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(62) Document number(s) of the earlier application(s) in accordance with Art. 76 EPC:
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(54) **Image generating device for an Ego Shooter game**

(57) An image generating device for displaying on a display (1a) images for a player to play a gun shooting game with an enemy character existing in a virtual game space. The image generating device comprises: AI (artificial intelligence) processing means (101) for executing AI processing (steps S8/S9) incorporating emotions of said character influenced between circumstances, evaluation/determination, and factors of behaviors in said game.

FIG.1

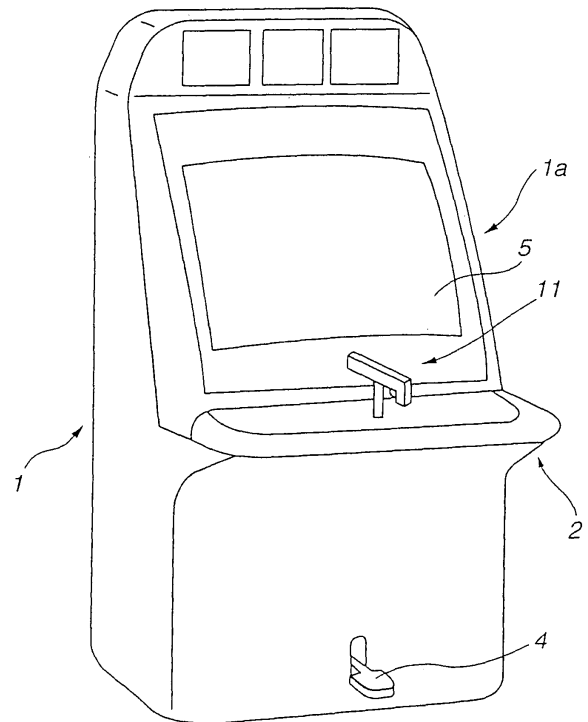
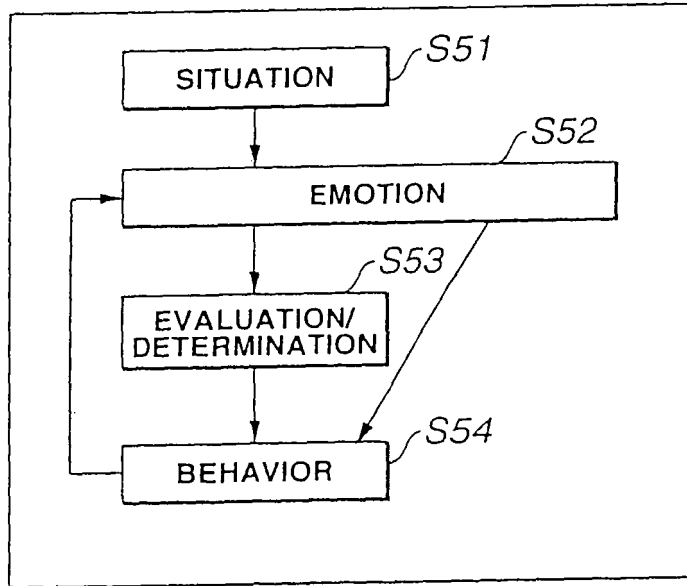


FIG.13





PARTIAL EUROPEAN SEARCH REPORT

Application Number

which under Rule 63 of the European Patent Convention EP 07 01 1768 shall be considered, for the purposes of subsequent proceedings, as the European search report

| DOCUMENTS CONSIDERED TO BE RELEVANT | | | |
|---|--|---|---|
| Category | Citation of document with indication, where appropriate, of relevant passages | Relevant to claim | CLASSIFICATION OF THE APPLICATION (IPC) |
| Y | ANONYMOUS: "Virtua COP Game Description" [Online] 31 December 1995 (1995-12-31), pages 1-3, XP002491353 Retrieved from the Internet: URL: http://www.answers.com/topic/virtua-cop p> [retrieved on 2008-08-04] * the whole document * ----- -/-- | 1-3,13, 14 | INV. A63F13/04 ADD. G06T15/00 G06F15/18 |
| | | | TECHNICAL FIELDS SEARCHED (IPC) A63F G06T |
| INCOMPLETE SEARCH | | | |
| The Search Division considers that the present application, or one or more of its claims, does/do not comply with the EPC to such an extent that a meaningful search into the state of the art cannot be carried out, or can only be carried out partially, for these claims. Claims searched completely : Claims searched incompletely : Claims not searched : Reason for the limitation of the search: see sheet C | | | |
| Place of search Berlin | | Date of completion of the search 7 November 2008 | Examiner Vollmann, Karl |
| CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document | | T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document | |

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PARTIAL EUROPEAN SEARCH REPORT

Application Number
EP 07 01 1768

| DOCUMENTS CONSIDERED TO BE RELEVANT | | Relevant to claim | CLASSIFICATION OF THE APPLICATION (IPC) |
|-------------------------------------|---|-------------------|---|
| Category | Citation of document with indication, where appropriate, of relevant passages | | |
| Y | <p>ELLIOTT, C.: "Research problems in the use of shallow Artificial Intelligence model of personality and emotion" PROCEEDINGS OF THE TWELFTH NATIONAL CONFERENCE ON ARTIFICIAL INTELLIGENCE, [Online] 31 December 1994 (1994-12-31), pages 9-15, XP002491354 Seattle, Washington, United States Retrieved from the Internet: URL:http://citeseerx.ist.psu.edu/viewdoc/similar?doi=10.1.1.45.2310> [retrieved on 2008-08-01] * abstract * * page 10, left-hand column, line 1 - line 20 * page 13, subchapter "Games" * figure 1 *</p> | 1-3,13,14 | |
| | | | TECHNICAL FIELDS SEARCHED (IPC) |
| Y | <p>----- WAVISH P ET AL: "Situated action approach to implementing characters in computer games" APPLIED ARTIFICIAL INTELLIGENCE, WASHINGTON, DC, US, vol. 10, no. 1, 1 February 1996 (1996-02-01), pages 53-73, XP008094800 ISSN: 0883-9514 * abstract * * page 53 - page 54 * page 56, lower half * page 69 - page 70 *</p> | 1-3,13,14 | |
| A | <p>----- WO 97/21194 A (SEGA ENTERPRISES KK ;YAMAMOTO SHIN (JP); FUJIMA KENJI (JP)) 12 June 1997 (1997-06-12) * abstract * * page 2 - page 3 * * page 6, line 4 - line 21 * * page 11, line 1 - line 13 * -----</p> | 1-3,13,14 | |



**INCOMPLETE SEARCH
SHEET C**

Application Number
EP 07 01 1768

Claim(s) searched completely:
1-3, 13, 14

Claim(s) not searched:
-

Reason for the limitation of the search:

The subject-matter of claims 1-3 are described in terms of "..device for.." and "..means for..". This however must be understood as meaning merely device/means suitable for performing the steps/process. Thus any image generating device suitable for the stated use renders the subject-matter of claims 1-3 known.

Any ego-shooter or first-person shooter available at the priority date is thus relevant to the issue of novelty.

The claims have been interpreted as if the device and means actually perform the stated use.



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CLAIMS INCURRING FEES

The present European patent application comprised at the time of filing claims for which payment was due.

- Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due and for those claims for which claims fees have been paid, namely claim(s):
- No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due.

LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

see sheet B

- All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.
- As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.
- Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:
- None of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims, namely claims:
1-3, 13, 14
- The present supplementary European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims (Rule 164 (1) EPC).



**LACK OF UNITY OF INVENTION
SHEET B**

Application Number
EP 07 01 1768

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

1. claims: 1-3, 13, 14

Emotions for virtual characters

2. claims: 4-6

Predictive visual feedback for the game player

3. claims: 7-9

Modelling of a virtual person

4. claim: 10

Motion interpolation

5. claims: 11, 12

Collision detection

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 07 01 1768

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

07-11-2008

| Patent document cited in search report | Publication date | Patent family member(s) | Publication date |
|--|------------------|-------------------------|------------------|
| WO 9721194 A | 12-06-1997 | CN 1173935 A | 18-02-1998 |
| | | DE 69629917 D1 | 16-10-2003 |
| | | EP 0809214 A1 | 26-11-1997 |
| | | JP 3871224 B2 | 24-01-2007 |
| | | US 6320582 B1 | 20-11-2001 |
| | | ----- | |

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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82