARDEN E

**Designated states:** AL AT BA BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC ME MK MT NL NO PL PT RO RS SE SI SK SM TR

**Title:** HYBRID-TYPE BIOPTICAL LASER SCANNING AND DIGITAL IMAGING SYSTEM SUPPORTING AUTOMATIC OBJECT MOTION DETECTION AT THE EDGES OF A 3D SCANNING VOLUME

**Abstract:** A hybrid-type bi-optical bar code symbol reading system having a vertical housing section with a vertical scanning window, and a horizontal housing section with a horizontal scanning window, from which laser scanning planes are projected and intersect within a 3D scanning volume defined between the vertical and horizontal scanning windows. An automatic object edge-motion detection subsystem is provided for detecting the entry and exit of objects at the edge of the 3D scanning volume, and generating control signals in response thereto. A digital imaging subsystem is supported within the system housing and automatically projects a field of view (FOV) within the 3D scanning volume in response to control signals generated by the automatic object edge-motion detection subsystem and timer settings managed by a system controller.

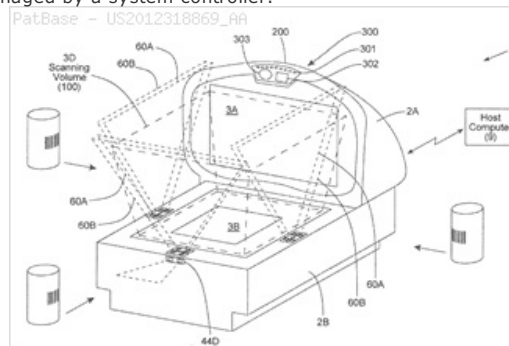
**Classifications:**

**International (IPC 8-9):** G01G19/414 G01G19/52 G01G23/00 G06K7/10 G06K7/14 G06Q20/00 G06Q20/20 G07G1/00 (Advanced/Invention)

**CPC:** G06K7/10821 G01G23/00 G01G19/4144 G06Q20/208 G07G1/0045 G06K7/10554 G06K7/10722 G06K7/10792 G06K7/1096 G06K7/10594

**European:** G06K7/10S2 G06K7/10S4D G06K7/10S8

**US:** 1/1 177/1 177/177 177/25.12 177/25.13 177/45 235/439 235/454 235/462.14



**Family:**

| Publication number | Publication date | Application number | Application date |
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| DE602012039419 D1  | 20171221         | DE201260039419T    | 20120531         |
| EP2535841 A2       | 20121219         | EP20120170336      | 20120531         |
| EP2535841 A3       | 20130904         | EP20120170336      | 20120531         |
| EP2535841 B1       | 20171108         | EP20120170336      | 20120531         |
| US2012318869 AA    | 20121220         | US20110160873      | 20110615         |
| US2013075168 AA    | 20130328         | US20110246936      | 20110928         |
| US2014027518 AA    | 20140130         | US20130050515      | 20131010         |
| US2014326518 AA    | 20141106         | US20140336188      | 20140721         |
| US2015276470 AA    | 20151001         | US20150738038      | 20150612         |
| US8561905 BB       | 20131022         | US20110160873      | 20110615         |
| US8794525 BB       | 20140805         | US20110246936      | 20110928         |
| US8998091 BB       | 20150407         | US20130050515      | 20131010         |
| US9057641 BB       | 20150616         | US20140336188      | 20140721         |
| US9261398 BB       | 20160216         | US20150738038      | 20150612         |

**Priority:**

US20110160873 20110615 US20110246936 20110928 EP20120170336 20120531  
US20130050515 20131010 US20140336188 20140721 US20150738038 20150612

**Probable Assignee:** METROLOGIC INSTRUMENTS INC

**Assignee(s):** (std): AMUNDSEN THOMAS ; CUNNINGHAM IV CHALES JOSEPH ; CUNNINGHAM IV CHARLES JOSEPH ; EDMONDS SHANE MICHAEL ; METROLOGIC INSTR INC ; KEANEY SEAN PHILIP ; GIORDANO PATRICK ANTHONY ; GOOD TIMOTHY ; KEARNEY SEAN PHILIP ; METOLOGIC INSTRUMENTS INC ; MIRAGLIA MICHAEL ; WANG YNJIUN PAUL ; ZHU XIAOXUN

**Assignee(s):** METROLOGIC INSTRUMENTS INC BLACKWOOD ; METROLOGIC INSTRUMENTS, INC. ; METROLOGIC INSTRUMENT INC

**Inventor(s):** (std): AMUNDSEN THOMAS ; CUNNINGHAM IV CHALES JOSEPH ; CUNNINGHAM IV CHARLES JOSEPH ; EDMONDS SHANE MICHAEL ; EDMONGS SHANE MICHAEL ; GIORDANO PATRICK ANTHONY ; GOOD TIMOTHY ; KEANEY SEAN PHILIP ; KEARNEY SEAN PHILIP ; MIRAGLIA MICHAEL ; WANG YNJIUN PAUL ; ZHU XIAOXUN

**Inventor(s):** KEARNEY SEAN PHILIP MORRISTOWN ; EDMONGS SHANE MICHAEL MORRISTOWN

**Agent(s):** HOUGHTON MARK PHILLIP ; SUMMA ADDITON AND ASHE PA ; ADDITON HIGGINS PENDLETON AND ASHE PA ; ADDITON HIGGINS AND PENDLETON PA ; ADDITON HIGGINS AND PENDLETON PA

**Designated states:** AL AT BA BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC ME MK MT NL NO PL PT RO RS SE SI SK SM TR

**Title:** SYSTEM AND METHOD FOR DIFFERENTIAL WEIGHING OF ITEMS AND REUSABLE CONTAINER FOR USE THEREWITH

**Abstract:** A differential weighing method for determining the weight of an item or a group of like items that must be weighed, and a reusable container for use in the differential weighing process. The reusable container may be, for example, a reusable basket or bag. The reusable container is sized to fit on the load receiving surface of the differential weighing scale or is equipped with a series of bottom locating projections that contact the load receiving surface and transfer the weight of the container and its contents thereto when the container sits on the scale. The scale is adapted for differential weighing, whereby the scale will report the weight of an item or group of like items that are removed from the reusable container as a positive net weight.

**Classifications:**

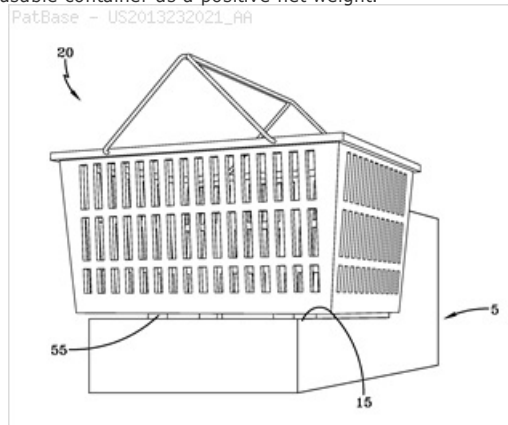
**International (IPC 8-9):** G01G15/00 G01G19/387 G01G19/414

G01G21/22 G06F15/00 G06Q20/18 G07G1/00

G07G1/14 (Advanced/Invention)

**CPC:** G01G19/4144 G07G1/0054 G07G1/0072

**US:** 702/173 705/23



**Family:**

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| ■ CN103292886 A    | 20130911         | CN201310122275     | 20130301         |
| ■ EP2634549 A2     | 20130904         | EP20130154595      | 20130208         |
| ■ EP2634549 A3     | 20140423         | EP20130154595      | 20130208         |
| ■ US2013232021 AA  | 20130905         | US20120411325      | 20120302         |

**Priority:**

US20120411325 20120302

**Probable Assignee:** METTLER TOLEDO LLC

**Assignee(s):** (std): HAGGLUND CURTIS L ; METTLER TOLEDO LLC

**Inventor(s):** (std): HAGGLUND CURTIS L

**Agent(s):** METTLER TOLEDO

**Designated states:** AL AT BA BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC ME MK MT NL NO PL PT RO RS SE SI SK SM TR

**Title:** Produce recognition system

**Abstract:** The present system and apparatus uses image processing to recognize objects within a scene. The system includes an illumination source for illuminating the scene. By controlling the illumination source, an image processing system can take a first digitized image of the scene with the object illuminated a higher level and a second digitized image with the object illuminated at a lower level. Using an algorithm, the object(s) image is segmented from a background image of the scene by a comparison of the two digitized images taken. A processed image (that can be used to characterize features) of the object(s) is then compared to stored reference images. The object is recognized when a match occurs. The system can recognize objects independent of size and number and can be trained to recognize objects that is was not originally programmed to recognize.

**Classifications:**

**International (IPC 8-9):** G06K9/46 G06T1/00 G06T7/00 G06T7/60 G07G1/00 (Advanced/Invention);

G06K9/00 G06T1/00 G06T7/00 (Advanced/Non-invention);

G06K9/46 G06T1/00 G06T7/00 G07G1/00 (Core/Invention)

**International (IPC 1-7):** B07C5/10 G06K9/00 G06K9/46 G06K9/66 G06T1/00 G06T7/00 G06T7/60

**CPC:** G06K9/4647 G06K2209/17 G07G1/0054

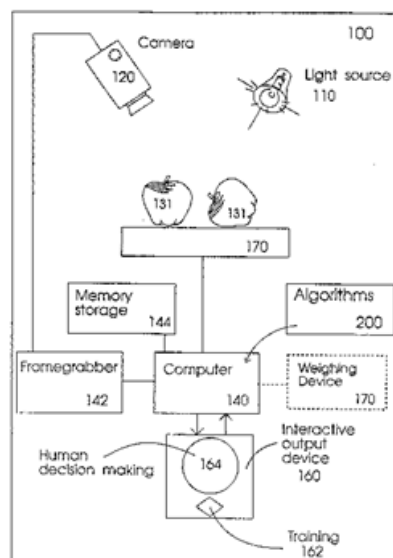
**European:** G06K9/46B G06K9/46B1 G07G1/00C2D S06K209/17

**US:** 382/110 382/164 382/165 382/170 382/173 382/190

PatBase - US5546475\_A

U.S. Patent Aug. 23, 1996 Sheet 1 of 16 5,546,475

FIG. 1



**Family:**

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| AT196695 E         | 20001015         | AT19950102666T     | 19950224         |
| AU199515034 A1     | 19951109         | AU19950015034      | 19950323         |
| AU685904 B2        | 19980129         | AU19950015034      | 19950323         |
| CA2144404 AA       | 19951030         | CA19952144404      | 19950310         |
| CA2144404 C        | 20020416         | CA19952144404      | 19950310         |
| CN1092375 C        | 20021009         | CN19951004385      | 19950410         |
| CN1123940 A        | 19960605         | CN19951004385      | 19950410         |
| DE69518947 D1      | 20001102         | DE19956018947      | 19950224         |
| DE69518947 T2      | 20010322         | DE19956018947T     | 19950224         |
| EP0685814 A2       | 19951206         | EP19950102666      | 19950224         |
| EP0685814 A3       | 19970305         | EP19950102666      | 19950224         |
| EP0685814 B1       | 20000927         | EP19950102666      | 19950224         |
| ES2151000 T3       | 20001216         | ES19950102666T     | 19950224         |
| JP3369772 B2       | 20030120         | JP19950022847      | 19950210         |
| JP7302343 A2       | 19951114         | JP19950022847      | 19950210         |
| KR100190737 B1     | 19990601         | KR19950010254      | 19950428         |
| KR19950029983 A    | 19951124         | KR19950010254      | 19950428         |
| US5546475 A        | 19960813         | US19940235834      | 19940429         |

**Priority:**

US19940235834 19940429 CA19952144404 19950310 CA19952144404 19950310

**Probable Assignee:** IBM

**Assignee(s):** (std): IBM ; INTERNATIONAL BUSINESS MACHINES CORP

**Assignee(s):** BOLLE RUDOLF M ; CONNELL JONATHAN H ; HAAS NORMAND ; INT BUSINESS MACHINES CORP ; INT BUSINESS MACHINES ; INTERNATL BUSINESS MACH CORP ; IBM CORP ; INTERNATL BUSINESS MACH CORP IBM ; INT BUSINESS MACHINES CORP ARMONK ; INT BUSINESS MASCHINES CORP ; TAUBIN GABRIEL ; MOHAN RAKESH

**Inventor(s):** (std): BOLLE RUBOFF M ; BOLLE RUDOLF M ; BOLLE RUDOLF MAARTEN ; CONNELL JONATHAN H ; CONNELL JONATHAN HUDSON ; GABRIEL TAUBIN ; GABURIERU TAUBIN ; HAAS NORMAN ; HAAS NORMAND ; JIYONASAN HADOSON KONERU ; JONATHAN HUDSON CONNELL ; MOHAN RAKESH ; NOOMAN HAASU ; NORMAN HAAS ; RAKESH MOHAN ; RAKESHIYU MOOHAN ; RUDOLF MARTEN BOLLE ; RUDORUFU MAATEN BORU ; TAUBIN GABRIEL

**Inventor(s):** RUBOFF M BOLLE ; RUDOLF M BOLLE ; RUDOLF MAARTEN BOLLE ; JONATHAN H CONNELL  
**Agent(s):** SPRUSON AND FERGUSON; ASPEN PHARMA PTY LTD; ROSEN ARNOLD; MAYAMA SETSUKO  
**Designated states:** AT BE CH DE ES FR GB IT LI NL SE

#### Search history

Search PN=( WO/2016/186833) (Results 1)

1:

Search [SP]: system and method for extracting and sharing application-related user data systems and methods for extracting and sharing application-related user data are disclosed. a method may include extracting in-app data for at least one of the plurality of apps running on a computing device, the in-app data including content consumed by a user while the at least one app is running, and/or at least one user action taken in connection with the content. using an entity template associated with the app, a plurality of text strings within the in-app data are classified into at least one of a plurality of data types specified by the template. at least one user data item (udi) may be generated by combining at least a portion of the classified plurality of text strings, the at least one udi being accessible by a second app, an operating system running on the, a service of the operating system, and/or a service running on at least another device. (Results 8)

Search 2 and pd<2015 (Results 4)

3:

Search PN=( WO/2016/186833) (Results 1)

4:

Search 3 and template (Results 2)

5:

Search GPS and facial recognition (Results 6284)

6:

Search 6 and register\* (Results 3274)

7:

Search 7 and IC= G06K9/00 or G06T1/00 (Results 525)

8:

Search 8 and (deliver\* or giv\* or provid\* or suppl\* or hand\*) (Results 524)

9:

Search TA=((deliver\* or giv\* or provid\* or suppl\* or hand\*)) (Results 1000000)

10:

Search 9 and 10 (Results 325)

11:

Search 11 and user authentication (Results 44)

12:

Search TA=(authentication) (Results 100963)

13:

Search 12 and 13 (Results 21)

14:

**Title:** FACILITATING MOBILE DEVICE PAYMENTS USING PRODUCT CODE SCANNING

**Abstract:** **Provided** are computer implemented methods and systems for facilitating mobile device payments using barcodes displayed on mobile devices and scanned by merchants at checkout counters. When a customer is ready to tender a payment to a merchant, instead of using a credit card, cash, or check, the customer activates an application on his mobile device. The mobile device includes or obtains information about the payment system of this merchant. Furthermore, the mobile device includes or obtains information about the customer/mobile device user and then uses these two pieces of information to generate and display a barcode that encodes customer payment information specific to this merchant. The barcode is scanned at the checkout counter and processed to retrieve customer records from a database of the payment processing system. These records are then used to transfer funds between the merchant and customer, obtain discounts, and/or perform other retail transactions.

**Classifications:**

**International (IPC 8-9):** A61B10/00 A61B5/00 A61B5/02

A61B5/0205 A61B5/0402 A61B5/0476 A61B5/08 A61B5/11  
A61B5/1172 A61B5/145 B25J9/00 B25J9/16 B60F3/00 B60F5/02  
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H04L29/06 H04L29/08 H04L9/06 H04L9/32 H04M1/2755 H04M1/72  
H04M1/725 H04M15/00 H04M3/42 H04M7/00 H04N5/232 H04N5/247  
H04N5/265 H04N5/38 H04N7/00 H04N7/18 H04W12/06 H04W36/16  
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H04W48/18 H04W76/02 (Advanced/Invention);

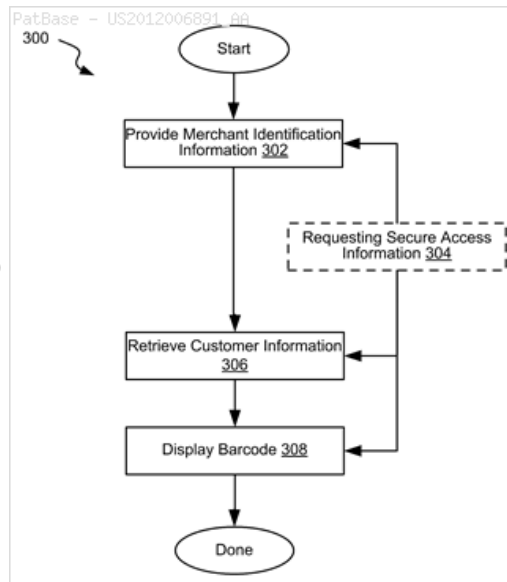
A61B5/01 A61B5/021 A61B5/024 A61B5/08 G06F3/048 G06F3/0481  
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H04L29/08 H04M1/2755 H04W4/00 (Advanced/Non-invention);  
G06F15/16 (Core/Invention)

**CPC:** G06Q30/0222 G06Q20/405 G06Q20/34 G06Q30/0208 G06Q30/0227 G06Q30/0236 G06Q30/0239 G06Q20/425  
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G06Q20/3224 G06Q20/105 G06Q20/065 G06Q20/4014 G06Q20/382 G06Q20/356 G06Q20/388 G06Q20/3227 G06Q20/223  
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| US20170589001  | 20170508 | US20170599467  | 20170519 | US20170607662  | 20170529 |

**Probable Assignee:** AMOBILEPAY INC

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**Inventor(s):** ZHOU TIGER TG ; ZHOU ANDREW HB

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**Designated states:** AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DJ DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JO JP KE KG KH KM KN KP KR KW KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

**Title:** PAYMENT TOKENIZATION APPARATUSES, METHODS AND SYSTEMS

**Abstract:** The PAYMENT TOKENIZATION APPARATUSES, METHODS AND SYSTEMS ("PT") transform payment token-based purchase orders via PT components into multi-issuer purchase payment funds transfers. In one embodiment, the PT obtains a token arbitration request including unique source-neutral universally-resolvable payment token information from a merchant for processing a purchase order from a user. The PT queries a token database for issuer information on an issuer using the payment token information, and obtains the issuer information. The PT also determines that the user should be queried for payment options based on the issuer information, generates a payment options request, and provides the payment options request to a mobile device of the user. Upon obtaining a response to the payment options request from the mobile device of the user, the PT generates a purchase authorization request based on the payment options and pre-defined settings for issuers to be contacted for processing the purchase order, and provides the generated purchase authorization request to the issuer.

**Classifications:**

**International (IPC 8-9):** G02B27/01 G06F17/00 G06F17/30 G06K9/00 G06Q10/00 G06Q20/00 G06Q20/02 G06Q20/20 G06Q20/32 G06Q20/34 G06Q20/36 G06Q20/40 G06Q30/00 G06Q30/02 G06Q30/06 G06Q40/00 G06Q50/00 G06Q50/10 G06Q99/00 G06T19/00 G10L15/26 H04L9/00

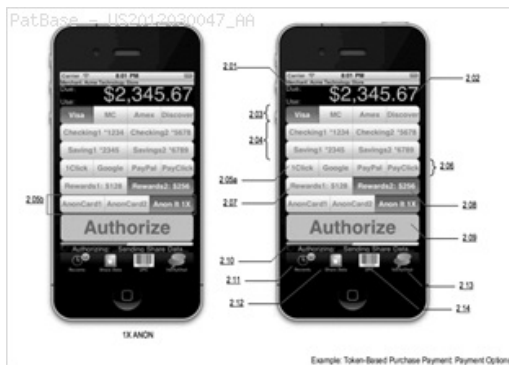
H04W4/02 (Advanced/Invention);

G06Q (Subclass/Invention)

**CPC:** G06Q20/04 G06Q20/425 G06Q30/0601 G06Q20/409 G06F17/30696 G06Q20/382 G06Q50/01 G06Q30/0631 G06Q20/4014 G06Q20/12 G06Q20/18 G06Q20/20 G06Q20/3278 G06Q20/027 G06Q30/0207 G06Q30/0238 G06Q30/0267 G06Q30/0271 G06Q30/0639 G06F2221/2113 H04W12/12 G06Q20/3224 G06F21/577 G06Q30/0641 G06Q30/0623 G06T19/006 G02B27/017 G02B2027/0178 G10L2015/223 G02B2027/0138 G02B2027/014 G02B2027/0187 G06Q30/0261 H04W4/02 G06Q30/0269 G06Q20/40145 G06Q20/3226 G06F3/01 G06F3/011 G06Q20/322 G06Q20/3276 G06Q30/0281 G06K9/00335 G06Q20/32 G06Q20/36 G06Q20/40 G06Q20/4016 G06Q20/401 G06Q10/00 G06Q30/02 G06Q30/06 H05K999/99

**European:** G06Q10/00 G06Q20/04 G06Q20/32 G06Q20/425 G06Q30/0601

**US:** 1/1 705/14.58 705/16 705/16P 705/26.1 705/26.100P 705/26.41 705/26.81 705/26.810S 705/41 705/42 705/44 707/748 707/755 707/771

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| Publication number | Publication date | Application number | Application date |
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**Designated states:** AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

**Title:** RECONFIGURABLE MOBILE DEVICE INTERFACES SUPPORTING **AUTHENTICATED** HIGH-QUALITY VIDEO, AUDIO, TV AND MULTIMEDIA SERVICES

**Abstract:** A method and apparatus for reconfiguring the audio and video interfaces of mobile devices is described. A system for configuring various surfaces of a mobile device for performing additional functions such as utilizing the front and reverse side of a mobile device with reconfigurable larger displays for enhancing the visual experience for various applications such as in video, TV and medical imaging is described. A system for command and control of a media center with a mobile device is disclosed. A method for multi-channel processing of audio and video information over mobile devices is described. A method for biometrically authorizing and **delivering** of copy right content to mobile devices is disclosed.

**Classifications:**

**International (ipc 8-9):** A61B5/00 A61B5/0205 A61B5/024 A61B5/026 A61B5/04 A61B5/0408 A61B5/117 A61B5/1455 A61K9/00 A61M31/00 A61M35/00 A61M37/00 A61M5/172 A61N1/36 A61N1/362 A61N1/365 A61N1/37 A61N1/372 A61N1/39 G02B27/01 G06F15/16 G06F15/177 G06F17/28 G06F17/30 G06F17/60 G06F19/00 G06F3/00 G06F3/023 G06F3/048 G06K9/00 G06K9/62 G06N5/02 G06Q17/30 G06Q30/02 G06Q30/06 G06Q30/08 G06T19/00 G08B1/08 G08B9/00 G08C17/02 G09B19/00 G09B5/06 G09G5/14 H04B1/00 H04B1/02 H04B1/38 H04B10/00 H04B10/11 H04B13/00 H04B7/00 H04B7/005 H04B7/04 H04B7/15 H04B7/26 H04L12/24 H04L12/28 H04L12/725 H04L29/06 H04L29/08 H04L5/08 H04M1/00 H04M1/02 H04M1/247 H04M1/725 H04M11/00 H04M3/00 H04M3/42 H04N1/00 H04N21/235 H04N21/414 H04N7/14 H04Q11/00 H04Q7/00 H04W12/06 H04W16/26 H04W36/00 H04W36/22 H04W4/00 H04W4/16 H04W4/20 H04W40/02 H04W48/18 H04W80/04 H04W84/04 H04W88/02 H04W88/06 H04W88/10 H04W92/02 (Advanced/Invention); G06Q50/00 H04B1/38 H04B7/0404 H04L29/08 H04M1/725 H04M11/04 H04N13/04 H04N5/222 H04N7/18 H04W8/18 H04W80/04 H04W84/12 H04W88/06 H04W88/10 (Advanced/Non-invention); A61B5/00 A61K9/00 G06F15/16 G08B1/00 G08B9/00 H04B1/02 H04B1/38 H04M1/00 (Core/Invention)

**International (ipc 1-7):** H04B1/38 H04M11/00

**CPC:** G06F17/30864 G06Q30/06 G06Q30/0611 G06Q30/0625 G06Q30/0643 G06Q30/0641 G06F21/32 G06F19/3475 G09B19/0092 H04M1/66 H04M1/7258 H04M2250/22 A61M2005/14208 A61M2005/14296 A61B5/0022 A61B5/026 A61B5/14551 A61N1/362 A61N1/365 A61N1/37211 H04M1/23 H04M1/67 H04M2250/16 G06Q50/12 G06F1/1662 G06F1/1688 H04W4/16 A61B5/002 A61B5/0402 A61B5/747 A61B2505/01 G06Q50/22 G08C17/02 A61B5/02438 A61B5/0205 A61B5/4836 A61B5/6801 G06F19/3481 Y10S128/92 H04M1/247 G06F17/28 H04L67/06 G06F19/3468 A61B5/1112 A61B5/14532 A61B5/4824 A61M5/172 A61N1/36021 G06F17/30867 H04L67/1097 H04M2250/58 H04M2250/74 G06F19/3418 A61B5/04087 A61B5/04012 A61B5/0006 A61N1/3956 A61N1/36007 H04B13/005 H04W4/20 A61N1/39 G06F19/30 A61M5/1723 A61M5/142 H04W48/18 A61N1/37 A61B5/0015 H04L63/083 A61N1/3987 A61N1/3925 A61B5/00 A61B5/4872 G06Q50/24 G06Q2250/30 H04B1/3888 G07C13/00 G06Q30/0269 G06Q50/01 H04L67/125 G06K9/00671 H04L69/16 H04L12/6418 H04W16/26 A61B8/565 A61B5/0002 A46B7/04 A46B15/0002 A46B15/0006 A46B15/0016 A46B15/0055 A46B2200/1066 A61B5/0079 A61B5/411 A61B5/4547 A61B8/00 A61B8/56 H04B7/15 H04L41/0816 H04M1/72519 H04M1/72525 H04W84/12 G06Q30/08 H04W8/18 H04L41/0813 H04W88/06 H04W80/04 H04W88/10 H04W84/04 H04L12/588 H04L41/147 H04L63/104 H04L67/306 H04M1/0268 H04L67/02 H04L67/16 H04L65/403 H04L63/08 H04L67/10 H04W92/02 H04M1/72577 G06K9/00154 H04L51/32 H04W4/08 H04B7/0413 H04L5/08 H04W12/06 H04L51/38 H04B7/04 A61B90/90 H04W36/22 H04N21/6131 H04N21/43637 H04B1/0057 A61N1/372 G06F19/34 A61B5/0031 A61N1/37288 H04L63/0861 H04M11/04 H04N1/00244 G06K9/6202 G06T19/006 H04N1/00095 H04N1/00214 H04N1/00307 G06F1/1643 G06F3/04817 G06F3/04886 H04M1/72575 G06F1/1626 G06F1/1647 H04M1/0202 H04M1/72527 G06F17/30861 G02B27/017 G02B2027/0138 G02B2027/014 G02B2027/0178 G02B2027/0187 H04Q11/0062 H04B10/11 H04Q11/0005 H04W40/02 A61N1/37264 A61N1/37217 H04M1/026 H04B7/0404 G06F3/023 H04L12/2867 H04L45/00 H04W4/00 A61B5/1171 H04L63/12 G06F17/30893 G06Q30/0271 H04M1/72533 H04L12/2803 H04M11/007 G16H10/60 G16H10/65 G09B5/065 G09G5/14 G09G2370/16 H04L45/306 H04N21/2353 H04N21/41407 H04N2007/145 H04W4/21 H04W4/50 H04W4/80 G06F19/00 H04N7/142 H05K999/99

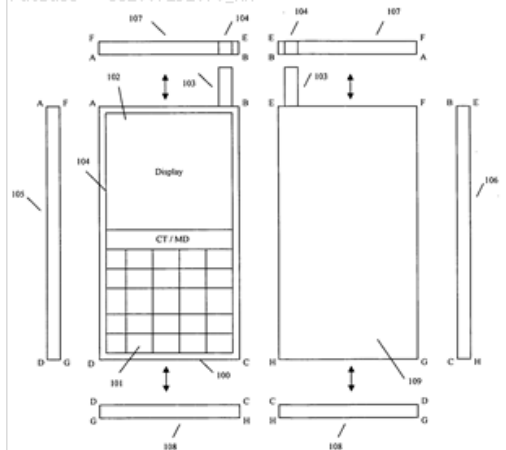
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| Publication number | Publication date | Application number | Application date |
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| US20160206130 20160708 |                        |                        |

#### Probable Assignee: SMART MOBILE INC

**Assignee(s):** (std): RAO RAMAN K ; RAO RAMAN KALIPUTNAM ; RAO SANJAY K ; RAO SUNIL K ; RAO REKHA K ; RAO SUNIL KALIPUTNAM ; RAO SANJAY KALIPUTNAM ; RAO REKHA ; IP HOLDINGS INC ; IP HOLDINGS INC ; RAO LEGAL REPRESENTATIVE REKHA K ; RAO REKHA K

**Assignee(s):** RAO RAJNI ; SMART MOBILE INC

**Inventor(s):** (std): RAO RAJNI ; RAO RAMAN K ; RAO REKHA ; RAO SANJAY K ; RAO SUNIL K ; RAO SUNIL KALIPUTNAM ; RAO SUNIL ; RAO SANJAY KALIPUTNAM ; RAO REKHA KALIPUTNAM ; RAO REKHA K ; RAO RAMAN KALIPUTNAM ; RAO RAMAN ; RAO LEGAL REPRESENTATIVE REKHA K

**Agent(s):** COURTNEY STANIFORD AND GREGORY LLP; CARR AND FERRELL LLP; STEPHEN E; LEVINE BAGADE HAN LLP; LEVINE BAGADA HAN LLP; FITZPATRICK CELLA HARPER AND SCINTO; FINNEGAN HENDERSON FARABOW GARRETT AND DUNNER LLP; GREGORY RICHARD L ET AL

**Designated states:** AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

**Title:** METHOD AND DEVICE FOR CONFIRMING COMPUTER END-USER IDENTITY

**Abstract:** The identity of an end-user operating a computer is confirmed by analyzing user reactions to aberrations in output. More specifically, an aberration is caused in output that the computer provides to an output device, and the end-user's response to the aberration is received. An end-user characteristic is extracted from the response and compared to stored characteristic responses to find a match. A match is indicative of the identity of the computer user. It can also be checked whether, after causing an aberration in output the end-user responded differently to the output than if the output did not have the aberration. The lack of a different response can be interpreted as indicative that the end-user is a bot.

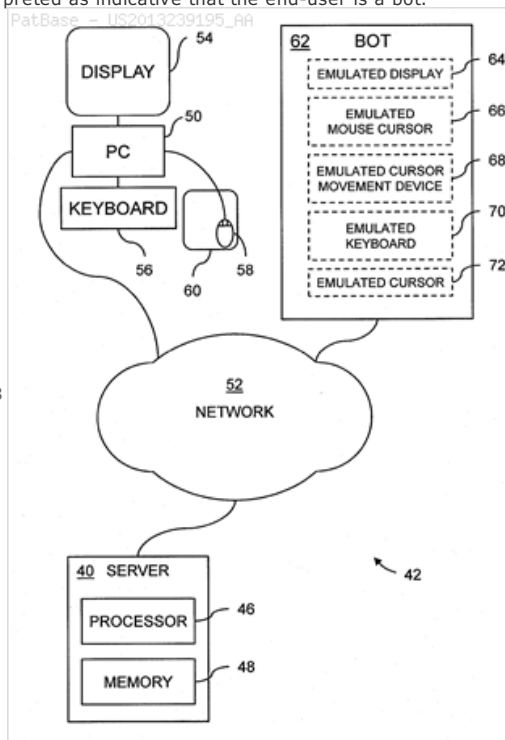
**Classifications:**

**International (IPC 8-9):** G01R29/26 G06F11/30 G06F12/00 G06F17/00 G06F17/30 G06F21/00 G06F21/12 G06F21/30 G06F21/31 G06F21/32 G06F21/36 G06F21/50 G06F21/55 G06F21/56 G06F3/01 G06F3/023 G06F3/033 G06F3/0346 G06F3/0354 G06F3/041 G06F3/0481 G06F3/0482 G06F3/0484 G06F3/0485 G06F3/0486 G06F3/0487 G06F3/0488 G06F3/0489 G06F7/04 G06F9/455 G06K9/00 G06N5/04 G06Q20/38 G06Q20/40 G06Q30/00 G06Q30/02 G07C9/00 G09G5/08 H04L12/06 H04L12/26 H04L12/841 H04L29/06 H04L29/08 H04L29/12 H04L5/00 H04M1/725 H04W12/06

H04W12/12 (Advanced/Invention);  
G06F11/16 G06F11/00 G06F12/14 G06F12/16 G06F15/16 G06F17/21 G06F17/30 G06F21/57 G06F3/01 G06F3/0354 G06F3/0362 G06F3/0482 G06F3/0485 G06F3/0489 G06F7/04 G08B23/00 H04L12/24 H04W12/12 (Advanced/Non-invention)

**CPC:** G06F2221/034 G06K9/00355 G06K9/00885 G06F11/3055 G06F11/301 G06F3/0416 G06F3/0485 G09G5/08 G06N5/04 G06Q20/4016 G06Q20/382 G06Q20/40 G06Q30/0277 H04L2463/102 H04L67/306 H04L12/06 G06F2203/04101 G06Q30/0248 G06F9/45558 G06F2009/45591 G06F2009/45587 H04L67/2804 H04L47/283 H04L69/16 H04L69/22 H04L61/1511 G06F9/45533 G06K9/00013 G06K9/00087 G06F3/0487 G01R29/26 G06F21/121 H04L63/1441 H04L2463/144 G06F21/50 G06F3/0233 G06F3/04817 G06F3/03543 G06F3/03547 G06F3/0362 H04W4/027 H04M1/67 H04M2250/22 H04L63/10 H04L67/22 G06F21/552 H04L63/126 H04L2463/082 H04L63/1458 G06F21/36 G06Q30/0275 G06F17/30312 H04L43/0876 H04L67/02 H04L5/0055 G06F21/554 H04L63/1416 G06Q30/0185 G06Q20/401 G06Q20/4014 G06F3/147 G09G2358/00 G06F3/0488 H04W12/12 G06F3/04892 H04L45/02 H04L45/74 H04L67/28 G06F3/0489 G06F21/577 G06F2221/031 G06F21/55 G06F2203/04801 G06F3/04812 G06F3/04883 G06F2221/2111 G06F2221/2117 G06F3/017 G06F3/0346 H04M1/72522 G06F3/041 H04L63/1425 H04L63/145 H05K999/99 G06F21/316 G06F3/0482 G06F3/04842 G06F2221/2133 H04L63/08 H04W12/06 G06F21/31 G06F21/32 H04L63/0861 H04L63/102 H04L63/1408 G06F3/0481 G06F3/0486 G06F3/04886 G06F2221/2103 G06F2221/2131 G07C9/00142 H04L63/0428 H04L63/083

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**Family:**

| Publication number | Publication date | Application number | Application date |
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**Probable Assignee:** BIOCATCH LTD

**Assignee(s):** (std): BIOCATCH LTD ; TURGEMAN AVI

**Assignee(s):** KREOS CAPITAL V EXPERT FUND LP

**Inventor(s):** (std): AZIZI YARON ; DEKEL EDO ; KADYSHEVITCH LEV ; KEDEM OREN ; LEHMANN YARON ; LEVIN ZIV ; MOYAL TAL ; NOVICK ITAI ; RIVNER URI ; TURGEMAN AVI

**Agent(s):** VIRDEE CROFTS KULWINDER KAUR; BECK GREENER; ARNASON STELLBRINK; EITAN MEHULAL AND SADOT; NAOMI ASSIA LAW OFFICES; EITAN MEHULAL AND SADOT ET AL; BRUN HEIDI

**Designated states:** AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG

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**Probable Assignee:** CORTICA LTD

**Assignee(s):** (std): C O CORTICA LTD ; CORTICA LTD ; IGAL RAICHELGAUZ ; KARINA ODINAEV ; M AND B IP ANALYSTS LLC ; MYERS WOLIN LLC ; RAICHELGAUZ IGAL ; ODINAEV KARINA ; ZEEVI YEHOSHUA Y ; YEHOSHUA Y ZEEVI ; ORDINAEV KARINA

**Inventor(s):** (std): CORTICA LTD ; HAREL ADAM ; ODINAEV KARINA ; ORDINAEV KARINA ; RAICHELGAUZ IGAL ; RAICHELGAUZ LGAL ; RAICHELQUAZ IGAL ; ZEEVI YEHOSHUA Y

**Inventor(s):** YEHOSHUA Y ZEEVI ; IGAL RAICHELGAUZ ; KARINA ODINAEV

**Agent(s):** GRAETTINGER MOEHRING VON POSCHINGER PATENTANWAELTE PARTNERSCHAFT; SCHMITZ JEAN MARIE ET AL; GRAETTINGER MOEHRING VON POSCHINGER PATENTANWAELTE PARTNERSCHAFT; MYERS WOLIN LLC; M AND B IP ANALYSTS LLC; M AND B IP ANALYSIS LLC; MYERS BRIAN S ET AL; BEN SHIMON MICHAEL

**Designated states:** AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DJ DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KH KM KN KP KR KW KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

**Title:** DIGITAL RIGHTS MANAGEMENT SYSTEM AND METHOD

**Abstract:** A method of managing digital rights comprises the following steps. First, a physical electronic key containing a key code is **provided** to a requesting user. Second, locked digital content is **provided** to the requesting user. The digital content is marked with an unlock code associated with the key code. Third, the locked digital content is received in a playing device that reads the key code and determines whether the key code is associated with the unlock code. Fourth, the playing device is enabled to unlock and play the digital content if the key code is associated with the unlock code. A digital right management system for implementing the foregoing method is also disclosed.

**Classifications:**

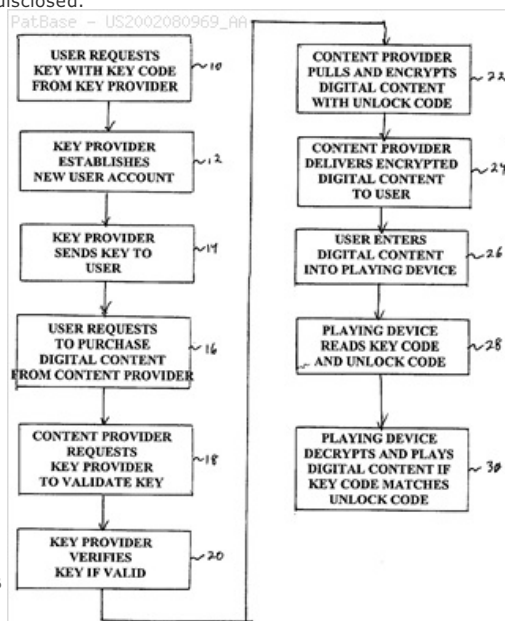
**International (IPC 8-9):** F16K17/14 F16L11/00 F21S4/00 G05B1/00 G06F1/00 G06F11/30 G06F12/14 G06F17/30 G06F21/00 G06F21/31 G06F21/32 G06F21/34 G06F21/35 G06F7/04 G06F9/00 G06G21/00 G06K9/00 G06Q20/12 G06Q20/34 G06Q20/40 G06Q99/00 G07C9/00 G07F7/10 H03M1/68 H04K1/00 H04L1/00 H04L29/06 H04L29/08 H04L9/00 H04L9/32 H04N7/16 H04W12/06 (Advanced/Invention); F16L11/00 G06F1/00 G06F21/00 G06Q99/00 H04K1/00 H04L29/06 H04L29/08 H04L9/00 H04L9/32 (Core/Invention)

**International (IPC 1-7):** G06F11/30 G06F12/14 G06F15/16 H04K1/00 H04L9/00 H04N7/167

**CPC:** G07C2209/12 H04L9/3271 H04L2209/603 H04L67/02 H04L69/329 H04L67/025 H04L67/2823 H04L67/2842 H04L67/2871 H04L67/289 H04L29/06 G06F21/10 G06F21/80 G06F2221/0711 H04L63/0428 H04L63/0485 H04L63/061 H04L63/062 H04L63/10 H04L2463/101 H04N21/2347 H04N21/254 H04N21/4104 H04N21/418 H04N21/4627 H04N21/63345 G06F21/6227 G06Q20/40145 H04L9/3231 G06F2221/2115 H04L2209/56 H04L2209/80 G05B1/00 H04L9/321 G06F21/35 G06Q20/12 G06Q20/346 G07C9/00111 G06F21/31 G06F21/32 G06F21/34 G06Q20/341 G06Q20/4014 G07C9/00087 G07C2009/00095 G07F7/1008 H04L63/0861 H04W12/06

**European:** G06F1/00N7R2 G06F21/10 G06F21/31 G06F21/32 G06F21/34 G06F21/35 G06F21/80 G06Q20/12 G06Q20/341 G06Q20/346 G06Q20/4014 G06Q20/40145 G07C9/00B10 G07C9/00B6D4 G07F7/10D H04L29/06 H04L29/06C6B H04L29/06C6C H04L29/08N1 H04L29/08N1A H04L29/08N27F H04L29/08N27S H04L63/04B H04L63/04B14 H04L63/06A H04L63/06B H04L63/08F H04L63/10 H04L9/08 H04L9/32 H04N21/2347 H04N21/254 H04N21/418 H04N21/41P H04N21/4627 H04N21/6334K H04W12/06 S06F221/07B3 S06F221/2115 S07C209/12 S07C9/00B6D4A T04L29/08A7 T04L29/08N27X1 T04L29/08N27X8 T04L463/101 T04L63/04B

**US:** 1/1 340/5.6 340/5.63 380/202 380/223 380/231 380/231S 380/247 380/277 380/277P 705/51 705/51S 705/71 709/231 709/231P 709/246 709/246S 713/151 713/153 713/155 713/155P 713/168 713/168P 713/169 713/170 713/170S 713/171 713/172 713/182 713/182S 713/184 713/185 713/185P 713/186 713/186P 713/186S 713/193 713/193P 713/194 726/26 726/26S 726/27 726/7

**Family:**

| Publication number | Publication date | Application number | Application date |
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| AU2002235246 AA    | 20020708         | AU20020235246      | 20011221         |
| AU2005311849 AA    | 20060608         | AU20050311849      | 20051130         |
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| US2006136742 AA    | 20060622         | US20050292330      | 20051130         |
| US2006143441 AA    | 20060629         | US20050314199      | 20051220         |
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| US7404088 BB       | 20080722         | US20050268145      | 20051107         |
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| WO06069330 A3 | 20070518 | WO2005US46843 | 20051220 |
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| WO07130687 A3 | 20081218 | WO2007US11105 | 20070507 |
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| WO07133540 A3 | 20081204 | WO2007US11102 | 20070507 |
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**Priority:**

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| US20050268145  | 20051107 | US20050292330  | 20051130 | WO2005US43447  | 20051130 |
| US20050652765P | 20051214 | US20050314199  | 20051220 | WO2005US46843  | 20051220 |
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| US20070744833  | 20070505 | US20070744832  | 20070505 | US20070745249  | 20070507 |
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| US20160364039  | 20161129 | US20170443873  | 20170227 |                |          |

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**Inventor(s):** (std): GIOBBI JOHN J ; GIOBBI JOHN JOSEPH ; HIRT FRED S ; BROWN DAVID L ; JOSEPH GIOBBI JOHN

**Inventor(s):** BROWN DAVID ; GIOBBI JOHN ; JOHN J GIOBBI ; JOHN JOSEPH GIOBBI ; HIRT FRED

**Agent(s):** SHELSTON IP; SHELSTON IP PTY LTD; SIM AND MCBURNEY; SCHWEGMAN LUNDBERG WOESSNER AND KLUTH; FULWIDER PATTON; FENWICK AND WEST LLP; SCHWEGMAN LUNDBERG WOESSNER AND KLUTH PA; PATENT LAW WORKS LLP

**Designated states:** AE AG AL AM AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

**Title:** SYSTEMS AND METHODS FOR BIOMETRIC **AUTHENTICATION** OF FINANCIAL TRANSACTIONS

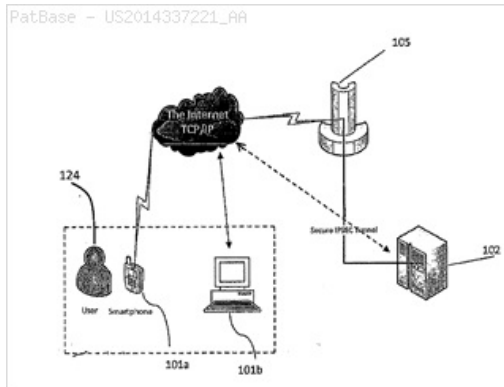
**Abstract:** Systems and methods are **provided** for authorizing a user in connection with a transaction at a transaction terminal. The systems and methods described herein enable a series of operations whereby a user using a mobile device can capture a code that uniquely identifies a transaction terminal. In addition the mobile device can also capture a user's biometrics, generate a biometric identifier and biometrically verify the user's identity by comparing the biometric identifier to a previously generated biometric identifier. If the user is biometrically **authenticated** the mobile device can generate a transaction request including, a user identifier, a mobile device identifier, and the transaction terminal code and transmit the transaction request to a system server. Based on the transaction request, the system server can further **authenticate** the user and/or approve the requested transaction. If the user is **authenticated**, the system server can instruct the terminal to advance the financial transaction.

**Classifications:**

**International (IPC 8-9):** G06F1/00 G06F17/30 G06F21/00 G06F21/31 G06F21/32 G06F21/33 G06F21/34 G06F21/35 G06F21/62 G06K19/07 G06K19/073 G06K9/00 G06K9/46 G06Q20/00 G06Q20/02 G06Q20/10 G06Q20/32 G06Q20/34 G06Q20/38 G06Q20/40 G06T7/00 G07F19/00 H04L H04L12/22 H04L29/06 H04L29/08 H04L9/06 H04L9/32 H04M H04M1/00 H04N7/18 H04W12/06 H4L29/06 H4M1/00 (Advanced/Invention); H04L29/08 (Advanced/Non-invention); H04M (Subclass/Invention)

**CPC:** G06F21/34 G06Q20/3276 G07F19/20 H04L63/10 G06Q20/40145 H04W12/06 G06Q20/3821 G06Q20/3829 G06Q20/32 G06Q2220/00 H04N7/183 G06K9/00268 H04L67/306 H04L63/0435 H04L63/0861 H04L63/105 G06K9/00228 G06K9/46 G06Q20/327 G06K9/00906 G06K9/0061 H04L9/3213 G06Q20/1085 G06F17/30864 H04L63/0853 G06T7/73 H04L63/0823 G06F21/335 G06F2221/2115 G06F2221/2117 G06F21/45 G06F21/32 G06F21/35 G06F21/6218 H04L63/0428 H04L63/0815 H04L63/102 H04L67/06 G06F21/33 H04L9/3231 H04L9/3263 G09C5/00 H04L9/3268

**US:** 1/1 705/44 705/72 705/75 713/156 713/168 713/186 726/10 726/4 726/5 726/7



**Family:**

| Publication number | Publication date | Application number | Application date |
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| AU2014265558 AA    | 20141120         | AU20140265558      | 20140513         |
| AU2014265558 BB    | 20180315         | AU20140265558      | 20140513         |
| AU2014388268 AA    | 20151001         | AU20140388268      | 20141231         |
| AU2016311166 AA    | 20170302         | AU20160311166      | 20160822         |
| AU2018203747 AA    | 20180621         | AU20180203747      | 20180529         |
| BR112015028511 A2  | 20170725         | BR20151128511      | 20140513         |
| BR112016015458 A2  | 20170808         | BR20161115458      | 20141231         |
| CA2909788 AA       | 20151016         | CA20142909788      | 20140513         |
| CA2935688 AA       | 20160630         | CA20142935688      | 20141231         |
| CA2996296 AA       | 20180221         | CA20162996296      | 20160822         |
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| CN106063219 A      | 20161026         | CN201480074859     | 20141231         |
| EP2997719 A1       | 20160323         | EP20140797820      | 20140513         |
| EP2997719 A4       | 20170222         | EP20140797820      | 20140513         |
| EP3090525 A2       | 20161109         | EP20140887454      | 20141231         |
| EP3090525 A4       | 20170920         | EP20140887454      | 20141231         |
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| JP2016526211 T2    | 20160901         | JP20160514036T     | 20140513         |
| JP2017508194 T2    | 20170323         | JP20160544529T     | 20141231         |
| KR20160006772 A    | 20160119         | KR20157035095      | 20140513         |
| KR20160111940 A    | 20160927         | KR20167021073      | 20141231         |
| MX2015015547 A1    | 20160808         | MX20150015547      | 20140513         |
| US2014337221 AA    | 20141113         | US20140201438      | 20140307         |
| US2014337930 AA    | 20141113         | US20140276753      | 20140513         |
| US2014337948 AA    | 20141113         | US20140201462      | 20140307         |
| US2014337949 AA    | 20141113         | US20140201499      | 20140307         |
| US2015188911 AA    | 20150702         | US20140587633      | 20141231         |
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| US2016182506 AA    | 20160623         | US20160006234      | 20160126         |
| US2016205096 AA    | 20160714         | US20160995769      | 20160114         |
| US2016373440 AA    | 20161222         | US20160243411      | 20160822         |
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| US2018176216 AA    | 20180621         | US20170800748      | 20171101         |
| US9003196 BB       | 20150407         | US20140276753      | 20140513         |
| US9208492 BB       | 20151208         | US20140201438      | 20140307         |
| US9294475 BB       | 20160322         | US20140201499      | 20140307         |
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| WO15147945 A2 | 20151001 | WO2014US72985 | 20141231 |
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| WO16033184 A1 | 20160303 | WO2015US46951 | 20150826 |
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| WO17035085 A1 | 20170302 | WO2016US48068 | 20160822 |
| WO17035085 A9 | 20170817 | WO2016US48068 | 20160822 |
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| ZA201605228 A | 20170927 | ZA20160005228 | 20160727 |

**Priority:**

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| US20120622438P 20120410 | US20130822746P 20130513 | US20130822746P 20130531 |
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**Probable Assignee:** VERIDIUM IP LTD

**Assignee(s):** (std): STREIT SCOTT ; HOYOS LABS IP LTD ; VERIDIUM IP LTD ; HOYOS LABS CORP

**Assignee(s):** XIAO GEOFFREY ; MATHER JONATHAN FRANCIS ; OTHMAN ASEM ; WOOD THOMAS ; BRAVERMAN JASON ; DUMITRAN IONUT ; HOYO LABS IP LTD ; HOYOS HECTOR

**Inventor(s):** (std): BRAVERMAN JASON ; DUMITRAN LONUT ; GEOFFREY XIAO ; HECTOR HOYOS ; HOYOS HECTOR ; JASON BRAVERMAN ; JONATHAN FRANCIS MATHER ; MATHER JONATHAN FRANCIS ; OTHMAN ASEM ; SCOTT STREIT ; STREIT SCOTT ; WOOD THOMAS ; XIAN GEOFFREY ; XIAO GEOFFREY ; DUMITRAN IONUT

**Agent(s):** AJ PARK; BALDWIN'S INTELLECTUAL PROPERTY; RIDOUT AND MAYBEE LLP; CHATTERJEE ALAKANANDA; VO; HOCKING ADRIAN NIAL; LEASON ELLIS LLP; GABATHULER HENRY ET AL; FELBER JOEL J ET AL

**Designated states:** AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

**Title:** SYSTEMS AND METHODS FOR ENFORCING SECURITY IN MOBILE COMPUTING

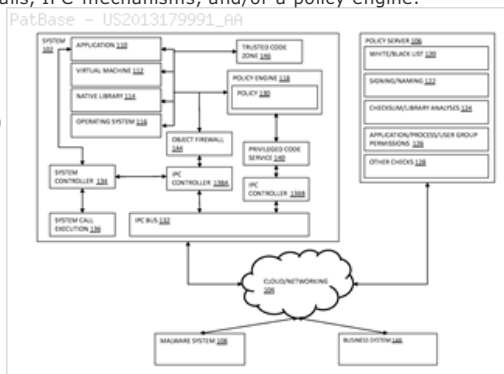
**Abstract:** Methods and systems described herein relate to enhancing security on a device by configuring one or more software functions in a trusted zone of a processor using object firewalls, IPC mechanisms, and/or a policy engine.

**Classifications:**

**International (IPC 8-9):** G01S5/00 G01S5/02 G06F15/16 G06F17/00 G06F17/30 G06F21/12 G06F21/44 G06F21/50 G06F21/51 G06F21/52 G06F21/53 G06F21/54 G06F21/57 G06F21/60 G06F21/62 G06F3/041 G06F3/048 G06F9/44 G06F9/455 G06K9/00 G06K9/66 H04L29/06 H04L9/32 H04W12/02 H04W12/06 H04W12/08 H04W12/12 H04W4/00 H04W4/02 H04W64/00 H4L29/06 (Advanced/Invention); G06F17/30 G06F3/0481 G06K9/68 H04L29/06 (Advanced/Non-invention); G06F (Subclass/Invention)

**CPC:** G06F21/54 H04W12/06 G06F21/6218 H04W4/008 H04L63/0853 H04W4/02 H04L63/10 G06F21/51 G06F21/57 G06F2221/2105 H04W12/12 H04W4/00 H04L63/0846 H04W12/02 G06F21/606 G06F21/52 G06K9/00288 G06K9/00221 G06K9/00295 G06K9/68 G06F9/45504 G06K9/00677 G06F17/30244 G06K9/00671 G06K9/66 G06K2009/00328 G06K2209/27 G01S5/00 G01S5/02 G06F21/44 G06F2221/2111 H04L63/0428 H04L63/107 H04W64/00 H04L63/20 G06F3/041 G06F17/30247 H04L63/102 G06F2221/2101 G06F21/53 G06F21/577 G06F21/71 H04L63/0227 H04W12/08 G06F3/0481 G06F3/017 G06F3/04817 G06F3/04845 G06F3/0485 G06F3/0488 Y02D70/1224 Y02D70/142 Y02D70/144 Y02D70/162 Y02D70/164 Y02D70/166 Y02D70/22 Y02D70/26 H04W4/80 H05K999/99

**US:** 1/1 455/41.2 713/168 726/1 726/29 726/9

**Family:**

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| AU2013207269 AA    | 20130711         | AU20130207269      | 20130107         |
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| EP2801050 A1       | 20141112         | EP20130733798      | 20130107         |
| EP2801050 A4       | 20150603         | EP20130733798      | 20130107         |
| HK1223167 A1       | 20170721         | HK20160111215      | 20160923         |
| JP2015508540 T2    | 20150319         | JP20140551399T     | 20130107         |
| KR20160039234 A    | 20160408         | KR20167004883      | 20140723         |
| KR20160055725 A    | 20160518         | KR20157032010      | 20140408         |
| KR20160145574 A    | 20161220         | KR20167028417      | 20150313         |
| US2013179991 AA    | 20130711         | US20130735885      | 20130107         |
| US2013227641 AA    | 20130829         | US20130858929      | 20130408         |
| US2013268997 AA    | 20131010         | US20130909366      | 20130604         |
| US2013312058 AA    | 20131121         | US20130951689      | 20130726         |
| US2014059347 AA    | 20140227         | US20130010835      | 20130827         |
| US2014157355 AA    | 20140605         | US20130922673      | 20130620         |
| US2014201807 AA    | 20140717         | US20140210382      | 20140313         |
| US2014273857 AA    | 20140918         | US20140210240      | 20140313         |
| US2014282857 AA    | 20140918         | US20140210376      | 20140313         |
| US2014282992 AA    | 20140918         | US20140209950      | 20140313         |
| US2014283136 AA    | 20140918         | US20140210397      | 20140313         |
| US9330301 BA       | 20160503         | US20140582948      | 20141224         |
| US9336435 BA       | 20160510         | US20140582946      | 20141224         |
| US9363670 BB       | 20160607         | US20130010835      | 20130827         |
| US9578445 BB       | 20170221         | US20140210376      | 20140313         |
| US9609020 BB       | 20170328         | US20130858929      | 20130408         |
| US9712530 BB       | 20170718         | US20130735885      | 20130107         |
| US9773107 BB       | 20170926         | US20140210382      | 20140313         |
| US9787681 BB       | 20171010         | US20130909366      | 20130604         |
| WO13103989 A1      | 20130711         | WO2013US20575      | 20130107         |
| WO14168954 A1      | 20141016         | WO2014US33344      | 20140408         |
| WO15013410 A2      | 20150129         | WO2014US47826      | 20140723         |
| WO15013410 A3      | 20150528         | WO2014US47826      | 20140723         |
| WO15138931 A1      | 20150917         | WO2015US20492      | 20150313         |

**Priority:**

|                |          |                |          |                |          |
|----------------|----------|----------------|----------|----------------|----------|
| US20120583605P | 20120106 | US20120583610P | 20120106 | US20120584284P | 20120108 |
| US20120621865P | 20120409 | US20120655109P | 20120604 | US20120662189P | 20120620 |
| US20120675927P | 20120726 | US20120675975P | 20120726 | US20120693427P | 20120827 |
| US20120729259P | 20121121 | US20120731462P | 20121129 | US20130735885  | 20130107 |
| WO2013US20575  | 20130107 | US20130759816P | 20130201 | US20130780408P | 20130313 |
| US20130779931P | 20130313 | US20130781252P | 20130314 | US20130785109P | 20130314 |
| US20130784109P | 20130314 | US20130790728P | 20130315 | US20130858929  | 20130408 |
| US20130909366  | 20130604 | US20130922673  | 20130620 | US20130951689  | 20130726 |
| US20130010835  | 20130827 | US20130085832  | 20131121 | US20140210382  | 20140313 |
| US20140210397  | 20140313 | US20140210240  | 20140313 | US20140210376  | 20140313 |
| US20140209950  | 20140313 | WO2014US33344  | 20140408 | WO2014US47826  | 20140723 |
| US20140582948  | 20141224 | US20140582946  | 20141224 | WO2015US20492  | 20150313 |

**Probable Assignee:** OPTIO LABS INC

**Assignee(s):** (std): CLANCY III THOMAS CHARLES ; CLANCY THOMAS CHARLES III ; WHITE CHRISTOPHER JULES ; OZOG MEDIA LLC ; OZOG JESSE ; OPTIO LABS INC ; OPTIO LABS LLC

**Assignee(s):** OPTIO LABS LLC SUITE 3201 - 33 ARCH STREET BOSTON MA 02110 US ; THOMPSON CHRISTOPHER MICHAEL ; DOUGHERTY BRIAN ; CLANCY THOMAS CHARLES

**Inventor(s):** (std): CLANCY III THOMAS CHARLES ; CLANCY THOMAS CHARLES ; CLANCY THOMAS CHARLES III ; HAMRICK DAVID ALEXANDER ; HANLIN ROBERT AUSTIN ; OZOG JESSE ; SHARPE GRAYSON GATES ; THOMPSON CHRISTOPHER MICHAEL ; WHITE CHRISTOPHER JULES ; DOUGHERTY BRIAN ; ZIENKIEWICZ KRZYSZTOF KAMIL

**Inventor(s):** DOUGHERTY BRIANUS ; WHITE CHRISTOPHER JULESUS ; CLANCY THOMAS CHARLESUS

**Agent(s):** SPRUSON AND FERGUSON; GOWLING LAFLEUR HENDERSON LLP; GOWLING WLG CANADA LLP; LAWRENCE JOHN; NISHIJIMA TAKAKI; OHTSUKA FUMIAKI; KUMAKURA YOSHIO; SUDA HIROYUKI; KONDO NAOKI; UESUGI HIROSHI; PATRICK E; CALDWELL FIRM LLC; WILMER CUTLER PICKERING HALE AND DORR LLP; MITCHELL KAHLIL A; STEINBERG DONALD R ET AL; DICHARA PETER M ET AL

**Designated states:** AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

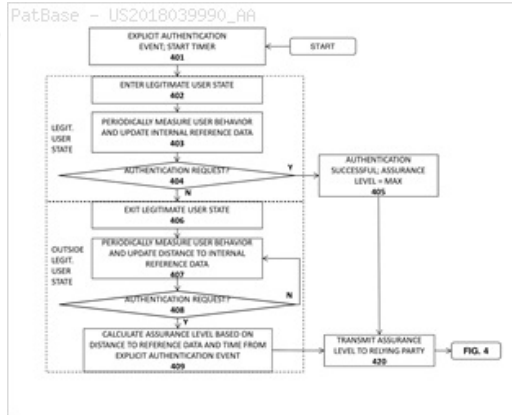
Title: **AUTHENTICATION** TECHNIQUES INCLUDING SPEECH AND/OR LIP MOVEMENT ANALYSIS

**Abstract:** A system, apparatus, method, and machine readable medium are described for performing eye tracking during authentication. For example, one embodiment of a method comprises: receiving a request to authenticate a user; presenting one or more screen layouts to the user; capturing a sequence of images which include the user's eyes as the one or more screen layouts are displayed; and (a) performing eye movement detection across the sequence of images to identify a correlation between motion of the user's eyes as the one or more screen layouts are presented and an expected motion of the user's eyes as the one or more screen layouts are presented and/or (b) measuring the eye's pupil size to identify a correlation between the effective light intensity of the screen and its effect on the user's eye pupil size; capturing audio of the user's voice; and performing voice recognition techniques to determine a correlation between the captured audio of the user's voice and one or more voice prints.

**Classifications:**

**International (IPC 8-9):** G06F21/32 G06F21/45 G06F21/46 G06K9/00 G06Q20/40 G10L15/25 G10L15/26 G10L17/04 G10L17/06 G10L17/18 G10L17/24 H04L29/06 H04L9/32 (Advanced/Invention)

**CPC:** G06Q20/40145 H04L63/0861 G06F21/32 G10L17/24 G10L17/06 G10L17/04 G10L15/25 G06K9/00261 G06K9/00604 H04L2463/102 G06F21/46 G10L15/26 H04L9/3226 G06F21/45 G06K9/0004 G06K9/00597 H04L63/061 H04L63/0442 H04L63/0435 G06K9/00577 G06K9/00892 H04L63/126 H04L2463/082 G06K9/00 G10L17/18



**Family:**

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| KR20180016232 A    | 20180214         | KR20160164456      | 20161205         |
| KR20180016235 A    | 20180214         | KR20160170660      | 20161214         |
| US2018039990 AA    | 20180208         | US20160229233      | 20160805         |
| US2018041503 AA    | 20180208         | US20160229254      | 20160805         |
| WO18027148 A1      | 20180208         | WO2017US45534      | 20170804         |

**Priority:**

US20160229233 20160805      US20160229254 20160805      KR20160164456 20161205  
KR20160170660 20161214

**Probable Assignee:** NOK NOK LABS INC

**Assignee(s):** (std): NOK NOK LABS INC

**Assignee(s):** VENTURE LENDING AND LEASING VII INC ; VENTURE LENDING AND LEASING VIII INC

**Inventor(s):** (std): LINDEMANN ROLF

**Agent(s):** WEBSTER THOMAS C

**Designated states:** AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DJ DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JO JP KE KG KH KM KN KP KR KW KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

**Title:** FACIAL FEATURE DETECTION

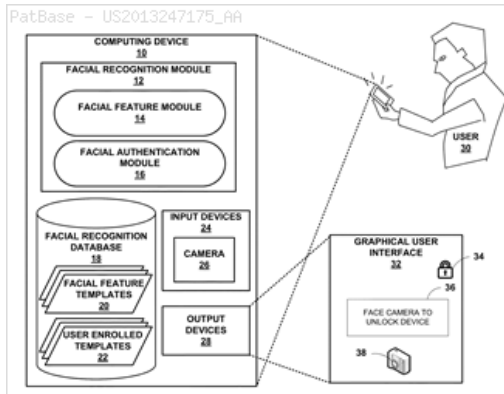
**Abstract:** An example method includes capturing, by a camera of a computing device, an image including at least a face of a user, calculating a face template of the face of the user in the image, and analyzing the face template to determine whether the face includes at least one of a removable facial feature that decreases a level of distinctiveness between two faces and a non-removable facial feature that decreases a level of distinctiveness between two faces. When the face includes the removable facial feature, the method further includes outputting a notification for the user to remove the removable facial feature. When the face includes the non-removable facial feature, the method further includes adjusting a first similarity score threshold to a second similarity score threshold.

**Classifications:**

**International (IPC 8-9):** G06F21/32 G06K9/00 G06K9/46 G06K9/62 G06T7/00 (Advanced/Invention)

**CPC:** G06F21/32 G06K9/00281 G06K9/6256 G06K9/00221 G06K9/6217

**US:** 1/1 382/115 382/118 726/19

**Family:**

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| AU2013201778 BA    | 20130905         | AU20130201778      | 20130315         |
| CN103324909 A      | 20130925         | CN201310084102     | 20130315         |
| CN103324909 B      | 20150429         | CN201310084102     | 20130315         |
| DE102013102399 A1  | 20130919         | DE201310102399     | 20130311         |
| GB201304775 A0     | 20130501         | GB20130004775      | 20130315         |
| GB2500321 A1       | 20130918         | GB20130004775      | 20130315         |
| GB2500321 B2       | 20140326         | GB20130004775      | 20130315         |
| KR101326221 B1     | 20131111         | KR20130027801      | 20130315         |
| KR20130105527 A    | 20130925         | KR20130027801      | 20130315         |
| US2013247175 AA    | 20130919         | US20130736760      | 20130108         |
| US8515139 BA       | 20130820         | US20120421668      | 20120315         |
| US9177130 BB       | 20151103         | US20130736760      | 20130108         |

**Priority:**

US20120421668 20120315 US20130736760 20130108

**Probable Assignee:** GOOGLE INC

**Assignee(s):** (std): GOOGLE INC ; NECHYBA MICHAEL CHRISTIAN ; SIPE MICHAEL ANDREW

**Assignee(s):** GOOGLE LLC

**Inventor(s):** (std): NECHYBA MICHAEL CHRISTIAN ; SIPE MICHAEL ANDREW

**Inventor(s):** MICHAEL ANDREW SIPE ; MICHAEL CHRISTIAN NECHYBA

**Agent(s):** PHILLIPS ORMONDE FITZPATRICK; SPRUSON AND FERGUSON; SHUMAKER AND SIEFFERT PA

Title: **FACIAL RECOGNITION AUTHENTICATION** SYSTEM INCLUDING PATH PARAMETERS

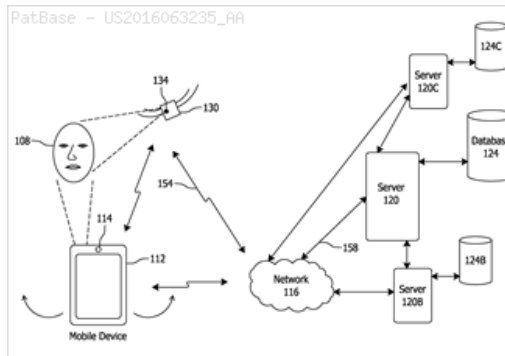
**Abstract:** Systems and methods for enrolling and **authenticating** a user in an **authentication** system via a user's camera of camera equipped mobile device include capturing and storing enrollment biometric information from at least one first image of the user taken via the camera of the mobile device, capturing **authentication** biometric information from at least one second image of the user, capturing, during imaging of the at least one second image, path parameters via at least one movement detecting sensor indicating an **authentication** movement of the mobile device, comparing the **authentication** biometric information to the stored enrollment biometric information, and comparing the **authentication** movement of the mobile device to an expected movement of the mobile device to determine whether the **authentication** movement sufficiently corresponds to the expected movement.

**Classifications:**

**International (IPC 8-9):** G06F21/31 G06F21/32 G06F21/34 G06F21/44 G06K9/00 G06K9/22 G06K9/62 G06Q20/32 G06Q20/40 G06Q40/00 G06T7/00 H04L9/32 H04N7/14 H04W12/06 (Advanced/Invention); H04N5/30 (Advanced/Non-invention)

**CPC:** G06F21/32 G06F21/34 G06K9/00221 H04L9/3231 G06K9/00335 G06K9/00892 H04W88/02 G06K9/00255 G06K9/00912 G06K9/00926 G06K9/22 G06Q20/3276 G06Q20/40145 H04L63/0861 H04W12/06 G06K9/00288

**US:** 726/6



**Family:**

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| AU2015218542 AA    | 20160317         | AU20150218542      | 20150828         |
| CA2902093 AA       | 20160228         | CA20152902093      | 20150827         |
| CN105389491 A      | 20160309         | CN201510544125     | 20150828         |
| EP2993619 A1       | 20160309         | EP20150182980      | 20150828         |
| IN03301MU2015 A    | 20160826         | IN2015MU03301      | 20150828         |
| JP2016051482 A2    | 20160411         | JP20150169065      | 20150828         |
| KR20160026791 A    | 20160309         | KR20150121833      | 20150828         |
| KR20160026791 A9   | 20160513         | KR20150121833      | 20150828         |
| US2016063235 AA    | 20160303         | US20150839505      | 20150828         |
| US9953149 BB       | 20180424         | US20150839505      | 20150828         |

**Priority:**

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|-------------------------|-------------------------|-------------------------|
| US20140043224P 20140828 | US20140054847P 20140924 | US20140064415P 20141015 |
| US20140085963P 20141201 | US20150101317P 20150108 | US20150139558P 20150327 |
| US20150188584P 20150703 | KR20150121833 20150828  | US20150839505 20150828  |

**Probable Assignee:** FACETEC INC

**Assignee(s):** (std): FACETEC INC ; KEVIN ALAN TUSSY ; TUSSY KEVIN ; TUSSY KEVIN ALAN

**Assignee(s):** TUSSY KEVIN ALAN MR

**Inventor(s):** (std): KEVIN ALAN TUSSY ; TUSSY KEVIN ALAN

**Agent(s):** DAVIES COLLISON CAVE; DAVIES COLLISON CAVE PTY LTD; OYEN WIGGS GREEN AND MUTALA LLP; SCRIPT IP LTD; FUKAMI PATENT OFFICE PC; WEIDE AND MILLER LTD

**Designated states:** AL AT BA BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC ME MK MT NL NO PL PT RO RS SE SI SK SM TR

**Title:** SYSTEM AND METHOD FOR PROVIDING SECURE ACCESS TO AN ELECTRONIC DEVICE USING FACIAL BIOMETRICS

**Abstract:** A facial biometric recognition system and method (100) for providing security for an electronic device (101) includes a digital camera (105) having a field of view for providing facial biometric images at a predetermined interval from a user of the electronic device (101). A processor (109) is associated with the electronic device (101) for comparing the facial biometric images to biometric image data stored in a database (107). The facial biometric images are continuously compared (111) to those stored in the database (107) or to facial image tracking (113) for providing substantially continuous authentication when the user physically moves about the camera's field of view. The invention may be used with devices such as a personal computer (PC), mobile telephone, personal digital assistant (PDA) or gaming device and provides an efficient means by which to secure information on the device without the need for complex biometric security devices.

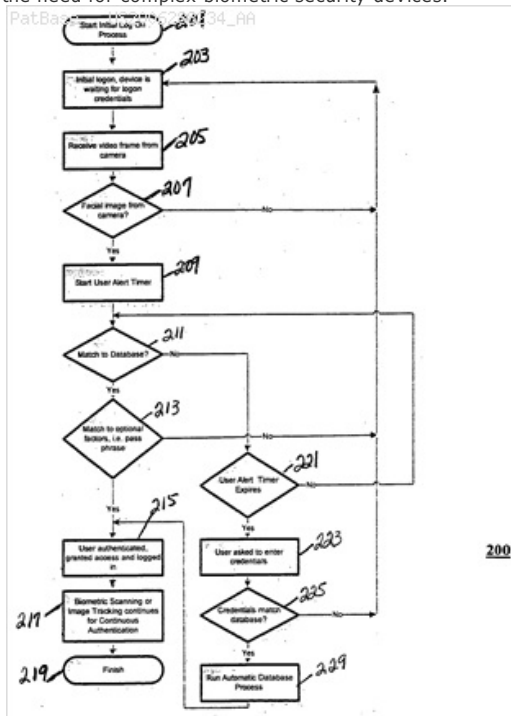
**Classifications:**

**International (IPC 8-9):** G06F21/00 G06F21/32 G06F21/36 G06F21/40 G06K9/00 G06K9/62 G06T7/00 G07C9/00 H04K1/00 H04L29/06 H04N5/222 H04N5/228 H04N7/18 H04W12/06 H04W64/00 (Advanced/Invention); G06F7/04 G06K9/00 H04L29/06 H04W88/02 (Advanced/Non-invention); H04K1/00 H04N5/222 H04N5/228 (Core/Invention); G06F7/02 G06K9/00 (Core/Non-invention)

**CPC:** G06K9/00255 G06K9/0027 G06F21/36 G06F21/32 H04N7/18 G06F21/40 G06T7/0012 G07C9/00158 H04L63/0861 H04W12/06 H04W88/02 G06F2221/2139 H04W64/003 H04L2463/082 H04L63/083 H04L63/107 G06K9/00295 G06K9/00892

**European:** G06F21/32 G06K9/00F1S G06K9/00F3 G06K9/20D G06K9/62B6 G07C9/00C2D

**US:** 340/5.83 340/5.830S 348/207.1 348/222.1 348/222.100P 348/370 348/370S 348/371 348/77 348/E5.022 348/E5.031 348/E50.22S 348/E50.31S 382/118 382/118S 713/186 713/186P 726/19 726/7



**Family:**

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| US2006288234 AA    | 20061221         | US20050154879      | 20050616         |
| US2009251560 AA    | 20091008         | US20090486980      | 20090618         |
| US2013114865 AA    | 20130509         | US20120722753      | 20121220         |
| US2014059673 AA    | 20140227         | US20130840635      | 20130315         |
| US2014123275 AA    | 20140501         | US20140150422      | 20140108         |
| US2017063852 AA    | 20170302         | US20160347462      | 20161109         |
| US8189096 BB       | 20120529         | US20090486980      | 20090618         |
| US8370639 BB       | 20130205         | US20050154879      | 20050616         |
| US8909938 BB       | 20141209         | US20120722753      | 20121220         |
| US9519769 BB       | 20161213         | US20140150422      | 20140108         |
| US9594894 BB       | 20170314         | US20130840635      | 20130315         |
| WO07055745 A2      | 20070518         | WO2006US23275      | 20060615         |
| WO07055745 A3      | 20090423         | WO2006US23275      | 20060615         |

**Priority:**

|                |          |               |          |                |          |
|----------------|----------|---------------|----------|----------------|----------|
| US20050154879  | 20050616 | US20090486980 | 20090618 | US20120584492P | 20120109 |
| US20120692999P | 20120824 | US20120722753 | 20121220 | US20130737501  | 20130109 |
| US20130840635  | 20130315 | US20140150422 | 20140108 | US20160347462  | 20161109 |

**Probable Assignee:** SENSIBLE VISION INC

**Assignee(s):** (std): AZAR CYRUS ; BROSTOFF GEORGE ; SENSIBLE VISION INC

**Assignee(s):** SENSIBLE VISION LLC

**Inventor(s):** (std): AZAR CYRUS ; BROSTOFF GEORGE

**Agent(s):** MILLER JOHNSON SNELL CUMMISKEY PLC; PRICE HENEVELD COOPER DEWITT AND LITTON LLP; PRICE HENEVELD LLP; BARNES AND THORNBURG LLP; FRANK M; SCUTCH FRANK M III

**Designated states:** AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD MG MK ML MN MR MW MX MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

**Title:** METHOD AND SYSTEM FOR REMOTELY MONITORING INTOXICATION

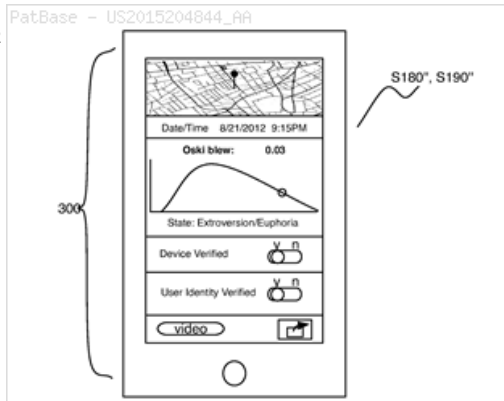
**Abstract:** A method and system for remotely monitoring intoxication of a user, comprising: prompting the user to **provide** a breath sample at a time point; at a breath sample acquisition device, generating a breath sample signal upon reception of the breath sample from the user, and broadcasting a unique signature proximal in time to the time point; using a sensor of a mobile computing device, generating an **authentication** signal derived from detection of the unique signature; at a processing system in communication with the mobile computing device and the sample acquisition device, receiving the breath sample signal and the **authentication** signal; generating a verification assessment that validates provision of the breath sample by the user; determining a value of an intoxication metric for the user based upon the breath sample signal; and transforming the verification assessment and the value of the intoxication metric into an analysis of intoxication of the user.

**Classifications:**

**International (IPC 8-9):** A61B5/00 A61B5/08 B60W40/08 B60W50/12 G01N33/497 G06K9/00 H04N7/18 (Advanced/Invention)

**CPC:** G06K9/00288 B60W40/08 A61B5/4845 A61B5/082 B60W50/12 B60W2040/0836 G01N33/4972 B60K28/06 H04N21/2146 G06K9/00845 G06K9/00892 G06K9/00087 G06K9/00335 G06K9/0055 G06K9/00885 G06K2009/00939

**US:** 1/1 701/45 73/23.3

**Family:**

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| US2015204844 AA    | 20150723         | US20150602919      | 20150122         |
| US2016103117 AA    | 20160414         | US20150973227      | 20151217         |
| US2016318521 AA    | 20161103         | US20160205876      | 20160708         |
| US2018164284 AA    | 20180614         | US20180882196      | 20180129         |
| US2018164285 AA    | 20180614         | US20180882825      | 20180129         |
| US9250228 BB       | 20160202         | US20150602919      | 20150122         |
| US9915644 BB       | 20180313         | US20150973227      | 20151217         |

**Priority:**

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|-------------------------|------------------------|-------------------------|
| US20140930062P 20140122 | US20150602919 20150122 | US20150189871P 20150708 |
| US20150219306P 20150916 | US20150973227 20151217 | US20160205876 20160708  |
| US20180882196 20180129  | US20180882825 20180129 |                         |

**Probable Assignee:** KHN SOLUTIONS INC

**Assignee(s):** (std): KHN SOLUTIONS INC

**Inventor(s):** (std): SAUL ZACHARY MICHAEL ; RETTUS STACEY ILENE ; NOTHACKER KEITH HARRY ; BASARAN PAULINE ANNE

**Agent(s):** JEFFREY; IVAN

**Title:** INTERACTIVE VEHICLE WINDOW DISPLAY SYSTEM WITH USER IDENTIFICATION AND IMAGE RECORDING

**Abstract:** A system and method for a vehicle includes a user identification subsystem operable to detect an individual proximate to the vehicle and a display subsystem operable to generate output for display on a vehicle window in response to detection the. The system and method distinguish between **authenticated** and non-**authenticated** vehicle users and, in the event of a non-**authenticated** user, display the image on the display along with an optional printed and/or audible warning. If both an **authenticated** and non-**authenticated** user are identified, the system displays both images along with an optional warning. The images along with the vehicle coordinates and date and time information can be transmitted remotely from the vehicle to a pre-defined contact list. The system and method allow for a camera mode to enable an **authenticated** user to use the image sensor on the vehicle to take a photograph or video.

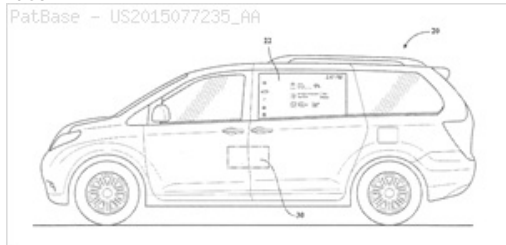
**Classifications:**

**International (IPC 8-9):** B60H1/00 B60K35/00 B60K37/00 B60K37/06 B60N2/00 B60Q1/00 B60Q1/26 B60Q1/50 B60R1/00 B60R11/02 B60R11/04 B60R16/02 B60R16/023 B60R16/037 B60R25/104 B60R25/20 B60R25/24 B60W50/08 B60W50/10 B60W50/14 G01C21/36 G02B27/01 G06F21/31 G06F21/32 G06F21/34 G06F21/36 G06F3/01 G06F3/041 G06F3/048 G06F3/0483 G06F3/0484 G06K9/00 G07C9/00 G08B21/00 G08G1/0967 G08G5/00 G09G5/00 H04L29/08 H04M1/00 H04M11/00 H04N5/225 H04N5/915 H04N7/18 H04Q9/00 H04W4/00 H04W4/02 H04W4/04 (Advanced/Invention);

G06F3/01 G06K9/00 G08G1/0962 (Advanced/Non-invention)

**CPC:** G06F3/0483 G06F3/0484 B60R1/00 B60N2/002 B60R2300/8006 H04L67/306 H04L67/12 H04L67/18 B60R2300/8013 B60R2300/8073 B60H1/00642 G06F3/0484 B60Q1/268 B60Q1/503 G06F21/31 G06F21/32 G06F21/34 G06F21/36 B60K2350/903 B60R25/104 B60W50/08 B60W50/14 B60W2050/146 H04W4/046 B60H1/00657 B60H1/00742 B60R25/20 G06F2221/2111 B60K37/00 G01C21/365 G01C21/3688 G01C21/3697 G02B27/01 G02B2027/014 G02B2027/0187 G06F3/017 G06K9/00221 G07C9/00031 B60K35/00 B60K2350/1052 B60K2350/2052 B60K2350/355 B60K2350/924 G08G1/0962 G07C9/00698 H04L63/0853 H04W12/06 H04W12/08 G06F3/005 G06F3/0416 G06F3/0488 B60Q2400/50 H04W4/80 B60K37/06

**US:** 1/1 340/426.23 340/439 340/901 340/905 345/156 345/7 348/148 701/1 701/36 709/204 715/771 726/17



**Family:**

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| CN105556246 A      | 20160504         | CN201480050903     | 20140916         |
| CN105556246 B      | 20180427         | CN201480050903     | 20140916         |
| DE112015003882 T5  | 20170601         | DE201511003882T    | 20150825         |
| EP3047236 A1       | 20160727         | EP20140780691      | 20140916         |
| JP2016022951 A2    | 20160208         | JP20150142051      | 20150716         |
| JP2016539346 T2    | 20161215         | JP20160542865T     | 20140916         |
| JP2017533609 T2    | 20171109         | JP20170511229T     | 20150825         |
| JP6337199 B2       | 20180606         | JP20170511229T     | 20150825         |
| KR101854633 B1     | 20180504         | KR20177008192      | 20150825         |
| KR20160057458 A    | 20160523         | KR20167009954      | 20140916         |
| KR20170044731 A    | 20170425         | KR20177008192      | 20150825         |
| US2015077235 AA    | 20150319         | US20140463791      | 20140820         |
| US2015077237 AA    | 20150319         | US20140461422      | 20140817         |
| US2015077272 AA    | 20150319         | US20140461427      | 20140817         |
| US2015077327 AA    | 20150319         | US20140175862      | 20140207         |
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| US2015180999 AA    | 20150625         | US20150639695      | 20150305         |
| US9340155 BB       | 20160517         | US20140175862      | 20140207         |
| US9387824 BB       | 20160712         | US20140463791      | 20140820         |
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| US9807196 BB       | 20171031         | US20150639695      | 20150305         |
| US9902266 BB       | 20180227         | US20140461427      | 20140817         |
| WO15042005 A1      | 20150326         | WO2014US55752      | 20140916         |
| WO16032990 A1      | 20160303         | WO2015US46626      | 20150825         |

**Priority:**

|                         |                        |                        |
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| US20130878898P 20130917 | US20140175862 20140207 | US20140180563 20140214 |
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| WO2014US55752 20140916  | US20150639695 20150305 | JP20150142051 20150716 |
| WO2015US46626 20150825  |                        |                        |

**Probable Assignee:** TOYOTA MOTOR SALES USA INC

**Assignee(s):** (std): TOYOTA ENG AND MFG NORTH AMERICA ; TOYOTA MOTOR ENG AND MFG NORTH AMERICA INC ; TOYOTA MOTOR ENGINEERING AND MFG NORTH AMERICA INC ; TOYOTA MOTOR SALES U S A ; TOYOTA MOTOR SALES USA INC

**Assignee(s):** TOYOTA MOTOR SALES USA

**Inventor(s):** (std): CHOU WARREN JING PO ; EBE KAZUTOSHI ; GUNARATNE PUJITHA ; JASON A SCHULZ ; JIANG YIFAN ; PISZ JAMES T ; SAYER TINA BRUNETTI ; SCHULZ JASON A

**Agent(s):** D YOUNG AND CO LLP; AOKI ATSUSHI; TSURUTA JUNICHI; SHIMADA TETSURO; CHRISTOPHER G; DARROW MUSTAFA PC; DARROW CHRISTOPHER G ET AL

**Designated states:** AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

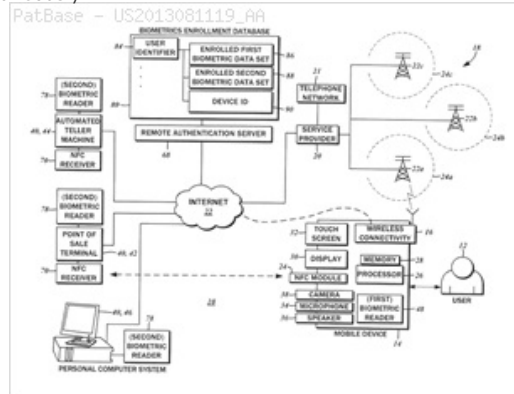


**Title:** MOBILE DEVICE-BASED **AUTHENTICATION**

**Abstract:** Mobile device-based **authentication** is disclosed. A first biometric input corresponding to a first biometric feature of the user is captured on the mobile device. A first set of biometric data is derived from the captured first biometric input. The first set of biometric data is transmitted to a remote **authentication** server. Thereafter, a secondary **authentication** instruction is transmitted to the site resource in response. Access to the site resource is permitted based upon a validation of the first set of biometric data, and a second biometric input that is captured on the site resource in response to the secondary **authentication** instruction received thereon. The first set of biometric data and the second set of biometric data are validated by remote **authentication** server substantially contemporaneously.

**Classifications:**

**International (IPC 8-9):** G06F15/16 G06F17/30 G06F21/00 G06F21/20 G06F21/32 G06F3/16 G06F7/04 G06K9/00 H04L29/06 H04N5/33 H04W12/06 H04W12/08 (Advanced/Invention); G06F21/35 G06Q20/40 (Advanced/Non-invention)  
**CPC:** G06Q20/206 G06F21/32 H04L63/0861 H04L2463/082 G06F21/35 H04L63/0853 H04L63/18 G06Q20/3224 G06Q20/40145 H04W12/08 H04L63/10 H04N5/33 G06F3/16 G06K9/00013 G06K9/00067 G06F2221/2111 H04W12/06  
**US:** 713/182 713/186 726/2 726/6 726/7

**Family:**

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| CN103907328 A      | 20140702         | CN201280047388     | 20120813         |
| CN103907328 B      | 20170822         | CN201280047388     | 20120813         |
| EP2761427 A1       | 20140806         | EP20120834624      | 20120813         |
| EP2761427 A4       | 20150617         | EP20120834624      | 20120813         |
| US2013081119 AA    | 20130328         | US20110246676      | 20110927         |
| US2013254862 AA    | 20130926         | US20130897000      | 20130517         |
| US2014201537 AA    | 20140717         | US20140213684      | 20140314         |
| US2015113616 AA    | 20150423         | US20130057663      | 20131018         |
| US2017180361 AA    | 20170622         | US20170448345      | 20170302         |
| US8473748 BB       | 20130625         | US20110246676      | 20110927         |
| WO13048626 A1      | 20130404         | WO2012US50553      | 20120813         |

**Priority:**

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| US20110246676 20110927 | WO2012US50553 20120813 | US20130897000 20130517 |
| US20130057663 20131018 | US20140213684 20140314 | US20170448345 20170302 |

**Probable Assignee:** SAMPAS GEORGE P**Assignee(s):** (std): SAMPAS GEORGE ; SAMPAS GEORGE P**Inventor(s):** (std): SAMPAS GEORGE ; SAMPAS GEORGE P**Agent(s):** PALLINI GERVASI DIEGO; STETINA BRUNDA GARRED AND BRUCKER

**Designated states:** AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

**Title:** METHODS AND A SYSTEM FOR AUTOMATED **AUTHENTICATION** CONFIDENCE

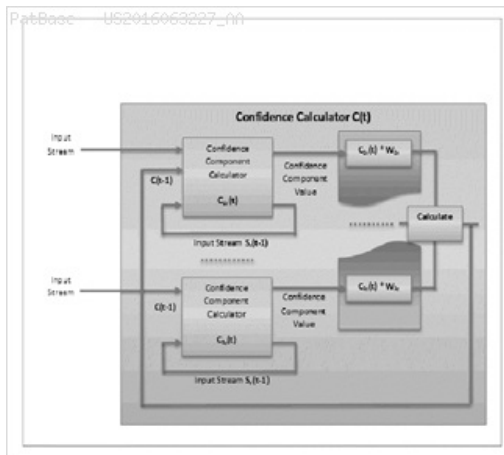
**Abstract:** Input streams are automatically and continuously evaluated in a passive manner from sensors and resources of a device. The streams are weighted and aggregated to produce single confidence values. A current single confidence value is used to passively **authenticate** a user for access to the device or to one or more resources of the device when the user attempts access.

**Classifications:**

**International (IPC 8-9):** G06F21/30 G06F21/31 G06F21/32 G06K9/00 G06K9/46 G06K9/52 G06Q20/20 G06Q20/40 G10L17/00 H04L29/06 H04L9/08 H04L9/32 H04W12/06 (Advanced/Invention); H04L29/08 (Advanced/Non-invention)

**CPC:** G06Q20/206 H04L63/0853 H04L63/102 G06Q20/20 G06Q20/40145 G06Q20/401 G06Q20/208 G06K9/00288 G10L17/005 G06F21/316 G06Q20/40 G06F2221/2111 G06Q20/4016 H04L63/08 H04L67/12 H04W12/06 H05K999/99

**US:** 705/16 705/18 705/44 726/3 726/7



**Family:**

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| US2016063227 AA    | 20160303         | US20150610415      | 20150130         |
| US2016063471 AA    | 20160303         | US20150633731      | 20150227         |
| US2016063492 AA    | 20160303         | US20150633806      | 20150227         |
| US2016063503 AA    | 20160303         | US20150633768      | 20150227         |
| US9754093 BB       | 20170905         | US20150610415      | 20150130         |

**Priority:**

US20140043025P 20140828      US20150610415 20150130      US20150633731 20150227  
 US20150633806 20150227      US20150633768 20150227

**Probable Assignee:** NCR CORP

**Assignee(s):** (std): ANTONAKAKIS STAVROS ; BHOWMICK SUMAN KUMAR ; KOBRES ERICK ; MISHRA RAVI PRAKASH ; MULANI AJAY GORDHANDAS ; NCR CORP

**Inventor(s):** (std): ANTONAKAKIS STAVROS ; BHOWMICK SUMAN KUMAR ; KOBRES ERICK ; MISHRA RAVI PRAKASH ; MULANI AJAY GORDHANDAS

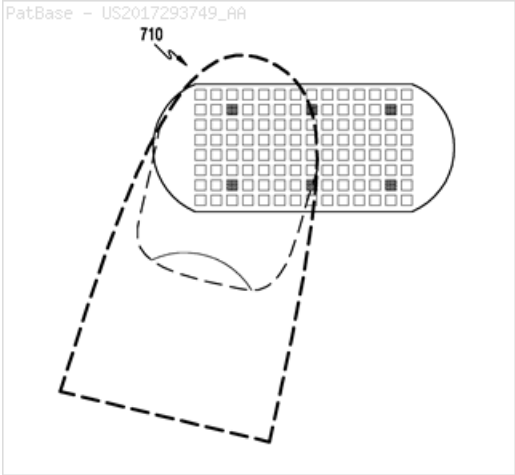
**Agent(s):** SCHWEGMAN LUNDBERG AND WOESSNER PA

Title: **AUTHENTICATION** METHOD AND ELECTRONIC DEVICE USING THE SAME

**Abstract:** An electronic device and an operating method thereof are **provided**. The electronic device includes a first processor, a second processor, a display, and a first sensor. The first processor receives an input through the first sensor while the display is in a deactivated state, and transmits the input to the second processor, when biometric data is detected in the input, and the second processor **authenticates** the biometric data included in the input, and activates the display if the **authentication** succeeds.

**Classifications:**

**International (IPC 8-9):** G06F1/32 G06F21/32 G06F21/84  
G06K9/00 (Advanced/Invention)  
**CPC:** G06F21/32 G06K9/0002 G06F1/3265 G06F1/3296 G06F21/84  
G06K9/2009 G06K9/22



**Family:**

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| KR20170116818 A    | 20171020         | KR20160044921      | 20160412         |
| US2017293749 AA    | 20171012         | US20170461057      | 20170316         |
| WO17179820 A1      | 20171019         | WO2017KR02551      | 20170309         |

**Priority:**

KR20160044921 20160412

**Probable Assignee:** SAMSUNG ELECTRONICS CO LTD

**Assignee(s):** (std): SAMSUNG ELECTRONICS CO LTD

**Assignee(s):** SAMSUNG ELECTRONICS CO

**Inventor(s):** (std): BAEK SEUNGGEOL ; MIN KI HONG ; YOON HEE WOONG ; BAEK SEUNG GEOL

**Agent(s):** KWON HYUK ROK ET AL

**Designated states:** AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DJ DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KH KM KN KP KW KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

**Title:** COMPUTERIZED SYSTEM AND METHOD FOR DETERMINING AUTHENTICITY OF USERS VIA **FACIAL RECOGNITION**

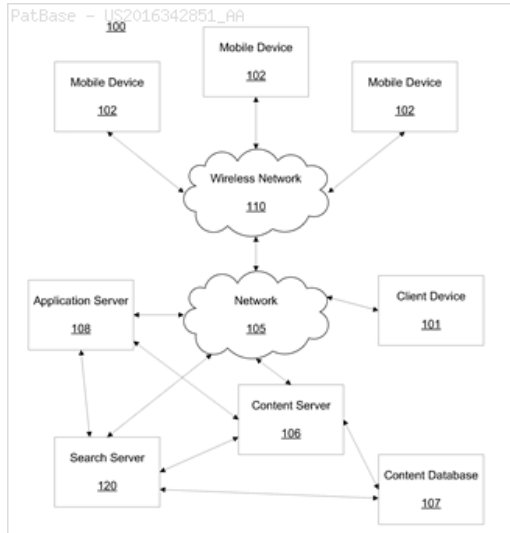
**Abstract:** Disclosed are systems and methods for improving interactions with and between computers in an **authentication** system supported by or configured with **authentication** servers or platforms. The systems interact to identify access and retrieve data across platforms, which data can be used to improve the quality of results data used in processing interactions between or among processors in such systems. The disclosed anti-spoofing systems and methods **provide** improved functionality to **facial recognition** systems by enabling enhanced "spoof" (or attempts to impersonate a user) detection while **authenticating** a user. The disclosed systems and method **provide** additional functionality to existing **facial recognition** systems that enables such systems to actually determine whether the image being captured and/or recorded is that of an actual person, as opposed to a non-human representation.

**Classifications:**

**International (IPC 8-9):** G06K9/00 G06K9/46 (Advanced/Invention)

**CPC:** G06K9/00906 G06K9/00288 G06K9/00892

**US:** 382/118



**Family:**

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| US2016342851 AA    | 20161124         | US20150719654      | 20150522         |

**Priority:**

US20150719654 20150522

**Probable Assignee:** OATH INC

**Assignee(s):** (std): YAHOO INC

**Assignee(s):** OATH INC ; YAHOO HOLDINGS INC

**Inventor(s):** (std): BUTHPITIYA SENAKA WIMAL ; HOLZ CHRISTIAN ; PATEL MITESHKUMAR

Title: **AUTHENTICATION** BASED ON HEARTBEAT DETECTION AND **FACIAL RECOGNITION** IN VIDEO DATA

**Abstract:** Techniques are described for **authenticating** a user to access information through an application executing on a computing device. Multiple **authentication** methods may be used in combination to **authenticate** the user with greater confidence than **authentication provided** by a single method, and to verify that the user is a live person and not an image or video. **Facial recognition** may be used in conjunction with heartbeat detection, via video analysis, to verify the user's identity and confirm that the user is live. **Facial recognition** may include capturing an image of the user's face and comparing certain points on the face with previously gathered information regarding the user. Heartbeat detection may include capturing a video segment of the user, stabilizing the captured video data, applying motion magnification techniques to the stabilized video data, and analyzing the stabilized, magnified video data to determine a presence of the user's heartbeat.

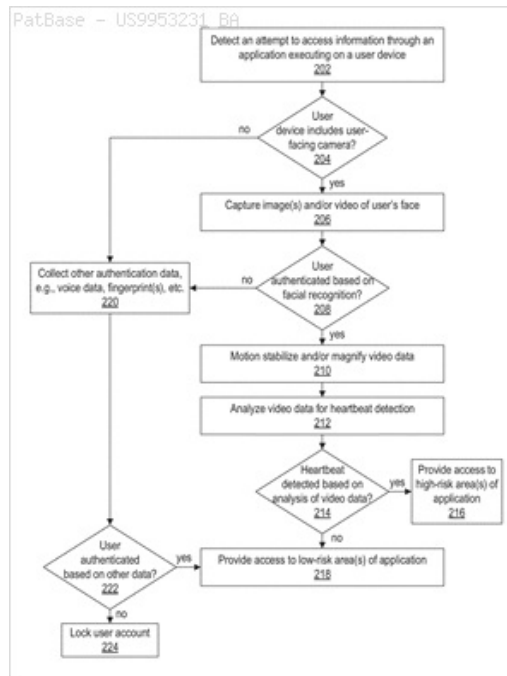
**Classifications:**

**International (IPC 8-9):** G06F21/32 G06K9/00

G10L17/00 (Advanced/Invention)

**CPC:** G06K9/00892 G06F21/32 G06K9/00302 G06K9/00617

G06K9/00711 G10L17/005 G06K2009/00939



**Family:**

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| US9953231 BA       | 20180424         | US20160354529      | 20161117         |

**Priority:**

US20150256220P 20151117 US20160354529 20161117

**Probable Assignee:** UNITED SERVICES AUTOMOBILE ASS USAA

**Assignee(s):** (std): UNITED SERVICES AUTOMOBILE ASS USAA

**Assignee(s):** UNITED SERVICES AUTOMOBILE ASSOCIATION USAA ; UIPCO LLC

**Inventor(s):** (std): BRISCOE STORME SHELTON ; CHAVEZ CARLOS ; COLWELL RUSSELL ; LIU YUESHENG ; MEDINA III REYNALDO ; SRIDARAN NANDHINI

**Agent(s):** FISH AND RICHARDSON PC

**Title:** MULTI-LEVEL **AUTHENTICATION**

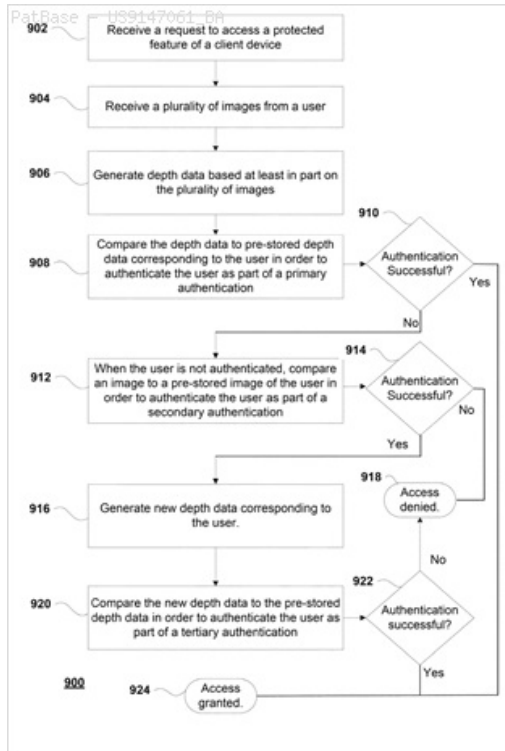
**Abstract:** Aspects of the disclosure relate generally to using a primary and secondary authentication to provide a user with access to protected information or features. To do so, a computing device may generate depth data based on a plurality of images of a user. The computing device may then compare the generated depth data to pre-stored depth data that was generated based on a pre-stored plurality of images. If authentication is successful, the user may be granted access to features of the computing device. If authentication is unsuccessful, then a secondary authentication may be performed. The secondary authentication may compare facial features of a captured image of the user to facial features of a pre-stored image of the user. If authentication is successful, then the primary authentication may be performed again. This second time, the user may be granted access if authentication is successful, or denied access if authentication is unsuccessful.

**Classifications:**

**International (IPC 8-9):** G06F21/32 G06K9/00 G06K9/32 H04L29/06 H04L9/32 (Advanced/Invention)

**CPC:** G06F21/32 G06K9/00261 H04L9/3231 H04L63/0861 G06K9/00208 G06K9/00214 G06K9/00288 G06K9/685 G06F21/31 H04L9/3226

**US:** 1/1

**Family:**

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| US9147061 BA       | 20150929         | US20140290168      | 20140529         |

**Priority:**

US20130907482P 20131122 US20140290168 20140529

**Probable Assignee:** GOOGLE INC

**Assignee(s):** (std): GOOGLE INC

**Assignee(s):** GOOGLE LLC

**Inventor(s):** (std): MCCLENDON BRIAN ; VINCENT LUC

**Agent(s):** LERNER DAVID LITTENBERG KRUMHOLZ AND MENTLIK LLP

#### Search history

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Search 2 and facial recognition (Results 4486)  
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Search 3 and GPS (Results 2158)  
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Search 4 and wireless (Results 2033)  
5:  
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Search 6 and weight (Results 347)  
7:  
Search 7 and (deliver\* or giv\* or provid\* or suppl\* or hand\*) (Results 347)  
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Search 29 and (GPS or ubication or location) and camera\* (Results 534)  
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Search 30 and wireless and server and (interface+ or HMI) (Results 415)

31:

Search 31 and food (Results 154)

32:

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33:

**Title:** SMART WATCH AND FOOD-IMAGING MEMBER FOR MONITORING FOOD CONSUMPTION

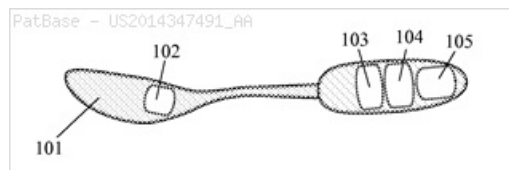
**Abstract:** This invention is a device and system for monitoring a person's food consumption comprising: a wearable sensor that automatically collects data to detect probable eating events; an imaging member that is used by the person to take pictures of food wherein the person is prompted to take pictures of food when an eating event is detected by the wearable sensor; and a data analysis component that analyzes these food pictures to estimate the types and amounts of foods, ingredients, nutrients, and/or calories that are consumed by the person. In an example, the wearable sensor can be part of a smart watch or smart bracelet. In an example, the imaging member can be part of a smart phone. The integrated operation of the wearable sensor and the imaging member disclosed in this invention offers accurate measurement of food consumption with low intrusion into the person's privacy.

**Classifications:**

**International (IPC 8-9):** A41B7/00 A41D27/10 A44C5/00 A44C9/00 A47G21/02 A61B5/00 A61B5/053 A61B5/11 A61B5/145 A61B5/1455 A61B5/1477 A61N1/365 A61N1/372 G01B11/25 G01J3/02 G01J3/28 G01N21/25 G01N21/27 G01N33/02 G06F1/16 G06F17/00 G06F19/00 G06F3/01 G06K9/00 G06K9/22 G06T1/00 G06T7/00 G09B19/00 G09B5/02 H04N7/18 (Advanced/Invention); A61B5/0205 G06F1/16 (Advanced/Non-invention)

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**US:** 1/1 348/158 356/402 356/51 356/72 361/679.03 434/127 600/344 600/407 600/475 600/477 600/547



**Family:**

| Publication number | Publication date | Application number | Application date |
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**Probable Assignee:** MEDIBOTICS LLC

**Assignee(s):** (std): CONNOR ROBERT A ; MEDIBOTICS LLC

**Inventor(s):** (std): CONNOR ROBERT A

**Title:** ENHANCED SYNDICATION

**Abstract:** A variety of tools and techniques are disclosed for managing, viewing, publishing, searching, clustering, and otherwise manipulating data streams. Data streams such as RSS data feeds may be searched, aggregated, and filtered into a processed feed. The processed feed, along with rules used to process the feed may be shared in a number of ways. A data feed management system may provide an integrated user interface through which a user may manage feeds, including searching for new feeds, managing and filtering current feeds, modifying a user profile, and sharing feeds and feed configuration data with other users. A server may provide a complementary search engine to locate new feeds and to store and/or index items or posts in known feeds. Together, these technologies may provide a richly-functioned feed management system and greater ease of use for individuals in managing large numbers of feeds and large amounts of data in feeds. Additional functional layers may provide for authentication, security, and privacy, metadata creation and management, and social networking features. Using the management tools and additional functionality, a syndicated data stream system may provide a platform for a wide array of useful consumer and business applications.

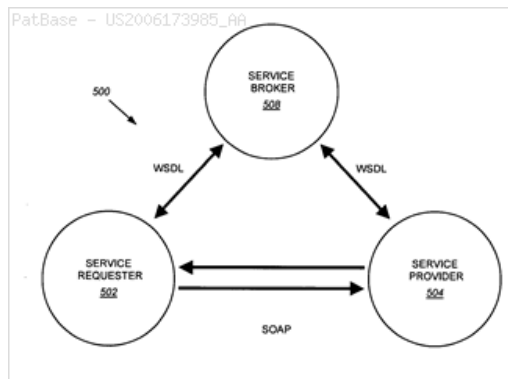
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**European:** F27B17/00B1 F27B5/04 F27D99/00A4 G06F17/30S7 G06F17/30S7A G06F17/30W1F G06F17/30W5 G06F17/30W7 G06F19/32C G06F19/32E G06F19/32E1 G06F19/32G G06F19/32H G06F19/34J G06F19/34P G06F21/31 G06F21/60B G06F21/62B5 G06F21/62B5A G06F21/62B5B G06F8/36 G06Q10/00 G06Q10/10 G06Q10/109 G06Q10/10T G06Q30/02 G06Q30/0201 G06Q30/0264 G06Q30/0269 G06Q30/0273 G06Q30/0277 G06Q30/0603 G06Q30/06C G06Q40/04 G06Q50/00 G06Q50/16 G06Q50/22 G06Q50/24 H04L12/24F3 H04L12/24S2A H04L12/66 H04L29/08N H04L29/08N1 H04L29/08N11 H04L29/08N25 H04L29/08N27 H04L29/08N27F H04L29/08N27I H04L29/08N9R H04L29/14 H04L41/22 H04L41/50G1 H04L63/08 H04L63/08D H04L63/20 H04L9/32 S06F19/32C S06F19/32E S06F19/32G S06F19/34L S06F221/2101 S06F221/2115 S06F221/2119 S06F221/2145 T04L12/18P T04L12/24F3 T04L29/06J T04L29/08N1 T04L41/22 T04L63/04B T04L63/08D

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**Family:**

| Publication number | Publication date | Application number | Application date |
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| EP1851649 A2       | 20071107         | EP20060734162      | 20060201         |
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**Probable Assignee:** NEWSILIKE MEDIA GROUP INC

**Assignee(s):** (std): APPLIED MATERIALS INC ; COOK ROBERT C ; LABOVITCH BELA A ; MOORE JAMES ; MOORE JAMES F ;  
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JOSEPH ; COOK ROBERT C

**Inventor(s):** LABOVITCH BELA ; COOK ROBERT

**Agent(s):** SMART AND BIGGAR; PETERREINS FRANK; STRATEGIC PATENTS PC; PATTERSON AND SHERIDAN LLP;  
FISH AND RICHARDSON PC; GTC LAW GROUP LLP AND AFFILIATES; CHARLES; JOHN A; NORTRUP JOHN

**Designated states:** AE AG AL AM AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE  
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**Title:** FLEXIBLE LOYALTY POINTS PROGRAMS

**Abstract:** A disclosed a loyalty program transaction network provides a plurality of loyalty program instrument generation sites that award loyalty points. The loyalty points may be stored on loyalty point instruments such as printed tickets, magnetic-stripped cards, room keys, portable wireless devices and smart cards. The loyalty program instruments may be issued to a patron of a gaming establishment without receiving identification information from the patron. At a loyalty program validation site, the loyalty program instruments may be used to redeem loyalty points for goods and services or the loyalty program instruments may be used to add loyalty points to an existing loyalty program account. Loyalty points may be earned by the patron during a number of activities such as playing a gaming machine, playing a game of chance, a food purchase, an entertainment purchase, a transportation purchase, a lodging purchase, a merchandise purchase and a service purchase.

**Classifications:**

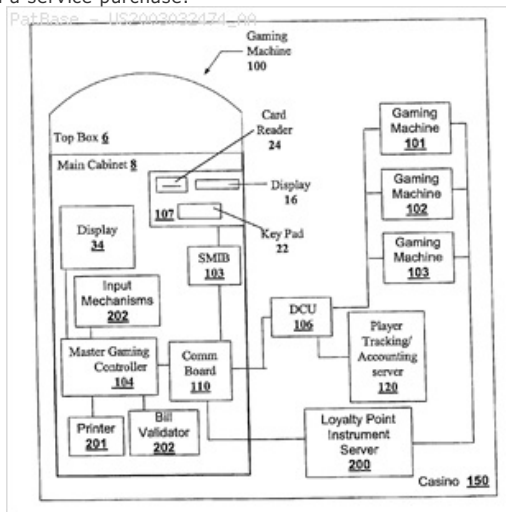
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G07F7/02 (Advanced/Invention);  
A61M31/00 (Advanced/Non-invention);  
A61F2/04 A61F2/06 A61F2/82 A61K31/4353 A61K31/65 A61K38/43  
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A61M31/00 (Core/Non-invention)

**International (IPC 1-7):** A63F13/00 G06F17/00 G06F17/60 G06F19/00  
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**US:** 463/16 463/25 463/25P 463/25S 463/29 463/29P 463/40 463/41 463/42 463/42P 463/42S 463/43 463/43S 463/47 463/47S  
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**Family:**

| Publication number | Publication date | Application number | Application date |
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#### Priority:

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**Assignee(s):** INT GAME TECHNOLOGY ; IGT ; INTERNATIONAL GAME TECHNOLOGY ; NARAYANAN PALLASSANA VENKETESSWARAN

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**Designated states:** AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

**Title:** PERSONALIZED EXPERIENCE SCORES BASED ON MEASUREMENTS OF AFFECTIVE RESPONSE

**Abstract:** This disclosure describes systems, methods, and computer program products that may be used to provide crowd-based scores for experiences, which are computed based on measurements of affective response of multiple users who had the experiences. The measurements of affective response may be collected using a wide array of sensors that measure physiological signals and/or behavioral cues. Additionally, the scores may be personalized for a certain user based on similarities between a profile of the certain user and profiles of the multiple users.

**Classifications:****International (IPC 8-9):** A61B5/00 A61B5/16 G06F17/18 G06F17/30

G06F19/00 G06F21/62 G06F7/04 G06F9/54 G06N7/00 G06N99/00

G06Q10/04 G06Q30/02 G06Q50/12 G08B23/00

H04W4/02 (Advanced/Invention)

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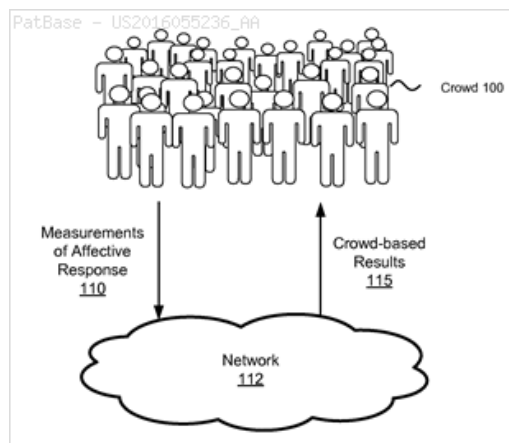
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**US:** 340/573.1 705/7.29 705/7.32 707/690 707/748 726/28**Family:**

| Publication number | Publication date | Application number | Application date |
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| DE102015113924 A1  | 20160225         | DE201510113924     | 20150821         |
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| DE102016101650 A1  | 20160804         | DE201610101650     | 20160129         |
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| US2016171514 AA    | 20160616         | US20160052785      | 20160224         |
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| US2016306844 AA    | 20161020         | US20160193093      | 20160626         |
| US2018025368 AA    | 20180125         | US20170701101      | 20170911         |
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**Priority:**

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**Probable Assignee:**

AFFECTOMATICS LTD

**Assignee(s):** (std):

AFFECTOMATICS LTD

**Inventor(s):** (std):

FRANK ARI M ; THIEBERGER GIL

**Agent(s):**

ACTIVE KNOWLEDGE LTD

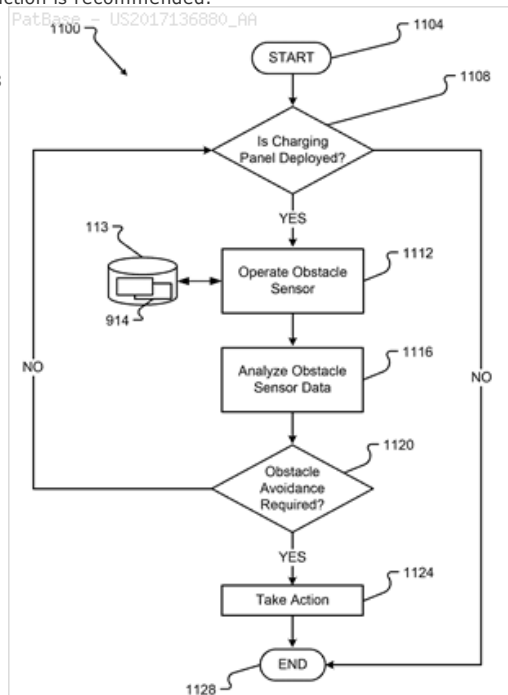
**Title:** ELECTRIC VEHICLE CHARGING DEVICE OBSTACLE AVOIDANCE AND WARNING SYSTEM AND METHOD OF USE

**Abstract:** Techniques for electric vehicle systems, and in particular to an electric vehicle charging device obstacle avoidance system and method of use. In one embodiment, a system for obstacle avoidance of a charging panel of an electrical vehicle is disclosed, the system comprising: a charging panel interconnected to the electric vehicle; an actuator interconnected to the charging panel, the actuator configured to position the charging panel; at least one sensor configured to sense an obstacle location measurement in a predicted travel path of the electric vehicle; and an obstacle avoidance controller that receives the obstacle location measurement and determines if an obstacle avoidance action is recommended.

**Classifications:**

**International (IPC 8-9):** A61B5/01 A61B5/024 A61B5/08 A61B5/1171 A61B5/1172 A61B5/16 A61B5/18 B08B7/02 B60C19/00 B60C23/04 B60L11/00 B60L11/10 B60L11/18 B60L3/00 B60L5/00 B60L5/06 B60L5/08 B60L5/16 B60L5/24 B60L5/28 B60L7/18 B60L8/00 B60M7/00 B60R1/00 B60R11/04 B60R16/04 B60R25/102 B60R25/20 B60R99/00 B60S1/08 B60S1/54 B60S1/62 B60S5/00 B60W10/04 B60W10/18 B60W10/20 B60W20/13 B60W30/08 B60W30/09 B60W40/04 B60W40/08 B60W40/09 B60W40/105 B60W50/00 B60W50/02 B60W50/032 B60W50/08 B60W50/14 B62D35/02 B62D39/00 B64C39/02 G01C21/00 G01C21/16 G01C21/34 G01C21/36 G01R31/36 G01R31/42 G01S13/86 G01S17/89 G01S17/93 G01S7/40 G01S7/481 G01S7/497 G02B27/00 G05B15/02 G05D1/00 G05D1/02 G06F11/14 G06F15/16 G06F17/30 G06F19/00 G06F21/32 G06F21/62 G06F3/01 G06F9/44 G06F9/445 G06K19/07 G06K7/10 G06K9/00 G06Q10/00 G06Q10/06 G06Q20/10 G06Q20/32 G06Q20/40 G06Q30/00 G06Q30/02 G06Q30/06 G06Q50/06 G06T7/174 G07B15/06 G07C5/00 G07C5/02 G07C5/08 G07C9/00 G07F15/00 G08G1/00 G08G1/017 G08G1/0968 G08G1/16 H01B5/00 H01F27/36 H01F38/14 H01G11/12 H01G11/22 H01G11/78 H01M10/42 H01M10/44 H01M10/48 H01M2/10 H01M2/20 H01Q21/30 H02J3/08 H02J5/00 H02J50/12 H02J50/70 H02J7/00 H02J7/02 H02J7/04 H02J7/12 H02J7/35 H04B10/80 H04B5/00 H04L12/24 H04L29/06 H04L29/08 H04M1/725 H04Q5/22 H04W12/02 H04W12/04 H04W4/00 H04W4/02 H04W4/04 H05K9/00 (Advanced/Invention); B60K35/00 B60K6/20 B60L11/00 B60L11/18 B60M1/00 B60R11/00 B60W40/08 B60W50/14 G01S13/93 G05D1/00 H01G11/08 H04W4/00 (Advanced/Non-invention)

**CPC:** B60L11/182 B60L11/1827 B60M7/00 B60L5/24 B60L5/28 B60L5/16 B60L5/06 B60L5/08 B60L7/18 B60L11/005 B60L11/1809 B60L11/1838 B60L11/1862 B60L11/1811 B60L11/1824 B60L11/1861 B60L11/1816 B64C39/024 B60L2230/10 B64C2201/12 B60L11/1844 B60L11/1846 B60L11/1848 B60L11/184 H04B10/806 H02J7/35 B60L2240/70 B60C19/00 H01F38/14 B60C2200/04 B60C2019/005 B60L11/1825 H02J7/0021 H02J7/0045 B60L2230/16 B60L2260/54 B60L11/1842 G01C21/3469 B60L2240/32 B60L2240/62 H02J50/70 G01C21/3697 G06Q20/102 G07F15/005 G07C5/008 G06Q10/06313 G06Q50/06 B60L11/1864 B60L11/1822 H01M2/1077 H01M10/441 H01M2/206 H01M10/425 H01G11/78 H01G11/22 H01M2220/20 H05K9/0088 H05K9/0064 H05K9/0071 G06Q20/145 B60M1/36 B60M7/003 B60L2240/80 B60L2260/50 B60L5/18 B60W20/13 Y02T90/168 Y04S30/12 G08G1/20 B60L3/0015 B60L11/1831 B62D35/02 H02J50/10 H02J50/90 H02J50/80 H02J2007/0096 B60L11/1851 B60W20/50 B60W50/038 B60W2510/248 H02J7/025 H02J50/12 H04L65/4076 B64D39/00 B60L11/1837 H01G11/12 H01M10/48 H01M2010/4278 Y02T90/12 Y02T90/128 Y02T90/169 Y04S30/14 Y02T10/7005 Y02T10/7088 Y02T90/121 Y02T90/122 Y02T90/125 Y02T90/14 Y02T90/163 Y02E60/721 Y02T10/7044 Y02T10/705 Y04S10/126 Y02T10/88 Y02T10/7072 Y02T10/7291 Y02T90/162 Y02E60/13 Y02T10/7022 Y02T10/7055 H02J7/0027 B60L11/18 B60L11/1829 B60L11/1833 B60L5/00 B60L11/1801 B60L2250/16 H02J7/0068 B60L8/003 G06F17/30864 G05B15/02 B60L2240/72 B60Y2300/60 B60Y2200/91 B60L11/002 B60L2240/549 B60Y2302/07 B60Y2400/92 B60L2270/32 G07C5/0816 G06Q30/012 B60S1/0818 B08B7/028 B60S1/54 B60W50/08 G08G1/017 G07C5/0808 B60R25/102 B60W40/08 B60W2040/0809 B60W2540/04 G01S7/4816 G01S17/936 G01S17/89 B60R11/04 B62D39/00 B60R2011/004 G05D1/0011 B60K35/00 G06F21/32 G06Q20/401 G06K7/10316 H04W12/02 G06K7/10257 H04W12/04 H04L2209/805 H04L2209/84 G06F3/011 B60K2350/2052 G06K9/00845 B60R1/00 B60K2350/2004 B60R2011/0003 B60R2300/804 B60R2300/30 G06Q20/4012 G01C21/3617 G06Q30/0613 G06Q30/0635 B60W2300/34 G06Q10/20 G06Q30/0208 G06Q30/0206 G06F17/30554 G06Q30/0625 G06Q30/0601 G06K9/00087 H04L63/0428 G06F21/6245 G06Q20/32 H04L2209/80 G07B15/063 G01S2013/936 B60W2540/02 B60R25/2081 G08G1/096838 B60W2540/00 B60W2050/143 B60W2050/146 G07C5/02 G07C5/0858 B60K6/20 B60Y2200/912 B60Y2200/92 B60M1/00 H01Q21/30 H04W4/046 H04B5/0037 G06K19/0708 B60R2325/105 H01G11/08 B60L11/1857 B60L11/1859 G01C21/36 H04W4/80 G01S7/497 G01S2007/4977 A61B5/1171 A61B5/1172 A61B5/1176 A61B2503/22 G05D1/0088 H04W12/06 B08B1/00 B08B3/02 B08B5/02 G02B27/0006 B60S1/485 B60S1/56 Y02T90/161 B60L5/005 Y02T90/16 H04B10/807 G06K9/00832 G08G1/0962 G08G1/09626 G08G1/096775 G08G1/096827 G08G1/16 B60L3/0023 B60L3/0092 B60L2250/10 B60W20/14 B60W30/18127 G01C21/3673 H01M2/1083 B60W30/09 B60W10/18 B60W10/20 G05D1/0221 G08G1/161 B60W50/0097 B60W2050/0014 B60W2750/40 B60W2710/18 B60W2710/20 B60W2550/30 B60W2550/10 B60W2900/00 B60W2050/0004 B60W50/0098 G05D2201/0212 B60W40/04 B60W10/04 G05D1/0276 G05D1/0214 G08G1/166 G08G1/163 G08G1/164 B60W50/082 B60W2520/105 B60W2520/04 B60W2510/08 B60W2510/18 B60W2540/18 B60W2540/28 B60W40/105 B60W40/09 G05D1/0061 A61B5/18 A61B5/024 A61B5/08 A61B5/01 B60W2540/30 B60W2540/22 A61B5/165 G01C21/3682 G01C21/3484 G06F17/30241 G01C21/3691 G01S7/4021 B60S1/62 G01S2007/4043 G01S13/865 G01S13/867 G05D1/0212 G01C21/3461 G01C21/3492 G06F8/65 G06F11/1433 G06Q30/0266 G06Q30/0269 H01Q1/325 H01Q1/3266 H01Q1/3275 H01Q1/3283 H01Q1/3291 H05K999/99 G07C9/00563 G06K7/10425 B60W50/02 B60W50/032 B60W50/14 G06T7/174 B60C23/04 G01C21/34 G05D1/00 G06Q10/00 G06Q30/00 G06Q30/02 H04W4/008

**Family:**

| Publication number | Publication date | Application number | Application date |
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| US2017136880 AA    | 20170518         | US20150981368      | 20151228         |
| US2017136881 AA    | 20170518         | US20160143083      | 20160429         |
| US2017136882 AA    | 20170518         | US20160246867      | 20160825         |
| US2017136883 AA    | 20170518         | US20160344285      | 20161104         |
| US2017136885 AA    | 20170518         | US20160226446      | 20160802         |
| US2017136887 AA    | 20170518         | US20160010921      | 20160129         |
| US2017136888 AA    | 20170518         | US20160074593      | 20160318         |
| US2017136889 AA    | 20170518         | US20160074624      | 20160318         |
| US2017136890 AA    | 20170518         | US20160145416      | 20160503         |
| US2017136891 AA    | 20170518         | US20160169073      | 20160531         |

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| US2017136892 AA | 20170518 | US20160198034 | 20160630 |
| US2017136893 AA | 20170518 | US20160223814 | 20160729 |
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| US2017136896 AA | 20170518 | US20160289131 | 20161008 |
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| US2017136902 AA | 20170518 | US20160048307 | 20160219 |
| US2017136903 AA | 20170518 | US20160010701 | 20160129 |
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| US2017136905 AA | 20170518 | US20150954484 | 20151130 |
| US2017136907 AA | 20170518 | US20150979158 | 20151222 |
| US2017136908 AA | 20170518 | US20160055345 | 20160226 |
| US2017136910 AA | 20170518 | US20150954436 | 20151130 |
| US2017136911 AA | 20170518 | US20160237937 | 20160816 |
| US2017136912 AA | 20170518 | US20160196898 | 20160629 |
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| US2017141368 AA | 20170518 | US20160282869 | 20160930 |
| US2017142872 AA | 20170518 | US20160283279 | 20160930 |
| US2017174205 AA | 20170622 | US20160384043 | 20161219 |
| US2018009321 AA | 20180111 | US20160395254 | 20161230 |
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| US2018009327 AA | 20180111 | US20160393861 | 20161229 |
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| US2018009446 AA | 20180111 | US20160396595 | 20161231 |
| US2018011173 AA | 20180111 | US20160394402 | 20161229 |
| US2018011483 AA | 20180111 | US20160339019 | 20161031 |
| US2018012004 AA | 20180111 | US20160396591 | 20161231 |
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| US2018012089 AA | 20180111 | US20160393097 | 20161228 |
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| US2018012198 AA | 20180111 | US20160393804 | 20161229 |
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| US2018012427 AA | 20180111 | US20160396620 | 20161231 |
| US2018012433 AA | 20180111 | US20160339599 | 20161031 |
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| US2018141544 AA | 20180524 | US20160394541 | 20161229 |
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| US2018141562 AA | 20180524 | US20170415650 | 20170125 |
| US2018141568 AA | 20180524 | US20160395924 | 20161230 |
| US2018143035 AA | 20180524 | US20160393072 | 20161228 |
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| US2018143639 AA | 20180524 | US20160395952 | 20161230 |
| US2018143818 AA | 20180524 | US20170423186 | 20170202 |
| US2018144369 AA | 20180524 | US20160393010 | 20161228 |
| US9694685 BB    | 20170704 | US20150981368 | 20151228 |
| US9944192 BB    | 20180417 | US20160048307 | 20160219 |
| US9946906 BB    | 20180417 | US20160396616 | 20161231 |
| US9964415 BB    | 20180508 | US20160282880 | 20160930 |
| US9984522 BB    | 20180529 | US20160339599 | 20161031 |
| WO17083685 A1   | 20170518 | WO2016US61583 | 20161111 |
| WO17083846 A1   | 20170518 | WO2016US61885 | 20161114 |
| WO17083847 A1   | 20170518 | WO2016US61888 | 20161114 |
| WO17083848 A1   | 20170518 | WO2016US61889 | 20161114 |
| WO17083851 A1   | 20170518 | WO2016US61892 | 20161114 |
| WO18009772 A1   | 20180111 | WO2017US41061 | 20170707 |
| WO18009773 A1   | 20180111 | WO2017US41064 | 20170707 |
| WO18009852 A1   | 20180111 | WO2017US41176 | 20170707 |
| WO18094180 A1   | 20180524 | WO2017US62245 | 20171117 |
| WO18094373 A1   | 20180524 | WO2017US62700 | 20171121 |
| WO18094374 A1   | 20180524 | WO2017US62705 | 20171121 |
| WO18094375 A1   | 20180524 | WO2017US62709 | 20171121 |
| WO18094384 A1   | 20180524 | WO2017US62757 | 20171121 |

**Priority:**

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| US20150266452P | 20151112 | US20150255214P | 20151113 | US20150259536P | 20151124 |
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| US20150269764P | 20151218 | US20150979158  | 20151222 | US20150981368  | 20151228 |

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| US20160048921  | 20160129 | US20160053345  | 20160129 | US20160344840P | 20160226 |
| US20160074593  | 20160318 | US20160074624  | 20160318 | US20160310387P | 20160318 |
| US20160143083  | 20160429 | US20160145416  | 20160503 | US20160169073  | 20160531 |
| US20160170406  | 20160601 | US20160196898  | 20160629 | US20160198034  | 20160630 |
| US20160359563P | 20160707 | US20160223814  | 20160729 | US20160226446  | 20160802 |
| US20160237937  | 20160816 | US20160378348P | 20160823 | US20160246867  | 20160825 |
| US20160254915  | 20160901 | US20160282869  | 20160930 | US20160282194  | 20160930 |
| US20160282337  | 20160930 | US20160282890  | 20160930 | US20160283285  | 20160930 |
| US20160282880  | 20160930 | US20160283279  | 20160930 | US20160403273P | 20161003 |
| US20160289131  | 20161008 | US20160339540  | 20161031 | US20160339019  | 20161031 |
| US20160339599  | 20161031 | US20160344285  | 20161104 | US20160351440  | 20161114 |
| US20160424976P | 20161121 | US20160384043  | 20161219 | US20160393097  | 20161228 |
| US20160393114  | 20161228 | US20160393072  | 20161228 | US20160393010  | 20161228 |
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| US20160393804  | 20161229 | US20160394541  | 20161229 | US20160394425  | 20161229 |
| US20160395254  | 20161230 | US20160395129  | 20161230 | US20160395924  | 20161230 |
| US20160395952  | 20161230 | US20160396591  | 20161231 | US20160396592  | 20161231 |
| US20160396581  | 20161231 | US20160396595  | 20161231 | US20160396616  | 20161231 |
| US20160396597  | 20161231 | US20160396607  | 20161231 | US20160396610  | 20161231 |
| US20160396604  | 20161231 | US20160396601  | 20161231 | US20160396620  | 20161231 |
| US20160396613  | 20161231 | US20170415650  | 20170125 | US20170423186  | 20170202 |

**Probable Assignee:** NIO USA INC

**Assignee(s):** (std): NEXT EV USA INC ; NEXTEV USA INC ; NIO USA INC

**Assignee(s):** NEXTEV

**Inventor(s):** (std): BAIK EDWARD ; BAIK EDWARD H ; COX JONATHAN ; COX JONATHAN A ; FREYTAG PATRICK ; HIRSHBERG YANIR ; MURALIDHAR GAUTAM ; NEWMAN AUSTIN ; NEWMAN AUSTIN L ; NORTH CRAIG ; POULIOT CHRISTOPHER ; POULIOT CHRISTOPHER F ; RICCI CHRISTOPHER ; RICCI CHRISTOPHER P ; SINGHAL ABHISHEK ; XIAO FEI

**Agent(s):** SHERIDAN ROSS PC; SWARTZ DOUGLAS W; LENNOX GENTLE THAINE; LINDON BRENT R; WILSON TADD F; DALEY WILLIAM J; LENNOX GENTLE THAINE ET AL

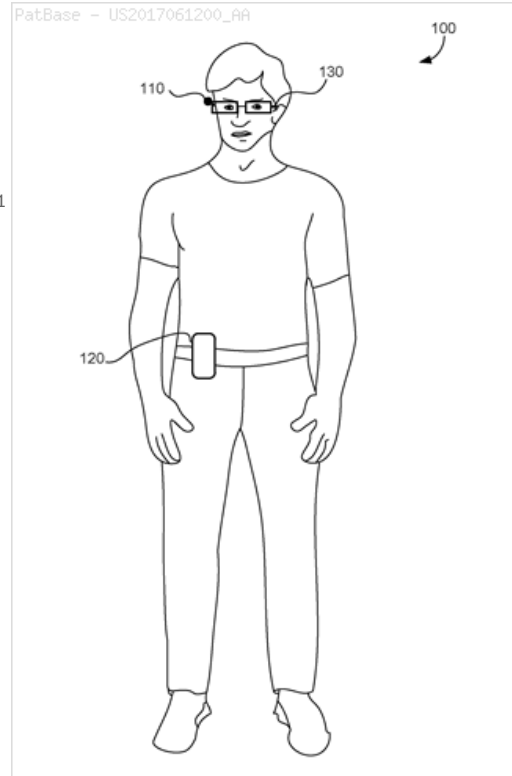
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**Title:** SYSTEMS AND METHODS FOR RECOGNIZING FACES USING NON-FACIAL INFORMATION

**Abstract:** A wearable apparatus is provided for identifying a person in an environment of a user of the wearable apparatus based on non-facial information. The wearable apparatus includes a wearable image sensor configured to capture a plurality of images from the environment of the user, and a processing device programmed to analyze a first image of the plurality of images to determine that a face appears in the first image. The processing device also analyzes a second image of the plurality of images to identify an item of non-facial information appearing in the second image that was captured within a time period including a time when the first image is captured. The processing device also determines identification information of a person associated with the face based on the item of non-facial information.

**Classifications:**

**International (IPC 8-9):** G05B15/02 G06F1/16 G06F17/30 G06F21/62 G06F3/00 G06F3/01 G06F3/14 G06F3/16 G06K7/10 G06K9/00 G06K9/20 G06K9/46 G06K9/62 G06Q10/10 G06Q30/02 G06T7/00 G06T7/11 G08B21/18 G10L25/48 H04L29/06 H04L29/08 H04N1/00 H04N21/2668 H04N21/422 H04N21/4223 H04N21/442 H04N5/225 H04N5/232 H04N5/247 H04N5/33 H04N7/14 H04N7/15 H04N7/18 H04W4/02 (Advanced/Invention); G10L15/30 (Advanced/Non-invention)  
**CPC:** G06K9/00677 G06K9/00335 H04N5/247 G06K9/00711 G06Q30/0201 G06F1/163 G06K9/00718 G06F17/30867 G06K2009/00738 G06T2207/30221 H04N21/4223 H04N21/42203 H04N21/44218 G06K2209/01 G10L15/30 G05B15/02 G06K9/00355 G06F3/017 G06F3/16 G06K9/00684 G06K9/6267 G06F3/005 G06F17/30268 G06F17/3028 G08B21/18 G06Q30/0631 H04N1/00342 G06K9/00664 H04N5/2256 H04N5/332 G06K7/10366 H04N5/23222 G06F21/6245 H04N7/147 H04N7/15 G06F3/1454 G06Q10/103 H04L65/4069 H04N5/23206 G06F17/30312 H04W4/02 H04N7/185 G06K9/209 G06F3/002 G06F17/30247 H04N5/23203 G06T7/11 G06K9/00255 G06K9/00288 G06K9/00308 G06K9/4652 H04L67/306 H04N21/2668 G06K9/00671 H04N5/232 H04N5/23219 H04N5/23245 G06K9/00389 G06K9/20 G06K9/4604 H05K999/99  
**US:** 348/158 348/222.1 382/103 382/118 382/181

**Family:**

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| US2017061200 AA    | 20170302         | US20160253281      | 20160831         |
| US2017061201 AA    | 20170302         | US20160253616      | 20160831         |
| US2017061213 AA    | 20170302         | US20160253547      | 20160831         |
| US2017064212 AA    | 20170302         | US20160253370      | 20160831         |
| US2017064260 AA    | 20170302         | US20160253456      | 20160831         |
| US2017064363 AA    | 20170302         | US20160253498      | 20160831         |
| US2017192401 AA    | 20170706         | US20170399571      | 20170105         |
| US2017193301 AA    | 20170706         | US20170399293      | 20170105         |
| US2017193303 AA    | 20170706         | US20170399107      | 20170105         |
| US2017193304 AA    | 20170706         | US20170399310      | 20170105         |
| US2017195505 AA    | 20170706         | US20170399612      | 20170105         |
| US2017195572 AA    | 20170706         | US20170399227      | 20170105         |
| US2017195629 AA    | 20170706         | US20170399325      | 20170105         |
| US2017220866 AA    | 20170803         | US20170493107      | 20170420         |
| US2017223076 AA    | 20170803         | US20170493101      | 20170420         |
| US2017227938 AA    | 20170810         | US20170493731      | 20170421         |
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| US2017311022 AA    | 20171026         | US20170649036      | 20170713         |
| US9818031 BB       | 20171114         | US20170399293      | 20170105         |
| US9898663 BB       | 20180220         | US20170493107      | 20170420         |

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| US20150211880P | 20150831 | US20150214323P | 20150904 | US20150214330P | 20150904 |
| US20150214334P | 20150904 | US20150214342P | 20150904 | US20160275531P | 20160106 |
| US20160253281  | 20160831 | US20160253616  | 20160831 | US20160253547  | 20160831 |
| US20160253370  | 20160831 | US20160253456  | 20160831 | US20160253498  | 20160831 |
| US20170399107  | 20170105 | US20170399227  | 20170105 | US20170399571  | 20170105 |
| US20170399310  | 20170105 | US20170399293  | 20170105 | US20170399612  | 20170105 |
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| US20170493731 | 20170421 | US20170494114 | 20170421 | US20170493894 | 20170421 |
| US20170495650 | 20170424 | US20170495490 | 20170424 | US20170649036 | 20170713 |

**Probable Assignee:** ORCAM TECHNOLOGIES LTD

**Assignee(s):** (std): ORCAM TECH LTD

**Assignee(s):** ORCAM TECHNOLOGIES LTD

**Inventor(s):** (std): SHASHUA AMNON ; WEXLER YONATAN

**Agent(s):** FINNEGAN HENDERSON FARABOW GARRETT AND DUNNER LLP

**Title:** UNIVERSAL CONSOLE CHASSIS FOR THE CAR

**Abstract:** Methods and systems for a complete vehicle ecosystem are provided. Specifically, systems that when taken alone, or together, provide an individual or group of individuals with an intuitive and comfortable vehicular environment. The present disclosure includes a universal chassis that may be mounted in the head unit of a vehicle. The chassis may accept one or more modules that each have common dimensions. With a common form factor, the universal chassis is configurable as different modules with different functionality may be inserted into the chassis with ease.

**Classifications:**

**International (IPC 8-9):** B60K35/00 B60K37/00 B60K37/02 B60K37/04 B60K37/06 B60L9/00 B60N3/00 B60Q1/48 B60R11/02 B60R13/00 B60R16/037 B60R7/04 B60R7/06 B60T7/16 B60T8/172 B60W30/182 B60W40/08 G01C21/20 G01C23/00 G01M17/00 G05D1/00 G06F13/14 G06F13/364 G06F15/16 G06F15/18 G06F17/00 G06F17/10 G06F17/30 G06F21/10 G06F3/01 G06F3/0484 G06F3/0488 G06F7/00 G06F9/445 G06F9/54 G06N5/02 G06Q30/02 G06Q40/08 G08B1/08 G08C19/00 G08C19/16 G08G1/00 G08G1/01 G08G1/017 G08G1/09 G08G1/0967 G08G1/123 G08G1/14 G08G1/16 G09G5/00 H02P1/00 H04B7/00 H04L29/00 H04L29/08 H04M11/04 H04M3/00 H04N21/482 H04Q9/02 H04W4/00 H04W4/04 H04W84/00 (Advanced/Invention); B60R11/00 B60W40/08 B60W50/00 G06N5/04 (Advanced/Non-invention)

**CPC:** B60R11/0229 B60R11/02 B60R11/0264 H04W4/046 G07C5/008

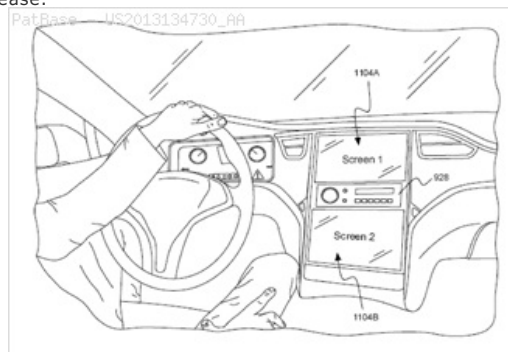
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B60W2540/22 B60W2540/26 B60W2540/28 B60K35/00 B60K37/04

B60K2350/1012 B60K2350/1016 B60K2350/1032 B60K2350/104 B60K2350/2052 B60K2350/355 B60K2350/357 B60K2350/925 B60K2350/945 B60K2350/946 B60R11/0235 B60R2011/0007 G08G1/017 B60K37/00 B60K37/06 B60K2350/1028 B60K2350/1052 B60K2350/2013 B60K2350/941 B60R7/04 G01C21/20 G06F3/017 G06F3/0488 G06F9/54 G06F13/364 G06F17/00 G06F17/30386 G06F21/10 G06F2203/04808 G06N5/02 G08C19/00 G08G1/143 G08G1/16 H04L67/02 H04W84/005 G06N5/048 B60W40/04 B60W40/09 B60W2550/22 G06Q30/0265 B60K2350/1004 G02B27/0101 G06F3/0481 G06F3/0482 G06T19/006 G08G1/09 G06F3/0484 G06F11/3013 G06F11/3065 G06F11/328 G06F21/335 G06F21/629 G06F2221/0724 H04L63/10 H04L67/125 B60K37/02 G06F21/121 G06K9/00362 H04L51/36 H04L67/12 G07C5/0825 G07C5/0833 H04W8/22 G06F3/04842 G06F3/0486 G06K9/00832 G07C5/006 H04N21/41422 H04N21/4331 H04W84/12 H04N21/482 B60W50/0098 B60W50/08 G06F3/04817 G06F9/44505 G08G1/096791 B60R21/01512 B60W40/08 B60W2040/0881 G06F8/61 G06Q40/08 G06F3/04847 G06F11/2023 G01S19/13 G06F17/30241 G06Q50/26 G08G1/0116 G08G1/0137 G06K9/00355 G06K2009/00939 H04L41/14 H04W4/50 H04W4/80 H04W4/90 G06F3/04883

**US:** 1/1 180/167 192/35 192/48.2 192/54.52 192/84.1 296/24.34 296/37.12 318/139 340/539.13 340/870.01 340/905 340/932 340/932.2 340/988 340/996 342/159 342/59 342/70 342/71 342/72 343/713 363/41 455/404.1 455/41.2 455/420 455/456.1 455/456.3 455/509 701/1 701/118 701/2 701/2 701/22 701/29.1 701/301 701/31.4 701/36 701/444 701/51 701/519 705/14.62 705/4 706/46 707/736 707/758 709/201 709/217 710/241 715/744 715/746 715/765 715/863 717/174 725/59 726/28



**Family:**

| Publication number | Publication date | Application number | Application date |
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| US2013144470 AA    | 20130606         | US20120679400      | 20121116         |
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**Priority:**

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| US20120663355P | 20120622 | US20120672483P | 20120717 | US20120714016P | 20121015 |
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**Probable Assignee:** AUTOCONNECT HOLDINGS LLC

**Assignee(s):** (std): AUTOCONNECT HOLDINGS LLC ; FLEXTRONICS AP LLC

**Inventor(s):** (std): RICCI CHRISTOPHER P ; SWARTZ DOUGLAS W ; WILSON TADD F

**Agent(s):** SHERIDAN ROSS PC; WILSON TADD F; VICK JASON H; VICK JASON H ET AL; LENNOX GENTLE THAINE; SWARTZ DOUGLAS W

**Designated states:** AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

**Title:** LED SIGN

**Abstract:** A system for displaying an image comprising at least one display apparatus. Each display apparatus including at least one light bar having a plurality of light emitting diodes mounted thereto. At least one support joining each light bar to a rotation mechanism. The rotation mechanism being constructed and arranged to rotate the light bars at a predetermined rate of rotation. The system also includes a controller in electrical communication with each of the plurality of light emitting diodes, and the rotation mechanism of each of the at least one display apparatus. The controller constructed and arranged to control the predetermined rate of rotation and selectively activate the light emitting diodes to produce at least one image capable of being perceived by a viewer.

**Classifications:**

**International (IPC 8-9):** B60Q1/26 B64D47/06 F21K9/20 F21K99/00 F21V23/00 F21V3/04 F21V5/04 F21V9/04 G01S1/00 G01S1/70 G01S19/48 G05B15/02 G05B19/00 G06F13/10 G06F13/40 G06F13/42 G06F17/30 G06Q20/10 G06Q20/14 G06Q30/00 G06Q30/02 G06Q30/04 G06Q50/06 G07C9/00 G08B13/00 G08B13/196 G08B13/22 G08B31/00 G08B5/22 G09F21/04 G09F9/33 G09G3/00 G09G3/32 H04B10/00 H04B10/02 H04B10/04 H04B10/07 H04B10/10 H04B10/11 H04B10/114 H04B10/116 H04B10/40 H04B10/50 H04B10/80 H04B3/54 H04J14/02 H04L12/28 H04N7/18 H04Q11/00 H04W12/08 H04W4/02 H05B33/08 H05B37/00 H05B37/02 (Advanced/Invention);

F21Y101/02 H04B10/12 H04J14/00 (Advanced/Non-invention);

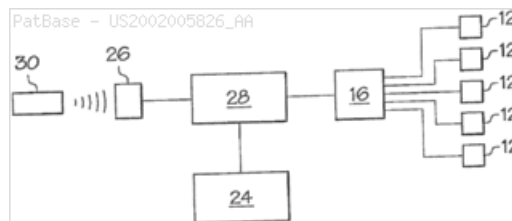
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**International (IPC 1-7):** G06F12/14 G08B21/00 G08B5/22 G08G1/087 G08G1/0965 G09F11/00 G09G3/00 G09G3/32

**CPC:** B60Q1/2696 B64D47/06 G09F21/04 G09G3/001 G08B13/22 B64D2203/00 B60Q1/2611 B60Q2900/30 G09F9/33 G09G3/005 G06Q20/102 Y10S436/90 G08B13/19613 G08B13/19645 G08B13/19647 G08B13/19652 G08B13/19663 G08B13/19671 G08B31/00 G06F17/30244 H04N7/183 G07C9/00158 H05B33/0863 H05B33/0884 H04B10/00 G01S1/70 H05B37/0263 H05B37/0272 G06F3/011 H04L12/282 G06F1/163 G06F3/012 G06F3/013 G06F3/014 G06F3/017 G06F3/0304 G06F3/0325 G06Q30/00 H04B10/11 H04B10/1149 H05B33/0845 H04B10/502 H04W4/025 H04Q11/0003 H05B33/0842 H04L63/00 G06F13/102 G06F13/4081 H04N7/181 G08B13/19667 H04B3/54 H05B37/0227 H05B33/0854 H05B33/0872 F21K9/30 F21Y2101/02 F21K9/20 H04B10/1143 F21Y2101/00 G08B13/19665 H04N7/18 H05B37/0218 H05B33/0869 H04B10/0705 H04W12/08 F21V5/04 F21V3/049 H05B33/0815 F21V23/003 H05B33/0857 F21Y2115/10 H04B10/116 H04B10/802 G06F13/4072 G06F13/4282 H04B10/40 G06Q50/06 G06Q20/145 G06Q30/0207 G06Q30/04 H04K1/10 H04K3/22 H04K3/90 H04K2203/22 H05K999/99

**European:** B60Q1/26D B60Q1/26L B64D47/06 G07C9/00C2D G08B13/196A5 G08B13/196L2 G08B13/196L3 G08B13/196L4 G08B13/196P G08B13/196S3 G08B31/00 G09F21/04 G09F9/33 G09G3/00B G09G3/00D H04B10/1143 H04B10/1149 L60Q900/30

**US:** 1/1 315/131 315/151 315/152 315/154 315/292 315/294 315/312 315/318 340/293 340/293P 340/425.5 340/425.500S 340/5.81 340/5.83 340/540 340/541 340/541P 340/550 340/815.4 340/815.400S 340/815.45 340/815.450P 340/937 342/357.06 342/357.31 342/357.310S 345/82 345/82P 348/143 348/143S 348/148 348/159 348/159P 348/E7.085 348/E70.85S 359/152 382/115 382/118 398/115 398/115P 398/116 398/118 398/127 398/128 398/128P 398/130 398/135 398/135P 398/137 398/139 398/172 398/183 398/25 398/45 398/96 436/900 700/275 705/40 710/305 710/305P 713/200



**Family:**

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| US2002005826 AA    | 20020117         | US20010858339      | 20010515         |
| US2002105432 AA    | 20020808         | US20010993040      | 20011114         |
| US2004199785 AA    | 20041007         | US20030646853      | 20030822         |
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| US2008136661 AA    | 20080612         | US20080032908      | 20080218         |
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| WO08148022 A2   | 20081204 | WO2008US64741 | 20080523 |
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US20170602922 20170523

**Probable Assignee:** FEDERAL LAW ENFORCEMENT DEVELOPMENT SERVICES INC

**Assignee(s):** (std): FED LAW ENFORCEMENT DEV SERVIC ; FED LAW ENFORCEMENT DEV SERVICES ; FED LAW ENFORCEMENT DEV SERVICES INC ; FED LAW ENFORCEMENT DEVELOPMENT SERVICES INC ; FED LAW ENFORCEMENT INC ; FED LAW ENFORCEMENT DEVELOPMENT SERVICES INC ; 911 EMERGENCY PRODUCTS INC ; BROWN PAUL R ; PEDERSON JOHN C ; SNOWY VILLAGE INC ; SEVERSON DAN ; SEVERSON CATHY JO ; SEVERSON CATHY J ; ZIMMERMAN JAMES ; MIKKELSEN BRENT ; LECLAIRE JAMES ; VOGT TIMOTHY J ; PEDERSON JOHN

**Assignee(s):** WEITZEL JOHN P ; FEDERAL LAW ENFORCEMENT DEVELOPMENT SERVICES INC ; VIDAS ARRETT AND STEINKRUAS PA ; JOHN P WEITZEL ; FEDERAL LAW ENFORCEMENT DEVELOPMENT SERVICES INC ; VIDAS ARRETT AND STEINKRAUS PA ; FEDERAL LAW ENFORCEMENT INC ; E P SURVIVORS LLC ; EP SURVIVORS LLC ; FEDERAL LAW ENFORCEMENT DEVELOPMENT SERVICE INC ; FEDERAL LAW ENFORCEMENT DEVELOPMENT SERVICES

**Inventor(s):** (std): BROWN PAUL R ; LECLAIRE JAMES ; MIKKELSEN BRENT ; PEDERSON CATHY JO ; PEDERSON JOHN ; PEDERSON JOHN C ; SEVERSON CATHY J ; SEVERSON CATHY JO ; SEVERSON DAN ; VOGT TIMOTHY J ; ZIMMERMAN JAMES

**Inventor(s):** SEVERSON CATHY

**Agent(s):** VIDAS ARRETT AND STEINKRAUS PA; VIDAS ARRETT AND STEINKRAUS; VOIGT II EDWIN E; VOIGT EDWIN E II; VOIGT EDWIN E

**Designated states:** AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

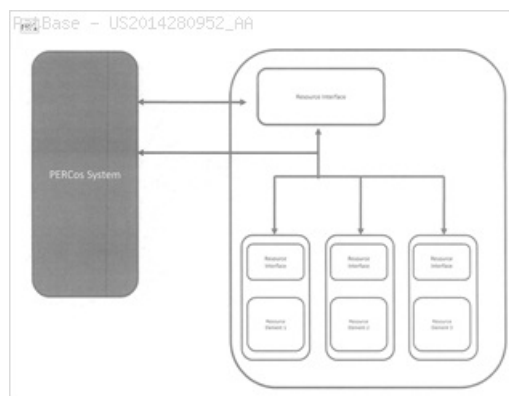
**Title:** PURPOSEFUL COMPUTING

**Abstract:** A system, method, and computer-readable storage medium configured to facilitate user purpose in a computing architecture.

**Classifications:**

**International (ipc 8-9):** G06F15/00 G06F15/173 G06F17/20 G06F17/30 G06F21/12 G06F21/30 G06F21/31 G06F21/32 G06F21/44 G06F21/45 G06F21/50 G06F21/53 G06F21/57 G06F21/62 G06F21/64 G06F21/71 G06F21/74 G06F7/00 G06F9/46 G06F9/50 G06Q10/00 G06Q10/06 G06Q50/00 H04L12/911 H04L29/06 (Advanced/Invention); G06F21/31 G06F7/00 G06Q10/00 H04L29/06 (Advanced/Non-invention)  
**CPC:** H04L63/0861 G06F21/31 G06F9/50 G06F17/30554 G06F17/30598 G06F17/30424 G06F17/20 G06F17/30528 G06Q10/0631 G06F2221/2133 G06F9/5083 G06F9/5072 G06F21/32 G06F21/316 G06F21/445 G06F21/53 G06F21/575 G06F21/6218 G06F21/6245 G06F21/64 G06F2221/2129 H04L63/20 G06Q50/01 G06F21/44 G06F21/71 G06F17/30867 G06F2221/2141 H04L47/70 H04L63/10 H04L63/101 G06F2221/2149 G06F17/30654 G06F17/30696 G06F17/30864 G06F21/45 G06F21/57 H05K999/99

**US:** 1/1 707/722 709/226 718/104 726/11 726/6



**Family:**

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| AU2014236646 AA    | 20140925         | AU20140236646      | 20140314         |
| AU2014236646 BB    | 20170720         | AU20140236646      | 20140314         |
| AU2015315175 AA    | 20160317         | AU20150315175      | 20150909         |
| AU2017248433 AA    | 20171102         | AU20170248433      | 20171017         |
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| CA2958217 AA       | 20170214         | CA20152958217      | 20150909         |
| CN105474166 A      | 20160406         | CN201480027724     | 20140314         |
| CN107111710 A      | 20170829         | CN201580061903     | 20150909         |
| EP2972771 A2       | 20160120         | EP20140768205      | 20140314         |
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| EP3191998 A1       | 20170719         | EP20150839850      | 20150909         |
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| IN201737007598 A   | 20170818         | IN201737007598     | 20170303         |
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| JP2017532659 T2    | 20171102         | JP20170513449T     | 20150909         |
| JP6279066 B2       | 20180214         | JP20160502277T     | 20140314         |
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| US2014282586 AA    | 20140918         | US20130928301      | 20130626         |
| US2015033305 AA    | 20150129         | US20140485707      | 20140913         |
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| US2017293763 AA    | 20171012         | US20170628228      | 20170620         |
| US2018046518 AA    | 20180215         | US20170674429      | 20170810         |
| US9378065 BB       | 20160628         | US20130928301      | 20130626         |
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| US9904579 BB       | 20180227         | US20140776180      | 20140314         |
| US9971894 BB       | 20180515         | US20170628228      | 20170620         |
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| WO16040506 A1      | 20160317         | WO2015US49222      | 20150909         |

**Priority:**

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| WO2015US49222 | 20150909 | US20160163407 | 20160524 | US20170628228 | 20170620 |
| US20170674429 | 20170810 | AU20170248433 | 20171017 |               |          |

**Probable Assignee:** ADVANCED ELEMENTAL TECHNOLOGIES

**Assignee(s):** (std): ADVANCED ELEMENTAL TECH ; ADVANCED ELEMENTAL TECH INC ; ADVANCED ELEMENTAL TECHNOLOGIES ; ADVANCED ELEMENTAL TECHNOLOGIES INC

**Assignee(s):** WILLIAMS PETER ROBERT ; RHO JAISOOK ; REDMOND TIMOTHY ST JOHN ; HORNING JAMES JAY DECEASED ; SHEAR VICTOR HENRY

**Inventor(s):** (std): HORNING JAMES JAY ; REDMOND TIMOTHY ST JOHN ; RHO JAISOOK ; SHEAR VICTOR HENRY ; WILLIAMS PETER ROBERT

**Inventor(s):** REDMOND TIMOTHY STJOHN ; HORNING JAMES JAY DECEASED

**Agent(s):** PHILLIPS ORMONDE FITZPATRICK; GOWLING LAFLEUR HENDERSON LLP; GOWLING WLG CANADA LLP; FINNEGAN EUROPE LLP; AOKI ATSUSHI; TSURUTA JUNICHI; FINNEGAN HENDERSON FARABOW GARRETT AND DUNNER LLP; THAYER LINDA J

**Designated states:** AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU

CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN  
IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW  
MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM  
SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

**Title:** BIOMETRIC BROADBAND GAMING SYSTEM AND METHOD

**Abstract:** The present invention is a biometric broadband gaming system and method that comprises a verification system, a broadband gaming system and a transactional system. The verification system operations include receiving a biometric input to ensure that a user is a registered player. The broadband gaming system operations include providing a game of skill or game of chance to a plurality of players communicating via different network access devices. The transactional system operations include managing transactions conducted by the verification system and the broadband gaming system.

**Classifications:**

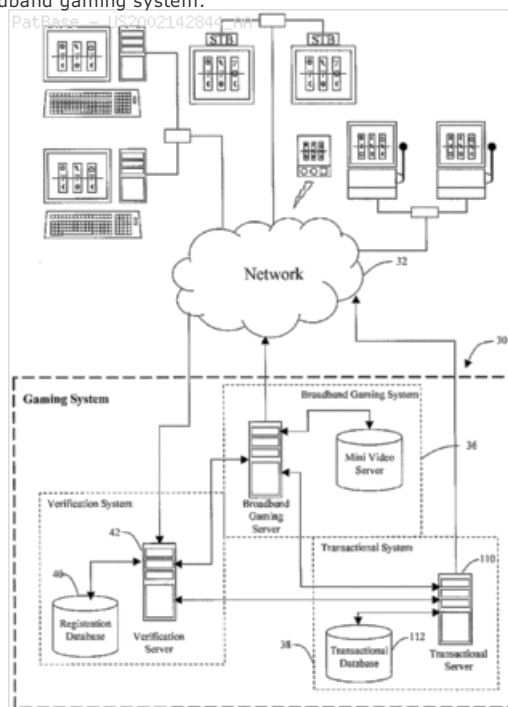
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**International (IPC 1-7):** G06F17/00 G06F19/00

**CPC:** G06Q30/0621 G07C9/00 H04W4/00 H04W4/02 H04L67/02 H04L67/306 G06F17/30241 G06Q30/00 G06Q30/0281 H04W4/023 G06Q30/0267 G07F17/3255 H04W4/021 G07F17/32 G07F17/3239 H04L67/26 H04W4/043 H04W4/08 G01S5/02 H04L63/0428 H04L63/06 H04W4/18 H04W8/18 G06Q30/02 G06Q30/0269 G06F3/0482 H04W12/04 G06F17/30675 G06F17/30648 G06Q30/0282 G06Q30/0254 H04L63/18 H04W64/00 G06F17/30867 G06F17/3087 H04L67/38 G01S5/0252 G06Q30/0233 G06Q30/0261 G07F17/3225 G07F17/329 G07F17/34 G06Q30/0224 H04B17/27 H04B17/318 G06Q30/0251 G06F3/0488 G01C21/206 G06F3/04842 G01C21/005 G01C21/20 G07F17/3223 H04W4/04 H05K999/99 C07K14/705

**European:** C07K14/705 G07F17/32 G07F17/32E6D2

**US:** 1/1 342/458 370/310 380/251 455/411 455/418 455/456 455/456.3 455/456.5 463/13 463/16 463/17 463/20 463/25 463/29 463/42 463/43 701/408 705/14.33 705/14.49 705/14.58 705/14.66 705/14.67 705/347 705/44 715/739 725/35

**Family:**

| Publication number | Publication date | Application number | Application date |
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| US2005043096 AA    | 20050224         | US20030681034      | 20031008         |
| US2009325708 A9    | 20091231         | US20030681034      | 20031008         |
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Probable Assignee: NEXRF CORP

Assignee(s): (std): KERR MICHAEL ; KERR MICHAEL A ; KERR MICHAEL ANTHONY ; NEVRF CORP ; NEXRF CORP ; STEWART DAVID

Assignee(s): NEXRF INC

Inventor(s): (std): KERR MICHAEL ; KERR MICHAEL A ; KERR MICHAEL ANTHONY ; STEWART DAVID

Agent(s): MICHAEL A KERR VIRTUAL LEGAL; KERR IP GROUP LLC MICHAEL A KERR; MICHAEL A; KERR IP GROUP LLC; KERR MICHAEL A

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

**Title:** MENTAL STATE ANALYSIS USING WEB SERVICES

**Abstract:** Analysis of mental states is provided using web services to enable data analysis. Data is captured for an individual where the data includes facial information and physiological information. Analysis is performed on a web service and the analysis is received. The mental states of other people may be correlated to the mental state for the individual. Other sources of information may be aggregated where the information may be used to analyze the mental state of the individual. Analysis of the mental state of the individual or group of individuals is rendered for display.

**Classifications:**

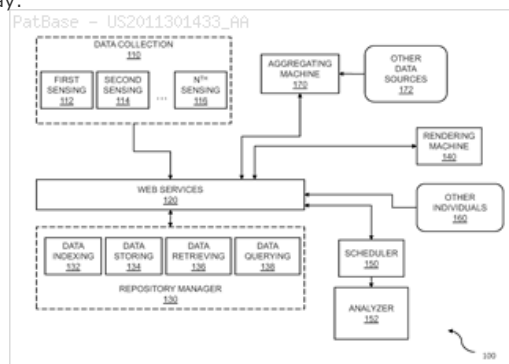
**International (IPC 8-9):** A61B5/00 A61B5/01 A61B5/02 A61B5/0205 A61B5/024 A61B5/026 A61B5/0295 A61B5/04 A61B5/0452 A61B5/053 A61B5/08 A61B5/11 A61B5/1171 A61B5/16 A61B5/18 A63F13/213 A63F13/58 A63F13/655 A63F13/825 A63F13/86 A63F13/92 A63F9/24 B25J13/00 B25J13/08 B25J9/00 B60K28/06 B60R11/04 B60R16/037 B60W40/08 B60W50/10 G05D1/00 G05D1/02 G06F13/00 G06F15/16 G06F17/00 G06F17/30 G06F19/00 G06K9/00 G06K9/42 G06K9/46 G06K9/62 G06K9/66 G06N3/04 G06Q30/00 G06Q30/02 G06Q30/06 G06Q50/00 G06Q50/10 G06Q50/22 G06Q50/30 G06T13/40 G06T7/00 G06T7/20 G06T7/40 G08G1/0962 G09B19/00 G09B23/00 G09B5/02 G09B5/06 G09B5/12 G10L15/02 G10L15/18 G10L15/22 G10L15/25 G10L15/26 G10L17/00 G10L21/055 G10L25/63 G10L25/90 H04H60/33 H04L12/58 H04L29/08 H04N21/2187 H04N21/233 H04N21/24 H04N21/25 H04N21/258 H04N21/422 H04N21/4223 H04N21/442 H04N21/45 H04N21/466 H04N21/478 H04N21/482 H04N21/81 (Advanced/Invention); A61B5/00 A61B5/01 A61B5/0205 A61B5/024 A61B5/053 A61B5/08 A61B5/11 A61B5/16 G06F19/00 G06K9/00 G06N7/00 G06Q30/02 G06Q50/00 (Advanced/Non-invention)

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**European:** A61B5/16H G06F19/34C G06F19/34N G06Q30/0271 H04N21/25A H04N21/4223 H04N21/466R K61B3/113

K61B5/0205B K61B5/024A K61B5/053B4 K61B5/08 K61B5/11 S06F19/34C

**US:** 1/1 382/103 382/118 382/153 382/159 382/170 382/203 382/218 382/224 382/225 434/236 434/236S 434/237 434/238 463/36 463/36P 600/300 600/300P 600/301 600/301P 600/407 600/476 600/479 600/483 600/484 600/508 600/529 600/547 600/549 600/558 600/595 702/19 705/14.19 705/14.41 705/14.43 705/14.45 705/2 705/7.31 707/736 709/202 709/202P 725/10 725/10 725/10P 725/12



**Family:**

| Publication number | Publication date | Application number | Application date |
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| US20180875644  | 20180119 | US20180886275  | 20180201 |                |          |

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**Inventor(s):** (std): BAGHAT MAY ; BENDER DANIEL ABRAHAM ; BERMAN DAVID ; BHATKAR VIPRALI ; BURKE MELISSA SUE ; DEAL JR JAMES HENRY ; DREISCH ANDREW EDWIN ; EL KAKIOUBY RANA ; ENGLAND AVRIL ; FOUAD MAY AMR ; GILLETT WALTER ; HAERING NIELS ; HANDFORD FOREST JAY ; KASHEF YOUSSEF ; KODRA EVAN ; LANGEVELD NICHOLAS ; MAHMOUD ABDELRAHMAN ; SAPIRO BRENT ; SENECHAL THIBAUD ; VANDAL THOMAS JAMES ; ZENG ZHIHONG ; ZIJDERVELD GABRIELE ; ZHENG ZHIHONG ; WILDER SMITH OLIVER ORION ; TURCOT PANU JAMES ; SADOWSKY RICHARD SCOTT ; PITRE BOISY G ; PICARD ROSALIND WRIGHT ; MISHRA TANIYA ; MAVADATI SEYEDMOHAMMAD ; MAHMOUD ABDELRAHMAN N ; KRUPAT JASON ; EL KAKIOUBY RANA ; EL KAKIOUBY JR RANA ; BENDER DANIEL ; MCDUFF DANIEL ; NAUSEEF JOHN P ; NOWAK OLIVER ERNST ; OSMAN AHMED ADEL ; PEACOCK TIMOTHY ; POULIN GREGORY ; RADOSEVICH LYNDIA

**Inventor(s):** RANA EL KAKIOUBY ; RICHARD SCOTT SADOWSKY ; ROSALIND WRIGHT PICARD ; OLIVER ORION WILDER SMITH ; MAY BAGHAT

**Agent(s):** ADAMS PLUCK; JENNINGS VINCENT LOUIS; KITA AOYAMA INT PATENT BUREAU; ADAMS INTELLEX PLC; ADAMS R DEAN; ADAMS DEAN R

**Designated states:** AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

**Title:** SMART DEVICE

**Abstract:** An Internet of Thing (IoT) device includes a camera coupled to a processor; and a wireless transceiver coupled to the processor. Blockchain smart contracts can be used with the device to facilitate secure operation.

**Classifications:**

**International (ipc 8-9):** A42B3/04 A61B5/00 A61B5/0205 A61B5/0404

A61B5/11 A63B24/00 A63B43/00 A63B60/46 A63B69/36 A63B69/38

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A63F13/212 B33Y10/00 G01L5/00 G01P15/08 G01P15/18 G06F1/16

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G06N99/00 G09B19/00 H04N5/225 H04N7/18 H04Q9/00

H04W84/18 (Advanced/Invention);

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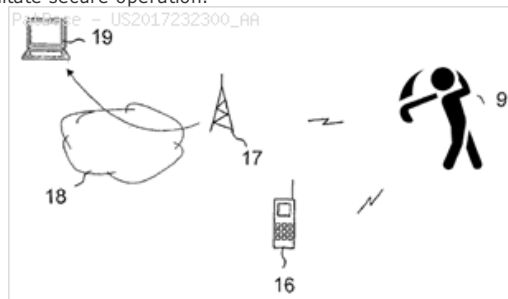
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H04B1/04 H04L67/10 H04N5/2257 H04N7/18



**Family:**

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| US2017232300 AA    | 20170817         | US20170586199      | 20170503         |
| US2017312578 AA    | 20171102         | US20170626087      | 20170617         |
| US2017312614 AA    | 20171102         | US20170626099      | 20170617         |
| US2017318360 AA    | 20171102         | US20170624014      | 20170615         |
| US2018001183 AA    | 20180104         | US20170407255      | 20170117         |
| US2018001184 AA    | 20180104         | US20170624927      | 20170616         |
| US2018078843 AA    | 20180322         | US20170807138      | 20171108         |
| US2018117446 AA    | 20180503         | US20170594214      | 20170512         |
| US2018117447 AA    | 20180503         | US20170594311      | 20170512         |
| US2018133583 AA    | 20180517         | US20170821718      | 20171122         |
| US9610476 BA       | 20170404         | US20160144773      | 20160502         |
| US9713756 BA       | 20170725         | US20170407253      | 20170117         |
| US9717949 BA       | 20170801         | US20170407248      | 20170116         |
| US9717958 BA       | 20170801         | US20170407257      | 20170117         |
| US9849364 BB       | 20171226         | US20170586199      | 20170503         |
| US9975033 BB       | 20180522         | US20170407255      | 20170117         |

**Priority:**

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| US20170612808 20170602 | US20170624014 20170615 | US20170624927 20170616 |
| US20170626087 20170617 | US20170626099 20170617 | US20170807138 20171108 |
| US20170821718 20171122 |                        |                        |

**Probable Assignee:** TRAN BAO  
**Assignee(s):** (std): TRAN BAO  
**Inventor(s):** (std): TRAN BAO ; TRAN HA  
**Agent(s):** TRAN AND ASSOCIATES

**Title:** METHODS AND ARRANGEMENTS FOR SENSING IDENTIFICATION INFORMATION FROM OBJECTS

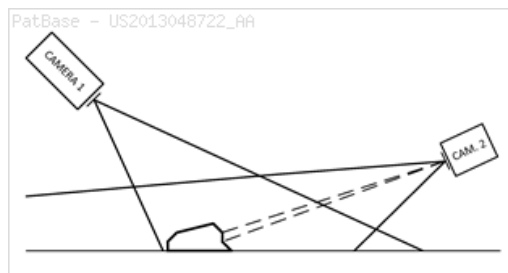
**Abstract:** In one arrangement, retail product packaging is digitally watermarked over most of its extent to allow machine identification by one or more inexpensive cameras at retail checkouts. Such a system also considers image fingerprints, product configuration, barcodes and other available information in identifying products. Imagery captured by conventional or plenoptic cameras is processed to derive several perspective-transformed views, which are provided to the identification system-increasing throughput by minimizing the need to manually reposition items for identification. Crinkles and other deformations in product packaging are optically sensed, allowing the surface to be virtually flattened to aid identification. A marked conveyor belt at the checkout station increases speed and accuracy, and provides other benefits to both shoppers and sellers. A great variety of other features are also detailed.

**Classifications:**

**International (IPC 8-9):** G01B11/00 G06K15/00 G06K19/00 G06K7/10 G06K7/14 G06K9/00 G06K9/20 G06K9/32 G06K9/78 G06Q10/00 G06Q10/08 G06Q20/20 G06Q30/00 G06T1/00 G06T3/00 G06T5/00 G06T7/00 G07G1/00 G07G1/06 G07G1/12 (Advanced/Invention); G06F3/147 G06K17/00 G06K7/14 G06Q10/08 G06Q20/20 G06Q30/06 (Advanced/Non-invention)

**CPC:** G06K9/00201 G06K9/3216 G06K2009/3225 G06T3/00 G06T1/0064 G06K9/00 G06K7/1443 G06K7/1452 G07G1/0045 G06K2209/25 G06T1/005 G06K9/3233 G06T2201/0051 G06T2201/0065 G06Q30/00 G06T5/006 G06T7/0004 G06T2207/10016 G06T2207/10021 G06T2207/10024 G06K7/1456 G06F3/147 G06K7/10861 G06K2017/0051 G06K2017/0093 G06Q10/08 G06Q30/0601 G07G1/06 G07G1/0009 G07G1/12 G06K9/2054 G06Q10/087 G06Q20/201 G06Q20/208 G07G1/0063 G06K9/4671 G06T7/0042 G07G1/0036 G06K9/78 G06K9/00664 G06T7/10 G06T7/194 G06T7/73 G06K9/00671 G06K9/18 G06K9/209 G06K9/46 G06K9/00771

**US:** 1/1 235/375 235/383 235/454 235/462.01 235/462.08 382/100 705/23



**Family:**

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| CA2888153 AA       | 20150410         | CA20132888153      | 20131021         |
| EP2751748 A1       | 20140709         | EP20120828080      | 20120830         |
| EP2751748 A4       | 20160615         | EP20120828080      | 20120830         |
| JP2014531636 T2    | 20141127         | JP20140528612T     | 20120830         |
| JP5984096 B2       | 20160906         | JP20140528612T     | 20120830         |
| US2013048722 AA    | 20130228         | US20110231893      | 20110913         |
| US2013223673 AA    | 20130829         | US20130750752      | 20130125         |
| US2014052555 AA    | 20140220         | US20130946968      | 20130719         |
| US2014112524 AA    | 20140424         | US20130804413      | 20130314         |
| US2016063821 AA    | 20160303         | US20150839561      | 20150828         |
| US2016110839 AA    | 20160421         | US20150978827      | 20151222         |
| US2016364634 AA    | 20161215         | US20160175997      | 20160607         |
| US2017249491 AA    | 20170831         | US20170462597      | 20170317         |
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| US9129277 BB       | 20150908         | US20130946968      | 20130719         |
| US9224184 BB       | 20151229         | US20130804413      | 20130314         |
| US9367770 BB       | 20160614         | US20130750752      | 20130125         |
| US9600982 BB       | 20170321         | US20150839561      | 20150828         |
| WO13033442 A1      | 20130307         | WO2012US53201      | 20120830         |
| WO14063157 A2      | 20140424         | WO2013US65958      | 20131021         |
| WO14063157 A3      | 20140619         | WO2013US65958      | 20131021         |

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| US20110231893  | 20110913 | US20110537523P | 20110921 | US20110540455P | 20110928 |
| US20110544996P | 20111007 | US20120693225P | 20120824 | WO2012US53201  | 20120830 |
| US20120716223P | 20121019 | US20120716591P | 20121021 | US20120724854P | 20121109 |
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**Probable Assignee:** DIGIMARC CORP

**Assignee(s):** (std): DIGIMARC CORP ; DAVIS BRUCE L ; CONWELL WILLIAM Y ; FILLER TOMAS ; GERLACH REBECCA L ; LORD JOHN D ; EVANS ERIC D ; BAI YANG ; BOUNKETH BENJAMIN B ; BRANDIS ROBERT CRAIG ; RHOADS GEOFFREY B ; RODRIGUEZ TONY F ; REED ALASTAIR M ; STACH JOHN

**Assignee(s):** MACINTOSH BRIAN T ; CALHOON SEAN ; FOOTEN MARC G

**Inventor(s):** (std): BAI YANG ; BOUNKETH BENJAMIN B ; BRANDIS ROBERT CRAIG ; CALHOON SEAN ; CONWELL WILLIAM Y ; DAVIS BRUCE L ; EVANS ERIC D ; FILLER TOMAS ; FOOTEN MARC G ; GERLACH REBECCA L ; LORD JOHN D ; MACINTOSH BRIAN T ; REED ALASTAIR M ; RHOADS GEOFFREY B ; RODRIGUEZ TONY F ; STACH JOHN ; STACH JOHN F

**Agent(s):** OYEN WIGGS GREEN AND MUTALA LLP; HOARTON LLOYD DOUGLAS CHARLES; DIGIMARC CORP; CONWELL WILLIAM Y

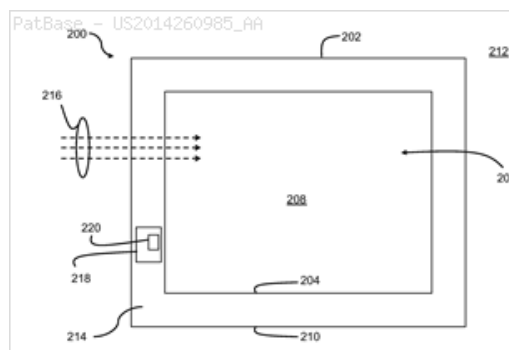
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**Title:** FUNCTIONAL DESICCANTS

**Abstract:** A device includes a desiccant and an enclosure having an interior surrounding the desiccant. The enclosure may include a moisture vapor permeable membrane with a moisture permeability sufficient to pass moisture from outside the enclosure to the desiccant. The device may further include a functional device within the enclosure having processing circuitry to perform at least one function associated with the desiccant.

**Classifications:**

**International (IPC 8-9):** A61J1/03 A61J7/00 A61J7/02 A61J7/04  
B01D53/02 B01D53/04 B01D53/22 B01D53/26 B65D47/20 B65D47/26  
B65D47/28 B65D81/26 B65D83/04 G06F19/00 G06Q50/22 G07C9/00  
G07F11/00 G07F11/44 G07F17/00 G07F9/02 G08B21/00  
H04N7/18 (Advanced/Invention);  
A61J1/03 B01D53/04 G06F19/00 (Advanced/Non-invention)  
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**Family:**

| Publication number | Publication date | Application number | Application date |
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| AU2014233248 AA    | 20140918         | AU20140233248      | 20140315         |
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| CN105452119 A      | 20160330         | CN201480027868     | 20140315         |
| CN105452119 B      | 20170718         | CN201480027868     | 20140315         |
| EP2968075 A2       | 20160120         | EP20140764973      | 20140315         |
| EP2968075 A4       | 20160921         | EP20140764973      | 20140315         |
| EP2969822 A1       | 20160120         | EP20140765247      | 20140315         |
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| US2014263423 AA    | 20140918         | US20140216162      | 20140317         |
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| US2014278508 AA    | 20140918         | US20140214737      | 20140315         |
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| WO14145218 A2      | 20140918         | WO2014US29940      | 20140315         |
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| WO14145274 A1      | 20140918         | WO2014US30008      | 20140315         |

**Priority:**

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| WO2014US30008  | 20140315 | WO2014US29940 | 20140315 | US20140215901 | 20140317 |
| US20140215726  | 20140317 | US20140216162 | 20140317 | US20160174187 | 20160606 |
| US20160289325  | 20161010 | US20170436232 | 20170217 |               |          |

**Probable Assignee:** MAKEFIELD LLC**Assignee(s):** (std): MAKEFIELD LLC**Assignee(s):** TRIGGER DALE ; VEPURI KALYAN C ; VON HEIFNER CHRISTIAN ; AKDOGAN KUTADGU**Inventor(s):** (std): AKDOGAN KUTADGU ; TRIGGER DALE ; VEPURI KALYAN C ; VON HEIFNER CHRISTIAN**Agent(s):** AJ PARK; SMART AND BIGGAR; NAISMITH ROBERT STEWART; FURUYA SATOSHI; ONISHI AKIHIRO; STRATEGIC PATENTS PC; NORTRUP JOHN H ET AL**Designated states:** AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN

IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW  
MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM  
SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

**Title:** SYSTEM FOR DIGITAL RADIO COMMUNICATION BETWEEN A WIRELESS LAN AND A PBX

**Abstract:** A wireless local area network for digital radio communication between remote devices and a PBX telephone system, wherein the remote devices can access and use the voice message features in the PBX and the data bases on a host computer and servers. A wireless phone is provided for voice and data communication through the PBX or a CO telephone line with remote locations or the Internet using digital data packets and standard Internet Protocol. In a preferred embodiment of the invention, the remote device is a cash register comprising a bar code scanner and a phone. Radio communication between the register and a host computer is carried out over two channels, a first channel for data communication and a second channel for voice communication.

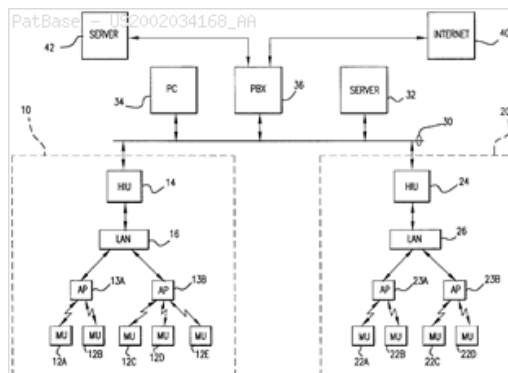
**Classifications:**

**International (IPC 8-9):** A61M25/06 G06K15/00 G06K17/00 G06K7/00 G06K7/10 G06Q20/00 G06Q20/34 G06Q30/00 G06Q30/02 G06Q30/06 G06Q99/00 G07F7/00 G07F7/02 G07F7/10 G07G1/00 G07G1/14 H04B7/26 H04L12/04 H04L12/28 H04L12/46 H04L12/56 H04M1/00 H04M1/253 H04M1/50 H04M1/57 H04M1/663 H04M1/725 H04M3/00 H04M3/38 H04M3/42 H04M3/533 H04M7/12 H04Q3/58 H04Q7/00 H04Q7/24 H04Q7/26 H04W4/12 H04W76/02 H04W84/16 H04W88/16 H04W92/02 (Advanced/Invention); H04B7/26 H04L12/28 H04L12/56 H04M1/253 H04M1/57 H04M1/663 H04M3/38 H04M3/42 H04M7/12 H04Q3/58 H04W84/12 H04W92/02 H04W92/06 (Advanced/Non-invention); G06K17/00 G06K7/10 G06Q30/00 G06Q99/00 G07F7/00 G07F7/10 G07G1/00 G07G1/14 H04L12/28 H04L12/56 H04M1/72 H04M3/50 H04W76/00 (Core/Invention); H04M1/253 H04M1/57 H04M1/66 H04M3/38 H04W84/02 (Core/Non-invention)

**International (IPC 1-7):** G06F15/00 G06F17/00 G06F17/06 G06F17/60 G06F7/04 G06F7/10 G06K15/00 G06K17/00 G06K5/00 G06K7/10 H04B1/38 H04B7/26 H04J3/24 H04L12/04 H04L12/28 H04L12/56 H04L12/66 H04M1/00 H04M1/57 H04M3/00 H04M3/50 H04Q3/58 H04Q7/00 H04Q7/20 H04Q7/22 H04Q7/24 H04Q7/26 G07G1/0081 G06Q30/0603 G06Q20/204 G06Q30/0635 H04W76/10 H04M3/533 G06K17/00 G06Q20/343 G06Q20/3552 G06Q30/02 G06Q30/06 G06Q99/00 G07F7/00 G07F7/02 G07F7/1008 G07G1/0036 G07G1/14 H04M1/2535 H04M1/57 H04M1/663 H04M1/725 H04M1/72522 H04M1/72547 H04M1/72561 H04M1/733 H04M3/38 H04M3/42042 H04M3/42059 H04M3/42246 H04M3/42314 H04M7/006 H04M7/12 H04M2201/40 H04M2207/18 H04M2207/20 H04M2242/22 H04W80/00 H04W84/12 H04W84/16 H04W92/02

**European:** G06K17/00 G06Q20/20 G06Q20/204 G06Q20/32 G06Q20/327 G06Q20/3276 G06Q20/343 G06Q20/3552 G06Q30/00 G06Q30/02 G06Q30/06 G06Q30/0603 G06Q30/0635 G06Q30/06C G06Q99/00 G07F7/00 G07F7/02 G07F7/10D G07G1/00C G07G1/00C2 G07G1/00C2D G07G1/00C2D4 G07G1/00C2P G07G1/14 G07G3/00 H04M1/253W H04M1/725 H04M1/725F1 H04M1/733 H04M3/533 H04W84/16 H04W92/02 T04M1/253W T04M1/57 T04M1/663 T04M1/725F1M T04M1/725F1W T04M201/40 T04M207/18 T04M207/20 T04M242/22 T04M3/38 T04M3/42C1N T04M3/42C1U T04M3/42M5 T04M3/42P T04M7/00M T04M7/12 T04W76/02 T04W80/00 T04W84/12

**US:** 177/25.11 177/25.110S 186/56 235/363 235/375 235/375S 235/376 235/377 235/379 235/380 235/383 235/383P 235/385 235/462.01 235/462.45 235/462.46 235/472 235/472.01 235/472.02 235/472.020P 235/492 340/5.9 340/825.35 370/329 370/329P 370/338 370/338P 370/338S 370/349 370/356 370/401 370/401S 379/93.05 455/432 455/432.1 455/434 455/553 455/553.1 455/553.100P 455/554 455/555 455/555S 705/1 705/1.1 705/16 705/17 705/26 705/26.81 705/27 707/10 707/999.01



**Family:**

| Publication number | Publication date | Application number | Application date |
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| DE69734188 T2      | 20060629         | DE19976034188T     | 19971222         |
| DE69944504 D1      | 20130131         | DE19996044504      | 19990114         |
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| EP0856812 A3       | 19990506         | EP19970122695      | 19971222         |
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| EP0930766 A3       | 20040602         | EP19990100655      | 19990114         |
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| US2003040332 AA    | 20030227         | US20020161876      | 20020604         |
| US2003132298 AA    | 20030717         | US20010990597      | 20011121         |

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| US2007210155 AA | 20070913 | US20070686787 | 20070315 |
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| US6330244 BA    | 20011211 | US19980008710 | 19980116 |
| US6367694 BA    | 20020409 | US19990436170 | 19991109 |
| US6550672 BA    | 20030422 | US19990434052 | 19991104 |
| US6837436 BB    | 20050104 | US20010990597 | 20011121 |
| US7040541 BB    | 20060509 | US20000487923 | 20000119 |
| US7063263 BB    | 20060620 | US20040957819 | 20041004 |
| US7107221 BA    | 20060912 | US20000692402 | 20001019 |
| US7195157 BB    | 20070327 | US20060424370 | 20060615 |
| US7327711 BB    | 20080205 | US20020161876 | 20020604 |
| US7492748 BB    | 20090217 | US20060593624 | 20061106 |
| US7725326 BA    | 20100525 | US20060460579 | 20060727 |
| ZA9900280 A     | 20000707 | ZA19990000280 | 19990115 |

**Priority:**

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| US19960706579 19960905 | US19960771463 19961220 | US19960780023 19961220 |
| US19970866690 19970530 | US19980008710 19980116 | US19980153832 19980915 |
| CA19982256930 19981223 | KR19990000637 19990113 | EP19990100655 19990114 |
| US19990434052 19991104 | US19990435883 19991104 | US19990436170 19991109 |
| US20000487923 20000119 | US20000692402 20001019 | US20010940182 20010827 |
| US20010990597 20011121 | US20020161876 20020604 | US20040957819 20041004 |
| US20060424370 20060615 | US20060460579 20060727 | US20060593624 20061106 |
| US20070686787 20070315 |                        |                        |

**Probable Assignee:** SYMBOL TECHNOLOGIES INC

**Assignee(s):** (std): BEACH ROBERT ; HEIMAN FRED P ; SWARTZ JEROME ; MCGLYNN DANIEL R ; SYMBOL TECHNOLOGIES INC

**Assignee(s):** SYMBOL TECHNOLOGIES LLC ; SYMBOL TECHNOLOGIES INC HOLTSVILLE ; SYMBOL TECHNOL INC ; MICROSOFT CORP ; JPMORGAN CHASE BANK NA COLLATERAL AGENT AS ; MORGAN STANLEY SENIOR FUNDING INC COLLATERAL AGENT AS ; JPMORGAN CHASE BANK NA ; PREMUTICO MAURO ; ROSLAK THOMAS K ; KLEIN JOHN ; MURRAH JUDITH ; PETROVICH ADAM ; BARKAN EDWARD

**Inventor(s):** (std): TRACY WILLIAM X ; SANDLER ROBERT ; ROSLAK THOMAS K ; RISO FRANCIS ; MURRAH JUDITH ; KLEIN JOHN ; HEIMAN FREDERIC P ; BEACH ROBERT ; SWARTZ JEROME ; ROSLAK THOMAS ; PREMUTICO MAURO ; PETROVICH ADAM ; MCGLYNN JEROME SWARTZ FRED P H ; MCGLYNN DANIEL R ; HEIMAN FRED P ; BARKAN EDWARD

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**Agent(s):** SPRUSON AND FERGUSON; ASPEN PHARMA PTY LTD; KIRBY EADES GALE BAKER; SCHUMACHER AND WILLSAU PATENTANWALTSGESELLSCHAFT MBH; TRELEVEN COLIN; CARVAJAL Y ISABEL; WONJON PATENT FIRM; AMIN AND TUROCY LLP; AMIN TUROCY AND CALVIN LLP; HOGAN AND HARTSON LLP; INGRASSIA FISHER AND LORENZ PC

**Designated states:** AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

**Title:** GENIUS ADAPTIVE DESIGN

**Abstract:** Explore interesting inventions inside, conceived by our genius idea generator. Discover history's most effective method in conceiving novel uses for existing electronic technology. License huge domains of intellectual property from the invention directory our system helped develop. The searcher can find one of our interesting inventions in this patent application via our LicenseItToday.com, etc. Call our California Headquarters 1-707-428-5000. View invention ideas, plus 100+ variations adapted for end user target markets. LicenseItToday.com fills out exclusive international license agreements valid up to December 2026. It saves time and money creative LP. over any other documented creative thinking process. Licensees seek outputted patents using our or their pat attorneys. Royalties can start when profits begin. Or you can buy the affordable I.P. rights. Proof is in trying it out. Discover amazing inventions inside today.

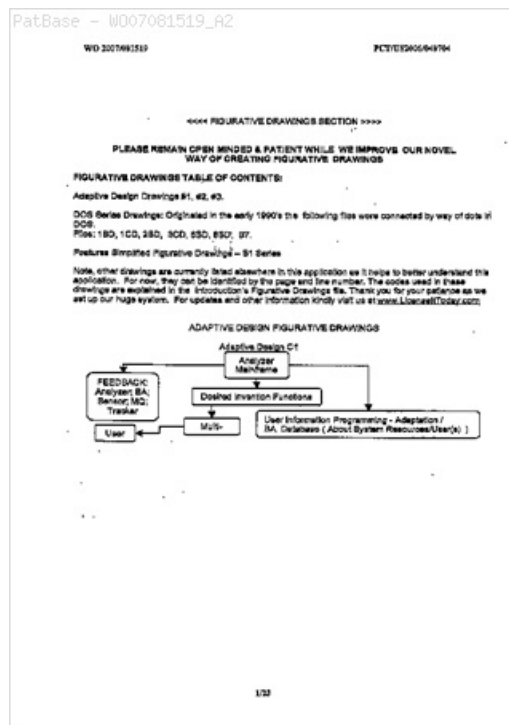
**Classifications:**

**International (IPC 8-9):** E06B7/32 G06F17/00 G06F17/30 G06Q G06Q10/00 G06Q30/00 G06Q50/00 (Advanced/Invention)

**International (IPC 1-7):** G06Q30/00

**CPC:** G06F8/70 G06F9/445 G06Q10/10 G06F17/30 G06Q30/0601

**European:** G06Q10/10



**Family:**

| Publication number | Publication date | Application number | Application date |
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| AU20060335151 AA   | 20070719         | AU20060335151      | 20061219         |
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**Priority:**

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| AU20060335151 20061219  | WO2006US48704 20061219  | AU20130200386 20130125  |

**Probable Assignee:** INNOVATION INST LLC

**Assignee(s):** (std): CABINALLA LINDA ; INNOVATION INST LLC ; KAYS STEVEN ; WORLD CHARITY DIVISION LICENSE ; STEVEN KAYS

**Assignee(s):** WORLD CHARITY DIVISION LICENSEIT TODAY COM LLC ; WORLD CHARITY DIVISION LICENSEIT TODAY COM LLC ; INNOVATION INSTITUTE LLC

**Inventor(s):** (std): CABINALLA LINDA ; KAYS STEVEN

**Inventor(s):** STEVEN KAYS

**Agent(s):** SHELSTON IP; KAYS STEVEN; INNOVATION INSTITUTE ION LLC; BORDEN LADNER GERVAIS LLP; MAURICIO JARAMILLO CAMPUZANO; BEETZ AND PARTNER

**Designated states:** AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM

KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD MG MK ML MN MR MW MX MY MZ NA NE NG NI NL NO  
NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US  
UZ VC VN ZA ZM ZW

**Title:** BIOMETRIC MONITORING DEVICE HAVING A BODY WEIGHT SENSOR, AND METHODS OF OPERATING SAME

**Abstract:** A system comprising a biometric monitoring device including a housing including a platform to receive at least one foot of the user, a body weight sensor to generate body weight data, processing circuitry to calculate user weight data which corresponds to the user's weight, using the body weight data, and communication circuitry to: (a) receive user identification data which identifies the user or a portable activity monitoring device, and (b) transmit the user weight data to data storage associated with the user identification data. The system further includes the portable activity monitoring device including a housing having a physical size and shape that is adapted to couple to the user's body, a sensor to generate sensor data, and communication circuitry to receive physiologic data which is based on the user weight data, and processing circuitry to calculate activity data using the sensor data and physiologic data.

**Classifications:**

**International (IPC 8-9):** A61B5/00 A61B5/02 A61B5/0205 A61B5/0402 A61B5/053 A61B5/107 A61B5/11 A61B5/117 A61B5/16 A61N1/37 A63B71/00 A63B71/06 G01G19/00 G01G19/44 G01G19/50 G01G23/37 G06F19/00 G06F21/00 G06F21/32 G06F3/041 G06K9/00 G06Q10/06 G06Q30/02 G06Q50/22 G08B5/00 G09B19/00 G09B5/00 G09B5/12 (Advanced/Invention);

A61B5/00 A61B5/021 A61B5/024 G01G19/00 G01G23/00 G06F19/00 G06F21/00 G06Q50/00 (Advanced/Non-invention)

**CPC:** A61B5/1118 G06F21/31 G06F19/3418 G06F19/3475 G06Q50/22 Y10S128/92 A61B5/0002 A61B5/0022 A61B5/0024 A61B5/0059 A61B5/02007 A61B5/021 A61B5/02416 A61B5/0402 A61B5/053 A61B5/107 A61B5/4872 A61B5/7275 A61B5/742 A63B2220/803 A63B2225/50 A63B2230/75 G01G19/44 G01G23/3728 G06F3/0412 G06F19/32 G06F19/3481 G06F21/32 G09B5/00 A63B71/06 G06K9/00342 A61B5/165 A61B5/4343 A61N1/3702 A61B5/0077 A61B5/7278 G09B5/125 G01G19/50 A61B5/0205 A61B5/024 A61B5/0533 A61B2560/0252 A61B2560/0257 A61B2562/0204 A61B2562/0257 A61B2562/029 A61B5/749 A61B5/7475 G06Q10/0639 G06Q30/0207 G09B19/0038 G09B19/0092 A61B5/0537 G16H40/63 G16H50/30 G06F19/3431 A61B5/117 G06F19/00

**US:** 1/1 128/920 128/921 177/1 177/2 177/25.12 177/25.13 177/25.16 177/4 177/5 340/5.81 340/5.82 340/539.12 434/236 482/1 482/2 482/8 600/300 600/301 600/476 600/479 600/480 600/500 600/508 600/509 600/547 600/595 700/90 700/91 702/173 702/19 705/2 705/3 709/217 709/219



**Family:**

| Publication number | Publication date | Application number | Application date |
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| US2014012512 AA    | 20140109         | US20130027164      | 20130914         |
| US2014018706 AA    | 20140116         | US20130027166      | 20130914         |
| US2014182952 AA    | 20140703         | US20140201478      | 20140307         |
| US2014257053 AA    | 20140911         | US20140261354      | 20140424         |
| US2014257709 AA    | 20140911         | US20140201467      | 20140307         |
| US2014343443 AA    | 20141120         | US20140448965      | 20140731         |
| US2014377729 AA    | 20141225         | US20140476143      | 20140903         |
| US2014379275 AA    | 20141225         | US20140476128      | 20140903         |
| US2015011845 AA    | 20150108         | US20140493156      | 20140922         |
| US2015018991 AA    | 20150115         | US20140497177      | 20140925         |
| US2016042142 AA    | 20160211         | US20150887075      | 20151019         |
| US2016349104 AA    | 20161201         | US20160220275      | 20160726         |
| US8475367 BA       | 20130702         | US20120346275      | 20120109         |
| US8696569 BB       | 20140415         | US20130929868      | 20130628         |
| US8747312 BB       | 20140610         | US20130027164      | 20130914         |
| US9084536 BB       | 20150721         | US20140201478      | 20140307         |
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**Priority:**

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| US20140201478  | 20140307 | US20140201467 | 20140307 | US20140261354  | 20140424 |
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| US20140493156  | 20140922 | US20140497177 | 20140925 | US20150887075  | 20151019 |
| US20160220275  | 20160726 |               |          |                |          |

**Probable Assignee:** FITBIT INC

**Assignee(s):** (std): FITBIT INC ; FRIEDMAN ERIC NATHAN ; PARK JAMES ; YUEN SHELTON GEE JAO

**Assignee(s):** SILICON VALLEY BANK ADMINISTRATIVE AGENT AS ; MORGAN STANLEY SENIOR FUNDING INC COLLATERAL AGENT AS ; FITSTAR INC

**Inventor(s):** (std): ARNOLD JACOB ANTONY ; FRIEDMAN ERIC NATHAN ; HONG JUNG OOK ; PARK JAMES ; YUEN SHELTON GEE JAO ; YUEN SHELTON GEE JAO

**Agent(s):** NEIL A ; WEAVER AUSTIN VILLENEUVE AND SAMPSON LLP

**Title:** UPDATING OLD MEDIA WITH CONFIGURABLE ENTITIES

**Abstract:** The claimed subject matter relates to an architecture that can provide configurable entities in connection with electronic archival of print-based media. In accordance therewith, print-based media can be archived electronically (e.g., by imaging or scanning the print-based media) in a remastered form that provides for displaying the original work with readily modifiable entities, such as advertisements. Media or entities can be selected based upon the original advertiser, the original product, or another element or feature of the print-based media, and can also be selected based upon a profile associated with the media consumer.

**Classifications:**

**International (IPC 8-9):** G01C21/00 G01S5/00 G06F13/00 G06F15/16 G06F17/00 G06F17/30 G06F17/40 G06F19/00 G06F21/00 G06F21/24 G06F7/06 G06F9/44 G06F9/54 G06Q10/00 G06Q30/00 G06Q30/02 G06Q40/00 G06Q50/00 G06Q50/10 G06Q99/00 G06T3/60 G09F19/00 G09G5/00 G09G5/02 G11B7/00 H04L29/06 H04L29/08 H04N1/00 H04Q7/20 (Advanced/Invention);

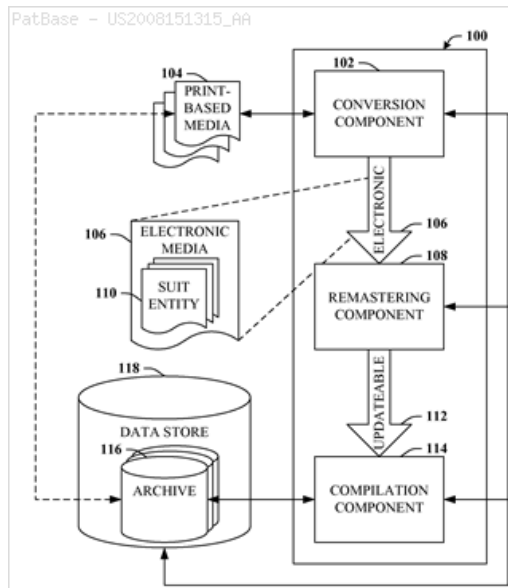
G06Q30/06 (Advanced/Non-invention);

G01C21/00 G06F17/00 G06F17/30 G06F17/40 G06F19/00 G06F21/00 G06F9/44 G06Q10/00 G06Q30/00 G06Q40/00 G06Q50/00 G06Q99/00 H04N1/00 H04Q7/20 (Core/Invention)

**CPC:** G06Q30/0275 G06Q20/10 G06Q30/0226 G06Q30/0235 G06Q30/0267 G06Q30/0215 G06Q30/0601 G06Q30/0603 G06Q30/0272 G06Q30/0633 G01C21/343 G06Q10/0635 G06F17/30241 G06Q10/06375 G06Q30/0241 G06Q30/0206 G06Q50/188 G06Q40/04 G06F17/30867 G06Q10/10 Y10S707/949 G06Q30/0259 G06Q10/06312 G06Q30/0204 G06Q30/0205 G06Q30/0276 G06Q30/0224 G06Q30/0255 G06Q30/0631 G06Q30/0201 G06Q30/0242 H04L63/104 G06Q30/0254 G06Q30/0277 H04L67/22 H04L67/306 H04N1/00204 H04N1/00244 H04N2201/0068 H04N2201/0081 G06Q30/02 G06F9/451 G06Q30/0269 G06Q20/209

**European:** G01C21/34A3 G06F17/30L G06F17/30W1F G06F9/44W G06Q10/06312 G06Q10/0635 G06Q10/06375 G06Q10/10 G06Q20/10 G06Q30/00 G06Q30/02 G06Q30/0201 G06Q30/0204 G06Q30/0205 G06Q30/0206 G06Q30/0215 G06Q30/0226 G06Q30/0235 G06Q30/0241 G06Q30/0242 G06Q30/0254 G06Q30/0267 G06Q30/0269 G06Q30/0272 G06Q30/0275 G06Q30/0277 G06Q30/0601 G06Q30/0603 G06Q30/0633 G06Q30/06C G06Q40/04 G06Q50/188 H04L29/06S10C H04L29/08N21 H04L29/08N29U H04L63/10C H04N1/00C3 H04N1/00C3K T04N201/00C13C T04N201/00J2

**US:** 1/1 1/1P 345/594 345/619 345/619S 345/629 345/649 345/649S 345/655 345/699 358/1.13 358/1.15 358/1.18 358/401 358/401P 455/456.3 455/456.300P 701/201 701/201S 701/533 701/533S 704/260 705/1 705/1.1 705/1.100S 705/10 705/10P 705/14 705/14.17 705/14.170P 705/14.25 705/14.27 705/14.270P 705/14.35 705/14.350P 705/14.4 705/14.400P 705/14.41 705/14.410P 705/14.49 705/14.52 705/14.520P 705/14.520S 705/14.53 705/14.58 705/14.64 705/14.640S 705/14.66 705/14.660P 705/14.660S 705/14.67 705/14.68 705/14.680P 705/14.71 705/14.710P 705/14.72 705/14.73 705/14.730S 705/26 705/26.1 705/26.100S 705/26.7 705/26.8 705/26.800S 705/26P 705/27.1 705/27.2 705/28 705/37 705/37P 705/39 705/39S 705/51 705/51P 705/7 705/7.11 705/7.22 705/7.220P 705/7.28 705/7.280S 705/7.29 705/7.290P 705/7.290S 705/7.33 705/7.330S 705/7.34 705/7.340S 705/7.35 705/7.350S 705/7.37 705/7.370S 705/7P 705/7S 705/8 705/80 705/80P 707/1 707/10 707/100 707/6 707/708 707/733 707/734 707/769 707/949 707/999.006 707/999.006S 707/999.01 707/999.010S 707/E17.001 707/E17.001S 707/E17.019 707/E17.019S 707/E17.032 707/E17.032S 709/203 709/218 709/224 709/226 709/228 715/214 719/328 719/328P 719/328S 725/46 726/2 726/26 726/26S 726/2S

**Family:**

| Publication number | Publication date | Application number | Application date |
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| US2008154698 AA | 20080626 | US20070862683 | 20070927 |
| US2008154703 AA | 20080626 | US20070959844 | 20071219 |
| US2008154704 AA | 20080626 | US20070959874 | 20071219 |
| US2008154705 AA | 20080626 | US20070960110 | 20071219 |
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| US2008154719 AA | 20080626 | US20070769439 | 20070627 |
| US2008154720 AA | 20080626 | US20070862766 | 20070927 |
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| WO08079622 A3   | 20110714 | WO2007US86655 | 20071206 |
| WO08079628 A1   | 20080703 | WO2007US86700 | 20071206 |

#### Priority:

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| US20060870926P | 20061220 | US20070765685 | 20070620 | US20070766695 | 20070621 |
| US20070767360  | 20070622 | US20070767741 | 20070625 | US20070767810 | 20070625 |
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| WO2007US86643  | 20071206 | US20070959844 | 20071219 | US20070960089 | 20071219 |
| US20070960419  | 20071219 | US20070959874 | 20071219 | US20070960110 | 20071219 |
| US20070960105  | 20071219 | US20070959864 | 20071219 | US20070960098 | 20071219 |
| US20090487020  | 20090618 | US20090492569 | 20090626 | US20120361451 | 20120130 |
| US20120542961  | 20120706 | US20130873689 | 20130430 | US20130949494 | 20130724 |

**Probable Assignee:** MICROSOFT TECHNOLOGY LICENSING LLC

**Assignee(s):** (std): FLAKE GARY W ; GOUNARES ALEXANDER G ; HORVITZ ERIC J ; GOUNARES ALEXANDER ; JAIN KAMAL ; HEMMEN JEFFREY R ; FAROUKI KARIM T ; MAHAJAN MILIND V ; DUNN MELISSA W ; GARMS JASON ; MICROSOFT CORP ; SMITH JR LEONARD ; MOROMISATO GEORGE P ; SHARPE TIMOTHY D ; NANDURI JAYARAM NM ; MICROSOFT TECHNOLOGY LICENSING LLC ; BLEGEN DARRELL LEROY ; BREWER BRETT D ; CHENG LILI ; CHICKERING DAVID M ; CONNOLLY MICHAEL ; CZERWINSKI MARY P

**Assignee(s):** MAJKROSOFT KORPOREJSHN

**Inventor(s):** (std): BLEGEN DARRELL LEROY ; BLIN ARNOLD N ; BLINN ARNOLD N ; BLINN ARNOLD N ; BRETT D BREWER ; BREWER BRETT D ; BRJUEHR BRETT D ; CHENG LILI ; CHICKERING DAVID M ; CHICKERING DEHVID M ; CONNOLLY MICHAEL ; CZERWINSKI MARY P ; DANI NISHANT V ; DARRYN DIEKEN ; DAVID M CHICKERING ; DIEKEN DARRYN ; DIKEN DARRIN ; DUNN MELISSA W ; DZHAIN KAMAL ; ERIC J HORVITZ ; FAROUKI KARIM T ; FLAKE GARY W ; FLEHJK GARI V ; GARMS JASON ; GARY W FLAKE ; GOODMAN JOSHUA T ; GOUNARES ALEXANDER DZH ; GOUNARES ALEXANDER ; GOUNARES ALEXANDER G ; GUDMEHN DZHOSHUA T ; KONNOLLY MAJKL ; LEONARD SMITH ; LILI CHENG ; MAHAJAN MILIND V ; MEEK CHRISTOPHER A ; MICHAEL CONNOLLY ; MOROMISATO GEORGE P ; NADZHM TAREK ; NAJM TAREK ; NANDURI JAYARAM NM ; NISHANT V DANI ; SHARPE TIMOTHY D ; SMITH LEONARD ; SMITH JR LEONARD ; SMITH LEONARD ; TAREK NAJM ; HEMMEN JEFFREY R ; HORVITZ ERIC J ; JAIN KAMAL ; JEFFREY R HEMMEN ; JOSHUA T GOODMAN ; KAMAL JAIN ; KHEMMEHN DZHEFFRI R ; ALEXANDER G GOUNARES ; KHORVITS EHRIC DZH

**Inventor(s):** ARNOLD N BLIN ; ARNOLD N BLINN ; BLINN ARNOLD N.

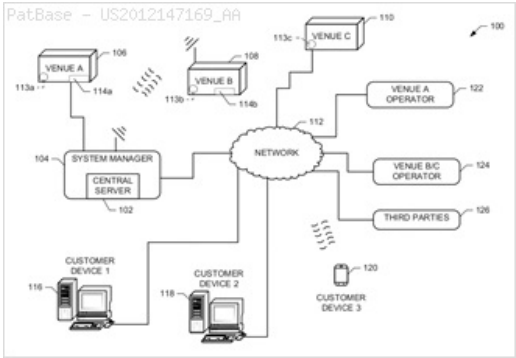
**Agent(s):** DAVIES COLLISON CAVE ; DAVIES COLLISON CAVE PTY LTD ; GODDARD HEINZ J ; ONO SHINJIRO ; SHAMOTO ICHIO ; KOBAYASHI YASUSHI ; TOMITA HIROYUKI ; CHIBA AKIO ; HOSHINO OSAMU ; AMIN TUROCY AND CALVIN LLP ; TUROCY AND WATSON LLP ; SHOOK HARDY AND BACON LLP ; MICKY ; LEONARD ; DAVE ; PETER ; DOUG ; MICKY ; JESSICA

**Designated states:** AE AG AL AM AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: APPARATUS AND METHOD TO MONITOR CUSTOMER DEMOGRAPHICS IN A VENUE OR SIMILAR FACILITY

**Abstract:** A venue monitoring and reporting system includes a network, a central server in data communication with the network, a customer device in data communication with the network, a local server in data communication with the network, the local server located at a venue remote from the central server, at least one camera in data communication with the local server, the at least one camera positioned to view a customer as the customer enters the venue, and wherein the central server, the customer device and the local server cooperate with the network to use images captured by the at least one camera to produce at least one of a total number of customers at the venue or a demographic characteristic of the customers at the venue, wherein the total number of the customers or the demographic characteristic of the customers at the venue is made viewable on the customer device.

**Classifications:**  
**International (IPC 8-9):** G06Q30/02 H04N7/18 (Advanced/Invention)  
**CPC:** G06Q30/0204  
**European:** G06Q30/0204  
**US:** 348/77 348/77P 348/E7.085 348/E70.85S 705/7.33 705/7.330P



Family:

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
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| EP2652947 A1       | 20131023         | EP20110808431      | 20111213         |
| US2012147169 AA    | 20120614         | US20110324671      | 20111213         |
| US2012150586 AA    | 20120614         | US20110324674      | 20111213         |
| WO12082756 A1      | 20120621         | WO2011US64675      | 20111213         |

Priority:

US20100422895P 20101214      US20110324671 20111213      US20110324674 20111213  
WO2011US64675 20111213

Probable Assignee: SCENETAP LLC

Assignee(s): (std): DOERING MARC SCOTT ; HARPER JOSEPH COLE ; SCENETAP LLC

Inventor(s): (std): DOERING MARC SCOTT ; HARPER JOSEPH COLE

Agent(s): K AND L GATES; POTTER CLARKSON LLP; CONNORS ROBERT W ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

**Title:** WEARABLE GAIT MONITORING APPARATUS, SYSTEMS, AND RELATED METHODS

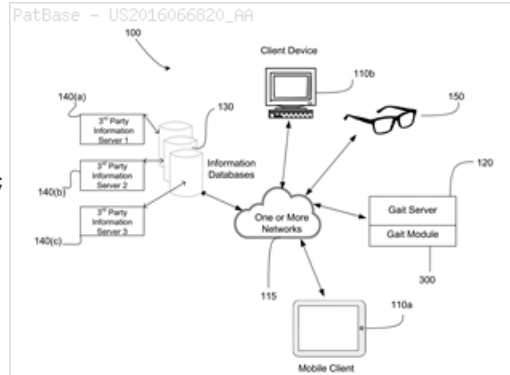
**Abstract:** A system, according to various embodiments, includes eyewear (or any other suitable wearable device) that includes one or more sensors (e.g., one or more accelerometers, magnetometers, position sensors, gyroscopes, and/or other suitable sensors) that may be used to monitor the gait of an individual (e.g., by monitoring the movement of the user's head, or other portions of the user's body, as the user ambulates). The system may further include one or more suitable computing devices for analyzing the individual's gait. This information may then be used, for example, to: (1) identify one or more medical conditions associated with the individual; (2) assess the fit of a prosthetic device worn by the individual, and/or (3) assess an individual's recovery from a particular injury or medical procedure.

**Classifications:**

**International (IPC 8-9):** A61B3/10 A61B3/11 A61B5/00 A61B5/02 A61B5/0205 A61B5/024 A61B5/0402 A61B5/0476 A61B5/05 A61B5/08 A61B5/103 A61B5/11 A61B5/117 A61B5/1171 A61B5/145 A61B5/1455 A61B5/16 A61B5/18 A61B7/04 A61F2/76 A61J7/04 A63B24/00 G01D21/02 G02B27/01 G02C1/00 G02C11/00 G02C5/14 G06F19/00 G06F21/32 G06F21/35 G06K9/00 G06K9/62 G07C9/00 G08B21/02 G08B21/04 G09B19/00 G09B5/00 G09B5/06 G16H40/63 G16H50/20 G2B27/01 G6F21/35 G6K9/00 H04L29/06 H04W84/18 (Advanced/Invention); A61B5/0205 A61B5/024 A61B5/053 A61B5/08 A61F2/76 G02C11/00 (Advanced/Non-invention)

**CPC:** A61B5/6803 A61B5/165 G09B5/00 A61B5/4266 A61B5/0476 A61B5/443 A61B5/1032 A61B5/0402 A61B7/04 A61B5/0002 A61B5/7278 A61B5/4884 A61B5/486 A61B5/7246 A61B5/4076 A61B5/1176 A61B5/024 A61B5/1116 A61B5/0022 A61B5/1114 A61B5/14552 A61B5/1128 A61B5/1103 A61B2562/0219 A61B2562/0223 A61B2560/0242 G06K9/00617 G08B21/0423 G06K9/00664 G06K9/6201 G08B21/0476 G08B21/0461 G09B5/06 G09B19/0092 A63B24/0062 A61B5/0531 A61B5/0816 A61B5/1118 A61B2560/0475 A61B2562/0257 A61B2576/00 A61B5/08 A61B5/14542 A61B5/441 A61B5/445 G01N33/0075 G01N2001/2276 A61B5/0077 A61B5/0205 A61B5/7282 A61F2/76 G06F19/3481 G06F21/35 A61B5/18 A61B5/6893 A61B5/7455 A61B5/7405 A61B5/742 A61B5/02438 A61B5/1121 A61B2503/22 B60Y2302/07 A61B5/112 A61B3/112 G07C9/00158 G02C11/10 G06K9/00348 G06K9/00597 G06K9/00604 A61F2002/7695 H04L63/0861 G16H40/63 G16H50/20 G06K9/00684 G06K9/00885 A61B5/117 G06F19/00 G08B21/02 G08B21/06

**US:** 340/573.1 351/158 434/127 600/301 600/306 600/307 600/324 600/476 600/508 600/529 600/544 600/558 600/595

**Family:**

| Publication number | Publication date | Application number | Application date |
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| EP3189371 A4       | 20180530         | EP20150839047      | 20150904         |
| US2016066820 AA    | 20160310         | US20140550406      | 20141121         |
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| US2016066848 AA    | 20160310         | US20150846401      | 20150904         |
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| US2016071390 AA    | 20160310         | US20140562454      | 20141205         |
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| US2017245757 AA    | 20170831         | US20170594898      | 20170515         |
| US2017265798 AA    | 20170921         | US20170611574      | 20170601         |
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| US9649052 BB       | 20170516         | US20140588122      | 20141231         |
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| WO16037091 A1      | 20160310         | WO2015US48612      | 20150904         |
| WO16037117 A1      | 20160310         | WO2015US48656      | 20150904         |
| WO16037120 A1      | 20160310         | WO2015US48662      | 20150904         |

**Priority:**

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**Probable Assignee:** VISION SERVICE PLAN**Assignee(s):** (std): VISION SERVICE PLAN**Assignee(s):** WORKMAN MATTHEW ALLEN ; KLOSINSKI RICHARD CHESTER JR ; MURPHY MEGHAN KATHLEEN ; SALES JAY WILLIAM ; STEEN MATTHEW DAVID**Inventor(s):** (std): KLOSINSKI JR RICHARD CHESTER ; KLOSINSKI RICHARD CHESTER JR ; MURPHY MEGHAN KATHLEEN ; SALES JAY WILLIAM ; STEEN MATTHEW DAVID ; WORKMAN MATTHEW ALLEN**Agent(s):** DANIELS IP SERVICES LTD; BLACK DIEGO; WILLIAMS DAVID JOHN; BRIENT GLOBERMAN LLC; SCOTT E; KYLE M; GLOBERMAN KYLE M; BRIENT SCOTT E**Designated states:** AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU

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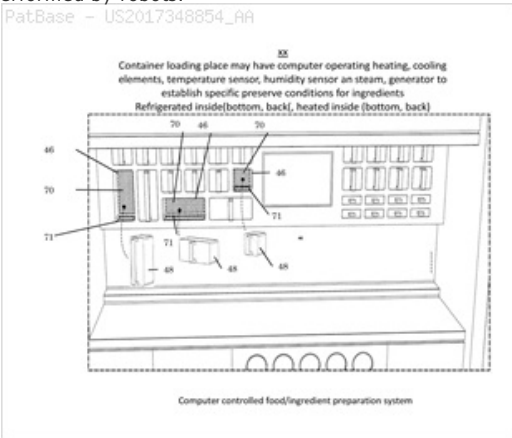


**Title:** ROBOTIC MANIPULATION METHODS AND SYSTEMS FOR EXECUTING A DOMAIN-SPECIFIC APPLICATION IN AN INSTRUMENTED ENVIRONMENT WITH CONTAINERS AND ELECTRONIC MINIMANIPULATION LIBRARIES

**Abstract:** This disclosure discloses various technical features for creating robotic humanoid movements, actions, and interactions with tools and the instrumented environment by automatically building movements for the humanoid; actions and behaviors of the humanoid based on a set of computer-encoded robotic movement and action primitives. The primitives are defined by motions/actions of articulated degrees of freedom that range in complexity from simple to complex, and which can be combined in any form in serial/parallel fashion. These motion-primitives are termed to be minimanipulations and each has a clear time-indexed command input-structure and output behavior/performance profile that is intended to achieve a certain function. Minimanipulations comprise a new way of creating a programmable-by-example platform for robots. The minimanipulation electronic libraries provide a large suite of higher-level sensing-and-execution sequences that are common building blocks for complex tasks, such as cooking, taking care of the infirm, or other tasks performed by robots.

**Classifications:**

**International (IPC 8-9):** A47B77/08 A47B77/16 A47J47/02 B25J11/00 B25J9/16 B65D81/18 (Advanced/Invention)  
**CPC:** B25J9/1605 A47B77/08 A47B77/16 A47J47/02 B25J9/16 B25J11/0045 B65D81/18 G05B2219/45111



**Family:**

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| AU2016370628 AA    | 20170622         | AU20160370628      | 20161216         |
| US2017348854 AA    | 20171207         | US20160382369      | 20161216         |
| WO17103682 A2      | 20170622         | WO2016IB01947      | 20161216         |
| WO17103682 A3      | 20170817         | WO2016IB01947      | 20161216         |

**Priority:**

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| US20150268131P 20151216 | US20160288854P 20160129 | US20160322118P 20160413 |
| US20160399476P 20160925 | US20160425531P 20161122 | US20160382369 20161216  |
| WO2016IB01947 20161216  |                         |                         |

**Probable Assignee:** MBL LTD

**Assignee(s):** (std): MBL LTD

**Inventor(s):** (std): OLEJNIK MARK

**Agent(s):** SPRUSON AND FERGUSON; PLATZOEDER MICHAEL

**Designated states:** AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DJ DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KH KM KN KP KR KW KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

**Title:** WIRELESS CODED COMMUNICATION (WCC) DEVICES WITH POWER HARVESTING POWER SOURCES FOR WIFI COMMUNICATION

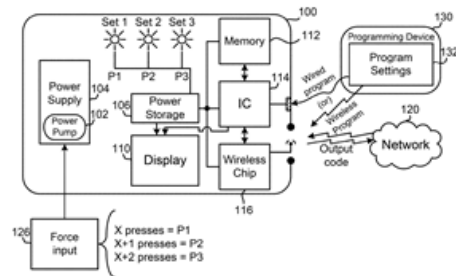
**Abstract:** Devices, systems, and method are provided for wireless coded communication (WCC) devices, which are configured for wireless communication with other devices, e.g., over a network. A WCC device is a type of internet of things (IOT) device that can sense data, process data, send data, respond to data requests and exchange data with other WCC device, a network device, a user device, and/or systems over the internet. In some configurations, a WCC device may include a power source that enables usage of low power, e.g., to send data that is sensed, request data and/or communicate data wirelessly. WCC devices may function as standalone devices or may be integrated into other devices. In some configurations, a WCC device may include power harvesting circuitry, including power harvesting user controls. A WCC device may be pre-configured or coded to report occurrence of an event, log an event, log state, cause an action, send a message or request data from one or more end nodes. In some configurations, the devices enable communication over a wireless network, which enables access to the Internet and further enables cloud processing on data received or processing for data returned or communicated.

**Classifications:**

**International (IPC 8-9):** G06Q20/12 G06Q30/06 G07G1/00 H02N11/00 H04B1/3827 H04L29/08 H04W4/00 H04W76/02 (Advanced/Invention); H04L29/08 H04W84/12 H04W88/02 H04W88/06 (Advanced/Non-invention)

**CPC:** H02N11/002 H04B1/3833 H04L67/12 H04W84/12 H04W88/02 H04W4/008 H04L67/10 H04W76/023 H04W88/06 H04W4/70 H04W4/005 H04W76/14 G07G1/0072 G06Q20/12 G06Q30/0633 H04L67/125 H04W4/50 H04W4/80

PatBase - US9888337\_BA

**Family:**

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| US9888337 BA       | 20180206         | US20160217975      | 20160723         |
| US9894471 BA       | 20180213         | US20160217974      | 20160723         |
| US9911290 BA       | 20180306         | US20160376636      | 20161212         |

**Priority:**

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| US20150197003P | 20150725 | US20150387403P | 20151224 | US20160217972 | 20160723 |
| US20160217975  | 20160723 | US20160217974  | 20160723 | US20160376636 | 20161212 |

**Probable Assignee:**

PENILLA ALBERT S

**Assignee(s):** (std):

PENILLA ALBERT S ; ZALEWSKI GARY M

**Inventor(s):** (std):

PENILLA ALBERT S ; ZALEWSKI GARY M

**Title:** SOCIAL NETWORKING EVENT PLANNING

**Abstract:** Event planning using social networking enables an efficient implementation of planning an event, as well as minimizing network traffic and optimizing other technological aspects of life. Additional information acquired by sensors and other technology is able to improve the quality of the event planning. Social network information as well as the additional information is able to be used to select aspects of the event such as time, location, and/or many other aspects of the event.

**Classifications:**

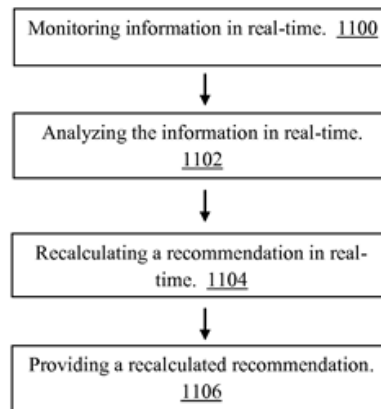
**International (IPC 8-9):** A61B10/00 G06F17/30 G06F19/00 G06Q10/10  
G06Q30/02 G06Q50/00 G06Q50/12 H04L12/58

H04L29/06 (Advanced/Invention)

**CPC:** G06F17/3097 G06Q30/0207 G06Q10/1095 G06Q50/01 A61B10/0064  
G06Q30/0201 G06Q50/12 H04L51/14 H04L51/20 H04L51/32 H04L65/403  
G16H40/63 G06F19/00 H05K999/99

**US:** 705/7.19

PatBase - US2015248651\_AA



**Family:**

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| ■ US2015248651 AA  | 20150903         | US20150631279      | 20150225         |
| ■ US2016232625 AA  | 20160811         | US20160131210      | 20160418         |
| ■ US2017262943 AA  | 20170914         | US20170608637      | 20170530         |
| ■ US9704205 BB     | 20170711         | US20160131210      | 20160418         |

**Priority:**

US20140946306P 20140228      US20140016720P 20140625      US20150631279 20150225  
US20160131210 20160418      US20170608637 20170530

**Probable Assignee:** AKUTAGAWA CHRISTINE E

**Assignee(s):** (std): AKUTAGAWA CHRISTINE E ; MYSLINSKI LUCAS J

**Inventor(s):** (std): AKUTAGAWA CHRISTINE E ; MYSLINSKI LUCAS J

**Agent(s):** HAVERSTOCK AND OWENS

**Title:** SYSTEM AND METHOD OF ELECTRONICALLY VERIFYING REQUIRED PROOF-OF-PERFORMANCE TO SECURE PROMOTIONAL REWARDS

**Abstract:** A proof-of-performance verification system may include a receipt processing facility that receives a receipt image, wherein the receipt processing facility optionally enhances the receipt, converts the receipt image to text, and matches the text to a product or service description in accordance with a terminology database, a proof processor that electronically matches a user-selected reward offer against the product or service description to facilitate offer redemption, and at least one of a payment facility that distributes the offer redemption funds and a rewards facility that communicates incentive rewards to a central location. Related user interfaces, applications, and computer program products are disclosed.

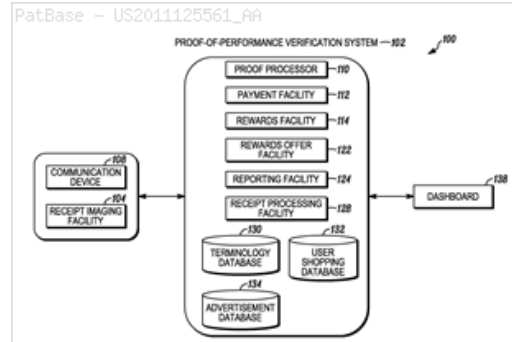
**Classifications:**

**International (IPC 8-9):** G06F17/27 G06Q20/20 G06Q30/00 G06Q30/02 G06Q30/06 H04L29/06 (Advanced/Invention)

**CPC:** G06Q30/0213 G06Q20/209 G06Q20/32 G06Q30/0224 H04L63/1425 G06F17/2705 G06Q30/0255 G06Q30/0629 G06Q30/0234 G06Q30/0225 G06Q30/0207 G06Q30/0283 G06Q30/06 G06Q30/0242

**European:** G06Q20/32 G06Q30/0213

**US:** 705/14.15 705/14.150P 705/14.25 705/14.26 705/14.34 705/14.53 705/26.64



**Family:**

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| US2011125561 AA    | 20110526         | US20100950103      | 20101119         |
| US2015363813 AA    | 20151217         | US20150808677      | 20150724         |
| US2016063532 AA    | 20160303         | US20150939306      | 20151112         |
| US2016104189 AA    | 20160414         | US20150974900      | 20151218         |
| US2017132656 AA    | 20170511         | US20160363379      | 20161129         |
| WO11063177 A1      | 20110526         | WO2010US57331      | 20101119         |

**Priority:**

|                         |                         |                         |
|-------------------------|-------------------------|-------------------------|
| US20090263211P 20091120 | US20090264549P 20091125 | US20100292940P 20100107 |
| US20100380453P 20100907 | US20100950103 20101119  | US20150808677 20150724  |
| US20150939306 20151112  | US20150974900 20151218  | US20160363379 20161129  |

**Probable Assignee:** MOBISAVE LLC

**Assignee(s):** (std): MARCUS STEVEN ; MOBISAVE CORP ; MOBISAVE LLC

**Inventor(s):** (std): LOEB MICHAEL R ; MARCUS STEVEN ; MCCABE EDWARD J ; VOGEL RICHARD I

**Agent(s):** NORTRUP JOHN H ET AL

**Designated states:** AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

**Title:** VENDING KIT AND METHOD

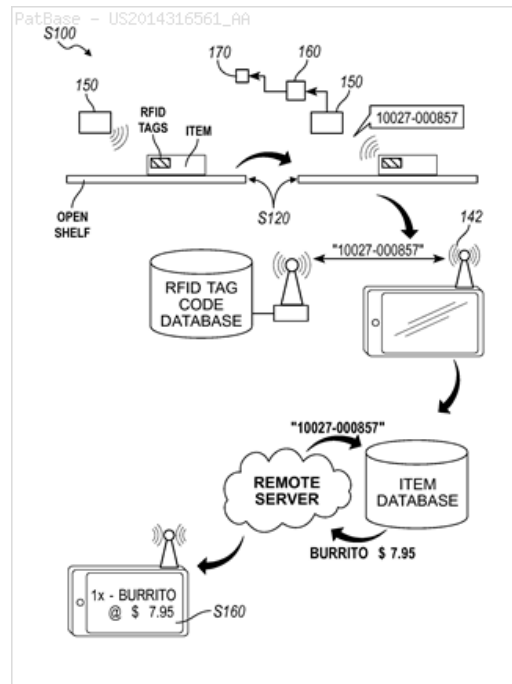
**Abstract:** One variation of a method for controlling access to products from a vending machine includes: locking a door of the vending machine; recording an initial inventory of products arranged within the vending machine based on signals received by a radio antenna arranged within the vending machine and read by a radio frequency identification reader; initiating a transaction in response to receiving a cashless payment mechanism from a patron; unlocking the door in response to authentication of the cashless payment mechanism; in response to closure of the door, recording a final inventory of products within the vending machine based on signals received by the radio antenna and read by the radio frequency identification reader; and initiating a payment with the cashless payment mechanism for a difference between the initial inventory and the final inventory to complete the transaction.

**Classifications:**

**International (IPC 8-9):** G06F17/00 G06Q10/08 G06Q20/18 G06Q20/32 G06Q30/02 G07F11/00 G07F11/02 G07F11/38 G07F9/02 G07G1/00 (Advanced/Invention)

**CPC:** G06Q30/0237 G06Q30/0224 G07F11/00 G06Q10/087 G06Q20/145 G06Q20/18 G07F11/38 G07F9/026 G07F11/02 G07F11/002 G06Q30/0202 G06Q30/0267 G06Q20/3278 G06Q30/0223 G07G1/009

**US:** 1/1 700/236 705/14.25 705/39

**Family:**

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| US2014316561 AA    | 20141023         | US20140201369      | 20140307         |
| US2014316875 AA    | 20141023         | US20140209688      | 20140313         |
| US2017011384 AA    | 20170112         | US20160140323      | 20160427         |
| US2017228755 AA    | 20170810         | US20170497160      | 20170425         |
| US9349238 BB       | 20160524         | US20140201369      | 20140307         |
| US9934657 BB       | 20180403         | US20160140323      | 20160427         |
| WO15076949 A1      | 20150528         | WO2014US60302      | 20141013         |

**Priority:**

US20130779402P 20130313 US20130779818P 20130313 US20130906333P 20131119  
US20140201369 20140307 US20140209688 20140313 US20160140323 20160427  
US20170497160 20170425

**Probable Assignee:** BYTE TECHNOLOGY LLC

**Assignee(s):** (std): BYTE FOODS INC ; PANTRY ; PANTRY RETAIL INC

**Assignee(s):** SILICON VALLEY BANK ; PANTRY REATIL INC ; BYTE TECHNOLOGY LLC

**Inventor(s):** (std): AH NEW CHRISTOPHER ALIKA ; CHEN ZHONGNING ; NEW CHRISTOPHER ALIKA AH ; TKACHENKO ARTEM ; YANCHER ALEXANDER

**Agent(s):** PETER; RUN8 PATENT GROUP LLC; SCHOX JEFFREY

**Designated states:** AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

**Title:** SYSTEMS AND METHODS FOR PROVIDING ANIMAL HEALTH, NUTRITION, AND/OR WELLNESS RECOMMENDATIONS

**Abstract:** The present disclosure is directed to systems and methods for preparing nutrition, health, and/or wellness recommendations for an animal. The systems and methods involve collecting data from the animal, analyzing the data, and providing the nutrition, health, and/or wellness recommendation based upon the analyzed data.

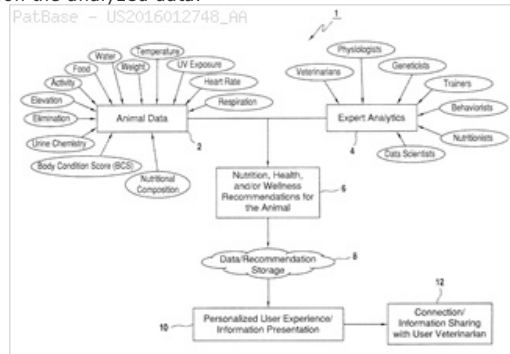
**Classifications:**

**International (IPC 8-9):** A01K13/00 A01K29/00 G06F19/00 G06Q50/02  
G09B19/00 G09B5/02 (Advanced/Invention);  
G06F19/00 (Core/Invention)

**International (IPC 1-7):** G06F19/00

**CPC:** G09B19/00 G09B5/02 G09B19/0092 G06F19/3475 G06F19/00

**US:** 434/225



**Family:**

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| AU2015287276 AA    | 20160114         | AU20150287276      | 20150707         |
| BR112017000206 A2  | 20171031         | BR20171100206      | 20150707         |
| CA2951374 AA       | 20161206         | CA20152951374      | 20150707         |
| CL2017000029 A1    | 20170609         | CL20170000029      | 20170106         |
| CN106537395 A      | 20170322         | CN201580036728     | 20150707         |
| CO20160006128 A2   | 20170310         | CO20160006128      | 20161229         |
| EP3167390 A1       | 20170517         | EP20150745561      | 20150707         |
| IN201617043164 A   | 20170331         | IN201617043164     | 20161217         |
| JP2017527264 T2    | 20170921         | JP20170500369T     | 20150707         |
| MX2017000260 A1    | 20170427         | MX20170000260      | 20150707         |
| US2016012748 AA    | 20160114         | US20150793304      | 20150707         |
| WO16005911 A1      | 20160114         | WO20151B55145      | 20150707         |

**Priority:**

US20140021763P 20140708      US20150793304 20150707      WO20151B55145 20150707

**Probable Assignee:** NESTEC SA

**Assignee(s):** (std): NESTEC SA

**Assignee(s):** DONAVON MARK A ; NESTEC S A

**Inventor(s):** (std): DONAVON MARK A ; MARK A DONAVON

**Agent(s):** SHELSTON IP PTY LTD; BORDEN LADNER GERVAIS LLP; ESTUDIO CAREY LTDA; ALICIA LLOREDA RICAURTE; KRISHNAN SRI

**Designated states:** AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: METHODS AND ARRANGEMENTS FOR IDENTIFYING OBJECTS

**Abstract:** In some arrangements, product packaging is digitally watermarked over most of its extent to facilitate high-throughput item identification at retail checkouts. Imagery captured by conventional or plenoptic cameras can be processed (e.g., by GPUs) to derive several different perspective-transformed views-further minimizing the need to manually reposition items for identification. One claim recites a system for capturing imagery of retail items supported by a fixture, comprising: at least one camera unit having at least one operative camera to capture imagery of at least a portion of the retail items supported by the fixture; and one or more processors configured to process the captured imagery to discern identifying information associated with the imaged retail items. In one implementation the at least one camera unit comprises a plurality of cameras, wherein a field of view of a first one of the plurality of cameras overlaps with a field of view of a second one of the plurality of camera units. A great variety of other features, claims, combinations and arrangements are also detailed.

Classifications:

**International (IPC 8-9):** G06Q20/20 G06Q30/00 G06T1/00 G06T11/60  
G06T5/00 G06T7/00 H04N9/09 (Advanced/Invention)  
**CPC:** G06Q20/208 G06Q30/00 G06T1/0007 G06T1/005 G06T2201/0065  
G06K9/209 G07G1/0054 G07G1/0063 G07G1/0072  
**US:** 348/150



Family:

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| US2015310601 AA    | 20151029         | US20150642250      | 20150309         |

Priority:

US20140949508P 20140307      US20150642250 20150309

**Probable Assignee:** DIGIMARC CORP

**Assignee(s):** (std): DIGIMARC CORP

**Inventor(s):** (std): BRUNK HUGH L ; EATON KURT M ; RODRIGUEZ TONY F



**Title:** PERSONALIZED CONTEXTUAL COUPON ENGINE

**Abstract:** Aspects of the technology described herein provide a more efficient user interface by providing coupons that are tailored to a specific user's interests. The coupons may be provided by a personal assistant or some other application running on a user's computing device. A goal of the technology described herein is to provide relevant coupons when the user can and actually wants to use them. The coupons are designed for goods or services the user intends to purchase.

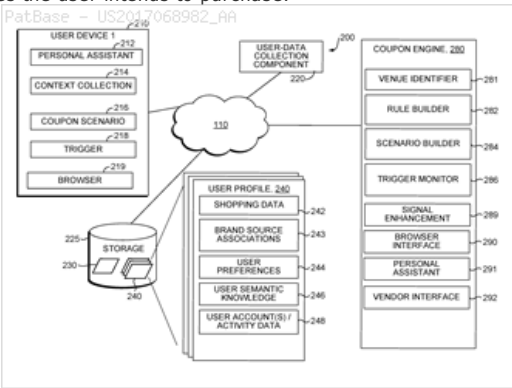
**Classifications:**

**International (IPC 8-9):** G06Q30/00 G06Q30/02

G06Q50/12 (Advanced/Invention)

**CPC:** G06Q30/0224 G06Q50/12

**US:** 705/14.25



**Family:**

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| IN04657CH2015 A    | 20170310         | IN2015CH04657      | 20150903         |
| US2017068982 AA    | 20170309         | US20160044942      | 20160216         |

**Priority:**

IN2015CH04657 20150903

**Probable Assignee:** MICROSOFT TECHNOLOGY LICENSING LLC

**Assignee(s):** (std): MICROSOFT TECHNOLOGY LICENSING LLC

**Inventor(s):** (std): BHUGRA PRASHANT ; GUTMANN MIKE ; KAMDAR NIRAV ; VANGALA VIPINDEEP

**Inventor(s):** KAMDAR NIRAV ASHWIN ; BHUGRA PRASHANT RAJ ; GUTMAN MICHAEL

Title: INGREDIENT SCALE SYSTEM AND METHODS

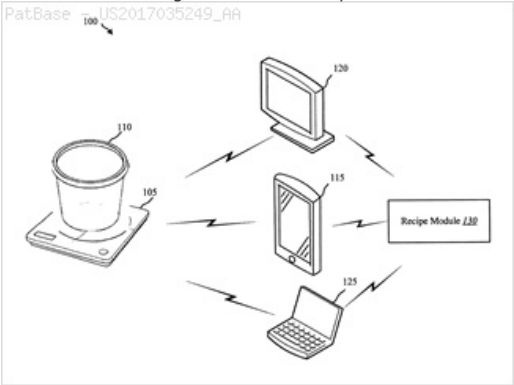
Abstract: A food preparation system includes an application operable by a computing device, and a scale configured to support a food preparation container and wirelessly communicate weight information associated with the food preparation container wirelessly to the computing device. The application coordinates the weight information with ingredients of a recipe.

Classifications:

International (IPC 8-9): A47J43/04 (Advanced/Invention)

CPC: A47J43/04 A23P1/00 A47J2043/0733 A23P10/00

US: 426/231



Family:

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| US2017035249 AA    | 20170209         | US20160144239      | 20160502         |

Priority:

US20150129333P 20150306      US20160144239 20160502

Probable Assignee: BLENDTEC INC

Assignee(s): (std): BLENDTEC INC

Assignee(s): WASATCH BT LOAN FUND LLC

Inventor(s): (std): DICKSON JR THOMAS D ; DINKEL KENNETH ; THROCKMORTON DAVID J

**Title:** DEVICES, SYSTEMS, AND METHODS FOR STORING ITEMS

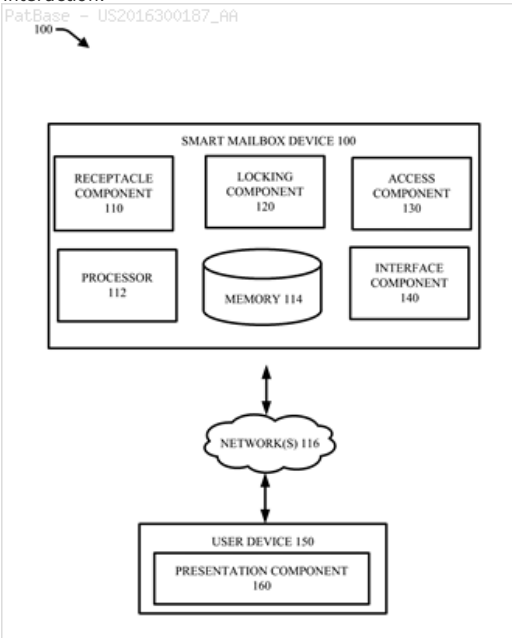
**Abstract:** The subject matter described herein includes devices, systems, and methods for intelligently storing, sending, and receiving items such as packages for storage. The devices, systems and methods include providing a mechanism for storing, locking, unlocking, accessing, and monitoring the process of sending an item for delivery or receiving an item for delivery. The secure storage of items in the disclosed device facilitates remote maintenance and diagnostics, secure delivery and retrieval of items, the sharing of resources, and a reduction in consumer and delivery interaction.

**Classifications:**

**International (IPC 8-9):** B65G1/137 G06Q10/08 G06Q50/28  
G07F7/10 (Advanced/Invention)

**CPC:** G06Q10/0836 G06Q10/0832

**US:** 705/332



**Family:**

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| US2016300187 AA    | 20161013         | US20160092585      | 20160406         |
| WO16164577 A1      | 20161013         | WO2016US26433      | 20160407         |

**Priority:**

US20150146187P 20150410      US20160092585 20160406

**Probable Assignee:** SMIOTEX INC

**Assignee(s):** (std): SMIOTEX INC

**Inventor(s):** (std): KASHI JYOTHI ; KASHI MANJUNATHA

**Agent(s):** KAMISETTI SIDDHARTHA

**Designated states:** AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

**Title:** DETECTING MEDICAL STATUS AND COGNITIVE IMPAIRMENT UTILIZING AMBIENT DATA

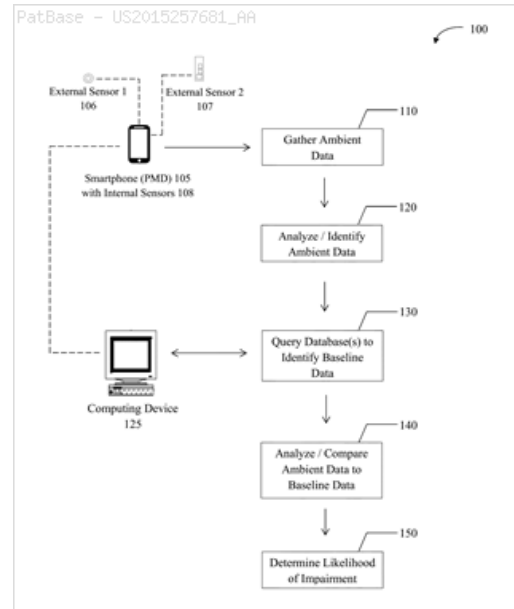
**Abstract:** Methods and systems for determining the likelihood that a person is impaired, generally comprising gathering ambient data from sensors operably coupled to a primary measuring device (PMD), analyzing and/or identifying the ambient data, querying at least one database to identify baseline data regarding the person, and comparing the ambient data to the baseline data to determine the likelihood that the person is impaired. The methods and systems advantageously detect medical and/or cognitive impairment without the need for specialized devices, examination by specialists, consent of the person being evaluated, and compliance with recommendations to be examined, and may be applied to estimating the level of impairment of a person due to alcohol, drugs, exposure to toxic chemicals, changes to mental status, insufficient sleep, medical problems, changes to blood sugar levels, divided attention, vision changes, hearing changes, use of a mobile device while walking or operating a vehicle, and other factors.

**Classifications:**

**International (IPC 8-9):** A61B5/00 A61B5/08 A61B5/11 A61B5/18 G06F17/30 G06T19/00 G10L15/26 (Advanced/Invention)

**CPC:** A61B5/1123 A61B5/18 A61B5/082 A61B5/7246 A61B5/6898 G06F17/30424 G06T19/006 G06F17/30864 A61B5/002 A61B5/0024 A61B5/0077 A61B5/112 A61B5/4803 A61B5/4845 A61B5/4863 G10L15/01 G10L25/66

**US:** 345/633 600/301 600/595

**Family:**

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| ■ US2015257681 AA  | 20150917         | US20150658074      | 20150313         |
| ■ US2015262429 AA  | 20150917         | US20150657303      | 20150313         |

**Priority:**

|                         |                         |                         |
|-------------------------|-------------------------|-------------------------|
| US20140952759P 20140313 | US20140952781P 20140313 | US20140952788P 20140313 |
| US20140952792P 20140313 | US20140952799P 20140313 | US20150657303 20150313  |
| US20150658074 20150313  |                         |                         |

**Probable Assignee:** CURRY JR CHARLES MARION

**Assignee(s):** (std): CURRY JR CHARLES MARION ; SHUSTER BRIAN MARK ; SHUSTER GARY STEPHEN

**Inventor(s):** (std): CURRY JR CHARLES MARION ; SHUSTER BRIAN MARK ; SHUSTER GARY STEPHEN

**Title:** SYSTEM AND METHOD FOR MEASURING AND DISTRIBUTING MONETARY INCENTIVES FOR WEIGHT LOSS

**Abstract:** An automated identification, weight measurement and data reporting system that allows users to have their weight measured at a remote location and sent electronically to a data center. The invention can use biometric identification technology to confirm the identity of the user at the time of the measurement of the user's weight. The user's body weight may be measured via an electronic scale connected to the biometric identification device. The measurement data is then sent via a network (such as the Internet) to a central database. This secure weight measurement data is then used to offer incentives to individuals to lose weight. The more weight an individual loses, the larger the earned incentives. The invention also includes programs to measure health functions and to provide incentives to improve their health including body fat reduction, quitting smoking, reducing their blood pressure, or other health function.

**Classifications:**

**International (IPC 8-9):** G01G19/40 G06Q30/00 G06Q30/02

G09B19/00 (Advanced/Invention);

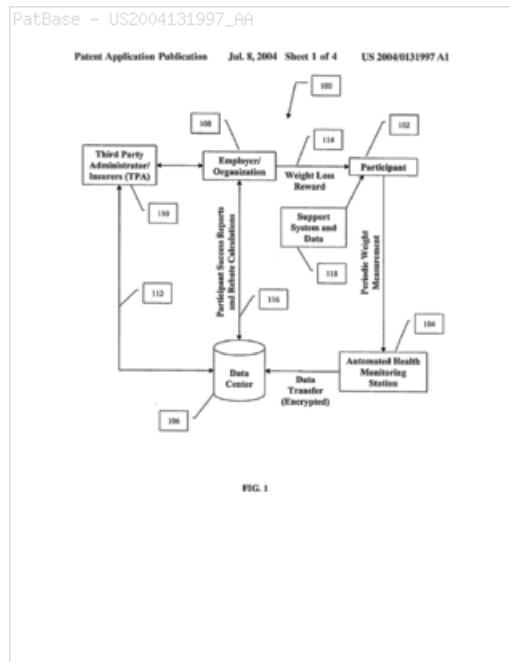
G01G19/40 G06Q30/00 G09B19/00 (Core/Invention)

**International (IPC 1-7):** G09B19/00

**CPC:** G06Q30/02 G09B19/0092 Y10S128/921 G16H20/60 G06F19/00

**European:** G06F17/60B2 G06Q30/02 G09B19/00N

**US:** 128/921 177/245 177/25.13 177/25.16 177/25.19 340/5.82 434/127 434/127P 600/300 600/300S



**Family:**

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| ■ US2004131997 AA  | 20040708         | US20030738843      | 20031217         |
| ■ US7541547 BB     | 20090602         | US20030738843      | 20031217         |

**Priority:**

US20020435126P 20021219 US20030738843 20031217

**Probable Assignee:** INCENTAHEALTH LLC

**Assignee(s):** (std): INCENTAHEALTH LLC

**Assignee(s):** MCGUIRE TODD J ; RULE JACK D

**Inventor(s):** (std): MCGUIRE TODD J ; RULE JACK D

**Agent(s):** BROWNSTEIN HYATT FARBER SCHRECK LLP

**Title:** TECHNIQUES FOR PRODUCT ORDERING USING A HOME AUTOMATION SYSTEM

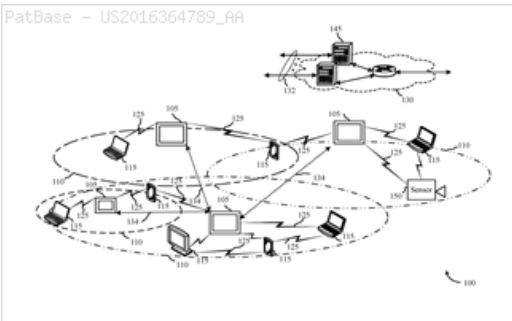
**Abstract:** Methods for product ordering relating to an automation system are described. Exemplary methods may include receiving one or more inputs, identifying one or more product order-related parameters, receiving information related to a product order, determining delivery data based at least in part on the information, and initiating an automation system operation based at least in part on the delivery data.

**Classifications:**

**International (IPC 8-9):** G06Q10/08 G06Q30/06 (Advanced/Invention)

**CPC:** G06Q30/0635 G06Q10/083

**US:** 705/26.81



**Family:**

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| US2016364789 AA    | 20161215         | US20160178926      | 20160610         |

**Priority:**

US20150174360P 20150611      US20160178926 20160610

**Probable Assignee:** VIVINT INC

**Assignee(s):** (std): VIVINT INC

**Assignee(s):** WILMINGTON TRUST NATIONAL ASSOCIATION COLLATERAL AGENT AS ; BANK OF AMERICA NA ADMINISTRATIVE AGENT AS

**Inventor(s):** (std): EYRING MATTHEW J ; LYMAN JEFFERSON H

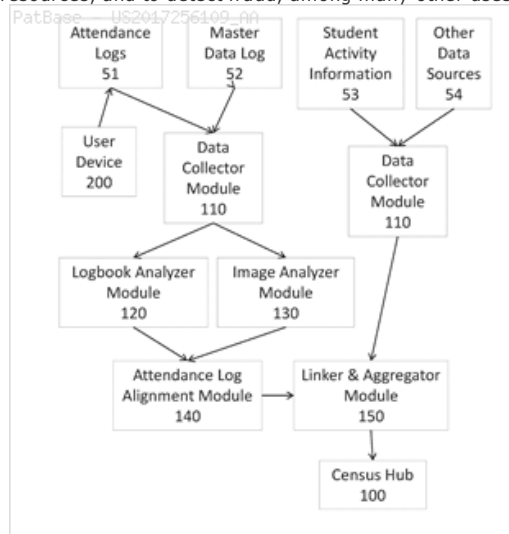
**Title:** SYSTEM AND METHOD FOR CREATING A CENSUS HUB IN RESOURCE CONSTRAINED REGIONS

**Abstract:** The disclosure provides systems and methods for generating attendance census models using data received from a network of automated census sensors as well as various additional secondary data sources. The models may be generated and used in real time to provide attendance predictions, to efficiently allocate resources, and to detect fraud, among many other uses.

**Classifications:**

**International (IPC 8-9):** G06F17/30 G06K7/00 G06Q10/06  
G07C9/00 (Advanced/Invention)

**CPC:** G07C9/00111 G06K7/0004 G07C9/00071 G06F17/30377  
G06F17/3056 G06Q10/0631 G06Q50/20



**Family:**

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| ■ US2017256109 AA  | 20170907         | US20160058290      | 20160302         |

**Priority:**

US20160058290 20160302

**Probable Assignee:** IBM

**Assignee(s):** (std): IBM

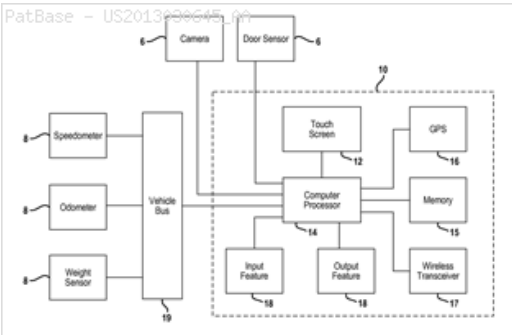
**Assignee(s):** INT BUSINESS MACHINES CORP

**Inventor(s):** (std): BHATTACHARYA KAMAL ; KALTON ALAN ; WELDEMARIAM KOMMINIST

**Title:** AUTO-CONTROL OF VEHICLE INFOTAINMENT SYSTEM BASED ON EXTRACTED CHARACTERISTICS OF CAR OCCUPANTS

**Abstract:** An infotainment system is provided for delivering content to multiple occupants of a vehicle. The infotainment system includes: an occupant detector configured to receive characteristic data for occupants of the vehicle and generate a profile for each occupant of the vehicle; a recommendation engine that analyzes the profiles of the vehicle occupants; and a content delivery engine that deliver content to one or more of the vehicle occupants in accordance with the analysis of the profiles of the vehicle occupants.

**Classifications:**  
**International (IPC 8-9):** G06F15/16 G06F7/00 (Advanced/Invention)  
**CPC:** B60K35/00 B60K2350/352 B60K2350/355 B60K2350/357 B60K2350/90  
**US:** 701/36 709/217



**Family:**

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| US2013030645 AA    | 20130131         | US20110192629      | 20110728         |

**Priority:**  
US20110192629 20110728

**Probable Assignee:** GODO KAISHA IP BRIDGE 1  
**Assignee(s):** (std): DIVINE LUCAS ; KRYZE DAVID ; KURIHARA JUNNOSUKE ; PANASONIC CORP  
**Assignee(s):** GODO KAISHA IP BRIDGE 1  
**Inventor(s):** (std): DIVINE LUCAS ; KRYZE DAVID ; KURIHARA JUNNOSUKE

**Title:** PROACTIVE FAMILY HYGIENE SYSTEM

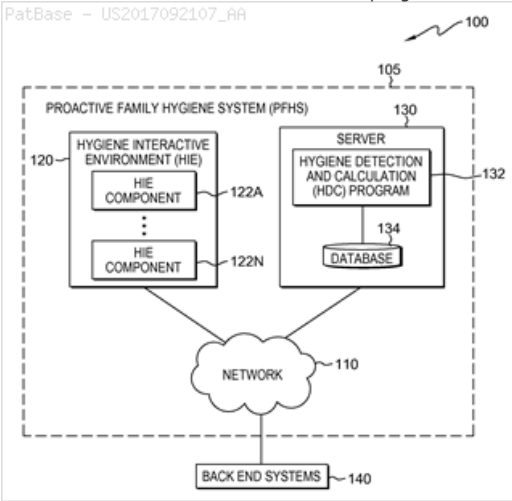
**Abstract:** Embodiments of the present invention provide a method, computer program product, and computer system for monitoring hygiene tasks. The method includes determining the presence of a user and detecting a user profile associated with that active user. A set of tasks assigned to the user profile is displayed. The progress of the set of tasks is monitored using sensors and the status of the progress is displayed. The method may also alert a second user off the status of the progress.

**Classifications:**

**International (IPC 8-9):** G08B21/24 G08B26/00 (Advanced/Invention)

**CPC:** G08B21/245

**US:** 340/573.1



**Family:**

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| ■ US2017092107 AA  | 20170330         | US20150867111      | 20150928         |

**Priority:**

US20150867111 20150928

**Probable Assignee:** IBM

**Assignee(s):** (std): IBM

**Assignee(s):** INT BUSINESS MACHINES CORP

**Inventor(s):** (std): FLORES ROMELIA H ; MARLOW LIPING ; ROWE DEANNA J