

Notice of References Cited	Application/Control No. 10/932,536		Applicant(s)/Patent Under Reexamination MULLEN, JEFFREY D.	
	Examiner ANDREW KIM		Art Unit 3714	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A	US-6,011,653	01-2000	Karasawa, Joji	359/630
*	B	US-2002/0061741	05-2002	Leung et al.	455/414
	C	US-			
	D	US-			
	E	US-			
	F	US-			
	G	US-			
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

<i>Index of Claims</i> 	Application/Control No. 10932536	Applicant(s)/Patent Under Reexamination MULLEN, JEFFREY D.
	Examiner Bond, Christopher H	Art Unit 3714

✓	Rejected	-	Cancelled	N	Non-Elected	A	Appeal
=	Allowed	÷	Restricted	I	Interference	O	Objected

☐ Claims renumbered in the same order as presented by applicant				☐ CPA				☐ T.D.				☐ R.1.47			
CLAIM		DATE													
Final	Original	01/21/2008	01/15/2009												
	1	✓	✓												
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	36	✓	✓												

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 ☐ T.D.
 ☐ R.1.47

CLAIM		DATE									
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CLAIM		DATE													
Final	Original	01/21/2008	01/15/2009												
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CLAIM		DATE													
Final	Original	01/21/2008	01/15/2009												
	109	✓	✓												
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	113	✓	✓												
	114	✓	✓												
	115	✓	✓												
	116		✓												
	117		✓												

Search Notes 	Application/Control No. 10932536	Applicant(s)/Patent Under Reexamination MULLEN, JEFFREY D.
	Examiner Bond, Christopher H	Art Unit 3714

SEARCHED			
Class	Subclass	Date	Examiner
463	31, 40, 42	1/13/2009	AK

SEARCH NOTES		
Search Notes	Date	Examiner
EAST (see attached notes)	1/13/2009	AK

INTERFERENCE SEARCH			
Class	Subclass	Date	Examiner

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EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L3	2821	mullen.in.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	AND	ON	2009/01/15 10:23
L4	1	mullen.in. jeff.in.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	AND	ON	2009/01/15 10:23
L5	78	mullen.in. jeffrey.in.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	AND	ON	2009/01/15 10:24
S1	8	"932536".ap.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	AND	ON	2009/01/09 11:26
S2	1	("6287200").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2009/01/09 11:36
S3	1	("6287200").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2009/01/15 00:14
S4	1238	updat\$3 with GPS with location	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	AND	ON	2009/01/15 00:18
S5	105	updat\$3 with GPS with location with server	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	AND	ON	2009/01/15 00:21
S6	1632934	scale or zoom with gps	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	AND	ON	2009/01/15 00:49
S7	124	(scale or zoom) with gps same game	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	AND	ON	2009/01/15 00:49
S8	0	(2003/0062675).CCLS.	US-PGPUB; USPAT; USOCR	OR	OFF	2009/01/15 01:36
S9	1	("20030062675").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2009/01/15 01:36
S10	0	hud with head with mount with transparent	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	AND	ON	2009/01/15 01:39

S11	236	head with mount with transparent	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	AND	ON	2009/01/15 01:39
S12	0	head with mount with transparent with display same game	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	AND	ON	2009/01/15 01:58
S13	39	head with transparent with display same game	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	AND	ON	2009/01/15 01:58

1/ 15/ 2009 11:33:13 AM

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UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/932,536	09/01/2004	Jeffrey D. Mullen	JDM/005	2766
32733	7590	11/18/2008		
JEFFREY D. MULLEN 731 SOUTH NEGLEY APT. 2 PITTSBURGH, PA 15232			EXAMINER KIM, ANDREW	
			ART UNIT 3714	PAPER NUMBER
			MAIL DATE 11/18/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.



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APPLICATION NO./ CONTROL NO.	FILING DATE	FIRST NAMED INVENTOR / PATENT IN REEXAMINATION	ATTORNEY DOCKET NO.
10932536	9/1/2004	MULLEN, JEFFREY D.	JDM/005

JEFFREY D. MULLEN
731 SOUTH NEGLEY
APT. 2
PITTSBURGH, PA 15232

EXAMINER

ANDREW KIM

ART UNIT	PAPER
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3714 20081112

DATE MAILED:

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner for Patents

The advisory action sent out 2008, November 11 was sent out in error. Disregard the advisory. A proper action will be sent out in due time.

/Dmitry Suhol/
Supervisory Patent Examiner, Art Unit 3714

PTO-90C (Rev.04-03)

Application Number 	Application/Control No. 10/932,536	Applicant(s)/Patent under Reexamination MULLEN, JEFFREY D.	
	Examiner ANDREW KIM	Art Unit 3714	

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Jeffrey D. Mullen
Application No. : 10/932,536
Confirmation No. : 2766
Filed : September 1, 2004
For : SYSTEMS AND METHODS FOR
LOCATION BASED GAMES AND
EMPLOYMENT OF THE SAME ON
LOCATION ENABLED DEVICES
Group Art Unit : 3709
Examiner : Christopher Bond

Hon. Commissioner for Patents Pittsburgh, PA 15232
P.O. Box 1450 October 14, 2008
Alexandria, VA 22313-1450

REPLY TO OFFICE ACTION

Sir:

This is in response to the Office Action dated April 11, 2008. A three-month extension of time and a Request for Continued Examination is applicable hereto and is being submitted herewith. In response to the Office Action dated April 11, 2008, applicant amends the application as follows:

Amendments to the Claims are reflected in the listing of claims which begins on page 2 of this paper.

Remarks/Arguments begin on page 23 of this paper.

DO NOT ENTER: /AK/

11/06/2008



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
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Alexandria, Virginia 22313-1450
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/932,536	09/01/2004	Jeffrey D. Mullen	JDM/005	2766
32733	7590	11/07/2008		
JEFFREY D. MULLEN 731 SOUTH NEGLEY APT. 2 PITTSBURGH, PA 15232			EXAMINER KIM, ANDREW	
			ART UNIT 3714	PAPER NUMBER
			MAIL DATE 11/07/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Advisory Action Before the Filing of an Appeal Brief	Application No. 10/932,536	Applicant(s) MULLEN, JEFFREY D.	
	Examiner ANDREW KIM	Art Unit 3714	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 14 October 2008 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.

b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☒ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because

(a) ☒ They raise new issues that would require further consideration and/or search (see NOTE below);

(b) ☐ They raise the issue of new matter (see NOTE below);

(c) ☒ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or

(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).

5. ☐ Applicant's reply has overcome the following rejection(s): _____.

6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).

7. ☒ For purposes of appeal, the proposed amendment(s): a) ☒ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: _____.

Claim(s) objected to: _____.

Claim(s) rejected: 1-115.

Claim(s) withdrawn from consideration: _____.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).

9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).

10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: the proposed amendments change the scope of the claim and therefore require a new search and reconsideration.

Regarding claim 1, the term telephonic has been simply interpreted as communication (voice, data or video)

Regarding claim 17, although the reason for doing so is different, the reference inherently must store the location at one point.

Regarding claim 82, a motion sensor indeed can sense a physical location.

Regarding claim 94, a first GPS and a second GPS indeed determine a first and second physical locations.

12. ☐ Note the attached Information *Disclosure Statement*(s). (PTO/SB/08) Paper No(s). _____

13. ☐ Other: _____.

Continuation Sheet (PTOL-303)

Application No.

/Dmitry Suhol/
Supervisory Patent Examiner, Art Unit 3714

U.S. Patent and Trademark Office
PTOL-303 (Rev. 08-06)

Advisory Action Before the Filing of an Appeal Brief

Part of Paper No. 20081106

Application Number 	Application/Control No.	Applicant(s)/Patent under Reexamination	
	10/932,536	MULLEN, JEFFREY D.	
	Examiner	Art Unit	
	ANDREW KIM	3714	

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Amendments to the Claims are reflected in the listing of claims which begins on page 2 of this paper.

Remarks/Arguments begin on page 23 of this paper.

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (previously presented) A system comprising:
a wireless telephonic device, wherein said wireless telephonic device comprises:

a display;

a locating device operable to determine the physical location of said locating device on a physical playfield; and

a processor coupled to said display and said locating device, wherein said processor is operable to provide a video game comprising a virtual character with a virtual location on a virtual playfield and said virtual location on said virtual playfield corresponds to said physical location on said physical playfield.

2. (original) The system of claim 1, wherein said locating device is a global positioning system receiver.

3. (previously presented) The system of claim 1, wherein said video game utilizes a default perimeter.

4. (previously presented) The system of claim 1, wherein said video game utilizes a perimeter selected by user-inputs.

5. (original) The system of claim 1, wherein said locating device is a local positioning system receiver.

6. (previously presented) The system of claim 1, wherein said wireless telephonic device further comprises a memory coupled to said processor, wherein said video game is stored in said memory.

7. (original) The system of claim 6, wherein location information based on said physical location, and obtained from said locating device, is stored in said memory.

8. (original) The system of claim 7, wherein said location information comprises a set of coordinates.

9. (original) The system of claim 7, wherein said location information comprises a vector having a magnitude component and a directional component.

10. (currently amended) The system of claim 1, wherein said wireless telephonic device further comprises ~~comprises:~~ a transmitter, wherein said processor determines an origin location at a point in time in said video game and transmits origin information based on said origin location.

11. (currently amended) The system of claim 1, wherein said wireless telephonic device further comprises ~~comprises:~~ a directional device, wherein said directional device is operable to determine the physical direction of

said directional device on said physical playfield.

12. (original) The system of claim 11, wherein said virtual character is operable to point in a virtual direction on said virtual playfield and said virtual direction on said virtual playfield corresponds to said physical direction on said physical playfield.

13. (currently amended) The system of claim 1, wherein said wireless telephonic device further comprises ~~comprises:~~ manual controls for controlling non-location based aspects of said virtual character.

14. (currently amended) The system of claim 1, wherein said wireless telephonic device further comprises ~~comprises:~~ a receiver for obtaining remote origin information based on a remote origin location, wherein said processor configures the operation of said video game based on said remote origin information.

15. (currently amended) The system of claim 1, wherein said wireless telephonic device further comprises ~~comprises:~~ a remote memory, wherein physical location information is operable to be stored in said remote memory when said physical location is determined and said physical location information is based on said determined physical location.

16. (previously presented) The system of claim 1, wherein said wireless telephonic device further comprises:

a speaker; and

a microphone.

17. (previously presented) A method for controlling a character in a location-based video game comprising:

storing a first physical location of a wireless telephonic device on a physical playfield on a remote server;

changing the location of said character in a virtual playfield of said video game based on said first physical location; and

updating the location of said wireless telephonic device on said remote server by storing a second physical location of said wireless telephonic device on said remote server.

18. (currently amended) A method for providing a remote multiplayer location-based video game:

obtaining a first physical location of a first locating device on a first physical playfield;

obtaining a second physical location of a second locating device on a second physical playfield, wherein said first physical playfield is remote from said second physical playfield; and

operating a video game such that first location information associated with said first physical location is scaled, said scaled first location is utilized to provide a first virtual character on a virtual playfield, ~~playfield~~ ~~and~~ second location information associated with said second physical location is scaled, ~~scaled and~~ said scaled second location is utilized to provide a second virtual character on said virtual playfield, and said first location

information and said second location information are scaled differently.

19. (previously presented) The system of claim 1, further comprising:

a server;

a second wireless telephonic device, wherein said second wireless telephonic device provides a second physical location to said server and said wireless device retrieves said second physical location from said server.

20. (previously presented) The system of claim 1, further comprising:

a server;

a second wireless telephonic device, wherein said second wireless telephonic device provides a second physical location to said server, said wireless device retrieves said second physical location from said server, and said video game utilizes said second physical location.

21. (previously presented) The system of claim 1, wherein said locating device comprises an accelerometer.

22. (previously presented) The system of claim 1, wherein said virtual character is manually selected from a list of game characters.

23. (previously presented) The system of claim 1, wherein said video game is downloaded.

24. (previously presented) The system of claim 1, wherein said video game is selected from a list of video games.

25. (previously presented) The system of claim 1, wherein said video game comprises a second virtual character and said second virtual character is computer-controlled.

26. (previously presented) The system of claim 1, wherein said video game is point-based.

27. (currently amended) The system of claim 1, wherein an amount of time is displayed ~~to a user~~ associated with a ~~the~~ start of said video game.

28. (previously presented) The system of claim 1, wherein an action is performed in said video game and an animation is played as a result of said action.

29. (previously presented) The system of claim 1, further comprising a stationary device that operates a second virtual character in said video game.

30. (previously presented) The system of claim 1, wherein said video game is a single-player video game.

31. (previously presented) The system of claim 1, further comprising a server, wherein said server is periodically updated with the physical location of said locating device.

32. (currently amended) The system of claim 1, wherein said wireless telephonic device is operable to ~~allow a user to talk with~~ provide human-communications to a second wireless telephonic device while said video game is being played.

33. (previously presented) The system of claim 1, wherein a progress of said video game is stored in a database.

34. (previously presented) The system of claim 1, wherein said wireless telephonic device further comprises a joystick.

35. (previously presented) The system of claim 1, wherein a second virtual character is controlled by a second device and the movement of said second virtual character is handicapped.

36. (previously presented) The system of claim 1, wherein a second virtual character is controlled by a second device, the movement of said second virtual character is handicapped, and said second device is a stationary device.

37. (previously presented) The system of claim 1, wherein a second virtual character is controlled by a second wireless telephonic device and the movement of said second virtual character is scaled.

38. (previously presented) The system of claim 1, wherein said video game is downloaded from a remote

server and a cost is associated with said downloaded video game.

39. (previously presented) The system of claim 1, wherein said video game is downloaded from a remote server and rented, at a cost, for a period of time.

40. (previously presented) The system of claim 1, wherein said video game is provided as part of a paid subscription.

41. (previously presented) The system of claim 1, wherein an amount of time to play said video game is purchased at a cost.

42. (previously presented) The system of claim 1, wherein a user-request is provided to accept the speed of the movement of said virtual character.

43. (previously presented) The system of claim 1, wherein said wireless device further comprises a manual control and said manual control is used exclusively for location-based video games.

44. (previously presented) The system of claim 1, wherein said wireless telephonic device is operable to accept cartridges of different video games.

45. (previously presented) The system of claim 1, wherein a display screen is provided on said display with rules associated with said video game.

46. (previously presented) The system of claim 1, wherein a display screen is provided on said display with rules associated with said virtual character.

47. (previously presented) The system of claim 1, wherein said video game comprises an impenetrable virtual object.

48. (previously presented) The system of claim 1, wherein said video game comprises an impenetrable virtual object and said virtual game character is stunned for a period of time when said virtual game character contacts said impenetrable virtual object.

49. (previously presented) The system of claim 1, wherein said video game comprises an impenetrable virtual object and a number of lives of said virtual game character is reduced when said virtual game character contacts said impenetrable virtual object.

50. (previously presented) The system of claim 1, wherein said video game comprises an impenetrable virtual object, said video game is point based, and a number of points is deducted when said virtual game character contacts said impenetrable virtual object.

51. (previously presented) The system of claim 1, wherein said video game comprises a virtual object and said virtual object can be picked up by said virtual character.

52. (previously presented) The system of claim 1, wherein said video game comprises a virtual object and said virtual object can be picked up and put down by said virtual character.

53. (previously presented) The method of claim 17, wherein said wireless telephonic device includes a locating device, and said first and second physical locations are determined by said locating device.

54. (previously presented) The method of claim 17, wherein said wireless telephonic device includes a locating device, said first and second physical locations are determined by said locating device, and said locating device comprises an accelerometer.

55. (previously presented) The method of claim 17, wherein said wireless telephonic device includes a locating device, said first and second physical locations are determined by said locating device, and said locating device comprises a positioning receiver.

56. (previously presented) The method of claim 17, wherein said wireless telephonic device includes a locating device, said first and second physical locations are determined by said locating device, and said locating device comprises a global positioning receiver.

57. (previously presented) The method of claim 17, wherein said wireless telephonic device includes a locating device, said first and second physical locations

are determined by said locating device, and said locating device comprises a local positioning receiver.

58. (previously presented) The method of claim 17, further comprising downloading said video game to said wireless telephonic device.

59. (previously presented) The method of claim 17, further comprising providing a second character on said virtual playfield, wherein said second character is computer controlled.

60. (previously presented) The method of claim 17, further comprising providing a second character on said virtual playfield, wherein said locating device is provided in a first device and said second character is controlled by a second device.

61. (previously presented) The method of claim 17, further comprising retrieving said first physical location from said server by a second wireless telephonic device.

62/62*. (cancelled)

63. (previously presented) The method of claim 17, further comprising determining a direction of a directional device and utilizes said direction to control a direction of said character.

64. (previously presented) The method of claim 17, wherein said video game is point-based.

65. (currently amended) The method of claim 17, wherein a first locating device is provided in said wireless telephonic device and ~~ability is provided for a user of~~ said wireless telephonic device is able to provide human-communications to ~~to talk with~~ a second telephonic device while ~~playing~~ said video game is being played.

66. (previously presented) The method of 18, wherein said first locating device is provided on a wireless telephonic device.

67. (previously presented) The method of claim 18, wherein said first locating device comprises an accelerometer.

68. (previously presented) The method of claim 18, wherein said first locating device comprises a global positioning receiver.

69. (previously presented) The method of claim 18, wherein said first locating device comprises a local positioning receiver.

70. (previously presented) The method of claim 18, further comprising downloading said video game to a device, wherein said first locating device is provided on said device.

71. (previously presented) The method of claim 18, further comprising providing a third virtual character for said video game that is computer controlled.

72. (previously presented) The method of claim 18, further comprising providing an interactive virtual object in said video game that said first virtual character is able to interact with.

73. (previously presented) The method of claim 18, further comprising providing an impenetrable virtual object in said video game.

74. (currently amended) The method of claim 18, further comprising determining a direction of a directional device and ~~utilizes~~ utilizing said direction to control a direction of said first virtual character.

75. (currently amended) The method of claim 18, wherein said first locating device is included in a first telephonic device and said first telephonic device is operable to ~~talk-with~~ provide human-communications to a second telephonic device while ~~playing~~ said video game is being played.

76. (previously presented) A system comprising:
a transparent display;
a locating device operable to determine the physical location of said locating device on a physical playfield; and
a processor coupled to said display and said locating device, wherein said processor is operable to provide a video game comprising a virtual character with a virtual location on a virtual playfield, said virtual location on said virtual playfield corresponds to said

physical location on said physical playfield, and video game indicia, associated with said video game, is displayed on said display such that said video game indicia is visible with said physical playfield through said display.

77. (previously presented) The system of claim 76, wherein said video game indicia completely blocks out at least a portion of said physical playfield.

78. (currently amended) The system of claim 76, wherein said video game comprises a second virtual character, said second virtual character is computer controlled, ~~and said second virtual character is placed at a second location associated with a user associated with said second virtual character such that said second virtual character is visible through said display instead of said user.~~

79. (previously presented) The system of claim 76, wherein said video game is provided through said display in a first-person perspective.

80. (previously presented) The system of claim 76, wherein said transparent display is a head-mounted transparent display.

81. (previously presented) The system of claim 76, wherein said transparent display is a head-mounted transparent display and the direction that said head-mounted transparent display is pointing is determined, and said determined direction is utilized by said video game.

82. (previously presented) A system comprising:
a display;
a locating device operable to determine the physical location of said locating device on a physical playfield, wherein said locating device comprises a movement measuring device; and
a processor coupled to said display and said locating device, wherein said processor is operable to provide a video game comprising a virtual character with a virtual location on a virtual playfield and said virtual location on said virtual playfield corresponds to said physical location on said physical playfield.

83. (previously presented) The system of claim 82, wherein said locating device is located in a wireless telephonic device.

84. (previously presented) The system of claim 82, wherein said movement measuring device comprises an accelerometer.

85. (previously presented) The system of claim 82, wherein said video game is downloaded.

86. (previously presented) The system of claim 82, wherein said video game is a single-player video game.

87. (previously presented) The system of claim 82, wherein said video game is a multiple player video game.

88. (currently amended) A system comprising:

a display;
a locating device operable to determine the physical location of said locating device on a physical playfield, wherein said locating device comprises a local positioning system and said local positioning system utilized signals from at least one ground-based local positioning device to determine said physical location; and
a processor coupled to said display and said locating device, wherein said processor is operable to provide a video game comprising a virtual character with a virtual location on a virtual playfield and said virtual location on said virtual playfield corresponds to said physical location on said physical playfield.

89. (currently amended) The system of claim 88, wherein said at least one ground-based local positioning device includes ~~locating device utilizes a signal from~~ at least two ground-based local positioning devices ~~to determine said location.~~

90. (previously presented) The system of claim 88, wherein said locating device is located in a wireless device.

91. (previously presented) The system of claim 88, wherein said physical location of said locating device is stored, and updated, in a remote server.

92. (previously presented) The system of claim 88, wherein a second virtual character is included in said video game and said second virtual character is user-controlled.

93. (previously presented) The system of claim 88, further comprising a directional device, wherein the direction said directional device is pointing is utilized by said video game.

94. (previously presented) A system comprising:
a display;
a first locating device operable to determine a first physical location of said locating device on a physical playfield;
a second locating device operable to determine a second physical location of said locating device on a physical playfield, wherein said first physical location and second physical location are utilized to determine a location; and
a processor coupled to said display, wherein said processor is operable to provide a first video game comprising a virtual character with a virtual location on a virtual playfield and said virtual location on said virtual playfield corresponds to said location.

95. (previously presented) The system of claim 94, wherein said location utilizes an average including said first physical location and said second physical location.

96. (previously presented) The system of claim 94, wherein said first and second locating devices are positioning receivers.

97. (previously presented) The system of claim 94, wherein said first and second locating devices are included in a wireless telephonic device.

98. (previously presented) The system of claim 94, further comprising a directional device, wherein the direction said directional device is pointing is utilized by said video game.

99. (previously presented) The system of claim 94, wherein a second virtual character is included in said video game and said second virtual character is controlled by a wireless telephonic device.

100. (previously presented) A system comprising:
a display;
a locating device operable to determine the physical location of said locating device on a physical playfield;
a directional device operable to determine the physical direction of said directional device on said physical playfield; and
a processor coupled to said display and said locating device, wherein said processor is operable to provide a video game comprising a virtual character with a virtual location on a virtual playfield and said virtual location on said virtual playfield corresponds to said physical location on said physical playfield.

101. (previously presented) The system of claim 100, wherein said video game is provided on said display in a third-person perspective.

102. (previously presented) The system of claim 100, wherein said display is a head-mounted display and said video game is provided on said display in a first-person perspective.

103. (previously presented) The system of claim 100, wherein a second virtual character is provided in said video game and said second virtual character is computer-controlled.

104. (previously presented) The system of claim 100, wherein a second virtual character is provided in said video game and said second virtual character is user-controlled.

105. (previously presented) The system of claim 100, wherein said locating device is located in a wireless device and said video game is downloaded to said wireless device.

106. (previously presented) The system of claim 100, wherein said video game is a single-player video game.

107. (previously presented) The system of claim 100, wherein said video game is a multiple-player video game.

108. (previously presented) The system of claim 100, wherein an interactive virtual object, with respect to said virtual character, is provided in said video game.

109. (previously presented) The system of claim 100, wherein an impenetrable virtual object, with respect to said virtual character, is provided in said video game.

110. (previously presented) The system of claim 100, wherein said virtual character is selected from a plurality of virtual characters.

111. (previously presented) The system of claim 100, wherein said locating device is included in a wireless telephonic device and said video game is downloaded.

112. (currently amended) The system of claim 100, wherein said locating device is included in a first wireless telephonic device and ~~a user of~~ said telephonic device is operable to communicate human-communications with a second wireless telephonic device while said video game is being played.

113. (previously presented) The system of claim 100, wherein said video-game is point-based.

114. (previously presented) The system of claim 100, wherein said locating device comprises a positioning receiver.

115. (previously presented) The system of claim 100, wherein said locating device comprises a movement measuring device.

116. (new) The method of claim 17, further comprising providing an interactive virtual object in said video game that said character is able to interact with.

117. (new) The method of claim 17, further comprising providing an impenetrable virtual object, with respect to said character, in said video game.

REMARKS/ARGUMENTS

Summary of Office Action

Claims 1-115 are pending in the application.

Claim 62 was objected to as two claims werelabeled as claim 62.

Claim 112 was rejected under 35 U.S.C. 101 for being directed to non-statutory subject matter.

Claims 1-3, 6-9, 10-13, 14-21, 29, 31, 32, 34, 42, 53-57, 60-63, 65-68, 72, 74, 75, 82-84, 87, 88, 90, 91, 93, 94, 96-102, 104, 107, 112 and 114-115 were rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma U.S. Patent No. 6,287,200 (hereinafter "Sharma").

Claims 5, 57, 69, 89, and 95 were rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Kotanen et al. publication titled "Experiments on Local Positioning with Bluetooth" (hereinafter "Kotanen").

Claims 22, 25-28, 30, 33, 35-37, 42, 45-52, 59, 62*, 64, 71, 73, 86, 103, 104, 106, 108-110, and 113 were rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Acclaim's Mortal Kombat (hereinafter "MK").

Claims 51 and 52 were rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Mortal Kombat IV (hereinafter "Mortal 4").

Claim 4 was rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Newell U.S. Patent No. 6,735,435 (hereinafter "Newell").

Claims 23, 24, 38-41, 58, 70, 85, 105, and 111 were rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Leonhard et al. U.S. Patent Publication No. 2002/0052933 (hereinafter "Leonhard").

Claim 44 was rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Tom U.S. Patent No. 6,690,947 (hereinafter "Tom").

Claims 76-81 were rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Noro et al. U.S. Patent Publication No. 2003/0062675 (hereinafter "Noro").

Claim 81 was rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Noro and further in view of Numa U.S. Patent No. 6,633,267 (hereinafter "Numa").

Claim 33 was rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Anderson et al. U.S. Patent No. 7,303,474 (hereinafter Anderson).

Summary of Applicant's Amendments

Applicant has amended claims 10, 11, 13-15, 18, 27, 32, 65, 74, 78, 88, 89, and 112 without prejudice and in order to expedite prosecution.

Applicant has added new claims 116 and 117 in order to expedite prosecution.

Applicant traverses the Examiner's rejections. Applicant reserves the right to claim any subject matter lost by any claim amendment or cancellation, or any subject matter of the present application, in any number of continuation or divisional applications.

Applicant's Response to the Claim Objections of Multiple Instances of Claim 62

The Examiner objected to claim 62 as multiple instances of claim 62 were provided in the listing of

claims. Applicant has cancelled both instances of claim 62. Applicant has added corresponding claims 116 and 117. Accordingly, applicant respectfully requests that the Examiner's objection of both instances of claim 62 be withdrawn.

Applicant's Response to the
Rejections Under 35 U.S.C. § 112

Claim 112 was rejected under 35 U.S.C. 101 for being directed to non-statutory subject matter. Applicant has amended claim 112 solely in order to expedite prosecution. Accordingly, applicant respectfully requests that the Examiner's rejection be withdrawn.

Applicant's Response to the
Rejections Under 35 U.S.C. § 103(a) Over Sharma

Claims 1-3, 6-9, 10-13, 14-21, 29, 31, 32, 34, 42, 53-57, 60-63, 65-68, 72, 74, 75, 82-84, 87, 88, 90, 91, 93, 94, 96-102, 104, 107, 112 and 114-115 were rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma.

Claim 1

Applicant's invention of amended claim 1 includes a wireless telephonic device.

Sharma discusses a device that allegedly utilizes GPS.

The Examiner stated that Sharma discusses:

"a virtual game using mobile device [emphasis added] which communicate with each other via a wireless application protocol (WAP) [emphasis added]. One skilled in the art would recognize that WAP's principal application is to enable access to the Internet for mobile phones and PDAs (personal digital assistants) ... which would

highly suggest the use of a cell phone or PDA."
(Office Action, page 31)

"Additionally, the assignee of the Sharma patent is the Nokia Corporation - a well known wireless telephonic device manufacturer." (Office Action, page 4)

Sharma does not show or suggest a wireless telephonic device in any way, shape, or form. Sharma alleges two ways to communicate information - via a radio frequency protocol and via a wireless application protocol. Accordingly, Sharma merely discusses communication methodology for information included in Sharma - nothing more.

Contrary to the Examiner's suggestion, Sharma also does not show or suggest a PDA - let alone a telephonic PDA. The Examiner appears to make a rejection in view of Official Notice as the Examiner cannot show each and every element of applicant's invention of claim 1 in Sharma. As discussed below in conjunction with applicant's comments on rejections in view of Official Notice, the Examiner must show each and every element of applicant's invention of claim 1 in a reference or a combination of references. The Examiner cannot pull elements out of a hat, in hindsight, to form a rejection. Applicant respectfully requests that any such rejections be withdrawn.

The Examiner alleged that Nokia is a well known wireless telephonic manufacturer and that the name of the assignee infers a telephonic capability. The Examiner cannot obtain subject matter from the name of an Assignee - regardless of when the assignment was made.

If anything, Sharma teaches away from being combined with a mobile telephonic device as an individual

(i.e., Sharma) associated with such an entity only discussed a dedicated device for a game. Accordingly, Sharma directly teaches away from being combined with any reference that includes a telephonic capability.

In light of the foregoing, applicant respectfully requests that the Examiner's rejection of claim 1, and any claims dependent therefrom, be withdrawn.

Claim 17

The Examiner stated that:

"The figure suggests that GPS information is sent from the mobile device through the network to the server and back through the network to the mobile device. By virtue of the drawing, the server is involved in updating the mobile device's GPS coordinates." (Office Action, page 31)

Allegedly sending GPS information through a network, however, does not show or suggest applicant's invention of storing a location and then updating that location as a second location is obtained. Applicant's invention of claim 17 includes the feature of updating the location on a remote server - not merely transmitting the data (through any type of structure).

In doing so, for example, applicant's invention of claim 17 may provide increased functionality such as, for example:

"the location of a user may be uploaded to a remote server and accessed by people that the user has given permission to" (applicant's spec, page 121)

Such a functionality cannot be obtained by, for example, the Sharma topology.

In light of the foregoing, applicant respectfully requests that the Examiner's rejection of claim 17, and any claims dependent therefrom, be withdrawn.

Claim 18

The Examiner stated that:

"The coordinates would have to inherently be scaled for the devices operation, akin to maps being scaled to fit in textbooks. By applicant's argument, if the GPS information of Sharma was unscaled, it would mean that playing a game on a physical playfield of 100 yards would require a screen on the mobile device of the same size - clearly, this is not the case." (Office Action, page 31)

Contrary to the Examiner's allegation, unscaled data would not mean that playing a game on a physical playfield of 100 yards would require a screen on the mobile device of 100 yards.

Sharma discusses a "mobile device being represented in the middle of the respective display" (Sharma, col. 3, lines 18-19).

Regardless, solely in order to expedite prosecution, applicant has amended claim 18 to include scaling with respect to a scaling of another device - where the scaling of each of the devices is different. Sharma does not show or suggest scaling locations differently.

In light of the foregoing, applicant respectfully requests that the Examiner's rejection of claim 18, and any claims dependent therefrom, be withdrawn.

Claim 82

The Examiner stated that Sharma discusses:

"a locating device operable to determine a physical location of a locating device on a

playfield, wherein the location device comprises a movement measuring device" (Office Action, page 9)

Sharma's discussion of a "motion sensor," however does not show or suggest - in any way, shape, or form - a location device that includes a movement measuring device.

Sharma includes a GPS device and a motion sensor. Sharma's motion sensor is not able to determine the location of a locating device on a playfield. Sharma's motion sensor can only determine motion.

Applicant's invention of claim 82 includes a movement measurement device configured to determine a physical location. Applicant's specification discusses a movement measurement device configured to be able to determine a location. Sharma's does not show or suggest a "motion sensor" configured to determine a physical location.

In light of the foregoing, applicant respectfully requests that the Examiner's rejection of claim 82, and any claims dependent therefrom, be withdrawn.

Claim 88

The Examiner stated:

"the locating device comprises a local positioning system." (Office Action, page 9)

Sharma, however, merely discusses GPS. Solely in order to expedite prosecution, applicant has amended claim 88 to include at least one ground-based local positioning device. None of the prior art, used either alone or in combination, show or suggest a local positioning system that utilizes signals from at least one ground-based local positioning device.

Furthermore, Sharma is a precision device. Sharma directly teaches away from utilizing a ground-based location device as Sharma utilizes GPS. Accordingly, none of the prior art, used either alone or in combination, show or suggest applicant's invention of claim 88.

In light of the foregoing, applicant respectfully requests that the Examiner's rejection of claim 88, and any claims dependent therefrom, be withdrawn.

Claim 94

The Examiner stated that Sharma discusses:

"more than one locating device ... and multiple players" (Office Action, page 10)

Applicant's invention of claim 94, however, includes a first locating device that determines a first physical location and a second locating device that is utilized to determine a second physical location. These first and second physical locations are utilized to determine a location that corresponds to a virtual location of a virtual character.

Sharma merely alleges using GPS in multiple devices. Each device of Sharma only alleges a single GPS unit. Accordingly, Sharma does not show or suggest using a first locating device and second locating device to provide a first and second location, where the first and second locations are utilized to determine a location associated with a virtual location of a virtual character.

In light of the foregoing, applicant respectfully requests that the Examiner's rejection of claim 94, and any claims dependent therefrom, be withdrawn.

Claim 100

The Examiner stated that Sharma discusses:

"a directional device operable to determine the physical direction of a directional device on the playfield" (Office Action, page 31)

Sharma, however, does not show or suggest a directional device in any way, shape, or form. Sharma merely alleges a "motion sensor." Sharma's "motion sensor" cannot determine a direction.

Applicant's invention of claim 100, however, includes a directional device operable to determine the physical direction of a directional device on a playfield. Sharma does not include such a functionality. At best, Sharma alleges an "area where the ball can be hit" (Sharma, FIG. 3).

In light of the foregoing, applicant respectfully requests that the Examiner's rejection of claim 100, and any claims dependent therefrom, be withdrawn.

Applicant's Response to the
Rejections Under 35 U.S.C. § 103(a) Over Sharma and Noro

Claims 76-81 were rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Noro.

Applicant's invention of claim 76 includes a transparent display and a virtual character with a virtual location on a virtual playfield that corresponds to a physical location on a physical playfield.

Noro merely alleges using a HMD to view a game board. Noro utilizes a camera to allegedly allow interaction with the game board.

Sharma alleges utilizing a GPS signal in a game.

The Examiner stated that:

"Sharma fails to explicitly disclose a transparent display ... [and] Noro discloses ... a see-through HMD." (Office Action, page 27)

None of the prior art, however, shows or suggests' applicant's invention of claim 76 of a transparent display and a locating device, where the location is associated with a virtual location of a virtual character on a virtual playfield.

Noro cannot be combined with Sharma as the combination would render an inoperable object and eviscerate the spirit of the individual devices. Noro merely alleges using a position and attitude sensor to observe. Noro uses a camera for interaction. Noro cannot move about the game board. Sharma, however, utilizes GPS signals to provide interaction. Thus, Sharma and Noro teach away from one another.

For at least this reason, neither Noro nor Sharma show or suggest applicant's invention of claim 76 of a transparent display and a locating device, where the locating device provides a location associated with a virtual location of a virtual character on a virtual playfield.

In light of the foregoing, applicant respectfully requests that the Examiner's rejection of claim 76, and any claims dependent therefrom, be withdrawn.

Applicant's Response to the Remaining
Rejections Under 35 U.S.C. § 103(a)

Claims 5, 57, 69, 89, and 95 were rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Kotanen. Claims 22, 25-28, 30, 33, 35-37, 42, 45-52, 59, 62*, 64, 71, 73, 86, 103, 104, 106, 108-110, and 113

were rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of MK. Claims 51 and 52 were rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Mortal 4. Claim 4 was rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Newell. Claims 23, 24, 38-41, 58, 70, 85, 105, and 111 were rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Leonhard. Claim 44 was rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Tom. Claim 81 was rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Noro and further in view of Numa. Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Anderson.

Applicant respectfully traverses the Examiner's rejections. A game that utilizes location information cannot be combined with, for example, a game that does not utilize location information. Such schemes directly teach away from one another and would be rendered inoperable if combined. Furthermore, Sharma is a precision device and cannot be combined with other precision devices. Doing so in hindsight, would eviscerate the spirit of the Sharma device.

Furthermore, as shown above all of applicant's independent claims are patentable. Each of the above claims are dependent on such patentable independent claims. Accordingly, these dependent claims are patentable for depending upon a patentable independent claim. In light of the foregoing, applicant respectfully requests that the Examiner's rejection of these dependent claims be withdrawn.

Rejections in view of Official Notice

Many of the rejections made by the Examiner appear to have been rejected in view of Official Notice. Any rejection that does not show each and every element of a claim in one or more references is an inadequate rejection.

For rejections under 35 U.S.C. § 103(a), the Examiner has the burden of showing each and every element of applicant's invention in the prior art combination. If the Examiner is taking Official Notice, MPEP § 2144.03 requires that the facts of which notice are being taken be capable of instant and unquestionable demonstration as being well known in the art. See *In re Ahlert*, 424 F.2d 1088, 1091, 165 USPQ 418, 420 (CCPA 1970). Applicant believes that the "facts" of which the Examiner may have taken Official Notice do not meet that standard, and invoke his right under MPEP § 2144.03 to have the Examiner provide documentary proof that those facts are actually well known.

The Examiner "cannot simply reach conclusions based on its own understanding or experience - or on its assessment of what would be basic knowledge or common sense. Rather, ... [the Examiner] ... must point to some concrete evidence in the record in support of these findings." *In re Zurko*, 258 F.3d at 1385, 59 USPQ2d at 1697 (Fed. Cir. 2001). If the Examiner is relying on personal knowledge to support the finding of what is known in the art, the examiner must provide an affidavit or declaration setting forth factual statements and explanation to such a finding. See MPEP 2144.03(c).

The Examiner cannot make rejections using a reference or combination of references where the references do not show each and every element of a particular claim.

Applicant respectfully requests that the Examiner withdraw any rejections that do not show the inclusion of each and every element of a particular claim in a reference or a combination of references.

Conclusion

Applicant respectfully submits that this application, including the pending claims, is in condition for allowance. Reconsideration and prompt allowance of this application are respectfully requested.

The Director is hereby authorized to charge any fees required in conjunction with this filing, or credit any overpayment of the same, to Deposit Account No. 50-3855, Order No. JDM/005.

Respectfully Submitted,

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Electronic Patent Application Fee Transmittal				
Application Number:		10932536		
Filing Date:		01-Sep-2004		
Title of Invention:		Systems and methods for location based games and employment of the same on location enabled devices		
First Named Inventor/Applicant Name:		Jeffrey D. Mullen		
Filer:		Jeffrey David Mullen		
Attorney Docket Number:		JDM/005		
Filed as Small Entity				
Utility under 35 USC 111(a) Filing Fees				
Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Basic Filing:				
Pages:				
Claims:				
Claims in excess of 20	2202	1	26	26
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Extension - 3 months with \$0 paid	2253	1	555	555
Miscellaneous:				
Request for continued examination	2801	1	405	405
Total in USD (\$)				986

Electronic Acknowledgement Receipt	
EFS ID:	4106686
Application Number:	10932536
International Application Number:	
Confirmation Number:	2766
Title of Invention:	Systems and methods for location based games and employment of the same on location enabled devices
First Named Inventor/Applicant Name:	Jeffrey D. Mullen
Customer Number:	32733
Filer:	Jeffrey David Mullen
Filer Authorized By:	
Attorney Docket Number:	JDM/005
Receipt Date:	14-OCT-2008
Filing Date:	01-SEP-2004
Time Stamp:	11:05:46
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Deposit Account
Payment was successfully received in RAM	\$ 986
RAM confirmation Number	12067
Deposit Account	503855
Authorized User	
The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows: Charge any Additional Fees required under 37 C.F.R. Section 1.16 (National application filing, search, and examination fees) Charge any Additional Fees required under 37 C.F.R. Section 1.17 (Patent application and reexamination processing fees)	

Charge any Additional Fees required under 37 C.F.R. Section 1.19 (Document supply fees)					
Charge any Additional Fees required under 37 C.F.R. Section 1.20 (Post Issuance fees)					
Charge any Additional Fees required under 37 C.F.R. Section 1.21 (Miscellaneous fees and charges)					
File Listing:					
Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1		JDM-005--Reply.pdf	131430 43e31d75f64a274316519b686c7c9323486efc06	yes	35
	Multipart Description/PDF files in .zip description				
	Document Description		Start	End	
	Amendment After Final		1	1	
	Claims		2	22	
	Applicant Arguments/Remarks Made in an Amendment		23	35	
Warnings:					
Information:					
2	Fee Worksheet (PTO-06)	fee-info.pdf	33629 61360b1d00b21ea7298019bbb1ee382c476e3e8d	no	2
Warnings:					
Information:					
Total Files Size (in bytes):			165059		
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/932,536	09/01/2004	Jeffrey D. Mullen	JDM/005	2766
32733	7590	04/11/2008		
JEFFREY D. MULLEN 731 SOUTH NEGLEY APT. 2 PITTSBURGH, PA 15232			EXAMINER BOND, CHRISTOPHER H	
			ART UNIT 3714	PAPER NUMBER
			MAIL DATE 04/11/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/932,536	Applicant(s) MULLEN, JEFFREY D.	
	Examiner Christopher H. Bond	Art Unit 3714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on 06 July 2007.

2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) 1-115 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) 1-115 is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on 01 September 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892) 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.	4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____. 5) ☐ Notice of Informal Patent Application 6) ☐ Other: _____.
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DETAILED ACTION

1. The applicant's arguments and amendments have been received on July 6, 2007. Claims 1, 3, 4, 6, 10, 11, and 13-18 are currently amended. Claims 19-115 are new. Currently, claims 1-115 are pending in the current application.

Drawings

2. The Examiner has noted the applicant's correction of the drawings. The Examiner's previous objections have been withdrawn.

Claim Objections

3. Claim 62 is objected to because of the following informalities: Applicant has listed two claims labeled 62. Appropriate correction is required. For the purposes of examination, the Examiner will regard the first listed claim 62 as claim 62 and the second listed claim 62 as claim 62*.

Claim Rejections - 35 USC § 101

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. **Claim 112 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.** Applicant is claiming "...a user of a telephonic device is operable to communicate with a second wireless telephonic device while video game is being played." Since the user is positively claimed, this falls into the category of non-statutory subject matter, as a living human is claimed as part of the applicant's invention.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. **Claims 1-3, 6-9 10-13, 14-21, 29, 31, 32, 34, 43, 53-57, 60-63, 65-68, 72, 74, 75 82-84, 87, 88, 90, 91, 93, 94, 96-102, 104, 107, 112 and 114-115 are rejected are rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma., USPAT 6,287,200 (hereinafter Sharma).**

8. As to claims 1 and 2, Sharma discloses (column 1, lines 5-16), "...a method and system for playing a virtual game with the participants, or players, of the game being located at random locations anywhere in the world. In particular, the present method and system utilize global positioning service (GPS) technology...to allow players located anywhere in the world to play the virtual game utilizing mobile devices..." Sharma further discloses (column 3, lines 9-12) that, "the mobile device will participate in the virtual game and displays the relative positions of all participating mobile devices...on the display screen of the mobile device..." It is understood that mobile device of Sharma's invention is equivalent to the applicant's location device, since it employs GPS to determine a player's location. Moreover, mobile device also implies that such a device would be wireless. Because the mobile device of Sharma's invention is wireless, capable of playing a game, displaying the game on a screen, and using GPS to

calculate the player's position, it is inherent that the mobile device of Sharma's invention would contain a processor.

9. While Sharma discloses "mobile devices" in the invention, Sharma does not specifically disclose a "wireless telephonic device" as claimed by the applicant. The processes and communication means such as WAP clearly suggest the use of a wireless phone. Additionally, the assignee of the Sharma patent is the Nokia Corporation--a well known wireless telephonic device manufacturer. Thus, it would have been obvious to include the use of wireless telephonic devices as the mobile device in Sharma given the assignee of the Sharma patent the mobile device's use of WAP.

10. As to claim 3, Sharma discloses (column 2, lines 18-23), "In a first embodiment, the participants are able to play a virtual reality game utilizing a radio frequency protocol, including, but not limited to Bluetooth protocol. The active participants in the virtual reality game are defined by the frequency range of the radio frequency protocol, such as the 1m to 10m range implemented by the Bluetooth protocol. Sharma further discloses (column 2, line 66-column 3, line 6) that, "...a virtual game implemented by a radio frequency requires that the respective mobile devices of all participants be within a common radio frequency protocol range...thus, only the users of such mobile device are able to participate in the virtual game." Because the range dictates the interaction between participants, it would imply that the playfield perimeter is limited in size.

11. As to claims 10 and 14, Sharma discloses (column 4, lines 30-35) that, "Unlike the Virtual game implemented utilizing the radio frequency protocol, the virtual game

implemented utilizing the WAP allows any and all requested mobile devices that transmit their respective GPS coordinates and participation acknowledgement signals to the requesting mobile unit to participate in the virtual game." This imply that the mobile device would contain a transmitter, where the processor would determine a location and transmit location based on actual location and have that location appear in the virtual game. Sharma further discloses (column 4, lines 35-40) that, "...after the desiring users of the requested mobile devices transmit their respective GPS coordinates and participation acknowledgement signals to the requesting mobile unit, the requesting mobile unit transmits the GPS coordinates of all participating mobile devices to the remainder of the mobile devices." It is obvious that these mobile devices have a receiver for obtaining location information, and thus would meet the applicant's limitation of having a receiver that receives location information, where the processor configures operation of the video game based on location information.

12. As to claims 11 and 12, Sharma discloses, (column 3, lines 25-58) that, "The virtual game itself is played among the users of participating mobile devices...Each of the mobile devices includes an application program to facilitate the game and a motion sensor to implement to physical movements of the virtual game...[the] motion sensor stored therein calculates the displacement of the virtual objects...The motion sensor...calculates...displacement...[and] [t]he displacement...is then displayed...on the mobile device." Because displacement is defined by a vector, it specifies both distance and direction.

13. As to claims 17, the method for controlling a character in a location-based video game based on determining a physical location, mapping the video game environment around the physical location, and placing the character in a game environment based on the physical location merely discloses the steps of the device used for location based games, and since each element must be implemented in order to make the device, the method would have been obvious in view of the device.

14. As to claims 53, 55-57, and 60-63 as discussed above, players use mobile devices and either GPS or radio frequency to determine different physical positions. Moreover, also discussed above in Sharma, these mobile devices use locating devices in the phone (i.e. a receiver) to determine positions relative to a GPS or to one another locally using radio frequency. Additionally discussed above and disclosed in Sharma, is that the virtual game played by users on their mobile devices is a multi-player game. Thus, multiple virtual characters may be controlled by multiple users using multiple mobile devices. Illustrated in Sharma, Figure 6, is an example of a mobile device capable of transmitting and receiving position information to a server. Specifically to claims 62 and 63, Sharma discloses (column 3, lines 45-61), "FIG. 5 shows one of the participating users of mobile devices A through D, holding the respective mobile device in his hand. Each of the mobile devices A through D has a motion sensor stored therein which calculates the displacement of the virtual objects. Thus, assuming that the player shown in FIG. 5 is the user of mobile device A, as the ball 3 approaches the area 4 where the ball can be hit as shown in FIG. 3, the player swings the mobile device A so as to "contact" the virtual volleyball and send it over the net. The motion sensor in

mobile device A then calculates the displacement of the virtual volleyball based on the trajectory and velocity of the sensed motion of the mobile device. The displacement of the virtual volleyball is then displayed as shown on the mobile device 1 shown in FIG. 5 for all participants in the virtual game, and the game proceeds with all users of mobile devices A through D using their respective mobile devices to engage in the virtual volleyball game." This would meet the applicant's limitation of a method comprising a virtual object in the video game, with which a character is able to interact (i.e. volleyball) and a method of determining a direction of the directional device (motion sensor) and utilizes the direction to control a direction of the character (i.e. hitting the ball over the net relative to trajectory and velocity of character)

15. As to claim 18, the method for providing a multiplayer location-based video game based on obtaining different physical locations from different player devices and operating the video game based on multiplayer information merely discloses the steps of the device used for location based games, and since each element must be implemented in order to make the device, the method would have been obvious in view of the device.

16. As to claims 66, 68, 72, and 74, as discussed above, Sharma discloses a locating device (transmitter/receiver) located on a mobile device--such locating device consisting of a GPS receiver. Sharma also discloses a virtual object (volleyball) with which a virtual character is able to interact. As discussed above, Sharma also discloses a motion sensor which determines the direction a user is moving to control the action of the corresponding virtual character.

17. As to claims 19 and 20, Sharma discloses (column 4, lines 18-40) that the, "...mobile device...transmits an initiation signal utilizing a WAP to mobile station...which serves as a WAP relay to mobile network...The initiation signal is then transmitted to WAP server...for distribution over a data packet network...The requested mobile devices are similarly connected to the data packet network, and therefore transmit their respective GPS coordinates and participation acknowledgment signals to the requesting mobile device using the same protocol and procedures that the initiating signal is sent from the requesting mobile device. Unlike the virtual game implemented utilizing the radio frequency protocol, the virtual game implemented utilizing the WAP allows any and all requested mobile devices that transmit their respective GPS coordinates and participation acknowledgment signals to the requesting mobile unit to participate in the virtual game. Thus, after the desiring users of the requested mobile devices transmit their respective GPS coordinates and participation acknowledgment signals to the requesting mobile unit, the requesting mobile unit transmits the GPS coordinates of all participating mobile devices to the remainder of the mobile devices." This would meet the applicant's limitation of having a server and a wireless device, wherein the device provides a location to the server, and retrieves a location from the server. This would further meet the applicant's limitation of retrieving the location from the sever and utilizing the location in a video game, as it has been discussed above, that Sharma presents a system for playing a virtual game for multiple participants using a mobile device.

18. As to claims 32, 65, 75, and 112, Sharma discloses (column 1, lines 11-16), "... a virtual game utilizing mobile devices which communicate with each other in accordance with the radio frequency protocol or allow players located anywhere in the world to play the virtual game utilizing mobile devices which communicate with each other via a wireless application protocol (WAP)." This would meet the applicant's limitation of having a wireless device being operable to talk (communicate) with a second wireless device while the video game is being played. As previously discussed, the wireless device in Sharma includes a locating device, so the combined limitation wherein a locating device is included in the telephonic device and the device is operable to allow a user to communicate with a second wireless telephonic device while the game is being played would have also been obvious.

19. As to claims 82, 83, and 87, as discussed above, Sharma would meet the applicant's limitations of: a system comprised of a display, locating device operable to determine a physical location of a locating device on a playfield, wherein the locating device comprises a movement measuring device (motion sensor), with a processor coupled to both the display and the locating device, the processor capable of providing a video game with a virtual character with a virtual location on a virtual playing field, with the location of the virtual field corresponding to a physical location on a physical playing field. As noted in Sharma, this game is a multiple player game.

20. As to claims 88, 90-93, as discussed above, Sharma discloses, a system comprised of a display, a locating device operable to determine the physical location of a locating device on a physical play field, wherein the locating device comprises a local

positioning system and a processor coupled to the device, the processor capable of playing a video game comprising a virtual character with a virtual location on a virtual playfield corresponding to a physical location on a physical playfield--the locating device located in a wireless device, location of the location device updated and stored in a remote server, a second virtual character in the video game, user controlled (another player in Sharma's system), and a directional device, wherein the direction the directional device is pointing is used in the video game.

21. Regarding claims 94 and 96-99, as discussed above, Sharma discloses a system comprising a display, more than one locating device operable to determine physical locations on a physical playfield, and a processor coupled to the display wherein the processor is operable to provide a video game with a virtual character with a virtual location on the virtual playfield corresponding to a physical location. Sharma further discloses: that the locating devices are positioning receivers; the locating devices are included in a wireless telephonic device; and a directional device. Sharma discloses a wireless location-based game for multiple players, this would also meet applicant's limitations in claim 99--that is, wherein a second virtual character is included in the video game, and the second virtual character is controlled by a wireless device.

22. As to claims 100, 101, 107, 114, and 115, as discussed above, Sharma discloses, a system with a locating device operable to determine the physical location of a locating device on a physical playfield, a directional device operable to determine the physical direction of a directional device on the playfield, a processor coupled to a display and a locating device, wherein the processor is operable to provide a video

game comprising a virtual character with a virtual location on a virtual playfield corresponding to a physical location on a physical playfield.

23. As to claim 6, Sharma does not explicitly disclose memory, and only alludes to a processor. These however would be obvious, if not inherent to the device's operation, and routine to someone skilled in the art, due to the obvious likelihood that Sharma's device contains both a processor and some memory.

24. As to claim 7, as discussed above, Sharma's wireless device contains a GPS positioning receiver and updates its position to a server, which is then sent to other wireless devices so that they know the wireless device's position relative to the physical location and the location in the game. While Sharma does not specifically disclose that the location is stored in memory, it would have been obvious, if not inherent to do this, since the location in the wireless device is constantly being updated and sent to the server--memory being an essential item to make this work.

25. As to claims 8 and 9, Sharma discloses that a 'position' is being sent from the wireless device to a server, so that other users know the location of the wireless device relative to the physical location and virtual location within the game. If using GPS, it would have been obvious to use a coordinate system, since GPS utilizes geographical coordinates. As discussed above, the motion sensor within the wireless device will sense both a magnitude and direction component to calculate trajectory within the game. Given both the use of magnitude and direction components, it would have been obvious to also use location information based on a vector having a magnitude and direction component since it is already present in Sharma's device.

26. Regarding claims 21, 54, 67, and 84, which depend on the limitation of an accelerometer, Sharma discloses (column 3, lines 47-56), "Each of the mobile devices...has a motion sensor stored therein which calculates the displacement of the virtual objects...The motion sensor in [the] mobile device...calculates the displacement of the virtual [object]...based on the trajectory and velocity of the sensed motion of the mobile device." Given that the motion sensor resides within the mobile device, and that the GPS isn't used as a means of motion sensing, it would have been obvious to one of ordinary skill to use an accelerometer, as it is well known that accelerometers are a common device used in constructing motion detection devices.

27. As to claim 29, Sharma discloses (column 1, lines 34-38) the lack of prior art using mobile devices to play virtual games, and identifies the prior art (column 1, lines 27-33) with a control means coupled to a processor. Sharma further discloses (column 4, lines 6-8) the need for an external display--such as a computer monitor. Thus, it would have been well within the capabilities of one skilled in the art to use a stationary device (i.e. desktop PC) to control a virtual character, as it has been suggested that this was the status quo prior to Sharma's invention, and Sharma suggests the use of an external computer for a display means--which could easily be adapted by one skilled in the art to not only display, but also control the virtual character.

28. As to claim 31, Sharma shows in figure 6 and discusses in (column 4, lines 19-40) a server. While Sharma does not explicitly disclose that the server is periodically updated with the physical locations of the mobile devices, it would have been well within the capabilities of one skilled in the art, as the periodic updates of the mobile device's

GPS coordinates of the mobile device are essential for the games operation, and the illustration shows a chain of two-way communication between the mobile device, mobile station, mobile network, the server, and the data packet network.

29. As to claim 34, Sharma discloses (column 1, lines 27-33), "...virtual reality games are currently implemented by participants, or players, who utilize joysticks or other game devices in connection with a single processor. Thus, any participants of a virtual game must either have a respective joystick or other game device electronically connected to the processor or remain in an optical/infrared path of the processor to play the virtual reality game." Given that joysticks are identified by Sharma as prior art, it would have been well within the capabilities of one skilled in the art to utilize a joystick either alone, or coupled to a wireless device, as a means of control, since the use of a joystick as a control device is well known in the art.

30. As to claims 13 and 43, Sharma discloses (column 1, lines 5-22), "...mobile devices which communicate with each other in accordance with the radio frequency protocol or allow players located anywhere in the world to play the virtual game utilizing mobile devices which communicate with each other via a wireless application protocol (WAP). Those skilled in the art would recognize that due to the use of a WAP, the wireless device could be either a PDA or cellular phone. It is well known in the that a large variety of cellular telephones have a multi-directional control key input capable of controlling a game. Whether or not this multi-directional control key is used exclusively for location-based video games and assigning this multi-directional input key solely as a control means for a location-based game, or using it to control non-location based

aspects of the virtual character would have been well within the capabilities of one skilled in the art, as it is merely taking an input mechanism common to a vast array of cellular phones, and assigning it a specific control duty.

31. As to claim 102, Sharma discloses (column 4, lines 6-8) discloses that virtual reality goggles may be used as a display device. This would meet the applicant's limitation of having a head mounted display. In which perspective the game is displayed on the head mounted display would have been a matter of choice well within the capabilities of one skilled in the art, as the perspective which the game is displayed would have been a function of the game's programming, and an obvious design choice.

32. **Claims 5, 57, 69, 89, and 95 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Kotanen et al., "Experiments on Local Positioning with Bluetooth" (hereinafter Kotanen).**

33. While Sharma discloses the wireless device's WLAN and Bluetooth capabilities, Sharma fails to explicitly disclose local positioning capabilities using either of these protocols.

34. Kotanen discloses (1. Introduction), "Local positioning refers to technology applied in restricted area (e.g. inside a building). In this paper the term positioning refers to local positioning. Positioning has already been designed on the Wireless Area Network (WLAN) platform...Bluetooth...is similar to current WLAN technologies...in terms of positioning. Therefore, there may be a need for positioning with Bluetooth, especially when the density of Bluetooth devices increases." Kotanen further discloses (4.4 Computation) that, "...the values obtained from the previous measurement update

can be used in the next measurement update without prediction step...where the predicted measurement is $\hat{z}_{k+1} = h(x_k)$, $\hat{z}_{k+1}$ is the new sample mean of the distance measurements..." Kotanen teaches both the use of a local positioning system and the use of averaging distances to predict local coordinates.

35. The advantage of using WLAN or Bluetooth as a local positioning means, Kotanen writes (1. Introduction), is that, "...GPS cannot be used indoors because a GPS receiver usually fails if line of sight visibility to the satellites is lost."

36. This is evidence/suggestion/motivation that one of ordinary skill in the art would use local positioning means, so that the system could be used indoors where GPS cannot be used as a means of positioning.

37. Therefore, it would have been obvious to modify the existing WLAN and Bluetooth protocols on Sharma with the local Bluetooth positioning means as discussed by Kotanen for the purpose of providing the device with local positioning means which could be used indoors.

38. **Claims 22, 25-28, 30, 33, 35-37, 42, 45-52, 59, 62*, 64, 71, 73, 86, 103, 104, 106, 108-110, and 113 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Acclaim's Mortal Kombat (hereinafter MK).**

39. While Sharma discloses a location-based gaming system capable of supporting a multi-player game, Sharma fails to explicitly disclose a game with specific rules and limitations. Sharma exemplifies a 'volleyball' game in the disclosure, yet it would have been understood by one skilled in the art, that other games could be played on the Sharma's invention, given the widespread use of game systems which supported

different game programs at the time of Sharma's invention. Moreover, Sharma discloses (column 4, lines 54-58), "While the present invention has been described in detail and pictorially in the accompanying drawings, it is not limited to such details since many changes and modifications may be made thereto without departing from the spirit and scope of the present invention. MK is one such example of a game, as it is a multi-player video game with fixed perimeters using virtual characters.

40. In regards to claims 22 and 110, MK discloses and illustrates (page 5) a list of virtual characters manually selected.

41. Regarding claims 25, 30, 59, 71, 86, 103, 106 MK discloses (page 5-7) that tournament mode may begin as a one-player battle, and, "The tournament first tests a warrior's fighting skill by pitting him against the other tournament challengers." This would make the applicant's limitations of 'single-player' game and computer-controlled second virtual character (opponent) obvious. As to the applicant's limitation of providing a third virtual character that is computer controlled. Sharma discloses and illustrates at least four virtual characters in a game, and MK discloses computer-controlled virtual characters, thus it would have been a matter of choice, well within the capabilities of one skilled in the art to include a third, computer-controlled virtual character in the game, as it would have been an obvious design choice particular to the game.

42. As to claims 26-28, 64, and 113, the figure (MK, page 7) illustrates points for both opponents above their power meters, exemplifying a point-based video game. Furthermore, the figure also illustrates a time in the middle of the screen and discloses,

"Should time run out..." referencing the game's use of time. Lastly, as indicated throughout MK, the player performs an action via a controller, and the resulting action is played on the screen as an animation of the player's virtual character.

43. Regarding claims 35-37, 42, and 104, MK discloses (page 5) that a second player may join the tournament, and MK further discloses (page 6) that, "HANDICAP is a feature designed to let two players of different skill levels battle on an equal basis...Handicap only works when in 2 player mode." As discussed above, it would have been an obvious variation of Sharma to have a virtual character controlled by a 'stationary' controller--that is, a PC, as it has been disclosed that the secondary virtual character is user controlled. Thus, the limitation of a second virtual character with handicapped movement controlled by a stationary device, would have been well within the capabilities of one skilled in the art given Sharma in view of MK. In regards to claim 37, Merriam Webster defines 'scaled' as: "...to pattern, make, regulate, set, or estimate according to some rate or standard : ADJUST..." MK disclose (page 6) that handicapping the player. "...affect[s] how much injury each player receives when he is hit..." Each player makes similar attacking movements, but a player who has adjusted the handicap level will receiver either more or less damage depending on the adjustment.

Conversely, although the attacking movements are the same, the attacking player will afflict more or less damage using an attacking move common to both players depending on the handicap adjustment of his/her opponent--thus the player's movement's are essentially scaled. Regarding claim 42, the limitation wherein a user-is provided to accept the speed of movement of a virtual character would be rendered obvious by a

player having to select both a difficulty level and handicap level as disclosed in MK (page 6). It is well known in the art that difficulty and handicap levels often vary the speed of both the surrounding game and the character--for example, a player with a higher handicap may move more quickly than a player without a handicap--thus, in selecting both the difficulty and handicap level, the player is providing a user-request to accept the speed of movement of the virtual character.

44. As to claims 45 and 46, MK discloses on page 6, under 'Button Configuration' that the controls associated with each character's moves. This would meet the applicant's limitation, wherein the a display screen displays the rules associated with each virtual character. Moreover, a display screen being provided on the display with rules associated with the game would have been a matter of choice, well within the capabilities of one skilled in the art, as MK already teaches displaying rules associated with each character on the screen, as well as being a function of the game's programming. Thus, the program modification to show the game rules compared to the rules associated with a character in the game, would have been a design choice, and a modification well within the capabilities of one skilled in the art.

45. As to claims 47-50, 62*, 73 and 108-109, in regards to claims 47, 48, 62*, 73, 108, and 109, Characters in MK have a variety of special moves, some of which include shooting impenetrable objects from the virtual character--impenetrable meaning, the opposing player cannot attack the object or walk through the object. If any of the opposing players come in contact with the object, they are affected in some way. For example, in the section labeled 'SUB-ZERO's MOVES', Sub-Zero projects an ice beam.

If the opposing player comes in contact with the ice beam, he/she is stunned (frozen) for a period of time until they thaw. As indicated by the MK manual in Sub-Zero's section, the opponent is at the mercy of Sub-Zero while they are stunned (frozen). In regards to claims 49 and 50, the MK manual section (Scorpion's Moves), has a special move, wherein Scorpion projects a harpoon across the screen. This harpoon is an impenetrable object, as any player that comes in contact with the harpoon either passively or while trying to attack it, loses life off of their life meter, and is snared by the harpoon. Since the health (hit) meter, the timer, and the points are all judges of a player's success. It would have been a matter of choice, well within the capabilities of one skilled in the art to deduct points if a player comes in contact with an impenetrable object--i.e. Scorpion's harpoon--as a player is already losing health on his/her meter when coming into contact with the impenetrable object. Thus, losing points would be considered analogous to losing health, as health, points, and time are all a measure of a player's success in the game.

46. As it is well known and long established that game systems can support a variety of games, it would have been a matter of choice as to which game is being played on the system. MK exemplifies the limitations claimed by the applicant. Moreover, Sharma exemplifies a volleyball game being played on the system in his invention, yet broadly discloses a system and method capable of playing a virtual game--of which, MK falls into the category of being a virtual game, with virtual character interaction.

47. **Claims 51 and 52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Mortal Kombat IV (hereinafter Mortal 4).**

48. While Sharma discloses a game consisting of virtual objects, Sharma fails to explicitly disclose the limitation of being able to pick up and put down the virtual object. Sharma discloses a volley ball game. Those familiar with the rules of volley ball would understand that teams take turns serving the ball to one another. Serving the ball would require a player picking up the ball. If for some reason the player did not strike the ball while serving, the ball would presumably fall to the ground. Thus, a player in Sharma can pick up a volley ball (to serve), and the mere act of service fault would be comparable to putting down the volley ball (virtual object). Sharma concludes (column 4, lines 54-58), "While the present invention has been described in detail and pictorially in the accompanying drawings, it is not limited to such details since many changes and modifications may be made thereto without departing from the spirit and scope of the present invention. Mortal 4 is one such example of a game, as it is a multi-player video game with fixed perimeters using virtual characters, that allows player interactions with virtual objects. It would have been a matter of choice, well within the capabilities of one skilled in the art as to which game is played on the game system, as game systems capable of playing different games have long been known in the art.

49. Mortal IV notes (Trivia section) that, "This was the first Mortal Kombat game to feature weapon combat, allowing characters to pull out weapons, use them, drop them, pick them up and throw them. Which would meet the applicant's claims of having a virtual object which can be picked up and put down by the virtual character.

50. As it is well known and long established that game systems can support a variety of games, it would have been a matter of choice as to which game is being played on

the system. Mortal 4 exemplifies the limitations claimed by the applicant. Moreover, Sharma exemplifies a volleyball game being played on the system in his invention, yet broadly discloses a system and method capable of playing a virtual game--of which, Mortal 4 falls into the category of being a virtual game, with virtual character interaction.

51. Claims 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Newell et al., USPAT 6,735,435 (hereinafter Newell).

52. While Sharma discloses playing a virtual game in a physical play space, Sharma does not explicitly disclose that the video game uses a user-selected perimeter.

53. Newell presents a method for providing entertainment to a portable device based upon predetermined parameters, and discloses (column 4, lines 54-67), "If the player decides to use a virtual play area...the player preferably chooses the virtual "board" or situation...The player chooses parameters for the game...If the player wants to use the actual area to be traveled instead of a virtual play area, they define the parameters and limitations to the area...a local game with friends may have a defined set of boundaries (geographical and/or time).

54. The advantage of choosing the perimeter of the game, Newell discloses (column 4, lines 56-58) is, "...if multiple players are to play the game, they could all play the same course, or could play unique courses of equal difficulty..."

55. This is evidence that one skilled in the art would have reason/suggestion/motivation to use user-selectable perimeters in a game for the purpose of having multiple players play the same course of equal difficulty.

56. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the virtual game system described by Sharma with the user-selectable perimeters as described by Newell for the purpose of having multiple players in different geographical locations playing the same course of equal difficulty.

57. **Claims 23, 24, 38-41, 58, 70, 85, 105, and 111 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Leonhard et al. US PUB 2002/0052933 (hereinafter Leonhard).**

58. While Sharma discloses a system capable of playing a game, Sharma does not specifically disclose how the game is acquired for use on the system--that is to say, already present in the system's memory, cartridge based, or downloaded.

59. As to claims 23, 24, 58, 70, 85, 105, and 111, Leonhard discloses (paragraph [0004]), "The present invention provides a method and apparatus for graphically searching and licensing media over a network. The present invention includes a method of graphically searching media over a network including a client, a server, and at least one database associated with the server by communicating to the client at least one objective parameter, receiving at least one objective parameter choice from the client, and searching the at least one database for at least one matching media file that matches the at least one objective parameter choice." Leonhard illustrates in Figure 2 the different types of media available for download including: music, movie, and other. Leonhard further discloses (paragraph [0046] that, "...Other content can include any future digital file formats in which sound, image, moving image or multimedia content

can be stored." Leonhard further discloses (paragraphs [0016-0018]), "In another aspect of the invention, a method is provided for licensing media over a network including a client, a server, and a database associated with the server, wherein the database includes a plurality of media files, by receiving a search request from the client, wherein the search request contains at least one parameter specified by the client, searching the database for at least one media file matching the at least one parameter specified by the client, communicating to the client a list of at least one preview file associated with the at least one matching media file, receiving a request for a preview file from the list, and communicating to the client the requested preview file. In a further aspect of the invention, the invention communicates (downloads) to the client a matching media file associated with the requested preview file. In another aspect of the invention, a method is provided for licensing media over a network including a client associated with a user, a server, and a database associated with the server, wherein the database includes a plurality of media files, by receiving a search request from the client, wherein the search request includes at least one parameter specified by the client, searching the database for at least one media file matching the at least one parameter specified by the client, communicating to the client a list of the at least one matching media file, receiving a license request for at least one of the matching media files, wherein the license request includes at least one user preference, calculating a license for the at least one requested media file using the at least one user preference, and sending a license offer for the at least one requested matching media file." Games of course would fall under multimedia content. Leonhard exemplifies his

invention by showing how 'music' can be downloaded over a network to a user's device, but as stated above, this could be modified to include games. Leonhard Figure 15 illustrates a user narrowing a media search by genre--in this case Country--to narrow the media selection, with the filtered media available in list form on the right of Figure 15. Leonhard further discloses (paragraph [0050]), "...the server communicates a license offer for the media content to the user. The user selects a payment method for the media content. the payment method can be a credit card transaction...or another well-known form of payment. The user selects a delivery format for the media content. The delivery format can be, for example, direct download of media files from a network site, streaming to the user..." This would meet the applicant's limitations wherein the video game is downloaded, or wherein the video game is selected from a list of video games. As to claims 58 (and subsequent claims like 70, 85, and 105, and 111), where the applicant claims specifically the limitation of "downloading said video game to the wireless telephonic device", it is obvious that the downloading of media (i.e. ringtones) to a wireless telephone device was well known in the art at the time of the applicant's invention, and the downloading of different forms of media (i.e. games) to a wireless device (specifically a cellular phone) would have been well within the capabilities of one skilled in the art.

60. Regarding claims 38-41, Leonhard exemplifies in figure 26 a pricing engine for the licensing of media. While the example is for the licensing of music for use in a game, it is understood that this could be adapted for the licensing of games, as it has already been argued above the games would fall under downloadable multimedia.

Notable in Leonhard, Figure 26. are indications of a 'base fee' and fees associated with 'track length' and 'license period'. Obviously, if one were to license the media perpetually (at perpetuity), this would be akin to 'purchasing' the media, whereas licensing the media for a definite time period (i.e. 6 months) would be likened to 'renting' the media. Merriam-Webster defines 'subscription' as, "...an arrangement for providing, receiving, or making use of something of a continuing or periodic nature on a prepayment plan..." Leonhard's invention exemplifies the definition of subscription, by allowing the user to pre-pay for the use of 'media' over a continuing or definite time period, and allow the user to use this media within the allotted time period.

61. The advantage of using such a device, summarized by Leonhard (paragraphs [0002-0003]), allows a user to find and license media more quickly and efficiently than traditional methods.

62. This is evidence that one of ordinary skill in the art would have reason/motivation/suggestion to use Leonhard's system for searching and licensing media content over a network because of its speed and efficiency in obtaining media.

63. Therefore it would have been obvious to one of ordinary skill in the art to combine the virtual game played on mobile devices as described by Sharma with the system and method for searching and licensing media over a network as

described by Leonhard, as it would increase the speed and efficiency in which media (games) could be obtained.

64. Claims 44 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Tom, USPAT 6,690,947 (hereinafter Tom)

65. While Sharma discloses a wireless device capable of playing a virtual game, Sharma fails to explicitly disclose that the wireless device is operable to accept cartridges.

66. Tom discloses (abstract), "A wireless communication system including flexible wireless handsets with modular electronic components selected for operation within multiple systems. The units may be configured for removable connection to a variety of cartridges to provide a versatile communication device. A cartridge may be selected for the replacement of one or more existing cartridges within the handset...A flexible wireless telephone with an original removable cartridge may include later-substituted cartridges...." This would meet the applicant's limitation, wherein the wireless telephonic device is operable to accept different video game cartridges.

67. The advantage of having removable cartridges on a wireless telephone, Tom writes (abstract), is not only, "...to provide varying degrees of flexibility including the selection of a different featureset for the handset...[but also] to improve or change the featureset of the telephone..." Tom further discloses (column 3, lines 30-32), "The total collection of features for a particular wireless telephone and network system may be referred to as a featureset." It is well known in the art that games were a common feature of wireless telephones at the time of the applicant's invention.

68. This is evidence that one of ordinary skill in the art would have reason/motivation/suggestion to use interchangeable cartridges on a cell phone to provide varying degrees of flexibility including selection of a different featureset (i.e. game) or to change the featureset.

69. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the wireless device as described by Sharma with the removable cartridges for use on a cellular telephone as described by Tom for the purpose selecting a different featureset or changing the featureset.

70. Claims 76-81 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Noro et al., US PUB 2003/0062675 (hereinafter Noro).

71. While Sharma discloses (discussed above) a system comprising: a display, a locating device, a processor, wherein the processor is capable of providing a video game with a virtual character with a virtual location on a virtual playfield, where the virtual location corresponds to the user's physical location on a physical playfield, where the display (column 4, lines 6-8), "...can be...arcade-type virtual reality goggles.", Sharma fails to explicitly disclose a transparent display, where video game indicia associated with the video game is displayed on the display with the physical playfield visible through the display.

72. As to claims 76 and 80, Noro discloses (paragraph [0007]), " the environment of the game is constructed with a real setting with scene settings and stage properties, and the players execute the game by actually entering such environment. In most cases, each player wears a see-through HMD (head mounted display), which displays a

CG (computer graphics) image matching the proceeding of the game, in superposition with an image that can be seen when the HMD is not worn." Noro further discloses (paragraph [0016]), "a head mounted display capable of displaying thus generated computer graphics in superposition with the image of a real world." This would meet the applicant's limitations of having a transparent display (see through), wherein game indicia (computer graphics) are displayed on such display, with the physical playfield (real world image) visible through the display.

73. As to claim 77, the limitation, wherein video game indicia blocks out a portion of the physical playfield, would have been a matter of choice, well within the capabilities of one skilled in the art, as indicia (computer graphics) blocking out a portion of the physical playfield are a function of the game this being displayed on the screen, and as such, would be a design choice of the game being displayed.

74. Regarding claim 78, wherein the second virtual character (computer graphic) is visible through the display would have been a matter of choice, well within the capability of one skilled in the art, as Noro discloses a system capable of displaying computer graphics superimposed on real world images through a head mounted display, and Sharma discloses a game consisting of virtual players. Whether or not the second character is visible as a computer graphic or physical presence would have been a function of the game program--thus a design choice.

75. As to claim 79, it would be a matter of fact that a user seeing real world images superimposed with computer graphics would be seeing at least the real world images in the first person perspective, as it is known that the intended user, human beings, see

real world images in the first person. How the game is provided would have been an obvious design choice, well within the capabilities of one skilled in the art.

76. Claim 81 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Noro, and further in view of Numa, USPAT 6,633,267 (hereinafter Numa).

77. While Sharma discloses a system using virtual-reality goggles as an external display system (i.e. a head mounted display or HMD), and Sharma in view of Noro disclose an HMD for use in playing a game capable of having a transparent display to display real world images while superimposing computer generated graphics over the real world images, Sharma in view of Noro fails to explicitly disclose a HMD wherein the direction the HMD is pointing is the direction used by the video game.

78. Numa presents a head-mounted display control system and discloses (column 1, line 51 - 54), "...a movement signal is fed back to contents of an image when the wearer moves his/her head. This is a suitable means for moving in virtual space according to calculation by a computer...

79. The advantage of a HMD control system, Numa writes (column 1, lines 61-63), is, "...for reducing a harmful influence on a wearer's eyes, providing enhanced presence, and bringing bidirectional property into contents of inflexible screen unfolding."

80. This is evidence that one of ordinary skill in the art would have suggestion/reason/motivation to use the HMD control method and system described by Numa to provide enhanced presence in a virtual game.

81. Therefore it would have been obvious to one of ordinary skill in the art to combine the virtual game system with the HMD described by Sharma in view of Noro with the HMD control system as described by Numa for the purpose of providing enhanced reality to a game.

82. **Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Anderson et al., USPAT 7,303,474 (hereinafter Anderson).**

83. While Sharma discloses a virtual game played over a network, Sharma fails to explicitly disclose that the progress of a video game is saved on a database.

84. Anderson presents a game system played over a network having a database to save the game's progress. Anderson discloses (column 7, lines 12-13) that, "The profile database...may also store saved game progress..."

85. The advantage of saving game progress on a database, Anderson discloses (column 7, lines 13-19) is, "...so that the game player may start and stop game play without losing game progress. For certain games, the player may be required to purchase game time or be required to offer up a wager, and the profile database...may store credit account information for the player so that the costs associated with the games can be covered by the account."

86. This is evidence that one of ordinary skill in the art would have reason/suggestion/motivation to save game progress on a database for the purpose of allowing a player to start and stop a game as he/she pleases, or to save information particular to certain games.

87. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the virtual game system described by Sharma with the database described by Anderson for the purpose of allowing a player to start/stop a game at the player's discretion or to save information particular to certain games.

Response to Arguments

88. Applicant's arguments filed July 6, 2007 have been fully considered but they are not persuasive.

89. In regards to applicant's claim 1, that, "Sharma - at best - merely discusses mobile devices. Sharma does not show or suggest a telephonic device.", it is respectfully pointed out to the applicant in Sharma (column 1, lines 5-16), "...to play a virtual game using **mobile device** [emphasis added] which communicate with each other via a wireless **application protocol (WAP)** [emphasis added]. One skilled in the art would recognize that WAP's principal application is to enable access to the Internet for mobile phones and PDAs (personal digital assistants). The applicant's argument that the Sharma reference does not show or suggest a telephonic device is moot in light of Sharma disclosure of broadly disclosed mobile devices communicating with each other via a WAP--which would highly suggest the use of a cell phone or PDA.

90. As to applicant's argument of claim 17, that "Sharma does not show or suggest storing a location on a remote server and then providing an update that provides a second location to the remote server, and that Sharma merely sends coordinates to another device via a network," the applicant is merely arguing the inherency of how Sharma's device operates. The examiner kindly refers the applicant to Sharma, Figure

6, which illustrates a mobile device (1) in two-way communication with a mobile station (20) which is in two-way communication with a mobile network (30), which is in two-way communication with a WAP server (40), which is in two-way communication with a data packet network (50). This figure suggests that GPS information is sent from the mobile device through the network to the server and back through the network to the mobile device. By virtue of the drawing, the server is involved in updating the mobile device's GPS coordinates.

91. As to applicant's argument that claim 18 includes a second location information that is scaled, and this is used to provide a second, virtual character, and that Sharma does not show or suggest scaling location information, and that Sharma only utilizes unscaled GPS coordinates, the applicant is again mistaking the inherency of the Sharma device's operation. Sharma discloses that the device is used by multiple players, and this is illustrated in Sharma, Figure 2. The coordinates would have to inherently be scaled for the devices operation, akin to maps being scaled to fit in textbooks. By the applicant's argument, if the GPS information of Sharma was unscaled, it would mean that playing a game on a physical playfield of 100 yards would require a screen on the mobile device of the same size--clearly, this is not the case. Every movement on the device is scaled relative to physical movement, so it makes no difference if it's the first location, second location, etc., corresponding to the first player, second player, etc.

92. The applicant's argument that claims 4, 6-9, 13, 15 and 16 depend from claim 1, and should be allowable because of the alleged allowability of the base claim is moot in

view of the aforementioned argument. Moreover, the applicant's argument that the Examiner is relying on Official Notice to reject claims 4, 6-9, 13, and 15 has been resolved by either pointing out the inherency of the claims made by the applicant vis-a-vis Sharma's reference, or providing a secondary reference with teaching, suggestion, and motivation.

Conclusion

93. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHRISTOPHER H. BOND whose telephone number is (571)272-9760. The examiner can normally be reached on M-F 9:30am - 6pm (Eastern Standard Time).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Xuan M. Thai can be reached on (571) 272-7147. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/John M Hotaling II/
Primary Examiner, Art Unit 3714

/Chris Bond/

Notice of References Cited	Application/Control No. 10/932,536		Applicant(s)/Patent Under Reexamination MULLEN, JEFFREY D.	
	Examiner Christopher H. Bond		Art Unit 3714	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A	US-6,735,435	05-2004	Newell et al.	455/419
*	B	US-2002/0052933	05-2002	Leonhard et al.	709/219
*	C	US-6,690,947	02-2004	Tom, Alfred C.	455/556.1
*	D	US-2003/0062675	04-2003	Noro et al.	273/237
*	E	US-7,303,474	12-2007	Anderson et al.	463/42
*	F	US-6,633,267	10-2003	Numa, TakayuKi	345/7
	G	US-			
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	"Antti Kotanen, Marko Hannikainen, Helena Leppakoski, Timo D. Hamalainen "Experiments on Local Positioning with Bluetooth" Proceedings of the International Conference on Information Technology: Computers and Communications (ITCC '03) April, 2003.
	V	Mortal Kombat instruction booklet for Super Nintendo, 1992, Licensed from Midway.
	W	Mortal Kombat 4 (released October 15, 1997). Published by Midway Games < http://en.wikipedia.org/w/index.php?title=Mortal_Kombat_4&printable=yes >
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S1	1069746	phone or telephone or cell \$phone or cellphone or (cell adj phone) or (mobile adj phone) or mobile\$phone or ((phone or telephone or telephonic) adj (device or system))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2008/01/21 17:45
S2	1591	S1 same display same (locat \$4 or GPS or "G.P.S" or position\$3) same game	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2008/01/21 17:56
S3	61	(location\$based or (location adj based)) adj gam\$4	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2008/01/21 23:44
S4	7	("4961575" "5204657" "5686887" "5942969" "5999808" "6320495").PN. OR ("6756882").URPN.	US-PGPUB; USPAT; USOCR	AND	ON	2008/01/21 18:50
S5	55	((("5999808") or ("6707424") or ("5724660") or ("2002049681") or ("20020090985") or ("5618232") or ("5422813") or ("6748226") or ("6677895") or ("6640184") or ("6524189") or ("6459989") or ("20030064712") or ("6530841") or ("20020010544") or ("5283733") or ("5949679") or ("6456938") or ("6571143") or ("2002011461") or ("6202023") or ("20030062675") or ("10216361") or ("6932698")).PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2008/01/21 23:47
S6	93	pacman	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2008/01/21 23:44
S7	9	S3 and S6	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2008/01/21 23:45

S8	4	((("20020198055") or ("20030062675")).PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2008/01/21 23:47
S9	2	("2002/0111201").URPN.	USPAT	AND	ON	2008/01/21 23:52
S10	2	("6287200").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2008/01/28 10:50
S12	26	(US-20020111201-\$ or US-20030224855-\$ or US-20040046655-\$ or US-20040058732-\$ or US-20050049022-\$ or US-20060052136-\$ or US-20070049313-\$ or US-20070060408-\$ or US-20070225077-\$ or US-20070233367-\$ or US-20020090985-\$).did. or (US-6320495-\$ or US-5942969-\$ or US-5686887-\$ or US-6932698-\$ or US-6748226-\$ or US-6677895-\$ or US-6530841-\$ or US-6287200-\$).did. or (US-20020111201-\$ or US-20040046655-\$ or US-20040058732-\$ or GB-2403008-\$ or WO-2006071246-\$ or US-20060258420-\$ or JP-10216361-\$).did.	US-PGPUB; USPAT; DERWENT	AND	ON	2008/01/28 12:02
S13	3677	perimeter same user same (defin\$3 or input)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2008/01/28 12:03
S14	26	(US-20020111201-\$ or US-20030224855-\$ or US-20040046655-\$ or US-20040058732-\$ or US-20050049022-\$ or US-20060052136-\$ or US-20070049313-\$ or US-20070060408-\$ or US-20070225077-\$ or US-20070233367-\$ or US-20020090985-\$).did. or (US-6320495-\$ or US-5942969-\$ or US-5686887-\$ or US-6932698-\$ or US-6748226-\$ or US-6677895-\$ or US-6530841-\$ or US-6287200-\$).did. or (US-20020111201-	US-PGPUB; USPAT; DERWENT	AND	ON	2008/01/28 17:01

		\$ or US-20040046655-\$ or US-20040058732-\$ or GB-2403008-\$ or WO-2006071246-\$ or US-20060258420-\$ or JP-10216361-\$).did.				
S15	3677	perimeter same user same (defin\$3 or input)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2008/01/28 17:01
S16	1	S15 and S14	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2008/01/28 17:01
S17	16296	"463".clas.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2008/01/28 17:02
S18	21	S15 and S17	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2008/01/28 17:02
S19	41484	(perimeter or boundar\$4 or limit) same user same (defin \$3 or input)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2008/01/28 17:32
S20	3	S14 and S19	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2008/01/28 17:33
S23	3	((cell adj phone) or cellphone or (mobile adj phone) or (cellular adj telephone)) same accelerometer same locat\$4 same game	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2008/03/02 19:57
S24	18	((cell adj phone) or cellphone or (mobile adj phone) or (cellular adj telephone)) same game same character same list	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2008/03/02 19:59
S25	12	((cell adj phone) or cellphone or (mobile adj phone) or (cellular adj telephone)) same game same character same (choose or pick)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2008/03/02 20:00

S27	831	((cell adj phone) or cellphone or (mobile adj phone) or (cellular adj telephone)) same download \$4 same game	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2008/03/02 20:09
S28	32549283	@pd<="20030902"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2008/03/02 20:11
S29	86	S27 and S28	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2008/03/02 20:12
S33	18	("6267674" "6749508" "6906713" "6908389" "6913536" "6913537" "6923717" "6932705").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2008/03/02 20:31
S35	20	("20010016511" "6267674" "6749508" "6906713" "6908389" "6913536" "6913537" "6923717" "6932705").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2008/03/02 20:32
S36	2	("6659873").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2008/03/02 20:32
S37	2	("6948062").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2008/03/17 07:33
S38	0	(2003/0068602).CCLS.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2008/03/17 08:37
S39	2	("20030068602").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2008/03/17 08:37
S40	0	("2003/0068602").URPN.	USPAT	AND	ON	2008/03/17 08:39
S41	0	download same content same (pay or price or rent \$3) same game same ((cell adj phone) or cellphone)	USPAT	AND	ON	2008/03/17 08:40
S42	0	download same (pay or price or rent\$3) same game same ((cell adj phone) or cellphone)	USPAT	AND	ON	2008/03/17 08:40

S43	6	download same game same ((cell adj phone) or cellphone)	USPAT	AND	ON	2008/03/17 08:40
S44	0	purchase same rent same game same (cellphone or (cell adj phone))	USPAT	AND	ON	2008/03/17 08:47
S45	10	("20010051996" "20020013826" "20020052933" "20020089534" "20040051812" "5960411" "6009410" "6587127" "6611812" "6917961").PN. OR ("7124125").URPN.	US-PGPUB; USPAT; USOCR	AND	ON	2008/03/17 08:51
S46	917	Napster	US-PGPUB; USPAT; USOCR	AND	ON	2008/03/17 09:20
S47	297	Napster and game	US-PGPUB; USPAT; USOCR	AND	ON	2008/03/17 09:20
S48	14	Napster same game	US-PGPUB; USPAT; USOCR	AND	ON	2008/03/17 09:21
S49	2	("20020052933").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2008/03/24 13:24
S50	2	("20030062675").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2008/03/24 14:53
S51	32	((("6690156") or ("5853327") or ("20020167500") or ("20020075286") or ("20020126895") or ("20020103617") or ("20030063115") or ("5662332") or ("4312240") or ("4315241") or ("4340878") or ("4347507") or ("4347508") or ("6522312") or ("20020095265") or ("1117074A2") or ("330184A2") or ("2002247602A") or ("2001195601A")).PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2008/03/24 14:59
S52	43	((cell adj phone) or cellphone or (cellular adj telephone))same cartridge same game	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2008/03/24 18:38

S53	16692	(head adj mounted adj display) or HMD	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2008/03/24 19:05
S54	232	S53 same control same direction	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2008/03/24 19:05
S55	54	S53 same control same direction same virtual	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2008/03/24 19:14
S56	5	S53 same control same direction same virtual same game	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2008/03/24 19:18
S57	2	("6633267").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2008/03/24 19:22
S58	2	("6690947").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2008/03/24 19:46
S59	138	database same game same (save or store) same progress	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2008/03/25 10:44
S60	2	("20020198055").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2008/03/25 11:05
S61	161	(input or enter or define) with (bounds or boundary or boundaries of perimeter) with game	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2008/03/25 11:08
S62	56	(player or user) with (input or enter or define) with (bounds or boundary or boundaries of perimeter) with game	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2008/03/25 11:11
S63	111	(player or user) with (input or enter or define or set) with (bounds or boundary or boundaries of perimeter) with game	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2008/03/25 11:13

S64	14	((("2005143096") or ("2002142764") or ("2004248653") or ("2003210147") or ("2005143096") or ("2005049022") or ("2002142764") or ("2004248653") or ("2003210147"))).PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2008/03/25 11:28
S65	0	((("2005143096") or ("2002142764") or ("2004248653") or ("2003210147") or ("2005143096") or ("2005049022") or ("2002142764") or ("2004248653") or ("2003210147"))).PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2008/03/25 11:29
S66	0	("20040806845").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2008/03/25 11:36
S67	2	("7181228").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2008/03/25 11:36
S68	2	("6735435").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2008/03/25 11:38

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<i>Index of Claims</i> 	Application/Control No. 10932536	Applicant(s)/Patent Under Reexamination MULLEN, JEFFREY D.
	Examiner Bond, Christopher H	Art Unit 3714

✓	Rejected	-	Cancelled	N	Non-Elected	A	Appeal
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☐ Claims renumbered in the same order as presented by applicant											☐ CPA											☐ T.D.											☐ R.1.47										
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	Examiner Bond, Christopher H	Art Unit 3714

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CLAIM		DATE								
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<i>Index of Claims</i> 	Application/Control No. 10932536	Applicant(s)/Patent Under Reexamination MULLEN, JEFFREY D.
	Examiner Bond, Christopher H	Art Unit 3714

✓	Rejected	-	Cancelled	N	Non-Elected	A	Appeal
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	Examiner Bond, Christopher H	Art Unit 3714

✓	Rejected	-	Cancelled	N	Non-Elected	A	Appeal
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☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47										
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	114	✓								
	115	✓								

Search Notes 	Application/Control No. 10932536	Applicant(s)/Patent Under Reexamination MULLEN, JEFFREY D.
	Examiner Bond, Christopher H	Art Unit 3714

SEARCHED			
Class	Subclass	Date	Examiner
463	31	1/24/2007	CB
463	40	1/24/2007	CB
463	42	1/24/2007	CB

SEARCH NOTES		
Search Notes	Date	Examiner
EAST (see attached notes)	1/25/2007	CB
PALM inventor name search (see attached notes)	1/2/2007	CB
Updatred EAST	3/25/2008	CB

INTERFERENCE SEARCH			
Class	Subclass	Date	Examiner

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Jeffrey D. Mullen
Application No. : 10/932,536
Confirmation No. : 2766
Filed : September 1, 2004
For : SYSTEMS AND METHODS FOR
LOCATION BASED GAMES AND
EMPLOYMENT OF THE SAME ON
LOCATION ENABLED DEVICES
Group Art Unit : 3709
Examiner : Christopher Bond

Hon. Commissioner for Patents New York, NY 10036
P.O. Box 1450 July 6, 2007
Alexandria, VA 22313-1450

REPLY TO OFFICE ACTION

Sir:

This is in response to the Office Action dated January 31, 2007. A three-month extension of time is applicable hereto. In response to the Office Action dated January 31, 2007, applicant amends the application as follows:

Amendments to the Specification begin on page 2 of this paper.

Amendments to the Claims are reflected in the listing of claims which begins on page 5 of this paper.

Remarks/Arguments begin on page 25 of this paper.

Amendments to the Specification

Please replace paragraph 2 of the specification with the following paragraph showing amendments.

--This application claims the benefit of U.S. Provisional Patent Application No. 60/603,481 [[-/---,---]] filed on August, 20, 2004 titled "Wireless Devices With Flexible Monitors and Keyboards" (Docket No. JDM/007) which is hereby incorporated by reference herein in its entirety.--

Please replace paragraph 61 of the specification with the following paragraph showing amendments.

--FIG. 3 shows wireless telephone 300 constructed in accordance with the principles of the present invention. Wireless telephone 300 preferably includes speaker 330, antenna 310, display screen 320, control keys 360, alpha-numeric keys 350, and microphone 340. Wireless telephone 300 also preferably may include, for example, a communications transmitter (not shown), communications receiver (not shown), memory (not shown), positioning device such as a GPS or LPS (not shown), and a microprocessor (not shown). Control keys 360 may include any number of joystick, control buttons, or other user interfaces (e.g., speech recognition controls). Such control keys 360 may be utilized to provide, for example, additional control signals to a location-based game or gaming system (e.g., a control may be utilized as a FIRE or ACTION button). Controls may also be included in wireless telephone 300 that are directed to location-based games

and, in some instances, are used exclusively for location-based games. For example, ACTUALITY button ~~165~~ 365 may be included on wireless telephone 300 that, when pressed, provides a location-based game, a list of location-based game, or a location-based game service. The use of ACTUALITY button 165 may alternatively, automatically log a user into a location-based game network that may provide not only location based games but additional information such as, for example how many users are requesting opponents for a particular game.--

Please replace paragraph 90 of the specification with the following paragraph showing amendments.

--FIG. 8 shows a number of components that may be included into gaming system 800. Persons skilled in the art will appreciate that components of gaming system 800 may also be utilized in, for example, a gaming base station. Gaming system 800 may include one or more power sources 820, output devices 825, memory devices 830, connection terminals 835, location devices 845, manual input controls 850, wireless transmitters/receivers 855, additional communication transmitters/receivers 860, communication transmitters/receivers 865, and additional components 840.--

Please replace paragraph 94 of the specification with the following paragraph showing amendments.

--Persons skilled in the art will appreciate that game cartridges may be utilized so that a system is operable to play any number of games. System ~~932~~ 931 may,

for example, include a single cartridge port, but may contain two separate memories (one for each of the two individual systems). Alternatively, the system may include one memory device in the system that does not include the game cartridge such that that system (or both systems) may have the entire game, or a portion of the game, written to memory. In this manner, one cartridge may be utilized to supply a game to both systems. In one embodiment, one system may run the game off the cartridge while the other system may run the game off a stored copy of the game that was written to memory on the other system before the two systems were separated. Each system may include, for example, their own power supplies and processors.--

Please replace paragraph 96 of the specification with the following paragraph showing amendments.

--System 960 includes two commercial devices 961 and 962 programmed to play a location-based game. System 960 may operate as follows. While a game is ON, location information is periodically transmitted and received by commercial devices 961 and 962. The games on commercial devices 961 and 962 may then be updated according to the received information. Steps 971, 972, and 973 may be included. Game, or level, results may be displayed in step 974. Identical results, or customized results, may be displayed to both devices 961 or 962.--

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) A system comprising:
a wireless telephonic device, wherein said wireless telephonic device comprises:
 - a display;
 - a locating device operable to determine the physical location of said locating device on a physical playfield; and
 - a processor coupled to said display and said locating device, wherein said processor is operable to provide a video game comprising a virtual character with a virtual location on a virtual playfield and ~~playfield,~~ wherein said virtual location on said virtual playfield corresponds to said physical location on said physical playfield.
2. (original) The system of claim 1, wherein said locating device is a global positioning system receiver.
3. (currently amended) The system of claim 1, wherein said ~~physical playfield comprises~~ video game utilizes a default perimeter.
4. (currently amended) The system of claim 1, wherein said ~~physical playfield comprises~~ video game utilizes a perimeter selected by user-inputs.

5. (original) The system of claim 1, wherein said locating device is a local positioning system receiver.

6. (currently amended) The system of claim 1, wherein said wireless telephonic device further comprises ~~comprising~~: a memory coupled to said processor, wherein said video game is stored in said memory.

7. (original) The system of claim 6, wherein location information based on said physical location, and obtained from said locating device, is stored in said memory.

8. (original) The system of claim 7, wherein said location information comprises a set of coordinates.

9. (original) The system of claim 7, wherein said location information comprises a vector having a magnitude component and a directional component.

10. (currently amended) The system of claim 1, wherein said wireless telephonic device further comprises ~~comprising~~: a transmitter, wherein said processor determines an origin location at a point in time in said video game and transmits origin information based on said origin location.

11. (currently amended) The system of claim 1, wherein said wireless telephonic device further comprises ~~comprising~~: a directional device, wherein said directional

device is operable to determine the physical direction of said directional device on said physical playfield.

12. (original) The system of claim 11, wherein said virtual character is operable to point in a virtual direction on said virtual playfield and said virtual direction on said virtual playfield corresponds to said physical direction on said physical playfield.

13. (currently amended) The system of claim 1, wherein said wireless telephonic device further comprises ~~comprising~~: manual controls for controlling ~~non-located~~ non-locationbased aspects of said virtual character.

14. (currently amended) The system of claim 1, wherein said wireless telephonic device further comprises ~~comprising~~: a receiver for obtaining remote origin information based on a remote origin location, wherein said processor configures the operation of said video game based on said remote origin information.

15. (currently amended) The system of claim 1, wherein said wireless telephonic device further comprises ~~comprising~~: a remote memory, wherein physical location information is operable to be stored in said remote memory when said physical location is determined and said physical location information is based on said determined physical location.

16. (currently amended) The system of claim 1, wherein said ~~locating device is housed in a~~ wireless ~~telephone~~ telephonic device further comprises:

a speaker; and
a microphone.

17. (currently amended) A method for controlling a character in a location-based video game comprising:

~~determining~~ storing a first physical location of a wireless telephonic device ~~locating device~~ on a physical playfield on a remote server;

~~mapping game environment around said first physical location; and~~

~~placing~~ changing the location of said character in a virtual playfield of said video game ~~environment~~ based on said first physical location; and

updating the location of said wireless telephonic device on said remote server by storing a second physical location of said wireless telephonic device on said remote server.

18. (currently amended) A method for providing a remote multiplayer location-based video game:

obtaining a first physical location of a first locating device on a first physical playfield;

obtaining a second physical location of a second locating device on a second physical playfield, wherein said first physical playfield is remote from said second physical playfield; and

operating a video game such that first location ~~locating~~ information associated with said first physical location ~~from said first locating device represents~~ is utilized to provide a first virtual character on a virtual playfield and second ~~locating~~ location information associated with said second physical location is scaled and

said scaled second location information is utilized to provide ~~from said second locating device represents~~ a second virtual character on said virtual playfield.

19. (new) The system of claim 1, further comprising:

a server;

a second wireless telephonic device, wherein said second wireless telephonic device provides a second physical location to said server and said wireless device retrieves said second physical location from said server.

20. (new) The system of claim 1, further comprising:

a server;

a second wireless telephonic device, wherein said second wireless telephonic device provides a second physical location to said server, said wireless device retrieves said second physical location from said server, and said video game utilizes said second physical location.

21. (new) The system of claim 1, wherein said locating device comprises an accelerometer.

22. (new) The system of claim 1, wherein said virtual character is manually selected from a list of game characters.

23. (new) The system of claim 1, wherein said video game is downloaded.

24. (new) The system of claim 1, wherein said video game is selected from a list of video games.

25. (new) The system of claim 1, wherein said video game comprises a second virtual character and said second virtual character is computer-controlled.

26. (new) The system of claim 1, wherein said video game is point-based.

27. (new) The system of claim 1, wherein an amount of time is displayed to a user associated with the start of said video game.

28. (new) The system of claim 1, wherein an action is performed in said video game and an animation is played as a result of said action.

29. (new) The system of claim 1, further comprising a stationary device that operates a second virtual character in said video game.

30. (new) The system of claim 1, wherein said video game is a single-player video game.

31. (new) The system of claim 1, further comprising a server, wherein said server is periodically updated with the physical location of said locating device.

32. (new) The system of claim 1, wherein said wireless telephonic device is operable to allow a user to

talk with a second wireless telephonic device while said video game is being played.

33. (new) The system of claim 1, wherein a progress of said video game is stored in a database.

34. (new) The system of claim 1, wherein said wireless telephonic device further comprises a joystick.

35. (new) The system of claim 1, wherein a second virtual character is controlled by a second device and the movement of said second virtual character is handicapped.

36. (new) The system of claim 1, wherein a second virtual character is controlled by a second device, the movement of said second virtual character is handicapped, and said second device is a stationary device.

37. (new) The system of claim 1, wherein a second virtual character is controlled by a second wireless telephonic device and the movement of said second virtual character is scaled.

38. (new) The system of claim 1, wherein said video game is downloaded from a remote server and a cost is associated with said downloaded video game.

39. (new) The system of claim 1, wherein said video game is downloaded from a remote server and rented, at a cost, for a period of time.

40. (new) The system of claim 1, wherein said video game is provided as part of a paid subscription.

41. (new) The system of claim 1, wherein an amount of time to play said video game is purchased at a cost.

42. (new) The system of claim 1, wherein a user-request is provided to accept the speed of the movement of said virtual character.

43. (new) The system of claim 1, wherein said wireless telephonic device further comprises a manual control and said manual control is used exclusively for location-based video games.

44. (new) The system of claim 1, wherein said wireless telephonic device is operable to accept cartridges of different video games.

45. (new) The system of claim 1, wherein a display screen is provided on said display with rules associated with said video game.

46. (new) The system of claim 1, wherein a display screen is provided on said display with rules associated with said virtual character.

47. (new) The system of claim 1, wherein said video game comprises an impenetrable virtual object.

48. (new) The system of claim 1, wherein said video game comprises an impenetrable virtual object and said virtual game character is stunned for a period of time when said virtual game character contacts said impenetrable virtual object.

49. (new) The system of claim 1, wherein said video game comprises an impenetrable virtual object and a number of lives of said virtual game character is reduced when said virtual game character contacts said impenetrable virtual object.

50. (new) The system of claim 1, wherein said video game comprises an impenetrable virtual object, said video game is point based, and a number of points is deducted when said virtual game character contacts said impenetrable virtual object.

51. (new) The system of claim 1, wherein said video game comprises a virtual object and said virtual object can be picked up by said virtual character.

52. (new) The system of claim 1, wherein said video game comprises a virtual object and said virtual object can be picked up and put down by said virtual character.

53. (new) The method of claim 17, wherein said wireless telephonic device includes a locating device and said first and second physical locations are determined by said locating device.

54. (new) The method of claim 17, wherein said wireless telephonic device includes a locating device, said first and second physical locations are determined by said locating device, and said locating device comprises an accelerometer.

55. (new) The method of claim 17, wherein said wireless telephonic device includes a locating device, said first and second physical locations are determined by said locating device, and said locating device comprises a positioning receiver.

56. (new) The method of claim 17, wherein said wireless telephonic device includes a locating device, said first and second physical locations are determined by said locating device, and said locating device comprises a global positioning receiver.

57. (new) The method of claim 17, wherein said wireless telephonic device includes a locating device, said first and second physical locations are determined by said locating device, and said locating device comprises a local positioning receiver.

58. (new) The method of claim 17, further comprising downloading said video game to said wireless telephonic device.

59. (new) The method of claim 17, further comprising providing a second character on said virtual playfield, wherein said second character is computer controlled.

60. (new) The method of claim 17, further comprising providing a second character on said virtual playfield, wherein said locating device is provided in a first device and said second character is controlled by a second device.

61. (new) The method of claim 17, further comprising retrieving said first physical location from said server by a second wireless telephonic device.

62. (new) The method of claim 17, further comprising providing an interactive virtual object in said video game that said character is able to interact with.

62. (new) The method of claim 17, further comprising providing an impenetrable virtual object, with respect to said character, in said video game.

63. (new) The method of claim 17, further comprising determining a direction of a directional device and utilizes said direction to control a direction of said character.

64. (new) The method of claim 17, wherein said video game is point-based.

65. (new) The method of claim 17, wherein a first locating device is provided in said wireless telephonic device and ability is provided for a user of said wireless telephonic device to talk with a second telephonic device while playing said video game.

66. (new) The method of 18, wherein said first locating device is provided on a wireless telephonic device.

67. (new) The method of claim 18, wherein said first locating device comprises an accelerometer.

68. (new) The method of claim 18, wherein said first locating device comprises a global positioning receiver.

69. (new) The method of claim 18, wherein said first locating device comprises a local positioning receiver.

70. (new) The method of claim 18, further comprising downloading said video game to a device, wherein said first locating device is provided on said device.

71. (new) The method of claim 18, further comprising providing a third virtual character for said video game that is computer controlled.

72. (new) The method of claim 18, further comprising providing an interactive virtual object in said video game that said first virtual character is able to interact with.

73. (new) The method of claim 18, further comprising providing an impenetrable virtual object in said video game.

74. (new) The method of claim 18, further comprising determining a direction of a directional device and utilizes said direction to control a direction of said first virtual character.

75. (new) The method of claim 18, wherein said first locating device is included in a first telephonic wireless device and said first telephonic wireless device is operable to talk with a second telephonic wireless device while playing said video game.

76. (new) A system comprising:
a transparent display;
a locating device operable to determine the physical location of said locating device on a physical playfield; and
a processor coupled to said display and said locating device, wherein said processor is operable to provide a video game comprising a virtual character with a virtual location on a virtual playfield, said virtual location on said virtual playfield corresponds to said physical location on said physical playfield, and video game indicia, associated with said video game, is displayed on said display such that said video game indicia is visible with said physical playfield through said display.

77. (new) The system of claim 76, wherein said video game indicia completely blocks out a portion of said physical playfield.

78. (new) The system of claim 76, wherein said video game comprises a second virtual character, said second virtual character is computer controlled, and said second virtual character is placed at a second location associated with a user associated with said second virtual character such that said second virtual character is visible through said display instead of said user.

79. (new) The system of claim 76, wherein said video game is provided through said display in a first-person perspective.

80. (new) The system of claim 76, wherein said transparent display is a head-mounted transparent display.

81. (new) The system of claim 76, wherein said transparent display is a head-mounted transparent display and the direction that said head-mounted transparent display is pointing is determined, and said determined direction is utilized by said video game.

82. (new) A system comprising:
a display;
a locating device operable to determine the physical location of said locating device on a physical playfield, wherein said locating device comprises a movement measuring device; and
a processor coupled to said display and said locating device, wherein said processor is operable to provide a video game comprising a virtual character with a virtual location on a virtual playfield and said virtual

location on said virtual playfield corresponds to said physical location on said physical playfield.

83. (new) The system of claim 82, wherein said locating device is located in a wireless telephonic device.

84. (new) The system of claim 82, wherein said movement measuring device comprises an accelerometer.

85. (new) The system of claim 82, wherein said video game is downloaded.

86. (new) The system of claim 82, wherein said video game is a single-player video game.

87. (new) The system of claim 82, wherein said video game is a multiple player video game.

88. (new) A system comprising:
a display;
a locating device operable to determine the physical location of said locating device on a physical playfield, wherein said locating device comprises a local positioning system; and
a processor coupled to said display and said locating device, wherein said processor is operable to provide a video game comprising a virtual character with a virtual location on a virtual playfield and said virtual location on said virtual playfield corresponds to said physical location on said physical playfield.

89. (new) The system of claim 88, wherein said locating device utilizes a signal from at least two ground-based local positioning devices to determine said location.

90. (new) The system of claim 88, wherein said locating device is located in a wireless device.

91. (new) The system of claim 88, wherein said physical location of said locating device is stored, and updated, in a remote server.

92. (new) The system of claim 88, wherein a second virtual character is included in said video game and said second virtual character is user-controlled.

93. (new) The system of claim 88, further comprising a directional device, wherein the direction said directional device is pointing is utilized by said video game.

94. (new) A system comprising:
a display;
a first locating device operable to determine a first physical location of said locating device on a physical playfield;
a second locating device operable to determine a second physical location of said locating device on a physical playfield, wherein said first physical location and second physical location are utilized to determine a location; and
a processor coupled to said display, wherein said processor is operable to provide a first video game

comprising a virtual character with a virtual location on a virtual playfield and said virtual location on said virtual playfield corresponds to said location.

95. (new) The system of claim 94, wherein said location utilizes an average including said first physical location and said second physical location.

96. (new) The system of claim 94, wherein said first and second locating devices are positioning receivers.

97. (new) The system of claim 94, wherein said first and second locating devices are included in a wireless telephonic device.

98. (new) The system of claim 94, further comprising a directional device, wherein the direction said directional device is pointing is utilized by said video game.

99. (new) The system of claim 94, wherein a second virtual character is included in said video game and said second virtual character is controlled by a wireless telephonic device.

100. (new) A system comprising:
a display;
a locating device operable to determine the physical location of said locating device on a physical playfield;

a directional device operable to determine the physical direction of said directional device on said physical playfield; and

a processor coupled to said display and said locating device, wherein said processor is operable to provide a video game comprising a virtual character with a virtual location on a virtual playfield and said virtual location on said virtual playfield corresponds to said physical location on said physical playfield.

101. (new) The system of claim 100, wherein said video game is provided on said display in a third-person perspective.

102. (new) The system of claim 100, wherein said display is a head-mounted display and said video game is provided on said display in a first-person perspective.

103. (new) The system of claim 100, wherein a second virtual character is provided in said video game and said second virtual character is computer-controlled.

104. (new) The system of claim 100, wherein a second virtual character is provided in said video game and said second virtual character is user-controlled.

105. (new) The system of claim 100, wherein said locating device is located in a wireless device and said video game is downloaded to said wireless device.

106. (new) The system of claim 100, wherein said video game is a single-player video game.

107. (new) The system of claim 100, wherein said video game is a multiple-player video game.

108. (new) The system of claim 100, wherein an interactive virtual object, with respect to said virtual character, is provided in said video game.

109. (new) The system of claim 100, wherein an impenetrable virtual object, with respect to said virtual character, is provided in said video game.

110. (new) The system of claim 100, wherein said virtual character is selected from a plurality of virtual characters.

111. (new) The system of claim 100, wherein said locating device is included in a wireless telephonic device and said video game is downloaded.

112. (new) The system of claim 100, wherein said locating device is included in a first wireless telephonic device and a user of said telephonic device is operable to communicate with a second wireless telephonic device while said video game is being played.

113. (new) The system of claim 100, wherein said video-game is point-based.

114. (new) The system of claim 100, wherein said locating device comprises a positioning receiver.

115. (new) The system of claim 100, wherein said locating device comprises a movement measuring device.

REMARKS/ARGUMENTS

Summary of Office Action

Claims 1-18 are pending in the application.

The Examiner objected to the drawings.

The Examiner rejected claims 1-3, 5, 10-12, and 14-18 under 35 U.S.C. § 102(b) as being anticipated by Sharma U.S. Patent No. 6,287,200 (hereinafter "Sharma").

The Examiner rejected claims 4, 6-9, 13, 15, and 16 under 35 U.S.C. § 103(a) as being unpatentable over Sharma.

Summary of Applicant's Amendments

Applicant has amended claims 1, 3, 4, 6, 10, 11, and 14- 18 without prejudice and solely in order to expedite prosecution.

Applicant has added new claims 19-115.

Applicant traverses the Examiner's rejections. Applicant reserves the right to claim any subject matter lost by any claim amendment or cancellation, or any subject matter contained in the present application, in any number of continuation or divisional applications.

Applicant's Response to the Objection's to the Drawings

The Examiner objected to the drawings for not including reference sign(s) mentioned in the description for "165" referenced in paragraph 61 and "932" referenced in paragraph 94.

The reference to "165" in paragraph 61 has been corrected to read "365."

The reference to "932" in paragraph 94 has been corrected to read "931."

The Examiner objected to the drawings for including reference signs not included in the description for "365" (FIG 3.), "865" (FIG. 8), "971" (FIG. 9), "972" (FIG. 9), "973" (FIG. 9), and "974" [*sic*] (FIG. 9).

Applicant notes that applicant believes the Examiner's reference of 944 was made in error as reference to 944 is included in paragraph 95. Applicant contends that the Examiner attempted to reference "974" in FIG. 9. Reference to 974 is provided in paragraph 96.

The reference to 365 in FIG. 3, is included in amended paragraph 61.

The reference to 865 in FIG. 8, is included in amended paragraph 90.

The references to 971, 972, 973, and 974 in FIG 9 are included in amended paragraph 96.

No new subject matter has been added. As these amendments to the specification overcome the Examiner's objections to the drawings, no submission of Corrected Drawings is required.

In light of the foregoing, applicant respectfully requests that the Examiner's objections to the Drawings be withdrawn.

Applicant's Response to the
Rejections Under 35 U.S.C. § 102(b)

The Examiner rejected claims 1-3, 5, 10-12, and 14-18 under 35 U.S.C. § 102(b) as being anticipated by Sharma.

Claim 1

Applicant's invention of amended claim 1 includes a wireless telephonic device.

Sharma discusses a device that utilizes a GPS system and communicates GPS coordinates.

The Examiner stated that:

"Sharma defines his invention as a mobile device, one of ordinary skill in the art would recognize that a [*sic*] wireless telephone is a subset of mobile devices, and this limitation would have at least been obvious." (Office Action, page 8)

The Examiner's statement that a wireless telephone is a subset of mobile devices is irrelevant. Sharma - at best - merely discusses mobile devices. Sharma does not show or suggest a telephonic device.

The Examiner appears to have rejected claim 16, which included subject matter amended into claim 1, in view of Official Notice. For rejections under 35 U.S.C. § 103(a), the Examiner has the burden of showing each and every element of applicant's invention in the prior art combination. If the Examiner is taking Official Notice, MPEP § 2144.03 requires that the facts of which notice are being taken be capable of instant and unquestionable demonstration as being well known in the art. See *In re Ahlert*, 424 F.2d 1088, 1091, 165 USPQ 418, 420 (CCPA 1970). Applicant believes that the "facts" of which the Examiner may have taken Official Notice do not meet that standard, and invoke his right under MPEP § 2144.03 to have the Examiner provide documentary proof that those facts are actually well known.

The Examiner "cannot simply reach conclusions based on its own understanding or experience - or on its assessment of what would be basic knowledge or common sense. Rather, ... [the Examiner] ... must point to some concrete evidence in the record in support of these findings." *In re Zurko*, 258 F.3d at 1385, 59 USPQ2d at

1697 (Fed. Cir. 2001). If the Examiner is relying on personal knowledge to support the finding of what is known in the art, the examiner must provide an affidavit or declaration setting forth factual statements and explanation to such a finding. See MPEP 2144.03(c).

Combining Sharma with any reference that mentions a specific telephonic device will result in, for example, an inoperable device. Sharma does not discuss the receipt or transmission of sound in any way, shape, or form. Accordingly, Sharma is silent on related structures. Additionally, for example, the operation of Sharma relies on a particular transmission/receipt topology and operation. Any modification would eviscerate the spirit of the operation and topology of the Sharma device.

Sharma is a precision device and, as such, cannot be combined with an abstract device - let alone a different specific precision device. In this manner, Sharma teaches away from being altered by any specific precision device - let alone combined with a specific reference that discusses a telephonic device. Accordingly, the Examiner cannot mutilate references by picking and choosing elements of unrelated devices - let alone abstract devices - in order to create a different device. In doing so, the Examiner is merely eviscerating the spirit of the individual references in order to create an inoperable device in hindsight.

Claim 17

Applicant's invention of claim 17 includes storing a first location on a remote server and then providing an update that provides a second location to the remote server.

Sharma does not show or suggest storing a location on a remote server and then providing an update that provides a second location to the remote server. A Sharma device merely sends coordinates to another device via a network.

For at least the above reasons, applicant respectfully submits that applicant's invention of claim 17, and any claims that depend therefrom, is patentable.

Claim 18

Applicant's invention of claim 18 includes second location information that is scaled and this scaled second location information is utilized to provide a second virtual character on a virtual playfield.

Sharma does not show or suggest scaling location information. Sharma only utilizes unscaled GPS coordinates.

For at least the above reasons, applicant respectfully submits that applicant's invention of claim 18, and any claims that depend therefrom, is patentable.

Applicant's Response to the Rejections Under 35 U.S.C. § 103(a)

The Examiner rejected claims 4, 6-9, 13, 15, and 16 under 35 U.S.C. § 103(a) as being unpatentable over Sharma.

As shown above, independent claim 1 is patentable. Claims 4, 6-9, 13, 15 and 16 depend from claim 1. Accordingly, applicant respectfully submits that claims 4, 6-9, 13, and 15 are patentable for depending from a base claim.

Additionally, the Examiner appears to have rejected claims 4, 6-9, 13, and 15 in view of Official Notice. As discussed above, if the Examiner is taking Official Notice, MPEP § 2144.03 requires that the facts of which notice are being taken be capable of instant and unquestionable demonstration as being well known in the art. See *In re Ahlert*, 424 F.2d 1088, 1091, 165 USPQ 418, 420 (CCPA 1970). Applicant believes that the "facts" of which the Examiner may have taken Official Notice do not meet that standard, and invoke his right under MPEP § 2144.03 to have the Examiner provide documentary proof that those facts are actually well known.

The Examiner "cannot simply reach conclusions based on its own understanding or experience - or on its assessment of what would be basic knowledge or common sense. Rather, ... [the Examiner] ... must point to some concrete evidence in the record in support of these findings." *In re Zurko*, 258 F.3d at 1385, 59 USPQ2d at 1697 (Fed. Cir. 2001). If the Examiner is relying on personal knowledge to support the finding of what is known in the art, the examiner must provide an affidavit or declaration setting forth factual statements and explanation to such a finding. See MPEP 2144.03(c).

Furthermore, as suggested above in connection with applicant's response to the rejection of claim 1, the Examiner cannot, for example, mutilate the precision device of Sharma. For at least this reason, applicant respectfully submits that any rejection made in view of Official Notice be withdrawn.

New Claims 19-53

Applicant has added new claims 19-53 that depend from claim 1. As shown above, claim 1 is patentable. Accordingly, applicant respectfully submits that claims 19-53 are patentable as claims 19-53 depend from patentable claim 1.

New Claims 54-65

Applicant has added new claims 54-65 that depend from claim 17. As shown above, claim 17 is patentable. Accordingly, applicant respectfully submits that claims 54-65 are patentable as claims 54-65 depend from patentable claim 17.

New Claims 66-75

Applicant has added new claims 66-75 that depend from claim 18. As shown above, claim 18 is patentable. Accordingly, applicant respectfully submits that claims 66-75 are patentable as claims 66-75 depend from patentable claim 18.

New Claims 76-81

Claim 76 includes a transparent display, wherein video game indicia is displayed on the display such that the video game indicia is visible with the physical playfield through the display.

None of the prior art, used either alone or in combination, show or suggest a transparent display - let alone a transparent display in a system where video game indicia is displayed such that the video game indicia is visible with the physical playfield through the display.

In light of the foregoing, applicant respectfully submits that claim 76 is patentable. New claims 77-81 depend from claim 76. Accordingly, claims 77-81 are patentable because claims 77-81 depend from patentable claim 76.

New Claims 82-87

Claim 82 includes a locating device having a movement measuring device.

None of the prior art, used either alone or in combination, utilize a movement measuring device to determine a location of a virtual character.

Sharma discusses a "motion sensor" which:
"calculates the displacement of virtual objects. Thus ... the player swings the mobile device A so as to 'contact' the virtual volleyball and sent it over the net." See Sharma, col. 3, lines 45-60.

Accordingly, the "motion sensor" of Sharma does not show or suggest determining the location of a virtual character.

In light of the foregoing, applicant respectfully submits that claim 82 is patentable. New claims 83-87 depend from claim 82. Accordingly, claims 83-87 are patentable because claims 83-87 depend from patentable claim 82.

New Claims 88-93

Claim 83 includes a local positioning receiver.

The Examiner stated, in conjunction with the Examiner's rejection of dependent claim 5, that:

"Sharma discusses ... [that] the active participants in the virtual reality game are defined by the frequency range of the radio

frequency protocol, such as the 1m to 10m range implemented by the Bluetooth protocol ... [which] anticipates that the mobile device ... is acting as a local position system receiver." (Office Action, page 5).

Sharma does not show or suggest a local positioning receiver. Sharma merely uses Bluetooth to communicate. Sharma's device does not even utilize this signal to determine a location - let alone provide a local positioning receiver. If a Sharma device does communicate via Bluetooth, a Sharma device still requires receipt of GPS coordinates to determine the location of that Sharma device.

In light of the foregoing, applicant respectfully submits that claim 8 is patentable. New claims 89-93 depend from claim 88. Accordingly, claims 89-93 are patentable because claims 77-81 depend from patentable claim 88.

New Claims 94-99

Claim 94 includes two locating devices that are utilized to determine a location for use in a video game.

None of the prior art, used either alone or in combination, utilize two locating devices to determine a location for use in a video game.

In light of the foregoing, applicant respectfully submits that claim 94 is patentable. New claims 95-99 depend from claim 94. Accordingly, claims 95-99 are patentable because claims 95-99 depend from patentable claim 94.

New Claims 100-115

Claim 100 includes a directional device.

The Examiner stated, in conjunction with the Examiner's rejection of claim 11, that Sharma includes:

"a motion sensor to implement physical movements of the virtual game ... [and] calculates displacement of virtual objects ... because displacement is defined by a vector, it specifies both distance and direction." (Office Action, page 6).

Sharma does not show a directional device in any way, shape, or form. Sharma's "motion sensor" reads the same regardless of the direction the Sharma device is pointing in. For example, if you point the Sharma device North and move the device North, the "motion sensor" will have the same reading as if you point the device South and move the device South. Sharma is silent on determining the direction of a device.

In light of the foregoing, applicant respectfully submits that claim 100 is patentable. New claims 101-115 depend from claim 100. Accordingly, claims 101-115 are patentable because claims 101-115 depend from patentable claim 100.

Conclusion

Applicant respectfully submits that this application, including the pending claims, is in condition for allowance. Reconsideration and prompt allowance of this application are respectfully requested.

The Director is hereby authorized to charge any fees required in conjunction with this filing, or credit any overpayment of the same, to Deposit Account No. 50-3855, Order No. JDM/005.

Respectfully Submitted,

/Jeffrey D. Mullen/

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Electronic Patent Application Fee Transmittal				
Application Number:		10932536		
Filing Date:		01-Sep-2004		
Title of Invention:		Systems and methods for location based games and employment of the same on location enabled devices		
First Named Inventor/Applicant Name:		Jeffrey D. Mullen		
Filer:		Jeffrey David Mullen		
Attorney Docket Number:		JDM/005		
Filed as Small Entity				
Utility Filing Fees				
Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Basic Filing:				
Pages:				
Claims:				
Claims in excess of 20	2202	95	25	2375
Independent claims in excess of 3	2201	5	100	500
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Extension-of-Time:				
Extension - 3 months with \$0 paid	2253	1	510	510
Miscellaneous:				
Total in USD (\$)				3385

Electronic Acknowledgement Receipt	
EFS ID:	1947316
Application Number:	10932536
International Application Number:	
Confirmation Number:	2766
Title of Invention:	Systems and methods for location based games and employment of the same on location enabled devices
First Named Inventor/Applicant Name:	Jeffrey D. Mullen
Customer Number:	32733
Filer:	Jeffrey David Mullen
Filer Authorized By:	
Attorney Docket Number:	JDM/005
Receipt Date:	06-JUL-2007
Filing Date:	01-SEP-2004
Time Stamp:	17:03:10
Application Type:	Utility

Payment information:

Submitted with Payment	yes
Payment was successfully received in RAM	\$3385
RAM confirmation Number	1403
Deposit Account	503855
The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows: Charge any Additional Fees required under 37 C.F.R. Section 1.16 and 1.17	

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)	Multi Part /.zip	Pages (if appl.)				
1		JDM-005-Reply.pdf	106021	yes	35				
	Multipart Description/PDF files in .zip description								
	Document Description		Start	End					
	Amendment - After Non-Final Rejection		1	1					
	Specification		2	4					
	Claims		5	24					
	Applicant Arguments/Remarks Made in an Amendment		25	35					
Warnings:									
Information:									
2	Fee Worksheet (PTO-06)	fee-info.pdf	8465	no	2				
Warnings:									
Information:									
Total Files Size (in bytes):			114486						
This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503. <u>New Applications Under 35 U.S.C. 111</u> If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application. <u>National Stage of an International Application under 35 U.S.C. 371</u> If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course. <u>New International Application Filed with the USPTO as a Receiving Office</u> If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.									

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PATENT APPLICATION FEE DETERMINATION RECORD					Application or Docket Number 70/932536	
Substitute for Form PTO-875						
APPLICATION AS FILED - PART I						
(Column 1)		(Column 2)		SMALL ENTITY		OR
OTHER THAN SMALL ENTITY						
FOR	NUMBER FILED	NUMBER EXTRA	RATE (\$)	FEE (\$)	RATE (\$)	FEE (\$)
BASIC FEE (37 CFR 1.16(a), (b), or (c))						
SEARCH FEE (37 CFR 1.16(k), (l), or (m))						
EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))						
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =		X	=	X	=
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =		X	=	X	=
APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).					
MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))						
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL		TOTAL	
APPLICATION AS AMENDED - PART II						
(Column 1)		(Column 2)		(Column 3)		
SMALL ENTITY		OR		OTHER THAN SMALL ENTITY		
RATE (\$)	ADDITIONAL FEE (\$)	RATE (\$)	ADDITIONAL FEE (\$)	RATE (\$)	ADDITIONAL FEE (\$)	
Total (37 CFR 1.16(i))	115	Minus	20	=	95	
Independent (37 CFR 1.16(h))	8	Minus	3	=	5	
Application Size Fee (37 CFR 1.16(s))						
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))						
TOTAL ADD'L FEE				TOTAL ADD'L FEE		
AMENDMENT/						
(Column 1)		(Column 2)		(Column 3)		
SMALL ENTITY		OR		OTHER THAN SMALL ENTITY		
RATE (\$)	ADDITIONAL FEE (\$)	RATE (\$)	ADDITIONAL FEE (\$)	RATE (\$)	ADDITIONAL FEE (\$)	
Total (37 CFR 1.16(i))		Minus		=		
Independent (37 CFR 1.16(h))		Minus		=		
Application Size Fee (37 CFR 1.16(s))						
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))						
TOTAL ADD'L FEE				TOTAL ADD'L FEE		

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.
 ** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".
 *** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".
 The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.

This collection of information is required by 37 CFR 1.16. The Information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/932,536	09/01/2004	Jeffrey D. Mullen	JDM/005	2766

32733 7590 01/31/2007
JEFFREY D. MULLEN
350 WEST 43RD ST., APT. 5H
NEW YORK, NY 10036

EXAMINER

BOND, CHRISTOPHER H

ART UNIT	PAPER NUMBER
----------	--------------

3709

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/31/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/932,536	MULLEN, JEFFREY D.	
	Examiner	Art Unit	
	Christopher H. Bond	3709	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on 01 September 2004.

2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) 1-18 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) 1-18 is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on 01 September 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)	4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) ☐ Notice of Informal Patent Application
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____	6) ☐ Other: _____

DETAILED ACTION

Specification

1. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Drawings

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: i.e. **165** referenced in [0061], **932** referenced in [0094], etc. do not appear in the drawings. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: i.e. **365** in Fig. 3, **865** in Fig. 8, **971,972,973**, and **944** in Fig. 9, etc., as these number appear in the drawings but not in the specification.. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. **Claims 1-3, 5, 10-12, 14-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Sharma, USPAT 6,287,200 (Sharma).**

6. As to claims 1 and 2, Sharma discloses (column 1, lines 5-16), "...a method and system for playing a virtual game with the participants, or players, of the game being located at random locations anywhere in the world. In particular, the present method and system utilize global positioning service (GPS) technology...to allow players located anywhere in the world to play the virtual game utilizing mobile devices..." Sharma further discloses (column 3, lines 9-12) that, "the mobile device will participate in the virtual game and displays the relative positions of all participating mobile devices...on the display screen of the mobile device..." It is understood that mobile device of Sharma's invention is equivalent to the applicant's location device, since it employs GPS to determine a player's location. Moreover, mobile device also implies that such a device would be wireless. Because the mobile device of Sharma's invention is wireless, capable of playing a game, displaying the game on a screen, and using GPS to calculate the player's position, it is inherent that the mobile device of Sharma's invention would contain a processor.

7. Accordingly, claims 1 and 2 are anticipated.

8. As to claims 3 and 5, Sharma discloses (column 2, lines 18-23), "In a first embodiment, the participants are able to play a virtual reality game utilizing a radio frequency protocol, including, but not limited to Bluetooth protocol. The active participants in the virtual reality game are defined by the frequency range of the radio frequency protocol, such as the 1m to 10m range implemented by the Bluetooth

protocol. Sharma further discloses (column 2, line 66-column 3, line 6) that, "...a virtual game implemented by a radio frequency requires that the respective mobile devices of all participants be within a common radio frequency protocol range...thus, only the users of such mobile device are able to participate in the virtual game." Because the range dictates the interaction between participants, it would imply that the playfield perimeter is limited in size. This also anticipates that the mobile devices (applicant's locating device) is acting as a local position system receiver, as the positioning function of the mobile device is limited by the radio frequency range among participants.

9. Accordingly, claims 3 and 5 are anticipated.

10. As to claims 10 and 14, Sharma discloses (column 4, lines 30-35) that, "Unlike the virtual game implemented utilizing the radio frequency protocol, the virtual game implemented utilizing the WAP allows any and all requested mobile devices that transmit their respective GPS coordinates and participation acknowledgement signals to the requesting mobile unit to participate in the virtual game." This anticipates that the mobile device would contain a transmitter, where the processor would determine a location and transmit location based on actual location and have that location appear in the virtual game. Sharma further discloses (column 4, lines 35-40) that, "...after the desiring users of the requested mobile devices transmit their respective GPS coordinates and participation acknowledgement signals to the requesting mobile unit, the requesting mobile unit transmits the GPS coordinates of all participating mobile devices to the remainder of the mobile devices." It is inherent that these mobile devices have a receiver for obtaining location information, and thus would anticipate the

applicant's limitation of having a receiver that receives location information, where the processor configures operation of the video game based on location information.

11. Accordingly, claims 10 and 14 are anticipated.

12. As to claims 11 and 12, Sharma discloses, (column 3, lines 25-58) that, "The virtual game itself is played among the users of participating mobile devices...Each of the mobile devices includes an application program to facilitate the game and a motion sensor to implement to physical movements of the virtual game...[the] motion sensor stored therein calculates the displacement of the virtual objects...The motion sensor...calculates...displacement...[and] [t]he displacement...is then displayed...on the mobile device." Because displacement is defined by a vector, it specifies both distance and direction.

13. Accordingly, claims 11 and 12 are anticipated.

14. As to claims 17, the method for controlling a character in a location-based video game based on determining a physical location, mapping the video game environment around the physical location, and placing the character in a game environment based on the physical location merely discloses the steps of the device used for location based games, and since each element must be implemented in order to make the device, the method would have been inherent in view of the device.

15. As to claim 18, the method for providing a multiplayer location-based video game based on obtaining different physical locations from different player devices and operating the video game based on multiplayer information merely discloses the steps of the device used for location based games, and since each element must be

implemented in order to make the device, the method would have been inherent in view of the device.

Claim Rejections - 35 USC § 103

16. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

17. Claims 4, 6-9, 13, 15, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma.

18. As to claim 4, Sharma discloses the claimed invention except for the limitation of a user-defined playfield perimeter. It would have been at least obvious to one of ordinary skill in the art at the time of the invention was made to modify Sharma invention with user-definable inputs since it is well known in the arts that an overwhelmingly large number of electronic games utilize user-definable inputs—i.e. field type, number of players, team, player type, characteristics, accessories, etc.

19. As to claims 6,7, and 15, Sharma discloses the claimed invention except for the limitation of the memory coupled to said processor. It would have been obvious to one of ordinary skill in the art at the time of the invention was made to include memory in the mobile device since it was known in the art that an overwhelmingly large number of electronic gaming systems contain memory devices for storing game related information.

20. Accordingly, claims 6,7, and 15 would have at least been obvious.

21. As to claim 13, while Sharma does not explicitly disclose that his invention has manual control for controlling non-located based aspects of the game, one of ordinary skill in the art would recognize that because Sharma's mobile device contains a motion sensor, it can be used to control play, even if the player remains static. This would have at least been obvious at the time the invention was made.

22. As to claims 8 and 9, while Sharma does not explicitly disclose location information saved on the memory consisting of a set of coordinates, it would have at least been obvious to one of ordinary skill in the art to include this, since Sharma's invention utilizes GPS technology. Moreover, Sharma mentions (column 3) that the motion sensor calculates displacement, which, by definition is a vector consisting of direction and distance, it would have been very obvious that the location information is comprised of a magnitude component and a directional component.

23. Accordingly, claims 8 and 9 would have at least been obvious.

24. As to claim 16, because Sharma defines his invention as a mobile device, one of ordinary skill in the art would recognize that wireless telephone is a subset of mobile devices, and this limitation would have at least been obvious.

Conclusion

25. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Tochner et al., US PUB 2002/0090985; Robarts et al., US PUB

Application/Control Number: 10/932,536
Art Unit: 3709

Page 9

2005/0009608; and Khosla, USPAT 6,080,063, as they all relate to virtual/simulated gaming using mobile devices.

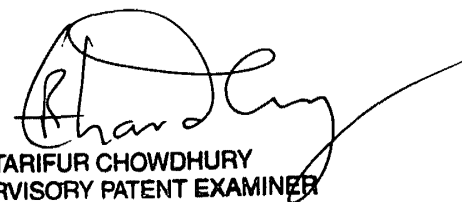
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher H. Bond whose telephone number is (571)-272-9760. The examiner can normally be reached on 8:30am - 5pm, M-Th.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tarifur Chowdhury can be reached on (571) 272-2287. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Christopher H Bond
Examiner
Art Unit 3709

CHB
CHB


TARIFUR CHOWDHURY
SUPERVISORY PATENT EXAMINER

Notice of References Cited	Application/Control No. 10/932,536	Applicant(s)/Patent Under Reexamination MULLEN, JEFFREY D.	
	Examiner Christopher H. Bond	Art Unit 3709	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A	US-6,287,200	09-2001	Sharma, Dipanshu	463/40
*	B	US-2002/0090985	07-2002	Tochner et al.	463/1
*	C	US-2005/0009608	01-2005	Robarts et al.	463/042
*	D	US-6,080,063	06-2000	Khosla, Vinod	463/42
	E	US-			
	F	US-			
	G	US-			
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

Index of Claims 	Application/Control No. 10932536	Applicant(s)/Patent Under Reexamination MULLEN, JEFFREY D.
	Examiner Bond, Christopher H	Art Unit 3709

✓	Rejected	-	Cancelled	N	Non-Elected	A	Appeal
=	Allowed	÷	Restricted	I	Interference	O	Objected

☐ Claims renumbered in the same order as presented by applicant
 ☐ CPA
 ☐ T.D.
 ☐ R.1.47

CLAIM		DATE									
Final	Original	01/25/2007									
	1	✓									
	2	✓									
	3	✓									
	4	✓									
	5	✓									
	6	✓									
	7	✓									
	8	✓									
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	15	✓									
	16	✓									
	17	✓									
	18	✓									



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Bib Data Sheet

CONFIRMATION NO. 2766

SERIAL NUMBER 10/932,536	FILING OR 371(c) DATE 09/01/2004 RULE	CLASS 463	GROUP ART UNIT 3709	ATTORNEY DOCKET NO. JDM/005	
APPLICANTS Jeffrey D. Mullen, Scarsdale, NY;					
** CONTINUING DATA ***** This appln claims benefit of 60/499,810 09/02/2003 <i>CB</i>					
** FOREIGN APPLICATIONS ***** <i>None, CB</i>					
IF REQUIRED, FOREIGN FILING LICENSE GRANTED.. SMALL ENTITY ** ** 10/28/2004					
Foreign Priority claimed ☐ yes ☒ no <i>CB</i> 35 USC 119 (a-d) conditions ☐ yes ☒ no <i>CB</i> met <i>Allowance</i> Verified and Acknowledged <i>Examiner's Signature</i> <i>Initials</i>		STATE OR COUNTRY NY	SHEETS DRAWING 14	TOTAL CLAIMS 18	INDEPENDENT CLAIMS 3
ADDRESS 32733					
TITLE Systems and methods for location based games and employment of the same on location enabled devices					
FILING FEE RECEIVED 385	FEES: Authority has been given in Paper No. _____ to charge/credit DEPOSIT ACCOUNT No. _____ for following:		☐ All Fees ☐ 1.16 Fees (Filing) ☐ 1.17 Fees (Processing Ext. of time) ☐ 1.18 Fees (Issue) ☐ Other _____ ☐ Credit		

<http://neo:8000/PrexServlet/PrexAction?serviceName=BibDataSheet&Action=display&br...> 1/23/2007

Search Notes 	Application/Control No. 10932536	Applicant(s)/Patent Under Reexamination MULLEN, JEFFREY D.
	Examiner Bond, Christopher H	Art Unit 3709

SEARCHED			
Class	Subclass	Date	Examiner
463	31	1/24/2007	CB
463	40	1/24/2007	CB
463	42	1/24/2007	CB

SEARCH NOTES		
Search Notes	Date	Examiner
EAST (see attached notes)	1/25/2007	CB
PALM inventor name search (see attached notes)	1/2/20073	CB

INTERFERENCE SEARCH			
Class	Subclass	Date	Examiner

EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S1	637	463/1.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2007/01/24 08:56
S2	452944	GPS or (Global adj Positioning adj System)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2007/01/24 08:56
S3	236433	(cellphone or (cell adj phone) or (cellular adj phone) or (cellular adj telephone) or (mobile adj phone))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2007/01/24 08:58
S4	9	S1 and S2 and S3	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2007/01/24 09:02
S5	948833	receiver	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2007/01/24 09:02
S6	14855	((location adj based) or (location-based))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2007/01/24 09:02
S7	388224	wireless	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2007/01/24 09:03
S8	14164	"463"\$.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2007/01/24 09:03

1/25/2007 5:52:16 PM

Page 1

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EAST Search History

S9	334485	(game or (game adj system))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2007/01/24 09:03
S10	20	S2 and S5 and S6 and S7 and S8 and S9	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2007/01/24 09:58
S11	247101	virtual	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2007/01/24 09:58
S12	10	S10 and S11	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2007/01/24 10:13
S13	4	((("6080063") or ("6287200"))).PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/01/24 16:10
S14	10	((("5913727") or ("5942969") or ("6183364") or ("4843568") or ("6142870"))).PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/01/24 16:25

Day : Tuesday
Date: 1/23/2007



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Time: 18:31:08

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Last Name = MULLEN

First Name = JEFFREY

Application#	Patent#	Status	Date Filed	Title	Inventor Name
10033709	6815682	150	12/28/2001	INFRARED SENSING OF CONCENTRATION OF METHANOL'S AQUEOUS SOLUTION	MULLEN, JEFFREY
09907411	Not Issued	161	07/17/2001	Methods of transforming plants and identifying parental origin of a chromosome in those plants	MULLEN, JEFFREY A.
60218895	Not Issued	159	07/18/2000	Methods of transforming plants and identifying parental origin of a chromosome in those plants	MULLEN, JEFFREY A.
60704004	Not Issued	159	07/29/2005	Drought tolerant plants and related constructs and methods	MULLEN, JEFFREY ALLEN
60704116	Not Issued	159	07/29/2005	Drought tolerant plants and related constructs and methods	MULLEN, JEFFREY ALLEN
11461761	Not Issued	30	08/01/2006	SYSTEMS AND METHODS FOR LOCATION BASED GAMES AND EMPLOYMENT OF THE SAME ON LOCATION ENABLED DEVICES	MULLEN, JEFFREY D
11461827	Not Issued	30	08/02/2006	SYSTEMS AND METHODS FOR LOCATION BASED GAMES AND EMPLOYMENT OF THE SAME ON LOCATION ENABLED DEVICES	MULLEN, JEFFREY D
11549720	Not Issued	19	01/01/0001	TALKING BOOK	MULLEN, JEFFREY D
11619573	Not Issued	19	01/01/0001	SEARCH ENGINE WITH FEATURES SUCH AS WEBSITE VIEWING WINDOWS	MULLEN, JEFFREY D
60796772	Not Issued	20	05/01/2006	Home and portable augmented reality and virtual reality video game consoles	MULLEN, JEFFREY D
10370169	Not	71	02/19/2003	TALKING BOOK EMPLOYING	MULLEN,

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	Issued			PHOTOELECTRONICS FOR AUTONOMOUS PAGE RECOGNITION	JEFFREY D.
<u>10400296</u>	Not Issued	71	03/25/2003	SYSTEMS AND METHODS FOR LOCATING CELLULAR PHONES AND SECURITY MEASURES FOR THE SAME	MULLEN, JEFFREY D.
<u>10453199</u>	<u>7095645</u>	150	06/02/2003	NANOELECTROMECHANICAL MEMORY CELLS AND DATA STORAGE DEVICES	MULLEN, JEFFREY D.
<u>10453783</u>	Not Issued	61	06/02/2003	Nanoelectromechanical transistors and switch systems	MULLEN, JEFFREY D.
<u>10618300</u>	Not Issued	61	07/11/2003	Greeting cards, postcards, gift bags, and the like employing a special effects container	MULLEN, JEFFREY D.
<u>10658628</u>	Not Issued	161	09/08/2003	Pendant with a retractable and custom-fit chain	MULLEN, JEFFREY D.
<u>10785289</u>	Not Issued	93	02/23/2004	MAXIMIZING POWER GENERATION IN AND DISTRIBUTING FORCE AMONGST PIEZOELECTRIC GENERATORS	MULLEN, JEFFREY D.
<u>10797801</u>	Not Issued	30	03/09/2004	Systems and methods for providing remote incoming call notification for cellular phones	MULLEN, JEFFREY D.
<u>10886648</u>	Not Issued	90	07/07/2004	NANOELECTROMECHANICAL TRANSISTORS AND SWITCH SYSTEMS	MULLEN, JEFFREY D.
<u>10888601</u>	Not Issued	30	07/08/2004	Systems and methods for providing information for collectibles	MULLEN, JEFFREY D.
<u>10932536</u>	Not Issued	30	09/01/2004	Systems and methods for location based games and employment of the same on location enabled devices	MULLEN, JEFFREY D.
<u>10978210</u>	Not Issued	41	10/28/2004	Sticker book with stickers employed on the book's cover	MULLEN, JEFFREY D.
<u>11101782</u>	Not Issued	41	04/07/2005	Advanced cooperative defensive military tactics, armor, and systems	MULLEN, JEFFREY D.
<u>11208943</u>	Not Issued	30	08/22/2005	Wireless devices with flexible monitors and keyboards	MULLEN, JEFFREY D.
<u>11214688</u>	Not Issued	25	08/29/2005	Books, posters, puzzles and the like having encapsulated collectibles	MULLEN, JEFFREY D.
<u>11281812</u>	Not Issued	25	11/16/2005	Location-based games and augmented reality systems	MULLEN, JEFFREY D.
<u>11331612</u>	Not Issued	20	01/13/2006	Bottles, cans, and other storage structures with secondary storage	MULLEN, JEFFREY D.

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				compartments such as cap containers	
<u>11387384</u>	Not Issued	41	03/22/2006	Systems and methods for locating cellular phones and security measures for the same	MULLEN, JEFFREY D.
<u>11431254</u>	Not Issued	30	05/09/2006	Dynamic credit card with magnetic stripe and embedded encoder and methods for using the same to provide a copy-proof credit card	MULLEN, JEFFREY D.
<u>11431864</u>	Not Issued	30	05/09/2006	Dynamic credit card with magnetic stripe and embedded encoder and methods for using the same to provide a copy-proof credit card	MULLEN, JEFFREY D.
<u>11438757</u>	Not Issued	41	05/22/2006	Nanoelectromechanical memory cells and data storage devices	MULLEN, JEFFREY D.
<u>11462201</u>	Not Issued	25	08/03/2006	SYSTEMS AND METHODS FOR LOCATING CELLULAR PHONES AND SECURITY MEASURES FOR THE SAME	MULLEN, JEFFREY D.
<u>11479309</u>	Not Issued	19	06/30/2006	Collectible holders	MULLEN, JEFFREY D.
<u>11479729</u>	Not Issued	19	06/30/2006	Collectible holders having radio frequency identification tags and systems and methods for using the same	MULLEN, JEFFREY D.
<u>11485161</u>	Not Issued	25	07/12/2006	Systems and methods for locating cellular phones and security measures for the same	MULLEN, JEFFREY D.
<u>11486756</u>	Not Issued	20	07/14/2006	Systems and methods for location based games and employment of the same on location enabled devices	MULLEN, JEFFREY D.
<u>60361849</u>	Not Issued	159	03/05/2002	Talking book employing photo-electronics for autonomous page recognition	MULLEN, JEFFREY D.
<u>60367967</u>	Not Issued	159	03/25/2002	Systems and methods for locating cellular phones	MULLEN, JEFFREY D.
<u>60397564</u>	Not Issued	159	07/19/2002	Snow globe greeting card	MULLEN, JEFFREY D.
<u>60449371</u>	Not Issued	159	02/21/2003	Maximizing power generation in and distributing force amongst piezoceramic layers	MULLEN, JEFFREY D.
<u>60455218</u>	Not Issued	159	03/14/2003	Systems and methods for providing remote incoming call notification for cellular phones	MULLEN, JEFFREY D.
<u>60485832</u>	Not Issued	159	07/08/2003	Systems and methods for providing coin information	MULLEN, JEFFREY D.

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60499810	Not Issued	159	09/02/2003	Systems and methods for location based games and employment of the same on location enabled devices	MULLEN, JEFFREY D.
60560435	Not Issued	159	04/07/2004	Advanced cooperative defensive military tactics, armor, and systems	MULLEN, JEFFREY D.
60589417	Not Issued	159	07/19/2004	Nanometer-scale electrostatic and electromagnetic motors and generators	MULLEN, JEFFREY D.
60605220	Not Issued	159	08/27/2004	Books, posters, and puzzles having encapsulated coins	MULLEN, JEFFREY D.
60628475	Not Issued	159	11/16/2004	Location-based games and augmented reality systems	MULLEN, JEFFREY D.
60643991	Not Issued	159	01/13/2005	Bottle cap with container	MULLEN, JEFFREY D.
60679498	Not Issued	159	05/09/2005	Dynamic credit card with magnetic stripe and embedded encoder and methods for using the same to provide a copy-proof card	MULLEN, JEFFREY D.
60696056	Not Issued	159	07/01/2005	Collectible holders	MULLEN, JEFFREY D.

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21861 U.S. PTO

For A Small Entity

Docket No. JDM/005

Applicant : Jeffrey D. Mullen

For : SYSTEMS AND METHODS FOR LOCATION BASED GAMES
AND EMPLOYMENT OF THE SAME ON LOCATION
ENABLED DEVICES

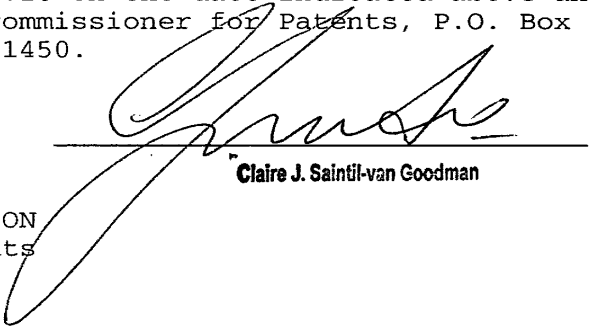
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Claire J. Saintil-van Goodman

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Also transmitted herewith are:

☒ Fourteen (14) sheets of:

☐ Formal drawings.

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☒ Informal drawings. Formal drawings will be filed during the pendency of this application.

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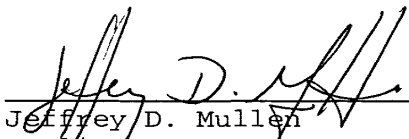
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SYSTEMS AND METHODS FOR LOCATION BASED GAMES AND
EMPLOYMENT OF THE SAME ON LOCATION ENABLED DEVICES

Cross-Reference to Related Application

5 **[0001]** This application claims the benefit of U.S.
Provisional Patent Application No. 60/499,810 filed on
September 2, 2003 which is hereby incorporated by
reference herein in its entirety.

10 **[0002]** This application claims the benefit of U.S.
Provisional Patent Application No. --/---,--- filed on
August, 20, 2004 titled "Wireless Devices With Flexible
Monitors and Keyboards" (Docket No. JDM/007) which is
hereby incorporated by reference herein in its
entirety.

Background of the Invention

15 **[0003]** This invention relates to video games and
video game systems.

20 **[0004]** Virtual reality games have been developed
where a user places a helmet on his/her head and is
immersed into an alternate reality via a display
located in the helmet. This user is then allowed to
move through an alternate reality by means of a
joystick. The user is displayed the alternate reality

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from a first person perspective. A user is limited in actual physical movement by means of a very small (e.g., 48 inches) enclosed virtual reality platform. Such traditional virtual reality systems are deficient because of the need for additional, unneeded manual actions to be made to move a joystick in order to move the user through the alternate reality. It is therefore desirable to provide a game system with improved user controls.

10 [0005] Traditional virtual reality systems are also unsafe because a user cannot visually see his/her physical environment. Guard rails are typically provided such that a user cannot stray from the virtual reality platform. Yet, a user may become distorted in the alternate reality and lose a sense of direction as to where such rails are located. Thus, a user may dangerously contact such guard rails or foreign objects introduced onto a virtual reality platform. It is therefore desirable to provide safer game systems.

20 [0006] Traditionally heavy computer hardware, multiple platforms, large interconnection wires, and numerous manual control devices are required to immerse more than one user in the same alternate reality. Such virtual reality systems typically cost in the tens of thousands, to hundreds of thousands, of dollars. It is therefore desirable provide an economical video game system with improved functionality. It is also desirable to provide software that can realize improved gaming systems in traditional devices such as wireless telephones.

30 [0007] Zingy.com offers wireless telephone ringers for sale and download. Zingy.com allows a user to enter in a wireless telephone number and a

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corresponding wireless telephone model a website. The user, however, must set up a user profile through a user identification process that includes sending a text message containing a confirmation code to the wireless telephone number. A user must enter in this confirmation code on the website to confirm that the user is in possession of the wireless telephone. Desired ringers must be paid for, and downloaded, one at a time. After a particular ringer has been purchased, that user is sent, via a text message, a Wireless Access Protocol (WAP) address. Such an address must be manually extracted from the text message, or entered directly into a browser, in order to be directed to the location of the desired ringer. The user's wireless telephone will then ask the user if the material is OK to download. Only one ringer may be downloaded to a wireless device at a time. It is therefore desirable to provide improved data interchange capabilities for a wireless device.

20 **[0008]** Sprint offers a VISION PCS service in which the internet location of a Global Content Descriptor file (.GCD file) must be sent, via text messaging, to a Sprint VISION PCS wireless telephone in order to download a file (e.g., a ringer) from a website (e.g., Zingy.com). This .GCD file contains a variety of data fields that tell the wireless telephone, the size of the file, the title of the file, the creator of the file, the file type, and file's internet storage location. Traditional wireless telephones contain programs that use the information of the .GCD file. For example, if the size of the file, as described by the .GCD file, is too large then the wireless telephone will prompt the user that the file is too large to

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download. Such systems are deficient because two files must be transferred in order to manually obtain a download of a single file. It is therefore desirable to provide a wireless telephone that does not need to download a .GCD file, or a similar file, in order to download content.

Summary of the Invention

[0009] The present invention provides an actual, reality-based video game in which a user's physical (actual) location on a playfield, reflects a virtual game character's virtual location in a video game environment. In this manner, an actual-reality (hereinafter "actuality") video game system may be provided. Generally, an actuality game is a location-based game where a user's location on a physical playfield corresponds to a video game character's location on a virtual video game playfield. Multiple types of other location-based games are also provided.

[0010] Multiple type of displays are provided that realize a variety of different types of location-based games. For example, a gaming system is provided in which a user's actual environment is completely visible to a user. In this manner, a game system that provides a visible physical playfield may be provided. A display (e.g., a monitor) may be provided to display the video game to a user. A location device may be included in the video game system such that the actual location of the video game system may be obtained and utilized, for example, to control the location of a virtual video game character on a virtual playfield. In this manner, the user is provided as choice whether

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or not to view either the physical playing field or the game system display while operating the game.

[0011] As per another example, a game system is provided with a transparent display such that virtual
5 indicial may be presented on portions of the display. Such virtual indicia may be configured to block, manipulate, or overlay a portion of a user's actual, physical environment. In this manner, a game system that provides a semi-visible physical playfield may be
10 provided. Such displays may be, for example, flexible, transparent, and head-mounted display. Alternatively, such virtual indicia may be displayed directly on the retina through the use of light emitting elements. One advantage of a semi-visible environment game system is
15 that the system allows a user to travel safely at fast speeds through a physical environment. The is because the user may be able to see all of, or part of, his/her physical environment.

[0012] In such a game system that provides a semi-
20 visible environment, a user may go to a soccer field, mount a semi-visible environment gaming system display over his/her field-of-view, download a "goalie" video game, and practice blocking penalty kicks that are shown through the display. Expanding this example, as
25 a virtual ball is virtually kicked on the head-set, the user may change locations to try and block the ball. In this manner, the gaming system may use the user's location to render the next frame of images display on the user's display. Thus, if a user moves one foot to
30 the left towards the ball, the video game system may render the ball to be one foot closer to the user in the next frame.

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[0013] Yet another game system is provided in which the video game display completely immerses a user into a virtual reality so that a user cannot see his/her physical environment. . In this manner, a game system
5 that provides a non-visible physical playfield may be provided. Location information may be utilized, for example, to determine a virtual character's location (e.g., a particular first-person perspective) in the virtual realm.

10 [0014] At any time during gameplay, a user's location may be used as a reference by the video game or another user's video game. For example, a child in his/her backyard in the U.S. may play a game of virtual PACMAN with his/her father that is located in a park in
15 Japan. At the beginning of such a multiplayer game, information about the starting location of each user may be utilized as a points of reference for the game. Accordingly, the game system may transmit the child's location with respect to the child's starting location
20 to his/her father's game system. The father's game system may then utilize this information to determine where the child would be if the two user's were playing on the same physical playfield. Accordingly, the father and child may play the same actuality game
25 together even though the father and the child are on opposite sides of the world.

[0015] A visor may be provided that includes a transparent display such that virtual objects can be overlaid/placed onto the user's actual, physical
30 environment. If the game is a reincarnation of the classic game of PACMAN, maze walls may be provided to a transparent display. Thus, a user may see the actual environment that the user is running through (e.g., the

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actual, physical playfield) and also see the maze walls that he/she has to follow (e.g., the virtual playfield).

[0016] Any device with a locating device and a
5 display may be programmed to be at least a visible environment game system. For example, a wireless telephone with a Global Positioning System (GPS) system may be utilized as a visible environment game system that plays, for example, actuality games. As
10 introduced above, one actuality game may be a reincarnation of the classic game of PACMAN. Such a game may include a multiplayer mode where multiple players may simultaneously play the game. Control of, for example, PACMAN may be provided by changing the
15 location of the wireless telephone. A different player could use a different game system (e.g., a different wireless telephone) to control a ghost in the same game. Such a different user may be located on a remote playfield (e.g., in a park in Japan). Thus, a user may
20 look down at a display screen, see his/her character, and run around his/her physical environment in order to similiary run his/her virtual character through a virtual maze. Communication devices may be included in such multiplayer game systems such that individual
25 gaming systems may communicate location information to each other or a remote storage device. Such a remote storage device (e.g., a remote database) may be periodically updated with each user's location information and periodically accessed by each user's
30 device to obtain, for example, the other user's location. Accordingly, the ability of a wireless telephone to transmit/receive data may be utilized to realize multiplayer actuality games or other location-

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based games. Alternatively, the devices may establish a direct communications link with each other.

[0017] Additional locating devices, or directional devices, may be placed on a user to obtain additional transparent controls (e.g., controls where a user does not have to perform an unnatural action). For example, a GPS device (or any type of locating device) may be placed on a user's hand. A hand-word locating device may be used to obtain the location of a user's hand in a three-dimensional field. Therefore, the height, latitude, and longitude of the user's hand may control the height and position of a virtual game character's hand (or other movement).

[0018] As per another example, a locating device may be provided on a head-mounted display that determines how the head-mounted display moves with respect to a reference point. In this manner, the video game may be provided with signals representative of the direction that the user's head is pointed towards. A directional electronic compass is also provided through the configuration of two location devices (e.g., two GPS devices). If, for example, one location device is placed in one location of a portable gaming system (e.g., the front of a visor) and a second location device placed in a second location of the portable gaming system (e.g., the back of a visor) then the direction the visor is pointing may be determined by determining the location of these two location devices.

[0019] Additional locating and/or directional devices may be provided on other actual objects (e.g., a sword, gun, baseball bat) such that the location of these objects may also be utilized to provide input to the location-based video game. For example, multiple

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locating devices may be provided in a baseball bat such that a user may play an actuality game of baseball.

[0020] Simplistic examples of a location-based game system are provided (e.g., a dedicated non-

5 communicating one-player game system). Such systems may be constructed and marketed for considerably less than conventional hardware (e.g., less than the cost of a wireless telephone).

[0021] Additional manual controls may be provided to
10 increase the functionality of a game system of the present invention. Such manual controls may be, for example, buttons and/or joysticks.

[0022] A data interchange may also be provided. Users may upload content from a wireless telephone and
15 allow different users (e.g., selected users) to download content to their different wireless devices (e.g., a wireless Personal Electronic Device).

Interactive games are provided to wireless telephones by, for example, including a database that can store a
20 player's progress in the game.

[0023] An automatic content update, or an automatic content download, may be provided to a wireless telephone user. Such an update may be the result of a paid subscription for such periodic updates. A
25 wireless telephone is provided that includes the ability to have non-service provider automatic updates without the consent of the wireless telephone's user every time data is downloaded. A wireless telephone is also provided that is operable to download a file
30 directly without a .GCD, or similar, file.

[0024] Conversion components are also provided that may provide a location-based game functionality to a non-located enabled device. For example, a peripheral

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with a game, a locating device, and a wireless transmitter/receiver, may be provided that may interface with a particular non-location enabled device. Such a peripheral may be operable to interface
5 with PCMCIA slots or USB ports. In this manner, a laptop user may purchase a conversion component so that the laptop is operable to play a particular location-based game or take on the attributed of a location-based gaming system.

10 **[0025]** A stationary game system is provided that interacts with an actual-location based video game system of the present invention. In this manner, a user of a stationary gaming system (e.g., a home Personal Computer) may play a game against the user of
15 an actuality gaming system. Using PACMAN as an example, the stationary user may control a ghost with a joystick while the location-based user controls PACMAN with his/her physical location on a physical playfield. A handicap may be given to the stationary user such
20 that the actual-location based user is provided with an advantage (e.g., the handicap's player may move slower).

Brief Description of the Drawings

25 **[0026]** The above and other features of the present invention, its nature and various advantages will be more apparent upon consideration of the following detailed description, taken in conjunction with the accompanying drawings, in which like reference
30 characters refer to like parts throughout, and in which:

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[0027] FIG. 1 is an illustration of one embodiment of a gaming system topology constructed in accordance with the principles of the present invention;

5 [0028] FIG. 2 is a flow chart for a variety of functionalities that may be included in a gaming system constructed in accordance with the principles of the present invention;

[0029] FIG. 3 is an illustration of a wireless telephone for use as a gaming system constructed in accordance with the principles of the present invention;

[0030] FIGS. 4-5 are illustrations of user interfaces, and accompanying functionality, constructed in accordance with principles of the present invention;

15 [0031] FIG. 6 is an illustration of one embodiment of a gaming system constructed in accordance with the principles of the present invention;

[0032] FIG. 7 is an illustration of one embodiment of a gaming system constructed in accordance with the principles of the present invention;

[0033] FIG. 8 is an illustration of a game system architecture constructed in accordance with the principles of the present invention;

25 [0034] FIG. 9 are illustrations of multiple game system configurations constructed in accordance with the principles of the present invention;

[0035] FIG. 10 is an illustration of a gaming system constructed in accordance with the principles of the present invention;

30 [0036] FIG. 11 are illustrations of gaming system peripherals constructed in accordance with the principles of the present invention;

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[0037] FIG. 12 is an illustration of a gaming system network constructed in accordance with the principles of the present invention;

[0038] FIG. 13 is an illustration of a gaming system constructed in accordance with the principles of the present invention; and

[0039] FIG. 14 is an illustration of a flow chart of a multiplayer game that shares location information constructed in accordance with the principles of the present invention.

Detailed Description of the Drawings

[0040] U.S. Patent Application No. 10/400,296 filed on March 25, 2003 titled "Systems and Methods for Locating Wireless Telephones and Security Measures for the Same" (Docket No. JDM/002) is hereby incorporated by reference herein in its entirety.

[0041] U.S. Patent Application No. 10/797,801 filed on March 9, 2004 titled "Systems and Methods for Providing Remote Incoming Call Notification for Wireless Telephones" (Docket No. JDM/004) is hereby incorporated by reference herein in its entirety.

[0042] FIG. 1 shows gaming system 100 in which locating device 131 receives location signals from satellites 111-113. Persons skilled in the art will appreciate that satellites 111-113 may be transmitters placed around a physical playfield (e.g., may be placed around/suspend above the perimeter of a physical playfield). Wireless telephone 130 may house locating device 131 and may provide a location-based game on display 140.

[0043] To initiate a location-based game, a user may be prompted to set an origin for the game through a

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Graphical User Interface (GUI). Alternatively, an origin may be set automatically. Furthermore, a GUI may be provided that prompts a user on how much free physical space is needed on all sides of the origin for
5 gameplay. Such a functionality may allow a user to locate a proper spot on an actual, physical playfield before gameplay begins or to allow a video game to establish a reference location. The dimensions of the physical playfield may be operable to be changed by a
10 user. For example, a user may be provided with a number of physical playfield dimensions to choose from as shown in GUI 411.

[0044] In multiplayer embodiments, for example, a user may determine playfield dimensions and an opponent
15 may be, for example, requested to confirm that user's selected dimensions (or display that user's selected dimensions). Alternatively, each user may select different dimensions for their local, physical playfield and control signals may be appropriately
20 scaled as will be discussed below. Default dimensions for the physical playfield may be utilized by a video game and displayed to a user. Such dimensions may be changed during operation of the video game (e.g., a game may be PAUSED, taken to a different physical,
25 playfield, and the physical playfield dimensions may be changed before the game is RESTARTED).

[0045] Persons skilled in the art will appreciate that location-based video games may be initially configured in a variety of ways by a user. For
30 example, a user may be provided with a GUI that includes a number of choices as to the shape of an physical playfield (e.g., a circle, square, or rectangle). As per another example, GUI 412 may be

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provided in which a user may go to a physical playfield boundary that the user desires and establish that location as a location boundary for a game. Dimensions information may be utilized by a video game system to
5 determine how to scale location-based inputs. For example, if a user is playing an actual game of PACMAN then a user movement in a 10 ft. x 10 ft. physical playfield may result in PACMAN moving faster than that same user movement in a 100 ft. x 100 ft.
10 foot physical playfield. Accordingly, a video game system may scale location inputs such that a person playing on a 10 ft. x 10 ft. playfield may play in the same virtual playfield (although multiple displays may display the virtual playfield) as a user playing on a
15 100 ft. x 100 ft. playfield. A program may scale user inputs based on, for example, the dimensions (e.g., size) of both user's playfield or scale to a user defined or default playfield. Control signals may be transmitted to other game systems such that scaling is
20 taken into account. For example, transmitted control signals may represent the direction and magnitude that a current player's location is away from that user's origin. Dimension information for a user's physical playfield may also be transmitted to other user's game
25 system. Using any one of a number of scaling methods, a user's movement North of his/her physical playfield origin by 10% may cause an opponent to view, on the opponent's display, movement of the user's video game character to a location 10% North of the opponent's
30 origin.

[0046] Persons skilled in the art will appreciate that a variety of locating devices may be utilized. For example, a Global Positioning System (GPS) may be

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utilized. Alternatively, a Local Positioning System (hereafter "LPS") may be utilized. Additionally, the difference in two locations provided by a locating device (e.g., the magnitude and direction of a location to an origin) may be utilized to move a character in a video game playfield (or provide other control signals to the video game system). Similarly, devices that measure movement (e.g., an accelerometer) may be utilized as a locating device. Accordingly, acceleration information may be translated into location information and this location information may be utilized as a control signal (e.g., for changing the location of a video game character).

[0047] Person skilled in the art will also appreciate that any type of device may be configured into a gaming system of the present invention. In addition to wireless telephones (e.g., cellular or PCS wireless telephones), laptops, Personal Digital Assistants (e.g., PDAs), Blackberries, Personal Electronic Device (PED), iPods, or any other portable electronic device may be utilized.

[0048] Multiple portable gaming systems may be operable to directly communicate with each other (e.g., Cellular, PCS, WiFi, radio, satellite, or infrared communications) in order to achieve a variety of functionality. For example, portable gaming systems may communicate location information directly with one another in order to increase the speed in transferring location information. Alternatively, one or more remote storage devices (e.g., a database or memory) may be provided that stores location information for one or more users. Portable gaming devices may routinely retrieve other user's location information from such a

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remote storage device. Portable gaming devices may also routinely write location information for a particular user to such a remote storage device either periodically, continually, or as soon as a new location
5 reading has been completed.

[0049] To decrease the weight of a portable gaming device, a base station (e.g., base station 170) may be provided that includes components that may otherwise be included in a portable gaming system. For example, a
10 satellite communications device may weigh more than a WiFi device. In this manner, a WiFi transmitter/receiver may be included in the portable gaming device to relay the portable devices location information to the base station. The base station may
15 then use, for example, the satellite communications transmitter/receiver to update location information on a remote storage device. Alternatively, the base station may include, for example, the remote storage device for one or more portable devices.

[0050] Base stations (e.g., base station 170) may also include a majority of the processing circuitry for a gaming system. For example, a portable gaming device
may be provided with a display, a locating device, and a transmitter/receiver. This portable gaming device
25 may periodically transmit location information to a base station. The base station may use this information as an input to a video game being played, render a new frame for the portable display, and forward this newly rendered frame (that takes into
30 account the impact of the new location-based control signal) to the portable gaming device. Multiple portable devices may utilize one base station. Similarly, one portable device may utilize multiple

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base stations. Base stations may also communicate information between each other.

[0051] FIG. 2 shows flow chart 200 that includes a variety of different functionalities that may be included in a location-based gaming system. Persons skilled in the art will appreciate that any number of steps may be added to, or removed from, flow chart 200. Generally, flow chart 200 may be utilized in a location-based game where the location of a user on a defined physical playfield, or that user's latitude/longitude information in the world, is utilized as a control signal to a location-based game. In one embodiment, such control signals may, for example, replace a traditional joystick such that a user's physical location is utilized as the main control device for a game (e.g., control a character's location in a video game's virtual playfield).

[0052] Step 201 occurs when a request for a location-based game is received. This may be simply a user turning ON a location-based gaming system (e.g., turning ON a dedicated PACMAN location-based system) or a user selecting a location-based game from a list of location-based games. If a list of games is provided such games may be stored locally (e.g., on the gaming system). Alternatively, the list may be stored remotely, or locally, and a selected game may be downloaded from a remote location (e.g., wirelessly from a remote database). A cost may be associated with such location-based games and a user may be required to agree to purchase the game or rent the game for a period of time. Such game downloads may be free of charge. A subscription (e.g., an yearly or monthly billed subscription) may be purchased by the user such

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that all location based games are free to download while the subscription lasts (e.g., has not expired). Alternatively, an amount of time for gameplay may be purchased (e.g., 10 hours).

- 5 **[0053]** Step 201 may alternatively commence when a user starts a game on a location-based gaming system. Step 201 may also commence when a user agrees to join a game (e.g., a different user requests that the user plays a multiplayer location-based game).
- 10 **[0054]** Step 203 determines if the game needs an origin setting. Persons skilled in the art will appreciate that many embodiments of a location-based gaming system may operate without the need to set an origin. For example, the longitude and latitude of the
- 15 location of a user in the world may be utilized as a control signal. For example, if the location-based game is a single-player game of PACMAN then the game may utilize multiple instances of the user's location to determine the change in location and translate this
- 20 change in location into a control signal to move PACMAN through a virtual video-game playfield such as a maze. As per another example, an origin-functionality may not be utilized, although it may be utilized in some
- 25 embodiments, in a location-based game where the actual location of a user in the world is a control signal. For example, one location based game may provide control signals depending upon the city that the user is located in (e.g., New York City may cause one
- 30 control signal to be provided while Washing D.C. may provide a different control signal to be provided). If a game does utilize an origin setting then, for example, step 217 may occur.

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[0055] As stated above the game may autonomously set an origin for the game. As such step 209 may be initiated from step 201. In this manner, step 203 may not be included in a gaming system. Generally, step
5 203 is included to emphasize the varieties of gaming systems that may be provided.

[0056] If a game, or gaming system, needs a manual origin setting then, for example, step 205 may occur. Step 205 may prompt a user to position the device at a
10 desired origin. Step 207 may then wait for a user to submit the origin (e.g., for a user to select a physical location as the start of a game). Persons skilled in the art will appreciate that even if an origin is not utilized by a video game, or video game
15 system, that a user may still be provided with a display screen that allows a user to find a clear area before gameplay. In this manner, a "when you find an open area, and are ready to begin gameplay, press OK" display screen may be provided for a game, or game
20 system, that does not utilize an origin as a reference location. Persons skilled in the art will also appreciate that in some embodiments, a user may select a perimeter by, for example, going to locations on the perimeters (e.g., the corners of a rectangle) and
25 recording these perimeter locations. The video game, or video game system may utilize such perimeter locations to derive an origin. An origin-based game may, or may not utilize, perimeter locations. Additionally, setting a perimeter may encompass a
30 variety of embodiments. For example, a location reading outside of a perimeter may still be utilized as a control signal (e.g., to deduct a particular number of points from a user's score). Alternatively, only

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location readings inside (and possibly even on) the perimeter may be utilized by a particular gaming system embodiment.

5 **[0057]** Step 207 may reiterated until a user selects
a location as the origin for gameplay. Once a user
selects a location for the origin of gameplay the
device may record (e.g., in local memory or in remote
memory such as a remote database) the location of the
10 selected origin (e.g., by obtaining the location from a
locating device) and use this location as a reference
location during gameplay. Multiple features may be
provided as the result of including, for example, one
or more reference/origin values. As shown above, one
such feature may be a multiplayer feature where the
15 players may be located on different physical
playfields.

[0058] Step 209 may be initiated, for example, after
an origin is selected in step 207 or autonomously after
step 203, or step 201, occurs. Step 209 may then take
20 a reading of one or more locations for a user's
locating device to determine a reference location
(e.g., an origin). Step 209 may obtain location
information for a period of time (e.g., 1 minute) and
average the location information together to obtain a
25 reference location. During this time a display screen
may be displayed to the user along the lines of "stay
perfectly still while we calibrate the game with your
current location." Persons skilled in the art will
appreciate that additional configuration steps may be
30 provided. For example, a user may be asked to take a
step forward and a step back, and shown the speed of
the movement of a video game character based on that
movement so the user may determine if the game-speed is

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acceptable (and if not, change the perimeter of the game or the scaling of user movement to character movement). In this manner, step 209 may also begin tracking the user's location continually, or
5 periodically.

[0059] At any time, a user may be prompted if a multiplayer game is desired. For example, a user may be prompted if a multiplayer game is desired in step 213. Step 211 may be included in flow chart 200 to
10 located nearby players that can play the game. For example, a communications device may send out a signal to determine if any other similar, or compatible, devices are on the physical playfield (or a surrounding area). Alternatively, a player exchange may be
15 provided in which the communications device sends a signal to the exchange noting that the user desires to play a particular game in a multiplayer mode. If another player desires to play the game on the exchange then, for example, the two player's gaming systems may
20 autonomously be configured with information about each others origin so that a multiple-player game may be initiated. Persons skilled in the art will appreciate that the origin of a users device does not need to be transmitted to the other users in a multiplayer game.
25 Instead, control signals may be translated into control signals that a different user's device may utilize. For example, instead of transmitting an origin, a device may transmit a signal that represents a particular distance and direction (e.g., 5 feet North
30 or 10% North of the physical playfield). Generally, such multiplayer control signals may assume that each user started at an origin and that each user's device recorded such an origin. As can be seen, multiple

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methods may be utilized to SYNC the location-aspect of multiple location-based gaming devices.

[0060] Various other multiplayer configurations may also be provided. For example, a user may enter in the
5 phone number of a wireless telephone and request if the user of that wireless telephone wants to play a multiplayer game wants to be played. Accordingly, the requested wireless telephone may be anywhere (e.g., halfway across the world) and still be requested to
10 commence play on the same virtual, video-game playfield (e.g., by uploading data to a remote server or communicating directly with the wireless telephone). Step 215 may be utilized to initialize any communications link needed between the gaming devices
15 (e.g., communications to a common remote memory device such as a database). Step 217 may be utilized to begin gameplay of a location-based video game.

[0061] FIG. 3 shows wireless telephone 300 constructed in accordance with the principles of the
20 present invention. Wireless telephone 300 preferably includes speaker 330, antenna 310, display screen 320, control keys 360, alpha-numeric keys 350, and microphone 340. Wireless telephone 300 also preferably may include, for example, a communications transmitter
25 (not shown), communications receiver (not shown), memory (not shown), positioning device such as a GPS or LPS (not shown), and a microprocessor (not shown). Control keys 360 may include any number of joystick, control buttons, or other user interfaces (e.g., speech
30 recognition controls). Such control keys 360 may be utilized to provide, for example, additional control signals to a location-based game or gaming system (e.g., a control may be utilized as a FIRE or ACTION

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button). Controls may also be included in wireless telephone 300 that are directed to location-based games and, in some instances, are used exclusively for location-based games. For example, ACTUALITY button 5 165 may be included on wireless telephone 300 that, when pressed, provides a location-based game, a list of location-based game, or a location-based game service. The use of ACTUALITY button 165 may alternatively, automatically log a user into a location-based game 10 network that may provide not only location based games but additional information such as, for example how many users are requesting opponents for a particular game.

[0062] Persons skilled in the art will appreciate 15 that a gaming device dedicated to a single game (e.g., FROGGER) may be easily incorporated into a device the size of, for example, a traditional Tamagochi device. Such dedicated devices may be sold relatively cheaply (e.g., \$40). A gaming device may also accept 20 cartridges of different games so as to reduce the need of purchasing a new location device with the purchase of a game. As discussed above, games can also be wirelessly downloaded to a portable gaming device or a traditional commercial device if that commercial device 25 includes, for example, a locating device.

[0063] FIG. 4 shows display screens 425, 450, and 475 that may be provided to a gaming device.

[0064] Display screen 425 displays a list of location-based games that a user can choose from. 30 Display screen 425 may display information other than just the title of each game. For example, display screen 425 may also display the dimensions of the physical playfield that is needed to play the game (or

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the preferred or default dimensions). Display screen 425 may also display information related to if a different user has requested an opponent to play the game (or the number of different user's waiting for an opponent). Any game list be scrollable, or partitioned into multiple display screens, such that a large number of games may be included on the list.

5 [0065] The games on such a list may be stored locally (e.g., in onboard memory) or remotely (e.g., on a remote database). Additional information that may be displayed on display screen 425 may include whether or not a user has purchased such a game, the amount of time left in a rental period for a game, the size of the game (e.g., 1MB), and information about the gaming device (e.g., 100 MBs of memory available). Any other type of information may be included on any display screen described herein.

10 [0066] Display screen 450 is one example of the information that may be presented when a location-based game is chosen. Display screen 450 may also contain a static (e.g., transparent) origin functionality such that when a user acknowledges reading the instructions, the system will autonomously record an origin location. As stated above, an origin does not have to be set for a location-based game to be played where movement on a physical playfield correlates to a video game character's movement on a virtual video game playfield.

25 [0067] Display screen 475 is one example of a multiplayer initialization screen and accompanying functionality. More particularly, display screen 475 may include additional information such as how to, for example, initiate a multiplayer game. In one multiplayer embodiment, the gaming device may generate

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a gaming code unique to that device. Such a code may, for example, include information about the location device and the game being requested. For example, ID#PAC52312, as illustrated, may include PAC to
5 correspond to a particular game (e.g., PACMAN) and 52312 to correspond to the ID of a particular device (e.g., a telephone number) or a particular user that is logged into a device (e.g., user 52312). As in another multiplayer embodiment, a gaming device may include a
10 communications receiver/transmitter to locate if one or more other devices are within range. Such a multiplayer signal may be signaled upon request of a particular multiplayer game. For example, display screen 465 may be initiated if "PACMAN (MULTIPLAYER)"
15 is chosen from a list of games.

[0068] FIG. 5 shows display screens 525, 550, and 575.

[0069] Display screen 525 is a screen that allows a user to chose from a variety of characters for
20 gameplay. In this manner, display screen 525 may be utilized in a multiplayer game such that each player may chose a different character or in a single player game. These characters may have different modes of operation (e.g., different goals, gaming constraints,
25 and characteristics). For example, in PACMAN the goal of PACMAN is to eat pellets and run away, at times, from four ghosts. The ghosts, however, have a goal of killing PACMAN. Each ghost may, however, have different speeds (e.g., different characteristics).
30 Player characteristics may include for example character speed, weapons, fighting styles, ability to do particular actions, or any other characteristic.

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[0070] Display screen 550 may provide the user with a rule-set for the player that is chosen from display screen 525. A location-based game where a user's actual physical location on a physical playfield
5 correlates to a video game character's location on a virtual video game playfield may require that the operational rules of current game be changed. Using PACMAN as an example, in the classic PACMAN, PACMAN is not operable to stray close to maze walls. In an
10 actuality PACMAN game, however, a player may stray close to maze walls and even come into contact with maze walls. Hitting a maze wall may be similar to a user contacting, or passing through, a perimeter of the video game playfield. In this manner, functionality is
15 provided for this scenario. For example, a user may be deducted a particular number of points if that user contacts a maze wall, a game's perimeter/boundary, or an object that a video game character cannot pass through and/or cannot use. For the purposes of this
20 application, such objects will be referred to as impenetrable objects. One alternative to reducing points is to stun the character for a period of time (e.g., not allowing the video game character to move for a period of time), reduce the number of lives of
25 that character (e.g., reduce the number of character lives left by 1), or end the game (e.g., display "GAME OVER" to the user).

[0071] As per another example, the gaming system may be configured to stop the movement of a video game
30 character when a user travels through the location on a physical playfield that correlates to an impenetrable object on a virtual playfield. Thus if a user travels to through a wall, PACMAN may be left behind on the

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side of the wall that the user penetrated. The game may be configured such that the user may regain control of the video game character by returning to, or near, the location where the video game character was left behind.

5 **[0072]** Display screen 575 includes one embodiment of a screen shot from a location-based game, particularly an actuality game PACMAN game. Virtual character 576 is first displayed to a user at the virtual character's origin. As a player moves around a physical playfield, the player's actual location may be translated into a virtual location for virtual character 576. As mentioned above, one of the many ways in determining virtual character movement may be by determining the difference and direction between the user's current location and his/her origin location. Such information may be stored, retrieved, and/or processed as a vector. Thus, as a user runs through a playground, character 26 may through the virtual environment of display screen 575. If vectors are used as control signals, these vectors may be communicated to other players such that a multiplayer game is realized. Such vector sharing may be desirable in order to keep the actual location of a user private from opponent users. A user may, however, give an opponent permission (e.g., access to) his/her location such that, for example, the opponent can travel to the same physical playfield as the user.

15 **[0073]** Character 577 may be a second character controlled either by a program or by a second player. Character 577 may have a different origin on display screen 575. In this manner, a user may be physically directed to an origin after the first player sets his/her origin so that they are both properly aligned

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on the physical playfield. At any time, a display screen, or a portion of a display screen, may include an outline of a playfield and the user's location on that playfield. If a player has to go to a particular area of the playfield (e.g., to a particular origin position such as area 580) then this display screen may aid a user in setting up a game. Once a player is on the origin, or in an origin area, then the player may be requested to begin gameplay or gameplay may autonomously begin.

[0074] Virtual interactive objects may be provided in an actuality, or location-based game. Such virtual interactive objects may be activated when, for example, a virtual character's location on a virtual playfield nears, contacts, and/or resides in the virtual location of the virtual interactive object on the virtual playfield. Activating an object may cause, for example, the rules of the game to change (e.g., PACMAN can eat a ghost) or the characteristics of a player to change (e.g., the player obtains a particular weapon) for a period of time or until the game, or game-level, ends. In some embodiments, virtual objects may be PICKED UP by a virtual game character (e.g., by a user physically pressing an ACTION button on a controller such as an instruction glove or control buttons on a gaming device). Accordingly, a virtual object may then be PUT DOWN by a virtual game character.

[0075] Alternatively, both user's can have any actual origin (this allows for gameplay between two remote users). As described above, multiple embodiments may be provided that configure each user's gaming system, or the control signals provided to each

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user's gaming system, such that two remote users may play on the same virtual playfield. When playing of the same virtual playfield, the information sent to a user's gaming device of an opponents location may be
5 utilized to generate a virtual character for that opponent on the user's gaming device. In this manner, a user may play an actuality game, or any location-based game, against his/her opponents.

[0076] FIG. 6. shows environment 600 that includes
10 gaming devices 620 and 630. Remote hardware 610 (e.g., a base station and/or remote processing circuitry) may also included to assist with single player or multiplayer gameplay.

[0077] Remote hardware 610 may be, for example, a
15 remote memory (e.g., a remote database) that wirelessly communicates with one, or both, of devices 620 and 630. Remote hardware 610 may be positioned around the playfield and, for example. emit a local location signal. Devices 620 and 630 may then determine a
20 location based on one or more signals from remote hardware 610. Additional remote hardware 610 may be utilized so that devices 620 and 630 can more accurately obtain their physical positions. For example, three instances of remote hardware 610 may be
25 provided around the playfield such that devices 620 and 630 and utilize the time it takes for these signals (e.g., the difference in time it took to transmit/receive each signal) to triangulate the location of devices 610 and/or 620.

30 **[0078]** Remote hardware 610 may include the functionality of a gaming base station such that the location of each of devices 620 and 630, or control signals indicative of the location of the devices on a

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playfield, is stored/retrieved by devices 620 and/or devices 630 on one or more instances of remote hardware 630. Persons skilled in the art will appreciate that remote hardware 610 is not necessary. Instead, devices 5 620 and 630 may communicate with each other and determine their relation to one another. This may be cost-efficient for simple multiplayer games such as, for example, the classic game of pong where the location devices represent paddles on the virtual video 10 game playfield. In this manner, a "perimeterless" game of pong may be played such that a user may move 1,000 feet to the left to block an incoming pong-ball from passing while, the whole time, the other user moves 1,000 feet to follow the opponent player. Such a 15 perimterless game, or any location-based game, may provide great a large amount of exercise to a user.

[0079] Device 620 may include one or more displays 621. Such displays may be, for example, visible or semi-visible environment displays such that a user can 20 see the environment around him/her. Images can then be selectively displayed on displays 621 and 622 such that a user can be displayed gaming indicia (e.g., virtual game characters, virtual interactive objects, and virtual impenetrable objects). Virtual game character 25 622 may be provided to device 620 to represent the character that the user of device 620 is controlling. In this manner, the location of a user on an physical playfield may not correlate exactly to the position of the virtual game character on the virtual game 30 playfield. Instead, a "lagging" perspective may be provide such that the character controlled by a user appears at a distance in front of the user (e.g., 5 feet). In this manner, a user may be able to gain

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additional information about the video game (e.g., if another virtual character is chasing him/her). A control may be provided to switch the perspectives of the video game. For example, a control button may be
5 provided to change such a "lagging" perspective to a first-person perspective.

[0080] Furthermore, because the location of device 630 is known, device 620 (or remote hardware 610) may provide an image of the virtual character of device as
10 virtual character 623. Accordingly, virtual character 623 may be generated at the position where device 630 is located on the virtual playfield to represent the user of device 630. In this manner, if the user of device 630 picked PACMAN than virtual character 621 may
15 be PACMAN. For displays that can provide images that completely block-out the environment in front of the user then he/she may not see the user of device 630 (if both users are playing on the same physical playfield) but the virtual character of the opponent. Generation
20 of a user's virtual character, at the virtual character's location on a virtual playfield, on another user's display allows, for example, two users to play the same game on remote physical playfields.

[0081] Any instance of display 621 may be non-
25 visible environment display such that a user is not able to see his/her world - only the virtual playfield. One benefit with a visible or a semi-visible environment device is that a user may move very quickly without the worry of tripping over the physical
30 playfield (e.g., tripping over a rock). As a result, a user may be operable to use a visible, or semi-visible, environment device in more areas (e.g., a rocky field)

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than a non-visible environment configuration that is limited to a smooth surface (e.g., a basketball court).

[0082] Display 631 of device 630 shows a visor-type embodiment that does not overlay virtual characters
5 over the positions of physical players on the same physical playfield. Display 631 of device 630 may display other virtual environment indicia 633 (e.g., interactive objects, impenetrable objects, and other virtual characters). Persons skilled in the art will
10 appreciate that virtual environment indicia 633 may include software-controlled gaming characters (e.g., video game characters with artificial intelligence).

[0083] Circuitry 624 and 632 may include, for example, communications devices, processing circuitry,
15 memory, speakers, additional locating devices, and locating receivers/transmitters. Additional locating data may be utilized. For example, the direction that a visor, or a gaming device with a game display, is pointing in may be determined by any number of location
20 devices. For example, four location devices may be provided to determine not only the direction that visor 632 is pointing but also the pitch at which visor 632 is pointed in. Such information may be utilized to determine the user's perspective of the physical
25 environment such that a corresponding perspective may be generated and subsequently displayed to the user. For example, four LPS devices may be provided. Two at the front of the visor at two different heights and two at the back of the visor at two different heights. If
30 a user points his/her head down then the two LPS devices on both sides may record a difference in location and such a difference may be translated into a the pitch of the helmet. The direction that the visor

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is pointing in may be determined by the position of, for example, the average location of the front LPS devices and the average location of the rear LPS devices. Any methods of determining the pitch and/or direction that a device is pointing in may be utilized.

5 **[0084]** Persons skilled in the art will appreciate that a base station may be provided that determines images to be displayed to a user and transmits these images to a user at a rate (e.g., 32 frames per second). As a result, the weight of visor 630 may be decreased.

10 **[0085]** Turning now to FIG. 7, a compact and inexpensive actuality gaming system is provided as gaming system 700. Gaming system 700 of FIG. 7 may include no physical input devices other than optional ON/OFF switch 710. Alternatively, however, any number of buttons 720 may be provided (e.g., one or more FIRE WEAPON or ACTION buttons). If not additional input controls are provided then, for example, the size of display screen 702 may be maximized. Gaming system 700 may include chain 704 and clip 703 and may be small enough to fit inside a user's pocket. A user may interacts with game character 725 through his/her physical location. This location may be determined by any number, or types, of locating devices 701 (e.g., a GPS receiver or an accelerometer). Such a system may set an origin reference autonomously when the game is turned ON or right before the game starts. For example, a game may display that the game will start in a period of time (e.g., 3 seconds). Right before the game starts, an origin position may be read from locating device 701 and stored in a portion of memory that corresponds to an origin). Accordingly, the game

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may call a particularly, pre-defined portion of memory anytime that the origin is needed for gameplay.

[0086] As illustrated, the game of FROGGER is provided on display 702. In such an example, a user
5 may turn ON his/her FROGGER Actuality game and the user's origin may be stored. For embodiments where the origin is stored, the user's location with respect to that position may, for example, be utilized to move FROGGER along a virtual playfield. For embodiments
10 where the origin is not stored, the user's movement may, for example, be utilized to move FROGGER (e.g., an accelerometer may be used. Alternatively, a user's change in location may be utilized. Therefore, if a user's location (e.g., GPS location) changes by five
15 feet than FROGGER's location change by 10 pixels.

[0087] Multiple types of impenetrable (or interactive) objects may be provided in a single game. For example, in FROGGER cars may be impenetrable objects that cause FROGGER to die (e.g., lose a life).
20 Alternatively, the perimeter of the playfield may be an invisible impenetrable object such that when a user leaves a portion of the actual playfield that corresponds to a location of the virtual playfield outside of the perimeter, FROGGER is left behind at the
25 perimeter. FROGGER can then be picked back up again by the user having his/her location correlate to FROGGER's location on the playfield. An additional icon may be provided when such a user goes out of bounds that shows the user where out of bounds the user is located. Such
30 an additional icon may be beneficial to allow a user to more easily find the left-behind game character's position.

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[0088] At the end of each level, for example, a new origin may be autonomously set, the user may be requested to return to the original origin (which may be shown on display 702 along with the user's current position), and/or the user may be prompted to select a new origin. In FROGGER, for example, the origin may be near the boundary of the virtual playfield. Accordingly, the user may be prompted to select a direction for gameplay. Such a direction may be determined by the device prompting the user to point the device in a particular direction (where the direction the device is pointed in may be displayed to the user) and recording this direction. The origin and/or the direction the user is pointing in may be utilized to calibrate system 700. Such directional information may also be utilized to calibrate an opponents gaming system, or signals sent to an opponents gaming system representative of a user's location on a virtual playfield.

[0089] Persons skilled in the art will appreciate that a gaming systems may take a long period of time (e.g., 30 seconds) to determine a user's location. This may be the result of, for example, a slow processor or a locating device that takes an amount of time to gather a location. A number of games may take advantage of this delay and to provide a unique actuality gaming experience. For example, suppose that a locating device takes 30 seconds to obtain location information. Display 702 may be a grid and a random box in the grid may highlight a particular period of time (e.g., 2 minutes). A count-down timer may be provided to display this, or a different period of time. For example, the count-down timer may display 2

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minutes (time period minus time to determine a location). During the 90 seconds that the timer counts down, the user may be required to run to the next highlighted box. At the end of 90 seconds the user may
5 be prompted to stop and take a 30 second break to catch his/her breath. During this time, a new location may be gathered and a new box on the grid highlighted. Such an example exhibits the functionality that even a simplistic device may provide. In this embodiment, an
10 exercise device may be provided that increases a user's stamina by requesting that the user provide short bursts of movement. The selection of the next grid to be highlighted may result from an algorithm implemented to maximize the amount of calories that a particular
15 user (e.g., a user having a particular weight) burns.

[0090] FIG. 8 shows a number of components that may be included into gaming system 800. Persons skilled in the art will appreciate that components of gaming system 800 may also be utilized in, for example, a
20 gaming base station. Gaming system 800 may include one or more power sources 820, output devices 825, memory devices 830, connection terminals 835, location devices 845, manual input controls 850, wireless transmitters/receivers 855, additional communication
25 transmitters/receivers 860, and additional components 840.

[0091] FIG. 9 shows a few of the many types of location-based gaming systems operable to be constructed in accordance with the principles of the
30 present invention. Particularly, FIG. 9 shows gaming systems 910, 930, and 960.

[0092] System 910 includes gaming system 911. Gaming system 911 may operate as follows. Step 921

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waits until the system is turned ON. When the system is turned ON, a location-based game is initiated (e.g., step 922). The game continues playing until the game is over (determined by step 923). After the game is over, the results (e.g., a score, "GAME OVER," or "GAME WON" may displayed) be displayed in step 924.

5 [0093] System 930 includes gaming system 931 that is operable to be separated into two game systems. When the two game systems are connected together, a single
10 game-system may be provided so that, for example, a larger display screen may be viewed by a user. When a two-player game is selected, the two gaming systems may be separated and information may be transmitted between the two gaming systems (e.g., location information or
15 other opponent control signals).

[0094] Persons skilled in the art will appreciate that game cartridges may be utilized so that a system is operable to play any number of games. System 932 may, for example, include a single cartridge port, but
20 may contain two separate memories (one for each of the two individual systems). Alternatively, the system may include one memory device in the system that does not include the game cartridge such that that system (or both systems) may have the entire game, or a portion of
25 the game, written to memory. In this manner, one cartridge may be utilized to supply a game to both systems. In one embodiment, one system may run the game off the cartridge while the other system may run the game off a stored copy of the game that was written
30 to memory on the other system before the two systems were separated. Each system may include, for example, their own power supplies and processors.

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[0095] System 931 may operate as follows. When the system is turned ON at step 941, step 942 may initiate to receive location information (and other additional information) from an opponent and transmit location
5 information (and other additional information) to an opponent. When the same location that is transmitted is received at step 943, step 944 may initiate and display the results of the game. Such a game may provide, for example, a global "tag your it" location-
10 based game. The precision of the location may be chosen to change the way such a game is played. For example, the location may represent an area code. Therefore a "tag" occurs only when both players are in the same area code. The less amount of time it takes
15 for a user to make a "tag" may associate to a higher score for that "tag."

[0096] System 960 includes two commercial devices 961 and 962 programmed to play a location-based game. System 960 may operate as follows. While a game is ON,
20 location information is periodically transmitted and received by commercial devices 961 and 962. The games on commercial devices 961 and 962 may then be updated according to the received information. Game, or level, results may be displayed in step 974. Identical
25 results, or customized results, may be displayed to both devices 961 or 962.

[0097] Persons skilled in the art will appreciate that received information is not limited to an opponents location information. For example, if an
30 opponent performs an action (e.g, shoots a gun) that action may be transmitted, in some for, to the user's device such that the display of the user's device shows that action being performed by the opponent. In such a

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manner, a user's device may manipulate gameplay depending on, for example, an opponent's location and an opponent's actions.

5 **[0098]** FIG. 10 shows one embodiment of location-based game 1000. Location based game 1000 may include housing 1001, display 1030, controls 1020 (e.g., a keyboard), and handles 1040.

10 **[0099]** A grid may be included, among other things, on display 1030 that is associated to different location areas that a user may travel in. Character 1091 may be included to represent the grid location on the virtual playfield that the user's actual location on a physical playfield corresponds too. One game functionality may hide unexplored areas of the grid
15 (e.g., grid area 1092). Once the virtual character reaches such a grid area, however, grid 1092 may be uncovered to show what the grid contains (if anything). Past "findings" may be displayed. For example, clue 1093 may be uncovered and permanently displayed (or
20 displayed until a game event occurs).

25 **[0100]** In one game embodiment, a user may have a fixed time to find a treasure on a playfield. Each block that the user uncovers (e.g., travels to), may require the user to win a mini-game. Such a mini-game
30 may include, for example, defeating an enemy. In such an embodiment controls 1020 may be utilized to fight the enemy and display screen 1030 may, for the duration of the fight, replace the grid, or a portion of the grid, with a display screen showing an up-close
perspective of the user's character and the enemy. The user may be given a time period to complete each mini-game. Other mini-games may be, for example, puzzles or other types of games. Such games may be location-based

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games in which movement of system 1000 moves the character in the mini-game. Some of the defeated enemies may not be removed from the game so that a return to the grid coordinate where the defeated enemy resides may result in a new fight with the enemy. Enemies (or other characters) may be inserted into grid coordinates at any time by the game and may move between such grid coordinates. In this manner, a location-based version of the classic game of Zelda maybe realized. Since such a game may be larger than an actual playfield (e.g., a soccer field), an origin may be manually reset at any time where the origin may be representative of a mid-game starting position. For example, if a user reaches the end of his/her physical playfield at the position of the grid that character 1091 resides then the user may reset that location to the origin, turn around, and set that direction and the reference direction. Before this occurred, if the user walked backward, that user may have moved into a grid position down-from the location of character 1091. Now, the user may walk in that same direction, but may move forward into the grid location above character 1091.

[0101] FIG. 11 shows system 1100 in which non-location based game enabled device 1110 is enable to play location-based games with any one of peripherals 1121, 1122, and 1123. Peripheral may include a location system (e.g., a GPS device) and a unique ID that may be utilized for multiplayer use. Alternatively, just a locating device (e.g., a GPS device or an accelerometer) may be provided on peripheral 1121 and software may be utilized in device 1110 to provide an ID for that device (if needed to

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play a particular multiplayer game). Alternatively, peripheral 1122 may be utilized. Peripheral 1122 may include a location system and one or more particular location based games. Alternatively still, peripheral 5 1123 may be provided and may include one or more locating systems, one or more particular location-based games (e.g., actuality games), and a ID (or an ID for each game). Persons skilled in the art will appreciate that like the peripherals of system 1100, a game 10 cartridge may also include a locating device (e.g., an accelerometer or GPS device) and/or an ID for multiplayer use.

[0102] FIG. 12 shows stationary device 1210 and network topology 1250. As mentioned above, stationary 15 devices may also be utilized to control a virtual game character in a location-based game (e.g., an actuality game). As in one PACMAN embodiment, a stationary personal computer may be utilized to play a ghost on a virtual playfield against a person whose physical 20 position on an physical playfield controls PACMAN on that same virtual playfield. The functionality that this, and other embodiments, of the present invention may provide may provide numerous benefits. For example, a father who is a soldier overseas fighting a 25 war may go to a computer and play with his child who is at home playing an actuality game in a school playground. Such a father could also put on, for example, a visor-enabled actuality system or hold a portable visible environment gaming system (e.g., 30 system 700 of FIG. 7) and go outside of a barracks and physically play a game with, and interact with, his child. As discussed above, such functionality may be obtained without sending a signal representative of

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either user's location (e.g., the distance and direction from a pre-defined origin may be transmitted, not the location itself).

5 **[0103]** Topology 1250 shows a gaming network. Such a gaming network may include any type of communications 1251 (e.g., wire-based or wireless communications). Any number of portable devices 1260 may be connected to the network. Portable devices 1260 may utilize the internet to provide information (e.g., portable devices 10 1260 may submit information through the internet or publish information to a webpage accessible by other components of topology 1250). Similarly, stationary devices 1270 may be included in and may transmit/receive information via the internet or other 15 methods (e.g., wireless through a wireless telephone). One or more remote facilities 1280, or third-party content providers, may be coupled to any component of network topology 1250. Such facilities, or third-party content providers, may, for example, store gameplay 20 information (e.g., a players location information or action information). Such facilities, or third-party content providers, may, for example, provide games for portable devices 1260 and stationary devices 1270 to download.

25 **[0104]** Turning now to FIG. 13, system 1300 is shown that includes user 1301 using gaming device 1360 and controller 1350. Gaming device 1360 and controller 1350 may communicate to each other, and other devices, either wirelessly or through a wire-based connection. 30 Controller 1351 and Gaming device 1390 may include any components included in, for example, system 800 of FIG. 8.

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[0105] For example, controller 1351 may include manual controls 1352 and anonymous controls 1353. Manual controls 1352 may take the form of manual buttons, such as a trigger. As such, controller 1351
5 may take the form of a gun. Autonomous controls 1353 may include a directional device that determines the direction that the gun is pointed in and/or the pitch that the gun is pointed in. Autonomous controls 1352 may also include any number of locating devices such
10 that the location of controller 1351 may be determined. Accordingly, the location of controller 1351 may be determined on a pre-defined, or user-defined, playfield or in the world. Controller 1351 may take any shape. For example, controller 1351 may take the shape of a
15 steering wheel, baseball bat, golf-club, sword, glove, or any other shape a user can interact with.

[0106] Physical interactive objects may also be included with any of the components of controller 1351 that multiple users may physically interact with. Such
20 physical interactive objects may include, for example, a soccer ball, baseball, football. A user's sword may also be an interactive object because an opponents sword may physically interact with that user's sword. Such interaction may provide additional controls
25 signals to a game. For example, the swords may have touch sensors to determine when they are in contact with one another (or if something is in contact with the sword).

[0107] Gaming device 1390 may include a display in
30 which, for example, the virtual playfield and virtual objects (e.g., virtual characters, impenetrable objects, and interactive objects) may be displayed. Gaming device 1390 may also include any number of

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location devices 1362. In this manner, a user may walk through a virtual playfield by using gaming device 1360 and interact with the environment using controller 1351. Accordingly, gaming device 1360 may be, for example, a visor-based device.

5 **[0108]** Persons skilled in the art will appreciate that manual buttons may be provided as manual controls on a gaming device or a controller. For example, a SPEED BOOST button may be provided that may propel a user a particular distance forward through a virtual playfield. Alternatively, such a SPEED BOOST button may change the scaling of the player's physical movement to the virtual character's movement such that the speed of the virtual character is increased. Such a SPEED BOOST may last for a period of time or as long as the SPEED BOOST button is pressed. If the SPEED BOOST is used to display a user's location then a new origin may, for example, be determined such that a user's movement on the physical playfield does not cause the virtual character to return to the location on the virtual playfield that virtual character was before the SPEED BOOST was initiated. In this manner, an origin may periodically, or manually, be updated. Generally, an origin is a location reference that the gaming system utilizes to map a virtual playfield to a physical playfield.

20 **[0109]** Generally, a game is goal-oriented in nature. The goal may be, for example, to kill a particular character, solve a puzzle, reach a particular destination, or perform a particular action. Generally, such goals are not able to be obtained on a particular physical playfield, but, for example, with

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video game control signals provided by a user's interaction with that physical playfield.

[0110] Looking at FIG. 14, flow chart 1400 is provided that illustrates one embodiment of a multiplayer game where location information may be scaled and shared to multiple users. Flow chart 1440 may start at step 1401 and continue to step 1405 where a first location (e.g., an origin location) is determined.

10 [0111] Such a location may be determined by retrieving a location reading from a location device or accessing a portion of memory dedicated to storing the most recently determined location by a location device. In this manner a location device may be provided that
15 writes to this dedicated portion of memory every time a new location is determined. Such a dedicated memory may include space to store more than just one location (or information representative of one location). For example, a dedicated memory may store any number of
20 locations (e.g., the last 100 locations). When writing a new location to memory, that location information may overwrite the oldest location stored in such memory. Alternatively, an different user's origin may be obtained in step 1405 by receiving location information
25 from a different user.

[0112] After step 1405 occurs, step 1410 may occur. In step 1410 the next, or a current, location may be utilized (e.g., by a processor). Alternatively, this origin location (and/or information about a user's
30 playfield perimeter) may be transmitted to a different user after step 1405 occurs. Persons skilled in the art will appreciate that numerous steps may be included at any portion of flow chart 1400. For example, once

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an original location is obtained, a virtual game character may be displayed on a virtual playfield at the origin of that virtual playfield (e.g., PACMAN or FROGGER's origin position).

5 **[0113]** Step 1420 may occur after step 1410. As shown above in multiple embodiments multiple ways of scaling a location control input may be utilized. Scaling a location control input may similarly be utilized in many ways. For example, scaling an input
10 may cause a virtual game character to move at a different speed while a particular scaling is being used. Alternatively, multiple devices may have control information that is scaled so that each user may play the same game from remote locations (e.g., "location-
15 synching" two devices) yet even location synching here is optional. For example, no "location-synching" may be included in a game system where no origin is needed at the start of the game, a playfield does not have a perimeter, and only the distance/magnitude moved
20 between two locations is used as a control signal).

[0114] As shown, step 1420 may determine the magnitude between the origin location and the current location in step 1421. Additionally, step 1420 may determine the direction, or angle, between the origin
25 location and the current location in step 1422. Such angle and magnitude information may be stored, for example, as a vector. To determine the angle of the new location, for example, an angle reference vector may be generated based on the origin location and
30 utilized to determine angle offset of new locations based on this angle reference vector. Persons skilled in the art will appreciate that a location reading may take many forms. In some embodiments, a location

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reading may be a latitude and longitude (either on the world or on a local playfield). In other embodiments, a location reading may be a a direction and/or magnitude change or a movement vector. In even other
5 embodiments, a location reading may be a rate of acceleration.

[0115] To illustrate yet another scaling embodiment, suppose step 1420 determines a direction and magnitude change. If in a multiplayer mode (e.g., step 1430)
10 then this information may be transmitted to an opponents gaming system in step 1435. The opponent's gaming system may have past transmitted location information and may utilize the current transmitted information to determine where the user's virtual
15 character has moved to on the virtual playfield. If the user and the opponent are on physical playfields of different sizes, then the control information may have to be scaled. Such scaling may occur before the information is transmitted such that the opponents
20 system may not have to have knowledge of the user's physical playfield. The transmitted information may be scaled (e.g., in step 1422) to a default playfield size (e.g., the system scales to a 100 ft x 100 ft default playfield size). Similarly, the opponents device may
25 scale its own location information to this third, default playfield size (e.g., the system scales to a 100 ft x 100 ft default playfield size). Suppose the user of process 1400 is on a 10 ft. x 10 ft. defined physical playfield. Step 1400 may, for example,
30 multiple each magnitude by 10 such that a location that is on the 10 ft. physical perimeter is associated to the default 100 ft. perimeter. Such 100 ft. information may then be transmitted to an opponent and

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used directly by that opponents system without the need to scale. Suppose the opponent's physical playfield is 200 ft. x 200 ft. Then the opponent's location data may be scaled, for example, by 0.5 and transmitted to
5 the user of process 1400 such that process 1400 does not have to scale incoming data (instead process 1400 may assume data is already scaled). Alternatively, process 1400 may scale incoming data (and may be provided information as to how the incoming data should
10 be scaled). Alternatively, location information may be transmitted and utilized as a percentage to the perimeter and the angle from the origin (such that the perimeter information may not be transmitted). Alternatively, location information may be scaled to,
15 for example, a particular user's playfield (and such information may be shared by the devices). In this manner, two physical playfields may be normalized onto one virtual playfield (even though each system may technically have its own generated virtual playfield).
20 **[0116]** Step 1400 may process the impact of location information on the video game. Particularly, one or more locations may be translated into control signals to the video game and the outcome of such control signals may be determined and utilized to display an
25 updated game to a user. Step 1445 may display a new frame or a sequence of frames to a display to update a game. For example, if an opponent's game system takes an amount of time for location information to be obtained (e.g., 5 seconds), step 1445 may display a
30 sequence of frames, over a period of time, such that the opponent's virtual character's location does not appear to dramatically skip between locations. As per another example, if a particular user performs a

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particular action, a pre-stored animation may play. Such an animation may be displayed as a sequence of frames in step 1445.

[0117] Step 1450 may determine if the games over.

5 In this manner, step 1450 may occur after step 1440. If the game is not over, step 1410 may be repeated. Else, step 1455 may be initiated such that a game ending program is executed (e.g., the game is restarted) or a GAME OVER screen is displayed. After
10 step 1445, the process may end at step 1499.

[0118] Systems and methods for delivering content to a wireless telephone are also provided. For example, data interchange between wireless telephones and the internet, or an intranet, using a minimal number of
15 steps for at least first time users is provided.

[0119] Confirmation that a user is in possession of a wireless telephone may be provided, for example, by having the user respond to a text message from the wireless telephone. Multiple types of content may be
20 downloaded to a user either by themselves or in groups with a single download or email. Multiple links may be included, for example, in a text message to a wireless telephone such that multiple types of content may be downloaded with a single message.

25 **[0120]** If the content (e.g., the location-based game) is free-of-charge then a payment confirmation step may be removed from a download process. Types of content may include, for example, phone numbers, applications, location-based games, ringers, and
30 pictures.

[0121] A data interchange is provided. Users may upload content from a wireless telephone and allow different people, or a select set of people (e.g.,

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people that the user has given permission to), to download content to the downloading user's wireless devices (e.g., a wireless Personal Electronic Device). For example, phone numbers may be uploaded and stored on a webpage for a particular user. Thus, a user has a backup of his or her wireless telephone numbers that can then be downloaded to a different wireless telephone. As per another example, the location of a user may be uploaded to a remote server and accessed by people that the user has given permission to.

[0122] Interactive games are provided to wireless telephones by, for example, including a database that can store the game's progress. As in one embodiment, to provide a simple wireless chess game, a user may upload his "next" move onto a remote database. In this manner, a second user may then download this "next" move from the remote database either himself, automatically, or the user may be prompted to do so. In this manner, a user's location may be uploaded to a user database and downloaded to a subsequent user database.

[0123] An automatic update may be provided to a wireless telephone user. In this manner, a user may sign up for a particular service (e.g., daily wallpaper) and, every morning, that user may be provided a different background (e.g., a January 15th Calendar page exhibiting a comic personality) every day or period of time. This feature may be extended to games such that, every morning, a new game level, or a new game, is sent to a user.

[0124] A wireless telephone is provided that is operable to have non-service provider automatic updates without the consent of the wireless telephones user

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every time data is downloaded. For example, a program may be provided to the wireless telephone that allows a user to accept and begin downloading any type of content from a particular entity. This program
5 utilizes the "content provider" descriptor to determine if the content is allowable for download. Thus, a user only has to approve content from the "content provider" once and then all subsequent downloads from that content provider are automatically approved by the
10 program. In order to protect from people falsifying the "content provider field," a wireless telephone may be configured to send a "file receipt message" to a source location (e.g., a wireless telephone may be configured to receive a "source location" description
15 field). If the acknowledgement does not match a shipment by the source location then the wireless telephone may be notified of a falsified transmission and the downloaded material deleted. A service provider (e.g., Sprint PCS) may keep a list of all
20 content origins and may serve as an intermediary to confirm that the file was sent by the third-party content provider acknowledged in the "source location" field.

[0125] A wireless telephone is also provided that is
25 operable to download a file directly without a .GCD, or similar, file. This wireless telephone preferably contains a large amount of memory (e.g., 128MB or 1GB) such that the download of a file of an unrecognizable file type does not result in a user having to delete
30 already downloaded content in order to make room for the new file. The wireless telephone can be configured to provide a message to a user if the downloaded file is of an unrecognizable type. The wireless telephone

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can also connect to a remote database to obtain a list of file types and associated programs and, if a program is associated to a file type, automatically download the program to run the previously unrecognized file type.

5 [0126] Person skilled in the art will appreciate that when playing in a multiplayer mode, or playing a location-based game, other functions of a device may be utilized. For example, a user may be provided the
10 ability to talk to an opponent through that user's gaming system while that user is playing a multiplayer actuality game against the opponent. Such a capability may be provided, for example, by forming a wireless communications message by interspersing frames of data
15 with frames of audio.

[0127] From the foregoing description, persons skilled in the art will recognize that this invention generally relates to providing a control signal to a game that is representative of the physical location of
20 a person in an actual environment and for improving data sharing and exchange in wireless devices such as wireless telephones. Persons skilled in the art will appreciate that the various configurations described herein may be combined without departing from the
25 present invention. It will also be recognized that the invention may take many forms other than those disclosed in this specification. Accordingly, it is emphasized that the invention is not limited to the disclosed assemblies and methods, but is intended to
30 include variations to and modifications therefrom which are within the spirit of the following claims.

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What is Claimed is:

1. A system comprising:
 - a display;
 - a locating device operable to determine the physical location of said locating device on a physical playfield; and
 - a processor coupled to said display and said locating device, wherein said processor is operable to provide a video game comprising a virtual character with a virtual location on a virtual playfield, wherein said virtual location on said virtual playfield corresponds to said physical location on said physical playfield.
2. The system of claim 1, wherein said locating device is a global positioning system receiver.
3. The system of claim 1, wherein said physical playfield comprises a default perimeter.
4. The system of claim 1, wherein said physical playfield comprises a perimeter selected by user-inputs.
5. The system of claim 1, wherein said locating device is a local positioning system receiver.
6. The system of claim 1, further comprising:
 - a memory coupled to said processor, wherein said video game is stored in said memory.
7. The system of claim 6, wherein location information based on said physical location, and

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obtained from said locating device, is stored in said memory.

8. The system of claim 7, wherein said location information comprises a set of coordinates.

9. The system of claim 7, wherein said location information comprises a vector having a magnitude component and a directional component.

10. The system of claim 1, further comprising:

a transmitter, wherein said processor determines an origin location at a point in time in
5 said video game and transmits origin information based on said origin location.

11. The system of claim 1, further comprising:

a directional device, wherein said directional device is operable to determine the
5 physical direction of said directional device on said physical playfield.

12. The system of claim 11, wherein said virtual character is operable to point in a virtual direction on said virtual playfield and said virtual direction on said virtual playfield corresponds to said
5 physical direction on said physical playfield.

13. The system of claim 1, further comprising:

manual controls for controlling non-located based aspects of said virtual character.

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14. The system of claim 1, further comprising:

a receiver for obtaining remote origin information based on a remote origin location, wherein
5 said processor configures the operation of said video game based on said remote origin information.

15. The system of claim 1, further comprising:

a remote memory, wherein physical location information is operable to be stored in said
5 remote memory when said physical location is determined and said physical location information is based on said determined physical location.

16. The system of claim 1, wherein said locating device is housed in a wireless telephone.

17. A method for controlling a character in a location-based video game comprising:

determining a first physical location of a locating device on a physical playfield;

5 mapping a video game environment around said first physical location; and

placing said character in said video game environment based on said first physical location.

18. A method for providing a remote multiplayer location-based video game:

obtaining a first physical location of a first locating device on a first physical playfield;

5 obtaining a second physical location of a second locating device on a second physical

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playfield, wherein said first physical playfield is
remote from said second physical playfield; and

operating a video game such that first
10 locating information from said first locating device
represents a first virtual character on a virtual
playfield and second locating information from said
second locating device represents a second virtual
character on said virtual playfield.

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SYSTEMS AND METHODS FOR LOCATION BASED GAMES AND
EMPLOYMENT OF THE SAME ON LOCATION ENABLED DEVICES

Abstract of the Disclosure

A location-based game system is provided.
5 Such a system may take the form of any device (e.g., a
wireless telephone) that includes a locating device
(e.g., a GPS system).

One such location-based game may operate such
that the actual, physical location of a user on a
10 physical playfield corresponds to the location of a
virtual character on a virtual playfield. Such
location based games are referred to herein as
actuality games.

In one multiplayer actuality embodiment, two
15 game devices may communicate location, and other,
information to a remote database such that the two
user's may interact on different physical playfields,
but play on the same virtual playfield.

A number of wireless communications
20 protocols, self-configuration, and auto-download
software applications are also provided to optimize
integration with, for example, a wireless telephone.

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DECLARATION

I, Jeffrey D. Mullen, declare that I am a citizen of the United States of America, respectively residing at and having post office addresses at 1 Mercer Court, Scarsdale, New York 10583; and

that I verily believe myself to be the original and first inventor of the invention or discovery in:

SYSTEMS AND METHODS FOR LOCATION BASED GAMES AND
EMPLOYMENT OF THE SAME ON LOCATION ENABLED DEVICES

which is described and claimed in the attached specification, and for which a patent is sought;

that I have reviewed and do understand the content of said specification, including the claims, and acknowledge my duty to disclose to the United States Patent and Trademark Office information known by myself to be material to patentability as defined in Title 37, Code of Federal Regulations, § 1.56;

that I do not know and do not believe that this invention or discovery was ever known or used in the United States of America before my invention or discovery thereof, or patented or described in any printed publication in any country before my invention or discovery thereof, or more than one year prior to this application; or in public use or on sale in the United States of America more than one year prior to this application; that this invention or discovery has not been patented or made the subject of an inventor's certificate issued before the date of this application in

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any country foreign to the United States of America on an application filed by myself or my legal representatives or assigns more than twelve months prior to this application; and that no application for patent or inventor's certificate on this invention or discovery has been filed in any country foreign to the United States of America by myself or my legal representatives or assigns;

I hereby claim the benefit under Title 35, United States Code § 119(e) to the United States provisional applications listed below.

60/499,810
(Application Serial No.)

September 2, 2003
(Filing Date)

60/---,----
(Application Serial No.)

August 20, 2004
(Filing Date)

(Docket No. JDM/007 titled "Wireless Devices With Flexible Monitors and Keyboards")

and I request that communications be sent to:

Jeffrey D. Mullen
1 Mercer Court
Scarsdale, New York 10583

and that telephone calls be directed to:

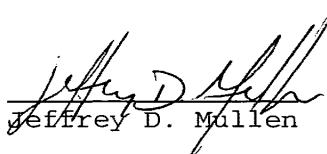
Jeffrey D. Mullen
(914) 837-7741

Wherefore, I pray that Letters Patent be granted to myself for the invention or discovery described and claimed in the attached specification and claims, and I hereby subscribe my name to the foregoing specification, claims, and declaration.

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I declare, further, that I understand the English language and that all statements made herein of my own knowledge are true, and that all statements made on information and belief are believed to be true; and, further, that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

09/01/2004
Date


Jeffrey D. Mullen

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EARTH



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200

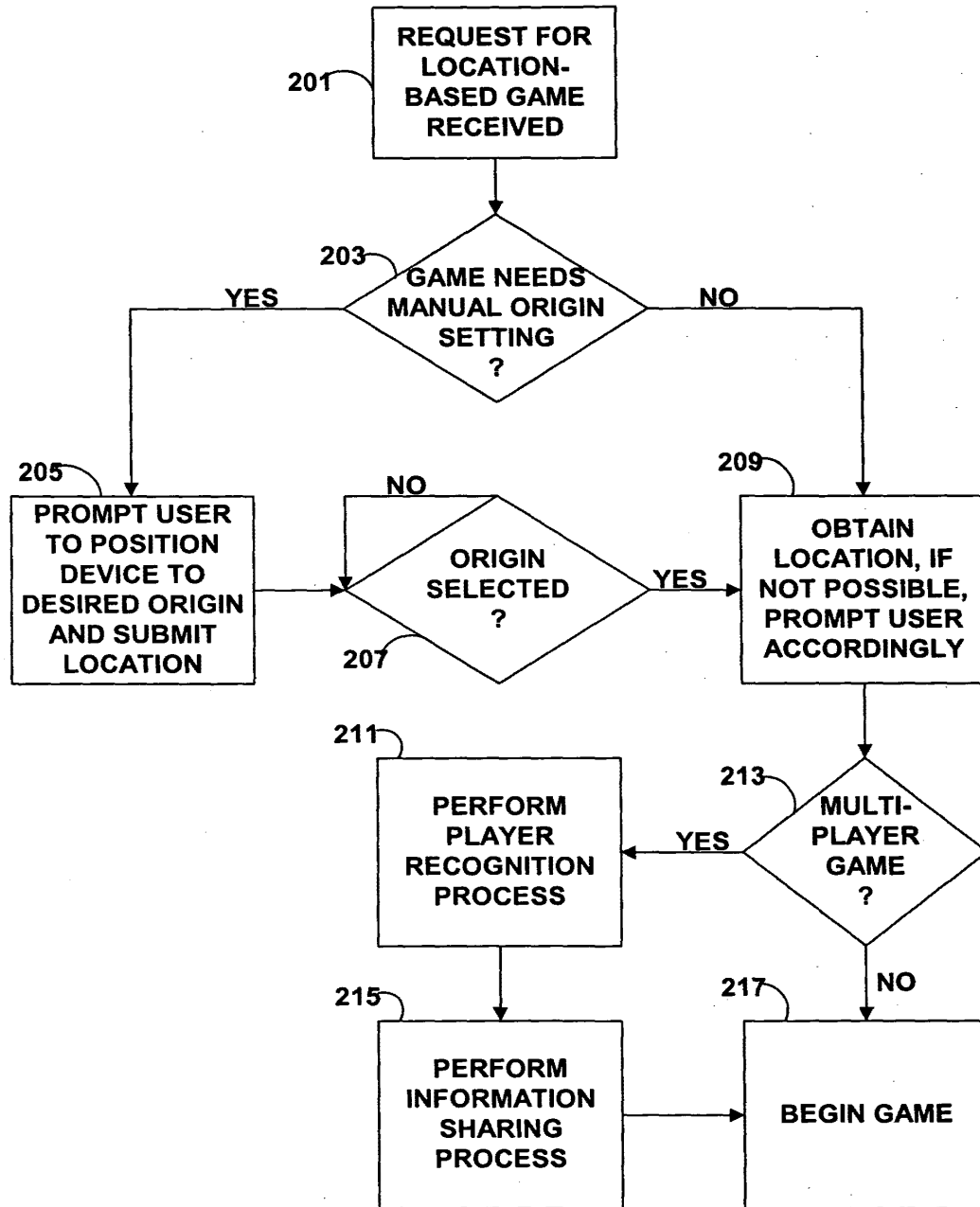


FIG. 2

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300

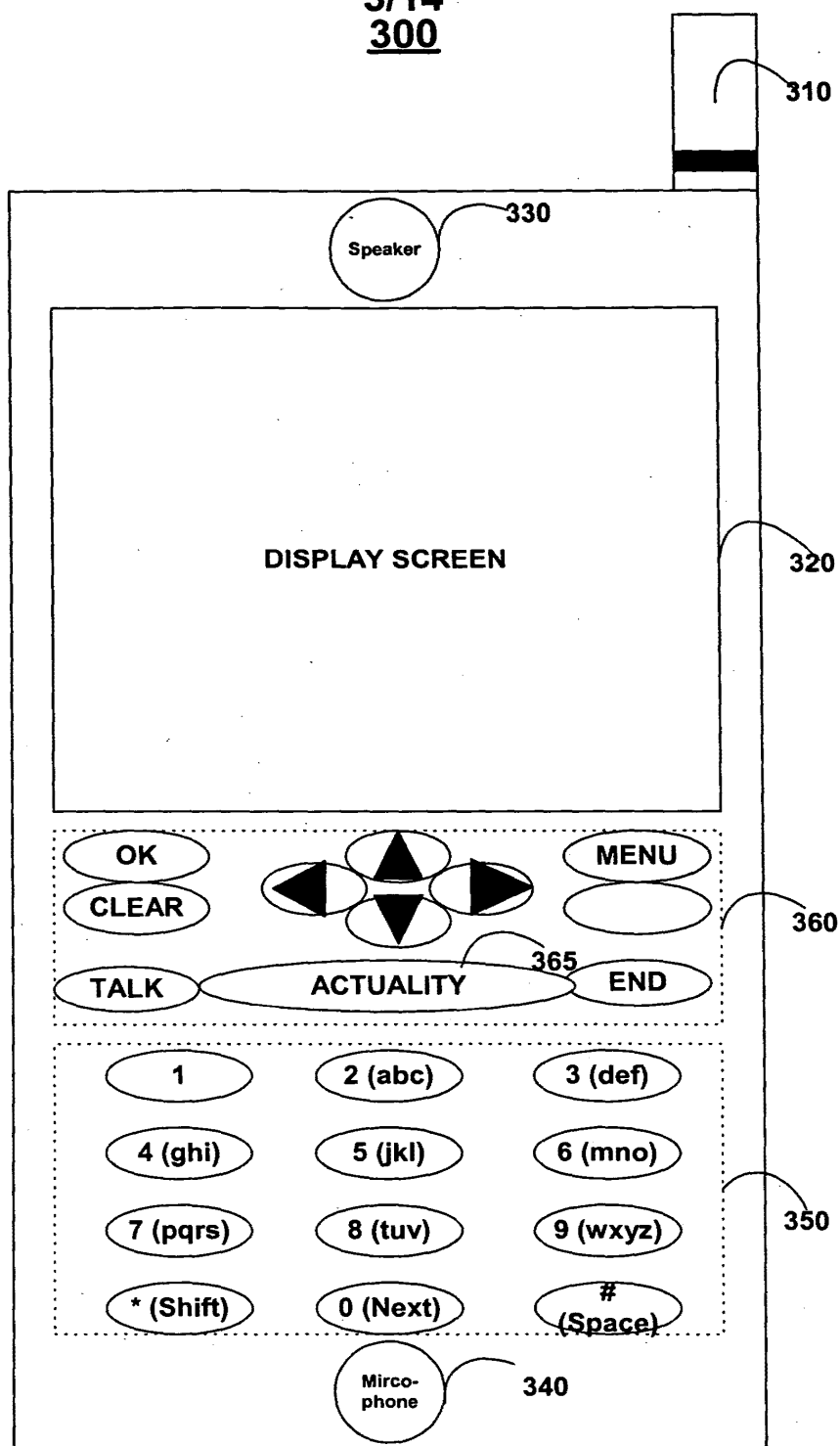


FIG. 3

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425

PICK LOCATION BASED GAME

- 1) PACMAN
- 2) Frogger
- 3) Track
- 4) SPACE INVADERS
- 5) BUBBLES
- 6) TREASURE HUNTERS
- 7) ZELDA
- 8) PONG
- 9) Football

450

YOU PICKED PACMAN!

PACMAN is a location-based game, pressing OK will mark your current location as pacman's origin in the maze. Press OK to begin. You will need an open area of 200 feet x 200 feet to play the game.

475

PACMAN IS A MULTI-PLAYER GAME

If you want to play with a remote player press 1 and enter in player device ID or send this game ID, ID#PAC52312, to player.

If a local player wants to join, have player place device within 1 feet of this device.

FIG. 4

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525

MULTIPLAYER FOUND

One additional device has been found. Chose your character from the list of available characters.

- 1) PACMAN
- 2) Ghost

550

Rules for Actuality PACMAN

Actuality PACMAN lets you play as PACMAN. Since you have selected Pacman, your mission is to literally run through the maze, your device will represent pacman's location, and gobble pellets while you flee ghosts (3 computer controlled, 1 player controlled). When powered up, you can consume ghosts, you cannot go through walls. Hitting a wall will recalibrate or position (or in certain modes simply cost you 100 points).

575

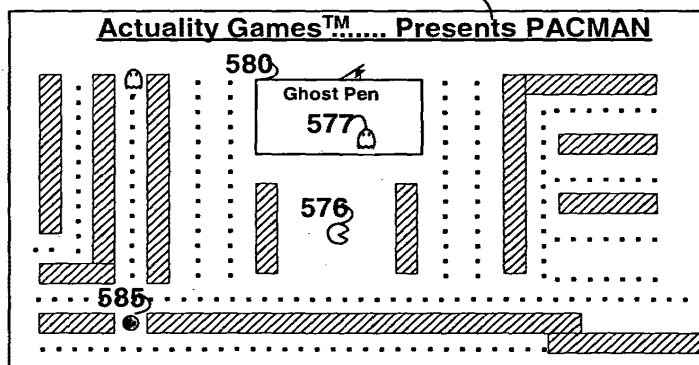


FIG. 5

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6/14
600

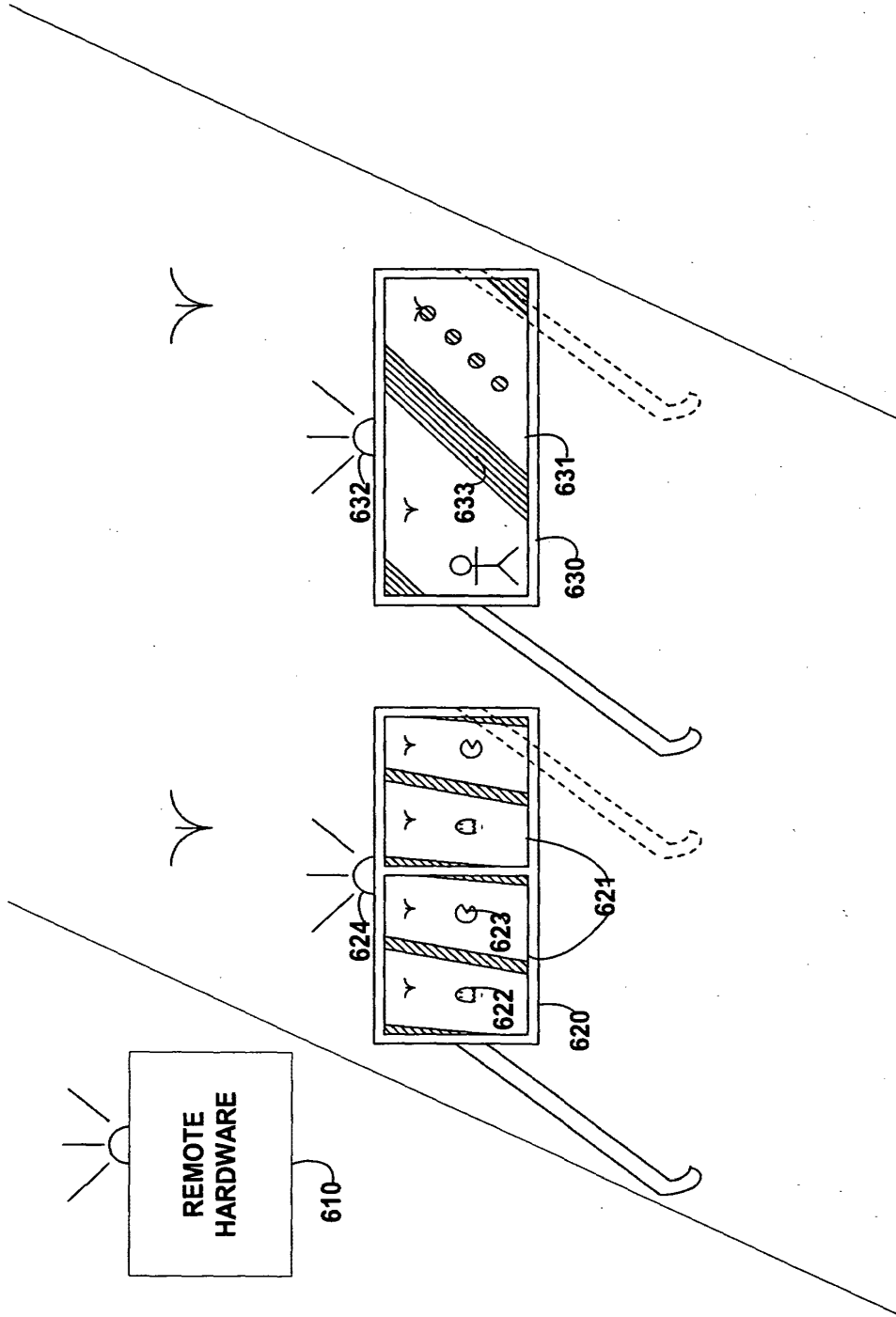


FIG. 6

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7/14
700

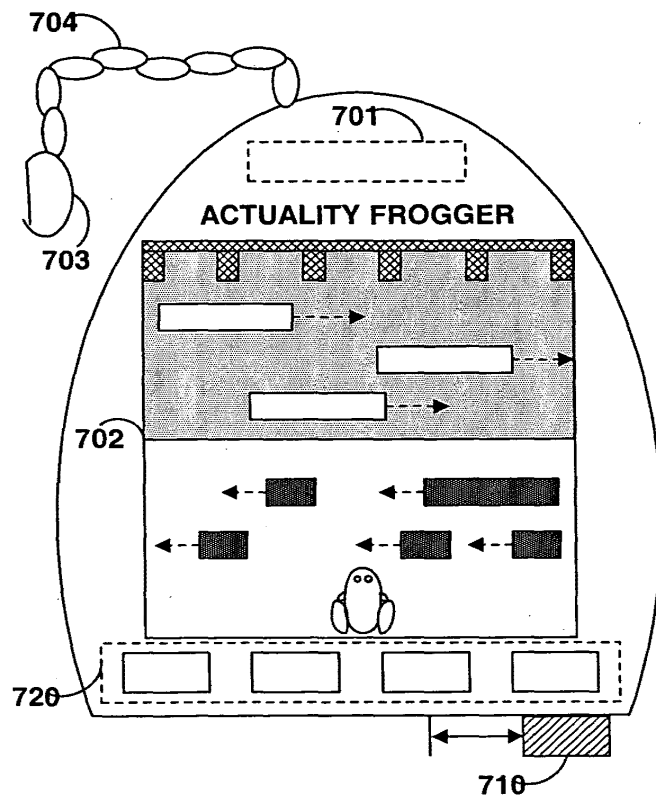


FIG. 7

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8/14
800

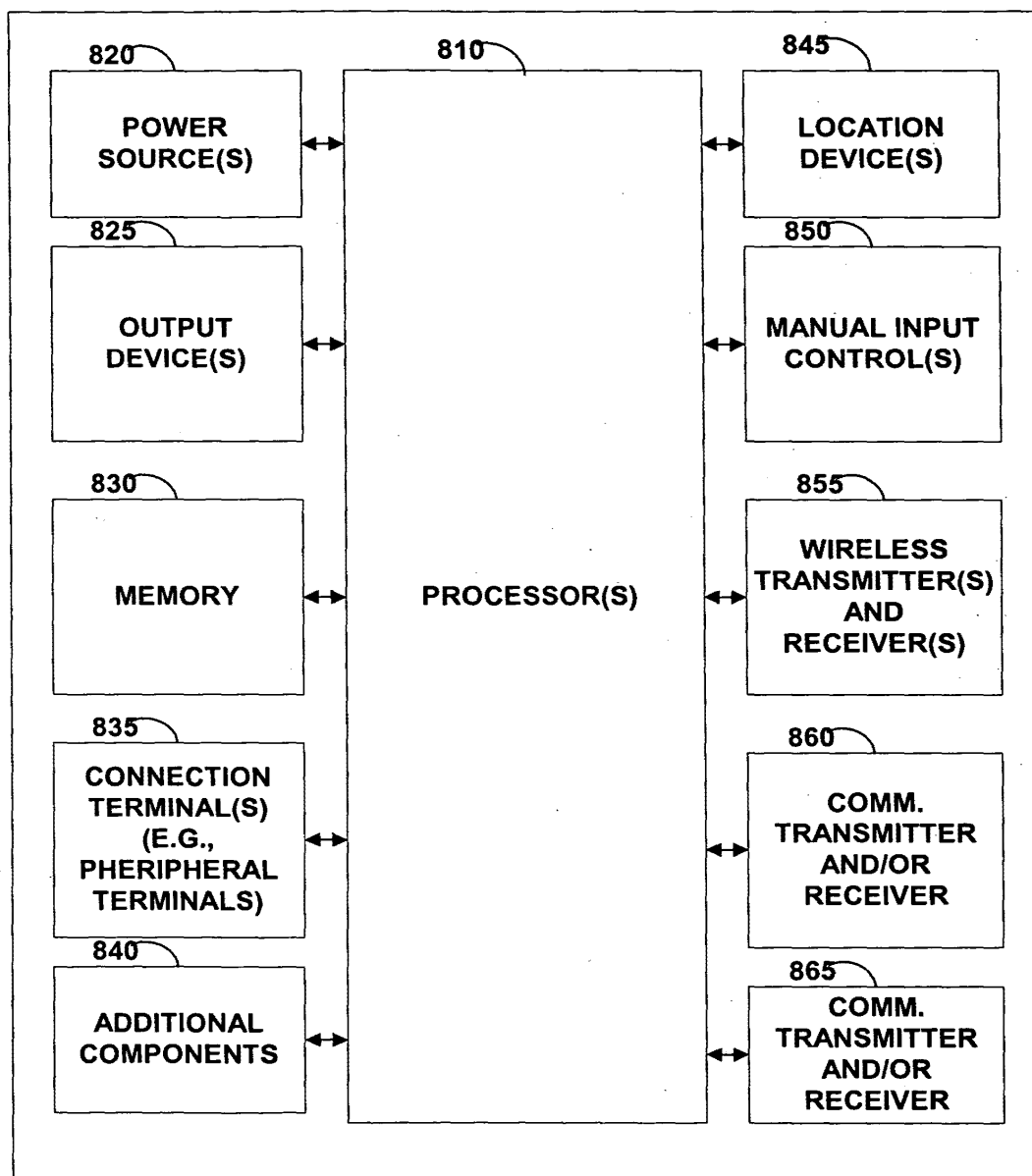


FIG. 8

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9/14
900

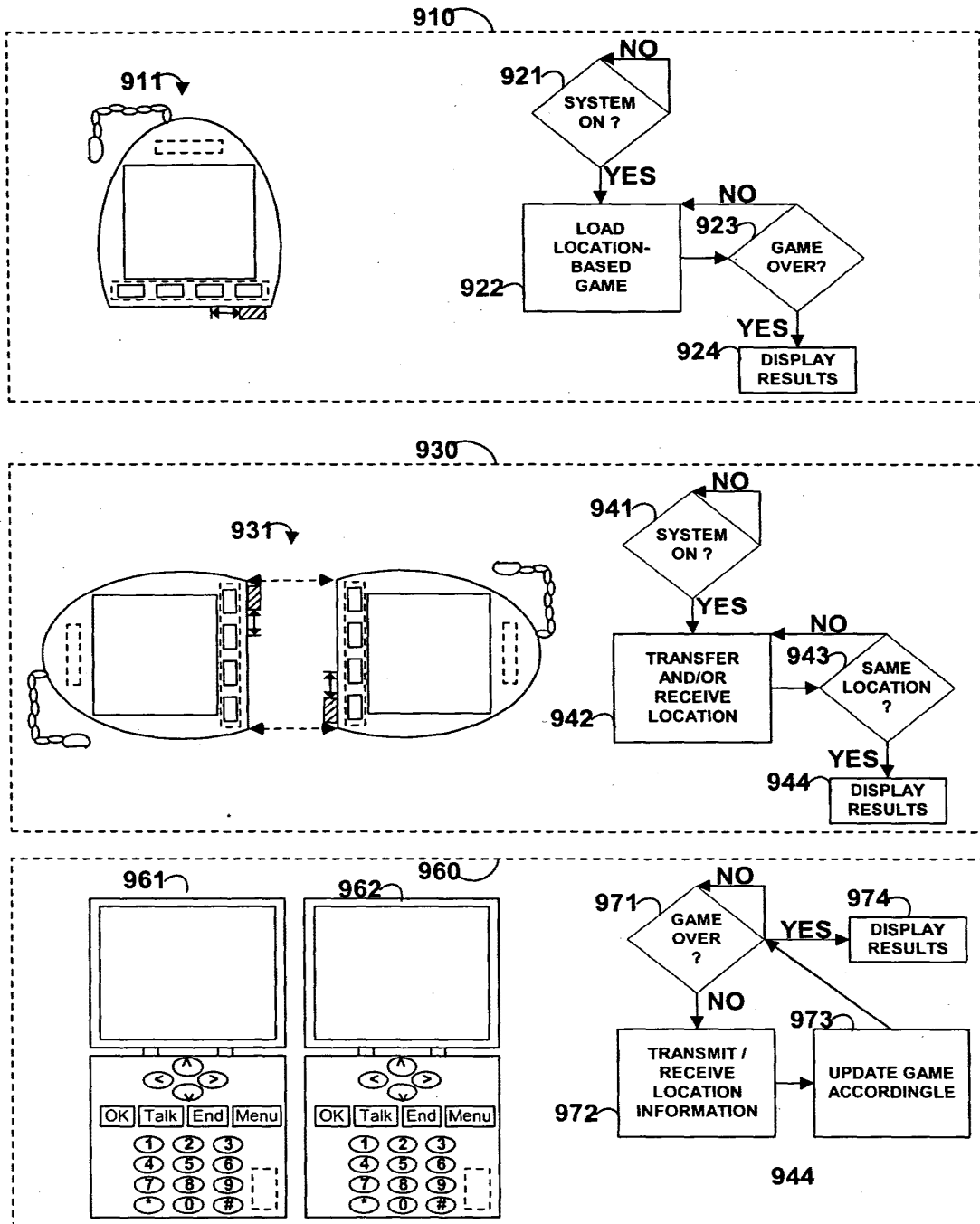


FIG. 9

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10/14
1000

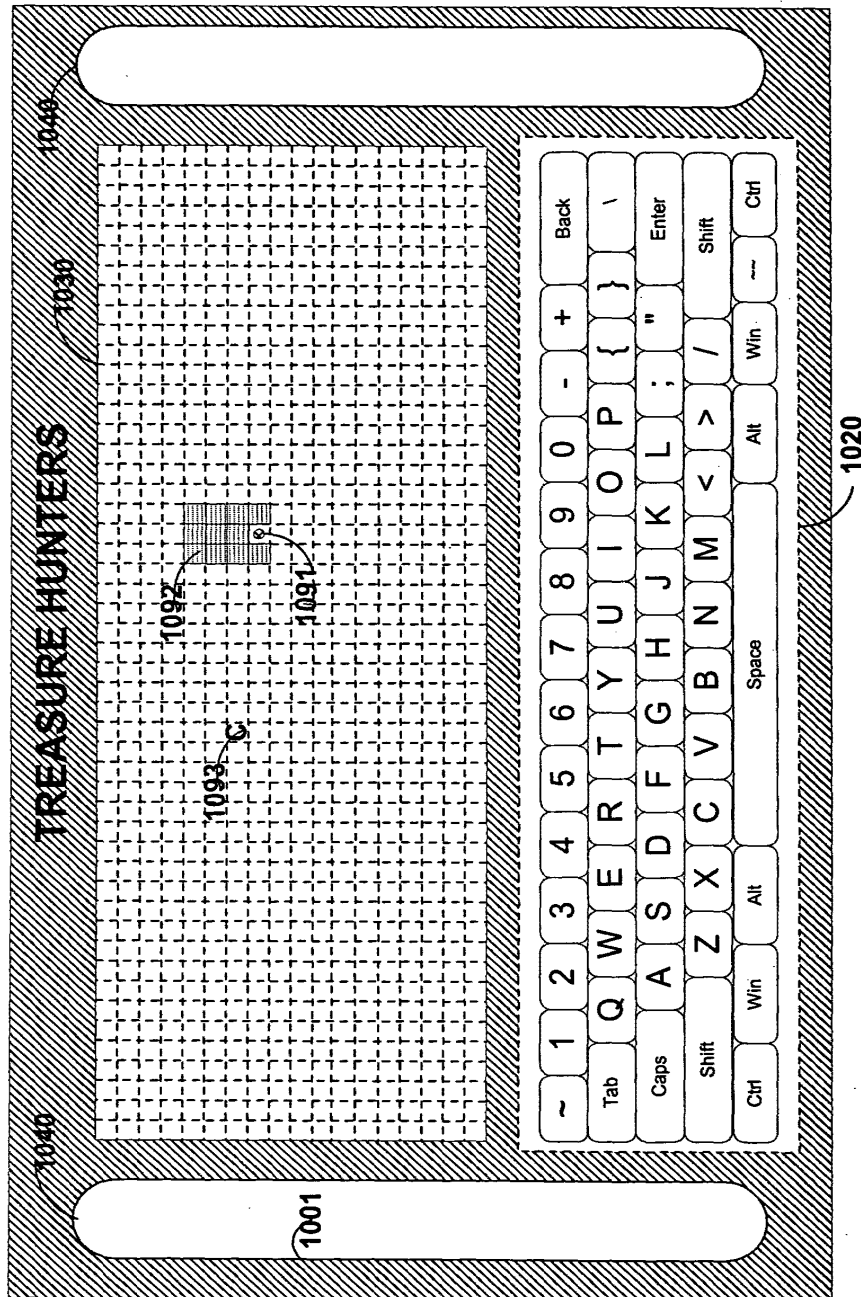


FIG. 10

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1100

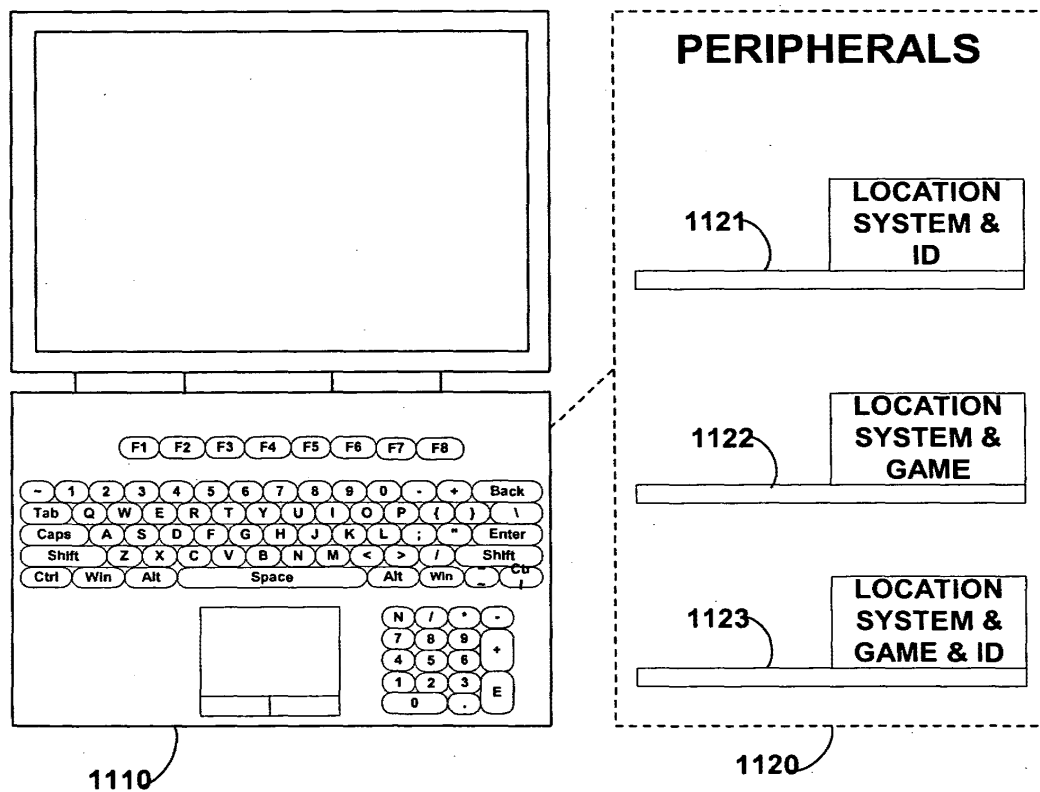


FIG. 11

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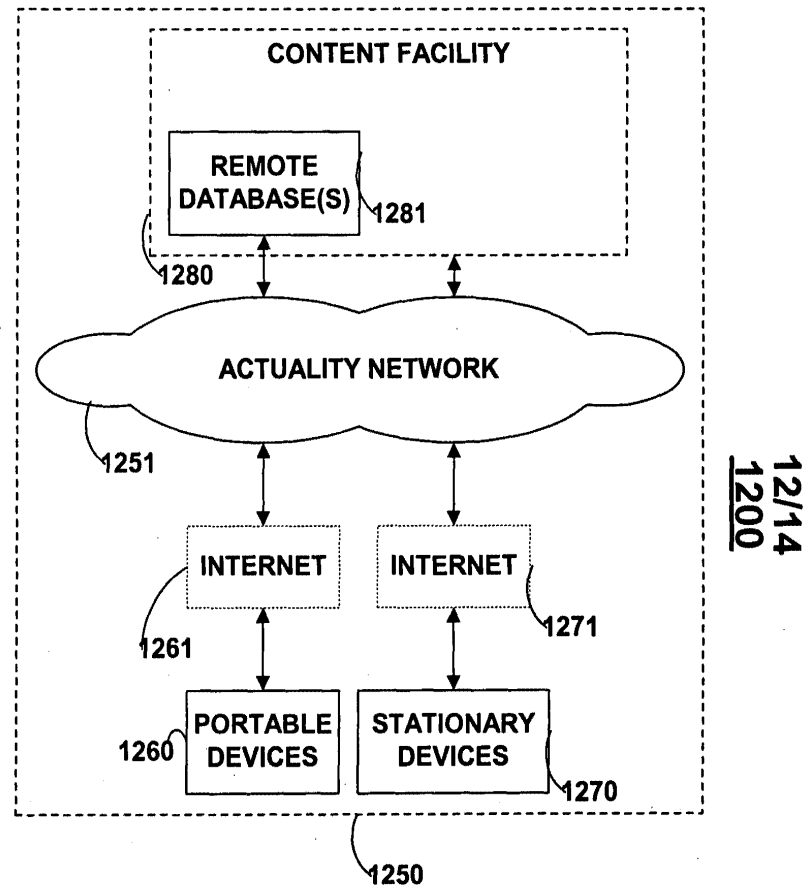
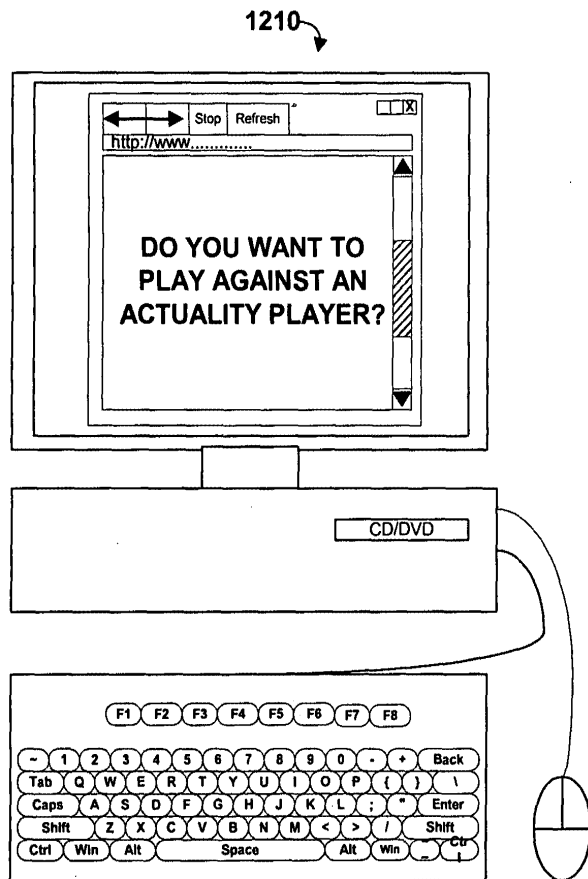


FIG. 12

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1300

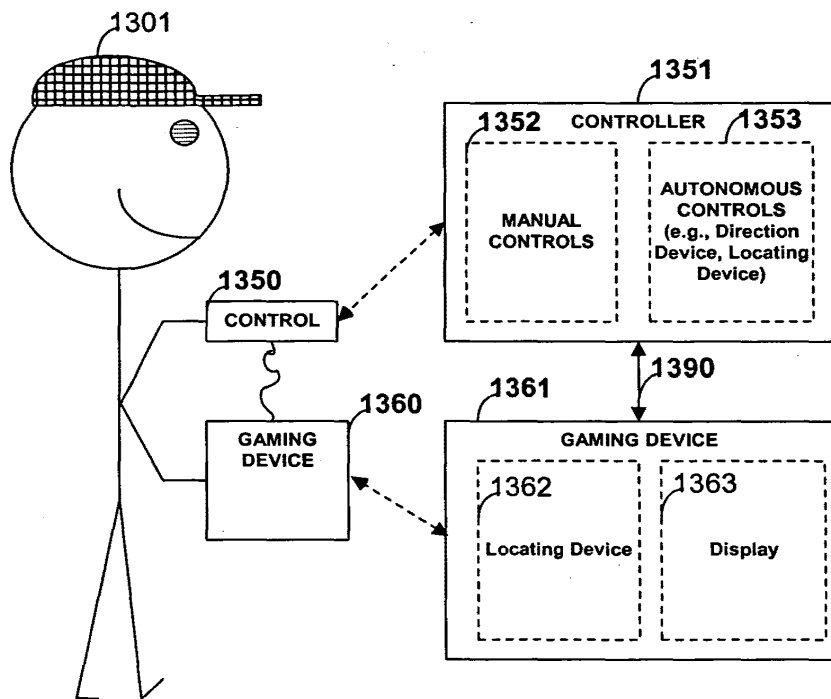


FIG. 13

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1400

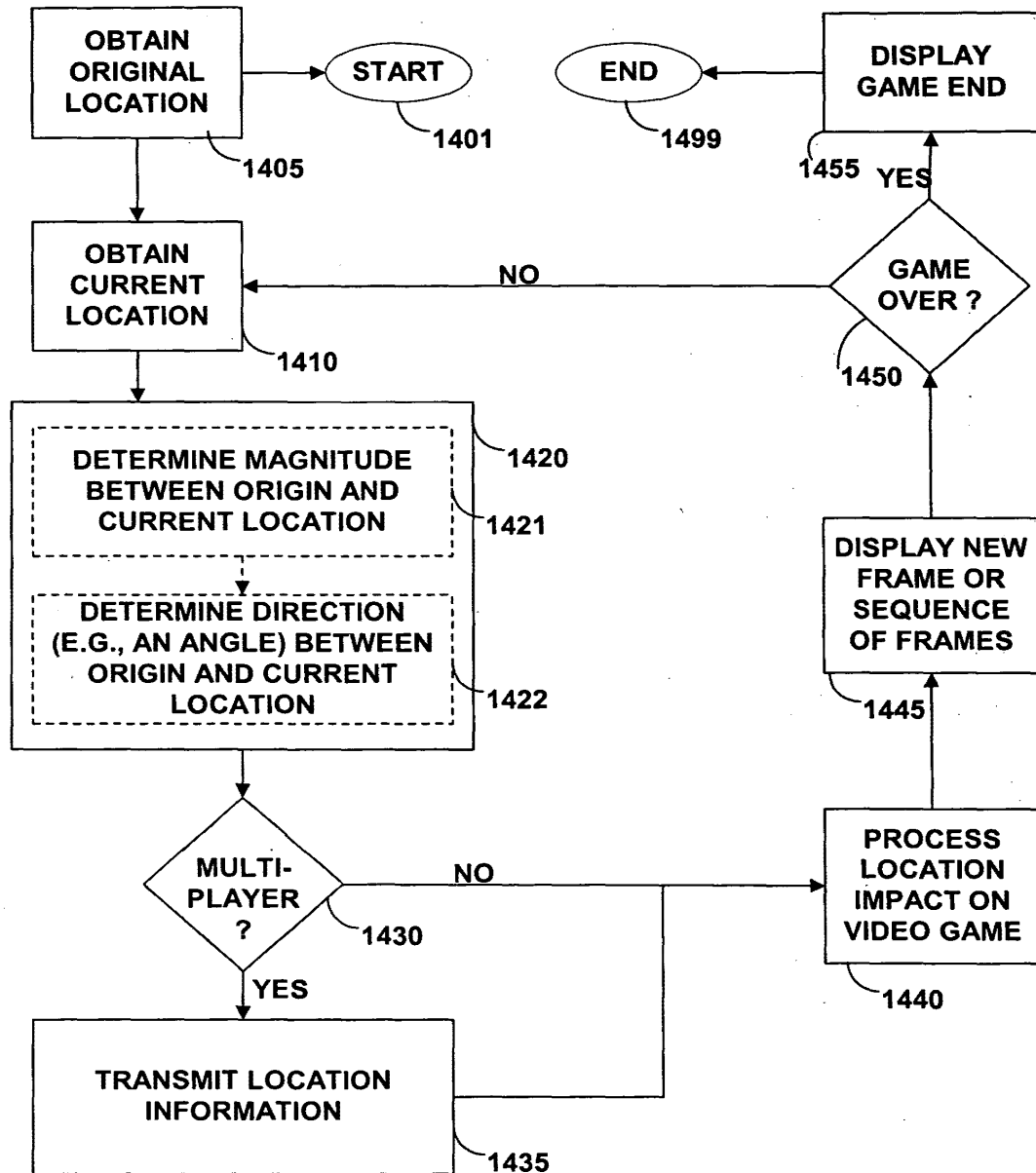


FIG. 14

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PATENT APPLICATION SERIAL NO. _____

U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICE
FEE RECORD SHEET

09/07/2004 MBELETE1 00000028 10932536

01 FC:2001

385.00 OP

1556

Printing Office: 2002 — 489-267/89033

PATENT APPLICATION FEE DETERMINATION RECORD
Effective October 1, 2003

Application or Docket Number

1093253.6

CLAIMS AS FILED - PART I

	(Column 1)	(Column 2)
TOTAL CLAIMS	<u>18</u>	
FOR	NUMBER FILED	NUMBER EXTRA
TOTAL CHARGEABLE CLAIMS	<u>18</u> minus 20 = *	<u> </u>
INDEPENDENT CLAIMS	<u>3</u> minus 3 = *	<u> </u>
MULTIPLE DEPENDENT CLAIM PRESENT ☐		

* If the difference in column 1 is less than zero, enter "0" in column 2

SMALL ENTITY TYPE ☒ OR

OTHER THAN SMALL ENTITY

RATE	FEE		RATE	FEE
BASIC FEE	385.00	OR	BASIC FEE	770.00
XS 9=		OR	XS18=	
X43=		OR	X86=	
+145=		OR	+290=	
TOTAL	<u>385</u>	OR	TOTAL	

CLAIMS AS AMENDED - PART II

	(Column 1)	(Column 2)	(Column 3)
AMENDMENT A	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR
			PRESENT EXTRA
	Total *	Minus **	=
	Independent *	Minus ***	=
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM ☐			

SMALL ENTITY OR

OTHER THAN SMALL ENTITY

RATE	ADDITIONAL FEE		RATE	ADDITIONAL FEE
XS 9=		OR	XS18=	
X43=		OR	X86=	
+145=		OR	+290=	
TOTAL ADDIT. FEE		OR	TOTAL ADDIT. FEE	

	(Column 1)	(Column 2)	(Column 3)
AMENDMENT B	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR
			PRESENT EXTRA
	Total *	Minus **	=
	Independent *	Minus ***	=
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM ☐			

RATE	ADDITIONAL FEE		RATE	ADDITIONAL FEE
XS 9=		OR	XS18=	
X43=		OR	X86=	
+145=		OR	+290=	
TOTAL ADDIT. FEE		OR	TOTAL ADDIT. FEE	

	(Column 1)	(Column 2)	(Column 3)
	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR
			PRESENT EXTRA
	Total *	Minus **	=
	Independent *	Minus ***	=
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM ☐			

RATE	ADDITIONAL FEE		RATE	ADDITIONAL FEE
XS 9=		OR	XS18=	
X43=		OR	X86=	
+145=		OR	+290=	
TOTAL ADDIT. FEE		OR	TOTAL ADDIT. FEE	

If column 1 is less than the entry in column 2, write "0" in column 3.

If "Number Previously Paid For" IN THIS SPACE is less than 20, enter "20."

If "Number Previously Paid For" IN THIS SPACE is less than 3, enter "3."

"Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.

Patent and Trademark Office, U.S. DEPARTMENT OF COMMERCE

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State or Province of Residence:: New York
Country of Residence:: USA
Citizenship Country:: 10583

CORRESPONDENCE INFORMATION

Correspondence Customer Number:: 32733

APPLICATION INFORMATION

Title Line One:: SYSTEMS AND METHODS FOR LOCATION BASED G
Title Line Two:: AMES AND EMPLOYMENT OF THE SAME ON LOCAT
Title Line Three:: ION ENABLED DEVICES
Total Drawing Sheets:: 14
Formal Drawings?: No
Application Type:: Utility
Docket Number:: JDM/005
Secrecy Order in Parent Appl.?: No

REPRESENTATIVE INFORMATION

Representative Customer Number:: 32733

CONTINUITY INFORMATION

This application is a:: NON PROV. OF PROVISIONAL
> Application One:: 60/499,810
Filing Date:: 09-02-2003

Source:: PrintEFS Version 1.0.1