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[Continued on next page]

(54) **Title:** RECOGNIZING USER INTENT IN MOTION CAPTURE SYSTEM

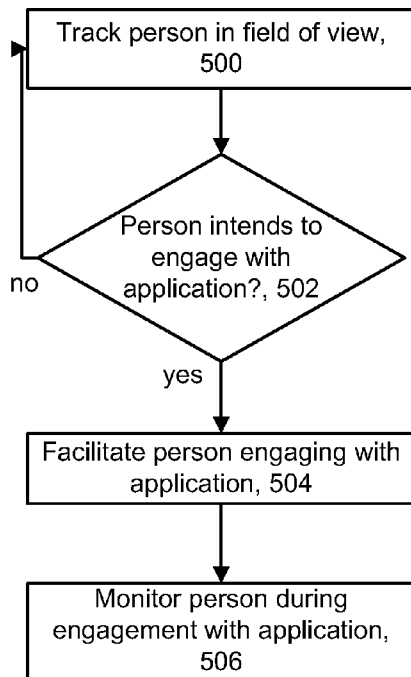


Fig. 5

(57) **Abstract:** Techniques for facilitating interaction with an application in a motion capture system allow a person to easily begin interacting without manual setup. A depth camera system tracks a person in physical space and evaluates the person's intent to engage with the application. Factors such as location, stance, movement and voice data can be evaluated. Absolute location in a field of view of the depth camera, and location relative to another person, can be evaluated. Stance can include facing a depth camera, indicating a willingness to interact. Movements can include moving toward or away from a central area in the physical space, walking through the field of view, and movements which occur while standing generally in one location, such as moving one's arms around, gesturing, or shifting weight from one foot to another. Voice data can include volume as well as words which are detected by speech recognition.

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SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

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— as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))

— as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))

**Published:**

— with international search report (Art. 21(3))

— before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))

**Declarations under Rule 4.17:**

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

3 November 2011

**A. CLASSIFICATION OF SUBJECT MATTER****G06T 7/00(2006.01)i, G06T 17/00(2006.01)i**

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)

G06T 7/00; G06T 13/40; G06T 17/40; G06T 7/20; G06K 11/08; A63F 13/00

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Korean utility models and applications for utility models

Japanese utility models and applications for utility models

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

eKOMPASS(KIPO internal) &amp; Keywords: track, body, intend, engage, application, avatar, model

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	EP 0872808 A1 (DIGITAL EQUIPMENT CORPORATION) 21 October 1998 See abstract, claims 1-6 columns 2-7, figures 1-4, 6, 7.	1-4, 11-14
A	KR 10-2005-0099547 A (SONY COMPUTER ENTERTAINMENT INC.) 13 October 2005 See abstract, claims 1-3, pages 5-7, figure 2.	1-4, 11-14
A	JP 2008-225985 A (NAMCO BANDAI GAMES INC) 25 September 2008 See abstract, claims 1-4, paragraphs [42]-[44], [101]-[104], figures 1, 6.	1-4, 11-14

 Further documents are listed in the continuation of Box C. See patent family annex.

\* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&amp;" document member of the same patent family

Date of the actual completion of the international search

08 SEPTEMBER 2011 (08.09.2011)

Date of mailing of the international search report

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Name and mailing address of the ISA/KR

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**INTERNATIONAL SEARCH REPORT**

Information on patent family members

International application No.

**PCT/US2010/062655**

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
EP 0872808 A1	21. 10. 1998	DE 69832119 D1	08. 12. 2005
		DE 69832119 T2	03. 08. 2006
		EP 0872808 B1	02. 11. 2005
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		WO 2004-072909 A1	26. 08. 2004
JP 2008-225985 A	25. 09. 2008	None	

**Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)**

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1.  Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
  
2.  Claims Nos.: 6  
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:  
Claim 6 depends on the unsearchable claim 5.
  
3.  Claims Nos.: 5, 7-10, 15  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

**Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)**

This International Searching Authority found multiple inventions in this international application, as follows:

1.  As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2.  As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3.  As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
  
4.  No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

**Remark on Protest**

- The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
- The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- No protest accompanied the payment of additional search fees.