

Exhibit C

United States Patent No. 7,715,476



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Edwards et al.

(10) **Patent No.:** **US 7,715,476 B2**
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(54) **SYSTEM, METHOD AND ARTICLE OF MANUFACTURE FOR TRACKING A HEAD OF A CAMERA-GENERATED IMAGE OF A PERSON**

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 1206 days.

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(21) Appl. No.: **11/112,433**

(22) Filed: **Apr. 21, 2005**

(65) **Prior Publication Data**

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Related U.S. Application Data

(63) Continuation of application No. 10/353,858, filed on Jan. 28, 2003, now Pat. No. 6,909,455, which is a continuation of application No. 09/364,859, filed on Jul. 30, 1999, now Pat. No. 6,545,706.

(51) **Int. Cl.**
H04N 7/18 (2006.01)

(52) **U.S. Cl.** **375/240.08; 375/240.16**

(58) **Field of Classification Search**
 375/240.08–240.17

See application file for complete search history.

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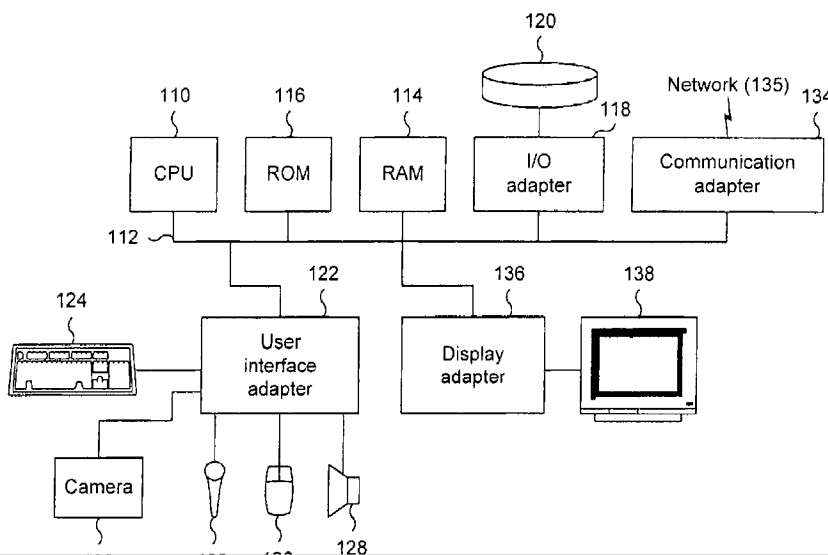
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(57) **ABSTRACT**

A system, method and article of manufacture are provided for tracking a head portion of a person image in video images. Upon receiving video images, a first head tracking operation is executed for generating a first confidence value. Such first confidence value is representative of a confidence that a head portion of a person image in the video images is correctly located. Also executed is a second head tracking operation for generating a second confidence value representative of a confidence that the head portion of the person image in the video images is correctly located. The first confidence value and the second confidence value are then outputted. Subsequently, the depiction of the head portion of the person image in the video images is based on the first confidence value and the second confidence value.

32 Claims, 15 Drawing Sheets



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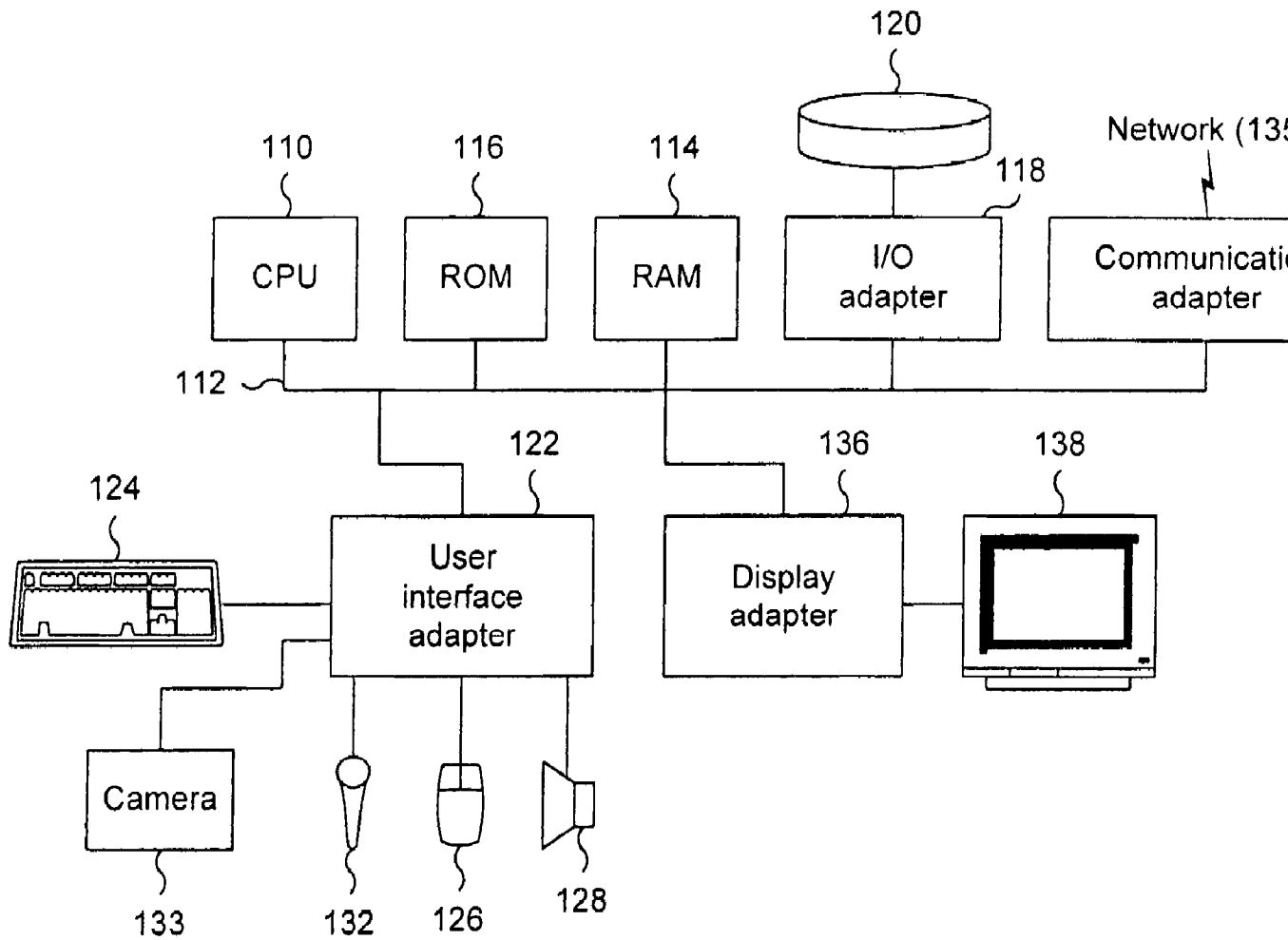


Figure 1

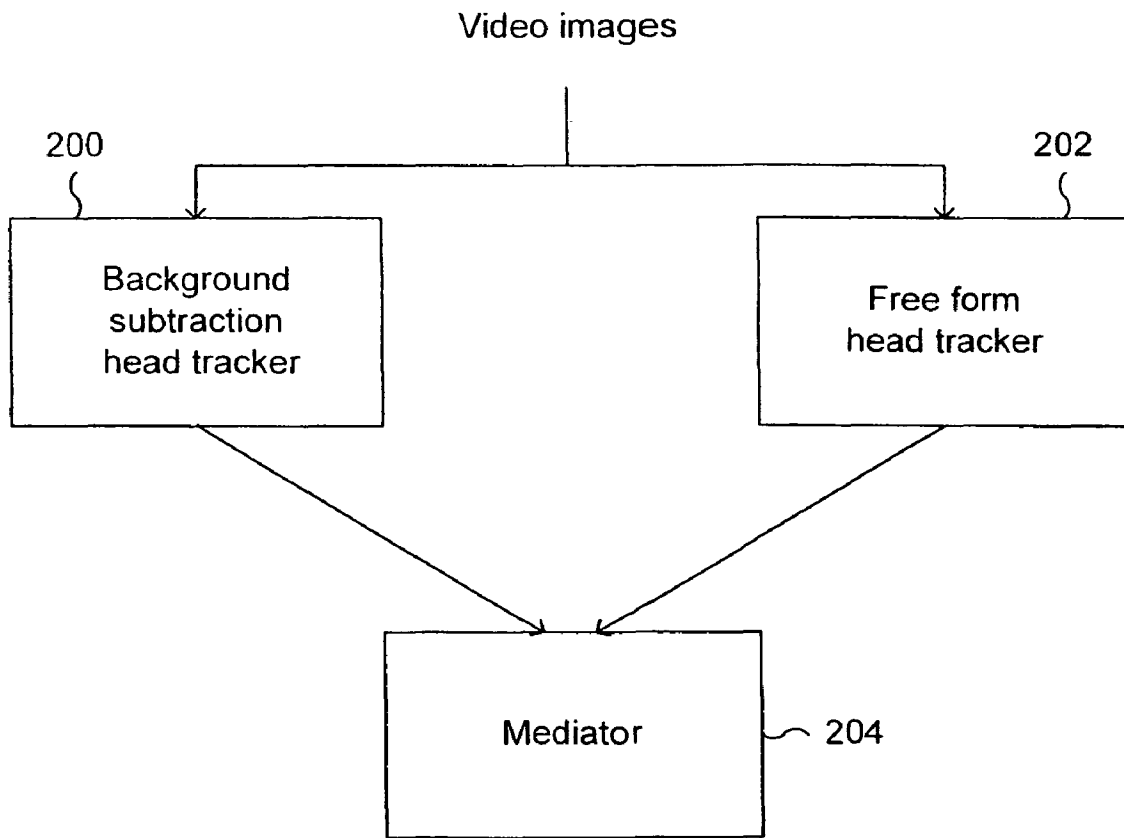


Figure 2

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