

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
12 June 2003 (12.06.2003)

PCT

(10) International Publication Number
WO 03/049420 A3

(51) International Patent Classification⁷: **G06K 9/36**

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(21) International Application Number: PCT/US02/38958

(22) International Filing Date: 5 December 2002 (05.12.2002)

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(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/336,709 5 December 2001 (05.12.2001) US
10/124,547 17 April 2002 (17.04.2002) US

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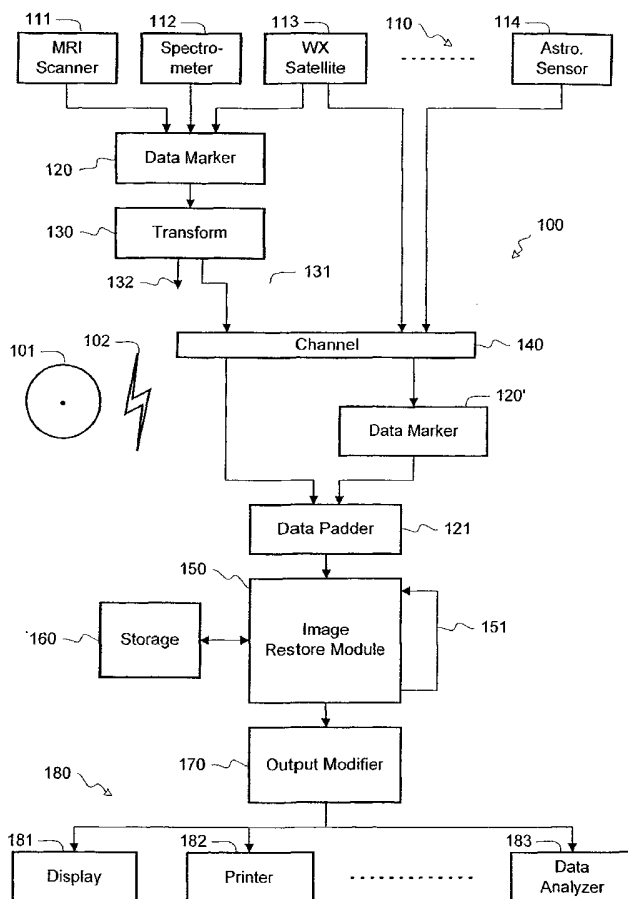
(63) Related by continuation (CON) or continuation-in-part (CIP) to earlier application:
US 10/124,547 (CIP)
Filed on 17 April 2002 (17.04.2002)

(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, US, UZ, VC, VN, YU, ZA, ZM, ZW.

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[Continued on next page]

(54) Title: IMAGE RESTORATION FROM TRANSFORMED COMPONENT DATA



(57) Abstract: An image in a base domain (e.g., spatial) is restored from only one component (e.g. magnitude) of a transform-domain (e.g., Fourier) image by combining this component with a complementary component (e.g., phase) of a transformed previous iteration. Every iteration is converted to the base domain, and predefined known marker and padding data is reapplied to the iteration during every iteration, for convergence purposes (120, 120', 121). The restored image can be scaled and trimmed, and the marker position interpolated (151). The original image to be restored is modified to contain the known marker and known padding at known locations. These may be inserted in the base domain or in the transform domain.



(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, ES, FI, FR, GB, GR, 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).

— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

(88) Date of publication of the international search report:

2 October 2003

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.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US02/38958

| A. CLASSIFICATION OF SUBJECT MATTER IPC(7) : G06K 9/36 US CL : 382/280, 276 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. : 382/280, 276, 128, 131, 132, 302 Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) IEEE; EAST | | |
| C. DOCUMENTS CONSIDERED TO BE RELEVANT | | |
| Category * | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
| X | US 6,195,465 A (ZANDI et al) 27 February 2001, column 39, line 25-column 42, line 35. | 14, 22, 48, 63 |
| --- | | ----- |
| Y | | 15-21, 23-26, 49-62, 64-71 |
| Y | US 5,825,892 A (BRAUDAWAY et al) 20 October 1998, figure 2 and column 5, line 24-column 21, line 37. | 15-21, 23-26, 49-62, 64-71 |
| A | US 6,178,271 B1 (MASS, III) 23 January 2001, entire document. | 1-106 |
| A,P | US 6,427,028 A (DONESCU et al) 30 July 2002, column 5, line 58-column 9, line 34. | 1-106 |
| <input type="checkbox"/> Further documents are listed in the continuation of Box C. <input type="checkbox"/> See patent family annex. | | |
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| Date of the actual completion of the international search 21 March 2003 (21.03.2003) | | Date of mailing of the international search report 11 AUG 2003 |
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