(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau

AIPO OMPI

(43) International Publication Date 8 December 2011 (08.12.2011)

(10) International Publication Number WO 2011/153361 A3

- (51) International Patent Classification: *G06F 3/048* (2006.01) *G06F 3/14* (2006.01)
- (21) International Application Number:

PCT/US2011/038943

(22) International Filing Date:

2 June 2011 (02.06.2011)

- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:

61/350,909 2 June 2010 (02.06.2010) US 61/410,054 4 November 2010 (04.11.2010) US

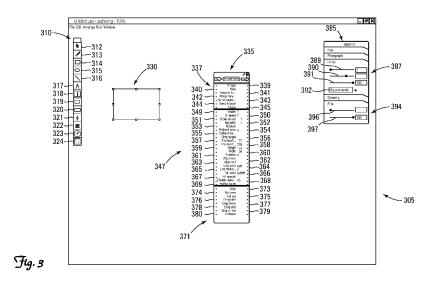
- (71) Applicant (for all designated States except US): ALLEN LEARNING TECHNOLOGIES [US/US]; 1120 Centre Pointe Drive, Suite 800, Mendota Heights, MN 55120-1277 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): ALLEN, Michael, W. [US/US]; 8840 Deer Ridge Lane, Bloomington, MN 55438 (US). BIRTH, Steven, M. [US/US]; 3719 Pleasant Avenue, Minneapolis, MN 55409 (US). KREKEL-BERG, Patrick, J. [US/US]; 2709 Red Splendor Circle East, Maplewood, MN 55119 (US).
- (74) Agent: KAVATHEKAR, Amol, H.; Hamre, Schumann, Mueller & Larson, P.C., P. O. Box 2902, Minneapolis MN 55402 (US).

- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PE, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

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))
- (88) Date of publication of the international search report: 19 April 2012

(54) Title: DEVICE HAVING GRAPHICAL USER INTERFACES AND METHOD FOR DEVELOPING MULTIMEDIA COMPUTER APPLICATIONS



(57) Abstract: Systems and techniques are provided for generating and implementing graphical user interfaces (GUIs) for wiring and binding various objects including graphical and logical objects. In the GUIs provided, visual wirings are used to represent binding connections that lock different properties of the objects so that those properties share the same value or values. The binding connections allow a user to affect property change(s) in any one of the linked objects during authoring and/or at runtime by controlling property change(s) at one or more of the rest of the linked objects.



International application No. PCT/US2011/038943

A. CLASSIFICATION OF SUBJECT MATTER

G06F 3/048(2006.01)i, G06F 3/14(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) G06F 3/048; G06F 17/50; G06F 9/44; G06F 9/40

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) & Keywords: GUI, program, object

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 2006-0064674 A1 (JOHN OLSON et al.) 23 March 2006 See abstract; paragraphs [0072] - [0259] and figures 1-22.	1–51
A	US 05913063A A (MCGURRIN; SCOTT et al.) 15 June 1999 See abstract; column 6, line 52 - column 13, line 43 and figures 3-7.	1-51
A	US 6701513 B1 (BAILEY; BENDRIX L.) 02 March 2004 See abstract; column 5, line 56 - column 37, line 61 and figures 2-16.	1-51
А	US 05689711A A (BARDASZ; THEODORE et al.) 18 November 1997 See abstract; column 4, line 55 - column 50, line 7 and figures 1-25.	1–51

 \boxtimes

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
- "&" document member of the same patent family

Date of mailing of the international search report

Date of the actual completion of the international search
29 FEBRUARY 2012 (29.02.2012)

29 FEBRUARY 2012 (29.02.2012)

Name and mailing address of the ISA/KR



Korean Intellectual Property Office Government Complex-Daejeon, 189 Cheongsa-ro, Seo-gu, Daejeon 302-701, Republic of Korea

Facsimile No. 82-42-472-7140

Authorized officer

CHOI, Jeong Kwon

Telephone No. 82-42-481-8507



INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/US2011/038943

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2006-0064674 A1	23.03.2006	DE 102005025644 A1 EP 1603035 A2 EP 1603035 A3 GB 0511407 D0 GB 2414834 A NL 1029182A1 NL 1029182C2	26.01.2006 07.12.2005 05.03.2008 13.07.2005 07.12.2005 06.12.2005 11.08.2009
US 05913063A A	15.06.1999	None	
US 6701513 B1	02.03.2004	US 2008-0109785 A1 US 7340721 B1	08.05.2008 04.03.2008
US 05689711A A	18.11.1997	EP 0738965 A2 EP 0738965 A3 JP 03-962109 B2 JP 09-069120 A	23. 10. 1996 09. 09. 1998 22. 08. 2007 11. 03. 1997