

PatBase - Search results 06 November 2018

Search query (2): [SP]: process and system of identification of products in motion in a product line the present invention relates to processes employed for the automatic quantification of a specific product (2) in a production line. more particularly, the present invention relates to processes that enable the identification of the brand and/or trade name of products (2) in motion during the production in an automated manner. the objective of the present invention is to provide an efficient process and identification system for products moving in a production line, conciliating the capture of images of the product to be identified with the reading of their respective bar code (4) without human intervention and allowing the minimization of operational failures and fraud.

Results: 6

Search history

Search PN=(WO2016197219) (Results 1)

1:

Search [SP]: process and system of identification of products in motion in a product line the present invention relates to processes employed for the automatic quantification of a specific product (2) in a production line. more particularly, the present invention relates to processes that enable the identification of the brand and/or trade name of products (2) in motion during the production in an automated manner. the objective of the present invention is to provide an efficient process and identification system for products moving in a production line, conciliating the capture of images of the product to be identified with the reading of their respective bar code (4) without human intervention and allowing the minimization of operational failures and fraud. (Results 6)

Title: AUTOMATIC CHECK-OUT SYSTEM

Abstract: An automatic checkout system is described, usable for application in for instance a supermarket, wherein purchases on a conveyer belt provided with a weighing sensor are guided passed barcode reading means, and wherein the identification on the basis of this barcode is checked by weighing the weight of an article and comparing this weight to a weight stored in a memory.

Classifications:

International (IPC 8-9): A47F9/04 G01G19/414 G06K7/00 G06K9/00 G06K9/18 G06K9/78 G07G1/00 G07G1/12

G07G1/14 (Advanced/Invention);

G07G1/00 (Advanced/Non-invention);

A47F9/00 G01G19/40 G06K7/00 G06K9/00 G07G1/00 G07G1/12

G07G1/14 (Core/Invention)

International (IPC 1-7): A47F9/04 G06F17/60 G06K7/00 G06K9/00 G06K9/18 G06K9/78 G07G1/00 G07G1/12 G07G1/14

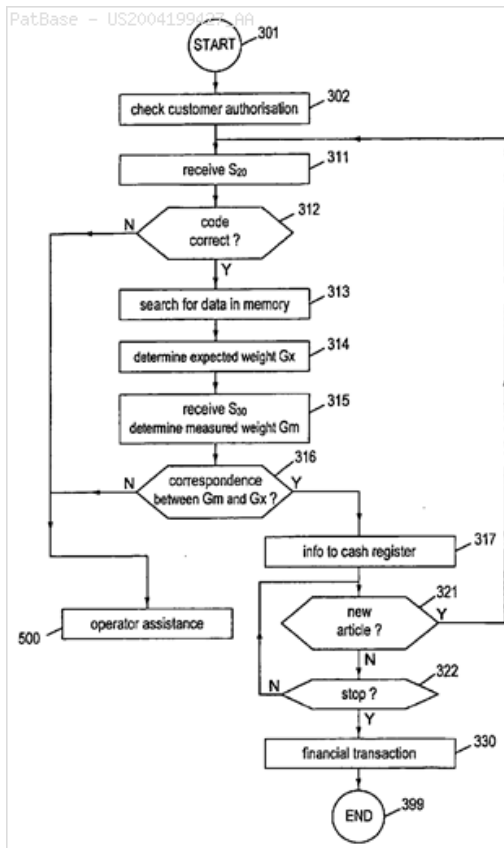
CPC: A47F9/047 G01G19/4144 G07G1/0054 G06Q20/20

European: A47F9/04D1 G01G19/414C G06Q20/20 G07G1/00C2D

US: 705/16 705/16P

JP F-Term: 3E042 3E042/BA01 3E042/BA17 3E042/CA02 3E042/CB03 3E042/CC08 3E042/CD02 3E142 3E142/CA12 3E142/DA07 3E142/FA41 3E142/GA02 3E142/GA22 3E142/GA35 3E142/GA41 3E142/JA01 5B072 5B072/CC24

JP F-Index: G06K7/00/U G06K7/14/013 G06K7/14/060 G07G1/00/311/E G07G1/00/331/C G07G1/12/321/H

**Family:**

Publication number	Publication date	Application number	Application date
AU2002315954 AA	20030129	AU20020315954	20020710
CA2453540 AA	20040109	CA20022453540	20020710
EP1407433 A2	20040414	EP20020746202	20020710
JP2004535030 T2	20041118	JP20030512944T	20020710
KR20040036899 A	20040503	KR20047000490	20020710
NL1018512 C1	20011102	NL20011018512	20010711
NL1021040 A1	20030114	NL20021021040D	20020710
NL1021040 C2	20040127	NL20021021040	20020710
US2004199427 AA	20041007	US20040755084	20040109
WO03007256 A2	20030123	WO2002NL00452	20020710
WO03007256 A3	20031231	WO2002NL00452	20020710

Priority:

NL20011018512 20010711

NL20021021040 20020710

WO2002NL00452 20020710

Probable Assignee: BEHEERMAATSCHAPPIJ VAN D LOO BV

Assignee(s): (std): BEHEERMIJ VAN D LOO BV ; LOO FRANCISCUS GERARDU VAN D ; BEHEERMAATSCHAPPIJ VAN D LOO BV ; BEHEERMIJ VAN DER LOO B V ; VAN DER LOO FRANCISCUS GERARDU

Assignee(s): BEHEERMAATSCHAPPIJ VAN DER LOO B V ; LOO FRANCISCUS GERARDUS ANTONIUS VAN D ; VAN DER LOO FRANCISCUS GERARDUS ANTONIUS ; BEHEERMAATSCHAPPIJ VAN D

Inventor(s): (std): LOO FRANCISCUS GERARDU VAN D ; LOO FRANCISCUS GERARDUS ANTONI ; LOO FRANCISCUS GERARDUS ANTONIUS VAN D ; VAN DER LOO FRANCISCUS GERARDU ; FRANCISCUS GERARDUS ANTONIUS VAN D LOO

Inventor(s): FRANCISCUS GERARDUS ANTONIUS VAN DER LOO ; VAN DER LOO FRANCISCUS GERARDUS ANTONIUS

Agent(s): SPRUSON AND FERGUSON; GOWLING LAFLEUR HENDERSON LLP

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE 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 LI LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NE NL NO NZ PH PL PT RO RU SD SE SG SI SK SL SN SZ TD TG TJ TM TR TT TZ UA UG US UZ VN YU ZA ZM ZW

Title: IMAGE BASED OBJECT IDENTIFICATION

Abstract: A system for object identification that enables users utilizing an imaging device to obtain information about, select, purchase, or perform other operation on objects. It includes an imaging device, capable of capturing one-dimensional or two-dimensional images of objects. A device capable of sending the coded image through a wired/wireless channel to remote facilities is provided. Algorithms and software for processing and analyzing the images and for extracting from them symbolic information such as digits, letters, text, logos, symbols or icons are provided. It also includes algorithms and software facilitating the identification of the imaged objects based on the information gathered from the image and the information available in databases. Further, it includes algorithms and software for offering various information or services to the user of the imaging device based on the information gathered from the image and the information available in databases.

Classifications:**International (IPC 8-9):** G06F17/30 G06Q30/00 G07G1/00

H04N1/00 (Advanced/Invention);

G06F17/30 (Core/Invention)

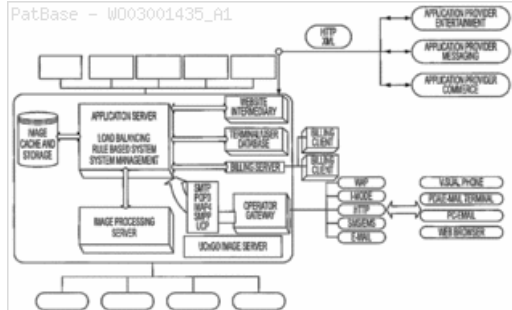
International (IPC 1-7): G06F17/60 G06K9/00**CPC:** G06F17/30047 G06Q30/06 G07G1/0054 H04N1/00127

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European: G06F17/30E G06F17/60B G06Q30/06 G07G1/00C2D

H04N1/00C H04N1/00C22 T04N1/00C3 T04N1/00C7D T04N101/00

T04N201/00C22 T04N201/00C7D

**Family:**

Publication number	Publication date	Application number	Application date
AU2002321753 AA	20030108	AU20020321753	20020621
WO03001435 A1	20030103	WO2002IB03352	20020621

Priority:

US20010299734P 20010622 WO2002IB03352 20020621

Probable Assignee: EMBLAZE SYSTEMS LTD**Assignee(s):** (std): EMBLAZE SYSTEMS LTD ; LEV TVSI**Inventor(s):** (std): LEV TVSI

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE 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 NE NL NO NZ OM PH PL PT RO RU SD SE SG SI SK SL SN SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VN YU ZA ZM ZW

Title: METHOD AND IMAGE PROCESSING DEVICE FOR ANALYZING AN OBJECT CONTOUR IMAGE, METHOD AND IMAGE PROCESSING DEVICE FOR DETECTING AN OBJECT, INDUSTRIAL VISION APPARATUS, SMART CAMERA, IMAGE DISPLAY, SECURITY SYSTEM, AND COMPUTER PROGRAM PRODUCT

Abstract: The method of analyzing an object contour image (100), useful for fast object detection based on contour matching comprises: specifying a scan path (306) of positions (xR, yR) in the contour image (100) of a region of interest (303), for processing substantially all pixels of contour image (100); constructing a first table (111) containing for each pixel in the contour image (100) of non-zero value at least one position coordinate (x); constructing a fourth table (311) corresponding to a position of the region of interest (303), containing at least for each parallel line of pixels traversing the region of interest (303), an index (312) of an entry (121) in the first table (111), of, given a scan direction, the first non zero pixel of the contour image (100) lying on the respective parallel line and being inside the region of interest (303); and constructing a fifth table (313) corresponding to a position of the region of interest (303), containing at least for each parallel line of pixels traversing the region of interest (303), an index (314) of an entry (121) in the first table (111), of, given the scan direction, the last non zero pixel of the contour image (100) lying on the respective parallel line and being inside the region of interest (303).

Classifications:

International (IPC 8-9): G06K9/48 G06K9/50 G06T1/00 G06T7/00 G06T7/40 G06T7/60 (Advanced/Invention)

International (IPC 1-7): G06K9/50

CPC: G06K9/50

European: G06K9/50

US: 382/199

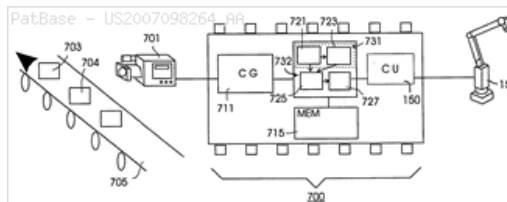
JP F-Term: 5L096 5L096/AA06 5L096/CA02 5L096/EA03

5L096/EA06 5L096/EA13 5L096/EA16 5L096/FA03 5L096/FA04

5L096/FA06 5L096/FA68 5L096/FA69 5L096/GA10 5L096/GA38

5L096/GA51 5L096/GA55 5L096/JA03 5L096/JA09 5L096/KA04

JP F-Index: G06T7/00/300/A G06T7/00/300/D G06T7/60/300/A



Family:

Publication number	Publication date	Application number	Application date
AT370461 E	20070915	AT20040770230T	20041012
CN1867928 A	20061122	CN200480030320	20041012
DE602004008317 D1	20070927	DE200460008317T	20041012
EP1524622 A1	20050420	EP20030103847	20031017
EP1678659 A1	20060712	EP20040770230	20041012
EP1678659 B1	20070815	EP20040770230	20041012
IN01732CN2006 A	20070629	IN2006CN01732	20060517
JP2007508633 T2	20070405	JP20060534888T	20041012
KR20060100376 A	20060920	KR20067007404	20041012
US2007098264 AA	20070503	US20040575289	20041012
WO05038699 A1	20050428	WO20041B52059	20041012

Priority:

EP20030103847 20031017 EP20040770230 20041012 WO20041B52059 20041012

Probable Assignee: PHILIPS ELECTRONICS KONINKLL NV

Assignee(s): (std): LIU HONG ; NICOLESCU CRISTINA ; KONINKL PHILIPS ELECTRONICS NV ; VAN LIER ANTONIUS J M ; VAN LEEUWEN MARINUS B ; ROYAL DUTCH PHILIPS ELECTRONICS LTD

Assignee(s): KONINKLIJKE PHILIPS ELECTRONICS N V ; PHILIPS ELECTRONICS KONINKLL NV ; PHILIPS ELECTRONICS N V KONINKLL ; PHILIPS KONINKLL NV ; VAN LIER ANTONIUS J

Inventor(s): (std): LIER ANTONIUS J M LIU HONG NIC ; LIU HONG ; NICOLESCU CRISTINA ; VAN LEEUWEN MARINUS B ; VAN LIER ANTONIUS J M ; VAN LIER ANTONIUS J ; VAN LIER ANTONIUS ; VAN LEEUWEN MARINUS

Inventor(s): VAN LEEUWEN MARINUS BASTIAAN ; VAN LIER ANTONIUS J M LIU HONG NICOLESCU CRISTINA ; VAN LIER ANTONIUS JOHANNES MARIA ; VAN LIER ANTONIUS JM

Agent(s): ITOH TADAHICO; PHILIPS INTELLECTUAL PROPERTY AND STANDARDS

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 LI 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 SN SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Title: AUTOMATIC RECOGNITION OF IMAGES

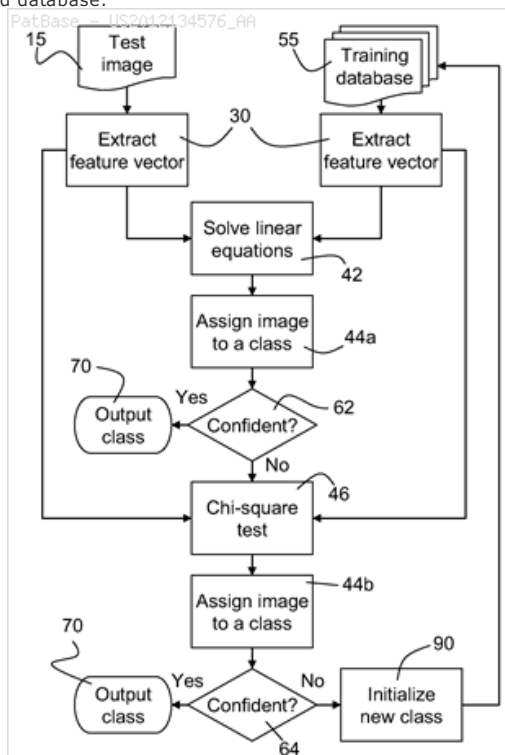
Abstract: Presented is a method of automatically performing an action, based on graphical input. The method comprises: receiving, for a user, an input image; comparing the input image with the contents of a user-customized database comprising a plurality of records, each record representing a predefined class of image, wherein the user has previously associated records in the database with respective specified actions; attempting to recognize the image, based on the similarity of the input image to one of the predefined classes of image represented in the user-customised database; and if the image is recognized, performing the action previously associated by the user with the class. Also presented is apparatus for recognizing an image and a method of constructing a user-customized database.

Classifications:

International (IPC 8-9): G06F G06F17/30 G06K9/00 G06K9/46 G06K9/50 G06K9/52 (Advanced/Invention)

CPC: G06K9/4647 G06K9/4671 G06K9/6249 G06F17/30247 G06K9/46 G06K9/4604

US: 382/155 382/155P 382/201 382/201S 382/206 382/206S 382/224

**Family:**

Publication number	Publication date	Application number	Application date
IN03568CH2010 A	20130329	IN2010CH03568	20101126
US2012134576 AA	20120531	US20110987179	20110110
US8744196 BB	20140603	US20110987179	20110110

Priority:

IN2010CH03568 20101126

Probable Assignee: HEWLETT PACKARD DEVELOPMENT CO LP

Assignee(s): (std): BANERJEE SERENE ; HEWLETT PACKARD DEVELOPMENT CO ; KUCHIBHOTLA ANJANEYULU SEETHA RAMA ; SHARMA AVINASH

Assignee(s): HEWLETT PACKARD DEVELOPMENT CO LP ; HEWLETT PACKARD DEVELOPMENT COMPANYA L P

Inventor(s): (std): SHARMA AVINASH ; KUCHIBHOTLA ANJANEYULU SEETHA RAMA ; BANERJEE SERENE

Inventor(s): ANJANEYULU SEETHA RAMA KUCHIBHOTLA ; SERENE BANERJEE ; AVINASH SHARMA

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:

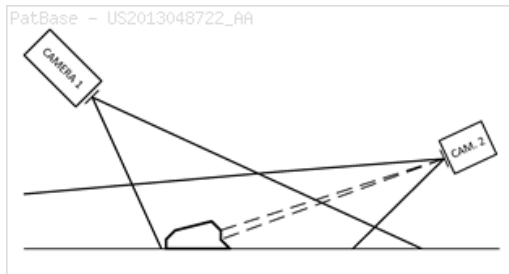
International (IPC 8-9): G01B11/00 G06K15/00 G06K19/00 G06K7/10 G06K7/14 G06K9/00 G06K9/20 G06K9/32 G06K9/78 G06Q10/00 G06Q10/08 G06Q20/20 G06Q30/00 G06T1/00 G06T3/00 G06T5/00 G06T7/00 G06T7/10 G06T7/194 G06T7/73 G07G1/00 G07G1/06 G07G1/12 (Advanced/Invention); G06F3/147 G06K17/00 G06K7/14 G06Q10/08 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

JP F-Term: 2F065 2F065/AA31 2F065/BB05 2F065/BB15 2F065/FF04 2F065/FF09 2F065/JJ03 2F065/JJ26 2F065/MM03 2F065/PP12 2F065/QQ24 2F065/QQ31 2F065/UU05 3E142 3E142/BA01 3E142/BA18 3E142/BA20 3E142/CA12 3E142/CA13 3E142/CA17 3E142/CA20 3E142/DA07 3E142/DA13 3E142/EA02 3E142/EA04 3E142/EA23 3E142/FA06 3E142/FA23 3E142/FA25 3E142/FA31 3E142/GA17 3E142/JA02 3E142/JA03 3E142/KA08 5B057 5B057/BA17 5B057/CA13 5B057/CB20 5B057/CD20 5B057/DA06 5B057/DB03 5B057/DC32 5B072 5B072/AA02 5B072/BB10 5B072/CC06 5B072/CC24 5B072/CC35 5B072/DD01 5L096

JP F-Index: G01B11/00/H G06K7/10/U G06K7/10/416 G06K7/10/428 G06K7/10/456 G06K7/12 G06K7/14/043 G06K7/14/065 G06T1/00/315 G06T7/55 G07G1/00/301/Z G07G1/00/311/D

**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
US9033238 BB	20150519	US20110231893	20110913
US9129277 BB	20150908	US20130946968	20130719
US9224184 BB	20151229	US20130804413	20130314
US9367770 BB	20160614	US20130750752	20130125
US9600982 BB	20170321	US20150839561	20150828
US10078878 BB	20180918	US20150978827	20151222
WO13033442 A1	20130307	WO2012US53201	20120830
WO14063157 A2	20140424	WO2013US65958	20131021
WO14063157 A3	20140619	WO2013US65958	20131021

Priority:

US20110529214P 20110830	US20110531525P 20110906	US20110533079P 20110909
US20110231893 20110913	US20110537523P 20110921	US20110540455P 20110928
US20110544996P 20111007	US20120693225P 20120824	WO2012US53201 20120830
US20120716223P 20121019	US20120716591P 20121021	US20120724854P 20121109
US20130750752 20130125	US20130804413 20130314	US20130946968 20130719
WO2013US65958 20131021	US20150839561 20150828	US20150978827 20151222
US20160175997 20160607	US20170462597 20170317	

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

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: PROCESS AND SYSTEM OF IDENTIFICATION OF PRODUCTS IN MOTION IN A PRODUCT LINE

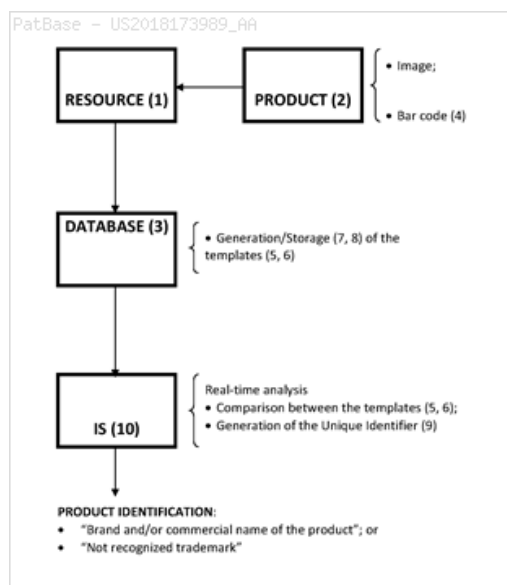
Abstract: The present invention relates to processes employed for the automatic quantification of a specific product (2) in a production line. More particularly, the present invention relates to processes that enable the identification of the brand and/or trade name of products (2) in motion during the production in an automated manner. The objective of the present invention is to provide an efficient process and identification system for products moving in a production line, conciliating the capture of images of the product to be identified with the reading of their respective bar code (4) without human intervention and allowing the minimization of operational failures and fraud.

Classifications:

International (IPC 8-9): G03B15/05 G06E3/00 G06F19/00 G06K7/10 G06K7/14 G06K9/00 G06K9/46 G06K9/78 G06N3/02

G06T7/00 (Advanced/Invention)

CPC: G06T7/00 G06T7/0004 G06K7/1434 G06N3/02 G06K9/46 G06F17/30247 G06K7/1447 G06K9/78 G06Q10/08 G06K9/6202



Family:

Publication number	Publication date	Application number	Application date
AR104962 AA	20170830	AR2016P101731	20160610
BR102015013591 A2	20161227	BR20151013591	20150610
CL2017003011 A1	20180316	CL20170003011	20171127
CO20170011855 A2	20180131	CO20170011855	20171122
PE01342018 A1	20180118	PE20170002494	20160606
US2018173989 AA	20180621	US20160579868	20160606
UY36717 A1	20161130	UY20160036717	20160608
WO16197219 A1	20161215	WO2016BR50127	20160606

Priority:

BR20151013591 20150610 WO2016BR50127 20160606

Probable Assignee: VALID SOLUCOES E SERVICOS DE SEGURANCA EM MEIOS DE PAGAMENTO E IDENTIFICACAO S A

Assignee(s): (std): VALID SOLUCOES E SERVICOS DE SEGURANCA EM MEIOS DE PAGAMENTO E IDENTIFICACAO S A ; VALID SOLUCOES E SERVICOS DE SEGURANCA EM MEIOS DE PAGAMENTO E IDENTIFICACAO S A

Assignee(s): VALID SOLUCOES E SERVICOS DE SEGURANCA EM MEIOS DE PAGAMENTO E IDENTIFICACAO SA ; VALID SOLUCOES E SERVICOS DE SEGURANCA EM MEIOS DE PAGAMENTO E IDENTIFICACAO SA

Inventor(s): (std): CHAGAS CESAR AUGUSTO DA SILVA ; SILVA ANTONIO FERREIRA DA SILVA ; DA SILVA FILHO ANTONIO FERREIRA ; DA SILVA CHAGAS CESAR AUGUSTO ; CSAR AUGUSTO DA SILVA CHAGAS ; ANTONIO FERREIRA DA SILVA SILVA

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