unpatentable over Sharma and Gotoh in view of Barros. The Examiner rejected claims 86 and 106 under 35 U.S.C. 103(a) as being unpatentable over Sharma and Gotoh and Sarefat. The Examiner rejected claim 30 under 35 U.S.C. 1039A) over Sharma in view of Benes and further in view of Serafrat. The Examiner rejected claim 79 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Karasawa and further in view of Berstis and Reaney.

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 In light of the foregoing, applicant respectfully requests that the Examiner's rejection of these dependent claims be withdrawn.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 affadavit 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,

/Jeffrey D. Mullen/
Jeffrey D. Mullen
Applicant (Reg. No. 52,056)
Customer No. 32733
2212 Hassinger Lane
Glenshaw, PA 15116
Mobile: (914) 837-7741

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	
Filing Fees for Utility under 35 USC 111(a)	

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Pages:				
Claims:				
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 $0 paid	2253	1	700	700
Miscellaneous:				
RCE- 2ND AND SUBSEQUENT REQUEST	2820	1	850	850
		Total in USD ($)		**1550**

Electronic Acknowledgement Receipt	
EFS ID:	28712107
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:	22-MAR-2017
Filing Date:	01-SEP-2004
Time Stamp:	22:15:34
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	CARD
Payment was successfully received in RAM	$1550
RAM confirmation Number	032317INTEFSW22164400
Deposit Account	503855
Authorized User	Jeffrey Mullen
The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows: 37 CFR 1.16 (National application filing, search, and examination fees) 37 CFR 1.17 (Patent application and reexamination processing fees)	

37 CFR 1.19 (Document supply fees)

37 CFR 1.20 (Post Issuance fees)

37 CFR 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	Request for Continued Examination (RCE)	JDM-005--RCE.pdf	697792 6d1d427a24eae25e9160a3aa1e47b87bc868ec3a	no	3
Warnings:					
Information:					
2		JDM-005--Reply.pdf	226669 fcea6cb664508d2375eb5b5af2b4b768b4759215	yes	39

	Multipart Description/PDF files in .zip description		
	Document Description	**Start**	**End**
	Amendment Submitted/Entered with Filing of CPA/RCE	1	1
	Claims	2	22
	Amendment/Req. Reconsideration-After Non-Final Reject	23	39

Warnings:					
Information:					
3	Fee Worksheet (SB06)	fee-info.pdf	32395 d40afa036427e40bd2dc4effd5dd7e1358b06501	no	2
Warnings:					
Information:					
		Total Files Size (in bytes):	956856		

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.

New Applications Under 35 U.S.C. 111
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.

National Stage of an International Application under 35 U.S.C. 371
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.

New International Application Filed with the USPTO as a Receiving Office
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.

Electronic Acknowledgement Receipt	
EFS ID:	28712107
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:	22-MAR-2017
Filing Date:	01-SEP-2004
Time Stamp:	22:15:34
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	CARD
Payment was successfully received in RAM	$1550
RAM confirmation Number	032317INTEFSW22164400
Deposit Account	503855
Authorized User	Jeffrey Mullen
The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows: 37 CFR 1.16 (National application filing, search, and examination fees) 37 CFR 1.17 (Patent application and reexamination processing fees)	

37 CFR 1.19 (Document supply fees)

37 CFR 1.20 (Post Issuance fees)

37 CFR 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	Request for Continued Examination (RCE)	JDM-005--RCE.pdf	697792 6d1d427a24eae25e9160a3aa1e47b87bc868ec3a	no	3
Warnings:					
Information:					
2		JDM-005--Reply.pdf	226669 fcea6cb664508d2375eb5b5af2b4b768b4759215	yes	39

	Multipart Description/PDF files in .zip description		
	Document Description	**Start**	**End**
	Amendment Submitted/Entered with Filing of CPA/RCE	1	1
	Claims	2	22
	Amendment/Req. Reconsideration-After Non-Final Reject	23	39

Warnings:					
Information:					
3	Fee Worksheet (SB06)	fee-info.pdf	32395 d40afa036427e40bd2dc4effd5dd7e1358b06501	no	2
Warnings:					
Information:					
		Total Files Size (in bytes):	956856		

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.

New Applications Under 35 U.S.C. 111
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.

National Stage of an International Application under 35 U.S.C. 371
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.

New International Application Filed with the USPTO as a Receiving Office
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.

PTO/SB/06 (09-11)
Approved for use through 1/31/2014. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875	Application or Docket Number 10/932,536	Filing Date 09/01/2004	☐ To be Mailed

ENTITY: ☐ LARGE ☒ SMALL ☐ MICRO

APPLICATION AS FILED – PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA	RATE ($)	FEE ($)
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A	N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*	X $ =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*	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 $310 ($155 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	

APPLICATION AS AMENDED – PART II

AMENDMENT	03/22/2017	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	* 117	Minus	** 117	= 0	X $40 =	0
	Independent (37 CFR 1.16(h))	* 8	Minus	***8	= 0	X $210 =	0
	☐ Application Size Fee (37 CFR 1.16(s))						
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))						
						TOTAL ADD'L FEE	0

AMENDMENT		(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	*	Minus	**	=	X $ =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=	X $ =	
	☐ Application Size Fee (37 CFR 1.16(s))						
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))						
						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.

LIE
/POLIN ANG/

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.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

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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 09/22/2016

JEFFREY D. MULLEN
2212 Hassinger Lane
Glenshaw, PA 15116

EXAMINER
MCCLELLAN, JAMES S

ART UNIT	PAPER NUMBER
3716	

MAIL DATE	DELIVERY MODE
09/22/2016	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 JAMES S. MCCLELLAN	Art Unit 3716	AIA (First Inventor to File) Status No

-- 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 MONTHS 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 *9/9/2016*.

☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.

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

3)☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

4)☐ 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*

5)☒ Claim(s) *1-61 and 63-118* is/are pending in the application.

5a) Of the above claim(s) _____ is/are withdrawn from consideration.

6)☐ Claim(s) _____ is/are allowed.

7)☒ Claim(s) *1-61 and 63-118* is/are rejected.

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

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

* If any claims have been determined allowable, you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to PPHfeedback@uspto.gov.

Application Papers

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

11)☐ The drawing(s) filed on _____ 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).

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).

Certified copies:

a)☐ All b)☐ Some** c)☐ None of the:

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) ☐ Information Disclosure Statement(s) (PTO/SB/08a and/or PTO/SB/08b) Paper No(s)/Mail Date _____.

3) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

4) ☐ Other: _____.

DETAILED ACTION

DETAILED ACTION

Applicant's Submission of a Response

Applicant's submission of a response on 9/9/2016 has been received and fully considered. In the response, claims 82, 84, 100, and 118 have been amended. Therefore, claims 1-61 and 63-118 are pending.

Claim Objections

Claim 118 is objected to because of the following informalities: in cline 4, "includes and" should be replaced with "includes an". Appropriate correction is required.

Claim Rejections - 35 USC § 103

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 negatived by the manner in which the invention was made.

Claims 82, 87, 100-104, 107-110, 113-115 are rejected under 35 U.S.C. 103(a) as being obvious based upon US Patent No. 6,287,200 B1 to Sharma et al. in view of U.S. Patent Application Publication No. 2003/0217070 to Gotoh.

Regarding claim 82, Sharma discloses a system comprising:

A display (fig. 4);

A locating device operable to determine the physical location of said locating device on a physical playfield (abstract, col. 2, lines 35-45, mobile device contains GPS), wherein said locating device comprises a movement measuring device operable to be utilized, at least in part to determine said physical location (col. 3, lines 45-61, mobile device also contains a motion sensor that measures trajectory and velocity of the device, and in order to measure trajectory and velocity, displacement must be measured thereby determining at least two different physical locations);

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 (fig. 3 and 5, col. 3, lines 45-61).

Sharma does not disclose the use of an accelerometer. Gotoh teaches (in the Abstract and various other locations, including at least paragraphs 81 and 96) that an accelerometer may used to measaure position when a GPS signal is not available.

It would have been obvious to one of ordinary skill in the art at the time of the current invention to modify Sharma with an accelerometer as taught by Gotoh to determine position data when GPA signals are not working for redundancy.

Regarding claims 87 and 107. Sharma discloses wherein said video game is a multiple-player video game (col. 3, lines 25-45).

Regarding claim 100, Sharma discloses a system comprising:

A non-transparent display (fig. 4, a hand-held display);

a locating device operable to determine the physical location of said locating device on a physical playfield (col. 2, lines 35-45, GPS);

a directional device operable to determine the physical direction of said directional device on said physical playfield (fig. 5, col. 3, lines 45-61, the motion sensor determines the direction); 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 and facing a virtual direction on a virtual playfield said virtual location on said virtual playfield corresponds to said physical location on said physical playfield, and said virtual direction on said virtual playfield corresponds to said physical direction on said physical playfield (fig. 5, col. 3, lines 45-61, the user utilizes the device to move the character and the volleyball).

Regarding claim 101. Sharma discloses wherein said video game is provided on said display in a third-person perspective (fig. 3, col. 3, lines 30-44).

Regarding claim 102. Sharma discloses wherein said display is a non head-mounted display (fig. 4).

Regarding claim 103. Sharma discloses wherein a second virtual character is provided in said

video game and said second virtual character is computer-controlled (fig. 2, 3 and 5, col. 3, lines 45-61, each character is controlled by the mobile device).

Regarding claim 104. Sharma discloses wherein a second virtual character is provided in said video game and said second virtual character is user- controlled (fig. 5, col. 3, lines 45-61, the character is controlled by the player who controls the device).

Regarding claim 108. Sharma discloses wherein an interactive virtual object, with respect to said virtual character, is provided in said video game (col. 3, lines 30-61, volleyball).

Regarding claim 109. Sharma discloses wherein an impenetrable virtual object, with respect to said virtual character, is provided in said video game (col. 3, lines 30-61, the volleyball is hit and not penetrated by the swinging of the mobile device).

Regarding claim 110, Sharma discloses wherein said virtual character is selected from a plurality of virtual characters (col. 3, line 38, the players can choose a team X or Y character).

Regarding claim 113. Sharma discloses wherein said video-game is point-based (col. 3, lines 30-38, volleyball is point based).

Regarding claim 114. Sharma discloses wherein said locating device comprises a positioning receiver (col. 2, lines 35-45, GPS).

Regarding claim 115. Sharma discloses wherein said locating device comprises a movement measuring device operable to be utilized, at least in part, to determine said physical location (col. 3, lines 25-61, the mobile device also contains a motion sensor that measures trajectory and velocity of the device, and in order to measure trajectory and velocity, displacement must be measured thereby determining at least two different physical locations.).

Claims 1-3, 6-16, 19, 20, 22, 25, 26, 28, 29, 31, 32, 34, 43, 47, 53, 55, 56, 59-61, and 63-65 are rejected are rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma., USPAT 6,287,200 (hereinafter Sharma) in view of Benes et al. (US 2004/0046655 A1).

Claims 1 Sharma in view of Benes discloses a system comprising:

a wireless device wherein said wireless device comprises:

a display (fig. 4);

a locating device operable to determine the physical location of said locating device on a physical playfield (col. 1:lines 5-16, col. 2:40, col. 3:45 - col. 4:8); 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 character is displayed on said display (fig. 3, col. 3:lines 9-38), and said virtual location on said virtual playfield corresponds to said physical location on said physical playfield (col. 3:9-12, col. 3:31-61).

Sharma substantially discloses the invention as claimed but fails to explicitly teach a wireless telephone device (as per claims 1 and 83). Instead, Sharma discloses mobile devices with displays that may communicate via RF, WAP, Bluetooth etc. without expressly disclosing a wireless telephone device. However, in an analogous reference, Benes discloses a wireless telephone device to play a location-based game. One of ordinary skill in the art would have seen the benefit of modifying Sharma with a wireless telephone device to optimize the resources available to subscribers, alter the game by defining an area of play and activate game features without direct communication between the players and the providers (Benes, paragraph 1 and 2). Furthermore, an artisan would have found it obvious to adapt the invention, when possible, to operate on other wireless devices (Benes, paragraph 10) to increase the user base by allowing users who already own one similar device but do not want to purchase another device to play the game. Therefore, it would have been obvious to one or ordinary skill in the art at the time of the instant invention to modify Sharma with a wireless telephone device to optimize resources, and increase the user base which would also increase profits.

Claim 2. Sharma discloses said locating device is a global positioning system (col. 2:line 41).

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 lm 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 devise are able to participate in the virtual game." Because the range dictates the interaction between participants, it would imply that the playfield perimeter is default to the limit of the protocol.

Claim 6, Sharma inherently discloses memory to store the application programs (col. 3:lines 25-37) because a memory must be present in order to store multiple applications in addition to the volleyball game. Benes discloses a memory (Benes, fig. 2 and 3, item 260).

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 to 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 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.

Claim 8, 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 inherent to use a coordinate system, since GPS utilizes geographical coordinates.

Claim 9, Sharma discloses a the motion sensor within the wireless device that will sense both trajectory and velocity which corresponds to the direction and magnitude (col. 3:lines 45-61).

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.

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.

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 art 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.

Claim 15, Sharma discloses 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 (col. 3, lines 9-24, each device is a remote memory).

Claim 16, Sharma in view of Benes discloses a microphone and speaker (Benes, a cell phone inherently contains a mic and a speaker).

Claim 17, Sharma discloses a method for controlling a character in a location-based video game comprising:

storing a first physical location of a wireless device on a physical playfield on a remote server (fig. 6, col. 4, lines 18-44, each device acts as a server to the other devices storing the location of the other devices);

changing the location of said character in a virtual playfield of said video game based on said first physical location (fig. 6, col. 4, lines 18-44, each device is moved by the player while playing); and

updating the location of said wireless device on said remote server by storing a second physical location of said wireless device on said remote server (fig. 6, col. 4, lines 18-44, each device is updated with the location of the players while playing the game); and

retrieving by said wireless device from said remote server a third physical location of a second wireless device (fig. 6, col. 4, lines 18-44, the first device now receives updated information from a second device).

Sharma substantially discloses the invention as claimed but fails to explicitly teach a wireless telephone device. Instead, Sharma discloses mobile devices with displays that may communicate via RF, WAP, Bluetooth etc. without expressly disclosing a wireless telephone device. However, in an analogous reference, Benes discloses a wireless telephone device to play a

location-based game. One of ordinary skill in the art would have seen the benefit of modifying Sharma with a wireless telephone device to optimize the resources available to subscribers, alter the game by defining an area of play and activate game features without direct communication between the players and the providers (Benes, paragraph 1 and 2). Furthermore, an artisan would have found it obvious to adapt the invention, when possible, to operate on other wireless devices (Benes, paragraph 10) to increase the user base by allowing users who already own one similar device but do not want to purchase another device to play the game. Therefore, it would have been obvious to one or ordinary skill in the art at the time of the instant invention to modify Sharma with a wireless telephone device to optimize resources, and increase the user base which would also increase profits.

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.

Claim 22, Sharma discloses wherein said character is manually selected (col. 3, line 38, the players can choose a team X or Y character).

Claims 25 and 59. Sharma discloses wherein a second virtual character is provided in said video game and said second virtual character is user- controlled (fig. 5, col. 3, lines 45-61, the character is controlled by the player who controls the device).

Claims 26 and 64. Sharma discloses wherein said video-game is point-based (col. 3, lines 30-38, volleyball is point based).

Claim 28. Sharma discloses wherein an action is performed in said video game and an animated is played as a result of said action (fig. 3 and 5, col. 3, lines 45-61).

Claim 29, Sharma discloses a stationary device to control a virtual character (fig. 6, items 10 and 40).

Claim 31, Sharma shows in figure 6 and discusses in (column 4, lines 19-40) a server and each mobile device that is updated with every mobile device's location (col. 3, lines 9-24).

Claims 32 and 65, 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.

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.

Regarding claims 47 and 117. Sharma discloses wherein an impenetrable virtual object, with respect to said virtual character, is provided in said video game (col. 3, lines 30-61, the volleyball is hit and not penetrated by the swinging of the mobile device).

Regarding claims 53, 55, 56, 60, 61, 63 and 116 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 claim 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).

Claim 118. Sharma discloses wherein said locating device comprises a movement measuring device operable to be utilized, at least in part, to determine said physical location (col. 3, lines 25-61, the mobile device also contains a motion sensor that measures trajectory and velocity of the device, and in order to measure trajectory and velocity, displacement must be measured thereby determining at least two different physical locations.).

Claims 83, 116 and 117 are rejected are rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma., USPAT 6,287,200 (hereinafter Sharma) of Gotoh (US 2003/0217070) in further view of Benes et al. (US 2004/0046655 A1).

See analysis of Sharma and Benes set forth above.

Claims 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Benes et al. (US 2004/0046655 A1) and further in view of Newell et al., USPAT 6,735,435 (hereinafter Newell).

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.

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).

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..."

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.

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.

Claims 5 and 57 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).

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

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 $\dot{z}_{k+1} = h(x_k)$, $\dot{z}_{k+1}$ 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.

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."

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.

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.

Claims 21 and 54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Benes et al. (US 2004/0046655 A1) and further in view of Berstis (US 6,337,688 B1).

Regarding claims 21 and 54, which depend on the limitation of an accelerometer, Sharma substantially discloses the invention as claimed but fails to explicitly teach that first locating device comprises an accelerometer. Instead, Sharma discloses using GPS for a locating device. However, in an analogous reference, Berstis discloses using accelerometers as an alternative to GPS because that are commercially available at low cost relative to a GPS receiver (Berstis, 3:62). Therefore, it would have been obvious to one or ordinary skill in the art at the time of the instant invention to modify Sharma with accelerometers as they are a low cost alternative to GPS receivers.

Claims 84 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Gotoh and Benes et al. (US 2004/0046655 A1) and further in view of Berstis (US 6,337,688 B1).

See above for analysis of Sharma, and Berstis.

Claims 23, 24, 38-41, and 58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Benes et al. (US 2004/0046655 A1) and further in view of Leonhard et al. USPUB 2002/0052933 (hereinafter Leonhard).

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.

Claims 23, 24, 58, and 85, 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 85,), 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.

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.

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. 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.

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.

Claims 85 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Gotoh and Benes et al. (US 2004/0046655 A1) and further in view of Leonhard et al. USPUB 2002/0052933 (hereinafter Leonhard).

See analysis above for Sharma in view of Leonhard.

Claims 27, 35-37, 42, 45, 46, and 48-50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Acclaim's Mortal Kombat (hereinafter MK).

While Sharma discloses a location-based gaming system capable of supporting a multi-player game, Sharma fails to explicitly disclose a game other than volleyball. 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.

Regarding claim 27, Sharma substantially discloses the invention as claimed but fails to explicitly teach wherein an amount of time is displayed associated with a start of said video game. However in an analogous reference Mortal Kombat (MK, page 7), which was one of the most popular games when the game first came out, illustrates points for both opponents above their power meters and also illustrates a time in the middle of the screen and discloses, "Should time run out..." referencing the game's use of time. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Sharma with a timer when combined with a popular game such as Mortal Kombat.

Regarding claims 35-37, and 42, 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.

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.

Regarding claims 48-50, 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.

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.

Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Benes et al. (US 2004/0046655 A1) and further in view of US Pub. No. 2006/0154710 A1 to Serafat. This new grounds of rejection was necessitated by applicant's request for documentary proof of official notice.

Claim 30, Sharma substantially discloses the invention as claimed but fails to explicitly teach a single-player video game. However in an analogous reference, Serafat teaches using artificial intelligence (Serafat, paragraph [0056]) in mobile gaming (Serafat, paragraph [0054]) to continue a game even in the absence of a player, without the need to interrupt the game itself. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Sharma with AI for continuing a multiplayer game in single player mode in case of an absence of a player participating in the game by simulating the participation of the player who is absent.

Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Benes et al. (US 2004/0046655 A1) and further in view of Anderson et al., USPAT 7,303,474 (hereinafter Anderson).

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.

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..."

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."

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.

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.

Claims 44 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Benes et al. (US 2004/0046655 A1) and further in view of Tom, USPAT 6,690,947 (hereinafter Tom)

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.

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.

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.

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.

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.

Claims 51 and 52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Benes et al. (US 2004/0046655 A1) and further in view of Super Dodgeball by Nintendo (hereinafter "Super Dodgeball").

Regarding claims 51 and 52, Sharma substantially discloses the invention as claimed but fails to explicitly teach the limitation of being able to pick up and put down the virtual object. Sharma discloses a volley ball game. Instead, the virtual object is simply contacted by the player to be sent over the net and that a variety of other games may be played (Sharma: col. 3, lines 35-60). However, in an analogous art, Super Dodgeball teaches a game based on having two sides and a middle line similar to volleyball and has a rating of 8.5 out of 10 which teaches picking up a virtual object as evidenced by the youtube video of actual footage from the game that was released in 1998 and a gamefaq describing the same game (Super Dodgeball: picking up, youtube video at 1:00 and 6:15, and Blocking in the Gamefaq) and putting down the ball (dropping the ball in the Gamefaq). One of ordinary skill in the art at the time of the invention would have seen this to be an obvious feature to maintain the continuity of the game. If the game simply skipped over the part when a player picks up an object, the game would lose realism and lose player appeal.

Claims 18, 68, and 71-75 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma, USPAT 6,287,200 (hereinafter Sharma) in view of Hale et al. (US 5,902,343).

Claim 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 (2:32-45);
obtaining a second physical location of a second locating device on a second physical playfield (2:32-45), wherein said first physical playfield is remote from said second physical playfield (fig. 3, 3:30-67, Team x and Y are different playfields); and

Sharma substantially discloses the invention as claimed such as displaying first and second characters (fig. 3, col. 3, lines 30-45) but fails to explicitly teach 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, second location information associated with said second physical location is scaled, 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. Instead, Sharma seems to remain silent as to how the location information is interpreted. However, in an analogous GPS reference, Hale discloses scaling the GPS field maps to show all of the data (Hale, abstract). One of ordinary skill in the art at the time of the invention would have found it obvious to modify Sharma with scaled GPS maps to show all the data of the game as providing an easy-to-read electronic display showing a map of the area being traversed correlated with visual indicia of a

characteristic being measured is difficult. Hale is analogous art because if an artisan had a problem of providing an easy-to-read electronic display showing a map of the area being traversed, an artisan would have found it obvious to search other GPS-related art. Therefore, one of ordinary skill in the art would have seen the benefit of modifying Sharma with GPS scaling to show all of the data necessary for the task at hand.

Claim 68. Sharma discloses a GPS receiver (2:40-45).

Claim 71. Sharma discloses a third character (fig. 3).

Claim 72. Sharma discloses a virtual object (volleyball, 2:35).

Claim 73. Sharma discloses an impenetrable virtual object (volleyball, 2:35).

Claim 74. Sharma discloses determining a direction (3:55).

Claim 75. Sharma discloses a device operable to provide human communications (a viewable display, fig. 4).

Claims 66 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma (US Pat. No. 6,287,200 B1) in view of in view of Hale et al. (US 5,902,343) and further in view of Benes et al. (US 2004/0046655 A1).

Regarding claims 66, Sharma substantially discloses the invention as claimed but fails to explicitly teach a wireless telephonic device. Instead, Sharma discloses mobile devices with displays that may communicate via RF, WAP, Bluetooth etc. without expressly disclosing a wireless telephone device. However, in an analogous reference, Benes discloses a wireless telephone device to play a location-based game. One of ordinary skill in the art would have seen the benefit of modifying Sharma with a wireless telephone device to optimize the resources available to subscribers, alter the game by defining an area of play and activate game features without direct communication between the players and the providers (Benes, paragraph 1 and 2). Furthermore, an artisan would have found it obvious to adapt the invention, when possible, to operate on other wireless devices (Benes, paragraph 10) to increase the user base by allowing users who already own one similar device but do not want to purchase another device to play the game. Therefore, it would have been obvious to one or ordinary skill in the art at the time of the instant invention to modify Sharma with a wireless telephone device to optimize resources, and increase the user base which would also increase profits.

Claim 67 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma, USPAT 6,287,200 (hereinafter Sharma) in view of Hale et al. (US 5,902,343) and Berstis (US 6,337,688 B1).

Claim 67. Sharma substantially discloses the invention as claimed but fails to explicitly teach that first locating device comprises an accelerometer. Instead, Sharma discloses using GPS for a locating device. However, in an analogous reference, Berstis discloses using accelerometers as an alternative to GPS because that are commercially available at low cost relative to a GPS receiver (Berstis, 3:62). Therefore, it would have been obvious to one or ordinary skill in the art at the time of the instant invention to modify Sharma with accelerometers as they are a low cost alternative to GPS receivers.

Claim 69 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Hale et al. (US 5,902,343) and further in view of Kotanen et al., "Experiments on Local Positioning with Bluetooth" (hereinafter Kotanen).

Claim 69. While Sharma discloses the wireless device's WLAN and Bluetooth capabilities, Sharma fails to explicitly disclose local positioning capabilities using either of these protocols. 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 $\dot{z}_{k+1} = h(x_k)$, $\dot{z}_{k+1}$ 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.

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."

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.

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.

Claims 70 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Pat. No. 6,287,200 B1 to Sharma (Sharma) in view of Hale et al. (US 5,902,343) and further in view of US Pub. No. 2004/0248653 A1 to Barros et al. (Barros).

Regarding claim 70 Sharma substantially discloses the invention as claimed such as a multiplayer location based video game (Sharma, col. 3, lines 25-45) but fails to explicitly teach wirelessly downloading a location-based program to the wireless telephonic device. Instead, Sharma seems to remain silent as to how the games are loaded onto the system. However, in an analogous reference, Barros discloses that the game is wirelessly sent to the mobile telephonic device from the server. One of ordinary skill in the art would have found it obvious to use

wireless communications to provide a way to attract users to a store by enhancing their interactive experience while executing applications on their wireless devices and enables special features in an application executed on a wireless device when the wireless device is within a predefined vicinity of a store (Barros: paragraph [0011]). Therefore, it would have been obvious to one or ordinary skill in the art at the time of the instant invention to modify Sharma with wirelessly downloading games to enable special features and attracts users to a store thereby increasing advertising revenue.

Claims 76-78, and 80 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Pat. No. 6,287,200 B1 to Sharma (Sharma) in view of US Pat. No. 6,011,653 A to Karasawa (Karasawa) and further in view of Berstis (US 6,337,688 B1).

Claims 76, 77 and 80. Sharma discloses a head-mounted system comprising:

a display (fig. 4)

A locating device operable to determine the physical location of said locating device on a physical playfield (abstract, col. 2, lines 35-45, GPS);

A processor coupled to said display, wherein said processor is operable to provide a video game comprising a virtual character with a virtual location on said virtual playfield corresponds to said physical location on said physical playfield (fig. 3 and 5, col. 3, lines 45-61), video game indicia, associated with said video game, is displayed on said display (fig. 3 and 5, col. 3, lines 45-61)

such that said video game indicia is visible with said physical playfield through said display, and said video game is controlled, at least in part, by said accelerometer (col. 3:9-12, col. 3:31-61).

Sharma substantially discloses the invention as claimed but fails to explicitly teach a transparent display, such that video game indicia is visible with said physical playfield through said display. Instead, Sharma discloses 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 (as per claim 80, column 4, lines 6-8), "...can be...arcade-type virtual reality goggles." However in an analogous reference Karasawa discloses a head mounted display that superimposes the video game over the image seen by the user (as per claim 76 and 77, fig. 2, col. 3, line 23 – col. 4, line 42). One of ordinary skill in the art would have seen the benefit of modifying Sharma with the head mounted display by Karasawa for magnifying an image generated by an image display means to a magnified virtual image and enabling the magnified virtual image to be seen by either one of the eyes of the user.

Sharma substantially discloses the invention as claimed but fails to explicitly teach an accelerometer. Instead, Sharma discloses using GPS for a locating device. However, in an analogous reference, Berstis discloses using accelerometers as an alternative to GPS because that are commercially available at low cost relative to a GPS receiver (Berstis, 3:62). Therefore, it would have been obvious to one or ordinary skill in the art at the time of the instant invention to modify Sharma with accelerometers as they are a low cost alternative to GPS receivers.

Regarding claim 78, Sharma discloses wherein a second virtual character is provided in said video game and said second virtual character is computer-controlled (fig. 2, 3 and 5, col. 3, lines 45-61, each character is controlled by the mobile device).

Claim 79 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Pat. No. 6,287,200 B1 to Sharma (Sharma) in view of US Pat. No. 6,011,653 A to Karasawa (Karasawa) and further in view of Berstis (US 6,337,688 B1) and Reaney (US Patent No. 5,523,890). This new grounds of rejection was necessitated by applicant's request for documentary proof of official notice.

Regarding claim 79, Sharma in view of Karasawa substantially discloses the invention as claimed but fails to explicitly teach a first-person perspective. However in an analogous reference, Reaney teaches that head mounted displays and interactive virtual reality and first person games, those that put the user in the action benefit most from the head-mounted display of Reaney (Reaney, col. 5, lines 9-15). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Sharma with first person perspective games because those game benefit the most from head-mounted displays.

Claim 81 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Karasawa (US 6,011,653), and further in view of Berstis (US 6,337,688 B1), and further in view of Numa, USPAT 6,633,267 (hereinafter Numa).

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 Karasawa 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 Karasawa fails to explicitly disclose a HMD wherein the direction the HMD is pointing is the direction used by the video game.

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... 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."

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.

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 Karasawa with the HMD control system as described by Numa for the purpose of providing enhanced reality to a game.

Claims 88-93 are rejected are rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma., USPAT 6,287,200 (hereinafter Sharma) in view of Gotoh and Kotanen et al., "Experiments on Local Positioning with Bluetooth" (hereinafter Kotanen).

Claim 88. Sharma discloses:

a display (fig. 4);

a locating device operable to determine the physical location of said locating device comprising a local position system (Kotanen);

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 (3:9-12, 3:31-61).

While Sharma discloses the wireless device's WLAN and Bluetooth capabilities, Sharma fails to explicitly disclose local positioning capabilities using either of these protocols.
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 $\dot{z}_{k+1} = h(x_k)$, $\dot{z}_{k+1}$ 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.

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."

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.

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.

Claim 89. Sharma discloses at least two positioning devices (fig. 3 and 5).

Claim 90. Sharma discloses a wireless device (fig. 2,3 and 6, mobile device).

Claim 91. Sharma discloses the physical location of said locating device is stored and updated in a remote server (a server is any piece of software or hardware that serves data to another piece of software or hardware, fig. 6, 4:18-44).

Claim 92. Sharma discloses a second virtual character (fig. 3 and 5).

Claim 93. Sharma discloses using the trajectory of the device (3:55).

Claims 94, 96, and 98 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma (US Pat. No. 6,287,200 B1) in view of Gotoh and Ebersole et al. (US Pub. No. 2003/0210228 A1).

Regarding claim 94, Sharma discloses a system comprising:

A display (fig. 4);

A first locating device operable to determine a first physical location of said locating device on a physical playfield (abstract, col. 2, lines 35-45, GPS);

A processor coupled to said display, wherein said processor is operable to provide a first video game and utilize said first physical locations, at least in part, to control a virtual character on a virtual playfield (col. 3:9-12, col. 3:31-61).

Sharma substantially discloses the invention as claimed but fails to explicitly teach a second locating device operable to determine a second physical location of said second locating device on said physical playfield, together with the first locating device, provide control to a virtual character, instead, Sharma discloses a location based game in which an external display such as virtual reality goggles may be used with a mobile device. In an analogous reference, Ebersole discloses an augmented-reality system in which a head-mounted display is utilized. Ebersole specifically discloses a head-mounted display in which two GPS receivers are used to determine the heading and position of the head-mounted display (Ebersole, paragraphs [0074 and 0075]) to enable 5 degrees of freedom motion tracking in an augmented reality environment wherein dynamically updated information may be mixed with a live view of the real world. Therefore, it

would have been obvious to one or ordinary skill in the art at the time of the instant invention to modify Sharma with two GPS receivers to enable 5 degrees of freedom motion tracking in an augmented reality environment wherein dynamically updated information may be mixed with a live view of the real world.

Regarding claim 96, Sharma in view of Ebersole discloses that the locating devices are positioning receivers (col. 2, lines 35-45, GPS).

Regarding claim 98, Sharma discloses a manual control to control, at least in part said virtual character (fig. 5, col. 3, lines 45-61, moving the mobile unit controls the virtual character).

Claim 95 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma (US Pat. No. 6,287,200 B1) in view of Gotoh and Ebersole et al. (US Pub. No. 2003/0210228 A1) and further in view of US Patent No. 5,724,660 to Kauser et al.

Regarding claim 95, Sharma substantially discloses the invention as claimed but fails to explicitly teach that the an average of locations is used to control the virtual character. However, in an analogous reference, Kauser discloses that GPS coordinates are commonly averaged to decrease error rates in col. 9, lines 30-40. Therefore, it would have been obvious to one or ordinary skill in the art at the time of the instant invention to modify Sharma with averaged GPS coordinates to decrease error rates.

Claims 97 and 99 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma (US Pat. No. 6,287,200 B1) in view of Gotoh and Ebersole et al. (US Pub. No. 2003/0210228 A1) and further in view of Benes et al. (US 2004/0046655 A1).

Regarding claims 97 and 99, Sharma substantially discloses the invention as claimed such as a second virtual character (devices B-D, col. 3, lines 9-44) but fails to explicitly teach a wireless telephone device. Instead, Sharma discloses mobile devices with displays that may communicate via RF, WAP, Bluetooth etc. without expressly disclosing a wireless telephone device. However, in an analogous reference, Benes discloses a wireless telephone device to play a location-based game. One of ordinary skill in the art would have seen the benefit of modifying Sharma with a wireless telephone device to optimize the resources available to subscribers, alter the game by defining an area of play and activate game features without direct communication between the players and the providers (Benes, paragraph 1 and 2). Furthermore, an artisan would have found it obvious to adapt the invention, when possible, to operate on other wireless devices (Benes, paragraph 10) to increase the user base by allowing users who already own one similar device but do not want to purchase another device to play the game. Therefore, it would have been obvious to one or ordinary skill in the art at the time of the instant invention to modify Sharma with a wireless telephone device to optimize resources, and increase the user base which would also increase profits.

Claims 105, 111, 112 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Pat. No. 6,287,200 B1 to Sharma (Sharma) in view of Gotoh and US Pub. No. 2004/0248653 A1 to Barros et al. (Barros).

Regarding claims 105, 111, 112, Sharma substantially discloses the invention as claimed such as a multiplayer location based video game (Sharma, col. 3, lines 25-45) but fails to explicitly teach wirelessly downloading a location-based program to the wireless telephonic device. Instead, Sharma seems to remain silent as to how the games are loaded onto the system. However, in an analogous reference, Barros discloses that the game is wirelessly sent to the mobile telephonic device from the server. One of ordinary skill in the art would have found it obvious to use wireless communications to provide a way to attract users to a store by enhancing their interactive experience while executing applications on their wireless devices and enables special features in an application executed on a wireless device when the wireless device is within a predefined vicinity of a store (Barros: paragraph [0011]). Therefore, it would have been obvious to one or ordinary skill in the art at the time of the instant invention to modify Sharma with wirelessly downloading games to enable special features and attracts users to a store thereby increasing advertising revenue.

Claims 86 and 106 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Pat. No. 6,287,200 B1 to Sharma (Sharma) in view of Gotoh and US Pub. No. 2006/0154710 A1 to Serafat.

Regarding claims 86 and 106, Sharma substantially discloses the invention as claimed but fails to explicitly teach a single-player video game. However in an analogous reference, Serafat teaches using artificial intelligence (Serafat, paragraph [0056]) in mobile gaming (Serafat, paragraph [0054]) to continue a game even in the absence of a player, without the need to interrupt the game itself. Therefore it would have been obvious to one of ordinary skill in the art at the time of

the invention to modify Sharma with AI for continuing a multiplayer game in singleplayer mode in case of an absence of a player participating in the game by simulating the participation of the player who is absent.

Response to Arguments

Applicant's arguments filed 7/28/2015 have been fully considered but they are not persuasive.

Beginning on page 26, regarding claim 82, Applicant argues that Sharma fails to disclose a movement measurement being an accelerometer. This argument is moot in light of the new grounds of rejection that was necessitated by the current amendment.

Beginning on page 27, regarding claim 100, Applicant argues that Sharma fails to disclose detecting a virtual direction of a virtual character. Again, Sharma discloses, in at least column 2, lines 24-45, the use of Global Positioning System to locate the position of a mobile device. The GPS determines the direction of the mobile device, which represents the virtual character. For at least this reason, the rejections are maintained.

Beginning on page 28, regarding claim 1, Applicant argues that the combination of Sharma and Benes fails to disclose earlier alleged deficiency of Sharma. For the reasons set forth above, the rejections are maintained.

Beginning on page 29, regarding claim 17, Applicant argues that Sharma and Benes fails to disclose transferring data to a remote server. The Examiner respectfully disagrees. In column 4, lines 18-44, Sharma discloses the use of a WAP server for receiving position data. For at least this reason, the rejections are maintained.

Beginning on page 30, regarding claim 76, Applicant argues that the combination of Sharma, Karasawa, and Bertsis fails to disclose a transparent display. The Examiner respectfully disagrees. As stated in the Office Action, Karasawa is relied upon to teach a transparent display (e.g., see Karasawa, Figs. 1a and 1b). For at least this reason, the rejections are maintained.

On page 32, regarding claim 76, Applicant argues that it is hindsight reasoning to combine an accelerometer as taught by Berstis with the GPS positioning device. The Examiner respectfully disagrees. It is not hindsight to provide alternative technical features for performing a similar function when the alternative provides some advantage (e.g., reducing the cost of the device or reliance on a strong GPS signal). For at least this reason, the rejections are maintained.

Beginning on page 31, regarding claim 18, Applicant argues that the combination of Sharma and Hale do not disclose or make obvious recited differently "scaled" features of the claim. The Examiner respectfully disagrees. Although Applicant only acknowledges a single recitation in Hale regarding scaling in the title of the invention, Hale's disclosure is, in fact, replete with references to the usefulness of scaling positioning data. It is requested that Applicant review Hale in its entirety to appreciate the scope of its teaching with regard to scaling. For at least this reason, the rejections are maintained.

Beginning on page 32, regarding claim 88, Applicant argues that the combination of Sharma and Kotanen fail to disclose a ground-based positioning device. The Examiner respectfully disagrees. Kotanen is relied upon to teach ground-based local positioning (see at least Kotanen's Introduction). For at least this reason, the rejections are maintained.

On page 33, regarding claim 88, Applicant argues that Sharma and Kotanen cannot be combined because the combination would destroy the base reference. The Examiner respectfully

disagrees. Simply because Sharma and Kotanen teach different technologies for determining position, doesn't make them unavailable for a combination. Sharma's end result (e.g., game play) could be implemented with one of many different methods of determining one or more user positions. For at least this reason, the rejections are maintained.

Beginning on page 34, regarding claim 94, Applicant argues that Sharma and Ebersole fail to disclose two locating devices to detect the position of a single user. The Examiner respectfully disagrees. Ebersole is relied upon to teach two locating devices to detect the position of a single user (e.g., see paragraphs 74 and 75). For at least this reason, the rejections are maintained.

Beginning on page 36, Applicant groups the remaining dependent claims and argues that each dependent claim is allowable because it depends from an allegedly allowable base claim. Since all base claims were previously addressed, the rejections of the dependent claims are also maintained.

Conclusion

THIS ACTION IS MADE FINAL. 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 mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAMES S. MCCLELLAN whose telephone number is (571)272-7167. The examiner can normally be reached on Mon-Fri (8:30AM-5:00PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dmitry Suhol can be reached on (571) 272-4430. 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.

/JAMES S. MCCLELLAN/
Primary Examiner, Art Unit 3716

Notice of References Cited	Application/Control No. 10/932,536	Applicant(s)/Patent Under Reexamination MULLEN, JEFFREY D.	
	Examiner JAMES S. MCCLELLAN	Art Unit 3716	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	CPC Classification	US Classification
*	A	US-2003/0217070 A1	11-2003	Gotoh, Hideo	G01C21/16	1/1
	B	US-				
	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	CPC 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.

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	10932536	MULLEN, JEFFREY D.
	Examiner	Art Unit
	ANDREW KIM	3716

CPC- SEARCHED		
Symbol	Date	Examiner
A63F 2300/5573	1/27/2014	AK
update	1/25/2015	JSM
update	8/24/2015	JSM
Update Search	3/7/2016	JSM
Update Search	9/19/2016	JSM

CPC COMBINATION SETS - SEARCHED		
Symbol	Date	Examiner

US CLASSIFICATION SEARCHED			
Class	Subclass	Date	Examiner
463	31, 40, 42	1/27/2014	AK
Update		1/25/2015	JSM
Update		8/24/2015	JSM
Update Search		3/7/2016	JSM
Update Search		9/19/2016	JSM

SEARCH NOTES		
Search Notes	Date	Examiner
EAST (see attached notes)	12/19/2009	AK
EAST Text search of PGPUB, USPAT, USOCR, EPO, JPO, DERWENT. See attached search results.	1/27/2014	AK
Update Search	1/25/2015	JSM
Update SEarch	8/24/2015	JSM
Update Search	3/7/2016	JSM
Update Search	9/19/2016	JSM

	/JAMES S MCCLELLAN/ Primary Examiner.Art Unit 3716

INTERFERENCE SEARCH			
US Class/ CPC Symbol	US Subclass / CPC Group	Date	Examiner

	/JAMES S MCCLELLAN/ Primary Examiner.Art Unit 3716

EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	1	("6287200").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2016/09/19 12:30
L3	112835	accelerometer	US-PGPUB; USPAT	OR	OFF	2016/09/19 12:32
L4	1317104	phone or telephone	US-PGPUB; USPAT	OR	OFF	2016/09/19 12:32
L5	4996185	@ad<"20040901"	US-PGPUB; USPAT	OR	OFF	2016/09/19 12:32
L6	306513	GPS	US-PGPUB; USPAT	OR	OFF	2016/09/19 12:32
L7	16221	6 with 3	US-PGPUB; USPAT	OR	OFF	2016/09/19 12:33
L8	868	7 with 4	US-PGPUB; USPAT	OR	OFF	2016/09/19 12:33
L9	31	8 and 5	US-PGPUB; USPAT	OR	OFF	2016/09/19 12:33
S1	1	("6287200").PN.	US-PGPUB; USPAT	OR	OFF	2015/01/25 22:42
S2	1	("6011653").PN.	US-PGPUB; USPAT	OR	OFF	2015/01/25 23:10
S3	1	("5902343").PN.	US-PGPUB; USPAT	OR	OFF	2015/01/25 23:21
S4	4994946	@ad<"20040901"	US-PGPUB; USPAT	OR	OFF	2015/01/25 23:43
S5	225784	GPS	US-PGPUB; USPAT	OR	OFF	2015/01/25 23:43
S6	1077388	phone or telephone	US-PGPUB; USPAT	OR	OFF	2015/01/25 23:43
S7	325884	game	US-PGPUB; USPAT	OR	OFF	2015/01/25 23:43
S8	5420	S5 with S6 with S7	US-PGPUB; USPAT	OR	OFF	2015/01/25 23:43
S9	74	S8 and S4	US-PGPUB; USPAT	OR	OFF	2015/01/25 23:44
S10	4995573	@ad<"20040901"	US-PGPUB; USPAT	OR	OFF	2015/08/24 16:37
S11	251452	GPS	US-PGPUB; USPAT	OR	OFF	2015/08/24 16:37
S12	1157040	phone or telephone	US-PGPUB; USPAT	OR	OFF	2015/08/24 16:37
S13	351038	game	US-PGPUB; USPAT	OR	OFF	2015/08/24 16:37
S14	8605	S11 same S12 same S13	US-PGPUB; USPAT	OR	OFF	2015/08/24 16:37

S15	6801	S11 with S12 with S13	US-PGPUB; USPAT	OR	OFF	2015/08/24 16:37
S16	74	S15 and S10	US-PGPUB; USPAT	OR	OFF	2015/08/24 16:37

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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	:	Andrew Kim

Hon. Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Pittsburgh, PA 15116
September 9, 2016

REPLY TO OFFICE ACTION

Sir:

This is in response to the Office Action dated March 9, 2016. A three-month extension of time is applicable hereto and is being submitted herewith. In response to the Office Action, 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.

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 telephone, wherein said wireless telephone 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, said virtual character is displayed on said display, 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 telephone 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. (previously presented) The system of claim 1, wherein said wireless telephone further 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. (previously presented) The system of claim 1, wherein said wireless telephone further 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. (previously presented) The system of claim 1, wherein said wireless telephone further comprises manual controls for controlling non-location based aspects of said virtual character.

14. (previously presented) The system of claim 1, wherein said wireless telephone further 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. (previously presented) The system of claim 1, wherein said wireless telephone further 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

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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;

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; and

retrieving by said wireless telephonic device from said remote server a third physical location of a second wireless telephonic device.

18. (previously presented) 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, said first virtual character being displayed on a display, second

location information associated with said second physical location is scaled, said scaled second location is utilized to provide a second virtual character on said virtual playfield, said second virtual character being displayed on said display, 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. (previously presented) The system of claim 1, wherein an amount of time is displayed associated with a 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. (previously presented) The system of claim 1, wherein said wireless telephone is operable to 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 telephone 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 telephone 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 telephone 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 said ~~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. (previously presented) The method of claim 17, wherein a first locating device is provided in said wireless telephonic device and said wireless telephonic device is able to provide human-communications to a second telephonic device while 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. (previously presented) The method of claim 18, further comprising determining a direction of a directional device and utilizing said direction to control a direction of said first virtual character.

75. (previously presented) 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 provide human-communications to a second telephonic device while 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

an accelerometer;

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, 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, and said video game is controlled, at least in part, by said accelerometer.

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. (previously presented) The system of claim 76, wherein said video game comprises a second virtual character, said second virtual character is computer controlled.

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. (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 movement measuring device operable to be utilized, at least in part, to determine said physical location, wherein said movement measuring device includes an accelerometer; 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. (currently amended) The system of claim 82, wherein ~~said movement measuring device comprises an accelerometer~~ said accelerometer provides acceleration information and said acceleration information is utilized, at least in part, to determine said physical location.

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. (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 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. (previously presented) The system of claim 88, wherein said at least one ground-based local positioning device includes at least two ground-based local positioning devices.

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 second locating device on said physical playfield; and

a processor coupled to said display, wherein said processor is operable to provide a first video game and utilize said first and second physical locations, at least in part, to control a virtual character on a virtual playfield.

95. (previously presented) The system of claim 94, wherein said an average including said first physical location and said second physical location is utilized, at least in part, to control said virtual character.

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 manual control to control, at least in part, said virtual character.

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. (currently amended) A system comprising:

a non-transparent 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 operable to be utilized, at least in part, to determine said physical location;

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 and facing a virtual direction on a virtual playfield said virtual location on said virtual playfield corresponds to said physical location on said physical playfield, and said virtual direction on said

virtual playfield corresponds to said physical direction 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 non head-mounted display.

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. (previously presented) The system of claim 100, wherein said locating device is included in a first wireless telephonic device and 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 operable to be utilized, at least in part, to determine said physical location.

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

118. (previously presented) The system of claim 1, wherein said ~~locating device comprises a~~ movement measuring device ~~operable to be utilized, at least in part, to determine said physical location~~ includes and accelerometer.

REMARKS/ARGUMENTS

Summary of Office Action

Claims 1-61 and 63-118 are pending in the application.

The Examiner rejected claims 82, 87, 100-104, 107-110 and 113-115 under 35 U.S.C. 102(b) as being unpatentable over Sharma U.S. Patent No. 6,287,200.

The Examiner rejected claims 1-3, 6-16, 19-20, 22, 25, 26, 28-32, 34, 43, 53, 55, 56, 59-61, 63-65, 83, 116, and 117 under 35 U.S.C. 103(a) as being unpatentable over Sharma U.S. Patent No. 6,287,200 (hereinafter "Sharma") in view of Benes et al U.S. Patent Application Publication No. 2004/0046655 (hereinafter "Benes").

The Examiner rejected claim 4 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Benes and further in view of Newell et al U.S. Patent No. 6,735,435 (hereinafter "Newell").

The Examiner rejected claims 5 and 57 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").

The Examiner rejected claims 21, 54, and 84 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Berstis U.S. Patent No. 6,337,888 (hereinafter "Berstis").

The Examiner rejected claims 23, 24, 38-41, 58, and 85 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").

The Examiner rejected claims 27, 35-37, 42, 45, 46, and 48-50 under 35 U.S.C. 103(a) as being unpatentable

over Sharma in view of Acclaim's Mortal Kombat (hereinafter "MK").

The Examiner rejected claim 30 under 35 U.S.C. 1039A) over Sharma in view of Benes and further in view of Serafrat U.S. Publication No. 2006/0154710 (hereinafter "Serafrat").

The Examiner rejected claim 33 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").

The Examiner rejected claim 44 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").

The Examiner rejected claims 51 and 52 were rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Benes and further in view of Super Dodgeball by Nintendo (hereinafter "Super Dodgeball").

The Examiner rejected claims 18, 68, and 71-75 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Hale U.S. Patent No. 5,902,343 (hereinafter "Hale").

The Examiner rejected claim 66 under 35 U.S.C. 103(a) as being unpatentable over Shara in view of Hale and further in view of Benes.

The Examiner rejected claim 67 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Hale in view of Berstis U.S. Patent No. 6,337,688 (hereinafter "Berstis").

The Examiner rejected claim 69 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Hale and further in view of Kotanen.

The Examiner rejected claim 70 under 35 U.S.C. 103(a) over Sharma in view of Hale and further in view of Barros U.S. Publication No. 2004/0248653 (hereinafter "Barros")

The Examiner rejected claims 76-78 and 80 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Karasawa U.S. Patent No. 6,011,653 (hereinafter "Karasawa") and further in view of Berstis.

The Examiner rejected claim 79 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Karasawa and further in view of Berstis and Reaney U.S. Patent No. 5,523,890 (hereinafter "Reaney").

The Examiner rejected claim 81 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Karasawa and further in view of Berstis and further in view of Numa U.S. Patent No. 6,633,267 (hereinafter "Numa").

The Examiner rejected claims 88-93 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Kotanen.

The Examiner rejected claims 94, 96, and 98 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Ebersole U.S. Patent Publication No. 2003/0210228 (hereinafter "Ebersole").

The Examiner rejected claim 95 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Ebersole and further in view of Kauser U.S. Patent No. 5,724,660 (hereinafter "Kauser").

The Examiner rejected claims 97 and 99 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Ebersole and further in view of Benes.

The Examiner rejected claims 105, 111, and 112 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Barros.

The Examiner rejected claims 86 and 106 under 35 U.S.C. 103(a) as being unpatentable over Sharma.

Summary of Applicant's Amendments

Without prejudice and solely in order to expedite prosecution, applicant has amended claims 82, 85, 100, and 118.

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

Rejections Under 35 U.S.C. § 102(b) Over Sharma

The Examiner rejected claims 82, 87, 100-104, 107-110 and 113-115 under 35 U.S.C. 102(b) as being unpatentable over Sharma.

Claim 82

The Examiner stated that:

> "Applicant argues that Sharma fails to disclose a movement measurement at least partially based on a physical location. The Examiner respectfully disagrees … Sharma discloses, in at least column 2, lines 24-45, the use of Global Positioning to locate the position of a mobile device. For at least this reason, the rejections are maintained" (Office Action, page 46)

Solely to expedite prosecution and without prejudice, applicant has amended claim 82 to include the

feature of a movement measurement device that includes an accelerometer.

Global Positioning merely provides Global Positioning. An accelerometer is not the Examiner's Global Positioning.

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

Claim 100

The Examiner stated that:

> "Sharma discloses ... the use of Global Positioning System" (Office Action, page 46)
>
> "The GPS determines the direction" (Office Action, page 46)

Sharma's alleged Global Positioning System, however, does not determine direction. There is nothing in Sharma's Global Positioning that provides direction.

Furthermore, applicant's claim 100 includes two devices – not one – a locating device and a directional device. Sharma does not show or suggest a locating device and a directional device.

Futhermore, without prejudice and solely in order to expedite prosecution, applicant has amended claim 100 to include the locating device comprises a movement measuring device operable to be utilized, at least in part, to determine said physical location. None of the prior art, used either alone or in combination, shows or suggests claim 100 that includes this feature.

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 Benes

The Examiner rejected claims 1-3, 6-16, 19-20, 22, 25, 26, 28-32, 34, 43, 53, 55, 56, 59-61, 63-65, 83, 116, and 117 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Benes.

Claim 1

Applicant had previously amended claim 1 to include a wireless telephone.

The Examiner stated:

> "Sharma … fails to explicitly teach a wireless telephone device" (Office Action, page 6)

As admitted, Sharma does not show or suggest a wireless telephone – let alone a wireless telephone having a locating device with a virtual character that is displayed and where the virtual characters location corresponds to a physical location.

The Examiner stated:

> "an artisan would have found it obvious to adapt the invention, when possible, to operate on other wireless devices"
> (Office Action, page 7).

It is not possible. Benes does not correct for the deficiency of Sharma as Benes merely discusses asking a user questions based on activation locations. A question is not a displayed virtual character. Second, even if the Examiner's statement occurred – which it did not – the artisan would still not include claim 1 of a wireless telephone. A wireless device is not a wireless telephone.

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:

> "Sharma fails to explicitly teach a wireless telephonic phone." (Office Action, page 11)

The Examiner stated:

> "an artisan would have found it obvious to adapt the invention, when possible, to operate on other wireless devices"
> (Office Action, page 12).

It is not possible. Benes does not correct for the deficiency of Sharma as Benes merely discusses asking a user questions based on activation locations. A question is not a character. Second, even if the Examiner's statement occurred – which it did not – the artisan would still not include claim 1 of a wireless telephone. A wireless device is not a wireless telephone.

Furthermore, solely to expedite prosecution, applicant had previously amended claim 17 to include retrieving by the wireless telephonic device from the remote server a third physical location of a second wireless telephonic device. Neither Sharma nor Benes, used either alone or in combination, show or suggest updating the location and retrieving by the wireless telephonic device from the remote server a third physical location of a second wireless telephonic device. Direct device-to-device handshaking does not show or suggest such a feature.

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

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

Claims 76-78 and 80 were rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Karasawa and further in view of Bertsis.

The Examiner stated that:

> "Sharma … fails to explicitly teach a transparent display, such that video game indicia is visible with said physical playfield through said display." (Office Action, page 36)

Neither Sharma, Karasawa, nor Bertsis, however, show or suggest applicant's invention of claim 76 of game indicia, associated with a video game, that is displayed on said display such that said video game indicia is visible with said physical playfield through said display.

Karasawa's mere mention of a head-mounted optical display and Sharma's alleged mention of "arcade-type virtual reality goggles" (which are silent on a transparent display), does not, in hindsight, correct for such a deficiency.

An optical display is not game indicia, associated with a video game, that is displayed on said display such that said video game indicia is visible with said physical playfield through said display. Bertsis mere mention of a virtual reality environment does not correct for the deficiency. A virtual reality environment is not game indicia, associated with a video game, that is displayed on said display such that said video game indicia is visible with said physical playfield through said display.

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 Rejections
Under 35 U.S.C. § 103(a) Over Sharma and Hale

Claims 18, 68, and 71-75 were rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Hale.

The Examiner stated that:

> "Sharma … fails to explicitly teach operating a video game such that first location information associated with first physical location is called, said scaled first location is utilized to provide a first virtual character on a virtual playfield, second location information associated with said second physical location is scaled, said scaled second location is utilized to provide a second virtual character on said virtual playfield, said first location information and said second location information are scaled differently." (Office Action, page 30)

Hale alleges nothing other than include the words GPS and scaling in the title. Hale is irrelevant to Sharma.

In fact, Hale discusses an agricultural vehicle and determining the position of this agricultural vehicle relative to a field.

The Examiner states:

> "Hale's disclosure is, in fact, replete with reference to the usefulness of scaling positioning data" (Office Action, page 47).

Claim 18 includes not just a location-based video game – but a multiplayer game. Hale does not show or suggest such a feature.

Neither Hale, nor Sharma, however, shows or suggests the scaling of applicant's invention of claim 18.

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

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

The Examiner rejected claims 88-93 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Kotanen.

The Examiner stated:

> "Sharma fails to explicitly disclose local positioning capabilities using either of these protocols … Kotanen teaches both the use of a local positioning system and the use of averaging distances to predict local coordinates." (Office Action, page 40)

Applicant's invention of claim 88, however, includes:

> "a locating device operable … comprises a local positioning system … [that] utilized signals from at least one ground-based local positioning device to determine said physical location … processor is operable to provide a video game … said virtual location on said virtual playfield corresponds to said physical location"

Neither of the prior art, used either alone or in combination, or suggest claim 88 that includes such a video game video game comprising a virtual character and 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.

The Examiner stated:

> "simply because Sharma and Kotaten teach different technologies … doesn't make them unavailable for a combination."
> (Office Action, page 48)

First, Koten actually dismisses GPS. Accordingly, the Examiner's statement is not applicable. Sharma and Kotanen cannot be combined – the two references are diametrically opposed. In fact, Kotanen discusses and dismisses GPS. *See Kotanen,* introduction. And, Sharma has precisely configured its device to utilize Bluetooth for communicating GPS signals. Accordingly, the Examiner's combination would be inoperable and would eviscerate the spirit of the individual devices. Every function of Sharma is precisely configured and relies on the correct configuration of all of the other Sharma functions. Meanwhile, Kotanen discusses, at length, all of the components required to obtain Kotanen's alleged functionality. Sharma is a dedicated, application specific device that does not include such components. Again, completely combining Sharma and Kotanen would merely result in an inoperable device neither shown nor suggested by the individual devices while eviscerating the spirit of the individual systems.

Second, Applicant disagrees with the Examiner's assertion. Just because a rocket uses rocket fuel and a steam powered bike uses steam does, in fact mean, that rocket fuel is not combinable with the steam. The devices are precision devices.

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

Applicant's Response to the Rejections Under 35 U.S.C. § 103(a) in view of Sharma and Ebersole

The Examiner stated that Sharma discusses:

> "Sharma … fails to explicitly teach a second locating device operable to determine a second physical location of said locating device on said physical playfield, together with the first locating device, provide control to a virtual character." (Office Action, page 41)

Accordingly, the Examiner admits that Sharma is silent to, and far removed from, many of the elements of claim 18. Ebersole does not correct for this deficiency. Ebersole does not even show or suggest a video game – let alone a video game comprising a virtual character with a virtual location on a virtual playfield and the virtual location on the virtual playfield corresponds to said physical location on said physical playfield.

Applicant's invention of claim 94 utilizes two locating devices to control a single virtual character. Neither Sharma nor Ebersole, used either alone or in combination, show or suggest such a feature. Navigating is not a video game comprising a virtual character.

Furthermore, Sharma is far removed from Ebersole. Sharma alleges a hand-held device with limited functionality. Combining Ebersole with Sharma would merely result in an inoperable device neither shown nor suggested by the individual devices and eviscerating the spirit of the individual systems.

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

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

The Examiner rejected claims 101-104, 107-110 and 113-115 under 35 U.S.C. 102(b) as being unpatentable over Sharma U.S. Patent No. 6,287,200. The Examiner rejected claims 2-3, 6-9, 19-20, 22, 25, 26, 28-32, 34, 43, 53, 55, 56, 59-61, 63-65, 83, 116, and 117 under 35 U.S.C. 103(a) as being unpatentable over Sharma U.S. Patent No. 6,287,200 (hereinafter "Sharma") in view of Benes et al U.S. Patent Application Publication No. 2004/0046655 (hereinafter "Benes"). The Examiner rejected claim 4 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Benes and further in view of Newell et al U.S. Patent No. 6,735,435 (hereinafter "Newell"). The Examiner rejected claims 5 and 57 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"). The Examiner rejected claims 21, 54, and 84 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Berstis U.S. Patent No. 6,337,888 (hereinafter "Berstis"). The Examiner rejected claims 23, 24, 38-41, 58, and 85 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"). The Examiner rejected claims 27, 35-37, 42, 45, 46, and 48-50 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Acclaim's Mortal Kombat (hereinafter "MK"). The Examiner rejected claim 33 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"). The Examiner rejected claim 44 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"). The Examiner rejected claims 51 and 52 were rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Benes and further in view of Super Dodgeball by Nintendo (hereinafter "Super Dodgeball"). The Examiner rejected claims 68, and 71-75 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Hale U.S. Patent No. 5,902,343 (hereinafter "Hale"). The Examiner rejected claim 66 under 35 U.S.C. 103(a) as being unpatentable over Shara in view of Hale and further in view of Benes. The Examiner rejected claim 67 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Hale in view of Berstis U.S. Patent No. 6,337,688 (hereinafter "Berstis"). The Examiner rejected claim 69 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Hale and further in view of Kotanen. The Examiner rejected claim 70 under 35 U.S.C. 103(a) over Sharma in view of Hale and further in view of Barros U.S. Publication No. 2004/0248653 (hereinafter "Barros"). The Examiner rejected claims 76-80 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Karasawa U.S. Patent No. 6,011,653 (hereinafter "Karasawa") and further in view of Berstis. The Examiner rejected claim 81 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Karasawa and further in view of Berstis and further in view of Numa U.S. Patent No. 6,633,267 (hereinafter "Numa"). The Examiner rejected claims 88-93 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Kotanen. The Examiner rejected

claims 94, 96, and 98 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Ebersole U.S. Patent Publication No. 2003/0210228 (hereinafter "Ebersole"). The Examiner rejected claim 95 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Ebersole and further in view of Kauser U.S. Patent No. 5,724,660 (hereinafter "Kauser"). The Examiner rejected claims 97 and 99 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Ebersole and further in view of Benes. The Examiner rejected claims 105, 111, and 112 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Barros. The Examiner rejected claims 86 and 106 under 35 U.S.C. 103(a) as being unpatentable over Sharma. The Examiner rejected claim 30 under 35 U.S.C. 1039A) over Sharma in view of Benes and further in view of Serafrat. The Examiner rejected claim 79 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Karasawa and further in view of Berstis and Reaney.

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 affadavit 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,

/Jeffrey D. Mullen/
Jeffrey D. Mullen
Applicant (Reg. No. 52,056)
Customer No. 32733
2212 Hassinger Lane
Glenshaw, PA 15116
Mobile: (914) 837-7741

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	
Filing Fees for Utility under 35 USC 111(a)	

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Pages:				
Claims:				
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 $0 paid	2253	1	700	700
Miscellaneous:				
		Total in USD ($)		**700**

Electronic Acknowledgement Receipt	
EFS ID:	26875306
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:	09-SEP-2016
Filing Date:	01-SEP-2004
Time Stamp:	07:41:59
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Credit Card
Payment was successfully received in RAM	$700
RAM confirmation Number	7566
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 CFR 1.16 (National application filing, search, and examination fees) Charge any Additional Fees required under 37 CFR 1.17 (Patent application and reexamination processing fees)	

Charge any Additional Fees required under 37 CFR 1.19 (Document supply fees) Charge any Additional Fees required under 37 CFR 1.20 (Post Issuance fees) Charge any Additional Fees required under 37 CFR 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	227131 89a06be46224b8ce338694a6de6b3e60f85799a3	yes	39

	Multipart Description/PDF files in .zip description		
	Document Description	**Start**	**End**
	Amendment/Req. Reconsideration-After Non-Final Reject	1	1
	Claims	2	22
	Amendment/Req. Reconsideration-After Non-Final Reject	23	39

Warnings:					
Information:					
2	Fee Worksheet (SB06)	fee-info.pdf	30103 398d02a49c0c095e9c2f636eaa2b4ea6f5aa70cd	no	2
Warnings:					
Information:					
		Total Files Size (in bytes):	257234		

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.

New Applications Under 35 U.S.C. 111
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.

National Stage of an International Application under 35 U.S.C. 371
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.

New International Application Filed with the USPTO as a Receiving Office
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.

PTO/SB/06 (09-11)
Approved for use through 1/31/2014. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
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PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875	Application or Docket Number 10/932,536	Filing Date 09/01/2004	☐ To be Mailed

ENTITY: ☐ LARGE ☒ SMALL ☐ MICRO

APPLICATION AS FILED – PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA	RATE ($)	FEE ($)
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A	N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*	X $ =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*	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 $310 ($155 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	

APPLICATION AS AMENDED – PART II

AMENDMENT	09/09/2016	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	* 117	Minus	** 117	=	X $ =	
	Independent (37 CFR 1.16(h))	* 8	Minus	***8	=	X $ =	
	☐ Application Size Fee (37 CFR 1.16(s))						
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))						
						TOTAL ADD'L FEE	

AMENDMENT		(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	*	Minus	**	=	X $ =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=	X $ =	
	☐ Application Size Fee (37 CFR 1.16(s))						
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))						
						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.

LIE
KATRINA . TURNER

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.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

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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 03/09/2016

JEFFREY D. MULLEN
2212 Hassinger Lane
Glenshaw, PA 15116

EXAMINER
MCCLELLAN, JAMES S

ART UNIT	PAPER NUMBER
3716	

MAIL DATE	DELIVERY MODE
03/09/2016	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 JAMES S. MCCLELLAN	Art Unit 3716	AIA (First Inventor to File) Status No

-- 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* MONTHS 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 *2/29/2016*.

☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.

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

3)☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

4)☐ 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*

5)☒ Claim(s) *1-61 and 63-118* is/are pending in the application.

5a) Of the above claim(s) _____ is/are withdrawn from consideration.

6)☐ Claim(s) _____ is/are allowed.

7)☒ Claim(s) *1-61 and 63-118* is/are rejected.

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

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

* If any claims have been determined allowable, you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to PPHfeedback@uspto.gov.

Application Papers

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

11)☐ The drawing(s) filed on _____ 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).

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).

Certified copies:

a)☐ All b)☐ Some** c)☐ None of the:

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) ☐ Information Disclosure Statement(s) (PTO/SB/08a and/or PTO/SB/08b) Paper No(s)/Mail Date _____.

3) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

4) ☐ Other: _____.

DETAILED ACTION

Applicant's Submission of a Response

Applicant's submission of a response on 2/29/2016 has been received and fully considered. Therefore, claims 1-61 and 63-118 are pending. It is noted that Applicant asserts in the most recent response that claims 1-115 are pending, which the Examiner believes is not currently accurate in light of the current claims.

Claim Rejections - 35 USC § 102

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.

Claims 82, 87, 100-104, 107-110, 113-115 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent No. 6,287,200 B1 to Sharma et al.

Regarding claim 82, Sharma discloses a system comprising:

A display (fig. 4);

A locating device operable to determine the physical location of said locating device on a physical playfield (abstract, col. 2, lines 35-45, mobile device contains GPS), wherein said locating device comprises a movement measuring device operable to be utilized, at least in part to determine said physical location (col. 3, lines 45-61, mobile device also contains a motion sensor that measures trajectory and velocity of the device, and in order to measure trajectory and

velocity, displacement must be measured thereby determining at least two different physical locations);

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 (fig. 3 and 5, col. 3, lines 45-61).

Regarding claims 87 and 107. Sharma discloses wherein said video game is a multiple-player video game (col. 3, lines 25-45).

Regarding claim 100, Sharma discloses a system comprising:

A non-transparent display (fig. 4, a hand-held display);

a locating device operable to determine the physical location of said locating device on a physical playfield (col. 2, lines 35-45, GPS);

a directional device operable to determine the physical direction of said directional device on said physical playfield (fig. 5, col. 3, lines 45-61, the motion sensor determines the direction); 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 and facing a virtual direction on a virtual playfield said virtual location on said virtual playfield corresponds to said physical location on said physical playfield, and said virtual direction on said

virtual playfield corresponds to said physical direction on said physical playfield (fig. 5, col. 3, lines 45-61, the user utilizes the device to move the character and the volleyball).

Regarding claim 101. Sharma discloses wherein said video game is provided on said display in a third-person perspective (fig. 3, col. 3, lines 30-44).

Regarding claim 102. Sharma discloses wherein said display is a non head-mounted display (fig. 4).

Regarding claim 103. Sharma discloses wherein a second virtual character is provided in said video game and said second virtual character is computer-controlled (fig. 2, 3 and 5, col. 3, lines 45-61, each character is controlled by the mobile device).

Regarding claim 104. Sharma discloses wherein a second virtual character is provided in said video game and said second virtual character is user- controlled (fig. 5, col. 3, lines 45-61, the character is controlled by the player who controls the device).

Regarding claim 108. Sharma discloses wherein an interactive virtual object, with respect to said virtual character, is provided in said video game (col. 3, lines 30-61, volleyball).

Regarding claim 109. Sharma discloses wherein an impenetrable virtual object, with respect to

said virtual character, is provided in said video game (col. 3, lines 30-61, the volleyball is hit and not penetrated by the swinging of the mobile device).

Regarding claim 110, Sharma discloses wherein said virtual character is selected from a plurality of virtual characters (col. 3, line 38, the players can choose a team X or Y character).

Regarding claim 113. Sharma discloses wherein said video-game is point-based (col. 3, lines 30-38, volleyball is point based).

Regarding claim 114. Sharma discloses wherein said locating device comprises a positioning receiver (col. 2, lines 35-45, GPS).

Regarding claim 115. Sharma discloses wherein said locating device comprises a movement measuring device operable to be utilized, at least in part, to determine said physical location (col. 3, lines 25-61, the mobile device also contains a motion sensor that measures trajectory and velocity of the device, and in order to measure trajectory and velocity, displacement must be measured thereby determining at least two different physical locations.).

Claim Rejections - 35 USC § 103

1. 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 negatived by the manner in which the invention was made.

2. **Claims 1-3, 6-16, 19, 20, 22, 25, 26, 28, 29, 31, 32, 34, 43, 47, 53, 55, 56, 59-61, 63-65, 83, 116 and 117 are rejected are rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma., USPAT 6,287,200 (hereinafter Sharma) in view of Benes et al. (US 2004/0046655 A1).**

Claims 1 and 83. Sharma in view of Benes discloses a system comprising:

a wireless device wherein said wireless device comprises:

a display (fig. 4);

a locating device operable to determine the physical location of said locating device on a physical playfield (col. 1:lines 5-16, col. 2:40, col. 3:45 - col. 4:8); 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 character is displayed on said display (fig. 3, col. 3:lines 9-38), and said virtual location on said virtual playfield corresponds to said physical location on said physical playfield (col. 3:9-12, col. 3:31-61).

Sharma substantially discloses the invention as claimed but fails to explicitly teach a wireless telephone device (as per claims 1 and 83). Instead, Sharma discloses mobile devices with displays that may communicate via RF, WAP, Bluetooth etc. without expressly disclosing a wireless telephone device. However, in an analogous reference, Benes discloses a wireless

telephone device to play a location-based game. One of ordinary skill in the art would have seen the benefit of modifying Sharma with a wireless telephone device to optimize the resources available to subscribers, alter the game by defining an area of play and activate game features without direct communication between the players and the providers (Benes, paragraph 1 and 2). Furthermore, an artisan would have found it obvious to adapt the invention, when possible, to operate on other wireless devices (Benes, paragraph 10) to increase the user base by allowing users who already own one similar device but do not want to purchase another device to play the game. Therefore, it would have been obvious to one or ordinary skill in the art at the time of the instant invention to modify Sharma with a wireless telephone device to optimize resources, and increase the user base which would also increase profits.

Claim 2. Sharma discloses said locating device is a global positioning system (col. 2:line 41).

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 lm 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 devise are able to participate in the virtual game." Because the range dictates the interaction between participants, it would imply that the playfield perimeter is default to the limit of the protocol.

Claim 6, Sharma inherently discloses memory to store the application programs (col. 3:lines 25-37) because a memory must be present in order to store multiple applications in addition to the volleyball game. Benes discloses a memory (Benes, fig. 2 and 3, item 260).

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 to 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 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.

Claim 8, 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 inherent to use a coordinate system, since GPS utilizes geographical coordinates.

Claim 9, Sharma discloses a the motion sensor within the wireless device that will sense both trajectory and velocity which corresponds to the direction and magnitude (col. 3:lines 45-61).

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.

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.

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 art 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.

Claim 15, Sharma discloses 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 (col. 3, lines 9-24, each device is a remote memory).

Claim 16, Sharma in view of Benes discloses a microphone and speaker (Benes, a cell phone inherently contains a mic and a speaker).

Claim 17, Sharma discloses a method for controlling a character in a location-based video game comprising:

storing a first physical location of a wireless device on a physical playfield on a remote server (fig. 6, col. 4, lines 18-44, each device acts as a server to the other devices storing the location of the other devices);

changing the location of said character in a virtual playfield of said video game based on said first physical location (fig. 6, col. 4, lines 18-44, each device is moved by the player while playing); and

updating the location of said wireless device on said remote server by storing a second physical location of said wireless device on said remote server (fig. 6, col. 4, lines 18-44, each device is updated with the location of the players while playing the game); and

retrieving by said wireless device from said remote server a third physical location of a second wireless device (fig. 6, col. 4, lines 18-44, the first device now receives updated information from a second device).

Sharma substantially discloses the invention as claimed but fails to explicitly teach a wireless telephone device. Instead, Sharma discloses mobile devices with displays that may communicate via RF, WAP, Bluetooth etc. without expressly disclosing a wireless telephone device. However, in an analogous reference, Benes discloses a wireless telephone device to play a location-based game. One of ordinary skill in the art would have seen the benefit of modifying Sharma with a wireless telephone device to optimize the resources available to subscribers, alter the game by defining an area of play and activate game features without direct communication

between the players and the providers (Benes, paragraph 1 and 2). Furthermore, an artisan would have found it obvious to adapt the invention, when possible, to operate on other wireless devices (Benes, paragraph 10) to increase the user base by allowing users who already own one similar device but do not want to purchase another device to play the game. Therefore, it would have been obvious to one or ordinary skill in the art at the time of the instant invention to modify Sharma with a wireless telephone device to optimize resources, and increase the user base which would also increase profits.

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.

Claim 22, Sharma discloses wherein said character is manually selected (col. 3, line 38, the players can choose a team X or Y character).

Claims 25 and 59. Sharma discloses wherein a second virtual character is provided in said video game and said second virtual character is user- controlled (fig. 5, col. 3, lines 45-61, the character is controlled by the player who controls the device).

Claims 26 and 64. Sharma discloses wherein said video-game is point-based (col. 3, lines 30-38, volleyball is point based).

Claim 28. Sharma discloses wherein an action is performed in said video game and an animated is played as a result of said action (fig. 3 and 5, col. 3, lines 45-61).

Claim 29, Sharma discloses a stationary device to control a virtual character (fig. 6, items 10 and 40).

Claim 31, Sharma shows in figure 6 and discusses in (column 4, lines 19-40) a server and each mobile device that is updated with every mobile device's location (col. 3, lines 9-24).

Claims 32 and 65, 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.

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.

Regarding claims 47 and 117. Sharma discloses wherein an impenetrable virtual object, with respect to said virtual character, is provided in said video game (col. 3, lines 30-61, the volleyball is hit and not penetrated by the swinging of the mobile device).

Regarding claims 53, 55, 56, 60, 61, 63 and 116 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 claim 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).

Claim 118. Sharma discloses wherein said locating device comprises a movement measuring device operable to be utilized, at least in part, to determine said physical location (col. 3, lines 25-61, the mobile device also contains a motion sensor that measures trajectory and velocity of the device, and in order to measure trajectory and velocity, displacement must be measured thereby determining at least two different physical locations.).

Claims 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Benes et al. (US 2004/0046655 A1) and further in view of Newell et al., USPAT 6,735,435 (hereinafter Newell).

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.

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).

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..."

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.

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.

Claims 5 and 57 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).

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

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 $\dot{z}_{k+1} = h(x_k)$, $\dot{z}_{k+1}$ 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.

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."

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.

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.

Claims 21, 54, and 84 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Benes et al. (US 2004/0046655 A1) and further in view of Berstis (US 6,337,688 B1).

Regarding claims 21, 54, and 84, which depend on the limitation of an accelerometer, Sharma substantially discloses the invention as claimed but fails to explicitly teach that first locating

device comprises an accelerometer. Instead, Sharma discloses using GPS for a locating device. However, in an analogous reference, Berstis discloses using accelerometers as an alternative to GPS because that are commercially available at low cost relative to a GPS receiver (Berstis, 3:62). Therefore, it would have been obvious to one or ordinary skill in the art at the time of the instant invention to modify Sharma with accelerometers as they are a low cost alternative to GPS receivers.

Claims 23, 24, 38-41, 58, 85, are rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Benes et al. (US 2004/0046655 A1) and further in view of Leonhard et al. USPUB 2002/0052933 (hereinafter Leonhard).

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.

Claims 23, 24, 58, and 85, 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 85,), 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.

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.

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. 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.

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.

Claims 27, 35-37, 42, 45, 46, and 48-50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Acclaim's Mortal Kombat (hereinafter MK).

While Sharma discloses a location-based gaming system capable of supporting a multi-player game, Sharma fails to explicitly disclose a game other than volleyball. 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.

Regarding claim 27, Sharma substantially discloses the invention as claimed but fails to explicitly teach wherein an amount of time is displayed associated with a start of said video game. However in an analogous reference Mortal Kombat (MK, page 7), which was one of the most popular games when the game first came out, illustrates points for both opponents above their power meters and also illustrates a time in the middle of the screen and discloses, "Should time run out..." referencing the game's use of time. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Sharma with a timer when combined with a popular game such as Mortal Kombat.

Regarding claims 35-37, and 42, 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.

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.

Regarding claims 48-50, 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.

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.

Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Benes et al. (US 2004/0046655 A1) and further in view of US Pub. No. 2006/0154710 A1 to Serafat. This new grounds of rejection was necessitated by applicant's request for documentary proof of official notice.

Claim 30, Sharma substantially discloses the invention as claimed but fails to explicitly teach a single-player video game. However in an analogous reference, Serafat teaches using artificial intelligence (Serafat, paragraph [0056]) in mobile gaming (Serafat, paragraph [0054]) to continue a game even in the absence of a player, without the need to interrupt the game itself. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Sharma with AI for continuing a multiplayer game in single player mode in

case of an absence of a player participating in the game by simulating the participation of the player who is absent.

Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Benes et al. (US 2004/0046655 A1) and further in view of Anderson et al., USPAT 7,303,474 (hereinafter Anderson).

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.

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..."

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."

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.

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.

Claims 44 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Benes et al. (US 2004/0046655 A1) and further in view of Tom, USPAT 6,690,947 (hereinafter Tom)

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.

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.

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.

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.

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.

Claims 51 and 52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Benes et al. (US 2004/0046655 A1) and further in view of Super Dodgeball by Nintendo (hereinafter "Super Dodgeball").

Regarding claims 51 and 52, Sharma substantially discloses the invention as claimed but fails to explicitly teach the limitation of being able to pick up and put down the virtual object. Sharma discloses a volley ball game. Instead, the virtual object is simply contacted by the player to be sent over the net and that a variety of other games may be played (Sharma: col. 3, lines 35-60). However, in an analogous art, Super Dodgeball teaches a game based on having two sides and a middle line similar to volleyball and has a rating of 8.5 out of 10 which teaches picking up a virtual object as evidenced by the youtube video of actual footage from the game that was released in 1998 and a gamefaq describing the same game (Super Dodgeball: picking up, youtube video at 1:00 and 6:15, and Blocking in the Gamefaq) and putting down the ball (dropping the ball in the Gamefaq). One of ordinary skill in the art at the time of the invention

would have seen this to be an obvious feature to maintain the continuity of the game. If the game simply skipped over the part when a player picks up an object, the game would lose realism and lose player appeal.

Claims 18, 68, and 71-75 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma, USPAT 6,287,200 (hereinafter Sharma) in view of Hale et al. (US 5,902,343).

Claim 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 (2:32-45);
obtaining a second physical location of a second locating device on a second physical playfield (2:32-45), wherein said first physical playfield is remote from said second physical playfield (fig. 3, 3:30-67, Team x and Y are different playfields); and

Sharma substantially discloses the invention as claimed such as displaying first and second characters (fig. 3, col. 3, lines 30-45) but fails to explicitly teach 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, second location information associated with said second physical location is scaled, 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. Instead, Sharma seems to remain silent as to how the location information is interpreted. However, in an analogous GPS reference, Hale discloses scaling the GPS field maps to show all of the data (Hale, abstract). One

of ordinary skill in the art at the time of the invention would have found it obvious to modify Sharma with scaled GPS maps to show all the data of the game as providing an easy-to-read electronic display showing a map of the area being traversed correlated with visual indicia of a characteristic being measured is difficult. Hale is analogous art because if an artisan had a problem of providing an easy-to-read electronic display showing a map of the area being traversed, an artisan would have found it obvious to search other GPS-related art. Therefore, one of ordinary skill in the art would have seen the benefit of modifying Sharma with GPS scaling to show all of the data necessary for the task at hand.

Claim 68. Sharma discloses a GPS receiver (2:40-45).

Claim 71. Sharma discloses a third character (fig. 3).

Claim 72. Sharma discloses a virtual object (volleyball, 2:35).

Claim 73. Sharma discloses an impenetrable virtual object (volleyball, 2:35).

Claim 74. Sharma discloses determining a direction (3:55).

Claim 75. Sharma discloses a device operable to provide human communications (a viewable display, fig. 4).

Claims 66 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma (US Pat. No. 6,287,200 B1) in view of in view of Hale et al. (US 5,902,343) and further in view of Benes et al. (US 2004/0046655 A1).

Regarding claims 66, Sharma substantially discloses the invention as claimed but fails to explicitly teach a wireless telephonic device. Instead, Sharma discloses mobile devices with displays that may communicate via RF, WAP, Bluetooth etc. without expressly disclosing a wireless telephone device. However, in an analogous reference, Benes discloses a wireless telephone device to play a location-based game. One of ordinary skill in the art would have seen the benefit of modifying Sharma with a wireless telephone device to optimize the resources available to subscribers, alter the game by defining an area of play and activate game features without direct communication between the players and the providers (Benes, paragraph 1 and 2). Furthermore, an artisan would have found it obvious to adapt the invention, when possible, to operate on other wireless devices (Benes, paragraph 10) to increase the user base by allowing users who already own one similar device but do not want to purchase another device to play the game. Therefore, it would have been obvious to one or ordinary skill in the art at the time of the instant invention to modify Sharma with a wireless telephone device to optimize resources, and increase the user base which would also increase profits.

Claim 67 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma, USPAT 6,287,200 (hereinafter Sharma) in view of Hale et al. (US 5,902,343) and Berstis (US 6,337,688 B1).

Claim 67. Sharma substantially discloses the invention as claimed but fails to explicitly teach that first locating device comprises an accelerometer. Instead, Sharma discloses using GPS for a locating device. However, in an analogous reference, Berstis discloses using accelerometers as an alternative to GPS because that are commercially available at low cost relative to a GPS receiver (Berstis, 3:62). Therefore, it would have been obvious to one or ordinary skill in the art at the time of the instant invention to modify Sharma with accelerometers as they are a low cost alternative to GPS receivers.

Claim 69 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Hale et al. (US 5,902,343) and further in view of Kotanen et al., "Experiments on Local Positioning with Bluetooth" (hereinafter Kotanen).

Claim 69. While Sharma discloses the wireless device's WLAN and Bluetooth capabilities, Sharma fails to explicitly disclose local positioning capabilities using either of these protocols. 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 $\dot{z}_{k+1} = h(x_k)$, $\dot{z}_{k+1}$ 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.

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."

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.

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.

Claims 70 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Pat. No. 6,287,200 B1 to Sharma (Sharma) in view of Hale et al. (US 5,902,343) and further in view of US Pub. No. 2004/0248653 A1 to Barros et al. (Barros).

Regarding claim 70 Sharma substantially discloses the invention as claimed such as a multiplayer location based video game (Sharma, col. 3, lines 25-45) but fails to explicitly teach wirelessly downloading a location-based program to the wireless telephonic device. Instead,

Sharma seems to remain silent as to how the games are loaded onto the system. However, in an analogous reference, Barros discloses that the game is wirelessly sent to the mobile telephonic device from the server. One of ordinary skill in the art would have found it obvious to use wireless communications to provide a way to attract users to a store by enhancing their interactive experience while executing applications on their wireless devices and enables special features in an application executed on a wireless device when the wireless device is within a predefined vicinity of a store (Barros: paragraph [0011]). Therefore, it would have been obvious to one or ordinary skill in the art at the time of the instant invention to modify Sharma with wirelessly downloading games to enable special features and attracts users to a store thereby increasing advertising revenue.

Claims 76-78, and 80 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Pat. No. 6,287,200 B1 to Sharma (Sharma) in view of US Pat. No. 6,011,653 A to Karasawa (Karasawa) and further in view of Berstis (US 6,337,688 B1).

Claims 76, 77 and 80. Sharma discloses a head-mounted system comprising:

a display (fig. 4)

A locating device operable to determine the physical location of said locating device on a physical playfield (abstract, col. 2, lines 35-45, GPS);

A processor coupled to said display, wherein said processor is operable to provide a video game comprising a virtual character with a virtual location on said virtual playfield corresponds to said physical location on said physical playfield (fig. 3 and 5, col. 3, lines 45-61), video game indicia, associated with said video game, is displayed on said display (fig. 3 and 5, col. 3, lines 45-61) such that said video game indicia is visible with said physical playfield through said display, and said video game is controlled, at least in part, by said accelerometer (col. 3:9-12, col. 3:31-61).

Sharma substantially discloses the invention as claimed but fails to explicitly teach a transparent display, such that video game indicia is visible with said physical playfield through said display. Instead, Sharma discloses 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 (as per claim 80, column 4, lines 6-8), "...can be...arcade-type virtual reality goggles." However in an analogous reference Karasawa discloses a head mounted display that superimposes the video game over the image seen by the user (as per claim 76 and 77, fig. 2, col. 3, line 23 – col. 4, line 42). One of ordinary skill in the art would have seen the benefit of modifying Sharma with the head mounted display by Karasawa for magnifying an image generated by an image display means to a magnified virtual image and enabling the magnified virtual image to be seen by either one of the eyes of the user.

Sharma substantially discloses the invention as claimed but fails to explicitly teach an accelerometer. Instead, Sharma discloses using GPS for a locating device. However, in an analogous reference, Berstis discloses using accelerometers as an alternative to GPS because that are commercially available at low cost relative to a GPS receiver (Berstis, 3:62). Therefore, it

would have been obvious to one or ordinary skill in the art at the time of the instant invention to modify Sharma with accelerometers as they are a low cost alternative to GPS receivers.

Regarding claim 78, Sharma discloses wherein a second virtual character is provided in said video game and said second virtual character is computer-controlled (fig. 2, 3 and 5, col. 3, lines 45-61, each character is controlled by the mobile device).

Claim 79 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Pat. No. 6,287,200 B1 to Sharma (Sharma) in view of US Pat. No. 6,011,653 A to Karasawa (Karasawa) and further in view of Berstis (US 6,337,688 B1) and Reaney (US Patent No. 5,523,890). This new grounds of rejection was necessitated by applicant's request for documentary proof of official notice.

Regarding claim 79, Sharma in view of Karasawa substantially discloses the invention as claimed but fails to explicitly teach a first-person perspective. However in an analogous reference, Reaney teaches that head mounted displays and interactive virtual reality and first person games, those that put the user in the action benefit most from the head-mounted display of Reaney (Reaney, col. 5, lines 9-15). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Sharma with first person perspective games because those game benefit the most from head-mounted displays.

Claim 81 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Karasawa (US 6,011,653), and further in view of Berstis (US 6,337,688 B1), and further in view of Numa, USPAT 6,633,267 (hereinafter Numa).

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 Karasawa 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 Karasawa fails to explicitly disclose a HMD wherein the direction the HMD is pointing is the direction used by the video game.

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... 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."

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.

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 Karasawa with the HMD control system as described by Numa for the purpose of providing enhanced reality to a game.

Claims 88-93 are rejected are rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma., USPAT 6,287,200 (hereinafter Sharma) in view of Kotanen et al., "Experiments on Local Positioning with Bluetooth" (hereinafter Kotanen).

Claim 88. Sharma discloses:

a display (fig. 4);

a locating device operable to determine the physical location of said locating device comprising a local position system (Kotanen);

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 (3:9-12, 3:31-61).

While Sharma discloses the wireless device's WLAN and Bluetooth capabilities, Sharma fails to explicitly disclose local positioning capabilities using either of these protocols.
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 $\dot{z}_{k+1} = h(x_k)$, $\dot{z}_{k+1}$ 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.

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."

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.

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.

Claim 89. Sharma discloses at least two positioning devices (fig. 3 and 5).

Claim 90. Sharma discloses a wireless device (fig. 2,3 and 6, mobile device).

Claim 91. Sharma discloses the physical location of said locating device is stored and updated in a remote server (a server is any piece of software or hardware that serves data to another piece of software or hardware, fig. 6, 4:18-44).

Claim 92. Sharma discloses a second virtual character (fig. 3 and 5).

Claim 93. Sharma discloses using the trajectory of the device (3:55).

Claims 94, 96, and 98 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma (US Pat. No. 6,287,200 B1) in view of Ebersole et al. (US Pub. No. 2003/0210228 A1).

Regarding claim 94, Sharma discloses a system comprising:

A display (fig. 4);

A first locating device operable to determine a first physical location of said locating device on a physical playfield (abstract, col. 2, lines 35-45, GPS);

A processor coupled to said display, wherein said processor is operable to provide a first video game and utilize said first physical locations, at least in part, to control a virtual character on a virtual playfield (col. 3:9-12, col. 3:31-61).

Sharma substantially discloses the invention as claimed but fails to explicitly teach a second locating device operable to determine a second physical location of said second locating device on said physical playfield, together with the first locating device, provide control to a virtual character, instead, Sharma discloses a location based game in which an external display such as virtual reality goggles may be used with a mobile device. In an analogous reference, Ebersole discloses an augmented-reality system in which a head-mounted display is utilized. Ebersole specifically discloses a head-mounted display in which two GPS receivers are used to determine

the heading and position of the head-mounted display (Ebersole, paragraphs [0074 and 0075]) to enable 5 degrees of freedom motion tracking in an augmented reality environment wherein dynamically updated information may be mixed with a live view of the real world. Therefore, it would have been obvious to one or ordinary skill in the art at the time of the instant invention to modify Sharma with two GPS receivers to enable 5 degrees of freedom motion tracking in an augmented reality environment wherein dynamically updated information may be mixed with a live view of the real world.

Regarding claim 96, Sharma in view of Ebersole discloses that the locating devices are positioning receivers (col. 2, lines 35-45, GPS).

Regarding claim 98, Sharma discloses a manual control to control, at least in part said virtual character (fig. 5, col. 3, lines 45-61, moving the mobile unit controls the virtual character).

Claim 95 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma (US Pat. No. 6,287,200 B1) in view of Ebersole et al. (US Pub. No. 2003/0210228 A1) and further in view of US Patent No. 5,724,660 to Kauser et al.

Regarding claim 95, Sharma substantially discloses the invention as claimed but fails to explicitly teach that the an average of locations is used to control the virtual character. However, in an analogous reference, Kauser discloses that GPS coordinates are commonly averaged to decrease error rates in col. 9, lines 30-40. Therefore, it would have been obvious to one or ordinary skill in the art at the time of the instant invention to modify Sharma with averaged GPS coordinates to decrease error rates.

Claims 97 and 99 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma (US Pat. No. 6,287,200 B1) in view of Ebersole et al. (US Pub. No. 2003/0210228 A1) and further in view of Benes et al. (US 2004/0046655 A1).

Regarding claims 97 and 99, Sharma substantially discloses the invention as claimed such as a second virtual character (devices B-D, col. 3, lines 9-44) but fails to explicitly teach a wireless telephone device. Instead, Sharma discloses mobile devices with displays that may communicate via RF, WAP, Bluetooth etc. without expressly disclosing a wireless telephone device. However, in an analogous reference, Benes discloses a wireless telephone device to play a location-based game. One of ordinary skill in the art would have seen the benefit of modifying Sharma with a wireless telephone device to optimize the resources available to subscribers, alter the game by defining an area of play and activate game features without direct communication between the players and the providers (Benes, paragraph 1 and 2). Furthermore, an artisan would have found it obvious to adapt the invention, when possible, to operate on other wireless devices (Benes, paragraph 10) to increase the user base by allowing users who already own one similar device but do not want to purchase another device to play the game. Therefore, it would have been obvious to one or ordinary skill in the art at the time of the instant invention to modify Sharma with a wireless telephone device to optimize resources, and increase the user base which would also increase profits.

Claims 105, 111, 112 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Pat. No. 6,287,200 B1 to Sharma (Sharma) in view of US Pub. No. 2004/0248653 A1 to

Barros et al. (Barros).

Regarding claims 105, 111, 112, Sharma substantially discloses the invention as claimed such as a multiplayer location based video game (Sharma, col. 3, lines 25-45) but fails to explicitly teach wirelessly downloading a location-based program to the wireless telephonic device. Instead, Sharma seems to remain silent as to how the games are loaded onto the system. However, in an analogous reference, Barros discloses that the game is wirelessly sent to the mobile telephonic device from the server. One of ordinary skill in the art would have found it obvious to use wireless communications to provide a way to attract users to a store by enhancing their interactive experience while executing applications on their wireless devices and enables special features in an application executed on a wireless device when the wireless device is within a predefined vicinity of a store (Barros: paragraph [0011]). Therefore, it would have been obvious to one or ordinary skill in the art at the time of the instant invention to modify Sharma with wirelessly downloading games to enable special features and attracts users to a store thereby increasing advertising revenue.

Claims 86 and 106 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Pat. No. 6,287,200 B1 to Sharma (Sharma) in view of US Pub. No. 2006/0154710 A1 to Serafat. This new grounds of rejection was necessitated by applicant's request for documentary proof of official notice.

Regarding claims 86 and 106, Sharma substantially discloses the invention as claimed but fails to explicitly teach a single-player video game. However in an analogous reference, Serafat teaches

using artificial intelligence (Serafat, paragraph [0056]) in mobile gaming (Serafat, paragraph [0054]) to continue a game even in the absence of a player, without the need to interrupt the game itself. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Sharma with AI for continuing a multiplayer game in singleplayer mode in case of an absence of a player participating in the game by simulating the participation of the player who is absent.

Response to Arguments

Applicant's arguments filed 7/28/2015 have been fully considered but they are not persuasive.

Beginning on page 26, regarding claim 82, Applicant argues that Sharma fails to disclose a movement measurement at least partially based on a physical location. The Examiner respectfully disagrees. As similarly argued in prior Office Actions, Sharma discloses, in at least column 2, lines 24-45, the use of Global Positioning System to locate the position of a mobile device. For at least this reason, the rejections are maintained.

Beginning on page 27, regarding claim 100, Applicant argues that Sharma fails to disclose detecting a virtual direction of a virtual character. Again, Sharma discloses, in at least column 2, lines 24-45, the use of Global Positioning System to locate the position of a mobile device. The GPS determines the direction of the mobile device, which represents the virtual character. For at least this reason, the rejections are maintained.

Beginning on page 30, regarding claim 1, Applicant argues that the combination of Sharma and Benes fails to disclose earlier alleged deficiency of Sharma. For the reasons set forth above, the rejections are maintained.

Beginning on page 29, regarding claim 17, Applicant argues that Sharma and Benes fails to disclose transferring data to a remote server. Further, Applicant states that claim 17 has been amended, which does not appear to be accurate. In fact, it appears that Applicant is copying and pasting arguments from prior Responses (e.g., see page 28 of the 9/26/2013 response) into this response that are inconsistent with this response. Despite that issue, the Examiner respectfully disagrees. In column 4, lines 18-44, Sharma discloses the use of a WAP server for receiving position data. For at least this reason, the rejections are maintained.

Beginning on page 32 (continued on page 30), regarding claim 76, Applicant argues that the combination of Sharma, Karasawa, and Bertsis fails to disclose a transparent display. The Examiner respectfully disagrees. As stated in the Office Action, Karasawa is relied upon to teach a transparent display (e.g., see Karasawa, Figs. 1a and 1b). For at least this reason, the rejections are maintained.

On page 32, regarding claim 76, Applicant argues that it is hindsight reasoning to combine an accelerometer as taught by Berstis with the GPS positioning device. The Examiner respectfully disagrees. It is not hindsight to provide alternative technical features for performing a similar function when the alternative provides some advantage (e.g., reducing the cost of the device or reliance on a strong GPS signal). For at least this reason, the rejections are maintained.

Beginning on page 34, regarding claim 18, Applicant argues that the combination of Sharma and Hale do not disclose or make obvious recited differently "scaled" features of the

claim. The Examiner respectfully disagrees. Although Applicant only acknowledges a single recitation in Hale regarding scaling in the title of the invention, Hale's disclosure is, in fact, replete with references to the usefulness of scaling positioning data. It is requested that Applicant review Hale in its entirety to appreciate the scope of its teaching with regard to scaling. For at least this reason, the rejections are maintained.

Beginning on page 3, regarding claim 88, Applicant argues that the combination of Sharma and Kotanen fail to disclose a ground-based positioning device. The Examiner respectfully disagrees. Kotanen is relied upon to teach ground-based local positioning (see at least Kotanen's Introduction). For at least this reason, the rejections are maintained.

On page 35, regarding claim 88, Applicant argues that Sharma and Kotanen cannot be combined because the combination would destroy the base reference. The Examiner respectfully disagrees. Simply because Sharma and Kotanen teach different technologies for determining position, doesn't make them unavailable for a combination. Sharma's end result (e.g., game play) could be implemented with one of many different methods of determining one or more user positions. For at least this reason, the rejections are maintained.

Beginning on page 35, regarding claim 94, Applicant argues that Sharma and Ebersole fail to disclose two locating devices to detect the position of a single user. The Examiner respectfully disagrees. Ebersole is relied upon to teach two locating devices to detect the position of a single user (e.g., see paragraphs 74 and 75). For at least this reason, the rejections are maintained.

Beginning on page 36, Applicant groups the remaining dependent claims and argues that each dependent claim is allowable because it depends from an allegedly allowable base claim.

Since all base claims were previously addressed, the rejections of the dependent claims are also maintained.

Beginning on page 40, Applicant argues that the Examiner's use of the Official Notice is improper. Applicant's cursory traversal is not adequate under 2144.03.

Conclusion

THIS ACTION IS MADE FINAL. 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 mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAMES S. MCCLELLAN whose telephone number is (571)272-7167. The examiner can normally be reached on Mon-Fri (8:30AM-5:00PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dmitry Suhol can be reached on (571) 272-4430. 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.

/JAMES S. MCCLELLAN/
Primary Examiner, Art Unit 3716

EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S1	1	("6287200").PN.	US-PGPUB; USPAT	OR	OFF	2015/01/25 22:42
S2	1	("6011653").PN.	US-PGPUB; USPAT	OR	OFF	2015/01/25 23:10
S3	1	("5902343").PN.	US-PGPUB; USPAT	OR	OFF	2015/01/25 23:21
S4	4994946	@ad<"20040901"	US-PGPUB; USPAT	OR	OFF	2015/01/25 23:43
S5	225784	GPS	US-PGPUB; USPAT	OR	OFF	2015/01/25 23:43
S6	1077388	phone or telephone	US-PGPUB; USPAT	OR	OFF	2015/01/25 23:43
S7	325884	game	US-PGPUB; USPAT	OR	OFF	2015/01/25 23:43
S8	5420	S5 with S6 with S7	US-PGPUB; USPAT	OR	OFF	2015/01/25 23:43
S9	74	S8 and S4	US-PGPUB; USPAT	OR	OFF	2015/01/25 23:44
S10	4995573	@ad<"20040901"	US-PGPUB; USPAT	OR	OFF	2015/08/24 16:37
S11	251452	GPS	US-PGPUB; USPAT	OR	OFF	2015/08/24 16:37
S12	1157040	phone or telephone	US-PGPUB; USPAT	OR	OFF	2015/08/24 16:37
S13	351038	game	US-PGPUB; USPAT	OR	OFF	2015/08/24 16:37
S14	8605	S11 same S12 same S13	US-PGPUB; USPAT	OR	OFF	2015/08/24 16:37
S15	6801	S11 with S12 with S13	US-PGPUB; USPAT	OR	OFF	2015/08/24 16:37
S16	74	S15 and S10	US-PGPUB; USPAT	OR	OFF	2015/08/24 16:37

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C:\Users\jmcclellan\Documents\EAST\Workspaces\10932536.wsp

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	10932536	MULLEN, JEFFREY D.
	Examiner	Art Unit
	ANDREW KIM	3716

CPC- SEARCHED		
Symbol	Date	Examiner
A63F 2300/5573	1/27/2014	AK
update	1/25/2015	JSM
update	8/24/2015	JSM
Update Search	3/7/2016	JSM

CPC COMBINATION SETS - SEARCHED		
Symbol	Date	Examiner

US CLASSIFICATION SEARCHED			
Class	Subclass	Date	Examiner
463	31, 40, 42	1/27/2014	AK
Update		1/25/2015	JSM
Update		8/24/2015	JSM
Update Search		3/7/2016	JSM

SEARCH NOTES		
Search Notes	Date	Examiner
EAST (see attached notes)	12/19/2009	AK
EAST Text search of PGPUB, USPAT, USOCR, EPO, JPO, DERWENT. See attached search results.	1/27/2014	AK
Update Search	1/25/2015	JSM
Update SEarch	8/24/2015	JSM
Update Search	3/7/2016	JSM

INTERFERENCE SEARCH			
US Class/ CPC Symbol	US Subclass / CPC Group	Date	Examiner

	/JAMES S MCCLELLAN/ Primary Examiner.Art Unit 3716

Doc code: RCEX
Doc description: Request for Continued Examination (RCE)

PTO/SB/30EFS (10-08)
Approved for use through 11/30/2008. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
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REQUEST FOR CONTINUED EXAMINATION(RCE)TRANSMITTAL
(Submitted Only via EFS-Web)

Application Number	10932536	Filing Date	2004-09-01	Docket Number (if applicable)	JDM/005	Art Unit	3716
First Named Inventor	Jeffrey D. Mullen			Examiner Name	James S. McClellan		

This is a Request for Continued Examination (RCE) under 37 CFR 1.114 of the above-identified application.
Request for Continued Examination (RCE) practice under 37 CFR 1.114 does not apply to any utility or plant application filed prior to June 8, 1995, or to any design application. The Instruction Sheet for this form is located at WWW.USPTO.GOV

SUBMISSION REQUIRED UNDER 37 CFR 1.114

Note: If the RCE is proper, any previously filed unentered amendments and amendments enclosed with the RCE will be entered in the order in which they were filed unless applicant instructs otherwise. If applicant does not wish to have any previously filed unentered amendment(s) entered, applicant must request non-entry of such amendment(s).

☐ Previously submitted. If a final Office action is outstanding, any amendments filed after the final Office action may be considered as a submission even if this box is not checked.

☐ Consider the arguments in the Appeal Brief or Reply Brief previously filed on _____

☐ Other _____

☒ Enclosed

☒ Amendment/Reply

☐ Information Disclosure Statement (IDS)

☐ Affidavit(s)/ Declaration(s)

☐ Other _____

MISCELLANEOUS

☐ Suspension of action on the above-identified application is requested under 37 CFR 1.103(c) for a period of months _____
(Period of suspension shall not exceed 3 months; Fee under 37 CFR 1.17(i) required)

☐ Other _____

FEES

The RCE fee under 37 CFR 1.17(e) is required by 37 CFR 1.114 when the RCE is filed.

☒ The Director is hereby authorized to charge any underpayment of fees, or credit any overpayments, to Deposit Account No 503855

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT REQUIRED

Patent Practitioner Signature

X Applicant Signature

EFS - Web 2.1.6

PTO/SB/30EFS (10-08)
Approved for use through 11/30/2008. OMB 0651-0031
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Applicant Signature			
Applicant 1		Remove	
Signature	/Jeffrey D. Mullen/	Date (YYYY-MM-DD)	2016-02-28
Name	Jeffrey D. Mullen		
Click ADD for additional Applicant Signature		Add	

This collection of information is required by 37 CFR 1.114. 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 1.11 and 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.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether the Freedom of Information Act requires disclosure of these record s.

2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.

3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.

4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).

5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.

6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).

7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.

8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.

9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

JDM/005

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	:	Andrew Kim

Hon. Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Pittsburgh, PA 15116
February 28, 2016

REPLY TO OFFICE ACTION

Sir:

This is in response to the Office Action dated August 28, 2015. A three-month extension of time is applicable hereto and is being submitted herewith. In response to the Office Action, 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.

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 telephone, wherein said wireless telephone 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, said virtual character is displayed on said display, 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 telephone 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. (previously presented) The system of claim 1, wherein said wireless telephone further 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. (previously presented) The system of claim 1, wherein said wireless telephone further 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. (previously presented) The system of claim 1, wherein said wireless telephone further comprises manual controls for controlling non-location based aspects of said virtual character.

14. (previously presented) The system of claim 1, wherein said wireless telephone further 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. (previously presented) The system of claim 1, wherein said wireless telephone further 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

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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;

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; and

retrieving by said wireless telephonic device from said remote server a third physical location of a second wireless telephonic device.

18. (previously presented) 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, said first virtual character being displayed on a display, second

location information associated with said second physical location is scaled, said scaled second location is utilized to provide a second virtual character on said virtual playfield, said second virtual character being displayed on said display, 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. (previously presented) The system of claim 1, wherein an amount of time is displayed associated with a 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. (previously presented) The system of claim 1, wherein said wireless telephone is operable to 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 telephone 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 telephone 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 telephone 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 said ~~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. (previously presented) The method of claim 17, wherein a first locating device is provided in said wireless telephonic device and said wireless telephonic device is able to provide human-communications to a second telephonic device while 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. (previously presented) The method of claim 18, further comprising determining a direction of a directional device and utilizing said direction to control a direction of said first virtual character.

75. (previously presented) 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 provide human-communications to a second telephonic device while 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

an accelerometer;

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, 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, and said video game is controlled, at least in part, by said accelerometer.

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. (previously presented) The system of claim 76, wherein said video game comprises a second virtual character, said second virtual character is computer controlled.

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 operable to be utilized, at least in part, 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.

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. (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 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. (previously presented) The system of claim 88, wherein said at least one ground-based local positioning device includes at least two ground-based local positioning devices.

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

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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 second locating device on said physical playfield; and

a processor coupled to said display, wherein said processor is operable to provide a first video game and utilize said first and second physical locations, at least in part, to control a virtual character on a virtual playfield.

95. (previously presented) The system of claim 94, wherein said an average including said first physical location and said second physical location is utilized, at least in part, to control said virtual character.

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

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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 manual control to control, at least in part, said virtual character.

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 non-transparent 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 and facing a virtual direction on a virtual playfield said virtual location on said virtual playfield corresponds to said physical location on said physical playfield, and said virtual direction on said virtual playfield corresponds to said physical direction 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 non head-mounted display.

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. (previously presented) The system of claim 100, wherein said locating device is included in a first wireless telephonic device and 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 operable to be utilized, at least in part, to determine said physical location.

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

118. (previously presented) The system of claim 1, wherein said locating device comprises a movement measuring device operable to be utilized, at least in part, to determine said physical location.

REMARKS/ARGUMENTS

Summary of Office Action

Claims 1-115 are pending in the application.

The Examiner rejected claims 82, 87, 100-104, 107-110 and 113-115 under 35 U.S.C. 102(b) as being unpatentable over Sharma U.S. Patent No. 6,287,200.

The Examiner rejected claims 1-3, 6-16, 19-20, 22, 25, 26, 28-32, 34, 43, 53, 55, 56, 59-61, 63-65, 83, 116, and 117 under 35 U.S.C. 103(a) as being unpatentable over Sharma U.S. Patent No. 6,287,200 (hereinafter "Sharma") in view of Benes et al U.S. Patent Application Publication No. 2004/0046655 (hereinafter "Benes").

The Examiner rejected claim 4 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Benes and further in view of Newell et al U.S. Patent No. 6,735,435 (hereinafter "Newell").

The Examiner rejected claims 5 and 57 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").

The Examiner rejected claims 21, 54, and 84 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Berstis U.S. Patent No. 6,337,888 (hereinafter "Berstis").

The Examiner rejected claims 23, 24, 38-41, 58, and 85 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").

The Examiner rejected claims 27, 35-37, 42, 45, 46, and 48-50 under 35 U.S.C. 103(a) as being unpatentable

over Sharma in view of Acclaim's Mortal Kombat (hereinafter "MK").

The Examiner rejected claim 30 under 35 U.S.C. 1039A) over Sharma in view of Benes and further in view of Serafrat U.S. Publication No. 2006/0154710 (hereinafter "Serafrat").

The Examiner rejected claim 33 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").

The Examiner rejected claim 44 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").

The Examiner rejected claims 51 and 52 were rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Benes and further in view of Super Dodgeball by Nintendo (hereinafter "Super Dodgeball").

The Examiner rejected claims 18, 68, and 71-75 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Hale U.S. Patent No. 5,902,343 (hereinafter "Hale").

The Examiner rejected claim 66 under 35 U.S.C. 103(a) as being unpatentable over Shara in view of Hale and further in view of Benes.

The Examiner rejected claim 67 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Hale in view of Berstis U.S. Patent No. 6,337,688 (hereinafter "Berstis").

The Examiner rejected claim 69 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Hale and further in view of Kotanen.

The Examiner rejected claim 70 under 35 U.S.C. 103(a) over Sharma in view of Hale and further in view of Barros U.S. Publication No. 2004/0248653 (hereinafter "Barros")

The Examiner rejected claims 76-78 and 80 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Karasawa U.S. Patent No. 6,011,653 (hereinafter "Karasawa") and further in view of Berstis.

The Examiner rejected claim 79 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Karasawa and further in view of Berstis and Reaney U.S. Patent No. 5,523,890 (hereinafter "Reaney").

The Examiner rejected claim 81 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Karasawa and further in view of Berstis and further in view of Numa U.S. Patent No. 6,633,267 (hereinafter "Numa").

The Examiner rejected claims 88-93 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Kotanen.

The Examiner rejected claims 94, 96, and 98 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Ebersole U.S. Patent Publication No. 2003/0210228 (hereinafter "Ebersole").

The Examiner rejected claim 95 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Ebersole and further in view of Kauser U.S. Patent No. 5,724,660 (hereinafter "Kauser").

The Examiner rejected claims 97 and 99 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Ebersole and further in view of Benes.

The Examiner rejected claims 105, 111, and 112 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Barros.

The Examiner rejected claims 86 and 106 under 35 U.S.C. 103(a) as being unpatentable over Sharma.

Summary of Applicant's Amendments

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

Rejections Under 35 U.S.C. § 102(b) Over Sharma

The Examiner rejected claims 82, 87, 100-104, 107-110 and 113-115 under 35 U.S.C. 102(b) as being unpatentable over Sharma.

Claim 82

The Examiner stated that:

> "Applicant argues that Sharma fails to disclose a movement measurement at least partially based on a physical location. The Examiner respectfully disagrees. Sharma discloses, in at least column 2, lines 24-45, the use of Global Positioning to locate the position of a mobile device. For at least this reason, the rejections are maintained" (Office Action, page 46)

The Examiner's allegation that Sharma includes Global Positioning is not relevant. The mention of Global Positioning does not show or suggest a locating device comprising a movement measurement device utilized, at least in part, to determine said physical location. The mention of Global Positioning merely provides Global Positioning.

Solely in order to expedite prosecution and without prejudice Applicant will assume that the Examiner interprets Global Positioning to include using a device to compute satellite based signals. A movement measurement device – in and upon itself – is not a device for computing satellite based signals. A movement measurement device is a device that measures movement. Accordingly, Sharma does not show or suggest applicant's claim 82 that includes a locating device comprises a movement measurement device operable to be utilized, at least in part, to determine said physical location. The Examiner's Global Positioning does not show or suggest such a feature.

Applicant's claim 82 must be afforded its broadest possible scope. The above paragraph was utilized, without prejudice and solely in order to expedite prosecution, by providing an illustration of how the Examiner may be adding limitations to Sharma's Global Positioning.

Regardless, the Examiner cannot add limitations now shown or suggested by the references. If the Examiner is using facts known to the Examiner, applicant invokes his right to have the Examiner provide documentary proof. Similarly, applicant invokes applicant's right for the Examiner to provide the features provided in applicant's claim that is not provided in Sharma's Global Positioning.

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

Claim 100

The Examiner stated that:

"Sharma discloses ... the use of Global Positioning System" (Office Action, page 46)

The Examiner's alleged Global Positioning System does not determine direction.

"The GPS determines the direction" (Office Action, page 46)

Sharma's alleged GPS does not determine direction. There is nothing in Sharma's Global Positioning that provides direction.

Claim 100 includes a virtual direction of a virtual character associated with a physical direction determined by a directional device. Sharma does not show or suggest such a feature.

The Examiner cannot add limitations now shown or suggested by the references. If the Examiner is using facts known to the Examiner, applicant invokes his right to have the Examiner provide documentary proof. Similarly, applicant invokes applicant's right for the Examiner to provide the features provided in applicant's claim that is not provided in Sharma's Global Positioning.

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 Benes

The Examiner rejected claims 1-3, 6-16, 19-20, 22, 25, 26, 28-32, 34, 43, 53, 55, 56, 59-61, 63-65, 83, 116, and 117 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Benes.

Claim 1

Applicant had previously amended claim 1 to include a wireless telephone.

The Examiner stated:

> "Sharma … fails to explicitly teach a wireless telephone device" (Office Action, page 6)

Sharma does not just fail to provide a wireless telephone device, Sharma is a completely different structure.

As admitted, Sharma does not show or suggest a wireless telephone – let alone a wireless telephone having a locating device with a virtual character that is displayed and where the virtual characters location corresponds to a physical location.

The Examiner stated:

> "an artisan would have found it obvious to adapt the invention, when possible, to operate on other wireless devices"
> (Office Action, page 7).

It is not possible. Benes does not correct for the deficiency of Sharma as Benes merely discusses asking a user questions based on activation locations. A question is not a displayed virtual character. Second, even if the Examiner's statement occurred – which it did not – the artisan would still not include claim 1 of a wireless telephone. A wireless device is not a wireless telephone.

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:

> "Sharma fails to explicitly teach a wireless telephonic phone." (Office Action, page 11)

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The Examiner stated:

> "an artisan would have found it obvious to adapt the invention, when possible, to operate on other wireless devices"
> (Office Action, page 8).

It is not possible. Benes does not correct for the deficiency of Sharma as Benes merely discusses asking a user questions based on activation locations. A question is not a character. Second, even if the Examiner's statement occurred – which it did not – the artisan would still not include claim 1 of a wireless telephone. A wireless device is not a wireless telephone.

Furthermore, solely to expedite prosecution, applicant had previously amended claim 17 to include retrieving by the wireless telephonic device from the remote server a third physical location of a second wireless telephonic device.

The Examiner stated:

> "fig. 6, col. 4, lines 18-44, the first device now receives updated information from a second device"
> (Office Action, page 12).

Neither Sharma nor Benes, used either alone or in combination, show or suggest utilizing a wireless telephonic device to provide a first location to a remote server, updating the location of the wireless telephonic device on the remote server by storing a second physical location of said wireless telephonic, and retrieving by the wireless telephonic device from the remote server a third physical location of a second wireless telephonic device. Direct device-to-device handshaking does not show or suggest such a feature.

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

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

Claims 76-78 and 80 were rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Karasawa and further in view of Bertsis.

The Examiner stated that:

> "Sharma … fails to explicitly teach a transparent display, such that video game indicia is visible with said physical playfield through said display." (Office Action, page 37)

Neither Sharma, Karasawa, nor Bertsis, however, show or suggest applicant's invention of claim 76 of game indicia, associated with a video game, that is displayed on said display such that said video game indicia is visible with said physical playfield through said display.

Karasawa's mere mention of a head-mounted optical display and Sharma's alleged mention of "arcade-type virtual reality goggles" (which are silent on a transparent display), does not, in hindsight, correct for such a deficiency.

An optical display is not game indicia, associated with a video game, that is displayed on said display such that said video game indicia is visible with said physical playfield through said display. Bertsis mere mention of a virtual reality environment does not correct for the deficiency. A virtual reality environment is not game indicia, associated with a video game, that is displayed on said display such that said video game indicia

is visible with said physical playfield through said display.

The Examiner also stated that Sharma "fails to explicitly teach an accelerometer" (Sharma, page 36) but "Berstis discloses using accelerometers." Sharma is a precision device. The Examiner cannot take different parts of precision devices and put them together in hindsight – all that is created is an inoperable device that eviscerates the spirit of the individual devices. Sharma alleges GPS and Sharma separately alleges motion by the Examiner. Sharma clearly discusses two different devices for two different uses. Sharma is silent on any configuration that falls outside the disclosed

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 Rejections
Under 35 U.S.C. § 103(a) Over Sharma and Hale

Claims 18, 68, and 71-75 were rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Hale.

The Examiner stated that:

> "Sharma … fails to explicitly teach operating a video game such that first location information associated with first physical location is called, said scaled first location is utilized to provide a first virtual character on a virtual playfield, second location information associated with said second physical location is scaled, said scaled second location is utilized to provide a second virtual character on said virtual playfield, said first location information and said second location information are scaled differently." (Office Action, page 31)

Hale alleges nothing other than include the words GPS and scaling in the title.

Hale is irrelevant to Sharma.

In fact, Hale discusses an agricultural vehicle and determining the position of this agricultural vehicle relative to a field. As the Examiner admits, Sharma is silent to, and far removed from, most of the elements of claim 18. Hale clearly does not correct for this deficiency.

> The Examiner states:
> "Hale's disclosure is, in fact, replete with reference to the usefulness of scaling positioning data" (Office Action, page 47).

Claim 18 includes not just a location-based video game – but a multiplayer game. Hale does not show or suggest such a feature. In fact, Hale is far removed from the elements of claim 18. Throughout Hale's disclosure, the only purpose the Examiner could allege – which it could never materialize – is an agricultural vehicle and positioning this agriculture vehicle.

Neither Hale, nor Sharma, however, shows or suggests the scaling of applicant's invention of claim 18.

Furthermore, applicant has previously amended claim 18, without prejudice and solely in order to expedite prosecution, to also include displaying the virtual characters on a single screen and scaling the location information differently. None of the prior art, including Sharma nor Hale, used either alone or in combination, show or suggest such a feature.

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

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

The Examiner rejected claims 88-93 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Kotanen.

The Examiner stated:

> "Sharma fails to explicitly disclose local positioning capabilities using either of these protocols … Kotanen teaches both the use of a local positioning system and the use of averaging distances to predict local coordinates." (Office Action, page 40)

Applicant's invention of claim 88, however, includes:

> "a locating device operable … comprises a local positioning system … [that] utilized signals from at least one ground-based local positioning device to determine said physical location … processor is operable to provide a video game … said virtual location on said virtual playfield corresponds to said physical location"

Neither of the prior art, used either alone or in combination, or suggest claim 88 that includes such a video game video game comprising a virtual character and 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.

The Examiner stated:

> "simply because Sharma and Kotaten teach different technologies … doesn't make them unavailable for a combination."
> (Office Action, page 48)

First, Koten actually dismisses GPS. Accordingly, the Examiner's statement is not applicable. Sharma and Kotanen cannot be combined – the two references are diametrically opposed. In fact, Kotanen discusses and dismisses GPS. *See Kotanen,* introduction. And, Sharma has precisely configured its device to utilize Bluetooth for communicating GPS signals. Accordingly, the Examiner's combination would be inoperable and would eviscerate the spirit of the individual devices. Every function of Sharma is precisely configured and relies on the correct configuration of all of the other Sharma functions. Meanwhile, Kotanen discusses, at length, all of the components required to obtain Kotanen's alleged functionality. Sharma is a dedicated, application specific device that does not include such components. Again, completely combining Sharma and Kotanen would merely result in an inoperable device neither shown nor suggested by the individual devices while eviscerating the spirit of the individual systems.

Second, Applicant disagrees with the Examiner's assertion. Just because a rocket uses rocket fuel and a steam powered bike uses steam does, in fact mean, that rocket fuel is not combinable with the steam. The devices are precision devices.

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

Applicant's Response to the Rejections Under
35 U.S.C. § 103(a) in view of Sharma and Ebersole

The Examiner stated that Sharma discusses:

> "Sharma … fails to explicitly teach a second locating device operable to determine a second physical location of said locating device on said physical playfield, together with the first locating device, provide control to a virtual character." (Office Action, page 40)

Accordingly, the Examiner admits that Sharma is silent to, and far removed from, many of the elements of claim 18. Ebersole does not correct for this deficiency. Ebersole does not even show or suggest a video game – let alone a video game comprising a virtual character with a virtual location on a virtual playfield and the virtual location on the virtual playfield corresponds to said physical location on said physical playfield.

Applicant's invention of claim 94 utilizes two locating devices to control a single virtual character. Neither Sharma nor Ebersole, used either alone or in combination, show or suggest such a feature. Navigating is not a video game comprising a virtual character.

Furthermore, Sharma is far removed from Ebersole. Sharma alleges a hand-held device with limited functionality. Combining Ebersole with Sharma would merely result in an inoperable device neither shown nor suggested by the individual devices and eviscerating the spirit of the individual systems.

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

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

The Examiner rejected claims 101-104, 107-110 and 113-115 under 35 U.S.C. 102(b) as being unpatentable over

Sharma U.S. Patent No. 6,287,200. The Examiner rejected claims 2-3, 6-9, 19-20, 22, 25, 26, 28-32, 34, 43, 53, 55, 56, 59-61, 63-65, 83, 116, and 117 under 35 U.S.C. 103(a) as being unpatentable over Sharma U.S. Patent No. 6,287,200 (hereinafter "Sharma") in view of Benes et al U.S. Patent Application Publication No. 2004/0046655 (hereinafter "Benes"). The Examiner rejected claim 4 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Benes and further in view of Newell et al U.S. Patent No. 6,735,435 (hereinafter "Newell"). The Examiner rejected claims 5 and 57 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"). The Examiner rejected claims 21, 54, and 84 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Berstis U.S. Patent No. 6,337,888 (hereinafter "Berstis"). The Examiner rejected claims 23, 24, 38-41, 58, and 85 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"). The Examiner rejected claims 27, 35-37, 42, 45, 46, and 48-50 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Acclaim's Mortal Kombat (hereinafter "MK"). The Examiner rejected claim 33 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"). The Examiner rejected claim 44 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"). The Examiner rejected claims 51 and 52 were rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Benes and further in view of Super Dodgeball by Nintendo

(hereinafter "Super Dodgeball"). The Examiner rejected claims 68, and 71-75 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Hale U.S. Patent No. 5,902,343 (hereinafter "Hale"). The Examiner rejected claim 66 under 35 U.S.C. 103(a) as being unpatentable over Shara in view of Hale and further in view of Benes. The Examiner rejected claim 67 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Hale in view of Berstis U.S. Patent No. 6,337,688 (hereinafter "Berstis"). The Examiner rejected claim 69 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Hale and further in view of Kotanen. The Examiner rejected claim 70 under 35 U.S.C. 103(a) over Sharma in view of Hale and further in view of Barros U.S. Publication No. 2004/0248653 (hereinafter "Barros"). The Examiner rejected claims 76-80 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Karasawa U.S. Patent No. 6,011,653 (hereinafter "Karasawa") and further in view of Berstis. The Examiner rejected claim 81 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Karasawa and further in view of Berstis and further in view of Numa U.S. Patent No. 6,633,267 (hereinafter "Numa"). The Examiner rejected claims 88-93 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Kotanen. The Examiner rejected claims 94, 96, and 98 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Ebersole U.S. Patent Publication No. 2003/0210228 (hereinafter "Ebersole"). The Examiner rejected claim 95 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Ebersole and further in view of Kauser U.S. Patent No. 5,724,660 (hereinafter "Kauser"). The Examiner rejected claims 97 and 99 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of

Ebersole and further in view of Benes. The Examiner rejected claims 105, 111, and 112 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Barros. The Examiner rejected claims 86 and 106 under 35 U.S.C. 103(a) as being unpatentable over Sharma. The Examiner rejected claim 30 under 35 U.S.C. 1039A) over Sharma in view of Benes and further in view of Serafrat. The Examiner rejected claim 79 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Karasawa and further in view of Berstis and Reaney.

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 affadavit 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,

/Jeffrey D. Mullen/
Jeffrey D. Mullen
Applicant (Reg. No. 52,056)
Customer No. 32733
2212 Hassinger Lane
Glenshaw, PA 15116
Mobile: (914) 837-7741

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	
Filing Fees for Utility under 35 USC 111(a)	

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Pages:				
Claims:				
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 $0 paid	2253	1	700	700
Miscellaneous:				
RCE- 2nd and Subsequent Request	2820	1	850	850
		Total in USD ($)		**1550**

Electronic Acknowledgement Receipt	
EFS ID:	25042412
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:	29-FEB-2016
Filing Date:	01-SEP-2004
Time Stamp:	01:12:15
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Credit Card
Payment was successfully received in RAM	$1550
RAM confirmation Number	8683
Deposit Account	503855
Authorized User	MULLEN, JEFFREY D.
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 CFR 1.16 (National application filing, search, and examination fees) Charge any Additional Fees required under 37 CFR 1.17 (Patent application and reexamination processing fees)	

Charge any Additional Fees required under 37 CFR 1.19 (Document supply fees)

Charge any Additional Fees required under 37 CFR 1.20 (Post Issuance fees)

Charge any Additional Fees required under 37 CFR 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	Request for Continued Examination (RCE)	JDM-005--RCE.pdf	697796 03a6ba11c407b80ca75ebc3035d8d36bea7f35aa	no	3
Warnings:					
Information:					
2		JDM-005--Reply--V1.pdf	230449 ad1e6d6df79497befc1a827905e7251ef76fa533	yes	41

Multipart Description/PDF files in .zip description

Document Description	Start	End
Amendment Submitted/Entered with Filing of CPA/RCE	1	1
Applicant summary of interview with examiner	2	22
Applicant Arguments/Remarks Made in an Amendment	23	41

Warnings:					
Information:					
3	Fee Worksheet (SB06)	fee-info.pdf	32024 15b24ed1e92c1119f1f73ab02bfab6ee8a1b3daa	no	2
Warnings:					
Information:					
		Total Files Size (in bytes):	960269		

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.

New Applications Under 35 U.S.C. 111
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.

National Stage of an International Application under 35 U.S.C. 371
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.

New International Application Filed with the USPTO as a Receiving Office
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.

PTO/SB/06 (09-11)
Approved for use through 1/31/2014. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
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PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875	Application or Docket Number 10/932,536	Filing Date 09/01/2004	☐ To be Mailed

ENTITY: ☐ LARGE ☒ SMALL ☐ MICRO

APPLICATION AS FILED – PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA	RATE ($)	FEE ($)
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A	N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*	X $ =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*	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 $310 ($155 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	

APPLICATION AS AMENDED – PART II

AMENDMENT	02/29/2016	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	* 117	Minus	** 117	= 0	X $40 =	0
	Independent (37 CFR 1.16(h))	* 8	Minus	***8	= 0	X $210 =	0
	☐ Application Size Fee (37 CFR 1.16(s))						
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))						
						TOTAL ADD'L FEE	0

AMENDMENT		(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	*	Minus	**	=	X $ =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=	X $ =	
	☐ Application Size Fee (37 CFR 1.16(s))						
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))						
						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.

LIE
/LASHAWN MORGAN/

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 08/28/2015

JEFFREY D. MULLEN
2212 Hassinger Lane
Glenshaw, PA 15116

EXAMINER
MCCLELLAN, JAMES S

ART UNIT	PAPER NUMBER
3716	

MAIL DATE	DELIVERY MODE
08/28/2015	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 JAMES S. MCCLELLAN	Art Unit 3716	AIA (First Inventor to File) Status No

-- 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* MONTHS 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 *7/28/2015*.

☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.

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

3)☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

4)☐ 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*

5)☐ Claim(s) _____ is/are pending in the application.

5a) Of the above claim(s) _____ is/are withdrawn from consideration.

6)☐ Claim(s) _____ is/are allowed.

7)☒ Claim(s) *1-61 and 63-118* is/are rejected.

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

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

* If any claims have been determined allowable, you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to PPHfeedback@uspto.gov.

Application Papers

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

11)☐ The drawing(s) filed on _____ 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).

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).

Certified copies:

a)☐ All b)☐ Some** c)☐ None of the:

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) ☐ Information Disclosure Statement(s) (PTO/SB/08a and/or PTO/SB/08b) Paper No(s)/Mail Date _____.

3) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

4) ☐ Other: _____.

DETAILED ACTION

Applicant's Submission of a Response

Applicant's submission of a response on July 28, 2015 has been received and fully considered. In the response, it does not appear that any of the claims have been amended. Therefore, claims 1-61 and 63-118 are pending.

Claim Rejections - 35 USC § 102

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.

Claims 82, 87, 100-104, 107-110, 113-115 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent No. 6,287,200 B1 to Sharma et al.

Regarding claim 82, Sharma discloses a system comprising:

A display (fig. 4);

A locating device operable to determine the physical location of said locating device on a physical playfield (abstract, col. 2, lines 35-45, mobile device contains GPS), wherein said locating device comprises a movement measuring device operable to be utilized, at least in part to determine said physical location (col. 3, lines 45-61, mobile device also contains a motion sensor that measures trajectory and velocity of the device, and in order to measure trajectory and

velocity, displacement must be measured thereby determining at least two different physical locations);

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 (fig. 3 and 5, col. 3, lines 45-61).

Regarding claims 87 and 107. Sharma discloses wherein said video game is a multiple-player video game (col. 3, lines 25-45).

Regarding claim 100, Sharma discloses a system comprising:

A non-transparent display (fig. 4, a hand-held display);

a locating device operable to determine the physical location of said locating device on a physical playfield (col. 2, lines 35-45, GPS);

a directional device operable to determine the physical direction of said directional device on said physical playfield (fig. 5, col. 3, lines 45-61, the motion sensor determines the direction); 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 and facing a virtual direction on a virtual playfield said virtual location on said virtual playfield corresponds to said physical location on said physical playfield, and said virtual direction on said

virtual playfield corresponds to said physical direction on said physical playfield (fig. 5, col. 3, lines 45-61, the user utilizes the device to move the character and the volleyball).

Regarding claim 101. Sharma discloses wherein said video game is provided on said display in a third-person perspective (fig. 3, col. 3, lines 30-44).

Regarding claim 102. Sharma discloses wherein said display is a non head-mounted display (fig. 4).

Regarding claim 103. Sharma discloses wherein a second virtual character is provided in said video game and said second virtual character is computer-controlled (fig. 2, 3 and 5, col. 3, lines 45-61, each character is controlled by the mobile device).

Regarding claim 104. Sharma discloses wherein a second virtual character is provided in said video game and said second virtual character is user- controlled (fig. 5, col. 3, lines 45-61, the character is controlled by the player who controls the device).

Regarding claim 108. Sharma discloses wherein an interactive virtual object, with respect to said virtual character, is provided in said video game (col. 3, lines 30-61, volleyball).

Regarding claim 109. Sharma discloses wherein an impenetrable virtual object, with respect to

said virtual character, is provided in said video game (col. 3, lines 30-61, the volleyball is hit and not penetrated by the swinging of the mobile device).

Regarding claim 110, Sharma discloses wherein said virtual character is selected from a plurality of virtual characters (col. 3, line 38, the players can choose a team X or Y character).

Regarding claim 113. Sharma discloses wherein said video-game is point-based (col. 3, lines 30-38, volleyball is point based).

Regarding claim 114. Sharma discloses wherein said locating device comprises a positioning receiver (col. 2, lines 35-45, GPS).

Regarding claim 115. Sharma discloses wherein said locating device comprises a movement measuring device operable to be utilized, at least in part, to determine said physical location (col. 3, lines 25-61, the mobile device also contains a motion sensor that measures trajectory and velocity of the device, and in order to measure trajectory and velocity, displacement must be measured thereby determining at least two different physical locations.).

Claim Rejections - 35 USC § 103

1. 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 negatived by the manner in which the invention was made.

2. **Claims 1-3, 6-16, 19, 20, 22, 25, 26, 28, 29, 31, 32, 34, 43, 47, 53, 55, 56, 59-61, 63-65, 83, 116 and 117 are rejected are rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma., USPAT 6,287,200 (hereinafter Sharma) in view of Benes et al. (US 2004/0046655 A1).**

Claims 1 and 83. Sharma in view of Benes discloses a system comprising:

a wireless device wherein said wireless device comprises:

a display (fig. 4);

a locating device operable to determine the physical location of said locating device on a physical playfield (col. 1:lines 5-16, col. 2:40, col. 3:45 - col. 4:8); 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 character is displayed on said display (fig. 3, col. 3:lines 9-38), and said virtual location on said virtual playfield corresponds to said physical location on said physical playfield (col. 3:9-12, col. 3:31-61).

Sharma substantially discloses the invention as claimed but fails to explicitly teach a wireless telephone device (as per claims 1 and 83). Instead, Sharma discloses mobile devices with displays that may communicate via RF, WAP, Bluetooth etc. without expressly disclosing a wireless telephone device. However, in an analogous reference, Benes discloses a wireless

telephone device to play a location-based game. One of ordinary skill in the art would have seen the benefit of modifying Sharma with a wireless telephone device to optimize the resources available to subscribers, alter the game by defining an area of play and activate game features without direct communication between the players and the providers (Benes, paragraph 1 and 2). Furthermore, an artisan would have found it obvious to adapt the invention, when possible, to operate on other wireless devices (Benes, paragraph 10) to increase the user base by allowing users who already own one similar device but do not want to purchase another device to play the game. Therefore, it would have been obvious to one or ordinary skill in the art at the time of the instant invention to modify Sharma with a wireless telephone device to optimize resources, and increase the user base which would also increase profits.

Claim 2. Sharma discloses said locating device is a global positioning system (col. 2:line 41).

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 lm 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 devise are able to participate in the virtual game." Because the range dictates the interaction between participants, it would imply that the playfield perimeter is default to the limit of the protocol.

Claim 6, Sharma inherently discloses memory to store the application programs (col. 3:lines 25-37) because a memory must be present in order to store multiple applications in addition to the volleyball game. Benes discloses a memory (Benes, fig. 2 and 3, item 260).

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 to 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 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.

Claim 8, 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 inherent to use a coordinate system, since GPS utilizes geographical coordinates.

Claim 9, Sharma discloses a the motion sensor within the wireless device that will sense both trajectory and velocity which corresponds to the direction and magnitude (col. 3:lines 45-61).

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.

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.

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 art 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.

Claim 15, Sharma discloses 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 (col. 3, lines 9-24, each device is a remote memory).

Claim 16, Sharma in view of Benes discloses a microphone and speaker (Benes, a cell phone inherently contains a mic and a speaker).

Claim 17, Sharma discloses a method for controlling a character in a location-based video game comprising:

storing a first physical location of a wireless device on a physical playfield on a remote server (fig. 6, col. 4, lines 18-44, each device acts as a server to the other devices storing the location of the other devices);

changing the location of said character in a virtual playfield of said video game based on said first physical location (fig. 6, col. 4, lines 18-44, each device is moved by the player while playing); and

updating the location of said wireless device on said remote server by storing a second physical location of said wireless device on said remote server (fig. 6, col. 4, lines 18-44, each device is updated with the location of the players while playing the game); and

retrieving by said wireless device from said remote server a third physical location of a second wireless device (fig. 6, col. 4, lines 18-44, the first device now receives updated information from a second device).

Sharma substantially discloses the invention as claimed but fails to explicitly teach a wireless telephone device. Instead, Sharma discloses mobile devices with displays that may communicate via RF, WAP, Bluetooth etc. without expressly disclosing a wireless telephone device. However, in an analogous reference, Benes discloses a wireless telephone device to play a location-based game. One of ordinary skill in the art would have seen the benefit of modifying Sharma with a wireless telephone device to optimize the resources available to subscribers, alter the game by defining an area of play and activate game features without direct communication

between the players and the providers (Benes, paragraph 1 and 2). Furthermore, an artisan would have found it obvious to adapt the invention, when possible, to operate on other wireless devices (Benes, paragraph 10) to increase the user base by allowing users who already own one similar device but do not want to purchase another device to play the game. Therefore, it would have been obvious to one or ordinary skill in the art at the time of the instant invention to modify Sharma with a wireless telephone device to optimize resources, and increase the user base which would also increase profits.

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.

Claim 22, Sharma discloses wherein said character is manually selected (col. 3, line 38, the players can choose a team X or Y character).

Claims 25 and 59. Sharma discloses wherein a second virtual character is provided in said video game and said second virtual character is user- controlled (fig. 5, col. 3, lines 45-61, the character is controlled by the player who controls the device).

Claims 26 and 64. Sharma discloses wherein said video-game is point-based (col. 3, lines 30-38, volleyball is point based).

Claim 28. Sharma discloses wherein an action is performed in said video game and an animated is played as a result of said action (fig. 3 and 5, col. 3, lines 45-61).

Claim 29, Sharma discloses a stationary device to control a virtual character (fig. 6, items 10 and 40).

Claim 31, Sharma shows in figure 6 and discusses in (column 4, lines 19-40) a server and each mobile device that is updated with every mobile device's location (col. 3, lines 9-24).

Claims 32 and 65, 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.

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.

Regarding claims 47 and 117. Sharma discloses wherein an impenetrable virtual object, with respect to said virtual character, is provided in said video game (col. 3, lines 30-61, the volleyball is hit and not penetrated by the swinging of the mobile device).

Regarding claims 53, 55, 56, 60, 61, 63 and 116 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 claim 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).

Claim 118. Sharma discloses wherein said locating device comprises a movement measuring device operable to be utilized, at least in part, to determine said physical location (col. 3, lines 25-61, the mobile device also contains a motion sensor that measures trajectory and velocity of the device, and in order to measure trajectory and velocity, displacement must be measured thereby determining at least two different physical locations.).

Claims 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Benes et al. (US 2004/0046655 A1) and further in view of Newell et al., USPAT 6,735,435 (hereinafter Newell).

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.

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).

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..."

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.

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.

Claims 5 and 57 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).

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

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 $\dot{z}_{k+1} = h(x_k)$, $\dot{z}_{k+1}$ 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.

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."

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.

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.

Claims 21, 54, and 84 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Benes et al. (US 2004/0046655 A1) and further in view of Berstis (US 6,337,688 B1).

Regarding claims 21, 54, and 84, which depend on the limitation of an accelerometer, Sharma substantially discloses the invention as claimed but fails to explicitly teach that first locating

device comprises an accelerometer. Instead, Sharma discloses using GPS for a locating device. However, in an analogous reference, Berstis discloses using accelerometers as an alternative to GPS because that are commercially available at low cost relative to a GPS receiver (Berstis, 3:62). Therefore, it would have been obvious to one or ordinary skill in the art at the time of the instant invention to modify Sharma with accelerometers as they are a low cost alternative to GPS receivers.

Claims 23, 24, 38-41, 58, 85, are rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Benes et al. (US 2004/0046655 A1) and further in view of Leonhard et al. USPUB 2002/0052933 (hereinafter Leonhard).

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.

Claims 23, 24, 58, and 85, 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 85,), 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.

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.

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. 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.

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.

Claims 27, 35-37, 42, 45, 46, and 48-50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Acclaim's Mortal Kombat (hereinafter MK).

While Sharma discloses a location-based gaming system capable of supporting a multi-player game, Sharma fails to explicitly disclose a game other than volleyball. 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.

Regarding claim 27, Sharma substantially discloses the invention as claimed but fails to explicitly teach wherein an amount of time is displayed associated with a start of said video game. However in an analogous reference Mortal Kombat (MK, page 7), which was one of the most popular games when the game first came out, illustrates points for both opponents above their power meters and also illustrates a time in the middle of the screen and discloses, "Should time run out..." referencing the game's use of time. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Sharma with a timer when combined with a popular game such as Mortal Kombat.

Regarding claims 35-37, and 42, 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.

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.

Regarding claims 48-50, 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.

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.

Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Benes et al. (US 2004/0046655 A1) and further in view of US Pub. No. 2006/0154710 A1 to Serafat. This new grounds of rejection was necessitated by applicant's request for documentary proof of official notice.

Claim 30, Sharma substantially discloses the invention as claimed but fails to explicitly teach a single-player video game. However in an analogous reference, Serafat teaches using artificial intelligence (Serafat, paragraph [0056]) in mobile gaming (Serafat, paragraph [0054]) to continue a game even in the absence of a player, without the need to interrupt the game itself. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Sharma with AI for continuing a multiplayer game in single player mode in

case of an absence of a player participating in the game by simulating the participation of the player who is absent.

Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Benes et al. (US 2004/0046655 A1) and further in view of Anderson et al., USPAT 7,303,474 (hereinafter Anderson).

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.

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..."

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."

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.

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.

Claims 44 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Benes et al. (US 2004/0046655 A1) and further in view of Tom, USPAT 6,690,947 (hereinafter Tom)

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.

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.

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.

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.

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.

Claims 51 and 52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Benes et al. (US 2004/0046655 A1) and further in view of Super Dodgeball by Nintendo (hereinafter "Super Dodgeball").

Regarding claims 51 and 52, Sharma substantially discloses the invention as claimed but fails to explicitly teach the limitation of being able to pick up and put down the virtual object. Sharma discloses a volley ball game. Instead, the virtual object is simply contacted by the player to be sent over the net and that a variety of other games may be played (Sharma: col. 3, lines 35-60). However, in an analogous art, Super Dodgeball teaches a game based on having two sides and a middle line similar to volleyball and has a rating of 8.5 out of 10 which teaches picking up a virtual object as evidenced by the youtube video of actual footage from the game that was released in 1998 and a gamefaq describing the same game (Super Dodgeball: picking up, youtube video at 1:00 and 6:15, and Blocking in the Gamefaq) and putting down the ball (dropping the ball in the Gamefaq). One of ordinary skill in the art at the time of the invention

would have seen this to be an obvious feature to maintain the continuity of the game. If the game simply skipped over the part when a player picks up an object, the game would lose realism and lose player appeal.

Claims 18, 68, and 71-75 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma, USPAT 6,287,200 (hereinafter Sharma) in view of Hale et al. (US 5,902,343).

Claim 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 (2:32-45);
obtaining a second physical location of a second locating device on a second physical playfield (2:32-45), wherein said first physical playfield is remote from said second physical playfield (fig. 3, 3:30-67, Team x and Y are different playfields); and

Sharma substantially discloses the invention as claimed such as displaying first and second characters (fig. 3, col. 3, lines 30-45) but fails to explicitly teach 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, second location information associated with said second physical location is scaled, 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. Instead, Sharma seems to remain silent as to how the location information is interpreted. However, in an analogous GPS reference, Hale discloses scaling the GPS field maps to show all of the data (Hale, abstract). One

of ordinary skill in the art at the time of the invention would have found it obvious to modify Sharma with scaled GPS maps to show all the data of the game as providing an easy-to-read electronic display showing a map of the area being traversed correlated with visual indicia of a characteristic being measured is difficult. Hale is analogous art because if an artisan had a problem of providing an easy-to-read electronic display showing a map of the area being traversed, an artisan would have found it obvious to search other GPS-related art. Therefore, one of ordinary skill in the art would have seen the benefit of modifying Sharma with GPS scaling to show all of the data necessary for the task at hand.

Claim 68. Sharma discloses a GPS receiver (2:40-45).

Claim 71. Sharma discloses a third character (fig. 3).

Claim 72. Sharma discloses a virtual object (volleyball, 2:35).

Claim 73. Sharma discloses an impenetrable virtual object (volleyball, 2:35).

Claim 74. Sharma discloses determining a direction (3:55).

Claim 75. Sharma discloses a device operable to provide human communications (a viewable display, fig. 4).

Claims 66 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma (US Pat. No. 6,287,200 B1) in view of in view of Hale et al. (US 5,902,343) and further in view of Benes et al. (US 2004/0046655 A1).

Regarding claims 66, Sharma substantially discloses the invention as claimed but fails to explicitly teach a wireless telephonic device. Instead, Sharma discloses mobile devices with displays that may communicate via RF, WAP, Bluetooth etc. without expressly disclosing a wireless telephone device. However, in an analogous reference, Benes discloses a wireless telephone device to play a location-based game. One of ordinary skill in the art would have seen the benefit of modifying Sharma with a wireless telephone device to optimize the resources available to subscribers, alter the game by defining an area of play and activate game features without direct communication between the players and the providers (Benes, paragraph 1 and 2). Furthermore, an artisan would have found it obvious to adapt the invention, when possible, to operate on other wireless devices (Benes, paragraph 10) to increase the user base by allowing users who already own one similar device but do not want to purchase another device to play the game. Therefore, it would have been obvious to one or ordinary skill in the art at the time of the instant invention to modify Sharma with a wireless telephone device to optimize resources, and increase the user base which would also increase profits.

Claim 67 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma, USPAT 6,287,200 (hereinafter Sharma) in view of Hale et al. (US 5,902,343) and Berstis (US 6,337,688 B1).

Claim 67. Sharma substantially discloses the invention as claimed but fails to explicitly teach that first locating device comprises an accelerometer. Instead, Sharma discloses using GPS for a locating device. However, in an analogous reference, Berstis discloses using accelerometers as an alternative to GPS because that are commercially available at low cost relative to a GPS receiver (Berstis, 3:62). Therefore, it would have been obvious to one or ordinary skill in the art at the time of the instant invention to modify Sharma with accelerometers as they are a low cost alternative to GPS receivers.

Claim 69 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Hale et al. (US 5,902,343) and further in view of Kotanen et al., "Experiments on Local Positioning with Bluetooth" (hereinafter Kotanen).

Claim 69. While Sharma discloses the wireless device's WLAN and Bluetooth capabilities, Sharma fails to explicitly disclose local positioning capabilities using either of these protocols. 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 $\dot{z}_{k+1} = h(x_k)$, $\dot{z}_{k+1}$ 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.

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."

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.

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.

Claims 70 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Pat. No. 6,287,200 B1 to Sharma (Sharma) in view of Hale et al. (US 5,902,343) and further in view of US Pub. No. 2004/0248653 A1 to Barros et al. (Barros).

Regarding claim 70 Sharma substantially discloses the invention as claimed such as a multiplayer location based video game (Sharma, col. 3, lines 25-45) but fails to explicitly teach wirelessly downloading a location-based program to the wireless telephonic device. Instead,

Sharma seems to remain silent as to how the games are loaded onto the system. However, in an analogous reference, Barros discloses that the game is wirelessly sent to the mobile telephonic device from the server. One of ordinary skill in the art would have found it obvious to use wireless communications to provide a way to attract users to a store by enhancing their interactive experience while executing applications on their wireless devices and enables special features in an application executed on a wireless device when the wireless device is within a predefined vicinity of a store (Barros: paragraph [0011]). Therefore, it would have been obvious to one or ordinary skill in the art at the time of the instant invention to modify Sharma with wirelessly downloading games to enable special features and attracts users to a store thereby increasing advertising revenue.

Claims 76-78, and 80 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Pat. No. 6,287,200 B1 to Sharma (Sharma) in view of US Pat. No. 6,011,653 A to Karasawa (Karasawa) and further in view of Berstis (US 6,337,688 B1).

Claims 76, 77 and 80. Sharma discloses a head-mounted system comprising:

a display (fig. 4)

A locating device operable to determine the physical location of said locating device on a physical playfield (abstract, col. 2, lines 35-45, GPS);

A processor coupled to said display, wherein said processor is operable to provide a video game comprising a virtual character with a virtual location on said virtual playfield corresponds to said physical location on said physical playfield (fig. 3 and 5, col. 3, lines 45-61), video game indicia, associated with said video game, is displayed on said display (fig. 3 and 5, col. 3, lines 45-61) such that said video game indicia is visible with said physical playfield through said display, and said video game is controlled, at least in part, by said accelerometer (col. 3:9-12, col. 3:31-61).

Sharma substantially discloses the invention as claimed but fails to explicitly teach a transparent display, such that video game indicia is visible with said physical playfield through said display. Instead, Sharma discloses 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 (as per claim 80, column 4, lines 6-8), "...can be...arcade-type virtual reality goggles." However in an analogous reference Karasawa discloses a head mounted display that superimposes the video game over the image seen by the user (as per claim 76 and 77, fig. 2, col. 3, line 23 – col. 4, line 42). One of ordinary skill in the art would have seen the benefit of modifying Sharma with the head mounted display by Karasawa for magnifying an image generated by an image display means to a magnified virtual image and enabling the magnified virtual image to be seen by either one of the eyes of the user.

Sharma substantially discloses the invention as claimed but fails to explicitly teach an accelerometer. Instead, Sharma discloses using GPS for a locating device. However, in an analogous reference, Berstis discloses using accelerometers as an alternative to GPS because that are commercially available at low cost relative to a GPS receiver (Berstis, 3:62). Therefore, it

would have been obvious to one or ordinary skill in the art at the time of the instant invention to modify Sharma with accelerometers as they are a low cost alternative to GPS receivers.

Regarding claim 78, Sharma discloses wherein a second virtual character is provided in said video game and said second virtual character is computer-controlled (fig. 2, 3 and 5, col. 3, lines 45-61, each character is controlled by the mobile device).

Claim 79 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Pat. No. 6,287,200 B1 to Sharma (Sharma) in view of US Pat. No. 6,011,653 A to Karasawa (Karasawa) and further in view of Berstis (US 6,337,688 B1) and Reaney (US Patent No. 5,523,890). This new grounds of rejection was necessitated by applicant's request for documentary proof of official notice.

Regarding claim 79, Sharma in view of Karasawa substantially discloses the invention as claimed but fails to explicitly teach a first-person perspective. However in an analogous reference, Reaney teaches that head mounted displays and interactive virtual reality and first person games, those that put the user in the action benefit most from the head-mounted display of Reaney (Reaney, col. 5, lines 9-15). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Sharma with first person perspective games because those game benefit the most from head-mounted displays.

Claim 81 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Karasawa (US 6,011,653), and further in view of Berstis (US 6,337,688 B1), and further in view of Numa, USPAT 6,633,267 (hereinafter Numa).

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 Karasawa 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 Karasawa fails to explicitly disclose a HMD wherein the direction the HMD is pointing is the direction used by the video game.

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... 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."

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.

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 Karasawa with the HMD control system as described by Numa for the purpose of providing enhanced reality to a game.

Claims 88-93 are rejected are rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma., USPAT 6,287,200 (hereinafter Sharma) in view of Kotanen et al., "Experiments on Local Positioning with Bluetooth" (hereinafter Kotanen).

Claim 88. Sharma discloses:

a display (fig. 4);

a locating device operable to determine the physical location of said locating device comprising a local position system (Kotanen);

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 (3:9-12, 3:31-61).

While Sharma discloses the wireless device's WLAN and Bluetooth capabilities, Sharma fails to explicitly disclose local positioning capabilities using either of these protocols.
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 $\dot{z}_{k+1} = h(x_k)$, $\dot{z}_{k+1}$ 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.

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."

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.

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.

Claim 89. Sharma discloses at least two positioning devices (fig. 3 and 5).

Claim 90. Sharma discloses a wireless device (fig. 2,3 and 6, mobile device).

Claim 91. Sharma discloses the physical location of said locating device is stored and updated in a remote server (a server is any piece of software or hardware that serves data to another piece of software or hardware, fig. 6, 4:18-44).

Claim 92. Sharma discloses a second virtual character (fig. 3 and 5).

Claim 93. Sharma discloses using the trajectory of the device (3:55).

Claims 94, 96, and 98 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma (US Pat. No. 6,287,200 B1) in view of Ebersole et al. (US Pub. No. 2003/0210228 A1).

Regarding claim 94, Sharma discloses a system comprising:

A display (fig. 4);

A first locating device operable to determine a first physical location of said locating device on a physical playfield (abstract, col. 2, lines 35-45, GPS);

A processor coupled to said display, wherein said processor is operable to provide a first video game and utilize said first physical locations, at least in part, to control a virtual character on a virtual playfield (col. 3:9-12, col. 3:31-61).

Sharma substantially discloses the invention as claimed but fails to explicitly teach a second locating device operable to determine a second physical location of said second locating device on said physical playfield, together with the first locating device, provide control to a virtual character, instead, Sharma discloses a location based game in which an external display such as virtual reality goggles may be used with a mobile device. In an analogous reference, Ebersole discloses an augmented-reality system in which a head-mounted display is utilized. Ebersole specifically discloses a head-mounted display in which two GPS receivers are used to determine

the heading and position of the head-mounted display (Ebersole, paragraphs [0074 and 0075]) to enable 5 degrees of freedom motion tracking in an augmented reality environment wherein dynamically updated information may be mixed with a live view of the real world. Therefore, it would have been obvious to one or ordinary skill in the art at the time of the instant invention to modify Sharma with two GPS receivers to enable 5 degrees of freedom motion tracking in an augmented reality environment wherein dynamically updated information may be mixed with a live view of the real world.

Regarding claim 96, Sharma in view of Ebersole discloses that the locating devices are positioning receivers (col. 2, lines 35-45, GPS).

Regarding claim 98, Sharma discloses a manual control to control, at least in part said virtual character (fig. 5, col. 3, lines 45-61, moving the mobile unit controls the virtual character).

Claim 95 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma (US Pat. No. 6,287,200 B1) in view of Ebersole et al. (US Pub. No. 2003/0210228 A1) and further in view of US Patent No. 5,724,660 to Kauser et al.

Regarding claim 95, Sharma substantially discloses the invention as claimed but fails to explicitly teach that the an average of locations is used to control the virtual character. However, in an analogous reference, Kauser discloses that GPS coordinates are commonly averaged to decrease error rates in col. 9, lines 30-40. Therefore, it would have been obvious to one or ordinary skill in the art at the time of the instant invention to modify Sharma with averaged GPS coordinates to decrease error rates.

Claims 97 and 99 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma (US Pat. No. 6,287,200 B1) in view of Ebersole et al. (US Pub. No. 2003/0210228 A1) and further in view of Benes et al. (US 2004/0046655 A1).

Regarding claims 97 and 99, Sharma substantially discloses the invention as claimed such as a second virtual character (devices B-D, col. 3, lines 9-44) but fails to explicitly teach a wireless telephone device. Instead, Sharma discloses mobile devices with displays that may communicate via RF, WAP, Bluetooth etc. without expressly disclosing a wireless telephone device. However, in an analogous reference, Benes discloses a wireless telephone device to play a location-based game. One of ordinary skill in the art would have seen the benefit of modifying Sharma with a wireless telephone device to optimize the resources available to subscribers, alter the game by defining an area of play and activate game features without direct communication between the players and the providers (Benes, paragraph 1 and 2). Furthermore, an artisan would have found it obvious to adapt the invention, when possible, to operate on other wireless devices (Benes, paragraph 10) to increase the user base by allowing users who already own one similar device but do not want to purchase another device to play the game. Therefore, it would have been obvious to one or ordinary skill in the art at the time of the instant invention to modify Sharma with a wireless telephone device to optimize resources, and increase the user base which would also increase profits.

Claims 105, 111, 112 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Pat. No. 6,287,200 B1 to Sharma (Sharma) in view of US Pub. No. 2004/0248653 A1 to

Barros et al. (Barros).

Regarding claims 105, 111, 112, Sharma substantially discloses the invention as claimed such as a multiplayer location based video game (Sharma, col. 3, lines 25-45) but fails to explicitly teach wirelessly downloading a location-based program to the wireless telephonic device. Instead, Sharma seems to remain silent as to how the games are loaded onto the system. However, in an analogous reference, Barros discloses that the game is wirelessly sent to the mobile telephonic device from the server. One of ordinary skill in the art would have found it obvious to use wireless communications to provide a way to attract users to a store by enhancing their interactive experience while executing applications on their wireless devices and enables special features in an application executed on a wireless device when the wireless device is within a predefined vicinity of a store (Barros: paragraph [0011]). Therefore, it would have been obvious to one or ordinary skill in the art at the time of the instant invention to modify Sharma with wirelessly downloading games to enable special features and attracts users to a store thereby increasing advertising revenue.

Claims 86 and 106 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Pat. No. 6,287,200 B1 to Sharma (Sharma) in view of US Pub. No. 2006/0154710 A1 to Serafat. This new grounds of rejection was necessitated by applicant's request for documentary proof of official notice.

Regarding claims 86 and 106, Sharma substantially discloses the invention as claimed but fails to explicitly teach a single-player video game. However in an analogous reference, Serafat teaches

using artificial intelligence (Serafat, paragraph [0056]) in mobile gaming (Serafat, paragraph [0054]) to continue a game even in the absence of a player, without the need to interrupt the game itself. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Sharma with AI for continuing a multiplayer game in singleplayer mode in case of an absence of a player participating in the game by simulating the participation of the player who is absent.

Response to Arguments

Applicant's arguments filed 7/28/2015 have been fully considered but they are not persuasive.

On page 28, regarding claim 82, Applicant argues that Sharma fails to disclose a movement measurement at least partially based on a physical location. The Examiner respectfully disagrees. As similarly argued in the prior Office Action, Sharma discloses, in at least column 2, lines 24-45, the use of Global Positioning System to locate the position of a mobile device. For at least this reason, the rejections are maintained.

On page 29, regarding claim 100, Applicant argues that Sharma fails to disclose detecting a virtual direction of a virtual character. Again, Sharma discloses, in at least column 2, lines 24-45, the use of Global Positioning System to locate the position of a mobile device. The GPS determines the direction of the mobile device, which represents the virtual character. For at least this reason, the rejections are maintained.

On page 30, regarding claim 1, Applicant argues that the combination of Sharma and Benes fails to disclose earlier alleged deficiency of Sharma. For the reasons set forth above, the rejections are maintained.

On page 31, regarding claim 17, Applicant argues that Sharma and Benes fails to disclose transferring data to a remote server. Further, Applicant states that claim 17 has been amended, which does not appear to be accurate. In fact, it appears that Applicant is copying and pasting arguments from prior Responses (e.g., see page 28 of the 9/26/2013 response) into this response that are inconsistent with this response. Despite that issue, the Examiner respectfully disagrees. In column 4, lines 18-44, Sharma discloses the use of a WAP server for receiving position data. For at least this reason, the rejections are maintained.

On page 32 (continued on page 30), regarding claim 76, Applicant argues that the combination of Sharma, Karasawa, and Bertsis fails to disclose a transparent display. The Examiner respectfully disagrees. As stated in the Office Action, Karasawa is relied upon to teach a transparent display (e.g., see Karasawa, Figs. 1a and 1b). For at least this reason, the rejections are maintained.

On page 33, regarding claim 76, Applicant argues that it is hindsight reasoning to combine an accelerometer as taught by Berstis with the GPS positioning device. The Examiner respectfully disagrees. It is not hindsight to provide alternative technical features for performing a similar function when the alternative provides some advantage (e.g., reducing the cost of the device or reliance on a strong GPS signal). For at least this reason, the rejections are maintained.

On page 34, regarding claim 18, Applicant argues that the combination of Sharma and Hale do not disclose or make obvious recited differently "scaled" features of the claim. The

Examiner respectfully disagrees. Although Applicant only acknowledges a single recitation in Hale regarding scaling in the title of the invention, Hale's disclosure is, in fact, replete with references to the usefulness of scaling positioning data. It is requested that Applicant review Hale in its entirety to appreciate the scope of its teaching with regard to scaling. For at least this reason, the rejections are maintained.

On page 35, regarding claim 88, Applicant argues that the combination of Sharma and Kotanen fail to disclose a ground-based positioning device. The Examiner respectfully disagrees. Kotanen is relied upon to teach ground-based local positioning (see at least Kotanen's Introduction). For at least this reason, the rejections are maintained.

On page 36, regarding claim 88, Applicant argues that Sharma and Kotanen cannot be combined because the combination would destroy the base reference. The Examiner respectfully disagrees. Simply because Sharma and Kotanen teach different technologies for determining position, doesn't make them unavailable for a combination. Sharma's end result (e.g., game play) could be implemented with one of many different methods of determining one or more user positions. For at least this reason, the rejections are maintained.

On page 3, regarding claim 94, Applicant argues that Sharma and Ebersole fail to disclose two locating devices to detect the position of a single user. The Examiner respectfully disagrees. Ebersole is relied upon to teach two locating devices to detect the position of a single user (e.g., see paragraphs 74 and 75). For at least this reason, the rejections are maintained.

Beginning on page 38, Applicant groups the remaining dependent claims and argues that each dependent claim is allowable because it depends from an allegedly allowable base claim.

Since all base claims were previously addressed, the rejections of the dependent claims are also maintained.

Beginning on page 40, Applicant argues that the Examiner's use of the Official Notice is improper. While the Examiner is unaware of any remaining rejections based on Official Notice, Applicant's cursory traversal is not adequate under 2144.03.

Conclusion

THIS ACTION IS MADE FINAL. 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 mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAMES S. MCCLELLAN whose telephone number is (571)272-7167. The examiner can normally be reached on Mon-Fri (8:30AM-5:00PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dmitry Suhol can be reached on (571) 272-4430. 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.

/JAMES S. MCCLELLAN/
Primary Examiner, Art Unit 3716

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	10932536	MULLEN, JEFFREY D.
	Examiner	Art Unit
	ANDREW KIM	3716

CPC- SEARCHED		
Symbol	Date	Examiner
A63F 2300/5573	1/27/2014	AK
update	1/25/2015	JSM
update	8/24/2015	JSM

CPC COMBINATION SETS - SEARCHED		
Symbol	Date	Examiner

US CLASSIFICATION SEARCHED			
Class	Subclass	Date	Examiner
463	31, 40, 42	1/27/2014	AK
Update		1/25/2015	JSM
Update		8/24/2015	JSM

SEARCH NOTES		
Search Notes	Date	Examiner
EAST (see attached notes)	12/19/2009	AK
EAST Text search of PGPUB, USPAT, USOCR, EPO, JPO, DERWENT. See attached search results.	1/27/2014	AK
Update Search	1/25/2015	JSM
Update SEarch	8/24/2015	JSM

INTERFERENCE SEARCH			
US Class/ CPC Symbol	US Subclass / CPC Group	Date	Examiner

	/JAMES S MCCLELLAN/ Primary Examiner.Art Unit 3716

EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	4995573	@ad<"20040901"	US-PGPUB; USPAT	OR	OFF	2015/08/24 16:37
L2	251452	GPS	US-PGPUB; USPAT	OR	OFF	2015/08/24 16:37
L3	1157040	phone or telephone	US-PGPUB; USPAT	OR	OFF	2015/08/24 16:37
L4	351038	game	US-PGPUB; USPAT	OR	OFF	2015/08/24 16:37
L5	8605	2 same 3 same 4	US-PGPUB; USPAT	OR	OFF	2015/08/24 16:37
L6	6801	2 with 3 with 4	US-PGPUB; USPAT	OR	OFF	2015/08/24 16:37
L7	74	6 and 1	US-PGPUB; USPAT	OR	OFF	2015/08/24 16:37
S1	1	("6287200").PN.	US-PGPUB; USPAT	OR	OFF	2015/01/25 22:42
S2	1	("6011653").PN.	US-PGPUB; USPAT	OR	OFF	2015/01/25 23:10
S3	1	("5902343").PN.	US-PGPUB; USPAT	OR	OFF	2015/01/25 23:21
S4	4994946	@ad<"20040901"	US-PGPUB; USPAT	OR	OFF	2015/01/25 23:43
S5	225784	GPS	US-PGPUB; USPAT	OR	OFF	2015/01/25 23:43
S6	1077388	phone or telephone	US-PGPUB; USPAT	OR	OFF	2015/01/25 23:43
S7	325884	game	US-PGPUB; USPAT	OR	OFF	2015/01/25 23:43
S8	5420	S5 with S6 with S7	US-PGPUB; USPAT	OR	OFF	2015/01/25 23:43
S9	74	S8 and S4	US-PGPUB; USPAT	OR	OFF	2015/01/25 23:44

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JDM/005

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	:	Andrew Kim

Hon. Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Pittsburgh, PA 15116
July 28, 2015

REPLY TO OFFICE ACTION

Sir:

This is in response to the Office Action dated January 28, 2014. A three-month extension of time is applicable hereto and is being submitted herewith. In response to the Office Action, 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.

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 telephone, wherein said wireless telephone 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, said virtual character is displayed on said display, 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 telephone 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. (previously presented) The system of claim 1, wherein said wireless telephone further 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. (previously presented) The system of claim 1, wherein said wireless telephone further 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. (previously presented) The system of claim 1, wherein said wireless telephone further comprises manual controls for controlling non-location based aspects of said virtual character.

14. (previously presented) The system of claim 1, wherein said wireless telephone further 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. (previously presented) The system of claim 1, wherein said wireless telephone further 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

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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;

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; and

retrieving by said wireless telephonic device from said remote server a third physical location of a second wireless telephonic device.

18. (previously presented) 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, said first virtual character being displayed on a display, second

location information associated with said second physical location is scaled, said scaled second location is utilized to provide a second virtual character on said virtual playfield, said second virtual character being displayed on said display, 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. (previously presented) The system of claim 1, wherein an amount of time is displayed associated with a 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. (previously presented) The system of claim 1, wherein said wireless telephone is operable to 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 telephone 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.

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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 telephone 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 telephone 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 said ~~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. (previously presented) The method of claim 17, wherein a first locating device is provided in said wireless telephonic device and said wireless telephonic device is able to provide human-communications to a second telephonic device while 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. (previously presented) The method of claim 18, further comprising determining a direction of a directional device and utilizing said direction to control a direction of said first virtual character.

75. (previously presented) 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 provide human-communications to a second telephonic device while 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

an accelerometer;

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, 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, and said video game is controlled, at least in part, by said accelerometer.

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. (previously presented) The system of claim 76, wherein said video game comprises a second virtual character, said second virtual character is computer controlled.

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 operable to be utilized, at least in part, 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.

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. (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 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. (previously presented) The system of claim 88, wherein said at least one ground-based local positioning device includes at least two ground-based local positioning devices.

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 second locating device on said physical playfield; and

a processor coupled to said display, wherein said processor is operable to provide a first video game and utilize said first and second physical locations, at least in part, to control a virtual character on a virtual playfield.

95. (previously presented) The system of claim 94, wherein said an average including said first physical location and said second physical location is utilized, at least in part, to control said virtual character.

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

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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 manual control to control, at least in part, said virtual character.

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 non-transparent 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 and facing a virtual direction on a virtual playfield said virtual location on said virtual playfield corresponds to said physical location on said physical playfield, and said virtual direction on said virtual playfield corresponds to said physical direction 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 non head-mounted display.

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. (previously presented) The system of claim 100, wherein said locating device is included in a first wireless telephonic device and 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 operable to be utilized, at least in part, to determine said physical location.

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

118. (previously presented) The system of claim 1, wherein said locating device comprises a movement measuring device operable to be utilized, at least in part, to determine said physical location.

REMARKS/ARGUMENTS

Summary of Office Action

Claims 1-115 are pending in the application.

The Examiner rejected claims 1-61 and 63-118 under 35 U.S.C. 101.

The Examiner rejected claims 82, 100-104, 107-110 and 113-115 under 35 U.S.C. 102(b) as being unpatentable over Sharma U.S. Patent No. 6,287,200.

The Examiner rejected claims 1-3, 6-9, 17, 19-20, 22, 25, 26, 28-32, 34, 43, 53, 55, 56, 59-61, 63-65, 83, 116, and 117 under 35 U.S.C. 103(a) as being unpatentable over Sharma U.S. Patent No. 6,287,200 (hereinafter "Sharma") in view of Benes et al U.S. Patent Application Publication No. 2004/0046655 (hereinafter "Benes").

The Examiner rejected claim 4 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Benes and further in view of Newell et al U.S. Patent No. 6,735,435 (hereinafter "Newell").

The Examiner rejected claims 5 and 57 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").

The Examiner rejected claims 21, 54, and 84 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Berstis U.S. Patent No. 6,337,888 (hereinafter "Berstis").

The Examiner rejected claims 23, 24, 38-41, 58, and 85 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").

The Examiner rejected claims 27, 35-37, 42, 45, 46, and 48-50 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Acclaim's Mortal Kombat (hereinafter "MK").

The Examiner rejected claim 30 under 35 U.S.C. 1039A) over Sharma in view of Benes and further in view of Serafrat U.S. Publication No. 2006/0154710 (hereinafter "Serafrat").

The Examiner rejected claim 33 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").

The Examiner rejected claim 44 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").

The Examiner rejected claims 51 and 52 were rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Benes and further in view of Super Dodgeball by Nintendo (hereinafter "Super Dodgeball").

The Examiner rejected claims 18, 68, and 71-75 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Hale U.S. Patent No. 5,902,343 (hereinafter "Hale").

The Examiner rejected claim 66 under 35 U.S.C. 103(a) as being unpatentable over Shara in view of Hale and further in view of Benes.

The Examiner rejected claim 67 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Hale in view of Berstis U.S. Patent No. 6,337,688 (hereinafter "Berstis").

The Examiner rejected claim 69 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Hale and further in view of Kotanen.

The Examiner rejected claim 70 under 35 U.S.C. 103(a) over Sharma in view of Hale and further in view of Barros U.S. Publication No. 2004/0248653 (hereinafter "Barros")

The Examiner rejected claims 76-80 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Karasawa U.S. Patent No. 6,011,653 (hereinafter "Karasawa") and further in view of Berstis.

The Examiner rejected claim 79 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Karasawa and further in view of Berstis and Reaney U.S. Patent No. 5,523,890 (hereinafter "Reaney").

The Examiner rejected claim 81 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Karasawa and further in view of Berstis and further in view of Numa U.S. Patent No. 6,633,267 (hereinafter "Numa").

The Examiner rejected claims 88-93 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Kotanen.

The Examiner rejected claims 94, 96, and 98 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Ebersole U.S. Patent Publication No. 2003/0210228 (hereinafter "Ebersole").

The Examiner rejected claim 95 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Ebersole and further in view of Kauser U.S. Patent No. 5,724,660 (hereinafter "Kauser").

The Examiner rejected claims 97 and 99 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Ebersole and further in view of Benes.

The Examiner rejected claims 105, 111, and 112 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Barros.

The Examiner rejected claims 86 and 106 under 35 U.S.C. 103(a) as being unpatentable over Sharma.

Summary of Applicant's Amendments

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
Rejections Under 35 U.S.C. § 101

The Examiner rejected claims 1-61 and 63-118 under 35 U.S.C. 101.

The Examiner stated:

> "The claim(s) is/are directed to the abstract idea of locating one or people."
> (Office Action, page 2)

The Examiner's rejection is improper.

The applicant's claims do not include "one or more people." Furthermore, the Examiner's does not provide explicit reference to an abstract idea category of "locating one or people."

The Examiner cannot provide an abstract idea category of "one or more people" without a reference – let alone to a claim that does not include "one or more people."

Applicant's claims include physical structures that provide functional differences and do not include "one or more people."

For example, applicant's claim 1 includes a locating device operable to determine the physical location of the location device;

As per another example, applicant's claim 17 includes storing a first physical location of a wireless telephonic device on a physical playfield on a remote server.

As per another example, applicant's claim 18 includes obtaining a first physical location of a first locating device on a first physical playfield

As per another example, applicant's claim 76 includes a locating device operable to determine the physical location of the locating device on a physical playfield.

As per another example, applicant's claim 82 includes a locating device operable to determine the physical location of said locating device on a physical playfield.

As per another example, applicant's claim 88 includes a locating device operable to determine the physical location of the locating device on a physical playfield.

As per another example, applicant's claim 94 includes a first locating device operable to determine a first physical location of the locating device on a physical playfield.

In light of the foregoing, applicant respectfully requests that the Examiner's rejection under 35 U.S.C. 101 be withdrawn.

Furthermore, as shown below, none of the references, used either alone or in combination show or suggest the applicant's claims. This is because each and every claim includes structural differences that result in functional differences from the provided references. An abstract idea does not provide a structural difference that provides a functional difference. Accordingly, applicant's claims are patentable for including structural and functional differences neither shown nor suggested by the references.

In light of the foregoing, applicant respectfully requests that the Examiner's rejection under 35 U.S.C. 101 be withdrawn.

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

The Examiner rejected claims 82, 100-104, 107-110 and 113-115 under 35 U.S.C. 102(b) as being unpatentable over Sharma.

Claim 82

The Examiner stated that:

> "Sharma discloses, in at least column 2, lines 24-45, the use of Global Positioning System to locate the position..." (Office Action, page 46)

The Examiner's statement does not show or suggest applicant's claim 82 that includes a locating device comprises a movement measurement device operable to be utilized, at least in part, to determine said physical location.

Sharma does not provide both a locating device and comprising a movement measurement device.

Neither Sharma, nor any combination of references, show or suggest applicant's invention of previously measurement claim 82 of a movement measurement utilized to determine, at least in part, 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 100

The Examiner stated that:

> "Sharma discloses ... the use of Global Positioning System" (Office Action, page 46)

Sharma merely alleges using a motion sensor to hit a ball when movement is detected. The Examiner's alleged Global Positioning System does not determine direction.

Sharma's hitting of a ball is not determining the direction of a virtual character – let alone applicant's claim 100 of providing a virtual direction of a virtual character.

Claim 100 includes a virtual direction of a virtual character associated with a physical direction determined by a directional device. Sharma does not show or suggest such a feature.

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 Benes

The Examiner rejected claims 1-3, 6-9, 17, 19-20, 22, 25, 26, 28-32, 34, 43, 53, 55, 56, 59-61, 63-65, 83, 116, and 117 under 35 U.S.C. 103(a) as being unpatentable over Sharma U.S. Patent No. 6,287,200 (hereinafter "Sharma") in view of Benes et al U.S. Patent Application Publication No. 2004/0046655 (hereinafter "Benes").

Claim 1

Applicant had previously amended claim 1 to include a wireless telephone.

The Examiner stated:

> "Sharma … fails to explicitly teach a wireless telephone device" (Office Action, page 7)

Sharma does not just fail, Sharma is a completely different structure.

As admitted, Sharma does not show or suggest a wireless telephone – let alone a wireless telephone having a locating device with a virtual character that is displayed and where the virtual characters location corresponds to a physical location.

The Examiner stated:

> "an artisan would have found it obvious to adapt … to operate on other wireless devices" (Office Action, page 8).

First, Benes does not correct for the deficiency of Sharma as Benes merely discusses asking a user questions based on activation locations. A question is not a displayed virtual character. Second, even if the Examiner's statement occurred – which it did not – the

artisan would still not include claim 1 of a wireless telephone.

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:

> "Sharma fails to explicitly teach a wireless telephonic phone." (Office Action, page 12)

The Examiner stated:

> "an artisan would have found it obvious to adapt … to operate on other wireless devices" (Office Action, page 8).

First, Benes does not correct for the deficiency of Sharma as Benes merely discusses asking a user questions based on activation locations. A question is not a character. Second, even if the Examiner's statement occurred - which it did not - the artisan would still not include claim 1 of a wireless telephone.

Furthermore, solely to expedite prosecution, applicant had previously amended claim 17 to include retrieving by the wireless telephonic device from the remote server a third physical location of a second wireless telephonic device.

Neither Sharma nor Benes, used either alone or in combination, show or suggest utilizing a wireless telephonic device to provide a first location to a remote server, updating the location of the wireless telephonic device on the remote server by storing a second physical location of said wireless telephonic, and retrieving by the wireless telephonic device from the remote server a third

physical location of a second wireless telephonic device. Direct device-to-device handshaking does not show or suggest such a feature.

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

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

Claims 76-80 were rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Karasawa and further in view of Bertsis.

The Examiner stated that:

> "Sharma … fails to explicitly teach a transparent display, such that video game indicia is visible with said physical playfield through said display ." (Office Action, page 37)

Neither Sharma, Karasawa, nor Bertsis, however, show or suggest applicant's invention of claim 76 of game indicia, associated with a video game, that is displayed on said display such that said video game indicia is visible with said physical playfield through said display.

The Examiner stated that:

> "Karasawa is relied upon to teach a transparent display" (Office Action, page 47)

Karasawa's mere mention of a head-mounted optical display and Sharma's alleged mention of "arcade-type virtual reality goggles" (which are silent on a transparent display), does not, in hindsight, correct for such a deficiency.

An optical display is not game indicia, associated with a video game, that is displayed on said display such that said video game indicia is visible with

said physical playfield through said display. Bertsis mere mention of a virtual reality environment does not correct for the deficiency. A virtual reality environment is not game indicia, associated with a video game, that is displayed on said display such that said video game indicia is visible with said physical playfield through said display.

The Examiner also stated that Sharma "fails to explicitly teach an accelerometer" (Sharma, page 36) but "Berstis discloses using accelerometers." Sharma is a precision device. The Examiner cannot take different parts of precision devices and put them together in hindsight – all that is created is an inoperable device that eviscerates the spirit of the individual devices. Sharma alleges GPS and Sharma separately alleges motion by the Examiner. Sharma clearly discusses two different devices for two different uses. Sharma is silent on any configuration that falls outside the disclosed

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 Rejections
Under 35 U.S.C. § 103(a) Over Sharma and Hale

Claims 18, 68, and 71-75 were rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Hale.

The Examiner stated that:

> "Sharma fails to explicitly teach operating a video game such that first location information associated with first physical location is called, said scaled first location is utilized to provide a first virtual character on a virtual playfield, second location information associated

with said second physical location is scaled, said scaled second location is utilized to provide a second virtual character on said virtual playfield, said first location information and said second location information are scaled differently." (Office Action, page 31)

Hale alleges nothing other than include the words GPS and scaling in the title.

Hale is irrelevant to Sharma.

In fact, Hale discusses an agricultural vehicle and determining the position of this agricultural vehicle relative to a field. As the Examiner admits, Sharma is silent to, and far removed from, most of the elements of claim 18. Hale clearly does not correct for this deficiency.

The Examiner states:
"Hale's disclosure is, in fact, replete with reference to the usefulness of scaling positioning data" (Office Action, page 47).

Claim 18 includes not just a location-based video game – but a multiplayer game. Hale does not show or suggest such a feature. In fact, Hale is far removed from the elements of claim 18. Throughout Hale's disclosure, the only purpose the Examiner could allege – which it could never materialize – is an agricultural vehicle and positioning this agriculture vehicle.

Neither Hale, nor Sharma, however, shows or suggests the scaling of applicant's invention of claim 18.

Furthermore, applicant has previously amended claim 18, without prejudice and solely in order to expedite prosecution, to also include displaying the virtual characters on a single screen and scaling the location information differently. None of the prior art, including

Sharma nor Hale, used either alone or in combination, show or suggest such a feature.

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

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

The Examiner rejected claims 88-93 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Kotanen.

The Examiner stated:

> "Sharma fails to explicitly disclose local positioning capabilities using either of these protocols … Kotanen teaches both the use of a local positioning system and the use of averaging distances to predict local coordinates." (Office Action, page 40)

Applicant's invention of claim 88, however, includes:

> "a locating device operable … comprises a local positioning system … [that] utilized signals from at least one ground-based local positioning device to determine said physical location … processor is operable to provide a video game … said virtual location on said virtual playfield corresponds to said physical location"

Neither of the prior art, used either alone or in combination, or suggest claim 88 that includes such a video game video game comprising a virtual character and 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.

The Examiner stated:

> "simply because Sharma and Kotaten teach different technologies … doesn't make them unavailable for a combination."
> (Office Action, page 48)

First, Koten actually dismisses GPS. Accordingly, the Examiner's statement is not applicable. Sharma and Kotanen cannot be combined – the two references are diametrically opposed. In fact, Kotanen discusses and dismisses GPS. *See Kotanen*, introduction. And, Sharma has precisely configured its device to utilize Bluetooth for communicating GPS signals. Accordingly, the Examiner's combination would be inoperable and would eviscerate the spirit of the individual devices. Every function of Sharma is precisely configured and relies on the correct configuration of all of the other Sharma functions. Meanwhile, Kotanen discusses, at length, all of the components required to obtain Kotanen's alleged functionality. Sharma is a dedicated, application specific device that does not include such components. Again, completely combining Sharma and Kotanen would merely result in an inoperable device neither shown nor suggested by the individual devices while eviscerating the spirit of the individual systems.

Second, Applicant disagrees with the Examiner's assertion. Just because a rocket uses rocket fuel and a steam powered bike uses steam does, in fact mean, that rocket fuel is not combinable with the steam. The devices are precision devices.

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

Applicant's Response to the Rejections Under 35 U.S.C. § 103(a) in view of Sharma and Ebersole

The Examiner stated that Sharma discusses:

> "Sharma … fails to explicitly teach a second locating device operable to determine a second physical location of said locating device on said physical playfield, together with the first locating device, provide control to a virtual character." (Office Action, page 40)

Accordingly, the Examiner admits that Sharma is silent to, and far removed from, many of the elements of claim 18. Ebersole does not correct for this deficiency. Ebersole does not even show or suggest a video game – let alone a video game comprising a virtual character with a virtual location on a virtual playfield and the virtual location on the virtual playfield corresponds to said physical location on said physical playfield.

Applicant's invention of claim 94 utilizes two locating devices to control a single virtual character. Neither Sharma nor Ebersole, used either alone or in combination, show or suggest such a feature. Navigating is not a video game comprising a virtual character.

Furthermore, Sharma is far removed from Ebersole. Sharma alleges a hand-held device with limited functionality. Combining Ebersole with Sharma would merely result in an inoperable device neither shown nor suggested by the individual devices and eviscerating the spirit of the individual systems.

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

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

The Examiner rejected claims 101-104, 107-110 and 113-115 under 35 U.S.C. 102(b) as being unpatentable over Sharma U.S. Patent No. 6,287,200. The Examiner rejected claims 2-3, 6-9, 19-20, 22, 25, 26, 28-32, 34, 43, 53, 55, 56, 59-61, 63-65, 83, 116, and 117 under 35 U.S.C. 103(a) as being unpatentable over Sharma U.S. Patent No. 6,287,200 (hereinafter "Sharma") in view of Benes et al U.S. Patent Application Publication No. 2004/0046655 (hereinafter "Benes"). The Examiner rejected claim 4 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Benes and further in view of Newell et al U.S. Patent No. 6,735,435 (hereinafter "Newell"). The Examiner rejected claims 5 and 57 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"). The Examiner rejected claims 21, 54, and 84 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Berstis U.S. Patent No. 6,337,888 (hereinafter "Berstis"). The Examiner rejected claims 23, 24, 38-41, 58, and 85 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"). The Examiner rejected claims 27, 35-37, 42, 45, 46, and 48-50 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Acclaim's Mortal Kombat (hereinafter "MK"). The Examiner rejected claim 33 under

Mullen Industries, LLC - Ex. 1002
Page 1002

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"). The Examiner rejected claim 44 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"). The Examiner rejected claims 51 and 52 were rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Benes and further in view of Super Dodgeball by Nintendo (hereinafter "Super Dodgeball"). The Examiner rejected claims 68, and 71-75 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Hale U.S. Patent No. 5,902,343 (hereinafter "Hale"). The Examiner rejected claim 66 under 35 U.S.C. 103(a) as being unpatentable over Shara in view of Hale and further in view of Benes. The Examiner rejected claim 67 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Hale in view of Berstis U.S. Patent No. 6,337,688 (hereinafter "Berstis"). The Examiner rejected claim 69 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Hale and further in view of Kotanen. The Examiner rejected claim 70 under 35 U.S.C. 103(a) over Sharma in view of Hale and further in view of Barros U.S. Publication No. 2004/0248653 (hereinafter "Barros"). The Examiner rejected claims 76-80 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Karasawa U.S. Patent No. 6,011,653 (hereinafter "Karasawa") and further in view of Berstis. The Examiner rejected claim 81 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Karasawa and further in view of Berstis and further in view of Numa U.S. Patent No. 6,633,267 (hereinafter "Numa"). The Examiner rejected claims 88-93 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Kotanen. The Examiner rejected

claims 94, 96, and 98 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Ebersole U.S. Patent Publication No. 2003/0210228 (hereinafter "Ebersole"). The Examiner rejected claim 95 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Ebersole and further in view of Kauser U.S. Patent No. 5,724,660 (hereinafter "Kauser"). The Examiner rejected claims 97 and 99 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Ebersole and further in view of Benes. The Examiner rejected claims 105, 111, and 112 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Barros. The Examiner rejected claims 86 and 106 under 35 U.S.C. 103(a) as being unpatentable over Sharma. The Examiner rejected claim 30 under 35 U.S.C. 1039A) over Sharma in view of Benes and further in view of Serafrat. The Examiner rejected claim 79 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Karasawa and further in view of Berstis and Reaney.

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 affadavit 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,

/Jeffrey D. Mullen/
Jeffrey D. Mullen
Applicant (Reg. No. 52,056)
Customer No. 32733
2212 Hassinger Lane
Glenshaw, PA 15116
Mobile: (914) 837-7741

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	
Filing Fees for Utility under 35 USC 111(a)	

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Pages:				
Claims:				
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 $0 paid	2253	1	700	700
Miscellaneous:				
		Total in USD ($)		**700**

Electronic Acknowledgement Receipt	
EFS ID:	23051639
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:	28-JUL-2015
Filing Date:	01-SEP-2004
Time Stamp:	21:00:47
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Credit Card
Payment was successfully received in RAM	$700
RAM confirmation Number	9856
Deposit Account	503855
Authorized User	MULLEN, JEFFREY D.
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	289389 6dee0a49649186aa593dd9c40aa2ff0254165e59	yes	42

Multipart Description/PDF files in .zip description		
Document Description	**Start**	**End**
Amendment/Req. Reconsideration-After Non-Final Reject	1	1
Claims	2	22
Applicant Arguments/Remarks Made in an Amendment	23	42

Warnings:

Information:

2	Fee Worksheet (SB06)	fee-info.pdf	30102 0a74eaaf2095af0a0a9f33846da4d91f2c6394b9	no	2

Warnings:

Information:

Total Files Size (in bytes):	319491

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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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 01/28/2015

JEFFREY D. MULLEN
2212 Hassinger Lane
Glenshaw, PA 15116

EXAMINER
MCCLELLAN, JAMES S

ART UNIT	PAPER NUMBER
3716	

MAIL DATE	DELIVERY MODE
01/28/2015	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 JAMES S. MCCLELLAN	Art Unit 3716	AIA (First Inventor to File) Status No

-- 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 MONTHS 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 *7/30/2014*.

☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.

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

3)☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

4)☐ 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*

5)☐ Claim(s) _____ is/are pending in the application.

5a) Of the above claim(s) _____ is/are withdrawn from consideration.

6)☐ Claim(s) _____ is/are allowed.

7)☒ Claim(s) *1-61 and 63-118* is/are rejected.

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

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

* If any claims have been determined allowable, you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to PPHfeedback@uspto.gov.

Application Papers

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

11)☐ The drawing(s) filed on _____ 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).

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).

Certified copies:

a)☐ All b)☐ Some** c)☐ None of the:

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) ☐ Information Disclosure Statement(s) (PTO/SB/08a and/or PTO/SB/08b) Paper No(s)/Mail Date _____.

3) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

4) ☐ Other: _____.

DETAILED ACTION

Applicant's Submission of a Response

Applicant's submission of a response on July 30, 2014 has been received and fully considered. In the response, at least claim 61 (although marked "previously presented") has been amended. Therefore, claims 1-61 and 63-118 are pending.

Claim Rejections - 35 USC § 101

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.

Claims 1-61 and 63-118 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

The claimed invention is directed to non-statutory subject matter because the claim(s) as a whole, considering all claim elements both individually and in combination, do not amount to significantly more than an abstract idea. The claim(s) is/are directed to the abstract idea of locating one or people. The additional element(s) or combination of elements in the claim(s) other than the abstract idea per se amount(s) to no more than: mere instructions to implement an idea on a computer. Viewed as a whole, these additional claim element(s) do not provide meaningful limitation(s) to transform the abstract idea into a patent eligible application of the abstract idea such that the claim(s) amounts to significantly more than the abstract idea itself.

See *Alice Corp. v. CLS Bank Int'l*, 110 USPQ2d 1976 (U.S. 2014). Therefore, the claim(s) are rejected under 35 U.S.C. 101 as being directed to non-statutory subject matter.

Claim Rejections - 35 USC § 102

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.

Claims 82, 87, 100-104, 107-110, 113-115 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent No. 6,287,200 B1 to Sharma et al.

Regarding claim 82, Sharma discloses a system comprising:

A display (fig. 4);

A locating device operable to determine the physical location of said locating device on a physical playfield (abstract, col. 2, lines 35-45, mobile device contains GPS), wherein said locating device comprises a movement measuring device operable to be utilized, at least in part to determine said physical location (col. 3, lines 45-61, mobile device also contains a motion sensor that measures trajectory and velocity of the device, and in order to measure trajectory and velocity, displacement must be measured thereby determining at least two different physical locations);

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 (fig. 3 and 5, col. 3, lines 45-61).

Regarding claims 87 and 107. Sharma discloses wherein said video game is a multiple-player video game (col. 3, lines 25-45).

Regarding claim 100, Sharma discloses a system comprising:

A non-transparent display (fig. 4, a hand-held display);

a locating device operable to determine the physical location of said locating device on a physical playfield (col. 2, lines 35-45, GPS);

a directional device operable to determine the physical direction of said directional device on said physical playfield (fig. 5, col. 3, lines 45-61, the motion sensor determines the direction); 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 and facing a virtual direction on a virtual playfield said virtual location on said virtual playfield corresponds to said physical location on said physical playfield, and said virtual direction on said virtual playfield corresponds to said physical direction on said physical playfield (fig. 5, col. 3, lines 45-61, the user utilizes the device to move the character and the volleyball).

Regarding claim 101. Sharma discloses wherein said video game is provided on said display in a third-person perspective (fig. 3, col. 3, lines 30-44).

Regarding claim 102. Sharma discloses wherein said display is a non head-mounted display (fig. 4).

Regarding claim 103. Sharma discloses wherein a second virtual character is provided in said video game and said second virtual character is computer-controlled (fig. 2, 3 and 5, col. 3, lines 45-61, each character is controlled by the mobile device).

Regarding claim 104. Sharma discloses wherein a second virtual character is provided in said video game and said second virtual character is user- controlled (fig. 5, col. 3, lines 45-61, the character is controlled by the player who controls the device).

Regarding claim 108. Sharma discloses wherein an interactive virtual object, with respect to said virtual character, is provided in said video game (col. 3, lines 30-61, volleyball).

Regarding claim 109. Sharma discloses wherein an impenetrable virtual object, with respect to said virtual character, is provided in said video game (col. 3, lines 30-61, the volleyball is hit and not penetrated by the swinging of the mobile device).

Regarding claim 110, Sharma discloses wherein said virtual character is selected from a plurality of virtual characters (col. 3, line 38, the players can choose a team X or Y character).

Regarding claim 113. Sharma discloses wherein said video-game is point-based (col. 3, lines 30-38, volleyball is point based).

Regarding claim 114. Sharma discloses wherein said locating device comprises a positioning receiver (col. 2, lines 35-45, GPS).

Regarding claim 115. Sharma discloses wherein said locating device comprises a movement measuring device operable to be utilized, at least in part, to determine said physical location (col. 3, lines 25-61, the mobile device also contains a motion sensor that measures trajectory and velocity of the device, and in order to measure trajectory and velocity, displacement must be measured thereby determining at least two different physical locations.).

Claim Rejections - 35 USC § 103

1. 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 negatived by the manner in which the invention was made.

2. **Claims 1-3, 6-16, 19, 20, 22, 25, 26, 28, 29, 31, 32, 34, 43, 47, 53, 55, 56, 59-61, 63-65, 83, 116 and 117 are rejected are rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma., USPAT 6,287,200 (hereinafter Sharma) in view of Benes et al. (US 2004/0046655 A1).**

Claims 1 and 83. Sharma in view of Benes discloses a system comprising:

a wireless device wherein said wireless device comprises:

a display (fig. 4);

a locating device operable to determine the physical location of said locating device on a physical playfield (col. 1:lines 5-16, col. 2:40, col. 3:45 - col. 4:8); 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 character is displayed on said display (fig. 3, col. 3:lines 9-38), and said virtual location on said virtual playfield corresponds to said physical location on said physical playfield (col. 3:9-12, col. 3:31-61).

Sharma substantially discloses the invention as claimed but fails to explicitly teach a wireless telephone device (as per claims 1 and 83). Instead, Sharma discloses mobile devices with displays that may communicate via RF, WAP, Bluetooth etc. without expressly disclosing a wireless telephone device. However, in an analogous reference, Benes discloses a wireless telephone device to play a location-based game. One of ordinary skill in the art would have seen

the benefit of modifying Sharma with a wireless telephone device to optimize the resources available to subscribers, alter the game by defining an area of play and activate game features without direct communication between the players and the providers (Benes, paragraph 1 and 2). Furthermore, an artisan would have found it obvious to adapt the invention, when possible, to operate on other wireless devices (Benes, paragraph 10) to increase the user base by allowing users who already own one similar device but do not want to purchase another device to play the game. Therefore, it would have been obvious to one or ordinary skill in the art at the time of the instant invention to modify Sharma with a wireless telephone device to optimize resources, and increase the user base which would also increase profits.

Claim 2. Sharma discloses said locating device is a global positioning system (col. 2:line 41).

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 lm 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 devise are able to participate in the virtual game." Because the range dictates the interaction between participants, it would imply that the playfield perimeter is default to the limit of the protocol.

Claim 6, Sharma inherently discloses memory to store the application programs (col. 3:lines 25-37) because a memory must be present in order to store multiple applications in addition to the volleyball game. Benes discloses a memory (Benes, fig. 2 and 3, item 260).

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 to 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 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.

Claim 8, 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 inherent to use a coordinate system, since GPS utilizes geographical coordinates.

Claim 9, Sharma discloses a the motion sensor within the wireless device that will sense both trajectory and velocity which corresponds to the direction and magnitude (col. 3:lines 45-61).

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.

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.

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 art 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.

Claim 15, Sharma discloses 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 (col. 3, lines 9-24, each device is a remote memory).

Claim 16, Sharma in view of Benes discloses a microphone and speaker (Benes, a cell phone inherently contains a mic and a speaker).

Claim 17, Sharma discloses a method for controlling a character in a location-based video game comprising:

storing a first physical location of a wireless device on a physical playfield on a remote server (fig. 6, col. 4, lines 18-44, each device acts as a server to the other devices storing the location of the other devices);

changing the location of said character in a virtual playfield of said video game based on said first physical location (fig. 6, col. 4, lines 18-44, each device is moved by the player while playing); and

updating the location of said wireless device on said remote server by storing a second physical location of said wireless device on said remote server (fig. 6, col. 4, lines 18-44, each device is updated with the location of the players while playing the game); and

retrieving by said wireless device from said remote server a third physical location of a second wireless device (fig. 6, col. 4, lines 18-44, the first device now receives updated information from a second device).

Sharma substantially discloses the invention as claimed but fails to explicitly teach a wireless telephone device. Instead, Sharma discloses mobile devices with displays that may communicate via RF, WAP, Bluetooth etc. without expressly disclosing a wireless telephone device. However, in an analogous reference, Benes discloses a wireless telephone device to play a location-based game. One of ordinary skill in the art would have seen the benefit of modifying Sharma with a wireless telephone device to optimize the resources available to subscribers, alter the game by defining an area of play and activate game features without direct communication between the players and the providers (Benes, paragraph 1 and 2). Furthermore, an artisan would have found it obvious to adapt the invention, when possible, to operate on other wireless

devices (Benes, paragraph 10) to increase the user base by allowing users who already own one similar device but do not want to purchase another device to play the game. Therefore, it would have been obvious to one or ordinary skill in the art at the time of the instant invention to modify Sharma with a wireless telephone device to optimize resources, and increase the user base which would also increase profits.

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.

Claim 22, Sharma discloses wherein said character is manually selected (col. 3, line 38, the players can choose a team X or Y character).

Claims 25 and 59. Sharma discloses wherein a second virtual character is provided in said video game and said second virtual character is user- controlled (fig. 5, col. 3, lines 45-61, the character is controlled by the player who controls the device).

Claims 26 and 64. Sharma discloses wherein said video-game is point-based (col. 3, lines 30-38, volleyball is point based).

Claim 28. Sharma discloses wherein an action is performed in said video game and an animated is played as a result of said action (fig. 3 and 5, col. 3, lines 45-61).

Claim 29, Sharma discloses a stationary device to control a virtual character (fig. 6, items 10 and 40).

Claim 31, Sharma shows in figure 6 and discusses in (column 4, lines 19-40) a server and each mobile device that is updated with every mobile device's location (col. 3, lines 9-24).

Claims 32 and 65, 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.

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.

Regarding claims 47 and 117. Sharma discloses wherein an impenetrable virtual object, with respect to said virtual character, is provided in said video game (col. 3, lines 30-61, the volleyball is hit and not penetrated by the swinging of the mobile device).

Regarding claims 53, 55, 56, 60, 61, 63 and 116 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 claim 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).

Claim 118. Sharma discloses wherein said locating device comprises a movement measuring device operable to be utilized, at least in part, to determine said physical location (col. 3, lines 25-61, the mobile device also contains a motion sensor that measures trajectory and velocity of the device, and in order to measure trajectory and velocity, displacement must be measured thereby determining at least two different physical locations.).

Claims 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Benes et al. (US 2004/0046655 A1) and further in view of Newell et al., USPAT 6,735,435 (hereinafter Newell).

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.

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).

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..."

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.

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.

Claims 5 and 57 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).

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

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 $\dot{z}_{k+1} = h(x_k)$, $\dot{z}_{k+1}$ 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.

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."

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.

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.

Claims 21, 54, and 84 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Benes et al. (US 2004/0046655 A1) and further in view of Berstis (US 6,337,688 B1).

Regarding claims 21, 54, and 84, which depend on the limitation of an accelerometer, Sharma substantially discloses the invention as claimed but fails to explicitly teach that first locating device comprises an accelerometer. Instead, Sharma discloses using GPS for a locating device. However, in an analogous reference, Berstis discloses using accelerometers as an alternative to GPS because that are commercially available at low cost relative to a GPS receiver (Berstis,

3:62). Therefore, it would have been obvious to one or ordinary skill in the art at the time of the instant invention to modify Sharma with accelerometers as they are a low cost alternative to GPS receivers.

Claims 23, 24, 38-41, 58, 85, are rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Benes et al. (US 2004/0046655 A1) and further in view of Leonhard et al. USPUB 2002/0052933 (hereinafter Leonhard).

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.

Claims 23, 24, 58, and 85, 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 85,), 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.

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.

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. 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.

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.

Claims 27, 35-37, 42, 45, 46, and 48-50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Acclaim's Mortal Kombat (hereinafter MK).

While Sharma discloses a location-based gaming system capable of supporting a multi-player game, Sharma fails to explicitly disclose a game other than volleyball. 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.

Regarding claim 27, Sharma substantially discloses the invention as claimed but fails to explicitly teach wherein an amount of time is displayed associated with a start of said video game. However in an analogous reference Mortal Kombat (MK, page 7), which was one of the most popular games when the game first came out, illustrates points for both opponents above their power meters and also illustrates a time in the middle of the screen and discloses, "Should time run out..." referencing the game's use of time. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Sharma with a timer when combined with a popular game such as Mortal Kombat.

Regarding claims 35-37, and 42, 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.

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.

Regarding claims 48-50, 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.

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.

Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Benes et al. (US 2004/0046655 A1) and further in view of US Pub. No. 2006/0154710 A1 to Serafat. This new grounds of rejection was necessitated by applicant's request for documentary proof of official notice.

Claim 30, Sharma substantially discloses the invention as claimed but fails to explicitly teach a single-player video game. However in an analogous reference, Serafat teaches using artificial intelligence (Serafat, paragraph [0056]) in mobile gaming (Serafat, paragraph [0054]) to continue a game even in the absence of a player, without the need to interrupt the game itself. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Sharma with AI for continuing a multiplayer game in single player mode in case of an absence of a player participating in the game by simulating the participation of the player who is absent.

Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Benes et al. (US 2004/0046655 A1) and further in view of Anderson et al., USPAT 7,303,474 (hereinafter Anderson).

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.

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..."

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."

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.

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.

Claims 44 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Benes et al. (US 2004/0046655 A1) and further in view of Tom, USPAT 6,690,947 (hereinafter Tom)

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.

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.

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.

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.

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.

Claims 51 and 52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Benes et al. (US 2004/0046655 A1) and further in view of Super Dodgeball by Nintendo (hereinafter "Super Dodgeball").

Regarding claims 51 and 52, Sharma substantially discloses the invention as claimed but fails to explicitly teach the limitation of being able to pick up and put down the virtual object. Sharma discloses a volley ball game. Instead, the virtual object is simply contacted by the player to be sent over the net and that a variety of other games may be played (Sharma: col. 3, lines 35-60). However, in an analogous art, Super Dodgeball teaches a game based on having two sides and a middle line similar to volleyball and has a rating of 8.5 out of 10 which teaches picking up a virtual object as evidenced by the youtube video of actual footage from the game that was released in 1998 and a gamefaq describing the same game (Super Dodgeball: picking up, youtube video at 1:00 and 6:15, and Blocking in the Gamefaq) and putting down the ball (dropping the ball in the Gamefaq). One of ordinary skill in the art at the time of the invention would have seen this to be an obvious feature to maintain the continuity of the game. If the game simply skipped over the part when a player picks up an object, the game would lose realism and lose player appeal.

Claims 18, 68, and 71-75 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma, USPAT 6,287,200 (hereinafter Sharma) in view of Hale et al. (US 5,902,343).

Claim 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 (2:32-45);
obtaining a second physical location of a second locating device on a second physical playfield (2:32-45), wherein said first physical playfield is remote from said second physical playfield (fig. 3, 3:30-67, Team x and Y are different playfields); and

Sharma substantially discloses the invention as claimed such as displaying first and second characters (fig. 3, col. 3, lines 30-45) but fails to explicitly teach 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, second location information associated with said second physical location is scaled, 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. Instead, Sharma seems to remain silent as to how the location information is interpreted. However, in an analogous GPS reference, Hale discloses scaling the GPS field maps to show all of the data (Hale, abstract). One of ordinary skill in the art at the time of the invention would have found it obvious to modify Sharma with scaled GPS maps to show all the data of the game as providing an easy-to-read electronic display showing a map of the area being traversed correlated with visual indicia of a

characteristic being measured is difficult. Hale is analogous art because if an artisan had a problem of providing an easy-to-read electronic display showing a map of the area being traversed, an artisan would have found it obvious to search other GPS-related art. Therefore, one of ordinary skill in the art would have seen the benefit of modifying Sharma with GPS scaling to show all of the data necessary for the task at hand.

Claim 68. Sharma discloses a GPS receiver (2:40-45).

Claim 71. Sharma discloses a third character (fig. 3).

Claim 72. Sharma discloses a virtual object (volleyball, 2:35).

Claim 73. Sharma discloses an impenetrable virtual object (volleyball, 2:35).

Claim 74. Sharma discloses determining a direction (3:55).

Claim 75. Sharma discloses a device operable to provide human communications (a viewable display, fig. 4).

Claims 66 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma (US Pat. No. 6,287,200 B1) in view of in view of Hale et al. (US 5,902,343) and further in view of Benes et al. (US 2004/0046655 A1).

Regarding claims 66, Sharma substantially discloses the invention as claimed but fails to explicitly teach a wireless telephonic device. Instead, Sharma discloses mobile devices with displays that may communicate via RF, WAP, Bluetooth etc. without expressly disclosing a wireless telephone device. However, in an analogous reference, Benes discloses a wireless telephone device to play a location-based game. One of ordinary skill in the art would have seen the benefit of modifying Sharma with a wireless telephone device to optimize the resources available to subscribers, alter the game by defining an area of play and activate game features without direct communication between the players and the providers (Benes, paragraph 1 and 2). Furthermore, an artisan would have found it obvious to adapt the invention, when possible, to operate on other wireless devices (Benes, paragraph 10) to increase the user base by allowing users who already own one similar device but do not want to purchase another device to play the game. Therefore, it would have been obvious to one or ordinary skill in the art at the time of the instant invention to modify Sharma with a wireless telephone device to optimize resources, and increase the user base which would also increase profits.

Claim 67 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma, USPAT 6,287,200 (hereinafter Sharma) in view of Hale et al. (US 5,902,343) and Berstis (US 6,337,688 B1).

Claim 67. Sharma substantially discloses the invention as claimed but fails to explicitly teach that first locating device comprises an accelerometer. Instead, Sharma discloses using GPS for a locating device. However, in an analogous reference, Berstis discloses using accelerometers as an alternative to GPS because that are commercially available at low cost relative to a GPS receiver (Berstis, 3:62). Therefore, it would have been obvious to one or ordinary skill in the art at the time of the instant invention to modify Sharma with accelerometers as they are a low cost alternative to GPS receivers.

Claim 69 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Hale et al. (US 5,902,343) and further in view of Kotanen et al., "Experiments on Local Positioning with Bluetooth" (hereinafter Kotanen).

Claim 69. While Sharma discloses the wireless device's WLAN and Bluetooth capabilities, Sharma fails to explicitly disclose local positioning capabilities using either of these protocols. 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 $\dot{z}_{k+1} = h(x_k)$, $\dot{z}_{k+1}$ 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.

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."

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.

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.

Claims 70 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Pat. No. 6,287,200 B1 to Sharma (Sharma) in view of Hale et al. (US 5,902,343) and further in view of US Pub. No. 2004/0248653 A1 to Barros et al. (Barros).

Regarding claim 70 Sharma substantially discloses the invention as claimed such as a multiplayer location based video game (Sharma, col. 3, lines 25-45) but fails to explicitly teach wirelessly downloading a location-based program to the wireless telephonic device. Instead, Sharma seems to remain silent as to how the games are loaded onto the system. However, in an analogous reference, Barros discloses that the game is wirelessly sent to the mobile telephonic device from the server. One of ordinary skill in the art would have found it obvious to use

wireless communications to provide a way to attract users to a store by enhancing their interactive experience while executing applications on their wireless devices and enables special features in an application executed on a wireless device when the wireless device is within a predefined vicinity of a store (Barros: paragraph [0011]). Therefore, it would have been obvious to one or ordinary skill in the art at the time of the instant invention to modify Sharma with wirelessly downloading games to enable special features and attracts users to a store thereby increasing advertising revenue.

Claims 76-78, and 80 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Pat. No. 6,287,200 B1 to Sharma (Sharma) in view of US Pat. No. 6,011,653 A to Karasawa (Karasawa) and further in view of Berstis (US 6,337,688 B1).

Claims 76, 77 and 80. Sharma discloses a head-mounted system comprising:

a display (fig. 4)

A locating device operable to determine the physical location of said locating device on a physical playfield (abstract, col. 2, lines 35-45, GPS);

A processor coupled to said display, wherein said processor is operable to provide a video game comprising a virtual character with a virtual location on said virtual playfield corresponds to said physical location on said physical playfield (fig. 3 and 5, col. 3, lines 45-61), video game indicia, associated with said video game, is displayed on said display (fig. 3 and 5, col. 3, lines 45-61)

such that said video game indicia is visible with said physical playfield through said display, and said video game is controlled, at least in part, by said accelerometer (col. 3:9-12, col. 3:31-61).

Sharma substantially discloses the invention as claimed but fails to explicitly teach a transparent display, such that video game indicia is visible with said physical playfield through said display. Instead, Sharma discloses 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 (as per claim 80, column 4, lines 6-8), "...can be...arcade-type virtual reality goggles." However in an analogous reference Karasawa discloses a head mounted display that superimposes the video game over the image seen by the user (as per claim 76 and 77, fig. 2, col. 3, line 23 – col. 4, line 42). One of ordinary skill in the art would have seen the benefit of modifying Sharma with the head mounted display by Karasawa for magnifying an image generated by an image display means to a magnified virtual image and enabling the magnified virtual image to be seen by either one of the eyes of the user.

Sharma substantially discloses the invention as claimed but fails to explicitly teach an accelerometer. Instead, Sharma discloses using GPS for a locating device. However, in an analogous reference, Berstis discloses using accelerometers as an alternative to GPS because that are commercially available at low cost relative to a GPS receiver (Berstis, 3:62). Therefore, it would have been obvious to one or ordinary skill in the art at the time of the instant invention to modify Sharma with accelerometers as they are a low cost alternative to GPS receivers.

Regarding claim 78, Sharma discloses wherein a second virtual character is provided in said video game and said second virtual character is computer-controlled (fig. 2, 3 and 5, col. 3, lines 45-61, each character is controlled by the mobile device).

Claim 79 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Pat. No. 6,287,200 B1 to Sharma (Sharma) in view of US Pat. No. 6,011,653 A to Karasawa (Karasawa) and further in view of Berstis (US 6,337,688 B1) and Reaney (US Patent No. 5,523,890). This new grounds of rejection was necessitated by applicant's request for documentary proof of official notice.

Regarding claim 79, Sharma in view of Karasawa substantially discloses the invention as claimed but fails to explicitly teach a first-person perspective. However in an analogous reference, Reaney teaches that head mounted displays and interactive virtual reality and first person games, those that put the user in the action benefit most from the head-mounted display of Reaney (Reaney, col. 5, lines 9-15). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Sharma with first person perspective games because those game benefit the most from head-mounted displays.

Claim 81 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Karasawa (US 6,011,653), and further in view of Berstis (US 6,337,688 B1), and further in view of Numa, USPAT 6,633,267 (hereinafter Numa).

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 Karasawa 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 Karasawa fails to explicitly disclose a HMD wherein the direction the HMD is pointing is the direction used by the video game.

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...

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."

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.

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 Karasawa with the HMD control system as described by Numa for the purpose of providing enhanced reality to a game.

Claims 88-93 are rejected are rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma., USPAT 6,287,200 (hereinafter Sharma) in view of Kotanen et al., "Experiments on Local Positioning with Bluetooth" (hereinafter Kotanen).

Claim 88. Sharma discloses:

a display (fig. 4);

a locating device operable to determine the physical location of said locating device comprising a local position system (Kotanen);

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 (3:9-12, 3:31-61).

While Sharma discloses the wireless device's WLAN and Bluetooth capabilities, Sharma fails to explicitly disclose local positioning capabilities using either of these protocols.
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 $\dot{z}_{k+1} = h(x_k)$, $\dot{z}_{k+1}$ 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.

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."

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.

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.

Claim 89. Sharma discloses at least two positioning devices (fig. 3 and 5).

Claim 90. Sharma discloses a wireless device (fig. 2,3 and 6, mobile device).

Claim 91. Sharma discloses the physical location of said locating device is stored and updated in a remote server (a server is any piece of software or hardware that serves data to another piece of software or hardware, fig. 6, 4:18-44).

Claim 92. Sharma discloses a second virtual character (fig. 3 and 5).

Claim 93. Sharma discloses using the trajectory of the device (3:55).

Claims 94, 96, and 98 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma (US Pat. No. 6,287,200 B1) in view of Ebersole et al. (US Pub. No. 2003/0210228 A1).

Regarding claim 94, Sharma discloses a system comprising:

A display (fig. 4);

A first locating device operable to determine a first physical location of said locating device on a physical playfield (abstract, col. 2, lines 35-45, GPS);

A processor coupled to said display, wherein said processor is operable to provide a first video game and utilize said first physical locations, at least in part, to control a virtual character on a virtual playfield (col. 3:9-12, col. 3:31-61).

Sharma substantially discloses the invention as claimed but fails to explicitly teach a second locating device operable to determine a second physical location of said second locating device on said physical playfield, together with the first locating device, provide control to a virtual character, instead, Sharma discloses a location based game in which an external display such as virtual reality goggles may be used with a mobile device. In an analogous reference, Ebersole discloses an augmented-reality system in which a head-mounted display is utilized. Ebersole specifically discloses a head-mounted display in which two GPS receivers are used to determine the heading and position of the head-mounted display (Ebersole, paragraphs [0074 and 0075]) to enable 5 degrees of freedom motion tracking in an augmented reality environment wherein dynamically updated information may be mixed with a live view of the real world. Therefore, it

would have been obvious to one or ordinary skill in the art at the time of the instant invention to modify Sharma with two GPS receivers to enable 5 degrees of freedom motion tracking in an augmented reality environment wherein dynamically updated information may be mixed with a live view of the real world.

Regarding claim 96, Sharma in view of Ebersole discloses that the locating devices are positioning receivers (col. 2, lines 35-45, GPS).

Regarding claim 98, Sharma discloses a manual control to control, at least in part said virtual character (fig. 5, col. 3, lines 45-61, moving the mobile unit controls the virtual character).

Claim 95 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma (US Pat. No. 6,287,200 B1) in view of Ebersole et al. (US Pub. No. 2003/0210228 A1) and further in view of US Patent No. 5,724,660 to Kauser et al.

Regarding claim 95, Sharma substantially discloses the invention as claimed but fails to explicitly teach that the an average of locations is used to control the virtual character. However, in an analogous reference, Kauser discloses that GPS coordinates are commonly averaged to decrease error rates in col. 9, lines 30-40. Therefore, it would have been obvious to one or ordinary skill in the art at the time of the instant invention to modify Sharma with averaged GPS coordinates to decrease error rates.

Claims 97 and 99 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma (US Pat. No. 6,287,200 B1) in view of Ebersole et al. (US Pub. No. 2003/0210228 A1) and further in view of Benes et al. (US 2004/0046655 A1).

Regarding claims 97 and 99, Sharma substantially discloses the invention as claimed such as a second virtual character (devices B-D, col. 3, lines 9-44) but fails to explicitly teach a wireless telephone device. Instead, Sharma discloses mobile devices with displays that may communicate via RF, WAP, Bluetooth etc. without expressly disclosing a wireless telephone device. However, in an analogous reference, Benes discloses a wireless telephone device to play a location-based game. One of ordinary skill in the art would have seen the benefit of modifying Sharma with a wireless telephone device to optimize the resources available to subscribers, alter the game by defining an area of play and activate game features without direct communication between the players and the providers (Benes, paragraph 1 and 2). Furthermore, an artisan would have found it obvious to adapt the invention, when possible, to operate on other wireless devices (Benes, paragraph 10) to increase the user base by allowing users who already own one similar device but do not want to purchase another device to play the game. Therefore, it would have been obvious to one or ordinary skill in the art at the time of the instant invention to modify Sharma with a wireless telephone device to optimize resources, and increase the user base which would also increase profits.

Claims 105, 111, 112 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Pat. No. 6,287,200 B1 to Sharma (Sharma) in view of US Pub. No. 2004/0248653 A1 to Barros et al. (Barros).

Regarding claims 105, 111, 112, Sharma substantially discloses the invention as claimed such as a multiplayer location based video game (Sharma, col. 3, lines 25-45) but fails to explicitly teach wirelessly downloading a location-based program to the wireless telephonic device. Instead, Sharma seems to remain silent as to how the games are loaded onto the system. However, in an analogous reference, Barros discloses that the game is wirelessly sent to the mobile telephonic device from the server. One of ordinary skill in the art would have found it obvious to use wireless communications to provide a way to attract users to a store by enhancing their interactive experience while executing applications on their wireless devices and enables special features in an application executed on a wireless device when the wireless device is within a predefined vicinity of a store (Barros: paragraph [0011]). Therefore, it would have been obvious to one or ordinary skill in the art at the time of the instant invention to modify Sharma with wirelessly downloading games to enable special features and attracts users to a store thereby increasing advertising revenue.

Claims 86 and 106 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Pat. No. 6,287,200 B1 to Sharma (Sharma) in view of US Pub. No. 2006/0154710 A1 to Serafat. This new grounds of rejection was necessitated by applicant's request for documentary proof of official notice.

Regarding claims 86 and 106, Sharma substantially discloses the invention as claimed but fails to explicitly teach a single-player video game. However in an analogous reference, Serafat teaches using artificial intelligence (Serafat, paragraph [0056]) in mobile gaming (Serafat, paragraph [0054]) to continue a game even in the absence of a player, without the need to interrupt the

game itself. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Sharma with AI for continuing a multiplayer game in singleplayer mode in case of an absence of a player participating in the game by simulating the participation of the player who is absent.

Response to Arguments

Applicant's arguments filed 7/30/2014 have been fully considered but they are not persuasive.

On page 26, regarding claim 82, Applicant argues that Sharma fails to disclose a movement measurement at least partially based on a physical location. The Examiner respectfully disagrees. Sharma discloses, in at least column 2, lines 24-45, the use of Global Positioning System to locate the position of a mobile device. For at least this reason, the rejections are maintained.

On page 27, regarding claim 100, Applicant argues that Sharma fails to disclose detecting a virtual direction of a virtual character. Again, Sharma discloses, in at least column 2, lines 24-45, the use of Global Positioning System to locate the position of a mobile device. The GPS determines the direction of the mobile device, which represents the virtual character. For at least this reason, the rejections are maintained.

On page 28, regarding claim 1, Applicant argues that the combination of Sharma and Benes fails to disclose earlier alleged deficiency of Sharma. For the reasons set forth above, the rejections are maintained.

On page 28 (continued on page 29), regarding claim 17, Applicant argues that Sharma and Benes fails to disclose transferring data to a remote server. The Examiner respectfully disagrees. In column 4, lines 18-44, Sharma discloses the use of a WAP server for receiving position data. For at least this reason, the rejections are maintained.

On page 29 (continued on page 30), regarding claim 76, Applicant argues that the combination of Sharma, Karasawa, and Bertsis fails to disclose a transparent display. The Examiner respectfully disagrees. As stated in the Office Action, Karasawa is relied upon to teach a transparent display (e.g., see Karasawa, Figs. 1a and 1b). For at least this reason, the rejections are maintained.

On page 30, regarding claim 76, Applicant argues that it is hindsight reasoning to combine an accelerometer as taught by Berstis with the GPS positioning device. The Examiner respectfully disagrees. It is not hindsight to provide alternative technical features for performing a similar function when the alternative provides some advantage (e.g., reducing the cost of the device or reliance on a strong GPS signal). For at least this reason, the rejections are maintained.

On page 31, regarding claim 18, Applicant argues that the combination of Sharma and Hale do not disclose or make obvious recited differently "scaled" features of the claim. The Examiner respectfully disagrees. Although Applicant only acknowledges a single recitation in Hale regarding scaling in the title of the invention, Hale's disclosure is, in fact, replete with references to the usefulness of scaling positioning data. It is requested that Applicant review Hale in its entirety to appreciate the scope of its teaching with regard to scaling. For at least this reason, the rejections are maintained.

On page 32, regarding claim 88, Applicant argues that the combination of Sharma and Kotanen fail to disclose a ground-based positioning device. The Examiner respectfully disagrees. Kotanen is relied upon to teach ground-based local positioning (see at least Kotanen's Introduction). For at least this reason, the rejections are maintained.

On page 33, regarding claim 88, Applicant argues that Sharma and Kotanen cannot be combined because the combination would destroy the base reference. The Examiner respectfully diagrees. Simply because Sharma and Kotanen teach different technologies for determining position, doesn't make them unavailable for a combination. Sharma's end result (e.g., game play) could be implemented with one of many different methods of determining one or more user positions. For at least this reason, the rejections are maintained.

On page 34, regarding claim 94, Applicant argues that Sharma and Ebersole fail to disclose two locating devices to detect the position of a single user. The Examiner respectfully disagrees. Ebersole is relied upon to teach two locating devices to detect the position of a single user (e.g., see paragraphs 74 and 75). For at least this reason, the rejections are maintained.

Beginning on page 34, Applicant groups the remaining dependent claims and argues that each dependent claim is allowable because it depends from an allegedly allowable base claim. Since all base claims were previously addressed, the rejections of the dependent claims are also maintained.

Beginning on page 37, Applicant argues that the Examiner's use of the Official Notice is improper. While the Examiner is unaware of any remaining rejections based on Official Notice, Applicant's cursory traversal is not adequate under 2144.03.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAMES S. MCCLELLAN whose telephone number is (571)272-7167. The examiner can normally be reached on Mon-Fri (8:30AM-5:00PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dmitry Suhol can be reached on (571) 272-4430. 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.

/JAMES S. MCCLELLAN/
Primary Examiner, Art Unit 3716

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	10932536	MULLEN, JEFFREY D.
	Examiner	Art Unit
	ANDREW KIM	3716

CPC- SEARCHED		
Symbol	Date	Examiner
A63F 2300/5573	1/27/2014	AK
update	1/25/2015	JSM

CPC COMBINATION SETS - SEARCHED		
Symbol	Date	Examiner

US CLASSIFICATION SEARCHED			
Class	Subclass	Date	Examiner
463	31, 40, 42	1/27/2014	AK
Update		1/25/2015	JSM

SEARCH NOTES		
Search Notes	Date	Examiner
EAST (see attached notes)	12/19/2009	AK
EAST Text search of PGPUB, USPAT, USOCR, EPO, JPO, DERWENT. See attached search results.	1/27/2014	AK
Update Search	1/25/2015	JSM

INTERFERENCE SEARCH			
US Class/ CPC Symbol	US Subclass / CPC Group	Date	Examiner

	/JAMES S MCCLELLAN/ Primary Examiner.Art Unit 3716

EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	1	("6287200").PN.	US-PGPUB; USPAT	OR	OFF	2015/01/25 22:42
L2	1	("6011653").PN.	US-PGPUB; USPAT	OR	OFF	2015/01/25 23:10
L3	1	("5902343").PN.	US-PGPUB; USPAT	OR	OFF	2015/01/25 23:21
L4	4994946	@ad<"20040901"	US-PGPUB; USPAT	OR	OFF	2015/01/25 23:43
L5	225784	GPS	US-PGPUB; USPAT	OR	OFF	2015/01/25 23:43
L6	1077388	phone or telephone	US-PGPUB; USPAT	OR	OFF	2015/01/25 23:43
L7	325884	game	US-PGPUB; USPAT	OR	OFF	2015/01/25 23:43
L8	5420	5 with 6 with 7	US-PGPUB; USPAT	OR	OFF	2015/01/25 23:43
L9	74	8 and 4	US-PGPUB; USPAT	OR	OFF	2015/01/25 23:44

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Doc code: RCEX
Doc description: Request for Continued Examination (RCE)

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REQUEST FOR CONTINUED EXAMINATION(RCE)TRANSMITTAL
(Submitted Only via EFS-Web)

Application Number	10932536	Filing Date	2004-09-01	Docket Number (if applicable)	JDM/005	Art Unit	3709
First Named Inventor	Jeffrey D. Mullen			Examiner Name	Andrew Kim		

This is a Request for Continued Examination (RCE) under 37 CFR 1.114 of the above-identified application.
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SUBMISSION REQUIRED UNDER 37 CFR 1.114

Note: If the RCE is proper, any previously filed unentered amendments and amendments enclosed with the RCE will be entered in the order in which they were filed unless applicant instructs otherwise. If applicant does not wish to have any previously filed unentered amendment(s) entered, applicant must request non-entry of such amendment(s).

☐ Previously submitted. If a final Office action is outstanding, any amendments filed after the final Office action may be considered as a submission even if this box is not checked.

- ☐ Consider the arguments in the Appeal Brief or Reply Brief previously filed on _____
- ☐ Other _____

☒ Enclosed

- ☒ Amendment/Reply
- ☐ Information Disclosure Statement (IDS)
- ☐ Affidavit(s)/ Declaration(s)
- ☐ Other _____

MISCELLANEOUS

☐ Suspension of action on the above-identified application is requested under 37 CFR 1.103(c) for a period of months _____
(Period of suspension shall not exceed 3 months; Fee under 37 CFR 1.17(i) required)

☐ Other _____

FEES

The RCE fee under 37 CFR 1.17(e) is required by 37 CFR 1.114 when the RCE is filed.

☒ The Director is hereby authorized to charge any underpayment of fees, or credit any overpayments, to Deposit Account No 503855

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT REQUIRED

☐ Patent Practitioner Signature

☒ Applicant Signature

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Name	Jeffrey D. Mullen		
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7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.

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JDM/005

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	:	Andrew Kim

Hon. Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Pittsburgh, PA 15232
July 30, 2014

REPLY TO OFFICE ACTION

Sir:

This is in response to the Office Action dated January 30, 2014. 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, 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.

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 telephone, wherein said wireless telephone 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, said virtual character is displayed on said display, 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 telephone 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. (previously presented) The system of claim 1, wherein said wireless telephone further 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. (previously presented) The system of claim 1, wherein said wireless telephone further 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. (previously presented) The system of claim 1, wherein said wireless telephone further comprises manual controls for controlling non-location based aspects of said virtual character.

14. (previously presented) The system of claim 1, wherein said wireless telephone further 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. (previously presented) The system of claim 1, wherein said wireless telephone further 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

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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;

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; and

retrieving by said wireless telephonic device from said remote server a third physical location of a second wireless telephonic device.

18. (previously presented) 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, said first virtual character being displayed on a display, second

location information associated with said second physical location is scaled, said scaled second location is utilized to provide a second virtual character on said virtual playfield, said second virtual character being displayed on said display, 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. (previously presented) The system of claim 1, wherein an amount of time is displayed associated with a 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. (previously presented) The system of claim 1, wherein said wireless telephone is operable to 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 telephone 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.

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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 telephone 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 telephone 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.

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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 said ~~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.

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

65. (previously presented) The method of claim 17, wherein a first locating device is provided in said wireless telephonic device and said wireless telephonic device is able to provide human-communications to a second telephonic device while 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.

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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. (previously presented) The method of claim 18, further comprising determining a direction of a directional device and utilizing said direction to control a direction of said first virtual character.

75. (previously presented) 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 provide human-communications to a second telephonic device while 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

an accelerometer;

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, 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, and said video game is controlled, at least in part, by said accelerometer.

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. (previously presented) The system of claim 76, wherein said video game comprises a second virtual character, said second virtual character is computer controlled.

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 operable to be utilized, at least in part, 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.

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. (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 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. (previously presented) The system of claim 88, wherein said at least one ground-based local positioning device includes at least two ground-based local positioning devices.

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

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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 second locating device on said physical playfield; and

a processor coupled to said display, wherein said processor is operable to provide a first video game and utilize said first and second physical locations, at least in part, to control a virtual character on a virtual playfield.

95. (previously presented) The system of claim 94, wherein said an average including said first physical location and said second physical location is utilized, at least in part, to control said virtual character.

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

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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 manual control to control, at least in part, said virtual character.

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 non-transparent 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 and facing a virtual direction on a virtual playfield said virtual location on said virtual playfield corresponds to said physical location on said physical playfield, and said virtual direction on said virtual playfield corresponds to said physical direction 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 non head-mounted display.

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. (previously presented) The system of claim 100, wherein said locating device is included in a first wireless telephonic device and 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 operable to be utilized, at least in part, to determine said physical location.

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

118. (previously presented) The system of claim 1, wherein said locating device comprises a movement measuring device operable to be utilized, at least in part, to determine said physical location.

REMARKS/ARGUMENTS

Summary of Office Action

Claims 1-115 are pending in the application.

The Examiner rejected claims 82, 100-104, 107-110 and 113-115 under 35 U.S.C. 102(b) as being unpatentable over Sharma U.S. Patent No. 6,287,200.

The Examiner rejected claims 1-3, 6-9, 17, 19-20, 22, 25, 26, 28-32, 34, 43, 53, 55, 56, 59-61, 63-65, 83, 116, and 117 under 35 U.S.C. 103(a) as being unpatentable over Sharma U.S. Patent No. 6,287,200 (hereinafter "Sharma") in view of Benes et al U.S. Patent Application Publication No. 2004/0046655 (hereinafter "Benes").

The Examiner rejected claim 4 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Benes and further in view of Newell et al U.S. Patent No. 6,735,435 (hereinafter "Newell").

The Examiner rejected claims 5 and 57 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").

The Examiner rejected claims 21, 54, and 84 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Berstis U.S. Patent No. 6,337,888 (hereinafter "Berstis").

The Examiner rejected claims 23, 24, 38-41, 58, and 85 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").

The Examiner rejected claims 27, 35-37, 42, 45, 46, and 48-50 under 35 U.S.C. 103(a) as being unpatentable

over Sharma in view of Acclaim's Mortal Kombat (hereinafter "MK").

The Examiner rejected claim 30 under 35 U.S.C. 1039A) over Sharma in view of Benes and further in view of Serafrat U.S. Publication No. 2006/0154710 (hereinafter "Serafrat").

The Examiner rejected claim 33 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").

The Examiner rejected claim 44 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").

The Examiner rejected claims 51 and 52 were rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Benes and further in view of Super Dodgeball by Nintendo (hereinafter "Super Dodgeball").

The Examiner rejected claims 18, 68, and 71-75 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Hale U.S. Patent No. 5,902,343 (hereinafter "Hale").

The Examiner rejected claim 66 under 35 U.S.C. 103(a) as being unpatentable over Shara in view of Hale and further in view of Benes.

The Examiner rejected claim 67 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Hale in view of Berstis U.S. Patent No. 6,337,688 (hereinafter "Berstis").

The Examiner rejected claim 69 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Hale and further in view of Kotanen.

The Examiner rejected claim 70 under 35 U.S.C. 103(a) over Sharma in view of Hale and further in view of Barros U.S. Publication No. 2004/0248653 (hereinafter "Barros")

The Examiner rejected claims 76-80 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Karasawa U.S. Patent No. 6,011,653 (hereinafter "Karasawa") and further in view of Berstis.

The Examiner rejected claim 79 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Karasawa and further in view of Berstis and Reaney U.S. Patent No. 5,523,890 (hereinafter "Reaney").

The Examiner rejected claim 81 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Karasawa and further in view of Berstis and further in view of Numa U.S. Patent No. 6,633,267 (hereinafter "Numa").

The Examiner rejected claims 88-93 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Kotanen.

The Examiner rejected claims 94, 96, and 98 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Ebersole U.S. Patent Publication No. 2003/0210228 (hereinafter "Ebersole").

The Examiner rejected claim 95 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Ebersole and further in view of Kauser U.S. Patent No. 5,724,660 (hereinafter "Kauser").

The Examiner rejected claims 97 and 99 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Ebersole and further in view of Benes.

The Examiner rejected claims 105, 111, and 112 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Barros.

The Examiner rejected claims 86 and 106 under 35 U.S.C. 103(a) as being unpatentable over Sharma.

Summary of Applicant's Amendments

Applicant has amended claims without prejudice and solely 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
Rejections Under 35 U.S.C. § 102(b) Over Sharma

The Examiner rejected claims 82, 100-104, 107-110 and 113-115 under 35 U.S.C. 102(b) as being unpatentable over Sharma.

Claim 82

The Examiner stated that:

> "in order to measure trajectory and velocity, displacement must be measured thereby determining at least two different physical locations." (Office Action, page 44)

Applicant contends that the Examiner's statement is incorrect. Location does not need to be determined to measure velocity just like location does not need to be determined to measure acceleration.

Furthermore, Sharma determines Sharma's positioning in a different way with a different structure.

Neither Sharma, nor any combination of references, show or suggest applicant's invention of previously measurement claim 82 of a movement measurement utilized to determine, at least in part, 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 100

The Examiner stated that:

> "Sharma discloses in fig. 5 and col. 3, lines 45-61 that the motion sensor is used to determine the direction of the movement of the device as well as the user" (Office Action, page 44)

Sharma merely alleges using a motion sensor to hit a ball when movement is detected. Sharma's hitting of a ball is not determining the direction of a virtual character - let alone applicant's claim 100 of providing a virtual direction of a virtual character.

Claim 100 includes a virtual direction of a virtual character associated with a physical direction determined by a directional device. Sharma does not show or suggest such a feature.

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 Benes

The Examiner rejected claims 1-3, 6-9, 17, 19-20, 22, 25, 26, 28-32, 34, 43, 53, 55, 56, 59-61, 63-65, 83, 116, and 117 under 35 U.S.C. 103(a) as being unpatentable

over Sharma U.S. Patent No. 6,287,200 (hereinafter "Sharma") in view of Benes et al U.S. Patent Application Publication No. 2004/0046655 (hereinafter "Benes").

Claim 1

Applicant had previously amended claim 1 to include a wireless telephone. Sharma does not show or suggest a wireless telephone – let alone a wireless telephone having a locating device with a virtual character that is displayed and where the virtual characters location corresponds to a physical location.

The Examiner stated that "Benes discloses a wireless telephone device to play a location-based game" (Office Action, page 6). Benes does not correct for the deficiency of Sharma as Benes merely discusses asking a user questions based on activation locations. A question is not a displayed virtual character.

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:

> "Sharma fails to explicitly teach a wireless telephonic phone." (Office Action, page 11)
>
> "each device acts as a server to the other devices storing the location of the other devices…." (Office Action, page 11)

As admitted by the Examiner, Sharma does not even discuss wireless telephonic phones – let alone servers remove from wireless telephonic phones.

However, solely to expedite prosecution, applicant had previously amended claim 17 to include retrieving by the wireless telephonic device from the remote server a third physical location of a second wireless telephonic device.

Neither Sharma nor Benes, used either alone or in combination, show or suggest utilizing a wireless telephonic device to provide a first location to a remote server, updating the location of the wireless telephonic device on the remote server by storing a second physical location of said wireless telephonic, and retrieving by the wireless telephonic device from the remote server a third physical location of a second wireless telephonic device. Direct device-to-device handshaking does not show or suggest such a feature.

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

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

Claims 76-80 were rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Karasawa and further in view of Bertsis.

The Examiner stated that:

> "Sharma … fails to explicitly teach a transparent display, such that video game indicia is visible with said physical playfield through said display ." (Office Action, page 35)

Neither Sharma, Karasawa, nor Bertsis, however, show or suggest applicant's invention of claim 76 of game indicia, associated with a video game, that is displayed on said display such that said video game indicia is visible

with said physical playfield through said display.

Karasawa's mere mention of a head-mounted optical display and Sharma's alleged mention of "arcade-type virtual reality goggles" (which are silent on a transparent display), does not, in hindsight, correct for such a deficiency.

An optical display is not game indicia, associated with a video game, that is displayed on said display such that said video game indicia is visible with said physical playfield through said display. Bertsis mere mention of a virtual reality environment does not correct for the deficiency. A virtual reality environment is not game indicia, associated with a video game, that is displayed on said display such that said video game indicia is visible with said physical playfield through said display.

The Examiner also stated that Sharma "fails to explicitly teach an accelerometer" (Sharma, page 36) but "Berstis discloses using accelerometers." Sharma is a precision device. The Examiner cannot take different parts of precision devices and put them together in hindsight – all that is created is an inoperable device that eviscerates the spirit of the individual devices. Sharma alleges GPS and Sharma separately alleges motion by the Examiner. Sharma clearly discusses two different devices for two different uses. Sharma is silent on any configuration that falls outside the disclosed

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 Rejections
Under 35 U.S.C. § 103(a) Over Sharma and Hale

Claims 18, 68, and 71-75 were rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Hale.

The Examiner stated that:

> "Sharma fails to explicitly teach operating a video game such that first location information associated with first physical location is called, said scaled first location is utilized to provide a first virtual character on a virtual playfield, second location information associated with said second physical location is scaled, said scaled second location is utilized to provide a second virtual character on said virtual playfield, said first location information and said second location information are scaled differently." (Office Action, page 29-30)

Hale alleges nothing other than include the words GPS and scaling in the title. Hale is irrelevant to Sharma. In fact, Hale discusses an agricultural vehicle and determining the position of this agricultural vehicle relative to a field. As the Examiner admits, Sharma is silent to, and far removed from, most of the elements of claim 18. Hale clearly does not correct for this deficiency.

Neither Hale, nor Sharma, however, shows or suggests the scaling of applicant’s invention of claim 18.

Furthermore, applicant has previously amended claim 18, without prejudice and solely in order to expedite prosecution, to also include displaying the virtual characters on a single screen and scaling the location information differently. None of the prior art, including Sharma nor Hale, used either alone or in combination, show or suggest such a feature.

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

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

The Examiner rejected claims 88-93 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Kotanen.

The Examiner stated:

> "Sharma fails to explicitly disclose local positioning capabilities using either of these protocols … Kotanen teaches both the use of a local positioning system and the use of averaging distances to predict local coordinates." (Office Action, page 38)

Applicant's invention of claim 88, however, includes:

> "a locating device operable … comprises a local positioning system … [that] utilized signals from at least one ground-based local positioning device to determine said physical location … processor is operable to provide a video game … said virtual location on said virtual playfield corresponds to said physical location"

Neither of the prior art, used either alone or in combination, or suggest claim 88 that includes such a video game video game comprising a virtual character and 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.

Furthermore, Sharma and Kotanen cannot be combined – the two references are diametrically opposed. In fact, Kotanen discusses and dismisses GPS. *See Kotanen*, introduction. And, Sharma has precisely configured its device to utilize Bluetooth for communicating GPS signals. Accordingly, the Examiner's combination would be inoperable and would eviscerate the spirit of the individual devices. Every function of Sharma is precisely configured and relies on the correct configuration of all of the other Sharma functions. Meanwhile, Kotanen discusses, at length, all of the components required to obtain Kotanen's alleged functionality. Sharma is a dedicated, application specific device that does not include such components. Again, completely combining Sharma and Kotanen would merely result in an inoperable device neither shown nor suggested by the individual devices while eviscerating the spirit of the individual systems.

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

Applicant's Response to the Rejections Under 35 U.S.C. § 103(a) in view of Sharma and Ebersole

The Examiner stated that Sharma discusses:

> "Sharma … fails to explicitly teach a second locating device operable to determine a second physical location of said locating device on said physical playfield, together with the first locating device, provide control to a virtual character." (Office Action, page 40)

Accordingly, the Examiner admits that Sharma is silent to, and far removed from, many of the elements of claim 18. Ebersole does not correct for this deficiency.

Ebersole does not even show or suggest a video game – let alone a video game comprising a virtual character with a virtual location on a virtual playfield and the virtual location on the virtual playfield corresponds to said physical location on said physical playfield.

Applicant's invention of claim 94 utilizes two locating devices to control a single virtual character. Neither Sharma nor Ebersole, used either alone or in combination, show or suggest such a feature. Navigating is not a video game comprising a virtual character.

Furthermore, Sharma is far removed from Ebersole. Sharma alleges a hand-held device with limited functionality. Combining Ebersole with Sharma would merely result in an inoperable device neither shown nor suggested by the individual devices and eviscerating the spirit of the individual systems.

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

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

The Examiner rejected claims 101-104, 107-110 and 113-115 under 35 U.S.C. 102(b) as being unpatentable over Sharma U.S. Patent No. 6,287,200. The Examiner rejected claims 2-3, 6-9, 19-20, 22, 25, 26, 28-32, 34, 43, 53, 55, 56, 59-61, 63-65, 83, 116, and 117 under 35 U.S.C. 103(a) as being unpatentable over Sharma U.S. Patent No. 6,287,200 (hereinafter "Sharma") in view of Benes et al U.S. Patent Application Publication No. 2004/0046655 (hereinafter "Benes"). The Examiner rejected claim 4 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Benes

and further in view of Newell et al U.S. Patent No. 6,735,435 (hereinafter "Newell"). The Examiner rejected claims 5 and 57 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"). The Examiner rejected claims 21, 54, and 84 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Berstis U.S. Patent No. 6,337,888 (hereinafter "Berstis"). The Examiner rejected claims 23, 24, 38-41, 58, and 85 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"). The Examiner rejected claims 27, 35-37, 42, 45, 46, and 48-50 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Acclaim's Mortal Kombat (hereinafter "MK"). The Examiner rejected claim 33 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"). The Examiner rejected claim 44 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"). The Examiner rejected claims 51 and 52 were rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Benes and further in view of Super Dodgeball by Nintendo (hereinafter "Super Dodgeball"). The Examiner rejected claims 68, and 71-75 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Hale U.S. Patent No. 5,902,343 (hereinafter "Hale"). The Examiner rejected claim 66 under 35 U.S.C. 103(a) as being unpatentable over Shara in view of Hale and further in view of Benes. The Examiner rejected claim 67 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Hale in view of Berstis

U.S. Patent No. 6,337,688 (hereinafter "Berstis"). The Examiner rejected claim 69 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Hale and further in view of Kotanen. The Examiner rejected claim 70 under 35 U.S.C. 103(a) over Sharma in view of Hale and further in view of Barros U.S. Publication No. 2004/0248653 (hereinafter "Barros"). The Examiner rejected claims 76-80 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Karasawa U.S. Patent No. 6,011,653 (hereinafter "Karasawa") and further in view of Berstis. The Examiner rejected claim 81 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Karasawa and further in view of Berstis and further in view of Numa U.S. Patent No. 6,633,267 (hereinafter "Numa"). The Examiner rejected claims 88-93 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Kotanen. The Examiner rejected claims 94, 96, and 98 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Ebersole U.S. Patent Publication No. 2003/0210228 (hereinafter "Ebersole"). The Examiner rejected claim 95 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Ebersole and further in view of Kauser U.S. Patent No. 5,724,660 (hereinafter "Kauser"). The Examiner rejected claims 97 and 99 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Ebersole and further in view of Benes. The Examiner rejected claims 105, 111, and 112 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Barros. The Examiner rejected claims 86 and 106 under 35 U.S.C. 103(a) as being unpatentable over Sharma. The Examiner rejected claim 30 under 35 U.S.C. 1039A) over Sharma in view of Benes and further in view of Serafrat. The Examiner rejected claim 79 under 35 U.S.C. 103(a) as being

unpatentable over Sharma in view of Karasawa and further in view of Berstis and Reaney.

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 affadavit 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,

/Jeffrey D. Mullen/
Jeffrey D. Mullen
Applicant (Reg. No. 52,056)
Customer No. 32733
1310 Riverfront Drive
Pittsburgh, PA 15238
Mobile: (914) 837-7741

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:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				
Extension - 3 months with $0 paid	2253	1	700	700

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Miscellaneous:				
RCE - 2nd and Subsequent Request	2820	1	850	850
		Total in USD ($)		**1550**

Electronic Acknowledgement Receipt	
EFS ID:	19734414
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:	30-JUL-2014
Filing Date:	01-SEP-2004
Time Stamp:	20:29:25
Application Type:	Utility under 35 USC 111(a)

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Submitted with Payment	yes
Payment Type	Deposit Account
Payment was successfully received in RAM	$1550
RAM confirmation Number	7285
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	Request for Continued Examination (RCE)	JDM-005--RCE.pdf	697786 1d1ea504afc3d7392041f5a63ad1099a788cdd53	no	3
Warnings:					
Information:					
2		JDM-005--Reply--V1.pdf	223702 83931ddf8dbf49cc1e6f5d19b2acf20a3fb3f095	yes	38

Multipart Description/PDF files in .zip description

Document Description	Start	End
Amendment Submitted/Entered with Filing of CPA/RCE	1	1
Claims	2	22
Specification	23	38

Warnings:					
Information:					
3	Fee Worksheet (SB06)	fee-info.pdf	31755 1dcac8cb6de27d92734c5fe44d3c6a3c640b544b	no	2
Warnings:					
Information:					
		Total Files Size (in bytes):	953243		

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New Applications Under 35 U.S.C. 111
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.

National Stage of an International Application under 35 U.S.C. 371
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.

New International Application Filed with the USPTO as a Receiving Office
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.

PTO/SB/06 (09-11)
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PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875	Application or Docket Number 10/932,536	Filing Date 09/01/2004	☐ To be Mailed

ENTITY: ☐ LARGE ☒ SMALL ☐ MICRO

APPLICATION AS FILED – PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA	RATE ($)	FEE ($)
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A	N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*	X $ =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*	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 $310 ($155 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	

APPLICATION AS AMENDED – PART II

AMENDMENT	07/30/2014	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	* 117	Minus	** 117	= 0	X $40 =	0
	Independent (37 CFR 1.16(h))	* 8	Minus	***8	= 0	X $210 =	0
	☐ Application Size Fee (37 CFR 1.16(s))						
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))						
						TOTAL ADD'L FEE	0

AMENDMENT		(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	*	Minus	**	=	X $ =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=	X $ =	
	☐ Application Size Fee (37 CFR 1.16(s))						
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))						
						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.

LIE
/ANTJUAN RIVERA/

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.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

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JEFFREY D. MULLEN
1310 Riverfront Drive
PITTSBURGH, PA 15238

EXAMINER	
KIM, ANDREW	
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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 ANDREW KIM	Art Unit 3716	AIA (First Inventor to File) Status No

-- 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* MONTHS 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 *9/26/13*.

☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.

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

3)☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

4)☐ 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*

5)☒ Claim(s) *1-61 and 63-118* is/are pending in the application.

5a) Of the above claim(s) _____ is/are withdrawn from consideration.

6)☐ Claim(s) _____ is/are allowed.

7)☒ Claim(s) *1-61, 63-118* is/are rejected.

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

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

* If any claims have been determined allowable, you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to PPHfeedback@uspto.gov.

Application Papers

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

11)☐ The drawing(s) filed on _____ 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).

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).

Certified copies:

a)☐ All b)☐ Some** c)☐ None of the:

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) ☐ Information Disclosure Statement(s) (PTO/SB/08a and/or PTO/SB/08b) Paper No(s)/Mail Date _____.

3) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

4) ☐ Other: _____.

DETAILED ACTION

Notice of Pre-AIA or AIA Status

The present application is being examined under the pre-AIA first to invent provisions.

Claim Rejections - 35 USC § 102

1. 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.

2. Claims 82, 87, 100-104, 107-110, 113-115 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent No. 6,287,200 B1 to Sharma et al.

Regarding claim 82, Sharma discloses a system comprising:

A display (fig. 4);

A locating device operable to determine the physical location of said locating device on a physical playfield (abstract, col. 2, lines 35-45, mobile device contains GPS), wherein said locating device comprises a movement measuring device operable to be utilized, at least in part to determine said physical location (col. 3, lines 45-61, mobile device also contains a motion sensor that measures trajectory and velocity of the device, and in order to measure trajectory and velocity, displacement must be measured thereby determining at least two different physical locations);

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 (fig. 3 and 5, col. 3, lines 45-61).

Regarding claims 87 and 107. Sharma discloses wherein said video game is a multiple-player video game (col. 3, lines 25-45).

Regarding claim 100, Sharma discloses a system comprising:

A non-transparent display (fig. 4, a hand-held display);

a locating device operable to determine the physical location of said locating device on a physical playfield (col. 2, lines 35-45, GPS);

a directional device operable to determine the physical direction of said directional device on said physical playfield (fig. 5, col. 3, lines 45-61, the motion sensor determines the direction); 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 and facing a virtual direction on a virtual playfield said virtual location on said virtual playfield corresponds to said physical location on said physical playfield, and said virtual direction on said virtual playfield corresponds to said physical direction on said physical playfield (fig. 5, col. 3, lines 45-61, the user utilizes the device to move the character and the volleyball).

Regarding claim 101. Sharma discloses wherein said video game is provided on said display in a third-person perspective (fig. 3, col. 3, lines 30-44).

Regarding claim 102. Sharma discloses wherein said display is a non head-mounted display (fig. 4).

Regarding claim 103. Sharma discloses wherein a second virtual character is provided in said video game and said second virtual character is computer-controlled (fig. 2, 3 and 5, col. 3, lines 45-61, each character is controlled by the mobile device).

Regarding claim 104. Sharma discloses wherein a second virtual character is provided in said video game and said second virtual character is user- controlled (fig. 5, col. 3, lines 45-61, the character is controlled by the player who controls the device).

Regarding claim 108. Sharma discloses wherein an interactive virtual object, with respect to said virtual character, is provided in said video game (col. 3, lines 30-61, volleyball).

Regarding claim 109. Sharma discloses wherein an impenetrable virtual object, with respect to said virtual character, is provided in said video game (col. 3, lines 30-61, the volleyball is hit and not penetrated by the swinging of the mobile device).

Regarding claim 110, Sharma discloses wherein said virtual character is selected from a plurality of virtual characters (col. 3, line 38, the players can choose a team X or Y character).

Regarding claim 113. Sharma discloses wherein said video-game is point-based (col. 3, lines 30-38, volleyball is point based).

Regarding claim 114. Sharma discloses wherein said locating device comprises a positioning receiver (col. 2, lines 35-45, GPS).

Regarding claim 115. Sharma discloses wherein said locating device comprises a movement measuring device operable to be utilized, at least in part, to determine said physical location (col. 3, lines 25-61, the mobile device also contains a motion sensor that measures trajectory and velocity of the device, and in order to measure trajectory and velocity, displacement must be measured thereby determining at least two different physical locations.).

Claim Rejections - 35 USC § 103

1. 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 negatived by the manner in which the invention was made.

2. **Claims 1-3, 6-16, 19, 20, 22, 25, 26, 28, 29, 31, 32, 34, 43, 47, 53, 55, 56, 59-61, 63-65, 83, 116 and 117 are rejected are rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma., USPAT 6,287,200 (hereinafter Sharma) in view of Benes et al. (US 2004/0046655 A1).**

Claims 1 and 83. Sharma in view of Benes discloses a system comprising:

a wireless device wherein said wireless device comprises:

a display (fig. 4);

a locating device operable to determine the physical location of said locating device on a physical playfield (col. 1:lines 5-16, col. 2:40, col. 3:45 - col. 4:8); 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 character is displayed on said display (fig. 3, col. 3:lines 9-38), and said virtual location on said virtual playfield corresponds to said physical location on said physical playfield (col. 3:9-12, col. 3:31-61).

Sharma substantially discloses the invention as claimed but fails to explicitly teach a wireless telephone device (as per claims 1 and 83). Instead, Sharma discloses mobile devices with displays that may communicate via RF, WAP, Bluetooth etc. without expressly disclosing a wireless telephone device. However, in an analogous reference, Benes discloses a wireless telephone device to play a location-based game. One of ordinary skill in the art would have seen

the benefit of modifying Sharma with a wireless telephone device to optimize the resources available to subscribers, alter the game by defining an area of play and activate game features without direct communication between the players and the providers (Benes, paragraph 1 and 2). Furthermore, an artisan would have found it obvious to adapt the invention, when possible, to operate on other wireless devices (Benes, paragraph 10) to increase the user base by allowing users who already own one similar device but do not want to purchase another device to play the game. Therefore, it would have been obvious to one or ordinary skill in the art at the time of the instant invention to modify Sharma with a wireless telephone device to optimize resources, and increase the user base which would also increase profits.

Claim 2. Sharma discloses said locating device is a global positioning system (col. 2:line 41).

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 lm 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 devise are able to participate in the virtual game." Because the range dictates the interaction between participants, it would imply that the playfield perimeter is default to the limit of the protocol.

Claim 6, Sharma inherently discloses memory to store the application programs (col. 3:lines 25-37) because a memory must be present in order to store multiple applications in addition to the volleyball game. Benes discloses a memory (Benes, fig. 2 and 3, item 260).

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 to 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 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.

Claim 8, 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 inherent to use a coordinate system, since GPS utilizes geographical coordinates.

Claim 9, Sharma discloses a the motion sensor within the wireless device that will sense both trajectory and velocity which corresponds to the direction and magnitude (col. 3:lines 45-61).

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.

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.

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 art 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.

Claim 15, Sharma discloses 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 (col. 3, lines 9-24, each device is a remote memory).

Claim 16, Sharma in view of Benes discloses a microphone and speaker (Benes, a cell phone inherently contains a mic and a speaker).

Claim 17, Sharma discloses a method for controlling a character in a location-based video game comprising:

storing a first physical location of a wireless device on a physical playfield on a remote server (fig. 6, col. 4, lines 18-44, each device acts as a server to the other devices storing the location of the other devices);

changing the location of said character in a virtual playfield of said video game based on said first physical location (fig. 6, col. 4, lines 18-44, each device is moved by the player while playing); and

updating the location of said wireless device on said remote server by storing a second physical location of said wireless device on said remote server (fig. 6, col. 4, lines 18-44, each device is updated with the location of the players while playing the game); and

retrieving by said wireless device from said remote server a third physical location of a second wireless device (fig. 6, col. 4, lines 18-44, the first device now receives updated information from a second device).

Sharma substantially discloses the invention as claimed but fails to explicitly teach a wireless telephone device. Instead, Sharma discloses mobile devices with displays that may communicate via RF, WAP, Bluetooth etc. without expressly disclosing a wireless telephone device. However, in an analogous reference, Benes discloses a wireless telephone device to play a location-based game. One of ordinary skill in the art would have seen the benefit of modifying Sharma with a wireless telephone device to optimize the resources available to subscribers, alter the game by defining an area of play and activate game features without direct communication between the players and the providers (Benes, paragraph 1 and 2). Furthermore, an artisan would have found it obvious to adapt the invention, when possible, to operate on other wireless

devices (Benes, paragraph 10) to increase the user base by allowing users who already own one similar device but do not want to purchase another device to play the game. Therefore, it would have been obvious to one or ordinary skill in the art at the time of the instant invention to modify Sharma with a wireless telephone device to optimize resources, and increase the user base which would also increase profits.

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.

Claim 22, Sharma discloses wherein said character is manually selected (col. 3, line 38, the players can choose a team X or Y character).

Claims 25 and 59. Sharma discloses wherein a second virtual character is provided in said video game and said second virtual character is user- controlled (fig. 5, col. 3, lines 45-61, the character is controlled by the player who controls the device).

Claims 26 and 64. Sharma discloses wherein said video-game is point-based (col. 3, lines 30-38, volleyball is point based).

Claim 28. Sharma discloses wherein an action is performed in said video game and an animated is played as a result of said action (fig. 3 and 5, col. 3, lines 45-61).

Claim 29, Sharma discloses a stationary device to control a virtual character (fig. 6, items 10 and 40).

Claim 31, Sharma shows in figure 6 and discusses in (column 4, lines 19-40) a server and each mobile device that is updated with every mobile device's location (col. 3, lines 9-24).

Claims 32 and 65, 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.

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.

Regarding claims 47 and 117. Sharma discloses wherein an impenetrable virtual object, with respect to said virtual character, is provided in said video game (col. 3, lines 30-61, the volleyball is hit and not penetrated by the swinging of the mobile device).

Regarding claims 53, 55, 56, 60, 61, 63 and 116 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 claim 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).

Claim 118. Sharma discloses wherein said locating device comprises a movement measuring device operable to be utilized, at least in part, to determine said physical location (col. 3, lines 25-61, the mobile device also contains a motion sensor that measures trajectory and velocity of the device, and in order to measure trajectory and velocity, displacement must be measured thereby determining at least two different physical locations.).

Claims 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Benes et al. (US 2004/0046655 A1) and further in view of Newell et al., USPAT 6,735,435 (hereinafter Newell).

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.

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).

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..."

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.

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.

Claims 5 and 57 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).

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

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 $\dot{z}_{k+1} = h(x_k)$, $\dot{z}_{k+1}$ 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.

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."

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.

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.

Claims 21, 54, and 84 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Benes et al. (US 2004/0046655 A1) and further in view of Berstis (US 6,337,688 B1).

Regarding claims 21, 54, and 84, which depend on the limitation of an accelerometer, Sharma substantially discloses the invention as claimed but fails to explicitly teach that first locating device comprises an accelerometer. Instead, Sharma discloses using GPS for a locating device. However, in an analogous reference, Berstis discloses using accelerometers as an alternative to GPS because that are commercially available at low cost relative to a GPS receiver (Berstis,

3:62). Therefore, it would have been obvious to one or ordinary skill in the art at the time of the instant invention to modify Sharma with accelerometers as they are a low cost alternative to GPS receivers.

Claims 23, 24, 38-41, 58, 85, are rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Benes et al. (US 2004/0046655 A1) and further in view of Leonhard et al. USPUB 2002/0052933 (hereinafter Leonhard).

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.

Claims 23, 24, 58, and 85, 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 85,), 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.

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.

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. 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.

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.

Claims 27, 35-37, 42, 45, 46, and 48-50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Acclaim's Mortal Kombat (hereinafter MK).

While Sharma discloses a location-based gaming system capable of supporting a multi-player game, Sharma fails to explicitly disclose a game other than volleyball. 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.

Regarding claim 27, Sharma substantially discloses the invention as claimed but fails to explicitly teach wherein an amount of time is displayed associated with a start of said video game. However in an analogous reference Mortal Kombat (MK, page 7), which was one of the most popular games when the game first came out, illustrates points for both opponents above their power meters and also illustrates a time in the middle of the screen and discloses, "Should time run out..." referencing the game's use of time. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Sharma with a timer when combined with a popular game such as Mortal Kombat.

Regarding claims 35-37, and 42, 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.

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.

Regarding claims 48-50, 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.

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.

Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Benes et al. (US 2004/0046655 A1) and further in view of US Pub. No. 2006/0154710 A1 to Serafat. This new grounds of rejection was necessitated by applicant's request for documentary proof of official notice.

Claim 30, Sharma substantially discloses the invention as claimed but fails to explicitly teach a single-player video game. However in an analogous reference, Serafat teaches using artificial intelligence (Serafat, paragraph [0056]) in mobile gaming (Serafat, paragraph [0054]) to continue a game even in the absence of a player, without the need to interrupt the game itself. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Sharma with AI for continuing a multiplayer game in single player mode in case of an absence of a player participating in the game by simulating the participation of the player who is absent.

Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Benes et al. (US 2004/0046655 A1) and further in view of Anderson et al., USPAT 7,303,474 (hereinafter Anderson).

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.

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..."

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."

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.

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.

Claims 44 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Benes et al. (US 2004/0046655 A1) and further in view of Tom, USPAT 6,690,947 (hereinafter Tom)

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.

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.

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.

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.

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.

Claims 51 and 52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Benes et al. (US 2004/0046655 A1) and further in view of Super Dodgeball by Nintendo (hereinafter "Super Dodgeball").

Regarding claims 51 and 52, Sharma substantially discloses the invention as claimed but fails to explicitly teach the limitation of being able to pick up and put down the virtual object. Sharma discloses a volley ball game. Instead, the virtual object is simply contacted by the player to be sent over the net and that a variety of other games may be played (Sharma: col. 3, lines 35-60). However, in an analogous art, Super Dodgeball teaches a game based on having two sides and a middle line similar to volleyball and has a rating of 8.5 out of 10 which teaches picking up a virtual object as evidenced by the youtube video of actual footage from the game that was released in 1998 and a gamefaq describing the same game (Super Dodgeball: picking up, youtube video at 1:00 and 6:15, and Blocking in the Gamefaq) and putting down the ball (dropping the ball in the Gamefaq). One of ordinary skill in the art at the time of the invention would have seen this to be an obvious feature to maintain the continuity of the game. If the game simply skipped over the part when a player picks up an object, the game would lose realism and lose player appeal.

Claims 18, 68, and 71-75 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma, USPAT 6,287,200 (hereinafter Sharma) in view of Hale et al. (US 5,902,343).

Claim 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 (2:32-45);
obtaining a second physical location of a second locating device on a second physical playfield (2:32-45), wherein said first physical playfield is remote from said second physical playfield (fig. 3, 3:30-67, Team x and Y are different playfields); and

Sharma substantially discloses the invention as claimed such as displaying first and second characters (fig. 3, col. 3, lines 30-45) but fails to explicitly teach 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, second location information associated with said second physical location is scaled, 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. Instead, Sharma seems to remain silent as to how the location information is interpreted. However, in an analogous GPS reference, Hale discloses scaling the GPS field maps to show all of the data (Hale, abstract). One of ordinary skill in the art at the time of the invention would have found it obvious to modify Sharma with scaled GPS maps to show all the data of the game as providing an easy-to-read electronic display showing a map of the area being traversed correlated with visual indicia of a

characteristic being measured is difficult. Hale is analogous art because if an artisan had a problem of providing an easy-to-read electronic display showing a map of the area being traversed, an artisan would have found it obvious to search other GPS-related art. Therefore, one of ordinary skill in the art would have seen the benefit of modifying Sharma with GPS scaling to show all of the data necessary for the task at hand.

Claim 68. Sharma discloses a GPS receiver (2:40-45).

Claim 71. Sharma discloses a third character (fig. 3).

Claim 72. Sharma discloses a virtual object (volleyball, 2:35).

Claim 73. Sharma discloses an impenetrable virtual object (volleyball, 2:35).

Claim 74. Sharma discloses determining a direction (3:55).

Claim 75. Sharma discloses a device operable to provide human communications (a viewable display, fig. 4).

Claims 66 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma (US Pat. No. 6,287,200 B1) in view of in view of Hale et al. (US 5,902,343) and further in view of Benes et al. (US 2004/0046655 A1).

Regarding claims 66, Sharma substantially discloses the invention as claimed but fails to explicitly teach a wireless telephonic device. Instead, Sharma discloses mobile devices with displays that may communicate via RF, WAP, Bluetooth etc. without expressly disclosing a wireless telephone device. However, in an analogous reference, Benes discloses a wireless telephone device to play a location-based game. One of ordinary skill in the art would have seen the benefit of modifying Sharma with a wireless telephone device to optimize the resources available to subscribers, alter the game by defining an area of play and activate game features without direct communication between the players and the providers (Benes, paragraph 1 and 2). Furthermore, an artisan would have found it obvious to adapt the invention, when possible, to operate on other wireless devices (Benes, paragraph 10) to increase the user base by allowing users who already own one similar device but do not want to purchase another device to play the game. Therefore, it would have been obvious to one or ordinary skill in the art at the time of the instant invention to modify Sharma with a wireless telephone device to optimize resources, and increase the user base which would also increase profits.

Claim 67 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma, USPAT 6,287,200 (hereinafter Sharma) in view of Hale et al. (US 5,902,343) and Berstis (US 6,337,688 B1).

Claim 67. Sharma substantially discloses the invention as claimed but fails to explicitly teach that first locating device comprises an accelerometer. Instead, Sharma discloses using GPS for a locating device. However, in an analogous reference, Berstis discloses using accelerometers as an alternative to GPS because that are commercially available at low cost relative to a GPS receiver (Berstis, 3:62). Therefore, it would have been obvious to one or ordinary skill in the art at the time of the instant invention to modify Sharma with accelerometers as they are a low cost alternative to GPS receivers.

Claim 69 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Hale et al. (US 5,902,343) and further in view of Kotanen et al., "Experiments on Local Positioning with Bluetooth" (hereinafter Kotanen).

Claim 69. While Sharma discloses the wireless device's WLAN and Bluetooth capabilities, Sharma fails to explicitly disclose local positioning capabilities using either of these protocols. 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 $\dot{z}_{k+1} = h(x_k)$, $\dot{z}_{k+1}$ 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.

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."

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.

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.

Claims 70 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Pat. No. 6,287,200 B1 to Sharma (Sharma) in view of Hale et al. (US 5,902,343) and further in view of US Pub. No. 2004/0248653 A1 to Barros et al. (Barros).

Regarding claim 70 Sharma substantially discloses the invention as claimed such as a multiplayer location based video game (Sharma, col. 3, lines 25-45) but fails to explicitly teach wirelessly downloading a location-based program to the wireless telephonic device. Instead, Sharma seems to remain silent as to how the games are loaded onto the system. However, in an analogous reference, Barros discloses that the game is wirelessly sent to the mobile telephonic device from the server. One of ordinary skill in the art would have found it obvious to use

wireless communications to provide a way to attract users to a store by enhancing their interactive experience while executing applications on their wireless devices and enables special features in an application executed on a wireless device when the wireless device is within a predefined vicinity of a store (Barros: paragraph [0011]). Therefore, it would have been obvious to one or ordinary skill in the art at the time of the instant invention to modify Sharma with wirelessly downloading games to enable special features and attracts users to a store thereby increasing advertising revenue.

Claims 76-78, and 80 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Pat. No. 6,287,200 B1 to Sharma (Sharma) in view of US Pat. No. 6,011,653 A to Karasawa (Karasawa) and further in view of Berstis (US 6,337,688 B1).

Claims 76, 77 and 80. Sharma discloses a head-mounted system comprising:

a display (fig. 4)

A locating device operable to determine the physical location of said locating device on a physical playfield (abstract, col. 2, lines 35-45, GPS);

A processor coupled to said display, wherein said processor is operable to provide a video game comprising a virtual character with a virtual location on said virtual playfield corresponds to said physical location on said physical playfield (fig. 3 and 5, col. 3, lines 45-61), video game indicia, associated with said video game, is displayed on said display (fig. 3 and 5, col. 3, lines 45-61)

such that said video game indicia is visible with said physical playfield through said display, and said video game is controlled, at least in part, by said accelerometer (col. 3:9-12, col. 3:31-61).

Sharma substantially discloses the invention as claimed but fails to explicitly teach a transparent display, such that video game indicia is visible with said physical playfield through said display. Instead, Sharma discloses 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 (as per claim 80, column 4, lines 6-8), "...can be...arcade-type virtual reality goggles." However in an analogous reference Karasawa discloses a head mounted display that superimposes the video game over the image seen by the user (as per claim 76 and 77, fig. 2, col. 3, line 23 – col. 4, line 42). One of ordinary skill in the art would have seen the benefit of modifying Sharma with the head mounted display by Karasawa for magnifying an image generated by an image display means to a magnified virtual image and enabling the magnified virtual image to be seen by either one of the eyes of the user.

Sharma substantially discloses the invention as claimed but fails to explicitly teach an accelerometer. Instead, Sharma discloses using GPS for a locating device. However, in an analogous reference, Berstis discloses using accelerometers as an alternative to GPS because that are commercially available at low cost relative to a GPS receiver (Berstis, 3:62). Therefore, it would have been obvious to one or ordinary skill in the art at the time of the instant invention to modify Sharma with accelerometers as they are a low cost alternative to GPS receivers.

Regarding claim 78, Sharma discloses wherein a second virtual character is provided in said video game and said second virtual character is computer-controlled (fig. 2, 3 and 5, col. 3, lines 45-61, each character is controlled by the mobile device).

Claim 79 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Pat. No. 6,287,200 B1 to Sharma (Sharma) in view of US Pat. No. 6,011,653 A to Karasawa (Karasawa) and further in view of Berstis (US 6,337,688 B1) and Reaney (US Patent No. 5,523,890). This new grounds of rejection was necessitated by applicant's request for documentary proof of official notice.

Regarding claim 79, Sharma in view of Karasawa substantially discloses the invention as claimed but fails to explicitly teach a first-person perspective. However in an analogous reference, Reaney teaches that head mounted displays and interactive virtual reality and first person games, those that put the user in the action benefit most from the head-mounted display of Reaney (Reaney, col. 5, lines 9-15). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Sharma with first person perspective games because those game benefit the most from head-mounted displays.

Claim 81 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Karasawa (US 6,011,653), and further in view of Berstis (US 6,337,688 B1), and further in view of Numa, USPAT 6,633,267 (hereinafter Numa).

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 Karasawa 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 Karasawa fails to explicitly disclose a HMD wherein the direction the HMD is pointing is the direction used by the video game.

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...

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."

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.

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 Karasawa with the HMD control system as described by Numa for the purpose of providing enhanced reality to a game.

Claims 88-93 are rejected are rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma., USPAT 6,287,200 (hereinafter Sharma) in view of Kotanen et al., "Experiments on Local Positioning with Bluetooth" (hereinafter Kotanen).

Claim 88. Sharma discloses:

a display (fig. 4);

a locating device operable to determine the physical location of said locating device comprising a local position system (Kotanen);

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 (3:9-12, 3:31-61).

While Sharma discloses the wireless device's WLAN and Bluetooth capabilities, Sharma fails to explicitly disclose local positioning capabilities using either of these protocols.
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 $\dot{z}_{k+1} = h(x_k)$, $\dot{z}_{k+1}$ 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.

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."

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.

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.

Claim 89. Sharma discloses at least two positioning devices (fig. 3 and 5).

Claim 90. Sharma discloses a wireless device (fig. 2,3 and 6, mobile device).

Claim 91. Sharma discloses the physical location of said locating device is stored and updated in a remote server (a server is any piece of software or hardware that serves data to another piece of software or hardware, fig. 6, 4:18-44).

Claim 92. Sharma discloses a second virtual character (fig. 3 and 5).

Claim 93. Sharma discloses using the trajectory of the device (3:55).

Claims 94, 96, and 98 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma (US Pat. No. 6,287,200 B1) in view of Ebersole et al. (US Pub. No. 2003/0210228 A1).

Regarding claim 94, Sharma discloses a system comprising:

A display (fig. 4);

A first locating device operable to determine a first physical location of said locating device on a physical playfield (abstract, col. 2, lines 35-45, GPS);

A processor coupled to said display, wherein said processor is operable to provide a first video game and utilize said first physical locations, at least in part, to control a virtual character on a virtual playfield (col. 3:9-12, col. 3:31-61).

Sharma substantially discloses the invention as claimed but fails to explicitly teach a second locating device operable to determine a second physical location of said second locating device on said physical playfield, together with the first locating device, provide control to a virtual character, instead, Sharma discloses a location based game in which an external display such as virtual reality goggles may be used with a mobile device. In an analogous reference, Ebersole discloses an augmented-reality system in which a head-mounted display is utilized. Ebersole specifically discloses a head-mounted display in which two GPS receivers are used to determine the heading and position of the head-mounted display (Ebersole, paragraphs [0074 and 0075]) to enable 5 degrees of freedom motion tracking in an augmented reality environment wherein dynamically updated information may be mixed with a live view of the real world. Therefore, it

would have been obvious to one or ordinary skill in the art at the time of the instant invention to modify Sharma with two GPS receivers to enable 5 degrees of freedom motion tracking in an augmented reality environment wherein dynamically updated information may be mixed with a live view of the real world.

Regarding claim 96, Sharma in view of Ebersole discloses that the locating devices are positioning receivers (col. 2, lines 35-45, GPS).

Regarding claim 98, Sharma discloses a manual control to control, at least in part said virtual character (fig. 5, col. 3, lines 45-61, moving the mobile unit controls the virtual character).

Claim 95 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma (US Pat. No. 6,287,200 B1) in view of Ebersole et al. (US Pub. No. 2003/0210228 A1) and further in view of US Patent No. 5,724,660 to Kauser et al.

Regarding claim 95, Sharma substantially discloses the invention as claimed but fails to explicitly teach that the an average of locations is used to control the virtual character. However, in an analogous reference, Kauser discloses that GPS coordinates are commonly averaged to decrease error rates in col. 9, lines 30-40. Therefore, it would have been obvious to one or ordinary skill in the art at the time of the instant invention to modify Sharma with averaged GPS coordinates to decrease error rates.

Claims 97 and 99 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma (US Pat. No. 6,287,200 B1) in view of Ebersole et al. (US Pub. No. 2003/0210228 A1) and further in view of Benes et al. (US 2004/0046655 A1).

Regarding claims 97 and 99, Sharma substantially discloses the invention as claimed such as a second virtual character (devices B-D, col. 3, lines 9-44) but fails to explicitly teach a wireless telephone device. Instead, Sharma discloses mobile devices with displays that may communicate via RF, WAP, Bluetooth etc. without expressly disclosing a wireless telephone device. However, in an analogous reference, Benes discloses a wireless telephone device to play a location-based game. One of ordinary skill in the art would have seen the benefit of modifying Sharma with a wireless telephone device to optimize the resources available to subscribers, alter the game by defining an area of play and activate game features without direct communication between the players and the providers (Benes, paragraph 1 and 2). Furthermore, an artisan would have found it obvious to adapt the invention, when possible, to operate on other wireless devices (Benes, paragraph 10) to increase the user base by allowing users who already own one similar device but do not want to purchase another device to play the game. Therefore, it would have been obvious to one or ordinary skill in the art at the time of the instant invention to modify Sharma with a wireless telephone device to optimize resources, and increase the user base which would also increase profits.

Claims 105, 111, 112 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Pat. No. 6,287,200 B1 to Sharma (Sharma) in view of US Pub. No. 2004/0248653 A1 to Barros et al. (Barros).

Regarding claims 105, 111, 112, Sharma substantially discloses the invention as claimed such as a multiplayer location based video game (Sharma, col. 3, lines 25-45) but fails to explicitly teach wirelessly downloading a location-based program to the wireless telephonic device. Instead, Sharma seems to remain silent as to how the games are loaded onto the system. However, in an analogous reference, Barros discloses that the game is wirelessly sent to the mobile telephonic device from the server. One of ordinary skill in the art would have found it obvious to use wireless communications to provide a way to attract users to a store by enhancing their interactive experience while executing applications on their wireless devices and enables special features in an application executed on a wireless device when the wireless device is within a predefined vicinity of a store (Barros: paragraph [0011]). Therefore, it would have been obvious to one or ordinary skill in the art at the time of the instant invention to modify Sharma with wirelessly downloading games to enable special features and attracts users to a store thereby increasing advertising revenue.

Claims 86 and 106 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Pat. No. 6,287,200 B1 to Sharma (Sharma) in view of US Pub. No. 2006/0154710 A1 to Serafat. This new grounds of rejection was necessitated by applicant's request for documentary proof of official notice.

Regarding claims 86 and 106, Sharma substantially discloses the invention as claimed but fails to explicitly teach a single-player video game. However in an analogous reference, Serafat teaches using artificial intelligence (Serafat, paragraph [0056]) in mobile gaming (Serafat, paragraph [0054]) to continue a game even in the absence of a player, without the need to interrupt the

game itself. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Sharma with AI for continuing a multiplayer game in singleplayer mode in case of an absence of a player participating in the game by simulating the participation of the player who is absent.

Response to Arguments

Applicant's arguments filed 9/26/13 have been fully considered but they are not persuasive and some are moot in view of the new grounds of rejection.

Regarding claim 82 with respect to the movement measuring device argument, the Examiner respectfully asserts that the mobile device also contains a motion sensor that measures trajectory and velocity of the device, and in order to measure trajectory and velocity, displacement must be measured thereby determining at least two different physical locations.

Regarding claim 100, it is respectfully asserted that the term virtual character is a virtual object unless it is distinctly defined within the specification or claim. (US 2003/0156144 is an example of using the term virtual character interchangeable with virtual object. Kirby is also an example of a virtual character that is also a virtual ball).

Regarding claim 1, the Examiner respectfully asserts that Benes discloses a wireless telephone and in response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.,* 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Regarding claim 17, refer to the updated grounds of rejection.

Regarding claim 76, in response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.,* 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Regarding claim 18, in response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.,* 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Regarding claim 88, in response to applicant's argument that the combined teaching eviscerates the spirit of the invention, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). With respect to the combination of Sharma and Kotanen, the two are analogous reference because Kotanen uses bluetooth for local positioning and Sharma utilizes Bluetooth.

Regarding claim 94 in response to applicant's argument that the combined teaching eviscerates the spirit of the invention, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those

of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). With respect to the combination of Sharma and Ebersole, the two are analogous references because Sharma discloses a head mounted display and Ebersole is directed to head-mounted displays.

Regarding the combination of references, in response to applicant's argument that any art that does not utilize location information is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, only certain features from the other references are used in combination with the base reference and not the entire reference and therefore permissible.

Regarding the official notice remarks, refer to the new grounds of rejection to the claims that used official notice.

Conclusion

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 ANDREW KIM whose telephone number is (571)272-1691. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dmitry Suhol can be reached on 571-272-4430. 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.

/A. K./ 1/28/2014

Examiner, Art Unit 3716

/DMITRY SUHOL/

Supervisory Patent Examiner, Art Unit 3716

Notice of References Cited	Application/Control No. 10/932,536	Applicant(s)/Patent Under Reexamination MULLEN, JEFFREY D.	
	Examiner ANDREW KIM	Art Unit 3716	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A	US-5,523,890	06-1996	Reaney, Mark	359/802
*	B	US-2006/0154710	07-2006	Serafat, Reza	463/001
	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.

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	10932536	MULLEN, JEFFREY D.
	Examiner	Art Unit
	ANDREW KIM	3716

CPC- SEARCHED		
Symbol	Date	Examiner
A63F 2300/5573	1/27/2014	AK

CPC COMBINATION SETS - SEARCHED		
Symbol	Date	Examiner

US CLASSIFICATION SEARCHED			
Class	Subclass	Date	Examiner
463	31, 40, 42	1/27/2014	AK

SEARCH NOTES		
Search Notes	Date	Examiner
EAST (see attached notes)	12/19/2009	AK
EAST Text search of PGPUB, USPAT, USOCR, EPO, JPO, DERWENT. See attached search results.	1/27/2014	AK

INTERFERENCE SEARCH			
US Class/ CPC Symbol	US Subclass / CPC Group	Date	Examiner

EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	1956	virtual adj character	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	AND	ON	2014/01/27 12:48
L2	415	virtual adj character with object	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	AND	ON	2014/01/27 12:48
L3	17	virtual adj character with ball	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	AND	ON	2014/01/27 13:00
L4	159	virtual adj character near2 object	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	AND	ON	2014/01/27 13:03
L5	161	single adj player with advantage	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	AND	ON	2014/01/27 13:44
L6	177	single adj player with available	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	AND	ON	2014/01/27 13:50
L7	88	single adj player with require	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	AND	ON	2014/01/27 13:52
L8	1	("20060154710").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2014/01/27 14:01
L12	303	head adj mounted first adj person	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	AND	ON	2014/01/27 14:12
L13	0	A63F 2300/5573.cpc.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	AND	ON	2014/01/27 14:32
L14	351	A63F2300/5573.cpc.	US-PGPUB;	AND	ON	2014/01/27

			USPAT; USOCR; EPO; JPO; DERWENT			14:32
L15	9923	(463/31,40,42).CCLS.	US-PGPUB; USPAT; USOCR	OR	OFF	2014/01/27 14:33
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
S14	2821	mullen.in.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	AND	ON	2009/01/15 10:23
S15	1	mullen.in. jeff.in.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	AND	ON	2009/01/15 10:23
S16	78	mullen.in. jeffrey.in.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	AND	ON	2009/01/15 10:24
S18	6217	gps game cellular phone	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	AND	ON	2009/12/13 23:14
S19	28	gps game cellular phone virtual near2 $5field	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	AND	ON	2009/12/13 23:15
S20	116	(location adj based) same phone same game	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	AND	ON	2009/12/18 14:08
S21	1	("20040046655").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2009/12/18 14:14
S22	6005	wireless game (gps or global with positioning with system) display location (mobile adj phone or cell adj phone or cellular adj phone or wireless adj phone)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	AND	ON	2009/12/19 11:17
S23	4666	(scaled or scaling or scal$3) (locat$4) (game) (GPS)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	AND	ON	2009/12/19 16:39
S24	337	S23 "463".clas.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	AND	ON	2009/12/19 16:39
S25	321	S23 "463".clas. (wireless or mobile)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	AND	ON	2009/12/19 16:42
S26	14	virtual adj playfield	US-PGPUB; USPAT;	AND	ON	2009/12/19 17:58

			USOCR; EPO; JPO; DERWENT			
S27	469	virtual adj field	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	AND	ON	2009/12/19 17:58
S28	27	S27 game remote	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	AND	ON	2009/12/19 18:00
S29	2	"scaling" same gps same game	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	AND	ON	2009/12/19 18:50
S30	1	("5902343").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2009/12/19 19:04
S31	24	("5434904" | "5738583" | "5797085" | "6111541").PN. OR ("6287200").URPN.	US-PGPUB; USPAT; USOCR	AND	ON	2009/12/19 19:30
S32	1	("7471747").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2009/12/19 19:46
S33	9	("20010014116" | "20020159542" | "20050180531" | "20050190735" | "5861841" | "6275186" | "6754256" | "6775319" | "7184464").PN.	US-PGPUB; USPAT; USOCR	AND	ON	2009/12/19 19:46
S34	7521	accelerometer same motion with sens$4	US-PGPUB; USPAT; USOCR	AND	ON	2009/12/19 21:01
S35	468	accelerometer same motion with sens$4 gps game	US-PGPUB; USPAT; USOCR	AND	ON	2009/12/19 21:01
S36	1	("20030210228").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2013/03/10 20:56
S37	3	direction.clm. with character.clm. mullen.in.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	AND	ON	2013/03/10 22:01
S38	2	"20040248653"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	AND	ON	2013/03/11 01:58
S39	8471	(463/31,40,42).CCLS.	US-PGPUB; USPAT; USOCR	OR	OFF	2013/03/11 12:47

1/27/2014 2:33:37 PM
C:\Users\akim1\Documents\EAST\Workspaces\10932536_Mullen_GPSGame.wsp

JDM/005

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	:	Andrew Kim

Hon. Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Pittsburgh, PA 15232
September 26, 2013

REPLY TO OFFICE ACTION

Sir:

This is in response to the Office Action dated March 26, 2013. A three-month extension of time is applicable hereto and is being submitted herewith. In response to the Office Action, 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.

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 telephone, wherein said wireless telephone 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, said virtual character is displayed on said display, 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 telephone 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. (previously presented) The system of claim 1, wherein said wireless telephone further 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. (previously presented) The system of claim 1, wherein said wireless telephone further 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. (previously presented) The system of claim 1, wherein said wireless telephone further comprises manual controls for controlling non-location based aspects of said virtual character.

14. (previously presented) The system of claim 1, wherein said wireless telephone further 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. (previously presented) The system of claim 1, wherein said wireless telephone further 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

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a microphone.

17. (currently amended) 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; and

retrieving by said wireless telephonic device from said remote server a third physical location of a second wireless telephonic device.

18. (previously presented) 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, said first virtual character being displayed on a display, second location information associated with said second physical

location is scaled, said scaled second location is utilized to provide a second virtual character on said virtual playfield, said second virtual character being displayed on said display, 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. (previously presented) The system of claim 1, wherein an amount of time is displayed associated with a 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. (previously presented) The system of claim 1, wherein said wireless telephone is operable to 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 telephone 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 telephone 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 telephone 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.

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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.

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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. (currently amended) The method of claim 17, further comprising retrieving said first physical location from said server by said ~~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.

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65. (previously presented) The method of claim 17, wherein a first locating device is provided in said wireless telephonic device and said wireless telephonic device is able to provide human-communications to a second telephonic device while 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. (previously presented) The method of claim 18, further comprising determining a direction of a directional device and utilizing said direction to control a direction of said first virtual character.

75. (previously presented) 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 provide human-communications to a second telephonic device while 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

an accelerometer;

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, 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, and said video game is controlled, at least in part, by said accelerometer.

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. (previously presented) The system of claim 76, wherein said video game comprises a second virtual character, said second virtual character is computer controlled.

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. (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 movement measuring device operable to be utilized, at least in part, 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.

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. (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 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. (previously presented) The system of claim 88, wherein said at least one ground-based local positioning device includes at least two ground-based local positioning devices.

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 second locating device on said physical playfield; and

a processor coupled to said display, wherein said processor is operable to provide a first video game and utilize said first and second physical locations, at least in part, to control a virtual character on a virtual playfield.

95. (previously presented) The system of claim 94, wherein said an average including said first physical location and said second physical location is utilized, at least in part, to control said virtual character.

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 manual control to control, at least in part, said virtual character.

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 non-transparent 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 and facing a virtual direction on a virtual playfield said virtual location on said virtual playfield corresponds to said physical location on said physical playfield, and said virtual direction on said virtual playfield corresponds to said physical direction 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 non head-mounted display.

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.

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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. (previously presented) The system of claim 100, wherein said locating device is included in a first wireless telephonic device and 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. (currently amended) The system of claim 100, wherein said locating device comprises a movement measuring device operable to be utilized, at least in part, to determine said physical location.

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

118. (new) The system of claim 1, wherein said locating device comprises a movement measuring device operable to be utilized, at least in part, to determine said physical location.

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REMARKS/ARGUMENTS

Summary of Office Action

Claims 1-115 are pending in the application.

The Examiner rejected claims 82, 100-104, 107-110 and 113-115 under 35 U.S.C. 102(b) as being unpatentable over Sharma U.S. Patent No. 6,287,200.

The Examiner rejected claims 1-3, 6-9, 17, 19-20, 22, 25, 26, 28-32, 34, 43, 53, 55, 56, 59-61, 63-65, 83, 116, and 117 under 35 U.S.C. 103(a) as being unpatentable over Sharma U.S. Patent No. 6,287,200 (hereinafter "Sharma") in view of Benes et al U.S. Patent Application Publication No. 2004/0046655 (hereinafter "Benes").

The Examiner rejected claim 4 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Benes and further in view of Newell et al U.S. Patent No. 6,735,435 (hereinafter "Newell").

The Examiner rejected claims 5 and 57 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").

The Examiner rejected claims 21, 54, and 84 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Berstis U.S. Patent No. 6,337,888 (hereinafter "Berstis").

The Examiner rejected claims 23, 24, 38-41, 58, and 85 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").

The Examiner rejected claims 27, 35-37, 42, 45, 46, and 48-50 under 35 U.S.C. 103(a) as being unpatentable

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over Sharma in view of Acclaim's Mortal Kombat (hereinafter "MK").

The Examiner rejected claim 33 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").

The Examiner rejected claim 44 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").

The Examiner rejected claims 51 and 52 were rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Benes and further in view of Super Dodgeball by Nintendo (hereinafter "Super Dodgeball").

The Examiner rejected claims 18, 68, and 71-75 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Hale U.S. Patent No. 5,902,343 (hereinafter "Hale").

The Examiner rejected claim 66 under 35 U.S.C. 103(a) as being unpatentable over Shara in view of Hale and further in view of Benes.

The Examiner rejected claim 67 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Hale in view of Berstis U.S. Patent No. 6,337,688 (hereinafter "Berstis").

The Examiner rejected claim 69 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Hale and further in view of Kotanen.

The Examiner rejected claim 70 under 35 U.S.C. 103(a) over Sharma in view of Hale and further in view of Barros U.S. Publication No. 2004/0248653 (hereinafter "Barros")

The Examiner rejected claims 76-80 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Karasawa U.S. Patent No. 6,011,653 (hereinafter "Karasawa") and further in view of Berstis.

The Examiner rejected claim 81 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Karasawa and further in view of Berstis and further in view of Numa U.S. Patent No. 6,633,267 (hereinafter "Numa").

The Examiner rejected claims 88-93 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Kotanen.

The Examiner rejected claims 94, 96, and 98 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Ebersole U.S. Patent Publication No. 2003/0210228 (hereinafter "Ebersole").

The Examiner rejected claim 95 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Ebersole and further in view of Kauser U.S. Patent No. 5,724,660 (hereinafter "Kauser").

The Examiner rejected claims 97 and 99 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Ebersole and further in view of Benes.

The Examiner rejected claims 105, 111, and 112 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Barros.

The Examiner rejected claims 86 and 106 under 35 U.S.C. 103(a) as being unpatentable over Sharma.

Summary of Applicant's Amendments

Applicant has amended claims 17, 61, 82, and 115 without prejudice and solely in order to expedite prosecution,.

Applicant has added new claim 118 in order to more particularly point out and distinctly claim the subject matter that applicant regards as the invention.

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
Rejections Under 35 U.S.C. § 102(b) Over Sharma

The Examiner rejected claims 82, 100-104, 107-110 and 113-115 under 35 U.S.C. 102(b) as being unpatentable over Sharma.

Claim 82

The Examiner stated that:

> "the claim does not state that the movement measurement is utilized to determine a physical location and is therefore a moot argument." (Office Action, page 44)

Solely to expedite prosecution, applicant has amended claim 82. Neither Sharma, nor any combination of references, show or suggest applicant's invention of claim 82 of a movement measurement utilized to determine, at least in part, 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 100

The Examiner stated that:

> "Sharma discloses in fig. 5 and col. 3, lines 45-61 that the motion sensor is used to determine

the direction of the movement of the device as well as the user" (Office Action, page 44)

Claim 100, however, includes a virtual direction of a virtual character associated with a physical direction determined by a directional device.

Sharma merely alleges using a motion sensor to hit a ball when movement is detected. Sharma's hitting of a ball is not determining the direction of a virtual character – let alone providing a virtual direction of a virtual character.

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 Benes

The Examiner rejected claims 1-3, 6-9, 17, 19-20, 22, 25, 26, 28-32, 34, 43, 53, 55, 56, 59-61, 63-65, 83, 116, and 117 under 35 U.S.C. 103(a) as being unpatentable over Sharma U.S. Patent No. 6,287,200 (hereinafter "Sharma") in view of Benes et al U.S. Patent Application Publication No. 2004/0046655 (hereinafter "Benes").

Claim 1

Solely to expedite prosecution and without prejudice, applicant had previously amended claim 1 to include a wireless telephone. Sharma does not show or suggest a wireless telephone – let alone a wireless telephone having a locating device with a virtual character that is displayed and where the virtual characters location corresponds to a physical location.

Benes does not correct for this deficiency as Benes merely discusses asking a user questions based on activation locations. A question is not a displayed virtual character.

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:

> "Sharma fails to explicitly teach a wireless telephonic phone." (Office Action, page 11)
>
> "each device acts as a server to the other devices storing the location of the other devices…." (Office Action, page 11)

As admitted by the Examiner, Sharma does not even discuss wireless telephonic phones – let alone servers remove from wireless telephonic phones.

However, solely to expedite prosecution, applicant has amended claim 17 to include retrieving by the wireless telephonic device from the remote server a third physical location of a second wireless telephonic device.

Neither Sharma nor Benes, used either alone or in combination, show or suggest utilizing a wireless telephonic device to provide a first location to a remote server, updating the location of the wireless telephonic device on the remote server by storing a second physical location of said wireless telephonic, and retrieving by the wireless telephonic device from the remote server a third physical location of a second wireless telephonic device. Direct device-to-device handshaking does not show or suggest such a feature.

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

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

Claims 76-80 were rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Karasawa and further in view of Bertsis.

Sharma alleges a device with an alleged display that is not transparent.

Karasawa alleges a head-mounted optical display and its mechanical configurations.

Bertsis alleges a virtual reality environment.

The Examiner stated that:

> "Sharma … fails to explicitly teach a transparent display, such that video game indicia is visible with said physical playfield through said display ." (Office Action, page 35)

Neither Sharma, Karasawa, nor Bertsis, however, show or suggest applicant's invention of claim 76 of game indicia, associated with a video game, that is displayed on said display such that said video game indicia is visible with said physical playfield through said display. Karasawa's mere mention of a head-mounted optical display does not, in hindsight, correct for such a deficiency. An optical display is not game indicia, associated with a video game, that is displayed on said display such that said video game indicia is visible with said physical playfield through said display. Bertsis mere mention of a virtual reality environment does not correct for the deficiency. A virtual reality environment is not game indicia, associated with a video game, that is displayed on

said display such that said video game indicia is visible with said physical playfield through said display.

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 Rejections
Under 35 U.S.C. § 103(a) Over Sharma and Hale

Claims 18, 68, and 71-75 were rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Hale.

Sharma alleges a device that allegedly utilizes GPS.

Hale alleges an agricultural vehicle.

The Examiner stated that:

> "Sharma fails to explicitly teach operating a video game such that first location information associated with first physical location is called, said scaled first location is utilized to provide a first virtual character on a virtual playfield, second location information associated with said second physical location is scaled, said scaled second location is utilized to provide a second virtual character on said virtual playfield, said first location information and said second location information are scaled differently." (Office Action, page 29-30)

Accordingly, the Examiner admits that Sharma is silent to, and far removed from, most of the elements of claim 18. Hale does not correct for this deficiency.

Neither Hale, nor Sharma, however, shows or suggests the scaling of applicant's invention of claim 18.

Hale does nothing other than include the words GPS and scaling in the title. Hale is irrelevant to Sharma. In fact, Hale discusses an agricultural vehicle

and determining the position of this agricultural vehicle relative to a field.

Furthermore, applicant has previously amended claim 18, without prejudice and solely in order to expedite prosecution, to also include displaying the virtual characters on a single screen and scaling the location information differently. None of the prior art, including Sharma nor Hale, used either alone or in combination, show or suggest such a feature.

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

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

The Examiner rejected claims 88-93 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Kotanen.

Applicant's invention of claim 88 includes a video game comprising a virtual character and 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.

The Examiner stated:

> "Sharma fails to explicitly disclose local positioning capabilities using either of these protocols … Kotanen teaches both the use of a local positioning system and the use of averaging distances to predict local coordinates." (Office Action, page 38)

Regardless, applicant's invention of claim 88 includes:

> "a locating device operable … comprises a local positioning system … [that] utilized signals from at least one ground-based local positioning device to determine said physical location … processor is operable to provide a video game … said virtual location on said virtual playfield corresponds to said physical location"

Neither of the prior art, used either alone or in combination, however, show or suggest applicant's invention of claim 88 that includes such a video game video game comprising a virtual character and 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.

Furthermore, Sharma alleges Bluetooth for communication. Kotanen alleges locating with Bluetooth. Accordingly, Sharma and Kotanen cannot be combined – the two references are diametrically opposed. In fact, Kotanen discusses and dismisses GPS. *See Kotanen,* introduction. And, Sharma has precisely configured its device to utilize Bluetooth for communicating GPS signals. Accordingly, the Examiner's combination would be inoperable and would eviscerate the spirit of the individual devices. Every function of Sharma is precisely configured and relies on the correct configuration of all of the other Sharma functions. Meanwhile, Kotanen discusses, at length, all of the components required to obtain Kotanen's alleged functionality. Sharma is a dedicated, application specific device that does not include such components. Again,

completely combining Sharma and Kotanen would merely result in an inoperable device neither shown nor suggested by the individual devices while eviscerating the spirit of the individual systems.

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

Applicant's Response to the Rejections Under 35 U.S.C. § 103(a) in view of Sharma and Ebersole

Applicant's invention of claim 94 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 control a single virtual character.

The Examiner stated that Sharma discusses:

> "Sharma … fails to explicitly teach a second locating device operable to determine a second physical location of said locating device on said physical playfield, together with the first locating device, provide control to a virtual character." (Office Action, page 40)

Accordingly, the Examiner admits that Sharma is silent to, and far removed from, many of the elements of claim 18. Ebersole does not correct for this deficiency. Ebersole does not even show or suggest a video game – let alone a video game comprising a virtual character with a virtual location on a virtual playfield and the virtual location on the virtual playfield corresponds to said physical location on said physical playfield.

Applicant's invention of claim 94 utilizes two locating devices to control a single virtual character.

Neither Sharma nor Ebersole, used either alone or in combination, show or suggest such a feature. Navigating is not a video game comprising a virtual character.

Furthermore, Sharma is far removed from Ebersole. Sharma alleges a hand-held device with limited functionality. Combining Ebersole with Sharma would merely result in an inoperable device neither shown nor suggested by the individual devices and eviscerating the spirit of the individual systems.

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

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

The Examiner rejected claims 101-104, 107-110 and 113-115 under 35 U.S.C. 102(b) as being unpatentable over Sharma U.S. Patent No. 6,287,200. The Examiner rejected claims 2-3, 6-9, 19-20, 22, 25, 26, 28-32, 34, 43, 53, 55, 56, 59-61, 63-65, 83, 116, and 117 under 35 U.S.C. 103(a) as being unpatentable over Sharma U.S. Patent No. 6,287,200 (hereinafter "Sharma") in view of Benes et al U.S. Patent Application Publication No. 2004/0046655 (hereinafter "Benes"). The Examiner rejected claim 4 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Benes and further in view of Newell et al U.S. Patent No. 6,735,435 (hereinafter "Newell"). The Examiner rejected claims 5 and 57 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"). The Examiner rejected claims 21, 54, and 84 under 35 U.S.C. 103(a) as being

unpatentable over Sharma in view of Berstis U.S. Patent No. 6,337,888 (hereinafter "Berstis"). The Examiner rejected claims 23, 24, 38-41, 58, and 85 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"). The Examiner rejected claims 27, 35-37, 42, 45, 46, and 48-50 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Acclaim's Mortal Kombat (hereinafter "MK"). The Examiner rejected claim 33 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"). The Examiner rejected claim 44 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"). The Examiner rejected claims 51 and 52 were rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Benes and further in view of Super Dodgeball by Nintendo (hereinafter "Super Dodgeball"). The Examiner rejected claims 68, and 71-75 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Hale U.S. Patent No. 5,902,343 (hereinafter "Hale"). The Examiner rejected claim 66 under 35 U.S.C. 103(a) as being unpatentable over Shara in view of Hale and further in view of Benes. The Examiner rejected claim 67 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Hale in view of Berstis U.S. Patent No. 6,337,688 (hereinafter "Berstis"). The Examiner rejected claim 69 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Hale and further in view of Kotanen. The Examiner rejected claim 70 under 35 U.S.C. 103(a) over Sharma in view of Hale and further in view of Barros U.S. Publication No. 2004/0248653 (hereinafter "Barros"). The Examiner rejected claims 76-80

under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Karasawa U.S. Patent No. 6,011,653 (hereinafter "Karasawa") and further in view of Berstis. The Examiner rejected claim 81 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Karasawa and further in view of Berstis and further in view of Numa U.S. Patent No. 6,633,267 (hereinafter "Numa"). The Examiner rejected claims 88-93 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Kotanen. The Examiner rejected claims 94, 96, and 98 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Ebersole U.S. Patent Publication No. 2003/0210228 (hereinafter "Ebersole"). The Examiner rejected claim 95 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Ebersole and further in view of Kauser U.S. Patent No. 5,724,660 (hereinafter "Kauser"). The Examiner rejected claims 97 and 99 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Ebersole and further in view of Benes. The Examiner rejected claims 105, 111, and 112 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Barros. The Examiner rejected claims 86 and 106 under 35 U.S.C. 103(a) as being unpatentable over Sharma.

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 affadavit 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,

/Jeffrey D. Mullen/
Jeffrey D. Mullen
Applicant (Reg. No. 52,056)
Customer No. 32733
1310 Riverfront Drive
Pittsburgh, PA 15238
Mobile: (914) 837-7741

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	40	40
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 $0 paid	2253	1	700	700
Miscellaneous:				
		Total in USD ($)		**740**

Electronic Acknowledgement Receipt	
EFS ID:	16959864
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:	26-SEP-2013
Filing Date:	01-SEP-2004
Time Stamp:	04:02:25
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Credit Card
Payment was successfully received in RAM	$740
RAM confirmation Number	14832
Deposit Account	503855
Authorized User	MULLEN, JEFFREY D.
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	226175 b97d77aa0982c5825b7824220da61414404e0cf3	yes	38

	Multipart Description/PDF files in .zip description		
	Document Description	**Start**	**End**
	Amendment/Req. Reconsideration-After Non-Final Reject	1	1
	Claims	2	22
	Applicant Arguments/Remarks Made in an Amendment	23	38

Warnings:

Information:

2	Fee Worksheet (SB06)	fee-info.pdf	31588 ab85f55f627a7bde88fd2a1f6a09441f1a7cefe0	no	2

Warnings:

Information:

Total Files Size (in bytes):	257763

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.

New Applications Under 35 U.S.C. 111
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.

National Stage of an International Application under 35 U.S.C. 371
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.

New International Application Filed with the USPTO as a Receiving Office
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.

PTO/SB/06 (09-11)
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U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
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PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875	Application or Docket Number 10/932,536	Filing Date 09/01/2004	☐ To be Mailed

ENTITY: ☐ LARGE ☒ SMALL ☐ MICRO

APPLICATION AS FILED – PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA	RATE ($)	FEE ($)
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A	N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*	X $ =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*	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 $310 ($155 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	

APPLICATION AS AMENDED – PART II

AMENDMENT	09/26/2013	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	* 117	Minus	** 116	= 1	X $40 =	40
	Independent (37 CFR 1.16(h))	* 8	Minus	***8	= 0	X $210 =	0
	☐ Application Size Fee (37 CFR 1.16(s))						
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))						
						TOTAL ADD'L FEE	**40**

AMENDMENT		(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	*	Minus	**	=	X $ =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=	X $ =	
	☐ Application Size Fee (37 CFR 1.16(s))						
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))						
						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.

LIE
/TRACIE ROBERTSON/

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.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

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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 03/26/2013

JEFFREY D. MULLEN
1310 Riverfront Drive
PITTSBURGH, PA 15238

EXAMINER	
KIM, ANDREW	

ART UNIT	PAPER NUMBER
3716	

MAIL DATE	DELIVERY MODE
03/26/2013	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.	Applicant(s)	
	10/932,536	MULLEN, JEFFREY D.	
	Examiner	Art Unit	
	ANDREW KIM	3716	

-- 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 *6/28/10*.

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) *1-61 and 63-117* 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) *1-61, 63-117* 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: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 6/28/10 has been entered.

Claim Rejections - 35 USC § 102

1. 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.

2. Claims 82, 87, 100-104, 107-110, 113-115 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent No. 6,287,200 B1 to Sharma et al.

Regarding claim 82, Sharma discloses a system comprising:

A display (fig. 4);

A locating device operable to determine the physical location of said locating device on a physical playfield (abstract, col. 2, lines 35-45, mobile device contains GPS), wherein said

locating device comprises a movement measuring device (col. 3, lines 45-61, mobile device also contains a motion sensor that measures trajectory and velocity of the device);

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 (fig. 3 and 5, col. 3, lines 45-61).

Regarding claims 87 and 107. Sharma discloses wherein said video game is a multiple-player video game (col. 3, lines 25-45).

Regarding claim 100, Sharma discloses a system comprising:

A non-transparent display (fig. 4, a hand-held display);

a locating device operable to determine the physical location of said locating device on a physical playfield (col. 2, lines 35-45, GPS);

a directional device operable to determine the physical direction of said directional device on said physical playfield (fig. 5, col. 3, lines 45-61, the motion sensor determines the direction); 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 and facing a virtual direction on a virtual playfield said virtual location on said virtual playfield corresponds to said physical location on said physical playfield, and said virtual direction on said

virtual playfield corresponds to said physical direction on said physical playfield (fig. 5, col. 3, lines 45-61, the user utilizes the device to move the character and the volleyball).

Regarding claim 101. Sharma discloses wherein said video game is provided on said display in a third-person perspective (fig. 3, col. 3, lines 30-44).

Regarding claim 102. Sharma discloses wherein said display is a non head-mounted display (fig. 4).

Regarding claim 103. Sharma discloses wherein a second virtual character is provided in said video game and said second virtual character is computer-controlled (fig. 2, 3 and 5, col. 3, lines 45-61, each character is controlled by the mobile device).

Regarding claim 104. Sharma discloses wherein a second virtual character is provided in said video game and said second virtual character is user- controlled (fig. 5, col. 3, lines 45-61, the character is controlled by the player who controls the device).

Regarding claim 108. Sharma discloses wherein an interactive virtual object, with respect to said virtual character, is provided in said video game (col. 3, lines 30-61, volleyball).

Regarding claim 109. Sharma discloses wherein an impenetrable virtual object, with respect to

said virtual character, is provided in said video game (col. 3, lines 30-61, the volleyball is hit and not penetrated by the swinging of the mobile device).

Regarding claim 110, Sharma discloses wherein said virtual character is selected from a plurality of virtual characters (col. 3, line 38, the players can choose a team X or Y character).

Regarding claim 113. Sharma discloses wherein said video-game is point-based (col. 3, lines 30-38, volleyball is point based).

Regarding claim 114. Sharma discloses wherein said locating device comprises a positioning receiver (col. 2, lines 35-45, GPS).

Regarding claim 115. Sharma discloses wherein said locating device comprises a movement measuring device (col. 3, lines 25-61, motion sensor).

Claim Rejections - 35 USC § 103

1. 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 negatived by the manner in which the invention was made.

2. **Claims 1-3, 6-16, 19, 20, 22, 25, 26, 28-32, 34, 43, 47, 53, 55, 56, 59-61, 63-65, 83, 116 and 117 are rejected are rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma., USPAT 6,287,200 (hereinafter Sharma) in view of Benes et al. (US 2004/0046655 A1).**

Claims 1 and 83. Sharma in view of Benes discloses a system comprising:

a wireless device wherein said wireless device comprises:

a display (fig. 4);

a locating device operable to determine the physical location of said locating device on a physical playfield (col. 1:lines 5-16, col. 2:40, col. 3:45 - col. 4:8); 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 character is displayed on said display (fig. 3, col. 3:lines 9-38), and said virtual location on said virtual playfield corresponds to said physical location on said physical playfield (col. 3:9-12, col. 3:31-61).

Sharma substantially discloses the invention as claimed but fails to explicitly teach a wireless telephone device (as per claims 1 and 83). Instead, Sharma discloses mobile devices with displays that may communicate via RF, WAP, Bluetooth etc. without expressly disclosing a wireless telephone device. However, in an analogous reference, Benes discloses a wireless telephone device to play a location-based game. One of ordinary skill in the art would have seen the benefit of modifying Sharma with a wireless telephone device to optimize the resources

available to subscribers, alter the game by defining an area of play and activate game features without direct communication between the players and the providers (Benes, paragraph 1 and 2). Furthermore, an artisan would have found it obvious to adapt the invention, when possible, to operate on other wireless devices (Benes, paragraph 10) to increase the user base by allowing users who already own one similar device but do not want to purchase another device to play the game. Therefore, it would have been obvious to one or ordinary skill in the art at the time of the instant invention to modify Sharma with a wireless telephone device to optimize resources, and increase the user base which would also increase profits.

Claim 2. Sharma discloses said locating device is a global positioning system (col. 2:line 41).

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 lm 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 devise are able to participate in the virtual game." Because the range dictates the interaction between participants, it would imply that the playfield perimeter is default to the limit of the protocol.

Claim 6, Sharma inherently discloses memory to store the application programs (col. 3:lines 25-37) because a memory must be present in order to store multiple applications in addition to the volleyball game. Benes discloses a memory (Benes, fig. 2 and 3, item 260).

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 to 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 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.

Claim 8, 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 inherent to use a coordinate system, since GPS utilizes geographical coordinates.

Claim 9, Sharma discloses a the motion sensor within the wireless device that will sense both trajectory and velocity which corresponds to the direction and magnitude (col. 3:lines 45-61).

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.

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.

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 art 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.

Claim 15, Sharma discloses 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 (col. 3, lines 9-24, each device is a remote memory).

Claim 16, Sharma in view of Benes discloses a microphone and speaker (Benes, a cell phone inherently contains a mic and a speaker).

Claim 17, Sharma discloses a method for controlling a character in a location-based video game comprising:

storing a first physical location of a wireless device on a physical playfield on a remote server (fig. 6, col. 4, lines 18-44, each device acts as a server to the other devices storing the location of the other devices);

changing the location of said character in a virtual playfield of said video game based on said first physical location (fig. 6, col. 4, lines 18-44, each device is moved by the player while playing); and

updating the location of said wireless device on said remote server by storing a second physical location of said wireless device on said remote server (fig. 6, col. 4, lines 18-44, each device is updated with the location of the players while playing the game).

Sharma substantially discloses the invention as claimed but fails to explicitly teach a wireless telephone device. Instead, Sharma discloses mobile devices with displays that may communicate via RF, WAP, Bluetooth etc. without expressly disclosing a wireless telephone device. However, in an analogous reference, Benes discloses a wireless telephone device to play a location-based game. One of ordinary skill in the art would have seen the benefit of modifying Sharma with a wireless telephone device to optimize the resources available to subscribers, alter the game by defining an area of play and activate game features without direct communication between the players and the providers (Benes, paragraph 1 and 2). Furthermore, an artisan would have found it obvious to adapt the invention, when possible, to operate on other wireless devices (Benes, paragraph 10) to increase the user base by allowing users who already own one similar device but do not want to purchase another device to play the game. Therefore, it would have been obvious to one or ordinary skill in the art at the time of the instant invention to modify

Sharma with a wireless telephone device to optimize resources, and increase the user base which would also increase profits.

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.

Claim 22, Sharma discloses wherein said character is manually selected (col. 3, line 38, the players can choose a team X or Y character).

Claims 25 and 59. Sharma discloses wherein a second virtual character is provided in said video game and said second virtual character is user- controlled (fig. 5, col. 3, lines 45-61, the character is controlled by the player who controls the device).

Claims 26 and 64. Sharma discloses wherein said video-game is point-based (col. 3, lines 30-38, volleyball is point based).

Claim 28. Sharma discloses wherein an action is performed in said video game and an animated is played as a result of said action (fig. 3 and 5, col. 3, lines 45-61).

Claim 29, Sharma discloses a stationary device to control a virtual character (fig. 6, items 10 and 40).

Claim 30, Sharma substantially discloses the invention as claimed but fails to explicitly teach a single-player video game. However the Examiner takes Official Notice that it would have been well known in the art to allow single-player games in addition to multiplayer games in case the

player would like to play the game but there is no one online to play the game with the player. Allowing the player to play single-player allows more players to enjoy the game and be more willing to play the game which increases the overall profit of the game.

Claim 31, Sharma shows in figure 6 and discusses in (column 4, lines 19-40) a server and each mobile device that is updated with every mobile device's location (col. 3, lines 9-24).

Claims 32 and 65, 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.

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.

Regarding claims 47 and 117. Sharma discloses wherein an impenetrable virtual object, with respect to said virtual character, is provided in said video game (col. 3, lines 30-61, the volleyball is hit and not penetrated by the swinging of the mobile device).

Regarding claims 53, 55, 56, 60, 61, 63 and 116 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 claim 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).

Claims 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Benes et al. (US 2004/0046655 A1) and further in view of Newell et al., USPAT 6,735,435 (hereinafter Newell).

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.

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).

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..."

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.

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.

Claims 5 and 57 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).

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

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 $\dot{z}_{k+1} = h(x_k)$, $\dot{z}_{k+1}$ 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.

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."

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.

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.

Claims 21, 54, and 84 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Benes et al. (US 2004/0046655 A1) and further in view of Berstis (US 6,337,688 B1).

Regarding claims 21, 54, and 84, which depend on the limitation of an accelerometer, Sharma substantially discloses the invention as claimed but fails to explicitly teach that first locating device comprises an accelerometer. Instead, Sharma discloses using GPS for a locating device. However, in an analogous reference, Berstis discloses using accelerometers as an alternative to GPS because that are commercially available at low cost relative to a GPS receiver (Berstis,

3:62). Therefore, it would have been obvious to one or ordinary skill in the art at the time of the instant invention to modify Sharma with accelerometers as they are a low cost alternative to GPS receivers.

Claims 23, 24, 38-41, 58, 85, are rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Benes et al. (US 2004/0046655 A1) and further in view of Leonhard et al. USPUB 2002/0052933 (hereinafter Leonhard).

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.

Claims 23, 24, 58, and 85, 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 85,), 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.

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.

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. 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.

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.

Claims 27, 35-37, 42, 45, 46, and 48-50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Acclaim's Mortal Kombat (hereinafter MK).

While Sharma discloses a location-based gaming system capable of supporting a multi-player game, Sharma fails to explicitly disclose a game other than volleyball. 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.

Regarding claim 27, Sharma substantially discloses the invention as claimed but fails to explicitly teach wherein an amount of time is displayed associated with a start of said video game. However in an analogous reference Mortal Kombat (MK, page 7), which was one of the most popular games when the game first came out, illustrates points for both opponents above their power meters and also illustrates a time in the middle of the screen and discloses, "Should time run out..." referencing the game's use of time. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Sharma with a timer when combined with a popular game such as Mortal Kombat.

Regarding claims 35-37, and 42, 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.

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.

Regarding claims 48-50, 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.

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.

Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Benes et al. (US 2004/0046655 A1) and further in view of Anderson et al., USPAT 7,303,474 (hereinafter Anderson).

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.

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..."

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."

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.

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.

Claims 44 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Benes et al. (US 2004/0046655 A1) and further in view of Tom, USPAT 6,690,947 (hereinafter Tom)

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.

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.

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.

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.

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.

Claims 51 and 52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Benes et al. (US 2004/0046655 A1) and further in view of Super Dodgeball by Nintendo (hereinafter "Super Dodgeball").

Regarding claims 51 and 52, Sharma substantially discloses the invention as claimed but fails to explicitly teach the limitation of being able to pick up and put down the virtual object. Sharma discloses a volley ball game. Instead, the virtual object is simply contacted by the player to be sent over the net and that a variety of other games may be played (Sharma: col. 3, lines 35-60). However, in an analogous art, Super Dodgeball teaches a game based on having two sides and a

middle line similar to volleyball and has a rating of 8.5 out of 10 which teaches picking up a virtual object as evidenced by the youtube video of actual footage from the game that was released in 1998 and a gamefaq describing the same game (Super Dodgeball: picking up, youtube video at 1:00 and 6:15, and Blocking in the Gamefaq) and putting down the ball (dropping the ball in the Gamefaq). One of ordinary skill in the art at the time of the invention would have seen this to be an obvious feature to maintain the continuity of the game. If the game simply skipped over the part when a player picks up an object, the game would lose realism and lose player appeal.

Claims 18, 68, and 71-75 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma, USPAT 6,287,200 (hereinafter Sharma) in view of Hale et al. (US 5,902,343).

Claim 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 (2:32-45);
obtaining a second physical location of a second locating device on a second physical playfield (2:32-45), wherein said first physical playfield is remote from said second physical playfield (fig. 3, 3:30-67, Team x and Y are different playfields); and

Sharma substantially discloses the invention as claimed such as displaying first and second characters (fig. 3, col. 3, lines 30-45) but fails to explicitly teach 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, second location

information associated with said second physical location is scaled, 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. Instead, Sharma seems to remain silent as to how the location information is interpreted. However, in an analogous GPS reference, Hale discloses scaling the GPS field maps to show all of the data (Hale, abstract). One of ordinary skill in the art at the time of the invention would have found it obvious to modify Sharma with scaled GPS maps to show all the data of the game as providing an easy-to-read electronic display showing a map of the area being traversed correlated with visual indicia of a characteristic being measured is difficult. Hale is analogous art because if an artisan had a problem of providing an easy-to-read electronic display showing a map of the area being traversed, an artisan would have found it obvious to search other GPS-related art. Therefore, one of ordinary skill in the art would have seen the benefit of modifying Sharma with GPS scaling to show all of the data necessary for the task at hand.

Claim 68. Sharma discloses a GPS receiver (2:40-45).

Claim 71. Sharma discloses a third character (fig. 3).

Claim 72. Sharma discloses a virtual object (volleyball, 2:35).

Claim 73. Sharma discloses an impenetrable virtual object (volleyball, 2:35).

Claim 74. Sharma discloses determining a direction (3:55).

Claim 75. Sharma discloses a device operable to provide human communications (a viewable display, fig. 4).

Claims 66 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma (US Pat. No. 6,287,200 B1) in view of in view of Hale et al. (US 5,902,343) and further in view of Benes et al. (US 2004/0046655 A1).

Regarding claims 66, Sharma substantially discloses the invention as claimed but fails to explicitly teach a wireless telephonic device. Instead, Sharma discloses mobile devices with displays that may communicate via RF, WAP, Bluetooth etc. without expressly disclosing a wireless telephone device. However, in an analogous reference, Benes discloses a wireless telephone device to play a location-based game. One of ordinary skill in the art would have seen the benefit of modifying Sharma with a wireless telephone device to optimize the resources available to subscribers, alter the game by defining an area of play and activate game features without direct communication between the players and the providers (Benes, paragraph 1 and 2). Furthermore, an artisan would have found it obvious to adapt the invention, when possible, to operate on other wireless devices (Benes, paragraph 10) to increase the user base by allowing users who already own one similar device but do not want to purchase another device to play the game. Therefore, it would have been obvious to one or ordinary skill in the art at the time of the

instant invention to modify Sharma with a wireless telephone device to optimize resources, and increase the user base which would also increase profits.

Claim 67 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma, USPAT 6,287,200 (hereinafter Sharma) in view of Hale et al. (US 5,902,343) and Berstis (US 6,337,688 B1).

Claim 67. Sharma substantially discloses the invention as claimed but fails to explicitly teach that first locating device comprises an accelerometer. Instead, Sharma discloses using GPS for a locating device. However, in an analogous reference, Berstis discloses using accelerometers as an alternative to GPS because that are commercially available at low cost relative to a GPS receiver (Berstis, 3:62). Therefore, it would have been obvious to one or ordinary skill in the art at the time of the instant invention to modify Sharma with accelerometers as they are a low cost alternative to GPS receivers.

Claim 69 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Hale et al. (US 5,902,343) and further in view of Kotanen et al., "Experiments on Local Positioning with Bluetooth" (hereinafter Kotanen).

Claim 69. While Sharma discloses the wireless device's WLAN and Bluetooth capabilities, Sharma fails to explicitly disclose local positioning capabilities using either of these protocols.

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 $\dot{z}_{k+1} = h(x_k)$, $\dot{z}_{k+1}$ 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.

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."

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.

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.

Claims 70 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Pat. No. 6,287,200 B1 to Sharma (Sharma) in view of Hale et al. (US 5,902,343) and further in view

of US Pub. No. 2004/0248653 A1 to Barros et al. (Barros).

Regarding claim 70 Sharma substantially discloses the invention as claimed such as a multiplayer location based video game (Sharma, col. 3, lines 25-45) but fails to explicitly teach wirelessly downloading a location-based program to the wireless telephonic device. Instead, Sharma seems to remain silent as to how the games are loaded onto the system. However, in an analogous reference, Barros discloses that the game is wirelessly sent to the mobile telephonic device from the server. One of ordinary skill in the art would have found it obvious to use wireless communications to provide a way to attract users to a store by enhancing their interactive experience while executing applications on their wireless devices and enables special features in an application executed on a wireless device when the wireless device is within a predefined vicinity of a store (Barros: paragraph [0011]). Therefore, it would have been obvious to one or ordinary skill in the art at the time of the instant invention to modify Sharma with wirelessly downloading games to enable special features and attracts users to a store thereby increasing advertising revenue.

Claims 76-80 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Pat. No. 6,287,200 B1 to Sharma (Sharma) in view of US Pat. No. 6,011,653 A to Karasawa (Karasawa) and further in view of Berstis (US 6,337,688 B1).

Claims 76, 77 and 80. Sharma discloses a head-mounted system comprising:

a display (fig. 4)

A locating device operable to determine the physical location of said locating device on a physical playfield (abstract, col. 2, lines 35-45, GPS);

A processor coupled to said display, wherein said processor is operable to provide a video game comprising a virtual character with a virtual location on said virtual playfield corresponds to said physical location on said physical playfield (fig. 3 and 5, col. 3, lines 45-61), video game indicia, associated with said video game, is displayed on said display (fig. 3 and 5, col. 3, lines 45-61) such that said video game indicia is visible with said physical playfield through said display, and said video game is controlled, at least in part, by said accelerometer (col. 3:9-12, col. 3:31-61).

Sharma substantially discloses the invention as claimed but fails to explicitly teach a transparent display, such that video game indicia is visible with said physical playfield through said display. Instead, Sharma discloses 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 (as per claim 80, column 4, lines 6-8), "...can be...arcade-type virtual reality goggles." However in an analogous reference Karasawa discloses a head mounted display that superimposes the video game over the image seen by the user (as per claim 76 and 77, fig. 2, col. 3, line 23 – col. 4, line 42). One of ordinary skill in the art would have seen the benefit of modifying Sharma with the head mounted display by Karasawa for magnifying an image generated by an image display means to a magnified virtual image and enabling the magnified virtual image to be seen by either one of the eyes of the user.

Sharma substantially discloses the invention as claimed but fails to explicitly teach an accelerometer. Instead, Sharma discloses using GPS for a locating device. However, in an analogous reference, Berstis discloses using accelerometers as an alternative to GPS because that are commercially available at low cost relative to a GPS receiver (Berstis, 3:62). Therefore, it would have been obvious to one or ordinary skill in the art at the time of the instant invention to modify Sharma with accelerometers as they are a low cost alternative to GPS receivers.

Regarding claim 78, Sharma discloses wherein a second virtual character is provided in said video game and said second virtual character is computer-controlled (fig. 2, 3 and 5, col. 3, lines 45-61, each character is controlled by the mobile device).

Regarding claim 79, Sharma in view of Karasawa substantially discloses the invention as claimed but fails to explicitly teach a first-person perspective. However it is well known in the art at the time of the invention to play first person perspective games with head mounted displays (Official Notice).

Claim 81 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Karasawa (US 6,011,653), and further in view of Berstis (US 6,337,688 B1), and further in view of Numa, USPAT 6,633,267 (hereinafter Numa).

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 Karasawa 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 Karasawa fails to explicitly disclose a HMD wherein the direction the HMD is pointing is the direction used by the video game.

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...

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."

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.

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 Karasawa with the HMD control system as described by Numa for the purpose of providing enhanced reality to a game.

Claims 88-93 are rejected are rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma., USPAT 6,287,200 (hereinafter Sharma) in view of Kotanen et al., "Experiments on Local Positioning with Bluetooth" (hereinafter Kotanen).

Claim 88. Sharma discloses:

a display (fig. 4);

a locating device operable to determine the physical location of said locating device comprising a local position system (Kotanen);

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 (3:9-12, 3:31-61).

While Sharma discloses the wireless device's WLAN and Bluetooth capabilities, Sharma fails to explicitly disclose local positioning capabilities using either of these protocols.
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 $\dot{z}_{k+1} = h(x_k)$, $\dot{z}_{k+1}$ 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.

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."

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.

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.

Claim 89. Sharma discloses at least two positioning devices (fig. 3 and 5).

Claim 90. Sharma discloses a wireless device (fig. 2,3 and 6, mobile device).

Claim 91. Sharma discloses the physical location of said locating device is stored and updated in a remote server (a server is any piece of software or hardware that serves data to another piece of software or hardware, fig. 6, 4:18-44).

Claim 92. Sharma discloses a second virtual character (fig. 3 and 5).

Claim 93. Sharma discloses using the trajectory of the device (3:55).

Claims 94, 96, and 98 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma (US Pat. No. 6,287,200 B1) in view of Ebersole et al. (US Pub. No. 2003/0210228 A1).

Regarding claim 94, Sharma discloses a system comprising:

A display (fig. 4);

A first locating device operable to determine a first physical location of said locating device on a physical playfield (abstract, col. 2, lines 35-45, GPS);

A processor coupled to said display, wherein said processor is operable to provide a first video game and utilize said first physical locations, at least in part, to control a virtual character on a virtual playfield (col. 3:9-12, col. 3:31-61).

Sharma substantially discloses the invention as claimed but fails to explicitly teach a second locating device operable to determine a second physical location of said second locating device on said physical playfield, together with the first locating device, provide control to a virtual character, instead, Sharma discloses a location based game in which an external display such as virtual reality goggles may be used with a mobile device. In an analogous reference, Ebersole discloses an augmented-reality system in which a head-mounted display is utilized. Ebersole specifically discloses a head-mounted display in which two GPS receivers are used to determine the heading and position of the head-mounted display (Ebersole, paragraphs [0074 and 0075]) to enable 5 degrees of freedom motion tracking in an augmented reality environment wherein dynamically updated information may be mixed with a live view of the real world. Therefore, it would have been obvious to one or ordinary skill in the art at the time of the instant invention to modify Sharma with two GPS receivers to enable 5 degrees of freedom motion tracking in an

augmented reality environment wherein dynamically updated information may be mixed with a live view of the real world.

Regarding claim 96, Sharma in view of Ebersole discloses that the locating devices are positioning receivers (col. 2, lines 35-45, GPS).

Regarding claim 98, Sharma discloses a manual control to control, at least in part said virtual character (fig. 5, col. 3, lines 45-61, moving the mobile unit controls the virtual character).

Claim 95 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma (US Pat. No. 6,287,200 B1) in view of Ebersole et al. (US Pub. No. 2003/0210228 A1) and further in view of US Patent No. 5,724,660 to Kauser et al.

Regarding claim 95, Sharma substantially discloses the invention as claimed but fails to explicitly teach that the an average of locations is used to control the virtual character. However, in an analogous reference, Kauser discloses that GPS coordinates are commonly averaged to decrease error rates in col. 9, lines 30-40. Therefore, it would have been obvious to one or ordinary skill in the art at the time of the instant invention to modify Sharma with averaged GPS coordinates to decrease error rates.

Claims 97 and 99 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma (US Pat. No. 6,287,200 B1) in view of Ebersole et al. (US Pub. No. 2003/0210228 A1) and further in view of Benes et al. (US 2004/0046655 A1).

Regarding claims 97 and 99, Sharma substantially discloses the invention as claimed such as a second virtual character (devices B-D, col. 3, lines 9-44) but fails to explicitly teach a wireless telephone device. Instead, Sharma discloses mobile devices with displays that may communicate via RF, WAP, Bluetooth etc. without expressly disclosing a wireless telephone device. However, in an analogous reference, Benes discloses a wireless telephone device to play a location-based game. One of ordinary skill in the art would have seen the benefit of modifying Sharma with a wireless telephone device to optimize the resources available to subscribers, alter the game by defining an area of play and activate game features without direct communication between the players and the providers (Benes, paragraph 1 and 2). Furthermore, an artisan would have found it obvious to adapt the invention, when possible, to operate on other wireless devices (Benes, paragraph 10) to increase the user base by allowing users who already own one similar device but do not want to purchase another device to play the game. Therefore, it would have been obvious to one or ordinary skill in the art at the time of the instant invention to modify Sharma with a wireless telephone device to optimize resources, and increase the user base which would also increase profits.

Claims 105, 111, 112 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Pat. No. 6,287,200 B1 to Sharma (Sharma) in view of US Pub. No. 2004/0248653 A1 to Barros et al. (Barros).

Regarding claims 105, 111, 112, Sharma substantially discloses the invention as claimed such as a multiplayer location based video game (Sharma, col. 3, lines 25-45) but fails to explicitly teach

wirelessly downloading a location-based program to the wireless telephonic device. Instead, Sharma seems to remain silent as to how the games are loaded onto the system. However, in an analogous reference, Barros discloses that the game is wirelessly sent to the mobile telephonic device from the server. One of ordinary skill in the art would have found it obvious to use wireless communications to provide a way to attract users to a store by enhancing their interactive experience while executing applications on their wireless devices and enables special features in an application executed on a wireless device when the wireless device is within a predefined vicinity of a store (Barros: paragraph [0011]). Therefore, it would have been obvious to one or ordinary skill in the art at the time of the instant invention to modify Sharma with wirelessly downloading games to enable special features and attracts users to a store thereby increasing advertising revenue.

Claims 86 and 106 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Pat. No. 6,287,200 B1 to Sharma (Sharma).

Regarding claims 86 and 106, Sharma substantially discloses the invention as claimed but fails to explicitly teach a single-player video game. However the Examiner takes Official Notice that it would have been well known in the art to allow single-player games in addition to multiplayer games in case the player would like to play the game but there is no one online to play the game with the player. Allowing the player to play single-player allows more players to enjoy the game and be more willing to play the game which increases the overall profit of the game.

Response to Arguments

Applicant's arguments filed 6/28/10 have been fully considered but they are not persuasive and some are moot in view of the new grounds of rejection.

Regarding claim 1, the Examiner respectfully asserts that Sharma discloses a locating device with a virtual character that is displayed as previously discussed above.

Regarding claim 82 with respect to the movement measuring device argument, the Examiner respectfully asserts that the motion sensor measures motion (velocity is a measure of movement as well as trajectory (3:55)). In addition, the claim does not state that the movement measurement is utilized to determine a physical location and is therefore a moot argument.

Regarding claim 94 with respect to the argument that Sharma does not show or suggest utilizing two locating devices to control a single virtual character, refer to the new grounds of rejection in view of Sharma and Ebersole.

Regarding claim 100, Sharma discloses in fig. 5 and col. 3, lines 45-61 that the motion sensor is used to determine the direction of the movement of the device as well as the user.

Regarding claim 17, the arguments are moot in view of the new grounds of rejection.

Regarding claim 76, in response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re*

McLaughlin, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).In response to applicant's argument that the combined teaching eviscerates the spirit of the invention, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). With respect to the combination of Sharma and Karasawa, they are analogous art because both include head-mounted displays and one of ordinary skill in the art would have found it obvious to combine different aspects of head-mounted displays.

Regarding claim 18, in response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). In response to applicant's argument that the combined teaching eviscerates the spirit of the invention, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ

871 (CCPA 1981). With respect to the combination of Sharma and Hale, the two references are both in the art of displaying GPS coordinates.

Regarding claim 88, in response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). In response to applicant's argument that the combined teaching eviscerates the spirit of the invention, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). With respect to the combination of Sharma and Kotanen, the two are analogous reference because Kotanen uses bluetooth for local positioning and Sharma utilizes Bluetooth.

Regarding the combination of references, in response to applicant's argument that any art that does not utilize location information is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant’s endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24

USPQ2d 1443 (Fed. Cir. 1992). In this case, only certain features from the other references are used in combination with the base reference and not the entire reference and therefore permissible.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANDREW KIM whose telephone number is (571)272-1691. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dmitry Suhol can be reached on 571-272-4430. 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.

/A. K./ 3/23/2013

Examiner, Art Unit 3716

/Dmitry Suhol/

Supervisory Patent Examiner, Art Unit 3716

Notice of References Cited	Application/Control No. 10/932,536	Applicant(s)/Patent Under Reexamination MULLEN, JEFFREY D.	
	Examiner ANDREW KIM	Art Unit 3716	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A	US-2003/0210228	11-2003	Ebersole et al.	345/157
*	B	US-5,724,660	03-1998	Kauser et al.	455/456.2
*	C	US-2004/0248653	12-2004	Barros et al.	463/043
	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	Youtube.com Screenshot of Super Dodge Ball Walkthrough with Commentary (Part 1 of 2). Accessed: December 14, 2010. http://www.youtube.com/watch?v=E1lUWmr64JA
	V	GameFAQs: Super Dodge Ball (NES) FAQ/Walkthrough by TOKADasrik. Accessed December 14, 2010. http://www.gamefaqs.com/nes/587662-super-dodge-ball/faqs/34823
	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.	Applicant(s)/Patent Under Reexamination
	10932536	MULLEN, JEFFREY D.
	Examiner	**Art Unit**
	ANDREW KIM	3716

✓	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	12/19/2009	03/11/2013					
	1	✓	✓	✓	✓					
	2	✓	✓	✓	✓					
	3	✓	✓	✓	✓					
	4	✓	✓	✓	✓					
	5	✓	✓	✓	✓					
	6	✓	✓	✓	✓					
	7	✓	✓	✓	✓					
	8	✓	✓	✓	✓					
	9	✓	✓	✓	✓					
	10	✓	✓	✓	✓					
	11	✓	✓	✓	✓					
	12	✓	✓	✓	✓					
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	34	✓	✓	✓	✓					
	35	✓	✓	✓	✓					
	36	✓	✓	✓	✓					

Index of Claims	Application/Control No.	Applicant(s)/Patent Under Reexamination
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	Examiner	Art Unit
	ANDREW KIM	3716

✓	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	12/19/2009	03/11/2013					
	37	✓	✓	✓	✓					
	38	✓	✓	✓	✓					
	39	✓	✓	✓	✓					
	40	✓	✓	✓	✓					
	41	✓	✓	✓	✓					
	42	✓	✓	✓	✓					
	43	✓	✓	✓	✓					
	44	✓	✓	✓	✓					
	45	✓	✓	✓	✓					
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	63	✓	✓	✓	✓					
	64	✓	✓	✓	✓					
	65	✓	✓	✓	✓					
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	68	✓	✓	✓	✓					
	69	✓	✓	✓	✓					
	70	✓	✓	✓	✓					
	71	✓	✓	✓	✓					
	72	✓	✓	✓	✓					

Index of Claims	Application/Control No.	Applicant(s)/Patent Under Reexamination
	10932536	MULLEN, JEFFREY D.
	Examiner	Art Unit
	ANDREW KIM	3716

✓	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	12/19/2009	03/11/2013					
	73	✓	✓	✓	✓					
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	106	✓	✓	✓	✓					
	107	✓	✓	✓	✓					
	108	✓	✓	✓	✓					

Index of Claims	Application/Control No.	Applicant(s)/Patent Under Reexamination
	10932536	MULLEN, JEFFREY D.
	Examiner	**Art Unit**
	ANDREW KIM	3716

✓	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	12/19/2009	03/11/2013					
	109	✓	✓	✓	✓					
	110	✓	✓	✓	✓					
	111	✓	✓	✓	✓					
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	114	✓	✓	✓	✓					
	115	✓	✓	✓	✓					
	116		✓	✓	✓					
	117		✓	✓	✓					

EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	8471	(463/31,40,42).CCLS.	US-PGPUB; USPAT; USOCR	OR	OFF	2013/03/11 12:47
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;	AND	ON	2009/01/15 01:39

			DERWENT			
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
S14	2821	mullen.in.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	AND	ON	2009/01/15 10:23
S15	1	mullen.in. jeff.in.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	AND	ON	2009/01/15 10:23
S16	78	mullen.in. jeffrey.in.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	AND	ON	2009/01/15 10:24
S18	6217	gps game cellular phone	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	AND	ON	2009/12/13 23:14
S19	28	gps game cellular phone virtual near2 $5field	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	AND	ON	2009/12/13 23:15
S20	116	(location adj based) same phone same game	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	AND	ON	2009/12/18 14:08
S21	1	("20040046655").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2009/12/18 14:14
S22	6005	wireless game (gps or global with positioning with system) display location (mobile adj phone or cell adj phone or cellular adj phone or wireless adj phone)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	AND	ON	2009/12/19 11:17
S23	4666	(scaled or scaling or scal$3) (locat$4) (game) (GPS)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	AND	ON	2009/12/19 16:39
S24	337	S23 "463".clas.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	AND	ON	2009/12/19 16:39

S25	321	S23 "463".clas. (wireless or mobile)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	AND	ON	2009/12/19 16:42
S26	14	virtual adj playfield	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	AND	ON	2009/12/19 17:58
S27	469	virtual adj field	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	AND	ON	2009/12/19 17:58
S28	27	S27 game remote	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	AND	ON	2009/12/19 18:00
S29	2	"scaling" same gps same game	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	AND	ON	2009/12/19 18:50
S30	1	("5902343").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2009/12/19 19:04
S31	24	("5434904" | "5738583" | "5797085" | "6111541").PN. OR ("6287200").URPN.	US-PGPUB; USPAT; USOCR	AND	ON	2009/12/19 19:30
S32	1	("7471747").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2009/12/19 19:46
S33	9	("20010014116" | "20020159542" | "20050180531" | "20050190735" | "5861841" | "6275186" | "6754256" | "6775319" | "7184464").PN.	US-PGPUB; USPAT; USOCR	AND	ON	2009/12/19 19:46
S34	7521	accelerometer same motion with sens$4	US-PGPUB; USPAT; USOCR	AND	ON	2009/12/19 21:01
S35	468	accelerometer same motion with sens$4 gps game	US-PGPUB; USPAT; USOCR	AND	ON	2009/12/19 21:01
S36	1	("20030210228").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2013/03/10 20:56
S37	3	direction.clm. with character.clm. mullen.in.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	AND	ON	2013/03/10 22:01
S38	2	"20040248653"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	AND	ON	2013/03/11 01:58

3/11/2013 12:52:42 PM

C:\ Users\ akim1\ Documents\ EAST\ Workspaces\ 10932536_Mullen_GPSGame.wsp

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	10932536	MULLEN, JEFFREY D.
	Examiner	Art Unit
	ANDREW KIM	3716

CPC- SEARCHED		
Symbol	Date	Examiner

CPC COMBINATION SETS - SEARCHED		
Symbol	Date	Examiner

US CLASSIFICATION SEARCHED			
Class	Subclass	Date	Examiner
463	31, 40, 42	3/11/2013	AK

SEARCH NOTES		
Search Notes	Date	Examiner
EAST (see attached notes)	12/19/2009	AK
EAST Text search of PGPUB, USPAT, USOCR, EPO, JPO, DERWENT. See attached search results.	3/11/2013	AK

INTERFERENCE SEARCH			
US Class/ CPC Symbol	US Subclass / CPC Group	Date	Examiner

Doc code: RCEX
Doc description: Request for Continued Examination (RCE)

PTO/SB/30EFS (10-08)
Approved for use through 11/30/2008. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

REQUEST FOR CONTINUED EXAMINATION(RCE)TRANSMITTAL
(Submitted Only via EFS-Web)

Application Number	10932536	Filing Date	2001-09-01	Docket Number (if applicable)	JDM/005	Art Unit	2766
First Named Inventor	Jeffrey D. Mullen			Examiner Name	Andrew Kim		

This is a Request for Continued Examination (RCE) under 37 CFR 1.114 of the above-identified application.
Request for Continued Examination (RCE) practice under 37 CFR 1.114 does not apply to any utility or plant application filed prior to June 8, 1995, or to any design application. The Instruction Sheet for this form is located at WWW.USPTO.GOV

SUBMISSION REQUIRED UNDER 37 CFR 1.114

Note: If the RCE is proper, any previously filed unentered amendments and amendments enclosed with the RCE will be entered in the order in which they were filed unless applicant instructs otherwise. If applicant does not wish to have any previously filed unentered amendment(s) entered, applicant must request non-entry of such amendment(s).

☐ Previously submitted. If a final Office action is outstanding, any amendments filed after the final Office action may be considered as a submission even if this box is not checked.

- ☐ Consider the arguments in the Appeal Brief or Reply Brief previously filed on _____
- ☐ Other _____

☒ Enclosed

- ☒ Amendment/Reply
- ☐ Information Disclosure Statement (IDS)
- ☐ Affidavit(s)/ Declaration(s)
- ☐ Other _____

MISCELLANEOUS

☐ Suspension of action on the above-identified application is requested under 37 CFR 1.103(c) for a period of months _____
(Period of suspension shall not exceed 3 months; Fee under 37 CFR 1.17(i) required)

☐ Other _____

FEES

The RCE fee under 37 CFR 1.17(e) is required by 37 CFR 1.114 when the RCE is filed.

☒ The Director is hereby authorized to charge any underpayment of fees, or credit any overpayments, to Deposit Account No 503855

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT REQUIRED

☐ Patent Practitioner Signature

☒ Applicant Signature

PTO/SB/30EFS (10-08)
Approved for use through 11/30/2008. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Applicant Signature			
Applicant 1		Remove	
Signature	/Jeffrey D. Mullen/	Date (YYYY-MM-DD)	2010-06-28
Name	Jeffrey D. Mullen		
Click ADD for additional Applicant Signature		Add	

This collection of information is required by 37 CFR 1.114. 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 1.11 and 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.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether the Freedom of Information Act requires disclosure of these record s.

2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.

3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.

4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).

5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.

6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).

7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.

8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.

9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

JDM/005

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	:	Andrew Kim

Hon. Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Pittsburgh, PA 15232
June 28, 2010

REPLY TO OFFICE ACTION

Sir:

This is in response to the Office Action dated December 28, 2009. 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 December 28, 2009, 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.

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 telephone, wherein said wireless telephone 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, said virtual character is displayed on said display, 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 telephone 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. (previously presented) The system of claim 1, wherein said wireless telephone further 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. (previously presented) The system of claim 1, wherein said wireless telephone further 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 telephone further comprises manual controls for controlling non-location based ~~non-locationbased~~ aspects of said virtual character.

14. (previously presented) The system of claim 1, wherein said wireless telephone further 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. (previously presented) The system of claim 1, wherein said wireless telephone further 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

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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, said first virtual character being displayed on a display, second location information associated with said second physical location is scaled, said scaled second location is utilized to provide a second virtual character on said virtual

playfield, said second virtual character being displayed on said display, 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. (previously presented) The system of claim 1, wherein an amount of time is displayed associated with a 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. (previously presented) The system of claim 1, wherein said wireless telephone is operable to 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 telephone 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 telephone 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 telephone 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.

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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.

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65. (previously presented) The method of claim 17, wherein a first locating device is provided in said wireless telephonic device and said wireless telephonic device is able to provide human-communications to a second telephonic device while 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. (previously presented) The method of claim 18, further comprising determining a direction of a directional device and utilizing said direction to control a direction of said first virtual character.

75. (previously presented) 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 provide human-communications to a second telephonic device while said video game is being played.

76. (currently amended) A system comprising:

a transparent display;

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

an accelerometer;

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

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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, and ~~said accelerometer provides a control signal to~~ said video game is controlled, at least in part, by said accelerometer.

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. (previously presented) The system of claim 76, wherein said video game comprises a second virtual character, said second virtual character is computer controlled.

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. (previously presented) A system comprising:

a display;

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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. (previously presented) The system of claim 88, wherein said at least one ground-based local positioning device includes at least two ground-based local positioning devices.

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. (currently amended) 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 second locating device on said ~~a~~ physical playfield~~, wherein said first physical location and second physical location are utilized to provide a control signal for a virtual character~~; and

a processor coupled to said display, wherein said processor is operable to provide a first video game and utilize said first and second physical locations, at least in part, ~~control signal~~ to control a virtual character on a virtual playfield.

95. (currently amended) The system of claim 94, wherein said ~~control signal utilizes~~ an average including said first physical location and said second physical location is utilized, at least in part, to control said virtual character.

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. (currently amended) The system of claim 94, further comprising a manual control to ~~for~~ control, at least in part, ~~providing a second control signal to control~~ said virtual character.

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 non-transparent 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 and facing a virtual direction on a virtual playfield said virtual location on said virtual playfield corresponds to said physical location on said physical playfield, and said virtual direction on said virtual playfield corresponds to said physical direction 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 non head-mounted display.

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

The Examiner rejected claims 17, 18, 53-81, 94-99, 116, and 117 under 35 U.S.C. 101 for being directed to non-statutory subject matter.

The Examiner rejected claims 1-3, 6-9, 10-13, 14-16, 19-21, 29, 31, 32, 34, 43, 53-57, 61, 63, 65-68, 72, 74, 75, 82-84, 87, 94, 96-102, 104, 107, 112 and 114-117 under 35 U.S.C. 103(a) as being unpatentable over Sharma U.S. Patent No. 6,287,200 (hereinafter "Sharma") in view of Benes et al U.S. Patent Application Publication No. 2004/0046655 (hereinafter "Benes").

The Examiner rejected claims 21, 54, and 84 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Berstis U.S. Patent No. 6,337,888 (hereinafter "Berstis").

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

The Examiner rejected 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").

The Examiner rejected claim 4 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").

The Examiner rejected claims 5, 57, and 95 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”).

The Examiner rejected claim 17 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Leung et al. 2002/0061741 (hereinafter “Leung”).

The Examiner rejected claims 23, 24, 38-41, 58, 70, 85, 105, and 111 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”).

The Examiner rejected claim 33 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”).

The Examiner rejected claim 44 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”).

The Examiner rejected claims 18, 66, 68, and 70-75 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Hale U.S. Patent No. 5,902,343 (hereinafter “Hale”).

The Examiner rejected claim 67 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Hale in view of Berstis U.S. Patent No. 6,337,688 (hereinafter “Berstis”).

The Examiner rejected claim 69 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Hale and further in view of Kotanen.

The Examiner rejected claims 76-80 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Karasawa U.S. Patent No. 6,011,653 (hereinafter “Karasawa”).

The Examiner rejected claim 81 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”).

The Examiner rejected claims 88-93 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Kotanen.

Summary of Applicant's Amendments

Applicant has amended claims 1, 13, 18, 76, 94, 95, and 98 without prejudice and solely 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 Improper Rejections

It appears that the Examiner may rely on at least one reference that is not, in fact, prior art to the present application.

Particularly, Mortal 4 appears to be a Wikipedia entry as published/viewed on March 17, 2008. A publication dated March 17, 2008 is not prior art to the present application.

In light of the foregoing, applicant respectfully requests that the Examiner’s rejections in view of Mortal 4 be withdrawn.

Applicant's Response to the
Rejections Under 35 U.S.C. § 101

The Examiner rejected claims 17, 18, 53-81, 94-99, 116, and 117 under 35 U.S.C. 101 for being directed to non-statutory subject matter.

Claim 17

The Examiner stated that claim 17:

> "must be tied to another statutory class (such as a particular apparatus) or (2) transform underlying subject matter (such as an article or materials to a different state or thing)." (Office Action, page 2)

Claim 17, however, is tied to a statutory class. It appears that the Examiner merely rejected claim 17 because claim 17 is a method claim. Applicant's claim 17, however, is tied to a statutory class and includes:

> "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."

Accordingly, claim 17 ties to a video game, a wireless telephonic device, and a remote server. Accordingly, claim 17 is directed to statutory, patentable subject matter.

In light of the foregoing, applicant respectfully requests that the Examiner's rejection of claim 17 in view of 35 U.S.C. 101 be withdrawn.

Claim 18

The Examiner stated that claim 18:

> "must be tied to another statutory class (such as a particular apparatus) or (2) transform underlying subject matter (such as an article or materials to a different state or thing)." (Office Action, page 2)

Claim 18, however, is tied to a statutory class. It appears that the Examiner merely rejected claim 18 because claim 18 is a method claim. Applicant's claim 18, however, is tied to a statutory class and includes:

> "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, second location information associated with said second physical location is scaled, 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."

Accordingly, claim 18 ties to a video game, a first locating device and a second locating device. Accordingly, claim 17 is directed to statutory, patentable subject matter.

In light of the foregoing, applicant respectfully requests that the Examiner's rejection of claim 18 in view of 35 U.S.C. 101 be withdrawn.

Claims 76 and 94

The Examiner stated that claims 76 and 94:

> "contains signals … Signals are not processes, machines, manufacture, or compositions of matter." (Office Action, page 2)

Apparatus provided signals, however, are structural, physical, man-made features and, as such, are patentable subject matter. In fact, even the physical placement of electrons in storage mediums to define different logic states are, in and upon themselves, structurally and functionally distinct features that provide patentable subject matter.

Regardless, solely to expedite prosecution, applicant has amended claims 76 and 94.

In light of the foregoing, applicant respectfully requests that the Examiner's rejection of claim 76 in view of 35 U.S.C. 101 be withdrawn.

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

The Examiner rejected claims 1-3, 6-9, 10-13, 14-16, 19-21, 29, 31, 32, 34, 43, 53-57, 61, 63, 65-68, 72, 74, 75, 82-84, 87, 88, 94, 96-102, 104, 107, 112 and 114-117 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Benes.

Claim 1

Applicant's invention of amended claim 1 includes a wireless telephone having a locating device, where a virtual character with a virtual location on a virtual playfield is displayed on a display that corresponds to a physical location.

Sharma alleges a device that allegedly utilizes GPS.

Benes alleges activation locations that provide questions to users. Users earn points based on answering these questions correctly.

Neither Sharma nor Benes, used either alone or in combination, however, show or suggest applicant's invention of claim 1 of a wireless telephone having a locating device with a virtual character that is displayed, where the virtual characters location corresponds to a physical location.

Sharma does not discuss such a feature. Benes merely discusses asking a user questions based on activation locations. A question is not a displayed virtual character.

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

Claim 82

The Examiner stated that Sharma discusses that:

> "the motion sensor measures motion (velocity is a measure of movement as well as trajectory … Also, Sharma discloses a GPS that measures movement." (Office Action, page 36)

The Examiner's two arguments are irrelevant.

The allegation that Sharma includes GPS is irrelevant. Sharma's GPS is directed to a global position. Sharma's GPS is not a movement measurement device.

The Examiner's allegation that Sharma's motion sensor measures movement is also irrelevant. The inclusion of Sharma's motion sensor does not show or suggest anything other than Sharma's motion sensor. Applicant's invention

of claim 82 includes additional functionality not shown or suggested by Sharma's motion sensor. The Examiner cannot add functionality to Sharma's motion sensor.

Particularly, applicant directs the Examiner's attention to claim 82 – where determining the location of a location device having a movement measuring device is, in fact, provided. Particularly, applicant's invention of claim 82 includes:

> "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"

Accordingly, applicant's invention of claim 82 clearly discusses a locating device, having a movement measurement device, for determining the physical location of the locating device. Applicant's specification includes support for a locating device configuration that includes a movement measurement device.

Neither Sharma nor Benes, however, used either alone or in combination show or suggest applicant's invention of claim 82 of a movement measurement utilized 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 94

Applicant's invention of claim 94 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

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second physical locations are utilized to control a single virtual character.

The Examiner stated that Sharma discusses:

> "controlling two locating devices for two players/characters" (Office Action, page 38)

The Examiner's argument that Sharma discusses multiple players is irrelevant.

Applicant's invention of claim 94 utilizes two locating devices to control a single virtual character. Two players is not two locating devices used to control a single virtual character.

Neither Sharma nor Benes, used either alone or in combination, show or suggest such a feature. 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:

> "Sharma discloses the trajectory and velocity of the motion sensor" (Office Action, page 36)

Claim 100 includes a virtual direction of a virtual character associated with a physical direction determined by a directional device.

Sharma merely alleges using a motion sensor to hit a ball when movement is detected. Accordingly, the motion sensor of Sharma does not show or suggest a directional device for determining the direction of a virtual character. Sharma's hitting of a ball is not determining the direction of a virtual character.

Benes does not correct for Sharma's deficiency. In this manner, neither Sharma nor Benes, used either alone

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or in combination, show or suggest applicant's invention of claim 100 of a directional device for determining the direction of a virtual character.

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 Leung

Claim 17 was rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Leung.

Sharma discusses a handheld device.

Leung merely discusses a context-sensitive dynamic information service composition via mobile and wireless network communications.

The Examiner stated that:

> "A server is any piece of software or hardware that serves data to another piece of software or data (fig. 6, 4:18-44, the one device is the servers for the other devices)" (Office Action, page 36)

The Examiner's argument is irrelevant. Applicant's invention of claim 17 does not just include a server - regardless of the Examiner's unsupported definition.

Applicant's invention of claim 17 includes updating the location of a wireless telephonic device on a remote server by storing a second physical location of a wireless telephonic device on the remote server and changing the location of a location-based game character in a virtual playfield of said video game based on the first physical location.

Leung is so far removed from Sharma that Leung cannot be combined with Sharma for any reason. Leung does not discuss video games or utilizing locations to the same in any way, shape, or form. In fact, Leung merely seems to do nothing other than mention the word GPS and server in the same paragraph.

However, Leung and Sharma do share a similar attribute. Both Sharma and Leung are silent on utilizing remote servers for updating locations associated with a video game – especially a game that utilizes locations as provided in applicant's invention of claim 17.

The Examiner cannot simply pick and choose unrelated devices and mutilate them together to form an entirely new device in hindsight. Sharma is specific that GPS is being communicated between the devices. Accordingly, for example, Sharma directly teaches away from the Examiner's combination and redesigning Sharma in such a manner would eviscerate the spirit of the Sharma device. Furthermore, Sharma is a precision system such that redesigns of any nature would render Sharma inoperable.

Neither Sharma nor Leung, used either alone or in combination, show or suggest updating a location used in a video game on a remote server.

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

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

Claims 76-80 were rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Karasawa.

Sharma alleges a device with an alleged display that is not transparent.

Karasawa alleges a head-mounted optical display and its mechanical configurations.

The Examiner stated that:

> "Sharma discloses arcade-type virtual reality goggles, 4:8. Accelerometers are obvious variants for positing system." (Office Action, page 39)

The Examiner's alleged discussion of arcade-type virtual reality goggles is irrelevant. Applicant's invention of claim 76 includes a transparent display – not shown or suggested by the Examiner's allegation. A transparent display is not a non-transparent display.

The Examiner's alleged expertise in accelerometers outside of prior art documents at the time of the invention was made is also irrelevant (see applicant's below arguments in view of the Examiner's Official Notice rejections).

Regardless, neither Sharma and Karasawa – used either alone or in combination – show or suggest applicant's invention of claim 76 that includes a transparent display and a locating device, where a processor is operable to provides video game indicia on the display such that the video game indicia is visible with said physical playfield through said display.

The Examiner cannot simply pick and choose unrelated devices and mutilate them together to form an entirely new device in hindsight. Sharma is specific that it includes a hand-held device with a non-transparent display. Accordingly, for example, Sharma directly teaches away from such a combination and redesigning Sharma in such a manner would eviscerate the spirit of the Sharma device.

Sharma is specifically configured to operate with Sharma's non-transparent display. Sharma is a precision system such that redesigns of any nature would render Sharma inoperable.

Neither Sharma nor Karasawa show or suggest applicant's invention of claim 76 of game indicia, associated with a video game, that is displayed on said display such that said video game indicia is visible with said physical playfield through said display. Karasawa's mere mention of a head-mounted optical display does not, in hindsight, correct for such a deficiency.

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 Rejections
Under 35 U.S.C. § 103(a) Over Sharma and Hale

Claims 18 were rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Hale.

Sharma alleges a device that allegedly utilizes GPS.

Hale alleges an agricultural vehicle.

The Examiner stated that:

> "the scaling argument that is argued in the remarks is not recited in the claims and renders the argument moot … it is noted that the features upon which applicant relies (i.e., slowing down one character while speeding up another character) are not recited in the rejected claims." (Office Action, page 30)

Applicant's invention of claim 18, however, clearly includes scaling. None of the prior art shows or suggests the scaling of applicant's invention of claim 18. Particularly, applicant's claim 18 includes:

> "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, said first virtual character being displayed on a display, second location information associated with said second physical location is scaled, said scaled second location is utilized to provide a second virtual character on said virtual playfield, said second virtual character being displayed on said display,_and said first location information and said second location information are scaled differently"

The Examiner's argument is that different display devices display indicia differently. However, an external display device merely shows an external display device – nothing more.

Solely to expedite prosecution, applicant has amended claim 18 to also include displaying the virtual characters on a single screen and scaling the location information differently. None of the prior art, including Sharma or Hale, used either alone or in combination, show or suggest such a feature.

Additionally, Hale does nothing other than include the words GPS and scaling in the title. Hale is irrelevant to Sharma. In fact, Hale discusses an agricultural vehicle and determining the position of this agricultural vehicle relative to a field. In this manner, Hale and Sharma directly teach away from one another and, as such, cannot be combined in any way, shape, or form.

Furthermore, applicant's broad scaling encompasses functionality operable to achieve a number of functionally advantageous features. The Examiner cannot read those additional features into applicant's claim 18, but can utilize the achieved functionality to determine the utility of applicant's broad scaling. Claim 18 is

patentable as provided and must be read only to include those elements provided in claim 18.

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

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

The Examiner rejected claims 88-93 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Kotanen.

Applicant's invention of claim 88 includes 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.

The Examiner stated:

> "with respect to the argument that Bluetooth and WAP, the argument is moot in view of new grounds of rejection. It is merely an obvious variant of claim 1." (Office Action, page 39)
>
> "Sharma fails to explicitly disclose local positioning capabilities using either of these protocols … Kotanen teaches both the use of a local positioning system and the use of averaging distances to predict local coordinates." (Office Action, page 39)

Sharma alleges GPS and alleges Bluetooth for communication. Kotanen alleges locating with Bluetooth. Accordingly, Sharma and Kotanen cannot be combined - the two references are diametrically opposed.

In fact, Kotanen discusses and dismisses GPS. *See Kotanen,* introduction. And, Sharma has precisely configured its device to utilize Bluetooth for communicating GPS signals.

Accordingly, the Examiner's combination would be inoperable and would eviscerate the spirit of the individual devices. Every function of Sharma is precisely configured and relies on the correct configuration of all of the other Sharma functions. Meanwhile, Kotanen discusses, at length, all of the components required to obtain Kotanen's alleged functionality. Sharma is a dedicated, application specific device that does not include such components. Again, completely combining Sharma and Kotanen would just result in a Frankenstein's monster of a device that simply would not operate.

Regardless, applicant's invention of claim 88 includes:

> "a locating device operable … comprises a local positioning system … [that] utilized signals from at least one ground-based local positioning device to determine said physical location … processor is operable to provide a video game … said virtual location on said virtual playfield corresponds to said physical location"

Neither of the prior art, used either alone or in combination, show or suggest applicant's invention of claim 88 that includes such a video game and features.

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

Applicant's Response to the Rejections in view of MK

The Examiner rejected claims 22, 25-28, 30, 33, 35-37, 42, 45-52, 59, 64, 71, 73, 86, 103, 104, 106, 108-110, and 113 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of MK.

MK, however, is allegedly only a manually controlled video game operated on a stationary television. Such a video game cannot be combined with Sharma in any way, shape, or form. A combination of MK with Sharma, at best, would merely render MK, as operable on its date of release, on the Sharma device. Accordingly, MK would be rendered useless. The Examiner's combination is nothing more than hindsight reconstruction that eviscerates the spirit of both MK and the Sharma device.

Accordingly, applicant respectfully requests that the Examiner's rejection be withdrawn.

Applicant's Response to the Rejections in view of Mortal 4

The Examiner rejected claims 51 and 52 were rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Mortal 4.

Mortal 4, however, is allegedly only a manually controlled video game operated on a stationary television. Such a video game cannot be combined with Sharma in any way, shape, or form. A combination of Mortal 4 with Sharma, at best, would merely render Mortal 4, as operable on its date of release, on the Sharma device. Accordingly, Mortal 4 would be rendered useless. The Examiner's combination is nothing more than hindsight reconstruction that eviscerates the spirit of both MK and the Sharma device.

Accordingly, applicant respectfully requests that the Examiner's rejection be withdrawn.

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

The Examiner rejected claims 2-3, 6-9, 10-13, 14-16, 19-21, 29, 31, 32, 34, 43, 53-57, 61, 63, 65-68, 72, 74, 75, 83-84, 87, 96-99, 101, 102, 104, 107, 112 and 114-117 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Benes. The Examiner rejected claims 21, 54, and 84 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Berstis. The Examiner rejected claims 22, 25-28, 30, 33, 35-37, 42, 45-52, 59, 64, 71, 73, 86, 103, 104, 106, 108-110, and 113 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of MK. The Examiner rejected claims 51 and 52 were rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Mortal 4. The Examiner rejected claim 4 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Newell. The Examiner rejected claims 5, 57, and 95 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Kotanen Kotanen. The Examiner rejected claim 17 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Leung. The Examiner rejected claims 23, 24, 38-41, 58, 70, 85, 105, and 111 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Leonhard. The Examiner rejected claim 33 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Anderson. The Examiner rejected claim 44 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Tom. The Examiner rejected claims 18, 66, 68, and 70-75 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Hale. The Examiner rejected claim 67

under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Hale in view of Berstis. The Examiner rejected claim 69 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Hale and further in view of Kotanen. The Examiner rejected claims 77-80 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Karasawa. The Examiner rejected claim 81 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Noro and further in view of Numa. The Examiner rejected claims 89-93 under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Kotanen.

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 affadavit 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,

/Jeffrey D. Mullen/
Jeffrey D. Mullen
Applicant (Reg. No. 52,056)
Customer No. 32733
731 South Negley, Apt. 2
Pittsburgh, PA 15232
Mobile: (914) 837-7741

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:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				
Extension - 3 months with $0 paid	2253	1	555	555

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Miscellaneous:				
Request for continued examination	2801	1	405	405
		Total in USD ($)		**960**

Electronic Acknowledgement Receipt	
EFS ID:	7900637
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:	28-JUN-2010
Filing Date:	01-SEP-2004
Time Stamp:	00:14:53
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Credit Card
Payment was successfully received in RAM	$960
RAM confirmation Number	7026
Deposit Account	503855
Authorized User	MULLEN,JEFFREY D.
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	Request for Continued Examination (RCE)	JDM-005--RCE.pdf	697270 c79e51ce014791d660b244b7a3af920265c7d867	no	3
Warnings:					
Information:					
2		JDM-005--Reply.pdf	74677 2826eb840f3b0e11091faa7af8129d24b5197991	yes	43

	Multipart Description/PDF files in .zip description		
	Document Description	**Start**	**End**
	Amendment Submitted/Entered with Filing of CPA/RCE	1	1
	Claims	2	22
	Applicant Arguments/Remarks Made in an Amendment	23	43

Warnings:					
Information:					
3	Fee Worksheet (PTO-875)	fee-info.pdf	31881 f12f04aa4cc66652e863bb6410d61a256b80e832	no	2
Warnings:					
Information:					
		Total Files Size (in bytes):	803828		

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.

New Applications Under 35 U.S.C. 111
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.

National Stage of an International Application under 35 U.S.C. 371
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.

New International Application Filed with the USPTO as a Receiving Office
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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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 12/28/2009

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

EXAMINER	
KIM, ANDREW	
ART UNIT	PAPER NUMBER
3714	

MAIL DATE	DELIVERY MODE
12/28/2009	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.	Applicant(s)	
	10/932,536	MULLEN, JEFFREY D.	
	Examiner	Art Unit	
	ANDREW KIM	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 *27 July 2009*.

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) *1-61 and 63-117* 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) *1-61, 63-117* 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: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 101

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.

Claims 17, 18, 53-75, 76-81, 94-99, 116, and 117 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 76-81, 94-99, contain signals in the claimed subject matter. Signals are not processes, machines, manufacture, or compositions of matter. See In re Nuitjen.

Claims 17, 18, 53-75, 116 and 117 are rejected because the claimed subject matter must (1) be tied to another statutory class (such as a particular apparatus) or (2) transform underlying subject matter (such as an article or materials) to a different state or thing. The particular apparatus must also be active instead of merely being acted upon. Claims 17 and 18 describe a method that may simply be done by humans. See In re Bilski.

Claim Rejections - 35 USC § 103

1. 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 negatived by the manner in which the invention was made.

2. **Claims 1-3, 6-9 10-13, 14-16, 19-21, 29, 31, 32, 34, 43, 53-57, 61, 63, 65-68, 72, 74, 75 82-84, 87, 94, 96-102, 104, 107, 112 and 114-117 are rejected are rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma., USPAT 6,287,200 (hereinafter Sharma) in view of Benes et al. (US 2004/0046655 A1).**

Claim 1. Sharma in view of Benes discloses a system comprising:

a wireless telephone device (Benes) wherein said wireless telephone comprises:

a display (fig. 4);

a locating device operable to determine the physical location of said locating device on a physical playfield (1:5-16, 2:40, 3:45-4:8); 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 (3:9-12, 3:31-61).

Sharma substantially discloses the invention as claimed but fails to explicitly teach a wireless telephone device. Instead, Sharma discloses mobile devices with displays that may communicate via RF, WAP, Bluetooth etc. without expressly disclosing a wireless telephone device. However, in an analogous reference, Benes discloses a wireless telephone device to play a location-based game. One of ordinary skill in the art would have seen the benefit of modifying Sharma with a wireless telephone device to optimize the resources available to subscribers, alter the game by defining an area of play and

activate game features without direct communication between the players and the providers (Benes, para. 1 and 2). Furthermore, an artisan would have found it obvious to adapt the invention, when possible, to operate on other wireless devices (Benes, para. 10) to increase the user base by allowing users who already own one similar device but do not want to purchase another device to play the game. Therefore, it would have been obvious to one or ordinary skill in the art at the time of the instant invention to modify Sharma with a wireless telephone device to optimize resources, and increase the user base which would also increase profits.

Claim 2. Sharma discloses said locating device is a global positioning system (1:5-16, 2:40, 3:45-4:8).

3. 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 lm 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 devise 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.

4. 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.

5. 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.

6. As to claims 53, 55-57, 60, 61, and 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 claim 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)

7. 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.

8. 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.

9. 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.

10. 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.

11. 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.

12. As to claims 100, 101, 107, 114-117, 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. Sharma also discloses interactive virtual objects (3:45-67)

13. 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.

14. 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 to 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.

15. 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.

16. 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.

17. 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.

18. 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.

19. 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.

20. 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.

21. **Claims 21, 54, and 84 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Berstis (US 6,337,688 B1).**

22. Regarding claims 21, 54, and 84, which depend on the limitation of an accelerometer, Sharma substantially discloses the invention as claimed but fails to explicitly teach that first locating device comprises an accelerometer. Instead, Sharma discloses using GPS for a locating device. However, in an analogous reference, Berstis discloses using accelerometers as an alternative to GPS because that are commercially available at low cost relative to a GPS receiver (Berstis, 3:62). Therefore, it would have been obvious to one or ordinary skill in the art at the time of the instant invention to modify Sharma with accelerometers as they are a low cost alternative to GPS receivers.

23. **Claims 22, 25-28, 30, 33, 35-37, 42, 45-52, 59, 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).**

24. 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.

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

26. 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.

27. 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.

28. 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.

29. 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.

30. 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.

31. 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.

32. **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).**

33. 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.

34. 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.

35. 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.

36. **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).**

37. 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.

38. 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).

39. 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..."

40. 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.

41. 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.

42. **Claims 5, 57, 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).**

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

44. 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 $\dot{z}_{k+1} = h(x_k)$, $\dot{z}_{k+1}$ 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.

45. 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."

46. 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.

47. 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.

48. **Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Leung et al. (US 2002/0061741).**

49. 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. A server is any piece of software or hardware that serves data to another piece of software or hardware (fig. 6, 4:18-44, the one device is the servers for the other devices).

50. Even if it was assumed that Sharma substantially discloses the invention as claimed but fails to explicitly teach that the location of the device is updated on a server, it would have been obvious to one of ordinary skill in the art to modify Sharma with an updating server to be proportionate with the inaccuracy tolerance of a mobile device which saves bandwidth as well as being able to predict where a future location of the device as taught by Leung (paragraphs 47-50).

51. **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. USPUB 2002/0052933 (hereinafter Leonhard).**

52. 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.

53. As to claims 23, 24, 58, 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.

54. 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.

55. 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.

56. 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.

57. 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.

58. **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).**

59. 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.

60. 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..."

61. 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."

62. 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.

63. 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.

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 18, 66, 68, 70-75 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma, USPAT 6,287,200 (hereinafter Sharma) in view of Hale et al. (US 5,902,343).**

Claim 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 (2:32-45);

obtaining a second physical location of a second locating device on a second physical playfield (2:32-45), wherein said first physical playfield is remote from said second physical playfield (fig. 3, 3:30-67, Team x and Y are different playfields); and

Sharma substantially discloses the invention as claimed but fails to explicitly teach 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, second location information associated with said second physical location is scaled, 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. Instead, Sharma seems to remain silent as to how the location information is interpreted. However, in an analogous GPS reference, Hale discloses scaling the GPS field maps to show all of the data (Hale, abstract). One of ordinary skill in the art at the time of the invention would have found it obvious to modify Sharma with scaled GPS maps to show all the data of the game as

providing an easy-to-read electronic display showing a map of the area being traversed correlated with visual indicia of a characteristic being measured is difficult. Hale is analogous art because if an artisan had a problem of providing an easy-to-read electronic display showing a map of the area being traversed, an artisan would have found it obvious to search other GPS-related art. Therefore, one of ordinary skill in the art would have seen the benefit of modifying Sharma with GPS scaling to show all of the data necessary for the task at hand.

Claim 66. Sharma discloses a wireless telephonic device (2:18-45, 4:30-40).

Claim 68. Sharma discloses a GPS receiver (2:40-45).

Claim 70. Sharma discloses downloading said video game to a device (4:18-29).

Claim 71. Sharma discloses a third character (fig. 3).

Claim 72. Sharma discloses a virtual object (volleyball, 2:35).

Claim 73. Sharma discloses an impenetrable virtual object (volleyball, 2:35).

Claim 74. Sharma discloses determining a direction (3:55).

Claim 75. Sharma discloses a device operable to provide human communications (a viewable display, fig. 4).

71. **Claim 67 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma, USPAT 6,287,200 (hereinafter Sharma) in view of Hale et al. (US 5,902,343) and Berstis (US 6,337,688 B1).**

Claim 67. Sharma substantially discloses the invention as claimed but fails to explicitly teach that first locating device comprises an accelerometer. Instead, Sharma discloses using GPS for a locating device. However, in an analogous reference, Berstis discloses using accelerometers as an alternative to GPS because that are commercially available at low cost relative to a GPS receiver (Berstis, 3:62). Therefore, it would have been obvious to one or ordinary skill in the art at the time of the instant invention to modify Sharma with accelerometers as they are a low cost alternative to GPS receivers.

72. **Claim 69 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Hale et al. (US 5,902,343) and further in view of Kotanen et al., "Experiments on Local Positioning with Bluetooth" (hereinafter Kotanen).**

73. Claim 69. While Sharma discloses the wireless device's WLAN and Bluetooth capabilities, Sharma fails to explicitly disclose local positioning capabilities using either of these protocols.

74. 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 $\dot{z}_{k+1} = h(x_k)$, $\dot{z}_{k+1}$ 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.

75. 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."

76. 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.

77. 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.

78. **Claims 76-80 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Karasawa (US 6,011,653).**

79. 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.

80. As to claims 76-80, Karasawa discloses a head mounted display to superimposes the video game over the image seen by the user. One of ordinary skill in the art would have seen the benefit of modifying Sharma with the head mounted display by Karasawa for magnifying an image generated by an image display means to a magnified virtual image and enabling the magnified virtual image to be seen by either one of the eyes of the user.

81. **Claim 81 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Karasawa (US 6,011,653), and further in view of Numa, USPAT 6,633,267 (hereinafter Numa).**

82. 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 Karasawa 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 Karasawa fails to explicitly disclose a HMD wherein the direction the HMD is pointing is the direction used by the video game.

83. 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...

84. 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."

85. 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.

86. 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 Karasawa with the HMD control system as described by Numa for the purpose of providing enhanced reality to a game.

87. **Claims 88-93 are rejected are rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma., USPAT 6,287,200 (hereinafter Sharma) in view of Kotanen et al., "Experiments on Local Positioning with Bluetooth" (hereinafter Kotanen).**

Claim 88. Sharma discloses:

a display (fig. 4);

a locating device operable to determine the physical location of said locating device comprising a local position system (Kotanen);

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 (3:9-12, 3:31-61).

While Sharma discloses the wireless device's WLAN and Bluetooth capabilities, Sharma fails to explicitly disclose local positioning capabilities using either of these protocols. 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 $\dot{z}_{k+1} = h(x_k)$, $\dot{z}_{k+1}$ 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.

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."

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.

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.

Claim 89. Sharma discloses at least two positioning devices (fig. 3 and 5).

Claim 90. Sharma discloses a wireless device (fig. 2,3 and 6, mobile device).

Claim 91. Sharma discloses the physical location of said locating device is stored and updated in a remote server (a server is any piece of software or hardware that serves data to another piece of software or hardware, fig. 6, 4:18-44).

Claim 92. Sharma discloses a second virtual character (fig. 3 and 5).

Claim 93. Sharma discloses using the trajectory of the device (3:55).

Response to Arguments

Applicant's arguments filed 7/27/09 have been fully considered but they are not persuasive and some are moot in view of the new grounds of rejection.

Regarding claim 1, the Examiner respectfully asserts combining Sharma with a wireless telephone does not eviscerate the spirit of the Sharma device because Sharma discloses a system for relative positioning and virtual objects for mobile devices. Thus, the spirit of Sharma is a system for positioning using mobile devices, regardless of the type of the mobile device.

Regarding claim 18 with respect to the scaling argument, the Examiner respectfully asserts that the scaling that is argued in the remarks is not recited in the claims and renders the argument moot. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., slowing down one character down while

speeding up another character) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Regarding claim 82 with respect to the movement measuring device argument, the Examiner respectfully asserts that the motion sensor measures motion (velocity is a measure of movement as well as trajectory (3:55)). Also, Sharma discloses a GPS that measures movement (fig. 5).

Regarding claim 88 with respect to the argument that Bluetooth and WAP, the argument is moot in view of the new grounds of rejection. It is merely an obvious variant of claim 1.

Regarding claim 94 with respect to the argument that Sharma does not show or suggest anything other than utilizing a single GPS to determine a location of a single player, the Examiner respectfully asserts that Sharma indeed discloses controlling two locating devices for two players/characters (1:40-50, 2:24-45).

Regarding claim 100 with respect to the argument that Sharma does not show or suggest a directional device in any way ,shape or form, the Examiner respectfully asserts that Sharma discloses the trajectory and velocity of the motion sensor within the locating device (3:55).

Regarding claim 17, A server is any piece of software or hardware that serves data to another piece of software or hardware (fig. 6, 4:18-44, the one device is the servers for the other devices).

Regarding claim 76, Sharma discloses arcade-type virtual reality goggles, 4:8. Accelerometers are obvious variants for positioning systems.

Regarding the combination of references, in response to applicant's argument that any art that does not utilize location information is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, only certain features from the other references are used in combination with the base reference and not the entire reference and therefore permissible.

Conclusion

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 ANDREW KIM whose telephone number is (571)272-1691. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dmitry Suhol can be reached on 571-272-4430. 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.

/A. K./ 12/28/2009

Examiner, Art Unit 3714

/Dmitry Suhol/

Supervisory Patent Examiner, Art Unit 3714

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-5,902,343	05-1999	Hale et al.	701/50
*	B	US-6,337,688	01-2002	Berstis, Viktors	345/473
*	C	US-2004/0046655	03-2004	Benes et al.	340/539.1
	D	US-			
	E	US-			
	F	US-			
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	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.	Applicant(s)/Patent Under Reexamination
	10932536	MULLEN, JEFFREY D.
	Examiner	Art Unit
	Bond, Christopher H	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								
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	36	✓	✓	✓						

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

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Index of Claims	Application/Control No.	Applicant(s)/Patent Under Reexamination
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	Examiner	**Art Unit**
	Bond, Christopher H	3714

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

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

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Final	Original	01/21/2008	01/15/2009	12/19/2009						
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	114	✓	✓	✓						
	115	✓	✓	✓						
	116		✓	✓						
	117		✓	✓						

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

SEARCHED			
Class	Subclass	Date	Examiner
463	31, 40, 42	12/19/2009	AK

SEARCH NOTES		
Search Notes	Date	Examiner
EAST (see attached notes)	12/19/2009	AK

INTERFERENCE SEARCH			
Class	Subclass	Date	Examiner

EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L4	4666	(scaled or scaling or scal $3) (locat$4) (game) (GPS)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	AND	ON	2009/12/19 16:39
L5	337	4 "463".clas.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	AND	ON	2009/12/19 16:39
L6	321	4 "463".clas. (wireless or mobile)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	AND	ON	2009/12/19 16:42
L7	14	virtual adj playfield	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	AND	ON	2009/12/19 17:58
L8	469	virtual adj field	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	AND	ON	2009/12/19 17:58
L9	27	8 game remote	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	AND	ON	2009/12/19 18:00
L10	2	"scaling" same gps same game	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	AND	ON	2009/12/19 18:50
L11	1	("5902343").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2009/12/19 19:04
L12	24	("5434904" | "5738583" | "5797085" | "6111541"). PN. OR ("6287200"). URPN.	US-PGPUB; USPAT; USOCR	AND	ON	2009/12/19 19:30
L13	1	("7471747").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2009/12/19 19:46
L14	9	("20010014116" | "20020159542" | "20050180531" | "20050190735" | "5861841" | "6275186" | "6754256" | "6775319" | "7184464").PN.	US-PGPUB; USPAT; USOCR	AND	ON	2009/12/19 19:46
L15	7521	accelerometer same motion with sens$4	US-PGPUB; USPAT; USOCR	AND	ON	2009/12/19 21:01

L16	468	accelerometer same motion with sens$4 gps game	US-PGPUB; USPAT; USOCR	AND	ON	2009/12/19 21:01
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
S14	2821	mullen.in.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	AND	ON	2009/01/15 10:23

S15	1	mullen.in. jeff.in.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	AND	ON	2009/01/15 10:23
S16	78	mullen.in. jeffrey.in.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	AND	ON	2009/01/15 10:24
S18	6217	gps game cellular phone	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	AND	ON	2009/12/13 23:14
S19	28	gps game cellular phone virtual near2 $5field	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	AND	ON	2009/12/13 23:15
S20	116	(location adj based) same phone same game	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	AND	ON	2009/12/18 14:08
S21	1	("20040046655").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2009/12/18 14:14
S22	6005	wireless game (gps or global with positioning with system) display location (mobile adj phone or cell adj phone or cellular adj phone or wireless adj phone)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	AND	ON	2009/12/19 11:17

12/19/2009 11:42:31 PM
C:\Documents and Settings\akim1\My Documents\EAST\Workspaces\10932536_Mullen_GPSGame.wsp

JDM/005

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	:	Andrew Kim

Hon. Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Pittsburgh, PA 15232
July 27, 2009

REPLY TO OFFICE ACTION

Sir:

This is in response to the Office Action dated January 26, 2009. A three-month extension of time is applicable hereto and is being submitted herewith. In response to the Office Action dated January 26, 2009, 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.

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 telephone ~~telephonic device~~, wherein said wireless ~~telephonic device~~ telephone 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.

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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~~ telephone 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~~ telephone further 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~~ telephone further 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~~ telephone further 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~~ telephone further 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~~ telephone further 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. (previously presented) 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, second location information associated with said second physical location is scaled, said scaled second location is utilized to provide a second virtual character on said virtual

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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. (previously presented) The system of claim 1, wherein an amount of time is displayed associated with a 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~~ telephone is operable to 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. (currently amended) The system of claim 1, wherein said wireless ~~telephonic device~~ telephone 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. (currently amended) The system of claim 1, wherein said wireless ~~device~~ telephone further comprises a manual control and said manual control is used exclusively for location-based video games.

44. (currently amended) The system of claim 1, wherein said wireless ~~telephonic device~~ telephone 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.

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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.

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65. (previously presented) The method of claim 17, wherein a first locating device is provided in said wireless telephonic device and said wireless telephonic device is able to provide human-communications to a second telephonic device while 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. (previously presented) The method of claim 18, further comprising determining a direction of a directional device and utilizing said direction to control a direction of said first virtual character.

75. (previously presented) 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 provide human-communications to a second telephonic device while said video game is being played.

76. (currently amended) A system comprising:

a transparent display;

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

an accelerometer;

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, and said accelerometer provides a control signal to said video game.

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. (previously presented) The system of claim 76, wherein said video game comprises a second virtual character, said second virtual character is computer controlled.

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. (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 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. (previously presented) The system of claim 88, wherein said at least one ground-based local positioning device includes at least two ground-based local positioning devices.

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. (currently amended) 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 provide a control signal for a virtual character; ~~to determine a location;~~ and

a processor coupled to said display, wherein said processor is operable to provide a first video game and utilize said control signal to control a ~~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. (currently amended) The system of claim 94, wherein said ~~location~~ control signal 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. (currently amended) The system of claim 94, further comprising a manual control for providing a second control signal to control said virtual character ~~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. (currently amended) A system comprising:

a non-transparent 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 and facing a virtual direction on a virtual playfield~~, and~~ said virtual location on said virtual playfield corresponds to said physical location on said physical playfield, and said virtual direction on said virtual playfield corresponds to said physical direction 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. (currently amended) The system of claim 100, wherein said display is a non 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.

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

Claims 1-3, 6-9, 10-13, 14-16, 18-21, 29, 31, 32, 34, 42, 53-57, 60-63, 65-68, 72, 74, 75, 76, 82-84, 87, 88, 90, 91, 93, 94, 96-102, 104, 107, 112 and 114-117 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").

Claim 17 was rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Leung et al. 2002/0061741 (hereinafter "Leung").

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 76-80 were rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Karasawa U.S. Patent No. 6,011,653 (hereinafter "Karasawa").

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 amended claims 1, 6, 10, 11, 13, 14, 15, 32, 34, 43, 44, 76, 94, 95, 98, 100, 102 solely 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
Rejections Under 35 U.S.C. § 103(a) Over Sharma

Claims 1-3, 6-9, 10-13, 14-16, 18-21, 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 114-117 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 telephone having a locating device and a processor for playing a video game utilizing the locating device.

Sharma discusses a device that allegedly utilizes GPS.

The Examiner stated that Sharma discusses:

> "the Examiner respectfully asserts that … even if telephonic was adequately defined … substituting an actual telephone for the broadly defined device in the claim, is an obvious design choice." (Office Action, page 30)

Solely in order to expedite prosecution, applicant has amended claim 1 to include a "wireless telephone."

The Examiner appears to admit that Sharma does not show or suggest a wireless telephone. Accordingly, the Examiner apparently uses applicant's previous patentable claim 1 as prior art against applicant's amended claim 1. The Examiner cannot do so. The Examiner must provide documentary evidence showing a sufficient combination, and motivation to combine the same, that would provide for applicant's invention of claim 1.

The fact that Nokia allegedly filed a patent application for the Sharma device without any mention of a wireless telephone is a clear showing of the patentability of applicant's invention of claim 1. Furthermore, Sharma directly teaches away from being combined with a wireless telephone as Sharma clearly discusses utilizing signals to communicate just game information between devices. Changing the device of Sharma would accordingly eviscerate the spirit of the precision Sharma device.

None of the prior art – used either alone or in combination – shows or suggests applicant's invention of amended claim 1. Sharma can only discuss what Sharma actually discusses in Sharma's 4 columns of specification – a device for playing Sharma's alleged virtual game of volleyball.

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

Claim 18

The Examiner stated that:

> "the applicant is again mistaking the inherency of the Sharma device's operation. Sharma discloses that there may be external display devices which inherently come into different shapes with different dimensions. Thus, the image of each image is scaled to each individual external display device." (Office Action, page 30)

An external display device merely shows an external display device – nothing more. Merely displaying the same screen on different sized displays – in the same proportions – does not show or suggest scaling location information for a game in any way, shape, or form.

Again, the Examiner has expanded the 4 column reference of Sharma to encompass whatever the Examiner sees fit to include. The Examiner must only read Sharma to include what resides in those 4 columns and the accompanying figures.

Regardless, the mere enlarging of an entire screen does not show or suggest scaling location information differently. Applicant's invention of claim 18 includes scaling location information differently so that

those scaled locations may have different affects on a game (e.g., slowing down one character down while speeding up another character). Allegedly enlarging an entire screen by increasing the size of the screen does not show or suggest – in any way, shape, or form – scaling locating information for a game.

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:

> "It is inherent that when Sharma's motion sensor calculates displacement, a displacement or movement is sensed. The other features 'motion sensor is not able to determine the location of a locating device on a playfiend' is not claimed and therefore moot." (Office Action, page 31)

Applicant directs the Examiner's attention to claim 82 – where determining the location of a location device having a movement measuring device is, in fact, provided. Particularly, applicant's invention of claim 82 includes:

> "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"

Accordingly, applicant's invention of claim 82 clearly discusses a locating device, having a movement measurement device, for determining the physical location of the locating device. Accordingly, claim 82 does include a locating device that utilizes a movement measurement device in determining the physical location of the locating device.

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:

> "Sharma discloses Bluetooth and WAP which are ground-based position systems." (Office Action, page 31)

Neither Bluetooth nor WAP show or suggest a locating positioning system or a ground-based local positioning device – both of which are included in applicant's invention of claim 88.

Particularly, applicant's invention of claim 88 includes:

> "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."

Bluetooth and WAP are mere communication protocols – nothing more. Bluetooth and WAP are not a local positioning system that utilizes signals from a ground-based local positioning device.

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:

> "that each locating device determines a location that corresponds to a virtual location of a virtual character" (Office Action, page 31)

Applicant's invention of claim 94 includes two locating devices for providing a control signal for a single virtual character. Particularly, Applicant's invention of claim 94 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 provide a control signal for controlling a single virtual character.

Sharma does not show or suggest anything other than utilizing a single GPS to determine a location of a single player.

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 in FIG. 5 along with the related description" (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" and a GPS.

Regardless, solely in order to expedite prosecution, applicant has amended claim 100 to include a virtual direction of a virtual character associated with a physical direction determined by a directional device.

Sharma merely discusses using a motion sensor to hit a ball when movement is detected. Accordingly, the motion sensor of Sharma does not show or suggest a directional device for determining the direction of a virtual character.

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 Leung

Claim 17 was rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Leung.

Sharma discusses a handheld device.

Leung merely discusses a context-sensitive dynamic information service composition via mobile and wireless network communications.

Applicant's invention of claim 17 includes updating the location of a wireless telephonic device on a remote server by storing a second physical location of a wireless telephonic device on the remote server.

Leung is far removed from Sharma and does not discuss video games or utilizing locations to the same in any way, shape, or form. In fact, Leung merely seems to mention the words GPS and servers in the same paragraph. However, Leung and Sharma do share a similar attribute. Both Sharma and Leung are silent on utilizing remote servers for updating locations associated with a video game – especially a game that utilizes locations as provided in applicant's invention of claim 17.

The Examiner cannot simply pick and choose unrelated devices and mutilate them together to form an entirely new device in hindsight. Sharma is specific that GPS is being communicated between the devices. Accordingly, for example, Sharma directly teaches away from the Examainer's combination and redesigning Sharma in such a manner would eviscerate the spirit of the Sharma device.

Furthermore, Sharma is a precision system such that redesigns of any nature would render Sharma inoperable.

Neither Sharma nor Leung, used either alone or in combination, show or suggest updating a location used in a video game on a remote server.

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

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

Claims 76-80 were rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Karasawa.

Sharma discusses a device with an alleged display that is not transparent.

Karasawa discusses a head-mounted optical display and its mechanical configurations.

Accordingly, neither Sharma and Karasawa – used either alone or in combination – show or suggest applicant's invention of claim 76 that includes a transparent display and a locating device, where a processor is operable to provides video game indicia on the display such that the video game indicia is visible with said physical playfield through said display.

At best, the combination merely suggests the sum of its parts – a head-mounted optical display device sitting next to a hand-held device with a display that is not transparent.

The Examiner cannot simply pick and choose unrelated devices and mutilate them together to form an entirely new device in hindsight. Sharma is specific that it includes a hand-held device with a non-transparent

display. Accordingly, for example, Sharma directly teaches away from such a combination and redesigning Sharma in such a manner would eviscerate the spirit of the Sharma device. Furthermore, Sharma is a precision system such that redesigns of any nature would render Sharma inoperable.

Neither Sharma nor Karasawa show or suggest applicant's invention of claim 76 of game indicia, associated with a video game, that is displayed on said display such that said video game indicia is visible with said physical playfield through said display. Karasawa's mere mention of a head-mounted optical display does not, in hindsight, correct for such a deficiency.

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 affadavit 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,

/Jeffrey D. Mullen/
Jeffrey D. Mullen
Applicant (Reg. No. 52,056)
Customer No. 32733
731 South Negley, Apt. 2
Pittsburgh, PA 15232
Mobile: (914) 837-7741

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:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				
Extension - 3 months with $0 paid	2253	1	555	555

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Miscellaneous:				
		Total in USD ($)		**555**

Electronic Acknowledgement Receipt	
EFS ID:	5774141
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:	27-JUL-2009
Filing Date:	01-SEP-2004
Time Stamp:	15:02:27
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Credit Card
Payment was successfully received in RAM	$555
RAM confirmation Number	1159
Deposit Account	503855
Authorized User	MULLEN,JEFFREY D.
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	130915 371079bb5ecf9e594d7bbee6138c5cd574f8fe31	yes	35

	Multipart Description/PDF files in .zip description		
	Document Description	**Start**	**End**
	Amendment/Req. Reconsideration-After Non-Final Reject	1	1
	Claims	2	22
	Applicant Arguments/Remarks Made in an Amendment	23	35

Warnings:

Information:

2	Fee Worksheet (PTO-875)	fee-info.pdf	29642 6e27e19966b12b8cde60d0ff58c11b6341a0c756	no	2

Warnings:

Information:

Total Files Size (in bytes):	160557

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.

New Applications Under 35 U.S.C. 111

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.

National Stage of an International Application under 35 U.S.C. 371

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.

New International Application Filed with the USPTO as a Receiving Office

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.

PTO/SB/06 (07-06)
Approved for use through 1/31/2007. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875	Application or Docket Number 10/932,536	Filing Date 09/01/2004	☐ To be Mailed

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))	N/A	N/A	N/A			N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A	N/A			N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A			N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*	X $ =		OR	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

AMENDMENT	10/14/2008	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	SMALL ENTITY RATE ($)	ADDITIONAL FEE ($)	OR	OTHER THAN SMALL ENTITY RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	* 116	Minus	** 115	= 1	X $26 =	26	OR	X $ =	
	Independent (37 CFR 1.16(h))	* 8	Minus	***8	= 0	X $110 =	0	OR	X $ =	
	☐ Application Size Fee (37 CFR 1.16(s))									
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							OR		
						TOTAL ADD'L FEE	26	OR	TOTAL ADD'L FEE	

AMENDMENT	07/27/2009	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)	OR	RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	* 116	Minus	** 116	= 0	X $26 =	0	OR	X $ =	
	Independent (37 CFR 1.16(h))	* 8	Minus	*** 8	= 0	X $110 =	0	OR	X $ =	
	☐ Application Size Fee (37 CFR 1.16(s))									
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							OR		
						TOTAL ADD'L FEE	0	OR	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.

Legal Instrument Examiner:
/LINDA W. BADIE/

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.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

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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 01/26/2009

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

EXAMINER	
KIM, ANDREW	
ART UNIT	PAPER NUMBER
3714	
MAIL DATE	DELIVERY MODE
01/26/2009	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.

PTOL-90A (Rev. 04/07)

Office Action Summary	Application No.	Applicant(s)	
	10/932,536	MULLEN, JEFFREY D.	
	Examiner	Art Unit	
	ANDREW KIM	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 *14 October 2008*.

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) *1-61 and 63-117* 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) *1-61, 63-117* 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: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. 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 negatived by the manner in which the invention was made.

2. **Claims 1-3, 6-9 10-13, 14-16, 18-21, 29, 31, 32, 34, 43, 53-57, 61, 63, 65-68, 72, 74, 75 82-84, 87, 88, 90, 91, 93, 94, 96-102, 104, 107, 112 and 114-117 are rejected are rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma., USPAT 6,287,200 (hereinafter Sharma).**

1. 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 and it is also understood that telephonic simply means communication through voice, data or video. 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.

2. In addition, even if telephonic is clarified, it would have obvious design choice to one of ordinary skill in the art at the time of the invention to include a telephonic device as well as a mobile device as admitted by the applicant's specification.

3. 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.

4. 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 lm 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 devise 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.

5. 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.

6. 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.

7. As to claims 53, 55-57, 60, 61, and 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 claim 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)

8. 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.

9. 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.

10. 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.

11. 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.

12. 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.

13. 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.

14. 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.

15. As to claims 100, 101, 107, 114-117, 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. Sharma also discloses interactive virtual objects (3:45-67)

16. 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.

17. 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 to 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.

18. 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.

19. 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.

20. 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.

21. 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.

22. 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.

23. 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.

24. 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.

25. **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).**

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

27. 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 $\dot{z}_{k+1} = h(x_k)$, $\dot{z}_{k+1}$ 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.

28. 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."

29. 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.

30. 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.

31. **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).**

32. 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.

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

34. 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.

35. 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.

36. 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.

37. 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.

38. 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.

39. 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.

40. **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).**

41. 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.

42. 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.

43. 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.

44. **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).**

45. 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.

46. 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).

47. 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..."

48. 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.

49. 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.

50. **Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Leung et al. (US 2002/0061741).**

51. 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.

52. Even if it was assumed that Sharma substantially discloses the invention as claimed but fails to explicitly teach that the location of the device is updated on a server, it would have been obvious to one of ordinary skill in the art to modify Sharma with an updating server to be proportionate with the inaccuracy tolerance of a mobile device which saves bandwidth as well as being able to predict where a future location of the device as taught by Leung (paragraphs 47-50).

53. **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. USPUB 2002/0052933 (hereinafter Leonhard).**

54. 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.

55. 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.

56. 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.

57. 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.

58. 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.

59. 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.

60. **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)**

61. 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.

62. 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.

63. 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.

64. 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.

65. 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.

66. **Claims 76-80 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Karasawa (US 6,011,653).**

67. 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.

68. As to claims 76-80, Karasawa discloses a head mounted display to superimposes the video game over the image seen by the user. One of ordinary skill in the art would have seen the benefit of modifying Sharma with the head mounted display by Karasawa for magnifying an image generated by an image display means to a magnified virtual image and enabling the magnified virtual image to be seen by either one of the eyes of the user.

69. **Claim 81 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma in view of Karasawa (US 6,011,653), and further in view of Numa, USPAT 6,633,267 (hereinafter Numa).**

70. 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 Karasawa 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 Karasawa fails to explicitly disclose a HMD wherein the direction the HMD is pointing is the direction used by the video game.

71. 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...

72. 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."

73. 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.

74. 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

Karasawa with the HMD control system as described by Numa for the purpose of providing enhanced reality to a game.

75. **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).**

76. 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.

77. 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..."

78. 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."

79. 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.

80. 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

81. Applicant's arguments filed 10/14/08 have been fully considered but they are not persuasive.

82. Regarding claim 1, the Examiner respectfully asserts that the ordinary plain meaning of the word telephonic means a catchall phrase for the world of communications. It mainly means voice communication but not necessarily. For example, modems are telephonic devices but does not include voice communication. As stated above, even if telephonic was adequately defined in the claim, substituting an actual telephone for the broadly defined device in the claim, is an obvious design choice.

83. Regarding claim 17, in view of the new ground of rejection, the argument is moot.

84. 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 there may be external display devices which inherently come in different shapes with different dimensions. Thus, the image of each image is scaled to each individual external display device.

85. Regarding claim 82, Sharma indeed discloses a movement measuring device. It is inherent that when Sharma's motion sensor calculates displacement, a displacement

or movement is sensed. The other features "motion sensor is not able to determine the location of a locating device on a playfield" is not claimed and therefore moot.

86. Regarding claim 88, Sharma discloses Bluetooth and WAP which are ground-based position systems.

87. Regarding claim 94, Sharma discloses that each locating device determines a location that corresponds to a virtual location of a virtual character. The Examiner respectfully requests clarification of the argument as the Examiner does not understand how the claims may differ from the prior art. Also, to which location is the last "said location" referring?

88. Regarding claim 100, Sharma discloses a directional device in fig. 5 along with the related description.

Regarding the combination of references, in response to applicant's argument that any art that does not utilize location information is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, only certain features from the other references are used in combination with the base reference and not the entire reference and therefore permissible.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANDREW KIM whose telephone number is (571)272-1691. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dmitry Suhol can be reached on 571-272-4430. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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/A. K./ 1/24/2009

Examiner, Art Unit 3714

/Dmitry Suhol/

Supervisory Patent Examiner, Art Unit 3714