(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization

International Bureau



(43) International Publication Date 14 August 2003 (14.08.2003)

PCT

(10) International Publication Number WO 2003/066334 A3

(51) International Patent Classification⁷: B41L 3/02, 3/08, 47/56

B41F 1/34,

(21) International Application Number:

PCT/US2003/003370

(22) International Filing Date: 5 February 2003 (05.02.2003)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

10/071,781

6 February 2002 (06.02.2002) US

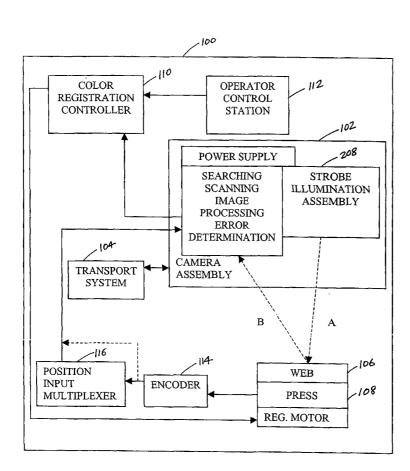
- (71) Applicant: QUAD/TECH, INC. [US/US]; N64 W23110 Main Street, Sussex, WI 53089 (US).
- (72) Inventors: HANSEN, Mark, R.; 2623 North 67th Street, Wauwatosa, WI 53213-1444 (US). RANTALA, Glen, W.;

W171 N7148 Shady Lane, Menomonee Falls, WI 53051 (US). **MOERSFELDER, Bradly, S.**; 817 Magnolia Drive, Waukesha, WI 53188 (US).

- (74) Agent: SMITH, Billie, Jean; Michael Best & Friedrich LLP, 100 E. Wisconsin Avenue, Milwaukee, WI 53202-4108 (US).
- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE,

[Continued on next page]

(54) Title: COLOR REGISTRATION CONTROL SYSTEM FOR A PRINTING PRESS



(57) Abstract: A method for decreasing the time spent searching for color register marks using a color registration control system (100) including a camera assembly (102) for acquiring an image of the paper substrate moving on a printing press and processing the image using an FPGA wherein the printed color register marks are found on the paper substrate within 5 plate revolutions.

WO 2003/066334 A3



ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

with international search report

(88) Date of publication of the international search report: 31 December 2003

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US03/03370

A. CLASSIFICATION OF SUBJECT MATTER				
IPC(7) : B41F 1/34; B41L 3/02, 3/08, 47/56 US CL : 101/481, 484, 485, 486				
US CL : 101/481, 484, 485, 486 According to International Patent Classification (IPC) or to both national classification and IPC				
B. FIELDS SEARCHED				
Minimum documentation searched (classification system followed by classification symbols) U.S.: 101/481, 484, 485, 486				
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched NONE				
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) USPTO APS EAST				
C. DOCUMENTS CONSIDERED TO BE RELEVANT				
Category *	Citation of document, with indication, where appropriate, of the relevant passages			Relevant to claim No.
Y	US 6,123,261 A (ROUSTAEI) 26 September 2000 (26.09.2000), column 4, lines 19-22.			1-12
Y,P	US 2002/0178952 A1 (SAINIO et al) 05 December 2002 (05.12.2002), claims 10, 11; paragraphs 6, 40, 42, 70, 84.			1-12
İ				
	,			
Further documents are listed in the continuation of Box C. See patent family annex.				
* Special categories of cited documents: "A" document defining the general state of the art which is not considered to be		"T"	'T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention	
_	nlar relevance	"X"	document of particular relevance; the considered novel or cannot be conside	
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means		"Y"	when the document is taken alone ocument of particular relevance; the claimed invention cannot be	
		considered to involve an inventive ste combined with one or more other suc being obvious to a person skilled in the		documents, such combination
"P" document published prior to the international filing date but later than the priority date claimed		"&" document member of the same patent family		
Date of the actual completion of the international search		Date of mailing of the international search report 13 AUG 2003		
23 April 2003 (23.04.2003) Name and mailing address of the ISA/US		Authorize	<u> </u>	U
Commissioner of Patents and Trademarks Box PCT		HOAI-AN NGUYEN		
Washington, D.C. 20231 Facsimile No. (703) 305-3230			e No. (703) 308-0956	0 0 0
Form PCT/ISA/210 (second sheet) (July 1998)				