(12) **United States Patent**
Thomas

(10) **Patent No.:** **US 7,027,659 B1**
(45) **Date of Patent:** **Apr. 11, 2006**

(54) **METHOD AND APPARATUS FOR GENERATING VIDEO IMAGES**

(75) Inventor: **David R. Thomas**, Opio (FR)

(73) Assignee: **Texas Instruments Incorporated**, Dallas, TX (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.: **09/315,247**

(22) Filed: **May 20, 1999**

(30) **Foreign Application Priority Data**

May 20, 1998 (EP) 98401228

(51) **Int. Cl.**
G06K 9/40 (2006.01)
(52) **U.S. Cl.** **382/254**; 382/260
(58) **Field of Classification Search** 382/254–255, 382/260–269; 358/1.9
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

5,629,752 A * 5/1997 Kinjo 355/35

FOREIGN PATENT DOCUMENTS

JP 2001208524 A * 8/2001

(57) **ABSTRACT**

A method and system for generating a video image is disclosed in which an object is monitored with a video camera to produce a sequence of video frames. Each of the video frames is divided into a plurality of regions, each region being representative of a portion of said object. For example, the frame of the video image may include the head and shoulder region of a user. Regions corresponding to predetermined facial features may be selected, such as the chin, opposing edges of the mouth, the nose, and the outer edge of each eye. At least one of the plurality of regions is selected. In the illustrative example, the selected region may comprise the mouth of the monitored user. The selected region is then recombined with each of the remaining regions of the video frame to form a display video image. The sequence of video frames is then displayed such that the selected region is perceived by an observer to form a sharp image, and remaining regions of said display video image are less sharp in accordance with the distance between said respective portion of said object and said video camera.
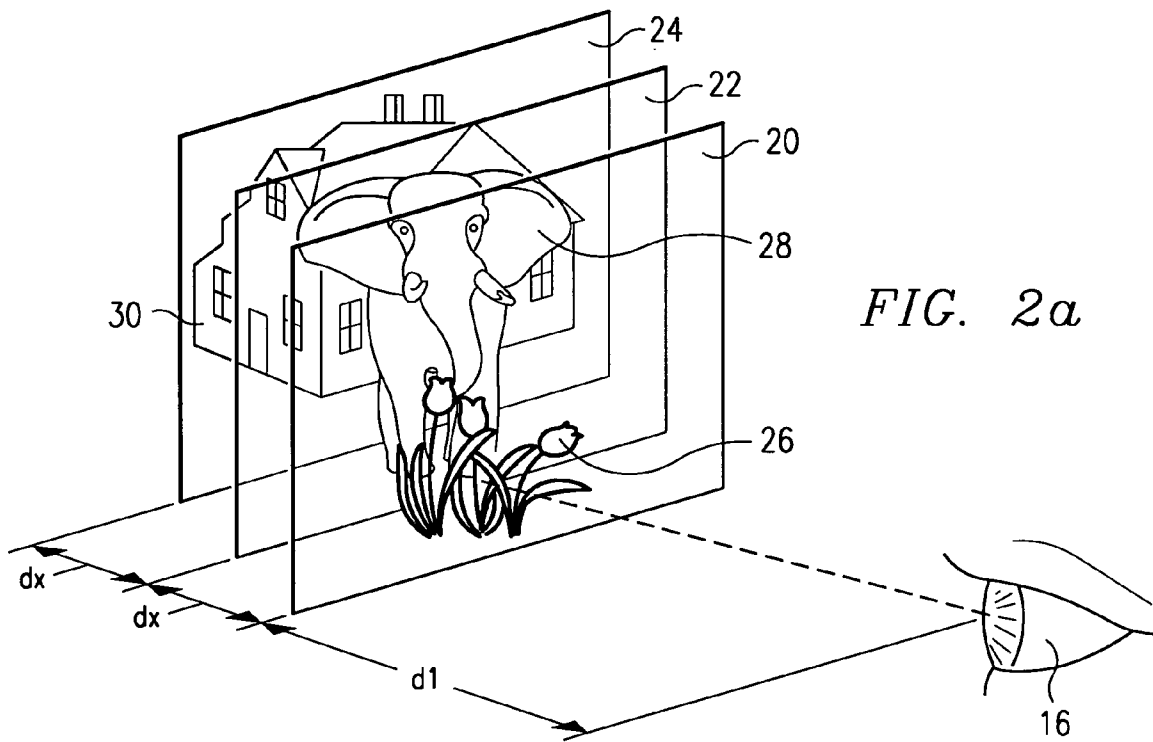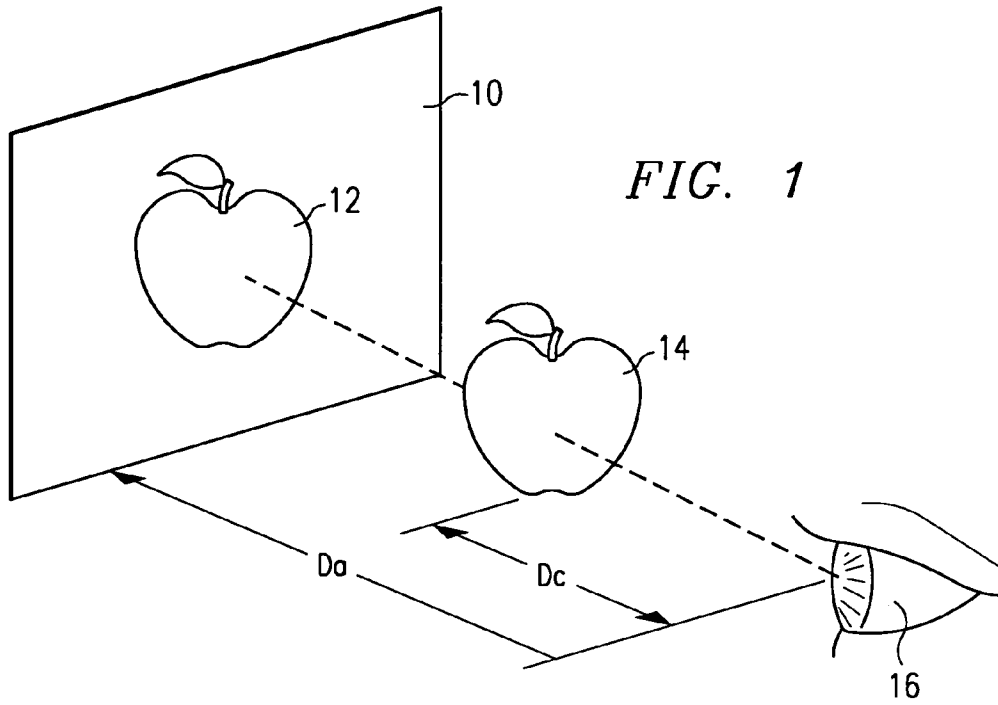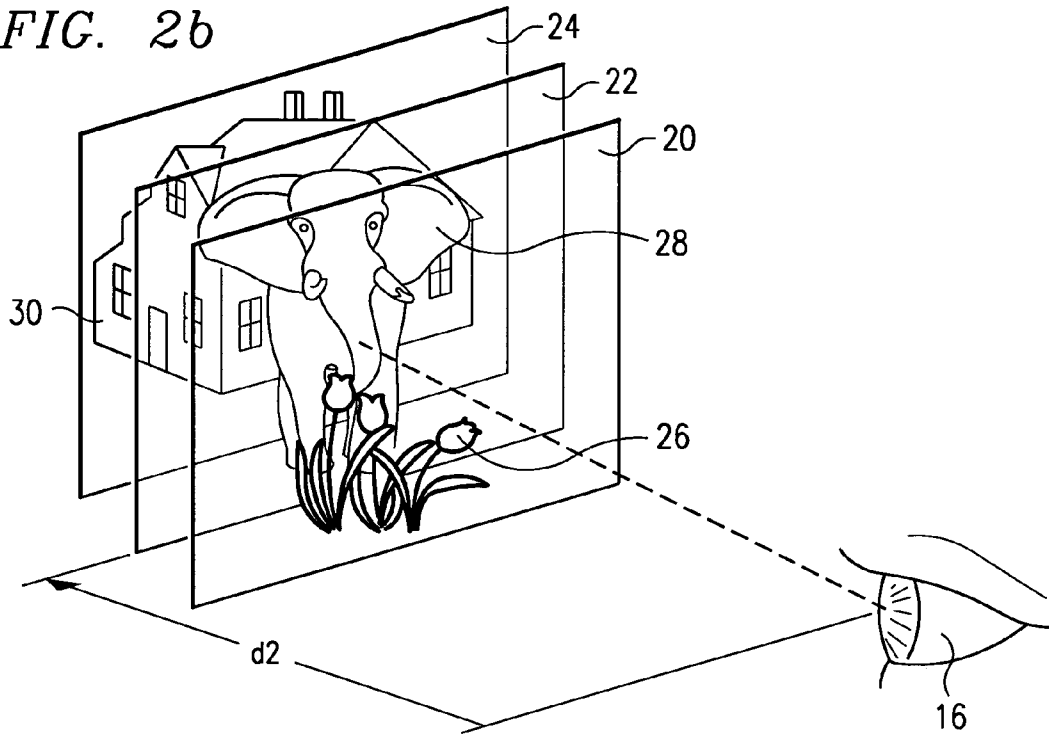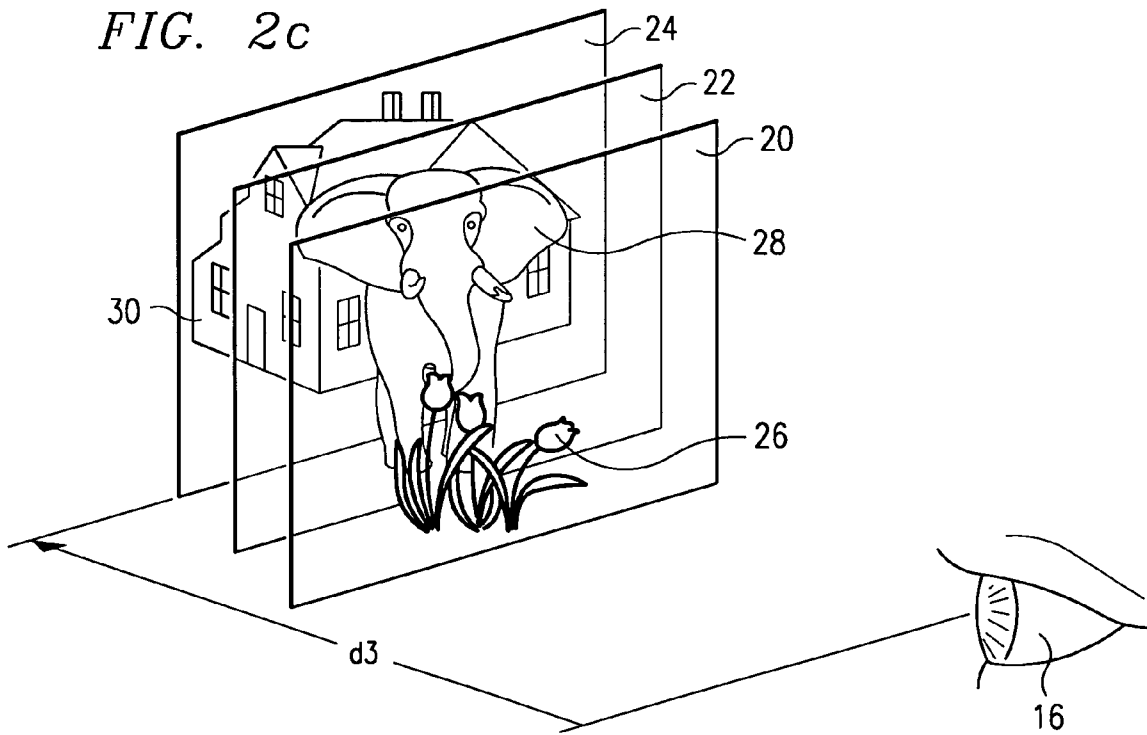
25 Claims, 13 Drawing Sheets

FIG. 1

FIG. 2a

FIG. 2b

FIG. 2c

START

302 — MONITOR EVENT

304 — GENERATE AUDIO/VIDEO

306 — DIVIDE VIDEO FRAMES

308 — SELECT REGION OF VIDEO FRAME

310 — DE-EMPHASIZE REMAINING REGIONS OF VIDEO FRAME

312 — RECOMBINE REGIONS

314 — DISPLAY VIDEO FRAMES

STOP
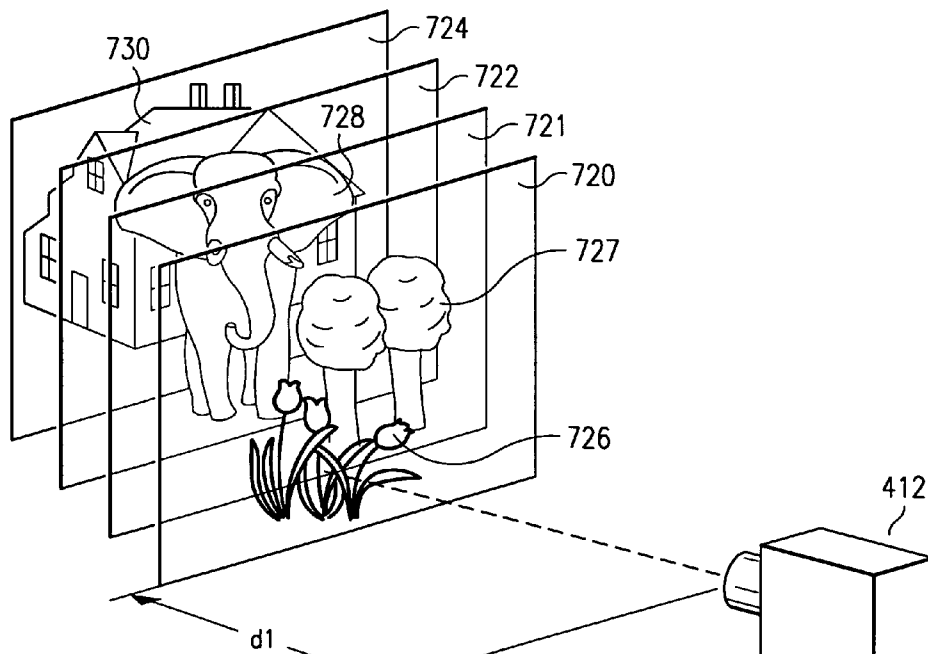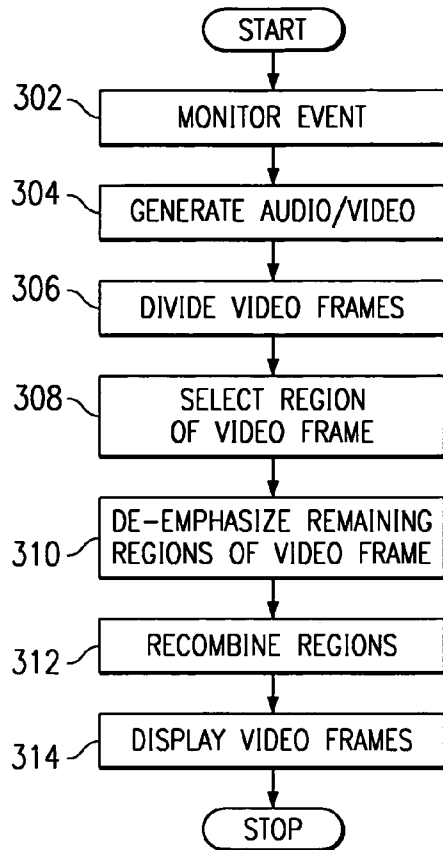
FIG. 3

FIG. 4a

FIG. 4b

FIG. 4c

DOCKET ALARM
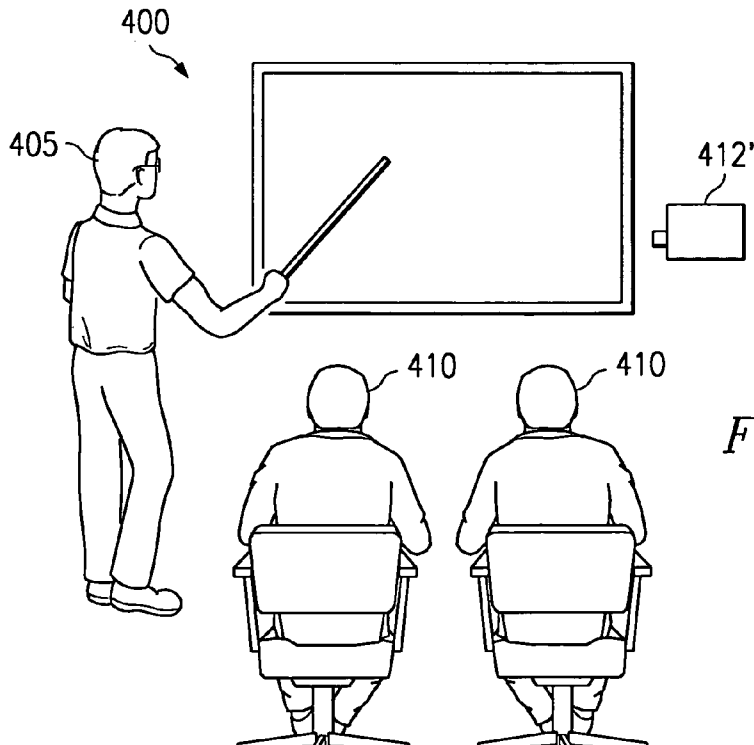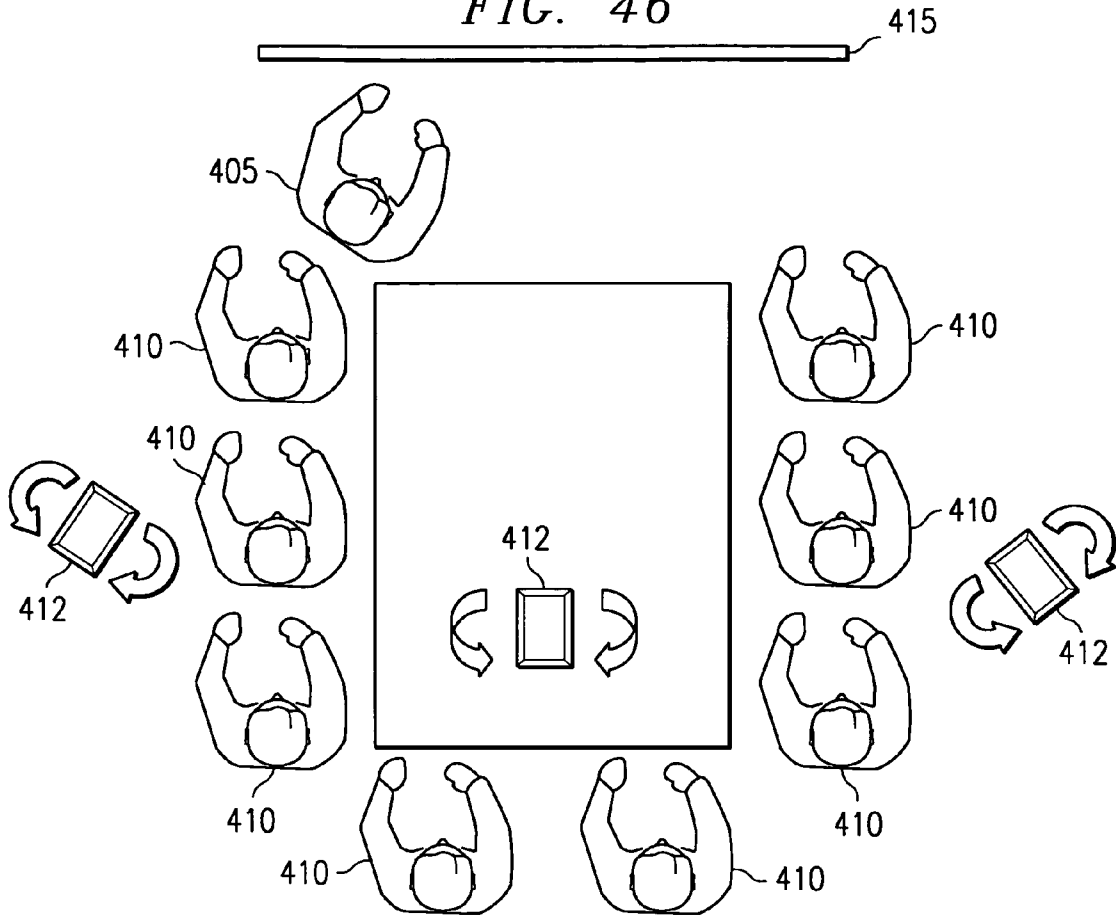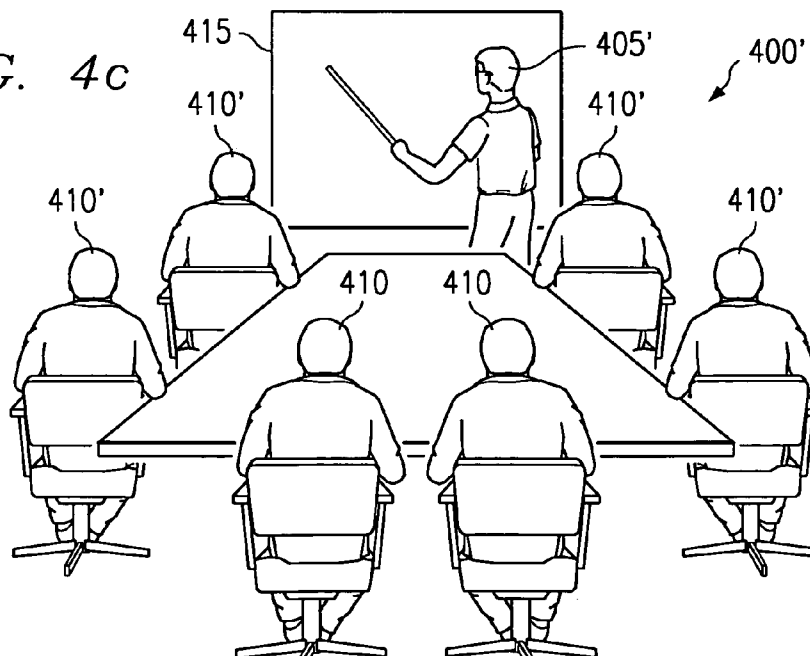
Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

Real-Time Litigation Alerts

Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

Advanced Docket Research

With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

Analytics At Your Fingertips

Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

LAW FIRMS
Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

FINANCIAL INSTITUTIONS
Litigation and bankruptcy checks for companies and debtors.

E-DISCOVERY AND LEGAL VENDORS
Sync your system to PACER to automate legal marketing.

fastcase®
Smarter legal research.