

Title (en)

A METHOD AND SYSTEM FOR DOUBLE FEED DETECTION

Title (de)

VERFAHREN UND VORRICHTUNG ZUM ERFASSEN VON DOPPELABZÜGEN

Title (fr)

PROCEDE ET SYSTEME DE DETECTION D'UNE DOUBLE ENTREE

Publication

EP 1444153 A1 20040811 (EN)

Application

EP 02771926 A 20021030

Priority

- CA 0201622 W 20021030
- CA 2361969 A 20011114
- CA 2401401 A 20020905

Abstract (en)

[origin: WO03042082A1] A system for detecting overlapped flat objects 320 in a sequence of flat objects 310, 340 have at least one of their edges 330 exposed for viewing as they pass along a feed path 30, 132. The system includes a sensor P1, P2, P3 for generating a signal in response to detecting a flat object 310 in the feed path 130, 132 and a camera 250 responsive to the signal for capturing a digital image of the exposed edges 330 of the detected flat object 310 in the feed path. A vision system is coupled to the camera 250 for receiving the digital image. The vision system analyses at least a portion of the image to determine a pixel density variation along a direction perpendicular to the edges 330 and uses the pixel density variation to output an indication of the number of edges 330 in the image.

[origin: WO03042082A1] A system for detecting overlapped flat objects (320) in a sequence of flat objects (310, 340) have at least one of their edges (330) exposed for viewing as they pass along a feed path (30, 132). The system includes a sensor (P1, P2, P3) for generating a signal in response to detecting a flat object (310) in the feed path (130, 132) and a camera (250) responsive to the signal for capturing a digital image of the exposed edges (330) of the detected flat object (310) in the feed path. A vision system is coupled to the camera (250) for receiving the digital image. The vision system analyses at least a portion of the image to determine a pixel density variation along a direction perpendicular to the edges (330) and uses the pixel density variation to output an indication of the number of edges (330) in the image.

IPC 1-7

B65H 7/12

IPC 8 full level

B65H 7/12 (2006.01)

CPC (source: EP)

B65H 7/125 (2013.01); **B65H 2301/321** (2013.01); **B65H 2511/30** (2013.01); **B65H 2553/42** (2013.01); **B65H 2701/1315** (2013.01); **B65H 2701/1916** (2013.01)

Citation (search report)

See references of WO 03042082A1

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LI LU MC NL PT SE SK TR

DOCDB simple family (publication)

WO 03042082 A1 20030522; CA 2401401 A1 20030514; EP 1444153 A1 20040811; JP 2005508818 A 20050407

DOCDB simple family (application)

CA 0201622 W 20021030; CA 2401401 A 20020905; EP 02771926 A 20021030; JP 2003543931 A 20021030