US006700612B1

(12) **United States Patent** (10) **Patent No.:** **US 6,700,612 B1**

Anderson et al. (45) **Date of Patent:** **Mar. 2, 2004**

(54) **REVIEWING AND NAVIGATING AMONG IMAGES ON AN IMAGE CAPTURE UNIT USING A THUMBNAIL POSITION MEMORY BAR**

(75) Inventors: **Eric C. Anderson**, San Jose, CA (US); **John F. Pavley**, Cupertino, CA (US)

(73) Assignee: **FlashPoint Technology, Inc.**, Peterborough, NH (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: **09/535,144**

(22) Filed: **Mar. 24, 2000**

Related U.S. Application Data

(63) Continuation-in-part of application No. 08/708,370, filed on Sep. 4, 1996, now Pat. No. 6,097,431.

(51) **Int. Cl.**[7] **H04N 5/222**
(52) **U.S. Cl.** **348/333.11**; 348/333.05
(58) **Field of Search** 340/207.99, 231.99, 340/231.3, 333.01, 333.02, 333.05, 333.11, 333.12; 345/668, 667; 386/107, 117

(56) **References Cited**

U.S. PATENT DOCUMENTS

6,097,431 A * 8/2000 Anderson et al. 348/231.7

6,249,316 B1 * 6/2001 Anderson 348/333.05
6,310,648 B1 * 10/2001 Miller et al. 348/333.05
6,400,375 B1 * 6/2002 Okudaira 345/668
6,515,704 B1 * 2/2003 Sato 348/333.11

* cited by examiner

Primary Examiner—Tuan Ho
(74) *Attorney, Agent, or Firm*—Sawyer Law Group LLP

(57) **ABSTRACT**

A method for reviewing and navigating among stored images on an image capture unit having a display, wherein each of the stored images is represented by a thumbnail image is disclosed. The method begins by displaying a page of thumbnail images on a display in which when the page is full of thumbnails, the thumbnails are arranged in an N×M array. A memory bar is displayed adjacent to the page on the display, wherein the memory bar indicates a position of the displayed page in relation to the other pages of stored images. The user may navigate among the thumbnail images in the displayed page via the up, down, right and left buttons, where a highlight area indicates a location of a currently selected thumbnail. The user may also navigate from the displayed page to other pages via up, down, right and left buttons, wherein the displayed page is replaced with a second page. In response, the memory bar is updated to indicate a position of the second page in relation to the other pages.

35 Claims, 18 Drawing Sheets