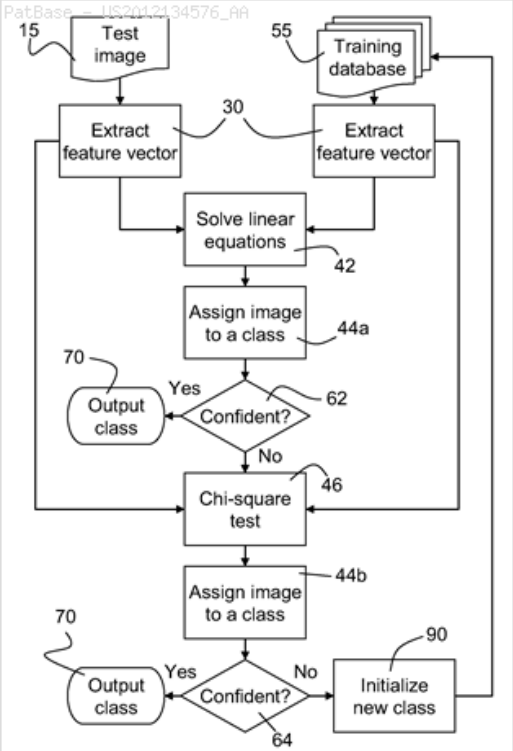
1) Family number: 51164567 (US2012134576A)

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 G06K9/46 G06K9/4604 G06F16/583
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

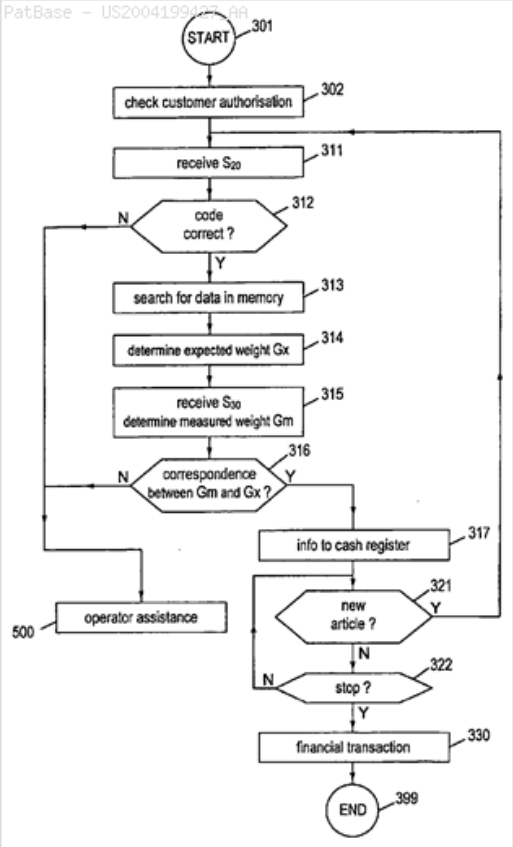
2) Family number: 15929588 (US2004199427A)

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): BEHEERMAATSCHAPPIJ VAN D LOO BV ; BEHEERMIJ VAN D LOO BV ; LOO FRANCISCUS GERARDU VAN D ; BEHEERMIJ VAN DER LOO B V ; VAN DER LOO FRANCISCUS GERARDU

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

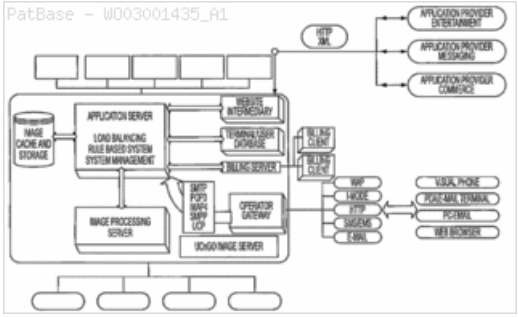
Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LI LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NE NL NO NZ PH PL PT RO RU SD SE SG SI SK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

3) Family number: 27908661 (WO03001435A1) © PatBase

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 provded. 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. Furhter, 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: G06F16/434 H04N1/00326 G06Q30/06 G07G1/0054 H04N1/00127 H04N1/00204 H04N1/00307 H04N2101/00
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

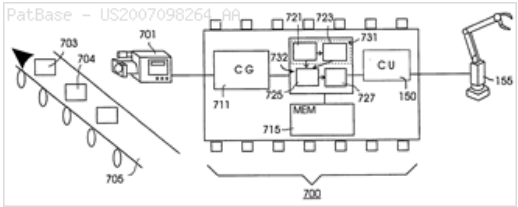
Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NE NL NO NZ OM PH PL PT RO RU SD SE SG SI SK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

4) Family number: 31829693 (US2007098264A) © PatBase

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	WO2004IB52059	20041012

Priority:
EP20030103847 20031017 EP20040770230 20041012 WO2004IB52059 20041012

Probable Assignee: PHILIPS ELECTRONICS KONINKLL NV

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

Assignee(s): KONINKLIJKE PHILIPS ELECTRONICS N V ; PHILIPS KONINKLL NV ; PHILIPS ELECTRONICS KONINKLL NV ; PHILIPS ELECTRONICS N V KONINKLL ; 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 LIER ANTONIUS J M LIU HONG NICOLESCU CRISTINA ; VAN LIER ANTONIUS JM ; VAN LIER ANTONIUS JOHANNES MARIA ; VAN LEEUWEN MARINUS BASTIAAN

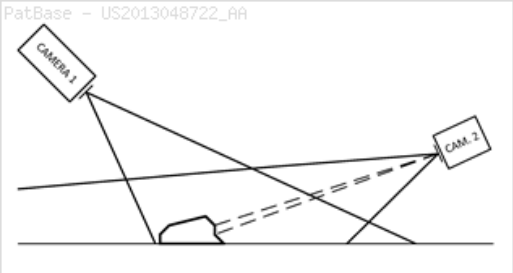
Agent(s): ITOH TADAHIKO; PHILIPS INTELLECTUAL PROPERTY AND STANDARDS

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

5) Family number: 53122864 (US2013048722A) © PatBase

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 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 G06K9/00664 G06T7/10 G06T7/194 G06T7/73 G06K9/00671 G06K9/18 G06K9/209 G06K9/46 G06K9/00771 G06K7/10861 G06K9/78
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
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US9224184 BB	20151229	US20130804413	20130314
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WO13033442 A1	20130307	WO2012US53201	20120830
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Priority:

US20110529214P	20110830	US20110531525P	20110906	US20110533079P	20110909
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US20160175997	20160607	US20170462597	20170317		

Probable Assignee: DIGIMARC CORP

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

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

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