

(19) World Intellectual Property Organization
International Bureau



162162



(43) International Publication Date
29 November 2001 (29.11.2001)

PCT

(10) International Publication Number
WO 01/89850 A1

(51) International Patent Classification: **B41J 2/205**,
G061 5/00

(21) International Application Number: PCT/AU00/00511

(22) International Filing Date: 24 May 2000 (24 05 2000)

(25) Filing Language: English

(26) Publication Language: English

(71) Applicant (for all designated States except US): **SILVERBROOK RESEARCH PTY LTD** [AU/AU], 393 Darling Street, Balmain, NSW 2041 (AU)

(72) Inventor; and

(75) Inventor/Applicant (for US only): **WALMSLEY, Simon, Robert** [AU/AU], Unit 3, 9 Pembroke Street, Epping, NSW 2121 (AU)

(74) Agent: **SILVERBROOK RESEARCH PTY LTD**, 393 Darling Street, Balmain, NSW 2041 (AU)

(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KL, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW

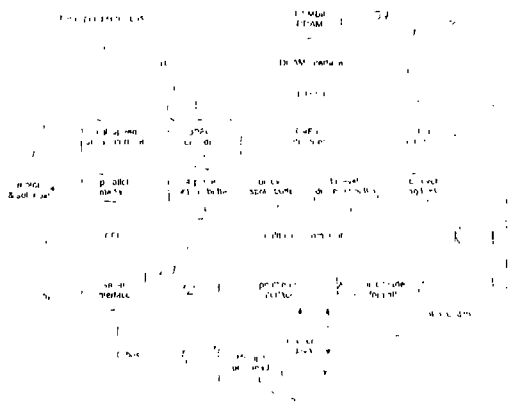
(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BI, CI, CG, CO, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG)

Published:

with international search report

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

(54) Title: **PRINT ENGINE/CONTROLLER WITH COLOR MASK**



(57) **Abstract:** A print engine/controller (10) to drive an ink drop print head has an interface (22) at which to receive compressed page data, decoders (28, 88) to decode respective types of image planes in the received compressed page data, and a half-toner/compositor to (29) composite image plane data, the half-toner/compositor including a dot merger unit (58) taking bits from the respective planes as inputs and a color mask register (61) holding masking bits in number equal to the number of image planes, respective input bits to the dot merger unit being ANDed with respective color mask register bits and the resultant bits Ored together to form an output bit in a channel for which there is an ink at the print head. The respective planes to the dot merger unit may include three contone color planes and a high resolution spot plane, and the color mask register is loaded with bits that are selected to place the high resolution spot plane into any one of the respective color channels at the print head. A fixative channel may be generated from any one or more of the respective planes and selected by what bits are loaded to the color mask register. The respective planes to the dot merger unit (58) may include three contone color planes and a bit-level spot plane and the color mask register (61) may be loaded with bits that are selected to split a K plane into C, M, and Y channels for output to a print head without K.

WO 01/89850 A1