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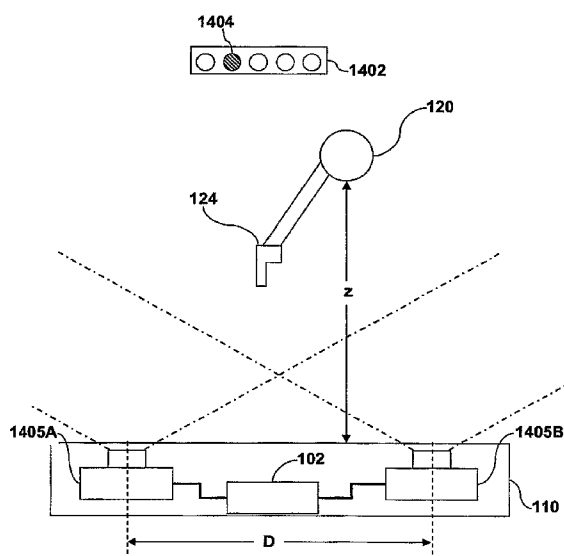
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(54) Title: METHODS AND SYSTEMS FOR ENABLING DEPTH AND DIRECTION DETECTION WHEN INTERFACING WITH A COMPUTER PROGRAM



(57) Abstract: A method for detecting direction when interfacing with a computer program is provided. The method includes capturing an image presented in front of an image capture device. The image capture device has a capture location in a coordinate space. When a person is captured in the image, the method includes identifying a human head in the image and assigning the human head a head location in the coordinate space. The method also includes identifying an object held by the person in the image and assigning the object an object location in coordinate space. The method further includes identifying a relative position in coordinate space between the head location and the object location when viewed from the capture location. The relative position includes a dimension of depth. The method may be practiced on a computer system, such as one used in the gaming field.

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INTERNATIONAL SEARCH REPORT

International application No.

PCT/US 06/61056

A. CLASSIFICATION OF SUBJECT MATTER

IPC(8) - A63F 9/24 (2007.01)

USPC - 463/30

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)

IPC(8): A63F 9/24 (2007.01)

USPC: 463/30

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
USPC: 463/30, 33; 715/862 (text search)Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
WEST(USPT,PGPB,EPAB,JPAB); DialogPRO(Engineering); Google Search terms: hand finger point direction motion gesture movement track head face input user control interactive select screen GUI graphical interface menu depth toward away location position screen display television image capture camera distance depth focal relative

C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category* | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|-----------|---|-----------------------|
| X | US 2004/0240542 A1 (YEREDOR et al.) 02 December 2004 (02.12.2004), fig 1, 3, 11; para [0013]-[0018], [0027]-[0031], [033]-[0051]. | 1-20 |
| X | US 2004/0046736 A1 (PRYOR et al.) 11 March 2004 (11.03.2004), para [0091]-[0185], [0307]-[0332], [0345]-[0350], [0448]-[0475], [0656]-[0664]. | 21-34 |
| A | US 2002/0041327 A1 (HILDRETH et al.) 11 April 2002 (11.04.2002), fig 6, 9, 14; para [0081]-[0099], [0113], [0158]. | 1, 20, 21, 34 |
| A | US 6,791,531 B1 (JOHNSTON et al.) 14 September 2004 (14.09.2004), fig 4, 12; col 24-26. | 1, 20, 21, 34 |

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